

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

Water Resources Data Kentucky Water Year 1999

By D.L. McClain, F.D. Byrd, and A.C. Brown

Water-Data Report KY-99-1



Prepared in cooperation with the
Commonwealth of Kentucky and with other agencies



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

U.S. GEOLOGICAL SURVEY
Charles G. Groat, Director

For additional information write to:

District Chief, Water Resources Division
U.S. Geological Survey
9818 Bluegrass Parkway
Louisville, Kentucky 40299-1906

PREFACE

This volume of the annual hydrologic data report of Kentucky 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 water quality 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.

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. The authors had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Survey policy and established guidelines. Most of the data were collected, computed, and processed from the District and field offices.

The data were collected, computed, and processed by the following personnel:

H.C. Allen	P.L. Faith	B.L. Moore
P.J. Bruenderman	J.D. Filbeck	C.R. Moses
S.J. Coutts	B.S. Fink	D.S. Mueller
A.S. Crain	M.S. Griffin	S.B. Pickard
R.S. Darnell	Zeke Hensley	R.E. Puckett
A.K. Dirrim	H.A. Hitchcock	E.A. Shreve
A.C. Downs	G.R. Martin	D.D. Zettwoch
D.W. Eichert	G.K. McCombs	

This report was prepared in cooperation with the Commonwealth of Kentucky and with other agencies under the general supervision of Dennis L. McClain, Supervisory Hydrologic Technician, and Harry C. Rollins, District Chief, Kentucky.

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE March 27, 2000	3. REPORT TYPE AND DATES COVERED Annual—October 1, 1998 to September 30, 1999
----------------------------------	----------------------------------	--

4. TITLE AND SUBTITLE Water Resources Data - Kentucky, Water Year 1999	5. FUNDING NUMBERS
---	--------------------

6. AUTHOR(S) D.L. McClain, F.D. Byrd, and A.C. Brown

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U.S. Geological Survey, Water Resources Division Kentucky District 9818 Bluegrass Parkway Louisville, KY 40299-1906	8. PERFORMING ORGANIZATION REPORT NUMBER USGS-WDR-KY-99-1
--	--

9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Geological Survey, Water Resources Division Kentucky District 9818 Bluegrass Parkway Louisville, KY 40299-1906	10. SPONSORING / MONITORING AGENCY REPORT NUMBER USGS-WDR-KY-99-1
---	--

11. SUPPLEMENTARY NOTES
Prepared in cooperation with the Commonwealth of Kentucky and other agencies.

12a. DISTRIBUTION / AVAILABILITY STATEMENT No restriction on distribution. This report may be purchased from National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.	12b. DISTRIBUTION CODE
--	------------------------

13. ABSTRACT (Maximum 200 words)
Water resources data for the 1999 water year for Kentucky consists of records of stage, discharge, and water quality of streams and lakes; and water levels of wells. This report includes daily discharge records for 106 stream-gaging stations. It also includes water-quality data for 10 stations sampled at regular intervals. Ground-water levels are published for 6 recording and 14 partial record sites. Precipitation data at a regular interval are published for 1 site. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurements and analyses. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Kentucky.

14. SUBJECT TERMS *Kentucky, *Hydrologic data, *Surface waters, *Water quality, *Ground waters, Gaging stations, Streamflow, Flow rates, Lakes, Wells, Chemical analyses, Suspended sediments, Water temperature, Water levels	15. NUMBER OF PAGES 492
	16. PRICE CODE

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

CONTENTS

	Page
Preface	iii
List of gaging stations, in downstream order, for which records are published	vii
List of ground-water wells, by county, for which records are published.	x
List of precipitation-quality stations, by county, for which records are published.	x
Introduction. . . . .	.1
Cooperation. . . . .	.1
Summary of hydrologic conditions. . . . .	.2
Surface water . . . . .	.2
Quality of water . . . . .	.2
Ground-water levels . . . . .	.6
Special networks and programs . . . . .	.6
Explanation of records . . . . .	.8
Station identification numbers . . . . .	.8
Downstream order system. . . . .	.8
Latitude-longitude system. . . . .	.9
Records of stage and water discharge . . . . .	.9
Data collection and computation . . . . .	.9
Data presentation	10
Station manuscript	11
Data table of daily mean values	12
Statistics of monthly mean data	12
Summary statistics	12
Identifying estimated daily discharge.	14
Accuracy of the records	14
Other records available	15
Records of surface-water quality	15
Classification of records.	15
Arrangement of records.	15
On-site measurements and sample collection.	15
Water temperature.	16
Sediment	16
Laboratory measurements.	17
Data presentation	17
Remarks codes	18
Dissolved trace-element concentrations	18
Change in National Trends Network procedures	18
Records of ground-water level	19
Data collection and computation	19
Data presentation	19
Records of precipitation-quality	20
On-site measurements and sample collection.	20
Data presentation	21
Access to WATSTORE data	21
Definition of terms	23
Publications on techniques of water-resources investigations	34
Station records, surface water	42
Discharge at partial-record stations	428
Crest-stage partial-record stations.	428
Miscellaneous discharge measurements.	435
Station records, ground water	441
Ground-water levels listed by county	441
Station records, precipitation records	453
Discontinued gaging-station records	456
Discontinued water-quality records	464
Discontinued ground-water records	473
Index	476

ILLUSTRATIONS

		Page
Figure	1. Mean discharge during 1999 water year and period of record for three representative gaging stations	3
	2. Diagram showing system for numbering wells and miscellaneous sites (latitude and longitude)	9
	3. Map showing location of gaging stations in Kentucky	39
	4. Map showing location of surface water quality stations in Kentucky	40
	5. Map showing location of gaging stations in Jefferson County	41
	6. Map showing location of observation wells in downtown Louisville	439
	7. Map showing location of observation wells in northeast Jefferson County	440

TABLES

Table	1. Mean, maximum, and minimum streamflow for water year 1999 and recurrence intervals at selected stations	4
	2. Summary of quality-control samples for selected nutrients, major ions, and trace elements collected at NASQAN stations from October 1995 through September 1999.	7

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

[Letters after station name designate type of data: (d) discharge, (g) stage, (c) chemical,
(b) biological, (t) water temperature, (s) sediment]

	Page
	STATION NUMBER
OHIO RIVER BASIN	
Ohio River:	
BIG SANDY RIVER BASIN	
Levisa Fork (head of Big Sandy River):	
Grapevine Creek near Phyllis (d)	03207965 42
Levisa Fork at Pikeville (d)	03209500 44
Johns Creek near Meta (d)	03210000 46
Levisa Fork at Paintsville (d)	03212500 48
LITTLE SANDY RIVER BASIN	
Little Sandy River at Grayson (d)	03216500 50
Ohio River at Greenup Dam (d, c)	03216600 52
TYGARTS CREEK BASIN	
Tygarts Creek near Greenup (d)	03217000 60
KINNICONICK CREEK BASIN	
Kinniconick Creek at Tannery (d)	03237250 62
LICKING RIVER BASIN	
LICKING RIVER:	
Fox Creek:	
Rock Lick Creek above Unnamed Tributary near Sharkey (d)	03250310 64
Rock Lick Creek at State Highway 158 near Sharkey (d)	03250322 66
North Fork Licking River near Mt. Olivet (d)	03251200 68
South Fork Licking River:	
Hinkston Creek near Carlisle (d)	03252300 70
Licking River at Catawba (d)	03253500 72
Ohio River at Markland Dam (d)	03277200 74
KENTUCKY RIVER BASIN	
North Fork Kentucky River (head of Kentucky River):	
North Fork Kentucky River at Whitesburg (d)	03277300 76
North Fork Kentucky River at Jackson (d)	03280000 78
Middle Fork Kentucky River:	
Cutshin Creek at Wooton (d)	03280700 80
Middle Fork Kentucky River at Tallega (d)	03281000 82
Kentucky River:	
Red Bird River (head of South Fork Kentucky River) near Big Creek (d)	03281040 84
Goose Creek at Manchester (d)	03281100 86
South Fork Kentucky River at Booneville (d)	03281500 88
Kentucky River at lock 14, at Heidelberg (d)	03282000 90
Sturgeon Creek at Cressmont (d)	03282040 92
Red River near Hazel Green (d)	03282500 94
Red River at Clay City (d)	03283500 96
Kentucky River at lock 10, near Winchester (d)	03284000 98
Hickman Creek:	
East Hickman Creek at Andover Village (d)	03284520 100
East Hickman Creek Tributary near Lexington (d)	03284525 102
East Hickman Creek near East Hickman (d)	03284530 104
West Hickman Creek near East Hickman (d)	03284555 106
Dix River near Danville (d)	03285000 108
Spears Creek at Railroad Culvert near Danville (d,g)	03285280 110
Spears Creek at Streamland Drive near Danville (d,g)	03285290 128
Mocks Branch at Bluegrass Pike near Danville (d,g)	03285320 138
Mocks Branch at Highway 1915 (Gentry Lane) near Danville (d,g)	03285325 146
Mocks Branch at Highway 127 near Danville (d,g)	03285330 164
Mocks Branch at Highway 1896 near Danville (d,g)	03285335 182
Kentucky River at lock 7, near High Bridge (d)	03286500 200
Kentucky River at lock 6, near Salvisa (d)	03287000 202
Kentucky River at lock 4, at Frankfort (d)	03287500 204

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

[Letters after station name designate type of data: (d) discharge, (g) stage, (c) chemical,
(b) biological, (t) water temperature, (s) sediment]

	STATION NUMBER	Page
OHIO RIVER BASIN--Continued		
Ohio River--Continued		
KENTUCKY RIVER BASIN		
KENTUCKY RIVER		
Elkhorn Creek--continued		
Elkhorn Creek:		
North Elkhorn Creek at Bryant Road (d)	03287580	206
North Elkhorn Creek at Winchester Road (d)	03287590	208
North Elkhorn Creek at Bryan Station Road (d)	03287600	210
North Elkhorn Creek near Georgetown (d)	03288000	212
North Elkhorn Creek at Georgetown (d)	03288100	214
Royal Spring at Georgetown (d)	03288110	216
South Elkhorn Creek:		
South Elkhorn Creek at Fort Spring (d)	03289000	218
Town Branch:		
Wolf Run at Old Frankfort Pike at Lexington (d)	03289193	220
Town Branch at Yarnallton (d)	03299200	224
South Elkhorn Creek near Midway (d)	03289300	226
Elkhorn Creek near Frankfort (d)	03289500	228
Kentucky River at lock 2, at Lockport (d)	03290500	230
Eagle Creek at Glencoe (d)	03291500	232
HARRODS CREEK BASIN		
Harrods Creek at Hwy 329 near Goshen (d)	03292470	234
GOOSE CREEK BASIN		
Goose Creek at Old Westport Road near St. Matthews (d)	03292474	236
Little Goose Creek near Harrods Creek (d)	03292480	238
BEARGRASS CREEK BASIN		
South Fork Beargrass Creek at Louisville (d)	03292500	240
South Fork Beargrass Creek at Winter Avenue at Louisville (d)	03292550	242
Middle Fork Beargrass Creek at Louisville (d)	03293000	244
Ohio River at Louisville (d)	03294500	246
SALT RIVER BASIN		
Salt River at Glensboro (d)	03295400	248
Brashears Creek:		
Bullskin Creek near Simpsonville (d)	03295702	250
Brashears Creek at Taylorsville (d)	03295890	252
Floyds Fork:		
Floyds Fork near Pewee Valley (d)	03297900	254
Floyds Fork at Fishersville (d)	03298000	256
Chenoweth Run at Ruckriegel Parkway (d)	03298135	258
Chenoweth Run at Gelhaus Lane near Fern Creek (d)	03298150	260
Cedar Creek at Thixton Road near Louisville (d)	03298250	262
Pennsylvania Run at Mt. Washington Road near Louisville (d)	03298300	264
Salt River at Shepherdsville (d)	03298500	266
Long Lick near Clermont (d)	03298550	268
Rolling Fork:		
Beech Fork at Maud (d)	03300400	270
Beech Fork at Bardstown (d)	03301000	272
Rolling Fork near Boston (d)	03301500	274
Wilson Creek at Harrison Fork Road near Deatsville (d)	03301575	276
Mill Creek near Fort Knox	03301700	278
Pond Creek:		
Southern Ditch:		
Northern Ditch:		
Fern Creek at Old Bardstown Road at Louisville (d)	03301900	282
Northern Ditch at Okolona (d)	03301940	284
Pond Creek near Louisville (d)	03302000	286

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

[Letters after station name designate type of data: (d) discharge, (g) stage, (c) chemical,
(b) biological, (t) water temperature, (s) sediment]

	STATION NUMBER	Page
OHIO RIVER BASIN--Continued		
Salt River Basin--Continued		
Pond Creek:		
Pond Creek at Pendleton Road near Louisville (d)	03302030	288
Brier Creek at Pendleton Road near Louisville (d)	03302050	290
OTTER CREEK BASIN		
Otter Creek at Otter Creek Park near Rock Haven (d)	03302110	292
Ohio River at Cannelton Dam (d,c)	03303280	294
GREEN RIVER BASIN		
Green River:		
Russell Creek near Columbia (d)	03307000	302
Green River at Munfordville (d)	03308500	304
Nolin River at White Mills (d)	03310300	306
Nolin River at Kyrock (d)	03311000	308
Beaver Creek at Hwy 31 E near Glasgow (d)	03312765	310
Barren River:		
West Fork Drakes Creek near Franklin (d)	03313700	312
Green River at Paradise (d)	03316500	314
Green River at lock 2, at Calhoun (d)	03320000	316
Pond River near Apex (d)	03320500	318
Pond River near Madisonville (g)	03321060	320
WABASH RIVER BASIN		
Wabash River at New Harmony, IN (c)	03378500	322
TRADEWATER RIVER BASIN		
Tradewater River at Olney (d)	03383000	328
Ohio River at Smithland Dam (d)	03399800	330
CUMBERLAND RIVER BASIN		
CUMBERLAND RIVER:		
Martins Fork Lake at Martins Fork Dam near Smith (c,t)	03400798	332
Martins Fork near Smith (d,c,t)	03400800	354
Cumberland River near Harlan (d)	03401000	364
Yellow Creek near Middlesboro (d)	03402000	366
Cumberland River at Pine St. Bridge at Pineville, KY (d)	03402900	368
Cumberland River at Barbourville (d)	03403500	370
Clear Fork at Saxton (d)	03403910	372
Cumberland River at Williamsburg (d)	03404000	374
Laurel River:		
Lynn Camp Creek at Corbin (d)	03404900	376
Rockcastle River at Billows (d)	03406500	378
South Fork Cumberland River near Stearns (d,c)	03410500	380
South Fork Cumberland River at Yamacraw (d,c)	03410600	386
Beaver Creek near Monticello (d)	03413200	392
Little River near Cadiz (d)	03438000	394
Cumberland River near Grand Rivers (c)	03438220	396
TENNESSEE RIVER BASIN		
Tennessee River at Hwy 60, near Paducah, Ky (c)	03609750	402
Clarks River at Almo (d)	03610200	408
MASSAC CREEK BASIN		
Massac Creek near Paducah (d)	03611260	410
Ohio River at Metropolis, IL (d)	03611500	412
BAYOU CREEK BASIN		
Bayou Creek near Heath (d)	03611800	414
Bayou Creek near Grahamville (d)	03611850	416
Little Bayou Creek near Grahamville (d)	03611900	418
Ohio River at lock and dam 53, near Grand Chain, IL (c)	03612500	420

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

[Letters after station name designate type of data: (d) discharge, (g) stage, (c) chemical,
(b) biological, (t) water temperature, (s) sediment]

Page

STATION NUMBER

LOWER MISSISSIPPI RIVER BASIN

BAYOU DE CHEIN BASIN

Bayou De Chein near Clinton (d) 07024000 426

GROUND-WATER WELLS, BY COUNTY, FOR WHICH RECORDS ARE PUBLISHED GROUND-WATER LEVELS

GRAVES COUNTY

Well 365210088391301 (Viola) 441

JEFFERSON COUNTY

Well 381441085452701 Local number 45-14-71, (A-2). 442
 Well 381442085444801 (Metro United Way) 443
 Well 381445085460201 (9th & Broadway QW). 443
 Well 381447085454001 Local number 45-14-66, (CJ&T #5). 443
 Well 381501085445601 (UL Med.) 444
 Well 381503085453301 Local number 45-15-36, (Ky. Towers). 444
 Well 381504085443202 Local number CP-7A 444
 Well 381517085455501 Local number 86-6. 445
 Well 381518085453402 Local number 86-11 446
 Well 381522085445201 (LSM) 447
 Well 381538085453001 Local Number 86-7 447
 Well 381638085415801 Local Number 41-16-3. 447
 Well 381648085421201 Local Number 42-16-15 448
 Well 381653085413302 Local Number WC-9A. 449
 Well 381701085414002 Local Number WC-8A. 450
 Well 381742085402001 Local Number 40-17-5. 451
 Well 381827085392401 Local Number 39-18-1. 451
 Well 381904085384801 Local Number 38-19-2. 451
 Well 382039085375201 Local Number WP-7. 452

PRECIPITATION STATION, BY COUNTY FOR WHICH RECORD IS PUBLISHED

ROWAN COUNTY, KENTUCKY

390706083324900 453

INTRODUCTION

Water resources data for the 1999 water year for Kentucky consist of records of stage, discharge, and water quality of streams and lakes; and water levels of wells. This report includes daily discharge records for 106 stream-gaging stations. It also includes water-quality data for 10 stations sampled at regular intervals. Ground-water levels are published for 6 recording and 14 partial record sites. Precipitation data at a regular interval are published for 1 site. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurement and analyses. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Kentucky.

Records of discharge or stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers titled, "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers titled, "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1944 to 1973 in a series of water-supply papers titled, "Ground-Water Levels in the United States."

Beginning with the 1961 water year and continuing through water year 1999, streamflow data have been released by the U.S. Geological Survey in annual reports on a State-boundary basis. Water-quality records beginning with the 1964 water year, and ground-water data since the 1971 water year have been similarly released either in separate reports or in conjunction with streamflow records. These reports provided rapid release of preliminary water data shortly after the end of the water year. The final data were then released in the water-supply paper series mentioned above. Beginning with the 1975 water year, water data will be released on a State-boundary basis in final form and will not be republished in the water-supply paper series. The 1975 and subsequent water year reports will be in a series which will carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this report is identified as "U.S. Geological Survey Water-Data Report KY 99-1." These reports are for sale to the public for a nominal fee by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (502) 493-1900.

COOPERATION

The U.S. Geological Survey and organizations of the Commonwealth of Kentucky have had cooperative agreements for the systematic collection of streamflow records since 1938, for ground-water records since 1943, and for water-quality records since 1949. Organizations that assisted in collecting data through cooperative agreements with the Survey are

Ohio River Valley Water Sanitation Commission, Alan Vicory, Executive Director,
Kentucky Cabinet for Health Services, John H. Morse, Secretary,
Kentucky Geological Survey, Dr. Donald C. Haney, Director and State Geologist,
Kentucky Natural Resources and Environmental Protection Cabinet, James E. Bickford, Secretary,
Kentucky River Authority, Steve Reeder, Executive Director,
Kentucky Transportation Cabinet, James C. Codell, III, Secretary,
Bullitt County, Kenneth J. Rigdon, Judge/Executive,
Jefferson County, Rebecca D. Jackson, Judge/Executive,
Lexington-Fayette Urban County Government, Sandra M. Varellas, Judge/Executive,
City of Bardstown, William G. Brown, Mayor,

City of Carrollton, Ann C. Deatherage, Mayor,
City of Elizabethtown, David Willmoth, Jr., Mayor,
City of Georgetown, Everette L. Varney, Mayor,
City of Glasgow, Charles B. Honeycutt, Mayor,
City of Lewisburg, Gwyneth J. McKinney, Mayor,
City of Louisville, David L. Armstrong, Mayor,
City of Owingsville, Clarence Rister, Mayor,
City of Simpsonville, Steve Eden, Mayor,
Kentucky Heritage Resource Conservation & Development Council, John Overing, RC&D Coordinator,
University of Louisville, Dr. John Schumaker, President,
Water Resources Research Institute, Dr. Lyle Sendlein, and
Assistance in the form of funds or services was given by the Federal Highway Administration; U.S. Army Corps of Engineers;
the U.S. Environmental Protection Agency, Region IV--Atlanta; and the U.S. Navy.
Organizations that supplied data are acknowledged in station descriptions.

SUMMARY OF HYDROLOGIC CONDITIONS

Surface Water

Monthly and annual mean streamflow for the 1999 water year and the period of record are shown in figure 1 for three representative streamflow-gaging stations in Kentucky.

Based on flow data collected at 23 surface-water gaging stations across Kentucky, annual peak flows during the 1999 water year had recurrence intervals of less than five years. The eastern half of the State had recurrence intervals of less than two years while the central and western parts of the State had recurrence intervals of less than two and five years. Because of an extremely dry summer, low flow recurrence intervals across the State ranged from less than two years to greater than twenty years. Some recurrence intervals were greater than twenty years in the Kentucky, Salt, and Cumberland River Basins, however most of the recurrence intervals in these Basins were less than ten years (table 1).

No major flooding occurred in the State during the 1999 water year and mean daily streamflows across the State ranged from 42 to 95 percent of normal.

Quality of Water

Water-quality data were collected primarily within the National Stream Quality Accounting Network (NASQAN) program. During water year 1999, five NASQAN stations were operated including Ohio River at Greenup Dam near Greenup, Kentucky (03216600); Ohio River at Cannelton Dam, Kentucky (03303280); Wabash River at New Harmony, Indiana (03378500); Tennessee River at Highway 60 near Paducah, Kentucky (03609750); and the Ohio River at Dam 53 near Grand Chain, Illinois (03612500). Each station is routinely sampled 12 times per year with more intensive sampling (every 2 weeks) occurring from April to June. Three additional samples can be collected at each station, with the exception of the Tennessee River at Highway 60 near Paducah which has completely regulated flow, if there is an occurrence of a high flow or low flow event. The samples collected from all stations are analyzed for major anions and cations, nutrients, trace elements, pesticides, suspended sediment, and selected physical properties. With a redesign of the sampling protocol in 1998, trace element samples are collected and analyzed only 4 times per year at each station.

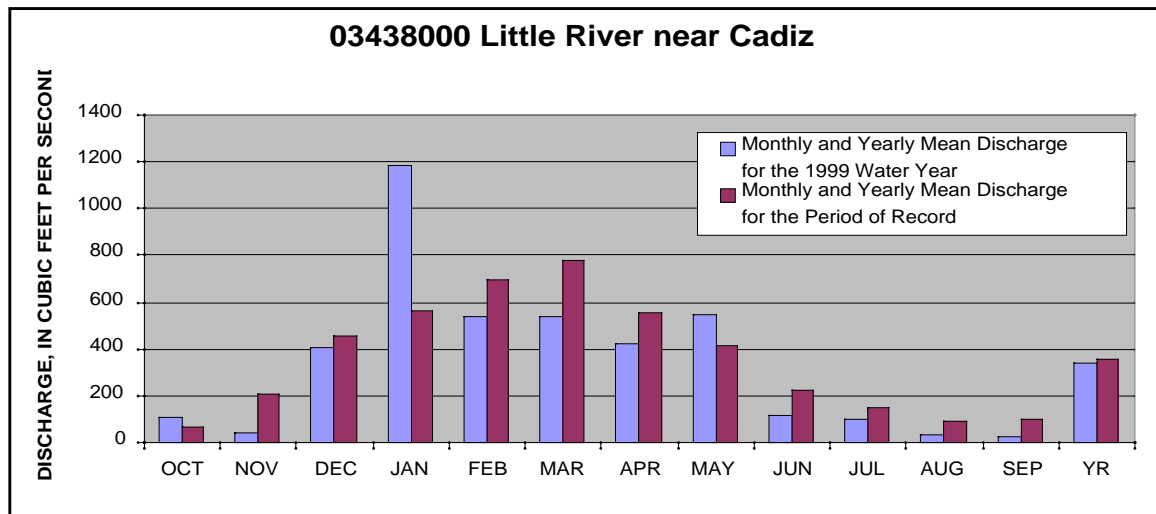
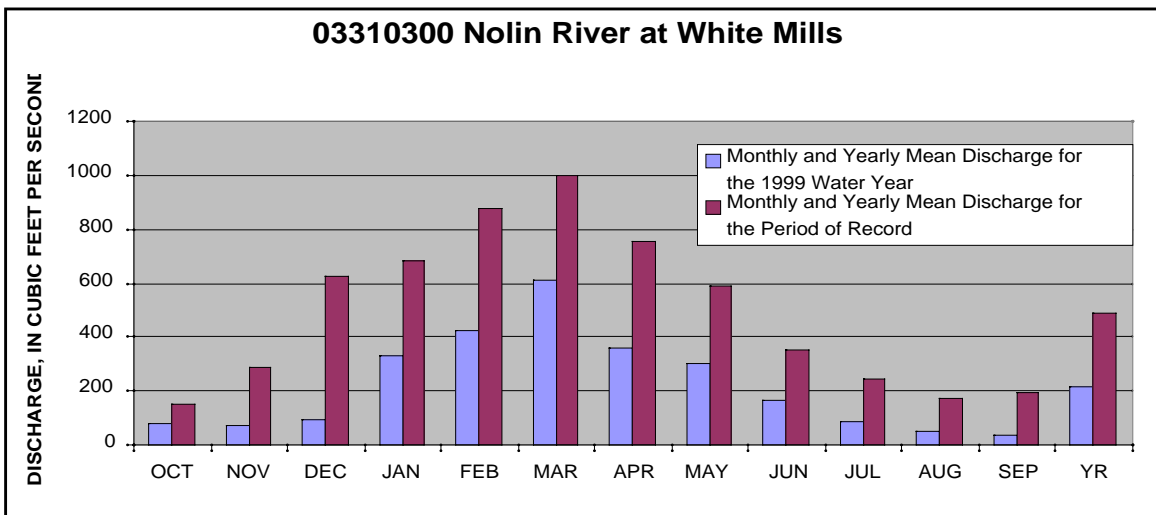
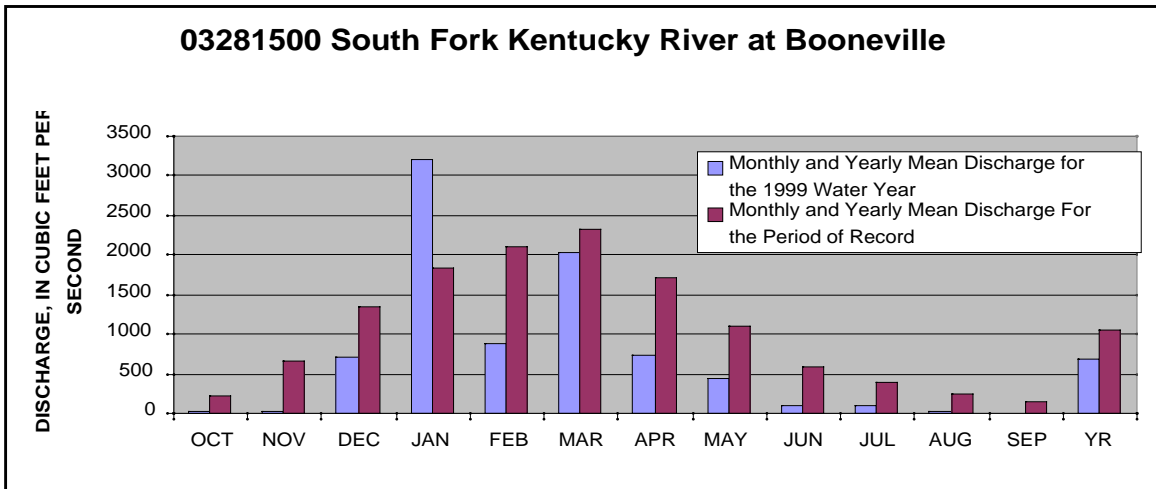


Figure 1. Mean Discharge during 1999 water year and period of record for three representative gaging stations.

Table 1. Mean, maximum, and minimum streamflow for water year 1999 and recurrence intervals

Station number	Length of record (years)	Mean		Maximum		Minimum	
		Daily streamflow (ft ³ /s)	Percent of average	Peak streamflow (ft ³ /s)	Recurrence interval (years)	Daily streamflow (ft ³ /s)	Recurrence interval (years)
<u>TYGARTS CREEK BASIN</u>							
03217000	59	130	42	3020	<2	.09	<10
<u>KINNICONICK CREEK BASIN</u>							
03237250	8	137	47	2680		0.00	
<u>LICKING RIVER BASIN</u>							
03251200	8	175	55	3870		0.00	
<u>KENTUCKY RIVER BASIN</u>							
03280700	42	59.6	64	2380	<2	.37	<10
03281040	27	186	66	10800	<2	.80	<10
03281100	35	170	64	7280	<2	.85	<10
03281500	66	688	65	18800	<2	.10	>20
03282500	44	46.7	53	1830	<2	0.00	=10
03283500	62	286	57	9400	<5	5.4	<10
03285000	57	314	66	18800	<5	0.10	<10
<u>BEARGRASS CREEK BASIN</u>							
03293000	55	17.1	67	680	<2	0.00	=10
<u>SALT RIVER BASIN</u>							
03298000	55	121	66	5180	<2	0.00	<2
03300400	27	358	56	14400	<2	0.00	>20
03301500	61	1100	60	18700	<2	7.3	<10
<u>GREEN RIVER BASIN</u>							
03307000	60	218	75	9410	<5	2.9	<10
03310300	40	217	44	3090	<2	27	>20
03320500	59	212	77	7860	<5	0.00	<2
<u>CUMBERLAND RIVER BASIN</u>							
03404900	26	56.3	63	2140	<2	.10	>20
03406500	63	616	65	25300	<5	6.7	<10
03410500	57	1548	87	38700	<2	22	<10
03438000	59	337	95	7630	<5	19	<10
<u>MASSAC CREEK BASIN</u>							
03611260	28	10.5	60	1090	>2	0.54	<2
<u>BAYOU DE CHIEN BASIN</u>							
07024000	54	77.4	75	3780	<5	14	<2

A water-quality study related to the environmental effects of coal mining was started in June 1999 on the Big South Fork to assist the National Park Service in their assessment of remedial activities in the Big South Fork National River and Recreation Area and the Big South Fork watershed. The selected stations for water-quality monitoring include the Big South Fork near Yamacraw, Kentucky (03410500) and the Big South Fork near Stearns, Kentucky (03410600). Selection of these stations allow investigators to assess any changes in the water-quality of the Big South Fork from the upstream station (03410500) to the downstream station (03410600) during the abatement of contaminated mine drainage. Each station is sampled once a month, and the samples collected are analyzed for major cations and selected trace elements. Temperature, specific conductance, and pH are continuously monitored at each station. This study is expected to end in September 2000.

QUALITY-CONTROL DATA

Data generated from quality-control (QC) samples (table 2) are a requisite for evaluating the quality of the sampling and processing techniques as well as data from the actual samples themselves. Without QC data, environmental sample data cannot be adequately interpreted because the errors associated with the sample data are unknown. The various types of QC samples collected by the Kentucky District for the NASQAN program and the Big South Fork study are described in the following section. Procedures have been established for the storage of water-quality-control data within the USGS. These procedures allow for storage of all derived QC data and are identified so that they can be related to corresponding environmental samples.

BLANK SAMPLES

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

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

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

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

REPLICATE SAMPLES

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

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

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

SPIKE SAMPLES

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

Ground-Water Levels

Most currently monitored observation wells tap the alluvial aquifer underlying Downtown Louisville and northeast Jefferson County.

Ground-water levels in the alluvial aquifer underlying Louisville and northeast Jefferson County respond to rainfall, pumpage, river stage, and natural flow to the Ohio River. In general, even during the drought conditions of 1999 most ground-water levels remained normal due to the influence of the Ohio River. Some water levels in northeast Jefferson County continue to decline because of increased pumpage in the area.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Benchmark 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 human activities.

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 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 SO₂ 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 SO₂ 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>

Table 2. Summary of quality-control samples for selected nutrients, major ions, and trace elements collected at NASQAN stations from October 1995 through September 1999

[MDL, maximum detection limit; N, number of samples; <, less than, CV, coefficient of variation; nutrient and major ion concentrations in milligrams per liter; trace element concentrations in micrograms per liter]

Analyte	Blanks					Replicates		
	MDL	N	N>MDL	Minimum	Maximum	Number of replicate samples	Number of replicate sets	Pooled CV
A. Dissolved nutrients								
Ammonia nitrogen	0.01	39	0	<0.002	0.024	36	18	15
Nitrite plus nitrate nitrogen	0.05	39	0	<0.005	1.132	34	17	3.2
Total phosphorus	0.01	39	1	<0.001	0.028	36	18	19
B. Dissolved major ions								
Calcium	0.01	42	8	<0.002	18.923	36	18	1.3
Magnesium	0.01	42	3	<0.001	3.037	36	18	1.2
Sodium	0.025	42	5	<0.025	4.239	36	18	1.3
C. Dissolved trace elements								
Copper	0.2	42	5	<0.2	2.3	26	13	15
Iron	3.0	42	1	0	5.726	33	16	21
Lead	0.3	42	3	0.3	1	27	13	0
Manganese	0.1	42	5	0.1	1	27	13	19
Strontium	0.1	42	6	0.1	52.875	36	18	1.8
Zinc	0.5	42	25	0.5	25.25	27	13	44

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

Assessment activities are being conducted in 53 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

Communication and coordination between USGS personnel and other local, State, and federal interests are critical components of the NAWQA Program. Each study unit has a local liaison committee consisting of representatives from key federal, State, and local water resources agencies, Indian nations, and universities in the study unit. Liaison

committees typically meet semiannually to discuss their information needs, monitoring plans and progress, desired information products, and opportunities to collaborate efforts among the agencies.

Additional information about the NAWQA Program is available through the world wide web at:

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

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1999 water year that began October 1, 1998, and ended September 30, 1999. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, and water-quality data for surface-water gaging stations. The locations of the stations and wells where the data were collected are shown in figures 3-7. 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.

Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter ($\mu\text{g/L}$) 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). Present data above the $\mu\text{g/L}$ 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 will begin using new trace-element protocols in the near future.

Station Identification Numbers

Each data station, whether stream site or well, in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey 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 the "latitude-longitude" system is used for wells, and in Kentucky for surface-water stations where only miscellaneous measurements are made.

Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a 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 shows 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 03208000, which appears just to the left of the station name, includes the two-digit Part number "03" plus the six-digit downstream-order number "208000." The Part number designates the major river basin; for example, Part "03" is the Ohio River Basin.

Latitude-Longitude System

The identification numbers for wells and miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. 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 are 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 (fig.2).

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record.

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records."

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 relationships 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 relationship 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."

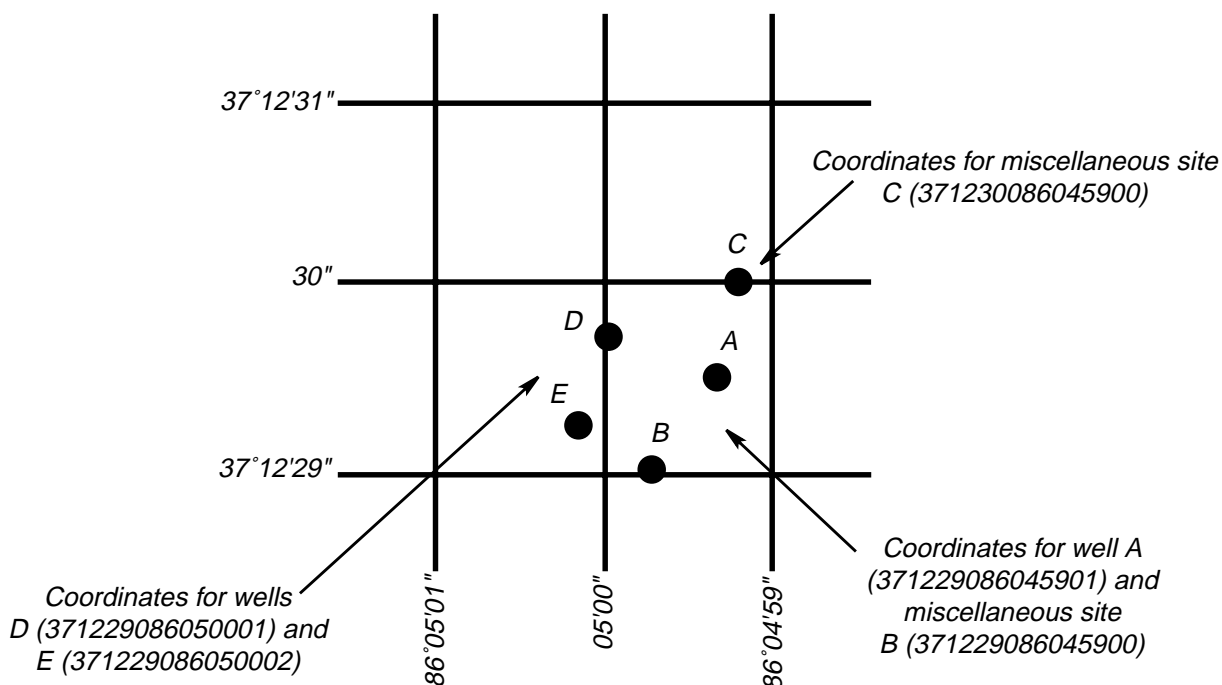


Figure 2. System for numbering wells, springs, and miscellaneous sites (latitude and longitude).

Continuous records of stage are obtained with data-collection platforms which transmit stage or with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adopted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6.

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 of 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 stream-gaging stations, the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

For some gaging stations, there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated 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. 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 new format that is considerably different from the format in data reports prior to the 1991 water year. The major changes are that statistical characteristics of discharge now appear in tabular summaries following the water-year data table and less information is provided in the text or station manuscript above the table. These changes represent the results of a pilot program to reformat the annual water-data report to meet current user needs and data preferences.

The records published for each continuous-record surface-water discharge station (gaging station) now consists 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 included 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 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 referenced place mentioned in the station name is given. River mileages, given for only a few stations, were determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

DRAINAGE AREA.--Drainage areas are measured using the most accurate maps available. Because the type of maps available vary 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 National Geodetic Vertical Datum of 1929 (see glossary), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

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

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

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

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

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

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

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

Data Table of Daily Mean Values

The daily table of discharge records for stream-gaging stations gives mean discharge for each day of the water year. In the monthly summary for the table, the line headed "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 also is usually 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 included large noncontributing areas. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversion data or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

Statistics of Monthly Mean Data

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

Summary Statistics

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

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

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

The following summary statistics data, as appropriate, are provided with each continuous record of discharge. Comments 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 climactic year (April 1–March 31). The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day 10-year low-flow statistic).

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

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

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

ANNUAL RUNOFF.--Indicates the total 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) indicates 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 is exceeded 10 percent of the time for the designated period.

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

90 PERCENT EXCEEDS.--The discharge that is 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 of annual State data reports are identified either by flagging individual daily values with the letter symbol "e" and printing a table footnote, "e Estimated," or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of 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 their true values; "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 ft³/s; to the nearest tenth between 1.0 and 10 ft³/s; to whole numbers between 10 and 1,000 ft³/s; and to three significant figures for more than 1,000 ft³/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

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

Other Records Available

Information used in the preparation of the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables is on file in the Kentucky District. 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 office whose address is given on the back of the title page of this report.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always 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 once or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A miscellaneous sampling site is a location other than a continuing or partial-record station where random samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between "continuing records," as used in this report, and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape or recorded electronically. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this report are shown in figures 4.

Arrangement of Records

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

On-Site Measurements and Sample Collection

In obtaining water-quality data, a major concern needs to be assuring that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made on-site when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for on-site measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed under "PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS" which appears at the end of the introductory text. Detailed information on collecting, treating, and shipping samples may be obtained from the Kentucky District.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals depends on flow conditions and other factors which 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. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the Kentucky District whose address is given on the back of the title page of this report.

Water Temperature

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

At stations where recording instruments are used, 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 Kentucky 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 determine the mean concentration in the cross sections.

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

At other stations, suspended-sediment samples 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 and in predicting long-term sediment-discharge characteristics of the stream.

Laboratory Measurements

Sediment samples, samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the Geological Survey laboratory in Arvada, Colorado. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used by the Geological Survey laboratory are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4.

Data Presentation

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

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, 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 record, sediment pumping sampler, or other sampling device is in operation at a station.

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

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

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

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update 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 U.S. Geological Survey 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.

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).
V	Analyte was detected in both the environmental sample and the associated blanks
&	Biological organism estimated as dominant.

Dissolved Trace-Element Concentrations

*NOTE.--Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter ($\mu\text{g/L}$) 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 $\mu\text{g/L}$ 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.

Change in National Trends Network Procedures

*NOTE.--Sample handling procedures at all National Trends Network stations were changed substantially on January 11, 1994, in order to reduce contamination from the sample shipping container. The data for samples before and after that date are different and not directly comparable. A tabular summary of the differences based on

a special intercomparison study, is available from the NADP/NTN Coordination Office, Colorado State University, Fort Collins, CO 80523 (Telephone: 303-491-5643).

Records of Ground-Water Levels

Water-level data from selected observation wells are given in this report. These data are intended to provide a sampling and historical record of water-level changes. Locations of observation wells in Kentucky are shown in figures 6 and 7.

Data Collection and Computation

Measurements of water levels are made in many types of wells 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.

Tables of 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.

Water-level records are obtained from direct measurements with a steel tape or from the graph or punched tape of a 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.

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 of 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 water year. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments to follow clarify information presented under the various headings.

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) National Geodetic Vertical Datum of 1929 (NGVD of 1929); it is reported with a precision depending on the method of determination.

REMARKS.--This entry describes factors that may influence 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-Survey) 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 U.S. Geological Survey 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 Geological Survey, 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. The highest and lowest water levels of the water year and their dates of occurrence are shown on a line below the 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 Precipitation Quality

The precipitation-quality data presented in this report represent analyses of time-composite samples, most often for a collection period of one week. This is in contrast to most of the published surface-water quality data which represent samples taken of specific times.

On-Site Measurements and Sample Collection

Precipitation samples are collected with wet/dry collectors. The wet/dry collector is the preferred precipitation sampler and consists of a bucket which is open only during periods of wet (rainfall, snow, etc.) precipitation. During dry periods the sample bucket is covered, thus excluding dry-fall precipitation from the sample.

National Trends Network (NTN) stations are equipped with weighing-bucket rain gages, which graphically record rainfall as well as count rainfall events. The other commonly-used recording gage consists of a rainfall catchment pipe and a float-driven digital recorder which periodically records the water-level in the pipe.

Time-composite wet-precipitation samples are collected and brought back to the laboratory and weighed. Rainfall quantity is estimated from the sample weight. A temperature-density correction can be applied if desired but normally this correction results in a very small change in the estimated quantity of rainfall. An estimation of the sampler efficiency is made by computing the ratio of rainfall amount collected in the sample bucket to that measured by the recording rain gage. This collector efficiency ratio is an important indicator of possible collector malfunction. For example, a ratio substantially less than one indicates that the wet/dry collector was not opening properly and thus, excluding rainfall.

After weighing the sample, a small portion is removed for measurement of pH, specific conductance, and, in some instances, titratable acidity. The pH and specific conductance are both determined electrometrically according to methods described in the National Atmospheric Deposition Program "NADP Instruction Manual: Site Operation." The remainder of the sample is then used for laboratory chemical analyses. This portion of the sample is shipped to the

laboratory raw and untreated. In the case of NTN operation, the original bucket is resealed and mailed to the Illinois State Water Survey Central Analytical Laboratory (CAL) for analysis. In all other instances, sample portions are preserved, treated, and analyzed according to specific project requirements.

Data Presentation

Records of precipitation quality are published following the "records of ground-water" section of this report. As with records of daily water discharge and surface-water quality, precipitation-quality records consist of two parts, a station header and a data table. The station header contains the descriptive information pertinent to the establishment, location, and operation of the site. Records are presented alphabetically by county and, within each county, by latitude, longitude, and sequence number. As with ground-water wells, the primary site identifier used for precipitation-quality stations in this report is the 15-digit composite of these three numbers. The following text presents a clarification of the subheadings which follow the station identification number and station name.

LOCATION.--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 precipitation-quality records for the station. Periods of record are presented separately for each type of sample collected at the site (in this report, wet precipitation, dry precipitation, and fog).

INSTRUMENTATION.--In this section, an abbreviated-style listing of the data-recording and sample-collection equipment permanently housed at the site is presented.

REMARKS.--This section is reserved for comments pertaining to unusual or extraordinary circumstances or to qualifying information which must be used accurately interpret the data presented for the site. More general comments which may pertain to several or all of the sites are presented in the "EXPLANATION OF RECORDS" section in the introductory part of the report.

COOPERATION.--Chemical-quality data were provided by National Atmospheric Deposition Program.

ACCESS TO USGS DATA

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

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

Water Quality-Control Data

Data generated from quality-control (QC) samples are a requisite for evaluating the quality of the sampling and processing techniques as well as data from the actual samples themselves. Without QC data, environmental sample data cannot be adequately interpreted because the errors associated with the sample data are unknown. The various types of QC samples collected by this district are described in the following section.

Procedures have been established for the storage of water-quality-control data within the USGS. These procedures allow for storage of all derived QC data and are identified so that they can be related to corresponding environmental samples.

Blank Samples

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

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

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

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

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

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

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

Preservation blank- a blank solution that is treated with the sampler preservatives used for an environmental sample.

Reference Samples

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

Replicate Samples are a set of environmental samples collected in a manner such that the samples are thought to be essentially identical in composition. Replicate is the general case for which a duplicate is the special case consisting of two samples. Replicate samples are collected and analyzed to establish the amount of variability in the data contributed by some part of the collection and analytical process. There are many types of replicate samples possible, each of which may yield slightly different results in a dynamic hydrologic setting, such as a flowing stream. The types of replicate samples collected in this district are: Sequential samples- a type of replicate sample in which the samples are collected one after the other, typically over a short time.

Split sample- a type of replicate sample in which a sample is split into subsamples contemporaneous in time and space.

Spike Samples

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

DEFINITION OF TERMS

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

Acid neutralizing capacity (ANC) is the equivalent sum of all bases or base-producing materials, solutes plus particulates, in an aqueous system that can be titrated with acid to an equivalence point.

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

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 measurement 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 multi-celled 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.

Alkalinity is the capacity of solutes in an aqueous system to neutralize acid.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, while 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. This group includes coliforms that inhabit the intestine of warm-blooded animals and those that inhabit soils. 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 plus or minus 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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

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

Enterococcus bacteria are commonly found in the feces of humans and other warm-blooded animals.

Although some strains are ubiquitous and not related to fecal pollution, the presence of enterococci in water is an indication of fecal pollution and the possible presence of enteric pathogens. Enterococcus bacteria are those bacteria which produce pink to red colonies with black or reddish-brown precipitate after incubation

at 41°C on mE agar and subsequent transfer to EIA medium. Enterococci include *Streptococcus feacalis*, *Streptococcus feacium*, *Streptococcus avium*, and their variants.

Bedload is the sediment which moves along in essentially continuous contact with the streambed by rolling, sliding, and making brief excursions into the flow a few diameters above the bed.

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

Benthic invertebrates are invertebrate animals inhabiting the bottoms of lakes, streams, and other water bodies. They are useful as indicators of water quality.

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

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

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

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).

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-ft, about 646,000 gallons, or 2,447 cubic meters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with BOD 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.

Continuing-record station is a specified site which meets one or all conditions listed:

1. When chemical samples are collected daily or monthly for 10 or more months during the water year.
2. When water temperature records include observations taken one or more times daily.
3. When sediment discharge records include periods for which sediment loads are computed and are considered to be representative of the runoff for the water year.

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.

Cubic foot per second (FT³/S, ft³/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute.

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-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 um 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, the bicarbonate (generally a major dissolved component of water) is converted to 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 change.

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

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.

Extractable organic halides (EOX) are organic compounds which contain halogen atoms such as chlorine. These organic compounds are semi-volatile and extractable by ethyl acetate from air-dried stream bottom sediments. The ethyl acetate extract is combusted, and the concentration is determined by microcoulometric determination of the halides formed. The concentration is reported as micrograms of chlorine per gram of the dry weight of the stream bottom sediments.

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 (CaCO₃).

High tide is the maximum height reached by each rising tide.

Hydrologic Benchmark 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 human activities.

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

Low tide is the minimum height reached by each falling tide.

Mean high tide is the average of all high tides over a specified period.

Mean low tide is the average of all low tides over a specified period.

Mean water level is the average of all tides over a specified period.

Membrane filter is a thin microporous material of specific pore size used to filter bacteria, algae, and other very small particles from water.

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.

Methylene blue active substances (MBAS) are apparent detergents. The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

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

Microsiemens per centimeter (mS/cm, US/CM) is a unit expressing the amount of electrical conductivity of a solution as measured between opposite faces of a centimeter cube of solution at a specified temperature. Siemens is the International System of units nomenclature. It is synonymous with mhos and is the reciprocal of resistance in ohms.

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 water. Concentration of suspended sediment also is expressed in mg/L and is based on the mass of dry sediment per liter of water-sediment mixture.

Most probable number (MPN) is an index of the number of coliform bacteria that, more probably than any other number, would give the results shown by the laboratory examination; it is not an actual enumeration. It is determined from the distribution of gas-positive cultures among multiple inoculated tubes.

Multiple-plate samplers are artificial substrates of known surface area used for obtaining benthic-invertebrate samples. They consist of a series of spaced, hardboard plates on an eyebolt.

National Geodetic Vertical Datum of 1929 (NGVD of 1929) 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 (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 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 U.S. Geological Survey (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 SO₂ 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 SO₂ and NO_x scheduled to begin in 2000.

The National Water-Quality Assessment (NAWQA) Program of the USGS 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 area habitat, usually square meter (m²), 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 5-digit number used in the USGS computerized data system, National Water Information System (NWIS), to uniquely identify a specific constituent. The codes used in NWIS are the same as those used in the U.S. Environmental Protection Agency (USEPA) data system, STORET. The USEPA 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 classification used in this report agrees 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	0.00024 - 0.004	Sedimentation
Silt	.004 - .062	Sedimentation
Sand	.062 - 2.0	Sedimentation/sieve
Gravel	2.0 - 64.0	Sieve

The partial-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.

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.

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

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

Milligrams of carbon per area or volume per unit time [mgC/(m²/time)] for periphyton and macrophytes and [mgC/(m³/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 [mgO/(m²/time)] for periphyton and macrophytes and [mgO/(m³/time)] for phytoplankton are the 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 (that is, less than 95 percent) 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 hydrological event of a given or greater magnitude, usually expressed in years. May also be called recurrence interval.

River mile as used herein, is the distance above the mouth of Delaware Bay, measured along the center line of the navigation channel or the main stem of the Delaware River. River mile data were furnished by the Delaware River Basin Commission.

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

Sea level: In this report "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 both the United States and Canada, formerly called Sea Level Datum of 1929.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in 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.

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). The entire sample is used for the analysis.

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 (ft³/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.

Suspended total residue at 105°C concentration is the concentration of suspended sediment in the sampled zone expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L). A small aliquot of the sample is used for the analysis.

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.

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 water.

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 for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is from 55 to 75 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

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

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "stream-

flow" 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 immersed 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 or 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 Plexiglas strips for periphyton collection.

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

Surficial bed material is 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-micrometer 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 um membrane filter 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 the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the 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 um 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.

Synoptic Studies Short-term investigations of specific water-quality conditions during selected seasonal or hydrologic periods to provide improved spatial resolution for critical water-quality conditions. For the period and conditions sampled, they assess the spatial distribution of selected water-quality conditions in relation to causative factors, such as land use and contaminant sources.

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

Kingdom:	Animal
Phylum:	Arthropoda
Class:	Insecta
Order:	Ephemeroptera
Family:	Ephemeridae
Genus:	<i>Hexagenia</i>
Species:	<i>Hexagenia Limbata</i>

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-ft indicates the dry mass of dissolved solids in 1 acre-ft 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 (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures 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 are also 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.

Volatile Organic Compounds (VOC's) are organic compounds that can be isolated from the water phase of a sample by purging the water sample with inert gas, such as helium, and subsequently analyzed by gas chromatography. Many VOC's are man-made chemicals that are used and produced in the manufacture of paints, adhesives, petroleum products, pharmaceuticals, and refrigerants. They are often components of fuels, solvents, hydraulic fluids, paint thinners, and dry cleaning agents commonly used in urban settings. VOC contamination of drinking-water supplies is a human health concern because many are toxic and are known or suspected human carcinogens (U.S. Environmental Protection Agency, 1996).

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, 1985, is called the "1985 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 reference to previously published reports.

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

The USGS 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 USGS, 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 made in the form of a 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 mention the "U.S. Geological Survey Techniques of Water-Resources Investigations."

Book 1. Collection of Water Data by Direct Measurement

Section D. Water Quality

- 1-D1. *Water temperature—influential factors, field measurement, and data presentation*, by H.H. Stevens, Jr., J.F. Ficke, and G.F. Smoot: USGS–TWRI book 1, chap. D1. 1975. 65 pages.
- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W.W. Wood: USGS–TWRI book 1, chap. D2. 1976. 24 pages.

Book 2. Collection of Environmental Data

Section D. Surface Geophysical Methods

- 2-D1. *Application of surface geophysics to ground-water investigations*, by A.A. R. Zohdy, G.P. Eaton, and D.R. Mabey: USGS–TWRI book 2, chap. D1. 1974. 116 pages.
- 2-D2. *Application of seismic-refraction techniques to hydrologic studies*, by F.P. Haeni: USGS–TWRI book 2, chap. D2. 1988. 86 pages.

Section E. Subsurface Geophysical Methods

- 2-E1. *Application of borehole geophysics to water-resources investigations*, by W.S. Keys and L.M. MacCary: USGS–TWRI book 2, chap. E1. 1971. 126 pages.
- 2-E2. *Borehole geophysics applied to ground-water investigations*, by W.S. Keys: USGS–TWRI book 2, chap. E2. 1990. 150 pages.

