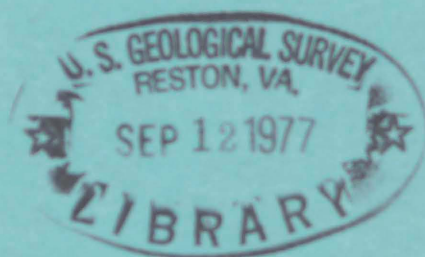


(200)
Ga3
Missouri
1976

Water Resources Data for Missouri

Water Year 1976



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT MO-76-1

Prepared in cooperation with the Missouri Department of Natural Resources, Division of Geology and Land Survey; Missouri Department of Highways; and with other State and Federal agencies

CALENDAR FOR WATER YEAR 1976

1975

OCTOBER

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

NOVEMBER

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

DECEMBER

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

1976

JANUARY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

FEBRUARY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29						

MARCH

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

APRIL

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

MAY

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

JUNE

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

JULY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

AUGUST

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

SEPTEMBER

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

Water Resources Data for Missouri Water Year 1976



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT M0-76-1

**Prepared in cooperation with the Missouri Department of
Natural Resources, Division of Geology and Land Survey;
Missouri Department of Highways; and with other State
and Federal agencies**

UNITED STATES DEPARTMENT OF THE INTERIOR

CECIL D. ANDRUS, Secretary

GEOLOGICAL SURVEY

V. E. McKelvey, Director

For information on the water program in Missouri write to
District Chief, Water Resources Division
U.S. Geological Survey
Rolla Center - Mailstop 200
1400 Independence Road
Rolla, Missouri 65401

1977

PREFACE

This report was prepared by personnel of the Missouri district of the Water Resources Division of the U.S. Geological Survey under the supervision of Anthony Homyk, District Chief, and Alfred Clebsch, Jr., Regional Hydrologist, Central Region. It was done in cooperation with the State of Missouri and with other agencies.

This report is one of a series issued by State. General direction for the series is by J. S. Cragwall, Jr., Chief Hydrologist, U.S. Geological Survey, and G. W. Whetstone, assistant Chief Hydrologist for Scientific Publications and Data Management.

BIBLIOGRAPHIC DATA SHEET		1. Report No. USGS/WRD/HD-77/031	2.	3. Recipient's Accession No.
4. Title and Subtitle Water Resources Data for Missouri, Water Year 1976				5. Report Date July 1977
				6.
7. Author(s)				8. Performing Organization Rept. No. USGS-WDR-MO-76-1
9. Performing Organization Name and Address U.S. Geological Survey, Water Resources Division Rolla Center - Mailstop 200 1400 Independence Road Rolla, Missouri 65401				10. Project/Task/Work Unit No.
				11. Contract/Grant No.
12. Sponsoring Organization Name and Address U.S. Geological Survey, Water Resources Division Rolla Center - Mailstop 200 1400 Independence Road Rolla, Missouri 65401				13. Type of Report & Period Covered Annual - Oct. 1, 1975 to Sept. 30, 1976
				14.
15. Supplementary Notes Prepared in cooperation with the State of Missouri and with other agencies.				
16. Abstracts Water resources data for the 1976 water year for Missouri consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water quality of ground water. This report contains discharge records for 127 gaging stations; stage records for 3 of these gaging stations; contents for 6 lakes and reservoirs; and water quality for 19 gaging stations, 11 partial record stations, 1 lake and 3 wells. Also included are data for 99 crest-stage partial-record stations. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Missouri.				
17. Key Words and Document Analysis. 17a. Descriptors *Missouri, *Hydrologic data, *Surface water, *Ground water, *Water quality, flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediments, Water temperatures, Sampling sites, Water analyses.				
17b. Identifiers/Open-Ended Terms				
17c. COSATI Field/Group				
18. Availability Statement No restriction on distribution This report may be purchased from: National Technical Information Service Springfield, VA 22161		19. Security Class (This Report) UNCLASSIFIED		21. No. of Pages 301
		20. Security Class (This Page) UNCLASSIFIED		22. Price

CONTENTS

	Page
Preface.....	III
List of hydrologic-data stations, in downstream order, for which records are published.....	IV
Introduction.....	1
Cooperation.....	1
Acknowledgment.....	1
Hydrologic conditions.....	3
Definition of terms.....	3
Downstream order and station numbers.....	7
Numbering system for wells and miscellaneous sites.....	7
Special networks and programs.....	8
Explanation of stage and water-discharge records.....	8
Collection and computation of data.....	8
Accuracy of field data and computed results.....	10
Other data available.....	10
Explanation of water-quality records.....	8
Collection and examination of data.....	8
Water analysis.....	11
Water temperature.....	11
Sediment.....	6,11
Publications on techniques of water-resources investigations.....	12
Hydrologic-data station records.....	6
Discharge at partial-record stations.....	285
Crest-stage partial-record stations.....	285
Analyses of samples collected at water-quality partial-record stations.....	295
Analyses of samples collected at miscellaneous sites and wells.....	297
Index.....	298

ILLUSTRATIONS

Figure 1. Comparison of discharge at three long-term representative gaging stations during 1976 with median discharge for water years 1941-70.....	2
2. System for numbering wells and miscellaneous sites.....	8
3. Map showing location of hydrologic-data stations.....	301

(Letter after station name designates type of data: (d) discharge, (c) chemical,
(b) biological, (m) microbiological, (t) water temperature, and (s) sediment)

UPPER MISSISSIPPI RIVER BASIN

Mississippi River:

DES MOINES RIVER BASIN	
Des Moines River at St. Francisville (cbmts).....	13
FOX RIVER BASIN	
Fox River at Wayland (d).....	27
FABIUS RIVER BASIN	
North Fabius River at Monticello (d).....	28
Middle Fabius River near Monticello (d).....	29
South Fabius River near Taylor (d).....	30
NORTH RIVER BASIN	
North River at Palmyra (d).....	31
BEAR CREEK BASIN	
Bear Creek at Hannibal (d).....	32
SALT RIVER BASIN	
Salt River at Hagers Grove (d).....	33
South Fork Salt River near Santa Fe (d).....	34
Middle Fork Salt River at Paris (d).....	35
Elk Fork Salt River near Madison (d).....	36
Salt River near Monroe City (d).....	37
Salt River near New London (d).....	38
Mississippi River at Alton, IL (d).....	39
Mississippi River below Alton, IL (cbmts).....	41

MISSOURI RIVER BASIN

Missouri River:

TARKIO RIVER BASIN	
Tarkio River at Fairfax (d).....	53
Missouri River at Rulo, NB (d).....	54
MILL CREEK BASIN	
Mill Creek at Oregon (d).....	55
NODAWAY RIVER BASIN	
Nodaway River near Burlington Junction (d).....	56
Missouri River at St. Joseph (dcbmts).....	57
PLATTE RIVER BASIN (IOWA-MISSOURI)	
One Hundred and Two River at Maryville (d).....	71
Platte River near Agency (d).....	72
Castile Creek:	
Jenkins Branch at Gower (d).....	73
Little Platte River at Smithville (d).....	74
KANSAS RIVER BASIN	
Kansas River at De Soto, KS (d).....	75
Missouri River at Kansas City (d).....	76
BLUE RIVER BASIN	
Blue River near Kansas City (d).....	77
Brush Creek at Main Street in Kansas City (d).....	78
LITTLE BLUE RIVER BASIN	
Little Blue River below Longview damsite in Kansas City (d).....	79
East Fork Little Blue River near Blue Springs (d).....	80
Little Blue River near Lake City (d).....	81
SNI-A-BAR BASIN	
Sni-A-Bar Creek near Tarsney (d).....	82
Missouri River at Waverly (d).....	83
GRAND RIVER BASIN	
Grand River near Gallatin (d).....	84
Thompson River at Mount Moriah (d).....	85
Thompson River at Trenton (d).....	86
Shoal Creek near Braymer (d).....	87
Grand River near Sumner (dcbmts).....	88
Yellow Creek:	
West Yellow Creek near Brookfield (d).....	102
CHARITON RIVER BASIN	
Chariton River at Livonia (d).....	103
Chariton River at Novinger (d).....	104
Chariton River near Prairie Hill (d).....	105
Mussel Fork near Musselfork (d).....	106
LITTLE CHARITON RIVER BASIN	
East Fork Little Chariton River near Macon (d).....	107
East Fork Little Chariton River near Huntsville (d).....	108
LAMINE RIVER BASIN	
South Fork Blackwater River near Elm (d).....	109
Blackwater River at Blue Lick (d).....	110
Missouri River at Boonville (d).....	111
PERCHE CREEK BASIN	
Hinkson Creek at Columbia (d).....	112
OSAGE RIVER BASIN	
Osage River:	
Sac River near Dadeville (dt).....	113
Turnback Creek above Greenfield (d).....	116

MISSOURI RIVER BASIN--Continued

OSAGE RIVER BASIN--Continued	
Little Sac River near Morrisville (d).....	117
Stockton Lake near Stockton (t).....	118
Sac River near Stockton (d).....	125
Sac River below Stockton (d).....	126
Cedar Creek near Pleasant View (d).....	127
Sac River near Caplinger Mills (d).....	128
Osage River at Osceola (d).....	129
Pomme de Terre River near Polk (d).....	130
Lindley Creek near Polk (d).....	131
Pomme de Terre Lake near Hermitage.....	132
Pomme de Terre River near Hermitage (dt).....	133
Pomme de Terre River at Hermitage (t).....	136
South Grand River at Archie (d).....	138
Osage River at Warsaw (t).....	139
Big Buffalo Creek near Stover (dt).....	141
Niangua River:	
Spring Branch:	
Bennett Spring at Bennett Springs (d).....	144
Little Niangua River:	
Starks Creek at Preston (d).....	145
Lake of the Ozarks near Bagnell.....	146
Osage River near Bagnell (d).....	147
Osage River near St. Thomas (d).....	148
Osage River below St. Thomas (cbmts).....	149
GASCONADE RIVER BASIN	
Gasconade River:	
Osage Fork at Drynob (d).....	161
Big Piney River:	
Beeler Branch near Cabool (d).....	162
Big Piney River near Big Piney (d).....	163
Little Piney Creek at Newburg (d).....	164
Gasconade River at Jerome (d).....	165
Missouri River at Hermann (dcbmts).....	166
LOWER MISSISSIPPI RIVER BASIN	
Mississippi River at St. Louis (dts).....	184
MERAMEC RIVER BASIN	
Meramec River at Cook Station (d).....	189
Maramec Spring near St. James (d).....	190
Meramec River near Steelville (d).....	191
Meramec River near Sullivan (d).....	192
Bourbeuse River near St. James (d).....	193
Bourbeuse River near High Gate (d).....	194
Bourbeuse River near Spring Bluff (d).....	195
Bourbeuse River at Union (d).....	196
Big River at Irondale (d).....	197
Big River near De Soto (d).....	198
Big River at Byrnesville (d).....	199
Meramec River near Eureka (d).....	200
Mississippi River at Kimmswick (cm).....	201
Mississippi River at Chester, IL (d).....	202
HEADWATER DIVERSION CHANNEL BASIN	
Castor River at Zalma (d).....	204
Mississippi River at Thebes, IL (d).....	205
ST. FRANCIS RIVER BASIN	
St. Francis River near Patterson (d).....	222
Clark Creek near Piedmont (d).....	223
Wappapello Lake at Wappapello.....	224
St. Francis River at Wappapello (d).....	225
Right Chute of Little River:	
Little River ditch 81 near Kennett (d).....	226
Little River ditch 1 near Kennett (d).....	227
Little River ditch 251 near Lilbourn (d).....	228
Little River ditch 1 (not the same as 1 near Kennett):	
Castor River at Aquilla (d).....	229
Little River ditch 1 near Morehouse (d).....	230
Little River ditch 251 near Kennett (d).....	231
Little River ditch 66 near Kennett (d).....	232
Little River ditch 259 near Kennett (d).....	233
WHITE RIVER BASIN	
White River:	
James River near Strafford (d).....	234
James River near Springfield (d).....	235
James River near Wilson Creek (cm).....	236
Wilsons Creek near Springfield (dt).....	237
Wilsons Creek near Battlefield (dt).....	243
James River near Boaz (dt).....	249
James River at Galena (d).....	256
Table Rock Lake near Branson.....	257

LOWER MISSISSIPPI RIVER BASIN--Continued

WHITE RIVER BASIN--Continued

White River:--Continued

White River near Branson (d).....	258
North Fork River near Tecumseh (d).....	259
Bryant Creek near Tecumseh (d).....	260

Black River:

East Fork Black River at Lesterville (d).....	261
Black River near Annapolis (d).....	262
Clearwater Lake near Piedmont.....	263
Black River at Leeper (d).....	264
Black River at Poplar Bluff (d).....	265

Current River:

Pigeon Creek (head of Current River):

Fudge Hollow near Licking (d).....	266
Round Spring at Round Spring (d).....	267

Jacks Fork:

Alley Branch:

Alley Spring at Alley (d).....	268
--------------------------------	-----

Jacks Fork at Eminence (d).....	269
---------------------------------	-----

Current River at Van Buren (d).....	270
-------------------------------------	-----

Big Spring near Van Buren (d).....	271
------------------------------------	-----

Current River at Doniphan (d).....	272
------------------------------------	-----

Spring River:

Eleven Point River near Thomasville (d).....	273
--	-----

Greer Spring at Greer (d).....	274
--------------------------------	-----

Eleven Point River near Bardley (d).....	275
--	-----

ARKANSAS RIVER BASIN

Arkansas River:

Neosho River:

Spring River:

Stahl Creek near Miller (d).....	276
----------------------------------	-----

Spring River at Larussell (d).....	277
------------------------------------	-----

Spring River at Carthage (d).....	278
-----------------------------------	-----

Spring River near Waco (d).....	279
---------------------------------	-----

Center Creek near Carterville (d).....	280
--	-----

Turkey Creek near Joplin (cm).....	281
------------------------------------	-----

Shoal Creek above Joplin (d).....	283
-----------------------------------	-----

Elk River near Tiff City (d).....	284
-----------------------------------	-----

INTRODUCTION

Water resources data for the 1976 water year for Missouri consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs, and water levels and water quality of ground water. This report contains discharge records for 127 gaging stations; stage records for 3 gaging stations; stage and contents for 6 lakes and reservoirs; water quality for 19 gaging stations, 11 partial-record stations, 1 lake, and 3 wells. Also included are 99 crest-stage partial-record stations. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Missouri.

Records of discharge or 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." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled "Quality Surface Waters of the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Branch of Distribution, U.S. Geological Survey, 604 South Pickett Street, Alexandria, Va. 22304.

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1974 were similarly released either in separate reports or in conjunction with streamflow records. Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published as an official Survey report on a State-boundary basis. These official Survey 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 report is identified as "U.S. Geological Survey Water-Data Report MO-76-1." Water-Data reports are for sale by the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia, 22161.

COOPERATION

The U.S. Geological Survey and organizations of the State of 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 through cooperative agreement with the Survey are:

Missouri Department of Natural Resources,
Carolyn Ashford, director.

Division of Geology and Land Survey,
Dr. Wallace B. Howe, director.

Division of Environmental Quality,
James P. Odendahl, acting director.

Missouri Department of Highways,
Robert N. Hunter, Chief Engineer.

The following Federal agencies assisted in collection of records published in this report by furnishing funds or services:

Corps of Engineers, U.S. Army, in collecting records for
83 gaging stations and 6 water-quality stations.

Environmental Protection Agency, in collecting records for
6 water-quality stations.

Assistance was also furnished by the National Weather Service
of the Environmental Science Services Administration of
the U.S. Department of Commerce.

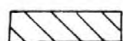
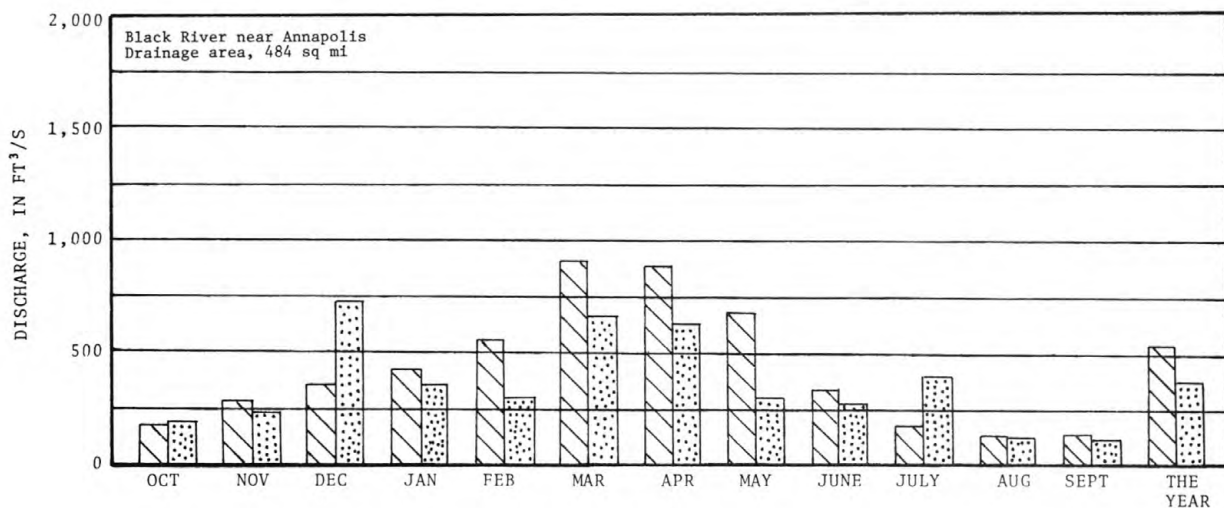
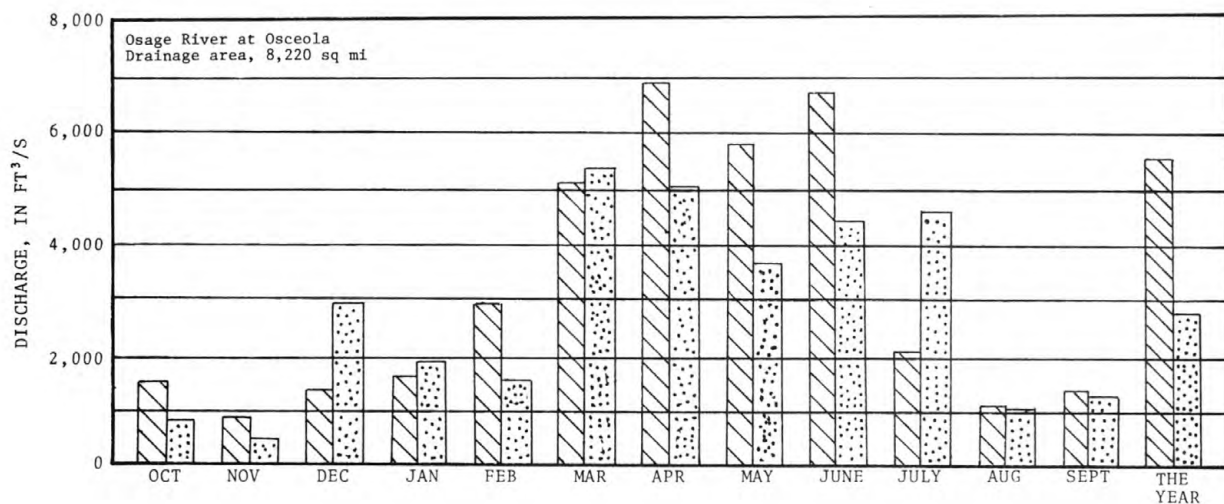
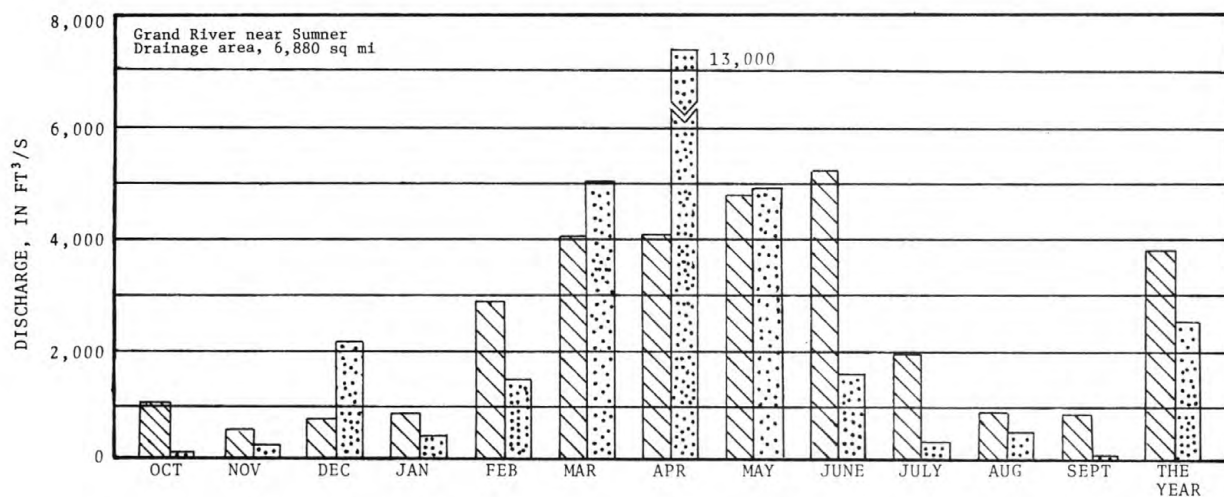
The following organizations aided in collecting records:

City of Kansas City; Union Electric Company of Missouri;
Little River Drainage District; Missouri Conservation
Commission; Missouri Park Board; City of Springfield
Utilities; and City of Springfield Sanitation Division.

ACKNOWLEDGMENT

Missouri district personnel who contributed significantly to the collection and preparation of the data in this report were: J.G. Alexander, J. H. Barks, D. C. Cariaga, D. O. Hatten, and M. E. Janson.

WATER RESOURCES DATA FOR MISSOURI, 1976



Median of monthly and yearly mean discharge for period 1941-70.



Monthly and yearly mean discharge during 1976 water year.

FIGURE 1.--Discharge during 1976 water year compared with median discharge for period 1941-70 for two representative gaging stations.

HYDROLOGIC CONDITIONS

As the 1976 water year began, streamflow was near or slightly above median. Monthly discharges were near the median for October to March and April to September they were becoming progressively below median except in extreme southwest Missouri where they remained near or slightly above (see figure 1). Streamflow in the central and eastern part of the state was very low during the summer months. Streamflow was below median at end of the year.

Flood of July 3-4 in the Center and Turkey Creek basins in southwestern Missouri exceeded previous peaks and were judged to be near the 50-year recurrence interval.

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 English 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.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

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.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as the organisms which produce colonies within 24 hours when incubated at 35°C + 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C + 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in intestines 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 which produce red or pink colonies within 48 hours at 35°C + 1.0°C on M-enterococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m³), and periphyton and benthic organisms in grams per square meter (g/m²).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grind or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

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 2,447 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.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common pigments in plants.

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 feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second (FT³/s, ft³/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.

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.

Diversity index is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$d = - \sum_{i=1}^s \frac{n_i}{n} \log_2 \frac{n_i}{n}$$

Where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Diversity index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

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 noncontribution 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 a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often interchangeable 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 physico-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate (CaCO₃).

Hydrologic unit is a geographic area representing part or 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.

Micromgrams 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 (UG/L, µg/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

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.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meters (m^2), acres, or hectares. Periphyton benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

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-withdrawal 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.....	.004 - .062	Sedimentation.
Sand.....	.062 - 2.	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.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass or volume.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

Picocurie (PC, pCi) is one trillionth (1×10^{12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells/mL of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells/mL of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column, and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

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.

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 streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristic, 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 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 bed-load discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a 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 micromhos per centimeter 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 micromhos). 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.

Substrate is the physical surface upon which an organism lived.

Natural substrates refers to any naturally occurring emerged or submersed solid surface, such as a rock or tree, upon which an organism lived.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multi-plate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Surface area of a lake is that area outlined on the latest U.S.G.S. 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.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of the total concentration in a water-sediment mixture. The water-sediment mixture is associated with (or sorbed on) that material retained on a 0.45 micrometer filter.

Thermograph is a thermometer that continuously and automatically records, on a chart, the water temperature of a stream. "Temperature recorder" is the term used to indicate the presence of a thermograph or a digital mechanism that automatically records water temperatures on paper tape.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of 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 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.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata is the following:

Kingdom.....Animal
Phylum.....Arthropoda
Class.....Insecta
Order.....Ephemeroptera
Family.....Ephemeridae
Genus.....Hexagenia
Species.....Hexagenia limbata

Weighted average is used in this report to indicate discharge-weighted average values; 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.

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream 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 with respect to the stream to which it is immediately tributary is indicated by an indentation in a list of stations in the front of the report. Each indentation represents one rank. This downstream order and system of indentation 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 wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

The well and 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 well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and

seconds of longitude, and the last 2 digits (assigned sequentially) identify the wells or other sites within a 1-second grid. See figure 2.

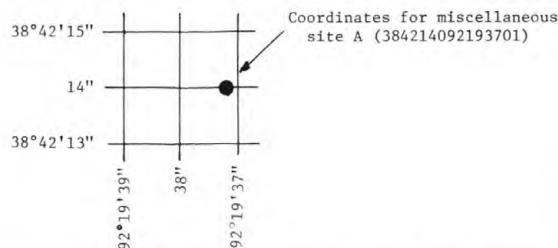


Figure 2. System for numbering wells and miscellaneous sites (latitude and longitude)

SPECIAL NETWORKS AND PROGRAMS

National stream-quality accounting network (NASQAN) is a data collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

Radiochemical program 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 STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base 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 either direct readings on 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 Geological Survey. These methods are described in standard text-books, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

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 discharge 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 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 northern 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 periods of ice

effect is computed on the basis of gage-height record and occasional winter discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, 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.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the hydrologic-data station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location of the gaging station and the drainage area are obtained from most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the fact is brought out by notations 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 revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from revision of the drainage area only are usually not published in the annual series of reports.

The type of gage currently in use, the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey unless otherwise qualified.

Information pertaining to the accuracy of the discharge records and to conditions which affect the natural flow of the gaging station is given under "REMARKS." For reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. Under "EXTREMES" are given first, the extremes for the period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with EXTREMES FOR THE CURRENT YEAR; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-relation, or of any other unusual source, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skelton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

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 discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage 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. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of field data and computed results

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

The 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 discharges of less than 1 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. 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 cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other data 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.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

Surface water samples for analyses usually are collected at or near gaging stations. The quality-of-

water records are given immediately following the discharge records at these stations.

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

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

Water analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed on a following page.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled 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. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum and minimum values for each constituent measured and are based upon hourly punches 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 and minimum 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 observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

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

For the Mississippi River at St. Louis, depth-integrated samples were collected weekly at two or more verticals with the P-61 sampler. Periodically, samples were taken at 10 to 20 verticals in the cross section to define more accurately the average concentration of the cross section. Three times during the year, bed material samples were collected from 15 to 18 verticals.

For some periods, when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, turbidity, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

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

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-two manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing 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) is on 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 Distribution, 604 South Picket Street, Alexandria, VA 22304 (authorized agent of the Superintendent of Documents, Government Printing Office).

NOTE: When ordering 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. \$1.60.
- 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. \$1.90.
- 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. \$1.75.
- 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. \$0.25.
- 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. \$0.20.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages. \$0.40.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. G. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages. \$1.00.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages. \$0.30.
- 3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6, 1968, 13 pages. \$0.20.
- 3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages. \$0.45.
- 3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages. \$1.25.
- 3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages. \$0.40.
- 3-A12. *Fluorometric procedures for dye tracing*, by J. F. Wilson Jr.: USGS--TWRI Book 3, Chapter A12. 1968. 31 pages. \$0.35. Not currently available.
- 3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages. \$0.70.
- 3-B2. *Introduction to ground-water hydraulics-a programmed text for self-instruction*, by D. S. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.
- 3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages. \$0.65.
- 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. \$0.70.
- 3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages. \$1.15.
- 4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4 Chapter A1. 1968. 39 pages. \$0.30.
- 4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages. \$0.20.
- 4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages. \$0.65.
- 4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages. \$0.75.
- 4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages. \$0.75.
- 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. \$0.65.
- 5-A1. *Methods for collection and analysis of water samples for dissolved minerals and gases*, by Eugene Brown, M. W. Skougstad, and M. J. Fishman: USGS--TWRI Book 5, Chapter A1. 1970. 160 pages. \$2.40.
- 5-A2. *Determination of minor elements in water by emission spectroscopy*, by P. R. Barnett and F. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages. \$0.80.
- 5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A. 1972. 40 pages. \$0.90.
- 5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, by K. V. Slack, R. C. Averett, P. E. Greeson, and R. G. Lipscomb: USGS--TWRI Book 5, Chapter A4. 1973. 165 pages. \$1.95.
- 5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages. \$0.65.
- 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.
- 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. \$0.70.
- 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. \$0.40.

DES MOINES RIVER BASIN

13

05490600 DES MOINES RIVER AT ST. FRANCISVILLE, MO
(National stream-quality accounting network station)

LOCATION.--Lat 40°27'45", long 91°34'00", Clark County, Hydrologic Unit 07100009, at bridge on County Highway B at St. Francisville, and 8 mi (12.9 km) upstream from Sugar Creek.

PERIOD OF RECORD.--August 1967 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1973 to September 1974, October 1975 to current year.

WATER TEMPERATURES: October 1973 to September 1974, October 1975 to current year.

REMARKS.--Water temperature and specific conductance samples collected daily by observer.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 930 micromhos Jan. 12; minimum daily, 228 micromhos Apr. 25.

WATER TEMPERATURES: Maximum daily, 31.0°C July 16; minimum daily, 0.0°C on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	FECAL COLI- FORM (COL. PFR 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	HARD- NESS (CA,MG) (MG/L)
OCT										
29...	1360	575	8.7	13.5	5	10.4	99	88	72	280
NOV										
24...	1360	680	8.7	2.5	6	13.6	100	230	48	350
DEC										
10...	2840	660	9.0	3.5	20	5.2	39	640	520	300
JAN										
19...	2450	925	8.9	1.0	6	16.4	115	310	130	420
FEB										
17...	2390	460	8.5	4.0	130	9.4	72	1100	19000	200
MAR										
17...	9500	535	8.1	4.5	60	11.4	88	220	280	250
APR										
06...	8680	555	8.0	14.0	60	7.0	67	160	120	250
MAY										
13...	13800	520	8.0	17.0	20	8.1	84	75	150	260
JUN										
02...	15000	585	8.3	22.0	35	7.8	87	100	410	280
JUL										
07...	4420	435	8.3	28.0	55	5.8	73	400	110	200
AUG										
04...	1340	435	8.8	27.0	2	10.6	132	44	28	190
SEP										
08...	664	555	8.7	25.5	10	9.0	110	88	290	210

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT										
29...	100	65	29	20	3.9	200	8	110	23	.4
NOV										
24...	130	89	31	24	4.0	222	24	110	28	.3
DEC										
10...	110	75	27	23	4.4	196	18	98	27	.2
JAN										
19...	140	110	35	30	6.6	330	6	130	39	.5
FEB										
17...	77	50	18	15	3.5	140	4	87	17	.3
MAR										
17...	100	66	20	14	3.3	176	0	66	19	.4
APR										
06...	70	66	20	12	3.7	216	0	66	17	.4
MAY										
13...	92	68	21	9.1	2.9	200	0	50	16	.4
JUN										
02...	97	76	23	9.8	3.0	228	0	51	20	.4
JUL										
07...	55	49	18	9.3	3.3	172	0	48	14	.4
AUG										
04...	75	35	25	16	3.5	116	12	75	22	.4
SEP										
08...	87	41	27	19	4.1	134	10	100	23	.4

DES MOINES RIVER BASIN

05490600 DES MOINES RIVER AT ST. FRANCISVILLE, MO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL-DAHL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	SUS-PENDED SEDIMENT (MG/L)	SUS-PENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
OCT 29...	.4	378	.00	.72	.09	--	176	646	43
NOV 24...	2.2	412	.55	.97	.13	19	6	22	45
DEC 10...	3.7	385	1.1	1.6	.23	--	354	2710	37
JAN 19...	9.9	532	2.9	1.5	.33	--	0	.00	100
FEB 17...	3.1	282	.90	2.6	.37	6.0	430	2780	92
MAR 17...	10	326	--	--	--	--	280	7180	92
APR 06...	11	366	4.2	1.1	.28	--	215	5040	96
MAY 13...	11	328	6.3	1.3	.17	5.4	137	5110	54
JUN 02...	13	398	12	.81	.20	--	202	8180	59
JUL 07...	9.6	278	5.2	1.0	.04	--	244	2910	64
AUG 04...	4.6	266	1.5	1.3	.12	13	43	156	79
SEP 08...	1.4	312	.00	.81	.09	--	24	43	86

DATE	TOTAL ARSENIC (AS) (UG/L)	SUS-PENDED ARSENIC (AS) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DIS-SOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	DIS-SOLVED CHROMIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)
NOV 24...	2	0	1	0	<10	0	0	0	10	2	250
FEB 17...	--	--	1	0	10	0	5	0	20	3	11000
MAY 13...	2	1	1	1	10	0	0	0	10	4	1400
AUG 04...	1	1	1	1	30	0	0	0	9	4	500

DATE	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DIS-SOLVED SELENIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
NOV 24...	0	10	0	60	20	.0	.0	--	1	40	40
FEB 17...	20	12	7	360	0	.1	.1	1	0	70	20
MAY 13...	50	22	0	130	0	--	.0	2	1	20	10
AUG 04...	0	6	12	60	10	--	.0	1	1	30	10

05490600 DES MOINES RIVER AT ST. FRANCISVILLE, MO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MA- TERIAL (UG/KG)	TOTAL CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DDD (UG/L)	DDD IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DI- AZINON (UG/L)	DI- AZINON IN BOTTOM MA- TERIAL (UG/KG)
NOV 24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 17...	ND	--	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 13...	ND	--	ND	--	ND	--	ND	--	ND	--	ND	--
13...	--	ND	--	ND	--	ND	--	ND	--	ND	--	ND
AUG 04...	ND	--	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	TOTAL DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM MA- TERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MA- TERIAL (UG/KG)	TOTAL ETHION (UG/L)	ETHION IN BOTTOM MA- TERIAL (UG/KG)	TOTAL HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM MA- TERIAL (UG/KG)	TOTAL HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL LINDANE (UG/L)
NOV 24...	ND	.3	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 17...	ND	--	ND	--	ND	--	ND	--	ND	--	ND
MAY 13...	ND	--	ND	--	ND	--	ND	--	ND	--	ND
13...	--	.2	--	ND	--	ND	--	ND	--	ND	--
AUG 04...	.01	--	ND	--	ND	--	ND	--	ND	--	ND

DATE	LINDANE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL MALA- THION (UG/L)	MALA- THION IN BOTTOM MA- TERIAL (UG/KG)	TOTAL METH- OXY- CHLOR (UG/L)	METHOX- YCHLOR IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL METHYL PARA- THION (UG/L)	METHYL PARA- THION IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL METHYL TRI- THION (UG/L)	METHYL TRI- THION IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL PARA- THION (UG/L)	PARA- THION IN BOTTOM MA- TERIAL (UG/KG)
NOV 24...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 17...	--	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 13...	--	ND	--	ND	--	ND	--	ND	--	ND	--
13...	ND	--	ND	--	ND	--	ND	--	ND	--	ND
AUG 04...	--	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	TOTAL TOX- APHENE (UG/L)	TOX- APHENF IN BOTTOM MA- TERIAL (UG/KG)	TOTAL TRI- THION (UG/L)	TRI- THION IN BOTTOM MA- TERIAL (UG/KG)	TOTAL 2,4-D (UG/L)	2,4-D IN BOTTOM MA- TERIAL (UG/KG)	TOTAL 2,4,5-T (UG/L)	2,4,5-T IN BOTTOM MA- TERIAL (UG/KG)	TOTAL SILVEX (UG/L)	SILVEX IN BOTTOM MA- TERIAL (UG/KG)	TOTAL ATRA- ZINE (UG/L)
NOV 24...	ND	ND	ND	ND	ND	--	ND	--	ND	--	ND
FEB 17...	ND	--	ND	--	ND	--	ND	--	ND	--	ND
MAY 13...	ND	--	ND	--	ND	--	ND	--	ND	--	ND
13...	--	ND	--	ND	--	ND	--	ND	--	ND	--
AUG 04...	ND	--	ND	--	ND	--	ND	--	ND	--	1.6

DES MOINES RIVER BASIN

05490600 DES MOINES RIVER AT ST. FRANCISVILLE, MO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	470	605	650	680	790	650	560	392	570	425	540	490
2	485	595	455	680	780	650	555	378	585	555	535	480
3	485	580	445	710	835	645	555	384	600	410	470	480
4	485	575	580	750	850	480	570	377	600	420	435	485
5	482	580	625	770	825	345	565	375	600	440	445	495
6	475	590	580	775	815	267	555	377	595	440	445	510
7	485	---	650	810	815	368	565	365	600	435	440	510
8	480	580	650	840	810	393	565	385	610	435	460	505
9	478	585	655	840	740	460	580	430	620	440	430	510
10	485	580	650	875	720	515	610	445	625	460	430	515
11	480	595	635	900	640	515	615	455	600	460	435	520
12	480	610	610	930	590	515	605	510	615	480	420	525
13	485	655	590	910	590	510	610	520	575	490	425	535
14	500	680	320	840	560	545	635	522	605	500	420	540
15	485	680	450	860	545	550	640	518	495	490	392	535
16	480	675	500	860	475	538	655	505	388	475	425	550
17	500	660	610	880	460	535	650	522	465	510	510	545
18	520	635	660	870	560	520	660	362	485	510	485	545
19	540	610	665	925	640	490	625	352	460	480	475	540
20	550	610	665	845	675	505	650	418	435	515	465	540
21	560	625	680	830	630	500	590	530	422	440	465	550
22	565	645	640	810	660	505	470	540	430	425	465	550
23	575	655	645	800	670	525	368	555	440	264	458	550
24	560	660	640	800	680	538	267	560	450	340	455	565
25	575	670	660	800	700	545	228	550	465	440	465	575
26	560	665	660	805	680	545	274	540	515	505	460	515
27	595	675	665	810	670	540	305	540	520	550	465	515
28	600	675	665	810	660	530	365	560	530	565	465	510
29	605	690	680	810	640	545	415	560	555	540	485	---
30	605	545	680	800	---	545	410	555	420	490	485	540
31	605	---	680	800	---	570	---	560	---	480	485	---
MONTH	524	627	611	820	679	512	524	472	529	464	459	525

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	15.0	2.0	1.0	1.0	8.0	9.0	---	20.0	22.0	24.0	24.0
2	---	13.0	4.0	1.0	1.0	9.0	9.0	15.0	22.0	23.0	25.0	21.0
3	---	15.0	3.5	0.0	1.0	6.0	12.0	15.0	21.0	23.0	27.0	24.0
4	---	18.0	4.0	0.0	1.0	9.0	16.0	15.0	21.0	24.0	27.0	24.0
5	---	20.0	6.0	0.5	0.0	4.0	11.0	16.0	22.0	24.0	26.0	21.0
6	---	18.0	5.0	1.0	0.0	2.0	12.0	15.0	22.0	24.0	23.0	21.0
7	---	---	4.0	0.0	0.0	2.0	14.0	12.0	23.0	26.0	21.0	19.0
8	---	15.0	2.0	0.0	1.0	2.0	12.0	12.0	23.0	25.0	21.0	21.0
9	---	18.0	3.0	0.0	2.0	3.0	12.0	16.0	24.0	27.0	25.0	21.0
10	19.0	13.0	4.0	1.0	2.0	5.0	12.0	17.0	24.0	27.0	27.0	19.0
11	19.0	12.0	4.0	1.0	2.0	4.0	14.0	18.0	23.0	28.0	26.0	18.0
12	21.0	8.0	4.0	1.0	2.0	4.0	11.0	18.0	25.0	29.0	24.0	19.0
13	23.0	5.0	6.0	1.0	2.0	4.0	12.0	17.0	25.0	28.0	23.0	19.0
14	22.0	5.0	11.0	1.0	2.0	4.0	15.0	17.0	25.0	29.0	25.0	21.0
15	19.0	8.0	5.0	1.0	4.0	4.0	17.0	17.0	25.0	29.0	25.0	21.0
16	17.0	10.0	3.0	1.0	4.0	4.0	18.0	17.0	22.0	31.0	25.0	19.0
17	16.0	13.0	0.0	1.0	4.0	4.0	18.0	17.0	23.0	24.0	25.0	18.0
18	14.0	13.0	0.0	0.0	5.0	5.0	19.0	16.0	23.0	24.0	27.0	17.0
19	12.0	13.0	1.0	1.0	6.0	7.0	17.0	16.0	23.0	25.0	27.0	21.0
20	16.0	10.0	0.0	0.0	6.0	11.0	17.0	17.0	21.0	25.0	28.0	20.0
21	19.0	6.0	1.0	0.0	6.0	9.0	15.0	19.0	22.0	27.0	29.0	16.0
22	19.0	5.0	1.0	1.0	4.0	8.0	15.0	19.0	23.0	26.0	30.0	15.0
23	20.0	5.0	0.0	1.0	4.0	8.0	15.0	18.0	23.0	25.0	28.0	17.0
24	19.0	2.5	1.0	1.0	6.0	9.0	15.0	17.0	22.0	28.0	28.0	15.0
25	15.0	2.5	1.0	1.0	7.0	9.0	14.0	16.0	22.0	27.0	24.0	15.0
26	14.0	1.0	0.0	0.0	8.0	9.0	12.0	17.0	23.0	27.0	25.0	15.0
27	14.0	1.0	1.0	0.0	10.0	11.0	12.0	19.0	24.0	27.0	25.0	15.0
28	14.0	1.5	1.0	1.0	9.0	10.0	12.0	19.0	25.0	27.0	24.0	16.0
29	13.0	4.0	0.5	1.0	9.0	12.0	13.0	20.0	25.0	26.0	21.0	---
30	12.0	5.0	1.0	1.0	---	12.0	14.0	20.0	22.0	27.0	27.0	16.0
31	13.0	---	1.0	1.0	---	9.0	---	19.0	---	25.0	27.0	---
MONTH	---	9.5	2.5	0.5	4.0	6.5	14.0	17.0	23.0	26.0	25.5	19.0

05490600 DES MOINES RIVER AT ST. FRANCISVILLE, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

OCT. 29, 1975
1350 HOURS

IDENTIFICATION OF PHYTOPLANKTON

110,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
...MICRACTINIACEAE				
....MICRACTINIUM		6,200	6	
...OOCYSTACEAE				
....ANKISTRODESMUS		2,900	3	
LCHODATELLA			0	
....DICTYOSPHAERIUM		960	1	
....KIRCHNERIELLA		14,000	13	
....OOCYSTIS		960	1	
LTETRAEDRON			0	
...SCENEDESMACEAE				
....ACTINASTRUM				
DSCENEDESMUS		9,400	9	
		<u>20,000</u>	<u>19</u>	
	TOTALS	54,000	52	2.328=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCAEAE				
DCYCLOTELLA		25,000	24	
....MELOSIRA		5,300	5	
..PENNALES	PENNATE			
...NAVICULACEAE	NAVICULOID			
....NAVICULA		960	1	
...NITZSCHIAEAE				
....NITZSCHIA				
		<u>3,600</u>	<u>3</u>	
	TOTALS	35,000	33	1.228=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..CHROOCOCCALES	COCCOID			
...CHROOCOCCACEAE				
....AGMENELLUM		6,700	6	
....ANACYSTIS		960	1	
...OSCILLATORIALES	FILAMENTOUS			
...OSCILLATORIAEAE				
....OSCILLATORIA				
		<u>7,700</u>	<u>7</u>	
	TOTALS	15,000	14	1.272=DIVERSITY
EUGLENOPHYTA	EUGLENOIDS			
..CRYPTOPHYCEAE	CRYPTOMONADS			
...CRYPTOMONIDALES				
...CRYPTOMONODACEAF				
LCRYPTOMONAS				
		<u>480</u>	<u>0</u>	
	TOTALS		0	0.000=DIVERSITY
..EUGLENOPHYCEAE				
..EUGLENALES				
...EUGLENACEAE				
LEUGLENA				
		<u>240</u>	<u>0</u>	
	TOTALS		0	0.000=DIVERSITY

DES MOINES RIVER BASIN

05490600 DES MOINES RIVER AT ST. FRANCISVILLE, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

NOV. 24, 1975
1430 HOURS

IDENTIFICATION OF PHYTOPLANKTON

37,000 CELLS/ML

_ORGANISM_NAME_____		_COMMON_NAME_____	CELLS/ML	PER_CENT	
CHLOROPHYTA		GREEN ALGAE			
.CHLOROPHYCEAE					
..CHLOROCOCCALES					
...MICRACTINIACEAE					
...MICRACTINIUM			1,500	4	
...OOCYSTACEAE					
....ANKISTRODESMUS			460	1	
....DICTYOSPHAERIUM			1,400	4	
....KIRCHNERIELLA			1,800	5	
...SCENEDESMACEAE					
L	...ACTINASTRUM			0	
	...CRUCIGENIA		1,200	3	
	...SCENEDESMUS		4,900	13	
	...TETRASTRUM		1,200	3	
	..VOLVOCALES				
	...CHLAMYDOMONADACEAE				
	CHLAMYDOMONAS		<u>610</u>	<u>2</u>	
	TOTALS		13,000	35	2.641=DIVERSITY
CHRYSTOPHYTA					
.BACILLARIOPHYCEAE		DIATOMS			
..CENTRALES		CENTRIC			
...COSCINODISCACEAE					
D	...CYCLOTELLA		12,000	31	
	...MELOSIRA		2,700	7	
	..PENNALES	PENNATE			
	...NAVICULACEAE	NAVICULOID			
L	...NAVICULA			0	
	...NITZSCHIACEAE				
	NITZSCHIA		<u>300</u>	<u>1</u>	
	TOTALS		15,000	39	0.904=DIVERSITY
CYANOPHYTA		BLUE-GREEN ALGAE			
.MYXOPHYCEAE					
..CHROOCOCCALES		COCCOID			
...CHROOCOCCACEAE					
....ANACYSTIS			1,200	3	
...OSCILLATORIALES		FILAMENTOUS			
D	...OSCILLATORIACEAE		<u>8,100</u>	<u>22</u>	
	LYNGBYA		9,300	25	0.561=DIVERSITY
	TOTALS				
EUGLENOPHYTA		EUGLENOIDS			
.EUGLENOPHYCEAE					
..EUGLENALES					
...EUGLENACEAE					
L	...EUGLENA			0	
L	...PHACUS			0	
	TOTALS		<u>150</u>	<u>0</u>	0.000=DIVERSITY

05490600 DES MOINES RIVER AT ST. FRANCISVILLE, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DEC. 10, 1975
1615 HOURS

IDENTIFICATION OF PHYTOPLANKTON

43,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
...OCYSTACEAE				
LANKISTRODESMUS			0	
...SCENEDESMACEAE				
...ACTINASTRUM		2,200	5	
...SCENEDESMUS		3,300	8	
DTETRASTRUM		6,600	15	
..VOLVOCALES				
...CHLAMYDOMONADACEAE				
...CHLAMYDOMONAS				
	TOTALS	<u>1,700</u> 14,000	<u>4</u> 32	1.792=DIVERSITY
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCEAE				
DCYCLOTELLA		29,000	67	
..PENNALES	PENNATE			
...NAVICULACEAE	NAVICULOID			
...NAVICULA		550	1	
...NITZSCHIAEAE				
LNITZSCHIA			0	
...SURIRELLACEAE				
LSURIRELLA			0	
	TOTALS	<u>29,000</u>	<u>68</u>	0.135=DIVERSITY
EUGLENOPHYTA	EUGLENIDS			
..CRYPTOPHYCEAE	CRYPTOMONADS			
..CRYPTOMONIDAE				
...CRYPTOMONADACEAE				
LCRYPTOMONAS			0	
..EUGLENOPHYCEAE				
..EUGLENALES				
...EUGLENACEAE				
LEUGLENA			0	
LTRACHELOMONAS			0	

DES MOINES RIVER BASIN

05490600 DES MOINES RIVER AT ST. FRANCISVILLE, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

JAN. 19, 1976
1400 HOURS

IDENTIFICATION OF PHYTOPLANKTON

65.000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...SCENEDESMACEAE				
LACTINASTRUM		670	0	
...SCENEDESMUS			1	
LTETRASTRUM			0	
	TOTALS	670	1	0.000=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
DCYCLOTELLA		64.000	99	
..PENNALES	PENNATE			
...NITZSCHIACEAE				
LNITZSCHIA			0	
...SURIPELLACEAE				
LSURIPELLA			0	
	TOTALS	64.000	99	0.026=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
...OSCILLATORIALES	FILAMENTOUS			
...OSCILLATORIACEAE				
LOSCILLATORIA			0	
EUGLENOPHYTA	EUGLENIDS			
..CRYPTOPHYCEAE	CRYPTOMONADS			
...CRYPTOMONIDALES				
...CRYPTOMONODACEAE				
LCRYPTOMONAS			0	
..EUGLENOPHYCEAE				
...EUGLENALES				
...EUGLENACEAE				
LEUGLENA			0	

05490600 DES MOINES RIVER AT ST. FRANCISVILLE, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

FEB. 17, 1976
1500 HOURS

IDENTIFICATION OF PHYTOPLANKTON

120,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...OOCYSTACEAE				
....ANKISTRODESMUS		1,300	1	
....SCENEDESMACEAE				
....SCENEDESMUS				
	TOTALS	<u>5,100</u> 6,300	<u>4</u> 5	0.722=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
DCYCLOTELLA		110,000	92	
...PENNALES	PENNATE			
...DIATOMACEAE				
LDIATOMA			0	
...FRAGILARIACEAE				
LFRAGILARIA			0	
...NAVICULACEAE	NAVICULOID			
...NAVICULA		1,300	1	
...NITZSCHACEAE				
...NITZSCHIA		1,300	1	
...SURIPELLACEAE				
LSURIPELLA			<u>0</u> 94	0.176=DIVERSITY
	TOTALS	<u>110,000</u>		
EUGLENOPHYTA	EUGLENOIDS			
..EUGLENOPHYCEAE				
...EUGLENALES				
...EUGLENACEAE				
LEUGLENA			0	
...TRACHELOMONAS			<u>1</u> 1	0.000=DIVERSITY
	TOTALS	<u>1,300</u> 1,300		

DES MOINES RIVER BASIN

05490600 DES MOINES RIVER AT ST. FRANCISVILLE, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

MAR. 17, 1976
1330 HOURS

IDENTIFICATION OF PHYTOPLANKTON

9,300 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
...OOCYSTACEAE				
LANKISTRODESMUS			0	
..VOLVOCALES				
...CHLAMYDOMONADACEAE				
LCHLAMYDOMONAS			0	
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...BIDDULPHIACEAE				
LBIDDULPHIA			0	
...COSCINODISCACEAE				
DCYCLOTELLA		7,000	75	
..PENNALES	PENNATE			
...DIATOMACEAE				
...DIATOMA		330	4	
...NAVICULACEAE	NAVICULOID			
LGYROSIGMA			0	
...NAVICULA		330	4	
...NITZSCHIACEAE				
DNITZSCHIA				
	TOTALS	<u>1,700</u> 9,300	<u>18</u> 101	1.098=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..OSCILLATORIALES	FILAMENTOUS			
...NOSTOCACEAE				
LANABAENA			0	

APR. 6, 1976
1530 HOURS

IDENTIFICATION OF PHYTOPLANKTON

9,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
...OOCYSTACEAE				
....SELENASTRUM		900	10	
...SCENEDESMACEAE				
....SCENEDESMUS				
	TOTALS	<u>900</u> 1,800	<u>10</u> 20	1.000=DIVERSITY
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
DCYCLOTELLA		5,600	62	
..PENNALES	PENNATE			
...FRAGILARIACEAE				
...ASTERIONELLA		680	7	
...NAVICULACEAE	NAVICULOID			
...NAVICULA		230	2	
...NITZSCHIACEAE				
...NITZSCHIA		680	7	
...SURIRELLACEAE				
LSURIRELLA			0	
	TOTALS	<u>7,200</u>	<u>78</u>	1.075=DIVERSITY

05490600 DES MOINES RIVER AT ST. FRANCISVILLE, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

MAY 13, 1976
1400 HOURS

IDENTIFICATION OF PHYTOPLANKTON

43,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...MICRACTINIACEAE				
...MICRACTINIUM		1,100	2	
...OOCYSTACEAE				
....ANKISTRODESMUS		800	2	
....KIRCHNERIELLA		4,000	9	
....WESTELLA		3,200	7	
...SCENEDESMACEAE				
....ACTINASTRUM		4,200	10	
....SCENEDESMUS		5,600	13	
....TETRASTRUM		3,200	7	
..VOLVOCALES				
...CHLAMYDOMONADACEAE				
....CHLAMYDOMONAS		800	2	
TOTALS		23,000	52	2.724=DIVERSITY
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
...CENTRALES	CENTRIC			
...COSCINODISCAEAE				
DCYCLOTELLA		14,000	31	
...MELOSIRA		2,400	5	
..PENNALES	PENNATE			
...FRAGILARIACEAE				
....ASTERIONELLA		1,600	4	
...NITZSCHIAEAE				
....NITZSCHIA		1,600	4	
...SURIRELLACEAE				
....SURIRELLA		270	1	
TOTALS		19,000	45	1.411=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
...OSCILLATORIALES	FILAMENTOUS			
...OSCILLATORIAEAE				
LOSCILLATORIA			0	
EUGLENOPHYTA	EUGLENOIDS			
..CRYPTOPHYCEAE	CRYPTOMONADS			
...CRYPTOMONIDALES				
...CRYPTOMONODACEAE				
....CRYPTOMONAS		270	1	
TOTALS		270	1	0.000=DIVERSITY
..EUGLENOPHYCEAE				
...EUGLENALES				
...EUGLENACEAE				
....EUGLENA		1,100	2	
TOTALS		1,100	2	0.000=DIVERSITY

DES MOINES RIVER BASIN

05490600 DES MOINES RIVER AT ST. FRANCISVILLE, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

JUNE 2, 1976
1400 HOURS

IDENTIFICATION OF PHYTOPLANKTON

19,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
...SCENEDESMACEAE				
L ...ACTINASTRUM			0	
D ...SCENEDESMUS		4,700	25	
...TETRASTRUM		<u>1,200</u>	<u>6</u>	
	TOTALS	5,900	31	0.722=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
D ...CYCLOTELLA		6,200	33	
D ...MELOSIRA		4,100	22	
..PENNALES	PENNATE			
...NITZSCHACEAE				
...NITZSCHIA		<u>1,200</u>	<u>6</u>	
	TOTALS	11,000	61	1.348=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..CHROOCOCCALES	COCCOID			
...CHROOCOCCACEAE				
...ANACYSTIS		<u>590</u>	<u>3</u>	
	TOTALS	590	3	0.000=DIVERSITY
EUGLENOPHYTA	EUGLENOIDS			
..EUGLENOPHYCEAE				
..EUGLENALES				
...EUGLENACEAE				
...PHACUS		<u>590</u>	<u>3</u>	
	TOTALS	590	3	0.000=DIVERSITY

JULY 7, 1976
1430 HOURS

IDENTIFICATION OF PHYTOPLANKTON

8,500 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
...OOCYSTACEAE				
L ...ANKISTRODESMUS			0	
...SCENEDESMACEAE				
...TETRASTRUM		<u>870</u>	<u>10</u>	
	TOTALS	870	10	0.000=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
D ...CYCLOTELLA		6,500	77	
...MELOSIRA		<u>870</u>	<u>10</u>	
	TOTALS	7,400	87	0.523=DIVERSITY
..CHRYSTOPHYCEAE	YELLOW-BROWN ALGAE			
...CHRYSSOMONADALES				
...OCHROMONADACEAE				
...OCHROMONAS		<u>220</u>	<u>3</u>	
	TOTALS	220	3	0.000=DIVERSITY

05490600 DES MOINES RIVER AT ST. FRANCISVILLE, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

AUG. 4, 1976
1600 HOURS

IDENTIFICATION OF PHYTOPLANKTON

140,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
..CHARACIACEAE				
LSCHROEDERIA			0	
..COELASTRACEAE				
LCOELASTRUM			0	
..OOCYSTACEAE				
....ANKISTRODESMUS		4,800	3	
....DICTYOSPHAERIUM		3,900	3	
....KIRCHNERIELLA		4,800	3	
LOOCYSTIS			0	
LSELENASTRUM			0	
....TETRAEDRON		960	1	
..SCENEDESMACEAE				
....ACTINASTRUM		3,900	3	
....CRUCIGENIA		1,900	1	
....SCENEDESMUS		17,000	12	
..TETRASPORALES				
..COCCOMYXACEAE				
LELAKATOTHRIX			0	
..PALMELLACEAE				
....GLOEOCYSTIS		1,400	1	
..VOLVOCALES				
..CHLAMYDOMONADACEAE				
LCHLAMYDOMONAS			0	
..CHLOROCOCCALES				
..OOCYSTACEAE				
....GLOEOACTINIUM				
TOTALS		<u>16,000</u> 56,000	<u>12</u> 39	2.753=DIVERSITY
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
..COSCINODISCACEAE				
DCYCLOTELLA		37,000	26	
..PENNALES	PENNATE			
..NAVICULACEAE	NAVICULOID			
LNAVICULA			0	
..NITZSCHIAEAE				
....NITZSCHIA				
TOTALS		<u>2,400</u> 40,000	<u>2</u> 28	0.331=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..CHROOCOCCALES	COCCOID			
..CHROOCOCCACEAE				
....AGMENELLUM		15,000	11	
DANACYSTIS		27,000	19	
..OSCILLATORIALES	FILAMENTOUS			
..OSCILLATORIACEAE				
....OSCILLATORIA				
TOTALS		<u>1,400</u> 43,000	<u>1</u> 31	1.128=DIVERSITY
EUGLENOPHYTA	EUGLENOIDS			
..CRYPTOPHYCEAE	CRYPTOMONADS			
..CRYPTOMONIDALES				
..CRYPTOCHRYSIDACEAE				
LCHROOMONAS			0	
..CRYPTOMONODACEAE				
LCRYPTOMONAS			0	
TOTALS		<u>960</u>	<u>0</u>	1.000=DIVERSITY
PYRRHOPHYTA	FIRE ALGAE			
..DINOPHYCEAE	DINOFLAGELLATES			
..PERIDINIALES				
..PERIDINIACEAE				
LPERIDINIUM			0	
TOTALS		<u>480</u>	<u>0</u>	0.000=DIVERSITY

05490600 DES MOINES RIVER AT ST. FRANCISVILLE, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

SEP. 8, 1976
1440 HOURS

IDENTIFICATION OF PHYTOPLANKTON

20,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
...COELASTRACEAE				
....COELASTRUM		650	3	
...OOCYSTACEAE				
LANKISTRODESMUS			0	
DDICTYOSPHAERIUM		11,000	57	
...SCENEDESMACEAE				
....SCENEDESMUS		740	4	
...ZYGNEMATALES				
...DESMIDIACEAE	PLACODERM DESMIDS			
LCLOSTERIUM				
	TOTALS	13,000	64	0.722=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCAEAE				
....CYCLOTELLA		1,000	5	
..PENNALES	PENNATE			
...NAVICULACEAE	NAVICULOID			
....NAVICULA		190	1	
...NITZSCHIACEAE				
....NITZSCHIA		280	1	
	TOTALS	1,500	7	1.199=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..CHROOCOCCALES	COCCOID			
...CHROOCOCCACEAE				
DAGMENELLUM		4,400	23	
....ANACYSTIS		740	4	
	TOTALS	5,200	27	0.592=DIVERSITY
EUGLENOPHYTA	EUGLENOIDS			
..EUGLENOPHYCEAE				
..EUGLENALES				
...EUGLENACEAE				
....TRACHELOMONAS		190	1	
	TOTALS	190	1	0.000=DIVERSITY

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
 L - LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE

PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m ²)		Chlorophyll a (mg/m ²)	Chlorophyll b (mg/m ²)	Biomass Pigment ratio	Sampling method
		Dry weight	Ash weight				
Oct. 29, 1975	36	65	59	2.8	0.1	2,100	Polyethylene strip
Dec. 10	16	1.8	1.5	0.5	0.0	430	Polyethylene strip
Feb. 17, 1976	29	4.2	3.4	0.4	0.1	2,000	Polyethylene strip
May 13	37	1.7	1.5	0.9	0.0	250	Polyethylene strip
Sept. 8	35	143	122	9.9	0.7	2,100	Polyethylene strip

05495000 FOX RIVER AT WAYLAND, MO

LOCATION.--Lat 40°23'33", long 91°35'50", in NW¼ sec.31, T.65 N., R.6 W., Clark County, Hydrologic Unit 07110001, on left bank 90 ft (27 m) downstream from bridge on U.S. Highway 136, 0.8 mi (1.3 km) west of Wayland, and 5.0 mi (8.0 km) downstream from Brush Creek.

DRAINAGE AREA.--400 mi² (1,040 km²), approximately.

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

REVISED RECORDS.--WSP 785: 1934.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 501.52 ft (152.863 m) above mean sea level. Prior to Oct. 1, 1929, nonrecording gage at bridge 2.8 mi (4.5 km) upstream at different datum. Oct. 1, 1929, to June 11, 1936, nonrecording gage, at bridge 90 ft (27 m) upstream at present datum.

REMARKS.--Records fair.

COOPERATION.--Nine discharge measurements furnished by Corps of Engineers.

AVERAGE DISCHARGE-- 54 years, 231 ft³/s (6.542 m³/s), 7.84 in/yr (199 mm/yr), 167,400 acre-ft/yr (206 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,400 ft³/s (748 m³/s) Apr. 22, 1973, gage height, 21.71 ft (6.617 m); no flow at times in several years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,400 ft³/s (379 m³/s) Apr. 25, gage height, 19.96 ft (6.084 m), peak above base of 4,000 ft³/s (113 m³/s); minimum daily, 0.47 ft (0.013 m³/s) Sept. 6, 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	6.3	118	20	30	414	100	287	51	30	9.4	.86
2	5.7	6.3	94	19	50	133	45	264	47	19	9.4	.82
3	5.7	6.0	67	18	80	133	57	202	42	15	7.4	.78
4	5.4	6.3	50	17	90	796	50	164	35	14	5.4	.54
5	5.1	7.2	41	16	85	3000	49	124	30	12	6.5	.50
6	4.8	8.6	168	15	80	2510	48	232	27	11	4.2	.47
7	4.5	7.5	54	14	70	2910	45	1260	25	9.5	4.2	.62
8	4.5	6.9	46	10	60	413	40	740	23	9.0	4.2	.62
9	4.1	8.2	41	6.0	50	253	36	340	21	8.4	4.2	.90
10	4.5	12	26	4.0	45	200	34	190	21	8.4	4.2	.70
11	4.8	13	32	4.0	32	191	34	132	24	7.9	4.2	.58
12	4.3	8.4	33	4.2	148	288	36	95	78	7.1	6.5	.50
13	4.3	12	32	4.5	116	347	34	98	102	6.8	7.4	.54
14	6.0	8.3	522	5.0	130	244	33	95	51	6.5	15	.54
15	11	10	300	6.0	86	185	33	93	692	4.2	60	.50
16	13	8.2	200	7.0	181	152	39	196	422	4.2	25	.47
17	7.8	7.2	150	8.0	695	124	37	626	152	5.4	13	.47
18	5.7	6.9	100	9.0	340	100	35	758	74	4.2	7.4	.50
19	5.4	6.6	80	8.5	414	93	144	338	47	3.7	7.1	.50
20	5.1	7.2	70	8.0	197	87	208	202	36	3.4	5.6	.54
21	4.8	7.2	60	7.5	165	78	464	144	30	4.2	6.8	.54
22	4.8	4.3	50	7.0	214	66	564	106	26	6.8	5.6	.58
23	4.8	4.8	40	6.5	117	60	1100	83	24	30	3.6	.62
24	6.0	7.8	30	6.0	117	55	7820	69	23	60	2.8	.66
25	6.6	8.9	28	5.5	116	53	12600	64	18	28	2.2	1.0
26	6.0	12	26	5.5	102	52	9500	59	22	14	2.2	3.7
27	5.4	13	25	5.5	224	150	2490	54	18	8.0	1.7	10
28	5.4	10	24	6.0	200	132	601	46	17	9.4	1.3	7.7
29	6.0	28	23	9.0	304	79	425	44	16	6.5	1.3	9.2
30	9.6	304	22	15	---	78	340	46	32	8.0	2.2	13
31	7.8	---	21	20	---	132	---	57	---	9.4	.90	---
TOTAL	184.9	563.1	2573	296.7	4538	13508	37041	7208	2226	374.0	240.90	58.95
MEAN	5.96	18.8	83.0	9.57	156	436	1235	233	74.2	12.1	7.77	1.97
MAX	13	304	522	20	695	3000	12600	1260	692	60	60	13
MIN	4.1	4.3	21	4.0	30	52	33	44	16	3.4	.90	.47
CFSM	.01	.05	.21	.02	.39	1.09	3.09	.58	.19	.03	.02	.004
IN.	.02	.05	.24	.03	.42	1.26	3.44	.67	.21	.03	.02	.005
AC-FT	367	1120	5100	589	9000	26790	73470	14300	4420	742	478	117
CAL YR 1975 TOTAL	59439.90			MEAN 163	MAX 3000	MIN 2.2	CFSM .41	IN 5.53	AC-FT 117900			
WTR YR 1976 TOTAL	68812.55			MEAN 188	MAX 12600	MIN .47	CFSM .47	IN 6.40	AC-FT 136500			

FABIUS RIVER BASIN

05497000 NORTH FABIUS RIVER AT MONTICELLO, MO

LOCATION.--Lat 40°06'30", long 91°42'51", in SW¼SE¼ 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 (1.6 km) south of Monticello, and 19.0 mi (30.6 km) upstream from Middle Fabius River.

DRAINAGE AREA.--452 mi² (1,171 km²).

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 (164.815 m) above mean sea level. Prior to Nov. 22, 1930, nonrecording gage at site 400 ft (122 m) downstream at datum 0.03 ft (0.009 m) lower. Nov. 22, 1930, to Nov. 28, 1967, nonrecording gage at present site and datum.

REMARKS.--Records fair.

COOPERATION.--Nine discharge measurements furnished by Corps of Engineers.

AVERAGE DISCHARGE.--54 years, 269 ft³/s (7.618 m³/s), 8.08 in/yr (205 mm/yr), 194,900 acre-ft/yr (240 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,700 ft³/s (586 m³/s) Apr. 22, 1973, gage height, 33.03 ft (10.068 m), from graph based on gage readings; no flow at times in many years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1874, 30.8 ft (31.1 m) June 30, 1933.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,800 ft³/s (391 m³/s) Apr. 25, gage height, 27.89 ft (8.501 m), peak above base of 5,000 ft³/s (142 m³/s); minimum daily, 1.7 ft³/s (0.048 m³/s) Sept. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	9.0	233	26	39	58	120	310	80	20	18	4.2
2	26	9.0	144	21	76	61	81	288	64	28	28	3.9
3	15	10	63	37	94	80	64	258	56	22	16	3.6
4	12	10	49	19	67	1090	52	228	48	18	11	3.6
5	12	9.8	38	12	43	4320	45	206	45	17	9.7	3.6
6	9.8	10	39	8.0	28	2040	42	618	42	16	10	3.3
7	9.0	10	40	7.0	22	838	40	1380	38	15	9.9	3.3
8	8.6	9.8	42	6.0	23	325	37	550	34	15	8.4	3.3
9	8.2	9.8	30	5.5	24	194	34	300	31	15	7.1	3.6
10	7.8	14	23	5.0	30	134	31	223	31	14	8.1	3.7
11	7.0	11	21	6.0	68	147	29	180	116	13	63	3.3
12	6.7	10	20	7.0	140	201	26	153	148	12	17	3.0
13	6.0	12	23	8.0	245	257	26	143	74	11	19	2.0
14	7.4	12	152	9.4	188	171	28	136	60	11	34	2.1
15	11	11	368	8.6	255	134	28	180	166	10	53	2.6
16	12	11	301	8.4	478	105	27	486	154	9.9	41	1.9
17	10	10	110	8.2	565	90	26	2050	80	9.5	22	1.9
18	9.4	10	66	8.0	251	99	27	660	51	9.2	17	1.7
19	9.0	9.8	84	7.6	135	90	73	310	40	9.0	13	2.4
20	8.2	10	73	7.0	76	86	219	202	34	8.8	10	3.7
21	7.8	11	60	6.8	55	73	342	153	31	8.6	8.9	4.3
22	8.2	11	49	6.6	53	61	1230	261	27	11	8.4	3.0
23	8.2	12	45	6.4	53	51	795	249	25	16	7.6	10
24	9.4	13	41	6.2	66	45	5790	202	29	33	7.2	14
25	9.8	14	38	6.0	72	44	11700	228	29	18	6.8	19
26	9.8	15	36	6.0	69	68	10800	131	26	12	6.4	35
27	9.0	17	32	7.0	66	241	3080	97	24	34	6.0	35
28	9.0	18	30	8.0	61	114	700	81	22	37	5.4	37
29	9.4	22	29	11	52	104	444	82	40	17	5.1	32
30	9.0	69	29	20	---	99	352	78	22	14	4.5	16
31	8.6	---	29	23	---	164	---	84	---	14	4.2	---
TOTAL	299.3	410.2	2337	331.7	3394	11584	36288	10507	1667	498.0	485.7	266.0
MEAN	9.65	13.7	75.4	10.7	117	374	1210	339	55.6	16.1	15.7	8.87
MAX	26	69	368	37	565	4320	11700	2050	166	37	63	37
MIN	6.0	9.0	20	5.0	22	44	26	78	22	8.6	4.2	1.7
CFSM	.02	.03	.17	.02	.26	.83	2.68	.75	.12	.04	.03	.02
IN.	.02	.03	.19	.03	.28	.95	2.99	.86	.14	.04	.04	.02
AC-FT	594	814	4640	658	6730	22980	71980	20840	3310	988	963	528
CAL YR 1975	TOTAL	73212.5	MEAN 201	MAX 4470	MIN 3.6	CFSM .44	IN 6.03	AC-FT 145200				
WTR YR 1976	TOTAL	68067.9	MEAN 186	MAX 11700	MIN 1.7	CFSM .41	IN 5.60	AC-FT 135000				

05498000 MIDDLE FABIUS RIVER NEAR MONTICELLO, MO

LOCATION.--Lat 40°05'37", long 91°44'08", in SE¼ 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 (4.0 km) southwest of Monticello, 8 mi (13 km) downstream from Radish Branch, and 17 miles (27.4 km) upstream from mouth.

DRAINAGE AREA.--393 mi² (1,018 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 540.46 ft (164.732 m) above mean sea level. Prior to Oct. 4, 1967, nonrecording gage at present site and datum.

REMARKS.--Records good.

COOPERATION.--Seven discharge measurements furnished by Corps of Engineers.

AVERAGE DISCHARGE.--31 years, 248 ft³/s (7.023 m³/s), 8.57 in/yr (218 mm/yr), 179,700 acre-ft/yr (222 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,700 ft³/s (501 m³/s) Apr. 23, 1973, gage height, 27.14 ft (8.272 m); no flow at times in 1953-56.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 17, 1945, reached a stage of 23.3 ft (7.10 m), from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,500 ft³/s (354 m³/s) Apr. 26, gage height, 23.28 ft (7.096 m), peak above base of 3,500 ft³/s (99.1 m³/s); minimum, 0.44 ft³/s (0.012 m³/s) Sept. 6, gage height, 3.07 ft (0.936 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	5.9	103	11	58	34	101	151	55	13	4.1	.66
2	2.9	5.7	77	9.0	91	33	88	127	55	37	3.9	.65
3	3.3	5.7	71	8.0	77	32	63	117	45	42	3.4	.60
4	2.5	5.6	43	8.3	60	770	51	107	37	14	3.2	.54
5	1.9	5.7	29	8.3	38	2110	44	97	33	12	3.1	.52
6	1.7	5.6	23	7.7	24	1830	39	1020	29	10	3.2	.45
7	1.6	5.6	139	7.0	19	1190	36	1390	27	9.5	3.6	.47
8	1.5	5.5	83	6.5	17	276	32	1110	23	8.7	3.8	.48
9	1.7	5.4	43	5.5	19	150	31	335	20	8.1	3.1	.52
10	1.9	6.1	28	5.0	28	127	30	196	20	7.3	3.2	.51
11	2.2	6.1	19	6.0	34	114	28	145	24	6.6	62	.53
12	2.5	5.2	16	7.0	95	145	25	117	271	6.0	12	.56
13	3.1	4.9	13	8.3	156	210	24	109	157	5.7	5.6	.60
14	3.4	4.7	17	8.0	111	220	24	99	81	5.4	5.0	.66
15	4.4	5.2	580	7.8	296	136	24	170	78	5.0	4.3	.79
16	4.2	5.2	612	7.5	400	101	24	384	239	4.3	3.7	.84
17	4.2	5.6	142	7.2	402	86	25	1470	115	4.1	3.5	.81
18	4.5	5.9	43	7.0	440	75	25	1490	51	3.9	4.3	.90
19	6.0	6.1	45	6.8	258	68	26	382	34	3.5	4.8	1.1
20	6.0	7.0	34	6.6	126	64	146	204	27	3.2	4.4	1.3
21	5.7	7.3	20	6.5	84	59	191	147	21	3.2	3.7	1.2
22	5.5	7.8	15	6.4	78	53	548	204	17	3.5	3.1	1.4
23	5.3	7.9	15	6.3	55	46	890	211	16	3.5	2.9	1.4
24	5.3	8.4	13	6.2	52	39	2770	182	19	3.2	2.8	1.5
25	5.5	8.7	13	6.1	58	35	5370	365	18	3.5	2.7	2.5
26	5.5	9.6	12	6.0	57	57	11100	196	15	4.3	1.8	5.5
27	5.4	10	11	9.0	49	161	9540	120	15	15	1.4	7.0
28	5.4	11	10	9.9	44	66	2550	89	16	5.4	.98	7.3
29	5.4	16	11	13	34	66	335	73	15	4.1	.90	6.1
30	5.3	31	12	20	---	78	210	63	13	4.4	.75	5.0
31	5.6	---	11	24	---	88	---	58	---	5.2	.70	---
TOTAL	122.7	230.4	2303	261.9	3260	8519	34390	10928	1586	264.6	165.93	52.39
MEAN	3.96	7.68	74.3	8.45	112	275	1146	353	52.9	8.54	5.35	1.75
MAX	6.0	31	612	24	440	2110	11100	1490	271	42	62	7.3
MIN	1.5	4.7	10	5.0	17	32	24	58	13	3.2	.70	.45
CFSM	.01	.02	.19	.02	.28	.70	2.92	.90	.13	.02	.01	.004
IN,	.01	.02	.22	.02	.31	.81	3.26	1.03	.15	.03	.02	.005
AG-FT	243	457	4570	519	6470	16900	68210	21680	3150	525	329	104

CAL YR 1975 TOTAL 63484.40 MEAN 174 MAX 2790 MIN 1.2 CFSM .44 IN 6.01 AC-FT 125900
WTR YR 1976 TOTAL 62083.92 MEAN 170 MAX 11100 MIN .45 CFSM .43 IN 5.88 AC-FT 123100

05500000 SOUTH FABIUS RIVER NEAR TAYLOR, MO

LOCATION.--Lat 39°53'49", long 91°34'49", in SW¼NW¼ sec.21, T.59 N., R.6 W., Marion County, Hydrologic Unit 07110003, on right bank at downstream side of highway bridge, 4.5 mi (7.2 km) southwest of Taylor, 5.0 mi (8.0 km) downstream from Grassy Creek, and 5.3 mi (8.5 km) upstream from confluence with North Fabius River.

DRAINAGE AREA.--620 mi² (1,606 km²).

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 (147.191 m) above mean sea level (levels by Corps of Engineers). Prior to May 14, 1936, nonrecording gage at bridge 4.0 mi (6.4 km) downstream at datum 21.94 ft (6.687 m) lower. May 14, 1936, to Dec. 2, 1940, nonrecording gage at present site and datum.

REMARKS.--Records good.

COOPERATION.--Nine discharge measurements furnished by Corps of Engineers.

AVERAGE DISCHARGE.--42 years, 389 ft³/s (11.02 m³/s), 8.52 in/yr (216 mm/yr), 281,800 acre-ft/yr (347 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,700 ft³/s (558 m³/s) June 8, 1947, gage height, 19.5 ft (5.94 m), from rating curve extended above 11,000 ft³/s (312 m³/s); no flow at times in several years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1928 reached a stage of 18.49 ft (5.636 m), from floodmark, at present site and datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,780 ft³/s (135 m³/s) Apr. 25, gage height, 9.40 ft (2.865 m), peak above base of 4,000 ft³/s (113 m³/s); minimum, 0.77 ft³/s (0.022 m³/s) Oct. 7, gage height, 1.11 ft (0.338 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	5.4	65	9.6	37	32	107	299	67	55	3.7	5.1
2	2.6	5.4	40	9.4	36	31	122	237	57	48	7.4	6.2
3	2.6	6.0	30	8.6	40	32	89	171	49	107	6.9	6.5
4	2.3	7.3	31	8.0	38	1260	76	140	45	65	6.0	6.3
5	1.7	8.1	31	7.0	36	3080	64	122	56	87	5.8	6.3
6	1.1	6.6	24	6.0	34	1850	56	308	46	71	55	5.9
7	1.0	7.6	19	5.5	32	708	50	2820	37	46	70	5.7
8	1.1	7.6	17	5.0	30	328	47	2510	33	34	32	6.1
9	1.1	24	15	4.5	30	209	42	737	31	26	23	6.7
10	1.3	28	12	4.0	45	163	38	349	27	20	17	6.3
11	1.6	13	11	5.0	60	140	34	233	27	16	17	5.9
12	1.6	8.1	9.3	6.0	58	139	32	181	25	13	19	5.5
13	1.5	6.6	9.0	7.8	45	159	31	162	26	11	15	5.3
14	1.3	5.4	18	8.0	57	153	29	149	52	9.2	24	5.1
15	1.8	4.7	47	9.0	72	181	28	724	61	8.0	37	5.0
16	1.6	4.2	45	8.5	228	148	27	1560	47	8.8	29	5.5
17	1.4	3.8	197	8.4	390	113	26	1690	100	12	17	5.8
18	1.6	3.5	150	8.3	270	95	26	1830	81	7.4	13	5.4
19	3.4	3.4	65	8.2	264	81	25	1080	60	18	10	4.8
20	3.2	3.9	50	8.1	161	71	100	411	42	13	9.2	4.6
21	3.0	7.6	40	8.0	127	61	675	251	32	9.4	8.8	5.0
22	2.6	9.3	30	7.5	93	59	341	219	24	7.8	8.0	4.6
23	2.4	8.2	20	7.0	69	56	486	346	19	6.4	7.6	4.1
24	3.0	6.9	18	6.0	57	55	2220	244	48	5.6	7.3	4.3
25	3.4	6.4	16	5.5	48	53	4430	256	43	4.6	7.3	7.8
26	3.2	7.6	14	5.0	43	282	4460	301	43	4.3	7.0	17
27	5.0	11	12	5.5	40	1490	4310	178	25	4.1	6.8	17
28	4.2	13	13	6.0	37	362	3770	126	19	3.8	6.5	14
29	4.0	19	11	6.5	33	187	847	100	16	3.6	6.2	9.3
30	4.0	98	10	7.0	---	161	398	85	14	3.5	5.7	6.9
31	4.7	---	9.8	16	---	133	---	74	---	3.6	5.7	---
TOTAL	76.2	349.6	1079.1	224.9	2510	11872	22986	17893	1252	732.1	493.9	204.0
MEAN	2.46	11.7	34.8	7.25	86.6	383	766	577	41.7	23.6	15.9	6.80
MAX	5.0	98	197	16	390	3080	4460	2820	100	107	70	17
MIN	1.0	3.4	9.0	4.0	30	31	25	74	14	3.5	3.7	4.1
CFSM	.003	.02	.06	.01	.14	.62	1.24	.93	.07	.04	.03	.01
IN.	.005	.02	.06	.01	.15	.71	1.38	1.07	.08	.04	.03	.01
AC-FT	151	693	2140	446	4980	23550	45590	35490	2480	1450	980	405
CAL YR 1975	TOTAL	120580.1	MEAN 330	MAX 5100	MIN 1.0	CFSM .53	IN 7.23	AC-FT 239200				
WTR YR 1976	TOTAL	59672.8	MEAN 163	MAX 4460	MIN 1.0	CFSM .26	IN 3.58	AC-FT 118400				

05501000 NORTH RIVER AT PALMYRA, MO

LOCATION.--Lat 39°49'06", long 91°31'13", in SE¼SW¼ sec.13, T.58 N., R.6 W., Marion County, Hydrologic Unit 07110004, on right bank 100 ft (30 m) upstream from City Waterworks dam, 1,000 ft (305 m) upstream from upstream bridge on dual U.S. Highways 24 and 61, 0.5 mi (0.8 km) north of Palmyra, and 7.0 mi (11.3 km) upstream from mouth.

DRAINAGE AREA.--373 mi² (966 km²).

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 464.81 ft (141.674 m) above mean sea level (levels by Corps of Engineers). Prior to Oct. 1, 1945, nonrecording gage at bridge 1,000 ft (305 m) downstream, Oct. 1, 1945, to June 22, 1951, nonrecording gage at present site and datum.

REMARKS.--Records good.

COOPERATION.--Ten discharge measurements furnished by Corps of Engineers.

AVERAGE DISCHARGE.--41 years, 240 ft³/s (6.797 m³/s), 8.74 in/yr (222 mm/yr), 173,900 acre-ft/yr (214 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 57,500 ft³/s (1,630 m³/s) Apr. 21, 1973, gage height, 29.70 ft (9.053 m); no flow on many days in 1936, 1941, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage prior to 1934, about 28.0 ft (8.53 m), from floodmarks, date unknown, at site 1,000 ft (305 m) downstream, present datum.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 5,000 ft³/s (142 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
Mar. 5	0100	6,900	195	17.13	5.221
Mar. 27	0530	6,880	195	17.12	5.218
Apr. 25	1130	*7,060	200	*17.24	5.255

Minimum discharge, 0.72 ft³/s (0.020 m³/s) Oct. 12, 13; minimum gage height, 9.21 ft (2.807 m) Sept. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	11	82	13	67	33	138	148	36	77	4.3	1.6
2	5.3	12	39	14	35	32	110	125	34	44	2.4	1.6
3	4.9	11	26	13	47	34	101	108	32	45	1.9	1.6
4	4.0	10	22	11	40	3750	87	97	31	34	1.8	1.9
5	4.3	9.1	21	12	33	3560	77	88	34	29	2.1	2.0
6	5.0	10	18	11	26	907	70	541	36	44	6.0	2.1
7	5.0	10	16	10	25	384	65	948	29	31	12	1.9
8	4.2	9.1	15	9.0	22	181	58	674	28	24	10	46
9	3.8	10	15	8.0	28	130	54	272	24	20	8.7	13
10	3.0	12	13	8.0	195	117	51	172	24	16	7.2	4.1
11	3.1	8.3	12	8.5	203	134	46	133	27	14	13	3.7
12	1.0	7.5	11	9.0	104	275	44	109	24	12	19	3.2
13	.79	7.6	11	9.3	87	207	45	120	21	10	24	1.9
14	1.5	7.6	34	11	77	128	44	129	19	9.0	39	2.7
15	4.5	8.4	201	10	64	107	43	1450	19	7.6	26	3.2
16	5.9	8.8	80	9.8	716	96	42	955	20	4.0	23	2.0
17	5.7	9.4	38	9.6	540	88	39	572	17	6.3	14	1.8
18	6.0	9.2	24	9.4	249	81	39	312	16	5.6	12	2.2
19	6.0	9.7	20	9.2	130	72	39	197	21	5.7	9.3	2.3
20	6.2	9.2	19	9.0	87	62	556	132	20	5.7	6.8	3.0
21	6.6	9.2	17	9.2	156	54	716	100	16	4.5	4.3	4.4
22	6.0	9.7	15	10	130	52	324	82	14	4.1	4.2	3.5
23	4.7	10	14	12	77	58	572	71	12	4.8	4.5	4.1
24	6.5	10	13	23	60	73	413	62	42	5.9	4.2	4.7
25	9.5	11	13	40	50	67	4820	56	59	5.8	3.7	7.9
26	11	13	13	33	44	355	2890	50	46	4.8	3.9	13
27	11	15	12	29	40	3300	2080	49	28	2.8	2.7	13
28	12	15	13	23	37	477	982	47	21	2.5	2.6	11
29	13	30	13	33	34	287	237	44	18	2.3	2.1	8.3
30	13	322	13	97	---	318	170	43	43	2.3	1.9	7.2
31	11	---	13	102	---	196	---	40	---	6.7	1.6	---
TOTAL	190.79	634.8	866	615.0	3403	15615	14952	7926	811	490.4	278.2	178.9
MEAN	6.15	21.2	27.9	19.8	117	504	498	256	27.0	15.8	8.97	5.96
MAX	13	322	201	102	716	3750	4820	1450	59	77	39	46
MIN	.79	7.5	11	8.0	22	32	39	40	12	2.3	1.6	1.6
CFSM	.02	.06	.07	.05	.31	1.35	1.34	.69	.07	.04	.02	.02
IN.	.02	.06	.09	.06	.34	1.56	1.49	.79	.08	.05	.03	.02
AC-FT	378	1260	1720	1220	6750	30970	29660	15720	1610	973	552	355

CAL YR 1975	TOTAL	112325.18	MEAN 308	MAX 11200	MIN .39	CFSM .83	IN 11.20	AC-FT 222800
WTR YR 1976	TOTAL	45961.09	MEAN 126	MAX 4820	MIN .79	CFSM .34	IN 4.58	AC-FT 91160

BEAR CREEK BASIN

05502000 BEAR CREEK AT HANNIBAL, MO

LOCATION.--Lat 39°40'43", long 91°24'41", in SE¼NW¼ sec.1, T.56 N., R.5 W., Ralls County, Hydrologic Unit 07110004, on right bank 42 ft (13 m) upstream from upstream bridge on dual U.S. Highway 61 at Hannibal, and 4.8 mi (7.7 km) upstream from mouth.

DRAINAGE AREA.--31.0 mi² (80.3 km²).

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

REVISED RECORDS.--WSP 1115: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 508.91 ft (155.116 m) above mean sea level. Prior to Mar. 26, 1948, nonrecording gage, and Mar. 26, 1948, to Sept. 30, 1953, water-stage recorder, present site and at datum 2.00 ft (0.610 m) higher. Oct. 1, 1953, to Oct. 30, 1961, water-stage recorder at present site, Oct. 31, 1961, to Sept. 5, 1972, water-stage recorder 400 ft (122 m) downstream at present datum.

REMARKS.--Records fair. High flow regulated by Bear Creek reservoir, 1.0 mi (1.6 km) upstream, since Aug. 7, 1961.

COOPERATION.--Mungar Street gage-height record, June 1 to July 2, furnished by Corps of Engineers.

AVERAGE DISCHARGE.--33 years, 18.6 ft³/s (0.527 m³/s), 8.15 in/yr (207 mm/yr), 13,480 acre-ft/yr (16.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,500 ft³/s (184 m³/s) Aug. 3, 1957, gage height, 14.05 ft (4.282 m), present datum; no flow at times in several years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,060 ft³/s (30.0 m³/s) Mar. 5, gage height, 7.81 ft (2.380 m); no flow for many days in August and September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	1.4	12	4.4	14	12	16	12	3.2	3.0	.54	0
2	1.2	2.5	9.4	4.7	46	12	15	10	3.8	2.0	.38	0
3	1.2	2.5	6.2	4.5	21	13	13	9.6	6.0	1.0	.28	0
4	1.2	4.5	5.0	4.1	11	290	12	9.1	3.3	.69	.18	0
5	1.1	3.8	4.0	3.7	11	432	10	9.0	3.7	.56	.14	0
6	.90	3.5	4.2	3.8	10	124	9.0	50	2.8	.45	.53	0
7	.76	3.8	4.8	3.7	12	29	9.0	143	2.4	.46	.58	0
8	.66	3.5	4.2	3.5	12	23	8.9	34	2.2	.46	.37	0
9	.72	6.2	5.0	3.0	40	17	8.4	20	2.0	.46	.30	.03
10	.80	16	5.0	2.8	82	24	7.7	17	2.3	.43	.23	0
11	.90	3.0	5.0	3.0	29	22	7.7	14	2.2	.38	1.6	0
12	1.0	2.5	4.8	3.5	18	29	7.3	13	1.9	.37	.88	0
13	.90	2.4	4.8	3.2	14	20	7.3	20	1.8	.27	.47	0
14	3.8	2.5	24	2.5	8.6	17	7.3	16	1.6	.29	.38	0
15	6.2	2.7	52	1.9	10	17	7.3	91	1.7	.26	.40	0
16	1.9	2.9	13	2.1	100	19	7.2	83	1.7	.27	.33	0
17	2.0	3.0	12	2.6	117	19	7.0	43	1.7	.23	.28	0
18	1.8	3.0	12	2.6	108	18	6.9	20	1.7	.19	.23	0
19	2.0	3.1	4.0	3.0	46	14	6.9	16	1.6	.18	.20	0
20	2.1	3.2	3.5	3.5	10	13	22	13	1.6	.23	.21	0
21	2.2	3.0	5.5	3.0	89	12	18	10	1.5	.21	.17	0
22	1.6	3.2	6.6	2.6	66	13	12	9.5	2.6	.22	.13	0
23	1.9	3.3	4.5	14	22	19	15	8.2	3.4	.19	.13	0
24	3.8	3.2	4.2	21	15	19	19	7.8	34	.16	.11	0
25	2.6	3.8	4.2	18	14	16	36	6.6	5.8	.13	.09	.10
26	1.0	4.0	4.0	13	12	24	38	6.2	3.6	.13	.17	.46
27	1.2	2.1	4.1	17	8.6	140	32	5.0	3.4	.20	.10	.29
28	1.6	2.1	4.0	10	7.6	32	15	4.5	3.8	.57	.08	.21
29	1.6	33	4.2	17	12	29	13	4.0	3.6	.27	.07	.17
30	2.3	83	4.3	45	---	28	12	3.8	3.2	.32	.04	.26
31	1.7	---	4.3	22	---	19	---	3.5	---	9.0	0	---
TOTAL	54.04	216.7	244.8	248.7	965.8	1515	405.9	711.8	114.1	23.58	9.60	1.52
MEAN	1.74	7.22	7.90	8.02	33.3	48.9	13.5	23.0	3.80	.76	.31	.051
MAX	6.2	83	52	45	117	432	38	143	34	9.0	1.6	.46
MIN	.66	1.4	3.5	1.9	7.6	12	6.9	3.5	1.5	.13	0	0
CFSM	.06	.23	.25	.26	1.07	1.58	.44	.74	.12	.02	.01	.001
IN.	.06	.26	.29	.30	1.16	1.82	.49	.85	.14	.03	.01	.002
AC-FT	107	430	486	493	1920	3010	805	1410	226	47	19	3.0
CAL YR 1975	TOTAL	10757.80	MEAN 29.5	MAX 448	MIN .57	CFSM .95	IN 12.91	AC-FT 21340				
WTR YR 1976	TOTAL	4511.54	MEAN 12.3	MAX 432	MIN 0	CFSM .40	IN 5.41	AC-FT 8950				

05502300 SALT RIVER AT HAGERS GROVE, MO

LOCATION.--Lat 39°49'40", long 92°14'10", in NE¼SW¼ sec.15, T.58 N., R.12 W., Shelby County, Hydrologic Unit 07110005, at bridge on State Highway 151, 200 ft (61 m) downstream from old channel carrying Bear and other creeks, 0.25 mi (0.40 km) west of Hagers Grove, 2.5 mi (4.0 km) upstream from Ten Mile Creek, and at mile 143.8 (231.4 km).

DRAINAGE AREA.--365 mi² (945 km²).

PERIOD OF RECORD.--September 1974 to current year. September 1939 to August 1974, gage height and miscellaneous measurements published by Corps of Engineers, St. Louis, Mo.

GAGE.--Water-stage recorder. Datum of gage is 702.30 ft (214.061 m) above mean sea level.

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 19.7 ft (6.0 m) June 6, 1947, discharge, 26,900 ft³/s (762 m³/s).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1928 reached a stage of 19.1 ft (5.82 m), according to information furnished by Corps of Engineers, Rock Island, IL.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 3,000 ft³/s (85.0 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
Apr. 25	1345	*9,440	267	*17.27	5.264
May 6	2230	3,930	111	13.05	3.978

Minimum daily discharge, 1.2 ft³/s (0.034 m³/s) Oct. 13, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	4.2	46	3.5	20	12	92	114	21	38	5.4	3.2
2	4.6	3.8	61	4.0	18	10	68	92	19	48	5.3	2.9
3	4.2	3.3	22	3.5	19	14	51	70	16	160	5.3	2.8
4	4.2	3.8	8.1	3.0	20	597	43	55	14	32	5.5	2.6
5	3.8	4.6	6.3	2.5	15	1430	34	47	20	21	5.1	2.6
6	2.9	4.2	5.5	2.2	12	444	30	1680	16	12	14	2.5
7	2.3	5.5	9.0	2.0	7.0	146	28	2310	12	21	19	2.5
8	1.5	4.6	22	1.9	4.5	88	9.0	920	11	8.5	7.8	2.4
9	1.4	4.2	18	1.8	4.1	64	14	248	10	7.0	6.3	2.9
10	1.3	4.2	8.1	1.8	5.0	54	12	160	28	6.2	6.0	2.4
11	1.3	5.0	5.9	2.0	48	48	14	120	77	5.6	53	2.2
12	1.3	5.5	4.6	2.5	80	148	18	108	55	24	18	2.2
13	1.2	5.5	3.8	3.0	56	164	11	105	33	8.8	9.9	2.5
14	1.2	5.0	3.3	2.8	30	112	2.9	105	135	5.7	43	2.2
15	2.6	4.6	548	2.7	43	67	20	378	188	7.7	29	3.0
16	3.8	4.2	175	2.7	312	54	9.8	1140	96	13	12	3.2
17	3.8	3.8	68	2.6	225	46	9.8	1740	44	5.9	10	3.2
18	2.8	2.9	87	2.6	160	44	11	632	29	4.5	8.8	3.0
19	5.5	2.9	50	2.6	88	42	15	230	24	4.0	7.7	2.7
20	9.8	3.3	30	2.5	58	41	124	140	20	4.3	6.9	3.0
21	2.3	4.2	20	2.5	44	39	446	89	16	4.5	6.0	3.2
22	1.9	3.8	10	2.4	34	37	530	58	14	4.8	5.5	3.2
23	2.2	3.3	8.0	2.4	26	37	224	40	8.0	4.7	5.3	3.0
24	2.9	2.8	6.0	5.0	24	47	2370	129	28	4.5	5.3	3.0
25	2.9	2.6	5.0	7.0	20	46	8120	54	25	4.5	4.8	4.3
26	2.9	2.6	4.0	5.0	18	58	5150	40	21	4.4	4.5	9.5
27	2.8	2.5	3.5	4.0	15	246	1400	34	37	4.4	4.3	11
28	2.9	2.5	3.0	3.0	13	101	320	29	700	4.3	4.1	28
29	2.8	4.6	2.8	3.0	12	87	192	25	210	4.0	3.9	20
30	2.9	18	2.9	6.0	---	147	141	30	75	3.7	3.6	12
31	2.9	---	3.0	13	---	140	---	24	---	4.7	3.3	---
TOTAL	93.1	132.0	1249.8	105.5	1430.6	4610	19509.5	10946	2002.0	485.7	328.6	151.2
MEAN	3.00	4.40	40.3	3.40	49.3	149	650	353	66.7	15.7	10.6	5.04
MAX	9.8	18	548	13	312	1430	8120	2310	700	160	53	28
MIN	1.2	2.5	2.8	1.8	4.1	10	2.9	24	8.0	3.7	3.3	2.2
CFSM	.008	.01	.11	.009	.14	.41	1.78	.97	.18	.04	.03	.01
IN.	.009	.01	.13	.01	.15	.47	1.99	1.12	.20	.05	.03	.02
AC-FT	185	262	2480	209	2840	9140	38700	21710	3970	963	652	300
CAL YR 1975	TOTAL	73538.2	MEAN 201	MAX 4450	MIN 1.2	CFSM .55	IN 7.49	AC-FT 145900				
WTR YR 1976	TOTAL	41044.0	MEAN 112	MAX 8120	MIN 1.2	CFSM .31	IN 4.18	AC-FT 81410				

SALT RIVER BASIN

05505000 SOUTH FORK SALT RIVER AT SANTA FE, MO

LOCATION--Lat 39°21'45", long 91°49'05", in NW¼NE¼ sec.20, T.53 N., R.8 W., Monroe County, Hydrologic Unit 07110006, on left bank near upstream end of bridge on county road, 0.3 mi (0.5 km) south of Santa Fe, and 1.0 mi (1.6 km) upstream from Elm Creek, and at mile 96.2 (154.8 km) above mouth of Salt River.

DRAINAGE AREA--298 mi² (772 km²).

PERIOD OF RECORD--October 1939 to current year. Published as "near Santa Fe" October 1968 to September 1975.

GAGE--Water-stage recorder and crest-stage gage. Datum of gage is 613.05 ft (186.858 m) above mean sea level. Prior to Feb. 5, 1940, nonrecording gage, and Feb. 5, 1940, to Sept. 30, 1968, water-stage recorder, present site and datum, Oct. 1, 1968, to Sept. 30, 1975, water-stage recorder 6.3 mi (10.1 km) upstream at datum 26.04 ft (7.937 m) higher.

REMARKS--Records good.

AVERAGE DISCHARGE--37 years, 190 ft³/s (5.381 m³/s), 8.66 in/yr (220 mm/yr), 137,700 acre-ft/yr (170 hm³/yr).

EXTREMES FOR PERIOD OF RECORD--Maximum discharge, 28,800 ft³/s (816 m³/s) Oct. 13, 1969, gage height, 28.24 ft (8.608 m), at site and datum then in use; no flow at times in several years.

EXTREMES FOR CURRENT YEAR--Maximum discharge, 6,790 ft³/s (192 m³/s) Mar. 5, gage height, 15.05 ft (4.587 m) peak above base of 3,000 ft³/s (85.0 m³/s); no flow Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	1.8	773	57	124	11	137	32	9.0	8.2	.74	.53
2	5.4	1.8	137	80	64	9.1	91	24	9.0	6.5	.20	.34
3	2.6	2.6	65	121	40	8.5	70	20	7.3	6.5	.15	.26
4	4.0	2.1	33	90	25	3150	55	16	6.1	5.6	.13	.19
5	3.5	1.6	19	63	20	5220	44	14	5.6	5.6	.09	.15
6	2.0	1.8	11	22	15	1740	38	17	5.2	5.6	.06	.13
7	1.6	2.1	7.9	9.5	10	238	32	30	4.8	4.2	.06	.10
8	.52	3.1	5.9	4.1	5.0	155	29	30	4.5	3.1	.02	.08
9	.26	4.9	4.1	3.1	10	109	27	25	4.2	2.6	0	.12
10	1.3	4.9	3.1	2.5	250	91	23	23	3.7	1.8	.03	.14
11	1.8	2.6	3.2	2.3	490	76	23	19	4.0	1.3	2.1	.10
12	1.0	13	2.2	2.2	190	74	21	15	3.4	1.3	1.8	.09
13	.26	6.7	1.8	2.9	111	70	19	17	2.6	1.6	16	.08
14	2.1	3.2	8.6	5.0	85	60	19	27	2.0	1.6	8.3	.22
15	7.2	2.3	395	6.5	56	46	19	52	2.6	1.8	4.7	4.4
16	54	1.7	513	8.4	490	43	19	109	3.1	3.7	3.3	3.3
17	14	1.6	134	12	1010	62	18	102	2.3	3.4	2.1	2.3
18	11	1.0	65	12	243	67	17	62	2.0	2.0	1.7	1.8
19	20	.78	33	9.0	132	70	17	38	1.6	1.5	1.3	1.5
20	26	1.6	18	5.3	82	62	55	27	1.3	1.1	.84	1.5
21	18	1.3	11	4.2	160	50	198	20	1.1	.92	.58	1.0
22	11	.78	6.9	2.7	561	39	185	16	1.1	3.4	.25	.69
23	9.2	.55	4.7	4.0	207	30	106	13	2.0	2.8	.19	.24
24	11	.52	3.4	20	120	26	70	11	8.6	2.0	.18	.16
25	16	1.2	3.0	35	79	23	50	9.0	17	1.6	.27	.39
26	40	2.2	2.3	30	52	24	40	7.7	18	1.3	.83	1.7
27	25	3.1	2.0	25	34	225	34	7.7	14	1.5	9.9	2.3
28	13	3.1	2.5	15	21	315	31	7.7	16	1.5	6.9	6.5
29	8.6	12	2.7	20	15	167	32	7.3	12	1.3	3.4	9.2
30	5.8	758	5.3	103	---	215	32	7.3	8.2	.92	1.6	6.1
31	3.1	---	18	145	---	218	---	7.3	---	.92	.85	---
TOTAL	330.24	843.93	2294.6	921.7	4701.0	12693.6	1551	813.0	182.3	87.16	68.57	45.61
MEAN	10.7	28.1	74.0	29.7	162	409	51.7	26.2	6.08	2.81	2.21	1.52
MAX	54	758	773	145	1010	5220	198	109	18	8.2	16	9.2
MIN	.26	.52	1.8	2.2	5.0	8.5	17	7.3	1.1	.92	0	.08
CFSM	.04	.09	.25	.10	.54	1.37	.17	.09	.02	.009	.007	.005
IN.	.04	.11	.29	.12	.59	1.58	.19	.10	.02	.01	.009	.006
AC-FT	655	1670	4550	1830	9320	25180	3080	1610	362	173	136	90

CAL YR 1975 TOTAL 74925.58 MEAN 205 MAX 10500 MIN .26 CFSM .69 IN 9.35 AC-FT 148600
WTR YR 1976 TOTAL 24532.71 MEAN 67.0 MAX 5220 MIN 0 CFSM .22 IN 3.06 AC-FT 48660

05506500 MIDDLE FORK SALT RIVER AT PARIS, MO

LOCATION.--Lat 39°29'05", long 91°59'50", in NE¼NW¼NW¼ sec.11, T.54 N., R.10 W., Monroe County, Hydrologic Unit 07110006, on right bank near upstream side of bridge on E. Madison Street in Paris, 600 ft (183 m) downstream from Wabash Railroad bridge, 12.5 mi (20.1 km) upstream from Elk Fork Salt River, and at mile 104.5 (168.1 km) above mouth of Salt River.

DRAINAGE AREA.--356 mi² (922 km²).

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 621.88 ft (189.549 m) above mean sea level, 1961 adjustment. Prior to Jan. 22, 1940, nonrecording gage, Jan. 22, 1940, to Sept. 30, 1968, water-stage recorder, 600 ft (183 m) upstream at present datum.

REMARKS.--Records good. Water diverted from river upstream from gage by City of Paris.

AVERAGE DISCHARGE.--37 years, 239 ft³/s (6.768 m³/s), 9.12 in/yr (232 mm/yr), 173,200 acre-ft/yr (214 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,000 ft³/s (1,270 m³/s) Apr. 21, 1973, gage height, 33.5 ft (10.21 m), from floodmark; no flow at times in several years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,400 ft³/s (68.0 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	(m ³ /s)	Gage height (ft)	(m)
Mar. 6	1445	2,700	76.5	9.46	2.883
Apr. 27	1500	*2,910	82.4	*9.84	2.999

Minimum discharge, 0.15 ft³/s (0.004 m³/s) Aug. 6-10, gage height, 2.56 ft (0.780 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	3.0	18	5.7	12	10	120	30	24	40	.22	.42
2	1.1	3.4	41	6.2	14	9.0	112	37	26	40	.22	.44
3	.56	3.9	39	4.8	14	18	80	45	16	90	.20	.46
4	.53	4.8	19	3.9	13	1250	60	52	14	49	.18	.46
5	.53	5.2	9.8	3.4	9.8	2230	50	46	11	22	.17	.48
6	.53	5.7	6.6	3.4	7.0	2480	43	168	9.0	12	.16	.49
7	.56	6.2	5.7	3.4	5.2	1480	39	1480	7.5	5.7	.15	.49
8	1.6	5.7	5.2	2.5	4.8	225	34	960	7.0	3.9	.15	.54
9	1.1	7.0	4.4	2.0	14	115	31	372	6.2	2.0	.15	.96
10	.60	4.4	3.9	1.3	39	88	27	140	5.7	1.3	3.0	1.1
11	.56	3.0	3.9	1.1	66	80	24	98	5.7	.60	6.5	15
12	.53	2.3	3.9	.84	100	122	22	73	5.7	.56	5.1	8.8
13	.53	1.6	4.4	1.8	90	323	20	64	5.7	.46	181	3.2
14	2.8	1.3	27	1.5	58	264	19	54	4.4	.42	94	1.6
15	2.5	1.3	29	1.1	48	130	15	128	3.4	.36	37	1.3
16	2.5	1.3	201	1.0	118	96	18	810	2.8	.36	17	.53
17	2.0	2.5	122	.90	216	82	21	1120	2.5	.36	8.3	.41
18	1.8	2.5	54	.80	330	85	20	691	2.5	.39	27	.35
19	1.6	2.3	31	.70	295	91	19	302	2.3	.39	18	.40
20	1.3	2.0	23	.60	138	80	96	138	2.0	.39	7.6	.51
21	1.6	1.8	16	.60	138	62	365	92	3.4	.36	4.1	.53
22	1.8	1.8	12	.80	110	51	260	68	6.2	.32	2.3	.56
23	2.0	1.8	9.8	5.2	34	44	27	51	9.0	.25	1.4	.53
24	7.0	2.6	7.5	6.6	28	41	39	42	26	.20	.76	.49
25	3.4	3.4	7.0	5.7	22	50	1140	36	29	.20	.55	.52
26	3.3	5.2	6.2	3.9	18	82	2160	29	35	.18	.46	1.1
27	2.3	6.2	5.2	2.8	14	1250	2720	25	36	.18	.43	1.0
28	2.5	7.5	5.2	2.8	13	1420	2040	20	38	.20	.47	.84
29	2.8	22	5.7	9.0	11	386	330	16	42	.22	.49	.84
30	2.8	38	6.2	14	---	188	115	16	52	.22	.46	1.4
31	3.0	---	6.6	13	---	144	---	14	---	.22	.45	---
TOTAL	57.73	159.7	739.2	111.34	1979.8	12976.0	10066	7217	440.0	272.74	417.97	45.75
MEAN	1.86	5.32	23.8	3.59	68.3	419	336	233	14.7	8.80	13.5	1.53
MAX	7.0	38	201	14	330	2480	2720	1480	52	90	181	15
MIN	.53	1.3	3.9	.60	4.8	9.0	15	14	2.0	.18	.15	.35
CFSM	.005	.01	.07	.01	.19	1.18	.94	.65	.04	.02	.04	.004
IN.	.006	.02	.08	.01	.21	1.36	1.05	.75	.05	.03	.04	.005
AC-FT	115	317	1470	221	3930	25740	19970	14310	873	541	829	91
CAL YR 1975 TOTAL	81212.19	MEAN 222	MAX 7730	MIN .53	CFSM .62	IN 8.49	AC-FT 161100					
WTR YR 1976 TOTAL	34483.23	MEAN 94.2	MAX 2720	MIN .15	CFSM .26	IN 3.60	AC-FT 68400					

05506800 ELK FORK SALT RIVER NEAR MADISON, MO

LOCATION.--Lat 39°26'05", long 92°10'04", in SW¼NE¼SW¼ sec.29, T.54 N., R.11 W., Monroe County, Hydrologic Unit 07110006, on left bank 25 ft (8 m) downstream from bridge on State Highway AA, 500 ft (152 m) downstream from Allen Creek, 3.5 mi (5.6 km) southeast of Madison, and at mile 29.8 (47.9 km).

DRAINAGE AREA.--200 mi² (518 km²).

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

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 690.16 ft (210.361 m) above mean sea level (Missouri State Highway Commission bench mark).

REMARKS.--Records fair.

AVERAGE DISCHARGE.--8 years, 187 ft³/s (5.296 m³/s), 12.70 in/yr (323 mm/yr), 135,500 acre-ft/yr (167 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,300 ft³/s (1,200 m³/s) Apr. 21, 1973, gage height, 33.4 ft (10.18 m), from floodmarks; no flow Aug. 4-10, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 9, 1967, reached a stage of 31.25 ft (9.525 m), from floodmark, discharge, 31,200 ft³/s (884 m³/s), by contracted-opening method. Flood in 1871 reached nearly the same stage, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,720 ft³/s (105 m³/s) Mar. 4 (1530), gage height, 14.84 ft (4.523 m), peak above base of 2,500 ft³/s (70.8 m³/s); no flow Aug. 4-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	3.8	14	5.2	5.0	4.2	50	29	5.4	1.5	.03	.42
2	.64	4.7	25	6.5	8.0	3.8	32	22	4.8	71	.01	.44
3	.52	2.9	20	6.1	16	4.7	25	17	2.8	176	.01	.51
4	1.2	2.2	16	2.9	14	732	20	14	2.6	36	0	.54
5	1.1	1.5	12	2.4	13	825	17	11	2.5	11	0	.47
6	.90	1.5	10	2.2	14	332	15	28	2.3	4.9	0	.38
7	.80	2.0	8.0	2.1	15	107	13	288	13	2.7	0	.36
8	2.2	2.2	8.5	1.8	16	60	12	80	8.0	2.1	0	.15
9	2.9	2.4	7.5	1.6	14	42	10	36	4.0	1.6	0	.18
10	2.4	3.0	6.5	1.4	44	33	9.0	26	3.3	1.4	0	18
11	2.0	3.3	5.2	1.4	72	30	8.4	18	2.8	1.3	.30	11
12	1.3	3.8	4.7	1.8	23	39	8.4	14	2.4	1.2	.42	3.5
13	1.3	1.0	4.2	2.3	10	67	8.4	14	2.1	1.1	10	1.6
14	1.7	1.7	10	2.7	7.0	45	7.8	15	1.9	.95	4.7	.86
15	2.2	1.2	43	3.3	5.0	31	7.5	58	1.7	.90	2.2	.49
16	2.2	1.1	44	3.0	81	28	8.3	129	1.6	.85	1.7	.49
17	2.0	.95	33	2.7	176	34	8.3	96	1.5	.70	1.5	.51
18	1.5	.86	21	2.4	33	46	8.4	105	1.4	.55	1.4	.37
19	1.1	1.0	13	2.2	23	48	10	56	1.3	.46	1.1	.23
20	.40	2.0	9.5	2.1	17	37	58	30	1.2	.38	1.0	.27
21	.20	1.3	7.0	2.2	26	28	201	20	1.2	.34	.89	.34
22	.40	1.1	6.4	2.5	105	23	107	14	1.2	.30	.75	.34
23	.90	2.0	6.0	3.5	48	19	48	10	1.1	.26	.75	.24
24	1.5	2.8	5.4	5.0	24	16	30	8.2	15	.22	.94	.17
25	1.7	3.3	5.0	7.0	18	14	370	7.4	14	.14	.87	.23
26	1.5	3.8	4.5	8.0	14	76	361	6.2	18	.10	.78	.86
27	1.5	4.7	4.2	7.0	10	446	82	4.8	9.2	.09	.57	2.6
28	1.3	5.2	5.2	6.0	7.0	242	52	4.3	3.7	.07	.51	5.1
29	3.8	7.0	4.2	5.0	5.2	109	49	4.0	2.6	.06	.55	2.2
30	3.8	18	4.7	4.5	---	125	39	3.8	1.9	.05	.49	1.3
31	2.4	---	4.7	4.5	---	103	---	3.6	---	.04	.42	---
TOTAL	48.66	92.31	372.4	111.3	863.2	3749.7	1675.5	1172.3	134.5	318.26	31.89	54.15
MEAN	1.57	3.08	12.0	3.59	29.8	121	55.9	37.8	4.48	10.3	1.03	1.81
MAX	3.8	18	44	8.0	176	825	370	288	18	176	10	18
MIN	.20	.86	4.2	1.4	5.0	3.8	7.5	3.6	1.1	.04	0	.15
CFSM	.007	.02	.06	.02	.15	.61	.28	.19	.02	.05	.005	.009
IN.	.009	.02	.07	.02	.16	.70	.31	.22	.03	.06	.006	.01
AC-FT	97	183	739	221	1710	7440	3320	2330	267	631	63	107
CAL YR 1975	TOTAL	57910.47	MEAN	159	MAX	14600	MIN	.20	CFSM	.80	IN	10.77
WTR YR 1976	TOTAL	8624.17	MEAN	23.6	MAX	825	MIN	0	CFSM	.12	IN	1.60
									AC-FT	114900		17110

05507500 SALT RIVER NEAR MONROE CITY, MO

LOCATION.--Lat 39°32'25", long 91°40'20", in NE¼NW¼ sec.22, T.55 N., R.7 W., Ralls County, Hydrologic Unit 07110007, on left bank on downstream side of old bridge pier, 135 ft (41 m) upstream from highway bridge at Joanna, 2,500 ft (762 m) downstream from Indian Creek, 2.0 mi (3.2 km) upstream from Lick Creek, 8.0 mi (12.9 km) southeast of Monroe City, and at mile 63.5 (102.2 km).

DRAINAGE AREA.--2,230 mi² (5,780 km²), approximately.

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

GAGE.--Water-stage recorder. Datum of gage is 520.04 ft (158.508 m) above mean sea level. Prior to Feb. 2, 1940, nonrecording gage at present site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--37 years, 1,518 ft³/s (42.99 m³/s), 9.24 in/yr (235 mm/yr), 1,100,000 acre-ft/yr (1.36 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 102,000 ft³/s (2,890 m³/s) Apr. 22, 1973, gage height, 39.1 ft (11.92 m), from floodmark; no flow July 28-31, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1928 reached a stage of about 36 ft (11.0 m), from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25,900 ft³/s (733 m³/s) Mar. 5 (0130), gage height, 21.25 ft (6.477 m), peak above base of 16,000 ft³/s (453 m³/s); minimum discharge, 3.6 ft³/s (0.10 m³/s) Aug. 10, Sept. 25; minimum gage height, 2.96 ft (0.902 m) Aug. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	33	1910	78	567	170	1050	679	123	301	8.3	12
2	32	27	804	122	292	155	748	534	116	182	7.6	11
3	28	25	386	180	245	160	579	433	113	399	6.5	9.0
4	29	23	246	170	235	16100	456	357	105	446	5.8	8.9
5	26	19	186	140	210	24800	373	307	94	301	5.5	8.0
6	22	18	146	120	190	16100	318	1120	86	201	5.5	7.0
7	19	20	106	94	170	6470	279	4160	84	138	5.0	6.3
8	18	24	79	66	150	2150	245	6020	72	101	4.4	5.7
9	17	36	66	58	245	1040	213	3060	63	76	4.1	7.2
10	16	38	57	54	756	767	192	1100	59	55	4.1	6.8
11	14	27	50	50	1630	681	174	652	63	43	11	5.9
12	13	22	44	48	1060	825	161	478	62	32	413	4.9
13	13	15	42	46	698	944	151	454	61	169	489	4.8
14	12	13	49	44	466	1180	144	433	101	71	391	4.7
15	24	17	638	40	406	904	141	1460	89	35	330	4.5
16	20	18	1630	38	2650	682	136	3230	75	28	243	5.0
17	118	15	1290	36	4450	634	126	4050	200	20	216	7.8
18	105	15	436	34	2400	589	123	4240	154	23	144	7.7
19	71	14	246	33	1360	547	129	2270	94	18	103	7.4
20	46	16	141	32	772	519	892	1040	63	16	84	7.0
21	31	16	113	31	1300	456	2250	650	45	14	74	6.3
22	26	15	92	30	1680	395	1940	471	39	13	57	5.4
23	26	15	74	33	1150	371	2170	369	34	13	43	4.6
24	26	15	63	155	672	344	1370	304	89	12	34	4.4
25	23	15	52	256	442	315	3740	241	187	11	30	4.3
26	17	19	46	245	334	598	8340	254	161	9.4	25	4.8
27	13	23	46	170	268	7220	10300	213	153	9.4	19	4.8
28	21	24	44	142	220	6180	10700	177	116	19	16	5.0
29	50	48	48	146	195	2830	3050	154	319	10	13	4.6
30	45	1180	48	382	---	1720	980	147	630	8.2	10	4.4
31	37	---	53	560	---	1330	---	132	---	8.4	9.8	---
TOTAL	1003	1805	9231	3633	25213	97176	51470	39189	3650	2782.4	2811.6	190.2
MEAN	32.4	60.2	298	117	869	3135	1716	1264	122	89.8	90.7	6.34
MAX	118	1180	1910	560	4450	24800	10700	6020	630	446	489	12
MIN	12	13	42	30	150	155	123	132	34	8.2	4.1	4.3
CFSM	.01	.03	.13	.05	.39	1.41	.77	.57	.05	.04	.04	.002
IN.	.02	.03	.15	.06	.42	1.62	.86	.65	.06	.05	.05	.003
AC-FT	1990	3580	18310	7210	50010	192700	102100	77730	7240	5520	5580	377
CAL YR 1975 TOTAL	609881.0			MEAN 1671	MAX 50200	MIN 10		CFSM .75	IN 10.17	AC-FT 1210000		
WTR YR 1976 TOTAL	238154.2			MEAN 651	MAX 24800	MIN 4.1		CFSM .29	IN 3.97	AC-FT 472400		

SALT RIVER BASIN

05508000 SALT RIVER NEAR NEW LONDON, MO

LOCATION.--Lat 39°36'44", long 91°24'30", in NE¼NW¼ sec.36, T.56 N., R.5 W., Ralls County, Hydrologic Unit 07110007, on left bank 180 ft (55 m) upstream from upstream bridge on dual U.S. Highway 61, 2.0 mi (3.2 km) north of New London, 8.0 mi (12.9 km) upstream from Spencer Creek and at mile 35.5 (57.1 km).

DRAINAGE AREA.--2,480 mi² (6,420 km²), approximately.

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

GAGE.--Water-stage recorder. Datum of gage is 477.03 ft (145.399 m) above mean sea level. Prior to Apr. 7, 1931, nonrecording gage at present site at datum 0.03 ft (0.009 m) higher. Apr. 7, 1931, to Jan. 17, 1935, nonrecording gage at site 180 ft (55 m) downstream at datum 0.04 ft (0.012 m) lower.

REMARKS.--Records good.

AVERAGE DISCHARGE.--54 years, 1,663 ft³/s (47.10 m³/s), 9.11 in/yr (231 mm/yr), 1,205,000 acre-ft/yr (1.49 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 107,000 ft³/s (3,030 m³/s) Apr. 22, 1973, gage height, 31.8 ft (9.69 m), from floodmark; no flow Aug. 3-14, Aug. 21 to Sept. 1, 1936.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 14, 1858, reached a stage of 27.6 ft (8.41 m), present datum, based on comparison of June 1928 flood crest at stone marker 1.0 mi (1.6 km) downstream of gage.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 27,300 ft³/s (773 m³/s) Mar. 5, gage height, 21.43 ft (6.532 m), peak above base of 16,000 ft³/s (453 m³/s); minimum, 5.9 ft³/s (0.15 m³/s) Sept. 19, minimum gage height, 2.27 ft (0.692 m) Sept. 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	55	2680	92	784	161	1390	824	147	530	19	15
2	45	50	1690	110	646	146	1090	578	141	260	15	14
3	40	45	756	143	370	143	794	432	132	228	13	12
4	39	40	415	220	355	11900	617	333	147	475	13	12
5	35	36	280	173	290	25800	497	260	153	365	12	12
6	34	32	225	146	240	22900	410	655	117	260	16	12
7	32	30	188	128	216	9370	338	3080	108	180	18	12
8	32	40	161	107	188	3390	313	5930	105	135	15	10
9	30	50	140	92	201	1390	276	4270	96	108	12	12
10	27	67	130	78	600	878	249	1850	88	85	11	10
11	26	56	120	75	1800	692	234	996	85	70	17	9.5
12	24	50	112	70	1300	676	218	672	80	60	21	8.9
13	24	43	105	67	900	862	206	550	80	50	352	8.4
14	30	39	138	66	700	1050	196	560	78	108	344	8.1
15	66	36	670	65	500	1050	189	1200	96	93	320	8.1
16	41	35	1590	63	1400	759	184	2830	102	58	215	7.5
17	33	34	1540	62	4000	597	178	3680	96	42	174	7.0
18	32	35	910	60	3000	559	168	4290	165	35	152	6.2
19	120	35	425	58	1800	505	168	3150	165	28	111	6.0
20	90	34	295	58	1110	459	225	1600	123	28	88	6.9
21	60	33	197	60	1640	404	2150	960	90	26	68	7.1
22	50	33	149	62	1830	350	2230	654	75	22	60	7.6
23	40	32	128	87	1720	317	2500	475	62	20	50	8.3
24	35	30	112	146	1020	302	1920	370	153	18	40	8.3
25	30	30	102	220	575	262	2220	300	138	16	35	11
26	28	36	90	290	375	278	7140	248	168	15	30	13
27	26	42	84	285	268	4560	9310	248	162	14	26	11
28	40	43	80	216	212	7640	10700	220	150	13	23	10
29	50	95	80	244	182	4140	5540	184	129	12	20	9.5
30	70	1200	87	345	---	2190	1500	168	395	21	17	8.5
31	60	---	92	700	---	1720	---	159	---	26	16	---
TOTAL	1337	2416	13771	4588	28222	105450	53150	41726	3826	3401	2323	291.9
MEAN	43.1	80.5	444	148	973	3402	1772	1346	128	110	74.9	9.73
MAX	120	1200	2680	700	4000	25800	10700	5930	395	530	352	15
MIN	24	30	80	58	182	143	168	159	62	12	11	6.0
CFSM	.02	.03	.18	.06	.39	1.37	.71	.54	.05	.04	.03	.003
IN.	.02	.04	.21	.07	.42	1.58	.80	.63	.06	.05	.03	.004
AC-FT	2650	4790	27310	9100	55980	209200	105400	82760	7590	6750	4610	579
CAL YR 1975 TOTAL	652406.0			MEAN 1787	MAX 44000	MIN 23	CFSM .72	IN 9.79	AC-FT 1294000			
WTR YR 1976 TOTAL	260501.9			MEAN 712	MAX 25800	MIN 6.0	CFSM .29	IN 3.91	AC-FT 516700			

05587500 MISSISSIPPI RIVER AT ALTON, IL

LOCATION.--Lat 38°53'06", long 90°10'51", in NE¼ sec.14, T.5 N., R.10 W., Madison County, Hydrologic Unit 07110009, near right bank in downstream end of intermediate lock wall of lock and dam 26 at Alton, 300 ft (91 m) downstream from Missouri & Illinois Bridge & Belt Railroad bridge, 7.7 mi (12.4 m) upstream from Missouri River, and at mile 202.7 (326.1 km) upstream from Ohio River.

DRAINAGE AREA.--171,500 mi² (444,200 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Discharge: October 1927 to current year. Monthly discharge only for some periods, published in WSP 1308. Gage heights: At Grafton since 1879 and at Alton since January 1904 in reports of Mississippi River Commission, December 1890 to September 1893 and January 1917 to December 1939 in reports of National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Prior to Mar. 20, 1933, nonrecording gage at Grafton 15.3 mi (24.6 km) upstream, at datum 403.79 ft (123.075 m) higher. Mar. 20, 1933, to Jan. 4, 1937, and Nov. 11, 1937, to Jan. 31, 1938, nonrecording gage 300 ft (91 m) upstream at datum 395.48 ft (120.542 m) higher. Since July 11, 1940, auxiliary water-stage recorder 5.9 mi (9.5 km) downstream; previously various combinations of gages were used.

REMARKS.--Records excellent. Natural flow of stream affected by many reservoirs and navigation dams in upper Mississippi River basin. Floodwater from Missouri River overtops or breaches the levees at extreme high stages. Overflow from Missouri River occurred during various floods as shown in the following table:

Period	Runoff for period acre-ft hm ³		Date	Maximum	
				Discharge ft ³ /s	m ³ /s
May 21 to June 4, 1943	1,075,000	1,330	May 24, 1943	90,000	2,550
Apr. 29 to May 13, 1944	891,000	1,100	Apr. 30, 1944	90,000	2,550
June 29 to July 19, 1947	687,000	847	July 2, 1947	65,000	1,840
July 5-31, 1951	2,534,000	3,120	July 20, 1951	110,000	3,120
Apr. 3-7, 23-26, 1973	Unknown	--	Unknown	Unknown	--

AVERAGE DISCHARGE.--49 years, 98,570 ft³/s (2,792 m³/s), 71,410,000 acre-ft/yr (88.0 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 535,000 ft³/s (15,200 m³/s) Apr. 29, 1973, includes undetermined amount of overflow from Missouri River; maximum elevation, 432.15 ft (131.719 m) Apr. 28, 1973; minimum discharge, 7,960 ft³/s (225 m³/s) Nov. 7, 1948, result of temporary storage in pool of lock and dam 26; minimum elevation, 390.50 ft (119.024 m) Jan. 27, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1844 reached a stage of 432.10 ft (131.704 m), present datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 310,000 ft³/s (8,780 m³/s) Apr. 30; elevation, 419.06 ft (127.729 m); minimum discharge, 13,300 ft³/s (377 m³/s) Aug. 31; minimum elevation, 397.45 ft (121.143 m) Sept. 8.

MISSISSIPPI RIVER MAIN STEM

05587500 MISSISSIPPI RIVER AT ALTON, IL--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59200	46000	85200	67000	44300	137000	165000	302000	106000	77300	54000	16500
2	54800	36800	87900	68500	46000	148000	165000	291000	106000	73600	35200	18900
3	52700	36300	99000	67100	45100	153000	167000	281000	93600	70100	38100	17900
4	47900	38900	98800	38900	47000	172000	172000	269000	92600	70600	34600	18100
5	44300	43400	89500	41300	55600	215000	177000	253000	91800	70600	27200	18200
6	42500	41000	83200	44200	50000	228000	183000	242000	85700	62700	29600	17200
7	41800	40800	81200	50300	48000	242000	185000	236000	73100	57300	35500	17000
8	41500	41000	86000	37200	50500	249000	188000	233000	67200	57600	33000	17800
9	39000	36100	87100	48400	58600	245000	191000	228000	71200	54100	26600	17000
10	37400	38100	84900	52000	65700	212000	193000	208000	69200	58200	26100	18300
11	36500	31900	87600	49200	69700	191000	195000	177000	58200	50300	23000	19200
12	36600	41000	84000	46800	75400	187000	199000	171000	62800	35900	20700	18300
13	37500	43400	85600	45400	78100	185000	200000	169000	54300	37300	25300	18200
14	37700	51000	84800	40900	76800	183000	202000	162000	42000	37400	30300	19100
15	46300	53200	97000	42100	76900	187000	205000	148000	43400	32500	48200	18700
16	43700	54800	107000	43100	80400	199000	206000	149000	67400	34500	35900	18700
17	46400	60500	108000	39400	108000	203000	203000	148000	82600	37900	30900	19400
18	45800	69200	92000	38600	105000	209000	200000	153000	75800	34100	25500	19500
19	37100	63900	69800	38600	102000	206000	195000	154000	73700	30700	25000	20600
20	34600	67800	64300	38900	92700	204000	190000	148000	65300	35200	27300	21700
21	31700	70400	59600	39700	117000	202000	183000	136000	62200	33700	26000	22200
22	29100	74300	69000	44200	136000	193000	182000	134000	59900	37700	23300	23800
23	30800	68100	72400	44600	117000	169000	184000	134000	56200	54100	22800	24400
24	33800	65200	65200	45000	110000	149000	194000	125000	66400	38600	22800	25000
25	36400	65800	59000	44200	107000	145000	204000	114000	65000	24800	22400	27800
26	35300	67600	63100	42700	109000	144000	232000	113000	62200	31100	22900	30900
27	34700	69500	69500	42300	116000	150000	261000	113000	68800	32700	22100	31700
28	34200	63700	73200	42000	123000	168000	287000	114000	65500	35300	20400	31600
29	39900	66700	69700	43100	134000	170000	300000	109000	54000	46100	18600	28400
30	43800	79900	68900	51000	---	168000	307000	109000	60100	45400	16100	24600
31	42800	---	65600	50400	---	168000	---	96600	---	61700	14200	---
TOTAL	1255800	1626300	2498100	1427100	2444800	5781000	6115000	5419600	2102200	1459100	863600	640700
MEAN	40510	5210	80580	46040	84300	186500	203800	174800	70070	47070	27860	21360
MAX	59200	79900	108000	68500	136000	249000	307000	302000	106000	77300	54000	31700
MIN	29100	31900	59000	37200	44300	137000	165000	96600	42000	24800	14200	16500
AC-FT	2491000	3226000	4955000	2831000	4849000	11470000	12130000	10750000	4170000	2894000	1713000	1271000
CAL YR 1975	TOTAL	42667000	MEAN	116900	MAX	334000	MIN	29100	AC-FT	84630000		
WTR YR 1976	TOTAL	31633300	MEAN	86430	MAX	307000	MIN	14200	AC-FT	62740000		

MISSISSIPPI RIVER MAIN STEM

41

05587550 MISSISSIPPI RIVER BELOW ALTON, IL
(National stream-quality accounting network station)

LOCATION.--Lat 38°51'41", long 90°08'15", Madison County, 3.0 mi (4.8 km) downstream from gaging station, 4.7 mi (7.6 km) upstream from Missouri River and at mile 199.7 (321.3 km) upstream from Ohio River.

DRAINAGE AREA.--171,500 mi² (444,200 km²), approximately above gaging station.

PERIOD OF RECORD.--Water years 1975-76.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1974 to current year.

WATER TEMPERATURES: October 1974 to current year.

REMARKS.--Water temperature and specific conductance samples collected by observer from October 1 to June 30.

Water temperature and specific conductance recorded by instrument at gaging station 05587500 Mississippi River at Alton, IL, from July 1 to September 30.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 630 micromhos Apr. 17, 1975; minimum daily, 324 micromhos July 20, 1976.

WATER TEMPERATURE: Maximum daily, 30.0°C July 4, 5, 1975, July 25-28, 31, 1976; minimum daily, 0.5°C Feb. 7, 8, 1976.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 600 micromhos Dec. 22, 26, Jan. 17, 18, Apr. 7; minimum daily, 324 micromhos July 20.

