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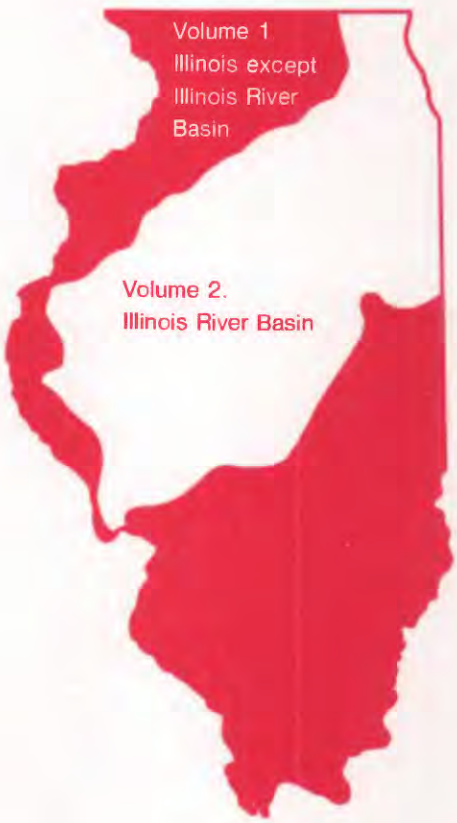
Water Resources Data Illinois Water Year 1997

Volume 1. Illinois except Illinois River Basin



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

CALENDAR FOR WATER YEAR 1997

1996

OCTOBER

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1997

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Water Resources Data Illinois Water Year 1997

Volume 1. Illinois except Illinois River Basin

by J.K. LaTour, J.C. Maurer, and T.L. Wicker

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

U.S. DEPARTMENT OF THE INTERIOR
BRUCE BABBITT, Secretary

U.S. GEOLOGICAL SURVEY
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Urbana, Illinois 61801

Copies of this report can be purchased from:

U.S. Geological Survey
Branch of Information Services
Box 25286, Bldg. 810
Denver, CO 80225-0286

PREFACE

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

Volume 1. Illinois except Illinois River Basin

Volume 2. Illinois River Basin

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

De Kalb Office	Mt. Vernon Office	NAWQA	Urbana Office
J.W. Angel	P.J. Draper	D.L. Adolphson	C.F. Avery
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S.R. Cutshaw	J.R. Norris	J. Catalano	T.M. Halfar
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D.L. Schrader		D.G. Frothingham	G.P. Johnson
P.C. Taylor		M.A. Harris	A.L. Kupka
		R.B. King	D.P. Morgan
		W.S. Morrow	D.T. Olson
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			A.M. Waite

Becky L. Vickers, Jennifer Sharpe, and Sherry Reeves contributed significantly to the compilation and conversion of the data tables.

This report was prepared in cooperation with the State of Illinois and with other agencies under the general supervision of Daniel J. Fitzpatrick, District Chief.

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13. ABSTRACT *(Maximum 200 words)*

Water-resources data for Illinois for the 1997 water year consist of records of stage, discharge, and water quality of streams; stage and water quality of lakes and reservoirs; and water level and water quality of ground-water wells. This volume contains (1) discharge for 74 surface-water gaging stations and for 5 crest-stage partial-record stations; (2) stage for 3 surface-water gaging stations; (3) stage for 2 reservoirs; (4) water-quality records for 6 surface-water gaging stations; (5) sediment discharge records for 12 surface-water gaging stations; and (6) water-level records for 4 observation wells. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous water-quality analyses. These data, together with the data in Volume 2, represent that part of the National Water System operated by the U.S. Geological Survey in cooperation with Federal, State, and local agencies in Illinois and neighboring States.

14. SUBJECT TERMS
*Illinois, *Hydrologic data, *Surface-water records, *Ground-water levels, *Water quality, Streamflow, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analysis, Sediment discharge, Water temperature, Sampling, Water level, Water analysis

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

NOTE:--Data for partial-record stations and miscellaneous sites for both surface-water discharge and quality are published in separate sections of the data report. See references at the end of this list for page numbers for these sections.

[Letters after station name designate type of data: (d) discharge, (g) gage height, (v) contents, (c) chemical, (m) microbiological, (s) sediment, and (e) elevation]

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

GROUND-WATER LEVELS

The following continuous-record surface-water discharge or stage-only stations (gaging stations) operated by the Illinois District have been discontinued. Daily streamflow or stage records were collected and published for the period of record, expressed in water years, shown for each station not in the Illinois River Basin (Volume 1). Those stations with an asterisk (*) after the station number are currently operated as crest-stage partial-record stations. Discontinued project stations with less than 3 years of record have not been included. Information regarding these stations may be obtained from the District Office at the address given on the back side of the title page of this report.

[mi^2, square miles, d, discharge; e, elevation (stage only); v, volume; --, not determined]

Station name	Station number	Drainage area (mi^2)	Period of record
Bluegrass Creek at Potomac, Ill. (d)	03336500	35.0	1950-71
Salt Fork near St. Joseph, Ill. (d)	03336900	134	1959-91
Saline Branch at Urbana, Ill. (d)	03337500	68.0	1936-58
Salt Fork near Homer, Ill. (d)	03338000	340	1945-58
Vermilion River near Catlin, Ill (d)	03338500	958	1940-58
Embarras River near Oakland, Ill. (d)	03343500	518	1910-15
Embarras River at State Highway 133 near Oakland, Ill. (d)	03343550	542	1979-82
Embarras River near Diona, Ill. (d)	03344000	919	1939-40, 1944-47, 1971-82
Range Creek near Casey, Ill. (d)	03344500	7.61	1951-82
Embarras River near Newton, Ill. (d)	03345000	1,392	1939-45
Embarras River at Lawrenceville, Ill. (d)	03346500	2,333	1930-34
Little Wabash River at Louisville, Ill. (d)	03378900	745	1965-82
Little Wabash River near Clay City, Ill. (e)	03379000	801	1909-13
Little Wabash River at Blood, Ill. (e)	03379600	1,387	1973-82
Little Wabash River near Golden Gate, Ill. (e)	03380000	1,792	1908-13, 1973-80
Skillet Fork near Iuka, Ill. (d)	03380350	208	1966-82
Horse Creek near Keenes, Ill. (d)	03380475	97.2	1959-90
Skillet Fork near Mill Shoals, Ill (e)	03381000	874	1909-13, 1975-78
Brushy Creek near Harco, Ill. (d)	03382170	13.3	1968-82
Middle Fork Saline River near Harrisburg, Ill. (d)	03382200	225	1924-32
North Fork Saline River near Ridgway, Ill. (d)	03382350	423	1965-69
Saline River near Junction, Ill. (d)	03382500	1,051	1940-71
Eagle Creek near Equality, Ill. (d)	03382510	8.51	1966-82
Hayes Creek at Glendale, Ill. (d)	03385000*	19.1	1949-75
Lake Glendale Inlet near Dixon Springs, Ill. (d)	03385500	1.05	1954-63
Lake Glendale Outlet near Dixon Springs, Ill. (d)	03386000	1.98	1955-63
Sugar Creek near Dixon Springs, Ill. (d)	03386500	9.93	1950-71
Wolf Lake at Chicago, Ill. (e)	04092500	--	1940-82
Galena River at Galena, Ill. (d)	05416000	196	1935-38
Galena River at Galena, Ill. (e)	05416000	196	1939
Plum River near Savanna, Ill. (d)	05419500	162	1935-41
Plum River below Carroll Creek near Savanna, Ill. (d)	05420000	230	1941-77
Cedar Creek near Winslow, Ill. (d)	05435000	1.31	1951-71
Pecatonica River at Shirland, Ill. (d)	05437000	2,550	1940-58
Coon Creek at Riley, Ill. (d)	05438250	85.1	1961-82
Killbuck Creek near Monroe Center, Ill. (d)	05440500	117	1940-71
Leaf River at Leaf River, Ill. (d)	05441000	103	1940-58
Rock River at Oregon, Ill. (d)	05441500	8,205	1940-49
Kyte River near Flagg Center, Ill. (d)	05442000	116	1940-51
Rock Creek near Coleta, Ill. (d)	05445000	82.8	1940-42

Station name	Station number	Drainage area (mi^2)	Period of record
Rock Creek near Morrison, Ill. (d)	05445500	158	1943-58
Rock Creek at Morrison, Ill. (d)	05446000*	164	1940-42, 1978-86
Green River at Amboy, Ill. (d)	05447000	201	1940-58
Pope Creek near Keithsburg, Ill. (d)	05467000	174	1935-86, 1991-96
Henderson Creek near Little York, Ill. (d)	05467500	151	1941-58
North Henderson Creek near Seaton, Ill. (d)	05468000	67.1	1941-51
Cedar Creek at Little York, Ill. (d)	05468500*	132	1941-71
Henderson Creek near Oquawka, Ill. (d)	05469000	432	1935-96
South Henderson Creek at Biggsville, Ill. (d)	05469500	82.9	1940-71
Hadley Creek near Barry, Ill. (d)	05502020*	40.9	1956-66
Hadley Creek at Kinderhook, Ill. (d)	05502040	72.7	1940-86
Hadley Creek near Shinn, Ill. (d)	05502080	73.6	1941-46
The Sny at Atlas, Ill. (d)	05512000	451	1940-42
Bay Creek at Nebo, Ill. (d)	05513000	148	1940-86
Long Lake at Stallings, Ill. (d)	05589000	5.00	1939-49
Canteen Creek at Caseyville, Ill. (d)	05589500	22.6	1940-82
Kaskaskia Ditch at Bondville, Ill. (d)	05590000	12.4	1949-90
Kaskaskia River near Pesotum, Ill. (d)	05590400	109	1965-79
Kaskaskia River at Ficklin, Ill. (d)	05590500	126	1954-64
Kaskaskia River near Arcola, Ill. (d)	05591000	375	1908-13
Asa Creek at Sullivan, Ill. (d)	05591500	8.05	1950-82
Lake Shelbyville near Shelbyville, Ill. (e,v)	05591950	1,054	1971-94
Wolf Creek near Beecher City, Ill. (d)	05592300	47.9	1959-82
Hickory Creek near Bluff City, Ill. (e)	05592600	77.8	1980-88
Carlyle Lake near Carlyle, Ill. (e,v)	05592990	2,717	1967-94
Martin Branch near Centralia, Ill. (d)	05593500	7.08	1932-43, 1949-55
Crooked Creek near Posey, Ill. (d)	05593525	344	1968-74
Blue Grass Creek near Raymond, Ill. (d)	05593600	17.3	1960-82
Sugar Creek at Albers, Ill. (d)	05594090	124	1973-82
Mud Creek near Marissa, Ill. (d)	05594330	72.4	1971-82
Silver Creek near Lebanon, Ill. (d)	05594500	324	1908-15
Kaskaskia River at New Athens, Ill. (d)	05595000	5,181	1910-21, 1935-71
Kaskaskia River at New Athens, Ill. (e)	05595000	5,181	1972-74
Marys River near Sparta, Ill. (d)	05595500	17.8	1949-71
Sevenmile Creek near Mt. Vernon, Ill. (d)	05595800	21.1	1961-82
Casey Fork at Route 37 near Mt. Vernon, Ill. (e)	05595830	87.7	1980-85
Rend Lake near Benton, Ill. (e,v)	05595950	488	1971-94
Big Muddy River near Benton, Ill. (d)	05596000	502	1946-70
Tilley Creek near West Frankfort, Ill. (d)	05596500	3.87	1939-46, 1949-55
Crab Orchard Lake near Carterville, Ill. (e)	05598000	--	1953-79
Beaucoup Creek near Pinckneyville, Ill. (d)	05598500	231	1909-15
Beaucoup Creek near Matthews, Ill. (d)	05599000	292	1946-82
Big Creek near Wetaug, Ill. (d)	05600000*	32.2	1941-71

The following stations are discontinued continuing-record surface-water-quality stations operated by the Illinois District. Daily records of temperature, specific conductance, or sediment were collected and published for the period of record, expressed in water years, shown for each station not in the Illinois River Basin (Volume 1). Discontinued project stations with short periods of record have not been included.

[mi^2, square miles, --, not determined]

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record
Middle Fork Vermilion River above Oakwood, Ill.	03336645	432	S.C., Temp.	1979
Salt Fork near St. Joseph, Ill.	03336900	134	Temp.	1959-62
Embarras River at State Highway 133 near Oakland, Ill.	03343550	542	Sed.	1979-82
Embarras River near Diona, Ill.	03344000	919	S.C., Temp.	1971-76
Little Wabash River at Louisville, Ill.	03378900	745	S.C., Temp.	1971-79
			Sed.	1977-81
Skillet Fork near Iuka, Ill.	03380350	208	S.C., Temp.	1973-76
Skillet Fork at Wayne City, Ill.	03380500	464	S.C., Temp.	1979
Little Wabash River at Main Street at Carmi, Ill.	03381495	3,088	S.C., Temp.	1980-81
Little Wabash River at Carmi, Ill.	03381500	3,102	S.C., Temp.	1978-79
Ohio River at Old Shawneetown, Ill.	03381700	--	Temp.	1975-77
South Fork Saline River near Carrier Mills, Ill.	03382100	147	S.C., Temp., Sed.	1980-81
Brushy Creek near Harco, Ill.	03382170	13.3	S.C., Sed.	1980-81
			Temp.	1980
Lusk Creek near Eddyville, Ill.	03384450	42.9	S.C., Temp., Sed.	1980-81
Calumet River at Chicago, Ill.	04092490	--	Temp.	1974-77
Lake Michigan at Calumet Park at Chicago, Ill.	04092550	--	Temp.	1974-77
Mississippi River at Dam 13 near Fulton, Ill.	05420400	85,600	Temp.	1969-77
Mississippi River at Dam 14 near Hampton, Ill.	05422400	88,400	Temp.	1973-77
South Branch Kishwaukee River at De Kalb, Ill.	05439000	77.7	Sed.	1980-81
Kishwaukee River near Perryville, Ill.	05440000	1,099	Sed.	1979-81
Rock River at Oregon, Ill.	05441500	8,205	Temp.	1975-77
Rock River near Joslin, Ill.	05446500	9,549	S.C., Temp.	1976-81
			Sed.	1980-82
Green River near Geneseo, Ill.	05447500	1,003	Sed.	1978-81
Edwards River near New Boston, Ill.	05466500	445	Sed.	1979-81
Henderson Creek near Oquawka, Ill.	05469000	432	Sed.	1978-81
Mississippi River at Alton, Ill.	05587500	171,500	S.C.	1977
			Temp.	1968-77
Kaskaskia River near Venedy Station, Ill.	05594100	4,393	S.C., Temp.	1975-81
White Walnut Creek near Pinckneyville, Ill.	05598480	16.5	S.C., Temp.	1980-81
Big Muddy River at Murphysboro, Ill.	05599500	2,169	S.C., Temp.	1975-81
Mississippi River at Kellogg, Ill.	07020125	706,300	Temp.	1974-77

Type of record: S.C., specific conductance; Temp., temperature; Sed., sediment.

The following are discontinued continuing-record stations operated by the Illinois District for which records of surface-water quality (collection frequency not less than quarterly) were published. The stations listed are for those not in the Illinois River Basin (Volume 1). Discontinued project stations with short periods of record have not been included.

[mi^2, square miles, --, not determined]

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
Middle Fork Vermilion River above Oakwood, Ill.	03336645	432	c,m	1978-91
Salt Fork near St. Joseph, Ill.	03336900	134	c,m	1978-91
Saline Branch near Mayview, Ill.	03337700	82.1	c,m	1978-90
Salt Fork near Oakwood, Ill.	03338097	489	c,m	1978-90
North Fork Vermilion River near Bismarck, Ill.	03338780	262	c,m	1978-91
Vermilion River near Danville, Ill.	03339000	1,290	c,m	1978-91
Little Vermilion River near Georgetown, Ill.	03339147	191	c,m	1979-90
Brouilletts Creek near St. Bernice, Ind.	03341414	260	c,m	1978-90
Wabash River at Hutsonville, Ill.	03341920	12,986	c,m	1978-91
Sugar Creek near Elbridge, Ill.	03341540	61.0	c,m	1978-90
Sugar Creek at Palestine, Ill.	03342050	35.8	c,m	1979-87
Embarras River at Camargo, Ill.	03343395	180	c,m	1978-91
Embarras River near Diona, Ill.	03344000	919	c,m	1971-76, 1978-91
Embarras River at Ste. Marie, Ill.	03345500	1,516	c,m,s	1978-93
North Fork Embarras River near Oblong, Ill.	03346000	318	c,m	1978-91
Embarras River near Billett, Ill.	03346550	2,403	c,m	1978-87
Bonpas Creek at Browns, Ill.	03378000	228	c,m	1978-91
Little Wabash River near Effingham, Ill.	03378635	240	c,m	1979-91
Little Wabash River at Louisville, Ill.	03378900	745	c,m	1971-91
Little Wabash River below Clay City, Ill.	03379500	1,131	c,m	1979-91
Little Wabash River at Blood, Ill.	03379600	1,387	c,m	1978-90
Elm River near Toms Prairie, Ill.	03379950	265	c,m	1979-87
Skillet Fork near Iuka, Ill.	03380350	208	c,m	1974-76, 1979-87
Skillet Fork at Wayne City, Ill.	03380500	464	c,m	1978-91
Skillet Fork near Carmi, Ill.	03381400	1,058	c,m	1978-87
Little Wabash River at Main Street at Carmi, Ill.	03381495	3,088	c,m,s	1978-94
Little Wabash River at Carmi, Ill.	03381500	3,102	c,b,m	1978-79
South Fork Saline River near Crab Orchard, Ill.	03382055	83.2	c,m	1983-87
Sugar Creek near Stonefort, Ill.	03382090	35.4	c,m	1978-88
South Fork Saline River near Carrier Mills, Ill.	03382100	147	c,m	1977-91
Brushy Creek near Harco, Ill.	03382170	13.3	c	1980-81
Bankston Fork near Dorris Heights, Ill.	03382185	77.7	c,m	1979-87
Middle Fork Saline River near Pankeyville, Ill.	03382205	233	c,m	1978-87
North Fork Saline River near Texas City, Ill.	03382325	249	c,m	1978-87
Saline River near Gibsonia, Ill.	03382530	1,062	c,m	1979-87
Lusk Creek near Eddyville, Ill.	03384450	42.9	c,m	1978-91
Cache River at Forman, Ill.	03612000	244	c,m	1978-91
Galena River at Galena, Ill.	05416000	196	c,m	1979-87
Apple River near Elizabeth, Ill.	05418950	207	c,m	1978-91
Plum River at Savanna, Ill.	05420100	273	c,m	1978-90

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
Mississippi River at Clinton, Iowa	05420500	85,600	c,m	1974-91, 1993
Pecatonica River at Freeport, Ill.	05435500	1,326	c,m	1978-91
Yellow Creek near Freeport, Ill.	05435680	192	c,m	1979-87
Pecatonica River at Harrison, Ill.	05435800	1,788	c,m	1978-90
Rock River at Rockton, Ill.	05437500	6,363	c,m	1978-91
Kishwaukee River at Garden Prairie Road at Garden Prairie, Ill.	05438201	222	c,m	1978-90
Coon Creek at Riley, Ill.	05438250	85.1	c,m	1979-91
Kishwaukee River above South Branch near Perryville, Ill.	05438600	655	c,m	1978-91
South Branch Kishwaukee River near Fairdale, Ill.	05439500	387	c,m	1978-91
Kishwaukee River near Perryville, Ill.	05440000	1,099	c,m	1978-91
Killbuck Creek near New Milford, Ill.	05440520	136	c,m	1979-90
Rock River at Byron, Ill.	05440700	7,990	c,m	1978-88
Kyte River at Daysville, Ill.	05442020	179	c,m	1979-90
Rock River at Grand Detour, Ill.	05442200	8,502	c,m	1978-88
Rock River at Como, Ill.	05443500	8,753	c,m	1978-91
Elkhorn Creek near Penrose, Ill.	05444000	146	c,m	1979-91
Rock Creek near Erie, Ill.	05446100	237	c,m	1979-87
Rock River near Joslin, Ill.	05446500	9,549	c,m,s	1975-94
Green River near Deer Grove, Ill.	05447100	322	c,m	1978-90
Green River near Geneseo, Ill.	05447500	1,003	c,m	1978-91
Edwards River near New Boston, Ill.	05466500	445	c,m	1978-91
Henderson Creek near Oquawka, Ill.	05469000	432	c,m	1978-91
Bear Creek near Marceline, Ill.	05495500	349	c,m	1978-91
Bay Creek at Nebo, Ill.	05513000	148	c,m	1978-90
Wood River at East Alton, Ill.	05587700	121	c,m	1978-87
Cahokia Creek at Edwardsville, Ill.	05587900	212	c,m	1978-91
Cahokia Canal near Collinsville, Ill.	05589490	--	c,m	1978-87
Canteen Creek near Collinsville, Ill.	05589510	--	c,m	1978-87
Harding Ditch at East St. Louis, Ill.	05589785	--	c,m	1978-87
Kaskaskia River near Pesotum, Ill.	05590400	109	c,m	1978-79
Kaskaskia River near Tuscola, Ill.	05590420	113	c,m	1979-87
Kaskaskia River at Cooks Mills, Ill.	05591200	473	c,m	1977-91
Kaskaskia River at Allenville, Ill.	05591300	506	c,m	1980-87
Jonathan Creek near Sullivan, Ill.	05591400	54.7	c,m	1980-87
Asa Creek at Sullivan, Ill.	05591500	8.05	c,m	1978-90
West Okaw River near Lovington, Ill.	05591700	112	c,m	1980-91
Kaskaskia River at Shelbyville, Ill.	05592000	1,054	c,m	1978-91
Kaskaskia River near Cowden, Ill.	05592100	1,330	c,m	1978-91
Beck Creek at Herrick, Ill.	05592195	97.0	c,m	1979-88
Kaskaskia River at Vandalia, Ill.	05592500	1,940	c,m	1978-91
Hickory Creek near Bluff City, Ill.	05592600	77.8	c,m	1978-88
Hurricane Creek near Mulberry Grove, Ill.	05592800	152	c,m	1978-91
East Fork Kaskaskia River near Sandoval, Ill.	05592900	113	c,m	1978-91
North Fork Kaskaskia River near Patoka, Ill.	05592930	39.1	c,m	1978-87
Kaskaskia River below Carlyle, Ill.	05593010	2,734	c,m	1978-91
Crooked Creek near Odin, Ill.	05593505	89.2	c,m	1978-88
Crooked Creek near Hoffman, Ill.	05593520	254	c,m	1979-91
Shoal Creek near Walshville, Ill.	05593785	281	c,m	1982-90
Shoal Creek near Panama, Ill.	05593800	286	c,m	1978-82
Shoal Creek near Breese, Ill.	05594000	735	c,m	1979-91

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record (water years)
Sugar Creek at Albers, Ill.	05594090	124	c,m	1978-90
Kaskaskia River near Venedy Station, Ill.	05594100	4,393	c,m	1975-91
Silver Creek near Troy, Ill.	05594450	154	c,m	1978-91
Silver Creek near Freeburg, Ill.	05594800	464	c,m	1978-91
Richland Creek near Hecker, Ill.	05595200	129	c,m	1978-91
Plum Creek near Baldwin, Ill.	05595280	60.9	c,m	1979-87
Kaskaskia River at Roots, Ill.	05595400	5,790	c,m	1978-87
Marys River at Welge, Ill.	05595540	113	c,m	1978-90
Big Muddy River near Mt. Vernon, Ill.	05595700	71.9	c,m	1978-90
Rayse Creek near Waltonville, Ill.	05595730	88.0	c,m	1978-91
Casey Fork at Route 37 near Mt. Vernon, Ill.	05595830	87.7	c,m	1978-91
Rend Lake near Benton, Ill.	05595950	488	c,m	1979-87
Middle Fork Big Muddy River near Benton, Ill.	05596400	152	c,m	1978-87
Big Muddy River at Plumfield, Ill.	05597000	794	c,m	1978-91
Pond Creek at West Frankfort, Ill.	05597040	33.1	c,m	1978-88
Little Muddy River near Elkville, Ill.	05597280	213	c,m	1978-88
Crab Orchard Creek near Marion, Ill.	05597500	31.7	c,m	1978-91
Crab Orchard Creek below Crab Orchard Lake near Carterville, Ill.	05598050	201	c,m	1978-90
Crab Orchard Creek near Carbondale, Ill.	05598245	272	c,m	1978-88
White Walnut Creek near Pinckneyville, Ill.	05598480	16.5	c	1980-81
Beaucoup Creek near Vergennes, Ill.	05599200	478	c,m	1978-88
Big Muddy River at Murphysboro, Ill.	05599500	2,169	c,m	1975-92
Kinkaid Creek near Murphysboro, Ill.	05599540	60.2	c,m	1980-87
Cedar Creek near Pomona, Ill.	05599565	34.5	c,m	1980-87
Cache River at Sandusky, Ill.	05600150	234	c,m	1978-87

Type of record: c, chemical; b, biological; m, microbiological; s, sediment.

WATER RESOURCES DATA - ILLINOIS, 1997

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey (USGS), in cooperation with State, Federal, and other local governmental agencies, obtains a large amount of data, collected each water year, pertaining to the water resources of Illinois. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the USGS, the data are published annually in this report series entitled "Water Resources Data - Illinois."

Water-resources data for Illinois for the 1997 water year consist of records of stage, discharge, and water quality of streams; stage and content of lakes and reservoirs; water level and water quality of ground-water wells; and precipitation. This volume (Volume 1, Illinois except Illinois River Basin) contains (1) discharge for 74 surface-water gaging stations and for 5 crest-stage partial-record stations; (2) stage for 3 surface-water gaging stations; (3) stage for 2 reservoirs; (4) water-quality records for 6 surface-water gaging stations; (5) sediment-discharge records for 12 surface-water gaging stations; and (6) water-level records for 4 observation wells. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous water-quality analyses.

This series of annual reports for Illinois began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1965 water year, the report format was changed to present, in one volume, data on quantities of surface water, quality of surface water and ground water, and ground-water levels. Because of the large increase in water-resources data collected in Illinois, it was necessary to go to a two-volume format in 1978.

Prior to introduction of this series and for several water years concurrent with it, water-resources data for Illinois were published in USGS Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir content and stage, through September 1960, were published annually under the title "Surface-Water Supply of the United States, Parts 3A, 4, and 5." For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from U.S. Geological Survey, Branch of Information Services, Box 25286, Bldg. 810, Denver, CO 80225-0286.

Publications similar to this report are published annually by the USGS for all States. These official USGS reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report IL-97-1." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information for ordering specific reports may be obtained from the District Office at the address given on the back of the title page or by telephone (217) 344-0037.

Water-resources data, including those provided in water-data reports, are available through the World Wide Web on the Internet. The Universal Resource Locator (URL) to the Illinois District's home page is: http://www-il.usgs.gov/

COOPERATION

The USGS and agencies of the State of Illinois have had cooperative agreements for the collection of water-resources records since 1930. Organizations that assisted in collecting the data in this report through cooperative agreement with the USGS are:

Illinois Department of Natural Resources, Brent Manning, Director.
Office of Water Resources, D.R. Vonnahme, Director.
Illinois State Water Survey, Dr. Derek Winstanley, Chief.
Wetland Program and Environmental Management Program, Marvin Hubbell, Program Administrator.
Bloomington and Normal Water Reclamation District, J.M. Callahan, Executive Director.
Danville Sanitary District, P.C. Morgan, Director.
Forest Preserve District of Cook County, Allan Mellis, Director of Planning and Development.
Forest Preserve District of Du Page County, R.A. Hill, Project Engineer.
Du Page County Department of Environmental Concerns, J.P. Steffen, Principal Engineer.
Kane County Development Department, P.M. Schuch, Director of Platting and Water Resources.
Lake County Stormwater Management Commission, W.S. Miller, Executive Director.
McHenry County Conservation District, Craig D. Hubert, Interim Director.

Vermilion County Conservation District, K.F. Konsis, Executive Director.
Winnebago County, Joseph A. Vanderwerff, Sr., County Engineer, Department of Public Works.
Wonder Lake Master Property Owners Association, Dick Hilton, President.
City of Champaign, Jeffrey M. Smith, City Engineer.
City of De Kalb, J.C. Maurer, Civil Engineer.
City of Decatur, B.A. McNabb, Director of Public Works.
City of Joliet, Chuck Parini, Emergency Management Agency Coordinator.
City of Monticello, Floyd Allsop, Superintendent of City Services.
City of Peru, J.E. Prazen, Superintendent.
City of Springfield, William Brown, Water Plant Superintendent.
City of Urbana, W.R. Gray, Public Works Director.
Village of Oak Brook, D.L. Durfey, Jr., Village Engineer.
University of Illinois, Charles C. Colbert, Vice Chancellor for Administrative Affairs and Human Resources.

Assistance, by providing funds or services, was given by the U.S. Army Corps of Engineers in collecting records for 62 stage and discharge surface-water gaging stations and 2 crest-stage gage sites.

SUMMARY OF HYDROLOGIC CONDITIONS

Surface Water

Average annual streamflow at the three index stations were above average (30-year average) at the northern Illinois index station and below average at the central and southern Illinois index stations during the 1997 water year. Above average flows in northern Illinois can be attributed to significant high flows during February and March. Below average flows in central and southern Illinois can be explained in that significant low flows occurred during October, November, August, and September. Annual discharge during 1997 for the northern index station—Pecatonica River at Freeport (05435500)—was 117 percent of average. In central Illinois, the annual discharge for the index station—Sangamon River at Monticello (05572000)—was 87 percent of average. In southern Illinois, the annual discharge for the index station—Skillet Fork at Wayne City (03380500)—was 97 percent of average.

A comparison of the 1997 daily discharges for the three index stations and the mean daily discharges for the 30-year period (1961-90) is shown in figure 1. Flow generally was near normal for all three stations during most of the year. All three sites had some excessive flows during January, February, March, and June. Excessive flows occurred at Monticello and Wayne City because of flood events during August. Excessive flows also occurred in September at Monticello and in July at Wayne City. Below normal flows occurred at Monticello and Wayne City during November. Below normal flows also occurred during October, April, and May at Monticello. The Freeport station did not have below normal flows during the year.

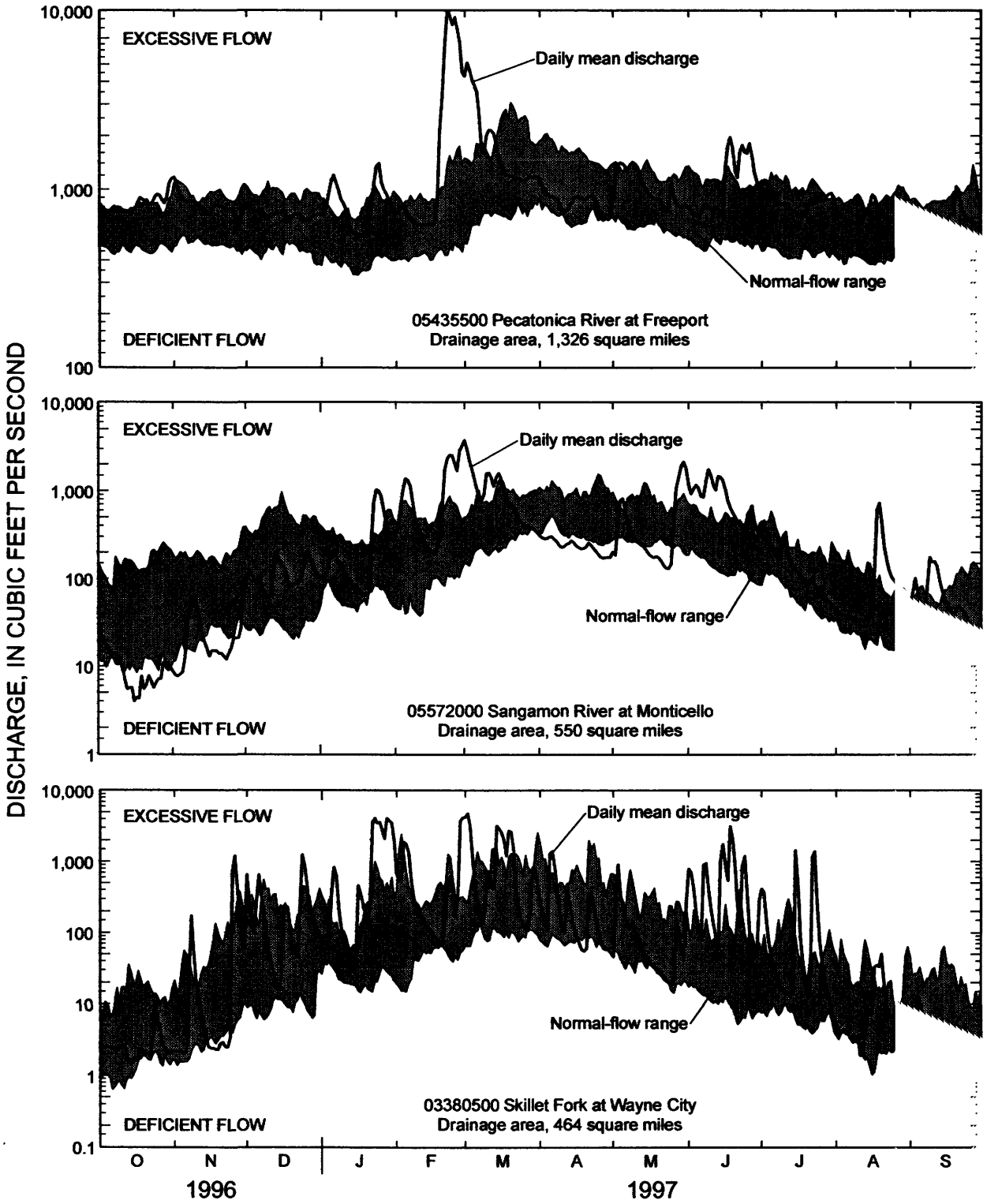

Figure 1. Daily mean discharge for water year 1997 compared with percentile distribution of mean daily discharges for the 30-year period, 1961-90, for three representative gaging stations. A daily mean discharge is in the deficient-flow range if its value is less than or equal to the 25th percentile, in the normal-flow range if its value is between the 25th and 75th percentiles, and in the excessive-flow range if its value is equal to or greater than the 75th percentile.

Suspended Sediment

Suspended-sediment and water-discharge data for 15 sediment sites in this report are listed in table 1. In general, runoff and sediment yields for long-term stations in 1997 were lower than the long-term average.

Table 1. Average annual suspended-sediment yield and stream runoff
[(T/mi^2)/yr, tons per square mile per year; cfsm, cubic feet per second per square mile]

Station number	Station name	Period of sediment-record collection	Volume Number	Average for period of sediment record		1997 water year	
				Yield [(T/mi^2)/yr]	Runoff (cfsm)	Yield [(T/mi^2)/yr]	Runoff (cfsm)
05416100	Mississippi River at Lock and Dam 12 at Bellevue, Iowa	10/94 to 09/97	1	33.6	0.74	24.6	0.75
05419000	Apple River near Hanover, Ill.	10/94 to 09/97	1	269	0.74	194	0.59
05420100	Plum River at Savanna, Ill.	10/94 to 09/97	1	233	0.82	249	0.61
05548105	Nippersink Creek above Wonder Lake, Ill.	06/94 to 09/97	2	63.6	0.59	90.7	0.68
05548110	Nippersink Creek below Wonder Lake, Ill.	06/94 to 06/97	2	[1]	[1]	[1]	[1]
05559600	Illinois River at Chillicothe, Ill.	05/93 to present	2	[1]	[1]	[1]	[1]
05563800	Illinois River at Pekin, Ill.	10/94 to 09/97	2	103	1.07	129	1.06
05568000	Mackinaw River near Green Valley, Ill.	10/94 to 09/97	2	332	0.59	137	0.40
05570000	Spoon River at Seville, Ill.	10/94 to 09/97	2	638	0.77	441	0.63
05583000	Sangamon River near Oakford, Ill.	10/80 to 09/81 10/83 to 09/85 10/94 to 09/97	2	277.2	0.76	100	0.43
05585000	LaMoine River at Ripley, Ill.	10/80 to 09/81 10/94 to 09/97	2	705	0.91	284	0.56
05586100	Illinois River at Valley City, Ill.	02/80 to present	2	224	1.03	153	0.81
05591200	Kaskaskia River at Cooks Mills, Ill.	01/79 to 09/97	1	89.6	0.96	49.3	0.70
05594100	Kaskaskia River near Venedy Station, Ill.	05/80 to 09/97	1	133	0.91	81.3	0.60
05599500	Big Muddy River at Murphysboro, Ill.	05/80 to 09/97	1	108	1.04	93.8	1.12

[1]Partial-record station.

SPECIAL NETWORKS AND PROGRAMS

National Stream-Quality Accounting Network (NASQAN) monitors the water quality of large rivers within four of the Nation's largest river basins--the Mississippi, Columbia, Colorado, and Rio Grande. The network consists of 39 stations. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of these constituents; (2) to test findings of the National Water-Quality Assessment Program (NAWQA); (3) to characterize processes unique to large-river systems such as storage and re-mobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals.

The NASQAN sampling sites for which data are published in this report (vol. 1) are Ohio River at Lock and Dam 53 near Grand Chain, Ill. (03612500), Mississippi River at Clinton, Iowa (05420500), and Mississippi River at Thebes, Ill. (07022000).

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) provides continuous measurement and assessment of the chemical climate of precipitation throughout the United States. As the lead federal agency, the USGS works together with over 100 organizations to accomplish the following objectives; (1) Provide a long-term, spatial and temporal record of atmospheric deposition generated from a network of 191 precipitation chemistry monitoring sites. (2) Provide the mechanism to evaluate the effectiveness of the significant reduction in SO_2 emissions that began in 1995 as implementation of the Clean Air Act Amendments (CAAA) occurred. (3) Provide the scientific basis and nationwide evaluation mechanism for implementation of the Phase II CAAA emission reductions for SO_2 and NO_x scheduled to begin in 2000.

Data from the network, as well as information about individual sites, are available through the world wide web at:

http://nadp.nrel.colostate.edu/NADP

In Illinois, atmospheric-deposition data are available for five stations. Four of the five stations are operated by the University of Illinois; Agriculture Department and State Water Survey. The other stations is operated by Argonne National Laboratory. Data for these stations are not published in this report but can be obtained over the Internet via URL previously noted.

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

Assessment activities are being conducted in 58 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

Communication and coordination between USGS personnel and other local, State, and Federal interests are critical components of the NAWQA Program. Each study unit has a local liaison committee consisting of representatives from key Federal, State, and local water-resources agencies, Indian nations, and universities in the study unit. Liaison committees typically meet semiannually to discuss their information needs, monitoring plans and progress, desired information products, and opportunities to collaborate efforts among the agencies.

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

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

In Illinois, a pilot project study of the upper Illinois River Basin began in 1986. The three major work elements of the study were (1) an analysis of available information, (2) fixed-station sampling, and (3) synoptic sampling. The fixed-station sampling program was operated in cooperation with the Illinois Environmental Protection Agency. The fixed-station sampling program, through August 1990, consisted of eight stations that were sampled on a monthly basis; after August 1990, only four stations continued to be monitored. Synoptic sampling was conducted for trace metals and organic compounds in bottom material and for dissolved oxygen, bacteria, nutrients, and trace organic compounds in water. All sampling was discontinued in April 1992.

Work on the lower Illinois River Basin NAWQA study unit began in 1994. After 2 years of planning and historical data review, data collection began in 1996. Major rivers in the basin are the Illinois, Vermilion, Mackinaw, Spoon, Sangamon, and La Moine Rivers. In water year 1997, monthly surface-water samples were collected at fixed stations and analyzed for nutrients, major ions, suspended sediment, and selected pesticides. Guidelines for collecting and processing stream-water samples are found in Shelton (1994). Bed-sediment and tissue samples were collected at 6 sites across the basin and analyzed for selected pesticides, trace metals, and many synthetic organic compounds. Guidelines for collecting and processing bed-sediment samples are found in Shelton and Capel (1994). Guidelines for tissue samples are found in Crawford and Luoma (1992). A series of habitat surveys were completed and biological samples also were collected for analysis. Fifty-six private and public-supply wells were sampled. The ground-water samples were analyzed for major ions, nutrients, selected pesticides and selected trace metals. Specific details describing the ground-water site selection process are defined in Scott (1990) and guidelines for collecting and processing ground-water samples are found in Koterba, Wilde, and Lapham (1995).

EXPLANATION OF THE RECORDS

The surface-water, ground-water, and precipitation records published in this report are for the 1997 water year that began October 1, 1996, and ended September 30, 1997. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data; stage and content data for lakes and reservoirs; water-quality data for surface water; and ground-water-level and quality data; and precipitation data. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station in this report, whether stream site or well, is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the USGS to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream order" system is used for regular surface-water stations and rain gages at surface-water stations; the "latitude-longitude" system is used for wells and other sites not at surface-water stations.

Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in USGS reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that

enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indentation in the "List of Stations" in the front of this 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.

The station-identification number is assigned according to downstream order. 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 eight-digit number for each station, such as 05527500, which appears just to the left of the station name, includes the two-digit part number "05" plus the six-digit downstream-order number "527500." The part number designates the major river basin; for example, part "05" is the upper Mississippi River Basin.

Latitude-Longitude System

The identification numbers for wells and other sites not at surface-water stations are assigned according to the grid system of latitude and longitude (fig. 2). The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. This site-identification number, once assigned, is a pure number, and has no locational significance. In the rare instance where the initial determination of latitude and longitude is found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description.

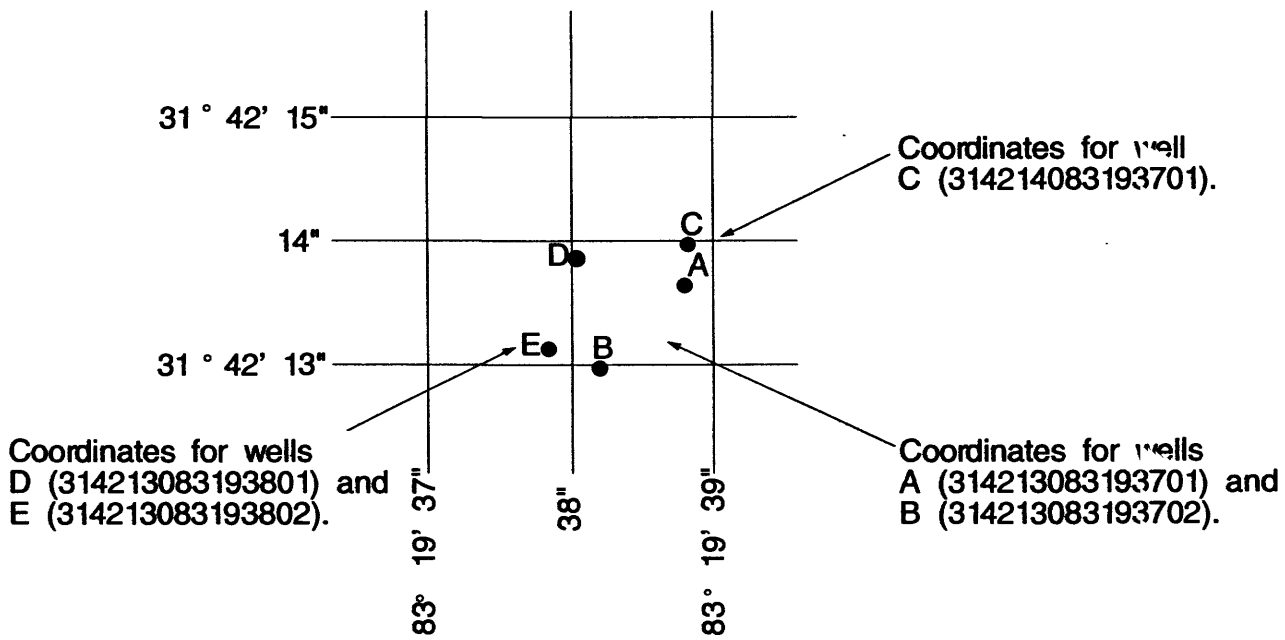

Figure 2. System for numbering wells (latitude and longitude).

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained based on discrete measurements and a continuous stage-recording device. Data from these may be used to compute either instantaneous or mean -daily discharges for any instant or period of time within the period of record. Similarly, complete records of lake or reservoir content are those for which stage or content may be computed or estimated with reasonable accuracy for any instant or period of time. They may be obtained using a continuous stage-recording device, but need not be. Because daily mean discharge or end-of-day content commonly are published for such stations, they are referred to as "daily stations." Locations of all active surface-water gaging stations for which data are given in this volume are shown in figure 3.

By contrast, partial records are obtained through discrete measurements, without the use of a continuous stage-recording device, and pertain to only one or a few flow characteristics. The nature of the partial record is indicated by table titles such as "Crest-stage partial records," or "Low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but are presented separately in this report.

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relation between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily discharges. The data obtained at a complete-record gaging station on a lake or reservoir consist of a record of stage and of notations regarding factors that may affect the relation between stage and lake content. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas and lake storage.

Continuous records of stage are obtained with digital recorders that punch stage values on paper tapes at selected time intervals, with electronic data loggers or satellite telemeters. Measurements of discharge are made with current meters and acoustical flowmeters based on methods adapted by the USGS as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175 (Rantz and others, 1982), and in USGS Techniques of Water-Resources Investigations (TWRI's), Book 3, Chapters A1 through A20 and Book 8, Chapters A2 and B2. The TWRI's are listed near the end of this introductory text. Methods are consistent with the American Society for Testing and Materials (ASTM) standards and generally follow the standards of the International Organization for Standards (IOS).

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

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements or peak discharge, such as slope-area or contracted-opening measurements, and computations of flow over dams or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed by applying the daily mean stages (gage heights) to the stage-discharge curves or tables. 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 determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

At some surface-water 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.

In computing records of lake or reservoir content, it is necessary to have available from surveys, curves or tables that define the relation of stage and content. The application of stage to stage-content curves or tables gives the contents from which daily, monthly, or yearly changes then are determined. If the stage-content relation changes because of deposition of sediment in a lake or reservoir, periodic

resurveys may be necessary to redefine the relation. Computations may become increasingly in error as time since the last survey elapses. Discharges over lake or reservoir spillways are computed from stage-discharge relation much as other stream discharges are computed.

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 content. This happens when a recorder stops or otherwise malfunctions, when intakes become plugged, when a float freezes in a well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily content may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

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

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

Station manuscript

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

LOCATION.--Information on locations is obtained from the most accurate maps available. The location of the gaging station with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages were determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council, and are published in "River Mileages and Drainage Areas for Illinois Streams" (Healy, 1979a, 1979b).

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

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

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

GAGE.--The type of gage in current use, the datum of the current gage referred to sea level (see Definition of Terms), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.--This paragraph is used to present information relative to the accuracy of the records, to special methods of computation, and to conditions that affect natural flow at the station. In addition, information may be presented pertaining to average discharge data for the period of record; to extremes data for the period of record and the current year; and, possibly, to other pertinent items, such as whether the site has telemetry. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

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

EXTREMES FOR PERIOD OF RECORD.--Extremes may include maximum and minimum stages and maximum and minimum discharges or content. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the

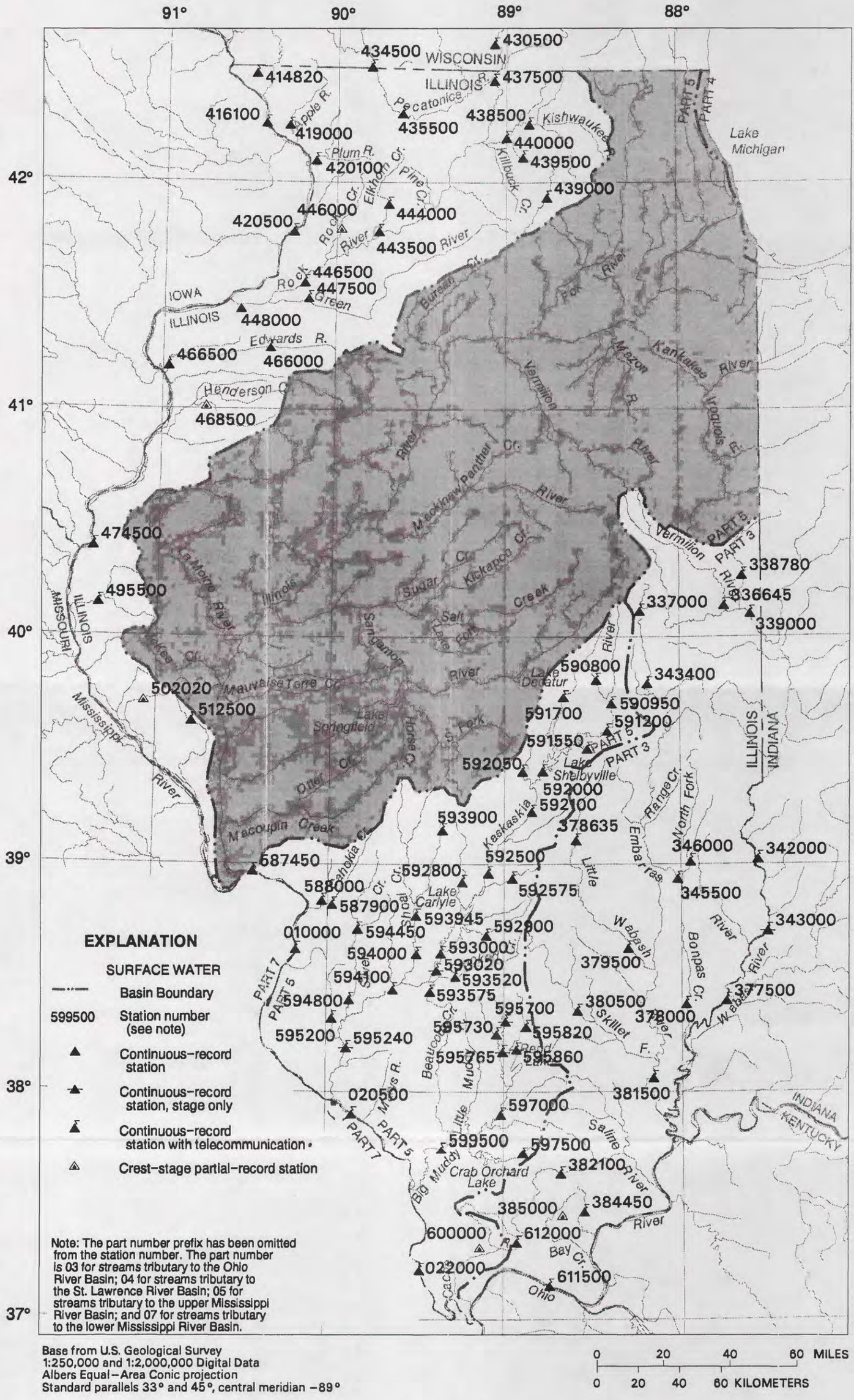

Figure 3. Location of active surface-water gaging stations except in the Illinois River Basin.

highest stage that occurred. The highest stage may have been obtained from a recorder, a crest-stage gage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the USGS.

EXTREMES FOR CURRENT YEAR.--Extremes given here are similar to those for the period of record, except the peak discharge listing may include secondary peaks. For stations meeting certain criteria, all peak discharges and stages that occurred during the water year and were greater than a selected base discharge are presented under this heading. Peaks greater than the base discharge, excluding the highest, are referred to as secondary peaks. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. The time of occurrence for peaks is expressed in 24-hour central standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330. The minimum for the current water year appears below the table of peak data.

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

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations, who obtained the record from previously published data reports may wish to contact the District Office (address given on the back of the title page of this report) to determine if the published records were ever revised after the station was discontinued. Of course, if the data for a discontinued station were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

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

Headings for AVERAGE DISCHARGE and EXTREMES FOR PERIOD OF RECORD have been deleted for most stations and the information contained in these paragraphs is now presented in the tabular summaries following the discharge table. The EXTREMES FOR PERIOD OF RECORD paragraph was retained for those stations where the period of record differed from the period used for the tabular summary statistics. No changes have been made to the data presentations of lake contents.

Data table of daily mean values

The daily table of discharge records for surface-water gaging stations gives mean discharge for each day of the water year. In the monthly summary for the table, the line headed "TOTAL" gives the sum of the daily figures for each month; the line headed "MEAN" gives the average flow in cubic feet per second for the month; and the lines headed "MAX" and "MIN" give the maximum and minimum daily mean discharges, respectively, for each month. Discharge for the month usually also is 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 or in acre-feet may be omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. At some stations, monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversion data or reservoir contents are given. These figures are identified by a symbol and corresponding footnote. For other stations, a daily table of stage records is presented.

Statistics of monthly mean data

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

Summary statistics

A table titled "SUMMARY STATISTICS" follows the statistics of monthly mean data tabulation. This table consists of four columns, with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year but also for the previous calendar year and for a designated period, as appropriate. The designated period selected, "WATER YEARS _-_," will consist of the entire station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the

manuscript. All of the calculations for the statistical characteristics designated ANNUAL (see line headings below), except for the "ANNUAL 7-DAY MINIMUM" statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

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

The following summary statistics data, as appropriate, are provided with each continuous record of discharge. Comments to follow clarify information presented under the various line headings of the summary statistics table.

ANNUAL TOTAL.--The sum of the daily mean values of discharge for the year. At some stations the annual total discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

ANNUAL MEAN.--The arithmetic mean of the individual daily mean discharges for the year noted or for the designated period. At some stations, the yearly mean discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

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

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

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

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

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

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

INSTANTANEOUS PEAK STAGE.--The maximum instantaneous stage occurring for the water year or for the designated period. If the dates of occurrence for the instantaneous peak flow and instantaneous peak stage differ, the REMARKS paragraph in the manuscript or a footnote may be used to provide further information.

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

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

Acre-foot (AC-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.

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 the runoff is distributed uniformly in time and area.

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

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

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

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

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

Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables are identified by flagging individual daily values with the letter symbol "e" and a footnote.

Accuracy of the Records

The accuracy of streamflow records 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 measurements of stage, measurements of discharge, and interpretation of records.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of the true value; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for values less than 1 ft^3/s; to the nearest tenth between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures for more than 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules also apply to discharges listed for partial-record stations and miscellaneous sites.

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

Other Records Available

Records of water use from Lake Michigan are collected by the Illinois Department of Natural Resources, Office of Water Resources. These records may be obtained from the Illinois Department of Natural Resources, Office of Water Resources, 310 S. Michigan Avenue, Room 1606, Chicago, IL 60604 (telephone number 312-793-3123).

Records of discharge, not published by the USGS, are collected at several sites in Illinois by the U.S. Army Corps of Engineers. The National Water Data Exchange (NAWDEX), U.S. Geological Survey, 421 National Center, Reston, VA 20192, maintains an index of these sites as well as an index of records of discharge collected by other agencies but not published by the USGS. Information on records at specific sites can be obtained from that office upon request.

Information used in the preparation of the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables are on file in the USGS Illinois District office whose address is given on the back of the title page of this report. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the USGS Illinois District office.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near surface-water gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be one or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A miscellaneous sampling site is a location other than a continuing- or partial-record station, where random samples are collected to give better areal coverage to define water-quality conditions in a river basin. Locations of stations for which records on the quality of surface water appear in this report are shown in figure 4.

Arrangement of Records

For continuing-record stations, water-quality records collected at a surface-water daily-record station are published immediately following the surface-water record. Station number and name are the same for both records. Where a surface-water daily-record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record

is published with its own station number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous-sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

On-site Measurements and Sample Collection

In obtaining water-quality data, a major concern is that the data obtained represent the ambient quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen concentration, need to be made on-site when the samples are taken. To assure that measurements made in the laboratory represent field conditions, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for on-site measurements and for collecting, treating, and shipping samples are detailed in TWRI Book 1, Chapter D2; Book 3, Chapter C2; Book 5, Chapters A1, A3, and A4; and other USGS publications. These methods are consistent with ASTM standards and generally follow IOS standards. Detailed information on collecting, treating, and shipping samples also may be obtained from the USGS Illinois District office.

One sample can adequately define the water quality at a given time if the mixture of constituents throughout the stream cross section is homogeneous. However, the concentrations of constituents 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. Whether samples are obtained from the centroid of flow or from several verticals depends on flow conditions and other factors that must be evaluated by the collector.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling, as much as possible, consistent with available sampling techniques and methods of analysis.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based on hourly values.

Water Temperatures

Water temperatures are measured at all of the water-quality stations. In addition, water temperatures are taken at the time of discharge measurements for water-discharge stations. Large streams have small diel temperature changes; 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, either mean temperatures or maximum and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the USGS Illinois District office.

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 compute the mean concentration in the cross section.

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 discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment discharges for other periods of similar water discharge. Methods used in the computation of sediment records are described in TWRI Book 3, Chapters C1 and C3. These methods are consistent with ASTM standards and generally follow IOS standards. Locations of stations for which records of suspended-sediment discharge appear in this report are shown in figure 4.

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 determining long-term sediment-discharge characteristics of the stream.

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

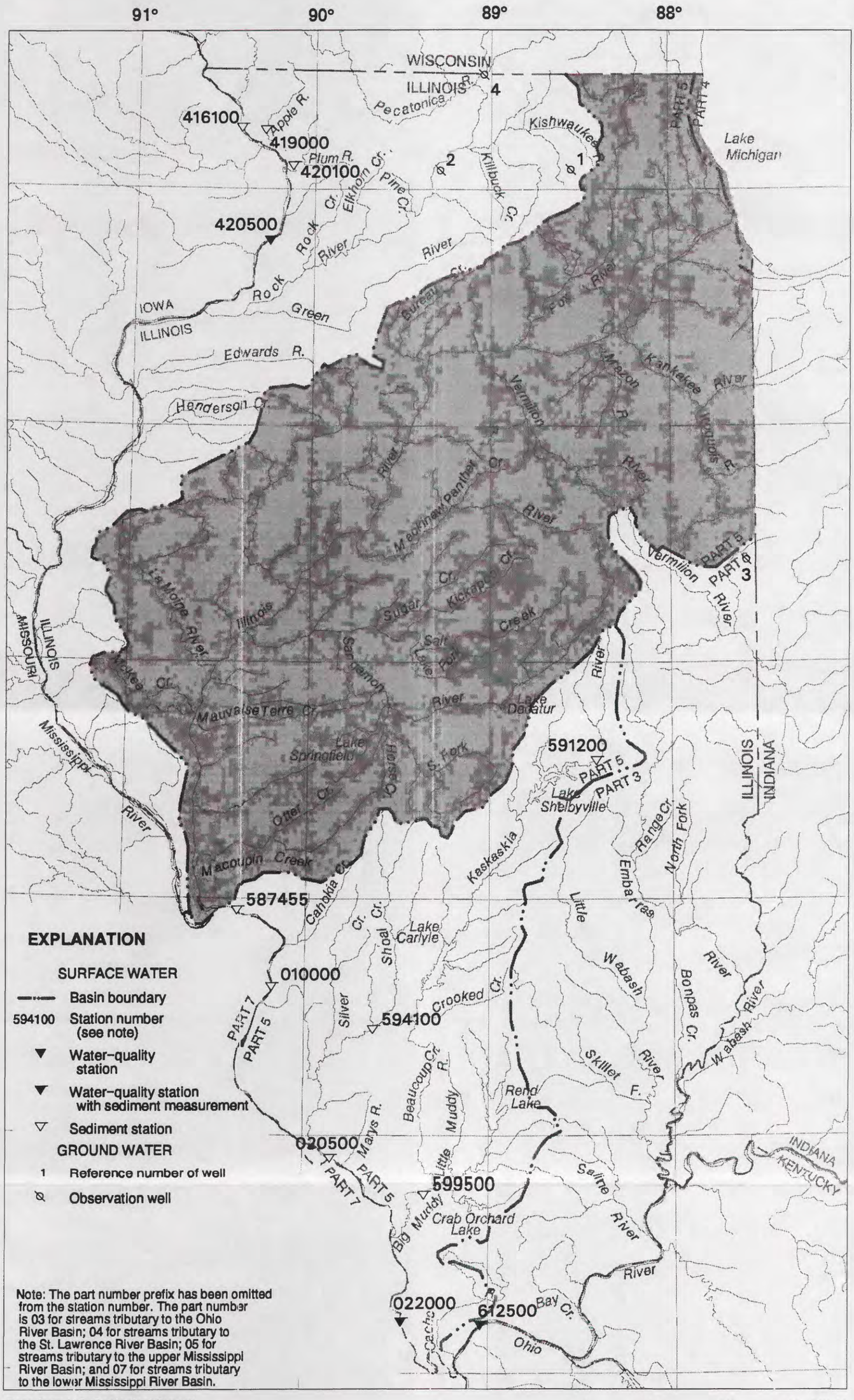

Figure 4. Location of active surface-water, water-quality stations and observation wells except in the Illinois River Basin.

Laboratory Measurements

Sediment samples are analyzed at the USGS sediment laboratory in Louisville, Kentucky. Samples for indicator bacteria are analyzed locally. All other samples are analyzed in the USGS National Laboratory in Denver, Colorado, or the Illinois Environmental Protection Agency laboratory in Champaign, Illinois. Methods used in analyzing sediment samples and in computing sediment records are given in TWRI Book 5, Chapter C1. Methods used by the USGS laboratories are given in TWRI Book 1, Chapter D2; Book 3, Chapter C2; Book 5, Chapters A1, A3, A4, and A5; and other USGS publications. These methods are consistent with ASTM standards and generally follow IOS standards. The following codes identify the agency or office having the principal responsibility for collecting and (or) analyzing water samples.

Agency	Agency Code
U.S. Geological Survey (general)	1028
Illinois Environmental Protection Agency	17002
U.S. Geological Survey, Denver Laboratory	80020
U.S. Geological Survey, Illinois District	81700

Data Presentation

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

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

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

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

INSTRUMENTATION.--Information on instrumentation is given only if a water-quality monitor temperature recorder, pumping sediment sampler, or other sampling device is in operation at a station.

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

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

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

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

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

Records of Ground-Water Levels

Data Collection and Computation

Measurements of ground-water levels are made under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability. Locations of observation wells for which data are given in this report are shown in figure 4.

Tables of ground-water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is the 15-digit number that appears in the upper left corner of the table. The secondary identification number is the local well number, an alphanumeric identifier, derived from the township-range location of the well.

Ground-water-level records are obtained by direct measurements using a steel tape or from an electronic water-stage recorder. The water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the elevation of the land-surface datum is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. The method and frequency of measurement are given in the station description.

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

Data Presentation

Each well record consists of two parts: the station description and the data table of water levels observed during the current water year. The description of the well is presented first through the use of descriptive headings preceding the tabular data. The comments to follow clarify information presented under the various headings of the well description.

LOCATION.--This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds); a landline location designation; the hydrologic-unit number; the distance and direction from a geographic point of reference; and the owner's name.

AQUIFER.--This entry designates by name (if a name exists) and geologic age the aquifer(s) open to the well.

WELL CHARACTERISTICS.--This entry describes the well in terms of depth, diameter, casing depth and (or) screened interval, method of construction, use, and additional information such as casing breaks, collapsed screen, and other changes since construction.

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

DATUM.--This entry describes both the measuring point and the land-surface elevation at the well. The measuring point is described physically (such as top of collar, notch in top of casing, plug in pump base and so on), and in relation to land surface (such as 1.3 ft above land-surface datum). The elevation of the land-surface datum is described in feet above (or below) sea level; it is reported with a precision depending on the method of determination.

REMARKS.--This entry describes factors that may affect the water level in a well or the measurement of the water level. It should identify wells that also are water-quality observation wells, and may be used to acknowledge the assistance of local (non-USGS) observers.

PERIOD OF RECORD.--This entry indicates the period for which there are published records for the well. It reports the month and year of the start of publication of water-level records by the USGS and the words "to current year" if the records are to be continued into the following year. Periods for which water-level records are available, but are not published by the USGS, may be noted.

EXTREMES FOR PERIOD OF RECORD.--This entry contains the highest and lowest water levels of the period of published record, with respect to land-surface datum, and the dates of their occurrence.

A table of water levels follows the station description for each well. Water levels are reported in feet below land-surface datum and all taped measurements of water level are listed. For wells equipped with recorders, only abbreviated tables are published; generally, only water-level lows are listed for every fifth day and at the end of the month (eom). The highest and lowest water levels of the water year and their dates of occurrence are shown on a line below the abbreviated table. Because all values are not published for wells with recorders, the extremes may be values that are not listed in the table. Missing records are indicated by dashes in place of the water level.

Records of Ground-Water Quality

Records of ground-water quality in this report differ from other types of records in that, for most sampling sites, they consist of only one set of measurements for the water year. The quality of ground water ordinarily changes only slowly; therefore, samples for water-quality analyses are taken from the wells used to monitor water-level changes on an infrequent basis--about once every 3 to 4 years. Typically, 3 to 4 wells are sampled each year. Frequent measurement of the same constituents is not necessary unless one is concerned with a particular problem, such as monitoring for trends in nitrate concentration. In the special cases where the quality of ground water may change more rapidly, more frequent measurements are made to identify the nature of the changes.

Data Collection and Computation

Most methods for collecting and analyzing water samples are described in the USGS TWRI publications referred to in the "On-Site Measurements and Sample Collection" and the "Laboratory Measurements" sections in this data report. In addition, the TWRI Book 1, Chapter D2, describes guidelines for the collection and field analysis of ground-water samples for selected unstable constituents. The values reported in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. These methods are consistent with ASTM standards and generally follow ISO standards. All samples were obtained by trained personnel. The wells sampled were pumped long enough to assure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, compose the casings.

Data Presentation

The records of ground-water quality are published in a section titled "Quality of Ground Water" immediately following the ground-water-level records. Data for quality of ground water are listed alphabetically by county, and are identified by well number. The prime identification number for wells sampled is the 15-digit number derived from the latitude-longitude locations. No descriptive statements are given for ground-water-quality records; however, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of the ground water. The "Remark" codes listed for surface-water-quality records also are applicable to ground-water-quality records.

Records of Precipitation

Data Collection and Computation

Rainfall values were determined using tipping-bucket rain gages. Rainfall data were collected by electronic data loggers in 0.01-in. increments every 5-minutes. Twenty-four hour rainfall totals are tabulated and presented. A 24-hour period extends from just past midnight the previous day to midnight the current day. Monthly rainfall totals were not computed for months containing days with missing record. Snowfall-affected data can result during cold weather when snow fills the rain-gage funnel and then melts as temperatures rise. Snowfall-affected data are subject to appreciable errors. Snowfall-affected readings were determined by routine field trips and by comparing recorded data with snowfall, snow depth, and temperature and precipitation data from NOAA precipitation gages. Locations of rain gages for which data are given in this report are shown in figure 5.

Arrangement of Records

Precipitation records collected at surface-water, daily-record stations are published immediately following the surface-water record. Station number and name are the same for both records. Where a surface-water, daily-record station is not available, the precipitation record is published with its own name and latitude-longitude identification number. These records appear in separate tables following the ground-water records.

Data Presentation

For precipitation stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, period of record, record accuracy, general remarks, and maximum daily values.

In the descriptive headings, if the location is identical to that of the surface-water daily discharge station, the LOCATION statement is not repeated. The following information, as appropriate, is provided with each precipitation station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.--Information on locations is obtained from the most accurate maps available. A consideration used in the determination of site locations was the proximity of existing structures and minimal obstructions.

PERIOD OF RECORD.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

ACCURACY.--Information about the physical characteristics of gage that may effect accuracy of the recorded values.

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

MAXIMUM FOR PERIOD OF RECORD.--Maximum daily precipitation value for the period of record.

MAXIMUM FOR CURRENT YEAR.--Maximum daily precipitation value for the current year.

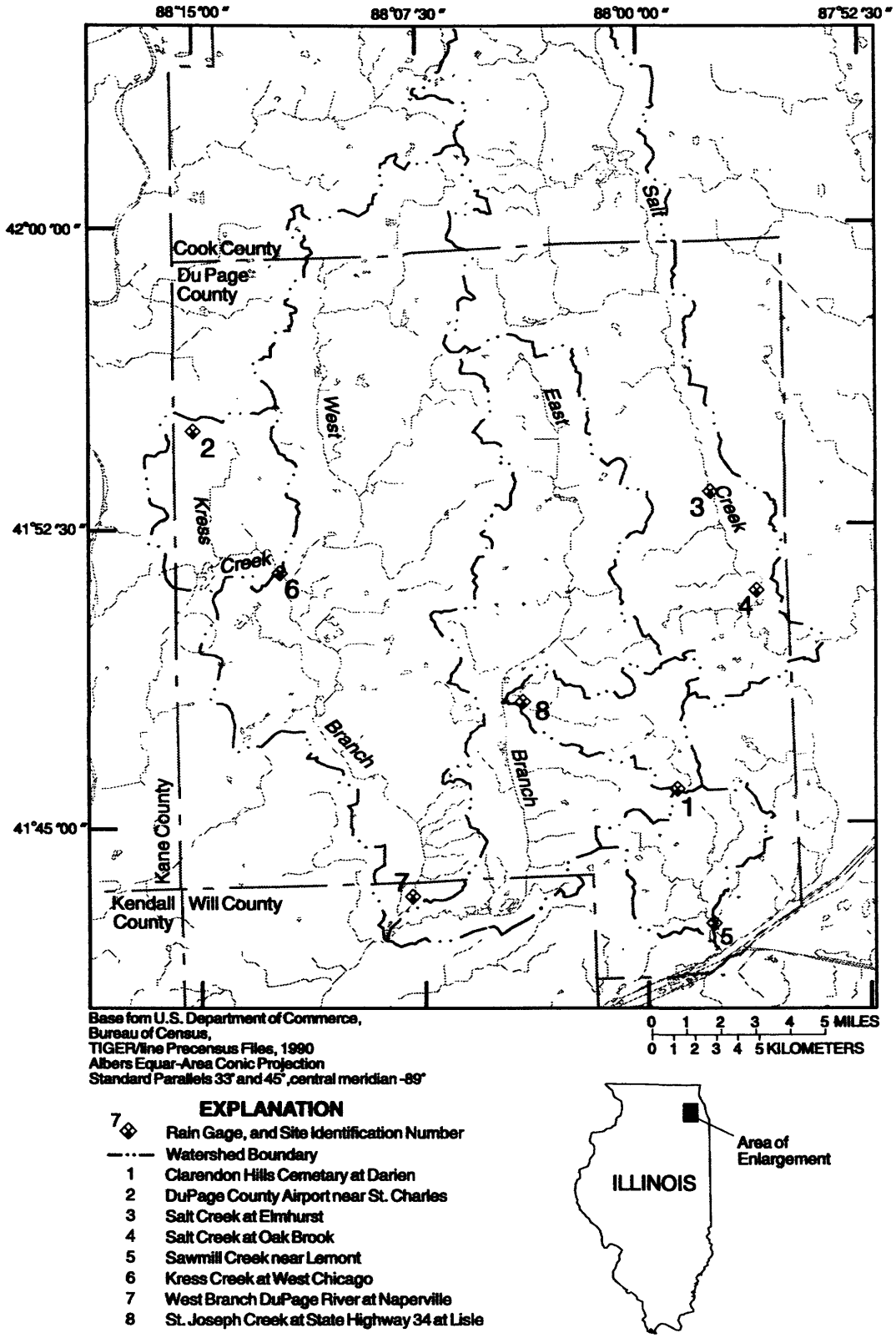

Figure 5. Location of precipitation stations in Du Page County.

ACCESS TO WATSTORE DATA

The USGS is the principal Federal water-data agency and, as such, collects and disseminates about 70 percent of the water data currently being used by numerous State, local, private, and other Federal agencies to develop and manage our water resources. As part of the USGS's program of releasing water data to the public, a large-scale computerized system has been developed for the storage and retrieval of water data collected through its activities. The National Water Data Storage and Retrieval System (WATSTORE) was established in 1972 to provide an effective and efficient means for the processing and maintenance of water data collected through the activities of the USGS and to facilitate release of the data to the public. A variety of useful products, ranging from data tables to complex statistical analyses, such as Log Pearson Type III, can be produced using WATSTORE. The system resides on the central computer facilities of the USGS at its National Center in Reston, Virginia, and consists of related files and data bases.

- Station Header File - Contains descriptive information on more than 440,000 sites throughout the United States and its territories where the USGS collects or has collected data.
- Daily Values File - Contains more than 220 million daily values of stream flows, stages, reservoir contents, water temperatures, specific conductances, sediment concentrations, sediment discharges, and ground-water levels.
- Peak Flow File - Contains approximately 500,000 maximum (peak) streamflow and gage-height values at surface-water sites.
- Water Quality File - Contains approximately 2 million analyses of water samples that describe the chemical, physical, biological, and radiochemical characteristics of both surface and ground water.
- Ground-Water Site Inventory Data Base - Contains inventory data for more than 900,000 wells, springs, and other sources of ground water. The data include site location, geohydrologic characteristics, well-construction history, and one-time field measurements such as water temperature.

In 1976, the USGS opened WATSTORE to the public for direct access. The signing of a Memorandum of Agreement with the USGS is required to obtain direct access to WATSTORE. The system can be accessed either synchronously or asynchronously. The requestor will be expected to pay all computer costs he/she incurs. Direct access may be obtained by contacting the National Water Data Exchange (NAWDEX) Program Office at:

U.S. Geological Survey
National Water Data Exchange
421 USGS National Center
Reston, Virginia 20192

In addition to providing direct access to WATSTORE, data can be provided in various machine-readable formats on magnetic tape or floppy disks. Data from WATSTORE can be retrieved electronically through the use of File Transfer Protocol (FTP) on the Internet instead of receiving data on magnetic tape or diskette through the mail. A request for data is initially placed through the NAWDEX Program Office. The NAWDEX office will retrieve the data from WATSTORE and place the resulting data file in a directory for you to retrieve. The file can be retrieved by accessing the NAWDEX server (h2o.er.usgs.gov) via anonymous FTP.

Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division's District offices. (See address on the back of the title page.) Water-resources data, including those provided in water-data reports, also are available through the World Wide Web on the Internet. The Universal Resource Locator (URL) to the Illinois District's home page is: http://www-il.usgs.gov/

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. A table for converting inch-pound units to the International System of Units (SI) is 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 equal to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Adenosine triphosphate (ATP) is an organic, phosphate-rich, compound important in the transfer of energy in organisms. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

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

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

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.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, whereas 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 all the organisms that produce colonies with a golden-green metallic sheen 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 numbers of colonies per 100 mL of sample.

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

Fecal streptococcal bacteria are bacteria found in the intestine of warmblooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, coccal bacteria which are capable of growth in brain-heart infusion broth. In the laboratory, they are defined as all the organisms that produce red or pink colonies within 48 hours at 35 °C ± 1.0 °C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as numbers of colonies per 100 mL of sample.

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

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

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/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue of zooplankton and periphyton present after drying in an oven at 105 °C 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 the ash mass and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash and dry mass.

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

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism, which is counted by using a microscope and grid 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).

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 green pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

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 or to prevent the intrusion of salt water.

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

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

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

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

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

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

Dissolved refers to that material in a representative water sample, which passes through a 0.45-µm membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved-solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, bicarbonate is converted to carbon dioxide, water, and carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the conversion.

Drainage area of a stream at a specified 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 stream above the specified point. Figures of drainage area given herein include all closed basins, or non-contributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a 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 used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

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

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate ($CaCO_3$).

Hydrologic Bench-Mark Network is a network of 50 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

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 State Hydrologic Unit Maps; each hydrologic unit is identified by an eight-digit number.

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each ground-water observation well.

Measuring point (MP) is an arbitrary permanent reference point from which the distance to the water surface in a well is measured to obtain the water level.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

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

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 solvent. 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 represents the mass of solute per unit volume (liter) of solvent. Concentration of suspended sediment also is expressed in milligrams per liter and is based on the mass of dry sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

National Stream-Quality Accounting Network (NASQAN) monitors the water quality of large rivers within four of the Nation's largest river basins-- the Mississippi, Columbia, Colorado, and Rio Grande. The network consists of 39 stations. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used to (1) describe the long-term trends and changes in concentration and transport of these constituents; (2) test findings of the National Water-Quality Assessment Program (NAWQA); (3) characterize processes unique to large-river systems, such as storage and remobilization of sediments and associated contaminants; and (4) refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals.

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) provides continuous measurement and assessment of the chemical climate of precipitation throughout the Untied States. As the lead federal agency, the USGS works together with over 100 organizations to accomplish the following objectives; (1) Provide a long-term, spatial and temporal record of atmospheric deposition generated from a network of 191 precipitation chemistry monitoring sites; (2) Provide the mechanism to evaluate the effectiveness of the significant reduction in SO_2 emissions that began in 1995 as implementation of the Clean Air Act Amendments (CAAA) occurred; and (3) Provide the scientific basis and nationwide evaluation mechanism for implementation of the Phase II CAAA emission reductions for SO_2 and NO_x schedules to begin in 2000.

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

Organism is any living entity.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per unit area habitat, usually square meter (m^2), acre, or hectare. 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 milliliter (mL) or liter (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.

Parameter Code is a five-digit number used in the USGS computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are, for the most part, the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

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 a particle 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 classifications used in this report agree with the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay.....	0.0004 - 0.004	Sedimentation
Silt.....	.004 - .062	Sedimentation
Sand.....	.062 - 2.0	Sedimentation or sieve
Gravel.....	2.0 - 64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic matter 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.

Periphyton is the assemblage of microorganisms attached to and living upon submerged solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

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 per milliliter (cells/mL) of sample.

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

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 amoun of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [mg C/(m^2 ·time)] for periphyton and macrophytes and [mg C/(m^3 ·time)] for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark-bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mg O_2/(m^2 ·time)] for periphyton and macrophytes and [mg O_2/(m^3 ·time)] for phytoplankton are units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

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.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Return period is the average time interval between occurrences of a hydrologic event of a given or greater magnitude, usually expressed in years. May also be called recurrence interval.

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

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

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

Bed load is the sediment that is transported in a stream by rolling, sliding, or skipping along the bed and very close to it. In this report bed load is considered to consist of particles in transit within 0.25 ft of the streambed.

Bed load discharge (tons per day) is the quantity of bed load measured by dry weight that moves past a section as bed load in a given time.

Streambed sediment is the sediment that has accumulated on the bed of a stream.

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).

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

Suspended-sediment discharge (tons/day) is the rate at which dry mass of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft^3/s) x 0.0027.

Suspended-sediment load is a general term that refers to material in suspension. It is not synonymous with either discharge or concentration.

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 mass or volume, that passes a section during a given time.

Total-sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. It is not synonymous with total-sediment discharge.

7-day 10-year low flow ($7\ Q_{10}$) is the discharge at the 10-year recurrence interval taken from a frequency curve of annual values of the lowest mean discharge for 7 consecutive days (the 7-day low flow).

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Solute is any substance that is dissolved in a solvent.

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

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

Natural substrate refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

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 multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton.

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

Surficial bed material is the 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 undissolved material in a water-sediment mixture. It is associated with the material retained on a 0.45-µm filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45-µm membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble sustances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45-µm membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

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	Insects
Order	Ephemeroptera
Family	Ephemeridae
Genus	Hexagenia
Species	Hexagenia limbata

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

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 of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY) is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determined all of the constituent in the sample.)

Total discharge is the total quantity of any individual constituent, as measured by dry mass or volume, that passes through a stream cross-section per unit of time. This term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

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

Tritium Network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data also are obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

Water year in USGS reports dealing with surface-water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1992, is called the "1992 water year."

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

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

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

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

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

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Remarks Codes

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

PRINT OUTPUT	REMARK
E	Estimated value.
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
K	Results based on colony count outside the acceptance range (non-ideal colony count).
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted).
D	Biological organism count equal to or greater than 15 percent (dominant).
&	Biological organism estimated as dominant.

Dissolved Trace-Element Concentrations

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

OHIO RIVER BASIN

WABASH RIVER BASIN

03336645 MIDDLE FORK VERMILION RIVER ABOVE OAKWOOD, IL

LOCATION.--Lat 40°08'12", long 87°44'45", in NE1/4SW1/4 sec.5, T.19 N., R.12 W., Vermilion County, Hydrologic Unit 05120109, on right bank 150 ft upstream from Kickapoo State Park Road bridge, 1.0 mi upstream from Interstate Highway 74 bridge, 2.0 mi northeast of Oakwood, and at mile 31.7.

DRAINAGE AREA.--432 mi^2.

PERIOD OF RECORD.--October 1978 to current year. Gage-height records for January 1972 to Nov. 8, 1978, available in files of Illinois Office of Water Resources.

GAGE.--Water-stage recorder. Datum of gage is 544.42 ft above sea level (levels by Illinois Office of Water Resources).

REMARKS.--Records good except those for estimated daily discharges, which are poor. Gage-height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 27	1530	*4,700	*8.62	No other peak greater than base discharge.			

Minimum discharge, 12 ft^3/s, Oct. 20, 21, 22.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	13	389	143	207	3850	221	150	646	1290	43	32
2	19	14	374	158	274	1850	209	178	949	2250	40	33
3	16	14	263	198	758	1120	202	496	1380	824	38	36
4	14	14	199	230	1360	785	202	1410	1010	382	36	36
5	14	13	148	434	1610	615	221	790	696	296	36	28
6	14	15	122	396	976	498	230	509	569	247	37	25
7	13	66	114	259	531	402	215	376	1350	218	39	23
8	13	115	116	165	374	363	187	320	2000	199	34	26
9	14	106	103	e140	295	760	170	294	2470	665	32	29
10	14	85	91	e110	242	1810	164	252	1810	1630	32	28
11	14	55	204	e95	e205	1110	168	225	948	545	30	43
12	14	41	613	e88	e180	695	183	219	686	313	30	38
13	14	33	484	e82	e165	548	225	211	1870	240	30	30
14	15	29	322	e77	e150	2430	231	195	1600	214	30	26
15	13	26	263	e73	e140	1650	198	178	813	253	35	23
16	13	24	333	e69	e130	847	187	158	554	195	32	22
17	16	26	283	e66	123	624	180	149	440	154	49	23
18	20	26	222	e64	148	539	168	151	358	133	941	22
19	15	25	134	e63	466	485	184	181	322	144	637	21
20	13	25	e130	e62	1040	438	199	229	284	127	312	25
21	12	25	193	185	2770	405	195	212	267	103	220	22
22	13	25	158	1310	3370	366	189	143	259	102	155	19
23	16	23	151	1880	3230	315	177	134	242	e140	109	21
24	17	25	255	1380	1800	281	166	142	204	190	84	22
25	16	34	319	760	923	275	157	205	196	127	70	20
26	16	58	235	431	993	278	146	924	313	98	61	18
27	15	58	e200	e330	4530	254	141	1580	636	82	53	17
28	15	60	e180	e270	4260	250	147	1880	354	71	47	17
29	23	52	e165	e240	---	260	152	1150	261	61	42	16
30	19	197	e155	e225	---	251	148	880	217	53	38	14
31	15	---	148	e215	---	233	---	668	---	48	35	---
TOTAL	475	1322	7066	10198	31250	24587	5562	14589	23704	11394	3407	755
MEAN	15.3	44.1	228	329	1116	793	185	471	790	368	110	25.2
MAX	23	197	613	1880	4530	3850	231	1880	2470	2250	941	43
MIN	12	13	91	62	123	233	141	134	196	48	30	14
CFSM	.04	.10	.53	.76	2.58	1.84	.43	1.09	1.83	.85	.25	.06
IN.	.04	.11	.61	.88	2.69	2.12	.48	1.26	2.04	.98	.29	.07

e Estimated

03336645 MIDDLE FORK VERMILION RIVER ABOVE OAKWOOD, IL--Continued

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

MEAN	147	364	428	355	577	789	730	682	408	296	197	110
MAX	1088	2278	1097	1679	2580	2088	2384	1656	1085	1320	1060	1116
(WY)	1994	1986	1991	1993	1982	1979	1994	1995	1980	1993	1981	1993
MIN	12.4	9.54	28.3	20.2	69.5	83.2	133	92.1	27.0	12.8	12.1	8.82
(WY)	1981	1981	1990	1981	1989	1981	1986	1988	1988	1988	1991	1991

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1979 - 1997	
ANNUAL TOTAL	99577		134309			
ANNUAL MEAN	272		368		423	
HIGHEST ANNUAL MEAN					901	1993
LOWEST ANNUAL MEAN					185	1987
HIGHEST DAILY MEAN	5900	May 11	4530	Feb 27	14400	Apr 13 1994
LOWEST DAILY MEAN	12	Oct 21	12	Oct 21	4.5	Nov 20 1980
ANNUAL SEVEN-DAY MINIMUM	14	Oct 4	14	Oct 4	5.1	Nov 16 1980
INSTANTANEOUS PEAK FLOW			4700	Feb 27	15500	Apr 13 1994
INSTANTANEOUS PEAK STAGE			8.62	Feb 27	20.46	Apr 13 1994
INSTANTANEOUS LOW FLOW			12	Oct 20-22		
ANNUAL RUNOFF (CFSM)	.63		.85		.98	
ANNUAL RUNOFF (INCHES)	8.57		11.57		13.29	
10 PERCENT EXCEEDS	614		960		1000	
50 PERCENT EXCEEDS	115		170		159	
90 PERCENT EXCEEDS	16		18		17	

03337000 BONEYARD CREEK AT URBANA, IL

LOCATION.--Lat 40°06'40", long 88°13'35", in NW1/4NE1/4 sec.18, T.19 N., R.9 E., Champaign County, Hydrologic Unit 05120109, on right bank 300 ft. upstream of Mathews St. on University of Illinois campus in Urbana, and at mile 1.2.

DRAINAGE AREA.--4.46 mi^2, of which 0.88 mi^2 is noncontributing.

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

REVISED RECORDS.--WDR IL-75-1: Drainage area. WDR IL-83-1: 1982(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 708.10 ft above sea level. Prior to Oct. 1, 1974, at datum 0.15 ft higher.

REMARKS.--Records fair except those for daily discharges less than 0.8 ft^3/s and estimated daily discharges, which are poor. Diurnal fluctuation at low flow caused by sewage-treatment plants upstream. Since Aug. 1, 1960, storm runoff from 0.88 mi^2 at headwaters has been diverted to Saline Branch through Northwest Diversion Conduit.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 280 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 12	1850	379	3.88	Aug. 17	0050	781	6.64
July 8	2200	373	3.87	Sept. 2	1258	*844	*7.38
July 14	1405	557	4.89	Sept. 2	1637	822	7.05
July 21	1440	298	3.50	Sept. 9	1655	351	3.77

Minimum discharge, 0.51 ft^3/s, several days.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.55	.61	7.1	1.3	4.3	6.1	.96	1.3	7.0	1.5	1.1	1.1
2	.55	.58	2.4	1.2	5.1	3.6	.83	8.6	3.2	1.6	1.1	132
3	.55	.60	2.0	1.2	7.2	3.2	1.2	28	1.9	2.9	1.1	14
4	.53	.56	1.7	7.8	12	2.8	1.9	2.2	1.7	2.8	1.6	4.0
5	.55	.71	2.9	1.4	3.0	2.8	4.7	3.3	1.7	2.8	1.5	2.7
6	.58	22	3.5	.88	2.7	2.0	1.4	1.9	3.8	3.0	1.4	2.1
7	.59	26	2.6	e.60	2.0	1.7	1.1	1.3	e2.0	2.9	1.6	5.0
8	2.2	2.4	1.6	.63	1.6	1.2	.98	6.7	e7.0	18	1.5	7.1
9	.65	1.5	1.4	.83	1.5	27	.93	1.2	1.7	6.5	5.0	16
10	.53	1.3	e1.5	.89	1.4	4.0	1.0	1.0	2.4	2.0	1.3	2.3
11	.52	1.2	e9.0	.85	1.2	3.2	2.8	1.2	1.6	1.6	7.7	1.5
12	.51	1.2	e2.5	.90	1.3	2.7	2.3	1.0	21	1.4	11	1.5
13	.51	1.2	e1.5	.94	1.2	25	1.0	2.4	3.2	1.3	1.4	1.4
14	.51	1.1	e1.3	1.0	1.5	10	.93	1.9	2.0	30	1.3	1.4
15	.53	1.1	e6.0	1.0	1.3	4.4	1.1	1.1	1.6	1.9	7.3	1.4
16	.53	1.1	e3.0	.96	2.5	3.5	1.1	1.2	1.8	1.4	1.3	1.4
17	5.9	8.1	e1.7	.94	2.1	3.0	1.1	2.3	1.4	1.3	108	3.3
18	.95	1.2	e1.3	.93	2.0	2.7	2.4	1.6	1.3	1.4	2.5	1.4
19	.69	1.2	1.1	.94	2.3	2.2	2.3	6.2	1.4	1.2	5.4	15
20	.66	1.2	1.1	1.9	15	2.0	1.4	1.1	1.5	1.2	1.7	4.2
21	.71	1.5	1.0	8.4	15	1.9	1.5	1.0	1.4	12	1.4	1.4
22	9.0	1.1	1.0	26	4.4	2.0	1.4	1.0	1.4	13	1.3	1.3
23	3.8	1.1	12	3.6	3.4	1.3	.90	1.1	1.4	1.6	1.2	4.5
24	.91	9.3	1.3	7.1	3.0	3.2	.77	3.0	1.4	1.4	19	1.4
25	.80	5.1	.91	2.4	2.7	6.1	.72	6.6	5.8	1.4	1.8	1.3
26	.74	2.3	1.1	1.8	56	.96	.74	14	2.5	1.3	1.3	1.3
27	.75	1.4	2.4	3.6	17	.81	1.5	2.6	2.2	1.1	1.3	1.3
28	.71	1.5	1.8	1.2	6.1	9.8	.96	3.8	1.7	1.1	1.2	1.4
29	4.0	8.9	1.2	1.4	---	1.8	.85	3.0	1.4	1.1	1.3	1.3
30	1.2	5.4	1.1	1.5	---	1.4	3.2	8.0	1.2	1.0	1.2	1.4
31	.67	---	1.2	6.1	---	1.7	---	2.4	---	1.0	1.1	---
TOTAL	41.88	112.46	80.21	90.19	178.8	144.07	43.97	122.0	89.6	122.7	196.9	235.4
MEAN	1.35	3.75	2.59	2.91	6.39	4.65	1.47	3.94	2.99	3.96	6.35	7.85
MAX	9.0	26	12	26	56	27	4.7	28	21	30	108	132
MIN	.51	.56	.91	.60	1.2	.81	.72	1.0	1.2	1.0	1.1	1.1

e Estimated

03337000 BONEYARD CREEK AT URBANA, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1997, BY WATER YEAR (WY)

MEAN	3.17	3.33	3.57	3.59	3.95	4.93	5.99	5.67	4.68	5.16	4.30	3.55
MAX	10.8	10.8	11.5	18.6	14.0	10.9	18.3	16.1	11.8	16.0	12.6	9.97
(WY)	1956	1993	1967	1950	1982	1982	1964	1991	1958	1992	1993	1972
MIN	1.25	1.08	.95	.60	1.11	.94	1.43	1.65	1.15	1.50	.94	.84
(WY)	1965	1972	1990	1981	1995	1981	1971	1987	1988	1994	1986	1983

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1949 - 1997	
ANNUAL TOTAL	1240.94		1458.18			
ANNUAL MEAN	3.39		4.00		4.33	
HIGHEST ANNUAL MEAN					7.29	1993
LOWEST ANNUAL MEAN					2.46	1988
HIGHEST DAILY MEAN	119	May 10	132	Sep 2	223	Aug 12 1993
LOWEST DAILY MEAN	.47	Sep 22, 25	.51	Oct 12-14	.03	Feb 12 1981
ANNUAL SEVEN-DAY MINIMUM	.51	Sep 19	.52	Oct 10	.05	Feb 6 1981
INSTANTANEOUS PEAK FLOW			844	Sep 2	982 A, B	Jul 30 1979
INSTANTANEOUS PEAK STAGE			7.38	Sep 2	9.93 C	Aug 12 1993
INSTANTANEOUS LOW FLOW			.51	D		
10 PERCENT EXCEEDS	8.3		7.7		8.7	
50 PERCENT EXCEEDS	1.1		1.5		2.0	
90 PERCENT EXCEEDS	.59		.84		1.0	

A - On basis of indiret measurement of peak flow.
B - Gage height, 8.94 ft.
C - From high-water marks.
D - Several days.

03338780 NORTH FORK VERMILION RIVER NEAR BISMARCK, IL

LOCATION.--Lat 40°16'13", long 87°38'34", in SE1/4NE1/4 sec.24, T.21 N., R.12 W., Vermilion County, Hydrologic Unit 05120109,on left bank at downstream side of County Road 2750 N, 1.8 mi west of Bismarck, 1.9 mi downstream from Painter Creek, 6.6 mi downstream from Middle Branch of North Fork Vermilion River, and at mile 17.7.

DRAINAGE AREA.--262 mi^2.

PERIOD OF RECORD.--June 1970 to September 1973, low-flow partial-record station. October 1988 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 594 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Gage-height telemeter at station.