Section F. Drilling and Sampling Methods

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

Book 3. Applications of Hydraulics

Section A. Surface-Water Techniques

- 3-A1. *General field and office procedures for indirect discharge measurements*, by M.A. Benson and Tate Dalrymple: USGS–TWRI book 3, chap. A1. 1967. 30 pages.
- 3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M.A. Benson: USGS–TWRI book 3, chap. A2. 1967. 12 pages.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G.L. Bodhaine: USGS–TWRI book 3, chap. A3. 1968. 60 pages.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H.F. Matthai: USGS–TWRI book 3, chap. A4. 1967. 44 pages.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS–TWRI book 3, chap. A5. 1967. 29 pages.

TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS OF THE U.S. GEOLOGICAL SURVEY—*Continued*

- 3-A6. *General procedure for gaging streams*, by R.W. Carter and Jacob Davidian: USGS–TWRI book 3, chap. A6. 1968. 13 pages.
- 3-A7. *Stage measurement at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS–TWRI book 3, chap. A7. 1968. 28 pages.
- 3-A8. *Discharge measurements at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS–TWRI book 3, chap. A8. 1969. 65 pages.
- 3-A9. *Measurement of time of travel in streams by dye tracing*, by F.A. Kilpatrick and J.F. Wilson, Jr.: USGS–TWRI book 3, chap. A9. 1989. 27 pages.
- 3-A10. *Discharge ratings at gaging stations*, by E.J. Kennedy: USGS–TWRI book 3, chap. A10. 1984. 59 pages.
- 3-A11. *Measurement of discharge by the moving-boat method*, by G.F. Smoot and C.E. Novak: USGS–TWRI book 3, chap. A11. 1969. 22 pages.
- 3-A12. *Fluorometric procedures for dye tracing*, Revised, by J.F. Wilson, Jr., E.D. Cobb, and F.A. Kilpatrick: USGS–TWRI book 3, chap. A12. 1986. 34 pages.
- 3-A13. *Computation of continuous records of streamflow*, by E.J. Kennedy: USGS–TWRI book 3, chap. A13. 1983. 53 pages.
- 3-A14. *Use of flumes in measuring discharge*, by F.A. Kilpatrick and V.R. Schneider: USGS–TWRI book 3, chap. A14. 1983. 46 pages.
- 3-A15. *Computation of water-surface profiles in open channels*, by Jacob Davidian: USGS–TWRI book 3, chap. A15. 1984. 48 pages.
- 3-A16. *Measurement of discharge using tracers*, by F.A. Kilpatrick and E.D. Cobb: USGS–TWRI book 3, chap. A16. 1985. 52 pages.
- 3-A17. *Acoustic velocity meter systems*, by Antonius Laenen: USGS–TWRI book 3, chap. A17. 1985. 38 pages.
- 3-A18. *Determination of stream reaeration coefficients by use of tracers*, by F.A. Kilpatrick, R.E. Rathbun, Nobuhiro Yotsukura, G.W. Parker, and L.L. DeLong: USGS–TWRI book 3, chap. A18. 1989. 52 pages.
- 3-A19. *Levels at streamflow gaging stations*, by E.J. Kennedy: USGS–TWRI book 3, chap. A19. 1990. 31 pages.
- 3-A20. *Simulation of soluble waste transport and buildup in surface waters using tracers*, by F.A. Kilpatrick: USGS–TWRI book 3, chap. A20. 1993. 38 pages.
- 3-A21. *Stream-gaging cableways*, by C. Russell Wagner: USGS–TWRI book 3, chap. A21. 1995. 56 pages.

Section B. Ground-Water Techniques

- 3-B1. *Aquifer-test design, observation, and data analysis*, by R.W. Stallman: USGS–TWRI book 3, chap. B1. 1971. 26 pages.
- 3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G.D. Bennett: USGS–TWRI book 3, chap. B2. 1976. 172 pages.
- 3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J.E. Reed: USGS–TWRI book 3, chap. B3. 1980. 106 pages.
- 3-B4. *Regression modeling of ground-water flow*, by R.L. Cooley and R.L. Naff: USGS–TWRI book 3, chap. B4. 1990. 232 pages.
- 3-B4. *Supplement 1. Regression modeling of ground-water flow --Modifications to the computer code for nonlinear regression solution of steady-state ground-water flow problems*, by R.L. Cooley: USGS–TWRI book 3, chap. B4. 1993. 8 pages.
- 3-B5. *Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems—An introduction*, by O.L. Franke, T.E. Reilly, and G.D. Bennett: USGS–TWRI book 3, chap. B5. 1987. 15 pages.

- 3-B6. *The principle of superposition and its application in ground-water hydraulics*, by T.E. Reilly, O.L. Franke, and G.D. Bennett: USGS–TWRI book 3, chap. B6. 1987. 28 pages.
- 3-B7. *Analytical solutions for one-, two-, and three-dimensional solute transport in ground-water systems with uniform flow*, by E.J. Wexler: USGS–TWRI book 3, chap. B7. 1992. 190 pages.

Section C. Sedimentation and Erosion Techniques

- 3-C1. *Fluvial sediment concepts*, by H.P. Guy: USGS–TWRI book 3, chap. C1. 1970. 55 pages.
- 3-C2. *Field methods for measurement of fluvial sediment*, by H.P. Guy and V.W. Norman: USGS–TWRI book 3, chap. C2. 1970. 59 pages.
- 3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS–TWRI book 3, chap. C3. 1972. 66 pages.

Book 4. Hydrologic Analysis and Interpretation

Section A. Statistical Analysis

- 4-A1. *Some statistical tools in hydrology*, by H.C. Riggs: USGS–TWRI book 4, chap. A1. 1968. 39 pages.
- 4-A2. *Frequency curves*, by H.C. Riggs: USGS–TWRI book 4, chap. A2. 1968. 15 pages.

Section B. Surface Water

- 4-B1. *Low-flow investigations*, by H.C. Riggs: USGS–TWRI book 4, chap. B1. 1972. 18 pages.
- 4-B2. *Storage analyses for water supply*, by H.C. Riggs and C.H. Hardison: USGS–TWRI book 4, chap. B2. 1973. 20 pages.
- 4-B3. *Regional analyses of streamflow characteristics*, by H.C. Riggs: USGS–TWRI book 4, chap. B3. 1973. 15 pages.

Section D. Interrelated Phases of the Hydrologic Cycle

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

Book 5. Laboratory Analysis

Section A. Water Analysis

- 5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M.J. Fishman and L.C. Friedman, editors: USGS–TWRI book 5, chap. A1. 1989. 545 pages.
- 5-A2. *Determination of minor elements in water by emission spectroscopy*, by P.R. Barnett and E.C. Mallory, Jr.: USGS–TWRI book 5, chap. A2. 1971. 31 pages.
- 5-A3. *Methods for the determination of organic substances in water and fluvial sediments*, edited by R.L. Wershaw, M.J. Fishman, R.R. Grabbe, and L.E. Lowe: USGS–TWRI book 5, chap. A3. 1987. 80 pages.
- 5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, by L.J. Britton and P.E. Greeson, editors: USGS–TWRI book 5, chap. A4. 1989. 363 pages.
- 5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L.L. Thatcher, V.J. Janzer, and K.W. Edwards: USGS–TWRI book 5, chap. A5. 1977. 95 pages.
- 5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments*, by L.C. Friedman and D.E. Erdmann: USGS–TWRI book 5, chap. A6. 1982. 181 pages.

Section C. Sediment Analysis

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

Book 6. Modeling Techniques**Section A. Ground Water**

- 6-A1. *A modular three-dimensional finite-difference ground-water flow model*, by M.G. McDonald and A.W. Harbaugh: USGS–TWRI book 6, chap. A1. 1988. 586 pages.
- 6-A2. *Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model*, by S.A. Leake and D.E. Prudic: USGS–TWRI book 6, chap. A2. 1991. 68 pages.
- 6-A3. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 1: Model Description and User's Manual*, by L.J. Torak: USGS–TWRI book 6, chap. A3. 1993. 136 pages.
- 6-A4. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 2: Derivation of finite-element equations and comparisons with analytical solutions*, by R.L. Cooley: USGS–TWRI book 6, chap. A4. 1992. 108 pages.
- 6-A5. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 3: Design philosophy and programming details*, by L.J. Torak: USGS–TWRI book 6, chap. A5, 1993. 243 pages.
- 6-A6. *A coupled surface-water and ground-water flow model (MODBRANCH) for simulation of stream-aquifer interaction*, by Eric D. Swain and Eliezer J. Wexler. 1996. 125 pages.

Book 7. Automated Data Processing and Computations**Section C. Computer Programs**

- 7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P.C. Trescott, G.F. Pinder, and S.P. Larson: USGS–TWRI book 7, chap. C1. 1976. 116 pages.
- 7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L.F. Konikow and J.D. Bredehoeft: USGS–TWRI book 7, chap. C2. 1978. 90 pages.
- 7-C3. *A model for simulation of flow in singular and interconnected channels*, by R.W. Schaffranek, R.A. Baltzer, and D.E. Goldberg: USGS–TWRI book 7, chap. C3. 1981. 110 pages.

Book 8. Instrumentation**Section A. Instruments for Measurement of Water Level**

- 8-A1. *Methods of measuring water levels in deep wells*, by M.S. Garber and F.C. Koopman: USGS–TWRI book 8, chap. A1. 1968. 23 pages.
- 8-A2. *Installation and service manual for U.S. Geological Survey manometers*, by J.D. Craig: USGS–TWRI book 8, chap. A2. 1983. 57 pages.

Section B. Instruments for Measurement of Discharge

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

Book 9. Handbooks for Water-Resources Investigations**Section A. National Field Manual for the Collection of Water-Quality Data**

- 9-A1. *National Field Manual for the Collection of Water-Quality Data: Preparations for Water Sampling*, by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A1. 1998. 47 p.
- 9-A2. *National Field Manual for the Collection of Water-Quality Data: Selection of Equipment for Water Sampling*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A2. 1998. 94 p.

- 9-A3. *National Field Manual for the Collection of Water-Quality Data: Cleaning of Equipment for Water Sampling*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibbs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A3. 1998. 75 p.
- 9-A4. *National Field Manual for the Collection of Water-Quality Data: Collection of Water Samples*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibbs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A4. 1999. 156 p.
- 9-A5. *National Field Manual for the Collection of Water-Quality Data: Processing of Water Samples*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibbs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A5. 1999, 149 p.
- 9-A6. *National Field Manual for the Collection of Water-Quality Data: Field Measurements*, edited by F.D. Wilde and D.B. Radtke: USGS–TWRI book 9, chap. A6. 1998. Variously paginated.
- 9-A7. *National Field Manual for the Collection of Water-Quality Data: Biological Indicators*, edited by D.N. Myers and F.D. Wilde: USGS–TWRI book 9, chap. A7. 1997 and 1999. Variously paginated.
- 9-A8. *National Field Manual for the Collection of Water-Quality Data: Bottom-material samples*, by D.B. Radtke: USGS–TWRI book 9, chap. A8. 1998. 48 pages.
- 9-A9. *National Field Manual for the Collection of Water-Quality Data: Safety in Field Activities*, by S.L. Lane and R.G. Fay: USGS–TWRI book 9, chap. A9. 1998. 60 pages.

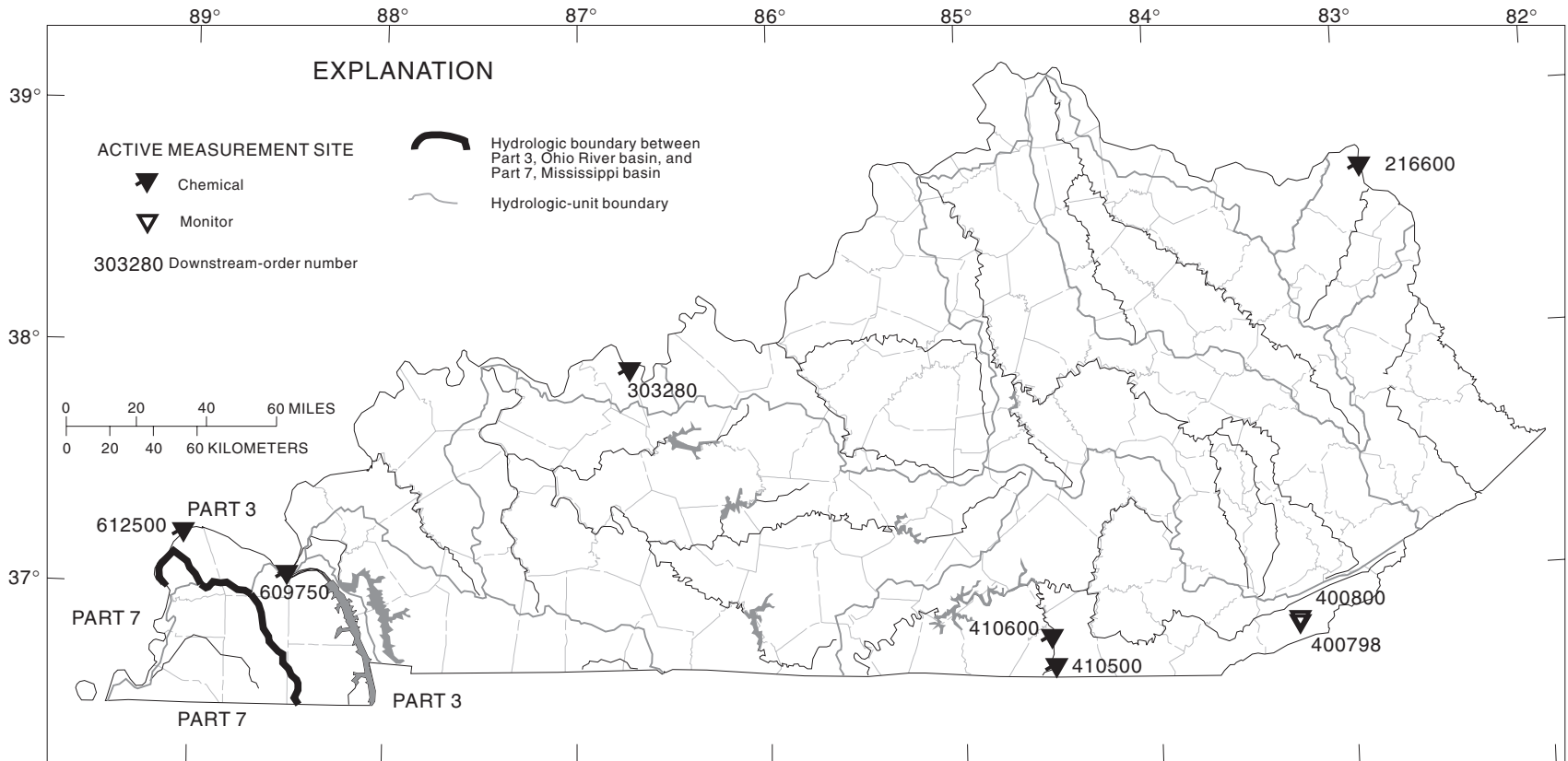


Figure 4. Location of surface-water quality stations in Kentucky.

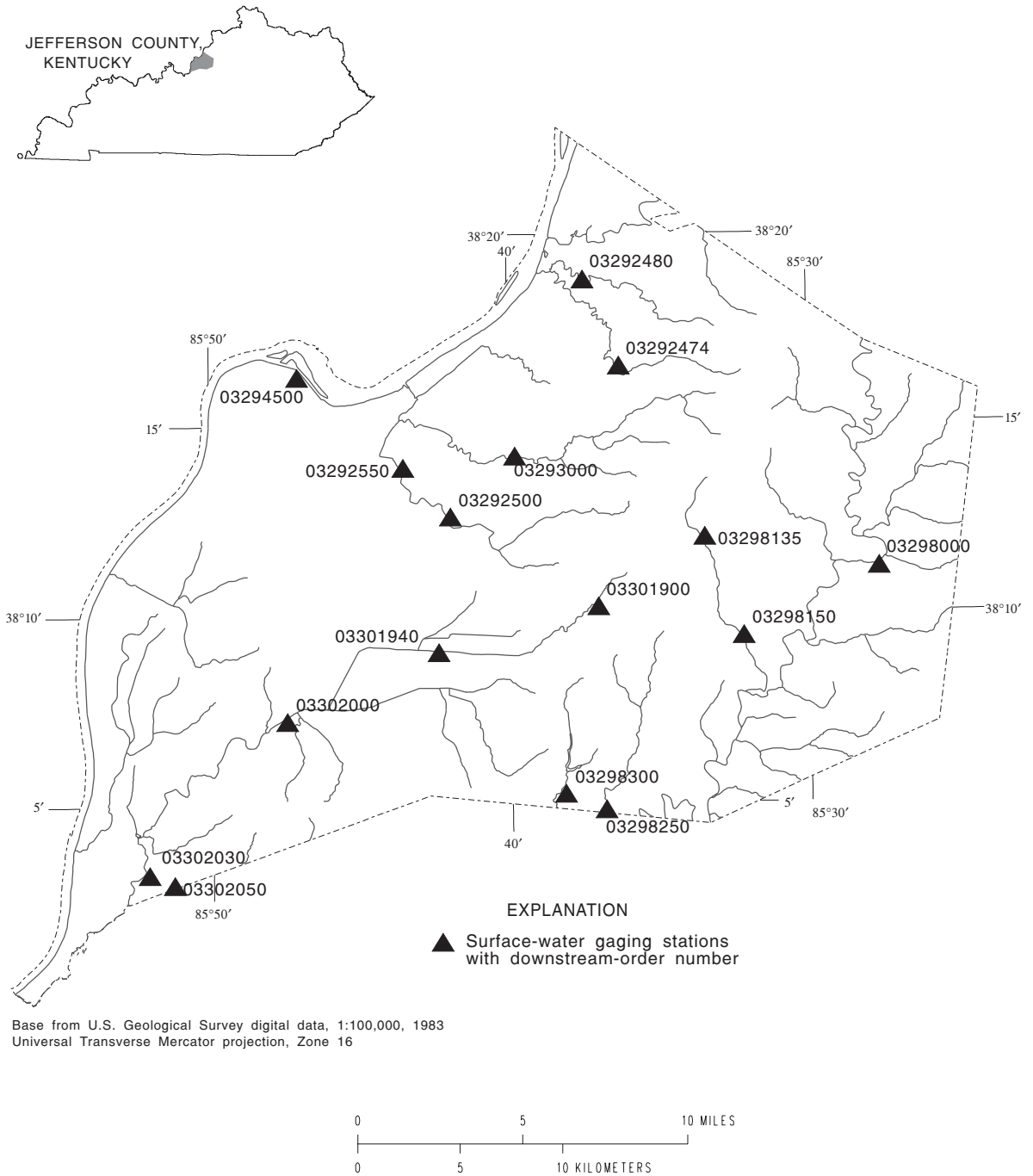


Figure 5. Location of gaging stations in Jefferson County.

BIG SANDY RIVER BASIN

03207965 GRAPEVINE CREEK NEAR PHYLLIS, KY

LOCATION.--Lat 37°25'57", long 82°21'14", Pike County, Hydrologic Unit 05070202, on right bank at the Grapevine Recreation area, 1.3 mi downstream from Dicks Fork, 1.3 mi southwest of Phyllis, and at mile 1.1.

DRAINAGE AREA.--6.20 mi².

PERIOD OF RECORD.--October 1973 to September 1982, April 1989 to September 1992, October 1994 to current year.

GAGE.--Water-stage recorder. Datum of gage is 780 ft above sea level, from topographic map.

REMARKS.--Records poor.

PEAKS ABOVE BASE.--Peak discharges above base of 200 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 9	0830	*89	1.27

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.9	1.1	2.9	9.4	34	7.3	10	1.7	2.9	2.7	1.6
2	1.5	1.5	.98	3.0	8.9	27	6.6	7.7	4.6	5.9	2.4	1.5
3	1.6	3.5	.98	9.6	7.3	36	6.2	6.2	3.6	3.9	2.1	1.7
4	1.6	3.0	.95	6.4	5.8	41	6.2	5.5	2.7	3.0	2.0	2.0
5	1.7	2.1	3.1	e4.0	4.6	33	6.4	5.5	2.2	2.9	1.6	2.3
6	1.7	2.2	1.6	e2.9	4.2	34	5.5	7.2	2.3	3.2	1.8	1.8
7	1.4	1.7	5.3	2.6	3.9	27	4.9	6.8	2.2	3.4	1.8	2.0
8	3.5	2.0	17	6.7	3.4	21	4.4	6.1	1.3	4.6	1.9	1.9
9	2.0	1.9	7.9	42	3.1	22	2.6	5.1	1.4	3.1	1.8	2.1
10	1.8	2.0	3.2	18	3.0	26	2.4	4.8	2.0	3.4	1.7	2.0
11	1.8	3.3	2.3	9.7	2.8	23	6.1	4.8	2.4	4.9	1.6	1.9
12	1.7	1.5	2.6	6.2	3.5	16	4.4	5.1	2.4	3.2	1.7	1.9
13	1.8	1.3	23	5.5	3.1	15	4.2	12	2.2	3.2	1.7	1.9
14	1.8	1.4	8.3	12	2.5	22	3.9	13	1.9	3.1	2.4	2.2
15	1.8	1.4	3.7	33	2.6	57	5.6	7.4	1.4	2.8	2.1	2.0
16	1.8	1.3	2.5	18	2.4	49	4.5	6.3	1.4	2.6	1.6	2.1
17	2.0	1.3	2.9	12	3.0	34	4.0	2.6	1.5	2.3	1.7	2.2
18	2.0	1.1	2.4	18	2.9	25	3.4	6.6	1.5	3.6	1.4	2.2
19	1.9	1.1	2.1	18	3.0	20	3.2	9.0	1.7	2.9	1.4	1.9
20	1.8	1.4	1.9	13	2.7	17	9.1	4.2	1.6	4.1	2.3	2.2
21	1.9	1.3	1.6	9.1	2.4	15	8.7	2.6	1.5	4.2	2.3	2.6
22	1.9	1.3	5.0	6.6	2.2	14	7.4	2.3	1.5	3.9	1.8	2.2
23	1.9	1.3	3.9	12	2.3	13	6.2	2.0	1.6	3.8	1.6	2.1
24	1.3	1.2	3.0	46	2.7	12	5.1	3.6	1.9	13	1.9	2.2
25	1.4	1.4	2.3	23	3.5	10	4.3	2.0	2.2	8.4	3.2	1.9
26	1.4	2.7	2.0	15	3.6	9.0	5.3	1.6	2.0	1.4	1.9	1.8
27	1.5	1.2	1.9	12	3.9	7.6	8.8	1.5	7.5	1.7	2.2	3.1
28	2.3	1.1	2.6	8.7	24	7.8	22	1.3	5.6	2.3	2.1	3.0
29	2.2	.99	3.3	5.8	---	6.8	18	1.4	4.2	3.2	1.7	4.3
30	2.1	1.0	4.6	4.4	---	6.3	13	1.4	5.1	4.3	1.6	3.5
31	1.7	---	3.8	4.4	---	6.4	---	1.5	---	3.2	1.7	---
TOTAL	56.4	50.39	127.81	390.5	126.7	686.9	199.7	157.1	75.1	118.4	59.7	66.1
MEAN	1.82	1.68	4.12	12.6	4.53	22.2	6.66	5.07	2.50	3.82	1.93	2.20
MAX	3.5	3.5	23	46	24	57	22	13	7.5	13	3.2	4.3
MIN	1.3	.99	.95	2.6	2.2	6.3	2.4	1.3	1.3	1.4	1.4	1.5
CFSM	.29	.27	.66	2.03	.73	3.57	1.07	.82	.40	.62	.31	.36
IN.	.34	.30	.77	2.34	.76	4.12	1.20	.94	.45	.71	.36	.40

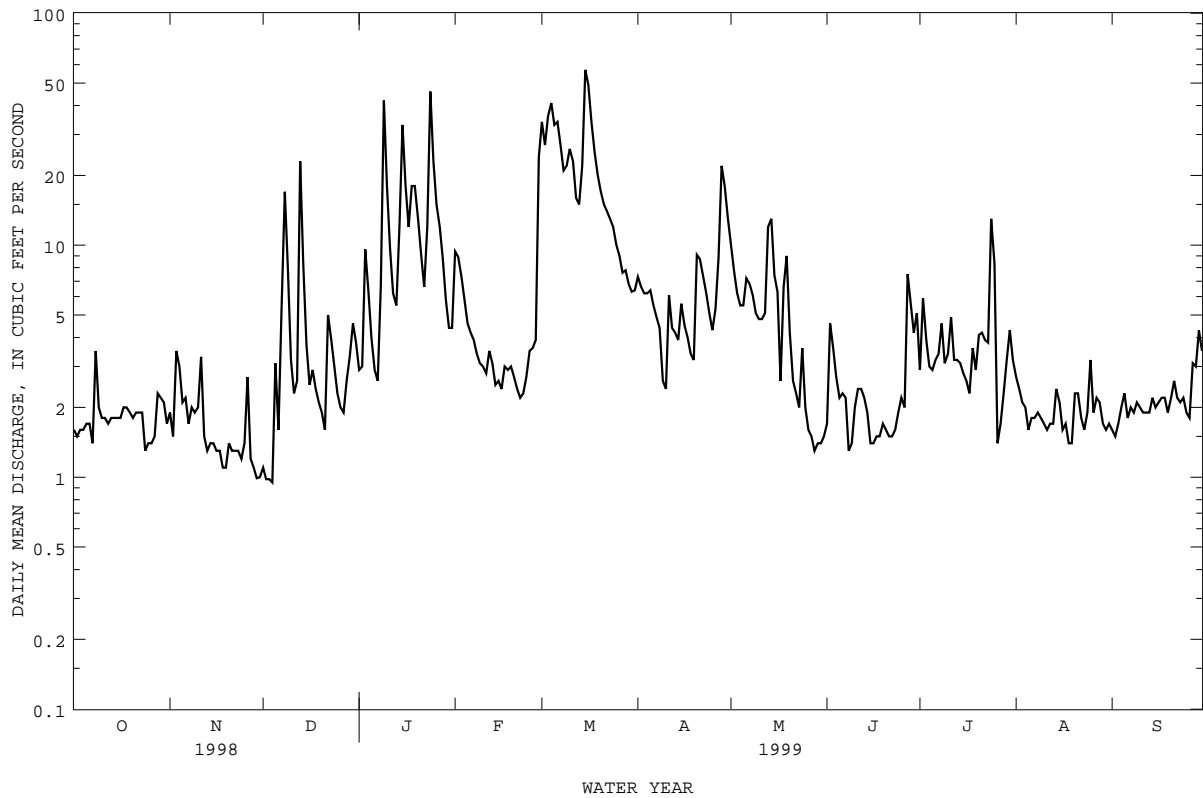
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1999, BY WATER YEAR (WY)

MEAN	3.99	6.60	8.18	14.7	13.1	18.8	13.0	11.4	7.95	2.76	2.58	2.06
MAX	28.0	31.0	18.8	42.6	34.0	53.6	30.7	47.7	23.7	10.4	10.6	5.75
(WY)	1990	1974	1979	1974	1990	1975	1998	1989	1998	1979	1989	1989
MIN	.32	.27	.98	1.44	4.08	7.12	4.62	.71	.64	.32	.31	.38
(WY)	1992	1982	1982	1981	1992	1977	1982	1976	1980	1991	1981	1981

BIG SANDY RIVER BASIN
 03207965 GRAPEVINE CREEK NEAR PHYLLIS, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1974 - 1999	
ANNUAL TOTAL	3982.53		2114.80			
ANNUAL MEAN	10.9		5.79		8.46	
HIGHEST ANNUAL MEAN					17.2	
LOWEST ANNUAL MEAN					5.30	
HIGHEST DAILY MEAN	273	Jun 10	57	Mar 15	832	Oct 1 1982
LOWEST DAILY MEAN	.79	Jan 1	.95	Dec 4	.01	Aug 19 1982
ANNUAL SEVEN-DAY MINIMUM	1.0	Nov 28	1.0	Nov 28	.04	Sep 22 1981
INSTANTANEOUS PEAK FLOW			89		1650	Jun 1 1974
INSTANTANEOUS PEAK STAGE			1.27		Jan 9	Apr 7 1977
INSTANTANEOUS LOW FLOW					.01	Aug 19 1982
ANNUAL RUNOFF (CFSM)	1.76		.93		1.36	
ANNUAL RUNOFF (INCHES)	23.90		12.69		18.54	
10 PERCENT EXCEEDS	21		13		18	
50 PERCENT EXCEEDS	4.3		2.9		3.2	
90 PERCENT EXCEEDS	1.3		1.5		.44	

e Estimated



BIG SANDY RIVER BASIN

03209500 LEVISA FORK AT PIKEVILLE, KY

LOCATION.--Lat 37°27'51", long 82°31'35", Pike County, Hydrologic Unit 05070203, on right bank 20 ft downstream from bridge on State Highway 1426, 0.75 mi downstream from Lanks Branch, 1.0 mi south of Pikeville, 1.5 mi upstream from Harolds Branch, and at mile 117.3.

DRAINAGE AREA.--1,232 mi².

PERIOD OF RECORD.--October 1937 to current year. Gage-height records collected in this vicinity since 1907 are contained in reports of National Weather Service.

REVISED RECORDS.--WRD KY 78-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 631.98 ft above sea level. Prior to Sept. 23, 1944, nonrecording gage at site 2.3 mi downstream at datum 2.65 ft higher. Sept. 23, 1944 to Sept. 30, 1952, water-stage recorder 2.3 mi downstream at datum 1.65 ft higher. Oct. 1, 1952 to Sept. 30, 1979, at site 2.1 mi downstream at same datum.

REMARKS.--Records good. Flow regulated since October 1968 by Fishtrap Lake (station 03207995), since August 1966 by North Fork Pound River Lake (station 03208680) and since March 1965 by John W. Flannagan Lake (station 03208990).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	280	375	208	688	1450	6070	680	1690	372	324	316	202
2	214	375	170	653	1590	5130	505	1430	320	262	341	204
3	189	501	338	1190	1370	4680	465	1100	347	262	261	207
4	385	470	522	2300	1350	7160	440	941	302	218	206	210
5	467	464	510	2160	1170	6020	418	897	275	198	194	210
6	416	452	528	1070	994	4710	392	1010	265	181	205	221
7	273	854	529	756	967	4340	377	905	257	182	214	227
8	344	875	1130	885	954	3460	423	699	246	188	213	291
9	407	912	2230	3040	933	2930	525	645	238	189	222	194
10	387	964	1950	3630	901	3260	522	643	233	209	230	189
11	557	981	1380	2500	697	3690	853	661	227	244	226	214
12	540	980	1100	1710	746	3190	1720	515	224	327	213	211
13	323	949	1620	1030	874	2490	1270	498	219	252	214	212
14	296	845	2920	960	856	2600	1100	756	211	227	307	214
15	251	837	1780	3450	837	5160	1190	768	210	219	229	227
16	240	876	1070	3860	884	6750	1450	664	211	225	211	229
17	234	585	687	2550	822	7590	1310	588	210	219	223	257
18	413	605	518	2750	1020	6450	1190	744	205	224	217	220
19	393	577	388	4620	1170	4010	996	1940	200	272	213	220
20	244	506	360	3190	1320	2260	928	1320	193	204	224	200
21	248	534	360	1930	1230	1960	940	1000	185	242	234	229
22	267	529	398	1400	1080	1640	991	640	177	235	230	220
23	272	525	419	1200	1030	1780	939	585	192	212	221	219
24	327	542	444	5360	978	1370	794	617	196	250	213	216
25	601	570	444	6380	963	1360	766	920	225	368	298	217
26	613	604	417	4420	1110	1170	763	881	224	268	278	217
27	424	587	412	2580	1040	1050	886	621	218	231	233	219
28	450	577	413	1920	2560	936	2240	459	271	198	211	254
29	433	569	533	1550	---	779	3420	420	266	205	204	272
30	496	406	522	1180	---	727	2560	417	245	221	200	306
31	403	---	669	1100	---	693	---	415	---	239	201	---
TOTAL	11387	19426	24969	72012	30896	105415	31053	25389	7164	7295	7202	6728
MEAN	367	648	805	2323	1103	3400	1035	819	239	235	232	224
MAX	613	981	2920	6380	2560	7590	3420	1940	372	368	341	306
MIN	189	375	170	653	697	693	377	415	177	181	194	189

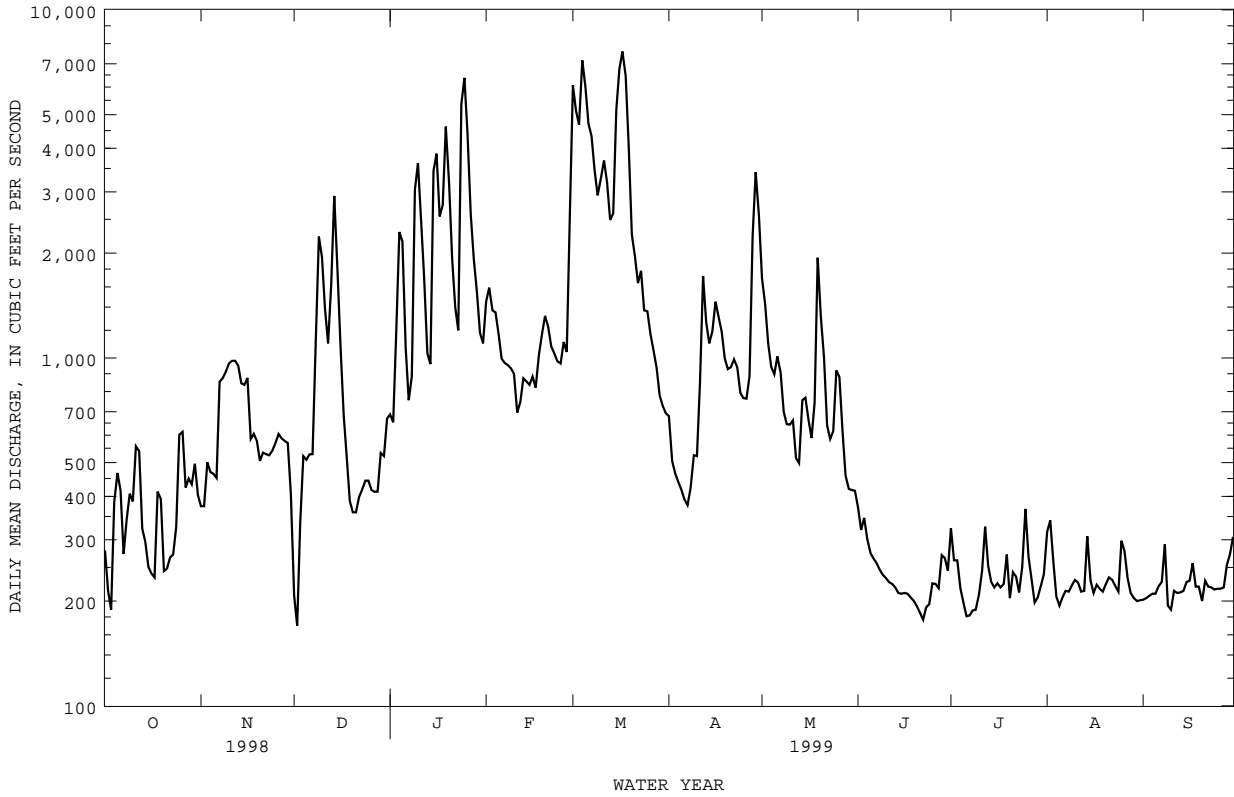
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1999, BY WATER YEAR (WY)

	814	1136	1591	2369	2833	3035	2295	2030	1034	569	469	456
MEAN	814	1136	1591	2369	2833	3035	2295	2030	1034	569	469	456
MAX	3939	3991	5385	6861	6371	8081	7646	6067	3492	1855	1022	1606
(WY)	1990	1978	1973	1974	1994	1975	1977	1984	1979	1979	1971	1989
MIN	158	353	300	278	814	529	388	349	210	200	203	168
(WY)	1970	1970	1981	1981	1992	1988	1986	1976	1988	1988	1969	1969

BIG SANDY RIVER BASIN

03209500 LEVISA FORK AT PIKEVILLE, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1969 - 1999	
ANNUAL TOTAL	722733		348936		1546	
ANNUAL MEAN	1980		956		2459	
HIGHEST ANNUAL MEAN					522	
LOWEST ANNUAL MEAN					1979	
HIGHEST DAILY MEAN	19800	Apr 17	7590	Mar 17	69300	Apr 5 1977
LOWEST DAILY MEAN	170	Dec 2	170	Dec 2	66	Dec 3 1970
ANNUAL SEVEN-DAY MINIMUM	195	Sep 12	193	Jun 18	103	Oct 10 1968
INSTANTANEOUS PEAK FLOW			8750	Jan 24	85500	Jan 30 1957
INSTANTANEOUS PEAK STAGE			17.50	Jan 24	52.72	Jan 30 1957
INSTANTANEOUS LOW FLOW					66	Dec 3 1970
10 PERCENT EXCEEDS	5020		2380		3590	
50 PERCENT EXCEEDS	1000		510		768	
90 PERCENT EXCEEDS	235		211		230	



BIG SANDY RIVER BASIN

03210000 JOHNS CREEK NEAR META, KY

LOCATION.--Lat 37°34'01", long 82°27'29", Pike County, Hydrologic Unit 05070203, on left bank 10 ft downstream from bridge on U.S. Highway 119, 1,100 ft downstream from Ford Branch, 0.7 mi upstream from Raccoon Creek, 1.2 mi southwest of Meta, and at mile 42.7.

DRAINAGE AREA.--56.3 mi².

PERIOD OF RECORD.--April 1941 to September 1993, October 1994 to current year.

REVISED RECORDS.--WSP 1705: Drainage area. WRD KY-76-1: 1975. WDR KY-87-1: 1986.

GAGE.--Water-stage recorder. Datum of gage is 715.66 ft above sea level. See WDR KY-90-1 for history of changes prior to Dec. 21, 1965.

REMARKS.--Records fair.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1939 reached a stage of 15.6 ft, from floodmark, present datum, at site 600 ft upstream, discharge, 4,500 ft³/s.

PEAKS ABOVE BASE.--Peak discharges above base of 1,600 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 9	1200	*877	9.71

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	9.3	5.1	27	73	226	27	98	13	16	12	4.7
2	6.4	7.8	4.2	23	79	141	24	88	16	16	12	4.0
3	6.6	9.2	3.6	81	74	214	24	73	30	15	9.3	3.3
4	7.5	12	3.8	66	66	253	23	64	14	8.3	8.5	3.9
5	7.1	9.0	7.7	e47	55	179	21	60	14	9.2	8.4	4.7
6	6.3	10	17	e36	49	185	19	49	14	7.9	7.5	7.3
7	5.7	10	18	29	47	145	18	35	14	7.6	6.4	6.8
8	16	9.1	121	74	42	110	20	38	15	7.3	7.0	5.1
9	11	9.8	84	491	38	114	22	37	14	6.8	10	3.8
10	7.1	8.6	26	220	35	165	19	24	17	6.6	7.1	3.8
11	6.3	11	13	110	31	170	29	20	12	8.3	5.1	3.3
12	6.2	13	12	79	37	129	27	19	13	6.5	5.2	3.6
13	6.0	9.4	215	59	37	103	24	24	16	6.4	6.1	4.8
14	5.2	11	88	87	30	121	24	47	18	7.3	18	6.0
15	4.9	12	42	328	29	247	30	28	16	7.9	13	4.3
16	4.8	12	26	192	31	262	32	25	17	7.1	10	3.2
17	5.5	7.2	24	131	36	195	29	24	21	6.6	7.2	3.3
18	6.4	11	20	196	38	143	28	26	15	5.5	5.7	3.2
19	5.7	5.6	18	212	39	108	27	43	16	11	5.1	3.5
20	6.5	5.7	17	139	38	86	47	28	17	4.6	5.0	5.0
21	5.5	6.8	15	102	34	77	52	25	15	e5.3	6.5	5.4
22	5.7	5.5	31	79	30	63	65	23	16	6.1	6.2	5.7
23	5.5	4.7	32	97	29	54	60	23	14	7.3	7.1	4.6
24	6.1	5.6	28	318	29	50	56	29	14	13	6.6	3.7
25	6.3	4.9	22	208	33	43	47	20	13	19	25	2.6
26	6.4	20	21	126	35	38	48	16	10	8.0	11	3.3
27	5.4	10	18	97	33	34	54	15	12	8.8	6.3	4.2
28	6.8	6.3	19	78	179	32	160	14	18	11	6.4	7.3
29	10	5.7	27	61	---	29	127	15	23	18	7.1	8.4
30	6.8	5.7	35	49	---	25	113	16	30	15	7.0	21
31	7.3	---	31	43	---	24	---	16	---	15	6.1	---
TOTAL	212.0	267.9	1044.4	3885	1306	3765	1296	1062	487	298.4	263.9	153.8
MEAN	6.84	8.93	33.7	125	46.6	121	43.2	34.3	16.2	9.63	8.51	5.13
MAX	16	20	215	491	179	262	160	98	30	19	25	21
MIN	4.8	4.7	3.6	23	29	24	18	14	10	4.6	5.0	2.6
CFSM	.12	.16	.60	2.23	.83	2.16	.77	.61	.29	.17	.15	.09
IN.	.14	.18	.69	2.57	.86	2.49	.86	.70	.32	.20	.17	.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1999, BY WATER YEAR (WY)

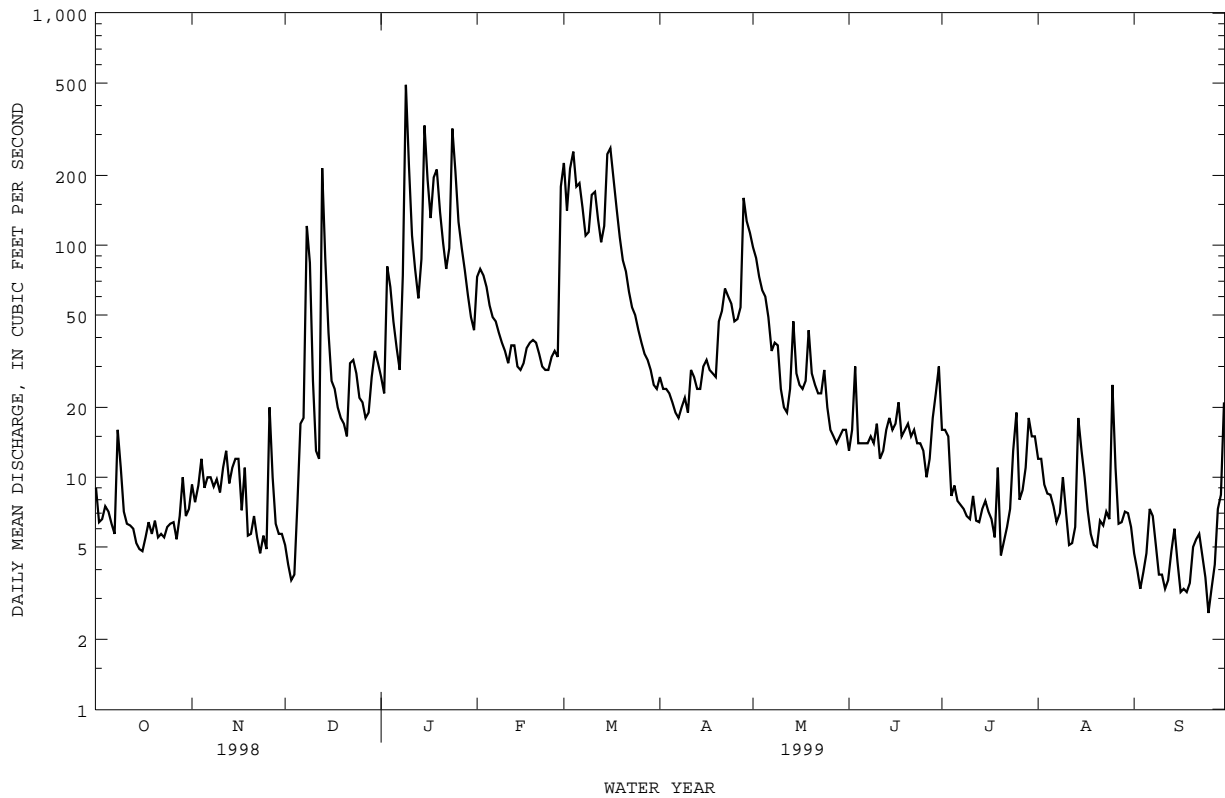
MEAN	17.7	37.8	74.6	109	137	164	117	73.7	39.0	25.0	16.9	15.7
MAX	175	213	319	413	338	489	356	271	193	136	155	153
(WY)	1990	1974	1973	1974	1972	1955	1948	1984	1979	1956	1942	1966
MIN	.000	.23	.95	6.57	17.5	36.0	15.8	7.33	1.99	.42	.35	.000
(WY)	1954	1954	1966	1966	1954	1988	1963	1941	1969	1944	1943	1943

BIG SANDY RIVER BASIN

03210000 JOHNS CREEK NEAR META, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1941 - 1999	
ANNUAL TOTAL	29391.1		14041.4		68.9	
ANNUAL MEAN	80.5		38.5		24.5	
HIGHEST ANNUAL MEAN					135	1974
LOWEST ANNUAL MEAN					24.5	1954
HIGHEST DAILY MEAN	1470	Apr 19	491	Jan 9	3340	May 7 1984
LOWEST DAILY MEAN	3.6	Dec 3	2.6	Sep 25	.00	Oct 1 1941
ANNUAL SEVEN-DAY MINIMUM	4.9	Nov 28	4.0	Sep 15	.00	Oct 1 1941
INSTANTANEOUS PEAK FLOW			877	Jan 9	7380	Mar 12 1963
INSTANTANEOUS PEAK STAGE			9.71	Jan 9	19.62	May 7 1984
INSTANTANEOUS LOW FLOW					.00	Oct 1 1941
ANNUAL RUNOFF (CFSM)	1.43		.68		1.22	
ANNUAL RUNOFF (INCHES)	19.42		9.28		16.62	
10 PERCENT EXCEEDS	175		105		157	
50 PERCENT EXCEEDS	33		17		23	
90 PERCENT EXCEEDS	6.6		5.3		2.0	

e Estimated



BIG SANDY RIVER BASIN

03212500 LEVISA FORK AT PAINTSVILLE, KY

LOCATION.--Lat 37°48'55", long 82°47'30", Johnson County, Hydrologic Unit 05070203, on left bank 700 ft downstream from bridge on State Highway 40 at Paintsville, 900 ft downstream from Paint Creek, and at mile 65.2.

DRAINAGE AREA.--2,144 mi².

PERIOD OF RECORD.--June 1915 to September 1916, October 1916 to November 1920 (gage heights only), and October 1928 to current year. Monthly discharge only for October to December 1928, published in WSP 1305. Published. (as "at Thelma" prior to 1928.)

REVISED RECORDS.--WSP 953: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 566.84 ft above sea level. See WDR KY-90-1 for history of changes prior to Oct. 19, 1954.