WATER TEMPERATURE: Maximum daily, 30.0°C July 25-28, 31; minimum daily, 0.5°C Feb. 7, 8.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT 07...	41800	330	8.6	24.5	10	9.6	114	22	60	40	190	49
NOV 11...	36500	360	8.3	16.0	9	11.0	111	10	90	40	200	42
DEC 09...	87100	490	7.6	3.5	60	14.4	108	10	700	540	200	56
JAN 20...	38900	520	8.1	1.5	15	15.6	111	20	80	--	230	48
FEB 10...	65700	590	8.2	2.0	15	15.0	109	16	480	110	240	41
MAR 09...	245000	365	7.8	7.0	200	11.0	90	26	2200	4200	150	12
APR 12...	199000	360	8.0	15.0	45	8.6	85	26	180	50	160	39
MAY 11...	177000	400	7.9	19.5	15	8.6	92	15	370	270	180	51
JUN 08...	67200	550	8.3	23.5	20	5.6	65	17	250	80	250	83
JUL 13...	37300	450	8.3	29.0	15	5.8	75	--	440	75	220	62
AUG 10...	26100	435	8.3	25.5	2	6.7	82	10	--	120	190	46
SEP 14...	18200	440	8.3	24.0	8	7.0	82	13	--	--	200	44

MISSISSIPPI RIVER MAIN STEM

05587550 MISSISSIPPI RIVER BELOW ALTON, IL--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAL- CIUM (CA) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	TOTAL SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	TOTAL PO- TAS- SIUM (K) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT 07...	53	44	20	20	55	16	4.0	3.2	148	12	36	18
NOV 11...	51	44	21	21	14	15	2.7	2.8	192	0	39	19
DEC 09...	52	50	18	19	17	20	3.1	3.5	176	0	50	25
JAN 20...	54	56	21	23	15	16	2.4	2.6	228	0	46	22
FEB 10...	53	59	22	22	27	29	3.2	3.0	240	0	55	42
MAR 09...	45	40	19	13	10	8.9	6.0	3.6	172	0	34	15
APR 12...	42	41	15	15	9.8	9.6	3.4	3.0	152	0	33	14
MAY 11...	48	46	18	17	10	10	4.1	2.8	157	0	43	16
JUN 08...	57	62	23	24	15	16	2.7	2.8	204	0	55	25
JUL 13...	52	54	20	21	14	14	3.0	3.0	192	0	46	21
AUG 10...	43	46	19	19	18	18	3.0	3.5	176	0	47	24
SEP 14...	41	46	19	21	17	19	3.0	3.2	192	0	44	25

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
OCT 07...	.3	1.5	251	276	.56	.03	.82	.16	--	30	3390	86
NOV 11...	.2	.9	252	265	.58	.09	.77	.17	--	30	2960	82
DEC 09...	.7	3.8	282	416	.96	.25	1.3	.29	--	136	32000	95
JAN 20...	.3	8.2	324	356	1.2	.14	.99	.20	--	87	9140	28
FEB 10...	.6	9.4	370	412	1.3	.65	1.8	.22	--	58	10300	79
MAR 09...	.4	8.2	214	1120	2.7	--	4.0	.64	--	1030	681000	91
APR 12...	.7	8.8	198	448	2.0	.03	1.5	.31	--	242	130000	88
MAY 11...	.2	7.1	222	574	1.9	.02	1.3	.25	--	337	161000	92
JUN 08...	.4	3.0	340	386	4.5	--	1.0	.20	4.0	430	78000	51
JUL 13...	.4	4.6	316	1370	4.2	--	1.1	.14	--	70	7050	90
AUG 10...	.4	.6	274	348	1.2	.04	.79	.17	--	30	2110	71
SEP 14...	.3	.2	272	276	.57	.05	.86	.16	--	33	1620	65

MISSISSIPPI RIVER MAIN STEM

05587550 MISSISSIPPI RIVER BELOW ALTON, IL--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL ARSENIC (AS) (UG/L)	SUS- PENDED ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)
DEC 09...	--	--	1	1	--	10	0	0	28	15	4100
MAR 09...	15	14	2	0	20	0	10	0	44	8	23000
SEP 14...	3	0	0	0	<10	0	0	0	22	8	640

DATE	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
DEC 09...	80	26	8	180	10	.6	.6	0	0	150	10
MAR 09...	380	26	0	830	30	--	.1	1	0	110	20
SEP 14...	0	9	6	100	10	.0	.0	--	0	60	30

MISSISSIPPI RIVER MAIN STEM

05587550 MISSISSIPPI RIVER BELOW ALTON, IL--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	400	---	---	510	550	500	560	390	540	546	482	446
2	405	430	500	500	540	510	575	410	520	517	482	477
3	410	450	480	510	540	520	580	430	540	532	---	465
4	---	440	460	530	550	520	585	480	540	534	---	469
5	395	450	480	520	540	480	590	485	500	493	---	458
6	405	460	480	560	520	440	590	480	510	508	---	461
7	420	450	540	530	540	420	600	490	520	525	---	467
8	480	460	---	540	540	420	585	460	530	525	---	482
9	460	460	490	550	540	480	585	460	---	541	---	496
10	460	460	520	520	580	485	570	475	---	545	432	506
11	470	420	500	530	560	505	560	500	515	538	423	495
12	460	480	500	560	520	510	550	510	490	531	416	500
13	---	520	500	580	500	540	530	515	490	508	422	461
14	---	540	500	570	520	560	545	535	495	505	425	446
15	470	---	490	590	500	560	525	550	490	460	397	451
16	480	490	540	570	490	550	520	535	500	434	435	440
17	490	500	520	600	460	540	515	530	---	386	416	434
18	500	500	510	600	480	530	510	530	490	376	412	454
19	480	490	480	580	410	525	505	530	540	338	443	488
20	450	520	---	580	430	520	505	520	520	324	452	515
21	440	520	---	525	440	520	505	510	520	332	445	532
22	430	---	600	---	450	525	505	520	520	340	440	515
23	430	520	550	530	450	525	500	540	520	384	444	514
24	420	490	580	---	460	535	470	540	515	378	448	518
25	---	500	---	---	460	545	500	545	535	393	446	480
26	---	510	600	---	460	570	455	515	530	440	445	452
27	450	490	---	---	460	580	370	500	490	458	443	444
28	440	500	---	---	480	570	355	510	470	460	445	476
29	440	---	530	---	490	555	380	525	490	459	447	491
30	460	---	540	---	---	565	---	525	---	466	445	486
31	430	---	510	---	---	560	---	525	---	498	452	---
MONTH	445	482	---	---	499	521	522	502	512	460	---	477

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.5	---	---	1.5	1.5	11.5	13.0	16.0	22.5	25.5	29.5	25.5
2	18.0	15.5	---	2.0	2.0	12.5	12.0	16.0	24.5	25.5	28.5	26.0
3	18.0	16.0	---	1.5	1.5	11.0	13.0	16.0	24.0	25.0	23.0	25.5
4	---	16.5	5.0	1.0	1.5	10.5	12.5	16.0	23.0	25.0	---	25.5
5	18.5	15.0	5.0	2.0	1.0	10.5	12.5	17.0	23.0	25.0	---	25.5
6	19.0	15.5	5.0	1.0	1.5	9.5	14.5	17.0	23.0	25.5	---	25.0
7	19.0	15.5	5.0	1.5	0.5	8.5	15.0	17.0	23.0	26.0	---	25.0
8	18.0	16.0	---	1.0	0.5	8.0	14.5	17.0	23.5	26.5	---	25.5
9	18.0	16.0	3.5	2.0	1.5	9.0	15.0	17.0	---	27.0	24.5	25.0
10	18.5	17.0	4.5	1.0	1.0	9.0	14.0	17.0	---	28.0	24.5	24.5
11	18.5	16.5	4.0	1.0	1.5	8.5	14.5	17.0	25.5	28.0	24.5	24.0
12	19.0	14.5	4.5	1.5	3.0	9.5	14.5	18.0	25.5	28.5	24.5	24.0
13	---	13.0	4.5	1.5	2.5	9.0	15.0	19.0	26.0	28.5	25.5	23.5
14	---	11.5	5.0	2.0	1.5	8.5	15.5	19.0	27.0	28.5	25.0	23.5
15	20.0	---	6.0	2.0	2.0	8.0	15.5	19.0	27.0	29.5	24.5	23.5
16	19.5	10.5	5.5	1.5	4.0	7.5	16.0	19.0	26.0	29.5	24.5	23.5
17	19.0	10.5	5.0	2.0	4.5	8.5	16.5	19.0	---	29.0	24.5	23.0
18	18.0	10.5	4.0	1.5	5.5	8.5	16.0	19.0	26.5	29.0	24.0	23.0
19	17.0	10.5	3.0	1.5	6.0	9.0	17.5	21.0	26.0	28.5	24.5	23.0
20	17.0	10.5	---	2.0	7.0	9.0	19.0	21.0	25.5	29.0	25.0	22.5
21	17.0	9.5	---	1.5	7.5	8.5	19.0	22.0	25.5	29.0	25.5	22.0
22	16.5	---	2.5	---	7.0	8.0	18.0	22.0	25.0	29.0	26.0	22.0
23	17.0	---	1.5	1.0	9.0	9.5	19.0	22.0	24.5	29.5	26.5	21.5
24	17.0	7.5	2.0	---	11.5	11.0	19.0	21.0	24.0	29.5	27.0	21.0
25	---	7.0	---	---	8.0	12.5	18.0	21.5	24.0	30.0	27.0	20.5
26	---	7.0	1.5	---	7.0	13.5	16.5	22.0	25.0	30.0	27.0	20.0
27	16.0	6.0	---	---	7.0	14.0	15.0	22.0	25.5	30.0	27.5	20.0
28	16.0	5.5	---	---	10.0	13.5	16.0	21.0	26.0	30.0	27.5	19.5
29	16.0	---	1.5	---	10.0	13.5	15.5	20.0	26.5	29.5	27.0	19.5
30	15.0	---	2.0	---	---	15.0	---	21.0	---	29.5	26.5	19.5
31	14.5	---	1.5	---	---	13.0	---	22.0	---	30.0	26.0	---
MONTH	17.5	12.0	---	---	4.5	10.5	15.5	19.0	25.0	28.0	26.0	23.0

05587550 MISSISSIPPI RIVER BELOW ALTON, IL--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

OCT. 7, 1975
1200 HOURS

IDENTIFICATION OF PHYTOPLANKTON

15,000 CELLS/ML

_ORGANISM__NAME_____	_COMMON__NAME_____	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
...HYDRODICTYACEAE				
LPEDIASTRUM			0	
...MICRACTINIACEAE				
LMICRACTINIUM			0	
...OOCYSTACEAE				
...ANKISTRODESMUS		130	1	
...OOCYSTIS		500	3	
LTETRAEDRON			0	
...TREUBARIA		130	1	
...SCENEDESMACEAE				
....SCENEDESMUS		<u>500</u>	<u>3</u>	
	TOTALS	1,300	8	1.722=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
...CYCLOTELLA		1,800	12	
...MELOSIRA		1,900	13	
LSTEPHANODISCUS			0	
..PENNALES	PENNATE			
...NITZSCHIA				
....NITZSCHIA		<u>1,400</u>	<u>9</u>	
	TOTALS	5,000	34	1.573=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..CHROOCOCCALES	COCCOID			
...CHROOCOCCACEAE				
LANACYSTIS			0	
...OSCILLATORIALES	FILAMENTOUS			
...NOSTOCACEAE				
...APHANIZOMENON		1,800	12	
...OSCILLATORIA				
DOSCILLATORIA		<u>6,800</u>	<u>46</u>	
	TOTALS	8,500	58	0.734=DIVERSITY

MISSISSIPPI RIVER MAIN STEM

05587550 MISSISSIPPI RIVER BELOW ALTON, IL--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

NOV. 11, 1975

1200 HOURS

IDENTIFICATION OF PHYTOPLANKTON

17,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
...OOCYSTACEAE				
....ANKISTRODESMUS		290	2	
....CHODATELLA		150	1	
....SELENASTRUM		290	2	
...SCENEDESMACEAE				
....ACTINASTRUM		1,600	10	
DSCENEDESMUS		<u>2,600</u>	<u>16</u>	
	TOTALS	4,900	31	1.643=DIVERSITY
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
DCYCLOTELLA		2,600	16	
DMELOSIRA		3,800	23	
..PENNALES	PENNATE			
...NAVICULACEAE	NAVICULOID			
....NAVICULA		150	1	
...NITZSCHIAEAE				
....NITZSCHIA		<u>1,000</u>	<u>6</u>	
	TOTALS	7,500	46	1.529=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..CHROOCOCCALES	COCROID			
...CHROOCOCCACEAE				
DANACYSTIS		2,600	16	
...OSCILLATORIALES	FILAMENTOUS			
...OSCILLATORIAEAE				
....OSCILLATORIA		<u>1,500</u>	<u>9</u>	
	TOTALS	4,100	25	0.940=DIVERSITY

DEC. 9, 1975

1230 HOURS

IDENTIFICATION OF PHYTOPLANKTON

14,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
...SCENEDESMACEAE				
DSCENEDESMUS		<u>5,200</u>	<u>36</u>	
	TOTALS	5,200	36	0.000=DIVERSITY
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
DCYCLOTELLA		6,500	45	
LMELOSIRA			0	
...STEPHANODISCUS		430	3	
..PENNALES	PENNATE			
...FRAGILARIACEAE				
LASTERIONELLA			0	
...NAVICULACEAE	NAVICULOID			
....NAVICULA		1,300	9	
...NITZSCHIAEAE				
....NITZSCHIA		<u>860</u>	<u>6</u>	
	TOTALS	9,100	63	1.280=DIVERSITY

05587550 MISSISSIPPI RIVER BELOW ALTON, IL--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

JAN. 20, 1976
1300 HOURS

IDENTIFICATION OF PHYTOPLANKTON

19,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...MICRACTINIACEAE				
LMICRACTINIUM			0	
...SCENEDESMACEAE				
LSCENEDESMUS			0	
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
DCYCLOTELLA		18,000	94	
..PENNALES	PENNATE			
...FRAGILARIACEAE				
...ASTERIONELLA		890	5	
LSYNEDRA			0	
...NAVICULACEAE	NAVICULOID			
LNAVICULA			0	
...NITZSCHIACEAE				
...NITZSCHIA		220	1	
...SURIPELLACEAE				
LSURIPELLA			0	
	TOTALS	19,000	100	0.362=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
...OSCILLATORIALES	FILAMENTOUS			
...OSCILLATORIA				
LOSCILLATORIA			0	

FEB. 10, 1976
1300 HOURS

IDENTIFICATION OF PHYTOPLANKTON

14,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT	
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
DCYCLOTELLA		12,000	84	
..PENNALES	PENNATE			
...FRAGILARIACEAE				
...ASTERIONELLA		930	6	
...NAVICULACEAE	NAVICULOID			
...NAVICULA		460	3	
...NITZSCHIACEAE				
...NITZSCHIA		460	3	
	TOTALS	14,000	96	0.767=DIVERSITY
PYRRHOPHYTA	FIRE ALGAE			
..DINOPHYCEAE	DINOFLAGELLATES			
...GYMNODINIALES				
...GYMNODINIACEAE				
...GYMNODINIUM		460	3	
	TOTALS	460	3	0.000=DIVERSITY

MISSISSIPPI RIVER MAIN STEM

05587550 MISSISSIPPI RIVER BELOW ALTON, IL--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

MAR. 9, 1976
1300 HOURS

IDENTIFICATION OF PHYTOPLANKTON

4,100 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
..HYDRODICTYACEAE				
LPEDIASTRUM			0	
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
..COSCINODISCACEAE				
DCYCLOTELLA		2,100	53	
LMELOSIRA			0	
LSTEPHANODISCUS			0	
..PENNALES	PENNATE			
..ACHNANTHACEAE				
LCOCONEIS			0	
..NAVICULACEAE	NAVICULOID			
DNAVICULA		640	16	
..NITZSCHACEAE				
DNITZSCHIA		640	16	
..SURIRELLACEAE				
DSURIRELLA			16	
TOTALS		4,100	101	1.749=DIVERSITY

APR. 12, 1976
1230 HOURS

IDENTIFICATION OF PHYTOPLANKTON

14,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
..OOCYSTACEAE				
LANKISTRODESMUS			0	
..SCENEDESMACEAE				
..SCENEDESMUS		740	5	
..VOLVOCALES				
..CHLAMYDOMONADACEAE				
LCHLAMYDOMONAS			0	
TOTALS		740	5	0.000=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
..COSCINODISCACEAE				
DCYCLOTELLA		11,000	79	
..MELOSIRA		920	7	
LSTEPHANODISCUS			0	
..PENNALES	PENNATE			
..CYMBELLACEAE				
LEPITHEMIA			0	
..FRAGILARIACEAE				
..ASTERIONELLA		180	1	
LFRAGILARIA			0	
LSYNEDRA			0	
..GOMPHONEMATACEAE				
LGOMPHONEMA			0	
..NAVICULACEAE	NAVICULOID			
..NAVICULA		180	1	
..NITZSCHACEAE				
LHANTZSCHIA			0	
..NITZSCHIA		740	5	
..SURIRELLACEAE				
....SURIRELLA			1	
TOTALS		13,000	94	0.975=DIVERSITY
EUGLENOPHYTA	EUGLENOIDS			
..EUGLENOPHYCEAE				
..EUGLENALES				
..EUGLENACEAE				
LEUGLENA			0	

05587550 MISSISSIPPI RIVER BELOW ALTON, IL--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

MAY 11, 1976
1130 HOURS

IDENTIFICATION OF PHYTOPLANKTON

9,100 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
...OOCYSTACEAE				
....ANKISTRODESMUS		490	5	
....CHODATELLA		250	3	
....SCENEDESMACEAE				
....SCENEDESMUS				
TOTALS		<u>1,500</u> 2,200	<u>16</u> 24	1.224=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
....CYCLOTELLA		2,900	32	
....MELOSIRA		1,500	16	
....STEPHANODISCUS		250	3	
..PENNALES	PENNATE			
....FRAGILARIACEAE				
....SYNEDRA		250	3	
....NITZSCHIA				
TOTALS		<u>490</u> 5,400	<u>5</u> 59	1.708=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..OSCILLATORIALES	FILAMENTOUS			
....OSCILLATORIA				
....LYNGBYA				
TOTALS		<u>1,500</u> 1,500	<u>16</u> 16	0.000=DIVERSITY

JUNE 8, 1976
1300 HOURS

IDENTIFICATION OF PHYTOPLANKTON

9,900 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
...OOCYSTACEAE				
....ANKISTRODESMUS		410	4	
....KIRCHNERIELLA		1,200	13	
....SCENEDESMACEAE				
....ACTINASTRUM		1,600	17	
....SCENEDESMUS				
TOTALS		<u>1,600</u> 4,900	<u>17</u> 51	1.855=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
....CYCLOTELLA		3,100	31	
....STEPHANODISCUS		<u>1,900</u>	<u>19</u>	
TOTALS		4,900	50	0.954=DIVERSITY

MISSISSIPPI RIVER MAIN STEM

05587550 MISSISSIPPI RIVER BELOW ALTON, IL--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

JULY 13, 1976
1200 HOURS

IDENTIFICATION OF PHYTOPLANKTON

16,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
..CHARACIACEAE				
LSCHROEDERIA			0	
..OOCYSTACEAE				
LTETRAEDRON			0	
LTREUBARIA			0	
..SCENEDESMACEAE				
LACTINASTRUM			0	
..SCENEDESMUS		990	6	
..OOCYSTACEAE				
..GLOEOACTINIUM				
	TOTALS	<u>570</u> 1,800	<u>4</u> 10	1.552=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAF	DIATOMS			
..CENTRALES	CENTRIC			
..COSCINODISCACEAE				
DCYCLOTELLA		2,500	16	
..MELOSIRA		500	3	
..PENNALES	PENNATE			
..NITZSCHIA				
..NITZSCHIA				
	TOTALS	<u>500</u> 3,500	<u>3</u> 22	1.149=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..CHROOCOCCALES	COCCOID			
..CHROOCOCCACEAE				
DANACYSTIS		2,400	15	
DGOMPHOSPHAERIA		4,500	29	
..OSCILLATORIALES	FILAMENTOUS			
..OSCILLATORIA				
..OSCILLATORIA		1,400	9	
..RIVULARIACEAF				
..RAPIDIOPSIS				
	TOTALS	<u>2,100</u> 11,000	<u>14</u> 67	1.867=DIVERSITY

05587550 MISSISSIPPI RIVER BELOW ALTON, IL--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

AUG. 10, 1976
1230 HOURS

IDENTIFICATION OF PHYTOPLANKTON

17,000 CELLS/ML

_ORGANISM__NAME_____	_COMMON__NAME_____	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...OOCYSTACEAE				
....OOCYSTIS		350	2	
...SCENEDESMACEAE				
....ACTINASTRUM		700	4	
....TETRASTRUM		<u>350</u>	<u>2</u>	
	TOTALS	1,400	8	1.500=DIVERSITY
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
....CYCLOTELLA		1,000	6	
....MELOSIRA		170	1	
..PENNALES	PENNATE			
...NITZSCHIA				
DNITZSCHIA		<u>4,200</u>	<u>25</u>	
	TOTALS	5,400	32	0.904=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
...CHROOCOCCALES	COCCOID			
...CHROOCOCCACEAE				
DANACYSTIS		3,500	21	
...OSCILLATORIALES	FILAMENTOUS			
...NOSTOCACEAE				
....APHANIZOMENON		1,300	8	
...OSCILLATORIA		<u>5,000</u>	<u>30</u>	
DOSCILLATORIA		9,800	59	1.411=DIVERSITY

MISSISSIPPI RIVER MAIN STEM

05587550 MISSISSIPPI RIVER BELOW ALTON, IL--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

SEP. 14, 1976
1400 HOURS

IDENTIFICATION OF PHYTOPLANKTON

69,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
..CHARACIACEAE				
LSCHROEDERIA			0	
..OOCYSTACEAE				
..DICTYOSPHAERIUM		3,000	4	
..TETRASPORALES				
..COCCOMYXACEAE				
LELAKATOTHRIX				
TOTALS		3,300	4	0.614=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
..COSCINODISCEACEAE				
..CYCLOTELLA		840	1	
..MELOSIRA		3,000	4	
LSTEPHANODISCUS			0	
..PENNALES	PENNATE			
..NITZSCHIA				
TOTALS		930 4,900	1 6	1.506=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..CHROOCOCCALES	COCCOID			
..CHROOCOCCACEAE				
..ANACYSTIS				
DA.INSERTA		44,000	64	
..AGMENELLUM		4,500	6	
..ANACYSTIS		3,300	5	
LGOMPHOSPHAERIA			0	
..OSCILLATORIALES	FILAMENTOUS			
..NOSTOCACEAE				
..APHANIZOMENON		6,400	9	
..OSCILLATORIA				
TOTALS		2,500 60,000	4 88	1.381=DIVERSITY
EUGLENOPHYTA	EUGLENOIDS			
..CRYPTOPHYCEAE	CRYPTOMONADS			
..CRYPTOMONIDAE				
..CRYPTOCHRYSIDACEAE				
LCHROOMONAS				
TOTALS		93	0	0.000=DIVERSITY

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
 L - LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE

PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m ²)		Chlorophyll	Chlorophyll	Biomass Pigment ratio	Sampling method
		Dry weight	Ash weight	^a (mg/m ²)	^b (mg/m ²)		
Dec. 9, 1975	28	23	20	1.8	0.0	1,100	Polyethylene strip
June 8, 1976	27	12	11	0.9	0.0	1,200	Polyethylene strip

TARKIO RIVER BASIN

06813000 TARKIO RIVER AT FAIRFAX, MO

LOCATION.--Lat 40°20'20", long 95°24'11", in SW¼SW¼ sec.22, T.64 N., R.40 W., Atchison County, Hydrologic Unit 10250005, in left bank on downstream side of bridge pier, 0.5 mi (0.8 km) west of Fairfax, and 2 mi (3.2 km) downstream from unnamed creek, and at mile 13.3 (21.4 km).

DRAINAGE AREA.--508 mi² (1,315 km²).

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

REVISED RECORDS.--WSP 856: 1937.

GAGE.--Water-stage recorder. Datum of gage is 867.66 ft (264.463 m) above mean sea level. Prior to Oct. 1, 1931, nonrecording gage at site 50 ft (15 m) downstream at datum 2.0 ft (0.61 m) higher. Oct. 1, 1931, to Oct. 22, 1953, nonrecording gage at site 50 ft (15 m) downstream at same datum.

REMARKS.--Records fair. Several observations of water temperatures were made during the year.

AVERAGE DISCHARGE.--54 years, 184 ft³/s (5.211 m³/s), 4.92 in/yr (125 mm/yr), 133,300 acre-ft/yr (164 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,300 ft³/s (461.6 m³/s) June 20, 1942, from rating curve extended above 11,000 ft³/s (311.5 m³/s); maximum gage height, 23.28 ft (7.096 m) Oct. 11, 1973; no flow on several days in July and August 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,810 ft³/s (193 m³/s) June 14 (2030), gage height, 18.12 ft (5.523 m), peak above base of 4,800 ft³/s (136 m³/s); minimum, 7.4 ft³/s (0.210 m³/s) Sept. 8, gage height, 4.77 ft (1.454 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	17	68	30	20	272	101	331	261	149	77	12
2	20	28	90	30	20	239	94	298	237	148	52	12
3	18	24	66	30	20	223	91	259	219	207	44	12
4	16	22	51	30	20	235	84	237	200	122	42	11
5	15	18	48	30	20	283	80	229	194	119	40	10
6	14	15	39	20	20	223	82	217	187	107	36	9.5
7	12	14	37	20	20	239	80	192	180	101	33	8.8
8	9.5	14	39	20	20	247	82	183	176	98	33	8.1
9	9.5	44	39	20	20	233	83	180	174	98	33	8.8
10	9.5	91	37	20	100	221	83	178	169	86	31	8.8
11	9.5	50	36	20	150	219	83	169	164	80	31	8.8
12	9.5	40	34	20	100	233	82	169	158	72	134	8.1
13	9.5	35	34	19	75	225	82	192	155	64	80	16
14	9.5	33	100	20	56	190	82	191	2660	57	131	16
15	9.5	33	60	20	77	187	82	174	1870	61	205	12
16	9.5	33	50	20	84	176	82	192	545	73	82	12
17	9.5	33	100	20	90	167	91	221	280	70	56	11
18	10	33	80	20	99	155	215	211	489	58	42	10
19	10	34	70	20	66	149	239	178	438	53	39	12
20	10	46	60	20	53	140	169	156	245	47	34	14
21	10	44	60	20	1030	129	476	145	200	166	31	15
22	10	36	60	20	287	118	287	151	183	253	29	14
23	10	37	60	20	280	110	219	2370	174	94	28	12
24	13	35	60	20	320	110	1350	2120	241	71	23	9.5
25	12	37	60	20	354	107	1780	710	173	61	22	31
26	12	51	50	20	402	108	740	475	162	53	23	56
27	13	57	50	20	366	112	530	390	407	50	20	29
28	13	66	50	20	366	106	530	342	342	98	19	19
29	12	84	40	20	342	107	414	1140	165	76	18	18
30	11	180	40	20	---	122	366	488	153	61	17	17
31	11	---	40	20	---	116	---	298	---	96	15	---
TOTAL	369.0	1284	1708	669	4877	5501	8759	12786	11201	2949	1500	441.4
MEAN	11.9	42.8	55.1	21.6	168	177	292	412	373	95.1	48.4	14.7
MAX	22	180	100	30	1030	283	1780	2370	2660	253	205	56
MIN	9.5	14	34	19	20	106	80	145	153	47	15	8.1
CFSM	.02	.08	.11	.04	.33	.35	.57	.81	.73	.19	.10	.03
IN.	.03	.09	.13	.05	.36	.40	.64	.94	.82	.22	.11	.03
AC-FT	732	2550	3390	1330	9670	10910	17370	25360	22220	5850	2980	876
CAL YR 1975	TOTAL	38116.6	MEAN 104	MAX 2520	MIN 6.0	CFSM .20	IN 2.79	AC-FT 75600				
WTR YR 1976	TOTAL	52044.4	MEAN 142	MAX 2660	MIN 8.1	CFSM .28	IN 3.81	AC-FT 103200				

MISSOURI RIVER MAIN STEM

06813500 MISSOURI RIVER AT RULO, NB

LOCATION.--Lat. 40°03'14", long 95°25'12", in NW¼NW¼ sec.17, T.1 N., R.18 E., Richardson County, Hydrologic Unit 10240005, on downstream end of middle pier of bridge on U.S. Highway 159 at Rulo, 3.2 mi (5.1 km) upstream from Nemaha River, and at mile 498.0 (801.3 km).

DRAINAGE AREA (REVISED).--414,900 mi² (1,074,600 km²), approximately. The 3,959 mi² (10,254 km²) in Great Divide basin are not included.

PERIOD OF RECORD.--October 1949 to current year in reports of Geological Survey. Gage-height record collected at site 80 ft (24 m) upstream January 1886 to December 1899 published in reports of Missouri River Commission September 1929 to September 1950 in files of Kansas City office of Corps of Engineers.

GAGE.--Water-stage recorder. Datum of gage is 837.23 ft (255.188 m) above mean sea level. Prior to Sept. 13, 1950, nonrecording gage at site 80 ft (24 m) upstream at same datum.

REMARKS.--Records good except those for winter period, which are poor. Flow regulated by upstream main-stem reservoirs. Several observations of water temperature were made during the year. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--27 years, 39,120 ft³/s (1,108 m³/s), 28,340,000 acre-ft/yr (34,900 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 358,000 ft³/s (10,100 m³/s) Apr. 22, 1952, gage height, 25.60 ft (7.803 m); minimum daily, 4,420 ft³/s (125 m³/s) Jan. 13, 1957; minimum gage height, 0.65 ft (0.198 m) Jan. 7, 1971, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1881 reached a stage of 22.9 ft (6.98 m) from floodmark, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 79,400 ft³/s (2,250 m³/s) Nov. 22, gage height, 15.19 ft (4.630 m); minimum daily, 15,000 ft³/s (425 m³/s) Jan. 11; minimum gage height observed, 4.17 ft (1.271 m) Jan. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67500	65100	71200	31400	33200	38800	51800	48900	49400	44600	43100	40100
2	67100	63900	68600	31300	32900	38300	50700	48200	48400	44100	40700	40200
3	67800	65400	66400	30600	32500	38400	49300	47300	46200	45700	40800	40500
4	67300	67600	61100	29000	31700	38200	49000	46700	44700	44100	41100	40600
5	66100	67900	59500	25400	31000	37600	48800	46000	46000	43900	40800	40300
6	65600	68200	55900	25100	30400	34300	47400	45600	47000	43900	41100	40400
7	66000	68500	50700	25500	28500	33200	46000	45000	45600	43500	41200	40100
8	64900	68700	46200	25000	29100	34100	45700	44300	44700	43300	40600	40100
9	64900	69700	41300	21000	29600	34600	46200	44100	44300	43400	40700	40100
10	65700	72700	39200	17000	31500	35000	44500	43700	44100	42700	40600	40200
11	67100	73700	37200	15000	33300	40500	44500	43500	43700	42600	40600	40600
12	66900	71000	36200	19500	33900	43200	44000	43200	43300	42000	41200	39800
13	65300	71000	36200	26300	33900	45000	44000	44700	42400	41000	40900	39700
14	64800	71500	36600	24900	33700	44500	44200	45200	49500	40000	41100	40200
15	65300	68300	37400	27400	36000	43800	45300	45000	69100	40400	42400	40900
16	67200	67800	35200	27100	41700	45600	45300	45000	51000	41000	40800	41500
17	68300	68000	31900	32500	47700	46700	46000	44600	45700	41100	40900	41500
18	67500	68800	29900	26100	44900	43600	52000	44300	48400	40500	41000	41400
19	65800	68200	26900	25800	42200	45500	48000	43600	47800	40400	41200	42100
20	65800	70700	26900	28000	42400	45000	47500	43300	43700	40300	40400	42400
21	66700	71800	27300	30000	44300	44300	47000	42000	42700	41500	40000	41600
22	66400	78000	28900	29900	41400	46200	47900	42100	42200	43200	40600	41800
23	66500	72800	30300	29900	38400	48500	47300	56400	41900	41900	40800	42300
24	67400	70600	30600	31000	37600	46200	52000	67000	43200	40900	40600	41500
25	69100	70700	30400	31200	36100	47300	55000	67300	43100	40500	40100	41800
26	69800	69200	30500	31200	36400	47100	54500	57900	43200	40500	40100	42900
27	69600	67000	31000	31300	38800	48000	54400	53800	46600	41000	40300	42000
28	68900	65000	31100	30400	37900	47400	53200	52000	50100	43500	40600	41500
29	68600	67500	31200	29700	38500	47200	50400	54200	45800	44400	40400	41900
30	67800	73500	31700	30900	---	49400	48000	53400	45100	41800	40000	42400
31	66300	---	31700	33200	---	51800	---	51100	---	42200	40000	---
TOTAL	2074000	2082800	1229200	852600	1049500	1329300	1449900	1499400	1388900	1309900	1264700	1232400
MEAN	66900	69430	39650	27500	36190	42880	48330	48370	46300	42250	40800	41080
MAX	69800	78000	71200	33200	47700	51800	55000	67300	69100	45700	43100	42900
MIN	64800	63900	26900	15000	28500	33200	44000	42000	41900	40000	40000	39700
AC-FT	4114000	4131000	2438000	1691000	2082000	2637000	2876000	2974000	2755000	2598000	2509000	2444000
CAL YR 1975	TOTAL	18458500	MEAN	50570	MAX	81800	MIN	13000	AC-FT	36610000		
WTR YR 1976	TOTAL	16762600	MEAN	45800	MAX	78000	MIN	15000	AC-FT	33250000		

MILL CREEK BASIN

55

06816000 MILL CREEK AT OREGON, MO

LOCATION.--Lat 39°58'55", long 95°07'37", in NE¼NE¼ sec.35, T.60 N., R.38 W., Holt County, Hydrologic Unit 10240005, on left bank at downstream side of bridge on U.S. Highway 59, 0.5 mi (0.8 km) upstream from Rock Creek, 1 mi (1.6 km) southeast of Oregon, and 7 mi (11.2 km) upstream from mouth.

DRAINAGE AREA.--4.90 mi² (12.69 km²).

PERIOD OF RECORD.--July 1950 to September 1976 (discontinued).

REVISED RECORDS.--WSP 2119: 1960(M).

GAGE.--Water-stage recorder. Datum of gage is 921.26 ft (280.800 m) above mean sea level.

REMARKS.--Records poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--26 years, 2.18 ft³/s (0.062 m³/s), 6.04 in/yr (153 mm/yr), 1,580 acre-ft/yr (1.95 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,700 ft³/s (133 m³/s) May 18, 1974, gage height, 9.10 ft (2.774 m); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft³/s (4.25 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	(m ³ /s)	Gage height (ft)	(m)
May 5	1900	162	4.59	2.93	0.893
May 22	2215	162	4.59	2.93	0.893
May 23	1815	*295	8.35	*3.46	1.055

Minimum discharge, 0.07 ft³/s (0.002 m³/s), Sept. 7, 8, gage height, 1.08 ft (0.329 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.0	1.2	1.2	.80	.80	1.0	2.5	2.7	1.6	.70	.20
2	1.0	1.5	1.1	1.3	1.0	.90	1.0	2.5	2.7	1.7	.80	.20
3	.90	1.6	1.1	1.2	1.2	.80	.90	2.3	2.5	1.8	.80	.20
4	.70	1.0	1.0	1.2	1.0	2.4	.90	2.4	2.3	1.7	.80	.20
5	.70	1.0	1.1	1.2	1.0	1.4	1.0	1.4	2.4	1.6	.70	.10
6	.70	1.0	.90	1.2	1.1	1.2	1.0	1.1	2.3	1.4	.60	.10
7	.70	1.0	.90	1.2	1.2	1.2	1.1	3.5	2.2	1.4	.50	.10
8	.70	1.0	1.2	1.2	1.3	1.2	1.0	3.2	2.2	1.4	.50	.10
9	.70	1.4	1.1	1.2	1.4	1.1	1.0	3.1	2.1	1.2	.50	.20
10	.70	.90	1.0	1.2	1.2	1.2	1.0	2.9	2.5	1.1	.50	.20
11	.70	.80	1.1	1.2	.90	1.3	1.0	2.8	2.2	.90	.60	.20
12	.70	.70	1.1	1.2	.80	1.4	.90	9.7	2.1	.90	.50	.20
13	.70	.80	1.2	1.1	.70	1.1	1.0	3.9	1.9	.80	.50	.20
14	.70	.90	3.1	.90	.60	1.0	1.0	3.2	1.7	.70	.50	.30
15	.70	.90	1.1	.90	.80	1.1	1.0	3.7	1.8	.90	.40	.20
16	.80	1.0	1.2	.90	1.1	1.2	1.0	3.5	1.8	.90	.40	.20
17	.80	1.0	1.1	.90	1.0	1.1	5.9	3.1	1.6	.70	.40	.20
18	.80	1.2	1.1	.90	1.5	1.1	3.7	2.7	2.1	.80	.40	.20
19	.80	1.5	1.2	1.0	.80	1.1	1.7	2.8	1.7	.70	.40	.40
20	.80	1.7	1.4	1.1	.60	1.0	7.2	2.7	1.6	.70	.40	.40
21	.80	.90	1.2	1.1	1.0	1.0	4.0	2.7	1.6	.80	.40	.30
22	.80	.90	1.2	.90	.60	1.0	3.1	9.4	1.6	.70	.30	.30
23	.80	.90	1.3	1.1	.70	1.0	2.5	4.4	2.5	.70	.20	.30
24	.80	.90	1.3	.90	.80	1.0	1.1	6.3	3.4	.70	.20	.20
25	.80	.80	1.2	.80	.80	1.0	4.0	4.5	1.9	.70	.20	1.5
26	.90	1.0	1.2	1.0	.90	1.0	3.2	3.7	1.9	.70	.30	.50
27	.90	1.0	1.2	1.4	.90	1.0	5.0	3.1	2.2	.70	.20	.30
28	.90	1.0	1.3	1.6	.80	1.0	3.4	2.8	2.7	.70	.20	.30
29	.90	1.2	1.2	1.3	.80	1.0	2.9	3.7	1.9	.70	.20	.30
30	.90	1.6	1.3	1.0	---	1.1	2.8	3.2	1.7	.70	.20	.20
31	.90	---	1.2	1.0	---	1.0	---	2.9	---	1.0	.20	---
TOTAL	24.80	42.90	37.80	34.30	27.30	34.70	76.20	171.8	63.8	31.00	13.50	8.30
MEAN	.80	1.43	1.22	1.11	.94	1.12	2.54	5.54	2.13	1.00	.44	.28
MAX	1.1	1.2	3.1	1.6	1.5	2.4	11	44	3.4	1.8	.80	1.5
MIN	.70	.70	.90	.80	.60	.80	.90	2.3	1.6	.70	.20	.10
CFSM	.16	.29	.25	.23	.19	.23	.52	1.13	.43	.20	.09	.06
IN.	.19	.33	.29	.26	.21	.26	.58	1.30	.48	.24	.10	.06
AC-FT	49	85	75	68	54	69	151	341	127	61	27	16
CAL YR 1975	TOTAL	1214.00	MEAN 3.33	MAX 103	MIN .60	CFSM .68	IN 9.21	AC-FT 2410				
WTR YR 1976	TOTAL	566.40	MEAN 1.55	MAX 44	MIN .10	CFSM .32	IN 4.30	AC-FT 1120				

NODAWAY RIVER BASIN

06817500 NODAWAY RIVER NEAR BURLINGTON JUNCTION, MO

LOCATION.--Lat 40°26'42", long 95°05'19", in SW¼NE¼ sec. 17, T.65 N., R.37 W., Nodaway County, Hydrologic Unit 10240010, near left bank on downstream end of bridge pier on U.S. Highway 136, 0.5 mi (0.8 km) upstream from Mill Creek, 0.5 mi (0.8 km) downstream from Norfolk and Western Railroad Co. bridge, and 1.5 mi (2.4 km) west of Burlington Junction.

DRAINAGE AREA.--1,240 mi² (3,210 km²), approximately.

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

GAGE.--Water-stage recorder. Datum of gage is 895.17 ft (272.848 m) above mean sea level. Prior to October 1, 1970 at datum 1.00 ft (0.305 m) higher. Prior to June 29, 1939, nonrecording gage. Prior to Oct. 26, 1928, at former bridge at same site and approximately same as previous datum: Oct. 26, 1928, to June 9, 1929, at site 0.5 mi (0.8 km) upstream set to read same as former gage at low water; June 10, 1929 to June 28, 1939, at present site and at previous datum.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--54 years, 526 ft³/s (14.90 m³/s), 5.76 in/yr (147 mm/yr), 381,100 acre-ft/yr (470 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 46,000 ft³/s (1,300 m³/s) Oct. 11, 1973, gage height, 19.85 ft (6.050 m); maximum gage height observed, 20.69 ft (6.306 m), present datum, Mar. 5, 1949, (ice jam); minimum discharge, 1.1 ft³/s (0.031 m³/s) Aug. 7, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 8,500 ft³/s (241 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Apr. 25	0230	10,100	286
June 15	0430	*17,900	507
			10.82
			*15.07
			3.298
			4.593

Minimum observed discharge, 30 ft³/s (0.85 m³/s) Oct. 16, 18, Sept. 19; minimum observed gage height, 0.03 ft (0.009 m) Sept. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	54	329	70	50	1180	536	1500	526	372	1920	63
2	84	117	249	70	100	708	392	1330	469	356	624	66
3	69	105	246	70	80	540	336	1140	420	318	379	57
4	66	96	240	60	50	538	299	851	383	295	329	63
5	54	78	168	60	50	862	279	770	352	279	273	57
6	50	66	150	60	50	599	279	724	334	273	237	51
7	48	57	120	50	50	850	279	624	330	261	219	48
8	45	54	108	50	50	909	264	546	306	258	177	39
9	42	51	78	50	50	842	252	570	279	246	174	33
10	42	144	96	50	150	803	240	570	268	220	162	33
11	39	130	90	50	200	1040	237	555	265	210	205	33
12	39	123	90	50	276	971	225	546	263	186	249	33
13	36	93	84	46	200	2100	231	589	252	180	192	33
14	36	66	180	50	192	1050	230	550	10600	170	457	33
15	33	57	276	50	258	810	225	496	10300	165	589	33
16	30	54	189	50	246	658	321	555	3060	162	372	33
17	33	45	200	50	405	572	1210	650	1260	168	273	33
18	30	48	300	50	339	516	3810	650	927	147	207	33
19	33	60	150	50	266	492	4020	505	681	138	183	30
20	39	66	100	50	222	484	2210	424	584	120	162	33
21	42	69	100	50	888	424	4110	396	488	223	147	63
22	39	66	100	50	542	353	2510	376	448	775	135	60
23	57	60	100	50	462	306	1680	2990	380	533	120	48
24	45	51	100	50	537	282	7450	1400	368	318	114	45
25	51	40	100	50	718	270	8500	855	392	231	108	81
26	54	36	90	50	846	266	4390	681	348	186	108	135
27	48	36	90	50	890	260	2790	590	512	159	102	99
28	51	75	90	50	864	258	2340	532	2200	2250	90	75
29	54	171	80	50	1290	257	1940	1440	1080	897	84	57
30	54	637	80	50	---	264	1680	972	428	1810	81	45
31	54	---	80	50	---	339	---	629	---	5320	75	---
TOTAL	1490	2805	4453	1636	10321	19803	53265	25006	38503	17226	8547	1545
MEAN	48.1	93.5	144	52.8	356	639	1776	807	1283	556	276	51.5
MAX	93	637	329	70	1290	2100	8500	2990	10600	5320	1920	135
MIN	30	36	78	46	50	257	225	376	252	120	75	30
CFSM	.04	.08	.12	.04	.29	.52	1.43	.65	1.03	.45	.22	.04
IN.	.04	.08	.13	.05	.31	.59	1.60	.75	1.16	.52	.26	.05
AC-FT	2960	5560	8830	3250	20470	39280	105700	49600	76370	34170	16950	3060
CAL YR 1975 TOTAL	151794			MEAN 416	MAX 6720	MIN 30	CFSM .34	IN 4.55	AC-FT 301100			
WTR YR 1976 TOTAL	184600			MEAN 504	MAX 10600	MIN 30	CFSM .41	IN 5.54	AC-FT 366200			

MISSOURI RIVER MAIN STEM

57

06818000 MISSOURI RIVER AT ST. JOSEPH, MO

LOCATION.--Lat 39°45'12", long 94°51'28", in NW¼SW¼ sec.17, T.57 N., R.35 W., Buchanan County, Hydrologic Unit 10240011, on left bank at left abutment of St. Joseph & Grand Island Railroad bridge in St. Joseph. River mile, 448.2 (721.2 km).

DRAINAGE AREA (REVISED).--420,300 mi² (1,089,000 km²), approximately. The 3,959 mi² (10,254 km²) in Great Divide basin is not included.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 761: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 788.19 ft (240.240 m) above mean sea level. Prior to Oct. 21, 1931, nonrecording gage and Oct. 21, 1931, to Dec. 31, 1933, water-stage recorder at same site at datum 5.50 ft (1.676 m) higher.

REMARKS.--Records good except during periods of ice effect, which are poor. Discharge measurements made weekly except during ice-flow periods. Some regulation from many upstream reservoirs.

AVERAGE DISCHARGE.--48 years, 38,910 ft³/s (1,102 m³/s), 28,190,000 acre-ft/yr (34,760 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 397,000 ft³/s (11,240 m³/s) Apr. 22, 23, 1952, gage height, 26.82 ft (8.175 m); minimum, 2,300 ft³/s (65.1 m³/s) Jan. 9, 1937; minimum gage height, 0.00 ft (0.000 m) Dec. 18, 19, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 27.2 ft (8.29 m), present datum, Apr. 29, 1881, discharge, about 370,000 ft³/s (10,500 m³/s), computed by Corps of Engineers.
Flood of June 1844 reached a stage of 24.5 ft (7.47 m) discharge, about 370,000 ft³/s (9,910 m³/s), computed by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 94,000 ft³/s (2,660 m³/s) Apr. 25, gage height, 17.05 ft (5.197 m); minimum daily discharge, 17,000 ft³/s (481 m³/s) Jan. 11; minimum gage height, 3.51 ft (1.070 m) Jan. 11, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69200	68000	76300	34500	36300	38800	52000	54000	51400	49100	45000	40500
2	68500	67200	71100	34600	36200	38900	51200	53500	50100	47800	42100	40500
3	68900	67100	68900	34200	36600	38700	50400	52100	48700	48500	41200	40600
4	69000	68300	63900	33300	36700	39500	50200	51300	47500	47700	41600	40900
5	67400	69400	60900	30400	35900	39900	49600	52900	47100	45900	41700	40700
6	66200	67800	56900	26000	35600	39800	48900	50900	48200	45700	41600	40400
7	66600	68200	52100	26000	33400	39200	47200	49900	48000	45000	41900	40400
8	66300	68600	47900	26000	32700	36100	45900	48400	47300	44900	41500	40200
9	66200	69800	44000	28000	33300	36400	45400	45100	47200	46900	41600	40500
10	66100	72000	41900	22000	34300	37200	45100	46300	47100	45800	41900	40600
11	66800	74100	40100	17000	35800	40200	44900	45800	47400	45700	42100	40800
12	68000	74300	38600	19400	36500	45800	45400	45400	47800	45600	42200	40600
13	67500	73700	38500	27800	36700	47100	45300	45600	47900	45000	42000	40500
14	67400	73900	40500	27600	36400	48300	45100	46400	50400	44200	41800	40900
15	67600	71700	40300	28500	37300	45600	45500	46400	82300	43600	42700	41200
16	68500	69300	40000	29900	40200	45900	45600	46400	63600	43700	42500	41800
17	69500	69200	36800	32300	44500	46200	47500	46000	51400	43400	41600	41800
18	68500	69900	33500	31300	44700	44200	59300	45300	49900	42800	41800	41700
19	67200	70500	31200	27900	41800	45300	56100	45000	51700	42200	41900	42200
20	66800	72200	30200	28900	40700	46500	55400	45100	48000	42000	41400	42700
21	67700	76000	31000	31600	41400	46200	62000	44700	46000	41900	40600	42300
22	67900	78700	31800	32500	42200	46500	60100	45100	44900	43300	40700	42100
23	67800	73500	34200	32100	39400	47800	54000	52600	44100	43900	41000	42400
24	68500	69500	35200	33000	38500	47800	62400	69700	45000	42400	41000	42300
25	69600	69700	35200	33800	38500	47700	89700	70200	45300	41900	40600	42400
26	71200	70000	34700	33700	38000	48600	71900	63700	45600	41600	40500	43000
27	70400	68500	34700	33800	38000	48600	61200	57000	46800	41900	40600	42500
28	69000	67600	34700	33800	37900	48400	58300	54300	56400	42600	40900	42400
29	68700	71900	34700	33000	38400	48000	56300	54200	56500	45400	41000	42700
30	67500	78800	34800	35300	---	49400	53700	57600	51000	43100	40800	43300
31	68100	---	34800	36700	---	51600	---	53400	---	43600	40700	---
TOTAL	2108600	2129400	1329400	934900	1097900	1370200	1605600	1586400	1504300	1375500	1288500	1244900
MEAN	68020	70980	42880	30160	37860	44200	53520	51170	50140	44370	41560	41500
MAX	71200	78800	76300	36700	44700	51600	89700	87700	82300	49100	45000	43300
MIN	66100	67100	30200	17000	32700	36100	44900	44700	44100	41600	40500	40200
AC-FT	4182000	4224000	2637000	1854000	2178000	2718000	3185000	3147000	2984000	2728000	2556000	2469000
CAL YR 1975 TOTAL	19202000			MEAN 52610	MAX 90500	MIN 16900	AC-FT 38090000					
WTR YR 1976 TOTAL	17575600			MEAN 48020	MAX 89700	MIN 17000	AC-FT 34860000					

MISSOURI RIVER MAIN STEM

06818000 MISSOURI RIVER AT ST. JOSEPH, MO--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969-76.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1974 to current year.
WATER TEMPERATURE: October 1974 to current year.

REMARKS.--Water temperature and specific conductance samples collected daily by observer.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 898 micromhos Jan. 18, 1975; minimum daily, 510 micromhos June 16, 1976.
WATER TEMPERATURE: Maximum daily, 29.0°C July 9, 1975; minimum, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 815 micromhos Jan. 9; minimum daily, 510 micromhos June 16.
WATER TEMPERATURES: Maximum daily, 28.0°C July 27; 0°C many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	HARD- NESS (CA, MG/L)
OCT										
21...	67700	675	8.4	15.0	25	8.5	84	4800	400	230
NOV										
11...	74100	740	8.5	11.5	40	8.6	79	9600	2400	230
DEC										
09...	44000	740	8.3	2.5	25	10.6	78	17000	3500	250
JAN										
12...	19400	925	8.0	1.5	9	11.4	81	5200	2500	290
FEB										
09...	33300	760	8.1	1.5	15	11.8	84	3400	680	240
MAR										
01...	38800	650	8.2	7.5	70	9.4	78	5100	3800	220
APR										
05...	49600	700	8.2	12.0	45	7.6	70	2400	550	240
MAY										
25...	70200	630	7.8	19.0	100	5.8	62	14000	12000	200
JUN										
15...	82300	510	7.7	22.5	30	2.6	30	40000	24000	170
JUL										
13...	45000	719	8.5	28.0	15	7.2	91	450	25	220
AUG										
03...	41200	670	8.0	27.0	30	6.4	80	1000	350	220
SEP										
07...	40400	750	8.4	24.0	15	6.8	80	700	50	220

MISSOURI RIVER MAIN STEM

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	NON-CARBONATE HARDNESS (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)
OCT 21...	76	59	21	70	4.5	184	4	200	13	.6
NOV 11...	70	58	21	63	5.3	192	2	190	13	.7
DEC 09...	72	62	22	61	4.9	212	0	170	15	.4
JAN 12...	79	74	25	68	5.3	254	0	180	22	.4
FEB 09...	64	62	21	61	5.5	216	0	170	18	.9
MAR 01...	59	58	19	48	5.3	200	0	140	16	.5
APR 05...	67	59	22	55	6.5	208	0	170	15	.5
MAY 25...	45	50	18	45	5.4	188	0	130	15	.5
JUN 15...	57	44	15	36	4.6	138	0	110	11	.5
JUL 13...	58	56	20	62	5.0	192	4	180	15	.6
AUG 03...	61	53	21	63	5.0	192	0	190	15	.6
SEP 07...	56	55	21	64	4.6	196	4	190	13	.6

DATE	DIS-SOLVED SILICA (SiO2) (MG/L)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
OCT 21...	7.8	485	.17	.47	.10	--	545	99600	26
NOV 11...	7.8	481	.21	.71	.14	6.2	500	100000	22
DEC 09...	11	461	.45	.77	.18	--	346	41100	46
JAN 12...	15	530	.61	.64	.15	--	368	19300	14
FEB 09...	15	472	.54	.53	.13	4.2	1680	151000	6
MAR 01...	14	422	1.0	.93	.30	--	1210	127000	31
APR 05...	12	498	.93	.69	.19	--	1330	178000	24
MAY 25...	9.0	368	1.4	3.7	.87	7.1	3360	637000	62
JUN 15...	6.7	340	1.6	6.7	1.8	--	8660	1920000	92
JUL 13...	6.6	452	.06	.59	.13	--	426	51800	44
AUG 03...	7.0	444	.24	.61	.21	7.6	568	63200	39
SEP 07...	7.7	508	.17	.42	.10	--	506	55200	20

MISSOURI RIVER MAIN STEM

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL ARSENIC (AS) (UG/L)	SUSPENDED ARSENIC (AS) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DIS-SOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	DIS-SOLVED CHROMIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)
NOV 11...	4	2	1	0	<10	0	0	0	12	12	2700
FEB 09...	--	--	14	8	30	0	0	0	12	3	1100
MAY 25...	19	17	0	0	20	2	13	0	40	4	29000
AUG 03...	3	2	0	0	30	0	1	0	31	8	3300

DATE	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DIS-SOLVED SELENIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
NOV 11...	0	12	5	100	100	--	.3	2	2	40	40
FEB 09...	20	10	3	50	40	.0	.0	1	1	20	0
MAY 25...	50	32	0	800	10	--	.1	--	0	100	0
AUG 03...	20	14	3	170	0	--	.0	2	2	70	0

DATE	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL CHLORDANE (UG/L)	CHLORDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDD (UG/L)	DDD IN BOTTOM MATERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MATERIAL (UG/KG)	TOTAL DIAZINON (UG/L)	DIAZINON IN BOTTOM MATERIAL (UG/KG)
NOV 11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 09...	ND	--	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 25...	--	ND	--	ND	--	ND	--	ND	--	ND	--	ND
AUG 02...	ND	--	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	TOTAL DIELDRIN (UG/L)	DIELDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ETHION (UG/L)	ETHION IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR (UG/L)	HEPTACHLOR IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR EPOXIDE (UG/L)	HEPTACHLOR EPOXIDE IN BOTTOM MATERIAL (UG/KG)	TOTAL LINDANE (UG/L)
NOV 11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 09...	ND	--	ND	--	ND	--	ND	--	ND	--	ND
MAY 25...	--	ND	--	ND	--	ND	--	ND	--	ND	--
AUG 02...	.01	--	ND	--	ND	--	ND	--	ND	--	ND

MISSOURI RIVER MAIN STEM

61

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	LINDANE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL MALA- THION (UG/L)	MALA- THION IN BOTTOM MA- TERIAL (UG/KG)	TOTAL METH- OXY- CHLOR (UG/L)	METHOX- YCHLOR IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL METHYL PARA- THION (UG/L)	METHYL PARA- THION IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL METHYL TRI- THION (UG/L)	METHYL TRI- THION IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL PARA- THION (UG/L)	PARA- THION IN BOTTOM MA- TERIAL (UG/KG)
NOV 11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 09...	--	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 25...	ND	--	ND	--	ND	--	ND	--	ND	--	ND
AUG 02...	--	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	TOTAL TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL TRI- THION (UG/L)	TRI- THION IN BOTTOM MA- TERIAL (UG/KG)	TOTAL 2,4-D (UG/L)	2,4-D IN BOTTOM MA- TERIAL (UG/KG)	TOTAL 2,4,5-T (UG/L)	2,4,5-T IN BOTTOM MA- TERIAL (UG/KG)	TOTAL SILVEX (UG/L)	SILVEX IN BOTTOM MA- TERIAL (UG/KG)	TOTAL ATRA- ZINE (UG/L)
NOV 11...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 09...	ND	--	ND	--	ND	--	ND	--	ND	--	ND
MAY 25...	--	ND	--	ND	ND	--	ND	--	ND	--	1.8
AUG 02...	ND	--	ND	--	ND	--	ND	--	ND	--	ND

MISSOURI RIVER MAIN STEM

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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	680	700	710	725	710	650	690	660	670	650	635	705
2	680	700	725	725	700	645	690	660	680	660	640	710
3	690	690	740	720	700	650	675	655	695	675	675	710
4	690	690	725	725	700	645	690	665	690	650	700	705
5	685	700	740	745	700	650	700	680	695	670	700	700
6	685	700	735	740	710	655	710	660	690	680	705	705
7	700	720	725	750	710	655	700	685	695	680	705	705
8	705	700	720	795	715	655	700	715	700	680	710	700
9	710	700	740	815	735	690	680	720	700	680	710	700
10	710	700	705	805	725	695	690	720	695	680	715	700
11	705	700	700	800	725	700	695	725	700	680	710	700
12	700	700	700	795	715	690	695	---	700	685	705	710
13	700	700	700	810	700	680	685	715	700	685	700	700
14	710	700	680	770	685	660	680	725	700	685	700	690
15	700	700	680	760	675	690	680	720	575	680	700	695
16	710	700	690	740	675	695	680	720	510	680	695	695
17	705	700	690	735	625	700	680	---	590	685	700	700
18	710	705	725	725	615	685	625	---	640	700	705	680
19	710	705	725	730	620	660	620	---	625	695	705	690
20	710	705	745	745	625	655	630	---	635	695	710	685
21	710	700	745	740	625	655	585	725	660	695	700	685
22	710	700	750	745	600	660	595	---	675	685	705	685
23	700	690	750	735	620	675	635	---	675	675	705	710
24	710	705	740	740	635	685	635	635	675	675	705	685
25	700	695	740	720	640	680	515	630	675	685	705	680
26	700	695	735	725	645	700	535	580	675	690	705	680
27	700	700	740	720	640	695	600	600	680	690	705	675
28	700	705	730	715	640	700	625	625	680	690	700	680
29	690	710	725	710	640	700	630	650	565	670	700	685
30	690	700	725	700	---	700	660	645	625	645	700	685
31	700	---	725	705	---	710	---	650	---	665	705	---
MONTH	700	701	723	745	671	676	654	---	662	679	699	695

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.0	11.0	1.5	2.0	2.0	7.5	9.0	13.0	20.5	23.5	25.5	23.5
2	16.5	11.0	1.0	1.0	0.5	5.5	9.5	14.0	21.0	23.5	25.5	23.5
3	16.0	11.5	1.0	0.0	0.5	4.0	10.0	13.0	21.5	23.5	26.0	24.0
4	15.5	12.5	2.0	0.0	0.0	3.0	10.0	13.0	22.5	23.0	25.5	24.0
5	15.0	12.5	2.0	0.0	0.0	1.5	11.0	13.0	23.0	23.5	24.0	23.0
6	15.0	12.5	2.5	0.0	0.0	0.5	11.0	14.0	22.5	23.5	25.0	23.0
7	16.0	13.0	2.0	0.0	0.0	1.0	10.5	14.0	22.5	24.0	26.0	23.0
8	17.0	13.0	2.5	0.0	0.5	1.5	10.5	14.5	22.5	24.0	24.0	22.5
9	16.5	13.0	2.5	0.0	1.5	2.0	11.0	14.5	23.0	24.5	24.0	22.0
10	16.0	12.0	3.5	0.0	2.0	4.0	11.5	15.0	23.0	25.0	26.0	21.0
11	16.0	11.5	2.5	0.5	2.0	4.0	11.5	15.5	23.0	25.5	25.0	21.0
12	17.0	10.0	3.0	0.0	4.0	4.0	11.5	---	24.0	26.5	26.0	21.0
13	16.5	9.0	4.0	0.0	3.5	3.0	12.0	16.5	24.5	26.5	27.0	21.0
14	17.0	8.0	4.5	0.0	3.0	3.0	14.5	17.0	24.5	27.0	25.0	21.5
15	17.0	7.0	2.5	0.0	4.0	2.5	15.0	17.0	22.5	27.0	24.0	22.5
16	16.5	7.0	2.0	0.0	4.0	2.5	15.5	16.5	21.5	25.5	24.0	21.5
17	15.0	7.5	0.0	0.0	4.0	4.0	16.0	---	22.0	26.0	25.0	21.0
18	14.0	8.0	0.0	0.0	4.5	4.5	15.5	---	21.5	25.0	25.0	21.0
19	13.5	9.5	0.0	0.0	5.0	6.0	15.5	---	21.0	26.0	24.0	21.5
20	14.0	9.0	0.0	0.0	5.0	7.5	16.0	---	20.5	26.5	25.0	20.5
21	15.0	7.0	0.0	0.0	3.0	7.0	15.0	18.5	21.0	27.0	26.0	20.0
22	15.0	5.5	0.0	0.5	3.0	7.5	15.5	---	21.5	26.0	25.0	20.0
23	14.5	4.0	0.5	1.0	4.5	8.0	16.5	---	22.0	26.0	26.0	19.5
24	14.5	3.0	1.0	2.0	5.0	9.0	16.5	17.5	22.0	26.5	26.0	19.0
25	13.5	3.0	1.5	1.0	5.0	8.5	14.5	19.0	22.0	27.0	25.5	19.0
26	12.5	2.0	1.5	0.0	5.5	9.5	14.0	17.5	22.0	27.5	25.5	18.5
27	11.5	2.0	1.0	0.0	7.0	9.0	13.0	17.5	22.5	28.0	25.5	18.0
28	11.0	1.0	1.5	0.5	6.5	9.5	12.5	18.5	22.5	27.5	25.0	17.0
29	10.5	2.5	1.5	1.0	6.0	10.0	12.0	19.5	23.0	27.5	24.5	17.5
30	11.5	2.0	1.5	1.5	---	9.5	13.0	20.0	24.0	26.5	24.0	17.0
31	11.5	---	2.0	2.0	---	9.5	---	20.0	---	26.5	23.5	---
MONTH	14.5	8.0	1.5	0.5	3.0	5.5	13.0	---	22.5	25.5	25.0	21.0

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

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

OCT. 21, 1975
1550 HOURS

IDENTIFICATION OF PHYTOPLANKTON

6,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
..CHARACIACEAE				
LSCHROEDERIA			0	
..MICRACTINIACEAE				
..MICRACTINIUM		400	7	
..OOCYSTACEAE				
LANKISTRODESMUS			0	
..SCENEDESMACEAE				
LACTINASTRUM			0	
..SCENEDESMUS				
	TOTALS	<u>790</u> 1,200	<u>13</u> 20	0.918=DIVERSITY
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
..COSCINODISCACEAE				
DCYCLOTELLA		2,800	47	
LMELOSIRA			0	
..PENNALES	PENNATE			
..CYMBELLACEAE				
..RHOPALODIA		66	1	
..NAVICULACEAE	NAVICULOID			
..NAVICULA		130	2	
..NITZSCHIACEAE				
..NITZSCHIA				
	TOTALS	<u>530</u> 3,600	<u>9</u> 59	0.952=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..CHROOCOCCALES	COCCOID			
..CHROOCOCCACEAE				
..ANACYSTIS		260	4	
..OSCILLATORIALES	FILAMENTOUS			
..OSCILLATORIACEAE				
DOSCILLATORIA				
	TOTALS	<u>990</u> 1,300	<u>16</u> 20	0.742=DIVERSITY

MISSOURI RIVER MAIN STEM

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

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

NOV. 11, 1975
1515 HOURS

IDENTIFICATION OF PHYTOPLANKTON

14.000 CELLS/ML

_ORGANISM__NAME_____	_COMMON__NAME_____	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...OOCYSTACEAE				
....ANKISTRODESMUS		430	3	
....DICTYOSPHAERIUM		860	6	
....TETRAEDRON		220	2	
...SCENEDESMACEAE				
....ACTINASTRUM		650	5	
....SCENEDESMUS		<u>860</u>	<u>6</u>	
	TOTALS	3.000	22	2.182=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
DCYCLOTELLA		2,200	16	
....MELOSIRA		1,500	11	
..PENNALES	PENNATE			
...FRAGILARIACEAE				
DASTERIONELLA		2,400	17	
....FRAGILARIA		860	6	
...NAVICULACEAE	NAVICULOID			
....NAVICULA		860	6	
...NITZSCHIAEAE				
....NITZSCHIA		<u>1,300</u>	<u>9</u>	
	TOTALS	9,100	65	2.477=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
...CHROOCOCCALES	COCCOID			
...CHROOCOCCACEAE				
....ANACYSTIS		<u>1,700</u>	<u>12</u>	
	TOTALS	1,700	12	0.000=DIVERSITY

DEC. 9, 1975
1530 HOURS

IDENTIFICATION OF PHYTOPLANKTON

4.100 CELLS/ML

_ORGANISM__NAME_____	_COMMON__NAME_____	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...OOCYSTACEAE				
....ANKISTRODESMUS		110	3	
...SCENEDESMACEAE				
....SCENEDESMUS		<u>220</u>	<u>5</u>	
	TOTALS	320	8	0.918=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
DCYCLOTELLA		760	18	
DMELOSIRA		650	16	
..PENNALES	PENNATE			
...FRAGILARIACEAE				
DFRAGILARIA		1,400	34	
...NAVICULACEAE	NAVICULOID			
....NAVICULA		320	8	
...NITZSCHIAEAE				
DNITZSCHIA		<u>650</u>	<u>16</u>	
	TOTALS	3,800	92	2.171=DIVERSITY
EUGLENOPHYTA	EUGLENOIDS			
..EUGLENOPHYCEAE				
...EUGLENALES				
...EUGLENACEAE				
LEUGLENA			0	

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

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

JAN. 12, 1976
1530 HOURS

IDENTIFICATION OF PHYTOPLANKTON

430 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
.CHLOROPHYCEAE				
..CHLOROCOCCALES				
...SCENEDESMACEAE				
....SCENEDESMUS		44	10	
..VOLVOCES				
...CHLAMYDOMONADACEAE				
....CHLAMYDOMONAS		11	3	
TOTALS		55	13	0.722=DIVERSITY
CHRYSOPHYTA				
.BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
....CYCLOTELLA		11	3	
..PENNALES	PENNATE			
...FRAGILARIACEAE				
DASTERIONELLA		300	69	
...FRAGILARIA		44	10	
LSYNEDRA			0	
...NAVICULACEAE	NAVICULOID			
LGYROSIGMA			0	
....NAVICULA		22	5	
TOTALS		370	87	1.017=DIVERSITY
EUGLENOPHYTA	EUGLENOIDS			
.CRYPTOPHYCEAE	CRYPTOMONADS			
..CRYPTOMONIDALES				
...CRYPTOMONODACEAE				
LCRYPTOMONAS			0	

FEB. 9, 1976
1600 HOURS

IDENTIFICATION OF PHYTOPLANKTON

890 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
.CHLOROPHYCEAE				
..CHLOROCOCCALES				
...SCENEDESMACEAE				
....SCENEDESMUS		66	7	
TOTALS		66	7	0.000=DIVERSITY
CHRYSOPHYTA				
.BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
LCYCLOTELLA			0	
LMELOSIRA			0	
..PENNALES	PENNATE			
...DIATOMACEAE				
LDIATOMA			0	
...FRAGILARIACEAE				
DASTERIONELLA		690	78	
LFRAGILARIA			0	
...GOMPHONEMACEAE				
LGOMPHONEMA			0	
...NAVICULACEAE	NAVICULOID			
LGYROSIGMA			0	
...NAVICULA		99	11	
...NITZSCHACEAE				
...NITZSCHIA		33	4	
...SURIPELLACEAE				
LSURIPELLA			0	
TOTALS		820	93	0.764=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
.MYXOPHYCEAE				
..OSCILLATORIALES	FILAMENTOUS			
...OSCILLATORACEAE				
LLYNGBYA			0	

MISSOURI RIVER MAIN STEM

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

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

MAR. 1, 1976
1500 HOURS

IDENTIFICATION OF PHYTOPLANKTON

2,900 CELLS/ML

ORGANISM_NAME	COMMON_NAME	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
..HYDRODICTYACEAE				
D ..PEDIASTRUM		700	24	
..MICRACTINIACEAE				
..MICRACTINIUM		180	6	
..OOCYSTACEAE				
..ANKISTRODESMUS		44	2	
..SCENEDESMACEAE				
..SCENEDESMUS		220	8	
..VOLVOCALES				
..CHLAMYDOMONADACEAE				
..CHLAMYDOMONAS				
	TOTALS	<u>88</u> 1,200	<u>3</u> 43	1.750=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
..COSCINODISCACEAE				
..CYCLOTELLA		130	5	
..MELOSIRA		88	3	
..PENNALES	PENNATE			
..CYMBELLACEAE				
..AMPHORA		44	2	
..RHOPALODIA		44	2	
..FRAGILARIACEAE				
D ..ASTERIONELLA		620	21	
..NAVICULACEAE	NAVICULOID			
..DIPLOEIS		44	2	
..NAVICULA		180	6	
..NITZSCHACEAE				
..NITZSCHIA		180	6	
..SURIPELLACEAE				
..CAMPYLODISCUS		44	2	
L ..CYMATOPLEURA			0	
..SURIPELLA		<u>310</u> 1,700	<u>11</u> 60	2.729=DIVERSITY
EUGLENOPHYTA	EUGLENOIDS			
..EUGLENOPHYCEAE				
..EUGLENALES				
..EUGLENACEAE				
L ..EUGLENA			0	

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

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

APR. 5, 1976
1600 HOURS

IDENTIFICATION OF PHYTOPLANKTON

3,700 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
..CHLOROCOCCALES			
...SCENEDESMACEAE			
LSCENEDESMUS			0
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCACEAE			
DCYCLOTELLA		1,800	48
..PENNALES	PENNATE		
...FRAGILARIACEAE			
LASTERIONELLA			0
LFRAGILARIA			0
...GOMPHONEMATACEAE			
LGOMPHONEMA			0
...NAVICULACEAE	NAVICULOID		
...NAVICULA		280	7
...NITZSCHACEAE			
DNITZSCHIA		1,700	44
...SURIRELLACEAE			
LSURIRELLA			0
	TOTALS	3,700	99
			1.306=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
...OSCILLATORIALES	FILAMENTOUS		
...OSCILLATORIA			
LOSCILLATORIA			0

MAY 25, 1976
1530 HOURS

IDENTIFICATION OF PHYTOPLANKTON

15,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
..CHLOROCOCCALES			
...OOCYSTACEAE			
LANKISTRODESMUS			0
...CHODATELLA		310	2
...SCENEDESMACEAE			
...ACTINASTRUM		1,300	9
...SCENEDESMUS		1,900	13
	TOTALS	3,500	24
			1.322=DIVERSITY
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCACEAE			
...CYCLOTELLA		1,300	9
..PENNALES	PENNATE		
...ACHNANTHACEAE			
...COCCONEIS		310	2
...FRAGILARIACEAE			
DASTERIONELLA		2,500	17
...FRAGILARIA		1,900	13
...GOMPHONEMATACEAE			
...GOMPHONEMA		310	2
...NAVICULACEAE	NAVICULOID		
...NAVICULA		630	4
...NITZSCHACEAE			
DNITZSCHIA		4,400	30
	TOTALS	11,000	77
			2.314=DIVERSITY

MISSOURI RIVER MAIN STEM

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

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

JUNE 15, 1976
1440 HOURS

IDENTIFICATION OF PHYTOPLANKTON

4,000 CELLS/ML

_ORGANISM__NAME_____	_COMMON__NAME_____	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
..SCENEDESMACEAE				
DSCENEDESMUS				
	TOTALS	<u>1,400</u> 1,400	<u>35</u> 35	0.000=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
..COSCINODISCACEAE				
....CYCLOTELLA		530	13	
..PENNALES	PENNATE			
..GOMPHONEMACEAE				
....GOMPHONEMA		350	9	
..NAVICULACEAE	NAVICULOID			
....NAVICULA		350	9	
..NITZSCHIAEAE				
DNITZSCHIA		880	22	
..SURIPELLACEAE				
LCYMATOPLEURA			0	
....SURIPELLA		<u>530</u> 2,600	<u>13</u> 66	2.232=DIVERSITY

JULY 13, 1976
1530 HOURS

IDENTIFICATION OF PHYTOPLANKTON

22,000 CELLS/ML

_ORGANISM__NAME_____	_COMMON__NAME_____	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
..MICRACTINIACEAE				
....GOLENKINIA		120	1	
..OOCYSTACEAE				
....ANKISTRODESMUS		1,200	6	
....POLYDRIOPSIS		120	1	
....QUADRIGULA		250	1	
..SCENEDESMACEAE				
....ACTINASTRUM		1,700	8	
....SCENEDESMUS		990	5	
..VOLVOCALES				
..CHLAMYDOMONADACEAE				
....CHLAMYDOMONAS		120	1	
..CHLOROCOCCALES				
..OOCYSTACEAE				
....GLOEOACTINIUM		<u>2,200</u> 6,800	<u>10</u> 33	2.371=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
..COSCINODISCACEAE				
DCYCLOTELLA		3,500	16	
DMELOSIRA		8,200	37	
..PENNALES	PENNATE			
..FRAGILARIACEAE				
....ASTERIONELLA		1,400	6	
..NITZSCHIAEAE				
....NITZSCHIA		<u>1,400</u> 14,000	<u>6</u> 65	1.602=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..CHROOCOCCALES	COCCOID			
..CHROOCOCCACEAE				
....ANACYSTIS		<u>740</u> 740	<u>3</u> 3	0.000=DIVERSITY

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

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

AUG. 3, 1976
1600 HOURS

IDENTIFICATION OF PHYTOPLANKTON

10,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
...COELASTRACEAE				
DCOELASTRUM		2,700	26	
...MICRACTINIACEAE				
...GOLENKINIA		110	1	
...OOCYSTACEAE				
...ANKISTRODESMUS		220	2	
...WESTELLA		56	1	
...SCENEDESMACEAE				
...ACTINASTRUM		670	6	
...SCENEDESMUS		220	2	
..ULOTRICHAELES				
...MICROSPORACEAE				
...CYLINDROCAPSA		110	1	
..VOLVOCALES				
...CHLAMYDOMONADACEAE				
...CHLAMYDOMONAS		56	1	
...PHACOTACEAE				
...PHACOTUS		110	1	
..ZYGNEMATALES				
...DESMIDIACEAE	PLACODERM DESMIDS			
...CLOSTERIUM		56	1	
..CHLOROCOCCALES				
...OOCYSTACEAE				
...GLOEOACTINIUM				
	TOTALS	<u>220</u> 4,500	<u>2</u> 44	2.129=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCAEAE				
...CYCLOTELLA		1,100	11	
...MELOSIRA		610	6	
..PENNALES	PENNATE			
...FRAGILARIACEAE				
I.FRAGILARIA			0	
...SYNEDRA		56	1	
...NAVICULACEAE	NAVICULOID			
...NAVICULA		56	1	
...NEIDIUM		56	1	
...NITZSCHIAEAE				
...NITZSCHIA				
	TOTALS	<u>220</u> 2,100	<u>2</u> 22	1.761=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..CHROOCOCCALES	COCCOID			
...CHROOCOCCACEAE				
...AGMENELLUM		670	6	
...ANACYSTIS		940	9	
..OSCILLATORIALES	FILAMENTOUS			
...NOSTOCACEAE				
I.ANABAENA			0	
...OSCILLATORIACEAE				
DOSCILLATORIA				
	TOTALS	<u>2,200</u> 3,800	<u>21</u> 36	1.393=DIVERSITY

MISSOURI RIVER MAIN STEM

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

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

SEP. 7, 1976
1545 HOURS

IDENTIFICATION OF PHYTOPLANKTON

21,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
..OOCYSTACEAE				
....ANKISTRODESMUS		700	3	
DDICTYOSPHAERIUM		9,700	45	
..SCENEDESMACEAE				
....SCENEDESMUS		1,300	6	
..TETRASPORALES				
..PALMELLACEAE				
....GLOEOCYSTIS				
	TOTALS	<u>700</u> 12,000	<u>3</u> 57	1.078=DIVERSITY
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
..COSCINODISACEAE				
....CYCLOTELLA		2,100	10	
..PENNALES	PENNATE			
..FRAGILARIACEAE				
....ASTERIONELLA		410	2	
..NAVICULACEAE	NAVICULOID			
LGYROSIGMA			0	
..NITZSCHACEAE				
....NITZSCHIA				
	TOTALS	<u>120</u> 2,700	<u>1</u> 13	1.007=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..CHROOCOCCALES	COCCOID			
..CHROOCOCCACEAE				
....AGMENELLUM		2,800	13	
....ANACYSTIS		2,400	11	
..OSCILLATORIALES	FILAMENTOUS			
..OSCILLATORACEAE				
....LYNGBYA				
	TOTALS	<u>1,000</u> 6,300	<u>5</u> 29	1.481=DIVERSITY
EUGLENOPHYTA	EUGLENOIDS			
..EUGLENOPHYCEAE				
..EUGLENALES				
..EUGLENACEAE				
LEUGLENA			0	
LTRACHELOMONAS			0	
	TOTALS	<u>0</u> 120	<u>0</u> 0	1.000=DIVERSITY

NOTE: D = DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
 L = LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE

PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m ²)		Chlorophyll ^a	Chlorophyll ^b	Biomass pigment ratio	Sampling method
		Dry weight	Ash weight	(mg/m ²)	(mg/m ²)		
Nov. 11, 1975	21	94	83	88	1.0	130	Polyethylene strip
Mar. 1, 1976	20	1.0	0.6	0.3	0.0	1,500	Polyethylene strip
May 25	50	157	149	56	0.0	140	Polyethylene strip
Aug. 3	21	14	10	4.5	0.8	720	Polyethylene strip

06819500 ONE HUNDRED AND TWO RIVER AT MARYVILLE, MO

LOCATION.--Lat 40°20'45", long 94°49'56", in SW¼SW¼ sec.15, T.64 N., R.35 W., Nodaway County, Hydrologic Unit 10240013, on right bank at intake for city waterworks, just upstream from City Waterworks dam, 150 ft (45.7 m) upstream from bridge on U.S. Highway 136, 0.3 mi (0.48 km) downstream from Thill Branch, 1 mi (1.6 km) east of Maryville and at mile 64.0 (103.0 km).

DRAINAGE AREA.--515 mi² (1,334 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 964.65 ft (294.025 m) above mean sea level. Nonrecording gage prior to Sept. 15, 1958. Prior to June 20, 1934, at present site and datum. June 20, 1934, to Oct. 31, 1971, at site 3 mi (4.8 km) upstream at datum 5.68 ft (1.731 m) higher.

REMARKS.--Records poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--44 years, 205 ft³/s (5.806 m³/s), 5.57 in/yr (141 mm/yr), 148,500 acre-ft/yr (183 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,000 ft³/s (793 m³/s) Oct. 12, 1973, gage height, 19.25 ft (5.867 m); no flow at times in August, September 1934, July 25, 26, 1940, Jan. 28-30, 1954, and for part of each day July 29, 30, 1960, caused by temporary storage behind dam, built to direct flow into new channel, and Sept. 3, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 16, 1926, reached a stage of 15 ft (4.6 m), present site, from floodmark; discharge, 14,500 ft³/s (411 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,940 ft³/s (253 m³/s) Apr. 25 (0200), gage height, 15.85 ft (4.831 m), peak above base of 7,500 ft³/s (212 m³/s); minimum, 0.72 ft³/s (0.020 m³/s) Sept. 9, 10. gage height, 3.40 ft (1.036 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	4.7	305	37	29	277	106	354	167	63	159	3.2
2	18	12	109	24	19	197	85	292	131	64	56	2.5
3	13	16	80	16	31	195	76	231	111	58	32	2.3
4	8.3	16	63	21	28	260	67	192	92	50	24	1.9
5	9.1	16	58	14	23	732	60	183	86	39	21	1.4
6	8.5	15	56	14	21	503	60	171	79	35	14	2.1
7	7.7	12	62	11	18	576	61	140	71	32	12	2.4
8	7.2	8.4	46	6.7	18	772	56	120	69	29	10	1.6
9	8.3	13	42	4.6	19	522	50	116	61	28	9.6	1.1
10	6.2	22	42	4.9	77	486	46	112	59	27	10	.75
11	6.7	80	41	6.6	100	413	46	106	55	25	23	.93
12	5.7	41	37	8.4	100	689	43	112	52	23	28	.87
13	5.7	22	37	9.4	100	586	40	131	54	19	96	.86
14	5.4	17	138	9.5	100	309	38	122	558	18	65	1.0
15	5.3	15	329	10	126	253	41	108	2340	23	421	1.3
16	4.5	12	77	11	145	226	47	134	664	22	144	1.0
17	4.8	12	50	11	177	212	902	158	212	13	60	1.0
18	4.8	13	43	11	150	189	6420	123	151	9.7	38	1.3
19	5.0	12	39	14	120	178	2150	91	188	7.0	27	1.2
20	9.2	19	33	14	100	161	1020	79	104	5.4	21	2.3
21	9.8	17	35	13	800	133	4770	70	95	6.4	17	3.6
22	8.2	15	36	13	500	103	1100	65	95	39	16	1.8
23	7.1	17	30	15	400	91	1000	353	86	44	14	1.2
24	10	16	30	17	450	93	6570	206	78	26	9.7	1.0
25	6.1	10	30	18	500	88	5450	132	91	17	6.8	6.5
26	6.1	9.5	32	18	600	88	1210	96	85	16	7.7	17
27	6.4	13	33	21	676	92	722	76	89	9.3	7.2	12
28	4.8	13	30	19	594	76	703	68	122	6.7	4.8	6.1
29	4.4	112	31	18	427	74	494	1440	113	9.0	4.2	3.9
30	3.5	966	31	20	---	130	406	676	68	15	3.9	2.3
31	4.1	---	34	22	---	176	---	243	---	516	3.5	---
TOTAL	236.9	1566.6	2039	452.1	6448	8880	33839	6500	6226	1294.5	1365.4	86.41
MEAN	7.64	52.2	65.8	14.6	222	286	1128	210	208	41.8	44.0	2.88
MAX	23	966	329	37	800	772	6570	1440	2340	516	421	17
MIN	3.5	4.7	30	4.6	18	74	38	65	52	5.4	3.5	.75
CFSM	.01	.10	.13	.03	.43	.56	2.19	.41	.40	.08	.09	.005
IN.	.02	.11	.15	.03	.47	.64	2.44	.47	.45	.09	.10	.006
AC-FT	470	3110	4040	897	12790	17610	67120	12890	12350	2570	2710	171
CAL YR 1975 TOTAL	69841.81			MEAN 191	MAX 5740	MIN .41	CFSM .37	IN 5.04	AC-FT 138500			
WTR YR 1976 TOTAL	68933.91			MEAN 188	MAX 6570	MIN .75	CFSM .37	IN 4.98	AC-FT 136700			

PLATTE RIVER BASIN (IOWA-MISSOURI)

06820500 PLATTE RIVER NEAR AGENCY, MO

LOCATION.--Lat 39°41'19", long 94°42'10", in NE¼NW¼ sec. 10, T.56 N., R.34 W., Buchanan County, Hydrologic Unit 10240012, on left bank 10 ft (0.3 m) downstream from bridge of U.S. Highway 169, 1.5 mi (2.4 km) downstream from Third Fork, 3.5 mi (5.6 km) northeast of Agency, and at mile 66.8 (107.5 km).

DRAINAGE AREA.--1,760 mi² (4,560 km²), 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 (246.089 m) above mean sea level. May 22, 1924, to Aug. 9, 1930, nonrecording gage at site 4 mi (6.4 km) downstream at different datum. May 13, 1932, to Nov. 14, 1965, nonrecording gage at same site and datum.

REMARKS.--Records fair above 300 ft³/s (8.50 m³/s) and poor below and during ice effect. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--49 years (1924-29, 1932-76), 864 ft³/s (24.47 m³/s), 6.67 in/yr (169 mm/yr), 626,000 acre-ft/yr (772 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 53,000 ft³/s (1,500 m³/s) from loop rating, July 20, 1965, gage height, 35.05 ft (10.683 m); no flow at times in July and August 1934 and October 1956.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 7,000 ft³/s (198 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Nov. 30	0030	7,860 223	18.01 5.489	Apr. 25	2300	*21,400 606	*24.27 7.397
Apr. 21	1845	16,400 464	22.84 6.962	May 6	1700	9,360 265	19.31 5.886

Minimum discharge, 5.5 ft³/s (0.156 m³/s) Sept. 18, 19, gage height, 3.56 ft (1.085 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	119	43	3630	90	150	1100	358	1970	850	223	1330	21		
2	99	50	1380	80	120	764	380	1670	574	190	875	20		
3	88	56	543	80	100	568	302	1380	474	235	353	17		
4	75	66	386	80	100	1480	255	1180	399	181	216	19		
5	66	67	315	80	100	4860	232	1060	348	152	152	18		
6	58	77	266	80	100	2960	218	6740	320	139	116	15		
7	51	68	231	80	100	1750	210	3530	300	121	90	15		
8	45	59	210	70	100	1520	202	1320	277	113	73	13		
9	44	65	222	70	100	1680	196	948	259	107	61	12		
10	37	85	196	70	300	1490	187	798	246	99	44	11		
11	34	72	175	70	500	1090	178	716	259	90	42	14		
12	33	64	165	70	557	1840	171	670	248	83	78	14		
13	30	75	160	70	520	1830	166	748	228	77	42	11		
14	30	118	1890	70	379	1950	164	694	206	69	47	13		
15	30	100	1270	70	453	946	163	811	453	66	171	12		
16	28	80	767	70	481	787	158	1000	4510	66	493	10		
17	28	69	400	70	679	702	623	754	2260	65	591	8.4		
18	28	60	300	60	582	687	6170	672	769	62	291	7.2		
19	26	57	250	60	566	617	14700	618	515	57	185	10		
20	27	85	200	60	512	554	15300	543	419	49	131	14		
21	30	77	180	70	440	486	16000	468	380	44	101	14		
22	33	74	160	70	459	420	15300	444	320	41	79	10		
23	32	69	150	70	937	381	10300	416	284	37	64	9.1		
24	34	63	140	70	690	335	10800	421	430	46	56	8.9		
25	35	63	130	80	1170	305	20100	606	350	73	47	28		
26	35	125	120	80	1480	305	20800	482	264	90	45	155		
27	38	116	100	90	1730	300	16900	408	239	66	37	88		
28	42	116	120	90	1510	283	8370	351	240	50	34	69		
29	41	1310	100	90	1300	287	3550	854	239	40	29	57		
30	37	5980	100	120	---	355	2420	3470	231	34	26	46		
31	37	---	90	150	---	344	---	1700	---	41	22	---		
TOTAL	1370	9409	14346	2430	16215	32976	164873	37442	16891	2806	5921	759.6		
MEAN	44.2	314	463	78.4	559	1064	5496	1208	563	90.5	191	25.3		
MAX	119	5980	3630	150	1730	4860	20800	6740	4510	235	1330	155		
MIN	26	43	90	60	100	283	158	351	206	34	22	7.2		
CFSM	.03	.18	.26	.04	.32	.60	3.12	.69	.32	.05	.11	.01		
IN.	.03	.20	.30	.05	.34	.70	3.48	.79	.36	.06	.13	.02		
AC-FT	2720	18660	28460	4820	32160	65410	327000	74270	33500	5570	11740	1510		
CAL YR 1975	TOTAL	281718.0	MEAN	772	MAX	12700	MIN	26	CFSM	.44	IN	5.95	AC-FT	558800
WTR YR 1976	TOTAL	305438.6	MEAN	835	MAX	20800	MIN	7.2	CFSM	.47	IN	6.46	AC-FT	605800

PLATTE RIVER BASIN (IOWA-MISSOURI)

73

06821000 JENKINS BRANCH AT GOWER, MO

LOCATION.--Lat 39°37'29", long 94°36'01", in SW¼NW¼ sec.34, T.56 N., R.33 W., Clinton County, Hydrologic Unit 10240012, on right bank at upstream side of culvert on U.S. Highway 169, 0.8 mi (1.3 km) north of Gower, and 4.4 mi (7.1 km) upstream from mouth.

DRAINAGE AREA.--2.72 mi² (7.04 km²).

PERIOD OF RECORD.--April 1950 to September 1976 (discontinued).

REVISED RECORDS.--WSP 1440: 1950-51, 1954-55.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 905 ft (275.8 m) from topographic map.

AVERAGE DISCHARGE.--26 years, 1.59 ft³/s (0.045 m³/s), 7.94 in/yr (202 mm/yr), 1,150 acre-ft/yr (1.42 hm³/yr).

REMARKS.--Records fair. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,460 ft³/s (98.0 m³/s) July 20, 1965, gage height, 13.27 ft (4.045 m), from rating curve extended above 240 ft³/s (6.8 m³/s) on basis of slope-area measurement at gage height, 9.03 ft (2.752 m) and contracted-opening measurement at gage height 13.27 ft (4.045 m); no flow on many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 65 ft³/s (1.84 m³/s) Apr. 17, gage height, 2.40 ft (0.732 m), no peak above base of 200 ft³/s (5.66 m³/s); no flow on many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0			0	0	.10	.40	.10			
2		0			0	0	0	.30	.10			
3		0			0	0	0	.30	.10			
4		0			0	.90	0	.30	0			
5		0			0	0	0	.30	0			
6		0			0	0	.10	2.0	.10			
7		0			0	0	0	.50	0			
8		0			0	0	0	.40	0			
9		0			0	0	0	.30	0			
10		0			.10	0	0	.30	0			
11		0			0	0	0	.30	.10			
12		0			0	0	0	.30	0			
13		0			0	0	0	.30	0			
14		0			0	0	0	.30	0			
15		0			0	0	0	2.0	0			
16		0			0	.10	0	.60	0			
17		0			0	.10	6.4	.50	0			
18		0			0	.10	2.4	.40	0			
19		0			0	0	.30	.30	0			
20		0			0	0	9.0	.20	0			
21		0			0	0	1.0	.10	0			
22		0			0	0	.40	0	0			
23		0			0	0	.30	.20	0			
24		0			0	0	.70	.20	.10			
25		0			0	0	.50	.10	0			
26		0			0	0	.40	.10	0			
27		0			0	0	1.7	.10	0			
28		0			0	0	.70	.10	0			
29		.70			0	.10	.50	.20	0			
30		0			---	.10	.40	.20	0			
31		---			---	.10	---	.10	---			---
TOTAL	0	.70	0	0	.10	1.50	24.90	11.70	.60	0	0	0
MEAN	0	.023	0	0	.003	.048	.83	.38	.020	0	0	0
MAX	0	.70	0	0	.10	.90	9.0	2.0	.10	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
CFSM	0	.008	0	0	.001	.02	.31	.14	.007	0	0	0
IN.	0	.010	0	0	.001	.02	.34	.16	.008	0	0	0
AC-FT	0	1.4	0	0	.2	3.0	49	23	1.2	0	0	0
CAL YR 1975	TOTAL	388.40	MEAN	1.06	MAX	67	MIN	0	CFSM	.39	IN	5.31
WTR YR 1976	TOTAL	39.50	MEAN	.11	MAX	9.0	MIN	0	CFSM	.04	IN	.54
									AC-FT	770		
									AC-FT	78		

PLATTE RIVER BASIN (IOWA-MISSOURI)

06821150 LITTLE PLATTE RIVER AT SMITHVILLE, MO

LOCATION.--Lat 39°23'17", long 94°34'44", in N½SW¼ 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 (152 m) upstream from town bridge in Smithville, 1,500 ft (457 m) upstream from bridge on U.S. Highway 169, and 0.5 mi (0.8 km) downstream from Wilkerson Creek.

DRAINAGE AREA.--234 mi² (606 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 778.18 ft (237.189 m) above mean sea level (levels by Corps of Engineers). Prior to Mar. 23, 1966, nonrecording gage at site 1,500 ft (457 m) downstream at same datum.

REMARKS.--Records poor. Construction of dam for Smithville Lake began in June 1974. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--11 years, 151 ft³/s (4.276 m³/s), 8.76 in/yr (222 mm/yr), 109,000 acre-ft/yr (135 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 76,600 ft³/s (2,170 m³/s), slope-area measurement of peak flow, July 20, 1965, gage height, 44.8 ft (13.66 m) from floodmark; no flow at times in many years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1947 reached a stage of 37.4 ft (11.40 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,070 ft³/s (86.9 m³/s) May 15 (2315), gage height, 25.91 ft (7.897 m), peak above base of 3,000 ft³/s (85.0 m³/s); no flow Nov. 12, Sept. 8-25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	3.0	58	8.5	18	7.3	55	48	30	6.5	.25	.18
2	2.8	3.0	27	8.7	18	8.0	35	36	22	5.1	.25	.18
3	2.5	3.3	15	11	20	8.0	26	25	19	4.5	.15	.18
4	2.5	3.3	12	5.2	15	82	21	21	17	2.5	.22	.16
5	3.0	3.3	10	5.0	13	237	18	21	14	.77	.23	.16
6	3.0	3.5	8.5	5.0	44	123	16	459	13	1.2	.27	.48
7	4.0	3.3	7.0	6.0	21	72	14	631	11	1.5	.30	.08
8	3.0	3.3	6.8	7.2	7.5	43	11	574	11	1.2	.27	0
9	3.0	3.3	6.0	7.1	9.9	32	12	474	10	.96	.25	0
10	2.8	3.5	7.0	7.7	29	26	11	118	9.8	1.0	.26	0
11	2.8	12	6.8	7.5	36	24	11	61	11	.78	.30	0
12	3.0	.34	5.6	7.6	33	39	12	58	11	.51	.22	0
13	3.0	1.9	5.4	9.5	34	30	11	113	8.5	.09	.12	0
14	3.3	2.5	535	9.7	26	24	11	61	7.0	.30	.26	0
15	3.3	2.8	224	9.0	21	20	12	756	6.0	.26	.22	0
16	3.3	3.3	59	7.7	22	21	11	1090	3.9	.47	.16	0
17	3.0	4.0	27	4.4	20	24	18	611	1.5	.54	.06	0
18	3.0	3.3	19	4.5	15	24	287	525	2.5	.39	.12	0
19	2.8	4.5	12	7.8	13	22	208	200	5.0	.39	.18	0
20	3.0	9.5	12	10	9.8	20	208	91	4.6	.36	.18	0
21	3.3	11	11	7.5	11	16	455	69	5.1	.36	.22	0
22	3.3	8.8	9.4	8.1	10	13	288	56	4.1	.49	.24	0
23	3.3	7.0	8.1	9.1	9.3	13	96	47	140	.50	.22	0
24	3.3	6.0	7.6	10	9.3	13	59	41	434	.43	.20	0
25	3.0	4.8	9.4	11	9.0	13	52	37	98	.44	.18	.32
26	3.0	2.0	9.5	13	8.0	12	70	32	40	.47	.16	.46
27	3.3	7.3	8.7	9.9	7.5	9.0	117	28	17	.34	.14	.30
28	3.0	9.3	8.9	9.8	7.0	10	152	25	12	.31	.10	.28
29	3.3	40	8.5	14	7.0	44	122	22	14	.26	.08	.26
30	3.3	160	8.6	18	---	275	67	53	9.0	.27	.10	.26
31	3.3	---	8.5	17	---	160	---	67	---	.26	.12	---
TOTAL	95.5	333.14	1161.3	276.5	503.3	1464.3	2486	6450	991.0	33.45	6.03	3.30
MEAN	3.08	11.1	37.5	8.92	17.4	47.2	82.9	208	33.0	1.08	.19	.11
MAX	4.0	160	535	18	44	275	455	1090	434	6.5	.30	.48
MIN	2.5	.34	5.4	4.4	7.0	7.3	11	21	1.5	.09	.06	0
CFSM	.01	.05	.16	.04	.07	.20	.35	.89	.14	.004	0	0
IN.	.02	.05	.18	.04	.08	.23	.40	1.03	.16	.005	.0010	.0005
AC-FT	189	661	2300	548	998	2900	4930	12790	1970	66	12	6.5
CAL YR 1975 TOTAL	35646.74			MEAN 97.7	MAX 6690	MIN .34	CFSM .42	IN 5.67	AC-FT 70710			
WTR YR 1976 TOTAL	13803.82			MEAN 37.7	MAX 1090	MIN 0	CFSM .16	IN 2.19	AC-FT 27380			

06892350 KANSAS RIVER AT DESOTO, KS

LOCATION.--Lat 38°59'00", long 94°57'52", in SE¼NE¼NE¼ sec.27, T.12 S., R.22 E., Leavenworth County, Hydrologic Unit 10270104, on left bank at downstream side of bridge on county road, north edge of DeSoto, 0.4 mi (0.6 km) upstream from Kill Creek and at mile 31.0 (49.9 km).

DRAINAGE AREA.--59,756 mi² (154,768 km²), 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 (231.304 m) above mean sea level. July 9, 1917, to Apr. 23, 1934, nonrecording gage; April 24, 1934, to Nov. 26, 1961, water-stage recorder at site 9.7 mi (15.6 km) downstream at datum 11.81 ft (3.600 m) lower; Nov. 26, 1961, to Sept. 30, 1971, water-stage recorder at site 10.2 mi (16.4 km) downstream at datum 17.81 ft (5.428 m) lower; and Oct. 1, 1971, to Sept. 30, 1973, at site 10.2 mi (16.4 km) downstream at datum 22.81 ft (6.952 m) lower.

REMARKS.--Records good except those for winter periods, which are poor. Natural flow of stream affected by lakes and reservoirs in Colorado, Nebraska, and Kansas, and by numerous diversions for irrigation above station.

AVERAGE DISCHARGE.--59 years, 6,881 ft³/s (194.9 m³/s) 4,985,000 acre-ft/yr (6.15 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 510,000 ft³/s (14,400 m³/s) July 13, 1951, gage height, 37.3 ft (11.37 m), from floodmarks, present site and datum, from rating curve extended above 128,000 ft³/s (3,620 m³/s) on basis of slope-area measurement of peak flow at mile 19.52 (31.41 km) and at mile 18.60 (29.93 km); minimum observed, 160 ft³/s (4.53 m³/s) Oct. 11, 1956.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges above regulated base of 17,000 ft³/s (481 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
Apr. 22	0200	29,800	844	13.25	4.039
May 1	0300	25,000	708	12.31	3.752
May 7	1600	*39,800	1,130	*14.96	4.560

Minimum discharge, 718 ft³/s (20.3 m³/s) Nov. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	2130	991	7280	3250	1570	1860	1950	23600	9910	5830	3990	904		
2	2040	973	4690	2610	1530	1880	1900	20800	10400	5880	3920	882		
3	1870	1180	3320	2150	1540	1850	1850	19000	9030	5510	3570	921		
4	1580	1110	2880	1700	1550	2000	2040	16600	6680	5180	3030	890		
5	1480	1560	3090	1200	1650	2690	2340	14200	5770	4690	2720	1070		
6	1530	1640	2930	1050	1460	3830	2350	14000	5290	4470	2000	994		
7	1480	1530	2770	1000	1360	3760	2280	34500	4590	4430	1790	1060		
8	1420	1370	2460	1100	1390	3200	2390	24600	3970	4190	1610	1020		
9	1310	1210	2280	1100	1980	2770	2530	19300	3720	4290	1460	931		
10	1330	1330	2270	1100	2420	2760	2700	17100	3440	4090	1370	1030		
11	1290	1280	2120	1200	2390	2690	2760	16500	3250	4150	1360	1030		
12	1290	1130	2220	1300	1940	2780	3080	14100	3100	3970	1350	985		
13	1300	1100	1950	1500	2020	2890	3450	12000	2900	3910	1200	918		
14	1170	1060	3230	1600	2090	3030	3540	10300	2720	3830	1200	995		
15	1240	1010	3790	1700	2280	3080	3350	8490	2610	3760	1130	1030		
16	1140	1130	4190	1700	2360	3090	2840	9830	3100	4310	1110	1030		
17	1150	850	3300	1800	2350	3230	2740	7510	3310	4350	1070	1010		
18	1110	1060	2440	1900	2350	3150	3770	7030	3330	4410	963	1060		
19	1000	949	2650	1900	2360	3090	7940	6460	3290	3930	1020	1060		
20	1040	980	3860	1900	2460	2850	9590	6000	3640	4310	939	1110		
21	1130	1210	3900	1800	2360	2640	19700	5820	3390	4970	950	931		
22	1070	937	3890	1700	2420	2450	26900	5430	3230	4590	934	1010		
23	916	942	3900	1700	2370	2380	19600	5220	3230	3890	917	950		
24	1070	1080	3670	1750	2360	2310	16800	6030	3610	4130	908	950		
25	1070	915	3720	1860	2350	2320	15600	8420	3870	4130	906	952		
26	920	1030	3710	1700	2320	2310	16100	7940	6070	4270	896	965		
27	997	882	3780	1390	2320	2180	13700	9180	5430	4430	885	1080		
28	1060	838	3750	1210	2110	2060	15700	9460	6310	4350	892	1150		
29	970	1080	3730	1720	1920	2000	18800	9270	6880	4370	774	1030		
30	1040	4690	3760	1550	---	1970	22300	11500	5780	4360	879	1010		
31	1040	---	3690	1490	---	2000	---	11100	---	4190	975	---		
TOTAL	39183	37047	105220	50630	59580	81100	250590	391290	141850	137170	46718	29958		
MEAN	1264	1235	3394	1633	2054	2616	8353	12620	4728	4425	1507	999		
MAX	2130	4690	7280	3250	2460	3830	26900	34500	10400	5880	3990	1150		
MIN	916	838	1950	1000	1360	1850	1850	5220	2610	3760	774	882		
CFSM	.02	.02	.06	.03	.03	.04	.14	.21	.08	.07	.03	.02		
IN.	.02	.02	.07	.03	.04	.05	.16	.24	.09	.09	.03	.02		
AC-FT	77720	73480	208700	100400	118200	160900	497000	776100	281400	272100	92670	59420		
CAL YR 1975	TOTAL	2138290	MEAN	5858	MAX	48100	MIN	838	CFSM	.10	IN	1.33	AC-FT	4241000
WTR YR 1976	TOTAL	1370336	MEAN	3744	MAX	34500	MIN	774	CFSM	.06	IN	.85	AC-FT	2718000

MISSOURI RIVER MAIN STEM

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, & Quincy Railroad bridge at Kansas City, 1.4 mi (2.3 km) downstream from Kansas River. River mile, 366.1 (589.1 km).

DRAINAGE AREA (REVISED).--485,200 mi² (1,257,000 km²), approximately. The 3,959 mi² (10,254 km²) in Great Divide basin is not included.

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

REVISED RECORDS.--WSP 761: Drainage area. WSP 1310: 1905.

GAGE.--Water-stage recorder. Datum of gage is 716.40 ft (218.359 m) above mean sea level. Prior to May 4, 1931, nonrecording gage, and 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 (61.0 m) upstream at same datum. May 16, 1947, to Feb. 28, 1948, nonrecording gage at present site and datum.

REMARKS.--Records good. Discharge measurements made weekly except during ice-flow periods. Some regulation from many upstream reservoirs. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--79 years (1898-1976), 54,690 ft³/s (1,549 m³/s), 39,620,000 acre-ft/yr (48,850 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 573,000 ft³/s (16,230 m³/s) July 14, 1951; maximum gage height, 36.2 ft (11.03 m) July 14, 1951; minimum discharge, about 1,500 ft³/s (42.5 m³/s) Jan. 9, 10, 1937; minimum gage height, -2.91 ft (-0.887 m) Jan. 29, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 38.0 ft (11.58 m) June 16, 1844, discharge, about 625,000 ft³/s (17,000 m³/s), computed by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 120,000 ft³/s (3,400 m³/s) Apr. 26 gage height, 13.59 ft (4.142 m); minimum, 14,900 ft³/s (422 m³/s) Jan. 12, gage height, -1.02 ft (-0.311 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70400	68900	90300	37600	36200	43500	54300	81500	64400	55500	51000	40300
2	69800	69100	87600	36700	37100	44300	54400	76000	59900	54600	51400	40100
3	69800	68200	80800	36100	36500	43900	53800	72000	59000	53200	47900	40100
4	69700	68300	75500	34800	36200	44700	52300	68000	54600	54900	46200	40200
5	68700	69200	69500	33000	35300	45900	52000	64500	51800	52900	45900	40500
6	66900	70100	66400	29900	35200	47300	52100	67900	51700	51900	45300	40500
7	66600	69200	62000	28900	34100	44400	51400	80100	52200	51100	44500	40500
8	67500	68700	56200	28900	31700	40400	50800	80800	51000	49600	44300	40500
9	67200	68700	52200	29900	32300	40500	50300	68100	49900	48800	43300	40500
10	67200	69900	47700	40000	33600	41100	50100	64300	50600	48600	43000	40800
11	67700	72100	43400	30000	35400	41200	49600	62700	50000	47600	42800	40300
12	68100	73200	40400	18800	37200	46000	49300	61100	48500	47000	43400	40300
13	68500	72600	41100	21300	37500	50600	49800	59200	48400	46800	42900	39900
14	68300	72900	46100	29600	37700	52200	49500	58300	47700	46100	41800	39800
15	67600	73400	46000	29200	38100	52500	49500	60300	64000	45800	41700	40500
16	67900	71600	45200	30700	40500	51100	49400	64100	81800	46700	43200	41000
17	69400	70300	42600	31700	47000	51800	49900	60600	61100	46900	42600	41800
18	70600	70000	37200	36200	51500	51000	57700	58000	56100	46600	42300	41500
19	70200	71400	33900	31000	49000	49600	71200	56600	55300	46200	42800	41500
20	68600	72700	32500	27800	45900	51100	73800	54600	54900	45300	43100	42000
21	69100	74900	31800	29800	46000	51100	78500	53900	50900	45700	42400	42300
22	69600	80400	32700	33000	48100	50600	98400	52600	49000	46900	41600	41600
23	69700	82400	33900	33500	46900	50900	91400	51600	52500	48100	42000	41600
24	69500	78000	36000	33100	43000	52000	88000	68100	54000	47500	42300	41800
25	69900	74700	36500	34500	42600	50600	107000	79700	50300	45600	42500	42000
26	70800	74900	36100	35100	41900	50700	113000	77200	50100	44700	41600	43700
27	72300	74600	35700	34800	41900	50500	94800	69000	50600	44300	41500	44000
28	71400	71500	36600	34800	42600	50500	91400	65200	61400	44700	41100	43400
29	69800	73700	37000	34000	42700	50100	90800	62600	67600	46800	41100	43100
30	68800	84800	37300	33100	---	49600	87500	71200	60600	50500	41100	43400
31	68400	---	37600	33700	---	51800	---	70900	---	47500	40400	---
TOTAL	2140000	2180400	1487800	991500	1163700	1491500	2012000	2040700	1659900	1498400	1347000	1239500
MEAN	69030	72680	47990	31980	40130	48110	67070	65830	55330	48340	43450	41320
MAX	72300	84800	90300	40000	51500	52500	113000	81500	81800	55500	51400	44000
MIN	66600	68200	31800	18800	31700	40400	49300	51600	47700	44300	40400	39800
AC-FT	4245000	4325000	2951000	1967000	2308000	2958000	3991000	4048000	3292000	2972000	2672000	2459000
CAL YR 1975	TOTAL	21376500	MEAN	58570	MAX	108000	MIN	16800	AC-FT	42400000		
WTR YR 1976	TOTAL	19252400	MEAN	52600	MAX	113000	MIN	18800	AC-FT	38190000		

LOCATION.--Lat 38°57'26", long 94°33'31", in SE¼NE¼ 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 (0.6 km) downstream from Indian Creek, in Kansas City and at river mile 23.16 (37.3 km).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,340 ft³/s (123 m³/s) June 23, gage height, 16.68 ft (5.084 m), no peak above base of 5,800 ft³/s (164 m³/s); minimum, 5.2 ft³/s (0.147 m³/s) Sept. 1, gage height, 3.93 ft (1.198 m).

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	50	22	48	20	23	25	22	54	102	62	18	7.0		
2	17	23	32	22	19	21	19	43	75	48	18	14		
3	15	23	25	24	22	11	19	37	59	41	17	15		
4	13	14	23	22	21	210	18	33	47	36	17	14		
5	12	13	22	17	18	130	18	32	41	31	17	23		
6	11	12	20	21	17	64	17	80	37	30	18	29		
7	16	12	19	20	17	46	18	48	34	27	17	22		
8	10	12	22	22	14	38	23	36	30	26	16	16		
9	14	17	20	33	15	34	23	31	28	24	17	15		
10	5.5	25	18	28	16	33	19	31	139	23	31	14		
11	14	14	17	28	20	28	19	29	80	22	38	14		
12	14	12	17	25	20	61	19	34	43	22	26	14		
13	14	12	17	25	20	41	17	37	31	20	22	16		
14	28	12	74	16	20	33	17	30	27	10	19	16		
15	27	12	62	23	18	29	17	345	70	844	28	16		
16	14	12	41	33	18	37	19	184	29	157	25	16		
17	13	12	30	25	18	30	27	105	23	41	21	15		
18	11	12	24	23	18	26	221	74	63	32	19	17		
19	11	25	22	24	19	25	67	58	31	29	17	18		
20	11	58	22	22	17	25	106	48	23	25	16	19		
21	11	21	21	22	16	24	72	43	27	22	16	21		
22	10	15	21	25	16	24	49	37	20	22	16	21		
23	11	14	19	23	17	20	39	59	1030	21	16	18		
24	41	14	19	21	17	19	43	116	268	19	16	16		
25	22	14	18	20	18	19	48	61	98	17	16	18		
26	13	17	18	19	23	21	36	44	58	20	19	63		
27	12	20	18	19	19	21	157	42	44	20	21	25		
28	12	31	22	22	17	22	124	35	1390	20	18	19		
29	12	154	24	20	24	36	72	30	196	20	15	16		
30	11	102	22	20	---	31	62	1180	93	20	20	15		
31	11	---	21	19	---	22	---	185	---	19	17	---		
TOTAL	486.5	756	798	703	537	1206	1427	3201	4236	1770	607	562.0		
MEAN	15.7	25.2	25.7	22.7	18.5	38.9	47.6	103	141	57.1	19.6	18.7		
MAX	50	154	74	33	24	210	221	1180	1390	844	38	63		
MIN	5.5	12	17	16	14	11	17	29	20	10	15	7.0		
CFSM	.08	.13	.14	.12	.10	.21	.25	.55	.75	.30	.10	.10		
IN.	.10	.15	.16	.14	.11	.24	.28	.63	.84	.35	.12	.11		
AC-FT	965	1500	1580	1390	1070	2390	2830	6350	8400	3510	1200	1110		
CAL YR 1975	TOTAL	53091.5	MEAN	145	MAX	5240	MIN	5.5	CFSM	.77	IN	10.51	AC-FT	105300
WTR YR 1976	TOTAL	16289.5	MEAN	44.5	MAX	1390	MIN	5.5	CFSM	.24	IN	3.22	AC-FT	32310

BLUE RIVER BASIN

06893560 BRUSH CREEK AT MAIN ST. IN KANSAS CITY, MO

LOCATION.--Lat 39°02'24", long 94°35'12", SW¼NE¼SW¼ sec.29, T.49 N., R.33 W., Jackson County, Hydrologic Unit 10300101, on right bank 25 ft (8 m) downstream from bridge on Main St. and 4 mi (6.4 km) upstream from Blue River.

DRAINAGE AREA.--14.8 mi² (38.3 km²).

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 815 ft (248.4 m) from topographic map.

REMARKS.--Records poor. Flow affected by waste water from urbanized area. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--6 years, 7.55 ft³/s (0.214 m³/s), 6.93 in/yr (176 mm/yr), 5,470 acre-ft/yr (6.74 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,300 ft³/s (122 m³/s) June 28, 1976; maximum gage height, 9.20 ft (2.804 m) Sept. 11, 1975; no flow Dec. 9-16, 1972, July 17, 1973.

EXTREMES FOR CURRENT YEAR.--Peak discharges above 800 ft³/s (22.7 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
June 10	1515	1,620 45.9	6.29 1.917	June 28	1035	*4,300 122	*7.90 2.408
June 23	1145	3,900 110	7.54 2.298	July 15	1715	3,100 87.8	6.81 2.076

Minimum discharge, 0.08 ft³/s (0.002 m³/s) Nov. 17, 18, 19; minimum gage height observed, 2.30 ft (0.701 m) Feb. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	3.3	.49	.40	.40	.50	.70	.60	.50	5.0	.20	.20
2	1.2	3.5	.57	.40	.40	.50	.70	.60	.50	7.0	.20	.20
3	.94	2.2	.43	.40	.40	.50	.70	.60	.50	4.6	.20	.20
4	.66	.64	.37	.40	.40	.60	.70	.60	.50	2.0	.20	.20
5	.49	.43	.43	.50	.40	2.0	.70	.60	.50	1.0	.20	.20
6	.43	.34	.34	.41	.40	.60	.70	19	.50	.80	1.3	.30
7	.49	.41	.31	.40	.40	.60	.70	.60	.50	.60	5.6	.30
8	.66	.37	1.4	.40	.40	.60	.70	.60	.50	.40	3.7	.30
9	.94	3.4	.57	.40	.40	.60	.70	.60	.50	.30	.20	.30
10	1.0	1.1	.31	.40	.40	.60	.70	.60	131	.20	2.7	.31
11	.94	.34	.31	.40	.49	6.0	.70	.57	2.1	.20	.20	1.6
12	1.0	.28	.28	.40	.50	2.7	.70	2.3	.50	.20	.20	.30
13	1.3	.22	.34	1.0	.50	.70	.70	.60	.50	.20	.20	.30
14	5.8	.16	2.4	.50	.50	.70	.70	.60	.50	.20	.20	.30
15	2.6	.10	.66	.40	.50	1.0	.70	61	6.2	79	.20	1.1
16	.49	.10	.22	.40	.50	1.5	.70	2.0	.50	5.5	.20	1.0
17	.49	.10	.31	.40	.50	.80	.70	1.0	.50	1.0	.20	.40
18	.57	.08	.43	.40	.50	.80	.70	.60	4.2	.50	.20	.40
19	.49	1.0	.22	.40	.50	.76	.66	.60	.50	.20	.20	.40
20	.57	1.3	.30	.40	.50	.80	29	.60	.50	.20	.20	.40
21	.66	1.1	.30	.40	.50	.80	.70	.60	.49	.20	.20	.40
22	.66	.85	.30	.40	.50	.80	.70	.60	.50	.20	.20	.40
23	.85	.49	.30	.40	.50	.80	.70	13	188	.20	.20	.40
24	4.3	.76	.30	.40	.50	.80	.70	2.2	139	.20	.20	.40
25	.57	.66	.30	.40	.50	.80	.70	1.0	7.4	.20	.20	.40
26	.43	1.7	.30	.40	.50	.80	149	.60	5.5	.16	.20	.40
27	.66	2.2	.30	.40	.50	.80	5.0	.60	5.0	.20	.20	.40
28	1.0	2.8	.30	.40	.50	2.2	1.0	.60	250	.20	.20	.40
29	1.1	5.9	.30	.40	.50	3.5	.80	.60	11	.20	.20	.40
30	.85	1.3	.30	.40	---	.80	.70	9.1	6.1	.20	.20	.40
31	.85	---	.30	.40	---	.80	---	1.0	---	.20	.20	---
TOTAL	35.99	37.13	13.99	13.21	13.49	95.16	202.26	124.17	764.49	111.26	18.70	12.71
MEAN	1.16	1.24	.45	.43	.47	3.07	6.74	4.01	25.5	3.59	.60	.42
MAX	5.8	5.9	2.4	1.0	.50	.60	149	.61	250	79	5.6	1.6
MIN	.43	.08	.22	.40	.40	.50	.66	.57	.49	.16	.20	.20
CFSM	.08	.08	.03	.03	.03	.21	.46	.27	1.72	.24	.04	.03
IN.	.09	.09	.04	.03	.03	.24	.51	.31	1.92	.28	.05	.03
AC-FT	71	74	28	26	27	189	401	246	1520	221	37	25
CAL YR 1975	TOTAL	1880.29	MEAN	5.15	MAX	293	MIN	.08	CFSM	.35	IN	4.73
WTR YR 1976	TOTAL	1442.56	MEAN	3.94	MAX	250	MIN	.08	CFSM	.27	IN	3.63
									AC-FT	3730		
										2860		

06893793 LITTLE BLUE RIVER BELOW LONGVIEW DAMSITE IN KANSAS CITY, MO

LOCATION.--Lat 38°55'52", long 94°28'12", in NW¼SE¼SE¼ sec.32, T.48 N., R.32 W., Jackson County, Hydrologic Unit 10300101, on left bank 700 ft (213 m) downstream from Longview damsite in Kansas City, 1 mile (1.6 km) downstream from Longview Road and 2.0 miles (3.2 km) upstream from Cedar Creek.

DRAINAGE AREA.--50.7 mi² (131.3 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 798.60 ft (243.413 m) above mean sea level. Prior to Oct. 25, 1974 at site 1.0 mile (1.6 km) upstream and at datum 24.90 ft (7.590 m) higher.

REMARKS.--Records poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--10 years, 46.0 ft³/s (1.303 m³/s) 12.32 in/yr (313 mm/yr) 33,300 acre-ft/yr (41.1 hm³/yr)

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,880 ft³/s (280 m³/s) June 27, 1969, gage height, 11.19 ft (3.411 m) at site and datum then in use; minimum, 0.5 ft³/s (0.014 m³/s) Oct. 3, 1966, at site and datum then in use.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, not determined, June 27 (time unknown), gage height, 12.00 ft (3.962 m) highwater mark on outside staff, 13.76 ft (4.194 m) on crest-stage gage 700 ft upstream, peak above base of 2,200 ft³/s (62.3 m³/s); minimum discharge, 1.3 ft³/s (0.037 m³/s) Sept. 16; minimum gage height, 1.08 ft (0.329 m) Sept. 12-14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	3.6	6.3	7.2	6.0	4.3	5.1	7.9	10	15	1.9	2.0
2	4.0	3.9	5.3	7.6	6.0	4.8	6.2	6.4	10	8.8	1.9	2.0
3	4.0	4.5	3.8	7.9	6.0	4.9	5.2	6.0	9.0	7.2	2.0	2.0
4	4.0	4.1	3.7	7.5	6.0	7.9	5.2	5.6	8.0	5.9	1.9	2.0
5	4.0	3.1	3.4	7.5	6.0	8.3	4.9	5.2	7.0	5.1	1.9	2.0
6	3.6	2.3	3.3	7.2	6.0	16	4.3	19	6.0	4.7	1.9	4.0
7	2.9	2.1	3.1	7.0	6.0	11	4.1	13	5.0	4.5	2.1	2.0
8	3.1	2.8	3.4	7.0	6.0	8.8	4.0	6.1	5.0	4.5	1.9	2.0
9	3.3	2.3	4.6	7.0	6.0	7.0	3.6	6.0	5.0	4.0	1.7	2.0
10	3.1	2.2	3.8	7.0	6.0	6.1	3.4	6.0	300	4.0	1.7	1.8
11	2.6	3.7	3.9	7.0	6.0	5.7	3.4	5.8	60	4.0	2.9	1.9
12	2.9	3.3	3.7	7.0	6.0	20	3.3	6.0	30	3.5	2.1	1.7
13	3.4	2.5	3.6	7.0	6.0	8.0	3.3	6.0	20	3.5	3.8	1.5
14	5.2	2.1	85	7.0	7.0	6.1	4.1	6.0	20	3.0	2.5	1.5
15	8.2	2.5	66	7.0	8.0	5.6	3.9	200	30	100	2.1	1.5
16	5.2	2.6	11	6.0	10	6.5	4.1	50	20	20	2.1	1.5
17	4.1	2.2	7.5	6.0	6.6	6.1	6.4	24	17	5.0	2.1	1.6
18	3.1	2.0	6.5	6.0	5.6	5.6	82	20	14	4.5	1.9	1.7
19	2.8	2.3	5.2	6.0	5.2	5.6	12	20	12	4.0	1.8	1.8
20	2.8	8.5	5.0	6.0	4.6	5.5	17	20	10	3.5	1.9	3.6
21	2.8	3.3	4.8	6.0	4.7	5.1	10	20	9.0	3.0	1.8	2.1
22	2.8	2.1	4.0	6.0	6.4	4.7	6.6	20	8.0	3.0	1.8	2.0
23	2.9	2.3	4.3	6.0	5.3	5.4	5.6	15	250	2.6	2.5	1.8
24	3.6	2.3	4.1	6.0	5.5	5.6	6.0	15	100	2.5	2.0	3.2
25	3.7	2.3	3.9	6.0	4.9	5.7	7.8	15	50	2.4	2.0	2.3
26	3.3	2.6	3.9	6.0	4.7	5.6	5.5	15	30	2.4	2.0	9.2
27	3.3	2.6	4.1	6.0	4.7	5.6	64	12	200	2.2	2.0	3.5
28	3.1	2.6	4.2	6.0	4.5	5.8	59	12	500	2.1	2.0	2.4
29	3.7	36	6.4	6.0	4.3	9.4	13	12	50	2.4	2.0	2.1
30	3.6	72	5.8	6.0	---	6.6	7.9	12	24	2.3	2.0	2.1
31	3.4	---	7.1	6.0	---	5.4	---	12	---	2.4	2.0	---
TOTAL	113.5	190.7	290.7	203.9	170.0	364.5	370.9	599.0	1819.0	242.0	64.2	70.8
MEAN	3.66	6.36	9.38	6.58	5.86	11.8	12.4	19.3	60.6	7.81	2.07	2.36
MAX	8.2	72	85	7.9	10	83	82	200	500	100	3.8	9.2
MIN	2.6	2.0	3.1	6.0	4.3	4.3	3.3	5.2	5.0	2.1	1.7	1.5
CFSM	.07	.13	.19	.13	.12	.23	.24	.38	1.20	.15	.04	.05
IN.	.08	.14	.21	.15	.12	.27	.27	.44	1.33	.18	.05	.05
AC-FT	225	378	577	404	337	723	736	1190	3610	480	127	140

CAL YR 1975 TOTAL 10542.89 MEAN 28.9 MAX 704 MIN .54 CFSM .57 IN 7.74 AC-FT 20910
WTR YR 1976 TOTAL 4499.20 MEAN 12.3 MAX 500 MIN 1.5 CFSM .24 IN 3.30 AC-FT 8920

LITTLE BLUE RIVER BASIN

06893890 EAST FORK LITTLE BLUE RIVER NEAR BLUE SPRINGS, MO

LOCATION.--Lat 39°01'32", long 94°20'37" in NE¼NE¼NW¼ 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 miles (4.2 km) west of Blue Springs, and 1.5 miles (2.4 km) upstream from mouth.

DRAINAGE AREA.--34.4 mi² (89.1 km²).

PERIOD OF RECORD.--October 1974 to current year. Annual peaks, 1970-74.

GAGE.--Water-stage recorder. Datum of gage is 753.09 ft (229.542 m) furnished by Corps of Engineers.

REMARKS.--Records poor. Several observations of water temperature were made during the year. Flow impounded or detained in Jackson County Lake at times.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge not determined, May 18, 1974, gage height, 19.19 ft (5.849 m); no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 302 ft³/s (8.55 m³/s), June 24, gage height, 10.00 ft (3.048 m) highwater mark, no peak above base of 1,000 ft³/s (28.3 m³/s); no flow on many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	.45	2.0	.67	.78	3.5	5.2	16	13	38	1.5	
2	.09	.66	.86	.70	.94	3.4	5.0	15	12	32	1.0	
3	.03	.73	.70	.83	.94	3.4	5.8	12	11	27	.74	
4	0	.82	.34	.78	.66	21	4.0	11	9.1	23	.61	
5	0	.80	.40	.69	.50	31	3.6	12	8.3	20	.51	
6	0	.70	.40	.66	.54	17	3.5	12	8.1	18	.56	
7	0	.70	.50	.62	.50	16	3.4	12	7.4	16	.66	
8	.02	.67	.62	.62	.58	15	3.1	10	6.4	14	.58	
9	0	.66	.59	.59	.70	14	2.7	9.3	5.9	12	.47	
10	0	.59	.54	.60	1.0	13	2.8	8.4	36	11	.41	
11	0	.64	.54	.62	1.0	13	3.3	8.0	45	9.3	.45	
12	0	.67	.54	.63	1.0	18	2.6	7.6	27	7.0	.42	
13	.02	.70	.54	.66	.94	13	2.2	10	25	6.2	.44	
14	.11	.80	.54	.62	2.4	12	2.2	8.3	24	5.7	.36	
15	.21	.88	.54	.54	4.5	11	2.7	98	27	7.6	.33	
16	.48	.77	.65	.54	6.1	11	3.3	57	20	23	.27	
17	.65	.68	1.2	.50	3.5	11	5.4	65	18	17	.25	
18	.51	.65	1.1	.50	3.6	11	20	38	17	15	.22	
19	.43	.70	1.1	.50	4.4	11	9.5	33	14	13	.12	
20	.38	.94	1.1	.50	4.3	12	8.8	30	12	11	.04	
21	.34	.92	.89	.50	4.2	8.6	9.7	26	11	9.7	0	
22	.30	.90	.72	.50	4.0	7.6	8.5	23	9.1	8.6	0	
23	.24	1.0	.69	.50	4.0	7.2	8.3	21	87	7.1	0	
24	.23	.90	.63	.54	4.0	8.7	8.8	21	210	5.8	0	
25	.33	.55	.66	.54	4.0	6.6	8.0	19	143	5.0	0	
26	.51	.95	.66	.54	3.9	7.5	6.7	17	76	4.4	0	
27	.51	1.1	.66	.54	3.8	5.6	14	16	49	4.0	0	
28	.46	.90	.66	.58	3.7	5.0	24	15	67	3.6	0	
29	.43	2.5	.66	.62	3.6	6.3	17	14	62	2.8	0	
30	.42	10	.66	.78	---	7.8	16	15	46	2.0	0	
31	.42	---	.66	.78	---	5.6	---	14	---	2.0	0	---
TOTAL	7.24	33.93	22.35	18.79	74.08	336.8	220.1	673.6	1106.3	380.8	9.94	0
MEAN	.23	1.13	.72	.61	2.55	10.9	7.34	21.7	36.9	12.3	.32	0
MAX	.65	10	2.0	.83	6.1	31	24	98	210	38	1.5	0
MIN	0	.45	.34	.50	.50	3.4	2.2	7.6	5.9	2.0	0	0
CFSM	.006	.03	.02	.02	.07	.32	.21	.63	1.07	.36	.009	0
IN.	.008	.04	.02	.02	.08	.36	.24	.73	1.20	.41	.01	0
AC-FT	14	67	44	37	147	668	437	1340	2190	755	20	0
CAL YR 1975 TOTAL	6435.55			MEAN 17.6	MAX 236	MIN 0	CFSM .51	IN 6.96	AC-FT 12760			
WTR YR 1976 TOTAL	2883.93			MEAN 7.88	MAX 210	MIN 0	CFSM .23	IN 3.12	AC-FT 5720			

06894000 LITTLE BLUE RIVER NEAR LAKE CITY, MO

LOCATION.--Lat 39°06'02", long 94°18'01", in SW¼SE¼ sec.35, T.50 N., R.31 W., Jackson County, Hydrologic Unit 10300101, at downstream side of right pier of upstream bridge on dual State Highway 78, 3 mi (4.8 km) southwest of Lake City, and 10.5 mi (16.9 km) upstream from mouth.

DRAINAGE AREA.--184 mi² (477 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 719.15 ft (219.197 m) above mean sea level. Prior to July 24, 1957, nonrecording gage at site 50 ft (15 m) downstream at same datum.

REMARKS.--Records poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--28 years, 133 ft³/s (3.767 m³/s), 9.81 in/yr (249 mm/yr), 96,400 acre-ft/yr (119 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,460 ft³/s (268 m³/s) Sept. 14, 1961, gage height, 27.94 ft (8.516 m); no flow at times during 1953-54, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,800 ft³/s (51.0 m³/s) June 24, gage height, 20.10 ft (6.126 m), no peak above base of 2,000 ft³/s (56.6 m³/s); minimum discharge, 9.8 ft³/s (0.278 m³/s) Aug. 3; minimum gage height, 5.19 ft (1.582 m) Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	31	177	35	46	32	131	73	67	218	16	16
2	79	39	85	36	44	96	58	65	53	154	14	23
3	50	39	55	32	42	146	66	53	50	102	13	28
4	38	39	48	30	44	236	56	56	48	85	14	26
5	35	38	43	30	39	678	50	54	45	74	16	25
6	33	39	41	30	38	559	51	80	42	68	16	40
7	29	38	38	33	36	259	47	107	41	58	17	46
8	21	37	37	30	38	153	41	76	38	51	17	34
9	22	36	40	30	40	133	38	56	38	47	23	28
10	26	35	40	30	47	120	38	49	115	42	22	25
11	26	36	39	30	60	109	36	47	1020	40	41	25
12	26	36	37	28	57	113	32	48	363	35	24	25
13	26	35	38	30	54	111	30	62	186	34	25	22
14	28	43	56	31	50	97	30	54	83	32	23	26
15	62	51	113	30	50	86	31	406	108	34	23	30
16	41	47	133	29	52	84	31	257	119	533	21	27
17	38	34	65	27	63	82	32	168	78	82	19	23
18	34	31	40	26	61	58	231	138	67	50	21	20
19	31	29	38	26	33	80	203	107	74	40	20	18
20	28	36	37	25	30	117	76	95	62	35	17	25
21	26	40	33	26	29	94	87	81	49	31	15	32
22	27	49	31	27	30	87	64	113	45	28	15	28
23	27	38	30	30	37	70	51	134	458	25	14	24
24	28	34	31	34	117	83	44	100	1720	23	14	23
25	29	34	29	35	51	81	44	84	1170	22	20	23
26	27	41	28	36	30	81	46	74	556	20	19	39
27	27	45	28	34	29	79	62	70	179	20	15	45
28	28	42	28	36	33	71	349	69	643	20	15	28
29	29	96	32	41	31	84	154	62	1130	30	15	21
30	30	301	32	47	---	132	84	61	451	19	18	20
31	30	---	34	50	---	185	---	99	---	18	18	---
TOTAL	1068	1469	1536	994	1311	4396	2293	2998	9098	2070	580	815
MEAN	34.5	49.0	49.5	32.1	45.2	142	76.4	96.7	303	66.8	18.7	27.2
MAX	87	301	177	50	117	678	349	406	1720	533	41	46
MIN	21	29	28	25	29	32	30	47	38	18	13	16
CFSM	.19	.27	.27	.17	.25	.77	.42	.53	1.65	.36	.10	.15
IN.	.22	.30	.31	.20	.27	.89	.46	.61	1.84	.42	.12	.16
AC-FT	2120	2910	3050	1970	2600	8720	4550	5950	18050	4110	1150	1620
CAL YR 1975	TOTAL	46139	MEAN 126	MAX 1820	MIN 10	CFSM .68	IN 9.33	AC-FT 91520				
WTR YR 1976	TOTAL	28628	MEAN 78.2	MAX 1720	MIN 13	CFSM .43	IN 5.79	AC-FT 56780				

06894680 SNI-A-BAR CREEK NEAR TARSNEY, MO

LOCATION.--Lat 38°56'28", long 94°10'05", in SW¼SW¼NW¼ sec.30, T.48 N., R.29 W., Jackson County, Hydrologic Unit 10300101, on right bank 8 ft (2.4 m) downstream from bridge on Colburn Road, 2.3 mi (3.7 km) upstream from West Fork, 2.7 mi (4.3 km) east of Tarsney and 5 mi (8.0 km) southeast of Grain Valley.

DRAINAGE AREA.--29.1 mi² (75.4 km²).

PERIOD OF RECORD.--June 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 788.37 ft (240.295 m) above mean sea level.

REMARKS.--Records poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--6 years, 21.0 ft³/s (0.595 m³/s), 9.80 in/yr (249 mm/yr), 15,200 acre-ft/yr (18.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,300 ft³/s (122 m³/s) Sept. 11, 1975; maximum gage height, 22.05 ft (6.721 m) May 18, 1974; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft³/s (19.8 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	(m ³ /s)	Gage height (ft)	(m)
Dec. 14	1500	722	20.4	12.08	3.682
May 15	1045	*1,600	45.3	*15.62	4.761

No flow on many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	0	15	14	14	11	2.6	12	6.8	1.6		
2	1.6	0	9.5	16	8.5	12	1.6	9.5	5.6	1.1		
3	.50	0	6.4	6.4	8.5	10	1.1	10	4.8	1.0		
4	.10	0	4.4	2.9	8.5	47	1.0	10	3.2	.80		
5	.10	0	3.7	2.9	5.2	39	1.0	8.5	3.2	.40		
6	0	0	2.9	4.4	4.0	28	1.0	12	1.8	.20		
7	0	0	2.6	3.7	3.2	26	1.0	10	.90	.10		
8	.10	0	2.6	2.4	5.0	17	.90	8.0	.50	.10		
9	0	0	2.4	2.1	7.2	15	.50	6.4	.30	0		
10	0	0	2.1	3.7	15	15	.50	5.2	13	0		
11	0	0	1.3	4.8	10	13	.50	5.6	14	0		
12	0	0	.30	3.5	8.0	14	.30	7.2	3.7	0		
13	0	.10	.20	4.8	9.0	14	.20	12	1.3	0		
14	0	0	225	3.7	8.0	11	.20	6.8	.80	0		
15	0	.30	82	2.9	8.0	12	.40	469	1.0	0		
16	0	.30	49	2.9	8.0	12	.80	69	2.6	0		
17	0	.30	23	1.3	6.8	14	6.4	53	1.8	.10		
18	0	.20	16	1.3	7.2	12	64	28	1.8	.10		
19	0	.10	16	1.6	8.0	11	17	22	1.8	0		
20	0	.10	17	1.2	7.2	11	16	18	.20	0		
21	0	1.1	12	1.2	8.0	10	16	17	.10	0		
22	0	.80	11	1.2	9.0	10	12	16	0	0		
23	0	.50	11	1.8	9.5	8.5	8.5	14	45	0		
24	0	.40	10	2.1	7.2	9.0	7.2	20	78	0		
25	0	.20	10	1.6	8.0	7.6	8.0	13	15	0		
26	0	.20	10	1.6	4.4	11	7.2	23	4.8	0		
27	0	.50	8.5	1.0	12	10	32	17	2.1	0		
28	0	7.2	9.0	1.6	10	9.0	20	14	27	0		
29	0	54	9.0	5.2	11	8.0	17	8.0	17	0		
30	0	65	9.0	12	---	6.8	15	14	3.2	0		
31	0	---	11	15	---	3.7	---	12	---	0		---
TOTAL	9.20	131.30	591.90	130.8	238.4	437.6	259.90	950.2	261.30	5.50	0	0
MEAN	.30	4.38	19.1	4.22	8.22	14.1	8.66	30.7	8.71	.18	0	0
MAX	6.8	65	225	16	15	47	64	469	78	1.6	0	0
MIN	0	0	.20	1.0	3.2	3.7	.20	5.2	0	0	0	0
CFSM	.01	.15	.66	.15	.28	.48	.30	1.05	.30	.006	0	0
IN.	.01	.17	.76	.17	.30	.56	.33	1.21	.33	.007	0	0
AC-FT	18	260	1170	259	473	868	516	1880	518	11	0	0
CAL YR 1975	TOTAL	7701.40	MEAN	21.1	MAX	2080	MIN	0	CFSM	.73	IN	9.84
WTR YR 1976	TOTAL	3016.10	MEAN	8.24	MAX	469	MIN	0	CFSM	.28	IN	3.86
									AC-FT			5980

06895500 MISSOURI RIVER AT WAVERLY, MO

LOCATION.--Lat 39°12'50", long 93°30'50", sec.14, T.51 N., R.24 W., Lafayette County, Hydrologic Unit 10300101, on right bank 450 ft (137 m) downstream from bridge on U.S. Highway 65 at Waverly. River mile, 293.4 (472.1 km).

DRAINAGE AREA (REVISED).--487,200 mi² (1,262,000 km²), approximately. The 3,959 mi² (10,254 km²) in Great Divide basin is not included.

PERIOD OF RECORD.--October 1928 to current year. Gage-height records collected at same site 1878-79, 1883-99 are contained in reports of Missouri River Commission; since 1915 in reports of National Weather Service.

REVISED RECORDS.--WSP 761: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 646.00 ft (196.901 m) above mean sea level. Prior to Jan. 1, 1934, at datum 5.00 ft (1.524 m) 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, and Sept. 16, 1944, to May 28, 1969, water-stage recorder at present datum; all at site 450 ft (137 m) upstream.

REMARKS.--Records good. Discharge measurements made weekly except during ice-flow periods. Some regulation from many upstream reservoirs. Several observation of water temperatures were made during the year.

AVERAGE DISCHARGE.--48 years, 48,550 ft³/s (1,375 m³/s), 35,170,000 acre-ft/yr (43,360 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 549,000 ft³/s (15,550 m³/s) July 16, 1951; maximum gage height, 28.85 ft (8.793 m) Oct. 13, 1973; minimum discharge, about 1,700 ft³/s (48.1 m³/s) Jan. 9, 1940; minimum gage height, 0.4 ft (0.122 m) Jan. 12, 1930, present datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 110,000 ft³/s (3,120 m³/s) Apr. 26, gage height, 18.39 ft (5.605 m); minimum daily discharge, 22,000 ft³/s (623 m³/s) Jan. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69700	69900	82100	36300	35200	43000	55100	82800	65000	56800	48000	40400
2	69600	69300	87400	36300	37600	43600	55800	79100	60500	54800	52000	40000
3	68700	68600	85000	36300	37400	44200	54700	76500	58000	54000	49800	39800
4	67800	69700	76800	35100	36200	44400	52900	75000	53400	53300	46200	39800
5	69600	69100	73200	35100	35800	48100	51700	72200	52100	54200	45400	40100
6	69600	69000	75400	32200	34700	48500	51800	70600	52700	51700	45400	40400
7	68700	70300	64500	29400	34600	47600	51900	79000	52800	51200	44800	40500
8	67800	69400	61400	29400	33200	42200	51000	95600	51800	50300	44000	40300
9	66200	68400	55900	32800	32100	39600	50600	79900	51700	49100	43400	39900
10	67800	69000	49400	42000	33400	40400	50600	71200	50800	49300	42800	40200
11	67800	69400	43300	30500	35000	41000	51000	67200	52800	48200	42800	40600
12	67800	73100	42900	32200	37500	42600	50200	64400	50300	47500	42500	40400
13	67800	75000	40300	22000	39600	48400	50000	62000	49100	47200	43300	40100
14	67800	75000	37800	26000	40600	52100	49400	59900	48400	46800	43300	39900
15	67800	73100	39000	29000	40500	53800	48300	60900	48900	46200	42700	40200
16	67200	73100	45600	31000	41400	53200	48000	70400	79500	47200	43300	40800
17	67600	72400	43600	32000	44600	52900	47800	67700	69900	47400	44500	41400
18	69000	71000	42300	35000	49900	52200	50800	60900	56700	46800	43500	41700
19	69000	68500	36000	37000	51400	50000	63100	58200	53600	46400	43100	41100
20	68200	69900	36000	30000	47200	50000	72400	56200	54500	45800	43400	41400
21	69200	70300	31900	30000	44500	52100	72100	54500	51900	45700	43200	42200
22	69400	71900	31900	30200	44100	50200	86400	52900	49000	46000	42000	42300
23	69600	79600	31900	34900	45600	50000	90700	50800	48400	47000	41800	41600
24	69900	84800	30400	34000	43100	51300	79200	52500	55900	47900	41500	41600
25	71000	75000	30400	34000	41200	52400	84500	71300	54200	46400	41800	42200
26	71000	72800	38400	35000	42100	51400	107000	75700	49600	44900	41700	43200
27	72000	72800	38400	35600	41900	52000	94700	69600	50300	44300	41000	44300
28	72900	72800	37800	35200	42200	51400	86300	62200	51700	44600	41000	43800
29	72900	72800	37200	35200	42600	51500	86800	59600	67700	45600	40900	43100
30	71000	70900	37000	34500	---	51300	86900	60700	64700	48800	40800	42900
31	70600	---	36900	33900	---	51700	---	70300	---	50300	40600	---
TOTAL	2145000	2156900	1500100	1022100	1165200	1503100	1931700	2089800	1655900	1505700	1350500	1236200
MEAN	69190	71900	48390	32970	40180	48490	64390	67410	55200	48570	43560	41210
MAX	72900	84800	87400	42000	51400	53800	107000	95600	79500	56800	52000	44300
MIN	66200	68400	30400	22000	32100	39600	47800	50800	48400	44300	40600	39800
AC-FT	4255000	4278000	2975000	2027000	2311000	2981000	3832000	4145000	3284000	2987000	2679000	2452000
CAL YR 1975 TOTAL	21633900			MEAN 59270	MAX 105000	MIN 17600	AC-FT 42910000					
WTR YR 1976 TOTAL	19262200			MEAN 52630	MAX 107000	MIN 22000	AC-FT 38210000					

GRAND RIVER BASIN

06897500 GRAND RIVER NEAR GALLATIN, MO

LOCATION.--Lat 39°55'37", long 93°56'33", in SW¼NW¼ sec.16, T.59 N., R.27 W., Daviess County, Hydrologic Unit 10280101, on left bank 100 ft (30 m) upstream from bridge on State Highway 6, 50 ft (15 m) downstream from Chicago, Rock Island & Pacific Railroad Co. bridge, 1 mi (1.6 km) northeast of Gallatin, and 6 mi (9.7 km) upstream from Honey Creek, and at mile 90 (144.8 km).