EXTREMES FOR CURRENT YEAR--Peak discharges greater than base discharge of 1,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 23	Unknown	Unknown	Unknown	Mar. 10	0215	1,940	9.56
Feb. 4	2115	1,480	8.68	Mar. 14	2130	2,920	11.36
Feb. 21	2130	2,760	11.10	June 8	1600	1,870	9.46
Feb. 27	2315	5,860	14.38	June 13	2330	*6,280	*14.71

Minimum discharge, 3.6 ft^3/s, Sept. 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	13	221	e140	e140	1710	208	107	394	278	25	14
2	12	12	223	163	246	1090	199	98	983	178	24	13
3	11	11	145	167	567	864	193	392	874	138	24	13
4	12	11	109	e200	1000	703	192	926	590	118	22	12
5	12	11	96	e400	1040	553	223	561	437	107	21	11
6	12	12	95	e350	505	442	268	514	401	96	20	11
7	12	58	81	178	321	358	211	343	1230	96	19	11
8	12	76	72	e140	238	328	181	294	1700	90	19	11
9	13	65	66	e110	198	794	164	248	1330	151	17	11
10	17	45	62	e95	e170	1650	157	205	786	153	19	13
11	14	35	180	e84	e150	1000	166	189	578	101	19	13
12	14	28	661	e78	e130	688	183	188	510	86	20	11
13	11	25	363	e72	e120	574	168	171	3610	78	24	11
14	10	24	248	e66	e110	2560	143	160	4100	74	22	11
15	11	22	209	e63	e105	1820	136	142	1680	75	19	11
16	9.5	22	272	e60	e98	886	135	125	912	64	19	11
17	14	24	259	e58	95	685	130	125	679	54	33	12
18	28	27	195	e56	131	567	127	124	515	50	36	12
19	21	24	e120	e55	362	531	143	170	400	55	31	12
20	13	22	e110	123	818	478	131	232	347	48	24	13
21	11	21	157	133	2500	410	127	162	301	43	21	11
22	10	25	137	e1300	2320	347	121	137	268	54	18	11
23	13	22	148	e2500	1240	282	115	130	232	69	17	11
24	19	22	331	1100	823	249	111	129	212	54	19	11
25	15	28	228	645	585	264	102	334	199	44	23	12
26	12	38	e190	365	843	240	95	577	204	43	18	11
27	14	38	e160	e230	4570	232	100	985	181	38	16	9.8
28	14	40	e140	e180	3910	236	113	583	159	34	16	8.6
29	11	37	e130	e160	---	258	103	532	148	30	15	7.2
30	12	74	e125	e150	---	241	102	522	138	28	14	4.1
31	16	---	e120	e145	---	225	---	431	---	27	14	---
TOTAL	418.5	912	5653	9566	23335	21265	4547	9836	24098	2554	648	333.7
MEAN	13.5	30.4	182	309	833	686	152	317	803	82.4	20.9	11.1
MAX	28	76	661	2500	4570	2560	268	985	4100	278	36	14
MIN	9.5	11	62	55	95	225	95	98	138	27	14	4.1
CFSM	.05	.12	.70	1.18	3.18	2.62	.58	1.21	3.07	.31	.08	.04
IN.	.06	.13	.80	1.36	3.31	3.02	.65	1.40	3.42	.36	.09	.05

e Estimated

03338780 NORTH FORK VERMILION RIVER NEAR BISMARCK, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1997, BY WATER YEAR (WY)

MEAN	153	293	296	392	340	523	555	560	367	287	76.4	78.0
MAX	662	1162	1160	1387	892	1063	1728	1032	803	1281	196	504
(WY)	1994	1993	1991	1993	1990	1990	1994	1995	1997	1993	1993	1993
MIN	13.3	30.4	17.9	40.2	67.0	123	152	96.9	140	16.3	6.74	3.68
(WY)	1996	1997	1990	1990	1995	1996	1997	1992	1991	1991	1991	1991

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1989 - 1997	
ANNUAL TOTAL	74007.5		103166.2			
ANNUAL MEAN	202		283		327	
HIGHEST ANNUAL MEAN					698	1993
LOWEST ANNUAL MEAN					181	1989
HIGHEST DAILY MEAN	5080	May 11	4570	Feb 27	14500	Apr 12 1994
LOWEST DAILY MEAN	9.5	Oct 16	4.1	Sep 30	2.5	A
ANNUAL SEVEN-DAY MINIMUM	12	Oct 2	9.1	Sep 24	2.7	Sep 15 1991
INSTANTANEOUS PEAK FLOW			6280	Jun 13	20100	B
INSTANTANEOUS PEAK STAGE			14.71	Jun 13	22.45	Apr 12 1994
INSTANTANEOUS LOW FLOW			3.6	Sep 30	2.3	C
ANNUAL RUNOFF (CFSM)	.77		1.08		1.25	
ANNUAL RUNOFF (INCHES)	10.51		14.65		16.94	
10 PERCENT EXCEEDS	471		686		731	
50 PERCENT EXCEEDS	87		120		138	
90 PERCENT EXCEEDS	14		12		15	

A - Sept. 10, 16-19, 1991.

B - Apr. 12, 1994; measured discharge on Mar. 11, 1990 (based on contracted-opening measurement of peak flow).

C - Sept. 9, 10, 16-19, 1991.

03339000 VERMILION RIVER NEAR DANVILLE, IL

LOCATION.--Lat 40°06'03", long 87°35'52", in NW1/4NW1/4 sec.22, T.19 N., R.11 W., Vermilion County, Hydrologic Unit 05120109, on right bank at Danville sewage-treatment plant, 1.7 mi upstream from Stony Creek, 2.2 mi southeast of Danville, and at mile 19.5.

DRAINAGE AREA.--1,290 mi^2.

PERIOD OF RECORD.--October 1914 to September 1921, June 1928 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 853: 1936(M). WSP 973: 1939. WSP 1305: 1915-16, 1920, 1929. WSP 1335: 1934(m). WSP 1909: 1960. WDR IL-75-1: Drainage area. WDR IL-84-1: 1983. WDR IL-92-1: 1991.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 503.33 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Jan. 9, 1935, nonrecording gage at same site and datum. Jan. 9, 1935 to Aug. 30, 1982, at site 0.3 mi downstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated at times by storage at Lake Vermilion on North Fork Vermilion River, 4.5 mi upstream from station, usable capacity, 7,440 acre-ft, and by Danville sewage-treatment plant. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 23	0230	7,910	12.36	Mar. 14	1315	8,400	12.82
Feb. 22	0715	8,240	12.67	June 14	0300	7,370	11.86
Feb. 27	1600	*14,000	*17.48				

Minimum discharge, 34 ft^3/s, Oct. 14

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	61	811	482	e820	9380	909	514	1830	1410	112	105
2	56	70	986	501	981	5310	871	532	2440	2940	106	101
3	57	60	829	580	2190	3750	859	802	2940	1730	101	166
4	56	54	668	643	3830	2950	848	e1450	2330	816	96	458
5	56	51	599	956	4980	2470	892	e2500	1720	685	92	239
6	54	56	481	1010	3050	2050	969	1560	1530	610	85	167
7	51	230	386	783	1900	1690	908	1370	3310	565	88	128
8	50	393	370	507	1430	1490	773	1150	4790	505	82	116
9	47	427	371	e420	1180	2140	725	1010	5470	720	84	136
10	45	282	359	e340	1010	4770	708	840	4240	2120	91	173
11	49	207	460	e290	e880	3800	684	757	2540	1210	85	221
12	51	156	1350	e250	e790	2660	695	772	1990	692	90	186
13	40	127	1250	e235	e710	2120	735	744	4250	545	88	143
14	36	115	868	e220	e650	7170	728	702	6300	470	118	115
15	52	103	707	e215	e610	e5600	627	665	3450	529	102	99
16	46	92	750	e210	e570	e4000	601	603	2150	575	84	89
17	77	104	877	e200	e530	e2900	591	543	1760	422	227	86
18	106	99	738	e195	609	e2140	589	532	1490	329	1390	80
19	66	112	445	e190	1100	e2000	686	612	1260	304	1240	81
20	96	124	374	e185	2340	e1800	703	726	1130	293	611	99
21	82	105	507	478	6780	1630	678	736	1040	244	428	127
22	66	96	522	1920	8030	1460	646	553	969	297	315	140
23	75	88	534	5390	6570	1260	615	481	882	348	231	110
24	74	97	810	4080	4080	1180	579	463	758	444	196	98
25	122	148	844	2550	2630	1100	527	574	713	319	179	105
26	103	217	738	1580	2760	1110	486	1930	743	246	270	95
27	79	238	669	e1200	12500	1030	465	2890	1270	204	207	79
28	67	228	e620	e1000	12500	1030	514	3260	959	175	162	77
29	57	215	e560	e930	---	1120	527	2400	738	150	136	69
30	80	368	e510	e860	---	962	516	2110	654	132	129	64
31	53	---	500	e810	---	889	---	1790	---	121	113	---
TOTAL	2032	4723	20493	29210	86010	82961	20654	35571	65646	20150	7338	3952
MEAN	65.5	157	661	942	3072	2676	688	1147	2188	650	237	132
MAX	122	427	1350	5390	12500	9380	969	3260	6300	2940	1390	458
MIN	36	51	359	185	530	889	465	463	654	121	82	64
CFSM	.05	.12	.51	.73	2.38	2.07	.53	.89	1.70	.50	.18	.10
IN.	.06	.14	.59	.84	2.48	2.39	.60	1.03	1.89	.58	.21	.11

e Estimated

03339000 VERMILION RIVER NEAR DANVILLE, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915 - 1997, BY WATER YEAR (WY)

MEAN	337	596	893	1145	1420	1699	1876	1661	1171	758	404	263
MAX	3346	5743	3593	6930	4818	5383	6846	7615	3729	4008	3049	2807
(WY)	1978	1986	1991	1950	1982	1979	1994	1943	1974	1993	1979	1993
MIN	12.8	22.8	27.3	27.8	39.6	59.6	190	83.7	43.3	26.6	17.9	14.4
(WY)	1921	1921	1915	1977	1931	1931	1915	1934	1934	1934	1930	1920

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1915 - 1997	
ANNUAL TOTAL	338475		378740			
ANNUAL MEAN	925		1038		1016	
HIGHEST ANNUAL MEAN					2694	1993
LOWEST ANNUAL MEAN					139	1954
HIGHEST DAILY MEAN	18900	May 11	12500	Feb 27, 28	45100	Apr 13 1994
LOWEST DAILY MEAN	36	Oct 14	36	Oct 14	2.0	[illegible]
ANNUAL SEVEN-DAY MINIMUM	45	Oct 8	45	Oct 8	2.1	Oct [illegible] 1920
INSTANTANEOUS PEAK FLOW			14000	Feb 27	48700 B	Mar 13 1939
INSTANTANEOUS PEAK STAGE			17.48	Feb 27	31.56	Apr 13 1994
INSTANTANEOUS LOW FLOW			35	Oct 14		
ANNUAL RUNOFF (CFSM)	.72		.80		.79	
ANNUAL RUNOFF (INCHES)	9.76		10.92		10.70	
10 PERCENT EXCEEDS	2190		2540		2440	
50 PERCENT EXCEEDS	412		565		400	
90 PERCENT EXCEEDS	61		81		51	

A - Oct. 9-14, 1920; Aug. 10, 1930.
B - Gage height, 28.59 ft.

03342000 WABASH RIVER AT RIVERTON, IN

LOCATION.--Lat 39°01'13", long 87°34'07", in NE¼SW¼ sec.30, T.7 N., R.10 W., Sullivan County, Hydrologic Unit 05120111, on left bank at downstream side of Illinois Central Railroad bridge at Riverton, 0.5 mi downstream from Turtle Creek, and at mile 162.0.

DRAINAGE AREA.--13,161 mi^2.

PERIOD OF RECORD.--October 1938 to current year. Prior to April 1939 monthly discharge only, published in WSP 1305. June 1911 to December 1914 (gage heights only) available in the U.S. Army Corps of Engineers office, Louisville, Ky.

REVISED RECORDS.--WSP 1335: 1939, 1950. WDR IN-73-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 414.65 ft above sea level. Prior to July 17, 1951, nonrecording gage at same site and datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow partially regulated by upstream reservoirs.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 28, 1913, reached a stage of 26.4 ft, from graph based on once-daily readings by Illinois Central Railroad Co., discharge, 250,000 ft^3/s.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3020	3390	12500	19700	18500	58000	22800	7300	24400	15400	7440	4010
2	3020	3320	13200	19000	18300	65500	22300	7270	23300	13800	6920	3800
3	3160	3380	15100	18200	19100	69700	22000	7910	23400	13100	6410	3660
4	3350	3350	17300	17300	22100	71800	21600	8530	24400	13200	5960	3530
5	3240	3420	17800	18000	25500	72200	20300	10100	25500	12000	5580	3430
6	3090	3430	16400	17900	27000	69300	18800	15300	26000	10900	5190	3430
7	2880	3540	14800	18000	27400	64100	17400	17600	25400	11200	4920	3340
8	2680	3620	13600	19300	27200	58300	16600	16100	26300	10500	4620	3300
9	2580	3820	12600	19700	27300	53000	16300	14100	28300	9300	4400	3410
10	2620	4570	11400	18300	27400	49000	15200	12500	29000	8320	4210	3310
11	2800	6970	10100	16500	26600	45800	13800	11100	29700	8620	4080	3280
12	2810	9300	9540	13900	25000	42900	13000	10200	30100	9660	3960	3350
13	2800	9950	9910	10700	22000	40800	12300	9340	31300	8590	3840	3750
14	2810	10200	14400	7190	17600	42900	11700	8860	31300	7580	3800	3850
15	2790	10400	19500	e5800	14600	44800	11400	8570	30500	7020	3800	4280
16	2800	10400	21000	e5400	12500	46100	11000	8110	30900	6520	4130	4340
17	2790	9910	20700	e5600	11100	48600	10500	7780	32800	6210	4590	4010
18	2880	9240	19700	e5400	10200	51500	10100	7480	37100	5930	4760	3620
19	2910	8700	18700	e5300	9620	53500	9930	7220	39800	5670	4780	3370
20	3510	8500	16800	e5200	9380	52800	9750	7010	38600	5520	5860	3270
21	4030	8190	14600	e5600	11900	e50000	9800	7080	31900	5290	7100	3130
22	4390	7800	13100	9420	20400	e45000	9910	7370	26300	5260	6660	3070
23	4620	7190	13400	20800	26100	e40000	9410	8020	23300	5200	5790	4240
24	4620	6760	17400	26400	28000	e36000	8900	8980	21600	5500	5210	7170
25	4430	6510	20600	27100	29600	e33000	8480	8770	20300	6860	5140	7300
26	4520	7310	22700	26300	32300	e30000	8120	8920	20100	8940	5000	6560
27	4510	7470	24500	25000	41900	e27000	7920	12500	19700	12700	4630	5560
28	4400	7560	25400	e24400	50600	25700	7690	20700	19600	13900	4400	4930
29	4080	9350	25200	e22000	---	24400	7560	24100	19300	11800	4220	4600
30	3810	11700	23100	e20400	---	24200	7450	25000	17400	9350	4280	4150
31	3530	---	20700	19000	---	23600	---	25000	---	8090	4210	---
TOTAL	105480	209250	525750	492810	639200	1459500	392020	358820	807600	281930	155890	123060
MEAN	3403	6975	16960	15900	22830	47080	13070	11570	26920	9095	5029	4102
MAX	4620	11700	25400	27100	50600	72200	22800	25000	39800	15400	7440	7300
MIN	2580	3320	9540	5200	9380	23600	7450	7010	17400	5200	3800	3070
CFSM	.26	.53	1.29	1.21	1.73	3.58	.99	.88	2.05	.69	.38	.31
IN.	.30	.59	1.49	1.39	1.81	4.13	1.11	1.01	2.28	.80	.44	.35

e Estimated

03342000 WABASH RIVER AT RIVERTON, IN--Continued

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

MEAN	4929	7458	11110	13980	17000	21070	21190	17260	13560	8990	5674	4600
MAX	18350	39340	39250	80210	54530	60520	41840	68010	45640	36240	23680	25370
(WY)	1991	1993	1986	1950	1950	1982	1957	1943	1958	1957	1958	1989
MIN	1382	1437	1213	1318	2058	2763	6363	3435	2601	1968	1215	1261
(WY)	1957	1954	1964	1977	1963	1941	1941	1941	1977	1988	1941	1940

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1940 - 1997	
ANNUAL TOTAL	4788930		5551310			
ANNUAL MEAN	13080		15210		12210	
HIGHEST ANNUAL MEAN					24340	1950
LOWEST ANNUAL MEAN					3206	1941
HIGHEST DAILY MEAN	57700	May 15	72200	Mar 5	200000	May 21 1943
LOWEST DAILY MEAN	1550	Jan 13	2580	Oct 9	858	Sep 27 1941
ANNUAL SEVEN-DAY MINIMUM	1710	Jan 8	2730	Oct 8	870	Sep 2[illegible] 1941
INSTANTANEOUS PEAK FLOW			72500	Mar 5	201000	May 21 1943
INSTANTANEOUS PEAK STAGE			21.68	Mar 5	29.36	May 21 1943
ANNUAL RUNOFF (CFSM)	.99		1.16		.93	
ANNUAL RUNOFF (INCHES)	13.54		15.69		12.60	
10 PERCENT EXCEEDS	30600		30700		29600	
50 PERCENT EXCEEDS	8170		10100		7220	
90 PERCENT EXCEEDS	3080		3430		2200	

03343000 WABASH RIVER AT VINCENNES, IN

LOCATION.--Lat 38o42'19", long 87o31'14", T.3 N., R.10 W., Lawrence County, IL, Hydrologic Unit 05120111, on right bank 30 ft east of Illinois State Highway 33, 300 ft upstream from Kelso Creek, 570 ft downstream from U.S. Highway 50 bridge, 5.1 mi downstream from Maria Creek, 7.5 mi upstream from Embarras River and at mile 129.6.

DRAINAGE AREA.--13,706 mi2.

PERIOD OF RECORD.--October 1994 to current year (stage only), October 1929 to September 1994 (discharge). Prior to December 1929 monthly discharge only, published in WSP 1305. Gage-height records for flood peaks in 1867 and 1883, intermittent records 1887-1904, and continuous since November 1904, collected at site 1.8 mi downstream, are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 1173: 1943 (maximum gage height only). WSP 1335: 1930-31, 1933, 1936. WSP 1909: 1955. WDR IN-73-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 394.43 ft above sea level. Oct. 1, 1968, to June 19, 1979, recording gage at site 570 ft upstream at same datum. Oct. 1, 1960, to September 30, 1968, nonrecording gage at site 1.8 mi downstream at same datum. Oct. 1, 1960, to Sept. 30, 1968, auxiliary water-stage recorder at site 2.8 mi upstream from base gage at datum 0.80 ft lower. See WSP 1725 for history of changes prior to Oct. 1, 1960.

REMARKS.--Flow partially regulated by upstream reservoirs.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 29, 1913, reached a stage of 26.3 ft, at former site 1.8 mi downstream and at present datum, from floodmarks, determined by U.S. Army Corps of Engineers, discharge, 255,000 ft3/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 29.33 ft., May 22, 1943; minimum gage height, unknown.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 24.52 ft., March 5; minimum gage height, unknown.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY OBSERVATION AT 24:00

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	4.94	9.48	11.91	11.77	20.76	---	6.76	13.61	10.95	6.82	5.15
2	---	4.90	9.63	11.72	11.68	22.64	13.05	7.29	13.26	9.94	6.63	5.08
3	4.81	4.93	10.22	11.49	12.18	23.85	12.88	7.56	13.14	9.53	6.35	4.99
4	4.87	4.92	10.87	11.53	13.87	24.24	12.65	7.57	13.38	9.52	6.12	4.98
5	4.79	4.96	11.06	11.80	14.59	24.12	12.80	8.54	13.71	8.99	5.91	4.89
6	---	4.96	10.69	11.58	14.96	23.88	12.07	10.74	13.91	8.56	5.72	4.85
7	---	6.05	10.04	11.54	15.04	23.02	11.33	10.98	13.93	8.65	5.58	4.80
8	---	5.55	9.61	11.84	14.68	22.33	10.98	10.51	14.50	8.31	5.43	4.91
9	---	5.41	9.16	11.88	14.61	21.00	10.63	9.90	14.89	7.82	5.34	4.85
10	---	5.68	8.75	11.26	14.54	20.37	10.20	9.03	15.24	7.37	5.29	4.75
11	---	6.79	8.23	10.65	14.28	19.54	9.68	8.53	15.35	7.47	5.19	4.76
12	---	7.74	8.00	9.76	13.81	19.06	9.48	8.08	15.41	7.95	5.14	4.74
13	---	7.96	8.07	8.52	12.80	18.64	9.14	7.73	15.90	7.46	5.15	4.93
14	---	8.08	9.91	7.03	11.29	18.92	8.87	7.46	16.29	7.05	5.11	4.95
15	---	8.12	11.47	6.57	10.11	19.13	8.68	7.37	16.18	6.74	5.07	5.15
16	---	8.11	12.01	6.47	9.25	19.41	8.48	7.18	16.13	6.49	5.19	5.21
17	---	7.90	11.96	6.50	8.72	19.85	8.25	7.03	16.71	6.32	5.84	5.07
18	---	7.63	11.69	---	8.33	21.02	8.07	6.87	18.37	6.16	5.62	4.88
19	---	7.44	11.34	---	8.06	21.39	8.01	6.74	18.65	6.02	5.60	4.81
20	4.94	7.34	10.67	6.81	7.94	21.34	8.03	6.63	18.11	5.94	6.53	4.74
21	5.20	7.21	9.92	6.77	9.11	20.98	8.07	6.73	17.22	5.81	6.73	4.78
22	5.45	7.03	9.43	10.90	12.38	20.21	8.10	6.81	16.02	5.84	6.45	---
23	5.53	6.76	10.33	13.98	13.96	19.36	7.74	7.09	14.20	5.75	6.12	5.02
24	5.53	6.61	12.06	15.24	14.56	18.66	7.57	7.57	13.11	5.86	5.80	6.50
25	5.42	7.00	12.73	15.74	14.93	17.88	7.31	7.52	12.41	6.54	5.72	6.56
26	5.48	7.45	13.17	15.62	---	17.01	7.26	7.69	12.28	7.48	5.72	6.25
27	5.47	7.25	13.45	15.54	---	16.10	7.10	8.98	11.98	9.03	5.50	5.79
28	5.43	7.16	13.73	15.27	18.87	15.12	6.96	11.87	11.87	9.42	5.39	5.49
29	5.29	7.95	13.73	14.34	---	14.69	6.93	12.98	11.75	8.65	5.32	5.34
30	5.14	8.91	13.21	12.77	---	14.26	6.89	13.31	12.26	7.68	5.34	5.13
31	5.01	---	12.44	11.95	---	13.86	---	13.84	---	7.12	5.27	---
MEAN	---	6.76	10.87	---	---	19.76	---	8.61	14.66	7.63	5.71	---
MAX	---	8.91	13.73	---	---	24.24	---	13.84	18.65	10.95	6.82	---
MIN	---	4.90	8.00	---	---	13.86	---	6.63	11.75	5.75	5.07	---

03343400 EMBARRAS RIVER NEAR CAMARGO, IL

LOCATION.--Lat 39°47'30", long 88°11'10", in NE1/4NW1/4 sec.3, T.15 N., R.9 E., Douglas County, Hydrologic Unit 05120112, on left bank at downstream side of bridge on U.S. Highway 36, 2.0 mi southwest of Camargo and at mile 166.5.

DRAINAGE AREA.--186 mi^2.

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

REVISED RECORDS.--WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 622.30 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Gage-height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 27	1900	*3,320	*13.29	June 13	1045	2,780	12.97

Minimum discharge, 0.98 ft^3/s, Oct. 8.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	5.2	140	e34	e120	1150	111	53	212	57	5.3	10
2	1.9	8.6	171	e34	e200	e750	106	49	213	53	4.1	9.1
3	1.5	9.9	119	e35	533	e600	105	77	210	46	3.5	42
4	1.4	9.8	81	e40	807	e500	108	227	178	39	3.3	105
5	1.3	9.2	67	e60	1040	416	116	202	149	35	3.1	45
6	1.1	10	65	83	669	367	126	157	151	31	2.9	26
7	1.0	32	59	58	371	307	102	123	414	30	3.0	18
8	1.1	77	68	e54	236	272	85	113	594	29	3.4	18
9	1.1	50	70	e71	174	261	79	109	898	33	5.4	174
10	1.5	26	62	e55	149	465	77	90	824	63	4.2	398
11	1.4	16	62	e43	135	528	82	83	586	37	4.5	384
12	1.2	11	60	e32	121	399	92	87	497	27	4.7	201
13	1.1	8.1	49	e30	102	331	86	83	2370	22	6.1	97
14	1.1	7.0	40	e30	101	846	70	80	1540	23	7.3	63
15	1.3	6.4	38	e32	89	1060	65	73	855	28	4.5	47
16	1.3	8.3	41	e35	79	689	65	64	523	25	3.2	38
17	2.6	8.8	47	e32	70	505	64	62	356	12	48	33
18	1.7	11	40	e30	77	418	63	65	264	7.8	260	28
19	1.4	20	e35	e28	102	358	69	66	208	6.1	291	24
20	1.3	19	e30	e26	216	318	68	66	173	4.8	130	24
21	1.3	18	e27	e30	845	282	65	56	152	5.1	84	30
22	2.7	11	e28	e200	1110	245	62	50	134	95	51	24
23	3.5	5.1	e30	e800	868	197	58	48	116	103	29	23
24	6.7	9.2	e50	947	612	170	55	50	105	45	21	23
25	9.3	19	e90	623	452	173	51	58	98	26	75	24
26	8.0	59	e80	410	497	163	46	74	90	18	103	22
27	8.4	58	e50	e250	2600	147	48	103	82	13	50	19
28	6.8	41	e45	e140	2240	149	55	127	72	10	34	17
29	6.0	32	e40	e120	---	154	52	128	66	7.8	22	17
30	5.4	52	e37	e110	---	136	50	163	61	6.4	16	14
31	4.4	---	e35	e100	---	122	---	177	---	5.5	12	---
TOTAL	92.2	657.6	1856	4572	14615	12478	2281	2963	12191	943.5	1294.5	1937.1
MEAN	2.97	21.9	59.9	147	522	403	76.0	95.6	406	30.4	41.8	66.6
MAX	9.3	77	171	947	2600	1150	126	227	2370	103	291	398
MIN	1.0	5.1	27	26	70	122	46	48	61	4.8	2.9	9.1
CFSM	.02	.12	.32	.79	2.81	2.16	.41	.51	2.18	.16	.22	.36
IN.	.02	.13	.37	.91	2.92	2.50	.46	.59	2.44	.19	.26	.40

e Estimated

03343400 EMBARRAS RIVER NEAR CAMARGO, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1997, BY WATER YEAR (WY)

MEAN	57.0	122	205	176	234	260	300	280	169	104	65.4	48.6
MAX	570	910	691	684	650	861	795	1263	773	487	315	422
(WY)	1994	1993	1984	1974	1985	1979	1994	1996	1974	1992	1979	1993
MIN	.000	.92	1.05	.63	4.11	76.8	35.6	36.5	14.3	9.59	.12	.020
(WY)	1961	1961	1961	1977	1963	1968	1971	1976	1988	1988	1964	1964

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1961 - 1997	
ANNUAL TOTAL	76824.5		55940.9			
ANNUAL MEAN	210		153		168	
HIGHEST ANNUAL MEAN					357	1993
LOWEST ANNUAL MEAN					59.5	1963
HIGHEST DAILY MEAN	5680	May 11	2600	Feb 27	6150	Apr 12 1994
LOWEST DAILY MEAN	1.0	Sep 25,Oct 7	1.0	Oct 7	.00	A
ANNUAL SEVEN-DAY MINIMUM	1.2	Oct 6	1.2	Oct 6	.00	Oct 1 1960
INSTANTANEOUS PEAK FLOW			3320	Feb 27	8040	Apr 12 1994
INSTANTANEOUS PEAK STAGE			13.29	Feb 27	17.33	Apr 12 1994
INSTANTANEOUS LOW FLOW			.98	Oct 8		
ANNUAL RUNOFF (CFSM)	1.13		.82		.90	
ANNUAL RUNOFF (INCHES)	15.36		11.19		12.28	
10 PERCENT EXCEEDS	538		415		426	
50 PERCENT EXCEEDS	47		58		62	
90 PERCENT EXCEEDS	2.1		4.8		2.7	

A - Many days in most years.

03345500 EMBARRAS RIVER AT STE. MARIE, IL

LOCATION.--Lat 38°56'10", long 88°01'10", in NW1/4NW1/4 sec.30, T.6 N., R.14 W., Jasper County, Hydrologic Unit 05120112, on right bank at upstream side of bridge on County Highway 9 at Ste. Marie, and at mile 48.2.

DRAINAGE AREA.--1,516 mi^2.

PERIOD OF RECORD.--October 1909 to December 1912, August 1914 to current year.

REVISED RECORDS.--WSP 1083: 1934. WSP 1113: 1910-31, 1933, 1939-40, 1945(M). WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 445.75 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to June 29, 1940, nonrecording gage and June 29, 1940, to Jan. 24, 1967, water-stage recorder at same site at datum 1.00 ft higher.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 1	0400	*16,200	*21.43	Mar. 16	1000	12,100	19.56

Minimum discharge, 31 ft^3/s, Nov. 4, but may have been less during period of partial record Nov. 4-7.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	38	451	474	e1200	14800	1090	439	741	602	130	149
2	54	35	695	436	e1400	12100	999	451	789	511	123	133
3	47	33	640	409	2430	11000	926	594	952	471	116	119
4	44	31	464	397	4650	9670	876	589	1220	438	111	109
5	43	e32	459	1120	5650	7490	922	656	1230	398	106	124
6	42	32	553	694	4380	3900	1100	732	1160	359	100	112
7	42	47	485	740	3290	2770	1070	815	2630	325	94	97
8	42	55	460	563	2920	2340	950	772	2820	295	91	106
9	43	43	414	492	2310	2050	853	725	3300	272	92	129
10	42	51	367	433	1730	3730	778	680	3410	252	88	124
11	40	105	319	e360	1420	5450	725	606	2930	243	86	121
12	39	105	297	e390	1270	3320	710	554	2810	250	87	147
13	39	123	280	e430	1130	2620	714	511	3330	278	114	366
14	41	117	262	e450	1020	5800	716	488	5590	258	138	384
15	40	102	248	e420	928	9360	683	472	5150	249	99	314
16	38	85	316	e360	862	11800	640	453	4500	258	96	237
17	38	78	403	e320	803	9110	597	431	4680	224	96	194
18	46	71	372	e280	749	6570	568	409	4230	205	91	163
19	41	61	270	e250	701	6950	551	395	2700	200	91	142
20	37	55	219	e220	699	4820	544	378	1930	204	148	131
21	37	53	261	e200	1600	2920	594	369	1420	197	149	120
22	38	53	247	e1400	4030	2410	629	358	1280	486	255	112
23	61	49	259	e5000	4050	2050	629	344	1100	1070	298	107
24	56	47	1160	5690	3160	1760	572	328	969	448	224	104
25	49	168	1830	3840	2970	1530	529	323	959	247	182	98
26	47	575	892	2890	2690	1400	497	334	974	220	228	100
27	57	1370	796	2340	7810	1320	476	444	849	226	351	98
28	60	686	668	e1900	12600	1240	460	497	746	197	262	92
29	54	382	628	e1500	---	1430	455	542	640	172	258	90
30	51	332	590	e1250	---	1240	451	722	597	153	218	84
31	46	---	536	e1100	---	1190	---	749	---	139	179	---
TOTAL	1407	5014	15841	36348	78452	154140	21304	16160	65636	9847	4701	4406
MEAN	45.4	167	511	1173	2802	4972	710	521	2188	318	152	147
MAX	61	1370	1830	5690	12600	14800	1100	815	5590	1070	351	384
MIN	37	31	219	200	699	1190	451	323	597	139	86	84
CFSM	.03	.11	.34	.77	1.85	3.28	.47	.34	1.44	.21	.10	.10
IN.	.03	.12	.39	.89	1.93	3.78	.52	.40	1.61	.24	.12	.11

e Estimated

03345500 EMBARRAS RIVER AT STE. MARIE, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 1997, BY WATER YEAR (WY)

MEAN	419	766	1278	1665	1915	2197	2204	1873	1242	726	431	378
MAX	3892	6308	7495	11520	7790	7556	7676	10550	5752	3844	4437	3810
(WY)	1927	1993	1968	1950	1982	1979	1922	1943	1957	1958	1915	1926
MIN	14.6	4.37	4.84	13.4	21.6	23.4	120	78.3	65.9	18.8	11.6	7.68
(WY)	1965	1915	1915	1977	1954	1954	1931	1954	1954	1954	1954	1954

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1910 - 1997	
ANNUAL TOTAL	649197		413256			
ANNUAL MEAN	1774		1132		1254	
HIGHEST ANNUAL MEAN					2696	1927
LOWEST ANNUAL MEAN					35.9	1954
HIGHEST DAILY MEAN	29500	May 9	14800	Mar 1	38200	May 30 1927
LOWEST DAILY MEAN	31	A Nov 4	31	A Nov 4	1.0	B
ANNUAL SEVEN-DAY MINIMUM	35	Oct 31	35	Oct 31	1.6	Oct 3 1914
INSTANTANEOUS PEAK FLOW			16200	Mar 1	44800 C	Jan 4 1950
INSTANTANEOUS PEAK STAGE			21.43	Mar 1	26.54 D	Jun 30 1957
INSTANTANEOUS LOW FLOW			31 A	Nov 4	1.0 E	B
ANNUAL RUNOFF (CFSM)	1.17		.75		.83	
ANNUAL RUNOFF (INCHES)	15.93		10.14		11.24	
10 PERCENT EXCEEDS	5640		3050		3320	
50 PERCENT EXCEEDS	486		438		465	
90 PERCENT EXCEEDS	49		53		44	

A - May have been been less during period of partial record Nov. 4-7.

B - Oct. 5-9, 1914.

C - Gage height, 25.95 ft, present datum, from rating curve extended above 29,000 ft^3/s.

D - Present datum.

E - Observed.

03346000 NORTH FORK EMBARRAS RIVER NEAR OBLONG, IL

LOCATION.--Lat 39°00'37", long 87°56'47", in NW1/4NW1/4 sec.35, T.7 N., R.14 W., Crawford County, Hydrologic Unit 05120112, on left bank at downstream side of bridge on State Highway 33, 0.8 mi upstream from railroad bridge, 2 mi west of Oblong, and at mile 10.5.

DRAINAGE AREA.--318 mi^2.

PERIOD OF RECORD.--October 1940 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 456.19 ft above sea level. Prior to Dec. 11, 1940, nonrecording gage and Dec. 11, 1940, to Sept. 30, 1964, water-stage recorder at same site at datum 2.00 ft higher. Oct. 8, 1971, to May 15, 1979, water-stage recorder at site 0.8 mi downstream at present datum.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Gage-height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 27	unkown	*10,200	*20.00	Mar. 15	0030	5,100	18.14

Minimum discharge, 0.88 ft^3/s, Sept. 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	3.4	132	72	502	e2300	169	36	118	56	9.8	6.7
2	2.1	3.1	220	63	714	e1200	139	47	101	47	9.4	5.7
3	2.2	2.7	138	58	1100	e700	121	137	144	39	9.0	4.9
4	2.2	2.6	57	112	1550	373	112	211	91	35	8.5	4.4
5	2.2	2.7	63	409	1980	287	186	129	52	31	8.1	4.5
6	2.3	3.0	96	280	602	255	349	99	38	27	8.0	6.5
7	2.4	14	64	118	327	214	224	85	191	24	7.5	4.8
8	2.5	16	84	56	252	181	140	71	360	21	7.3	4.2
9	2.6	8.1	74	33	e220	185	108	107	490	19	8.1	11
10	2.5	6.9	49	e23	e200	1220	94	99	285	18	8.2	12
11	2.3	7.6	26	e16	184	1220	87	62	139	17	8.3	6.8
12	2.3	5.2	18	e11	177	375	95	47	89	16	7.6	4.7
13	2.3	4.3	14	e9.0	143	357	107	40	611	16	9.7	4.0
14	2.2	3.2	10	e8.0	120	2930	96	36	1760	15	13	3.5
15	2.4	2.5	11	e7.5	112	4540	81	31	675	17	11	2.9
16	2.4	2.1	19	e7.0	101	1760	73	27	185	20	8.8	2.5
17	3.0	2.5	105	e6.5	91	380	68	24	132	25	9.7	2.4
18	5.6	2.4	74	e6.0	86	990	66	23	131	18	11	2.0
19	3.2	2.2	34	e5.5	93	2040	66	22	474	16	14	1.8
20	2.3	2.0	e18	e5.5	155	624	68	19	374	15	19	1.6
21	2.0	1.7	e11	e7.0	986	354	94	16	123	14	13	1.4
22	2.4	1.6	e7.5	e300	1540	276	129	14	152	166	11	1.3
23	4.8	1.7	e80	e2800	643	215	112	12	159	116	8.7	1.4
24	4.3	4.3	791	e2000	291	182	78	11	85	41	8.3	1.5
25	4.7	167	622	e1000	207	161	60	11	119	28	133	1.4
26	7.7	254	e130	e500	529	163	48	59	375	19	246	1.2
27	6.9	326	e90	e550	e7500	155	41	91	164	15	67	1.1
28	5.5	95	e84	e700	e4500	144	40	50	79	13	27	1.1
29	5.3	37	e95	e800	---	423	45	30	55	12	15	1.1
30	4.7	37	123	513	---	289	41	22	47	11	11	.96
31	3.9	---	98	427	---	204	---	39	---	10	8.1	---
TOTAL	103.4	1021.8	3437.5	10903.0	24905	24697	3137	1707	7798	937	744.1	109.36
MEAN	3.34	34.1	111	352	889	797	105	55.1	260	30.2	24.0	3.65
MAX	7.7	326	791	2800	7500	4540	349	211	1760	166	246	12
MIN	2.0	1.6	7.5	5.5	86	144	40	11	38	10	7.3	.96
CFSM	.01	.11	.35	1.11	2.80	2.51	.33	.17	.82	.10	.08	.01
IN.	.01	.12	.40	1.28	2.91	2.89	.37	.20	.91	.11	.09	.01

e Estimated

03346000 NORTH FORK EMBARRAS RIVER NEAR OBLONG, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1997, BY WATER YEAR (WY)

MEAN	45.8	200	308	380	439	508	483	371	227	124	81.4	73.3
MAX	565	1757	1755	2798	1777	1469	1521	2825	1346	1010	471	900
(WY)	1950	1986	1968	1950	1982	1973	1984	1943	1945	1958	1985	1989
MIN	.013	.13	.56	.92	4.82	2.37	10.4	19.0	4.07	.46	.26	.10
(WY)	1954	1954	1954	1977	1954	1954	1954	1941	1954	1954	1954	1954

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1941 - 1997	
ANNUAL TOTAL	137390.1		79500.16			
ANNUAL MEAN	375		218		269	
HIGHEST ANNUAL MEAN					644	1950
LOWEST ANNUAL MEAN					3.88	1954
HIGHEST DAILY MEAN	9550	May 9	7500 A	Feb 27	20300	Jan 4 1950
LOWEST DAILY MEAN	1.6	Nov 22	.96	Sep 30	.00 B	
ANNUAL SEVEN-DAY MINIMUM	2.0	Nov 17	1.2	Sep 24	.00	Sep 13 1953
INSTANTANEOUS PEAK FLOW			10200	Feb 27	27100 C	Jan 4 1950
INSTANTANEOUS PEAK STAGE			20.00	Feb 27	24.38 D	Jan 4 1950
INSTANTANEOUS LOW FLOW			.88	Sep 30		
ANNUAL RUNOFF (CFSM)	1.18		.68		.85	
ANNUAL RUNOFF (INCHES)	16.07		9.30		11.49	
10 PERCENT EXCEEDS	796		494		597	
50 PERCENT EXCEEDS	55		40		45	
90 PERCENT EXCEEDS	2.6		2.4		2.8	

A - Estimated.

B - Many days in 1953-54, 1964, 1988.

C - From rating curve extended above 16,000 ft^3/s.

D - Present datum.

03377500 WABASH RIVER AT MOUNT CARMEL, IL

LOCATION.--Lat 38o24'07", long 87o45'10", in SE1/4NW1/4 sec.28, T.1 S., R.12 W., Wabash County, Illinois, Hydrologic Unit 05120113, on right bank on downstream side of Southern Railway bridge at Mount Carmel, 0.2 mi downstream from Patoka River, and at mile 94.4.

DRAINAGE AREA.--28,635 mi2.

PERIOD OF RECORD.--January 1908 to September 1913 (gage heights only), October 1927 to current year. Gage-height records collected in this vicinity November 1874 to December 1878, are contained in files of Louisville office of the U.S. Army Corps of Engineers and since June 1884, are contained in reports of National Weather Service.

REVISED RECORDS.--WDR IN-73-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 369.46 ft above sea level. Oct. 1, 1949, to Feb. 8, 1977, at datum 2.00 ft higher. See WSP 1725 for history of changes prior to Sept. 30, 1949.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow partially regulated by upstream reservoirs.

EXTREMES OUTSIDE THE PERIOD OF RECORD.--(1874-78, 1884 to 1985) Maximum discharge, 428,000 ft3/s Mar. 30, 1913, from rating curve extended above 310,000 ft3/s, gage height, 33.0 ft, present site and datum.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14800	6920	35600	60900	78700	69200	53000	21300	51500	40400	12200	7500
2	15400	6660	40300	54500	74200	84400	51200	20800	56100	36100	11400	7120
3	14500	e6400	42400	46200	69300	100000	49600	26500	58800	30200	10700	6760
4	13500	e6300	44100	40800	67700	115000	48100	32600	61400	27500	10000	6450
5	12300	e6200	45200	40600	68700	127000	47500	36000	64500	26400	9250	6260
6	10800	e6400	45600	43500	70200	136000	50000	40100	68000	24600	8690	6080
7	9450	8970	44700	43600	71600	142000	48400	44900	72000	22600	8180	5990
8	8510	17600	41300	44000	72200	142000	45900	46700	78700	21800	7840	5930
9	7900	22900	37000	45600	71500	136000	43100	46900	86800	20300	7690	6230
10	7410	24400	33300	45800	71200	126000	40400	45500	94200	18600	7350	6320
11	7100	24400	29800	43100	71000	115000	37600	42200	98100	17200	7110	6140
12	7000	25600	27200	e36000	68800	106000	35900	37200	97500	16900	6890	6380
13	6760	27000	25500	e30000	62700	96900	37300	32300	92200	17400	6800	6600
14	6560	26300	25000	e25000	53700	92100	38600	28600	84900	16300	6760	6880
15	6510	25000	28400	e21000	45100	90200	39200	25500	76300	15000	6980	7210
16	6410	23200	33300	e20000	39100	90500	38100	22800	69900	13800	8250	7460
17	6360	21500	37300	e20400	35000	91900	37200	20500	65000	12800	8860	7450
18	6420	19900	40900	e20000	32300	97000	36300	19000	69700	12000	10100	6940
19	6590	18400	43000	e19000	30300	105000	34700	17800	75000	11300	10700	6500
20	6490	17400	43100	e18500	28800	112000	32200	16900	78600	10700	11500	6090
21	6770	16700	41700	e19000	28200	117000	31400	16000	78900	10300	12800	5770
22	7360	15900	40400	27600	32300	117000	31900	15600	75300	10100	13600	5590
23	8080	14600	40800	49300	41000	110000	32200	15400	68700	10600	13600	5350
24	8360	13500	47500	62000	46200	98700	32800	15500	62500	10900	12100	6090
25	8330	13200	54100	69000	48300	88000	31400	16200	58300	11500	11000	8560
26	8060	17000	57500	72800	50100	78500	28900	16300	54000	12900	10500	8920
27	8110	22900	59300	75500	54600	69900	26500	16400	50100	14400	10200	8300
28	8090	27000	60500	79000	61400	63000	24500	20900	45600	17400	9860	7470
29	8000	29400	61900	81000	---	58300	23000	29100	42200	18200	9210	6950
30	7750	31400	63100	82300	---	55900	22100	33900	39800	16100	8400	6630
31	7260	---	63100	81100	---	54300	---	41900	---	13700	7900	---
TOTAL	266940	543050	1332900	1417100	1544200	3084800	1129000	861300	2074600	558000	296420	201920
MEAN	8611	18100	43000	45710	55150	99510	37630	27780	69150	18000	9562	6731
MAX	15400	31400	63100	82300	78700	142000	53000	46900	98100	40400	13600	8920
MIN	6360	6200	25000	18500	28200	54300	22100	15400	39800	10100	6760	5350
CFSM	.30	.63	1.50	1.60	1.93	3.48	1.31	.97	2.41	.63	.33	.24
IN.	.35	.71	1.73	1.84	2.01	4.01	1.47	1.12	2.70	.72	.39	.26

e Estimated

03377500 WABASH RIVER AT MOUNT CARMEL, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1997, BY WATER YEAR (WY)

MEAN	9263	15710	25880	37940	40780	50580	50450	41800	28060	18880	11830	8991
MAX	37700	87950	92340	199300	147100	108700	106400	144100	76690	73580	75530	50670
(WY)	1994	1994	1986	1950	1950	1985	1938	1996	1996	1958	1979	1989
MIN	2465	2632	2266	2861	3758	4815	11900	5805	5035	3366	2372	2572
(WY)	1941	1931	1964	1977	1931	1941	1941	1934	1988	1936	1936	1940

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1928 - 1997	
ANNUAL TOTAL	14087660		13310230			
ANNUAL MEAN	38490		36470		28280	
HIGHEST ANNUAL MEAN					56740	1950
LOWEST ANNUAL MEAN					6144	1941
HIGHEST DAILY MEAN	203000	May 12	142000	Mar 7	302000	May 25 1943
LOWEST DAILY MEAN	5800	Jan 13	5350	Sep 23	1650	Sep 27 1941
ANNUAL SEVEN-DAY MINIMUM	6160	Jan 8	6050	Sep 18	1700	Dec 19 1963
INSTANTANEOUS PEAK FLOW			144000	Mar 7	305000	May 25 1943
INSTANTANEOUS PEAK STAGE			27.09	Mar 7	31.75	Jan 7 1991
ANNUAL RUNOFF (CFSM)	1.34		1.27		.99	
ANNUAL RUNOFF (INCHES)	18.30		17.29		13.42	
10 PERCENT EXCEEDS	87800		78700		68000	
50 PERCENT EXCEEDS	23100		28400		16500	
90 PERCENT EXCEEDS	7090		6910		4340	

03378000 BONPAS CREEK AT BROWNS, IL

LOCATION.--Lat 38°23'11", long 87°58'32", in NW1/4SE1/4 sec.33, T.1 S., R.14 W., Edwards County, Hydrologic Unit 051 on right bank at downstream side of bridge on State Highway 15, 0.5 mi north of Browns, 0.7 mi upstream from railroad and at mile 14.6.

DRAINAGE AREA.--228 mi^2.

PERIOD OF RECORD.--October 1940 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 372.92 ft above sea level. Prior to Dec. 11, 1968, wate recorder and concrete dam at site 0.4 mi downstream at datum 2.0 ft higher. Dec. 11, 1968, to Aug. 13, 1969, nonrecordir at site 0.5 mi downstream at datum 1.0 ft lower. Prior to Oct. 1, 1982, auxiliary nonrecording gage near mouth on Wabasl at Grayville read twice daily.

REMARKS.--Records fair except those for periods of backwater from the Wabash River, Feb. 6-12, Mar. 5-13, 17, 22-26 an for estimated daily discharges, which are poor. Gage-height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,560 ft^3/s, June 19, gage height, 19.34 ft; no flow for several

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.2	398	59	538	1470	105	70	795	402	.58	.14
2	.75	1.5	382	55	353	1660	70	145	506	145	.49	.12
3	.47	2.0	115	54	464	1330	56	759	200	33	.38	.08
4	e.40	2.0	45	112	1180	1020	50	778	69	20	.28	.02
5	e.35	2.1	68	1060	1050	355	807	530	41	17	.20	.00
6	e.30	1.8	289	849	e600	158	1090	128	36	13	.14	.00
7	e.25	433	133	302	e200	83	990	64	62	9.0	.08	.00
8	e.25	781	56	78	e110	e60	534	160	283	6.3	.09	.00
9	e.20	375	35	62	e85	465	105	211	245	4.7	.63	.10
10	e.20	57	28	e45	e70	e600	61	70	131	3.6	.56	.13
11	e.15	22	27	e48	e65	190	53	44	157	3.1	.47	.09
12	e.15	13	26	e25	e75	e140	170	36	180	2.3	.57	.05
13	e.10	7.0	27	e20	73	e300	187	33	162	1.7	.51	.02
14	e.10	4.9	24	e17	63	1440	89	26	1180	1.9	.38	.03
15	e.15	4.0	35	e80	60	1380	57	20	465	43	.54	.09
16	e.20	3.7	140	695	54	1270	49	16	753	44	.59	.19
17	e.25	2.9	201	611	47	836	41	15	704	15	1.7	.36
18	.30	4.1	216	346	45	1420	36	14	2170	5.8	1.6	.37
19	.25	4.7	96	e150	44	1880	38	13	3280	2.5	1.8	.28
20	.24	4.1	e60	e85	46	1690	36	12	3370	1.6	1.9	.22
21	.22	5.2	e35	e250	239	1330	468	8.5	2690	13	.94	.15
22	.52	3.5	e85	e1600	327	e710	510	6.9	2150	330	.69	.10
23	3.3	2.9	692	2220	144	e210	157	6.0	2040	124	.47	.09
24	9.2	3.1	1450	2440	69	e140	76	5.1	1790	88	.33	.14
25	3.7	192	1210	2350	53	81	51	7.1	1360	24	.29	.11
26	2.8	686	998	1840	129	e70	40	20	635	11	.26	.07
27	1.9	458	429	1690	1170	67	38	11	85	5.6	.20	.03
28	1.6	94	217	1710	1200	71	45	8.9	30	3.3	.17	.00
29	1.9	40	182	1460	---	419	42	14	21	2.0	.17	.00
30	1.7	47	106	1300	---	340	34	11	19	1.3	.14	.00
31	1.5	---	71	979	---	169	---	938	---	.83	.14	---
TOTAL	35.00	3258.7	7876	22592	8553	21354	6085	4180.5	25609	1377.53	17.29	2.98
MEAN	1.13	109	254	729	305	689	203	135	854	44.4	.56	.099
MAX	9.2	781	1450	2440	1200	1880	1090	938	3370	402	1.9	.37
MIN	.10	1.2	24	17	44	60	34	5.1	19	.83	.08	.00
CFSM	.00	.48	1.11	3.20	1.34	3.02	.89	.59	3.74	.19	.00	.00
IN.	.01	.53	1.29	3.69	1.40	3.48	.99	.68	4.18	.22	.00	.00

e Estimated

03378000 BONPAS CREEK AT BROWNS, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1997, BY WATER YEAR (WY)

MEAN	40.4	178	265	321	366	482	431	327	173	99.7	62.0	33.5
MAX	350	1540	1787	2245	1379	1897	1375	1928	945	1366	454	304
(WY)	1946	1994	1983	1950	1950	1945	1972	1961	1945	1958	1977	1945
MIN	.000	.000	.000	.028	.022	.000	8.02	5.33	1.05	.002	.000	.000
(WY)	1941	1941	1941	1977	1941	1941	1946	1941	1988	1944	1953	1953

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1941 - 1997	
ANNUAL TOTAL	115093.29		100941.00			
ANNUAL MEAN	314		277		231	
HIGHEST ANNUAL MEAN					505	1950
LOWEST ANNUAL MEAN					9.71	1941
HIGHEST DAILY MEAN	4580	Apr 30	3370	Jun 20	7410	May 9 1961
LOWEST DAILY MEAN	.00	Aug 22,Sep 2	.00	Several days	.00	A
ANNUAL SEVEN-DAY MINIMUM	.15	Oct 9	.03	Sep 3	.00	Oct 1 1940
INSTANTANEOUS PEAK FLOW			3560	Jun 19	7500	May 9 1961
INSTANTANEOUS PEAK STAGE			19.34	Jun 19	24.04 B	May 9 1961
ANNUAL RUNOFF (CFSM)	1.38		1.21		1.01	
ANNUAL RUNOFF (INCHES)	18.78		16.47		13.75	
10 PERCENT EXCEEDS	1210		1030		793	
50 PERCENT EXCEEDS	22		44		19	
90 PERCENT EXCEEDS	.30		.17		.00	

A - At times in most years.
B - Site and datum then in use.

03378635 LITTLE WABASH RIVER NEAR EFFINGHAM, IL

LOCATION.--Lat 39°06'13", long 88°35'33", in NW1/4NW1/4 sec.36, T.8 N., R.5 E., Effingham County, Hydrologic Unit 05120114, on right bank at downstream side of bridge on U.S. Highway 40, 1,000 ft upstream from railroad bridge, 2.3 mi southwest of Effingham, and at mile 202.8.

DRAINAGE AREA.--240 mi^2.

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 501.10 ft above sea level. Prior to Apr. 21, 1998, at site 0.3 mi downstream at same datum.

REMARKS.--Records good except those for estimated daily discharges and those discharges below 1.0 ft^3/s, which are poor. Pumpage diverted at station for municipal supply of Effingham not included in records. Gage-height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 4	0830	4,370	15.71	Mar. 14	0815	6,220	17.07
Feb. 27	1515	*11,000	*19.28				

No flow for several days.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.68	6.9	121	36	479	1020	118	64	66	30	.00	4.7
2	.07	6.3	103	36	752	1060	91	60	88	13	.00	5.0
3	.01	5.9	41	38	1120	630	79	75	54	9.2	.18	5.0
4	.00	6.0	27	38	2350	410	77	83	38	9.4	1.0	4.4
5	.00	6.3	35	169	1200	322	358	55	34	8.2	.94	4.2
6	.00	7.6	47	174	616	272	311	43	266	7.4	.00	4.0
7	.00	28	65	88	392	186	152	40	903	6.8	.00	3.9
8	.01	35	58	52	275	147	104	47	711	6.8	.00	3.8
9	.11	31	42	38	194	1000	85	51	642	7.5	.00	33
10	.24	17	32	47	158	1800	67	42	383	6.9	.00	12
11	.37	12	29	65	145	713	68	34	202	7.0	.58	6.2
12	.50	9.6	28	80	124	418	93	31	121	6.8	5.5	5.2
13	.54	8.4	25	50	100	579	70	29	474	6.8	21	4.7
14	.63	7.3	20	41	90	4860	58	28	722	6.8	4.4	4.3
15	.79	6.1	32	29	79	1720	51	28	339	9.1	6.3	4.2
16	.84	5.5	34	30	70	667	48	28	151	12	2.0	4.3
17	2.4	7.6	30	40	65	446	45	27	95	9.1	6.3	7.8
18	9.5	5.0	25	48	64	1080	45	26	70	5.5	28	5.2
19	6.3	4.4	14	38	82	873	42	25	47	2.1	16	3.1
20	7.0	3.8	16	31	879	485	51	21	35	.39	8.9	.00
21	7.9	4.3	12	48	2360	355	96	21	29	.00	4.8	.00
22	18	3.8	14	1330	1590	262	79	19	26	.00	2.5	.00
23	13	3.7	105	2110	688	179	64	22	23	4.4	5.9	.00
24	14	9.5	417	964	407	144	51	21	20	3.3	5.7	.62
25	11	290	113	668	270	125	39	28	17	.91	9.1	1.5
26	11	651	80	292	1390	129	36	31	13	.03	34	2.2
27	8.3	101	63	352	9440	109	43	34	11	e.03	10	3.0
28	6.9	37	51	407	3980	107	47	37	11	e.03	5.0	4.2
29	6.7	25	50	303	---	308	42	53	9.4	e.03	1.6	4.9
30	8.1	36	40	277	---	209	36	55	67	.05	5.0	4.8
31	6.9	---	42	274	---	159	---	63	---	.00	5.9	---
TOTAL	141.79	1381.0	1811	8193	29359	20774	2546	1221	5667.4	179.57	190.60	146.22
MEAN	4.57	46.0	58.4	264	1049	670	84.9	39.4	189	5.79	6.15	4.87
MAX	18	651	417	2110	9440	4860	358	83	903	30	34	33
MIN	.00	3.7	12	29	64	107	36	19	9.4	.00	.00	.00
CFSM	.02	.19	.24	1.10	4.37	2.79	.35	.16	.79	.02	.03	.02
IN.	.02	.21	.28	1.27	4.55	3.22	.39	.19	.88	.03	.03	.02

e Estimated

03378635 LITTLE WABASH RIVER NEAR EFFINGHAM, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1997, BY WATER YEAR (WY)

MEAN	50.9	166	263	247	326	385	386	270	155	77.1	52.1	76.4
MAX	286	1141	1055	964	1080	1200	1225	1391	483	315	252	1001
(WY)	1994	1994	1968	1993	1982	1978	1996	1995	1973	1993	1974	1993
MIN	.10	.65	.000	.026	14.5	19.1	27.3	14.4	1.77	1.34	.25	.24
(WY)	1995	1977	1977	1981	1978	1972	1971	1988	1987	1972	1989	1988

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1967 - 1997	
ANNUAL TOTAL	113283.30		71610.58			
ANNUAL MEAN	310		196		204	
HIGHEST ANNUAL MEAN					450	1993
LOWEST ANNUAL MEAN					51.2	1977
HIGHEST DAILY MEAN	12100	Apr 29	9440	Feb 27	12100	Apr 29 1996
LOWEST DAILY MEAN	.00	Several days	.00	Several days	.00	A
ANNUAL SEVEN-DAY MINIMUM	.01	Oct 2	.01	Oct 2	.00	Oct 8 1966
INSTANTANEOUS PEAK FLOW			11000	Feb 27	17800	May 8 1996
INSTANTANEOUS PEAK STAGE			19.28	Feb 27	21.19	May 8 1996
ANNUAL RUNOFF (CFSM)	1.29		.82		.85	
ANNUAL RUNOFF (INCHES)	17.56		11.10		11.53	
10 PERCENT EXCEEDS	637		457		439	
50 PERCENT EXCEEDS	29		31		39	
90 PERCENT EXCEEDS	1.1		.66		.10	

A - Many days in most years.

03379500 LITTLE WABASH RIVER BELOW CLAY CITY, IL

LOCATION.--Lat 38°38'05", long 88°17'50", in SE1/4 sec.3, T.2 N., R.8 E., Clay County, Hydrologic Unit 05120114, on right bank 300 ft downstream from bridge on County Highway 23, 0.3 mi downstream from Big Muddy Creek, 5 mi southeast of Clay City, and at mile 128.5.

DRAINAGE AREA.--1,131 mi^2.

PERIOD OF RECORD.--August 1914 to current year. Prior to October 1958, published as "at Wilcox." Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 973: 1937-40. WSP 1335: 1915-33, 1934(M), 1935, 1940, 1941(M), 1946(M). WSP 1625: 1958. WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 392.29 ft above sea level. Prior to Jan. 2, 1947, nonrecording gage at highway bridge 300 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Gage-height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 24	0545	7,690	20.43	Mar. 18	0615	7,870	20.51
Mar. 2	0200	*14,600	*22.10				

Minimum discharge, 5.8 ft^3/s, Oct. 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	20	725	254	e1000	12000	585	157	230	1700	21	26
2	32	17	903	220	1280	13900	466	167	240	1620	19	22
3	23	14	797	200	1840	10700	384	363	223	817	18	19
4	18	13	516	189	4100	7730	329	413	188	266	17	35
5	16	12	394	1490	5340	5640	627	441	164	140	16	31
6	14	11	794	2030	5220	2500	1100	334	420	98	16	22
7	12	30	716	715	4920	993	1260	261	2730	77	15	20
8	11	168	542	355	3210	628	818	234	1630	66	14	20
9	10	90	389	264	1260	533	472	242	1800	57	16	20
10	10	48	280	214	729	1300	343	263	1240	50	15	37
11	9.0	81	208	e180	600	2410	284	245	762	46	16	30
12	8.5	75	164	e210	538	2960	431	187	466	42	16	19
13	7.6	57	136	e300	487	1850	332	155	742	41	42	47
14	6.9	42	117	e230	419	4820	298	136	2090	44	156	38
15	6.4	32	112	e180	361	7050	267	122	2220	353	147	28
16	5.9	25	210	e150	325	6780	224	107	1570	233	175	22
17	6.3	22	450	e200	296	7370	199	96	747	100	206	19
18	10	21	507	e160	271	7660	186	88	2800	101	252	17
19	10	19	340	e135	253	7690	178	83	1420	84	77	16
20	9.2	18	e220	e110	249	6810	170	79	403	58	67	14
21	8.8	16	e160	e120	791	5630	324	73	238	41	76	12
22	9.8	15	e120	e2500	2830	3620	371	68	604	332	70	11
23	13	16	e220	e6000	3980	1440	406	63	580	1020	79	12
24	22	20	1710	7560	3950	750	333	57	313	767	54	13
25	20	497	2090	6910	2070	573	245	54	165	190	37	12
26	16	1330	1470	e6100	1060	502	201	56	408	83	28	11
27	41	2160	594	e6300	5540	477	179	56	318	59	25	9.6
28	38	1890	359	e6400	9540	467	165	56	201	44	21	8.9
29	29	746	342	e4600	---	1620	162	62	114	35	22	8.7
30	26	333	308	e2600	---	1130	168	68	272	28	33	8.5
31	22	---	278	e1100	---	706	---	168	---	24	32	---
TOTAL	503.4	7838	16171	57976	62459	128239	11507	4954	25298	8616	1798	608.7
MEAN	16.2	261	522	1870	2231	4137	384	160	843	278	58.0	20.3
MAX	41	2160	2090	7560	9540	13900	1260	441	2800	1700	252	47
MIN	5.9	11	112	110	249	467	162	54	114	24	14	8.5
CFSM	.01	.23	.46	1.65	1.97	3.66	.34	.14	.75	.25	.05	.02
IN.	.02	.26	.53	1.91	2.05	4.22	.38	.16	.83	.28	.06	.02

e Estimated

03379500 LITTLE WABASH RIVER BELOW CLAY CITY, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1997, BY WATER YEAR (WY)

MEAN	205	587	1049	1370	1499	1733	1652	1362	751	415	299	210
MAX	2146	5462	7882	9030	6833	5425	6267	10150	4271	2644	5794	2569
(WY)	1950	1986	1968	1950	1982	1978	1922	1943	1945	1993	1915	1993
MIN	.30	1.07	1.73	6.90	12.6	4.92	56.9	45.1	14.4	9.75	4.17	.79
(WY)	1954	1954	1954	1977	1963	1954	1954	1925	1988	1930	1964	1953

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1914 - 1997	
ANNUAL TOTAL	439280.4		325968.1			
ANNUAL MEAN	1200		893		925	
HIGHEST ANNUAL MEAN					2040	1950
LOWEST ANNUAL MEAN					29.3	1954
HIGHEST DAILY MEAN	22200	May 1	13900	Mar 2	43200	May 10 1961
LOWEST DAILY MEAN	5.9	Oct 16	5.9	Oct 16	.00	A
ANNUAL SEVEN-DAY MINIMUM	7.2	Oct 11	7.2	Oct 11	.00	Sep 3 1954
INSTANTANEOUS PEAK FLOW			14600	Mar 2	47000	Jan 5 1950
INSTANTANEOUS PEAK STAGE			22.10	Mar 2	26.67	Jan 5 1950
INSTANTANEOUS LOW FLOW			5.8	Oct 16,17		
ANNUAL RUNOFF (CFSM)	1.06		.79		.82	
ANNUAL RUNOFF (INCHES)	14.45		10.72		11.11	
10 PERCENT EXCEEDS	4420		2500		2890	
50 PERCENT EXCEEDS	110		190		147	
90 PERCENT EXCEEDS	13		15		10	

A - Sept. 3-19, 1954.

03380500 SKILLET FORK AT WAYNE CITY, IL

LOCATION.--Lat 38°21'25", long 88°35'00", in SW1/4 sec.7, T.2 S., R.6 E., Wayne County, Hydrologic Unit 05120115, on right bank 0.1 mi downstream from Shoe Creek, 0.5 mi downstream from bridge on State Highway 15, 0.9 mi upstream from railroad bridge, 1 mi north of Wayne City, and at mile 42.4.

DRAINAGE AREA.--464 mi^2.

PERIOD OF RECORD.--August 1908 to December 1912, June 1914 to September 1921, June 1928 to current year.

REVISED RECORDS.--WSP 1143: 1947-48. WSP 1205: 1918-21, 1929-31, 1937-39. WSP 1335: 1908-13, 1916(M), 1930-34, 1935(M). WSP 1725: Drainage area.

GAGE.--Water-stage recorder and concrete dam since Nov. 17, 1954. Datum of gage is 383.15 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Sept. 30, 1921, nonrecording gage at site 0.9 mi downstream at datum about 3.0 ft lower. June 11, 1928, to Oct. 4, 1939, nonrecording gage at site 0.5 mi upstream at datum 2.8 ft lower.

REMARKS.--Records good except those for estimated daily discharge and those discharges below 5.0 ft^3/s, which are poor. Wayne City municipal water plant diverts about 0.02 ft^3/s at gage since November 1954; diversion not included in records. U.S. Army Corps of Engineers satellite telemeter and rain gage at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft3/s)	Gage height (ft)	Date	Time	Discharge (ft3/s)	Gage height (ft)
Jan. 22	2400	4,270	12.62	Mar. 2	0900	*4,960	*14.17
Jan. 28	0600	4,090	12.20				

Minimum discharge, 1.2 ft^3/s, on Sept. 22, 23, 30, but may have been less at times due to leakage through dam.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	2.2	653	81	680	4240	266	46	788	415	5.1	2.1
2	2.5	2.2	298	71	528	4800	179	349	700	372	4.2	2.1
3	2.5	2.2	136	67	599	3140	132	908	423	146	4.1	3.0
4	2.5	2.2	96	74	1900	1100	107	331	186	72	4.4	13
5	2.5	2.0	268	369	1750	440	1310	264	115	46	4.1	11
6	2.5	2.1	651	832	1330	269	1400	172	78	34	3.8	6.9
7	2.3	24	338	623	550	180	830	119	901	26	3.3	5.4
8	2.2	172	213	209	315	136	381	119	948	20	2.9	4.4
9	2.5	54	107	113	240	197	191	148	418	17	3.6	3.8
10	2.5	21	60	82	200	711	127	106	211	16	3.6	3.7
11	2.7	12	39	58	172	743	100	88	131	14	1.9	3.7
12	1.9	7.0	29	61	149	425	399	76	88	14	2.0	3.2
13	1.6	4.9	21	41	132	415	274	61	65	13	4.0	2.9
14	1.4	3.6	16	29	115	3210	158	52	1020	14	6.5	2.7
15	1.7	2.5	16	51	106	2920	114	45	1750	1430	8.0	2.5
16	1.7	2.4	174	460	96	2560	87	40	933	515	7.1	2.0
17	1.9	2.4	241	363	87	1990	71	35	545	85	33	2.4
18	2.4	2.3	228	259	77	1210	58	32	3120	39	35	2.7
19	2.1	2.3	121	184	75	2740	55	32	2130	24	33	2.9
20	2.0	2.8	57	137	76	2620	60	30	923	17	50	2.8
21	2.0	2.9	51	296	250	1490	280	26	242	13	21	2.0
22	1.9	2.5	45	3370	491	426	376	24	123	1140	11	1.5
23	3.9	2.5	238	4090	608	239	232	22	863	1390	7.3	1.2
24	9.5	3.4	1250	3490	331	162	147	20	1190	249	6.5	1.8
25	6.0	680	894	3600	173	126	102	19	343	75	6.4	2.4
26	4.2	1200	471	2850	336	117	74	20	96	42	6.0	2.5
27	2.7	442	200	2100	3720	107	60	148	59	25	5.1	2.6
28	2.3	198	159	4090	4170	229	58	108	43	16	4.9	2.5
29	2.2	91	150	e3800	---	841	59	58	53	12	4.2	2.5
30	2.0	60	115	3520	---	797	52	41	285	7.9	3.0	1.7
31	2.2	---	93	1970	---	470	---	274	---	6.1	2.5	---
TOTAL	82.8	3008.4	7428	37340	19256	39050	7739	3813	18770	6305.0	297.5	103.9
MEAN	2.67	100	240	1205	688	1260	258	123	626	203	9.60	3.46
MAX	9.5	1200	1250	4090	4170	4800	1400	908	3120	1430	50	13
MIN	1.4	2.0	16	29	75	107	52	19	43	6.1	1.9	1.2
CFSM	.01	.22	.52	2.60	1.48	2.71	.56	.27	1.35	.44	.02	.01
IN.	.01	.24	.60	2.99	1.54	3.13	.62	.31	1.50	.51	.02	.01

e Estimated

03380500 SKILLET FORK AT WAYNE CITY, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 1997, BY WATER YEAR (WY)

MEAN	99.0	273	437	645	633	787	789	628	290	149	110	79.0
MAX	1462	2969	3314	4052	2408	2361	2495	4113	1438	1162	2257	1227
(WY)	1920	1986	1983	1949	1982	1945	1957	1961	1917	1993	1915	1993
MIN	.016	.13	.29	.69	2.51	1.96	11.6	8.96	1.48	1.05	.056	.047
(WY)	1909	1954	1954	1981	1934	1954	1954	1936	1988	1930	1991	1940

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1909 - 1997		
ANNUAL TOTAL	183017.9		143193.6				
ANNUAL MEAN	500		392		409		
HIGHEST ANNUAL MEAN					928		1950
LOWEST ANNUAL MEAN					32.1		1954
HIGHEST DAILY MEAN	15300	Apr 30	4800	Mar 2	45000	May 9	1961
LOWEST DAILY MEAN	1.0	Aug 23	1.2	Sep 23	.00	A	
ANNUAL SEVEN-DAY MINIMUM	1.2	Aug 18	1.8	Oct 12	.00	Oct 24	1908
INSTANTANEOUS PEAK FLOW			4960	Mar 2	59400 B	May 17	1990
INSTANTANEOUS PEAK STAGE			14.17	Mar 2	26.68	May 8	1961
INSTANTANEOUS LOW FLOW			1.2	C			
ANNUAL RUNOFF (CFSM)	1.08		.85		.88		
ANNUAL RUNOFF (INCHES)	14.67		11.48		11.97		
10 PERCENT EXCEEDS	1340		1160		1100		
50 PERCENT EXCEEDS	29		74		35		
90 PERCENT EXCEEDS	1.7		2.4		1.3		

A - At times in several years.

B - Gage height, 25.75 ft.

C - Sept. 22, 23, 30, but may have been less at times due to leakage through dam.

03381500 LITTLE WABASH RIVER AT CARMI, IL

LOCATION.--Lat 38°03'40", long 88°09'35", in NW1/4SE1/4 sec.25, T.5 S., R.9 E., White County, Hydrologic Unit 05120114, on right bank at downstream side of Possum Bridge, 2.3 mi south of Main Street Bridge in Carmi, 7.8 mi downstream from Skillet Fork, and at mile 30.5.

DRAINAGE AREA.--3,102 mi^2.

PERIOD OF RECORD.--October 1908 to December 1912 (gage heights only), October 1939 to current year.

REVISED RECORDS.--WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 339.91 ft above sea level. Prior to December 1912, nonrecording gage at site 3.1 mi upstream at datum 0.4 ft higher. Oct. 1 to Nov. 9, 1939, nonrecording gage at present site and datum. Since Nov. 14, 1939, auxiliary water-stage recorder 3.1 mi upstream.

REMARKS.--Records good except those for estimated daily discharges, which are poor. U.S. Army Corps of Engineers satellite telemeter and rain gage at station. At extremely high stages, there is diversion 6 mi above the gage through McHenry Slough to the Wabash River.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,500 ft^3/s, Mar. 10, gage height, 29.11 ft; maximum gage height, 29.32 ft, Mar. 10; minimum discharge, 25 ft^3/s, Oct. 17.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	79	3520	1670	e12300	9380	6610	508	5510	1320	143	72
2	62	74	3950	1230	e12600	11100	5360	611	5970	2100	118	62
3	46	66	3560	1020	13000	11900	3990	3100	5320	2610	102	86
4	37	63	3020	970	13100	12400	2620	4840	3670	2850	88	64
5	34	62	2580	3580	13200	12900	4150	4110	2040	2770	73	55
6	38	60	2980	4990	12700	13000	6840	2920	1810	1980	61	57
7	44	2110	3070	4500	12300	12900	7200	1940	1750	1040	57	59
8	45	3390	2690	3850	11700	12400	6530	1380	3930	506	51	58
9	44	2660	2180	3080	11100	12300	5230	1260	5110	313	59	64
10	39	1940	1650	2180	10300	13200	3680	1250	4840	243	62	69
11	34	1310	1270	1390	9430	12400	2360	968	4500	217	58	66
12	32	757	1130	e700	8400	11400	2950	792	4210	e205	54	60
13	31	419	1060	e500	7340	10500	3420	675	4370	196	52	53
14	32	276	742	e450	6350	11400	2730	571	6500	188	49	51
15	32	229	607	e450	5220	11800	2140	471	7560	468	53	51
16	27	215	1060	e1400	3840	11600	1580	392	7670	1850	68	55
17	26	229	1740	e2600	2380	11400	1170	345	7630	1120	115	66
18	59	204	2190	e2200	1500	12100	892	313	9930	606	329	68
19	39	183	e1700	e1600	1120	12900	802	287	11000	440	512	68
20	34	170	e1200	e1300	972	12900	752	261	11300	298	584	64
21	37	163	e1000	e1100	1680	12900	1140	239	11400	249	701	56
22	48	156	e900	e5000	3010	13200	2370	224	11200	263	434	49
23	80	152	e2300	e8000	3140	13200	2450	e215	10600	2220	266	45
24	91	156	5940	e9000	3370	12800	2040	e205	9880	3170	223	45
25	96	802	6840	e9500	3440	12400	1530	e200	9030	2370	224	41
26	132	4050	6560	e10000	3570	11900	1140	e195	7790	1790	328	39
27	130	4540	5760	e10500	6390	11000	884	262	5970	1140	216	37
28	146	4150	4880	e11000	8130	10000	719	511	3750	583	173	36
29	133	3540	4380	e11500	---	9470	610	488	2300	309	128	33
30	114	3160	3620	e11700	---	8840	551	336	1570	224	99	31
31	91	---	2530	e12000	---	7780	---	4440	---	181	84	---
TOTAL	1901	35365	86609	138960	201582	363370	84440	34309	188110	33819	5564	1660
MEAN	61.3	1179	2794	4483	7199	11720	2815	1107	6270	1091	179	55.3
MAX	146	4540	6840	12000	13200	13200	7200	4840	11400	3170	701	86
MIN	26	60	607	450	972	7780	551	195	1570	181	49	31
CFSM	.02	.38	.90	1.45	2.32	3.78	.91	.36	2.02	.35	.06	.02
IN.	.02	.42	1.04	1.67	2.42	4.36	1.01	.41	2.26	.41	.07	.02

e Estimated

03381500 LITTLE WABASH RIVER AT CARMI, IL--Continued

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

MEAN	544	1558	2759	3734	4379	5488	5378	4243	2340	1252	737	409
MAX	5429	12840	12960	23300	15640	17680	15400	19330	10120	7315	6024	2766
(WY)	1950	1994	1983	1950	1949	1979	1945	1961	1957	1969	1979	1993
MIN	5.25	8.23	16.4	30.6	62.7	25.3	176	167	44.5	40.8	22.7	3.07
(WY)	1965	1954	1954	1977	1963	1954	1954	1988	1988	1940	1953	1953

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1940 - 1997	
ANNUAL TOTAL	1375296		1175689			
ANNUAL MEAN	3758		3221		2726	
HIGHEST ANNUAL MEAN					6094	1950
LOWEST ANNUAL MEAN					151	1954
HIGHEST DAILY MEAN	28600	May 3	13200	A	46000	May 13 1961
LOWEST DAILY MEAN	26	Oct 17	26	Oct 17	.00	B
ANNUAL SEVEN-DAY MINIMUM	31	Oct 11	31	Oct 11	1.5	Sep 18 1953
INSTANTANEOUS PEAK FLOW			13500	C Mar 10	46900	May 12 1961
INSTANTANEOUS PEAK STAGE			29.32	D Mar 10	36.70	May 13 1961
INSTANTANEOUS LOW FLOW			25	Oct 17		
ANNUAL RUNOFF (CFSM)	1.21		1.04		.88	
ANNUAL RUNOFF (INCHES)	16.49		14.10		11.94	
10 PERCENT EXCEEDS	12000		11200		8740	
50 PERCENT EXCEEDS	641		1250		555	
90 PERCENT EXCEEDS	59		55		38	

A - Feb 5, Mar. 10, 22, 23.

B - Sept. 15-17, 1952, result of temporary dam upstream; minimum unregulated discharge, 0.6 ft^3/s, Sept. 9, 1953, July 31, 1954.

C - Gage height, 29.11 ft.

D - Discharge, 12,900 ft^3/s

03382100 SOUTH FORK SALINE RIVER NEAR CARRIER MILLS, IL

LOCATION.--Lat 37°38'16", long 88°40'40", in SW1/4NE1/4 sec.20, T.10 S., R.5 E., Saline County, Hydrologic Unit 05140204, on right bank at downstream side of bridge on U.S. Highway 45, 150 ft downstream from railroad bridge, 4.5 mi southwest of Carrier Mills, and at mile 42.4.

DRAINAGE AREA.--147 mi^2.

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

REVISED RECORDS.--WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 375.63 ft above sea level. Prior to Oct. 31, 1967, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Gage-height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 22	2300	1,900	11.86	Apr. 5	2330	1,930	11.94
Mar. 2	1600	2,050	12.33	June 1	0415	*4,740	*16.06

Minimum discharge, 6.6 ft^3/s, Oct. 14, 15.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	9.3	343	92	e130	990	169	139	4610	41	18	13
2	12	11	186	88	e130	1880	140	337	4070	34	16	14
3	10	11	103	93	e140	1770	120	1450	2920	28	15	23
4	9.4	18	74	91	945	1340	108	813	1510	26	14	22
5	9.1	11	71	245	626	733	1200	350	535	25	13	16
6	12	14	159	165	333	360	1690	252	303	21	12	11
7	12	509	104	101	243	249	1100	170	242	17	13	9.4
8	9.6	468	73	84	196	196	423	173	188	15	12	9.0
9	8.2	107	52	84	167	239	253	245	138	47	11	8.6
10	7.7	56	45	86	145	698	183	148	112	71	12	8.5
11	7.5	35	45	e64	128	357	156	115	95	29	13	8.2
12	9.1	26	178	e45	115	238	933	99	80	21	11	7.7
13	8.0	22	240	e35	99	229	921	76	75	18	9.8	7.1
14	7.1	24	116	e30	96	940	420	67	726	16	11	6.9
15	7.6	21	85	e60	97	583	252	63	569	266	13	7.3
16	9.5	24	125	e600	90	298	187	53	247	107	14	7.1
17	8.5	23	219	e400	82	228	142	40	245	59	14	9.8
18	10	29	145	e250	75	216	121	36	911	39	12	6.9
19	9.1	29	94	e180	87	668	163	34	393	37	27	8.3
20	12	26	e62	e150	87	371	141	33	183	415	50	12
21	19	28	e52	e250	119	261	270	25	127	256	35	14
22	12	25	e60	1330	199	210	239	19	152	131	22	11
23	13	22	167	1750	106	154	158	17	139	179	19	10
24	18	22	1150	1340	83	131	125	16	97	84	17	9.1
25	24	308	584	693	73	132	107	18	77	50	16	11
26	16	922	262	347	87	139	92	386	65	35	15	11
27	16	327	198	292	765	119	103	253	55	29	15	10
28	151	129	174	492	535	270	172	122	40	25	14	8.9
29	68	88	157	e200	---	544	128	212	40	23	15	7.7
30	23	137	112	e160	---	272	105	252	52	21	15	6.9
31	14	---	98	e140	---	224	---	3530	---	19	14	---
TOTAL	566.4	3481.3	5533	9937	5978	15039	10321	9543	18996	2184	507.8	315.4
MEAN	18.3	116	178	321	214	485	344	308	633	70.5	16.4	10.5
MAX	151	922	1150	1750	945	1880	1690	3530	4610	415	50	23
MIN	7.1	9.3	45	30	73	119	92	16	40	15	9.8	6.9
CFSM	.12	.79	1.21	2.18	1.45	3.30	2.34	2.09	4.31	.48	.11	.07
IN.	.14	.88	1.40	2.51	1.51	3.81	2.61	2.41	4.81	.55	.13	.08

e Estimated

03382100 SOUTH FORK SALINE RIVER NEAR CARRIER MILLS, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1997, BY WATER YEAR (WY)

MEAN	21.4	120	209	209	277	327	338	271	111	36.8	37.8	21.0
MAX	157	643	1193	542	864	837	922	1115	633	163	485	110
(WY)	1985	1986	1983	1982	1989	1979	1983	1983	1997	1976	1985	1992
MIN	2.57	4.05	8.22	10.7	42.3	28.6	22.3	15.4	6.10	1.88	5.34	1.67
(WY)	1967	1972	1977	1981	1996	1981	1981	1988	1972	1966	1994	1966

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1966 - 1997	
ANNUAL TOTAL	70799.1		82401.9			
ANNUAL MEAN	193		226		164	
HIGHEST ANNUAL MEAN					332	1985
LOWEST ANNUAL MEAN					51.0	1967
HIGHEST DAILY MEAN	4510	Apr 30	4610	Jun 1	4880	Dec 26 1982
LOWEST DAILY MEAN	2.2	Sep 13	6.9	A	.60	B
ANNUAL SEVEN-DAY MINIMUM	3.3	Sep 8	7.5	Sep 10	.77	Sep 1 1966
INSTANTANEOUS PEAK FLOW			4740	Jun 1	5160	Jan 31 1982
INSTANTANEOUS PEAK STAGE			16.06	Jun 1	16.32	Jan 31 1982
INSTANTANEOUS LOW FLOW			6.6	Oct 14,15		
ANNUAL RUNOFF (CFSM)	1.32		1.54		1.12	
ANNUAL RUNOFF (INCHES)	17.92		20.85		15.19	
10 PERCENT EXCEEDS	511		539		415	
50 PERCENT EXCEEDS	36		87		32	
90 PERCENT EXCEEDS	7.8		11		5.5	

A - Sept. 14, 18, 30.
B - July 29, 30, Sept. 3, 1966.

03384450 LUSK CREEK NEAR EDDYVILLE, IL

LOCATION.--Lat 37°28'20", long 88°32'50", in NW1/4SE1/4 sec.16, T.12 S., R.6 E., Pope County, Hydrologic Unit 05140203, on left bank at upstream side of bridge on County Highway 5, 2.8 mi southeast of Eddyville and at mile 17.7.

DRAINAGE AREA.--42.9 mi^2.

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

REVISED RECORDS.--WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 360.42 ft above sea level.

REMARKS.--Records fair except those for estimated daily discharges and those for discharges below 1.0 ft^3/s, which are poor. Gage height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 7	1130	3,540	13.32	Mar. 1	2200	*8,580	*20.91
Dec. 23	2230	5,860	17.81	May 31	0315	6,600	18.73
Jan. 22	0945	2,760	11.53	June 1	1330	2,670	11.30
Mar. 1	0430	2,930	11.92				

No flow for several days.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.78	3.5	418	36	31	2930	40	42	1120	5.9	.69	.19
2	.77	3.3	119	33	28	903	34	237	441	5.2	.71	.22
3	.79	3.1	63	31	102	654	30	650	152	4.5	.70	.23
4	.76	3.0	40	42	581	236	28	143	72	4.4	.64	.12
5	.74	2.9	41	177	157	138	991	77	50	4.2	.63	.11
6	.70	2.9	52	61	77	93	286	52	38	3.9	.61	.11
7	.64	1470	39	35	53	72	126	37	32	3.6	.60	.11
8	.63	178	29	26	42	60	83	49	27	3.4	.60	.13
9	.67	52	23	27	34	172	63	52	21	3.8	.66	.12
10	.67	29	20	21	31	225	53	35	16	3.5	.63	.10
11	.59	18	18	e15	28	116	49	29	13	3.3	.54	.07
12	.51	14	197	e12	26	79	316	23	11	2.9	.56	.07
13	.37	11	88	e9.5	24	108	156	19	30	2.5	.54	.07
14	.39	9.2	40	e8.0	24	329	90	18	154	2.1	.47	.09
15	.38	7.7	43	e200	23	120	68	16	45	e10	.64	.09
16	.34	6.6	292	e180	26	73	56	14	29	e4.5	.53	.09
17	.40	6.4	187	e110	24	59	47	14	169	2.8	.49	.10
18	.61	6.5	90	e70	23	369	40	13	305	2.3	.47	.08
19	.53	6.2	50	e45	20	361	62	13	70	2.0	.61	.04
20	.60	5.9	34	e35	21	140	60	12	35	1.8	.49	.09
21	.73	5.9	30	e60	84	89	167	11	23	1.7	.37	.02
22	1.0	5.6	60	954	67	63	109	11	24	1.8	.33	.00
23	1.5	5.2	1130	226	40	49	74	9.9	19	2.4	.32	.09
24	2.0	5.1	780	118	30	40	57	9.7	14	1.9	.24	.10
25	2.0	416	176	88	25	43	46	9.8	11	1.4	.24	.03
26	2.1	373	102	52	62	57	39	435	8.9	1.2	.27	.00
27	40	98	79	73	621	46	57	130	7.5	1.0	.25	.00
28	38	54	67	130	235	87	67	94	6.7	.91	.24	.00
29	13	39	56	55	---	80	52	180	6.0	.81	.26	.00
30	5.9	201	45	39	---	59	43	226	5.5	.77	.23	.00
31	3.5	---	40	34	---	50	---	1970	---	.76	.22	---
TOTAL	121.60	3042.0	4448	3002.5	2539	7900	3389	4631.4	2955.6	91.25	14.78	2.47
MEAN	3.92	101	143	96.9	90.7	255	113	149	98.5	2.94	.48	.082
MAX	40	1470	1130	954	621	2930	991	1970	1120	10	.71	.23
MIN	.34	2.9	18	8.0	20	40	28	9.7	5.5	.76	.22	.00
CFSM	.09	2.36	3.34	2.26	2.11	5.94	2.63	3.48	2.30	.07	.01	.00
IN.	.11	2.64	3.86	2.60	2.20	6.85	2.94	4.02	2.56	.08	.01	.00

e Estimated

03384450 LUSK CREEK NEAR EDDYVILLE, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1997, BY WATER YEAR (WY)

MEAN	6.22	48.8	87.6	80.6	102	134	125	86.1	34.7	16.4	9.93	5.56
MAX	59.5	216	377	265	287	306	408	266	153	89.9	174	75.0
(WY)	1986	1986	1983	1969	1989	1979	1983	1990	1970	1989	1985	1985
MIN	.000	.057	.14	.77	5.31	28.2	20.6	4.05	.22	.14	.034	.013
(WY)	1988	1972	1977	1981	1996	1981	1986	1988	1988	1978	1988	1976

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1968 - 1997		
ANNUAL TOTAL	27458.06		32137.60				
ANNUAL MEAN	75.0		88.0		61.1		
HIGHEST ANNUAL MEAN					114		1983
LOWEST ANNUAL MEAN					20.1		1987
HIGHEST DAILY MEAN	1840	Apr 29	2930	Mar 1	4670	Aug 24	1985
LOWEST DAILY MEAN	.01	Sep 14	.00	Several days	.00	A	
ANNUAL SEVEN-DAY MINIMUM	.04	Sep 8	.02	Sep 24	.00	Aug 25	1968
INSTANTANEOUS PEAK FLOW			8580	Mar 1	16100 B	Aug 24	1985
INSTANTANEOUS PEAK STAGE			20.91	Mar 1	27.78	Aug 24	1985
ANNUAL RUNOFF (CFSM)	1.75		2.05		1.43		
ANNUAL RUNOFF (INCHES)	23.81		27.87		19.37		
10 PERCENT EXCEEDS	198		180		120		
50 PERCENT EXCEEDS	8.1		24		9.5		
90 PERCENT EXCEEDS	.07		.26		.10		

A - Several days in most years.

B - From rating curve extended above 23.5 ft based on contracted-opening measurement.

03611500 OHIO RIVER AT METROPOLIS, IL

LOCATION.--Lat 37°08'51", long 88°44'27", McCracken County, Hydrologic Unit 05140206, near center of span on downstream side of pier of Paducah & Illinois Railroad bridge at Metropolis, 9.5 mi downstream from Tennessee River, 37 mi upstream from mouth, and at mile 944.1.

DRAINAGE AREA.--203,000 mi^2, approximately.

PERIOD OF RECORD.--January 1928 to current year. Prior to April 1928 monthly discharge only, published in WSP 1305. Gage-height records collected 9.6 mi upstream at Paducah since 1890 are contained in reports of National Weather Service. Occasional discharge measurements 1881 to 1924 in reports of Mississippi River Commission.

GAGE.--Water-stage recorder. Datum of gage is 276.27 ft above sea level. Prior to Dec. 22, 1936, water-stage recorders (temporary installations) at Paducah, Ky., Metropolis and Joppa, Il., and Dam 52. Auxiliary water-stage recorder near Grand Chain, 0.5 mi upstream from Dam 53, and 18 mi downstream from base gage. Prior to May 29, 1936, auxiliary nonrecording gage at Dam 53.

REMARKS.--Estimated daily discharges: Dec. 14-17. Records fair except those below 100,000 ft^3/s and for period of estimated record, which are poor. Flow regulated by many dams and reservoirs. Maximum daily discharge includes overflow through Bay Creek and Cache River Valleys.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	272000	191000	447000	452000	752000	570000	644000	277000	471000	382000	133000	90300
2	288000	182000	523000	427000	725000	740000	604000	287000	527000	369000	102000	94900
3	292000	182000	611000	419000	701000	867000	584000	336000	622000	345000	88600	97400
4	282000	177000	650000	424000	700000	966000	554000	368000	658000	293000	70200	89900
5	252000	154000	683000	409000	686000	1030000	529000	405000	663000	293000	88600	91500
6	226000	157000	706000	396000	678000	1080000	504000	466000	672000	284000	112000	87900
7	220000	211000	727000	386000	671000	1110000	446000	453000	678000	272000	99800	69800
8	206000	237000	740000	389000	648000	1140000	382000	438000	680000	233000	79200	62200
9	171000	254000	734000	396000	649000	1170000	314000	399000	680000	197000	76700	94700
10	138000	263000	688000	394000	653000	1190000	283000	338000	654000	174000	60700	111000
11	140000	302000	653000	388000	636000	1210000	255000	325000	650000	178000	107000	75500
12	142000	347000	611000	380000	605000	1210000	242000	322000	653000	176000	102000	107000
13	122000	388000	525000	363000	577000	1200000	238000	287000	649000	169000	103000	93600
14	131000	434000	437000	351000	540000	1200000	255000	272000	635000	109000	115000	76400
15	131000	443000	398000	337000	488000	1200000	262000	244000	607000	135000	115000	78200
16	123000	399000	405000	311000	430000	1180000	269000	211000	602000	148000	128000	82600
17	107000	351000	465000	295000	387000	1160000	259000	193000	604000	126000	105000	102000
18	119000	304000	604000	285000	364000	1130000	255000	171000	620000	131000	136000	97900
19	111000	271000	658000	280000	350000	1120000	223000	166000	649000	90300	185000	85000
20	90300	246000	697000	283000	333000	1110000	193000	183000	660000	94800	200000	84700
21	141000	236000	723000	282000	314000	1100000	203000	187000	659000	125000	211000	83500
22	159000	245000	731000	279000	313000	1100000	198000	196000	669000	89400	209000	88600
23	187000	257000	718000	327000	300000	1070000	196000	211000	659000	117000	168000	105000
24	201000	267000	645000	368000	323000	1050000	191000	221000	623000	118000	132000	78500
25	221000	280000	568000	393000	342000	1030000	164000	208000	548000	145000	147000	107000
26	219000	326000	534000	421000	388000	1000000	169000	208000	495000	108000	135000	119000
27	227000	360000	518000	482000	431000	977000	176000	220000	441000	121000	98500	98100
28	251000	384000	505000	560000	452000	927000	208000	270000	395000	126000	120000	128000
29	244000	397000	500000	649000	---	849000	230000	347000	384000	134000	127000	114000
30	230000	409000	488000	692000	---	789000	268000	371000	384000	142000	95000	109000
31	209000	---	475000	738000	---	737000	---	416000	---	156000	90700	---
TOTAL	5852300	8654000	18367000	12556000	14436000	32212000	9298000	8996000	17891000	5580500	3740000	2803200
MEAN	188800	288500	592500	405000	515600	1039000	309900	290200	596400	180000	120600	93440
MAX	292000	443000	740000	738000	752000	1210000	644000	466000	680000	382000	211000	128000
MIN	90300	154000	398000	279000	300000	570000	164000	166000	384000	89400	60700	62200

03611500 OHIO RIVER AT METROPOLIS, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1997, BY WATER YEAR (WY)

MEAN	103600	166300	293600	398800	469600	530000	459900	337200	219400	152500	121600	100200
MAX	335600	450300	717500	1022000	1218000	1039000	896400	917800	596400	441200	331100	383500
(WY)	1980	1986	1973	1937	1937	1997	1994	1983	1997	1928	1958	1979
MIN	22710	33400	48610	71650	77380	154700	129900	75180	53840	23350	25390	29330
(WY)	1931	1931	1931	1940	1934	1941	1986	1941	1936	1930	1930	1930

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1928 - 1997	
ANNUAL TOTAL	148791600		140386000			
ANNUAL MEAN	406500		384600		277700	
HIGHEST ANNUAL MEAN					436600	1979
LOWEST ANNUAL MEAN					120300	1931
HIGHEST DAILY MEAN	909000	Jan 31	1210000	Mar 11	1850000	Feb 1 1937
LOWEST DAILY MEAN	78200	Sep 1	60700	Aug 10	15000	Jul 20 1930
ANNUAL SEVEN-DAY MINIMUM	91700	Aug 30	83900	Aug 4	16600	Jul 20 1930
INSTANTANEOUS PEAK FLOW			1220000	Mar 11	1850000	Feb 1 1937
INSTANTANEOUS PEAK STAGE			59.11	Mar 11	66.60	Feb 2 1937
10 PERCENT EXCEEDS	732000		726000		641000	
50 PERCENT EXCEEDS	358000		300000		191000	
90 PERCENT EXCEEDS	142000		102000		68000	

03612000 CACHE RIVER AT FORMAN, IL

LOCATION.--Lat 37°20'11", long 88°55'26", in NE1/4NW1/4 sec.6, T.14 S., R.3 E., Johnson County, Hydrologic Unit 05140206 at downstream side of bridge on County Highway 3, 1.2 mi southwest of Forman, and at mile 8.1.