REMARKS.--Records good except for periods of estimated record, which are fair. Flow regulated since October 1968 by Fishtrap Lake (station 03207995), since August 1966 by North Fork Pound River Lake (station 03208680), since March 1965 by John W. Flannagan Lake (station 03208990), and since May 1950 by Dewey Lake (station 03211000).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1862 reached a stage of 46.6 ft, from levels to floodmark by U.S. Army Corps of Engineers.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 9	1730	12600	16.58

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	351	502	568	1420	2370	6870	1260	2930	575	375	312	298
2	394	506	369	1360	3390	8560	1110	2330	528	406	456	292
3	326	881	317	1640	3160	8490	939	2000	501	388	469	294
4	315	851	389	2560	2880	11700	882	1740	513	362	374	301
5	455	758	622	3290	2520	10900	841	1560	456	333	301	313
6	503	631	677	2480	2090	8210	796	1480	417	301	273	314
7	516	594	726	1660	1910	6930	743	1570	401	283	272	326
8	575	972	1730	2030	1900	6050	703	1480	387	269	287	336
9	517	1020	3360	11200	1840	5250	800	1250	385	275	294	349
10	550	1100	3210	11200	1700	5210	850	1080	373	289	293	298
11	514	1300	2310	7320	1520	5450	1030	1000	365	327	297	265
12	652	1240	1710	4690	1400	5360	1640	979	358	349	292	279
13	622	1200	2430	2630	1700	4370	2060	829	348	395	290	286
14	425	1150	4690	2520	1760	4720	1690	1090	340	352	363	289
15	401	1050	3960	3630	1680	6580	1520	1190	334	315	497	279
16	355	1050	2520	7010	1760	9440	1790	1120	333	303	369	295
17	343	1090	1760	5580	1790	9730	1830	986	334	312	298	294
18	333	826	1370	4490	1560	9540	1680	862	322	311	300	308
19	489	815	998	7070	1760	7280	1530	1340	312	381	291	285
20	469	784	847	7050	1930	4510	1460	2130	307	394	286	281
21	340	704	798	4830	1970	3410	1440	1490	296	374	291	273
22	333	710	1030	3340	1800	2760	1410	1230	296	353	299	257
23	350	706	1220	4470	1600	2690	1410	901	313	389	296	269
24	349	714	1050	6920	1520	2540	1390	888	318	330	296	270
25	413	732	965	10700	1520	2220	1230	947	359	344	1060	270
26	662	818	876	8970	1640	2030	1210	1180	e370	468	577	266
27	654	838	854	6080	1660	1760	1370	1090	e380	380	480	271
28	504	768	875	4090	2490	1630	3680	818	e410	345	379	273
29	546	748	1100	3030	---	1540	5250	651	399	306	329	300
30	533	722	1290	2290	---	1380	5110	587	412	300	309	348
31	563	---	1320	1970	---	1270	---	568	---	313	302	---
TOTAL	14352	25780	45941	147520	54820	168380	48654	39296	11442	10622	11232	8779
MEAN	463	859	1482	4759	1958	5432	1622	1268	381	343	362	293
MAX	662	1300	4690	11200	3390	11700	5250	2930	575	468	1060	349
MIN	315	502	317	1360	1400	1270	703	568	296	269	272	257

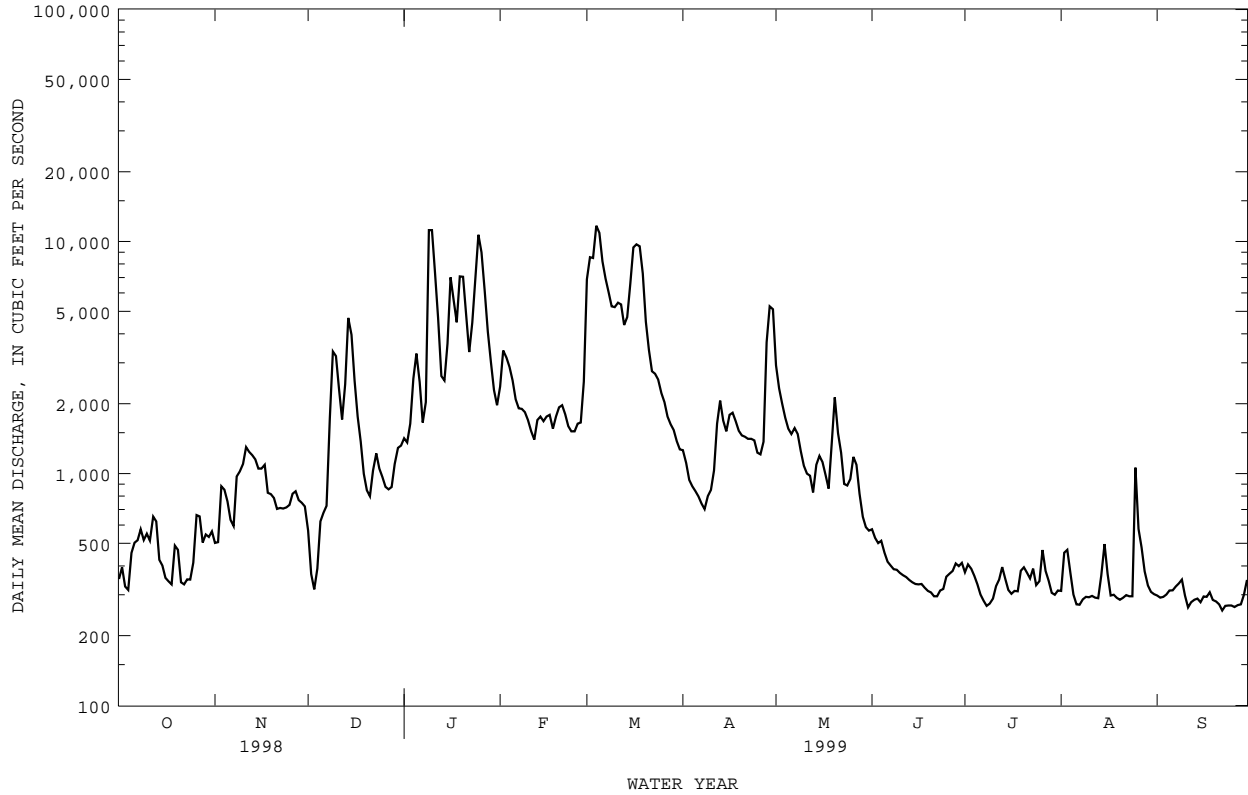
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1999, BY WATER YEAR (WY)

MEAN	1133	1828	2773	4031	4900	5283	4096	3429	1751	886	766	692
MAX	6560	4908	8870	12030	11000	13160	10040	9665	5426	2384	1837	2054
(WY)	1990	1978	1973	1974	1994	1975	1987	1984	1998	1979	1977	1989
MIN	181	447	570	435	1467	963	594	519	278	257	291	239
(WY)	1970	1970	1981	1981	1988	1988	1986	1976	1988	1988	1969	1969

BIG SANDY RIVER BASIN

SUMMARY STATISTICS	03212500 LEVISA FORK AT PAINTSVILLE, KY--Continued				WATER YEARS 1969 - 1999	
	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR			
ANNUAL TOTAL	1174949		586818			
ANNUAL MEAN	3219		1608		2619	
HIGHEST ANNUAL MEAN					4234	1975
LOWEST ANNUAL MEAN					830	1988
HIGHEST DAILY MEAN	29600	Apr 20	11700	Mar 4	42000	Apr 6 1977
LOWEST DAILY MEAN	278	Sep 27	257	Sep 22	98	Oct 1 1968
ANNUAL SEVEN-DAY MINIMUM	291	Sep 13	268	Sep 21	122	Aug 27 1969
INSTANTANEOUS PEAK FLOW			12600	Jan 9	69700	Jan 31 1957
INSTANTANEOUS PEAK STAGE			16.58	Jan 9	45.92	Jan 31 1957
INSTANTANEOUS LOW FLOW					98	Oct 1 1968
10 PERCENT EXCEEDS	7210		4480		6280	
50 PERCENT EXCEEDS	1760		818		1260	
90 PERCENT EXCEEDS	356		296		369	

e Estimated



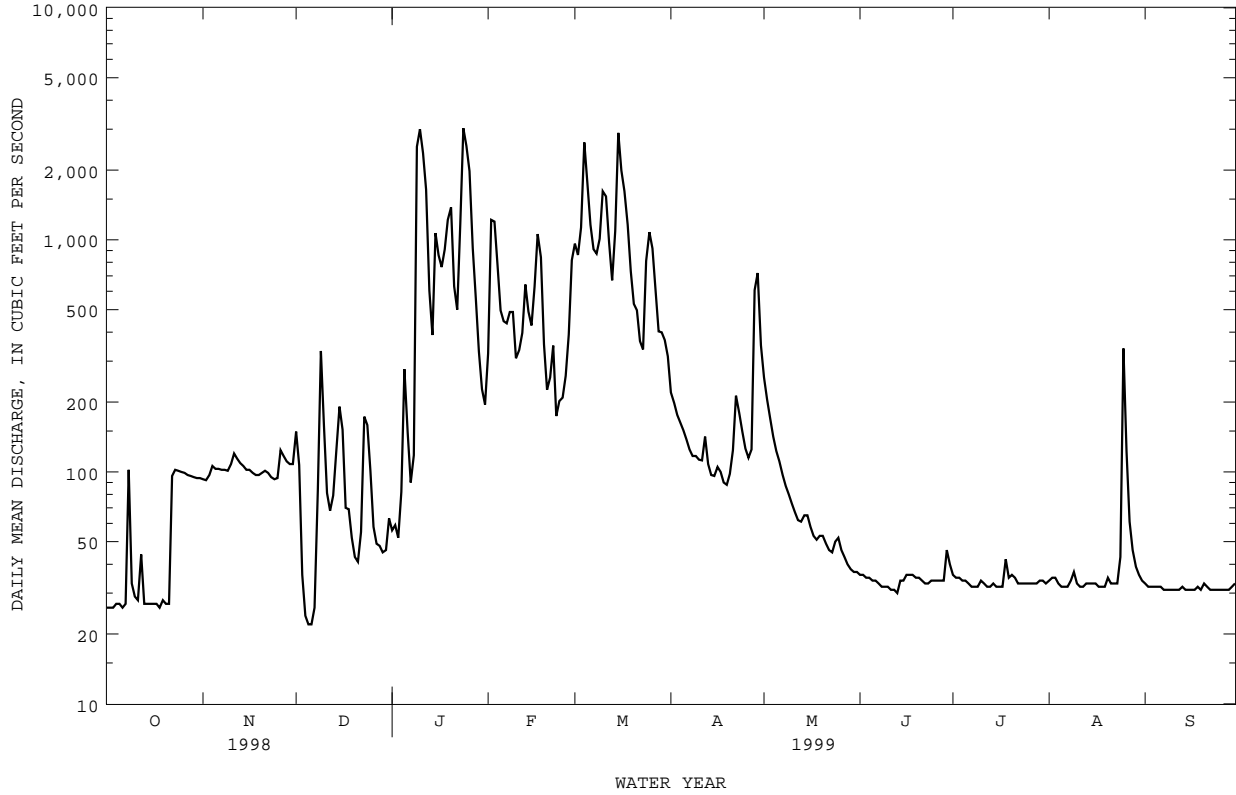
LITTLE SANDY RIVER BASIN

03216500 LITTLE SANDY RIVER AT GRAYSON, KY--Continued
 FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR

SUMMARY STATISTICS

WATER YEARS 1969 - 1999

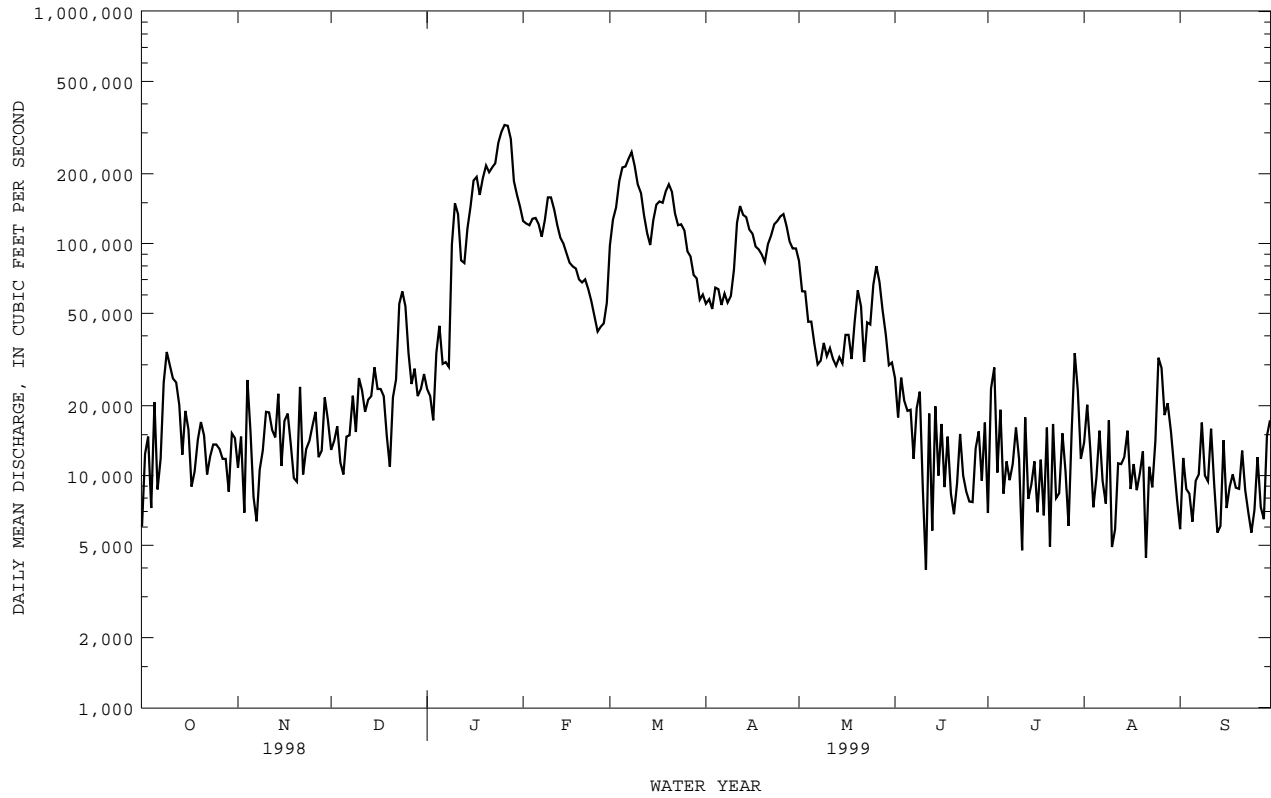
ANNUAL TOTAL	199234		95814			
ANNUAL MEAN	546		263		487	
HIGHEST ANNUAL MEAN					838	1979
LOWEST ANNUAL MEAN					116	1969
HIGHEST DAILY MEAN	4260	Feb 12	3030	Jan 24	14600	Mar 2 1997
LOWEST DAILY MEAN	22	Dec 5	22	Dec 5	5.8	Oct 1 1968
ANNUAL SEVEN-DAY MINIMUM	26	Sep 30	26	Oct 1	18	Nov 1 1968
INSTANTANEOUS PEAK FLOW			3550	Jan 9	24500	Sep 22 1950
INSTANTANEOUS PEAK STAGE			15.35	Jan 9	30.57	Mar 2 1997
INSTANTANEOUS LOW FLOW					1.5	Oct 12 1953
10 PERCENT EXCEEDS	1840		849		1380	
50 PERCENT EXCEEDS	159		73		170	
90 PERCENT EXCEEDS	30		31		39	



OHIO RIVER MAIN STEM

03216600 OHIO RIVER AT GREENUP DAM NEAR GREENUP, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1969 - 1999	
ANNUAL TOTAL	30609200		19090510		89740	
ANNUAL MEAN	83860		52300		120100	
HIGHEST ANNUAL MEAN					1996	
LOWEST ANNUAL MEAN					1988	
HIGHEST DAILY MEAN	375000	Jan 11	324000	Jan 26	540000	Jan 12 1974
LOWEST DAILY MEAN	6020	Oct 1	3920	Jun 11	3920	Jun 11 1999
ANNUAL SEVEN-DAY MINIMUM	11700	Oct 1	7740	Sep 22	7740	Sep 22 1999
INSTANTANEOUS PEAK FLOW			330000	Jan 27	520000	Mar 4 1997
INSTANTANEOUS PEAK STAGE			45.49	Jan 27	62.19	Mar 4 1997
10 PERCENT EXCEEDS	205000		141000		204000	
50 PERCENT EXCEEDS	46200		22000		62900	
90 PERCENT EXCEEDS	12100		8360		17000	



OHIO RIVER MAIN STEM

03216600 OHIO RIVER AT GREENUP DAM, KY--Continued

(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to September 1986, 1997 to current water year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1974 to September 1981.

WATER TEMPERATURES: October 1974 to September 1981.

REMARKS.--Flow regulated by Ohio River system of locks, dams, and reservoirs.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	SAMPLE TYPE	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	UV ABSORB-ANCE 254 NM, WTR FLT (UNITS /CM) (50624)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	
NOV												
18...	1415	ENVIRONMENTAL	13600	--	529	7.6	13.1	2.3	9.5	92	160	
DEC												
15...	1600	ENVIRONMENTAL	31000	--	567	7.5	10.7	2.4	10.4	95	180	
15...	1608	FIELD BLANK	--	--	--	--	--	--	--	--	--	
JAN												
14...	1600	ENVIRONMENTAL	150000	--	356	7.6	2.5	1.5	--	--	120	
MAR												
11...	1710	ENVIRONMENTAL	154000	.052	260	7.3	4.0	29	18.8	145	91	
11...	1720	REPLICATE	--	.051	--	--	--	27	--	--	89	
APR												
01...	1715	ENVIRONMENTAL	51000	.031	304	7.2	9.2	4.4	13.8	122	100	
01...	1923	FIELD BLANK	--	--	--	--	--	--	--	--	--	
22...	1550	ENVIRONMENTAL	71400	.060	284	7.3	12.8	23	12.5	121	100	
MAY												
06...	1640	ENVIRONMENTAL	25200	.046	289	7.6	17.6	10	9.2	99	100	
20...	1720	ENVIRONMENTAL	45500	.043	298	7.5	22.0	4.2	10.0	116	99	
20...	1728	FIELD BLANK	--	--	--	--	--	--	--	--	--	
JUN												
08...	1530	ENVIRONMENTAL	21100	.051	355	7.3	24.3	3.0	9.1	99	130	
08...	1538	FIELD BLANK	--	--	--	--	--	--	--	--	--	
30...	1610	ENVIRONMENTAL	22800	.051	415	7.5	26.8	1.0	7.5	97	130	
AUG												
05...	1730	ENVIRONMENTAL	8360	.054	506	7.6	30.0	1.3	7.3	98	150	
05...	1740	REPLICATE	--	.054	--	--	--	2.1	--	--	150	
26...	1630	ENVIRONMENTAL	30600	.065	493	7.3	27.3	4.0	6.4	83	140	
DATE	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 FIELD HCO3 (MG/L AS HCO3) (00453)	ALKA-LINITY WAT DIS TOT IT FIELD CACO3 (MG/L AS CL) (39086)	CHLO-RIDE, DIS-SOLVED (MG/L AS SO4) (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 AS N) (70300)	NITRO-GEN, TOTAL (MG/L AS N) (00600)
NOV												
18...	42	14	38	3.8	85	70	39	110	.32	3.1	334	1.6
DEC												
15...	46	15	39	3.8	99	81	41	130	.29	3.4	351	1.6
15...	.002	<.001	<.025	--	--	--	--	--	--	<.020	--	--
JAN												
14...	32	9.2	23	2.8	56	46	27	71	.17	4.2	221	2.1
MAR												
11...	24	7.1	16	1.8	35	28	21	53	<.10	5.7	165	1.4
11...	24	7.1	16	1.8	--	--	21	52	<.10	5.6	162	1.4
APR												
01...	27	8.1	16	1.7	48	39	20	61	<.10	4.8	178	.98
01...	--	--	--	--	--	--	--	--	--	--	--	--
22...	27	8.3	15	1.8	50	41	18	56	<.10	5.2	171	1.2
MAY												
06...	26	8.1	15	1.9	54	44	16	59	.12	5.1	181	.96
20...	26	8.5	17	1.8	50	41	18	60	.11	2.2	189	.88
20...	.004	<.001	<.025	--	--	--	--	--	--	<.020	--	--
JUN												
08...	34	11	24	2.3	63	52	25	85	.18	2.4	250	1.0
08...	--	--	--	--	--	--	--	--	--	--	--	--
30...	35	11	29	2.7	64	52	29	93	.20	3.4	265	1.3
AUG												
05...	38	13	40	2.9	--	--	39	110	.20	2.6	299	1.0
05...	37	13	40	2.9	--	--	41	110	.19	2.5	300	1.0
26...	34	13	39	3.4	--	--	43	97	.29	3.3	297	1.3

OHIO RIVER MAIN STEM

03216600 OHIO RIVER AT GREENUP DAM, KY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	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, NITRATE DIS- SOLVED (MG/L AS N) (00618)	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- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)
NOV 18...	1.6	.27	.25	.025	1.27	.104	1.25	.35	.38	.057	.050	.15
DEC 15...	1.5	.28	.21	.018	1.21	.127	1.19	.33	.41	.050	E.036	.10
DEC 15...	--	--	--	<.001	.007	<.002	--	--	--	--	--	--
JAN 14...	1.8	.55	.24	.024	1.41	.125	1.39	.36	.67	.135	<.050	.00
MAR 11...	1.1	--	--	.010	.950	<.020	.940	.18	.43	.085	.012	.00
MAR 11...	1.2	--	--	.013	.970	<.020	.957	.18	.43	.087	.012	.00
APR 01...	.98	.19	.19	.012	.739	.059	.727	.24	.24	.023	.011	.02
APR 01...	--	--	--	--	--	--	--	--	--	--	--	--
APR 22...	.99	.40	.17	.018	.784	.028	.766	.20	.43	.074	.016	.02
MAY 06...	.90	.16	.10	.012	.735	.068	.723	.17	.23	.026	.016	.03
MAY 20...	.82	.22	.16	.010	.606	.060	.596	.22	.28	.029	.011	.02
MAY 20...	--	--	--	<.001	.008	.003	--	--	--	--	--	.00
JUN 08...	1.1	.16	.27	.019	.810	.043	.791	.31	.20	.023	.011	.02
JUN 08...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 30...	1.3	.25	.23	.030	1.02	.039	.990	.27	.28	.017	.007	--
AUG 05...	1.4	.32	.63	.013	.684	.037	.671	.67	.35	.021	.008	.00
AUG 05...	1.2	.31	.43	.013	.688	.036	.675	.46	.34	.020	.009	.00
AUG 26...	1.2	.29	.25	.017	.882	.086	.865	.34	.38	.030	.017	.03

DATE	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- 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)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADIUM, DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
NOV 18...	.13	5.5	.08	.048	--	--	1	--	--	70	--	--
DEC 15...	.16	5.3	.06	.034	--	--	1	--	--	75	--	--
DEC 15...	--	--	--	<.001	<.30	<.20	--	<.20	<.20	<2.0	<.30	<.20
JAN 14...	.16	6.1	.08	.001	6.7	<1.0	<1	43	<1.0	40	<1.0	<1.0
MAR 11...	--	4.2	.03	.001	--	--	<1	--	--	21	--	--
MAR 11...	--	4.2	.04	.001	--	--	<1	--	--	18	--	--
APR 01...	.08	3.2	.04	.005	--	--	<1	--	--	23	--	--
APR 01...	--	--	--	--	--	--	--	--	--	--	--	--
APR 22...	.04	3.4	.06	.007	--	--	<1	--	--	34	--	--
MAY 06...	.09	3.2	.04	.010	12	<1.0	<1	37	<1.0	24	<1.0	<1.0
MAY 20...	.08	2.6	.03	.005	--	--	<1	--	--	29	--	--
MAY 20...	.00	--	--	.001	<.30	<.20	--	<.20	<.20	<2.0	<.30	<.20
JUN 08...	.06	3.5	.06	.005	--	--	<1	--	--	45	--	--
JUN 08...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 30...	.05	4.4	.10	<.001	8.4	<1.0	<1	50	<1.0	58	<1.0	<1.0
AUG 05...	.05	3.0	.04	.001	--	--	<1	--	--	74	--	--
AUG 05...	.05	3.0	.04	.001	--	--	<1	--	--	73	--	--
AUG 26...	.11	3.8	.06	.010	8.3	<1.0	<1	53	<1.0	79	<1.0	<1.0

OHIO RIVER MAIN STEM

03216600 OHIO RIVER AT GREENUP DAM, KY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	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)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	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)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	THAL- LIUM, DIS- SOLVED (UG/L AS TL) (01057)
NOV 18...	--	--	<10	--	12	--	--	--	<1	--	287	--
DEC 15...	--	--	E6.3	--	11	--	--	--	2	--	304	--
15...	<.20	<.20	<3.0	<.30	--	<.10	<.20	<.50	--	<.20	<.10	<.10
JAN 14...	<1.0	1.6	13	<1.0	7	40	2.7	2.2	<1	<1.0	182	--
MAR 11...	--	--	24	--	E4	--	--	--	<1	--	135	--
11...	--	--	17	--	E3	--	--	--	<1	--	133	--
APR 01...	--	--	16	--	E6	--	--	--	<1	--	156	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	14	--	11	--	--	--	<1	--	146	--
MAY 06...	<1.0	1.5	18	<1.0	7	39	1.6	1.9	<1	<1.0	162	--
20...	--	--	<10	--	7	--	--	--	<1	--	161	--
20...	<.20	<.20	<3.0	.36	--	<.10	<.20	<.50	--	<.20	<.10	<.10
JUN 08...	--	--	<10	--	7	--	--	--	<1	--	219	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
30...	<1.0	1.8	<10	<1.0	9	1.8	5.5	1.6	<1	<1.0	233	--
AUG 05...	--	--	<10	--	15	--	--	--	<1	--	266	--
05...	--	--	<10	--	14	--	--	--	<1	--	264	--
26...	<1.0	2.2	<10	<1.0	13	8.0	7.8	2.8	<1	<1.0	256	--

DATE	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- PENDE 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)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)
NOV 18...	<10	--	--	2.4	1.0	<.002	<.0020	.056	<.0020	<.0020	<.0040
DEC 15...	<10	--	--	2.2	.30	<.002	<.0020	.034	<.0020	<.0020	<.0040
15...	--	<.50	<.20	--	--	--	--	--	--	--	--
JAN 14...	<10	<1.0	<1.0	5.3	2.0	<.002	<.0020	.024	<.0020	<.0020	<.0040
MAR 11...	<10	--	--	5.2	1.4	<.002	<.0020	.010	<.0020	<.0020	<.0040
11...	<10	--	--	2.3	1.2	<.002	<.0020	.009	<.0020	<.0020	<.0040
APR 01...	<10	--	--	1.6	.30	<.002	<.0020	.009	<.0020	<.0020	<.0040
01...	--	--	--	2.7	<.20	<.002	<.0020	<.001	<.0020	<.0020	<.0040
22...	<10	--	--	2.3	.60	<.002	<.0020	.018	<.0020	<.0020	<.0040
MAY 06...	<10	2.1	<1.0	2.0	.40	<.002	<.0020	.018	<.0020	<.0020	<.0040
20...	<10	--	--	1.8	.40	<.002	.0051	.024	<.0020	<.0020	<.0040
20...	--	<.50	<.20	--	--	--	--	--	--	--	--
JUN 08...	<10	--	--	2.6	.40	<.002	.0110	.058	<.0020	<.0020	<.0040
08...	--	--	--	.60	.20	--	--	--	--	--	--
30...	<10	<1.0	<1.0	2.3	.60	<.002	.0488	.311	<.0020	<.0020	<.0040
AUG 05...	<10	--	--	2.5	.50	--	--	--	--	--	--
05...	<10	--	--	2.4	.50	<.002	<.0020	.080	<.0020	<.0020	<.0040
26...	<10	1.5	<1.0	2.9	.30	<.002	<.0020	.080	<.0020	<.0020	<.0040

OHIO RIVER MAIN STEM

03216600 OHIO RIVER AT GREENUP DAM, KY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS- SOLVED (UG/L) (39341)	MALA- THON, DIS- SOLVED (UG/L) (39532)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARA- THON, DIS- SOLVED (UG/L) (39542)
NOV 18...	<.0040	E.0157	.005	<.001	<.0030	<.004	<.005	<.004	.015	<.0060	<.004
DEC 15...	E.0039	E.0068	<.002	<.001	<.0030	<.004	<.005	<.004	.011	<.0060	<.004
15...	--	--	--	--	--	--	--	--	--	--	--
JAN 14...	.0049	E.0079	<.002	<.001	<.0030	<.004	<.005	<.004	.010	E.0016	<.004
MAR 11...	<.0040	E.0050	<.002	<.001	<.0030	<.004	<.005	<.004	.008	<.0060	<.004
11...	<.0040	E.0049	<.002	<.001	<.0030	<.004	<.005	<.004	.008	<.0060	<.004
APR 01...	<.0040	E.0053	<.002	<.001	<.0030	<.004	<.005	<.004	E.004	<.0060	<.004
01...	<.0040	<.0020	<.002	<.001	<.0030	<.004	<.005	<.004	<.002	<.0060	<.004
22...	<.0040	E.0072	<.002	<.001	<.0030	<.004	<.005	<.004	.009	<.0060	<.004
MAY 06...	<.0040	E.0102	<.002	<.001	<.0030	<.004	<.005	<.004	.010	<.0060	<.004
20...	<.0040	E.0083	<.002	<.001	<.0030	<.004	<.005	<.004	.010	<.0060	<.004
20...	--	--	--	--	--	--	--	--	--	--	--
JUN 08...	<.0040	E.0076	E.002	<.001	<.0030	<.004	<.005	<.004	.023	<.0060	<.004
08...	--	--	--	--	--	--	--	--	--	--	--
30...	<.0100	E.0408	E.004	<.001	<.0030	<.004	<.005	<.004	.104	<.0060	<.004
AUG 05...	--	--	--	--	--	--	--	--	--	--	--
05...	<.0040	E.0156	<.002	<.001	<.0030	<.004	<.005	<.004	.018	<.0060	<.004
26...	<.0040	E.0164	<.002	<.001	<.0030	<.004	<.005	<.004	.020	<.0060	<.004

DATE	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
NOV 18...	<.0070	E.0134	.0099	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
DEC 15...	<.0070	E.0086	.0092	<.0020	E.0043	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
15...	--	--	--	--	--	--	--	--	--	--	--
JAN 14...	<.0070	E.0028	.0075	<.0020	E.0074	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
MAR 11...	<.0070	<.0180	E.0044	<.0020	E.0053	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
11...	<.0070	<.0180	E.0044	<.0020	E.0052	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
APR 01...	<.0070	<.0180	<.0050	<.0020	E.0053	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
01...	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
22...	<.0070	<.0180	.0138	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
MAY 06...	<.0070	<.0180	.0082	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
20...	<.0070	<.0180	.0094	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
20...	--	--	--	--	--	--	--	--	--	--	--
JUN 08...	<.0070	E.0120	.0258	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
08...	--	--	--	--	--	--	--	--	--	--	--
30...	<.0070	.0184	.0728	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
AUG 05...	--	--	--	--	--	--	--	--	--	--	--
05...	<.0070	E.0134	.0202	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
26...	<.0070	.0229	.0356	<.0020	<.0030	<.0100	<.0020	<.0030	<.0170	<.0040	<.0040

OHIO RIVER MAIN STEM

03216600 OHIO RIVER AT GREENUP DAM, KY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	ETHO- PROP WATER FLTRD 0.7 U	EPTC WATER FLTRD 0.7 U	LIN- URON WATER FLTRD 0.7 U	METHYL AZIN- PHOS WAT FLT 0.7 U	METHYL PARA- THON WAT FLT 0.7 U	MOL- INATE WATER FLTRD 0.7 U	NAPROP- AMIDE WATER FLTRD 0.7 U	PEB- ULATE WATER FILTRD 0.7 U	PER- METHRIN CIS WAT FLT 0.7 U	PHORATE WATER FLTRD 0.7 U	PRON- AMIDE WATER FLTRD 0.7 U
	GF, REC (UG/L) (82672)	GF, REC (UG/L) (82668)	GF, REC (UG/L) (82666)	GF, REC (UG/L) (82686)	GF, REC (UG/L) (82667)	GF, REC (UG/L) (82671)	GF, REC (UG/L) (82684)	GF, REC (UG/L) (82669)	GF, REC (UG/L) (82687)	GF, REC (UG/L) (82664)	GF, REC (UG/L) (82676)
NOV 18...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
DEC 15...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
15...	--	--	--	--	--	--	--	--	--	--	--
JAN 14...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
MAR 11...	<.0030	<.0080	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
11...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
APR 01...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
01...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
22...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
MAY 06...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
20...	<.0030	<.0020	<.0020	E.0162	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
20...	--	--	--	--	--	--	--	--	--	--	--
JUN 08...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
08...	--	--	--	--	--	--	--	--	--	--	--
30...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
AUG 05...	--	--	--	--	--	--	--	--	--	--	--
05...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
26...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030

DATE	PRO- PANIL WATER FLTRD 0.7 U	PRO- PARGITE WATER FLTRD 0.7 U	TEBU- THIURON WATER FLTRD 0.7 U	TER- BACIL WATER FLTRD 0.7 U	TER- BUFOS WATER FLTRD 0.7 U	TRIAL- LATE WATER FLTRD 0.7 U	TRI- FLUR- ALIN WAT FLT 0.7 U	THIO- BENCARB WATER FLTRD 0.7 U	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
	GF, REC (82679)	GF, REC (82685)	GF, REC (82670)	GF, REC (82665)	GF, REC (82675)	GF, REC (82678)	GF, REC (82661)	GF, REC (82681)	(80154)	(80155)	(70331)
NOV 18...	<.0040	<.0130	E.0055	<.0070	<.0130	<.0010	<.0020	<.0020	7	257	97
DEC 15...	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020	6	502	97
15...	--	--	--	--	--	--	--	--	--	--	--
JAN 14...	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020	128	51800	82
MAR 11...	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	E.0022	<.0020	60	24900	96
11...	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020	--	--	--
APR 01...	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020	8	1100	98
01...	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020	--	--	--
22...	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020	48	9250	97
MAY 06...	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020	6	408	98
20...	<.0040	<.100	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020	10	1230	99
20...	--	--	--	--	--	--	--	--	--	--	--
JUN 08...	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020	7	399	98
08...	--	--	--	--	--	--	--	--	--	--	--
30...	<.0040	--	E.0054	<.0070	<.0130	<.0010	<.0020	<.0020	5	308	98
AUG 05...	--	--	--	--	--	--	--	--	6	135	96
05...	<.0040	<.0130	E.0054	<.0070	<.0130	<.0010	<.0020	<.0020	--	--	--
26...	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020	11	909	98



TYGARTS CREEK BASIN

03217000 TYGARTS CREEK NEAR GREENUP, KY

LOCATION.--Lat 38°33'51", long 82°57'08", Greenup County, Hydrologic Unit 05090103, on downstream side of center pier of bridge on State Highway 7, 100 ft downstream from Lick Run, 0.4 mi upstream from White Oak Creek, 6.5 mi west of Greenup, and at mile 28.1.

DRAINAGE AREA.--242 mi².

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

REVISED RECORDS.--WSP 1113: 1942-43, 1945-46. WSP 1625: 1958. WSP 1725: Drainage area. WRD KY 79-1: 1948(P), 1950(M), 1952(M), 1962(M), 1967(P), 1970(M), 1972-76(M), 1978(M).

GAGE.--Water-stage recorder. Datum of gage is 547.14 ft above sea level.

REMARKS.--Records fair except for daily discharges below 10 ft³/s, and for those estimated, which are poor. Occasional diversion at low flow caused by withdrawal of water for cooling purposes by gas transmission plant above station.

PEAKS ABOVE BASE.--Peak discharges above base of 3,500 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 10	0200	3020	11.92

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.25	1.8	4.7	19	173	569	144	224	9.7	1.2	3.5	11
2	.58	1.8	4.7	e18	776	432	140	185	8.4	1.4	2.8	7.8
3	.96	2.0	7.7	e17	644	517	133	157	8.0	2.4	2.2	5.8
4	1.4	2.4	9.6	e16	381	1200	130	137	7.8	2.3	1.8	4.3
5	1.2	2.3	8.8	e15	278	714	126	122	7.3	1.9	1.7	3.2
6	1.2	2.1	7.8	e25	222	627	115	110	6.6	2.8	1.3	1.8
7	1.1	2.1	9.2	e60	208	685	104	99	6.2	3.4	1.0	.63
8	2.2	2.3	11	e32	248	447	96	90	5.6	2.8	.88	.47
9	2.1	2.7	30	1260	234	390	93	79	5.0	2.0	1.2	.59
10	2.1	3.5	83	1560	199	1140	93	68	4.6	2.5	1.0	.55
11	1.7	12	69	e420	176	887	91	60	3.2	2.4	.76	.43
12	2.0	15	47	e270	259	483	85	51	2.5	1.5	.60	.35
13	2.1	5.7	39	246	766	340	79	48	3.3	1.1	.60	.29
14	2.0	3.0	55	346	537	340	74	49	3.7	.76	.60	.26
15	1.8	5.2	86	810	375	1430	74	49	4.3	.49	.60	.26
16	1.9	16	83	639	328	1030	90	49	4.5	.23	.60	.26
17	1.5	12	57	438	297	584	109	44	4.7	.13	.60	.19
18	1.5	8.9	42	808	260	389	101	38	3.7	.19	.53	.13
19	1.6	7.1	33	781	225	294	92	33	3.0	.16	.27	.12
20	1.6	6.5	28	423	195	244	92	30	2.6	.13	.30	.13
21	1.6	5.8	24	552	169	221	133	28	2.4	1.6	.15	.12
22	1.8	4.7	23	807	148	202	346	26	2.4	25	.09	.12
23	1.7	4.0	24	1110	133	181	274	24	2.4	13	.16	.12
24	1.5	4.0	37	1990	125	232	203	24	2.5	6.9	28	.12
25	1.3	3.3	37	841	121	368	158	23	2.3	5.4	324	.12
26	1.4	4.2	38	458	124	295	132	22	2.0	6.5	132	.12
27	1.3	3.6	32	298	148	245	127	22	1.8	11	95	.12
28	1.7	3.6	27	219	358	215	648	21	1.7	7.7	58	.12
29	1.9	4.0	23	182	---	191	549	19	1.4	5.9	35	.18
30	1.8	4.7	21	154	---	170	298	14	1.1	4.4	23	.27
31	1.8	---	20	135	---	151	---	12	---	4.0	16	---
TOTAL	48.59	156.3	1021.5	14949	8107	15213	4929	1957	124.7	121.19	734.24	39.97
MEAN	1.57	5.21	33.0	482	290	491	164	63.1	4.16	3.91	23.7	1.33
MAX	2.2	16	86	1990	776	1430	648	224	9.7	25	324	11
MIN	.25	1.8	4.7	15	121	151	74	12	1.1	.13	.09	.12
CFM	.01	.02	.14	1.99	1.20	2.03	.68	.26	.02	.02	.10	.01
IN.	.01	.02	.16	2.30	1.25	2.34	.76	.30	.02	.02	.11	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1999, BY WATER YEAR (WY)

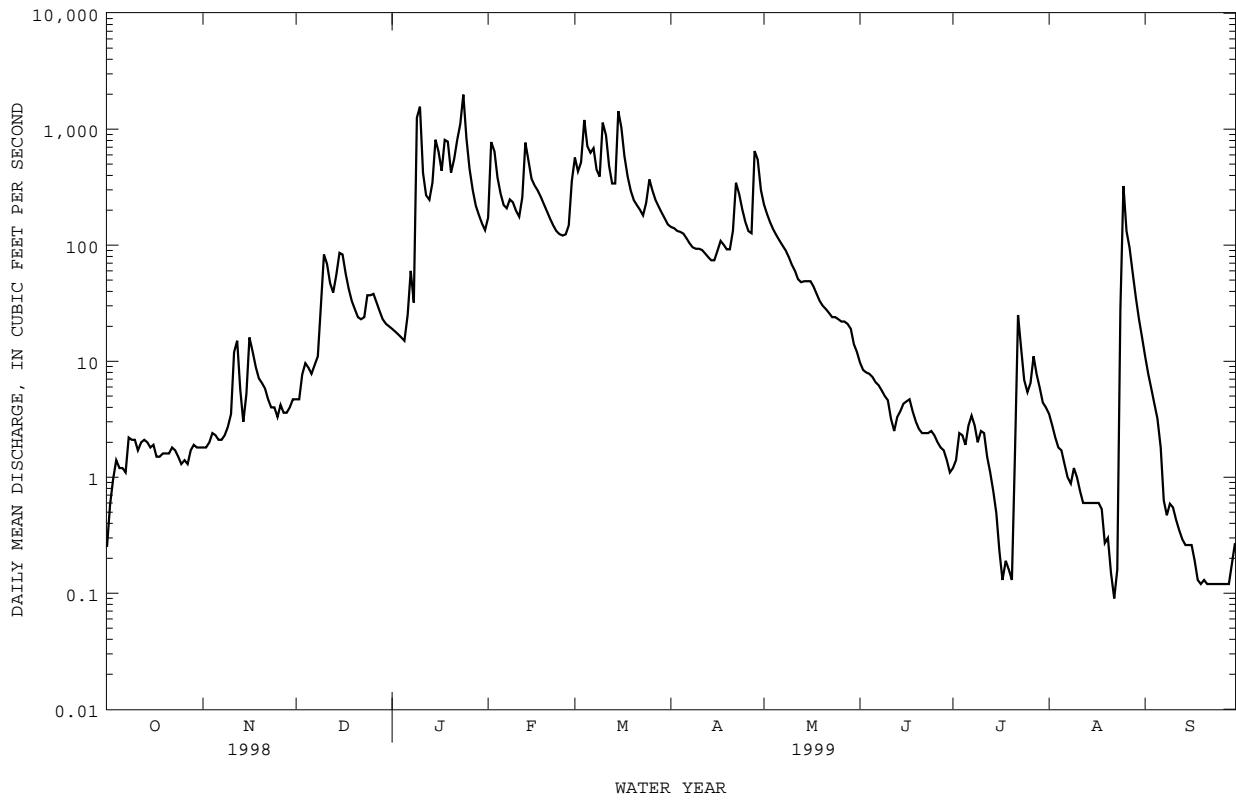
MEAN	56.5	152	381	488	609	698	513	389	179	115	80.4	66.1
MAX	509	869	1954	1665	1953	2092	1513	1309	994	645	445	1031
(WY)	1976	1987	1979	1950	1989	1997	1972	1996	1961	1960	1979	1950
MIN	.35	.70	3.23	31.1	20.7	80.8	90.9	27.6	4.16	3.91	2.09	1.21
(WY)	1954	1954	1954	1977	1954	1941	1941	1941	1999	1999	1944	1998

TYGARTS CREEK BASIN

03217000 TYGARTS CREEK NEAR GREENUP, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1940 - 1999	
ANNUAL TOTAL	117141.14		47401.49			
ANNUAL MEAN	321		130		309	
HIGHEST ANNUAL MEAN					589	
LOWEST ANNUAL MEAN					67.5	
HIGHEST DAILY MEAN	4530	Jan 8	1990	Jan 24	25800	Mar 2 1997
LOWEST DAILY MEAN	.25	Oct 1	.09	Aug 22	.00	Aug 24 1952
ANNUAL SEVEN-DAY MINIMUM	.63	Sep 27	.12	Sep 21	.00	Sep 17 1955
INSTANTANEOUS PEAK FLOW			3020		34400	Mar 2 1997
INSTANTANEOUS PEAK STAGE			11.92		23.65	Mar 2 1997
INSTANTANEOUS LOW FLOW					.00	Aug 24 1952
ANNUAL RUNOFF (CFSM)	1.33		.54		1.28	
ANNUAL RUNOFF (INCHES)	18.01		7.29		17.37	
10 PERCENT EXCEEDS	894		389		700	
50 PERCENT EXCEEDS	78		15		92	
90 PERCENT EXCEEDS	1.5		.59		4.7	

e Estimated



KINNICONICK CREEK BASIN

03237250 KINNICONICK CREEK AT TANNERY, KY

LOCATION.--Lat 38°32'36", long 83°13'29", Lewis County, Hydrologic Unit 05090201, near right bank on downstream side of bridge on County Highway 1149, 0.35 mi upstream from Trace Creek, 0.5 mi west of Tannery, and 10.2 mi upstream from mouth.

DRAINAGE AREA.--201 mi²

PERIOD OF RECORD.--October 1991 to current year.

GAGE.--Water-stage recorder. Datum of gage is 535.34 ft above sea level.

REMARKS.--Records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	.63	33	30	154	791	95	40	1.0	5.8	.30	3.7
2	1.5	.64	38	29	1150	523	98	24	2.7	5.4	.22	4.0
3	1.4	.68	42	e210	688	739	86	16	3.5	6.9	.12	3.5
4	1.3	.71	44	e185	454	1350	79	11	3.5	6.5	.04	3.0
5	1.2	.84	46	e95	322	783	75	8.4	3.2	5.7	.00	2.4
6	1.1	1.0	49	e66	248	818	65	6.6	3.0	5.2	.00	2.0
7	1.1	1.2	54	35	298	945	56	4.8	2.8	4.1	.11	1.7
8	1.1	1.3	60	e67	528	583	49	3.1	2.8	2.8	.35	1.4
9	1.1	1.5	67	e1450	388	525	48	1.7	2.8	1.9	.83	1.3
10	1.0	1.8	94	e1120	298	1390	48	.84	2.7	1.5	1.3	1.2
11	.88	2.3	93	e190	227	899	41	.37	2.1	1.4	1.6	1.0
12	.95	2.5	82	61	283	544	30	.16	1.6	1.3	1.7	.90
13	.99	2.8	77	125	851	393	24	.04	1.3	1.2	1.7	.79
14	1.1	3.2	78	668	546	362	20	.08	2.5	1.2	1.5	.69
15	1.1	3.7	102	1060	454	1140	21	6.4	3.8	1.1	1.4	.55
16	1.2	4.2	80	527	429	1130	43	2.0	5.1	.91	1.2	.43
17	1.2	4.8	66	576	404	876	83	.78	7.6	.85	1.1	.32
18	1.1	5.3	55	1960	394	576	75	.67	7.0	.58	.93	.23
19	1.2	5.9	50	1020	331	386	70	.49	6.0	.31	.85	.17
20	1.1	6.6	45	476	262	302	101	.20	4.9	.19	.94	.12
21	.93	7.1	43	853	193	255	350	.01	4.7	.15	.87	.06
22	.76	7.6	53	1300	147	203	793	.00	4.7	.09	.77	.00
23	.59	8.3	73	1110	117	158	419	.01	4.3	.00	.67	.00
24	.48	8.7	93	1490	104	196	230	.46	3.7	.16	.74	.00
25	.42	9.3	e66	645	98	267	97	1.3	3.3	.49	33	.00
26	.40	12	e54	377	111	231	45	2.7	2.8	.53	58	.00
27	.37	13	e43	270	174	190	26	4.1	3.1	.66	17	.00
28	.45	15	40	200	645	163	80	4.2	5.9	.61	9.5	.00
29	.51	18	36	144	---	138	170	2.9	6.4	.54	5.6	.00
30	.54	23	32	102	---	115	86	1.7	6.3	.46	5.1	.00
31	.62	---	30	78	---	96	---	.86	---	.38	4.0	---
TOTAL	29.49	173.60	1818	16519	10298	17067	3503	145.87	115.1	58.91	151.44	29.46
MEAN	.95	5.79	58.6	533	368	551	117	4.71	3.84	1.90	4.89	.98
MAX	1.8	23	102	1960	1150	1390	793	40	7.6	6.9	58	4.0
MIN	.37	.63	30	29	98	96	20	.00	1.0	.00	.00	.00
CFSM	.00	.03	.29	2.65	1.83	2.74	.58	.02	.02	.01	.02	.00
IN.	.01	.03	.34	3.06	1.91	3.16	.65	.03	.02	.01	.03	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1999, BY WATER YEAR (WY)

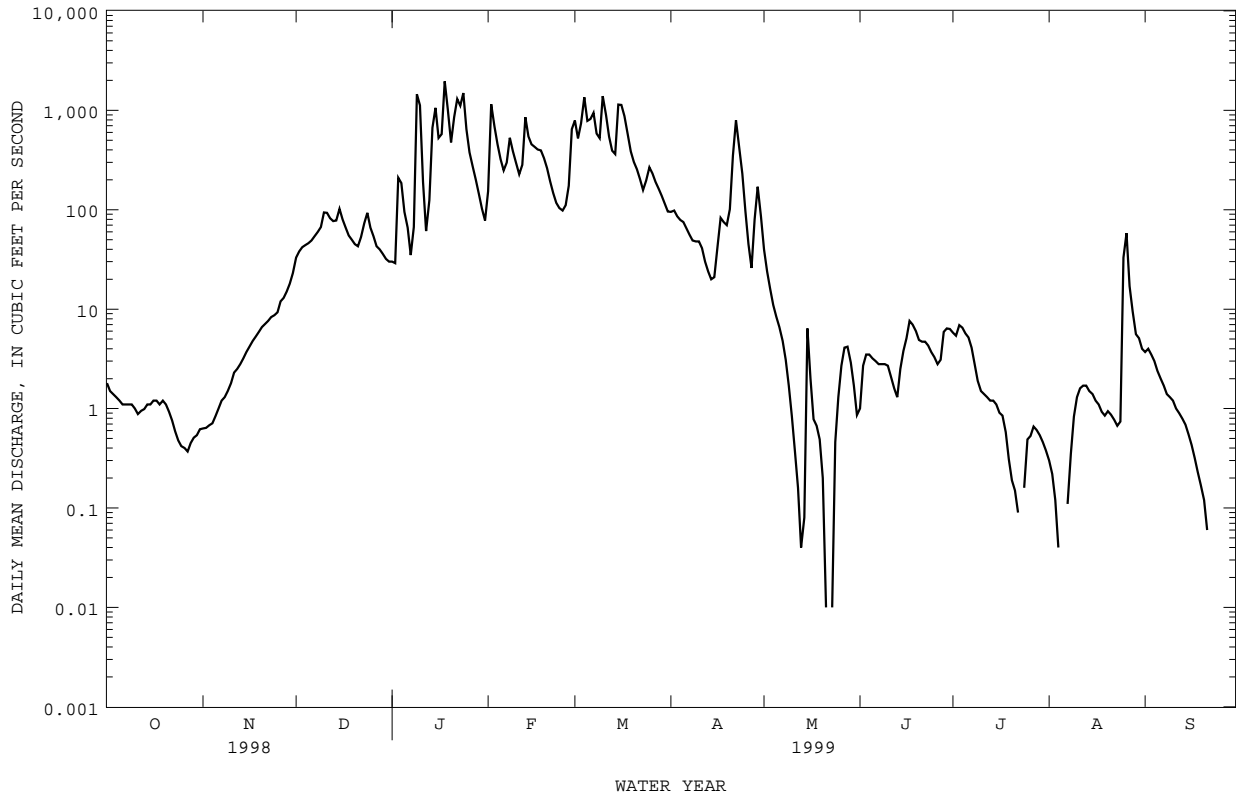
	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	29.3	111	234	574	511	813	426	448
MAX	130	340	468	1025	1070	2242	743	1187
(WY)	1996	1994	1997	1994	1998	1997	1998	1996
MIN	.45	2.20	58.6	295	293	345	117	4.71
(WY)	1998	1998	1999	1992	1995	1995	1999	1999

KINNICONICK CREEK BASIN

03237250 KINNICONICK CREEK AT TANNERY, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1992 - 1999	
ANNUAL TOTAL	134269.19		49908.87			
ANNUAL MEAN	368		137		294	
HIGHEST ANNUAL MEAN					408	
LOWEST ANNUAL MEAN					137	
HIGHEST DAILY MEAN	7300	Jan 8	1960	Jan 18	20000	Mar 2 1997
LOWEST DAILY MEAN	.37	Oct 27	.00	May 22	.00	May 22 1999
ANNUAL SEVEN-DAY MINIMUM	.45	Oct 24	.00	Sep 22	.00	Sep 22 1999
INSTANTANEOUS PEAK FLOW			2680	Jan 18	45600	Mar 2 1997
INSTANTANEOUS PEAK STAGE			8.71	Jan 18	28.04	Mar 2 1997
ANNUAL RUNOFF (CFSM)	1.83		.68		1.46	
ANNUAL RUNOFF (INCHES)	24.85		9.24		19.85	
10 PERCENT EXCEEDS	800		495		712	
50 PERCENT EXCEEDS	100		5.8		85	
90 PERCENT EXCEEDS	1.4		.37		1.3	

e Estimated



LICKING RIVER BASIN

03250310 ROCK LICK CREEK ABOVE UNNAMED TRIBUTARY NEAR SHARKEY, KY

LOCATION.--Lat 38°15'04", long 83°33'58", Fleming County, Hydrologic Unit 05100101, on right bank, 1.1 miles above Drip Springs, 1.3 miles north of Sharkey, and 2.7 mi above mouth.

DRAINAGE AREA.--1.66 mi²

PERIOD OF RECORD.--October 1996 to current year.

GAGE.--Water-stage recorder. Datum of gage is 700 ft above mean sea level, from topographic map.

REMARKS.--Records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.01	.05	.26	7.8	1.8	e.82	.30	e.08	e.05	e.00	.00
2	.00	.02	.05	.31	3.4	1.2	e.73	e.26	e.10	e.02	e.00	.00
3	.01	.02	.05	2.3	2.2	7.4	e.67	e.23	e.09	e.01	e.00	.00
4	.01	.02	.05	.61	1.4	3.2	e.61	e.19	e.08	e.00	e.00	.00
5	.00	.02	.05	.38	1.0	1.9	e.55	e.21	e.08	e.00	e.00	.00
6	.00	.02	.05	.30	.86	2.3	e.49	e.19	e.07	e.00	e.00	.00
7	.01	.02	.08	.27	1.2	1.7	e.44	e.17	e.07	e.00	e.00	.00
8	.01	.02	.36	8.5	1.2	1.2	e.40	e.16	e.07	e.00	e.00	.00
9	.01	.02	1.0	23	.89	3.4	e.37	e.15	e.07	e.00	e.00	.00
10	.01	.03	.60	1.8	.73	3.2	e.34	e.14	e.07	e.00	e.00	.00
11	.01	.04	.42	.91	.64	1.8	e.31	e.13	e.06	e.00	e.00	.00
12	.01	.04	.34	.70	4.4	1.3	e.28	e.12	e.06	e.00	.00	.00
13	.01	.04	.61	.91	2.5	1.0	e.26	e.15	e.07	e.00	.00	.00
14	.01	.04	1.1	3.5	1.6	7.9	e.24	e.14	e.10	e.00	.00	.00
15	.01	.04	.72	2.8	1.5	4.4	e.60	e.13	e.05	e.00	.00	.00
16	.01	.04	.53	2.5	1.4	2.6	e.40	e.12	e.02	e.00	.00	.00
17	.01	.04	.43	8.5	1.3	1.9	e.24	e.11	e.01	e.00	.00	.00
18	.01	.04	.35	7.9	1.2	1.5	e.28	e.12	e.00	e.00	.00	.00
19	.01	.04	.32	2.3	.92	1.3	e.41	e.11	e.00	e.00	.00	.00
20	.01	.04	.29	1.4	.75	1.1	.65	e.10	e.00	e.00	.00	.00
21	.01	.04	.28	1.3	.63	1.0	1.5	e.10	e.00	e.00	.00	.00
22	.01	.04	.90	1.3	.57	.94	.89	e.09	e.00	e.00	.00	.00
23	.01	.04	.92	8.9	.52	2.6	.51	e.11	e.00	.00	.00	.00
24	.01	.04	.65	3.0	.49	3.7	.35	e.13	e.00	.00	e.09	.00
25	.01	.04	.52	1.6	.52	2.4	.30	e.14	e.00	.00	e.06	.00
26	.01	.06	.43	1.1	.79	1.7	.29	e.12	e.00	.00	e.01	.00
27	.01	.06	.38	.87	1.1	1.4	.29	e.11	.10	.00	.00	.00
28	.02	.06	.33	.73	2.5	1.2	.47	e.10	.10	.00	.00	.00
29	.01	.06	.31	.60	---	e1.1	.53	e.09	.12	.00	.00	.00
30	.01	.06	.29	.52	---	e1.0	.36	e.09	.10	.00	.00	.00
31	.01	---	.27	.51	---	e.92	---	e.08	---	.00	.00	---
TOTAL	0.29	1.10	12.73	89.58	44.01	70.06	14.58	4.39	1.57	0.08	0.16	0.00
MEAN	.009	.037	.41	2.89	1.57	2.26	.49	.14	.052	.003	.005	.000
MAX	.02	.06	1.1	23	7.8	7.9	1.5	.30	.12	.05	.09	.00
MIN	.00	.01	.05	.26	.49	.92	.24	.08	.00	.00	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1999, BY WATER YEAR (WY)

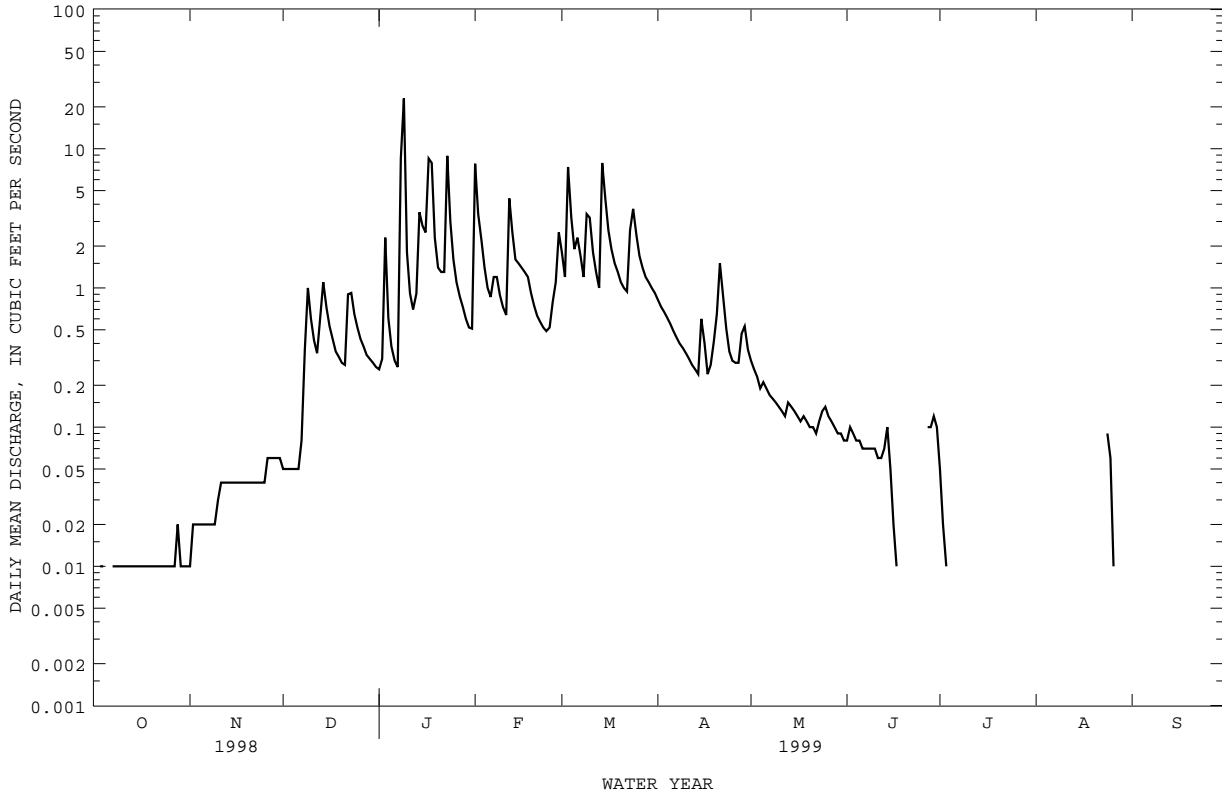
	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997
MEAN	.048	.37	1.18	3.01	2.91	4.42	1.86	1.74	1.88	.55	.31	.27
MAX	.13	.92	2.80	3.42	3.84	8.93	4.05	3.45	4.28	1.06	1.09	1.06
(WY)	1997	1997	1997	1998	1997	1997	1998	1998	1997	1998	1996	1996
MIN	.009	.037	.31	2.71	1.57	2.07	.49	.14	.052	.003	.005	.000
(WY)	1998	1999	1998	1997	1999	1998	1999	1999	1999	1999	1999	1999

LICKING RIVER BASIN

03250310 ROCK LICK CREEK ABOVE UNNAMED TRIBUTARY NEAR SHARKEY, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1996 - 1999	
ANNUAL TOTAL	579.17		238.55			
ANNUAL MEAN	1.59		.65		1.49	
HIGHEST ANNUAL MEAN					2.24	
LOWEST ANNUAL MEAN					.65	
HIGHEST DAILY MEAN	51	Jan 7	23	Jan 9	134	Mar 1 1997
LOWEST DAILY MEAN	.00	Sep 14	.00	Oct 2	.00	Sep 15 1997
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 12	.00	Jun 18	.00	Sep 15 1997
INSTANTANEOUS PEAK FLOW			125		592	
INSTANTANEOUS PEAK STAGE			3.41		5.65	
10 PERCENT EXCEEDS	3.0		1.6		2.8	
50 PERCENT EXCEEDS	.52		.08		.50	
90 PERCENT EXCEEDS	.01		.00		.00	

e Estimated



LICKING RIVER BASIN

03250322 ROCK LICK CREEK AT HIGHWAY 158 NEAR SHARKEY, KY

LOCATION.--Lat 38°14'50", long 83°35'22", Fleming County, Hydrologic Unit 05100101, on downstream side of bridge, 0.53 miles downstream from Drip Spring, 1.1 miles above mouth, and 1.9 miles northwest of Sharkey.