DRAINAGE AREA.--2,250 mi² (5,830 km²), approximately.

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

REVISED RECORDS.--WSP 786: 1933-34. WSP 1280: 1922.

GAGE.--Water-stage recorder. Datum of gage is 712.56 ft (217.188 m) above mean sea level. Prior to Jan. 31, 1922, nonrecording gage at site 100 ft (30 m) upstream at same datum. Jan. 31, 1922, to Nov. 15, 1936, nonrecording gage, at site about 1,100 ft (335 m) upstream at datum 0.17 ft (0.052 m) higher. Nov. 16, 1936, to Nov. 14, 1937, nonrecording gage, and Nov. 15, 1937, to Sept. 21, 1961, water-stage recorder on center pier of highway bridge at present datum. Sept. 22-27, 1961, nonrecording gage at railroad bridge, 100 ft (30 m) upstream at same datum, 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 (2.2 m) at present datum.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--55 years, 1,137 ft³/s (32.20 m³/s), 6.86 in/yr (174 mm/yr), 823,800 acre-ft/yr (1,252 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 69,100 ft³/s (1,960 m³/s) June 24, 1947, gage height, 34.55 ft (10.531 m); maximum gage height, 37.02 ft (11.284 m) June 2, 1929, (present site and datum); minimum discharge, 2.2 ft³/s (0.062 m³/s) June 3, 4, Oct. 27, 28, 29, 1956; minimum gage height, -0.20 ft (-0.061 m) Sept. 20, 21, 22, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 40 ft (12.2 m) July 8, 1909, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base, 18,000 ft³/s (510 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
Mar. 5	0930	20,300	575	19.67	5.995
Apr. 19	0800	22,300	632	20.75	6.325
Apr. 25	2300	*24,700	700	*22.05	6.721

Minimum discharge, 15 ft³/s (0.42 m³/s) Sept. 20, 21, 22, gage height, -0.20 ft (-0.061 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	121	59	5910	140	364	505	1590	1660	607	103	312	26
2	117	64	3570	108	364	459	780	1380	446	105	589	23
3	108	72	925	110	354	419	571	1100	359	178	317	23
4	96	74	523	149	298	3640	479	860	308	168	192	25
5	88	83	406	137	315	17500	417	780	272	119	121	25
6	79	92	324	130	274	7560	379	6880	243	92	92	27
7	77	86	269	121	250	2690	359	6130	231	81	70	25
8	75	86	226	128	202	2290	339	2210	212	77	56	23
9	68	77	202	117	185	1930	315	1380	195	73	45	23
10	66	73	188	110	320	1520	286	995	180	72	38	23
11	64	73	171	98	1280	1060	269	805	176	64	40	22
12	59	70	156	98	1340	1280	255	678	176	63	34	22
13	59	75	142	103	960	3030	245	642	164	54	34	22
14	59	70	1210	112	622	2130	236	642	140	51	45	22
15	59	64	4300	117	618	1140	238	1000	137	48	197	22
16	56	62	1310	126	1240	890	238	2290	121	46	565	19
17	51	59	499	131	1450	830	1210	3120	329	43	484	19
18	53	62	197	133	1520	860	15500	1890	409	46	269	18
19	56	59	202	124	925	710	22100	1100	272	46	159	17
20	56	63	300	124	638	610	12000	726	200	43	101	15
21	56	63	240	105	514	544	14700	586	161	39	77	15
22	56	64	224	105	550	468	9980	517	128	39	59	15
23	57	66	192	101	1100	414	5030	470	114	36	54	17
24	57	66	168	105	730	384	9360	520	180	48	46	17
25	57	64	159	117	682	366	23500	425	238	108	42	32
26	57	61	161	140	960	359	22700	440	245	79	40	108
27	56	63	164	135	995	386	8990	399	164	59	36	133
28	56	48	156	112	642	399	4200	352	142	51	30	130
29	57	73	147	119	535	376	2850	374	121	46	29	92
30	57	272	144	202	---	3190	2130	1020	117	40	27	63
31	59	---	142	281	---	3030	---	1140	---	43	27	---
TOTAL	2092	2263	22927	3938	20227	60969	161246	42511	6787	2160	4227	1063
MEAN	67.5	75.4	740	127	697	1967	5375	1371	226	69.7	136	35.4
MAX	121	272	5910	281	1520	17500	23500	6880	607	178	589	133
MIN	51	48	142	98	185	359	236	352	114	36	27	15
CFSM	.03	.03	.33	.06	.31	.87	2.39	.61	.10	.03	.06	.02
IN.	.03	.04	.38	.07	.33	1.01	2.67	.70	.11	.04	.07	.02
AC-FT	4150	4490	45480	7810	40120	120900	319800	84320	13460	4280	8380	2110
CAL YR 1975	TOTAL	342965	MEAN 940	MAX 17300	MIN 48	CFSM .42	IN 5.67	AC-FT 680300				
WTR YR 1976	TOTAL	330410	MEAN 903	MAX 23500	MIN 15	CFSM .40	IN 5.46	AC-FT 655400				

06898100 THOMPSON RIVER AT MOUNT MORIAH, MO

LOCATION.--Lat 40°20'11", long 93°46'02", on line between SE¼ sec.13 and NE¼ sec.24, T.64 N., R.26 W., Harrison County, Hydrologic Unit 10280102, on downstream side of right pier of bridge on U.S. Highway 136, 0.7 mi (1.1 km) upstream from Panther Creek, 1.5 mi (2.4 km) northeast of Mount Moriah, and at mile 43 (69.2 km).

DRAINAGE AREA.--891 mi² (2,308 km²), including Panther Creek.

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

GAGE.--Water-stage recorder. Datum of gage is 784 ft (238.96 m) above mean sea level (from data furnished by Missouri State Highway Commission).

REMARKS.--Records poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--16 years, 539 ft³/s (15.26 m³/s), 8.21 in/yr (208 mm/yr), 390,000 acre-ft/yr (481 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,500 ft³/s (920 m³/s) June 13, 1967, gage height, 22.00 ft (6.706 m); minimum, 6.5 ft³/s (0.184 m³/s) Dec. 6, 1968, result of ice conditions upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 8,000 ft³/s (227 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
Apr. 20	2015	9,700	275	11.80	3.597
Apr. 25	0215	*13,600	385	*14.02	4.273

Minimum discharge, 24 ft³/s (0.68 m³/s) Oct. 13-15, gage height, 0.66 ft (0.201 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	31	1090	60	50	735	670	369	150	150	1620	50
2	54	37	470	60	50	590	510	284	130	130	510	45
3	44	35	250	60	50	442	372	235	120	110	200	40
4	42	34	200	55	50	1480	291	213	110	90	148	40
5	41	35	175	50	50	2460	247	205	100	80	139	40
6	41	38	140	45	50	1240	216	327	90	70	133	40
7	38	38	100	40	50	935	192	213	80	70	116	35
8	35	40	90	40	50	1010	173	205	70	60	103	35
9	32	43	80	40	50	985	145	205	60	60	100	35
10	29	42	70	40	190	690	137	205	60	60	100	35
11	26	38	70	40	213	650	131	203	60	60	100	35
12	26	37	70	40	219	1290	112	203	60	60	150	35
13	24	37	70	40	170	1690	117	190	60	62	137	35
14	24	35	430	40	170	910	110	177	117	60	634	35
15	24	44	350	40	205	590	110	175	1620	60	235	35
16	25	52	200	40	300	387	110	230	2790	60	177	32
17	26	48	100	40	372	315	919	200	910	60	156	30
18	25	44	98	40	330	264	2880	177	270	60	133	30
19	26	43	80	40	303	241	3330	177	240	60	119	30
20	26	44	70	40	309	233	6030	177	200	60	103	30
21	25	40	60	36	258	213	6580	154	170	60	93	30
22	25	40	60	36	333	185	5320	131	140	60	84	30
23	25	41	60	40	387	168	2790	131	120	153	78	30
24	25	42	60	40	454	161	8080	131	110	187	75	30
25	25	38	60	40	690	152	10000	112	110	103	73	30
26	25	38	60	40	835	152	8800	112	100	86	70	35
27	25	54	60	40	590	163	5320	93	90	86	65	35
28	25	63	60	40	570	145	1210	120	90	84	60	35
29	25	214	60	45	590	192	670	150	90	626	55	35
30	26	1760	60	50	---	1980	490	200	150	550	50	36
31	28	---	60	50	---	1550	---	160	---	438	50	---
TOTAL	947	3125	4863	1347	7938	22198	66062	5864	8467	3915	5866	1048
MEAN	30.5	104	157	43.5	274	716	2202	189	282	126	189	34.9
MAX	60	1760	1090	60	835	2460	10000	369	2790	626	1620	50
MIN	24	31	60	36	50	145	110	93	60	60	50	30
CFSM	.03	.12	.18	.05	.31	.80	2.47	.21	.32	.14	.21	.04
IN.	.04	.13	.20	.06	.33	.93	2.76	.24	.35	.16	.24	.04
AC-FT	1880	6200	9650	2670	15750	44030	131000	11630	16790	7770	11640	2080
CAL YR 1975 TOTAL	144543			MEAN 396	MAX 4970	MIN 20	CFSM .44	IN 6.03	AC-FT 286700			
WTR YR 1976 TOTAL	131640			MEAN 360	MAX 10000	MIN 24	CFSM .40	IN 5.50	AC-FT 261100			

GRAND RIVER BASIN

06899500 THOMPSON RIVER AT TRENTON, MO

LOCATION.--Lat 40°04'46", long 93°38'39", in NE¼SW¼ sec.18, T.61 N., R.24 W., Grundy County, Hydrologic Unit 10280102, on right bank at downstream side of bridge on old State Highway 6, 1 mi (1.6 km) west of Trenton, 1.8 mi (2.9 km) downstream from Weldon River, and at mile 26.0 (41.8 km).

DRAINAGE AREA.--1,670 mi² (4,330 km²), 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 National Weather Service.

REVISED RECORDS.--WSP 1116: 1945(M).

GAGE.--Water-stage recorder. Datum of gage is 721.87 ft (220.026 m) above mean sea level. June 25, 1921, to Aug. 26, 1923, nonrecording gage at two sites 12 mi (19.3 km) 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 (2.4 km) downstream at datum 3.46 ft (1.055 m) lower. June 1, 1945, to Dec. 7, 1959, nonrecording gage at same site and datum.

REMARKS.--Records poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--50 years (1921-23, 1928-76), 925 ft³/s (26.20 m³/s), 7.52 in/yr (191 mm/yr), 669,000 acre-ft/yr (825.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 95,000 ft³/s (2,690 m³/s) June 6, 1947, gage height, 25.7 ft (7.833 m) from floodmark; minimum daily, 1 ft³/s (0.028 m³/s) June 17, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 30.7 ft (9.357 m) July 6, 1909, present site and datum, from information by local residents, discharge, 50,000 ft³/s (1,420 m³/s), determination by Corps of Engineers occurred before new channel was dredged.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 15,000 ft³/s (425 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
Apr. 21	0300	24,200	685	12.50	3.810
Apr. 25	0945	*37,800	1,070	*18.15	5.532

Minimum discharge observed, 30 ft³/s (0.85 m³/s) Sept. 23, 24, gage height, 0.99 ft (0.302 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	42	3280	90	100	761	1310	1300	395	275	2500	60
2	66	49	1020	90	100	1010	708	1160	332	310	2060	58
3	63	56	488	90	100	648	542	955	290	275	580	53
4	60	52	344	90	100	4790	376	820	255	181	350	49
5	53	47	278	90	100	8950	301	705	230	166	270	49
6	52	58	237	90	100	3620	262	4480	218	159	215	46
7	55	62	201	80	100	2270	239	2090	197	145	176	44
8	48	57	179	80	100	2200	215	1020	183	133	181	43
9	52	57	163	80	100	2000	188	730	178	125	150	42
10	55	64	158	80	150	1380	171	608	172	122	131	42
11	52	68	150	80	200	1080	163	536	166	107	130	41
12	53	62	137	80	250	1760	157	476	191	109	120	42
13	45	65	130	80	250	3580	149	460	172	96	197	40
14	45	65	464	80	219	1760	148	428	5440	90	640	40
15	52	67	1530	80	215	1120	139	632	4860	90	795	40
16	47	67	726	80	626	726	136	3290	4970	91	325	39
17	45	74	320	80	1360	565	331	3550	2790	82	232	38
18	51	71	200	80	732	454	11200	1390	1200	88	199	31
19	57	57	150	80	570	387	8290	880	785	79	166	31
20	56	64	120	80	450	344	9020	680	600	77	142	31
21	57	59	100	83	376	299	19700	564	492	74	150	31
22	56	53	100	80	317	256	7580	466	398	72	130	31
23	56	64	100	80	565	221	5220	404	356	178	103	30
24	53	66	100	80	488	205	14500	422	392	290	90	30
25	58	45	100	80	948	191	28800	389	371	239	89	50
26	60	53	100	80	1150	185	12400	350	320	159	82	107
27	60	57	100	80	883	199	8650	340	275	125	73	93
28	50	75	100	90	680	215	3430	320	260	106	70	66
29	41	95	100	80	675	195	2110	335	239	239	65	64
30	40	5680	100	90	---	4570	1640	516	230	740	63	62
31	33	---	100	100	---	3360	---	652	---	1140	60	---
TOTAL	1629	7451	11375	2583	12004	49301	138075	30948	26957	6162	10534	1423
MEAN	52.5	248	367	83.3	414	1590	4603	998	899	199	340	47.4
MAX	66	5680	3280	100	1360	8950	28800	4480	5440	1140	2500	107
MIN	33	42	100	80	100	185	136	320	166	72	60	30
CFSM	.03	.15	.22	.05	.25	.95	2.76	.60	.54	.12	.20	.03
IN.	.04	.17	.25	.06	.27	1.10	3.08	.69	.60	.14	.23	.03
AC-FT	3230	14780	22560	5120	23810	97790	273900	61390	53470	12220	20890	2820
CAL YR 1975 TOTAL	285449		MEAN 782	MAX 7840	MIN 33	CFSM .47	IN 6.36	AC-FT 566200				
WTR YR 1976 TOTAL	298442		MEAN 815	MAX 28800	MIN 30	CFSM .49	IN 6.65	AC-FT 592000				

LOCATION.--Lat 39°40'50", long 93°46'05", in NW¼NE¼ sec.13, T.56 N., R.26 W., Caldwell County, Hydrologic Unit 10280102, at downstream side of left pier of bridge on State Highway O, 1.8 mi (2.9 km) downstream from Panther Creek, 6 mi (9.7 km) north of Braymer, and at mile 26 (41.8 km).

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

GAGE.--Water-stage recorder. Altitude of gage is 700 ft (213.4 m) from topographic map. Prior to Nov. 21, 1957, and Apr. 4 to Oct. 9, 1962, nonrecording gage at same site and datum. Nov. 21, 1957, to Apr. 3, 1962, water-stage recorder at site 50 ft (15 m) upstream at same datum.

AVERAGE DISCHARGE.--19 years, 251 ft³/s (7.108 m³/s), 8.72 in/yr (221 mm/yr), 182,000 acre-ft/yr (224 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,000 ft³/s (736 m³/s) from loop rating June 22, 1964, gage height, 22.00 ft (6.706 m), result of levee break; maximum gage height, 29.05 ft (8.854 m) June 22, 1964; no flow Oct. 12-14, 1957, Aug. 1 to Sept. 5, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,310 ft³/s (93.7 m³/s) May 16, gage height, 17.50 ft (5.334 m); no peak above base of 3,000 ft³/s (85.0 m³/s), no flow Aug. 1 to Sept. 5.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	.30	10	4.8	15	9.6	121	117	112	7.5		0
2	1.5	.30	72	4.5	12	8.1	66	96	54	6.3		0
3	1.1	.30	32	4.3	10	8.2	48	76	36	5.7		0
4	.97	.30	10	4.3	8.0	228	39	61	27	8.1		0
5	.80	.30	3.4	3.8	7.0	1700	32	52	23	16		0
6	.60	.30	1.8	3.4	6.0	549	28	600	24	8.8		.50
7	.40	.30	1.2	3.4	5.0	156	26	2270	57	6.0		.10
8	.40	.30	.89	3.2	4.0	99	25	540	29	4.7		.10
9	.40	.65	.74	3.0	5.0	74	22	232	19	4.1		.10
10	.40	.40	.74	3.0	10	60	20	157	20	3.2		.10
11	.30	.40	.60	3.0	50	51	18	123	19	2.5		.10
12	.30	.40	.50	3.0	70	67	17	100	22	2.0		.10
13	.30	.40	.50	3.0	60	109	16	102	18	2.0		.10
14	.30	.40	330	3.5	50	85	16	191	13	2.0		.10
15	.26	.40	652	3.5	34	59	16	511	10	3.4		.10
16	.30	.74	128	3.5	44	49	16	2850	8.2	3.3		.08
17	.30	2.0	16	3.5	88	50	25	2010	6.7	3.3		.10
18	.30	1.6	12	3.5	55	56	102	757	8.5	4.4		.10
19	.30	2.0	7.7	3.5	35	58	304	284	8.9	4.5		.10
20	.30	1.5	6.6	3.5	26	51	256	181	7.3	3.5		.10
21	.30	1.0	5.5	3.5	20	41	956	136	6.2	2.5		.10
22	.30	.50	5.0	3.6	17	39	557	112	5.3	2.0		.10
23	.30	.50	4.3	4.1	16	48	182	99	4.6	1.5		.10
24	.30	.50	3.9	4.7	15	52	129	87	20	1.0		.10
25	.30	.50	4.1	5.2	14	43	505	76	297	.80		.20
26	.30	.50	4.3	5.8	13	37	378	60	103	.70		.20
27	.30	1.0	4.3	4.3	11	37	178	51	28	.50		.20
28	.30	2.3	4.3	4.5	11	38	284	43	15	.40		.20
29	.30	2.5	4.5	5.0	11	34	308	41	11	.20		.20
30	.30	7.1	4.5	8.0	---	61	156	167	9.3	.10		.20
31	.30	---	4.5	10	---	428	---	171	---	.10		---
TOTAL	14.33	29.69	1335.87	129.9	722.0	4384.9	4846	12353	1022.0	111.10	0	3.48
MEAN	.46	.99	43.1	4.19	24.9	141	162	398	34.1	3.58	0	.12
MAX	1.5	7.1	652	10	88	1700	956	2850	297	16	0	.50
MIN	.26	.30	.50	3.0	4.0	8.1	16	41	4.6	.10	0	0
CFSH	.001	.002	.11	.01	.06	.36	.41	1.02	.09	.009	0	0
IN.	.001	.003	.13	.01	.07	.42	.46	1.18	.10	.01	0	.0003
AC-FT	28	59	2650	258	1430	8700	9610	24500	2030	220	0	6.3

CAL YR 1975	TOTAL	44991.95	MEAN	123	MAX	5550	MIN	.26	CFSM	.31	IN	4.28	AC-FT	89240
WTR YR 1976	TOTAL	24952.27	MEAN	68.2	MAX	2850	MIN	0	CFSM	.17	IN	2.37	AC-FT	49490

06902000 GRAND RIVER NEAR SUMNER, MO

LOCATION.--Lat 39°38'21", long 93°16'22", in NE¼ 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 (73 m) downstream from Chicago, Burlington & Quincy Railroad bridge, 2 mi (3.2 km) southwest of Sumner, 2.5 mi (4.0 km) downstream from Locust Creek, and at mile 41.0 (66.0 km).

DRAINAGE AREA.--6,880 mi² (17,800 km²), 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 (192.384 m) above mean sea level. Prior to July 11, 1926, nonrecording gage at site 200 ft (61 m) 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 (61 m) upstream at same datum. Aug. 9, 1952, to Nov. 12, 1953, nonrecording gage at site 120 ft (37 m) upstream and at same datum. Nov. 13, 1953, to July 6, 1964, water-stage recorder and nonrecording gage for stages below 8.3 ft (2.53 m) at site 120 ft (37 m) 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 (5.1 km) downstream from base gage at datum 631.30 ft (192.420 m) above mean 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.--Water-discharge record fair.

AVERAGE DISCHARGE.--53 years, 3,771 ft³/s (106.8 m³/s), 7.44 in/yr (189 mm/yr), 2,730,000 acre-ft/yr (3,370 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 180,000 ft³/s (5,100 m³/s) June 7, 8, 1947, gage height, 39.5 ft (12.04 m) from floodmark; minimum observed, 10 ft³/s (0.28 m³/s) Aug. 12, 1934; minimum gage height, 2.19 ft (0.668 m) Aug. 22, 23, 31, Sept. 1, 1936.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 9, 1909, reached a stage of 36.7 ft (11.19 m) from floodmark.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 65,500 ft³/s (1,850 m³/s) Apr. 27 (1600), gage height, 34.64 ft (10.558 m), peak discharge above base of 38,000 ft³/s (1,080 m³/s); minimum, 70 ft³/s (1.98 m³/s) Sept. 10-16, gage height, 6.32 ft (1.926 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	228	110	15700	542	720	1420	6730	5900	2000	479	833	138		
2	240	112	9130	533	767	1380	3480	4870	1420	471	1080	132		
3	222	118	3480	439	808	1700	2300	3780	1100	807	1890	125		
4	213	138	1890	546	939	1470	1820	3060	954	680	1040	110		
5	201	140	1380	582	942	22800	1490	2590	867	544	658	108		
6	186	142	1160	552	838	27800	1280	7820	847	492	496	118		
7	180	150	1060	525	728	19100	1140	20500	856	426	471	130		
8	168	160	965	430	709	11300	1050	13600	798	367	390	135		
9	158	162	875	391	672	6540	969	6340	721	341	316	108		
10	152	174	762	399	616	5170	889	4300	641	316	288	98		
11	152	189	694	379	689	4030	815	3200	726	302	261	70		
12	150	183	656	363	1830	3430	774	2570	632	288	295	70		
13	148	180	606	364	2200	4750	741	2130	789	279	282	70		
14	140	165	833	376	1740	6830	711	1950	672	264	269	70		
15	145	160	6170	374	1310	4560	703	2310	7020	249	426	70		
16	142	160	6920	372	1240	3220	689	9590	6870	243	1080	78		
17	142	158	3060	375	2080	2590	807	17600	4940	234	936	75		
18	138	160	1270	370	2660	2360	7140	12300	3000	222	918	72		
19	135	165	785	389	2580	2220	23900	6180	1890	219	614	72		
20	135	168	928	390	2100	2000	25300	3550	1340	204	434	75		
21	135	168	888	395	1600	1790	27000	2500	1020	195	338	78		
22	132	168	769	398	1300	1620	29700	2000	842	186	282	78		
23	128	162	740	406	1170	1460	21800	1800	716	189	249	78		
24	118	160	718	426	1750	1280	16700	1700	1230	169	225	78		
25	122	160	672	450	1570	1160	31100	1400	1800	213	210	80		
26	118	162	605	446	1750	1090	44300	1190	1210	334	198	125		
27	118	189	582	432	2120	1070	62500	1130	927	324	195	261		
28	112	198	560	467	2050	1130	50200	1050	721	273	172	295		
29	125	189	556	480	1590	1160	15400	959	606	225	161	255		
30	122	4030	582	503	---	1400	8000	963	522	207	153	225		
31	112	---	560	564	---	7710	---	1600	---	606	145	---		
TOTAL	4717	8680	65556	13658	41068	155540	389428	150432	47677	10348	15305	3477		
MEAN	152	289	2115	441	1416	5017	12980	4853	1589	334	494	116		
MAX	240	4030	15700	582	2660	27800	62500	20500	7020	807	1890	295		
MIN	112	110	556	363	616	1070	689	959	522	169	145	70		
CFSM	.02	.04	.31	.06	.21	.73	1.89	.71	.23	.05	.07	.02		
IN.	.03	.05	.35	.07	.22	.84	2.11	.81	.26	.06	.08	.02		
AC-FT	9360	17220	130000	27090	81460	308500	772400	298400	94570	20530	30360	6900		
CAL YR 1975	TOTAL	949340	MEAN	2601	MAX	31100	MIN	110	CFSM	.38	IN	5.13	AC-FT	1883000
WTR YR 1976	TOTAL	905886	MEAN	2475	MAX	62500	MIN	70	CFSM	.36	IN	4.90	AC-FT	1797000

06902000 GRAND RIVER NEAR SUMNER, MO--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 1974 to current year.

WATER TEMPERATURES: January 1974 to current year.

REMARKS.--Water temperatures and specific conductance samples collected daily by observer. Number of missing days of record exceeded 20 percent of year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	FECAL COLI- FORM (COL. ONIES PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	HARD- NESS (CA, MG) (MG/L)
OCT 22...	132	480	8.2	16.0	15	8.6	87	35	70	240
NOV 12...	183	480	8.2	8.0	7	9.4	79	540	330	230
DEC 10...	762	380	8.1	3.5	55	11.8	89	1400	3700	170
JAN 13...	364	670	7.7	1.5	3	10.2	73	950	700	280
FEB 10...	616	520	7.8	1.5	15	11.6	83	520	850	240
MAR 02...	1380	388	8.2	9.5	130	9.4	82	700	1800	170
APR 06...	1280	450	7.3	15.0	65	9.1	90	280	80	200
MAY 26...	1190	485	7.8	19.5	10	8.8	95	300	60	230
JUN 16...	6870	187	7.4	21.5	20	5.0	56	18000	18000	100
JUL 14...	264	490	8.1	28.0	20	5.8	73	35	110	230
AUG 04...	1040	194	7.9	24.5	300	6.3	75	2600	2000	87
SEP 08...	135	485	8.1	21.5	25	8.2	92	120	320	230

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)
OCT 22...	19	72	14	16	3.9	266	0	38	8.6	.6
NOV 12...	33	69	13	15	4.8	240	0	47	8.9	.1
DEC 10...	38	51	11	9.8	5.5	164	0	42	8.8	.2
JAN 13...	39	86	17	17	4.8	300	0	56	11	.2
FEB 10...	45	71	14	16	3.8	232	0	55	11	.5
MAR 02...	39	50	11	11	4.1	160	0	44	9.4	.3
APR 06...	28	58	13	12	4.2	208	0	53	7.8	.3
MAY 26...	40	69	14	12	3.8	232	0	48	7.4	.3
JUN 16...	--	30	6.8	12	3.8	--	--	15	4.8	.3
JUL 14...	27	69	15	14	4.4	252	0	33	7.6	.4
AUG 04...	0	26	5.3	5.5	4.5	108	0	15	2.9	.4
SEP 08...	8	68	14	14	4.0	268	0	34	7.5	.4

GRAND RIVER BASIN

06902000 GRAND RIVER NEAR SUMNER, MO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL-DAHL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
OCT 22...	11	319	.01	.66	.14	--	51	18	94
NOV 12...	9.2	309	.00	.71	.14	4.2	30	15	70
DEC 10...	9.7	227	1.4	.92	.20	--	130	267	91
JAN 13...	16	366	.79	.79	.10	--	4	3.9	100
FEB 10...	11	290	.66	.95	.13	5.6	55	91	83
MAR 02...	9.0	242	2.4	2.0	.41	--	553	2060	98
APR 06...	9.5	292	.85	.86	.22	--	258	892	90
MAY 26...	8.0	270	.00	.79	.17	5.2	94	302	64
JUN 16...	6.5	106	4.0	7.7	1.7	--	4430	2200	98
JUL 14...	10	294	.01	.47	.16	--	141	101	55
AUG 04...	8.3	120	1.3	2.1	.67	22	807	2270	99
SEP 08...	11	307	.02	.92	.13	--	198	72	59

DATE	TOTAL ARSENIC (AS) (UG/L)	SUSPENDED ARSENIC (AS) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DIS-SOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	DIS-SOLVED CHROMIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)
NOV 12...	1	0	0	0	<10	0	0	0	120	0	830
FEB 10...	--	--	1	0	<10	0	0	0	8	3	1400
MAY 26...	2	1	0	0	10	0	3	0	9	3	1500
AUG 04...	--	--	--	0	--	0	--	0	--	9	--

DATE	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DIS-SOLVED SELENIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
NOV 12...	0	20	4	250	250	--	.1	0	0	120	5
FEB 10...	10	14	6	230	180	.0	.0	0	0	60	10
MAY 26...	100	11	0	180	10	--	.1	3	0	60	10
AUG 04...	80	--	5	--	0	--	.0	--	1	--	10

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
(ONCE-DAILY)

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
(ONCE-DAILY)

[illegible]

GRAND RIVER BASIN

06902000 GRAND RIVER NEAR SUMNER, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

OCT. 22, 1975
1010 HOURS

IDENTIFICATION OF PHYTOPLANKTON

90,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...MICRACTINIACEAE				
....MICRACTINIUM		5,000	6	
...OOCYSTACEAE				
....ANKISTRODESMUS		3,200	4	
....DICTYOSPHAERIUM		7,900	9	
I.KIRCHNERIELLA			0	
....SELENASTRUM		5,000	6	
I.TETRAEDRON			0	
...SCENEDESMACEAE				
....ACTINASTRUM		2,200	2	
....SCENEDESMUS		3,200	4	
..VOLVOCALES				
...CHLAMYDOMONADACEAE				
I.CHLAMYDOMONAS			0	
..ZYGNEMATALES				
...DESMIDIACEAE	PLACODERM DESMIDS			
I.STAURASTRUM			0	
	TOTALS	27,000	31	2.652=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
...CENTRALES	CENTRIC			
...COSCINODISCAEAE				
....CYCLOTELLA		11,000	12	
....MELOSIRA		3,200	4	
..PENNALES	PENNATE			
...FRAGILARIACEAE				
I.SYNEDRA			0	
...NITZSCHIACEAE				
....NITZSCHIA				
	TOTALS	13,000	14	1.453=DIVERSITY
		27,000	30	
..CHRYSTOPHYCEAE	YELLOW-BROWN ALGAE			
...CHRYSOMONADALES				
...OCHROMONADACEAE				
....DINOBYRON				
	TOTALS	5,700	6	0.000=DIVERSITY
		5,700	6	
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
...CHROOCOCCALES	COCCOID			
...CHROOCOCCACEAE				
....ANACYSTIS		4,100	5	
...OSCILLATORIALES	FILAMENTOUS			
...OSCILLATORIAEAE				
D.OSCILLATORIA				
	TOTALS	25,000	28	0.587=DIVERSITY
		29,000	33	
EUGLENOPHYTA	EUGLENOIDS			
..EUGLENOPHYCEAE				
...EUGLENALES				
...EUGLENAEAE				
L.EUGLENA			0	
	TOTALS	180	0	0.000=DIVERSITY

06902000 GRAND RIVER NEAR SUMNER, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

NOV. 12, 1975
1045 HOURS

IDENTIFICATION OF PHYTOPLANKTON

52.000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
...MICRACTINIACEAE				
....GOLENKINIA		270	1	
....MICRACTINIUM		2,700	5	
...OOCYSTACEAE				
....ANKISTRODESMUS		1,100	2	
....DICTYOSPHAERIUM		3,200	6	
....KIRCHNERIELLA		270	1	
....SELENASTRUM		4,100	8	
....TETRAEDRON		270	1	
...SCENEDESMACEAE				
....ACTINASTRUM		1,100	2	
LCRUCIGENIA			0	
....SCENEDESMUS			8	
	TOTALS	17,000	34	2.643=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISACEAE				
DCYCLOTELLA		16,000	30	
....MELOSIRA		6,800	13	
..PENNALES	PENNATE			
...NITZSCHIACEAE				
....NITZSCHIA				
	TOTALS	22,800	47	1.235=DIVERSITY
..CHRYSTOPHYCEAE	YELLOW-BROWN ALGAE			
..CHRYSONOMADALES				
...OCHROMONADACEAE				
LDINOBRYON			0	
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..OSCILLATORIALES	FILAMENTOUS			
...OSCILLATORIACEAE				
LLYNGBYA			0	
DOSCILLATORIA		9,500	18	
	TOTALS	9,500	18	0.000=DIVERSITY
EUGLENOPHYTA	EUGLENOIDS			
..CRYPTOPHYCEAE	CRYPTOMONADS			
..CRYPTOMONIDALES				
...CRYPTOMONODACEAE				
....CRYPTOMONAS		540	1	
	TOTALS	540	1	0.000=DIVERSITY
..EUGLENOPHYCEAE				
..EUGLENALES				
...EUGLENACEAE				
....EUGLENA		270	1	
....TRACHELOMONAS		270	1	
	TOTALS	540	2	1.000=DIVERSITY

GRAND RIVER BASIN

06902000 GRAND RIVER NEAR SUMNER, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DEC. 10, 1975
1050 HOURS

IDENTIFICATION OF PHYTOPLANKTON

1,300 CELLS/ML

_ORGANISM_NAME_____	_COMMON_NAME_____	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
...SCENEDESMACEAE				
....SCENEDESMUS				
	TOTALS	<u>120</u> 120	<u>9</u> 9	0.000=DIVERSITY
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..PENNALES	PENNATE			
...ACHNANTHACEAE				
....ACHNANTHES		30	2	
...NAVICULACEAE	NAVICULOID			
LCALONEIS			0	
...NAVICULA		30	2	
...NITZSCHACEAE				
....NITZSCHIA				
	TOTALS	<u>150</u> 210	<u>11</u> 15	1.149=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..OSCILLATORIALES	FILAMENTOUS			
...NOSTOCACEAE				
DAPHANIZOMENON				
	TOTALS	<u>1,000</u> 1,000	<u>75</u> 75	0.000=DIVERSITY

JAN. 13, 1976
1115 HOURS

IDENTIFICATION OF PHYTOPLANKTON

4,600 CELLS/ML

_ORGANISM_NAME_____	_COMMON_NAME_____	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
...OOCYSTACEAE				
DANKISTRODESMUS				
	TOTALS	<u>3,400</u> 3,400	<u>74</u> 74	0.000=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..OSCILLATORIALES	FILAMENTOUS			
...OSCILLATORIA				
DOSCILLATORIA				
	TOTALS	<u>1,200</u> 1,200	<u>26</u> 26	0.000=DIVERSITY
EUGLENOPHYTA	EUGLENIDS			
..CRYPTOPHYCEAE	CRYPTOMONADS			
...CRYPTOMONIDALES				
...CRYPTOMONODACEAE				
LCRYPTOMONAS			0	

06902000 GRAND RIVER NEAR SUMNER, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

FEB. 10, 1976
1120 HOURS

IDENTIFICATION OF PHYTOPLANKTON

2,900 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
..OOCYSTACEAE				
DANKISTRODESMUS		2,500	86	
..SCENEDESMACEAE				
LSCENEDESMUS			0	
..VOLVOCALES				
..CHLAMYDOMONADACEAE				
....CHLAMYDOMONAS				
	TOTALS	<u>230</u> 2,700	<u>8</u> 94	0.422=DIVERSITY
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..PENNALES	PENNATE			
..NAVICULACEAE	NAVICULOID			
....NAVICULA		77	3	
....NITZSCHACEAE				
....NITZSCHIA		77	3	
....SURIPELLACEAE				
LSURIPELLA			0	
	TOTALS	<u>150</u>	<u>6</u>	1.000=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..OSCILLATORIALES	FILAMENTOUS			
..NOSTOCACEAE				
LAPHANIZOMENON			0	
..OSCILLATORIAACEAE				
LOSCILLATORIA			0	

MAR. 2, 1976
1100 HOURS

IDENTIFICATION OF PHYTOPLANKTON

570 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
..OOCYSTACEAE				
DANKISTRODESMUS				
	TOTALS	<u>85</u> 85	<u>15</u> 15	0.000=DIVERSITY
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..PENNALES	PENNATE			
..ACHNANTHACEAE				
....ACHNANTHES		28	5	
..DIATOMACEAE				
....DIATOMA		28	5	
..FRAGILARIACEAE				
....SYNEDRA		28	5	
..GOMPHONEMATACEAE				
DGOMPHONEMA		140	25	
..NAVICULACEAE	NAVICULOID			
....CALONEIS		28	5	
DNAVICULA		85	15	
..NITZSCHACEAE				
DNITZSCHIA				
	TOTALS	<u>140</u> 480	<u>25</u> 85	2.442=DIVERSITY

GRAND RIVER BASIN

06902000 GRAND RIVER NEAR SUMNER, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

APR. 6, 1976
1050 HOURS

IDENTIFICATION OF PHYTOPLANKTON

11,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...OOCYSTACEAE				
DANKISTRODESMUS		2,800	26	
...SCENEDESMACEAE				
...SCENEDESMUS		620	6	
...VOLVOCALES				
...CHLAMYDOMONADACEAE				
....CHLAMYDOMONAS				
	TOTALS	<u>310</u> 3,700	<u>3</u> 35	1.041=DIVERSITY
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
DCYCLOTELLA		5,200	49	
..PENNALES	PENNATE			
...FRAGILARIACEAE				
...FRAGILARIA		310	3	
...GOMPHONEMACEAE				
....GOMPHONEMA		310	3	
...SURIRELLACEAE				
....SURIRELLA				
	TOTALS	<u>310</u> 6,200	<u>3</u> 58	0.848=DIVERSITY
EUGLENOPHYTA	EUGLENOIDS			
..EUGLENOPHYCEAE				
...EUGLENALES				
...EUGLENACEAE				
....EUGLENA				
	TOTALS	<u>920</u> 920	<u>9</u> 9	0.000=DIVERSITY

06902000 GRAND RIVER NEAR SUMNER, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

MAY 26, 1976
1100 HOURS

IDENTIFICATION OF PHYTOPLANKTON

16,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
...MICRACTINIACEAE				
LGOLENKINIA			0	
...MICRACTINIUM		420	3	
...OOCYSTACEAE				
....ANKISTRODESMUS		1,000	7	
....KIRCHNERIELLA		420	3	
....TETRAEDRON		210	1	
...SCENEDESMACEAE				
DACTINASTRUM		3,300	21	
...SCENEDESMUS		2,100	13	
LTETRASTRUM			0	
...ZYGNEMALES				
...DESMIDIACEAE	PLACODERM DESMIDS			
LCLOSTERIUM			0	
	TOTALS	7,500	48	2.036=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
....CYCLOTELLA		1,000	7	
DMELOSIRA		2,500	16	
..PENNALES	PENNATE			
...NITZSCHACEAE				
DNITZSCHIA				
	TOTALS	3,800	24	
		7,300	47	1.424=DIVERSITY
..CHRYSTOPHYCEAE	YELLOW-BROWN ALGAE			
..CHRYSONOMADALES				
...OCHROMONADACEAE				
....OCHROMONAS				
	TOTALS	210	1	0.000=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..CHROOCOCCALES	COCCOID			
...CHROOCOCCACEAE				
....ANACYSTIS				
	TOTALS	840	5	0.000=DIVERSITY
EUGLENOPHYTA	EUGLENOIDS			
..EUGLENOPHYCEAE				
..EUGLENALES				
...EUGLENACEAE				
LEUGLENA			0	

GRAND RIVER BASIN

06902000 GRAND RIVER NEAR SUMNER, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

JUNE 16, 1976

1040 HOURS

IDENTIFICATION OF PHYTOPLANKTON

11,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
...CENTRALES	CENTRIC			
...COSCINODISCACEAE				
....CYCLOTELLA		470	4	
...PENNALES	PENNATE			
...NAVICULACEAE	NAVICULOID			
....NAVICULA		470	4	
...NITZSCHACEAE				
....NITZSCHIA				
	TOTALS	<u>940</u> 1,900	<u>8</u> 16	1.500=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
...OSCILLATORIALES	FILAMENTOUS			
...NOSTOCACEAE				
DANABAENA				
	TOTALS	<u>9,400</u> 9,400	<u>83</u> 83	0.000=DIVERSITY

06902000 GRAND RIVER NEAR SUMNER, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

JULY 14, 1976
1000 HOURS

IDENTIFICATION OF PHYTOPLANKTON

88,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...OOCYSTACEAE				
....ANKISTRODESMUS		2,200	2	
LTETRAEDRON			0	
...SCENEDESMACEAE				
....ACTINASTRUM		12,000	13	
....SCENEDESMUS		5,000	6	
....TETRASTRUM		1,200	1	
...VOLVOCALES				
...CHLAMYDOMONADACEAE				
LCARTERIA			0	
..CHLOROCOCCALES				
...OOCYSTACEAE				
....GLOEOACTINIUM				
	TOTALS	<u>3,700</u> 24,000	<u>4</u> 26	2.088=DIVERSITY
CHRYSTOPHYTA	DIATOMS			
..BACILLARIOPHYCEAE	CENTRIC			
...CENTRALES				
...COSCINODISCACEAE				
DCYCLOTELLA		23,000	26	
....MELOSIRA		930	1	
...RHIZOSOLENIACEAE				
LRHIZOSOLENIA			0	
...PENNALES	PENNALE			
...NITZSCHACEAE				
DNITZSCHIA				
	TOTALS	<u>30,000</u> 54,000	<u>34</u> 61	1.143=DIVERSITY
..CHRYSTOPHYCEAE	YELLOW-BROWN ALGAE			
...CHRYSONOMADALES				
...OCHROMONADACEAE				
LOCHROMONAS				
	TOTALS	<u>310</u>	<u>0</u> 0	0.000=DIVERSITY
..XANTHOPHYCEAE	YELLOW-GREEN ALGAE			
...HETEROCOCCALES				
...CHLOROTHECIACEAE				
LOPHIOCYTIUM				
	TOTALS	<u>310</u>	<u>0</u> 0	0.000=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE	FILAMENTOUS			
...OSCILLATORIALES				
...OSCILLATORIACEAE				
....OSCILLATORIA				
	TOTALS	<u>9,300</u> 9,300	<u>11</u> 11	0.000=DIVERSITY

GRAND RIVER BASIN

06902000 GRAND RIVER NEAR SUMNER, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

AUG. 4, 1976
1100 HOURS

IDENTIFICATION OF PHYTOPLANKTON

6,700 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...OOCYSTACEAE				
....ANKISTRODESMUS		84	1	
....SCENEDESMACEAE				
....SCENEDESMUS		84	1	
...ZYGNEMALES				
....DESMIDIACEAE	PLACODERM DESMIDS			
....CLOSTERIUM				
		<u>84</u>	<u>1</u>	
	TOTALS	250	3	1.585=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
...CENTRALES	CENTRIC			
...COSCINODISCACEAE				
....CYCLOTELLA		340	5	
....MELOSIRA		250	4	
...PENNALES	PENNATE			
...FRAGILARIACEAE				
....SYNEDRA		170	3	
...NAVICULACEAE	NAVICULOID			
....CALONEIS		420	6	
....GYROSIGMA		250	4	
....NAVICULA		84	1	
...NITZSCHACEAE				
....NITZSCHIA		760	11	
...SURIRELLACEAE				
....SURIRELLA		<u>84</u>	<u>1</u>	
	TOTALS	2,400	35	2.677=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
...CHROOCOCCALES	COCCOID			
...CHROOCOCCACEAE				
....AGMENELLUM		680	10	
DANACYSTIS		1,700	25	
...OSCILLATORIALES	FILAMENTOUS			
...NOSTOCACEAE				
DCYLINDROSPERMUM		1,000	15	
...OSCILLATORIAACEAE				
....OSCILLATORIA		<u>680</u>	<u>10</u>	
	TOTALS	4,100	60	1.888=DIVERSITY

06902000 GRAND RIVER NEAR SUMNER, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

SEP. 8, 1976
1010 HOURS

IDENTIFICATION OF PHYTOPLANKTON

18,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
..OOCYSTACEAE				
....TETRAEDRON		130	1	
..VOLVOCALES				
..CHLAMYDOMONADACEAE				
LCHLAMYDOMONAS				
	TOTALS	170	0	0.722=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
..COSCINODISCEACEAE				
LCYCLOTELLA			0	
LMELOSIRA			0	
..PENNACEAE	PENNATE			
..ACHNANTHACEAE				
LCOCCONEIS			0	
..NAVICULACEAE	NAVICULOID			
LGYROSIGMA			0	
LNAVICULA			0	
..NITZSCHACEAE				
....NITZSCHIA				
	TOTALS	130	1	2.322=DIVERSITY
		330		
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..OSCILLATORIALES	FILAMENTOUS			
..OSCILLATORIA				
DOSCILLATORIA				
	TOTALS	17,000	97	0.000=DIVERSITY
		17,000	97	
EUGLENOPHYTA	EUGLENOIDS			
..EUGLENOPHYCEAE				
..EUGLENALES				
..EUGLENACEAE				
LEUGLENA				
	TOTALS	33	0	0.000=DIVERSITY

NOTE: D - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%
 L - LESS THAN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE

PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m ²)		Chlorophyll a (mg/m ²)	Chlorophyll b (mg/m ²)	Biomass Pigment ratio	Sampling method
		Dry weight	Ash weight				
Nov. 12, 1975	21	17	16	3.5	0.1	180	Polyethylene strip
Feb. 10, 1976	28	3.5	2.2	0.7	0.1	1,800	Polyethylene strip
May 26	50	4.7	3.2	0.0	0.0	35,000	Polyethylene strip
Aug. 4	21	47	44	1.5	0.1	2,600	Polyethylene strip

GRAND RIVER BASIN

06902200 WEST YELLOW CREEK NEAR BROOKFIELD, MO

LOCATION.--Lat 39°50'40", long 93°01'36", in SE¼NE¼ sec.16, T.58 N., R.19 W., Linn County, Hydrologic Unit 10280103, on right bank at right downstream pier of county highway bridge, 1.5 mi (2.4 km) downstream from Bear Creek, and 3.5 mi (5.6 km) northeast of Brookfield.

DRAINAGE AREA.--135 mi² (3,430 km²).

PERIOD OF RECORD.--July 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 733.64 ft (223.613 m) above mean sea level.

REMARKS.--Records poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--17 years, 105 ft³/s (2.98 m³/s), 10.56 in/yr (268 mm/yr), 76,100 acre-ft/yr (93.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,400 ft³/s (210 m³/s) July 9, 1969, gage height, 15.50 ft (4.724 m); no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft³/s (34.0 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
Apr. 25	2400	3,250	92.0	13.73	4.185
May 7	0400	3,750	106	13.87	4.228

No flow on many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.40	1.7	16	2.7	36	44	14	.80	0	0
2		0	2.0	1.7	11	2.5	20	38	14	.80	0	0
3		0	1.1	1.5	5.7	2.5	14	28	13	.70	0	0
4		0	.60	1.4	4.7	30	11	21	11	.70	0	0
5		0	.50	1.1	4.5	752	8.9	18	9.8	.60	0	0
6		0	.40	.80	3.4	675	8.0	1330	8.9	.50	.20	0
7		0	.50	.70	2.4	86	7.3	3000	8.0	.40	.10	0
8		0	.50	.70	1.6	39	6.8	331	6.6	.10	0	0
9		0	.50	.70	2.3	22	6.2	78	5.7	.10	0	0
10		0	.50	.70	2.3	16	5.5	45	5.2	0	0	0
11		0	.50	.70	28	13	5.4	35	15	0	2.5	0
12		0	.40	.70	38	24	5.4	30	33	0	5.9	0
13		0	.30	.70	20	49	5.5	26	13	0	1.6	0
14		0	105	.70	16	28	6.2	27	8.3	0	1.3	0
15		0	355	.70	8.0	15	5.7	132	16	0	1.3	0
16		0	66	.70	7.8	11	5.7	405	33	0	3.0	0
17		0	25	.70	46	10	6.2	615	10	0	1.8	0
18		0	11	.70	69	9.2	82	153	4.8	0	1.5	0
19		0	8.0	.70	24	8.3	183	54	3.2	0	.40	0
20		0	5.7	.70	11	7.1	66	29	2.6	0	.40	0
21		0	4.0	.70	6.6	5.5	62	22	2.1	0	.70	0
22		0	3.0	.70	5.7	5.0	128	21	1.7	0	.50	0
23		0	2.3	.70	5.0	4.7	58	18	1.3	0	.30	0
24		0	1.2	.70	5.2	4.2	152	18	2.5	0	.10	0
25		0	1.5	.70	5.5	3.8	2000	16	1.6	0	0	0
26		0	1.7	.70	5.0	3.6	3250	15	1.4	0	0	0
27		0	1.6	.70	3.8	7.5	522	15	1.3	0	0	.40
28		0	1.4	.70	3.2	26	88	14	1.2	0	0	.10
29		.10	1.6	.90	2.9	11	52	13	1.1	0	0	0
30		.40	1.5	1.1	---	8.6	46	15	.90	0	0	.20
31		---	1.5	2.3	---	65	---	15	---	0	0	---
TOTAL	0	.50	605.20	27.90	364.6	1947.2	6852.8	6621	250.20	4.70	21.60	.70
MEAN	0	.017	19.5	.90	12.6	62.8	228	214	8.34	.15	.70	.023
MAX	0	.40	355	2.3	69	752	3250	3000	33	.80	5.9	.40
MIN	0	0	.30	.70	1.6	2.5	5.4	13	.90	0	0	0
CFSM	0	0	.14	.006	.09	.47	1.69	1.59	.06	.001	.005	0
IN.	0	.0001	.17	.008	.10	.54	1.89	1.82	.07	.001	.006	.0002
AC-FT	0	1.0	1200	55	723	3860	13590	13130	496	9.3	43	1.4
CAL YR 1975	TOTAL	24575.10	MEAN 67.3	MAX 3000	MIN 0	CFSM .50	IN 6.77	AC-FT 48740				
WTR YR 1976	TOTAL	16696.40	MEAN 45.6	MAX 3250	MIN 0	CFSM .34	IN 4.60	AC-FT 33120				

06904050 CHARITON RIVER AT LIVONIA, MO

LOCATION.--Lat 40°28'45", long 92°40'48", in SW¼NW¼ sec.34, T.66 N., R.16 W., Schuyler County, Hydrologic Unit 10280201, on left bank 10 ft (3.0 m) downstream from bridge on U.S. Highway 136, 1 mi (1.6 km) upstream from Shoal Creek, and 0.5 mi (0.8 km) east of Livonia.

DRAINAGE AREA.--870 mi² (2,250 km²), approximately.

PERIOD OF RECORD.--May 1974 to current year. Occasional discharge measurements since October 1962.

GAGE.--Water-stage recorder. Datum of gage is 770.00 ft (234.696 m) above mean sea level.

REMARKS.--Records poor. Several observations of water temperature were made during the year. Flow mostly regulated by Rathbun Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,250 ft³/s (120 m³/s) July 4, 1974, gage height, 24.26 ft (7.394 m); minimum, 16 ft³/s (0.453 m³/s) Sept. 17, 18, 1976, gage height, 4.51 ft (1.375 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,140 ft³/s (117 m³/s) Apr. 24, gage height, 23.34 ft (7.114 m); minimum, 16 ft³/s (0.453 m³/s) Sept. 17, 18, gage height, 4.51 ft (1.375 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	37	322	500	45	76	947	1030	915	1200	473	26
2	36	37	265	498	45	301	943	979	1090	1200	470	26
3	34	38	135	453	45	335	936	937	1290	1200	468	25
4	34	38	79	233	45	1250	934	932	1290	1200	384	25
5	34	38	62	229	45	2960	936	930	1050	1200	112	25
6	34	38	52	279	45	3000	948	1670	630	1200	51	29
7	32	38	49	192	45	3090	950	1700	876	1200	45	30
8	31	37	46	117	45	2480	953	892	1250	1200	41	25
9	32	39	43	70	100	715	965	1010	1260	1200	40	42
10	32	43	43	49	200	454	958	958	1260	1200	40	134
11	32	41	101	45	300	366	950	930	900	1200	69	36
12	32	37	465	45	250	381	661	909	900	1100	153	23
13	32	36	501	45	200	392	346	916	1000	800	192	21
14	32	35	881	45	170	349	111	930	1500	533	100	20
15	34	34	931	45	150	279	83	935	1200	141	69	20
16	36	36	630	45	600	212	72	2100	1000	81	50	18
17	35	35	526	45	500	182	384	2400	1000	65	41	16
18	35	35	463	45	400	169	435	2070	1000	58	36	16
19	35	35	511	45	477	153	370	1310	1200	56	35	17
20	34	39	533	45	289	132	457	1060	1200	52	34	19
21	34	42	565	46	173	115	674	996	1200	53	33	20
22	35	42	511	45	162	93	1000	1070	1200	63	31	20
23	36	38	528	45	165	85	1390	998	1100	111	30	20
24	37	36	520	45	168	485	3800	1020	900	97	29	20
25	37	36	507	45	184	897	3250	989	1000	449	28	24
26	37	94	503	45	165	803	3210	959	1100	473	28	47
27	35	61	503	45	130	902	2800	1110	1200	481	27	51
28	34	60	504	45	97	915	1640	1280	1000	489	27	41
29	34	66	501	45	77	916	1180	1300	1100	478	27	28
30	34	229	499	45	---	959	1070	1100	1200	477	27	25
31	35	---	500	45	---	967	---	775	---	478	27	---
TOTAL	1061	1450	12279	3566	5317	24413	33353	36195	32811	19735	3217	889
MEAN	34.2	48.3	396	115	183	788	1112	1168	1094	637	104	29.6
MAX	37	229	931	500	600	3090	3800	2400	1500	1200	473	134
MIN	31	34	43	45	45	76	72	775	630	52	27	16
AC-FT	2100	2880	24360	7070	10550	48420	66160	71790	65080	39140	6380	1760
CAL YR 1975	TOTAL	128878	MEAN 353	MAX	2520	MIN 23	AC-FT	255600				
WTR YR 1976	TOTAL	174286	MEAN 476	MAX	3800	MIN 16	AC-FT	345700				

CHARITON RIVER BASIN

06904500 CHARITON RIVER AT NOVINGER, MO

LOCATION.--Lat 40°14'05", long 92°41'14", on south line of SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.28, T.63 N., R.16 W., Adair County, Hydrologic Unit 10280202, on right bank at the downstream side of center pier on bridge on State Highway 6, 0.6 mi (1.0 km) east of Novinger, 1 mi (1.6 km) downstream from Rye Creek, 2 mi (3.2 km) upstream from Spring Creek, and at mile 73.1 (117.6 km).

DRAINAGE AREA.--1,370 mi² (3,550 km²), 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 (224.836 m) above mean sea level. Prior to Dec. 20, 1939, nonrecording gage at bridge over old channel, 500 ft (152 m) east, at 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. 2, 1956, to May 16, 1957, nonrecording gage at present site and datum.

REMARKS.--Records poor. Several observations of water temperature were made during the year. Some regulation by Rathbun Lake.

AVERAGE DISCHARGE.--44 years, 759 ft³/s (21.49 m³/s), 7.52 in/yr (191 mm/yr), 549,900 acre-ft/yr (678 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,900 ft³/s (649 m³/s) June 7, 13, 1947, gage height, 28.50 ft (8.687 m); minimum, 0.1 ft³/s (0.003 m³/s) Aug. 31, Sept. 1, 1936.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 28.6 ft (8.72 m) in June 1917.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 6,500 ft³/s (184 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
Mar. 5	0400	9,540	270	17.85	5.441
Apr. 25	1100	*15,500	439	*22.72	6.925
May 16	1230	8,820	250	16.90	5.151

Minimum discharge, 22 ft³/s (0.623 m³/s) Sept. 18, 19, gage height, 1.09 ft (0.332 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	40	472	650	85	192	1130	1390	912	1270	492	34
2	54	40	416	562	85	300	948	1270	1000	1270	475	32
3	52	40	290	510	85	528	948	1150	1270	1270	475	29
4	45	40	198	492	85	2740	930	1130	1270	1270	458	29
5	45	40	129	440	85	8660	912	1110	1210	1270	237	29
6	42	40	117	374	80	6480	912	3620	738	1270	107	42
7	37	40	107	335	80	4890	912	3150	720	1270	86	40
8	35	40	103	200	80	3630	912	1350	1210	1270	70	35
9	35	37	97	150	265	1270	912	1310	1250	1270	67	31
10	32	37	93	100	562	738	912	1190	2080	1270	63	105
11	32	54	132	85	668	598	912	1170	1900	1270	69	42
12	35	40	528	85	528	702	895	1070	702	1270	132	42
13	32	40	580	85	412	650	825	1090	1210	1250	251	32
14	32	37	1870	85	380	545	346	1110	3540	808	180	29
15	35	40	1950	85	338	458	132	1190	3200	324	127	29
16	39	37	1130	85	790	360	105	6410	2100	150	94	26
17	34	37	808	85	790	290	680	4270	1390	113	72	23
18	35	34	650	85	545	254	948	2950	1130	97	59	23
19	35	34	772	85	738	230	930	1800	1130	88	50	22
20	42	43	720	80	545	211	957	1310	1350	82	47	23
21	40	40	702	85	374	177	2450	1170	1390	76	45	25
22	40	45	702	80	335	150	2050	1170	1350	111	43	25
23	40	50	702	85	342	132	1600	1130	1310	111	42	25
24	40	59	702	85	356	241	10900	1150	1310	127	42	25
25	40	63	685	85	360	878	14700	1090	1050	276	40	32
26	40	59	685	85	346	878	8820	1020	1020	492	37	95
27	40	59	650	85	290	948	4750	1050	1310	492	34	84
28	40	78	632	80	240	948	2800	1310	1170	492	32	76
29	40	99	632	85	204	948	1850	1310	948	492	32	59
30	40	545	650	85	---	1190	1510	1350	1210	492	34	40
31	40	---	650	85	---	1150	---	895	---	492	35	---
TOTAL	1226	1887	18554	5583	10073	41366	67588	51685	41380	21805	4027	1183
MEAN	39.5	62.9	599	180	347	1334	2253	1667	1379	703	130	39.4
MAX	58	545	1950	650	790	8660	14700	6410	3540	1270	492	105
MIN	32	34	93	80	80	132	105	895	702	76	32	22
CFSM	.03	.05	.44	.13	.25	.97	1.64	1.22	1.01	.51	.09	.03
IN.	.03	.05	.50	.15	.27	1.12	1.84	1.40	1.12	.59	.11	.03
AC-FT	2430	3740	36800	11070	19980	82050	134100	102500	82080	43250	7990	2350
CAL YR 1975 TOTAL	236857			MEAN 649	MAX 8260	MIN 32	CFSM .47	IN 6.43	AC-FT 469800			
WTR YR 1976 TOTAL	266357			MEAN 728	MAX 14700	MIN 22	CFSM .53	IN 7.23	AC-FT 528300			

06905500 CHARITON RIVER NEAR PRAIRIE HILL, MO

LOCATION.--Lat 39°32'25", long 92°47'23", in NW¼SW¼ 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 (5.1 km) northwest of Prairie Hill, 13.5 mi (21.7 km) upstream from Puzzle Creek, and at mile 19.6 (31.5 km).

DRAINAGE AREA.--1,870 mi² (4,840 km²), approximately.

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 (192.649 m) above mean sea level (levels by Corps of Engineers). Prior to Oct. 1, 1953, nonrecording gage at site 8.2 mi (13.2 km) downstream at datum 13.68 ft (4.170 m) lower. Oct. 1, 1953, to July 2, 1958, nonrecording gage at present site and datum.

REMARKS.--Records fair except during period of ice effect and no gage-height record, which are poor. Several observations of water temperature were made during the year. Some regulation by Rathbun Lake.

AVERAGE DISCHARGE.--48 years, 1,140 ft³/s (32.28 m³/s), 8.28 in/yr (210 mm/yr), 825,900 acre-ft/yr (1,020 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,900 ft³/s (903 m³/s) Apr. 23, 1973, gage height, 21.96 ft (6.693 m); maximum gage height, 25.3 ft (7.71 m) from floodmark, at site and datum then in use, June 8, 9, 1947; minimum, 4.6 ft³/s (0.13 m³/s) Aug. 7, 9, 10, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 9,000 ft³/s (255 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
Mar. 5	1330	10,600	300	13.98	4.261	May 7	0245	10,500	297	13.92	4.243
Apr. 26	0915	*21,200	600	*19.98	6.090	May 17	0530	13,500	382	15.82	4.822

Minimum discharge, 40 ft³/s (1.13 m³/s) Sept. 17-26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	90	100	600	633	150	276	1120	1990	920	1150	482	45		
2	87	100	500	622	150	265	1070	1790	885	1230	474	45		
3	90	100	400	580	150	275	1020	1640	968	1270	468	45		
4	90	100	300	460	150	691	980	1470	1210	1230	468	45		
5	90	103	200	450	150	8680	951	1390	1250	1220	468	45		
6	90	100	150	400	150	8800	938	4880	1170	1210	343	60		
7	90	90	130	350	150	6180	924	8690	740	1210	214	50		
8	90	80	120	300	150	5580	915	3520	645	1200	144	45		
9	90	70	110	250	150	3150	902	1790	1100	1200	120	45		
10	80	70	97	200	150	1370	892	1600	1180	1210	107	50		
11	80	70	200	150	200	842	879	1420	2340	1210	150	70		
12	80	68	600	150	492	860	879	1290	1710	1200	166	106		
13	80	105	1000	150	544	963	866	1250	735	1200	110	97		
14	80	90	2000	150	464	775	821	1280	1270	1170	176	70		
15	80	80	2990	150	369	619	450	2190	4390	799	305	60		
16	80	70	1310	150	489	548	250	6170	2890	431	184	50		
17	80	70	960	150	963	462	191	11200	1900	247	135	40		
18	80	70	614	150	845	403	596	5230	1320	179	105	40		
19	80	70	492	150	562	360	1110	3150	1070	150	83	40		
20	80	70	665	150	615	335	1050	1980	1010	135	76	40		
21	80	70	653	150	575	306	2120	1500	1220	125	70	40		
22	80	68	594	150	437	273	2740	1300	1260	120	60	40		
23	80	70	586	150	384	257	2090	1230	1240	116	60	40		
24	90	70	586	150	393	236	6950	1210	1310	134	60	40		
25	100	70	637	150	392	222	18200	1200	1290	138	50	40		
26	90	70	633	150	376	767	20300	1110	1030	145	50	40		
27	87	70	604	150	364	1050	12700	1040	975	390	45	92		
28	90	100	583	150	335	1150	6190	1050	2040	474	45	122		
29	90	200	594	150	301	1030	3330	1280	1640	485	45	93		
30	90	500	611	150	---	1180	2350	1320	1020	485	45	70		
31	90	---	649	150	---	1300	---	1310	---	485	45	---		
TOTAL	2654	2964	20168	7395	10600	49205	93774	77470	41728	21948	5353	1705		
MEAN	85.6	98.8	651	239	366	1587	3126	2499	1391	708	173	56.8		
MAX	100	500	2990	633	963	8800	20300	11200	4390	1270	482	122		
MIN	80	68	97	150	150	222	191	1040	645	116	45	40		
CFSM	.05	.05	.35	.13	.20	.85	1.67	1.34	.74	.38	.09	.03		
IN.	.05	.06	.40	.15	.21	.98	1.87	1.54	.83	.44	.11	.03		
AC-FT	5260	5880	40000	14670	21030	97600	186000	153700	82770	43530	10620	3380		
CAL YR 1975	TOTAL	364850	MEAN	1000	MAX	19000	MIN	68	CFSM	.53	IN	7.26	AC-FT	723700
WTR YR 1976	TOTAL	334964	MEAN	915	MAX	20300	MIN	40	CFSM	.49	IN	6.66	AC-FT	664400

CHARITON RIVER BASIN

06906000 MUSSEL FORK NEAR MUSSELFORK, MO

LOCATION.--Lat 39°31'26", long 92°56'59", in SW¼SW¼SE¼ sec.32, T.55 N., R.18 W., Chariton County, Hydrologic Unit 10280202, on left bank at downstream side of pier of bridge on State Highway 5, 4.5 mi (7.2 km) southwest of Musselfork, and 1.5 mi (2.4 km) upstream from Long Branch.

DRAINAGE AREA.--267 mi² (692 km²).

PERIOD OF RECORD.--October 1948 to December 1951, October 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 639.25 ft (194.843 m) above mean sea level. Prior to Jan. 1, 1952, nonrecording gage at same site and datum.

REMARKS.--Records poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--17 years (1948-51, 1962-76), 220 ft³/s (6.230 m³/s), 11.19 in/yr (284 mm/yr), 159,400 acre-ft/yr (197 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,100 ft³/s (654 m³/s) Apr. 22, 1973, gage height, 22.11 ft (6.739 m); no flow Sept. 29 to Oct. 16, Oct. 30 to Nov. 2, 1963, Aug. 16-26, 27-29, Nov. 16-24, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft³/s (34.0 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Mar. 6	1315	1,250	35.4	May 8	1015	1,930	54.7
Apr. 27	1430	2,600	73.6	June 29	0400	*3,020	85.5
							*18.93
							5.127
							5.770

No flow Nov. 16-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	.47	9.1	5.1	4.8	15	119	111	29	44	3.5	.80
2	1.0	.69	9.4	5.1	5.1	12	71	88	25	29	3.3	.60
3	.87	.76	13	4.8	6.1	9.9	50	70	23	85	3.2	.70
4	.61	1.1	12	4.5	13	77	39	59	21	44	3.4	.70
5	.54	1.2	9.9	4.0	18	473	32	51	20	25	3.3	.80
6	.74	1.2	8.2	3.9	14	1170	28	98	19	20	3.4	.80
7	.62	1.7	6.9	3.7	11	414	26	1000	18	17	3.4	.80
8	.47	1.4	6.5	3.6	8.9	125	24	1870	18	13	3.2	.80
9	.48	1.3	6.0	3.1	8.6	78	23	1710	16	11	2.7	.80
10	.48	5.3	5.6	2.8	14	61	21	1620	15	9.6	4.2	.50
11	.36	4.4	5.4	2.9	27	55	19	500	14	8.7	6.1	.10
12	.33	2.3	5.0	2.8	26	142	17	162	13	7.9	11	.20
13	.19	1.7	4.7	2.9	60	310	15	120	12	7.4	10	.20
14	.13	1.5	5.1	3.1	63	176	14	90	12	7.0	12	.20
15	.25	1.1	46	3.3	36	91	14	70	15	6.6	10	.20
16	.20	.08	515	3.3	96	64	16	68	15	7.0	9.3	.30
17	.15	0	95	3.2	270	58	16	80	22	7.5	14	.20
18	.10	0	29	3.1	172	57	17	50	25	7.5	11	.20
19	.10	0	17	3.0	94	54	20	14	18	5.8	9.9	.20
20	.10	0	14	3.0	52	46	28	15	14	5.1	7.7	.20
21	.15	0	11	2.9	36	39	59	15	12	4.8	5.9	.20
22	.20	0	8.8	3.0	28	34	129	20	10	4.7	4.6	.20
23	.27	0	7.3	3.1	24	30	176	24	9.5	4.4	3.9	.20
24	.33	0	6.6	3.3	23	31	140	20	23	4.1	3.4	.10
25	.40	.50	6.5	3.4	21	40	1540	20	55	4.0	2.9	.50
26	.27	1.0	6.1	3.5	23	38	2160	43	28	3.9	2.5	1.5
27	.28	1.8	5.6	3.4	22	69	2560	39	21	4.0	2.2	1.6
28	.30	2.4	5.5	3.3	21	244	1180	34	828	3.9	1.9	1.7
29	.27	3.2	5.5	3.6	18	143	246	37	2320	3.8	1.7	1.4
30	.22	6.9	5.4	4.1	---	179	154	38	241	3.6	1.5	1.0
31	.30	---	5.5	4.4	---	165	---	40	---	3.7	1.1	---
TOTAL	12.11	42.00	896.6	109.2	1215.5	4499.9	8953	8176	3911.5	413.0	166.2	17.70
MEAN	.39	1.40	28.9	3.52	41.9	145	298	264	130	13.3	5.36	.59
MAX	1.4	6.9	515	5.1	270	1170	2560	1870	2320	85	14	1.7
MIN	.10	0	4.7	2.8	4.8	9.9	14	14	9.5	3.6	1.1	.10
CFSM	.001	.005	.11	.01	.16	.54	1.12	.99	.49	.05	.02	.002
IN.	.002	.006	.12	.02	.17	.63	1.25	1.14	.54	.06	.02	.002
AC-FT	24	83	1780	217	2410	8930	17760	16220	7760	819	330	35

CAL YR 1975	TOTAL	56045.48	MEAN 154	MAX 5570	MIN 0	CFSM .58	IN 7.81	AC-FT 111200
WTR YR 1976	TOTAL	28412.71	MEAN 77.6	MAX 2560	MIN 0	CFSM .29	IN 3.96	AC-FT 56360

LITTLE CHARITON RIVER BASIN

107

06906200 EAST FORK LITTLE CHARITON RIVER NEAR MACON, MO

LOCATION.--Lat 39°44'47", long 92°31'05", NW¼NW¼NW¼ sec.18, T.57 N., R.14 W., Macon County, Hydrologic Unit 10280203, on downstream end of right abutment of bridge on U.S. Highway 36, 2 mi (3.2 km) downstream from Long Branch, and 3 mi (4.8 km) west of Macon.

DRAINAGE AREA.--112 mi² (290 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 741.43 ft (225.988 m) above mean sea level.

REMARKS.--Records poor. Several observations of water temperatures were made during the year.

AVERAGE DISCHARGE.--5 years, 136 ft³/s (3.851 m³/s), 16.49 in/yr (419 mm/yr), 98,530 acre-ft/yr (121.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,700 ft³/s (246 m³/s) Apr. 21, 1973, gage height, 20.60 ft (6.279 m); no flow in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28.3 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
Apr. 26	1900	*3,760	106	*16.77	5.111
May 8	0615	2,260	64.0	14.81	4.514

No flow on many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1		0	1.2	0	.20	.24	23	49	4.9	9.8	0			
2		0	10	0	.20	.06	11	34	3.9	37	0			
3		0	7.8	0	.20	.08	9.1	23	3.4	29	0			
4		0	4.1	0	.20	120	8.6	17	3.2	14	0			
5		0	2.2	0	.20	454	7.8	15	3.3	10	0			
6		0	1.4	0	.20	243	5.9	232	2.0	6.7	0			
7		0	.69	0	.20	92	4.6	1670	1.2	4.9	0			
8		0	.60	0	.20	34	3.9	1370	1.6	4.3	0			
9		0	.33	0	.20	16	2.4	200	2.5	7.3	0			
10		0	.07	0	1.0	9.2	1.6	95	1.9	7.3	0			
11		0	.16	0	1.0	9.9	1.2	58	1.4	5.0	1.0			
12		0	.29	0	1.0	136	.64	38	.98	3.4	10			
13		0	.30	0	1.0	169	.48	29	1.0	2.5	15			
14		0	3.9	0	1.0	84	.92	29	1.0	1.7	10			
15		0	5.0	0	50	28	2.5	243	11	.80	5.0			
16		0	18	0	300	12	3.5	680	11	.40	4.0			
17		0	24	0	150	10	2.8	652	200	0	3.0			
18		0	12	0	55	7.3	2.3	354	88	0	6.3			
19		0	5.5	0	17	4.3	3.0	193	26	0	4.2			
20		0	3.0	0	9.5	3.2	28	87	13	0	2.9			
21		0	1.5	0	8.1	.54	303	46	8.0	0	2.2			
22		0	.55	0	6.5	1.9	305	27	5.7	0	1.2			
23		0	.23	0	3.9	6.8	152	18	3.3	0	.37			
24		0	.03	0	2.7	3.6	402	17	.27	0	.04			
25		0	0	0	1.5	18	2480	13	.01	0	0			
26		0	0	0	.98	86	3420	9.8	1.6	0	0			
27		0	0	.06	.42	24	2110	6.3	7.1	0	0			
28		0	0	.10	.36	40	274	4.8	13	0	0			
29		.32	0	.20	.36	202	137	5.7	15	0	0			
30		1.1	0	.20	---	64	69	5.5	14	0	0			
31		---	0	.20	---	55	---	7.1	---	0	0	---		
TOTAL	0	1.48	102.85	.76	613.12	1934.12	9775.24	6228.2	449.26	144.10	65.21	0		
MEAN	0	.049	3.32	.025	21.1	62.4	326	201	15.0	4.65	2.10	0		
MAX	0	1.1	24	.20	300	454	3420	1670	200	37	15	0		
MIN	0	0	0	0	.20	.06	.48	4.8	.01	0	0	0		
CFSM	0	0	.03	0	.19	.56	2.91	1.79	.13	.04	.02	0		
IN.	0	.0005	.03	.0003	.20	.64	3.25	2.07	.15	.05	.02	0		
AC-FT	0	2.9	204	1.5	1220	3840	19390	12350	891	286	129	0		
CAL YR 1975	TOTAL	28426.73	MEAN	77.9	MAX	1880	MIN	0	CFSM	.70	IN	9.44	AC-FT	56380
WTR YR 1976	TOTAL	19314.34	MEAN	52.8	MAX	3420	MIN	0	CFSM	.47	IN	6.42	AC-FT	38310

06906300 EAST FORK LITTLE CHARITON RIVER NEAR HUNTSVILLE, MO

LOCATION.--Lat 39°27'16", long 92°34'16", in NW¼NW¼NW¼ sec.26, T.54 N., R.15 W., Randolph County, Hydrologic Unit 10280203, on right bank 600 ft downstream from bridge on State Highway C, 1 mi (1.6 km) downstream from Sugar Creek, and 1.5 mi (2.4 km) northwest of Huntsville.

DRAINAGE AREA.--220 mi² (570 km²).

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 (199.906 m) above mean sea level (levels by Missouri State Highway Commission). From July 18, 1972, to Sept. 23, 1974, at datum 0.63 ft (0.192 m) higher and from Sept. 24, 1974, at present datum.

REMARKS.--Records poor. Several observations of water temperatures were made during the year.

AVERAGE DISCHARGE.--14 years, 185 ft³/s (5.239 m³/s), 11.42 in/yr (290 mm/yr), 134,000 acre-ft/yr (165 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft³/s (850 m³/s) Apr. 21, 1973, gage height, 20.78 ft (6.333 m), at datum then in use, from rating curve extended above 4,000 ft³/s (110 m³/s) on basis of slope-area measurement of peak flow; no flow at times in many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,130 ft³/s (32.0 m³/s) Apr. 28, no peak above base of 1,500 ft³/s (42.5 m³/s); maximum gage height, 16.53 ft (5.038 m) Mar. 5; no flow on many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	1.4	2.0	35	7.8	12	13	103	97	28	19	0	0		
2	.40	2.8	17	8.4	9.4	12	63	77	26	19	0	0		
3	0	3.2	8.2	6.0	8.2	13	48	67	23	87	0	0		
4	.20	2.8	7.6	5.0	7.8	400	40	59	20	28	0	0		
5	.40	3.0	8.2	5.0	9.4	690	35	53	18	17	0	0		
6	.60	3.0	11	5.0	11	609	31	250	17	14	0	0		
7	1.2	3.2	8.4	2.8	9.8	218	28	444	17	8.8	0	0		
8	.80	3.4	7.2	2.8	9.0	92	25	521	16	5.8	0	0		
9	0	3.2	7.2	1.4	11	67	22	554	15	4.8	0	1.1		
10	0	3.6	7.6	1.4	37	59	21	184	13	3.8	0	0		
11	.20	4.0	6.0	2.6	53	61	19	97	13	4.6	4.2	0		
12	0	2.0	5.2	3.4	44	94	17	77	13	4.2	.50	0		
13	.20	1.6	5.6	4.0	30	124	15	69	12	2.8	18	0		
14	1.4	1.2	4.4	5.8	29	112	14	71	11	1.8	23	0		
15	3.0	1.0	121	5.6	38	77	14	87	10	4.8	11	0		
16	2.2	.60	82	6.0	84	63	14	390	18	5.4	6.2	0		
17	.20	.60	31	5.2	133	59	15	532	71	0	5.0	0		
18	1.0	0	12	4.8	184	57	16	433	37	0	6.8	0		
19	3.2	0	31	3.2	127	51	16	173	25	0	16	0		
20	3.4	.80	26	3.6	75	44	28	90	19	0	9.8	0		
21	2.6	.80	8.0	3.6	57	38	198	92	16	0	4.8	0		
22	1.8	.60	11	3.6	43	34	210	57	11	0	1.2	0		
23	1.0	.80	9.0	4.4	35	33	170	49	10	0	0	0		
24	3.4	2.0	7.6	5.8	29	35	159	43	12	0	0	0		
25	2.4	2.2	7.6	7.4	23	34	690	38	14	0	0	0		
26	1.8	2.4	7.4	6.0	19	44	890	35	13	0	0	0		
27	2.6	3.0	6.8	5.6	17	330	960	32	10	0	0	0		
28	2.2	3.0	6.4	3.2	15	124	1040	31	8.4	0	0	0		
29	1.0	5.6	6.8	8.0	14	82	653	29	29	0	0	0		
30	0	39	7.4	10	---	69	156	31	34	0	0	0		
31	0	---	7.4	12	---	97	---	28	---	0	0	---		
TOTAL	38.60	101.40	527.0	159.4	1173.6	3835	5710	4790	579.4	230.8	106.50	1.1		
MEAN	1.25	3.38	17.0	5.14	40.5	124	190	155	19.3	7.45	3.44	.037		
MAX	3.4	39	121	12	184	690	1040	554	71	87	23	1.1		
MIN	0	0	4.4	1.4	7.8	12	14	28	8.4	0	0	0		
CFSM	.005	.02	.08	.02	.18	.56	.86	.70	.09	.03	.02	0		
IN.	.007	.02	.09	.03	.20	.65	.97	.81	.10	.04	.02	.0002		
AC-FT	77	201	1050	316	2330	7610	11330	9500	1150	458	211	2.2		
CAL YR 1975	TOTAL	46338.90	MEAN	127	MAX	2320	MIN	0	CFSM	.58	IN	7.84	AC-FT	91910
WTR YR 1976	TOTAL	17252.80	MEAN	47.1	MAX	1040	MIN	0	CFSM	.21	IN	7.92	AC-FT	34220

06907500 SOUTH FORK BLACKWATER RIVER NEAR ELM, MO

LOCATION.--Lat 38°49'08", long 94°02'08", in SE¼SW¼ sec.5, T.46 N., R.28 W., Johnson County, Hydrologic Unit 10300104, on left bank at downstream side of bridge on county highway, 2.5 mi (4.0 km) southeast of Elm, and 3 mi (4.8 km) upstream from mouth.

DRAINAGE AREA.--16.6 mi² (43.0 km²).

PERIOD OF RECORD.--June 1954 to current year. Prior to October 1, 1963 published as "East Branch South Fork Blackwater River."

REVISED RECORDS.--WSP 1919: 1958(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is about 795 ft (242.3 m) above mean sea level.

REMARKS.--Records poor. Runoff affected at times by many soil conservation ponds upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--22 years, 12.0 ft³/s (0.340 m³/s), 9.82 in/yr (249 mm/yr), 8,690 acre ft/yr (10.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,600 ft³/s (159 m³/s) Apr. 15, 1960, gage height, 12.0 ft (3.66 m), from rating curve extended above 420 ft³/s (11.9 m³/s) on basis of contracted-opening and flow over-road measurement of peak flow; no flow for many days each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1951 reached a stage of 14.8 ft (4.51 m), from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 434 ft³/s (12.3 m³/s) Apr. 27, gage height, 3.84 ft (1.170 m), no peak above base of 1,100 ft³/s (31.2 m³/s); no flow on many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.27	.16	5.0	.70	3.0	.90	1.0	9.9	1.5	.20		
2	.12	.20	3.0	.70	3.0	.77	1.0	7.0	1.2	.10		
3	.06	.30	2.0	.70	2.5	.98	1.0	5.7	1.0	.10		
4	.03	.33	1.0	.70	2.2	124	1.0	4.5	.80	.10		
5	.01	.47	.50	.70	1.5	54	1.0	4.5	.70	0		
6	.01	.30	.50	.70	1.5	12	1.0	5.7	.60	0		
7	0	.29	.50	.70	.99	7.9	1.0	6.6	.59	0		
8	0	.32	.50	.70	1.4	5.9	1.0	5.3	.46	0		
9	0	.46	.50	.70	3.3	4.4	1.0	5.0	.46	0		
10	0	.33	.50	.70	11	3.4	1.0	5.0	.50	0		
11	0	.18	.50	.70	7.0	2.9	1.0	5.0	1.0	0		
12	0	.30	.50	.70	3.0	7.2	1.0	20	.50	0		
13	0	.25	.50	.70	1.6	4.5	1.0	10	.50	0		
14	.01	.17	.50	.70	.96	2.8	1.0	20	.40	0		
15	.01	.13	30	.70	1.2	2.7	1.0	100	.50	0		
16	.45	.09	5.0	.60	3.2	3.3	1.0	50	.50	0		
17	.11	.09	3.0	.60	2.6	3.7	80	20	.40	0		
18	.03	.06	2.0	.50	1.6	3.3	50	10	.40	0		
19	.06	.09	1.0	.50	1.0	2.9	10	5.0	.30	0		
20	.04	.19	.70	.46	.75	2.9	30	4.0	.30	0		
21	.03	.10	.70	.59	12	2.0	20	3.0	.20	0		
22	.04	.09	.70	.59	9.3	1.0	10	2.0	.20	0		
23	.01	.06	.70	.59	4.1	1.0	5.0	10	50	0		
24	.10	.06	.70	.59	2.6	1.0	10	3.0	20	0		
25	.31	.06	.70	.59	2.0	1.0	5.0	2.0	1.0	0		
26	.97	.17	.70	.59	1.5	3.0	5.0	2.0	.50	0		
27	.14	.27	.70	.60	1.2	5.0	100	2.0	.40	0		
28	.04	.50	.70	.60	1.0	3.0	30	2.0	1.0	0		
29	.01	.90	.70	.60	.90	2.0	17	2.0	.50	0		
30	.03	2.6	.70	.60	---	1.0	11	5.0	.30	0		
31	.11	---	.70	.60	---	1.0	---	2.0	---	0		
TOTAL	3.00	9.52	65.40	19.70	87.90	271.45	399.0	338.2	86.71	.50	0	0
MEAN	.097	.32	2.11	.64	3.03	8.76	13.3	10.9	2.89	.016	0	0
MAX	.97	2.6	30	.70	12	124	100	100	50	.20	0	0
MIN	0	.06	.50	.46	.75	.77	1.0	2.0	.20	0	0	0
CFSM	.005	.02	.13	.04	.18	.53	.80	.66	.17	0	0	0
IN.	.007	.02	.15	.04	.20	.61	.89	.76	.19	.001	0	0
AC-FT	6.0	19	130	39	174	538	791	671	172	1.0	0	0
CAL YR 1975	TOTAL	2188.76	MEAN 6.00	MAX 240	MIN 0	CFSM .36	IN 4.90	AC-FT 4340				
WTR YR 1976	TOTAL	1281.38	MEAN 3.50	MAX 124	MIN 0	CFSM .21	IN 2.87	AC-FT 2540				

LAMINE RIVER BASIN

06908000 BLACKWATER RIVER AT BLUE LICK, MO

LOCATION.--Lat 38°59'25", long 93°12'14", in NW¼NE¼ sec.34, T.49 N., R.21 W., Saline County, Hydrologic Unit 10300104, on right bank upstream from bridge on old U.S. Highway 65, 0.8 mile (1.3 km) downstream from Finney Creek, 1 mi (1.6 km) south of Blue Lick, and at mile 30.8 (49.6 km).

DRAINAGE AREA.--1,120 mi² (2,900 km²), approximately.

PERIOD OF RECORD.--June 1922 to September 1933, May 1938 to current year.

REVISED RECORDS.--WSP 1006: 1929.

GAGE.--Water-stage recorder. Datum of gage is 593.79 ft (180.987 m) above mean sea level. Prior to July 25, 1925, nonrecording gage at site 75 ft (23 m) downstream at datum 0.10 ft (0.030 m) lower. July 25, 1925, to Sept. 30, 1933, and May 23, 1938, to Dec. 3, 1956, nonrecording gage at site 25 ft (7.6 m) downstream at same datum.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--49 years, 716 ft³/s (20.28 m³/s), 8.68 in/yr (220 mm/yr), 518,700 acre-ft/yr (640 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 54,000 ft³/s (1,530 m³/s) Nov. 18, 1928, gage height, 41.25 ft (12.573 m) from floodmarks, from rating curve extended above 32,000 ft³/s (906 m³/s) by logarithmic plotting; minimum, 0.08 ft³/s (0.002 m³/s) Aug. 9, 10, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,320 ft³/s (151 m³/s) Mar. 7, 8, gage height, 25.49 ft (7.769 m), no peak above base of 10,000 ft³/s (283 m³/s); minimum, 0.08 ft³/s (0.002 m³/s) Aug. 9, 10, gage height, 5.98 ft (1.823 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	14	2240	218	313	110	328	414	161	21	.97	1.3
2	13	12	655	253	384	105	226	318	138	17	.90	1.1
3	24	11	186	280	282	123	181	246	114	13	.65	1.1
4	27	10	129	210	256	3280	153	189	96	12	.59	1.1
5	18	10	100	164	188	5030	130	155	83	27	.50	1.5
6	14	14	84	119	141	5000	118	145	74	70	.40	1.7
7	11	15	69	73	131	5190	112	149	67	29	.40	1.7
8	10	14	75	70	111	5260	104	149	62	15	.35	1.5
9	12	13	67	59	200	969	93	129	54	11	.26	2.5
10	11	13	55	55	829	450	80	108	48	9.2	.12	2.5
11	7.8	21	50	50	1200	329	73	98	44	8.1	.32	1.9
12	7.6	32	46	44	798	346	69	93	157	7.2	.47	1.7
13	6.9	31	40	60	270	617	65	88	117	5.5	4.4	1.7
14	7.9	25	62	86	206	361	59	83	62	4.3	4.5	1.3
15	9.7	18	2460	119	169	252	60	2700	40	24	5.4	1.1
16	12	15	3420	134	218	233	63	4620	28	327	4.8	.78
17	34	12	2140	114	1080	267	62	4900	23	92	4.0	.57
18	43	11	407	86	439	275	114	5010	23	74	3.6	.49
19	29	10	249	73	272	235	723	5200	19	33	5.4	.47
20	19	12	200	60	185	201	551	4110	14	16	5.6	.63
21	14	15	166	56	170	174	2740	714	12	9.8	3.8	.69
22	11	14	134	57	504	143	2970	318	11	7.6	2.8	.72
23	10	20	105	55	562	121	1660	255	9.8	5.9	1.8	.75
24	9.3	25	96	59	310	112	452	238	12	4.9	1.4	.80
25	9.8	20	88	69	228	107	345	201	420	3.9	1.1	.94
26	19	20	86	65	178	120	292	184	235	3.0	.85	1.8
27	25	22	86	63	148	766	435	157	99	2.9	1.1	2.0
28	19	23	84	73	128	835	1730	144	57	2.4	1.3	2.0
29	19	33	80	64	118	327	1810	137	34	1.8	1.1	2.0
30	15	1380	98	78	---	802	717	127	25	1.3	1.1	2.0
31	19	---	146	140	---	765	---	125	---	.91	1.2	---
TOTAL	500.0	1885	13903	3106	10018	32905	16515	31504	2338.8	859.71	61.18	40.34
MEAN	16.1	62.8	448	100	345	1061	551	1016	78.0	27.7	1.97	1.34
MAX	43	1380	3420	280	1200	5260	2970	5200	420	327	5.6	2.5
MIN	6.9	10	40	44	111	105	59	83	9.8	.91	.12	.47
CFSM	.01	.06	.40	.09	.31	.95	.49	.91	.07	.02	.001	.001
IN.	.02	.06	.46	.10	.33	1.09	.55	1.05	.08	.03	.002	.001
AC-FT	992	3740	27580	6160	19870	65270	32760	62490	4640	1710	121	80
CAL YR 1975	TOTAL	263395.70	MEAN 722	MAX 10300	MIN 5.4	CFSM .64	IN 8.75	AC-FT 522400				
WTR YR 1976	TOTAL	113636.03	MEAN 310	MAX 5260	MIN .12	CFSM .28	IN 3.77	AC-FT 225400				

MISSOURI RIVER MAIN STEM

111

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 Co. bridge at Boonville. River mile 196.6 (316.3 km).

DRAINAGE AREA (REVISED)--501,700 mi² (1,299,000 km²), approximately. The 3,959 mi² (10,254 km²) in Great Divide basin is not included.

PERIOD OF RECORD.--October 1925 to current year. Gage-height records collected at same site 1893-99 are contained in reports of Missouri River Commission; since 1900 in reports of National Weather Service.

REVISED RECORDS. WSP 761: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 565.42 ft (172.340 m) above mean sea level. Prior to Oct. 1, 1928, nonrecording gage at site 0.4 mi (0.6 km) downstream at datum 3.14 ft (0.957 m) lower. Oct. 1, 1928, to May 9, 1931, nonrecording gage at site 50 ft (15 m) upstream from present site at present datum. May 10, 1931, to Apr. 12, 1934, water-stage recorder at site 0.4 mi (0.6 km) downstream at different datum.

REMARKS.--Records good. Discharge measurements made weekly except during ice-flow periods. Some regulation from many upstream reservoirs. Several observations of water temperatures made during the year.

AVERAGE DISCHARGE.--51 years, 57,880 ft³/s (1,639 m³/s), 41,930,000 acre-ft/yr (51,700 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 550,000 ft³/s (15,580 m³/s) July 17, 1951; maximum gage height 32.82 ft (10.004 m) July 17, 1951; minimum discharge, about 1,800 ft³/s (51.0 m³/s) Jan. 10, 1940; minimum gage height, -0.85 ft (-0.259 m) Jan. 13, 1937.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 21, 1844, reached a stage of 32.7 ft (9.97 m) discharge, about 710,000 ft³/s (20,110 m³/s), computed by Corps of Engineers. Flood of June 6, 1903, reached a stage of 30.5 ft (9.30 m) discharge, about 612,000 ft³/s (17,330 m³/s), computed by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 161,000 ft³/s (4,560 m³/s) Apr. 27, gage height, 20.76 ft (6.325 m); minimum, 14,500 ft³/s (411 m³/s) Jan. 10, gage height, 1.55 ft (0.472 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70100	71100	99700	39400	33500	43800	54000	114000	76500	66500	51400	43000
2	70800	70300	104000	39400	34700	44200	63800	92200	70900	58700	49800	42700
3	69900	69900	93300	38700	37100	45000	62100	82700	66400	57500	52600	42000
4	69100	69500	81400	37200	37500	56200	59200	79000	64400	56700	51900	41600
5	69900	68600	76000	36400	36500	76100	57000	76600	61700	55900	47400	40900
6	69500	69400	69500	35600	35800	95500	55700	74800	58200	55600	45700	41000
7	68200	70800	65200	33100	34900	88000	55100	87000	56200	52900	45200	41400
8	67800	70700	62400	29600	34900	78600	54800	108000	55900	51900	44400	41500
9	68100	70700	58800	27800	33700	65500	53600	108000	55200	51600	43700	41200
10	67400	71400	54900	16800	32700	53600	52700	87100	53900	50800	43300	40600
11	67400	72500	51400	30700	34900	50000	52400	78000	56000	50300	42900	40600
12	68100	74400	48000	29800	36700	49000	51400	72400	55000	50100	43000	40900
13	68600	75100	46100	33800	39700	50100	50500	69300	54000	49400	43100	41000
14	69400	75000	45000	24500	41900	58300	50100	66400	53000	49200	43400	41000
15	69300	74200	48200	23400	42200	63200	50300	68900	52000	48100	43800	40600
16	69000	74200	62200	29400	41700	61700	49900	85300	70000	47800	44100	40400
17	69000	72800	62100	31500	44000	57700	50000	111000	90000	47800	44400	40700
18	69400	71500	53600	32600	49000	57000	50800	107000	75600	47200	45400	41300
19	70500	70800	46400	34900	55700	56500	65000	89200	63400	47100	45000	41700
20	70900	71100	40800	37100	55800	54000	93600	77600	59000	46300	44800	41300
21	70400	71600	37600	32300	51000	52700	104000	68300	58700	45200	44600	41300
22	69800	72800	35800	29700	48600	52400	113000	61900	55800	44800	44200	42000
23	70400	77800	34800	31800	48400	52200	130000	60200	52600	45900	43400	42700
24	70900	81100	35400	34400	48300	51900	121000	57800	53400	47200	42200	42100
25	71100	78400	36900	34600	46000	52000	123000	61000	59700	48500	42200	42300
26	70800	75700	39000	34000	44000	52000	146000	79300	58500	47600	42100	43300
27	71800	74600	39400	34900	44000	53000	159000	81500	53400	46500	42400	43700
28	72800	74500	39000	35000	43600	53000	148000	75100	55300	46400	42200	44900
29	72400	75100	38600	34800	43900	53000	140000	69400	62200	46500	42500	45200
30	71500	77100	38800	34600	---	53000	131000	68200	73000	47400	42700	44300
31	71000	---	39100	34000	---	53000	---	70800	---	50200	43200	---
TOTAL	2165300	2192700	1683400	1011800	1210700	1782200	2447000	2488000	1829900	1557600	1387000	1257200
MEAN	69850	73090	54300	32640	41750	57490	81570	80260	61000	50250	44740	41910
MAX	72800	81100	104000	39400	55800	95500	159000	114000	90000	66500	52600	45200
MIN	67400	68600	34800	16800	32700	43800	49900	57800	52000	44800	42100	40400
AC-FT	4295000	4349000	3339000	2007000	2401000	3535000	4854000	4935000	3530000	3089000	2751000	2494000
CAL YR 1975	TOTAL	24480000	MEAN	67070	MAX	188000	MIN	24300	AC-FT	48560000		
WTR YR 1976	TOTAL	21012800	MEAN	57410	MAX	159000	MIN	16800	AC-FT	41680000		

PERCHE CREEK BASIN

06910230 HINKSON CREEK AT COLUMBIA, MO

LOCATION.--Lat 38°55'42", long 92°20'26", in NE¼NW¼SW¼ sec.24, T.48 N., R.13 W., Boone County, Hydrologic Unit 10300102, on left bank 400 ft (122 m) downstream from bridge on State Highway K, 0.5 mi (0.8 km) south of Columbia, and 1 mi (1.6 km) upstream from Flat Branch.

DRAINAGE AREA.--70.2 mi² (182 km²).

PERIOD OF RECORD.--October 1966 to current year. Occasional low-flow measurements, 1942, 1943, 1946, 1952, 1953, 1962, 1963.

GAGE.--Water-stage recorder. Datum of gage is 583.52 ft (177.857 m) above mean sea level.

REMARKS.--Records poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--10 years, 60.3 ft³/s (1.708 m³/s), 11.66 in/yr (296 mm/yr), 43,690 acre-ft/yr (53.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,100 ft³/s (258 m³/s) May 15, 1970, gage height, 18.91 ft (5.764 m) from rating extended above 5,000 ft³/s (142 m³/s) on basis of step-backwater computations; no flow at times in many years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s (56.6 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
Nov. 30	0115	3,030	85.8	12.81	3.904
Mar. 4	2100	*4,150	118	*14.96	4.560

No flow on many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	8.0	3.9	99	29	3.9	15	43	16	22	.94		0		
2	3.7	3.7	51	37	4.4	15	31	13	15	.71		0		
3	2.6	5.5	35	19	4.4	36	24	10	5.6	.64		0		
4	2.1	5.0	25	11	4.4	2100	19	8.6	1.3	.72		0		
5	1.8	4.4	20	10	4.4	652	17	8.1	1.7	.73		0		
6	1.7	4.1	14	10	4.4	54	14	22	1.2	.60		0		
7	1.5	3.7	8.6	8.3	4.4	31	13	36	1.0	.50		0		
8	1.4	9.4	7.4	7.7	5.0	31	12	18	.84	.50		0		
9	1.8	5.8	8.5	7.5	5.0	27	9.9	12	.78	.50		0		
10	2.0	5.0	5.7	7.2	10	25	9.1	10	.73	.50		0		
11	1.9	4.0	5.3	6.7	30	22	10	8.3	.77	.50		0		
12	1.8	3.5	5.2	6.7	25	24	7.6	7.1	.75	.50		0		
13	1.8	3.2	3.8	6.7	20	24	6.8	20	.61	.50		0		
14	27	3.0	183	6.3	20	26	7.6	19	.53	.40		0		
15	164	2.6	573	6.3	20	27	7.7	124	.62	.40		0		
16	42	2.5	86	6.3	30	33	6.8	149	.54	1.6		0		
17	15	2.3	43	5.8	50	37	6.4	120	.51	1.4		0		
18	7.6	2.2	32	5.8	30	35	7.8	51	.42	.70		0		
19	4.7	2.0	26	5.8	50	32	8.5	33	.40	.50		.95		
20	3.8	3.2	14	5.8	100	27	103	26	.43	.40		0		
21	3.4	2.7	6.6	5.4	80	23	114	19	.52	.30		0		
22	2.8	2.1	4.9	5.4	50	19	53	12	.47	.30		0		
23	2.6	1.8	4.2	5.4	30	17	29	9.0	.78	.30		0		
24	17	1.9	3.2	5.0	20	16	27	7.1	49	.30		0		
25	49	1.9	3.3	4.7	15	15	31	5.8	12	.30		0		
26	13	2.0	3.1	4.7	15	46	21	5.4	3.0	.30		0		
27	6.9	2.7	2.6	4.4	15	159	46	5.1	1.7	.25		0		
28	5.2	3.9	2.8	4.4	15	64	56	5.1	3.8	.20		0		
29	5.5	456	7.4	4.4	15	105	31	4.9	3.2	.10		0		
30	4.2	920	37	4.3	---	168	21	179	1.4	.10		0		
31	3.4	---	38	3.7	---	68	---	34	---	.10		---		
TOTAL	409.2	1474.0	1358.6	260.7	680.3	3973	793.2	997.5	131.60	15.79	0	.95		
MEAN	13.2	49.1	43.8	8.41	23.5	128	26.4	32.2	4.39	.51	0	.032		
MAX	164	920	573	37	100	2100	114	179	49	1.6	0	.95		
MIN	1.4	1.8	2.6	3.7	3.9	15	6.4	4.9	.40	.10	0	0		
CFSM	.19	.70	.62	.12	.33	1.82	.38	.46	.06	.007	0	0		
IN.	.22	.78	.72	.14	.36	2.11	.42	.53	.07	.008	0	.0005		
AC-FT	812	2920	2690	517	1350	7880	1570	1980	261	31	0	1.9		
CAL YR 1975	TOTAL	18508.89	MEAN	50.7	MAX	1570	MIN	.07	CFSM	.72	IN	9.81	AC-FT	36710
WTR YR 1976	TOTAL	10094.84	MEAN	27.6	MAX	2100	MIN	0	CFSM	.39	IN	5.35	AC-FT	20020

06918440 SAC RIVER NEAR DADEVILLE, MO

LOCATION.--Lat 37°26'35", long 93°41'05", in NE&NE&NW& sec.9, T.31 N., R.25 W., Dade County, Hydrologic Unit 10290106, on downstream side of bridge on State Highway 245, 2 mi (3.2 km) upstream from Cave Spring Branch and 2 mi (3.2 km) south of Dadeville.

DRAINAGE AREA.--257 mi² (666 km²).

WATER-DISCHARGE RECORDS

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 (265.109 m) above mean sea level (levels by Missouri State Highway Commission). Prior to June 1966, crest-stage gage at same site and datum.

REMARKS.--Water-discharge records good.

AVERAGE DISCHARGE.--10 years, 247 ft³/s (6.995 m³/s), 13.05 in/yr (331 mm/yr), 179,000 acre-ft/yr (221 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,030 ft³/s (227 m³/s) Nov. 1, 1972, gage height, 20.63 ft (6.288 m) from floodmark; minimum, 9.4 ft³/s (0.266 m³/s) Aug. 21, 1972, gage height, 4.34 ft (1.323 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,910 ft³/s (54.1 m³/s) April 20, gage height, 10.67 ft (3.252 m), no peak above base of 3,000 ft³/s (85.0 m³/s); minimum, 22 ft³/s (0.623 m³/s) Sept. 23, gage height, 4.72 ft (1.439 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	443	70	450	135	69	73	162	348	192	58	69	50
2	401	68	340	134	67	71	153	319	170	62	72	48
3	321	67	277	128	65	145	146	291	155	384	67	46
4	271	68	240	123	64	448	139	271	142	682	63	44
5	232	65	246	121	64	458	133	257	132	367	64	42
6	207	64	349	121	62	326	128	271	123	283	83	38
7	187	64	334	120	59	264	126	247	116	234	69	36
8	172	63	307	130	61	233	120	228	110	203	63	34
9	156	62	278	156	60	279	115	215	104	181	60	34
10	147	59	252	110	59	296	111	205	99	164	56	32
11	138	58	231	107	57	275	109	199	95	150	54	30
12	128	57	213	101	56	265	104	189	91	138	53	29
13	122	54	198	100	56	232	104	194	87	128	51	28
14	116	53	187	96	55	215	103	182	80	119	49	27
15	116	52	250	93	55	201	100	175	78	114	680	26
16	109	53	237	91	54	191	96	170	75	113	374	27
17	103	53	223	87	53	177	94	163	71	104	190	26
18	98	51	205	85	52	166	101	153	69	99	148	25
19	94	52	196	85	51	158	185	144	67	96	125	24
20	89	63	189	85	50	153	1310	138	64	90	109	24
21	86	63	177	81	75	143	1430	132	61	86	99	26
22	83	59	168	79	82	135	961	127	59	82	91	24
23	79	56	161	79	78	128	755	122	67	79	85	23
24	84	56	153	78	78	125	654	117	102	75	78	24
25	92	55	150	80	76	123	597	113	108	71	73	23
26	81	59	143	78	76	123	499	124	87	68	69	23
27	76	59	137	74	74	121	432	192	76	66	64	23
28	74	56	131	73	73	115	413	151	69	63	60	25
29	84	110	132	72	72	157	401	137	65	80	55	28
30	75	729	134	71	---	192	366	126	62	87	52	29
31	72	---	134	70	---	170	---	174	---	75	51	---
TOTAL	4536	2498	6822	3043	1853	6158	10147	5874	2876	4601	3276	918
MEAN	146	83.3	220	98.2	63.9	199	338	189	95.9	148	106	30.6
MAX	443	729	450	156	82	458	1430	348	192	682	680	50
MIN	72	51	131	70	50	71	94	113	59	58	49	23
CFSM	.57	.32	.86	.38	.25	.77	1.32	.74	.37	.58	.41	.12
IN.	.66	.36	.99	.44	.27	.89	1.47	.85	.42	.67	.47	.13
AC-FT	9000	4950	13530	6040	3680	12210	20130	11650	5700	9130	6500	1820
CAL YR 1975	TOTAL	113377	MEAN 311	MAX	2610	MIN 20	CFSM 1.21	IN 16.41	AC-FT	224900		
WTR YR 1976	TOTAL	52602	MEAN 144	MAX	1430	MIN 23	CFSM .56	IN 7.61	AC-FT	104300		

OSAGE RIVER BASIN

06918440 SAC RIVER NEAR DADEVILLE, MO--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: June 1974 to current year.

INSTRUMENTATION.--Temperature recorder since June 1974.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 28.5°C Aug. 22, 23, 1975; minimum, 0.0°C Jan. 8, 9, 1976.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 27.0°C July 26-28; minimum, 0.0°C Jan. 8, 9.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	17.5	16.5	14.0	13.0	9.5	3.5	7.5	6.5	5.0	3.5	15.0	13.5
2	16.5	15.0	15.5	14.0	8.5	7.0	7.0	6.0	4.0	3.0	16.5	14.5
3	15.0	14.5	16.5	15.5	9.5	8.5	6.0	5.0	3.5	1.5	16.5	10.0
4	15.0	14.5	16.5	16.0	10.0	8.5	5.0	2.5	2.5	1.5	11.5	8.0
5	15.5	14.5	17.5	16.0	11.0	10.0	2.5	1.0	---	---	11.0	7.5
6	16.0	14.5	17.0	16.0	11.5	9.0	3.0	0.5	---	---	9.5	7.0
7	16.5	15.0	17.0	16.0	9.0	7.5	2.0	1.5	---	---	10.0	7.5
8	17.5	16.0	17.0	15.5	7.5	7.0	1.5	0.0	2.0	1.0	10.5	9.5
9	18.0	17.0	17.5	16.5	8.0	7.5	1.0	0.0	4.0	2.0	10.5	8.5
10	19.0	17.0	16.5	14.0	8.0	7.5	1.0	0.5	8.0	4.0	11.5	10.0
11	19.5	17.5	14.5	13.5	8.5	7.5	2.5	1.0	8.5	7.0	11.5	11.0
12	20.0	18.0	13.5	10.5	9.5	8.5	4.0	2.0	9.0	7.0	11.5	9.5
13	20.5	18.5	10.5	8.0	12.5	9.5	4.5	3.0	10.0	8.5	9.5	8.5
14	20.0	18.5	8.5	7.0	13.5	11.5	4.5	2.5	10.0	8.0	10.5	9.0
15	19.5	18.0	9.0	7.5	11.5	7.5	5.0	3.0	12.0	9.5	11.5	10.5
16	18.0	16.5	10.0	8.5	8.5	6.0	4.5	3.5	13.0	11.0	11.0	10.0
17	16.5	15.0	11.0	10.0	7.0	6.0	3.5	2.5	12.0	10.0	11.5	9.5
18	15.0	14.0	12.0	11.0	6.0	3.5	3.0	2.0	11.5	10.0	12.5	10.5
19	14.0	12.0	13.0	11.5	5.0	3.5	3.0	2.5	11.5	9.5	15.5	12.5
20	14.0	12.0	12.5	8.5	6.0	5.0	3.0	2.0	11.5	9.5	16.5	14.5
21	16.0	14.0	8.5	7.0	6.0	5.5	3.5	1.5	11.5	8.5	14.5	13.5
22	17.0	15.0	7.0	5.5	6.0	5.5	4.0	2.5	9.0	7.5	14.0	12.5
23	17.5	16.5	6.0	4.5	7.0	6.0	5.5	3.5	8.5	6.0	13.0	11.0
24	17.5	16.0	5.0	3.5	7.0	6.5	5.5	4.5	9.0	7.5	12.5	11.0
25	16.0	14.0	3.5	3.0	7.0	6.5	5.5	5.0	10.5	8.5	13.5	11.5
26	14.0	12.0	3.5	2.0	6.5	6.0	5.0	3.5	10.5	9.5	15.0	13.5
27	13.5	11.5	2.5	1.5	6.0	6.0	3.5	3.0	11.0	9.5	15.0	13.0
28	14.5	13.5	4.0	2.0	7.0	6.0	3.5	2.0	13.0	10.5	13.5	12.0
29	15.5	14.0	9.5	4.0	7.0	6.5	4.0	3.0	14.0	11.0	13.5	11.5
30	14.0	13.5	10.5	9.5	7.0	6.5	5.0	3.0	---	---	13.5	12.0
31	14.0	12.5	---	---	7.5	6.5	5.5	4.0	---	---	12.5	10.5
MONTH	20.5	11.5	17.5	1.5	13.5	3.5	7.5	0.0	14.0	1.0	16.5	7.0

06918440 SAC RIVER NEAR DADEVILLE, MO--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	13.0	10.5	15.0	13.5	---	---	22.5	21.0	---	---	21.0	20.5
2	14.0	11.0	15.0	14.5	---	---	22.0	21.0	---	---	21.5	20.0
3	16.0	13.0	14.5	13.5	---	---	21.0	20.0	---	---	22.0	21.0
4	15.5	13.5	---	---	---	---	20.5	19.0	---	---	23.5	21.0
5	15.5	12.5	---	---	---	---	20.5	18.5	---	---	23.5	21.0
6	16.0	13.0	---	---	---	---	20.5	18.5	---	---	23.0	20.5
7	17.0	14.0	---	---	---	---	21.0	19.5	---	---	22.0	19.5
8	16.5	14.5	---	---	---	---	22.0	20.5	---	---	22.5	20.0
9	16.0	13.5	---	---	---	---	23.0	21.5	---	---	21.5	17.0
10	15.5	13.0	---	---	---	---	24.0	22.0	---	---	20.0	16.0
11	17.0	14.0	---	---	---	---	24.5	22.0	---	---	19.0	16.5
12	17.0	14.5	---	---	---	---	25.0	22.5	---	---	20.0	17.0
13	16.0	15.0	---	---	---	---	25.0	22.5	---	---	20.5	18.5
14	17.0	15.0	---	---	---	---	25.0	22.5	---	---	21.5	18.5
15	17.5	16.0	---	---	---	---	24.0	22.5	---	---	22.0	19.5
16	17.0	16.5	---	---	22.5	20.5	23.5	21.5	---	---	22.0	20.0
17	18.5	16.5	---	---	22.0	20.0	22.5	20.5	23.5	22.0	22.5	20.0
18	18.0	17.0	---	---	21.5	19.5	23.0	20.5	24.0	21.5	22.0	20.5
19	17.0	15.0	---	---	20.5	19.0	24.5	21.5	23.0	20.5	---	---
20	15.5	14.5	---	---	20.5	19.0	25.0	22.0	22.5	20.5	---	---
21	15.5	14.0	---	---	20.5	18.0	25.5	23.5	22.5	20.5	20.5	16.5
22	15.5	14.0	---	---	21.0	19.0	26.0	24.0	23.0	21.0	19.5	17.0
23	16.5	14.5	---	---	20.5	19.0	26.0	24.0	22.5	21.5	---	---
24	16.5	15.0	---	---	20.0	18.5	26.5	24.5	22.5	21.0	---	---
25	16.0	12.0	---	---	21.5	19.0	26.5	24.5	23.0	21.0	---	---
26	13.5	11.0	---	---	23.0	20.0	27.0	25.0	23.5	21.5	---	---
27	13.5	13.0	---	---	24.0	21.5	27.0	25.5	24.5	22.0	---	---
28	13.5	12.0	---	---	24.0	23.0	27.0	25.5	24.0	22.0	---	---
29	13.5	12.0	---	---	23.5	22.0	26.5	24.5	22.5	21.0	---	---
30	14.0	12.5	---	---	23.0	21.0	26.5	24.5	22.0	20.5	15.5	14.0
31	---	---	---	---	---	---	---	---	21.5	20.5	---	---
MONTH	18.5	10.5	---	---	---	---	27.0	18.5	---	---	---	---

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 downstream side of left pier of bridge on State Highway O, 1.5 mi (2.4 km) downstream from Limestone Creek, and 2 mi (3.2 km) southeast of Greenfield.

DRAINAGE AREA.--252 mi² (653 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 870.34 ft (265.280 m) above mean sea level (levels by Missouri State Highway Commission).

REMARKS.--Records good. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--11 years, 261 ft³/s (7.392 m³/s), 14.07 in/yr (357 mm/yr), 189,100 acre-ft/yr (233 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,100 ft³/s (654 m³/s) Nov. 1, 1972, gage height, 24.45 ft (7.452 m) from floodmark; minimum, 13 ft³/s (0.37 m³/s) Aug. 21, 1972; minimum gage height, 5.76 ft (1.756 m) Oct. 5, 10, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,250 ft³/s (149 m³/s) July 4 (0045), gage height, 15.79 ft (4.813 m), peak above base of 3,000 ft³/s (85.0 m³/s); minimum discharge, 30 ft³/s (0.850 m³/s) Nov. 28; minimum gage height, 6.04 ft (1.841 m), Sept. 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	548	67	456	186	78	88	248	429	439	133	359	47
2	426	62	344	185	78	85	227	388	343	147	202	46
3	348	58	275	180	76	276	207	347	289	2800	131	44
4	296	59	231	170	75	650	187	316	252	3050	106	43
5	254	55	287	163	76	618	172	291	225	1190	98	40
6	223	52	485	159	73	491	160	310	204	825	164	39
7	196	50	427	157	72	421	149	277	185	690	121	38
8	178	48	385	157	68	379	137	245	167	562	100	37
9	159	47	340	160	69	575	125	226	152	469	89	36
10	152	45	298	158	69	550	117	215	138	404	79	35
11	137	43	268	150	66	496	110	205	126	350	71	35
12	127	41	239	139	66	465	102	190	118	300	65	35
13	118	38	215	122	65	404	95	225	110	274	61	33
14	111	37	197	119	66	361	91	203	100	248	56	35
15	110	37	327	114	66	327	86	195	97	225	670	38
16	103	35	323	110	65	303	82	192	91	214	304	39
17	96	35	307	106	65	278	79	172	86	188	211	37
18	92	33	277	102	65	256	102	159	81	170	151	34
19	87	33	256	98	64	236	463	147	77	154	125	34
20	85	37	239	98	64	218	2280	137	73	139	110	39
21	81	41	220	92	109	194	1910	128	68	127	96	37
22	78	36	203	90	115	180	1230	124	66	118	85	35
23	75	34	188	90	106	167	948	116	443	109	77	33
24	79	33	175	88	105	157	853	110	470	100	70	34
25	86	32	169	93	102	151	759	107	404	93	66	33
26	80	34	164	90	101	142	631	206	293	86	61	34
27	75	33	154	85	98	145	537	418	236	81	57	33
28	75	31	145	83	94	135	518	309	197	76	45	35
29	83	88	148	81	92	259	511	269	175	238	49	40
30	83	907	171	81	---	315	456	236	155	139	47	39
31	73	---	180	80	---	274	---	683	---	105	46	---
TOTAL	4714	2181	8093	3786	2308	9596	13572	7575	5860	13804	3972	1117
MEAN	152	72.7	261	122	79.6	310	452	244	195	445	128	37.2
MAX	548	907	485	186	115	650	2280	683	470	3050	670	47
MIN	73	31	145	80	64	85	79	107	66	76	45	33
CFSM	.60	.29	1.04	.48	.32	1.23	1.79	.97	.77	1.77	.51	.15
IN.	.70	.32	1.19	.56	.34	1.42	2.00	1.12	.87	2.04	.59	.16
AC-FT	9350	4330	16050	7510	4580	19030	26920	15030	11620	27380	7880	2220
CAL YR 1975 TOTAL	111644			MEAN 306	MAX 3080	MIN 23	CFSM 1.21	IN 16.48	AC-FT 221400			
WTR YR 1976 TOTAL	76578			MEAN 209	MAX 3050	MIN 31	CFSM .83	IN 11.30	AC-FT 151900			

06918740 LITTLE SAC RIVER NEAR MORRISVILLE, MO

LOCATION.--Lat 37°28'58", long 93°29'07", SW¼SW¼ 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 (1.1 km) upstream from Slagle Creek and 3 mi (4.8 km) west of Morrisville.

DRAINAGE AREA.--237 mi² (614 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 881 ft (268.5 m) from topographic map.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--8 years, 249 ft³/s (7.052 m³/s), 14.27 in/yr (362 mm/yr), 180,400 acre-ft/yr (222 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,200 ft³/s (374 m³/s) Nov. 1, 1972, gage height, 21.95 ft (6.690 m) from rating curve extended above 4,000 ft³/s (113 m³/s); minimum, 3.2 ft³/s (0.091 m³/s) Aug. 21, 1972; minimum gage height, 2.10 ft (0.640 m) Sept. 9, 15, 16, 20, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s (85.0 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	(m ³ /s)	Gage height (ft)	(m)
Nov. 30	0600	3,590	102	10.03	3.057
Apr. 20	1415	*6,160	174	*13.55	4.130
July 3	0700	4,880	138	11.84	3.609

Minimum discharge, 5.9 ft³/s (0.17 m³/s) Sept. 9, 15, 16, 20, gage height, 2.10 ft (0.640 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1040	40	558	148	55	70	177	302	143	27	17	8.7
2	433	36	324	141	53	63	151	282	116	28	15	10
3	334	35	231	130	49	580	135	250	95	2610	14	11
4	264	33	183	119	48	989	118	224	82	855	14	9.3
5	219	33	186	115	47	550	108	209	71	425	14	8.7
6	183	30	313	112	46	292	96	245	63	314	23	8.3
7	153	29	284	116	45	232	90	222	55	243	25	7.9
8	131	28	232	116	41	205	79	201	46	199	22	7.2
9	111	26	223	116	45	251	73	180	42	158	17	6.8
10	100	25	193	114	43	248	64	166	37	131	15	7.6
11	86	25	166	96	40	220	57	160	34	103	14	7.6
12	72	24	145	85	38	214	54	150	33	82	12	7.6
13	64	22	134	81	39	188	52	157	31	65	11	7.2
14	55	21	126	75	38	169	56	160	27	53	11	7.2
15	55	20	212	68	37	158	52	153	25	43	180	6.5
16	54	20	215	64	36	149	48	149	24	45	191	6.8
17	47	19	192	61	36	138	45	142	23	38	87	7.6
18	43	18	169	58	36	127	48	133	21	41	52	7.2
19	37	18	158	56	34	118	572	118	21	37	42	7.6
20	34	34	147	61	34	110	4400	105	20	32	32	10
21	32	49	135	56	111	99	3000	94	18	30	26	8.7
22	32	53	124	56	161	85	1400	85	17	27	24	17
23	33	43	118	57	137	78	1170	78	25	25	21	13
24	38	37	109	57	120	75	898	222	254	23	20	9.6
25	59	33	109	64	105	72	735	165	165	21	20	9.9
26	50	37	104	65	97	70	528	158	87	21	17	12
27	42	36	100	60	88	70	427	256	53	20	14	13
28	37	31	94	59	81	66	411	224	43	18	14	16
29	82	960	99	59	75	247	404	195	35	21	12	26
30	63	2030	125	58	---	336	329	168	33	21	11	22
31	48	---	153	56	---	213	---	152	---	20	9.3	---
TOTAL	4031	3845	5661	2579	1815	6482	15777	5505	1739	5776	996.3	308.0
MEAN	130	128	183	83.2	62.6	209	526	178	58.0	186	32.1	10.3
MAX	1040	2030	558	148	161	989	4400	302	254	2610	191	26
MIN	32	18	94	56	34	63	45	78	17	18	9.3	6.5
CFSM	.55	.54	.77	.35	.26	.88	2.22	.75	.24	.78	.14	.04
IN-	.63	.60	.89	.40	.28	1.02	2.48	.86	.27	.91	.16	.05
AC-FT	8000	7630	11230	5120	3600	12860	31290	10920	3450	11460	1980	611
CAL YR 1975 TOTAL	118251.9			MEAN 324	MAX 5090	MIN 6.4	CFSM 1.37	IN 18.56	AC-FT 234600			
WTR YR 1976 TOTAL	54514.3			MEAN 149	MAX 4400	MIN 6.5	CFSM .63	IN 8.56	AC-FT 108100			

OSAGE RIVER BASIN

06918990 STOCKTON LAKE NEAR STOCKTON, MO

LOCATION.--Lat 37°41'38", long 93°45'55", SW¼SE¼SW¼ sec.10, T.34 N., R.26 W., Cedar County, Hydrologic Unit 10290106, in power house at dam on Sac River, 2 mi (3.2 km) east of Stockton.

DRAINAGE AREA.--1,160 mi² (3,004 km²).

LAKE RECORDS

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

GAGE.--Water-stage recorder. Nonrecording gage prior to May 30, 1973. Datum of gage is at mean sea level (levels by Corps of Engineers).

REMARKS.--Lake is formed by a rock shell earth-fill dam (crest elevation, 911 ft or 277.7 m). Spillway is equipped with 4 tainter gates, 40 ft (12.2 m) by 30.5 ft (9.30 m), crest elevation, 861.5 ft or (262.59 m). Embankment closed and river diverted on Sept. 23, 1968. Gates closed and storage began on Dec. 12, 1969; minimum power elevation 830.0 ft (252.98 m) reached on May 1, 1970. Gross storage at top of flood control pool is 1,166,659 acre-ft (1,440 hm³) at elevation 892 ft (271.88 m), of which 779,550 acre-ft (961 hm³) between elevations 867 ft (264.3 hm³) and 892 ft (271.9 m) is used for flood control, and 887,109 acre-ft (1,093 hm³) between elevations 760 ft (231.6 m) and 867 ft (264.3 m) is used for multipurpose and power. Sedimentation reserve is 25,000 acre-ft (30.8 hm³). Lake is used for flood control, power, and recreational purposes.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,450,000 acre-ft (1,790 hm³) Apr. 28, 1973, elevation, 885.94 ft (270.034 m); minimum, since initial filling to minimum power pool level, 352,000 acre-ft (434 hm³) Aug. 27 to Sept. 4, 1970, elevation, 839.60 ft (255.910 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 870,000 acre-ft (1,070 hm³) May 16, elevation, 866.29 ft (264.045 m); minimum, 676,000 acre-ft (834 hm³) Sept. 30, elevation, 857.79 ft (261.454 ft).

Capacity table (elevation, in feet, and contents, in acre-ft)

857	659,200	865	838,400
860	723,500	867	887,100

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	802000	820000	841000	848000	813000	790000	805000	852000	853000	802000	806000	760000
2	804000	821000	842000	847000	810000	788000	804000	855000	849000	805000	806000	756000
3	806000	821000	845000	848000	808000	790000	804000	856000	847000	833000	806000	754000
4	808000	821000	846000	848000	807000	796000	805000	860000	846000	844000	805000	753000
5	809000	822000	848000	844000	805000	798000	801000	861000	846000	850000	805000	753000
6	809000	822000	854000	838000	804000	801000	798000	863000	846000	852000	805000	752000
7	811000	822000	856000	833000	804000	803000	794000	864000	846000	855000	805000	750000
8	812000	822000	858000	828000	804000	805000	791000	865000	844000	854000	805000	745000
9	812000	822000	860000	823000	803000	810000	787000	866000	841000	854000	801000	742000
10	813000	823000	860000	824000	802000	811000	787000	867000	837000	855000	799000	742000
11	814000	822000	859000	825000	802000	813000	788000	867000	834000	856000	795000	741000
12	815000	821000	855000	824000	801000	813000	789000	867000	834000	854000	791000	741000
13	815000	821000	858000	823000	800000	814000	785000	867000	834000	851000	788000	738000
14	815000	821000	859000	823000	801000	815000	782000	868000	832000	848000	789000	734000
15	816000	821000	860000	819000	801000	817000	779000	868000	828000	846000	794000	731000
16	817000	821000	858000	818000	802000	818000	775000	870000	825000	845000	791000	726000
17	817000	821000	856000	819000	801000	819000	776000	868000	822000	846000	791000	721000
18	817000	821000	855000	820000	797000	817000	777000	867000	817000	846000	786000	720000
19	817000	822000	849000	819000	795000	818000	779000	864000	818000	844000	783000	720000
20	818000	821000	848000	817000	796000	820000	799000	861000	818000	839000	780000	715000
21	818000	821000	852000	816000	797000	821000	815000	857000	815000	835000	780000	711000
22	818000	821000	847000	815000	798000	819000	822000	857000	811000	830000	780000	707000
23	818000	821000	842000	814000	796000	817000	824000	858000	813000	826000	775000	701000
24	819000	820000	839000	815000	796000	813000	831000	857000	813000	826000	771000	697000
25	820000	820000	840000	815000	794000	811000	836000	856000	811000	826000	771000	697000
26	820000	821000	841000	815000	794000	810000	838000	855000	812000	821000	766000	697000
27	820000	821000	842000	815000	790000	810000	838000	852000	813000	817000	762000	691000
28	820000	822000	843000	814000	791000	810000	843000	852000	813000	812000	761000	685000
29	820000	829000	846000	814000	791000	811000	846000	849000	806000	810000	761000	681000
30	821000	836000	846000	811000	---	809000	850000	852000	802000	806000	761000	676000
31	820000	---	845000	812000	---	808000	---	853000	---	806000	760000	---
(†)	864.24	864.91	865.27	863.87	863.01	863.71	865.48	865.61	863.45	863.63	861.65	857.79
(‡)	+14.0	+16.0	+9.0	-33.0	-21.0	+17.0	+42.0	+3.0	-51.0	+4.0	-46.0	-84.0
MAX	821000	836000	860000	848000	813000	821000	850000	870000	853000	856000	806000	760000
MIN	802000	820000	839000	811000	790000	788000	775000	849000	802000	802000	760000	676000

CAL YR 1975.....‡ -93.0

WTR YR 1976.....‡ -130.0

† Elevation, in feet, at end of month.

‡ Change in contents, in thousands of acre-feet.

OSAGE RIVER BASIN

06918990 STOCKTON LAKE NEAR STOCKTON, MO--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1974 to current year.

INSTRUMENTATION.--Temperature recorder since October 1974.

REMARKS.--Water temperature recorded at 2.0, 20.0, and 70.0 ft depths.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: 2.0 ft depth.--maximum, 29.0°C July 25, 26, 30, 31; minimum, 2.5°C Feb. 3-6.

20.0 ft depth.--maximum, 28.5°C July 30, 31; minimum, 2.5°C Feb. 3-6.

70.0 ft depth.--maximum, 28.0°C July 30, 31; minimum, 3.5°C many days in Jan.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
SAMPLING DEPTH 2.00(FT.).

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	20.0	19.5	16.5	16.5	11.0	10.5	7.0	7.0	4.0	3.5	---	---
2	20.0	19.0	17.0	16.5	11.0	10.5	7.0	6.5	3.5	3.0	---	---
3	20.5	19.0	17.0	17.0	11.5	11.0	6.5	5.5	3.5	2.5	8.0	8.0
4	20.5	19.0	17.0	17.0	11.5	11.0	6.0	5.5	3.0	2.5	9.0	8.0
5	20.0	19.0	17.5	17.0	11.5	11.0	6.0	5.5	3.0	2.5	9.0	9.0
6	21.0	19.0	17.5	17.0	11.5	10.5	5.5	5.0	3.0	2.5	10.0	9.0
7	21.0	20.0	17.5	17.0	11.0	10.5	5.5	4.5	---	---	10.0	10.0
8	21.0	20.0	17.5	17.0	10.5	10.5	5.5	4.0	---	---	10.0	10.0
9	20.5	20.0	18.0	17.5	10.5	10.0	4.0	3.5	---	---	10.0	10.0
10	23.0	19.5	17.5	17.0	10.5	10.0	4.0	3.5	---	---	10.0	10.0
11	22.5	20.5	17.0	16.5	10.5	9.5	4.0	3.5	---	---	10.0	10.0
12	22.5	21.0	16.5	15.5	10.0	10.0	4.0	3.5	---	---	10.0	10.0
13	21.5	21.0	15.5	15.0	10.5	10.0	4.0	4.0	---	---	10.0	10.0
14	22.0	21.0	15.0	15.0	10.5	10.5	4.0	4.0	---	---	10.0	10.0
15	21.0	20.5	15.0	14.5	10.5	9.5	4.0	4.0	---	---	10.0	10.0
16	20.5	20.0	15.0	14.5	10.0	9.5	3.5	3.0	---	---	10.0	10.0
17	20.0	18.5	15.0	15.0	10.0	9.0	4.0	3.0	---	---	10.0	10.0
18	18.5	18.0	15.5	15.0	9.5	8.5	3.5	3.5	---	---	10.0	10.0
19	19.0	17.5	15.5	15.0	8.5	8.5	3.5	3.5	---	---	11.0	10.0
20	19.0	18.0	15.5	13.5	8.5	7.5	3.5	3.0	---	---	11.0	11.0
21	19.0	18.0	13.5	13.0	8.5	7.5	3.5	3.5	---	---	11.0	11.0
22	18.5	18.0	13.5	13.0	8.0	7.5	3.5	3.0	---	---	11.0	11.0
23	18.5	18.5	13.5	13.0	8.0	7.5	4.0	3.5	---	---	11.0	11.0
24	18.5	18.0	13.0	12.5	8.0	7.5	4.5	4.0	---	---	11.0	10.0
25	18.0	17.5	12.5	12.0	8.0	7.5	4.0	4.0	---	---	10.0	10.0
26	17.5	17.0	12.5	11.5	8.0	7.5	4.0	3.5	---	---	10.0	10.0
27	17.0	17.0	11.5	11.5	7.5	7.5	4.0	3.0	---	---	12.0	10.0
28	17.5	17.0	11.5	11.0	7.5	7.5	3.5	3.0	---	---	12.0	12.0
29	17.5	17.0	12.5	11.5	7.5	7.5	4.0	3.0	---	---	12.0	11.0
30	17.5	17.0	12.5	11.0	7.5	7.0	4.0	3.5	---	---	11.0	11.0
31	17.0	16.5	---	---	7.5	7.0	4.0	3.5	---	---	11.0	11.0
MONTH	23.0	16.5	18.0	11.0	11.5	7.0	7.0	3.0	---	---	12.0	8.0

OSAGE RIVER BASIN

06918990 STOCKTON LAKE NEAR STOCKTON, MO--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
SAMPLING DEPTH 2.00 (FT.).

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	11.0	11.0	16.0	16.0	21.0	21.0	26.0	23.0	28.0	27.5	25.5	25.0
2	11.0	11.0	16.0	16.0	21.0	21.0	25.5	24.5	27.5	26.5	26.5	25.0
3	11.0	11.0	16.0	15.0	21.0	20.0	24.5	24.0	27.5	27.0	26.0	25.5
4	12.0	11.0	16.0	16.0	20.0	19.0	24.5	24.0	27.0	27.0	25.5	25.0
5	13.0	12.0	16.0	16.0	21.0	19.0	24.5	24.0	27.0	26.5	25.0	25.0
6	14.0	13.0	16.0	16.0	23.0	21.0	25.0	24.0	27.0	26.0	---	---
7	15.0	14.0	18.0	16.0	24.0	23.0	25.0	24.0	27.0	26.0	---	---
8	15.0	15.0	18.0	17.0	25.0	24.0	25.5	25.0	26.0	25.0	---	---
9	15.0	15.0	18.0	18.0	25.0	25.0	26.0	25.5	25.5	25.0	25.5	22.5
10	15.0	15.0	18.0	18.0	25.0	25.0	27.0	26.0	26.0	25.0	23.0	22.5
11	15.0	15.0	18.0	18.0	25.0	25.0	27.0	27.0	26.0	25.5	22.5	22.5
12	15.0	15.0	18.0	18.0	25.0	25.0	27.0	27.0	26.0	25.5	22.5	22.0
13	15.0	15.0	18.0	18.0	25.0	25.0	28.0	27.0	26.0	25.5	22.0	22.0
14	15.0	15.0	18.0	17.0	25.0	25.0	28.0	28.0	26.0	26.0	22.5	22.0
15	15.0	15.0	18.0	17.0	25.0	24.0	28.0	27.5	27.0	26.0	23.0	22.5
16	15.0	15.0	17.0	16.0	25.0	24.0	27.5	26.5	27.0	27.0	23.5	23.0
17	15.0	15.0	18.0	16.0	24.5	24.0	27.0	26.0	27.0	27.0	23.5	23.0
18	15.0	15.0	19.0	18.0	24.0	23.5	27.0	26.0	27.0	27.0	24.0	23.5
19	15.0	15.0	19.0	19.0	23.5	23.0	27.0	27.0	27.5	27.0	24.0	23.5
20	16.0	15.0	19.0	19.0	23.0	23.0	27.0	27.0	27.5	27.0	23.5	22.5
21	16.0	16.0	22.0	19.0	24.0	23.0	27.0	27.0	27.5	27.0	22.5	22.0
22	16.0	16.0	24.0	22.0	24.0	24.0	27.0	27.0	27.0	27.0	22.0	22.0
23	17.0	16.0	23.0	23.0	24.0	23.0	27.0	27.0	27.5	27.0	22.0	21.5
24	17.0	16.0	23.0	22.0	23.0	23.0	27.5	27.0	27.5	27.0	22.0	21.5
25	16.0	16.0	22.0	21.0	24.0	22.5	29.0	27.5	27.0	27.0	21.5	21.5
26	16.0	16.0	22.0	20.0	25.0	24.0	29.0	28.0	27.0	27.0	21.5	21.5
27	16.0	16.0	20.0	19.0	27.0	25.0	28.5	28.0	27.0	26.5	21.5	20.5
28	17.0	16.0	19.0	19.0	27.0	25.0	28.5	28.0	26.5	26.5	20.5	20.0
29	17.0	16.0	21.0	19.0	25.0	24.5	28.5	28.0	26.5	26.0	20.0	20.0
30	16.0	16.0	21.0	20.0	24.5	23.0	29.0	28.0	26.0	26.0	20.0	20.0
31	---	---	21.0	21.0	---	---	29.0	28.0	26.0	25.5	---	---
MONTH	17.0	11.0	24.0	15.0	27.0	19.0	29.0	23.0	28.0	25.0	26.5	20.0

06918990 STOCKTON LAKE NEAR STOCKTON, MO--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
SAMPLING DEPTH 20.00 (FT.).