DRAINAGE AREA.--244 mi^2.

PERIOD OF RECORD.--October 1922 to July 1924, September 1924 to current year.

REVISED RECORDS.--WSP 623: 1923-24. WSP 823: 1934-35. WSP 1205: 1923-24, 1927-30. WSP 1335: 1923(M), 1925, 1926-27(M), 1928, 1929-30(M), 1931, 1933, 1934-36(M), 1937-39. WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 318.47 ft above sea level. Oct. 1, 1958, to Dec. 30, 1971, nonrecording gage at same site and datum. See WSP 1705 or 1725 for history of changes prior to Sept. 30, 1958.

REMARKS.--Records good except those for estimated daily discharges and those for periods of backwater from the Ohio River, Mar. 1 to Apr. 2, June 5-9, 22-23, which are poor. Flow of lower part of Cache River Basin was diverted from Ohio River to Mississippi River beginning Oct. 31, 1950, through diversion channel of Mounds-Mound City flood-protection project. Flow of upper part of Cache River Basin, including flow past this station, continued to discharge to Ohio River, passing through Post Creek cutoff directly to Ohio River instead of through the original channel of Cache River. Gage-height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 22	1445	2,240	12.60	Apr. 5	1630	2,570	13.72
Mar. 3	2200	3,300a	17.55	June 3	0400	*4,750	*18.75

a Variable backwater.

Minimum discharge, 2.0 ft^3/s, Oct. 13.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	26	976	e210	286	e2270	e201	132	2360	151	6.3	4.3
2	11	18	664	e180	232	e3090	e171	148	3890	114	5.3	4.0
3	7.3	14	408	e170	271	e3200	152	1390	4320	72	4.6	4.7
4	4.2	11	231	e200	1600	e2920	146	852	3020	54	4.4	12
5	3.8	9.2	197	e450	985	e2150	2130	741	e2030	43	3.9	13
6	4.4	8.2	312	e300	779	e1580	2370	604	e1280	36	3.4	16
7	5.1	753	286	e170	662	e1050	1840	314	e890	31	3.3	10
8	5.0	793	194	e120	436	e750	1610	250	e654	27	3.1	7.3
9	4.2	492	139	e90	304	581	1330	311	e442	43	3.3	5.4
10	3.7	220	110	e75	228	e950	947	276	282	286	3.6	4.3
11	5.6	97	e90	e65	183	764	669	180	188	139	4.2	3.7
12	3.0	61	e350	e55	155	e542	1170	134	139	64	4.6	4.5
13	2.3	43	e450	e48	137	362	976	108	114	42	4.3	3.4
14	2.4	32	e280	e45	129	e899	851	94	874	32	6.3	2.7
15	2.6	25	e250	e220	129	e750	800	84	765	29	17	2.4
16	2.7	22	e450	e550	121	e630	628	79	662	69	19	2.7
17	3.1	21	e700	e400	108	561	420	71	433	64	22	3.1
18	3.9	22	e550	e300	98	e500	303	64	404	38	22	3.8
19	3.6	21	e400	e230	91	1410	235	61	242	27	14	3.9
20	3.2	20	e300	e200	88	e800	195	61	146	22	11	3.6
21	3.4	19	e220	e300	134	e650	283	55	102	66	52	3.3
22	3.9	19	e170	1660	233	e440	389	48	e170	51	42	2.8
23	7.7	18	e150	1830	211	e300	305	44	e302	29	23	2.9
24	9.2	18	e600	1170	137	e270	213	41	183	20	14	3.3
25	11	366	e1300	1320	111	e240	162	40	100	16	9.3	3.7
26	17	1060	e1000	1260	151	e220	128	253	71	14	7.1	3.4
27	47	690	e600	1020	922	201	147	470	75	13	6.2	3.2
28	234	631	e450	869	809	e344	232	490	218	12	6.1	3.5
29	231	594	e350	694	---	e541	234	306	344	11	5.5	3.7
30	102	554	e290	470	---	e363	173	248	177	8.7	4.4	4.8
31	48	---	e250	349	---	e241	---	1730	---	8.2	4.0	---
TOTAL	811.3	6677.4	12717	15020	9730	29569	19410	9679	24877	1631.9	339.2	149.4
MEAN	26.2	223	410	485	348	954	647	312	829	52.6	10.9	4.98
MAX	234	1060	1300	1830	1600	3200	2370	1730	4320	286	52	16
MIN	2.3	8.2	90	45	88	201	128	40	71	8.2	3.1	2.4
CFSM	.11	.91	1.68	1.99	1.42	3.91	2.65	1.28	3.40	.22	.04	.02
IN.	.12	1.02	1.94	2.29	1.48	4.51	2.96	1.48	3.79	.25	.05	.02

e Estimated

03612000 CACHE RIVER AT FORMAN, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 1997, BY WATER YEAR (WY)

MEAN	55.3	198	330	498	494	604	580	420	214	89.8	73.8	58.5
MAX	487	1097	2192	3039	1813	2268	2244	1847	1759	1257	826	542
(WY)	1928	1958	1983	1950	1950	1945	1927	1983	1928	1958	1985	1950
MIN	.019	.66	.58	1.38	7.05	12.5	40.7	10.4	1.37	1.71	.000	.43
(WY)	1964	1954	1964	1977	1934	1941	1981	1930	1936	1931	1930	1953

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1923 - 1997	
ANNUAL TOTAL	103675.0		130611.2			
ANNUAL MEAN	283		358		299	
HIGHEST ANNUAL MEAN					779	1950
LOWEST ANNUAL MEAN					37.6	1941
HIGHEST DAILY MEAN	4260	May 1	4320	Jun 3	8780	Jan 26 1929
LOWEST DAILY MEAN	1.7	Sep 11,12	2.3	Oct 13	.00	A
ANNUAL SEVEN-DAY MINIMUM	2.1	Sep 8	2.9	Oct 12	.00	Jul 29 1930
INSTANTANEOUS PEAK FLOW			4750	Jun 3	9630	Mar 12 1935
INSTANTANEOUS PEAK STAGE			18.75	Jun 3	17.99 B	Mar 12 1935
INSTANTANEOUS LOW FLOW			2.0	Oct 13		
ANNUAL RUNOFF (CFSM)	1.16		1.47		1.22	
ANNUAL RUNOFF (INCHES)	15.81		19.91		16.63	
10 PERCENT EXCEEDS	912		948		860	
50 PERCENT EXCEEDS	68		146		55	
90 PERCENT EXCEEDS	3.2		3.9		1.8	

A - At times in some years.

B - Site and datum then in use, from graph based on gage readings.

03612500 OHIO RIVER AT LOCK AND DAM 53, NEAR GRAND CHAIN, IL
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

LOCATION.--Lat 37°12'11", long 89°02'30", Pulaski County, Hydrologic Unit 05140206, at auxiliary gaging station, 0.5 mi upstream from Gar Creek, 3.0 mi southwest of Grand Chain, 18.1 mi downstream from gaging station at Metropolis, and at mile 962.2.

DRAINAGE AREA.--203,100 mi^2, approximately.

PERIOD OF RECORD.--Water years 1955 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1954 to September 1970, January 1973 to September 1990.

WATER TEMPERATURES: October 1954 to September 1970, January 1973 to September 1990.

REMARKS.--Records of daily discharge are published for station at Metropolis, IL, (station 03611500). Flow regulated by many days dams and reservoirs.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 693 microsiemens, Nov. 25, 1968; minimum daily, 170 microsiemens, Feb. 9, 1957, Jan. 21, 1973.

WATER TEMPERATURES: Maximum daily, 31.0°C, July 15, 1964, July 17-21, 25, 1977; minimum daily, 0.0°C, on several days during most winter months.

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

DATE	TIME	STREAM FLOW INSTANTANEOUS (FTS^3/S) SECOND (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
NOV 1996											
20...	1310	246000	296	7.1	11.0	39	--	--	110	32	7.7
JAN 1997											
22...	1220	276000	308	7.3	4.0	25	--	--	120	34	8.1
FEB											
11...	1300	642000	273	7.4	5.0	97	--	--	110	32	7.0
MAR											
11...	1220	1120000	187	7.1	10.5	130	9.9	88	76	23	4.5
26...	1150	872000	238	7.6	11.0	46	11.5	104	110	31	7.4
APR											
17...	1200	276000	259	7.6	13.0	21	10.0	95	120	34	9.1
29...	1205	243000	326	7.5	15.0	5.2	10.2	102	140	38	11
MAY											
14...	1400	272000	328	7.4	19.5	25	--	--	130	37	9.6
JUN											
03...	1145	623000	296	7.6	19.0	67	8.3	90	120	33	8.4
12...	1325	673000	282	7.4	20.0	49	7.0	77	120	34	7.8
JUL											
02...	1245	378000	259	7.4	26.5	18	7.4	92	120	35	7.6
16...	1230	152000	295	7.8	28.5	7.8	7.7	--	120	35	8.4
AUG											
12...	1430	95000	248	8.0	28.0	5.0	8.2	104	100	29	6.9
SEP											
04...	1220	--	276	7.9	27.0	3.8	7.8	97	100	28	8.1

03612500 OHIO RIVER AT LOCK AND DAM 53, NEAR GRAND CHAIN, IL--Continued
(National stream-quality accounting network station)

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

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
NOV 1996											
20...	12	2.9	89	73	14	43	0.10	5.3	180	0.010	0.890
JAN 1997											
22...	11	2.0	106	87	13	36	0.10	5.9	174	0.020	1.00
FEB											
11...	8.7	2.0	84	69	12	32	0.10	5.4	155	0.020	1.30
MAR											
11...	5.3	2.2	59	48	7.6	21	0.10	4.6	113	0.030	1.00
26...	6.9	2.0	85	70	9.8	32	<0.10	5.3	153	0.013	1.31
APR											
17...	9.2	2.0	96	79	11	44	0.12	4.6	177	0.016	1.11
29...	11	1.9	97	80	14	48	0.12	3.5	195	0.019	1.12
MAY											
14...	12	2.3	99	81	14	46	0.16	3.5	187	0.036	1.09
JUN											
03...	11	2.3	76	62	14	43	0.15	2.9	177	0.063	1.47
12...	7.2	2.7	77	63	11	32	0.15	5.2	181	0.020	2.47
JUL											
02...	6.9	2.3	--	--	8.7	27	0.15	5.2	174	0.028	1.46
16...	9.2	2.1	--	--	11	30	0.13	4.4	177	0.017	1.06
AUG											
12...	8.7	2.1	--	--	11	28	0.12	1.7	149	0.032	0.485
SEP											
04...	12	2.2	--	69	15	36	0.16	1.9	166	0.014	0.389

DATE	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)
NOV 1996											
20...	<0.015	<0.20	0.50	0.130	0.030	0.012	7.0	<1.0	<1	30	<1.0
JAN 1997											
22...	0.060	<0.20	0.40	0.090	0.030	0.033	11	<1.0	<1	28	<1.0
FEB											
11...	0.050	<0.20	0.80	0.340	0.020	0.047	6.0	<1.0	<1	25	<1.0
MAR											
11...	0.050	0.30	0.90	0.350	<0.010	0.009	7.0	<1.0	<1	23	<1.0
26...	<0.015	<0.20	0.25	0.170	0.030	0.186	7.0	<1.0	<1	26	<1.0
APR											
17...	0.018	<0.20	0.44	0.077	0.014	0.021	5.1	<1.0	<1	29	<1.0
29...	0.030	0.29	0.32	0.048	0.017	0.015	4.8	<1.0	<1	32	<1.0
MAY											
14...	0.039	0.24	0.36	0.089	0.027	0.034	6.1	<1.0	<1	32	<1.0
JUN											
03...	<0.015	<0.20	0.60	0.224	<0.010	0.049	6.4	<1.0	1	31	<1.0
12...	<0.015	0.24	0.69	0.200	0.025	0.042	7.5	<1.0	<1	31	<1.0
JUL											
02...	<0.015	<0.20	0.30	0.067	0.016	0.043	5.1	<1.0	<1	30	<1.0
16...	<0.015	<0.20	0.43	0.033	<0.010	0.022	7.3	<1.0	1	31	<1.0
AUG											
12...	<0.015	<0.20	0.47	0.079	<0.010	0.014	6.0	<1.0	1	29	<1.0
SEP											
04...	0.026	0.23	0.35	0.045	0.021	0.020	7.9	<1.0	1	29	<1.0

03612500 OHIO RIVER AT LOCK AND DAM 53, NEAR GRAND CHAIN, IL--Continued
(National stream-quality accounting network station)

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

DATE	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)
NOV 1996											
20...	31	<1.0	<1.0	<1.0	2.0	18	<1.0	2.0	2.0	1.0	<1
JAN 1997											
22...	32	<1.0	<1.0	<1.0	<1.0	19	<1.0	25	1.0	<1.0	<1
FEB											
11...	27	<1.0	<1.0	<1.0	1.0	23	<1.0	2.0	1.0	<1.0	<1
MAR											
11...	20	<1.0	<1.0	<1.0	<1.0	32	<1.0	8.0	<1.0	<1.0	<1
26...	22	<1.0	<1.0	<1.0	1.0	9.0	<1.0	3.0	<1.0	<1.0	<1
APR											
17...	27	<1.0	1.3	<1.0	<1.0	5.1	<1.0	1.4	1.2	1.3	<1
29...	38	<1.0	1.9	<1.0	<1.0	3.4	<1.0	2.2	1.6	<1.0	<1
MAY											
14...	35	<1.0	1.9	<1.0	1.4	<3.0	<1.0	2.4	1.8	1.2	<1
JUN											
03...	36	<1.0	1.1	<1.0	1.2	6.1	<1.0	1.5	1.7	<1.0	<1
12...	31	<1.0	1.1	<1.0	1.9	6.3	<1.0	<1.0	1.3	1.1	<1
JUL											
02...	32	<1.0	2.1	<1.0	1.3	4.2	<1.0	1.7	1.5	<1.0	<1
16...	35	<1.0	2.5	<1.0	1.1	4.5	<1.0	<1.0	1.7	<1.0	<1
AUG											
12...	39	<1.0	<1.0	<1.0	1.9	3.7	<1.0	<1.0	1.8	<1.0	<1
SEP											
04...	51	<1.0	<1.0	<1.0	<1.0	3.7	<1.0	1.0	2.7	<1.0	<1

DATE	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	ALPHA BHC DIS-SOLVED (UG/L) (34253)
NOV 1996											
20...	<1.0	140	<6	1.0	<1.0	3.0	1.2	<0.002	0.006	0.105	<0.002
JAN 1997											
22...	<1.0	140	<6	2.0	<1.0	2.3	0.80	E0.003	E0.003	0.054	<0.002
FEB											
11...	<1.0	130	<6	<1.0	<1.0	3.1	1.8	E0.004	E0.004	0.057	<0.002
MAR											
11...	<1.0	83	<6	1.0	<1.0	3.8	0.40	E0.003	<0.002	0.023	<0.002
26...	<1.0	120	<6	6.0	<1.0	2.7	--	0.005	<0.002	0.059	<0.002
APR											
17...	<1.0	142	<6	<1.0	<1.0	2.5	0.80	0.010	0.039	0.531	<0.002
29...	<1.0	158	<6	1.3	<1.0	2.4	1.0	0.008	0.058	0.722	<0.002
MAY											
14...	<1.0	161	<6	<1.0	<1.0	2.8	0.70	0.104	0.493	3.18	<0.002
JUN											
03...	<1.0	148	<6	3.9	<1.0	2.6	1.8	0.169	0.560	6.80	<0.002
12...	<1.0	137	<6	2.1	<1.0	3.2	0.90	0.286	0.816	6.35	<0.002
JUL											
02...	<1.0	126	<6	1.8	<1.0	2.8	0.60	0.040	0.139	2.16	<0.002
16...	<1.0	139	<6	2.8	<1.0	2.4	0.80	0.023	0.055	1.16	<0.002
AUG											
12...	<1.0	127	<6	5.5	<1.0	2.3	0.60	0.009	0.016	0.500	<0.002
SEP											
04...	<1.0	138	<6	1.8	<1.0	2.3	0.60	<0.002	<0.002	0.210	<0.002

03612500 OHIO RIVER AT LOCK AND DAM 53, NEAR GRAND CHAIN, IL--Continued
(National stream-quality accounting network station)

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

DATE	BUTYLATE, WATER, DISS, REC (UG/L) (04028)	CHLORPYRIFOS DISSOLVED (UG/L) (38933)	CYANAZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) (04040)	DIAZINON, DISSOLVED (UG/L) (39572)	DIELDRIN DISSOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DISSOLVED (UG/L) (39341)	MALATHION, DISSOLVED (UG/L) (39532)	METRIBUZIN SENCOR WATER DISSOLV (UG/L) (82630)	METOLACHLOR WATER DISSOLV (UG/L) (39415)
NOV 1996											
20...	<0.002	0.023	0.016	E0.010	<0.002	<0.001	<0.003	<0.004	<0.005	<0.004	0.043
JAN 1997											
22...	<0.002	<0.004	0.010	E0.022	<0.002	<0.001	<0.003	<0.004	<0.005	<0.004	0.026
FEB											
11...	<0.002	<0.004	0.015	E0.018	<0.002	<0.001	<0.003	<0.004	<0.005	<0.004	0.064
MAR											
11...	<0.002	E0.002	0.010	E0.006	<0.002	<0.001	<0.003	<0.004	<0.005	<0.004	0.024
26...	<0.002	0.004	0.012	E0.026	<0.002	<0.001	<0.003	<0.004	<0.005	<0.004	0.038
APR											
17...	<0.002	0.006	0.036	E0.031	<0.002	<0.001	<0.003	<0.004	<0.005	0.009	0.226
29...	<0.002	0.005	0.092	E0.034	<0.002	<0.001	<0.003	<0.004	<0.005	0.008	0.201
MAY											
14...	E0.003	0.014	0.389	E0.077	0.008	<0.001	<0.003	<0.004	<0.005	0.032	0.965
JUN											
03...	0.005	<0.004	0.571	E0.194	0.007	<0.001	<0.003	<0.004	<0.005	0.037	2.66
12...	E0.004	<0.004	1.26	E0.300	0.006	<0.001	<0.003	<0.004	<0.005	0.110	3.19
JUL											
02...	<0.002	<0.004	0.468	E0.219	0.006	<0.001	<0.003	<0.004	<0.005	0.032	0.893
16...	<0.002	<0.004	0.249	E0.076	<0.002	<0.001	<0.003	<0.004	<0.005	0.010	0.417
AUG											
12...	<0.002	<0.004	0.066	E0.068	<0.002	<0.001	<0.003	<0.004	<0.005	<0.004	0.178
SEP											
04...	<0.002	<0.004	0.021	E0.032	<0.002	<0.001	<0.003	<0.004	<0.005	<0.004	0.056

DATE	P,P' DDE DISSOLV (UG/L) (34653)	PARATHION, DISSOLVED (UG/L) (39542)	PROPCHLOR, WATER, DISS, REC (UG/L) (04024)	PROMETON, WATER, DISS, REC (UG/L) (04037)	SIMAZINE, WATER, DISS, REC (UG/L) (04035)	BENFLURALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CARBARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBOFURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DIETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISULFOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)
NOV 1996											
20...	<0.006	<0.004	<0.007	E0.007	0.013	<0.002	<0.003	<0.003	<0.002	<0.003	<0.017
JAN 1997											
22...	<0.006	<0.004	<0.007	<0.018	0.012	<0.002	E0.002	<0.003	<0.002	<0.003	<0.017
FEB											
11...	<0.006	<0.004	<0.007	<0.018	0.012	<0.002	E0.003	<0.003	<0.002	<0.003	<0.017
MAR											
11...	<0.006	<0.004	<0.007	E0.004	0.006	<0.002	E0.005	<0.003	<0.002	<0.003	<0.017
26...	<0.006	<0.004	<0.007	E0.006	0.013	<0.002	<0.003	<0.003	E0.000	<0.003	<0.017
APR											
17...	<0.006	<0.004	<0.007	<0.018	0.132	<0.002	<0.003	<0.003	<0.002	<0.003	<0.017
29...	<0.006	<0.004	<0.007	E0.008	0.095	<0.002	<0.003	<0.003	<0.002	<0.003	<0.017
MAY											
14...	<0.006	<0.004	<0.007	E0.014	0.255	<0.002	<0.003	E0.015	<0.002	<0.003	<0.017
JUN											
03...	<0.006	<0.004	<0.007	E0.016	0.538	<0.002	<0.003	E0.050	E0.001	<0.003	<0.017
12...	<0.006	<0.004	<0.007	E0.014	0.647	<0.002	<0.003	<0.003	<0.002	<0.003	<0.017
JUL											
02...	<0.006	<0.004	<0.007	E0.014	0.190	<0.002	<0.003	<0.003	<0.002	<0.003	<0.017
16...	<0.006	<0.004	<0.007	E0.011	0.104	<0.002	<0.003	<0.003	<0.002	<0.003	<0.017
AUG											
12...	<0.006	<0.004	<0.007	E0.013	0.068	<0.002	<0.003	<0.003	<0.002	<0.003	<0.017
SEP											
04...	<0.006	<0.004	<0.007	E0.016	0.028	<0.002	<0.003	<0.003	<0.002	<0.003	<0.017

03612500 OHIO RIVER AT LOCK AND DAM 53, NEAR GRAND CHAIN, IL--Continued
(National stream-quality accounting network station)

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

DATE	PENDIMETHALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	ETHOPROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	LINURON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZINPHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARATHION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOLINATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROPAMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEBULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PERMETHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PFONAMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)
NOV 1996											
20...	<0.004	<0.003	<0.002	<0.001	<0.006	<0.004	<0.003	<0.004	<0.005	<0.002	<0.003
JAN 1997											
22...	<0.004	<0.003	<0.002	<0.001	<0.006	<0.004	<0.003	<0.004	<0.005	<0.002	<0.003
FEB											
11...	<0.004	<0.003	<0.002	<0.001	<0.006	<0.004	<0.003	<0.004	<0.005	<0.002	<0.003
MAR											
11...	<0.004	<0.003	<0.002	<0.001	<0.006	<0.004	<0.003	<0.004	<0.005	<0.002	<0.003
26...	<0.004	<0.003	<0.002	<0.001	<0.006	<0.004	<0.003	<0.004	<0.005	<0.002	<0.003
APR											
17...	<0.004	<0.003	<0.002	<0.001	<0.006	<0.004	<0.003	<0.004	<0.005	<0.002	<0.003
29...	<0.004	<0.003	<0.002	<0.001	<0.006	<0.004	<0.003	<0.004	<0.005	<0.002	<0.003
MAY											
14...	0.006	<0.003	<0.002	<0.001	<0.006	<0.004	<0.003	<0.004	<0.005	<0.002	<0.003
JUN											
03...	0.010	<0.003	<0.002	<0.001	<0.006	<0.004	<0.003	<0.004	<0.005	<0.002	<0.003
12...	<0.004	<0.003	<0.002	<0.001	<0.006	<0.004	<0.003	<0.004	<0.005	<0.002	<0.003
JUL											
02...	<0.004	<0.003	<0.002	<0.001	<0.006	<0.004	<0.003	<0.004	<0.005	<0.002	<0.003
16...	<0.004	<0.003	<0.002	<0.001	<0.006	<0.004	<0.003	<0.004	<0.005	<0.002	<0.003
AUG											
12...	<0.004	<0.003	<0.002	<0.001	<0.006	<0.004	<0.003	<0.004	<0.005	<0.002	<0.003
SEP											
04...	<0.004	<0.003	<0.002	<0.001	<0.006	<0.004	<0.003	<0.004	<0.005	<0.002	<0.003

DATE	PROPANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PROPARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBUTHIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TERBACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TERBUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIALLATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRIFLURALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIOBENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 1996											
20...	<0.004	<0.013	E0.007	<0.007	<0.013	<0.001	<0.002	<0.002	67	44500	98
JAN 1997											
22...	<0.004	<0.013	0.010	<0.007	<0.013	<0.001	<0.002	<0.002	62	46200	97
FEB											
11...	<0.004	<0.013	E0.013	<0.007	<0.013	<0.001	<0.002	<0.002	194	336000	96
MAR											
11...	<0.004	<0.013	<0.010	<0.007	<0.013	<0.001	E0.002	<0.002	232	702000	96
26...	<0.004	<0.013	E0.012	<0.007	<0.013	<0.001	<0.002	<0.002	60	141000	94
APR											
17...	<0.004	<0.013	<0.010	<0.007	<0.013	<0.001	<0.002	<0.002	14	10400	88
29...	<0.004	<0.013	<0.010	<0.007	<0.013	<0.001	<0.002	<0.002	10	6560	94
MAY											
14...	<0.004	<0.013	E0.022	<0.007	<0.013	<0.001	<0.002	<0.002	28	20600	94
JUN											
03...	<0.004	<0.013	0.011	<0.007	<0.013	<0.001	E0.004	<0.002	184	310000	87
12...	<0.004	<0.013	0.017	<0.007	<0.013	<0.001	<0.002	<0.002	141	256000	94
JUL											
02...	<0.004	<0.013	0.012	<0.007	<0.013	<0.001	<0.002	<0.002	--	--	--
16...	<0.004	<0.013	0.013	<0.007	<0.013	<0.001	<0.002	<0.002	24	9850	97
AUG											
12...	<0.004	<0.013	0.024	<0.007	<0.013	<0.001	<0.002	<0.002	24	6070	91
SEP											
04...	<0.004	<0.013	<0.010	<0.007	<0.013	<0.001	<0.002	<0.002	5	--	86

03612500 OHIO RIVER AT LOCK AND DAM 53, NEAR GRAND CHAIN, IL--Continued
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QUALITY-ASSURANCE DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	MEDIUM CODE	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
JAN 1997												
22...	1228	Q[1]	--	0.022	0.005	<0.025	--	91	74	--	--	--
FEB												
11...	1310	R[2]	110	31	7.0	8.5	2.0	--	--	12	32	0.10
MAY												
14...	1408	Q[1]	--	--	--	--	--	--	--	--	--	--
JUN												
03...	1155	R[2]	120	33	8.4	11	2.3	78	64	14	43	0.15
JUL												
16...	1238	Q[1]	--	0.037	0.007	<0.025	--	--	--	--	--	--

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)
JAN 1997												
22...	<0.02	<0.001	<0.005	<0.002	--	--	--	--	<0.001	<0.30	<0.20	--
FEB												
11...	5.4	0.020	1.30	0.050	<0.20	0.70	0.300	0.020	0.047	6.0	<1.0	<1
MAY												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
03...	2.9	0.062	1.48	<0.015	<0.20	0.25	0.063	0.036	0.048	6.9	<1.0	<1
JUL												
16...	<0.02	<0.001	0.005	<0.002	--	--	--	--	0.001	<0.30	<0.20	--

DATE	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)
JAN 1997												
22...	<0.20	<0.20	<2.0	<0.30	<0.20	<0.20	<0.20	<3.0	<0.30	<0.10	<0.20	<0.50
FEB												
11...	25	<1.0	24	<1.0	<1.0	<1.0	<1.0	21	<1.0	2.0	1.0	<1.0
MAY												
14...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
03...	31	<1.0	33	<1.0	1.1	<1.0	1.1	4.4	<1.0	1.2	1.7	<1.0
JUL												
16...	<0.20	<0.20	<2.0	<0.30	<0.20	<0.20	<0.20	<3.0	<0.30	<0.10	<0.20	<0.50

DATE	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	ALPHA BHC DIS-SOLVED (UG/L) (34253)
JAN 1997												
22...	--	<0.20	<0.10	--	<0.50	<0.20	--	--	--	--	--	--
FEB												
11...	<1	<1.0	120	<6	2.0	<1.0	2.7	1.6	0.004	0.004	0.066	<0.002
MAY												
14...	--	--	--	--	--	--	0.20	<0.10	<0.002	<0.002	<0.001	<0.002
JUN												
03...	<1	<1.0	149	<6	1.0	<1.0	2.6	1.6	0.202	0.737	8.19	<0.002
JUL												
16...	--	<0.20	0.12	--	1.4	<0.20	--	--	--	--	--	--

1. Artificial quality-assurance sample
2. Surface-water quality-assurance sample

03612500 OHIO RIVER AT LOCK AND DAM 53, NEAR GRAND CHAIN, IL--Continued
(National stream-quality accounting network station)

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

DATE	BUTYLATE, WATER, DISS, REC (UG/L) (04028)	CHLORPYRIFOS DISSOLVED (UG/L) (38933)	CYANAZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) (04040)	DIAZINON, DISSOLVED (UG/L) (39572)	DIELDRIN DISSOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DISSOLVED (UG/L) (39341)	MALATHION, DISSOLVED (UG/L) (39532)	METRIBUZIN SENCOR WATER DISSOLV (UG/L) (82630)	METOLACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)
JAN 1997												
22...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
11...	<0.002	<0.004	0.016	E0.021	<0.002	<0.001	<0.003	<0.004	<0.005	<0.004	0.075	<0.006
MAY												
14...	<0.002	0.006	<0.004	<0.002	<0.002	<0.001	<0.003	<0.004	<0.005	<0.004	<0.002	<0.006
JUN												
03...	0.006	<0.004	0.680	E0.192	0.008	<0.001	<0.003	<0.004	<0.005	0.045	3.24	<0.006
JUL												
16...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	PARATHION, DISSOLVED (UG/L) (39542)	PROPCHLOR, WATER, DISS, REC (UG/L) (04024)	PROMETON, WATER, DISS, REC (UG/L) (04037)	SIMAZINE, WATER, DISS, REC (UG/L) (04035)	BENFLURALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CARBARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBOFURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DIETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISULFOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETFALFLURALIN WAT FLT 0.7 U GF, REC (UG/L) (82563)
JAN 1997											
22...	--	--	--	--	--	--	--	--	--	--	--
FEB											
11...	<0.004	<0.007	<0.018	0.013	<0.002	E0.002	<0.003	<0.002	<0.003	<0.017	<0.004
MAY											
14...	<0.004	<0.007	<0.018	<0.005	<0.002	<0.003	<0.003	<0.002	<0.003	<0.017	<0.004
JUN											
03...	<0.004	<0.007	0.018	0.636	<0.002	<0.003	E0.055	<0.002	<0.003	<0.017	<0.004
JUL											
16...	--	--	--	--	--	--	--	--	--	--	--

DATE	ETHOPROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LINURON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZINPHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARATHION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOLINATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROPAMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEBULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDIMETHALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PERMETHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82564)
JAN 1997											
22...	--	--	--	--	--	--	--	--	--	--	--
FEB											
11...	<0.003	<0.002	<0.002	<0.001	<0.006	<0.004	<0.003	<0.004	<0.004	<0.005	<0.002
MAY											
14...	<0.003	<0.002	<0.002	<0.001	<0.006	<0.004	<0.003	<0.004	<0.004	<0.005	<0.002
JUN											
03...	<0.003	E0.002	<0.002	<0.001	<0.006	<0.004	<0.003	<0.004	0.013	<0.005	<0.002
JUL											
16...	--	--	--	--	--	--	--	--	--	--	--

DATE	PRONAMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PROPARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBUTHIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TERBACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TERBUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIALLATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRIFLURALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIOBENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
JAN 1997											
22...	--	--	--	--	--	--	--	--	--	--	--
FEB											
11...	<0.003	<0.004	<0.013	E0.013	<0.007	<0.013	<0.001	E0.003	<0.002	--	--
MAY											
14...	<0.003	<0.004	<0.013	<0.010	<0.007	<0.013	<0.001	<0.002	<0.002	--	--
JUN											
03...	<0.003	<0.004	<0.013	0.012	<0.007	<0.013	<0.001	0.004	<0.002	194	88
JUL											
16...	--	--	--	--	--	--	--	--	--	--	--

05414820 SINSINAWA RIVER NEAR MENOMINEE, IL

LOCATION.--Lat 42°28'44", long 90°29'10", in SE1/4SE1/4 sec.28, T.29 N., R.1 W., Jo Daviess County, Hydrologic Unit 07060005, on left bank at downstream side of bridge on High Ridge Road, 2.4 mi east of Menominee, 4.5 mi northwest of Galena, and at mile 7.0.

DRAINAGE AREA.--39.6 mi^2.

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

REVISED RECORDS.--WDR IL-74-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 640.75 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Gage-height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft^3/s and maximum (*)

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 18	1700	3,160	10.06	Feb. 21	0715	*4,380	*10.72

Minimum discharge, 3.5 ft^3/s, Feb. 12,13.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	20	21	e14	e22	314	14	36	10	18	9.1	11
2	20	19	18	e14	e19	56	13	28	10	78	9.2	11
3	19	19	17	e15	e18	34	14	29	10	18	8.5	11
4	20	19	17	e40	e19	25	14	24	10	16	8.9	10
5	20	19	18	e23	e16	21	17	23	11	14	8.6	11
6	20	22	18	17	13	19	16	20	14	13	8.5	12
7	20	21	17	16	14	18	14	25	13	12	8.7	17
8	20	19	17	17	15	22	15	38	18	12	8.4	31
9	20	19	16	17	14	178	14	25	11	11	10	17
10	21	18	17	16	12	37	15	23	11	11	11	13
11	20	18	17	14	12	27	17	22	19	11	11	11
12	21	17	20	e18	11	22	21	21	13	12	20	11
13	21	17	21	e19	13	20	19	19	13	13	12	12
14	21	17	18	e19	13	21	20	19	12	14	10	13
15	21	17	e19	e20	12	16	20	17	12	11	29	13
16	22	18	e17	e18	12	17	18	16	21	10	13	15
17	27	21	e15	e18	13	17	17	16	15	10	18	28
18	16	18	e12	e17	881	17	19	18	14	14	13	13
19	16	18	e13	e17	172	15	25	19	15	22	9.8	33
20	16	18	e13	e16	171	17	21	14	16	19	10	20
21	16	19	e14	e17	1400	18	20	12	52	15	9.7	9.1
22	18	18	e13	e64	101	17	18	12	22	11	9.3	9.2
23	23	19	e12	e26	45	15	17	11	18	11	8.6	12
24	17	18	e13	e21	25	16	16	12	17	9.8	9.0	9.5
25	16	17	e12	e20	20	22	15	12	31	9.8	8.7	8.9
26	16	16	e13	e19	23	18	14	11	21	10	9.2	8.4
27	16	17	e13	e19	28	17	14	11	16	9.5	9.3	8.2
28	15	17	e15	e18	130	20	14	11	15	9.4	9.2	9.2
29	30	18	e14	e18	---	19	13	13	19	8.5	9.1	9.4
30	30	26	e13	e19	---	17	22	12	24	8.5	12	12
31	21	---	e13	e19	---	15	---	11	---	8.7	12	---
TOTAL	618	559	486	625	3244	1107	506	580	503	450.2	342.8	408.9
MEAN	19.9	18.6	15.7	20.2	116	35.7	16.9	18.7	16.8	14.5	11.1	13.6
MAX	30	26	21	64	1400	314	25	38	52	78	29	33
MIN	15	16	12	14	11	15	13	11	10	8.5	8.4	8.2
CFSM	.50	.47	.40	.51	2.93	.90	.43	.47	.42	.37	.28	.34
IN.	.58	.53	.46	.59	3.05	1.04	.48	.54	.47	.42	.32	.38

e Estimated

05414820 SINSINAWA RIVER NEAR MENOMINEE, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1997, BY WATER YEAR (WY)

MEAN	21.2	20.1	21.7	24.0	38.0	42.3	25.6	26.8	33.3	26.9	23.6	2[illegible].8
MAX	99.7	49.3	76.0	88.3	116	151	101	113	102	136	100	122
(WY)	1987	1994	1973	1974	1997	1975	1973	1974	1993	1993	1972	1986
MIN	8.03	8.05	5.92	7.10	8.55	7.83	7.41	8.81	8.18	9.05	9.30	8.88
(WY)	1991	1990	1990	1991	1990	1968	1990	1968	1977	1989	1971	1990

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1968 - 1997	
ANNUAL TOTAL	9612		9429.9			
ANNUAL MEAN	26.3		25.8		27.4	
HIGHEST ANNUAL MEAN					57.5	1973
LOWEST ANNUAL MEAN					12.3	1990
HIGHEST DAILY MEAN	516	Feb 10	1400	Feb 21	2100	Aug 2 1972
LOWEST DAILY MEAN	12 A	Dec 18,23,25	8.2	Sep 27	4.8	Jan 25 1991
ANNUAL SEVEN-DAY MINIMUM	13	Dec 18	8.7	Aug 2	5.0	Feb 22 1968
INSTANTANEOUS PEAK FLOW			4380	Feb 21	11600 B	Jun 29 1969
INSTANTANEOUS PEAK STAGE			10.72	Feb 21	13.34	Jun 29 1969
INSTANTANEOUS LOW FLOW			3.5	Feb 12,13	.00 C	Dec 25 1988
ANNUAL RUNOFF (CFSM)	.66		.65		.69	
ANNUAL RUNOFF (INCHES)	9.03		8.86		9.39	
10 PERCENT EXCEEDS	33		25		40	
50 PERCENT EXCEEDS	20		17		18	
90 PERCENT EXCEEDS	15		10		9.2	

A - Estimated, backwater from ice.

B - From rating curve extended on basis of contracted-opening measurement and flow over road at gage height of 13.34 ft.

C - Result of freezeup.

05416100 MISSISSIPPI RIVER AT LOCK AND DAM 12 AT BELLEVUE, IA

LOCATION.--Lat 42°15'39", long 90°25'23", in NE1/4SE1/4NW1/4 sec.18, T.86 N., R.5 E., Jackson County, Iowa, Hydrologic Unit 07060005, on right bank at Lock and Dam #12, 0.2 mi north of Bellevue, Iowa, 8.0 mi downstream from Galena River, 11.7 mi upstream from Apple River, and at mile 556.7.

DRAINAGE AREA.--82,400 mi^2 (determined by U.S. Army Corps of Engineers).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1994 to September 1997 (discontinued). Gage-height record for May 14, 1939 to Sept. 30, 1997, available in files of U.S. Army Corps of Engineers.

GAGE.--Water-stage recorder. Datum of gage is 580.20 ft above sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Water-discharge records fair except those for estimated daily discharges, which are poor. Some regulation by lock and dam 11 upstream from station at Dubuque, Iowa, and by lock and dam 12 at station. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 26, 1965, reached a stage of 23.51 ft, from information by the U.S. Army Corps of Engineers, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 193,000 ft^3/s, Apr. 15, gage height, 20.61 ft, maximum gage height, 20.84 ft, Apr. 17; minimum discharge, 19,800 ft^3/s, Oct. 10, but may have been less during partial-record period, Oct. 13-17.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28100	53000	55600	e37000	e38000	e45000	96000	125000	58600	51500	83100	50700
2	25900	52700	58700	e36000	e39000	e46000	100000	122000	58500	51300	84200	50200
3	27300	52500	59800	e36000	e39500	e48000	106000	120000	58400	47100	84500	50500
4	28600	51400	62000	e37000	e40000	e48500	112000	117000	56300	46000	83700	50800
5	28600	50900	62300	e39500	e41000	e48500	119000	114000	55300	49100	82500	51900
6	28000	54200	62700	e42000	e41000	48200	125000	110000	55500	54900	80000	52200
7	26000	54300	62800	e44000	e41000	48900	127000	107000	56300	59500	77600	52300
8	25200	53900	60900	e44000	e41000	47200	135000	106000	58100	64600	75300	53900
9	23500	52900	57300	e43000	e41000	49500	144000	105000	58400	70900	71300	53300
10	21900	51400	55800	e41000	e41000	58500	152000	103000	54300	72400	69100	48700
11	24500	49700	54400	e39000	e40500	63100	161000	100000	49000	72400	65000	44000
12	22100	46300	55000	e38500	e39500	63100	172000	94000	47000	72300	59100	39300
13	21800	42200	55800	e40000	e39000	62600	182000	92900	45800	72500	53900	38900
14	22900	41000	56000	e41000	e38000	64000	188000	90500	45000	71700	51300	37000
15	22400	41900	56800	e42000	e37000	58000	e192000	87500	42600	71800	51100	36500
16	22900	40700	56000	e41000	e35000	49100	e192000	85100	44400	71200	50700	37100
17	23600	42800	51700	e40000	e35000	51000	e191000	81700	48100	68300	50400	36500
18	23000	48200	43600	e39000	e35500	58200	e188000	78900	42700	66800	50500	39700
19	26000	54200	e35000	e38500	e40000	64300	e184000	77400	36800	70200	49500	41500
20	26900	61000	e27000	e38000	e46000	66900	e179000	72200	33500	75600	46800	46400
21	28200	64700	e29000	e37000	e48000	67900	174000	72000	37000	76200	45600	50100
22	34200	75900	e30000	e38500	e56000	70400	169000	72100	45500	79900	45500	52200
23	37300	80300	e31000	e40000	e53000	71000	162000	71800	47900	79300	45300	53800
24	41900	82300	e32000	e41000	e50000	70800	156000	e69000	48900	78900	45700	54100
25	42700	85700	e35000	e42500	e48900	74800	150000	65100	47300	e76000	49600	52500
26	41900	83600	e37000	e43000	e48500	80100	145000	64300	46900	e73000	54900	47500
27	41200	69300	e39000	e42000	e48000	82600	141000	64100	41500	e77000	57200	43800
28	44400	61500	e41000	e41500	e48000	83300	136000	61900	35400	e79000	57100	41400
29	47700	58300	e41500	e40000	---	85000	132000	59800	35500	e81000	57000	37000
30	47300	55100	e40000	e39000	---	88000	127000	58800	43400	e82000	55300	34300
31	52500	---	e38500	e38000	---	90400	---	58600	---	83100	52500	---
TOTAL	958500	1711900	1483200	1239000	1188400	1952900	4537000	2706700	1433900	2145500	1885300	1378100
MEAN	30920	57060	47850	39970	42440	63000	151200	87310	47800	69210	60820	45940
MAX	52500	85700	62800	44000	56000	90400	192000	125000	58600	83100	84500	54100
MIN	21800	40700	27000	36000	35000	45000	96000	58600	33500	46000	45300	34300
CFSM	.38	.69	.58	.49	.52	.76	1.84	1.06	.58	.84	.74	.56
IN.	.43	.77	.67	.56	.54	.88	2.05	1.22	.65	.97	.85	.62

e Estimated

05416100 MISSISSIPPI RIVER AT LOCK AND DAM 12 AT BELLEVUE, IA--Continued

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

MEAN	53290	59860	42410	35730	38140	63120	118600	95940	68570	58360	52610	42520
MAX	69590	73440	47850	39970	42440	65620	151200	107800	89000	69210	63680	56800
(WY)	1996	1996	1997	1997	1997	1996	1997	1996	1996	1997	1995	1995
MIN	30920	49080	38970	30450	29450	60740	93150	87310	47800	46850	33340	24820
(WY)	1997	1995	1996	1995	1995	1995	1995	1997	1997	1995	1996	1996

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1995 - 1997	
ANNUAL TOTAL	21513200		22620400			
ANNUAL MEAN	58780		61970		60800	
HIGHEST ANNUAL MEAN					62650	1996
LOWEST ANNUAL MEAN					57770	1995
HIGHEST DAILY MEAN	157000	Apr 29	192000	Apr 15, 16	192000 A	
LOWEST DAILY MEAN	19200	Sep 15	21800	Oct 13	19200	Sep 15 1996
ANNUAL SEVEN-DAY MINIMUM	22000	Sep 14	22600	Oct 10	22000	Sep 14 1996
INSTANTANEOUS PEAK FLOW			193000 B	Apr 15	193000 B	Apr 15 1997
INSTANTANEOUS PEAK STAGE			20.84C	Apr 17	20.84 C	Apr 17 1997
INSTANTANEOUS LOW FLOW			19800 D	Oct 10	16500	Sep 14 1996
ANNUAL RUNOFF (CFSM)	.71		.75		.74	
ANNUAL RUNOFF (INCHES)	9.71		10.21		10.02	
10 PERCENT EXCEEDS	97900		105000		95700	
50 PERCENT EXCEEDS	48100		51900		51700	
90 PERCENT EXCEEDS	25800		35800		29900	

A - April 15, 16, 1997.
B - Gage height, 20.61 ft.
C - Discharge, 191,000 ft^3/s.
D - May have been less during partial-record period, Oct. 13-17.

05416100 MISSISSIPPI RIVER AT LOCK AND DAM 12 AT BELLEVUE, IA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1994 to September 1997. (Discontinued).

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: Oct. 1994 to Sept. 1997. (Discontinued).

REMARKS.--Suspended-sediment samples were collected by a local observer once a week with additional samples collected during storm and runoff periods.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily, 245 mg/L, Apr. 7, 1997; minimum daily, 3 mg/L, Dec. 26, 1995-Jan. 12, 1996, Feb. 2-14, 1997.

SEDIMENT LOADS: Maximum daily 84,000 tons, Apr. 7, 1997; minimum daily, 221 tons, Dec. 17, 1994.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily, 245 mg/L, Apr. 7; minimum daily, 3 mg/L, Feb. 2-14.

SEDIMENT LOADS: Maximum daily, 84,000 tons, Apr. 7; minimum daily, 316 tons, Feb. 13.

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	28100	51	3880	53000	63	8970	55600	16	2470
2	25900	46	3250	52700	41	5830	58700	13	2000
3	27300	42	3080	52500	35	4920	59800	10	1670
4	28600	38	2900	51400	30	4120	62000	11	1850
5	28600	34	2610	50900	26	3540	62300	12	2000
6	28000	30	2290	54200	26	3730	62700	12	1980
7	26000	28	1970	54300	26	3750	62800	11	1940
8	25200	28	1920	53900	24	3490	60900	11	1840
9	23500	28	1790	52900	22	3190	57300	11	1690
10	21900	28	1680	51400	21	2890	55800	11	1610
11	24500	29	1890	49700	19	2600	54400	10	1540
12	22100	29	1710	46300	18	2270	55000	10	1520
13	21800	29	1690	42200	18	2000	55800	10	1550
14	22900	29	1790	41000	17	1890	56000	12	1810
15	22400	29	1750	41900	17	1880	56800	12	1850
16	22900	28	1700	40700	16	1780	56000	10	1560
17	23600	28	1760	42800	16	1820	51700	9	1230
18	23000	37	2320	48200	15	2000	43600	7	878
19	26000	37	2600	54200	16	2350	e35000	6	598
20	26900	35	2570	61000	22	3680	e27000	5	391
21	28200	35	2640	64700	32	5600	e29000	5	392
22	34200	37	3440	75900	46	9410	e30000	5	405
23	37300	40	4070	80300	66	14300	e31000	5	419
24	41900	44	5020	82300	70	15700	e32000	5	432
25	42700	45	5160	85700	62	14300	e35000	5	473
26	41900	45	5030	83600	54	12200	e37000	5	525
27	41200	44	4920	69300	47	8770	e39000	8	797
28	44400	45	5340	61500	37	6090	e41000	10	1150
29	47700	53	6820	58300	28	4420	e41500	9	1060
30	47300	88	11300	55100	22	3200	e40000	8	885
31	52500	97	13800	---	---	---	e38500	7	747
TOTAL	958500	---	112690	1711900	---	160690	1483200	---	39262

05416100 MISSISSIPPI RIVER AT LOCK AND DAM 12 AT BELLEVUE, IA--Continued

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	e37000	7	699	e38000	4	365	e45000	11	1330
2	e36000	7	680	e39000	3	344	e46000	23	2840
3	e36000	7	680	e39500	3	323	e48000	45	5810
4	e37000	7	699	e40000	3	324	e48500	41	5310
5	e39500	7	747	e41000	3	332	e48500	29	3860
6	e42000	7	793	e41000	3	332	48200	21	2790
7	e44000	7	817	e41000	3	332	48900	16	2160
8	e44000	7	802	e41000	3	332	47200	21	2610
9	e43000	7	768	e41000	3	332	49500	29	3880
10	e41000	6	719	e41000	3	332	58500	40	6260
11	e39000	6	670	e40500	3	328	63100	52	8880
12	e38500	6	649	e39500	3	320	63100	76	13000
13	e40000	6	661	e39000	3	316	62600	78	13200
14	e41000	6	662	e38000	3	332	64000	111	19100
15	e42000	6	638	e37000	6	565	58000	66	10400
16	e41000	5	582	e35000	11	1010	49100	40	5320
17	e40000	5	530	e35000	20	1890	51000	28	3820
18	e39000	5	483	e35500	38	3610	58200	32	5000
19	e38500	4	445	e40000	61	6580	64300	26	4480
20	e38000	4	415	e46000	42	5200	66900	29	5280
21	e37000	4	411	e48000	85	11100	67900	32	5800
22	e38500	4	439	e56000	63	9510	70400	50	9490
23	e40000	4	469	e53000	42	5990	71000	36	6900
24	e41000	4	495	e50000	28	3730	70800	41	7760
25	e42500	5	527	e48900	16	2070	74800	43	8590
26	e43000	5	548	e48500	13	1640	80100	62	13500
27	e42000	5	551	e48000	10	1300	82600	57	12600
28	e41500	5	553	e48000	8	1090	83300	58	13100
29	e40000	5	498	---	---	---	85000	49	11200
30	e39000	4	446	---	---	---	88000	60	14400
31	e38000	4	398	---	---	---	90400	67	16400
TOTAL	1239000	---	18474	1188400	---	59929	1952900	---	245070
		APRIL			MAY			JUNE	
1	96000	70	18200	125000	104	34900	58600	41	6550
2	100000	88	23900	122000	68	22300	58500	42	6690
3	106000	95	27100	120000	66	21300	58400	35	5540
4	112000	105	31900	117000	70	22000	56300	31	4640
5	119000	144	46200	114000	76	23300	55300	32	4720
6	125000	200	67400	110000	117	34700	55500	34	5060
7	127000	245	84000	107000	72	20700	56300	44	6660
8	135000	165	60000	106000	85	24200	58100	49	7700
9	144000	122	47600	105000	109	30900	58400	43	6710
10	152000	99	40700	103000	81	22700	54300	36	5300
11	161000	89	38800	100000	80	21700	49000	31	4080
12	172000	88	41000	94000	87	22100	47000	29	3690
13	182000	84	41500	92900	84	21100	45800	28	3490
14	188000	78	39700	90500	87	21200	45000	28	3400
15	e192000	67	34600	87500	80	19000	42600	31	3590
16	e192000	61	31800	85100	68	15600	44400	46	5470
17	e191000	51	26500	81700	61	13400	48100	40	5210
18	e188000	56	28400	78900	63	13400	42700	34	3880
19	e184000	48	24000	77400	65	13500	36800	28	2810
20	e179000	48	23000	72200	62	12100	33500	26	2370
21	174000	42	19600	72000	50	9640	37000	40	4040
22	169000	44	19900	72100	45	8660	45500	60	7400
23	162000	51	22300	71800	43	8260	47900	41	5270
24	156000	42	17900	e69000	44	8270	48900	42	5530
25	150000	43	17400	65100	46	8150	47300	37	4680
26	145000	49	19000	64300	48	8280	46900	42	5260
27	141000	49	18500	64100	47	8120	41500	36	3980
28	136000	51	18600	61900	45	7590	35400	34	3280
29	132000	53	18700	59800	40	6500	35500	34	3220
30	127000	70	23900	58800	37	5840	43400	35	4050
31	---	---	---	58600	39	6150	---	---	---
TOTAL	4537000	---	972100	2706700	---	515560	1433900	---	144270

05416100 MISSISSIPPI RIVER AT LOCK AND DAM 12 AT BELLEVUE, IA--Continued

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	JULY			AUGUST			SEPTEMBER		
1	51500	43	5960	83100	46	10300	50700	30	4160
2	51300	41	5660	84200	44	10100	50200	30	4100
3	47100	38	4810	84500	43	9810	50500	30	4110
4	46000	35	4360	83700	42	9400	50800	30	4120
5	49100	33	4310	82500	40	8960	51900	30	4230
6	54900	30	4480	80000	39	8410	52200	30	4280
7	59500	29	4680	77600	38	7890	52300	31	4320
8	64600	36	6210	75300	36	7410	53900	31	4480
9	70900	45	8650	71300	35	6780	53300	31	4420
10	72400	55	10700	69100	34	6360	48700	29	3820
11	72400	55	10800	65000	33	5790	44000	27	3240
12	72300	55	10700	59100	32	5090	39300	26	2720
13	72500	54	10600	53900	31	4490	38900	24	2530
14	71700	53	10400	51300	26	3540	37000	23	2260
15	71800	53	10400	51100	24	3290	36500	21	2100
16	71200	55	10500	50700	25	3370	37100	20	2040
17	68300	56	10400	50400	25	3450	36500	22	2160
18	66800	58	10400	50500	26	3570	39700	24	2610
19	70200	59	11200	49500	27	3610	41500	30	3380
20	75600	61	12400	46800	28	3480	46400	38	4750
21	76200	62	12800	45600	28	3450	50100	43	5880
22	79900	64	13700	45500	29	3500	52200	40	5580
23	79300	62	13300	45300	29	3550	53800	36	5180
24	78900	60	12800	45700	30	3640	54100	32	4700
25	e76000	58	11900	49600	30	4030	52500	29	4120
26	e73000	56	11100	54900	31	4540	47500	26	3390
27	e77000	54	11300	57200	31	4780	43800	26	3080
28	e79000	52	11200	57100	31	4760	41400	26	2910
29	e81000	51	11100	57000	31	4730	37000	26	2600
30	e82000	49	10900	55300	31	4570	34300	26	2410
31	83100	48	10700	52500	30	4320	---	---	---
TOTAL	2145500	---	298420	1885300	---	170970	1378100	---	109680
YEAR	22620400		2847115						

e Estimated

05419000 APPLE RIVER NEAR HANOVER, IL

LOCATION.--Lat 42°15'05", long 90°17'10", in NE1/4NW1/4 sec.16, T.26 N., R.2 E., Jo Daviess County, Hydrologic Unit 07060005, on right bank, 0.3 mi southwest of Hanover, and at mile 13.9.

DRAINAGE AREA.--247 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1934 to current year. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORDS.--WSP 1005: 1939, 1941(M). WSP 1308: 1935-38(M), 1943-45(M). WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 591.00 ft above sea level. Prior to Oct. 1, 1945, nonrecording gage at site 3.5 mi downstream at datum 9.48 ft lower.

REMARKS.--Water-discharge records good except those for estimated daily discharge, which are poor. Occasional regulation during low flow by dam at Hanover. Gage-height telemeter at station.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 19	0430	a	*22.14	Feb. 22	0015	*6,220	18.58

Minimum discharge, 30 ft^3/s, Nov. 26.

a - Backwater from ice.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	76	85	e45	e78	1580	123	253	104	173	61	56
2	49	69	72	e58	e78	721	116	250	99	554	62	53
3	46	65	69	e79	e88	261	111	373	94	262	61	49
4	46	63	54	e99	e86	204	110	279	91	197	61	46
5	47	62	70	e90	e84	165	118	241	86	172	61	46
6	52	63	67	e87	e80	139	126	214	94	154	56	46
7	48	70	60	e94	e74	122	111	240	105	140	53	46
8	47	69	58	e81	e72	128	99	620	97	134	51	90
9	48	62	56	e70	e70	490	95	387	82	125	50	70
10	48	59	54	e69	e63	499	e100	290	77	115	52	63
11	46	55	65	e73	e58	231	e114	254	130	107	57	55
12	47	54	71	e68	e55	188	e127	228	204	104	69	50
13	48	54	71	e68	e54	160	e138	207	128	101	89	50
14	47	47	70	e71	e50	158	e145	192	104	103	67	49
15	53	55	e72	e76	e52	127	e150	177	118	92	127	49
16	54	54	e64	e72	e63	115	e153	164	390	84	118	82
17	96	68	e56	e68	e75	128	e154	157	212	81	106	180
18	71	65	e58	e66	e530	120	e155	151	161	113	100	94
19	50	61	e54	e68	e1150	113	e153	164	140	133	79	148
20	45	58	e49	e72	e1370	114	e160	143	134	173	73	230
21	45	62	e51	e80	e3450	122	e158	132	911	116	70	133
22	54	58	e54	e500	1820	131	e153	126	359	110	65	107
23	74	59	e61	e350	403	124	e148	123	212	96	60	115
24	68	60	e76	e220	221	120	e140	124	185	89	60	105
25	55	57	e68	e112	179	136	e126	139	1090	82	56	95
26	52	44	e66	e98	182	137	e116	134	507	82	55	86
27	49	48	e85	e87	310	135	e108	118	281	77	55	80
28	46	53	e64	e80	298	142	e94	115	232	75	55	77
29	102	57	e53	e76	---	149	93	126	207	70	53	73
30	158	79	e58	e80	---	142	110	127	191	65	66	68
31	97	---	e50	e77	---	131	---	115	---	63	65	---
TOTAL	1839	1806	1961	3234	11093	7232	3804	6363	6825	4042	2113	2491
MEAN	59.3	60.2	63.3	104	396	233	127	205	228	130	68.2	83.0
MAX	158	79	85	500	3450	1580	160	620	1090	554	127	230
MIN	45	44	49	45	50	113	93	115	77	63	50	46
CFSM	.24	.24	.26	.42	1.60	.94	.51	.83	.92	.53	.28	.34
IN.	.28	.27	.30	.49	1.67	1.09	.57	.96	1.03	.61	.32	.38

e Estimated

05419000 APPLE RIVER NEAR HANOVER, IL--Continued

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

MEAN	112	129	114	149	246	342	249	233	220	139	98.7	12?
MAX	807	672	565	779	837	945	1104	1172	1077	974	459	96?
(WY)	1987	1962	1983	1960	1971	1959	1973	1973	1993	1993	1981	196?
MIN	19.7	24.4	21.4	15.2	19.4	34.2	40.2	30.9	29.9	23.1	18.6	21.0
(WY)	1941	1941	1990	1940	1940	1954	1940	1940	1989	1989	1941	194?

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1935 - 1997	
ANNUAL TOTAL	69753		52803			
ANNUAL MEAN	191		145		179	
HIGHEST ANNUAL MEAN					480	1993
LOWEST ANNUAL MEAN					39.3	1940
HIGHEST DAILY MEAN	2400	Feb 10	3450	Feb 21	9010	Feb 21 1937
LOWEST DAILY MEAN	44	Nov 26	44	Nov 26	3.5	May 24 1967
ANNUAL SEVEN-DAY MINIMUM	47	Oct 8	47	Oct 8	10	Dec 28 1939
INSTANTANEOUS PEAK FLOW			6220 A	Feb 22	12000	Jan 5 1946
INSTANTANEOUS PEAK STAGE			22.14B	Feb 19	26.12 B	Jan 5 1946
INSTANTANEOUS LOW FLOW			30	Nov 26	.00 C	
ANNUAL RUNOFF (CFSM)	.77		.59		.73	
ANNUAL RUNOFF (INCHES)	10.51		7.95		9.86	
10 PERCENT EXCEEDS	395		229		329	
50 PERCENT EXCEEDS	81		86		85	
90 PERCENT EXCEEDS	54		51		31	

A - Gage-height, 18.58 ft.

B - Ice jam.

C - May 23, 24, 1967, result of temporary closure of gate at dam at Hanover.

05419000 APPLE RIVER NEAR HANOVER, IL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1994 to September 1997. (Discontinued).

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: Oct. 1994 to Sept. 1997. (Discontinued).

REMARKS.--Suspended-sediment samples were collected by a local observer once a week with additional samples collected during storm runoff periods.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily, 3,790 mg/L, May 28, 1996; minimum daily, 5 mg/L, Aug. 5, 1997.
SEDIMENT LOADS: Maximum daily, 28,900 tons, May 28, 1996; minimum daily, 0.8 tons, Aug. 5,1997.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily, 1,830 mg/L, Mar. 1; minimum daily, 5 mg/L, Aug. 5.
SEDIMENT LOADS: Maximum daily, 15,600 tons, Feb. 21; minimum daily, 0.8 tons, Aug. 5.

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	51	26	3.6	76	27	5.5	85	25	5.7
2	49	24	3.1	69	29	5.5	72	22	4.3
3	46	21	2.6	65	34	5.9	69	19	3.6
4	46	20	2.5	63	39	6.7	54	17	2.5
5	47	24	3.1	62	41	6.8	70	15	2.8
6	52	30	4.2	63	27	4.6	67	13	2.4
7	48	36	4.7	70	30	5.7	60	12	1.9
8	47	36	4.5	69	38	7.0	58	10	1.6
9	48	35	4.6	62	37	6.2	56	10	1.5
10	48	34	4.3	59	35	5.6	54	13	1.9
11	46	30	3.8	55	33	5.0	65	17	3.0
12	47	27	3.4	54	32	4.6	71	20	3.9
13	48	24	3.1	54	30	4.4	71	19	3.7
14	47	23	2.9	47	29	3.7	70	18	3.4
15	53	31	4.4	55	29	4.4	e72	17	3.3
16	54	50	7.5	54	33	4.8	e64	15	2.7
17	96	47	12	68	36	6.6	e56	14	2.2
18	71	40	7.6	65	37	6.5	e58	13	2.1
19	50	34	4.6	61	36	5.9	e54	12	1.8
20	45	29	3.5	58	34	5.4	e49	11	1.5
21	45	24	2.9	62	33	5.5	e51	12	1.7
22	54	21	3.0	58	31	4.9	e54	15	2.1
23	74	31	6.2	59	30	4.7	e61	17	2.9
24	68	45	8.2	60	29	4.6	e76	20	4.2
25	55	40	6.0	57	27	4.2	e68	20	3.8
26	52	36	5.0	44	26	3.2	e66	20	3.5
27	49	34	4.6	48	29	3.7	e85	19	4.4
28	46	33	4.0	53	33	4.8	e64	19	3.3
29	102	38	11	57	32	5.0	e53	18	2.6
30	158	47	20	79	28	6.1	e58	18	2.8
31	97	35	9.3	---	---	---	e50	17	2.3
TOTAL	1839	---	170.2	1806	---	157.5	1961	---	89.4

05419000 APPLE RIVER NEAR HANOVER, IL--Continued

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	JANUARY			FEBRUARY			MARCH		
1	e45	17	2.1	e78	11	2.3	1580	1830	8290
2	e58	16	2.6	e78	10	2.1	721	461	1040
3	e79	16	3.4	e88	10	2.3	261	320	226
4	e99	16	4.2	e86	9	2.1	204	273	151
5	e90	15	3.7	e84	9	2.0	165	233	104
6	e87	15	3.5	e80	9	1.9	139	199	75
7	e94	14	3.7	e74	9	1.8	122	247	81
8	e81	14	3.1	e72	9	1.8	128	483	167
9	e70	14	2.6	e70	9	1.7	490	529	653
10	e69	13	2.5	e63	9	1.5	499	373	524
11	e73	13	2.5	e58	9	1.4	231	268	168
12	e68	13	2.3	e55	9	1.3	188	200	102
13	e68	12	2.2	e54	9	1.3	160	149	64
14	e71	12	2.3	e50	9	1.2	158	111	47
15	e76	12	2.4	e52	10	1.4	127	82	28
16	e72	11	2.2	e63	17	2.8	115	62	20
17	e68	11	2.0	e75	38	7.8	128	52	18
18	e66	11	1.9	e530	155	222	120	30	9.6
19	e68	10	1.9	e1150	355	1100	113	28	8.7
20	e72	10	2.0	e1370	628	2320	114	43	13
21	e80	18	4.0	e3450	1670	15600	122	42	14
22	e500	43	57	1820	397	2740	131	38	13
23	e350	34	32	403	237	259	124	42	14
24	e220	26	16	221	212	127	120	47	15
25	e112	21	6.4	179	189	92	136	45	16
26	e98	17	4.6	182	169	83	137	42	16
27	e87	15	3.5	310	322	297	135	49	18
28	e80	14	3.0	298	737	575	142	59	23
29	e76	13	2.7	---	---	---	149	48	19
30	e80	12	2.6	---	---	---	142	35	13
31	e77	11	2.4	---	---	---	131	30	11
TOTAL	3234	---	187.3	11093	---	23451.7	7232	---	11961.3
	APRIL			MAY			JUNE		
1	123	28	9.2	253	45	30	104	67	19
2	116	29	8.9	250	21	14	99	52	14
3	111	31	9.2	373	17	17	94	38	9.6
4	110	36	11	279	17	13	91	47	12
5	118	44	14	241	16	11	86	63	15
6	126	43	15	214	19	11	94	48	12
7	111	39	12	240	50	36	105	35	10
8	99	28	7.5	620	123	204	97	40	10
9	95	19	4.8	387	77	83	82	46	10
10	e100	19	5.2	290	32	25	77	41	8.5
11	e114	22	6.8	254	42	28	130	38	14
12	e127	26	8.7	228	57	35	204	193	105
13	e138	30	11	207	53	29	128	152	53
14	e145	36	14	192	46	24	104	121	34
15	e150	45	18	177	33	16	118	149	57
16	e153	55	23	164	26	11	390	290	306
17	e154	67	28	157	37	16	212	147	86
18	e155	57	24	151	51	21	161	90	39
19	e153	44	18	164	52	23	140	78	30
20	e160	47	20	143	51	20	134	134	48
21	e158	56	24	132	49	18	911	1050	3140
22	e153	59	24	126	49	17	359	568	631
23	e148	60	24	123	52	17	212	116	68
24	e140	59	22	124	55	19	185	113	59
25	e126	58	20	139	55	21	1090	1010	3440
26	e116	60	19	134	55	20	507	334	544
27	e108	59	17	118	54	17	281	99	76
28	e94	28	7.0	115	54	17	232	64	40
29	93	37	9.3	126	56	19	207	63	35
30	110	44	13	127	60	20	191	74	38
31	---	---	---	115	64	20	---	---	---
TOTAL	3804	---	447.6	6363	---	872	6825	---	8963.1

05419000 APPLE RIVER NEAR HANOVER, IL--Continued

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	JULY			AUGUST			SEPTEMBER		
1	173	128	59	61	19	3.2	56	22	3.4
2	554	417	685	62	16	2.6	53	34	5.0
3	262	212	159	61	13	2.1	49	37	4.9
4	197	52	28	61	8	1.3	46	35	4.3
5	172	34	16	61	5	.80	46	25	3.1
6	154	34	14	56	7	1.1	46	17	2.1
7	140	49	18	53	14	2.1	46	15	1.9
8	134	70	25	51	18	2.4	90	15	3.7
9	125	81	27	50	19	2.5	70	18	3.4
10	115	99	31	52	19	2.7	63	23	3.8
11	107	92	27	57	27	4.1	55	23	3.5
12	104	76	21	69	53	10	50	22	3.0
13	101	50	14	89	67	16	50	17	2.2
14	103	31	8.6	67	45	8.3	49	11	1.5
15	92	27	6.7	127	24	7.9	49	11	1.4
16	84	28	6.4	118	22	6.9	82	12	2.7
17	81	60	13	106	24	7.0	180	16	7.4
18	113	69	21	100	29	7.7	94	21	5.2
19	133	61	22	79	34	7.2	148	19	7.4
20	173	55	26	73	32	6.3	230	15	9.4
21	116	54	17	70	27	5.1	133	14	5.0
22	110	54	16	65	23	4.1	107	14	3.9
23	96	49	13	60	20	3.2	115	13	4.2
24	89	42	10	60	20	3.3	105	13	3.7
25	82	34	7.6	56	23	3.4	95	13	3.3
26	82	28	6.1	55	26	3.8	86	13	3.0
27	77	22	4.6	55	29	4.3	80	13	2.7
28	75	23	4.6	55	26	3.8	77	12	2.6
29	70	25	4.7	53	21	3.0	73	12	2.4
30	65	27	4.8	66	18	3.3	68	12	2.2
31	63	24	4.0	65	17	2.9	---	---	---
TOTAL	4042	---	1320.1	2113	---	142.40	2491	---	112.3
YEAR	52803		47874.90						

e Estimated

05420100 PLUM RIVER AT SAVANNA, IL

LOCATION.--Lat 42°05'50", long 90°07'38", in SE1/4SW1/4 sec.2, T.24 N., R.3 E., Carroll County, Hydrologic Unit 07060005, on right bank, 60 ft downstream of U.S. Highway 52 and 64 bridge at Savanna, 4.5 mi downstream from Camp Creek, and at mile 7.8.

DRAINAGE AREA.--273 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1994 to September 1997 (discontinued). Occasional discharge measurements, water years 1978-90.

GAGE.--Water-stage recorder. Datum of gage is 580.86 ft above sea level. Oct. 1, 1977-Sept. 30, 1990, nonrecording gage at same site and datum.

REMARKS.--Water-discharge records good except those for estimated daily discharges, which are poor. Gage-height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 21	2030	*5,980a	*19.91	Mar. 10	0045	1,150	12.37
Mar. 02	0330	2,430	14.78				

Minimum discharge, 36 ft^3/s, Nov. 14.

a - Estimated, ice jam.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	97	99	e59	e81	1810	143	115	148	119	73	57
2	65	85	80	e75	e83	1830	139	116	137	110	72	60
3	65	80	74	e99	e102	558	125	119	129	99	72	83
4	66	72	61	e93	e150	368	117	117	124	94	71	57
5	65	70	e76	e94	e131	283	115	113	119	93	75	50
6	65	71	e90	e84	e105	231	116	111	117	90	66	48
7	66	168	e80	e90	e88	207	112	123	120	86	61	48
8	68	250	e84	e81	e78	196	108	385	116	85	58	62
9	68	185	e68	e75	e71	401	109	417	115	85	55	76
10	66	75	e66	e67	e64	733	113	329	102	82	55	66
11	63	64	e68	e71	e58	354	119	290	101	79	57	57
12	63	57	e78	e64	e54	266	127	264	160	77	65	49
13	64	55	e78	e64	e54	232	136	236	147	76	69	47
14	62	50	e79	e67	e52	215	144	e210	117	76	57	46
15	61	59	e84	e72	e48	191	152	206	107	74	56	46
16	64	59	e78	e70	e57	167	157	193	464	71	61	48
17	96	64	e70	e66	e64	165	160	184	423	67	88	145
18	89	65	e64	e61	e225	155	161	173	228	67	87	115
19	69	61	e60	e64	e1900	146	161	172	185	95	67	71
20	62	64	e59	e68	e2300	143	158	159	163	201	59	e160
21	62	63	e60	e72	e3800	144	155	145	206	138	55	e105
22	62	67	e65	e135	e4100	143	150	137	250	107	53	e95
23	93	74	e71	e270	1880	139	145	131	174	100	50	e100
24	86	78	e64	e160	612	137	140	127	152	92	49	e92
25	70	76	e61	e110	454	156	135	238	154	87	51	e85
26	66	67	e64	e100	414	169	130	224	199	78	50	e78
27	66	73	e71	e88	592	156	125	174	148	74	51	e74
28	66	70	e71	e86	814	159	121	163	127	74	53	e71
29	132	67	e62	e79	---	156	117	172	132	73	52	e68
30	303	93	e59	e83	---	151	113	181	130	73	57	e64
31	158	---	e59	e78	---	146	---	162	---	74	68	---
TOTAL	2518	2479	2203	2745	18431	10307	4003	5886	4994	2796	1913	2223
MEAN	81.2	82.6	71.1	88.5	658	332	133	190	166	90.2	61.7	74.1
MAX	303	250	99	270	4100	1830	161	417	464	201	88	160
MIN	61	50	59	59	48	137	108	111	101	67	49	46
CFSM	.30	.30	.26	.32	2.41	1.22	.49	.70	.61	.33	.23	.27
IN.	.34	.34	.30	.37	2.51	1.40	.55	.80	.68	.38	.26	.30

e Estimated

05420100 PLUM RIVER AT SAVANNA, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1997, BY WATER YEAR (WY)

MEAN	88.3	152	127	154	375	199	234	595	420	156	97.9	77.0
MAX	92.1	193	180	197	658	332	423	864	750	210	122	81.6
(WY)	1995	1995	1995	1995	1997	1997	1995	1995	1996	1996	1995	1995
MIN	81.2	82.6	71.1	88.5	151	113	133	190	166	90.2	61.7	74.1
(WY)	1997	1997	1997	1997	1995	1996	1997	1997	1997	1997	1997	1997

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1994 - 1997	
ANNUAL TOTAL	87110		60498			
ANNUAL MEAN	238		166		222	
HIGHEST ANNUAL MEAN					252	1996
LOWEST ANNUAL MEAN					166	1997
HIGHEST DAILY MEAN	4000	May 29	4100	Feb 22	4100	Feb 22 1997
LOWEST DAILY MEAN	50	Nov 14	46	Sep 14,15	46	A
ANNUAL SEVEN-DAY MINIMUM	58	Nov 11	51	Aug 23	51	Aug 23 1997
INSTANTANEOUS PEAK FLOW			5980 B	Feb 21	5980 B	Feb 21 1997
INSTANTANEOUS PEAK STAGE			19.91C	Feb 21	19.91 C	Feb 21 1997
INSTANTANEOUS LOW FLOW			36	Nov 14	36	Nov 14 1996
ANNUAL RUNOFF (CFSM)	.87		.61		.81	
ANNUAL RUNOFF (INCHES)	11.87		8.24		11.04	
10 PERCENT EXCEEDS	565		224		438	
50 PERCENT EXCEEDS	114		87		132	
90 PERCENT EXCEEDS	65		59		67	

A - Sept. 14, 15, 1997.

B - Estimated due to backwater from ice.

C - Ice jam.

05420100 PLUM RIVER AT SAVANNA, IL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1994 to September 1997. (Discontinued).

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: Oct. 1994 to Sept. 1997. (Discontinued).

REMARKS.--Suspended-sediment samples were collected by a local observer once a week with additional samples collected during storm runoff periods.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily, 2,560 mg/L, May 28, 1996; minimum daily, 6 mg/L, Sept. 29, 30, 1997.

SEDIMENT LOADS: Maximum daily, 16,700 tons, Feb. 21, 1997; minimum daily, 1.0 tons, Sept. 30, 1997.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily, 2,160 mg/L, June 16; minimum daily, 6 mg/L, Sept. 29, 30.

SEDIMENT LOADS: Maximum daily, 16,700 tons, Feb. 21; minimum daily, 1.0 tons, Sept. 30.

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	67	58	10	97	233	61	99	55	15
2	65	63	11	85	212	49	80	54	12
3	65	70	12	80	193	42	74	53	11
4	66	77	14	72	170	33	61	52	8.6
5	65	85	15	70	148	28	e76	51	11
6	65	93	16	71	131	25	e90	50	12
7	66	103	18	168	154	72	e80	49	11
8	68	113	21	250	190	128	e84	48	11
9	68	125	23	185	169	85	e68	47	8.7
10	66	138	24	75	143	29	e66	46	8.2
11	63	152	26	64	122	21	e68	45	8.3
12	63	167	28	57	103	16	e78	44	9.4
13	64	184	32	55	86	13	e78	44	9.2
14	62	201	34	50	72	9.7	e79	43	9.1
15	61	188	31	59	60	9.7	e84	42	9.5
16	64	172	30	59	55	8.8	e78	42	8.9
17	96	198	52	64	55	9.6	e70	42	7.9
18	89	158	38	65	55	9.6	e64	42	7.3
19	69	110	20	61	55	9.0	e60	42	6.8
20	62	77	13	64	55	9.4	e59	42	6.7
21	62	54	9.0	63	55	9.4	e60	42	6.8
22	62	37	6.2	67	55	10	e65	42	7.4
23	93	26	6.6	74	55	11	e71	42	8.1
24	86	25	5.9	78	55	12	e64	42	7.3
25	70	27	5.0	76	55	11	e61	42	7.0
26	66	28	5.0	67	55	9.9	e64	42	7.3
27	66	30	5.3	73	55	11	e71	42	8.1
28	66	40	7.0	70	55	10	e71	42	8.1
29	132	106	45	67	55	9.9	e62	42	7.1
30	303	247	201	93	55	14	e59	42	6.8
31	158	255	109	---	---	---	e59	42	6.8
TOTAL	2518	---	873.0	2479	---	776.0	2203	---	272.4

e Estimated

05420100 PLUM RIVER AT SAVANNA, IL--Continued

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	e59	42	6.8	e81	58	13	1810	1600	7900
2	e75	42	8.6	e83	63	14	1830	747	3940
3	e99	43	11	e102	73	20	558	375	578
4	e93	43	11	e150	81	33	368	205	206
5	e94	43	11	e131	74	26	283	142	109
6	e84	43	9.7	e105	65	19	231	128	80
7	e90	43	10	e88	58	14	207	115	64
8	e81	43	9.3	e78	51	11	196	108	57
9	e75	43	8.6	e71	45	8.7	401	515	701
10	e67	43	7.7	e64	40	6.9	733	890	1730
11	e71	43	8.2	e58	36	5.6	354	695	671
12	e64	43	7.4	e54	32	4.6	266	476	344
13	e64	43	7.4	e54	28	4.1	232	326	205
14	e67	43	7.7	e52	28	4.0	215	223	130
15	e72	43	8.3	e48	29	3.7	191	153	79
16	e70	43	8.1	e57	47	7.2	167	105	47
17	e66	43	7.6	e64	102	18	165	74	33
18	e61	43	7.1	e225	220	134	155	72	30
19	e64	43	7.4	e1900	441	2260	146	74	29
20	e68	43	7.9	e2300	664	4120	143	83	32
21	e72	52	10	e3800	1620	16700	144	89	35
22	e135	93	34	e4100	469	5190	143	94	36
23	e270	132	96	1880	498	2510	139	100	38
24	e160	100	43	612	329	553	137	104	39
25	e110	92	27	454	197	243	156	100	42
26	e100	86	23	414	160	179	169	94	43
27	e88	81	19	592	284	481	156	89	37
28	e86	76	18	814	779	1680	159	84	36
29	e79	71	15	---	---	---	156	81	34
30	e83	66	15	---	---	---	151	80	33
31	e78	62	13	---	---	---	146	78	31
TOTAL	2745	---	483.8	18431	---	34262.8	10307	---	17369
		APRIL			MAY			JUNE	
1	143	76	30	115	84	26	148	126	50
2	139	75	28	116	90	28	137	114	42
3	125	73	25	119	94	30	129	103	36
4	117	72	23	117	99	31	124	94	31
5	115	70	22	113	100	31	119	99	32
6	116	69	22	111	146	44	117	109	35
7	112	67	20	123	299	103	120	121	39
8	108	66	19	385	609	679	116	133	42
9	109	67	20	417	655	752	115	147	45
10	113	69	21	329	232	209	102	163	45
11	119	70	23	290	151	118	101	182	49
12	127	71	24	264	141	101	160	236	105
13	136	72	26	236	133	84	147	319	127
14	144	58	22	e210	124	71	117	265	84
15	152	47	19	206	117	65	107	220	64
16	157	52	22	193	110	57	464	2160	3700
17	160	64	28	184	103	51	423	1220	1580
18	161	68	30	173	96	45	228	549	340
19	161	127	55	172	91	42	185	389	195
20	158	88	38	159	85	36	163	280	123
21	155	60	25	145	80	31	206	331	190
22	150	53	21	137	75	28	250	483	327
23	145	46	18	131	72	26	174	317	150
24	140	45	17	127	72	25	152	243	100
25	135	44	16	238	139	97	154	241	100
26	130	43	15	224	168	102	199	311	167
27	125	43	14	174	140	66	148	267	107
28	121	44	14	163	129	57	127	217	74
29	117	71	22	172	141	66	132	209	74
30	113	73	22	181	148	72	130	202	71
31	---	---	---	162	140	61	---	---	---
TOTAL	4003	---	701	5886	---	3234	4994	---	8124

e Estimated

05420100 PLUM RIVER AT SAVANNA, IL--Continued

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	119	195	63	73	68	13	57	113	17
2	110	188	56	72	62	12	60	102	17
3	99	182	48	72	56	11	83	164	37
4	94	176	45	71	51	9.9	57	139	22
5	93	170	43	75	50	10	50	111	15
6	90	164	40	66	51	9.0	48	88	11
7	86	163	38	61	51	8.4	48	71	9.1
8	85	162	37	58	51	8.0	62	71	12
9	85	149	34	55	52	7.7	76	77	16
10	82	134	30	55	52	7.8	66	84	15
11	79	121	26	57	53	8.1	57	90	14
12	77	109	23	65	60	11	49	98	13
13	76	98	20	69	126	23	47	106	13
14	76	89	18	57	133	21	46	113	14
15	74	80	16	56	92	14	46	114	14
16	71	73	14	61	89	15	48	115	15
17	67	71	13	88	147	35	145	116	45
18	67	70	13	87	81	19	115	116	36
19	95	126	34	67	75	14	71	117	23
20	201	290	159	59	74	12	e160	115	50
21	138	214	80	55	74	11	e105	86	24
22	107	178	51	53	73	10	e95	59	15
23	100	162	44	50	73	9.9	e100	41	11
24	92	148	37	49	73	9.7	e92	29	7.1
25	87	135	32	51	72	9.9	e85	20	4.5
26	78	123	26	50	72	9.6	e78	14	2.9
27	74	112	22	51	72	9.9	e74	10	1.9
28	74	102	20	53	71	10	e71	7	1.3
29	73	92	18	52	86	12	e68	6	1.1
30	73	84	16	57	122	19	e64	6	1.0
31	74	76	15	68	145	27	---	---	---
TOTAL	2796	---	1131	1913	---	406.9	2223	---	477.9
YEAR	60498		68111.9						

e Estimated

05420500 MISSISSIPPI RIVER AT CLINTON, IA
(National stream-quality accounting network station)

LOCATION.--Lat 41°46'50", long 90°15'07", in NW1/4 sec.34, T.81 N., R.6 E., Clinton County, Hydrologic Unit 07080101, on right bank at end of Eighth Avenue in Camanche, 5.0 mi upstream from Wapsipinicon River, 6.4 mi downstream from Clinton, 10.6 mi downstream from Lock and Dam 13, and at mile 511.8 upstream from Ohio River.

DRAINAGE AREA.--85,600 mi^2, approximately, at Fulton-Lyons Bridge at Clinton.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June to August 1873 (fragmentary), October 1873 to current year (October 1932 to September 1939, published as "at Le Claire") (June 1873 to December 1932 published in the Iowa State Planning Board report "Stream-flow records of Iowa, 1873-1932").

REVISED RECORDS.--WDR IA-75-1: 1974.

GAGE.--Water-stage recorder. Datum of gage is 562.68 ft above sea level. June 6, 1969 to Sept. 16 1988, water-stage recorder at site 400 ft upstream at same datum. Auxiliary water-stage recorder at Lock and Dam 13 since Oct. 1, 1958. See WSP 1728 for history of changes prior to Oct. 1, 1955.

REMARKS.--Estimated daily discharges: Dec. 17 to Feb. 21, and July 31 to Aug. 10. Records good except those for estimated daily discharges, which are poor. Minor flow regulation caused by navigation dams. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data. U.S. Army Corps of Engineers data collection platform and rain gage at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1828, that of Apr. 28, 1965.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29400	57600	54300	e40000	e39000	55700	91200	155000	60800	39400	e77000	54700
2	28600	59000	54600	e39000	e39000	63500	96500	149000	60900	44300	e76000	53300
3	26900	56500	57900	e39000	e38500	65500	102000	144000	60400	45900	e78000	53100
4	25400	53300	56400	e41000	e40500	61100	107000	140000	59100	44300	e80000	53400
5	25600	51100	52200	e45500	e41000	56700	116000	134000	57300	44200	e79000	53100
6	26500	53300	51800	e46000	e41500	55400	121000	129000	55300	48500	e78000	52600
7	25500	53600	55300	e45500	e42000	53500	135000	123000	56600	53800	e76000	52000
8	25900	54100	56700	e45500	e42000	51400	140000	121000	57500	57800	e74000	55700
9	25300	54200	55900	e45000	e42000	50800	145000	119000	60400	62600	e72000	56500
10	22700	54200	52400	e42000	e42000	56600	155000	116000	58800	66100	e69000	54200
11	23900	53800	55200	e40500	e41500	67900	166000	111000	56500	67200	67300	49600
12	23200	51900	56400	e40000	e40500	69600	179000	105000	51100	68500	64200	47500
13	22600	49200	56900	e42000	e40500	66400	192000	99900	47100	69200	58300	47100
14	21100	46600	56500	e41500	e40000	66400	204000	94500	46800	69700	52500	45700
15	21800	42700	58700	e42000	e39500	63800	216000	91600	45700	70200	50100	45900
16	21500	41600	59000	e42000	e39000	54600	227000	89900	46600	70400	51000	44900
17	23200	45100	e52500	e41000	e38000	49600	233000	87100	53800	68800	51900	43600
18	27300	50100	e40000	e40500	e40000	54800	236000	84200	51400	66100	51900	44800
19	28800	53500	e31000	e40000	e55000	60600	237000	82100	43300	68000	52100	46700
20	29400	55300	e28500	e38500	e59000	64400	234000	77900	35700	71200	50800	50900
21	29000	59800	e29500	e38000	e73000	65000	229000	72800	38500	76000	49200	51800
22	32300	65600	e32500	e38500	87300	68200	222000	71900	45900	77900	47600	54000
23	37700	71600	e34000	e43000	87700	70300	214000	72300	51300	78100	47000	53000
24	42500	76900	e35000	e44500	73500	70200	207000	71700	56200	78100	46600	53100
25	43300	79700	e34500	e45000	63100	72400	198000	68600	56100	78300	48300	52900
26	43200	79600	e35000	e44000	54700	77300	190000	66200	57300	75700	51400	50200
27	42300	71300	e39500	e44000	51900	80000	182000	64800	55200	75300	56300	47800
28	42100	60700	e40500	e41500	51000	82800	174000	63500	46700	76600	58900	46100
29	43900	59100	e41000	e41000	---	85100	167000	62300	43900	77400	59400	46800
30	43700	55800	e42000	e40000	---	88900	160000	61200	44000	77900	59100	45200
31	55000	---	e41000	e39000	---	88900	---	60800	---	e77000	57300	---
TOTAL	959600	1716800	1446700	1295000	1382700	2037400	5275700	2989300	1560200	2044500	1890200	1506200
MEAN	30950	57230	46670	41770	49380	65720	175900	96430	52010	65950	60970	50210
MAX	55000	79700	59000	46000	87700	88900	237000	155000	60900	78300	80000	56500
MIN	21100	41600	28500	38000	38000	49600	91200	60800	35700	39400	46600	43600
AC-FT	1903000	3405000	2870000	2569000	2743000	4041000	10460000	5929000	3095000	4055000	3749000	2988000
CFSM	.36	.67	.55	.49	.58	.77	2.05	1.13	.61	.77	.71	.59
IN.	.42	.75	.63	.56	.60	.89	2.29	1.30	.68	.89	.82	.65

e Estimated

05420500 MISSISSIPPI RIVER AT CLINTON, IA--Continued
(National stream-quality accounting network station)

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1874 - 1997, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	41080	39300	27860	25690	27850	50570	89860	81850	68240	55580	37930	38170
MAX	203600	146800	73590	54100	65680	127500	175900	212400	182100	198900	113400	92410
(WY)	1882	1882	1882	1973	1966	1973	1997	1888	1892	1993	1993	1938
MIN	13490	13760	11120	11390	14000	17600	26040	23190	15420	14690	12460	13870
(WY)	1934	1934	1934	1890	1893	1934	1931	1977	1988	1988	1936	1933

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1874 - 1997	
ANNUAL TOTAL	22283800		24104300			
ANNUAL MEAN	60880		66040		48710	
HIGHEST ANNUAL MEAN					94690	1882
LOWEST ANNUAL MEAN					18870	1934
HIGHEST DAILY MEAN	186000	May 1	237000	Apr 19	307000	Apr 28 1965
LOWEST DAILY MEAN	17500	Sep 22	21100	Oct 14		
ANNUAL SEVEN-DAY MINIMUM	19400	Sep 18	22400	Oct 10	7430	Dec 24 1933
INSTANTANEOUS PEAK FLOW			237000	Apr 19		
INSTANTANEOUS PEAK STAGE			21.58	Apr 19	24.65	Apr 28 1965
ANNUAL RUNOFF (AC-FT)	44200000		47810000		35290000	
ANNUAL RUNOFF (CFSM)	.71		.77		.57	
ANNUAL RUNOFF (INCHES)	9.68		10.48		7.73	
10 PERCENT EXCEEDS	108000		113000		94200	
50 PERCENT EXCEEDS	48000		54600		37500	
90 PERCENT EXCEEDS	26400		38500		18900	

05420500 MISSISSIPPI RIVER AT CLINTON, IA--Continued
(National stream-quality accounting network station)

WATER QUALITY RECORDS

LOCATION.--Samples collected at Fulton-Lyons bridge, 6.4 miles upstream of discharge station.

PERIOD OF RECORD.--Water years 1974-87; October 1994 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1974 to September 1976; October 1978 to September 1981; October 1994 to September 30, 1997 (discontinued).

WATER TEMPERATURES: October 1974 to September 1986; October 1994 to September 30, 1997 (discontinued).

SUSPENDED-SEDIMENT DISCHARGE: October 1994 to September 30, 1997 (discontinued).

REMARKS.--During periods of ice effect, sediment samples are collected in open water channel. Records of specific conductance are obtained from suspended-sediment samples at time of analysis.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 560 microsiemens Nov. 24 to Dec. 3, 1979; minimum daily, 220 microsiemens Apr. 19, 20, 1976; Nov. 8-18, 1980.

WATER TEMPERATURES: Maximum daily, 31.5°C July 21-23, 1983; minimum daily, 0.0°C on many days during winter periods.

SEDIMENT CONCENTRATIONS: Maximum daily mean 294 mg/L Apr. 7, 1997; minimum daily mean, 1 mg/L several days in December 1995 - January 1996.

SEDIMENT LOADS: Maximum daily 108,000 tons Apr. 7, 1997; minimum daily 96 tons Jan. 9,1996.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 454 microsiemens Aug. 27; minimum daily, 286 microsiemens Apr. 17.

WATER TEMPERATURES: Maximum daily, 28.0°C July 27; minimum daily, 1.0°C on many days during winter periods.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 294 mg/L Apr. 7; minimum daily mean, 4 mg/L Jan. 20.

SEDIMENT LOADS: Maximum daily, 108,000 tons Apr. 7; minimum daily, 416 tons Jan. 20.