DRAINAGE AREA.--4.2 mi²

PERIOD OF RECORD.--October 1996 to current year.

GAGE.--Water-stage recorder. Datum of gage is 645.451 ft above sea level.

REMARKS.--Records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.06	.11	e.23	34	5.9	2.8	.85	.13	.00	.00	.00
2	.00	.06	.09	e2.3	14	4.1	2.4	.66	.15	.00	.00	.00
3	.12	.11	.09	10	8.2	37	2.2	.57	.14	.00	.00	.00
4	.23	.10	.10	e3.5	5.6	13	2.1	.50	.13	.00	.00	.00
5	.16	.06	.16	e2.0	4.2	7.7	1.8	.62	.12	.00	.00	.00
6	.17	.06	.14	e1.3	3.8	9.1	1.6	.72	.12	.00	.00	.00
7	1.1	.05	1.9	e1.0	4.8	6.4	1.3	.45	.12	.00	.00	.00
8	1.4	.05	2.5	e60	4.3	4.6	1.2	.34	.11	.00	.00	.00
9	.16	.05	1.7	120	3.5	15	1.2	.29	.10	.00	.00	.00
10	.10	1.1	.82	6.7	2.9	13	.96	.24	.10	.00	.00	.00
11	.08	.51	.47	3.7	2.6	7.2	.89	.22	.10	.00	.00	.00
12	.07	.22	.47	2.7	21	5.1	.75	.20	.09	.00	.00	.00
13	.06	.18	2.7	3.3	10	4.4	.68	.20	.09	.00	.00	.00
14	.05	.16	2.4	13	6.6	34	.64	.21	.28	.00	.00	.00
15	.05	.15	1.3	10	5.7	15	1.2	.20	e.10	.00	.00	.00
16	.04	.13	.78	9.3	4.9	8.1	1.1	.19	e.00	.00	.00	.00
17	.04	.12	.67	46	5.1	6.0	.64	.17	e.00	.00	.00	.00
18	.05	.12	.41	34	4.4	4.6	.64	.19	e.00	.00	.00	.00
19	.32	.12	.44	8.7	3.7	4.0	.86	.21	e.00	.00	.00	.00
20	.08	.23	.38	5.3	3.1	3.4	1.0	.19	e.00	.00	.00	.00
21	.06	.19	.32	6.1	2.6	3.2	2.7	.17	e.00	.00	.00	.00
22	.05	.13	3.2	5.6	2.2	2.8	2.5	.17	e.00	.00	.00	.00
23	.05	.12	1.8	41	2.1	8.5	1.5	.19	.00	.00	.00	.00
24	.05	.10	1.1	13	1.9	11	.99	.71	.00	.00	1.1	.00
25	.05	.43	.76	6.6	2.4	6.9	.73	.19	.00	.00	.50	.00
26	.05	.98	.57	4.6	2.7	4.7	.97	.17	.00	.00	.08	.00
27	.04	.22	.42	3.7	3.7	4.0	1.1	.16	.00	.00	.00	.00
28	.65	.16	.37	3.1	8.4	3.5	2.2	.15	.19	.00	.00	.00
29	.11	.15	.34	2.5	---	3.0	1.9	.15	1.2	.00	.00	.00
30	.07	.13	.38	2.1	---	2.7	1.2	.13	.02	.00	.00	.00
31	.07	---	e.27	2.7	---	2.6	---	.13	---	.00	.00	---
TOTAL	5.53	6.25	27.16	434.03	178.4	260.5	41.75	9.54	3.29	0.00	1.68	0.00
MEAN	.18	.21	.88	14.0	6.37	8.40	1.39	.31	.11	.000	.054	.000
MAX	1.4	1.1	3.2	120	34	37	2.8	.85	1.2	.00	1.1	.00
MIN	.00	.05	.09	.23	1.9	2.6	.64	.13	.00	.00	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 1999, BY WATER YEAR (WY)

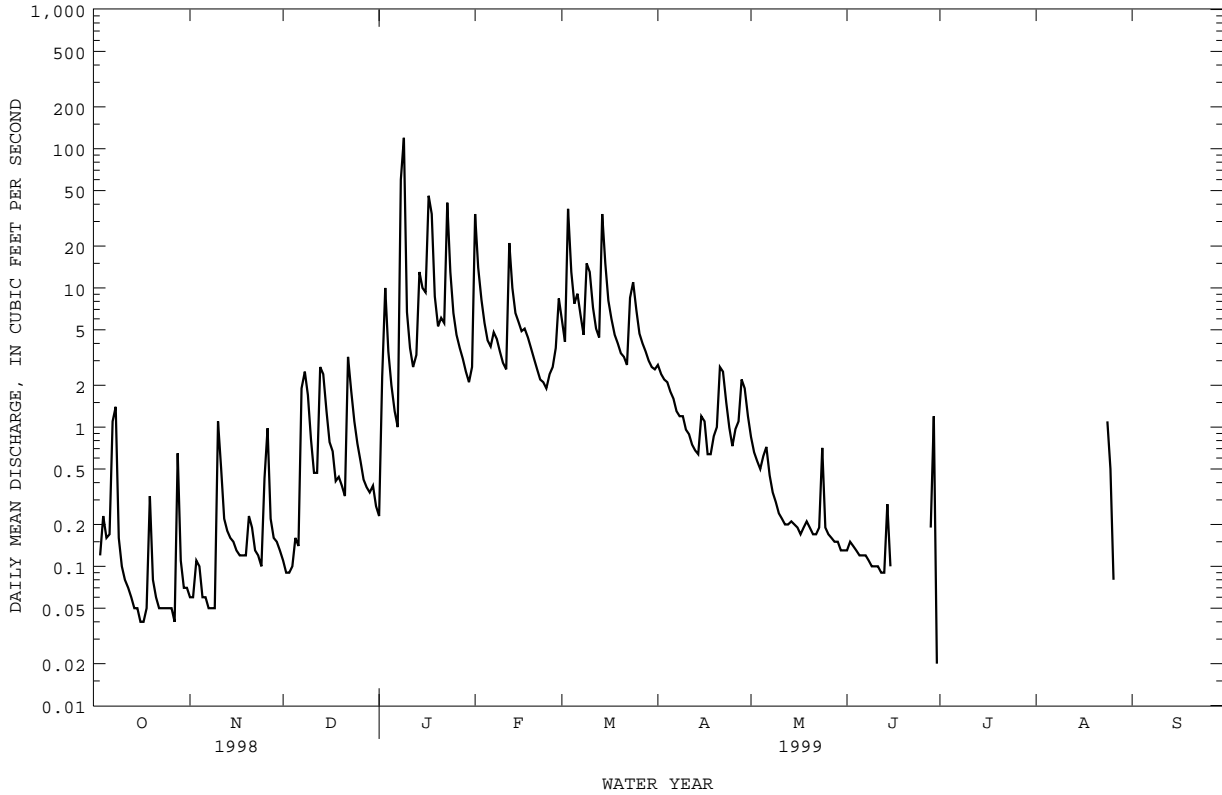
MEAN	.21	1.99	4.48	12.9	8.75	11.0	6.83	6.64	6.48	2.91	.46	.080
MAX	.33	4.79	10.0	14.9	12.3	17.5	16.2	13.9	15.3	6.63	1.12	.17
(WY)	1997	1997	1997	1998	1998	1997	1998	1998	1997	1998	1997	1997
MIN	.12	.21	.88	9.93	6.37	7.11	1.39	.31	.11	.000	.054	.000
(WY)	1998	1999	1999	1997	1999	1998	1999	1999	1999	1999	1999	1999

LICKING RIVER BASIN

03250322 ROCK LICK CREEK AT HIGHWAY 158 NEAR SHARKEY, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1997 - 1999	
ANNUAL TOTAL	2317.80		968.13			
ANNUAL MEAN	6.35		2.65		5.22	
HIGHEST ANNUAL MEAN					6.55	
LOWEST ANNUAL MEAN					2.65	
HIGHEST DAILY MEAN	232	Jan 7	120	Jan 9	232	Jan 7 1998
LOWEST DAILY MEAN	.00	Sep 3	.00	Oct 1	.00	Sep 21 1997
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 3	.00	Jun 16	.00	Sep 21 1997
INSTANTANEOUS PEAK FLOW			547		1160	
INSTANTANEOUS PEAK STAGE			5.91		10.71	
10 PERCENT EXCEEDS	12		5.9	Jan 9	11	Mar 2 1997
50 PERCENT EXCEEDS	1.7		.19		1.4	
90 PERCENT EXCEEDS	.05		.00		.00	

e Estimated



LICKING RIVER BASIN

03251200 NORTH FORK LICKING RIVER NEAR MOUNT OLIVET, KY

LOCATION.--Lat 38°35'41", long 84°01'13", Bracken County, Hydrologic Unit 05100101, on right bank, downstream side of bridge on State Highway 875, 4 mi northeast of Mt. Olivet, and at mile 26.1.

DRAINAGE AREA.--226 mi²

PERIOD OF RECORD.--June 1991 to current year.

GAGE.--Water-stage recorder. Datum of gage is 622.46 ft above sea level.

REMARKS.--Records fair except for periods of estimated record, which are poor.

PEAKS ABOVE BASE.--Peak discharges above base of 5,000 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 10	0700	*3870	17.48

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.87	1.1	8.2	24	855	752	82	57	2.6	.51	.00	.23
2	.74	1.3	6.5	30	1850	551	85	54	2.7	.48	.00	.18
3	.88	1.4	5.0	518	1140	778	78	49	2.6	.44	.00	.14
4	1.1	1.5	4.4	596	568	1280	82	44	2.6	.38	.00	.12
5	1.4	1.5	3.8	e300	386	895	76	42	2.4	.39	.00	.11
6	1.5	1.5	3.7	e200	298	691	90	42	2.1	.37	.00	.09
7	1.7	1.5	30	e100	462	963	88	38	1.9	.32	.00	.08
8	2.7	1.6	123	e96	628	e600	72	34	1.9	.29	.00	.08
9	5.9	1.5	187	2910	526	e700	67	29	1.7	.27	.00	.08
10	5.5	1.5	124	3520	359	e1100	62	25	1.6	.25	.00	.07
11	4.3	2.0	65	966	269	e800	57	21	1.4	.22	.00	.04
12	3.8	3.6	40	312	328	e600	54	17	1.2	.21	.00	.07
13	3.1	3.4	33	551	692	e500	50	14	1.2	.21	.00	.26
14	2.3	2.8	102	1050	674	e960	48	14	1.5	.17	.00	.11
15	1.7	2.1	84	842	456	e1600	48	13	1.4	.16	.00	.05
16	1.4	1.7	74	662	365	e1100	56	11	1.1	.16	.00	.01
17	1.2	1.7	51	563	324	e800	50	9.3	1.0	.13	.00	.00
18	1.0	1.9	39	992	292	e560	48	8.5	.92	.12	.00	.00
19	1.3	1.9	29	1190	262	e400	46	7.7	.90	.12	.00	.00
20	1.3	2.2	22	581	221	e300	49	6.9	.84	.10	.00	.00
21	1.2	4.0	28	1720	178	e260	245	6.6	.74	.10	.00	.00
22	1.1	8.1	564	3310	146	e220	127	6.0	.71	.11	.00	.00
23	.94	3.5	708	1990	126	e240	93	5.3	.70	.07	.00	.00
24	.87	2.8	323	1610	116	e320	83	5.5	.75	.07	.04	.00
25	.80	2.7	122	1110	106	e220	66	5.1	.65	.12	7.1	.00
26	.71	43	72	507	111	e150	58	4.6	.58	.09	27	.00
27	.64	38	54	366	152	122	55	4.3	.59	.07	1.7	.00
28	.76	35	44	292	566	105	72	3.9	.55	.06	.53	.00
29	.89	22	38	218	---	94	57	3.6	.64	.07	.32	.00
30	.96	12	32	172	---	84	53	3.1	.60	.04	.31	.00
31	1.0	---	27	139	---	77	---	2.8	---	.02	.27	---
TOTAL	53.56	208.8	3046.6	27437	12456	17822	2197	587.2	40.07	6.12	37.27	1.72
MEAN	1.73	6.96	98.3	885	445	575	73.2	18.9	1.34	.20	1.20	.057
MAX	5.9	43	708	3520	1850	1600	245	57	2.7	.51	.27	.26
MIN	.64	1.1	3.7	24	106	77	46	2.8	.55	.02	.00	.00
CFSM	.01	.03	.43	3.92	1.97	2.54	.32	.08	.01	.00	.01	.00
IN.	.01	.03	.50	4.52	2.05	2.93	.36	.10	.01	.00	.01	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1999, BY WATER YEAR (WY)

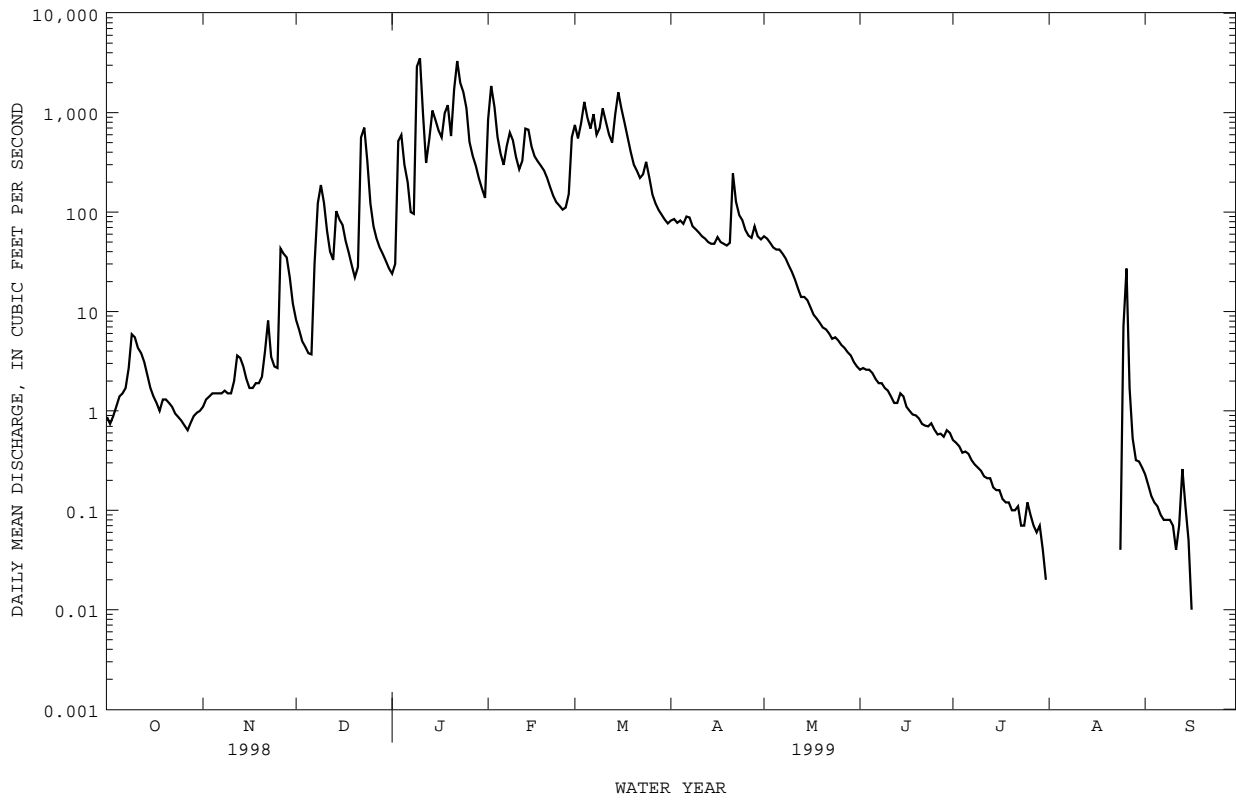
MEAN	10.4	130	344	704	512	761	361	507	308	113	47.0	16.7
MAX	31.4	454	857	1165	827	1796	676	1524	779	296	123	62.7
(WY)	1994	1994	1997	1994	1998	1997	1994	1996	1998	1992	1995	1991
MIN	.036	.61	34.0	369	284	228	73.2	18.9	1.34	.20	1.20	.057
(WY)	1998	1998	1998	1992	1995	1998	1999	1999	1999	1999	1999	1999

LICKING RIVER BASIN

03251200 NORTH FORK LICKING RIVER NEAR MOUNT OLIVET, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1991 - 1999	
ANNUAL TOTAL	117894.90		63893.34			
ANNUAL MEAN	323		175		320	
HIGHEST ANNUAL MEAN					440	
LOWEST ANNUAL MEAN					175	
HIGHEST DAILY MEAN	5530	Jun 12	3520	Jan 10	12400	Mar 2 1997
LOWEST DAILY MEAN	.64	Oct 27	.00	Aug 1	.00	Oct 10 1997
ANNUAL SEVEN-DAY MINIMUM	.79	Sep 14	.00	Aug 1	.00	Oct 17 1997
INSTANTANEOUS PEAK FLOW			3870	Jan 10	13500	Mar 2 1997
INSTANTANEOUS PEAK STAGE			17.48	Jan 10	34.71	Mar 2 1997
INSTANTANEOUS LOW FLOW					.24	Oct 7 1994
ANNUAL RUNOFF (CFSM)	1.43		.77		1.41	
ANNUAL RUNOFF (INCHES)	19.41		10.52		19.22	
10 PERCENT EXCEEDS	781		587		797	
50 PERCENT EXCEEDS	65		5.0		68	
90 PERCENT EXCEEDS	1.1		.00		1.1	

e Estimated



LICKING RIVER BASIN

03252300 HINKSTON CREEK NEAR CARLISLE, KY

LOCATION.--Lat 38°14'33", long 84°03'10", (revised) Bourbon County, Hydrologic Unit 05100102, at upstream side bridge on State Highway 13, 0.5 mi upstream from Taylors Creek, 5.0 mi south of Carlisle, and at mile 29.0.

DRAINAGE AREA.--154 mi².

PERIOD OF RECORD.--October 1991 to current year.

REVISED RECORDS.--WRD KY-93-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 764.88 ft above sea level.

REMARKS.-- Records fair except for discharges below 10ft³/s and periods of estimated record, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	e16	9.5	19	1480	349	78	e33	e12	43	5.6	.98
2	.95	e15	3.4	21	1290	255	76	e29	e14	23	2.7	.83
3	1.0	e15	1.8	474	593	527	69	e25	e18	12	1.6	.82
4	1.2	e15	1.3	283	354	856	63	e21	e23	8.8	.93	.99
5	1.2	e15	1.4	134	236	451	58	e19	e19	8.3	.69	.89
6	7.3	e15	1.4	96	182	433	54	e22	e16	7.1	e.54	.85
7	8.5	e15	3.8	65	215	375	49	e28	e14	3.1	e.40	.79
8	12	e15	78	498	207	278	46	e26	e13	2.3	e.30	.70
9	10	e17	147	3090	159	506	44	e23	e13	3.8	e.20	.62
10	16	e18	85	1730	129	792	42	e19	e13	8.2	e.10	.58
11	7.7	e30	47	388	111	506	38	e17	e12	5.3	e.00	.58
12	2.8	52	33	211	376	336	34	e16	e12	2.5	e.00	.59
13	1.8	32	172	180	531	244	32	e14	e14	1.9	e.00	.57
14	1.3	14	222	404	352	846	29	e16	e16	8.7	e.00	.58
15	.99	5.5	122	520	253	1490	31	e17	e19	9.8	e.00	.57
16	.78	2.5	65	408	203	599	35	e16	e25	8.3	e.00	.55
17	1.6	1.3	47	360	182	359	43	e15	e23	8.7	e.00	.50
18	2.4	.93	37	896	169	248	36	e13	e14	7.0	e.00	.50
19	3.2	.68	32	667	141	180	30	e12	e8.0	7.2	e.00	.50
20	2.9	.73	27	365	117	145	29	e11	e4.3	7.3	e.00	.48
21	2.8	.78	24	446	99	127	29	e10	2.8	8.2	e.00	e.56
22	2.8	.77	134	413	85	109	28	e9.0	1.4	8.4	e.00	e.70
23	11	.80	111	988	77	123	e27	e8.2	.95	8.1	e.35	e1.2
24	15	1.9	87	1330	74	331	e25	e9.2	.91	6.6	.72	e.84
25	16	1.7	55	587	74	285	e23	e23	1.1	3.3	9.4	e.74
26	15	37	41	350	81	193	e25	e21	1.1	3.1	82	.72
27	15	36	36	246	99	150	e28	e16	7.3	3.3	41	.71
28	e16	45	31	190	302	124	e38	e17	19	12	13	.69
29	e17	33	27	152	---	106	e38	e15	40	16	3.6	.71
30	e15	19	25	116	---	90	e36	e14	57	12	1.8	.72
31	e17	---	22	106	---	80	---	e13	---	9.2	1.2	---
TOTAL	227.52	471.59	1729.6	15733	8171	11493	1213	547.4	433.86	276.5	166.13	21.06
MEAN	7.34	15.7	55.8	508	292	371	40.4	17.7	14.5	8.92	5.36	.70
MAX	17	52	222	3090	1480	1490	78	33	57	43	82	1.2
MIN	.78	.68	1.3	19	74	80	23	8.2	.91	1.9	.00	.48
CFSM	.05	.10	.36	3.30	1.89	2.41	.26	.11	.09	.06	.03	.00
IN.	.05	.11	.42	3.80	1.97	2.78	.29	.13	.10	.07	.04	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1999, BY WATER YEAR (WY)

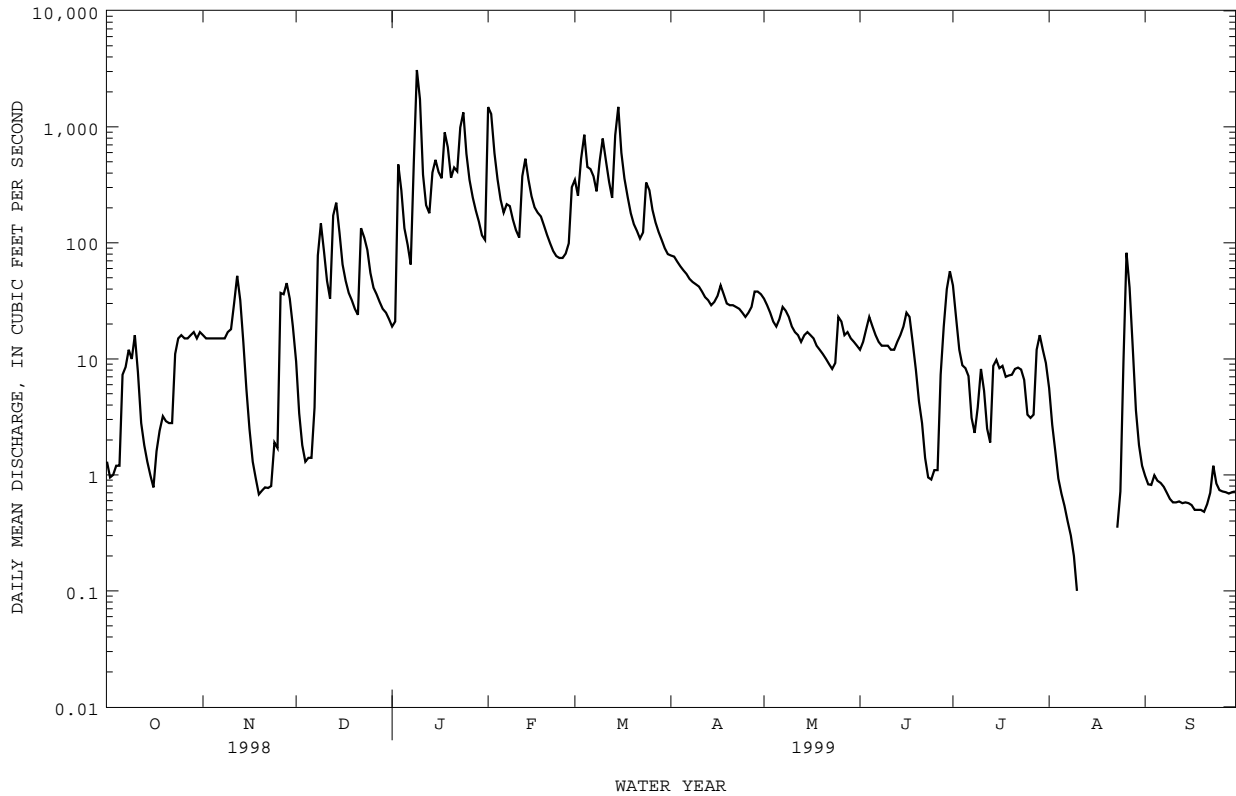
MEAN	21.4	104	212	471	339	529	191	316	183	65.0	49.7	13.7
MAX	48.2	302	453	675	526	1210	436	875	652	283	121	56.5
(WY)	1994	1994	1997	1994	1994	1997	1994	1996	1997	1998	1993	1996
MIN	1.33	9.71	55.8	166	168	240	40.4	17.7	14.5	8.92	4.29	.70
(WY)	1998	1998	1999	1992	1996	1998	1999	1999	1999	1999	1997	1999

LICKING RIVER BASIN

03252300 HINKSTON CREEK NEAR CARLISLE, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1992 - 1999	
ANNUAL TOTAL	78544.41		40483.66			
ANNUAL MEAN	215		111		208	
HIGHEST ANNUAL MEAN					304	
LOWEST ANNUAL MEAN					111	
HIGHEST DAILY MEAN	3230	Jan 8	3090	Jan 9	7520	Mar 2 1997
LOWEST DAILY MEAN	.68	Nov 19	.00	Aug 11	.00	Aug 11 1999
ANNUAL SEVEN-DAY MINIMUM	.86	Nov 17	.00	Aug 11	.00	Aug 11 1999
INSTANTANEOUS PEAK FLOW			3350	Jan 9	7800	Mar 2 1997
INSTANTANEOUS PEAK STAGE			20.91	Jan 9	37.00	Mar 2 1997
ANNUAL RUNOFF (CFSM)	1.40		.72		1.35	
ANNUAL RUNOFF (INCHES)	18.97		9.78		18.32	
10 PERCENT EXCEEDS	556		351		494	
50 PERCENT EXCEEDS	83		17		61	
90 PERCENT EXCEEDS	2.9		.71		3.2	

e Estimated

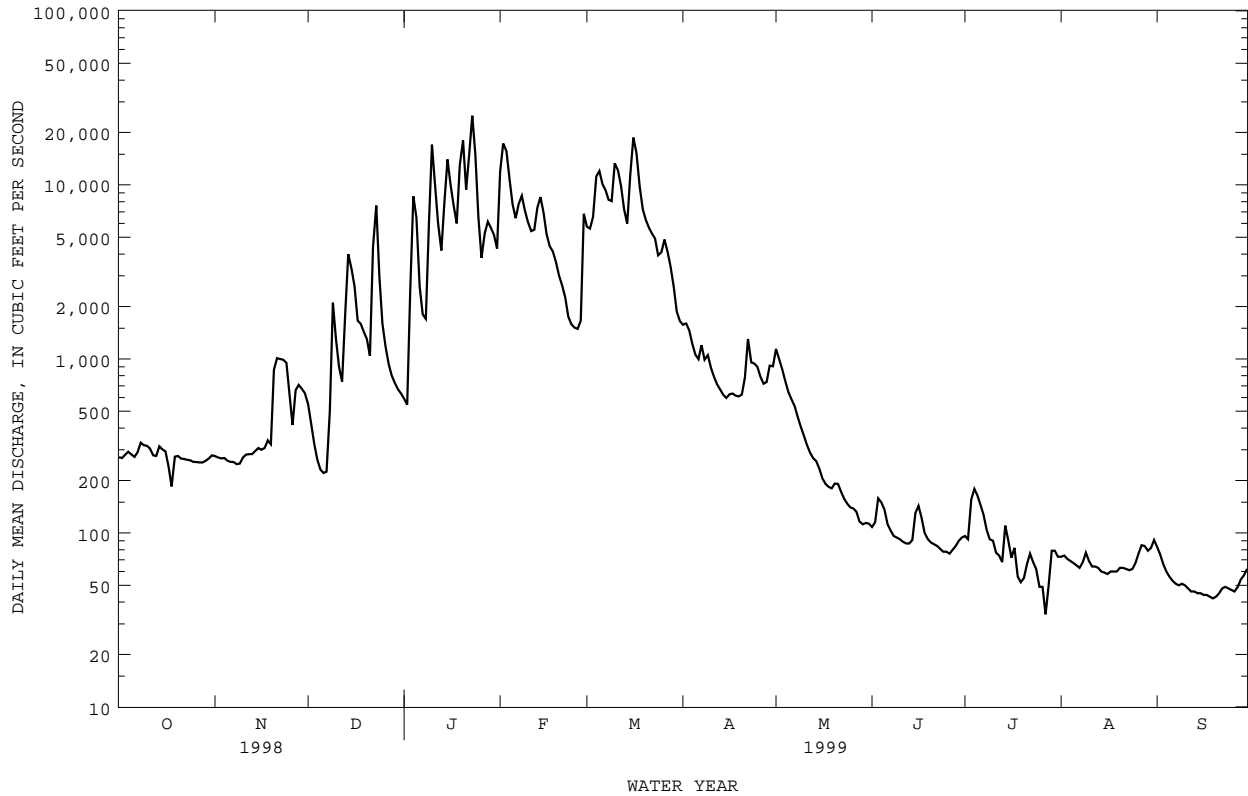


LICKING RIVER BASIN

03253500 LICKING RIVER AT CATAWBA, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1974 - 1999	
ANNUAL TOTAL	1667216		773418			
ANNUAL MEAN	4568		2119		4253	
HIGHEST ANNUAL MEAN					7730	1979
LOWEST ANNUAL MEAN					2006	1977
HIGHEST DAILY MEAN	37500	Feb 13	25000	Jan 23	104000	Mar 3 1997
LOWEST DAILY MEAN	95	Sep 11	34	Jul 27	25	Jul 8 1988
ANNUAL SEVEN-DAY MINIMUM	97	Sep 9	44	Sep 14	38	Jul 3 1988
INSTANTANEOUS PEAK FLOW			19700	Mar 16	110000	Mar 3 1997
INSTANTANEOUS PEAK STAGE			18.56	Mar 16	57.57	Mar 3 1997
INSTANTANEOUS LOW FLOW					2.5	Aug 5 1930
10 PERCENT EXCEEDS	12800		7310		10700	
50 PERCENT EXCEEDS	2140		293		1700	
90 PERCENT EXCEEDS	192		60		236	

e Estimated

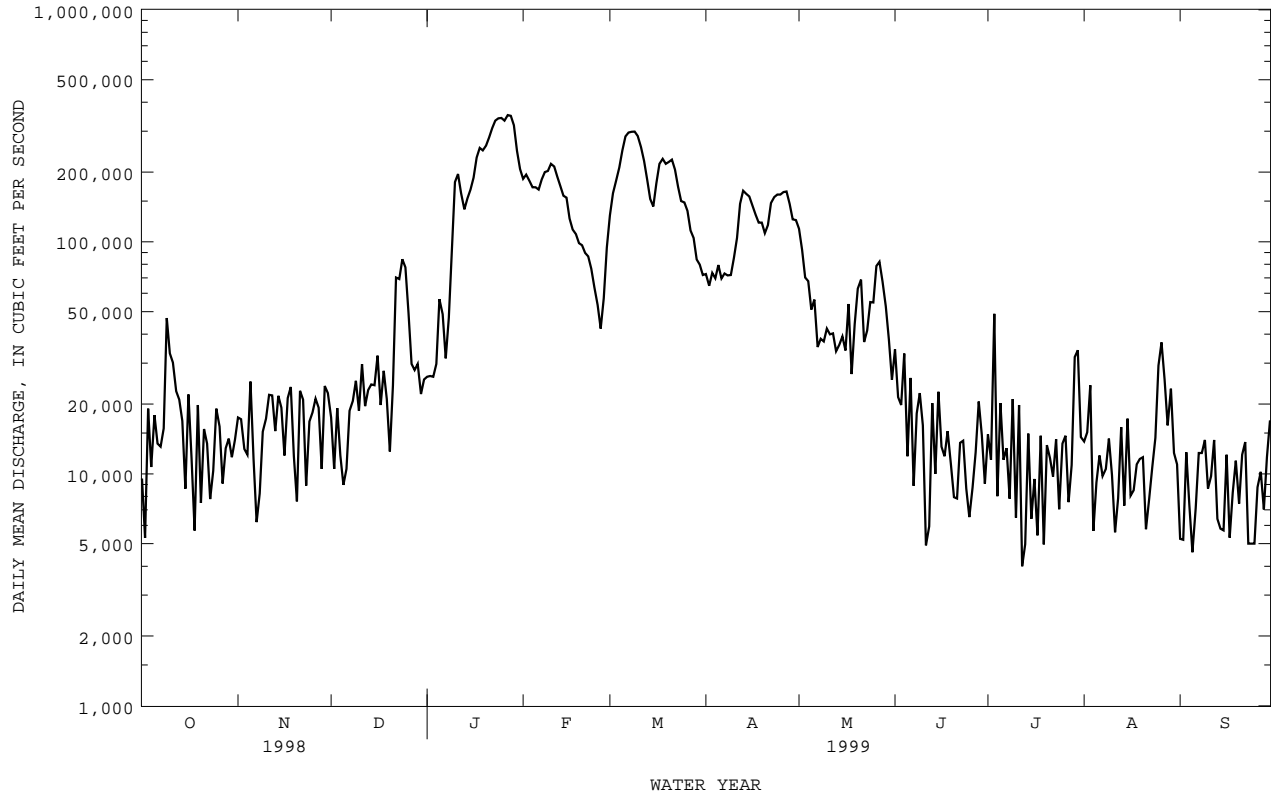


OHIO RIVER MAIN STEM

03277200 OHIO RIVER AT MARKLAND DAM NR WARSAW, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1970 - 1999	
ANNUAL TOTAL	39515520		24415960		114400	
ANNUAL MEAN	108300		66890		157300	
HIGHEST ANNUAL MEAN					1979	
LOWEST ANNUAL MEAN					1988	
HIGHEST DAILY MEAN	369000	Jan 14	352000	Jan 27	579000	Mar 6 1997
LOWEST DAILY MEAN	5300	Oct 2	4000	Jul 12	4000	Jul 12 1999
ANNUAL SEVEN-DAY MINIMUM	10600	Sep 13	7540	Sep 23	7310	Jul 1 1988
INSTANTANEOUS PEAK FLOW			352000	Jan 27	582000	Mar 6 1997
INSTANTANEOUS PEAK STAGE			40.80	Jan 27	60.72	Mar 6 1997
10 PERCENT EXCEEDS	289000		193000		260000	
50 PERCENT EXCEEDS	69200		23700		79800	
90 PERCENT EXCEEDS	12000		7830		20300	

e Estimated



KENTUCKY RIVER BASIN

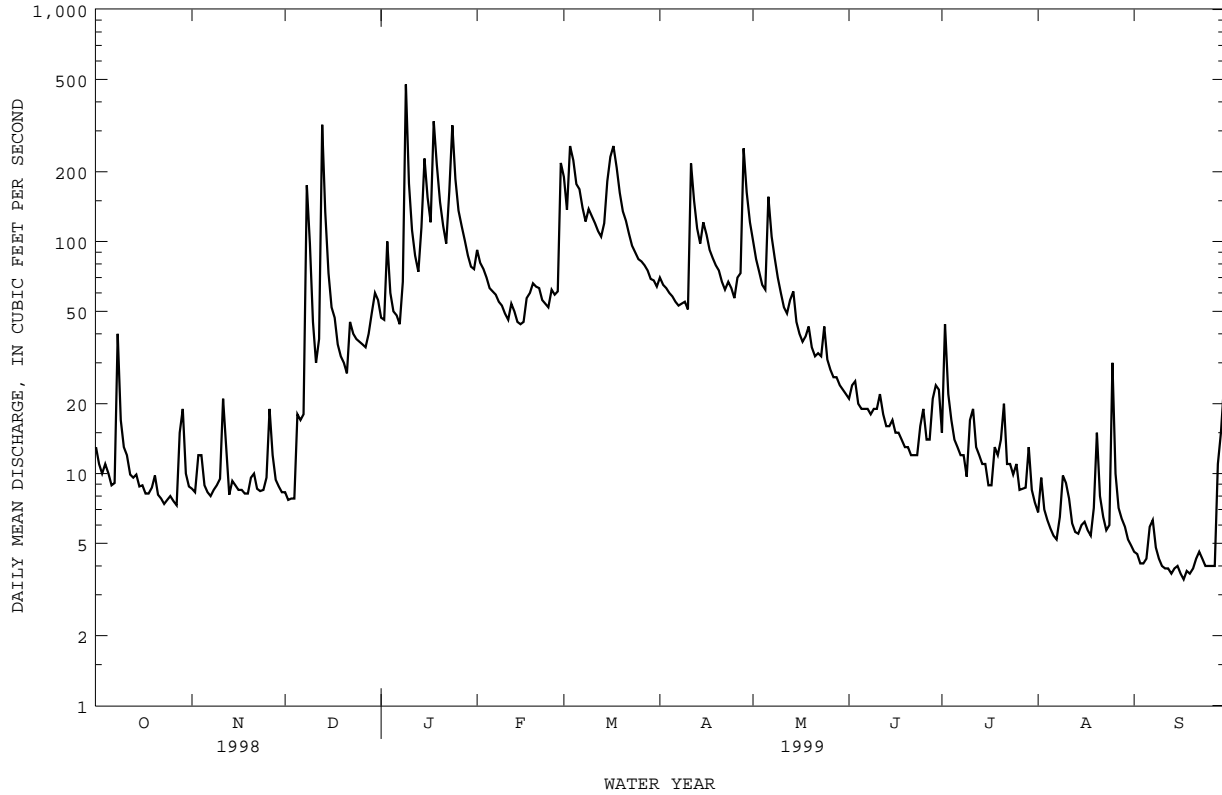
03277300 NORTH FORK KENTUCKY RIVER AT WHITESBURG, KY--Continued

SUMMARY STATISTICS

FOR 1999 WATER YEAR

ANNUAL TOTAL	18248.1	
ANNUAL MEAN	50.0	
HIGHEST DAILY MEAN	476	Jan 9
LOWEST DAILY MEAN	3.5	Sep 17
ANNUAL SEVEN-DAY MINIMUM	3.8	Sep 13
INSTANTANEOUS PEAK FLOW	1040	Jan 9
INSTANTANEOUS PEAK STAGE	5.73	Jan 9
10 PERCENT EXCEEDS	122	
50 PERCENT EXCEEDS	22	
90 PERCENT EXCEEDS	5.9	

e Estimated



KENTUCKY RIVER BASIN

03280000 NORTH FORK KENTUCKY RIVER AT JACKSON, KY

LOCATION.--Lat 37°32'46", long 83°22'21", Breathitt County, Hydrologic Unit 05100201, on left bank at city water plant on Armory Drive at Jackson, 2.8 mi downstream from Quicksand Creek, and at mile 305.0.

DRAINAGE AREA.--1,101 mi².

PERIOD OF RECORD.--June 1928 to September 1931, December 1936 to February 1937, April 1938 to current year. Gage-height records collected at same site during periods 1904-07, 1921-31, and February to December 1934 (above 8.0 ft only), January 1935 to September 1976 are published in reports of National Weather Service.

REVISED RECORDS.--WSP 853: 1929(M). WSP 1335: 1928(M), 1929, 1931(M). WSP 1435: 1954-55. WSP 1505: 1948. WSP 1555: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 697.67 ft above sea level. See WDR KY-90-1 for history of changes prior to Aug. 22, 1980.

REMARKS.--Records good. Small diversions by city of Jackson waterworks. Flow regulated by Carr Fork Lake (station 03277446) beginning January 1976.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	162	150	151	1010	1600	4110	868	1630	219	293	134	79
2	201	158	141	899	2270	3610	895	1280	214	228	221	69
3	187	168	128	1540	2040	4250	857	1050	314	213	204	60
4	176	204	122	1990	1790	7950	808	887	267	204	133	56
5	165	190	132	1530	1540	5010	769	778	230	220	123	50
6	162	160	224	1210	1310	3800	722	1070	209	173	94	46
7	161	154	287	1090	1170	3230	680	1580	187	148	71	44
8	342	150	1590	1390	1110	2640	641	1890	176	126	61	44
9	455	146	2790	3220	1000	2540	667	1620	176	113	59	39
10	289	140	1770	3140	956	2930	888	1190	174	112	62	38
11	273	203	957	3160	878	2730	880	955	170	128	57	32
12	212	318	684	2460	933	2390	2090	764	219	111	54	29
13	178	244	2750	1950	1320	2010	2010	655	188	125	50	27
14	165	208	4960	1820	1260	2560	1490	642	182	128	179	31
15	157	189	2440	3020	1130	4500	1360	598	202	122	243	39
16	144	177	1390	3890	1100	5170	1850	546	175	114	132	35
17	141	166	1040	2960	1140	4710	1720	474	159	110	95	32
18	140	158	872	2950	1250	4340	1410	439	150	104	71	26
19	131	152	727	5690	1250	3400	1230	506	142	100	58	22
20	133	148	644	4130	1190	2540	1160	556	135	102	48	21
21	164	154	582	3080	1110	2050	1070	529	127	e140	46	21
22	172	159	812	2450	1020	1770	966	420	118	e170	47	30
23	170	156	1060	4330	930	1520	863	356	107	159	46	33
24	160	151	947	9970	880	1380	828	469	107	121	60	32
25	158	151	788	6430	849	1240	782	546	121	268	1370	31
26	157	149	681	3960	928	1120	748	463	123	254	455	26
27	155	160	631	3000	922	1050	978	365	123	183	212	23
28	155	172	623	2460	1980	1020	2560	314	173	151	198	22
29	150	165	829	1860	---	969	3910	279	285	174	161	28
30	148	158	1080	1450	---	909	2320	259	408	160	127	59
31	148	---	1170	1270	---	848	---	237	---	130	98	---
TOTAL	5711	5158	33002	89309	34856	88296	38020	23347	5580	4884	4969	1124
MEAN	184	172	1065	2881	1245	2848	1267	753	186	158	160	37.5
MAX	455	318	4960	9970	2270	7950	3910	1890	408	293	1370	79
MIN	131	140	122	899	849	848	641	237	107	100	46	21
CFSM	.17	.16	.97	2.62	1.13	2.59	1.15	.68	.17	.14	.15	.03
IN.	.19	.17	1.12	3.02	1.18	2.98	1.28	.79	.19	.17	.17	.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1999, BY WATER YEAR (WY)

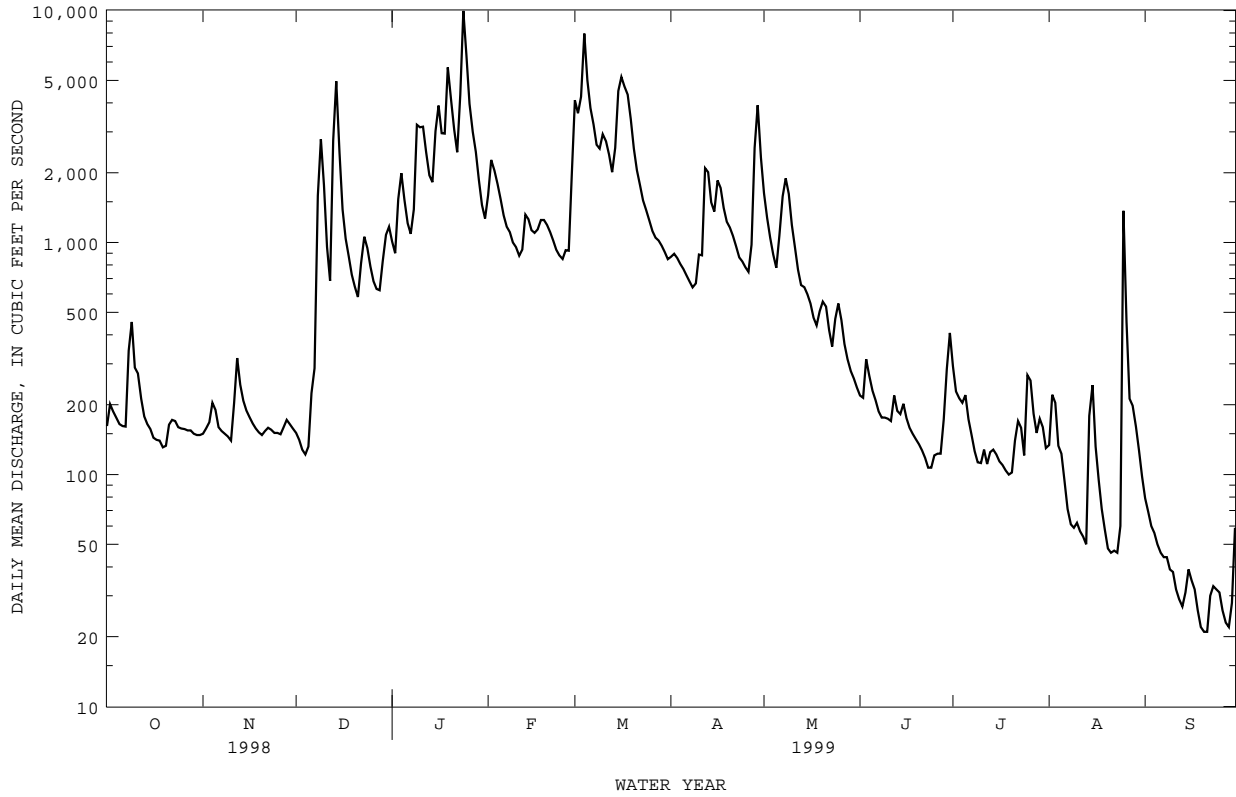
	MEAN	509	910	1626	2040	2578	2771	2323	1887	1051	467	413	294
MAX	4189	3019	4649	5168	6392	7268	5944	7189	4166	1200	945	1154	
(WY)	1990	1986	1992	1979	1994	1994	1998	1984	1989	1992	1977	1989	
MIN	92.8	152	196	155	790	541	452	614	136	90.2	85.6	37.5	
(WY)	1981	1982	1981	1981	1988	1988	1986	1977	1988	1988	1988	1999	

KENTUCKY RIVER BASIN

03280000 NORTH FORK KENTUCKY RIVER AT JACKSON, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1977 - 1999	
ANNUAL TOTAL	567231		334256		1400	
ANNUAL MEAN	1554		916		2570	
HIGHEST ANNUAL MEAN					1994	
LOWEST ANNUAL MEAN					477	
HIGHEST DAILY MEAN	27100	Apr 20	9970	Jan 24	52200	May 8 1984
LOWEST DAILY MEAN	120	Sep 18	21	Sep 20	21	Sep 20 1999
ANNUAL SEVEN-DAY MINIMUM	126	Sep 13	26	Sep 17	26	Sep 17 1999
INSTANTANEOUS PEAK FLOW			10400	Jan 24	53500	Jan 30 1957
INSTANTANEOUS PEAK STAGE			15.67	Jan 24	43.10	Feb 4 1939
INSTANTANEOUS LOW FLOW					.00	Oct 16 1930
ANNUAL RUNOFF (CFSM)	1.41		.83		1.27	
ANNUAL RUNOFF (INCHES)	19.17		11.29		17.27	
10 PERCENT EXCEEDS	3410		2550		3170	
50 PERCENT EXCEEDS	892		285		660	
90 PERCENT EXCEEDS	152		60		127	

e Estimated



KENTUCKY RIVER BASIN
03280700 CUTSHIN CREEK AT WOOTON, KY

LOCATION.--Lat 37°09'54", long 83°18'29", Leslie County, Hydrologic Unit 05100202, on right bank 30 ft upstream from bridge on State Highway 80, 400 ft upstream from Poundmill Branch, 600 ft upstream from Rockhouse Branch, 0.7 mi downstream from Saw Branch, 1.0 mi southwest of Wooton, and at mile 10.7.

DRAINAGE AREA.--61.3 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 869.84 ft above sea level. Prior to Dec. 26, 1957, nonrecording gage at same site and datum.

REMARKS.--Records good except for those estimated, which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of January 1957 reached a stage of 19.43 ft, from floodmarks.

PEAKS ABOVE BASE.--Peak discharges above base of 1,500 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 9	0130	* 2380	6.47	Jan. 9	0500	2170	6.17

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e5.3	3.4	7.2	42	73	305	53	39	8.0	11	3.9	1.1
2	4.0	3.2	6.5	45	65	190	49	36	10	15	17	.87
3	3.7	4.6	5.8	156	64	649	46	32	10	12	5.4	.61
4	3.5	5.4	5.5	93	59	416	43	29	8.3	7.8	3.2	.62
5	3.3	3.9	11	63	51	270	40	31	7.8	5.9	2.3	.58
6	3.4	3.5	14	68	49	245	38	133	8.0	5.3	2.1	.68
7	4.8	3.4	18	46	48	184	34	109	8.0	4.8	2.0	.73
8	17	3.7	135	127	42	142	35	217	7.1	4.2	2.4	.65
9	7.8	3.8	72	1020	39	177	42	118	7.8	3.8	2.9	.59
10	3.8	6.2	27	276	36	160	36	82	47	4.4	3.0	.48
11	2.7	21	18	146	34	137	193	60	41	7.6	2.5	.40
12	2.5	9.0	25	105	58	114	160	46	14	6.1	2.1	.37
13	2.4	4.2	543	86	58	101	116	40	8.9	4.5	2.1	.46
14	2.2	3.3	128	208	50	171	94	33	8.0	3.9	2.0	.82
15	2.2	3.2	55	454	51	361	168	27	8.2	3.7	2.0	.80
16	2.3	3.1	35	249	51	495	145	23	7.4	3.5	2.1	.55
17	2.0	3.1	32	160	57	538	115	20	6.9	4.7	1.9	.55
18	2.0	3.2	23	722	56	345	93	24	6.5	13	1.7	.54
19	2.8	3.1	21	347	58	202	81	29	5.9	4.9	1.5	.47
20	3.1	4.6	19	204	57	148	72	17	5.6	4.1	2.4	.64
21	2.9	5.9	18	136	52	130	63	14	5.5	4.2	3.9	.75
22	2.8	6.2	41	103	47	101	55	15	4.7	7.3	2.5	.81
23	3.1	5.5	37	925	45	84	51	14	4.6	4.4	1.9	.81
24	3.1	5.6	34	926	44	78	47	31	5.6	3.3	1.8	.73
25	2.8	6.5	27	331	49	67	39	16	7.2	7.7	24	.56
26	2.7	18	26	194	45	65	50	13	7.0	4.3	6.2	.49
27	2.4	14	26	142	55	61	48	11	11	3.1	2.8	.64
28	2.8	8.8	32	110	472	58	48	9.6	27	3.1	1.9	.55
29	3.5	7.2	46	87	---	54	49	8.8	58	3.4	1.5	1.4
30	3.4	6.1	62	72	---	50	43	8.4	22	2.6	1.3	8.8
31	3.5	---	54	66	---	49	---	8.2	---	2.3	1.1	---
TOTAL	113.8	182.7	1604.0	7709	1865	6147	2146	1294.0	387.0	175.9	113.4	28.05
MEAN	3.67	6.09	51.7	249	66.6	198	71.5	41.7	12.9	5.67	3.66	.94
MAX	17	21	543	1020	472	649	193	217	58	15	24	8.8
MIN	2.0	3.1	5.5	42	34	49	34	8.2	4.6	2.3	1.1	.37
CFSM	.06	.10	.84	4.06	1.09	3.23	1.17	.68	.21	.09	.06	.02
IN.	.07	.11	.97	4.68	1.13	3.73	1.30	.79	.23	.11	.07	.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1999, BY WATER YEAR (WY)

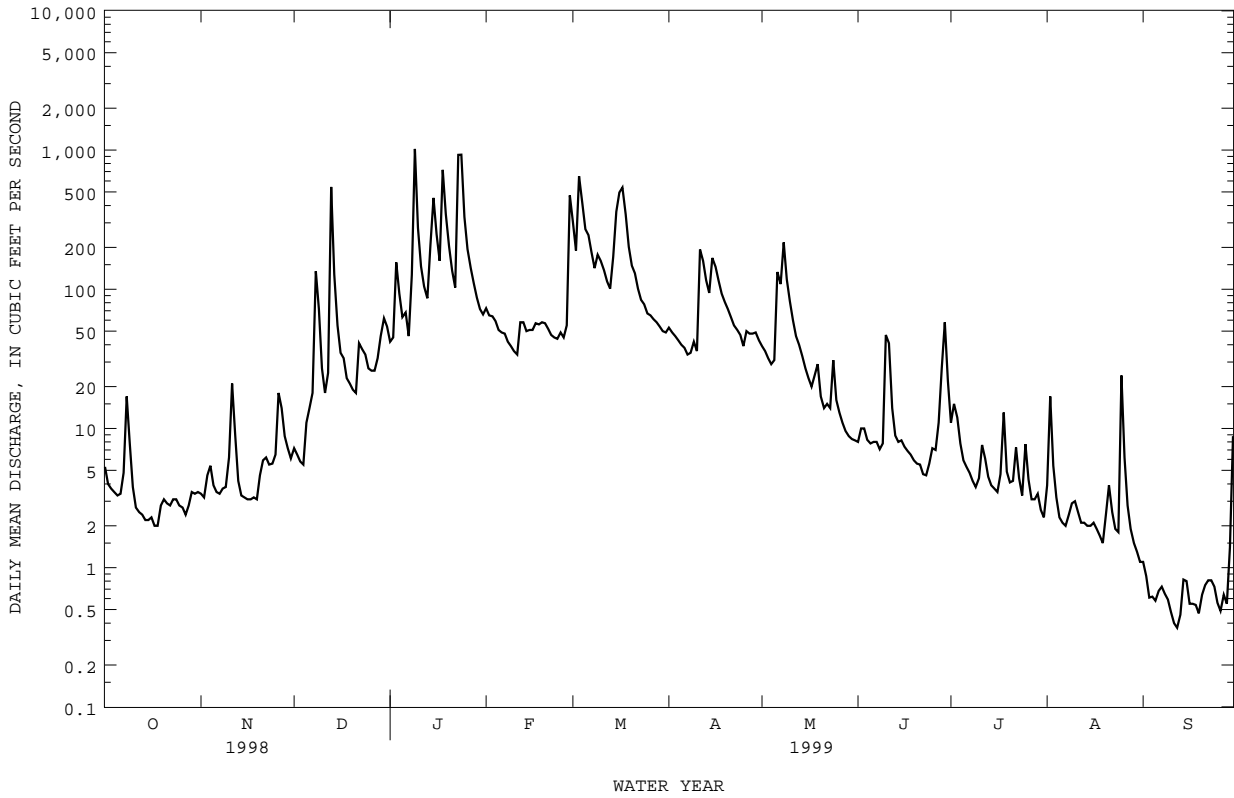
	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
MEAN	27.1	62.7	109	148	168	202	163	116	57.2	31.8	23.4	17.9
MAX	287	309	359	597	371	620	471	449	423	144	107	125
(WY)	1990	1978	1973	1974	1994	1975	1998	1983	1989	1958	1966	1974
MIN	.26	6.09	3.30	6.97	27.0	21.4	16.6	14.0	3.17	2.17	1.16	.73
(WY)	1964	1999	1966	1981	1968	1988	1963	1964	1988	1970	1988	1969

KENTUCKY RIVER BASIN

03280700 CUTSHIN CREEK AT WOOTON, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1958 - 1999	
ANNUAL TOTAL	35051.4		21765.85			
ANNUAL MEAN	96.0		59.6		93.6	
HIGHEST ANNUAL MEAN					212 1974	
LOWEST ANNUAL MEAN					27.6 1988	
HIGHEST DAILY MEAN	4430	Apr 19	1020	Jan 9	4890	May 7 1984
LOWEST DAILY MEAN	2.0	Oct 17	.37	Sep 12	.00	Sep 29 1959
ANNUAL SEVEN-DAY MINIMUM	2.2	Oct 12	.53	Sep 7	.01	Sep 11 1964
INSTANTANEOUS PEAK FLOW			2380	Jan 24	14200	Mar 12 1963
INSTANTANEOUS PEAK STAGE			6.46	Jan 24	16.23	Mar 12 1963
INSTANTANEOUS LOW FLOW					.00	Sep 29 1959
ANNUAL RUNOFF (CFSM)	1.57		.97		1.53	
ANNUAL RUNOFF (INCHES)	21.27		13.21		20.74	
10 PERCENT EXCEEDS	210		147		204	
50 PERCENT EXCEEDS	35		14		34	
90 PERCENT EXCEEDS	3.8		1.9		2.9	

e Estimated



KENTUCKY RIVER BASIN

03281000 MIDDLE FORK KENTUCKY RIVER AT TALLEGA, KY

LOCATION.--Lat 37°33'18", long 83°35'38", Lee County, Hydrologic Unit 05100202, on left bank 100 ft downstream of bridge on State Highway 708, 150 ft upstream from Lynam Creek, 0.5 mi southwest of Tallega, 8.3 mi upstream from confluence with North Fork, and at mile 8.3.