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	20.0	19.5	16.5	16.5	11.0	11.0	7.0	7.0	4.0	3.5	---	---
2	19.5	19.0	16.5	16.5	11.5	10.5	7.0	6.5	3.5	3.0	---	---
3	19.5	19.0	16.5	16.0	11.5	11.0	6.5	5.5	3.5	2.5	9.0	9.0
4	19.5	19.0	16.5	16.5	11.5	11.0	6.0	5.5	3.0	2.5	10.0	9.0
5	19.5	19.0	16.5	16.5	12.0	11.5	6.0	5.5	3.0	2.5	10.0	10.0
6	19.5	19.0	16.5	16.5	11.5	11.0	5.5	5.0	3.0	2.5	10.0	10.0
7	20.0	19.5	16.5	16.5	11.0	10.5	5.5	4.5	---	---	10.0	10.0
8	20.5	20.0	16.5	16.0	11.0	10.5	5.5	4.0	---	---	10.0	10.0
9	20.5	20.0	16.5	16.5	10.5	10.0	4.5	3.5	---	---	10.0	10.0
10	20.0	19.5	16.5	16.5	10.0	10.0	4.0	3.5	---	---	10.0	10.0
11	20.0	19.5	17.0	16.0	10.0	9.5	4.0	3.5	---	---	11.0	10.0
12	21.5	20.0	16.0	15.5	9.5	9.5	4.0	3.5	---	---	11.0	11.0
13	21.5	21.0	15.5	15.0	10.0	9.5	4.0	4.0	---	---	11.0	10.0
14	21.5	21.0	15.5	15.0	10.5	10.0	4.5	4.0	---	---	11.0	11.0
15	21.5	20.5	15.5	15.0	10.0	9.5	4.0	4.0	---	---	11.0	11.0
16	20.5	20.0	15.0	15.0	9.5	9.0	4.0	3.5	---	---	11.0	11.0
17	20.0	18.5	15.0	15.0	9.5	8.5	4.0	3.5	---	---	11.0	10.0
18	18.5	18.0	15.0	15.0	9.0	8.0	4.0	4.0	---	---	11.0	11.0
19	18.0	17.5	15.5	15.0	8.5	8.0	4.0	3.5	---	---	11.0	11.0
20	18.5	18.0	15.0	13.5	8.0	7.5	4.0	3.5	---	---	11.0	11.0
21	19.0	18.0	13.5	13.5	8.0	7.5	4.0	3.5	---	---	11.0	11.0
22	19.0	18.5	13.5	13.0	8.0	7.5	4.0	3.5	---	---	11.0	11.0
23	18.5	18.5	13.5	13.0	8.0	7.5	4.5	4.0	---	---	11.0	11.0
24	18.5	18.0	13.0	12.0	8.0	7.5	4.5	4.0	---	---	11.0	11.0
25	18.0	17.5	12.0	12.0	8.0	7.5	4.5	4.0	---	---	11.0	11.0
26	17.5	17.0	12.0	11.0	8.0	7.5	4.0	3.5	---	---	11.0	11.0
27	17.5	17.0	11.5	11.0	7.5	7.0	4.0	3.5	---	---	11.0	11.0
28	17.5	17.0	11.5	11.0	7.5	7.0	3.5	3.0	---	---	12.0	11.0
29	17.5	17.0	12.0	11.5	7.5	7.5	4.0	3.0	---	---	12.0	12.0
30	17.0	16.5	12.0	11.0	7.5	7.0	4.0	3.5	---	---	12.0	12.0
31	16.5	16.5	---	---	7.5	7.0	4.0	3.5	---	---	12.0	12.0
MONTH	21.5	16.5	17.0	11.0	12.0	7.0	7.0	3.0	---	---	12.0	9.0

OSAGE RIVER BASIN

06918990 STOCKTON LAKE NEAR STOCKTON, MO--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
SAMPLING DEPTH 20.00 (FT.),

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	12.0	12.0	14.0	14.0	22.0	19.0	24.0	22.0	28.0	25.0	25.0	25.0
2	12.0	12.0	14.0	14.0	21.0	19.0	24.0	23.5	25.0	24.5	25.0	25.0
3	12.0	12.0	14.0	14.0	21.0	19.0	23.5	23.0	26.0	25.0	25.0	25.0
4	12.0	12.0	14.0	14.0	20.0	19.0	23.0	22.5	26.0	26.0	25.0	25.0
5	13.0	12.0	15.0	14.0	21.0	20.0	23.0	22.5	26.5	26.0	25.0	25.0
6	14.0	13.0	15.0	15.0	22.0	21.0	23.5	22.5	26.5	26.0	25.0	25.0
7	15.0	14.0	15.0	15.0	23.0	22.0	24.0	23.0	26.0	25.0	---	---
8	15.0	15.0	16.0	15.0	24.0	22.0	25.0	24.0	25.0	25.0	---	---
9	15.0	15.0	17.0	16.0	25.0	23.0	26.5	25.0	25.0	25.0	25.0	20.0
10	15.0	15.0	17.0	17.0	25.0	25.0	26.0	26.0	26.0	25.0	21.5	20.0
11	15.0	15.0	17.0	17.0	25.0	25.0	26.5	26.0	27.0	26.0	22.0	21.5
12	15.0	15.0	18.0	17.0	25.0	25.0	27.0	26.0	26.5	25.5	22.5	22.0
13	15.0	15.0	19.0	18.0	25.0	25.0	27.0	26.0	25.5	25.0	22.5	22.0
14	15.0	15.0	18.0	17.0	25.0	25.0	27.0	25.0	25.0	25.0	22.5	22.0
15	15.0	15.0	17.0	17.0	25.0	23.5	27.0	26.5	25.0	25.0	23.0	22.5
16	15.0	15.0	17.0	17.0	23.5	23.0	26.5	22.5	25.5	25.0	23.5	23.0
17	15.0	15.0	17.0	16.0	23.5	23.0	24.0	22.5	25.5	25.5	23.0	22.5
18	15.0	15.0	17.0	16.0	23.5	22.5	25.0	23.5	26.5	25.5	23.0	23.0
19	15.0	15.0	18.0	17.0	22.5	20.0	26.0	25.0	26.5	26.0	24.0	23.0
20	15.0	15.0	19.0	18.0	21.5	20.0	26.5	26.0	26.5	26.5	24.0	23.0
21	16.0	15.0	20.0	18.0	23.5	21.5	26.5	26.0	26.5	26.5	23.0	22.0
22	16.0	16.0	19.0	18.0	24.0	23.5	26.5	26.0	26.5	26.5	22.5	21.5
23	16.0	16.0	21.0	18.0	24.0	23.5	26.0	26.0	26.5	26.5	21.5	21.5
24	16.0	16.0	21.0	18.0	23.5	23.0	26.5	26.0	26.5	26.0	21.5	21.5
25	16.0	15.0	20.0	18.0	24.0	23.0	26.0	25.5	26.5	26.0	21.5	21.0
26	15.0	15.0	21.0	20.0	24.0	24.0	28.0	25.5	26.5	26.5	21.0	21.0
27	15.0	15.0	21.0	19.0	25.0	24.0	28.0	27.5	26.5	25.5	21.0	20.5
28	15.0	14.0	21.0	19.0	25.0	25.0	28.0	27.5	25.5	25.5	20.5	20.0
29	14.0	14.0	22.0	20.0	25.0	22.0	28.0	27.5	25.5	25.0	---	---
30	14.0	14.0	21.0	21.0	22.5	21.5	28.5	28.0	25.0	25.0	---	---
31	---	---	21.0	20.0	---	---	28.5	28.0	25.0	25.0	---	---
MONTH	16.0	12.0	22.0	14.0	25.0	19.0	28.5	22.0	28.0	24.5	25.0	20.0

06918990 STOCKTON LAKE NEAR STOCKTON, MO--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
SAMPLING DEPTH 70.00 (FT.),

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	19.0	18.0	17.0	16.5	11.0	11.0	7.5	7.0			---	---
2	18.5	18.0	17.0	16.5	11.0	10.5	7.0	6.5			---	---
3	18.0	18.0	17.5	17.0	11.5	10.5	6.5	5.5			8.0	8.0
4	18.0	18.0	17.5	17.0	11.5	11.0	6.0	5.0			9.0	8.0
5	18.0	18.0	18.0	17.0	11.0	11.0	6.0	5.5			9.0	9.0
6	18.0	17.5	17.5	17.5	11.0	11.0	6.0	5.0			9.0	9.0
7	18.0	18.0	18.0	17.0	11.0	10.5	6.0	4.0			9.0	9.0
8	18.0	17.5	19.0	17.5	10.5	10.5	5.5	4.0			9.0	9.0
9	18.0	17.5	18.0	17.5	10.5	10.0	4.5	3.5			9.0	9.0
10	18.0	17.5	17.5	17.0	10.5	10.0	4.0	3.5			9.0	9.0
11	18.0	17.5	17.0	16.5	10.0	10.0	4.0	3.5			9.0	9.0
12	18.0	17.5	16.5	15.5	10.0	10.0	4.5	3.5			9.0	9.0
13	18.0	17.5	15.5	15.0	10.0	10.0	4.5	4.0			9.0	9.0
14	18.0	17.5	15.0	15.0	10.5	10.0	4.5	4.0			9.0	9.0
15	18.0	17.5	15.0	14.5	10.0	9.5	4.0	4.0			9.0	9.0
16	18.0	17.5	15.0	14.5	10.0	9.5	4.5	3.5			9.0	9.0
17	17.5	17.0	15.0	14.5	10.0	8.5	4.5	3.5			9.0	9.0
18	17.0	17.0	15.5	14.5	10.0	8.5	4.5	4.0			9.0	9.0
19	17.5	17.0	15.0	14.5	9.0	8.5	4.0	3.5			10.0	9.0
20	17.5	17.0	15.0	13.5	8.5	8.0	4.0	3.5			10.0	10.0
21	17.0	17.0	13.5	13.0	8.5	8.0	4.0	3.5			10.0	10.0
22	17.0	17.0	13.5	13.0	8.5	8.0	4.0	3.5			10.0	10.0
23	17.5	17.0	13.0	13.0	8.0	8.0	4.5	4.0			10.0	10.0
24	17.5	17.5	13.0	12.5	9.0	8.0	5.0	4.5			10.0	10.0
25	17.5	17.0	12.5	12.5	8.0	7.5	5.0	4.0			10.0	10.0
26	17.5	17.0	12.5	11.0	7.5	7.5	4.0	3.5			10.0	10.0
27	17.0	16.5	11.5	11.0	8.5	7.5	4.0	3.5			10.0	10.0
28	17.0	17.0	11.5	11.0	7.5	7.5	---	---			11.0	10.0
29	17.5	17.0	12.5	11.5	7.5	7.0	---	---			11.0	11.0
30	17.5	17.0	12.5	11.0	7.5	7.0	---	---			11.0	11.0
31	17.0	16.5	---	---	7.5	7.0	---	---			11.0	11.0
MONTH	19.0	16.5	19.0	11.0	11.5	7.0	7.5	3.5			11.0	8.0

OSAGE RIVER BASIN

06918990 STOCKTON LAKE NEAR STOCKTON, MO--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
SAMPLING DEPTH 70.00 (FT.),

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	11.0	11.0	14.0	14.0	18.0	17.0	20.0	20.0	22.0	21.5	25.0	25.0
2	11.0	11.0	14.0	14.0	18.0	18.0	20.5	20.0	22.5	21.5	25.0	25.0
3	11.0	11.0	14.0	14.0	18.0	17.0	21.5	20.5	24.0	22.5	25.0	25.0
4	11.0	11.0	14.0	14.0	18.0	18.0	21.0	20.5	26.0	24.0	25.0	25.0
5	11.0	11.0	15.0	14.0	18.0	18.0	21.0	20.5	26.0	26.0	25.0	25.0
6	12.0	11.0	15.0	15.0	18.0	18.0	22.0	21.0	26.0	21.0	25.0	25.0
7	14.0	12.0	15.0	15.0	21.0	18.0	22.0	22.0	21.0	21.0	25.0	25.0
8	14.0	14.0	15.0	15.0	23.0	19.0	24.0	22.0	22.0	21.0	---	---
9	14.0	13.0	15.0	15.0	24.0	19.0	25.0	24.0	25.0	22.0	25.0	18.0
10	15.0	14.0	17.0	15.0	24.0	24.0	25.0	25.0	26.0	25.0	18.0	18.0
11	15.0	15.0	17.0	17.0	---	---	25.0	23.5	25.5	25.0	21.5	18.0
12	15.0	15.0	17.0	17.0	---	---	26.0	23.5	25.0	25.0	22.0	21.5
13	15.0	15.0	17.0	17.0	---	---	26.0	23.0	25.0	25.0	22.0	22.0
14	15.0	15.0	17.0	16.0	---	---	26.0	23.0	25.0	25.0	22.0	22.0
15	15.0	15.0	16.0	16.0	---	---	26.0	25.0	25.0	25.0	22.0	22.0
16	15.0	15.0	16.0	16.0	22.0	21.5	25.0	20.0	25.5	25.0	22.0	22.0
17	15.0	15.0	16.0	15.0	23.0	22.0	20.0	20.0	25.5	25.5	22.0	22.0
18	15.0	15.0	15.0	15.0	23.0	18.0	21.0	20.0	26.5	25.5	22.0	22.0
19	15.0	15.0	17.0	15.0	18.0	18.0	25.0	21.0	26.5	26.0	22.5	22.0
20	15.0	15.0	18.0	17.0	18.0	18.0	25.5	25.0	26.0	26.0	22.5	21.5
21	15.0	15.0	18.0	18.0	22.0	18.0	26.0	25.5	26.0	26.0	21.5	21.5
22	14.0	14.0	18.0	18.0	23.0	22.0	26.0	26.0	26.5	26.0	21.5	21.5
23	15.0	14.0	18.0	18.0	23.0	22.5	26.0	26.0	26.5	26.0	21.5	21.5
24	15.0	15.0	18.0	16.0	22.5	22.5	26.0	23.0	26.5	26.0	21.5	21.5
25	15.0	14.0	18.0	16.0	22.5	22.5	23.0	23.0	26.0	26.0	21.5	21.5
26	14.0	14.0	19.0	17.0	22.5	22.5	27.0	23.0	26.0	26.0	21.5	21.5
27	14.0	14.0	19.0	18.0	23.0	22.5	27.5	26.0	26.0	26.0	21.5	20.5
28	14.0	14.0	19.0	17.0	23.5	21.5	27.5	26.0	26.0	23.0	20.5	20.0
29	14.0	14.0	17.0	17.0	23.5	20.0	27.0	26.0	23.0	23.0	20.0	20.0
30	14.0	14.0	17.0	17.0	20.0	20.0	28.0	27.0	25.0	23.0	---	---
31	---	---	18.0	17.0	---	---	28.0	22.0	25.0	25.0	---	---
MONTH	15.0	11.0	19.0	14.0	24.0	17.0	28.0	20.0	26.5	21.0	25.0	18.0

06919000 SAC RIVER NEAR STOCKTON, MO

LOCATION.--Lat 37°41'51", long 93°45'43", in SE¼NW¼SE¼ sec.10, T.34 N., R.26 W., Cedar County, Hydrologic Unit 10290106, on left bank 0.5 mi (0.8 km) upstream from bridge on State Highway 32, 0.5 mi (0.8 km) downstream from Stockton Dam, 2.0 mi (3.2 km) upstream from Bear Creek, 2.0 mi (3.2 km) east of Stockton, and at mile 49.5 (79.6 km).

DRAINAGE AREA.--1,160 mi² (3,000 km²), approximately.

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

REVISED RECORDS.--WSP 926: 1940.

GAGE.--Water-stage recorder. Datum of gage is 764.12 ft (232.904 m) above mean sea level. Prior to Sept. 30, 1973, all previous gages at site 0.5 mi (0.8 km) downstream and at present datum. Prior to May 4, 1960, nonrecording gage.

REMARKS.--Records good except during periods of backwater which are poor. Several observations of water temperature were made during the year. Flow regulated by Stockton Lake since Dec. 12, 1969.

AVERAGE DISCHARGE.--55 years, 988 ft³/s (28.0 m³/s), 716,000 acre-ft/yr (883 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 120,000 ft³/s (3,400 m³/s) May 19, 1943, gage height, 31.8 ft (9.693 m); no flow Sept. 9-23, 1954, Oct. 14, 17-20, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1943, 29.3 ft (8.93 m) in July 1909.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,790 ft³/s (164 m³/s) July 19, gage height, 13.26 ft (4.042 m); minimum daily, 36 ft³/s (1.02 m³/s) Dec. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3020	50	60	62	42	1070	2160	50	1430	142	40	41
2	159	50	60	1090	1170	1050	1730	50	1440	56	40	1900
3	82	52	59	56	915	1670	50	541	1460	40	40	1280
4	77	53	52	48	1140	1830	42	53	1410	40	510	53
5	74	53	59	2220	1140	1710	2080	43	80	40	480	43
6	72	52	89	3060	801	136	2080	50	46	1110	740	43
7	74	52	79	3040	39	96	2160	53	486	101	40	1790
8	58	50	69	2290	41	1500	2050	50	1160	1400	40	1170
9	46	48	85	2810	762	540	2100	49	1600	1200	1630	1380
10	50	50	1290	107	938	840	61	540	1860	75	1200	90
11	43	48	1930	45	43	1030	45	762	1870	50	2160	46
12	43	49	1900	737	662	1430	43	467	59	1210	1770	43
13	42	50	109	848	670	101	1990	1110	56	1860	1820	1250
14	42	50	36	1430	45	82	2070	90	1600	1920	80	1660
15	72	48	1660	508	41	1040	2260	58	2320	1940	50	1380
16	70	46	1720	854	39	511	2140	58	1890	85	1760	2430
17	67	46	1540	46	1310	1050	53	1340	1410	52	1630	2610
18	66	46	1170	42	1590	1040	46	1030	1890	52	1670	220
19	61	45	2950	899	860	303	1370	2070	82	1320	1630	50
20	55	39	151	912	52	52	700	1820	42	2500	1450	2170
21	52	43	79	935	58	50	50	2110	1510	2160	64	2250
22	52	45	2970	1120	59	957	1600	82	1960	2220	39	1720
23	53	45	3040	684	1050	1420	2110	49	2040	2180	2360	2620
24	77	43	2430	52	735	2570	127	1210	1360	40	2190	2520
25	82	43	107	55	1060	1650	130	1220	1780	40	110	116
26	66	43	62	708	1040	1510	976	1580	92	2510	2360	48
27	59	45	61	866	1040	56	2110	2260	52	1810	2160	2600
28	56	42	59	268	43	49	100	2330	1710	2240	116	2700
29	55	46	72	865	39	1580	80	153	1960	1930	46	2640
30	53	50	997	676	---	1620	60	61	2170	1830	45	2700
31	50	---	1090	43	---	1680	---	56	---	40	41	---
TOTAL	4928	1416	26035	27376	17424	30223	32573	21395	36825	32193	28311	39563
MEAN	159	47.2	840	883	601	975	1086	690	1228	1038	913	1319
MAX	3020	53	3040	3060	1590	2570	2260	2330	2320	2510	2360	2700
MIN	42	39	36	42	39	49	42	43	42	40	39	41
AC-FT	9770	2810	51640	54300	34560	59950	64610	42440	73040	63850	56150	78470
CAL YR 1975 TOTAL	526800	MEAN	1443	MAX	5250	MIN	36	AC-FT	1045000			
WTR YR 1976 TOTAL	298262	MEAN	815	MAX	3060	MIN	36	AC-FT	591600			

OSAGE RIVER BASIN

06919020 SAC RIVER BELOW STOCKTON, MO

LOCATION.--Lat 37°44'11", long 93°46'26", NW¼ sec.3, T.34 N., R.26 W., Cedar County, Hydrologic Unit 10290106, on right bank 500 ft (152.4 m) upstream from bridge on State Highway J, 4.5 mi (7.2 km) downstream from Bear Creek, 6.3 mi (10.1 km) downstream from Stockton Lake, 3 mi (4.8 km) north of Stockton and at mile 44.9 (72.2 km).

DRAINAGE AREA.--1,292 mi² (3,346 km²) 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 (228.658 m) above mean sea level.

REMARKS.--Records fair. Several observations of water temperature were made during the year. Mostly regulated by Stockton Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum observed discharge, 7,720 ft³/s (219 m³/s) Nov. 11, 1972, gage height, 21.20 ft (6.462 m); minimum discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,380 ft³/s (152 m³/s) Jan. 9, gage height, 18.30 ft (5.578 m); minimum, 42 ft³/s (1.19 m³/s) Sept. 12, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3250	70	303	168	67	1060	2110	233	1050	406	54	45
2	593	70	171	1210	1180	1050	1830	177	1490	63	52	1250
3	101	70	156	162	953	1610	165	642	1510	1130	51	1820
4	90	74	132	99	1150	1810	83	215	1460	1310	447	241
5	84	74	138	2190	1160	1780	1940	149	470	176	498	48
6	79	74	197	3280	838	212	2090	170	84	1070	700	46
7	77	74	178	2190	84	149	2150	149	374	233	185	1050
8	69	74	157	2370	69	1500	2060	132	1080	1280	47	1590
9	58	75	161	3100	780	716	2090	123	1630	1280	1190	1210
10	58	76	1210	536	967	910	246	646	1810	266	1520	741
11	63	75	2130	104	82	1020	75	875	1900	64	1980	52
12	62	76	2150	899	646	1500	71	608	331	1070	1940	44
13	61	76	480	1050	675	205	1840	1010	87	1760	1850	617
14	60	75	72	1380	70	115	2080	409	1460	2150	323	1240
15	86	74	1670	743	61	1070	2200	104	1460	1940	54	1640
16	80	73	1930	868	60	545	2130	101	1860	326	1530	1920
17	72	73	1940	86	1260	1120	238	1270	1400	59	1640	2460
18	70	72	2020	65	1580	1080	87	1150	1890	56	1680	1820
19	68	73	3110	931	862	343	1400	2180	283	1140	1650	52
20	65	78	672	967	67	98	1380	1890	54	2190	1540	756
21	62	75	118	982	73	75	1020	2250	1340	2330	301	3270
22	62	73	2720	1190	72	961	1850	493	1960	2230	48	1470
23	62	72	3260	733	1040	1440	2300	90	2070	2200	1820	2590
24	122	73	2810	80	755	2200	433	1290	1440	426	2220	2510
25	130	73	475	73	1060	2000	283	1380	1770	50	693	141
26	93	75	113	729	1050	1530	1130	1590	281	2060	1570	51
27	88	75	107	920	1050	127	2150	2160	62	2070	2330	2520
28	84	73	104	301	71	69	626	2500	1560	2210	834	2680
29	77	109	123	899	54	1590	607	764	1990	2020	52	2630
30	73	953	1190	709	---	1740	300	110	2130	1840	50	2670
31	71	---	1300	81	---	1760	---	101	---	313	47	---
TOTAL	6070	3127	31297	29095	17836	31385	36964	24961	36286	35718	28896	39174
MEAN	196	104	1010	939	615	1012	1232	805	1210	1152	932	1306
MAX	3250	953	3260	3280	1580	2200	2300	2500	2130	2330	2330	3270
MIN	58	70	72	65	54	69	71	90	54	50	47	44
AC-FT	12040	6200	62080	57710	35380	62250	73320	49510	71970	70850	57320	77700
CAL YR 1975	TOTAL	566007	MEAN	1551	MAX	5430	MIN	53	AC-FT	1123000		
WTR YR 1976	TOTAL	320809	MEAN	877	MAX	3280	MIN	44	AC-FT	636300		

06919500 CEDAR CREEK NEAR PLEASANT VIEW, MO

LOCATION.--Lat 37°50'03", long 93°52'31", in NE¼ 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 (2.4 km) north of Pleasant View, 1.8 mi (2.9 km) downstream from Alder Creek, and 5.8 mi (9.3 km) upstream from mouth.

DRAINAGE AREA.--420 mi² (1,090 km²), 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 739.5 ft (225.40 m) above mean sea level. Apr. 22, 1923, to Sept. 30, 1926, and Oct. 1, 1948, to May 10, 1950, nonrecording gage at site 50 ft (15 m) downstream at same datum. May 11, 1950 to Dec. 17, 1952, nonrecording gage, at present site and datum.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--31 years, 304 ft³/s (8.609 m³/s), 9.83 in/yr (250 mm/yr), 220,200 acre-ft/yr (272 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,900 ft³/s (960 m³/s) July 17, 1958, gage height, 27.35 ft (8.336 m); no flow at times in 1953-54, 1956, 1959-61, 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 27.7 ft (8.44 m) July 20, 1909, from floodmark.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,500 ft³/s (99.1 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	(m ³ /s)	Gage height (ft)	(m)
Apr. 21	1730	3,900	110	15.68	4.779
July 4	1115	*5,280	150	*18.02	5.492

Minimum discharge, 0.41 ft³/s (0.012 m³/s) Sept. 22, 23, gage height, 2.88 ft (0.878 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	301	49	874	642	146	116	284	725	57	65	19	1.1
2	241	42	403	470	134	107	232	568	47	50	9.7	1.0
3	179	37	259	362	120	146	203	453	41	677	6.2	.97
4	144	34	200	284	109	1130	176	370	36	4930	4.3	.97
5	103	33	189	233	108	1680	158	325	32	4500	3.6	1.0
6	75	29	368	214	108	998	144	295	31	2500	4.0	1.0
7	58	27	468	203	97	548	136	268	28	600	4.0	.98
8	46	25	284	166	110	429	122	238	24	400	3.2	1.2
9	37	23	214	155	161	1270	108	212	22	800	9.4	1.1
10	31	23	176	138	298	1850	97	192	20	1000	11	.89
11	26	21	151	151	299	806	88	177	18	400	6.2	.79
12	22	18	132	162	234	626	81	167	16	200	4.0	.69
13	19	15	113	162	202	540	73	204	14	100	3.3	.59
14	16	15	105	156	181	410	69	206	12	46	2.7	.60
15	278	13	356	140	168	348	65	189	12	40	3.1	.59
16	407	12	536	130	159	357	62	164	11	34	3.0	.59
17	229	12	459	117	147	369	66	152	9.2	29	17	.51
18	142	11	368	107	138	329	567	136	8.3	26	13	.57
19	101	12	271	103	125	282	1470	117	7.7	24	6.7	.55
20	76	14	225	113	112	249	2900	100	7.1	21	8.3	.51
21	59	17	197	128	156	217	3780	87	6.6	18	13	.47
22	45	16	177	130	376	187	2520	77	5.9	15	9.3	.41
23	38	16	164	124	291	164	855	67	18	13	6.1	.44
24	39	16	153	123	229	149	636	60	1920	10	4.4	.44
25	305	18	157	170	197	143	929	53	1780	8.3	3.4	.47
26	271	18	174	235	172	137	683	50	379	8.3	2.9	.55
27	173	18	198	228	151	161	479	60	204	7.3	2.4	.55
28	129	17	208	194	138	205	1220	71	130	5.8	1.9	.50
29	94	99	526	175	128	247	2980	90	131	4.8	1.6	.55
30	72	1320	2140	164	---	428	1230	96	120	69	1.5	.60
31	56	---	1220	155	---	386	---	72	---	44	1.2	---
TOTAL	3812	2020	11465	6034	4994	15014	22413	6041	5147.8	16645.5	189.4	21.18
MEAN	123	67.3	370	195	172	484	747	195	172	537	6.11	.71
MAX	407	1320	2140	642	376	1850	3780	725	1920	4930	19	1.2
MIN	16	11	105	103	97	107	62	50	5.9	4.8	1.2	.41
CFSM	.29	.16	.88	.46	.41	1.15	1.78	.46	.41	1.28	.01	.001
IN.	.34	.18	1.02	.53	.44	1.33	1.99	.54	.46	1.47	.02	.002
AC-FT	7560	4010	22740	11970	9910	29780	44460	11980	10210	33020	376	42
CAL YR 1975	TOTAL	138465.73	MEAN	379	MAX	8610	MIN	.44	CFSM	.90	IN	12.26
WTR YR 1976	TOTAL	93796.88	MEAN	256	MAX	4930	MIN	.41	CFSM	.61	IN	8.31
										AC-FT	274600	
										AC-FT	186000	

OSAGE RIVER BASIN

06919900 SAC RIVER NEAR CAPLINGER MILLS, MO

LOCATION.--Lat 37°52'12", long 93°48'11", in NW¼NE¼SW¼ sec.21, St. Clair County, Hydrologic Unit 10290106, on right downstream wingwall of bridge on State Highway W, 1.5 mi (2.4 km) downstream from Cedar Creek and 5 mi (8.0 km) north of Caplinger Mills.

DRAINAGE AREA.--1,810 mi² (4,690 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 720.82 ft (219.602 m) above mean sea level.

REMARKS.--Records good except during periods of no gage-height record, which are poor. Several observations of water temperature were made during the year. Some regulation from Stockton Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,900 ft³/s (507 m³/s) Nov. 4, 1974, gage height, 25.99 ft (7.921 m) from floodmark; minimum, 48 ft³/s (1.36 m³/s) Sept. 13, 1976, gage height, 5.20 ft (1.585 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,180 ft³/s (203 m³/s) July 4, gage height, 16.05 ft (4.892 m); minimum, 48 ft³/s (1.36 m³/s) Sept. 13, gage height, 5.20 ft (1.585 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3270	150	1400	1250	309	794	2280	1280	453	1770	101	55
2	2250	150	694	1280	289	1300	2450	969	1610	179	72	316
3	361	140	517	1020	1100	1620	1090	1010	1620	353	63	2000
4	287	140	397	461	1300	3480	380	888	1590	6280	56	510
5	238	140	369	1380	1300	4320	1370	562	1330	4960	388	72
6	202	130	545	3110	1000	2290	2320	515	179	1950	388	60
7	176	130	713	3420	200	1010	2380	501	198	1300	581	218
8	171	130	507	2500	200	1710	2350	433	703	530	60	1230
9	147	130	390	3300	900	2410	2290	390	1540	1480	81	1190
10	132	130	559	700	1300	3380	1300	578	1750	1270	1630	1190
11	130	120	2110	300	400	2290	282	944	2000	188	1470	221
12	128	120	2170	1100	900	2220	253	895	1510	269	2060	71
13	123	120	1420	1200	900	1430	1210	742	161	1410	1760	53
14	117	120	260	1500	300	750	2320	1350	342	2100	1150	794
15	375	110	1300	799	250	1310	2260	366	1630	1980	96	1380
16	510	110	2330	901	250	1060	2330	323	1840	1460	262	1300
17	338	110	2450	497	1400	1680	1340	654	1690	128	1610	2330
18	241	110	2200	225	1700	1580	722	1350	1790	110	1750	2610
19	205	110	2760	820	1010	895	2660	1980	1470	198	1580	408
20	182	120	2250	1100	566	690	4660	1950	134	1630	1490	78
21	167	120	410	1120	353	432	5780	2250	258	2450	420	1570
22	161	120	1530	1260	557	983	4640	1610	1790	2200	83	1610
23	149	120	3330	988	1170	1500	3540	243	2160	2170	1570	2220
24	173	120	3200	464	1200	1760	2200	820	3290	1440	2100	2700
25	500	120	1670	321	1290	2900	1480	1430	3750	99	290	1760
26	457	120	368	835	1360	1800	1870	1320	1820	428	1530	96
27	327	120	361	1200	1330	969	2320	1900	307	2280	1660	771
28	273	120	357	696	631	395	2720	2570	674	2000	1030	2250
29	231	250	602	1040	292	1420	4290	2030	1980	2120	103	2400
30	190	2700	3020	976	---	2320	2150	304	2120	1800	69	2380
31	170	---	2790	545	---	2290	---	253	---	1200	62	---
TOTAL	12381	6430	42979	36308	23757	52988	67237	32410	41689	47732	25565	33843
MEAN	399	214	1386	1171	819	1709	2241	1045	1390	1540	825	1128
MAX	3270	2700	3330	3420	1700	4320	5780	2570	3750	6280	2100	2700
MIN	117	110	260	225	200	395	253	243	134	99	56	53
AC-FT	24560	12750	85250	72020	47120	105100	133400	64290	82690	94680	50710	67130
CAL YR 1975	TOTAL	716956	MEAN	1964	MAX	12400	MIN 86	AC-FT	1422000			
WTR YR 1976	TOTAL	423319	MEAN	1157	MAX	6280	MIN 53	AC-FT	839700			

06920500 OSAGE RIVER AT OSCEOLA, MO

LOCATION.--Lat 38°03'44", long 93°41'37", in NE¼NE¼ sec.17, T.38 N., R.25 W., St. Clair County, Hydrologic Unit 10290105, on left bank at downstream side of bridge on State Highway 13, 0.5 mi (0.8 km) downstream from Gallinipper Creek, 1 mi (1.6 km) downstream from hydroelectric plant of Missouri Public Service Co., 1 mi (1.6 km) northeast of Osceola, and at mile 230.9 (371.5 km).

DRAINAGE AREA.--8,220 mi² (21,300 km²), approximately.

PERIOD OF RECORD.--October 1917 to September 1928, October 1930 to current year. Monthly discharge only for some periods, published in WSP 1310. Gage-height records collected at site 1.2 mi (1.9 km) upstream April 1910 to November 1930, at present site November 1930 to April 1933 and since February 1938 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 606: 1922.

GAGE.--Water-stage recorder. Datum of gage is 679.23 ft (207.029 m) above mean sea level. Prior to Oct. 1, 1929, nonrecording gage at site 1.2 mi (1.9 km) upstream at datum 3.67 ft (1.119 m) higher. Nov. 28, 1930, to Sept. 27, 1934, water-stage recorder 233 ft (71.0 m) right on downstream side of bridge pier at present datum.

REMARKS.--Records fair. Low and medium flow regulated by powerplant 1 mi (1.6 km) upstream. Several observations of water temperatures were made during the year.

AVERAGE DISCHARGE.--57 years, 5,279 ft³/s (149.5 m³/s), 3,825,000 acre-ft/yr (4,720 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 146,000 ft³/s (4,135 m³/s) May 21, 1943, gage height, 41.48 ft (12.643 m), in gage well, 41.7 ft (12.71 m), from outside gage; minimum, 3.6 ft³/s (0.102 m³/s) Nov. 16-19, 1956; minimum gage height, 0.22 ft (0.067 m) Aug. 11, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 45 ft (13.7 m) in June 1844, discharge, about 150,000 ft³/s (4,250 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 20,000 ft³/s (566 m³/s) Mar. 5, gage height, 14.54 ft (4.432 m), no peak above base of 32,000 ft³/s (906 m³/s); minimum discharge, 150 ft³/s (4.25 m³/s) Oct. 30; minimum gage height, 2.16 ft (0.658 m) Nov. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4170	420	5360	4060	1140	966	4070	10600	11400	5060	1020	237
2	3790	226	3650	2470	1000	1760	3880	8750	13800	5240	479	226
3	1450	297	2770	2710	1890	1970	3270	5310	14000	4080	476	809
4	773	306	2070	1590	1830	11300	1600	3840	10400	8370	280	1620
5	602	321	1730	1230	1940	19100	1230	2760	4980	13100	304	654
6	555	427	2210	3010	1870	17800	2670	2290	2500	11700	622	317
7	613	382	2160	3930	1440	13200	3020	2010	1580	11700	704	240
8	392	327	1790	4180	796	9770	2990	1780	1590	12100	567	865
9	312	245	1500	3000	737	8280	2850	1540	1990	12700	332	1440
10	407	278	1270	2000	1580	7470	2820	1480	2510	11400	721	1250
11	233	296	1890	1300	1960	6490	1180	1790	2700	6500	1540	865
12	236	364	2760	812	1280	5510	783	1940	2740	2460	2040	285
13	231	331	2740	1400	1500	5440	813	1860	1470	2080	2020	250
14	261	309	1400	1610	1570	3830	2060	2420	851	2840	1960	567
15	1330	310	1940	1940	1020	3320	2670	2180	1770	2990	903	1480
16	1670	210	6240	1610	906	3840	2770	2080	2170	2910	402	1570
17	1160	267	6050	1530	957	3240	2760	2660	2610	1520	1090	2300
18	895	419	5020	892	1870	3590	2240	4140	2230	859	1750	2640
19	710	351	4130	759	2350	3360	3600	3670	2460	652	1850	1090
20	608	410	4490	1450	1780	2480	7720	4080	1180	1260	1790	366
21	598	362	2120	1600	1180	1970	15600	3370	628	2460	1740	1300
22	470	354	1390	1570	1510	1720	16100	3360	1360	2560	844	2480
23	330	270	3560	1830	1910	2300	12100	1730	2580	2470	404	1860
24	352	332	4040	1450	2560	2630	8580	1470	5190	2420	1600	2530
25	477	471	3570	1100	2090	3410	5120	2820	7940	1030	2350	2680
26	703	441	1670	1380	2160	3120	4490	5340	9110	433	993	1030
27	653	326	1130	1830	2120	3400	4300	4920	6880	1790	1710	360
28	630	501	1030	1890	1990	2610	6670	4840	4720	2180	2270	1750
29	499	828	1600	1370	1120	2500	11600	5290	3800	2360	936	2770
30	442	5090	4650	1780	---	4650	12200	4080	3610	2200	377	2770
31	316	---	5710	1740	---	4640	---	7740	---	2090	266	---
TOTAL	25868	15471	91640	59023	46056	165666	151756	112140	130749	141514	34340	38601
MEAN	834	516	2956	1904	1588	5344	5059	3617	4358	4565	1108	1287
MAX	4170	5090	6240	4180	2560	19100	16100	10600	14000	13100	2350	2770
MIN	231	210	1030	759	737	966	783	1470	628	433	266	226
AC-FT	51310	30690	181800	117100	91350	328600	301000	222400	259300	280700	68110	76570

CAL YR 1975 TOTAL 2282964 MEAN 6255 MAX 32300 MIN 210 AC-FT 4520000
WTR YR 1976 TOTAL 1012824 MEAN 2767 MAX 19100 MIN 210 AC-FT 2000000

OSAGE RIVER BASIN

06921070 POMME DE TERRE RIVER NEAR POLK, MO

LOCATION.--Lat 37°40'56", long 93°22'12", in NE¼NW¼NW¼ sec.17, T.34 N., R.22 W., Polk County, Hydrologic Unit 10290107, on right bank 150 ft (46 m) upstream from Jefferson Bridge on State Highway D and 5 mi (8.0 km) southwest of polk.

DRAINAGE AREA.--276 mi² (715 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 872.61 ft (265.971 m) above mean sea level.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--8 years, 272 ft³/s (7.703 m³/s), 13.38 in/yr (340 mm/yr), 197,100 acre-ft/yr (243 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,300 ft³/s (575 m³/s) Nov. 1, 1972, gage height, 21.88 ft (6.669 m); minimum, 3.2 ft³/s (0.091 m³/s) Sept. 18, 1976; minimum gage height, 1.26 ft (0.384 m) Sept. 1, 2, 1973.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 5,500 ft³/s (156 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)	Date	Time	Discharge (ft ³ /s) (m ³ /s)	Gage height (ft) (m)
Oct. 1	0045	5,780 164	10.74 3.274	Apr. 20	2130	8,790 249	13.42 4.090
Mar. 4	0100	8,110 230	12.85 3.917	July 3	1415	*11,100 314	*15.35 4.679

Minimum discharge, 3.2 ft³/s (0.091 m³/s) Sept. 18, gage height, 1.58 ft (0.482 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3620	44	712	177	62	62	215	300	113	61	14	5.7
2	746	41	392	158	60	62	174	258	97	48	17	5.4
3	344	40	265	142	57	499	150	217	84	6520	16	4.8
4	213	40	210	125	56	2560	136	188	74	1380	13	5.0
5	159	39	186	116	55	892	127	172	69	482	13	4.8
6	129	38	631	113	54	364	120	182	64	252	16	4.4
7	112	38	439	108	49	232	115	175	59	170	16	4.2
8	99	38	289	89	48	195	108	148	55	133	16	4.2
9	91	37	227	94	49	574	102	135	50	111	17	5.0
10	84	35	189	95	49	294	97	126	48	97	16	5.0
11	78	35	167	94	49	218	95	122	46	86	14	5.4
12	70	35	148	91	46	221	91	119	42	77	12	4.6
13	65	33	136	89	44	180	88	114	40	70	11	4.4
14	61	31	129	87	43	160	94	113	38	63	10	4.6
15	58	30	576	82	42	148	93	109	35	57	12	9.5
16	57	29	445	80	41	143	90	107	33	56	13	5.0
17	54	27	298	77	40	142	88	105	30	53	14	3.8
18	52	27	208	73	41	133	90	101	29	49	13	3.2
19	48	27	175	72	41	125	474	93	27	44	17	3.6
20	46	33	163	73	40	123	6450	86	26	40	16	3.6
21	44	46	148	73	64	117	2590	81	24	36	13	4.0
22	42	49	134	71	87	109	1100	75	24	32	12	4.4
23	39	49	128	69	81	103	879	70	26	30	10	6.4
24	47	44	122	69	75	101	702	613	164	31	9.5	9.0
25	68	41	119	72	72	99	663	285	167	26	9.0	7.4
26	59	40	118	79	69	98	487	155	80	22	9.0	6.8
27	49	40	115	74	66	99	368	240	62	20	9.0	6.8
28	45	40	111	69	64	100	504	229	49	19	8.5	6.8
29	43	1000	113	67	62	475	506	205	79	18	7.4	6.8
30	52	2680	163	67	---	624	357	146	86	17	6.4	9.5
31	48	---	187	66	---	319	---	123	---	15	5.7	---
TOTAL	6722	4726	7443	2811	1606	9571	17153	5192	1820	10115	385.5	164.1
MEAN	217	158	240	90.7	55.4	309	572	167	60.7	326	12.4	5.47
MAX	3620	2680	712	177	87	2560	6450	613	167	6520	17	9.5
MIN	39	27	111	66	40	62	88	70	24	15	5.7	3.2
CFSM	.79	.57	.87	.33	.20	1.12	2.07	.61	.22	1.18	.04	.02
IN.	.91	.64	1.00	.38	.22	1.29	2.31	.70	.25	1.36	.05	.02
AC-FT	13330	9370	14760	5580	3190	18980	34020	10300	3610	20060	765	325

CAL YR 1975	TOTAL	125867.3	MEAN 345	MAX 8720	MIN 5.4	CFSM 1.25	IN 16.96	AC-FT 249700
WTR YR 1976	TOTAL	67708.6	MEAN 185	MAX 6520	MIN 3.2	CFSM .67	IN 9.13	AC-FT 134300

06921200 LINDLEY CREEK NEAR POLK, MO

LOCATION.--Lat 37°45'02", long 93°15'58", in NE¼SE¼ sec.29, T.35 N., R.21 W., Polk County, Hydrologic Unit 10290107, on left bank 30 ft (9 m) upstream from county highway bridge, 0.5 mi (0.8 km) downstream from Panther Creek, 2.5 mi (4.0 km) northeast of Polk, and 11 mi (17.7 km) upstream from Ingalls Creek.

DRAINAGE AREA.--112 mi² (290 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 884.08 ft (269.468 m) above mean sea level. Prior to Sept. 25, 1957, nonrecording gage at site 30 ft (9 m) downstream at same datum.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--19 years, 92.9 ft³/s (2.631 m³/s), 11.26 in/yr (286 mm/yr), 67,310 acre-ft/yr (83.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,000 ft³/s (793 m³/s) May 5, 1961, gage height, 23.60 ft (7.193 m), from rating extended above 12,000 ft³/s (340 m³/s) on basis of slope-conveyance study; no flow on many days in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in September 1914, reached a stage of about 25.2 ft (7.68 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s (56.6 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	(m ³ /s)	Gage height (ft)	(m)
Nov. 30	0400	2,110	59.8	12.38	3.773
Mar. 4	0500	*3,840	109	*14.81	4.514
Apr. 20	1330	3,630	103	14.58	4.444

No flow Aug. 2 to Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	673	20	224	98	34	26	90	115	12	1.7	.01			
2	168	18	154	89	31	26	73	96	10	2.0	0			
3	111	18	119	76	29	208	62	78	8.9	82	0			
4	83	18	99	55	29	1680	54	67	7.6	45	0			
5	64	18	103	52	28	806	50	60	7.2	12	0			
6	51	17	211	51	27	214	46	73	8.0	7.0	0			
7	43	16	122	50	21	156	42	64	7.3	4.9	0			
8	39	17	104	38	21	136	38	52	6.2	3.9	0			
9	33	16	91	36	22	585	35	45	5.3	3.1	0			
10	32	15	79	39	23	218	31	42	4.9	2.4	0			
11	30	15	71	44	21	155	30	39	4.5	1.9	0			
12	24	15	63	41	19	162	27	35	4.4	1.7	0			
13	20	13	59	42	19	120	26	33	4.2	1.3	0			
14	19	13	57	37	18	104	27	33	3.7	1.1	0			
15	26	12	501	34	18	93	26	44	3.4	.75	0			
16	23	12	202	34	18	101	24	39	3.1	.68	0			
17	19	12	155	29	17	103	23	36	2.7	.50	0			
18	17	12	108	27	16	85	24	29	2.6	.29	0			
19	16	12	93	29	16	75	201	25	2.2	.26	0			
20	15	20	89	33	15	72	1590	21	2.0	.29	0			
21	14	27	77	30	72	65	464	19	1.7	.39	0			
22	13	20	71	29	57	56	208	17	1.6	.42	0			
23	12	17	66	31	42	52	150	15	2.3	.38	0			
24	32	16	62	31	38	50	141	16	9.4	.33	0			
25	58	15	62	48	34	48	151	16	12	.26	0			
26	32	17	64	59	32	47	112	14	5.8	.19	0			
27	23	19	61	44	30	50	89	22	3.9	.15	0			
28	19	19	59	42	29	43	259	20	2.9	.12	0			
29	42	571	89	40	28	392	237	15	2.3	.09	0			
30	32	1070	146	39	---	220	140	13	2.0	.07	0			
31	25	---	116	37	---	117	---	11	---	.04	0	---		
TOTAL	1808	2100	3577	1364	804	6265	4470	1204	154.1	175.21	.01	0		
MEAN	58.3	70.0	115	44.0	27.7	202	149	38.8	5.14	5.65	.0003	0		
MAX	673	1070	501	98	72	1680	1590	115	12	82	.01	0		
MIN	12	12	57	27	15	26	23	11	1.6	.04	0	0		
CFSM	.52	.63	1.03	.39	.25	1.80	1.33	.35	.05	.05	0	0		
IN.	.60	.70	1.19	.45	.27	2.08	1.48	.40	.05	.06	0	0		
AC-FT	3590	4170	7090	2710	1590	12430	8870	2390	306	348	.02	0		
CAL YR 1975	TOTAL	37840.19	MEAN	104	MAX	3780	MIN	0	CFSM	.93	IN	12.57	AC-FT	75060
WTR YR 1976	TOTAL	21921.32	MEAN	59.9	MAX	1680	MIN	0	CFSM	.53	IN	7.28	AC-FT	43480

OSAGE RIVER BASIN

06921325 POMME DE TERRE LAKE NEAR HERMITAGE, MO

LOCATION.--Lat 37°54'06", long 93°19'05", in NE¼ sec.2, T.36 N., R.22 W., Hickory County, Hydrologic Unit 10290107, in intake tower at dam on Pomme de Terre River, and 3 mi (4.8 km) southwest of Hermitage.

DRAINAGE AREA.--611 mi² (1,583 km²).

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

GAGE.--Water-stage recorder. Nonrecording gage prior to Nov. 9, 1961. Datum of gage is at mean sea level (levels by Corps of Engineers).

REMARKS.--Lake is formed by earth fill embankment with a concrete gravity section-type dam. Closure operation began on June 28, 1960; conservation pool level reached June 15, 1963. Capacity nominal top of flood control pool, 648,700 acre-ft (800 hm³) at elevation, 874 ft or 266.4 m, crest of spillway, of which 407,200 acre-ft (502 hm³) between elevations 839 ft or 255.7 m and 874 ft or 266.4 m is used for flood control, and 228,700 acre-ft (282 hm³) between elevations 783 ft or 238.7 m and 839 ft or 255.7 m is used for conservation and 12,840 acre-ft (15.8 hm³) below elevation 783 ft or 238.7 m is sediment storage. Lake used for flood control and recreational purposes.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 481,000 acre-ft (593 hm³) Apr. 30, 1973, elevation, 862.35 ft (262.844 m), minimum, since initial filling to conservation pool level, 215,880 acre-ft (266 hm³) Mar. 3, 1964, elevation, 835.61 ft (254.694 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 276,000 acre-ft (340 hm³) Apr. 22, elevation, 843.20 ft (257.007 m); minimum, 227,000 acre-ft (280 hm³) Sept. 30, elevation, 837.14 ft (255.160 m).

Capacity table (elevation, in feet, and contents, in acre-ft)

837	226,200	840	249,500
838	233,800	843	274,500

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	259000	244000	265000	246000	241000	243000	244000	262000	253000	241000	240000	235000
2	264000	244000	266000	246000	241000	243000	243000	259000	252000	241000	240000	235000
3	264000	244000	264000	247000	241000	243000	242000	257000	251000	245000	239000	234000
4	263000	244000	262000	247000	241000	249000	242000	253000	249000	256000	239000	234000
5	261000	244000	260000	247000	242000	260000	242000	252000	248000	258000	239000	233000
6	260000	244000	258000	247000	242000	263000	242000	251000	247000	260000	239000	233000
7	258000	244000	257000	246000	242000	265000	242000	251000	245000	259000	239000	233000
8	256000	244000	255000	246000	242000	265000	241000	250000	244000	257000	238000	233000
9	255000	244000	253000	246000	242000	266000	241000	250000	243000	256000	238000	232000
10	253000	244000	251000	246000	242000	269000	242000	249000	242000	254000	238000	232000
11	251000	244000	248000	246000	242000	268000	242000	249000	241000	252000	238000	232000
12	249000	244000	246000	245000	243000	268000	242000	249000	241000	250000	238000	232000
13	247000	244000	244000	245000	243000	267000	242000	249000	241000	248000	237000	231000
14	245000	244000	243000	245000	243000	266000	242000	250000	241000	246000	237000	231000
15	243000	244000	243000	245000	243000	265000	242000	250000	241000	244000	237000	231000
16	243000	244000	245000	245000	243000	264000	242000	250000	241000	242000	237000	231000
17	243000	244000	245000	244000	243000	262000	242000	251000	241000	242000	237000	230000
18	243000	244000	244000	244000	243000	261000	242000	251000	240000	242000	237000	230000
19	243000	244000	243000	244000	243000	260000	242000	251000	240000	242000	237000	230000
20	243000	244000	242000	244000	243000	258000	249000	251000	240000	242000	237000	230000
21	243000	243000	242000	243000	244000	257000	272000	251000	240000	241000	236000	229000
22	243000	243000	241000	243000	245000	255000	276000	251000	240000	241000	236000	229000
23	243000	243000	241000	243000	245000	253000	275000	251000	240000	241000	236000	229000
24	243000	243000	242000	242000	245000	252000	274000	251000	240000	241000	236000	228000
25	243000	243000	242000	242000	246000	250000	272000	252000	241000	241000	236000	229000
26	244000	243000	243000	242000	245000	248000	270000	252000	241000	241000	236000	229000
27	244000	244000	243000	242000	245000	247000	267000	252000	241000	241000	235000	228000
28	244000	244000	243000	242000	244000	245000	265000	253000	241000	241000	235000	228000
29	244000	244000	244000	242000	244000	243000	266000	253000	241000	240000	235000	228000
30	244000	257000	245000	242000	---	245000	264000	253000	241000	240000	235000	229000
31	244000	---	246000	242000	---	245000	---	253000	---	240000	235000	---
(†)	839.31	340.89	829.50	839.01	839.35	839.40	841.84	840.41	838.92	838.81	838.07	837.37
(‡)	-9,000	+13,000	-11,000	-4,000	+2,000	+1,000	+19,000	-11,000	-12,000	-1,000	-5,000	-6,000
MAX	264000	257000	266000	247000	246000	269000	276000	262000	253000	260000	240000	235000
MIN	243000	243000	241000	242000	241000	243000	241000	249000	240000	240000	235000	228000

CAL YR 1975.....‡ +4,000

WTR YR 1976.....‡ -24,000

† Elevation, in feet, at end of month.

‡ Change in contents, in thousands of acre-feet.

06921350 POMME DE TERRE RIVER NEAR HERMITAGE, MO

LOCATION.--Lat 37°54'20", long 93°19'45", in NW¼NW¼ sec.2, T.36 N., R.22 W., Hickory County, Hydrologic Unit 10290107, on right bank 2,000 ft (610 m) downstream from outlet of Pomme de Terre Lake, 2.5 mi (4.0 km) south west of Hermitage, 4.5 mi (7.2 km) upstream from Green Branch, and at mile 43.4 (69.8 km).

DRAINAGE AREA.--615 mi² (1,590 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 749.33 ft (228.396 m) above mean sea level.

REMARKS.--Records fair. Flow regulated by Pomme de Terre Lake.

AVERAGE DISCHARGE.--16 years, 478 ft³/s (13.54 m³/s), 346,300 acre-ft/yr (427 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,000 ft³/s (255 m³/s) May 9, 1961, gage height, 15.02 ft (4.578 m); no flow Sept. 10, 1960, Mar. 9-17, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,130 ft³/s (60.3 m³/s) May 3; maximum gage height, 7.69 ft (2.344 m) Apr. 21; minimum, 12 ft³/s (0.34 m³/s) Sept. 30, gage height, 1.79 ft (0.546 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	647	48	508	289	289	301	1060	2070	430	52	48	48
2	1020	49	1500	291	207	301	870	2090	708	79	48	46
3	1020	50	1500	291	95	309	299	2120	708	145	48	46
4	1020	50	1500	291	94	314	299	1660	704	51	48	46
5	1020	50	1500	289	94	311	299	598	704	51	48	46
6	1020	51	1500	289	92	309	299	601	704	299	48	48
7	1020	51	1500	291	92	309	299	601	700	929	48	45
8	1020	52	1500	291	90	607	269	598	700	925	48	46
9	1020	52	1500	289	90	1080	151	598	647	925	48	46
10	1020	53	1500	289	91	1070	151	403	362	925	48	46
11	1020	53	1500	289	91	1070	151	100	96	925	48	45
12	1020	53	1320	287	91	1080	152	100	95	921	48	45
13	1020	52	1020	289	91	1070	152	100	95	921	48	45
14	1020	52	1020	289	91	1070	152	100	94	921	48	45
15	643	52	1030	289	91	1070	154	100	74	917	49	44
16	184	52	1020	289	92	1070	156	100	51	505	49	43
17	107	52	1020	289	92	1070	156	100	51	48	49	41
18	42	52	1020	286	92	1070	157	100	51	48	49	41
19	42	52	849	289	92	1070	160	100	52	48	49	41
20	43	53	505	289	91	1070	174	100	52	48	49	42
21	45	52	505	286	95	1070	767	100	51	46	49	42
22	46	52	364	286	93	1070	2030	100	51	46	49	42
23	49	52	102	286	92	1060	2020	100	51	46	49	42
24	52	52	100	286	92	1060	2010	217	51	48	49	42
25	49	51	102	289	198	1060	2010	289	51	48	49	41
26	49	51	102	289	301	1060	2000	289	51	48	49	42
27	49	49	103	289	301	1060	1990	289	51	48	49	42
28	49	48	103	286	301	1060	1990	289	51	48	49	41
29	50	62	180	286	301	1070	2010	287	53	48	49	42
30	49	56	291	286	---	1070	2030	286	52	48	50	35
31	48	---	289	286	---	1060	---	285	---	48	50	---
TOTAL	15503	1554	26553	8940	3922	27321	24417	14870	7591	10205	1507	1306
MEAN	500	51.8	857	288	135	881	814	480	253	329	48.6	43.5
MAX	1020	62	1500	291	301	1080	2030	2120	708	929	50	48
MIN	42	48	100	286	90	301	151	100	51	46	48	35
AC-FT	30750	3080	52670	17730	7780	54190	48430	29490	15060	20240	2990	2590
CAL YR 1975	TOTAL	238266	MEAN 653	MAX 3530	MIN 42	AC-FT 472600						
WTR YR 1976	TOTAL	143689	MEAN 393	MAX 2120	MIN 35	AC-FT 285000						

06921350 POMME DE TERRE RIVER NEAR HERMITAGE, MO--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1974 to current year.

INSTRUMENTATION.--Temperature recorder since Oct. 1974.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 29.5°C July 27, 30, 31; minimum, 3.5°C many days in Jan.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	19.0	12.5	16.5	16.0	10.5	10.5	7.0	6.5	---	---	8.0	7.5
2	13.0	13.0	16.5	16.0	10.5	10.0	7.0	6.5	---	---	8.5	8.0
3	13.5	13.0	16.5	16.5	10.5	10.0	6.5	6.5	---	---	8.5	7.5
4	13.5	13.0	16.5	15.0	10.5	10.5	6.5	5.5	---	---	8.5	7.5
5	13.5	13.0	15.0	14.5	10.5	10.5	6.0	5.5	---	---	8.5	8.0
6	14.0	13.5	14.5	14.0	10.5	10.0	5.5	5.0	---	---	8.0	7.5
7	14.0	13.5	14.0	13.5	10.0	10.0	5.0	4.5	---	---	8.0	7.5
8	14.5	13.5	13.5	13.0	10.0	10.0	4.5	4.0	---	---	8.0	8.0
9	14.5	14.0	13.5	13.5	10.0	9.5	4.5	4.0	---	---	8.0	8.0
10	14.5	14.0	13.5	13.0	9.5	9.5	4.5	4.0	---	---	8.5	8.0
11	15.0	14.5	13.0	12.5	9.5	9.5	4.0	4.0	---	---	9.0	8.5
12	15.0	14.5	12.5	12.5	9.5	9.5	4.0	4.0	---	---	8.5	8.5
13	15.5	15.0	13.0	12.5	10.0	9.5	4.0	4.0	---	---	8.5	8.0
14	15.5	15.0	13.0	12.5	10.0	10.0	4.0	4.0	---	---	8.5	8.0
15	16.0	15.0	12.5	12.0	10.0	9.5	4.0	3.5	---	---	8.5	8.0
16	16.0	15.5	---	---	9.5	9.5	4.0	3.5	---	---	8.0	8.0
17	18.0	15.5	---	---	9.5	9.0	4.0	3.5	6.0	6.0	8.5	8.0
18	18.5	18.0	---	---	9.0	8.5	4.0	3.5	6.5	6.0	8.5	8.0
19	18.0	17.5	---	---	8.5	8.0	4.0	3.5	6.5	6.0	9.5	8.5
20	18.0	17.5	---	---	8.0	8.0	4.0	3.5	7.0	6.0	9.5	9.0
21	18.5	18.0	---	---	8.0	8.0	4.0	4.0	7.0	6.5	9.5	9.0
22	18.5	18.0	---	---	8.0	7.5	4.0	3.5	6.5	6.5	9.5	9.0
23	18.5	18.0	---	---	7.5	7.5	4.0	3.5	7.0	6.5	10.0	9.0
24	18.5	18.0	---	---	7.5	7.5	---	---	7.0	6.5	10.0	10.0
25	18.0	17.5	---	---	7.5	7.5	---	---	7.0	7.0	10.5	10.0
26	17.5	17.0	---	---	7.5	7.0	---	---	7.5	7.0	11.0	10.5
27	17.5	17.0	---	---	7.0	7.0	---	---	7.5	7.0	10.5	9.0
28	17.5	17.0	---	---	7.0	7.0	---	---	7.5	7.5	11.0	9.5
29	17.0	16.5	---	---	7.0	7.0	---	---	7.5	7.0	10.5	9.5
30	17.0	16.5	---	---	7.0	7.0	---	---	---	---	10.5	8.5
31	17.0	16.5	---	---	7.0	6.5	---	---	---	---	10.0	8.5
MONTH	19.0	12.5	---	---	10.5	6.5	---	---	---	---	11.0	7.5

06921350 POMME DE TERRE RIVER NEAR HERMITAGE, MO--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	10.5	8.5	14.5	14.0	---	---	25.0	24.0	27.0	26.0	26.0	26.0
2	11.0	10.5	15.0	14.5	---	---	25.0	16.5	27.0	26.5	26.5	25.5
3	11.0	11.0	15.0	15.0	---	---	25.0	16.5	27.0	26.5	26.0	26.0
4	11.0	10.5	---	---	---	---	26.0	25.0	27.0	27.0	26.0	25.5
5	11.0	11.0	---	---	---	---	26.0	25.5	27.0	26.5	26.0	25.0
6	11.0	11.0	---	---	---	---	26.0	17.0	26.5	26.0	26.0	25.5
7	11.0	11.0	---	---	16.5	13.5	17.0	17.0	26.0	26.0	26.0	25.0
8	11.0	11.0	---	---	16.0	12.5	17.0	17.0	26.5	26.0	26.0	25.5
9	11.0	10.5	---	---	17.0	12.5	17.0	15.0	26.5	26.0	26.0	23.0
10	11.5	11.0	---	---	24.0	16.5	17.0	14.5	26.5	26.0	24.0	23.5
11	11.5	11.0	---	---	23.5	20.0	17.0	15.5	27.0	26.5	24.0	23.5
12	11.5	11.0	---	---	25.0	21.0	15.5	14.0	27.0	26.5	24.5	23.5
13	11.5	11.5	---	---	25.0	24.0	15.5	14.5	26.5	26.0	24.0	23.5
14	12.0	11.5	---	---	25.5	24.5	15.5	15.0	26.5	22.5	24.0	23.5
15	12.0	12.0	---	---	25.0	24.5	15.5	15.5	26.5	21.5	24.0	23.5
16	12.0	12.0	---	---	24.5	23.5	26.5	15.5	27.0	26.5	24.0	23.5
17	12.5	12.0	---	---	25.5	24.0	26.0	24.5	27.0	26.5	23.5	23.0
18	12.5	12.0	---	---	25.0	23.0	27.0	25.0	27.0	26.0	24.0	23.5
19	12.5	12.0	---	---	23.0	22.0	27.5	26.5	27.0	26.5	25.0	24.0
20	12.5	12.0	---	---	23.5	22.5	27.5	27.0	27.0	26.0	24.5	23.5
21	13.5	11.5	---	---	24.0	23.0	28.0	27.0	27.0	26.5	23.5	23.0
22	14.0	13.0	---	---	25.0	23.5	28.0	27.0	27.0	26.5	23.0	22.5
23	14.5	12.5	---	---	25.0	24.5	27.5	27.0	27.0	26.0	22.5	22.0
24	14.0	13.0	---	---	24.5	24.0	27.5	26.5	27.0	26.5	22.5	21.0
25	14.0	13.5	---	---	24.5	23.5	27.5	26.5	26.5	26.5	21.0	20.0
26	14.0	13.5	---	---	25.0	24.0	28.5	27.0	27.0	26.0	21.0	20.0
27	14.0	13.5	---	---	25.0	24.0	29.5	27.5	27.0	26.5	21.5	16.0
28	14.0	13.5	---	---	25.5	24.0	29.0	28.0	27.0	25.0	16.0	15.5
29	14.0	13.5	---	---	25.5	24.0	28.0	27.5	26.0	25.5	15.5	15.0
30	14.0	13.5	---	---	24.5	23.0	29.5	27.5	26.0	25.0	15.0	13.0
31	---	---	---	---	---	---	29.5	27.0	26.5	26.0	---	---
MONTH	14.5	8.5	---	---	25.5	12.5	29.5	14.0	27.0	21.5	26.5	13.0

06921500 POMME DE TERRE RIVER AT HERMITAGE, MO

LOCATION.--Lat 37°56'45", long 93°18'35", in SE¼NE¼ sec.23, T.37 N., R.22 W., Hickory County, Hydrologic Unit 10290107, temperature recorder inside concrete house previously used for gaging station at bridge on U.S. Highway 54, 1.5 mi (2.4 km) downstream from Mill Creek and 0.25 mi (0.40 km) northeast of Hermitage.

DRAINAGE AREA.--665 mi² (1,696 km²).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: March 1970 to current year.

INSTRUMENTATION.--Temperature recorder since Mar. 1970.

REMARKS.--Temperature recorder inoperative on many days during current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum (Mar. 1970 to Sept. 1975), 31.5°C Aug. 2-4, 1970; minimum (Mar. 1970 to Sept. 1975), 0.5°C Feb. 6, 7, 1971.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	18.0	14.0	15.0	14.0	9.0	5.0	6.5	5.5	---	---	---	---
2	14.5	13.0	16.0	14.5	10.0	9.0	6.0	5.0	---	---	---	---
3	14.5	13.0	17.0	15.5	10.0	9.0	5.0	3.5	---	---	---	---
4	15.0	13.0	17.5	16.5	10.5	9.5	3.5	2.5	---	---	---	---
5	15.0	13.0	17.0	16.5	10.0	10.0	4.5	3.5	---	---	---	---
6	15.0	13.0	17.0	16.0	10.0	9.0	5.5	3.5	---	---	---	---
7	15.0	13.5	17.5	16.5	9.5	8.5	4.5	3.0	---	---	---	---
8	15.5	14.0	17.0	16.0	9.0	8.5	3.5	2.5	---	---	---	---
9	15.5	14.0	18.0	16.5	9.0	8.5	3.5	2.5	---	---	---	---
10	15.5	14.5	16.5	14.5	9.0	8.5	---	---	---	---	---	---
11	16.0	14.5	14.5	13.0	9.5	8.5	---	---	---	---	---	---
12	16.5	14.5	13.0	10.5	9.0	8.5	4.5	3.5	---	---	---	---
13	17.0	15.0	10.5	7.5	10.0	9.0	4.0	3.5	---	---	---	---
14	17.0	15.0	9.5	8.0	10.0	9.0	3.5	2.5	---	---	---	---
15	16.0	15.5	11.5	9.5	9.0	7.0	4.0	2.5	---	---	---	---
16	15.5	14.0	12.5	11.0	8.5	7.5	---	---	---	---	---	---
17	15.5	14.5	14.0	12.5	8.0	7.0	---	---	---	---	---	---
18	15.0	13.5	13.5	12.5	7.5	6.5	---	---	9.5	7.5	---	---
19	13.5	12.5	13.5	10.0	7.5	6.5	---	---	9.0	7.0	---	---
20	14.5	12.5	10.0	7.0	7.0	6.5	---	---	9.0	6.0	---	---
21	16.5	14.5	7.0	6.0	7.0	6.5	---	---	9.0	6.0	---	---
22	18.5	16.5	6.5	5.0	7.0	6.0	---	---	7.0	4.5	---	---
23	18.5	17.5	5.0	3.5	7.0	6.5	---	---	8.0	4.5	---	---
24	18.0	17.0	5.0	4.0	6.5	6.0	---	---	9.0	6.0	---	---
25	17.0	13.5	10.0	5.0	6.5	6.0	---	---	---	---	---	---
26	13.5	12.0	11.5	8.0	6.0	5.5	---	---	---	---	---	---
27	14.0	12.5	8.0	5.0	5.5	5.0	---	---	---	---	---	---
28	15.5	14.0	---	---	6.0	5.0	---	---	---	---	---	---
29	16.0	15.0	---	---	6.0	5.5	---	---	---	---	---	---
30	15.0	14.0	---	---	6.0	5.5	---	---	---	---	---	---
31	14.5	13.5	---	---	6.5	6.0	---	---	---	---	---	---
MONTH	18.5	12.0	18.0	3.5	10.5	5.0	---	---	---	---	---	---

06921500 POMME DE TERRE RIVER AT HERMITAGE, MO--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1					---	---	26.0	23.5	29.0	27.5	24.5	23.0
2					---	---	25.0	23.5	27.5	25.5	24.5	23.0
3					17.5	---	23.5	20.5	26.0	24.5	25.0	23.5
4					17.0	15.0	22.5	19.5	26.0	24.5	26.0	24.5
5					17.0	15.0	24.0	21.5	26.5	24.5	25.5	24.5
6					17.5	15.0	25.5	22.5	26.5	25.0	25.5	24.0
7					18.0	15.0	24.5	19.5	26.5	25.0	24.5	23.0
8					18.5	15.0	18.0	16.0	26.0	24.5	25.0	23.5
9					18.5	15.0	18.0	15.5	27.0	25.0	25.0	23.0
10					18.0	16.0	18.5	15.5	27.5	25.0	23.0	20.5
11					20.5	17.5	18.0	16.0	28.5	26.5	21.0	19.5
12					24.0	20.5	18.5	16.0	27.5	26.5	22.5	20.0
13					26.5	23.5	18.0	16.0	28.0	25.5	23.5	20.5
14					27.0	25.0	18.0	15.5	27.5	26.5	24.0	22.5
15					27.0	25.0	17.0	16.0	27.5	26.0	24.5	22.5
16					25.5	24.0	18.5	16.0	28.0	26.5	24.5	23.0
17					25.5	23.5	19.5	17.0	28.5	27.0	24.0	22.5
18					25.0	24.0	23.0	19.5	29.0	27.0	24.5	23.0
19					24.0	22.5	26.5	22.5	27.5	25.5	24.5	23.0
20					24.0	21.5	28.0	25.5	27.0	25.0	24.0	22.5
21					24.5	22.0	29.0	27.0	26.0	25.0	22.5	20.5
22					25.0	22.5	29.5	27.0	26.0	24.5	20.5	19.0
23					24.5	22.5	29.0	27.0	26.0	25.0	20.0	19.5
24					24.0	22.5	29.0	27.0	26.0	24.5	21.0	19.0
25					25.5	22.5	29.0	26.5	26.0	24.5	21.0	20.5
26					27.0	24.5	30.0	27.5	27.0	24.5	21.0	20.5
27					28.5	25.5	30.5	27.5	27.0	25.0	20.5	19.5
28					27.5	26.5	30.0	28.5	27.0	26.0	19.5	18.5
29					26.5	25.0	30.0	27.5	26.0	24.0	18.5	17.5
30					25.5	24.0	31.0	28.5	25.0	23.0	18.0	16.5
31					---	---	30.5	29.0	24.5	23.0	---	---
MONTH					28.5	15.0	31.0	15.5	29.0	23.0	26.0	16.5

06921590 SOUTH GRAND RIVER AT ARCHIE, MO

LOCATION.--Lat 38°28'44", long 94°20'03", in NW¼NW¼SE¼ sec.34, T.43 N., R.31 W., Cass County, Hydrologic Unit 10290108, on right bank 25 ft (8 m) downstream from bridge on State Highway B, 0.9 mi (1.4 km) east of Archie, 1.4 mi (2.3 km) upstream from Mormon Fork, and 7.4 mi (11.9 km) downstream from South Fork.

DRAINAGE AREA.--256 mi² (663 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 768.99 ft (234.388 m) above mean sea level.

REMARKS.--Records fair except periods of no gage-height record which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--7 years, 270 ft³/s (7.646 m³/s), 14.31 in/yr (363 mm/yr), 195,600 acre-ft/yr (241 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,600 ft³/s (442 m³/s) Oct. 13, 1969, gage height, 19.4 ft (5.91 m); no flow Aug. 11 to Sept. 30, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of Nov. 13, 1928, and Sept. 15, 1961, reached stages of 27.6 ft (8.41 m) and 23.8 ft (7.25 m), respectively, at point 1 mi (1.6 km) northeast of gage, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,060 ft³/s (256 m³/s) May 30 (1200), gage height, 13.93 ft (4.246 m), peak discharge above base of 5,500 ft³/s (156 m³/s); no flow Aug. 11 to Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	1.7	106	29	46	17	32	26	332	27	.06	
2	12	2.5	46	50	32	16	26	30	197	14	.05	
3	8.7	2.9	28	30	25	38	22	30	146	51	.03	
4	7.7	2.7	21	20	13	1100	19	28	107	18	.03	
5	5.3	2.4	17	16	12	851	18	24	82	9.2	.03	
6	3.9	2.1	14	16	10	208	17	24	72	6.5	.04	
7	2.9	2.2	12	16	17	129	18	27	59	4.5	.03	
8	2.4	2.1	12	16	15	98	17	27	47	3.3	.03	
9	2.4	2.2	11	16	20	83	15	23	43	2.6	.02	
10	1.9	2.5	9.9	16	32	68	14	21	36	2.0	.01	
11	1.6	2.2	9.1	16	27	58	14	18	183	2.0	0	
12	1.5	2.3	8.3	16	28	66	13	19	109	1.2	0	
13	1.3	1.4	7.2	17	29	61	13	20	48	.69	0	
14	1.8	1.4	9.1	17	25	51	12	21	30	.67	0	
15	9.7	2.0	219	16	24	44	11	972	24	.71	0	
16	5.1	2.7	200	15	31	42	11	875	20	1.1	0	
17	6.0	3.7	150	13	29	40	12	226	23	29	0	
18	5.2	4.1	100	13	30	36	20	142	17	14	0	
19	4.1	3.8	80	12	25	34	30	100	13	5.7	0	
20	3.6	4.7	60	12	23	30	60	76	12	3.5	0	
21	3.0	4.0	50	12	104	26	150	59	11	1.9	0	
22	2.7	3.5	40	12	89	23	200	48	8.1	1.2	0	
23	2.4	3.4	40	12	51	21	100	60	137	.86	0	
24	3.2	3.9	40	12	37	19	70	309	493	.64	0	
25	2.3	3.9	40	14	30	18	50	128	195	.42	0	
26	1.3	6.0	35	13	25	19	40	76	68	.34	0	
27	1.1	6.4	30	13	22	20	100	61	33	.29	0	
28	1.4	6.2	30	11	20	22	150	53	21	.17	0	
29	1.7	16	30	13	19	26	100	46	58	.14	0	
30	1.5	151	30	18	---	48	50	6760	63	.11	0	
31	1.2	---	30	31	---	46	---	3300	---	.09	0	---
TOTAL	117.4	255.9	1514.6	533	890	3358	1404	13629	2687.1	202.83	.33	0
MEAN	3.79	8.53	48.9	17.2	30.7	108	46.8	440	89.6	6.54	.011	0
MAX	12	151	219	50	104	1100	200	6760	493	51	.06	0
MIN	1.1	1.4	7.2	11	10	16	11	18	8.1	.09	0	0
CFSM	.01	.03	.19	.07	.12	.42	.18	1.72	.35	.03	0	0
IN.	.02	.04	.22	.08	.13	.49	.20	1.98	.39	.03	.00004	0
AC-FT	233	508	3000	1060	1770	6660	2780	27030	5330	402	.7	0
CAL YR 1975 TOTAL	53164.40			MEAN 146	MAX 4820	MIN .16	CFSM .57	IN 7.73	AC-FT 105500			
WTR YR 1976 TOTAL	24592.16			MEAN 67.2	MAX 6760	MIN 0	CFSM .26	IN 3.57	AC-FT 48780			

06922500 OSAGE RIVER AT WARSAW, MO

LOCATION.--Lat 38°14'40", long 92°23'10", in NE&SW¼ sec.17, T.40 N., R.22 W., Benton County, Hydrologic Unit 10290109, temperature recorder at Union Electric Co. gaging station on left bank, 30 ft (9.2 m) downstream from bridge on State Highway 7 at Warsaw.

DRAINAGE AREA.--11,500 mi² (29,800 km²).

PERIOD OF RECORD.--

WATER TEMPERATURES: May 1969 to September 1976.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: May 1969 to current year.

INSTRUMENTATION.--Temperature recorder since May 1969.

REMARKS.--Temperature recorder inoperative May 7 through June 3.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 33.5°C Aug. 25, 26, 1975; minimum, 0.5°C Jan. 7, 1971, Jan. 18, 1974.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 29.0°C July 29, 30, Aug. 2; minimum, 6.0°C Jan. 12-15.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	19.5	19.5	16.5	16.0	8.5	8.0	8.0	8.0	7.0	7.0	13.0	12.0
2	19.5	19.0	16.0	16.0	8.0	8.0	8.0	8.0	7.0	7.0	13.0	13.0
3	19.0	19.0	16.0	16.0	8.0	8.0	8.0	8.0	7.0	7.0	13.5	13.0
4	19.0	19.0	16.0	16.0	8.0	8.0	8.0	8.0	7.0	7.0	13.5	13.0
5	19.0	19.0	16.0	16.0	8.5	8.0	8.0	8.0	7.0	7.0	13.0	12.0
6	19.0	19.0	16.0	16.0	8.5	8.5	8.0	8.0	7.0	7.0	12.0	11.0
7	19.0	18.5	16.0	16.0	9.0	8.5	8.0	7.0	7.0	7.0	11.0	10.5
8	18.5	18.5	16.0	16.0	9.5	9.0	7.0	7.0	7.0	7.0	10.5	10.5
9	18.5	18.5	16.5	16.0	9.5	9.5	7.0	7.0	7.0	7.0	10.5	10.5
10	18.5	18.5	16.5	16.5	9.5	9.0	7.0	7.0	8.0	7.0	10.5	10.5
11	18.5	18.5	16.5	16.5	9.0	9.0	7.0	6.5	7.0	7.0	10.5	10.5
12	18.5	18.5	16.5	16.0	9.0	9.0	6.5	6.0	7.0	7.0	11.0	10.5
13	18.5	18.0	16.0	15.5	9.0	9.0	6.0	6.0	8.0	7.0	11.0	11.0
14	18.5	18.5	15.5	15.0	9.5	9.0	6.0	6.0	8.0	8.0	11.0	11.0
15	18.5	18.5	15.0	14.5	9.5	9.5	6.5	6.0	9.0	8.0	11.0	11.0
16	18.5	18.5	14.5	14.5	9.5	9.5	6.5	6.5	9.5	9.0	11.0	11.0
17	18.5	18.5	14.5	14.5	9.5	8.5	6.5	6.5	10.0	9.5	11.0	11.0
18	18.5	18.5	14.5	14.5	8.5	8.0	6.5	6.5	10.5	10.0	11.0	11.0
19	18.5	18.5	15.0	14.5	8.0	8.0	6.5	6.5	11.0	10.5	11.0	11.0
20	18.5	18.5	15.0	15.0	8.0	8.0	6.5	6.5	11.5	11.0	11.5	11.0
21	18.5	18.5	15.0	14.5	8.0	8.0	6.5	6.5	12.0	11.5	12.0	11.5
22	18.5	18.5	14.5	14.0	8.0	8.0	6.5	6.5	12.0	12.0	12.0	12.0
23	18.5	18.0	14.0	14.0	8.0	8.0	6.5	6.5	12.0	12.0	13.0	12.0
24	18.0	18.0	14.0	13.5	8.0	8.0	6.5	6.5	12.0	12.0	13.0	13.0
25	18.0	18.0	13.5	13.5	8.0	8.0	6.5	6.5	12.0	11.5	13.0	13.0
26	18.0	17.0	13.5	13.5	8.0	8.0	6.5	6.5	11.5	11.5	13.0	13.0
27	17.0	16.5	13.5	12.0	8.0	8.0	6.5	6.5	11.5	11.5	13.5	13.0
28	16.5	16.5	12.0	12.0	8.0	8.0	7.0	6.5	11.5	11.5	13.5	13.5
29	16.5	16.5	12.0	11.5	8.0	8.0	7.0	7.0	12.0	11.5	13.5	13.5
30	16.5	16.5	11.5	8.5	8.0	8.0	7.0	7.0	---	---	13.5	13.5
31	16.5	16.5	---	---	8.0	8.0	7.0	7.0	---	---	13.5	13.5
MONTH	19.5	16.5	16.5	8.5	9.5	8.0	8.0	6.0	12.0	7.0	13.5	10.5

06922500 OSAGE RIVER AT WARSAW, MO--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	13.5	13.5	16.0	16.0	---	---	24.5	24.5	28.5	28.5	26.0	26.0
2	13.5	13.5	16.0	16.0	---	---	24.5	24.5	29.0	28.5	26.0	25.5
3	13.5	13.5	16.0	16.0	---	---	24.5	24.5	28.5	28.0	26.0	25.5
4	14.0	13.5	16.0	16.0	21.0	20.5	24.5	24.5	28.0	28.0	25.5	25.5
5	14.5	14.0	16.0	16.0	21.0	21.0	24.5	24.5	28.0	28.0	26.0	25.5
6	14.5	14.5	16.5	16.0	21.0	21.0	24.5	24.5	28.0	27.0	26.0	26.0
7	15.0	14.5	---	---	21.5	21.0	24.5	24.0	27.0	27.0	26.0	25.5
8	15.0	14.5	---	---	22.0	21.5	24.0	24.0	27.0	27.0	25.5	25.5
9	15.0	15.0	---	---	22.0	21.5	24.0	24.0	27.0	27.0	25.5	25.5
10	15.0	15.0	---	---	23.0	22.0	24.5	24.0	27.0	26.5	25.5	25.0
11	15.0	15.0	---	---	23.0	22.0	24.5	24.5	26.5	26.5	25.0	24.5
12	15.0	15.0	---	---	23.0	22.0	25.5	24.5	26.5	26.5	24.5	24.0
13	15.0	15.0	---	---	23.5	23.0	25.5	25.5	26.5	26.5	24.0	24.0
14	15.5	15.0	---	---	24.5	23.5	25.5	25.5	26.5	26.5	24.0	23.5
15	16.0	15.5	---	---	24.5	24.5	26.5	25.5	26.5	26.5	23.5	23.5
16	16.5	16.0	---	---	24.5	24.5	26.5	26.5	26.5	26.5	23.5	23.5
17	17.0	16.5	---	---	25.5	24.5	26.5	26.5	26.5	26.5	23.5	23.5
18	17.0	17.0	---	---	25.5	25.5	26.5	26.5	27.0	26.5	23.5	23.5
19	18.0	17.0	---	---	25.5	25.5	26.5	26.5	28.0	27.0	23.5	23.5
20	18.0	18.0	---	---	25.5	25.5	26.5	26.5	28.0	28.0	23.5	23.5
21	18.0	18.0	---	---	25.5	25.5	27.0	26.5	28.0	28.0	23.5	23.5
22	18.0	18.0	---	---	25.5	25.5	28.0	27.0	28.0	28.0	23.5	23.0
23	18.0	18.0	---	---	25.5	25.5	28.0	28.0	28.0	28.0	23.0	23.0
24	18.0	18.0	---	---	25.5	25.0	28.0	28.0	28.0	27.0	23.0	22.5
25	18.5	18.0	---	---	25.0	24.5	28.0	28.0	27.0	27.0	22.5	22.5
26	18.5	18.0	---	---	24.5	24.5	28.5	28.0	27.0	27.0	22.5	22.0
27	18.0	17.0	---	---	24.5	24.5	28.5	28.5	27.0	27.0	22.0	21.5
28	17.0	17.0	---	---	24.5	24.5	28.5	28.5	27.0	27.0	21.5	21.0
29	17.0	16.0	---	---	24.5	24.5	29.0	28.5	27.0	26.5	21.0	21.0
30	16.0	16.0	---	---	24.5	24.5	29.0	28.5	27.0	26.0	21.0	20.5
31	---	---	---	---	---	---	28.5	28.5	26.0	26.0	---	---
MONTH	18.5	13.5	---	---	25.5	20.5	29.0	24.0	29.0	26.0	26.0	20.5

06922800 BIG BUFFALO CREEK NEAR STOVER, MO

LOCATION.--Lat 38°20'04", long 93°05'04", NE¼SE¼SW¼ sec.12, T.41 N., R.20 W., Benton County, Hydrologic Unit 10290109, on right bank, 1.5 mi (2.4 km) southwest of Boylers Mill, 3 mi (4.8 km) upstream from mouth, and 9 mi (14.5 km) southwest of Stover.

DRAINAGE AREA.--24.2 mi² (62.7 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 716.6 ft (218.420 m) above mean sea level (levels by Missouri Conservation Commission).

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--11 years, 21.2 ft³/s (0.600 m³/s), 11.90 in/yr (302 mm/yr), 15,360 acre-ft/yr (18.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,400 ft³/s (351 m³/s) computation of peak flow over roadway Sept. 4, 1965, gage height, 10.1 ft (3.08 m); minimum, 0.4 ft³/s (0.011 m³/s) Sept. 9, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 825 ft³/s (23.4 m³/s) Nov. 29, gage height, 4.90 ft (1.494 m), no peak above base of 1,000 ft³/s (28.3 m³/s); minimum, 0.4 ft³/s (0.011 m³/s) Sept. 9, gage height, 0.67 ft (0.204 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	6.1	44	21	11	11	27	24	21	3.8	2.5	1.4
2	8.1	6.1	32	18	11	10	23	21	16	4.2	2.8	1.1
3	7.3	6.1	26	15	11	11	20	17	13	6.9	1.8	1.1
4	6.5	6.1	21	12	11	209	18	15	11	6.9	1.4	1.1
5	6.1	6.1	17	11	10	97	15	13	10	5.3	1.4	1.8
6	5.7	5.7	17	11	9.4	42	14	15	9.0	4.9	2.8	1.1
7	5.3	5.7	14	10	8.5	31	12	15	8.1	4.5	2.8	1.1
8	5.7	5.7	13	9.0	8.9	26	11	14	7.3	4.2	2.1	1.1
9	5.7	5.3	12	8.5	10	23	10	12	6.9	3.8	2.1	.80
10	5.3	5.3	11	8.5	14	20	9.4	13	6.5	3.5	1.8	.80
11	5.3	5.3	9.8	9.4	16	17	9.0	12	6.9	3.1	1.8	.80
12	5.3	4.9	9.4	11	14	17	8.5	12	6.5	3.1	2.1	1.4
13	5.3	4.9	8.5	9.8	13	15	7.7	12	5.7	3.1	2.1	1.4
14	5.7	4.5	8.5	9.8	12	14	7.7	12	5.3	3.1	2.1	1.1
15	29	4.5	17	9.8	11	14	7.7	185	5.3	3.5	2.1	1.8
16	20	4.5	18	9.8	12	17	7.7	218	5.3	3.5	2.5	1.4
17	14	4.5	17	9.4	14	25	7.7	114	4.5	3.1	2.8	1.1
18	11	4.2	13	9.4	14	26	9.0	52	4.5	2.8	2.8	1.1
19	9.4	4.2	12	8.9	12	23	10	38	4.5	2.8	2.1	1.8
20	8.1	5.3	11	8.5	11	20	142	30	4.5	2.5	2.1	2.1
21	7.7	5.3	9.8	8.1	37	17	68	24	4.2	2.5	2.1	2.1
22	7.3	4.9	9.4	8.5	33	15	39	20	4.2	2.5	1.8	1.4
23	6.5	6.9	8.5	8.1	25	13	30	17	4.5	2.1	2.1	1.1
24	9.8	14	8.1	8.1	21	13	24	15	7.7	2.1	2.8	1.4
25	19	14	8.5	8.5	17	12	23	12	6.5	2.1	2.8	1.1
26	13	14	8.5	8.1	15	12	20	12	4.9	2.1	2.8	1.4
27	11	14	7.7	7.3	13	32	18	11	4.2	1.8	2.5	1.8
28	9.4	14	7.7	7.7	12	27	30	9.8	4.2	2.1	2.1	1.8
29	8.5	107	11	8.1	11	59	39	9.4	4.2	2.1	1.8	1.8
30	7.7	178	27	9.4	---	55	30	31	3.8	1.8	1.8	1.8
31	6.9	---	24	11	---	35	---	30	---	1.8	2.1	---
TOTAL	285.6	477.1	461.4	312.7	417.8	958	697.4	1035.2	210.2	101.6	68.7	41.10
MEAN	9.21	15.9	14.9	10.1	14.4	30.9	23.2	33.4	7.01	3.28	2.22	1.37
MAX	29	178	44	21	37	209	142	218	21	6.9	2.8	2.1
MIN	5.3	4.2	7.7	7.3	8.5	10	7.7	9.4	3.8	1.8	1.4	.80
CFSM	.38	.66	.62	.42	.60	1.28	.96	1.38	.29	.14	.09	.06
IN.	.44	.73	.71	.48	.64	1.47	1.07	1.59	.32	.16	.11	.06
AC-FT	566	946	915	620	829	1900	1380	2050	417	202	136	82
CAL YR 1975 TOTAL	8338.40			MEAN 22.8	MAX 902	MIN 2.0	CFSM .94	IN 12.82	AC-FT 16540			
WTR YR 1976 TOTAL	5066.80			MEAN 13.8	MAX 218	MIN .80	CFSM .57	IN 7.79	AC-FT 10050			

OSAGE RIVER BASIN

06922800 BIG BUFFALO CREEK NEAR STOVER, MO--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: April 1965 to September 1973, October 1974 to current year.

INSTRUMENTATION.--Temperature recorder Apr. 1965 to Sept. 1973, Oct. 1974 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 27.0°C July 12-14, 18, 1966; minimum, 1.0°C Jan. 21, 1970.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 25.0°C July 30; minimum, 2.0°C Jan. 9.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	17.0	16.5	14.0	14.0	7.0	6.5	6.0	6.0	4.5	4.5	12.0	11.5
2	16.5	15.5	15.0	14.0	8.0	6.5	6.0	6.0	4.5	3.5	13.5	12.0
3	16.5	15.5	15.0	14.5	8.5	7.0	6.0	4.5	3.5	3.0	13.0	10.0
4	16.5	15.5	15.0	15.0	9.0	8.0	4.5	4.0	3.5	3.5	11.0	9.0
5	16.5	15.5	15.0	14.5	10.0	9.0	4.5	4.0	4.0	3.5	11.0	8.5
6	16.5	16.0	15.0	14.5	10.0	9.0	4.5	4.0	4.0	4.0	9.5	7.0
7	16.0	15.5	15.0	15.0	9.0	8.5	4.5	3.5	4.0	3.5	10.0	8.0
8	16.5	15.5	15.0	14.5	9.0	9.0	3.5	3.0	4.5	4.0	10.0	9.5
9	16.5	15.5	15.0	15.0	9.0	8.5	3.5	2.0	5.0	4.5	11.0	9.0
10	16.5	15.5	15.0	14.0	8.5	8.0	3.5	3.5	8.5	5.0	10.5	9.0
11	16.5	15.5	14.0	13.0	9.0	8.5	4.0	3.5	7.0	6.0	11.0	10.0
12	18.0	16.0	13.0	11.0	9.0	9.0	4.5	3.5	7.0	5.5	11.0	9.0
13	18.0	16.5	11.0	10.5	10.5	9.0	4.5	4.5	8.0	7.0	9.5	8.0
14	18.0	16.5	10.5	9.5	11.0	10.5	4.5	3.5	8.0	7.0	10.0	8.0
15	18.0	16.5	10.5	10.0	10.5	8.5	4.0	3.5	10.0	8.0	10.0	8.5
16	16.5	15.5	11.0	10.5	8.5	7.0	4.0	3.5	11.0	9.5	9.5	8.0
17	15.5	15.0	11.5	10.5	7.0	5.5	4.0	3.5	10.0	9.0	10.5	8.0
18	15.5	14.5	11.5	11.5	5.5	5.0	4.0	3.5	9.5	9.0	12.0	9.0
19	15.0	13.5	11.5	11.0	6.0	5.0	4.0	4.0	9.5	8.5	14.0	10.5
20	15.5	13.5	12.0	10.5	6.0	6.0	4.0	3.5	9.5	8.0	14.0	13.0
21	15.5	14.5	10.5	10.0	6.0	6.0	4.0	3.5	9.5	8.0	13.0	10.5
22	16.5	15.5	10.0	9.5	6.0	6.0	4.5	3.5	8.5	6.5	12.0	10.5
23	16.5	15.5	9.5	9.0	6.0	6.0	5.0	4.5	9.5	7.0	12.0	9.5
24	16.0	15.5	9.0	8.0	6.0	6.0	5.0	4.5	9.5	8.5	12.0	11.0
25	15.5	13.5	8.0	7.0	6.0	6.0	5.0	4.0	10.5	9.5	13.5	11.5
26	13.5	13.0	7.0	6.5	6.0	6.0	4.5	3.5	10.5	9.5	13.5	13.0
27	14.0	13.0	6.5	6.5	6.0	6.0	4.0	3.5	11.0	9.5	14.0	11.0
28	14.0	14.0	7.0	5.5	6.0	6.0	4.0	3.5	11.5	10.5	12.0	11.0
29	14.0	13.5	10.0	7.0	6.0	6.0	4.5	4.0	12.0	11.0	13.5	11.0
30	14.0	13.0	10.0	7.0	6.0	6.0	5.0	4.5	---	---	13.0	10.5
31	14.0	13.0	---	---	6.0	6.0	5.0	4.5	---	---	11.5	10.0
MONTH	18.0	13.0	15.0	5.5	11.0	5.0	6.0	2.0	12.0	3.0	14.0	7.0

06922800 BIG BUFFALO CREEK NEAR STOVER, MO--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	13.5	9.5	16.5	13.5	19.0	16.0	21.0	19.0	23.5	21.5	21.5	20.0
2	14.5	10.0	15.0	14.0	19.0	16.5	20.5	20.0	22.0	21.0	21.5	19.5
3	15.0	12.0	15.5	12.0	19.5	16.5	20.0	20.0	23.5	20.5	21.0	19.5
4	14.5	12.0	16.0	13.0	19.0	17.0	21.0	19.5	23.5	20.5	21.5	19.5
5	14.5	11.0	16.0	14.5	19.5	17.0	21.5	19.5	23.0	21.0	21.0	19.5
6	15.0	12.0	16.0	14.0	20.0	18.0	22.0	19.5	22.0	21.0	21.0	19.5
7	14.5	13.0	16.0	13.0	20.5	18.0	22.0	20.0	23.0	20.5	21.0	18.5
8	14.5	13.0	16.5	13.5	20.5	18.0	23.0	20.5	22.0	20.0	21.0	19.5
9	14.5	11.0	16.5	14.0	21.0	18.5	23.5	20.5	23.0	20.5	20.5	19.5
10	14.5	11.0	16.0	15.0	20.0	18.5	24.0	21.0	23.5	20.5	19.5	17.0
11	15.0	13.0	18.5	14.5	20.5	18.5	24.5	21.0	23.0	22.0	19.5	17.0
12	14.5	11.0	18.0	15.0	21.0	19.0	24.5	21.5	22.0	21.5	20.0	18.0
13	13.5	12.0	17.0	16.0	22.0	19.0	24.5	21.5	23.5	20.5	20.5	18.5
14	15.0	13.0	16.5	15.0	22.0	20.0	24.5	21.5	22.0	21.0	20.5	19.0
15	15.0	14.0	16.0	15.0	21.5	20.5	23.0	21.5	22.0	21.5	20.5	19.5
16	14.5	14.5	16.0	15.0	21.5	19.5	23.5	21.0	23.5	21.0	20.5	19.5
17	15.5	14.5	17.0	14.5	22.0	19.0	22.0	20.0	23.5	21.0	20.5	18.5
18	15.5	15.0	18.5	14.0	21.0	20.0	23.0	20.0	23.5	21.5	21.0	19.5
19	15.0	13.5	19.5	14.5	20.5	19.0	23.5	20.5	23.5	20.5	20.5	20.0
20	15.0	14.0	20.0	15.5	21.0	18.5	24.0	21.0	23.5	20.5	20.0	19.5
21	15.5	14.0	20.0	16.5	21.0	18.5	24.0	21.5	23.0	20.5	19.5	18.0
22	17.0	13.5	20.5	17.0	---	---	24.5	21.5	23.5	21.0	19.5	17.0
23	16.5	14.5	20.5	18.5	---	---	24.5	21.5	24.0	21.0	19.0	18.5
24	16.5	15.5	19.0	15.0	---	---	24.0	21.5	24.0	21.5	19.5	18.0
25	15.5	13.0	18.5	13.5	22.0	19.0	24.5	21.0	23.5	21.5	19.0	19.0
26	14.0	11.5	17.0	15.5	22.0	19.0	24.5	21.5	23.5	21.5	19.0	19.0
27	13.5	13.0	16.0	15.5	22.0	20.0	24.5	22.0	24.0	21.5	19.0	18.0
28	13.0	11.5	18.5	15.0	21.0	20.0	24.0	21.5	23.5	21.5	18.0	18.0
29	14.5	10.5	18.0	16.0	21.0	20.0	24.5	21.5	23.0	20.5	18.0	18.0
30	14.5	13.0	17.0	16.0	21.5	19.5	25.0	21.5	23.0	20.5	18.0	16.5
31	---	---	18.5	16.5	---	---	23.0	22.0	21.0	20.0	---	---
MONTH	17.0	9.5	20.5	12.0	22.0	16.0	25.0	19.0	24.0	20.0	21.5	16.5

OSAGE RIVER BASIN

06923500 BENNETT SPRING AT BENNETT SPRINGS, MO

LOCATION.--Lat 37°43'03", long 92°51'26", in NW¼ sec.1, T.34 N., R.18 W., Dallas County, Hydrologic Unit 10290110, on left bank 300 ft (91 m) downstream from spring outlet, 1.5 mi (2.4 km) upstream from Niangua River and at Bennett Springs.

PERIOD OF RECORD.--September 1916 to March 1920, October 1928 to September 1941, October 1965 to current year. Prior to March 1920 and October 1939 to September 1941 monthly discharge only published in WSP 1310. Occasional discharge measurements 1923, 1954, 1964, 1965.

GAGE.--Nonrecording gage. Datum of gage 864.71 ft (263.564 m) above mean sea level. Sept. 1916 to Mar. 1920, in the vicinity, datum unknown; Oct. 17, 1928, to Apr. 11, 1934, at site 1,780 ft (543 m) downstream at datum 2.30 ft (0.70 m) lower; Apr. 12 to Dec. 13, 1934, nonrecording gage, and Dec. 14, 1934, to Sept. 17, 1941, water-stage recorder at present site and datum.

REMARKS.--Records poor. Occasional runoff from drainage area of 42.4 mi² (109.8 km²) included in records.

AVERAGE DISCHARGE.--27 years (1916-19, 1928-41, 1965-76), 159 ft³/s (4.503 m³/s), 115,200 acre-ft/yr (142 hm³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,000 ft³/s (255 m³/s) Nov. 1, 1973, gage height, 9.14 ft (2.786 m) from floodmark, includes about 7,200 ft³/s (204 m³/s) from Spring Creek, by indirect measurement of peak flow over dam; minimum, about 55 ft³/s (1.6 m³/s) Nov. 13, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 400 ft³/s (11.3 m³/s) Apr. 21, 22; minimum observed, 88 ft³/s (2.49 m³/s) Sept. 23, 24; minimum observed gage height, 0.79 ft (0.238 m) Nov. 20, 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	218	114	130	150	113	111	170	217	128	106	98	94
2	200	114	140	150	109	109	162	204	126	105	98	92
3	180	114	140	154	108	108	152	192	126	117	95	92
4	172	112	150	154	103	150	148	183	124	138	97	92
5	172	111	150	152	100	220	140	179	120	164	97	92
6	160	124	150	150	97	217	138	170	122	124	97	92
7	152	120	150	146	97	192	136	166	122	115	97	92
8	148	120	140	138	105	181	134	162	119	111	97	92
9	140	116	140	138	120	204	130	158	119	111	95	95
10	140	118	140	136	128	204	126	154	119	109	95	94
11	140	109	140	138	122	192	126	150	119	108	95	98
12	138	107	140	138	120	181	120	148	119	106	95	100
13	134	105	144	138	119	172	122	150	116	106	95	100
14	132	105	170	134	117	166	120	150	116	105	95	94
15	128	105	204	132	115	160	120	152	115	103	95	94
16	128	105	204	132	115	156	120	168	115	103	95	94
17	126	102	185	130	113	150	120	154	115	103	95	94
18	124	102	179	128	111	150	115	150	111	101	95	94
19	124	100	178	126	109	150	200	150	111	101	95	92
20	122	99	177	124	108	148	300	146	111	101	95	91
21	120	102	177	124	111	138	400	146	108	101	95	91
22	118	99	160	128	111	130	400	142	108	103	95	91
23	116	99	150	130	109	130	370	142	108	103	95	88
24	116	100	150	128	108	126	348	138	130	103	95	88
25	120	100	150	128	109	126	315	136	124	103	95	94
26	120	110	150	126	111	124	285	132	115	103	95	92
27	120	110	150	124	111	138	270	130	111	101	95	100
28	114	120	150	122	109	140	242	132	111	101	94	97
29	118	120	150	120	111	166	230	130	108	101	92	95
30	116	130	150	117	---	192	217	130	108	101	92	95
31	116	---	150	115	---	179	---	130	---	101	92	---
TOTAL	4272	3292	4838	4150	3219	4910	5976	4791	3504	3358	2951	2809
MEAN	138	110	156	134	111	158	199	155	117	108	95.2	93.6
MAX	218	130	204	154	128	220	400	217	130	164	98	100
MIN	114	99	130	115	97	108	115	130	108	101	92	88
AC-FT	8470	6530	9600	8230	6380	9740	11850	9500	6950	6660	5850	5570
CAL YR 1975	TOTAL	83881	MEAN 230	MAX 1520	MIN 99	AC-FT 166400						
WTR YR 1976	TOTAL	48070	MEAN 131	MAX 400	MIN 88	AC-FT 95350						

06925200 STARKS CREEK AT PRESTON, MO

LOCATION.--Lat 37°56'27", long 93°11'48", in SW¼NW¼ sec.24, T.37 N., R.21 W., Hickory County, Hydrologic Unit 10290110 in right bank on downstream side of bridge on U.S. Highway 54, 0.6 mi (1.0 km) east of junction of U.S. Highways 65 and 54 at Preston.

DRAINAGE AREA.--4.18 mi² (10.8 km²).

PERIOD OF RECORD.--July 1956 to September 1976 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 980 ft (298.7 m) from topographic map.

REMARKS.--Records poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--20 years, 3.70 ft³/s (0.105 m³/s), 12.02 in/yr (305 mm/yr), 2,680 acre-ft/yr (3.30 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,900 ft³/s (53.8 m³/s) June 23, 1965, gage height, 10.57 ft (3.222 m); no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above 200 ft³/s (5.66 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
Nov. 29	2200	*387	11.0	*5.88	1.792
Apr. 20	1000	304	8.61	5.43	1.655

No flow on many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	.15	3.4	2.9	1.2	1.3	1.8	3.8	.12			
2	1.1	.14	2.9	2.4	1.1	1.2	1.6	2.8	.08			
3	.74	.15	2.4	2.1	1.1	18	1.5	2.2	.06			
4	.50	.15	2.2	2.0	.98	59	1.4	2.0	.05			
5	.37	.15	2.6	1.8	1.1	21	1.4	1.9	.05			
6	.33	.18	2.3	1.6	.95	6.5	1.3	1.9	.06			
7	.29	.18	2.0	1.4	.91	2.7	1.2	1.7	.02			
8	.28	.15	1.9	1.3	2.0	2.7	1.1	1.5	.02			
9	.24	.19	1.8	1.2	2.4	22	1.0	1.3	.02			
10	.21	.15	1.7	1.2	2.5	4.8	.99	1.3	.02			
11	.21	.14	1.6	1.2	1.6	3.8	1.0	1.1	.02			
12	.19	.12	1.5	1.4	1.4	4.6	.95	.99	.01			
13	.18	.14	1.5	1.4	1.3	3.0	1.0	.96	.01			
14	.17	.12	3.8	1.1	1.2	2.6	1.0	.94	0			
15	.50	.13	43	1.1	1.3	2.4	1.0	1.4	0			
16	.25	.12	11	1.1	1.3	3.6	1.0	1.0	0			
17	.20	.15	6.3	.97	1.2	3.4	1.0	1.0	0			
18	.18	.15	3.1	.93	1.1	2.5	1.0	.72	0			
19	.15	.50	3.0	1.1	.95	2.3	5.8	.54	0			
20	.13	.74	3.0	1.2	.94	2.3	94	.48	0			
21	.12	.24	2.6	.99	5.0	1.9	16	.38	0			
22	.11	.20	2.4	.99	2.0	1.7	5.2	.35	0			
23	.10	.18	2.3	1.1	1.9	1.6	3.3	.31	0			
24	.44	.18	2.2	1.1	1.7	1.5	3.3	.26	.01			
25	.34	.20	2.3	3.7	1.5	1.5	4.1	.25	0			
26	.25	.26	2.6	1.8	1.4	1.5	2.7	.23	0			
27	.20	.27	2.5	1.3	1.3	1.5	2.3	.26	0			
28	.16	.44	2.2	1.3	1.4	1.5	52	.21	0			
29	.13	63	15	1.3	1.3	8.7	12	.15	0			
30	.12	14	6.4	1.3	---	4.5	5.2	.19	0			
31	.12	---	3.6	1.3	---	2.1	---	.14	---			---
TOTAL	20.31	82.87	145.1	45.58	44.03	197.7	227.14	32.26	.55	0	0	0
MEAN	.66	2.76	4.68	1.47	1.52	6.38	7.57	1.04	.018	0	0	0
MAX	12	63	43	3.7	5.0	59	94	3.8	.12	0	0	0
MIN	.10	.12	1.5	.93	.91	1.2	.95	.14	0	0	0	0
CFSM	.16	.66	1.12	.35	.36	1.53	1.81	.25	.004	0	0	0
IN.	.18	.74	1.29	.41	.39	1.76	2.02	.29	.005	0	0	0
AC-FT	40	164	288	90	87	392	451	64	1.1	0	0	0
CAL YR 1975	TOTAL	1273.81	MEAN 3.49	MAX 157	MIN 0	CFSM .83	IN 11.33	AC-FT 2530				
WTR YR 1976	TOTAL	795.54	MEAN 2.17	MAX 94	MIN 0	CFSM .52	IN 7.08	AC-FT 1580				

06925500 LAKE OF THE OZARKS NEAR BAGNELL, MO

LOCATION--Lat 38°12'19", long 92°37'21", in SE¼ 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 (3.2 km) southwest of Bagnell, and at mile 81.7 (131.5 km).

DRAINAGE AREA--14,000 mi² (36,000 km²), approximately.

PERIOD OF RECORD--April 1931 to current year. Gage-height records collected at same site since 1932 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 mean sea level, adjustment of 1912. To obtain datum of 1929 mean sea level subtract 0.88 ft (0.286 m).

REMARKS--Lake is formed by concrete gravity dam. Spillway is equipped with 12 taintor gates 34 ft (10 m) wide by 22 ft (6.7 m) high. Storage began in 1931. Usuable capacity 1,218,000 acre-ft (1.50 km³) between elevations 630.00 ft or 192.024 m (maximum draw-down) and 660.00 ft or 201.168 m (top of gates). Dead storage, 708,800 acre-ft (874 hm³). Figures given herein are usable contents. Water is used for generating electricity. Elevations given herein are referred to mean sea level, adjustment of 1912.

COOPERATION--Records furnished by Union Electric Company of Missouri.

EXTREMES FOR PERIOD OF RECORD--Maximum contents, 1,527,000 acre-ft (1.88 km³), May 22, 1943, elevation, 665.45 ft (202.829 m); minimum, 322,100 acre-ft (397 hm³) Feb. 13, 1948, elevation, 639.95 ft (195.057 m).

EXTREMES FOR CURRENT YEAR--Maximum contents, 1,171,000 acre-ft (1.44 km³) July 7, elevation, 659.19 ft (200.921 m); minimum, 870,000 acre-ft (1.07 km³) May 12, elevation, 653.48 ft (199.181 m).

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	657.52	1,078,000	-----
Oct. 31	655.22	957,000	-121,000
Nov. 30	656.24	1,010,000	+53,000
Dec. 31	657.19	1,060,000	+50,000
CAL YR 1975	-----	-----	-40,000
Jan. 31	657.06	1,000,000	-60,000
Feb. 29	655.04	947,800	-52,200
Mar. 31	655.04	947,800	0
Apr. 30	655.64	978,800	+31,000
May 31	655.76	985,400	+6,600
June 30	657.84	1,095,000	+109,600
July 31	657.49	1,076,000	-19,000
Aug. 31	656.94	1,047,000	-29,000
Sept. 30	656.92	1,046,000	-1,000
WTR YR 1976	-----	-----	-32,000

06926000 OSAGE RIVER NEAR BAGNELL, MO

LOCATION.--Lat 38°12'27", long 92°36'20", in N½SE¼ sec.21, T.40 N., R.15 W., Miller County, Hydrologic Unit 10290111, on left bank 1.5 mi (2.4 km) upstream from Bagnell, 3 mi (4.8 km) downstream from hydroelectric plant of Union Electric Company of Missouri, and at mile 78.5 (126.3 km).

DRAINAGE AREA.--14,000 mi² (36,300 km²), 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 Missouri River Commission or National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 548.87 ft (167.296 m) above mean sea level. Prior to Oct. 15, 1930, nonrecording gage at present site and datum. Since Oct. 1, 1940, auxiliary water-stage recorder at power plant 3 mi (4.8 km) upstream from base gage.

REMARKS.--Records fair above 2,000 ft³/s (56.6 m³/s) and poor below. Several observations of water temperature were made during the year. Flow regulated by Lake of the Ozarks.

AVERAGE DISCHARGE.--96 years, 9,666 ft³/s (273.7 m³/s), 7,003,000 acre-ft/yr (8,630 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 220,000 ft³/s (6,230 m³/s) May 19, 1943, gage height, 48.8 ft (14.87 m); minimum, 183 ft³/s (5.18 m³/s) Sept. 9, 1969; minimum daily discharge, 220 ft³/s (6.23 m³/s) Dec. 12, 1917.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1943, 43.1 ft (13.14 m) in June 1844, discharge, 164,000 ft³/s (4,640 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 32,800 ft³/s (929 m³/s) Mar. 5, 6, gage height, 15.50 ft (4.724 m); minimum daily, 296 ft³/s (8.38 m³/s) May 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12000	1710	7250	750	5060	4080	19400	15700	8110	3020	688	2260
2	11900	781	5240	7910	10400	10700	12200	14600	10900	535	700	1440
3	8470	7270	5270	14800	4220	8470	821	15900	1740	412	682	3310
4	8860	2220	2750	20400	7780	11900	433	13800	19600	395	670	1430
5	1650	2630	3260	15200	11400	31300	7570	15200	24800	6980	3770	688
6	8400	991	2130	7370	9510	30600	492	15700	3010	7780	1180	725
7	14800	427	952	13800	3040	27100	1090	13400	3410	16500	682	3970
8	6290	423	3900	14600	803	25700	8390	1840	7520	17800	670	3740
9	9570	427	7410	10800	715	24800	6460	318	6700	22300	670	1070
10	8540	475	3120	820	1890	22500	2780	14200	781	11700	814	676
11	794	438	3020	430	822	28000	1470	15000	7180	3160	649	649
12	412	430	3270	1030	2040	27900	8140	4170	1970	5840	513	921
13	13400	423	492	671	3790	23000	9350	3380	2600	7910	1420	891
14	12400	423	427	4740	4110	1230	4660	1010	5170	9210	788	676
15	4340	427	7840	421	464	5440	3320	1080	517	5060	676	682
16	554	420	9940	732	458	13400	737	719	1270	1040	549	688
17	633	420	14500	1270	930	7130	312	4620	2210	725	420	682
18	492	423	13300	1780	613	3220	342	5150	1290	664	540	944
19	430	430	10100	3690	1950	442	12300	12800	301	3260	788	3410
20	3220	416	5430	3080	2090	1420	18000	13900	423	4540	1150	2280
21	2050	423	1030	1480	2260	415	21100	14600	370	3080	2610	513
22	1720	427	9940	396	825	2820	27200	13700	374	3130	1160	438
23	2140	420	10700	458	11200	3200	30000	1440	380	6850	5360	706
24	4910	5800	1410	434	2190	424	19600	296	384	8990	3120	670
25	504	6910	500	446	6840	6490	16900	329	475	2420	2760	664
26	458	2080	8590	434	10600	13100	19000	2530	405	7780	7750	676
27	1020	521	13800	398	5850	5740	18300	7930	387	2690	4220	1290
28	618	427	2190	721	533	1500	17200	9090	10600	775	1440	725
29	500	569	10800	528	415	6310	14800	952	6870	2970	676	788
30	1150	929	5010	2220	---	13700	14400	363	1220	4430	2500	899
31	3720	---	6290	3440	---	15500	---	353	---	1320	2030	---
TOTAL	145945	40110	179861	135249	112798	377531	316767	234070	130967	173266	51645	38501
MEAN	4708	1337	5802	4363	3890	12180	10560	7551	4366	5589	1666	1283
MAX	14800	7270	14500	20400	11400	31300	30000	15900	24800	22300	7750	3970
MIN	412	416	427	396	415	415	312	296	301	395	420	438
AC-FT	289500	79560	356800	268300	223700	748800	628300	464300	259800	343700	102400	76370
CAL YR 1975 TOTAL	4087722			11200		47400		356		8108000		
WTR YR 1976 TOTAL	1936710			MEAN 5292		MAX 31300		MIN 296		AC-FT 3841000		

OSAGE RIVER BASIN

06926500 OSAGE RIVER NEAR ST. THOMAS, MO

LOCATION.--Lat 38°20'20", long 92°13'34", in SE¼SW¼ sec.35, T.42 N., R.12 W., Cole County, Hydrologic Unit 10290111, on left bank 0.5 mi (0.8 km) downstream from Sugar Creek, 2.5 mi (4.0 km) south of St. Thomas, and at mile 43.1 (69.3 km).

DRAINAGE AREA.--14,500 mi² (37,600 km²), approximately.

PERIOD OF RECORD.--August 1931 to current year.

GAGE.--Water-stage recorder. Datum of gage is 528.06 ft (160.953 m) above mean sea level.

REMARKS.--Records fair. Flow regulated by Lake of the Ozarks.

AVERAGE DISCHARGE.--45 years, 10,120 ft³/s (286.6 m³/s), 7,330,000 acre-ft/yr (9,040 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 216,000 ft³/s (6,120 m³/s) May 20, 1943, gage height, 43.8 ft (13.35 m); minimum, 346 ft³/s (9.80 m³/s) July 12, 1959, Sept. 18, 1960; minimum gage height, 1.28 ft (0.390 m) Sept. 18, 1960; minimum daily discharge, 373 ft³/s (10.6 m³/s) July 12, 1959.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1943, about 39.4 ft (12.0 m) in June 1844.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 34,900 ft³/s (988 m³/s) Mar. 5, gage height, 15.17 ft (4.624 m); minimum discharge, 394 ft³/s (11.2 m³/s) Aug. 18; minimum gage height, 1.49 ft (0.454 m) Nov. 14, 17, 18, 19, 22, 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7380	2930	5350	6290	3900	1030	17900	12900	2820	1870	1340	2170
2	11200	2340	5450	3540	7890	6090	16400	14700	9410	3000	812	2410
3	11900	2420	6890	10900	7810	7370	6580	13800	8360	1290	760	1720
4	5600	7680	4340	21900	5750	14600	1440	14100	6450	1080	742	3410
5	8210	2610	3570	15200	8460	31600	3260	11600	24600	805	727	1520
6	3130	3020	3560	13100	9780	32600	4600	14500	13700	6140	3300	914
7	9400	1180	2790	8260	7480	30700	1100	12700	2180	7950	1310	878
8	9770	659	2540	14600	3430	27100	3490	8690	5400	16000	807	3750
9	5890	587	6250	13600	1280	25200	7140	1810	6250	21400	735	3370
10	9580	577	5850	5710	1230	24300	5230	3680	5810	12200	727	1330
11	6170	600	3700	1390	2610	25000	2740	13800	2130	9810	849	917
12	1290	623	3640	875	1520	28600	3230	8820	9250	3160	753	859
13	3480	550	3320	1350	2790	29400	6230	3900	1670	5200	564	1030
14	12000	524	1280	2760	5340	9840	7430	3290	2820	7380	1240	1130
15	9160	530	3000	2780	3530	2620	4570	3360	4580	7750	985	901
16	4220	530	8420	929	1090	7200	3350	3390	1110	4370	765	869
17	1190	530	11000	1240	903	13300	1280	3680	1380	1490	669	892
18	986	524	14900	1740	1400	5700	760	5550	3560	935	436	875
19	811	524	10800	2780	1250	3200	1350	7650	1430	875	552	1150
20	899	563	9160	3950	3280	1320	13000	11700	690	2770	895	3430
21	4190	543	5780	2290	3250	2150	22200	14000	672	4190	1210	2590
22	2210	524	3470	1550	3560	1290	25900	12000	621	2880	2470	1070
23	2040	524	12200	670	3400	4050	28300	9050	609	3440	1590	718
24	3730	996	8280	626	9830	2940	23700	1600	722	6200	4860	827
25	3730	9140	2120	584	4080	1210	17700	829	831	7120	3410	925
26	1040	4710	2300	597	6930	8260	16400	832	797	3110	3160	899
27	710	2500	13000	577	10800	10400	17500	2670	725	6560	6640	928
28	1110	1040	10400	589	4440	5730	17700	7640	1380	2750	3990	1470
29	966	1540	3680	929	1400	2880	16400	6450	8760	1020	1440	1060
30	654	7090	10300	768	---	8280	13900	2390	5750	2600	871	1030
31	2210	---	7040	2620	---	14700	---	1620	---	4050	2340	---
TOTAL	144856	58108	194380	144694	128413	388660	310780	232701	134467	159395	50949	45042
MEAN	4673	1937	6270	4668	4428	12540	10360	7506	4482	5142	1644	1501
MAX	12000	9140	14900	21900	10800	32600	28300	14700	24600	21400	6640	3750
MIN	654	524	1280	577	903	1030	760	829	609	805	436	718
AC-FT	287300	115300	385600	287000	254700	770900	616400	461600	266700	316200	101100	89340

CAL YR 1975 TOTAL 4440167 MEAN 12160 MAX 50000 MIN 439 AC-FT 8807000
WTR YR 1976 TOTAL 1992445 MEAN 5444 MAX 32600 MIN 436 AC-FT 3952000

06926510 OSAGE RIVER BELOW ST. THOMAS, MO
(National stream-quality accounting network station)

LOCATION.--Lat 38°25'18", long 92°12'31", Cole County, Hydrologic Unit 10290111, at bridge on State Highway B, 3.8 mi (6.1 km) north of St. Thomas, 8.6 mi (14 km) downstream from gaging station, and at mile 34.5 (55.5 km).

DRAINAGE AREA.--14,500 mi² (37,600 km²) approximately above gage.

PERIOD OF RECORD.--Water years 1975-76.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1974 to current year.

WATER TEMPERATURES: October 1974 to current year.

REMARKS.--Water temperature and specific conductance samples collected daily by observer. Records of discharge are given for gaging station 06926500 Osage River near St. Thomas.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 359 micromhos Apr. 14, 1975; minimum daily, 186 micromhos Dec. 1, 1975.

WATER TEMPERATURE: Maximum daily, 28.5°C Aug. 21, 1975; minimum daily, 2.0°C Jan. 19, 1976.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 348 micromhos Apr. 8; minimum daily, 186 micromhos Dec. 1.

WATER TEMPERATURE: Maximum daily, 27.0°C Aug. 21; minimum daily, 2.0°C Jan. 19.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	HARD- NESS (CA, MG) (MG/L)
OCT 28...	1110	284	8.1	17.0	5	8.2	85	20	14	140
NOV 13...	554	325	7.8	13.0	5	9.4	89	12	20	160
DEC 18...	14900	290	8.3	7.5	15	9.6	80	70	80	140
JAN 14...	1970	300	8.1	5.0	5	12.2	95	12	20	150
FEB 04...	5750	283	8.1	3.0	7	12.0	89	4	14	130
MAR 19...	3200	328	8.4	10.5	4	11.0	98	38	24	160
APR 08...	3490	348	8.1	14.0	3	9.6	92	<10	4	160
MAY 17...	3680	278	7.8	15.5	10	7.8	78	>200	3000	140
JUN 17...	1380	337	7.9	21.0	6	6.6	73	22	28	160
JUL 19...	875	340	7.8	23.0	4	6.4	74	8	6	160
AUG 19...	552	335	7.9	25.5	3	7.2	88	22	20	150
SEP 28...	1470	324	8.0	20.0	3	7.4	80	20	20	150

OSAGE RIVER BASIN

06926510 OSAGE RIVER BELOW ST. THOMAS, MO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	NON-CAR-BONATE HARDNESS (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)
OCT 28...	25	37	12	5.0	2.4	142	0	23	4.3	.2
NOV 13...	22	41	14	5.3	2.8	168	0	23	4.6	.2
DEC 18...	22	38	11	5.7	2.7	144	0	25	4.2	.2
JAN 14...	22	40	13	5.3	2.6	160	0	23	4.4	.1
FEB 04...	21	35	11	4.7	2.6	136	0	22	4.3	.5
MAR 19...	26	41	15	5.3	2.2	160	4	25	5.7	.2
APR 08...	29	39	16	6.0	2.3	164	0	30	5.4	.2
MAY 17...	19	31	16	3.8	2.0	152	0	19	3.8	.2
JUN 17...	28	41	13	6.0	2.5	156	0	33	5.7	.2
JUL 19...	35	40	14	6.1	2.4	152	0	31	4.8	.2
AUG 19...	22	38	13	6.1	2.5	154	0	32	5.4	.2
SEP 28...	21	41	12	6.1	2.6	160	0	32	5.0	.2

DATE	DIS-SOLVED SILICA (SiO2) (MG/L)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS-SED. SIEVE DIAM. % FINER THAN .062 MM
OCT 28...	5.7	179	.29	.21	.04	--	28	84	78
NOV 13...	5.6	198	.23	.20	.04	2.2	122	182	66
DEC 18...	5.6	154	.35	.26	.07	--	208	8370	61
JAN 14...	6.8	164	.50	.13	.05	--	35	186	49
FEB 04...	6.1	172	.47	.41	.03	4.8	19	295	83
MAR 19...	4.6	178	.34	.33	.02	--	9	78	90
APR 08...	3.1	212	.25	.37	.01	--	11	104	79
MAY 17...	6.3	162	.32	.40	.05	5.4	374	3720	57
JUN 17...	3.9	212	.38	.30	.06	--	8	30	84
JUL 19...	5.2	204	.36	.22	.02	--	16	38	71
AUG 19...	5.4	194	.09	.33	.04	23	47	70	45
SEP 28...	4.8	181	.04	.13	.03	--	54	214	46

OSAGE RIVER BASIN

06926510 OSAGE RIVER BELOW ST. THOMAS, MO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL ARSENIC (AS) (UG/L)	SUS- PENDED ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)
NOV 13...	1	1	0	0	<10	0	0	0	33	10	300
FEB 04...	--	--	2	0	20	0	0	0	5	2	530
MAY 17...	0	0	1	1	10	0	0	0	8	4	760
AUG 19...	2	1	5	2	10	14	0	0	8	4	240

DATE	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
NOV 13...	0	18	0	140	120	--	.1	1	0	50	30
FEB 04...	10	38	0	20	0	.1	.0	0	0	20	10
MAY 17...	40	15	5	60	10	--	.0	0	0	20	10
AUG 19...	150	57	12	60	20	.2	.1	--	0	120	10

OSAGE RIVER BASIN

06926510 OSAGE RIVER BELOW ST. THOMAS, MO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	292	298	186	281	298	290	324	317	278	312	312	315
2	287	288	278	283	282	298	326	317	332	313	312	314
3	289	285	280	276	282	283	328	318	338	313	316	313
4	290	280	284	274	282	260	330	319	335	313	317	312
5	297	282	284	272	276	245	332	320	333	314	313	313
6	292	288	287	272	272	284	330	320	333	303	312	316
7	290	288	288	278	272	290	330	318	332	310	313	315
8	288	290	290	270	282	298	348	320	337	310	315	318
9	290	290	296	270	280	304	330	324	332	311	312	315
10	292	294	284	276	288	307	324	327	332	310	312	313
11	292	296	287	283	290	309	327	321	335	312	313	315
12	290	305	288	286	300	---	328	325	332	308	316	313
13	290	308	289	292	295	310	326	325	335	311	313	318
14	295	313	288	297	290	318	325	327	337	311	313	317
15	290	312	267	293	278	318	330	308	332	311	314	318
16	290	315	270	284	280	320	328	297	330	---	317	320
17	293	312	280	285	285	314	328	278	318	310	317	319
18	302	315	280	296	290	318	336	296	316	316	315	319
19	300	314	280	298	297	328	330	314	315	313	335	318
20	305	315	280	285	304	321	323	332	314	317	315	315
21	310	315	284	282	287	323	320	335	317	314	318	318
22	300	316	284	284	280	327	300	337	320	311	312	317
23	295	318	278	288	288	329	320	337	318	315	312	315
24	295	314	278	291	277	322	320	340	321	311	308	317
25	290	291	283	295	282	320	317	340	319	311	312	319
26	292	280	280	302	282	325	316	345	319	312	309	320
27	290	286	278	308	278	318	314	345	317	315	313	321
28	295	286	278	317	282	320	315	340	317	311	315	321
29	303	286	280	315	290	322	317	337	314	311	312	326
30	303	236	277	320	---	316	316	337	311	313	312	318
31	307	---	285	322	---	318	---	298	---	315	315	---
MONTH	295	297	279	290	285	309	325	323	324	312	314	317

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	18.0	9.0	9.0	4.5	9.5	12.0	14.0	19.0	23.0	26.0	24.0
2	21.0	18.0	9.5	8.5	4.0	12.0	11.5	16.0	19.0	23.0	23.0	24.0
3	20.0	18.5	10.0	7.0	3.0	10.0	13.0	13.0	19.0	23.0	23.5	23.0
4	19.0	19.5	9.0	6.5	3.0	9.0	14.0	15.5	19.0	22.5	24.0	22.0
5	20.5	19.5	12.0	7.0	4.0	9.5	14.0	16.5	19.5	22.5	25.0	23.0
6	21.0	19.0	12.0	7.0	4.5	8.5	14.0	17.0	19.0	23.0	25.5	22.0
7	21.0	19.0	11.0	6.0	4.5	8.5	14.5	13.5	19.0	21.5	25.0	22.5
8	21.5	19.0	10.5	3.0	4.5	9.0	14.0	16.0	20.5	21.0	26.0	23.0
9	21.5	19.0	10.0	3.5	4.0	7.5	14.0	16.0	20.0	21.0	24.0	23.0
10	21.0	18.0	10.0	4.5	6.5	9.0	13.0	17.0	20.0	21.0	24.0	21.0
11	21.5	17.0	10.5	6.0	7.0	10.0	13.0	15.5	20.0	22.0	25.5	23.0
12	22.0	16.0	11.0	6.5	9.0	---	14.0	17.0	20.5	23.5	25.5	22.0
13	22.0	14.0	12.0	6.0	9.5	9.0	14.5	17.0	21.0	25.0	25.0	22.5
14	22.0	13.0	11.5	5.5	6.0	9.5	15.0	17.0	22.0	23.0	26.0	23.0
15	21.5	14.5	11.0	5.5	8.0	10.0	15.0	17.5	24.0	22.0	26.0	23.0
16	20.0	12.0	9.5	5.0	9.5	8.5	16.0	17.0	21.0	---	23.0	23.0
17	19.5	12.5	6.5	3.0	9.0	9.5	14.5	15.5	21.5	22.0	26.0	21.0
18	18.5	12.0	8.5	2.5	9.0	10.0	17.0	16.0	23.5	22.5	26.0	23.0
19	18.0	13.0	9.0	2.0	10.5	10.5	18.0	17.0	22.0	23.0	25.5	24.0
20	17.0	12.0	10.0	4.0	11.0	13.5	15.5	17.0	21.0	25.0	26.0	24.0
21	17.5	10.0	9.0	3.0	10.0	13.0	14.0	17.5	22.5	26.0	27.0	22.0
22	19.0	9.5	6.0	5.0	7.5	12.0	15.0	18.0	23.0	25.0	26.5	20.5
23	20.0	10.0	7.0	5.0	7.5	12.5	17.0	18.5	24.0	25.0	25.5	20.0
24	20.5	9.0	9.0	4.0	8.0	12.0	16.5	19.0	23.5	24.5	24.5	20.0
25	19.0	9.0	9.0	4.0	8.0	13.0	15.0	18.0	23.5	22.5	23.5	21.0
26	18.0	10.5	7.0	5.5	9.0	14.5	15.5	19.0	24.0	24.0	24.0	20.0
27	17.0	9.5	8.0	4.0	8.0	11.5	13.5	19.5	25.0	24.0	24.0	19.0
28	18.0	9.0	7.0	3.0	8.5	12.0	14.0	18.0	26.5	23.0	23.5	20.0
29	17.0	10.0	7.0	5.0	10.0	13.0	14.5	18.5	25.0	25.0	24.0	20.0
30	16.5	9.5	8.5	5.0	---	13.0	14.5	19.0	23.5	25.5	23.0	19.0
31	17.0	---	9.0	4.5	---	12.0	---	19.0	---	25.5	24.0	---
MONTH	19.5	14.0	9.5	5.0	7.0	10.5	14.5	17.0	21.5	23.5	25.0	22.0

06926510 OSAGE RIVER BELOW ST. THOMAS, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

OCT. 28, 1975
1130 HOURS

IDENTIFICATION OF PHYTOPLANKTON

350 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
...CENTRALES	CENTRIC			
...COSCONODISCACEAE				
....CYCLOTELLA		49	14	
D ..MELOSIRA		82	23	
..PENNALES	PENNATE			
...NAVICULACEAE	NAVICULOID			
....NAVICULA		41	12	
...NITZSCHIAEAE				
....HANTZSCHIA		8	2	
....NITZSCHIA		41	12	
TOTALS		220	63	2.090=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
...OSCILLATORIALES	FILAMENTOUS			
...OSCILLATORIAEAE				
DOSCILLATORIA		120	35	
TOTALS		120	35	0.000=DIVERSITY
EUGLENOPHYTA	EUGLENIDS			
..CRYPTOPHYCEAE	CRYPTOMONADS			
...CRYPTOMONIDALES				
...CRYPTOMONODACEAE				
....CRYPTOMONAS		8	2	
TOTALS		8	2	0.000=DIVERSITY

NOV. 13, 1975
1030 HOURS

IDENTIFICATION OF PHYTOPLANKTON

850 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...OOCYSTACEAE				
DDICTYOSPHAERIUM		240	28	
TOTALS		240	28	0.000=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
...CENTRALES	CENTRIC			
...COSCONODISCACEAE				
DCYCLOTELLA		130	16	
DMELOSIRA		380	45	
..PENNALES	PENNATE			
...NAVICULACEAE	NAVICULOID			
LCALONEIS			0	
....NAVICULA		73	9	
...NITZSCHIAEAE				
....NITZSCHIA		29	3	
TOTALS		620	73	1.479=DIVERSITY

OSAGE RIVER BASIN

06926510 OSAGE RIVER BELOW ST. THOMAS, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DEC. 18, 1975

1115 HOURS

IDENTIFICATION OF PHYTOPLANKTON

420 CELLS/ML

_ORGANISM__NAME_____	_COMMON__NAME_____	CELLS/ML	PER_CENT	
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCONODISCACEAE				
....CYCLOTELLA		40	10	
DMELOSIRA		260	62	
..PENNALES	PENNATE			
...ACHNANTHACEAE				
....COCCONEIS		20	5	
...CYMBELLACEAE				
....CYMBELLA		20	5	
...NAVICULACEAE	NAVICULOID			
LGYROSIGMA			0	
....NAVICULA		40	10	
...NITZSCHACEAE				
....NITZSCHIA				
	TOTALS	420	102	1.816=DIVERSITY
EUGLENOPHYTA	EUGLENOIDS			
..EUGLENOPHYCEAE				
..EUGLENALES				
...EUGLENACEAE				
LTRACHELOMONAS			0	

JAN. 14, 1976

1000 HOURS

IDENTIFICATION OF PHYTOPLANKTON

210 CELLS/ML

_ORGANISM__NAME_____	_COMMON__NAME_____	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
...OOCYSTACEAE				
....ANKISTRODESMUS		11	5	
...SCENEDESMACEAE				
LSCENEDESMUS			0	
	TOTALS	11	5	0.000=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCONODISCACEAE				
DCYCLOTELLA		59	28	
DMELOSIRA		91	44	
..PENNALES	PENNATE			
...ACHNANTHACEAE				
LACHNANTHES			0	
...CYMBELLACEAE				
LCYMBELLA			0	
...FRAGILARIACEAE				
....FRAGILARIA		16	8	
....SYNEDRA		5	3	
...NAVICULACEAE	NAVICULOID			
....GYROSIGMA		5	3	
....NAVICULA				
	TOTALS	190	91	1.864=DIVERSITY
EUGLENOPHYTA	EUGLENOIDS			
..CRYPTOPHYCEAE	CRYPTOMONADS			
..CRYPTOMONIDALES				
...CRYPTOMONODACEAE				
....CRYPTOMONAS				
	TOTALS	11	5	0.000=DIVERSITY
PYRRHOPHYTA	FIRE ALGAE			
..DINOPHYCEAE	DINOFLAGELLATES			
..PERIDINIALES				
...GLENODINIACEAE				
LGLENODINIUM			0	

06926510 OSAGE RIVER BELOW ST. THOMAS, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

FEB. 4, 1976
1030 HOURS

IDENTIFICATION OF PHYTOPLANKTON

630 CELLS/ML

_ORGANISM__NAME_____	_COMMON__NAME_____	CELLS/ML	PER_CENT	
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCIODISCACEAE				
DCYCLOTELLA		93	15	
DMELOSIRA		510	81	
..PENNALES	PENNATE			
...DIATOMACEAE				
LDIATOMA			0	
...FRAGILARIACEAE				
LFRAGILARIA			0	
LSYNEDRA			0	
...NAVICULACEAE	NAVICULOID			
LNAVICULA			0	
	TOTALS	610	96	0.619=DIVERSITY
PYRRHOPHYTA	FIRE ALGAE			
..DINOPHYCEAE	DINOFLAGELLATES			
..PERIDINIALES				
...PERIDINACEAE				
....PERIDINIUM				
	TOTALS	23	4	0.000=DIVERSITY

MAR. 19, 1976
0930 HOURS

IDENTIFICATION OF PHYTOPLANKTON

1,500 CELLS/ML

_ORGANISM__NAME_____	_COMMON__NAME_____	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
...OOCYSTACEAE				
....ANKISTRODESMUS				
	TOTALS	86	6	0.000=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCIODISCACEAE				
...CYCLOTELLA		210	14	
DMELOSIRA		730	49	
..PENNALES	PENNATE			
...ACHNANTHACEAE				
...ACHNANTHES		21	1	
...CYMBELLACEAE				
LEPITHEMIA			0	
...FRAGILARIACEAE				
...ASTERIONELLA		210	14	
...SYNEDRA		43	3	
...GOMPHONEMACEAE				
...GOMPHONEMA		21	1	
...MERIDIONACEAE				
...MERIDION		43	3	
...NAVICULACEAE	NAVICULOID			
...NAVICULA		43	3	
...NITZSCHACEAE				
....NITZSCHIA				
	TOTALS	1,400	91	2.134=DIVERSITY
PYRRHOPHYTA	FIRE ALGAE			
..DINOPHYCEAE	DINOFLAGELLATES			
..PERIDINIALES				
...GLENODINIACEAE				
....GLENODINIUM				
	TOTALS	21	1	0.000=DIVERSITY

OSAGE RIVER BASIN

06926510 OSAGE RIVER BELOW ST. THOMAS, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

APR. 8, 1976
1015 HOURS

IDENTIFICATION OF PHYTOPLANKTON

400 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHRYSTOPHYTA				
.BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCONODISCACEAE				
DCYCLOTELLA		120	29	
DMELOSIRA		230	58	
..PENNALES	PENNATE			
...ACHNANTHACEAE				
LACHNANTHES			0	
...CYMBELLACEAE				
LCYMBELLA			0	
...FRAGILARIACEAE				
...SYNEDRA		33	8	
...NAVICULACEAE	NAVICULOID			
LNAVICULA			0	
...NITZSCHACEAE				
....NITZSCHIA				
TOTALS		400	99	1.462=DIVERSITY

MAY 17, 1976
1100 HOURS

IDENTIFICATION OF PHYTOPLANKTON

430 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHRYSTOPHYTA				
.BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCONODISCACEAE				
....MELOSIRA		37	9	
..PENNALES	PENNATE			
...ACHNANTHACEAE				
....ACHNANTHES		37	9	
...FRAGILARIACEAE				
...SYNEDRA		37	9	
...GOMPHONEMACEAE				
....GOMPHONEMA		37	9	
...NAVICULACEAE	NAVICULOID			
DNAVICULA		74	17	
...NITZSCHACEAE				
DNITZSCHIA				
TOTALS		430	101	2.173=DIVERSITY

06926510 OSAGE RIVER BELOW ST. THOMAS, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

JUNE 17, 1976
1000 HOURS

IDENTIFICATION OF PHYTOPLANKTON

1,100 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
....OOCYSTACEAE				
....KIRCHNERIELLA				
	TOTALS	12	1	0.000=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
...PENNATES	PENNATE			
....ACHNANTHACEAE				
....ACHNANTHES		12	1	
...NAVICULACEAE	NAVICULOID			
....GYROSIGMA		12	1	
...NITZSCHIAEAE				
....NITZSCHIA				
	TOTALS	58	5	1.149=DIVERSITY
..CHRYSTOPHYCEAE	YELLOW-BROWN ALGAE			
...CHRYSOMONADALES				
....OCHROMONADACEAE				
....OCHROMONAS				
	TOTALS	12	1	0.000=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
...CHROOCOCCALES	COCCOID			
....CHROOCOCCACEAE				
....ANACYSTIS				
	TOTALS	980	90	0.000=DIVERSITY

06926510 OSAGE RIVER BELOW ST. THOMAS, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

JULY 19, 1976
1000 HOURS

IDENTIFICATION OF PHYTOPLANKTON

180 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..VOLVOCALES				
...CHLAMYDOMONADACEAE				
....CHLAMYDOMONAS				
	TOTALS	16	9	0.000=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CFNTRIC			
...COSCONODISCACEAE				
....CYCLOTETRA		5	3	
DMELOSIRA		43	24	
..PENNALES	PENNATE			
...ACHNANTHACEAE				
....ACHNANTHES		11	6	
...RHOICOSPHEAIA		5	3	
...DIATOMACEAE				
....DIATOMA		5	3	
...FRAGILARIACEAE				
LFRAGILARIA			0	
...NAVICULACEAE	NAVICULOID			
....NAVICULA		5	3	
...NITZSCHIAEAE				
DNITZSCHIA				
	TOTALS	32	18	2.246=DIVERSITY
		110	60	
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..OSCILLATORIALES	FILAMENTOUS			
...OSCILLATOPIACEAE				
....OSCILLATORIA				
	TOTALS	22	12	0.000=DIVERSITY
		22	12	
EUGLENOPHYTA	EUGLENOIDS			
..CRYPTOPHYCEAE	CRYPTOMONADS			
...CRYPTOMONIDALES				
...CRYPTOMONODACEAE				
....CRYPTOMONAS				
	TOTALS	11	6	0.000=DIVERSITY
		11	6	
..EUGLENOPHYCEAE				
..EUGLENALES				
...EUGLENACEAE				
....LEPOCINCLIS		5	3	
....TRACHELOMONAS				
	TOTALS	22	12	0.722=DIVERSITY
		27	15	

06926510 OSAGE RIVER BELOW ST. THOMAS, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

AUG. 19, 1976
1000 HOURS

IDENTIFICATION OF PHYTOPLANKTON

2,300 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...CHLOROCOCCACEAE				
....CHLOROCOCCUM		28	1	
...ENDOSPHAERACEAE				
....CHLOROCHYTRIUM		28	1	
..VOLVOCALES				
...CHLAMYDOMONADACEAE				
....CHLAMYDOMONAS		170	7	
...VOLVOCAEAE				
DGONIUM		560	24	
	TOTALS	790	33	1.166=DIVERSITY
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
....CYCLOTELLA		110	5	
..PENNALES	PENNATE			
...ACHNANTHACEAE				
....ACHNANTHES		28	1	
...GOMPHONEMATACEAE				
....GOMPHONEMA		28	1	
...NITZSCHIAEAE				
....NITZSCHIA		28	1	
	TOTALS	200	8	1.664=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
...OSCILLATORIALES	FILAMENTOUS			
...OSCILLATORIAEAE				
DOSCILLATORIA		1,300	55	
	TOTALS	1,300	55	0.000=DIVERSITY
PYRRHOPHYTA	FIRE ALGAE			
..DINOPHYCEAE	DINOFLAGELLATES			
...PERIDINIALES				
...PERIDINIAEAE				
....PERIDINIUM		56	2	
	TOTALS	56	2	0.000=DIVERSITY

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

SEP. 28, 1976
1010 HOURS

IDENTIFICATION OF PHYTOPLANKTON

240 CELLS/ML

_ORGANISM__NAME_____	_COMMON__NAME_____	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..VOLVOCALES				
...CHLAMYDOMONADACEAE				
....CHLAMYDOMONAS				
	TOTALS	<u>31</u> 31	<u>13</u> 13	0.000=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..PENNALES	PENNATE			
...ACHNANTHACEAE				
....COCCONEIS		31	13	
...CYMBELLACEAE				
....CYMBELLA		6	3	
...GOMPHONEMACEAE				
....GOMPHONEMA		6	3	
...NAVICULACEAE	NAVICULOID			
....GYROSIGMA		6	3	
....NAVICULA		19	8	
...NITZSCHACEAE				
....NITZSCHIA				
	TOTALS	<u>12</u> 88	<u>8</u> 38	2.299=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..CHROOCOCCALES	COCROID			
...CHROOCOCCACEAE				
D ...ANACYSTIS		38	16	
..OSCILLATORIALES	FILAMENTOUS			
...RIVULARIACEAE				
DRAPIDIOPSIS				
	TOTALS	<u>63</u> 100	<u>26</u> 42	0.954=DIVERSITY
EUGLENOPHYTA	EUGLENOIDS			
..EUGLENOPHYCEAE				
..EUGLENALES				
...EUGLENACEAE				
....TRACHELOMONAS				
	TOTALS	<u>13</u> 13	<u>5</u> 5	0.000=DIVERSITY
PYRRHOPHYTA	FIRE ALGAE			
..DINOPHYCEAE	DINOFLAGELLATES			
..PERIDINIALES				
...PERIDINIACEAE				
....PERIDINIUM				
	TOTALS	<u>6</u> 6	<u>3</u> 3	0.000=DIVERSITY

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
 L - LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER , 200-X MICROSCOPE

PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m ²)		Chlorophyll a (mg/m ²)	Chlorophyll b (mg/m ²)	Biomass Pigment ratio	Sampling method
		Dry weight	Ash weight				
Dec. 18, 1975	35	16	14	24	0.6	110	Polyethylene strip
Jan. 14, 1976	27	1.5	1.2	0.3	0.0	970	Polyethylene strip
July 19	32	9.8	7.5	0.9	0.0	2,600	Polyethylene strip
Aug. 19	31	17.0	10.2	8.3	0.8	820	Polyethylene strip

06927800 OSAGE FORK AT DRYNOB, MO

LOCATION.--Lat 37°38'00", long 92°27'12", in NW¼NE¼ sec.27, T.34 N., R.14 W., Laclede County, Hydrologic Unit 10290201, on downstream end of right bridge pier on State Highway 32, 0.1 mi (0.2 km) downstream from Walker Hollow, 0.6 mi (1.0 km) southwest of Drynob, 1.6 mi (2.6 km) upstream from Core Creek, and 12 mi (19.3 km) southeast of Lebanon.