SPECIFIC CONDUCTANCE MICROSIEMENS/CM AT 25 DEG C, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	381	---	---	---	---	---	---	371	418	403	---	---
2	---	---	347	---	---	---	370	---	422	402	---	429
3	382	---	362	---	---	---	370	---	419	415	---	---
4	383	---	376	---	---	---	364	---	416	---	---	437
5	385	373	375	---	---	363	363	384	415	---	---	---
6	---	373	377	---	---	360	---	385	393	---	---	---
7	383	362	---	---	---	360	---	386	391	411	---	---
8	382	358	---	---	---	367	322	391	388	408	418	416
9	383	366	387	---	---	370	320	---	401	421	416	417
10	389	360	387	---	---	371	313	395	389	423	425	413
11	387	373	411	---	---	373	---	400	388	---	425	413
12	---	---	402	---	---	357	---	396	398	---	424	---
13	---	371	398	---	411	---	---	---	400	---	425	---
14	---	364	393	---	407	---	---	402	---	418	426	397
15	376	362	381	---	411	---	---	405	---	414	425	398
16	391	---	392	---	---	359	---	400	390	---	431	396
17	---	---	389	444	410	358	286	398	392	---	429	391
18	---	383	---	445	---	375	---	398	396	---	435	392
19	393	---	---	---	---	370	---	402	---	417	450	391
20	---	391	---	428	---	362	292	399	---	414	442	---
21	397	---	---	427	---	365	292	403	---	411	---	402
22	388	387	---	427	---	---	306	406	---	414	---	404
23	---	---	---	418	---	---	341	---	388	410	---	406
24	---	---	---	420	---	---	342	---	395	407	---	398
25	---	---	---	423	---	395	---	---	395	406	443	397
26	---	---	---	419	---	396	---	---	403	---	445	402
27	---	---	---	---	---	388	---	---	403	416	454	397
28	378	---	---	---	---	386	370	---	---	418	447	385
29	---	---	---	---	---	---	---	---	---	417	444	---
30	379	351	---	---	---	---	373	---	401	416	---	384
31	375	---	---	---	---	---	---	418	---	414	---	---

05420500 MISSISSIPPI RIVER AT CLINTON, IA--Continued
(National stream-quality accounting network station)

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	---	---	---	---	---	---	12.0	18.0	27.0	---	---
2	---	---	1.0	---	---	---	10.0	---	18.0	25.0	---	24.0
3	16.0	---	1.0	---	---	---	11.0	---	17.0	24.0	---	---
4	16.0	---	1.0	---	---	---	11.0	---	17.0	---	---	22.0
5	15.0	6.0	1.0	---	---	1.0	11.0	13.0	18.0	---	---	---
6	---	6.0	1.0	---	---	1.0	---	13.0	18.0	---	---	---
7	15.0	5.0	---	---	---	2.0	---	13.0	19.0	23.0	---	---
8	15.0	4.0	---	---	---	2.0	6.0	15.0	19.0	23.0	24.0	22.0
9	19.0	4.0	1.0	---	---	3.0	6.0	---	20.0	24.0	24.0	22.0
10	14.0	4.0	1.0	---	---	3.0	7.0	15.0	---	24.0	23.0	22.0
11	13.0	3.0	1.0	---	---	3.0	---	15.0	22.0	---	23.0	22.0
12	---	---	1.0	---	---	2.0	---	15.0	23.0	---	23.0	---
13	---	2.0	1.0	---	1.0	---	---	---	23.0	24.0	23.0	---
14	---	2.0	1.0	---	1.0	---	---	14.0	---	26.0	23.0	23.0
15	13.0	2.0	1.0	---	1.0	---	---	13.0	---	26.0	23.0	23.0
16	15.0	---	1.0	---	---	2.0	---	---	23.0	---	23.0	23.0
17	---	---	1.0	1.0	1.0	2.0	7.0	15.0	23.0	---	23.0	23.0
18	---	2.0	---	1.0	---	1.5	---	16.0	23.0	---	23.0	23.0
19	13.0	---	---	---	---	1.0	---	15.0	---	26.0	23.0	22.0
20	---	1.0	---	1.0	---	2.0	8.0	14.0	---	26.0	23.0	---
21	13.0	---	---	1.0	---	2.0	8.0	16.0	---	26.0	---	20.0
22	13.0	1.0	---	1.0	---	---	8.0	16.0	---	25.0	---	20.0
23	---	---	---	1.0	---	---	7.0	---	26.0	25.0	---	19.0
24	---	---	---	1.0	---	---	7.0	---	26.0	26.0	---	19.0
25	---	---	---	1.0	---	3.0	---	---	26.0	26.0	23.0	19.0
26	---	---	---	1.0	---	5.0	---	---	26.0	---	23.0	19.0
27	---	---	---	---	---	5.0	---	---	26.5	28.0	23.0	18.0
28	12.0	---	---	---	---	6.0	13.0	---	---	26.5	23.0	18.0
29	---	---	---	---	---	---	---	---	---	26.0	23.0	---
30	9.0	1.0	---	---	---	---	13.0	---	27.0	25.0	---	17.0
31	8.0	---	---	---	---	---	---	18.0	---	25.0	---	---

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	TEMPERATURE WATER (DEG C) (00010)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
17...	0945	15.0	23000	50	3110	99
FEB						
19...	1115	0.5	50000	51	6890	93
MAR						
19...	0950	1.0	62500	20	3380	98
APR						
08...	1030	6.0	140000	227	85800	97
18...	0840	6.0	236000	64	40800	77
MAY						
16...	0930	12.0	89900	44	10700	97
JUN						
02...	1220	17.0	61000	53	8730	98
17...	1015	23.0	49200	46	6110	99
27...	1115	26.5	55500	59	8840	99
JUL						
13...	1210	24.5	69200	54	10100	95
28...	1130	26.5	76000	50	10300	99
AUG						
14...	1200	22.5	52800	29	4130	97
SEP						
04...	0930	22.0	53400	29	4180	99

05420500 MISSISSIPPI RIVER AT CLINTON, IA--Continued
(National stream-quality accounting network station)

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	32	2530	128	19900	15	2180	9	972	11	1160	25	3770
2	34	2660	83	13300	19	2800	9	948	11	1160	21	3670
3	38	2740	54	8270	22	3520	9	948	10	1040	18	3220
4	39	2700	35	5080	13	1980	9	996	10	1090	16	2570
5	40	2740	26	3580	13	1820	9	1110	10	1110	13	2030
6	34	2410	25	3670	9	1270	9	1120	10	1120	12	1730
7	27	1880	29	4130	9	1280	9	1110	9	1020	14	1980
8	25	1760	32	4640	9	1430	9	1110	9	1020	23	3140
9	25	1690	28	4050	10	1470	9	1090	9	1020	32	4460
10	24	1500	25	3610	9	1290	9	1020	9	1020	45	6920
11	24	1550	31	4540	9	1300	9	984	8	896	52	9560
12	23	1440	28	3890	7	1040	9	972	8	875	24	4550
13	22	1330	23	2990	5	830	9	1020	8	875	25	4550
14	21	1170	28	3490	7	1020	9	1010	6	648	30	5440
15	20	1170	36	4130	9	1410	9	1020	5	533	36	6220
16	19	1120	33	3690	10	1560	9	1020	6	632	42	6210
17	20	1240	28	3440	10	1420	9	996	8	821	40	5350
18	20	1520	25	3320	10	1080	6	656	21	2270	30	4470
19	22	1730	23	3320	10	837	5	540	49	7280	24	3940
20	27	2140	22	3270	10	770	4	416	56	8920	27	4730
21	33	2560	21	3380	10	797	5	513	48	9460	41	7200
22	35	3120	20	3520	10	878	7	728	57	13600	43	7920
23	45	4620	19	3610	10	918	13	1510	65	15300	43	8160
24	59	6750	18	3650	10	945	13	1560	55	10900	43	8150
25	77	8980	17	3550	10	932	19	2310	47	8020	42	8160
26	100	11600	16	3330	10	945	14	1660	40	5930	34	7070
27	130	14800	15	2800	10	1070	13	1540	34	4810	34	7440
28	166	18900	14	2240	10	1090	12	1340	29	4030	37	8370
29	182	21700	13	2050	10	1110	12	1330	---	---	42	9640
30	191	22500	12	1860	10	1130	12	1300	---	---	47	11300
31	185	27500	---	---	10	1110	11	1160	---	---	53	12700
TOTAL	---	180050	---	136300	---	41232	---	34009	---	106560	---	184620
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	59	14600	127	53200	26	4200	51	5460	44	9150	23	3330
2	66	17200	130	52000	25	4120	52	6230	44	9030	22	3210
3	69	19000	126	48800	26	4240	52	6410	44	9270	25	3620
4	98	28400	122	46000	21	3300	51	6100	44	9500	25	3650
5	124	38700	118	42800	21	3320	50	5970	44	9390	24	3460
6	196	64600	113	39400	28	4190	49	6450	44	9270	25	3590
7	294	108000	110	36500	29	4380	48	7040	44	9030	26	3720
8	227	85500	128	41700	26	4030	50	7740	44	8790	28	4160
9	200	78400	123	39500	25	4070	49	8340	39	7580	27	4060
10	137	57300	113	35300	24	3760	50	8870	32	5960	28	4040
11	112	50200	104	31200	26	3940	51	9260	25	4560	30	4020
12	105	50600	108	30800	28	3800	52	9720	21	3630	28	3620
13	98	51000	112	30200	29	3710	51	9600	23	3560	25	3160
14	93	51100	114	28900	31	3880	39	7290	24	3460	22	2690
15	87	50800	109	27000	32	3980	36	6800	25	3350	20	2510
16	82	50100	55	13300	34	4270	38	7190	22	3000	19	2340
17	76	47900	50	11900	36	5240	39	7250	20	2740	21	2460
18	65	41700	48	11000	45	6250	40	7190	20	2780	28	3430
19	66	41900	47	10500	39	4520	42	7640	23	3200	30	3740
20	66	41700	50	10600	32	3090	42	8070	23	3180	29	3940
21	58	35800	50	9840	37	3880	42	8640	23	3050	28	3920
22	47	28300	49	9570	49	6070	45	9560	23	2960	26	3760
23	50	28700	47	9190	58	8080	45	9380	23	2920	24	3470
24	54	30300	44	8600	52	7830	44	9200	23	2890	23	3340
25	58	31100	42	7750	55	8340	48	10200	23	3000	23	3340
26	62	32000	40	7070	69	10600	50	10300	21	2910	27	3630
27	67	32800	37	6520	69	10200	52	10500	23	3560	27	3500
28	71	33600	35	6040	63	7950	50	10300	24	3820	24	3020
29	72	32200	33	5580	57	6770	46	9650	24	3840	23	2910
30	82	35200	31	5180	52	6140	45	9450	23	3740	23	2960
31	---	---	29	4840	---	---	44	9150	23	3550	---	---
TOTAL	---	1308700	---	720780	---	158150	---	254950	---	156670	---	102600
YEAR		3384621										

05420500 MISSISSIPPI RIVER AT CLINTON, IA--Continued
(National stream-quality accounting network station)

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

DATE	TIME	TEMPERATURE WATER (DEG C) (00010)	TEMPERATURE AIR (DEG C) (00020)	BAROMETRIC PRESSURE (MM OF HG) (00025)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	TURBIDITY (NTU) (00076)	SPECIFIC CONDUCTANCE (US/CM) (00095)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	PH WATER WHOLE LAB (STANDARD UNITS) (00403)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)
OCT												
17...	0945	15.0	18.0	738	23000	9.2	344	--	--	8.4	8.4	8
FEB												
19...	1115	0.5	3.0	--	50000	14	388	--	--	7.7	7.6	0
MAR												
19...	0950	1.0	7.5	--	62500	4.2	355	--	--	8.1	7.8	0
APR												
08...	1030	6.0	-4.5	757	140000	48	303	11.2	91	7.6	7.8	0
18...	0840	6.0	7.0	747	236000	17	274	11.1	91	7.5	7.9	0
MAY												
16...	0930	12.0	17.5	748	89900	15	385	11.8	112	8.6	8.7	--
JUN												
02...	1220	17.0	21.0	745	61000	12	378	10.7	113	8.6	8.7	0
17...	1015	23.0	27.0	746	49200	9.8	400	6.4	76	7.6	8.2	0
27...	1115	26.5	30.0	748	55500	24	397	3.7	47	7.4	8.1	0
JUL												
13...	1210	24.5	32.0	744	69200	10	411	6.0	74	7.3	8.2	0
28...	1130	26.5	28.0	748	76000	13	406	5.7	72	7.4	8.0	0
AUG												
14...	1200	22.5	23.0	744	52800	5.3	416	6.5	77	7.7	8.1	0
SEP												
04...	0930	22.0	19.5	756	53400	4.0	424	6.9	79	7.7	8.1	0

DATE	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKALINITY WAT.DIS FET LAB CACO3 (MG/L) (29801)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN DISSOLVED (MG/L AS N) (00602)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N) (00607)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)
OCT												
17...	156	140	140	0.89	0.69	0.54	0.34	0.060	0.020	0.270	0.40	0.60
FEB												
19...	176	144	150	2.7	2.9	0.61	0.81	0.290	0.040	1.76	1.1	0.90
MAR												
19...	150	123	140	2.5	2.2	0.64	0.34	0.160	0.020	1.68	0.50	0.80
APR												
08...	131	107	110	3.1	2.6	0.92	0.37	0.106	0.031	2.07	0.47	1.0
18...	115	94	98	2.5	2.2	0.70	0.40	0.115	0.025	1.66	0.51	0.81
MAY												
16...	169	138	140	1.8	0.95	1.3	0.42	0.022	0.011	0.500	0.44	1.3
JUN												
02...	197	161	140	1.4	0.83	1.0	--	<0.015	0.012	0.437	0.38	1.0
17...	164	134	140	1.2	1.1	0.59	0.45	0.076	0.028	0.540	0.53	0.67
27...	204	167	140	3.0	2.7	0.62	0.35	0.302	0.124	1.92	0.65	0.92
JUL												
13...	186	153	150	1.7	1.5	0.63	0.43	0.062	0.064	0.947	0.49	0.69
28...	181	148	150	2.5	2.2	0.76	0.45	0.064	0.092	1.62	0.52	0.83
AUG												
14...	195	160	170	2.3	2.2	0.65	0.53	0.113	0.042	1.49	0.65	0.76
SEP												
04...	199	163	160	1.6	1.4	0.68	0.42	0.049	0.024	0.890	0.47	0.73

05420500 MISSISSIPPI RIVER AT CLINTON, IA--Continued
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WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4) (71846)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3) (71851)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS NO2) (71856)	PHOS-PHATE, ORTHO, DIS-SOLVED (MG/L AS PO4) (00660)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)
OCT												
17...	0.290	0.08	1.2	0.07	0.12	0.120	0.050	0.039	5.6	1.3	160	19
FEB												
19...	1.80	0.37	7.8	0.13	0.29	0.090	0.190	0.095	6.4	1.6	170	22
MAR												
19...	1.70	0.21	7.4	0.07	0.15	0.040	0.020	0.050	5.8	0.90	150	25
APR												
08...	2.10	0.14	9.2	0.10	0.16	0.221	0.053	0.051	5.9	1.9	130	19
18...	1.69	0.15	7.4	0.08	0.11	0.125	0.039	0.036	6.4	1.4	110	20
MAY												
16...	0.511	0.03	2.2	0.04	0.01	0.117	<0.010	0.004	6.5	4.5	170	33
JUN												
02...	0.449	--	1.9	0.04	--	0.126	<0.010	<0.001	6.3	4.6	180	21
17...	0.568	0.10	2.4	0.09	0.15	0.077	0.051	0.048	8.9	0.80	170	31
27...	2.04	0.39	8.5	0.41	0.35	0.186	0.120	0.115	5.5	1.6	170	2
JUL												
13...	1.01	0.08	4.2	0.21	0.22	0.154	0.064	0.072	6.5	0.90	170	15
28...	1.72	0.08	7.2	0.30	0.33	0.173	0.089	0.109	6.8	1.0	170	22
AUG												
14...	1.53	0.15	6.6	0.14	0.34	0.149	0.095	0.111	6.8	0.50	180	21
SEP												
04...	0.914	0.06	3.9	0.08	0.31	0.128	0.142	0.100	6.1	0.80	180	20

DATE	HARD-NESS NONCARB DISSOLV LAB AS CACO3 (MG/L) (00905)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	SODIUM PERCENT (00932)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)
OCT												
17...	16	36	17	9.2	0.3	11	2.1	13	25	0.10	1.3	1
FEB												
19...	18	40	16	11	0.4	12	2.8	16	21	0.20	12	<1
MAR												
19...	11	36	14	10	0.4	13	2.7	15	18	0.10	10	<1
APR												
08...	14	31	12	8.4	0.3	12	2.7	13	21	0.10	11	<1
18...	16	29	10	5.6	0.2	9	2.7	9.9	20	0.13	10	<1
MAY												
16...	31	41	17	7.5	0.2	9	2.7	11	46	0.15	1.8	<1
JUN												
02...	38	41	19	8.9	0.3	10	2.5	13	49	0.14	0.082	<1
17...	30	36	18	9.2	0.3	11	2.4	13	39	0.15	1.1	1
27...	25	39	18	8.3	0.3	9	2.9	13	31	0.18	4.7	2
JUL												
13...	20	39	17	10	0.3	12	2.3	15	33	0.16	7.6	<1
28...	20	41	16	8.0	0.3	9	2.5	13	33	0.19	11	1
AUG												
14...	15	44	17	8.4	0.3	9	2.7	13	26	0.18	13	2
SEP												
04...	19	43	18	9.4	0.3	10	2.5	14	30	0.18	11	<1

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

DATE	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)
OCT												
17...	32	<1.0	25	<1.0	<1.0	<1.0	<1.0	8.0	<1.0	4.0	1.0	1.0
FEB												
19...	--	--	21	--	--	--	--	77	--	--	--	--
MAR												
19...	32	<1.0	19	<1.0	<1.0	<1.0	<1.0	42	<1.0	20	<1.0	<1.0
APR												
08...	33	<1.0	19	<1.0	1.0	<1.0	1.0	62	<1.0	4.0	<1.0	1.0
18...	68	<1.0	17	<1.0	7.8	<1.0	1.1	89	<1.0	11	<1.0	1.2
MAY												
16...	32	<1.0	24	<1.0	2.2	<1.0	2.2	30	<1.0	3.2	1.1	1.8
JUN												
02...	38	<1.0	29	<1.0	2.2	<1.0	2.4	9.9	<1.0	2.1	1.3	1.1
17...	46	<1.0	28	<1.0	<1.0	<1.0	1.2	4.6	<1.0	3.4	1.2	1.4
27...	54	<1.0	27	<1.0	1.1	<1.0	1.3	5.0	<1.0	9.5	1.3	1.8
JUL												
13...	45	<1.0	32	<1.0	3.6	<1.0	2.6	15	<1.0	8.2	1.6	2.6
28...	47	<1.0	31	<1.0	3.7	<1.0	1.3	5.1	<1.0	5.7	1.7	1.6
AUG												
14...	48	<1.0	34	<1.0	<1.0	<1.0	1.7	4.7	<1.0	16	1.6	1.9
SEP												
04...	44	<1.0	34	<1.0	<1.0	<1.0	1.2	<3.0	<1.0	8.0	1.4	1.6

DATE	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	PRO-METON, WATER, DISS, REC (UG/L) (04037)
OCT												
17...	<1.0	78	<6	9.0	<1.0	4.0	4	<1	<0.007	<0.002	0.013	E0.015
FEB												
19...	--	80	<6	--	--	--	4	<1	<0.007	<0.002	E0.004	E0.005
MAR												
19...	<1.0	71	<6	1.0	<1.0	3.0	<4	<1	<0.007	<0.002	0.006	<0.018
APR												
08...	<1.0	76	<6	2.0	<1.0	4.0	6	<1	<0.007	<0.002	0.005	<0.018
18...	<1.0	68	<6	<1.0	<1.0	<1.0	5	<1	<0.007	<0.002	0.005	<0.018
MAY												
16...	<1.0	102	<6	6.6	<1.0	12	8	<1	<0.007	<0.002	0.007	E0.004
JUN												
02...	<1.0	112	<6	12	<1.0	3.4	9	<1	<0.007	<0.002	0.005	E0.006
17...	<1.0	100	<6	6.2	<1.0	3.1	8	<1	<0.007	<0.002	0.052	E0.009
27...	<1.0	96	<6	<1.0	<1.0	3.7	6	<1	<0.007	<0.002	0.028	E0.005
JUL												
13...	<1.0	101	<6	3.1	<1.0	8.0	8	<1	<0.007	<0.002	0.014	E0.007
28...	<1.0	102	<6	1.8	<1.0	1.5	10	<1	<0.007	<0.002	0.013	E0.012
AUG												
14...	<1.0	109	<6	2.9	<1.0	1.6	7	<1	<0.007	<0.002	0.009	E0.009
SEP												
04...	<1.0	107	<6	2.3	<1.0	3.0	8	<1	<0.007	<0.002	0.006	E0.007

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(National stream-quality accounting network station)

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

DATE	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	FONOFOS WATER DISS REC (UG/L) (04095)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	P,P' DDE DISSOLV (UG/L) (34653)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	LINDANE DIS-SOLVED (UG/L) (39341)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	MALA-THION, DIS-SOLVED (UG/L) (39532)
OCT											
17...	E0.042	0.016	<0.003	1.0	<0.002	<0.006	<0.004	<0.004	<0.001	0.022	<0.005
FEB											
19...	E0.011	0.007	<0.003	--	<0.002	<0.006	<0.004	<0.004	<0.001	0.017	<0.005
MAR											
19...	E0.024	0.013	<0.003	<1.0	<0.002	<0.006	E0.003	<0.004	<0.001	0.048	<0.005
APR											
08...	E0.026	0.007	<0.003	1.0	<0.002	<0.006	<0.004	<0.004	<0.001	0.223	<0.005
18...	E0.020	0.012	<0.003	1.6	<0.002	<0.006	<0.004	<0.004	<0.001	0.313	<0.005
MAY											
16...	E0.030	0.050	<0.003	2.6	<0.002	<0.006	<0.004	<0.004	<0.001	0.170	<0.005
JUN											
02...	E0.022	0.023	<0.003	2.7	<0.002	<0.006	<0.004	<0.004	<0.001	0.077	<0.005
17...	E0.031	0.123	<0.003	2.0	<0.002	<0.006	<0.004	<0.004	<0.001	0.223	<0.005
27...	E0.079	0.235	<0.003	1.7	<0.002	<0.006	<0.004	<0.004	<0.001	0.747	<0.005
JUL											
13...	E0.029	0.043	<0.003	1.7	<0.002	<0.006	<0.004	<0.004	<0.001	0.084	<0.005
28...	E0.036	0.085	<0.003	2.2	<0.002	<0.006	<0.004	<0.004	<0.001	0.194	<0.005
AUG											
14...	E0.047	0.062	<0.003	2.1	<0.002	<0.006	E0.004	<0.004	<0.001	0.108	<0.005
SEP											
04...	E0.030	0.020	<0.003	1.9	<0.002	<0.006	<0.004	<0.004	<0.001	0.032	<0.005

DATE	PARA-THION, DIS-SOLVED (UG/L) (39542)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
OCT											
17...	<0.004	<0.002	0.070	0.005	<0.002	206	190	12800	0.28	99	50
FEB											
19...	<0.004	<0.002	0.037	E0.003	<0.002	229	214	30900	0.31	93	51
MAR											
19...	<0.004	<0.002	0.056	0.005	<0.002	209	188	35300	0.28	98	20
APR											
08...	<0.004	<0.002	0.047	0.005	<0.009	194	173	73300	0.26	97	227
18...	<0.004	<0.002	0.045	0.005	<0.002	177	153	113000	0.24	77	64
MAY											
16...	<0.004	<0.002	0.084	0.009	0.032	238	213	57800	0.32	97	44
JUN											
02...	<0.004	<0.002	0.081	0.009	0.034	241	233	39700	0.33	98	53
17...	<0.004	<0.002	0.431	0.040	0.176	229	203	30400	0.31	99	46
27...	<0.004	<0.002	1.15	0.024	0.210	237	227	35500	0.32	99	59
JUL											
13...	<0.004	<0.002	0.184	0.011	0.014	253	221	47300	0.34	95	54
28...	<0.004	<0.002	0.301	0.035	0.037	260	222	53400	0.35	99	50
AUG											
14...	<0.004	<0.002	0.225	0.009	0.020	263	229	37500	0.36	97	29
SEP											
04...	<0.004	<0.002	0.112	E0.003	0.004	261	232	37600	0.35	99	29

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

DATE	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	METRIBUZIN SENCOR WATER DISSOLV (UG/L) (82630)	2,6-DIETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	TRIFLURALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	ETHALFLURALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	TERBACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	LINURON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL PARATHION WAT FLT 0.7 U GF, REC (UG/L) (82667)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	PEBULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)
OCT											
17...	3110	<0.004	<0.003	<0.002	<0.004	<0.002	<0.007	<0.002	<0.006	<0.002	<0.004
FEB											
19...	6890	<0.004	<0.003	<0.002	<0.004	<0.002	<0.007	<0.002	<0.006	<0.002	<0.004
MAR											
19...	3380	<0.004	<0.003	<0.002	<0.004	<0.002	<0.007	<0.002	<0.006	<0.002	<0.004
APR											
08...	85800	<0.004	<0.003	<0.002	<0.004	<0.002	<0.007	<0.002	<0.006	<0.002	<0.004
18...	40800	<0.004	<0.003	<0.002	<0.004	<0.002	<0.007	<0.002	<0.006	<0.002	<0.004
MAY											
16...	10700	<0.004	<0.003	<0.002	<0.004	<0.002	<0.007	<0.002	<0.006	0.004	<0.004
JUN											
02...	8730	<0.004	<0.003	<0.002	<0.004	<0.002	<0.007	<0.002	<0.006	0.005	<0.004
17...	6110	<0.004	<0.003	<0.002	<0.004	<0.002	<0.007	<0.002	<0.006	<0.002	<0.004
27...	8840	0.006	<0.003	<0.002	<0.004	<0.002	<0.007	<0.002	<0.006	E0.001	<0.004
JUL											
13...	10100	<0.004	<0.003	<0.002	<0.004	<0.002	<0.007	<0.002	<0.006	<0.002	<0.004
28...	10300	<0.004	<0.003	<0.002	<0.004	<0.002	<0.007	<0.002	<0.006	<0.002	<0.004
AUG											
14...	4130	<0.004	<0.003	<0.002	<0.004	<0.002	<0.007	<0.002	<0.006	<0.002	<0.004
SEP											
04...	4180	<0.004	<0.003	<0.002	<0.004	<0.002	<0.007	<0.002	<0.006	<0.002	<0.004

DATE	TEBUTHIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	MOLINATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	ETHOPROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	BENFLURALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CARBOFURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	TERBUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	PRONAMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	DISULFOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	TRIALLATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	PROPANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	CARBARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)
OCT											
17...	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003	<0.017	<0.001	<0.004	<0.003
FEB											
19...	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003	<0.017	<0.001	<0.004	<0.003
MAR											
19...	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003	<0.017	<0.001	<0.004	<0.003
APR											
08...	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003	<0.017	<0.001	<0.004	<0.003
18...	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003	<0.017	<0.001	<0.004	<0.003
MAY											
16...	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003	<0.017	<0.001	<0.004	<0.003
JUN											
02...	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003	<0.017	<0.001	<0.004	<0.003
17...	<0.010	<0.004	<0.003	<0.002	E0.024	<0.013	<0.003	<0.017	<0.001	<0.004	<0.003
27...	E0.003	<0.004	<0.003	<0.002	E0.059	<0.013	<0.003	<0.017	<0.001	<0.004	<0.003
JUL											
13...	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003	<0.017	<0.001	<0.004	<0.003
28...	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003	<0.017	<0.001	<0.004	<0.003
AUG											
14...	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003	<0.017	<0.001	<0.004	<0.003
SEP											
04...	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003	<0.017	<0.001	<0.004	<0.003

05420500 MISSISSIPPI RIVER AT CLINTON, IA--Continued
(National stream-quality accounting network station)

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

	THIO-BENCARB WATER FLTRD 0.7 U (UG/L) (82681)	DCPA WATER FLTRD 0.7 U (UG/L) (82682)	PENDI-METH-ALIN WAT FLT 0.7 U (UG/L) (82683)	NAPROP-AMIDE WATER FLTRD 0.7 U (UG/L) (82684)	PRO-PARGITE WATER FLTRD 0.7 U (UG/L) (82685)	METHYL AZIN-PHOS WAT FLT 0.7 U (UG/L) (82686)	PER-METHRIN CIS WAT FLT 0.7 U (UG/L) (82687)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (90095)	DIAZ-INON D10 SRG WAT FLT 0.7 U PERCENT (91063)	TERBUTH YLAZINE SURROGT WAT FLT 0.7 U PERCENT (91064)	HCH ALPHA D6 SRG WAT FLT 0.7 U PERCENT (91065)
OCT											
17...	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005	362	99.0	114	72.7
FEB											
19...	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005	390	89.9	107	82.9
MAR											
19...	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005	355	97.3	103	94.8
APR											
08...	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005	322	91.1	111	101
18...	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005	274	97.1	123	102
MAY											
16...	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005	386	102	104	94.3
JUN											
02...	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005	398	97.3	110	112
17...	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005	381	103	126	106
27...	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005	390	98.1	118	100
JUL											
13...	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005	396	111	121	107
28...	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005	401	128	135	113
AUG											
14...	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005	415	103	116	99.0
SEP											
04...	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005	427	85.2	96.9	99.0

05430500 ROCK RIVER AT AFTON, WI

LOCATION.--Lat 42°36'33", long 89°04'14", in NE 1/4 sec.28, T.2 N., R.12 E., Rock County, Hydrologic Unit 07090001, on right bank in Afton, 0.3 mi downstream from highway bridge and 1.1 mi upstream from Bass Creek.

DRAINAGE AREA.--3,340 mi^2.

PERIOD OF RECORD.--January 1914 to current year. Monthly discharge for January 1914 published in WSP 1308.

REVISED RECORDS.--WSP 1238: 1916(M), 1919(M), 1933, 1937-38, 1943. WDR WI-79-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 742.36 ft above sea level. Prior to Aug. 23, 1932, a nonrecording gage 20 ft upstream, and Aug. 23, 1932, to Sept. 30, 1933, water-stage recorder, at same site at datum 1 ft higher.

REMARKS.--Estimated daily discharges: Ice-affected periods, Nov. 20 to Dec. 2, Dec. 17, 19-31, Jan. 7, 8, and Jan. 11 to Feb. 2. Records are good except those for ice-affected periods, which are fair, and periods of discharge below 800 ft^3/s, which are poor (see page 12). Diurnal fluctuation caused by powerplants above station. Data-collection platform at station.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1180	2100	1000	1480	1700	4850	4550	3350	1370	3220	2510	2070
2	989	2100	1100	1460	1700	5790	4510	3240	1280	3040	2340	2060
3	732	2060	1170	1480	1730	5160	4490	3320	1190	2790	2390	2070
4	766	2030	1300	1570	1750	5120	4460	3090	1120	2910	2350	1890
5	741	2060	1500	1600	1620	5110	4440	2940	1090	2810	2270	1690
6	709	2040	1510	1560	1630	5030	4070	3050	1040	2750	2080	1400
7	952	1950	1500	1600	1650	5020	3740	3160	1030	2870	1940	1470
8	1220	1880	1480	1700	1620	4990	4280	3170	1090	2790	1740	1480
9	1180	1890	1480	1850	1580	5180	4420	3020	1110	2980	1760	1450
10	1130	1890	1530	1850	1560	5440	4360	3050	901	2900	1720	1180
11	694	1840	1500	1900	1550	5320	4250	2890	684	2870	1650	1140
12	699	1750	1470	1900	1540	5350	4470	2750	712	2850	1540	1130
13	743	1720	1420	1900	1440	5440	4290	2910	696	2790	1600	1150
14	978	1560	1460	2000	1510	5450	4180	2840	754	2720	1560	1160
15	1180	1530	1490	2000	1460	5320	4180	2770	754	2620	1730	1120
16	933	1620	1530	2000	1460	5230	4140	2680	1600	2480	1680	1150
17	752	1600	1500	1900	1430	5140	4210	2630	2250	2370	1810	1190
18	649	1560	1510	1800	1690	5180	4190	2650	2150	2360	1770	1090
19	1110	1590	1500	1700	2700	5030	4210	2440	2070	2390	1680	1180
20	1060	1600	1500	1700	2160	5000	4190	2320	2070	2360	1640	1220
21	1010	1500	1600	1700	4910	4860	4270	2220	2280	2290	1540	1190
22	1120	1500	1600	1700	4730	4760	4250	2140	2610	2380	1440	1160
23	1180	1500	1600	1700	3670	4670	4170	1940	2670	2330	1230	1210
24	1160	1400	1500	1700	3880	4610	3990	1780	2900	2520	1250	1210
25	1170	1400	1400	1700	4060	4580	3920	1780	3120	2500	1420	1160
26	1130	1200	1400	1700	4220	4460	3860	1800	3340	2460	2030	1190
27	1090	1000	1400	1700	4380	4460	3700	1690	3400	2620	2030	1190
28	1150	900	1400	1700	4370	4540	3530	1390	3360	2650	2090	1140
29	1380	900	1400	1700	---	4560	3360	1310	3220	2690	2050	1030
30	1500	1000	1400	1700	---	4580	3420	1290	3240	2640	2070	1020
31	2000	---	1400	1700	---	4610	---	1280	---	2600	2090	---
TOTAL	32287	48670	44550	53650	67700	154840	124100	76890	55101	82550	57000	39790
MEAN	1042	1622	1437	1731	2418	4995	4137	2480	1837	2663	1839	1326
MAX	2000	2100	1600	2000	4910	5790	4550	3350	3400	3220	2510	2070
MIN	649	900	1000	1460	1430	4450	3360	1280	684	2290	1230	1020
CFSM	.31	.49	.43	.52	.72	1.50	1.24	.74	.55	.80	.55	.40
IN.	.36	.54	.50	.60	.75	1.72	1.38	.86	.61	.92	.63	.44

05430500 ROCK RIVER AT AFTON, WI--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1997, BY WATER YEAR (WY)

MEAN	1385	1574	1471	1310	1533	3363	4113	2524	1727	1404	1108	1188
MAX	8219	5884	4395	3558	5647	8958	10010	7911	5731	5443	5376	5088
(WY)	1987	1986	1986	1960	1938	1918	1979	1973	1996	1993	1924	1938
MIN	254	397	383	275	327	610	1003	389	314	247	183	212
(WY)	1940	1964	1940	1959	1959	1940	1931	1958	1934	1934	1934	1939

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1914 - 1997	
ANNUAL TOTAL	907082		837128			
ANNUAL MEAN	2478		2294		1895	
HIGHEST ANNUAL MEAN					3925	1993
LOWEST ANNUAL MEAN					557	1964
HIGHEST DAILY MEAN	8430	Jun 25	5790	Mar 2	13000	Mar 23,24 1929
LOWEST DAILY MEAN	639	Sep 14	649	Oct 18		Aug 25,26 1934
ANNUAL SEVEN-DAY MINIMUM	771	Sep 12	802	Jun 9	115	Aug 24 1934
INSTANTANEOUS PEAK FLOW			6330	Feb 21	(a)13000	Mar 2? 1929
INSTANTANEOUS PEAK STAGE			8.63	Feb 21	(b)13.05	Feb 5 1916
ANNUAL RUNOFF (CFSM)	.74		.69		.57	
ANNUAL RUNOFF (INCHES)	10.10		9.32		7.71	
10 PERCENT EXCEEDS	4080		4460		4040	
50 PERCENT EXCEEDS	2300		1770		1300	
90 PERCENT EXCEEDS	989		1110		471	

A - Gage height, 11.81 ft, present datum.

B - Present datum, backwater from ice.

05434500 PECATONICA RIVER AT MARTINTOWN, WI

LOCATION.--Lat 42°30'34", long 89°47'58", in SE 1/4 sec.32, T.1 N., R.6 E., Green County, Hydrologic Unit 07090003, on right bank about 400 ft downstream from highway bridge in Martintown, 0.3 mi upstream from Wisconsin-Illinois State line and 8.8 mi downstream from Skinner Creek.

DRAINAGE AREA.--1,034 mi^2.

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

REVISED RECORDS.--WSP 1308: 1949-50(M). WDR WI-71-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 757.83 ft above sea level. Prior to Jan. 6, 1940, nonrecording gage at same site and datum. Auxiliary wire-weight gage 1.2 mi downstream, at same datum.

REMARKS.--Estimated daily discharges: Ice-affected period, Nov. 27 to Mar. 1. Records good except those for ice-affected period, which is poor (see page 12). Diurnal fluctuation at low flow caused by powerplant in Argyle, 28.2 mi upstream. Gage-height telemeter at station.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	602	900	580	540	660	2200	809	744	574	753	573	520
2	587	748	600	560	680	2690	763	930	551	740	548	510
3	574	674	580	660	720	2770	729	1090	532	775	532	477
4	568	645	560	800	760	2850	709	1060	521	774	521	462
5	565	629	540	1000	700	2580	704	976	516	700	515	451
6	570	629	520	1100	660	1750	709	877	599	642	518	446
7	572	649	520	1000	620	1110	715	823	619	610	511	445
8	579	657	500	900	600	898	699	917	614	589	492	449
9	585	648	500	800	580	1130	657	974	579	589	482	460
10	581	622	500	700	560	1780	622	935	544	645	478	476
11	579	601	500	680	540	1970	619	839	524	612	479	478
12	572	585	490	620	520	2000	637	778	544	563	512	463
13	575	572	490	540	500	1610	661	749	540	545	615	447
14	577	533	500	490	500	1180	690	720	517	538	656	438
15	573	540	520	490	500	976	704	700	512	534	731	435
16	573	580	520	480	500	859	715	691	980	523	715	444
17	623	605	540	470	500	791	713	678	1320	506	619	515
18	649	609	500	470	720	828	684	663	1380	503	614	516
19	667	607	490	460	1500	849	686	677	1000	533	603	619
20	632	587	540	450	2000	838	699	678	776	603	583	729
21	601	574	540	450	3300	817	722	648	1130	654	552	588
22	599	569	540	860	4200	841	723	615	1480	640	544	523
23	651	566	540	1300	4900	849	694	592	1350	675	537	498
24	729	567	520	1400	4700	817	656	583	1070	726	521	496
25	725	564	500	1200	4000	779	630	584	1070	678	502	494
26	664	520	480	860	2700	813	613	586	1050	665	493	480
27	626	500	500	780	2000	875	597	577	946	728	487	466
28	606	500	520	760	1600	852	587	559	812	778	482	456
29	634	540	540	740	---	851	582	571	734	808	474	447
30	832	560	540	680	---	882	585	588	716	736	482	440
31	963	---	540	640	---	859	---	592	---	629	527	---
TOTAL	19433	18080	16250	22880	41720	40894	20313	22994	24100	19994	16898	14668
MEAN	627	603	524	738	1490	1319	677	742	803	645	545	489
MAX	963	900	600	1400	4900	2850	809	1090	1480	808	731	729
MIN	565	500	480	450	500	779	582	559	512	503	474	435
CFSM	.61	.58	.51	.71	1.44	1.28	.65	.72	.78	.62	.53	.47
IN.	.70	.65	.58	.82	1.50	1.47	.73	.83	.87	.72	.61	.53

05434500 PECATONICA RIVER AT MARTINTOWN, WI--Continued

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

MEAN	529	586	514	588	815	1412	950	787	802	783	575	567
MAX	1226	2429	1492	2049	2512	3155	2943	3200	2075	5190	1752	1920
(WY)	1987	1962	1983	1960	1953	1950	1960	1973	1993	1993	1993	1965
MIN	187	211	162	147	182	259	328	234	233	181	167	166
(WY)	1957	1965	1959	1959	1959	1957	1957	1958	1965	1965	1958	1958

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1940 - 1997	
ANNUAL TOTAL	323073		278224			
ANNUAL MEAN	883		762		742	
HIGHEST ANNUAL MEAN					1720	1993
LOWEST ANNUAL MEAN					292	1964
HIGHEST DAILY MEAN	5150	Jul 20	4900	Feb 23	14600	Jul 1 1969
LOWEST DAILY MEAN	(a)350	Jan 8-12	435	Sep 15	132	Nov 7 1949
ANNUAL SEVEN-DAY MINIMUM	(a)353	Jan 6	454	Sep 10	(a)140	Jan 18 1959
INSTANTANEOUS PEAK FLOW			(b)		15100	Jul 1 1969
INSTANTANEOUS PEAK STAGE			(a)19.09	Feb 23	21.46	Jul 1 1969
INSTANTANEOUS LOW FLOW					(c).00	Dec 14 1939
ANNUAL RUNOFF (CFSM)	.85		.74		.72	
ANNUAL RUNOFF (INCHES)	11.62		10.01		9.75	
10 PERCENT EXCEEDS	1500		1050		1320	
50 PERCENT EXCEEDS	660		612		519	
90 PERCENT EXCEEDS	520		490		253	

A - Ice affected.
B - Result of regulation.

05435500 PECATONICA RIVER AT FREEPORT, IL

LOCATION.--Lat 42°18'13", long 89°36'57", in SE1/4 sec.30, T.27 N., R.8 E., Stephenson County, Hydrologic Unit 07090003, on right bank on property of Commonwealth Edison Company in Freeport, 0.3 mi upstream from Stephenson Street Bridge, 5 mi upstream from Yellow Creek, and at mile 61.9.

DRAINAGE AREA.--1,326 mi^2.

PERIOD OF RECORD.--September 1914 to current year.

REVISED RECORDS.--WSP 1175: 1944, 1948. WSP 1508: 1915(M), 1917(M), 1921(M), 1924(M), 1928(M), 1930(M), 1935-37. WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 743.18 ft above sea level. Prior to Jan. 15, 1935, nonrecording gage at site 0.9 mi downstream at datum 4.2 ft lower. July 13, 1943, to Aug. 25, 1982, auxiliary nonrecording gage read once daily 0.9 mi downstream.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Gage height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,900 ft^3/s, Feb. 22, gage height, 16.40 ft; minimum daily discharge, 540 ft^3/s , Jan. 19, estimated due to backwater from ice.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	829	1170	e830	e720	e740	4290	1140	877	802	1030	803	668
2	801	1100	e810	e710	e740	5110	1060	1180	774	1130	749	664
3	775	984	e790	e780	e780	4690	998	1380	745	1120	718	646
4	761	910	e760	e940	e820	4100	948	1410	721	1070	700	615
5	757	874	e750	e1100	e800	3820	920	1390	707	1030	688	597
6	756	855	e760	e1200	e730	3510	915	1340	722	952	676	586
7	758	852	e770	e1100	e700	2580	904	1260	804	891	671	585
8	759	858	e740	e1000	e680	1730	890	1380	824	851	656	595
9	766	861	e700	e880	e660	1580	845	1420	809	825	638	593
10	770	849	e680	e840	e650	2000	783	1390	762	822	638	604
11	765	822	e700	e780	e630	2150	746	1340	754	848	638	612
12	759	799	e720	e680	e630	2140	766	1230	797	815	676	610
13	758	778	e730	e600	e640	2060	793	1110	771	773	718	594
14	759	758	e730	e570	e640	1800	842	1040	742	760	780	576
15	759	725	e740	e570	e640	1530	886	985	709	740	823	569
16	774	728	e750	e560	e630	1400	904	937	1340	726	934	589
17	839	778	e760	e560	e650	1310	904	912	1750	708	908	703
18	898	807	e700	e550	885	1210	889	887	1960	700	835	735
19	877	810	e660	e540	2140	1200	880	882	1720	715	800	719
20	868	808	e700	e560	3400	1190	888	883	1300	753	775	1040
21	837	797	e720	e680	6590	1170	907	849	1160	822	745	1000
22	820	780	e720	e840	10300	1150	929	794	1610	851	715	821
23	846	771	e720	e1120	9380	1160	911	743	1770	839	699	738
24	902	770	e700	e1350	8340	1150	859	755	1610	910	687	702
25	939	767	e670	e1400	e9200	1130	798	1090	1590	903	668	686
26	929	743	e660	e1100	e7900	1100	748	944	1810	875	648	673
27	878	617	e670	e1000	6650	1140	711	844	1560	862	640	649
28	836	645	e700	e950	4530	1190	688	806	1260	915	634	628
29	899	e700	e710	e880	---	1170	676	795	1120	944	625	610
30	1080	e800	e720	e820	---	1170	695	809	1050	952	624	595
31	1150	---	e730	e770	---	1180	---	812	---	888	646	---
TOTAL	25904	24516	22500	26150	81075	62110	25823	32474	34053	27020	22155	20002
MEAN	836	817	726	844	2896	2004	861	1048	1135	872	715	667
MAX	1150	1170	830	1400	10300	5110	1140	1420	1960	1130	934	1040
MIN	756	617	660	540	630	1100	676	743	707	700	624	569
CFSM	.63	.62	.55	.64	2.18	1.51	.65	.79	.86	.66	.54	.50
IN.	.73	.69	.63	.73	2.27	1.74	.72	.91	.96	.76	.62	.56

e Estimated

05435500 PECATONICA RIVER AT FREEPORT, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1997, BY WATER YEAR (WY)

MEAN	687	747	684	757	1127	1786	1192	969	966	886	699	747
MAX	2654	2773	1807	2817	3992	4915	3539	3931	3172	6423	2279	3011
(WY)	1928	1962	1983	1973	1938	1929	1993	1973	1993	1993	1993	1938
MIN	228	258	201	163	282	356	396	232	266	211	233	218
(WY)	1965	1965	1959	1959	1964	1957	1957	1934	1934	1936	1934	1958

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1914 - 1997	
ANNUAL TOTAL	429022		403782			
ANNUAL MEAN	1172		1106		936	
HIGHEST ANNUAL MEAN					2452	1993
LOWEST ANNUAL MEAN					373	1964
HIGHEST DAILY MEAN	6380	Jul 20	10300	Feb 22	17000	Mar 28 1916
LOWEST DAILY MEAN	488 A	Jan 10	540 A	Jan 19	118	Aug 4 1936
ANNUAL SEVEN-DAY MINIMUM	495	Jan 8	559	Jan 14	150	Dec 18 1964
INSTANTANEOUS PEAK FLOW			10900	Feb 22	18400	Mar 16 1929
INSTANTANEOUS PEAK STAGE			16.40	Feb 22	19.76 B	Mar 16 1929
INSTANTANEOUS LOW FLOW			C		82 D	Dec 11 1957
ANNUAL RUNOFF (CFSM)	.88		.83		.71	
ANNUAL RUNOFF (INCHES)	12.04		11.33		9.59	
10 PERCENT EXCEEDS	1910		1400		1740	
50 PERCENT EXCEEDS	879		808		650	
90 PERCENT EXCEEDS	700		640		310	

A - Estimated due to backwater from ice.

B - Site and datum then in use.

C - Minimum recorded, 567 ft^3/s, Sept. 16, but may have been less during period of ice effect, Jan. 13-21.

D - Result of freezeup.

05437500 ROCK RIVER AT ROCKTON, IL

LOCATION.--Lat 42°26'55", long 89°04'11", in SW1/4NE1/4 sec.24, T.46 N., R.1 E., Winnebago County, Hydrologic Unit 07090005, on right bank 750 ft downstream from State Highway 75 in Rockton, 1.0 mi downstream from Pecatonica River, and at mile 156.1.

DRAINAGE AREA.--6,363 mi^2.

PERIOD OF RECORD.--June 1903 to July 1906, October 1906 to March 1909, July 1914 to September 1919, October 1939 to current year. Published as "below mouth of Pecatonica River at Rockton" 1903-9; as "at Rockford" 1914-19. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORD.--WSP 325: 1903-9. WSP 895: 1904(M). WSP 1508: 1915, 1916-17(M). WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 707.94 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Oct. 1, 1906, nonrecording gage at site 800 ft upstream at datum about 1 ft higher. Oct. 1, 1906, to Mar. 31, 1909, nonrecording gage at site 800 ft upstream at datum about 2 ft higher. July 30, 1914, to Apr. 30, 1919, nonrecording gage at site at Rockford about 21 mi downstream, at different datum. Oct. 1, 1939, to Aug. 10, 1973, at site 800 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Low flow regulated by power-plant upstream from station. Gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,500 ft^3/s, Mar. 30, 1916, gage height, 13.06 ft, site and datum then in use; minimum daily, 501 ft^3/s, Sept. 14, 1958.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in February 1937 reached a stage of 14.6 ft (backwater from ice), from painted floodmark.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 20,300 ft^3/s, Feb. 24, gage height, 11.79 ft; minimum discharge, 1,710 ft^3/s, Sept. 15.

REVISIONS.--Revised daily discharges for Dec. 10-23, 1995 are given below in cubic feet per second. These figures supersede those published in the report for 1996.

Dec. 10	e3500	Dec. 14	e5000	Dec. 18	e4400	Dec. 22	e3100
11	e4000	15	e4900	19	e4200	23	e3400
12	e4500	16	e4800	20	e3900		
13	e4900	17	e4600	21	e3500		

MONTH	TOTAL	MEAN	MAX	MIN	CFSM	IN
Dec. 1995	128090	4132	5510	2920	.65	.75
Cal Yr 1995	1538870	4216	9940	2100	.66	9.00
Wtr Yr 1996	2298110	6279	19300	2470	.99	13.44

e Estimated

05437500 ROCK RIVER AT ROCKTON, IL--Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3410	5130	3570	3480	e4400	16600	7820	6170	4000	6510	4830	3900
2	3220	5100	3620	3650	e4400	18100	7720	6230	3840	6280	4600	3900
3	2720	4970	3490	3800	e4500	17500	7610	6690	3630	5880	4510	3940
4	2680	4720	3550	4110	5010	16900	7430	6860	3470	5950	4540	3700
5	2710	4590	3770	4770	4850	16100	7440	6820	3390	5850	4450	3470
6	2620	4480	3720	4380	4780	14700	7230	6810	3370	5590	4190	3010
7	2760	4340	3660	3910	4690	13400	6480	6790	3330	5620	4010	3060
8	3240	4210	3670	e3300	4440	12400	7140	6980	3400	5440	3680	3080
9	3070	4190	3630	e3400	4200	11700	7160	6910	3470	5530	3560	3110
10	3090	4170	3650	e3600	4010	11900	7050	7020	3300	5450	3590	2820
11	2720	4100	3600	e3800	3870	11600	6920	6760	2960	5400	3520	2690
12	2550	3940	3670	e3900	3820	11500	7130	6330	3050	5440	3390	2700
13	2570	3860	3710	e4100	3580	11500	7040	6210	3070	5290	3430	2630
14	2790	3640	3760	e3800	3590	11400	6970	6040	3040	5160	3380	2620
15	3120	3500	3970	e3600	3510	10900	7090	5840	2990	4980	3770	2610
16	2890	3630	4040	e3400	3460	10200	7000	5650	7240	4780	3790	2670
17	2880	3720	4340	e3300	3390	9540	7060	5330	8970	4570	4200	3230
18	2840	3610	4030	e3100	3970	9070	7020	5660	7650	4680	4250	3130
19	3250	3680	3060	e3050	8080	8660	7010	5390	7180	4680	3990	3420
20	3190	3800	3370	e3100	7760	8480	6970	5180	6770	4630	3840	4110
21	3100	3840	4060	e3600	13400	8330	7040	4980	6660	4850	3600	3930
22	3220	3740	3970	e5600	18600	8180	7050	4840	6750	4800	3450	3700
23	3360	3670	4030	e5400	19800	8040	6850	4620	6740	4770	3100	3480
24	3400	3670	3870	e5100	19700	7910	6540	4290	7200	4920	2970	3320
25	3380	3560	3440	e4800	19600	7980	6330	4830	7860	4980	3120	3120
26	3390	3220	e3200	e4700	18700	7830	6250	5580	8210	4860	3840	3070
27	3350	2870	e3500	e4700	17500	7760	6010	5180	8110	5040	3910	3020
28	3020	2920	e3700	e4700	16600	7860	6020	4410	7790	4960	3900	2910
29	3790	2840	3740	e4600	---	7920	5960	4050	7190	5030	3840	2750
30	4340	3240	3530	e4600	---	7890	5920	3930	6740	5080	3870	2580
31	5040	---	3490	e4500	---	7890	---	3900	---	5030	3900	---
TOTAL	97710	116950	114410	125850	234210	339740	207260	176280	161370	162030	119020	95680
MEAN	3152	3898	3691	4060	8365	10960	6909	5686	5379	5227	3839	3189
MAX	5040	5130	4340	5600	19800	18100	7820	7020	8970	6510	4830	4110
MIN	2550	2840	3060	3050	3390	7760	5920	3900	2960	4570	2970	2580
CFSM	.50	.61	.58	.64	1.31	1.72	1.09	.89	.85	.82	.60	.50
IN.	.57	.68	.67	.74	1.37	1.99	1.21	1.03	.94	.95	.70	.56

e Estimated

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

MEAN	3052	3492	3261	3218	3778	7348	7281	5145	4142	3571	2785	2830
MAX	13340	11320	9049	9432	8365	13920	18530	17770	13700	17000	9039	7753
(WY)	1987	1986	1983	1960	1997	1974	1993	1973	1996	1993	1993	1972
MIN	857	1100	1004	800	1000	1692	2476	1103	1248	1056	793	780
(WY)	1965	1940	1959	1940	1940	1954	1958	1958	1977	1965	1958	1958

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1940 - 1997	
ANNUAL TOTAL	2177930		1950510			
ANNUAL MEAN	5951		5344		4158	
HIGHEST ANNUAL MEAN					9484	1993
LOWEST ANNUAL MEAN					1568	1958
HIGHEST DAILY MEAN	19300	Jul 20	19800	Feb 23	29700	Mar 25 1975
LOWEST DAILY MEAN	2550	Oct 12	2550	Oct 12	501	Sep 14 1958
ANNUAL SEVEN-DAY MINIMUM	2770	Jan 11	2680	Sep 10	622	Oct 2 1958
INSTANTANEOUS PEAK FLOW			20300	Feb 24	30000	Mar 25 1975
INSTANTANEOUS PEAK STAGE			11.79	Feb 24	15.54	Mar 25 1975
INSTANTANEOUS LOW FLOW			1710	Sep 15		
ANNUAL RUNOFF (CFSM)	.94		.84		.65	
ANNUAL RUNOFF (INCHES)	12.73		11.40		8.88	
10 PERCENT EXCEEDS	11100		7940		8310	
50 PERCENT EXCEEDS	4830		4200		3100	
90 PERCENT EXCEEDS	2930		3070		1290	

05438500 KISHWAUKEE RIVER AT BELVIDERE, IL

LOCATION.--Lat 42°15'22", long 88°51'50", in SE1/4SE1/4 sec.27, T.44 N., R.3 E., Boone County, Hydrologic Unit 07090006, on left bank at Belvidere sewage-treatment plant, 1.3 mi downstream from bridge on State Street in Belvidere, 3.0 mi downstream from Piscasaw Creek, and at mile 21.9.

DRAINAGE AREA.--538 mi^2.

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

REVISED RECORDS.--WSP 1175: 1946. WSP 1508: 1940, 1942-43, 1947(M). WSP 1728: 1940(M). WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 738.34 ft above sea level (U.S. Army Corps of Engineers bench mark). Sept. 29, 1939, to Sept. 30, 1942, nonrecording gage at site 1.3 mi upstream at datum 3.99 ft higher, and Oct. 1, 1942, to Sept. 30, 1973, nonrecording gage at present site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Gage-height telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 24, 1938, reached a stage of 16.9 ft, backwater from ice, from information by sewage-treatment plant employees.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,400 ft^3/s and maximum (*):.

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 22	0415	*7,620	*11.74	June 17	0945	2,820	6.82
Mar. 02	1730	2,840	6.86				

Minimum discharge, 70 ft^3/s, Sept. 14, 15.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	150	305	234	232	263	2190	448	398	587	271	98	87
2	145	258	228	277	263	2670	419	488	509	281	95	87
3	138	232	216	405	274	2220	392	602	457	254	92	87
4	136	219	204	453	303	1620	373	639	421	237	100	84
5	135	213	207	631	322	1230	384	572	388	229	106	81
6	134	207	206	461	321	1010	390	501	376	216	94	79
7	135	206	199	297	290	845	354	463	358	205	87	77
8	135	200	193	365	269	749	325	640	354	200	82	80
9	135	195	186	373	254	717	306	785	334	193	83	83
10	134	187	187	314	244	760	299	706	306	181	87	82
11	131	182	294	214	236	731	303	597	295	174	92	79
12	133	175	601	e207	219	681	336	530	298	164	105	74
13	134	173	678	e220	178	634	377	479	290	161	118	74
14	133	157	603	e210	220	619	480	444	270	157	105	72
15	130	173	571	e200	203	554	524	424	264	145	114	74
16	140	172	563	e190	197	496	485	396	1030	137	118	76
17	179	183	497	180	184	489	431	381	2410	131	214	121
18	181	183	348	184	485	466	398	385	1350	152	270	120
19	166	179	223	188	1630	440	399	552	835	191	213	119
20	155	176	e230	195	1980	430	400	530	549	164	174	166
21	151	179	e240	202	4410	428	407	434	517	158	154	140
22	161	175	e230	395	7110	423	436	382	532	151	137	117
23	184	176	e220	563	4590	409	402	357	430	146	123	109
24	190	178	e210	614	2770	387	374	405	371	139	116	103
25	177	178	212	486	1900	466	352	1090	482	131	113	95
26	166	143	220	357	1620	553	333	1720	457	128	109	91
27	161	151	265	313	1480	535	321	1780	379	121	107	89
28	156	180	276	289	1600	499	315	1280	329	122	100	88
29	235	176	267	261	---	475	304	986	301	111	92	86
30	436	202	245	259	---	479	308	814	285	106	90	82
31	397	---	235	260	---	467	---	688	---	102	92	---
TOTAL	5273	5713	9288	9795	33815	24672	11375	20448	15764	5258	3680	2802
MEAN	170	190	300	316	1208	796	379	660	525	170	119	93.4
MAX	436	305	678	631	7110	2670	524	1780	2410	281	270	166
MIN	130	143	186	180	178	387	299	357	264	102	82	72
CFSM	.32	.35	.56	.59	2.24	1.48	.70	1.23	.98	.32	.22	.17
IN.	.36	.40	.64	.68	2.34	1.71	.79	1.41	1.09	.36	.25	.19

e Estimated

05438500 KISHWAUKEE RIVER AT BELVIDERE, IL--Continued

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

MEAN	235	287	306	293	402	693	625	472	402	283	217	241
MAX	1242	1328	1613	1053	1208	2337	2461	1610	1638	1815	1287	2215
(WY)	1973	1986	1983	1974	1997	1979	1993	1974	1993	1993	1987	1972
MIN	40.3	50.1	42.8	30.5	49.6	120	141	108	101	56.6	39.2	44.0
(WY)	1957	1957	1964	1940	1940	1956	1963	1949	1977	1941	1964	1964

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1940 - 1997	
ANNUAL TOTAL	162972		147883			
ANNUAL MEAN	445		405		371	
HIGHEST ANNUAL MEAN					992	1993
LOWEST ANNUAL MEAN					112	1963
HIGHEST DAILY MEAN	4820	May 22	7110	Feb 22	8380	Mar 15 1944
LOWEST DAILY MEAN	105 A	Feb 5	72	Sep 14	15	B
ANNUAL SEVEN-DAY MINIMUM	114	Feb 1	76	Sep 10	23	Jan 2 1940
INSTANTANEOUS PEAK FLOW			7620	Feb 22	11900	Feb 20 1994
INSTANTANEOUS PEAK STAGE			11.74	Feb 22	14.19	Feb 20 1994
INSTANTANEOUS LOW FLOW			70	Sep 14,15	14 C	Sep 19 1988
ANNUAL RUNOFF (CFSM)	.83		.75		.69	
ANNUAL RUNOFF (INCHES)	11.27		10.23		9.37	
10 PERCENT EXCEEDS	1150		655		795	
50 PERCENT EXCEEDS	215		240		210	
90 PERCENT EXCEEDS	140		101		67	

A - Estimated due to backwater from ice.

B - Dec. 30, 1939, Jan. 7, 1940.

C - Observed.

05439000 SOUTH BRANCH KISHWAUKEE RIVER AT DE KALB, IL

LOCATION.--Lat 41°55'53", long 88°45'35", in SW1/4NE1/4 sec.22, T.40 N., R.4 E., De Kalb County, Hydrologic Unit 07090006, on left bank 100 ft downstream from bridge on State Highway 38 in De Kalb, and at mile 48.5.

DRAINAGE AREA.--77.7 mi^2.

PERIOD OF RECORD.--July 1925 to October 1933, October 1979 to current year.

REVISED RECORDS.--WDR IL-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 831.88 ft above sea level. Mar. 23, 1980, to Sept. 30, 1983, at datum 3.0 ft higher. Oct. 1, 1979, to Mar. 22, 1980, nonrecording gage at same site at datum 3.0 ft higher. Prior to Sept. 30, 1933, nonrecording gage at same site at datum 3.40 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Gage-height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 570 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 21	1815	*2,170	*12.64	Mar. 01	1530	850	8.08
Feb. 27	2245	642	7.22				

Minimum discharge, .14 ft^3/s, several days.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	7.0	9.1	e19	e18	753	50	63	47	28	.15	e.20
2	3.6	5.8	7.6	e22	e19	486	47	70	44	25	e.14	e.33
3	3.6	5.2	6.9	32	e19	306	46	91	41	21	e.17	e.28
4	3.4	5.1	7.1	50	e21	231	45	90	38	18	e.19	e.31
5	3.3	6.0	5.6	91	e25	186	56	85	30	17	e.25	e.29
6	3.7	6.0	5.4	78	e26	150	e58	72	30	14	e.38	e.27
7	2.5	7.3	5.8	e50	e24	125	e51	82	33	14	e.32	e.60
8	2.4	4.9	4.9	e43	e23	113	e45	204	31	18	.23	e.24
9	2.6	4.7	5.4	e46	e22	111	38	171	29	14	.29	e.22
10	2.7	4.4	5.0	e30	e21	112	39	129	27	11	.34	e.23
11	2.9	3.9	28	e25	e20	107	42	112	31	9.9	.62	e.21
12	2.9	3.6	79	e20	e19	102	57	96	68	7.9	.55	e.19
13	3.2	3.1	78	e20	e18	96	76	84	45	6.6	.84	e.18
14	2.8	2.9	65	e21	e17	96	83	76	34	6.6	.60	e.21
15	2.1	2.9	69	e19	e18	89	78	67	30	6.6	31	.31
16	4.9	2.9	71	e19	e19	82	70	59	40	5.6	11	1.5
17	6.1	6.8	63	e19	e21	68	e68	57	31	3.9	45	13
18	4.9	4.5	e32	e18	e25	62	60	68	27	8.0	14	.40
19	5.7	3.3	e22	e19	e44	55	66	145	26	5.7	5.7	.19
20	3.4	3.1	e25	e19	e150	53	60	93	25	4.9	3.1	.14
21	.92	4.0	e25	e20	1580	53	59	74	25	6.3	1.7	.15
22	5.5	4.4	e24	e21	1490	52	e49	66	22	3.6	1.2	.16
23	8.3	4.1	e23	e24	968	50	e46	65	21	3.2	.70	.37
24	3.6	3.5	e24	e42	378	51	e43	60	19	3.6	.70	.33
25	3.3	2.7	e23	e25	265	70	e40	108	85	6.2	.60	.15
26	2.7	8.6	e21	e21	252	68	38	97	69	1.4	e.32	.22
27	2.7	2.8	e20	e20	513	68	38	74	45	.87	e.36	.29
28	2.5	2.5	e25	e18	462	68	38	65	37	.53	e.31	.29
29	17	2.9	e21	e18	---	70	35	61	32	.48	e.30	.30
30	23	12	e18	e17	---	59	42	55	29	.34	e.33	.31
31	13	---	e18	e18	---	54	---	50	---	.17	e.33	---
TOTAL	154.92	140.9	836.8	904	6477	4046	1563	2689	1091	272.39	121.72	21.87
MEAN	5.00	4.70	27.0	29.2	231	131	52.1	86.7	36.4	8.79	3.93	.73
MAX	23	12	79	91	1580	753	83	204	85	28	45	13
MIN	.92	2.5	4.9	17	17	50	35	50	19	.17	.14	.14
CFSM	.06	.06	.35	.38	2.98	1.68	.67	1.12	.47	.11	.05	.01
IN.	.07	.07	.40	.43	3.10	1.94	.75	1.29	.52	.13	.06	.01

e Estimated

05439000 SOUTH BRANCH KISHWAUKEE RIVER AT DE KALB, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 1997, BY WATER YEAR (WY)

MEAN	25.7	64.3	64.4	42.7	74.5	104	105	91.1	82.0	62.4	40.8	33.1
MAX	119	247	261	154	231	292	309	221	257	322	383	337
(WY)	1927	1986	1983	1993	1997	1993	1993	1995	1993	1983	1987	1980
MIN	.23	2.55	4.55	5.25	6.14	12.3	18.6	11.4	9.97	1.52	.51	.33
(WY)	1926	1933	1926	1982	1931	1996	1996	1931	1930	1988	1931	1988

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1926 - 1997	
ANNUAL TOTAL	30696.72		18318.60			
ANNUAL MEAN	83.9		50.2		65.7	
HIGHEST ANNUAL MEAN					151	1993
LOWEST ANNUAL MEAN					13.4	1931
HIGHEST DAILY MEAN	1980	Jul 18	1580	Feb 21	2520	Jul 3 1983
LOWEST DAILY MEAN	.92	Oct 21	.14	A	.00	B
ANNUAL SEVEN-DAY MINIMUM	2.7	Oct 7	.20	Jul 30	.03	Sep 30 1931
INSTANTANEOUS PEAK FLOW			2170	Feb 21	3500	Jul 2 1983
INSTANTANEOUS PEAK STAGE			12.64	Feb 21	15.80 C	Jul 2 1983
INSTANTANEOUS LOW FLOW			.14	D		
ANNUAL RUNOFF (CFSM)	1.08		.65		.85	
ANNUAL RUNOFF (INCHES)	14.70		8.77		11.48	
10 PERCENT EXCEEDS	233		87		160	
50 PERCENT EXCEEDS	17		20		28	
90 PERCENT EXCEEDS	3.6		.33		2.1	

A - Aug. 2, estimated, and Sept. 20.
B - Aug. 7, Sept. 20, 21, 1988; Aug. 24, 1991.
C - Present datum.
D - Several days.

05439500 SOUTH BRANCH KISHWAUKEE RIVER NEAR FAIRDALE, IL

LOCATION.--Lat 42°06'39", long 88°54'02", in SE1/4SE1/4 sec.17, T.42 N., R.3 E., De Kalb County, Hydrologic Unit 07090006, on right bank at downstream side of bridge on Irene Road, 1.2 mi downstream from Owens Creek, 1.8 mi northeast of Fairdale, and at mile 11.0.

DRAINAGE AREA.--387 mi^2.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORDS.--WSP 1508: 1940, 1942(M). WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 733.90 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to May 1, 1940, nonrecording gage at same site and datum. Prior to Nov. 7, 1986, water-stage recorder on left bank at upstream side of bridge at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Gage-height telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--A stage of 11.9 ft occurred in March 1937, from information by a local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 18	Unknown	2,200	Ice jam	Mar. 01	0845	3,050	7.69
Feb. 21	1230	*9,940	*10.71	May 25	0845	3,970	8.65

Minimum discharge, 14 ft^3/s, Sept. 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	e198	150	202	e162	2710	296	259	340	200	34	27
2	70	e170	140	248	e163	2490	277	309	315	249	32	26
3	63	e160	138	270	e163	2160	267	411	294	201	31	24
4	62	143	120	308	e175	1420	260	416	276	175	32	23
5	60	143	128	450	e188	1030	260	381	264	160	35	22
6	57	140	132	386	e190	825	276	340	261	148	45	20
7	57	137	113	e255	e188	670	247	313	258	139	30	22
8	58	135	111	e268	e180	589	227	691	239	134	25	21
9	55	129	108	e268	e178	536	218	812	227	163	27	33
10	59	119	115	e180	e170	553	210	603	215	140	26	26
11	63	113	249	e150	e160	531	211	485	212	117	36	20
12	62	108	575	e153	e151	490	241	417	248	95	68	18
13	62	106	585	e160	e150	459	298	368	261	87	66	19
14	61	96	477	e156	e148	446	379	333	219	84	46	17
15	64	103	458	e150	e140	393	353	309	200	73	49	17
16	69	111	453	e140	e132	357	319	284	317	69	112	18
17	119	109	392	e132	e222	339	290	270	308	62	111	25
18	99	110	311	e138	e840	316	272	263	255	73	160	79
19	80	110	e190	e138	e1550	294	273	300	226	100	85	44
20	65	107	e155	e141	1210	287	275	350	216	82	60	e108
21	63	105	e169	e145	7010	283	262	286	223	75	46	e68
22	65	105	e168	e148	5090	274	248	262	200	75	40	19
23	83	103	e160	e240	4450	263	238	247	186	65	38	21
24	111	102	e155	e370	3510	255	230	249	171	57	33	20
25	90	101	e153	e270	2320	335	220	2830	284	54	30	22
26	77	83	e153	e215	1360	365	206	1110	377	53	32	19
27	69	91	e157	e190	1730	349	198	673	287	50	29	20
28	62	103	e190	e172	2090	333	201	520	234	47	29	18
29	124	96	e178	e151	---	339	198	458	210	41	26	18
30	287	114	e168	e158	---	341	201	413	195	38	28	15
31	e228	---	e180	e160	---	319	---	376	---	35	28	---
TOTAL	2622	3550	6931	6512	34020	20351	7651	15338	7518	3141	1469	849
MEAN	84.6	118	224	210	1215	656	255	495	251	101	47.4	28.3
MAX	287	198	585	450	7010	2710	379	2830	377	249	160	108
MIN	55	83	108	132	132	255	198	247	171	35	25	15
CFSM	.22	.31	.58	.54	3.14	1.70	.66	1.28	.65	.26	.12	.07
IN.	.25	.34	.67	.63	3.27	1.96	.74	1.47	.72	.30	.14	.08

e Estimated

05439500 SOUTH BRANCH KISHWAUKEE RIVER NEAR FAIRDALE, IL--Continued

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

MEAN	155	194	208	224	316	533	484	399	355	234	169	146
MAX	1318	1052	1234	946	1215	2392	1782	1316	1734	1863	1202	1181
(WY)	1955	1986	1983	1974	1997	1979	1993	1996	1993	1996	1987	1980
MIN	11.3	12.6	11.3	6.19	15.5	70.2	61.1	47.8	57.4	20.5	17.9	12.3
(WY)	1954	1954	1964	1940	1940	1956	1963	1949	1988	1940	1971	1953

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1940 - 1997	
ANNUAL TOTAL	196900		109952			
ANNUAL MEAN	538		301		284	
HIGHEST ANNUAL MEAN					752	1993
LOWEST ANNUAL MEAN					65.7	1977
HIGHEST DAILY MEAN	14600	Jul 18	7010	Feb 21	14600	Jul 18 1996
LOWEST DAILY MEAN	55	Oct 9	15	Sep 30	3.0	Jan 20 1940
ANNUAL SEVEN-DAY MINIMUM	58	Oct 4	19	Sep 24	4.1	Jan 19 1940
INSTANTANEOUS PEAK FLOW			9940	Feb 21	25400	Jul 18 1996
INSTANTANEOUS PEAK STAGE			10.71	Feb 21	13.37	Jul 18 1996
INSTANTANEOUS LOW FLOW			14	Sep 30	2.1	Jan 20 1940
ANNUAL RUNOFF (CFSM)	1.39		.78		.73	
ANNUAL RUNOFF (INCHES)	18.93		10.57		9.98	
10 PERCENT EXCEEDS	1350		458		658	
50 PERCENT EXCEEDS	168		163		130	
90 PERCENT EXCEEDS	70		32		19	

05440000 KISHWAUKEE RIVER NEAR PERRYVILLE, IL

LOCATION.--Lat 42°11'45", long 88°59'55", in NE1/4NE1/4 sec.21, T.43 N., R.2 E., Winnebago County, Hydrologic Unit 07090006, on left bank at upstream side of bridge on Blackhawk Road, 1.4 mi downstream from South Branch Kishwaukee River, 2 mi southwest of Perryville, 7.1 mi upstream from Killbuck Creek, and at mile 9.6.

DRAINAGE AREA.--1,099 mi^2.

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

REVISED RECORDS.--WSP 1175: 1941(P), 1942. WSP 1508: 1941, 1949. WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 692.13 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Apr. 30, 1949, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Gage-height telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in January 1938 reached a stage of 23.85 ft, from information by the U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 22	0015	*17,400	*19.76	May 25	1930	5,530	11.62
Mar. 01	1930	6,140	12.14	June 17	1415	3,560	9.81

Minimum discharge, 147 ft^3/s, Sept. 15, 16.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	312	657	454	504	e540	5370	989	751	1060	562	215	196
2	297	576	458	576	e550	5770	936	931	917	628	204	190
3	282	512	448	782	e580	5000	868	1200	817	564	197	185
4	276	476	394	841	e600	3480	827	1290	761	516	199	180
5	273	465	420	1190	e640	2600	827	1190	704	488	215	175
6	269	447	422	1020	e640	2140	851	1040	750	464	212	173
7	269	440	385	725	e600	1840	779	922	716	437	198	165
8	267	435	370	807	e570	1650	716	1420	637	416	185	164
9	268	416	360	753	e560	1570	687	1820	607	424	187	173
10	264	392	358	676	540	1650	661	1590	575	408	188	178
11	261	372	554	e460	518	1590	663	1320	594	369	198	164
12	260	354	1270	e450	494	1510	704	1150	592	349	229	157
13	261	347	1440	e470	441	1440	777	1040	601	334	262	154
14	259	317	1310	e450	458	1410	1020	915	553	325	245	152
15	257	344	1260	e450	452	1300	1100	842	510	311	259	151
16	266	343	1260	e430	423	1190	999	787	1530	293	283	152
17	424	359	1110	e380	404	1160	888	740	3240	281	495	256
18	403	353	854	e390	943	1090	824	713	1820	308	565	267
19	355	347	e470	e400	4120	1040	815	930	1170	397	447	257
20	319	342	e480	e410	3900	1010	817	1040	839	351	345	289
21	305	345	e500	e420	11000	1010	799	837	836	326	301	269
22	311	341	e490	e720	16400	993	817	729	850	323	274	227
23	377	341	e480	e1100	13000	956	776	675	688	311	254	212
24	403	340	e450	e1150	8480	918	731	727	605	291	243	207
25	376	339	e450	e860	5450	1080	703	3900	910	280	234	198
26	338	288	e450	e690	3440	1250	677	3580	1020	271	226	190
27	321	307	e520	e610	3360	1230	658	2750	807	261	222	183
28	309	335	e590	e560	3870	1170	656	2070	671	250	215	180
29	454	325	e560	e540	---	1110	648	1630	616	242	203	171
30	846	375	e500	e540	---	1090	648	1380	581	224	197	163
31	802	---	e500	e540	---	1050	---	1210	---	227	200	---
TOTAL	10684	11630	19567	19894	82973	55667	23861	41119	26577	11231	7897	5778
MEAN	345	388	631	642	2963	1796	795	1326	886	362	255	193
MAX	846	657	1440	1190	16400	5770	1100	3900	3240	628	565	289
MIN	257	288	358	380	404	918	648	675	510	224	185	151
CFSM	.31	.35	.57	.58	2.70	1.63	.72	1.21	.81	.33	.23	.18
IN.	.36	.39	.66	.67	2.81	1.88	.81	1.39	.90	.38	.27	.20

e Estimated

05440000 KISHWAUKEE RIVER NEAR PERRYVILLE, IL--Continued

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

MEAN	459	579	615	627	867	1439	1264	1003	874	604	456	449
MAX	2309	2881	3230	2265	2963	5395	4267	3355	3827	3263	2853	3577
(WY)	1973	1986	1983	1969	1997	1979	1993	1996	1993	1993	1987	1972
MIN	75.5	95.8	83.5	68.8	98.8	230	280	212	214	135	97.4	78.9
(WY)	1957	1957	1964	1959	1940	1956	1963	1949	1959	1941	1964	1946

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1940 - 1997	
ANNUAL TOTAL	430416		316878			
ANNUAL MEAN	1176		868		769	
HIGHEST ANNUAL MEAN					1955	1993
LOWEST ANNUAL MEAN					227	1977
HIGHEST DAILY MEAN	16700	Jul 19	16400	Feb 22	16700	Jul 19 1996
LOWEST DAILY MEAN	230 A	Feb 5,6	151	Sep 15	49	Oct 10 1956
ANNUAL SEVEN-DAY MINIMUM	255	Mar 18	158	Sep 10	52	Sep 11 1964
INSTANTANEOUS PEAK FLOW			17400	Feb 22	24200	Jul 18 1996
INSTANTANEOUS PEAK STAGE			19.76	Feb 22	23.54	Jul 18 1996
INSTANTANEOUS LOW FLOW			147	Sep 15,16	46	E
ANNUAL RUNOFF (CFSM)	1.07		.79		.70	
ANNUAL RUNOFF (INCHES)	14.57		10.73		9.50	
10 PERCENT EXCEEDS	2990		1390		1670	
50 PERCENT EXCEEDS	471		512		422	
90 PERCENT EXCEEDS	279		214		125	

A - Estimated due to backwater from ice.
B - Oct. 6, 7, 10, 1956.

05443500 ROCK RIVER AT COMO, IL

LOCATION.--Lat 41°47'00", long 89°44'58", in NE1/4NE1/4 sec.25, T.21 N., R.6 E., Whiteside County, Hydrologic Unit 07090005, on left bank, 1 mi upstream from Como, 3 mi downstream from Rock Falls, 3.5 mi upstream from Elkhorn Creek, and at mile 69.2.

DRAINAGE AREA.--8,753 mi^2.

PERIOD OF RECORD.--March to December 1905, October 1914 to September 1971, annual maximums, water years 1972-77, October 1977 to September 1986. Seven-month period (March to September), water years 1987-90. October 1990 to current year. Published as "at Sterling" 1905-6 and as "at Lyndon" 1914-34. Records published for both sites December 1933 to September 1934. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORDS.--WSP 1308: 1915(M), 1917-18(M), 1922(M), 1924(M), 1926(M), 1928(M), 1931-32(M), 1934(M). WDR IL-79-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 606.83 ft above sea level. Jan. 6, 1905, to Feb. 17, 1906, nonrecording gage at Sterling, 3 mi upstream, at different datum. Nov. 24, 1914, to Sept. 30, 1934, nonrecording gage at site at Lyndon, 16.5 mi downstream at datum 22.46 ft lower.

REMARKS.--Records fair except those for Feb. 22 to July 15 and estimated daily discharges , which are poor. Some diurnal fluctuation caused by powerplants upstream from station. Gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 59,700 ft^3/s, Apr. 21, 1973, gage height, 15.66 ft, from rating curve extended above 41,200 ft^3/s; maximum gage height, 17.51 ft, Feb. 7, 1938, backwater from ice; minimum daily discharge, 440 ft^3/s (498 ft^3/s, site then in use), Aug. 20, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 40,900 ft^3/s, Feb. 22, gage height, 13.30 ft, ice jam; minimum discharge, 1,170 ft^3/s, May 12, due to gate closure at dam upstream.

REVISIONS.--Revised figures of daily discharge for Dec. 12-23, 1995 are given below in ft^3/s. These figures supersede those published in the report for 1996.

Dec. 12	e4800	Dec. 15	e6000	Dec. 18	e5500	Dec. 21	e4800
13	e5500	16	e5800	19	e5200	22	e4600
14	e5800	17	e5700	20	e5000	23	e4400

MONTH	TOTAL	MEAN	MAX	MIN	CFSM	IN
Dec. 1995	160920	5191	7430	3500	.59	.68
Cal Yr 1995	2377710	6514	19300	3280	.74	10.11
Wtr Yr 1996	3338710	9122	45000	3240	1.04	14.19

05443500 ROCK RIVER AT COMO, IL--Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4180	6280	4210	4700	e6000	25800	9500	7420	5780	7480	5610	4350
2	4130	6440	4400	5210	e5900	27700	9330	7720	5600	6810	5660	4360
3	4080	6660	4560	5700	e5800	27000	9170	7920	5120	7030	5420	4190
4	3760	6300	4970	6050	e6000	24900	9000	8030	4840	6770	5160	4240
5	3400	5910	4660	6060	e6600	22700	8840	8230	4770	6070	5170	4080
6	3250	5660	4680	7900	e6500	20700	8470	8460	4720	6060	5080	3960
7	3220	5590	4930	e6600	e6400	19100	8090	8640	4950	6060	4750	3680
8	3170	5600	4710	e4900	e6300	17500	7970	8860	5240	5890	4690	3520
9	3160	5030	4810	e4200	e6000	16200	7840	9290	4510	5730	4620	3610
10	3310	5290	4650	e4300	e5700	15700	7970	9710	4330	6560	4380	3510
11	3360	5260	4660	e4600	e5400	15400	8110	9980	4300	6330	4380	3420
12	3310	5140	5110	e5000	e5200	15100	8250	6340	4450	6310	4290	3120
13	3230	5080	5780	e5800	e5100	14900	8390	9020	4270	6040	4300	3130
14	3170	4870	6220	e6800	e4900	14200	8530	8050	4320	6160	4270	2970
15	3090	4880	6210	e5600	e4800	14800	8760	7940	3940	5900	4480	3030
16	3180	4480	6470	e5000	e4700	14400	9000	7640	5380	5740	4720	3120
17	4180	4320	6640	e4600	e4900	13600	9140	7330	11300	5580	5610	3480
18	4900	4810	6590	e4200	e4800	13100	9030	6760	14000	5530	5840	4110
19	4670	4730	e5000	e4000	e11000	12100	8920	6560	11000	5840	5420	3530
20	4510	4630	e4000	e3900	e16000	11400	8830	7360	8840	5710	5100	4030
21	4490	4630	e4100	e4100	e26100	10900	8720	6630	8220	5380	4820	4650
22	4410	4750	e4700	e5500	e39500	10700	8610	6390	8050	5450	4370	4370
23	4360	4750	5230	e7600	e38000	10400	8500	5910	7930	5450	4260	4270
24	4390	4670	6140	e7000	e35000	10200	8400	5820	8520	5570	3920	3940
25	4560	4640	e5800	e6700	31000	9960	8270	8050	9170	5840	3460	3820
26	4580	4590	e4700	e6500	27400	9820	8040	13000	10900	5830	3750	3650
27	4520	4480	e4200	e6400	25400	9770	7820	10700	10300	5760	4300	3520
28	4520	3940	4180	e6300	25100	9720	7570	9050	9440	5760	4500	3340
29	4520	3760	5040	e6200	---	9680	7320	7390	8620	5810	4550	3120
30	4830	4150	6630	e6100	---	9630	7200	6410	7960	5840	4420	3270
31	6200	---	5550	e6100	---	9570	---	6260	---	5400	4360	---
TOTAL	124640	151320	159530	173620	375500	466650	253590	246870	210770	185690	145660	111290
MEAN	4021	5044	5146	5601	13410	15050	8453	7964	7026	5990	4699	3710
MAX	6200	6660	6640	7900	39500	27700	9500	13000	14000	7480	5840	4650
MIN	3090	3760	4000	3900	4700	9570	7200	5820	3940	5380	3460	2970
CFSM	.46	.58	.59	.64	1.53	1.72	.97	.91	.80	.68	.54	.42
IN.	.53	.64	.68	.74	1.60	1.98	1.08	1.05	.90	.79	.62	.47

e Estimated

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

MEAN	3721	4590	4270	4471	5821	9721	9030	6507	5668	4934	3746	3775
MAX	9633	15900	14120	13200	18020	19970	25070	16660	20690	22030	10820	15630
(WY)	1955	1986	1983	1946	1938	1948	1993	1960	1996	1993	1993	1938
MIN	1210	1408	1411	1047	1353	2432	3305	1652	1848	885	1147	999
(WY)	1964	1950	1964	1940	1940	1968	1958	1958	1936	1936	1936	1958

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1935 - 1997	
ANNUAL TOTAL	3203650		2605130			
ANNUAL MEAN	8753		7137		5551	
HIGHEST ANNUAL MEAN					12990	1993
LOWEST ANNUAL MEAN					2187	1964
HIGHEST DAILY MEAN	45000	May 29	39500 A	Feb 22	45000	May 29 1996
LOWEST DAILY MEAN	3090	Oct 15	2970	Sep 14	524	Aug 9 1936
ANNUAL SEVEN-DAY MINIMUM	3230	Oct 9	3180	Sep 11	673	Aug 3 1936
INSTANTANEOUS PEAK FLOW			40900 A	Feb 22	59700 B	Apr 21 1973
INSTANTANEOUS PEAK STAGE			13.30C	Feb 22	17.51 C	Feb 7 1938
INSTANTANEOUS LOW FLOW			1170 D	May 12	440	Aug 20 1934
ANNUAL RUNOFF (CFSM)	1.00		.82		.63	
ANNUAL RUNOFF (INCHES)	13.62		11.07		8.62	
10 PERCENT EXCEEDS	19000		10800		10700	
50 PERCENT EXCEEDS	6020		5700		4200	
90 PERCENT EXCEEDS	3900		3910		1640	

A - Estimated due to backwater from ice.

B - Gage height, 15.66 ft, from rating curve extended above 41,200 ft^3/s.

C - Ice jam.

D - Due to gate closure at dam upstream.

05444000 ELKHORN CREEK NEAR PENROSE, IL

LOCATION.--Lat 41°54'10", long 89°41'40", in SW1/4SE1/4 sec.9, T.22 N., R.7 E., Whiteside County, Hydrologic Unit 07090005, on left bank 50 ft upstream from bridge on County Road 2200 N, 2 mi northwest of Penrose, 2.2 mi downstream from Buffalo Creek, 5 mi upstream from Sugar Creek, and at mile 17.5.

DRAINAGE AREA.--146 mi^2.

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

REVISED RECORDS.--WSP 925: 1940. WSP 955: 1941. WSP 1175: 1941(P), 1948(P). WSP 1308: 1950(M). WDR IL-72-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 657.85 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Apr. 6, 1940, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Gage-height telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1938 reached a stage of 19.6 ft, from U.S. Army Corps of Engineers high-water mark.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 18	1930	3,250	11.42	Mar. 1	0500	2,030	9.21
Feb. 21	1330	*5,320	*15.60				

Minimum discharge, 36 ft^3/s, Nov. 26, result of freezeup.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	105	92	76	82	1580	92	88	110	97	56	51
2	80	103	82	105	94	469	91	89	103	92	56	48
3	78	96	81	125	120	197	91	98	100	86	55	48
4	78	94	74	113	158	161	91	99	99	85	54	49
5	78	93	83	117	179	139	90	95	98	83	53	47
6	77	92	81	89	114	132	88	89	100	80	52	47
7	76	90	78	e91	90	122	78	96	99	79	52	46
8	76	86	74	e90	81	120	76	200	99	85	52	47
9	76	83	71	e74	78	224	75	175	96	84	54	47
10	76	81	71	e90	77	293	75	145	91	77	57	47
11	75	79	86	e86	73	158	76	131	92	75	58	45
12	74	78	111	e88	68	135	79	123	96	74	57	45
13	75	77	112	e87	76	128	78	114	93	74	56	45
14	75	73	111	e95	83	127	84	108	85	73	55	45
15	74	77	129	e111	75	112	91	101	84	70	55	45
16	92	77	140	e96	66	107	91	99	222	67	57	47
17	165	81	125	e90	68	111	89	99	148	67	74	78
18	94	80	105	e94	1100	103	88	100	121	67	72	59
19	79	78	e98	e90	1880	97	90	109	110	92	59	48
20	74	78	e90	e94	527	95	89	98	109	98	56	46
21	73	78	e88	118	4750	95	87	93	110	74	54	45
22	77	78	e90	577	1870	94	84	88	111	72	53	45
23	96	78	e90	360	308	93	84	87	105	68	52	46
24	85	78	e83	135	190	93	84	87	98	67	52	47
25	78	76	e90	e118	153	101	82	299	175	67	52	46
26	76	69	e118	e112	197	105	80	203	126	66	51	45
27	74	82	e91	e110	487	103	79	155	109	63	51	45
28	72	72	e79	e105	705	102	79	136	99	60	51	45
29	148	74	e75	e102	---	98	78	130	97	58	50	45
30	189	94	e64	e92	---	93	77	125	101	57	50	43
31	119	---	e68	e88	---	92	---	118	---	56	55	---
TOTAL	2739	2480	2830	3818	13749	5679	2516	3777	3286	2313	1711	1432
MEAN	88.4	82.7	91.3	123	491	183	83.9	122	110	74.6	55.2	47.7
MAX	189	105	140	577	4750	1580	92	299	222	98	74	78
MIN	72	69	64	74	66	92	75	87	84	56	50	43
CFSM	.61	.57	.63	.84	3.36	1.25	.57	.83	.75	.51	.38	.33
IN.	.70	.63	.72	.97	3.50	1.45	.64	.96	.84	.59	.44	.36

e Estimated

05444000 ELKHORN CREEK NEAR PENROSE, IL--Continued

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

MEAN	63.6	70.9	74.7	98.6	153	183	122	125	131	90.3	74.1	66.4
MAX	280	314	267	580	556	588	619	607	560	401	422	225
(WY)	1982	1986	1973	1969	1951	1993	1973	1974	1993	1951	1972	1972
MIN	15.6	17.6	15.4	14.6	22.3	33.6	34.7	25.7	25.8	19.2	23.0	14.7
(WY)	1958	1950	1959	1959	1964	1956	1957	1940	1957	1940	1963	1957

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1940 - 1997	
ANNUAL TOTAL	58984		46330			
ANNUAL MEAN	161		127		104	
HIGHEST ANNUAL MEAN					275	1973
LOWEST ANNUAL MEAN					30.7	1940
HIGHEST DAILY MEAN	3100	May 29	4750	Feb 21	5430	Apr 21 1973
LOWEST DAILY MEAN	51 A	Feb 29	43	Sep 30	10	Dec 10 1958
ANNUAL SEVEN-DAY MINIMUM	55	Apr 8	45	Sep 24	10	Dec 9 1958
INSTANTANEOUS PEAK FLOW			5320	Feb 21	6770 B	May 17 1974
INSTANTANEOUS PEAK STAGE			15.60	Feb 21	17.75	Jan 5 1946
INSTANTANEOUS LOW FLOW			36 C	Nov 26	1.9 C	Jan 3 1976
ANNUAL RUNOFF (CFSM)	1.10		.87		.71	
ANNUAL RUNOFF (INCHES)	15.03		11.80		9.69	
10 PERCENT EXCEEDS	332		137		171	
50 PERCENT EXCEEDS	87		87		61	
90 PERCENT EXCEEDS	63		52		26	

A - Estimated, due to backwater from ice.
B - Gage height, 16.53 ft.
C - Result of freezeup.

05446500 ROCK RIVER NEAR JOSLIN, IL

LOCATION.--Lat 41°33'35", long 90°10'55", in NE1/4 sec.18, T.18 N., R.3 E., Rock Island County, Hydrologic Unit 07090005, on right bank at downstream side of bridge on State Highway 92, 1.8 mi east of Joslin, 14.5 mi downstream from Rock Creek, and at mile 26.9.

DRAINAGE AREA.--9,549 mi^2.

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

REVISED RECORDS.--WDR IL-79-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 564.06 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Apr. 6, 1940, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Some diurnal fluctuation caused by powerplants upstream from station. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 41,000 ft^3/s, ice jam, Feb. 23, gage height, 18.88 ft., backwater from ice, minimum discharge, 3,000 ft^3/s, Sept. 15.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4830	7070	4930	e5200	e6600	29000	10200	7700	7250	9140	5360	4460
2	4740	6850	4950	e5600	e6300	29600	10100	8220	6890	8090	5600	4450
3	4620	7030	5080	e6000	e6100	30100	9960	8440	6670	7930	5570	4430
4	4560	6820	5210	e6600	e6300	28600	9790	8760	6040	8330	5340	4330
5	4150	6660	5150	e7200	e6600	26500	9690	9210	5920	7260	5080	4360
6	3980	6300	5130	e8500	e7000	24100	9550	9290	6030	7220	5050	4120
7	3890	6100	5160	e7000	e6800	21900	9230	9330	6100	7230	4930	3990
8	3940	6260	5140	e5200	e6600	20100	9360	9850	6530	7020	4580	3830
9	3940	5680	5270	e4600	e6400	18500	8660	10800	5930	6890	4610	3710
10	4210	5660	5120	e4900	e6100	17800	8770	11500	5510	6590	4500	3740
11	4370	5720	4960	e5200	e5800	17400	8850	11200	5370	6910	4420	3660
12	4210	5620	5390	e5600	e5700	16600	8950	10700	5480	6640	4370	3480
13	4150	5560	6060	e6200	e5600	16100	8930	8130	5520	6590	4290	3230
14	3900	5340	6650	e7000	e5500	15300	9200	8780	5280	6420	4260	3250
15	3860	5370	6830	e6200	e5500	15100	9430	8700	5100	6260	4490	3070
16	3870	5090	6920	e5600	e5400	14700	9540	8540	4940	6090	4570	3170
17	4560	4930	7250	e5200	e5400	14100	9590	8190	7770	5830	5090	3410
18	5700	5070	7070	e4800	e7000	13500	9420	7980	11700	5760	5790	3890
19	5100	5240	6350	e4500	e10000	12800	9500	7580	12300	5630	5800	4100
20	4710	5110	4160	e4400	e14000	12200	9410	8100	10500	6430	5410	3700
21	4630	5130	4360	e4300	e20000	11700	9350	8110	9490	5960	4990	4240
22	4760	5180	5120	e4600	e30000	11300	9300	7640	9230	5540	4810	4680
23	4690	5250	e6000	e6000	e40000	11000	9210	7240	8940	5510	4440	4370
24	4800	5140	e6600	e8000	e38300	10700	9180	6840	9070	5560	4360	4340
25	4980	5120	e7200	e7600	e36000	10600	8970	6930	8790	5700	4040	4010
26	4930	5030	e5800	e7200	e33000	10500	8660	11300	9820	5970	3690	3910
27	4780	4910	e5000	e6900	e31000	10600	8460	12100	10600	5910	3890	3730
28	4740	4800	e4600	e6900	29900	10600	8340	10800	10200	5770	4380	3600
29	4960	4420	e5600	e6900	---	10400	8080	9780	9900	5810	4450	3470
30	5190	4670	e7200	e6800	---	10400	7680	8310	9300	5720	4590	3230
31	6630	---	e5800	e6800	---	10300	---	7520	---	5770	4600	---
TOTAL	142380	167130	176060	187500	392900	512100	275360	277570	232170	201480	147350	115960
MEAN	4593	5571	5679	6048	14030	16520	9179	8954	7739	6499	4753	3865
MAX	6630	7070	7250	8500	40000	30100	10200	12100	12300	9140	5800	4680
MIN	3860	4420	4160	4300	5400	10300	7680	6840	4940	5510	3690	3070
CFSM	.48	.58	.59	.63	1.47	1.73	.96	.94	.81	.68	.50	.40
IN.	.55	.65	.69	.73	1.53	1.99	1.07	1.08	.90	.78	.57	.45

e Estimated

05446500 ROCK RIVER NEAR JOSLIN, IL--Continued

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

MEAN	4474	5169	5022	5278	6238	10930	10690	8249	6906	5665	4315	4170
MAX	17110	16700	14780	15820	14030	22500	26950	26030	22780	24000	12420	13470
(WY)	1987	1986	1983	1973	1997	1948	1993	1973	1996	1993	1993	1972
MIN	1381	1626	1519	1172	1554	2803	3877	2032	2052	1902	1349	1084
(WY)	1957	1950	1959	1940	1940	1954	1940	1958	1977	1965	1958	1958

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1940 - 1997	
ANNUAL TOTAL	3419520		2827960			
ANNUAL MEAN	9343		7748		6424	
HIGHEST ANNUAL MEAN					14560	1993
LOWEST ANNUAL MEAN					2587	1964
HIGHEST DAILY MEAN	43100	May 31	40000	Feb 23	44700	Mar 22 1948
LOWEST DAILY MEAN	3800 A	Jan 1	3070	Sep 15	834	Jan 3 1940
ANNUAL SEVEN-DAY MINIMUM	4030	Jan 1	3320	Sep 11	977	Jan 1 1940
INSTANTANEOUS PEAK FLOW			41000 A	Feb 23	46500 B	Mar 26 1993
INSTANTANEOUS PEAK STAGE			18.88C	Feb 23	18.88 C	Feb 23 1997
INSTANTANEOUS LOW FLOW			3000	Sep 15		
ANNUAL RUNOFF (CFSM)	.98		.81		.67	
ANNUAL RUNOFF (INCHES)	13.32		11.02		9.14	
10 PERCENT EXCEEDS	20500		11200		12700	
50 PERCENT EXCEEDS	6550		6060		4860	
90 PERCENT EXCEEDS	4370		4230		1980	

A - Estimated due to backwater from ice.