DRAINAGE AREA.--537 mi².

PERIOD OF RECORD.--October 1930 to March 1932, October 1939 to current year.

REVISED RECORDS.--WSP 1113: 1931, 1940. WSP 1385: 1931-32, 1948, drainage area. WSP 1505: 1946(M), 1951(M).

GAGE.--Water-stage recorder. Datum of gage is 642.13 ft above sea level. Prior to Feb. 6, 1940, nonrecording gage at same site and datum.

REMARKS.--Records good. Flow regulated by Buckhorn Lake beginning December 1960 (station 03280800).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	51	67	493	1780	1400	329	610	49	61	48	45
2	75	51	66	510	1560	2230	375	482	49	57	52	43
3	77	65	64	845	1290	2950	419	413	63	91	48	42
4	82	75	57	1230	959	3450	416	355	56	119	45	42
5	78	202	56	1130	673	3500	363	328	50	118	44	41
6	77	325	79	601	632	3350	238	505	48	104	44	44
7	76	322	85	281	508	3190	141	821	48	77	44	42
8	82	322	362	420	534	2660	133	1100	48	73	44	39
9	84	320	370	4990	516	1860	153	1930	55	52	46	39
10	78	322	570	3220	400	1820	150	1300	52	50	46	40
11	77	339	589	2790	397	1760	184	602	54	62	50	40
12	76	325	395	3310	453	1620	264	489	56	51	53	40
13	76	320	782	3270	595	1320	215	391	54	49	54	41
14	75	318	2100	3180	872	1570	194	358	78	50	56	43
15	75	316	2340	2970	702	2470	203	334	112	48	56	42
16	75	312	861	2840	662	3080	238	247	90	47	53	47
17	75	309	494	2730	671	3250	212	199	80	47	53	53
18	74	307	438	2760	742	3170	196	196	78	52	52	53
19	77	231	350	2930	698	3010	181	183	72	54	54	54
20	72	162	317	3260	654	1850	303	169	52	61	56	56
21	38	161	225	3160	617	1630	377	197	47	70	58	56
22	21	157	252	3020	531	1150	368	152	46	55	55	55
23	14	156	344	3850	489	955	359	116	46	50	54	53
24	11	156	324	4660	400	679	360	166	48	48	56	53
25	11	131	282	3340	430	637	346	261	51	49	142	51
26	10	77	269	2780	398	538	366	211	50	51	81	51
27	10	74	264	3280	369	480	367	142	49	47	61	52
28	9.5	69	269	3360	801	452	1210	104	70	49	56	52
29	41	67	327	3190	---	396	2160	98	83	62	55	54
30	52	66	373	2010	---	377	748	62	74	55	54	61
31	51	---	354	1680	---	372	---	51	---	49	53	---
TOTAL	1807.5	6108	13725	78090	19333	57176	11568	12572	1808	1908	1723	1424
MEAN	58.3	204	443	2519	690	1844	386	406	60.3	61.5	55.6	47.5
MAX	84	339	2340	4990	1780	3500	2160	1930	112	119	142	61
MIN	9.5	51	56	281	369	372	133	51	46	47	44	39
CFSM	.11	.38	.82	4.69	1.29	3.43	.72	.76	.11	.11	.10	.09
IN.	.13	.42	.95	5.41	1.34	3.96	.80	.87	.13	.13	.12	.10

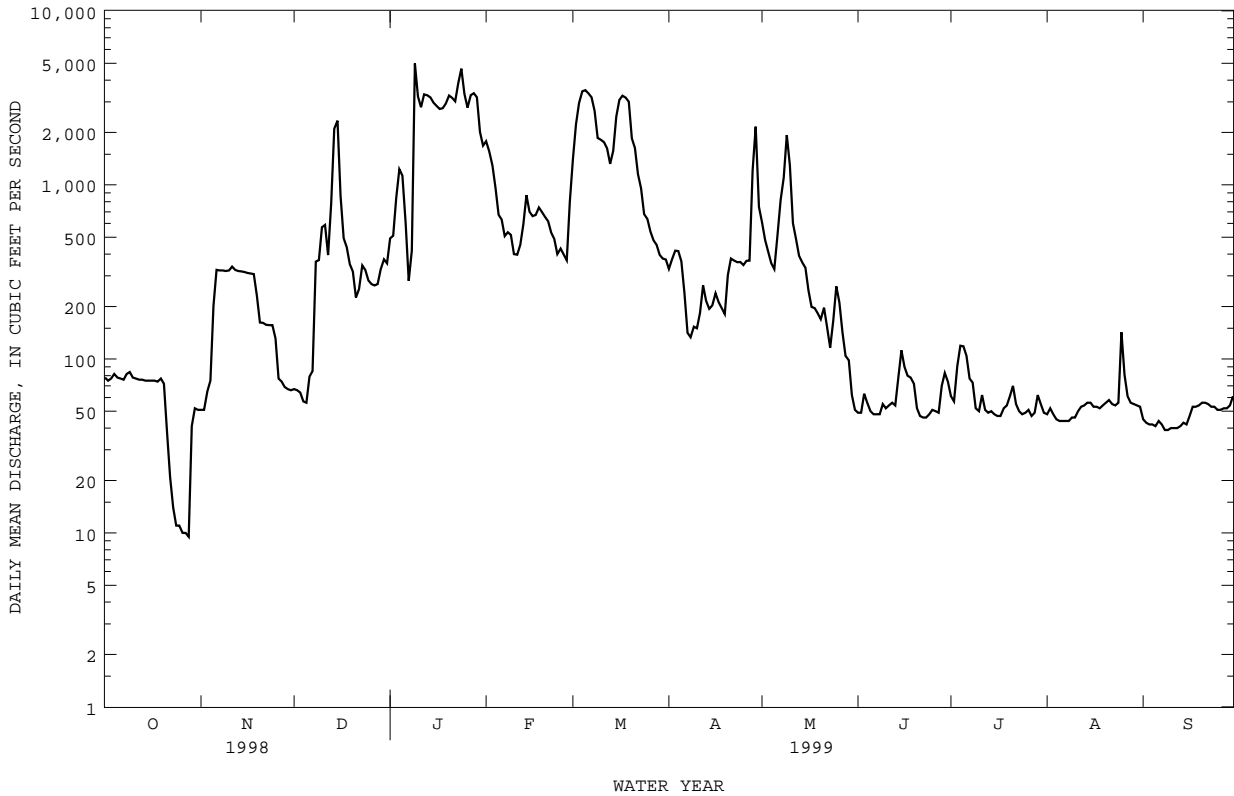
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1999, BY WATER YEAR (WY)

	315	590	945	1331	1447	1703	1176	951	488	215	173	171
MEAN	315	590	945	1331	1447	1703	1176	951	488	215	173	171
MAX	2225	1715	2826	3320	3634	3672	3280	2762	2599	687	623	784
(WY)	1990	1978	1973	1974	1994	1994	1994	1971	1989	1992	1992	1989
MIN	47.5	148	45.5	56.8	270	241	98.7	57.9	49.1	43.6	45.0	45.9
(WY)	1989	1961	1966	1981	1968	1988	1986	1986	1988	1988	1988	1987

KENTUCKY RIVER BASIN

03281000 MIDDLE FORK KENTUCKY RIVER AT TALLEGA, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1961 - 1999	
ANNUAL TOTAL	318341.5		207242.5			
ANNUAL MEAN	872		568		789	
HIGHEST ANNUAL MEAN					1492	
LOWEST ANNUAL MEAN					267	
HIGHEST DAILY MEAN	6790	Apr 19	4990	Jan 9	10300	Feb 27 1962
LOWEST DAILY MEAN	9.5	Oct 28	9.5	Oct 28	9.5	Oct 28 1998
ANNUAL SEVEN-DAY MINIMUM	12	Oct 22	12	Oct 22	12	Nov 9 1991
INSTANTANEOUS PEAK FLOW			5950	Jan 9	52700	Jan 30 1957
INSTANTANEOUS PEAK STAGE			19.46	Jan 9	43.33	Jan 30 1957
INSTANTANEOUS LOW FLOW			9.5	Oct 28	.10	Oct 12 1953
ANNUAL RUNOFF (CFSM)	1.62		1.06		1.47	
ANNUAL RUNOFF (INCHES)	22.05		14.36		19.96	
10 PERCENT EXCEEDS	2660		2050		2550	
50 PERCENT EXCEEDS	339		156		302	
90 PERCENT EXCEEDS	66		47		64	



KENTUCKY RIVER BASIN

03281040 RED BIRD RIVER NEAR BIG CREEK, KY

LOCATION.--Lat 37°10'43", long 83°35'35" Clay County, Hydrologic Unit 05100203, on right bank adjacent to State Highway 66, 0.1 mi upstream from Fish Trap Branch, 0.6 mi downstream from Britton Branch, 1.2 mi downstream from Big °Creek, 1.7 mi northwest of Big Creek, and at mile 58.9.

DRAINAGE AREA.--155 mi².

PERIOD OF RECORD.--August 1972 to current year.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 815.74 ft above sea level.

REMARKS.--Records good.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of 1947 and 1957 reached a stage of 29.27 ft and 27.60 ft, respectively, from floodmarks.

PEAKS ABOVE BASE.--Peak discharges above base of 6,000 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 9	0500	*10800	12.89	Jan. 23	1200	6050	9.05

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	25	11	146	215	895	111	99	20	35	7.3	2.8
2	4.8	27	9.0	174	229	604	105	93	44	46	10	3.5
3	3.9	33	8.3	696	227	1650	98	85	46	61	20	3.8
4	4.3	32	8.3	378	208	1160	96	78	31	28	9.6	3.7
5	5.3	29	25	222	178	777	92	88	21	18	6.1	3.5
6	4.2	24	37	190	169	709	89	612	18	14	4.2	3.0
7	5.4	23	83	139	177	572	84	427	15	12	3.4	2.2
8	25	22	444	931	157	450	84	414	14	9.4	3.6	1.7
9	31	22	242	5640	148	597	134	260	14	8.9	5.0	1.4
10	9.4	38	94	953	138	565	122	189	13	7.5	4.4	1.1
11	4.4	56	54	501	131	472	518	146	36	7.8	4.3	.93
12	3.3	73	97	330	210	370	422	119	26	15	5.1	.90
13	2.7	38	1950	265	227	303	297	141	15	13	5.4	.96
14	2.3	22	522	608	207	1110	235	155	17	9.4	6.9	1.2
15	2.2	14	198	1340	214	1910	439	124	25	8.8	6.8	1.2
16	2.2	12	123	728	218	1180	445	97	20	8.2	7.9	1.1
17	2.7	10	101	490	239	848	350	80	14	6.4	12	.97
18	4.2	9.7	73	1900	229	597	266	75	11	5.7	9.5	.86
19	6.1	7.3	61	1000	219	419	218	92	9.4	11	7.6	.80
20	5.7	6.7	55	590	195	322	192	62	8.4	13	7.3	1.2
21	4.5	8.1	48	396	169	268	161	48	7.4	40	23	1.4
22	5.5	6.7	113	282	147	204	142	46	6.1	88	9.3	1.5
23	6.2	9.0	136	3640	137	174	133	50	5.8	30	4.9	1.5
24	5.2	8.4	121	2320	129	164	121	111	6.9	30	3.9	1.6
25	4.7	8.7	90	921	129	143	106	67	7.6	19	19	1.6
26	4.9	23	83	556	120	130	128	46	8.6	13	34	1.3
27	5.9	29	82	391	146	124	137	36	14	12	15	1.2
28	7.9	29	109	282	1250	113	131	30	51	22	8.5	1.1
29	13	18	181	211	---	104	124	26	195	19	6.6	1.9
30	20	14	234	174	---	94	112	23	81	12	4.3	1.1
31	25	---	198	166	---	93	---	21	---	8.6	3.3	---
TOTAL	240.9	677.6	5590.6	26560	6162	17121	5692	3940	801.2	631.7	278.2	51.02
MEAN	7.77	22.6	180	857	220	552	190	127	26.7	20.4	8.97	1.70
MAX	31	73	1950	5640	1250	1910	518	612	195	88	34	3.8
MIN	2.2	6.7	8.3	139	120	93	84	21	5.8	5.7	3.3	.80
CFSM	.05	.15	1.16	5.53	1.42	3.56	1.22	.82	.17	.13	.06	.01
IN.	.06	.16	1.34	6.37	1.48	4.11	1.37	.95	.19	.15	.07	.01

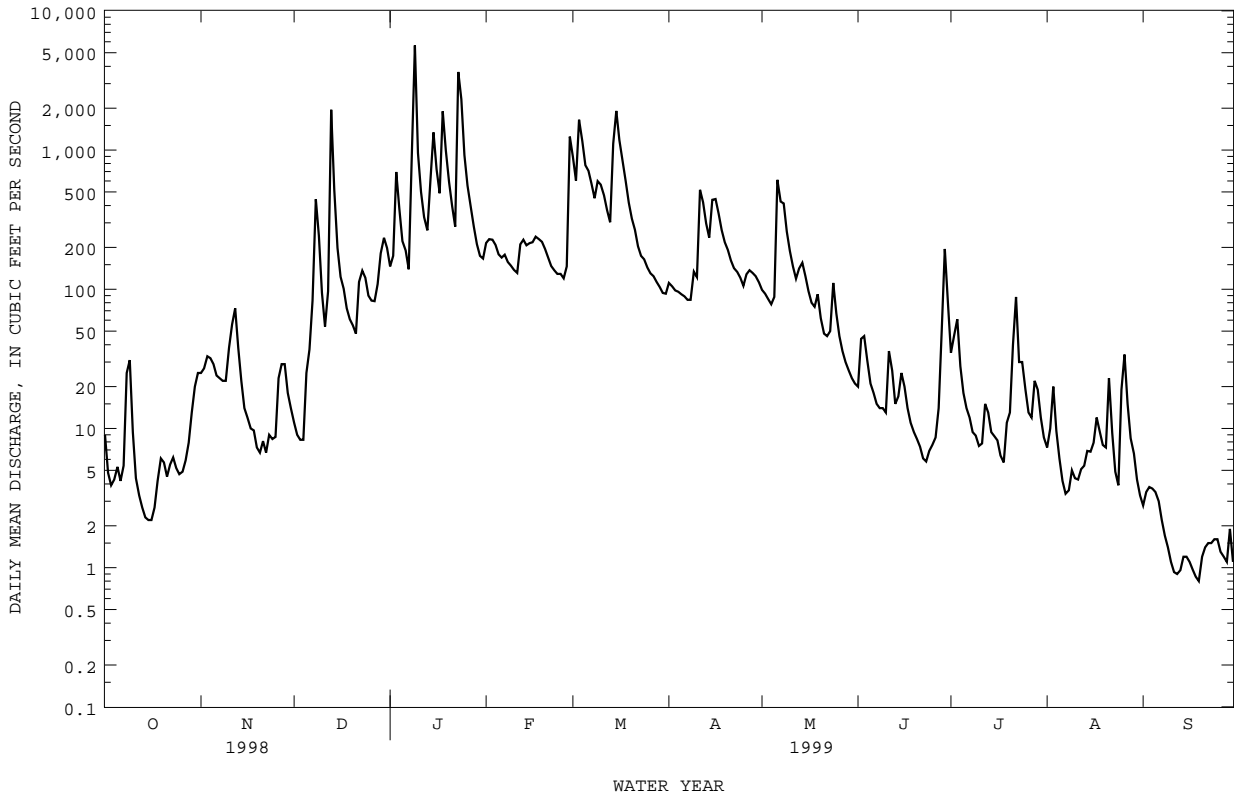
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1999, BY WATER YEAR (WY)

MEAN	83.3	226	370	471	498	605	442	339	171	78.1	49.3	36.8
MAX	758	796	1180	1150	1244	1678	1233	1176	998	351	192	138
(WY)	1990	1978	1991	1974	1994	1975	1998	1984	1989	1992	1990	1979
MIN	3.93	7.84	37.5	19.0	164	99.6	60.8	41.2	10.3	5.28	2.51	1.70
(WY)	1979	1988	1981	1981	1988	1988	1986	1986	1988	1988	1988	1999

KENTUCKY RIVER BASIN

03281040 RED BIRD RIVER NEAR BIG CREEK, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1973 - 1999	
ANNUAL TOTAL	98400.8		67746.22			
ANNUAL MEAN	270		186		280	
HIGHEST ANNUAL MEAN					513	
LOWEST ANNUAL MEAN					92.2	
HIGHEST DAILY MEAN	9850	Apr 17	5640	Jan 9	16200	May 7 1984
LOWEST DAILY MEAN	2.2	Oct 15	.80	Sep 19	.20	Oct 4 1983
ANNUAL SEVEN-DAY MINIMUM	2.8	Oct 12	1.0	Sep 13	.52	Sep 5 1995
INSTANTANEOUS PEAK FLOW			10800	Jan 9	28500	Oct 17 1989
INSTANTANEOUS PEAK STAGE			12.89	Jan 9	21.14	Oct 17 1989
INSTANTANEOUS LOW FLOW					.20	Oct 4 1983
ANNUAL RUNOFF (CFSM)	1.74		1.20		1.81	
ANNUAL RUNOFF (INCHES)	23.62		16.26		24.53	
10 PERCENT EXCEEDS	599		459		601	
50 PERCENT EXCEEDS	102		38		96	
90 PERCENT EXCEEDS	5.4		3.6		7.0	



KENTUCKY RIVER BASIN

03281100 GOOSE CREEK AT MANCHESTER, KY

LOCATION.--Lat 37°09'07", long 83°45'37", Clay County, Hydrologic Unit 05100203, on left bank on downstream side of Second Street bridge at Manchester, 0.9 mi upstream from Little Goose Creek, and at mile 21.7.

DRAINAGE AREA.--163 mi².

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 819.37 ft above sea level. Prior to September 15, 1975, nonrecording gage at same site and datum.

REMARKS.-- Records good except for those estimated, which are poor. Slight diversions by City of Manchester.

EXTREMES OUTSIDE PERIOD OF RECORD.---Flood of June 28, 1947, Jan. 29, 1957, and Mar. 12, 1963, reached a stage of 40.6 ft, discharge, 38,000 ft³/s, 37.3 ft, discharge, 29,800 ft³/s, and 33.5 ft, discharge, 21,500 ft³/s, respectively, present site.

PEAKS ABOVE BASE.--Peak discharges above base of 4,500 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 9	1100	* 7280	21.16	Jan. 23	2200	4560	17.34

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	5.1	8.4	162	248	664	118	121	11	37	4.7	e3.5
2	2.5	5.7	7.3	184	298	456	111	104	43	43	10	e3.3
3	2.5	25	7.4	822	301	1130	103	88	47	52	8.2	e3.1
4	3.3	22	7.5	420	276	1080	100	75	28	29	7.8	e2.9
5	4.1	21	23	255	233	641	94	94	19	19	5.7	e2.8
6	4.7	21	21	183	214	557	91	399	15	13	4.4	e2.5
7	7.9	19	74	152	216	455	84	369	12	10	e3.8	e2.0
8	11	20	387	746	191	383	83	284	17	8.2	e4.1	e1.5
9	13	21	276	5560	167	499	125	204	18	6.5	e5.0	e1.3
10	13	37	98	1050	151	499	116	153	12	5.7	e4.3	e1.1
11	8.4	32	55	462	138	424	529	115	17	6.8	e4.1	e.90
12	6.0	22	82	326	221	346	465	89	20	13	e4.3	e.90
13	5.1	27	1560	277	277	297	337	85	13	14	e4.5	e.95
14	4.4	17	591	529	270	849	274	83	15	12	e6.0	e1.4
15	3.7	12	231	1200	273	2360	358	70	21	8.2	e5.9	e1.5
16	3.2	8.3	134	679	269	1200	404	55	18	5.8	e7.0	e1.3
17	3.1	6.7	102	445	290	728	348	45	13	4.6	e11	e1.0
18	3.4	4.7	74	1020	286	493	290	52	9.6	5.6	e9.0	e.90
19	4.2	3.2	61	873	268	365	246	53	7.6	6.5	e8.0	e.85
20	4.6	3.9	56	510	231	301	219	39	6.1	23	e10	e1.4
21	3.9	4.1	51	363	196	264	178	30	5.1	35	e19	e1.6
22	3.5	3.3	101	281	164	217	146	27	4.5	17	e10	e1.4
23	3.2	2.8	141	2660	148	184	124	37	3.8	11	e6.0	e1.4
24	3.3	2.8	128	2290	135	172	111	81	5.1	11	e5.0	e1.3
25	3.5	7.4	96	777	124	148	92	48	6.0	19	e22	e1.3
26	3.7	19	88	457	112	128	124	33	6.0	12	e12	e2.5
27	3.8	12	89	344	116	115	161	26	8.7	8.4	e8.0	e3.4
28	4.3	11	120	279	751	103	192	21	55	8.6	e7.0	e3.9
29	5.3	11	240	222	---	95	172	17	247	6.6	e5.2	e6.5
30	5.4	9.5	262	181	---	87	145	15	73	5.3	e4.3	4.9
31	5.6	---	220	168	---	86	---	13	---	3.7	e3.8	---
TOTAL	156.8	416.5	5391.6	23877	6564	15326	5940	2925	776.5	460.5	230.1	63.30
MEAN	5.06	13.9	174	770	234	494	198	94.4	25.9	14.9	7.42	2.11
MAX	13	37	1560	5560	751	2360	529	399	247	52	22	6.5
MIN	2.5	2.8	7.3	152	112	86	83	13	3.8	3.7	3.8	.85
CFSM	.03	.09	1.07	4.73	1.44	3.03	1.21	.58	.16	.09	.05	.01
IN.	.04	.10	1.23	5.45	1.50	3.50	1.36	.67	.18	.11	.05	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1999, BY WATER YEAR (WY)

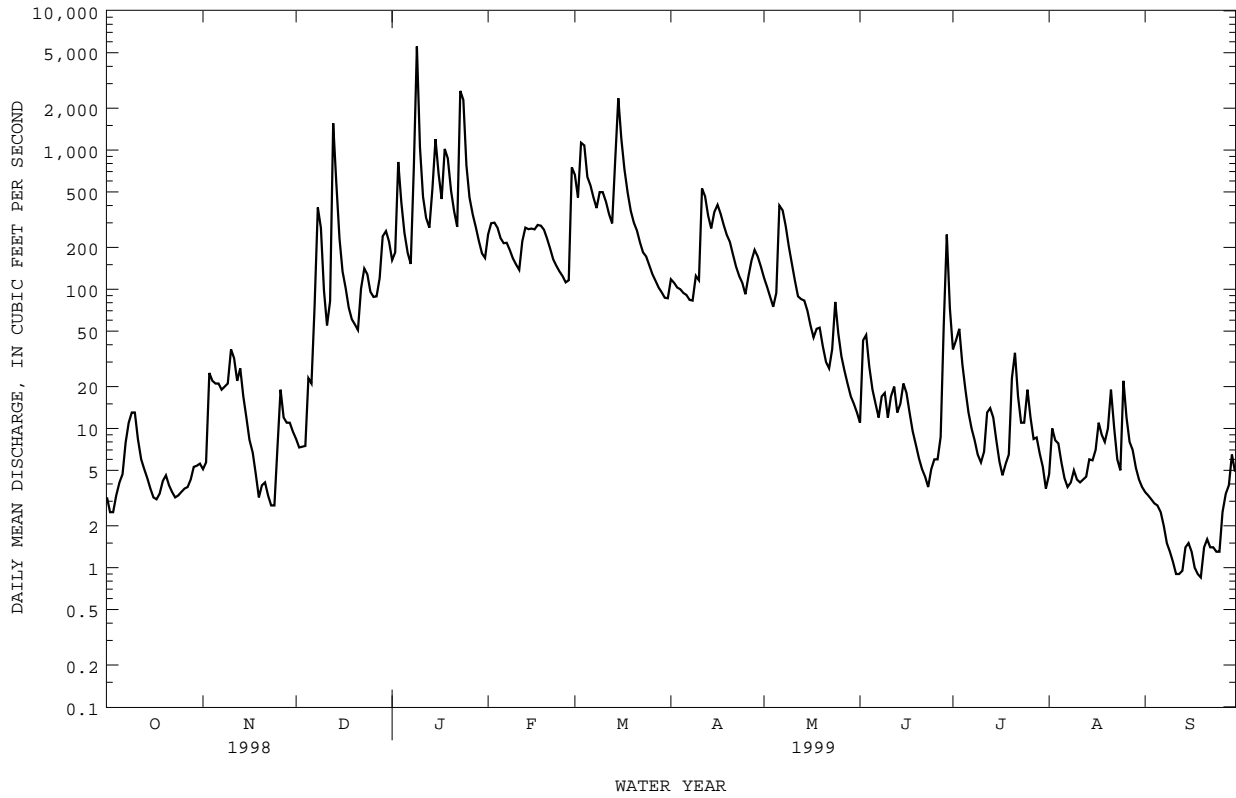
MEAN	84.3	198	367	452	481	540	434	305	154	91.6	49.8	42.5
MAX	600	646	1229	1205	1196	1665	1308	1158	975	381	178	185
(WY)	1990	1978	1991	1974	1972	1975	1998	1984	1989	1965	1977	1979
MIN	2.13	11.4	28.3	22.9	70.5	111	50.8	29.3	6.48	2.03	3.72	2.11
(WY)	1970	1988	1966	1981	1968	1969	1986	1965	1988	1966	1988	1965

KENTUCKY RIVER BASIN

03281100 GOOSE CREEK AT MANCHESTER, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1965 - 1999	
ANNUAL TOTAL	100225.6		62127.30			
ANNUAL MEAN	275		170		266	
HIGHEST ANNUAL MEAN					456	
LOWEST ANNUAL MEAN					107	
HIGHEST DAILY MEAN	12100	Apr 17	5560	Jan 9	13700	May 7 1984
LOWEST DAILY MEAN	2.5	Oct 2	.85	Sep 19	.00	Oct 8 1980
ANNUAL SEVEN-DAY MINIMUM	3.5	Sep 30	1.1	Sep 13	.16	Oct 4 1980
INSTANTANEOUS PEAK FLOW			7280	Jan 9	19200	May 7 1984
INSTANTANEOUS PEAK STAGE			21.16	Jan 9	32.85	May 7 1984
INSTANTANEOUS LOW FLOW					.00	Oct 8 1980
ANNUAL RUNOFF (CFSM)	1.68		1.04		1.63	
ANNUAL RUNOFF (INCHES)	22.87		14.18		22.14	
10 PERCENT EXCEEDS	571		422		573	
50 PERCENT EXCEEDS	90		28		91	
90 PERCENT EXCEEDS	4.9		3.3		6.0	

e Estimated



KENTUCKY RIVER BASIN

03281500 SOUTH FORK KENTUCKY RIVER AT BOONEVILLE, KY

LOCATION.--Lat 37°28'45", long 83°40'38", Owsley County, Hydrologic Unit 05100203, on right bank 600 ft downstream from Buck Creek, 0.2 mi downstream from bridge on State Highway 30 at Booneville, 0.5 mi downstream from Meadow Creek, and at mile 11.5.

DRAINAGE AREA.--722 mi².

PERIOD OF RECORD.--March 1925 to September 1931, October 1939 to current year. Monthly discharge only for October 1939, published in WSP 1305.

REVISED RECORDS.--WSP 893: 1929(M). WSP 1335: WSP 1555: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 642.49 ft above sea level. See WDR KY-92-1 for history of changes prior to Nov. 27, 1929.

REMARKS.--Records good.

PEAKS ABOVE BASE.--Peak discharges above base of 14,000 ft³/s and maximum *.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 10	0200	*18800	27.73	Jan. 24	1200	14100	23.29

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	5.5	57	755	873	3050	408	697	99	321	55	15
2	8.8	5.5	51	609	1430	2370	451	575	93	195	44	11
3	8.5	30	42	1490	1430	2610	448	493	95	148	31	8.1
4	22	16	38	2480	1250	5550	423	435	136	183	24	5.7
5	26	11	45	1320	1020	3620	410	400	166	172	19	4.0
6	19	9.2	85	823	855	2560	392	589	126	116	24	2.8
7	14	7.9	106	686	782	2210	378	1520	99	89	31	2.2
8	16	7.4	857	1090	745	1750	368	1180	82	69	25	1.6
9	15	13	1760	14100	657	1710	411	929	74	55	20	1.2
10	12	25	920	14600	593	2200	628	689	76	46	17	.87
11	8.9	36	464	3460	545	1990	725	550	115	41	13	.65
12	36	28	332	1800	632	1640	1620	457	92	33	10	.57
13	38	24	2280	1250	1150	1320	1330	399	70	31	8.6	.39
14	29	42	4740	1130	1170	1930	1010	376	83	30	6.5	.35
15	26	76	1650	2730	1090	5940	921	381	125	50	5.7	.28
16	22	58	764	3640	1080	6490	1260	350	93	58	5.2	.23
17	17	60	536	2310	1100	3740	1260	299	91	49	4.7	.16
18	15	41	435	2090	1150	2530	1050	267	82	50	3.7	.13
19	13	30	366	4270	1070	1760	880	288	69	69	2.6	.12
20	10	25	315	2840	947	1320	781	264	58	57	2.3	.17
21	9.4	25	283	1870	805	1090	693	244	47	60	2.3	.22
22	8.9	24	384	1350	685	922	604	199	40	56	2.1	.17
23	8.3	22	559	4110	599	772	535	173	35	131	1.8	.16
24	7.2	21	604	13200	555	686	482	211	32	152	1.8	.14
25	6.1	20	508	6580	524	634	441	278	35	236	26	.13
26	5.3	34	427	2820	500	563	423	291	32	124	7.0	.13
27	5.1	34	389	1820	470	510	525	208	28	87	10	.11
28	5.0	33	390	1350	1020	476	828	167	29	71	12	.10
29	5.5	32	517	1030	---	444	1160	143	79	70	22	.16
30	5.7	44	856	812	---	418	905	124	311	66	29	.23
31	5.7	---	929	686	---	393	---	110	---	68	20	---
TOTAL	439.4	839.5	21689	99101	24727	63198	21750	13286	2592	2983	486.3	57.07
MEAN	14.2	28.0	700	3197	883	2039	725	429	86.4	96.2	15.7	1.90
MAX	38	76	4740	14600	1430	6490	1620	1520	311	321	55	15
MIN	5.0	5.5	38	609	470	393	368	110	28	30	1.8	.10
CFSM	.02	.04	.97	4.43	1.22	2.82	1.00	.59	.12	.13	.02	.00
IN.	.02	.04	1.12	5.11	1.27	3.26	1.12	.68	.13	.15	.03	.00

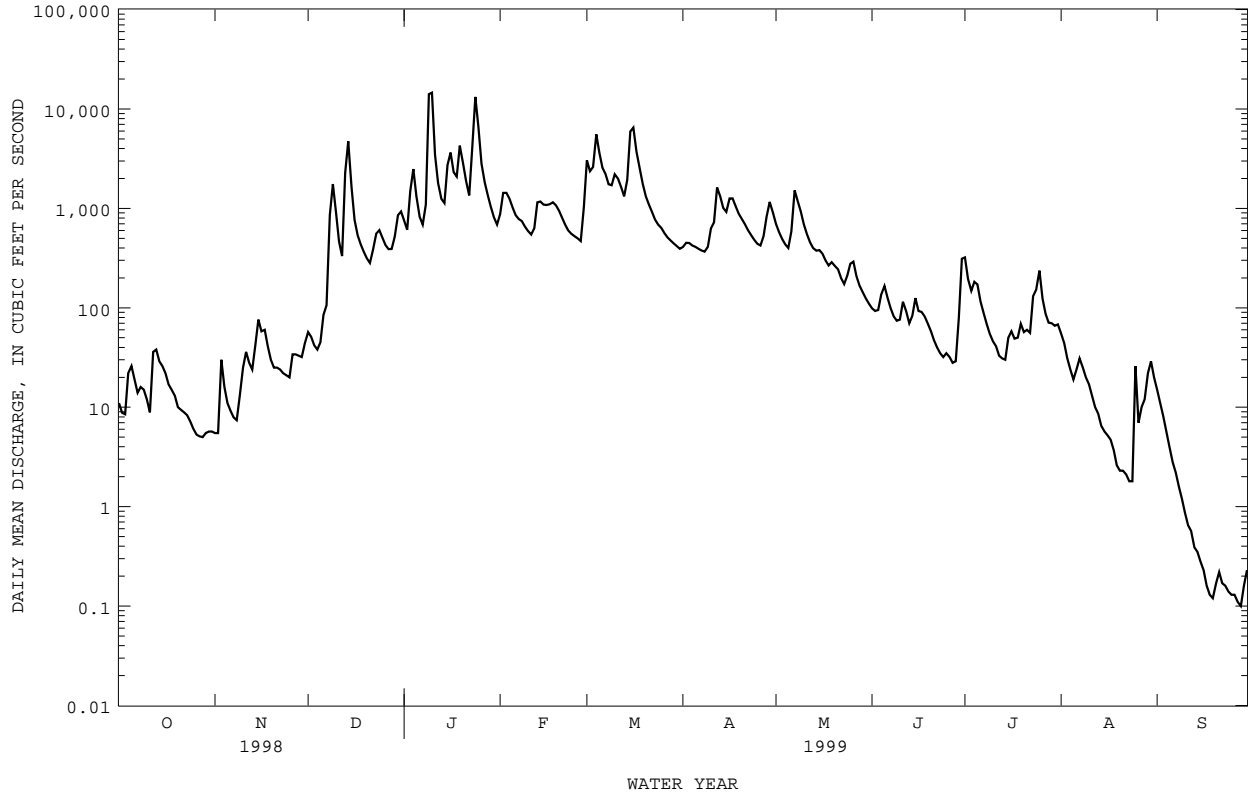
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1999, BY WATER YEAR (WY)

MEAN	215	664	1346	1844	2103	2333	1713	1111	596	390	252	144
MAX	2843	2380	4935	5461	5905	7400	4703	5130	2710	2666	1700	827
(WY)	1990	1974	1991	1974	1956	1975	1998	1984	1989	1941	1942	1989
MIN	.084	.32	12.1	104	178	568	222	119	36.7	3.67	4.56	.68
(WY)	1954	1954	1954	1981	1941	1988	1963	1941	1966	1944	1930	1930

KENTUCKY RIVER BASIN

03281500 SOUTH FORK KENTUCKY RIVER AT BOONEVILLE, KY--Continued

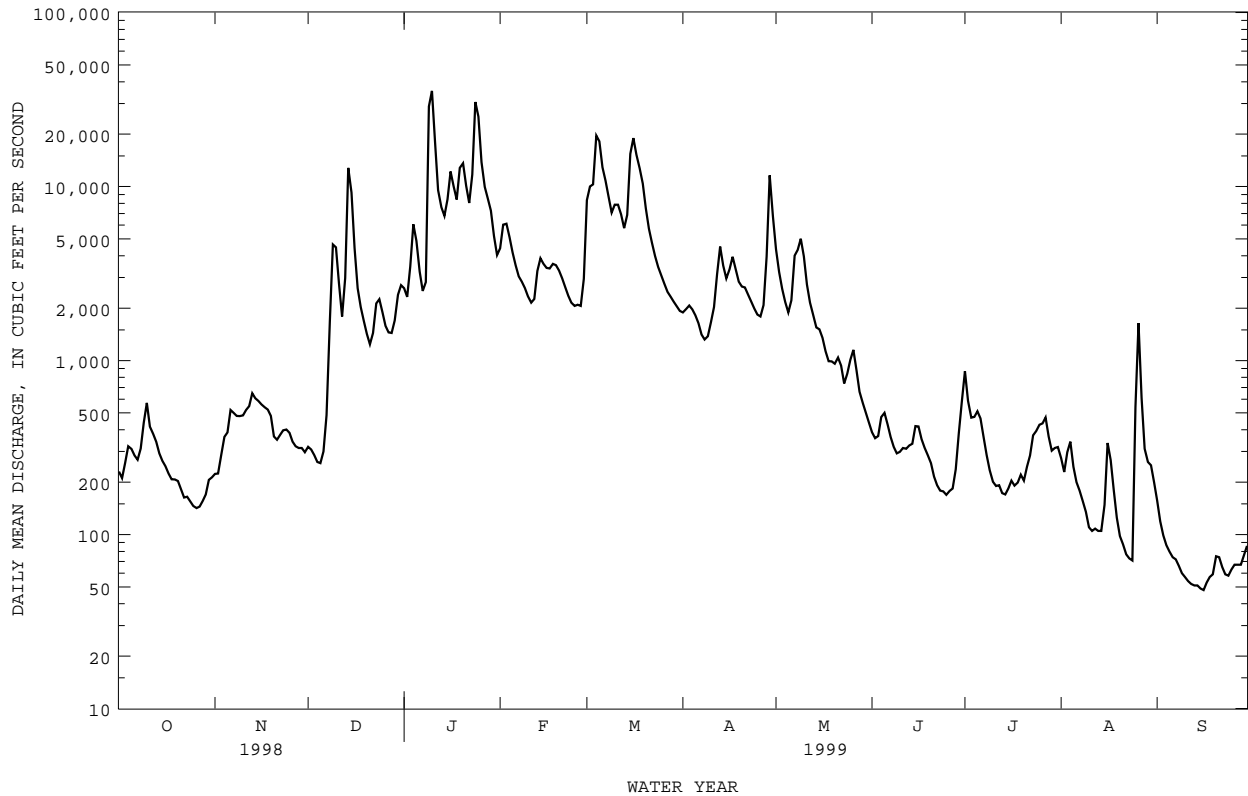
SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1925 - 1999	
ANNUAL TOTAL	398173.8		251148.27		1059	
ANNUAL MEAN	1091		688		1808	
HIGHEST ANNUAL MEAN					1994	
LOWEST ANNUAL MEAN					1988	
HIGHEST DAILY MEAN	22300	Apr 18	14600	Jan 10	51300	Jan 30 1957
LOWEST DAILY MEAN	5.0	Oct 28	.10	Sep 28	.00	Oct 11 1953
ANNUAL SEVEN-DAY MINIMUM	5.4	Oct 26	.13	Sep 23	.00	Oct 11 1953
INSTANTANEOUS PEAK FLOW			18800		66100	
INSTANTANEOUS PEAK STAGE			27.73		43.40	
INSTANTANEOUS LOW FLOW			.10		.00	
ANNUAL RUNOFF (CFSM)	1.51		.95		1.47	
ANNUAL RUNOFF (INCHES)	20.52		12.94		19.92	
10 PERCENT EXCEEDS	2550		1730		2420	
50 PERCENT EXCEEDS	441		136		358	
90 PERCENT EXCEEDS	12		5.2		26	



KENTUCKY RIVER BASIN

03282000 KENTUCKY RIVER AT LOCK 14, AT HEIDELBERG, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1977 - 1999	
ANNUAL TOTAL	1517624		952094			
ANNUAL MEAN	4158		2608		3872	
HIGHEST ANNUAL MEAN					6973	
LOWEST ANNUAL MEAN					1461	
HIGHEST DAILY MEAN	53100	Apr 20	35500	Jan 10	85900	May 8 1984
LOWEST DAILY MEAN	142	Oct 26	48	Sep 16	45	Jul 10 1988
ANNUAL SEVEN-DAY MINIMUM	149	Sep 12	51	Sep 11	51	Sep 11 1999
INSTANTANEOUS PEAK FLOW			38300		120000	
INSTANTANEOUS PEAK STAGE			19.20		35.60	
INSTANTANEOUS LOW FLOW					4.0	
ANNUAL RUNOFF (CFSM)	1.56		.98		1.46	
ANNUAL RUNOFF (INCHES)	21.25		13.33		19.80	
10 PERCENT EXCEEDS	10600		7710		9840	
50 PERCENT EXCEEDS	2040		560		1660	
90 PERCENT EXCEEDS	234		107		276	



KENTUCKY RIVER BASIN

03282040 STURGEON CREEK AT CRESSMONT, KY

LOCATION.--Lat 37°30'02", long 83°48'37", Lee County, Hydrologic Unit 05100204, on right bank 30 ft downstream f bridge on State Highway 597, 0.2 mi southeast of Cressmont, 0.2 mi upstream from Elkhorn Branch, and 0.5 mi downstream from Granny Dismal Creek.

DRAINAGE AREA.-- 77.3 mi².

PERIOD OF RECORD.--October 1992 to current year.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 704.53 ft above sea level.

REMARKS.--Records fair.

PEAKS ABOVE BASE.--Peak discharges above base of 2,000 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 9	0145	* 8340	14.84	Jan. 23	1600	2330	8.44

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	3.7	10	73	248	208	49	84	2.9	3.6	.98	.00
2	1.7	3.9	6.4	129	291	161	47	69	2.9	3.1	.66	.00
3	1.5	15	4.1	377	228	453	42	55	3.4	2.9	.39	.00
4	2.9	10	3.5	178	174	367	40	44	3.2	2.5	.25	.00
5	2.5	5.7	19	116	132	248	37	44	2.7	2.1	.17	.00
6	2.1	4.9	61	e95	115	262	35	152	2.2	1.5	.12	.00
7	2.6	4.5	143	76	106	195	32	126	1.9	1.2	.10	.00
8	7.1	3.7	368	1630	82	164	30	91	1.8	.86	.08	.00
9	5.0	3.5	158	3020	70	264	46	65	1.5	.75	.08	.00
10	3.1	6.1	78	427	58	251	45	49	1.5	.68	.07	.00
11	2.4	28	48	237	51	201	79	37	1.3	.65	.06	.00
12	1.8	28	49	166	139	158	89	28	1.2	.56	.05	.00
13	1.5	19	635	132	156	134	71	45	1.0	.50	.04	.00
14	1.4	15	217	198	137	793	61	32	1.3	.45	.03	.00
15	1.3	8.9	113	333	131	555	84	23	3.9	.39	.03	.00
16	1.2	3.7	77	237	122	319	116	17	2.6	.34	.02	.00
17	1.3	3.1	62	180	130	228	97	13	1.7	.29	.01	.00
18	1.8	2.7	45	214	117	168	83	11	1.2	.89	.00	.00
19	2.5	2.9	38	175	105	131	73	18	1.0	1.9	.00	.00
20	2.0	3.0	34	161	88	112	72	13	.85	3.0	.00	.00
21	2.2	3.0	31	137	73	104	60	8.9	.78	2.7	.00	.00
22	2.5	3.0	95	116	60	87	50	7.5	.78	2.2	.00	.00
23	2.4	2.7	90	1450	55	71	44	7.8	.75	1.3	.00	.00
24	2.0	2.2	73	713	51	61	39	16	1.3	.75	.00	.00
25	2.3	2.5	55	321	49	57	32	5.2	2.1	.53	.04	.00
26	2.3	12	49	209	43	54	59	8.9	2.7	.36	.03	.00
27	2.5	16	48	157	51	49	112	6.3	2.9	.28	.03	.01
28	2.6	13	62	123	262	45	147	4.8	3.2	.20	.02	.96
29	2.8	7.5	95	97	---	41	129	3.9	6.4	.18	.02	2.8
30	3.2	6.1	108	78	---	38	104	3.4	4.9	.15	.01	5.2
31	3.6	---	93	86	---	35	---	3.1	---	1.0	.00	---
TOTAL	76.3	243.3	2968.0	11641	3324	6014	2004	1091.8	65.86	37.81	3.29	8.97
MEAN	2.46	8.11	95.7	376	119	194	66.8	35.2	2.20	1.22	.11	.30
MAX	7.1	28	635	3020	291	793	147	152	6.4	3.6	.98	5.2
MIN	1.2	2.2	3.5	73	43	35	30	3.1	.75	.15	.00	.00
CFSM	.03	.10	1.24	4.86	1.54	2.51	.86	.46	.03	.02	.00	.00
IN.	.04	.12	1.43	5.60	1.60	2.89	.96	.53	.03	.02	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1999, BY WATER YEAR (WY)

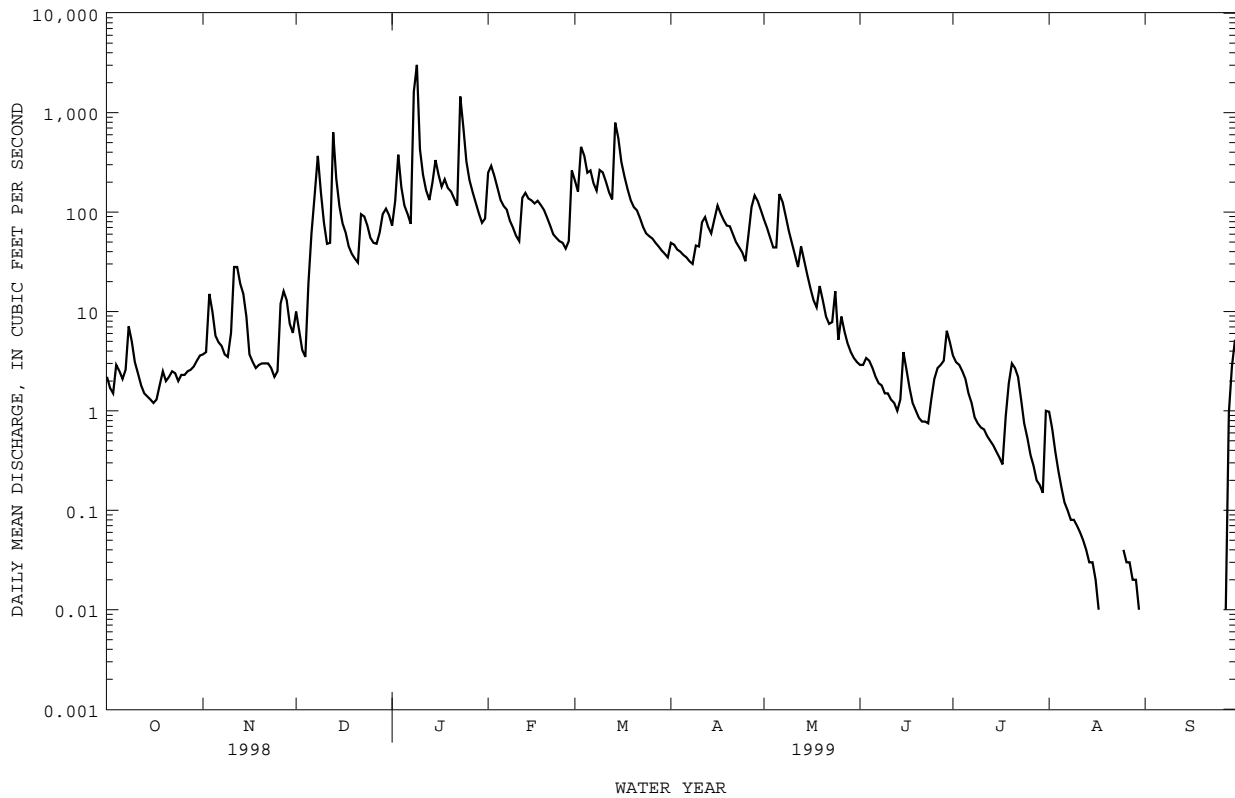
	1993	1994	1995	1996	1997	1998	1999
MEAN	34.1	86.0	120	264	201	298	194
MAX	108	246	193	403	484	540	441
(WY)	1997	1997	1994	1994	1994	1998	1995
MIN	2.46	8.11	50.8	139	92.0	122	49.6
(WY)	1999	1999	1998	1993	1997	1995	1997

KENTUCKY RIVER BASIN

03282040 STURGEON CREEK AT CRESSMONT, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1993 - 1999	
ANNUAL TOTAL	47440.45		27478.33			
ANNUAL MEAN	130		75.3		125	
HIGHEST ANNUAL MEAN					195	
LOWEST ANNUAL MEAN					75.3	
HIGHEST DAILY MEAN	3500	Apr 17	3020	Jan 9	4230	Mar 3 1997
LOWEST DAILY MEAN	.55	Sep 18	.00	Aug 18	.00	Aug 18 1999
ANNUAL SEVEN-DAY MINIMUM	.68	Sep 12	.00	Aug 18	.00	Aug 18 1999
INSTANTANEOUS PEAK FLOW			8340	Jan 9	8340	Jan 9 1999
INSTANTANEOUS PEAK STAGE			14.84	Jan 9	14.84	Jan 9 1999
INSTANTANEOUS LOW FLOW			.00	Aug 18	.00	Aug 18 1999
ANNUAL RUNOFF (CFSM)	1.68		.97		1.62	
ANNUAL RUNOFF (INCHES)	22.83		13.22		21.96	
10 PERCENT EXCEEDS	323		174		291	
50 PERCENT EXCEEDS	53		7.5		48	
90 PERCENT EXCEEDS	2.1		.01		2.3	

e Estimated



KENTUCKY RIVER BASIN

03282500 RED RIVER NEAR HAZEL GREEN, KY

LOCATION.--Lat 37°48'44", long 83°27'50", Wolfe County, Hydrologic Unit 05100204, on right bank 600 ft upstream from Buck Creek, 0.3 mi downstream from Chapel Branch, 2.7 mi northwest of Hazel Green, and at mile 72.7.

DRAINAGE AREA.--65.8 mi².

PERIOD OF RECORD.--April 1954 to current year.

REVISED RECORDS.--WRD KY 72-1: 1971.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 870.11 ft above sea level.

REMARKS.--Records fair except for daily discharges below 2.0 ft³/s and periods of estimated record, which are poor.