DRAINAGE AREA.--404 mi² (1,046 km²).

PERIOD OF RECORD.--August 1962 to current year. Occasional low-flow measurements 1942, 1944-47, 1952, 1953, 1956.

REVISED RECORDS.--WSP 2119: 1963, 1965(M).

GAGE.--Water-stage recorder. Datum of gage is 927.85 ft (282.809 m) above mean sea level.

REMARKS.--Records fair. Several observations of water temperature made during the year.

AVERAGE DISCHARGE.--14 years, 294 ft³/s (8.326 m³/s), 9.88 in/yr (251 mm/yr), 213,000 acre-ft/yr (263 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,400 ft³/s (493 m³/s) Nov. 25, 1973, gage height, 16.65 ft (5.075 m); minimum, 7.2 ft (0.20 m³/s) Sept. 19, 1976, gage height, 1.86 ft (0.567 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known about 31 ft (9.45 m) in 1903, flood in September 1914 reached a stage of 29.3 ft (8.93 m), flood in May 1943 reached a stage of 28.5 ft (8.69 m), from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,450 ft³/s (126 m³/s) Apr. 21, gage height, 10.49 ft (3.197 m), no peak above base of 5,000 ft³/s (142 m³/s); minimum, 7.2 ft³/s (0.20 m³/s) Sept. 19, gage height, 1.86 ft (0.567 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1570	76	701	335	90	84	141	270	256	62	32	23
2	1250	75	422	303	88	83	128	256	239	63	30	23
3	598	77	323	273	87	82	118	240	216	388	29	22
4	430	82	275	246	83	87	110	218	188	791	29	22
5	347	80	250	223	86	93	98	204	169	643	28	22
6	293	82	354	207	85	141	92	196	153	410	34	22
7	257	98	519	199	82	152	85	186	143	296	34	20
8	232	96	394	195	80	142	79	171	132	234	31	22
9	214	95	330	195	79	151	73	160	120	191	29	21
10	196	90	292	194	81	157	67	153	110	160	27	22
11	183	82	263	183	81	168	63	150	105	136	26	20
12	174	77	241	168	77	174	58	143	97	118	25	20
13	163	73	225	151	77	172	57	144	90	103	25	19
14	148	68	212	147	75	168	58	138	85	94	25	19
15	136	66	313	140	74	163	58	141	79	87	28	19
16	126	64	506	134	76	161	57	162	74	79	30	19
17	118	63	410	128	74	156	54	175	69	72	30	18
18	110	62	334	122	75	149	52	157	67	66	30	18
19	103	60	290	118	74	145	145	142	64	62	32	15
20	98	70	265	114	73	140	2290	128	60	60	34	20
21	93	69	245	109	85	133	3310	117	58	57	32	19
22	90	67	225	105	86	122	1320	108	57	52	30	19
23	86	67	208	102	91	112	869	103	62	49	30	19
24	86	66	196	101	91	104	647	96	109	45	30	20
25	86	66	188	106	89	101	537	282	127	41	27	18
26	79	75	184	103	88	99	462	210	122	41	27	19
27	79	78	179	99	84	97	375	172	103	39	26	30
28	78	74	172	95	83	93	325	192	86	37	25	34
29	80	89	178	94	82	96	310	353	74	37	24	30
30	74	382	241	91	---	103	291	272	67	36	24	30
31	71	---	356	91	---	151	---	251	---	34	23	---
TOTAL	7648	2569	9291	4871	2376	3979	12329	5690	3381	4583	886	644
MEAN	247	85.6	300	157	81.9	128	411	184	113	148	28.6	21.5
MAX	1570	382	701	335	91	174	3310	353	256	791	34	34
MIN	71	60	172	91	73	82	52	96	57	34	23	15
CFSM	.61	.21	.74	.39	.20	.32	1.02	.46	.28	.37	.07	.05
IN.	.70	.24	.86	.45	.22	.37	1.14	.52	.31	.42	.08	.06
AC-FT	15170	5100	18430	9660	4710	7890	24450	11290	6710	9090	1760	1280
CAL YR 1975	TOTAL	158855	MEAN 435	MAX 9110	MIN 23	CFSM 1.08	IN 14.63	AC-FT 315100				
WTR YR 1976	TOTAL	58247	MEAN 159	MAX 3310	MIN 15	CFSM .39	IN 5.36	AC-FT 115500				

06928700 BEELER BRANCH NEAR CABOOL, MO

LOCATION.--Lat 37°06'06", long 92°04'17", in SE¼NE¼SE¼ sec.18, T.28 N., R.10 W., Texas County, Hydrologic Unit 10290202, at bridge on U.S. Highway 60 and 63, 2 mi (3.2 km) upstream from mouth, and 2.1 mi (3.4 km) south-east of Cabool.

DRAINAGE AREA.--7.78 mi² (20.2 km²).

PERIOD OF RECORD.--October 1967 to September 1976 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 1,258.46 ft (383.579 m) above mean sea level. Prior to July 8, 1974 datum 2.00 ft (0.610 m) higher.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--9 years, 7.13 ft³/s (0.202 m³/s), 12.45 in/yr (316 mm/yr), 5,170 acre-ft/yr (6.37 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,700 ft³/s (133 m³/s) Oct. 26, 1970, Apr. 15, 1972, estimate of peak flow by slope-area measurement; maximum gage height, 8.90 ft (2.713 m) datum then in use, Apr. 15, 1972; no flow at times in October, November 1971, August 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 285 ft³/s (8.07 m³/s) Dec. 6, gage height, 4.08 ft (1.244 m), no peak above base of 500 ft³/s (14.2 m³/s); minimum, 0.06 ft³/s (0.002 m³/s) Sept. 25, 26, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	3.1	13	16	2.0	1.9	6.6	3.3	22	1.2	.33	.15
2	2.5	2.7	8.4	12	2.0	1.9	5.6	2.7	17	1.6	.30	.13
3	2.2	6.3	6.6	9.1	1.9	1.8	4.9	2.4	11	4.7	.29	.12
4	2.0	6.9	5.4	7.9	1.8	2.7	4.4	2.3	8.3	5.7	.28	.12
5	1.7	5.3	23	6.6	1.8	2.6	4.0	2.2	7.0	3.7	.29	.12
6	1.5	4.6	109	5.6	1.6	2.3	3.4	2.0	5.9	2.9	.29	.11
7	1.4	4.1	26	4.4	1.6	2.4	3.0	1.7	5.2	2.4	.27	.10
8	1.2	3.6	16	3.8	1.7	2.5	2.7	1.5	4.6	2.1	.26	.09
9	1.1	3.3	11	3.2	1.6	2.7	2.5	1.4	4.2	1.9	.25	.09
10	1.1	3.1	8.3	3.0	1.6	2.7	2.3	1.5	3.8	1.7	.25	.09
11	1.0	2.8	6.8	2.8	1.6	2.9	2.2	1.4	3.4	1.5	.24	.08
12	.97	2.5	5.6	2.7	1.5	3.6	1.9	1.2	3.1	1.3	.23	.08
13	.93	2.3	4.9	2.6	1.4	3.9	1.9	1.3	2.8	1.1	.22	.08
14	.89	2.1	4.4	2.6	1.4	4.2	1.7	1.1	2.3	.97	.21	.09
15	.85	1.8	11	2.5	1.4	3.8	1.5	1.3	2.2	.89	.83	.09
16	.85	1.5	10	2.3	1.5	3.6	1.4	1.1	2.0	.76	.27	.09
17	.81	1.3	8.1	2.2	1.5	3.4	1.2	1.2	1.7	.70	.24	.08
18	.79	1.1	6.2	2.0	1.4	3.2	.97	1.1	1.5	.64	.23	.08
19	.74	1.0	5.5	1.9	1.4	3.0	1.8	1.1	1.4	.61	.22	.08
20	.72	2.0	4.9	1.8	1.4	3.0	4.2	1.1	1.1	.57	.22	.08
21	.70	1.1	4.4	1.7	1.7	2.8	8.8	1.1	.97	.54	.22	.08
22	.64	1.0	4.2	1.8	1.5	2.7	7.2	1.0	.95	.51	.22	.08
23	.64	.93	3.8	1.8	1.6	2.6	6.0	1.0	1.2	.51	.20	.08
24	.85	.93	3.4	1.6	1.7	3.3	6.1	15	8.5	.40	.19	.08
25	.78	1.0	3.6	2.1	1.7	5.5	6.1	12	3.0	.36	.19	.08
26	.65	1.0	3.4	1.9	1.7	6.2	4.8	1.3	2.2	.35	.19	.08
27	.64	.93	3.2	1.9	1.8	5.4	4.3	1.3	1.9	.33	.18	.08
28	.61	1.2	3.5	1.9	1.8	5.1	3.9	1.6	1.7	.31	.17	.08
29	15	2.1	75	1.9	1.9	6.9	3.6	1.6	1.5	1.2	.16	.08
30	4.6	22	45	2.1	---	8.7	3.4	8.2	1.4	.48	.15	.06
31	3.7	---	23	2.0	---	7.6	---	25	---	.43	.15	---
TOTAL	55.36	93.59	466.6	115.7	47.5	114.9	112.37	102.0	133.82	42.36	7.74	2.73
MEAN	1.79	3.12	15.1	3.73	1.64	3.71	3.75	3.29	4.46	1.37	.25	.091
MAX	15	22	109	16	2.0	8.7	8.8	25	22	5.7	.83	.15
MIN	.61	.93	3.2	1.6	1.4	1.8	.97	1.0	.95	.31	.15	.06
CFSM	.23	.40	1.94	.48	.21	.48	.48	.42	.57	.18	.03	.01
IN.	.26	.45	2.23	.55	.23	.55	.54	.49	.64	.20	.04	.01
AC-FT	110	186	926	229	94	228	223	202	265	84	15	5.4
CAL YR 1975 TOTAL	3341.53			MEAN 9.15	MAX 500	MIN .24	CFSM 1.18	IN 15.98	AC-FT 6630			
WTR YR 1976 TOTAL	1294.67			MEAN 3.54	MAX 109	MIN .06	CFSM .46	IN 6.19	AC-FT 2570			

06930000 BIG PINEY RIVER NEAR BIG PINEY, MO

LOCATION.--Lat 37°39'58", long 92°03'02", in NE¼SE¼ sec.8, T.34 N., R.10 W., Pulaski County, Hydrologic Unit 10290202, on downstream side of left pier of Ross bridge, 3 mi (4.8 km) east of Big Piney, 14.8 mi (23.8 km) upstream from Spring Creek, and at mile 22 (35.4 km).

DRAINAGE AREA.--560 mi² (1,450 km²), approximately.

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

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

GAGE.--Water-stage recorder. Datum of gage is 800.99 ft (244.142 m) above mean sea level. Prior to July 12, 1961, nonrecording gage at same site and datum.

REMARKS.--Records good. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--55 years, 542 ft³/s (15.35 m³/s), 13.14 in/yr (334 mm/yr), 393,000 acre-ft/yr (484 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,700 ft³/s (926 m³/s) Dec. 27, 1942, gage height, 20.7 ft (6.31 m) from floodmark; minimum, 69 ft³/s (1.95 m³/s) Sept. 17, 18, 1954; minimum gage height, 1.60 ft (0.488 m) July 30, 31, 1926, Sept. 5, 6, 9-11, 17, 18, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,660 ft³/s (189 m³/s) July 4, gage height, 10.51 ft (3.203 m), no peak above base 6,800 ft³/s (193 m³/s); minimum, 95 ft³/s (2.69 m³/s) Sept. 11-25, gage height, 2.00 ft (0.610 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	500	260	606	1010	247	285	298	368	1660	177	151	99
2	800	232	635	766	240	272	285	347	877	172	135	99
3	600	232	496	624	234	264	268	327	683	1350	126	99
4	500	232	430	526	227	256	252	306	489	3350	123	101
5	450	248	385	461	226	268	244	288	409	1130	122	99
6	400	302	381	421	219	272	232	276	359	705	125	97
7	345	285	1610	395	212	293	228	267	330	521	121	97
8	300	272	941	350	208	293	217	252	300	427	118	97
9	260	264	670	328	206	298	213	240	271	363	116	99
10	230	252	541	320	205	302	206	234	249	316	114	97
11	200	236	467	312	203	302	203	234	234	282	112	95
12	200	229	421	299	202	310	196	229	220	258	111	95
13	190	217	385	289	195	315	206	238	208	240	110	95
14	180	213	358	279	192	358	210	234	198	224	113	95
15	178	210	358	270	192	350	217	240	189	209	196	95
16	180	206	394	260	189	341	213	248	183	196	265	95
17	180	203	526	250	189	323	206	297	173	187	167	95
18	180	199	477	243	186	310	203	327	171	179	140	95
19	180	195	426	239	184	298	236	316	167	173	129	95
20	182	203	390	237	182	285	634	293	167	163	123	95
21	179	199	367	232	291	276	1860	272	161	159	118	95
22	179	199	345	228	652	264	1760	256	156	154	116	95
23	179	199	327	221	566	256	1100	246	159	150	116	95
24	182	199	314	219	459	244	823	236	224	145	116	95
25	189	196	307	230	398	240	663	226	257	140	112	97
26	185	206	306	238	362	256	600	221	350	137	111	99
27	185	206	300	259	337	293	520	220	270	134	112	105
28	185	203	289	273	313	285	462	225	224	132	110	105
29	196	210	304	267	298	281	422	236	203	132	106	105
30	189	236	1270	261	---	272	389	247	187	170	103	109
31	225	---	1530	254	---	281	---	336	---	180	101	---
TOTAL	8308	6743	16556	10561	7814	8943	13566	8282	9728	12255	3938	2934
MEAN	268	225	534	341	269	288	452	267	324	395	127	97.8
MAX	800	302	1610	1010	652	358	1860	368	1660	3350	265	109
MIN	178	195	289	219	182	240	196	220	156	132	101	95
CFSM	.48	.40	.95	.61	.48	.51	.81	.48	.58	.71	.23	.17
IN.	.55	.45	1.10	.70	.52	.59	.90	.55	.65	.81	.26	.19
AC-FT	16480	13370	32840	20950	15500	17740	26910	16430	19300	24310	7810	5820
CAL YR 1975	TOTAL	238967	MEAN 655	MAX	13600	MIN 149	CFSM 1.17	IN 15.87	AC-FT	474000		
WTR YR 1976	TOTAL	109628	MEAN 300	MAX	3350	MIN 95	CFSM .54	IN 7.28	AC-FT	217400		

GASCONADE RIVER BASIN

06932000 LITTLE PINEY CREEK AT NEWBURG, MO

LOCATION.--Lat 37°54'35", long 91°54'12", in SE¼ 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 (3.2 km) upstream from Mill Creek.

DRAINAGE AREA.--200 mi² (520 km²), approximately.

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

GAGE.--Water-stage recorder. Datum of gage is 693.40 ft (211.348 m) above mean sea level. Prior to Oct. 1, 1951, all gages at datum 3.0 ft (0.914 m) higher. Prior to Nov. 21, 1963, nonrecording gage at site 100 ft (30 m) downstream. Nov. 21, 1963, to May 9, 1966, nonrecording gage at present site.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--48 years, 151 ft³/s (4.276 m³/s), 10.25 in/yr (260 mm/yr), 109,400 acre-ft/yr (135 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,500 ft³/s (920 m³/s) Aug. 14, 1946, gage height, 16.2 ft (4.94 m), present datum from floodmark, from rating curve extended above 21,000 ft³/s (595 m³/s) on basis of slope-area measurements at gage heights 15.0 ft (4.57 m) and 16.2 ft (4.94 m); maximum gage height, 16.26 ft (4.956 m) June 26, 1935, from floodmark, present datum; minimum discharge, 24 ft³/s (0.68 m³/s) Aug. 22-31, 1936, Sept. 19, 20, 1954, Oct. 10-16, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 16.7 ft (5.09 m) Aug. 20, 1915, from floodmark, present datum; discharge, 30,000 ft³/s (850 m³/s), from rating curve based on discharge measurements made in 1935 and extended above 25,000 ft³/s (708 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,240 ft³/s (35.1 m³/s) Oct. 1, gage height, 4.72 ft (1.439 m), no peak above base of 4,900 ft³/s (139 m³/s); minimum discharge, 39 ft³/s (1.10 m³/s) Sept. 25; minimum gage height, 1.51 ft (0.460 m) July 26, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	629	82	192	166	86	98	79	110	152	61	64	52
2	255	82	154	143	85	94	76	148	114	65	79	52
3	172	91	122	135	83	96	76	100	101	329	76	52
4	135	91	108	116	81	126	74	90	91	196	60	52
5	116	85	97	105	89	212	74	82	91	131	60	47
6	101	84	94	103	87	159	74	80	89	110	60	46
7	91	83	87	102	80	137	73	80	83	95	60	47
8	89	82	84	93	85	125	70	76	79	93	60	49
9	83	82	84	83	86	124	70	80	77	95	64	54
10	82	83	79	84	89	113	68	80	74	82	57	54
11	83	81	76	85	85	107	70	80	74	73	54	53
12	78	80	76	89	82	114	68	76	72	69	52	52
13	81	79	74	89	84	101	70	70	71	65	59	50
14	80	76	70	90	79	95	70	70	68	64	66	48
15	83	76	199	85	80	90	70	70	67	63	66	49
16	83	75	189	86	80	98	68	61	68	64	57	52
17	82	74	146	85	80	92	67	216	66	62	50	50
18	80	74	116	82	79	92	65	150	67	61	47	50
19	81	74	97	81	76	92	88	143	67	60	47	49
20	81	83	92	82	74	97	190	130	66	58	57	50
21	84	82	82	80	278	91	411	116	67	57	57	49
22	78	77	76	79	233	85	219	104	62	57	57	47
23	79	73	75	80	186	82	200	95	70	56	57	49
24	87	71	72	82	159	82	170	89	101	54	54	52
25	89	71	71	96	140	82	135	83	74	53	50	45
26	83	75	73	95	125	84	130	82	68	54	54	49
27	81	76	72	87	112	88	120	79	65	54	50	57
28	81	73	71	88	104	82	163	81	67	61	53	50
29	87	93	97	88	100	86	110	79	65	77	53	50
30	82	224	187	88	---	88	110	81	62	87	50	49
31	82	---	190	85	---	82	---	317	---	97	50	---
TOTAL	3478	2532	3302	2932	3087	3194	3328	3198	2338	2603	1780	1505
MEAN	112	84.4	107	94.6	106	103	111	103	77.9	84.0	57.4	50.2
MAX	629	224	199	166	74	212	411	317	152	329	79	57
MIN	78	71	70	79	78	82	65	61	62	53	47	45
CFSM	.56	.42	.54	.47	.53	.52	.56	.52	.39	.42	.29	.25
IN.	.65	.47	.61	.55	.57	.59	.62	.59	.43	.48	.33	.28
AC-FT	6900	5020	6550	5820	6120	6340	6600	6340	4640	5160	3530	2990
CAL YR 1975	TOTAL	73997	MEAN 203	MAX 2580	MIN 48	CFSM 1.02	IN 13.76	AC-FT 146800				
WTR YR 1976	TOTAL	33277	MEAN 90.9	MAX 629	MIN 45	CFSM .45	IN 6.19	AC-FT 66000				

GASCONADE RIVER BASIN

165

06933500 GASCONADE RIVER AT JEROME, MO

LOCATION.--Lat 37°55'35", long 91°58'40", in SE¼ sec.13, T.37 N., R.10 W., Phelps County, Hydrologic Unit 10290203, on left bank at Jerome, 0.5 mi (0.8 km) downstream from Little Piney Creek, and at mile 107 (172.2 km).

DRAINAGE AREA.--2,840 mi² (7,360 km²), approximately.

PERIOD OF RECORD.--April 1903 to July 1906 (published as "at Arlington") and 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 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 (200.449 m) above mean sea level. Prior to July 26, 1904, nonrecording gage at site 0.8 mi (1.3 km) downstream at different datum. July 26, 1904, to July 21, 1906, nonrecording gage at site 0.5 mi (0.8 km) upstream from present site at datum about 0.85 ft (0.259 m) higher than present gage. Jan. 3, 1923, to Sept. 29, 1928, nonrecording gage at site 400 ft (122 m) downstream from present site at datum 0.14 ft (0.043 m) lower than present datum. Sept. 30, 1928, to Jan. 17, 1939, nonrecording gage at present site and datum.

REMARKS.--Records good. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--56 years (1903-05, 1922-76), 2,515 ft³/s (71.22 m³/s), 12.03 in/yr (306 mm/yr), 1,822,000 acre-ft/yr (2,250 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 101,000 ft³/s (2,860 m³/s) Apr. 15, 1945, gage height, 27.7 ft (8.44 m); minimum, 254 ft³/s (7.19 m³/s) Sept. 21, 22, 1956, gage height, 1.24 ft (0.378 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known about 29.0 ft (8.84 m) Jan. 6, 1897, discharge, 120,000 ft³/s (3,400 m³/s). A stage of 28.6 ft (8.72 m) was reached on Aug. 20, 22, 1915, discharge, 114,000 ft³/s (3,230 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,000 ft³/s (340 m³/s) Apr. 22, gage height, 9.30 ft (2.835 m), no peak above base of 16,000 ft³/s (453 m³/s); minimum, 413 ft³/s (11.7 m³/s) Sept. 22, gage height, 1.62 ft (0.494 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	2870	851	1730	3240	1050	1360	1080	2430	1910	697	562	439	
2	2540	859	2190	3690	1040	1290	1070	2210	2110	683	527	445	
3	3370	867	2540	3140	1030	1270	1060	1980	1850	1340	498	438	
4	3060	881	2360	2650	1010	1870	1030	1800	1720	4200	490	437	
5	2460	883	2000	2300	1030	2080	989	1680	1520	3450	481	441	
6	2040	888	1780	2050	1010	2040	952	1600	1380	2390	499	431	
7	1780	926	2000	1870	983	1670	916	1470	1230	2040	492	425	
8	1590	913	2770	1670	976	1540	881	1370	1150	1730	476	439	
9	1440	930	3230	1520	967	1520	846	1300	1080	1460	474	456	
10	1330	950	2850	1430	965	1500	827	1240	1010	1250	464	437	
11	1240	925	2380	1430	957	1560	814	1190	958	1100	461	434	
12	1170	904	2050	1340	945	1550	794	1140	907	988	457	427	
13	1100	876	1800	1300	944	1500	810	1180	867	914	448	420	
14	1040	852	1650	1240	931	1480	816	1150	829	857	460	423	
15	1010	836	1990	1190	934	1490	814	1170	798	792	501	422	
16	965	823	2240	1160	928	1500	829	1560	773	755	525	421	
17	938	808	2340	1120	919	1470	903	1630	743	718	582	423	
18	912	792	2330	1080	918	1440	923	1850	720	684	502	421	
19	889	774	2220	1060	898	1420	1090	1810	699	660	475	420	
20	871	864	2020	1050	885	1420	3120	1650	686	640	465	431	
21	857	785	1790	1020	1490	1370	8380	1500	670	614	466	425	
22	845	775	1630	1000	1560	1310	11700	1370	661	601	457	417	
23	834	767	1510	991	2000	1270	10600	1270	662	581	449	419	
24	837	766	1420	979	2010	1220	7130	1180	728	568	459	423	
25	835	762	1360	997	2090	1170	5060	1110	734	561	465	422	
26	819	798	1300	1000	1860	1140	4000	1060	757	545	479	429	
27	809	811	1250	990	1670	1150	3370	1060	828	537	467	447	
28	807	800	1210	1010	1540	1130	3020	1120	792	527	459	446	
29	829	856	1230	1030	1440	1120	2910	1060	758	574	450	438	
30	823	1250	1370	1040	---	1120	2670	1080	725	531	447	442	
31	830	---	2680	1050	---	1090	---	1460	---	536	442	---	
TOTAL	41740	25712	61220	46637	34980	44060	79404	44680	30255	33523	14879	12938	
MEAN	1346	857	1975	1504	1206	1421	2647	1441	1009	1081	480	431	
MAX	3370	1250	3230	3690	2090	2080	11700	2430	2110	4200	582	456	
MIN	807	762	1210	979	885	1090	794	1060	661	527	442	417	
CFSM	.47	.30	.70	.53	.42	.50	.93	.51	.36	.38	.17	.15	
IN.	.55	.34	.80	.61	.46	.58	1.04	.59	.40	.44	.19	.17	
AC-FT	82790	51000	121400	92500	69380	87390	157500	88620	60010	66490	29510	25660	
CAL YR 1975 TOTAL	1136380	MEAN	3113	MAX	25800	MIN	600	CFSM	1.10	IN	14.89	AC-FT	2254000
WTR YR 1976 TOTAL	470028	MEAN	1284	MAX	11700	MIN	417	CFSM	.45	IN	6.16	AC-FT	932300

MISSOURI RIVER MAIN STEM

06934500 MISSOURI RIVER AT HERMANN, MO

LOCATION.--Lat 38°42'36", long 91°26'21", in SW¼ 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. River mile, 97.9 (157.5 km).

DRAINAGE AREA (REVISED).--524,200 mi² (1,358,000 km²) approximately. The 3,959 mi² (10,254 km²) in Great Divide basin is not included.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1897 to current year. Prior to August 1928 monthly discharge only published in WSP 1310. Gage-height records 1873-99 collected at site 480 ft (146 m) downstream are contained in reports of Missouri River Commission; since 1900 in reports of National Weather Service.

REVISED RECORDS.--WSP 761: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 481.56 ft (146.779 m) above mean sea level. Prior to Sept. 26, 1930, nonrecording gage at site 480 ft (146 m) downstream at datum 0.07 ft (0.021 m) 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, nonrecording gage at present site and datum.

REMARKS.--Records good. Discharge measurements made weekly except during ice-flow periods. Some regulation from many upstream reservoirs.

AVERAGE DISCHARGE.--79 years, 79,620 ft³/s (2,255 m³/s), 57,680,000 acre-ft/yr (71,120 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 676,000 ft³/s (19,140 m³/s) June 6, 7, 1903, gage height, 21.5 ft (8.99 m), discharge computed by Corps of Engineers; maximum gage height, 33.70 ft (10.272 m) Apr. 25, 1973; minimum, about 4,200 ft³/s (119 m³/s) Jan. 10-12, 1940; minimum gage height observed, -0.80 ft (-0.244 m) Jan. 5, 6, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 35.5 ft (10.82 m) in June 1844, discharge, about 892,000 ft³/s (25,260 m³/s) computed by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 199,000 ft³/s (5,640 m³/s) Apr. 28, gage height, 21.14 ft (6.443 m); minimum observed, 26,600 ft³/s (753 m³/s), Jan. 12, gage height, 3.30 ft (1.006 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81800	77700	114000	52200	37700	47900	80100	166000	83900	82900	54000	44300
2	87000	79400	122000	51000	40700	47000	86200	146000	90600	74000	54700	45000
3	91300	79400	123000	49300	45200	51100	84600	126000	90700	66100	52800	44900
4	89800	82500	111000	56200	47000	86300	73800	117000	82700	63100	54800	44300
5	85500	84800	95500	62200	45900	145000	66900	109000	83500	62200	55600	44600
6	85400	80300	86800	56400	47900	154000	66000	104000	92100	63800	52300	43600
7	82200	80400	82500	51700	47700	147000	65200	101000	77100	66800	49800	42300
8	86700	80400	77400	46500	43100	129000	61400	113000	66500	68500	48700	42500
9	85300	79500	74000	47100	38100	113000	62900	128000	67200	73600	46900	44500
10	81900	78100	71700	43300	37200	96100	66200	118000	67000	76300	45300	45200
11	82600	78300	67700	30600	37200	82700	63000	102000	64200	67700	44600	43400
12	77900	78600	61100	29800	37400	81000	60600	99400	62000	63500	44100	42500
13	73000	79700	56900	34900	37600	80500	61900	89500	67200	57400	44000	42300
14	74300	81000	53200	35800	40200	79100	64400	81700	59700	57900	44600	42200
15	81300	81200	59100	34000	46000	70300	64100	84500	56800	59400	45100	42400
16	79700	80200	68400	28400	46300	70900	62200	105000	58000	59100	44700	41700
17	75500	80100	76100	28200	49000	76000	60200	119000	65600	54800	44400	41300
18	73800	77300	77600	32200	48100	78100	58000	141000	90500	52000	44500	41800
19	74100	76200	70800	34000	50900	70400	56900	128000	80800	51200	45500	42500
20	75600	75800	60200	37700	57900	65600	77000	112000	68100	49900	45100	43200
21	76500	75600	52000	42500	70800	60900	137000	102000	62800	50500	44000	44400
22	77700	77200	45200	38000	72600	59400	150000	93200	61900	51200	44400	44900
23	75900	78800	42500	32800	62800	59900	162000	84400	60400	49600	45300	44500
24	75500	83600	48200	32700	61400	60700	177000	77400	57800	51100	45000	44300
25	77200	87800	45100	35200	63700	59400	160000	68000	58100	55600	46600	43700
26	77000	92500	40400	36800	57200	58900	163000	68700	64100	56900	46200	43500
27	74900	85700	43400	37900	57300	70100	185000	84900	64100	53900	46600	44300
28	75100	82100	53800	37000	58400	74300	195000	91900	58900	54700	49600	44800
29	76900	81800	50900	36900	51500	69900	185000	90300	62100	50800	47100	46400
30	78400	110000	50200	37300	---	73000	178000	84500	75700	49000	44700	47400
31	77500	---	55200	37300	---	77400	---	82800	---	50000	43700	---
TOTAL	2467300	2446000	2135900	1245900	1436800	2494900	3033600	3218200	2100100	1843500	1464700	1312700
MEAN	79590	81530	68900	40190	49540	80480	101100	103800	70000	59470	47250	43760
MAX	91300	110000	123000	62200	72600	154000	195000	166000	92100	82900	55600	47400
MIN	73000	75600	40400	28200	37200	47000	56900	68000	56800	49000	43700	41300
AC-FT	4894000	4852000	4237000	2471000	2850000	4949000	6017000	6383000	4166000	3657000	2905000	2604000
CAL YR 1975	TOTAL	32791800	MEAN	89840	MAX	268000	MIN	39000	AC-FT	65040000		
WTR YR 1976	TOTAL	25199600	MEAN	68850	MAX	195000	MIN	28200	AC-FT	49980000		

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 current year.

WATER TEMPERATURE: October 1974 to current year.

REMARKS.--Water temperature and specific conductance samples collected daily by observer.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 750 micromhos Jan. 19; minimum daily, 318 micromhos Mar. 5.

WATER TEMPERATURE: Maximum daily, 30.0°C July 24, 26-30. Minimum daily, 0.0°C many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT												
30...	78400	750	8.4	13.0	25	9.2	87	8	2100	550	--	--
NOV												
25...	87800	775	8.1	5.5	45	10.2	81	10	6000	17000	240	71
DEC												
29...	50900	660	8.1	3.5	20	11.0	83	4	5800	750	--	--
JAN												
20...	37700	715	8.1	1.0	10	11.0	77	14	1200	1800	--	--
FEB												
18...	48100	640	8.0	8.0	75	8.2	69	19	1900	2600	220	57
MAR												
18...	78100	585	8.1	6.5	70	6.0	49	19	1500	1400	--	--
APR												
07...	65200	640	8.1	13.5	20	8.0	76	16	450	550	--	--
MAY												
14...	81700	570	7.9	17.5	75	8.0	83	15	1400	400	210	56
JUN												
03...	90700	525	8.2	21.5	200	6.6	74	21	1600	1100	--	--
JUL												
08...	68500	515	8.1	26.5	70	6.8	84	31	1000	400	--	--
AUG												
26...	46200	675	8.0	26.5	3	8.0	99	9	500	450	240	85
SEP												
09...	44500	745	8.5	23.5	20	7.6	88	13	820	300	--	--

06934500 MISSOURI RIVER AT HERMANN, MO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAL- CIUM (CA) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	TOTAL SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	TOTAL PO- TAS- SIUM (K) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)
OCT 30...	61	--	22	--	63	--	4.7	--	198	0	190	15
NOV 25...	54	58	21	22	58	62	4.8	4.6	200	0	180	15
DEC 29...	58	--	19	--	41	--	4.3	--	202	0	120	18
JAN 20...	69	--	23	--	58	--	4.5	--	244	0	150	25
FEB 18...	56	58	19	19	45	49	5.5	5.3	202	0	130	20
MAR 18...	57	--	19	--	35	--	5.5	--	192	0	100	16
APR 07...	56	--	19	--	43	--	5.0	--	198	0	130	19
MAY 14...	54	56	19	17	35	38	5.8	5.0	188	0	110	16
JUN 03...	56	--	20	--	33	--	7.0	--	188	0	100	15
JUL 08...	55	--	18	--	44	--	5.8	--	190	0	130	15
AUG 26...	49	58	19	23	55	60	4.6	4.5	188	0	170	16
SEP 09...	54	--	20	--	58	--	4.5	--	194	6	180	16

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
OCT 30...	--	--	463	519	.30	.01	.38	.15	--	287	60800	44
NOV 25...	.5	8.1	453	552	.38	.05	.50	.21	18	371	87900	43
DEC 29...	--	--	392	458	.66	.19	.60	.16	--	214	29400	33
JAN 20...	--	--	468	518	.67	.31	.71	.15	--	1760	179000	9
FEB 18...	.4	11	414	574	1.0	.08	.81	.26	10	546	70900	53
MAR 18...	--	--	346	392	1.0	.08	1.1	.27	--	765	161000	38
APR 07...	--	--	428	542	.80	.02	.73	.17	--	270	47500	62
MAY 14...	.4	9.0	374	572	.87	.02	.62	.23	7.3	425	93800	66
JUN 03...	--	--	334	834	1.2	.03	1.8	.50	--	1010	247000	75
JUL 08...	--	--	394	646	.60	.01	.86	.02	--	469	86700	62
AUG 26...	.5	5.3	432	458	.04	.02	.59	.16	2.5	210	26200	40
SEP 09...	--	--	485	506	.21	.00	.53	.14	--	275	33000	31

06934500 MISSOURI RIVER AT HERMANN, MO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL ARSENIC (AS) (UG/L)	SUS- PENDED ARSENIC (AS) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)
NOV 25...	4	2	0	0	<10	0	0	0	50	7	2700
FEB 18...	--	--	3	0	10	0	5	0	34	7	6100
MAY 14...	4	2	1	0	10	0	0	0	40	4	5900
AUG 26...	4	2	0	2	<10	1	0	0	40	9	2100

DATE	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
NOV 25...	210	24	5	180	40	.0	.0	--	2	30	7
FEB 18...	10	21	9	160	0	.2	.0	2	1	350	0
MAY 14...	40	32	0	170	10	--	.0	1	0	70	0
AUG 26...	950	4	3	150	0	.1	.1	--	1	60	10

DATE	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MA- TERIAL (UG/KG)	TOTAL CHLOR- DANE (UG/L)	CHLOR- DANE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DDD (UG/L)	DDD IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MA- TERIAL (UG/KG)	TOTAL DI- AZINON (UG/L)	DI- AZINON IN BOTTOM MA- TERIAL (UG/KG)
NOV 25...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 18...	ND	--	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 26...	ND	--	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	TOTAL DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM MA- TERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MA- TERIAL (UG/KG)	TOTAL ETHION (UG/L)	ETHION IN BOTTOM MA- TERIAL (UG/KG)	TOTAL HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM MA- TERIAL (UG/KG)	TOTAL HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL LINDANE (UG/L)
NOV 25...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 18...	ND	--	ND	--	ND	--	ND	--	ND	--	ND
MAY 14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 26...	ND	--	ND	--	ND	--	ND	--	ND	--	ND

MISSOURI RIVER MAIN STEM

06934500 MISSOURI RIVER AT HERMANN, MO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	LINDANE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL MALA- THION (UG/L)	MALA- THION IN BOTTOM MA- TERIAL (UG/KG)	TOTAL METH- OXY- CHLOR (UG/L)	METHOX- YCHLOR IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL METHYL PARA- THION (UG/L)	METHYL PARA- THION IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL METHYL TRI- THION (UG/L)	METHYL TRI- THION IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL PARA- THION (UG/L)	PARA- THION IN BOTTOM MA- TERIAL (UG/KG)
NOV 25...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 18...	--	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 26...	--	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	TOTAL TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL TRI- THION (UG/L)	TRI- THION IN BOTTOM MA- TERIAL (UG/KG)	TOTAL 2,4-D (UG/L)	2,4-D IN BOTTOM MA- TERIAL (UG/KG)	TOTAL 2,4,5-T (UG/L)	2,4,5-T IN BOTTOM MA- TERIAL (UG/KG)	TOTAL SILVEX (UG/L)	SILVEX IN BOTTOM MA- TERIAL (UG/KG)	TOTAL ATRA- ZINE (UG/L)
NOV 25...	ND	ND	--	ND	--	--	--	--	--	--	ND
FEB 18...	ND	--	ND	--	ND	--	ND	--	ND	--	ND
MAY 14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.2
AUG 26...	ND	--	ND	--	ND	--	ND	--	ND	--	ND

06934500 MISSOURI RIVER AT HERMANN, MO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	645	690	518	---	570	---	505	385	443	515	605	675
2	655	660	630	---	590	---	525	425	470	520	610	665
3	605	670	540	---	590	490	610	430	430	530	600	635
4	590	675	570	---	620	480	625	455	420	495	595	630
5	600	650	610	---	620	318	620	480	455	490	590	660
6	620	675	600	490	620	510	640	495	420	500	550	650
7	660	680	610	445	625	518	600	495	445	510	585	660
8	620	700	640	590	620	508	635	485	480	500	580	665
9	605	700	640	500	675	510	650	490	490	450	585	655
10	645	710	625	720	675	504	600	500	480	445	600	625
11	640	715	615	518	660	500	650	475	490	485	605	625
12	645	725	625	625	640	515	650	---	525	495	610	675
13	685	730	---	680	630	515	655	475	480	550	610	670
14	695	710	---	720	635	505	610	570	510	545	---	665
15	635	710	---	505	645	500	580	475	525	535	---	670
16	615	700	---	700	635	500	630	480	515	530	---	680
17	660	700	---	710	640	510	640	485	550	590	---	---
18	690	700	---	740	640	510	675	480	540	585	---	675
19	710	680	---	750	660	538	670	420	525	590	---	650
20	715	675	---	675	665	570	560	425	420	595	---	665
21	715	705	---	675	540	615	560	445	425	590	---	650
22	690	705	---	660	---	620	410	465	448	570	---	650
23	690	715	---	675	---	625	410	520	500	575	---	670
24	690	715	---	425	---	615	400	520	525	590	---	---
25	695	730	---	740	---	585	400	595	520	570	---	680
26	690	670	---	670	540	605	405	625	540	555	675	680
27	695	660	---	520	---	530	395	675	495	595	635	670
28	705	630	---	735	---	540	420	445	520	555	600	665
29	715	675	660	500	---	570	380	445	490	565	635	680
30	715	640	---	585	---	595	378	442	515	580	645	675
31	725	---	---	585	---	500	---	445	---	600	670	---
MONTH	666	690	---	621	---	531	550	485	486	542	---	661

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.0	14.5	4.5	4.5	0.0	---	11.0	15.0	21.0	25.0	29.5	25.0
2	17.0	15.0	5.0	2.5	0.0	---	10.5	14.5	21.5	25.0	27.5	25.5
3	16.0	15.0	5.0	3.0	0.0	10.0	11.5	14.0	22.0	25.5	27.5	26.0
4	16.0	15.0	6.0	2.0	1.0	10.0	12.0	15.0	22.0	25.0	27.5	26.0
5	16.0	15.0	5.5	1.5	0.0	9.5	13.0	15.5	22.0	25.0	27.5	25.5
6	16.0	15.0	6.0	2.0	0.0	9.5	13.5	15.5	22.0	25.0	26.5	25.0
7	16.0	15.0	5.0	1.5	1.0	9.0	14.0	15.0	22.0	25.0	25.5	25.0
8	18.0	15.0	5.0	0.0	0.0	9.0	13.0	15.0	23.0	25.5	26.0	25.0
9	20.0	15.0	5.0	0.0	3.0	8.5	13.5	15.0	24.0	25.5	25.0	24.0
10	18.0	14.5	5.0	0.0	4.5	8.5	14.0	16.0	24.5	25.5	25.0	22.5
11	18.0	14.0	5.0	0.0	4.5	8.0	14.0	17.0	25.0	26.0	26.5	23.0
12	19.0	13.5	5.5	0.0	5.0	7.5	14.0	---	25.0	27.0	27.5	23.0
13	19.0	11.5	5.0	0.0	5.5	7.5	14.0	17.0	25.0	28.0	---	23.0
14	19.0	10.0	5.0	0.0	7.0	6.5	15.0	17.5	25.0	29.0	---	25.0
15	20.0	10.5	5.5	0.0	7.0	6.5	15.5	17.0	25.0	29.0	---	25.0
16	20.0	10.5	5.0	0.0	7.5	6.5	15.5	17.5	25.0	28.0	---	24.5
17	19.0	10.5	4.5	0.0	7.5	6.5	16.5	17.5	25.0	28.5	---	---
18	17.0	10.0	4.5	0.0	7.5	6.5	16.5	17.5	25.0	28.0	---	25.5
19	16.0	10.0	4.0	0.0	7.0	7.5	17.0	18.0	25.5	28.0	---	24.5
20	15.0	10.0	4.5	0.0	7.0	9.5	17.0	19.5	24.0	28.0	---	24.5
21	15.0	9.0	4.0	0.0	6.5	9.5	17.0	19.5	23.0	29.0	---	23.5
22	16.0	7.5	3.5	0.0	---	10.0	17.5	20.0	24.0	29.0	---	22.5
23	16.0	6.5	4.0	0.0	---	9.5	17.5	20.0	24.0	29.0	---	21.5
24	17.0	6.5	3.5	1.0	---	10.0	16.0	20.0	24.0	30.0	---	---
25	15.0	5.5	4.0	0.0	---	10.0	15.5	20.0	24.5	29.0	---	20.5
26	15.0	5.5	3.5	0.0	6.5	12.0	15.0	20.5	25.0	30.0	26.5	20.5
27	15.0	5.0	4.0	0.0	---	12.0	15.0	20.5	25.0	30.0	27.0	20.0
28	15.0	3.0	4.0	0.0	---	12.5	15.0	20.5	25.0	30.0	27.5	20.5
29	15.0	5.0	4.0	1.0	---	13.0	15.0	20.5	25.0	30.0	27.0	20.0
30	13.5	6.0	3.5	0.0	---	11.5	14.5	21.0	25.0	30.0	25.0	20.0
31	14.5	---	3.5	0.0	---	11.5	---	20.5	---	29.0	25.5	---
MONTH	17.0	10.5	4.5	0.5	---	9.0	14.5	17.5	24.0	27.5	---	23.5

MISSOURI RIVER MAIN STEM

06934500 MISSOURI RIVER AT HERMANN, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

OCT. 30, 1975
1100 HOURS

IDENTIFICATION OF PHYTOPLANKTON

1,700 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
..SCENEDESMACEAE				
LACTINASTRUM			0	
LSCENEDESMUS			0	
..VOLVOCALES				
..CHLAMYDOMONADACEAE				
....CHLAMYDOMONAS				
	TOTALS	<u>200</u> 200	<u>12</u> 12	0.000=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
..COSCINODISCACEAE				
DCYCLOTELLA		1,200	71	
LMELOSIRA			0	
..PENNALES	PENNATE			
..NAVICULACEAE	NAVICULOID			
..NAVICULA		100	6	
..NITZSCHIACEAE				
....NITZSCHIA				
	TOTALS	<u>200</u> 1,500	<u>12</u> 89	0.906=DIVERSITY

06934500 MISSOURI RIVER AT HERMANN, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

NOV. 25, 1975
1100 HOURS

IDENTIFICATION OF PHYTOPLANKTON

3,400 CELLS/ML

__ORGANISM__NAME__	__COMMON__NAME__	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
..COELASTRACEAE				
LCOELASTRUM			0	
..MICRACTINIACEAE				
LMICRACTINIUM			0	
..OOCYSTACEAE				
....ANKISTRODESMUS		56	2	
....SCENEDESMACEAE				
....SCENEDESMUS				
	TOTALS	<u>330</u> 390	<u>10</u> 12	0.592=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CFNTRIC			
..COSCINODISACEAE				
DCYCLOTELLA		1,200	34	
....MELOSIRA		110	3	
..PENNALES	PENNATE			
..CYMBELLACEAE				
LAMPHORA			0	
..FRAGILARIACEAE				
....ASTERIONELLA		280	8	
....FRAGILARIA		56	2	
..GOMPHONEMACEAE				
....GOMPHONEMA		56	2	
..NAVICULACEAE	NAVICULOID			
....NAVICULA		280	8	
..NITZSCHACEAE				
....NITZSCHIA		330	10	
..SURIRELLACEAE				
LSURIRELLA			0	
	TOTALS	<u>2,300</u>	<u>67</u>	2.114=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..CHROOCOCCALES	COCCOID			
..CHROOCOCCACEAE				
....ANACYSTIS		450	13	
..OSCILLATORIALES	FILAMENTOUS			
..OSCILLATORIACEAE				
....OSCILLATORIA		<u>280</u> 720	<u>8</u> 21	0.961=DIVERSITY

MISSOURI RIVER MAIN STEM

06934500 MISSOURI RIVER AT HERMANN, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DEC. 29, 1975
1200 HOURS

IDENTIFICATION OF PHYTOPLANKTON

490 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
...SCENEDESMACEAE				
LSCENEDESMUS			0	
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
DCYCLOTELLA		160	33	
...MELOSIRA		65	13	
..PENNACEAE	PENNATE			
...FRAGILARIACEAE				
DASTERIONELLA		130	27	
...GOMPHONEMACEAE				
LGOMPHONEMA			0	
...NAVICULACEAE	NAVICULOID			
...NAVICULA		33	7	
...NITZSCHACEAE				
....NITZSCHIA				
	TOTALS	65 460	13 93	2.121=DIVERSITY
EUGLENOPHYTA	EUGLENOIDS			
..EUGLENOPHYCEAE				
..EUGLENALES				
...EUGLENACEAE				
....PHACUS				
	TOTALS	33 33	7 7	0.000=DIVERSITY

06934500 MISSOURI RIVER AT HERMANN, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

JAN. 20. 1976
1030 HOURS

IDENTIFICATION OF PHYTOPLANKTON

1,300 CELLS/ML

_ORGANISM__NAME_____	_COMMON__NAME_____	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
.CHLOROPHYCEAE				
..CHLOROCOCCALES				
...OOCYSTACEAE				
....ANKISTRODESMUS		83	6	
....SCENEDESMACEAE				
....ACTINASTRUM		67	5	
....SCENEDESMUS		<u>50</u>	<u>4</u>	
	TOTALS	200	15	1.555=DIVERSITY
CHRYSTOPHYTA				
.BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
....CYCLOTELLA		67	5	
....MELOSIRA		67	5	
..PENNALES	PENNATE			
...DIATOMACEAE				
....DIATOMA		33	3	
...FRAGILARIACEAE				
DASTERIONELLA		220	16	
...GOMPHONEMACEAE				
LGOMPHONEMA			0	
...NAVICULACEAE	NAVICULOID			
....NAVICULA		17	1	
...NITZSCHACEAE				
....NITZSCHIA		17	1	
...SURIRELLACEAE				
LCYMATOPLEURA			<u>0</u>	
	TOTALS	420	31	2.000=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
.MYXOPHYCEAE				
..OSCILLATORIALES	FILAMENTOUS			
...OSCILLATORIAEAE				
DOSCILLATORIA		<u>700</u>	<u>53</u>	
	TOTALS	700	53	0.000=DIVERSITY

MISSOURI RIVER MAIN STEM

06934500 MISSOURI RIVER AT HERMANN, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

FEB. 18, 1976
1100 HOURS

IDENTIFICATION OF PHYTOPLANKTON

2,100 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...MICRACTINIACEAE				
....MICRACTINIUM		76	4	
...OOCYSTACEAE				
....ANKISTRODESMUS		210	10	
...SCENEDESMACEAE				
....ACTINASTRUM		76	4	
....SCENEDESMUS		<u>150</u>	<u>7</u>	
TOTALS		520	25	1.864=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
DCYCLOTELLA		380	18	
....MELOSIRA		57	3	
..PENNALES	PENNATE			
...CYMBELLACEAE				
....CYMBELLA		19	1	
...DIATOMACEAE				
....DIATOMA		19	1	
...FRAGILARIACEAE				
....ASTERIONELLA		130	6	
....FRAGILARIA		110	5	
...GOMPHONEMACEAE				
....GOMPHONEMA		19	1	
...NAVICULACEAE	NAVICULOID			
....CALONEIS		19	1	
....NAVICULA		96	5	
....PINNULARIA		38	2	
...NITZSCHACEAE				
....NITZSCHIA		190	9	
...SURIRELLACEAE				
....SURIRELLA		<u>170</u>	<u>8</u>	
TOTALS		1,300	60	2.988=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
...OSCILLATORIALES	FILAMENTOUS			
....OSCILLATORIA				
TOTALS		<u>290</u>	<u>14</u>	0.000=DIVERSITY
EUGLENOPHYTA	EUGLENOIDS			
..EUGLENOPHYCEAE				
...EUGLENALES				
....EUGLENACEAE				
....EUGLENA		<u>57</u>	<u>3</u>	
TOTALS		57	3	0.000=DIVERSITY

06934500 MISSOURI RIVER AT HERMANN, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

MAR. 18. 1976
1100 HOURS

IDENTIFICATION OF PHYTOPLANKTON

310 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT	
CHRYSTOPHYTA				
.BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CFNTRIC			
...COSCONODISCACEAE				
....CYCLOTELLA		26	8	
DMELOSIRA		130	42	
..PENNALES	PENNATE			
...DIATOMACEAE				
....DIATOMA		13	4	
...FRAGILARIACEAE				
....ASTERIONELLA		26	8	
....SYNEDRA		26	8	
...NAVICULACEAE	NAVICULOID			
....NAVICULA		13	4	
...NITZSCHACEAE				
DNITZSCHIA		65	21	
...SURIPELLACEAE				
....CYMATOPLEURA				
	TOTALS	<u>13</u> 310	<u>4</u> 99	2.467=DIVERSITY

APR. 7. 1976
1030 HOURS

IDENTIFICATION OF PHYTOPLANKTON

5,100 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
.CHLOROPHYCEAE				
..CHLOROCOCCALES				
...OOCYSTACEAE				
....ANKISTRODESMUS		250	5	
...SCENEDESMACEAE				
....SCENEDESMUS				
	TOTALS	<u>330</u> 580	<u>7</u> 12	0.985=DIVERSITY
CHRYSTOPHYTA				
.BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CFNTRIC			
...COSCONODISCACEAE				
....CYCLOTELLA		420	8	
..PENNALES	PENNATE			
...ACHNANTHACEAE				
....ACHNANTHES		83	2	
...CYMBELLACEAE				
....CYMBELLA		170	3	
....RHOPALODIA		83	2	
...FRAGILARIACEAE				
....ASTERIONELLA		420	8	
DFRAGILARIA		1,800	34	
...NAVICULACEAE	NAVICULOID			
....NAVICULA		250	5	
...NITZSCHACEAE				
DNITZSCHIA		750	15	
...SURIPELLACEAE				
....CYMATOPLEURA		83	2	
....SURIPELLA		83	2	
...TABELLARIACEAE				
LTABELLARIA				
	TOTALS	<u>4,100</u>	<u>81</u>	2.538=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
.MYXOPHYCEAE				
..CHROOCOCCALES	COCCOID			
...CHROOCOCCACEAE				
....ANACYSTIS				
	TOTALS	<u>420</u> 420	<u>8</u> 8	0.000=DIVERSITY

MISSOURI RIVER MAIN STEM

06934500 MISSOURI RIVER AT HERMANN, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

MAY 14, 1976
1130 HOURS

IDENTIFICATION OF PHYTOPLANKTON

5,600 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...OOCYSTACEAE				
DDICTYOSPHAERIUM		1,300	22	
...OOCYSTIS		420	7	
...SCENEDESMACEAE				
DSCENEDESMUS		1,700	30	
...VOLVOCALES				
...CHLAMYDOMONADACEAE				
....CHLAMYDOMONAS				
	TOTALS	<u>100</u> 3,400	<u>2</u> 61	1.559=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
DCYCLOTELLA		1,100	20	
..PENNALES	PENNATE			
...GOMPHONEMATACEAE				
...GOMPHONEMA		310	6	
...NAVICULACEAE	NAVICULOID			
...NAVICULA		210	4	
...NITZSCHACEAE				
...NITZSCHIA		310	6	
...SURIRELLACEAE				
....SURIRELLA				
	TOTALS	<u>100</u> 2,100	<u>2</u> 38	1.844=DIVERSITY
EUGLENOPHYTA	EUGLENOIDS			
..EUGLENOPHYCEAE				
...EUGLENALES				
...EUGLENACEAE				
....TRACHELOMONAS				
	TOTALS	<u>100</u> 100	<u>2</u> 2	0.000=DIVERSITY

06934500 MISSOURI RIVER AT HERMANN, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

JUNE 3, 1976
1100 HOURS

IDENTIFICATION OF PHYTOPLANKTON

4,900 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...HYDRODICTYACEAE				
....PEDIASTRUM		380	8	
...OOCYSTACEAE				
....ANKISTRODESMUS		77	2	
...OOCYSTIS		150	3	
...SCENEDESMACEAE				
....SCENEDESMUS				
	TOTALS	<u>580</u> 1,200	<u>12</u> 25	1.670=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
....CYCLOTELLA		380	8	
....MELOSIRA		540	11	
..PENNALES	PENNATE			
...FRAGILARIACEAE				
....ASTERIONELLA		38	1	
D ...FRAGILARIA		1,000	21	
...GOMPHONEMACEAE				
....GOMPHONEMA		38	1	
...NAVICULACEAE	NAVICULOID			
....NAVICULA		150	3	
...NITZSCHIA				
....NITZSCHIA		350	7	
...SURIPELLACEAE				
....SURIPELLA				
	TOTALS	<u>77</u> 2,600	<u>2</u> 54	2.360=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
...OSCILLATORIALES	FILAMENTOUS			
...OSCILLATORIA				
D ...OSCILLATORIA				
	TOTALS	<u>1,100</u> 1,100	<u>22</u> 22	0.000=DIVERSITY
EUGLENOPHYTA	EUGLENOIDS			
..EUGLENOPHYCEAE				
...EUGLENALES				
...EUGLENACEAE				
....TRACHELOMONAS				
	TOTALS	<u>38</u> 38	<u>1</u> 1	0.000=DIVERSITY

MISSOURI RIVER MAIN STEM

06934500 MISSOURI RIVER AT HERMANN, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

JULY 8, 1976
1200 HOURS

IDENTIFICATION OF PHYTOPLANKTON

6,500 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...SCENEDESMACEAE				
....ACTINASTRUM		730	11	
....SCENEDESMUS		<u>910</u>	<u>14</u>	
	TOTALS	1,600	25	0.991=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
D ...CYCLOTELLA		1,700	26	
D ...MELOSIRA		1,600	25	
..PENNALES	PENNATE			
...FRAGILARIACEAE				
L ...ASTERIONELLA			0	
...NAVICULACEAE	NAVICULOID			
...NAVICULA		270	4	
...NITZSCHACEAE				
...NITZSCHIA		180	3	
...SURIRELLACEAE				
L ...SURIRELLA			<u>0</u>	
	TOTALS	3,800	58	1.523=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
...OSCILLATORIALES	FILAMENTOUS			
...NOSTOCACEAE				
D ...ANABAENOPSIS		<u>1,100</u>	<u>17</u>	
	TOTALS	1,100	17	0.000=DIVERSITY

06934500 MISSOURI RIVER AT HERMANN, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

AUG. 26, 1976
1130 HOURS

IDENTIFICATION OF PHYTOPLANKTON

47,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...OOCYSTACEAE				
....OOCYSTIS		960	2	
LTETRAEDRON			0	
....TREUBARIA		320	1	
...SCENEDESMACEAE				
....ACTINASTRUM		640	1	
....CRUCIGENIA		1,900	4	
...SCENEDESMUS		4,700	10	
..VOLVOCALES				
...CHLAMYDOMONADACEAE				
LCHLAMYDOMONAS			0	
	TOTALS	8,800	18	1.974=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
...CENTRALES	CENTRIC			
...COSCINODISCACEAE				
DCYCLOTELLA		16,000	34	
....MELOSIRA		640	1	
..PENNALES	PENNATE			
...NITZSCHIACEAE				
....NITZSCHIA				
	TOTALS	16,640	35	0.676=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
...CHROOCOCCALES	COCCOID			
...CHROOCOCCACEAE				
....AGMENELLUM		2,600	6	
...OSCILLATORIALES	FILAMENTOUS			
...NOSTOCACEAE				
....ANABAENA		1,300	3	
...OSCILLATORIAEAE				
DOSCILLATORIA				
	TOTALS	16,000	34	0.896=DIVERSITY
		20,000	43	

MISSOURI RIVER MAIN STEM

06934500 MISSOURI RIVER AT HERMANN, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

SEP. 9, 1976
1020 HOURS

IDENTIFICATION OF PHYTOPLANKTON

13,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...HYDRODICTYACEAE				
...PEDIASTRUM		1,400	10	
...OOCYSTACEAE				
...KIRCHNERIELLA		580	4	
...SCENEDESMACEAE				
...ACTINASTRUM		1,600	12	
...CRUCIGENIA		390	3	
D ...SCENEDESMUS		4,700	35	
...VOLVOCALES				
...CHLAMYDOMONADACEAE				
...CARTERIA				
	TOTALS	97 8,700	1 65	1.876=DIVERSITY
CHRYSTOPHYTA				
..RACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCEAE				
D ...CYCLOTELLA		2,500	19	
...MELOSIRA		480	4	
..PENNALES	PENNATE			
...ACHNANTHACEAE				
L ...RHOICOSPHEA			0	
...FRAGILARIACEAE				
L ...FRAGILARIA			0	
...NITZSCHIA				
	TOTALS	680 3,700	5 28	1.209=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
...CHROOCOCCALES	COCCOID			
...CHROOCOCCACEAE				
...ANACYSTIS		190	1	
...OSCILLATORIALES	FILAMENTOUS			
...NOSTOCACEAE				
...ANABAENA				
	TOTALS	390 580	3 4	0.918=DIVERSITY
EUGLENOPHYTA	EUGLENOIDS			
..CRYPTOPHYCEAE	CRYPTOMONADS			
...CRYPTOMONADALES				
...CRYPTOMONADACEAE				
...CRYPTOMONAS				
	TOTALS	97 97	1 1	0.000=DIVERSITY
..EUGLENOPHYCEAE				
..EUGLENALES				
...EUGLENACEAE				
L ...EUGLENA			0	
...TRACHELONAS				
	TOTALS	97 150	1 1	0.918=DIVERSITY
PYRRHOPHYTA	FIRE ALGAE			
..DINOPHYCEAE	DINOFLAGELLATES			
...PERIDINIALES				
...GLENODINIACEAE				
...GLENODINIUM				
	TOTALS	97 97	1 1	0.000=DIVERSITY

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
 L - LESS THAN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE

06934500 MISSOURI RIVER AT HERMANN, MO--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m ²)		Chlorophyll	Chlorophyll	Biomass Pigment ratio	Sampling method
		Dry weight	Ash weight	a (mg/m ²)	b (mg/m ²)		
Nov. 25, 1975	26	2.3	1.3	7.2	0.2	140	Polyethylene strip
Mar. 18, 1976	28	1.1	0.9	0.0	0.0	0.0	Polyethylene strip
May 14	37	3.2	3.0	0.0	0.0	0.0	Polyethylene strip
Aug. 26	49	61	49	62	0.8	200	Polyethylene strip

MISSISSIPPI RIVER MAIN STEM

07010000 MISSISSIPPI RIVER AT ST. LOUIS, MO

LOCATION.--Lat 38°37'44", long 90°10'47", Hydrologic Unit 07140101, on downstream side of west pier of Eads Bridge at St. Louis, 15 mi (24.1 km) downstream from Missouri River, 19.2 mi (30.9 km) upstream from Meramec River, and at mile 180.0 (289.6 km) above the Ohio River.

DRAINAGE AREA (REVISED).--697,000 mi² (1,805,000 km²), approximately. The 3,959 mi² (10,254 km²) in Great Divide basin is not included.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Discharge: January 1861 to current year. Monthly discharge only for some periods, published in WSP 1311.

Gage heights: March 1933 to current year in reports of Geological Survey. Since January 1861 in reports of Mississippi River Commission. Since January 1890 in reports of National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 379.94 ft (115.806 m) above mean sea level. Prior to May 5, 1934, nonrecording gage 0.4 mi (0.6 km) downstream and May 5, 1934, to Dec. 9, 1952, water-stage recorder at site 20 ft (6 m) downstream at present datum.

REMARKS.--Records excellent. 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.

AVERAGE DISCHARGE.--115 years, 176,800 ft³/s (5,007 m³/s), 128,100,000 acre-ft/yr (158 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,019,000 ft³/s (28,900 m³/s) June 10, 11, 1903, gage height, 38.00 ft (11.582 m); maximum gage height, 43.23 ft (13.176 m) Apr. 28, 1973; minimum daily discharge, 18,000 ft³/s (510 m³/s) Dec. 21-23, 1863; minimum gage height, -6.11 ft (-1.862 m) Jan. 16, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 27, 1844, reached a stage of 41.32 ft (12.594 m), from flood-marks, discharge, 1,300,000 ft³/s (36,800 m³/s), computed by Corps of Engineers. Flood in Apr. 1785 may have reached a stage of 42.0 ft (12.80 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 448,000 ft³/s (12,700 m³/s) Apr. 30, gage height, 27.29 ft (8.318 m); minimum discharge, 58,700 ft³/s (1,660 m³/s) Sept. 13; minimum gage height, -0.54 ft (-0.165 m) Sept. 8.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.57	7.13	11.48	6.00	2.19	12.30	15.14	27.21	11.71	7.23	6.41	.05
2	7.27	6.07	11.80	5.87	2.17	11.61	15.30	26.76	12.43	10.11	4.96	.85
3	7.62	5.33	12.99	5.79	2.27	12.25	15.53	25.78	12.28	8.23	3.24	.98
4	7.73	6.00	13.58	4.60	2.26	12.93	16.01	24.58	11.92	7.62	3.94	.77
5	7.45	5.73	11.97	3.06	3.52	15.15	15.76	23.57	11.47	7.25	2.17	.71
6	5.80	7.27	10.58	4.09	3.84	22.31	15.37	22.60	11.12	7.11	2.57	.24
7	6.37	6.17	9.10	4.76	3.19	23.02	15.44	21.66	10.98	6.16	3.47	-.34
8	6.36	6.34	8.98	3.57	3.19	22.88	15.58	21.05	9.43	6.72	4.10	-.44
9	6.07	5.91	9.45	2.84	4.02	22.19	15.53	20.95	8.37	6.27	2.15	-.42
10	6.17	6.56	8.79	3.58	3.46	20.68	15.64	21.53	8.72	6.60	1.87	-.07
11	5.20	5.17	8.64	3.48	5.18	18.13	16.07	19.53	8.05	6.87	1.57	.29
12	5.45	5.04	8.65	2.24	4.51	17.01	16.16	17.68	7.71	5.77	.57	.11
13	5.14	6.03	8.00	1.10	4.67	16.56	16.15	17.07	7.09	4.87	1.46	.01
14	4.94	6.62	7.44	1.63	5.37	16.34	16.30	16.39	6.50	4.82	1.93	.15
15	5.75	7.30	8.29	1.19	5.33	16.25	16.68	14.91	5.29	3.97	4.46	.23
16	6.28	7.43	9.37	1.81	5.69	16.35	16.94	14.26	5.65	4.17	4.61	.04
17	6.87	7.49	10.37	1.36	8.41	16.59	16.87	15.57	8.14	3.62	2.90	-.16
18	6.98	8.65	10.88	.70	9.35	17.28	16.82	16.86	8.64	3.68	2.29	-.28
19	6.13	8.76	9.11	.83	9.27	17.83	16.49	18.60	9.98	2.88	1.57	-.17
20	5.38	8.29	7.77	1.05	8.71	17.62	16.30	18.05	10.36	3.04	2.04	-.04
21	4.80	8.61	5.93	1.39	8.73	17.40	16.29	16.86	7.97	3.15	2.14	.16
22	4.94	8.61	5.45	2.08	11.81	16.82	19.40	15.54	7.52	3.33	1.39	.26
23	4.79	8.42	5.81	2.46	13.25	15.76	20.52	14.94	7.31	4.67	1.23	.45
24	4.93	7.68	5.30	2.13	10.90	14.08	21.07	13.80	6.75	6.10	1.12	.42
25	5.97	8.08	4.73	1.90	10.36	13.50	22.27	12.64	7.65	3.25	1.21	.63
26	5.57	8.43	5.06	1.97	10.44	13.14	22.24	11.42	6.36	3.04	1.38	1.15
27	5.17	9.08	4.69	1.95	10.38	13.32	23.49	10.52	7.10	4.08	1.46	1.64
28	5.14	8.28	5.31	1.90	10.65	14.21	25.50	11.68	7.45	4.09	1.48	1.57
29	5.85	7.60	6.18	1.99	11.07	15.51	26.81	12.90	5.97	4.73	1.23	1.52
30	6.65	8.24	6.33	2.29	---	15.48	27.20	12.90	5.88	5.56	.76	1.07
31	6.18	---	5.32	3.48	---	15.32	---	12.12	---	4.77	-.04	---
MAX	7.73	9.08	13.58	6.00	13.25	23.02	27.20	27.21	12.43	10.11	6.41	1.64
MIN	4.79	5.04	4.69	.70	2.17	11.61	15.14	10.52	5.29	2.88	-.04	-.44

07010000 MISSISSIPPI RIVER AT ST. LOUIS, MO--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	130000	130000	184000	125000	90500	190000	237000	445000	183000	138000	116000	62700
2	133000	118000	188000	127000	89200	188000	239000	435000	187000	153000	97100	67200
3	135000	113000	203000	127000	90100	197000	243000	415000	183000	138000	88600	67800
4	134000	118000	204000	102000	94100	216000	248000	394000	180000	131000	89600	67300
5	130000	121000	185000	97900	105000	279000	243000	376000	173000	128000	78200	66700
6	121000	129000	169000	107000	101000	369000	239000	357000	168000	121000	80600	63600
7	120000	119000	155000	115000	94500	387000	240000	341000	164000	116000	87900	59600
8	119000	120000	153000	98900	93700	389000	241000	329000	146000	120000	88800	60300
9	114000	112000	156000	95400	97500	373000	239000	329000	139000	116000	77300	60200
10	115000	114000	150000	99600	96000	340000	241000	329000	141000	124000	76000	61300
11	109000	104000	151000	96000	107000	299000	245000	289000	131000	123000	72600	62300
12	111000	106000	149000	84900	107000	282000	246000	261000	130000	103000	67700	60500
13	109000	117000	144000	77800	109000	274000	245000	251000	124000	94200	72200	59200
14	108000	123000	139000	79800	114000	270000	249000	242000	115000	96700	76900	61000
15	118000	130000	151000	78900	117000	268000	258000	225000	107000	90500	95700	61800
16	125000	131000	169000	84000	123000	272000	261000	224000	123000	92400	91200	61600
17	129000	133000	182000	79000	156000	276000	261000	243000	143000	91900	80700	61400
18	128000	146000	183000	75900	164000	288000	260000	266000	145000	90300	75100	61900
19	116000	142000	160000	77100	162000	292000	257000	288000	160000	82500	72400	62800
20	110000	142000	144000	79200	151000	285000	253000	272000	156000	85100	75400	64600
21	107000	148000	126000	81600	165000	276000	261000	250000	133000	86400	75600	65300
22	105000	152000	126000	87300	201000	263000	311000	230000	126000	89600	71600	66200
23	106000	145000	126000	88200	205000	241000	328000	219000	122000	106000	70900	67700
24	109000	140000	116000	85400	182000	220000	341000	202000	125000	109000	70100	68000
25	115000	144000	110000	84000	174000	209000	357000	185000	128000	87000	70000	69600
26	112000	148000	112000	83900	176000	205000	360000	173000	120000	92400	71000	73000
27	109000	154000	112000	82900	176000	210000	385000	166000	128000	96000	71000	76000
28	109000	141000	119000	82200	178000	226000	420000	180000	130000	95800	70200	75900
29	117000	137000	126000	84100	185000	240000	441000	192000	116000	104000	68300	74600
30	124000	154000	125000	89900	---	240000	447000	194000	117000	108000	64300	71800
31	123000	---	118000	99400	---	238000	---	183000	---	110000	60900	---
TOTAL	3650000	3931000	4635000	2856300	3903600	8302000	8596000	8485000	4243000	3318800	2423900	1961900
MEAN	117700	131000	149500	92140	134600	267800	286500	273700	141400	107100	78190	65400
MAX	135000	154000	204000	127000	205000	389000	447000	445000	187000	153000	116000	76000
MIN	105000	104000	110000	75900	89200	188000	237000	166000	107000	82500	60900	59200
AC-FT	7240000	7797000	9194000	5665000	7743000	16470000	17050000	16830000	8416000	6583000	4808000	3891000
CAL YR 1975	TOTAL	74045300	MEAN	202900	MAX	480000	MIN	92100	AC-FT	146900000		
WTR YR 1976	TOTAL	56306500	MEAN	153800	MAX	447000	MIN	59200	AC-FT	111700000		

Note.--Daily discharge computed from daily mean gage heights.

MISSISSIPPI RIVER MAIN STEM

07010000 MISSISSIPPI RIVER AT ST. LOUIS, MO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

WATER TEMPERATURES: October 1951 to current year.

SEDIMENT RECORDS: April 1948 to current year.

REMARKS.--Sediment discharge for many days computed from turbidity readings.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 6,420 mg/L June 7, 1951; minimum daily mean, 19 mg/L Jan. 21, 22, 1967.

SEDIMENT LOADS: Maximum daily, 7,010,000 tons (6,359,000 metric tons) May 5, 1951; minimum daily, 2,800 tons (2,540 metric tons) Jan. 21, 1967.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,480 mg/L Mar. 9; minimum daily mean, 37 mg/L Sept. 1.

SEDIMENT LOADS: Maximum daily, 2,500,000 tons (2,270,000 metric tons) Mar. 9; minimum daily, 6,260 tons (5,680 metric tons) Sept. 1.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	21.5	---	---	---
2	---	---	5.0	---	---	11.5	---	---	---	---	28.0	---
3	---	14.5	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	0.5	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	18.0	---	---	---	---	---	13.5	---	---	25.5	---	---
7	---	---	---	---	---	---	---	15.0	23.0	---	---	25.5
8	---	---	---	---	---	6.5	---	---	---	---	---	---
9	---	---	---	---	2.5	---	---	---	---	---	26.0	---
10	---	15.0	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	28.0	---	---
13	---	---	---	---	---	---	13.0	17.0	---	---	---	23.0
14	---	---	---	---	---	---	---	---	---	---	---	---
15	20.0	---	---	---	---	---	---	---	26.0	---	---	---
16	---	---	5.5	---	---	---	---	---	---	---	---	---
17	---	11.5	---	---	6.0	---	---	---	---	---	25.5	---
18	---	---	---	---	---	7.0	---	18.5	---	---	---	---
19	---	---	---	---	---	---	---	---	---	28.0	---	---
20	---	---	---	---	---	---	---	---	---	---	---	23.0
21	---	---	---	1.0	---	---	---	---	---	---	---	---
22	17.5	---	2.5	---	---	---	---	---	24.0	---	---	---
23	---	---	---	---	---	---	---	---	---	---	27.5	---
24	---	7.0	---	---	6.0	---	---	---	---	---	---	---
25	---	---	---	---	---	10.0	---	20.0	---	---	---	---
26	---	---	---	---	---	---	15.0	---	---	29.5	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	2.0	---	---	---	---	---	---	---	20.0
29	15.5	---	---	---	---	---	---	---	---	---	---	---
30	---	---	2.0	---	---	12.0	---	---	25.0	---	26.5	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DATE	TEMPER- ATURE (DEG C)	DIS- CHARGE (CFS)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
NOV												
10...	15.0	118000	0	3	33	71	87	92	95	97	99	100
FEB												
17...	10.5	158000	0	1	60	92	95	96	97	98	100	--
JUL												
26...	29.5	92400	0	0	12	75	90	94	97	99	100	--

07010000 MISSISSIPPI RIVER AT ST. LOUIS, MO--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER				NOVEMBER				DECEMBER			
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	130000	119	41800	130000	93	32600	184000	146	72500			
2	133000	126	45200	118000	82	26100	188000	379	192000			
3	135000	128	46700	113000	84	25600	203000	354	194000			
4	134000	122	44100	118000	115	36600	204000	299	165000			
5	130000	118	41400	121000	109	35600	185000	1480	739000			
6	121000	112	36600	129000	126	43900	169000	958	437000			
7	120000	112	36300	119000	139	44700	155000	651	272000			
8	119000	116	37300	120000	152	49200	153000	398	164000			
9	114000	121	37200	112000	187	56500	156000	245	103000			
10	115000	111	34500	114000	191	58800	150000	200	81000			
11	109000	110	32400	104000	188	52800	151000	189	77100			
12	111000	129	38700	106000	178	50900	149000	183	73600			
13	109000	110	32400	117000	166	52400	144000	150	58300			
14	108000	102	29700	123000	161	53500	139000	147	55200			
15	118000	104	33100	130000	151	53000	151000	142	57900			
16	125000	105	35400	131000	156	55200	169000	136	62100			
17	129000	89	31000	133000	128	46000	182000	161	79100			
18	128000	85	29400	146000	119	46900	183000	215	106000			
19	116000	84	26300	142000	116	44500	160000	314	136000			
20	110000	77	22900	142000	107	41000	144000	557	217000			
21	107000	66	19100	148000	98	39200	126000	539	183000			
22	105000	65	18400	152000	106	43500	126000	358	122000			
23	106000	62	17700	145000	124	48500	126000	224	76200			
24	109000	82	24100	140000	106	40100	116000	189	59200			
25	115000	67	20800	144000	102	39700	110000	187	55500			
26	112000	73	22100	148000	108	43200	112000	121	36600			
27	109000	73	21500	154000	115	47800	112000	90	27200			
28	109000	76	22400	141000	130	49500	119000	94	30200			
29	117000	78	24600	137000	131	48500	126000	95	32300			
30	124000	83	27800	154000	137	57000	125000	105	35400			
31	123000	79	26200	---	---	---	118000	139	44300			
TOTAL	3650000	---	957100	3931000	---	1362800	4635000	---	4043700			
DAY	JANUARY				FEBRUARY				MARCH			
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	125000	180	60800	90500	283	69200	190000	613	314000			
2	127000	191	65500	89200	285	68600	188000	388	197000			
3	127000	229	78500	90100	293	71300	197000	383	204000			
4	102000	288	79300	94100	299	76000	216000	355	207000			
5	97900	321	84800	105000	346	98100	279000	633	477000			
6	107000	345	99700	101000	409	112000	369000	1290	1290000			
7	115000	437	136000	94500	365	93100	387000	1880	1960000			
8	98900	427	114000	93700	340	86000	389000	1780	1870000			
9	95400	418	108000	97500	314	82700	373000	2480	2500000			
10	99600	449	121000	96000	341	88400	340000	2020	1850000			
11	96000	414	107000	107000	351	101000	299000	1460	1180000			
12	84900	417	95600	107000	382	110000	282000	1220	929000			
13	77800	492	103000	109000	415	122000	274000	825	610000			
14	79800	531	114000	114000	364	112000	270000	616	449000			
15	78900	520	111000	117000	449	142000	268000	545	394000			
16	84000	523	119000	123000	496	165000	272000	464	341000			
17	79000	556	119000	156000	416	175000	276000	456	340000			
18	75900	592	121000	164000	459	203000	288000	445	346000			
19	77100	571	119000	162000	917	401000	292000	526	415000			
20	79200	603	129000	151000	1320	539000	285000	516	397000			
21	81600	544	120000	165000	977	435000	276000	595	443000			
22	87300	497	117000	201000	756	410000	263000	425	302000			
23	88200	423	101000	205000	647	358000	241000	439	286000			
24	85400	382	88100	182000	511	251000	220000	449	267000			
25	84000	345	78200	174000	466	219000	209000	396	223000			
26	83900	311	70500	176000	496	236000	205000	446	247000			
27	82900	342	76500	176000	443	211000	210000	495	281000			
28	82200	314	69700	178000	421	202000	226000	520	317000			
29	84100	301	68300	185000	624	312000	240000	611	396000			
30	89900	315	76500	---	---	---	240000	588	381000			
31	99400	274	73500	---	---	---	238000	590	379000			
TOTAL	2856300	---	3024500	3903600	---	5549400	4302000	---	19792000			

07010000 MISSISSIPPI RIVER AT ST. LOUIS, MO--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

APRIL					MAY			JUNE	
DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	237000	543	347000	445000	1720	2070000	183000	481	238000
2	239000	534	345000	435000	1260	1480000	187000	528	267000
3	243000	408	268000	415000	1860	2080000	183000	463	229000
4	248000	337	226000	394000	1780	1890000	180000	388	189000
5	243000	522	342000	376000	588	597000	173000	303	142000
6	239000	377	243000	357000	577	556000	168000	285	129000
7	240000	268	174000	341000	514	473000	164000	374	166000
8	241000	280	182000	329000	488	433000	146000	229	90300
9	239000	292	188000	329000	416	370000	139000	129	48400
10	241000	300	195000	329000	304	270000	141000	178	67800
11	245000	358	237000	289000	467	364000	131000	199	70400
12	246000	357	237000	261000	591	416000	130000	137	48100
13	245000	340	225000	251000	544	369000	124000	68	22800
14	249000	293	197000	242000	486	318000	115000	92	28600
15	258000	292	203000	225000	338	205000	107000	148	42800
16	261000	257	181000	224000	230	139000	123000	64	21300
17	261000	238	168000	243000	282	185000	143000	73	28200
18	260000	232	163000	266000	424	305000	145000	64	25100
19	257000	213	148000	288000	499	388000	160000	72	31100
20	253000	206	141000	272000	572	420000	156000	301	127000
21	261000	284	200000	250000	777	524000	133000	533	191000
22	311000	338	284000	230000	619	384000	126000	1200	409000
23	328000	1200	1060000	219000	462	273000	122000	1820	600000
24	341000	1180	1090000	202000	524	286000	125000	1570	530000
25	357000	1340	1290000	185000	219	109000	128000	1500	518000
26	360000	998	970000	173000	155	72400	120000	370	120000
27	385000	970	1010000	166000	158	70800	128000	465	161000
28	420000	1200	1360000	180000	129	62700	130000	394	138000
29	441000	1810	2160000	192000	105	54400	116000	246	77000
30	447000	1190	1440000	194000	86	45000	117000	310	97900
31	---	---	---	183000	666	329000	---	---	---
TOTAL	8596000	---	15274000	8485000	---	15538300	4243000	---	4853800
JULY					AUGUST			SEPTEMBER	
DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	138000	362	135000	116000	184	57600	62700	37	6260
2	153000	394	163000	97100	100	26200	67200	43	7800
3	138000	400	149000	88600	84	20100	67800	45	8240
4	131000	498	176000	89600	76	18400	67300	47	8540
5	128000	581	201000	78200	71	15000	66700	55	9900
6	121000	623	204000	80600	148	32200	63600	58	9960
7	116000	1350	423000	87900	169	40100	59600	60	9660
8	120000	715	232000	88800	257	61600	60300	53	8630
9	116000	377	118000	77300	204	42600	60200	66	10700
10	124000	223	74700	76000	167	34300	61300	54	8940
11	123000	153	50800	72600	62	12200	62300	43	7230
12	103000	170	47300	67700	86	15700	60500	55	8980
13	94200	192	48800	72200	66	12900	59200	46	7350
14	96700	98	25600	76900	64	13300	61000	57	9390
15	90500	116	28300	95700	51	13200	61800	103	17200
16	92400	150	37400	91200	60	14800	61600	88	14600
17	91900	123	30500	80700	78	17000	61400	123	20400
18	90300	130	31700	75100	66	13400	61900	138	23100
19	82500	120	26700	72400	66	12900	62800	138	23400
20	85100	159	36500	75400	59	12000	64600	136	23700
21	86400	198	46200	75600	71	14500	65300	98	17300
22	89600	332	80300	71600	66	12800	66200	108	19300
23	106000	350	100000	70900	75	14400	67700	106	19400
24	109000	408	120000	70100	154	29100	68000	126	23100
25	87000	554	130000	70000	74	14000	69600	172	32300
26	92400	586	146000	71000	54	10400	73000	120	23700
27	96000	461	119000	71000	53	10200	76000	98	20100
28	95800	355	91800	70200	45	8530	75900	83	17000
29	104000	311	87300	68300	54	9960	74600	79	15900
30	108000	267	77900	64300	54	9370	71800	86	16700
31	110000	226	67100	60900	39	6410	---	---	---
TOTAL	3318800	---	3304900	2423900	---	625170	1961900	---	448780
TOTAL DISCHARGE FOR YEAR (FT ³ /S-DAYS)									
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)									

07010350 MERAMEC RIVER AT COOK STATION, MO

LOCATION.--Lat 37°49'45", long 91°26'15", in NE¼ sec.23, T.36 N., R.5 W., Crawford County, Hydrologic Unit 07140102, on downstream side of right pier of bridge on State Highway M, 50 ft (15 m) downstream from Frisco Railroad bridge (Salem Branch), 1 mi (1.6 km) north of Cook Station, and 4 mi (6.4 km) upstream from Crooked Creek.

DRAINAGE AREA.--199 mi² (515 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 864.51 ft (263.503 m) above mean sea level.

REMARKS.--Records good. Several observations of water temperature made during the year.

AVERAGE DISCHARGE.--11 years, 123 ft³/s (3.48 m³/s), 8.39 in/yr (213 mm/yr), 89,110 acre-ft/yr (110 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,900 ft³/s (988 m³/s) Feb. 10, 1966, gage height, 17.74 ft (5.047 m), from rating curve extended above 4,000 ft³/s (113 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 7.8 ft³/s (0.22 m³/s) Sept. 13, 1976; minimum gage height, 2.03 ft (0.619 m) Sept. 15, 16, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 244 ft³/s (6.91 m³/s) Dec. 30, gage height, 4.00 ft (1.219 m), no peak above base of 2,000 ft³/s (56.6 m³/s); minimum daily, 7.8 ft³/s (0.22 m³/s) Sept. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	30	116	146	41	47	55	72	33	16	16	9.4
2	44	29	81	119	40	45	52	69	32	16	14	9.8
3	38	35	66	100	40	43	48	60	31	34	12	11
4	35	45	56	85	39	42	44	56	29	57	12	12
5	34	45	51	74	39	53	42	50	30	39	11	9.8
6	32	39	57	66	38	68	39	47	30	31	11	9.8
7	32	37	68	61	37	59	38	44	20	26	12	9.5
8	31	35	61	58	36	53	36	42	24	23	12	10
9	30	34	56	55	36	53	34	39	26	21	11	11
10	30	34	51	51	37	54	33	38	25	20	10	9.8
11	31	32	47	48	36	52	32	37	23	18	10	8.6
12	32	32	44	46	36	55	31	36	22	17	9.3	8.2
13	30	30	43	44	36	61	31	40	21	16	9.3	7.8
14	29	29	42	42	37	58	32	51	20	16	10	8.6
15	29	29	69	40	37	55	32	50	20	15	21	9.0
16	29	29	113	39	37	54	31	51	19	14	25	9.0
17	29	29	88	39	37	51	31	54	18	14	19	9.0
18	28	29	77	38	37	49	30	54	18	13	16	8.6
19	31	28	68	39	36	48	36	51	17	12	14	9.0
20	29	29	62	39	36	47	140	48	17	12	12	10
21	30	28	56	38	76	48	123	44	17	12	12	9.0
22	30	28	53	38	98	47	141	43	16	11	11	9.4
23	30	27	47	38	87	45	116	40	17	11	11	11
24	31	27	45	37	77	44	98	39	23	11	12	12
25	37	27	44	42	69	89	98	37	25	11	11	13
26	35	29	44	47	62	95	88	35	24	11	11	13
27	34	31	42	47	55	78	78	35	20	14	10	14
28	32	30	40	45	51	71	77	36	17	20	10	14
29	31	38	66	44	49	68	83	36	16	19	10	15
30	31	117	227	43	---	65	77	34	16	22	10	16
31	30	---	187	42	---	59	---	34	---	18	10	---
TOTAL	1010	1041	2167	1690	1372	1756	1826	1402	666	590	384.6	316.3
MEAN	32.6	34.7	69.9	54.5	47.3	56.6	60.9	45.2	22.2	19.0	12.4	10.5
MAX	56	117	227	146	98	95	141	72	33	57	25	16
MIN	28	27	40	37	36	42	30	34	16	11	9.3	7.8
CFSM	.16	.17	.35	.27	.24	.28	.31	.23	.11	.10	.06	.05
IN.	.19	.19	.41	.32	.26	.33	.34	.26	.12	.11	.07	.06
AC-FT	2000	2060	4300	3350	2720	3480	3620	2780	1320	1170	763	627
CAL YR 1975 TOTAL	57506.0			MEAN 158		MAX 5750		MIN 18	CFSM .79	IN 10.75	AC-FT 114100	
WTR YR 1976 TOTAL	14220.9			MEAN 38.9		MAX 227		MIN 7.8	CFSM .20	IN 2.66	AC-FT 28210	

07010500 MARAMEC SPRING NEAR ST. JAMES, MO

LOCATION.--Lat 37°57'20", long 91°32'57", in NW¼SE¼ sec.1, T.37 N., R.6 W., Phelps County, Hydrologic Unit 07140102, 650 ft (198 m) downstream from spring outlet, 1 mi (1.6 km) upstream from Meramec River, and 6 mi (9.7 km) southeast of St. James.

PERIOD OF RECORD.--March 1903 to July 1906, November 1921 to October 1929, October 1965 to current year. Monthly discharge only for some months prior to October 1905 published in WSP 1311. Occasional discharge measurements 1930, 1932, 1934, 1939-40, 1946, 1953-55, 1957, 1961-65.

GAGE.--Nonrecording gage. Datum of gage is 773.97 ft (235.906 m) above mean sea level. Prior to Nov. 11, 1921, gage at site 150 ft (45.7 m) upstream at different datum. Nov. 11, 1921, to June 4, 1928, at site 50 ft (15.2 m) upstream at datum 0.21 ft (0.064 m) higher.

REMARKS.--Records poor. Occasional backwater from Meramec River.

AVERAGE DISCHARGE.--20 years (1903-05, 1922-29, 1965-76), 151 ft³/s (4.276 m³/s), 109,400 acre-ft/yr (135 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 650 ft³/s (18.4 m³/s), estimated, several days during 1927 and 1928, backwater from Meramec River; minimum measured, 56 ft³/s (1.59 m³/s) Aug. 1, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 206 ft³/s (5.83 m³/s) Apr. 21, 22; minimum daily, 70 ft³/s (1.98 m³/s) Aug. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	200	100	100	145	108	112	112	130	126	82	90	90
2	150	100	100	145	108	112	112	130	104	82	90	86
3	117	100	104	145	108	112	112	130	104	82	90	90
4	117	100	104	145	108	90	112	130	82	126	90	86
5	117	100	104	145	108	135	112	130	82	126	90	86
6	117	100	104	145	99	135	112	130	82	126	90	86
7	117	100	104	145	99	135	112	130	82	126	90	86
8	94	100	104	145	99	135	112	108	104	126	90	86
9	100	100	104	140	122	112	112	108	82	112	90	86
10	108	100	104	140	99	112	112	108	82	112	90	86
11	100	100	104	140	99	112	112	108	82	112	90	86
12	100	100	104	140	99	112	112	108	82	112	90	86
13	100	100	104	140	99	112	112	108	82	112	90	86
14	100	108	104	140	99	112	90	108	82	112	90	86
15	100	100	99	117	99	112	99	108	82	112	90	86
16	100	100	122	117	99	112	90	108	82	112	90	86
17	100	100	99	117	99	112	90	112	82	112	90	86
18	100	100	99	117	90	112	90	108	82	112	104	78
19	100	100	112	117	90	112	90	108	82	112	99	78
20	100	100	99	117	90	112	155	108	82	112	90	78
21	100	100	99	117	135	112	206	108	86	112	90	78
22	100	100	99	117	185	112	206	108	82	112	90	78
23	100	100	99	117	160	112	155	108	82	112	90	78
24	100	100	99	117	135	112	155	108	104	90	90	78
25	100	100	99	117	112	112	155	108	82	90	90	78
26	100	100	99	117	112	112	155	108	82	86	90	78
27	100	100	99	117	112	112	108	108	82	90	90	78
28	100	100	99	117	112	112	108	108	82	90	70	78
29	100	100	99	108	112	112	130	108	82	90	90	78
30	100	100	145	108	---	112	155	108	82	90	90	78
31	100	---	145	108	---	112	---	126	---	90	90	---
TOTAL	3337	3008	3259	3962	3196	3542	3693	3524	2596	3272	2793	2484
MEAN	108	100	105	128	110	114	123	114	86.5	106	90.1	82.8
MAX	200	108	145	145	185	135	206	130	126	126	104	90
MIN	94	100	99	108	90	90	90	108	82	82	70	78
AC-FT	6620	5970	6460	7860	6340	7030	7330	6990	5150	6490	5540	4930
CAL YR 1975 TOTAL	65285		MEAN 179	MAX 500	MIN 94	AC-FT 129500						
WTR YR 1976 TOTAL	38666		MEAN 106	MAX 206	MIN 70	AC-FT 76690						

07013000 MERAMEC RIVER NEAR STEELVILLE, MO

LOCATION.--Lat 37°59'58", long 91°21'39", in NE¼ sec.21, T.38 N., R.4 W., Crawford County, Hydrologic Unit 07140102, on left bank 20 ft (6 m) downstream from railroad bridge, 400 ft (123 m) upstream from highway bridge, 0.8 mi (1.3 km) upstream from Whittenburg Creek, 1.5 mi (2.4 km) north of Steelville, and at mile 149.4 (235.6 km).

DRAINAGE AREA.--781 mi² (2,023 km²).

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 mi (1.6 km) upstream in reports of National Weather Service.

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

GAGE.--Water-stage recorder. Datum of gage is 681.68 ft (207.776 m) above mean sea level. Prior to May 24, 1934, July 20, 1966, to July 20, 1967, nonrecording gage, and May 24, 1934 to Oct. 10, 1942, water-stage recorder at site 400 ft (122 m) downstream. July 21, 1967 to Feb. 13, 1973 at site 1,900 ft (579 m) downstream and at datum 2.0 ft (0.61 m) lower.

REMARKS.--Records good. Several observations of water temperature made during the year.

AVERAGE DISCHARGE.--54 years, 564 ft³/s (15.97 m³/s), 9.81 in/yr (249 mm/yr), 408,600 acre-ft/yr (504 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 47,800 ft³/s (1,350 m³/s) June 26, 1935, gage height, 23.39 ft (7.129 m); maximum gage height, 24.30 ft (7.407 m) June 9, 1945; minimum discharge, 74 ft³/s (2.10 m³/s) July 22, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 20, 1915, reached a stage of 26.5 ft (8.08 m), discharge, 60,000 ft³/s (1,700 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 973 ft³/s (27.6 m³/s) May 31, gage height, 3.30 ft (1.006 m), no peak above base of 6,500 ft³/s (184 m³/s); minimum daily, 94 ft³/s (2.66 m³/s) Sept. 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	420	190	560	610	197	242	230	394	587	139	163	109
2	604	188	486	522	193	230	220	352	390	139	133	112
3	408	200	376	448	191	222	210	316	309	287	132	109
4	326	205	325	386	186	226	200	280	266	353	131	107
5	283	235	291	334	186	295	200	253	245	342	130	107
6	259	242	274	312	186	369	190	237	272	339	136	107
7	237	227	255	291	176	352	190	221	268	269	132	104
8	224	214	262	266	178	319	180	207	238	227	127	104
9	215	206	259	250	176	299	178	191	218	203	125	108
10	208	202	244	240	180	275	177	182	200	185	129	102
11	204	195	233	233	183	283	173	178	189	174	125	102
12	200	192	222	212	185	289	168	168	181	162	123	102
13	194	186	202	205	184	275	168	176	172	159	121	102
14	191	183	195	202	189	266	169	174	164	152	121	100
15	188	180	208	195	193	264	176	215	159	145	125	100
16	183	180	344	192	195	262	181	244	154	145	127	96
17	181	180	411	186	193	259	174	307	150	140	139	96
18	178	177	339	181	191	259	169	343	148	139	161	94
19	185	174	295	175	185	257	185	330	144	136	121	94
20	176	180	272	176	171	257	282	283	142	133	139	96
21	175	177	248	176	215	251	608	252	140	132	134	96
22	175	175	233	175	480	250	692	230	137	130	128	96
23	177	175	222	175	480	250	596	216	136	130	125	96
24	180	172	205	175	410	250	496	204	161	128	128	97
25	181	172	198	185	362	300	434	190	165	128	125	96
26	182	181	198	193	326	350	394	179	161	127	129	102
27	189	185	198	201	294	400	357	177	165	128	125	113
28	198	185	191	208	270	350	331	175	156	126	120	105
29	196	188	202	206	255	300	346	176	150	135	115	102
30	190	259	367	204	---	270	420	193	145	148	113	102
31	189	---	696	201	---	240	---	459	---	178	113	---
TOTAL	7096	5805	9011	7715	6810	8711	8494	7502	6112	5458	3995	3056
MEAN	229	194	291	249	235	281	283	242	204	176	129	102
MAX	604	259	696	610	480	400	692	459	587	353	163	113
MIN	175	172	191	175	171	222	168	168	136	126	113	94
CFSM	.29	.25	.37	.32	.30	.36	.36	.31	.26	.23	.17	.13
IN.	.34	.28	.43	.37	.32	.41	.40	.36	.29	.26	.19	.15
AC-FT	14070	11510	17870	15300	13510	17280	16850	14880	12120	10830	7920	6060
CAL YR 1975	TOTAL	253046	MEAN 693	MAX	14600	MIN 145	CFSM .89	IN 12.05	AC-FT	501900		
WTR YR 1976	TOTAL	79765	MEAN 218	MAX	696	MIN 94	CFSM .28	IN 3.80	AC-FT	158200		

07014500 MERAMEC RIVER NEAR SULLIVAN, MO

LOCATION.--Lat 38°09'30", long 91°06'30", in SE¼NE¼ 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 (6.1 km) downstream from Brazil Creek, 4.0 mi (6.4 km) southeast of Sullivan, and at mile 117.0 (182.1 km).

DRAINAGE AREA.--1,475 mi² (3,820 km²).

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, 1923(M), 1924-30, 1933, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 581.82 ft (177.339 m) above mean sea level (levels by Corps of Engineers). Prior to Oct. 21, 1952, nonrecording gage at present site and datum.

REMARKS.--Records good. Water diverted from river 0.5 mi (0.8 km) above gage by mining company.

AVERAGE DISCHARGE.--45 years, 1,168 ft³/s (33.08 m³/s), 10.75 in/yr (273 mm/yr), 846,200 acre-ft/yr (1,043 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 77,300 ft³/s (2,190 m³/s) June 9, 1945, gage height, 30.0 ft (9.75 m); minimum discharge, 131 ft³/s (3.71 m³/s) Sept. 20, 22, 1956; minimum gage height, 1.24 ft (0.38 m) Sept. 15, 17, 19, 20, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in August 1915 reached a stage of 33.5 ft (10.21 m) from information by local residents, discharge 90,000 ft³/s (2,550 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,610 ft³/s (102 m³/s) June 2, gage height, 7.18 ft (2.188 m), no peak above base of 8,500 ft³/s (241 m³/s); minimum, 195 ft³/s (5.52 m³/s) Sept. 15, 17, 19, 20, gage height, 1.24 ft (0.38 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	576	441	1380	1610	472	526	600	847	1500	318	323	216
2	900	442	1400	1370	463	512	565	788	2000	315	294	213
3	831	469	1100	1170	459	499	538	726	1500	322	276	211
4	675	500	921	995	449	500	510	670	1000	320	264	211
5	600	507	812	873	449	599	494	620	800	400	257	209
6	553	537	748	786	451	654	480	584	700	604	265	207
7	527	541	756	740	441	697	469	556	600	553	272	204
8	507	524	807	688	435	658	456	520	550	475	263	207
9	490	512	784	636	443	618	442	500	500	420	256	227
10	478	507	736	652	454	588	434	460	480	385	250	213
11	470	494	698	605	460	570	426	420	460	360	247	203
12	466	489	658	580	460	570	416	400	440	341	241	203
13	457	482	629	564	460	555	409	400	420	330	235	202
14	451	471	606	549	458	551	413	450	400	315	233	200
15	448	469	659	530	460	544	412	500	388	302	241	199
16	442	465	912	519	461	549	408	550	378	291	244	202
17	437	465	1220	503	460	537	408	600	371	281	245	198
18	436	460	1070	489	460	530	401	650	357	276	258	198
19	434	455	914	477	454	527	429	760	350	272	261	199
20	434	464	822	479	443	526	623	820	340	265	252	200
21	429	462	744	468	538	525	1020	700	329	260	243	202
22	429	460	694	464	633	520	1450	600	326	256	237	201
23	429	456	651	457	826	511	1370	500	318	251	235	205
24	429	460	617	457	771	501	1150	450	357	247	248	208
25	436	457	597	471	701	555	1050	430	374	246	246	208
26	443	473	587	493	649	786	1070	420	385	243	247	213
27	446	496	578	501	606	803	956	400	371	260	255	236
28	446	492	561	505	572	754	857	400	357	264	249	237
29	456	538	609	500	546	701	799	420	343	279	235	232
30	447	1030	874	491	---	670	836	500	329	303	226	234
31	442	---	1530	479	---	632	---	700	---	317	220	---
TOTAL	15444	15018	25674	20101	14934	18268	19891	17341	17023	10071	7818	6298
MEAN	498	501	828	648	515	589	663	559	567	325	252	210
MAX	900	1030	1530	1610	826	803	1450	847	2000	604	323	237
MIN	429	441	561	457	435	499	401	400	318	243	220	198
CFSM	.34	.34	.56	.44	.35	.40	.45	.38	.38	.22	.17	.14
IN.	.39	.38	.65	.51	.38	.46	.50	.44	.43	.25	.20	.16
AC-FT	30630	29790	50920	39870	29620	36230	39450	34400	33770	19980	15510	12490
CAL YR 1975 TOTAL	564684			1547	MAX 22600	MIN 353	CFSM 1.05	IN 14.24	AC-FT 1120000			
WTR YR 1976 TOTAL	187881			513	MAX 2000	MIN 198	CFSM .35	IN 4.74	AC-FT 372700			

07015000 BOURBEUSE RIVER NEAR ST. JAMES, MO.

LOCATION.--Lat 38°02'00", long 91°38'53", in NW¼NW¼ sec.12, T.38 N., R.7 W., Phelps County, Hydrologic Unit 07140103, on left bank 650 ft (198 m) upstream from bridge on State Highway 68, 3 mi (4.8 km) northwest of St. James, and at mile 138.8 (223.3 km).

DRAINAGE AREA.--21.3 mi² (55.2 km²).

PERIOD OF RECORD.--November 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 899.46 ft (274.155 m) above mean sea level.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--28 years, 16.2 ft³/s (0.459 m³/s), 10.33 in/yr (262 mm/yr), 11,700 acre-ft/yr (14.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,250 ft³/s (234 m³/s) Oct. 11, 1949, gage height, 11.08 ft (3.377 m); no flow at times in 1953-57, 59-64, 66-75.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 14.0 ft (4.267 m) June 8, 1945; flood of June 8, 1947, reached a stage of 12.04 ft (3.670 m), from floodmark and information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 193 ft³/s (5.46 m³/s) May 31, gage height, 5.06 ft (1.542 m), no peak discharge above base of 1,500 ft³/s (42.5 m³/s); minimum daily discharge, 0.02 ft³/s (0.0006 m³/s) July 24-26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	.12	1.5	11	.85	1.2	1.5	3.4	11	.09	.06	4.5
2	2.1	.12	.94	8.2	.94	1.1	1.3	3.4	5.0	.10	.05	.69
3	1.2	.29	.77	5.9	.77	3.7	1.2	2.7	3.0	20	.05	4.5
4	.85	.33	.69	3.7	.69	31	1.1	1.8	2.1	1.3	.05	5.9
5	.77	.29	.69	3.0	1.2	49	.94	1.7	26	.55	.05	4.5
6	.94	.25	.69	2.7	1.7	17	.94	1.7	30	.33	.09	.69
7	.94	.18	.55	2.7	1.2	9.6	.85	1.8	11	.21	.12	.18
8	.69	.18	.55	1.5	1.5	6.9	.85	2.1	5.4	.18	.10	3.7
9	.49	.14	.62	1.2	1.8	5.9	.69	2.1	3.4	.12	.09	8.9
10	.43	.14	.55	1.5	3.0	4.5	.69	2.1	2.1	.10	.07	8.2
11	.43	.12	.49	1.7	3.0	3.7	.69	2.3	1.5	.10	.07	.69
12	.33	.12	.49	1.5	2.1	4.1	.62	2.1	1.1	.09	.06	.25
13	.43	.38	.43	1.7	2.1	3.4	.62	3.4	.85	.09	.06	.18
14	.43	.29	.55	1.3	1.7	2.3	.62	3.0	.69	.08	.05	.14
15	.29	.18	31	1.1	1.7	2.1	.62	13	.55	.08	.07	.12
16	.29	.12	10	1.2	1.7	3.0	.55	15	.49	.08	.07	.12
17	.25	.10	6.9	.85	1.7	3.0	.49	29	.38	.08	.07	.10
18	.21	.09	4.1	.69	1.5	2.7	.43	21	.29	.06	.06	.09
19	.18	.09	3.0	.77	1.3	2.1	1.7	13	.21	.05	1.1	.09
20	.18	.12	3.0	.85	1.1	4.5	9.6	6.9	.14	.04	6.4	.09
21	.21	.18	2.3	.77	34	5.0	30	3.4	.12	.04	6.9	.09
22	.21	.14	1.7	.77	14	3.4	11	2.7	.09	.03	6.4	.09
23	.21	.14	1.5	.77	8.2	2.3	6.4	1.8	.10	.03	6.4	.09
24	.18	.12	1.3	.77	5.9	2.1	5.0	1.3	.33	.02	6.9	.09
25	.21	.10	1.5	1.3	4.5	1.8	5.0	1.2	.38	.02	6.4	.09
26	.18	.21	1.7	1.7	3.7	1.7	3.7	.94	.21	.02	6.4	.10
27	.18	.21	1.3	.94	3.0	2.1	2.7	.94	.18	.03	6.4	.10
28	.14	.29	1.2	.94	2.3	1.8	3.7	1.1	.14	.03	6.9	.09
29	.18	1.2	15	.62	1.1	1.8	5.0	.94	.21	.07	5.9	.09
30	.14	6.9	27	.94	---	1.8	3.7	4.1	.21	.07	6.4	.09
31	.12	---	16	.85	---	1.8	---	49	---	.07	5.9	---
TOTAL	23.39	13.14	138.01	63.43	108.25	186.4	102.20	198.92	107.17	24.16	79.64	44.55
MEAN	.75	.44	4.45	2.05	3.73	6.01	3.41	6.42	3.57	.78	2.57	1.49
MAX	10	6.9	31	11	34	49	30	49	30	20	6.9	8.9
MIN	.12	.09	.43	.62	.69	1.1	.43	.94	.09	.02	.05	.09
CFSM	.04	.02	.21	.10	.18	.28	.16	.30	.17	.04	.12	.07
IN.	.04	.02	.24	.11	.19	.33	.18	.35	.19	.04	.14	.08
AC-FT	46	26	274	126	215	370	203	395	213	48	158	88
CAL YR 1975	TOTAL	8024.68	MEAN	22.0	MAX	869	MIN	0	CFSM	1.03	IN	14.01
WTR YR 1976	TOTAL	1089.26	MEAN	2.98	MAX	49	MIN	.02	CFSM	.14	IN	1.90
									AC-FT	15920		
									AC-FT	2160		

MERAMEC RIVER BASIN

07015720 BOURBEUSE RIVER NEAR HIGH GATE, MO

LOCATION.--Lat 38°04'49", long 91°34'50", in SE¼NE¼ 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 (2.9 k) downstream from Lanes Fork, 5 mi (8.0 km) east of High Gate, and 11 mi (17.7 km) north of St. James.

DRAINAGE AREA.--135 mi² (350 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 804.1 ft (245.09 m) above mean sea level (levels by Missouri State Highway Commission). Prior to Aug. 17, 1966, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for periods of gage-height record, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--11 years, 118 ft³/s (3.342 m³/s), 11.87 in/yr (301 mm/yr), 85,500 acre-ft/yr (105 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,300 ft³/s (462 m³/s) Feb. 9, 1966, gage height, 17.25 ft (5.258 m); maximum gage height, 17.97 ft (5.477 m) Nov. 1, 1972; no flow Aug. 27 to Sept. 15, 1971, July 28 to Aug. 24, 1975, Aug. 18-22, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1957 reached a stage of about 23 ft (7.0 m), from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,290 ft³/s (64.9 m³/s) May 31, gage height, 7.52 ft (2.292 m), no peak above base of 3,500 ft³/s (99.1 m³/s); no flow, Aug. 18-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	1.9	36	60	10	23	36	28	328	2.0	.88	4.6
2	47	2.0	17	44	9.2	21	29	24	129	1.7	.54	4.0
3	26	4.0	14	35	8.0	44	26	20	78	102	.54	1.7
4	18	4.4	10	31	7.8	497	23	18	52	46	.36	11
5	14	6.6	8.4	27	12	511	20	15	46	16	.36	3.2
6	11	5.4	9.0	22	15	149	18	14	122	8.4	.54	1.7
7	8.0	4.8	7.8	18	14	100	17	14	69	4.8	.42	1.0
8	6.1	4.0	6.6	14	15	76	14	13	43	3.2	.30	4.0
9	5.4	3.5	7.8	11	20	64	13	11	31	2.4	.24	16
10	4.7	3.2	6.6	12	31	53	11	10	25	2.0	.18	9.0
11	4.2	2.8	4.8	14	34	45	11	10	19	1.6	.12	3.2
12	3.6	2.5	4.0	11	27	46	9.6	9.0	15	1.4	.06	1.3
13	2.8	2.1	4.0	10	25	38	8.4	9.6	11	1.2	.06	.88
14	2.0	1.9	5.2	9.0	23	31	9.0	12	8.4	1.0	.06	.54
15	2.4	1.9	155	9.0	21	28	9.6	32	7.2	.74	.12	.48
16	2.0	1.8	88	8.2	21	31	8.4	88	6.0	.54	.12	.40
17	2.0	1.8	48	7.0	20	36	7.2	116	4.0	.54	.06	.36
18	1.9	2.0	34	5.8	19	36	6.0	113	4.0	.48	0	.36
19	1.9	2.8	23	6.0	14	32	14	67	3.2	.42	0	.36
20	1.9	3.2	21	6.2	12	35	102	46	2.4	.36	0	.48
21	2.0	2.4	19	6.0	452	55	207	34	2.0	.30	0	.36
22	2.4	2.0	18	6.2	147	38	113	27	1.6	.30	0	.30
23	2.4	1.9	14	6.0	91	30	67	22	1.6	.24	11	.30
24	2.4	2.0	11	5.7	66	27	46	18	2.4	.24	60	.30
25	2.4	2.4	9.0	6.8	50	25	37	14	2.4	.18	500	.24
26	2.0	4.0	9.0	16	41	24	29	11	1.9	.18	49	.30
27	1.9	4.8	7.8	12	35	28	25	9.6	1.9	.12	27	.74
28	1.9	6.0	7.2	11	29	28	27	11	2.4	.06	17	.36
29	1.9	9.0	24	10	26	31	35	10	7.8	.30	11	.30
30	3.6	53	143	12	---	57	31	169	2.4	1.4	8.4	.30
31	2.4	---	94	10	---	46	---	793	---	1.4	6.2	---
TOTAL	246.2	150.1	866.2	461.9	1295.0	2285	1009.2	1788.2	1029.6	201.50	694.56	68.06
MEAN	7.94	5.00	27.9	14.9	44.7	73.7	33.6	57.7	34.3	6.50	22.4	2.27
MAX	56	53	155	60	452	511	207	793	328	102	500	16
MIN	1.9	1.8	4.0	5.7	7.8	21	6.0	9.0	1.6	.06	0	.24
CFSM	.06	.04	.21	.11	.33	.55	.25	.43	.25	.05	.17	.02
IN.	.07	.04	.24	.13	.36	.63	.28	.49	.28	.06	.19	.02
AC-FT	488	298	1720	916	2570	4530	2000	3550	2040	400	1380	135
CAL YR 1975 TOTAL	60492.28			MEAN 166	MAX 7000	MIN 0	CFSM 1.23	IN 16.67	AC-FT 120000			
WTR YR 1976 TOTAL	10095.52			MEAN 27.6	MAX 793	MIN 0	CFSM .20	IN 2.78	AC-FT 20020			

07016000 BOURBEUSE RIVER NEAR SPRING BLUFF, MO

LOCATION.--Lat 38°18'40", long 91°16'45", in NE¼ sec.8, T.41 N., R.3 W., Franklin County, Hydrologic Unit 07140103, on downstream side of highway bridge, 1.0 mi (1.6 km) downstream from Boone Creek, 3.5 mi (5.6 km) northwest of Spring Bluff, 9.5 mi (15.3 km) northwest of Sullivan, and at mile 75.3 (121.2 km).

DRAINAGE AREA.--608 mi² (1,575 km²).

PERIOD OF RECORD.--November 1943 to current year (discharge above 1,000 ft³/s or 28.3 m³/s only).

GAGE.--Nonrecording gage and crest-stage gage.

REMARKS.--Records poor. Daily discharge above 1,000 ft³/s (28.3 m³/s) by correlation with Union. Discharge below 1,000 ft³/s (28.3 m³/s) not computed.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,700 ft³/s (1,440 m³/s) June 30, 1957, gage height, 34.71 ft (10.580 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in August 1915 reached a stage of 35.7 ft (10.88 m) from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,780 ft³/s (277 m³/s) during Mar. 4 or 5, gage height, 20.38 (6.212 m), peak above base of 8,000 ft³/s (227 m³/s).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			---		---	---			1000			
2			---		---	---			1100			
3			---		---	1200			---			
4			---		---	6200			---			
5			---		---	1800			---			
6			---		---	---			---			
7			---		---	---			---			
8			---		---	---			---			
9			---		---	---			---			
10			---		---	---			---			
11			---		---	---			---			
12			---		---	---			---			
13			---		---	---			---			
14			---		---	---			---			
15			---		---	---			---			
16			1000		---	---			---			
17			---		---	---			---			
18			---		---	---			---			
19			---		---	---			---			
20			---		---	---			---			
21			---		---	---			---			
22			---		1500	---			---			
23			---		---	---			---			
24			---		---	---			---			
25			---		---	---			---			
26			---		---	---			---			
27			---		---	---			---			
28			---		---	---			---			
29			---		---	---			---			
30			---		---	---			---			
31			---		---	---			---			
TOTAL			---		---	---			---			
MEAN			---		---	---			---			
MAX			---		---	---			---			
MIN			---		---	---			---			

07016500 BOURBEUSE RIVER AT UNION, MO

LOCATION.--Lat 38°26'45", long 90°59'30", in SE¼ sec.26, T.43 N., R.1 W., Franklin County, Hydrologic Unit 07140103, on right bank downstream side of pier of bridge on U.S. Highway 50, 800 ft (244 m) upstream from Flat Creek, 0.5 mi (0.8 km) east of Union, 7.0 mi (11.3 km) upstream from Birch Creek, and at mile 13.4 (21.6 km). Records include flow of Flat Creek.

DRAINAGE AREA.--808 mi² (2,093 km²), includes that of Flat Creek.

PERIOD OF RECORD.--June 1921 to current year. Gage-height record collected at same site since 1916 are contained in reports of 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 (148.919 m) above mean sea level. Prior to Oct. 1, 1948, datum of all gages 3.00 ft (0.914 m) higher. Prior to Oct. 21, 1933, nonrecording gage, at site 30 ft (9.1 m) upstream. Oct. 21, 1933, to June 11, 1944, nonrecording gage, at present site.

REMARKS.--Records good.

AVERAGE DISCHARGE.--55 years, 627 ft³/s (17.76 m³/s), 10.54 in/yr (268 mm/yr), 454,300 acre-ft/yr (560 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,100 ft³/s (937 m³/s) July 1, 1957, gage height, 24.44 ft (7.449 m); minimum, 11 ft³/s (0.31 m³/s) Oct. 10, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 22, 1915, reached a stage of 28.5 ft (8.69 m), present datum, from floodmarks, discharge, about 50,000 ft³/s (1,420 m³/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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,220 ft³/s (261 m³/s) Mar. 5, gage height, 13.23 ft (4.033 m), peak above base of 7,500 ft³/s (212 m³/s); minimum, 21 ft³/s (0.59 m³/s) Sept. 24, 25, gage height, 0.50 ft (0.152 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	115	58	99	670	95	236	300	185	138	54	32	30		
2	105	57	170	597	93	214	290	178	1170	53	31	29		
3	105	64	222	450	95	200	270	172	1160	54	30	30		
4	257	66	227	357	93	1360	250	169	584	54	30	33		
5	238	62	211	297	99	6000	230	160	401	54	32	39		
6	194	69	178	253	102	2000	210	151	311	52	38	42		
7	169	71	151	229	110	1000	198	141	254	52	36	39		
8	142	65	134	250	100	800	180	130	207	51	34	35		
9	123	63	123	244	109	600	165	123	180	52	31	34		
10	107	62	116	178	135	500	155	116	182	90	30	32		
11	97	64	110	159	218	400	148	110	190	82	30	30		
12	91	64	105	143	388	350	135	105	160	69	31	29		
13	86	62	102	135	342	300	128	111	136	61	31	28		
14	81	59	105	131	300	280	124	108	120	54	30	28		
15	78	58	191	127	265	260	120	117	106	50	30	28		
16	72	57	797	122	235	240	120	123	96	46	29	27		
17	69	57	1060	137	213	230	120	132	86	43	29	27		
18	67	57	695	138	198	220	120	267	78	41	28	26		
19	67	58	450	106	183	210	125	324	74	40	28	26		
20	65	59	350	108	171	210	135	421	69	38	26	26		
21	63	57	296	98	308	220	152	365	65	36	27	26		
22	61	57	258	94	581	240	295	294	63	35	28	24		
23	62	56	231	92	1700	260	704	240	60	35	27	23		
24	61	55	210	92	858	280	564	200	69	32	96	22		
25	62	56	183	96	548	300	408	169	65	29	233	22		
26	62	60	163	95	420	400	321	146	64	27	120	22		
27	60	63	149	93	346	500	269	129	60	31	65	33		
28	58	65	140	92	300	400	236	119	58	51	47	27		
29	58	68	160	93	264	305	211	112	60	42	39	27		
30	58	83	190	95	---	350	195	122	59	36	33	29		
31	58	---	486	95	---	330	---	135	---	34	31	---		
TOTAL	2991	1852	8062	5866	8869	19195	6878	5374	6325	1478	1362	873		
MEAN	96.5	61.7	260	189	306	619	229	173	211	47.7	43.9	29.1		
MAX	257	83	1060	670	1700	6000	704	421	1170	90	233	42		
MIN	58	55	99	92	93	200	120	105	58	27	26	22		
CFSM	.12	.08	.32	.23	.38	.77	.28	.21	.26	.06	.05	.04		
IN.	.14	.09	.37	.27	.41	.88	.32	.25	.29	.07	.06	.04		
AC-FT	5930	3670	15990	11640	17590	38070	13640	10660	12550	2930	2700	1730		
CAL YR 1975	TOTAL	364474	MEAN	999	MAX	20500	MIN	49	CFSM	1.24	IN	16.78	AC-FT	722900
WTR YR 1976	TOTAL	69125	MEAN	189	MAX	6000	MIN	22	CFSM	.23	IN	3.18	AC-FT	137100

07017200 BIG RIVER AT IRONDALE, MO

LOCATION.--Lat 37°49'48", long 90°41'27", in SE¼SW¼ sec.15, T.36 N., R.3 E., Washington County, Hydrologic Unit 07140104, on right bank 50 ft (15 m) upstream from bridge on State Highway V, 0.2 mi (0.3 km) upstream from Mill Creek, and 0.8 mi (1.3 km) west of Irondale.

DRAINAGE AREA.--175 mi² (453 km²).

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

GAGE.--Water-stage recorder, and crest-stage gage. Datum of gage is 753.28 ft (229.600 m) above mean sea level (Missouri State Highway Commission benchmark). July 1-15, 1965, nonrecording gage at present site and datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--11 years, 189 ft³/s (5.352 m³/s), 14.67 in/yr (373 mm/yr), 136,900 acre-ft/yr (169 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43,200 ft³/s (1,220 m³/s) Nov. 1, 1972, gage height, 27.92 ft (8.510 m), from floodmarks, from rating extended above 13,000 ft³/s (368 m³/s) on basis of step-back-water computations and indirect measurement of peak flow of February 1966 flood; minimum, 2.2 ft³/s (0.062 m³/s) Sept. 16, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,890 ft³/s (195 m³/s) July 31, gage height, 11.31 ft (3.447 m), peak above base of 3,000 ft³/s (85.0 m³/s); minimum, 4.6 ft³/s (0.13 m³/s) Sept. 10, 11, 12, 13, gage height, 0.79 ft (0.241 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	139	27	162	313	67	64	179	137	347	17	104	6.3		
2	70	27	114	236	62	60	145	122	144	15	33	6.5		
3	51	31	88	186	63	58	125	104	100	365	21	6.3		
4	43	64	72	138	62	56	110	87	81	137	17	6.1		
5	40	52	75	122	62	231	96	77	71	71	15	6.1		
6	38	43	663	110	63	170	86	70	61	48	25	5.5		
7	36	38	273	116	62	126	77	64	52	36	33	5.2		
8	34	35	173	128	62	108	70	58	46	30	18	5.0		
9	32	33	135	100	69	99	62	53	41	25	15	5.0		
10	31	33	109	96	85	90	59	48	39	22	14	4.8		
11	34	33	91	90	87	81	55	46	34	20	13	4.6		
12	34	31	78	87	80	90	50	42	30	17	12	4.6		
13	33	29	71	85	79	85	48	47	24	16	11	4.9		
14	30	28	63	82	76	77	47	55	20	15	74	4.8		
15	30	28	1130	74	73	73	46	51	19	14	26	7.1		
16	29	27	486	72	70	72	43	47	19	13	17	6.4		
17	29	27	266	65	69	72	42	46	18	13	14	5.9		
18	27	26	173	56	69	71	40	46	18	12	12	5.9		
19	26	25	137	60	64	68	66	42	19	11	11	5.6		
20	26	27	118	61	59	71	189	39	18	10	10	5.5		
21	26	27	98	58	124	89	358	37	17	9.8	9.6	5.6		
22	26	26	85	56	133	79	246	34	17	9.1	9.4	5.4		
23	26	26	77	53	108	74	168	32	17	9.1	8.8	5.6		
24	27	26	71	54	97	77	582	30	29	9.0	10	5.9		
25	32	26	68	72	86	198	556	29	31	8.8	10	5.9		
26	30	27	73	114	81	213	307	28	24	8.8	9.0	5.9		
27	28	31	67	70	75	1140	214	28	21	8.8	8.0	7.3		
28	28	29	64	77	71	344	182	46	19	9.3	7.5	8.1		
29	29	44	228	77	68	279	197	53	17	13	7.0	6.7		
30	29	224	928	74	---	442	159	45	17	14	6.7	6.7		
31	28	---	502	71	---	242	---	297	---	668	6.5	---		
TOTAL	1121	1150	6738	3053	2226	4999	4604	1940	1410	1674.7	587.5	175.2		
MEAN	36.2	38.3	217	98.5	76.8	161	153	62.6	47.0	54.0	19.0	5.84		
MAX	139	224	1130	313	133	1140	582	297	347	668	104	8.1		
MIN	26	25	63	53	59	56	40	28	17	8.8	6.5	4.6		
CFSM	.21	.22	1.24	.56	.44	.92	.87	.36	.27	.31	.11	.03		
IN.	.24	.24	1.43	.65	.47	1.06	.98	.41	.30	.36	.12	.04		
AC-FT	2220	2280	13360	6060	4420	9920	9130	3850	2800	3320	1170	348		
CAL YR 1975	TOTAL	85854.0	MEAN	235	MAX	7140	MIN	14	CFSM	1.34	IN	18.25	AC-FT	170300
WTR YR 1976	TOTAL	29678.4	MEAN	81.1	MAX	1140	MIN	4.6	CFSM	.46	IN	6.31	AC-FT	58870

07018000 BIG RIVER NEAR DESOTO, MO

LOCATION.--Lat 38°07'20", long 90°40'33", in SW¼NW¼ sec.11, T.39 N., R.3 E., Jefferson County, Hydrologic Unit 07140104, near right bank on downstream side of pier of Mammoth Bridge, 300 ft (91 m) upstream from Mammoth Creek, 1.5 mi (2.4 km) downstream from Mineral Fork, 6.5 mi (10.5 km) west of De Soto, and at mile 59.2 (95.3 km). Records include flow from Mammoth Creek.

DRAINAGE AREA.--718 mi² (1,860 km²), includes that of Mammoth Creek.

PERIOD OF RECORD.--October 1948 to current year. Prior to May 1949 monthly discharge only, published in WSP 1311.

GAGE.--Water-stage recorder. Datum of gage is 538.79 ft (164.223 m) above mean sea level.

REMARKS.--Records good.

AVERAGE DISCHARGE.--28 years, 667 ft³/s (18.89 m³/s), 12.62 in/yr (321 mm/yr), 483,200 acre-ft/yr (596 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,800 ft³/s (1,580 m³/s) June 30, 1957, gage height, 27.15 ft (8.275 m); minimum discharge, 20 ft³/s (0.57 m³/s) Sept. 19, 1954; minimum gage height, 1.89 ft (0.576 m) Sept. 15, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 1915 reached a stage of about 29.4 ft (8.96 m), from flood-mark, 1.0 mi (1.6 km) downstream, adjusted to gage site by comparison with recorded flood 5.5 ft (1.68 m) lower; discharge, 70,500 ft³/s (2,000 m³/s), from rating curve extended above 37,000 ft³/s (1,050 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,820 ft³/s (79.9 m³/s) Dec. 16, gage height, 7.29 ft (2.222 m), no peak above base of 8,000 ft³/s (227 m³/s); minimum, 43 ft³/s (1.22 m³/s) Sept. 18, gage height, 2.55 ft (0.777 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	622	128	614	1090	223	230	664	474	1770	105	908	52
2	782	127	562	788	213	226	538	412	1070	95	612	53
3	458	130	412	655	207	220	460	358	654	197	254	52
4	312	150	333	500	201	216	398	315	470	821	163	52
5	245	238	288	450	195	265	357	281	370	564	126	50
6	208	220	661	400	192	465	322	253	326	339	112	48
7	186	217	994	370	194	475	288	232	274	239	110	46
8	172	201	646	360	207	392	259	209	232	188	148	47
9	160	181	499	350	219	347	234	191	202	158	160	97
10	151	184	418	340	263	315	212	180	188	132	112	79
11	151	174	362	330	292	289	199	180	172	115	93	61
12	142	157	320	320	283	281	188	173	157	103	83	55
13	140	145	287	310	267	276	178	185	145	104	138	52
14	140	139	264	300	253	266	172	205	135	101	105	48
15	138	134	1140	290	248	247	169	253	133	90	91	47
16	135	128	2240	281	242	244	164	239	128	82	182	47
17	132	126	1200	266	237	234	161	202	116	78	157	46
18	130	126	709	262	231	229	154	183	110	75	109	44
19	130	121	572	250	228	223	175	166	109	75	89	45
20	129	120	471	232	217	222	344	161	106	71	79	44
21	128	118	409	218	244	234	616	149	101	60	73	46
22	127	113	359	207	304	237	717	137	98	54	68	46
23	126	112	315	207	369	229	590	129	98	52	64	47
24	125	113	294	198	333	263	706	122	122	48	69	48
25	190	111	276	216	296	509	1310	113	140	49	76	46
26	160	118	280	301	276	541	1020	107	130	53	90	48
27	140	135	272	337	257	1470	726	105	128	67	83	54
28	132	135	261	305	248	1680	589	123	115	105	71	60
29	131	160	281	270	234	854	566	163	115	101	63	61
30	130	484	960	255	---	1140	543	189	119	111	57	62
31	129	---	1770	236	---	926	---	507	---	195	56	---
TOTAL	6181	4745	18469	10894	7173	13745	13019	6696	8033	4627	4601	1583
MEAN	199	158	596	351	247	443	434	216	268	149	148	52.8
MAX	782	484	2240	1090	369	1680	1310	507	1770	821	908	97
MIN	125	111	261	198	192	216	154	105	98	48	56	44
CFSM	.28	.22	.83	.49	.34	.62	.60	.30	.37	.21	.21	.07
IN.	.32	.25	.96	.56	.37	.71	.67	.35	.42	.24	.24	.08
AC-FT	12260	9410	36630	21610	14230	27260	25820	13280	15930	9180	9130	3140
CAL YR 1975	TOTAL	319478	MEAN 875	MAX	18600	MIN 95	CFSM 1.22	IN 14.55	AC-FT	633700		
WTR YR 1976	TOTAL	99766	MEAN 273	MAX	2240	MIN 44	CFSM .38	IN 5.17	AC-FT	197900		

07018500 BIG RIVER AT BYRNESVILLE, MO

LOCATION.--Lat 38°21'45", long 90°39'05", in SE¼ sec.12, T.42 N., R.3 E., Jefferson County, Hydrologic Unit 07140104, on right bank on downstream side of pier of highway bridge at Byrnesville, 4.0 mi (6.4 km) upstream from Heads Creek, and at mile 14.1 (22.7 km).

DRAINAGE AREA.--917 mi² (2,375 km²).

PERIOD OF RECORD.--October 1921 to current year. Prior to June 1922 monthly discharge only, published in 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 (132.189 m) above mean sea level. Prior to Mar. 9, 1940, nonrecording gage at present site and datum.

Auxiliary water-stage recorder 4.0 mi (6.4 km) downstream at datum 433.83 ft (132.231 m) above mean sea level. Prior to Dec. 9, 1969, nonrecording gage at present site and datum.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--55 years, 840 ft³/s (23.79 m³/s), 12.44 in/yr (316 mm/yr), 608,600 acre-ft/yr (750 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,100 ft³/s (1,190 m³/s) July 1, 1957, gage height, 26.41 ft (8.050 m); minimum discharge, 25 ft³/s (0.708 m³/s) Aug. 30, 1936, minimum gage height, 1.50 ft (0.457 m) Aug. 14, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 21, 1915, reached a stage of 30.2 ft (9.20 m) from floodmarks, discharge, 80,000 ft³/s (2,270 m³/s), by slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,760 ft³/s (78.2 m³/s) Dec. 16, gage height, 8.56 ft (2.609 m), no peak above base of 7,000 ft³/s (198 m³/s); minimum daily, 54 ft³/s (1.53 m³/s) Sept. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	215	185	431	1730	270	277	880	616	1070	144	138	75
2	573	183	629	1190	275	269	692	536	1580	137	693	73
3	763	191	588	923	265	270	612	470	934	135	508	70
4	487	209	452	761	260	274	528	416	614	132	301	68
5	371	225	377	628	254	366	465	371	476	479	215	66
6	340	258	337	515	267	326	417	344	398	422	185	64
7	349	272	719	481	257	447	383	318	359	304	149	62
8	290	290	1060	409	254	507	355	288	335	239	133	60
9	250	275	700	354	254	439	324	262	301	199	128	70
10	219	252	544	326	273	394	294	243	271	175	171	80
11	211	237	461	376	297	371	272	231	247	158	148	90
12	196	233	406	372	331	353	254	219	233	152	124	80
13	187	225	363	392	342	327	241	223	215	159	111	70
14	179	213	335	367	330	311	230	231	199	129	116	64
15	173	205	340	355	317	306	221	248	186	122	137	62
16	172	199	1470	341	306	302	214	262	168	116	118	60
17	168	193	2030	329	300	288	208	285	136	109	115	58
18	163	187	1130	291	292	279	202	262	143	104	178	57
19	158	183	806	267	282	271	208	237	144	100	144	56
20	154	191	638	262	275	269	236	219	137	96	119	55
21	154	173	541	272	277	269	441	205	133	93	105	54
22	155	169	472	266	275	263	727	197	130	90	96	55
23	153	167	423	264	301	266	801	187	130	84	90	56
24	151	165	378	331	371	267	706	175	139	79	88	58
25	262	161	353	315	379	265	1010	165	141	78	88	60
26	221	167	338	298	351	486	1460	155	147	79	90	62
27	193	173	325	286	326	584	1120	145	149	94	91	65
28	193	177	320	274	305	1640	855	144	144	90	95	70
29	187	189	322	260	291	1220	704	144	155	94	91	75
30	185	245	334	266	---	836	657	177	174	115	84	80
31	185	---	1240	267	---	1210	---	518	---	121	79	---
TOTAL	7657	6192	18862	13768	8577	13952	15717	8493	9588	4628	4928	1975
MEAN	247	206	608	444	296	450	524	274	320	149	159	65.8
MAX	763	290	2030	1730	379	1640	1460	616	1580	479	693	90
MIN	151	161	320	260	254	263	202	144	130	78	79	54
CFSM	.27	.22	.66	.48	.32	.49	.57	.30	.35	.16	.17	.07
IN.	.31	.25	.77	.56	.35	.57	.64	.34	.39	.19	.20	.08
AC-FT	15190	12280	37410	27310	17010	27670	31170	16850	19020	9180	9770	3920
CAL YR 1975 TOTAL	404672			1109	MAX	18200	MIN 128	CFSM 1.21	IN 16.42	AC-FT 802700		
WTR YR 1976 TOTAL	114337			312	MAX	2030	MIN 54	CFSM .34	IN 4.64	AC-FT 226800		

07019000 MERAMEC RIVER NEAR EUREKA, MO

LOCATION.--Lat 38°30'20", long 90°35'27", in SE¼ sec.32, T.44 N., R.4 E., St. Louis County, Hydrologic Unit 07140102, on right bank 44 ft (13 m) upstream from bridge on north access roadway of I-44, 2.0 mi (3.2 km) east of Eureka, 3.0 mi (4.8 km) downstream from Big River, and at mile 34.1 (55.7 km).

DRAINAGE AREA.--3,788 mi² (9,811 km²).