B - Gage height, 18.35 ft, affected by levee break.

C - Backwater from ice.

05447500 GREEN RIVER NEAR GENESEO, IL

LOCATION.--Lat 41°29'20", long 90°09'30", in NE1/4SW1/4 sec.4, T.17 N., R.3 E., Henry County, Hydrologic Unit 07090007, on right bank at upstream side of bridge on State Highway 82, 1.4 mi upstream from Geneseo Creek, 2.4 mi north of Geneseo, and at mile 14.9.

DRAINAGE AREA.--1,003 mi^2.

PERIOD OF RECORD.--March 1936 to current year.

REVISED RECORDS.--WSP 875: 1938. WSP 1508: 1937, 1939-41(M), 1946(P), 1947-49. WDR IL-74-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 580.66 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Oct. 1, 1939, nonrecording gage at same site at datum 30.00 ft lower. Oct. 1, 1939 to Apr. 3, 1940, nonrecording gage at present site and datum.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 21	1445	*10,300	*15.63	Mar. 1	1330	4,680	10.38

Minimum discharge, 63 ft^3/s, Nov. 26, result of freezeup.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	151	328	307	e320	e290	4420	649	598	542	289	100	130
2	142	305	288	e350	e380	4070	627	690	509	264	96	113
3	135	284	286	e430	e580	3270	610	726	496	251	97	110
4	133	270	172	522	e800	2660	604	732	481	245	92	107
5	134	262	240	419	e1200	2190	609	693	463	238	92	103
6	134	259	311	383	e1000	1830	627	665	554	233	87	102
7	135	266	276	548	e740	1570	626	629	774	222	87	115
8	133	267	241	e620	e560	1430	593	737	670	216	87	126
9	133	263	216	e500	e440	1370	556	956	598	212	87	131
10	141	251	270	e380	e360	1480	541	915	530	205	98	117
11	141	238	305	e310	e300	1420	574	816	500	198	128	108
12	134	207	312	e250	e260	1290	667	777	500	190	184	101
13	134	241	426	e210	e230	1210	787	741	533	182	136	98
14	134	151	451	e185	e210	1180	939	695	495	180	110	96
15	133	211	461	e175	e190	1100	958	658	441	170	115	95
16	175	272	487	e165	e180	1060	888	621	435	160	142	98
17	423	238	481	e160	e200	1000	819	593	431	149	288	227
18	368	237	369	e150	e800	955	770	575	401	144	461	230
19	284	224	e300	e145	e1900	916	783	631	378	147	295	154
20	237	219	e250	e140	2080	884	794	855	368	186	222	135
21	219	224	e255	e150	7010	858	771	712	363	192	185	123
22	219	221	e260	e250	7230	822	735	627	352	268	164	112
23	305	215	e270	e500	6100	781	692	582	339	229	146	121
24	356	218	e275	e900	4870	746	665	561	311	188	140	126
25	313	212	e280	e640	3860	786	632	564	302	171	135	118
26	280	109	e270	e470	3510	801	599	748	307	151	127	111
27	252	365	e260	e390	4300	770	577	791	306	142	126	105
28	236	369	e260	e320	4110	750	577	686	291	147	121	102
29	240	314	e260	e270	---	734	562	641	277	124	118	103
30	292	315	e270	e230	---	712	552	614	281	113	124	97
31	357	---	e290	e210	---	684	---	578	---	106	145	---
TOTAL	6603	7555	9399	10692	53690	43749	20383	21407	13228	5912	4535	3614
MEAN	213	252	303	345	1918	1411	679	691	441	191	146	120
MAX	423	369	487	900	7230	4420	958	956	774	289	461	230
MIN	133	109	172	140	180	684	541	561	277	106	87	95
CFSM	.21	.25	.30	.34	1.91	1.41	.68	.69	.44	.19	.15	.12
IN.	.24	.28	.35	.40	1.99	1.62	.76	.79	.49	.22	.17	.13

e Estimated

05447500 GREEN RIVER NEAR GENESEO, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 1997, BY WATER YEAR (WY)

MEAN	368	454	468	532	732	1038	1052	962	858	551	393	351
MAX	2043	1790	1905	1976	2070	3244	3562	3500	3568	2946	1845	1777
(WY)	1942	1978	1983	1946	1949	1979	1973	1974	1974	1990	1987	1970
MIN	48.8	60.4	57.1	26.5	68.8	198	174	140	127	62.9	61.0	46.5
(WY)	1954	1954	1959	1977	1940	1956	1956	1989	1977	1940	1988	1940

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1936 - 1997	
ANNUAL TOTAL	263863		200767			
ANNUAL MEAN	721		550		648	
HIGHEST ANNUAL MEAN					1579	1993
LOWEST ANNUAL MEAN					159	1940
HIGHEST DAILY MEAN	7720	May 29	7230	Feb 22	10100	Mar 19 1979
LOWEST DAILY MEAN	109	Nov 26	87	Aug 6-9	22	Jan 18 1977
ANNUAL SEVEN-DAY MINIMUM	134	Oct 3	90	Aug 3	24	Jan 17 1977
INSTANTANEOUS PEAK FLOW			10300	Feb 21	12100 A	Jun 22 1974
INSTANTANEOUS PEAK STAGE			15.63	Feb 21	18.59 B	Jan 23 1969
INSTANTANEOUS LOW FLOW			63 C	Nov 26		
ANNUAL RUNOFF (CFSM)	.72		.55		.65	
ANNUAL RUNOFF (INCHES)	9.79		7.45		8.77	
10 PERCENT EXCEEDS	1600		893		1440	
50 PERCENT EXCEEDS	354		292		383	
90 PERCENT EXCEEDS	201		120		94	

A - Gage height, 16.75 ft.
B - Backwater from ice.
C - Result of freezeup.

05448000 MILL CREEK AT MILAN, IL

LOCATION.--Lat 41°26'32", long 90°33'21", in NW1/4NE1/4 sec.25, T.17 N., R.2 W., Rock Island County, Hydrologic Unit 07090005, on right bank at upstream side of Knoxville Road Bridge, 1 mi southeast of Milan, and at mile 1.2.

DRAINAGE AREA.--62.4 mi^2.

PERIOD OF RECORD.--October 1989 to current year. October 1939 to September 1940 (fragmentary), July 1941 to September 1986. Seven-month period (March to September), water years 1987-89.

REVISED RECORDS.--WSP 1308: 1940(M), 1943(M). WDR IL-72-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 565.23 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Apr. 5, 1940, nonrecording gage at same site and datum. Prior to Oct. 1, 1987, at datum 1.00 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Occasional pumpage of about 1 ft^3/s from quarry into creek upstream from gage.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 21	Unknown	*3,030	*7.64	No other peak greater than base discharge			

Minimum discharge, 0.51 ft^3/s, Aug. 10.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	3.4	4.0	3.4	e6.4	400	11	16	19	8.0	1.9	19
2	2.5	2.4	5.5	6.7	e9.0	118	11	14	16	5.6	.92	17
3	2.6	2.3	4.1	8.0	e17	70	11	17	16	5.3	3.8	27
4	2.4	3.5	3.8	7.9	e30	56	11	12	17	4.6	5.4	12
5	1.7	2.7	3.7	9.7	e60	48	13	14	15	4.8	3.3	8.1
6	1.6	2.6	3.7	9.2	e45	35	15	10	17	4.6	.90	6.7
7	1.7	2.6	3.3	3.6	e28	33	10	15	22	4.7	.66	6.3
8	1.8	2.5	4.8	2.4	e17	34	9.4	66	35	4.1	.58	8.0
9	1.8	2.3	4.0	e2.1	e12	61	8.4	36	27	3.4	.56	5.9
10	1.9	2.1	4.4	e1.9	e8.2	63	10	26	20	3.2	.55	5.2
11	1.7	2.0	5.1	e1.7	e6.6	46	13	23	19	3.1	18	4.0
12	1.7	1.8	5.8	e1.6	e5.5	38	19	21	23	2.9	10	3.4
13	1.7	1.9	4.9	e1.4	e4.7	34	25	20	27	4.6	3.7	3.0
14	2.3	1.7	4.3	e1.4	e4.3	37	41	18	18	7.2	2.2	3.0
15	2.2	2.1	5.7	e1.3	e4.1	26	41	16	15	2.8	14	3.1
16	3.6	2.7	5.5	e1.2	e4.7	26	32	16	16	2.3	7.9	16
17	4.4	3.9	4.0	e1.2	e9.0	26	26	15	15	1.8	44	168
18	2.6	4.5	e2.8	e1.1	e170	18	24	15	12	1.6	25	29
19	2.0	3.6	e2.0	e1.1	e120	15	23	14	12	2.9	9.5	15
20	2.0	3.3	e1.7	e1.1	82	15	21	12	11	7.3	6.4	13
21	2.4	3.6	1.8	e1.4	e1820	15	19	10	17	8.0	4.5	8.0
22	3.5	2.6	3.3	e4.0	268	14	19	11	15	16	4.7	8.0
23	7.4	2.4	4.8	e12	105	12	16	9.6	11	7.4	2.8	18
24	4.1	2.3	3.8	e25	57	12	16	9.5	9.4	4.9	2.3	20
25	2.6	2.2	e3.2	e40	43	21	15	14	9.9	3.6	3.4	13
26	2.1	1.9	e2.9	e25	133	18	13	55	9.0	2.8	4.0	9.5
27	1.7	1.6	e2.7	e13	181	17	13	52	8.0	2.4	6.7	8.0
28	1.7	1.6	e2.6	e8.0	226	15	14	32	7.3	2.0	3.3	7.1
29	3.8	2.3	e2.7	e6.0	---	14	14	27	6.8	1.3	2.8	6.3
30	4.8	5.9	e2.8	e5.1	---	13	13	24	7.0	1.3	63	7.1
31	4.9	---	e3.1	e5.0	---	13	---	21	---	.94	61	---
TOTAL	83.4	80.3	116.8	212.5	3476.5	1363	526.8	661.1	472.4	135.44	317.77	477.7
MEAN	2.69	2.68	3.77	6.85	124	44.0	17.6	21.3	15.7	4.37	10.3	15.9
MAX	7.4	5.9	5.8	40	1820	400	41	66	35	16	63	168
MIN	1.6	1.6	1.7	1.1	4.1	12	8.4	9.5	6.8	.94	.55	3.0
CFSM	.04	.04	.06	.11	1.99	.70	.28	.34	.25	.07	.16	.26
IN.	.05	.05	.07	.13	2.07	.81	.31	.39	.28	.08	.19	.28

e Estimated

05448000 MILL CREEK AT MILAN, IL--Continued

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

MEAN	20.0	22.6	26.5	37.1	59.8	75.6	75.0	71.2	65.5	41.2	25.4	19.4
MAX	209	175	162	223	223	299	335	432	616	388	259	208
(WY)	1955	1962	1983	1960	1959	1960	1965	1996	1993	1986	1993	1970
MIN	.11	.51	.44	.000	2.78	3.95	3.17	3.44	1.86	1.50	.89	.18
(WY)	1957	1957	1977	1940	1964	1956	1956	1956	1956	1988	1957	1956

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1940 - 1997	
ANNUAL TOTAL	22911.6		7923.71			
ANNUAL MEAN	62.6		21.7		46.4	
HIGHEST ANNUAL MEAN					173	1993
LOWEST ANNUAL MEAN					8.67	1957
HIGHEST DAILY MEAN	3540	May 28	1820 A	Feb 21	5000	Jul 8 1986
LOWEST DAILY MEAN	1.6	Oct 6, Nov 27, 28	.55	Aug 10	.00	B
ANNUAL SEVEN-DAY MINIMUM	1.7	Oct 5	1.2	Jan 14	.00	Dec 30 1939
INSTANTANEOUS PEAK FLOW			3030	Feb 21	9300	Apr 22 1973
INSTANTANEOUS PEAK STAGE			7.64	Feb 21	12.65 C	Apr 22 1973
INSTANTANEOUS LOW FLOW			.51	Aug 10		
ANNUAL RUNOFF (CFSM)	1.00		.35		.74	
ANNUAL RUNOFF (INCHES)	13.66		4.72		10.10	
10 PERCENT EXCEEDS	105		34		87	
50 PERCENT EXCEEDS	16		7.3		16	
90 PERCENT EXCEEDS	2.3		1.8		1.6	

A - Estimated.

B - At times in several years.

C - Present datum.

05466000 EDWARDS RIVER NEAR ORION, IL

LOCATION.--Lat 41°16'20", long 90°22'40", in NE1/4SE1/4 sec.21, T.15 N., R.1 E., Henry County, Hydrologic Unit 07080104, on left bank at downstream side of bridge on U.S. Highway 150, 1.5 mi north of Opheim, 5.5 mi south of Orion, and at mile 51.5.

DRAINAGE AREA.--155 mi^2.

PERIOD OF RECORD.--October 1940 to current year. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORDS.--WSP 1175: 1947(P). WSP 1508: 1942. WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 653.96 ft above sea level (U.S. Army Corps of Engineers bench mark). Prior to Apr. 4, 1941, and Apr. 8 to Nov. 11, 1981, nonrecording gage at same site and datum.

REMARKS.--Records good except those for Feb. 20, 24-26, and Mar. 3-4, which are fair, and those for estimated daily discharges, which are poor. Gage-height telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 1924 reached a stage of 20.2 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 21	Unknown	*4,830	*14.49	No other peak greater than base discharge			

Minimum daily discharge, 3.7 ft^3/s, Jan. 20, estimated due to backwater from ice.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.1	8.5	e17	e11	e15	700	43	56	38	23	5.6	25
2	7.8	8.1	e19	e14	e30	260	41	51	37	20	5.5	23
3	8.8	8.5	17	e18	e50	149	41	54	37	19	6.9	25
4	7.0	7.9	19	e22	e100	114	41	47	36	20	8.9	21
5	7.4	8.1	18	e18	e180	92	43	46	35	19	7.6	19
6	7.7	9.4	16	e24	e80	80	47	43	38	18	4.9	17
7	7.4	9.0	18	e17	e40	71	38	44	58	17	4.3	16
8	7.2	9.3	17	e12	e27	68	36	65	49	17	4.1	17
9	7.8	8.6	21	e9.0	e20	82	35	55	42	18	4.2	16
10	7.8	9.4	18	e7.5	e16	109	38	49	37	17	4.2	15
11	7.8	9.6	14	e6.5	e13	93	48	49	36	15	18	14
12	7.6	9.4	14	e5.5	e11	81	77	50	39	14	23	13
13	7.8	8.7	14	e5.0	e9.4	78	109	50	40	14	9.2	12
14	7.2	11	13	e4.7	e8.5	84	187	49	34	14	6.4	12
15	7.5	15	14	e4.5	e8.0	70	147	47	33	12	10	12
16	7.9	10	e13	e4.3	e9.0	71	119	45	37	11	14	12
17	8.0	12	e10	e4.1	e50	71	104	45	34	10	636	76
18	9.5	11	e8.8	e3.9	e758	65	96	44	31	10	228	43
19	7.7	11	e8.0	e3.8	e603	60	93	44	30	11	99	26
20	7.5	9.7	e8.1	e3.7	352	59	82	41	29	14	67	23
21	7.1	9.6	e8.3	e10	e3870	56	77	39	29	16	49	21
22	10	9.8	e8.6	e20	e2320	53	70	38	26	14	37	21
23	19	10	e9.0	e40	e637	49	66	38	24	11	29	25
24	14	10	e9.7	e80	136	49	63	38	23	11	26	26
25	11	12	e8.7	e52	79	69	58	43	23	9.7	26	23
26	9.8	13	e8.1	e30	223	60	54	46	22	9.2	23	22
27	9.9	e12	e7.9	e20	e350	55	55	53	21	8.8	20	21
28	10	e12	e7.8	e14	393	55	55	45	20	7.5	19	20
29	e11	e14	e8.1	e12	---	53	52	45	20	6.5	17	21
30	e13	e15	e8.7	e9.5	---	49	53	43	22	6.1	29	18
31	e14	---	e9.5	e11	---	46	---	40	---	5.7	43	---
TOTAL	284.3	311.6	391.3	497.0	10387.9	3051	2068	1442	980	418.5	1484.8	655
MEAN	9.17	10.4	12.6	16.0	371	98.4	68.9	46.5	32.7	13.5	47.9	21.8
MAX	19	15	21	80	3870	700	187	65	58	23	636	76
MIN	7.0	7.9	7.8	3.7	8.0	46	35	38	20	5.7	4.1	12
CFSM	.06	.07	.08	.10	2.39	.63	.44	.30	.21	.09	.31	.14
IN.	.07	.07	.09	.12	2.49	.73	.50	.35	.24	.10	.36	.16

e Estimated

05466000 EDWARDS RIVER NEAR ORION, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1997, BY WATER YEAR (WY)

MEAN	50.1	62.8	71.1	85.6	148	177	198	171	157	109	56.8	49.9
MAX	466	486	436	427	871	554	634	558	693	689	466	375
(WY)	1942	1978	1983	1974	1951	1979	1983	1973	1974	1969	1993	1989
MIN	.93	1.87	.84	.50	2.44	13.8	11.3	11.3	9.95	6.91	3.48	2.13
(WY)	1957	1977	1977	1977	1989	1956	1956	1989	1977	1977	1988	1956

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1941 - 1997	
ANNUAL TOTAL	41849.8		21971.4			
ANNUAL MEAN	114		60.2		111	
HIGHEST ANNUAL MEAN					334	1993
LOWEST ANNUAL MEAN					22.0	1977
HIGHEST DAILY MEAN	2540	May 27	3870 A	Feb 21	7630	Feb 19 1951
LOWEST DAILY MEAN	7.0	Oct 4	3.7 B	Jan 20	.40	Oct 6 1956
ANNUAL SEVEN-DAY MINIMUM	7.5	Oct 4	4.1	Jan 14	.40	Jan 20 1977
INSTANTANEOUS PEAK FLOW			4830	Feb 21	8910 C	Feb 19 1951
INSTANTANEOUS PEAK STAGE			14.49	Feb 21	15.52	Jun 23 1974
INSTANTANEOUS LOW FLOW			D		.30	Oct 6 1956
ANNUAL RUNOFF (CFSM)	.74		.39		.72	
ANNUAL RUNOFF (INCHES)	10.04		5.27		9.73	
10 PERCENT EXCEEDS	259		79		223	
50 PERCENT EXCEEDS	39		20		48	
90 PERCENT EXCEEDS	8.7		7.8		5.6	

A - Estimated.

B - Estimated due to backwater from ice.

C - Gage height, 13.41 ft.

D - Minimum recorded, 4.0 ft^3/s, Aug. 7-10, but may have been less during period of ice effect, Jan. 9-21.

05466500 EDWARDS RIVER NEAR NEW BOSTON, IL

LOCATION.--Lat 41°11'15", long 90°58'05", at quarter corner between secs.21 and 28, T.14 N., R.5 W., Mercer County, Hydrologic Unit 07080104, on left bank at downstream side of bridge on State Highway 17, 1.5 mi northeast of New Boston, and at mile 4.6.

DRAINAGE AREA.--445 mi^2.

PERIOD OF RECORD.--October 1934 to current year. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORDS.--WSP 1508: 1935-36(M), 1938-40(M), 1941, 1943. WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 529.92 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Mar. 1, 1941, nonrecording gage at same site and datum.

REMARKS.--Records good except those for Dec. 10-Jan. 16, which are fair, and those for estimated daily discharges, which are poor. U.S. Army Corps of Engineers satellite elemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 21	2000	3,600	21.76	Mar. 2	0530	1,930	19.82
Feb. 23	1845	*4,190	*22.07				

Minimum recorded discharge, 16 ft^3/s, Dec. 8, result of freezeup, may have been less during period of ice effect, Jan. 13-22.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	42	39	30	e50	1840	131	142	113	63	25	188
2	29	42	38	37	e70	1720	125	147	106	64	24	118
3	27	37	42	e42	e100	872	123	140	102	59	23	296
4	27	34	39	e47	e180	602	123	136	100	56	23	142
5	28	34	44	e50	e300	472	127	125	97	55	27	101
6	27	35	39	40	e400	377	128	115	97	55	32	83
7	26	34	37	56	e150	325	120	120	101	54	27	73
8	27	33	36	41	e90	299	112	178	148	53	22	69
9	27	36	39	35	e70	306	105	216	206	51	20	81
10	28	34	38	e31	e60	366	105	178	151	50	20	69
11	28	34	40	e28	e52	357	119	155	132	48	30	62
12	28	32	43	e26	e48	311	141	144	129	48	38	57
13	27	30	44	e23	e44	274	186	142	152	49	48	53
14	28	29	44	e22	e40	259	286	138	143	47	41	51
15	29	33	45	e21	e37	234	397	130	122	45	33	49
16	29	33	44	e20	e30	200	340	123	113	43	29	50
17	28	38	34	e19	e42	211	302	116	114	40	181	85
18	27	40	33	e18	e200	208	290	116	107	38	701	206
19	27	39	e30	e18	e1100	188	291	113	97	38	312	e170
20	26	39	e25	e17	e1250	178	290	108	94	94	165	e130
21	27	37	e26	e16	3000	174	270	102	95	56	118	e96
22	32	36	27	e35	2940	167	247	96	97	56	96	e82
23	38	36	28	e60	3840	157	225	93	89	49	82	e74
24	36	36	29	e110	3630	150	203	93	81	43	71	e80
25	45	35	32	e190	1390	158	182	98	74	39	63	e78
26	44	28	e29	e150	813	177	162	114	72	37	69	74
27	35	33	e27	e90	1470	168	147	138	70	34	66	69
28	32	28	e26	e65	1580	158	142	153	67	32	57	64
29	38	30	e25	e51	---	153	140	138	65	29	53	59
30	40	36	e26	e45	---	146	136	130	64	27	405	55
31	38	---	28	e40	---	137	---	122	---	26	508	---
TOTAL	960	1043	1076	1473	22976	11344	5695	4059	3198	1478	3409	2864
MEAN	31.0	34.8	34.7	47.5	821	366	190	131	107	47.7	110	95.5
MAX	45	42	45	190	3840	1840	397	216	206	94	701	296
MIN	26	28	25	16	30	137	105	93	64	26	20	49
CFSM	.07	.08	.08	.11	1.84	.82	.43	.29	.24	.11	.25	.21
IN.	.08	.09	.09	.12	1.92	.95	.48	.34	.27	.12	.28	.24

e Estimated

05466500 EDWARDS RIVER NEAR NEW BOSTON, IL--Continued

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

MEAN	128	160	175	238	350	494	529	463	411	302	166	129
MAX	791	1192	1469	1133	1280	1791	2307	1762	1829	2258	1508	1006
(WY)	1942	1978	1983	1969	1985	1993	1973	1996	1974	1982	1993	1970
MIN	5.47	11.3	8.86	6.39	11.9	66.0	33.4	33.0	35.8	11.7	10.3	7.29
(WY)	1989	1938	1964	1977	1989	1956	1956	1989	1977	1936	1988	1988

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1935 - 1997	
ANNUAL TOTAL	122900		59575			
ANNUAL MEAN	336		163		295	
HIGHEST ANNUAL MEAN					965	1993
LOWEST ANNUAL MEAN					76.6	1940
HIGHEST DAILY MEAN	5950	May 29	3840	Feb 23	14000	Apr 22 1973
LOWEST DAILY MEAN	25 A	Dec 20, 29	16 A	Jan 21	1.3	Oct 19 1988
ANNUAL SEVEN-DAY MINIMUM	27	Oct 3	18	Jan 15	2.4	Oct 18 1988
INSTANTANEOUS PEAK FLOW			4190	Feb 23	18000	Apr 22 1973
INSTANTANEOUS PEAK STAGE			22.07	Feb 23	23.33	Apr 22 1973
INSTANTANEOUS LOW FLOW			16 B	Dec 8	1.2	C
ANNUAL RUNOFF (CFSM)	.75		.37		.66	
ANNUAL RUNOFF (INCHES)	10.27		4.98		9.00	
10 PERCENT EXCEEDS	832		279		673	
50 PERCENT EXCEEDS	129		63		129	
90 PERCENT EXCEEDS	30		27		20	

A - Estimated due to backwater from ice.

B - Minimum recorded, result of freezeup, may have been less during period of ice effect, Jan. 13-22.

C - Oct. 19, 20, 1988.

05474500 MISSISSIPPI RIVER AT KEOKUK, IA

LOCATION.--Lat 40°23'37", long 91°22'27", in SE1/4 SW1/4 sec.30, T.65 N., R.4 W., Lee County, Hydrologic Unit 07080104, near right bank in tailwater of dam and powerplant of Union Electric Co. at Keokuk, 0.2 mi upstream from bridge on U.S. Highway 136, 2.7 mi upstream from Des Moines River, and at mile 364.2 upstream from Ohio River.

DRAINAGE AREA.--119,000 mi^2, approximately.

PERIOD OF RECORD.--January 1878 to current year.

GAGE.--Water-stage recorder. Datum of gage is 477.41 ft above sea level (levels by U.S. Army Corps of Engineers). Jan. 1, 1878 to May 1913, nonrecording gage at Galland (formerly Nashville), 8 mi upstream; zero of gage was set to low-water mark of 1864, or 496.52 ft above sea level.

REMARKS.--Discharge computed from records of operation of turbines in powerplant and spillway gates in dam. Minor flow regulation caused by powerplant since 1913 and navigation dams. Records for May 1913 to September 1937 adjusted for change in contents in Keokuk Reservoir, those after September 1937 unadjusted.

COOPERATION.--Records provided by Union Electric Co.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 6, 1851, reached a stage of 21.0 ft, present site and datum, estimated as 13.5 ft at Galland, discharge, 360,000 ft^3/s.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34100	69000	68400	53900	51400	137200	129000	195100	91200	77000	94500	71600
2	36100	71600	65600	53000	52000	134000	126100	185400	87200	80800	100600	65900
3	38300	67000	64600	55700	53400	141300	125100	182900	87200	89300	99500	64000
4	39600	66500	65700	55100	55800	141600	131600	177600	82600	88300	98200	62400
5	36100	60800	69600	60000	59600	136500	133200	172900	80000	81600	100200	60500
6	30700	64700	65700	49900	61400	123700	131400	171600	76700	79600	98300	60500
7	30300	62500	63500	53600	59400	110500	144000	166000	77700	76000	95300	58600
8	35100	64200	65300	53200	59400	107800	145600	168000	78900	82900	91400	59200
9	33200	64700	69400	51900	56700	98400	152900	165200	84700	84000	87200	58800
10	31600	64500	67000	54700	56100	92600	159200	167400	82800	81000	80800	62400
11	29300	65100	69300	49200	54000	101700	170100	163500	78500	87600	83200	62100
12	27300	61900	66300	44800	56000	111100	175000	159800	80000	85700	82100	56800
13	27700	63100	69900	47300	55000	121000	186100	153200	84200	88400	77500	48400
14	28600	59600	72500	51000	54400	118800	198200	146700	73200	87800	65600	44100
15	29300	50900	73300	49200	51500	110500	212400	139400	61000	88200	64400	43400
16	31600	46200	73800	55700	49300	108900	227100	129100	71700	87200	59000	43600
17	28800	44100	70900	53900	49400	104300	237700	127400	66600	86000	65000	43900
18	29700	48200	67000	54400	50000	96300	243400	116500	68900	86300	62900	45800
19	31900	54000	40200	52000	60400	97800	247500	116600	76800	83400	73900	50100
20	41600	65000	32100	51700	91900	110200	250200	112800	75300	81800	61100	49100
21	39700	74300	33100	52000	149800	108200	250700	104100	60000	87600	63100	51800
22	36200	74400	36300	53000	170400	108300	251400	104000	62900	97800	56400	54500
23	35600	81900	39700	54000	182600	105600	249700	91300	67700	98900	56900	61900
24	45300	93000	40400	54800	203100	110400	243700	93600	75600	91500	53400	62100
25	50700	95300	41000	55400	206900	110800	240000	94000	85100	88000	54100	60400
26	53600	96700	41800	60000	190900	106400	234000	100800	88300	89400	53800	62700
27	52100	96300	43500	61200	172900	113900	226100	102100	90800	87900	58300	58500
28	53300	83600	46400	59300	153300	118400	218200	108300	92800	90800	63700	56700
29	52400	74900	53400	55700	---	120900	209400	100300	80900	87800	71600	46700
30	53500	68100	53700	56000	---	126000	197300	93600	78500	92200	68300	43900
31	58700	---	48800	55100	---	126900	---	92000	---	91200	72600	---
TOTAL	1182000	2052100	1778200	1666700	2567000	3560000	5846300	4201200	2347800	2686000	2312900	1670400
MEAN	38130	68400	57360	53760	91680	114800	194900	135500	78260	86650	74610	55680
MAX	58700	96700	73800	61200	207000	142000	251000	195000	92800	98900	101000	71600
MIN	27300	44100	32100	44800	49300	92600	125000	91300	60000	76000	53400	43400
MED	35600	65100	65300	53900	58100	111000	204000	129000	78700	87600	71600	58600
AC-FT	2344000	4070000	3527000	3306000	5092000	7061000	11600000	8333000	4657000	5328000	4588000	3313000
CFSM	.32	.57	.48	.45	.77	.97	1.64	1.14	.66	.73	.63	.47
IN.	.37	.64	.56	.52	.80	1.11	1.83	1.31	.73	.84	.72	.52

05474500 MISSISSIPPI RIVER AT KEOKUK, IA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1879 - 1997, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	51150	51310	38710	36010	42190	80790	120000	107900	92940	73530	49340	47870
MAX	221100	211300	125600	101600	95660	185400	250100	260700	227300	385800	223000	163300
(WY)	1882	1882	1983	1973	1984	1973	1993	1888	1892	1993	1993	1993
MIN	16060	16020	13450	14650	15790	21780	32930	27600	17400	16280	13030	15530
(WY)	1934	1934	1934	1940	1899	1934	1895	1934	1934	1988	1936	1976

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1879 - 1997	
ANNUAL TOTAL	30362000		31870600			
ANNUAL MEAN	82960		87320		66030	
HIGHEST ANNUAL MEAN					162500	1993
LOWEST ANNUAL MEAN					21540	1934
HIGHEST DAILY MEAN	236000	May 13	251000	Apr 22	434000	Jul 10 1993
LOWEST DAILY MEAN	25400	Sep 17	27300	Oct 12	5000	Dec 27 1933
ANNUAL SEVEN-DAY MINIMUM	28900	Oct 11	28900	Oct 11	8270	Dec 25 1933
INSTANTANEOUS PEAK FLOW					446000	Jul 10 1993
INSTANTANEOUS PEAK STAGE					27.58	Jul 10 1993
ANNUAL RUNOFF (AC-FT)	60220000		63220000		47840000	
ANNUAL RUNOFF (CFSM)	.70		.73		.55	
ANNUAL RUNOFF (INCHES)	9.49		9.96		7.54	
10 PERCENT EXCEEDS	163000		164000		133000	
50 PERCENT EXCEEDS	67400		71700		50500	
90 PERCENT EXCEEDS	35000		44000		23000	

05495500 BEAR CREEK NEAR MARCELLINE, IL

LOCATION.--Lat 40°08'34", long 91°20'14", on line between secs.20 and 21, T.2 N., R.8 W., Adams County, Hydrologic Unit 07110001, on right bank at downstream side of bridge on County Road 900 E, 0.9 mi downstream from Grindstone Creek, 2.2 mi northeast of Marcelline, 3.8 mi upstream from State Highway 96, and at mile 12.3.

DRAINAGE AREA.--349 mi^2.

PERIOD OF RECORD.--March 1944 to current year.

REVISED RECORDS.--WSP 1308: 1944-45(M), 1948(M). WDR IL-75-1: Drainage area. WDR IL-94-1: 1991.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 504.52 ft above sea level. Prior to June 24, 1949, nonrecording gage at same site and datum.

REMARKS.--Records good except those for Feb. 28-Mar. 9, 30-31, which are fair, and those for estimated daily discharges, which are poor. Gage-height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 21	unknown	*14,900	*18.99	Apr. 11	2215	6,790	13.51
Feb. 26	unknown	11,600	17.04				

Minimum discharge, .57 ft^3/s , Sept. 30, but may have been less during period of missing record, Sept 23-29.

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

DAY.	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.3	3.5	31	5.3	e26	1170	51	172	102	2380	4.1	30
2	6.9	3.5	27	7.5	69	595	45	112	78	278	3.9	17
3	5.7	3.6	21	11	333	278	43	1180	66	58	3.8	11
4	5.2	3.8	15	14	346	192	45	661	58	38	4.1	7.8
5	4.5	3.8	15	15	e260	145	53	197	51	32	3.6	6.3
6	4.5	4.3	14	8.9	e160	117	68	130	45	24	3.5	5.5
7	4.6	9.2	14	8.0	e92	97	54	99	41	19	3.4	5.0
8	4.9	17	13	6.5	e60	86	40	203	42	16	3.3	4.7
9	4.5	18	10	e5.5	e40	766	32	202	40	13	3.2	4.3
10	4.2	11	9.7	e4.6	e31	1310	34	88	34	11	3.4	4.2
11	4.1	8.2	9.5	e3.8	e26	359	2870	69	31	9.9	3.7	3.9
12	4.6	7.3	9.3	e3.2	e23	168	4480	63	29	9.0	3.5	3.8
13	4.9	6.7	8.7	e2.8	e21	123	1590	56	162	8.2	3.4	4.0
14	4.5	5.7	8.6	e2.6	e20	108	462	51	63	7.6	3.4	4.0
15	4.5	5.5	8.5	e2.4	e19	85	254	45	40	6.7	3.8	3.9
16	5.1	5.4	7.7	e2.3	e18	65	243	40	99	6.3	3.8	3.9
17	5.5	7.6	7.7	e2.2	e21	67	199	41	181	6.7	36	4.5
18	5.0	8.1	e6.5	e2.1	60	73	149	44	51	6.1	85	3.9
19	4.5	8.3	e4.5	e2.1	179	69	130	106	34	6.4	36	3.7
20	4.5	11	e4.6	e2.0	160	62	117	85	26	39	17	3.3
21	4.5	8.2	4.7	e6.0	e10900	59	260	48	22	22	10	3.2
22	6.1	7.3	4.7	73	e4500	55	232	35	19	20	7.6	2.9
23	12	6.9	5.1	173	e803	47	149	30	17	16	6.0	e2.5
24	20	6.7	e4.6	100	287	67	114	31	14	12	5.1	e2.0
25	11	6.6	e4.1	e65	184	684	95	62	13	8.6	326	e1.6
26	6.9	5.8	e3.7	e45	e3400	315	81	102	11	6.9	124	e1.5
27	5.8	5.7	3.6	e35	e7660	148	77	712	10	6.4	32	e1.4
28	4.9	5.4	3.8	e29	e1500	109	77	1720	9.9	6.8	15	e1.3
29	4.7	6.0	4.1	e24	---	90	71	1030	9.6	5.6	418	e.90
30	4.1	17	4.6	e21	---	74	70	225	462	4.9	406	.63
31	3.7	---	5.2	e20	---	63	---	140	---	4.3	62	---
TOTAL	185.2	227.1	293.5	702.8	31198	7646	12185	7779	1860.5	3088.4	1643.6	152.63
MEAN	5.97	7.57	9.47	22.7	1114	247	406	251	62.0	99.6	53.0	5.09
MAX	20	18	31	173	10900	1310	4480	1720	462	2380	418	30
MIN	3.7	3.5	3.6	2.0	18	47	32	30	9.6	4.3	3.2	.63
CFSM	.02	.02	.03	.06	3.19	.71	1.16	.72	.18	.29	.15	.01
IN.	.02	.02	.03	.07	3.33	.81	1.30	.83	.20	.33	.18	.02

e Estimated

05495500 BEAR CREEK NEAR MARCELLINE, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1997, BY WATER YEAR (WY)

MEAN	116	156	147	145	258	386	419	396	246	284	89.2	165
MAX	1658	2172	1485	956	1237	1370	2163	2679	2251	1967	541	1954
(WY)	1987	1986	1983	1946	1985	1985	1944	1995	1990	1993	1993	1970
MIN	.000	.000	.074	.31	.68	3.83	9.02	3.26	.72	.24	.17	.000
(WY)	1957	1957	1957	1977	1989	1956	1977	1989	1956	1988	1988	1953

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1944 - 1997	
ANNUAL TOTAL	106363.8		66961.73			
ANNUAL MEAN	291		183		232	
HIGHEST ANNUAL MEAN					711	1993
LOWEST ANNUAL MEAN					12.5	1989
HIGHEST DAILY MEAN	19300	May 9	10900	Feb 21	20500	Mar 4 1985
LOWEST DAILY MEAN	3.0	Sep 17-22	.63A	Sep 30	.00	B
ANNUAL SEVEN-DAY MINIMUM	3.0	Sep 16	1.3	Sep 24	.00	Aug 19 1953
INSTANTANEOUS PEAK FLOW			14900	Feb 21	35500	May 8 1996
INSTANTANEOUS PEAK STAGE			18.99	Feb 21	28.38	Mar 4 1985
INSTANTANEOUS LOW FLOW			.57A	Sep 30		
ANNUAL RUNOFF (CFSM)	.83		.53		.66	
ANNUAL RUNOFF (INCHES)	11.34		7.14		9.01	
10 PERCENT EXCEEDS	296		236		416	
50 PERCENT EXCEEDS	27		17		23	
90 PERCENT EXCEEDS	4.5		3.7		1.0	

A - May have been less during period of missing record, Sept. 23-29.

B - Many days in 1953-56, 1962-64, 1976-77, 1988.

05512500 BAY CREEK AT PITTSFIELD, IL

LOCATION.--Lat 39°37'30", long 90°47'40", in NE1/4SW1/4 sec.18, T.5 S., R.3 W., Pike County, Hydrologic Unit 07110004, on right bank at downstream side of bridge on abandoned county road, 50 ft downstream from Panther Creek, 0.1 mi downstream from State Highway 107, 1.4 mi northeast of Pittsfield, and at mile 33.6.

DRAINAGE AREA.--39.4 mi^2.

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

REVISED RECORDS.--WSP 1175: 1940(P), 1941, 1949. WSP 1508: 1942. WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 638.48 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Dec. 7, 1939, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Effluent from sewage-treatment plant upstream at Pittsfield averaged about 0.98 ft^3/s. Gage-height telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 8, 1926, reached a stage of 18.4 ft, from floodmark, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 21	0415	908	5.73				

Minimum daily discharge, 0.25 ft^3/s, Jan. 18, 19, estimated due to backwater from ice.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.80	3.0	2.7	1.3	19	84	10	9.9	8.6	3.2	1.1	1.5
2	.71	3.1	1.8	1.6	54	52	9.7	12	7.3	2.6	1.2	3.1
3	.80	2.9	1.5	1.7	29	29	9.5	15	7.1	2.0	1.3	1.7
4	.75	3.0	1.2	1.5	11	21	10	11	6.5	1.8	1.5	1.3
5	.85	2.9	1.9	1.2	8.6	16	19	9.8	5.6	1.7	1.3	1.3
6	.81	7.7	2.0	.95	5.8	13	20	8.6	8.4	1.7	1.2	1.3
7	1.9	22	1.6	.74	4.0	12	9.9	8.1	5.8	1.8	1.2	2.2
8	2.4	2.8	1.3	.72	3.0	10	e8.0	8.9	5.1	1.7	1.3	8.3
9	1.6	1.5	1.1	e.64	e2.3	201	e7.0	7.2	5.0	1.5	1.3	4.1
10	1.4	1.1	1.3	e.54	e2.0	81	e50	e6.6	4.6	1.4	1.2	2.0
11	.96	1.0	1.3	e.45	e1.7	37	e150	e6.4	8.3	1.3	1.8	1.6
12	1.1	.81	1.2	e.38	e1.6	22	e60	e7.0	13	1.3	4.0	1.4
13	1.3	.76	1.2	e.33	e1.5	70	e30	e8.0	7.8	1.3	3.0	1.3
14	1.7	.73	1.2	e.30	e1.5	124	e20	6.1	6.0	1.2	1.5	1.3
15	1.6	.70	1.3	e.27	e1.4	34	e15	5.5	4.9	1.1	12	1.2
16	1.7	.76	1.3	e.26	e1.6	25	11	5.0	5.5	.94	2.2	1.1
17	2.7	1.8	1.2	e.26	2.1	23	9.3	5.3	4.5	.87	39	3.4
18	1.1	1.9	.96	e.25	5.1	24	9.2	4.4	3.8	.89	3.7	2.0
19	1.0	1.4	e.72	e.25	6.5	21	9.7	32	3.3	.95	6.4	1.7
20	1.0	1.2	e.64	.85	22	17	68	8.8	2.9	1.0	6.3	1.6
21	1.6	1.3	.66	2.3	368	15	215	6.2	2.7	50	2.3	1.4
22	5.5	.99	.71	85	104	11	53	5.6	2.5	7.3	1.6	1.3
23	4.4	.93	.94	8.6	31	10	30	5.3	2.3	1.8	1.4	1.5
24	2.2	2.3	e.75	e6.0	18	29	21	5.3	2.0	1.5	1.3	1.0
25	1.5	2.2	e.65	e3.0	14	49	16	6.0	57	1.4	1.4	.96
26	1.3	1.7	e.58	e2.2	327	23	14	14	16	1.3	10	.88
27	1.5	.99	.54	e2.0	191	17	14	46	5.8	1.3	3.2	.76
28	1.6	.77	.64	e1.8	68	18	13	47	4.0	1.3	1.9	.83
29	2.0	1.9	.74	e1.7	---	14	11	15	8.9	1.1	8.0	.89
30	3.5	4.5	.96	e1.5	---	12	13	13	6.8	1.2	3.6	1.2
31	3.4	---	1.2	3.0	---	10	---	12	---	1.1	1.8	---
TOTAL	54.68	78.64	35.79	131.59	1304.7	1124	935.3	361.0	232.0	99.55	129.0	54.12
MEAN	1.76	2.62	1.15	4.24	46.6	36.3	31.2	11.6	7.73	3.21	4.16	1.80
MAX	5.5	22	2.7	85	368	201	215	47	57	50	39	8.3
MIN	.71	.70	.54	.25	1.4	10	7.0	4.4	2.0	.87	1.1	.76
CFSM	.04	.07	.03	.11	1.18	.92	.79	.30	.20	.08	.11	.05
IN.	.05	.07	.03	.12	1.23	1.06	.88	.34	.22	.09	.12	.05

e Estimated

05512500 BAY CREEK AT PITTSFIELD--Continued

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

MEAN	12.9	17.1	18.2	16.9	28.9	39.1	49.3	50.9	29.2	27.5	13.5	20.7
MAX	140	201	142	114	126	132	207	283	243	417	103	359
(WY)	1942	1986	1983	1974	1942	1973	1973	1970	1945	1981	1961	1993
MIN	.20	.19	.081	.057	.27	.45	3.61	1.23	.94	.10	.074	.057
(WY)	1951	1951	1951	1940	1954	1956	1963	1954	1977	1940	1941	1940

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1940 - 1997	
ANNUAL TOTAL	8980.17		4540.37			
ANNUAL MEAN	24.5		12.4		27.0	
HIGHEST ANNUAL MEAN					94.8	1993
LOWEST ANNUAL MEAN					2.76	1940
HIGHEST DAILY MEAN	1210	May 27	368	Feb 21	5660	Jul 25 1981
LOWEST DAILY MEAN	.32	Sep 5	.25	Jan 18, 19	.00	A
ANNUAL SEVEN-DAY MINIMUM	.37	Aug 31	.27	Jan 13	.00	Aug 19 1941
INSTANTANEOUS PEAK FLOW			908	Feb 21	13700 B	Sep 14 1993
INSTANTANEOUS PEAK STAGE			5.73	Feb 21	14.92	Sep 14 1993
INSTANTANEOUS LOW FLOW			C			
ANNUAL RUNOFF (CFSM)	.62		.32		.68	
ANNUAL RUNOFF (INCHES)	8.48		4.29		9.30	
10 PERCENT EXCEEDS	38		23		37	
50 PERCENT EXCEEDS	2.4		2.3		3.6	
90 PERCENT EXCEEDS	.64		.84		.30	

A - Several days in most years.

B - From rating curve extended above 4,400 ft^3/s.

C - Minimum recorded, 0.25 ft^3/s, but may have been less during period of ice effect, Jan. 9-19.

05587450 MISSISSIPPI RIVER AT GRAFTON, IL

LOCATION.--Lat 38°58'05", long 90°25'42", in NE 1/4 sec.15, T.6 N., R.12 W., Jersey County, Hydrologic Unit 07110009, on left bank 0.2 mi downstream from the mouth of Illinois River, 15.3 mi above Lock and Dam 26, 23.0 mi above mouth of Missouri River, and at mile 218.6 upstream of the mouth of Ohio River.

DRAINAGE AREA.--171,300 mi², approximately.

PERIOD OF RECORD.-

DISCHARGE: Intermittently from 1880 to 1928, computed daily 1928 to 1932 by the National Weather Service and/or the U.S. Army Corps of Engineers. Discharge previously published as "Mississippi River at Alton, Illinois" for 1927 to September 1986.

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

GAGE.--Water-stage recorder. Datum of gage is 403.79 ft above sea level. Auxiliary water-stage recorder 15.3 mi downstream.

REMARKS.--Estimated daily discharges: Jan. 10 to Feb. 10. Records fair. Natural flow of river affected by many navigation dams in upper Mississippi River Basin. Flood water from Missouri River overtops or breaches the levees at extremely high stages. U.S. Army Corps of Engineers satellite telemeter at station.

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58800	70300	76600	77300	79500	304000	173000	258000	156000	130000	102000	81500
2	56000	75400	80200	75900	77500	296000	174000	252000	146000	127000	97500	83800
3	52900	93200	74800	78800	78000	277000	172000	243000	139000	125000	100000	73700
4	64200	85500	83900	73600	79000	262000	153000	235000	136000	124000	104000	80300
5	65600	79400	85000	68100	80000	261000	152000	230000	128000	125000	105000	76500
6	58300	73500	90600	67700	83000	256000	157000	227000	121000	121000	104000	71800
7	50100	84000	94600	72400	85000	246000	154000	225000	113000	111000	105000	71300
8	41700	79700	84600	68100	86000	230000	167000	227000	115000	106000	102000	72900
9	48700	74600	85000	63200	85000	223000	186000	228000	121000	102000	96800	73300
10	46700	80500	93700	60500	84000	224000	192000	226000	124000	107000	92200	73200
11	50700	79900	85500	60000	83100	221000	198000	226000	127000	108000	87700	71000
12	48000	83000	85000	59500	81300	216000	216000	223000	123000	103000	89400	72200
13	46000	86700	86700	59500	82000	219000	223000	222000	120000	105000	92300	69400
14	43500	79300	85800	59000	80900	225000	223000	217000	138000	102000	89000	61300
15	41900	80000	86100	59500	77900	223000	234000	208000	138000	105000	85600	60300
16	44400	71900	89400	60000	72900	219000	246000	198000	110000	102000	72500	59800
17	43100	67800	88000	60000	75200	218000	255000	185000	106000	102000	78100	61700
18	45300	59000	84600	60500	67500	216000	264000	167000	126000	102000	82900	63800
19	47900	68700	71700	61000	69800	208000	272000	166000	113000	98200	94700	63700
20	54400	80600	60600	62000	89300	194000	278000	172000	116000	98500	98000	68900
21	63100	91000	66300	62000	152000	199000	282000	179000	115000	97900	88800	70200
22	63300	99400	57600	62500	226000	203000	288000	185000	96100	104000	83000	69600
23	43000	103000	56300	64000	229000	197000	289000	169000	92600	121000	81900	70000
24	47200	103000	56000	67000	231000	184000	284000	148000	103000	130000	76000	77600
25	61600	105000	55700	68000	240000	182000	278000	140000	115000	117000	75600	72400
26	75000	108000	63600	67000	250000	186000	273000	148000	128000	103000	80100	71000
27	68000	107000	62900	70000	268000	172000	270000	154000	135000	101000	77400	71700
28	59900	108000	66700	76000	292000	160000	272000	161000	140000	105000	77400	70500
29	55300	102000	65100	79000	---	168000	271000	172000	141000	113000	77000	62400
30	52800	89300	73600	80000	---	176000	265000	173000	136000	114000	85800	56400
31	57500	---	78800	80000	---	175000	---	175000	---	106000	81300	---
MEAN	53380	85620	76610	67160	124500	217400	228700	198000	123900	110200	89130	70210
MAX	75000	108000	94600	80000	292000	304000	289000	258000	156000	130000	105000	83800
MIN	41700	59000	55700	59000	67500	160000	152000	140000	92600	97900	72500	56400
IN.	.36	.56	.52	.45	.76	1.46	1.49	1.33	.81	.74	.60	.46

05587450 MISSISSIPPI RIVER AT GRAFTON, IL--Continued

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

MEAN	97920	100500	97880	81990	92230	145400	181300	191100	155500	142200	113000	97430
MAX	334900	171300	169900	161000	124500	217400	342100	333300	263900	469300	416900	309900
(WY)	1987	1987	1993	1993	1997	1997	1993	1993	1996	1993	1993	1993
MIN	28050	33270	31810	34800	40940	72220	82570	69140	36310	30420	37230	37850
(WY)	1989	1990	1990	1990	1989	1989	1990	1988	1988	1988	1988	1988

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

05587455 MISSISSIPPI RIVER BELOW GRAFTON, IL

WATER-QUALITY RECORDS

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

DRAINAGE AREA.--171,300 mi^2, approximately.

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

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

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT: October 1989 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

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

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

EXTREMES FOR CURRENT YEAR.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,000 mg/L, Feb. 22; minimum daily mean, 31 mg/L, Jan. 20.

SUSPENDED-SEDIMENT LOADS: Maximum daily, 619,000 tons, Feb. 22; minimum daily, 5,190 tons, Jan. 20.

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	58800	111	18400	70300	108	20600	76600	76	15800
2	56000	107	16200	75400	90	18300	80200	86	18600
3	52900	100	14300	93200	96	24200	74800	92	18500
4	64200	105	18300	85500	71	16400	83900	74	16800
5	65600	99	17500	79400	68	14700	85000	58	13400
6	58300	92	14400	73500	69	13700	90600	48	11700
7	50100	86	11600	84000	73	16600	94600	52	13200
8	41700	73	8230	79700	81	17400	84600	56	12700
9	48700	100	13200	74600	92	18600	85000	53	12300
10	46700	91	11400	80500	95	20500	93700	47	11900
11	50700	83	11300	79900	82	17600	85500	38	8810
12	48000	66	8510	83000	75	16900	85000	38	869C
13	46000	90	11200	86700	68	15900	86700	42	9900
14	43500	69	8120	79300	62	13300	85800	42	968C
15	41900	69	7740	80000	87	18800	86100	44	1020C
16	44400	61	7310	71900	85	16400	89400	48	1150C
17	43100	60	6980	67800	71	13000	88000	52	1230C
18	45300	76	9300	59000	59	9440	84600	51	1160C
19	47900	142	18700	68700	53	9770	71700	54	1040C
20	54400	135	19700	80600	46	10100	60600	61	1000C
21	63100	88	15000	91000	65	16200	66300	48	854C
22	63300	98	16800	99400	75	20300	57600	48	756C
23	43000	86	9980	103000	78	21600	56300	49	745C
24	47200	73	9280	103000	89	24500	56000	51	771C
25	61600	63	10600	105000	119	34000	55700	49	730C
26	75000	68	13600	108000	111	32400	63600	45	779C
27	68000	93	17200	107000	117	33600	62900	43	729C
28	59900	86	14000	108000	106	31100	66700	44	784C
29	55300	70	10500	102000	95	26300	65100	44	7690
30	52800	67	9550	89300	82	19700	73600	42	834C
31	57500	98	15400	---	---	---	78800	43	926C

05587455 MISSISSIPPI RIVER BELOW GRAFTON, IL--Continued

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	77300	45	9450	79500	57	12200	304000	472	387000
2	75900	36	7400	77500	---	11100	296000	440	351000
3	78800	40	8530	78000	---	11600	277000	585	436000
4	73600	55	10900	79000	---	15100	262000	536	380000
5	68100	53	9740	80000	---	20500	261000	429	303000
6	67700	45	8170	83000	---	28200	256000	413	285000
7	72400	63	12100	85000	166	38100	246000	426	282000
8	68100	73	13600	86000	196	45500	230000	456	283000
9	63200	---	12400	85000	197	45200	223000	485	292000
10	60500	---	11600	84000	181	41100	224000	468	283000
11	60000	---	11300	83100	161	36100	221000	295	176000
12	59500	---	11200	81300	104	22800	216000	301	176000
13	59500	---	11100	82000	105	23400	219000	299	177000
14	59000	---	10000	80900	141	30800	225000	303	184000
15	59500	---	9000	77900	138	29000	223000	270	163000
16	60000	51	8260	72900	121	23900	219000	249	147000
17	60000	44	7120	75200	125	25300	218000	234	138000
18	60500	39	6370	67500	105	19200	216000	207	121000
19	61000	34	5600	69800	97	18200	208000	189	106000
20	62000	31	5190	89300	75	18000	194000	199	104000
21	62000	40	6700	152000	414	204000	199000	218	118000
22	62500	41	6920	226000	1000	619000	203000	236	129000
23	64000	48	8290	229000	947	585000	197000	230	122000
24	67000	46	8320	231000	782	487000	184000	195	96700
25	68000	43	7890	240000	679	440000	182000	175	86300
26	67000	48	8680	250000	610	412000	186000	197	98700
27	70000	56	10600	268000	619	448000	172000	204	94700
28	76000	63	12900	292000	558	440000	160000	169	72800
29	79000	41	8750	---	---	---	168000	158	72000
30	80000	55	11900	---	---	---	176000	175	83200
31	80000	83	17900	---	---	---	175000	172	79500
		APRIL			MAY			JUNE	
1	173000	162	70300	258000	138	96400	156000	177	74500
2	174000	147	69300	252000	145	98600	146000	165	65300
3	172000	154	71200	243000	184	121000	139000	155	58300
4	153000	170	70100	235000	218	138000	136000	177	65000
5	152000	169	69400	230000	226	140000	128000	153	53000
6	157000	165	69700	227000	205	126000	121000	119	38700
7	154000	192	80200	225000	198	120000	113000	136	41400
8	167000	206	93000	227000	184	113000	115000	155	48200
9	186000	212	106000	228000	170	105000	121000	150	49200
10	192000	232	120000	226000	180	110000	124000	123	41100
11	198000	265	142000	226000	204	124000	127000	123	42000
12	216000	319	186000	223000	254	152000	123000	129	42700
13	223000	270	163000	222000	283	170000	120000	141	45800
14	223000	224	135000	217000	245	144000	138000	185	69500
15	234000	235	148000	208000	212	119000	138000	171	63600
16	246000	231	154000	198000	190	102000	110000	194	56700
17	255000	235	161000	185000	187	93300	106000	216	62300
18	264000	239	170000	167000	209	93900	126000	218	74300
19	272000	239	176000	166000	157	70600	113000	212	64600
20	278000	211	158000	172000	148	68900	116000	210	66000
21	282000	170	130000	179000	150	72600	115000	212	66000
22	288000	185	142000	185000	165	82400	96100	169	43800
23	289000	165	129000	169000	175	79700	92600	150	37600
24	284000	167	128000	148000	181	72400	103000	121	33700
25	278000	174	131000	140000	135	51000	115000	187	58400
26	273000	148	109000	148000	121	48300	128000	209	72400
27	270000	146	106000	154000	128	53400	135000	192	70200
28	272000	138	101000	161000	193	84700	140000	141	53300
29	271000	137	100000	172000	249	116000	141000	154	58400
30	265000	131	93700	173000	245	114000	136000	162	59100
31	---	---	---	175000	231	109000	---	---	---

05587455 MISSISSIPPI RIVER BELOW GRAFTON, IL--Continued

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	130000	149	52100	102000	71	19700	81500	179	39500
2	127000	120	41200	97500	94	24700	83800	145	32700
3	125000	160	53800	100000	114	30700	79700	123	26300
4	124000	149	49900	104000	117	32800	80300	165	35700
5	125000	151	51000	105000	114	32200	76500	141	29100
6	121000	136	44200	104000	116	32700	71800	120	23300
7	111000	154	46000	105000	114	32500	71300	139	26600
8	106000	115	32800	102000	94	25900	72900	128	25200
9	102000	103	28400	96800	77	20200	73300	133	26400
10	107000	102	29500	92200	75	18700	73200	124	24500
11	108000	118	34500	87700	74	17500	71000	101	21500
12	103000	120	33300	89400	77	18500	72200	113	21900
13	105000	140	39500	92300	64	16000	68400	84	15500
14	102000	142	39200	89000	82	19500	61300	65	10700
15	105000	88	25000	85600	104	23900	60300	68	11000
16	102000	91	25000	72500	101	19600	58800	75	11900
17	102000	83	22800	78100	103	21700	61700	84	14100
18	102000	77	21200	82900	109	24500	63800	87	15000
19	98200	71	18800	94700	152	39100	63700	100	17100
20	98500	80	21400	98000	183	48600	68900	113	21100
21	97900	72	19200	88800	132	31900	70200	100	18900
22	104000	90	25100	83000	96	21600	69600	90	17000
23	121000	81	26800	81900	130	28700	70000	94	17800
24	130000	103	36100	76000	138	28400	77600	101	21300
25	117000	136	42700	75600	127	25900	72400	90	17600
26	103000	138	38500	80100	161	34900	71000	88	16700
27	101000	88	24000	77400	162	33800	71700	78	15100
28	105000	74	20900	77400	141	29500	70500	77	14700
29	113000	76	23200	77000	125	25900	62400	72	12100
30	114000	128	39200	85800	124	28700	56400	76	8990
31	106000	120	34400	81300	136	29600	---	---	---

05587455 MISSISSIPPI RIVER BELOW GRAFTON, IL--Continued

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

DATE	TIME	TEMPERATURE WATER (DEG C) (00010)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	SPECIFIC CONDUCTANCE (µS/cm) (00095)	OXYGEN, DISSOLVED (mg/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TURBIDITY (NTU) (00076)	COLIFORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKALINITY WAT DIS FIX END FIELD $CaCO_3$ (mg/L) (39036)	ALKALINITY WAT DIS TOT IT FIELD (mg/L as $CaCO_3$) (39086)
OCT												
23...	1340	11.5	33700	501	9.9	92	8.44	8.9	110	110	--	--
NOV												
27...	1420	3.0	108000	568	13.7	99	7.93	17	K106	54	--	--
DEC												
03...	1015	2.5	68500	561	13.6	98	8.19	12	K131	126	--	--
JAN												
07...	1040	1.0	74000	650	14.0	96	7.96	7.2	K16	K10	179	181
FEB												
26...	1255	2.0	250000	366	12.1	88	7.32	200	720	2600	108	112
MAR												
11...	1105	6.5	220000	547	9.2	74	7.72	80	110	308	121	123
APR												
03...	1330	10.0	172000	428	12.4	108	7.44	32	K100	LA	159	162
23...	1410	9.0	288000	299	10.8	92	7.89	26	K625	K96	117	117
MAY												
06...	1040	14.5	227000	420	9.3	91	7.63	0.5	208	92	130	133
JUN												
02...	1455	17.0	142000	469	8.7	89	7.74	38	54	K43	146	146
27...	1245	27.5	190000	439	7.4	91	7.56	38	K43	310	150	144
JUL												
08...	1100	27.5	106000	494	7.3	92	8.15	19	108	K56	148	150
AUG												
05...	1115	27.5	104000	453	9.0	113	8.12	14	15	32	303	313
SEP												
11...	1135	23.0	69200	466	7.3	85	7.66	10	K17	K10	150	155

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

DATE	CARBONATE WATER DIS IT FIELD (mg/L as CO_3) (00452)	BICARBONATE WATER DIS IT FIELD (mg/L as HCO_3) (00453)	NITROGEN, TOTAL (mg/L as N) (00600)	NITROGEN DISSOLVED (mg/L as N) (00602)	NITROGEN, ORGANIC TOTAL (mg/L as N) (00605)	NITROGEN, ORGANIC DISSOLVED (mg/L as N) (00607)	NITROGEN, AMMONIA DISSOLVED (mg/L as N) (00608)	NITROGEN, NITRITE DISSOLVED (mg/L as N) (00613)	NITROGEN, NITRATE DISSOLVED (mg/L as N) (00618)	NITROGEN, AMMONIA + ORGANIC DIS. (mg/L as N) (00623)
OCT										
23...	--	--	2.0	--	0.85	--	0.053	0.022	1.08	--
NOV										
27...	--	--	3.2	--	0.80	--	0.056	<0.010	--	--
DEC										
03...	--	--	3.2	--	0.64	--	0.120	0.010	2.39	--
JAN										
07...	0	221	4.8	4.7	0.60	0.50	0.12	0.03	4.09	0.6
FEB										
26...	0	136	6.1	4.0	2.8	0.72	0.480	0.030	2.77	1.2
MAR										
11...	0	150	4.9	4.2	1.3	0.59	0.410	0.030	3.17	1.0
APR										
03...	0	189	3.8	3.2	0.89	0.30	0.08	0.03	2.79	0.4
23...	0	143	3.5	3.0	0.80	--	<0.01	0.03	2.63	0.4
MAY										
06...	0	162	3.4	2.7	1.1	--	<0.01	0.02	2.28	0.4
JUN										
02...	0	178	4.4	4.0	0.92	0.48	0.06	0.07	3.38	0.5
27...	0	179	4.1	3.5	0.92	0.34	0.02	0.08	3.03	0.4
JUL										
08...	0	183	5.3	5.0	0.66	--	<0.01	0.14	4.51	0.4
AUG										
05...	0	382	3.5	3.2	0.85	--	<0.01	0.03	2.64	0.5
SEP										
11...	0	190	1.8	1.6	0.58	--	<0.01	0.04	1.20	0.4

05587455 MISSISSIPPI RIVER BELOW GRAFTON, IL--Continued

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

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (mg/L as N) (00625)	NITROGEN, NO_2+NO_3 DISSOLVED (mg/L as N) (00631)	PHOSPHATE, ORTHO, DISSOLVED (mg/L as PO_4) (00660)	PHOSPHORUS TOTAL (mg/L as P) (00665)	PHOSPHORUS DISSOLVED (mg/L as P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (mg/L as P) (00671)	CARBON, ORGANIC DISSOLVED (mg/L as C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (mg/L as C) (00689)	HARDNESS TOTAL (mg/L as $CaCO_3$) (00900)	HARDNESS NONCARB DISSOLV FLD. as $CaCO_3$ (mg/L) (00904)
OCT										
23...	0.90	1.1	0.31	0.170	0.090	0.100	--	--	190	--
NOV										
27...	0.86	2.3	0.28	0.180	0.100	0.090	--	--	200	--
DEC										
03...	0.76	2.4	0.34	0.180	0.110	0.110	--	--	200	--
JAN										
07...	0.7	4.1	0.36	0.15	0.15	0.12	5.5	1.9	240	58
FEB										
26...	3.3	2.8	0.43	0.940	0.110	0.140	33	7.0	140	26
MAR										
11...	1.7	3.2	0.43	0.470	0.120	0.140	5.2	1.9	160	36
APR										
03...	1.0	2.8	0.36	0.30	0.10	0.12	5.5	1.8	190	31
23...	0.8	2.7	0.17	0.21	0.04	0.054	6.1	4.1	150	35
MAY										
06...	1.1	2.3	0.16	0.24	0.08	0.053	6	0.4	190	59
JUN										
02...	1.0	3.4	0.23	0.22	0.08	0.074	5.2	2.2	200	57
27...	0.9	3.1	0.32	0.23	0.08	0.10	5	2.1	200	53
JUL										
08...	0.7	4.7	0.53	0.25	0.17	0.17	4.7	1.5	210	62
AUG										
05...	0.8	2.7	0.16	0.18	0.04	0.052	6.0	0.9	160	0
SEP										
11...	0.6	1.2	0.35	0.17	0.12	0.11	5.7	0.3	200	47

DATE	HARDNESS NONCARB DISSOLV LAB as $CaCO_3$ (mg/L) (00905)	CALCIUM DISSOLVED (mg/L as Ca) (00915)	MAGNESIUM, DISSOLVED (mg/L as Mg) (00925)	SODIUM, DISSOLVED (mg/L as Na) (00930)	SODIUM ADSORPTION RATIO (00931)	SODIUM PERCENT (00932)	POTASSIUM, DISSOLVED (mg/L as K) (00935)	CHLORIDE, DISSOLVED (mg/L as Cl) (00940)	SULFATE DISSOLVED (mg/L as SO_4) (00945)	FLUORIDE, DISSOLVED (mg/L as F) (00950)	SILICA, DISSOLVED (mg/L as SiO_2) (00955)
OCT											
23...	--	42	21	24	0.8	21	3.1	32	44	0.20	0.96
NOV											
27...	--	48	19	16	0.5	15	2.8	23	32	0.30	8.3
DEC											
03...	--	48	19	15	0.5	14	2.9	22	34	0.20	9.4
JAN											
07...	--	59	22	21	0.6	16	2.7	34	42	0.30	10
FEB											
26...	--	35	12	12	0.4	15	5.6	21	23	0.20	8.2
MAR											
11...	--	39	15	19	0.7	20	4.9	32	28	0.20	7.8
APR											
03...	--	47	17	11	0.4	11	3.4	19	27	0.20	10
23...	--	38	14	10	0.4	12	3.1	17	28	0.20	9.8
MAY											
06...	--	48	17	10	0.3	10	3.4	15	47	0.20	7.4
JUN											
02...	--	49	20	13	0.4	12	3.2	22	45	0.20	4.0
27...	50	45	21	15	0.5	14	3.0	24	43	0.30	2.8
JUL											
08...	--	52	20	11	0.3	10	3.2	20	31	0.20	8.8
AUG											
05...	--	40	14	10	0.4	12	3.4	17	29	0.20	10
SEP											
11...	--	46	21	15	0.5	14	3.1	22	39	0.20	9.7

05587455 MISSISSIPPI RIVER BELOW GRAFTON, IL--Continued

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

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

E--Laboratory estimated value.

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

05587455 MISSISSIPPI RIVER BELOW GRAFTON, IL--Continued

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

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

E--Laboratory estimated value.

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

05587455 MISSISSIPPI RIVER BELOW GRAFTON, IL--Continued

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

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

E--Laboratory estimated value.

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

E--Laboratory estimated value.05587455

05587900 CAHOKIA CREEK AT EDWARDSVILLE, IL

LOCATION.--Lat 38°49'28", long 89°58'29", in NW1/4SE1/4 sec.3, T.4 N., R.8 W., Madison County, Hydrologic Unit 07140101, on right bank at upstream side of bridge on State Highway 143 in Edwardsville, and at mile 9.4.

DRAINAGE AREA.--212 mi^2.

PERIOD OF RECORD.--August 1969 to current year.

REVISED RECORDS.--WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 425.62 ft above sea level. Apr. 8, 1983, to July 2, 1985, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Gage-height telemeter at station.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 28	0400	*4,400	*16.35	No other peak greater than base discharge.			

Minimum daily discharge 1.0 ft^3/s Oct. 16 but may have been less during periods of estimated discharges in Oct.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	e4.0	159	21	e100	441	66	29	94	11	e3.2	11
2	2.4	e3.2	135	21	e150	436	59	29	71	9.8	e3.1	37
3	1.9	e2.8	99	21	253	278	54	112	72	8.1	e3.0	199
4	1.7	e2.5	76	20	656	201	55	76	48	7.2	e3.3	41
5	e1.6	e2.3	94	22	381	162	95	53	43	6.1	e3.2	18
6	e1.5	24	137	21	184	137	136	42	39	4.7	e3.0	12
7	e1.5	393	99	15	129	115	88	34	35	4.1	e2.8	11
8	e1.7	288	63	13	101	103	64	46	32	7.4	e2.7	10
9	e1.6	81	48	e11	87	228	54	49	71	4.7	e5.5	37
10	e1.5	40	43	e10	80	469	52	34	43	e4.0	e5.0	27
11	e1.4	28	40	e9.0	75	218	54	30	33	e3.5	e4.2	16
12	e1.3	22	37	e8.5	69	146	55	27	28	e3.1	e3.7	9.7
13	e1.2	19	33	e8.0	60	294	50	24	47	e2.8	e3.3	7.2
14	e1.1	17	31	e7.5	57	1690	43	23	63	e2.6	e3.0	6.2
15	e1.1	16	30	e7.0	53	470	40	21	52	e2.4	14	5.7
16	e1.0	16	29	e7.5	51	222	38	19	34	e2.2	9.1	5.7
17	e1.5	20	29	e8.0	48	176	34	19	31	e2.1	12	18
18	e2.2	23	24	e8.5	49	199	36	19	29	e2.0	19	16
19	6.7	21	e18	e8.0	49	197	77	18	24	71	26	11
20	3.6	18	e16	e10	655	148	52	16	21	49	20	7.8
21	5.3	18	e17	e14	1350	126	107	15	20	12	11	6.4
22	11	17	23	564	724	105	75	13	20	e9.0	8.2	5.6
23	22	16	32	457	272	89	53	13	17	e7.5	6.8	5.8
24	16	73	35	248	169	81	43	14	16	e6.5	5.9	6.3
25	7.5	718	e23	268	130	90	39	36	16	e5.5	4.4	7.1
26	5.4	643	e21	132	1260	94	35	633	20	e5.0	158	8.0
27	3.6	156	e22	167	3420	81	37	194	14	e4.5	100	6.6
28	3.7	96	26	e130	2280	77	38	90	13	e4.0	20	5.9
29	4.1	71	25	e90	---	87	35	63	12	e3.7	12	5.5
30	8.6	115	23	e70	---	76	32	126	11	e3.5	12	5.1
31	e5.5	---	22	e70	---	77	---	174	---	e3.3	12	---
TOTAL	132.1	2963.8	1509	2467.0	12892	7313	1696	2091	1069	272.3	499.4	568.6
MEAN	4.26	98.8	48.7	79.6	460	236	56.5	67.5	35.6	8.78	16.1	19.0
MAX	22	718	159	564	3420	1690	136	633	94	71	158	199
MIN	1.0	2.3	16	7.0	48	76	32	13	11	2.0	2.7	5.1
CFSM	.02	.47	.23	.38	2.17	1.11	.27	.32	.17	.04	.08	.09
IN.	.02	.52	.26	.43	2.26	1.28	.30	.37	.19	.05	.09	.10

e Estimated

05587900 CAHOKIA CREEK AT EDWARDSVILLE, IL--Continued

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

MEAN	43.5	107	189	166	215	300	347	208	115	45.5	24.6	43.7
MAX	366	649	915	834	782	1120	1251	1006	475	206	89.8	486
(WY)	1970	1986	1983	1974	1985	1978	1994	1990	1985	1981	1995	1993
MIN	.82	1.05	1.08	1.21	19.7	14.1	38.2	15.0	2.04	1.18	1.05	.15
(WY)	1996	1981	1990	1977	1980	1981	1976	1988	1988	1988	1991	1988

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1969 - 1997	
ANNUAL TOTAL	48706.3		33473.2			
ANNUAL MEAN	133		91.7		150	
HIGHEST ANNUAL MEAN					297	1985
LOWEST ANNUAL MEAN					32.4	1980
HIGHEST DAILY MEAN	5850	Apr 29	3420	Feb 27	7680	Apr 12 1979
LOWEST DAILY MEAN	1.0 A	Oct 16	1.0 A	Oct 16	.00	B
ANNUAL SEVEN-DAY MINIMUM	1.2	Oct 10	1.2	Oct 10	.00	Aug 29 1987
INSTANTANEOUS PEAK FLOW			4400	Feb 28	8200	Apr 12 1979
INSTANTANEOUS PEAK STAGE			16.35	Feb 28	24.74	Apr 12 1979
ANNUAL RUNOFF (CFSM)	.63		.43		.71	
ANNUAL RUNOFF (INCHES)	8.55		5.87		9.60	
10 PERCENT EXCEEDS	235		175		273	
50 PERCENT EXCEEDS	23		24		26	
90 PERCENT EXCEEDS	3.6		3.2		2.0	

A - May have been less during periods of estimated discharges in Oct.
B - Many days in 1987-88, 1991.

05588000 INDIAN CREEK AT WANDA, IL

LOCATION.--Lat 38°50'30", long 90°01'59", in SE1/4NW1/4 sec.31, T.5 N., R.8 W., Madison County, Hydrologic Unit 07140101, on right bank at upstream side of bridge on State Highway 143, 0.8 mi northeast of Wanda, 2.2 mi upstream from mouth, 5 mi west of Edwardsville, and at mile 2.9.

DRAINAGE AREA.--36.7 mi^2.

PERIOD OF RECORD.--April 1940 to current year.

REVISED RECORDS.--WSP 1175: 1941, 1942(M). WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 429.52 ft above sea level. Prior to Oct. 1, 1960, water-stage recorder at site 60 ft upstream at datum 2.00 ft higher. Oct. 1, 1960, to June 23, 1965, nonrecording gage at site 30 ft upstream at present datum. June 24, 1965, to May 10, 1967, nonrecording gage at present site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Gage-height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 26	2345	*1,710	*12.96	No other peak greater than base discharge.			

Minimum discharge, 0.02 ft^3/s, Aug. 6, 7, 8.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.15	e.40	23	3.8	e35	75	14	9.2	14	1.9	.06	1.3
2	.16	e.36	16	4.0	e30	87	13	9.9	12	1.8	.06	2.2
3	e.13	e.32	9.7	4.0	e40	45	13	34	10	1.6	.06	132
4	e.12	e.30	7.1	3.9	182	36	13	15	8.9	1.3	.09	6.5
5	e.11	e.40	25	3.9	46	24	31	11	8.1	1.0	.08	3.0
6	e.10	e25	25	3.2	25	19	32	10	7.6	.92	.04	1.7
7	e.10	304	10	2.7	18	17	15	8.7	6.8	.83	.03	1.1
8	e.25	59	7.4	e2.3	15	15	13	12	6.1	.81	.03	.87
9	e.20	7.3	6.1	e2.1	13	89	12	12	6.0	1.3	.21	2.3
10	e.22	4.4	6.2	e1.9	12	72	13	8.1	5.7	.59	.20	3.1
11	e.18	3.4	6.0	e1.7	12	28	14	7.9	5.3	.48	.11	1.0
12	e.14	3.0	5.2	e1.6	11	20	13	7.7	5.0	.44	.08	.53
13	e.12	2.7	4.9	e1.5	9.0	112	13	7.0	40	.37	.10	.35
14	e.11	2.7	5.0	e1.4	8.8	269	11	6.5	16	.30	.08	.25
15	e.10	2.6	4.8	e1.4	7.7	56	11	5.6	7.6	.26	1.3	.21
16	e.10	2.6	4.6	e1.5	7.8	38	10	5.4	7.5	.23	.47	.17
17	e.70	3.8	4.5	e1.6	7.3	33	9.3	5.5	11	.22	4.0	4.8
18	8.6	3.8	e3.3	e1.7	7.8	48	11	5.8	5.8	.21	1.9	3.0
19	.54	2.9	e2.8	e1.5	7.5	44	35	5.1	4.4	.23	3.0	1.5
20	.28	2.8	e2.5	e2.0	187	31	18	4.2	3.7	.22	5.2	.90
21	.60	2.8	e3.0	e10	194	27	50	3.9	3.3	.28	.78	.54
22	27	2.6	4.5	e220	101	21	21	3.7	3.0	1.1	.43	.54
23	24	2.5	5.9	e80	35	19	16	3.7	2.7	.63	.29	.71
24	1.2	37	5.1	e70	22	18	13	3.8	2.5	.25	.22	1.4
25	.75	308	e3.5	108	18	22	12	8.4	3.4	.19	.19	1.2
26	.74	117	e3.2	87	542	20	11	59	2.9	.15	17	.48
27	.97	18	e3.7	61	752	17	12	16	2.0	.13	13	.27
28	.81	11	4.4	e40	102	18	12	9.2	2.0	.10	2.1	.21
29	e.65	9.1	4.1	e20	---	22	10	8.1	2.0	.08	3.9	.18
30	e.54	30	3.8	e12	---	17	10	29	2.0	.07	5.4	.16
31	e.45	---	3.8	e25	---	16	---	39	---	.06	20	---
TOTAL	70.12	969.78	224.1	780.7	2447.9	1375	481.3	374.4	217.3	18.05	80.41	172.47
MEAN	2.26	32.3	7.23	25.2	87.4	44.4	16.0	12.1	7.24	.58	2.59	5.75
MAX	27	308	25	220	752	269	50	59	40	1.9	20	132
MIN	.10	.30	2.5	1.4	7.3	15	9.3	3.7	2.0	.06	.03	.16
CFSM	.06	.88	.20	.69	2.38	1.21	.44	.33	.20	.02	.07	.16
IN.	.07	.98	.23	.79	2.48	1.39	.49	.38	.22	.02	.08	.17

e Estimated

05588000 INDIAN CREEK AT WANDA, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1997, BY WATER YEAR (WY)

MEAN	7.02	18.8	27.6	30.8	36.3	41.2	48.5	38.0	28.7	20.0	12.1	7.36
MAX	68.5	223	173	235	117	197	211	243	202	156	305	94.5
(WY)	1970	1947	1968	1950	1951	1978	1944	1943	1957	1969	1946	1993
MIN	.000	.000	.000	.000	.091	.045	.26	.070	.022	.052	.005	.000
(WY)	1954	1954	1954	1956	1954	1954	1954	1954	1955	1966	1953	1953

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1941 - 1997	
ANNUAL TOTAL	11072.60		7211.53			
ANNUAL MEAN	30.3		19.8		26.3	
HIGHEST ANNUAL MEAN					50.7	1969
LOWEST ANNUAL MEAN					1.39	1954
HIGHEST DAILY MEAN	860	Apr 29	752	Feb 27	4270	Aug 15 1946
LOWEST DAILY MEAN	.10A	Oct 6,7,15,16	.03	Aug 7,8	.00	B
ANNUAL SEVEN-DAY MINIMUM	.12	Oct 1	.06	Aug 2	.00	Oct 11 1940
INSTANTANEOUS PEAK FLOW			1710	Feb 26	9340	Aug 15 1946
INSTANTANEOUS PEAK STAGE			12.96	Feb 26	18.41 C	Aug 15 1946
INSTANTANEOUS LOW FLOW			.02	Aug 6,7,8		
ANNUAL RUNOFF (CFSM)	.82		.54		.72	
ANNUAL RUNOFF (INCHES)	11.22		7.31		9.74	
10 PERCENT EXCEEDS	80		37		40	
50 PERCENT EXCEEDS	3.7		4.8		3.4	
90 PERCENT EXCEEDS	.27		.20		.00	

A - Estimated.
B - Many days in most years.
C - Site and datum then in use.

05590800 LAKE FORK AT ATWOOD, IL

LOCATION.--Lat 39°48'30", long 88°28'34", in NE 1/4NW1/4 sec.36, T.16 N., R.6 E., Piatt County, Hydrologic Unit 07140201, on left bank at downstream side of bridge, 0.9 mi northwest of Atwood and at mile 9.0.

DRAINAGE AREA.--149 mi^2.

PERIOD OF RECORD.--October 1972 to current year.

REVISED RECORDS.--WDR IL-93-1: 1989(M), 1990-92. WDR IL-94-1: 1989.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 644.58 ft above sea level.

REMARKS.--Records poor. Gage-height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb.27	1300	*1,770	*12.54	No other peak greater than base discharge.			

Minimum daily discharge, 0.20 ft^3/s, Oct. 21, observed, may have been less during periods of estimated discharges in Oct.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e4.5	e.50	e20	24	e70	818	86	56	67	45	e3.0	e7.5
2	e2.5	e.80	35	26	e100	645	82	50	74	42	e2.7	e7.0
3	e2.0	e1.0	36	27	299	530	83	261	68	37	e2.5	e10
4	e1.4	e.90	31	29	573	421	83	515	58	33	e2.3	e30
5	e1.1	e.80	e27	34	624	331	88	356	50	30	e2.2	e20
6	e.80	e1.0	e26	e29	367	268	87	241	46	27	e2.1	e14
7	e.70	10	e27	e22	214	214	69	160	47	25	e2.0	e10
8	e.60	9.1	e28	e18	142	195	64	144	99	23	e2.5	e12
9	e.50	5.6	29	e24	112	201	61	112	396	25	e3.5	e35
10	e1.0	4.2	30	e20	100	440	61	87	290	21	e3.0	e22
11	e.80	3.4	29	e15	93	385	64	77	201	17	e2.7	e13
12	e.65	3.1	28	e15	85	275	69	78	237	16	e2.5	e8.0
13	e.50	2.8	e25	e15	76	240	61	68	1010	16	e3.0	e5.0
14	e.40	2.5	e22	e16	76	679	54	62	776	16	e4.0	e3.5
15	e.30	2.3	e21	e17	70	594	51	50	516	18	e3.0	e2.5
16	e.35	2.6	e25	e16	67	407	53	41	366	15	e2.3	e2.0
17	e.50	3.4	28	e14	63	318	51	44	261	e11	e4.0	e1.5
18	e.35	3.7	26	e13	72	265	52	43	194	e7.5	e30	e1.2
19	e.28	3.6	e24	e11	89	223	56	43	152	e5.5	e150	e1.0
20	e.23	e3.0	e22	e10	159	206	53	37	127	e5.0	e100	e1.2
21	e.20	e2.6	e20	e11	692	187	54	33	112	e7.0	e60	e2.0
22	e.25	e2.2	e20	e90	735	158	50	32	93	e20	e45	e1.5
23	e.35	e2.0	e20	287	513	123	48	33	77	e17	e25	e1.3
24	e.50	e2.5	e21	280	339	108	46	35	70	e12	e16	e1.2
25	e .80	e7.0	e21	190	246	121	43	38	65	e9.0	e40	e1.1
26	e.60	e9.0	e22	132	351	101	40	36	59	e7.0	e30	e1.0
27	e.45	e6.5	24	107	1630	95	43	34	52	e6.0	e20	e.90
28	e.38	e5.5	26	e85	1200	105	45	32	49	e5.0	e15	e.80
29	e.35	e5.0	25	e75	---	135	43	32	47	e4.5	e11	e.70
30	e.32	e10	23	e65	---	116	45	32	44	e4.0	e9.5	e.60
31	e.30	---	25	e65	---	97	---	51	---	e3.5	e8.5	---
TOTAL	23.96	116.60	786	1782	9157	9001	1785	2913	5703	530.0	607.3	217.50
MEAN	.77	3.89	25.4	57.5	327	290	59.5	94.0	190	17.1	19.6	7.25
MAX	4.5	10	36	287	1630	818	88	515	1010	45	150	35
MIN	.20	.50	20	10	63	95	40	32	44	3.5	2.0	.60
CFSM	.01	.03	.17	.39	2.19	1.95	.40	.63	1.28	.11	.13	.05
IN.	.01	.03	.20	.44	2.29	2.25	.45	.73	1.42	.13	.15	.05

e Estimated

05590800 LAKE FORK AT ATWOOD, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1997, BY WATER YEAR (WY)

MEAN	54.8	115	168	130	201	265	243	262	165	89.8	66.8	26.4
MAX	371	592	452	573	595	957	703	772	738	358	394	272
(WY)	1994	1993	1988	1993	1982	1979	1994	1996	1974	1973	1981	1993
MIN	.000	1.11	.46	.16	4.18	46.6	42.5	37.5	2.65	.000	.000	.000
(WY)	1989	1977	1977	1977	1977	1992	1986	1988	1988	1988	1984	1988

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1973 - 1997	
ANNUAL TOTAL	48595.16		32622.36			
ANNUAL MEAN	133		89.4		149	
HIGHEST ANNUAL MEAN					260	1973, 1993
LOWEST ANNUAL MEAN					57.0	1980
HIGHEST DAILY MEAN	2390	May 9	1630	Feb 27	3720	Mar 5 1979
LOWEST DAILY MEAN	.20A	Oct 21	.20A	Oct 21	.00	B
ANNUAL SEVEN-DAY MINIMUM	.31	Oct 16	.31	Oct 16	.00	Aug 28 1976
INSTANTANEOUS PEAK FLOW			1770	Feb 27	4030 C	Mar 5 1979
INSTANTANEOUS PEAK STAGE			12.54	Feb 27	15.39	Apr 12 1994
ANNUAL RUNOFF (CFSM)	.89		.60		1.00	
ANNUAL RUNOFF (INCHES)	12.13		8.14		13.56	
10 PERCENT EXCEEDS	361		261		400	
50 PERCENT EXCEEDS	28		29		54	
90 PERCENT EXCEEDS	1.5		1.0		.78	

A - Observed, but may have been less during periods of estimated discharges in Oct.

B - Many days in most years.

C - Gage height, 14.03 ft.

05590950 KASKASKIA RIVER AT CHESTERVILLE, IL

LOCATION.--Lat 39°42'12", long 88°23'17", in SE1/4NW1/4 sec. 35, T.15 N., R.7 E., Douglas County, Hydrologic Unit 07140201, on left bank at upstream side of bridge on State Highway 133 in Chesterville, and at mile 254.0.

DRAINAGE AREA.--358 mi^2.

PERIOD OF RECORD.--May 1995 to current year. Gage-height record for Jan. 1974 to July 1983, and Apr. 4, 1995 to May 11, 1995 available in files of U.S. Army Corps of Engineers.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 600.00 ft above sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Records good except those for estimated daily discharges, which are poor. Gage-height telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 5, 1979 reached a stage of 44.84 ft, discharge undetermined, from information by the U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.-- Peak discharges greater than base discharge of 1,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 22	2100	1,640	38.23	June 14	0600	2,270	39.06
Feb. 28	0715	*3,170	*40.74				

Minimum discharge, 7.3 ft^3/s, Oct. 14.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.7	24	245	47	e300	2320	246	83	256	174	7.9	19
2	9.6	17	264	50	497	1640	224	87	339	187	10	25
3	8.3	13	200	55	828	1280	220	132	350	129	12	137
4	9.0	11	146	60	1140	1040	224	679	308	102	12	233
5	9.0	10	115	85	1440	892	234	842	268	88	11	90
6	9.4	11	113	122	1260	757	250	686	238	79	12	44
7	9.2	47	117	88	883	635	221	528	221	70	11	31
8	9.4	158	128	e85	609	556	171	420	267	59	8.9	34
9	10	131	121	e90	440	535	146	373	497	54	11	663
10	11	57	100	e95	354	767	137	301	699	78	13	799
11	11	33	98	e70	303	934	145	254	630	53	14	402
12	9.8	23	89	e45	261	798	169	243	539	43	13	160
13	8.3	19	76	e45	209	668	173	232	1690	39	20	82
14	7.5	18	64	e46	199	1100	141	214	2230	36	18	56
15	8.1	16	61	e48	178	1430	119	195	1930	44	14	44
16	7.8	17	67	e52	155	1180	117	164	1480	72	16	36
17	8.3	19	79	e35	136	891	118	145	1100	38	42	33
18	10	23	67	e30	142	737	113	155	806	26	383	32
19	14	25	e58	e27	206	655	121	151	612	19	275	29
20	13	15	e53	e26	363	600	132	156	481	18	146	33
21	11	13	e50	e35	1070	559	123	127	402	20	82	59
22	11	13	e50	311	1580	509	118	104	353	35	42	48
23	13	13	e60	959	1490	426	108	98	295	79	32	37
24	24	13	e70	1160	1150	359	99	102	247	46	30	38
25	19	29	e82	997	863	341	95	117	224	25	105	41
26	12	117	60	736	812	342	86	161	208	17	113	30
27	9.5	109	56	556	2290	298	83	218	191	14	58	26
28	8.7	69	57	e360	3050	294	96	202	169	12	37	24
29	15	57	64	e280	---	316	94	165	154	9.7	29	23
30	17	102	56	e250	---	328	86	155	144	9.0	26	20
31	22	---	49	e220	---	286	---	178	---	8.6	22	---
TOTAL	353.6	1222	2915	7065	22208	23473	4409	7667	17328	1683.3	1625.8	3328
MEAN	11.4	40.7	94.0	228	793	757	147	247	578	54.3	52.4	111
MAX	24	158	264	1160	3050	2320	250	842	2230	187	383	799
MIN	7.5	10	49	26	136	286	83	83	144	8.6	7.9	19
CFSM	.03	.11	.26	.64	2.22	2.12	.41	.69	1.61	.15	.15	.31
IN.	.04	.13	.30	.73	2.31	2.44	.46	.80	1.80	.17	.17	.35

e Estimated

05590950 KASKASKIA RIVER AT CHESTERVILLE, IL--Continued

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

MEAN	13.8	43.6	66.1	239	463	497	363	1197	615	60.5	53.2	45.5
MAX	16.2	46.5	94.0	251	793	757	580	2146	897	64.4	92.0	111
(WY)	1996	1996	1997	1996	1997	1997	1996	1996	1996	1996	1995	1997
MIN	11.4	40.7	38.1	228	144	237	147	247	370	54.3	15.1	12.2
(WY)	1997	1997	1996	1997	1996	1996	1997	1997	1995	1997	1996	1995

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1995 - 1997	
ANNUAL TOTAL	137475.7		93277.7			
ANNUAL MEAN	376		256		314	
HIGHEST ANNUAL MEAN					372	1996
LOWEST ANNUAL MEAN					256	1997
HIGHEST DAILY MEAN	7320	May 11	3050	Feb 28	7320	May 11 1996
LOWEST DAILY MEAN	7.5	Oct 14	7.5	Oct 14	7.5	Oct 14 1996
ANNUAL SEVEN-DAY MINIMUM	8.5	Oct 12	8.5	Oct 12	8.5	Oct 12 1996
INSTANTANEOUS PEAK FLOW			3170	Feb 28	8290	May 10 1996
INSTANTANEOUS PEAK STAGE			40.74	Feb 28	43.86	May 10 1996
INSTANTANEOUS LOW FLOW			7.3	Oct 14	7.3	Oct 14 1996
ANNUAL RUNOFF (CFSM)	1.05		.71		.88	
ANNUAL RUNOFF (INCHES)	14.29		9.69		11.91	
10 PERCENT EXCEEDS	1090		761		946	
50 PERCENT EXCEEDS	76		98		80	
90 PERCENT EXCEEDS	9.9		12		11	

05591200 KASKASKIA RIVER AT COOKS MILLS, IL

LOCATION.--Lat 39°35'01", long 88°24'50", in NW1/4SW1/4 sec.10, T.13 N., R.7 E., Coles County, Hydrologic Unit 07140201, on right upstream side of bridge in Cooks Mills, 3.8 mi downstream from Flat Branch, and at mile 238.1.

DRAINAGE AREA.--473 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 617.40 ft above sea level. Prior to July 30, 1981, at site 200 ft downstream at same datum.