PEAKS ABOVE BASE.--Peak discharges above base of 1,100 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 9	1130	1830	7.57

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.95	.43	2.9	e18	59	115	e52	148	3.6	1.8	.34	.50
2	e.90	.46	2.8	26	163	117	e48	108	3.5	1.9	.32	.36
3	2.2	.91	2.9	126	152	306	e46	81	3.5	1.5	.74	.28
4	1.7	5.9	2.7	81	118	421	e44	64	3.5	1.5	1.4	.19
5	1.3	5.7	3.1	57	89	203	e43	56	2.9	1.7	.77	.08
6	e1.1	2.7	4.3	41	79	156	e41	72	2.5	1.6	.53	.03
7	e.90	2.0	8.8	33	72	129	e39	65	2.4	.72	.39	.01
8	2.1	1.7	63	236	64	105	e38	51	2.0	.60	.33	.00
9	e1.6	1.7	56	1670	55	115	e49	41	4.9	.41	.32	.00
10	e1.3	1.8	31	614	49	172	e46	35	5.1	.35	.27	.00
11	e.90	4.6	19	203	44	149	e47	28	3.2	.34	.26	.00
12	e.80	6.8	15	127	50	120	e52	24	2.4	.31	.23	.00
13	e.70	6.3	47	94	66	100	e41	41	2.1	.27	.22	.00
14	e.64	4.0	93	93	58	331	39	32	1.9	.22	.26	.00
15	e.58	3.1	43	197	61	513	40	29	11	.18	.23	.00
16	e.55	2.7	28	168	68	203	45	22	6.0	.08	.20	.00
17	e.51	2.3	22	136	73	118	39	19	3.4	.03	.15	.00
18	e.49	2.1	18	149	74	104	35	17	2.5	.01	.02	.00
19	e.48	1.9	15	147	65	85	33	19	2.0	.00	.00	.00
20	e.56	2.1	14	125	58	77	39	15	1.9	.00	.00	.00
21	e.47	2.2	12	103	e50	74	42	12	1.7	.00	.00	.00
22	e.36	2.4	49	85	e43	65	41	11	1.2	.00	.00	.00
23	e.34	2.4	48	434	e41	60	41	10	.84	2.7	.00	.00
24	e.31	2.4	34	770	e40	66	39	14	.73	5.8	.00	.00
25	e.28	2.3	e20	324	e41	e63	33	17	1.0	4.0	71	.00
26	e.26	4.8	e16	158	e56	e60	33	11	.88	1.9	30	.00
27	.25	4.6	e13	93	e54	e58	42	8.7	.72	1.1	11	.00
28	.40	3.9	18	66	e68	e56	73	7.1	.72	.64	4.9	.00
29	.66	3.4	25	54	---	e52	657	5.4	1.5	.41	2.4	.00
30	.52	2.7	32	48	---	e50	264	4.4	2.1	.35	1.8	.00
31	.50	---	e25	43	---	e48	---	4.2	---	.33	.98	---
TOTAL	24.61	90.30	783.5	6519	1910	4291	2121	1071.8	81.69	30.75	129.06	1.45
MEAN	.79	3.01	25.3	210	68.2	138	70.7	34.6	2.72	.99	4.16	.048
MAX	2.2	6.8	93	1670	163	513	657	148	11	5.8	71	.50
MIN	.25	.43	2.7	18	40	48	33	4.2	.72	.00	.00	.00
CFSM	.01	.05	.38	3.20	1.04	2.10	1.07	.53	.04	.02	.06	.00
IN.	.01	.05	.44	3.69	1.08	2.43	1.20	.61	.05	.02	.07	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1999, BY WATER YEAR (WY)

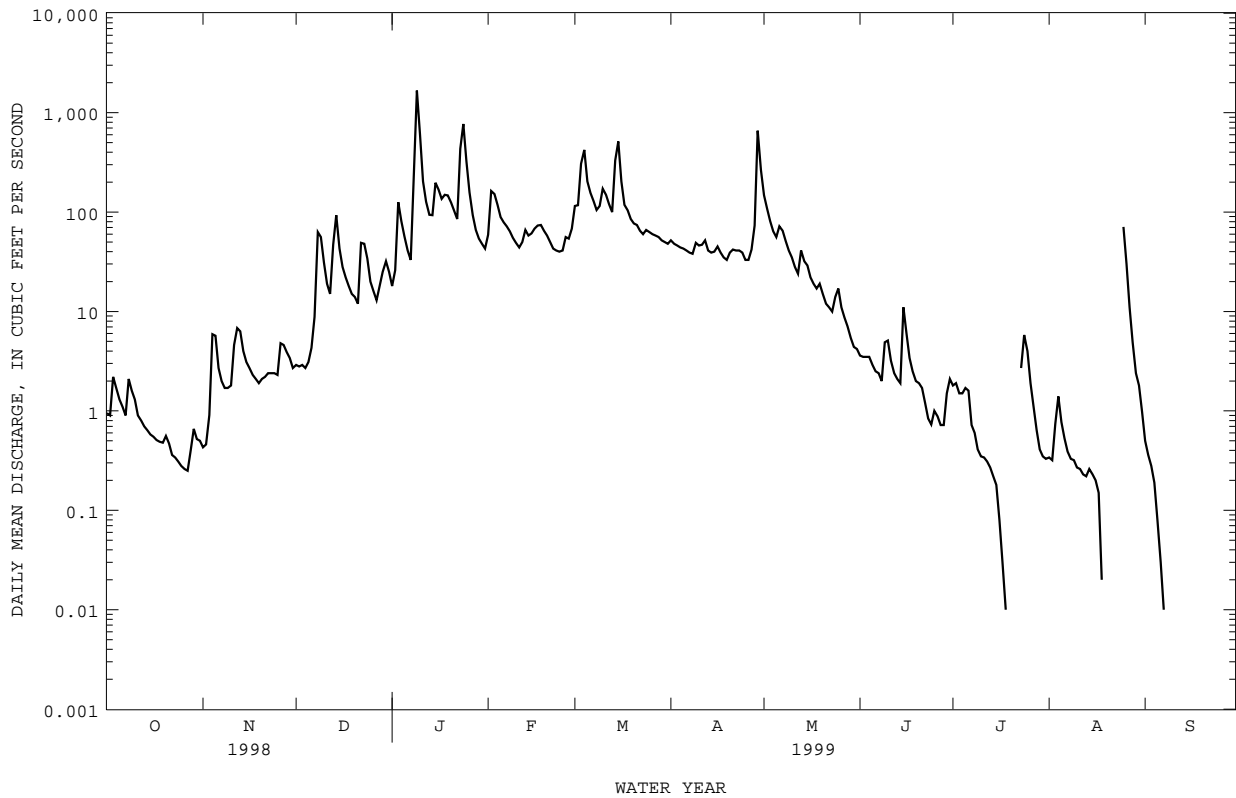
MEAN	16.5	50.8	113	134	177	195	155	98.8	46.3	29.7	24.2	14.0
MAX	138	227	555	357	555	523	472	318	351	157	141	180
(WY)	1990	1986	1979	1974	1989	1955	1972	1983	1997	1981	1974	1974
MIN	.22	.54	2.76	17.5	27.6	49.1	16.6	13.9	1.19	.99	.27	.048
(WY)	1964	1956	1964	1981	1968	1969	1986	1986	1988	1999	1957	1999

KENTUCKY RIVER BASIN

03282500 RED RIVER NEAR HAZEL GREEN, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1954 - 1999	
ANNUAL TOTAL	31025.18		17054.16		87.7	
ANNUAL MEAN	85.0		46.7		153	
HIGHEST ANNUAL MEAN					39.6	
LOWEST ANNUAL MEAN					6170	
HIGHEST DAILY MEAN	1070	Apr 19	1670	Jan 9	6170	Dec 9 1978
LOWEST DAILY MEAN	.20	Sep 19	.00	Jul 19	.00	Sep 14 1954
ANNUAL SEVEN-DAY MINIMUM	.28	Sep 14	.00	Sep 8	.00	Sep 12 1955
INSTANTANEOUS PEAK FLOW			1830	Jan 9	9080	Feb 27 1962
INSTANTANEOUS PEAK STAGE			7.57	Jan 9	22.12	Feb 27 1962
INSTANTANEOUS LOW FLOW					.00	Sep 14 1954
ANNUAL RUNOFF (CFSM)	1.29		.71		1.33	
ANNUAL RUNOFF (INCHES)	17.54		9.64		18.11	
10 PERCENT EXCEEDS	212		115		200	
50 PERCENT EXCEEDS	35		5.7		30	
90 PERCENT EXCEEDS	.90		.03		1.4	

e Estimated



KENTUCKY RIVER BASIN

03283500 RED RIVER AT CLAY CITY, KY

LOCATION.--Lat 37°51'53", long 83°56'01", Powell County, Hydrologic Unit 05100204, on right bank 25 ft upstream from bridge on State Highway 15, 0.1 mi downstream from Skinner Branch, 0.4 mi upstream from Brush Creek, 0.5 mi west of Clay City, and at mile 21.6.

DRAINAGE AREA.--362 mi².

PERIOD OF RECORD.--October 1930 to March 1932, April 1938 to current year. Monthly discharge only for October 1930, published in WSP 1305.

REVISED RECORDS.--WSP 1275: 1931-32. WSP 1385: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 600.47 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Aug. 14, 1939, nonrecording gages, Aug. 14, 1939, to Aug. 13, 1975, water-stage recorder at site 50 ft downstream at same datum.

REMARKS.--Records good except for periods of estimated record, which are poor. Flow diversions by Clay City Water Plant, which can be significant during low-flow periods.

Peak discharges above base of 5000 ft³/s and misimun *.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 10	0700	*9400	18.20

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	27	35	e100	935	e700	287	723	37	33	15	16
2	16	24	33	e105	1330	625	286	506	35	28	16	13
3	21	23	34	489	1040	1220	267	402	34	23	21	11
4	27	26	32	e420	801	1920	248	335	33	20	30	10
5	34	25	31	e300	616	1320	230	289	32	19	23	9.2
6	31	26	32	e240	501	968	214	312	30	18	17	8.7
7	28	30	87	e210	458	858	200	345	29	17	13	8.0
8	37	32	438	899	442	659	189	270	28	16	12	7.5
9	56	33	430	4910	379	704	244	213	26	15	11	6.8
10	57	31	277	8150	341	1250	231	179	25	15	11	6.4
11	38	49	166	2520	310	1110	208	153	29	15	12	6.5
12	29	86	115	807	700	843	191	132	25	14	12	6.2
13	25	67	229	596	949	668	184	123	29	16	13	6.2
14	22	45	518	621	662	1410	178	131	31	15	13	6.3
15	20	35	385	1040	555	3270	184	142	30	14	12	6.6
16	19	32	231	955	537	1850	288	116	44	14	11	5.7
17	18	31	169	816	e580	1100	282	102	40	13	13	5.6
18	18	30	143	1080	e600	804	229	88	36	13	15	5.6
19	18	26	115	1040	475	611	208	109	29	13	14	5.4
20	17	24	103	769	e430	498	219	128	25	12	14	7.7
21	17	24	98	638	e380	445	234	91	23	11	14	9.7
22	16	27	297	556	e330	405	230	72	21	26	13	8.7
23	16	27	405	1450	e310	388	214	64	19	32	13	10
24	16	26	292	2720	e300	547	198	89	19	35	13	15
25	15	25	204	1870	e295	545	178	94	19	152	16	13
26	15	36	140	1010	368	441	177	80	20	75	16	11
27	16	53	e120	703	e360	403	232	65	23	43	95	9.4
28	17	55	e105	558	e450	371	401	53	29	30	56	8.4
29	18	45	e100	461	---	344	2090	47	38	23	35	8.3
30	23	39	119	386	---	316	1410	43	40	19	25	8.8
31	29	---	138	366	---	288	---	40	---	16	19	---
TOTAL	745	1059	5621	36785	15434	26881	9931	5536	878	805	613	260.7
MEAN	24.0	35.3	181	1187	551	867	331	179	29.3	26.0	19.8	8.69
MAX	57	86	518	8150	1330	3270	2090	723	44	152	95	16
MIN	15	23	31	100	295	288	177	40	19	11	11	5.4

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1999, BY WATER YEAR (WY)

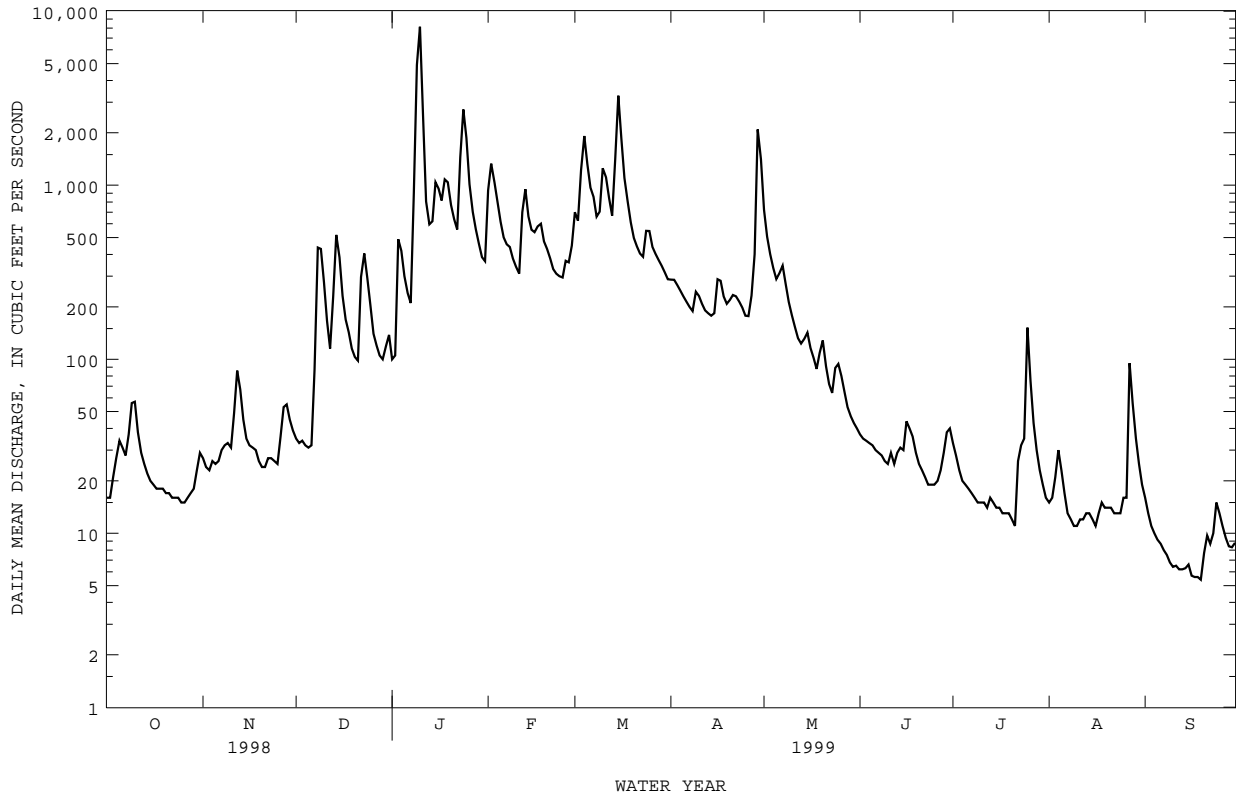
MEAN	86.7	272	607	793	1007	1086	826	539	304	262	176	105
MAX	928	1220	3036	2634	3564	3048	2406	1943	2246	1845	1179	1185
(WY)	1990	1987	1979	1950	1989	1955	1972	1995	1997	1938	1938	1974
MIN	4.41	9.75	19.7	43.2	127	258	110	54.6	23.9	5.01	18.2	6.15
(WY)	1964	1954	1954	1931	1954	1969	1986	1941	1988	1944	1957	1984

KENTUCKY RIVER BASIN

03283500 RED RIVER AT CLAY CITY, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1931 - 1999	
ANNUAL TOTAL	192410		104548.7		498	
ANNUAL MEAN	527		286		884	
HIGHEST ANNUAL MEAN					158	
LOWEST ANNUAL MEAN					26100	
HIGHEST DAILY MEAN	5700	Jan 8	8150	Jan 10	26100	Dec 9 1978
LOWEST DAILY MEAN	15	Oct 25	5.4	Sep 19	1.2	Aug 10 1944
ANNUAL SEVEN-DAY MINIMUM	16	Oct 21	5.9	Sep 13	2.0	Oct 2 1930
INSTANTANEOUS PEAK FLOW			9400	Jan 10	28800	Dec 9 1978
INSTANTANEOUS PEAK STAGE			18.20	Jan 10	26.75	Dec 9 1978
INSTANTANEOUS LOW FLOW					1.2	Aug 10 1944
10 PERCENT EXCEEDS	1320		712		1190	
50 PERCENT EXCEEDS	250		53		182	
90 PERCENT EXCEEDS	21		13		22	

e Estimated



KENTUCKY RIVER BASIN

03285000 DIX RIVER NEAR DANVILLE, KY

LOCATION.--Lat 37°38'31", long 84°39'39", Garrard County, Hydrologic Unit 05100205, on right bank 50 ft downstream from bridge on State Highway 52, 1.4 mi downstream from Hanging Fork, 6 mi east of Danville, and mile 34.6.

DRAINAGE AREA.--318 mi².

PERIOD OF RECORD.--May to August 1905 (gage heights only), October 1942 to current year. Published as "Dicks River," 1905.

REVISED RECORDS.--WSP 1555: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 750.10 ft above sea level. Prior to Dec. 21, 1942, nonrecording gage at same site and datum. May to August 1905, nonrecording gage at site 6 mi downstream at different datum.

REMARKS.--Records good except for periods of estimated record, which are poor.

PEAKS ABOVE BASE.--Peak discharges above base of 8,000 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 9	1000	*18800	12.57	Jan. 23	1700	9900	9.17
Mar. 14	2000	10600	9.48				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	1.3	14	e90	1810	428	178	410	11	133	1.8	4.8
2	1.2	1.3	14	110	1860	362	184	278	10	78	1.7	3.4
3	2.0	1.3	14	2930	948	1740	168	209	9.6	51	3.4	2.8
4	4.7	1.3	13	991	657	2310	162	162	9.1	38	2.8	2.3
5	7.0	1.2	13	e450	471	960	154	142	9.0	27	2.3	2.0
6	5.4	1.1	13	e300	376	845	141	492	13	21	2.2	1.6
7	8.7	1.1	26	262	333	918	135	775	22	16	2.0	e1.2
8	18	1.2	494	2450	323	616	123	340	17	13	1.7	e.92
9	40	1.3	520	14900	272	683	116	226	13	10	e1.5	e.68
10	28	1.6	238	5590	242	914	111	165	11	8.6	e1.2	e.52
11	20	2.4	130	1030	216	674	106	129	16	7.7	e1.0	e.39
12	14	6.5	91	693	712	516	100	104	11	6.8	e.86	e.29
13	12	5.0	436	528	1270	417	93	87	13	5.7	e.72	e.22
14	11	4.6	924	e1250	690	4210	85	217	15	4.8	e.60	e.20
15	8.6	5.9	340	e970	505	5510	95	234	13	4.2	e.51	e.17
16	7.1	7.9	200	743	408	1340	193	130	12	3.4	e.42	e.15
17	6.1	6.0	149	555	368	833	182	92	16	3.0	e.35	e.13
18	4.8	5.0	120	1480	410	615	136	70	11	2.5	e.30	e.11
19	3.7	6.0	100	1080	338	472	114	54	7.6	2.2	e.25	e.10
20	3.0	6.7	86	672	279	388	104	44	6.0	1.9	e.21	.92
21	2.4	6.8	80	531	232	339	97	41	4.8	2.7	e.18	e46
22	2.4	6.3	557	445	199	290	89	34	4.1	3.1	e.15	e26
23	2.4	5.8	734	5490	175	295	80	28	3.6	26	e.13	17
24	2.2	5.2	340	5240	171	439	70	85	3.7	29	e.35	9.8
25	1.8	5.7	223	1190	165	449	60	85	4.0	19	1.9	6.5
26	1.6	7.5	164	743	154	346	64	59	4.1	10	176	5.5
27	1.5	8.5	138	551	143	283	254	40	4.0	6.4	64	4.9
28	1.6	17	124	428	254	246	349	28	7.7	4.6	28	4.5
29	1.6	22	e115	336	---	220	1390	20	680	3.4	17	3.9
30	1.5	16	e105	269	---	194	823	16	289	2.6	10	4.6
31	1.4	---	e97	236	---	177	---	14	---	2.0	6.9	---
TOTAL	227.5	169.5	6612	52533	13981	28029	5956	4810	1250.3	546.6	330.43	151.60
MEAN	7.34	5.65	213	1695	499	904	199	155	41.7	17.6	10.7	5.05
MAX	40	22	924	14900	1860	5510	1390	775	680	133	176	46
MIN	1.2	1.1	13	90	143	177	60	14	3.6	1.9	.13	.10
CFSM	.02	.02	.67	5.33	1.57	2.84	.62	.49	.13	.06	.03	.02
IN.	.03	.02	.77	6.15	1.64	3.28	.70	.56	.15	.06	.04	.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1999, BY WATER YEAR (WY)

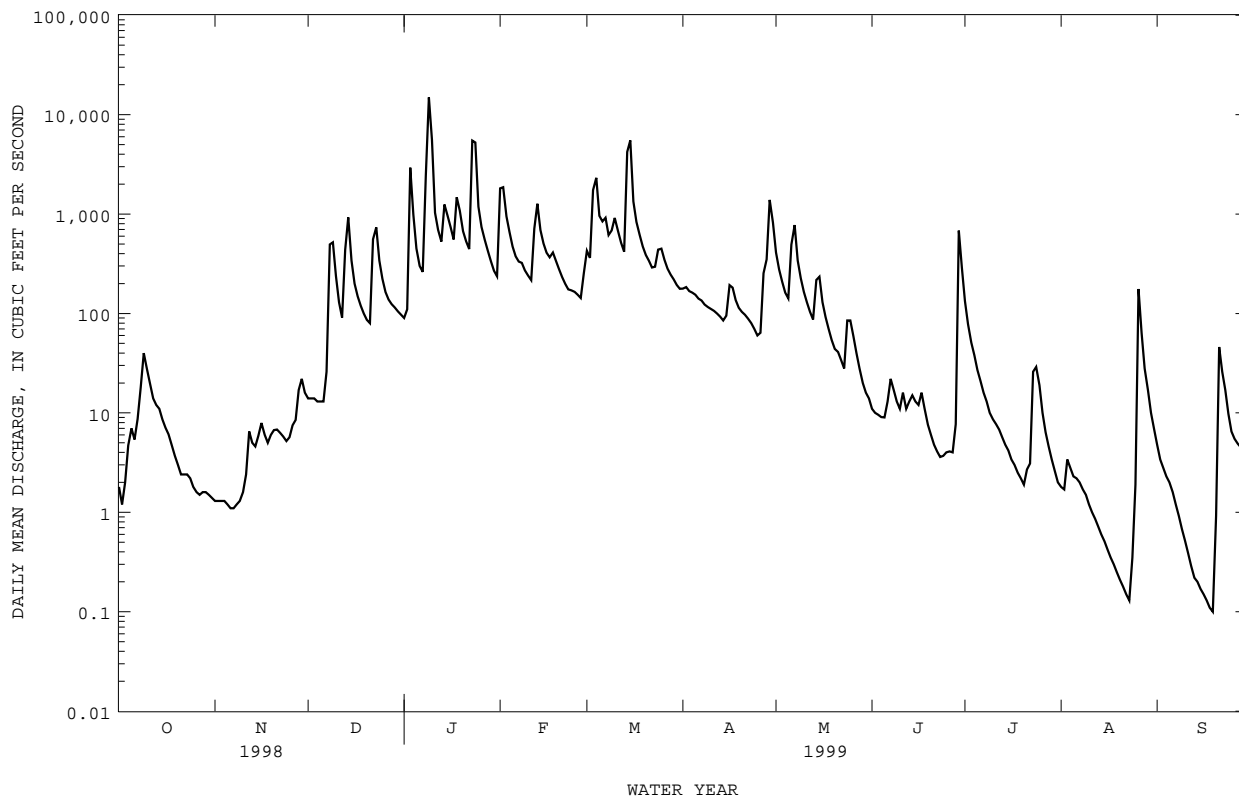
MEAN	99.2	305	667	815	984	1019	672	462	281	175	91.8	156
MAX	1323	1471	3656	3140	4129	3059	2736	2618	1732	1692	527	3430
(WY)	1980	1987	1979	1950	1989	1997	1972	1983	1997	1996	1958	1979
MIN	.000	.030	.69	17.0	72.1	174	57.1	51.8	8.83	.31	.93	.013
(WY)	1953	1954	1954	1981	1954	1983	1986	1976	1988	1944	1952	1953

KENTUCKY RIVER BASIN

03285000 DIX RIVER NEAR DANVILLE, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1943 - 1999	
ANNUAL TOTAL	191772.54		114596.93			
ANNUAL MEAN	525		314		475	
HIGHEST ANNUAL MEAN					1184	
LOWEST ANNUAL MEAN					119	
HIGHEST DAILY MEAN	10900	Jan 8	14900	Jan 9	35100	Jul 20 1996
LOWEST DAILY MEAN	.72	Sep 17	.10	Sep 19	.00	Jul 21 1944
ANNUAL SEVEN-DAY MINIMUM	.93	Sep 12	.15	Sep 13	.00	Jul 29 1944
INSTANTANEOUS PEAK FLOW			18800		52400	
INSTANTANEOUS PEAK STAGE			12.57		21.81	
INSTANTANEOUS LOW FLOW					1.3	
ANNUAL RUNOFF (CFSM)	1.65		.99		1.49	
ANNUAL RUNOFF (INCHES)	22.43		13.41		20.29	
10 PERCENT EXCEEDS	1100		691		1070	
50 PERCENT EXCEEDS	164		28		124	
90 PERCENT EXCEEDS	2.2		1.3		2.9	

e Estimated



KENTUCKY RIVER BASIN

03285280 SPEARS CREEK @ RAILROAD CULVERT NEAR DANVILLE, KY

LOCATION.-- Lat 37°40'14", long 84°46'51", Boyle County, Hydrologic Unit 05100205, at rail- road culvert and at mile 4.46.

DRAINAGE AREA.--2.81 mi²

WATER-STAGE RECORDS

PERIOD OF RECORD.--June 3, 1998 to November 20, 1998.

COOPERATION.--The Kentucky Heritage Resource Conservation and Development Council.

GAGE.--Water-stage recorder.

REMARKS.--1998: Records good, except those for periods of estimated gage heights, which are fair.

1999: Records good, except those for periods of estimated gage heights, which are fair.

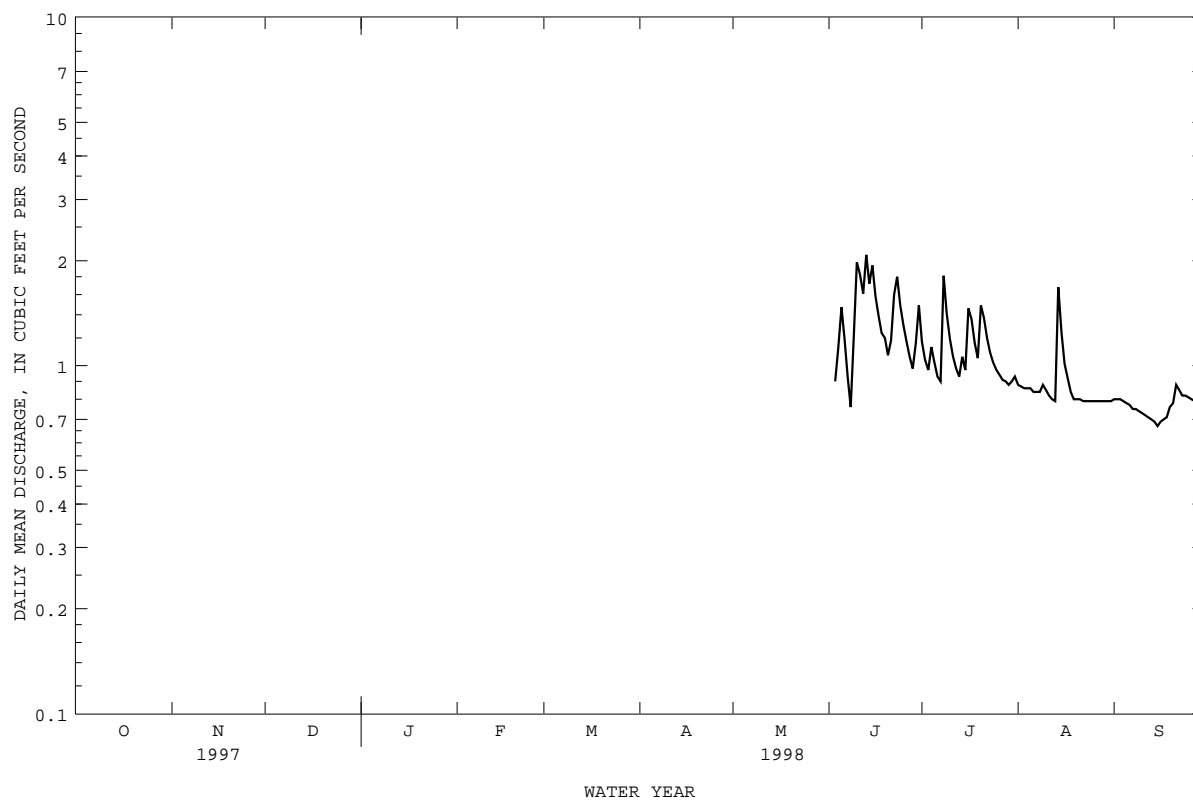
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	1.17	.88	.80
2	---	---	---	---	---	---	---	---	---	1.04	.87	.80
3	---	---	---	---	---	---	---	---	e.90	.97	.86	.80
4	---	---	---	---	---	---	---	---	e1.12	1.13	.86	.79
5	---	---	---	---	---	---	---	---	e1.47	1.02	.86	.78
6	---	---	---	---	---	---	---	---	e1.19	.93	.84	.77
7	---	---	---	---	---	---	---	---	e.93	.90	.84	.75
8	---	---	---	---	---	---	---	---	e.76	1.81	.84	.75
9	---	---	---	---	---	---	---	---	e1.21	1.41	.88	.74
10	---	---	---	---	---	---	---	---	e1.98	1.19	.85	.73
11	---	---	---	---	---	---	---	---	1.83	1.06	.82	.72
12	---	---	---	---	---	---	---	---	1.61	.98	.80	.71
13	---	---	---	---	---	---	---	---	2.08	.93	.79	.70
14	---	---	---	---	---	---	---	---	1.72	1.06	1.68	.69
15	---	---	---	---	---	---	---	---	1.94	.97	1.24	.67
16	---	---	---	---	---	---	---	---	1.58	1.46	1.01	.69
17	---	---	---	---	---	---	---	---	1.39	1.36	.92	.70
18	---	---	---	---	---	---	---	---	1.24	1.16	e.84	.71
19	---	---	---	---	---	---	---	---	1.20	1.05	e.80	.76
20	---	---	---	---	---	---	---	---	1.07	1.49	e.80	.78
21	---	---	---	---	---	---	---	---	1.18	1.37	e.80	.88
22	---	---	---	---	---	---	---	---	1.60	1.20	e.79	.85
23	---	---	---	---	---	---	---	---	1.80	1.09	e.79	.82
24	---	---	---	---	---	---	---	---	1.49	1.02	.79	.82
25	---	---	---	---	---	---	---	---	1.31	.97	.79	.81
26	---	---	---	---	---	---	---	---	1.17	.94	.79	.80
27	---	---	---	---	---	---	---	---	1.06	.91	.79	.79
28	---	---	---	---	---	---	---	---	.98	.90	.79	.79
29	---	---	---	---	---	---	---	---	1.16	.88	.79	.79
30	---	---	---	---	---	---	---	---	1.49	.90	.79	.78
31	---	---	---	---	---	---	---	---	---	.93	.79	---
MEAN	---	---	---	---	---	---	---	---	---	1.10	.87	.77
MAX	---	---	---	---	---	---	---	---	---	1.81	1.68	.88
MIN	---	---	---	---	---	---	---	---	---	.88	.79	.67

e Estimated

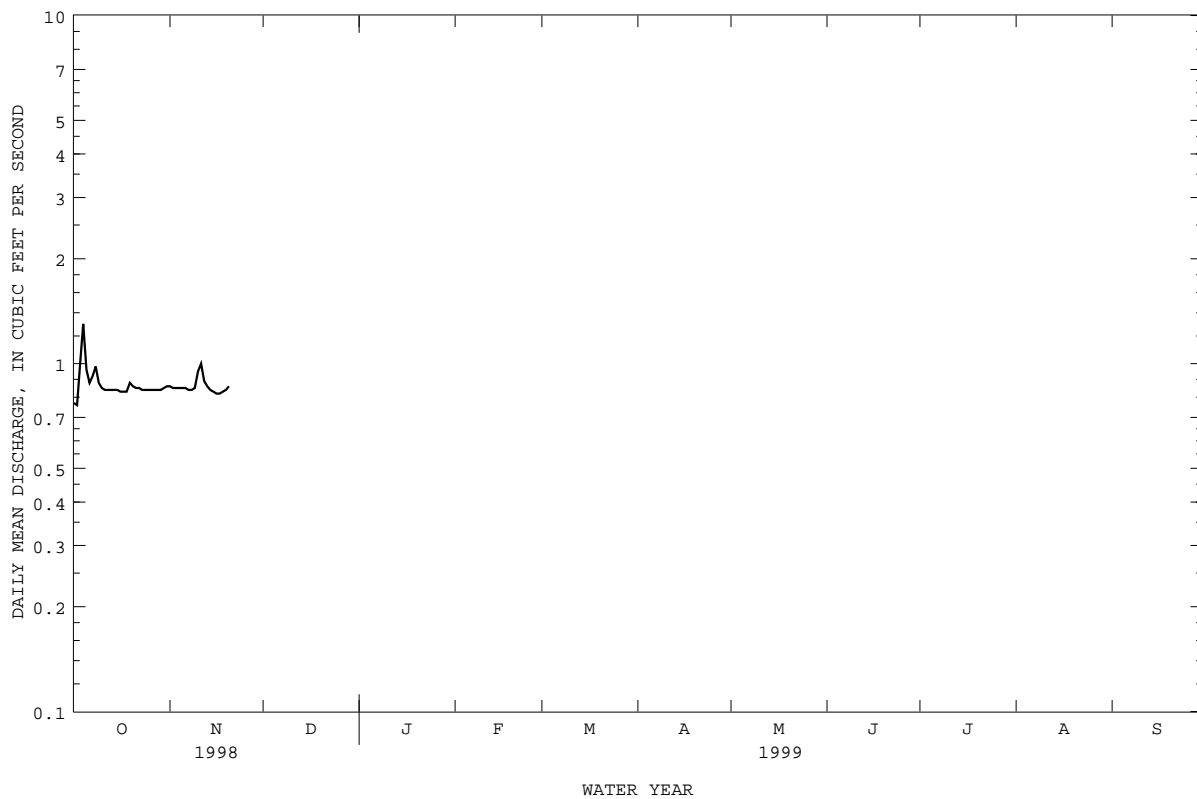
KENTUCKY RIVER BASIN

03285280 SPEARS CREEK @ RAILROAD CULVERT NEAR DANVILLE, KY--Continued



KENTUCKY RIVER BASIN

03285280 SPEARS CREEK @ RAILROAD CULVERT NEAR DANVILLE, KY--Continued



KENTUCKY RIVER BASIN

03285280 SPEARS CREEK @ RAILROAD CULVERT NEAR DANVILLE, KY--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	409	395	403	484	464	481	578	545	573
2	---	---	---	420	407	412	491	480	488	577	567	572
3	---	---	---	438	420	427	500	488	495	607	531	582
4	---	---	---	426	251	371	511	491	500	618	602	610
5	---	---	---	441	394	422	527	493	504	629	615	621
6	---	---	---	462	440	450	538	499	513	636	623	629
7	---	---	---	469	416	465	544	513	526	648	631	638
8	---	---	---	421	234	348	548	403	520	671	646	655
9	---	---	---	420	385	405	539	382	494	694	669	681
10	---	---	---	416	404	410	545	531	539	688	669	678
11	309	258	293	432	416	422	572	522	543	672	665	668
12	331	306	317	441	426	433	572	543	554	675	662	666
13	334	226	304	453	440	445	574	551	562	674	656	669
14	349	296	340	460	398	436	574	58	372	681	667	674
15	371	288	344	481	460	472	411	365	390	690	654	685
16	384	357	377	486	321	420	415	408	412	688	636	685
17	389	375	382	460	438	449	432	413	419	692	647	679
18	393	382	387	467	446	459	452	425	436	679	633	675
19	397	348	385	477	464	470	---	---	---	675	631	658
20	413	393	402	476	178	381	---	---	---	671	653	666
21	414	309	382	430	410	423	---	---	---	668	522	623
22	426	56	347	441	422	432	---	---	---	617	559	600
23	342	264	314	451	427	443	543	507	527	637	609	629
24	352	342	347	452	440	447	530	522	526	641	636	638
25	369	351	358	458	440	451	554	526	535	648	640	644
26	382	367	373	463	446	456	548	526	536	651	646	648
27	397	376	389	469	460	465	569	532	545	656	647	650
28	405	383	396	473	443	467	580	520	570	658	635	651
29	411	134	361	479	469	474	588	572	579	661	629	648
30	398	242	348	486	430	470	578	531	573	653	641	650
31	---	---	---	489	457	472	578	522	574	---	---	---
MONTH	---	---	---	489	178	435	---	---	---	694	522	645

KENTUCKY RIVER BASIN

03285280 SPEARS CREEK @ RAILROAD CULVERT NEAR DANVILLE, KY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	21.1	17.8	19.1	21.7	17.6	19.6	21.0	18.2	19.7
2	---	---	---	21.4	17.3	19.1	22.0	18.0	20.0	21.4	18.8	19.9
3	---	---	---	22.1	17.0	19.5	22.1	18.9	20.7	20.3	17.5	18.9
4	---	---	---	23.3	18.6	20.6	22.8	18.3	20.5	21.3	17.5	19.2
5	---	---	---	21.7	18.4	19.9	23.0	19.5	21.2	22.1	20.1	21.0
6	---	---	---	22.8	17.2	19.7	23.7	20.5	22.0	22.4	20.5	21.4
7	---	---	---	21.2	18.3	19.7	23.9	21.1	22.5	22.1	19.9	21.1
8	---	---	---	22.5	18.5	20.4	24.1	20.8	22.4	21.6	17.7	19.3
9	---	---	---	21.4	17.8	19.3	23.1	21.1	21.9	17.7	14.6	15.8
10	---	---	---	21.6	17.8	19.4	23.5	20.0	21.7	16.4	13.5	14.9
11	18.4	16.1	17.3	21.9	18.0	19.6	23.9	21.0	22.3	16.9	13.9	15.3
12	20.4	17.0	18.4	22.1	16.5	19.1	23.2	19.8	21.6	17.5	14.6	16.1
13	20.2	16.8	18.5	21.6	17.6	19.2	22.7	19.1	21.0	18.4	15.5	17.0
14	19.6	16.0	16.9	20.1	18.3	19.0	22.3	19.4	20.8	19.6	17.3	18.5
15	19.6	16.6	17.8	19.6	17.9	18.7	21.2	18.5	19.7	20.7	18.6	19.6
16	19.0	16.3	17.3	21.3	18.1	19.5	20.6	18.6	19.6	20.1	18.2	19.3
17	20.5	15.7	17.7	21.2	17.5	19.0	22.3	19.0	20.6	20.5	19.3	19.9
18	22.2	16.5	18.9	21.8	17.7	19.5	20.7	18.8	19.9	21.2	19.8	20.4
19	21.4	17.3	19.2	24.2	19.0	21.2	---	---	---	22.8	19.8	21.1
20	21.7	17.0	19.1	22.6	19.5	20.9	---	---	---	22.0	20.6	21.4
21	21.7	17.9	19.3	23.4	18.7	20.7	---	---	---	22.0	19.9	21.2
22	24.3	17.6	19.7	23.4	19.3	21.0	---	---	---	22.0	19.4	20.4
23	20.9	17.3	18.8	22.8	19.4	20.8	24.0	22.4	22.8	20.4	16.7	18.2
24	21.6	17.3	19.2	22.3	19.1	20.5	23.7	19.6	21.7	18.7	13.9	16.2
25	21.9	17.8	19.6	22.4	18.0	20.0	24.7	20.6	22.6	20.6	17.7	19.1
26	23.3	18.3	20.5	20.5	17.7	19.3	24.0	21.8	22.8	20.8	18.7	19.8
27	24.5	18.6	21.2	22.4	18.6	20.3	22.4	19.0	20.8	22.3	19.2	20.7
28	24.6	19.2	21.6	23.0	18.9	20.9	22.4	18.7	20.5	21.1	19.6	20.5
29	23.7	19.7	21.7	23.3	18.6	21.1	22.5	20.9	21.6	20.4	18.0	19.4
30	21.9	18.4	19.7	22.8	20.9	21.7	22.4	19.4	20.8	21.0	19.0	20.2
31	---	---	---	22.4	19.5	20.9	22.4	19.5	20.8	---	---	---
MONTH	---	---	---	24.2	16.5	20.0	---	---	---	22.8	13.5	19.2

KENTUCKY RIVER BASIN

03285280 SPEARS CREEK @ RAILROAD CULVERT NEAR DANVILLE, KY--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	8.0	6.8	7.5	9.1	7.7	8.3	8.3	6.8	7.7
2	---	---	---	8.1	6.8	7.5	8.9	7.7	8.3	8.3	7.4	7.9
3	---	---	---	8.0	5.8	7.2	9.1	7.7	8.3	8.4	7.1	7.8
4	---	---	---	7.5	6.5	6.9	9.1	6.8	8.2	7.9	6.0	7.2
5	---	---	---	7.7	6.6	7.2	8.4	4.7	7.3	6.9	5.4	6.5
6	---	---	---	7.9	6.5	7.2	7.5	4.3	6.5	7.2	5.0	6.4
7	---	---	---	7.6	6.4	6.9	7.3	4.4	6.1	8.0	5.4	6.8
8	---	---	---	8.1	6.3	7.5	6.7	2.4	5.1	7.6	5.3	6.6
9	---	---	---	8.4	7.8	8.2	6.2	2.5	5.2	7.9	6.4	7.6
10	---	---	---	8.5	7.6	8.1	6.7	5.4	6.3	8.0	7.3	7.9
11	6.6	1.7	4.5	8.6	7.5	8.1	6.5	2.4	5.4	8.1	7.0	7.8
12	7.2	4.6	6.0	8.8	7.5	8.2	6.8	3.5	5.4	8.0	6.8	7.6
13	7.2	4.9	5.8	8.6	6.8	8.0	7.3	4.0	5.8	7.9	6.2	7.4
14	6.8	5.5	6.1	8.5	7.6	8.1	8.9	4.5	7.0	7.7	5.6	6.9
15	8.2	6.8	7.6	8.6	7.9	8.3	7.3	6.4	6.9	7.8	5.5	6.6
16	9.1	8.2	8.8	8.9	7.8	8.3	8.8	6.8	7.8	6.9	4.2	6.1
17	4.6	3.8	4.3	9.2	8.3	8.9	8.8	7.2	8.2	6.6	4.2	5.8
18	4.2	3.0	3.7	9.0	8.0	8.6	8.6	7.8	8.3	6.5	4.4	5.7
19	7.0	3.7	5.6	8.5	6.6	7.9	---	---	---	6.6	4.1	5.0
20	7.6	2.8	5.9	8.0	7.3	7.6	---	---	---	5.8	4.9	5.4
21	6.9	6.3	6.6	8.1	6.7	7.6	---	---	---	7.0	4.7	5.9
22	7.3	2.3	6.4	7.6	6.1	7.1	---	---	---	7.2	6.2	6.7
23	6.9	5.4	6.2	8.0	7.0	7.5	7.3	5.2	6.7	7.8	6.2	7.1
24	6.8	5.2	6.1	8.3	7.2	7.8	7.6	6.2	7.1	8.3	6.9	7.6
25	6.7	4.9	5.9	8.4	7.6	8.0	7.5	4.5	6.4	7.5	6.3	6.8
26	7.0	4.9	6.1	8.6	7.7	8.2	6.9	4.8	6.0	6.8	5.7	6.3
27	6.9	4.7	6.0	8.2	6.3	7.7	7.4	4.9	6.5	7.0	5.2	6.2
28	6.4	3.8	5.4	8.4	6.6	7.6	7.3	5.2	6.5	6.4	5.3	5.9
29	7.2	5.1	5.6	8.3	6.0	7.3	7.1	4.5	6.4	7.1	5.5	6.2
30	7.3	5.7	6.5	7.9	7.0	7.4	7.7	6.0	7.2	7.1	5.4	6.2
31	---	---	---	8.8	7.5	7.9	7.8	6.4	7.3	---	---	---
MONTH	---	---	---	9.2	5.8	7.8	---	---	---	8.4	4.1	6.7

KENTUCKY RIVER BASIN

03285290 SPEARS CREEK @ STREAMLAND DRIVE NEAR DANVILLE, KY

LOCATION.-- Lat 37°40'15", long 84°46'33", Boyle County, Hydrologic Unit 05100205, at bridge on Streamland Drive and at mile 4.05.

DRAINAGE AREA.--3.07 mi²

WATER-STAGE RECORDS

PERIOD OF RECORD.--May 28, 1998 to September 22, 1998.

COOPERATION.--The Kentucky Heritage Resource Conservation and Development Council.

GAGE.--Water-stage recorder.

REMARKS.--1998: Records good, except those for periods of estimated gage heights, which are fair. Gage removed early so bridge could be replaced.

1998: Records good, except those for periods of estimated gage heights, which are fair.

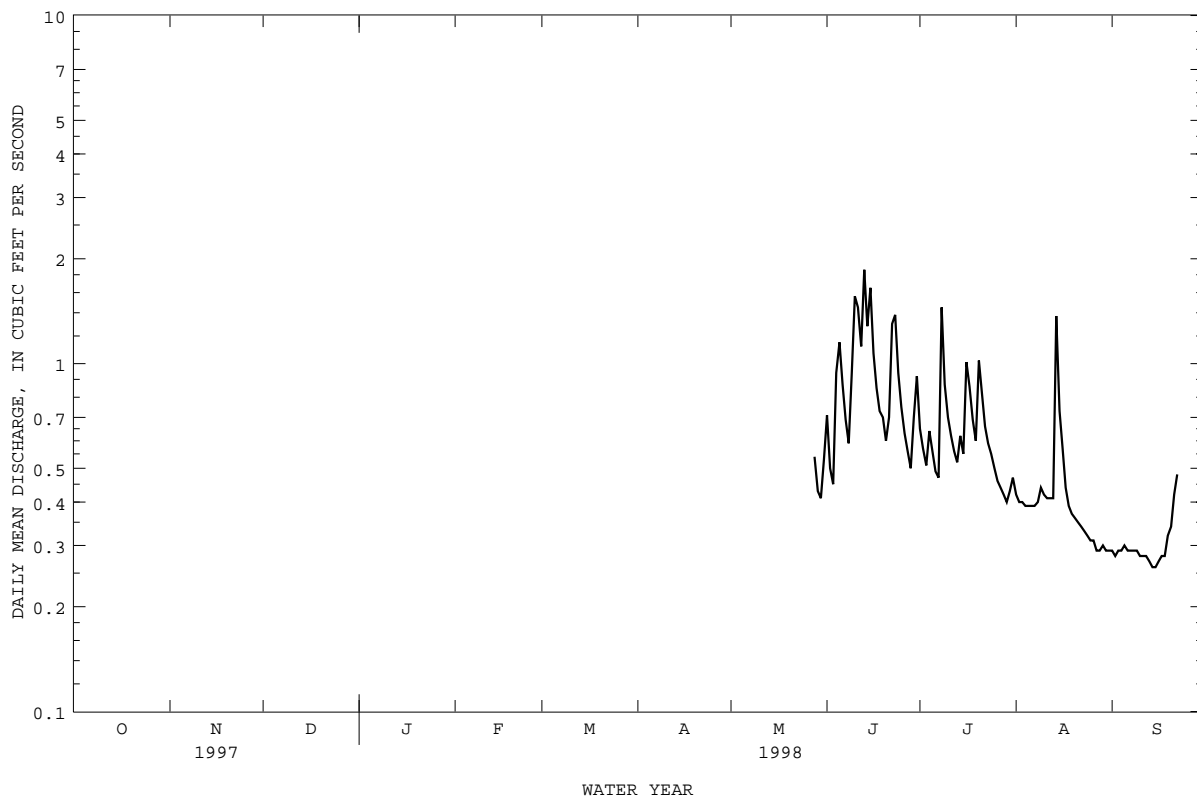
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	.71	.65	.42	.29
2	---	---	---	---	---	---	---	---	.50	.57	.40	.28
3	---	---	---	---	---	---	---	---	.45	.51	.40	.29
4	---	---	---	---	---	---	---	---	.94	.64	.39	.29
5	---	---	---	---	---	---	---	---	1.15	.56	.39	.30
6	---	---	---	---	---	---	---	---	.87	.49	.39	.29
7	---	---	---	---	---	---	---	---	.69	.47	.39	.29
8	---	---	---	---	---	---	---	---	.59	1.45	.40	.29
9	---	---	---	---	---	---	---	---	.94	.87	.44	.29
10	---	---	---	---	---	---	---	---	1.56	.70	.42	.28
11	---	---	---	---	---	---	---	---	1.45	.62	.41	.28
12	---	---	---	---	---	---	---	---	1.12	.56	.41	.28
13	---	---	---	---	---	---	---	---	1.86	.52	.41	.27
14	---	---	---	---	---	---	---	---	1.28	.62	1.37	.26
15	---	---	---	---	---	---	---	---	1.65	.55	.73	.26
16	---	---	---	---	---	---	---	---	1.07	1.01	.57	.27
17	---	---	---	---	---	---	---	---	.85	.86	e.44	.28
18	---	---	---	---	---	---	---	---	.73	.69	e.39	.28
19	---	---	---	---	---	---	---	---	.70	.60	e.37	.32
20	---	---	---	---	---	---	---	---	.60	1.02	e.36	.34
21	---	---	---	---	---	---	---	---	.70	.82	e.35	.42
22	---	---	---	---	---	---	---	---	1.30	.66	e.34	.48
23	---	---	---	---	---	---	---	---	1.38	.59	e.33	---
24	---	---	---	---	---	---	---	---	.94	.55	.32	---
25	---	---	---	---	---	---	---	---	.75	.50	.31	---
26	---	---	---	---	---	---	---	---	.63	.46	.31	---
27	---	---	---	---	---	---	---	---	.56	.44	.29	---
28	---	---	---	---	---	---	---	.54	.50	.42	.29	---
29	---	---	---	---	---	---	---	.43	.70	.40	.30	---
30	---	---	---	---	---	---	---	.41	.92	.43	.29	---
31	---	---	---	---	---	---	---	.53	---	.47	.29	---
MEAN	---	---	---	---	---	---	---	---	.94	.64	.42	---
MAX	---	---	---	---	---	---	---	---	1.86	1.45	1.37	---
MIN	---	---	---	---	---	---	---	---	.45	.40	.29	---

e Estimated

KENTUCKY RIVER BASIN

03285290 SPEARS CREEK @ STREAMLAND DRIVE NEAR DANVILLE, KY--Continued



KENTUCKY RIVER BASIN

03285290 SPEARS CREEK @ STREAMLAND DRIVE NEAR DANVILLE, KY--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	520	482	503
30	---	---	---	---	---	---	---	---	---	536	500	513
31	---	---	---	---	---	---	---	---	---	534	119	476
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	480	261	424	327	290	302	434	414	426	645	595	618
2	526	480	499	320	293	304	451	398	428	619	597	609
3	530	505	514	347	310	324	440	403	424	631	591	609
4	513	143	396	328	165	275	446	388	418	665	593	621
5	422	337	393	353	289	332	455	405	431	667	616	637
6	442	422	435	389	353	369	461	407	436	686	621	648
7	455	441	447	408	380	393	500	439	469	663	627	644
8	460	445	455	384	46	261	511	449	481	647	620	635
9	463	233	383	356	321	341	492	407	445	648	613	626
10	432	95	344	373	356	364	514	479	496	654	631	638
11	381	284	358	391	372	382	537	505	515	667	636	646
12	395	357	380	406	388	397	544	508	526	675	641	653
13	395	136	310	432	405	417	565	511	536	703	640	662
14	377	167	356	424	367	403	543	59	359	682	644	660
15	372	167	331	452	422	439	422	369	402	686	645	664
16	385	370	380	457	230	381	441	422	431	708	637	663
17	394	384	390	434	411	427	460	441	450	680	636	654
18	405	380	397	450	434	442	---	---	---	715	633	663
19	405	358	393	474	447	458	---	---	---	662	615	635
20	422	400	413	464	182	378	---	---	---	644	624	635
21	423	321	389	443	412	432	---	---	---	625	547	593
22	441	61	355	463	438	449	---	---	---	---	---	---
23	387	282	351	481	451	464	599	558	587	---	---	---
24	401	387	394	470	459	465	585	562	576	---	---	---
25	410	401	405	465	456	461	611	566	583	---	---	---
26	420	408	415	458	448	454	619	574	597	---	---	---
27	425	417	422	467	432	457	616	575	595	---	---	---
28	440	414	426	463	444	453	638	574	604	---	---	---
29	450	132	391	479	433	457	655	590	618	---	---	---
30	341	234	312	464	400	438	670	626	641	---	---	---
31	---	---	---	447	410	429	658	601	627	---	---	---
MONTH	530	61	395	481	46	398	---	---	---	---	---	---

KENTUCKY RIVER BASIN

03285290 SPEARS CREEK @ STREAMLAND DRIVE NEAR DANVILLE, KY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	25.4	16.9	20.5
30	---	---	---	---	---	---	---	---	---	25.9	17.6	21.3
31	---	---	---	---	---	---	---	---	---	25.1	19.4	21.9
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	23.1	17.7	20.2	22.6	17.6	19.5	24.6	17.4	20.3	22.7	16.4	19.4
2	24.9	16.7	20.5	23.2	17.1	19.8	24.4	17.4	20.6	23.0	17.0	19.7
3	22.6	17.6	19.5	24.5	17.0	20.4	24.8	18.2	21.3	22.2	15.6	18.7
4	17.8	16.0	16.8	24.0	18.6	20.7	25.9	17.5	21.3	22.7	15.8	19.1
5	18.4	15.1	16.6	23.4	18.3	20.4	25.2	18.6	21.6	24.0	18.2	20.8
6	17.5	14.2	15.5	25.1	17.2	20.7	25.7	19.5	22.2	24.0	18.2	20.9
7	18.4	12.9	15.3	23.0	18.5	20.6	25.6	20.0	22.5	23.2	17.7	20.4
8	16.6	14.0	15.3	22.5	18.5	20.6	25.6	19.5	22.3	20.8	15.9	18.1
9	18.1	14.6	16.1	22.2	17.7	19.5	25.0	20.5	22.0	18.4	13.0	15.7
10	21.3	16.1	18.0	23.1	17.8	20.0	25.5	19.4	22.0	19.3	12.5	15.7
11	18.6	16.0	17.3	23.5	18.0	20.3	25.8	20.0	22.4	20.1	13.1	16.4
12	20.9	16.9	18.5	23.9	16.4	19.8	25.0	18.6	21.7	20.8	14.1	17.2
13	20.0	16.2	18.2	23.9	17.7	20.0	24.2	18.0	21.1	21.5	15.0	18.1
14	19.3	15.5	16.5	20.4	18.6	19.4	22.2	19.1	20.4	22.2	16.7	19.3
15	19.3	16.1	17.4	20.7	18.1	19.0	21.8	18.3	19.8	21.9	18.0	19.7
16	19.9	15.6	17.3	21.3	18.1	19.6	21.0	18.5	19.7	21.2	16.7	18.9
17	21.3	15.9	18.2	21.9	17.5	19.3	23.7	18.8	21.4	21.0	17.6	19.2
18	23.4	16.6	19.5	22.8	17.4	19.9	---	---	---	22.2	17.9	19.8
19	22.7	18.0	19.9	26.0	19.0	22.1	---	---	---	22.8	18.2	20.2
20	23.1	17.0	19.8	22.5	19.2	20.9	---	---	---	22.4	19.0	20.7
21	22.4	18.3	19.8	24.0	18.4	20.7	---	---	---	24.0	19.0	20.8
22	24.4	17.6	20.2	24.4	19.0	21.2	---	---	---	---	---	---
23	21.1	17.3	18.9	23.7	19.4	21.2	26.9	22.2	23.9	---	---	---
24	22.1	17.1	19.3	23.4	19.1	21.0	26.2	18.8	22.2	---	---	---
25	22.9	17.7	20.0	24.2	17.9	20.6	27.0	19.4	22.8	---	---	---
26	24.7	18.1	21.0	21.5	17.5	19.7	26.0	20.5	22.7	---	---	---
27	25.5	18.4	21.7	24.0	18.6	20.8	24.3	17.5	20.8	---	---	---
28	26.3	19.2	22.4	25.4	18.8	21.7	24.6	17.3	20.7	---	---	---
29	25.8	20.0	22.4	25.7	18.5	21.8	23.4	19.5	20.9	---	---	---
30	22.2	18.4	19.9	24.2	20.8	22.1	24.4	17.7	20.7	---	---	---
31	---	---	---	25.2	19.7	21.9	24.1	17.8	20.7	---	---	---
MONTH	26.3	12.9	18.7	26.0	16.4	20.5	---	---	---	---	---	---

KENTUCKY RIVER BASIN

03285290 SPEARS CREEK @ STREAMLAND DRIVE NEAR DANVILLE, KY--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	8.2	7.4	7.8	9.7	6.6	8.4	6.2	2.9	4.1
2	---	---	---	8.9	6.1	7.7	9.7	5.0	7.8	5.9	3.5	4.4
3	---	---	---	8.5	4.1	7.0	9.2	5.5	7.1	7.5	2.9	5.0
4	8.6	6.1	7.4	7.6	6.0	7.0	9.4	4.1	6.9	6.1	2.0	4.4
5	8.6	8.0	8.2	8.1	5.5	7.0	7.3	4.5	5.8	4.7	1.9	3.4
6	9.2	8.6	8.8	8.3	3.3	6.3	7.8	4.5	5.9	4.8	2.0	3.4
7	9.6	8.2	8.9	7.0	3.6	5.2	5.9	3.5	5.0	5.0	2.6	3.8
8	9.2	8.5	8.8	8.9	4.3	7.8	6.1	3.6	4.9	5.8	3.7	4.6
9	8.8	8.1	8.5	9.1	8.0	8.7	8.0	4.6	6.1	7.0	3.9	5.7
10	8.6	3.7	7.1	9.3	7.6	8.5	7.3	3.5	5.8	7.1	3.8	5.7
11	4.8	3.7	4.3	9.3	7.2	8.5	6.5	2.5	4.6	7.0	3.1	5.5
12	4.8	3.6	4.2	10.1	7.6	8.8	5.2	1.8	3.8	6.6	3.0	5.0
13	5.5	4.2	5.0	9.1	6.6	8.2	5.9	1.4	3.8	6.4	2.7	4.6
14	8.9	5.2	7.1	9.4	7.5	8.9	8.7	3.8	6.6	5.5	3.1	4.3
15	8.6	7.4	8.3	9.6	8.8	9.2	9.8	7.6	8.7	5.4	3.0	4.1
16	8.9	8.3	8.6	10.1	8.7	9.3	9.7	8.4	9.0	5.8	2.5	4.3
17	9.0	8.0	8.6	10.4	9.2	9.9	9.5	7.3	8.3	4.8	2.8	3.9
18	9.0	7.2	8.2	10.2	8.5	9.4	---	---	---	4.3	2.0	3.3
19	8.4	7.1	7.9	9.4	6.1	8.3	---	---	---	3.8	2.5	3.2
20	8.6	5.5	7.6	8.7	7.4	8.3	---	---	---	3.8	2.8	3.4
21	8.2	7.3	7.8	9.0	6.8	8.2	---	---	---	5.5	3.4	4.5
22	8.3	6.2	7.4	8.3	6.1	7.6	---	---	---	---	---	---
23	7.5	6.8	7.3	7.9	5.5	7.2	6.1	3.4	4.7	---	---	---
24	7.9	6.6	7.3	7.7	5.7	6.8	8.4	3.3	5.8	---	---	---
25	7.7	5.7	6.9	8.1	6.0	7.2	8.0	3.1	5.3	---	---	---
26	7.7	6.0	7.0	8.4	7.1	7.7	6.0	2.9	4.5	---	---	---
27	7.6	5.6	6.9	8.1	4.9	7.1	6.6	2.9	4.8	---	---	---
28	7.8	5.6	6.7	8.1	5.2	6.7	7.2	2.5	4.8	---	---	---
29	7.2	4.8	6.4	8.2	3.8	6.2	5.4	3.0	4.2	---	---	---
30	8.1	6.6	7.5	7.7	4.8	6.6	4.7	2.6	3.7	---	---	---
31	---	---	---	8.9	6.8	7.9	4.8	2.7	3.7	---	---	---
MONTH	---	---	---	10.4	3.3	7.8	---	---	---	---	---	---



KENTUCKY RIVER BASIN

03285320 MOCKS BRANCH @ BLUEGRASS PIKE NEAR DANVILLE, KY

LOCATION.-- Lat 37°39'47", long 84°49'21", Boyle County, Hydrologic Unit 05100205, at bridge on Bluegrass Pike and at mile 10.2.