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 (123.194 m) above mean sea level. Prior to Jan. 17, 1933, nonrecording gage at site 200 ft (61 m) upstream at different datum. Jan. 17, 1933, to Sept. 22, 1937, nonrecording gage, and Sept. 23, 1937, to Sept. 30, 1971, water-stage recorder at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--57 years, 3,036 ft³/s (85.98 m³/s), 10.88 in/yr (276 mm/yr), 2,200,000 acre-ft/yr (2.71 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 120,000 ft³/s (3,400 m³/s) June 11, 1945, gage height, 38.94 ft (11.869 m), present datum; minimum, 196 ft³/s (5.55 m³/s) Aug. 27, 31, Sept. 1, 1936.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 22, 1915, reached a stage of 42.2 ft (12.86 m), from flood-marks, present datum, discharge, 175,000 ft³/s (4,960 m³/s), by slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,410 ft³/s (266 m³/s) Mar. 7, gage height, 8.56 ft (2.609 m), no peak above base of 17,000 ft³/s (481 m³/s); minimum daily, 313 ft³/s (8.86 m³/s) Sept. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1060	740	1300	3600	1010	1280	2530	1970	2750	651	532	381
2	972	732	1900	3730	972	1230	2290	1910	4740	613	745	375
3	1380	766	2170	3270	953	1190	1990	1810	4850	605	1140	370
4	1460	812	2040	2770	924	2120	1780	1710	3380	608	774	365
5	1390	838	1780	2400	949	4630	1640	1610	2390	820	622	360
6	1250	904	1610	2100	960	8040	1530	1530	1890	1290	600	355
7	1180	892	1570	1930	937	8280	1470	1460	1610	1160	571	350
8	1070	979	2060	1620	933	3680	1390	1370	1430	1030	508	348
9	991	944	1790	1500	926	2590	1320	1310	1310	918	482	346
10	934	918	1630	1560	962	2130	1280	1270	1200	818	489	342
11	879	881	1530	1580	1020	1850	1240	1230	1110	754	508	340
12	834	866	1430	1610	1100	1710	1190	1190	1060	720	469	338
13	808	848	1360	1540	1270	1580	1160	1210	988	704	462	336
14	782	827	1310	1460	1240	1490	1140	1240	920	639	456	334
15	757	815	1370	1400	1190	1430	1120	1270	860	588	449	332
16	748	797	1850	1280	1150	1420	1110	1350	809	553	443	330
17	732	794	4020	1210	1110	1380	1090	1500	765	520	437	328
18	724	786	3470	1180	1090	1370	1080	1450	736	498	443	326
19	708	786	2880	1140	1070	1370	1110	1480	707	475	449	324
20	692	790	2360	1100	1050	1390	1250	1540	677	456	424	320
21	692	775	2030	1080	1160	1440	1590	1610	652	447	412	316
22	700	774	1820	1050	1330	1430	2030	1520	629	442	406	315
23	692	770	1670	1030	1760	1410	2660	1390	628	430	399	314
24	700	774	1550	1010	2850	1430	3260	1290	642	424	393	313
25	700	767	1480	1020	2220	1380	3100	1220	646	418	482	330
26	757	799	1410	1030	1830	1460	3430	1160	662	412	550	335
27	724	825	1360	1050	1600	1740	2960	1110	682	489	469	340
28	732	826	1320	1080	1460	2670	2520	1080	679	502	412	350
29	732	862	1320	1090	1350	3030	2230	1060	675	551	399	360
30	732	986	1400	1080	---	2390	2050	1090	704	506	393	370
31	740	---	1900	1040	---	2620	---	1420	---	615	387	---
TOTAL	27252	24873	56690	49540	36376	71160	54540	43360	40781	19656	15705	10243
MEAN	879	829	1829	1598	1254	2295	1818	1399	1359	634	507	341
MAX	1460	986	4020	3730	2850	8280	3430	1970	4850	1290	1140	381
MIN	692	732	1300	1010	924	1190	1080	1060	628	412	387	313
CFSM	.23	.22	.48	.42	.33	.61	.48	.37	.36	.17	.13	.09
IN.	.27	.24	.56	.49	.36	.70	.54	.43	.40	.19	.15	.10
AC-FT	54050	49340	112400	98260	72150	141100	108200	86000	80890	38990	31150	20320
CAL YR 1975 TOTAL	1590997			4359	MAX 39900	MIN 595	CFSM 1.15	IN 15.62	AC-FT 3156000			
WTR YR 1976 TOTAL	450176			MEAN 1230	MAX 8280	MIN 313	CFSM .32	IN 4.42	AC-FT 892900			

MISSISSIPPI RIVER MAIN STEM

201

07019370 MISSISSIPPI RIVER AT KIMMSWICK, MO

LOCATION.--Lat 38°21'27", long 90°21'26", Jefferson County, Hydrologic Unit 07140101, 2.2 mi (3.5 km) downstream from Meramec River and at mile 158.5 (255.0 km) upstream from Ohio River.

DRAINAGE AREA.--705,000 mi² (1,826,000 km²), approximately.

PERIOD OF RECORD.--July 1975 to current year.

REMARKS.--Discharges shown were taken from daily discharges for gaging stations at Mississippi River at St. Louis (station 07010000) and Meramec River near Eureka (station 07019000).

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	TOTAL SODIUM (NA) (MG/L)
OCT 08...	120000	529	8.2	19.5	30	9.6	103	8	36000	55	21	40
NOV 12...	107000	653	8.2	13.5	2	11.2	128	8	40000	58	22	44
DEC 10...	152000	600	7.8	5.5	60	13.8	110	6	--	53	17	31
JAN 21...	82700	630	8.2	5.0	15	17.4	136	15	1600	59	22	30
FEB 11...	108000	640	8.0	7.0	15	13.6	89	26	2000	54	22	33
MAR 10...	342000	380	7.6	8.0	240	10.4	87	22	4600	46	19	14
APR 13...	247000	420	7.9	17.0	50	7.6	78	24	2100	47	18	17
MAY 12...	262000	450	7.9	17.0	20	8.6	88	23	5000	48	17	17
JUN 09...	140000	570	8.2	24.0	50	7.6	89	14	24000	60	21	25
JUL 14...	97000	565	8.0	28.0	20	6.8	86	21	94000	52	18	31
AUG 11...	73000	575	7.9	26.0	50	7.0	85	11	--	50	20	40
SEP 15...	62000	640	8.3	23.0	20	8.0	92	14	--	53	21	45

DATE	TOTAL PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
OCT 08...	3.9	180	0	120	17	259	478	.26	.13	.73	.21
NOV 12...	4.2	168	0	140	18	391	480	.25	.07	.61	.31
DEC 10...	3.6	184	0	95	22	358	499	.94	.25	1.2	.40
JAN 21...	3.4	224	0	96	27	394	442	1.1	.31	1.1	.22
FEB 11...	3.8	204	0	76	38	378	440	1.3	.59	1.7	.24
MAR 10...	6.5	148	0	49	18	216	1130	2.5	.38	2.7	.56
APR 13...	3.7	152	0	53	17	254	492	1.1	.06	1.2	.28
MAY 12...	5.4	160	0	64	17	266	838	1.5	.06	1.7	.39
JUN 09...	43	168	0	82	21	334	484	2.8	.07	1.1	.27
JUL 14...	4.4	182	0	100	--	302	486	1.2	.13	.74	.13
AUG 11...	5.0	180	0	120	22	394	584	.76	.17	.94	.30
SEP 15...	4.2	200	0	140	22	408	443	.13	.09	.79	.17

07020500 MISSISSIPPI RIVER AT CHESTER, IL

LOCATION.--Lat 37°54'10", long 89°51'10", in SW¼ 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 (13.0 km) downstream from Kaskaskia River, and at mile 109.9 (176.8 km) above Ohio River.

DRAINAGE AREA (REVISED).--708,600 mi² (1,835,000 km²), approximately. The 3,959 mi² (10,254 km²) in Great Divide basin is not included.

PERIOD OF RECORD.--Discharge: October 1927 to current year in reports of Geological Survey. Monthly discharge only for some periods, published in WSP 1311. Since August 1873, results of discharge measurements in reports of Mississippi River Commission.

Gage heights: July 1942 to current year in reports of Geological Survey. Since May 1891, in reports of Mississippi River Commission and National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 341.05 ft (103.952 m) above mean sea level. Prior to February 1, 1962, nonrecording gage 0.4 mi (0.6 km) downstream at present datum.

REMARKS.--Records excellent. 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.

AVERAGE DISCHARGE.--49 years, 183,000 ft³/s (5,183 m³/s), 132,600,000 acre-ft/yr (163 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge determined, 886,000 ft³/s (25,100 m³/s) July 3, 1947, Apr. 30, 1973, (discharge including unmeasured overflow, was greater May 24, 1943; maximum gage height, 43.32 ft (13.204 m) Apr. 30, 1973; minimum daily discharge, 30,000 ft³/s (850 m³/s) Dec. 12, 1937; minimum gage height, -4.10 ft (-1.250 m) Jan. 2, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 30, 1844, reached a stage of 39.8 ft (12.13 m) and a discharge of 1,350,000 ft³/s (38,200 m³/s) computed by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 453,000 ft³/s (12,800 m³/s) May 1, gage height, 28.10 ft (8.565 m); minimum, 55,800 ft³/s (1,580 m³/s) Sept. 19, gage height, -0.44 ft (-0.134 m).

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.42	7.93	11.46	8.20	5.16	13.86	17.54	28.02	13.83	7.24	6.98	.37
2	8.84	8.50	13.43	8.56	4.24	14.09	17.45	28.01	13.90	9.20	7.27	.63
3	8.92	7.74	14.04	8.60	3.94	14.14	17.50	27.43	14.18	10.37	5.37	1.21
4	9.16	7.37	15.24	8.35	3.83	14.48	17.83	26.64	13.63	9.83	4.42	1.45
5	9.09	7.65	15.05	6.20	4.14	16.34	17.90	25.66	13.61	8.74	4.45	1.28
6	8.89	8.02	13.82	5.85	5.29	21.86	17.64	24.78	13.06	8.45	3.27	1.15
7	8.30	8.61	12.50	6.60	5.19	24.29	17.42	23.73	12.72	7.82	3.24	.66
8	8.12	8.04	11.52	6.93	4.66	25.00	17.36	22.94	12.23	7.40	3.96	.12
9	7.97	8.04	11.32	5.66	4.88	24.57	17.44	22.46	10.72	7.62	4.28	.15
10	7.65	7.48	11.29	5.02	5.49	23.71	17.38	22.70	9.82	7.30	2.98	.06
11	7.57	7.61	10.90	5.79	5.44	21.74	17.65	22.36	9.81	7.82	2.59	.33
12	7.06	6.92	10.92	5.50	6.35	20.05	17.80	20.13	8.85	7.72	2.17	.69
13	7.18	7.34	10.49	4.44	6.62	19.07	17.90	18.91	8.61	6.18	1.46	.60
14	6.97	8.08	10.00	3.50	6.93	18.67	17.90	18.45	8.06	5.09	2.04	.42
15	6.78	8.67	9.88	3.54	7.18	18.55	18.19	17.46	7.28	5.10	2.72	.62
16	7.38	9.11	11.14	3.33	7.01	18.43	18.48	16.16	6.39	4.51	4.81	.64
17	8.22	9.24	12.16	3.73	7.87	18.52	18.59	16.16	7.77	4.62	4.71	.54
18	8.52	9.36	13.00	3.16	10.58	18.85	18.44	17.31	9.65	4.51	3.56	.34
19	8.32	10.34	12.90	2.65	11.31	19.55	18.26	18.79	9.85	4.48	2.83	.08
20	7.59	9.99	11.08	2.63	11.23	19.72	18.09	19.82	11.22	3.54	2.19	.23
21	7.09	9.81	9.87	2.81	10.50	19.50	17.80	18.89	10.72	3.61	2.47	.39
22	6.72	10.25	8.42	2.90	11.84	19.03	18.70	17.68	9.07	3.82	2.52	.53
23	6.55	10.64	8.31	3.73	14.71	18.40	21.34	16.65	8.60	4.02	2.00	.52
24	6.57	10.06	8.19	4.06	14.55	17.18	22.02	16.02	8.24	5.59	1.76	.82
25	6.79	9.62	7.24	3.84	13.14	16.09	22.84	14.89	8.52	5.94	1.64	.89
26	7.22	9.00	7.04	3.65	12.58	15.51	23.38	13.61	8.39	3.91	1.75	1.09
27	7.17	10.30	7.16	3.65	12.77	15.30	23.80	12.67	7.76	4.22	1.99	1.64
28	6.89	10.79	7.24	3.64	12.86	15.62	25.14	12.29	8.24	5.05	2.09	2.07
29	6.87	9.79	7.64	3.54	13.18	16.81	26.67	13.41	8.41	4.67	1.95	2.06
30	7.38	9.76	8.61	3.70	---	17.83	27.69	14.18	7.27	5.58	1.84	1.99
31	7.93	---	8.82	4.16	---	17.66	---	14.61	---	6.18	1.18	---
MAX	9.16	10.79	15.24	8.60	14.71	25.00	27.69	26.02	14.18	10.37	7.27	2.07
MIN	6.55	6.92	7.04	2.63	3.83	13.86	17.36	12.29	6.39	3.54	1.18	.06

07020500 MISSISSIPPI RIVER AT CHESTER, IL--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123000	124000	174000	130000	102000	198000	251000	451000	185000	119000	116000	65400
2	128000	126000	199000	133000	93900	199000	251000	447000	190000	142000	113000	69100
3	129000	117000	209000	134000	90200	202000	252000	433000	194000	151000	97100	72100
4	131000	116000	223000	131000	89800	209000	257000	419000	187000	143000	90200	72600
5	130000	118000	215000	109000	94200	252000	258000	394000	184000	133000	87700	71000
6	126000	125000	196000	109000	104000	345000	252000	372000	177000	130000	80800	69100
7	123000	127000	175000	117000	101000	387000	250000	350000	174000	124000	82000	64000
8	121000	123000	164000	118000	97600	397000	250000	334000	164000	121000	89600	60900
9	118000	123000	163000	107000	101000	390000	251000	326000	147000	121000	89600	60400
10	116000	119000	160000	107000	104000	369000	251000	330000	141000	119000	79600	60700
11	114000	118000	156000	110000	106000	330000	256000	314000	139000	124000	76200	62900
12	112000	112000	156000	107000	112000	302000	259000	278000	130000	121000	71800	65300
13	113000	119000	150000	96900	115000	287000	260000	261000	128000	105000	67700	64200
14	112000	126000	144000	90600	119000	282000	261000	255000	123000	97800	72800	63300
15	111000	132000	147000	88300	121000	280000	264000	240000	113000	97200	81300	64200
16	120000	136000	161000	87000	123000	280000	268000	224000	109000	92300	99200	64400
17	126000	136000	174000	87900	132000	280000	269000	230000	125000	92700	94700	63200
18	129000	140000	186000	82000	159000	285000	266000	253000	141000	93900	85500	61800
19	127000	149000	179000	77800	167000	293000	262000	277000	146000	91000	78400	61000
20	118000	144000	157000	78400	163000	293000	258000	287000	161000	84000	74600	61100
21	113000	143000	141000	80600	156000	285000	255000	269000	148000	85800	77300	62500
22	110000	148000	127000	83200	178000	275000	281000	248000	132000	87600	77200	63300
23	108000	151000	127000	89900	214000	260000	320000	231000	128000	91800	72700	63800
24	109000	144000	125000	92600	205000	239000	334000	219000	124000	108000	70900	65500
25	112000	141000	118000	91100	186000	223000	349000	201000	128000	106000	70600	66000
26	115000	146000	114000	90100	180000	216000	359000	181000	125000	89600	71600	67700
27	114000	152000	115000	90900	181000	217000	370000	169000	122000	96200	73300	72100
28	113000	154000	118000	89700	182000	223000	397000	168000	127000	99000	73600	75200
29	113000	145000	124000	89500	186000	244000	428000	184000	125000	97700	72300	74800
30	119000	146000	132000	90900	---	256000	447000	193000	115000	104000	70200	73300
31	123000	---	133000	97200	---	254000	---	195000	---	109000	65700	---
TOTAL	3676000	4000000	4862000	3086600	3962700	8552000	8686000	8733000	4332000	3376600	2523200	1980900
MEAN	118600	133300	156800	99570	136600	275900	289500	281700	144400	108900	81390	66030
MAX	131000	154000	223000	134000	214000	397000	447000	451000	194000	151000	116000	75200
MIN	108000	112000	114000	77800	89800	198000	250000	168000	109000	84000	65700	60400
AC-FT	7291000	7934000	9644000	6122000	7860000	16960000	17230000	17320000	8593000	6697000	5005000	3929000
CAL YR 1975	TOTAL	78878000	MEAN	216100	MAX	539000	MIN	104000	AC-FT	156500000		
WTR YR 1976	TOTAL	57771000	MEAN	157800	MAX	451000	MIN	60400	AC-FT	114600000		

Note.--Daily discharge computed from daily mean gage height.

HEADWATER DIVERSION CHANNEL BASIN

07021000 CASTOR RIVER AT ZALMA, MO

LOCATION.--Lat 37°08'48", long 90°04'32", in SE¼ sec.29, T.29 N., R.9 E., Bollinger County, Hydrologic Unit 08020204, on downstream side of left bridge pier on State Highway 51 in Zalma, and 2.5 mi (4.0 km) downstream from Perkins Creek.

DRAINAGE AREA.--423 mi² (1,096 km²).

PERIOD OF RECORD.--January 1920 to current year. Prior to October 1921 monthly discharge only published in WSP 1931.

REVISED RECORDS.--WSP 1147: 1922-23(M). WSP 1281: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 350.38 ft (106.796 m) above mean sea level. Prior to June 9, 1953, nonrecording gage. Prior to Oct. 1, 1925, at site 500 ft (152 m) upstream at datum 49.82 ft (15.185 m) lower, Oct. 1, 1925, to Nov. 12, 1930, at site 500 ft (152 m) upstream at datum 0.18 ft (0.055 m) higher than present gage, Nov. 13, 1930, to June 8, 1953, at present site and datum. Since Dec. 18, 1949, auxiliary nonrecording gage, 6 mi (9.7 km) downstream.

REMARKS.--Records good. Several observations of water temperatures were made during the year.

AVERAGE DISCHARGE.--56 years, 510 ft³/s (14.4 m³/s), 16.37 in/yr (416 mm/yr), 369,500 acre-ft/yr (456 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,400 ft³/s (1,144 m³/s) Jan. 14, 1937, gage height, 27.67 ft (8.434 m), from rating curve extended above 25,000 ft³/s (708 m³/s); maximum gage height, 28.20 ft (8.595 m) Mar. 11, 1935; minimum discharge, 16 ft³/s (0.453 m³/s) Aug. 31, 1936, gage height, 0.81 ft (0.247 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 1915 reached a stage of 28.0 ft (8.53 m), present datum, from floodmark by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,800 ft³/s (532 m³/s) July 4 (1315), gage height, 24.47 ft (7.458 m), peak above base of 8,000 ft³/s (227 m³/s); minimum, 63 ft³/s (1.78 m³/s) Sept. 22, 23, 24, gage height, 1.21 ft (0.369 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	151	121	1110	1350	294	428	1100	265	368	601	156	73
2	143	117	903	1030	282	392	888	258	556	475	147	72
3	138	119	589	815	275	363	761	242	718	1900	137	71
4	134	145	448	662	263	336	669	226	635	14000	129	71
5	129	172	388	555	253	459	592	216	550	8130	121	70
6	126	171	2380	488	245	1020	535	211	488	2910	117	68
7	123	162	4050	448	234	874	486	215	430	1710	113	67
8	119	155	2090	404	222	721	441	200	381	1260	113	68
9	117	147	1190	383	216	645	403	190	340	973	110	76
10	114	148	862	382	213	583	369	183	306	681	106	83
11	116	154	623	318	206	523	347	180	279	449	103	89
12	112	156	498	281	198	493	322	174	252	375	99	83
13	108	147	424	272	193	455	300	172	227	329	95	77
14	107	139	371	272	188	417	283	177	207	294	97	73
15	107	132	576	250	184	389	269	178	190	265	123	71
16	106	126	1610	239	181	372	255	178	199	238	137	69
17	107	119	1320	223	245	350	241	177	193	215	121	67
18	107	113	871	210	1020	331	229	174	396	198	110	66
19	106	107	654	202	895	314	229	168	779	183	102	66
20	104	105	544	199	675	314	238	164	422	171	97	65
21	104	102	466	193	1190	414	245	158	307	162	93	65
22	104	96	404	187	1920	479	245	155	256	152	90	64
23	104	91	361	183	1270	464	235	153	229	143	87	63
24	105	87	327	180	933	445	251	149	1330	136	87	64
25	118	82	308	298	776	438	321	146	4000	137	102	64
26	170	82	326	461	675	429	332	142	1780	156	94	64
27	158	87	301	368	587	826	315	142	1030	136	88	65
28	142	84	276	337	521	1060	297	209	675	135	84	67
29	133	89	332	326	470	981	289	288	1400	159	81	68
30	129	228	1080	316	---	1590	276	301	976	188	78	69
31	125	---	1560	304	---	1450	---	315	---	175	76	---
TOTAL	3766	3783	27242	12136	14824	18355	11763	6106	19899	37036	3293	2098
MEAN	121	126	879	391	511	592	392	197	663	1195	106	69.9
MAX	170	228	4050	1350	1920	1590	1100	315	4000	14000	156	89
MIN	104	82	276	180	181	314	229	142	190	135	76	63
CFSM	.29	.30	2.08	.92	1.21	1.40	.93	.47	1.57	2.83	.25	.17
IN.	.33	.33	2.40	1.07	1.30	1.61	1.03	.54	1.75	3.26	.29	.18
AC-FT	7470	7500	54030	24070	29400	36410	23330	12110	39470	73460	6530	4160
CAL YR 1975	TOTAL	242906	MEAN 665	MAX	12600	MIN 78	CFSM 1.57	IN 21.36	AC-FT	481800		
WTR YR 1976	TOTAL	160301	MEAN 438	MAX	14000	MIN 63	CFSM 1.04	IN 14.10	AC-FT	318000		

07022000 MISSISSIPPI RIVER AT THEBES, IL

LOCATION.--Lat 37°13'00", long 89°27'50", in NW¼ 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 (8.0 km) downstream from Headwater Diversion Channel, and at mile 43.7 (70.3 km) above Ohio River.

DRAINAGE AREA (REVISED).--713,200 mi² (1,847,000 km²), approximately. The 3,959 mi² (10,254 km²) in Great Divide basin is not included.

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 heights: March 1933 to February 1938 and October 1939 to current year in reports of Geological Survey (prior to April 1941, published as "at Cape Girardeau, Mo."). Since November 1878, under name of "at Grays Point" in files of St. Louis District office of Corps of Engineers. January 1879 to May 1896, published as "at Grays Point" and since May 1896, published as "at Cape Girardeau" in reports of Mississippi River Commission. February 1891 to February 1894 and since 1904, published as "at Cape Girardeau" in reports of National Weather Service.

REVISED RECORDS.--WSP 1341: 1844(M).

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Mar. 17, 1933, to Dec. 21, 1934, nonrecording gage and Dec. 22, 1934, to Apr. 4, 1941, water-stage recorder, at site 8.2 mi (13.2 km) upstream at datum 4.65 ft (1.417 m) higher. Apr. 5, 1941, to Sept. 30, 1941, nonrecording gage at present site and datum and Oct. 1, 1941, to Oct. 11, 1943, at datum 0.07 ft (0.021 m) higher. Prior to Apr. 5, 1941, various auxiliary gages used. Since Oct. 1, 1943, former gage at Cape Girardeau used as auxiliary gage.

REMARKS.--Records excellent. 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.

AVERAGE DISCHARGE.--44 years, 188,200 ft³/s (5,330 m³/s), 136,400,000 acre-ft/yr (168 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 893,000 ft³/s (25,300 m³/s) May 27, 1943, elevation, 340.33 ft (103.733 m), present datum; maximum elevation, 343.43 ft (104.678 m) Apr. 30, 1973; minimum discharge, 23,400 ft³/s (663 m³/s) Dec. 13, 1937, at site then in use; minimum elevation, 301.67 ft (91.949 m) Jan. 2, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 4, 1844, reached an elevation of 345.14 ft (105.199 m), present datum, at Grays Point, from floodmarks, discharge, 1,375,000 ft³/s (38,900 m³/s), computed by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 470,000 ft³/s (13,300 m³/s) May 2; maximum elevation, 330.40 ft (100.706 m) May 1; minimum discharge, 61,000 ft³/s (1,730 m³/s) Sept. 21, elevation, 305.00 ft (92.964 m).

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.77	12.27	15.08	14.57	10.46	20.28	22.78	30.20	18.54	12.08	11.65	5.95
2	12.78	12.38	16.70	14.35	10.85	20.70	22.67	30.25	18.10	12.17	12.12	5.55
3	13.20	12.60	18.10	14.52	10.46	20.50	22.66	29.97	18.48	14.53	11.87	5.48
4	13.27	12.02	19.00	14.75	10.00	20.45	22.74	29.47	18.60	17.42	10.37	6.05
5	13.35	11.78	19.91	14.61	9.88	20.82	22.94	28.62	18.24	16.21	9.55	6.22
6	13.26	11.94	19.80	13.31	10.07	24.09	22.77	27.76	17.99	14.66	9.05	6.15
7	12.83	12.52	18.86	13.36	10.73	27.68	22.35	27.11	17.45	14.08	8.31	5.99
8	12.54	12.66	17.29	13.95	10.38	28.79	22.11	26.23	17.13	13.30	8.20	5.57
9	12.35	12.31	16.45	14.12	9.98	28.91	22.05	25.52	16.31	12.98	8.81	5.33
10	12.08	12.40	16.30	13.49	10.19	28.36	21.96	25.37	15.00	12.68	8.70	5.16
11	11.97	11.98	15.96	13.20	10.40	27.15	21.79	25.57	14.51	12.34	7.78	5.06
12	11.70	11.80	15.54	13.10	10.69	25.35	21.88	24.36	14.13	12.55	7.39	5.33
13	11.46	11.32	15.52	12.30	11.24	24.10	21.86	22.76	13.35	12.24	6.95	5.65
14	11.45	11.91	14.95	10.86	11.48	23.47	21.71	22.01	13.04	10.83	6.59	5.51
15	11.27	12.53	14.62	9.66	11.77	23.18	21.73	21.56	12.47	9.99	7.23	5.41
16	11.19	13.14	15.86	9.19	12.04	23.00	21.84	20.66	11.73	9.82	7.89	5.53
17	11.93	13.55	16.30	9.00	12.42	23.02	21.97	20.02	11.31	9.40	9.47	5.56
18	12.49	13.69	17.11	9.12	14.19	23.15	21.93	20.53	12.74	9.32	9.12	5.43
19	12.80	14.18	17.73	8.73	16.15	23.42	21.73	21.59	14.52	9.42	8.30	5.31
20	12.81	14.86	17.36	8.55	16.95	23.77	21.68	22.95	14.66	9.06	7.52	5.23
21	12.15	14.44	15.96	8.36	17.30	23.89	21.44	22.96	15.60	8.39	7.16	5.20
22	11.82	14.41	14.64	8.41	17.78	23.47	21.44	22.03	14.66	8.51	7.34	5.33
23	11.67	14.75	13.51	8.53	19.57	23.04	23.30	21.06	13.60	8.56	7.36	5.42
24	11.45	14.83	13.27	9.02	21.69	22.42	24.70	20.31	13.69	8.97	6.90	5.55
25	11.50	14.21	12.99	9.23	21.08	21.50	25.52	19.48	14.10	10.39	6.66	5.72
26	11.85	14.06	12.91	9.54	20.19	20.78	26.12	18.48	14.03	10.18	6.61	5.81
27	11.91	14.40	11.99	9.24	19.91	20.50	26.49	17.36	13.36	8.70	6.66	6.09
28	11.67	14.76	12.00	9.24	19.88	20.67	27.22	16.73	12.90	9.23	6.80	6.56
29	11.48	14.73	12.24	9.33	19.96	21.12	28.43	16.89	13.21	9.59	6.81	6.84
30	11.44	14.73	13.56	9.48	---	22.55	29.54	17.91	13.02	9.63	6.75	6.87
31	11.93	---	14.65	9.78	---	22.94	---	18.53	---	10.43	6.53	---
MAX	13.35	14.86	19.91	14.75	21.69	28.91	29.54	30.25	18.60	17.42	12.12	6.87
MIN	11.19	11.32	11.99	8.36	9.88	20.28	21.44	16.73	11.31	8.39	6.53	5.06

NOTE: Add 300.90 ft to obtain elevation above mean sea level.

MISSISSIPPI RIVER MAIN STEM

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	131000	127000	169000	148000	102000	199000	267000	462000	208000	126000	119000	70700
2	133000	132000	194000	147000	102000	211000	263000	466000	205000	132000	125000	68200
3	138000	132000	210000	148000	97800	214000	262000	461000	209000	166000	117000	68900
4	140000	127000	223000	149000	96000	221000	264000	441000	206000	183000	104000	70900
5	141000	129000	230000	140000	96000	244000	266000	417000	200000	163000	99600	70800
6	140000	130000	224000	125000	101000	320000	264000	395000	194000	149000	95100	69900
7	136000	136000	206000	127000	106000	393000	259000	375000	186000	143000	91500	68100
8	133000	134000	187000	131000	103000	425000	259000	355000	180000	136000	92200	65200
9	131000	131000	178000	128000	102000	431000	260000	344000	165000	134000	95200	64600
10	128000	130000	176000	119000	105000	410000	260000	342000	150000	130000	91800	64500
11	127000	127000	170000	119000	107000	369000	262000	340000	146000	128000	87500	65200
12	123000	124000	166000	117000	112000	331000	266000	309000	139000	130000	85600	66800
13	122000	121000	163000	110000	118000	310000	268000	284000	132000	124000	82700	68400
14	121000	127000	156000	100000	122000	299000	268000	267000	127000	111000	82100	68200
15	119000	132000	157000	94600	126000	294000	270000	250000	121000	106000	85500	67100
16	120000	138000	170000	91100	129000	290000	274000	228000	114000	103000	91600	67000
17	126000	141000	177000	89200	135000	289000	276000	216000	116000	101000	98800	66100
18	130000	142000	190000	86700	158000	290000	276000	228000	133000	99700	93600	64600
19	132000	149000	197000	81700	176000	296000	274000	248000	146000	99900	88200	63000
20	128000	155000	184000	78800	178000	301000	272000	269000	152000	96100	83600	62000
21	122000	152000	165000	80400	175000	298000	269000	267000	160000	93200	81700	61300
22	118000	154000	150000	82600	178000	289000	273000	252000	147000	94200	82000	63300
23	117000	158000	140000	86200	204000	280000	308000	238000	140000	95200	80300	64800
24	115000	158000	139000	90900	221000	264000	332000	229000	142000	98900	77400	66800
25	117000	152000	135000	94300	208000	247000	345000	217000	143000	109000	76300	68800
26	120000	152000	129000	95800	196000	235000	355000	202000	143000	102000	76000	70500
27	120000	157000	126000	96300	193000	232000	361000	188000	135000	95300	76600	73600
28	118000	162000	126000	97300	193000	234000	383000	182000	134000	96700	77100	77500
29	117000	159000	130000	96600	194000	246000	417000	189000	137000	101000	77100	79800
30	119000	159000	143000	96200	---	267000	445000	202000	133000	102000	76100	79300
31	124000	---	151000	97200	---	270000	---	212000	---	111000	74100	---
TOTAL	3906000	4227000	5261000	3343900	4133800	8999000	8818000	9075000	4643000	3659200	2764300	2045900
MEAN	126000	140900	169700	107900	142500	290300	293900	292700	154800	118000	89170	68200
MAX	141000	162000	230000	149000	221000	431000	445000	466000	209000	183000	125000	79800
MIN	115000	121000	126000	78800	96000	199000	259000	182000	114000	93200	74100	61300
AC-FT	7748000	8384000	10440000	6633000	8199000	17850000	17490000	18000000	9209000	7258000	5483000	4058000

CAL YR 1975 TOTAL 82610000 MEAN 226300 MAX 538000 MIN 114000 AC-FT 163900000
WTR YR 1976 TOTAL 60876100 MEAN 166300 MAX 466000 MIN 61300 AC-FT 120700000

Note.--Daily discharge computed from daily mean gage heights.

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 current year.

WATER TEMPERATURES: October 1974 to current year.

REMARKS.--Water temperature and specific conductance samples collected daily at Cape Girardeau water plant intake.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 675 micromhos Aug. 6, 8, 1975; minimum daily, 324 micromhos Apr. 1, 1975.

WATER TEMPERATURES: Maximum daily, 30.0°C July 10, 11, 1975; minimum daily 0.0°C Jan. 18-20, 1976.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 660 micromhos Sept. 24, 25; minimum daily, 336 micromhos May 2.

WATER TEMPERATURES: Maximum daily, 29.0°C on many days in July; minimum daily, 0.0°C Jan. 18-21.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	HARD- NESS (CA, MG) (MG/L)
OCT										
17...	126000	625	7.9	18.5	35	7.0	74	8000	720	230
NOV										
19...	149000	625	7.9	10.5	20	8.0	71	4400	300	220
DEC										
16...	170000	545	8.3	6.5	60	7.6	62	4900	4200	210
JAN										
27...	96300	625	8.2	1.5	20	12.4	89	2900	2100	240
FEB										
26...	196000	490	8.3	7.5	170	9.0	75	1450	3200	190
MAR										
23...	280000	520	7.9	9.0	50	8.4	72	1600	400	220
APR										
22...	273000	438	7.9	16.5	35	7.2	73	2500	800	160
MAY										
20...	269000	515	8.0	18.5	60	6.9	73	3200	600	200
JUN										
21...	160000	575	8.2	25.0	45	6.2	75	5000	250	220
JUL										
20...	96100	560	8.0	29.5	25	6.2	81	4300	180	210
AUG										
17...	98800	575	8.0	26.5	10	5.6	69	7000	125	210
SEP										
21...	61300	700	8.1	23.5	8	7.2	84	8900	120	230

MISSISSIPPI RIVER MAIN STEM

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	NON-CARBONATE HARDNESS (MG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)
OCT 17...	59	56	21	46	4.0	204	0	130	17	.4
NOV 19...	57	53	22	44	3.8	202	0	120	19	.6
DEC 16...	55	51	19	29	3.8	184	0	80	20	.3
JAN 27...	55	61	21	31	3.6	224	0	85	24	.4
FEB 26...	42	48	17	23	3.5	180	0	62	20	.3
MAR 23...	77	54	21	21	4.4	176	0	59	19	.3
APR 22...	34	37	16	20	3.3	152	0	57	16	.3
MAY 20...	50	51	17	21	3.3	180	0	69	17	.4
JUN 21...	65	55	21	32	3.8	194	0	98	17	.3
JUL 20...	48	51	19	35	4.3	192	0	100	18	.4
AUG 17...	58	52	20	41	4.6	188	0	120	22	.5
SEP 21...	56	54	23	50	4.4	212	0	140	21	.5

DATE	DIS-SOLVED SILICA (SI02) (MG/L)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. STEVE DIAM. % FINER THAN .062 MM
OCT 17...	5.7	427	.42	.70	.20	--	158	53800	84
NOV 19...	4.8	357	.56	.83	.18	7.8	242	97400	46
DEC 16...	6.6	282	1.2	.81	.35	--	348	160000	64
JAN 27...	9.8	376	1.5	1.3	.24	--	132	34300	55
FEB 26...	9.0	278	1.8	1.6	.44	12	492	260000	79
MAR 23...	9.9	282	2.9	1.4	.34	--	463	350000	64
APR 22...	7.0	270	1.4	1.1	.26	--	917	676000	20
MAY 20...	6.2	298	2.8	1.1	.23	4.2	916	665000	48
JUN 21...	3.9	348	1.8	.99	.22	--	246	106000	72
JUL 20...	4.7	360	1.4	.71	.20	--	114	29600	78
AUG 17...	3.4	380	.79	1.1	.22	3.8	132	35200	88
SEP 21...	2.9	371	.35	.65	.15	--	98	16200	74

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL ARSENIC (AS) (UG/L)	SUSPENDED ARSENIC (AS) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DIS-SOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	DIS-SOLVED CHROMIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)
NOV 19...	2	0	2	1	<10	0	0	0	14	6	1700
FEB 26...	--	--	1	0	<10	0	5	2	23	5	10000
MAY 20...	4	2	1	0	20	0	4	0	18	3	5200
AUG 17...	4	2	1	0	30	3	0	0	24	9	1600

DATE	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DIS-SOLVED SELENIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
NOV 19...	10	20	4	60	40	.0	.0	--	1	40	4
FEB 26...	80	12	4	310	10	.0	.0	0	0	70	0
MAY 20...	50	8	0	220	0	.3	.3	--	1	50	0
AUG 17...	70	14	5	110	0	--	.0	1	1	50	10

DATE	DIS-SOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUSPENDED GROSS ALPHA AS U-NAT. (UG/L)	DIS-SOLVED GROSS BETA AS CS-137 (PC/L)	SUSPENDED GROSS BETA AS CS-137 (PC/L)	DIS-SOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUSPENDED GROSS BETA AS SR90 /Y90 (PC/L)	DIS-SOLVED RA-226 (RADON METHOD) (PC/L)	DIS-SOLVED URANIUM (U) (UG/L)	TOTAL FILTRABLE RESIDUE (MG/L)	TOTAL NON-FILTRABLE RESIDUE (MG/L)
NOV 19...	6.5	5.9	8.4	4.6	6.8	3.7	.05	2.0	400	94
APR 22...	<4.9	12	7.3	6.1	6.5	4.8	.11	1.8	350	152

DATE	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL CHLORDANE (UG/L)	CHLORDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDD (UG/L)	DDD IN BOTTOM MATERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MATERIAL (UG/KG)	TOTAL DIAZINON (UG/L)	DIAZINON IN BOTTOM MATERIAL (UG/KG)
NOV 19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 26...	ND	--	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 17...	ND	--	ND	--	ND	--	ND	--	ND	--	ND	--

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL DI- ELDRIN (UG/L)	DI- ELDRIN IN BOTTOM MA- TERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MA- TERIAL (UG/KG)	TOTAL ETHION (UG/L)	ETHION IN BOTTOM MA- TERIAL (UG/KG)	TOTAL HEPTA- CHLOR (UG/L)	HEPTA- CHLOR IN BOTTOM MA- TERIAL (UG/KG)	TOTAL HEPTA- CHLOR EPOXIDE (UG/L)	HEPTA- CHLOR EPOXIDE IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL LINDANE (UG/L)
NOV 19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 26...	ND	--	ND	--	ND	--	ND	--	ND	--	ND
MAY 20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 17...	ND	--	ND	--	ND	--	ND	--	ND	--	ND

DATE	LINDANE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL MALA- THION (UG/L)	MALA- THION IN BOTTOM MA- TERIAL (UG/KG)	TOTAL METH- OXY- CHLOR (UG/L)	METHOX- YCHLOR IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL METHYL PARA- THION (UG/L)	METHYL PARA- THION IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL METHYL TRI- THION (UG/L)	METHYL TRI- THION IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL PARA- THION (UG/L)	PARA- THION IN BOTTOM MA- TERIAL (UG/KG)
NOV 19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 26...	--	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 17...	--	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	TOTAL TOX- APHENE (UG/L)	TOX- APHENE IN BOTTOM MA- TERIAL (UG/KG)	TOTAL TRI- THION (UG/L)	TRI- THION IN BOTTOM MA- TERIAL (UG/KG)	TOTAL 2,4-D (UG/L)	2,4-D IN BOTTOM MA- TERIAL (UG/KG)	TOTAL 2,4,5-T (UG/L)	2,4,5-T IN BOTTOM MA- TERIAL (UG/KG)	TOTAL SILVEX (UG/L)	SILVEX IN BOTTOM MA- TERIAL (UG/KG)	TOTAL ATRA- ZINE (UG/L)
NOV 19...	ND	ND	ND	ND	ND	--	ND	--	ND	--	ND
FEB 26...	ND	--	ND	--	ND	--	ND	--	ND	--	ND
MAY 20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.7
AUG 17...	ND	--	ND	--	ND	--	ND	--	ND	--	ND

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	565	610	570	525	625	490	470	343	520	555	540	620
2	575	615	555	530	630	485	475	336	495	540	555	620
3	570	585	565	530	620	465	475	344	510	465	560	640
4	570	595	500	520	635	480	475	360	510	450	570	640
5	560	605	525	525	630	480	480	383	510	525	600	635
6	555	595	470	525	630	485	475	400	525	530	595	640
7	555	600	485	565	630	435	475	410	515	535	595	640
8	560	---	510	555	610	365	485	425	510	510	605	635
9	560	---	530	535	605	360	490	430	525	515	600	650
10	550	---	555	540	597	387	475	430	515	540	560	650
11	585	---	560	545	588	387	470	435	540	555	565	655
12	580	---	565	545	600	387	465	440	560	560	590	650
13	580	---	550	518	610	405	460	450	560	530	595	655
14	585	---	545	510	600	445	450	445	565	520	600	650
15	585	---	500	520	600	445	445	445	560	540	600	650
16	585	---	500	585	578	445	440	460	575	565	600	650
17	600	---	510	580	570	455	430	485	580	570	570	645
18	605	---	510	600	555	465	420	510	560	570	540	645
19	585	625	500	600	545	475	415	510	---	565	575	650
20	585	---	485	610	545	480	415	515	575	540	590	650
21	595	---	495	590	495	475	420	---	580	560	610	650
22	615	---	480	620	495	465	438	465	560	580	615	645
23	630	---	520	625	518	520	465	465	540	575	615	655
24	625	570	515	625	518	465	415	460	460	580	620	660
25	635	575	525	585	480	475	417	470	460	560	625	660
26	630	590	520	585	465	485	410	480	485	575	610	650
27	605	590	545	590	482	485	410	500	520	560	605	645
28	605	595	545	620	490	485	378	510	540	585	610	640
29	615	595	540	600	485	485	357	525	540	585	610	620
30	605	550	535	625	---	480	343	560	555	585	600	615
31	600	---	545	625	---	470	---	540	---	560	605	---
MONTH	589	---	524	569	567	455	441	451	533	548	591	644

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.5	15.5	6.0	3.0	2.5	9.5	12.0	16.0	21.0	25.0	28.5	27.0
2	18.5	16.0	5.5	3.0	1.0	10.5	12.0	16.0	21.0	25.0	28.5	27.0
3	18.5	15.5	5.5	3.0	1.0	11.5	12.0	14.0	21.0	24.5	28.5	27.0
4	18.5	15.5	5.5	1.5	1.5	10.5	12.0	14.0	21.0	24.5	28.0	27.0
5	18.0	16.0	5.5	1.5	1.5	10.5	12.0	14.0	22.0	25.0	28.5	27.0
6	18.5	16.5	5.0	1.0	1.5	11.0	12.0	15.0	22.0	25.5	28.5	27.0
7	19.0	16.5	5.0	1.0	1.5	11.0	12.0	15.0	22.0	25.5	27.0	27.0
8	19.0	---	5.5	1.0	1.5	10.0	13.0	15.0	23.0	27.0	27.0	26.0
9	19.0	---	5.0	1.0	2.0	10.0	13.0	15.0	23.0	27.0	27.5	26.0
10	19.0	---	5.0	1.0	2.0	7.0	13.0	15.5	25.0	27.0	27.0	23.5
11	19.0	---	5.0	1.0	2.5	7.0	13.0	15.5	26.0	28.0	26.0	22.0
12	18.5	---	5.0	1.0	4.0	7.0	13.5	16.0	26.0	29.0	27.5	21.5
13	19.5	---	5.0	1.5	3.5	7.0	13.5	17.0	26.5	28.0	27.5	22.5
14	19.5	---	5.0	2.0	4.0	7.0	14.0	17.0	26.5	29.0	27.5	23.0
15	20.5	---	5.5	1.0	5.0	7.0	15.5	18.0	26.5	29.0	27.5	23.0
16	19.5	---	5.5	1.0	6.0	7.0	16.0	18.5	26.5	29.0	25.5	23.0
17	18.0	---	5.0	0.5	6.0	7.0	16.5	18.5	26.5	29.0	26.0	23.0
18	18.0	---	5.0	0.0	7.0	7.5	17.0	19.0	26.5	29.0	25.5	23.0
19	17.5	10.5	4.0	0.0	8.0	8.0	17.5	18.0	---	28.0	25.5	23.0
20	17.5	---	3.5	0.0	8.0	9.5	18.0	18.5	24.5	28.0	25.5	23.5
21	17.5	---	3.0	0.0	9.0	10.0	17.0	---	24.5	28.0	27.0	23.5
22	17.5	---	3.0	1.5	9.0	10.0	16.5	18.5	24.5	28.5	27.0	23.0
23	17.0	---	3.0	3.0	8.5	9.0	17.0	19.5	24.0	28.5	27.0	22.5
24	17.5	9.0	2.5	3.0	9.0	10.0	16.5	20.0	24.0	28.5	27.0	22.0
25	17.0	7.5	3.0	3.5	9.0	10.0	16.5	20.0	24.0	28.5	27.0	22.0
26	16.5	6.0	3.0	4.0	9.5	10.5	15.5	20.0	24.5	29.0	27.5	22.0
27	16.5	7.0	3.0	3.0	9.0	11.0	15.5	20.5	24.5	29.0	27.5	22.0
28	17.0	7.0	3.0	3.0	7.5	12.0	16.0	20.5	25.0	29.0	28.0	21.0
29	17.0	7.0	3.0	3.0	9.5	12.5	16.0	21.0	25.0	29.0	27.5	21.0
30	16.5	8.0	3.0	3.5	---	12.0	16.0	21.0	25.0	29.0	27.0	22.0
31	16.0	---	3.0	2.5	---	12.0	---	21.0	---	29.0	27.0	---
MONTH	18.0	---	4.5	2.0	5.0	9.5	14.5	17.5	24.0	27.5	27.0	24.0

MISSISSIPPI RIVER MAIN STEM

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

OCT. 17, 1975
1000 HOURS

IDENTIFICATION OF PHYTOPLANKTON

54,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
..CHARACIACEAE				
LSCHROEDERIA			0	
..COELASTRACEAE				
..COELASTRUM		2,100	4	
..SCENEDESMACEAE				
DSCENEDESMUS		8,500	16	
..VOLVOCALES				
..CHLAMYDOMONADACEAE				
..CHLAMYDOMONAS				
	TOTALS	<u>790</u> 12,000	<u>1</u> 21	1.170=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
..COSCINODISCAEAE				
..CYCLOTELLA		2,900	5	
DMELOSIRA		21,000	39	
..STEPHANODISCUS		530	1	
..PENNALES	PENNATE			
..NAVICULACEAE	NAVICULOID			
LNAVICULA			0	
..NITZSCHIAEAE				
..NITZSCHIA				
	TOTALS	<u>3,200</u> 28,000	<u>6</u> 51	1.173=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..CHROOCOCCALES	COCCOID			
..CHROOCOCCACEAE				
..ANACYSTIS		1,900	3	
..OSCILLATORIALES	FILAMENTOUS			
..OSCILLATORIACEAE				
DOSCILLATORIA				
	TOTALS	<u>12,000</u> 14,000	<u>23</u> 26	0.556=DIVERSITY
EUGLENOPHYTA	EUGLENOIDS			
..CRYPTOPHYCEAE	CRYPTOMONADS			
..CRYPTOMONIDALES				
..CRYPTOMONODACEAE				
LCRYPTOMONAS				
	TOTALS	<u>260</u>	<u>0</u> 0	0.000=DIVERSITY

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

NOV. 19, 1975
0945 HOURS

IDENTIFICATION OF PHYTOPLANKTON

23,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
...HYDRODICTYACEAE				
L ...PEDIASTRUM			0	
...OOCYSTACEAE				
...DICTYOSPHAERIUM		530	2	
...OOCYSTIS		700	3	
...SCENEDESMACEAE				
...SCENEDESMUS		2,800	12	
...VOLVOCALES				
...PHACOTACEAE				
	TOTALS	<u>180</u> 4,200	<u>1</u> 18	1.387=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
...CYCLOTELLA		1,200	5	
...MELOSIRA		350	2	
..PENNALES	PENNATE			
...FRAGILARIACEAE				
...ASTERIONELLA		1,400	6	
...NITZSCHIACEAE				
...NITZSCHIA				
	TOTALS	<u>1,100</u> 4,000	<u>5</u> 18	1.864=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..OSCILLATORIALES	FILAMENTOUS			
...OSCILLATORIACEAE				
D ...OSCILLATORIA				
	TOTALS	<u>15,000</u> 15,000	<u>64</u> 64	0.000=DIVERSITY

MISSISSIPPI RIVER MAIN STEM

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DEC. 16, 1975
1400 HOURS

IDENTIFICATION OF PHYTOPLANKTON

4.700 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...SCENEDESMACEAE				
LACTINASTRUM			0	
DSCENEDESMUS			19	
	TOTALS	870	19	0.000=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAF	DIATOMS			
...CENTRALES	CENTRIC			
...COSCINODISCACEAE				
DCYCLOTELLA		2,700	58	
...MELOSIRA		110	2	
...STEPHANODISCUS		110	2	
...PENNALES	PENNATE			
...CYMBELLACEAE				
LAMPHORA			0	
LEPITHEMIA			0	
...FRAGILARIACEAE				
LASTERIONELLA			0	
...NAVICULACEAF	NAVICULOID			
LAMPHIPRORA			0	
...NAVICULA		330	7	
...NITZSCHIACEAE				
...NITZSCHIA				
	TOTALS	430	9	1.298=DIVERSITY
		3,700	78	
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
...OSCILLATORIALES	FILAMENTOUS			
...NOSTOCACEAE				
LANABAENA			0	
EUGLENOPHYTA	EUGLENOIDS			
..CRYPTOPHYCEAE	CRYPTOMONADS			
...CRYPTOMONIDALES				
...CRYPTOMONODACEAE				
LCRYPTOMONAS			0	
..EUGLENOPHYCEAF				
...EUGLENALES				
...EUGLENACEAE				
....EUGLENA				
	TOTALS	110	2	0.000=DIVERSITY
		110		

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

JAN. 27, 1976
1400 HOURS

IDENTIFICATION OF PHYTOPLANKTON

16,000 CELLS/ML

_ORGANISM_NAME_____	_COMMON_NAME_____	CELLS/ML	PER_CENT	
CHRYSTOPHYTA				
.BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
DCYCLOTELLA		14,000	83	
...STEPHANODISCUS		300	2	
..PENNALES	PENNATE			
...FRAGILARIACEAE				
DASTERIONELLA				
	TOTALS	<u>2,400</u> 16,000	<u>15</u> 100	0.734=DIVERSITY

FEB. 26, 1976
0900 HOURS

IDENTIFICATION OF PHYTOPLANKTON

4,800 CELLS/ML

_ORGANISM_NAME_____	_COMMON_NAME_____	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
.CHLOROPHYCEAE				
..VOLVOCALES				
...CHLAMYDOMONADACEAE				
....CHLAMYDOMONAS				
	TOTALS	<u>220</u> 220	<u>5</u> 5	0.000=DIVERSITY
CHRYSTOPHYTA				
.BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
DCYCLOTELLA		2,200	45	
...STEPHANODISCUS		220	5	
..PENNALES	PENNATE			
...ACHNANTHACEAE				
...ACHNANTHES		220	5	
...DIATOMACEAE				
...DIATOMA		220	5	
...FRAGILARIACEAE				
...SYNEDRA		220	5	
...NAVICULACEAE	NAVICULOID			
...NAVICULA		430	9	
...NITZSCHACEAE				
DNITZSCHIA				
	TOTALS	<u>1,100</u> 4,500	<u>23</u> 97	2.162=DIVERSITY

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

MAR. 23, 1976
1310 HOURS

IDENTIFICATION OF PHYTOPLANKTON

7.100 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...SCENEDESMACEAE				
....SCENEDESMUS				
	TOTALS	<u>430</u> 430	<u>6</u> 6	0.000=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
DCYCLOTELLA		3,000	42	
DMELOSIRA		1,900	27	
...STEPHANODISCUS		220	3	
..PENNALES	PENNATE			
...ACHNANTHACEAE				
...ACHNANTHES		220	3	
...FRAGILARIACEAE				
LSYNEDRA			0	
...GOMPHONEMATACEAE				
...GOMPHONEMA		220	3	
...NAVICULACEAE	NAVICULOID			
...NAVICULA		430	6	
...NITZSCHACEAE				
...NITZSCHIA		430	6	
...SURIPELLACEAE				
....SURIPELLA		<u>220</u> 6,700	<u>3</u> 93	2.185=DIVERSITY

APR. 22, 1976
1030 HOURS

IDENTIFICATION OF PHYTOPLANKTON

15.000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...OOCYSTACEAE				
....ANKISTRODESMUS		500	3	
...SCENEDESMACEAE				
....TETRASTRUM				
	TOTALS	<u>2,000</u> 2,500	<u>14</u> 17	0.722=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
DCYCLOTELLA		8,000	55	
...MELOSIRA		1,000	7	
LSTEPHANODISCUS			0	
..PENNALES	PENNATE			
...GOMPHONEMATACEAE				
...GOMPHONEMA		500	3	
...NAVICULACEAE	NAVICULOID			
...NAVICULA		500	3	
...NITZSCHACEAE				
...NITZSCHIA		1,500	10	
...SURIPELLACEAE				
....SURIPELLA		<u>500</u> 12,000	<u>3</u> 81	1.637=DIVERSITY

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

MAY 20, 1976
1400 HOURS

IDENTIFICATION OF PHYTOPLANKTON

8,700 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
....MICRACTINIACEAE				
....MICRACTINIUM		330	4	
...OOCYSTACEAE				
....ANKISTRODESMUS		120	1	
....KIRCHNERIELLA		200	2	
...SCENEDESMACEAE				
....ACTINASTRUM		780	9	
DSCENEDESMUS		1,400	16	
...VOLVOCALES				
...CHLAMYDOMONADACEAE				
....CHLAMYDOMONAS		120	1	
...PHACOTACEAE				
LPTEROMONAS				
	TOTALS	3,000	33	2.083=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
...CENTRALES	CENTRIC			
...COSCINODISACEAE				
....CYCLOTELLA		820	9	
DMELOSIIRA		3,600	41	
...PENNALES	PENNATE			
....FRAGILARIACEAE				
....ASTERIONELLA		160	2	
...NAVICULACEAE	NAVICULOID			
....NAVICULA		250	3	
...NITZSCHACEAE				
....NITZSCHIA		160	2	
...SURIPELLACEAE				
....SURIPELLA		160	2	
	TOTALS	5,200	59	1.466=DIVERSITY
..XANTHOPHYCEAE	YELLOW-GREEN ALGAE			
...HETEROCOCCALES				
...CENTRITRACTACEAE				
LCENTRITRACTUS				
	TOTALS	41	0	0.000=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
...OSCILLATORIALES	FILAMENTOUS			
...OSCILLATORIA				
....OSCILLATORIA		410	5	
	TOTALS	410	5	0.000=DIVERSITY
EUGLENOPHYTA	EUGLENOIDS			
..EUGLENOPHYCEAE				
...EUGLENALES				
...EUGLENACEAE				
....EUGLENA		82	1	
	TOTALS	82	1	0.000=DIVERSITY

MISSISSIPPI RIVER MAIN STEM

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

JUNE 21, 1976
1400 HOURS

IDENTIFICATION OF PHYTOPLANKTON

20,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
...HYDRODICTYACEAE				
LPEDIASTRUM			0	
...OOCYSTACEAE				
....ANKISTRODESMUS		200	1	
....KIRCHNERIELLA		99	1	
...OOCYSTIS		400	2	
...SCENEDESMACEAE				
LACTINASTRUM			0	
....SCENEDESMUS		590	3	
....TETRASTRUM		400	2	
	TOTALS	1,700	9	2.116=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
DCYCLOTELLA		4,300	22	
....MELOSIWA		2,300	12	
...STEPHANODISCUS		300	2	
..PENNALES	PENNATE			
...NITZSCHIAEAE				
....NITZSCHIA		690	4	
	TOTALS	7,500	40	1.488=DIVERSITY
..CHRYSTOPHYCEAE	YELLOW-BROWN ALGAE			
..CHRYSOMONADALES				
...OCHROMONADACEAE				
....EPIPYXIS		400	2	
	TOTALS	400	2	0.000=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..CHROOCOCCALES	COCROID			
...CHROOCOCCACEAE				
LANACYSTIS			0	
DGOMPHOSPHERIA		5,900	30	
...OSCILLATORIALES	FILAMENTOUS			
...OSCILLATORIAEAE				
DOSCILLATORIA		4,000	20	
	TOTALS	9,900	50	0.971=DIVERSITY

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

JULY 20, 1976
1430 HOURS

IDENTIFICATION OF PHYTOPLANKTON

12,000 CELLS/ML

_ORGANISM__NAME_____	_COMMON__NAME_____	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
...OOCYSTACEAE				
....ANKISTRODESMUS		370	3	
....OOCYSTIS		370	3	
....SCENEDESMACEAE				
LACTINASTRUM			0	
....CRUCIGENIA			3	
	TOTALS	<u>370</u> 1,100	<u>3</u> 9	1.585=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
DCYCLOTELLA		5,900	50	
....MELOSIRA		1,200	10	
..PENNALES	PENNATE			
...FRAGILARIACEAE				
LFRAGILARIA			0	
...NITZSCHIA				
....NITZSCHIA				
	TOTALS	<u>550</u> 7,700	<u>5</u> 65	0.975=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..CHROOCOCCALES	COCCOID			
...CHROOCOCCACEAE				
DANACYSTIS		3,200	27	
...OSCILLATORIALES	FILAMENTOUS			
...OSCILLATORIACEAE				
LOSCILLATORIA			0	
	TOTALS	<u>3,200</u>	<u>27</u>	0.000=DIVERSITY

MISSISSIPPI RIVER MAIN STEM

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

AUG. 17, 1976
1430 HOURS

IDENTIFICATION OF PHYTOPLANKTON

14,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...HYDRODICTYACEAE				
LPEDIASTRUM			0	
...SCENEDESMACEAE				
DSCENEDESMUS				
	TOTALS	<u>2,100</u> 2,100	<u>15</u> 15	0.000=DIVERSITY
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
DCYCLOTELLA		4,300	30	
..PENNALES	PENNATE			
...FRAGILARIACEAE				
...SYNEDRA		210	1	
...NITZSCHIACEAE				
DNITZSCHIA				
	TOTALS	<u>4,100</u> 8,500	<u>28</u> 59	1.143=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
...CHROOCOCCALES	COCCOID			
...CHROOCOCCACEAE				
...ANACYSTIS		1,300	9	
...OSCILLATORIALES	FILAMENTOUS			
...NOSTOCACEAE				
DANABAENA		2,100	15	
...OSCILLATORIACEAE				
LOSCILLATORIA				
	TOTALS	<u>3,400</u>	<u>0</u> 24	0.954=DIVERSITY
EUGLENOPHYTA	EUGLENOIDS			
..EUGLENOPHYCEAE				
..EUGLENALES				
...EUGLENACEAE				
....TRACHELOMONAS				
	TOTALS	<u>210</u> 210	<u>1</u> 1	0.000=DIVERSITY

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

SEP. 21, 1976
1300 HOURS

IDENTIFICATION OF PHYTOPLANKTON

55,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
..MIRACTINIACEAE				
LGOLINKINIA			0	
..OOCYSTACEAE				
DDICTYOSPHAERIUM		18,000	34	
..OOCYSTIS		1,200	2	
..SCENEDESMACEAE				
..SCENEDESMUS		1,400	3	
..VOLVOCALES				
..VOLVOCAEAE				
..GONIUM		7,100	13	
..ZYGNEMATALES				
..DESMIDIACEAE	PLACODERM DESMIDS			
LSTAUSTRUM			0	
	TOTALS	28,000	52	1.402=DIVERSITY
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
..COSCINODISCACEAE				
DCYCLOTELLA		8,000	15	
..PENNALES	PENNATE			
..ACHNANTHACEAE				
LCOCCONEIS			0	
..FRAGILARIACEAE				
..ASTERIONELLA		2,900	5	
..NAVICULACEAE	NAVICULOID			
..NAVICULA		470	1	
	TOTALS	12,000	21	1.174=DIVERSITY
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..CHROOCOCCALES	COCCOID			
..CHROOCOCCACEAE				
..ANACYSTIS		5,200	9	
..OSCILLATORIALES	FILAMENTOUS			
..NOSTOCACEAE				
..ANABAENA		3,200	6	
..OSCILLATORIAEAE				
..LYNGBYA		1,200	2	
..OSCILLATORIA		4,700	9	
	TOTALS	14,000	26	1.839=DIVERSITY
EUGLENOPHYTA	EUGLENOIDS			
..EUGLENOPHYCEAE				
..EUGLENALES				
..EUGLENAEAE				
..TRACHELOMONAS		350	1	
	TOTALS	350	1	0.000=DIVERSITY

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%

L - LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED

ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE

PERIPHYTON

Date	Length of exposure (days)	Biomass (g/m ²)		Chlorophyll a (mg/m ²)	Chlorophyll b (mg/m ²)	Biomass pigment ratio	Sampling method
		Dry weight	Ash weight				
Nov. 19, 1975	33	370	350	160	0.0	130	Polyethylene strip
Feb. 26, 1976	30	0.2	0.1	0.1	0.0	1,100	Polyethylene strip
May 20	28	1.1	0.6	0.0	0.0	0.0	Polyethylene strip

ST. FRANCIS RIVER BASIN

07037500 ST. FRANCIS RIVER NEAR PATTERSON, MO

LOCATION.--Lat 37°11'40", long 90°30'12", in NE¼ sec.16, T.29 N., R.5 E., Wayne County, Hydrologic Unit 08020202, near left bank on downstream side of pier of bridge on State Highway 34, 1 mi (1.6 km) upstream from Clark Creek, and 3 mi (4.8 km) east of Patterson.

DRAINAGE AREA.--956 mi² (2,476 km²).

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 (112.913 m) above mean sea level. Prior to Oct. 1, 1938, nonrecording gage at site 50 ft (15 m) upstream at datum 2.00 ft (0.610 m) higher. Oct. 1, 1938, to Apr. 12, 1939, nonrecording gage and Apr. 13, 1939, to Sept. 5, 1956, water-stage recorder at site 50 ft (15 m) upstream at present datum. Sept. 6, 1956, to Sept. 26, 1958, nonrecording gage at present site and datum.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--56 years, 1,100 ft³/s (31.15 m³/s), 15.63 in/yr (397 mm/yr), 797,000 acre-ft/yr (983 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 79,200 ft³/s (2,240 m³/s) Mar. 11, 1935, gage height, 30.70 ft (9.357 m), from rating curve extended above 55,000 ft³/s (1,560 m³/s); maximum gage height, 31.0 ft (9.499 m) Apr. 14, 1945, (backwater from Wappapello Dam); minimum discharge, 8 ft³/s (0.23 m³/s) Aug. 28 to Sept. 1, 1936; minimum gage height, 1.32 ft (0.402 m) Aug. 16, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 33.8 ft (10.302 m), present datum, in August 1915, from floodmarks; discharge, 100,000 ft³/s (2,830 m³/s), from rating curve extended above 55,000 ft³/s (1,560 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 28,900 ft³/s (818 m³/s) July 3 (time unknown), gage height, 21.10 ft (6.432 m), peak above base of 21,000 ft³/s (595 m³/s); minimum, 31 ft³/s (0.878 m³/s) Sept. 25, gage height, 2.98 ft (0.908 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	207	120	1940	3400	613	710	2390	483	671	244	127	46
2	190	118	1660	2550	576	652	1730	448	790	6180	113	44
3	190	129	1040	1940	557	530	1350	400	632	20100	104	41
4	190	186	790	1530	520	500	1140	370	520	6430	98	41
5	176	226	790	1190	483	1000	965	342	438	2550	110	40
6	167	244	5630	1020	483	2000	840	316	379	2000	107	37
7	159	246	6580	915	448	1800	730	303	339	1500	94	36
8	151	240	2950	790	416	1700	652	280	300	1020	84	35
9	141	226	2010	690	400	1500	594	259	267	790	76	54
10	136	226	1530	671	400	1400	538	242	242	671	71	46
11	129	215	1190	652	432	1300	483	228	218	557	68	38
12	124	207	990	594	448	1200	448	211	196	456	64	35
13	120	205	815	594	456	1100	416	209	184	400	66	34
14	115	203	710	576	448	960	385	207	178	342	167	37
15	110	200	1140	557	448	890	370	203	176	313	750	43
16	108	194	6150	520	432	790	355	203	159	287	364	40
17	107	188	3490	483	456	730	329	203	200	249	246	38
18	104	176	2230	448	671	671	321	196	169	230	188	35
19	104	161	1530	400	915	632	316	186	149	215	165	34
20	102	157	1220	385	890	652	316	180	140	190	140	34
21	102	155	1040	385	1410	690	337	173	134	178	118	33
22	101	149	865	370	2870	1190	480	165	134	165	104	32
23	100	149	750	355	2230	1020	520	161	261	145	92	32
24	102	147	671	342	1530	790	520	155	385	134	82	32
25	129	141	613	385	1240	710	613	155	385	125	76	31
26	129	147	613	456	1090	671	690	147	364	112	71	32
27	147	155	613	790	1020	1090	690	151	319	106	67	33
28	159	155	576	790	890	1730	594	171	290	107	63	34
29	140	173	632	710	750	1940	538	178	280	120	58	35
30	127	379	1580	671	---	2470	502	192	269	106	53	35
31	122	---	4800	652	---	3670	---	285	---	94	50	---
TOTAL	4188	5617	57138	25811	23522	36688	20152	7402	9168	46116	4036	1117
MEAN	135	187	1843	833	811	1183	672	239	306	1488	130	37.2
MAX	207	379	6580	3400	2870	3670	2390	483	790	20100	750	54
MIN	100	118	576	342	400	500	316	147	134	94	50	31
CFSM	.14	.20	1.93	.87	.85	1.24	.70	.25	.32	1.56	.14	.04
IN.	.16	.22	2.22	1.00	.92	1.43	.78	.29	.36	1.79	.16	.04
AC-FT	8310	11140	113300	51200	46660	72770	39970	14680	18180	91470	8010	2220
CAL YR 1975	TOTAL	559728	MEAN	1534	MAX	34800	MIN	81	CFSM	1.60	IN	21.78
WTR YR 1976	TOTAL	240955	MEAN	658	MAX	20100	MIN	31	CFSM	.69	IN	9.38
									AC-FT	1110000		
									AC-FT	477900		

07037700 CLARK CREEK NEAR PIEDMONT, MO

LOCATION.--Lat 37°11'09", long 90°37'47", in SE¼NE¼ sec.17, T.29 N., R.4 E., Wayne County, Hydrologic Unit 08020202, at downstream right abutment of bridge on State Highway 34, and 3.5 mi (5.6 km) northeast of Piedmont.

DRAINAGE AREA.--4.39 mi² (11.37 km²).

PERIOD OF RECORD.--October 1956 to September 1976 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 530 ft (161.5 m) from topographic map.

REMARKS.--Records fair. Several observations of water temperatures were made during the year.

AVERAGE DISCHARGE.--20 years, 4.29 ft³/s (0.121 m³/s), 13.27 in/yr (337 mm/yr), 3,108 acre-ft/yr (3.83 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.-- Maximum discharge, 1,400 ft³/s (39.6 m³/s) May 22, 1957, gage height, 6.10 ft (1.859 m) from rating curve extended above 360 ft³/s (10.2 m³/s) on basis of slope-area measurements at gage heights 5.45 ft (1.661 m) and 6.25 ft (1.905 m); maximum gage height, 6.25 ft (1.905 m) Sept. 22, 1965; minimum, 0.2 ft³/s (0.006 m³/s) Feb. 21, 1958, and Jan. 29, 30, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft³/s (7.08 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
Dec. 5	2030	317	8.98	3.63	1.106
July 3	0630	*1,150	32.6	*5.84	1.780
July 31	1945	274	7.76	3.49	1.064

Minimum discharge, 0.4 ft³/s (0.011 m³/s) Sept. 5, gage height, 1.80 ft (0.549 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.70	.90	2.6	6.2	1.8	3.1	6.2	1.4	1.2	2.0	1.7	.60
2	.60	.90	2.0	5.4	1.8	2.8	5.0	1.3	1.2	2.6	1.1	.60
3	.60	1.6	1.8	4.1	1.8	2.8	4.4	1.3	1.1	270	1.1	.60
4	.60	1.7	1.7	3.8	1.7	6.1	3.8	1.3	.90	30	.90	.60
5	.60	1.3	35	3.6	1.7	10	3.4	1.3	.90	7.8	.80	.50
6	.60	1.3	59	3.6	1.7	5.4	3.4	1.4	.80	4.6	.80	.50
7	.60	1.3	8.6	3.4	1.6	4.4	2.8	1.4	.80	3.8	.90	.50
8	.70	1.3	4.4	3.1	1.6	4.4	2.6	1.3	.80	3.1	.80	.60
9	.70	1.3	3.4	2.8	1.6	4.1	2.6	1.4	.80	2.8	.80	.60
10	.80	1.4	2.6	2.6	1.6	3.8	2.4	1.3	.80	2.6	.70	.60
11	.90	1.3	2.4	2.6	1.6	3.6	2.1	1.2	.80	2.4	.70	.60
12	.80	1.2	2.1	2.4	1.6	3.8	2.1	1.2	.80	2.1	.70	.60
13	.80	1.2	2.0	2.4	1.6	3.6	2.0	1.3	.80	2.0	.60	.60
14	.80	1.2	1.8	2.4	1.6	3.4	1.8	1.3	.80	1.8	.70	.60
15	.80	1.2	35	2.1	1.6	3.1	1.8	1.3	.90	1.7	.80	.60
16	.80	1.2	11	2.0	1.6	3.1	1.7	1.3	1.3	1.6	.70	.60
17	.80	1.2	5.8	1.8	3.1	2.8	1.6	1.3	.90	1.4	.70	.60
18	.80	1.2	4.4	1.8	2.6	2.6	1.6	1.2	13	1.3	.70	.60
19	.80	1.2	3.8	1.8	2.1	2.4	1.7	1.2	2.0	1.2	.60	.60
20	.80	1.2	3.6	1.7	2.4	3.4	1.6	1.1	1.6	1.2	.60	.60
21	.80	1.2	3.4	1.7	26	3.1	1.8	.90	1.4	1.1	.60	.60
22	.80	1.2	3.1	1.7	10	2.8	1.7	.90	1.3	1.1	.60	.60
23	.80	1.1	2.8	1.7	5.8	2.4	1.6	.90	1.7	.90	.60	.70
24	2.4	1.1	2.6	1.6	4.6	2.6	2.1	.90	15	.80	.60	.70
25	1.4	1.1	2.6	2.4	4.1	2.8	1.8	.80	6.6	.80	.60	.70
26	.90	1.1	2.6	2.0	3.8	17	1.7	.80	3.4	.80	.60	.70
27	.90	.90	2.4	2.0	3.4	40	1.6	.80	2.6	.80	.60	.70
28	.90	.90	2.4	2.0	3.4	11	1.6	1.2	2.1	.80	.60	.70
29	1.1	1.6	9.3	2.0	3.1	29	1.6	.90	2.1	1.4	.60	.70
30	.90	9.3	19	2.0	---	20	1.6	.90	2.1	2.0	.60	.70
31	.90	---	10	2.0	---	8.6	---	1.1	---	16	.60	---
TOTAL	26.40	44.60	253.2	80.7	100.9	218.0	71.7	35.90	70.50	372.50	23.00	18.50
MEAN	.85	1.49	8.17	2.60	3.48	7.03	2.39	1.16	2.35	12.0	.74	.62
MAX	2.4	9.3	59	6.2	26	40	6.2	1.4	15	270	1.7	.70
MIN	.60	.90	1.7	1.6	1.6	2.4	1.6	.80	.80	.80	.60	.50
CFSM	.19	.34	1.86	.59	.79	1.60	.54	.26	.54	2.73	.17	.14
IN.	.22	.38	2.15	.68	.85	1.85	.61	.30	.60	3.16	.19	.16
AC-FT	52	88	502	160	200	432	142	71	140	739	46	37

CAL YR 1975	TOTAL	2134.20	MEAN 5.85	MAX 286	MIN .60	CFSM 1.33	IN 18.08	AC-FT 4230
WTR YR 1976	TOTAL	1315.90	MEAN 3.60	MAX 270	MIN .50	CFSM .82	IN 11.15	AC-FT 2610

ST. FRANCIS RIVER BASIN

07039000 WAPPAPELLO LAKE AT WAPPAPELLO, MO

LOCATION.--Lat 36°55'42", long 90°17'04", in NW¼SE¼ 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 (1.2 km) southwest of Wappapello, and at mile 309 (497 km).

DRAINAGE AREA.--1,310 mi² (3,390 km²), approximately.

PERIOD OF RECORD.--April 1941 to current year.

GAGE.--Water-stage recorder. Datum of gage is 347.74 ft (105.991 m) above mean sea level. Prior to June 19, 1941, nonrecording gage at same site and datum.

REMARKS.--Lake is formed by earth-fill 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 (gage height, -9.0 ft or -2.743 m), 2,600 acre-ft (3.21 km³); at conservation pool level (gage height, 7.0 ft or 2.134 m), 30,900 acre-ft (38.1 km³); at spillway crest (gage height, 47.0 ft or 14.326 m), 613,200 acre-ft (756 km³); at maximum pool level (gage height, 62.4 ft or 19.020 m), uncontrollable above spillway crest, 1,022,000 acre-ft (1.26 km³). Figures given herein represent total contents. Under normal operating conditions lake surface will not be drawn below conservation pool level, which is maintained for purposes of conservation and recreation. Storage above this level used for flood control.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 729,800 acre-ft (900 km³) Apr. 16, 1945, gage height, 51.35 ft (15.651 m); minimum, since initial filling to conservation pool level, 23,340 acre-ft (28.8 km³) Mar. 1, 2, 3, 1970; minimum gage height, 4.20 ft (1.280 m) Sept. 26, 27, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 153,000 acre-ft (189 km³) July 7, gage height, 20.90 ft (6.370 m); minimum, 30,500 acre-ft (37.6 km³) March 23, 27, gage height, 6.90 ft (2.103 m).

Capacity table (gage height, in feet, and contents, in acre-ft)

6.0	27,100	13.0	71,400
8.0	35,900	16.0	99,600
10.0	48,300	21.0	154,000

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63100	63500	64600	112000	135000	32400	39700	44700	58400	63600	65400	62700
2	63100	63100	66100	119000	130000	32300	40000	45600	59900	64200	64500	62800
3	63100	63000	67400	123000	124000	32300	39500	46500	61700	68100	63900	62900
4	63100	63300	67500	127000	119000	32100	39400	47000	63400	123000	63800	63100
5	63100	63600	66500	129000	113000	31700	39700	47300	64300	145000	63700	63400
6	63200	63400	68100	131000	108000	31800	39700	47800	65000	150000	63900	63500
7	63500	63100	73900	134000	102000	33900	39500	48600	65200	153000	63800	63400
8	63600	62900	85600	135000	96100	34600	39100	49100	64500	152000	63700	63400
9	63400	63100	88700	136000	90200	34700	41100	49200	64000	151000	63600	64000
10	63000	63700	92100	136000	84100	34000	39300	49500	63600	148000	63300	64300
11	62800	64000	94900	137000	78000	32500	39000	49800	63500	145000	63100	64300
12	62800	63900	97400	138000	71900	31300	39300	50000	63200	139000	63100	64300
13	62800	63500	99200	139000	65600	31100	39600	50300	63100	138000	62900	64300
14	62700	62800	101000	141000	59800	31000	39700	50700	63100	133000	62700	64400
15	62600	62700	104000	142000	54200	31000	39500	51000	64000	128000	64100	64500
16	62600	62800	108000	142000	48700	31100	39400	51600	64000	123000	64800	64600
17	62500	63100	120000	143000	43500	30900	39600	52100	63700	118000	64700	64800
18	62500	63400	126000	143000	39300	30600	39700	52300	63600	112000	64300	64900
19	62600	63500	129000	144000	36300	30600	40000	52400	67400	107000	63800	65000
20	62800	63100	132000	144000	33800	30600	39700	52500	66700	102000	63500	65100
21	62900	63100	134000	145000	32600	30700	40000	52600	65400	96700	63300	65300
22	63100	62800	135000	145000	34500	30600	40900	52800	64400	91400	63200	65300
23	63400	62600	134000	146000	37100	30500	41700	53000	63700	86100	63100	65300
24	63600	62600	131000	146000	38100	30700	42600	53100	65100	81200	63500	65300
25	63700	62600	127000	146000	38100	30800	45000	53400	77000	75600	63200	65400
26	63700	62600	123000	147000	37400	30700	44900	53600	76700	72400	63000	65400
27	63500	63100	118000	148000	35900	30500	44900	54000	75100	69300	62700	66000
28	63100	63200	113000	148000	34200	30900	45000	55200	71600	68500	62800	66100
29	63100	63100	108000	147000	32900	32300	44900	56200	69200	67700	62700	65900
30	63200	63100	104000	144000	---	34900	44500	56700	66100	67000	62600	65400
31	63200	---	104000	140000	---	37100	---	57500	---	65700	62600	---
(+)	12.05	12.03	16.41	19.81	7.41	8.21	9.42	11.30	12.38	12.34	11.97	12.30
(+)	-100	-100	+40,900	+36,000	-107,100	+4,200	+7,400	+13,000	+8,600	-400	-3,100	+2,800
MAX	63700	64000	135000	148000	135000	37100	45000	57500	77000	153000	65400	66100
MIN	62500	62600	64600	112000	32600	30500	39000	44700	58400	63600	62600	62700

CAL YR 1975.....† +78,800

WTR YR 1976.....† +2,100

† Elevation, in feet, at end of month.

† Change in contents, in acre-feet.

07039500 ST. FRANCIS RIVER AT WAPPAPELLO, MO

LOCATION.--Lat 36°55'41", long 90°15'55", in NW¼SE¼ 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 (0.8 km) southeast of Wappapello and 1.25 mi (2.0 km) downstream from Wappapello Dam.

DRAINAGE AREA.--1,311 mi² (2,929 km²).

PERIOD OF RECORD.--October 1940 to current year. Since January 1939 in reports of Mississippi River Commission. Gage-height records collected in this vicinity since April 1920 are contained in reports of the Corps of Engineers.

REVISED RECORDS.--WSP 1211: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 325.15 ft (99.106 m) above mean sea level. Prior to Oct. 14, 1940, nonrecording gages in the vicinity at same datum.

REMARKS.--Records good above 500 ft³/s (14.2 m³/s) and fair below. Discharge computed using gate openings and pool elevation at Wappapello Lake. Flow regulated by Wappapello Lake.

COOPERATION.--Records furnished by Corps of Engineers.

AVERAGE DISCHARGE.--36 years, 1,543 ft³/s (43.70 m³/s), 1,118,000 acre-ft/yr (1.38 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,300 ft³/s (632 m³/s) Apr. 16, 1945, gage height, 25.60 ft (7.803 m); no flow July 20-24, 1940, June 2, 1952, and part of a few days in some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since 1920, 30.7 ft (9.36 m) May 15, 1933, discharge, 82,500 ft³/s (2,340 m³/s), determined by Corps of Engineers. Maximum discharge, 85,000 ft³/s (2,410 m³/s), determined by Corps of Engineers, Aug. 1915 (stage unknown).

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 3,790 ft³/s (107 m³/s) Feb. 4, gage height, 13.12 ft (3.999 m); minimum daily discharge, 40 ft³/s (1.13 m³/s) on many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	380	220	620	250	3700	870	3670	310	40	900	590	40
2	380	220	1250	250	3670	950	3560	210	40	210	530	40
3	270	280	1780	250	3760	1160	2130	210	40	1580	350	40
4	210	460	1910	250	3790	1150	1400	210	284	1970	220	40
5	210	580	1900	250	3710	1580	1640	210	410	800	220	40
6	220	580	2320	260	3770	1990	1680	210	535	800	220	40
7	480	390	2610	260	3740	2320	1520	210	773	1150	220	40
8	590	220	2210	260	3760	2700	1070	210	802	2130	220	40
9	530	220	1440	260	3730	2820	940	210	595	2400	220	40
10	280	350	240	260	3750	2800	800	210	470	2470	220	40
11	220	580	240	260	3730	2240	580	210	410	2490	220	40
12	220	750	230	260	3730	1330	650	210	290	2490	220	40
13	220	560	230	260	3770	1130	700	210	220	2650	220	40
14	220	160	230	260	3720	980	750	210	220	2930	220	40
15	220	40	230	260	3700	1100	600	210	220	2900	406	40
16	220	100	250	260	3710	1370	510	210	410	2960	590	40
17	100	220	250	260	3530	1070	510	210	340	2960	590	40
18	40	340	250	260	3550	720	510	210	490	2930	530	40
19	40	460	260	260	3090	810	550	210	640	2900	410	40
20	40	400	400	260	1940	930	400	210	590	2960	280	40
21	40	400	1460	260	1350	1390	360	210	980	2850	220	40
22	40	280	2910	260	1840	1260	250	210	730	2820	220	40
23	160	220	3430	260	2470	1130	200	210	790	2910	220	40
24	330	220	3420	260	2540	1250	400	100	1230	2950	220	40
25	380	220	3380	260	2810	1400	980	40	1680	2410	220	40
26	380	220	3350	260	2870	1440	1100	40	1960	1940	220	40
27	330	280	3370	870	2730	1440	1070	40	2290	1290	220	40
28	220	400	3420	2670	2080	1650	1150	40	2490	600	220	143
29	220	400	3070	3780	1230	2250	1160	40	2470	600	160	332
30	220	510	1300	3750	---	2740	870	40	2260	600	40	393
31	220	---	240	3720	---	3190	---	40	---	590	40	---
TOTAL	7630	10280	48200	21500	91770	49160	31710	5310	24699	62140	8696	1948
MEAN	246	343	1555	694	3164	1586	1057	171	823	2005	281	64.9
MAX	590	750	3430	3780	3790	3190	3670	310	2490	2960	590	393
MIN	40	40	230	250	1230	720	200	40	40	210	40	40
AC-FT	15130	20390	95600	42650	182000	97510	62900	10530	48990	123300	17250	3860
CAL YR 1975	TOTAL	723123	MEAN	1981	MAX	9610	MIN	40	AC-FT	1434000		
WTR YR 1976	TOTAL	363043	MEAN	992	MAX	3790	MIN	40	AC-FT	720100		

07041000 LITTLE RIVER DITCH 81 NEAR KENNETT, MO

LOCATION.--Lat 36°14'10", long 89°58'58", in NE¼ sec.4, T.18 N., R.10 E., Dunklin County, Hydrologic Unit 08020204, on downstream side of bridge on State Highway 84, and about 4 mi (6.4 km) east of Kennett.

DRAINAGE AREA.--111 mi² (287 km²).

PERIOD OF RECORD.--October 1926 to current year.

REVISED RECORDS.--WSP 877: 1938.

GAGE.--Nonrecording gage and crest-stage gage. Datum of gage is 241.00 ft (73.457 m) above mean sea level (Corps of Engineers bench mark). Prior to Oct. 19, 1966, at site 100 ft (30.5 m) upstream at present datum.

REMARKS.--Records good. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--50 years, 200 ft³/s (5.66 m³/s), 144,900 acre-ft/yr (179 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,090 ft³/s (87.5 m³/s) Apr. 23, 1973, gage height, 9.83 ft (2.996 m); maximum gage height, 15.1 ft (4.60 m) Apr. 21, 1927, including some overflow from levee breaks on St. Francis River; minimum discharge observed, 8.0 ft³/s (0.227 m³/s) Sept. 1, 1943, Sept. 18, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,590 ft³/s (73.3 m³/s) Feb. 18, gage height, 8.79 ft (2.679 m); minimum daily, 22 ft³/s (0.62 m³/s) Sept. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	112	81	368	148	156	160	178	94	325	142	78	47
2	106	80	218	235	146	166	158	90	340	110	87	49
3	102	81	154	238	144	158	152	94	285	408	76	47
4	102	108	136	180	136	188	140	92	210	1460	72	50
5	98	106	168	170	130	262	134	88	280	920	71	49
6	92	98	1130	150	124	214	130	94	186	392	70	47
7	87	102	1390	154	120	172	124	88	140	242	67	45
8	84	94	610	140	118	252	118	84	120	182	61	44
9	82	92	312	210	116	592	116	81	114	158	60	45
10	82	100	232	128	130	315	118	78	110	146	60	42
11	78	108	204	124	110	196	116	78	104	138	59	43
12	74	122	192	128	102	170	114	74	102	132	60	42
13	72	142	172	146	106	160	110	76	96	128	60	41
14	74	87	156	112	102	150	108	80	92	538	59	40
15	72	82	170	110	100	142	106	81	233	152	90	40
16	72	82	375	112	100	144	104	78	1150	130	235	39
17	71	84	275	106	245	140	100	94	857	120	90	38
18	76	82	224	104	2370	138	104	90	550	112	67	37
19	76	81	180	102	1870	136	96	84	826	106	65	38
20	75	96	172	100	906	134	106	78	372	104	60	37
21	75	88	168	104	802	170	110	71	216	100	56	36
22	71	84	158	104	589	154	104	70	170	102	55	36
23	70	81	156	108	388	148	96	70	221	94	54	36
24	72	81	152	122	318	146	92	70	1250	88	54	35
25	81	80	194	888	280	140	108	76	1100	82	50	35
26	86	78	571	1440	245	150	190	75	408	84	49	22
27	82	120	619	670	210	182	130	118	222	82	49	23
28	81	106	439	318	192	296	106	310	178	87	50	35
29	82	102	451	218	172	938	100	340	184	81	50	47
30	82	242	715	184	---	487	98	245	160	80	49	42
31	82	---	422	168	---	228	---	292	---	76	48	---
TOTAL	2551	2970	10883	7221	10527	7028	3566	3433	10601	6776	2111	1207
MEAN	82.3	99.0	351	233	363	227	119	111	353	219	68.1	40.2
MAX	112	242	1390	1440	2370	938	190	340	1250	1460	235	50
MIN	70	78	136	100	100	134	92	70	92	76	48	22
AC-FT	5060	5890	21590	14320	20880	13940	7070	6810	21030	13440	4190	2390
CAL YR 1975	TOTAL	93367	MEAN 256	MAX 2830	MIN 68	AC-FT 185200						
WTR YR 1976	TOTAL	68874	MEAN 188	MAX 2370	MIN 22	AC-FT 136600						

07042000 LITTLE RIVER DITCH 1 NEAR KENNETT, MO

LOCATION.--Lat 36°14'09", long 89°58'53", in NE¼ sec.4, T.18 N., R.10 E., Dunklin County, Hydrologic Unit 08020204, on downstream side of bridge on State Highway 84, and 4 mi (6.4 km) east of Kennett.

DRAINAGE AREA.--235 mi² (609 km²).

PERIOD OF RECORD.--October 1926 to current year.

GAGE.--Nonrecording gage, and crest-stage gage. Datum of gage is 241.00 ft (73.457 m) above mean sea level (Corps of Engineers bench mark). Prior to Oct. 20, 1966, at site 100 ft (30.5 m) upstream at present datum.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--50 years, 417 ft³/s (11.8 m³/s), 302,100 acre-ft/yr (372 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,900 ft³/s (224 m³/s) Apr. 23, 1973, gage height, 14.55 ft (4.435 m); maximum gage height, 16.80 ft (5.121 m) Jan. 25, 1937; minimum discharge, 8.0 ft³/s (0.227 m³/s) Sept. 13-18, 1932; minimum gage height observed, 0.71 ft (0.216 m) Sept. 15, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,990 ft³/s (170 m³/s) Feb. 18, gage height, 12.53 ft (3.819 m); minimum, 58 ft³/s (1.64 m³/s) Sept. 26, gage height, 0.83 ft (0.253 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	154	93	758	782	320	310	300	130	385	258	232	75
2	138	92	572	502	292	285	248	126	463	240	222	76
3	132	92	265	472	272	270	236	126	625	403	164	78
4	124	104	184	388	250	250	214	124	332	1180	130	82
5	122	106	224	332	245	282	202	122	382	1810	122	80
6	120	108	934	302	230	472	192	128	250	1140	116	76
7	117	128	2870	290	225	292	184	122	220	698	105	72
8	116	112	1740	280	220	262	174	114	190	445	102	72
9	112	110	772	270	215	280	170	111	174	335	98	76
10	111	126	397	260	210	590	168	111	166	305	96	78
11	110	150	290	240	200	320	166	112	158	290	99	75
12	104	130	230	230	196	278	166	108	156	258	102	72
13	102	112	194	220	190	234	156	102	150	245	104	68
14	100	105	180	214	188	234	154	111	146	352	104	64
15	99	99	255	206	184	224	152	118	271	248	106	62
16	98	102	608	202	182	214	164	117	1550	232	132	62
17	96	100	544	200	1080	204	150	116	2980	230	102	64
18	99	98	445	194	5270	202	148	128	2530	206	94	68
19	98	94	290	188	4800	200	144	117	1980	182	93	70
20	98	92	226	184	2620	200	142	116	1120	174	94	68
21	96	90	198	186	1510	400	148	112	597	184	92	63
22	90	87	180	190	1260	295	142	108	343	182	92	60
23	88	86	170	196	976	216	138	106	352	174	90	62
24	94	82	164	200	594	200	134	105	832	178	88	62
25	102	80	236	1070	502	194	154	106	1570	162	99	60
26	99	81	815	3520	445	439	164	105	968	150	90	58
27	98	126	1280	2060	376	292	178	117	511	138	88	60
28	93	100	1130	940	338	358	144	168	403	245	87	63
29	92	92	1300	520	322	793	138	394	370	148	84	63
30	96	225	1690	409	---	964	134	262	290	126	81	62
31	94	---	1540	343	---	487	---	218	---	117	76	---
TOTAL	3292	3202	20681	15590	23712	10241	5104	4160	20464	11035	3384	2051
MEAN	106	107	667	503	818	330	170	134	682	356	109	68.4
MAX	154	225	2870	3520	5270	964	300	394	2980	1810	232	82
MIN	88	80	164	184	182	194	134	102	146	117	76	58
AC-FT	6530	6350	41020	30920	47030	20310	10120	8250	40590	21890	6710	4070
CAL YR 1975 TOTAL	192187			MEAN 527	MAX 7120	MIN 80	AC-FT 381200					
WTR YR 1976 TOTAL	122916			MEAN 336	MAX 5270	MIN 58	AC-FT 243800					

07042500 LITTLE RIVER DITCH 251 NEAR LILBOURN, MO

LOCATION.--Lat 36°33'20", long 89°40'12", SW¼SE¼ sec.8, T.22 N., R.13 E., New Madrid County, Hydrologic Unit 08020204, on right bank 150 ft (45.7 m) upstream from bridge on U.S Highway 62, 3.7 mi (5.95 km) southwest of Lilbourn, and 4 mi (6.4 km) northwest of Marston.

DRAINAGE AREA.--235 mi² (609 km²).

PERIOD OF RECORD.--October 1945 to current year. Prior to January 1946 monthly discharge only, published in WSP 1311.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 263.46 ft (80.303 m) above mean sea level (levels by Missouri State Highway Commission). Prior to Oct. 27, 1967, nonrecording gage at present site and datum.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--31 years, 326 ft³/s (9.23 m³/s), 18.84 in/yr (479 mm/yr), 236,200 acre-ft/yr (291 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,580 ft³/s (186 m³/s) Mar. 29, 1975, gage height, 14.17 ft (4.319 m); maximum gage height, 15.16 ft (4.621 m) Feb. 15, 1950; minimum discharge, 29 ft³/s (0.82 m³/s) Sept. 20, 1954; minimum gage height, 1.94 ft (0.591 m) Sept. 21, 22, 23, 25, 26, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1945 reached a stage of 15.6 ft (4.75 m) from floodmark, discharge, 3,200 ft³/s (90.6 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,920 ft³/s (139 m³/s) Feb. 18, gage height, 12.82 ft (3.908 m); minimum, 72 ft³/s (2.04 m³/s) Sept. 21, 22, 23, 25, 26, gage height, 1.94 ft (0.591 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	170	129	526	584	340	314	264	165	272	314	263	96
2	166	130	304	528	320	303	248	166	702	285	236	98
3	163	130	237	509	310	292	239	156	408	621	194	96
4	162	141	205	411	291	275	229	150	285	2400	168	93
5	159	142	193	365	279	394	224	152	256	1470	161	91
6	157	152	1280	343	270	300	219	156	251	1040	154	89
7	153	186	1250	333	260	278	213	152	223	627	145	87
8	149	164	642	310	264	266	203	144	205	520	141	87
9	147	154	459	294	256	398	198	142	192	448	139	87
10	143	209	376	288	259	308	199	144	183	387	135	89
11	143	174	321	281	238	267	199	146	171	338	135	89
12	138	159	288	271	230	265	190	142	163	312	131	89
13	137	152	256	278	235	250	187	141	157	294	128	89
14	137	149	248	263	222	240	187	144	149	278	122	84
15	138	150	369	256	224	232	186	145	143	262	126	83
16	136	150	478	258	226	233	182	145	355	263	133	82
17	135	146	368	245	1080	232	180	146	852	248	137	79
18	135	147	304	239	4570	232	179	143	657	241	120	77
19	135	141	283	238	2700	236	172	140	1000	240	116	75
20	135	146	274	241	1030	252	173	138	807	225	113	75
21	135	145	251	239	1270	273	177	138	717	207	111	74
22	135	137	240	241	992	223	171	134	639	207	111	72
23	136	135	234	238	610	221	164	133	621	200	109	72
24	135	136	226	244	497	221	168	132	831	189	107	74
25	141	137	299	1410	445	221	180	141	651	176	100	73
26	138	143	777	1650	402	218	198	134	578	173	100	73
27	135	164	745	808	358	256	182	135	537	166	95	81
28	134	150	551	546	339	210	173	155	433	169	95	78
29	132	145	682	454	329	969	169	178	384	159	98	76
30	130	495	1090	395	---	521	167	170	351	156	95	75
31	128	---	782	354	---	306	---	217	---	189	96	---
TOTAL	4417	4838	14538	13114	18846	9206	5820	4624	13173	12804	4114	2483
MEAN	142	161	469	423	650	297	194	149	439	413	133	82.8
MAX	170	495	1280	1650	4570	969	264	217	1000	2400	263	98
MIN	128	129	193	238	222	210	164	132	143	156	95	72
CFSM	.60	.69	2.00	1.80	2.77	1.26	.83	.63	1.87	1.76	.57	.35
IN.	.70	.77	2.30	2.08	2.98	1.46	.92	.73	2.09	2.03	.65	.39
AC-FT	8760	9630	28840	26010	37380	18260	11540	9170	26130	25400	8160	4930
CAL YR 1975 TOTAL	165376			MEAN 453	MAX 6490	MIN 128	CFSM 1.93	IN 26.18	AC-FT 328000			
WTR YR 1976 TOTAL	107977			MEAN 295	MAX 4570	MIN 72	CFSM 1.26	IN 17.09	AC-FT 214200			

07043000 CASTOR RIVER AT AQUILLA, MO

LOCATION.--Lat 36°57'08", long 89°54'25", in NE¼SE¼ sec.25, T.27 N., R.10 E., Stoddard County, Hydrologic Unit 08020204, on downstream side of right pier of bridge on State Highway 25, 0.5 mi (0.8 km) north of Aquilla, and 4 mi (6.4 km) north of Bloomfield.

DRAINAGE AREA.--175 mi² (453 km²).

PERIOD OF RECORD.--October 1945 to current year. Prior to January 1946 monthly discharge only, published in WSP 1311.

GAGE.--Water-stage recorder, and crest-stage gage. Datum of gage is 317.11 ft (96.655 m) above mean sea level (levels by Missouri State Highway Commission). Prior to Apr. 11, 1948, nonrecording gage at site 50 ft (15.24 m) downstream at same datum, Apr. 12, 1948, to July 31, 1968, nonrecording gage at present site and datum.

REMARKS.--Records poor. Several observations of water temperature were made during the year. Entire flow from headwaters of Castor River is diverted 22 mi (35.4 km) above station to Headwater diversion channel. See Castor River at Zalma for records of flow above diversion.

AVERAGE DISCHARGE.--31 years, 169 ft³/s (4.79 m³/s), 13.11 in/yr (333 mm/yr), 122,400 acre-ft/yr (151 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,900 ft³/s (167 m³/s) Mar. 9, 1964, gage height, 15.7 ft (4.79 m) from floodmark; no flow, Sept. 4-7, 1946, Sept. 22 to Oct. 4, Oct. 8-11, 1953, Sept. 18-20, 1955, Oct. 27 to Nov. 4, 1964, Aug. 14, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1945 reached a stage of 14.2 ft (4.33 m), from floodmark.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,610 ft³/s (73.9 m³/s) July 4, gage height, 13.21 ft (4.026 m); no flow Aug. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	9.6	412	833	72	47	376	39	1160	590	78	13
2	15	5.7	424	348	59	45	158	32	947	304	53	7.5
3	14	4.9	334	202	49	40	98	26	602	1350	46	4.1
4	15	7.2	249	108	41	34	70	23	317	2530	32	2.0
5	15	9.1	237	78	37	74	52	20	210	2310	21	.91
6	14	11	1180	59	34	154	42	20	158	1930	13	.64
7	12	11	1210	54	32	135	35	20	125	1690	8.7	.51
8	9.4	12	1190	49	30	96	31	19	106	1490	5.5	.47
9	6.7	13	1090	44	28	78	27	21	92	1220	4.2	1.5
10	5.5	18	581	40	27	81	24	21	82	710	2.4	2.1
11	5.4	24	194	32	26	79	22	25	73	273	.65	2.4
12	4.3	33	121	30	26	62	19	29	64	120	.16	2.2
13	1.7	32	78	29	25	49	18	30	55	79	.04	2.4
14	.55	29	58	28	24	49	17	31	49	60	0	2.4
15	.25	28	176	29	23	44	17	59	182	49	.07	1.9
16	.23	29	326	31	23	40	16	103	1200	40	.66	2.5
17	.29	30	298	29	65	33	16	70	755	33	2.0	2.7
18	1.1	32	284	27	732	28	15	54	977	27	4.2	3.0
19	1.6	34	170	24	1070	25	15	48	1610	23	9.1	3.3
20	2.6	39	102	24	983	27	14	42	1630	18	10	2.7
21	3.7	41	71	23	887	31	14	37	1550	15	8.4	2.5
22	4.7	43	50	23	794	39	14	36	1420	13	6.1	2.2
23	5.0	47	35	45	468	60	13	36	1160	12	4.1	1.9
24	5.1	52	34	65	226	60	129	35	1480	11	2.0	1.6
25	6.5	55	32	438	135	49	686	36	1780	9.3	3.8	1.4
26	5.1	61	56	806	92	40	530	35	1720	7.6	15	1.6
27	4.6	72	95	770	70	42	318	34	1590	8.5	13	6.4
28	4.3	73	154	450	56	45	139	266	1460	8.6	7.4	5.4
29	5.2	81	448	207	48	144	83	764	1410	15	6.0	4.5
30	9.0	314	1040	130	---	632	54	644	1110	107	17	4.2
31	12	---	992	93	---	707	---	1130	---	125	19	---
TOTAL	205.82	1250.5	11721	5148	6182	3069	3062	3785	25074	15178.0	392.48	89.93
MEAN	6.64	41.7	378	166	213	99.0	102	122	836	490	12.7	3.00
MAX	16	314	1210	833	1070	707	686	1130	1780	2530	78	13
MIN	.23	4.9	32	23	23	25	13	19	49	7.6	0	.47
CFSM	.04	.24	2.16	.95	1.22	.57	.58	.70	4.78	2.80	.07	.02
IN.	.04	.27	2.49	1.09	1.31	.65	.65	.80	5.33	3.23	.08	.02
AC-FT	408	2480	23250	10210	12260	6090	6070	7510	49730	30110	778	178
CAL YR 1975 TOTAL	103480.62			MEAN 284	MAX 3460	MIN .23	CFSM 1.62	TN 22.00	AC-FT 205300			
WTR YR 1976 TOTAL	75157.73			MEAN 205	MAX 2530	MIN 0	CFSM 1.17	TN 15.98	AC-FT 149100			

07043500 LITTLE RIVER DITCH 1 NEAR MOREHOUSE, MO

LOCATION.--Lat 36°50'03", long 89°43'48", in SW¼SE¼ sec.2, T.25 N., R.12 E., Stoddard County, Hydrologic Unit 08070204, on downstream side of second pier right of left abutment of bridge on State Highway 114, 1.5 mi (2.4 km) downstream from Little River ditch 39, and 2 mi (3.2 km) west of Morehouse.

DRAINAGE AREA.--450 mi² (1,166 km²).

PERIOD OF RECORD.--October 1945 to current year. Prior to January 1946 monthly discharge only, published in WSP 1311.

GAGE.--Water-stage recorder. Datum of gage is 280.76 ft (85.576 m) above mean sea level. Prior to Nov. 17, 1949, June 11, 1951, to Feb. 22, 1962, nonrecording gage at same site and datum. Nov. 17, 1949, to June 10, 1951, nonrecording gage at site 50 ft (15.2 m) downstream at present datum.

REMARKS.--Records poor. Several observations of water temperature were made during the year. This Little River ditch 1 flows into Little River ditch 251 at point 35.3 mi (56.8 km) downstream, and is independent of the ditch for which records are published as Little River ditch 1 near Kennett.

AVERAGE DISCHARGE.--31 years, 527 ft³/s (14.9 m³/s), 15.90 in/yr (404 mm/yr), 381,800 acre-ft/yr (471 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,250 ft³/s (234 m³/s) May 10, 1961, gage height, 19.35 ft (5.898 m); maximum gage height, 19.81 ft (6.038 m) Mar. 11, 1964; minimum discharge, 21 ft³/s (0.59 m³/s) Sept. 18, 1954, gage height, 3.13 ft (0.954 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1945 reached a stage of 19.85 ft (6.050 m) from floodmark, discharge, 5,830 ft³/s (165 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,600 ft³/s (102 m³/s) Feb. 18, gage height, 13.20 ft (4.023 m); minimum, 87 ft³/s (2.45 m³/s) Sept. 25, gage height, 2.79 ft (0.850 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	187	145	1020	1760	383	311	946	275	1860	1110	573	122
2	181	140	714	1310	345	299	598	257	1860	668	323	120
3	173	138	627	966	304	283	415	232	1160	1360	248	120
4	170	148	491	662	279	278	308	215	884	3350	214	120
5	166	146	378	491	263	342	245	217	579	3320	192	118
6	160	145	2490	372	253	471	220	204	418	2660	177	117
7	155	148	2950	319	247	462	206	199	332	1620	166	116
8	152	143	1840	294	242	395	191	185	279	1240	158	115
9	146	141	1530	272	228	355	183	179	244	991	151	115
10	142	151	1320	267	228	324	180	175	221	681	144	115
11	140	150	907	255	210	314	174	172	206	500	140	115
12	136	144	545	248	212	310	169	168	190	413	138	115
13	135	146	394	246	210	273	168	168	177	342	136	110
14	133	147	332	239	203	246	161	167	168	291	136	108
15	131	144	742	235	204	242	167	168	162	272	358	106
16	131	137	2070	232	211	237	170	262	1540	242	609	107
17	134	133	1260	228	598	221	159	241	1850	225	272	104
18	136	128	949	221	3140	222	168	197	1170	212	164	103
19	136	127	678	219	2860	211	157	174	2770	201	153	100
20	135	133	488	219	2050	220	163	162	2390	194	149	98
21	135	134	380	219	2170	302	160	153	1700	188	145	95
22	133	128	327	221	2270	264	157	151	1500	183	142	94
23	132	123	296	228	1450	248	153	147	1390	174	138	92
24	136	123	276	246	1040	264	188	145	2100	167	136	91
25	144	122	279	1600	728	244	1500	144	3070	158	131	89
26	139	130	424	3050	545	234	1340	142	2610	159	129	90
27	139	148	678	2050	427	226	872	142	1900	157	127	102
28	133	139	779	714	372	223	482	348	1580	161	126	101
29	133	140	1270	589	337	364	404	1620	1620	164	126	95
30	137	509	3130	491	---	1200	319	1260	1420	178	124	93
31	140	---	2520	438	---	1200	---	1550	---	375	122	---
TOTAL	4480	4530	32084	18901	22009	10785	10723	9819	37350	21956	6047	3186
MEAN	145	151	1035	610	759	348	357	317	1245	708	195	106
MAX	187	509	3130	3050	3140	1200	1500	1620	3070	3350	609	122
MIN	131	122	276	219	203	211	153	142	162	157	122	89
CFSM	.32	.34	2.30	1.36	1.69	.77	.79	.70	2.77	1.57	.43	.24
IN.	.37	.37	2.65	1.56	1.82	.89	.89	.81	3.09	1.82	.50	.26
AC-FT	8890	8990	63640	37490	43650	21390	21270	19480	74080	43550	11990	6320
CAL YR 1975	TOTAL	305710	MEAN 938	MAX	6000	MIN 122	CFSM 1.86	IN 25.27	AC-FT	606400		
WTR YR 1976	TOTAL	181870	MEAN 497	MAX	3350	MIN 89	CFSM 1.10	IN 15.03	AC-FT	360700		

07044000 LITTLE RIVER DITCH 251 NEAR KENNETT, MO

LOCATION.--Lat 36°14'08", long 89°58'45", in NW¼ sec.3, T.18 N., R.10 E., Dunklin County, Hydrologic Unit on downstream side of bridge on State Highway 84, and 4 mi (6.4 km) east of Kennett.

DRAINAGE AREA.--883 mi² (2,287 km²), includes that of Little River ditch 66.

PERIOD OF RECORD.--November 1926 to current year.

GAGE.--Nonrecording gage. Datum of gage is 241.00 ft (73.457 m) above mean sea level (Corps of Engineers bench mark). Prior to Oct. 20, 1966, at site 100 ft (30.5 m) upstream at present datum.

REMARKS.--Records fair. Several observations of water temperature were made during the year. Since Oct. 27, 1965, some base flow has been diverted into ditch 66. Little River ditch 66 diverts water 7.6 mi (12.23 km) upstream. Ditches 66 and 66-A made one ditch in vicinity of gage on May 12, 1965. Prior to April 1951 above discharges of about 4,000 ft³/s (113.3 m³/s), a spillway 6.3 mi (10.1 km) upstream diverted water from ditches 66, 66-A and 251 to Little River ditch 1. On Mar. 11, 1964, old spillway between Cotton Belt and Frisco Railroads upstream near Peach Orchard was blasted to divert floodwater.

AVERAGE DISCHARGE.--49 years, 692 ft³/s (19.60 m³/s), 501,400 acre-ft/yr (618 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,380 ft³/s (237 m³/s) Nov. 20, 1957, gage height, 21.18 ft (6.456 m); maximum gage height, 21.80 ft (6.644 m) Mar. 11, 1964, minimum discharge, 22 ft³/s (0.62 m³/s) Sept. 23, 1969, gage height, 1.59 ft (0.485 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,210 ft³/s (119 m³/s) Feb. 19, gage height, 13.91 ft (4.240 m); minimum, 41 ft³/s (1.161 m³/s) Sept. 27, gage height, 1.41 ft (0.430 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	157	100	696	1580	416	310	863	199	1220	781	181	69
2	150	99	671	1120	341	278	642	186	1580	637	302	72
3	145	96	420	943	302	254	457	171	1820	731	228	72
4	139	110	318	696	272	244	333	156	1260	1560	173	71
5	134	147	240	541	250	244	278	145	910	3550	156	68
6	129	140	343	411	234	331	244	142	773	3060	142	65
7	124	149	2420	369	224	310	224	144	565	2360	132	62
8	121	242	2360	407	214	296	210	140	391	1660	110	58
9	116	250	1280	407	212	560	207	131	292	1280	106	58
10	116	274	922	363	198	1020	198	124	262	1060	104	57
11	110	409	741	331	194	613	189	120	228	869	103	60
12	106	331	541	260	174	402	192	116	212	666	97	60
13	100	232	378	220	168	310	181	113	199	461	92	61
14	99	186	292	234	166	270	171	118	186	358	88	58
15	100	162	290	222	161	236	168	121	176	254	85	54
16	100	145	756	216	156	218	173	120	1120	226	123	51
17	99	126	1110	220	691	210	164	118	3000	216	292	50
18	106	113	928	210	3240	208	159	150	2460	198	196	48
19	104	107	538	198	4080	207	147	131	1880	180	132	48
20	106	110	443	196	3350	208	152	116	2050	168	116	47
21	103	104	367	194	2600	222	154	109	1780	157	103	47
22	103	99	300	190	2360	246	149	106	1130	149	99	46
23	102	95	264	188	2120	230	144	102	988	140	95	46
24	99	88	244	201	1260	207	145	97	1210	136	92	47
25	107	83	232	930	946	203	166	95	2340	126	89	44
26	106	85	816	2440	739	201	517	92	2650	115	85	43
27	104	106	1290	2370	586	246	608	93	2190	110	81	41
28	99	121	1200	1310	443	407	398	186	1660	126	76	54
29	102	104	1260	934	358	646	290	407	1100	109	75	50
30	104	140	1820	661	---	1660	236	1050	940	99	72	50
31	103	---	2080	498	---	1170	---	1080	---	92	71	---
TOTAL	3493	4553	25560	19060	26455	12167	8159	6178	36572	21634	3896	1657
MEAN	113	152	825	615	912	392	272	199	1219	698	126	55.2
MAX	157	409	2420	2440	4080	1660	863	1080	3000	3550	302	72
MIN	99	83	232	188	156	201	144	92	176	92	71	41
AC-FT	6930	9030	50700	37810	52470	24130	16180	12250	72540	42910	7730	3290

CAL YR 1975 TOTAL 245420 MEAN 672 MAX 6520 MIN 83 AC-FT 486800
WTR YR 1976 TOTAL 169384 MEAN 463 MAX 4080 MIN 41 AC-FT 336000

ST. FRANCIS RIVER BASIN

07045000 LITTLE RIVER DITCH 66 NEAR KENNETT, MO

LOCATION.--Lat 36°14'09", long 89°58'48", in NE¼ sec.4, T.18 N., R.10 E., Dunklin County, Hydrologic Unit 08020204, on downstream side of bridge on State Highway 84, and 4 mi (6.4 km) east of Kennett.

PERIOD OF RECORD.--October 1926 to current year.

REVISED RECORDS.--WSP 877: 1938.

GAGE.--Nonrecording gage. Datum of gage is 241.00 ft (73.457 m) above mean sea level (Corps of Engineers bench mark). Prior to Oct. 20, 1966, at site 100 ft (30 m) upstream at present datum.

REMARKS.--Records fair. Several observations of water temperature were made during the year. Ditches 66 and 66-A made one ditch in vicinity of gage on May 12, 1965. Little River ditch 66 heads in Little River ditch 251 at a point 7.6 mi (12.2 km) upstream. Since Oct. 27, 1965, some base flow received from ditch 251.

AVERAGE DISCHARGE.--50 years, 383 ft³/s (10.85 m³/s), 277,500 acre-ft/yr (342 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,370 ft³/s (265 m³/s) Mar. 31, 1973, gage height, 16.84 ft (5.133 m); maximum gage height, 21.79 ft (6.642 m) Mar. 11, 1964; no flow at times 1944-65.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,580 ft³/s (186 m³/s) Feb. 19, gage height, 13.69 ft (4.173 m); minimum, 159 ft³/s (4.50 m³/s) Sept. 27, gage height, 1.04 ft (0.317 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	318	239	882	2110	725	593	988	429	1220	1480	474	208
2	304	237	924	1520	657	570	851	499	1700	1200	606	210
3	294	239	739	1280	600	557	677	379	2060	1020	509	213
4	286	262	654	1060	574	525	554	359	1210	2690	408	215
5	281	260	557	851	547	531	474	340	1020	5470	365	217
6	275	278	667	722	525	650	441	337	795	4500	345	215
7	268	281	3050	674	503	613	411	337	623	3330	323	210
8	257	291	2660	650	484	616	390	329	515	2320	299	206
9	255	296	1630	657	487	623	379	313	459	1880	281	210
10	252	299	1270	1040	481	920	370	307	432	1630	275	201
11	249	370	1090	725	478	650	359	302	402	1420	260	204
12	239	345	830	525	447	580	362	296	388	1160	239	204
13	232	315	657	522	396	535	348	291	370	830	237	208
14	234	291	564	515	438	506	345	304	353	684	234	201
15	232	273	570	484	429	493	342	313	345	570	229	194
16	229	273	968	478	423	478	340	313	1160	503	275	190
17	232	278	1550	484	560	462	337	307	4050	499	493	185
18	239	265	1180	468	3590	459	332	362	3470	471	388	181
19	242	265	844	456	6230	438	318	329	2400	441	291	179
20	239	270	725	450	4740	456	337	304	2950	426	265	177
21	237	268	637	444	2740	493	315	286	2380	405	247	174
22	234	265	557	444	2290	506	321	278	1660	388	239	170
23	232	265	509	441	2270	487	318	273	1500	370	232	168
24	232	262	481	499	1460	462	313	268	1620	359	227	170
25	242	260	522	1130	1140	459	420	268	2760	340	225	166
26	244	262	848	2790	904	462	872	262	3460	326	220	163
27	247	273	1260	3060	784	474	956	265	2900	323	215	159
28	242	304	1220	1900	691	512	694	337	2230	345	213	177
29	242	294	1320	1260	650	660	574	493	1780	310	210	174
30	244	367	2220	988	---	1540	487	1070	1680	304	208	177
31	242	---	2780	812	---	1160	---	1180	---	318	206	---
TOTAL	7795	8447	34365	29439	36243	18470	14225	11730	47892	36312	9238	5726
MEAN	251	282	1109	950	1250	596	474	378	1596	1171	298	191
MAX	318	370	3050	3060	6230	1540	988	1180	4050	5470	606	217
MIN	229	237	481	441	396	438	313	262	345	304	206	159
AC-FT	15460	16750	68160	58390	71890	36640	28220	23270	94990	72020	18320	11360
CAL YR 1975	TOTAL	357875	MEAN 980	MAX 9370	MIN 229	AC-FT	709800					
WTR YR 1976	TOTAL	259882	MEAN 710	MAX 6230	MIN 159	AC-FT	515500					

07046000 LITTLE RIVER DITCH 259 NEAR KENNETT, MO

LOCATION.--Lat 36°14'08", long 89°58'41", in NW¼ sec.3, T.18 N., R.10 E., Dunklin County, Hydrologic Unit 08020204, on downstream side of bridge on State Highway 84, and 4 mi (6.4 km) east of Kennett.

DRAINAGE AREA.--89.0 mi² (230.5 km²).

PERIOD OF RECORD.--November 1926 to current year.

REVISED RECORDS.--WSP 1281: 1932.

GAGE.--Nonrecording gage. Datum of gage is 241.00 ft (73.457 m) above mean sea level (Corps of Engineers bench mark). Prior to Oct. 20, 1966, at site 100 ft (30.5 m) upstream at present datum.

REMARKS.--Records poor. Several observations of water temperature were made during the year. Discharge affected by drainage from rice fields.

AVERAGE DISCHARGE.--49 years, 112 ft³/s (3.17 m³/s), 81,140 acre-ft/yr (100 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,140 ft³/s (117 m³/s), including some overflow from levee breaks on Mississippi River, Apr. 29, 1927, gage height, 15.57 ft (4.746 m); no flow on many days in 1936, 1944-45, 1952-53.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,330 ft³/s (66.0 m³/s) Feb. 18, gage height, 9.59 ft (2.923 m); minimum, 12.0 ft³/s (0.340 m³/s) Sept. 18, gage height, -0.96 ft (-0.293 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	14	207	168	46	46	89	24	330	187	39	16
2	18	14	112	149	43	47	64	24	267	210	34	16
3	18	14	58	196	41	46	55	24	263	438	28	17
4	18	61	47	136	38	46	51	24	154	1540	26	16
5	17	40	73	64	38	202	46	22	72	1800	24	17
6	16	47	492	50	37	89	44	25	79	910	24	16
7	16	87	758	47	37	55	43	24	86	506	24	16
8	16	70	354	42	36	101	42	22	110	354	24	16
9	16	48	160	40	36	612	41	22	107	266	24	15
10	18	113	89	38	35	577	40	21	102	214	23	15
11	16	148	64	38	36	150	40	21	98	240	23	16
12	16	96	48	37	36	93	39	20	96	230	22	15
13	15	49	41	49	36	56	37	21	95	264	22	15
14	15	43	51	37	34	52	36	22	94	388	22	15
15	15	41	64	36	33	47	38	22	114	228	59	15
16	15	37	185	35	32	44	39	22	388	179	62	14
17	15	35	112	34	115	43	36	22	472	162	44	13
18	14	34	68	33	1940	43	34	21	506	151	25	12
19	14	33	40	32	1920	44	32	21	890	140	23	15
20	14	36	38	34	1330	43	33	22	426	130	22	14
21	14	34	37	34	818	55	32	20	227	122	21	14
22	14	33	35	34	469	44	30	19	179	112	21	14
23	14	32	34	33	229	43	28	20	163	103	21	14
24	14	30	32	32	141	41	27	20	872	95	20	13
25	15	27	82	324	95	40	28	19	1330	89	20	13
26	14	31	509	816	68	38	28	18	708	81	19	13
27	14	54	456	397	53	134	28	20	387	73	20	13
28	14	44	217	186	52	115	26	162	281	65	19	13
29	14	38	178	101	49	923	24	222	234	57	18	14
30	13	103	390	66	---	880	24	188	200	50	18	13
31	14	---	261	52	---	232	---	300	---	45	16	---
TOTAL	478	1486	5292	3370	7873	4981	1154	1454	9330	9429	807	438
MEAN	15.4	49.5	171	109	271	161	38.5	46.9	311	304	26.0	14.6
MAX	22	148	758	816	1940	923	89	300	1330	1800	62	17
MIN	13	14	32	32	32	38	24	18	72	45	16	12
AC-FT	948	2950	10500	6680	15620	9880	2290	2880	18510	18700	1600	869

CAL YR 1975 TOTAL 52899 MEAN 145 MAX 3760 MIN 13 AC-FT 104900
WTR YR 1976 TOTAL 46092 MEAN 126 MAX 1940 MIN 12 AC-FT 91420

WHITE RIVER BASIN

07050580 JAMES RIVER NEAR STRAFFORD, MO

LOCATION.--Lat 37°12'11", long 93°04'47", in SW¼NW¼NW¼ sec.24, T.29 N., R.20 W., Greene County, Hydrologic Unit 11010002, on right bank 15 ft (5 m) downstream from bridge on county road, 1.6 mi (2.6 km) downstream from County Line Damsite, 1 mi (1.6 km) downstream from Davis Creek and 4 mi (6.4 km) south of Strafford.

DRAINAGE AREA.--165 mi² (427 km²)

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1210 ft (369 m) above mean sea level.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,200 ft³/s (317 m³/s) June 17, 1975, gage height, 15.49 ft (4.721 m); minimum, 1.8 ft³/s (0.051 m³/s) Sept. 6-9, 1976, gage height, 2.01 ft (0.613 m).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base, 3,000 ft³/s (850 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s) (m ³ /s)		Gage height (ft) (m)	
Oct. 1	0445	*5,650	160	*12.45	3.795
Apr. 20	1415	5,410	153	12.22	3.725

Minimum discharge, 1.8 ft³/s (0.051 m³/s) Sept. 6-9, gage height, 2.01 ft (0.613 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2900	32	457	219	32	24	111	171	301	22	10	3.5
2	628	30	286	180	31	24	95	155	225	22	9.0	3.2
3	356	30	203	148	30	23	82	133	173	303	8.4	3.2
4	242	36	154	122	30	24	72	116	137	733	7.9	2.9
5	175	65	161	105	29	54	63	104	116	220	7.7	2.6
6	132	60	734	92	29	66	57	98	98	134	11	2.0
7	102	56	436	84	29	63	51	88	84	94	10	1.8
8	85	52	302	66	27	60	47	78	72	71	9.7	1.8
9	70	47	227	66	27	65	42	70	64	55	8.9	1.8
10	60	43	178	60	27	79	39	66	57	45	8.8	2.3
11	53	39	143	56	27	80	37	66	51	38	8.2	2.3
12	46	36	118	52	26	83	34	61	47	32	7.7	2.3
13	40	33	100	49	26	86	32	59	43	28	7.3	2.0
14	37	30	88	48	26	82	32	60	38	26	6.7	2.0
15	35	28	281	44	24	76	32	57	36	27	18	2.0
16	33	27	251	41	24	71	31	61	34	24	22	2.3
17	32	25	195	40	24	66	30	62	32	22	16	2.0
18	30	24	148	38	25	61	29	57	29	20	13	2.0
19	28	23	120	37	25	57	792	51	28	17	11	2.0
20	28	27	103	36	24	52	3240	46	26	16	9.9	2.0
21	27	35	90	36	26	48	1760	42	24	15	9.0	2.6
22	26	37	78	35	28	44	1050	41	22	14	8.0	3.2
23	26	37	69	34	28	40	839	39	29	13	7.1	3.5
24	25	35	63	34	28	39	553	351	40	12	7.3	3.5
25	28	32	60	34	27	38	491	156	40	11	7.1	3.5
26	31	30	57	34	26	37	382	117	34	11	6.8	4.4
27	31	30	53	34	26	37	302	286	30	10	6.4	6.4
28	29	29	51	34	25	37	251	718	25	9.3	6.0	6.1
29	30	101	78	33	24	93	221	389	23	12	5.6	6.1
30	36	1010	265	33	---	169	188	274	26	12	4.7	5.7
31	34	---	269	33	---	134	---	269	---	10	4.4	---
TOTAL	5435	2119	5818	1957	780	1912	10985	4341	1984	2078.3	283.6	91.0
MEAN	175	70.6	188	63.1	26.9	61.7	366	140	66.1	67.0	9.15	3.03
MAX	2900	1010	734	219	32	169	3240	718	301	733	22	6.4
MIN	25	23	51	33	24	23	29	39	22	9.3	4.4	1.8
CFSM	1.06	.43	1.14	.38	.16	.37	2.22	.85	.40	.41	.06	.02
IN.	1.23	.48	1.31	.44	.18	.43	2.48	.98	.45	.47	.06	.02
AC-FT	10780	4200	11540	3880	1550	3790	21790	8610	3940	4120	563	180
CAL YR 1975	TOTAL	81216.8	MEAN 223	MAX 3420	MIN 2.0	CFSM 1.35	IN 18.31	AC-FT 161100				
WTR YR 1976	TOTAL	37783.9	MEAN 103	MAX 3240	MIN 1.8	CFSM .62	IN 8.52	AC-FT 74940				

07050700 JAMES RIVER NEAR SPRINGFIELD, MO

LOCATION.--Lat 37°08'59", long 93°12'10", in NE&NW¼ sec.11, T.28 N., R.21 W., Greene County, Hydrologic Unit 11010002, on left bank on county road at Kinser bridge, 1.1 mi (1.8 km) downstream from Pearson Creek, and 2.5 mi (4.0 km) southeast of Springfield.

DRAINAGE AREA.--246 mi² (637 km²).

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,143.27 ft (348.469 m) above mean sea level (levels by Corps of Engineers). Prior to Dec. 19, 1955, nonrecording gage at same site and datum.

REMARKS.--Records good. Several observations of water temperatures were made during the year.

AVERAGE DISCHARGE.--21 years, 215 ft³/s (6.089 m³/s), 11.87 in/yr (301 mm/yr), 155,800 acre-ft/yr (192 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,800 ft³/s (702 m³/s) Dec. 17, 1957, gage height, 18.20 ft (5.547 m); minimum, 0.1 ft³/s (0.003 m³/s) Sept. 16, 24, 25, 1956, gage height, 2.18 ft (0.664 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known about 22 ft (6.7 m) in July 1909, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 4,000 ft³/s (113 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
Oct. 1	1015	5,490	155	12.93	3.941
Apr. 20	1845	*7,890	223	*13.97	4.258

Minimum discharge, 7.3 ft³/s (0.21 m³/s) Sept. 17, 18, gage height, 2.42 ft (0.738 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2870	46	677	305	51	40	179	283	398	44	22	13
2	846	44	438	271	50	39	155	258	337	46	21	12
3	488	45	331	238	49	38	136	230	274	156	19	12
4	348	43	266	209	48	40	120	206	234	847	18	12
5	273	67	242	189	49	66	104	189	206	380	18	11
6	222	81	696	173	47	103	92	184	181	260	28	10
7	186	80	606	161	46	100	81	165	158	197	25	9.3
8	162	73	446	142	46	98	74	149	140	155	23	9.1
9	140	67	357	128	45	100	66	136	123	123	22	8.9
10	123	61	293	120	44	116	61	129	111	99	20	8.5
11	106	57	249	114	44	121	56	124	100	82	19	8.5
12	92	52	218	105	42	127	52	115	91	69	18	8.3
13	81	47	194	98	42	129	49	114	83	61	17	8.3
14	71	44	175	90	41	124	48	111	76	55	16	7.9
15	64	42	302	84	41	117	46	105	69	57	154	8.1
16	60	39	363	79	41	109	44	109	65	53	88	8.1
17	56	37	305	73	40	101	42	109	60	47	55	7.7
18	52	35	254	70	40	93	42	100	56	43	42	7.7
19	49	35	220	68	39	85	743	90	53	39	34	7.9
20	46	47	201	66	38	80	4800	83	50	36	29	9.1
21	44	53	180	64	46	73	2740	76	47	33	27	10
22	42	59	162	61	47	65	1320	71	44	31	24	8.9
23	41	58	149	59	47	60	1180	66	64	28	22	8.9
24	43	54	137	58	46	57	827	333	94	27	21	8.9
25	45	50	130	59	45	54	731	271	84	25	19	8.9
26	47	51	122	59	44	53	581	215	71	24	19	8.9
27	47	48	115	59	42	54	468	348	60	23	17	14
28	45	45	106	57	41	52	397	729	53	22	16	14
29	46	94	117	55	41	86	354	554	48	25	15	14
30	48	944	268	54	---	226	310	408	46	25	14	15
31	50	---	335	53	---	205	---	391	---	24	14	---
TOTAL	6833	2498	8654	3421	1282	2811	15898	6451	3476	3136	896	298.9
MEAN	220	83.3	279	110	44.2	90.7	530	208	116	101	28.9	9.96
MAX	2870	944	696	305	51	226	4800	729	398	847	154	15
MIN	41	35	106	53	38	38	42	66	44	22	14	7.7
CFSM	.89	.34	1.13	.45	.18	.37	2.15	.85	.47	.41	.12	.04
IN.	1.03	.38	1.31	.52	.19	.43	2.40	.98	.53	.47	.14	.05
AC-FT	13550	4950	17170	6790	2540	5580	31530	12800	6890	6220	1780	593
CAL YR 1975 TOTAL	117797.6			323		5210		1.31		17.81		233700
WTR YR 1976 TOTAL	55654.9			152		4800		.62		8.42		110400

WHITE RIVER BASIN

07051600 JAMES RIVER NEAR WILSON CREEK, MO

LOCATION.--Lat 37°04'35", long 93°22'15", Christian County, Hydrologic Unit 11010002, at Nelson Mill Bridge on county road 2.5 mi (4.0 km) southeast of Wilson Creek, and 2 mi (3.2 km) upstream from Wilson Creek.

PERIOD OF RECORD.--August 1967 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	TOTAL SODIUM (NA) (MG/L)
OCT 22...	66	358	8.0	18.5	2	8.0	84	12	84	51	8.0	5.1
NOV 18...	53	360	8.2	14.0	5	9.2	88	2	64	52	9.0	4.5
DEC 16...	591	318	8.1	11.5	3	9.8	90	2	230	44	6.7	4.0
JAN 13...	134	332	8.1	8.0	1	10.7	90	2	60	50	7.7	5.0
FEB 18...	59	350	8.2	13.0	4	10.0	94	13	160	52	9.0	5.2
MAR 16...	143	360	8.1	13.0	3	9.6	91	12	46	50	9.5	4.9
APR 13...	87	360	7.9	18.0	2	7.6	79	15	150	47	8.1	4.9
MAY 20...	130	350	7.9	20.0	4	8.5	92	10	76	51	7.2	4.6
JUN 21...	76	345	7.9	23.0	6	8.4	97	18	98	62	7.7	5.5
JUL 14...	80	357	7.8	26.0	3	6.9	84	26	150	58	6.3	4.8
AUG 17...	104	325	8.0	26.0	5	6.9	84	12	350	46	7.0	5.5
SEP 28...	18	395	7.8	17.0	5	7.8	80	3	380	82	6.0	6.0

DATE	TOTAL PO-TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
OCT 22...	2.2	180	0	16	8.2	237	225	.68	.01	.26	.03
NOV 18...	2.0	192	0	16	9.5	186	209	.56	.02	.26	.02
DEC 16...	1.5	170	0	10	6.6	180	186	1.2	.07	.10	.04
JAN 13...	1.5	172	0	14	8.0	208	186	1.4	.02	.07	.03
FEB 18...	1.7	188	0	20	10	212	236	.93	.01	.30	.02
MAR 16...	1.8	184	0	16	9.9	194	228	.84	.02	.30	.03
APR 13...	1.4	186	0	17	8.5	216	220	.67	.02	.27	.02
MAY 20...	1.5	190	0	11	7.1	194	224	1.1	.00	.19	.01
JUN 21...	1.8	192	0	16	7.5	204	260	1.0	.05	.18	.02
JUL 14...	1.8	198	0	7.2	6.5	208	244	1.3	.01	.18	.04
AUG 17...	2.0	164	0	15	9.6	192	242	.54	.02	.49	.06
SEP 28...	2.1	204	0	12	11	238	239	.98	.04	.27	.02

07052100 WILSONS CREEK NEAR SPRINGFIELD, MO

LOCATION.--Lat 37°10'06", long 93°22'14", in NE¼NE¼ sec.6, T.28 N., R.22 W., Greene County, Hydrologic Unit 11000002, on right bank just downstream from bridge on county road, 1 mi (1.6 km) upstream from Southwest Sewage Treatment Plant of Springfield and South Creek and in Springfield.

DRAINAGE AREA.--31.4 mi² (81.3 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,149.65 ft (350.413 m) above mean sea level.

REMARKS.--Records fair. Runoff affected by urbanized area.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,840 ft³/s (80.4 m³/s) Nov. 1, 1972, gage height, 8.57 ft (2.612 m); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28.3 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
Apr. 20	1115	1,090	30.9	7.35	2.240
Aug. 15	0830	*2,680	75.9	*8.47	2.582

No flow on many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	2.6	21	11	4.3	5.9	11	19	10	1.4	4.0	1.0
2	19	3.1	17	9.9	4.4	6.6	10	14	9.4	52	0	1.2
3	15	8.0	14	9.4	5.5	15	9.4	13	8.5	222	0	.70
4	13	3.2	13	10	5.0	51	9.0	12	7.6	21	0	.28
5	12	2.9	69	9.1	11	17	9.0	12	6.9	13	4.6	0
6	11	2.9	37	8.4	5.5	8.8	9.0	28	6.5	11	71	0
7	11	2.4	19	10	5.5	8.3	9.0	12	6.0	9.2	6.2	0
8	10	2.6	17	12	4.8	9.5	9.0	11	5.8	8.3	3.6	.23
9	9.6	2.8	16	12	5.1	20	9.0	11	5.0	7.5	2.6	.35
10	9.1	5.6	15	9.8	5.1	9.8	9.0	16	4.6	6.5	2.4	.28
11	8.8	2.2	14	8.1	5.0	9.1	8.4	11	4.2	5.6	2.1	.02
12	9.1	2.7	13	7.1	5.1	17	8.1	15	3.8	5.5	1.8	0
13	9.3	2.6	12	6.6	5.1	9.1	12	20	3.5	5.0	1.5	0
14	9.7	2.6	22	6.6	5.0	8.7	9.9	11	3.0	7.7	1.2	.05
15	11	2.6	36	6.6	4.6	8.6	8.8	14	3.2	12	264	.24
16	9.2	2.7	14	6.5	4.0	12	9.8	16	3.3	7.2	16	.08
17	7.8	2.6	13	5.6	4.0	8.9	9.0	12	3.3	4.1	11	.07
18	7.4	2.9	12	5.5	4.3	8.3	28	9.9	3.2	5.2	8.3	0
19	7.1	12	11	8.3	4.6	8.6	240	8.8	2.8	3.0	5.9	57
20	6.6	44	11	6.9	4.7	8.3	358	8.3	2.5	2.9	4.6	2.4
21	7.0	5.9	11	5.3	65	7.8	101	7.9	2.1	1.8	4.0	.50
22	7.0	4.6	10	5.3	8.2	7.8	40	7.4	2.1	.98	3.6	.01
23	7.1	3.7	10	5.1	7.2	7.8	29	6.7	98	.42	2.9	0
24	26	4.0	9.8	4.9	7.0	7.8	39	32	25	.27	2.9	.07
25	6.2	3.8	12	7.4	6.8	7.8	24	8.0	8.0	.01	2.6	0
26	4.3	5.0	11	5.0	6.6	13	19	62	5.7	0	2.6	0
27	3.1	4.4	10	4.4	6.6	10	18	22	3.6	.01	2.0	26
28	3.6	16	9.4	4.8	6.6	30	28	15	3.0	.03	1.5	2.0
29	19	149	25	5.1	6.1	63	17	10	2.7	27	1.0	4.4
30	4.6	89	14	5.0	---	15	15	12	1.9	3.1	1.0	1.1
31	2.9	---	11	4.5	---	12	---	23	---	.42	1.0	---
TOTAL	369.5	398.4	529.2	226.2	222.7	432.5	1115.4	480.0	255.2	444.14	435.9	97.98
MEAN	11.9	13.3	17.1	7.30	7.68	14.0	37.2	15.5	8.51	14.3	14.1	3.27
MAX	83	149	69	12	65	63	358	62	98	222	264	57
MIN	2.9	2.2	9.4	4.4	4.0	5.9	8.1	6.7	1.9	0	0	0
AC-FT	733	790	1050	449	442	858	2210	952	506	881	865	194
CAL YR 1975	TOTAL	10622.89	MEAN	29.1	MAX	662	MIN	.13	AC-FT	21070		
WTR YR 1976	TOTAL	5007.12	MEAN	13.7	MAX	358	MIN	0	AC-FT	9930		

07052100 WILSONS CREEK NEAR SPRINGFIELD, MO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973-76.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1972 to current year.

PH: October 1972 to current year.

WATER TEMPERATURES: October 1972 to current year.

DISSOLVED OXYGEN: October 1972 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1972.

REMARKS.--Many days of missing record because of water diversion through sinkhole upstream from monitor.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (water year 1973): Maximum, 1,160 micromhos Dec. 18, 1972; minimum, 110 micromhos Apr. 22, 1973.

PH (water years 1975-76): Maximum, 8.8 units Mar. 18, 19, 1976; minimum, 7.3 units June 17, Aug. 14, 1975.

WATER TEMPERATURES: Maximum, 29.0°C Sept. 24, 1973, Aug. 22, 1974; minimum, 0.0°C on many days during winter periods.

DISSOLVED OXYGEN (water years 1975-76): Maximum, 18.3 mg/L Jan. 23, 1975; minimum, 0.4 mg/L May 26, 1976.

EXTREMES FOR CURRENT YEAR.--

PH: Maximum, 8.8 units Mar. 18, 19, minimum, 7.4 units on many days during the year.

WATER TEMPERATURES: Maximum, 28.5°C July 31; minimum, 0.0°C on many days during winter periods.