REMARKS.--Water-discharge records good except those for estimated daily discharges, which are poor. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 23	1330	2,040	10.66	June 15	1100	2,300	11.05
Feb. 28	2045	*4,490	*13.55				

Minimum discharge, 8.4 ft^3/s, Oct. 30, 31.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	17	179	82	436	4130	309	107	239	158	9.9	27
2	13	22	286	80	571	3060	277	102	349	181	9.5	24
3	11	20	282	82	754	2170	260	116	423	174	9.1	24
4	12	16	227	86	1200	1670	258	203	410	136	11	116
5	12	13	177	98	1640	1320	268	565	364	111	12	155
6	12	13	150	122	1790	1100	279	798	362	97	12	88
7	12	23	146	138	1570	927	273	711	567	88	12	50
8	13	78	151	110	1120	771	240	562	615	78	13	36
9	13	161	156	164	761	707	199	450	736	68	12	115
10	13	145	147	168	547	861	176	384	756	63	12	436
11	13	89	131	e120	443	1000	170	323	792	74	14	555
12	15	56	123	e80	383	1090	183	283	742	61	16	376
13	15	39	110	e65	330	1010	199	267	1050	50	18	174
14	14	30	97	e65	286	1570	192	252	1810	48	25	95
15	12	26	87	e70	267	1820	166	233	2250	47	25	66
16	10	23	83	e75	238	1870	148	210	1970	51	20	52
17	9.9	22	86	e66	214	1550	143	186	1520	67	23	44
18	10	22	93	e55	200	1170	143	173	1090	47	74	39
19	12	24	83	e50	222	961	141	176	787	34	242	36
20	14	29	e72	e45	352	832	148	173	584	26	206	33
21	17	26	e70	e60	798	733	156	168	461	21	134	33
22	17	20	70	387	1480	649	149	144	384	23	83	54
23	15	17	78	844	1990	565	139	125	333	30	50	51
24	15	17	e110	1070	1840	480	129	119	288	60	37	40
25	21	26	e140	1280	1450	425	119	128	252	51	65	38
26	29	82	e120	1240	1340	398	112	149	229	33	160	41
27	22	141	105	1000	3610	380	105	214	212	22	126	34
28	16	128	96	e700	4340	354	106	263	195	17	78	28
29	12	96	95	e550	---	345	114	246	178	14	50	25
30	9.8	91	96	509	---	347	113	217	165	12	37	21
31	11	---	89	412	---	344	---	210	---	10	31	---
TOTAL	437.7	1512	3935	9873	30172	34609	5414	8257	20113	1952	1626.5	2906
MEAN	14.1	50.4	127	318	1078	1116	180	266	670	63.0	52.5	96.9
MAX	29	161	286	1280	4340	4130	309	798	2250	181	242	555
MIN	9.8	13	70	45	200	344	105	102	165	10	9.1	21
CFSM	.03	.11	.27	.67	2.28	2.36	.38	.56	1.42	.13	.11	.20
IN.	.03	.12	.31	.78	2.37	2.72	.43	.65	1.58	.15	.13	.23

e Estimated

05591200 KASKASKIA RIVER AT COOKS MILLS, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1997, BY WATER YEAR (WY)

MEAN	163	342	568	482	620	778	750	772	467	284	193	104
MAX	1189	2205	1626	1862	2028	2565	2116	2809	1864	1166	952	817
(WY)	1994	1993	1988	1974	1982	1979	1994	1996	1974	1973	1981	1993
MIN	12.7	24.4	16.7	14.2	63.4	132	85.5	103	48.0	16.8	14.9	12.7
(WY)	1985	1977	1977	1977	1977	1992	1971	1976	1988	1988	1988	1991

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1971 - 1997	
ANNUAL TOTAL	182546.9		120807.2			
ANNUAL MEAN	499		331		459	
HIGHEST ANNUAL MEAN					838	1973
LOWEST ANNUAL MEAN					185	1980
HIGHEST DAILY MEAN	8530	May 11	4340	Feb 28	9690	Apr 14 1994
LOWEST DAILY MEAN	8.0	Sep 23	9.1	Aug 3	.00	Sep 11 1988
ANNUAL SEVEN-DAY MINIMUM	9.0	Sep 20	11	Jul 30	2.7	Sep [illegible] 1988
INSTANTANEOUS PEAK FLOW			4490	Feb 28	9950	Apr 1[illegible] 1994
INSTANTANEOUS PEAK STAGE			13.55	Feb 28	17.30	Apr 1[illegible] 1994
INSTANTANEOUS LOW FLOW			8.4	Oct 30,31		
ANNUAL RUNOFF (CFSM)	1.05		.70		.97	
ANNUAL RUNOFF (INCHES)	14.36		9.50		13.20	
10 PERCENT EXCEEDS	1170		977		1210	
50 PERCENT EXCEEDS	131		125		180	
90 PERCENT EXCEEDS	12		15		20	

05591200 KASKASKIA RIVER AT COOKS MILLS, IL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1976 to September 1997. (Discontinued). Additional chemical data for water years 1961-68, 1971-72 are published in Water-Resources Investigations 78-24 and 79-25 as site O 02.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: Jan. 1979 to Sept. 1997. (Discontinued).

REMARKS.--Suspended-sediment samples were collected by a local observer once weekly with additional samples collected during high runoff periods.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily, 1,710 mg/L, May 1, 1983; minimum daily, 0 mg/L, Sept. 10, 11, 1988.
SEDIMENT LOADS: Maximum daily, 26,100 tons, Apr. 13, 1979; minimum daily, 0 ton, Sept. 10, 11, 1988.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily, 350 mg/L, Feb. 27; minimum daily, 5 mg/L, Nov. 18, 19.
SEDIMENT LOADS: Maximum daily, 3,430 tons, Feb. 27; minimum daily, .22 tons, Nov. 5.

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	OCTOBER			NOVEMBER			DECEMBER		
1	17	62	2.8	17	10	.47	179	42	22
2	13	57	2.0	22	7	.40	286	44	33
3	11	53	1.6	20	6	.32	282	28	21
4	12	50	1.6	16	6	.27	227	18	11
5	12	47	1.5	13	6	.22	177	12	5.7
6	12	44	1.4	13	11	.38	150	8	3.2
7	12	43	1.4	23	30	1.9	146	9	3.4
8	13	43	1.5	78	31	6.3	151	11	4.7
9	13	44	1.5	161	22	9.7	156	15	6.3
10	13	44	1.5	145	16	6.4	147	20	7.7
11	13	44	1.6	89	12	2.9	131	25	9.0
12	15	43	1.7	56	11	1.6	123	28	9.1
13	15	42	1.7	39	10	1.0	110	28	8.4
14	14	41	1.5	30	8	.65	97	29	7.6
15	12	40	1.3	26	6	.45	87	30	7.0
16	10	38	1.0	23	6	.36	83	28	6.2
17	9.9	37	1.0	22	6	.33	86	25	5.9
18	10	34	.92	22	5	.32	93	23	5.8
19	12	29	.93	24	5	.34	83	21	4.8
20	14	25	.99	29	6	.50	e72	19	3.7
21	17	33	1.5	26	7	.49	e70	13	2.5
22	17	39	1.8	20	7	.38	70	8	1.5
23	15	31	1.2	17	7	.32	78	8	1.7
24	15	23	.95	17	7	.32	e110	39	12
25	21	28	1.6	26	24	2.1	e140	40	15
26	29	39	3.0	82	48	10	e120	23	7.5
27	22	38	2.3	141	49	19	105	14	3.9
28	16	35	1.5	128	39	13	96	8	2.1
29	12	33	1.1	96	30	7.8	95	9	2.3
30	9.8	24	.64	91	23	5.8	96	12	3.1
31	11	16	.47	---	---	---	89	16	3.9
TOTAL	437.7	---	45.50	1512	---	94.02	3935	---	241.0

05591200 KASKASKIA RIVER AT COOKS MILLS, IL--Continued

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	JANUARY			FEBRUARY			MARCH		
1	82	22	4.9	436	18	22	4130	128	1440
2	80	30	6.5	571	31	49	3060	55	469
3	82	39	8.7	754	53	109	2170	32	190
4	86	33	7.7	1200	88	292	1670	34	153
5	98	24	6.3	1640	108	480	1320	39	139
6	122	17	5.6	1790	87	420	1100	28	84
7	138	12	4.6	1570	54	230	927	25	63
8	110	17	4.7	1120	32	98	771	27	55
9	164	25	11	761	19	39	707	29	55
10	168	26	12	547	11	17	861	32	73
11	e120	26	8.5	443	10	12	1000	35	95
12	e80	27	5.8	383	9	9.5	1090	62	180
13	e65	27	4.8	330	9	7.9	1010	126	344
14	e65	28	4.9	286	8	6.5	1570	231	993
15	e70	28	5.3	267	8	5.8	1820	92	446
16	e75	29	5.8	238	8	5.1	1870	36	181
17	e66	29	5.2	214	8	4.6	1550	20	84
18	e55	30	4.4	200	8	4.3	1170	19	59
19	e50	30	4.1	222	15	9.3	961	25	66
20	e45	31	3.8	352	42	44	832	32	71
21	e60	42	6.8	798	85	185	733	33	65
22	387	62	69	1480	64	249	649	33	58
23	844	63	144	1990	44	237	565	40	61
24	1070	47	133	1840	23	114	480	31	40
25	1280	34	116	1450	16	63	425	22	26
26	1240	16	53	1340	60	249	398	20	21
27	1000	11	31	3610	350	3430	380	40	41
28	e700	11	20	4340	172	2010	354	53	51
29	e550	10	15	---	---	---	345	60	56
30	509	11	15	---	---	---	347	56	52
31	412	12	13	---	---	---	344	39	37
TOTAL	9873	---	740.4	30172	---	8402.0	34609	---	5748
	APRIL			MAY			JUNE		
1	309	40	33	107	55	16	239	40	26
2	277	58	43	102	43	12	349	40	38
3	260	68	48	116	42	13	423	49	56
4	258	72	50	203	48	27	410	55	61
5	268	65	47	565	49	75	364	54	53
6	279	66	50	798	33	71	362	196	202
7	273	67	50	711	32	61	567	227	344
8	240	55	36	562	40	61	615	169	280
9	199	35	19	450	46	56	736	91	180
10	176	19	9.2	384	50	52	756	49	99
11	170	20	9.1	323	53	46	792	73	156
12	183	26	13	283	45	34	742	58	117
13	199	34	19	267	46	33	1050	193	570
14	192	41	21	252	53	36	1810	118	570
15	166	47	21	233	53	33	2250	60	360
16	148	52	21	210	52	30	1970	36	191
17	143	48	19	186	53	26	1520	37	153
18	143	37	14	173	62	29	1090	49	144
19	141	35	13	176	55	26	787	68	144
20	148	48	19	173	74	34	584	101	158
21	156	54	23	168	87	40	461	123	153
22	149	47	19	144	73	29	384	153	158
23	139	37	14	125	72	24	333	174	157
24	129	30	11	119	65	21	288	151	118
25	119	41	13	128	58	20	252	137	93
26	112	49	15	149	55	22	229	136	84
27	105	44	13	214	52	30	212	101	58
28	106	35	10	263	54	39	195	92	49
29	114	46	14	246	48	32	178	89	43
30	113	61	19	217	42	25	165	84	37
31	---	---	---	210	44	25	---	---	---
TOTAL	5414	---	705.3	8257	---	1078	20113	---	4852

05591200 KASKASKIA RIVER AT COOKS MILLS, IL--Continued

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	JULY			AUGUST			SEPTEMBER		
1	158	80	34	9.9	75	2.0	27	50	3.6
2	181	103	51	9.5	60	1.5	24	61	3.9
3	174	85	40	9.1	42	1.0	24	49	3.1
4	136	115	42	11	50	1.4	116	58	19
5	111	127	38	12	74	2.5	155	72	30
6	97	123	32	12	77	2.5	88	67	16
7	88	98	23	12	72	2.4	50	49	6.7
8	78	69	15	13	83	2.9	36	42	4.1
9	68	81	15	12	79	2.7	115	85	31
10	63	76	13	12	67	2.2	436	130	150
11	74	60	12	14	66	2.4	555	84	126
12	61	61	10	16	58	2.5	376	69	70
13	50	63	8.4	18	53	2.7	174	59	28
14	48	88	11	25	54	3.6	95	67	17
15	47	65	8.2	25	63	4.2	66	74	13
16	51	52	7.2	20	73	3.8	52	93	13
17	67	60	11	23	142	9.6	44	58	7.1
18	47	56	7.2	74	118	19	39	53	5.6
19	34	54	4.9	242	99	66	36	42	4.1
20	26	47	3.3	206	103	57	33	77	6.8
21	21	47	2.7	134	93	33	33	107	9.5
22	23	57	3.5	83	84	19	54	71	10
23	30	45	3.6	50	76	10	51	45	6.2
24	60	59	9.5	37	62	6.3	40	56	6.0
25	51	71	9.7	65	67	12	38	51	5.3
26	33	55	4.9	160	86	37	41	48	5.3
27	22	53	3.1	126	76	26	34	47	4.3
28	17	50	2.3	78	60	13	28	44	3.4
29	14	67	2.6	50	50	6.8	25	40	2.7
30	12	73	2.3	37	57	5.7	21	45	2.6
31	10	62	1.7	31	55	4.7	---	---	---
TOTAL	1952	---	432.1	1626.5	---	365.4	2906	---	613.3
YEAR	120807.2		23317.02						

e Estimated

05591550 WHITLEY CREEK NEAR ALLENVILLE, IL

LOCATION.--Lat 39°30'24", long 88°31'39", in SE1/4SE1/4 sec.4, T.12 N., R.6 E., Moultrie County, Hydrologic Unit 07140201, on left downstream side of bridge on County Highway 3, 3.2 mi south of Allenville, and at mile 5.8.

DRAINAGE AREA.--34.6 mi^2.

PERIOD OF RECORD.--February 1980 to current year. Gage-height record for January 1963 to February 1980 available in files of U.S. Army Corps of Engineers.

REVISED RECORDS.--WDR IL-81-1: 1980.

GAGE.--Water-stage recorder. Datum of gage is 617.00 ft above sea level (levels by U.S. Army Corps of Engineers).

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1971 reached a stage of 13.67 ft, discharge not determined, from information by U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 22	2015	494	8.74	Mar.14	0530	525	8.90
Feb. 27	0145	*1,890	*11.53				

No flow for many days.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.51	.89	21	12	e40	152	19	9.0	9.7	5.8	.00	e.50
2	.56	.76	19	13	e60	115	18	8.5	20	4.8	.00	e.30
3	.30	.64	11	13	93	84	18	13	19	3.5	.00	.18
4	.19	.56	6.8	13	237	65	19	12	15	3.0	.00	e.08
5	.10	.49	6.1	21	108	54	23	11	13	2.6	.00	e.02
6	.04	.75	6.5	e13	65	46	20	15	20	2.2	.00	e.00
7	.00	4.3	9.2	e11	46	40	16	11	182	1.9	.00	e.00
8	.00	2.9	9.8	e9.5	36	37	15	12	120	1.5	.00	.00
9	.00	3.8	7.4	e11	30	76	14	11	121	1.2	.00	29
10	.00	2.4	6.2	e7.0	28	125	14	8.7	71	1.0	.00	.58
11	.00	1.5	6.0	e4.5	26	75	16	8.5	50	.74	.00	.69
12	.00	1.1	4.8	e4.5	24	54	17	9.6	43	.53	.00	1.1
13	.00	.76	3.6	e6.0	22	79	14	9.3	174	.42	.00	1.5
14	.00	.57	3.1	e8.0	22	386	12	9.1	76	.82	.00	1.3
15	.00	.52	3.0	e9.0	19	128	12	7.7	46	.84	.00	1.1
16	.00	.47	3.0	e10	18	76	12	6.4	37	.55	.00	.82
17	.00	.43	3.1	e8.0	16	61	11	7.3	28	.55	.89	1.1
18	.00	.43	e2.5	e6.0	19	78	12	8.0	24	.41	.44	.80
19	.00	.40	e2.0	e5.0	20	72	13	7.8	20	.39	.42	.62
20	.00	.37	e1.7	e4.5	62	58	11	6.4	18	.36	.49	.42
21	.00	.38	e1.5	e7.0	168	49	13	5.0	17	.51	.83	.31
22	.00	.39	e2.0	295	114	39	12	4.7	15	.72	.93	.25
23	.12	.39	9.5	250	67	33	11	5.1	13	.60	.73	.25
24	.94	.46	69	93	48	30	9.7	5.9	12	.50	.73	.25
25	.75	2.1	47	69	42	31	8.4	7.4	11	.37	2.5	.22
26	.62	31	26	e55	246	27	7.7	7.4	9.2	.21	2.1	.20
27	1.2	15	18	e45	975	26	9.5	6.2	7.7	.13	1.8	.17
28	1.1	6.8	e14	e37	238	28	10	6.2	7.4	.06	1.3	.14
29	.82	4.6	e13	e32	---	24	9.0	6.4	6.8	.02	1.1	.09
30	1.1	6.8	e12	e27	---	21	9.4	6.8	6.3	.00	e.90	.03
31	.98	---	e11	e31	---	20	---	8.8	---	.00	e.70	---
TOTAL	9.33	91.96	358.8	1130.0	2889	2189	405.7	261.2	1212.1	36.23	15.86	42.02
MEAN	.30	3.07	11.6	36.5	103	70.6	13.5	8.43	40.4	1.17	.51	1.40
MAX	1.2	31	69	295	975	386	23	15	182	5.8	2.5	29
MIN	.00	.37	1.5	4.5	16	20	7.7	4.7	6.3	.00	.00	.00
CFSM	.01	.09	.33	1.05	2.98	2.04	.39	.24	1.17	.03	.01	.04
IN.	.01	.10	.39	1.21	3.11	2.35	.44	.28	1.30	.04	.02	.05

e Estimated

05591550 WHITLEY CREEK NEAR ALLENVILLE, IL--Continued

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

MEAN	8.59	39.2	43.1	36.8	47.7	46.5	55.9	47.3	27.9	11.2	3.18	4.96
MAX	41.2	235	131	122	124	103	146	141	82.8	37.6	14.1	54.2
(WY)	1994	1993	1983	1993	1982	1984	1994	1996	1982	1993	1981	1993
MIN	.000	.61	.84	.19	8.46	5.88	11.2	8.43	1.27	.031	.000	.000
(WY)	1989	1981	1981	1981	1995	1981	1986	1997	1991	1991	1984	1983

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1980 - 1997	
ANNUAL TOTAL	13314.32		8641.20			
ANNUAL MEAN	36.4		23.7		31.0	
HIGHEST ANNUAL MEAN					59.8	1993
LOWEST ANNUAL MEAN					12.4	1992
HIGHEST DAILY MEAN	1590	Apr 29	975	Feb 27	1680	May 16 1990
LOWEST DAILY MEAN	.00	Many days	.00	Many days	.00	A
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 3	.00	Oct 7	.00	Aug 11 1983
INSTANTANEOUS PEAK FLOW			1890	Feb 27	3200 B	Apr 29 1996
INSTANTANEOUS PEAK STAGE			11.53	Feb 27	12.62	Apr 29 1996
ANNUAL RUNOFF (CFSM)	1.05		.68		.90	
ANNUAL RUNOFF (INCHES)	14.31		9.29		12.19	
10 PERCENT EXCEEDS	85		60		70	
50 PERCENT EXCEEDS	7.0		6.8		11	
90 PERCENT EXCEEDS	.00		.00		.08	

A - Many days in most years.

B - From rating curve extended above 1,890 ft^3/s.

05591700 WEST OKAW RIVER NEAR LOVINGTON, IL

LOCATION.--Lat 39°43'52", long 88°39'43", in NW1/4SW1/4 sec.21, T.15 N., R.5 E., Moultrie County, Hydrologic Unit 07140201, on left downstream side of bridge on State Highways 32 and 133, 1.5 mi northwest of Lovington, 1.7 mi upstream from Stringtown Branch, and at mile 25.4.

DRAINAGE AREA.--112 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1971-73. February 1980 to current year. Gage-height record for January 1963 to February 1980 available in files of U.S. Army Corps of Engineers.

GAGE.--Water-stage recorder. Datum of gage is 632.50 ft above sea level (levels by U.S. Army Corps of Engineers).

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 1968 reached a stage of 14.66 ft, discharge not determined, from information by U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 27	Unknown	*2,200	Unknown	No other peak greater than base discharge.			

No flow for many days.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	35	19	e74	660	63	34	85	26	.00	.00
2	.00	.00	33	22	e170	513	61	28	105	23	.00	.00
3	.00	.00	29	22	396	394	64	271	94	19	.00	.00
4	.00	.00	23	23	633	298	66	407	77	16	.00	.00
5	.00	.00	24	32	547	235	73	234	66	14	.00	.04
6	.00	.06	24	e21	276	197	70	160	78	12	.00	.01
7	.00	3.7	25	e17	159	164	51	118	129	11	.00	.00
8	.00	16	27	e14	112	151	45	108	107	9.7	.00	1.4
9	.00	14	26	e20	89	149	43	87	188	8.6	.00	10
10	.00	6.3	25	e18	81	269	45	71	143	6.8	.00	.99
11	.00	3.6	25	e16	72	225	50	71	115	5.3	.00	.25
12	.00	1.8	23	e15	63	164	58	71	132	4.2	.00	.11
13	.00	1.1	20	e14	55	160	48	63	609	3.6	.00	.04
14	.00	.83	19	e14	55	621	38	57	453	2.8	.00	.00
15	.00	.70	19	e15	46	460	37	47	270	2.9	.00	.00
16	.00	.62	20	e15	44	274	40	41	201	2.3	.00	.00
17	.00	.64	21	e14	39	218	36	46	135	1.7	.02	.00
18	.00	.84	19	e12	51	191	37	44	109	1.4	.00	.00
19	.00	.97	e15	e11	71	175	43	44	88	1.1	1.2	.00
20	.00	.85	e13	e10	150	166	38	35	77	.85	2.3	.00
21	.00	.91	e12	e12	652	149	39	32	70	.71	.69	.00
22	.00	.79	e14	e220	605	124	37	32	59	.79	.44	.00
23	.00	.76	e17	488	373	103	34	32	50	1.1	.08	.00
24	.00	1.3	22	233	233	93	33	36	46	1.2	.13	.00
25	.00	8.0	19	151	179	103	29	41	43	.98	.26	.00
26	.00	21	19	195	339	82	26	42	39	.77	.10	.00
27	.00	19	19	e80	e1750	81	31	39	34	.48	.02	.00
28	.00	17	21	e64	899	91	34	34	32	.25	.00	.00
29	.00	16	21	e60	---	90	31	37	30	.12	.00	.00
30	.00	27	19	e56	---	74	32	37	28	.04	.00	.00
31	.00	---	19	e52	---	68	---	85	---	.00	.00	---
TOTAL	0.00	163.77	667	1955	8213	6742	1332	2484	3692	178.69	5.24	12.84
MEAN	.000	5.46	21.5	63.1	293	217	44.4	80.1	123	5.76	.17	.43
MAX	.00	27	35	488	1750	660	73	407	609	26	2.3	10
MIN	.00	.00	12	10	39	68	26	28	28	.00	.00	.00
CFSM	.00	.05	.19	.56	2.62	1.94	.40	.72	1.10	.05	.00	.00
IN.	.00	.05	.22	.65	2.73	2.24	.44	.83	1.23	.06	.00	.00

e Estimated

05591700 WEST OKAW RIVER NEAR LOVINGTON, IL--Continued

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

MEAN	38.1	101	143	104	181	175	173	237	115	61.6	33.9	19.6
MAX	316	530	378	385	669	536	520	873	299	373	351	224
(WY)	1994	1986	1991	1993	1982	1982	1994	1996	1996	1992	1981	1993
MIN	.000	.47	.50	4.17	25.3	40.5	32.7	21.5	7.24	.075	.000	.000
(WY)	1989	1990	1990	1990	1992	1992	1986	1988	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1980 - 1997	
ANNUAL TOTAL	48285.22		25445.54			
ANNUAL MEAN	132		69.7		117	
HIGHEST ANNUAL MEAN					182	1982
LOWEST ANNUAL MEAN					69.7	1997
HIGHEST DAILY MEAN	3720	May 8	1750 A	Feb 27	6080	Apr 12 1994
LOWEST DAILY MEAN	.00	Many days	.00	Many days	.00 B	
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 2	.00	Oct 1	.00	Sep 28 1983
INSTANTANEOUS PEAK FLOW			2200 A	Feb 27	10300 C	May 8 1996
INSTANTANEOUS PEAK STAGE			Unknown	Feb 27	16.40	May 8 1996
ANNUAL RUNOFF (CFSM)	1.18		.62		1.04	
ANNUAL RUNOFF (INCHES)	16.04		8.45		14.18	
10 PERCENT EXCEEDS	315		183		300	
50 PERCENT EXCEEDS	19		21		39	
90 PERCENT EXCEEDS	.00		.00		.08	

A - Estimated.

B - Many days in most years.

C - From rating curve extended above 9,490 ft^3/s.

05592000 KASKASKIA RIVER AT SHELBYVILLE, IL

LOCATION.--Lat 39°24'25", long 88°46'50", in SE1/4SW1/4 sec.8, T.11 N., R.4 E., Shelby County, Hydrologic Unit 07140201, on left bank 700 ft downstream from Lake Shelbyville Dam, 700 ft upstream from bridge on State Highway 16 in Shelbyville, 0.5 mi upstream from railroad bridge, 7 mi upstream from Robinson Creek, and at mile 197.5.

DRAINAGE AREA.--1,054 mi^2.

PERIOD OF RECORD.--February 1908 to September 1912, November to December 1912, August to December 1914, October 1940 to current year.

REVISED RECORDS.--WSP 975: 1908. WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 535.78 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Dec. 6, 1914, nonrecording gage at site 750 ft downstream at datum 4.67 ft lower. Oct. 1 to Dec. 3, 1940, and June 1, 1950, to July 10, 1952, nonrecording gage and Dec. 4, 1940, to May 31, 1950, and July 11, 1952, to June 30, 1969, water-stage recorder, at site 650 ft downstream at present datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Lake Shelbyville (station 05591950), flood-control storage 474,000 acre-ft, beginning June 24, 1969. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,900 ft^3/s, June 29, 1957, gage height, 22.37 ft; no flow at times in 1953-55, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,410 ft^3/s, Mar. 10, gage height, 10.95 ft; minimum discharge, no flow for part of Nov. 26.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	23	35	747	916	3140	766	32	30	803	51	32
2	28	24	273	661	918	3370	604	32	29	742	51	31
3	28	24	739	463	1020	3380	406	33	30	657	35	30
4	27	24	1160	364	1430	3650	288	32	23	635	26	31
5	27	22	1290	364	2170	3980	157	33	24	565	26	30
6	27	25	1290	363	2730	4050	66	33	27	321	26	29
7	26	26	1280	283	2900	4100	30	33	27	192	27	29
8	26	24	1290	230	3080	4080	29	33	26	192	27	29
9	26	23	1280	232	3060	4090	29	33	26	192	27	29
10	26	23	1270	189	2870	4190	29	33	362	188	27	28
11	25	23	1270	133	2430	4390	29	34	509	189	29	27
12	25	22	1270	133	1900	4350	30	34	356	188	28	27
13	26	21	1260	133	1340	4250	30	34	652	189	28	26
14	26	21	1260	132	921	4230	31	36	843	164	29	27
15	25	21	1260	132	554	4150	31	36	1060	101	30	27
16	25	22	1250	133	381	4120	30	36	1150	102	29	29
17	26	23	1250	133	383	4040	29	36	1150	102	31	27
18	26	23	1250	133	386	3650	27	36	1280	102	30	33
19	26	22	1250	131	451	3350	28	36	1510	73	30	33
20	26	22	1240	131	631	3020	29	35	1530	49	152	32
21	26	22	1230	132	1070	2660	29	35	1250	59	164	32
22	26	22	1230	255	1930	2420	29	34	1160	50	87	32
23	27	22	1190	695	2520	2180	30	34	1280	50	58	31
24	26	23	1090	1300	2620	2000	31	35	1360	50	43	76
25	26	25	1030	1520	2620	1830	31	33	1180	51	33	108
26	26	21	1020	1510	2340	1600	31	30	952	51	34	107
27	26	36	969	1520	1990	1390	31	30	951	51	34	106
28	26	35	935	1520	2850	1240	31	30	951	51	33	104
29	27	35	932	1390	---	1140	31	31	858	49	32	104
30	27	35	878	1210	---	1090	31	31	804	49	33	104
31	24	---	785	991	---	1000	---	30	---	51	31	---
TOTAL	812	734	33756	17263	48411	96130	3003	1033	21390	6308	1321	1390
MEAN	26.2	24.5	1089	557	1729	3101	100	33.3	713	203	42.6	46.3
MAX	28	36	1290	1520	3080	4390	766	36	1530	803	164	108
MIN	24	21	35	131	381	1000	27	30	23	49	26	26

05592000 KASKASKIA RIVER AT SHELBYVILLE, IL--Continued

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

MEAN	406	479	1241	1387	1541	1597	1081	798	931	849	629	318
MAX	2031	1626	3492	3527	4551	4696	3980	2903	2689	2882	2079	1786
(WY)	1970	1994	1986	1993	1974	1979	1979	1996	1996	1974	1973	1973
MIN	5.15	5.44	2.58	3.57	15.4	253	25.3	10.0	8.56	12.5	8.24	3.72
(WY)	1971	1971	1977	1977	1977	1992	1990	1987	1976	1976	1970	1970

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1970 - 1997	
ANNUAL TOTAL	378344		231551			
ANNUAL MEAN	1034		634		936	
HIGHEST ANNUAL MEAN					1941	1974
LOWEST ANNUAL MEAN					275	1971
HIGHEST DAILY MEAN	4700	May 16-18	4390	Mar 11	4960	Mar 6 1974
LOWEST DAILY MEAN	21	A	21	A	.00	B
ANNUAL SEVEN-DAY MINIMUM	22	Nov 10	22	Nov 10	2.0	Dec 22 1976
INSTANTANEOUS PEAK FLOW			4410	Mar 10	5090	Mar 8 1982
INSTANTANEOUS PEAK STAGE			10.95	Mar 10	13.16	Mar 20 1982
INSTANTANEOUS LOW FLOW			.00	Nov 26		
10 PERCENT EXCEEDS	2740		1990		2270	
50 PERCENT EXCEEDS	786		51		564	
90 PERCENT EXCEEDS	26		26		14	

A - Nov. 13-15, 26.
B - Oct. 2, 3, 1984.

05592050 ROBINSON CREEK NEAR SHELBYVILLE, IL

LOCATION.--Lat 39°24'21", long 88°53'47", in NW1/4NW1/4 sec.17, T.11 N., R.3 E., Shelby County, Hydrologic Unit 07140201, on right bank at upstream side of bridge on State Highway 16, 0.1 mi downstream from Mud Creek, 4.5 mi west of Shelbyville, and at mile 9.1.

DRAINAGE AREA.--93.1 mi^2.

PERIOD OF RECORD.--October 1979 to current year. Gage-height record for June 22, 1973, to Sept. 30, 1979, available in files of U.S. Army Corps of Engineers.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 550.00 ft above sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Records fair except those for estimated daily discharges and those for discharges below 1.0 ft^3/s, which are poor. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 28, 1957, reached a stage of 16.8 ft, present site and datum, with a discharge estimated at 26,400 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft^3/s and maximum (*):

Date	Time	Discharge ft^3/s	Gage height (ft)
Feb.27	0430	*2,460	*11.04

No other peak greater than base discharge.

No flow Sept. 4-7, estimated.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.23	.56	25	5.2	e100	253	33	14	12	e10	e.45	.20
2	.22	.58	16	5.5	e300	213	33	14	14	e8.0	e.43	e.10
3	.18	.61	10	4.9	e280	150	33	34	17	e7.0	e.40	e.05
4	.20	.61	7.1	5.5	914	115	34	50	17	5.8	e.38	e.00
5	.19	.66	7.4	7.6	228	97	40	40	14	5.1	e.36	e.00
6	.18	2.0	8.4	5.7	113	89	37	36	14	4.5	e.34	e.00
7	.19	20	8.2	4.9	85	73	27	30	217	3.8	e.32	e.00
8	.21	8.9	6.5	4.4	68	68	24	34	163	3.6	e.30	.11
9	.23	1.9	5.9	e4.0	58	288	23	30	99	2.9	e.35	98
10	.24	1.1	5.2	e4.3	54	376	25	26	71	2.6	e.50	e20
11	.23	.83	4.9	e3.9	51	147	27	25	57	2.2	e.65	e3.0
12	.25	.69	4.0	e3.6	43	93	30	26	49	1.7	e.55	e1.5
13	.25	.65	3.5	e3.5	34	196	25	24	77	1.4	e.45	e.80
14	.26	.64	3.2	e3.5	35	889	21	23	62	1.3	e.40	e.50
15	.26	.64	3.2	e3.5	31	227	20	20	e42	1.1	e.50	e.30
16	.27	.63	3.2	e3.7	29	127	20	17	e35	1.1	e.45	e.25
17	.42	.88	3.1	e4.3	26	108	18	17	e27	1.1	41	e.30
18	.50	1.0	2.5	e6.0	35	113	19	19	e21	.98	23	e.22
19	.36	.92	e2.2	e5.5	42	105	21	19	e17	.87	1.6	e.16
20	.40	.88	e1.9	e5.0	150	94	20	17	e14	.78	1.8	e.12
21	.43	.87	e1.9	e25	472	83	27	13	e12	.91	1.4	e.08
22	.68	.84	e2.1	e500	259	67	22	11	e10	.98	1.2	e.06
23	.73	.81	e5.5	e250	127	56	18	10	e9.0	1.2	1.5	e.25
24	.49	1.7	9.6	e120	89	51	17	11	e8.0	1.0	1.5	e.20
25	.46	35	8.5	e70	76	54	15	15	e7.0	.91	.87	e.14
26	.62	37	6.8	e40	668	46	13	19	e6.0	.78	.47	e.10
27	.57	11	6.8	e50	1880	44	15	17	e5.5	.69	.27	e.08
28	.49	6.8	8.5	e40	556	46	18	14	e5.0	e.60	.24	e.06
29	.63	7.2	7.6	e30	---	45	16	13	e4.5	e.55	.23	e.10
30	.63	23	6.0	e25	---	40	15	14	e5.0	e.50	.29	e.12
31	.54	---	5.0	e30	---	37	---	15	---	e.47	.32	---
TOTAL	11.54	168.90	199.7	1274.5	6803	4390	706	667	1111.0	74.42	82.52	126.80
MEAN	.37	5.63	6.44	41.1	243	142	23.5	21.5	37.0	2.40	2.66	4.23
MAX	.73	37	25	500	1880	889	40	50	217	10	41	98
MIN	.18	.56	1.9	3.5	26	37	13	10	4.5	.47	.23	.00
CFSM	.00	.06	.07	.44	2.61	1.52	.25	.23	.40	.03	.03	.05
IN.	.00	.07	.08	.51	2.72	1.75	.28	.27	.44	.03	.03	.05

e Estimated

05592050 ROBINSON CREEK NEAR SHELBYVILLE, IL--Continued

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

MEAN	21.4	68.4	131	94.2	154	117	145	160	67.5	29.0	21.7	48.5
MAX	131	305	480	343	874	273	460	602	182	187	227	633
(WY)	1994	1986	1983	1982	1982	1984	1994	1996	1982	1993	1981	1993
MIN	.23	.64	.24	1.75	7.00	12.9	17.7	10.9	1.84	1.04	.30	.065
(WY)	1993	1990	1990	1990	1992	1990	1986	1988	1988	1991	1988	1983

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1980 - 1997	
ANNUAL TOTAL	39016.85		15615.38			
ANNUAL MEAN	107		42.8		87.7	
HIGHEST ANNUAL MEAN					163	1993
LOWEST ANNUAL MEAN					10.7	1992
HIGHEST DAILY MEAN	4330	Apr 29	1880	Feb 27	7460	Sep 23 1993
LOWEST DAILY MEAN	.17	Sep 12-14	.00	A	.00	B
ANNUAL SEVEN-DAY MINIMUM	.19	Sep 9	.04	Sep 2	.00	Sep 4 1983
INSTANTANEOUS PEAK FLOW			2460	Feb 27	11300 C	May 2 1983
INSTANTANEOUS PEAK STAGE			11.04	Feb 27	14.92	Sep 23 1993
ANNUAL RUNOFF (CFSM)	1.15		.46		.94	
ANNUAL RUNOFF (INCHES)	15.59		6.24		12.81	
10 PERCENT EXCEEDS	201		93		165	
50 PERCENT EXCEEDS	20		6.8		20	
90 PERCENT EXCEEDS	.24		.25		.32	

A - Sept. 4-7, estimated.
B - Many days in 1982-85, 1988-89, 1991.
C - Gage height, 13.37 ft.

05592100 KASKASKIA RIVER NEAR COWDEN, IL

LOCATION.--Lat 39°13'50", long 88°50'33", in NW1/4NW1/4 sec.14, T.9 N., R.3 E., Shelby County, Hydrologic Unit 07140201, on left bank at downstream side of bridge on State Highway 128, 0.7 mi downstream from Richland Creek, 1.5 mi southeast of Cowden, and at mile 173.5.

DRAINAGE AREA.--1,330 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 500.00 ft above sea level (levels by U.S. Army Corps of Engineers). July 19, 1976, to Oct. 4, 1977, nonrecording gage on upstream side of bypass bridge, 75 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow partially regulated by Lake Shelbyville (station 05591950), 26 mi upstream from gage. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,400 ft^3/s, Feb. 27, gage height, 18.18 ft; minimum discharge, 30 ft^3/s, on several days

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	30	172	816	1530	4100	1160	78	96	845	75	38
2	36	30	166	796	1510	3890	949	78	92	832	75	37
3	35	30	398	653	1780	3700	761	112	93	721	75	48
4	34	30	922	471	3120	3590	603	156	85	638	69	36
5	34	30	1230	490	e2900	3860	520	147	76	622	54	35
6	34	32	1310	437	2780	4010	381	134	69	525	49	34
7	34	63	1330	408	2800	4050	244	120	e600	287	47	33
8	33	143	1320	315	2960	4080	172	125	e400	227	45	33
9	33	87	1320	283	3000	4350	149	122	266	216	47	36
10	33	55	1320	e250	2970	4870	138	108	184	211	47	107
11	33	44	1320	e260	2710	4570	135	97	576	206	48	61
12	32	39	1310	e270	2300	4440	140	94	476	203	49	45
13	32	38	1310	e230	1770	4370	135	93	520	201	47	37
14	32	43	1310	e210	1360	5990	119	92	832	201	44	34
15	32	37	1310	e200	981	5010	109	87	982	175	45	32
16	32	36	1310	e190	672	4510	105	82	1170	127	49	31
17	31	37	1300	e180	586	4310	99	79	1190	119	101	37
18	33	39	1300	e175	575	4380	95	77	1210	115	162	44
19	36	39	1290	e170	592	4110	94	75	1390	113	81	41
20	33	37	1280	e165	1180	3640	93	73	1590	89	56	40
21	32	36	1280	e160	2240	3260	129	72	1460	69	147	39
22	34	36	1290	e1400	2270	2930	118	67	1230	334	158	39
23	38	35	1330	e2800	2510	2660	104	63	1210	112	105	42
24	38	37	1650	e2400	2680	2420	90	62	1370	95	71	44
25	36	131	1620	e2100	2670	2270	83	76	1370	88	62	71
26	34	506	1560	e1900	3340	2060	79	88	1090	85	44	113
27	33	158	1490	e1800	8910	1830	78	77	1000	82	40	115
28	33	104	1150	e1700	5070	1630	82	78	996	85	38	116
29	32	86	1010	1610	---	1510	81	79	982	80	36	115
30	32	95	995	1590	---	1390	78	78	855	76	36	114
31	31	---	908	1570	---	1350	---	96	---	75	41	---
TOTAL	1042	2143	36811	25999	67766	109140	7123	2865	23460	7854	2043	1647
MEAN	33.6	71.4	1187	839	2420	3521	237	92.4	782	253	65.9	54.9
MAX	38	506	1650	2800	8910	5990	1160	156	1590	845	162	116
MIN	31	30	166	160	575	1350	78	62	69	69	36	31

e Estimated

05592100 KASKASKIA RIVER NEAR COWDEN, IL--Continued

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

MEAN	408	638	1561	1746	1944	2093	1491	1089	1119	983	735	412
MAX	1769	2572	4259	4425	4787	5897	5221	4257	3258	2954	2360	1868
(WY)	1975	1994	1986	1993	1974	1979	1979	1996	1974	1974	1974	1974
MIN	13.2	12.1	7.27	8.02	69.4	332	140	36.3	25.6	24.5	19.6	13.5
(WY)	1988	1977	1977	1977	1977	1992	1986	1987	1988	1976	1976	1976

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1970 - 1997	
ANNUAL TOTAL	492077		287893			
ANNUAL MEAN	1344		789		1187	
HIGHEST ANNUAL MEAN					2409	1974
LOWEST ANNUAL MEAN					353	1977
HIGHEST DAILY MEAN	8800	Apr 29	8910	Feb 27	17300	Apr 12 1979
LOWEST DAILY MEAN	30	Nov 1-5	30	Nov 1-5	4.6	Oct 6 1984
ANNUAL SEVEN-DAY MINIMUM	30	Oct 30	30	Oct 30	6.0	Nov 30 1976
INSTANTANEOUS PEAK FLOW			11400	Feb 27	19700	Apr 12 1979
INSTANTANEOUS PEAK STAGE			18.18	Feb 27	18.97	Apr 12 1979
INSTANTANEOUS LOW FLOW			30	A		
10 PERCENT EXCEEDS	3330		2660		2970	
50 PERCENT EXCEEDS	1000		134		766	
90 PERCENT EXCEEDS	36		35		30	

A - Several days.

05592500 KASKASKIA RIVER AT VANDALIA, IL

LOCATION.--Lat 38°57'35", long 89°05'20", in NW1/4SE1/4 sec.16, T.6 N., R.1 E., Fayette County, Hydrologic Unit 07140202, on right bank at upstream side of Gallatin Street Bridge in Vandalia, 3.5 mi upstream from Hickory Creek and at mile 135.7.

DRAINAGE AREA.--1,940 mi^2.

PERIOD OF RECORD.--February 1908 to December 1912, August 1914 to current year. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORDS.--WSP 1208: 1919. WSP 1508: 1912, 1915(M), 1917-18(M), 1923(M), 1925(M), 1928-31(M). WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 453.30 ft above sea level. Prior to Oct. 1, 1933, nonrecording gage at present site at datum 2.00 ft higher. Oct. 1, 1933, to Sept. 23, 1968, nonrecording gage at present site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow partially regulated since June 24, 1969, by Lake Shelbyville (station 05591950), 45 mi above gage. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 62,700 ft^3/s, June 29, 1957; maximum gage height, 27.41 ft, Apr. 30, 1996; minimum discharge observed, 3.5 ft^3/s, Aug. 22, 1911.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19,700 ft^3/s, Feb. 28, gage height, 25.59 ft; minimum discharge, 51 ft^3/s, Nov. 3, 4.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	57	288	1010	2390	14600	1550	298	259	1600	104	69
2	70	54	435	939	2820	9770	1330	282	257	1270	103	66
3	66	53	410	906	3200	7230	1110	317	242	970	102	63
4	64	53	447	783	4980	5660	925	369	214	835	100	143
5	63	55	961	652	5870	4790	906	410	189	751	96	96
6	63	62	1280	664	5120	4570	997	362	202	719	88	76
7	62	104	1390	576	3740	4510	759	314	1310	638	79	69
8	60	193	1410	516	3330	4480	547	305	1500	466	77	64
9	60	245	1390	448	3300	4670	437	338	1370	371	77	64
10	60	181	1390	e300	3280	6330	391	306	771	345	78	65
11	59	120	1380	e300	3200	6760	371	266	519	331	78	94
12	60	90	1370	e320	2930	6570	368	245	675	321	80	111
13	60	76	1370	e330	2480	5850	369	228	814	315	91	82
14	60	69	1360	e300	1960	7220	342	220	1820	310	82	70
15	59	67	1360	e270	1540	8460	318	209	1400	329	85	64
16	59	68	1370	e260	1170	9140	297	197	1230	308	77	62
17	60	69	1360	e250	889	7560	277	189	1330	243	76	65
18	61	68	1350	e245	797	6320	263	182	1340	218	240	63
19	60	68	1340	e240	783	6260	256	171	1350	212	335	67
20	60	68	1330	e235	1050	5920	250	163	1510	246	182	66
21	63	67	1330	e235	4330	5050	305	157	1660	203	125	63
22	68	66	1340	e1200	5640	4100	492	151	1530	173	117	60
23	70	64	1380	4420	4180	3490	428	145	1330	322	191	62
24	74	71	1740	4340	3230	3040	363	139	1320	213	153	66
25	72	174	1700	3500	3080	2710	324	192	1440	156	156	66
26	70	1070	1330	3130	3600	2550	300	242	1430	139	151	65
27	64	993	1250	2920	9670	2290	288	203	1160	128	94	95
28	62	399	1220	3050	18200	2050	294	185	1060	123	76	114
29	60	233	1150	3010	---	1910	293	179	1050	116	69	117
30	59	201	1120	2800	---	1760	285	190	1050	112	69	116
31	58	---	1090	2500	---	1650	---	270	---	105	71	---
TOTAL	1960	5158	37641	40649	106759	167270	15435	7424	31332	12588	3502	2343
MEAN	63.2	172	1214	1311	3813	5396	515	239	1044	406	113	78.1
MAX	74	1070	1740	4420	18200	14600	1550	410	1820	1600	335	143
MIN	58	53	288	235	783	1650	250	139	189	105	69	60

e Estimated

05592500 KASKASKIA RIVER AT VANDALIA, IL--Continued

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

MEAN	634	1054	2161	2459	2704	3076	2581	1963	1656	1219	886	585
MAX	3349	5459	5783	7027	6884	7565	6462	8080	5486	3122	2599	3366
(WY)	1970	1994	1986	1993	1982	1979	1979	1996	1974	1974	1974	1993
MIN	34.3	39.1	20.6	19.0	347	517	286	165	61.9	48.7	50.5	30.2
(WY)	1988	1977	1977	1977	1978	1981	1986	1987	1988	1988	1976	1976

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1970 - 1997	
ANNUAL TOTAL	736348		432061			
ANNUAL MEAN	2012		1184		1744	
HIGHEST ANNUAL MEAN					3415	1974
LOWEST ANNUAL MEAN					583	1977
HIGHEST DAILY MEAN	23900	Apr 30	18200	Feb 28	23900	Apr 30 1996
LOWEST DAILY MEAN	53	Nov 3,4	53	Nov 3,4	17	A
ANNUAL SEVEN-DAY MINIMUM	56	Oct 30	56	Oct 30	17	Dec 23 1976
INSTANTANEOUS PEAK FLOW			19700	Feb 28	30000 B	Jun 16 1970
INSTANTANEOUS PEAK STAGE			25.59	Feb 28	27.41	Apr 30 1996
INSTANTANEOUS LOW FLOW			51	Nov 3,4		
10 PERCENT EXCEEDS	5690		3390		4440	
50 PERCENT EXCEEDS	1180		305		1030	
90 PERCENT EXCEEDS	68		64		75	

A - Dec. 23-29, 1976; Feb. 5-9, 1977.

B - About 30,000 ft^3/s, result of levee break.

05592575 HICKORY CREEK NEAR BROWNSTOWN, IL

LOCATION.--Lat 38°56'13", long 88°57'10", in NW1/4NW1/4 sec.26, T.6 N., R.2 E., Fayette County, Hydrologic Unit 07140202, on left bank at downstream side of county bridge, about 4 mi south of Brownstown, 4.3 mi above Little Hickory Creek, and at mile 12.0.

DRAINAGE AREA.--44.2 mi^2.

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

REVISED RECORDS.--WDR IL-93-1: 1989(M), WDR IL-95-1: 1994 (P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 493.37 ft above sea level (levels by U.S. Army Corps of Engineers).

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 27	0145	*3,840	*15.57	Mar. 14	0445	1,860	14.17

No flow for many days.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	24	7.4	e50	67	14	3.5	5.9	.23	.00	.00
2	.00	.00	18	7.3	e80	154	12	4.4	13	.25	.00	.00
3	.00	.00	7.9	7.2	145	45	11	27	5.8	.12	.00	.00
4	.00	.00	4.4	7.3	552	27	11	13	3.5	.08	.00	.00
5	.00	.00	4.4	7.3	102	27	186	8.2	2.7	.06	.00	.00
6	.00	.00	16	6.6	45	19	96	6.8	2.4	.07	.00	.00
7	.00	.00	13	5.3	31	14	28	5.2	56	.06	.00	.00
8	.00	.00	7.7	e3.8	26	12	17	14	24	.05	.00	.00
9	.00	.00	4.6	e4.0	23	113	13	11	22	.03	.00	.00
10	.00	.00	3.4	e4.2	19	135	11	6.1	7.3	.00	.00	.00
11	.00	.02	3.0	e3.5	e17	45	11	4.9	4.4	.00	.00	.00
12	.00	.15	2.6	e2.8	e15	29	13	5.6	3.1	.00	.00	.00
13	.00	.09	2.2	e2.6	e13	139	10	4.5	22	.00	.00	.00
14	.00	.00	1.9	e2.5	e12	882	8.0	3.7	56	.02	.00	.00
15	.00	.00	2.6	e2.7	e11	90	7.4	2.9	8.4	.04	.00	.00
16	.00	.00	6.9	e3.0	e10	47	7.0	2.4	3.0	.00	.00	.00
17	.00	.00	6.7	e3.3	e9.5	36	6.1	2.6	1.9	.00	.00	.00
18	.00	.00	4.8	e3.5	e9.0	407	5.8	2.4	1.5	.00	.00	.00
19	.00	.00	e2.5	e2.8	e11	207	6.4	2.1	.99	.00	.00	.00
20	.00	.00	e1.8	e2.2	237	67	5.8	1.8	.72	.00	.00	.00
21	.00	.00	e1.4	e2.0	305	41	20	1.6	.56	.02	.00	.00
22	.00	.00	e1.6	e600	129	26	12	1.4	1.0	.27	.00	.00
23	.00	.00	37	235	43	20	8.2	1.3	.66	.11	.00	.00
24	.00	.07	146	110	29	16	6.3	1.3	.42	.05	.00	.00
25	.00	37	20	139	25	19	5.4	3.6	.25	.03	.25	.00
26	.00	104	e10	89	606	18	4.7	5.8	.28	.00	.14	.00
27	.00	11	e8.5	64	1550	15	6.3	2.8	.21	.00	.05	.00
28	.00	3.9	e9.0	134	124	21	7.1	2.0	.15	.00	.00	.00
29	.00	2.1	10	75	---	38	5.4	2.1	.13	.01	.00	.00
30	.00	2.3	10	e40	---	24	4.6	3.2	.18	.00	.00	.00
31	.00	---	8.5	e32	---	20	---	6.8	---	.00	.00	---
TOTAL	0.00	160.63	400.4	1609.3	4228.5	2820	559.5	164.0	248.45	1.50	0.44	0.00
MEAN	.000	5.35	12.9	51.9	151	91.0	18.6	5.29	8.28	.048	.014	.000
MAX	.00	104	146	600	1550	882	186	27	56	.27	.25	.00
MIN	.00	.00	1.4	2.0	9.0	12	4.6	1.3	.13	.00	.00	.00
CFSM	.00	.12	.29	1.17	3.42	2.06	.42	.12	.19	.00	.00	.00
IN.	.00	.14	.34	1.35	3.56	2.37	.47	.14	.21	.00	.00	.00

e Estimated

05592575 HICKORY CREEK NEAR BROWNSTOWN, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1997, BY WATER YEAR (WY)

MEAN	4.44	41.4	34.2	65.9	47.4	67.1	90.2	95.5	23.9	13.8	5.93	22.3
MAX	18.3	232	208	147	151	134	224	365	43.7	95.1	22.1	135
(WY)	1994	1994	1991	1993	1997	1991	1994	1995	1990	1993	1995	1993
MIN	.000	.18	.34	4.93	3.49	13.6	18.6	5.29	.28	.048	.000	.000
(WY)	1989	1996	1990	1990	1996	1994	1997	1997	1992	1997	1996	1990

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1989 - 1997	
ANNUAL TOTAL	13847.28		10192.72			
ANNUAL MEAN	37.8		27.9		42.6	
HIGHEST ANNUAL MEAN					64.1	1993
LOWEST ANNUAL MEAN					19.0	1992
HIGHEST DAILY MEAN	1440	Apr 29	1550	Feb 27	4080	May 18 1995
LOWEST DAILY MEAN	.00	Many days	.00	Many days	.00	A
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 29	.00	Oct 1	.00	Oct 1 1988
INSTANTANEOUS PEAK FLOW			3840	Feb 27	6250	Nov 14 1993
INSTANTANEOUS PEAK STAGE			15.57	Feb 27	16.43	Nov 14 1993
ANNUAL RUNOFF (CFSM)	.86		.63		.96	
ANNUAL RUNOFF (INCHES)	11.65		8.58		13.10	
10 PERCENT EXCEEDS	47		46		69	
50 PERCENT EXCEEDS	2.7		2.5		3.7	
90 PERCENT EXCEEDS	.00		.00		.00	

A - Many days in most years.

05592800 HURRICANE CREEK NEAR MULBERRY GROVE, IL

LOCATION.--Lat 38°55'21", long 89°14'14", in NW1/4SE1/4 sec.31, T.6 N., R.1 W., Fayette County, Hydrologic Unit 07140202, on left bank at downstream side of bridge on State Highway 140, 300 ft downstream from railroad bridge, 1 mi east of Mulberry Grove, and at mile 14.1.

DRAINAGE AREA.--152 mi^2.

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

REVISED RECORDS.--WDR IL-91-1: 1983(P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 467.00 ft above sea level. Prior to Oct. 1, 1975, at same site at datum 0.30 ft lower.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb.27	1015	*8,410	*18.96	No other peak greater than base discharge.			

Minimum discharge, 0.20 ft^3/s, Sept. 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	8.1	86	26	126	287	73	47	57	238	6.3	6.0
2	3.1	7.5	79	25	225	506	68	43	47	43	5.6	3.8
3	2.6	7.0	45	25	318	220	65	74	42	23	6.0	2.4
4	2.2	6.9	31	26	1260	147	64	68	30	15	5.6	2.3
5	2.1	4.6	34	56	351	121	152	53	25	13	4.4	1.7
6	2.4	5.4	55	45	135	105	144	48	50	11	2.8	1.6
7	2.9	54	59	25	97	94	80	44	123	11	2.2	1.6
8	2.8	105	45	16	83	88	66	52	115	9.8	2.0	1.8
9	3.1	41	30	e15	77	255	60	62	132	8.8	3.2	2.5
10	3.2	20	25	e17	73	846	58	43	49	8.5	4.1	3.3
11	3.7	12	25	e15	69	185	58	40	33	7.8	4.9	2.6
12	4.0	8.6	23	e13	65	122	63	39	27	7.5	3.9	1.8
13	3.8	7.2	20	e12	57	213	61	35	139	7.0	3.5	1.6
14	4.1	7.0	19	e12	53	1810	54	34	443	7.0	4.5	1.6
15	4.0	6.3	18	e14	51	370	51	32	90	8.1	7.1	1.4
16	3.6	6.3	20	e17	48	146	50	29	56	8.0	7.9	1.4
17	6.2	8.2	20	e20	46	124	47	30	45	6.4	6.2	2.3
18	5.3	11	18	e25	45	380	45	30	38	5.7	8.9	3.1
19	4.4	11	e13	e22	47	369	47	28	32	5.3	14	2.3
20	5.3	8.9	e11	e20	342	158	46	26	28	163	10	1.6
21	4.4	8.1	e11	e35	1390	123	69	25	24	42	9.5	1.0
22	5.0	8.1	e12	e900	645	102	76	25	22	41	5.6	.88
23	15	8.1	39	1120	137	89	55	25	21	20	4.1	.57
24	22	12	110	172	89	83	48	24	19	14	3.5	1.2
25	13	240	43	255	75	85	45	26	18	12	5.6	2.0
26	8.7	664	38	117	821	89	43	219	16	11	61	1.5
27	7.0	86	30	141	5990	79	44	57	14	9.6	16	1.2
28	6.0	46	31	210	1110	81	50	32	13	9.4	7.1	.87
29	6.0	32	32	149	---	98	46	26	12	7.8	5.5	1.4
30	6.3	49	30	92	---	83	44	26	57	6.6	3.2	.81
31	7.8	---	27	76	---	85	---	137	---	6.5	3.2	---
TOTAL	173.9	1499.3	1079	3713	13825	7543	1872	1479	1817	786.8	237.4	58.13
MEAN	5.61	50.0	34.8	120	494	243	62.4	47.7	60.6	25.4	7.66	1.94
MAX	22	664	110	1120	5990	1810	152	219	443	238	61	6.0
MIN	2.1	4.6	11	12	45	79	43	24	12	5.3	2.0	.57
CFSM	.04	.33	.23	.79	3.25	1.60	.41	.31	.40	.17	.05	.01
IN.	.04	.37	.26	.91	3.38	1.85	.46	.36	.44	.19	.06	.01

e Estimated

05592800 HURRICANE CREEK NEAR MULBERRY GROVE, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1997, BY WATER YEAR (WY)

MEAN	29.1	122	221	146	232	275	237	185	99.1	65.1	25.7	42.1
MAX	276	666	1443	617	775	1024	825	1058	429	305	113	444
(WY)	1987	1986	1983	1974	1985	1978	1994	1990	1973	1982	1979	1993
MIN	.42	1.93	3.44	1.94	16.4	20.4	20.9	10.9	2.63	2.46	.43	.056
(WY)	1989	1972	1990	1977	1978	1981	1986	1988	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1971 - 1997		
ANNUAL TOTAL	51142.8		34083.53				
ANNUAL MEAN	140		93.4		140		
HIGHEST ANNUAL MEAN					254		1984
LOWEST ANNUAL MEAN					28.9		1992
HIGHEST DAILY MEAN	7360	Apr 29	5990	Feb 27	13800	Dec 25	1982
LOWEST DAILY MEAN	1.5	Sep 15	.57	Sep 23	.00	A	
ANNUAL SEVEN-DAY MINIMUM	2.0	Sep 10	1.2	Sep 22	.00	Aug 12	1988
INSTANTANEOUS PEAK FLOW			8410	Feb 27	17900 B	Dec 25	1982
INSTANTANEOUS PEAK STAGE			18.96	Feb 27	20.91	May 26	1990
INSTANTANEOUS LOW FLOW			.20	Sep 30			
ANNUAL RUNOFF (CFSM)	.92		.61		.92		
ANNUAL RUNOFF (INCHES)	12.52		8.34		12.48		
10 PERCENT EXCEEDS	178		146		200		
50 PERCENT EXCEEDS	28		26		22		
90 PERCENT EXCEEDS	3.0		3.1		2.3		

A - Many days in 1987-88, 1991.
B - Gage height, 19.99 ft.

05592900 EAST FORK KASKASKIA RIVER NEAR SANDOVAL, IL

LOCATION.--Lat 38°41'20", long 89°06'00", in NE1/4NW1/4 sec.21, T.3 N., R.1 E., Marion County, Hydrologic Unit 07140202, on left bank at downstream side of bridge on U.S. Highway 51, about 1 mi north of Fairman, about 5 mi north of Sandoval, and at mile 9.9.

DRAINAGE AREA.--113 mi^2.

PERIOD OF RECORD.--October 1979 to current year. Gage-height record for April 1955 to Sept. 30, 1979, available in files of U.S. Army Corps of Engineers.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 460.20 ft above sea level (levels by U.S. Army Corps of Engineers).

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 28	0130	*3,940	*17.05

No other peak greater than base discharge.

No flow for many days.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	.00	11	11	e50	359	25	8.1	8.4	16	.45	.38
2	.41	.00	52	8.7	e65	502	22	7.9	22	26	.33	.51
3	.13	.00	39	7.1	e130	298	19	17	20	19	.21	.41
4	.07	.00	19	6.6	760	106	18	21	12	9.0	.07	.32
5	.00	.00	14	24	663	64	456	16	9.1	5.6	.00	.18
6	.01	.00	42	93	143	46	446	14	16	3.9	.00	.18
7	.00	.46	74	32	79	35	130	11	259	2.7	.00	.11
8	.00	.00	31	17	56	29	54	33	46	2.3	.00	.10
9	.00	.00	16	11	46	67	34	44	28	1.9	.00	.27
10	.00	.00	9.9	7.9	41	223	26	27	19	1.5	.00	.44
11	.00	.00	6.6	5.8	38	132	23	19	14	1.4	.05	.43
12	.00	.00	4.3	4.2	38	59	26	16	10	1.3	.14	.37
13	.00	.58	2.8	3.3	34	112	25	13	225	1.3	.14	.29
14	.00	1.8	2.1	2.8	30	1090	21	10	319	1.1	.10	.25
15	.00	1.6	1.8	e2.5	25	1330	18	8.7	122	.89	.35	.19
16	.00	1.0	3.9	e3.0	22	183	16	7.2	38	.77	.37	.18
17	.05	.88	23	e4.0	20	77	14	6.6	23	.68	.33	.60
18	.04	.57	23	e5.0	19	288	12	6.3	29	.58	.23	.55
19	.00	.44	e10	e10	18	857	11	5.4	31	.46	.41	.59
20	.00	.26	e7.0	e18	89	484	11	5.1	17	.36	.51	.54
21	.00	.13	e4.5	e23	401	111	21	4.6	13	.37	.45	.47
22	.29	.04	e4.0	e750	435	65	27	4.4	602	.64	.29	.34
23	.21	.00	e4.2	989	144	44	22	3.9	126	68	.21	.29
24	.02	.20	e50	720	59	34	18	3.5	32	32	.16	.43
25	.06	8.3	117	224	40	32	14	3.5	19	12	.04	.40
26	.11	294	33	94	431	39	11	4.5	433	5.2	.00	.40
27	.16	220	18	637	2720	37	10	5.1	136	2.9	.03	.39
28	.05	45	12	756	2800	33	11	5.7	30	1.9	.05	.21
29	.01	18	10	216	---	36	11	6.0	15	1.4	.10	.11
30	.15	11	11	e110	---	31	10	5.2	9.9	.86	.10	.10
31	.00	---	13	e70	---	29	---	6.3	---	.61	.31	---
TOTAL	2.97	604.26	669.1	4865.9	9396	6832	1562	349.0	2683.4	222.62	5.43	10.03
MEAN	.096	20.1	21.6	157	336	220	52.1	11.3	89.4	7.18	.18	.33
MAX	1.2	294	117	989	2800	1330	456	44	602	68	.51	.60
MIN	.00	.00	1.8	2.5	18	29	10	3.5	8.4	.36	.00	.10
CFSM	.00	.18	.19	1.39	2.97	1.95	.46	.10	.79	.06	.00	.00
IN.	.00	.20	.22	1.60	3.09	2.25	.51	.11	.88	.07	.00	.00

e Estimated

05592900 EAST FORK KASKASKIA RIVER NEAR SANDOVAL, IL--Continued

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

MEAN	18.8	119	142	119	171	175	182	146	54.4	42.5	19.1	30.7
MAX	111	628	547	408	591	425	628	862	260	268	196	341
(WY)	1985	1986	1988	1993	1982	1984	1994	1990	1983	1993	1985	1993
MIN	.010	.029	.21	.030	6.48	4.61	2.10	2.64	.16	.057	.004	.006
(WY)	1996	1996	1990	1981	1996	1981	1981	1988	1988	1984	1983	1996

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1980 - 1997	
ANNUAL TOTAL	36604.82		27202.71			
ANNUAL MEAN	100		74.5		101	
HIGHEST ANNUAL MEAN					175	1985
LOWEST ANNUAL MEAN					29.7	1981
HIGHEST DAILY MEAN	4260	Apr 29	2800	Feb 28	7660	May 17 1990
LOWEST DAILY MEAN	.00	Many days	.00	Many days	.00	A
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 21	.00	Oct 7	.00	Oct 9 1980
INSTANTANEOUS PEAK FLOW			3940	Feb 28	17000 B	May 16 1990
INSTANTANEOUS PEAK STAGE			17.05	Feb 28	20.03	May 16 1990
ANNUAL RUNOFF (CFSM)	.89		.66		.90	
ANNUAL RUNOFF (INCHES)	12.05		8.96		12.17	
10 PERCENT EXCEEDS	199		134		170	
50 PERCENT EXCEEDS	4.3		8.7		8.4	
90 PERCENT EXCEEDS	.00		.02		.06	

A - Many days in most years.

B - From rating curve extended above 9,540 ft^3/s.

05593000 KASKASKIA RIVER AT CARLYLE, IL

LOCATION.--Lat 38°36'42", long 89°21'22" in NW1/4SE1/4 sec.18, T.2 N., R.2 W., Clinton County, Hydrologic Unit 07140202, on right bank 300 ft downstream from bridge on U.S. Highway 50 at Carlyle, 16.5 mi upstream from Crooked Creek, and at mile 94.0.

DRAINAGE AREA.--2,719 mi^2.

PERIOD OF RECORD.--March 1908 to September 1912, November to December 1912, August 1914 to September 1915, May 1938 to current year.

REVISED RECORDS.--WSP 975: 1908-12, 1915. WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 402.92 ft above sea level. Prior to July 1, 1938, nonrecording gage at site 100 ft downstream at same datum. July 1, 1938 to Sept. 30, 1940, nonrecording gage, and Oct. 1, 1940 to Oct. 4, 1976, water-stage recorder, 300 ft upstream at same datum.

REMARKS.--Records good. Flow regulated since Apr. 1, 1967, by Carlyle Lake (station 05592990), 1 mi upstream from gage. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 54,400 ft^3/s, May 21, 1943, gage height, 33.69 ft; minimum, 7.3 ft^3/s, Nov. 12, 1964, result of dam construction upstream; minimum unregulated discharge, 11 ft^3/s, Sept. 17, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,100 ft^3/s, Mar. 17, gage height, 23.26 ft; minimum discharge, 15 ft^3/s, Oct. 27.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	162	46	636	2230	3440	5430	2600	39	54	1380	120	114
2	91	49	751	2090	3040	5500	2440	41	54	1380	122	122
3	58	46	1040	1910	3390	5550	2340	43	52	1370	128	117
4	70	47	1290	1800	4380	5560	2200	40	53	1380	129	111
5	70	48	1410	1790	5200	6120	2150	40	53	1120	129	111
6	70	52	1390	1790	4490	8360	2010	39	54	635	128	109
7	69	59	1390	1780	4010	10900	1800	49	54	409	126	105
8	69	55	1390	1780	4680	11700	1570	59	53	410	129	108
9	69	44	1390	1710	5150	11800	1400	55	157	411	132	110
10	70	39	1390	1520	5050	11700	1040	56	368	410	127	110
11	70	44	1380	1370	4660	11700	899	57	475	411	122	111
12	67	49	1390	1370	4310	11800	743	57	478	414	125	111
13	61	51	1390	1190	3970	11600	498	58	681	414	129	105
14	57	54	1380	851	3620	11300	245	58	1060	334	129	100
15	61	53	1390	600	3380	11200	87	57	1700	239	129	104
16	63	56	1550	427	3050	11600	63	58	1770	237	128	108
17	64	61	1920	431	2730	11900	73	58	1600	238	129	114
18	62	59	2270	427	2520	11600	76	58	1500	238	121	111
19	63	59	2290	417	2430	11100	79	58	1410	170	119	108
20	64	60	2280	412	3160	10600	78	57	1400	126	115	109
21	67	60	2280	420	4880	9900	81	57	1390	122	114	109
22	71	60	2270	733	5600	8650	78	57	1400	123	115	107
23	43	64	2280	1770	6540	7460	76	57	1480	123	114	106
24	32	68	2460	3180	6320	6560	76	57	1560	124	111	100
25	36	76	2730	3390	5750	5780	75	58	1590	124	113	98
26	25	495	2730	3650	5180	5210	71	57	1580	124	118	97
27	28	1000	2720	4000	5310	4200	71	55	1560	123	117	107
28	33	747	2700	4240	5310	3340	70	55	1550	122	115	106
29	33	637	2690	4150	---	2910	64	55	1550	120	112	103
30	35	632	2680	3990	---	2730	40	55	1480	117	114	103
31	41	---	2460	3800	---	2720	---	54	---	120	114	---
TOTAL	1874	4870	57317	59218	121550	256480	23093	1654	28166	13068	3773	3234
MEAN	60.5	162	1849	1910	4341	8274	770	53.4	939	422	122	108
MAX	162	1000	2730	4240	6540	11900	2600	59	1770	1380	132	122
MIN	25	39	636	412	2430	2720	40	39	52	117	111	97

05593000 KASKASKIA RIVER AT CARLYLE, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1997, BY WATER YEAR (WY)

MEAN	629	977	3076	3379	4087	3983	3235	2482	1970	1799	1149	690
MAX	3415	6233	9762	7777	9484	10170	9700	9066	5328	4888	4091	3731
(WY)	1994	1994	1994	1983	1974	1979	1979	1996	1990	1973	1974	1974
MIN	40.3	43.1	47.8	47.5	50.3	557	137	53.4	50.0	57.9	51.8	37.8
(WY)	1986	1988	1977	1977	1977	1992	1986	1997	1988	1976	1976	1986

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1968 - 1997	
ANNUAL TOTAL	882659		574297			
ANNUAL MEAN	2412		1573		2281	
HIGHEST ANNUAL MEAN					4392	1974
LOWEST ANNUAL MEAN					709	1977
HIGHEST DAILY MEAN	12100	May 7-10	11900	Mar 17	12100 A	
LOWEST DAILY MEAN	25	Oct 26	25	Oct 26	7.9	May 14 1988
ANNUAL SEVEN-DAY MINIMUM	32	Oct 24	32	Oct 24	29	May 13 1988
INSTANTANEOUS PEAK FLOW			12100	Mar 17	12300	May 10 1996
INSTANTANEOUS PEAK STAGE			23.26	Mar 17	25.04	May 8 1970
INSTANTANEOUS LOW FLOW			15	Oct 27		
10 PERCENT EXCEEDS	5640		4950		5700	
50 PERCENT EXCEEDS	1440		132		1350	
90 PERCENT EXCEEDS	56		54		52	

A - May 7-10, 1996.

05593020 KASKASKIA RIVER NEAR POSEY, IL

LOCATION.--Lat 38°32'11", long 89°22'54", in NE1/4NW1/4 sec.13, T.1 S., R.3 W., Clinton County, Hydrologic Unit 07140202, on right bank at downstream side of bridge on State Highway 161, 1.8 mi west of Posey, about 6 mi southwest of Carlyle, 7.3 mi above mouth of Crooked Creek, and at mile 83.9.

DRAINAGE AREA.--2,745 mi^2.

PERIOD OF RECORD.--Oct. 1, 1994 to current year. Fragmentary records of discharge and gage height prior to Oct. 1, 1994, available in files of U.S. Army Corps of Engineers.

GAGE.--Water-stage recorder. Datum of gage is 395.50 ft above sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 25.22 ft, May 10, 1996; minimum, 6.23 ft, Oct. 27, 1996.

EXTREMES OUTSIDE THE PERIOD OF RECORD.--Maximum gage height, 26.2 ft, Dec. 22, 1993; minimum, 6.24 ft, Sept. 12, 1977, from information by U. S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 25.14 ft, Mar. 13; minimum, 6.23 ft, Oct. 27.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.38	6.50	9.75	14.59	18.78	22.85	16.10	6.72	6.75	12.63	7.27	7.02
2	7.21	6.55	9.91	14.30	17.14	22.86	15.65	6.74	6.81	12.58	7.26	7.06
3	6.62	6.52	10.90	13.81	17.37	22.82	15.33	6.78	6.74	12.56	7.21	7.08
4	6.77	6.52	11.75	13.46	19.59	22.69	15.06	6.73	6.73	12.56	7.20	7.07
5	6.78	6.53	12.27	13.43	21.33	22.65	15.23	6.71	6.73	12.01	7.21	7.01
6	6.77	6.55	12.29	13.44	21.06	23.42	15.60	6.69	6.74	10.46	7.21	7.00
7	6.77	6.68	12.27	13.46	19.63	24.37	15.03	6.69	6.81	9.20	7.18	6.97
8	6.76	6.64	12.26	13.44	20.02	24.87	13.90	6.87	6.71	9.11	7.19	6.98
9	6.76	6.55	12.26	13.33	20.80	25.03	12.99	6.82	6.94	9.11	7.21	7.01
10	6.75	6.48	12.24	12.82	20.91	25.03	11.89	6.80	8.58	9.11	7.19	7.01
11	6.75	6.47	12.22	12.26	20.36	25.00	11.22	6.80	9.39	9.09	7.14	7.00
12	6.74	6.52	12.24	12.54	19.57	25.02	10.85	6.81	9.43	9.08	7.13	7.00
13	6.69	6.55	12.23	12.40	18.89	25.04	9.94	6.80	10.04	9.07	7.17	6.97
14	6.63	6.57	12.23	11.15	18.11	25.02	8.98	6.80	11.21	8.89	7.17	6.94
15	6.63	6.58	12.26	10.14	17.59	24.92	7.70	6.78	13.32	8.14	7.23	6.94
16	6.64	6.58	12.54	9.11	16.96	24.92	7.13	6.78	13.86	8.09	7.15	6.96
17	6.68	6.63	13.64	9.64	16.19	25.02	7.19	6.78	13.31	8.09	7.15	7.06
18	6.69	6.64	---	9.55	15.67	25.06	7.18	6.79	13.07	8.09	7.14	7.01
19	6.69	6.62	---	9.25	15.39	24.92	7.23	6.77	12.66	7.90	7.18	6.98
20	6.68	6.62	---	9.05	16.34	24.77	7.16	6.75	12.63	7.36	7.11	6.96
21	6.70	6.64	14.64	8.98	20.32	24.62	7.24	6.74	12.60	7.33	7.07	6.98
22	6.74	6.64	14.63	10.71	21.43	24.37	7.14	6.74	12.64	7.35	7.07	6.99
23	6.67	6.64	14.66	13.97	22.65	24.04	7.11	6.74	12.81	7.32	7.06	6.97
24	6.44	6.69	15.06	17.94	22.90	23.60	7.09	6.74	13.15	7.31	7.03	6.95
25	6.43	7.08	15.87	18.32	22.65	23.03	7.06	6.74	13.22	7.29	7.03	6.89
26	6.41	8.24	15.82	18.75	21.92	22.22	7.05	6.74	13.25	7.27	7.06	6.87
27	6.27	11.46	15.75	19.46	22.56	20.35	7.05	6.72	13.12	7.28	7.05	6.91
28	6.42	10.63	15.68	20.43	22.81	18.12	7.03	6.73	13.09	7.29	7.04	6.94
29	6.35	9.71	15.65	20.72	---	16.96	7.00	6.72	13.08	7.28	7.01	6.91
30	6.42	9.70	15.63	20.63	---	16.35	6.80	6.75	13.03	7.26	7.03	6.92
31	6.44	---	15.28	19.90	---	16.30	---	6.76	---	7.27	7.05	---
MEAN	6.67	7.16	---	13.90	19.60	23.10	10.06	6.76	10.62	8.82	7.14	6.98
MAX	7.38	11.46	---	20.72	22.90	25.06	16.10	6.87	13.86	12.63	7.27	7.08
MIN	6.27	6.47	---	8.98	15.39	16.30	6.80	6.69	6.71	7.26	7.01	6.87

05593520 CROOKED CREEK NEAR HOFFMAN, IL

LOCATION.--Lat 38°30'25", long 89°16'24", in NE1/4NE1/4 sec.26, T.1 N., R.2 W., Washington County, Hydrologic Unit 07140202, on left bank at downstream side of bridge on County Highway 24, 2.2 mi southwest of Hoffman, 4.8 mi southeast of Posey, about 9 mi upstream from State Highway 127, and at mile 20.9.

DRAINAGE AREA.--254 mi^2.

PERIOD OF RECORD.--October 1974 to current year. Gage-height record for October 1968 to September 1974 available in files of Illinois district office.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 420.19 ft above sea level.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan.28	0900	*5,230	*14.46	Feb.27	1215	3,670	13.85

Minimum daily discharge, 3.5 ft^3/s, Sept. 23, may have been less during periods of estimated discharges in Oct. and Sept.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	e16	186	49	362	2650	136	46	42	177	4.9	9.0
2	13	e18	157	45	277	1950	101	45	48	65	5.1	12
3	12	e19	116	43	300	1540	81	110	48	31	4.6	23
4	e11	e17	75	41	1380	734	70	157	39	23	4.3	17
5	e10	e16	72	43	1600	251	856	150	36	20	4.2	e13
6	e9.2	e20	213	82	1280	171	1610	116	31	16	4.6	e10
7	e8.5	e27	171	e65	394	111	1260	62	29	12	5.5	e9.0
8	e8.0	92	118	e50	167	93	287	52	314	e10	6.1	e8.0
9	e7.5	67	68	e40	126	99	119	58	161	e9.6	7.6	e7.0
10	e7.0	52	51	e32	107	383	90	60	62	e9.2	11	e6.5
11	e7.0	45	45	e28	93	411	77	53	43	8.9	11	e6.0
12	e8.0	37	40	e26	81	316	117	45	35	8.7	11	e5.5
13	e10	e31	38	e23	72	228	77	41	32	8.8	10	e5.0
14	e8.0	e28	35	e22	135	1380	67	39	109	8.6	11	e4.5
15	e7.0	e25	62	e24	72	1790	62	32	621	8.0	16	e4.0
16	e6.5	e23	222	e28	61	2100	56	30	248	8.1	27	e3.7
17	e6.0	e22	304	e150	56	1090	51	30	82	8.3	23	e4.5
18	e9.0	e21	222	e110	54	827	49	28	69	7.7	18	e6.0
19	e13	e20	e66	e90	51	1590	55	25	187	7.5	24	e8.5
20	e18	e19	e50	e75	62	1740	70	23	129	329	30	e7.0
21	e16	e18	e40	e85	364	1040	147	22	59	51	17	e5.5
22	23	e19	e35	e1400	468	284	130	22	78	189	9.5	e4.4
23	33	e21	e37	e2300	447	134	103	20	298	66	6.6	e3.5
24	35	e25	438	2460	258	103	77	20	299	23	7.2	e3.7
25	30	342	428	2000	140	173	61	21	56	15	7.1	e4.2
26	e23	1160	339	1030	348	99	54	21	30	11	6.5	e5.0
27	e19	472	152	1060	2790	92	49	22	23	7.9	5.9	e6.0
28	e17	181	62	3940	2940	88	48	24	18	7.0	5.9	e5.0
29	e15	87	53	2990	---	137	47	28	16	5.5	6.0	e4.6
30	e14	62	49	2350	---	275	48	30	20	4.9	5.8	e4.2
31	e15	---	49	1230	---	231	---	37	---	4.4	5.6	---
TOTAL	434.7	3002	3993	21911	14485	22110	6055	1469	3262	1161.1	322.0	215.3
MEAN	14.0	100	129	707	517	713	202	47.4	109	37.5	10.4	7.18
MAX	35	1160	438	3940	2940	2650	1610	157	621	329	30	23
MIN	6.0	16	35	22	51	88	47	20	16	4.4	4.2	3.5
CFSM	.06	.39	.51	2.78	2.04	2.81	.79	.19	.43	.15	.04	.03
IN.	.06	.44	.58	3.21	2.12	3.24	.89	.22	.48	.17	.05	.03

e Estimated

05593520 CROOKED CREEK NEAR HOFFMAN, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1997, BY WATER YEAR (WY)

MEAN	61.9	281	261	272	400	499	440	358	119	85.1	30.2	48.5
MAX	390	2161	917	998	1531	1434	1378	2307	522	773	119	639
(WY)	1985	1986	1985	1993	1982	1978	1994	1990	1995	1993	1995	1993
MIN	4.81	7.70	1.11	3.29	11.4	10.4	13.7	8.37	5.11	6.44	2.27	3.39
(WY)	1988	1990	1990	1977	1978	1981	1981	1976	1988	1984	1991	1985

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1975 - 1997	
ANNUAL TOTAL	96777.1		78420.1			
ANNUAL MEAN	264		215		237	
HIGHEST ANNUAL MEAN					434	1985
LOWEST ANNUAL MEAN					51.9	1976
HIGHEST DAILY MEAN	9860	Apr 29	3940	Jan 28	23900	May 17 1990
LOWEST DAILY MEAN	6.0	A	3.5 B	Sep 23	.00	C
ANNUAL SEVEN-DAY MINIMUM	6.8	Aug 26	4.5	Sep 22	.02	Sep 24 1989
INSTANTANEOUS PEAK FLOW			5230	Jan 28	26900 D	May 17 1990
INSTANTANEOUS PEAK STAGE			14.46	Jan 28	17.40	May 17 1990
ANNUAL RUNOFF (CFSM)	1.04		.85		.93	
ANNUAL RUNOFF (INCHES)	14.17		11.49		12.68	
10 PERCENT EXCEEDS	742		432		492	
50 PERCENT EXCEEDS	28		42		24	
90 PERCENT EXCEEDS	8.9		6.5		4.6	

A - Aug. 31, Oct. 17 (estimated).

B - Estimated, may have been less during periods of estimated discharges in Oct. and Sept.

C - Several days in 1989.

D - From rating curve extended above 16,400 ft^3/s.

05593575 LITTLE CROOKED CREEK NEAR NEW MINDEN, IL

LOCATION.--Lat 38°26'30", long 89°25'00", in center of sec.15, T.1 S., R.3 W., Washington County, Hydrologic Unit 07140202, on right bank at upstream side of bridge on State Highway 177, 2.5 mi west of New Minden, 7.0 mi northwest of Nashville, and at mile 10.6.

DRAINAGE AREA.--84.3 mi^2.

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

REVISED RECORDS.--WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 414.12 ft above sea level. Prior to July 2, 1973, nonrecording gage at same site and datum.

REMARKS.--Records good except those for the period of Jan. 22 to Mar. 17, which is fair, and those for estimated daily discharges, which are poor. Gage-height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 22	2000	1,860	16.69	Feb. 27	0900	2,440	17.31
Jan. 28	0300	*2,780	*17.62				

Minimum discharge 0.19 ft^3/s, Sept. 23.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.4	233	9.8	e80	120	18	e12	27	62	.58	.61
2	1.1	1.9	88	9.6	e100	809	13	10	197	7.8	.52	.61
3	1.2	2.6	22	9.2	e150	197	e11	131	39	3.4	.51	.71
4	1.2	2.1	11	9.7	853	52	e11	27	13	2.6	.51	.84
5	1.1	1.9	50	22	294	27	556	13	8.2	2.7	.85	.94
6	1.1	1.9	142	24	82	18	828	10	6.5	2.8	.84	.63
7	1.0	36	32	8.8	53	13	127	8.7	56	2.8	.67	.51
8	.86	137	14	e5.5	41	12	38	8.4	23	1.9	.57	.50
9	.69	28	8.5	e5.0	34	64	22	12	14	1.2	.57	.48
10	.71	8.7	6.9	e4.5	31	206	17	8.5	6.7	1.1	.59	.42
11	.66	5.2	6.4	e4.0	25	52	19	6.7	5.2	1.3	.83	.43
12	.77	4.0	5.9	e3.7	20	24	25	5.9	4.7	.99	.94	.44
13	.96	3.4	5.5	e3.3	16	102	20	5.3	5.5	.86	.94	.42
14	.83	3.0	4.9	e3.0	13	1050	14	4.7	27	.84	.91	.41
15	.66	2.9	112	e3.3	13	330	12	4.2	20	.80	1.5	.41
16	.60	3.2	217	e4.5	12	54	e10	3.7	22	.77	6.0	.37
17	.61	4.0	62	e7.0	11	31	e9.0	3.2	23	.79	2.2	.41
18	.66	4.0	34	e5.5	9.4	191	e8.0	3.2	91	.80	1.4	.36
19	1.2	3.9	e11	e4.5	9.2	398	199	2.9	35	.85	2.0	.83
20	1.3	3.8	e5.5	e3.5	149	74	93	2.7	9.7	89	10	.50
21	1.2	3.7	e4.5	e25	357	38	348	2.7	7.0	27	3.3	.32
22	1.4	3.7	e5.0	1290	259	25	115	2.4	175	36	1.8	.24
23	4.8	4.6	25	1030	52	17	31	2.2	43	54	1.6	.22
24	2.4	4.7	346	134	21	14	18	2.1	11	5.8	1.2	.23
25	1.2	606	47	186	13	13	13	2.2	15	2.6	.97	.24
26	.83	1250	13	48	267	19	e10	4.1	121	1.7	.93	.34
27	.72	316	9.9	811	1840	17	e8.5	8.3	13	1.3	.82	.41
28	.86	22	14	2230	633	16	e7.5	4.0	4.9	1.1	.69	.37
29	.96	13	28	746	---	66	e6.8	2.8	3.5	.90	.66	.34
30	1.4	25	20	e90	---	31	e6.2	3.5	29	.77	.66	.32
31	1.6	---	12	e65	---	29	---	67	---	.68	.68	---
TOTAL	35.78	2507.6	1596.0	6805.4	5437.6	4109	2614.0	384.4	1055.9	317.15	46.24	13.86
MEAN	1.15	83.6	51.5	220	194	133	87.1	12.4	35.2	10.2	1.49	.46
MAX	4.8	1250	346	2230	1840	1050	828	131	197	89	10	.94
MIN	.60	1.4	4.5	3.0	9.2	12	6.2	2.1	3.5	.68	.51	.22
CFSM	.01	.99	.61	2.60	2.30	1.57	1.03	.15	.42	.12	.02	.01
IN.	.02	1.11	.70	3.00	2.40	1.81	1.15	.17	.47	.14	.02	.01

e Estimated

05593575 LITTLE CROOKED CREEK NEAR NEW MINDEN, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1997, BY WATER YEAR (WY)

MEAN	24.8	87.3	99.5	91.3	113	142	141	86.2	44.3	38.7	8.23	16.2
MAX	143	600	485	244	407	381	542	910	167	413	46.8	254
(WY)	1970	1986	1983	1969	1982	1979	1996	1995	1973	1969	1985	1993
MIN	.17	.19	.52	.084	1.59	1.25	1.48	1.43	.34	.61	.038	.17
(WY)	1969	1981	1990	1977	1978	1981	1981	1976	1988	1984	1984	1985

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1968 - 1997	
ANNUAL TOTAL	32402.07		24922.93			
ANNUAL MEAN	88.5		68.3		74.1	
HIGHEST ANNUAL MEAN					132	1985
LOWEST ANNUAL MEAN					8.83	1976
HIGHEST DAILY MEAN	7600	Apr 29	2230	Jan 28	8070	May 17 1995
LOWEST DAILY MEAN	.26	Aug 5	.22	Sep 23	.00	A
ANNUAL SEVEN-DAY MINIMUM	.32	Jul 31	.29	Sep 21	.00	Nov 22 1967
INSTANTANEOUS PEAK FLOW			2780	Jan 28	11900	May 17 1995
INSTANTANEOUS PEAK STAGE			17.62	Jan 28	21.76	May 17 1995
INSTANTANEOUS LOW FLOW			.19	Sep 23		
ANNUAL RUNOFF (CFSM)	1.05		.81		.88	
ANNUAL RUNOFF (INCHES)	14.30		11.00		11.94	
10 PERCENT EXCEEDS	155		135		121	
50 PERCENT EXCEEDS	6.4		6.8		4.6	
90 PERCENT EXCEEDS	.65		.66		.30	

A - At times in most years.

05593900 EAST FORK SHOAL CREEK NEAR COFFEEN, IL

LOCATION.--Lat 39°08'56", long 89°21'08", in NW1/4SE1/4 sec.7, T.8 N., R.2 W., Montgomery County, Hydrologic Unit 07140203, on right bank at downstream side of bridge on County Highway 8, 4.5 mi northeast of Coffeen, 6.5 mi east of Hillsboro, and at mile 39.3.

DRAINAGE AREA.--55.5 mi^2.

PERIOD OF RECORD.--October 1963 to current year.

REVISED RECORDS.--WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 574.76 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Gage-height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb.27	0015	*1,880	*12.63	No other peak greater than base discharge.			

No flow Oct. 14.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.20	35	4.4	e45	81	15	4.9	5.1	14	.20	.21
2	.10	.19	26	4.5	e130	105	14	6.2	7.3	4.7	.20	.18
3	.09	.26	13	4.6	e120	53	13	23	6.1	2.1	.16	.13
4	.19	.30	8.4	5.6	305	41	13	20	5.1	1.5	.14	.11
5	.16	.36	8.6	11	90	40	19	11	4.4	1.2	.12	.07
6	.12	.72	16	6.6	36	33	19	7.8	11	.94	.16	.07
7	.17	28	14	4.8	24	27	14	6.4	15	.79	.12	.06
8	.12	44	9.1	3.9	19	24	11	8.0	136	.69	.08	.07
9	.18	11	6.4	e3.2	16	313	10	8.1	50	.63	.16	.15
10	.15	4.3	5.4	e3.5	15	170	9.3	6.2	16	.78	.21	.19
11	.13	2.8	4.8	e3.1	15	49	9.6	5.5	10	.80	.21	.13
12	.10	1.8	4.5	e2.7	14	34	11	5.1	8.3	.65	.66	.08
13	.04	1.6	4.1	e2.5	12	97	12	4.8	26	.57	1.3	.06
14	.00	1.6	3.9	e2.3	11	456	9.5	4.3	27	.71	.31	.05
15	.03	1.5	3.8	e2.5	10	64	8.6	4.1	10	.60	.37	.03
16	.06	1.5	3.6	e2.8	10	39	7.8	4.0	7.1	.43	.22	.02
17	.17	2.0	3.6	e3.3	9.4	33	7.3	4.1	5.7	.37	3.7	.25
18	.28	2.1	3.5	e3.7	10	44	7.2	3.9	4.9	.33	5.4	.22
19	.13	2.5	e2.5	e3.2	15	41	7.2	3.6	4.2	.33	1.7	.16
20	.12	2.1	e2.2	e3.0	283	32	8.0	3.5	3.5	.36	1.2	.11
21	.25	2.0	e2.1	e7.0	393	28	27	3.4	3.5	.33	.88	.07
22	.49	1.9	e2.3	e400	172	24	15	3.0	3.0	.24	.64	.03
23	.47	2.5	e5.5	e120	48	21	8.7	2.9	2.7	1.2	.49	.11
24	.25	6.6	15	e50	28	20	6.8	3.0	2.5	.80	.35	.30
25	.20	119	7.1	e45	22	21	5.7	9.7	2.4	.45	.74	.24
26	.20	105	4.6	e35	581	19	5.3	11	2.3	.29	.70	.16
27	.20	24	4.2	e25	1560	18	5.7	5.2	2.0	.22	.61	.11
28	.18	10	4.8	e28	147	19	5.8	3.8	1.9	.43	.75	.10
29	.24	6.9	5.0	e20	---	17	5.7	3.3	1.8	.54	.37	.08
30	.28	21	4.7	e16	---	18	5.2	5.2	2.3	.37	.32	.02
31	.18	---	4.3	e14	---	17	---	7.0	---	.24	.28	---
TOTAL	5.42	407.73	238.0	841.2	4140.4	1998	316.4	202.0	387.1	37.59	22.75	3.57
MEAN	.17	13.6	7.68	27.1	148	64.5	10.5	6.52	12.9	1.21	.73	.12
MAX	.49	119	35	400	1560	456	27	23	136	14	5.4	.30
MIN	.00	.19	2.1	2.3	9.4	17	5.2	2.9	1.8	.22	.08	.02
CFSM	.00	.24	.14	.49	2.66	1.16	.19	.12	.23	.02	.01	.00
IN.	.00	.27	.16	.56	2.78	1.34	.21	.14	.26	.03	.02	.00

e Estimated

05593900 EAST FORK SHOAL CREEK NEAR COFFEEN, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1997, BY WATER YEAR (WY)

MEAN	13.6	25.9	59.1	56.9	64.8	74.8	76.6	56.5	32.0	17.4	7.48	14.1
MAX	192	193	256	279	222	313	347	303	203	176	40.0	181
(WY)	1970	1994	1983	1974	1982	1978	1994	1990	1973	1982	1980	1993
MIN	.000	.24	.049	.16	1.96	8.86	4.40	1.36	.13	.000	.000	.000
(WY)	1964	1977	1977	1977	1978	1972	1986	1988	1988	1964	1988	1964

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1964 - 1997		
ANNUAL TOTAL	17194.82		8600.16				
ANNUAL MEAN	47.0		23.6		41.5		
HIGHEST ANNUAL MEAN					99.7		1974
LOWEST ANNUAL MEAN					6.76		1992
HIGHEST DAILY MEAN	2060	Apr 29	1560	Feb 27	2760	May 16	1990
LOWEST DAILY MEAN	.00	Oct 14	.00	Oct 14	.00	A	
ANNUAL SEVEN-DAY MINIMUM	.07	Oct 10	.07	Oct 10	.00	Oct 1	1963
INSTANTANEOUS PEAK FLOW			1880	Feb 27	5910 B	Dec 7	1966
INSTANTANEOUS PEAK STAGE			12.63	Feb 27	14.60	May 26	1990
ANNUAL RUNOFF (CFSM)	.85		.42		.75		
ANNUAL RUNOFF (INCHES)	11.53		5.76		10.16		
10 PERCENT EXCEEDS	69		35		59		
50 PERCENT EXCEEDS	6.9		4.1		4.7		
90 PERCENT EXCEEDS	.24		.14		.08		

A - Many days in most years.

B - Gage-height, 14.45 ft, from rating curve extended above 2,200 ft^3/s.

05593945 SHOAL CREEK NEAR PIERRON, IL

LOCATION.--Lat 38°46'33", long 89°29'56", in NW1/4SW1/4 sec. 24, T.4 N., R.4 W., Bond County, Hydrologic Unit 07140203, on left bank at upstream side of bridge on State Highway 143, 1.1 mi east of Baden Baden, 6.5 mi east of Pierron, and at mile 43.0.