DRAINAGE AREA.--1.74 mi²

WATER-STAGE RECORDS

PERIOD OF RECORD.--May 27, 1998 to September 3, 1998.

COOPERATION.--The Kentucky Heritage Resource Conservation and Development Council.

GAGE.--Water-stage recorder.

REMARKS.--Records good, except those for periods of estimated gage heights, which are rated fair. The periods of no flow are May 27-30, July 27 to August 13, and August 19 to September 3.

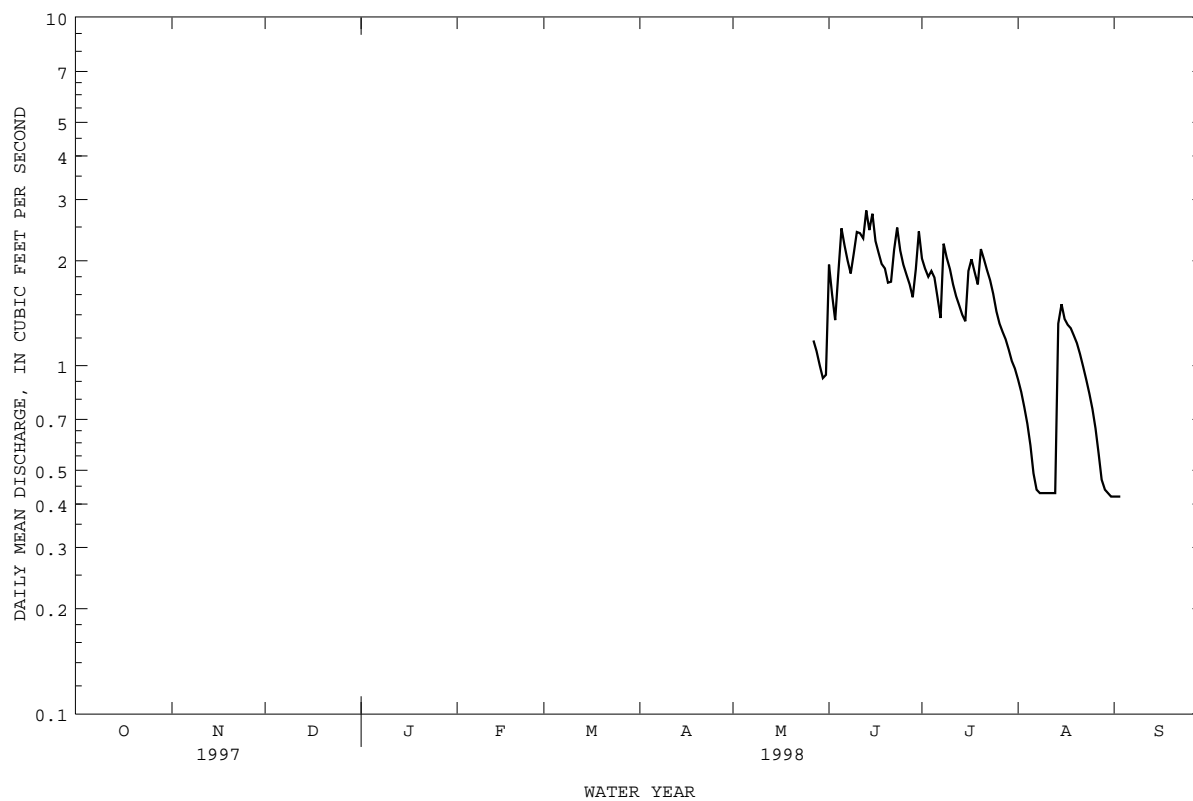
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	1.95	2.03	.91	.42
2	---	---	---	---	---	---	---	---	1.60	1.90	.84	.42
3	---	---	---	---	---	---	---	---	1.35	1.80	.76	.42
4	---	---	---	---	---	---	---	---	1.83	1.87	.68	---
5	---	---	---	---	---	---	---	---	2.48	1.79	.59	---
6	---	---	---	---	---	---	---	---	2.21	1.57	.49	---
7	---	---	---	---	---	---	---	---	2.00	1.37	.44	---
8	---	---	---	---	---	---	---	---	1.84	2.24	.43	---
9	---	---	---	---	---	---	---	---	2.10	2.04	.43	---
10	---	---	---	---	---	---	---	---	2.42	e1.89	.43	---
11	---	---	---	---	---	---	---	---	2.40	e1.71	.43	---
12	---	---	---	---	---	---	---	---	2.32	e1.58	.43	---
13	---	---	---	---	---	---	---	---	2.79	1.49	.43	---
14	---	---	---	---	---	---	---	---	2.45	1.40	1.32	---
15	---	---	---	---	---	---	---	---	2.73	1.34	1.50	---
16	---	---	---	---	---	---	---	---	2.28	1.87	1.36	---
17	---	---	---	---	---	---	---	---	2.11	2.02	1.31	---
18	---	---	---	---	---	---	---	---	1.96	1.85	1.28	---
19	---	---	---	---	---	---	---	---	1.90	1.71	e1.22	---
20	---	---	---	---	---	---	---	---	1.73	2.16	e1.16	---
21	---	---	---	---	---	---	---	---	1.74	2.02	e1.08	---
22	---	---	---	---	---	---	---	---	2.15	1.88	e.99	---
23	---	---	---	---	---	---	---	---	2.49	1.76	e.91	---
24	---	---	---	---	---	---	---	---	2.14	1.61	.83	---
25	---	---	---	---	---	---	---	---	1.95	1.43	.75	---
26	---	---	---	---	---	---	---	---	1.82	1.32	.66	---
27	---	---	---	---	---	---	---	1.18	1.71	1.25	.56	---
28	---	---	---	---	---	---	---	1.10	1.57	1.19	.47	---
29	---	---	---	---	---	---	---	1.00	1.89	1.11	.44	---
30	---	---	---	---	---	---	---	.92	2.43	1.03	.43	---
31	---	---	---	---	---	---	---	.94	---	.98	.42	---
MEAN	---	---	---	---	---	---	---	---	2.08	1.65	.77	---
MAX	---	---	---	---	---	---	---	---	2.79	2.24	1.50	---
MIN	---	---	---	---	---	---	---	---	1.35	.98	.42	---

e Estimated

KENTUCKY RIVER BASIN

03285320 MOCKS BRANCH @ BLUEGRASS PIKE NEAR DANVILLE, KY--Continued





KENTUCKY RIVER BASIN

03285325 MOCKS BRANCH @ HWY 1915 (Gentry Lane) NEAR DANVILLE, KY

LOCATION.-- Lat 37°40'56", long 84°48'57", Boyle County, Hydrologic Unit 05100205, at bridge on Hwy 1915 (Gentry Lane) and at mile 8.69.

DRAINAGE AREA.--4.22 mi²

WATER-STAGE RECORDS

PERIOD OF RECORD.--May 27, 1998 to November 20, 1998.

COOPERATION.--The Kentucky Heritage Resource Conservation and Development Council.

GAGE.--Water-stage recorder.

REMARKS.--1998: Records good, except those for periods of estimated gage heights, which are fair.

1999: Records good, except those for periods of estimated gage heights, which are fair.

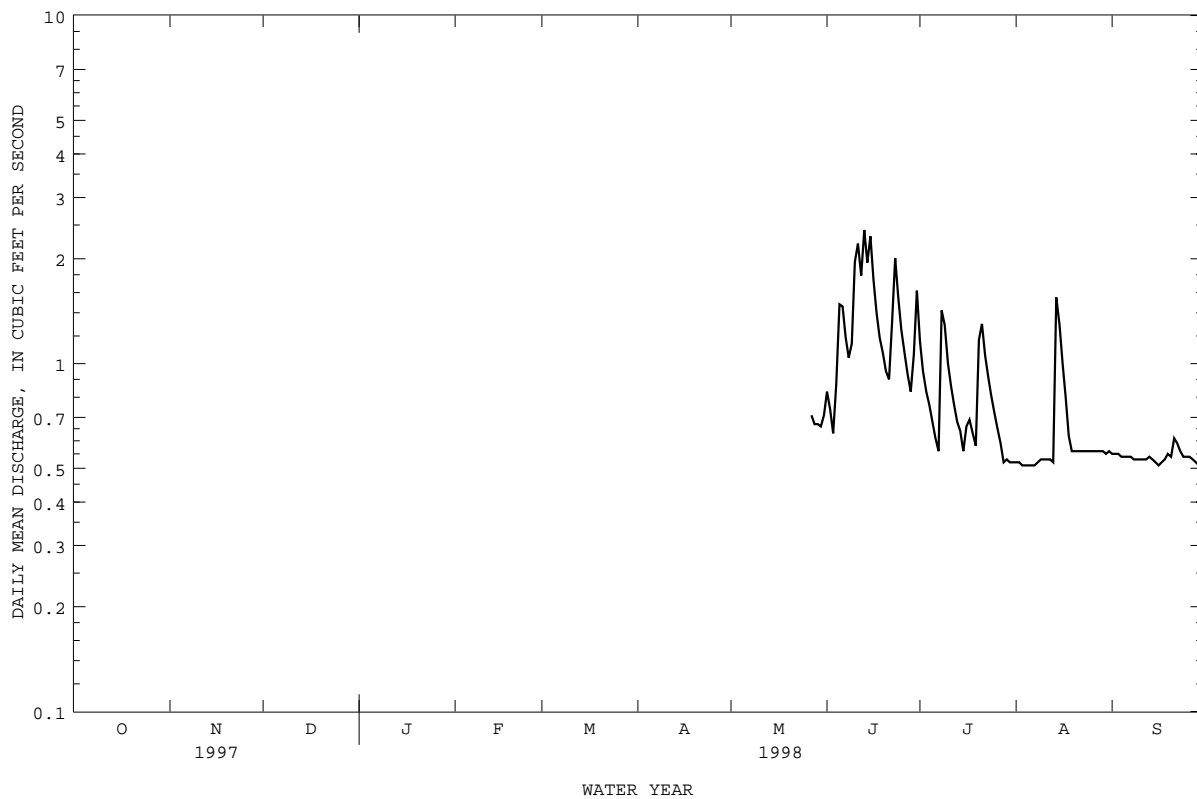
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	.83	1.16	.52	.55
2	---	---	---	---	---	---	---	---	.74	.95	.52	.55
3	---	---	---	---	---	---	---	---	.63	.83	.51	.55
4	---	---	---	---	---	---	---	---	.87	.76	.51	.54
5	---	---	---	---	---	---	---	---	1.48	.68	.51	.54
6	---	---	---	---	---	---	---	---	1.46	.61	.51	.54
7	---	---	---	---	---	---	---	---	1.19	.56	.51	.54
8	---	---	---	---	---	---	---	---	1.04	1.42	.52	.53
9	---	---	---	---	---	---	---	---	1.14	1.29	.53	.53
10	---	---	---	---	---	---	---	---	1.96	1.00	.53	.53
11	---	---	---	---	---	---	---	---	2.21	.86	.53	.53
12	---	---	---	---	---	---	---	---	1.79	.76	.53	.53
13	---	---	---	---	---	---	---	---	2.42	.68	.52	.54
14	---	---	---	---	---	---	---	---	1.95	.64	1.55	.53
15	---	---	---	---	---	---	---	---	2.32	.56	1.29	.52
16	---	---	---	---	---	---	---	---	1.74	.66	1.00	.51
17	---	---	---	---	---	---	---	---	1.40	.69	e.80	.52
18	---	---	---	---	---	---	---	---	1.19	.63	e.62	.53
19	---	---	---	---	---	---	---	---	1.07	.58	e.56	.55
20	---	---	---	---	---	---	---	---	.95	1.17	e.56	.54
21	---	---	---	---	---	---	---	---	.90	1.30	e.56	.61
22	---	---	---	---	---	---	---	---	1.32	1.06	e.56	.59
23	---	---	---	---	---	---	---	---	2.01	.92	e.56	.56
24	---	---	---	---	---	---	---	---	1.55	.81	.56	.54
25	---	---	---	---	---	---	---	---	1.25	.72	.56	.54
26	---	---	---	---	---	---	---	---	1.07	e.65	.56	.54
27	---	---	---	---	---	---	---	.71	.93	e.59	.56	.53
28	---	---	---	---	---	---	---	.67	.83	e.52	.56	.52
29	---	---	---	---	---	---	---	.67	1.06	e.53	.56	.51
30	---	---	---	---	---	---	---	.66	1.62	e.52	.55	.50
31	---	---	---	---	---	---	---	.71	---	e.52	.56	---
MEAN	---	---	---	---	---	---	---	---	1.36	.79	.62	.54
MAX	---	---	---	---	---	---	---	---	2.42	1.42	1.55	.61
MIN	---	---	---	---	---	---	---	---	.63	.52	.51	.50

e Estimated

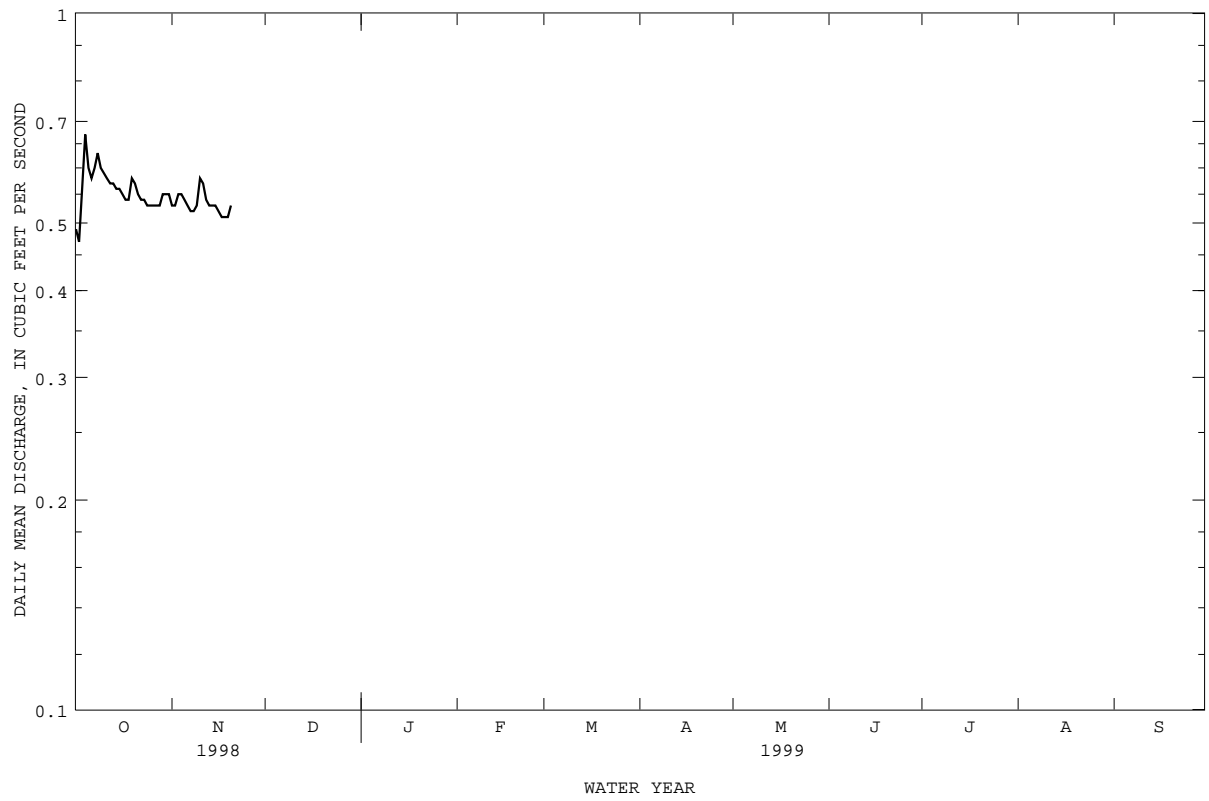
KENTUCKY RIVER BASIN

03285325 MOCKS BRANCH @ HWY 1915 (Gentry Lane) NEAR DANVILLE, KY--Continued



KENTUCKY RIVER BASIN

03285325 MOCKS BRANCH @ HWY 1915 (Gentry Lane) NEAR DANVILLE, KY--Continued



KENTUCKY RIVER BASIN

03285325 MOCKS BRANCH @ HWY 1915 (Gentry Lane) NEAR DANVILLE, KY--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	413	283	355
29	---	---	---	---	---	---	---	---	---	390	290	341
30	---	---	---	---	---	---	---	---	---	381	255	328
31	---	---	---	---	---	---	---	---	---	349	178	302
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	374	213	330	393	355	374	433	344	393	434	332	396
2	405	372	386	416	393	402	411	260	345	423	335	384
3	445	389	415	430	404	411	325	227	284	402	307	365
4	470	280	398	430	363	404	361	246	293	400	322	363
5	416	388	399	435	404	419	343	248	296	388	324	356
6	433	408	424	438	417	424	332	243	293	399	335	363
7	440	431	435	462	417	442	362	235	305	404	316	354
8	442	436	439	453	150	300	352	202	288	335	301	319
9	444	376	418	391	347	374	429	345	375	323	288	303
10	424	147	360	414	389	402	430	340	392	299	276	288
11	394	336	377	422	406	411	408	299	371	319	280	297
12	407	387	398	420	408	414	486	313	407	339	307	318
13	405	246	335	462	409	422	482	332	413	336	314	325
14	384	324	379	425	403	414	502	54	306	351	326	337
15	380	279	342	458	416	430	391	332	369	361	327	346
16	391	379	386	467	357	416	420	391	403	335	303	320
17	395	383	392	433	407	420	---	---	---	317	294	307
18	409	390	400	448	427	436	---	---	---	337	287	315
19	406	392	400	460	435	446	---	---	---	331	261	301
20	424	397	408	462	203	352	---	---	---	291	258	274
21	418	377	405	419	357	398	---	---	---	384	256	304
22	437	139	358	438	398	427	---	---	---	413	285	376
23	326	178	254	453	400	435	---	---	---	386	292	339
24	341	323	329	447	435	440	405	334	374	332	271	312
25	397	341	384	452	425	434	398	354	381	340	278	320
26	407	391	396	443	426	433	418	351	390	350	276	322
27	420	396	406	432	424	428	410	323	366	330	290	314
28	441	381	412	455	424	432	407	329	380	309	267	296
29	398	223	360	453	404	429	412	351	390	316	268	294
30	355	247	316	453	383	418	415	346	387	313	281	298
31	---	---	---	419	364	391	434	383	408	---	---	---
MONTH	470	139	381	467	150	412	---	---	---	434	256	327

KENTUCKY RIVER BASIN

03285325 MOCKS BRANCH @ HWY 1915 (Gentry Lane) NEAR DANVILLE, KY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	30.9	19.2	24.6
29	---	---	---	---	---	---	---	---	---	32.4	20.6	25.9
30	---	---	---	---	---	---	---	---	---	32.7	21.7	26.9
31	---	---	---	---	---	---	---	---	---	30.7	23.0	26.3
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	31.3	20.7	25.6	24.5	17.7	20.3	29.0	19.2	23.3	29.8	18.8	24.1
2	31.5	21.0	25.9	25.5	15.6	19.9	31.7	19.5	24.9	30.1	19.9	24.5
3	28.6	21.0	24.2	28.2	15.2	21.3	32.0	20.8	25.7	29.1	18.1	23.3
4	21.9	16.1	18.6	27.4	18.1	22.2	32.7	19.8	25.7	28.9	18.5	23.5
5	20.1	15.6	17.1	27.7	19.5	23.3	32.3	21.6	26.1	31.8	21.8	26.2
6	18.9	14.3	16.1	31.2	19.3	25.0	32.5	22.3	26.4	31.3	22.4	26.5
7	20.0	12.7	15.9	27.7	21.9	24.6	32.9	23.1	27.2	29.1	21.8	25.2
8	17.7	13.4	15.3	25.0	20.5	22.9	33.1	22.4	26.7	25.5	19.0	22.1
9	20.1	14.1	16.2	24.4	18.1	20.7	29.4	23.5	25.3	24.5	14.7	19.1
10	21.1	15.9	17.8	26.1	16.8	20.8	31.2	21.7	25.7	24.8	14.0	19.0
11	18.4	15.2	16.8	27.5	17.1	21.5	33.0	22.8	26.9	25.8	15.0	20.1
12	20.7	15.9	17.8	28.5	15.6	21.8	31.5	21.2	25.6	27.0	16.5	21.4
13	19.6	15.9	17.9	26.7	18.8	22.3	31.4	20.1	25.2	27.7	17.9	22.4
14	17.2	14.7	15.7	23.7	20.9	21.7	24.5	17.7	21.0	27.9	19.6	23.5
15	18.4	15.6	17.0	24.6	20.1	21.8	22.1	17.0	18.8	27.0	20.8	23.8
16	19.6	14.6	16.6	25.0	20.7	22.5	21.2	16.8	18.9	27.7	20.0	23.8
17	21.5	14.5	17.3	29.9	19.6	24.3	---	---	---	26.9	21.8	23.9
18	23.8	14.4	18.3	30.5	20.8	25.6	---	---	---	27.8	21.6	24.2
19	24.7	15.8	19.5	33.9	23.2	28.2	---	---	---	26.6	21.5	23.9
20	25.7	14.7	19.9	28.0	19.9	23.3	---	---	---	25.5	21.5	23.6
21	25.4	17.4	20.6	24.6	18.0	20.7	---	---	---	25.7	21.9	23.5
22	29.2	17.8	21.6	24.7	17.0	20.1	---	---	---	24.9	21.5	22.9
23	22.2	17.0	19.2	25.1	17.3	20.6	---	---	---	21.7	17.4	19.5
24	22.3	16.6	19.0	26.0	17.1	21.1	32.3	21.6	26.5	20.7	14.1	17.4
25	23.5	16.0	19.3	26.7	16.9	21.6	33.3	22.6	27.2	22.8	18.2	20.1
26	26.1	15.7	20.2	24.0	18.0	21.4	31.3	23.7	26.7	24.2	18.8	21.2
27	28.5	15.9	21.7	28.0	19.8	23.4	31.3	19.8	24.9	24.8	19.4	21.7
28	29.1	17.1	23.0	30.9	20.4	25.3	31.9	20.0	25.3	24.9	20.4	22.3
29	28.6	19.9	23.4	30.6	20.3	25.3	29.4	23.4	25.4	24.9	18.8	21.6
30	23.0	19.3	21.0	27.9	23.3	25.3	31.4	20.3	25.3	25.2	20.0	22.3
31	---	---	---	29.9	21.8	24.9	31.1	20.9	25.2	---	---	---
MONTH	31.5	12.7	19.3	33.9	15.2	22.7	---	---	---	31.8	14.0	22.6

KENTUCKY RIVER BASIN

03285325 MOCKS BRANCH @ HWY 1915 (Gentry Lane) NEAR DANVILLE, KY--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.9	1.5	4.1	8.3	7.7	8.0	13.2	5.5	8.8	12.8	3.6	7.0
2	9.1	1.5	4.9	9.6	5.7	8.1	17.5	5.9	10.6	11.5	3.6	6.9
3	10.6	1.3	3.8	10.2	3.6	7.8	17.5	5.8	10.7	16.0	3.9	8.8
4	5.8	1.3	4.1	8.3	3.2	6.1	15.4	3.3	9.8	13.7	3.4	7.7
5	6.8	5.8	6.4	8.2	4.3	6.1	16.9	2.9	8.8	12.4	2.9	6.7
6	8.5	6.6	7.6	8.0	3.7	5.9	17.5	2.7	8.9	10.3	2.5	5.5
7	8.8	7.1	7.8	6.9	3.4	4.7	17.4	2.3	8.9	11.4	2.6	6.3
8	8.9	7.1	7.8	7.1	3.5	5.6	17.8	1.8	8.6	12.1	3.3	7.1
9	7.8	6.4	7.0	8.4	6.4	7.4	16.6	1.8	7.0	11.8	4.5	7.6
10	8.3	2.7	6.4	8.7	5.1	7.1	14.4	2.1	7.2	11.1	5.2	7.7
11	2.7	1.4	1.6	9.1	4.7	7.0	17.6	2.0	7.9	9.5	4.6	6.7
12	1.5	1.4	1.4	9.6	4.7	7.3	16.4	1.3	5.8	9.5	4.0	6.2
13	1.6	1.0	1.3	9.1	4.8	6.5	17.1	1.4	7.9	9.8	3.7	6.1
14	1.8	1.5	1.7	8.6	4.4	6.0	7.2	1.9	5.0	10.5	3.7	6.6
15	1.9	1.3	1.6	9.8	2.9	6.0	8.6	6.9	7.7	11.9	2.3	7.1
16	2.0	1.9	2.0	8.0	1.8	4.8	8.9	5.0	7.5	11.3	3.7	7.1
17	---	---	---	8.4	3.7	5.9	---	---	---	13.2	2.9	7.0
18	---	---	---	8.3	3.6	5.6	---	---	---	15.9	2.9	8.7
19	---	---	---	7.2	3.2	5.2	---	---	---	15.0	3.5	9.1
20	---	---	---	7.7	3.2	5.6	---	---	---	14.6	4.2	9.5
21	---	---	---	8.5	5.9	7.7	---	---	---	12.8	4.2	7.5
22	---	---	---	8.9	6.5	8.0	---	---	---	13.5	2.8	7.8
23	---	---	---	8.9	6.4	8.1	---	---	---	13.8	3.3	9.2
24	---	---	---	9.4	5.7	7.7	14.3	3.4	7.6	16.8	6.8	10.6
25	---	---	---	9.6	5.6	7.6	12.5	3.5	7.1	8.2	1.8	4.7
26	---	---	---	9.8	5.4	7.2	13.6	3.1	6.9	7.5	1.0	3.8
27	---	---	---	9.0	5.8	7.1	14.6	3.3	7.8	4.6	1.2	2.8
28	---	---	---	9.4	4.7	6.7	14.3	3.6	7.6	5.5	1.2	3.1
29	---	---	---	10.3	4.3	6.9	13.0	3.3	6.9	4.9	1.0	2.7
30	---	---	---	11.2	4.3	7.1	13.8	3.9	7.6	3.3	1.1	1.8
31	---	---	---	12.3	5.5	8.0	10.7	3.3	5.4	---	---	---
MONTH	---	---	---	12.3	1.8	6.7	---	---	---	16.8	1.0	6.6

KENTUCKY RIVER BASIN

03285330 MOCKS BRANCH @ HWY 127 NEAR DANVILLE, KY

LOCATION.-- Lat 37°42'17", long 84°48'27", Boyle County, Hydrologic Unit 05100205, at bridge on Hwy 127 and at mile 6.17.

DRAINAGE AREA.--7.70 mi²

WATER-STAGE RECORDS

PERIOD OF RECORD.--May 27, 1998 to November 20, 1998.

COOPERATION.--The Kentucky Heritage Resource Conservation and Development Council.

GAGE.--Water-stage recorder.

REMARKS.--1998: Records good, except those for periods of estimated gage heights, which are fair.

1999: Records good, except those for periods of estimated gage heights, which are fair.

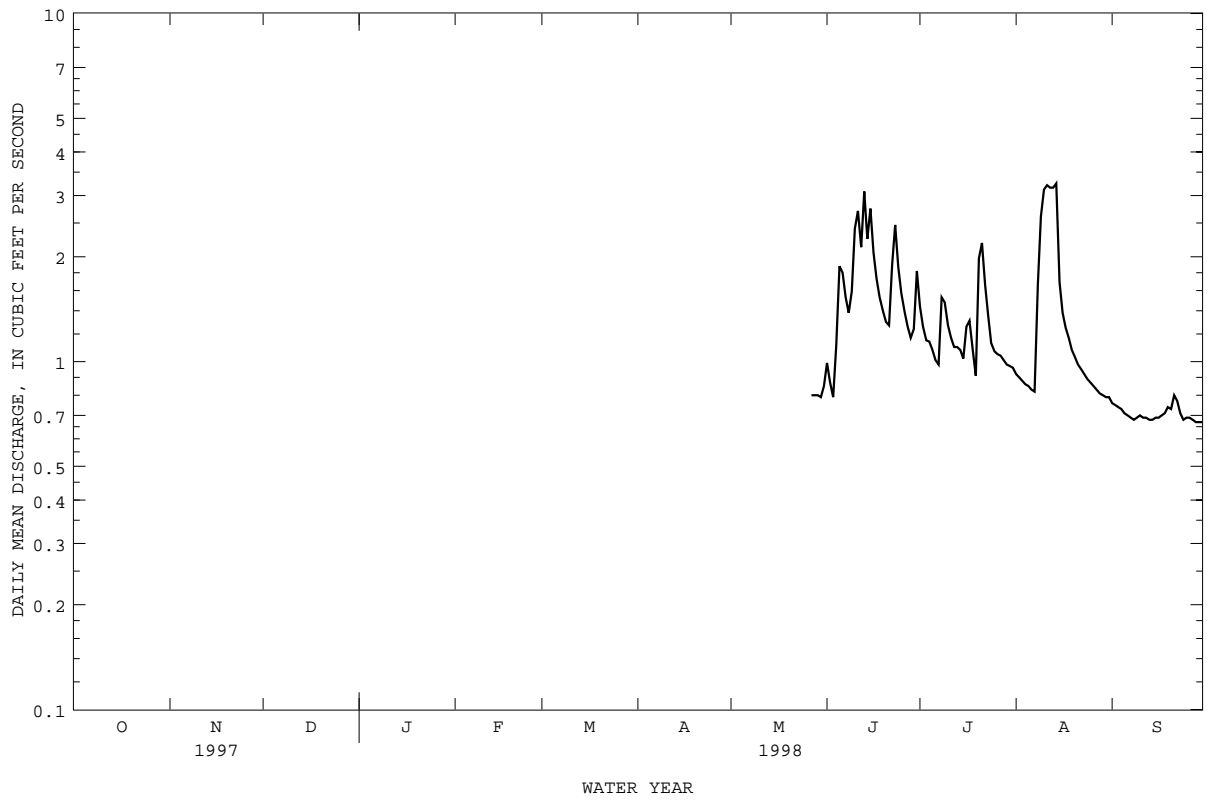
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	e.99	1.44	.92	.76
2	---	---	---	---	---	---	---	---	e.87	1.26	.90	.75
3	---	---	---	---	---	---	---	---	e.79	1.15	.88	.74
4	---	---	---	---	---	---	---	---	e1.11	1.14	.86	.73
5	---	---	---	---	---	---	---	---	1.88	1.08	.85	.71
6	---	---	---	---	---	---	---	---	1.80	1.01	.83	.70
7	---	---	---	---	---	---	---	---	1.53	.98	.82	.69
8	---	---	---	---	---	---	---	---	1.38	1.53	1.66	.68
9	---	---	---	---	---	---	---	---	1.59	1.48	2.61	.69
10	---	---	---	---	---	---	---	---	2.41	1.27	3.12	.70
11	---	---	---	---	---	---	---	---	2.71	1.17	3.21	.69
12	---	---	---	---	---	---	---	---	2.13	1.10	3.16	.69
13	---	---	---	---	---	---	---	---	3.08	1.10	3.16	.68
14	---	---	---	---	---	---	---	---	2.25	1.08	3.25	.68
15	---	---	---	---	---	---	---	---	2.75	1.02	1.69	.69
16	---	---	---	---	---	---	---	---	2.06	1.26	1.38	.69
17	---	---	---	---	---	---	---	---	1.73	e1.31	1.25	.70
18	---	---	---	---	---	---	---	---	1.53	e1.08	1.17	.71
19	---	---	---	---	---	---	---	---	1.40	e.91	1.08	.74
20	---	---	---	---	---	---	---	---	1.30	e1.98	1.03	.73
21	---	---	---	---	---	---	---	---	1.27	e2.19	.98	.80
22	---	---	---	---	---	---	---	---	1.89	e1.67	.95	.77
23	---	---	---	---	---	---	---	---	2.47	e1.36	.92	.71
24	---	---	---	---	---	---	---	---	1.87	e1.13	.89	.68
25	---	---	---	---	---	---	---	---	1.57	e1.07	.87	.69
26	---	---	---	---	---	---	---	---	1.39	e1.05	.85	.69
27	---	---	---	---	---	---	---	---	e.80	1.26	1.04	.68
28	---	---	---	---	---	---	---	---	e.80	1.17	1.01	.67
29	---	---	---	---	---	---	---	---	e.80	1.24	.98	.67
30	---	---	---	---	---	---	---	---	e.79	1.82	.97	.67
31	---	---	---	---	---	---	---	---	e.85	---	.96	---
MEAN	---	---	---	---	---	---	---	---	1.71	1.22	1.40	.71
MAX	---	---	---	---	---	---	---	---	3.08	2.19	3.25	.80
MIN	---	---	---	---	---	---	---	---	.79	.91	.79	.67

e Estimated

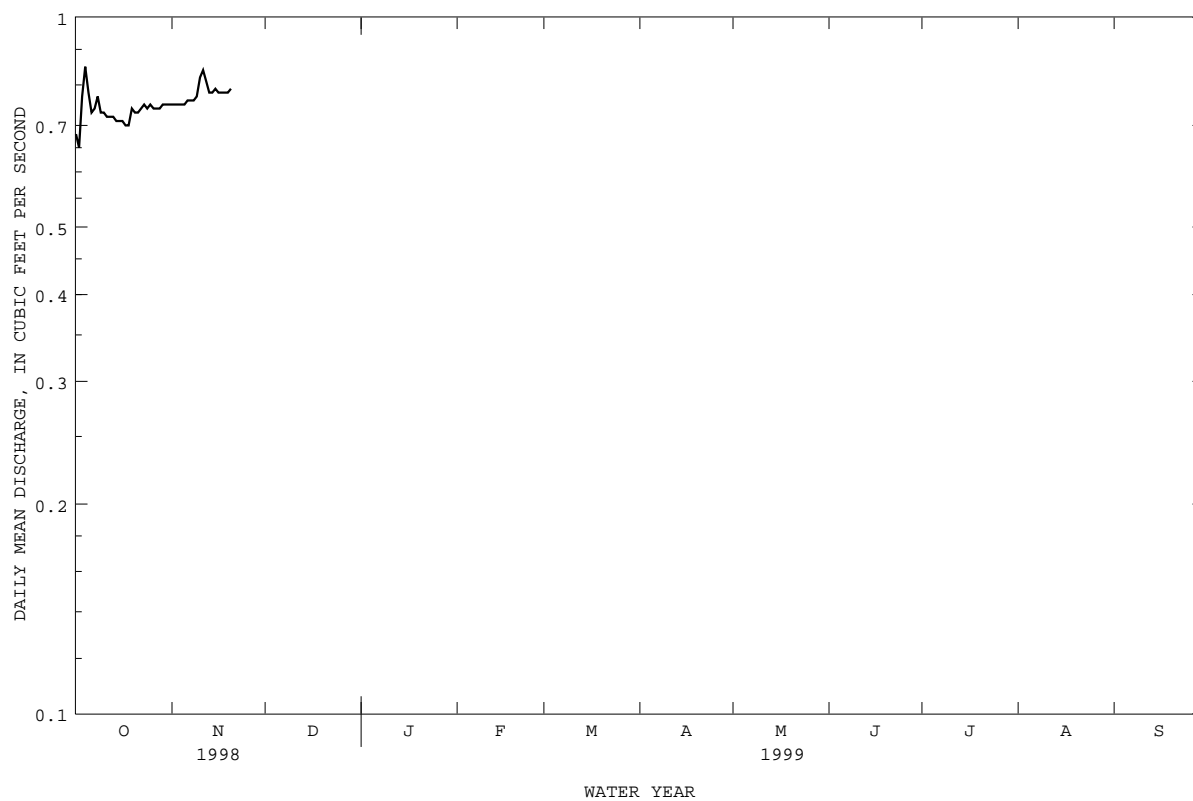
KENTUCKY RIVER BASIN

03285330 MOCKS BRANCH @ HWY 127 NEAR DANVILLE, KY--Continued



KENTUCKY RIVER BASIN

03285330 MOCKS BRANCH @ HWY 127 NEAR DANVILLE, KY--Continued



KENTUCKY RIVER BASIN

03285330 MOCKS BRANCH @ HWY 127 NEAR DANVILLE, KY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN												
													FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	---	---	---												
2	---	---	---	---	---	---	---	---	---	---	---	---												
3	---	---	---	---	---	---	---	---	---	---	---	---												
4	---	---	---	---	---	---	---	---	---	---	---	---												
5	---	---	---	---	---	---	---	---	---	---	---	---												
6	---	---	---	---	---	---	---	---	---	---	---	---												
7	---	---	---	---	---	---	---	---	---	---	---	---												
8	---	---	---	---	---	---	---	---	---	---	---	---												
9	---	---	---	---	---	---	---	---	---	---	---	---												
10	---	---	---	---	---	---	---	---	---	---	---	---												
11	---	---	---	---	---	---	---	---	---	---	---	---												
12	---	---	---	---	---	---	---	---	---	---	---	---												
13	---	---	---	---	---	---	---	---	---	---	---	---												
14	---	---	---	---	---	---	---	---	---	---	---	---												
15	---	---	---	---	---	---	---	---	---	---	---	---												
16	---	---	---	---	---	---	---	---	---	---	---	---												
17	---	---	---	---	---	---	---	---	---	---	---	---												
18	---	---	---	---	---	---	---	---	---	---	---	---												
19	---	---	---	---	---	---	---	---	---	---	---	---												
20	---	---	---	---	---	---	---	---	---	---	---	---												
21	---	---	---	---	---	---	---	---	---	---	---	---												
22	---	---	---	---	---	---	---	---	---	---	---	---												
23	---	---	---	---	---	---	---	---	---	---	---	---												
24	---	---	---	---	---	---	---	---	---	---	---	---												
25	---	---	---	---	---	---	---	---	---	---	---	---												
26	---	---	---	---	---	---	---	---	---	---	---	---												
27	---	---	---	---	---	---	---	---	---	---	---	---												
28	---	---	---	---	---	---	---	---	---	---	---	---												
29	---	---	---	---	---	---	---	---	---	---	---	---												
30	---	---	---	---	---	---	---	---	---	---	---	---												
31	---	---	---	---	---	---	---	---	---	---	---	---												
MONTH	---	---	---	---	---	---	---	---	---	---	---	---												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN												
	JUNE			JULY			AUGUST			SEPTEMBER														
1	---	---	---	23.4	18.5	20.9	26.0	19.5	22.3	27.3	19.1	22.9												
2	---	---	---	24.1	18.3	21.2	27.0	19.5	23.1	27.9	19.9	23.2												
3	---	---	---	25.7	18.7	22.0	28.8	20.8	24.4	26.7	18.4	22.2												
4	20.0	16.0	17.3	25.2	20.2	22.3	29.1	20.5	24.6	26.8	18.4	22.4												
5	18.7	15.6	16.8	24.8	20.1	22.4	28.8	21.6	25.0	29.3	21.6	24.9												
6	17.2	14.0	15.5	26.7	18.9	22.8	29.6	22.3	25.5	29.5	22.0	25.4												
7	17.6	12.8	15.3	24.2	20.8	22.5	29.5	23.2	26.1	27.5	21.2	24.2												
8	16.3	14.3	15.4	24.4	20.3	22.6	26.4	22.8	24.0	24.4	18.6	21.8												
9	18.1	14.6	16.0	23.9	19.3	21.6	24.2	23.9	24.1	23.3	14.8	18.6												
10	20.9	16.0	17.9	24.5	19.0	21.7	23.9	23.3	23.6	23.5	13.9	18.2												
11	18.2	15.3	16.8	25.2	19.6	22.2	23.5	23.2	23.3	24.3	14.7	19.1												
12	20.5	16.0	18.1	25.5	18.1	21.7	23.4	23.2	23.3	25.2	16.0	20.2												
13	19.3	16.3	18.1	24.6	19.3	21.6	23.3	23.1	23.2	26.0	17.2	21.3												
14	17.0	14.7	15.7	22.5	20.5	21.0	23.1	18.5	21.4	26.3	19.1	22.5												
15	18.2	15.9	17.1	22.1	19.8	20.7	20.8	17.4	19.0	24.7	20.8	22.8												
16	19.6	14.9	17.1	21.8	20.0	20.8	20.2	17.8	19.1	26.0	19.9	22.9												
17	21.0	15.0	17.8	21.7	18.7	20.6	23.3	18.3	20.6	24.9	21.5	23.1												
18	22.6	15.8	19.2	---	---	---	24.6	19.4	21.9	26.7	21.4	23.6												
19	23.1	18.0	20.5	---	---	---	26.1	20.4	22.8	26.6	21.3	23.7												
20	23.6	17.8	20.6	---	---	---	25.8	17.6	21.6	25.1	21.2	23.2												
21	23.2	18.9	20.8	---	---	---	27.2	18.7	22.7	24.8	21.6	23.0												
22	25.4	19.1	21.3	---	---	---	28.5	20.5	24.2	26.2	21.1	22.9												
23	21.2	17.1	19.1	---	---	---	29.0	21.3	24.9	22.9	16.9	19.7												
24	21.9	16.6	19.1	---	---	---	28.8	21.1	24.8	22.9	14.1	18.2												
25	22.6	16.7	19.6	---	---	---	30.0	22.1	25.7	24.6	19.0	21.2												
26	24.4	17.6	21.0	22.3	20.7	22.1	28.7	23.4	25.6	25.8	19.2	22.2												
27	25.8	19.0	22.3	24.4	19.5	21.7	28.4	20.0	23.9	25.9	20.2	22.7												
28	26.7	20.0	23.2	26.8	20.0	23.2	28.8	20.0	24.0	25.3	20.9	22.8												
29	26.2	21.1	23.2	27.4	20.2	23.8	26.8	22.7	24.2	24.8	18.9	21.7												
30	22.1	20.0	21.1	25.1	22.7	24.0	28.6	20.4	24.0	24.3	20.5	22.4												
31	---	---	---	27.5	21.7	23.9	28.7	20.7	24.1	---	---	---												
MONTH	---	---	---	---	---	---	30.0	17.4	23.5	29.5	13.9	22.1												

KENTUCKY RIVER BASIN

03285330 MOCKS BRANCH @ HWY 127 NEAR DANVILLE, KY--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	8.9	5.3	7.6	11.4	7.2	9.1	10.4	6.7	8.2
2	---	---	---	8.9	5.0	7.1	11.4	6.0	9.1	10.4	6.6	8.0
3	---	---	---	8.7	3.5	6.7	11.2	6.0	8.2	10.5	6.6	8.1
4	---	---	---	7.4	4.9	6.1	11.0	5.0	7.7	10.3	5.7	7.8
5	6.6	5.1	5.7	7.6	3.2	5.9	11.7	5.8	8.2	9.2	5.3	6.8
6	7.2	5.3	6.4	7.0	2.1	5.0	11.4	5.6	7.9	8.8	5.2	6.5
7	8.0	5.4	6.6	5.2	2.4	4.1	10.2	5.3	7.3	8.8	4.9	6.6
8	8.4	5.7	7.2	6.7	4.0	5.4	5.5	3.7	4.8	8.8	4.8	6.6
9	8.1	6.3	7.3	8.1	4.6	7.0	4.2	3.0	3.5	9.7	6.3	7.8
10	8.6	5.8	7.4	7.7	3.1	5.5	5.4	3.1	3.8	10.0	6.6	8.2
11	8.7	6.7	7.9	7.1	2.6	5.0	3.7	3.2	3.3	10.1	6.6	8.2
12	8.5	6.9	7.7	6.3	3.5	4.9	3.7	3.2	3.3	9.5	6.1	7.7
13	7.9	6.2	7.2	6.4	3.0	4.6	3.9	3.3	3.5	9.2	5.7	7.4
14	8.7	7.2	8.1	6.5	2.9	4.9	9.4	3.4	6.6	8.6	5.6	6.9
15	8.1	6.4	7.4	7.5	5.2	6.0	10.6	9.2	9.8	8.2	4.8	6.6
16	8.7	7.3	8.0	6.5	4.8	5.7	10.7	8.5	9.7	8.1	5.4	6.6
17	9.2	6.9	8.0	7.6	5.9	6.8	10.0	7.3	8.9	7.9	4.4	6.1
18	9.1	5.6	7.5	---	---	---	9.8	7.8	9.1	8.1	4.3	5.9
19	8.2	6.0	6.8	---	---	---	---	---	---	7.4	4.1	5.5
20	7.9	4.9	6.3	---	---	---	---	---	---	7.2	3.2	5.3
21	7.3	4.2	5.9	---	---	---	---	---	---	6.5	3.4	5.0
22	6.7	4.1	5.7	---	---	---	---	---	---	8.1	3.3	5.6
23	8.6	6.0	7.6	---	---	---	11.5	8.0	10.8	9.0	5.1	6.9
24	8.7	6.6	7.7	---	---	---	11.4	7.8	9.2	8.9	6.0	7.1
25	8.6	5.0	7.0	---	---	---	11.1	7.3	8.9	7.5	5.1	6.2
26	8.1	4.8	6.6	11.7	9.1	11.2	10.5	7.3	8.5	7.2	4.8	5.8
27	7.7	3.5	6.1	12.5	8.4	10.6	11.3	7.5	9.0	6.7	4.8	5.5
28	7.1	2.3	4.9	11.6	7.7	9.8	11.5	7.2	9.0	6.7	4.9	5.7
29	6.4	2.2	4.4	11.6	6.5	9.3	10.8	7.2	8.4	6.8	4.5	5.7
30	8.3	5.7	7.2	10.7	7.6	8.8	11.1	6.8	8.7	6.8	4.1	5.4
31	---	---	---	11.4	5.9	8.7	10.6	6.3	8.3	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	10.5	3.2	6.7

KENTUCKY RIVER BASIN

03285335 MOCKS BRANCH @ HWY 1896 NEAR DANVILLE, KY

LOCATION.-- Lat 37°42'18", long 84°48'11", Boyle County, Hydrologic Unit 05100205, at culvert on Hwy 1896 and at mile 5.85.

DRAINAGE AREA.--8.16 mi²

WATER-STAGE RECORDS

PERIOD OF RECORD.--June 9, 1998 to November 20, 1998.

COOPERATION.--The Kentucky Heritage Resource Conservation and Development Council.

GAGE.--Water-stage recorder.

REMARKS.--1998: Records good, except those for periods of estimated gage heights, which are fair.

1999: Records good, except those for periods of estimated gage heights, which are fair.