DISSOLVED OXYGEN: Maximum, 16.7 mg/L Jan. 8; minimum, 0.4 mg/L May 26.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	560	460	570	520	---	---	590	460
2	---	---	---	---	580	560	580	550	---	---	---	---
3	---	---	---	---	610	580	590	560	---	---	---	---
4	---	---	---	---	630	590	580	560	---	---	---	---
5	---	---	---	---	590	170	610	580	---	---	---	---
6	---	---	500	480	470	210	600	540	---	---	---	---
7	---	---	560	500	550	470	590	540	---	---	---	---
8	---	---	570	530	560	550	620	570	---	---	---	---
9	---	---	540	530	580	550	650	570	---	---	---	---
10	---	---	600	540	580	560	630	560	560	540	---	---
11	---	---	540	470	580	550	600	580	610	560	---	---
12	---	---	510	470	580	560	610	550	610	590	---	---
13	---	---	540	510	570	540	600	560	630	590	---	---
14	---	---	560	540	590	320	590	550	640	610	---	---
15	---	---	570	540	390	250	630	560	660	620	---	---
16	---	---	580	560	520	390	---	---	700	640	---	---
17	---	---	580	560	600	520	---	---	680	590	---	---
18	---	---	610	570	640	600	---	---	610	580	---	---
19	---	---	600	480	640	600	---	---	640	600	---	---
20	---	---	480	130	630	600	---	---	620	550	---	---
21	---	---	460	320	630	600	---	---	550	180	---	---
22	---	---	540	460	630	580	---	---	560	420	---	---
23	---	---	560	540	610	560	---	---	590	560	---	---
24	620	170	630	560	600	570	---	---	590	560	---	---
25	---	---	650	620	620	570	---	---	600	560	640	570
26	---	---	630	570	780	610	---	---	660	580	610	560
27	---	---	590	560	640	540	---	---	620	560	590	390
28	---	---	900	560	590	550	---	---	590	550	540	150
29	---	---	680	100	590	350	---	---	590	540	340	140
30	---	---	460	160	470	340	---	---	---	---	490	290
31	---	---	---	---	540	470	---	---	---	---	560	490
MONTH	---	---	900	100	780	170	---	---	---	---	---	---

07052100 WILSONS CREEK NEAR SPRINGFIELD, MO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	600	560							---	---	---	---
2	620	580							---	---	---	---
3	600	560							---	---	---	---
4	580	560							---	---	---	---
5	760	560							---	---	---	---
6	560	500							580	140	---	---
7	540	460							490	360	---	---
8	---	---							540	490	---	---
9	---	---							540	520	---	---
10	---	---							560	520	---	---
11	---	---							610	500	---	---
12	---	---							600	480	---	---
13	---	---							600	490	---	---
14	---	---							580	500	---	---
15	---	---							640	130	---	---
16	---	---							540	450	---	---
17	---	---							600	540	---	---
18	---	---							670	530	---	---
19	---	---							630	530	---	---
20	---	---							580	550	---	---
21	---	---							560	540	---	---
22	---	---							560	540	---	---
23	---	---							580	540	---	---
24	---	---							---	---	---	---
25	---	---							---	---	---	---
26	---	---							---	---	---	---
27	---	---							---	---	---	---
28	---	---							---	---	388	316
29	---	---							---	---	486	388
30	---	---							---	---	530	478
31	---	---							---	---	---	---
MONTH	---	---							---	---	---	---

WHITE RIVER BASIN

07052100 WILSONS CREEK NEAR SPRINGFIELD, MO--Continued

PH (UNITS), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.8	7.5	---	---	8.1	7.9	8.1	7.9	8.5	8.2	8.6	8.2
2	8.0	7.8	---	---	8.1	8.0	8.4	8.1	8.5	8.2	8.6	8.2
3	8.1	7.9	---	---	8.1	8.0	8.4	8.2	8.5	8.2	8.4	7.8
4	8.1	7.9	8.1	7.9	8.1	8.0	8.4	8.2	8.4	8.2	8.0	7.7
5	8.1	7.9	8.1	7.8	8.1	7.9	8.4	8.2	8.2	8.0	8.1	7.8
6	8.2	8.0	8.2	7.8	8.1	7.9	8.5	8.2	8.3	8.0	8.3	8.0
7	8.2	8.0	8.2	8.0	8.2	8.0	8.4	8.1	8.3	7.9	8.4	8.0
8	8.2	8.0	8.2	8.0	8.3	8.1	8.2	8.0	8.4	8.0	8.3	8.1
9	8.3	8.1	8.2	8.0	8.2	8.2	8.3	8.0	8.4	8.1	8.2	7.8
10	8.3	8.1	8.2	8.0	8.2	8.0	8.4	8.1	8.6	8.1	8.5	8.0
11	8.2	8.0	8.2	7.9	8.3	8.1	8.5	8.1	8.5	8.1	8.5	8.1
12	8.2	7.9	8.3	8.0	8.3	8.1	8.5	8.2	8.5	8.0	8.3	7.9
13	8.1	7.9	8.3	8.2	8.2	8.2	8.4	8.2	8.5	8.1	8.4	8.0
14	8.2	8.0	8.4	8.2	8.3	8.0	8.4	8.1	8.4	8.0	8.5	8.1
15	8.2	8.0	8.4	8.2	8.2	8.1	8.5	8.1	8.5	8.0	8.6	8.1
16	8.1	7.9	8.5	8.2	8.2	8.1	8.5	8.2	8.4	8.1	8.6	8.0
17	8.1	7.9	8.5	8.3	8.3	8.1	8.5	8.2	8.3	8.1	8.7	8.0
18	8.2	8.0	8.5	8.3	8.2	8.1	8.5	8.2	8.4	8.1	8.8	8.1
19	8.2	8.0	8.3	7.9	8.4	8.2	8.3	8.1	8.5	8.1	8.8	8.2
20	8.3	8.1	7.9	7.7	8.4	8.3	8.3	8.0	8.6	8.1	8.7	8.3
21	8.2	8.0	8.0	7.7	8.5	8.3	8.4	8.0	8.4	7.9	8.6	8.2
22	8.1	7.8	8.1	7.9	8.4	8.3	8.4	8.1	8.3	7.9	8.4	8.1
23	8.2	7.9	8.1	8.0	8.5	8.2	8.5	8.0	8.4	8.0	8.4	8.0
24	8.0	7.5	8.1	8.0	8.4	8.3	8.4	8.0	8.5	8.1	8.3	8.0
25	---	---	8.2	8.1	8.5	8.3	8.2	8.0	8.6	8.3	8.4	8.1
26	---	---	8.2	8.1	8.5	8.3	8.2	7.9	8.6	8.2	8.5	8.0
27	---	---	8.2	8.0	8.5	8.2	8.3	8.0	8.6	8.2	8.2	7.8
28	---	---	8.2	8.0	8.6	8.2	8.5	8.0	8.5	8.2	8.2	7.7
29	---	---	8.3	7.8	8.3	7.9	8.5	8.2	8.5	8.2	7.9	7.7
30	---	---	8.0	7.7	8.1	7.9	8.6	8.2	---	---	8.1	7.9
31	---	---	---	---	8.5	8.1	8.5	8.2	---	---	8.4	8.0
MONTH	---	---	8.5	7.7	8.6	7.9	8.6	7.9	8.6	7.9	8.8	7.7

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

07052100 WILSONS CREEK NEAR SPRINGFIELD, MO--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	17.5	14.5	---	---	6.5	4.0	7.0	4.5	5.0	3.0	17.0	14.0
2	15.5	11.5	---	---	9.5	5.0	7.0	3.5	3.5	1.5	18.5	15.5
3	15.5	10.5	---	---	10.5	6.0	3.5	0.5	4.5	0.0	18.0	11.0
4	15.5	10.5	16.5	15.0	12.0	7.0	0.5	0.0	3.0	2.0	15.0	9.5
5	16.5	11.0	18.0	15.5	13.5	10.5	2.0	0.0	2.5	1.0	13.0	7.5
6	17.0	11.5	17.0	15.0	12.5	8.0	5.5	0.0	1.0	0.0	10.5	5.0
7	17.0	12.5	18.0	15.0	9.5	6.5	5.0	0.0	0.5	0.0	11.5	5.0
8	19.0	15.0	17.0	13.5	8.5	6.5	0.0	0.0	3.0	0.0	11.0	8.5
9	19.5	16.0	18.5	15.5	8.5	6.5	0.5	0.0	6.5	1.0	11.5	8.0
10	20.5	16.5	15.5	11.5	9.0	5.0	0.5	0.0	11.0	6.5	13.5	7.0
11	21.5	17.5	12.5	9.5	11.5	7.0	1.5	0.5	10.0	7.5	12.5	9.5
12	21.0	17.5	10.5	7.5	11.0	10.0	4.0	0.5	10.0	6.0	11.5	7.0
13	20.5	17.5	7.5	4.5	14.5	11.0	4.5	3.0	13.0	9.5	9.5	4.5
14	20.5	17.5	6.0	2.5	15.0	12.5	3.5	1.0	11.0	9.5	12.5	5.0
15	20.5	17.0	8.5	4.0	12.5	4.5	4.0	1.0	15.0	10.5	12.0	9.5
16	17.0	13.0	10.5	6.0	6.5	3.0	4.0	2.0	15.0	12.5	10.5	6.5
17	16.0	13.0	12.5	9.5	5.0	0.5	2.5	0.0	12.5	10.0	13.0	6.0
18	13.5	11.0	13.0	10.5	1.0	0.0	3.5	1.5	11.5	9.0	15.0	9.0
19	12.0	9.0	14.0	10.5	5.0	0.5	3.5	1.5	11.0	7.5	18.5	12.0
20	14.5	9.5	14.0	5.5	5.0	3.5	2.5	0.0	12.5	7.0	17.5	14.0
21	16.5	12.0	5.5	3.5	5.0	3.0	4.0	1.0	12.5	6.0	15.0	10.0
22	18.0	14.5	4.0	3.0	5.5	2.5	5.0	1.5	8.0	3.5	12.5	10.0
23	17.5	16.0	4.0	1.0	7.0	5.5	7.5	4.0	9.5	4.0	14.5	7.5
24	17.5	14.0	3.5	1.0	6.5	6.0	7.0	4.0	10.0	6.5	13.0	11.5
25	---	---	1.0	0.5	6.0	4.5	7.0	3.5	12.0	8.5	16.0	11.5
26	---	---	1.0	0.0	5.0	4.5	3.5	1.5	12.0	7.5	17.5	14.5
27	---	---	0.5	0.0	5.0	4.0	2.0	0.0	13.0	8.0	17.0	11.5
28	---	---	5.0	0.5	6.0	4.0	3.5	1.0	14.5	10.0	14.5	10.5
29	---	---	13.5	5.0	7.0	6.0	5.5	2.0	15.5	13.0	15.5	10.5
30	---	---	13.0	6.0	6.0	5.0	6.5	4.0	---	---	14.5	10.0
31	---	---	---	---	7.0	5.5	6.0	4.5	---	---	13.5	8.0
MONTH	---	---	18.5	0.0	15.0	0.0	7.5	0.0	15.5	0.0	18.5	4.5

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	15.5	8.5	18.0	12.5	22.5	17.5	23.0	20.5	---	---	22.0	20.5
2	18.0	9.0	17.5	13.0	22.5	18.0	22.5	20.0	---	---	23.0	20.5
3	18.5	12.0	17.5	11.5	22.5	18.0	21.0	20.0	---	---	23.0	21.0
4	17.0	12.0	18.5	10.5	21.0	17.5	22.5	19.0	---	---	24.0	21.0
5	18.0	10.5	17.0	14.0	21.5	17.5	23.5	18.0	25.0	22.5	---	---
6	19.0	12.0	18.5	15.0	22.5	19.0	24.0	18.5	23.5	21.0	---	---
7	19.0	13.0	17.0	12.0	22.5	18.5	25.0	19.5	23.0	21.0	---	---
8	17.5	13.5	18.5	11.5	23.0	18.5	25.5	21.0	22.0	20.0	---	---
9	17.0	11.0	19.0	12.0	23.0	19.5	26.0	21.0	23.0	20.5	23.0	19.5
10	17.5	11.5	17.0	14.0	23.5	20.0	26.5	22.0	24.5	21.5	19.5	16.0
11	20.5	15.0	21.0	13.5	23.0	21.0	26.5	23.0	25.5	22.5	19.0	15.0
12	18.0	13.5	19.5	15.5	23.0	20.5	27.0	23.5	25.0	23.0	20.5	16.5
13	17.0	14.5	19.0	15.5	25.0	22.0	27.0	23.5	25.0	22.5	---	---
14	18.0	14.5	19.0	14.0	25.0	23.0	27.0	24.0	25.5	23.0	22.0	19.5
15	20.0	16.0	18.0	15.5	24.0	21.5	25.0	22.5	24.5	19.5	23.5	19.5
16	19.0	16.5	16.0	14.0	23.0	19.0	24.5	21.5	23.5	20.0	---	---
17	20.5	16.0	17.5	13.5	23.5	19.5	24.0	20.5	25.0	21.5	---	---
18	19.5	16.0	19.5	13.0	23.5	20.5	25.5	21.5	25.0	21.5	---	---
19	16.0	14.0	21.0	14.0	21.0	18.5	25.5	22.5	24.0	20.0	---	---
20	16.5	14.0	22.0	15.5	21.5	18.0	26.0	23.5	24.5	21.0	---	---
21	16.5	12.5	22.5	17.5	22.0	18.0	27.0	24.5	23.5	21.0	19.0	16.0
22	17.5	12.0	23.5	18.5	22.0	19.0	26.5	24.0	24.0	21.5	18.5	14.0
23	19.0	14.0	23.5	20.0	21.5	19.0	27.0	24.0	23.5	22.0	18.5	15.5
24	17.0	13.5	22.0	18.5	23.0	19.0	---	---	23.0	21.5	20.0	16.0
25	13.5	9.5	20.5	16.0	24.5	19.0	---	---	23.0	21.0	---	---
26	15.5	8.5	20.0	14.0	25.5	21.0	---	---	24.0	21.5	---	---
27	15.0	11.5	15.0	13.5	26.5	23.0	---	---	24.5	22.5	---	---
28	13.5	11.0	20.0	14.0	26.0	24.0	---	---	24.0	22.5	17.0	16.0
29	15.0	11.0	22.5	15.5	25.5	23.0	27.0	23.5	23.0	20.5	16.5	15.0
30	15.0	11.0	22.5	18.5	23.5	21.0	27.0	24.0	22.0	19.0	16.0	13.0
31	---	---	21.0	19.5	---	---	28.5	26.0	21.5	20.0	---	---
MONTH	20.5	8.5	23.5	10.5	26.5	17.5	28.5	18.0	25.5	19.0	---	---

07052100 WILSONS CREEK NEAR SPRINGFIELD, MO--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.0	5.9	---	---	10.7	9.9	12.9	9.6	12.4	7.4	12.2	5.9
2	9.3	6.8	---	---	10.5	9.3	14.3	9.3	11.5	7.6	13.3	5.6
3	9.6	8.2	---	---	10.4	8.8	15.2	10.6	14.4	8.0	11.8	6.2
4	9.6	7.8	9.3	---	10.5	8.4	15.6	12.0	14.6	9.4	8.1	6.2
5	9.6	7.4	9.6	5.6	9.2	7.3	15.2	11.5	12.7	9.8	10.5	7.6
6	9.3	6.9	10.2	5.9	9.5	7.9	15.0	10.0	14.2	9.8	12.1	9.4
7	10.1	6.8	10.0	5.8	10.8	9.5	14.5	9.8	15.4	11.6	12.4	8.9
8	9.6	7.1	10.4	6.0	10.7	9.9	16.7	10.6	15.0	11.1	10.8	8.6
9	9.4	6.2	10.2	5.6	11.1	10.0	16.6	11.2	14.8	9.6	10.2	8.6
10	8.4	5.4	10.5	6.5	11.5	9.7	15.2	10.8	14.8	7.5	12.6	8.4
11	7.6	5.0	10.9	6.6	11.0	8.9	14.8	10.1	14.2	6.2	12.8	8.2
12	7.1	4.8	11.6	7.6	10.0	8.8	15.0	10.0	14.2	7.3	11.2	7.6
13	6.6	4.4	12.4	9.0	10.5	7.7	14.8	9.6	13.8	6.1	14.4	10.0
14	6.9	4.2	12.6	10.0	9.5	6.8	15.4	10.6	12.6	5.8	14.4	8.9
15	8.7	4.4	11.9	9.4	10.6	6.8	15.5	10.5	12.9	5.8	14.5	8.4
16	9.2	6.0	12.7	8.1	12.6	10.2	16.1	9.8	10.6	5.1	15.5	9.0
17	9.8	5.4	12.3	8.4	13.6	10.4	16.1	10.7	12.2	5.5	16.5	9.0
18	9.6	6.3	11.9	8.0	14.1	12.0	15.8	10.2	12.3	6.9	16.4	8.1
19	8.6	6.5	13.0	6.4	13.5	10.9	13.5	9.8	13.2	7.4	15.6	7.0
20	8.9	6.2	9.0	6.2	13.6	10.8	13.3	8.8	13.1	7.9	14.4	6.0
21	10.7	5.4	11.0	9.0	14.3	11.2	14.9	8.6	9.4	5.6	14.6	7.3
22	9.7	5.4	11.6	10.2	14.7	10.5	14.8	8.5	12.6	9.4	14.0	7.8
23	9.0	4.8	12.2	10.7	14.4	10.0	14.4	7.2	11.9	9.0	13.6	8.4
24	9.1	5.2	11.6	10.4	11.5	9.3	14.2	6.4	12.0	8.8	10.8	7.2
25	---	---	12.8	11.4	13.2	9.5	9.2	6.0	11.9	8.6	11.8	7.1
26	---	---	12.9	11.2	13.2	8.3	13.2	6.6	12.6	8.5	10.8	6.2
27	---	---	13.4	12.1	14.6	9.6	14.7	9.1	12.6	8.0	9.4	5.9
28	---	---	12.7	9.2	14.5	9.4	14.3	9.1	12.1	7.0	10.0	5.8
29	---	---	9.6	7.5	10.1	8.8	13.6	8.6	11.6	6.4	8.8	7.0
30	---	---	9.9	7.8	10.8	9.0	13.7	7.9	---	---	9.6	7.3
31	---	---	---	---	13.3	9.4	12.5	7.0	---	---	10.9	7.9
MONTH	---	---	13.4	5.6	14.7	6.8	16.7	6.0	15.4	5.1	16.5	5.6

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	11.0	7.9	9.0	7.2	7.8	6.4	---	---	---	---	7.7	6.0
2	10.8	7.2	10.0	7.2	8.2	6.2	6.5	4.3	---	---	8.5	5.9
3	11.0	7.0	10.9	7.4	8.3	6.1	6.7	5.9	---	---	7.9	6.1
4	12.0	7.0	11.4	6.8	8.0	6.0	6.9	6.0	---	---	8.3	5.7
5	12.4	7.3	12.0	6.6	8.6	6.0	---	---	---	---	---	---
6	13.0	7.3	9.4	6.4	8.2	5.9	---	---	5.6	4.0	---	---
7	13.5	6.7	12.3	7.6	8.2	5.8	---	---	5.8	4.8	---	---
8	13.7	6.8	12.0	7.4	8.0	5.5	7.6	6.1	6.7	5.0	---	---
9	13.8	7.6	11.8	7.1	7.8	5.4	7.5	5.9	6.7	5.4	6.8	5.6
10	13.7	7.4	9.6	6.0	7.6	5.2	7.2	5.6	7.2	5.2	6.8	6.0
11	14.1	6.4	9.6	5.9	6.8	4.9	7.1	5.5	7.1	5.1	6.6	5.8
12	13.4	6.3	9.6	6.2	6.8	5.2	7.0	5.5	6.9	5.2	5.9	5.1
13	8.2	5.6	8.0	5.5	6.7	5.0	7.0	5.4	6.8	5.1	---	---
14	11.6	4.5	9.2	6.4	6.8	4.8	6.8	5.4	6.6	4.9	6.2	4.5
15	---	3.8	9.0	6.3	6.8	4.7	5.7	2.4	6.4	3.4	6.2	4.4
16	---	---	8.6	5.9	7.0	5.2	4.4	2.8	5.7	3.9	---	---
17	---	---	---	---	7.1	5.2	5.4	3.8	6.7	4.8	---	---
18	---	---	---	---	6.2	4.8	6.0	3.9	7.2	5.4	---	---
19	---	---	---	---	7.1	5.6	7.0	4.4	8.0	6.0	---	---
20	---	---	9.2	5.8	8.0	5.6	6.3	4.8	8.3	6.7	---	---
21	---	---	9.1	5.5	8.2	5.2	6.0	4.6	8.6	6.6	---	---
22	9.7	7.9	8.4	5.1	8.1	4.8	6.7	4.8	8.6	6.7	---	---
23	9.7	8.0	7.9	4.8	6.7	3.9	6.2	4.6	8.6	6.6	---	---
24	9.1	7.6	5.7	3.3	6.1	4.9	---	---	8.1	6.4	---	---
25	10.2	8.9	7.1	5.0	6.1	4.8	---	---	8.1	6.1	---	---
26	10.4	8.0	6.6	4.4	6.1	4.8	---	---	7.9	6.0	---	---
27	9.7	7.9	7.8	4.4	6.0	4.5	---	---	7.5	5.7	---	---
28	9.3	7.8	7.4	6.4	6.0	4.4	---	---	7.8	5.5	7.1	6.5
29	9.3	7.8	7.7	6.0	---	---	4.9	2.8	8.3	5.8	7.6	6.7
30	9.8	8.0	7.8	6.0	---	---	4.4	3.6	8.8	6.1	7.8	7.1
31	---	---	6.8	5.1	---	---	4.1	2.8	8.1	6.3	---	---
MONTH	---	3.8	12.3	4.4	8.6	3.9	---	---	8.8	3.4	---	---

07052160 WILSONS CREEK NEAR BATTLEFIELD, MO

LOCATION.--Lat 37°07'02", long 93°24'14", in SW¼NW¼ sec.24, T.28 N., R.23 W., Greene County, Hydrologic Unit 11010002, on left bank 300 ft (91 m) downstream from bridge on county road, 0.3 mi (0.5 km) upstream from McElhane Branch, and 1.8 mi (2.9 km) west of Battlefield.

DRAINAGE AREA.--55.0 mi² (142.4 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1968 to September 1970, October 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,100 ft (335.3 m) above mean sea level. Prior to Sept. 20, 1972, at site 300 ft (91 m) upstream.

REMARKS.--Records fair. Natural flow regulated at low flow and affected by sewage effluent.

AVERAGE DISCHARGE.--6 years, 101 ft³/s (2.86 m³/s), 24.94 in/yr (633 mm/yr), 73,170 acre-ft/yr (90.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,860 ft³/s (109 m³/s), Nov. 1, 1972, gage height, 10.57 ft (3.222 m); minimum, 7.6 ft³/s (0.22 m³/s) Aug. 25, 27, 29, 1970, gage height, 1.42 ft (0.432 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft³/s (34.0 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
Apr. 20	1430	2,040	57.8	7.78	2.371
Aug. 15	1445	*2,130	60.3	*7.95	2.423

Minimum discharge, 24 ft³/s (0.68 m³/s) Sept. 26, gage height, 1.70 ft (0.518 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	196	31	126	53	28	30	59	100	71	42	36	40
2	87	29	99	54	29	30	54	86	68	88	31	40
3	72	37	83	49	30	34	50	82	65	400	35	41
4	64	35	78	46	30	87	46	78	60	175	34	37
5	59	34	116	47	35	66	48	76	60	107	34	34
6	54	33	154	47	31	40	52	99	55	90	115	34
7	55	33	106	46	27	37	52	74	55	78	43	38
8	53	31	97	42	27	38	49	70	49	72	37	36
9	49	29	89	42	28	55	50	65	45	68	36	37
10	46	34	82	40	30	47	48	73	41	58	37	34
11	44	32	79	39	30	46	42	73	37	54	37	32
12	40	31	72	39	30	60	45	63	35	54	40	31
13	39	31	68	41	30	49	47	88	33	54	36	30
14	40	31	68	41	29	45	50	70	32	52	35	34
15	39	30	111	40	27	47	43	67	35	59	576	33
16	38	28	75	39	28	55	40	72	35	57	173	36
17	36	31	65	37	30	53	40	74	43	46	89	34
18	33	32	62	36	30	49	54	66	46	43	72	31
19	32	33	62	39	32	51	357	62	41	42	63	29
20	33	89	60	42	31	51	1160	58	38	42	56	32
21	34	36	55	38	95	47	560	57	38	41	49	35
22	32	31	56	36	37	49	315	57	41	39	45	31
23	33	28	56	35	35	51	226	52	162	38	43	31
24	53	28	55	33	35	52	205	76	107	36	48	33
25	42	30	54	35	34	51	161	56	63	34	46	29
26	30	29	55	33	32	49	138	122	50	35	44	27
27	32	32	53	32	30	53	122	96	45	36	43	41
28	33	34	48	32	30	55	128	85	43	35	41	39
29	50	238	68	32	30	130	111	67	44	63	38	39
30	35	233	61	33	---	81	99	58	42	39	38	38
31	32	---	56	29	---	68	---	97	---	34	39	---
TOTAL	1515	1413	2369	1227	950	1656	4451	2319	1579	2111	2089	1036
MEAN	48.9	47.1	76.4	39.6	32.8	53.4	148	74.8	52.6	68.1	67.4	34.5
MAX	196	238	154	54	95	130	1160	122	162	400	576	41
MIN	30	28	48	29	27	30	40	52	32	34	31	27
AC-FT	3010	2800	4700	2430	1880	3280	8830	4600	3130	4190	4140	2050
CAL YR 1975	TOTAL	36118	MEAN	99.0	MAX	841	MIN	23	AC-FT	71640		
WTR YR 1976	TOTAL	22715	MEAN	62.1	MAX	1160	MIN	27	AC-FT	45060		

WHITE RIVER BASIN

07052160 WILSONS CREEK NEAR BATTLEFIELD, MO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973-76.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1972 to current year.

PH: October 1972 to current year.

WATER TEMPERATURES: October 1972 to current year.

DISSOLVED OXYGEN: October 1972 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1972.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,240 micromhos July 15, 1976; minimum, 100 micromhos June 23, 1976.

PH (water years 1974-76): Maximum, 8.4 units May 14, 1974; minimum, 6.5 units May 14, 1974.

WATER TEMPERATURES: Maximum, 27.0°C Aug. 13, 1976; minimum, 4.5°C Jan. 8, 1976.

DISSOLVED OXYGEN (water years 1974-76): Maximum, 13.5 mg/L Dec. 31, 1974; minimum, 0.0 mg/L on many days during the year.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 1,240 micromhos July 15; minimum, 100 micromhos June 23.

PH: Maximum, 8.3 units Feb. 12, 14; minimum, 6.8 units Mar. 4, Apr. 19, 20.

WATER TEMPERATURES: Maximum, 27.0°C Aug. 13; minimum, 4.5°C Jan. 8.

DISSOLVED OXYGEN: Maximum, 9.4 mg/L Apr. 19; minimum, 0.0 mg/L on many days during year.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	590	340	930	840	550	510	780	720	1000	880	890	820
2	660	580	960	870	620	550	770	710	960	880	1030	800
3	690	640	960	880	710	620	740	680	950	840	1060	840
4	740	690	1010	910	710	660	740	690	---	---	1030	610
5	750	670	980	920	760	690	750	690	---	---	960	420
6	760	680	1010	900	690	450	760	700	---	---	690	640
7	800	760	1050	930	610	580	780	700	---	---	710	690
8	840	760	1040	920	660	600	790	720	---	---	740	710
9	890	800	1040	920	720	640	800	740	---	---	770	690
10	900	810	1080	920	760	710	810	730	950	840	790	660
11	930	840	1100	1000	760	720	810	730	1010	860	810	680
12	880	810	1100	980	760	680	860	730	1040	910	810	600
13	920	820	1090	960	770	730	880	800	1030	910	780	620
14	960	840	1160	1000	770	720	900	800	1000	940	780	620
15	980	880	1100	980	850	560	900	800	1020	920	840	680
16	1010	840	1100	960	740	640	930	810	1020	920	840	690
17	1060	940	1060	940	740	690	960	850	1060	940	900	760
18	1050	890	1030	920	740	690	960	860	1050	890	900	690
19	1010	840	1020	930	780	700	980	870	1010	870	880	700
20	940	840	1020	510	800	720	970	810	1080	900	890	740
21	1050	890	800	720	800	750	---	---	1160	420	910	650
22	1070	980	800	760	810	760	---	---	780	740	890	680
23	1040	960	800	720	810	730	950	830	780	720	970	790
24	1120	690	770	690	830	750	940	830	780	700	970	800
25	880	680	860	720	850	760	950	820	780	700	930	760
26	870	780	920	820	810	700	900	820	820	690	950	770
27	850	770	950	860	750	680	880	780	1040	760	990	600
28	830	750	1070	920	760	700	920	800	1000	780	850	560
29	900	610	1070	400	920	690	960	860	880	800	600	320
30	860	780	520	440	770	670	970	860	---	---	730	600
31	910	810	---	---	780	710	1000	880	---	---	830	680
MONTH	1120	340	1160	400	920	450	1000	680	1160	420	1060	320

WHITE RIVER BASIN

245

07052160 WILSONS CREEK NEAR BATTLEFIELD, MO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	820	700	680	640	---	---	920	870	---	---	1000	820
2	880	660	660	620	---	---	1040	440	---	---	1010	860
3	880	790	680	600	820	700	720	370	---	---	1030	880
4	880	740	670	620	840	660	640	570	---	---	1040	900
5	860	760	700	650	720	670	650	580	944	854	1110	860
6	910	800	770	560	680	620	650	590	980	390	1020	800
7	950	760	640	520	730	640	640	600	770	684	1080	900
8	910	730	570	520	750	700	640	600	790	710	1100	950
9	960	800	---	---	770	710	770	600	820	710	1100	920
10	1000	770	---	---	800	740	770	640	840	720	---	---
11	1010	730	---	---	870	750	740	660	904	788	---	---
12	880	680	---	---	880	720	740	640	908	814	---	---
13	920	750	---	---	870	680	810	670	872	766	---	---
14	950	760	790	660	870	680	1050	800	1050	800	---	---
15	950	760	780	540	950	740	1240	700	1020	214	---	---
16	950	820	640	520	970	830	900	670	550	400	---	---
17	980	780	760	620	950	760	940	730	636	550	---	---
18	960	640	800	710	910	770	960	720	750	562	---	---
19	670	220	830	730	930	730	940	680	840	680	---	---
20	410	230	830	700	910	680	910	700	852	704	---	---
21	430	380	960	740	920	680	940	760	844	726	---	---
22	460	420	920	700	1000	700	960	750	818	670	---	---
23	500	460	880	500	1000	100	950	830	828	686	---	---
24	530	480	820	690	310	150	950	780	900	768	---	---
25	500	480	860	360	600	310	1000	790	940	820	---	---
26	530	490	---	---	680	600	1000	760	940	820	---	---
27	580	520	---	---	860	680	970	800	980	800	---	---
28	630	570	---	---	890	760	970	780	980	840	---	---
29	580	550	---	---	890	780	1030	500	960	800	940	820
30	670	580	---	---	900	800	880	710	1000	800	1020	860
31	---	---	---	---	---	---	920	760	1000	820	---	---
MONTH	1010	220	---	---	1000	100	1240	370	1050	214	---	---

WHITE RIVER BASIN

07052160 WILSONS CREEK NEAR BATTLEFIELD, MO--Continued

PH (UNITS), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.5	7.3	7.6	7.4	7.4	7.0	---	---	7.6	7.3	7.9	7.7
2	7.4	7.4	7.7	7.5	7.5	7.3	---	---	7.5	7.4	7.8	7.4
3	7.7	7.4	7.7	7.5	7.5	7.4	---	---	7.7	7.5	7.6	7.5
4	7.7	7.5	---	---	7.6	7.5	---	---	7.6	7.5	7.7	6.8
5	7.6	7.5	---	---	7.6	7.5	---	---	8.2	7.6	7.6	7.4
6	7.6	7.3	---	---	7.6	7.5	7.6	7.4	8.0	7.5	7.7	7.3
7	7.6	7.4	---	---	7.6	7.5	7.6	7.3	8.0	7.5	7.7	7.4
8	7.5	7.3	---	---	7.6	7.4	7.5	7.4	7.7	7.4	7.5	7.4
9	7.5	7.3	---	---	7.5	7.4	8.0	7.4	7.8	7.5	7.6	7.5
10	7.5	7.3	---	---	7.5	7.3	8.1	7.9	7.9	7.3	7.6	7.4
11	7.4	7.2	---	---	7.5	7.4	8.0	7.5	8.1	7.8	7.8	7.6
12	7.5	7.2	7.9	7.2	7.4	7.3	7.7	7.3	8.3	7.9	7.9	7.7
13	7.5	7.0	7.5	7.2	7.6	7.4	7.7	7.4	8.2	7.9	7.9	7.8
14	7.5	7.3	7.6	7.3	7.6	7.4	7.6	7.3	8.3	7.9	8.0	7.9
15	7.6	7.5	7.6	7.3	7.6	7.2	7.6	7.4	8.0	7.5	7.9	7.6
16	7.5	7.4	7.7	7.5	7.4	7.2	7.6	7.4	8.0	7.5	7.7	7.6
17	7.5	7.5	7.8	7.6	7.6	7.3	7.6	7.4	8.0	7.7	7.7	7.6
18	7.5	7.4	7.7	7.3	7.7	7.4	7.7	7.4	7.9	7.5	7.7	7.6
19	7.5	7.4	7.6	7.5	7.7	7.6	7.6	7.6	8.0	7.3	7.8	7.7
20	7.7	7.3	7.7	7.3	7.8	7.6	7.6	7.4	8.0	7.4	7.8	7.7
21	7.6	7.4	7.6	7.3	7.8	7.6	7.5	7.4	7.7	7.3	7.9	7.8
22	7.5	7.5	7.8	7.6	7.8	7.4	7.5	7.4	7.6	7.4	7.9	7.8
23	7.7	7.4	8.0	7.6	7.8	7.4	7.6	7.4	7.6	7.4	7.9	7.6
24	7.7	7.5	8.0	7.7	7.8	7.5	7.5	7.4	7.6	7.4	7.7	7.4
25	7.6	7.5	7.8	7.4	7.8	7.3	7.5	7.4	7.7	7.4	7.7	7.4
26	7.6	7.5	7.5	7.3	7.5	7.3	7.6	7.4	7.8	7.6	7.7	7.6
27	7.8	7.5	7.7	7.3	7.3	7.2	7.7	7.3	8.0	7.7	7.7	7.1
28	7.7	7.6	7.8	7.5	7.4	7.2	7.8	7.6	8.0	7.7	7.6	7.2
29	7.9	7.6	7.8	7.4	8.0	7.1	7.7	7.5	8.0	7.6	7.7	7.3
30	7.9	7.7	7.5	7.2	7.5	7.2	7.6	7.4	---	---	7.4	7.2
31	7.9	7.4	---	---	---	---	7.6	7.3	---	---	7.5	7.3
MONTH	7.9	7.0	---	---	8.0	7.0	8.1	7.3	8.3	7.3	8.0	6.8

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.6	7.4	7.5	7.4	---	---	7.7	7.4	---	---	7.6	7.3
2	7.7	7.6	7.6	7.4	---	---	7.6	7.3	---	---	---	---
3	7.7	7.5	7.6	7.4	7.4	7.2	7.6	7.3	---	---	---	---
4	7.7	7.6	7.6	7.4	7.3	7.3	7.4	7.3	---	---	---	---
5	7.7	7.2	7.5	7.2	7.3	7.3	7.4	7.3	7.6	7.5	---	---
6	7.5	7.4	7.8	7.2	7.4	7.3	7.5	7.3	7.7	7.2	---	---
7	7.5	7.2	7.6	7.3	7.4	7.3	7.4	7.3	7.6	7.4	---	---
8	7.6	7.5	7.4	7.3	7.4	7.3	7.4	7.3	7.6	7.4	---	---
9	7.6	7.4	---	---	7.4	7.3	7.5	7.3	7.6	7.4	---	---
10	7.5	7.0	---	---	7.4	7.2	7.5	7.3	7.6	7.3	---	---
11	7.3	7.0	---	---	7.6	7.3	7.5	7.2	7.6	7.4	---	---
12	7.6	7.0	---	---	7.6	7.4	7.5	7.3	7.5	7.4	---	---
13	7.7	7.5	---	---	7.6	7.3	7.6	7.3	7.8	7.5	---	---
14	7.7	7.5	7.5	7.2	7.5	7.3	7.7	7.3	7.9	7.8	---	---
15	7.7	7.4	7.4	7.2	7.6	7.3	7.7	7.3	7.9	7.0	---	---
16	7.7	7.3	7.3	7.0	7.5	7.4	7.5	7.3	7.3	7.1	---	---
17	7.5	7.2	7.3	7.1	7.4	7.3	7.5	7.3	7.5	7.2	---	---
18	7.6	7.1	7.6	7.0	7.5	7.2	7.5	7.4	7.7	7.4	---	---
19	7.4	6.8	7.6	7.5	7.5	7.4	7.5	7.3	7.9	7.2	---	---
20	7.4	6.8	7.5	7.3	7.5	7.3	7.5	7.3	7.8	7.4	---	---
21	7.3	7.2	7.6	7.4	7.6	7.2	7.4	7.2	7.7	7.4	---	---
22	7.3	7.1	7.5	7.4	7.6	7.2	7.4	7.3	7.6	7.3	---	---
23	7.3	7.1	7.6	7.0	7.5	6.9	7.4	7.3	7.6	7.4	---	---
24	7.4	7.2	7.4	7.2	7.2	7.0	7.4	7.2	7.5	7.4	---	---
25	7.4	7.3	7.5	7.1	7.4	7.1	7.3	7.1	7.6	7.3	---	---
26	7.3	7.2	---	---	7.6	7.2	7.3	7.2	7.5	7.2	---	---
27	7.4	7.3	---	---	7.6	7.3	7.4	7.3	7.6	7.3	---	---
28	7.4	7.3	---	---	7.6	7.3	7.5	7.3	7.6	7.4	---	---
29	7.4	7.3	---	---	7.6	7.4	7.8	7.0	7.5	7.3	7.5	7.4
30	7.5	7.4	---	---	7.7	7.4	7.5	7.2	7.6	7.2	7.6	7.4
31	---	---	---	---	---	---	7.5	7.3	7.6	7.4	---	---
MONTH	7.7	6.8	---	---	7.7	6.9	7.8	7.0	7.9	7.0	---	---

07052160 WILSONS CREEK NEAR BATTLEFIELD, MO--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	19.0	17.0	18.0	15.0	11.0	10.0	10.5	10.0	11.0	9.5	17.5	14.5
2	18.0	15.5	18.5	16.0	13.0	10.5	10.5	9.0	10.0	8.5	18.5	15.5
3	18.0	15.0	18.5	17.0	13.5	12.0	9.0	7.5	11.0	7.5	17.0	13.0
4	18.5	15.0	19.0	17.0	14.0	12.0	8.5	6.5	9.5	8.5	16.0	12.5
5	17.5	15.5	19.0	17.5	14.0	13.0	8.5	7.0	10.0	7.5	14.0	10.5
6	19.5	16.0	18.5	16.5	14.0	13.0	10.0	7.0	8.0	6.5	13.5	7.5
7	19.5	16.0	19.5	17.0	13.0	12.0	9.5	5.0	9.5	5.0	16.5	8.0
8	20.5	18.0	19.5	16.0	12.5	11.5	7.0	4.5	12.5	7.0	16.5	13.5
9	21.0	18.0	19.5	16.5	12.5	11.5	7.5	5.0	11.5	8.0	13.5	12.0
10	21.5	18.5	17.5	15.0	13.0	11.0	9.5	7.0	14.0	10.5	16.0	11.5
11	22.0	19.0	17.0	14.5	13.5	12.0	9.5	8.0	13.5	10.5	15.0	12.5
12	22.0	18.5	15.0	13.0	14.0	13.0	10.0	7.0	14.0	10.0	14.0	11.5
13	21.5	18.0	13.5	12.0	15.0	13.5	9.0	8.5	15.5	12.5	14.5	11.0
14	22.0	18.5	14.0	10.5	15.5	14.5	9.5	7.0	14.0	12.0	16.0	11.0
15	20.0	18.0	15.0	11.5	15.0	11.0	9.5	7.5	16.5	13.0	15.5	13.0
16	19.5	16.0	16.0	12.0	12.0	10.0	9.5	7.5	16.5	13.5	14.5	11.5
17	18.0	16.0	16.5	13.5	11.0	9.0	9.0	7.0	14.0	12.0	15.5	11.5
18	18.0	15.0	16.5	14.0	9.5	8.0	9.5	7.5	15.0	12.5	16.5	12.0
19	18.0	14.0	17.0	14.0	11.0	8.5	8.5	7.5	15.0	11.5	18.0	13.5
20	18.5	14.5	16.0	11.0	11.0	9.5	8.5	6.0	15.0	10.5	17.0	14.5
21	20.0	15.5	11.0	10.0	11.5	9.5	10.5	7.5	14.0	11.0	17.0	13.0
22	20.0	17.0	11.0	10.0	10.5	9.5	11.5	8.0	12.5	10.0	15.5	12.5
23	18.5	17.0	10.5	9.0	11.5	10.5	13.0	9.5	13.0	9.5	17.5	12.0
24	18.5	17.0	10.5	9.5	11.0	10.5	12.0	9.5	13.0	10.5	15.0	13.5
25	17.0	15.0	9.5	9.0	10.5	10.0	11.5	9.5	15.0	12.0	17.0	13.5
26	16.5	13.5	9.5	8.0	10.0	9.0	10.0	8.5	15.5	11.0	17.5	14.5
27	17.5	14.0	9.5	7.0	10.0	9.0	10.0	7.0	16.0	11.0	17.5	13.5
28	18.0	16.0	11.5	8.0	10.5	9.5	10.5	8.5	16.5	12.5	14.5	13.0
29	17.5	16.0	13.5	9.0	11.0	9.0	12.0	8.5	16.5	13.0	16.0	13.0
30	17.5	14.5	13.5	11.0	10.0	9.0	12.5	9.5	---	---	15.5	12.5
31	17.0	14.5	---	---	11.0	10.0	12.0	10.0	---	---	15.5	12.5
MONTH	22.0	13.5	19.5	7.0	15.5	8.0	13.0	4.5	16.5	5.0	18.5	7.5

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	16.5	12.5	17.5	14.5	---	---	22.0	19.0	---	---	22.5	20.5
2	17.0	12.5	18.5	14.5	---	---	21.0	18.0	---	---	23.5	20.5
3	18.0	13.5	17.0	13.5	21.5	17.5	20.0	19.0	---	---	24.0	21.0
4	17.5	14.0	17.5	14.0	19.5	18.0	19.0	18.0	---	---	24.5	21.0
5	18.0	13.0	18.0	15.0	21.0	18.0	19.5	17.5	24.5	23.0	24.5	20.5
6	19.0	13.5	18.0	15.5	21.5	17.5	20.5	17.5	24.0	22.0	23.5	20.0
7	19.5	14.5	17.5	13.5	21.5	17.0	21.5	18.0	24.5	21.5	23.5	19.0
8	18.5	15.0	16.5	13.0	22.5	17.0	22.0	19.0	24.0	20.5	24.5	21.0
9	18.0	13.5	---	---	23.0	18.5	22.5	19.0	25.0	21.5	23.5	21.0
10	18.0	12.5	---	---	23.0	19.0	22.5	19.0	26.0	22.0	---	---
11	20.0	13.5	---	---	22.5	19.5	22.5	19.5	26.0	22.0	---	---
12	19.5	14.5	---	---	22.5	19.5	23.0	19.0	26.5	23.0	---	---
13	17.5	15.5	---	---	24.0	20.0	23.0	19.5	27.0	22.5	---	---
14	19.0	15.0	17.0	16.0	23.5	20.0	23.0	20.0	26.5	23.0	---	---
15	20.0	16.5	17.0	15.5	23.0	20.5	22.0	21.0	24.5	21.0	---	---
16	17.5	17.0	18.5	15.5	23.5	19.0	23.5	20.5	22.5	20.5	---	---
17	20.5	17.0	20.0	15.0	24.0	18.5	22.5	19.0	22.5	20.5	---	---
18	19.0	16.5	21.0	16.0	21.5	20.0	23.5	19.5	23.0	20.5	---	---
19	17.0	16.0	20.0	16.0	23.0	18.5	23.5	19.5	23.0	19.5	---	---
20	16.5	14.0	20.5	16.5	23.0	17.5	24.0	20.0	23.5	20.0	---	---
21	15.0	13.5	21.5	17.0	23.0	17.5	24.5	20.5	23.5	20.0	---	---
22	15.5	13.0	20.5	17.5	22.5	18.5	24.5	20.0	23.5	20.5	---	---
23	16.5	14.0	20.0	18.0	21.0	19.0	24.5	20.5	22.5	21.0	---	---
24	16.0	14.5	21.0	17.5	21.5	19.5	25.0	21.0	23.5	20.5	---	---
25	15.0	13.0	18.5	16.5	23.0	19.5	25.0	20.5	23.0	20.0	---	---
26	15.5	12.5	---	---	23.5	19.5	25.0	21.0	23.5	20.0	---	---
27	16.0	14.0	---	---	24.0	20.0	25.5	21.5	24.0	20.5	---	---
28	14.5	14.0	---	---	23.5	20.0	25.5	21.5	23.5	21.0	---	---
29	15.0	14.0	---	---	22.5	20.5	24.0	21.5	23.0	20.0	19.0	18.0
30	15.5	14.0	---	---	22.0	19.5	25.5	21.5	23.0	19.0	20.5	17.0
31	---	---	---	---	---	---	25.5	22.5	22.0	20.0	---	---
MONTH	20.5	12.5	---	---	24.0	17.0	25.5	17.5	27.0	19.0	---	---

07052160 WILSONS CREEK NEAR BATTLEFIELD, MO--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	5.6	1.0	1.4	.1	8.1	5.7	1.6	.5	1.9	.9	2.8	1.6
2	3.0	.9	1.0	.2	5.7	3.1	1.4	.4	2.8	1.3	3.0	.2
3	3.2	.5	1.6	.2	3.7	2.1	2.5	.8	4.8	2.7	2.8	.1
4	3.8	.5	2.7	.1	2.3	.6	3.7	1.3	---	---	5.6	0
5	5.6	.8	1.9	0	.7	0	7.1	2.7	---	---	7.8	0
6	6.7	.5	1.7	0	3.8	1.9	5.3	1.0	---	---	5.0	3.6
7	4.3	.4	3.8	0	4.5	2.3	3.5	1.0	---	---	4.4	2.4
8	3.3	.2	6.1	.2	4.3	2.9	3.4	2.2	---	---	3.4	1.9
9	1.8	.2	6.7	.2	3.5	1.5	3.2	1.1	---	---	6.4	1.9
10	4.3	.2	8.0	.2	1.9	.8	1.8	.4	4.6	.8	6.0	1.3
11	2.9	.3	6.9	0	1.5	.3	1.8	.4	3.7	.3	5.0	.8
12	3.4	.3	7.7	.4	.6	0	2.2	.8	1.8	.2	6.2	.2
13	4.9	.3	8.3	.1	.1	0	1.6	.8	1.8	.1	7.2	1.6
14	1.9	0	6.0	0	.1	0	1.8	1.0	1.6	.1	8.7	2.2
15	.3	0	5.5	0	3.9	0	1.6	1.0	2.7	.2	8.4	1.1
16	.9	0	6.9	0	1.3	1.0	1.7	1.0	4.3	.2	8.5	1.1
17	.2	0	6.1	0	2.6	1.1	1.7	1.0	4.7	.1	8.9	.6
18	.3	.1	6.7	0	3.0	1.7	1.8	1.1	6.3	.5	8.0	.1
19	2.1	.2	4.6	0	2.9	1.2	1.5	1.0	6.0	.2	6.9	0
20	4.5	.1	6.3	0	1.8	.7	3.5	.9	6.2	.1	3.7	0
21	.6	0	5.3	1.7	1.8	.8	1.6	.8	5.3	0	8.0	.1
22	.3	0	---	---	3.7	1.0	1.4	.6	5.2	4.1	7.4	1.5
23	3.5	0	---	---	2.8	.2	1.1	.5	5.2	2.7	9.3	.1
24	2.0	0	---	---	1.8	.1	1.1	.6	6.4	2.5	3.2	.1
25	1.3	0	---	---	4.2	.4	1.4	.6	5.4	1.5	5.4	.1
26	.6	0	3.9	1.5	7.3	2.0	2.0	1.2	4.1	.7	3.2	.1
27	2.1	0	3.5	1.1	6.8	3.5	2.2	1.2	2.5	.6	8.4	.2
28	1.5	0	3.5	.2	5.6	2.6	1.7	.8	2.8	.8	6.2	.2
29	2.7	0	6.5	.2	5.4	.1	1.5	.6	3.1	1.2	8.1	.8
30	.2	0	7.9	6.2	4.8	1.2	1.2	.6	---	---	5.6	2.9
31	1.5	0	---	---	1.8	.7	1.2	.6	---	---	5.8	.6
MONTH	6.7	0	8.3	0	8.1	0	7.1	.4	6.4	0	9.3	0

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	5.2	.5	1.2	.2	---	---	4.5	.4	---	---	2.1	.3
2	6.0	0	---	---	---	---	3.6	0	---	---	2.8	.6
3	4.7	.1	---	---	1.8	.3	5.0	2.1	---	---	1.8	.2
4	6.1	1.0	---	---	.4	.2	6.2	4.9	---	---	1.6	.2
5	7.9	1.4	4.1	.5	1.1	.3	5.2	3.7	---	---	1.9	.2
6	6.4	.4	6.1	.5	4.6	.7	5.0	1.7	---	---	2.9	.2
7	8.3	.1	4.2	.6	2.5	.3	5.0	1.5	---	---	3.3	.3
8	6.2	.2	3.8	.6	1.2	.2	5.6	.9	---	---	1.5	.2
9	4.8	.2	---	---	.4	.1	4.3	0	---	---	2.9	.4
10	5.7	.3	---	---	2.4	.1	3.8	0	---	---	---	---
11	---	---	---	---	2.4	.2	3.9	.4	---	---	---	---
12	---	---	---	---	1.5	.2	4.2	.4	---	---	---	---
13	3.6	.1	---	---	1.6	.2	4.9	0	---	---	---	---
14	1.7	0	---	---	1.9	.1	3.1	0	---	---	---	---
15	1.1	.2	---	---	.3	.1	2.7	0	---	---	---	---
16	1.2	.2	---	---	1.3	0	2.8	0	---	---	---	---
17	3.0	.3	---	---	2.0	0	2.8	0	---	---	---	---
18	5.5	0	---	---	1.1	0	1.3	0	---	---	---	---
19	9.4	0	---	---	.7	0	2.4	0	---	---	---	---
20	7.4	6.5	1.8	.2	1.9	0	1.6	0	1.7	.4	---	---
21	7.0	6.1	.2	0	3.1	0	2.3	.2	1.9	.3	---	---
22	7.3	4.9	2.5	0	3.3	0	1.1	.2	2.9	.9	---	---
23	5.8	3.9	3.1	0	4.9	0	1.2	.2	2.8	1.3	---	---
24	5.2	3.8	3.1	0	4.9	2.6	1.3	.2	2.8	.3	---	---
25	5.6	4.4	5.1	.3	2.6	.8	1.1	.1	.8	.1	---	---
26	6.0	4.4	---	---	1.3	.2	1.0	.2	.7	.2	---	---
27	4.9	3.4	---	---	1.6	0	.9	.1	1.4	.2	---	---
28	4.8	3.3	---	---	2.3	0	.5	0	.7	.2	---	---
29	4.2	1.4	---	---	1.8	0	3.0	0	1.3	.2	2.4	1.0
30	1.8	.4	---	---	3.7	.8	2.3	0	2.1	.2	3.2	.6
31	---	---	---	---	---	---	2.0	0	2.6	.3	---	---
MONTH	9.4	0	---	---	4.9	0	6.2	0	---	---	---	---

07052250 JAMES RIVER NEAR BOAZ, MO

LOCATION.--Lat 37°00'25", long 93°21'50", in NE¼NE¼NW¼ sec. 32, T.27 N., R.22 W., Christian County, Hydrologic Unit 11010002, on left bank 150 ft (46 m) downstream from Frazier bridge, 0.2 mi (0.3 km) upstream from Turkey Hollow, and 2 mi (3.2 km) southeast of Boaz.

DRAINAGE AREA.--462 mi² (1,200 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to current year. Occasional miscellaneous discharge measurements 1966-67.

GAGE.--Water-stage recorder. Datum of gage is 1,035.35 ft (315.575 m) above mean sea level.

REMARKS.--Records fair. Some regulation at low flow by Lake Springfield and sewage effluent from city of Springfield Southwest Treatment Plant.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,400 ft³/s (889 m³/s) July 1, 1973, gage height, 20.56 ft (6.267 m); minimum, 55 ft³/s (1.56 m³/s) Sept. 2, 3, 4, 23, 24, 1973, Aug. 24-26, 1975, Sept. 22, 23, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,800 ft³/s (278 m³/s) Apr. 21 (0130), gage height, 11.06 ft (3.371 m), peak discharge above base of 7,000 ft³/s (198 m³/s); minimum, 55 ft³/s (1.56 m³/s) Sept. 22, 23, gage height, 2.10 ft (0.640 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2280	118	1370	448	121	105	335	572	564	119	121	82
2	2180	109	771	417	116	108	302	508	513	129	107	81
3	790	110	568	373	112	108	280	456	413	1540	96	81
4	542	116	450	337	114	129	258	415	340	1870	90	82
5	416	114	401	317	114	184	236	383	302	1090	87	79
6	354	124	759	299	126	154	228	390	272	652	177	76
7	320	143	1070	289	116	166	222	348	253	469	131	76
8	287	145	766	267	112	169	212	323	231	377	107	80
9	262	140	622	249	109	197	197	305	214	327	94	80
10	239	138	508	234	107	200	185	293	199	280	96	77
11	222	136	437	206	107	197	173	296	191	250	91	78
12	202	132	386	206	109	218	168	269	180	222	88	72
13	187	124	351	200	109	212	163	293	174	204	89	68
14	174	122	327	199	109	209	171	289	165	191	82	76
15	166	119	385	188	107	206	166	266	162	187	622	79
16	158	112	554	182	105	206	158	282	157	186	391	76
17	154	112	512	173	105	197	154	276	153	168	229	74
18	143	114	431	164	107	191	154	260	148	154	173	71
19	135	114	383	154	107	185	802	240	144	146	142	66
20	130	186	350	166	107	176	6740	229	140	139	122	89
21	126	148	325	154	182	168	6890	213	137	134	107	66
22	126	139	299	146	151	162	3170	205	132	129	97	61
23	121	132	286	143	133	160	2630	192	219	123	91	60
24	127	130	271	138	131	159	1900	211	352	118	90	62
25	176	131	263	136	121	152	1560	435	245	112	87	63
26	140	139	261	138	116	148	1230	368	200	105	81	60
27	128	135	246	133	116	156	968	447	169	104	80	113
28	126	127	235	131	111	148	811	708	146	99	80	76
29	132	268	246	128	109	240	721	890	137	138	77	63
30	136	1030	296	128	---	319	628	596	127	129	76	66
31	119	---	439	126	---	359	---	656	---	112	79	---
TOTAL	10798	4907	14568	6569	3389	5688	31812	11614	6779	10003	4080	2233
MEAN	348	164	470	212	117	183	1060	375	226	323	132	74.4
MAX	2280	1030	1370	448	182	359	6890	890	564	1870	622	113
MIN	119	109	235	126	105	105	154	192	127	99	76	60
AC-FT	21420	9730	28900	13030	6720	11280	63100	23040	13450	19840	8090	4430

CAL YR 1975 TOTAL 228471 MEAN 626 MAX 8910 MIN 55 AC-FT 453200
WTR YR 1976 TOTAL 112440 MEAN 307 MAX 6890 MIN 60 AC-FT 223000

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968-75.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1972 to current year.

PH: October 1972 to current year.

WATER TEMPERATURES: October 1972 to current year.

DISSOLVED OXYGEN: October 1972 to current year.

INSTRUMENTATION.--Water-quality monitor since 1972.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (water years 1974-76): Maximum, 856 micromhos Sept. 21, 1976; minimum, 109 micromhos June 18, 1975.

PH (water years 1974-76): Maximum, 8.7 units Apr. 11, 12, 1975; minimum, 6.9 units Aug. 31, 1975.

WATER TEMPERATURES (water years 1974-76): Maximum, 30.0°C July 21, 22, 1974; minimum, 0.0°C Jan. 9, 1976.

DISSOLVED OXYGEN (water years 1974-76): Maximum, 14.6 mg/L Apr. 12, 1975; minimum, 0.0 mg/L July 19, 1974, Aug. 19, 20, 1975.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 856 micromhos Sept. 21; minimum, 135 micromhos Oct. 1.

PH: Maximum, 8.3 units Feb. 20; minimum, 7.0 units Sept. 26.

WATER TEMPERATURES: Maximum, 29.5°C July 25-27, 31; minimum, 0.0°C Jan. 9.

DISSOLVED OXYGEN: Maximum, 12.5 mg/L Jan. 8, June 22; minimum, 0.4 mg/L May 17, Sept. 20.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG)	TOTAL SODIUM (NA) (MG/L)
OCT 22...	126	520	7.6	17.5	3	3.7	39	33	120	100	6.4	32
NOV 18...	114	560	7.8	13.0	2	5.5	52	12	80	60	8.0	28
DEC 16...	554	365	7.9	11.0	4	8.7	79	2	2600	48	6.0	8.1
JAN 13...	206	450	7.7	6.5	2	7.8	63	9	320	58	6.8	17
FEB 18...	107	570	8.0	13.0	2	7.9	75	26	300	58	7.4	31
MAR 16...	206	445	7.8	11.5	3	7.0	64	18	270	2.1	.5	.8
APR 13...	163	485	7.8	18.0	1	6.2	65	19	100	61	7.4	21
MAY 20...	229	450	7.6	19.5	3	5.4	58	12	3400	58	5.9	16
JUN 22...	132	460	7.5	20.5	3	2.8	31	27	120	66	6.8	21
JUL 14...	191	470	7.7	25.0	3	6.2	75	24	450	70	5.0	17
AUG 17...	229	420	7.5	24.0	2	3.8	45	18	5800	56	5.0	15
SEP 28...	76	800	7.6	17.5	3	1.1	11	31	600	62	7.0	58

07052250 JAMES RIVER NEAR BOAZ, MO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
OCT 22...	6.5	208	0	110	31	648	480	.54	3.4	4.6	2.1
NOV 18...	3.9	222	0	25	44	427	313	1.7	1.2	1.8	1.4
DEC 16...	1.9	180	0	15	12	172	206	1.5	.33	.50	.35
JAN 13...	2.5	200	0	17	24	244	244	1.8	.83	1.1	.82
FEB 18...	3.7	246	0	25	43	318	314	.00	1.6	2.7	1.6
MAR 16...	.1	210	0	20	20	244	278	1.5	1.7	2.0	.83
APR 13...	3.3	216	0	23	29	280	290	1.4	1.4	1.7	.90
MAY 20...	2.6	204	0	15	21	256	274	1.7	.93	1.3	.88
JUN 22...	3.4	224	0	16	25	296	298	1.5	.92	1.6	1.3
JUL 14...	2.8	214	0	14	22	258	296	2.2	.63	.85	.67
AUG 17...	3.3	176	0	20	23	244	284	1.8	.45	.98	.42
SEP 28...	7.8	260	0	47	87	442	471	.74	7.6	12	3.2

07052250 JAMES RIVER NEAR BOAZ, MO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	542	135	560	543	359	324	407	394	501	478	518	507
2	243	139	551	533	335	318	401	394	529	482	531	515
3	298	243	547	537	354	332	404	391	689	503	545	528
4	336	297	583	547	377	354	397	391	523	513	613	544
5	353	333	580	546	388	374	401	394	517	503	640	419
6	367	345	572	557	490	346	404	393	592	511	476	420
7	380	354	571	523	353	344	425	394	571	543	482	454
8	401	380	528	513	346	334	435	424	573	556	470	442
9	420	390	522	512	356	340	447	435	572	545	496	443
10	439	412	524	509	375	356	453	438	548	530	502	448
11	447	435	557	524	392	374	455	442	545	514	460	447
12	457	438	569	539	399	384	455	440	527	507	491	440
13	456	447	581	562	401	391	465	449	624	513	489	445
14	478	447	591	565	407	381	473	455	576	518	450	434
15	511	473	593	576	440	403	480	468	---	---	450	428
16	516	505	596	573	399	364	483	469	---	---	478	431
17	511	494	579	558	395	374	489	473	---	---	482	450
18	533	508	576	557	405	390	491	478	---	---	481	460
19	548	532	595	557	404	393	493	483	---	---	480	453
20	532	522	704	570	406	395	539	491	---	---	479	454
21	531	509	604	460	410	403	539	483	---	---	484	460
22	551	522	520	499	420	410	506	492	---	---	490	444
23	572	551	536	518	429	418	511	496	---	---	478	451
24	583	546	530	519	442	423	515	501	---	---	504	478
25	685	568	522	498	449	437	511	496	---	---	515	495
26	581	485	511	488	463	441	523	501	494	477	515	495
27	520	500	503	492	461	443	523	500	511	492	564	504
28	527	515	503	488	457	442	517	497	509	501	582	460
29	536	517	558	454	479	440	500	485	531	505	560	408
30	621	515	491	331	504	434	502	483	---	---	444	378
31	544	512	---	---	434	392	500	483	---	---	426	408
MONTH	685	135	704	331	504	318	539	391	---	---	640	378

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	443	418	---	---	359	348	524	491	---	---	601	579
2	442	424	---	---	368	356	537	513	---	---	691	600
3	450	424	---	---	396	368	513	228	---	---	717	686
4	454	442	---	---	414	393	346	302	---	---	727	705
5	455	436	---	---	415	398	358	339	579	550	723	699
6	467	436	---	---	405	399	355	342	690	522	714	682
7	486	463	---	---	401	326	381	355	522	422	703	672
8	486	462	---	---	370	284	398	381	510	479	685	652
9	522	422	---	---	360	312	412	396	601	468	731	652
10	---	---	---	---	387	360	445	412	787	525	754	730
11	---	---	---	---	432	387	448	422	558	531	769	732
12	---	---	---	---	470	432	442	432	556	534	741	708
13	---	---	---	---	480	460	463	432	588	552	715	697
14	---	---	434	427	482	457	482	456	625	588	708	693
15	---	---	433	421	506	477	565	477	608	211	717	693
16	---	---	---	---	520	485	559	489	376	353	755	715
17	---	---	---	---	525	503	510	464	429	361	755	726
18	---	---	---	---	528	493	510	481	493	429	748	726
19	---	---	---	---	540	510	515	475	540	493	767	744
20	---	---	---	---	539	489	504	456	566	540	783	760
21	---	---	475	447	532	443	513	480	578	561	856	735
22	---	---	475	458	496	450	508	483	595	554	735	607
23	---	---	496	463	619	480	540	508	582	546	700	613
24	---	---	696	419	615	366	549	496	565	541	725	670
25	---	---	---	---	420	399	---	---	575	550	738	672
26	---	---	---	---	457	419	---	---	600	565	771	701
27	---	---	---	---	494	456	---	---	630	600	750	714
28	---	---	397	343	495	467	---	---	630	620	822	545
29	---	---	358	344	489	464	---	---	625	620	579	504
30	---	---	343	340	516	489	---	---	627	596	656	575
31	---	---	364	338	---	---	---	---	600	574	---	---
MONTH	---	---	---	---	619	284	---	---	787	211	856	504

07052250 JAMES RIVER NEAR BOAZ, MO--Continued

PH (UNITS), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.0	7.5	7.7	7.6	7.9	7.7	7.9	7.8	7.9	7.6	7.8	7.6
2	7.6	7.4	7.6	7.5	7.7	7.6	7.9	7.8	7.9	7.6	7.9	7.6
3	7.7	7.6	7.5	7.5	7.7	7.6	8.1	7.8	8.1	7.6	7.9	7.7
4	7.7	7.6	7.6	7.5	7.7	7.6	8.1	7.9	7.9	7.7	7.9	7.8
5	7.7	7.6	7.7	7.6	7.6	7.6	8.1	7.9	7.9	7.7	7.9	7.7
6	7.8	7.6	7.6	7.6	7.8	7.6	8.1	7.8	8.1	7.8	7.9	7.7
7	7.7	7.6	7.6	7.5	7.8	7.8	8.1	7.7	8.2	7.8	7.9	7.7
8	7.7	7.6	7.6	7.5	7.8	7.7	8.2	7.9	8.1	7.8	7.7	7.7
9	7.6	7.5	7.6	7.6	7.8	7.7	8.2	7.9	8.0	7.7	7.8	7.6
10	7.6	7.4	7.7	7.6	7.8	7.7	8.0	7.7	8.0	7.6	7.8	7.6
11	7.6	7.4	7.7	7.6	7.7	7.6	8.0	7.7	8.0	7.6	7.7	7.6
12	7.6	7.5	7.7	7.6	7.7	7.6	8.1	7.7	8.0	7.6	7.7	7.6
13	7.6	7.5	7.7	7.6	7.6	7.6	7.8	7.6	7.9	7.6	7.8	7.6
14	7.6	7.5	7.7	7.6	7.6	7.6	8.0	7.6	7.8	7.6	7.8	7.6
15	7.6	7.5	7.7	7.6	7.7	7.6	8.0	7.6	7.7	7.4	7.7	7.6
16	7.7	7.6	7.6	7.5	7.9	7.7	8.0	7.6	7.6	7.2	7.8	7.6
17	7.7	7.6	7.6	7.5	7.9	7.8	8.0	7.6	8.1	7.3	7.9	7.7
18	7.7	7.6	7.7	7.5	8.0	7.9	7.9	7.5	8.1	7.3	7.8	7.6
19	7.7	7.6	7.7	7.6	8.0	7.9	7.7	7.5	8.2	7.8	7.8	7.6
20	7.7	7.5	7.8	7.7	8.0	7.8	8.0	7.5	8.3	7.9	7.7	7.5
21	7.7	7.5	7.8	7.7	8.0	7.9	8.1	7.6	8.0	7.9	7.8	7.6
22	7.6	7.5	7.8	7.7	8.1	7.9	8.0	7.6	8.1	7.8	7.7	7.6
23	7.6	7.5	7.8	7.7	8.1	7.8	7.9	7.6	8.1	7.9	7.8	7.6
24	7.6	7.6	7.8	7.7	7.9	7.7	7.9	7.6	8.0	7.8	7.6	7.5
25	7.7	7.6	7.8	7.7	8.0	7.7	7.7	7.5	7.9	7.7	7.7	7.5
26	7.6	7.6	7.9	7.7	8.0	7.8	7.9	7.6	7.9	7.6	7.7	7.5
27	7.6	7.5	7.9	7.7	8.2	7.8	8.0	7.7	7.9	7.6	7.7	7.5
28	7.6	7.5	7.8	7.7	8.1	7.8	7.9	7.7	7.8	7.6	7.6	7.5
29	7.6	7.5	7.7	7.4	7.9	7.7	7.9	7.6	7.9	7.6	7.6	7.4
30	7.6	7.5	7.9	7.4	7.8	7.7	7.9	7.5	---	---	7.6	7.4
31	7.8	7.6	---	---	7.9	7.7	7.8	7.5	---	---	7.8	7.5
MONTH	8.0	7.4	7.9	7.4	8.2	7.6	8.2	7.5	8.3	7.2	7.9	7.4

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.8	7.6	7.7	7.6	7.8	7.7	7.8	7.5	7.7	7.4	7.6	7.5
2	7.8	7.5	7.7	7.6	7.7	7.6	7.5	7.4	7.6	7.4	7.6	7.5
3	7.7	7.5	7.7	7.7	7.7	7.6	7.5	7.2	7.8	7.4	7.5	7.5
4	7.8	7.6	7.7	7.7	7.7	7.6	7.7	7.4	7.8	7.6	7.6	7.4
5	7.9	7.6	7.7	7.6	7.6	7.5	7.7	7.5	8.1	7.5	7.7	7.5
6	8.0	7.6	7.7	7.6	7.7	7.4	7.5	7.4	7.7	7.3	7.7	7.6
7	7.9	7.6	7.7	7.6	7.7	7.5	7.5	7.4	7.4	7.2	7.6	7.5
8	7.9	7.6	7.7	7.6	7.7	7.4	7.6	7.4	7.5	7.4	7.5	7.4
9	8.0	7.6	7.8	7.6	7.7	7.4	7.6	7.5	7.5	7.4	7.6	7.4
10	8.0	7.6	7.8	7.6	7.7	7.4	7.6	7.4	7.5	7.3	7.6	7.5
11	8.0	7.7	7.7	7.6	7.7	7.4	7.6	7.4	7.6	7.4	7.6	7.5
12	7.9	7.6	7.8	7.6	7.6	7.4	7.8	7.5	7.6	7.4	7.6	7.5
13	7.8	7.6	7.6	7.6	7.7	7.4	7.8	7.4	7.6	7.4	7.6	7.3
14	7.8	7.6	7.6	7.5	7.7	7.4	7.8	7.5	7.8	7.5	7.6	7.3
15	7.9	7.6	7.6	7.5	7.6	7.4	7.6	7.4	7.7	7.1	7.7	7.3
16	7.9	7.6	7.6	7.5	7.9	7.4	7.7	7.4	7.5	7.2	7.6	7.3
17	8.0	7.7	7.8	7.6	8.0	7.6	7.7	7.5	7.5	7.4	7.5	7.3
18	7.8	7.6	7.8	7.6	7.7	7.5	7.8	7.4	7.6	7.4	7.7	7.4
19	7.7	7.4	7.7	7.6	8.0	7.5	7.8	7.4	7.6	7.3	7.6	7.2
20	7.6	7.4	7.8	7.5	8.1	7.6	8.0	7.4	7.5	7.3	7.6	7.2
21	7.5	7.4	7.7	7.5	8.2	7.5	8.0	7.4	7.6	7.4	7.8	7.6
22	7.6	7.5	7.7	7.5	8.2	7.5	7.9	7.4	7.6	7.5	7.8	7.7
23	7.6	7.5	7.7	7.5	7.5	7.4	7.8	7.4	7.6	7.5	7.7	7.2
24	7.7	7.5	7.7	7.5	7.5	7.3	7.7	7.4	7.5	7.4	7.6	7.1
25	7.8	7.6	7.7	7.5	7.7	7.5	7.6	7.4	7.5	7.3	7.6	7.1
26	7.8	7.7	7.8	7.5	7.7	7.5	7.6	7.4	7.5	7.4	7.4	7.0
27	7.8	7.7	7.7	7.7	7.9	7.5	7.7	7.5	7.5	7.3	7.4	7.1
28	7.8	7.7	7.8	7.7	7.9	7.5	7.8	7.5	7.5	7.4	7.6	7.3
29	7.7	7.7	7.9	7.8	7.6	7.5	7.8	7.5	7.6	7.5	7.5	7.1
30	7.7	7.7	7.8	7.7	7.6	7.5	8.0	7.5	7.6	7.4	7.7	7.4
31	---	---	7.8	7.6	---	---	8.1	7.6	7.7	7.5	---	---
MONTH	8.0	7.4	7.9	7.5	8.2	7.3	8.1	7.2	8.1	7.1	7.8	7.0

07052250 JAMES RIVER NEAR BOAZ, MO--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	22.0	16.5	16.5	13.5	10.5	8.5	10.0	8.5	8.0	6.5	18.0	15.0
2	17.0	15.5	17.5	14.5	10.0	8.5	10.0	7.5	6.5	5.5	19.0	16.5
3	17.0	15.5	18.0	16.5	10.5	9.0	7.5	5.0	6.5	4.0	17.0	14.5
4	17.0	15.0	18.5	17.0	12.5	10.0	5.0	3.5	5.5	4.5	16.0	13.5
5	18.0	15.5	19.0	17.0	14.0	12.5	5.5	4.0	5.5	4.0	13.5	10.5
6	18.5	15.5	18.5	16.5	14.0	13.0	7.5	4.5	4.0	2.0	12.0	8.5
7	18.0	16.0	19.0	16.5	13.0	11.0	7.5	2.5	3.5	1.0	12.5	8.0
8	20.0	17.5	19.0	16.5	11.0	10.0	3.5	0.5	6.0	2.0	11.5	11.0
9	21.0	18.5	19.5	17.5	10.5	9.5	2.5	0.0	8.5	3.5	12.0	10.5
10	21.5	19.0	17.5	15.0	10.5	9.0	5.5	2.0	12.5	8.5	14.0	9.5
11	23.0	19.5	15.0	13.0	12.5	10.0	7.5	5.0	12.5	9.0	13.5	11.5
12	23.0	20.0	13.0	10.5	13.0	12.5	7.0	4.5	13.0	9.5	13.0	10.5
13	22.5	20.0	10.5	8.0	15.5	13.0	7.0	6.0	14.5	11.5	11.5	8.0
14	22.5	20.0	8.5	6.0	16.5	15.0	6.5	4.5	14.0	12.5	12.5	8.0
15	21.0	19.5	9.5	6.5	15.0	10.5	6.0	4.0	17.0	13.5	14.5	11.0
16	19.5	17.5	11.0	7.5	11.5	9.5	6.0	5.0	16.0	12.0	13.0	10.5
17	18.0	16.5	12.5	10.0	10.5	7.5	5.5	3.5	12.0	10.5	14.0	9.5
18	16.5	14.5	13.5	11.0	7.5	5.5	6.0	4.0	13.5	9.5	15.5	11.0
19	16.0	12.5	14.5	11.5	7.5	5.5	5.5	4.5	14.0	10.0	19.0	14.0
20	16.5	12.5	13.5	9.0	7.5	6.5	6.0	3.5	14.0	9.0	19.0	16.5
21	18.0	14.0	9.0	6.5	7.5	6.0	6.5	4.0	12.5	9.0	17.5	13.5
22	19.0	15.5	6.5	5.5	7.5	6.0	7.5	4.5	9.5	7.0	14.5	12.5
23	18.5	17.0	6.5	4.0	9.0	7.5	9.5	6.0	10.5	6.0	16.0	10.5
24	18.0	16.5	5.5	4.0	9.0	8.5	9.5	7.0	11.5	7.5	14.0	13.0
25	16.5	13.5	4.5	3.5	8.5	7.5	9.0	7.0	13.5	10.0	17.0	13.0
26	14.0	11.5	4.0	2.5	8.0	7.5	7.0	5.0	14.0	10.0	18.5	15.5
27	15.0	12.0	4.0	1.5	8.0	7.0	5.5	3.0	14.5	10.0	19.0	14.0
28	16.0	14.0	6.5	2.5	8.5	7.0	6.0	3.5	15.5	11.5	15.5	13.5
29	17.5	15.0	13.0	6.5	9.0	8.5	8.0	4.5	16.5	12.5	16.5	13.0
30	16.0	13.5	13.5	10.5	9.0	8.5	9.0	6.5	---	---	16.0	13.0
31	15.0	13.0	---	---	10.5	9.0	8.5	7.5	---	---	16.0	13.0
MONTH	23.0	11.5	19.5	1.5	16.5	5.5	10.0	0.0	17.0	1.0	19.0	8.0

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	17.0	13.0	17.5	14.5	21.5	19.0	26.0	21.5	28.5	25.5	23.0	21.0
2	18.0	12.5	17.5	15.0	22.5	20.0	24.0	22.0	25.5	23.0	23.5	20.5
3	19.0	15.0	17.0	14.0	23.0	20.0	22.0	19.0	25.5	21.0	23.5	21.5
4	18.5	15.5	18.5	14.0	22.0	20.5	23.5	18.5	25.0	21.0	25.0	21.5
5	19.0	14.0	18.5	17.0	22.5	20.0	22.0	19.5	26.0	22.0	25.5	22.0
6	19.5	14.5	19.0	17.0	23.5	21.0	22.0	19.0	24.5	22.0	24.5	21.5
7	20.0	15.5	18.5	16.0	24.0	20.5	23.0	19.5	25.5	21.5	23.0	20.0
8	20.0	16.0	19.5	15.5	24.5	20.5	24.0	20.5	24.5	20.5	23.5	21.0
9	19.5	14.5	20.0	16.5	25.0	21.0	24.5	21.0	25.5	21.0	23.0	20.0
10	19.5	14.5	18.5	16.5	26.0	22.0	25.5	22.0	26.5	22.0	21.0	17.5
11	22.0	17.0	21.0	16.0	25.5	22.5	26.0	22.5	28.0	23.5	20.5	17.0
12	21.5	17.0	20.5	18.5	25.5	22.5	27.0	23.0	28.0	24.0	21.0	18.0
13	18.5	17.5	20.0	18.5	27.0	23.0	27.0	23.0	28.5	24.0	21.5	18.5
14	19.0	16.5	19.5	17.0	27.0	24.5	27.5	23.5	27.5	25.0	23.0	21.0
15	21.0	17.0	18.5	18.0	25.5	24.0	24.5	22.5	26.5	21.0	23.0	20.5
16	19.5	18.5	18.0	17.0	26.0	21.5	25.5	22.0	24.0	20.5	23.0	21.0
17	21.5	18.0	19.5	17.0	26.0	21.0	24.5	21.0	26.0	22.5	23.0	21.5
18	21.0	19.0	20.5	16.5	24.0	22.0	26.0	21.0	26.5	23.0	23.0	20.0
19	19.0	16.0	22.0	17.0	24.5	19.5	26.5	22.0	26.0	21.5	23.0	22.0
20	18.0	14.5	23.0	18.5	24.5	19.0	27.5	23.0	25.5	21.5	22.0	19.5
21	15.5	14.0	23.0	19.5	24.5	19.0	28.0	23.5	25.5	21.5	20.0	17.0
22	16.0	13.5	24.5	20.0	24.0	20.0	28.5	23.5	25.5	21.5	19.0	16.0
23	17.0	14.5	25.5	21.5	23.5	19.5	28.5	24.0	24.5	22.0	18.0	17.0
24	16.5	16.0	23.0	21.0	22.0	19.5	29.0	24.0	24.5	21.5	19.5	16.5
25	16.0	13.5	25.0	20.5	25.0	21.0	29.5	24.5	25.0	21.5	19.5	18.0
26	15.0	12.5	23.5	19.5	26.5	22.5	29.5	25.0	26.0	21.5	20.0	18.5
27	15.5	14.0	19.5	18.0	28.0	23.5	29.5	25.5	26.5	22.5	19.0	18.5
28	15.0	13.5	21.5	18.0	28.0	24.5	29.0	26.0	26.5	23.5	18.5	17.0
29	15.0	13.5	21.0	18.5	26.0	24.5	28.0	25.0	24.5	22.0	18.0	16.0
30	15.5	14.0	22.0	20.0	26.5	22.0	29.0	24.0	23.0	20.0	17.5	14.0
31	---	---	21.0	19.5	---	---	29.5	25.5	22.5	20.5	---	---
MONTH	22.0	12.5	25.5	14.0	28.0	19.0	29.5	18.5	28.5	20.0	25.5	14.0

07052250 JAMES RIVER NEAR BOAZ, MO--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.1	3.3	4.9	3.1	9.0	8.2	8.7	7.6	10.0	4.7	7.3	2.7
2	9.1	7.0	4.8	3.4	8.5	7.7	9.1	7.6	9.6	5.4	7.1	3.3
3	7.1	6.4	3.6	2.7	8.0	7.2	11.2	8.5	11.2	6.1	6.6	2.2
4	6.5	6.0	3.5	2.1	7.5	6.5	11.8	9.4	9.2	5.9	7.1	3.7
5	6.0	5.3	3.8	1.8	6.5	5.7	12.1	9.5	8.8	5.6	6.3	3.9
6	5.8	5.0	3.8	1.9	6.9	4.2	11.9	8.7	10.5	6.1	8.2	5.0
7	5.9	4.9	3.8	1.8	8.1	6.9	10.9	7.8	12.1	7.2	8.6	4.9
8	5.7	4.3	3.8	1.9	8.0	7.6	12.5	9.2	11.7	7.2	6.0	5.2
9	5.4	3.5	3.7	2.0	8.1	7.4	12.3	9.6	11.4	6.3	6.9	4.6
10	4.7	2.9	4.0	2.2	8.0	7.1	11.1	7.9	10.6	5.1	7.5	4.2
11	4.5	2.4	4.8	2.5	7.7	6.6	10.9	7.0	10.0	4.0	6.1	4.0
12	4.5	2.4	5.6	2.7	6.8	6.0	11.5	6.6	9.9	4.1	6.2	3.9
13	4.5	2.3	6.5	3.3	6.8	5.5	8.6	6.1	9.0	3.6	8.2	4.4
14	4.0	2.1	6.9	4.2	6.2	5.3	11.1	5.9	7.5	3.0	8.4	5.9
15	3.7	1.5	6.7	4.2	6.8	5.7	11.1	6.1	8.2	2.7	7.5	5.3
16	4.2	2.3	6.3	3.5	8.7	6.8	10.4	5.2	7.5	2.5	9.0	5.3
17	4.3	2.3	5.1	2.8	9.2	7.4	10.3	4.8	7.6	4.0	10.2	6.9
18	4.5	2.5	5.9	2.4	10.1	8.3	10.1	4.3	9.1	3.6	9.1	6.5
19	4.3	2.6	5.8	2.3	10.3	8.6	6.8	4.4	9.4	3.7	8.6	5.6
20	4.6	2.4	4.3	2.6	9.9	8.2	10.9	5.0	9.0	3.7	7.9	4.8
21	4.5	2.6	6.0	2.8	10.5	8.3	11.6	5.9	4.9	1.0	8.3	4.6
22	4.4	2.4	8.0	4.6	10.7	8.0	11.1	5.7	7.8	2.2	8.1	4.8
23	3.4	1.8	9.1	5.4	10.7	7.4	10.4	5.0	8.8	5.0	8.5	5.1
24	3.4	1.7	7.7	5.8	8.6	7.2	10.2	4.4	8.7	4.4	5.6	3.9
25	3.3	2.0	8.3	6.1	9.2	6.8	6.2	4.2	8.4	3.8	7.6	3.5
26	4.7	2.6	9.0	5.8	9.9	7.1	9.6	4.3	8.0	3.4	6.4	3.1
27	4.7	2.9	9.8	6.7	11.0	7.4	10.8	6.0	8.0	3.3	8.0	2.8
28	3.5	2.4	9.4	6.4	10.4	7.3	10.8	6.5	7.3	2.8	5.5	2.6
29	4.3	2.5	6.4	3.5	8.5	6.1	10.6	6.0	7.4	2.7	6.0	4.0
30	4.5	2.9	8.2	3.4	7.3	6.0	10.4	5.1	---	---	6.4	3.5
31	4.8	3.2	---	---	8.7	6.8	9.0	4.4	---	---	7.9	4.5
MONTH	9.1	1.5	9.8	1.8	11.0	4.2	12.5	4.2	12.1	1.0	10.2	2.2

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.0	4.5	7.0	6.2	---	---	7.6	1.4	7.4	2.3	5.1	.9
2	7.9	4.0	7.2	6.5	---	---	3.3	.8	7.3	2.3	6.8	.9
3	9.0	5.0	7.7	6.8	4.9	2.5	5.7	2.4	7.2	2.5	5.9	.9
4	9.7	5.4	7.7	6.2	3.4	2.0	6.4	5.7	5.5	2.7	7.5	.9
5	9.6	5.6	6.6	5.6	4.5	2.0	6.5	5.8	5.7	.7	7.6	.8
6	8.9	4.3	6.1	4.7	5.1	2.1	5.9	5.2	3.3	.6	8.0	.7
7	9.0	3.6	6.6	4.7	6.1	2.6	6.2	5.0	2.9	.5	7.4	.7
8	9.3	3.1	5.6	3.3	5.6	2.5	6.2	5.0	3.0	.7	6.2	.6
9	9.3	2.8	4.7	1.7	5.1	1.5	6.2	4.8	3.0	.8	6.4	.5
10	9.5	3.2	4.3	2.7	5.0	1.1	6.2	4.0	3.4	1.1	7.4	.7
11	8.4	3.1	5.8	3.7	4.2	1.0	6.9	3.8	6.2	1.3	7.0	.8
12	8.6	3.7	4.3	3.2	3.8	1.0	7.8	3.9	6.3	.9	7.0	.8
13	6.3	3.1	5.1	3.1	5.6	1.1	5.9	2.9	7.1	.8	6.3	.8
14	6.9	1.7	7.3	2.9	5.6	1.2	8.7	2.0	6.0	.8	6.0	.6
15	7.7	1.3	5.1	3.1	6.6	2.2	6.1	3.0	3.1	.7	6.1	.5
16	2.8	.9	4.8	1.1	7.7	2.4	8.8	3.3	4.3	2.8	5.0	.5
17	6.7	1.1	3.4	.4	8.7	1.0	7.8	3.3	4.5	2.0	6.1	.5
18	5.7	1.3	7.8	2.6	4.3	.8	8.9	2.9	4.4	1.5	6.3	.5
19	4.8	1.7	3.8	2.0	9.5	.9	9.3	2.6	4.0	1.4	4.6	.5
20	7.1	3.8	9.0	2.2	10.3	1.1	9.1	2.5	4.1	1.1	3.5	.4
21	8.0	6.9	8.2	2.2	12.2	1.0	8.9	1.5	4.3	1.1	5.7	.5
22	8.0	7.3	8.1	1.8	12.5	1.4	8.4	1.7	4.1	1.0	5.5	.6
23	7.5	6.3	6.8	1.3	4.1	.9	7.3	1.7	3.6	.9	2.9	.6
24	6.3	5.9	5.2	.8	3.6	.9	6.9	1.9	4.3	1.1	4.3	.5
25	7.3	6.2	3.5	1.1	5.0	1.6	7.0	2.0	3.6	.7	3.6	.5
26	7.8	7.3	---	---	5.5	1.3	6.5	2.2	3.7	.5	2.4	.6
27	7.4	6.9	---	---	7.4	1.0	6.7	2.4	4.0	.8	1.6	.8
28	7.3	6.9	---	---	8.4	1.0	4.9	2.3	4.2	2.1	3.7	.9
29	7.4	6.3	---	---	5.3	1.0	6.2	1.4	3.9	2.3	2.9	.7
30	7.3	6.5	---	---	6.4	1.3	7.1	1.1	4.0	2.1	4.5	.9
31	---	---	---	---	---	---	8.3	1.8	6.0	2.9	---	---
MONTH	9.7	.9	9.0	.4	12.5	.8	9.3	.8	7.4	.5	8.0	.4

07052500 JAMES RIVER AT GALENA, MO

LOCATION.--Lat 36°48'19", long 93°27'41", in SW¼SE¼SW¼ sec.6, T.24 N., R.23 W., Stone County, Hydrologic Unit 11010002, near left bank on downstream side of right pier of first arch span from left end of bridge on State Highways 13 and 248 in Galena, 0.7 mi (1.1 km) upstream from Railey Creek, and 42.3 mi (68.1 km) above mouth.

DRAINAGE AREA.--987 mi² (2,556 km²).

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 (280.834 m) above mean sea level. Prior to Dec. 11, 1927, nonrecording gage at site 500 ft (152 m) downstream at datum 1.48 ft (0.451 m) 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 (0.610 m) higher.

REMARKS.--Records good. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--55 years, 949 ft³/s (26.88 m³/s), 13.06 in/yr (332 mm/yr), 687,600 acre-ft/yr (848 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 52,700 ft³/s (1,490 m³/s) May 20, 1943, gage height, 29.82 ft (9.089 m) present datum; minimum, 10 ft³/s (0.28 m³/s) Sept. 20, 1954; minimum gage height, 1.15 ft (0.351 m) Jan. 13, 1964 (result of ice conditions upstream).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16,500 ft³/s (467 m³/s) Apr. 21 (0845), gage height, 14.91 ft (4.544 m), peak discharge above base of 12,000 ft³/s (340 m³/s); minimum, 115 ft³/s (3.26 m³/s) Sept. 24, gage height, 2.78 ft (0.847 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	501	207	2080	1100	245	222	644	1210	1310	433	373	162		
2	2750	204	1600	1010	239	227	582	1120	1170	441	347	161		
3	1080	206	1190	901	237	225	528	1010	1020	2730	304	158		
4	763	207	965	792	236	223	483	923	889	5640	278	160		
5	606	213	841	706	240	281	443	856	794	3510	267	152		
6	507	205	1190	640	238	313	409	846	721	2250	294	147		
7	441	219	2380	599	234	301	387	801	639	1670	359	141		
8	394	234	1920	571	224	322	363	717	580	1320	302	137		
9	359	234	1480	500	222	369	343	660	534	1120	271	140		
10	330	230	1190	470	222	454	318	676	490	974	256	140		
11	310	224	1010	449	219	472	305	828	455	866	241	137		
12	289	222	880	417	218	497	291	782	427	768	231	135		
13	270	212	778	400	219	491	289	798	400	699	224	133		
14	257	209	691	383	218	470	285	848	371	635	215	131		
15	247	210	688	366	212	463	285	837	355	589	268	136		
16	239	202	817	350	212	457	273	817	337	569	749	138		
17	230	195	895	338	212	442	268	797	325	533	455	138		
18	222	197	802	319	213	424	270	748	317	491	353	133		
19	215	205	723	311	211	408	735	686	306	463	303	130		
20	207	231	657	307	210	396	10700	631	294	437	270	124		
21	204	298	607	303	221	377	14500	583	279	414	248	140		
22	204	270	562	291	284	354	6950	546	269	392	230	126		
23	199	255	528	285	248	338	4510	511	737	367	220	123		
24	204	251	499	278	240	331	3500	488	1940	355	208	119		
25	254	252	484	278	235	320	2880	591	1260	340	207	119		
26	280	257	466	272	229	318	2410	750	973	321	205	119		
27	246	260	444	270	228	311	2000	1020	765	312	188	123		
28	228	252	425	258	230	312	1710	1820	624	301	173	167		
29	225	284	437	254	221	346	1510	2610	544	343	173	154		
30	229	1080	561	253	---	564	1320	1820	486	364	166	138		
31	219	---	885	251	---	663	---	1450	---	320	161	---		
TOTAL	12709	7727	28675	13922	6617	11691	59491	28780	19611	29967	8539	4161		
MEAN	410	258	925	449	228	377	1983	928	654	967	275	139		
MAX	2750	1080	2380	1100	284	663	14500	2610	1940	5640	749	167		
MIN	199	195	425	251	210	222	268	488	269	301	161	119		
CFSM	.42	.26	.94	.45	.23	.38	2.01	.94	.66	.98	.28	.14		
IN.	.48	.29	1.08	.52	.25	.44	2.24	1.08	.74	1.13	.32	.16		
AC-FT	25210	15330	56880	27610	13120	23190	118000	57090	38900	59440	16940	8250		
CAL YR 1975	TOTAL	430623	MEAN	1180	MAX	15500	MIN	117	CFSM	1.20	IN	16.23	AC-FT	854100
WTR YR 1976	TOTAL	231890	MEAN	634	MAX	14500	MIN	119	CFSM	.64	IN	8.74	AC-FT	460000

07053400 TABLE ROCK LAKE NEAR BRANSON, MO

LOCATION.--Lat 36°35'46", long 93°18'35", in NW¼ sec.22, T.22 N., R.22 W., Taney County, Hydrologic Unit 11010001, at dam on White River, 3 mi (4.8 km) upstream from Fall Creek, and 6.1 mi (9.82 km) southwest of Branson.

DRAINAGE AREA.--4,020 mi² (10,412 km²).

PERIOD OF RECORD.--September 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Prior to July 18, 1958, nonrecording gage at same site and datum.

REMARKS.--Lake is formed by a 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 ft (268.5 m) and capacity 1,520,500 acre-ft (1.87 km³) began Nov. 24, 1958, and was reached Dec. 19, 1959. Capacity is 3,567,500 acre-ft (4.40 km³) at top of spillway gates, elevation 933 ft (284.4 m). Capacity is 3,462,000 acre-ft (4.27 km³) at top of flood control pool, elevation 931 ft (283.8 m). Capacity between elevations 915 ft (278.9 m) and 931 ft (283.8 m) is reserved for flood control, 760,000 acre-ft (0.937 km³). Capacity between elevation 881 ft (268.5 m) and 915 ft (278.9 m) of 1,181,500 acre-ft (1.46 km³) is used for power generation. The capacity at the lowest outlet, elevation 721.96 ft (220.053 m), is 3,530 acre-ft (4.35 km³). Lake is used for flood control, power, and recreational purposes. Figures represent total contents. Contents computed from daily readings at 2400 and prior to Oct. 1, 1963 to five significant figures.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 3,541,800 acre-ft (4.37 km³) May 10, 1961, elevation, 932.52 ft (284.232 m); minimum, since initial filling to bottom of power pool level, 1,535,500 acre-ft (1.89 km³) Feb. 8, 1965, elevation, 881.54 ft (268.693 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 2,970,000 acre-ft (3.67 km³) June 24, 25; maximum elevation, 921.09 ft (280.748 m) June 25; minimum daily contents, 2,450,000 acre-ft (3.02 km³) Nov. 12, 13; minimum elevation, 908.92 ft (277.039 m) Nov. 13.

Capacity table (elevation, in feet, and contents, in acre-ft)

908	2,413,000
910	2,493,000
922	3,016,000

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2500000	2460000	2540000	2700000	2680000	2680000	2730000	2790000	2780000	2880000	2550000	2500000
2	2500000	2460000	2550000	2700000	2690000	2680000	2730000	2780000	2770000	2870000	2530000	2500000
3	2500000	2470000	2550000	2690000	2690000	2680000	2730000	2760000	2770000	2890000	2510000	2500000
4	2500000	2460000	2550000	2680000	2690000	2690000	2730000	2750000	2770000	2940000	2500000	2490000
5	2510000	2460000	2560000	2670000	2690000	2690000	2730000	2720000	2770000	2960000	2500000	2490000
6	2500000	2460000	2600000	2670000	2690000	2690000	2730000	2710000	2770000	2960000	2500000	2490000
7	2510000	2460000	2620000	2670000	2690000	2690000	2720000	2700000	2770000	2940000	2500000	2490000
8	2510000	2460000	2620000	2680000	2690000	2680000	2720000	2690000	2770000	2930000	2500000	2480000
9	2510000	2460000	2630000	2680000	2690000	2690000	2720000	2700000	2770000	2910000	2500000	2480000
10	2510000	2460000	2630000	2670000	2690000	2690000	2720000	2690000	2770000	2890000	2500000	2480000
11	2510000	2460000	2630000	2680000	2690000	2690000	2720000	2680000	2770000	2860000	2490000	2480000
12	2510000	2450000	2640000	2670000	2690000	2690000	2720000	2680000	2770000	2840000	2490000	2480000
13	2510000	2450000	2640000	2670000	2690000	2690000	2720000	2670000	2760000	2830000	2490000	2480000
14	2500000	2460000	2640000	2670000	2690000	2700000	2720000	2680000	2770000	2810000	2500000	2480000
15	2500000	2460000	2640000	2660000	2690000	2690000	2720000	2680000	2770000	2790000	2500000	2480000
16	2500000	2460000	2640000	2660000	2700000	2690000	2720000	2690000	2780000	2760000	2510000	2480000
17	2490000	2470000	2640000	2660000	2700000	2690000	2700000	2690000	2790000	2740000	2510000	2480000
18	2490000	2480000	2640000	2660000	2700000	2690000	2700000	2700000	2790000	2710000	2510000	2480000
19	2490000	2480000	2650000	2670000	2700000	2690000	2710000	2700000	2790000	2690000	2510000	2480000
20	2490000	2500000	2650000	2670000	2700000	2690000	2800000	2700000	2790000	2670000	2510000	2480000
21	2480000	2500000	2650000	2670000	2700000	2700000	2840000	2700000	2800000	2660000	2510000	2480000
22	2480000	2500000	2660000	2670000	2690000	2700000	2850000	2700000	2800000	2640000	2510000	2480000
23	2480000	2500000	2660000	2670000	2690000	2710000	2850000	2710000	2920000	2640000	2510000	2470000
24	2480000	2500000	2660000	2670000	2690000	2700000	2850000	2720000	2970000	2620000	2510000	2470000
25	2470000	2500000	2670000	2670000	2690000	2700000	2840000	2720000	2970000	2600000	2510000	2470000
26	2460000	2510000	2670000	2670000	2690000	2710000	2840000	2730000	2960000	2580000	2510000	2470000
27	2460000	2510000	2670000	2670000	2680000	2710000	2830000	2750000	2950000	2570000	2510000	2470000
28	2460000	2520000	2680000	2670000	2680000	2710000	2820000	2770000	2940000	2560000	2500000	2460000
29	2460000	2520000	2680000	2680000	2680000	2720000	2810000	2780000	2920000	2580000	2500000	2460000
30	2460000	2530000	2690000	2680000	---	2720000	2800000	2790000	2900000	2570000	2500000	2460000
31	2460000	---	2700000	2680000	---	2720000	---	2780000	---	2560000	2500000	---
(†)	909.17	910.91	914.87	914.56	914.54	915.45	917.32	916.90	919.56	911.65	910.23	909.04
(‡)	-40	+70	+170	-20	0	+40	+80	-20	+120	-340	-60	-40
MAX	2510000	2530000	2700000	2700000	2700000	2720000	2850000	2790000	2970000	2960000	2550000	2500000
MIN	2460000	2450000	2540000	2660000	2680000	2680000	2700000	2670000	2760000	2560000	2490000	2460000

CAL YR 1975.....‡ -40
WTR YR 1976.....‡ -40

† Elevation, in feet, at end of month.

‡ Change in contents, in thousands of acre-feet.

07053500 WHITE RIVER NEAR BRANSON, MO

LOCATION.--Lat 36°35'51", long 93°17'42", in SE¼NE¼ sec.22, T.22 N., R.22 W., Taney County, Hydrologic Unit 11010003, on left bank 0.9 mi (1.4 km) downstream from Table Rock Dam, 2.1 mi (3.4 km) upstream from Fall Creek, 5 mi (8.0 km) southwest of Branson, 7.4 mi (11.9 km) upstream from Missouri Pacific bridge, and at mile 527.8 (849.2 km).

DRAINAGE AREA.--4,022 mi² (10,417 km²).

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 (212.141 m) above mean sea level (levels by Corps of Engineers). July 19, 1909 to Dec. 31, 1910, nonrecording gage at site 7.4 mi (11.9 km) downstream at different datum. Oct. 1, 1951 to Mar. 6, 1952, nonrecording gage at same site and datum.

REMARKS.--Records good. Discharge computations based on power releases, conduit releases, fish hatchery releases, and pool elevation at Table Rock Lake. Fish hatchery releases began on Feb. 18, 1959. Regulated by Table Rock Lake, some regulation since Sept. 9, 1956.

COOPERATION.--Records furnished by Corps of Engineers.

AVERAGE DISCHARGE.--25 years, 3,637 ft³/s (103.0 m³/s), 2,635,000 acre-ft/yr (3.25 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 89,100 ft³/s (2.523 m³/s) May 16, 1956, gage height, 36.9 ft (11.25 m); minimum, prior to building dam, 24 ft³/s (0.68 m³/s) Sept. 20, 1954; no outflow from reservoir at various times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 52.8 ft (16.09 m), from floodmark, Apr. 16, 1945, discharge, 203,000 ft³/s (5,750 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 14,300 ft³/s (405 m³/s) July 18, gage height, 14.13 ft (4.307 m); minimum daily discharge, 118 ft³/s (3.34 m³/s) June 6, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1380	128	3620	129	239	1810	130	9580	6490	14000	8330	1640
2	640	127	1400	5120	2440	987	981	9580	6550	11400	8330	1420
3	1140	582	2290	8300	1440	127	612	9630	6350	5270	8350	2380
4	738	2680	1310	8790	3750	872	545	11900	4200	5240	7810	2490
5	125	2780	693	3560	3290	886	3130	13800	1580	5210	3340	1580
6	1820	2140	254	1560	1530	542	4490	8140	118	9470	2720	1590
7	125	825	198	7250	838	413	5160	6760	2040	13800	931	2900
8	660	123	3370	4640	131	3790	5010	5280	3990	13900	120	2070
9	124	123	2220	3410	429	1760	927	120	4050	13900	2530	122
10	1290	1670	1440	2100	741	2360	123	6750	2110	13900	3320	122
11	122	1550	891	419	126	5060	123	4900	4550	14000	3360	122
12	409	2340	1660	3840	1280	4220	1740	7100	4560	14000	1160	122
13	3900	971	121	1970	937	907	1640	7280	3490	14000	3600	1580
14	4310	134	430	2530	301	134	4260	3160	3180	14200	120	1870
15	2880	133	3050	3410	121	3800	4330	119	981	14000	121	1470
16	1770	133	1730	2900	778	3490	1200	120	723	14100	1810	378
17	2250	129	4330	986	980	3220	7890	3900	794	14200	4150	1760
18	125	130	3590	130	1060	2530	1320	2430	119	14300	4120	911
19	125	127	2460	1020	602	128	3650	3290	118	13600	2260	122
20	2060	198	1490	931	2260	127	5520	5050	119	13200	1790	605
21	3230	3260	794	898	2940	132	9440	7200	496	10100	3100	804
22	2320	655	3860	980	1650	987	11300	2770	3760	10200	2550	1340
23	1930	131	2240	1430	3800	133	11300	119	1490	7960	3140	2730
24	2040	5550	1220	624	937	193	9990	4160	5580	10600	2540	3440
25	5870	3360	129	932	2470	569	9130	6100	11100	10700	2170	120
26	4300	4060	975	2520	1990	126	9540	6180	12500	11200	3150	860
27	2960	500	648	1400	2260	128	9590	5610	12600	10600	3870	3060
28	330	616	131	290	898	277	8260	6440	13300	10600	2930	2160
29	321	128	2680	130	221	1500	8650	2200	13900	10100	920	2760
30	127	131	1290	129	---	1170	9590	2490	13900	9480	517	2060
31	126	---	975	129	---	133	---	8100	---	8330	941	---
TOTAL	49547	35414	51489	72457	40439	42511	149571	170258	144738	355560	94100	44588
MEAN	1598	1180	1661	2337	1394	1371	4986	5492	4825	11470	3035	1486
MAX	5870	5550	4330	8790	3800	5060	11300	13800	13900	14300	8350	3440
MIN	122	123	121	129	121	126	123	119	118	5210	120	120
AC-FT	98280	70240	102100	143700	80210	84320	296700	337700	287100	705300	186600	88440
CAL YR 1975 TOTAL	1782020			MEAN 4882	MAX 15000	MIN 38	AC-FT 3535000					
WTR YR 1976 TOTAL	1250672			MEAN 3417	MAX 14300	MIN 118	AC-FT 2481000					

07057500 NORTH FORK RIVER NEAR TECUMSEH, MO

LOCATION.--Lat 36°37'22", long 92°14'53", in NE¼SE¼ sec.35, T.23 N., R.12 W., Ozark County, Hydrologic Unit 11010006, on right bank 3.2 mi (5.2 km) downstream from Spring Creek, and 3.5 mi (5.6 km) northeast of Tecumseh.

DRAINAGE AREA.--561 mi² (1,453 km²).

PERIOD OF RECORD.--October 1944 to current year.

GAGE.--Water-stage recorder. Datum of gage is 584.67 ft (178.207 m) above mean sea level (levels by Corps of Engineers). Prior to May 12, 1945, nonrecording gage at same site at datum 0.22 ft (0.067 m) lower.

REMARKS.--Records good. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--32 years, 723 ft³/s (20.48 m³/s), 17.50 in/yr (444 mm/yr), 523,800 acre-ft/yr (646 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,900 ft³/s (1,073 m³/s) Apr. 22, 1974, gage height, 22.15 ft (6.751 m); minimum, 187 ft³/s (5.30 m³/s) Sept. 14-18, 1954, gage height, 2.06 ft (0.628 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,360 ft³/s (123 m³/s) June 24, gage height, 6.02 ft (1.835 m), no peak above base of 5,000 ft³/s (142 m³/s); minimum, 312 ft³/s (8.84 m³/s) Sept. 22, 23, 24-26, 27, 28, 29, gage height, 2.33 ft (0.710 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	578	470	625	1410	533	523	750	761	891	559	400	368
2	557	458	625	1200	534	520	720	740	801	560	379	371
3	536	484	585	1060	529	515	684	709	747	580	373	371
4	526	537	550	936	522	513	664	678	693	680	366	371
5	515	589	830	857	515	561	637	664	655	698	363	368
6	506	545	2670	820	513	605	624	663	625	648	366	359
7	498	522	2100	804	504	598	611	645	598	599	363	354
8	491	505	1450	756	502	596	598	624	577	571	357	356
9	482	492	1170	712	502	659	572	614	559	551	358	353
10	475	478	994	697	509	726	559	613	544	527	353	348
11	472	461	882	688	504	731	552	614	533	513	354	343
12	466	447	807	669	495	732	550	607	522	503	352	343
13	459	435	749	660	495	727	550	619	510	485	349	338
14	454	424	707	639	495	710	549	624	499	472	359	333
15	458	420	871	619	494	699	546	643	514	455	397	331
16	454	416	1080	612	492	679	541	667	521	439	400	328
17	452	413	1000	597	498	646	535	666	496	424	396	323
18	448	405	884	581	501	624	526	647	490	405	373	322
19	443	403	807	572	488	614	593	626	469	388	368	320
20	440	447	773	564	482	604	799	611	456	389	363	319
21	446	449	732	559	520	588	1350	596	443	393	360	320
22	446	442	694	550	552	560	1450	583	436	379	365	317
23	446	430	669	549	577	538	1190	575	555	369	365	314
24	448	423	648	550	559	542	1080	563	2150	368	370	312
25	452	415	650	570	552	594	1030	548	1110	364	365	312
26	455	423	647	560	546	664	974	563	863	364	372	316
27	448	420	625	544	540	664	900	637	734	362	368	315
28	440	411	612	538	533	632	841	815	664	358	370	315
29	438	414	889	540	529	637	801	834	616	610	367	316
30	487	466	1980	540	---	713	773	781	586	481	365	317
31	481	---	1750	537	---	779	---	786	---	420	365	---
TOTAL	14697	13644	30055	21490	15015	19493	22549	20316	19857	14914	11421	10073
MEAN	474	455	970	693	518	629	752	655	662	481	368	336
MAX	578	589	2670	1410	577	779	1450	834	2150	698	400	371
MIN	438	403	550	537	482	513	526	548	436	358	349	312
CFSM	.84	.81	1.73	1.24	.92	1.12	1.34	1.17	1.18	.86	.66	.60
IN.	.97	.90	1.99	1.43	1.00	1.29	1.50	1.35	1.32	.99	.76	.67
AC-FT	29150	27060	59610	42630	29780	38660	44730	40300	39390	29580	22650	19980
CAL YR 1975	TOTAL	327760	MEAN 898	MAX	11400	MIN 292	CFSM 1.60	IN 21.73	AC-FT	650100		
WTR YR 1976	TOTAL	213524	MEAN 583	MAX	2670	MIN 312	CFSM 1.04	IN 14.16	AC-FT	423500		

WHITE RIVER BASIN

07058000 BRYANT CREEK NEAR TECUMSEH, MO

LOCATION.--Lat 36°37'33", long 92°18'16", in E½ sec.32, T.23 N., R.12 W., Ozark County, Hydrologic Unit 11010006, on left bank 0.8 mi (1.3 km) downstream from Pine Creek, 3 mi (4.8 km) northwest of Tecumseh, and 5 mi (8.0 km) upstream from mouth.

DRAINAGE AREA.--570 mi² (1,476 km²).

PERIOD OF RECORD.--October 1944 to current year.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1441: 1945, 1946-47(M), 1950. WSP 1731: 1945-47, 1950.

GAGE.--Water-stage recorder. Datum of gage is 573.15 ft (174.696 m) above mean sea level (levels by Corps of Engineers). Prior to July 30, 1945, nonrecording gage at same site and datum.

REMARKS.--Records good. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--32 years, 529 ft³/s (14.98 m³/s), 12.60 in/yr (320 mm/yr), 383,300 acre-ft/yr (473 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,200 ft³/s (940 m³/s) Mar. 11, 1973, gage height, 21.93 ft (6.684 m); minimum, 96 ft³/s (2.72 m³/s) Sept. 16, 17, 1954; minimum gage height, 1.98 ft (0.604 m) Aug. 13, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,610 ft³/s (73.9 m³/s) Dec. 6, gage height, 6.83 ft (2.082 m), no peak above base of 6,000 ft³/s (170 m³/s); minimum, 140 ft³/s (3.96 m³/s) Sept. 13-26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	338	189	305	941	264	306	453	400	458	269	225	146
2	321	188	326	802	261	299	427	385	419	275	201	147
3	301	216	324	690	261	291	403	365	380	310	190	150
4	286	226	312	598	261	295	383	346	357	339	182	152
5	281	227	582	539	253	334	365	337	338	326	178	150
6	275	220	2110	507	249	322	355	330	320	298	183	150
7	270	216	1460	492	242	314	343	318	303	275	184	150
8	262	220	966	443	242	326	332	301	289	259	177	150
9	256	217	769	409	242	390	316	290	277	247	173	150
10	251	215	644	396	249	427	305	287	268	237	170	150
11	246	212	561	391	246	422	295	289	263	228	168	150
12	238	206	507	373	238	451	287	284	256	219	165	150
13	235	200	466	362	238	461	285	290	248	214	163	140
14	231	195	435	347	234	446	286	290	241	207	167	140
15	230	198	551	332	234	437	280	290	243	204	185	140
16	224	198	588	327	234	427	276	302	249	200	188	140
17	222	198	544	312	242	400	272	288	230	194	176	140
18	219	199	486	303	242	382	267	275	228	190	172	140
19	216	200	449	297	234	373	278	264	221	186	165	140
20	209	231	428	291	231	373	315	256	213	184	163	140
21	209	238	403	283	299	364	1520	253	207	186	160	140
22	209	228	380	279	413	342	1090	249	203	181	160	140
23	209	220	367	276	382	326	824	245	373	176	153	140
24	207	218	355	276	364	330	703	241	1090	172	158	140
25	217	216	357	295	351	355	643	254	739	173	156	140
26	218	224	361	291	338	363	569	288	514	170	156	140
27	208	229	348	276	326	360	506	457	409	168	153	144
28	200	221	344	272	314	346	459	893	351	167	151	144
29	203	225	902	272	306	376	430	802	316	408	148	146
30	200	251	1450	272	---	465	408	619	291	331	145	151
31	195	---	1160	268	---	481	---	519	---	250	145	---
TOTAL	7386	6441	19240	12212	7990	11584	13675	11007	10294	7243	5260	4340
MEAN	238	215	621	394	276	374	456	355	343	234	170	145
MAX	338	251	2110	941	413	481	1520	893	1090	408	225	152
MIN	195	188	305	268	231	291	267	241	203	167	145	140
CFSM	.42	.38	1.09	.69	.48	.66	.80	.62	.60	.41	.30	.25
IN.	.48	.42	1.26	.80	.52	.76	.89	.72	.67	.47	.34	.28
AC-FT	14650	12780	38160	24220	15850	22980	27120	21830	20420	14370	10430	8610
CAL YR 1975 TOTAL	218454			MEAN 599	MAX 6940	MIN 157	CFSM 1.05	IN 14.26	AC-FT 433300			
WTR YR 1976 TOTAL	116672			MEAN 319	MAX 2110	MIN 140	CFSM .56	IN 7.61	AC-FT 231400			

07061300 EAST FORK BLACK RIVER AT LESTERVILLE, MO

LOCATION.--Lat 37°27'03", long 90°49'38", in NE¼SE¼ sec.16, T.32 N., R.2 E., Reynolds County, Hydrologic Unit 11010007, at bridge on State Highway 21 at Lesterville, and 0.8 mi (1.3 km) upstream from Black River.

DRAINAGE AREA.--94.5 mi² (244.8 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 655.34 ft (199.748 m) above mean sea level.

REMARKS.--Records fair except periods of no gage-height record which are poor. Several observations of water temperature were made during the year. Low flow regulated by Union Electric Company Taum Sauk pumped-storage power plant lower reservoir, 4 mi (6.4 km) upstream, since Feb. 19, 1963, capacity 6,350 acre-ft (7.83 hm³).

AVERAGE DISCHARGE.--16 years, 104 ft³/s (2.945 m³/s), 75,300 acre-ft/yr (92.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,400 ft³/s (295 m³/s) Nov. 2, 1972, gage height, 11.13 ft (3.392 m); no flow Oct. 15 to Nov. 21, 1963, July 17-21, July 31 to Aug. 20, 1964, Nov. 13, 14, 1971.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1935 reached a stage of about 13.8 ft (4.21 m) from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,280 ft³/s (64.6 m³/s) Dec. 6, gage height, 6.66 ft (2.030 m); minimum, 0.80 ft³/s (0.023 m³/s) Sept. 14, 15, 17, 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	7.0	378	115	16	62	234	18	125	43	12	1.3
2	11	7.0	67	250	22	84	136	23	23	7.5	4.0	1.2
3	128	7.0	161	49	25	45	167	33	10	785	3.1	1.2
4	28	7.0	24	270	27	19	116	119	55	189	2.7	1.2
5	18	100	116	21	53	658	45	118	22	243	3.0	1.1
6	15	40	2060	18	63	263	118	15	18	32	4.4	.99
7	32	10	546	183	30	117	25	82	16	18	3.6	.98
8	12	9.0	158	51	54	107	126	26	32	57	2.6	1.0
9	17	8.0	187	40	38	120	19	11	38	120	2.3	1.2
10	12	8.0	52	63	96	139	31	33	22	20	4.1	1.1
11	23	8.0	125	22	21	73	118	45	20	74	3.4	.98
12	11	8.0	127	92	31	104	13	13	16	14	2.3	1.0
13	4.2	8.0	26	22	32	124	14	17	14	21	2.2	.99
14	5.1	8.0	62	21	112	70	25	19	25	19	2.4	.96
15	6.0	8.0	482	130	62	18	88	7.4	6.4	24	2.7	.84
16	6.0	8.0	448	8.4	16	83	18	5.8	12	7.0	3.2	.89
17	6.0	7.9	225	8.2	16	93	13	5.5	18	8.5	2.8	.87
18	6.0	16	54	62	41	59	16	6.3	30	7.9	3.6	.84
19	6.0	8.5	69	9.3	263	60	51	11	23	16	3.5	.83
20	6.0	9.5	84	17	15	83	184	22	5.5	6.3	2.5	1.1
21	6.0	32	169	71	87	131	442	26	3.9	4.5	2.3	1.1
22	6.0	11	13	17	179	131	211	29	3.4	4.6	2.2	1.0
23	6.0	43	36	26	21	93	189	15	3.6	3.6	2.0	1.0
24	6.0	8.3	28	21	86	101	419	9.5	71	2.9	2.3	1.6
25	50	6.1	59	30	52	73	663	8.6	112	2.6	2.1	2.7
26	20	7.2	70	105	129	106	462	10	11	2.6	2.0	3.0
27	10	72	33	90	39	1580	123	21	6.1	3.4	1.9	3.5
28	9.0	8.3	73	26	18	375	22	91	4.7	4.8	1.7	3.2
29	8.0	7.3	105	51	25	543	140	26	4.0	22	1.5	3.0
30	7.0	306	863	134	---	1060	128	7.8	3.9	10	1.5	2.9
31	7.0	---	418	11	---	368	---	12	---	22	1.4	---
TOTAL	519.3	794.1	7318	2033.9	1669	6942	4356	885.9	754.5	1795.2	91.3	43.57
MEAN	16.8	26.5	236	65.6	57.6	224	145	28.6	25.2	57.9	2.95	1.45
MAX	128	306	2060	270	263	1580	663	119	125	785	12	3.5
MIN	4.2	6.1	13	8.2	15	18	13	5.5	3.4	2.6	1.4	.83
AC-FT	1030	1580	14520	4030	3310	13770	8640	1760	1500	3560	181	86

CAL YR 1975 TOTAL 56061.70 MEAN 154 MAX 3000 MIN 1.8 AC-FT 111200
WTR YR 1976 TOTAL 27202.77 MEAN 74.3 MAX 2060 MIN .83 AC-FT 53960

07061500 BLACK RIVER NEAR ANNAPOLIS, MO

LOCATION.--Lat 37°20'10", long 90°47'19", in SW¼NW¼ sec.25, T.31 N., R.2 E., Reynolds County, Hydrologic Unit 11010007, on right bank 0.4 mi (0.6 km) downstream from Mayberry Branch, 7 mi (11.2 km) southwest of Annapolis, 11 mi (17.7 km) downstream from East Fork, and at mile 278.5 (448.1 km).

DRAINAGE AREA.--484 mi² (1,254 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 569.72 ft (173.651 m) above mean sea level (levels by Corps of Engineers). Prior to Aug. 21, 1942, at site 415 ft (126 m) upstream at same datum.

REMARKS.--Records fair. Several observations of water temperature were made during the year. Small regulation from upstream reservoir since Feb. 1963.

AVERAGE DISCHARGE.--37 years, 565 ft³/s (16.00 m³/s), 15.85 in/yr (403 mm/yr), 409,300 acre-ft/yr (505 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,700 ft³/s (1,410 m³/s) Nov. 2, 1972, gage height, 21.55 ft (6.568 m); minimum, 65 ft³/s (1.84 m³/s) Aug. 16, 17, 18, 1965; minimum gage height, 1.00 ft (0.305 m) Sept. 18, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,140 ft³/s (117 m³/s) July 3, gage height, 6.67 ft (2.033 m), no peak above base of 7,000 ft³/s (198 m³/s); minimum discharge, 100 ft³/s (2.83 m³/s) Aug. 16 to Sept. 7, Sept. 18; minimum gage height, 1.00 ft (0.305 m) Sept. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	215	190	958	800	250	274	1010	482	313	218	167	100
2	203	176	584	700	250	314	803	442	375	213	153	100
3	271	201	637	600	250	295	730	407	277	2220	145	100
4	215	281	428	550	250	256	611	443	271	1910	139	100
5	195	447	482	515	250	739	530	477	291	1030	136	100
6	183	322	1920	450	250	991	543	336	329	737	133	100
7	182	360	1670	400	250	682	412	340	358	553	130	100
8	181	277	1040	400	250	608	470	342	313	469	120	102
9	172	264	990	350	250	498	364	275	296	511	120	104
10	172	257	642	300	250	653	329	277	265	368	120	104
11	170	395	652	300	250	454	398	274	242	330	120	103
12	176	243	579	300	250	539	311	257	228	303	120	103
13	165	219	433	300	250	508	273	254	215	251	110	102
14	163	212	420	300	250	493	277	266	212	229	110	101
15	166	216	827	300	250	386	313	262	199	220	110	101
16	161	236	1700	300	250	437	285	250	193	203	100	101
17	161	214	1090	300	254	432	251	253	191	186	100	101
18	162	202	753	300	263	405	242	253	204	179	100	101
19	162	202	662	250	482	382	263	246	207	173	100	101
20	160	199	542	250	282	396	479	245	191	166	100	102
21	165	212	668	250	284	463	998	241	180	161	100	102
22	168	201	433	250	513	487	1140	245	175	156	100	102
23	163	212	400	250	337	444	875	226	173	151	100	101
24	167	202	400	250	386	432	825	221	270	148	100	104
25	262	188	400	250	326	415	2060	212	511	146	100	104
26	204	193	350	250	394	540	1410	208	362	141	100	105
27	181	238	350	250	351	1930	975	213	293	139	100	108
28	174	212	300	250	278	1440	660	258	257	139	100	110
29	176	207	300	250	276	1060	634	277	233	167	100	111
30	183	524	1500	250	---	2160	707	232	217	181	100	112
31	180	---	1000	250	---	1350	---	255	---	176	100	---
TOTAL	5658	7402	23110	10715	8426	20463	19178	8969	7841	12174	3533	3085
MEAN	183	247	745	346	291	660	639	289	261	393	114	103
MAX	271	524	1920	800	513	2160	2060	482	511	2220	167	112
MIN	160	176	300	250	250	256	242	208	173	139	100	100
CFSM	.38	.51	1.54	.71	.60	1.36	1.32	.60	.54	.81	.24	.21
IN.	.43	.57	1.78	.82	.65	1.57	1.47	.69	.60	.94	.27	.24
AC-FT	11220	14680	45840	21250	16710	40590	38040	17790	15550	24150	7010	6120
CAL YR 1975 TOTAL	251494	MEAN 689	MAX 15900	MIN 137	CFSM 1.42	IN 19.33	AC-FT 498800					
WTR YR 1976 TOTAL	130554	MEAN 357	MAX 2220	MIN 100	CFSM .74	IN 10.03	AC-FT 259000					

07062000 CLEARWATER LAKE NEAR PIEDMONT, MO

LOCATION.--Lat 37°08'00", long 90°46'31", NW¼ sec.6, T.28 N., R.3 E., Wayne County, Hydrologic Unit 11010007, in intake tower at dam on Black River, 2.3 mi (3.70 km) upstream from Brewer Bay, 4.5 mi (7.24 km) west of Piedmont, and at mile 257.4 (414.16 km).

DRAINAGE AREA.--898 mi² (2,326 km²).

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

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

REMARKS.--Lake is formed by earth-fill dam. Storage began June 3, 1948; conservation pool level reached July 4, 1948. Capacity at crest of spillway 413,700 acre-ft (510 hm³) at elevation 567 ft (172.8 m), of which 391,800 acre-ft (483 hm³) is available for flood-control storage, and 21,920 acre-ft (27.0 hm³) is permanent storage which under normal operating conditions will be maintained for purposes of conservation and recreation at elevation 494 ft (150.6 m). Lake used for flood control and incidental recreational purposes.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 399,400 acre-ft (492 hm³) May 28, 1957, elevation, 565.59 ft (172.392 m); minimum, since initial filling to conservation pool level, 15,800 acre-ft (19.5 hm³) Jan. 23, 1972, elevation, 490.00 ft (149.352 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 58,200 acre-ft (71.8 hm³) July 8, elevation, 510.30 (155.539); minimum daily, 21,500 acre-ft (26.5 hm³) Jan. 7, 9, 10; minimum elevation, 493.72 ft (150.486 m) Jan. 9, 10.

Capacity table (elevation, in feet, and contents, in acre-ft)

493	20,300	500	32,800
495	23,600	511	60,200

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22500	22100	24000	26500	22300	21800	31100	28900	29600	27900	27200	26000
2	22200	22100	24400	26300	22200	21900	29700	28700	29900	27800	27000	26000
3	22000	22400	24600	25100	22000	22100	27700	28700	30000	40600	26800	26000
4	22200	22600	24600	23600	22000	22300	25600	28700	29900	51000	26800	26000
5	22100	22800	24900	22200	21900	22700	23400	29100	29700	55100	26700	26000
6	22100	23000	28100	21600	21900	24000	22400	29000	29500	57500	26600	25900
7	22000	23000	32400	21500	21900	24800	22000	28900	29400	58100	26500	25800
8	22100	23100	33400	21600	21900	25100	21800	28900	29200	57900	26500	25800
9	22100	23000	32700	21500	21900	24900	21800	28900	29000	56700	26500	25700
10	22200	22900	32800	21500	22000	24900	21800	28800	28800	54900	26500	25700
11	22200	22800	32200	21800	22000	24500	21900	28800	28400	53000	26500	25600
12	22200	22700	29400	21800	22000	24200	22100	28800	28200	52000	26400	25700
13	22200	22500	25900	21900	22000	23900	22200	28900	28300	49200	26400	25400
14	22100	22200	23200	21800	22100	23600	22200	29100	28400	47100	26500	25400
15	22100	22100	23700	22000	22100	23100	22100	29200	28600	45100	26500	25300
16	22100	22100	25200	22100	22200	22600	22100	29200	28700	43100	26600	25200
17	22000	22100	24200	22000	22100	22200	22000	29200	28800	41000	26700	25200
18	22000	22100	22500	21900	22000	21900	21900	29100	29000	38700	26700	25100
19	22000	22000	22600	21900	22100	21900	21900	29000	29100	36700	26600	25100
20	22000	22000	22900	21800	22300	21900	22100	29000	28800	34600	26600	25000
21	22000	21900	22900	21800	22400	22000	23100	29100	28400	32500	26500	24900
22	22100	21900	22700	21700	22700	22100	24900	29100	28000	30500	26500	24800
23	22100	21900	22200	21700	22800	22200	26100	29000	27900	28900	26500	24800
24	22300	21900	21900	21800	22600	22100	27100	29000	28200	27700	26400	24700
25	22400	21900	21900	22000	22400	22000	30200	29000	28900	26700	26300	24700
26	22600	22100	21900	22200	22200	22200	31100	29000	29200	26600	26300	24700
27	22500	22100	21900	22300	22100	23800	30100	29100	29200	26600	26200	24700
28	22300	22200	21800	22400	21800	26300	29300	29200	29000	26600	26200	24600
29	22200	22200	22000	22300	21700	27500	29000	29500	28600	27000	26100	24600
30	22000	22800	23300	22400	---	30300	29100	29600	28200	27100	25900	24600
31	22100	---	25900	22400	---	31500	---	29600	---	27300	26000	---
(†)	494.10	494.53	496.32	494.28	493.89	499.39	498.10	498.37	497.65	497.17	496.42	495.61
(‡)	-6.0	+7.0	+30.0	-34.0	-7.0	+98.0	-24.0	+5.0	-14.0	-9.0	-13.0	-14.0
MAX	22600	23100	33400	26500	22800	31500	31100	29600	30000	58100	27200	26000
MIN	22000	21900	21800	21500	21700	21800	21800	28700	27900	26600	25900	24600

CAL YR 1975.....‡ +36.0

WTR YR 1976.....‡ +19.0

† Elevation, in feet, at end of month.

‡ Change in contents, in hundreds of acre-feet.

WHITE RIVER BASIN

07062500 BLACK RIVER AT LEEPER, MO

LOCATION.--Lat 37°04'42", long 90°42'52", in SE¼SW¼ sec.22, T.28 N., R.3 E., Wayne County, Hydrologic Unit 11010007, on downstream side of pier at right end of left truss of bridge on State Highway 34, 0.5 mi (0.8 km) northwest of Leeper, 2 mi (3.2 km) downstream from McKenzie Creek, 6 mi (9.7 km) downstream from Clearwater Dam, and at mile 251.0 (403.9 km).

DRAINAGE AREA.--957 mi² (2,480 km²).

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

REVISED RECORDS.--WSP 762: 1933(M). WSP 1007: 1943. WSP 1281: 1922-23, 1927-29(M).

GAGE.--Water-stage recorder. Datum of gage is 428.51 ft (130.610 m) above mean sea level. Prior to Oct. 22, 1937, nonrecording gage, Oct. 22, 1937, to Jan. 21, 1942, water-stage recorder, and Jan. 22 to Apr. 6, 1942, nonrecording gage, all at site 1,900 ft (579 m) downstream at datum 3.85 ft (1.173 m) lower.

REMARKS.--Records good. Flow regulated by Clearwater Lake since June 3, 1948. Several observations of water temperatures were made during the year.

AVERAGE DISCHARGE.--55 years, 953 ft³/s (26.99 m³/s), 690,400 acre-ft/yr (851 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 78,400 ft³/s (2,220 m³/s) May 14, 1933, gage height, 20.01 ft (6.009 m), site and datum then in use, from rating curve extended above 55,000 ft³/s (1,560 m³/s); minimum, 62 ft³/s (1.76 m³/s) Sept. 22-25, 1966, gage height, 0.42 ft (1.128 m), result of closure of Clearwater Dam; minimum, prior to regulation, 133 ft³/s (3.77 m³/s) Aug. 11, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 22.3 ft (6.80 m) in March 1904 (present site and datum), from floodmarks, discharge, 125,000 ft³/s (3,540 m³/s), from rating curve extended above 55,000 ft³/s (1,560 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,850 ft³/s (109 m³/s) July 3, gage height, 5.84 ft (1.780 m); minimum, 240 ft³/s (6.80 m³/s) Sept. 2, gage height, 1.19 ft (0.363 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	544	341	421	1360	609	561	1540	789	504	730	416	249
2	533	348	627	1510	605	535	1660	764	514	681	432	243
3	500	387	648	1960	597	529	1900	668	510	1770	419	243
4	404	412	648	1940	560	538	1870	584	546	872	369	243
5	414	449	678	1900	550	629	1820	557	626	668	358	249
6	412	496	1090	1400	543	610	1490	590	631	616	356	260
7	386	501	855	1080	536	689	948	620	632	763	353	259
8	358	499	977	1020	532	720	829	532	639	1160	319	260
9	352	503	1550	965	522	885	684	524	642	1430	306	264
10	349	503	1460	859	500	897	668	524	644	1740	303	256
11	358	495	884	765	492	900	606	511	647	1720	301	255
12	354	494	2190	771	489	905	549	479	647	1690	301	254
13	354	490	2530	793	483	898	543	438	470	1650	298	251
14	351	488	2230	781	478	899	537	429	430	1620	300	251
15	351	479	1330	741	476	894	544	433	432	1590	301	248
16	351	389	952	709	475	896	561	451	444	1560	294	248
17	351	384	1820	698	518	884	559	457	434	1520	292	247
18	346	400	2120	689	528	853	547	479	518	1490	294	243
19	323	401	1490	684	528	723	527	480	476	1460	303	243
20	318	398	771	674	530	719	497	461	532	1430	300	249
21	317	389	947	662	660	701	494	419	660	1390	300	261
22	317	373	983	633	633	691	491	417	658	1370	298	262
23	317	371	990	614	622	694	494	419	574	1210	296	264
24	324	365	943	562	690	724	505	419	596	955	297	264
25	331	362	830	568	694	725	508	398	501	913	295	263
26	320	369	809	555	692	727	730	394	543	518	295	266
27	406	369	806	557	691	860	1580	400	663	426	291	265
28	428	367	805	625	685	795	1350	415	691	385	291	263
29	433	375	786	627	603	841	937	408	737	399	288	259
30	420	429	854	623	---	882	873	432	736	370	285	258
31	350	---	910	619	---	1090	---	493	---	380	255	---
TOTAL	11672	12626	34934	27944	16521	23894	26841	15384	17277	34476	9806	7640
MEAN	377	421	1127	901	570	771	895	496	576	1112	316	255
MAX	544	503	2530	1960	694	1090	1900	789	737	1770	432	266
MIN	317	341	421	555	475	529	491	394	430	370	255	243
AC-FT	23150	25040	69290	55430	32770	47390	53240	30510	34270	68380	19450	15150
CAL YR 1975	TOTAL	422532	MEAN	1158	MAX	4110	MIN	284	AC-FT	838100		
WTR YR 1976	TOTAL	239015	MEAN	653	MAX	2530	MIN	243	AC-FT	474100		

07063000 BLACK RIVER AT POPLAR BLUFF, MO

LOCATION.--Lat 36°45'34", long 90°23'17", in SW¼NW¼ 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 (457 m) upstream from bridge on U.S. Highway 60, 4.8 mi (7.7 km) downstream from Indian Creek, and at mile 211.2 (339.8 km).

DRAINAGE AREA.--1,245 mi² (3,225 km²).

PERIOD OF RECORD.--October 1936 to September 1937, October 1939 to current year. Gage-height records collected at site 1,800 ft (549 m) downstream September 1923 to July 1935, and since July 1935 at site 1,500 ft (457 m) downstream are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 927: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 317.38 ft (96.737 m) above mean sea level. Prior to Oct. 1, 1940, nonrecording gage at site 1,500 ft (457 m) downstream are at datum 2.00 ft (0.610 m) higher, Oct. 1, 1940, to June 7, 1955, at site 1,500 ft (457 m) downstream at present datum.

REMARKS.--Records good. Flow regulated by Clearwater Lake. Several observations of water temperatures made during the year.

AVERAGE DISCHARGE.--38 years, 1,272 ft³/s (36.02 m³/s), 921,600 acre-ft/yr (1,140 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 52,600 ft³/s (1,490 m³/s) May 12, 1943, from rating curve extended above 44,000 ft³/s (1,246 m³/s); maximum gage height, 20.80 ft (6.340 m) June 10, 1945, from graph based on gage readings; minimum discharge, 180 ft³/s (5.10 m³/s) Sept. 25, 26, 1966, gage height, 0.65 ft (0.198 m), closure of Clearwater Dam for repairs; minimum prior to regulation, 236 ft³/s (6.68 m³/s) Aug. 12, 1944.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge known, 100,000 ft³/s (2,830 m³/s) March 1904; maximum stage known, 21.1 ft (6.43 m) Mar. 12, 1935, present datum (affected by levees constructed since 1904).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,670 ft³/s (132 m³/s) July 4, gage height, 13.42 ft (4.090 m); minimum, 376 ft³/s (10.6 m³/s), Sept. 24, gage height, 1.01 ft (0.308 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	761	524	1150	1660	945	1040	1960	1260	762	1040	539	416
2	740	502	912	1830	936	952	2040	1170	808	992	556	403
3	730	521	1010	1920	935	883	2680	1110	834	1330	563	401
4	696	612	1030	2110	922	877	2140	999	802	4090	558	403
5	609	621	1050	2120	893	1100	1990	881	828	3040	514	402
6	605	642	2690	2060	882	1160	2110	837	887	1650	500	399
7	596	686	3360	1740	870	1090	2140	859	884	1240	491	411
8	569	699	2050	1430	869	1100	2000	879	877	1220	487	413
9	545	700	1730	1280	864	1150	1500	794	868	1480	457	424
10	536	716	2010	1210	863	1250	1200	775	858	1670	441	422
11	535	711	1840	1100	843	1240	1000	772	852	1870	433	412
12	539	702	1450	1010	828	1230	889	751	844	1880	429	411
13	535	691	2230	1000	829	1220	834	720	827	1850	424	408
14	530	680	2540	1010	822	1200	810	681	686	1820	426	407
15	531	678	2520	990	822	1180	789	668	615	1790	469	405
16	528	667	2060	955	822	1160	786	686	705	1770	451	404
17	527	584	1660	920	880	1150	786	699	644	1730	435	401
18	523	560	2140	900	1500	1140	777	696	1010	1700	429	399
19	516	572	2340	891	1360	1130	774	712	2170	1670	429	396
20	493	579	1880	897	1180	1050	747	713	1280	1640	436	394
21	485	571	1280	885	1430	980	728	692	1010	1610	438	392
22	481	557	1330	874	1910	960	708	654	1010	1580	436	383
23	478	544	1330	853	1560	970	694	642	974	1560	436	381
24	480	540	1310	834	1370	980	740	638	1900	1430	445	378
25	497	534	1270	951	1350	990	1000	637	2950	1220	441	383
26	491	542	1230	1150	1300	1000	896	618	1750	1140	438	381
27	477	555	1170	973	1240	1100	1090	613	1240	803	438	399
28	539	540	1120	913	1200	1000	1790	694	1170	639	441	385
29	585	552	1260	959	1150	964	1680	753	1180	579	436	381
30	595	1000	1780	962	---	973	1360	710	1100	587	434	380
31	579	---	1830	955	---	1570	---	706	---	544	431	---
TOTAL	17331	18582	52562	37342	31375	33789	38638	24019	32325	47164	14281	11974
MEAN	559	619	1696	1205	1082	1090	1288	775	1078	1521	461	399
MAX	761	1000	3360	2120	1910	1570	2680	1260	2950	4090	563	424
MIN	477	502	912	834	822	877	694	613	615	544	424	378
AC-FT	34380	36860	104300	74070	62230	67020	76640	47640	64120	93550	28330	23750
CAL YR 1975	TOTAL	585959	MEAN	1605	MAX	11200	MIN	421	AC-FT	1162000		
WTR YR 1976	TOTAL	359382	MEAN	982	MAX	4090	MIN	378	AC-FT	712800		

WHITE RIVER BASIN

07064300 FUDGE HOLLOW NEAR LICKING, MO

LOCATION.--Lat 37°31'50", long 91°44'13", in NW¼SW¼ sec.29, T.33 N., R.7 W., Dent County, Hydrologic Unit 11010008, on downstream side of right abutment of bridge on State Highway 32, 8 mi (12.9 km) east of junction of U.S. Highway 63 and State Highway 32 at Licking.

DRAINAGE AREA.--1.72 mi² (4.45 km²).

PERIOD OF RECORD.--December 1956 to September 1976 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 1,157.59 ft (352.833 m) above mean sea level.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--20 years, 0.22 ft³/s (0.006 m³/s), 1.74 in/yr (44 mm/yr), 159 acre-ft/yr (196,000 m³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 580 ft³/s (16.4 m³/s) Sept. 4, 1965, gage height, 6.46 ft (1.969 m); no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 406 ft³/s (11.5 m³/s) July 3 (0415), gage height, 5.80 ft (1.768 m), peak above base of 100 ft³/s (2.83 m³/s); no flow on many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0			0			0	0		
2			0			0			0	0		
3			0			0			0	19		
4			0			0			0	.30		
5			0			0			0	.30		
6			0			0			0	.30		
7			0			0			0	.20		
8			0			0			0	.20		
9			0			0			0	.20		
10			0			0			0	.10		
11			0			0			0	0		
12			0			.10			0	0		
13			0			0			0	0		
14			0			0			0	0		
15			0			0			0	0		
16			0			0			0	0		
17			0			0			0	0		
18			0			0			0	0		
19			0			0			0	0		
20			0			0			0	0		
21			0			0			0	0		
22			0			0			0	0		
23			0			0			.10	0		
24			0			0			.10	0		
25			0			0			0	0		
26			0			0			0	0		
27			0			0			0	0		
28			0			0			0	0		
29			.10			0			0	0		
30			0		---	0			0	0		
31		---	0		---	0	---		---	0		---
TOTAL	0	0	.10	0	0	.10	0	0	.20	20.60	0	0
MEAN	0	0	.003	0	0	.003	0	0	.007	.66	0	0
MAX	0	0	.10	0	0	.10	0	0	.10	19	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
CFSM	0	0	.001	0	0	.001	0	0	.004	.38	0	0
IN.	0	0	.002	0	0	.002	0	0	.004	.45	0	0
AC-FT	0	0	.2	0	0	.2	0	0	.4	41	0	0
CAL YR 1975	TOTAL 60.20		MEAN .16	MAX 17	MIN 0	CFSM .09	IN 1.30	AC-FT 119				
WTR YR 1976	TOTAL 21.00		MEAN .057	MAX 19	MIN 0	CFSM .03	IN .45	AC-FT 42				

07065000 ROUND SPRING AT ROUND SPRING, MO

LOCATION.--Lat 37°16'57", long 91°24'27", in SW¼NW¼ sec.20, T.30 N., R.4 W., Shannon County, Hydrologic Unit 11010008, inside spring basin at Round Spring, 1,500 ft (457 m) upstream from Current River on State Highway 19 in Ozark National Scenic Riverways, and 10 mi (16.9 km) northwest of Eminence.