DRAINAGE AREA.--678 mi^2.

PERIOD OF RECORD.--May, 1995 to current year. Gage-height record for Dec. 16, 1970 to May 30, 1978, and Apr. 5, 1995 to May 5, 1995 available in files of U.S. Army Corps of Engineers.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 400.00 ft above sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Records good except those for estimated daily discharges, which are poor. Gage-height telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 23, 1973 reached a stage of 59.48 ft, discharge 14,900 ft^3/s, from information by the U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft^3/s and maximum(*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov.26	1415	2,510	55.43	Feb.22	0900	3,520	57.14
Jan. 23	1645	3,020	56.53	Feb.28	0730	*9,010	*58.95
Feb. 5	0145	2,540	55.51	Mar.15	0730	3,440	57.09

Minimum discharge, 6.6 ft^3/s, Sept.30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	14	378	e82	e420	7830	226	95	291	140	13	12
2	16	15	443	e80	e656	5840	194	92	205	104	13	15
3	14	15	382	e78	e800	2680	174	105	182	70	13	19
4	12	16	401	e76	1980	1380	165	190	131	59	13	11
5	12	16	372	e76	2320	887	232	185	107	43	12	11
6	11	18	509	e78	1370	686	371	142	155	35	12	14
7	11	86	448	e80	807	548	320	114	711	31	12	11
8	11	760	325	e84	572	446	228	114	539	28	11	9.7
9	11	667	e260	e74	453	438	185	155	495	25	11	12
10	12	309	e220	e62	383	1930	166	130	469	24	12	15
11	10	157	e200	e52	335	1730	152	104	253	24	12	24
12	11	97	e180	e45	295	891	152	85	183	23	14	23
13	11	66	e170	e40	259	670	153	76	215	22	16	14
14	12	50	e160	e37	230	2530	140	69	976	22	14	10
15	11	40	e150	e37	214	3260	126	63	928	21	25	8.8
16	11	37	e140	e38	223	1960	116	57	484	18	22	8.9
17	12	37	e125	e39	204	944	108	53	298	17	18	18
18	15	34	e110	e40	198	833	104	51	220	17	16	14
19	11	37	e96	e41	229	1170	101	47	168	16	27	12
20	21	41	e85	e43	444	775	98	44	130	16	36	14
21	20	37	e76	e47	2690	565	108	41	102	20	26	15
22	19	33	e72	e950	3370	456	157	39	82	117	26	11
23	24	33	e120	2910	2580	378	168	36	71	36	21	8.3
24	40	43	196	2280	1170	309	143	35	66	23	16	9.2
25	44	516	e150	1530	722	284	124	39	58	19	14	10
26	25	2250	e115	884	1100	281	103	577	50	17	15	9.0
27	19	1220	e100	634	4620	271	96	445	45	17	17	9.9
28	16	400	e92	e600	7810	245	100	255	42	16	20	9.7
29	17	237	e88	e520	---	247	108	164	40	15	17	8.1
30	17	231	e85	e450	---	253	97	159	37	15	16	7.5
31	16	---	e85	e400	---	240	---	574	---	14	14	---
TOTAL	511	7512	6333	12387	36454	40957	4715	4335	7733	1064	524	374.1
MEAN	16.5	250	204	400	1302	1321	157	140	258	34.3	16.9	12.5
MAX	44	2250	509	2910	7810	7830	371	577	976	140	36	24
MIN	10	14	72	37	198	240	96	35	37	14	11	7.5
CFSM	.02	.37	.30	.59	1.92	1.95	.23	.21	.38	.05	.02	.02
IN.	.03	.41	.35	.68	2.00	2.25	.26	.24	.42	.06	.03	.02

e Estimated

05593945 SHOAL CREEK NEAR PIERRON, IL--Continued

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

MEAN	16.5	136	150	442	719	745	771	1277	326	199	82.6	15.9
MAX	16.6	250	204	484	1302	1321	1385	2414	394	384	191	18.8
(WY)	1996	1997	1997	1996	1997	1997	1996	1996	1996	1996	1995	1996
MIN	16.5	21.7	95.0	400	156	168	157	140	258	34.3	16.9	12.5
(WY)	1997	1996	1996	1997	1996	1996	1997	1997	1997	1997	1997	1997

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1995 - 1997	
ANNUAL TOTAL	181038		122899.1			
ANNUAL MEAN	495		337		402	
HIGHEST ANNUAL MEAN					467	1996
LOWEST ANNUAL MEAN					337	1997
HIGHEST DAILY MEAN	12000	Apr 30	7830	Mar 1	15900	May 19 1995
LOWEST DAILY MEAN	10	Oct 11	7.5	Sep 30	7.5	Sep 30 1997
ANNUAL SEVEN-DAY MINIMUM	11	Oct 6	9.1	Sep 24	9.1	Sep 24 1997
INSTANTANEOUS PEAK FLOW			9010	Feb 28	17700	May 19 1995
INSTANTANEOUS PEAK STAGE			58.95	Feb 28	60.21	May 19 1995
INSTANTANEOUS LOW FLOW			6.6	Sep 30	6.6	Sep 30 1997
ANNUAL RUNOFF (CFSM)	.73		.50		.59	
ANNUAL RUNOFF (INCHES)	9.93		6.74		8.05	
10 PERCENT EXCEEDS	1100		766		949	
50 PERCENT EXCEEDS	101		84		91	
90 PERCENT EXCEEDS	16		12		15	

05594000 SHOAL CREEK NEAR BREESE, IL

LOCATION.--Lat 38°36'35", long 89°29'40", in SW1/4SW1/4 sec.13, T.2 N., R.4 W., Clinton County, Hydrologic Unit 07140203, on right bank at upstream side of bridge on old U.S. Highway 50, 0.4 mi upstream from railroad bridge, 1.7 mi east of Breese, 7 mi upstream from Beaver Creek, and at mile 21.3.

DRAINAGE AREA.--735 mi^2.

PERIOD OF RECORD.--November 1909 to December 1912, August to December 1914, October 1945 to current year.

REVISED RECORDS.--WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 413.97 ft above sea level. Prior to Dec. 8, 1914, chain gage at site 0.4 mi downstream at different datum. Oct. 1, 1945, to Oct. 10, 1968, nonrecording gage at present site and datum.

REMARKS.--Records good except those for discharges below 50 ft3/s, which are fair, and those for estimated daily discharges, which are poor. About 0.82 ft^3/s diverted 20 ft above station for municipal supply of Breese is not included in records. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 19, 1943, reached a stage of 25.6 ft, present site and datum, discharge, 52,000 ft^3/s on basis of contracted opening measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 2	1530	*9,860	*19.06	No other peak greater than base discharge.			

Minimum discharge, 7.4 ft^3/s, Sept. 6.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	23	309	92	e660	5940	266	92	551	41	18	14
2	40	19	449	89	e700	9360	229	91	274	123	17	12
3	34	20	438	85	e900	8460	186	90	222	79	15	15
4	29	22	419	88	1930	5620	162	116	154	63	13	23
5	26	23	411	86	2480	2720	251	221	117	53	13	12
6	26	25	468	86	2200	1400	476	184	126	41	12	9.2
7	26	35	566	99	1350	898	464	127	433	35	13	11
8	22	e250	410	95	852	661	341	112	748	31	13	14
9	21	e800	311	91	625	538	239	121	525	28	14	13
10	17	e450	259	73	505	1220	183	155	568	25	14	14
11	18	226	232	e63	431	2200	158	117	394	25	14	17
12	17	115	217	e58	367	1480	141	95	232	24	14	36
13	13	81	200	e55	323	947	140	81	250	24	13	39
14	12	61	184	e52	274	1900	137	75	610	23	18	25
15	13	49	178	e48	240	2880	123	69	1220	22	21	17
16	12	42	e165	e46	232	3130	112	65	761	24	27	13
17	12	39	e145	e47	233	2130	103	62	390	23	25	18
18	11	39	e130	e48	216	1300	99	58	246	23	21	21
19	13	35	e115	e50	217	1580	102	54	165	22	23	23
20	15	35	e100	e52	311	1270	98	53	121	21	31	16
21	17	38	e90	e55	1780	829	108	50	96	23	36	19
22	27	37	e85	e550	2900	622	117	47	155	89	27	23
23	22	37	110	e2000	3180	497	173	45	78	82	26	23
24	34	37	197	2760	2770	405	163	44	65	39	23	16
25	56	e150	187	2350	1350	349	134	45	58	27	17	13
26	65	1830	122	1670	1290	332	114	223	55	23	19	14
27	35	2040	117	1300	3430	334	100	639	45	20	25	14
28	27	836	107	e1100	3930	298	98	422	43	20	25	16
29	25	340	95	e900	---	276	100	234	45	18	23	18
30	17	233	95	e800	---	287	101	153	47	18	19	16
31	19	---	91	e720	---	276	---	369	---	19	19	---
TOTAL	766	7967	7002	15608	35676	60139	5218	4309	8794	1128	608	534.2
MEAN	24.7	266	226	503	1274	1940	174	139	293	36.4	19.6	17.8
MAX	65	2040	566	2760	3930	9360	476	639	1220	123	36	39
MIN	11	19	85	46	216	276	98	44	43	18	12	9.2
CFSM	.03	.36	.31	.69	1.73	2.64	.24	.19	.40	.05	.03	.02
IN.	.04	.40	.35	.79	1.81	3.04	.26	.22	.45	.06	.03	.03

e Estimated

05594000 SHOAL CREEK NEAR BREESE, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 1997, BY WATER YEAR (WY)

MEAN	176	302	585	675	899	990	997	772	487	309	167	138
MAX	1704	2557	3925	4171	4385	4334	3062	4021	3697	1853	1493	1774
(WY)	1970	1947	1983	1950	1982	1978	1979	1990	1957	1957	1946	1993
MIN	1.19	4.65	8.03	6.31	8.97	11.9	56.0	12.3	15.9	2.50	7.38	2.32
(WY)	1957	1955	1955	1977	1954	1954	1954	1954	1988	1954	1953	1953

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1910 - 1997	
ANNUAL TOTAL	220026		147749.2			
ANNUAL MEAN	601		405		538	
HIGHEST ANNUAL MEAN					1067	1973, 1974
LOWEST ANNUAL MEAN					28.5	1954
HIGHEST DAILY MEAN	13900	May 1	9360	Mar 2	22200	Jun 17 1957
LOWEST DAILY MEAN	11	Oct 18	9.2	Sep 6	.00	A
ANNUAL SEVEN-DAY MINIMUM	12	Oct 13	12	Oct 13	.00	Jul 27 1954
INSTANTANEOUS PEAK FLOW			9860	Mar 2	23100 B	Jan 6 1950
INSTANTANEOUS PEAK STAGE			19.06	Mar 2	23.02 C	Apr 14 1979
INSTANTANEOUS LOW FLOW			7.4	Sep 6		
ANNUAL RUNOFF (CFSM)	.82		.55		.73	
ANNUAL RUNOFF (INCHES)	11.14		7.48		9.94	
10 PERCENT EXCEEDS	1550		1150		1410	
50 PERCENT EXCEEDS	112		91		107	
90 PERCENT EXCEEDS	26		17		13	

A - Many days in 1954-56, 1988.

B - Gage height, 22.63 ft, from graph based on gage readings.

C - During period of constricted channel due to bridge construction.

05594100 KASKASKIA RIVER NEAR VENEDY STATION, IL

LOCATION.--Lat 38°27'02", long 89°37'39", in NW1/4NW1/4 sec.14, T.1 S., R.5 W., Washington County, Hydrologic Unit 07140204, on left bank at downstream side of bridge on State Highways 160 and 177, 1 mi northwest of Venedy Station, 2.5 mi downstream from Sugar Creek, 4 mi west of Okawville, and at mile 57.2.

DRAINAGE AREA.--4,393 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1969 to current year. Gage-height record for Mar. 7, 1968, to Sept. 30, 1969, available in files of U.S. Army Corps of Engineers.

REVISED RECORDS.--WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 380.10 ft above sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Water-discharge records good except those for estimated daily discharges, which are poor. Flow partially regulated by Carlyle Lake (station 05592990), 35 mi upstream from gage. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,800 ft^3/s, Mar. 4, gage height, 21.89 ft; minimum discharge, 112 ft^3/s, Oct. 31, Nov. 1, 2, 5.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	314	113	1260	2550	7790	17200	3850	317	569	2170	215	198
2	287	113	1570	2390	5880	17200	3580	284	672	1890	212	180
3	251	115	1670	2210	5040	17300	3310	277	551	1870	209	181
4	180	118	1690	2060	7450	17500	3160	320	446	1690	207	186
5	161	113	1850	1980	9290	16400	3620	423	334	1610	199	180
6	160	115	2070	2010	9710	15000	5560	493	265	1330	e199	180
7	154	132	2300	2130	9440	12600	5610	444	317	917	e197	171
8	148	361	2150	2130	7720	10400	4550	361	952	667	e195	168
9	145	811	1950	2060	6490	10000	2740	340	1230	618	e193	169
10	142	1010	1820	1890	6260	11700	2140	338	1270	592	e191	168
11	142	644	1740	1610	6050	14000	1570	346	1290	577	e190	168
12	140	410	1700	1540	5580	15100	1450	315	1090	571	189	166
13	140	300	1680	1860	5100	15100	1310	278	993	560	189	163
14	137	237	1660	1940	4640	15600	1080	e250	2040	548	192	169
15	130	200	1660	e1500	4300	16200	842	220	2680	509	205	164
16	124	179	1810	e1200	3990	16400	577	203	3610	406	215	162
17	126	167	2160	e1000	3620	16500	472	190	3080	377	212	168
18	131	160	2440	e950	3340	16400	433	181	2450	371	222	195
19	132	160	2620	e900	3120	16200	587	170	2130	360	225	194
20	137	156	2480	e850	3150	16100	825	158	1960	342	244	177
21	134	155	2420	e900	6020	15800	882	147	1900	416	235	173
22	141	159	2460	2630	9180	15100	1130	137	2440	481	244	165
23	160	160	2460	6420	9720	14300	873	130	2160	507	220	164
24	193	160	2770	8180	9970	13000	648	124	2030	543	206	167
25	169	330	3500	8640	9850	11100	540	124	2130	370	196	166
26	170	2580	3390	8310	9340	9590	463	130	2170	297	187	159
27	187	4720	3160	8250	13200	8390	407	333	2020	266	188	154
28	153	3670	2990	9570	16300	6200	374	617	1840	250	188	157
29	132	1920	2860	9480	---	4700	354	449	1960	238	180	161
30	128	1290	2840	9210	---	4090	347	321	1980	229	178	160
31	113	---	2820	8770	---	4000	---	290	---	221	190	---
TOTAL	4961	20758	69950	115120	201540	409170	53284	8710	48559	21793	6312	5133
MEAN	160	692	2256	3714	7198	13200	1776	281	1619	703	204	171
MAX	314	4720	3500	9570	16300	17500	5610	617	3610	2170	244	198
MIN	113	113	1260	850	3120	4000	347	124	265	221	178	154

e Estimated

05594100 KASKASKIA RIVER NEAR VENEDY STATION, IL--Continued

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

MEAN	1018	2063	5019	5220	6228	6771	6385	4571	3134	2371	1454	1015
MAX	5021	12600	17460	12050	18850	16930	16750	15470	7875	6010	4539	5280
(WY)	1994	1994	1983	1991	1982	1979	1979	1996	1990	1973	1974	1993
MIN	100	90.2	89.4	74.2	516	891	487	211	102	104	161	102
(WY)	1988	1972	1977	1977	1978	1981	1986	1976	1988	1976	1988	1976

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1970 - 1997	
ANNUAL TOTAL	1409951		965290			
ANNUAL MEAN	3852		2645		3759	
HIGHEST ANNUAL MEAN					6824	1973
LOWEST ANNUAL MEAN					1194	1992
HIGHEST DAILY MEAN	33700	Apr 30	17500	Mar 4	48700	May 19 1995
LOWEST DAILY MEAN	113	A	113	A	56	Sep 12 1970
ANNUAL SEVEN-DAY MINIMUM	114	Oct 31	114	Oct 31	63	Sep 7 1970
INSTANTANEOUS PEAK FLOW			17800	Mar 4	50300	May 19 1995
INSTANTANEOUS PEAK STAGE			21.89	Mar 4	25.79	May 19 1995
INSTANTANEOUS LOW FLOW			112	A	54	B
10 PERCENT EXCEEDS	10100		9310		10400	
50 PERCENT EXCEEDS	2010		617		1970	
90 PERCENT EXCEEDS	160		157		142	

A - Oct. 31, Nov. 1, 2, 5.
B - Sept. 12, 13, 1970.

05594100 KASKASKIA RIVER NEAR VENEDY STATION, IL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1975 to September 1997. (Discontinued).

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: May 1980 to Sept. 1997. (Discontinued).

REMARKS.--Suspended-sediment samples were collected by a local observer once a week with additional samples collected during storm runoff periods.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily, 2,590 mg/L, June 1, 1982; minimum daily, 5 mg/L, Dec. 20-2?, 1980, Feb. 5, 1981.

SEDIMENT LOADS: Maximum daily, 46,200 tons, June 1, 1982; minimum daily, 1.9 tons, Jan. 14-16, 19, 23, 24, 1981.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily, 647 mg/L, Jan. 23; minimum daily, 28 mg/L, Dec. 14.

SEDIMENT LOADS: Maximum daily, 12,400 tons, Feb. 22; minimum daily, 11 tons, Nov. 1-3, 5, 6.

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	314	77	65	113	38	11	1260	353	1190
2	287	72	56	113	37	11	1570	115	483
3	251	67	45	115	37	11	1670	86	386
4	180	62	30	118	36	12	1690	68	310
5	161	58	25	113	36	11	1850	70	352
6	160	53	23	115	36	11	2070	67	372
7	154	50	21	132	36	13	2300	59	365
8	148	46	18	361	59	63	2150	54	316
9	145	43	17	811	89	194	1950	45	236
10	142	40	15	1010	60	166	1820	31	153
11	142	38	14	644	45	78	1740	34	161
12	140	40	15	410	36	40	1700	37	171
13	140	43	16	300	30	24	1680	29	133
14	137	47	17	237	29	19	1660	28	126
15	130	50	18	200	29	16	1660	29	132
16	124	52	17	179	29	14	1810	41	205
17	126	44	15	167	29	13	2160	76	443
18	131	36	13	160	29	13	2440	55	362
19	132	36	13	160	29	13	2620	49	344
20	137	38	14	156	29	12	2480	45	303
21	134	41	15	155	29	12	2420	45	294
22	141	44	17	159	29	12	2460	45	298
23	160	47	20	160	29	13	2460	46	303
24	193	84	44	160	30	13	2770	88	670
25	169	109	50	330	98	116	3500	114	1070
26	170	86	39	2580	462	3570	3390	75	690
27	187	67	34	4720	571	7180	3160	65	553
28	153	52	22	3670	301	2950	2990	56	449
29	132	41	15	1920	340	1750	2860	48	370
30	128	39	13	1290	384	1330	2840	48	366
31	113	38	12	---	---	---	2820	51	391
TOTAL	4961	---	748	20758	---	17691	69950	---	11997

05594100 KASKASKIA RIVER NEAR VENEDY STATION, IL--Continued

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	2550	45	313	7790	105	2210	17200	153	7110
2	2390	40	260	5880	93	1480	17200	139	6460
3	2210	41	242	5040	82	1120	17300	129	6010
4	2060	41	230	7450	134	2790	17500	119	5600
5	1980	42	223	9290	153	3830	16400	110	4850
6	2010	42	229	9710	110	2890	15000	102	4120
7	2130	47	270	9440	109	2790	12600	94	3190
8	2130	38	220	7720	109	2270	10400	87	2430
9	2060	38	209	6490	108	1900	10000	80	2170
10	1890	37	189	6260	108	1820	11700	78	2460
11	1610	37	160	6050	107	1750	14000	137	5210
12	1540	36	151	5580	106	1600	15100	135	5500
13	1860	42	213	5100	105	1450	15100	127	5190
14	1940	44	233	4640	104	1310	15600	127	5380
15	e1500	39	158	4300	104	1200	16200	120	5270
16	e1200	38	123	3990	103	1110	16400	112	4930
17	e1000	38	102	3620	102	994	16500	105	4670
18	e950	38	96	3340	101	908	16400	98	4340
19	e900	37	91	3120	109	921	16200	88	3830
20	e850	37	85	3150	182	1550	16100	104	4520
21	e900	53	128	6020	318	5380	15800	108	4690
22	2630	409	3770	9180	500	12400	15100	107	4350
23	6420	647	10900	9720	307	8030	14300	105	4030
24	8180	304	6710	9970	182	4880	13000	104	3650
25	8640	263	6120	9850	142	3780	11100	103	3090
26	8310	235	5280	9340	111	2810	9590	102	2630
27	8250	211	4690	13200	148	5380	8390	101	2270
28	9570	297	7670	16300	182	7990	6200	99	1650
29	9480	184	4700	---	---	---	4700	98	1250
30	9210	134	3340	---	---	---	4090	97	1070
31	8770	119	2810	---	---	---	4000	101	1090
TOTAL	115120	---	59915	201540	---	86543	409170	---	123030
		APRIL			MAY			JUNE	
1	3850	101	1050	317	97	84	569	215	355
2	3580	93	897	284	94	72	672	272	496
3	3310	91	809	277	91	68	551	186	278
4	3160	130	1110	320	101	88	446	143	173
5	3620	198	1970	423	118	135	334	113	103
6	5560	352	5360	493	116	154	265	104	75
7	5610	379	5770	444	112	133	317	168	150
8	4550	220	2680	361	109	110	952	279	740
9	2740	154	1220	340	106	97	1230	343	1140
10	2140	137	791	338	103	94	1270	262	898
11	1570	125	564	346	100	94	1290	257	893
12	1450	115	450	315	98	83	1090	265	778
13	1310	105	370	278	104	77	993	265	716
14	1080	96	281	e250	96	65	2040	324	1800
15	842	88	200	220	85	52	2680	284	2040
16	577	80	133	203	87	48	3610	223	2170
17	472	67	89	190	91	47	3080	168	1400
18	433	55	64	181	95	46	2450	127	843
19	587	108	188	170	99	46	2130	108	624
20	825	156	349	158	104	44	1960	105	557
21	882	116	274	147	108	43	1900	102	525
22	1130	115	352	137	108	40	2440	100	656
23	873	121	284	130	104	37	2160	97	565
24	648	121	210	124	102	34	2030	94	516
25	540	117	171	124	130	43	2130	91	526
26	463	113	142	130	171	60	2170	89	521
27	407	110	121	333	254	266	2020	86	471
28	374	107	108	617	374	626	1840	84	417
29	354	103	99	449	243	297	1960	81	431
30	347	100	94	321	174	151	1980	79	425
31	---	---	---	290	130	102	---	---	---
TOTAL	53284	---	26200	8710	---	3336	48559	---	21292

e Estimated

05594100 KASKASKIA RIVER NEAR VENEDY STATION, IL--Continued

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	2170	77	451	215	73	42	198	33	18
2	1890	75	382	212	71	41	180	34	16
3	1870	73	366	209	70	40	181	35	17
4	1690	71	323	207	69	38	186	36	18
5	1610	69	299	199	67	37	180	36	18
6	1330	67	239	e199	67	36	180	37	18
7	917	65	160	e197	67	36	171	38	18
8	667	67	121	e195	67	35	168	42	19
9	618	71	118	e193	67	35	169	47	22
10	592	75	120	e191	67	35	168	49	22
11	577	80	125	e190	67	34	168	52	23
12	571	85	131	189	67	34	166	54	24
13	560	90	136	189	64	33	163	56	25
14	548	95	141	192	61	32	169	59	27
15	509	97	134	205	58	32	164	61	27
16	406	94	103	215	56	32	162	64	28
17	377	93	95	212	53	31	168	67	30
18	371	92	92	222	51	31	195	70	37
19	360	91	89	225	49	30	194	73	38
20	342	90	83	244	47	31	177	76	36
21	416	100	114	235	45	28	173	79	37
22	481	121	157	244	43	28	165	81	36
23	507	111	151	220	41	24	164	78	35
24	543	89	131	206	39	22	167	75	34
25	370	84	83	196	37	20	166	72	32
26	297	82	66	187	36	18	159	69	30
27	266	80	58	188	34	17	154	66	28
28	250	79	53	188	33	17	157	64	27
29	238	77	50	180	31	15	161	61	27
30	229	76	47	178	32	15	160	59	26
31	221	74	44	190	32	17	---	---	---
TOTAL	21793	---	4662	6312	---	916	5133	---	793
YEAR	965290		357113						

e Estimated

05594450 SILVER CREEK NEAR TROY, IL

LOCATION.--Lat 38°43'00", long 89°49'45", in SE1/4SW1/4 sec.12, T.3 N., R.7 W., Madison County, Hydrologic Unit 07140204, on right bank at upstream side of bridge on U.S. Highway 40, 0.2 mi upstream from railroad bridge, 1.9 mi upstream from East Fork Silver Creek, 1.9 mi southeast of Troy, and at mile 44.6.

DRAINAGE AREA.--154 mi^2.

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

REVISED RECORDS.--WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 438.91 ft above sea level.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Gage-height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb.28	0800	*2,940	*14.90	No other peak greater than base discharge.			

Minimum daily discharge, 0.45 ft^3/s Aug. 8, may have been less during periods of estimated discharges in July, Aug. and Sept.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	e3.0	134	23	e130	1360	46	28	173	8.9	e.58	4.4
2	e1.2	e2.3	142	23	e210	690	42	27	92	7.4	e.55	43
3	e1.1	e1.9	97	22	e270	354	38	38	65	6.2	e.54	37
4	e1.0	e1.6	65	22	639	156	37	30	45	5.9	e.56	5.5
5	e.96	e1.5	75	22	670	111	69	43	33	4.8	e.60	e3.5
6	e.92	e22	105	20	459	88	121	34	28	4.0	e.52	e2.5
7	e.90	355	105	18	168	74	130	27	59	3.5	e.47	e1.9
8	1.3	297	65	e14	105	65	61	31	34	3.2	e.45	e1.5
9	.97	120	47	e12	91	89	43	32	33	3.0	e.52	e3.5
10	.89	e38	40	e10	88	358	40	38	44	5.0	e.60	e2.8
11	.82	e22	36	e9.0	81	274	39	29	25	3.0	.77	e2.3
12	.85	e16	34	e8.4	77	112	40	25	19	2.4	e.65	e1.9
13	.90	e13	34	e7.8	70	179	38	23	21	2.2	e.58	e1.6
14	.90	e11	32	e7.4	60	708	34	21	69	2.0	e.54	e1.4
15	.95	e9.6	32	e7.0	55	947	31	21	92	1.9	e1.0	e1.2
16	.97	e8.4	35	e7.0	53	795	30	20	41	1.8	e.70	e1.2
17	1.1	e7.5	30	e7.2	50	236	29	21	22	1.8	e1.5	e3.0
18	1.6	e10	e23	e7.5	49	217	28	20	20	1.9	e1.1	e2.2
19	2.0	e9.0	e17	e7.0	51	338	83	19	18	22	e2.0	e1.8
20	2.3	e8.4	e14	e8.0	276	189	54	19	15	26	e3.0	e1.5
21	2.9	e8.0	e15	e13	672	114	139	18	14	3.0	e2.0	e1.3
22	4.4	e7.6	e16	e350	1090	84	84	17	36	4.6	e2.2	e1.1
23	6.7	e7.2	47	e500	1070	67	55	16	18	4.6	e1.8	e1.1
24	e4.5	e30	94	e700	371	58	41	16	11	3.8	e1.4	1.4
25	e3.5	524	56	e850	139	59	34	20	10	2.3	e1.1	1.6
26	e3.0	741	38	e700	390	61	31	110	11	e1.4	e1.0	1.6
27	e2.7	934	27	e400	1890	59	30	168	20	e1.1	206	1.6
28	e2.7	616	26	e280	2650	55	31	76	16	e.95	55	1.6
29	e2.9	177	27	e200	---	52	29	40	18	e.80	14	1.5
30	e5.0	121	26	e110	---	49	30	70	9.8	e.70	7.1	1.3
31	e4.0	---	25	e80	---	46	---	359	---	e.63	5.8	---
TOTAL	65.23	4123.0	1559	4445.3	11924	8044	1537	1456	1111.8	140.78	314.63	137.8
MEAN	2.10	137	50.3	143	426	259	51.2	47.0	37.1	4.54	10.1	4.59
MAX	6.7	934	142	850	2650	1360	139	359	173	26	206	43
MIN	.82	1.5	14	7.0	49	46	28	16	9.8	.63	.45	1.1
CFSM	.01	.89	.33	.93	2.77	1.68	.33	.30	.24	.03	.07	.03
IN.	.02	1.00	.38	1.07	2.88	1.94	.37	.35	.27	.03	.08	.03

e Estimated

05594450 SILVER CREEK NEAR TROY, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1997, BY WATER YEAR (WY)

MEAN	25.2	90.7	179	146	203	229	249	149	85.5	62.1	18.0	25.0
MAX	165	509	902	562	646	927	738	827	400	570	117	408
(WY)	1987	1985	1983	1974	1982	1978	1994	1995	1983	1969	1995	1993
MIN	.23	.34	.42	.31	9.25	6.74	16.7	5.26	.91	1.44	.75	.093
(WY)	1972	1972	1977	1977	1978	1981	1986	1977	1988	1984	1971	1988

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1967 - 1997	
ANNUAL TOTAL	46804.48		34858.54			
ANNUAL MEAN	128		95.5		121	
HIGHEST ANNUAL MEAN					244	1983
LOWEST ANNUAL MEAN					23.1	1980
HIGHEST DAILY MEAN	5610	Apr 29	2650	Feb 28	7740	Apr 12 1979
LOWEST DAILY MEAN	.82	Oct 11	.45A	Aug 8	.00 B	
ANNUAL SEVEN-DAY MINIMUM	.90	Oct 9	.52	Aug 3	.00	Sep 29 1968
INSTANTANEOUS PEAK FLOW			2940	Feb 28	10600 C	Apr 12 1979
INSTANTANEOUS PEAK STAGE			14.90	Feb 28	17.94	May 17 1990
ANNUAL RUNOFF (CFSM)	.83		.62		.79	
ANNUAL RUNOFF (INCHES)	11.31		8.42		10.70	
10 PERCENT EXCEEDS	386		225		292	
50 PERCENT EXCEEDS	15		22		15	
90 PERCENT EXCEEDS	1.5		1.1		.70	

A - Estimated, may have been less during periods of estimated discharges in July, Aug. and Sept.

B - Several days in 1967-68, 1973, 1988.

C - Gage height, 17.52 ft.

05594800 SILVER CREEK NEAR FREEBURG, IL

LOCATION.--Lat 38°24'22", long 89°52'26", in NE1/4NE1/4 sec.33, T.1 S., R.7 W., St. Clair County, Hydrologic Unit 07140204, on left bank at downstream side of bridge on State Highway 15, 2.2 mi southeast of Freeburg, 4.8 mi northwest of Fayetteville, and at mile 9.6.

DRAINAGE AREA.--464 mi^2.

PERIOD OF RECORD.--October 1970 to current year. October 1980 to September 1994 (8:00 a.m. gage heights).

REVISED RECORDS.--WDR IL-73-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 381.40 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, and those for periods of Aug. 28-30 and Sept. 3-30, which are poor. Gage-height telemeter at station.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 28	1415	*4,490	*16.54

No other peak greater than base discharge.

Minimum discharge, 2.3 ft^3/s, Oct. 17.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	8.6	789	98	e400	4090	202	120	572	183	16	e80
2	13	7.4	426	91	e500	4250	185	117	414	80	16	e110
3	9.6	7.6	357	91	716	3340	157	127	270	52	16	215
4	8.9	7.5	263	92	1060	2240	143	139	199	44	16	248
5	6.5	7.6	213	99	1190	1430	334	130	149	54	16	92
6	5.4	7.6	272	103	1370	683	561	125	151	41	15	25
7	6.5	85	306	87	1440	407	385	120	439	31	15	18
8	7.1	712	271	78	1150	304	305	116	306	27	16	20
9	6.4	825	198	e64	506	299	220	166	238	25	16	24
10	6.3	421	146	e54	337	511	173	132	207	23	17	31
11	5.1	144	118	e45	307	615	187	115	178	23	18	32
12	4.4	74	103	e40	283	644	191	109	125	24	18	31
13	3.9	46	93	e35	261	557	175	99	148	23	17	24
14	3.6	34	86	e32	239	1090	154	87	747	22	17	18
15	2.9	28	87	e30	217	1260	137	77	536	21	19	13
16	2.7	24	93	e30	197	1510	126	71	334	24	36	9.2
17	3.0	22	96	e32	184	1560	117	67	265	23	30	6.4
18	3.9	28	84	e33	173	1420	110	66	284	21	36	18
19	9.1	34	66	e35	169	1040	195	64	189	19	32	12
20	14	29	e43	e37	250	969	455	62	124	26	151	6.4
21	8.9	26	e40	e55	888	805	360	58	336	82	76	5.3
22	11	24	e43	e500	1130	519	493	54	1270	43	42	5.3
23	53	24	e55	1160	1350	320	322	50	466	121	34	6.9
24	89	31	267	1120	1520	261	216	48	207	78	31	9.7
25	44	428	349	1250	1530	235	177	55	119	39	29	13
26	27	1120	186	1400	1360	262	151	84	91	27	37	15
27	19	1160	159	1760	2090	239	135	261	73	23	39	13
28	17	1270	127	1790	4170	220	142	299	118	21	166	12
29	17	1400	115	e1400	---	208	139	185	608	19	195	11
30	11	1380	110	e1100	---	202	129	126	319	18	149	9.7
31	9.9	---	104	e650	---	203	---	285	---	17	e100	---
TOTAL	447.1	9415.3	5665	13391	24987	31693	6776	3614	9482	1274	1431	1133.9
MEAN	14.4	314	183	432	892	1022	226	117	316	41.1	46.2	37.8
MAX	89	1400	789	1790	4170	4250	561	299	1270	183	195	248
MIN	2.7	7.4	40	30	169	202	110	48	73	17	15	5.3
CFSM	.03	.68	.39	.93	1.92	2.20	.49	.25	.68	.09	.10	.08
IN.	.04	.75	.45	1.07	2.00	2.54	.54	.29	.76	.10	.11	.09

e Estimated

05594800 SILVER CREEK NEAR FREEBURG, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1997, BY WATER YEAR (WY)

MEAN	92.6	295	470	405	588	691	727	529	289	129	77.1	98.3
MAX	506	1543	2380	1438	1954	2390	1771	3579	840	530	290	1142
(WY)	1987	1994	1983	1974	1982	1978	1979	1995	1974	1981	1979	1993
MIN	2.55	2.21	6.86	3.87	42.3	34.5	45.3	25.4	12.4	12.9	10.7	4.30
(WY)	1972	1972	1977	1977	1978	1981	1981	1976	1988	1976	1971	1983

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1971 - 1997	
ANNUAL TOTAL	137836.3		109309.3			
ANNUAL MEAN	377		299		364	
HIGHEST ANNUAL MEAN					660	1973
LOWEST ANNUAL MEAN					74.6	1976
HIGHEST DAILY MEAN	11100	Apr 30	4250	Mar 2	15000	May 19 1995
LOWEST DAILY MEAN	2.7	Oct 16	2.7	Oct 16	.00	A
ANNUAL SEVEN-DAY MINIMUM	3.5	Oct 12	3.5	Oct 12	.75	Sep 15 1983
INSTANTANEOUS PEAK FLOW			4490	Feb 28	15300	May 19 1995
INSTANTANEOUS PEAK STAGE			16.54	Feb 28	25.38	May 19 1995
INSTANTANEOUS LOW FLOW			2.3	Oct 17		
ANNUAL RUNOFF (CFSM)	.81		.65		.79	
ANNUAL RUNOFF (INCHES)	11.05		8.76		10.67	
10 PERCENT EXCEEDS	955		1050		1030	
50 PERCENT EXCEEDS	63		103		71	
90 PERCENT EXCEEDS	9.1		12		8.5	

A - Aug. 4-6, 1993, during period of backwater from the Mississippi River. Minimum daily discharge unaffected by backwater, 0.41 ft^3/s, Sept. 17 1983.

05595200 RICHLAND CREEK NEAR HECKER, IL

LOCATION.--Lat 38°19'26", long 89°58'15", in SW1/4SE1/4 sec.27 projected, T.2 S., R.8 W., St. Clair County, Hydrologic Unit 07140204, on left bank at downstream side of bridge on State Highway 156, 2 mi northeast of Hecker, 5 mi west of New Athens, and at mile 17.3.

DRAINAGE AREA.--129 mi^2.

PERIOD OF RECORD.--October 1969 to current year. October 1980 to September 1994 (8 a.m. gage heights).

REVISED RECORDS.--WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 375.00 ft above sea level. June 28, 1976, to Nov. 9, 1978, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Effluent from three sewage-treatment plants 13-16 mi upstream averaged about 13.1 ft^3/s per day. Gage-height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 27	2200	4,060	39.84	Feb. 27	0700	*5,640	*40.71

Minimum discharge, 3.3 ft^3/s, Oct. 21.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	11	124	39	e110	356	52	35	48	60	13	18
2	11	11	70	39	e120	565	49	33	72	42	13	16
3	9.2	10	46	38	273	210	47	43	43	34	12	15
4	8.4	10	36	41	824	153	50	41	34	55	15	14
5	8.7	11	166	58	181	124	438	36	31	36	12	14
6	8.4	14	107	37	110	106	158	35	30	29	11	13
7	8.2	483	54	31	95	93	72	33	80	26	9.8	14
8	8.3	191	41	29	90	87	59	59	38	60	9.9	15
9	8.6	45	34	31	79	257	52	45	30	167	12	20
10	8.2	30	32	36	76	260	58	35	28	37	12	17
11	8.2	23	32	e30	69	127	81	33	26	30	11	16
12	8.3	21	30	e25	65	99	71	34	25	25	13	15
13	8.1	17	29	e23	58	475	54	33	108	24	30	13
14	7.7	16	26	e22	57	1210	47	31	175	23	12	14
15	8.3	15	39	e21	55	229	44	29	59	29	178	13
16	7.7	16	44	e20	54	147	41	28	71	22	43	14
17	8.1	19	33	e20	49	126	41	27	93	20	24	35
18	20	20	27	e21	47	158	39	28	126	20	26	23
19	13	18	27	e22	51	194	58	28	50	17	210	17
20	7.1	16	e20	e24	556	113	51	26	35	16	125	13
21	9.1	16	e18	e100	489	98	120	25	190	15	31	13
22	33	16	e20	1480	211	81	64	25	1640	21	22	12
23	95	15	178	271	103	69	50	26	221	56	19	12
24	25	121	318	242	81	67	45	29	71	20	17	16
25	17	1220	64	242	73	106	42	39	65	15	16	15
26	13	836	50	86	914	105	39	61	81	14	19	13
27	11	107	47	1840	3610	72	43	41	44	14	17	11
28	15	60	49	e650	455	70	47	30	100	27	17	11
29	13	52	49	e160	---	64	41	28	911	41	20	11
30	14	121	42	e110	---	64	38	77	119	15	43	10
31	13	---	40	e100	---	63	---	130	---	13	39	---
TOTAL	445.6	3561	1892	5888	8955	5948	2091	1203	4644	1023	1051.7	453
MEAN	14.4	119	61.0	190	320	192	69.7	38.8	155	33.0	33.9	15.1
MAX	95	1220	318	1840	3610	1210	438	130	1640	167	210	35
MIN	7.1	10	18	20	47	63	38	25	25	13	9.8	10
CFSM	.11	.92	.47	1.47	2.48	1.49	.54	.30	1.20	.26	.26	.12
IN.	.13	1.03	.55	1.70	2.58	1.72	.60	.35	1.34	.30	.30	.13

e Estimated

05595200 RICHLAND CREEK NEAR HECKER, IL--Continued

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

MEAN	45.4	120	138	106	159	194	201	154	81.4	71.7	33.7	65.0
MAX	270	516	590	338	505	611	751	1306	218	322	106	471
(WY)	1987	1986	1983	1974	1982	1984	1994	1995	1995	1981	1993	1993
MIN	6.51	7.53	9.66	7.19	19.1	19.4	20.2	18.4	14.9	11.6	7.64	6.66
(WY)	1972	1972	1977	1977	1978	1981	1981	1988	1972	1970	1971	1976

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1970 - 1997	
ANNUAL TOTAL	45891.5		37155.3			
ANNUAL MEAN	125		102		114	
HIGHEST ANNUAL MEAN					198	1973
LOWEST ANNUAL MEAN					23.5	1976
HIGHEST DAILY MEAN	13200	Apr 29	3610	Feb 27	13300	May 17 1995
LOWEST DAILY MEAN	4.4	Sep 14	7.1	Oct 20	4.2	Oct 17 1976
ANNUAL SEVEN-DAY MINIMUM	4.9	Sep 9	8.1	Oct 11	4.8	Oct 12 1976
INSTANTANEOUS PEAK FLOW			5640	Feb 27	23400	Apr 29 1996
INSTANTANEOUS PEAK STAGE			40.71	Feb 27	44.4 A	Apr 29 1996
INSTANTANEOUS LOW FLOW			3.3	Oct 21		
ANNUAL RUNOFF (CFSM)	.97		.79		.88	
ANNUAL RUNOFF (INCHES)	13.23		10.71		11.98	
10 PERCENT EXCEEDS	195		178		190	
50 PERCENT EXCEEDS	23		36		27	
90 PERCENT EXCEEDS	9.8		12		9.0	

A - From floodmark.

05595240 KASKASKIA RIVER NEAR RED BUD, IL

LOCATION.--Lat 38°11'39", long 89°53'17", in SW1/4SW1/4 sec.9, T.4 S., R.7 W., Randolph County, Hydrologic Unit 07140204, at the river-intake pumphouse of Baldwin Power Station, near southwest corner of Baldwin Lake, about 2.5 mi northwest of Baldwin, about 6 mi southeast of Red Bud and at mi 19.3.

DRAINAGE AREA.--5,505 mi^2.

PERIOD OF RECORD.--Oct. 1, 1994 to current year. Records of gage height for Nov. 1959 to Sept. 30, 1994, available in files of U.S. Army Corps of Engineers.

GAGE.--Water-stage recorder. Datum of gage is 300.00 ft above sea level. (Levels by U.S. Army Corps of Engineers).

REMARKS.--U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height 91.90 ft, May 22, 1995; minimum, 67.36 ft, Mar. 5 and Apr. 7, 1996, but may have been lower during periods of missing record.

EXTREMES OUTSIDE THE PERIOD OF RECORD.--Maximum gage height, 94.36 ft, Aug. 6, 1993; minimum 50.8 ft, Oct. 16, 1964, from information by U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 81.66 ft, Mar. 3; minimum, 67.70 ft, May 18.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68.40	68.50	68.36	68.71	68.76	80.86	67.97	74.79	71.55	68.83	68.68	68.68
2	68.35	68.49	68.39	68.57	68.36	81.42	67.83	74.41	70.61	68.61	68.73	68.71
3	68.34	68.47	68.55	68.60	68.24	81.56	67.98	73.91	69.12	68.71	68.75	68.50
4	68.35	68.48	68.43	68.62	69.65	81.03	67.99	73.59	68.51	68.58	68.68	68.57
5	68.43	68.49	68.63	68.46	69.26	80.04	68.55	73.61	68.74	68.71	68.58	68.74
6	68.46	68.50	68.51	68.54	68.93	78.84	68.84	73.52	68.51	68.66	68.66	68.65
7	68.34	68.54	68.60	68.58	68.91	77.44	68.65	73.27	68.72	68.56	68.70	68.62
8	68.32	68.49	68.48	68.63	68.81	75.88	68.26	72.76	68.63	68.67	68.66	68.68
9	68.39	68.49	68.45	68.45	68.29	74.32	68.15	72.03	68.66	68.69	68.64	68.69
10	68.44	68.49	68.63	68.51	68.07	73.32	68.81	71.33	68.50	68.54	68.61	68.66
11	68.50	68.32	68.53	68.46	68.27	72.85	69.14	71.02	68.70	68.76	68.44	68.57
12	68.54	68.23	68.34	68.43	68.37	72.78	69.20	71.19	68.63	68.74	68.57	68.53
13	68.53	68.22	68.35	68.43	68.38	72.93	70.29	71.31	68.78	68.64	68.64	68.58
14	68.51	68.41	68.56	68.46	68.36	74.31	73.03	70.83	68.83	68.76	68.61	68.61
15	68.54	68.47	68.60	68.51	68.31	74.86	75.17	70.01	68.76	68.63	68.72	68.65
16	68.55	68.48	68.48	68.31	68.29	75.16	76.27	69.08	69.01	68.41	68.68	68.71
17	68.44	68.47	68.54	68.47	68.13	75.28	76.78	68.19	68.98	68.61	68.57	68.65
18	68.36	68.44	68.52	68.39	68.13	75.01	77.05	67.84	69.08	68.77	68.58	68.50
19	68.28	68.40	68.52	68.48	67.92	74.68	77.28	68.15	68.76	68.75	68.69	68.67
20	68.30	68.38	68.51	68.58	67.90	74.09	77.60	68.42	68.66	68.78	68.64	68.64
21	68.36	68.39	68.62	68.49	68.50	73.41	77.79	68.68	68.70	68.79	68.52	68.53
22	68.49	68.45	68.66	69.36	69.01	72.77	77.80	68.75	69.48	68.71	68.49	68.58
23	68.58	68.53	68.67	69.56	71.97	72.21	77.59	68.57	68.88	68.60	68.62	68.67
24	68.24	68.53	68.73	68.91	74.99	71.57	77.37	68.66	68.70	68.57	68.67	68.65
25	68.34	68.91	68.76	68.91	76.41	70.79	77.21	68.74	68.66	68.56	68.73	68.61
26	68.45	69.41	68.69	68.92	77.20	70.17	77.04	68.58	68.67	68.58	68.59	68.62
27	68.41	69.04	68.58	69.91	79.35	69.71	76.94	68.48	68.81	68.61	68.56	68.59
28	68.32	68.87	68.66	71.83	80.47	69.34	76.63	68.58	68.73	68.70	68.65	68.54
29	68.35	68.54	68.61	71.37	---	68.75	76.04	68.87	68.93	68.55	68.72	68.59
30	68.41	68.63	68.48	69.75	---	68.26	75.42	70.13	68.71	68.48	68.67	68.66
31	68.44	---	68.49	69.10	---	68.06	---	71.78	---	68.56	68.74	---
MEAN	68.41	68.54	68.55	68.91	70.26	74.25	73.16	70.62	68.93	68.65	68.64	68.62
MAX	68.58	69.41	68.76	71.83	80.47	81.56	77.80	74.79	71.55	68.83	68.75	68.74
MIN	68.24	68.22	68.34	68.31	67.90	68.06	67.83	67.84	68.50	68.41	68.44	68.50

WTR YR 1997 MEAN 69.79 MAX 81.56 MIN 67.83

05595700 BIG MUDDY RIVER NEAR MT. VERNON, IL

LOCATION.--Lat 38°18'36", long 88°59'18", in SE1/4NW1/4 sec.33, T.2 S., R.2 E., Jefferson County, Hydrologic Unit 07140106, on left bank at downstream side of bridge on State Highway 15, 0.5 mi downstream from Harper Creek, 4.7 mi west of Mt. Vernon, 8.9 mi downstream from Snow Creek, and at mile 133.2.

DRAINAGE AREA.--71.9 mi^2.

PERIOD OF RECORD.--October 1979 to current year (gage heights only). Gage-height record for February 1965 to September 1979 available in files of U.S. Army Corps of Engineers.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 425.00 ft above sea level (levels by U.S. Army Corps of Engineers). Gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 12.04 ft, Nov.14, 1993; minimum, 0.05 ft, on Oct. 1-3, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 10.80 ft, Jan. 28; minimum, 0.23 ft, Oct. 14-17.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.48	.42	3.31	1.76	3.24	3.97	2.48	1.83	2.36	.82	.48	.60
2	.40	.39	3.04	1.72	3.10	8.31	2.27	2.01	2.38	.84	.45	.48
3	.34	.38	2.03	1.71	3.43	4.52	2.16	3.59	2.25	.80	.42	.43
4	.32	.36	1.54	1.72	8.10	3.13	2.13	2.77	1.87	.78	.40	.38
5	.30	.36	2.44	3.19	4.99	2.66	7.22	2.39	1.60	.71	.37	.36
6	.29	.34	4.41	2.95	3.17	2.34	7.31	2.25	1.42	.66	.35	.33
7	.27	1.21	2.69	2.04	2.71	2.10	3.42	2.12	1.33	.66	.32	.32
8	.26	2.13	2.05	1.70	2.53	1.99	2.64	2.17	1.29	.64	.32	.32
9	.26	1.42	1.69	1.63	2.44	2.89	2.36	2.49	1.36	.61	.35	.33
10	.25	---	1.51	1.69	2.36	5.48	2.19	2.21	1.28	.56	.37	.33
11	.25	---	1.45	1.65	2.24	3.29	2.20	1.96	1.16	.53	.38	.32
12	.25	.66	1.41	1.43	2.15	2.61	2.59	1.85	1.06	.50	.37	.31
13	.24	.60	1.36	1.27	2.00	2.87	2.43	1.77	1.07	.49	.36	.30
14	.24	.54	1.31	1.19	1.93	9.60	2.16	1.69	1.80	.50	.37	.29
15	.23	.51	2.22	1.38	2.00	6.25	1.99	1.56	2.37	.52	.50	.28
16	.23	.49	4.35	3.81	1.96	3.23	1.90	1.44	2.08	.48	.56	.28
17	.25	.50	3.03	4.31	1.86	2.81	1.81	1.33	2.59	.47	.69	.33
18	.33	.54	2.46	3.23	1.78	4.60	1.73	1.26	5.23	.46	.89	.34
19	.38	.55	1.95	2.40	1.75	6.54	2.13	1.23	2.76	.47	.95	.34
20	.40	.51	1.62	2.10	1.78	3.64	2.24	1.16	2.04	1.93	1.35	.32
21	.38	.49	1.44	3.62	2.82	2.96	4.44	1.10	1.67	2.02	1.41	.30
22	.42	.46	1.54	9.75	4.46	2.62	3.34	1.00	3.19	2.10	1.08	.29
23	1.16	.44	2.26	8.54	2.93	2.33	2.62	.86	2.59	2.50	.81	.28
24	.67	.50	5.53	4.22	2.36	2.19	2.35	.78	1.94	1.65	.67	.30
25	.52	5.87	3.04	5.15	2.10	2.12	2.18	.76	1.60	1.31	.59	.29
26	.48	7.34	2.13	2.88	3.53	2.23	2.05	.91	1.39	1.02	.53	.29
27	.45	2.94	1.96	6.32	9.81	2.22	1.98	.94	1.18	.84	.49	.29
28	.45	1.87	2.16	10.31	6.79	2.58	2.05	.96	1.04	.73	.46	.29
29	.48	1.50	2.28	7.06	---	3.42	2.02	.97	.93	.65	.47	.29
30	.48	1.69	2.12	3.77	---	2.82	1.88	1.04	.85	.60	.45	.28
31	.44	---	1.87	3.08	---	2.78	---	2.13	---	.54	.53	---
MEAN	.38	---	2.33	3.47	3.23	3.58	2.68	1.63	1.86	.88	.57	.33
MAX	1.16	---	5.53	10.31	9.81	9.60	7.31	3.59	5.23	2.50	1.41	.60
MIN	.23	---	1.31	1.19	1.75	1.99	1.73	.76	.85	.46	.32	.28

05595730 RAYSE CREEK NEAR WALTONVILLE, IL

LOCATION.--Lat 38°15'14", long 89°02'23", in NE1/4NE1/4 sec.24, T.3 S., R.1 E., Jefferson County, Hydrologic Unit 07140106, at bridge on County Highway 9, 1.2 mi downstream from Knob Creek, 2.4 mi downstream from Novak Creek, 3.0 mi north of Waltonville, and at mile 6.7.

DRAINAGE AREA.--88.0 mi^2.

PERIOD OF RECORD.--October 1979 to current year. Gage-height record for Feb. 10, 1965 to Sept. 30, 1979 available in files of U.S. Army Corps of Engineers, October 1980 to September 1994 (8 AM gage heights).

REVISED RECORDS.--WDR IL-94-1: 1982-90.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 412.00 ft above sea level (levels by U.S. Army Corps of Engineers).

REMARKS.-Records fair except those for estimated daily discharges, which are poor. Gage-height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 22	1200	2,180	12.45	Feb. 27	0715	2,270	12.51
Jan. 28	1900	*2,500	*12.61				

No flow for many days.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.51	1.4	e190	13	e80	195	38	12	26	4.6	.00	.02
2	.21	1.4	e90	11	e100	663	28	87	41	5.0	.00	.01
3	.13	1.2	e50	11	219	167	23	134	22	7.3	.00	.06
4	.08	1.1	e22	12	820	84	23	47	13	5.5	.00	.28
5	.17	1.0	e140	49	243	55	1000	27	9.5	4.1	.00	1.6
6	.12	1.0	e160	40	89	38	724	21	6.5	2.7	.00	1.2
7	.07	13	e80	15	60	29	109	17	6.1	1.7	.00	.63
8	.01	25	e50	9.9	47	25	53	16	6.4	1.3	.00	.42
9	.04	16	e30	e7.0	45	137	36	31	7.7	1.1	.00	.25
10	.02	5.5	e17	e7.5	42	311	29	18	6.9	.94	.00	.08
11	.00	4.4	e24	e6.0	32	91	30	14	6.8	.64	.00	.00
12	.00	5.3	e23	e4.5	27	51	45	10	6.5	.40	.00	.00
13	.00	3.7	e21	e3.5	23	136	37	9.1	8.2	.23	.00	.00
14	.00	2.5	e13	e3.0	21	1530	27	9.7	56	1.5	.00	.00
15	.00	1.6	e45	e9.0	21	503	20	7.5	19	4.1	.16	.00
16	.00	.94	e140	e100	21	87	17	5.9	58	.66	.07	.00
17	.00	.43	e90	e140	18	61	14	5.3	128	.28	.51	.00
18	.07	.33	e60	e75	16	355	13	5.2	347	.13	.79	.00
19	.15	.28	e40	e32	15	362	295	5.1	50	.03	.83	.00
20	.18	e.25	e26	e18	15	105	85	4.5	16	28	3.0	.00
21	.16	e.22	e16	e200	97	65	478	4.0	20	12	2.1	.00
22	.73	e.20	e25	1770	208	46	135	3.8	228	23	1.5	.00
23	3.1	e.16	47	1310	61	32	59	3.8	49	24	.83	.00
24	2.1	e13	316	249	32	26	37	3.6	15	3.5	.65	.00
25	1.4	e400	55	e200	22	24	28	4.0	8.9	1.0	.85	.00
26	1.1	e300	19	e60	251	27	22	4.7	6.1	.45	1.3	.00
27	1.2	e150	16	e750	1940	27	19	3.2	6.0	.19	.68	.00
28	1.4	e80	19	2020	769	77	19	2.6	6.4	.09	.35	.00
29	1.7	e25	27	640	---	170	18	3.0	5.7	.01	.93	.00
30	1.7	e70	20	e130	---	74	14	4.4	4.8	.00	.51	.00
31	1.5	---	15	e85	---	62	---	30	---	.00	.23	---
TOTAL	17.85	1124.91	1886	7980.4	5334	5615	3475	553.4	1190.5	134.45	15.29	4.55
MEAN	.58	37.5	60.8	257	191	181	116	17.9	39.7	4.34	.49	.15
MAX	3.1	400	316	2020	1940	1530	1000	134	347	28	3.0	1.6
MIN	.00	.16	13	3.0	15	24	13	2.6	4.8	.00	.00	.00
CFSM	.01	.43	.69	2.93	2.16	2.06	1.32	.20	.45	.05	.01	.00
IN.	.01	.48	.80	3.37	2.25	2.37	1.47	.23	.50	.06	.01	.00

e Estimated

05595730 RAYSE CREEK NEAR WALTONVILLE, IL--Continued

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

MEAN	29.1	129	123	119	156	150	177	151	42.1	22.0	5.00	21.1
MAX	140	670	748	376	466	468	721	942	109	123	47.7	161
(WY)	1985	1986	1983	1982	1985	1984	1996	1995	1996	1982	1981	1993
MIN	.000	.000	.36	.028	1.78	4.05	12.4	1.35	.35	.15	.000	.000
(WY)	1996	1996	1981	1981	1996	1981	1981	1988	1992	1984	1991	1983

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1980 - 1997	
ANNUAL TOTAL	35577.94		27331.35			
ANNUAL MEAN	97.2		74.9		93.2	
HIGHEST ANNUAL MEAN					167	1983
LOWEST ANNUAL MEAN					23.1	1987
HIGHEST DAILY MEAN	11200	Apr 29	2020	Jan 28	11200	Apr 29 1996
LOWEST DAILY MEAN	.00	Many days	.00	Many days	.00	A
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 5	.00	Oct 11	.00	Jul 24 1980
INSTANTANEOUS PEAK FLOW			2500	Jan 28	21200	Nov 14 1993
INSTANTANEOUS PEAK STAGE			12.61	Jan 28	17.73	Nov 14 1993
ANNUAL RUNOFF (CFSM)	1.10		.85		1.06	
ANNUAL RUNOFF (INCHES)	15.04		11.55		14.39	
10 PERCENT EXCEEDS	139		144		140	
50 PERCENT EXCEEDS	2.8		11		4.7	
90 PERCENT EXCEEDS	.00		.00		.00	

A - At times in most years.

05595765 BIG MUDDY SUBIMPOUNDMENT NEAR WALTONVILLE, IL

LOCATION.--Lat 38°10'34", long 89°00'22", in SE1/4NE1/4 sec.17, T.4 S., R.2 E., Jefferson County, Hydrologic Unit 07140106, on right bank at upstream side of subimpoundment dam, about 2.5 mi south of State Highway 148, 2.5 mi southeast of Waltonville, and about 10 mi upstream from Rend Lake Dam.

DRAINAGE AREA.--217 mi^2.

PERIOD OF RECORD.--November 1983 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is 400.00 ft above sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 14.46 ft, Nov. 15, 1993; minimum, 4.07 ft, Jan. 12, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 12.67 ft, Feb. 28; minimum, 5.85 ft, Sept. 28, 29.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.29	11.02	12.00	12.06	12.13	12.29	9.97	8.90	7.86	8.07	6.59	6.09
2	7.52	---	12.03	12.05	12.12	12.27	9.82	9.00	7.97	8.01	6.54	6.07
3	7.68	---	12.00	12.05	12.13	12.23	9.69	9.67	7.97	7.93	6.51	6.02
4	7.85	11.35	11.95	12.07	12.32	12.02	9.58	9.64	7.90	7.86	6.45	5.99
5	8.02	11.36	11.96	12.12	12.33	11.69	10.24	9.40	7.84	7.80	6.38	5.97
6	8.20	11.36	12.05	12.11	12.15	11.30	11.67	9.20	7.81	7.76	6.33	5.97
7	8.36	11.48	12.05	12.08	12.08	10.92	12.00	9.02	7.80	7.70	6.29	5.97
8	8.53	---	11.96	12.04	12.04	10.60	11.68	8.93	7.76	7.66	6.27	5.97
9	8.69	---	11.92	12.04	12.03	10.41	11.26	8.84	7.72	7.60	6.30	5.97
10	8.85	---	11.92	11.99	12.03	10.81	10.84	8.77	7.68	7.54	6.27	5.97
11	8.96	---	11.93	11.95	12.02	10.98	10.49	8.74	7.64	7.49	6.26	5.95
12	9.10	11.58	11.91	11.95	12.00	10.77	10.24	8.67	7.61	7.44	6.25	5.94
13	9.23	11.58	11.89	11.91	11.99	10.57	10.04	8.58	7.60	7.40	6.26	5.93
14	9.26	11.58	11.89	11.88	11.99	11.49	9.84	8.52	7.83	7.39	6.25	5.92
15	9.25	11.57	11.91	11.91	11.98	12.28	9.66	8.43	7.90	7.50	6.32	5.90
16	9.35	11.57	12.00	12.00	11.98	12.04	9.52	8.36	7.93	7.36	6.35	5.89
17	9.51	11.58	12.03	12.03	11.97	11.74	9.37	8.33	8.05	7.31	6.46	5.93
18	9.65	11.57	11.98	12.02	11.97	11.57	9.28	8.27	9.25	7.26	6.54	5.93
19	9.73	11.56	11.94	11.97	11.98	11.98	9.59	8.22	9.81	7.22	6.61	5.91
20	9.87	11.56	11.90	11.94	11.98	11.97	9.74	8.11	9.46	7.19	6.80	5.93
21	10.01	11.55	11.90	11.97	12.01	11.70	10.05	8.04	9.05	7.18	6.87	5.90
22	10.15	11.54	11.91	12.34	12.08	11.38	10.47	7.99	8.95	7.15	6.75	5.88
23	10.21	11.52	11.96	12.56	12.08	11.02	10.27	7.94	8.93	7.11	6.34	5.88
24	10.23	11.55	12.12	12.47	12.02	10.68	9.96	7.89	8.70	7.05	6.26	5.90
25	10.25	11.91	12.18	12.25	11.98	10.42	9.67	7.87	8.47	7.00	6.24	5.90
26	10.35	12.24	12.11	12.12	12.02	10.20	9.42	7.86	8.37	6.95	6.22	5.89
27	10.49	12.17	12.08	12.17	12.42	10.02	9.24	7.81	8.27	6.90	6.19	5.88
28	10.64	12.01	12.07	12.36	12.59	9.95	9.11	7.79	8.22	6.84	6.17	5.87
29	10.74	11.96	12.09	12.49	---	10.18	9.01	7.72	8.19	6.76	6.16	5.88
30	10.79	11.96	12.08	12.34	---	10.22	8.98	7.71	8.14	6.68	6.14	5.95
31	10.89	---	12.08	12.14	---	10.11	---	7.83	---	6.63	6.12	---
MEAN	9.34	---	11.99	12.11	12.09	11.16	10.02	8.45	8.22	7.35	6.37	5.94
MAX	10.89	---	12.18	12.56	12.59	12.29	12.00	9.67	9.81	8.07	6.87	6.09
MIN	7.29	---	11.89	11.88	11.97	9.95	8.98	7.71	7.60	6.63	6.12	5.87

05595820 CASEY FORK AT MT. VERNON, IL

LOCATION.--Lat 38°17'12", long 88°52'19", in NW1/4NW1/4 sec.9, T.3 S., R.3 E., Jefferson County, Hydrologic Unit 07140106, on left bank on upstream side of bridge on State Highway 142, 0.2 mi downstream from Sevenmile Creek, about 2 mi southeast of Mt. Vernon, and at mile 18.8.

DRAINAGE AREA.--76.9 mi^2.

PERIOD OF RECORD.--October 1985 to current year. October 1985 to September 1994 (8 AM gage heights). Gage-height record for April 1965 to May 1971 available in files of U.S. Army Corps of Engineers.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 420.00 ft above sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Records good except those for estimated daily discharges, which are poor. Effluent from sewage-treatment plant upstream at Mt. Vernon averaged about 5.0 ft^3/s per day. Gage height telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 4, 1968, reached a stage of 14.60 ft, from records of U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 18	0015	*1,760	*12.06				

Minimum discharge, 1.8 ft^3/s, Sept. 28, may have been less during periods of estimated discharges in Oct. and Nov.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	e7.0	150	23	e85	202	61	26	66	6.0	3.4	3.4
2	5.5	e9.0	62	23	95	382	51	234	96	6.2	3.5	3.2
3	5.0	e7.5	37	23	133	155	44	194	40	5.2	3.3	3.2
4	4.5	e6.5	26	35	346	103	43	66	24	6.6	4.0	3.0
5	4.0	e6.0	117	107	132	81	514	47	19	4.7	3.5	2.9
6	3.4	e10	131	45	88	64	212	39	15	4.1	3.2	2.9
7	3.2	e80	53	27	73	52	90	30	14	4.1	3.2	3.0
8	3.6	e50	33	21	64	47	65	46	28	4.1	3.4	3.5
9	3.3	e17	25	e20	58	140	52	45	18	3.9	4.2	3.2
10	e3.2	e8.0	19	e22	54	198	44	28	12	4.1	3.5	3.2
11	e3.1	e6.5	20	e15	49	94	46	23	10	4.0	3.3	3.1
12	e3.1	e5.0	19	e11	46	67	114	21	9.5	3.8	3.2	3.0
13	e3.1	e4.5	17	e9.5	41	115	64	18	27	3.8	3.4	2.9
14	e3.2	e4.0	15	e9.0	40	1260	47	17	131	117	3.4	2.9
15	e3.3	e4.5	58	e30	39	182	39	14	40	66	11	3.5
16	e3.7	e4.0	109	e130	36	93	34	12	95	9.9	4.5	3.4
17	e6.0	5.2	68	e75	33	78	30	11	315	6.1	10	6.3
18	e10	4.2	45	e45	32	276	26	11	886	4.8	5.0	3.6
19	e5.0	3.9	29	e28	31	242	44	10	82	4.2	17	3.1
20	e4.0	e3.8	e18	e25	35	109	35	9.8	41	3.9	15	3.1
21	e6.0	e3.7	e15	e120	88	83	178	10	27	3.7	6.5	2.9
22	e15	e3.6	e25	457	107	67	88	7.4	27	22	4.7	3.0
23	e30	e4.0	94	305	56	54	58	6.6	18	15	4.0	3.2
24	e15	e12	218	182	44	49	43	6.1	13	8.3	4.4	4.6
25	e8.0	323	54	e150	39	47	34	6.5	11	5.2	4.7	3.5
26	e6.5	248	38	e65	164	48	28	10	18	4.8	3.8	3.5
27	e6.0	61	36	e200	435	43	28	10	10	4.7	3.5	3.1
28	e6.5	35	44	356	236	110	30	9.0	7.3	4.2	3.2	2.8
29	e6.0	28	38	182	---	167	24	7.8	6.1	3.7	3.2	4.1
30	e13	46	27	e87	---	93	23	12	6.0	3.5	3.3	3.1
31	e9.0	---	25	e82	---	83	---	99	---	3.6	3.7	---
TOTAL	207.2	1010.9	1665	2909.5	2679	4784	2189	1086.2	2111.9	351.2	156.0	100.2
MEAN	6.68	33.7	53.7	93.9	95.7	154	73.0	35.0	70.4	11.3	5.03	3.34
MAX	30	323	218	457	435	1260	514	234	886	117	17	6.3
MIN	3.1	3.6	15	9.0	31	43	23	6.1	6.0	3.5	3.2	2.8
CFSM	.09	.44	.70	1.22	1.24	2.01	.95	.46	.92	.15	.07	.04
IN.	.10	.49	.81	1.41	1.30	2.31	1.06	.53	1.02	.17	.08	.05

e Estimated

05595820 CASEY FORK AT MT. VERNON, IL--Continued

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

MEAN	8.48	119	70.1	116	121	138	182	147	38.2	20.3	6.82	21.0
MAX	27.2	542	233	327	383	456	540	809	102	101	15.5	155
(WY)	1994	1994	1991	1993	1986	1989	1996	1995	1996	1993	1993	1993
MIN	2.86	4.34	4.51	13.1	10.4	32.2	40.1	4.46	2.98	2.71	1.65	2.06
(WY)	1996	1990	1990	1986	1996	1987	1995	1988	1991	1991	1990	1995

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1986 - 1997	
ANNUAL TOTAL	31458.5		19250.1			
ANNUAL MEAN	86.0		52.7		81.9	
HIGHEST ANNUAL MEAN					123	1994
LOWEST ANNUAL MEAN					21.3	1987
HIGHEST DAILY MEAN	7280	Apr 29	1260	Mar 14	9940	May 18 1995
LOWEST DAILY MEAN	2.0	Jul 18	2.8	Sep 28	.15	Sep 29 1989
ANNUAL SEVEN-DAY MINIMUM	2.7	Jul 12	3.1	Sep 1	.38	Dec 11 1989
INSTANTANEOUS PEAK FLOW			1760	Jun 18	16100	May 17 1990
INSTANTANEOUS PEAK STAGE			12.06	Jun 18	17.03	May 17 1990
INSTANTANEOUS LOW FLOW			1.8 A	Sep 28		
ANNUAL RUNOFF (CFSM)	1.12		.69		1.06	
ANNUAL RUNOFF (INCHES)	15.22		9.31		14.47	
10 PERCENT EXCEEDS	134		130		117	
50 PERCENT EXCEEDS	12		19		12	
90 PERCENT EXCEEDS	3.6		3.4		2.7	

A - May have been less during periods of estimated discharges in Oct. and Nov.

05595860 CASEY FORK SUBIMPOUNDMENT NEAR BONNIE, IL

LOCATION.--Lat 38°11'15", long 88°55'38", in SW1/4SW1/4 sec.7, T.4 S., R.3 E., Jefferson County, Hydrologic Unit 07140106, on left bank at upstream side of subimpoundment dam, about 1 mi upstream from Atchison Creek, about 2 mi southwest of Bonnie, and about 12 mi upstream from Rend Lake Dam.

DRAINAGE AREA.--133 mi^2.

PERIOD OF RECORD.--November 1983 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is 400.00 ft above sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 14.00 ft, Nov. 14, 1993; minimum, 4.31 ft, Jan. 18, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 12.54 ft, Jan. 22; minimum, 5.98 ft, Sept. 3, 4.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.96	11.30	12.21	12.11	12.17	12.15	10.53	9.06	8.18	8.15	6.67	6.11
2	7.15	11.34	12.21	12.11	12.17	12.30	10.36	9.10	8.36	8.07	6.65	6.09
3	7.33	11.37	12.14	12.11	12.19	12.20	10.19	10.39	8.40	8.00	6.62	6.02
4	7.52	11.43	12.11	12.14	12.35	12.01	10.02	10.79	8.20	7.90	6.56	5.99
5	7.72	11.45	12.13	12.27	12.28	11.91	10.32	10.56	8.02	7.84	6.46	5.99
6	7.93	11.46	12.24	12.22	12.19	11.62	11.35	10.30	7.90	7.80	6.42	5.99
7	8.14	11.60	12.20	12.15	12.14	11.38	11.50	10.01	7.85	7.75	6.38	6.00
8	8.31	11.76	12.14	12.11	12.14	11.18	11.31	9.76	7.81	7.71	6.37	6.00
9	8.49	11.84	12.10	12.12	12.11	11.03	11.06	9.54	7.77	7.64	6.37	6.02
10	8.67	11.86	12.09	12.10	12.09	11.34	10.81	9.30	7.73	7.54	6.33	6.03
11	8.88	11.87	12.10	12.09	12.09	11.46	10.59	9.09	7.69	7.51	6.30	6.02
12	9.07	11.89	12.09	12.08	12.08	11.30	10.51	8.93	7.66	7.45	6.30	6.02
13	9.26	11.88	12.08	12.06	12.07	11.16	10.48	8.78	7.65	7.41	6.32	6.02
14	9.29	11.88	12.07	12.05	12.07	11.33	10.32	8.67	8.00	7.44	6.31	6.02
15	9.32	11.88	12.09	12.11	12.08	11.57	10.14	8.56	8.36	8.12	6.38	6.02
16	9.49	11.87	12.17	12.25	12.08	11.83	9.97	8.47	8.31	8.15	6.47	6.01
17	9.69	11.90	12.18	12.26	12.07	11.89	9.78	8.44	8.54	7.80	6.73	6.06
18	9.91	11.92	12.15	---	12.07	11.81	9.61	8.38	10.09	7.51	7.30	6.09
19	10.03	11.93	12.11	---	12.08	12.16	9.68	8.34	11.53	7.33	7.46	6.09
20	10.17	11.93	12.08	---	12.09	12.11	9.64	8.22	11.32	7.24	7.71	6.11
21	10.32	11.95	12.08	12.15	12.12	11.95	9.82	8.13	10.95	7.21	7.81	6.10
22	10.47	11.94	12.09	12.52	12.18	11.76	10.11	8.07	10.61	7.18	7.73	6.10
23	10.61	11.94	12.15	12.52	12.15	11.53	10.05	8.02	10.23	7.15	7.22	6.11
24	10.77	11.98	12.32	12.30	12.11	11.28	9.88	7.98	9.83	7.09	6.74	6.14
25	10.89	12.21	12.23	12.24	12.08	11.07	9.70	7.98	9.46	7.06	6.44	6.15
26	10.98	12.40	12.15	12.15	12.11	10.86	9.53	7.96	9.11	7.03	6.29	6.14
27	11.07	12.24	12.13	12.25	12.46	10.66	9.39	7.89	8.80	6.97	6.24	6.15
28	11.14	12.14	12.14	12.49	12.41	10.52	9.27	7.87	8.54	6.92	6.21	6.16
29	11.17	12.11	12.13	12.46	---	10.69	9.16	7.83	8.35	6.81	6.18	6.17
30	11.21	12.13	12.12	12.23	---	10.76	9.10	7.80	8.24	6.71	6.16	6.21
31	11.26	---	12.12	12.16	---	10.67	---	8.00	---	6.68	6.14	---
MEAN	9.46	11.85	12.14	---	12.15	11.47	10.14	8.78	8.78	7.46	6.62	6.07
MAX	11.26	12.40	12.32	---	12.46	12.30	11.50	10.79	11.53	8.15	7.81	6.21
MIN	6.96	11.30	12.07	---	12.07	10.52	9.10	7.80	7.65	6.68	6.14	5.99

05597000 BIG MUDDY RIVER AT PLUMFIELD, IL

LOCATION.--Lat 37°54'05", long 89°00'50", in NW1/4 sec.20, T.7 S., R.2 E., Franklin County, Hydrologic Unit 07140106, on left bank 0.8 mi upstream from bridge on State Highway 149 at Plumfield, 1.9 mi downstream from Middle Fork Muddy River, and at mile 86.6.

DRAINAGE AREA.--794 mi^2.

PERIOD OF RECORD.--June 1908 to September 1910 and December 1910 to December 1912 (published as "near Cambon"), August 1914 to current year.

REVISED RECORDS.--WSP 700: 1929. WSP 805: 1935. WSP 1508: 1908-10, 1920-21(M), 1928(M), 1932(M). WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 353.24 ft above sea level. June 16, 1908, to Dec. 31, 1912, nonrecording gage at site 1.7 mi upstream at different datum. Aug. 14, 1914, to July 12, 1932, nonrecording gage at site 0.2 mi downstream at different datum. July 13, 1932, to Nov. 12, 1938, nonrecording gage at bridge 0.8 mi downstream at datum 0.86 ft higher. Nov. 13, 1938, to Sept. 30, 1974, water-stage recorder at present site at datum 5.0 ft higher. Oct. 1, 1974, to Sept. 30, 1991, auxiliary water-stage recorder at pumping plant at Zeigler, 4 mi downstream, at datum 353.24 ft above sea level. Feb. 14, 1937, to Sept. 30, 1974, auxiliary nonrecording gage at same site at datum 5.0 ft higher.

REMARKS.--Records poor. Flow regulated since October 1970 by Rend Lake (station 05595950), 18.6 mi upstream from gage. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,900 ft^3/s, May 10, 1961; maximum gage height, 29.67 ft, datum then in use, May 10, 1961; no flow at times in 1908-9, 1914, 1936, 1940-41.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,560 ft^3/s, June 20, gage height, 21.73 ft; minimum discharge, 35 ft^3/s, Nov. 4-6.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	41	703	372	1940	2210	1420	840	1860	668	246	140
2	87	39	613	319	1770	2850	1350	832	2520	603	235	138
3	85	38	460	296	1590	3140	1240	993	2790	562	225	186
4	81	35	405	291	1580	3420	1140	1170	2540	542	219	159
5	76	35	380	425	1630	3320	1320	1210	2050	525	217	130
6	72	35	377	552	1720	3020	1730	1180	1790	500	209	121
7	69	108	374	577	1790	2700	2310	1080	1550	478	193	116
8	66	261	371	617	1760	2360	2610	972	1350	462	181	118
9	66	253	346	673	1600	2120	2370	912	1330	456	174	162
10	61	221	266	592	1380	2180	2020	873	1330	482	188	167
11	60	191	196	432	1210	2370	1720	836	1210	468	189	125
12	55	115	181	e370	1100	2700	1550	795	1040	433	174	109
13	50	76	206	e340	1010	2630	1580	761	849	413	163	104
14	47	57	222	e320	955	2500	1720	733	1250	400	162	99
15	47	49	212	e310	911	2430	1720	707	1620	418	166	98
16	46	48	279	e400	883	2570	1590	686	2130	479	158	94
17	44	47	382	e500	861	2620	1370	661	2210	492	154	94
18	45	53	442	e550	840	2460	1200	635	2300	435	186	101
19	55	52	e400	e600	813	2310	1110	613	2760	393	196	101
20	46	52	e350	e550	794	2230	1070	599	3500	425	309	97
21	42	53	e300	e600	802	2210	1150	587	3270	634	342	102
22	42	53	e230	e1000	856	2150	1240	568	2720	862	282	97
23	52	51	332	e1600	909	2000	1300	549	2160	1060	222	89
24	46	59	825	2780	925	1810	1330	532	1670	964	188	89
25	40	325	909	3180	893	1620	1300	527	1240	682	168	88
26	41	746	889	2960	861	1460	1170	652	979	436	162	85
27	42	750	965	2620	1280	1330	1040	744	827	348	158	82
28	45	669	1040	2450	1640	1250	973	669	730	311	154	78
29	50	608	935	2250	---	1300	925	575	810	290	150	75
30	43	619	721	2080	---	1400	883	564	770	279	146	72
31	42	---	491	2030	---	1430	---	1340	---	264	143	---
TOTAL	1736	5739	14802	32636	34303	70100	43451	24395	53155	15764	6059	3316
MEAN	56.0	191	477	1053	1225	2261	1448	787	1772	509	195	111
MAX	93	750	1040	3180	1940	3420	2610	1340	3500	1060	342	186
MIN	40	35	181	291	794	1250	883	527	730	264	143	72

e Estimated

05595860 CASEY FORK SUBIMPOUNDMENT NEAR BONNIE, IL

LOCATION.--Lat 38°11'15", long 88°55'38", in SW1/4SW1/4 sec.7, T.4 S., R.3 E., Jefferson County, Hydrologic Unit 07140106, on left bank at upstream side of subimpoundment dam, about 1 mi upstream from Atchison Creek, about 2 mi southwest of Bonnie, and about 12 mi upstream from Rend Lake Dam.

DRAINAGE AREA.--133 mi^2.

PERIOD OF RECORD.--November 1983 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is 400.00 ft above sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 14.00 ft, Nov. 14, 1993; minimum, 4.31 ft, Jan. 18, 1990.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 12.54 ft, Jan. 22; minimum, 5.98 ft, Sept. 3, 4.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.96	11.30	12.21	12.11	12.17	12.15	10.53	9.06	8.18	8.15	6.67	6.11
2	7.15	11.34	12.21	12.11	12.17	12.30	10.36	9.10	8.36	8.07	6.65	6.09
3	7.33	11.37	12.14	12.11	12.19	12.20	10.19	10.39	8.40	8.00	6.62	6.02
4	7.52	11.43	12.11	12.14	12.35	12.01	10.02	10.79	8.20	7.90	6.56	5.99
5	7.72	11.45	12.13	12.27	12.28	11.91	10.32	10.56	8.02	7.84	6.46	5.99
6	7.93	11.46	12.24	12.22	12.19	11.62	11.35	10.30	7.90	7.80	6.42	5.99
7	8.14	11.60	12.20	12.15	12.14	11.38	11.50	10.01	7.85	7.75	6.38	6.00
8	8.31	11.76	12.14	12.11	12.14	11.18	11.31	9.76	7.81	7.71	6.37	6.00
9	8.49	11.84	12.10	12.12	12.11	11.03	11.06	9.54	7.77	7.64	6.37	6.02
10	8.67	11.86	12.09	12.10	12.09	11.34	10.81	9.30	7.73	7.54	6.33	6.03
11	8.88	11.87	12.10	12.09	12.09	11.46	10.59	9.09	7.69	7.51	6.30	6.02
12	9.07	11.89	12.09	12.08	12.08	11.30	10.51	8.93	7.66	7.45	6.30	6.02
13	9.26	11.88	12.08	12.06	12.07	11.16	10.48	8.78	7.65	7.41	6.32	6.02
14	9.29	11.88	12.07	12.05	12.07	11.33	10.32	8.67	8.00	7.44	6.31	6.02
15	9.32	11.88	12.09	12.11	12.08	11.57	10.14	8.56	8.36	8.12	6.38	6.02
16	9.49	11.87	12.17	12.25	12.08	11.83	9.97	8.47	8.31	8.15	6.47	6.01
17	9.69	11.90	12.18	12.26	12.07	11.89	9.78	8.44	8.54	7.80	6.73	6.06
18	9.91	11.92	12.15	---	12.07	11.81	9.61	8.38	10.09	7.51	7.30	6.09
19	10.03	11.93	12.11	---	12.08	12.16	9.68	8.34	11.53	7.33	7.46	6.09
20	10.17	11.93	12.08	---	12.09	12.11	9.64	8.22	11.32	7.24	7.71	6.11
21	10.32	11.95	12.08	12.15	12.12	11.95	9.82	8.13	10.95	7.21	7.81	6.10
22	10.47	11.94	12.09	12.52	12.18	11.76	10.11	8.07	10.61	7.18	7.73	6.10
23	10.61	11.94	12.15	12.52	12.15	11.53	10.05	8.02	10.23	7.15	7.22	6.11
24	10.77	11.98	12.32	12.30	12.11	11.28	9.88	7.98	9.83	7.09	6.74	6.14
25	10.89	12.21	12.23	12.24	12.08	11.07	9.70	7.98	9.46	7.06	6.44	6.15
26	10.98	12.40	12.15	12.15	12.11	10.86	9.53	7.96	9.11	7.03	6.29	6.14
27	11.07	12.24	12.13	12.25	12.46	10.66	9.39	7.89	8.80	6.97	6.24	6.15
28	11.14	12.14	12.14	12.49	12.41	10.52	9.27	7.87	8.54	6.92	6.21	6.16
29	11.17	12.11	12.13	12.46	---	10.69	9.16	7.83	8.35	6.81	6.18	6.17
30	11.21	12.13	12.12	12.23	---	10.76	9.10	7.80	8.24	6.71	6.16	6.21
31	11.26	---	12.12	12.16	---	10.67	---	8.00	---	6.68	6.14	---
MEAN	9.46	11.85	12.14	---	12.15	11.47	10.14	8.78	8.78	7.46	6.62	6.07
MAX	11.26	12.40	12.32	---	12.46	12.30	11.50	10.79	11.53	8.15	7.81	6.21
MIN	6.96	11.30	12.07	---	12.07	10.52	9.10	7.80	7.65	6.68	6.14	5.99

05597000 BIG MUDDY RIVER AT PLUMFIELD, IL

LOCATION.--Lat 37°54'05", long 89°00'50", in NW1/4 sec.20, T.7 S., R.2 E., Franklin County, Hydrologic Unit 07140106, on left bank 0.8 mi upstream from bridge on State Highway 149 at Plumfield, 1.9 mi downstream from Middle Fork Muddy River, and at mile 86.6.

DRAINAGE AREA.--794 mi^2.

PERIOD OF RECORD.--June 1908 to September 1910 and December 1910 to December 1912 (published as "near Cambon"), August 1914 to current year.

REVISED RECORDS.--WSP 700: 1929. WSP 805: 1935. WSP 1508: 1908-10, 1920-21(M), 1928(M), 1932(M). WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 353.24 ft above sea level. June 16, 1908, to Dec. 31, 1912, nonrecording gage at site 1.7 mi upstream at different datum. Aug. 14, 1914, to July 12, 1932, nonrecording gage at site 0.2 mi downstream at different datum. July 13, 1932, to Nov. 12, 1938, nonrecording gage at bridge 0.8 mi downstream at datum 0.86 ft higher. Nov. 13, 1938, to Sept. 30, 1974, water-stage recorder at present site at datum 5.0 ft higher. Oct. 1, 1974, to Sept. 30, 1991, auxiliary water-stage recorder at pumping plant at Zeigler, 4 mi downstream, at datum 353.24 ft above sea level. Feb. 14, 1937, to Sept. 30, 1974, auxiliary nonrecording gage at same site at datum 5.0 ft higher.

REMARKS.--Records poor. Flow regulated since October 1970 by Rend Lake (station 05595950), 18.6 mi upstream from gage. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,900 ft^3/s, May 10, 1961; maximum gage height, 29.67 ft, datum then in use, May 10, 1961; no flow at times in 1908-9, 1914, 1936, 1940-41.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,560 ft^3/s, June 20, gage height, 21.73 ft; minimum discharge, 35 ft^3/s, Nov. 4-6.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	41	703	372	1940	2210	1420	840	1860	668	246	140
2	87	39	613	319	1770	2850	1350	832	2520	603	235	138
3	85	38	460	296	1590	3140	1240	993	2790	562	225	186
4	81	35	405	291	1580	3420	1140	1170	2540	542	219	159
5	76	35	380	425	1630	3320	1320	1210	2050	525	217	130
6	72	35	377	552	1720	3020	1730	1180	1790	500	209	121
7	69	108	374	577	1790	2700	2310	1080	1550	478	193	116
8	66	261	371	617	1760	2360	2610	972	1350	462	181	118
9	66	253	346	673	1600	2120	2370	912	1330	456	174	162
10	61	221	266	592	1380	2180	2020	873	1330	482	188	167
11	60	191	196	432	1210	2370	1720	836	1210	468	189	125
12	55	115	181	e370	1100	2700	1550	795	1040	433	174	109
13	50	76	206	e340	1010	2630	1580	761	849	413	163	104
14	47	57	222	e320	955	2500	1720	733	1250	400	162	99
15	47	49	212	e310	911	2430	1720	707	1620	418	166	98
16	46	48	279	e400	883	2570	1590	686	2130	479	158	94
17	44	47	382	e500	861	2620	1370	661	2210	492	154	94
18	45	53	442	e550	840	2460	1200	635	2300	435	186	101
19	55	52	e400	e600	813	2310	1110	613	2760	393	196	101
20	46	52	e350	e550	794	2230	1070	599	3500	425	309	97
21	42	53	e300	e600	802	2210	1150	587	3270	634	342	102
22	42	53	e230	e1000	856	2150	1240	568	2720	862	282	97
23	52	51	332	e1600	909	2000	1300	549	2160	1060	222	89
24	46	59	825	2780	925	1810	1330	532	1670	964	188	89
25	40	325	909	3180	893	1620	1300	527	1240	682	168	88
26	41	746	889	2960	861	1460	1170	652	979	436	162	85
27	42	750	965	2620	1280	1330	1040	744	827	348	158	82
28	45	669	1040	2450	1640	1250	973	669	730	311	154	78
29	50	608	935	2250	---	1300	925	575	810	290	150	75
30	43	619	721	2080	---	1400	883	564	770	279	146	72
31	42	---	491	2030	---	1430	---	1340	---	264	143	---
TOTAL	1736	5739	14802	32636	34303	70100	43451	24395	53155	15764	6059	3316
MEAN	56.0	191	477	1053	1225	2261	1448	787	1772	509	195	111
MAX	93	750	1040	3180	1940	3420	2610	1340	3500	1060	342	186
MIN	40	35	181	291	794	1250	883	527	730	264	143	72

e Estimated

05597000 BIG MUDDY RIVER AT PLUMFIELD, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1997, BY WATER YEAR (WY)

MEAN	109	467	713	898	1063	1322	1519	1409	702	381	199	133
MAX	488	3813	3510	3054	3355	4439	3740	6511	2062	993	523	553
(WY)	1985	1994	1983	1991	1982	1979	1989	1983	1995	1973	1973	1974
MIN	27.3	26.1	31.0	27.2	48.8	73.6	67.4	117	38.9	30.8	21.8	20.6
(WY)	1971	1972	1972	1972	1972	1981	1981	1987	1972	1971	1971	1971

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1971 - 1997	
ANNUAL TOTAL	312528		305456			
ANNUAL MEAN	854		837		741	
HIGHEST ANNUAL MEAN					1515	1983
LOWEST ANNUAL MEAN					161	1972
HIGHEST DAILY MEAN	14000	May 1	3500	Jun 20	14000	May 1 1996
LOWEST DAILY MEAN	35	Nov 4-6	35	Nov 4-6	6.8	Oct 13 1970
ANNUAL SEVEN-DAY MINIMUM	38	Oct 31	38	Oct 31	7.3	Aug 17 1971
INSTANTANEOUS PEAK FLOW			3560	Jun 20	14200 A	May 1 1996
INSTANTANEOUS PEAK STAGE			21.73	Jun 20	31.84	May 4 1983
INSTANTANEOUS LOW FLOW			35	Nov 4-6		
10 PERCENT EXCEEDS	2230		2210		1890	
50 PERCENT EXCEEDS	258		568		343	
90 PERCENT EXCEEDS	51		58		43	

A- Gage height, 31.83 ft.

05597500 CRAB ORCHARD CREEK NEAR MARION, IL

LOCATION.--Lat 37°43'52", long 88°53'21", in SW1/4SW1/4 sec.16, T.9 S., R.3 E., Williamson County, Hydrologic Unit 07140106, on right bank at downstream side of bridge on State Highway 13, 1.8 mi downstream from Buckley Creek, 2 mi east of Marion, and at mile 32.9.

DRAINAGE AREA.--31.7 mi^2.

PERIOD OF RECORD.--October 1951 to current year.

REVISED RECORDS.--WSP 1388: 1952-54. WDR-IL 75-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 415.82 ft above sea level. Prior to Aug. 25, 1965, nonrecording gage and crest-stage gage at bridge 800 ft downstream and Aug. 25, 1965, to Oct. 28, 1965, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Gage-height telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 22	1830	874	10.41	Apr. 12	1100	1,070	10.75
Mar. 2	0530	1,180	10.91	May 31	0845	*6,970	*13.21

No flow Oct. 7, 8, 14, 15, 16.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.19	.44	37	12	e11	457	19	11	400	2.0	.66	e.30
2	.18	.36	17	13	e13	827	13	68	413	1.8	.62	e.50
3	.13	.31	9.1	14	40	319	9.8	244	69	1.5	.59	5.6
4	.06	.28	6.5	23	249	128	9.6	42	25	1.9	.49	1.4
5	.03	.28	9.7	104	81	46	407	15	17	1.8	.42	e.80
6	.01	.29	12	28	23	27	242	11	13	1.5	.47	e.60
7	.00	119	8.4	13	16	19	36	8.0	19	1.6	.56	e.50
8	.00	48	e5.0	e9.0	14	16	15	16	10	4.3	.70	e.40
9	.01	e10	e4.5	e7.0	13	116	10	18	7.1	37	1.1	e.35
10	.02	e6.0	e4.0	e5.5	13	267	11	9.1	5.7	6.3	.95	e.30
11	.03	e4.8	e3.6	e4.5	12	54	45	6.1	4.7	2.1	.72	e.27
12	.04	e4.0	82	e4.0	11	27	728	4.5	4.3	1.4	.68	e.25
13	.02	e3.4	57	e3.7	9.1	51	162	3.8	30	1.3	.88	e.23
14	.00	e3.0	17	e3.5	9.6	276	47	3.5	399	1.4	.76	e1.0
15	.00	e2.8	17	e25	11	62	30	3.3	88	3.4	.61	e.70
16	.00	e2.6	49	e150	9.7	25	22	3.0	20	1.5	.66	e.60
17	.03	e4.5	56	e60	7.6	20	16	3.3	39	1.3	.56	e.50
18	.16	e3.5	27	e17	6.8	38	14	3.4	139	1.1	.36	e.45
19	.21	e3.2	e11	e12	6.3	131	41	3.1	27	37	.55	e.40
20	.16	2.7	e8.5	e9.0	6.6	41	33	2.9	10	55	4.0	e7.0
21	.12	2.5	e7.0	e13	21	23	100	2.4	6.6	5.4	1.4	22
22	.28	e2.2	e12	552	22	16	55	1.7	7.2	76	.66	3.8
23	.90	e2.0	81	314	11	12	27	1.4	6.5	79	.56	e1.0
24	.52	e1.8	386	62	6.8	9.8	19	1.5	4.3	6.1	.59	e.90
25	.31	133	67	68	5.5	9.9	16	1.8	3.3	1.2	.56	e.80
26	.23	156	22	23	24	11	12	41	2.6	.68	.61	e.70
27	.67	27	19	48	335	9.1	23	30	2.3	.59	.75	e.60
28	5.5	11	20	92	82	60	32	10	2.0	.57	e.55	e.50
29	2.2	8.9	17	31	---	251	20	11	1.8	.42	e.45	e.47
30	.93	13	14	e12	---	58	16	63	2.1	.32	e.40	e.45
31	.59	---	12	e10	---	35	---	2610	---	.50	e.35	---
TOTAL	13.53	576.86	1098.3	1742.2	1070.0	3441.8	2230.4	3252.8	1778.5	335.98	23.22	53.37
MEAN	.44	19.2	35.4	56.2	38.2	111	74.3	105	59.3	10.8	.75	1.78
MAX	5.5	156	386	552	335	827	728	2610	413	79	4.0	22
MIN	.00	.28	3.6	3.5	5.5	9.1	9.6	1.4	1.8	.32	.35	.23
CFSM	.01	.61	1.12	1.77	1.21	3.50	2.35	3.31	1.87	.34	.02	.06
IN.	.02	.68	1.29	2.04	1.26	4.04	2.62	3.82	2.09	.39	.03	.06

e Estimated

05597500 CRAB ORCHARD CREEK NEAR MARION, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1997, BY WATER YEAR (WY)

MEAN	3.06	23.1	33.6	36.3	44.9	64.0	56.2	44.5	15.4	7.39	5.03	4.47
MAX	35.1	223	227	214	176	180	296	222	87.6	61.0	50.6	48.0
(WY)	1985	1986	1983	1982	1985	1979	1996	1996	1981	1958	1985	1993
MIN	.000	.000	.000	.019	.14	.000	.51	.24	.000	.000	.000	.000
(WY)	1953	1954	1954	1981	1964	1954	1981	1965	1953	1959	1953	1952

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1952 - 1997		
ANNUAL TOTAL	22246.57		15616.96				
ANNUAL MEAN	60.8		42.8		28.1		
HIGHEST ANNUAL MEAN					66.6		1983
LOWEST ANNUAL MEAN					2.39		1954
HIGHEST DAILY MEAN	3350	Apr 29	2610	May 31	3350	Apr 29	1996
LOWEST DAILY MEAN	.00	Several days	.00	A	.00	B	
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 3	.01	Oct 5	.00	Oct 1	1951
INSTANTANEOUS PEAK FLOW			6970	May 31	9270 C	May 11	1996
INSTANTANEOUS PEAK STAGE			13.21	May 31	13.60	May 11	1996
ANNUAL RUNOFF (CFSM)	1.92		1.35		.89		
ANNUAL RUNOFF (INCHES)	26.11		18.33		12.03		
10 PERCENT EXCEEDS	84		80		47		
50 PERCENT EXCEEDS	11		7.1		2.0		
90 PERCENT EXCEEDS	.19		.36		.00		

A - Oct. 7, 8, 14, 15, 16.
B - Many days in most years.
C - On basis of contracted opening of peak flow.

05599500 BIG MUDDY RIVER AT MURPHYSBORO, IL

LOCATION.--Lat 37°44'55", long 89°20'45", in SE1/4SE1/4 sec.8, T.9 S., R.2 W., Jackson County, Hydrologic Unit 07140106, on left bank just upstream from Lewis Creek, 0.2 mi upstream from South Twentieth Street Bridge, at Murphysboro, and at mile 36.0.

DRAINAGE AREA.--2,169 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1916 to current year (fragmentary prior to 1931).

REVISED RECORDS.--WDR IL-79-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 335.5 ft above sea level. Prior to June 20, 1931, nonrecording gage at South Twentieth Street Bridge, 1,300 ft downstream, at datum 5 ft lower. June 20, 1931, to July 11, 1933, nonrecording gage at upstream side of railroad bridge across mouth of Lewis Creek at present datum. Since Nov. 14, 1973, auxiliary water-stage recorder 7,700 ft upstream. Oct. 6, 1931, to Nov. 13, 1973, auxiliary nonrecording gage read twice daily at same site. Since Oct. 1, 1995, reestablished water-stage recorder at South Twentieth Street Bridge, 1,300 ft downstream, at present datum.

REMARKS.--Water-discharge records poor. Flow regulated since October 1970 by Rend Lake (station 05595950), 67.8 mi upstream from gage. Gage-height telemeters at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,800 ft^3/s from graph based on discharge record, May 2, 1996; maximum gage height, 37.97 ft, May 12, 1961; maximum daily reverse flow, 4,400 ft^3/s, June 3, 1947, caused by backwater from Mississippi River; no flow Aug. 13 to Sept. 1, 1936, unaffected by backwater.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 2, 1916, reached a stage of 34.9 ft, present datum, discharge, 28,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,400 ft^3/s , Mar. 4, gage height, 25.94 ft; maximum gage height, 25.99 ft, Mar. 4; minimum discharge, 91 ft^3/s, Oct. 20, 21, may have been less during periods of estimated discharges in Oct.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e400	210	3680	1310	6690	5470	e3800	e2400	6970	2090	381	234
2	e300	174	3190	978	6520	7010	e3600	e2300	8240	1950	357	248
3	e220	e150	2470	702	5790	8790	e3300	2730	8950	1740	335	246
4	e180	e130	2240	625	5390	9890	e3000	3540	9090	1620	319	261
5	e160	e115	1580	1240	5200	9340	e3500	3520	8690	1510	304	296
6	e150	e110	1520	1940	5120	e8600	4260	3230	7910	1420	295	288
7	e140	e150	1630	1930	5050	e8000	4900	3100	7060	1290	289	246
8	e130	e400	1610	1710	e5200	e7400	5670	2960	6290	1050	278	219
9	e125	e800	1390	1490	e5400	e6700	5970	2660	5530	840	282	203
10	e120	e1200	1080	1260	e5600	e6300	5760	2480	4650	736	288	199
11	e115	e1300	804	910	e5400	e6000	5030	2290	3850	706	314	215
12	e110	e1100	689	e800	e5000	e5700	e4700	2010	3200	699	314	213
13	e106	604	725	e720	e4500	e5400	e4200	e2200	2680	627	287	193
14	e103	444	734	e670	e3800	e5700	e4500	e2200	3100	569	271	174
15	101	289	663	e640	e3200	e6000	e4200	e2000	3840	549	260	162
16	e98	235	826	e1000	e2850	e6600	e3900	e1900	4400	542	280	155
17	e96	205	1500	1500	e2700	e6500	e3600	e1800	4930	562	315	157
18	e94	188	2080	e1700	e2500	e6200	e3200	e1700	6100	583	310	161
19	e92	180	2110	e1600	e2400	e5700	e2900	e1600	e7000	572	367	159
20	91	176	1710	e1500	e2300	e5400	e2900	e1550	e8000	576	499	476
21	104	254	1160	e1500	e2300	e5600	e3000	e1500	e9700	802	736	589
22	116	471	817	e3300	e2400	e5600	e3200	e1450	e9400	1050	740	477
23	140	544	763	e4000	e2600	e5200	e3400	e1400	e8600	1110	547	365
24	157	472	1850	e5000	e2800	e4800	e3600	e1350	e6400	1260	416	288
25	168	1350	2870	e6400	e2700	e4500	e3400	e1350	e5600	1400	342	257
26	178	3690	3130	7390	e2600	e4200	e3200	1880	e4800	1280	295	230
27	201	4200	2950	7740	3240	e3700	e3000	2440	e4000	912	268	210
28	337	4320	2700	8010	4060	e3500	e2800	2540	e3300	597	259	193
29	463	4260	2290	7800	---	e3650	e2600	e1800	e2750	482	249	178
30	354	4090	2030	7130	---	e3800	e2500	e1500	e2300	437	238	167
31	262	---	1710	6910	---	e4000	---	5480	---	401	230	---
TOTAL	5411	31811	54501	89405	113310	185250	113590	70860	177330	29962	10665	7459
MEAN	175	1060	1758	2884	4047	5976	3786	2286	5911	967	344	249
MAX	463	4320	3680	8010	6690	9890	5970	5480	9700	2090	740	589
MIN	91	110	663	625	2300	3500	2500	1350	2300	401	230	155

e Estimated

05599500 BIG MUDDY RIVER AT MURPHYSBORO, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1997, BY WATER YEAR (WY)

MEAN	482	1612	2275	2569	2881	3823	4029	3597	1995	878	490	444
MAX	2700	10110	10030	9489	10600	12290	10510	16410	6972	1884	1281	2821
(WY)	1994	1994	1983	1991	1982	1979	1979	1983	1995	1981	1993	1993
MIN	75.9	44.2	74.3	74.7	377	237	289	298	119	131	72.1	43.8
(WY)	1996	1972	1990	1977	1972	1981	1981	1987	1972	1971	1991	1971

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1971 - 1997		
ANNUAL TOTAL	1004579		889554				
ANNUAL MEAN	2745		2437		2085		
HIGHEST ANNUAL MEAN					3864		1983
LOWEST ANNUAL MEAN					741		1972
HIGHEST DAILY MEAN	33500	May 2	9890	Mar 4	33500	May 2	1996
LOWEST DAILY MEAN	91	Oct 20	91	Oct 20	-2600 A	Aug 6	1993
ANNUAL SEVEN-DAY MINIMUM	96	Oct 14	96	Oct 14	-1340	Aug 1	1993
INSTANTANEOUS PEAK FLOW			10400	B Mar 4	33800 C	May 2	1996
INSTANTANEOUS PEAK STAGE			25.99	D Mar 4	36.88	May 5	1983
INSTANTANEOUS LOW FLOW			91	E			
10 PERCENT EXCEEDS	7780		6040		5600		
50 PERCENT EXCEEDS	773		1600		886		
90 PERCENT EXCEEDS	179		178		99		

A - Backwater from Mississippi River; lowest daily mean unaffected by backwater, 36 ft^3/s, Nov. 4-10, 1971.

B - Gage height, 25.94 ft.

C - From graph based on discharge record, gage height, 36.12 ft.

D - Discharge, 9,410 ft^3/s.

E - Oct. 20, 21, may have been less during periods of estimated discharge in Oct.

05599500 BIG MUDDY RIVER AT MURPHYSBORO, IL--Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected at bridge on State Highway 127 at Murphysboro, 1.5 mi upstream from discharge station.

PERIOD OF RECORD.--November 1974 to September 1997. (Discontinued).

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: May 1980 to Sept. 1997 (Discontinued).

REMARKS.--Suspended-sediment samples were collected by a local observer once weekly with additional samples collected during high runoff periods.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily, 1,700 mg/L, Feb. 28, 1987; minimum daily, 2mg/L, Aug. 10, 11, 1993.

SEDIMENT LOADS: Maximum daily, 20, 500 tons, May 3, 1983; minimum daily, -45 tons, Aug. 6, 1993.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily, 282 mg/L, Apr. 7; minimum daily, 24 mg/L, Apr. 24-May 2.

SEDIMENT LOADS: Maximum daily, 3,730 tons, Apr. 7; minimum daily, 8.8 tons, Oct. 18, 19.

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	e400	61	66	210	58	33	3680	70	699
2	e300	73	59	174	53	25	3190	90	772
3	e220	72	43	e150	52	21	2470	90	601
4	e180	68	33	e130	52	18	2240	88	529
5	e160	64	28	e115	52	16	1580	67	285
6	e150	61	25	e110	52	16	1520	62	255
7	e140	58	22	e150	59	24	1630	63	279
8	e130	54	19	e400	69	75	1610	67	290
9	e125	51	17	e800	78	169	1390	71	266
10	e120	48	16	e1200	74	240	1080	75	219
11	e115	46	14	e1300	69	242	804	80	173
12	e110	43	13	e1100	64	191	689	83	154
13	e106	41	12	604	60	97	725	78	152
14	e103	38	11	444	58	69	734	72	143
15	101	34	9.3	289	57	44	663	67	120
16	e98	34	8.9	235	56	35	826	76	169
17	e96	34	8.9	205	55	31	1500	106	429
18	e94	35	8.8	188	54	28	2080	97	543
19	e92	35	8.8	180	54	26	2110	87	497
20	91	36	8.9	176	56	26	1710	83	381
21	104	38	11	254	66	45	1160	78	244
22	116	41	13	471	84	107	817	74	163
23	140	44	17	544	90	132	763	70	143
24	157	47	20	472	83	105	1850	91	456
25	168	50	23	1350	96	351	2870	148	1150
26	178	54	26	3690	185	1840	3130	170	1440
27	201	58	31	4200	264	3000	2950	154	1230
28	337	64	58	4320	187	2180	2700	139	1010
29	463	75	94	4260	129	1490	2290	124	768
30	354	69	66	4090	90	997	2030	112	611
31	262	63	45	---	---	---	1710	100	462
TOTAL	5411	---	835.6	31811	---	11673	54501	---	14634

e Estimated

05599500 BIG MUDDY RIVER AT MURPHYSBORO, IL--Continued

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	1310	90	317	6690	72	1300	5470	121	1790
2	978	81	213	6520	62	1090	7010	94	1790
3	702	72	137	5790	53	826	8790	104	2460
4	625	89	150	5390	63	910	9890	72	1930
5	1240	134	447	5200	101	1420	9340	59	1490
6	1940	137	716	5120	96	1320	e8600	58	1340
7	1930	121	628	5050	85	1160	e8000	50	1090
8	1710	106	491	e5200	75	1050	e7400	48	955
9	1490	94	377	e5400	67	973	e6700	46	828
10	1260	83	281	e5600	62	933	e6300	46	787
11	910	73	179	e5400	57	834	e6000	55	890
12	e800	64	139	e5000	51	688	e5700	49	752
13	e720	57	111	e4500	45	546	e5400	48	700
14	e670	54	98	e3800	41	418	e5700	51	778
15	e640	54	93	e3200	42	361	e6000	66	1070
16	e1000	53	143	e2850	43	334	e6600	61	1090
17	1500	56	225	e2700	45	325	e6500	51	890
18	e1700	85	391	e2500	44	295	e6200	47	789
19	e1600	99	426	e2400	42	275	e5700	43	665
20	e1500	91	370	e2300	41	256	e5400	47	683
21	e1500	85	343	e2300	40	249	e5600	52	782
22	e3300	99	886	e2400	39	251	e5600	58	870
23	e4000	137	1480	e2600	36	254	e5200	69	971
24	e5000	188	2540	e2800	33	253	e4800	73	940
25	e6400	195	3370	e2700	29	213	e4500	73	888
26	7390	167	3330	e2600	30	209	e4200	74	836
27	7740	141	2950	3240	87	763	e3700	74	742
28	8010	121	2610	4060	154	1690	e3500	75	713
29	7800	115	2430	---	---	---	e3650	95	931
30	7130	102	1970	---	---	---	e3800	128	1310
31	6910	84	1560	---	---	---	e4000	161	1740
TOTAL	89405	---	29401	113310	---	19196	185250	---	33490
		APRIL			MAY			JUNE	
1	e3800	145	1480	e2400	24	156	6970	175	3290
2	e3600	124	1200	e2300	24	149	8240	149	3300
3	e3300	106	945	2730	49	361	8950	103	2500
4	e3000	91	735	3540	108	1040	9090	68	1680
5	e3500	125	1180	3520	99	944	8690	55	1300
6	4260	234	2690	3230	93	813	7910	54	1160
7	4900	282	3730	3100	83	697	7060	54	1030
8	5670	152	2330	2960	76	604	6290	54	923
9	5970	88	1410	2660	74	529	5530	54	813
10	5760	79	1230	2480	72	485	4650	55	685
11	5030	75	1030	2290	71	441	3850	55	569
12	e4700	72	915	2010	70	381	3200	55	474
13	e4200	69	781	e2200	69	410	2680	55	398
14	e4500	64	778	e2200	68	403	3100	77	641
15	e4200	52	594	e2000	67	360	3840	129	1340
16	e3900	42	443	e1900	66	337	4400	120	1430
17	e3600	34	329	e1800	65	314	4930	96	1270
18	e3200	28	245	e1700	63	291	6100	92	1510
19	e2900	28	216	e1600	62	270	e7000	74	1410
20	e2900	27	214	e1550	61	257	e8000	59	1260
21	e3000	29	236	e1500	60	245	e9700	54	1410
22	e3200	38	331	e1450	60	235	e9400	53	1340
23	e3400	31	289	e1400	60	227	e8600	53	1220
24	e3600	24	236	e1350	60	219	e6400	58	1010
25	e3400	24	220	e1350	68	249	e5600	64	966
26	e3200	24	207	1880	132	671	e4800	84	1080
27	e3000	24	194	2440	230	1520	e4000	132	1420
28	e2800	24	181	2540	139	955	e3300	137	1220
29	e2600	24	169	e1800	215	1040	e2750	117	866
30	e2500	24	162	e1500	226	915	e2300	99	615
31	---	---	---	5480	202	2980	---	---	---
TOTAL	113590	---	24700	70860	---	18498	177330	---	38130

e Estimated

05599500 BIG MUDDY RIVER AT MURPHYSBORO, IL--Continued

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	2090	84	476	381	99	102	234	108	68
2	1950	76	399	357	91	87	248	150	100
3	1740	72	336	335	83	75	246	128	85
4	1620	68	298	319	85	73	261	99	70
5	1510	65	264	304	127	105	296	76	61
6	1420	62	236	295	129	102	288	63	49
7	1290	59	204	289	124	97	246	62	41
8	1050	57	160	278	119	89	219	62	37
9	840	78	177	282	115	87	203	62	34
10	736	100	199	288	110	86	199	57	31
11	706	88	168	314	106	90	215	52	30
12	699	62	117	314	102	87	213	47	27
13	627	40	68	287	98	76	193	44	23
14	569	37	56	271	95	69	174	43	20
15	549	69	103	260	91	64	162	42	19
16	542	76	111	280	104	79	155	43	18
17	562	92	140	315	130	111	157	59	25
18	583	127	199	310	160	134	161	67	29
19	572	138	214	367	185	184	159	70	30
20	576	145	226	499	185	249	476	153	197
21	802	152	328	736	151	301	589	160	254
22	1050	150	425	740	128	255	477	110	142
23	1110	147	440	547	122	181	365	99	97
24	1260	144	489	416	119	134	288	89	69
25	1400	140	530	342	115	106	257	81	56
26	1280	134	464	295	107	85	230	74	46
27	912	128	316	268	99	71	210	68	39
28	597	123	198	259	91	64	193	62	32
29	482	117	153	249	89	60	178	57	27
30	437	112	132	238	87	56	167	52	24
31	401	107	116	230	86	53	---	---	---
TOTAL	29962	---	7742	10665	---	3412	7459	---	1780
YEAR	889554		203491.6						

07010000 MISSISSIPPI RIVER AT ST. LOUIS, MO

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

DRAINAGE AREA.--697,000 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--

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

GAGE HEIGHT: March 1933 to current year in reports of the U.S. Geological Survey. Since January 1861 in reports of Mississippi River Commission. Since January 1890 in reports of National Weather Service.

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

GAGE.--Water-stage recorder. Datum of gage is 379.94 ft above sea level. Prior to May 5, 1934, nonrecording gage 0.4 mi downstream; May 5, 1934, to Dec. 9, 1952, water-stage recorder at site 20 ft downstream at present datum.

REMARKS.--Estimated daily discharges: Aug 2. Water-discharge records good, except estimated daily discharges, which are fair. Natural flow of stream affected by many reservoirs and navigation dams in upper Mississippi River Basin and by many reservoirs and diversions for irrigation in Missouri River Basin. National Weather Service gage-height and U.S. Army Corps of Engineers satellite telemeters at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 27, 1844, reached a stage of 41.32 ft, from floodmarks, discharge, 1,300,000 ft^3/s, computed by U.S. Army Corps of Engineers. Flood in April 1785 may have reached a stage of 42.0 ft. Minimum flow, 18,000 ft^3/s, Dec. 23, 1863.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	166000	174000	223000	131000	146000	540000	290000	425000	345000	263000	191000	171000
2	160000	180000	228000	129000	141000	538000	289000	413000	323000	259000	180000	171000
3	150000	194000	247000	130000	150000	516000	290000	405000	302000	258000	177000	169000
4	142000	188000	256000	126000	160000	483000	286000	404000	292000	256000	185000	165000
5	142000	172000	252000	125000	164000	451000	286000	406000	283000	256000	186000	168000
6	132000	167000	241000	121000	174000	424000	298000	403000	269000	249000	186000	162000
7	120000	191000	236000	123000	181000	402000	300000	393000	260000	232000	186000	162000
8	113000	216000	224000	114000	183000	380000	302000	382000	250000	220000	181000	169000
9	114000	233000	208000	124000	184000	359000	316000	368000	249000	213000	177000	166000
10	118000	222000	209000	125000	175000	354000	328000	358000	239000	213000	170000	164000
11	114000	216000	199000	109000	162000	354000	329000	360000	239000	218000	166000	156000
12	114000	212000	190000	112000	153000	350000	338000	368000	232000	210000	167000	153000
13	113000	204000	184000	119000	153000	354000	386000	362000	229000	212000	172000	149000
14	112000	183000	177000	119000	158000	372000	451000	350000	241000	208000	172000	143000
15	110000	171000	179000	114000	154000	388000	479000	336000	260000	212000	168000	133000
16	111000	165000	181000	114000	149000	386000	490000	321000	248000	211000	160000	134000
17	114000	164000	177000	111000	146000	377000	491000	309000	228000	210000	166000	140000
18	125000	162000	169000	111000	136000	367000	494000	298000	250000	213000	181000	146000
19	113000	170000	165000	118000	133000	354000	500000	289000	273000	209000	189000	148000
20	116000	216000	137000	121000	144000	339000	501000	283000	276000	208000	199000	152000
21	126000	257000	132000	117000	190000	332000	500000	280000	266000	202000	196000	154000
22	130000	255000	132000	119000	299000	328000	494000	280000	248000	204000	183000	154000
23	133000	246000	128000	126000	390000	319000	488000	278000	250000	222000	180000	148000
24	122000	239000	124000	130000	422000	310000	486000	270000	259000	226000	174000	153000
25	138000	242000	108000	131000	436000	305000	483000	260000	251000	211000	171000	157000
26	171000	249000	108000	126000	446000	302000	479000	263000	253000	195000	172000	155000
27	187000	242000	109000	135000	478000	302000	474000	282000	261000	190000	174000	153000
28	182000	249000	110000	142000	492000	302000	460000	314000	263000	198000	173000	160000
29	171000	246000	110000	164000	---	297000	444000	338000	265000	201000	172000	158000
30	174000	232000	114000	169000	---	293000	433000	356000	267000	204000	173000	143000
31	171000	---	124000	156000	---	291000	---	362000	---	198000	181000	---
MEAN	135600	208600	173600	126200	225000	370000	406200	339200	262400	218700	177700	155200
MAX	187000	257000	256000	169000	492000	540000	501000	425000	345000	263000	199000	171000
MIN	110000	162000	108000	109000	133000	291000	286000	260000	228000	190000	160000	133000
IN.	.22	.33	.29	.21	.34	.61	.65	.56	.42	.36	.29	.25

07010000 MISSISSIPPI RIVER AT ST. LOUIS, MO--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 1997, BY WATER YEAR (WY)

MEAN	138500	142900	123600	115300	142500	230000	306100	289800	266500	220000	144600	138300
MAX	575300	359200	452400	307800	301400	521800	692500	588700	600600	808800	700200	531800
(WY)	1987	1986	1983	1973	1974	1973	1973	1995	1947	1993	1993	1993
MIN	44170	47920	42130	31340	41900	74550	110100	79500	70260	67130	43510	54640
(WY)	1940	1940	1938	1940	1940	1964	1934	1934	1934	1936	1936	1939

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1933 - 1997	
ANNUAL MEAN	222000		233000		188200	
HIGHEST ANNUAL MEAN					429700	1993
LOWEST ANNUAL MEAN					67700	1934
HIGHEST DAILY MEAN	612000	Jun 2	540000	Mar 1	1050000	Aug 1 1993
LOWEST DAILY MEAN	82700	Jan 8	108000	Dec 25,26	27800	Dec 12 1937
ANNUAL SEVEN-DAY MINIMUM	89500	Jan 5	112000	Dec 24	28200	Jan 18 1940
INSTANTANEOUS PEAK FLOW	---		544000	Mar 1	1080000	Aug 1 1993
INSTANTANEOUS PEAK STAGE	---		32.25	Mar 1	49.58	Aug 1 1993
INSTANTANEOUS LOW FLOW	---		104000	Dec 26	27800	Dec 12 1937
ANNUAL RUNOFF (INCHES)	4.34		4.54		3.67	
10 PERCENT EXCEEDS	422000		391000		366000	
50 PERCENT EXCEEDS	179000		201000		151000	
90 PERCENT EXCEEDS	109000		124000		68200	

07010000 MISSISSIPPI RIVER AT ST. LOUIS, MO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

WATER TEMPERATURES: October 1951 to current year.

SEDIMENT RECORDS: April 1948 to current year.

REMARKS.--Sediment discharge for many days computed from turbidity readings. Sediment records fair.

EXTREMES FOR PERIOD OF DAILY RECORD.--

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

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

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,580 mg/L, Apr. 15; minimum daily mean, 90 mg/L, Jan. 8.

SEDIMENT LOADS: Maximum daily, 3,330,000 tons, Apr. 15; minimum daily, 27,900 tons, Jan. 8.

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	166000	367	164000	174000	170	79900	223000	375	226000
2	160000	487	210000	180000	124	60100	228000	295	182000
3	150000	248	100000	194000	114	59900	247000	265	177000
4	142000	221	84700	188000	134	68100	256000	377	261000
5	142000	198	76100	172000	237	110000	252000	298	271000
6	132000	200	71400	167000	285	128000	241000	431	280000
7	120000	154	50000	191000	315	162000	236000	424	270000
8	113000	203	64800	216000	411	240000	224000	309	187000
9	114000	202	62100	233000	668	420000	208000	283	159000
10	118000	177	56400	222000	424	254000	209000	187	106000
11	114000	139	42600	216000	410	239000	199000	180	96700
12	114000	128	39300	212000	371	213000	190000	163	83600
13	113000	120	36700	204000	295	162000	184000	151	75000
14	112000	133	40300	183000	171	84500	177000	170	81100
15	110000	130	38500	171000	134	62000	179000	168	81100
16	111000	119	35800	165000	123	54800	181000	144	70600
17	114000	125	38500	164000	129	57100	177000	144	68900
18	125000	116	39100	162000	105	45900	169000	156	71400
19	113000	99	30100	170000	123	56600	165000	143	63800
20	116000	112	35000	216000	206	120000	137000	140	51600
21	126000	111	37800	257000	444	308000	132000	164	58400
22	130000	101	35400	255000	802	552000	132000	168	60000
23	133000	104	37400	246000	1810	1200000	128000	162	55900
24	122000	94	31100	239000	627	405000	124000	224	74800
25	138000	85	31600	242000	700	457000	108000	203	59100
26	171000	95	43900	249000	646	434000	108000	202	58900
27	187000	153	77200	242000	477	312000	109000	191	56200
28	182000	278	137000	249000	603	406000	110000	168	49800
29	171000	224	103000	246000	517	344000	110000	143	42300
30	174000	233	109000	232000	456	286000	114000	123	37800
31	171000	252	117000	---	---	---	124000	122	40800

07010000 MISSISSIPPI RIVER AT ST. LOUIS, MO--Continued

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	131000	136	48200	146000	145	57200	540000	1060	1550000
2	129000	112	39000	141000	159	60500	538000	852	1240000
3	130000	119	41700	150000	187	75700	516000	871	1210000
4	126000	103	36600	160000	233	101000	483000	699	912000
5	125000	147	49500	164000	300	133000	451000	719	876000
6	121000	127	41500	174000	256	120000	424000	702	804000
7	123000	101	33500	181000	253	123000	402000	639	693000
8	114000	90	27900	183000	263	130000	380000	577	592000
9	124000	92	30700	184000	252	125000	359000	377	366000
10	125000	151	50800	175000	235	111000	354000	428	409000
11	109000	167	49200	162000	256	112000	354000	472	451000
12	112000	168	50900	153000	262	108000	350000	469	443000
13	119000	130	41700	153000	245	101000	354000	442	422000
14	119000	146	46900	158000	217	92600	372000	639	642000
15	114000	137	42200	154000	193	80100	388000	485	509000
16	114000	105	32400	149000	170	68300	386000	393	410000
17	111000	---	30000	146000	165	65000	377000	415	423000
18	111000	---	28800	136000	152	55800	367000	476	471000
19	118000	---	29900	133000	127	45700	354000	454	434000
20	121000	---	30100	144000	220	85400	339000	421	385000
21	117000	---	28400	190000	453	232000	332000	390	349000
22	119000	---	28300	299000	773	624000	328000	371	329000
23	126000	140	47600	390000	2360	2480000	319000	366	315000
24	130000	149	52200	422000	2360	2690000	310000	320	268000
25	131000	158	55900	436000	2000	2350000	305000	272	224000
26	126000	110	37600	446000	1690	2040000	302000	249	203000
27	135000	98	35900	478000	1460	1890000	302000	236	193000
28	142000	198	75800	492000	1070	1420000	302000	278	227000
29	164000	230	102000	---	---	---	297000	303	243000
30	169000	267	122000	---	---	---	293000	280	221000
31	156000	177	74500	---	---	---	291000	261	205000
		APRIL			MAY			JUNE	
1	290000	264	206000	425000	252	289000	345000	464	432000
2	289000	256	200000	413000	228	255000	323000	381	332000
3	290000	322	252000	405000	203	222000	302000	341	278000
4	286000	370	286000	404000	301	328000	292000	273	215000
5	286000	399	308000	406000	834	914000	283000	246	188000
6	298000	405	325000	403000	894	972000	269000	276	201000
7	300000	403	327000	393000	859	911000	260000	178	125000
8	302000	441	360000	382000	687	708000	250000	179	121000
9	316000	487	415000	368000	523	520000	249000	175	118000
10	328000	613	543000	358000	473	457000	239000	171	110000
11	329000	662	588000	360000	366	356000	239000	216	139000
12	338000	786	718000	368000	572	569000	232000	194	121000
13	386000	1100	1150000	362000	1250	1210000	229000	181	112000
14	451000	1490	1810000	350000	1220	1160000	241000	159	103000
15	479000	2580	3330000	336000	581	527000	260000	193	136000
16	490000	1820	2410000	321000	504	437000	248000	220	148000
17	491000	1340	1780000	309000	472	393000	228000	186	115000
18	494000	1190	1590000	298000	345	278000	250000	208	140000
19	500000	1320	1780000	289000	298	232000	273000	178	131000
20	501000	1550	2100000	283000	261	199000	276000	398	297000
21	500000	1130	1520000	280000	211	160000	266000	335	241000
22	494000	724	967000	280000	238	180000	248000	271	182000
23	488000	558	736000	278000	270	203000	250000	746	504000
24	486000	499	655000	270000	216	158000	259000	467	327000
25	483000	466	607000	260000	178	125000	251000	344	233000
26	479000	512	663000	263000	167	119000	253000	172	118000
27	474000	546	699000	282000	269	205000	261000	188	132000
28	460000	408	507000	314000	306	260000	263000	178	126000
29	444000	395	474000	338000	288	262000	265000	571	408000
30	433000	323	378000	356000	361	347000	267000	897	647000
31	---	---	---	362000	512	501000	---	---	---

07010000 MISSISSIPPI RIVER AT ST. LOUIS, MO--Continued

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	263000	1300	922000	191000	157	81000	171000	110	50900
2	259000	918	642000	180000	166	80700	171000	100	46100
3	258000	492	343000	177000	220	105000	169000	122	55600
4	256000	443	306000	185000	198	99100	165000	110	49100
5	256000	352	244000	186000	149	74800	168000	126	57000
6	249000	335	225000	186000	114	57100	162000	103	45200
7	232000	335	210000	186000	124	62400	162000	120	52600
8	220000	315	187000	181000	102	49800	169000	147	67200
9	213000	338	194000	177000	88	42200	166000	193	86600
10	213000	317	182000	170000	89	40800	164000	488	216000
11	218000	243	143000	166000	88	39600	156000	359	151000
12	210000	216	123000	167000	98	44200	153000	302	125000
13	212000	166	95200	172000	100	46500	149000	214	86100
14	208000	170	95300	172000	95	44100	143000	151	58300
15	212000	200	114000	168000	107	48700	133000	124	44600
16	211000	132	74900	160000	88	38100	134000	118	42700
17	210000	177	100000	166000	110	49500	140000	130	49100
18	213000	325	187000	181000	153	74800	146000	125	49500
19	209000	232	131000	189000	171	87200	148000	104	41500
20	208000	171	95900	199000	141	75600	152000	133	54600
21	202000	173	94300	196000	146	77000	154000	132	54900
22	204000	149	82100	183000	116	57400	154000	146	60800
23	222000	152	91100	180000	129	62600	148000	121	48200
24	226000	149	91200	174000	129	60600	153000	160	65900
25	211000	129	73700	171000	160	74000	157000	133	56500
26	195000	137	72300	172000	132	61300	155000	137	57300
27	190000	166	85500	174000	127	59600	153000	163	67300
28	198000	160	85500	173000	167	78100	160000	178	76900
29	201000	178	96700	172000	194	90300	158000	189	80700
30	204000	259	143000	173000	134	62900	143000	161	62100
31	198000	222	119000	181000	117	57200	---	---	---

07020500 MISSISSIPPI RIVER AT CHESTER, IL

LOCATION.--Lat 37°54'10", long 89°51'10", in SW 1/4 sec.24, T.7 S., R.7 W., third principal meridian, Randolph County, Hydrologic Unit 07140105, on downstream side of left pier of main truss of highway bridge at Chester, 8.1 mi downstream from Kaskaskia River, and at mile 109.9 above Ohio River.

DRAINAGE AREA.--708,600 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--

DISCHARGE: October 1927 to current year in reports of the U.S. Geological Survey. Monthly discharge only for some periods, published in WSP 1311. Since August 1873, results of discharge measurements in reports of the Mississippi River Commission.

GAGE HEIGHT: July 1942 to current year in reports of the U.S. Geological Survey. Since May 1891, in reports of the Mississippi River Commission and National Weather Service.

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

GAGE.--Water-stage recorder. Datum of gage is 341.05 ft above sea level. Prior to Feb. 1, 1962, nonrecording gage 0.4 mi downstream at present datum.

REMARKS.--No estimated daily discharges. Water-discharge records are good. Natural flow of stream affected by many reservoirs and navigation dams in upper Mississippi River Basin and by many reservoirs and diversions for irrigation in Missouri River Basin. National Weather Service gage-height and U.S. Army Corps of Engineers satellite telemeters at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 30, 1844, reached a gage height of 39.8 ft, discharge, 1,350,000 ft^3/s, computed by the U.S. Army Corps of Engineers.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	181000	177000	248000	133000	179000	569000	316000	453000	376000	273000	201000	176000
2	175000	181000	243000	138000	165000	578000	313000	444000	357000	267000	195000	171000
3	168000	188000	254000	137000	160000	570000	310000	434000	330000	263000	189000	171000
4	156000	200000	270000	137000	174000	546000	307000	427000	304000	260000	190000	167000
5	151000	190000	269000	134000	183000	519000	310000	426000	292000	258000	193000	167000
6	147000	179000	261000	131000	189000	491000	319000	425000	280000	257000	194000	166000
7	137000	185000	251000	129000	198000	466000	320000	420000	272000	246000	193000	162000
8	125000	214000	241000	127000	202000	440000	318000	410000	260000	232000	191000	166000
9	118000	239000	227000	124000	202000	411000	320000	395000	254000	225000	187000	167000
10	119000	231000	216000	129000	198000	391000	333000	381000	249000	217000	182000	166000
11	121000	233000	214000	123000	188000	382000	339000	374000	242000	219000	177000	163000
12	119000	234000	203000	113000	175000	377000	340000	377000	240000	218000	172000	156000
13	118000	228000	194000	116000	168000	375000	359000	379000	237000	213000	174000	153000
14	116000	214000	187000	122000	169000	390000	412000	370000	249000	212000	177000	149000
15	116000	194000	184000	122000	172000	406000	455000	355000	262000	212000	174000	142000
16	113000	185000	186000	116000	167000	415000	477000	338000	270000	213000	173000	136000
17	115000	177000	184000	113000	164000	411000	490000	322000	255000	211000	166000	136000
18	121000	178000	176000	111000	157000	399000	495000	309000	262000	212000	173000	144000
19	124000	176000	174000	112000	149000	388000	503000	295000	276000	213000	183000	147000
20	120000	192000	162000	119000	149000	375000	510000	285000	289000	210000	195000	151000
21	121000	247000	140000	122000	174000	362000	515000	280000	285000	207000	198000	155000
22	132000	275000	136000	128000	263000	356000	514000	278000	278000	203000	192000	157000
23	137000	269000	135000	141000	397000	350000	511000	277000	264000	209000	184000	155000
24	135000	260000	134000	145000	464000	341000	507000	271000	277000	223000	179000	151000
25	130000	272000	126000	152000	493000	334000	504000	261000	278000	222000	174000	157000
26	147000	307000	115000	150000	507000	330000	500000	263000	269000	207000	173000	159000
27	179000	282000	115000	153000	537000	329000	497000	267000	265000	195000	173000	158000
28	190000	281000	115000	182000	558000	330000	490000	297000	272000	195000	172000	158000
29	183000	280000	116000	187000	---	327000	478000	324000	271000	202000	174000	162000
30	175000	263000	118000	204000	---	321000	464000	346000	273000	206000	171000	158000
31	178000	---	123000	195000	---	318000	---	382000	---	207000	176000	---
MEAN	140900	224400	184400	136900	246500	406400	417500	350500	276300	222800	182100	157500
MAX	190000	307000	270000	204000	558000	578000	515000	453000	376000	273000	201000	176000
MIN	113000	176000	115000	111000	149000	318000	307000	261000	237000	195000	166000	136000
IN.	.23	.35	.30	.22	.36	.66	.66	.57	.44	.36	.30	.25

07020500 MISSISSIPPI RIVER AT CHESTER, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1997, BY WATER YEAR (WY)

MEAN	150600	157100	140900	131800	158300	251300	336400	320300	281300	240900	160700	148700
MAX	588300	380400	500100	323200	331000	528400	719100	630900	597200	795300	769500	551000
(WY)	1987	1986	1983	1973	1974	1973	1973	1995	1947	1993	1993	1993
MIN	59490	59320	51070	47810	52860	84200	137800	127200	81040	69050	69580	66030
(WY)	1957	1957	1964	1964	1964	1964	1977	1989	1988	1988	1988	1976

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1942 - 1997	
ANNUAL MEAN	234100		245200		206500	
HIGHEST ANNUAL MEAN					441700	1993
LOWEST ANNUAL MEAN					96770	1956
HIGHEST DAILY MEAN	624000	Jun 3	578000	Mar 2	1000000	Aug 6 1993
LOWEST DAILY MEAN	89200	Jan 9	111000	Jan 18	37600	Jan 1 1964
ANNUAL SEVEN-DAY MINIMUM	95400	Jan 5	116000	Jan 13	38500	Dec 20 1963
INSTANTANEOUS PEAK FLOW	---		580000	Mar 2	1000000	Aug 7 1993
INSTANTANEOUS PEAK STAGE	---		34.31	Mar 2	49.74	Aug 7 1993
INSTANTANEOUS LOW FLOW	---		110000	Oct 16,Jan 18,19	30000	Dec 12 1937
ANNUAL RUNOFF (INCHES)	4.50		4.70		3.96	
10 PERCENT EXCEEDS	473000		417000		397000	
50 PERCENT EXCEEDS	186000		207000		166000	
90 PERCENT EXCEEDS	115000		129000		77200	

07020500 MISSISSIPPI RIVER AT CHESTER, IL--Continued

WATER-QUALITY RECORDS

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

REMARKS.--Sediment records fair.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 3,380 mg/L, Apr. 13, 1987; minimum daily mean, 13 mg/L, Mar. 18, 1981.
SUSPENDED-SEDIMENT LOADS: Maximum daily, 3,330,000 tons, Feb. 25, 1997; minimum daily, 3,580 tons, Mar. 18, 1981.

EXTREMES FOR CURRENT YEAR.--
SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,500 mg/L, Feb. 25; minimum daily mean, 104 mg/L, Aug. 11.
SUSPENDED-SEDIMENT LOADS: Maximum daily, 3,330,000 tons, Feb. 25; minimum daily, 34,700 tons, Dec. 30.

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	181000	289	141000	177000	258	123000	248000	453	303000
2	175000	284	134000	181000	254	124000	243000	391	256000
3	168000	290	131000	188000	260	132000	254000	428	294000
4	156000	267	113000	200000	268	144000	270000	446	325000
5	151000	463	189000	190000	253	130000	269000	454	330000
6	147000	473	188000	179000	219	106000	261000	437	308000
7	137000	431	160000	185000	213	107000	251000	398	270000
8	125000	441	148000	214000	302	175000	241000	358	233000
9	118000	401	128000	239000	429	277000	227000	319	196000
10	119000	383	123000	231000	506	315000	216000	259	151000
11	121000	350	114000	233000	525	330000	214000	211	122000
12	119000	324	104000	234000	365	231000	203000	206	113000
13	118000	307	97400	228000	288	177000	194000	206	108000
14	116000	311	97800	214000	242	140000	187000	207	105000
15	116000	328	102000	194000	219	115000	184000	211	105000
16	113000	323	98800	185000	197	98500	186000	214	107000
17	115000	176	54800	177000	177	84300	184000	207	103000
18	121000	155	50700	178000	183	88000	176000	196	93300
19	124000	136	45700	176000	207	98200	174000	185	86800
20	120000	126	40900	192000	241	126000	162000	151	66200
21	121000	122	40000	247000	403	272000	140000	195	73400
22	132000	133	47300	275000	697	518000	136000	226	83200
23	137000	147	54100	269000	671	487000	135000	243	88300
24	135000	139	50500	260000	551	386000	134000	216	77900
25	130000	137	48200	272000	570	420000	126000	181	61500
26	147000	168	67200	307000	697	578000	115000	149	46300
27	179000	359	175000	282000	573	436000	115000	168	52000
28	190000	743	382000	281000	538	408000	115000	185	57300
29	183000	594	294000	280000	540	408000	116000	128	40300
30	175000	365	172000	263000	528	374000	118000	109	34700
31	178000	298	143000	---	---	---	123000	124	41300

07020500 MISSISSIPPI RIVER AT CHESTER, IL--Continued

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	133000	151	54500	179000	242	117000	569000	1100	1690000
2	138000	179	66400	165000	197	87800	578000	1030	1600000
3	137000	152	56400	160000	183	79100	570000	981	1510000
4	137000	121	45000	174000	198	93400	546000	912	1340000
5	134000	121	43800	183000	226	112000	519000	841	1180000
6	131000	126	44300	189000	248	127000	491000	781	1040000
7	129000	132	45700	198000	264	141000	466000	787	990000
8	127000	125	42800	202000	274	149000	440000	810	961000
9	124000	---	39700	202000	247	135000	411000	826	917000
10	129000	---	47000	198000	225	120000	391000	793	836000
11	123000	---	47200	188000	269	136000	382000	547	564000
12	113000	---	38200	175000	274	129000	377000	509	518000
13	116000	---	39300	168000	270	123000	375000	475	481000
14	122000	---	44100	169000	318	145000	390000	492	520000
15	122000	---	45300	172000	264	122000	406000	592	649000
16	116000	---	41200	167000	264	119000	415000	673	754000
17	113000	---	38100	164000	285	126000	411000	574	638000
18	111000	---	35600	157000	293	125000	399000	529	569000
19	112000	---	35600	149000	237	95400	388000	504	528000
20	119000	---	40500	149000	---	90700	375000	471	476000
21	122000	---	44500	174000	---	128000	362000	444	434000
22	128000	---	49300	263000	---	354000	356000	421	405000
23	141000	150	57100	397000	---	1140000	350000	394	372000
24	145000	---	67300	464000	2150	2720000	341000	339	312000
25	152000	---	79200	493000	2500	3330000	334000	288	259000
26	150000	---	71900	507000	2310	3160000	330000	250	222000
27	153000	---	75000	537000	2060	2990000	329000	283	252000
28	182000	---	132000	558000	1510	2270000	330000	309	276000
29	187000	---	138000	---	---	---	327000	319	282000
30	204000	---	202000	---	---	---	321000	312	271000
31	195000	307	162000	---	---	---	318000	302	259000
		APRIL			MAY			JUNE	
1	316000	286	244000	453000	528	645000	376000	---	551000
2	313000	279	236000	444000	411	493000	357000	---	458000
3	310000	335	280000	434000	503	589000	330000	416	370000
4	307000	329	273000	427000	495	570000	304000	358	293000
5	310000	306	257000	426000	480	552000	292000	308	243000
6	319000	322	277000	425000	766	879000	280000	284	215000
7	320000	302	262000	420000	818	926000	272000	296	218000
8	318000	284	243000	410000	695	769000	260000	318	223000
9	320000	299	259000	395000	546	583000	254000	341	234000
10	333000	368	331000	381000	524	539000	249000	338	227000
11	339000	376	344000	374000	428	432000	242000	217	142000
12	340000	358	329000	377000	392	399000	240000	170	110000
13	359000	479	468000	379000	471	481000	237000	172	110000
14	412000	842	944000	370000	604	603000	249000	179	121000
15	455000	1290	1590000	355000	725	694000	262000	184	131000
16	477000	1270	1630000	338000	570	519000	270000	190	139000
17	490000	1030	1360000	322000	421	367000	255000	188	130000
18	495000	921	1230000	309000	323	269000	262000	183	130000
19	503000	848	1150000	295000	276	219000	276000	189	141000
20	510000	791	1090000	285000	275	212000	289000	205	160000
21	515000	903	1260000	280000	248	188000	285000	345	265000
22	514000	838	1160000	278000	195	146000	278000	348	261000
23	511000	728	1000000	277000	220	165000	264000	312	223000
24	507000	623	854000	271000	230	169000	277000	340	255000
25	504000	583	794000	261000	223	157000	278000	491	368000
26	500000	582	786000	263000	214	152000	269000	384	279000
27	497000	572	767000	267000	213	154000	265000	261	186000
28	490000	561	743000	297000	313	253000	272000	219	161000
29	478000	584	753000	324000	447	392000	271000	219	160000
30	464000	567	710000	346000	---	493000	273000	287	211000
31	---	---	---	382000	---	600000	---	---	---

07020500 MISSISSIPPI RIVER AT CHESTER, IL--Continued

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	273000	479	353000	201000	138	74900	176000	---	70100
2	267000	635	457000	195000	123	64700	171000	---	66100
3	263000	633	449000	189000	127	64800	171000	138	63600
4	260000	452	318000	190000	137	70200	167000	127	57800
5	258000	390	271000	193000	150	78600	167000	125	56300
6	257000	353	245000	194000	143	74700	166000	125	56000
7	246000	305	202000	193000	121	63100	162000	130	56900
8	232000	294	184000	191000	120	61800	166000	140	62700
9	225000	248	150000	187000	126	63400	167000	150	67600
10	217000	242	142000	182000	117	57400	166000	171	76600
11	219000	249	147000	177000	104	49500	163000	225	98500
12	218000	217	128000	172000	136	63200	156000	252	106000
13	213000	193	111000	174000	119	56000	153000	211	87200
14	212000	173	99200	177000	110	52500	149000	182	73400
15	212000	159	90700	174000	116	54500	142000	148	56500
16	213000	154	88900	173000	138	64200	136000	145	53300
17	211000	152	86200	166000	140	62400	136000	183	67400
18	212000	144	82500	173000	138	64200	144000	179	69800
19	213000	178	103000	183000	135	67100	147000	149	59400
20	210000	191	108000	195000	143	75100	151000	136	55700
21	207000	173	96700	198000	150	80300	155000	129	54100
22	203000	152	82900	192000	156	80400	157000	122	51800
23	209000	146	82700	184000	130	64700	155000	118	49200
24	223000	153	91900	179000	128	61800	151000	115	47100
25	222000	156	93100	174000	121	56800	157000	122	52000
26	207000	128	71400	173000	125	58300	159000	122	52300
27	195000	118	62300	173000	124	57800	158000	127	54100
28	195000	118	62000	172000	125	58100	158000	133	56800
29	202000	141	76600	174000	137	64100	162000	137	59900
30	206000	152	84500	171000	---	66300	158000	151	65100
31	207000	151	84500	176000	---	70400	---	---	---

07022000 MISSISSIPPI RIVER AT THEBES, IL

LOCATION.--Lat 37°13'00", long 89°27'50", in NW 1/4 sec.17, T.15 S., R.3 W., Alexander County, Hydrologic Unit 07140105, near center span on downstream side of railroad bridge at Thebes, 5.0 mi downstream from Headwater Diversion Channel, and at mile 43.7 above Ohio River.

DRAINAGE AREA.--713,200 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--

DISCHARGE: Oct. 1932 to current year. Monthly discharge only for some periods, published in WSP 1311. Prior to April 1941, published as "at Cape Girardeau, Mo".

GAGE HEIGHT: March 1933 to February 1938 and October 1939 to current year in reports of U.S. Geological Survey. Prior to April 1941, published as "at Cape Girardeau, Mo". Since November 1878, under name of "at Grays Point" in files of the U.S. Army Corps of Engineers; January 1879 to May of 1896, published as "at Grays Point"; since May 1896, published as "at Cape Girardeau" in reports of 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). WDR MO-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 300.00 ft above sea level. Mar. 17, 1933, to Dec. 21 1934, nonrecording gage; Dec. 22, 1934, to Apr. 4, 1941, water-stage recorder, at site 8.2 mi upstream at datum 4.65 ft higher; Apr. 5, 1941, to Sept. 30, 1941, nonrecording gage at present site and datum; Oct. 1, 1941, to Oct. 11, 1943, at datum 0.07 ft higher. Prior to Apr. 5, 1941, various auxiliary gages used. Since Oct. 1, 1943, former gage at Cape Girardeau used as auxiliary gage.

REMARKS.--Estimated daily discharges: Jan. 20-26. Water-discharge records good, except estimated daily discharges, which are fair. Natural flow of stream affected by many reservoirs and navigation dams in upper Mississippi River Basin and by many reservoirs and diversions for irrigation in Missouri River Basin. U.S. Army Corps of Engineers satellite telemeter and telemark at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 4, 1844, reached an elevation of 345.14 ft, present datum, at Grays Point, from floodmarks, discharge, 1,375,000 ft^3/s, computed by U.S. Army Corps of Engineers.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	177000	182000	257000	132000	195000	604000	330000	459000	428000	275000	213000	180000
2	182000	182000	245000	140000	180000	628000	327000	451000	409000	273000	207000	177000
3	176000	186000	248000	141000	171000	630000	321000	445000	380000	269000	199000	174000
4	168000	196000	264000	142000	176000	604000	319000	439000	339000	268000	194000	168000
5	158000	200000	272000	142000	190000	571000	336000	435000	324000	265000	195000	169000
6	154000	188000	269000	140000	195000	544000	352000	436000	307000	265000	197000	169000
7	148000	185000	259000	136000	206000	514000	351000	436000	293000	260000	197000	167000
8	138000	206000	251000	136000	214000	486000	345000	430000	279000	246000	196000	164000
9	127000	232000	238000	133000	216000	459000	342000	416000	266000	238000	193000	168000
10	121000	253000	223000	133000	214000	433000	347000	398000	258000	231000	189000	164000
11	122000	250000	219000	136000	207000	415000	355000	380000	247000	226000	183000	169000
12	123000	241000	214000	128000	195000	406000	358000	375000	242000	228000	178000	164000
13	122000	232000	205000	120000	184000	400000	362000	377000	237000	225000	175000	160000
14	121000	223000	196000	124000	179000	410000	391000	374000	248000	223000	177000	156000
15	120000	206000	189000	129000	181000	420000	439000	362000	256000	222000	181000	152000
16	119000	191000	191000	129000	181000	429000	477000	346000	268000	222000	177000	144000
17	117000	183000	191000	124000	176000	431000	498000	330000	267000	223000	173000	141000
18	120000	177000	188000	120000	172000	424000	507000	316000	268000	221000	169000	143000
19	126000	177000	182000	118000	166000	414000	513000	290000	275000	223000	178000	150000
20	126000	178000	177000	119000	160000	398000	516000	294000	279000	224000	191000	153000
21	124000	209000	160000	126000	166000	383000	520000	287000	292000	221000	201000	157000
22	128000	259000	147000	129000	210000	373000	522000	284000	287000	218000	202000	160000
23	138000	268000	146000	135000	338000	368000	516000	283000	277000	217000	194000	161000
24	142000	260000	147000	149000	431000	360000	513000	281000	275000	227000	188000	158000
25	139000	259000	144000	152000	487000	350000	506000	276000	284000	236000	182000	156000
26	139000	293000	134000	159000	523000	345000	501000	273000	281000	229000	177000	160000
27	161000	290000	126000	161000	558000	341000	497000	276000	271000	215000	175000	161000
28	193000	282000	126000	177000	587000	342000	492000	288000	275000	206000	175000	159000
29	197000	282000	125000	189000	---	344000	483000	317000	275000	208000	175000	160000
30	187000	272000	125000	201000	---	339000	469000	343000	275000	212000	176000	162000
31	182000	---	126000	207000	---	334000	---	407000	---	215000	175000	---
MEAN	145000	224700	193000	142200	252100	435500	426800	358200	288700	233300	186500	160900
MAX	197000	293000	272000	207000	587000	630000	522000	459000	428000	275000	213000	180000
MIN	117000	177000	125000	118000	160000	334000	319000	273000	237000	206000	169000	141000
IN.	.23	.35	.31	.23	.37	.70	.67	.58	.45	.38	.30	.25

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 1997, BY WATER YEAR (WY)

MEAN	149500	157000	141800	134900	160600	251600	330000	318700	283100	236600	156000	144100
MAX	589600	389000	531700	333300	350400	542000	731000	655800	584100	765500	768000	539300
(WY)	1987	1986	1983	1973	1974	1985	1973	1973	1947	1993	1993	1993
MIN	45500	50080	53850	33650	46920	80260	115600	88170	72350	73290	45000	59890
(WY)	1940	1940	1956	1940	1940	1934	1934	1934	1934	1936	1936	1937

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1933 - 1997	
ANNUAL MEAN	242000		253700		205800	
HIGHEST ANNUAL MEAN					446000	1993
LOWEST ANNUAL MEAN					71730	1934
HIGHEST DAILY MEAN	630000	Jun 4	630000	Mar 3	978000	Aug 7 1993
LOWEST DAILY MEAN	90300	Jan 10	117000	Oct 17	24700	Jan 21 1940
ANNUAL SEVEN-DAY MINIMUM	94700	Jan 6	120000	Oct 12	26700	Jan 20 1940
INSTANTANEOUS PEAK FLOW	---		635000	Mar 3	996000	Aug 7 1993
INSTANTANEOUS PEAK STAGE	---		38.96	Mar 3	45.91	May 23 1995
INSTANTANEOUS LOW FLOW	---		116000	Oct 17	23400	Dec 13 1937
ANNUAL RUNOFF (INCHES)	4.62		4.83		3.92	
10 PERCENT EXCEEDS	486000		434000		400000	
50 PERCENT EXCEEDS	193000		215000		166000	
90 PERCENT EXCEEDS	120000		136000		74300	

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1974 to September 1981.
WATER TEMPERATURE: October 1974 to September 1981.
SUSPENDED-SEDIMENT: October 1980 to current year.

REMARKS.--NASQAN station January 1973 to September 1986. Illinois Environmental Protection Agency station October 1986 to September 1994 (during the period, samples were analyzed by the Illinois EPA). Re-established as a NASQAN station October 1994 to current year. Sediment records good.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 705 microsiemens per centimeter, Aug. 5-7, 1980; minimum daily, 272 microsiemens per centimeter, Apr. 6, 1979.
WATER TEMPERATURE: Maximum daily, 31.5°C, July 10 and 11, 1975, and July 17, 1977; minimum daily, 0.0°C, on several days during winter periods.
SUSPENDED-SEDIMENT CONCENTRATONS: Maximum daily mean, 3,890 mg/L, Dec. 22, 1985; minimum daily mean, 13 mg/L, Jan. 28, 1981.
SUSPENDED-SEDIMENT LOADS: Maximum daily, 6,280,000 tons, Mar. 1, 1985; minimum daily, 2,530 tons, Jan. 28, 1981.

EXTREMES FOR CURRENT YEAR.--
SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,630 mg/L, Feb. 25; minimum daily mean, 100 mg/L, Sept. 9.
SUSPENDED-SEDIMENT LOADS: Maximum daily, 2,310,000 tons, Feb. 27; minimum daily, 35,700 tons, Jan. 19.

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	177000	571	273000	182000	355	175000	257000	419	290000
2	182000	593	291000	182000	377	185000	245000	389	257000
3	176000	619	293000	186000	334	168000	248000	346	231000
4	168000	667	302000	196000	236	125000	264000	313	224000
5	158000	665	283000	200000	236	127000	272000	316	232000
6	154000	593	246000	188000	219	111000	269000	319	231000
7	148000	495	198000	185000	256	128000	259000	322	225000
8	138000	236	88000	206000	303	169000	251000	293	198000
9	127000	218	74600	232000	337	211000	238000	271	174000
10	121000	218	71300	253000	371	254000	223000	267	161000
11	122000	212	70100	250000	442	298000	219000	232	137000
12	123000	211	69800	241000	368	239000	214000	194	112000
13	122000	199	65600	232000	298	187000	205000	210	116000
14	121000	179	58400	223000	259	156000	196000	248	131000
15	120000	184	59500	206000	218	121000	189000	221	113000
16	119000	186	59600	191000	207	106000	191000	193	99600
17	117000	196	62200	183000	198	97500	191000	195	101000
18	120000	201	65100	177000	166	79400	188000	218	111000
19	126000	191	65100	177000	154	73300	182000	184	90500
20	126000	175	59400	178000	176	84600	177000	182	87100
21	124000	154	51600	209000	280	159000	160000	147	63600
22	128000	169	58300	259000	356	250000	147000	143	57000
23	138000	171	63700	268000	556	402000	146000	156	61200
24	142000	180	69100	260000	881	619000	147000	184	73200
25	139000	176	65700	259000	909	659000	144000	157	60800
26	139000	151	56800	293000	708	560000	134000	153	55100
27	161000	192	83600	290000	584	456000	126000	153	52000
28	193000	267	140000	282000	490	372000	126000	138	46800
29	197000	255	135000	282000	406	309000	125000	132	44600
30	187000	271	137000	272000	360	264000	125000	144	48700
31	182000	287	141000	---	---	---	126000	125	42800

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	132000	117	41800	195000	267	140000	604000	1190	1940000
2	140000	123	46600	180000	207	100000	628000	1030	1750000
3	141000	135	51600	171000	179	82300	630000	884	1500000
4	142000	133	51000	176000	172	81500	604000	731	1190000
5	142000	139	53200	190000	192	98600	571000	612	943000
6	140000	135	50700	195000	221	117000	544000	538	790000
7	136000	156	57300	206000	240	134000	514000	539	747000
8	136000	145	53200	214000	212	123000	486000	504	660000
9	133000	131	46700	216000	226	131000	459000	474	587000
10	133000	124	44500	214000	216	125000	433000	344	402000
11	136000	122	45000	207000	201	112000	415000	315	353000
12	128000	121	41900	195000	172	90500	406000	409	448000
13	120000	120	38900	184000	175	86600	400000	422	457000
14	124000	119	39700	179000	173	83900	410000	428	474000
15	129000	117	40700	181000	171	84000	420000	371	422000
16	129000	116	40500	181000	169	82800	429000	422	490000
17	124000	115	38300	176000	167	79500	431000	360	419000
18	120000	113	36700	172000	165	76800	424000	313	358000
19	118000	112	35700	166000	163	73100	414000	307	344000
20	119000	115	38100	160000	161	69800	398000	283	304000
21	126000	159	56400	166000	179	80800	383000	273	282000
22	129000	267	107000	210000	268	153000	373000	331	334000
23	135000	271	119000	338000	481	442000	368000	303	301000
24	149000	239	106000	431000	1340	1560000	360000	311	302000
25	152000	213	96600	487000	1630	2150000	350000	306	289000
26	159000	217	101000	523000	1460	2060000	345000	294	274000
27	161000	221	100000	558000	1530	2310000	341000	245	225000
28	177000	224	107000	587000	1420	2250000	342000	225	208000
29	189000	253	129000	---	---	---	344000	223	207000
30	201000	287	156000	---	---	---	339000	217	198000
31	207000	303	169000	---	---	---	334000	233	210000
		APRIL			MAY			JUNE	
1	330000	245	219000	459000	433	536000	428000	602	696000
2	327000	198	174000	451000	431	526000	409000	598	660000
3	321000	157	136000	445000	351	422000	380000	531	543000
4	319000	177	153000	439000	342	406000	339000	413	377000
5	336000	192	174000	435000	344	404000	324000	332	290000
6	352000	196	186000	436000	365	430000	307000	279	231000
7	351000	201	190000	436000	592	696000	293000	270	213000
8	345000	187	174000	430000	714	829000	279000	265	200000
9	342000	213	197000	416000	713	801000	266000	226	162000
10	347000	274	257000	398000	593	637000	258000	208	145000
11	355000	266	255000	380000	468	480000	247000	206	137000
12	358000	292	282000	375000	496	502000	242000	186	122000
13	362000	269	263000	377000	443	450000	237000	166	106000
14	391000	379	402000	374000	547	552000	248000	196	131000
15	439000	899	1070000	362000	716	699000	256000	230	159000
16	477000	1340	1730000	346000	784	732000	268000	176	127000
17	498000	1020	1380000	330000	595	529000	267000	195	141000
18	507000	754	1030000	316000	440	375000	268000	239	173000
19	513000	644	892000	290000	345	282000	275000	282	209000
20	516000	662	921000	294000	350	278000	279000	229	178000
21	520000	694	974000	287000	321	249000	292000	250	197000
22	522000	709	999000	284000	293	225000	287000	310	240000
23	516000	609	849000	283000	255	195000	277000	299	223000
24	513000	472	654000	281000	248	188000	275000	280	208000
25	506000	451	617000	276000	245	183000	284000	357	274000
26	501000	461	624000	273000	255	188000	281000	395	300000
27	497000	435	584000	276000	287	214000	271000	258	189000
28	492000	447	593000	288000	259	201000	275000	204	151000
29	483000	492	641000	317000	378	325000	275000	189	140000
30	469000	415	525000	343000	589	547000	275000	210	156000
31	---	---	---	407000	837	922000	---	---	---

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued

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

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	275000	296	220000	213000	144	82600	180000	125	60700
2	273000	476	351000	207000	142	79200	177000	122	58300
3	269000	525	381000	199000	157	84600	174000	121	56700
4	268000	602	436000	194000	174	91200	168000	124	57800
5	265000	448	321000	195000	177	93400	169000	123	55800
6	265000	375	268000	197000	165	87800	169000	110	50400
7	260000	328	230000	197000	172	91400	167000	110	49700
8	246000	277	184000	196000	176	93500	164000	111	49400
9	238000	240	154000	193000	141	73400	168000	100	45500
10	231000	238	148000	189000	139	70800	164000	108	48900
11	226000	237	145000	183000	128	63500	169000	130	59100
12	228000	235	145000	178000	140	67100	164000	179	79600
13	225000	216	131000	175000	148	69800	160000	222	95800
14	223000	197	119000	177000	129	61700	156000	192	80900
15	222000	194	116000	181000	128	62600	152000	158	64900
16	222000	197	118000	177000	123	58900	144000	140	54400
17	223000	208	125000	173000	139	64800	141000	147	55800
18	221000	223	133000	169000	143	65100	143000	131	50800
19	223000	196	118000	178000	171	82100	150000	137	55300
20	224000	172	104000	191000	175	90200	153000	129	53100
21	221000	188	112000	201000	169	91700	157000	143	60600
22	218000	164	96100	202000	160	87500	160000	151	65100
23	217000	136	79800	194000	149	78200	161000	147	63700
24	227000	149	91600	188000	134	67800	158000	158	67300
25	236000	140	89100	182000	134	65900	156000	142	59600
26	229000	134	82700	177000	135	64600	160000	135	58700
27	215000	138	80200	175000	134	63300	161000	139	59900
28	206000	143	79300	175000	136	64400	159000	173	74200
29	208000	155	87100	175000	133	62900	160000	160	69300
30	212000	163	93200	176000	131	62000	162000	146	64000
31	215000	153	88900	175000	128	60300	---	---	---

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued

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

DATE	TIME	TEMPERATURE WATER (DEG C) (00010)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	SPECIFIC CONDUCTANCE (µS/cm) (00095)	OXYGEN, DISSOLVED (mg/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TURBIDITY (NTU) (00076)	COLIFORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKALINITY WAT DIS FIX END FIELD $CaCO_3$ (mg/L) (39036)	ALKALINITY WAT DIS TOT IT FIELD (mg/L as $CaCO_3$) (39086)
OCT												
21...	1530	17.0	124000	654	9.7	99	8.11	20	100	K24	163	164
DEC												
16...	1530	4.0	191000	511	12.8	96	7.84	24	1000	1850	158	157
JAN												
27...	1425	2.0	161000	438	13.4	97	7.79	39	K640	340	163	164
FEB												
24...	1515	5.0	441000	555	11.3	87	7.64	380	580	6000	141	146
MAR												
12...	1430	8.0	405000	370	10.9	91	7.83	72	260	420	128	129
26...	1700	9.0	343000	464	9.4	79	8.03	55	K81	164	160	157
APR												
15...	1315	8.0	442000	507	10.5	86	7.49	0.8	440	480	135	137
28...	1525	13.0	492000	439	9.5	90	7.91	78	208	80	130	129
MAY												
22...	1600	18.0	284000	297	8.4	86	7.72	0.3	148	K12	153	154
JUN												
11...	1535	21.5	246000	586	8.0	88	7.49	30	K160	K10	153	157
JUL												
09...	1600	27.5	238000	617	7.0	86	7.80	60	--	K79	154	155
21...	1520	29.5	220000	601	7.2	92	7.98	42	260	88	160	159
AUG												
13...	1540	26.0	175000	634	8.0	98	8.12	--	60	K5	307	307
20...	1450	25.0	192000	586	7.5	89	8.20	19	310	210	150	156
SEP												
17...	1530	25.5	141000	641	7.5	91	7.96	27	400	K19	145	152

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

DATE	CARBONATE WATER DIS IT FIELD (mg/L as CO_3) (00452)	BICARBONATE WATER DIS IT FIELD (mg/L as HCO_3) (00453)	NITROGEN, TOTAL (mg/L as N) (00600)	NITROGEN DISSOLVED (mg/L as N) (00602)	NITROGEN, ORGANIC TOTAL (mg/L as N) (00605)	NITROGEN, ORGANIC DISSOLVED (mg/L as N) (00607)	NITROGEN, AMMONIA DISSOLVED (mg/L as N) (00608)	NITROGEN, NITRITE DISSOLVED (mg/L as N) (00613)	NITROGEN, NITRATE DISSOLVED (mg/L as N) (00618)	NITROGEN, AMMONIA + ORGANIC DIS. (mg/L as N) (00623)
OCT										
21...	0	200	1.4	1.1	0.52	0.22	0.080	0.030	0.750	0.30
DEC										
16...	0	192	2.8	2.5	0.59	0.29	0.110	0.020	2.08	0.40
JAN										
27...	0	200	3.2	2.9	0.74	0.44	0.260	0.030	2.17	0.70
FEB										
24...	0	178	4.3	2.6	2.1	0.41	0.190	0.020	1.98	0.60
MAR										
12...	0	157	3.8	3.0	1.1	0.35	0.250	0.030	2.37	0.60
26...	0	191	3.7	3.1	1.0	0.45	0.14	0.04	2.51	0.6
APR										
15...	0	167	4.0	2.8	1.6	0.38	0.04	0.03	2.33	0.4
28...	0	158	3.3	2.6	1.1	0.43	0.03	0.02	2.07	0.5
MAY										
22...	0	188	3.3	2.8	0.79	0.37	0.06	0.02	2.40	0.4
JUN										
11...	0	191	3.4	2.9	0.80	0.32	0.03	0.03	2.52	0.4
JUL										
09...	0	190	3.4	3.4	0.38	--	<0.01	0.02	3.01	0.4
21...	0	194	2.7	--	0.77	--	<0.01	0.02	1.94	<0.2
AUG										
13...	0	375	2.0	1.7	0.73	--	<0.01	0.02	1.29	0.4
20...	0	190	1.7	1.4	0.76	0.43	0.03	0.02	0.895	0.5
SEP										
17...	0	185	0.52	--	0.52	--	<0.01	<0.01	--	0.3

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued

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

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (mg/L as N) (00625)	NITROGEN, NO_2+NO_3 DISSOLVED (mg/L as N) (00631)	PHOSPHATE, ORTHO, DISSOLVED (mg/L as PO_4) (00660)	PHOSPHORUS TOTAL (mg/L as P) (00665)	PHOSPHORUS DISSOLVED (mg/L as P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (mg/L as P) (00671)	CARBON, ORGANIC DISSOLVED (mg/L as C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (mg/L as C) (00689)	HARDNESS TOTAL (mg/L as $CaCO_3$) (00900)	HARDNESS NONCARB DISSOLV FLD. as $CaCO_3$ (mg/L) (00904)
OCT										
21...	0.60	0.780	0.23	0.150	0.060	0.074	4.7	1.9	220	58
DEC										
16...	0.70	2.10	0.26	0.180	0.070	0.086	4.4	1.5	210	52
JAN										
27...	1.0	2.20	0.27	0.230	0.080	0.088	4.8	1.2	230	61
FEB										
24...	2.3	2.00	0.22	1.40	0.090	0.073	5.0	>10	190	40
MAR										
12...	1.4	2.40	0.37	0.380	0.080	0.120	5.0	2.0	170	36
26...	1.2	2.55	0.23	0.404	0.126	0.076	5.2	0.30	--	--
APR										
15...	1.6	2.36	0.27	0.714	0.069	0.089	5.3	3.5	--	--
28...	1.2	2.10	0.19	0.390	0.070	0.062	4.8	2.6	--	--
MAY										
22...	0.85	2.42	0.25	0.238	0.070	0.081	4.9	0.70	230	79
JUN										
11...	0.84	2.55	0.25	0.186	0.071	0.083	6.1	0.60	240	83
JUL										
09...	0.38	3.03	0.43	0.174	0.165	0.140	4.1	1.1	220	66
21...	0.77	1.96	0.39	0.259	0.105	0.128	4.2	1.0	220	63
AUG										
13...	0.73	1.31	0.27	0.190	0.093	0.089	4.2	0.90	220	0
20...	0.79	0.912	0.27	0.222	0.093	0.089	4.4	0.60	220	67
SEP										
17...	0.52	<0.050	0.34	0.179	0.086	0.110	3.8	1.1	220	68

DATE	HARDNESS NONCARB DISSOLV LAB as $CaCO_3$ (mg/L) (00905)	CALCIUM DISSOLVED (mg/L as Ca) (00915)	MAGNESIUM, DISSOLVED (mg/L as Mg) (00925)	SODIUM, DISSOLVED (mg/L as Na) (00930)	SODIUM ADSORPTION RATIO (00931)	SODIUM PERCENT (00932)	POTASSIUM, DISSOLVED (mg/L as K) (00935)	CHLORIDE, DISSOLVED (mg/L as Cl) (00940)	SULFATE DISSOLVED (mg/L as SO_4) (00945)	FLUORIDE, DISSOLVED (mg/L as F) (00950)	SILICA, DISSOLVED (mg/L as SiO_2) (00955)
OCT											
21...	50	54	21	45	1	30	5.7	24	130	0.4	6.4
DEC											
16...	45	54	18	30	0.9	23	4.3	22	84	0.3	9.3
JAN											
27...	55	57	20	31	0.9	23	4.7	29	75	0.3	10
FEB											
24...	39	48	16	27	0.9	24	4.6	25	66	0.3	9.9
MAR											
12...	36	43	14	21	0.7	21	5.0	25	46	0.2	8.5
26...	36	47	16	27	0.9	24	5.0	22	57	0.2	7.5
APR											
15...	46	49	16	27	0.9	23	4.6	18	80	0.3	9.0
28...	--	--	--	--	--	--	--	15	66	0.2	--
MAY											
22...	67	58	21	27	0.8	20	4.9	19	99	0.3	6.5
JUN											
11...	76	58	23	30	0.9	21	4.7	20	97	0.3	6.3
JUL											
09...	58	55	20	33	1	24	5.0	20	110	0.3	8.7
21...	55	55	21	36	1	26	4.7	19	110	0.3	8.3
AUG											
13...	--	55	20	42	1	29	4.5	19	110	0.3	7.6
20...	65	55	21	42	1	29	4.5	19	130	0.3	7.2
SEP											
17...	60	53	21	46	1	31	5.0	20	140	0.3	8.9

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued

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

DATE	MOLYB-DENUM, DIS-SOLVED (mg/L as Mo) (01060)	NICKEL, DIS-SOLVED (mg/L as Ni) (01065)	SILVER, DIS-SOLVED (mg/L as Ag) (01075)	STRON-TIUM, DIS-SOLVED (mg/L as Sr) (01080)	VANA-DIUM, DIS-SOLVED (mg/L as V) (01085)	ZINC, DIS-SOLVED (mg/L as Zn) (01090)	ANTI-MONY, DIS-SOLVED (mg/L as Sb) (01095)	ALUM-INUM, DIS-SOLVED (mg/L as Al) (01106)	LITHIUM DIS-SOLVED (mg/L as Li) (01130)	SELE-NIUM, DIS-SOLVED (mg/L as Se) (01145)	PROP-CHLOR, WATER, DISS, REC (µg/L) (04024)
OCT											
21...	3	3	<1	350	7	<1	<1	5	24	<1	<0.007
DEC											
16...	2	2	<1	270	<6	<1	<1	11	15	1	<0.007
JAN											
27...	2	2	<1	250	<6	2	<1	54	13	<1	<0.007
FEB											
24...	2	2	<1	230	<6	<1	<1	37	16	<1	<0.007
MAR											
12...	1	2	<1	170	<6	<1	<1	38	7	<1	<0.007
26...	1	2	<1	190	<6	<1	<1	12	7	<1	<0.007
APR											
15...	2	2	<1	230	<6	<1	<1	24	16	<1	<0.007
28...	--	--	--	--	--	--	--	--	--	--	<0.007
MAY											
22...	2	2	<1	270	<6	<1	<1	10	19	2	<0.007
JUN											
11...	3	2	<1	270	<6	1	<1	6	19	2	<0.007
JUL											
09...	3	2	<1	300	<6	1	<1	3	21	1	<0.007
21...	3	2	<1	300	<6	2	<1	4	23	1	<0.007
AUG											
13...	3	2	<1	310	<6	<1	<1	5	27	1	--
20...	3	2	<1	320	<6	<1	<1	7	30	1	<0.007
SEP											
17...	3	2	<1	340	<6	5	<1	6	31	2	<0.007

DATE	BUTYL-ATE, WATER, DISS, REC (µg/L) (04028)	SI-MAZINE, WATER, DISS, REC (µg/L) (04035)	PRO-METON, WATER, DISS, REC (µg/L) (04037)	DEETHYL ATRA-ZINE, WATER, DISS, REC (µg/L) (04040)	CYANA-ZINE, WATER, DISS, REC (µg/L) (04041)	FONOFOS WATER DISS REC (µg/L) (04095)	URANIUM NATURAL DIS-SOLVED (mg/L as U) (22703)	ALPHA BHC DIS-SOLVED (µg/L) (34253)	P,P' DDE DISSOLV (µg/L) (34653)	CHLOR-PYRIFOS DIS-SOLVED (µg/L) (38933)	LINDANE DIS-SOLVED (µg/L) (39341)
OCT											
21...	<0.002	<0.005	E0.008	E0.004	<0.004	<0.003	3	<0.002	<0.004	<0.004	<0.001
DEC											
16...	<0.002	0.009	E0.008	E0.026	0.030	<0.003	3	<0.002	<0.004	<0.004	<0.001
JAN											
27...	<0.002	0.008	E0.007	E0.008	0.015	<0.003	2	<0.002	0.006	<0.004	<0.001
FEB											
24...	<0.002	0.006	E0.008	E0.032	0.035	<0.003	2	<0.002	<0.004	<0.004	<0.001
MAR											
12...	<0.002	0.008	E0.006	E0.024	0.044	<0.003	1	<0.002	<0.004	<0.004	<0.001
26...	<0.002	0.008	E0.004	E0.020	0.025	<0.003	2	<0.002	E0.002	<0.004	<0.001
APR											
15...	<0.002	0.008	E0.004	E0.015	0.066	<0.003	1	<0.002	<0.004	<0.004	<0.001
28...	<0.002	0.008	E0.003	E0.015	0.049	<0.003	--	<0.002	E0.003	<0.004	<0.001
MAY											
22...	<0.002	0.012	E0.007	E0.022	0.142	<0.003	4	<0.002	<0.004	<0.004	<0.001
JUN											
11...	<0.002	0.136	E0.009	E0.080	0.503	<0.003	3	<0.002	<0.004	<0.004	<0.001
JUL											
09...	<0.002	0.025	E0.013	E0.088	0.222	<0.003	3	<0.002	<0.004	<0.004	<0.001
21...	<0.002	0.008	E0.004	E0.018	0.026	<0.003	3	<0.002	E0.003	<0.004	E0.003
AUG											
13...	--	--	--	--	--	--	3	--	--	--	--
20...	<0.002	0.009	E0.011	E0.027	0.030	<0.003	3	<0.002	<0.004	<0.004	<0.001
SEP											
17...	<0.002	0.006	E0.008	E0.015	0.021	<0.003	3	<0.002	<0.004	<0.004	<0.001

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued

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

DATE	DI-ELDRIN DIS-SOLVED (µg/L) (39381)	METO-LACHLOR WATER DISSOLV (µg/L) (39415)	MALA-THION, DIS-SOLVED (µg/L) (39532)	PARA-THION, DIS-SOLVED (µg/L) (39542)	DI-AZINON, DIS-SOLVED (µg/L) (39572)	ATRA-ZINE, WATER, DISS, REC (µg/L) (39632)	ALA-CHLOR, WATER, DISS, REC, (µg/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (µg/L) (49260)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (mg/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (mg/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)
OCT											
21...	<0.001	0.052	<0.005	<0.004	<0.002	0.170	0.005	0.012	408	389	137000
DEC											
16...	<0.001	0.074	0.010	<0.004	0.007	0.214	0.010	0.020	339	326	175000
JAN											
27...	<0.001	0.092	0.039	<0.004	0.093	0.192	0.010	0.022	347	336	151000
FEB											
24...	<0.001	0.103	<0.005	<0.004	<0.002	0.139	0.006	0.041	308	295	367000
MAR											
12...	<0.001	0.280	<0.005	<0.004	<0.002	0.220	0.014	0.084	248	252	271000
26...	<0.001	0.423	<0.005	<0.004	E0.004	0.177	0.009	0.031	286	287	265000
APR											
15...	<0.001	0.396	<0.005	<0.004	E0.002	0.406	0.014	0.059	318	297	380000
28...	<0.001	0.262	0.006	<0.004	0.038	0.244	0.007	0.031	275	--	--
MAY											
22...	<0.001	0.430	<0.005	<0.004	<0.002	0.625	0.022	0.200	354	341	271000
JUN											
11...	<0.001	0.801	<0.005	<0.004	<0.002	1.99	0.050	0.244	360	345	239000
JUL											
09...	<0.001	0.760	<0.005	<0.004	<0.002	2.05	0.045	0.091	384	356	247000
21...	E0.003	0.412	<0.005	<0.004	0.004	0.172	0.009	0.029	380	357	226000
AUG											
13...	--	--	--	--	--	--	--	--	385	447	182000
20...	<0.001	0.092	<0.005	<0.004	E0.002	0.243	0.008	0.016	405	375	210000
SEP											
17...	<0.001	0.057	<0.005	<0.004	E0.003	0.157	0.004	0.008	406	387	155000

E--Laboratory estimated value.

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 mm (70331)	NITRO-GEN, AMMONIA DIS-SOLVED (mg/L as NH_4) (71846)	NITRO-GEN, NITRATE DIS-SOLVED (mg/L as NO_3) (71851)	NITRO-GEN, NITRITE DIS-SOLVED (mg/L as NO_2) (71856)	SEDI-MENT, SUS-PENDED (mg/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	METRI-BUZIN SENCOR WATER DISSOLV (µg/L) (82630)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 µ GF, REC (µg/L) (82660)	TRI-FLUR-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82661)	ETHAL-FLUR-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82663)	PHORATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82664)
OCT											
21...	93	0.10	3.3	0.10	141	47200	<0.004	<0.003	<0.002	<0.004	<0.002
DEC											
16...	78	0.14	9.2	0.07	152	78400	<0.004	<0.003	<0.002	<0.004	<0.002
JAN											
27...	72	0.33	9.6	0.10	206	89500	0.005	<0.003	<0.002	<0.004	<0.002
FEB											
24...	83	0.24	8.8	0.07	1760	2100000	0.006	<0.003	<0.002	<0.004	<0.002
MAR											
12...	64	0.32	10	0.10	397	434000	<0.010	<0.003	<0.002	<0.004	<0.002
26...	87	0.19	11	0.12	211	195000	<0.004	<0.003	0.005	<0.004	<0.002
APR											
15...	89	0.05	10	0.10	960	1150000	<0.004	<0.003	E0.004	<0.004	<0.002
28...	--	0.04	9.2	0.08	--	--	0.005	<0.003	E0.004	<0.004	<0.002
MAY											
22...	88	0.08	11	0.07	254	195000	<0.008	<0.003	E0.004	<0.004	<0.002
JUN											
11...	89	0.04	11	0.10	165	110000	0.018	<0.003	0.004	<0.004	<0.002
JUL											
09...	86	--	13	0.05	285	183000	<0.004	<0.003	<0.002	<0.004	<0.002
21...	88	--	8.6	0.08	186	110000	<0.004	<0.003	0.005	<0.004	<0.002
AUG											
13...	85	--	5.7	0.06	126	59500	--	--	--	--	--
20...	85	0.04	4.0	0.06	127	65800	<0.004	E0.001	E0.002	<0.004	<0.002
SEP											
17...	93	--	--	--	138	52500	<0.004	<0.003	<0.002	<0.004	<0.002

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued

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

DATE	TER-BACIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82665)	METHYL PARA-THION WAT FLT 0.7 µ GF, REC (µg/L) (82667)	EPTC WATER FLTRD 0.7 µ GF, REC (µg/L) (82668)	PEB-ULATE WATER FILTRD 0.7 µ GF, REC (µg/L) (82669)	TEBU-THIURON WATER FLTRD 0.7 µ GF, REC (µg/L) (82670)	MOL-INATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82671)	ETHO-PROP WATER FLTRD 0.7 µ GF, REC (µg/L) (82672)	BEN-FLUR-ALIN WAT FLD 0.7 µ GF, REC (µg/L) (82673)	CARBO-FURAN WATER FLTRD 0.7 µ GF, REC (µg/L) (82674)	TER-BUFOS WATER FLTRD 0.7 µ GF, REC (µg/L) (82675)	PRON-AMIDE WATER FLTRD 0.7 µ GF, REC (µg/L) (82676)
OCT											
21...	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
DEC											
16...	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
JAN											
27...	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
FEB											
24...	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.010	<0.013	<0.003
MAR											
12...	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
26...	<0.007	<0.006	E0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
APR											
15...	<0.007	<0.006	E0.001	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
28...	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
MAY											
22...	<0.007	<0.006	E0.003	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
JUN											
11...	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
JUL											
09...	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
21...	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
AUG											
13...	--	--	--	--	--	--	--	--	--	--	--
20...	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	E0.002	<0.003	<0.013	<0.003
SEP											
17...	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003

E--Laboratory estimated value.

DATE	DISUL-FOTON WATER FLTRD 0.7 µ GF, REC (µg/L) (82677)	TRIAL-LATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82678)	PRO-PANIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82679)	CAR-BARYL WATER FLTRD 0.7 µ GF, REC (µg/L) (82680)	THIO-BENCARB WATER FLTRD 0.7 µ GF, REC (µg/L) (82681)	DCPA WATER FLTRD 0.7 µ GF, REC (µg/L) (82682)	PENDI-METH-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82683)	NAPROP-AMIDE WATER FLTRD 0.7 µ GF, REC (µg/L) (82684)	PRO-PARGITE WATER FLTRD 0.7 µ GF, REC (µg/L) (82685)	METHYL AZIN-PHOS WAT FLT 0.7 µ GF, REC (µg/L) (82686)	PER-METHRIN CIS WAT FLT 0.7 µ GF, REC (µg/L) (82687)
OCT											
21...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
DEC											
16...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
JAN											
27...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
FEB											
24...	<0.017	<0.001	<0.004	E0.024	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
MAR											
12...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
26...	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	<0.004	<0.003	<0.013	<0.001	<0.005
APR											
15...	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	<0.004	<0.003	<0.013	<0.001	<0.005
28...	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	<0.004	<0.003	<0.013	<0.001	<0.005
MAY											
22...	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	<0.004	<0.003	<0.013	<0.001	<0.005
JUN											
11...	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	<0.004	<0.003	<0.013	<0.001	<0.005
JUL											
09...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
21...	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	<0.004	<0.003	<0.013	<0.001	<0.005
AUG											
13...	--	--	--	--	--	--	--	--	--	--	--
20...	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	<0.004	<0.003	<0.013	<0.001	<0.005
SEP											
17...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005

E--Laboratory estimated value.

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at crest-stage partial-record stations are presented in the following table. Discharge measurements made at miscellaneous sites are given in a separate table.

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. Datum of gage is in feet above sea level.

Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1997 maximum			Period of record maximum		
			Date	Gage height (feet)	Discharge (ft^3/s)	Date	Gage height (feet)	Discharge (ft^3/s)
BAY CREEK BASIN								
Hayes Creek at Glendale, Ill (03385000)	Lat 37°27'25", long 88°40'05", in SW1/4SW1/4 sec.21, T.12 S., R.5 E., Pope County, Hydrologic Unit 05140203, on left pier at downstream side of bridge on State Highway 145 in Glendale, 3.0 mi upstream from mouth, and at mile 3.3. Datum of gage is 375.14 ft. Drainage area is 19.1 mi^2	1950-75‡, 1976-97	03-01-97	15.67	3,420	08-24-85	19.14	9,450
ROCK RIVER BASIN								
Rock Creek at Morrison, Ill. (05446000)	Lat 41°47'50", long 89°58'20", in NW1/4 sec.19, T.21 N., R.5 E., Whiteside County, Hydrologic Unit 07090005, on right bank at upstream side of bridge on Prairie Center Road in Morrison, 0.2 mi upstream from French Creek, 7.5 mi downstream from Little Rock Creek, and at mile 15.2. Datum of gage is 606.91 ft. Drainage area is 164 mi^2.	1940-58‡, 1959-71, 1978-86‡, 1987-97	02-21-97	17.76	5,050	01-06-46	a16.04	5,770

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 1997 maximum			Period of record maximum		
			Date	Gage height (feet)	Discharge (ft^3/s)	Date	Gage height (feet)	Discharge (ft^3/s)
HENDERSON CREEK BASIN								
Cedar Creek at Little York, Ill. (05468500)	Lat 41°00'50", long 90°44'45", between secs.20 and 21, T.12 N., R.3 W., Warren County, Hydrologic Unit 07080104, attached to downstream side of right bridge pier on State Highway 135 at north edge of Little York, 1.5 mi upstream from Davids Creek, and 6.7 mi upstream from mouth. Datum of gage is 574.27 ft. Drainage area is 132 mi^2.	1941-71‡, 1972-97	02-21-97	15.96	4,960	07-24-93	18.76	18,1[illegible]
HADLEY CREEK BASIN								
Hadley Creek near Barry, Ill. (05502020)	Lat 39°42'48", long 91°03'56", in SW1/4SW1/4 sec.14, T.4 S., R.6 W., Pike County, Hydrologic Unit 07110004, on upstream end of right pier of bridge on U.S. Highway 36, 1.8 mi northwest of Barry, 2.0 mi upstream from Beebe Creek, and at mile 13.4. Datum of gage is 533.59 ft. Drainage area is 40.9 mi^2.	1956-66‡, 1967-97	02-21-97	8.69	2,930	04-21-73 04-11-79	15.31 12.89	>9,0[illegible] 9,0[illegible]
CACHE RIVER BASIN								
Big Creek near Wetaug, Ill (05600000)	Lat 37°19'00", long 89°07'55", in SW1/4 sec.5, T.14 S., R.1 E., Pulaski County, Hydrologic Unit 07140108, on left bank 300 ft upstream from bridge on County Highway 5, 1.0 mi upstream from Little Creek, 2.0 mi southeast of Wetaug, and at mile 2.4. Datum of gage is 336.86 ft. Drainage area is 32.2 mi^2.	1941-71‡, 1972-97	03-02-97	12.29	1,930	03-19-43	--	b7,2[illegible]

‡ Operated as a continuous-record gaging station.
> Greater than.
a At former site and datum.
b Affected by breaks in levees.
-- Not determined.

GROUND-WATER RECORDS

KANE COUNTY

420507088325501. Local number, 41N 6E- 9.1g2.

LOCATION.--Lat 42°05'07", long 88°32'55", Hydrologic Unit 07090006, Village of Burlington, Well 2. Owner: Village of Burlington.

AQUIFER.--Galena, Platteville, and Ancell Groups of Ordovician age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 10 in., depth 1,105 ft, cased to 344 ft, open hole.

INSTRUMENTATION.--Manual steel-tape measurement made every 2 months.

DATUM.--Land-surface datum is 925 ft above sea level. Measuring point: Top of casing, 1.0 ft above land-surface datum.

REMARKS.--Water level affected by regional drawdown cone.

PERIOD OF RECORD.--June 1992 to September 1997 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 350.19 ft below land-surface datum, Feb. 7, 1996; lowest measured, 355.65 ft below land-surface datum, Aug. 3, 1992.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 08	351.76	DEC 10	351.53	FEB 05	352.62	APR 01	355.56	JUN 10	351.50	AUG 05	351.55

OGLE COUNTY

420453089172601. Local number, 24N10E-13.6e2.

LOCATION.--Lat 42°04'53", long 89°17'26", Hydrologic Unit 07090005, approximately 4 mi southwest of Byron Owner: U.S. Environmental Protection Agency.

AQUIFER.--St. Peter Sandstone of Ordovician age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 2 in., depth 230 ft, cased to 225 ft, screened.

INSTRUMENTATION.--Manual steel-tape measurement made every 2 months.

DATUM.--Land-surface datum is 860.4 ft above sea level. Measuring point: Top of 2 in. casing, 1.1 ft above land-surface datum.

PERIOD OF RECORD.--February 1992 to September 1997 (discontinued). Miscellaneous water-level measurements from March 1989 to February 1992 are available in files of the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 170.33 ft below land-surface datum, Aug. 9, 1993; lowest measured, 175.01 ft below land-surface datum, Aug. 4, 1992.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07	173.31	DEC 09	174.04	FEB 05	173.65	MAR 31	172.32	JUN 09	173.14	AUG 04	174.01

VERMILION COUNTY

402558087351501. Local number, 23N11E-22.8a1.

LOCATION.--Lat 40°25'58", long 87°35'15", Hydrologic Unit 05120109, about 2 mi south of Cheneyville. Owner: Fay Orr.

AQUIFER.--Glacial Drift.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in., depth 146 ft, cased to 126 ft, 2-in. screen

INSTRUMENTATION.--Electronic data logger--60-minute recording.

DATUM.--Land-surface datum is 710 ft above sea level. Measuring point: Access hole through pump base on concrete pad, 1.3 ft above land-surface datum.

PERIOD OF RECORD.--December 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 20.64 ft below land-surface datum, Jan. 1-4, 6, 1994; lowest, 24.30 ft below land-surface datum, Oct. 26,1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	21.76	21.50	21.78	21.53	21.42	22.61	23.28
10	24.20	---	---	22.95	---	21.70	21.65	21.76	21.38	21.52	22.83	---
15	24.24	---	23.79	22.95	---	21.58	21.65	21.75	21.05	21.63	22.85	---
20	24.22	---	23.64	---	---	21.42	21.64	21.80	21.10	22.01	22.91	---
25	24.27	---	23.49	---	22.22	21.46	21.81	21.77	21.20	22.07	23.00	---
EOM	---	---	---	---	---	21.56	21.75	21.66	21.32	22.49	23.23	---

WATER YEAR 1997 HIGH 20.94 JUNE 16 LOW 24.30 OCT 26

WINNEBAGO COUNTY

422930089023201. Local number, 46N 2E- 6.2d1.

LOCATION.--Lat 42°29'30", long 89°02'32", Hydrologic Unit 07090001, South Beloit. Owner: Soo Line Railroad, Inc.

AQUIFER.--Ironton and Galesville Sandstones of Cambrian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 8 in., depth 400 ft, cased to 241 ft, open hole.

INSTRUMENTATION.--Manual steel-tape measurement made every 2 months.

DATUM.--Land-surface datum is 740 ft above sea level. Measuring point: Top of casing, 1.2 ft above land-surface datum.

REMARKS.--Water levels affected by pumping of nearby wells.

PERIOD OF RECORD.--December 1991 to September 1997 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.99 ft below land-surface datum, Feb. 4, 1993; lowest measured, 24.06 ft below land-surface datum, Aug. 2, 1995.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07	19.11	DEC 09	15.05	FEB 05	16.55	MAR 31	15.60	JUN 09	17.46	AUG 04	23.24

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CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
	Length	
inch (in.)	2.54×10^{1}	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^{0}	kilometer
	Area	
acre	4.047×10^{3}	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi^2)	2.590×10^{0}	square kilometer
	Volume	
gallon (gal)	3.785×10^{0}	liter
	3.785×10^{0}	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^{3}	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft^3)	2.832×10^{1}	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic-foot-per-second day [(ft^3/s) d]	2.447×10^{3}	cubic meter
	2.447×10^{-3}	cubic hectometer
acre-foot (acre-ft)	1.233×10^{3}	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
	Flow	
cubic foot per second (ft^3/s)	2.832×10^{1}	liter per second
	2.832×10^{1}	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^{1}	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
	Mass	
ton (short)	9.072×10^{-1}	megagram or metric ton

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

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