PERIOD OF RECORD.--October 1928 to September 1939, August 1965 to current year. Occasional discharge measurements in 1923-25, 1948, 1954, 1956, 1964-65.

GAGE.--Nonrecording gage. Datum of gage is 665.06 ft (202.710 m) above mean sea level.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--22 years (1928-39, 1965-76), 46.5 ft³/s (1.317 m³/s), 33,690 acre-ft/yr (41.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 520 ft³/s (14.7 m³/s) May 14, 1933, during period of backwater from Current River; maximum gage height, 15.4 ft (4.69 m) from floodmark, Apr. 17, 1939, backwater from Current River; minimum discharge observed, 10 ft³/s (0.28 m³/s) Dec. 10-12, 1937.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge estimated, 300 ft³/s (8.5 m³/s) July 3, 4, (backwater from Current River); minimum observed, 19 ft³/s (0.54 m³/s) Sept. 26, 27; minimum gage height observed, 1.22 ft (0.372 m) Sept. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	26	26	30	27	26	46	49	115	55	26	24
2	30	26	27	30	27	26	46	41	92	87	28	23
3	28	26	27	30	27	26	45	39	76	300	30	22
4	28	30	27	30	27	28	44	39	71	300	32	23
5	28	36	27	30	26	28	43	38	66	250	27	26
6	28	33	71	30	26	28	42	38	61	200	28	26
7	28	33	53	30	26	31	41	37	61	121	26	26
8	28	32	43	31	26	31	39	36	66	109	27	25
9	28	29	36	30	26	31	37	35	61	82	28	25
10	27	29	34	30	26	32	36	35	61	82	31	26
11	27	26	33	30	25	33	36	38	66	56	28	24
12	27	26	31	30	25	35	36	36	61	52	26	24
13	27	24	31	30	25	35	36	36	71	49	27	23
14	27	24	31	30	25	35	36	36	66	44	36	22
15	27	24	31	35	25	33	36	38	66	41	34	22
16	26	24	31	40	25	33	36	71	61	39	31	21
17	27	24	31	40	24	33	39	71	66	38	28	21
18	27	24	31	40	24	33	39	61	61	37	24	21
19	26	24	31	40	24	35	53	56	66	39	26	21
20	26	24	31	38	26	38	170	56	61	36	25	20
21	26	24	31	37	26	38	130	52	66	35	26	20
22	26	23	31	36	26	36	104	49	61	33	28	21
23	25	23	31	33	25	36	80	49	66	40	29	21
24	25	23	31	33	25	36	66	48	71	38	27	21
25	25	23	31	31	25	38	56	47	66	36	26	20
26	26	24	31	30	26	38	55	44	66	33	24	19
27	26	24	31	30	26	39	47	48	61	31	23	19
28	26	24	31	28	26	40	44	48	56	28	22	20
29	26	26	31	27	26	43	43	56	56	31	23	20
30	26	26	33	27	---	43	42	76	61	29	23	20
31	26	---	32	27	---	44	---	92	---	26	24	---
TOTAL	840	784	1027	993	743	1061	1603	1495	2005	2377	843	666
MEAN	27.1	26.1	33.1	32.0	25.6	34.2	53.4	48.2	66.8	76.7	27.2	22.2
MAX	37	36	71	40	27	44	170	92	115	300	36	26
MIN	25	23	26	27	24	26	36	35	56	26	22	19
AC-FT	1678	1560	2040	1970	1470	2100	3180	2970	3980	4710	1670	1320
CAL YR 1975	TOTAL	24916	MEAN 68.3	MAX 320	MIN 22	AC-FT 49420						
WTR YR 1976	TOTAL	14437	MEAN 39.4	MAX 300	MIN 19	AC-FT 28640						

07065500 ALLEY SPRING AT ALLEY, MO

LOCATION.--Lat 37°09'14", long 91°26'29", in NW¼SE¼ sec.25, T.29 N., R.5 W., Shannon County, Hydrologic Unit 11010008, in Ozark National Scenic Riverways, 200 ft (61 m) below spring outlet, 0.6 mi (1.0 km) upstream from Jacks Fork, and 5 mi (8.0 km) west of Eminence.

PERIOD OF RECORD.--October 1928 to September 1939, October 1965 to current year. Occasional discharge measurements 1922, 1925, 1939-41, 1954-55, 1964-65.

GAGE.--Nonrecording gage. Datum of gage is about 665 ft (202.692 m) above mean sea level. Prior to June 26, 1929, at site 230 ft (70 m) downstream and June 26, 1929, to Sept. 30, 1939, at site 200 ft (61 m) downstream; datum of both gages 664.35 ft (202.494 m) above mean sea level.

REMARKS.--Records fair. Occasional runoff from drainage area of 15.8 mi² (40.9 km²) included in records.

AVERAGE DISCHARGE.--22 years (1928-39, 1965-76), 135 ft³/s (3.823 m³/s), 97,810 acre-ft/yr (121 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,750 ft³/s (77.9 m³/s) Apr. 22, 1974, gage height, 7.67 ft (2.338 m) from floodmark; minimum discharge, 54 ft³/s (1.53 m³/s) Oct. 15-18, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 502 ft³/s (14.2 m³/s) July 4, gage height, 3.36 ft (1.024 m) from highwater mark; minimum observed, 83 ft³/s (2.35 m³/s) Sept. 7; minimum gage height observed, 1.54 ft (0.469 m) Feb. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	118	101	129	270	103	96	167	129	218	160	87	88
2	118	101	125	222	100	96	162	153	210	160	86	88
3	116	100	116	198	100	96	157	148	200	300	86	88
4	114	100	114	174	100	110	155	109	196	462	85	88
5	114	103	110	160	100	140	153	110	172	388	88	88
6	107	103	140	157	100	155	140	110	170	328	85	85
7	110	103	180	155	98	134	140	110	172	232	85	83
8	110	107	201	145	98	140	140	110	172	205	87	85
9	110	107	189	136	98	145	140	110	170	191	89	87
10	110	107	167	136	97	150	138	110	170	180	89	85
11	110	105	155	136	96	150	138	110	162	162	89	85
12	110	100	143	132	96	145	138	112	157	155	89	85
13	112	98	145	132	96	143	138	114	165	148	88	86
14	110	98	134	129	94	141	148	120	160	132	88	86
15	109	97	122	125	92	138	150	132	160	125	90	86
16	109	97	122	122	93	138	148	136	162	118	92	87
17	107	97	184	120	94	120	148	136	165	114	92	88
18	107	97	179	116	96	120	160	136	167	109	92	88
19	107	96	181	116	98	125	230	136	167	107	88	86
20	107	96	180	112	100	120	265	140	165	101	88	86
21	107	96	190	107	100	120	285	140	162	98	87	86
22	105	97	180	107	100	116	260	138	162	96	87	85
23	105	97	190	107	100	120	220	134	170	94	87	85
24	105	97	200	107	100	120	208	134	170	93	87	85
25	105	98	190	107	98	125	220	134	184	91	87	85
26	105	98	200	105	97	130	184	130	174	92	87	85
27	105	100	220	105	97	136	174	129	172	92	87	85
28	105	105	260	105	97	141	170	130	172	88	87	85
29	100	110	280	105	97	150	165	141	165	88	91	84
30	100	120	292	105	---	160	162	141	160	88	89	85
31	100	---	295	105	---	167	---	240	---	88	88	---
TOTAL	3357	3031	5513	4158	2835	4087	5203	4062	5171	4885	2727	2578
MEAN	108	101	178	134	97.8	132	173	131	172	158	88.0	85.9
MAX	118	120	295	270	103	167	285	240	218	462	92	88
MIN	100	96	110	105	92	96	138	109	157	88	85	83
AC-FT	6660	6010	10940	8250	5620	8110	10320	8060	10260	9690	5410	5110
CAL YR 1975	TOTAL	66144	MEAN 181	MAX 540	MIN 96	AC-FT	131200					
WTR YR 1976	TOTAL	47607	MEAN 130	MAX 462	MIN 83	AC-FT	94430					

07066000 JACKS FORK AT EMINENCE, MO

LOCATION.--Lat 37°09'18", long 91°21'31", in SW¼NW¼ sec.26, T.29 N., R.4 W., Shannon County, Hydrologic Unit 11010008, on left bank 50 ft (15 m) upstream from bridge on State Highway 19, at Eminence, 1.5 mi (2.4 km) downstream from Mahans Creek, and 8.0 mi (12.9 km) upstream from mouth.

DRAINAGE AREA.--398 mi² (1,031 km²).

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.

GAGE.--Water-stage recorder. Datum of gage is 617.87 ft (188.327 m) above mean sea level. Prior to Jan. 27, 1934, nonrecording gage at site 1,350 ft (411 m) upstream at datum 2.11 ft (0.643 m) higher. Jan. 27, 1934, to Jan. 10, 1935, nonrecording gage at site 75 ft (22.239 m) downstream at datum 0.04 ft (0.012 m) lower. Jan. 11, 1935, to July 9, 1964, nonrecording gage at site 50 ft (15 m) downstream at present datum.

REMARKS.--Records good except periods of no gage-height record, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--55 years, 443 ft³/s (12.55 m³/s), 15.12 in/yr (384 mm/yr), 321,000 acre-ft/yr (396 hm³/s).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 40,000 ft³/s (1,130 m³/s) June 13, 1928, gage height, about 17.2 ft (5.24 m), present site and datum, from rating curve extended above 21,000 ft³/s (595 m³/s); minimum, 0.64 ft³/s (0.018 m³/s) Aug. 28, 1936; minimum gage height, 0.64 ft (0.195 m) Sept. 18, 1971.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods in 1895 and March 1904 reached a stage of about 25 ft (7.6 m) present site and datum, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,360 ft³/s (123 m³/s) May 31, gage height, 6.10 ft (1.859 m), peak discharge above base of 3,900 ft³/s (110 m³/s); minimum discharge, 117 ft³/s (3.31 m³/s) Sept. 15-25, gage height, 1.23 ft (0.375 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	250	281	555	943	280	234	542	498	1430	192	160	128		
2	244	256	455	748	280	236	499	477	875	192	158	128		
3	238	258	385	630	270	232	469	446	656	1290	155	128		
4	229	393	340	545	260	243	446	414	505	725	153	126		
5	222	491	343	484	250	409	427	391	428	597	149	126		
6	214	385	1120	447	250	465	414	381	377	463	146	124		
7	209	334	1330	435	240	403	403	368	347	369	146	122		
8	206	308	816	411	240	372	391	350	319	324	144	122		
9	203	287	630	369	230	381	382	337	299	301	142	122		
10	201	274	521	370	230	413	373	325	284	282	142	120		
11	201	260	451	370	230	413	369	320	271	268	140	122		
12	200	251	407	360	230	409	365	311	261	252	140	121		
13	198	242	372	350	230	434	366	311	250	239	136	120		
14	193	233	346	340	230	426	369	348	241	228	144	120		
15	189	226	427	330	230	403	382	378	233	222	149	119		
16	188	223	743	320	220	384	382	540	234	214	149	117		
17	188	222	662	320	220	364	381	550	226	209	149	117		
18	188	217	545	320	240	343	377	455	218	201	146	117		
19	186	209	467	310	220	334	429	393	215	198	142	117		
20	188	212	427	310	216	339	620	355	211	193	140	117		
21	188	212	392	310	219	338	1190	328	204	186	138	117		
22	188	214	362	300	228	323	1220	307	199	183	136	117		
23	186	217	346	300	255	314	1000	294	202	179	136	117		
24	187	217	333	300	250	320	868	279	244	174	138	117		
25	196	217	324	360	248	373	812	267	264	171	151	117		
26	195	220	321	340	243	532	757	253	261	164	151	119		
27	196	222	316	330	239	499	680	251	233	162	142	120		
28	195	222	301	320	238	455	607	263	216	162	138	120		
29	204	222	375	310	236	440	559	281	206	164	134	120		
30	340	287	1480	300	---	487	526	298	200	164	132	120		
31	323	---	1290	290	---	574	---	1860	---	167	128	---		
TOTAL	6533	7812	17182	12172	6952	11892	16805	12629	10109	8835	4454	3617		
MEAN	211	260	554	393	240	384	560	407	337	285	144	121		
MAX	340	491	1480	943	280	574	1220	1860	1430	1290	160	128		
MIN	186	209	301	290	216	232	365	251	199	162	128	117		
CFSM	.53	.65	1.39	.99	.60	.96	1.41	1.02	.85	.72	.36	.30		
IN.	.61	.73	1.61	1.14	.65	1.11	1.57	1.18	.94	.83	.42	.34		
AC-FT	12960	15500	34080	24140	13790	23590	33330	25050	20050	17520	8830	7170		
CAL YR 1975	TOTAL	215538	MEAN	591	MAX	8530	MIN	165	CFSM	1.48	IN	20.15	AC-FT	427500
WTR YR 1976	TOTAL	118992	MEAN	325	MAX	1860	MIN	117	CFSM	.82	IN	11.12	AC-FT	236000

07067000 CURRENT RIVER AT VAN BUREN, MO

LOCATION.--Lat 36°59'29", long 91°00'53", in NE¼NW¼ sec.25, T.27 N., R.1 W., Carter County, Hydrologic Unit 11010008, near right bank on downstream side of pier of bridge on U.S. Highway 60 in Van Buren, 0.4 mi (0.6 km) downstream from Pike Creek, 4.7 mi (7.6 km) upstream from Big Spring, and at mile 90.4 (145.5 km).

DRAINAGE AREA.--1,667 mi² (4,318 km²).

PERIOD OF RECORD.--October 1912 to current year. Prior to July 1921 monthly discharge only, published in WSP 1511.

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 (134.959 m) above mean sea level. Prior to Sept. 1, 1926, nonrecording gage at site 100 ft (30 m) 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 at datum 3.00 ft (0.914 m) higher, set to read same as gage 100 ft (30 m) downstream.

REMARKS.--Records good. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--64 years, 1,865 ft³/s (52.82 m³/s), 15.19 in/yr (386 mm/yr), 1,350,000 acre-ft/yr (1,660 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 125,000 ft³/s (3,540 m³/s) Aug. 21, 1915, gage height, 25.9 ft (7.89 m), present datum, from rating curve extended above 62,000 ft³/s (1,760 m³/s); minimum, 473 ft³/s (13.4 m³/s) Oct. 7, 8, 1956; minimum gage height, 1.55 ft (0.472 m) Sept. 16, 1971.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 29.0 ft (8.84 m) Mar. 26, 1904, present datum, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21,600 ft³/s (612 m³/s) July 4 (0145), gage height, 12.76 ft (3.889 m), peak above base of 14,000 ft³/s (396 m³/s); minimum, 719 ft³/s (20.4 m³/s) Sept. 19, 23, gage height, 1.87 ft (0.570 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	1170	1130	1670	3220	1170	1060	2200	1760	4390	1080	1060	819		
2	1190	1070	1760	2700	1150	1050	2020	1700	3010	1070	986	819		
3	1130	1140	1600	2370	1140	1050	1890	1620	2380	7280	930	812		
4	1080	1430	1450	2110	1110	1040	1780	1540	2000	14500	909	819		
5	1050	1550	1530	1940	1090	1300	1680	1480	1790	5070	898	806		
6	1040	1470	3420	1830	1070	1650	1600	1440	1650	3620	889	793		
7	1030	1340	3720	1770	1050	1650	1540	1410	1560	2870	881	787		
8	1020	1260	2920	1690	1030	1550	1480	1360	1470	2420	884	793		
9	1010	1200	2380	1600	1030	1520	1410	1320	1400	2140	871	814		
10	1000	1160	2060	1550	1030	1580	1360	1290	1340	1940	858	789		
11	1000	1110	1850	1520	1010	1590	1330	1290	1300	1790	858	775		
12	1010	1070	1720	1470	997	1590	1300	1260	1260	1670	852	767		
13	988	1030	1600	1450	983	1580	1280	1250	1220	1580	852	762		
14	968	1010	1520	1400	975	1590	1290	1300	1170	1510	878	757		
15	961	997	1960	1360	963	1560	1270	1390	1150	1440	1300	753		
16	956	980	2340	1320	964	1540	1260	1460	1150	1390	1700	748		
17	949	968	2390	1290	988	1490	1240	1750	1110	1330	1260	748		
18	941	953	2110	1270	1020	1430	1210	1720	1370	1270	1080	750		
19	934	939	1900	1240	1000	1390	1220	1620	1210	1230	990	731		
20	931	968	1770	1240	997	1390	1780	1530	1110	1190	948	744		
21	931	964	1670	1200	1040	1470	2590	1460	1070	1150	918	750		
22	931	959	1580	1180	1070	1390	2920	1410	1040	1120	904	738		
23	931	951	1520	1170	1080	1340	2720	1360	1030	1090	891	731		
24	947	941	1470	1170	1100	1310	2530	1320	1240	1060	1010	738		
25	1010	941	1450	1240	1090	1410	3380	1270	1680	1070	933	736		
26	983	979	1480	1290	1080	1650	2650	1250	1580	1020	918	739		
27	962	1010	1440	1260	1070	1920	2300	1250	1400	1020	898	753		
28	957	982	1400	1240	1060	1860	2080	1310	1270	1010	878	752		
29	992	1010	1570	1230	1050	1870	1950	1310	1180	2300	852	740		
30	1020	1490	2660	1200	---	2550	1840	1310	1130	1400	832	732		
31	1190	---	3730	1190	---	2420	---	1670	---	1160	819	---		
TOTAL	31212	33002	61640	47710	30407	47790	55100	44410	45660	69790	29737	22995		
MEAN	1007	1100	1988	1539	1049	1542	1837	1433	1522	2251	959	767		
MAX	1190	1550	3730	3220	1170	2550	3380	1760	4390	14500	1700	819		
MIN	931	939	1400	1170	963	1040	1210	1250	1030	1010	819	731		
CFSM	.60	.66	1.19	.92	.63	.93	1.10	.86	.91	1.35	.58	.46		
IN.	.70	.74	1.38	1.06	.68	1.07	1.23	.99	1.02	1.56	.66	.51		
AC-FT	61910	65460	122300	94630	60310	94790	109300	88090	90570	138400	58980	45610		
CAL YR 1975	TOTAL	887622	MEAN	2432	MAX	34700	MIN	902	CFSM	1.46	IN	19.81	AC-FT	1761000
WTR YR 1976	TOTAL	519453	MEAN	1419	MAX	14500	MIN	731	CFSM	.85	IN	11.59	AC-FT	1030000

07067500 BIG SPRING NEAR VAN BUREN, MO

LOCATION.--Lat 36°57'05", long 90°59'36", in SW¼NE¼ sec.6, T.26 N., R.1 E., Carter County, Hydrologic Unit 11010008, on right bank 400 ft (122 m) downstream from spring outlet, 0.4 mi (0.6 km) upstream from Current River, and 3.5 mi (5.6 km) southeast of Van Buren.

PERIOD OF RECORD.--October 1921 to current year. Prior to Oct. 1, 1923, published as "near Chicopee". Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1311: 1922-23, 1928(M), 1929.

GAGE.--Water-stage recorder. Datum of gage is 429.08 ft (130.784 m) above mean sea level. Prior to Feb. 19, 1971, nonrecording gage, prior to Oct. 1, 1934 at datum 1.0 ft (0.3 m) higher.

REMARKS.--Records good except those for periods of backwater from Current River, which are poor.

AVERAGE DISCHARGE.--55 years, 435 ft³/s (12.32 m³/s), 315,200 acre-ft/yr (389 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,300 ft³/s (36.8 m³/s), estimated, sometime in June 1928, during period of backwater from Current River; minimum, 235 ft³/s (6.68 m³/s) Oct. 6, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 850 ft³/s (24.1 m³/s) July 4, during period of backwater from Current River; minimum, 338 ft³/s (9.57 m³/s) Sept. 28, 29, 30, gage height, 0.97 ft (0.296 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	423	383	458	709	402	386	565	481	600	466	356	373
2	418	381	454	631	400	386	545	470	500	467	350	373
3	417	386	441	586	397	385	529	460	485	650	343	373
4	412	437	432	556	391	386	515	452	457	850	344	376
5	407	435	441	543	391	431	501	451	448	700	344	376
6	404	430	750	533	385	428	488	450	438	600	347	377
7	404	424	800	522	382	423	480	442	432	500	344	376
8	406	417	700	506	382	423	468	439	432	486	347	379
9	401	411	646	495	379	423	457	435	429	461	346	379
10	396	407	603	489	379	424	452	435	432	444	347	382
11	394	402	576	480	376	426	445	438	431	435	347	382
12	392	399	557	474	373	430	435	434	428	426	350	382
13	391	393	545	467	373	421	432	432	426	419	352	379
14	388	389	532	458	367	419	429	432	423	412	353	379
15	381	388	561	453	371	420	424	435	426	404	355	379
16	382	385	610	445	371	419	422	435	429	404	357	370
17	380	382	608	439	374	414	416	437	426	395	358	370
18	378	381	577	434	416	415	409	439	468	391	358	360
19	376	380	560	430	404	414	407	434	485	386	359	360
20	375	385	547	426	397	418	413	434	470	382	358	360
21	374	382	535	418	405	430	462	435	458	382	361	350
22	373	379	525	416	400	423	514	432	452	376	362	352
23	372	377	515	417	394	419	488	434	451	373	359	348
24	374	379	509	410	394	423	550	432	504	370	362	347
25	373	379	504	411	396	421	530	432	535	365	364	347
26	370	378	497	416	391	428	557	432	516	361	367	347
27	370	377	489	408	388	494	526	436	496	361	367	345
28	370	377	484	411	389	486	509	443	485	358	370	340
29	375	382	516	407	386	524	496	450	478	400	370	338
30	385	451	659	407	---	598	487	442	472	372	371	338
31	385	---	750	405	---	590	---	440	---	361	370	---
TOTAL	12046	11856	17381	14602	11253	13527	14351	13673	13912	13757	11038	10937
MEAN	389	395	561	471	388	436	478	441	464	444	356	365
MAX	423	451	800	709	416	598	565	481	600	850	371	382
MIN	370	377	432	405	367	385	407	432	423	358	343	338
AC-FT	23890	23520	34480	28960	22320	26830	28470	27120	27590	27290	21890	21690
CAL YR 1975	TOTAL	191636	MEAN 525	MAX 1000	MIN 370	AC-FT 380100						
WTR YR 1976	TOTAL	158333	MEAN 433	MAX 850	MIN 338	AC-FT 314100						

WHITE RIVER BASIN

07068000 CURRENT RIVER AT DONIPHAN, MO

LOCATION.--Lat 36°37'19", long 90°50'51", in NW¼NW¼ sec.27, T.23 N., R.2 E., Ripley County, Hydrologic Unit 11010008, on right bank 0.5 mi (0.8 km) upstream from U.S. Highway 160, 1 mi (1.6 km) west of Doniphan, 2.5 mi (4.0 km) upstream from Brian Creek, and at mile 51.3 (82.5 km).

DRAINAGE AREA.--2,038 mi² (5,278 km²).

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 (97.905 m), above mean sea level. July 3, 1936, to Sept. 30, 1971, datum is 1.00 ft (0.305 m) higher. Prior to July 3, 1936, nonrecording gages at several sites 0.5 mi (0.8 km) downstream at various datums.

REMARKS.--Records good. Several observations of water temperatures were made during the year.

AVERAGE DISCHARGE.--58 years, 2,714 ft³/s (76.86 m³/s), 18.08 in/yr (459 mm/yr), 1,966,000 acre-ft/yr (2,420 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 94,400 ft³/s (2,670 m³/s) Mar. 12, 1935, gage height, 23.0 ft (7.01 m), present site and datum, from rating curve extended above 60,000 ft³/s (1,700 m³/s); minimum, 852 ft³/s (24.1 m³/s) Oct. 8-19, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 25.9 ft (7.89 m) in March 1904, from floodmarks, present site and datum, discharge, 130,000 ft³/s (3,680 m³/s) from rating curve extended above 60,000 ft³/s (1,700 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16,000 ft³/s (453 m³/s) July 5, gage height, 9.81 ft (2.990 m), peak discharge above base of 14,000 ft³/s (396 m³/s); minimum, 1,210 ft³/s (34.3 m³/s) Sept. 23, gage height 1.31 ft (0.399 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1820	1820	2530	4690	1940	1920	3860	2530	3570	2180	1850	1350
2	1870	1770	2620	4100	1920	1900	3520	2430	4730	2120	1730	1340
3	1830	1850	2520	3630	1900	1890	3260	2330	3480	2750	1670	1350
4	1790	2190	2350	3270	1860	1880	3060	2350	2990	12100	1620	1350
5	1740	2270	2430	3020	1830	2060	2890	2430	2650	10300	1590	1330
6	1720	2340	6240	2830	1800	2400	2740	2360	2420	5480	1570	1310
7	1700	2200	5480	2720	1780	2580	2620	2290	2260	4440	1550	1290
8	1690	2080	4870	2620	1760	2540	2500	2220	2170	3770	1540	1300
9	1670	2000	4000	2510	1750	2490	2410	2140	2070	3350	1510	1320
10	1660	1960	3470	2400	1750	2490	2330	2090	1990	3050	1490	1310
11	1660	1890	3110	2350	1730	2510	2270	2060	1930	2820	1470	1280
12	1660	1830	2870	2310	1710	2520	2210	2030	1880	2650	1460	1270
13	1650	1790	2690	2270	1700	2490	2160	2000	1840	2500	1450	1260
14	1640	1750	2560	2240	1690	2480	2150	2000	1790	2390	1450	1250
15	1640	1720	2640	2170	1680	2470	2130	2040	1760	2290	1500	1250
16	1620	1700	3250	2110	1670	2430	2090	2130	1860	2200	2040	1240
17	1620	1680	3440	2060	1760	2390	2060	2240	1780	2130	1940	1240
18	1610	1670	3260	2030	1920	2330	2020	2480	1980	2050	1670	1240
19	1600	1650	2990	2000	1900	2280	2030	2370	2380	1990	1570	1240
20	1590	1650	2790	1980	1870	2260	2110	2250	2070	1940	1530	1230
21	1590	1660	2640	1940	2120	2300	2820	2150	1950	1900	1490	1240
22	1600	1640	2520	1910	2140	2280	3520	2060	1890	1840	1470	1230
23	1600	1630	2440	1890	2090	2210	3600	2000	1930	1810	1480	1220
24	1620	1620	2350	1890	2070	2160	3340	1930	3230	1770	1480	1220
25	1660	1620	2330	2040	2050	2160	3980	1880	3370	1740	1550	1220
26	1660	1660	2340	2100	2010	2290	3780	1820	3240	1720	1470	1220
27	1630	1680	2300	2080	1980	3320	3290	1830	2860	1680	1450	1270
28	1620	1660	2250	2040	1960	3330	2990	2060	2610	1670	1440	1240
29	1670	1660	2550	2020	1930	3620	2800	2010	2440	2580	1400	1240
30	1670	2130	3440	2000	---	4460	2640	1970	2290	2620	1370	1240
31	1730	---	4660	1980	---	4300	---	2140	---	2050	1350	---
TOTAL	51830	54770	95930	75200	54270	78740	83180	66620	73410	93880	48150	38090
MEAN	1672	1826	3095	2426	1871	2540	2773	2149	2447	3028	1553	1270
MAX	1870	2340	6240	4690	2140	4460	3980	2530	4730	12100	2040	1350
MIN	1590	1620	2250	1890	1670	1880	2020	1820	1760	1670	1350	1220
CFSM	.82	.90	1.52	1.19	.92	1.25	1.36	1.05	1.20	1.49	.76	.62
IN.	.95	1.00	1.75	1.37	.99	1.44	1.52	1.22	1.34	1.71	.88	.70
AC-FT	102800	108600	190300	149200	107600	156200	165000	132100	145600	186200	95510	75550
CAL YR 1975	TOTAL	1248990	MEAN	3422	MAX	26700	MIN	1490	CFSM 1.68	IN 22.80	AC-FT	2477000
WTR YR 1976	TOTAL	814070	MEAN	2224	MAX	12100	MIN	1220	CFSM 1.09	IN 14.86	AC-FT	1615000

07070500 ELEVEN POINT RIVER NEAR THOMASVILLE, MO

LOCATION.--Lat 36°47'05", long 91°29'31", NE¼NE¼ sec.3, T.24 N., R.5 W., Oregon County, Hydrologic Unit 11010011, on left bank attached to bluff at end of Grandpappy Ridge, 500 ft (152 m) upstream from Posy Spring, 1.5 mi (2.4 km) downstream from Barren Fork, 2.5 mi (4.0 km) east of Thomasville, and at mile 86.5 (139 km).

DRAINAGE AREA.--361 mi² (935 km²).

PERIOD OF RECORD.--October 1950 to September 1976 (discontinued).

REVISED RECORDS.--WSP 1341: 1951-52(P).

GAGE.--Water-stage recorder. Altitude of gage is 610 ft (185.9 m) from topographic map.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--26 years, 101 ft³/s (2.860 m³/s), 3.80 in/yr (97 mm/yr), 73,170 acre-ft/yr (90 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,000 ft³/s (878 m³/s) Feb. 10, 1966, gage height, 21.65 ft (6.599 m); from rating curve extended above 2,400 ft³/s (68.0 m³/s) on basis of slope-area measurements at gage heights 13.8 ft (4.21 m) and 17.95 ft (5.471 m); minimum, 2.7 ft³/s (0.076 m³/s) Sept. 13, 14, 15, 16, 1954; minimum gage height, 1.13 ft (0.344 m) Feb. 4, 5, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,800 ft³/s (51.0 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	(m ³ /s)	Gage height (ft)	(m)
June 24	0530	*7,250	205	*14.03	4.276
July 4	0315	4,390	124	11.11	3.386

Minimum discharge, 8.3 ft³/s (0.24 m³/s) Sept. 22, 24, 25, 30, gage height, 1.15 ft (0.351 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	60	30	40	272	48	27	120	73	29	113	59	12		
2	55	29	37	233	46	27	109	68	31	101	34	12		
3	55	47	35	198	44	26	99	61	28	641	31	12		
4	55	56	32	173	42	27	89	54	27	1740	30	12		
5	55	52	95	157	42	31	81	51	28	540	29	12		
6	58	50	908	148	39	29	75	49	27	358	28	11		
7	56	47	448	141	37	28	69	46	24	266	27	11		
8	53	42	317	124	36	31	64	43	24	205	25	12		
9	49	39	264	113	35	38	56	40	23	169	24	13		
10	49	37	231	108	34	43	52	39	22	146	23	11		
11	53	33	194	105	32	45	49	38	22	128	21	11		
12	52	31	168	98	31	48	44	36	21	112	20	10		
13	50	29	146	96	31	44	44	36	21	100	20	10		
14	47	28	133	87	30	41	43	34	20	90	19	9.9		
15	45	28	309	82	29	40	41	34	20	80	21	9.8		
16	43	26	314	79	29	43	39	32	24	73	20	9.9		
17	42	25	264	75	31	43	37	31	20	67	19	9.8		
18	39	24	211	70	32	43	35	29	42	61	18	9.4		
19	39	24	184	68	30	42	38	28	35	56	18	9.5		
20	37	28	168	65	29	46	41	27	31	53	17	9.8		
21	36	24	148	61	33	51	60	26	28	50	16	9.5		
22	35	23	135	58	30	46	97	25	28	46	16	8.7		
23	33	23	124	58	29	44	101	25	195	42	16	8.8		
24	33	22	113	57	29	45	107	24	2500	40	17	8.6		
25	32	22	115	71	29	45	115	23	592	38	15	9.3		
26	31	25	115	65	29	47	108	24	365	36	15	9.2		
27	30	23	103	57	28	58	99	28	253	34	14	9.2		
28	30	22	99	54	28	49	89	34	191	33	14	8.7		
29	37	25	170	53	28	86	80	33	156	40	13	8.7		
30	32	45	336	51	---	154	75	30	133	35	13	8.7		
31	31	---	325	50	---	131	---	29	---	41	12	---		
TOTAL	1352	959	6281	3127	970	1498	2156	1150	4960	5534	664	306.5		
MEAN	43.6	32.0	203	101	33.4	48.3	71.9	37.1	165	179	21.4	10.2		
MAX	60	56	908	272	48	154	120	73	2500	1740	59	13		
MIN	30	22	32	50	28	26	35	23	20	33	12	8.6		
CFSM	.12	.09	.56	.28	.09	.13	.20	.10	.46	.50	.06	.03		
IN.	.14	.10	.65	.32	.10	.15	.22	.12	.51	.57	.07	.03		
AC-FT	2680	1900	12460	6200	1920	2970	4280	2280	9840	10980	1320	608		
CAL YR 1975	TOTAL	65307.0	MEAN	179	MAX	2270	MIN	18	CFSM	.50	IN	6.73	AC-FT	129500
WTR YR 1976	TOTAL	28957.5	MEAN	79.1	MAX	2500	MIN	8.6	CFSM	.22	IN	2.98	AC-FT	57440

WHITE RIVER BASIN

07071000 GREER SPRING AT GREER, MO

LOCATION.--Lat 36°47'11", long 91°20'53", in SE¼SW¼ sec.36, T.25 N., R.4 W., Oregon County, Hydrologic Unit 11010011, on right bank 300 ft (91 m) downstream from lower outlet of spring, 1 mi (1.6 km) north of Greer, and 1 mi (1.6 km) upstream from Eleven Point River.

PERIOD OF RECORD.--August to December 1904 (gage heights 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 (171.907 m) above mean sea level. Aug. 10 to Dec. 31, 1904, nonrecording gage at site 250 ft (76 m) downstream at different datum. Nov. 17, 1921, to June 25, 1934, nonrecording gage at site 250 ft (76 m) downstream at datum 0.74 ft (0.226 m) lower than present datum.

REMARKS.--Records fair except during periods of no gage-height record, which are poor. Occasional runoff from drainage area of 2.97 mi² (7.69 km²) included in records.

AVERAGE DISCHARGE.--55 years, 337 ft³/s (9.54 m³/s) 244,200 acre-ft/yr (301 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,510 ft³/s (42.8 m³/s) Nov. 17, 1958, includes about 900 ft³/s (25 m³/s) of surface runoff, gage height, 2.63 ft (0.802 m) from rating curve extended about 700 ft³/s (20 m³/s) maximum excluding surface runoff, 903 ft³/s (25.57 m³/s) May 26, 1927; minimum, 104 ft³/s (2.95 m³/s) Nov. 16-19, 1956, Jan. 18, 19, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 535 ft³/s (15.2 m³/s) Dec. 8, gage height, 1.34 ft (0.408 m); minimum, 258 ft³/s (7.31 m³/s) Sept. 24-30, gage height, 0.67 ft (0.204 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	475	368	370	485	354	345	409	405	359	330	288	262
2	470	363	380	475	354	345	405	400	359	340	284	262
3	461	368	370	451	349	345	400	391	349	350	284	262
4	451	377	360	451	349	340	395	382	340	370	279	262
5	446	382	350	446	345	349	395	377	340	380	279	262
6	442	382	410	442	345	368	391	372	331	360	279	262
7	437	377	520	437	340	368	391	368	327	350	279	262
8	432	377	535	423	340	368	391	363	322	336	275	262
9	423	372	520	414	340	368	386	359	327	331	270	262
10	418	368	515	410	340	382	382	354	327	327	270	262
11	414	363	480	410	336	386	377	354	322	318	265	266
12	409	363	465	414	336	386	372	349	318	314	265	266
13	405	359	456	409	331	386	372	349	318	314	260	271
14	400	354	465	405	331	382	372	354	314	314	260	271
15	395	349	490	395	331	380	372	354	314	309	260	271
16	391	349	490	391	336	380	368	349	309	309	260	271
17	391	345	475	386	340	377	368	349	309	305	262	266
18	386	340	465	382	340	372	363	349	314	305	262	266
19	382	340	461	377	345	368	363	349	309	301	262	262
20	377	340	451	372	349	368	386	345	305	301	262	262
21	377	330	432	368	354	368	414	336	301	301	262	262
22	372	320	428	368	354	368	418	331	301	301	262	262
23	372	320	423	363	349	363	418	331	318	297	262	262
24	368	320	414	363	349	363	418	327	418	297	262	258
25	368	320	409	363	349	363	432	327	405	288	262	258
26	363	320	405	363	349	372	432	330	382	288	266	258
27	363	320	400	359	345	372	428	330	363	288	262	258
28	359	320	414	359	345	372	423	327	345	288	262	258
29	359	320	428	359	345	377	409	331	336	288	262	258
30	372	340	495	359	---	395	405	331	331	288	262	258
31	372	---	495	354	---	409	---	340	---	288	262	---
TOTAL	12450	10466	13771	12353	9970	11485	11855	10913	10013	9776	8291	7884
MEAN	402	349	444	398	344	370	395	352	334	315	267	263
MAX	475	382	535	485	354	409	432	405	418	380	288	271
MIN	359	320	350	354	331	340	363	327	301	288	260	258
AC-FT	24690	20760	27310	24500	19780	22780	23510	21650	19860	19390	16450	15640

CAL YR 1975 TOTAL 182585 MEAN 500 MAX 789 MIN 320 AC-FT 362200
WTR YR 1976 TOTAL 129227 MEAN 353 MAX 535 MIN 258 AC-FT 256300

07071500 ELEVEN POINT RIVER NEAR BARDLEY, MO

LOCATION.--Lat 36°38'55", long 91°12'03", in NE¼SE¼ 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 mi (11.3 km) southwest of Bardley, 7.5 mi (12.1 km) upstream from Fredericks Fork, and at mile 53.7 (86.4 km).

DRAINAGE AREA.--793 mi² (2,050 km²).

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 (125.224 m) above mean sea level. Prior to June 26, 1934, nonrecording gage at site 100 ft (30 m) upstream at datum 0.06 ft (0.018 m) higher. June 26, 1934, to Oct. 19, 1939, nonrecording gage, at present site and datum.

REMARKS.--Records good. Several observations of water temperatures were made during the year.

AVERAGE DISCHARGE.--55 years, 760 ft³/s (21.52 m³/s), 13.01 in/yr (330 mm/yr), 550,600 acre-ft/yr (679 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,000 ft³/s (1,133 m³/s) Apr. 14, 1927, gage height, 18.74 ft (0.48 m), from floodmarks from rating curve extended above 25,000 ft³/s (708 m³/s); minimum, 152 ft³/s (4.30 m³/s) Jan. 27, 1956, Jan. 11, 1957; minimum gage height, 1.06 ft (0.323 m) Sept. 6-11, 1925, (present site and datum).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 19.7 ft (6.00 m) in August 1915, from floodmarks, discharge, 44,000 ft³/s (1,250 m³/s) from rating curve extended above 25,000 ft³/s (708 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above 4,000 ft³/s (113 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	(m ³ /s)	Gage height (ft)	(m)
June 24	1800	*7,370	209	*8.72	2.658
July 4	1430	5,620	159	7.55	2.301

Minimum discharge, 345 ft³/s (9.77 m³/s) Sept. 30, gage height, 2.36 ft (0.719 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	786	544	657	1410	702	574	946	710	656	975	493	393		
2	754	536	627	1320	689	570	893	697	656	952	490	392		
3	734	565	597	1250	677	564	852	685	652	1210	463	391		
4	715	673	572	1170	667	569	810	669	652	3970	453	396		
5	704	653	617	1110	654	658	778	661	651	2100	449	393		
6	694	618	2820	1090	645	659	759	663	640	1590	448	385		
7	685	600	2420	1060	630	645	734	651	637	1360	443	383		
8	676	588	2100	1020	624	647	716	637	635	988	437	388		
9	663	574	1900	979	623	659	693	634	639	758	429	389		
10	652	561	1650	952	614	681	676	632	634	709	430	385		
11	648	546	1400	945	607	689	667	628	635	672	428	380		
12	638	538	1300	916	591	695	652	627	638	645	423	379		
13	627	525	1200	907	592	682	645	625	639	620	420	378		
14	619	497	1100	879	580	665	641	623	632	599	420	376		
15	611	500	1500	857	573	660	631	629	644	582	433	373		
16	603	500	1500	844	571	660	622	626	674	564	429	368		
17	599	490	1400	821	578	646	614	622	656	550	422	367		
18	586	485	1350	806	594	639	606	612	709	538	415	366		
19	579	485	1250	792	588	636	601	610	786	526	416	369		
20	576	492	1200	784	580	640	623	603	720	518	413	368		
21	571	484	1150	764	605	636	654	599	697	513	409	366		
22	562	477	1100	749	609	625	676	600	681	504	406	362		
23	557	472	1050	745	598	612	698	595	743	497	412	359		
24	561	469	1030	738	599	610	728	589	4460	489	414	358		
25	570	465	1020	764	596	612	789	589	2300	484	409	355		
26	545	479	1020	768	593	637	794	587	1580	479	404	359		
27	539	470	995	743	583	883	769	605	1320	474	406	362		
28	536	462	969	735	579	793	742	629	1180	469	404	353		
29	555	467	1010	728	576	890	731	628	1090	481	397	349		
30	554	616	1030	721	---	1080	716	627	1020	475	391	348		
31	548	---	1030	709	---	1020	---	628	---	469	394	---		
TOTAL	19247	15831	38564	28076	17717	21236	21456	19520	28256	25760	13200	11190		
MEAN	621	528	1244	906	611	685	715	630	942	831	426	373		
MAX	786	673	2820	1410	702	1080	946	710	4460	3970	493	396		
MIN	536	462	572	709	571	564	601	587	632	469	391	348		
CFSM	.78	.67	1.57	1.14	.77	.86	.90	.79	1.19	1.05	.54	.47		
IN.	.90	.74	1.81	1.32	.83	1.00	1.01	.92	1.33	1.21	.62	.52		
AC-FT	38180	31400	76490	55690	35140	42120	42560	38720	56050	51090	26180	22200		
CAL YR 1975	TOTAL	405952	MEAN	1112	MAX	5000	MIN	462	CFSM	1.40	IN	19.04	AC-FT	805200
WTR YR 1976	TOTAL	260053	MEAN	711	MAX	4460	MIN	348	CFSM	.90	IN	12.20	AC-FT	515800

07185500 STAHL CREEK NEAR MILLER, MO

LOCATION.--Lat 37°11'42", long 93°50'37", in SE¼ sec.26, T.29 N., R.27 W., Lawrence County, Hydrologic Unit 11070207, on left downstream wingwall of bridge on State Highway 39, 1.5 mi (2.4 km) south of Miller and 6.4 mi (10.3 km) upstream from mouth.

DRAINAGE AREA.--3.86 mi² (10.0 km²).

PERIOD OF RECORD.--June 1950 to September 1976 (discontinued).

REVISED RECORDS.--WRD MO 1974: 1973.

GAGE.--Water-stage recorder. Datum of gage is 1,184.49 ft (361.033 m) above mean sea level.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--26 years, 2.86 ft³/s (0.081 m³/s), 10.06 in/yr (255 mm/yr), 2,070 acre-ft/yr (2.55 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,250 ft³/s (35.4 m³/s) Nov. 1, 1972, gage height, 7.30 ft (2.225 m); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 634 ft³/s (18.0 m³/s) July 3 (0600), gage height, 5.95 ft (1.814 m), peak discharge above base of 300 ft³/s (8.50 m³/s); minimum, 0.01 ft³/s (0.0003 m³/s) intermittently Sept. 12-23; minimum gage height, 1.52 ft (0.463 m) Sept. 12, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	.26	2.0	2.4	.56	.90	2.8	3.0	2.1	.49	.21	.06
2	3.4	.23	1.5	2.1	.51	.83	2.4	2.4	1.6	3.3	.67	.05
3	2.5	.23	1.3	1.8	.48	2.1	2.1	2.1	1.3	114	.29	.04
4	2.0	.23	1.1	1.7	.48	5.3	1.9	1.9	1.1	8.3	.25	.03
5	1.7	.20	6.9	1.7	.50	4.1	1.7	1.6	.95	4.4	.19	.02
6	1.3	.20	8.5	1.5	.45	2.4	1.6	2.0	.81	3.2	.16	.02
7	1.2	.20	4.2	1.5	.44	2.1	1.3	1.5	.70	2.5	.15	.02
8	1.1	.20	3.4	1.5	.44	2.3	1.2	1.3	.67	2.0	.13	.03
9	1.0	.18	2.8	1.5	.44	9.9	1.0	1.2	.60	1.7	.14	.02
10	.83	.18	2.6	1.5	.47	4.6	.92	1.1	.55	1.5	.15	.02
11	.76	.16	2.2	1.4	.41	3.6	.84	1.1	.51	1.3	.33	.02
12	.73	.16	2.1	1.2	.40	3.6	.76	1.0	.47	1.2	.20	.02
13	.70	.16	1.9	.99	.40	2.7	.74	1.2	.42	1.1	.18	.01
14	.55	.16	1.9	.81	.39	2.4	.69	.97	.37	1.0	.14	.02
15	.63	.16	5.9	.76	.37	2.3	.65	1.3	.35	.91	.12	.02
16	.51	.14	3.4	.75	.36	2.2	.62	1.5	.34	.83	.11	.02
17	.48	.14	2.8	.67	.42	2.0	.59	1.0	.31	.76	.08	.01
18	.44	.14	2.4	.62	.40	1.8	2.3	.85	.32	.69	.07	.01
19	.40	.16	2.3	.70	.36	1.7	34	.75	.32	.62	.09	.03
20	.36	.44	2.0	.84	.42	1.6	51	.65	.25	.57	.10	.02
21	.36	.33	1.8	.72	4.5	1.4	11	.69	.25	.53	.10	.02
22	.29	.26	1.7	.68	1.8	1.3	6.1	.62	.23	.48	.09	.01
23	.29	.23	1.6	.70	1.6	1.2	4.5	.56	8.1	.40	.08	.02
24	.44	.20	1.6	.68	1.4	1.2	7.4	.57	5.9	.40	.07	.03
25	.53	.18	1.7	.74	1.3	1.2	4.9	.55	1.9	.33	.07	.02
26	.40	.20	1.7	.71	1.1	1.4	3.8	5.4	1.2	.29	.06	.04
27	.33	.20	1.5	.59	1.1	1.9	3.1	3.4	.82	.29	.05	.05
28	.29	.23	1.5	.53	1.0	1.6	4.5	2.3	.65	.58	.04	.05
29	.33	3.8	3.4	.53	.90	13	3.8	1.7	.66	.29	.04	.11
30	.36	6.9	3.8	.58	---	4.6	3.1	3.1	.54	.20	.05	.08
31	.29	---	3.0	.57	---	3.3	---	6.2	---	.18	.05	---
TOTAL	32.10	16.46	84.5	32.97	23.40	90.53	161.31	53.51	34.29	154.34	4.46	.92
MEAN	1.04	.55	2.73	1.06	.81	2.92	5.38	1.73	1.14	4.98	.14	.031
MAX	7.6	6.9	8.5	2.4	4.5	13	51	6.2	8.1	114	.67	.11
MIN	.29	.14	1.1	.53	.36	.83	.59	.55	.23	.18	.04	.01
CFSM	.27	.14	.71	.27	.21	.76	1.39	.45	.30	1.29	.04	.008
IN.	.31	.16	.81	.32	.23	.87	1.55	.52	.33	1.49	.04	.009
AC-FT	64	33	168	65	46	180	320	106	68	306	8.8	1.8

CAL YR 1975 TOTAL 915.94 MEAN 2.51 MAX 46 MIN 0 CFSM .65 IN 8.82 AC-FT 1820
WTR YR 1976 TOTAL 688.79 MEAN 1.88 MAX 114 MIN .01 CFSM .49 IN 6.64 AC-FT 1370

07185700 SPRING RIVER AT LARUSSELL, MO

LOCATION.--Lat 37°09'13", long 94°03'21", SW¼SW¼ sec.12, T.28 N., R.29 W., Lawrence County, Hydrologic Unit 11070207, on right bank on upstream side of Bower Mills Bridge, 0.8 mi (1.3 km) north of Larussell, and 2.5 mi (4.0 km) upstream from Cave Spring Branch.

DRAINAGE AREA.--306 mi² (793 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 1014.63 ft (309.259 m). Prior to Oct. 18, 1961, nonrecording gage at same site and datum.

REMARKS.--Records good. Several observations of water temperature made during the year.

AVERAGE DISCHARGE.--19 years, 249 ft³/s (7.052 m³/s), 11.05 in/yr (281 mm/yr), 180,400 acre-ft/yr (222 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,500 ft³/s (637 m³/s) Nov. 1, 1972, gage height, 17.58 ft (5.358 m); minimum, 15 ft³/s (0.425 m³/s) Dec. 21, 1963, result of ice conditions upstream; minimum gage height, 3.87 ft (1.180 m) Sept. 12, 13, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,700 ft³/s (331 m³/s) July 4 (0245), gage height, 14.57 ft (4.441 m), peak above base of 3,000 ft³/s (85.0 m³/s); minimum, 54 ft³/s (1.53 m³/s) Nov. 28, gage height, 4.73 ft (1.442 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	199	78	270	163	73	74	188	420	330	239	179	92
2	162	79	214	159	72	70	175	397	269	251	177	91
3	140	78	190	154	70	76	165	366	245	5130	170	90
4	129	76	171	144	69	127	154	342	230	6550	163	87
5	120	75	182	141	69	182	149	328	218	1330	162	86
6	114	75	385	137	67	167	142	331	209	1050	197	83
7	112	75	335	137	64	158	134	319	198	794	181	81
8	107	73	275	120	63	151	125	294	189	683	164	77
9	104	72	247	118	63	194	115	280	179	602	155	79
10	103	72	224	117	62	214	110	272	171	545	149	77
11	100	70	208	116	62	207	104	273	166	501	140	73
12	95	69	193	112	59	204	98	262	160	454	138	74
13	95	65	179	110	59	190	97	274	154	418	147	72
14	94	63	169	105	59	175	95	269	147	391	145	72
15	95	62	181	104	59	169	91	256	142	369	201	73
16	93	62	183	103	59	162	82	256	138	357	185	70
17	90	62	176	99	55	156	82	246	130	327	156	70
18	88	62	163	97	55	149	121	236	127	312	141	67
19	86	61	160	97	54	145	451	227	122	293	133	67
20	87	70	156	97	55	140	1870	220	118	274	128	77
21	86	67	150	93	95	132	1450	212	115	257	128	74
22	83	61	144	91	99	123	885	206	110	243	124	67
23	81	59	139	90	96	115	715	199	618	235	119	64
24	88	57	133	90	91	112	694	193	1710	226	119	64
25	93	56	132	90	89	109	646	186	586	215	118	62
26	88	60	128	87	87	109	543	225	415	207	111	64
27	86	58	123	83	82	107	488	341	342	201	105	65
28	84	56	119	81	79	103	476	272	300	191	99	66
29	84	73	124	81	77	188	484	250	280	206	96	74
30	80	355	140	75	---	254	439	232	259	197	92	70
31	78	---	156	75	---	206	---	547	---	184	93	---
TOTAL	3144	2301	5749	3366	2043	4668	11368	8731	8377	23232	4415	2228
MEAN	101	76.7	185	109	70.4	151	379	282	279	749	142	74.3
MAX	199	355	385	163	99	254	1870	547	1710	6550	201	92
MIN	78	56	119	75	54	70	82	186	110	184	92	62
CFSM	.33	.25	.60	.36	.23	.49	1.24	.92	.91	2.45	.46	.24
IN.	.38	.28	.70	.41	.25	.57	1.38	1.06	1.02	2.82	.54	.27
AC-FT	6240	4560	11400	6680	4050	9260	22550	17320	16620	46080	8760	4420
CAL YR 1975	TOTAL	131445	MEAN 360	MAX 2760	MIN 56	CFSM 1.18	IN 15.98	AC-FT 260700				
WTR YR 1976	TOTAL	79622	MEAN 218	MAX 6550	MIN 54	CFSM .71	IN 9.68	AC-FT 157900				

ARKANSAS RIVER BASIN

07185765 SPRING RIVER AT CARTHAGE, MO

LOCATION.--Lat 37°11'11", long 94°18'56", in N $\frac{1}{2}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.33, T.29 N., R.31 W., Jasper County, Hydrologic Unit 11070207, on downstream side of second pier from left abutment of Missouri Pacific Railroad bridge in Carthage and 600 ft (183 m) downstream from U.S. Highway 71 bridge.

DRAINAGE AREA.--425 mi² (1,100 km²).

PERIOD OF RECORD.--October 1966 to current year. Occasional discharge measurements 1951-54. Intermittent gage readings since Oct. 31, 1945, collected by Corps of Engineers.

GAGE.--Water-stage recorder. Datum of gage is 923.68 ft (281.538 m) above mean sea level. Prior to Jan. 26, 1967, nonrecording gage at site 600 ft (183 m) upstream at same datum.

REMARKS.--Records fair. Several observations of water temperatures were made during the year. Low-flow slightly regulated by gristmills upstream.

AVERAGE DISCHARGE.--10 years, 424 ft³/s (12.01 m³/s), 13.55 in/yr (344 mm/yr), 307,200 acre-ft/yr (379 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,800 ft³/s (702 m³/s) Nov. 1, 1972, gage height, 17.15 ft (5.227 m); minimum, 37 ft³/s (1.05 m³/s) July 26, 27, 1972.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 18, 1943, reached a stage of 22.0 ft (6.71 m) by highwater mark 1,800 ft (549 m) upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,500 ft³/s (99.1 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	(m ³ /s)	Gage height (ft)	(m)
Apr. 21	0115	4,100	116	10.19	3.106
July 4	0145	*11,500	326	*13.97	4.258

Minimum discharge, 84 ft³/s (2.38 m³/s) Nov. 26, 27, 28; minimum gage height, 2.93 ft (0.893 m) Feb. 19, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	241	102	402	231	121	123	256	598	504	279	239	130
2	258	102	279	227	121	121	241	561	375	429	229	126
3	213	99	244	217	119	184	227	517	337	5910	219	124
4	192	98	221	202	116	341	216	483	315	9530	209	123
5	181	91	221	196	117	399	206	465	297	3600	205	121
6	170	91	352	190	115	308	199	457	288	1330	222	117
7	164	91	459	188	115	257	192	446	269	1040	231	115
8	158	91	354	174	112	250	184	411	254	879	209	112
9	152	93	317	167	112	353	178	391	243	768	199	110
10	148	94	291	170	111	417	172	381	232	688	190	110
11	146	90	272	169	111	341	167	378	224	626	179	109
12	140	89	255	165	105	322	164	376	215	575	175	107
13	136	88	241	161	107	302	159	376	208	531	173	105
14	131	88	231	157	105	277	157	371	199	493	169	113
15	137	88	259	153	105	262	155	356	192	468	204	105
16	133	88	289	148	104	251	151	349	186	444	288	104
17	128	88	263	146	103	236	150	339	179	411	206	103
18	126	87	246	143	98	226	210	319	177	386	183	102
19	123	89	231	140	96	216	328	308	172	366	172	99
20	122	95	224	140	96	208	2380	295	166	346	165	98
21	119	94	216	137	117	197	3240	285	161	336	160	103
22	116	90	206	136	143	186	1420	277	157	324	156	100
23	111	88	200	134	143	178	1000	267	496	310	148	96
24	119	85	194	133	137	174	889	264	1820	295	146	94
25	120	85	193	134	133	173	891	252	994	282	141	93
26	118	87	190	130	131	170	744	313	507	272	141	93
27	116	84	182	128	128	172	670	607	406	263	139	90
28	112	85	178	125	125	170	674	443	354	250	135	92
29	107	98	190	124	124	181	710	375	331	252	131	92
30	107	245	207	122	---	356	638	341	304	261	128	89
31	105	---	228	121	---	288	---	482	---	238	128	---
TOTAL	4449	2883	7835	4908	3370	7639	16968	12083	10562	32182	5619	3175
MEAN	144	96.1	253	158	116	246	566	390	352	1038	181	106
MAX	258	245	459	231	143	417	3240	607	1820	9530	288	130
MIN	105	84	178	121	96	121	150	252	157	238	128	89
CFSM	.34	.23	.60	.37	.27	.58	1.33	.92	.83	2.44	.43	.25
IN.	.39	.25	.69	.43	.29	.67	1.49	1.06	.92	2.82	.49	.28
AC-FT	8820	5720	15540	9740	6680	15150	33660	23970	20950	63830	11150	6300
CAL YR 1975	TOTAL	193406	MEAN 530	MAX 6000	MIN 84	CFSM 1.25	IN 16.93	AC-FT 383600				
WTR YR 1976	TOTAL	111673	MEAN 305	MAX 9530	MIN 84	CFSM .72	IN 9.77	AC-FT 221500				

07186000 SPRING RIVER NEAR WACO, MO

LOCATION.--Lat 37°14'44", long 94°33'58", on line between SE¼ sec. 7 and NE¼ sec.18, T.29 N., R.33 W., Jasper County, Hydrologic Unit 11070207, on left bank on downstream side of left pier of county highway bridge, 0.8 mi (1.3 km) downstream from Blackberry Creek, 1.5 mi (2.4 km) east of Waco, and 47.6 mi (76.6 km) upstream from mouth.

DRAINAGE AREA.--1,164 mi² (3,015 km²).

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 (253.969 m) above mean sea level. Prior to Feb. 23, 1935, nonrecording gage at same site and datum.

REMARKS.--Records good. Low flow slightly regulated by gristmills above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--52 years, 860 ft³/s (24.36 m³/s), 10.04 in/yr (255 mm/yr), 623,100 acre-ft/yr (768 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 103,000 ft³/s (2,920 m³/s) May 19, 1943, gage height, 30.94 ft (9.431 m), from floodmark; minimum, 4.2 ft³/s (0.119 m³/s) Aug. 28, 1954; minimum gage height, 0.80 ft (0.244 m) July 24, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 44,600 ft³/s (1,260 m³/s) July 4 (1500), gage height, 25.42 ft (7.748 m), peak above base of 13,000 ft³/s (368 m³/s); minimum, 90 ft³/s (2.55 m³/s) Sept. 27, 28, 29, gage height, 1.88 ft (0.573 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	892	122	760	841	172	166	499	1400	795	842	260	128
2	481	120	843	588	168	162	415	1150	595	2780	252	134
3	380	119	460	478	164	160	363	977	492	28000	249	131
4	286	114	345	402	159	720	329	857	435	41400	235	125
5	231	114	380	341	167	1470	302	778	404	29300	222	141
6	197	114	551	324	164	1530	284	725	381	13300	250	127
7	177	113	1030	306	163	829	271	698	352	3160	256	117
8	161	111	766	305	162	574	256	642	325	1720	250	113
9	147	108	526	304	162	1480	243	584	305	1430	229	111
10	141	107	431	280	167	2490	231	547	287	1240	217	107
11	134	103	375	247	188	1570	221	525	269	1100	207	107
12	128	100	336	240	220	904	211	524	256	984	193	105
13	125	98	310	231	196	776	204	617	245	883	187	101
14	119	97	289	230	175	657	198	642	232	797	179	118
15	179	97	335	225	164	566	192	595	228	709	213	125
16	169	97	571	213	160	515	189	542	218	643	335	109
17	180	97	812	206	153	486	185	508	209	587	341	105
18	191	93	645	200	148	461	281	467	203	554	257	103
19	170	96	496	199	146	428	1230	424	189	513	231	101
20	146	105	382	201	143	390	4820	394	179	462	218	98
21	132	99	345	200	161	358	8900	370	172	442	196	97
22	126	100	310	201	182	328	5170	348	164	408	184	99
23	119	97	287	198	277	301	2530	331	3320	382	171	97
24	122	93	276	193	241	284	1700	462	5820	357	161	93
25	130	93	272	196	215	274	1840	397	3360	336	157	93
26	126	100	271	194	200	283	1550	550	1580	317	150	96
27	138	101	277	195	190	327	1220	1850	971	297	145	93
28	167	98	288	197	179	364	2070	1220	725	282	139	90
29	153	106	474	195	171	391	3480	937	620	270	132	96
30	138	178	1680	186	---	496	2250	662	679	266	126	99
31	129	---	1570	178	---	615	---	572	---	262	122	---
TOTAL	6114	3190	16693	8494	5157	20355	41634	21295	24010	134023	6464	3259
MEAN	197	106	538	274	178	657	1388	687	800	4323	209	109
MAX	892	178	1680	841	277	2490	8900	1850	5820	41400	341	141
MIN	119	93	271	178	143	160	185	331	164	262	122	90
CFSM	.17	.09	.46	.24	.15	.56	1.19	.59	.69	3.71	.18	.09
IN.	.20	.10	.53	.27	.16	.65	1.33	.68	.77	4.28	.21	.10
AC-FT	12130	6330	33110	16850	10230	40370	82580	42240	47620	265800	12820	6460
CAL YR 1975	TOTAL	396270	MEAN	1086	MAX	17100	MIN	93	CFSM	.93	IN	12.66
WTR YR 1976	TOTAL	290688	MEAN	794	MAX	41400	MIN	90	CFSM	.68	IN	9.29
									AC-FT	786000		
									AC-FT	576600		

07186400 CENTER CREEK NEAR CARTERVILLE, MO

LOCATION.--Lat 37°08'26", long 94°22'57", in NW¼NW¼NW¼ sec.24, T.28 N., R.32 W., Jasper County, Hydrologic Unit 11070207, at downstream side of right pier of bridge on State Highway HH, 1.5 mi (2.4 km) downstream from Grove Creek, 3 mi (4.8 km) east of Carterville, and 17 mi (27.4 km) above mouth.

DRAINAGE AREA.--232 mi² (601 km²).

PERIOD OF RECORD.--June 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 913.21 ft (278.346 m) above mean sea level (levels by Missouri State Highway Commission).

REMARKS.--Records fair.

AVERAGE DISCHARGE.--14 years, 200 ft³/s (5.664 m³/s), 11.71 in/yr (297 mm/yr), 144,900 acre-ft/yr (179 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,300 ft³/s (1,030 m³/s) July 3, 1976, gage height, 17.68 ft (5.388 m); minimum, 9.4 ft³/s (0.266 m³/s) Aug. 20, 21, 1972; minimum gage height, 0.28 ft (0.085 m) Oct. 20, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 2, 1959, reached a stage of 18.57 ft (5.660 m), from floodmark.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base 2,500 ft³/s (71 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	(m ³ /s)	Gage height (ft)	(m)
Apr. 20	1515	3,160	89.5	7.74	2.359
June 23	1745	7,450	211	12.37	3.770
July 3	1445	*36,300	1030	17.68	5.389

Minimum discharge, 21 ft³/s (0.59 m³/s) Feb 20, minimum gage height, 0.28 ft (0.085 m) Nov. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	38	84	144	40	41	132	425	294	308	150	67
2	65	40	77	139	38	37	121	388	251	436	140	63
3	59	40	63	132	37	106	112	351	227	8780	121	60
4	55	41	50	121	36	273	102	321	206	5480	116	58
5	52	41	55	114	39	246	92	298	192	1780	113	59
6	48	39	136	106	34	233	86	284	177	1290	145	56
7	45	38	172	106	30	210	80	257	164	1040	122	51
8	44	37	160	104	32	204	74	234	152	863	114	51
9	42	38	141	104	32	433	67	216	141	730	108	51
10	41	39	125	102	31	435	61	208	132	663	105	47
11	40	39	113	86	30	387	57	200	124	549	99	47
12	38	38	101	80	28	346	52	194	117	480	96	46
13	35	36	90	80	28	298	48	201	112	420	99	43
14	37	35	84	72	26	266	46	189	105	383	94	84
15	44	35	122	67	25	244	41	180	102	360	105	61
16	41	34	105	64	25	222	39	171	97	334	99	53
17	38	33	108	63	24	202	40	160	89	298	90	50
18	37	33	105	60	23	183	117	152	91	272	88	48
19	37	36	103	62	22	170	453	143	85	247	83	46
20	37	47	99	62	23	156	2250	136	79	224	82	46
21	36	41	93	55	54	142	2050	131	73	203	80	46
22	35	36	86	53	75	127	1020	123	70	192	78	43
23	37	34	82	51	75	117	768	119	4000	181	75	43
24	43	33	79	51	69	108	681	259	3200	170	81	43
25	46	33	80	57	62	104	634	165	868	160	76	40
26	40	35	76	50	59	97	525	330	620	151	72	43
27	38	35	72	46	53	95	461	696	503	147	69	43
28	37	34	71	45	49	88	484	393	430	140	66	42
29	40	47	96	44	44	102	513	330	394	141	64	48
30	38	104	120	42	---	116	453	290	347	133	60	46
31	36	---	137	41	---	140	---	294	---	127	60	---
TOTAL	1337	1189	3085	2403	1143	5928	11659	7838	13442	26682	2950	1524
MEAN	43.1	39.6	99.5	77.5	39.4	191	389	253	448	861	95.2	50.8
MAX	76	104	172	144	75	435	2250	696	4000	8780	150	84
MIN	35	33	50	41	22	37	39	119	70	127	60	40
CFSM	.19	.17	.43	.33	.17	.82	1.68	1.09	1.93	3.71	.41	.22
IN.	.21	.19	.49	.39	.18	.95	1.87	1.26	2.16	4.28	.47	.24
AC-FT	2650	2360	6120	4770	2270	11760	23130	15550	26660	52920	5850	3020
CAL YR 1975	TOTAL	106030	MEAN 290	MAX 3160	MIN 29	CFSM 1.25	IN 17.00	AC-FT 210300				
WTR YR 1976	TOTAL	79180	MEAN 216	MAX 8780	MIN 22	CFSM .93	IN 12.70	AC-FT 157100				

07186600 TURKEY CREEK NEAR JOPLIN, MO

LOCATION.--Lat 37°07'15", long, 94°34'55", NE¼SE¼ sec.25, T.28 N., R.34 W., Jasper County, Hydrologic Unit 11070207, at bridge on Jasper County Highway P, 2.5 mi (4.0 km) upstream from mouth, and 3 mi (4.8 km) northwest of Joplin.

DRAINAGE AREA.--41.8 mi² (108 km²).

PERIOD OF RECORD.--August 1963 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	FECAL COLI- FORM (COL. PER 100 ML)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT											
22...	15	720	7.6	18.5	3	2.4	25	18	78	--	--
NOV											
18...	17	740	7.7	15.5	10	4.0	40	37	230	--	--
DEC											
16...	56	550	7.6	7.0	4	8.4	69	20	28	--	--
JAN											
14...	48	630	7.5	5.5	3	6.7	53	26	72	--	--
FEB											
18...	10	695	7.7	12.0	4	4.2	39	46	340	--	--
MAR											
10...	40	470	7.4	12.5	7	7.9	74	28	--	190	69
APR											
13...	26	590	7.5	17.0	1	4.9	51	34	320	--	--
MAY											
27...	75	490	7.5	17.5	4	5.6	58	33	370	--	--
JUN											
21...	24	600	7.5	21.0	3	4.9	54	49	44	--	--
JUL											
14...	65	585	7.4	23.5	2	3.4	40	33	40	--	--
AUG											
11...	28	630	7.5	24.5	3	1.6	19	16	760	--	--
SEP											
16...	17	590	7.4	22.5	3	1.1	12	26	1200	--	--

07186600 TURKEY CREEK NEAR JOPLIN, MO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CAL- CIUM (CA) (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	TOTAL SODIUM (NA) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	TOTAL PO- TAS- SIUM (K) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
OCT 22...	54	--	6.7	--	21	--	3.5	--	197	0	27
NOV 18...	81	--	5.4	--	29	--	5.5	--	236	0	110
DEC 16...	75	--	4.1	--	17	--	3.5	--	148	0	88
JAN 14...	96	--	5.8	--	21	--	4.4	--	202	0	120
FEB 18...	91	--	6.5	--	29	--	6.0	--	228	0	110
MAR 10...	140	70	13	4.5	25	12	5.5	2.8	148	0	81
APR 13...	79	--	5.3	--	21	--	4.0	--	192	0	97
MAY 27...	78	--	4.8	--	15	--	2.9	--	152	0	100
JUN 21...	94	--	6.3	--	22	--	4.5	--	196	0	110
JUL 14...	85	--	5.0	--	15	--	3.5	--	186	0	110
AUG 11...	82	--	5.0	--	26	--	5.8	--	216	0	98
SEP 16...	78	--	5.1	--	21	--	5.5	--	192	0	100

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SILICA (SiO2) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	SUS- PENDE SEDI- MENT (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
OCT 22...	33	--	--	316	309	1.3	2.0	2.7	1.4	--	--
NOV 18...	36	--	--	210	506	.40	5.1	6.6	3.3	--	--
DEC 16...	24	--	--	298	336	1.5	.66	1.3	.98	--	--
JAN 14...	22	--	--	402	402	.89	2.3	3.7	1.4	--	--
FEB 18...	32	--	--	424	432	1.1	4.2	8.7	2.3	--	--
MAR 10...	13	.3	10	276	324	1.6	.60	1.8	.50	19	2.1
APR 13...	22	--	--	374	386	.81	1.2	1.8	1.8	--	--
MAY 27...	14	--	--	298	352	1.6	.84	1.5	.38	--	--
JUN 21...	24	--	--	448	456	1.8	2.7	3.3	1.4	--	--
JUL 14...	18	--	--	370	396	.47	1.3	1.6	1.1	--	--
AUG 11...	33	--	--	394	398	.16	2.8	3.5	2.5	--	--
SEP 16...	27	--	--	335	386	.00	3.3	3.9	1.6	--	--

07187000 SHOAL CREEK ABOVE JOPLIN, MO

LOCATION.--Lat 37°01'23", long 94°30'58", in SE¼NE¼NE¼ sec.34, T.27 N., R.33 W., Newton County, Hydrologic Unit 11070207, on right bank 250 ft (76 m) upstream from mouth of Spring Creek, 1,400 ft (427 m) downstream from bridge on State Highway 86, 0.5 mi (0.8 km) south of city limits of Joplin and 13.2 mi (21.2 km) above mouth.

DRAINAGE AREA.--427 mi² (1,106 km²).

PERIOD OF RECORD.--October 1941 to current year.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 886.87 ft (270.318 m) above mean sea level. Prior to July 21, 1966, water-stage recorder at site 1.8 mi (2.9 km) upstream, at datum 15.5 ft (4.72 m) higher.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--35 years, 408 ft³/s (11.55 m³/s), 12.97 in/yr (329 mm/yr), 295,600 acre-ft/yr (364 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 62,100 ft³/s (1,730 m³/s) May 18, 1943, gage height, 16.8 ft (5.12 m) former site and datum; minimum, 12 ft³/s (0.340 m³/s) Sept. 7, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 6,000 ft³/s (170 m³/s) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Discharge (m ³ /s)	Gage height (ft)	Gage height (m)
June 24	2015	8,270	234	11.17	3.405
July 3	1615	*18,100	513	*16.43	5.008

Minimum discharge, 83 ft³/s (2.35 m³/s) Nov. 28, 29, gage height, 2.40 ft (0.732 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	160	124	539	229	133	125	267	782	900	648	323	206
2	166	124	305	234	132	121	251	730	811	814	339	204
3	155	124	257	228	128	158	236	672	754	10000	311	199
4	145	124	229	221	126	202	223	625	692	12900	297	196
5	141	122	223	211	130	228	210	594	661	4000	297	194
6	137	116	339	207	129	222	205	580	619	2510	331	190
7	137	117	559	202	123	212	196	557	586	1960	317	179
8	134	113	411	206	120	223	187	510	547	1620	294	176
9	129	113	359	200	122	364	177	479	516	1340	287	176
10	129	120	317	200	121	440	170	474	488	1140	279	169
11	127	110	288	190	118	433	165	532	471	1020	270	165
12	124	107	265	190	114	420	160	515	452	888	266	164
13	121	103	246	190	113	373	153	524	435	818	283	161
14	118	99	232	180	114	343	152	522	413	758	272	322
15	127	99	261	170	114	321	147	507	404	708	280	230
16	129	98	240	163	115	294	143	500	389	667	278	198
17	123	98	228	163	112	274	146	476	372	603	264	188
18	121	98	219	160	109	258	241	454	377	557	251	183
19	119	97	210	162	107	248	545	435	363	510	245	177
20	118	114	206	163	108	235	2690	419	343	475	244	183
21	118	110	204	158	153	222	3300	401	332	451	238	180
22	115	101	195	150	159	209	2130	388	323	422	238	167
23	116	95	189	147	149	198	1580	377	2100	403	231	165
24	133	90	186	147	143	189	1410	717	5430	385	244	160
25	159	88	183	151	138	186	1270	750	2410	370	242	158
26	159	88	186	148	134	183	1080	799	1290	356	230	160
27	141	86	182	142	130	181	946	1550	1070	340	222	161
28	135	87	177	137	126	173	916	1450	920	329	216	158
29	130	109	203	137	124	197	893	1200	838	347	209	163
30	123	258	213	135	---	272	825	1070	752	361	203	165
31	124	---	221	133	---	286	---	991	---	334	202	---
TOTAL	4113	3332	8072	5454	3644	7790	21014	20580	26058	48054	8203	5497
MEAN	133	111	260	176	126	251	700	664	869	1550	265	183
MAX	166	258	559	234	159	440	3300	1550	5430	12900	339	322
MIN	115	86	177	133	107	121	143	377	323	329	202	158
CFSM	.31	.26	.61	.41	.30	.59	1.64	1.56	2.04	3.63	.62	.43
IN.	.36	.29	.70	.48	.32	.68	1.83	1.79	2.27	4.19	.71	.48
AC-FT	8160	6610	16010	10820	7230	15450	41680	40820	51690	95320	16270	10900

CAL YR 1975	TOTAL	199283	MEAN	546	MAX	4830	MIN	86	CFSM	1.28	IN	17.36	AC-FT	395300
WTR YR 1976	TOTAL	161811	MEAN	442	MAX	12900	MIN	86	CFSM	1.04	IN	14.10	AC-FT	321000

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring 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.

Annual maximum discharge at crest-stage partial-record stations, water year

Station no.	Station name	Location	Drainage area (sq mi)	Period of record	Date	Annual maximum Gage height (feet)	Dis-charge (ft ³ /s)
Fox River basin							
05495100	Big Branch Tributary near Wayland	Lat 40°18'52", long 91°34'34", in NW¼SE¼ sec.29, T.64 N., R.6 W., Clark County, at culvert under U.S. Highway 61 and 5.6 mi (9.0 km) south of Wayland.	0.70 (1.81)	1955-65 1966-69f 1970-76	4-25-76	6.23	52
Fabius River basin							
05497500	Middle Fabius River near Baring	Lat 40°19'55", long 92°12'50", in NW¼NW¼ sec.26, T.64 N., R.12 W., Scotland County, at bridge on State Highway 15, 1 mi (1.6 km) downstream from confluence of North and South Forks of Middle Fabius River, and 6 mi (9.7 km) north of Baring.	185 (479)	1931-60† 1961-76	4-25-76	24.68	9,660
05497700	Bridge Creek Branch near Baring	Lat 40°15'30", long 92°13'00", in NE¼NE¼ sec.22, T.63 N., R.12 W., Knox County, at culvert under State Highway 15 and about 1 mi (1.6 km) northwest of Baring.	2.38 (6.16)	1955-60 1961-63f 1964-76	5-6-76	10.56	165
South River basin							
05501200	Nichols Branch near Palmyra	Lat 39°44'39", long 91°31'52", in SE¼SE¼ sec.11, T.57 N., R.6 W., Marion County, at culvert on county road 4 mi (6.4 km) south of Palmyra.	2.58 (6.68)	1955-76	3-4-76	18.35	350
Salt River basin							
05502700	Easdale Branch near Shelbyville	Lat 39°48'17", long 92°00'27", in SE¼SW¼ sec.22, T.58 N., R.10 W., Shelby County, at culvert under Missouri State Highway 168, 1.8 mi (2.9 km) east of Shelbyville.	0.71 (1.84)	1958-69 1970-71f 1972-76	3-4-76	4.66	190
05504700	Bean Creek near Mexico	Lat 39°15'30", long 91°49'50", in NW¼SW¼ sec.29, T.52 N., R.8 W., Audrain County, at culvert under State Highway J, 6.5 mi (10.5 km) north of Mexico.	3.02 (7.82)	1960-76	3-4-76	8.06	350
05506000	Youngs Creek near Mexico	Lat 39°18'39", long 91°56'51", in NW¼SW¼ sec.5, T.52 N., R.9 W., Audrain County, on downstream side of bridge on State Highway 15, 6 mi (9.7 km) upstream from mouth and 11 mi (17.7 km) north of Mexico.	67.4 (175)	1931-69† 1970-76	3-4-76	12.64	3,070
Kings Lake basin							
05513600	Camp Creek near Elsberry	Lat 39°06'56", long 90°46'23", in SW portion of Survey 1724, T.50 N., R.2 E., Lincoln County, at culvert on State Highway 79, 3.6 mi (5.8 km) south of Elsberry.	1.50 (3.88)	1955-76	3-4-76	3.18	240
05513650	Hurricane Creek near Elsberry	Lat 39°06'29", long 90°46'13", in SW portion of Survey 1724, T.50 N., R.2 E., Lincoln County, at culvert on State Highway 79, 4.1 mi (6.6 km) south of Elsberry.	3.6 (7.92)	1955-76	3-4-76	7.98	1,200

Explanation of symbols and footnotes are at the end of list.

DISCHARGE AT PARTIAL-RECORD STATIONS

Annual maximum discharge at crest-stage partial-record stations--Continued

Station no.	Station name	Location	⁸ Drainage area (sq mi)	Period of record	Annual maximum Date	maximum Gage height (feet)	Dis- charge (ft ³ /s)
Cuivre River basin							
05513700	Mams Slough Creek near Wellsville	Lat 39°09'45", long 91°39'40", in NW¼NW¼ sec.35, T.51 N., R.7 W., Audrain County, at bridge on U.S. Highway 54, 8 mi (12.8 km) north- west of Wellsville.	5.08 (13.2)	1955-57 1961-76	3-4-76	12.53	930
05514200	Reid Branch near Bowling Green	Lat 39°15'15", long 91°02'50", in SE¼ west part of Survey No. 1685, T.52 N., R.1 W., Pike County, upstream from culvert on U.S. Highway 61, 3.9 mi (6.3 km) south of Cyrene and 10 mi (16.1 km) south of Bowling Green.	0.54 (1.40)	1955-76	3-4-76	4.15	125
Little Tarkio Creek basin							
06815550	Staples Branch near Burlington Junction	Lat 40°26'15", long 95°12'05", in SW¼SE¼ sec.17, T.65 N., R.38 W., Atchison County, at culvert under U.S. Highway 136, about 7.3 mi (11.7 km) west of Burl- ington Junction.	0.49 (1.27)	1959-65 1966-71f 1972-76	5-23-76	12.09	120
Platte River (Iowa-Missouri) basin							
06820000	White Cloud Creek near Maryville	Lat 40°23'22", long 94°54'33", in NW¼NW¼ sec.1, T.64 N., R.36 W., Nodaway County, at bridge on U.S. Highway 71, 4 mi (6.4 km) up- stream from Big Slough and 4.5 mi (7.2 km) northwest of Maryville.	6.06 (15.7)	1948-70† 1971-76	5-30-76	5.73	133
06820300	Big Slough near Wilcox	Lat 40°23'23", long 94°55'32", on south line of SW¼ sec.35, T.65 N. R.36 W., Nodaway County, at culvert on U.S. Highway 71, 3 mi (4.8 km) southeast of Wilcox.	1.30 (3.37)	1950-76	5-30-76	2.90	240
06821130	First Creek near Nashua	Lat 39°17'20", long 94°35'05", in NW¼SW¼ sec.26, T.52 N., R.33 W., Clay County, at culvert on farm road 150 ft (45.7 m) east of U.S. Highway 169, and 1 mi (1.6 km) south of Nashua.	0.55 (1.42)	1959-65 1966-74f 1975-76	5-15-76	10.88	138
Grand River basin							
06896170	Grand River near Stanberry	Lat 40°14'30", long 94°29'12", in SE¼ sec.22, T.63 N., R.32 W., Gentry County, on downstream side of bridge on U.S. Highways 136 and 169, 2.8 mi (4.5 km) northeast of Stanberry.	-	1965-66 1967-68f 1969-76	4-24-76	12.20	9,750
06896180	DeMoss Branch near Stanberry	Lat 40°13'35", long 94°33'35", in NE¼SE¼ sec.36, T.63 N., R.33 W., Gentry County, at culvert on U.S. Highway 136, 0.8 mi (1.3 km) west of Stanberry.	0.38 (0.98)	1955-59 1960-64f 1965-76	4-24-76	14.59	82
06896190	Middle Fork Grand River near Albany	Lat 40°14'27", long 94°24'10", in SW¼SE¼ sec.21, T.63 N., R.31 W., Gentry County, on downstream side of bridge on U.S. Highway 136, 3 mi (4.8 km) west of Albany.	-	1965-66 1967-68f 1969-76	4-24-76	12.60	7,650
06896400	East Fork Grand River at Albany	Lat 40°14'55", long 94°21'37", in NW¼ sec.23, T.63 N., R.31 W., Gentry County, on downstream side of bridge on U.S. Highway 136, 0.8 mi (1.3 km) west of Albany.	-	1965-66 1967-68f 1969-76	4-24-76	17.16	9,000
06896700	O'Neill Branch at Osborn	Lat 39°45'25", long 94°20'35", in SW¼NE¼ sec.14, T.57 N., R.31 W., DeKalb County, under U.S. High- way 36, 1 mi (1.6 km) northeast of Osborn and 5.5 mi (8.8 km) northwest of Cameron.	0.80 (2.07)	1955-62 1963-66f 1967-76	+	+	<20

DISCHARGE AT PARTIAL-RECORD STATIONS

287

Annual maximum discharge at crest-stage partial-record stations--Continued

Station no.	Station name	Location	⁸ Drainage area (sq mi)	Period of record	Annual Date	maximum Gage height (feet)	Dis- charge (ft ³ /s)
Grand River basin--Continued							
06897200	Simpson Branch near Bethany	Lat 40°15'55", long 93°58'55", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 7, T.63 N., R.27 W., Harrison County, at bridge on U.S. Highway 136, 2.3 mi (3.7 km) east of Bethany.	4.72 (12.2)	1955-70 1971-72f 1973-76	3-4-76	8.12	620
06897700	Grand River Tributary near Utica	Lat 39°44'22", long 93°38'18", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 19, T.57 N., R.24 W., Livingston County, at culvert under U.S. Highway 36, 0.2 mi (0.3 km) west of Utica.	1.44 (3.73)	1958 1960-76	6-24-76	9.28	270
06898200	Thompson River near Trenton	Lat 40°08'50", long 93°42'05", on line between SW $\frac{1}{4}$ sec. 22 and NW $\frac{1}{4}$ sec. 27, T.62 N., R.25 W., Grundy County, at county highway bridge, 4.5 mi (7.2 km) upstream from Weldon River, 6.5 mi (10.4 km) northwest of Trenton, and 1.5 mi (2.4 km) east of Brimson.	-	1961-76	4-25-76	24.24	16,000
06898500	Weldon River near Mercer	Lat 40°32'56", long 93°36'10", in SW $\frac{1}{4}$ sec. 3, T.66 N., R.24 W., Mercer County, at county highway bridge, 4.2 mi (6.7 km) northwest of Mercer, and 5 mi (8.0 km) upstream from Little River.	246 (637)	1939-59f 1961-76	6-14-76	17.62	14,000
06899100	Weldon River near Trenton	Lat 40°08'05", long 93°38'15", in SE $\frac{1}{4}$ sec. 30, T.62 N., R.24 W., Grundy County, at bridge on State Highway A, 2 mi (3.2 km) northwest of Trenton.	494 (1280)	1961-76	4-25-76	19.69	20,000
06899600	West Fork Leakey Branch near Chillicothe	Lat 39°53'00", long 93°38'00", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 36, T.59 N., R.24 W., Livingston County, at culvert under U.S. Highway 65, 6 mi (9.6 km) north of Chillicothe.	0.21 (0.54)	1955-71 1972-76f	9-6-76	11.52	330
06901300	Moffet Branch near Reger	Lat 40°07'53", long 93°14'30", in NW $\frac{1}{4}$ sec. 34, T.62 N., R.21 W., Sullivan County, at culvert under State Highway 6, 2.5 mi (4.0 km) west of Reger, and 3.8 mi (6.1 km) east of Humphreys.	0.13 (0.34)	1955-63 1964-66f 1967-76	5-6-76	4.38	150
06902800	Onion Branch at St. Catherine	Lat 39°47'46", long 92°59'17", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 35, T.58 N., R.19 W., Linn County, at culvert under State Highway 11, 0.3 mi (0.5 km) northeast of St. Catherine and 5 mi (8.0 km) northeast of Brookfield.	1.04 (2.69)	1955-61 1962-66f 1967-76	5-17-76	12.37	670
06902900	East Yellow Creek near Brookfield	Lat 39°45'22", long 91°58'58", in SW $\frac{1}{4}$ sec. 12, T.57 N., R.19 W., Linn County, on downstream side of bridge on State Highway 5 and U.S. Highway 36, 2.3 mi (3.7 km) southeast of St. Catherine and 4.5 mi (7.2 km) southeast of Brookfield.	-	1965-76	+	+	<1,000
Chariton River basin							
06904300	Shoal Creek near Hartford	Lat 40°29'00", long 92°46'20", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, T.66 N., R.17 W., Putnam County, at bridge on U.S. Highway 136, 3 mi (4.8 km) northeast of Hartford.	155 (401)	1963-76	3-5-76	21.30	5,000
06904700	Strop Branch near Novinger	Lat 40°13'05", long 92°42'55", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 32, T.63 N., R.16 W., Adair County, at culvert under State Highway K about 1 mi (1.6 km) southwest of Novinger.	0.96 (2.49)	1955-71 1972-76f	12-14-75	14.32	260

DISCHARGE AT PARTIAL-RECORD STATIONS

Annual maximum discharge at crest-stage partial-record stations--Continued

Station no.	Station name	Location	Drainage area (sq mi)	Period of record	Annual Maximum Date Gage height (feet)	Dis- charge (ft ³ /s)
Chariton River basin--Continued						
06905000	Chariton River at Elmer	Lat 39°57'08", long 92°39'54", in E½ sec.3, T.59 N., R.16 W., Macon County, at bridge on State Highway J, 0.8 mi (1.3 km) southwest of Elmer.	1,660 (4,300)	1921-30† 1961-76	4-25-76 19.18	17,000
06905700	Puzzle Creek near Salisbury	Lat 39°26'30", long 92°47'30", in SW¼NW¼ sec.35, T.54 N., R.17 W., Chariton County, at culvert on State Highway 129, 0.8 mi (1.3 km) north of Salisbury.	0.80 (2.07)	1955-76	+ +	<20
Lamine River basin						
06907200	Shaver Creek Tributary near Clifton City	Lat 38°45'29", long 93°04'25", in NE¼SW¼ sec.13, T.46 N., R.20 W., Pettis County, at culvert under State Highway 135, about 2 mi (3.2 km) southwest of Clifton City and 9.5 mi (15.2 km) north-east of Sedalia.	1.65 (4.27)	1955-61 1962-63f 1964-76	3-5-76 6.95	255
06908300	Trent Branch near Waverly	Lat 39°12'06", long 93°34'46", in SE¼NE¼ sec.19, T.51 N., R.24 W., Lafayette County, at culvert on U.S. Highway 24, 3.8 mi (6.1 km) west of Waverly.	0.97 (2.57)	1955-59 1960-62f 1963-76	+ +	<50
06908500	Shiloh Branch near Marshall	Lat 39°07'00", long 93°05'50", in NW¼ sec.15, T.50 N., R.20 W., Saline County, at culvert on State Highway 41, in front of Shiloh Church, 5.5 mi (8.8 km) east of Marshall.	2.87 (7.43)	1952-65† 1966-76	+ +	<100
Bonne Femme Creek basin						
06909400	Cottonwood Creek Tributary at Estill	Lat 39°02'55", long 92°44'38", in NW¼SW¼NE¼ sec.17, T.49 N., R.16 W., Howard County, at culvert under State Highway 5, 0.2 mi (0.03 km) north of Estill and 2 mi (3.2 km) north of New Franklin.	0.30 (0.78)	1958-76	+ +	<20
Moniteau Creek basin						
06909500	Moniteau Creek near Fayette	Lat 39°07'15", long 92°33'40", in SE¼SE¼ sec.14, T.50 N., R.15 W., Howard County, at "Buoy" bridge, 1 mi (1.6 km) downstream from Hungry Mother Creek, 7 mi (11.2 km) east of Fayette and 15 mi (24 km) upstream from mouth.	81 (210)	1948-60 1962-69† 1970-76	+ +	<900
Petite Saline Creek basin						
06909700	Petite Saline Creek Tributary near Bellair	Lat 38°50'34", long 92°50'31", in SW¼NE¼ sec.13, T.47 N., R.18 W., Cooper County, at culvert under State Highway 5, at junction of highways 5 and F, 0.5 mi (0.8 km) north of Bellair and 10.5 mi (16.9 km) southwest of Boonville.	0.49 (1.27)	1955-64 1965-69f 1970-76	+ +	<100
Bonne Femme Creek basin						
06910250	Traxler Branch near Columbia	Lat 38°51'15", long 92°19'45", in NE¼SE¼ sec.13, T.47 N., R.13 W., Boone County, at culvert under State Highway N about 5.5 mi (8.8 km) south of Columbia.	0.55 (1.42)	1958-63f 1964-76	3-4-76 11.36	296
Baldwin Branch basin						
06910400	Baldwin Branch near Jefferson City	Lat 38°39'35", long 92°13'25", in SE¼SE¼ sec.24, T.45 N., R.12 W., Boone County, at culvert on U.S. Highway 63, 5.4 mi (8.7 km) northwest of Jefferson City.	0.60 (1.55)	1958-76	2-21-76 11.80	500

Annual maximum discharge at crest-stage partial-record stations--Continued

Station no.	Station name	Location	Drainage area (sq mi)	Period of record	Annual Date	maximum Gage height (feet)	Dis- charge (ft ³ /s)
Grays Creek basin							
06910430	Dickerson Creek Tributary near Jefferson City	Lat 38°34'55", long 92°16'43", in SW¼NW¼ sec. 8, T.44 N., R.12 W., Cole County, on left bank up- stream from culvert under U.S. Highway 50, 0.25 mi (0.3 km) up- stream from mouth, and 1.9 mi (3.1 km) west of Jefferson City.	0.10 (0.26)	1970-76	12-15-75	7.58	500
Moreau River basin							
06910700	Hazel Branch Tribu- tary near Wards- ville	Lat 38°28'15", long 92°12'35", in NE¼SE¼ sec.14, T.43 N., R.12 W., Cole County, at culvert on county road 2.5 mi (4.0 km) southwest of of Wardsville.	0.13 (0.34)	1957-76	12-15-75	9.40	53
Osage River basin							
06918200	North Fork Panther Creek Tributary near Appleton City	Lat 38°11'38", long 94°04'53", in SW¼NW¼ sec.2, T.39 N., R.29 W., Bates County, at culvert under State Highway 52, 0.25 mi (0.3 km) south of Hudson, 3 mi (4.8 km) west of Appleton City, and 18 mi (29.0 km) southeast of Butler.	0.08 (0.21)	1955-76	+	+	<30
06918300	West Fork Clear Creek Tributary near Nevada	Lat 37°51'43", long 94°13'51", in SW¼SW¼ sec.27, T.36 N., R.30 W., Vernon County, at culvert under U.S. Highway 54, 0.2 mi (0.3 km) east of State Highway C and 7.5 mi (12.1 km) northeast of Nevada.	0.51 (1.32)	1955-76	4-20-76	7.78	305
06918400	Pickereel Creek Trib- utary near Republic	Lat 37°07'09", long 93°31'28", in NW¼SE¼ sec.23, T.28 N., R.24 W., Greene County, at culvert under State Highway 174, 2.0 mi (3.2 km) west of Republic.	0.57 (1.48)	1957-61 1962f 1963-76	7-3-76	6.70	48
06918750	Franca Branch near Brighton	Lat 37°29'57", long 93°21'00", in SE¼NW¼SE¼ sec.16, T.32 N., R.22 W., Polk County, at culvert under State Highway 13, 3 mi (4.9 km) north of Brighton, and 8.7 mi (14.0 km) southeast of Bolivar.	0.59 (3.96)	1955-76	7-3-76	14.43	270
06919200	Sac River Tributary near Caplinger Mills	Lat 37°48'22", long 93°51'00", in NE¼NE¼ sec.13, T.35 N., R.27 W., Cedar County, at culvert under State Highway 39, 6.2 mi (10 km) south of junction of U.S. Highway 54 and State Highway 39, 2.5 mi (4.0 km) west of Caplinger Mills and 10.5 mi (16.9 km) southeast of Eldorado Springs.	0.14 (0.36)	1955-62 1963-76	+	+	<20
06920800	Big Muddy Creek at Lowry City	Lat 38°09'29", long 93°43'22", in SE¼NE¼ sec.12, T.39 N., R.26 W., St. Clair County, at culvert under State Highway 13, 1 mi (1.6 km) north of Lowry City.	0.31 (0.93)	1955-72 1973-76f	11-29-75 3-3-76	6.83	82
06921100	Olinger Creek near Buffalo	Lat 37°40'47", long 93°06'10", in NW¼SW¼SW¼ sec.11, T.34 N., R.20 W., Dallas County, at culvert under U.S. Highway 65 about 0.2 mi (0.3 km) north of State Highway 2 and 2.5 mi (4.0 km) north of Buffalo.	1.96 (5.08)	1957-63 1964f 1966-76	7-3-76	9.83	660
06921400	Ferguson Branch at Nemo	Lat 37°52'50", long 93°15'30", in NE¼SE¼ sec.8, T.36 N., R.21 W., Hickory County, at culvert under State Highway D, 0.5 mi (0.8 km) northeast of Nemo.	0.18 (0.47)	1957-76	+	+	<20

DISCHARGE AT PARTIAL-RECORD STATIONS

Annual maximum discharge at crest-stage partial-record stations--Continued

Station no.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum Date	Gage height (feet)	Dis- charge (ft ³ /s)
Osage River basin--Continued							
06921800	Granddaddy Creek near Urich	Lat 38°21'49", long 94°00'47", in NW¼NW¼SW¼ sec.10, T.41 N., R.28 W., Henry County, at culvert under State Highway K, 0.3 mi (0.5 km) north of junction of State Highway K and State Highway 18, and 6.5 mi (10.5 km) south of Urich.	0.92 (2.38)	1958-75 1976f	5-30-76	6.63	135
06922600	Little Turkey Creek Tributary near Warsaw	Lat 38°10'30", long 93°17'30", in NW¼SW¼ sec.1, T.39 N., R.22 W., Benton County, at culvert on State Highway 7, 1.5 mi (2.4 km) east of junction of State High- way 7 and U.S. Highway 65, and 5 mi (8.0 km) southeast of Warsaw.	0.18 (0.47)	1959-69 1970-76f	5-30-76	9.28	44
06922700	Chub Creek near Lincoln	Lat 38°26'12", long 93°18'07", in NW¼ sec.12, T.42 N., R.22 W., Benton County, at culvert on U.S. Highway 65, 3.4 mi (5.5 km) north of Lincoln.	2.86 (7.48)	1958-63 1964-70f 1971-76	5-30-76	17.98	490
06923000	Niangua Branch at Marshfield	Lat 37°20'50", long 92°54'45", in SE¼NE¼ sec.4, T.30 N., R.18 W., Webster County, at concrete culvert under county road at Marshfield.	0.82 (2.12)	1950-57† 1958f 1960-76	10-1-75	538	256
06925300	Prairie Branch near Decaturville	Lat 37°52'30", long 92°42'30", in SE¼NE¼ sec.8, T.36 N., R.16 W., Laclede County, at bridge on State Highway 5, 2.4 mi (3.9 km) south of Decaturville.	1.48 (3.83)	1955-69 1970-72f 1973-76	4-20-76	9.87	290
069254500	Little Gravois Creek near Versailles	Lat 38°23'58", long 92°49'30", in NE¼SW¼ sec.17, T.42 N., R.17 W., Morgan County, at bridge on State Highway TT, and 2.5 mi (4.0 km) south of Versailles.	4.74 (12.3)	1955-76	10-1-75	13.11	1,260
06926150	Jack Buster Creek at Eugene	Lat 38°21'10", long 92°24'00", in NW¼NE¼ sec.31, T.42 N., R.13 W., Cole County, at culvert on State Highway 17 at Eugene.	0.17 (0.44)	1961-76	5-30-76	5.34	50
06926200	Van Cleve Branch near Meta	Lat 38°13'35", long 92°09'40", in SE¼NE¼ sec.8, T.40 N., R.11 W., Maries County, 20 ft (6.1 m) upstream from culvert under State Highway 133, 7 mi (11.3 km) south of Meta.	0.75 (1.94)	1957-72f 1973-76	12-15-75	3.29	210
06926800	Long Branch near Vienna	Lat 38°11'00", long 92°05'05", in SW¼NW¼ sec.30, T.40 N., R.10 W., Maries County, at culvert on State Highway 42, 7.5 mi (12.1 km) west of Vienna.	0.32 (0.83)	1958-76	3-4-76	7.32	125
06927000	Maries River at Westphalia	Lat 38°25'55", long 91°59'23", in NE¼ sec.35, T.43 N., R.10 W., Osage County, at bridge on U.S. Highway 63, 0.8 mi (1.3 km) southeast of Westphalia, 1.2 mi (1.9 km) downstream from Little Maries Creek, and at mile 9.9 (15.8 km).	257 (666)	1947-70† 1971-76	3-5-76	12.77	9,880
Auxvasse Creek basin							
06927100	Doane Branch near Kingdom City	Lat 38°56'20", long 91°49'40", in NE¼ sec.17, T.48 N., R.8 W., Callaway County, at culvert on access road to Interstate Highway 70, 0.9 mi (1.5 km east of Auxvasse Creek and about 6 mi (9.7 km) east of Kingdom City.	0.54 (1.40)	1955-59 1960-62f 1963 1965-76	3-4-76	9.84	40

DISCHARGE AT PARTIAL-RECORD STATIONS

291

Annual maximum discharge at crest-stage partial-record stations--Continued

Station no.	Station name	Location	Drainage area (sq mi)	Period of Record	Annual maximum Gage height (feet)	Dis-charge (ft ³ /s)
Gasconade River basin						
06927600	Wheeler Branch near Mountain Grove	Lat 37°06'52", long 92°16'37", in SW¼NE¼ sec.17, T.28 N., R.12 W., Wright County, on State Highway D 0.8 mi (1.3 km) southwest of Mountain Grove.	1.34 (3.47)	1955-76	4-20-76	2.93 75
06929000	Coyle Branch at Houston	Lat 37°19'25", long 91°57'12", in NW¼NW¼ sec.8, T.30 N., R.9 W., Texas County, at double culvert on U.S. Highway 63, at east edge of Houston.	1.10 (2.85)	1949-55† 1959-76	7-3-76	1.84 28
06930750	Prewett Hollow near Dixon	Lat 37°57'25", long 92°04'50", in SW¼SE¼ sec.1, T.37 N., R.11 W., Pulaski County, at culvert on State Highway D, 2 mi southeast of Dixon.	0.46 (1.19)	1960-64 1966f 1967-71 1972-76f	3-3-76	10.58 122
06931000	Beaver Creek near Rolla	Lat 37°52'45", long 91°47'45", in SW¼SE¼ sec.34, T.37 N., R.8 W., Phelps County, at bridge on U.S. Highway 63, 5 mi (8.0 km) south of Rolla.	13.7 (35.5)	1949-58† 1960-76	4-20-76	1.59 217
06931600	Paulsell Branch near Rolla	Lat 37°55'15", long 91°49'40", in NW¼NE¼ sec.20, T.37 N., R.8 W., Phelps County, at culvert on St. Louis-San Francisco RR, 0.8 mi (1.3 km) above confluence with Little Beaver Creek and 3.5 mi (5.6 km) southwest of Rolla.	2.33 (6.03)	1949-76	5-31-76	3.49 2,550
06933700	Penzer Hollow near Rolla	Lat 38°00'40", long 91°50'05", in NE¼NE¼ sec.20, T.38 N., R.8 W., Phelps County, at culvert on State Highway E, 5.0 mi (8.0 km) north of Rolla.	0.27 (0.70)	1956-64 1966f 1967-76	+	+ <30
Loutre River basin						
06934600	Rumbo Branch at Danville	Lat 38°55'00", long 91°32'03", in SW¼NE¼ sec.24, T.48 N., R.6 W., Montgomery County, at culvert on State Highway 161, 0.5 mi (0.8 km) north of Danville.	1.40 (3.63)	1954-58† 1959-76	2-21-76	5.26 311
Little Berger Creek basin						
06934750	Little Berger Creek Tributary near Hermann	Lat 38°40'10", long 91°22'25", in NW¼NE¼ sec.9, T.45 N., R.4 W., Gasconade County, at culvert on State Highway 100, 4 mi (6.4 km) southeast of Hermann.	0.25 (0.65)	1955-70 1971-76f	3-3-76	13.09 21
Bonhomme Creek basin						
06935800	Shotwell Creek near Ellisville	Lat 38°37'05", long 90°35'00", in NW¼NW¼ sec.28, T.45 N., R.4 E., St. Louis County, at culvert on State Highway 340, 1.8 mi (2.9 km) north of Ellisville.	0.81 (2.10)	1960-62 1963-76f	3-3-76	7.34 429
Meramec River basin						
07011200	Love Creek near Salem	Lat 37°38'10", long 91°33'35", in W¼NE¼ sec.23, T.34 N., R.6 W., Dent County, at culvert under State Highways 32 and 72, 0.5 mi (0.8 km) west of Salem.	0.89 (2.13)	1955-59 1960-63f 1964-76	+	+ <40
07011300	Ragan Branch near Rolla	Lat 37°49'05", long 91°41'45", in NE¼NE¼ sec.28, T.36 N., R.7 W., Phelps County, at bridge on State Highway 72, 3 mi (4.8 km) northwest of Lake Spring and 9 mi (14.5 km) southeast of Rolla.	6.58 (17.0)	1949-76	+	+ <100

DISCHARGE AT PARTIAL-RECORD STATIONS

Annual maximum discharge at crest-stage partial-record stations--Continued

Station no.	Station name	Location	Drainage area (sq mi)	Period of record	Annual Date	maximum Gage height (feet)	Dis-charge (ft ³ /s)
Meramec River basin--Continued							
07012000	Behmke Branch near Rolla	Lat 37°56'05", long 91°42'35", in NE¼NE¼ sec.17, T.37 N., R.7 W., Phelps County, 300 ft (91.4 m) upstream from county highway bridge and 3.5 mi (5.6 km) south-east of Rolla.	1.05 (2.72)	1945-49† 1960-76	7-2-76	1.28	20
07015700	Lanes Fork near Vichy	Lat 38°06'15", long 91°42'45", in SW¼NE¼ sec.17, T.39 N., R.7 W., Maries County, at bridge on State Highway 68, 2.5 mi (4.0 km) east of Vichy.	24.1 (62.4)	1944-45 1948-76	+	+	<1,500
07015800	Langenberg Branch near Rosebud	Lat 38°23'03", long 91°25'41", in SE¼NE¼ sec.13, T.42 N., R.5 W., Gasconade County, at culvert under State Highway 28, 1.7 mi west of Rosebud.	0.64 (1.66)	1960-64 1966-70f 1971-76	7-3-76	10.47	290
07017700	Fountain Farm Branch near Potosi	Lat 37°58'20", long 90°43'40", in SE¼NE¼ sec.32, T.38 N., R.3 E., Washington County, at culvert under State Highway E, about 4 mi (6.4 km) northeast of Potosi.	2.16 (5.59)	1957-76	7-3-76	12.89	440
Plattin Creek basin							
07019820	Murphy Branch near Crystal City	Lat 38°11'12", long 90°23'46", in NW portion of Missouri Survey No. 1995, T.40 N., R.6 E., Jefferson County, at culvert under U.S. Highway 61, and 2.5 mi (4.0 km) southwest of Crystal City.	0.45 (1.14)	1955-60 1961-63f 1964-76	+	+	<60
Apple Creek basin							
07020700	Hoehs Branch near Uniontown	Lat 37°37'50", long 89°43'50", in SW¼SE¼ sec.20, T.34 N., R.12 E., Perry County, on bridge on U.S. Highway 61, 1.2 mi (1.9 km) north of Uniontown.	1.66 (4.03)	1955-76	7-3-76	12.44	1,250
Headwater diversion channel basin							
07021200	Sunnybrook Creek at Lutesville	Lat 37°17'05", long 89°58'55", in NW¼SE¼ sec.7, T.30 N., R.10 E., Bollinger County, on bridge under State Highway 51, 0.5 mi (0.8 km) south of Lutesville.	0.52 (1.35)	1955-75	8-1-76	2.22	24
St. Francis River basin							
07033000	Wolf Creek near Farmington	Lat 37°45'45", long 90°23'15", in SE¼ sec.5, T.35 N., R.6 E. St. Francois County, at bridge on State Highway 00, 1.5 mi (0.8 km) southeast of Farmington.	40.3 (104)	1940† 1955-76	12-15-76	11.24	1,150
07038000	Clark Creek at Patterson	Lat 37°11'25", long 90°32'20", in NE¼ sec.18, T.29 N., R.5 E., Wayne County, at bridge on State Highway 34, 0.6 mi (1.0 km) east of Patterson.	37.5 (97.1)	1940† 1955-76	7-3-76	12.23	10,800
07040110	Delaware Creek Tributary near Bloomfield	Lat 36°51'35", long 89°56'10", in NW¼NE¼ sec.35, T.26 N., R.10 E., Stoddard County, at culvert under State Highway 25, 1.8 mi (2.9 km) southwest of Bloomfield.	0.38 (0.98)	1955-71 1972-76f	6-15-76	14.85	220
White River basin							
07050800	Maple Grove Branch near Ozark	Lat 37°04'20", long 93°13'05", in SW¼NE¼ sec.3, T.27 N., R.21 W., Christian County, at culvert under State Highway NN, 3.4 mi (5.5 km) north of Ozark.	0.64 (1.66)	1957-65 1966-71f 1972-76	7-3-76	6.71	224

Annual maximum discharge at crest-stage partial-record stations--Continued

Station no.	Station name	Location	Drainage area (sq mi)	Period of record	Annual Date	maximum Gage height (feet)	Dis- charge (ft ³ /s)
White River basin--Continued							
07052700	Brawley Hollow near Cassville	Lat 36°38'50", long 93°54'15", in NE¼SE¼ sec.1, T.22 N., R.28 W., Barry County, at culvert under State Highway 37, 3.1 mi (5.0 km) southwest of Cassville.	2.61 (6.76)	1960-66 1967-76f	7-3-76	17.30	670
07053950	Ingenthron Hollow near Forsyth	Lat 36°43'52", long 93°07'30", in SW¼NE¼ sec.17, T.24 N., R.20 W., Taney County, at culvert under State Road H, 2 mi (3.2 km) north of Forsyth.	0.65 (1.68)	1957-62 1963-66f 1967-76	12-6-75	12.43	75
07054100	Cedar Hollow at Bradleyville	Lat 36°46'45", long 92°55'25", in NE¼SW¼ sec.10, T.24 N., R.18 W., Taney County, at culvert under State Highway 76, 0.8 mi (1.3 km) southwest of Bradleyville.	0.83 (2.15)	1957-76	+	+	<70
07054200	Yandell Branch near Kirbyville	Lat 36°36'36", long 93°05'47", in SW¼ sec.27, T.23 N., R.20 W., Taney County, at culvert on State Road K, 2.8 mi (4.5 km) southeast of Kirbyville.	0.33 (0.85)	1955-66 1967-72f 1973-76	12-6-75	13.68	19
07054300	Gray Branch at Lutie	Lat 36°35'05", long 92°42'30", in NE¼SW¼ sec.15, T.22 N., R.16 W., Ozark County, at culvert under U.S. Highway 160, 1.7 mi (2.7 km) west of Lutie.	0.23 (0.60)	1955-59 1960-62f 1963-71 1973-76	+	+	<50
07061800	Brawley Hollow near Centerville	Lat 37°20'59", long 90°58'14", in SE¼NW¼ sec.29, T.31 N., R.1 E., Reynolds County, at culvert under State Highway 21, about 6 mi (9.6 km) south of Centerville.	1.00 (2.59)	1955-76	7-3-76	4.64	170
07066800	Sycamore Creek near Winona	Lat 37°02'45", long 91°19'30", in S¼SW¼ sec.31, T.28 N., R.3 W., Shannon County, at culvert under State Highway 19, about 3 mi (4.8 km) north of Winona.	0.88 (2.28)	1955-64 1966-71f 1972-76	+	+	<40
07068200	North Prong Little Black River at Hunter	Lat 36°53'25", long 90°50'30", in NE¼SE¼ sec.21, T.26 N., R.2 E., Carter County, at culvert under State Highway 21, at Hunter.	1.23 (3.18)	1958-64 1966-71f 1972-76	7-28-76	11.76	162
07068500	Little Black River near Fairdealing	Lat 36°39'40", long 90°34'25", in NW¼NW¼ sec.7, T.23 N., R.5 E., Ripley County, at bridge on U.S. Highway 160, 2.5 mi (4.0 km) east of Fairdealing.	187 (484)	1940-42† 1955-76	7-4-76	14.84	2,120
07069100	Adams Branch near West Plains	Lat 36°41'35", long 91°48'06", in SE¼NW¼ sec.1, T.23 N., R.8 W., Howell County, at culvert under U.S. Highway 63, 4 mi (6.4 km) southeast of West Plains.	2.27 (5.88)	1955-70 1971-76f	6-23-76	4.36	240
07070200	Burnham Branch near Willow Springs	Lat 36°56'00", long 91°56'00", in NW¼NE¼ sec.16, T.26 N., R.9 W., Howell County, at culvert under U.S. Highway 63, 4.5 mi (7.2 km) southeast of Willow Springs.	1.27 (3.29)	1955-72 1973-76f	12-6-75	9.15	15
07071800	Williams Spring Branch near Alton	Lat 36°40'35", long 91°20'10", in SE¼SW¼ sec.6, T.23 N., R.3 W., Oregon County, on bridge on U.S. Highway 160 and 4 mi (6.4 km) east of Alton.	4.24 (11.0)	1954-76	+	+	<120
Arkansas River basin							
07185600	South Fork Stahl Creek near Miller	Lat 37°11'15", long 93°50'25", in NE¼NE¼ sec.35, T.29 N., R.27 W., Lawrence County, at culvert on State Highway 39, 2 mi (3.2 km) south of Miller.	0.94 (2.43)	1951-70 1971-75f	7-3-76	3.11	175

DISCHARGE AT PARTIAL-RECORD STATIONS

Annual maximum discharge at crest-stage partial-record stations--Continued

Station no.	Station name	Location	^g Drainage area (sq mi)	Period of record	Annual Date	maximum Gage height (feet)	Dis- charge (ft ³ /s)
Arkansas River basin--Continued							
07185900	O'Possum Creek at Jasper	Lat 37°19'20", long 94°18'09", in NE¼NE¼ sec.26, T.30 N., R.31 W., Jasper County, on wingwall of bridge on U.S. Highway 71, just south of Jasper.	9.67 (25.0)	1955-70 1971-75f	7-3-76	15.82	3,290
07186950	North Fork Carver Branch at Diamond	Lat 36°59'45", long 94°19'50", in SW¼SW¼ sec.4, T.26 N., R.31 W., Newton County, at culvert under State Highway V, 0.8 mi (1.3 km) west of Diamond.	0.33 (0.85)	1955-60 1961-66f 1967-76	7-3-76	8.37	110

+ Not determined.

† Operated as a continuous-record gaging station.

f Discharge measurements, daily gage-height, and rainfall records available.

g Figures of drainage area in parentheses are in square kilometres (km²).

< Less than.

Water-quality partial-record stations are particular 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 1975 TO SEPTEMBER 1976

DATE	INSTANTANEOUS DIS-CHARGE (CFS)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	FECAL COLIFORM (COL. PER 100 ML)	STREP-TOCOCOCCI (COLONIES PER 100 ML)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)
WHITE RIVER BASIN										
07064400 - MONTAUK SPRINGS AT MONTAUK, MO (LAT 37 27 36 LONG 091 40 59)										
SEP , 1976 24...	51	328	7.2	15.0	8.3	82	<1	18	192	0
07064440 - CURRENT RIVER BELOW MONTAUK STATE PARK (LAT 37 27 01 LONG 091 29 41)										
SEP , 1976 24...	64	325	7.7	15.5	10.0	100	10	110	192	0
07064530 - WELCH SPRING NEAR AKERS, MO (LAT 37 23 38 LONG 091 34 25)										
SEP , 1976 24...	65	375	7.3	14.5	8.6	83	1	2	224	0
07064555 - PULLTITE SPRING NEAR ROUND SPRING, MO (LAT 37 20 03 LONG 091 29 24)										
SEP , 1976 24...	24	325	7.5	14.5	8.4	82	<1	<1	198	0
07065000 - ROUND SPRING AT ROUND SPRING MO (LAT 37 16 57 LONG 091 24 26)										
SEP , 1976 22...	25	358	7.5	15.0	8.5	84	1	9	222	0
07065500 - ALLEY SPRING AT ALLEY MO (LAT 37 09 14 LONG 091 26 29)										
SEP , 1976 23...	78	325	7.3	15.0	9.0	89	1	1	196	0
07066110 - JACKS FORK ABOVE TWO RIVERS (LAT 37 10 53 LONG 091 17 36)										
SEP , 1976 23...	132	373	7.7	17.0	9.0	93	15	39	224	0
07066510 - CURRENT RIVER ABOVE POWDER MILL (LAT 37 10 32 LONG 091 12 48)										
SEP , 1976 23...	533	355	8.0	18.0	8.9	93	7	40	220	0
07066550 - BLUE SPRING NEAR EMINENCE, MO. (LAT 37 09 58 LONG 091 09 47)										
SEP , 1976 23...	91	335	7.4	14.5	9.6	93	1	30	188	0
07067500 - BIG SPRING NEAR VAN BUREN, MO. (LAT 36 57 05 LONG 090 59 31)										
SEP , 1976 22...	345	368	7.6	15.0	8.8	87	<1	<1	228	0
07067800 - CURRENT RIVER BELOW HAWES CAMPGROUND (LAT 36 49 08 LONG 090 56 48)										
SEP , 1976 22...	1110	360	8.2	18.0	8.8	92	10	17	228	0

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL PHYTO- PLANK- TON (CELLS PER ML)
WHITE RIVER BASIN--Continued										
07064400 - MONTAUK SPRINGS AT MONTAUK, MO (LAT 37 27 36 LONG 091 40 59)										
SEP , 1976 24...	.84	.01	.00	.84	.01	0	5	0	70	--
07064440 - CURRENT RIVER BELOW MONTAUK STATE PARK (LAT 37 27 01 LONG 091 29 41)										
SEP , 1976 24...	.76	.08	.04	.90	.03	0	9	0	70	380
07064530 - WELCH SPRING NEAR AKERS, MO (LAT 37 23 38 LONG 091 34 25)										
SEP , 1976 24...	.58	.00	.00	.58	.00	0	8	0	100	--
07064555 - PULLTITE SPRING NEAR ROUND SPRING, MO (LAT 37 20 03 LONG 091 29 24)										
SEP , 1976 24...	.51	.00	.00	.51	.00	0	6	0	90	--
07065000 - ROUND SPRING AT ROUND SPRING MO (LAT 37 16 57 LONG 091 24 26)										
SEP , 1976 22...	.28	.00	.00	.28	.00	0	7	0	160	--
07065500 - ALLEY SPRING AT ALLEY MO (LAT 37 09 14 LONG 091 26 29)										
SEP , 1976 23...	.57	.00	.00	.57	.01	0	6	0	80	--
07066110 - JACKS FORK ABOVE TWO RIVERS (LAT 37 10 53 LONG 091 17 36)										
SEP , 1976 23...	.28	.01	.01	.30	.00	0	7	0	140	330
07066510 - CURRENT RIVER ABOVE POWDER MILL (LAT 37 10 32 LONG 091 12 48)										
SEP , 1976 23...	.25	.01	.00	.25	.00	0	9	0	100	160
07066550 - BLUE SPRING NEAR EMINENCE, MO. (LAT 37 09 58 LONG 091 09 47)										
SEP , 1976 23...	.37	.00	.00	.37	.00	0	22	0	40	--
07067500 - BIG SPRING NEAR VAN BUREN, MO. (LAT 36 57 05 LONG 090 59 31)										
SEP , 1976 22...	.28	.01	.00	.28	.00	0	7	0	130	--
07067800 - CURRENT RIVER BELOW HAWES CAMPGROUND (LAT 36 49 08 LONG 090 56 48)										
SEP , 1976 22...	.17	.01	.00	.17	.00	0	6	0	60	3400

QUALITY OF GROUND WATER

297

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

STATION	NUMBER	DATE OF SAMPLE	TOTAL DEPTH OF WELL (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	FECAL COLI- FORM (COL. PER 100 ML)	STREP- TOCOCCI (COL- ONIES PER 100 ML)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NITRATE (N) (MG/L)
CARTER COUNTY												
365651090593101		76-09-22	250	475	7.4	16.5	<1	<1	316	0	1.3	.06
SHANNON COUNTY												
370829091264501		76-09-23	650	450	7.4	16.0	<1	<1	292	0	1.3	.12
371645091242801		76-09-22	400	520	7.5	15.0	<1	<1	344	0	1.4	.14

DATE OF SAMPLE	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	DIS- SOL- VED ORGANIC CARBON (C) (MG/L)
CARTER COUNTY					
76-09-22	.00	.00	.06	.00	1.0
SHANNON COUNTY					
76-09-23	.01	.00	.12	.00	4.0
76-09-22	.00	.05	.19	.00	2.5

	Page		Page
Accuracy of field data and computed results.....	10	Collection and computation of stage and water-discharge data.....	8
Acknowledgment.....	1	Collection and examination of water-quality data.....	10
Acre-foot, definition of.....	3	Contents, definition of.....	V
Adams Branch near West Plains.....	293	Control, definition of.....	4
Algae, definition of.....	3	Control structure, definition of.....	4
Alley Spring at Alley.....	268,295	Conversion tables to metric measure.....	Back Cover
Analyses of samples collected at miscellaneous sites and wells.....	297	Cooperation.....	1
Analyses of samples collected at water-quality partial-record stations.....	295	Cottonwood Creek Tributary at Estill....	288
Aquifer, definition of.....	3	Coyle Branch at Houston.....	291
Arkansas River basin, hydrologic-station records in.....	276-284	Crest-stage stations, maximum stage and discharge at partial-record stations.....	285
Artificial substrate, definition of.....	6	Cubic feet per second, definition of....	4
Ash mass, definition of.....	3	Cubic feet per second per square mile, definition of.....	4
Bacteria, definition of.....	3	Current River above Powder Mill.....	295
Baldwin Branch near Jefferson City.....	288	at Doniphan.....	272
Bean Creek near Mexico.....	285	at Van Buren.....	270
Bear Creek at Hannibal.....	32	below Hawes Campground.....	295
Beaver Creek near Rolla.....	291	below Montauk State Park.....	295
Bed material, definition of.....	3		
Beeler Branch near Cabool.....	162	Data, accuracy of.....	10
Behmke Branch near Rolla.....	292	other available.....	10
Bennett Spring at Bennett Springs.....	144	Definition of terms.....	3
Big Branch Tributary near Wayland.....	285	Delaware Creek Tributary near Bloomfield.....	292
Big Buffalo Creek near Stover.....	141	Des Moines River at St. Francisville....	13
Big Muddy Creek at Lowry City.....	289	De Moss Branch near Stanberry.....	286
Big Piney River near Big Piney.....	163	Diatoms, definition of.....	5
Big River at Byrnesville.....	199	Dickerson Creek Tributary near Jefferson City.....	289
at Irondale.....	197	Discharge at partial-record stations.....	285
near De Soto.....	198	Discharge, definition of.....	4
Big Slough near Wilcox.....	286	Dissolved, definition of.....	4
Big Spring near Van Buren.....	271,295	Diversity index, definition of.....	4
Biomass, definition of.....	3	Doane Branch near Kingdom City.....	290
Black River at Leeper.....	264	Downstream order and station numbers....	VII
at Poplar Bluff.....	265	Drainage area, definition of.....	4
near Annapolis.....	262	Drainage basin, definition of.....	4
Blackwater River at Blue Lick.....	110	Dry mass, definition of.....	3
Blue-green algae, definition of.....	5		
Blue River near Kansas City.....	77	Easdale Branch near Shelbyville.....	285
Blue River basin, hydrologic records in.....	77-81	East Fork Black River at Lesterville....	261
Blue Spring near Eminence.....	295	East Fork Little Blue River near Blue Springs.....	80
Bourbeuse River at Union.....	196	East Fork Grand River at Albany.....	286
near Highgate.....	194	East Fork Little Chariton River near Huntsville.....	108
near St. James.....	193	near Macon.....	107
near Spring Bluff.....	195	East Fork Yellow Creek near Brookfield..	287
Brawley Hollow near Cassville.....	293	Eleven Point River near Bardley.....	275
near Centerville.....	293	near Thomasville.....	273
Bridge Creek Branch near Baring.....	285	Elk Fork Salt River near Madison.....	36
Brush Creek at Main Street in Kansas City.....	78	Elk River near Tiff City.....	284
Bryant Creek near Tecumseh.....	260	Explanation of stage and water-discharge records.....	8
Burnham Branch near Willow Springs.....	293	Explanation of water-quality records....	10
Calendar for water year 1976.....	Front Cover		
Camp Creek near Elsberry.....	285	Fabius River basin, hydrologic records in.....	28-30
Castor River at Aquilla.....	229	Fecal coliform bacteria, definition of.....	3
at Zalma.....	204	Fecal streptococcal bacteria, definition of.....	3
Cedar Creek near Pleasant View.....	127	Ferguson Branch at Nemo.....	289
Cedar Hollow at Bradleyville.....	293	First Creek near Nashua.....	286
Cells/volume, definition of.....	3	Fountain Farm Branch near Potosi.....	292
Center Creek near Cartersville.....	280	Fox River at Wayland.....	27
Cfs-day, definition of.....	3	Franca Branch near Brighton.....	289
Chariton River at Livonia.....	103	Fudge Hollow near Licking.....	266
at Novinger.....	104		
at Elmer.....	288	Gage height, definition of.....	4
near Prairie Hill.....	105	Gaging station, definition of.....	4
Chariton River basin, hydrologic records in.....	103-106	Gasconade River at Jerome.....	165
Chemical oxygen demand, definition of.....	4	Gasconade River basin, hydrologic records in.....	161-165
Chlorophyll, definition of.....	4	Granddaddy Creek near Urich.....	290
Chub Creek near Lincoln.....	290		
Clark Creek at Patterson.....	292		
near Piedmont.....	223		
Clearwater Lake near Piedmont.....	263		
Collection and computation of data.....	8		

	Page		Page
Grand River near Gallatin.....	84	Mean discharge, definition of.....	4
near Stanberry.....	286	Meramec River at Cook Station.....	189
near Sumner.....	88	near Eureka.....	200
Grand River basin, hydrologic		near Steelville.....	191
records in.....	84-102	near Sullivan.....	192
Grand River Tributary near Utica.....	287	Meramec River basin, hydrologic	
Gray Branch at Lutie.....	293	records in.....	189-200
Green algae, definition of.....	5	Micrograms per gram, definition of.....	4
Greer Spring at Greer.....	274	Micrograms per litre, definition of.....	4
Hardness, deninition of.....	4	Middle Fabius River near Baring.....	285
Hazel Branch Tributary near Wardsville..	289	Middle Fabius River near Monticello....	29
Hinkson Creek at Columbia.....	112	Middle Fork Grand River near Albany....	286
Hoehs Branch near Uniontown.....	292	Middle Fork Salt River at Paris.....	35
Hurricane Creek near Elsberry.....	285	Mill Creek at Oregon.....	55
Hydrologic conditions.....	3	Milligrams per litre, definition of.....	5
Hydrologic-data station records.....	6	Mississippi River at Alton, IL.....	39
Hydrologic unit, definition of.....	4	at Chester, IL.....	202
Ingenthron Hollow near Forsyth.....	293	at Kimmswick.....	201
Instantaneous discharge, definition of..	4	at St. Louis.....	184
Introduction.....	1	at Thebes, IL.....	205
Jackbuster Creek at Eugene.....	290	below Alton, IL.....	41
Jacks Fork above Two Rivers.....	295	Missouri River, at Boonville.....	111
at Eminence.....	269	at Hermann.....	166
James River at Galena.....	256	at Kansas City.....	76
near Boaz.....	249	at Rulo, NB.....	54
near Springfield.....	235	at St. Joseph.....	57
near Strafford.....	234	at Waverly.....	83
near Wilson Creek.....	236	Moffet Branch near Reger.....	287
Jenkins Branch at Gower.....	73	Moniteau Creek near Fayette.....	288
Kansas River at De Soto, KS.....	75	Montauk Springs at Montauk.....	295
Lakes:		Murphy Branch near Crystal City.....	292
Clearwater Lake near Piedmont.....	263	Mussel Fork near Musselfork.....	106
Lake of the Ozarks near Bagnell.....	146	National stream-quality accounting	
Pomme de Terre Lake near Hermitage....	132	network stations, definition of....	8
Stockton Lake near Stockton.....	118	Natural substrates, definition of.....	6
Table Rock Lake near Branson.....	257	Networks and programs, special.....	8
Wappapello Lake at Wappapello.....	224	Niangua Branch at Marshfield.....	290
Lake of the Ozarks near Bagnell.....	146	Nichols Branch near Palmyra.....	285
Lamine River basin, hydrologic		Nodaway River near	
records in.....	109-110	Burlington Junction.....	56
Lanes Fork near Vichy.....	292	North Fabius River at Monticello.....	28
Langenberg Branch near Rosebud.....	292	North Fork Craver Branch at Diamond....	294
Lindley Creek near Polk.....	131	North Fork River near Tecumseh.....	259
Little Berger Creek Tributary near		North Fork Panther Creek Tributary	
Hermann.....	291	near Appleton City.....	289
Little Black River near Fairdealing....	293	North Prong Little Black River at	
Little Blue River below Longview		Hunter.....	293
damsite in Kansas City.....	79	North River at Palmyra.....	31
near Lake City.....	81	Numbering system for miscellaneous	
Little Chariton River basin, hydrologic		sites and wells.....	7
records in.....	107-108	Olinger Creek near Buffalo.....	289
Little Gravois Creek near Versailles....	290	One Hundred and Two River at Maryville..	71
Little Piney Creek at Newburg.....	164	O'Neill Branch at Osborn.....	286
Little Platte River at Smithville.....	74	Onion Branch at St. Catherine.....	287
Little River ditch 1 near Kennett.....	227	O'Possum Creek at Jasper.....	294
near Morehouse.....	230	Order, downstream and station number...	7
Little River ditch 66 near Kennett.....	232	Organism count/area, definition of.....	5
81 near Kennett.....	226	Organism count/volume, definition of...	5
251 near Kennett.....	231	Organism, definition of.....	5
251 near Lilbourn.....	228	Organic mass, definition of.....	3
259 near Kennett.....	233	Osage Fork at Drynob.....	161
Little Sac River near Morrisville.....	117	Osage River at Osceola.....	129
Little Turkey Creek Tributary near		at Warsaw.....	139
Warsaw.....	290	below St. Thomas.....	149
Long Branch near Vienna.....	290	near Bagnell.....	147
Love Creek near Salem.....	291	near St. Thomas.....	148
Mams Slough Creek near Wellsville.....	286	Osage River basin, hydrologic	
Map showing location of hydrologic-		records in.....	113-161
data stations.....	301	Other data available.....	10
Maple Grove Branch near Ozark.....	292	Partial-record station, definition of...	5
Meramec Spring near St. James.....	190	Particle-size, definition of.....	5
Maries River at Westphalia.....	290	Particle-size classification,	
Mean concentration, definition of.....	6	definition of.....	5
		Paulsell Branch near Rolla.....	291
		Penzer Hollow near Rolla.....	291
		Percent composition, definition of.....	5

	Page		Page
Pesticides, definition of.....	5	Stage-discharge relation, definition of.....	6
Petite Saline Creek Tributary near Bellair.....	288	Staples Branch near Burlington Junction.....	286
Phytoplankton, definition of.....	5	Stahl Creek near Miller.....	276
Pickrel Creek Tributary near Republic.....	289	Starks Creek at Preston.....	145
Picocurie, definition of.....	5	Station numbers.....	7
Plankton, definition of.....	5	Stockton Lake near Stockton.....	118
Platte River near Agency.....	72	Strop Branch near Novinger.....	287
Platte River basin (Iowa-Missouri), hydrologic records in.....	71-74	Sunnybrook Creek at Lutesville.....	292
Polychlorinated biphenyls, definition of.....	5	Streamflow, definition of.....	6
Pomme de Terre Lake near Hermitage.....	132	Substrate, definition of.....	6
Pomme de Terre River at Hermitage.....	136	Surface area, definition of.....	6
near Hermitage.....	133	Surficial bed material, definition of.....	6
near Polk.....	130	Suspended, definition of.....	6
Prairie Branch near Decaturville.....	290	Suspended sediment, definition of.....	6
Prewett Hollow near Dixon.....	291	Suspended-sediment concentration, definition of.....	6
Preface.....	III	Suspended-sediment discharge, definition of.....	6
Primary productivity, definition of.....	6	Suspended-sediment load, definition of.....	6
Publications on techniques of water-resources investigations.....	12	Sycamore Creek near Winona.....	293
Pulltite Spring near Round Spring.....	295	Table Rock Lake near Branson.....	257
Puzzle Creek near Salisbury.....	288	Tarkio River at Fairfax.....	53
Radiochemical program.....	8	Taxonomy, definition of.....	7
Ragan Branch near Rolla.....	291	Terms and abbreviations, definition of.....	3-7
Reid Branch near Bowling Green.....	286	Thermograph, definition of.....	6
Round Spring at Round Spring.....	267,295	Thompson River at Mount Moriah.....	85
Rumbo Branch at Danville.....	291	at Trenton.....	86
Runoff in inches, definition of.....	6	near Trenton.....	287
Sac River near Caplinger Mills.....	128	Time-weighted average, definition of.....	7
near Dadeville.....	113	Tons per acre-foot, definition of.....	7
below Stockton.....	126	Tons per day, definition of.....	7
near Stockton.....	125	Total, definition of.....	7
Sac River Tributary near Caplinger Mills.....	289	Total coliform bacteria, definition of.....	3
St. Francis River at Wappapello.....	225	Total load, definition of.....	7
near Patterson.....	222	Total organism count, definition of.....	5
St. Francis River basin, hydrologic records in.....	222-233	Total sediment discharge, definition of.....	6
Salt River at Hagers Grove.....	33	Traxler Branch near Columbia.....	288
near Monroe City.....	37	Trent Branch near Waverly.....	288
near New London.....	38	Turkey Creek near Joplin.....	281
Salt River basin, hydrologic-records in.....	33-38	Turnback Creek above Greenfield.....	116
Sediment, definition of.....	6,11	Van Cleve Branch near Meta.....	290
Shaver Creek Tributary near Clifton City.....	288	Wappapello Lake at Wappapello.....	224
Shiloh Branch near Marshall.....	288	Water analysis.....	11
Shoal Creek above Joplin.....	283	Water temperature.....	11
near Braymer.....	87	Weighted average, definition of.....	7
near Hartford.....	287	Welch Spring near Akers.....	295
Shotwell Creek near Ellisville.....	291	Weldon River near Mercer.....	287
Simpson Branch near Bethany.....	287	near Trenton.....	287
Sni-A-Bar Creek near Tarsney.....	82	West Fork Clear Creek Tributary near Nevada.....	289
Solute, definition of.....	6	West Fork Leakey Creek near Chillicothe.....	287
South Fabius River near Taylor.....	30	West Yellow Creek near Brookfield.....	102
South Fork Blackwater River near Elm.....	109	Wet mass, definition of.....	3
South Fork Salt River near Santa Fe.....	34	Wheeler Branch near Mountain Grove.....	291
South Fork Stahl Creek near Miller.....	293	White Cloud Creek near Maryville.....	286
South Grand River at Archie.....	138	White River near Branson.....	258
Special networks and programs.....	8	White River basin, hydrologic records in.....	234-275
Specific conductance, definition of.....	6	Williams Spring Branch near Alton.....	293
Spring River at Carthage.....	278	Wilsons Creek near Battlefield.....	243
at Larussell.....	277	near Springfield.....	237
near Waco.....	279	Wolf Creek near Farmington.....	292
Springs:		WRD, definition of.....	7
Alley Spring at Alley.....	268,295	WSP, definition of.....	7
Bennett Spring at Bennett Springs.....	144	Yandell Branch near Kirbyville.....	293
Big Spring near Van Buren.....	271,295	Youngs Creek near Mexico.....	285
Greer Spring at Greer.....	274	Zooplankton, definition of.....	5
Maramec Spring near St. James.....	190		
Round Spring at Round Spring.....	267,295		

FACTORS FOR CONVERTING ENGLISH UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the English units published herein to the International System of Units (SI). Subsequent reports will contain both the English and SI unit equivalents in the station manuscript descriptions until such time that all data will be published in SI units.

Multiply English units	By	To obtain SI units
<i>Length</i>		
inches (in)	2.54×10^1	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^0	kilometers (km)
<i>Area</i>		
acres	4.047×10^3	square meters (m ²)
	4.047×10^{-1}	*hectares (ha)
	4.047×10^{-1}	square hectometers (hm ²)
	4.047×10^{-3}	square kilometers (km ²)
square miles (mi ²)	2.590×10^6	square kilometers (km ²)
<i>Volume</i>		
gallons (gal)	3.785×10^0	**liters (l)
	3.785×10^0	cubic decimeters (dm ³)
	3.785×10^{-3}	cubic meters (m ³)
million gallons (10 ⁶ gal)	3.785×10^3	cubic meters (m ³)
	3.785×10^{-3}	cubic hectometers (hm ³)
cubic feet (ft ³)	2.832×10^1	cubic decimeters (dm ³)
	2.832×10^{-2}	cubic meters (m ³)
cfs-days [(ft ³ /s) · d]	2.447×10^3	cubic meters (m ³)
	2.447×10^{-3}	cubic hectometers (hm ³)
acre-feet (acre-ft)	1.233×10^3	cubic meters (m ³)
	1.233×10^{-3}	cubic hectometers (hm ³)
	1.233×10^{-6}	cubic kilometers (km ³)
<i>Flow</i>		
cubic feet per second (ft ³ /s)	2.832×10^1	liters per second (l/s)
	2.832×10^1	cubic decimeters per second (dm ³ /s)
	2.832×10^{-2}	cubic meters per second (m ³ /s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (l/s)
	6.309×10^{-2}	cubic decimeters per second (dm ³ /s)
	6.309×10^{-5}	cubic meters per second (m ³ /s)
million gallons per day (mgal/d)	4.381×10^1	cubic decimeters per second (dm ³ /s)
	4.381×10^{-2}	cubic meters per second (m ³ /s)
<i>Mass</i>		
tons (short)	9.072×10^{-1}	tonnes (t)

*The unit hectare is approved for use with the International System (SI) for a limited time. See NBS Special Bulletin 330, p.15, 1972 edition.

**The unit liter is accepted for use with the International System (SI). See NBS Special Bulletin 330, p. 13, 1972 edition.

U.S. DEPARTMENT OF THE INTERIOR
Geological Survey
1400 Independence Road, Mail Stop 200
Rolla MO 65401

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE \$300

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF THE INTERIOR
INT 413

USGS LIBRARY - RESTON