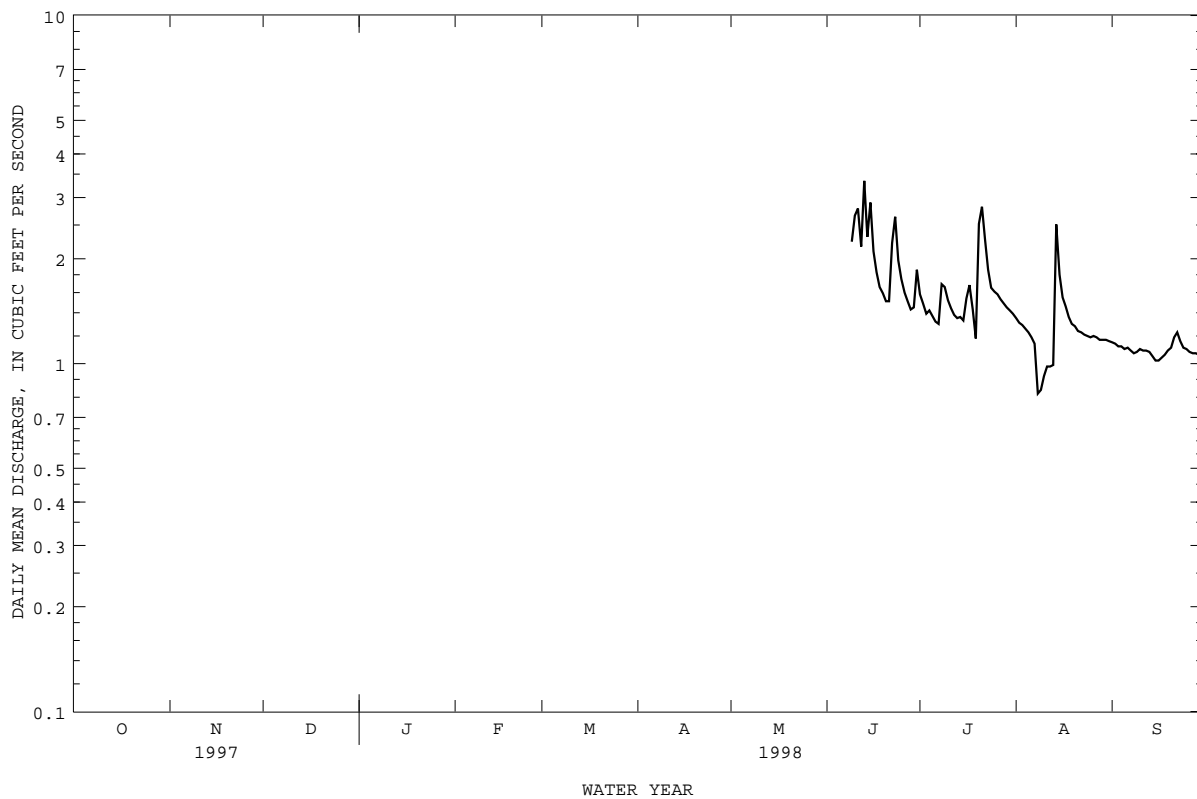
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	1.58	e1.35	1.15
2	---	---	---	---	---	---	---	---	---	1.49	e1.31	1.14
3	---	---	---	---	---	---	---	---	---	1.39	e1.29	1.12
4	---	---	---	---	---	---	---	---	---	1.42	e1.26	1.12
5	---	---	---	---	---	---	---	---	---	1.37	e1.23	1.10
6	---	---	---	---	---	---	---	---	---	1.32	1.19	1.11
7	---	---	---	---	---	---	---	---	---	1.30	1.14	1.09
8	---	---	---	---	---	---	---	---	---	1.69	.82	1.07
9	---	---	---	---	---	---	---	---	2.24	1.66	.84	1.08
10	---	---	---	---	---	---	---	---	2.66	1.52	.92	1.10
11	---	---	---	---	---	---	---	---	2.79	1.44	.98	1.09
12	---	---	---	---	---	---	---	---	2.17	1.38	.98	1.09
13	---	---	---	---	---	---	---	---	3.35	1.35	.99	1.08
14	---	---	---	---	---	---	---	---	2.31	1.36	2.51	1.05
15	---	---	---	---	---	---	---	---	2.90	1.33	1.80	1.02
16	---	---	---	---	---	---	---	---	2.10	1.54	1.55	1.02
17	---	---	---	---	---	---	---	---	1.83	e1.68	1.46	1.04
18	---	---	---	---	---	---	---	---	1.66	e1.43	e1.36	1.06
19	---	---	---	---	---	---	---	---	1.59	e1.18	e1.30	1.09
20	---	---	---	---	---	---	---	---	1.51	e2.52	e1.28	1.11
21	---	---	---	---	---	---	---	---	1.51	e2.82	e1.24	1.19
22	---	---	---	---	---	---	---	---	2.22	e2.27	e1.23	1.23
23	---	---	---	---	---	---	---	---	2.64	e1.86	e1.21	1.16
24	---	---	---	---	---	---	---	---	1.98	e1.65	1.20	1.11
25	---	---	---	---	---	---	---	---	1.75	e1.61	1.19	1.10
26	---	---	---	---	---	---	---	---	1.60	e1.58	1.20	1.08
27	---	---	---	---	---	---	---	---	1.51	e1.53	1.19	1.07
28	---	---	---	---	---	---	---	---	1.43	e1.49	1.17	1.07
29	---	---	---	---	---	---	---	---	1.45	e1.45	1.17	1.06
30	---	---	---	---	---	---	---	---	1.86	e1.42	1.17	1.06
31	---	---	---	---	---	---	---	---	---	e1.39	1.16	---
MEAN	---	---	---	---	---	---	---	---	---	1.58	1.25	1.10
MAX	---	---	---	---	---	---	---	---	---	2.82	2.51	1.23
MIN	---	---	---	---	---	---	---	---	---	1.18	.82	1.02

e Estimated

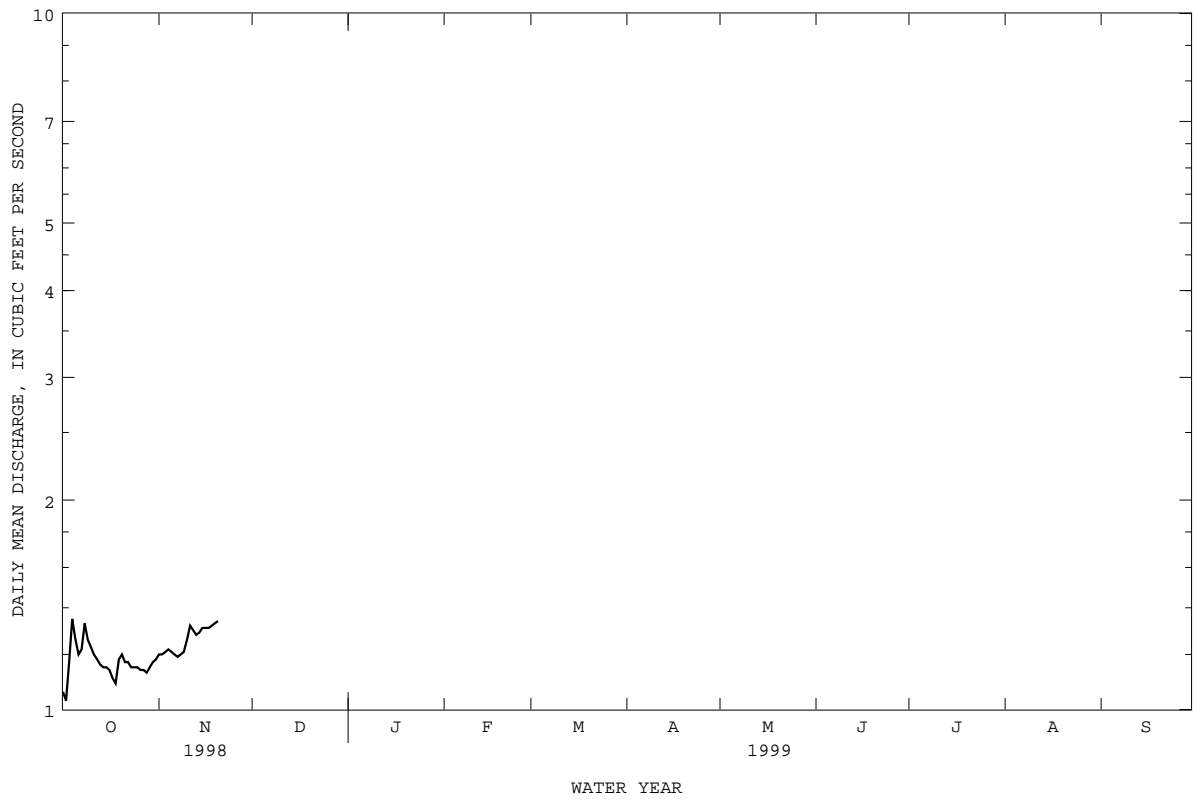
KENTUCKY RIVER BASIN

03285335 MOCKS BRANCH @ HWY 1896 NEAR DANVILLE, KY--Continued



KENTUCKY RIVER BASIN

03285335 MOCKS BRANCH @ HWY 1896 NEAR DANVILLE, KY--Continued



KENTUCKY RIVER BASIN

03285335 MOCKS BRANCH @ HWY 1896 NEAR DANVILLE, KY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	23.1	18.5	20.7	---	---	---	23.0	19.8	21.1
2	---	---	---	23.7	18.4	21.0	---	---	---	22.1	20.2	21.2
3	---	---	---	25.0	18.7	21.7	---	---	---	21.8	19.1	20.3
4	---	---	---	24.1	20.0	21.9	---	---	---	21.8	18.9	20.0
5	---	---	---	23.9	20.0	21.9	24.9	21.6	22.6	23.2	21.2	21.9
6	---	---	---	25.4	18.9	22.0	25.6	22.3	23.8	23.4	21.9	22.7
7	---	---	---	23.7	20.8	22.1	25.7	23.1	24.3	23.0	21.2	22.2
8	---	---	---	24.2	20.3	22.4	25.3	22.8	24.0	23.0	17.9	20.1
9	---	---	---	23.8	19.4	21.6	23.9	22.5	23.0	17.9	15.6	16.6
10	20.7	16.0	17.7	24.3	19.1	21.7	22.9	21.3	22.2	16.6	14.4	15.6
11	18.0	15.3	16.8	24.7	19.6	22.0	23.2	21.8	22.4	17.1	14.8	15.9
12	20.2	16.1	17.9	24.8	18.2	21.3	22.9	20.9	21.9	18.1	15.8	16.8
13	19.4	16.4	18.1	24.0	19.4	21.3	22.0	20.1	21.2	19.3	16.7	17.7
14	18.1	14.8	15.8	22.6	20.4	21.0	22.0	19.0	20.6	20.4	18.1	19.0
15	18.3	16.0	17.1	21.5	19.8	20.5	20.7	17.7	19.0	21.2	19.6	20.3
16	19.4	14.9	17.0	21.3	18.9	20.2	20.1	17.9	19.1	21.3	19.3	20.2
17	20.6	15.1	17.7	19.6	18.5	18.9	22.6	18.4	20.2	21.6	20.3	20.9
18	22.3	15.9	19.0	---	---	---	20.9	19.3	20.4	22.0	20.6	21.3
19	22.6	18.0	20.3	---	---	---	---	---	---	21.7	20.6	21.2
20	23.1	17.8	20.4	---	---	---	---	---	---	21.8	20.6	21.2
21	22.1	18.8	20.3	---	---	---	---	---	---	22.1	21.1	21.5
22	24.2	18.9	20.7	---	---	---	---	---	---	22.2	20.9	21.7
23	20.8	17.6	19.1	---	---	---	26.6	23.3	24.2	20.9	17.3	18.7
24	21.7	16.8	19.1	---	---	---	26.1	21.2	23.5	17.3	14.8	16.2
25	22.3	16.8	19.5	---	---	---	26.6	22.1	24.1	19.6	17.1	18.0
26	24.0	17.8	20.8	---	---	---	25.8	23.2	24.3	20.2	18.4	19.3
27	25.3	19.1	22.1	---	---	---	24.2	20.6	22.3	21.2	18.7	19.9
28	26.0	20.1	22.9	---	---	---	24.1	20.3	22.1	21.2	19.9	20.6
29	25.3	21.1	22.9	---	---	---	23.9	22.3	23.1	20.6	18.8	19.6
30	21.9	19.8	20.8	---	---	---	23.6	20.8	22.1	20.9	19.6	20.3
31	---	---	---	---	---	---	23.4	21.1	22.3	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	23.4	14.4	19.7

KENTUCKY RIVER BASIN

03286500 KENTUCKY RIVER AT LOCK 7 NEAR HIGH BRIDGE, KY

LOCATION.--Lat 37°48'53", long 84°43'26", Jessamine County, Hydrologic Unit 05100205, on right bank at Lock 7, 0.45 mi northwest of High Bridge, 1.2 mi downstream from Dix River, 3.8 mi upstream of U.S. Highway 68 bridge, and at mile 117.

DRAINAGE AREA.--5,036 mi².

PERIOD OF RECORD.--October 1901 to September 1924 (gage-heights only), monthly discharge October 1924 to September 1927, December 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 503.92 ft above sea level, Kentucky River datum.

REMARKS.--Estimated daily discharges: Oct. 1 to Sept. 30. Record fair above 1,000 ft³/s and poor below.

Daily discharges determined by drainage area factors to Lock 6 and Lock 10 records. Flow regulated since November 1925 by Herrington Lake, since December 1960 by Buckhorn Lake, since January 1976 by Carr Fork Lake, and by hydroelectric plant at lock 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	342	273	473	3340	11200	5850	3420	10400	620	690	360	339
2	321	282	560	3280	14400	10200	3010	6850	394	805	343	296
3	357	288	384	5800	13100	14400	2980	4980	460	810	319	263
4	550	296	505	8300	11400	21100	2960	3940	477	700	316	209
5	482	321	360	8650	9500	24200	2850	3290	488	590	325	174
6	455	359	312	7200	7900	22000	2770	3040	505	570	318	146
7	444	437	500	5450	6800	17900	2520	3590	550	540	294	134
8	515	515	1850	6450	6100	14900	2300	4640	580	496	270	128
9	565	580	3730	35800	5550	13000	2200	5200	358	432	259	126
10	585	630	5300	50500	5000	13200	2220	5350	384	378	242	118
11	645	685	5200	48700	4570	13200	2360	4700	412	336	221	114
12	650	750	3800	30400	4720	12000	2630	3560	376	308	206	106
13	615	770	3180	15000	7300	10400	3590	2900	352	293	190	114
14	545	805	6950	11600	8100	12200	4490	2920	398	283	170	142
15	486	825	12400	12400	7600	25400	4390	2630	422	271	138	139
16	437	805	10300	14400	7250	26000	4000	2220	441	265	154	128
17	396	760	6150	15700	6800	23800	4320	1920	458	257	196	128
18	360	730	3780	16200	6250	19300	4620	1590	448	248	222	124
19	360	685	2870	16000	5700	16000	4260	1540	413	260	212	114
20	352	660	2380	17000	5350	13400	3850	1300	367	296	192	142
21	378	600	2060	16400	4940	10600	3580	1180	345	334	174	126
22	325	535	2520	13700	4560	8650	3370	1340	320	339	154	127
23	304	475	3720	16800	4510	7500	3220	1210	290	350	145	126
24	274	456	3900	29100	3690	7200	2910	1220	292	400	147	129
25	254	444	3540	35400	3320	7250	2740	1360	294	448	178	125
26	246	492	2960	30300	3330	6200	2600	1380	273	500	366	130
27	240	525	2400	19000	3380	4960	2740	1350	268	510	860	143
28	248	520	2200	13800	3860	4180	3700	1210	336	510	880	158
29	254	499	2360	11800	---	3760	8400	995	560	473	740	172
30	258	484	2550	10000	---	3540	12900	825	615	425	510	168
31	262	---	3220	8100	---	3520	---	730	---	383	398	---
TOTAL	12505	16486	102414	536570	186180	395810	111900	89360	12496	13500	9499	4588
MEAN	403	550	3304	17310	6649	12770	3730	2883	417	435	306	153
MAX	650	825	12400	50500	14400	26000	12900	10400	620	810	880	339
MIN	240	273	312	3280	3320	3520	2200	730	268	248	138	106

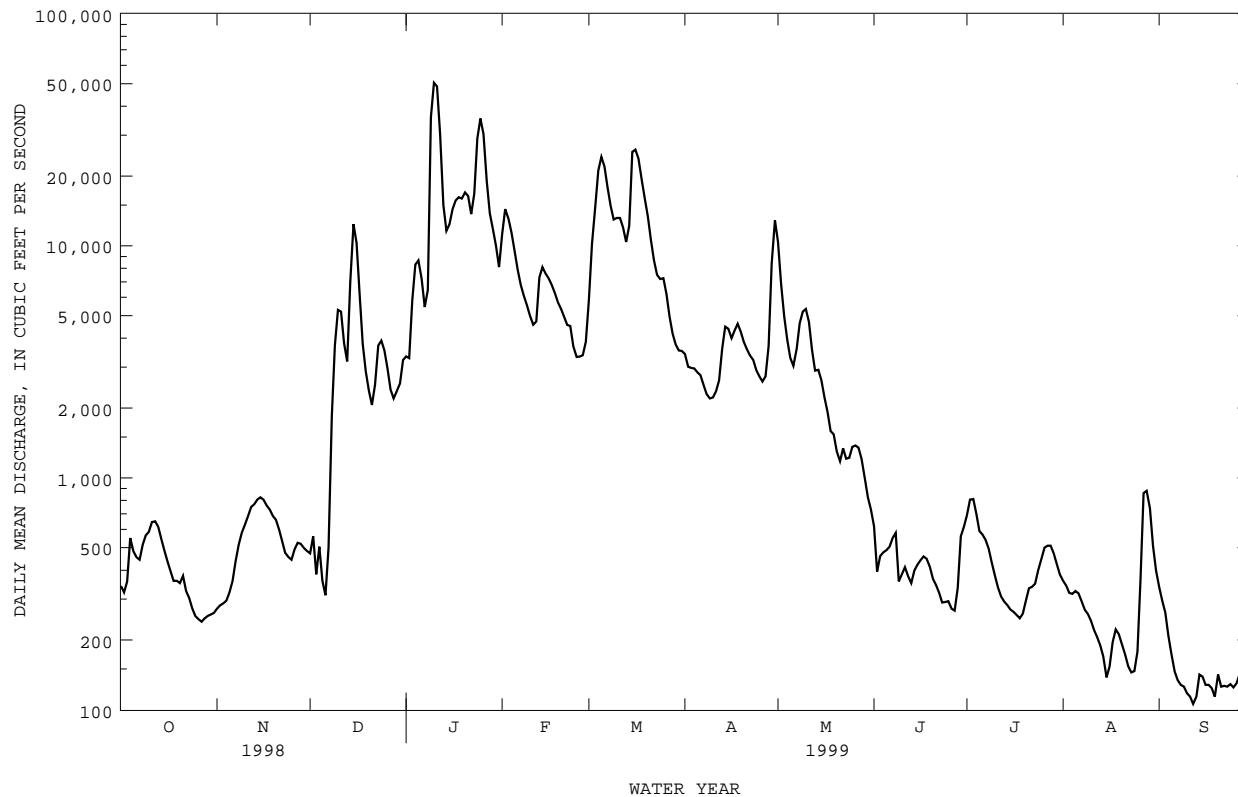
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1999, BY WATER YEAR (WY)

MEAN	1392	3518	6376	13280	12240	18350	11290	9924	6463	2011	1353	832
MAX	3052	9309	12670	22370	26380	29500	21390	22020	18360	4867	2946	2020
(WY)	1994	1997	1994	1994	1994	1997	1994	1995	1997	1998	1993	1996
MIN	324	550	1803	7605	6649	9065	3730	2835	417	435	306	153
(WY)	1998	1999	1998	1998	1999	1998	1999	1993	1999	1999	1999	1999

KENTUCKY RIVER BASIN

03286500 KENTUCKY RIVER AT LOCK 7 NEAR HIGH BRIDGE, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1993 - 1999	
ANNUAL TOTAL	2546663		1491308			
ANNUAL MEAN	6977		4086		7232	
HIGHEST ANNUAL MEAN					11250	
LOWEST ANNUAL MEAN					4086	
HIGHEST DAILY MEAN	59000	Apr 20	50500	Jan 10	87900	Mar 2 1997
LOWEST DAILY MEAN	224	Sep 9	106	Sep 12	106	Sep 12 1999
ANNUAL SEVEN-DAY MINIMUM	252	Oct 25	120	Sep 7	120	Sep 7 1999
INSTANTANEOUS PEAK FLOW			51400		92800	
INSTANTANEOUS PEAK STAGE			22.52		37.90	
10 PERCENT EXCEEDS	17200		12600		18700	
50 PERCENT EXCEEDS	3800		760		3100	
90 PERCENT EXCEEDS	364		194		460	



KENTUCKY RIVER BASIN

03287000 KENTUCKY RIVER AT LOCK 6, NEAR SALVISA, KY

LOCATION.--Lat 37°55'32", long 84°49'17", Woodford County, Hydrologic Unit 05100205, on right bank at lock 6, 1.5 mi upstream from Clear Creek, 2.1 mi east of Salvisa, and at mile 96.2.

DRAINAGE AREA.--5,102 mi², of which about 101 mi² does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1925 to current year. Prior to October 1953, published as "at lock 6, at Warwick."

REVISED RECORDS.--WSP 1385: 1926-27, 1928(M), 1929, 1931(M), 1932, 1933-34(M), 1935, 1937, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 489.90 ft Kentucky River datum. Prior to November 1934, nonrecording gage at same site and datum. Auxiliary water-stage recorder at lock 5, 14 mi downstream. Prior to Sept. 30, 1981, nonrecording gage at same site and datum.

REMARKS.--Records good above 1000 ft³/s, fair below. Flow regulated since November 1925 by Herrington Lake, since December 1960 by Buckhorn Lake, since January 1976 by Carr Fork Lake, and by hydroelectric plant at lock 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	374	266	529	3170	11500	4880	3760	12100	610	616	384	378
2	348	273	712	3180	17000	8370	2980	7690	215	656	368	341
3	391	282	359	5680	15000	12800	2870	5260	385	818	351	317
4	709	282	607	8750	13200	20900	2850	4040	432	764	337	247
5	537	274	312	9570	11300	24300	2740	3280	415	604	324	202
6	487	291	237	8550	9540	24300	2770	2870	415	528	322	162
7	473	345	460	6570	8180	19600	2520	2860	523	490	332	149
8	575	446	1760	5400	7260	16400	2320	3600	634	477	327	154
9	672	574	3050	34200	6630	14300	2140	4670	228	441	318	162
10	599	677	4420	49200	6000	14000	2090	4810	326	393	311	160
11	585	736	5410	50300	5550	13800	2110	4860	398	357	297	162
12	696	838	4290	40500	4920	12900	2180	3750	347	342	280	154
13	712	823	3250	18300	7460	11400	2690	2870	308	319	260	162
14	628	841	4450	13000	9230	10600	3790	2420	346	307	230	164
15	558	900	10600	13000	8720	27300	4420	2740	370	292	186	163
16	501	902	11800	14300	8560	27500	3840	2260	382	291	207	158
17	447	854	7470	16100	7920	26100	3740	1930	382	279	207	166
18	401	819	4250	17000	6730	21300	4240	1560	401	266	189	165
19	401	760	3030	17400	5770	17400	4220	1570	392	266	183	146
20	395	737	2480	16700	5340	15000	3820	1150	345	274	189	186
21	458	700	2140	17800	5020	12500	3390	947	334	291	190	166
22	365	630	2250	15300	4780	10100	3150	1310	309	310	179	156
23	339	540	3850	15800	5160	8850	3130	1160	280	343	178	154
24	291	500	4180	29000	3860	8100	2780	1140	282	338	191	163
25	262	463	3830	35400	3270	8630	2650	1270	283	351	222	151
26	253	503	3180	35600	3190	7390	2470	1290	271	400	201	151
27	247	587	2530	22600	3240	5530	2470	1240	274	449	278	168
28	248	602	2330	15400	3740	4410	2650	1210	341	464	718	197
29	251	570	2660	13100	---	3870	5480	1050	556	460	848	220
30	259	544	2600	11400	---	3690	11600	869	592	434	576	220
31	260	---	3140	9720	---	3890	---	777	---	395	436	---
TOTAL	13722	17559	102166	571990	208070	420110	101860	88553	11376	13015	9619	5644
MEAN	443	585	3296	18450	7431	13550	3395	2857	379	420	310	188
MAX	712	902	11800	50300	17000	27500	11600	12100	634	818	848	378
MIN	247	266	237	3170	3190	3690	2090	777	215	266	178	146

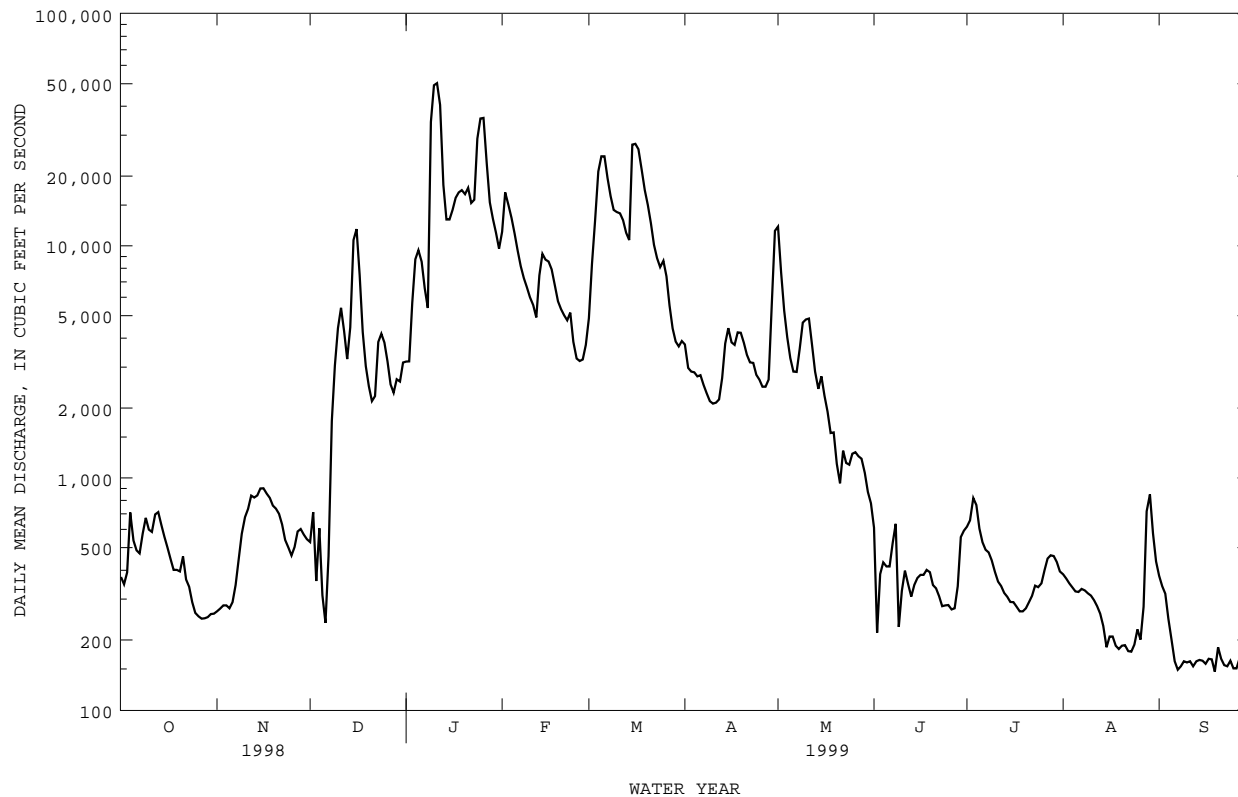
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1999, BY WATER YEAR (WY)

MEAN	1927	4130	8935	11190	12520	15250	11560	8350	4507	2156	1897	1677
MAX	13680	12450	31030	31910	34850	33640	35920	26910	18890	5441	6238	10860
(WY)	1990	1987	1979	1974	1989	1975	1972	1983	1997	1998	1992	1974
MIN	312	493	525	502	2655	3769	1491	1127	362	420	277	188
(WY)	1981	1988	1966	1981	1968	1983	1986	1976	1988	1999	1986	1999

KENTUCKY RIVER BASIN

03287000 KENTUCKY RIVER AT LOCK 6, NEAR SALVISA, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1961 - 1999	
ANNUAL TOTAL	2693628		1563684			
ANNUAL MEAN	7380		4284		6984	
HIGHEST ANNUAL MEAN					11050	
LOWEST ANNUAL MEAN					2826	
HIGHEST DAILY MEAN	57300	Apr 20	50300	Jan 11	125000	Dec 10 1978
LOWEST DAILY MEAN	166	Sep 9	146	Sep 19	83	Sep 4 1984
ANNUAL SEVEN-DAY MINIMUM	254	Oct 25	158	Sep 6	112	Nov 8 1991
INSTANTANEOUS PEAK FLOW			50900		144000	
INSTANTANEOUS PEAK STAGE			21.38		49.04	
10 PERCENT EXCEEDS	19600		13000		17800	
50 PERCENT EXCEEDS	3990		818		3040	
90 PERCENT EXCEEDS	393		218		470	



KENTUCKY RIVER BASIN

03287500 KENTUCKY RIVER AT LOCK 4, AT FRANKFORT, KY

LOCATION.--Lat 38°12'06", long 84°52'54", Franklin County, Hydrologic Unit 05100205, on left bank at downstream side of Broadway Street Bridge at Frankfort, 300 ft upstream from Benson Creek, 0.8 mi upstream from lock 4, and at mile 65.8. Records include flow of Benson Creek.

DRAINAGE AREA.--5,411 mi², (includes that of Benson Creek), of which about 120 mi² does not contribute directly to surface runoff.

PERIOD OF RECORD.--March 1905 to July 1906 (gage heights only), October 1925 to current year. Monthly discharge only October 1930 to February 1931, October, November 1931, and May to September 1932, published in WSP 1305. Gage-height records collected in this vicinity September 1887 to December 1889, January to May 1893, and since April 1901 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 1113: 1941-42. WSP 1385: 1926-27, 1929(M), 1932-33, 1935-37, 1938(M), drainage area. WSP 1555: 1932(M).

GAGE.--Water-stage recorder. Datum of gage is 462.10 ft above sea level. See WDR KY-90-1 for history of changes prior to Jan. 28, 1982.

REMARKS.--Record fair above 1,000 ft³/s and poor below. Flow regulated since November 1925 by Herrington Lake, since December 1960 by Buckhorn Lake, since January 1976 by Carr Fork Lake, and by hydroelectric plant at lock 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	340	277	452	3260	15800	5670	4080	12600	672	1180	508	523
2	331	276	528	3380	20200	8600	3170	8580	321	1130	473	424
3	428	297	536	7820	17200	14400	2990	6040	370	1600	424	369
4	921	301	454	9280	14700	23600	2950	4560	434	1500	388	310
5	781	305	512	9880	12200	26900	2810	3670	433	1150	349	263
6	609	311	286	9060	10100	27400	2990	3300	440	909	311	234
7	600	354	406	6870	8920	22300	2700	3340	479	791	317	197
8	747	400	1900	7600	7920	18600	2360	4190	641	747	353	168
9	826	525	3960	38700	7190	17700	2140	5370	324	693	349	169
10	752	737	5510	49200	6550	16900	2070	5680	340	595	305	164
11	660	796	6770	49800	5920	16000	2050	5680	443	537	278	167
12	730	885	5590	41300	6360	14400	2130	4420	434	486	253	182
13	798	863	4310	21500	8270	12600	2650	3330	429	441	237	186
14	713	843	5700	15500	9770	13300	3850	2790	485	378	232	180
15	595	876	11800	14200	9100	30200	4800	3070	482	341	226	172
16	524	899	13700	15500	8850	30400	4110	2580	429	304	231	162
17	467	876	9040	17600	8230	28800	3920	2140	413	294	208	157
18	410	844	5430	18800	7230	24300	4460	1760	412	286	202	168
19	405	804	3670	19400	6180	20000	4520	1710	423	273	198	176
20	412	695	2920	18400	5640	17100	4100	1350	388	270	184	182
21	430	710	2420	20200	5310	13900	3580	847	342	297	190	198
22	385	705	3780	17200	4890	10900	3320	1330	298	388	191	184
23	355	635	4550	21500	5390	9940	3310	1190	264	463	196	171
24	308	529	4720	31500	4050	9280	3000	1170	284	479	215	166
25	266	470	4350	35500	3240	9410	2780	1290	304	453	237	177
26	242	521	3730	35600	3160	8210	2770	1350	333	512	213	176
27	222	542	2970	25600	3230	6330	2800	1280	519	635	214	177
28	230	558	2510	17200	4710	4830	2920	1260	2310	708	765	162
29	225	519	2860	14100	---	4100	6070	1090	4190	724	1470	128
30	236	491	2750	12100	---	3840	8000	893	1290	644	1080	123
31	263	---	3230	10700	---	4050	---	778	---	575	733	---
TOTAL	15211	17844	121344	618250	230310	473960	103400	98638	18926	19783	11530	6215
MEAN	491	595	3914	19940	8225	15290	3447	3182	631	638	372	207
MAX	921	899	13700	49800	20200	30400	8000	12600	4190	1600	1470	523
MIN	222	276	286	3260	3160	3840	2050	778	264	270	184	123

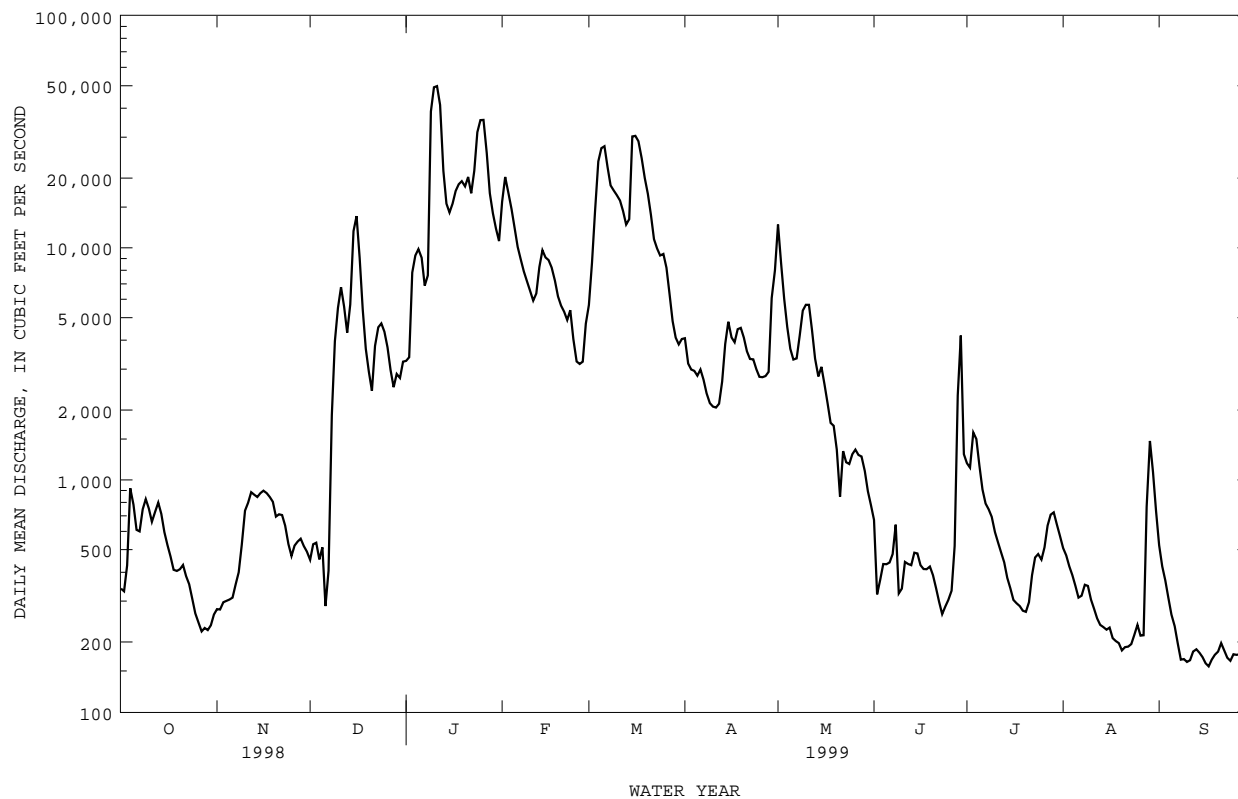
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1999, BY WATER YEAR (WY)

	2033	4418	9471	11800	13110	16150	12010	8748	4772	2334	2035	1808
MEAN	2033	4418	9471	11800	13110	16150	12010	8748	4772	2334	2035	1808
MAX	13240	13700	33220	33500	35680	34760	36690	28200	20840	6446	6433	10980
(WY)	1990	1987	1979	1974	1989	1975	1972	1983	1997	1998	1992	1974
MIN	289	542	566	540	2885	4175	1518	1142	417	568	336	207
(WY)	1981	1966	1966	1981	1968	1983	1986	1976	1988	1970	1986	1999

KENTUCKY RIVER BASIN

03287500 KENTUCKY RIVER AT LOCK 4, AT FRANKFORT, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1961 - 1999	
ANNUAL TOTAL	2892649		1735411			
ANNUAL MEAN	7925		4755		7366	
HIGHEST ANNUAL MEAN					11860	
LOWEST ANNUAL MEAN					3182	
HIGHEST DAILY MEAN	57300	Apr 22	49800	Jan 11	116000	Dec 10 1978
LOWEST DAILY MEAN	211	Sep 10	123	Sep 30	93	Jul 10 1988
ANNUAL SEVEN-DAY MINIMUM	241	Oct 25	158	Sep 24	128	Jul 4 1988
INSTANTANEOUS PEAK FLOW			50100		118000	
INSTANTANEOUS PEAK STAGE			20.91		48.47	
10 PERCENT EXCEEDS	21100		15000		18300	
50 PERCENT EXCEEDS	4530		921		3320	
90 PERCENT EXCEEDS	453		226		523	



KENTUCKY RIVER BASIN

03287580 NORTH ELKHORN CREEK AT BRYANT ROAD NEAR CADENTOWN, KY

LOCATION.--Lat 38°01'42", long 84°24'07", Fayette County, Hydrologic Unit 05100205, on right bank, downstream side of bridge on Bryant Road, 0.7 miles northeast of intersection with I-75, 1.6 miles southeast of intersection of US 60 (Winchester Road), 1.8 miles northeast of Cadentown, and at mile 90.3.

DRAINAGE AREA.--2.20 mi².

PERIOD OF RECORD.--October 1997 to current year.

GAGE.--Water-stage recorder. Datum of gage is 942.109 ft above sea level.

REMARKS.--Records fair except for those below 2.0 ft³/s and those estimated, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.02	.06	e.58	18	5.3	.88	.54	.00	.04	.00	.00
2	.00	.02	.05	2.6	13	4.4	1.9	.47	.07	.07	.00	.00
3	.94	.02	.04	9.4	7.3	9.3	1.8	.41	.07	.10	.00	.00
4	.70	.02	.03	6.2	5.1	7.7	1.7	.33	.02	.05	.00	.00
5	.24	.02	.08	e3.5	3.8	5.5	1.4	.50	.00	.02	.00	.00
6	.08	.02	.08	e3.0	3.3	5.0	.49	1.3	.00	.00	.00	.00
7	1.8	.01	1.9	e2.7	3.3	3.9	.43	.71	.00	.00	.00	.00
8	2.0	.02	5.1	e15	2.9	3.5	.41	.34	.00	.00	.00	.00
9	.68	.02	3.7	40	2.7	8.3	.55	.21	.01	.00	.00	.00
10	.25	.26	1.7	8.1	2.6	9.3	.59	.15	.00	.01	.00	.00
11	.12	.35	.86	4.4	2.6	6.3	.62	.12	.00	.01	.00	.00
12	.07	.10	.62	3.3	5.2	4.7	.55	.11	.00	.00	.00	.00
13	.04	.06	6.3	3.0	5.6	3.8	.50	.12	.00	.00	.00	.00
14	.03	.04	5.7	4.0	4.5	14	.56	.11	.05	.00	.00	.00
15	.02	.03	3.4	4.1	4.1	13	1.1	.11	.06	.00	.00	.00
16	.01	.02	2.1	3.5	3.8	7.0	1.3	.10	.02	.00	.00	.00
17	.01	.01	1.6	3.3	3.9	4.8	1.0	.08	.00	.00	.00	.00
18	.01	.01	1.2	5.8	3.6	3.6	.73	.06	.00	.00	.00	.00
19	.05	.01	1.0	4.7	3.3	3.0	.88	.06	.00	.00	.00	.00
20	.05	.05	.91	3.6	3.1	2.8	.76	.04	.00	.00	.00	.00
21	.04	.08	.90	3.1	2.9	2.6	.93	.01	.00	.15	.00	.00
22	.03	.06	5.5	3.2	2.7	2.3	.61	.00	.00	.04	.00	.00
23	.02	.04	4.6	13	2.7	4.0	.44	.00	.00	.00	.00	.00
24	.02	.03	e3.0	11	2.6	4.7	.46	.05	.00	.00	.00	.00
25	.02	.24	e1.8	6.2	3.0	3.7	.30	.06	.00	.00	.00	.00
26	.01	1.1	e1.2	4.4	3.0	3.1	.64	.04	.00	.00	.00	.00
27	.01	.41	e.90	3.5	3.2	2.8	.77	.02	.00	.00	.00	.00
28	.02	.19	e.78	2.9	5.4	2.5	1.8	.00	.18	.00	.00	.00
29	.03	.10	e.72	2.6	---	2.3	2.1	.00	.24	.00	.00	.00
30	.02	.07	e.66	2.3	---	2.1	.85	.00	.11	.00	.00	.00
31	.02	---	e.61	3.7	---	1.6	---	.00	---	.00	.00	---
TOTAL	7.34	3.43	57.10	186.68	127.2	156.9	27.05	6.05	0.83	0.49	0.00	0.00
MEAN	.24	.11	1.84	6.02	4.54	5.06	.90	.20	.028	.016	.000	.000
MAX	2.0	1.1	6.3	40	18	14	2.1	1.3	.24	.15	.00	.00
MIN	.00	.01	.03	.58	2.6	1.6	.30	.00	.00	.00	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 1999, BY WATER YEAR (WY)

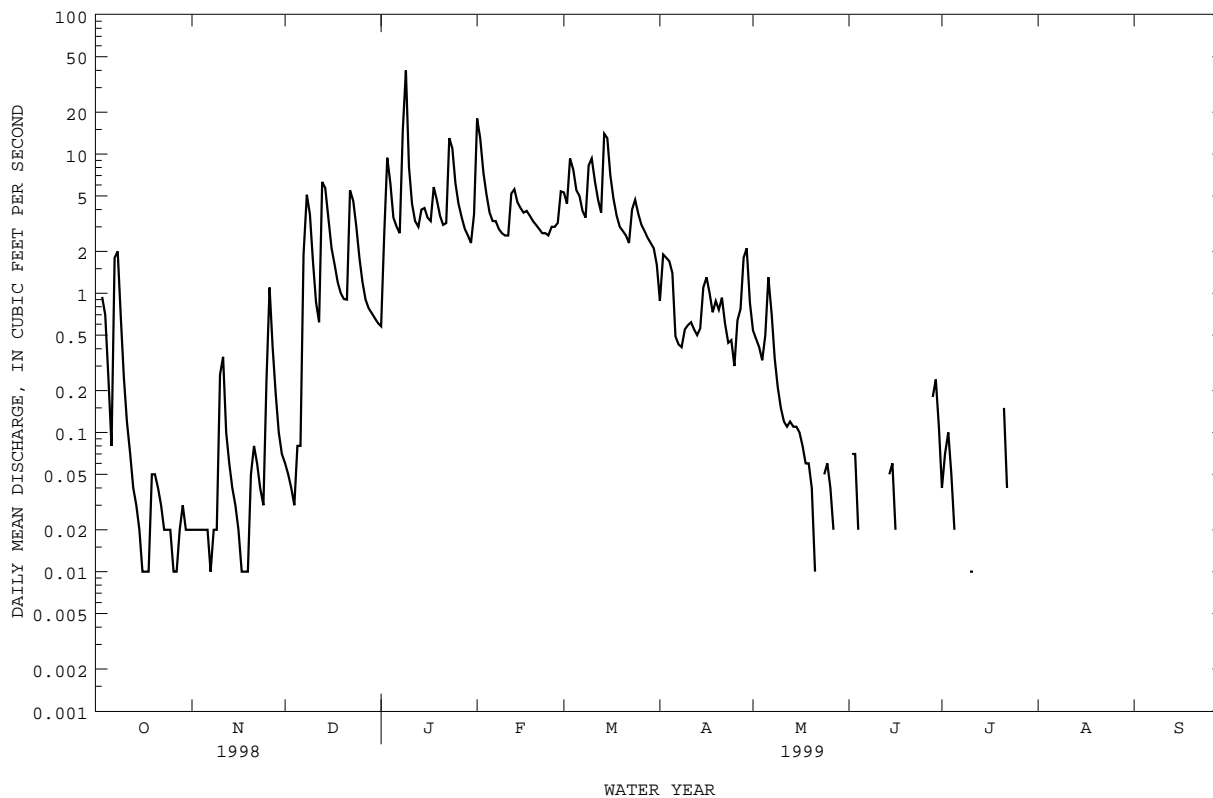
	1998	1999	1998	1999	1998	1999	1998	1999	1998	1999	1998	1999
MEAN	.16	.31	1.53	6.19	5.69	4.46	3.54	2.73	3.82	3.11	.041	.038
MAX	.24	.50	1.84	6.35	6.84	5.06	6.19	5.27	7.61	6.20	.082	.076
(WY)	1999	1998	1999	1998	1998	1998	1998	1998	1998	1998	1998	1998
MIN	.076	.11	1.21	6.02	4.54	3.86	.90	.20	.028	.016	.000	.000
(WY)	1998	1999	1998	1999	1999	1998	1999	1999	1999	1999	1999	1999

KENTUCKY RIVER BASIN

03287580 NORTH ELKHORN CREEK AT BRYANT ROAD NEAR CADENTOWN, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1998 - 1999	
ANNUAL TOTAL	1350.09		573.07			
ANNUAL MEAN	3.70		1.57		2.62	
HIGHEST ANNUAL MEAN					3.66	
LOWEST ANNUAL MEAN					1.57	
HIGHEST DAILY MEAN	89	Jul 20	40	Jan 9	89	Jul 20 1998
LOWEST DAILY MEAN	.00	Aug 21	.00	Oct 1	.00	Oct 1 1997
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 21	.00	Jun 17	.00	Oct 1 1997
INSTANTANEOUS PEAK FLOW			102		281	
INSTANTANEOUS PEAK STAGE			3.17		5.11	
INSTANTANEOUS LOW FLOW			.00		.00	
10 PERCENT EXCEEDS	8.2		4.5		6.4	
50 PERCENT EXCEEDS	1.4		.08		.59	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated



KENTUCKY RIVER BASIN

03287590 NORTH ELKHORN CREEK AT WINCHESTER ROAD AT LEXINGTON, KY

LOCATION.--Lat 38°02'54", long 84°24'40", Fayette County, Hydrologic Unit 05100205, on right bank, downstream side of culvert on Winchester Road (US 60), 0.5 miles east of I-75, 0.8 miles west of intersection with Bryant Road (1425), 2.2 miles east of Lexington, and at mile 89.1.

DRAINAGE AREA.--4.05 mi².

PERIOD OF RECORD.--October 1997 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 921.258 ft above sea level.

REMARKS.--Records fair except for discharges below 5.0 ft³/s and for periods of estimated record, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.33	.39	1.1	45	13	2.5	.88	.57	.57	.31	.00
2	.03	.34	.19	11	27	8.9	2.7	.60	1.9	2.4	.11	.00
3	8.3	.71	.17	21	17	25	2.6	.49	.48	1.0	.03	.00
4	3.4	.37	.16	11	11	19	2.5	.39	.19	.42	.02	.00
5	.76	.42	1.6	e6.0	7.1	14	2.3	1.6	.09	.20	.01	.00
6	.29	.28	.34	e4.0	5.9	13	2.3	3.6	.07	.15	.01	.00
7	13	.26	10	3.0	8.7	8.1	.93	.77	.05	.10	.00	.00
8	5.0	.29	11	47	7.0	6.4	.82	.47	.05	.06	.00	.00
9	1.0	.55	4.1	85	6.2	23	1.2	.41	.05	.05	.11	.00
10	.42	5.7	1.8	21	5.8	22	.74	.34	.05	1.9	.03	.00
11	.26	1.3	1.1	11	5.7	15	.56	.23	.04	.43	.03	.00
12	.20	.37	1.7	7.0	17	10	.42	.20	.03	.18	.02	.00
13	.19	.23	17	6.9	14	7.0	.38	.24	.29	.13	.01	.00
14	.21	.17	7.1	12	9.9	38	.34	.22	3.3	.08	.00	.00
15	.22	.15	3.3	10	8.4	29	2.9	.41	.68	.06	.00	.00
16	.20	.12	2.4	7.7	7.0	17	1.3	.17	.34	.05	.00	.00
17	.19	.19	2.2	8.0	8.6	12	.64	.13	.24	.03	.00	.00
18	.20	.16	1.3	16	6.2	8.1	.48	.09	.19	.03	.00	.00
19	1.7	.11	1.6	11	5.4	6.1	.64	.14	.16	.04	.00	.00
20	.27	1.9	1.1	7.2	4.5	4.7	.55	.10	.14	6.4	.00	2.2
21	.32	.31	1.3	5.5	4.1	4.1	.48	.08	.11	2.9	.00	.07
22	.41	.19	9.6	4.7	3.6	3.6	.38	.06	.11	.84	.00	.02
23	.33	.17	4.0	33	3.7	13	.61	1.7	.08	.43	.00	.00
24	.33	.21	2.4	23	3.4	13	.34	1.2	.81	.21	3.3	.00
25	.26	4.6	1.8	13	6.0	8.3	.32	.29	.23	.12	.75	.00
26	.26	4.1	1.3	8.8	4.2	6.2	3.7	.15	.12	.09	.10	.00
27	.36	1.1	e1.16	6.9	6.7	5.1	1.5	.09	1.8	.10	.05	.08
28	.79	.43	e1.08	4.4	15	4.3	5.1	.06	10	.08	.02	.03
29	.30	.28	e1.00	3.5	---	3.7	4.1	.05	3.9	.06	.02	1.5
30	.32	.27	e.94	3.1	---	3.2	1.5	.05	1.1	.05	.01	.16
31	.31	---	.91	12	---	3.2	---	.04	---	.05	.00	---
TOTAL	39.86	25.61	94.04	424.8	274.1	367.0	44.83	15.25	27.17	19.21	4.94	4.06
MEAN	1.29	.85	3.03	13.7	9.79	11.8	1.49	.49	.91	.62	.16	.14
MAX	13	5.7	17	85	45	38	5.1	3.6	10	6.4	3.3	2.2
MIN	.03	.11	.16	1.1	3.4	3.2	.32	.04	.03	.03	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 1999, BY WATER YEAR (WY)

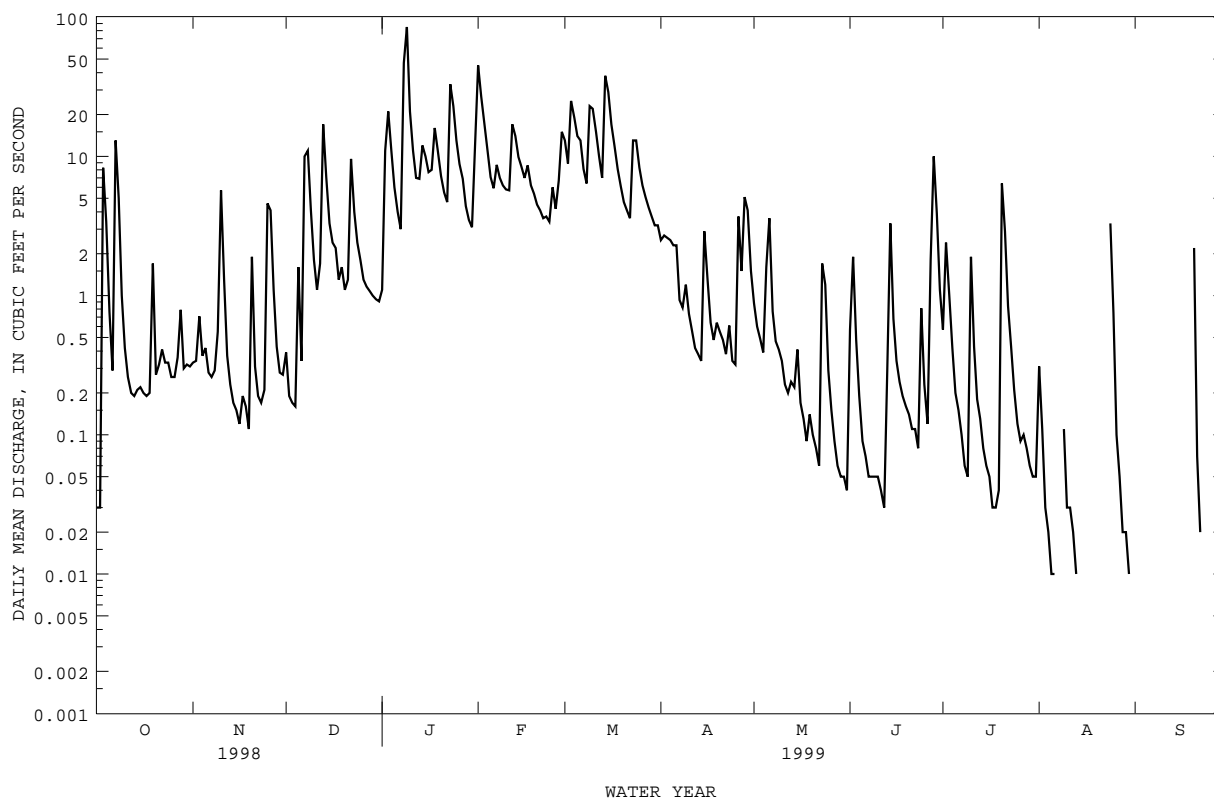
	1998	1999	1998	1998	1999	1998	1999	1998	1999	1998	1999	
MEAN	.81	1.29	2.82	13.2	11.5	9.36	6.91	5.77	8.08	9.59	.19	.20
MAX	1.29	1.73	3.03	13.7	13.2	11.8	12.3	11.0	15.3	18.6	.22	.27
(WY)	1999	1998	1999	1999	1998	1999	1998	1998	1998	1998	1998	1998
MIN	.33	.85	2.61	12.7	9.79	6.88	1.49	.49	.91	.62	.16	.14
(WY)	1998	1999	1998	1998	1999	1998	1999	1999	1999	1999	1999	1999

KENTUCKY RIVER BASIN

03287590 NORTH ELKHORN CREEK AT WINCHESTER ROAD AT LEXINGTON, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1998 - 1999	
ANNUAL TOTAL	2893.59		1340.87			
ANNUAL MEAN	7.93		3.67		5.78	
HIGHEST ANNUAL MEAN					7.88	
LOWEST ANNUAL MEAN					3.67	
HIGHEST DAILY MEAN	357	Jul 20	85	Jan 9	357	Jul 20 1998
LOWEST DAILY MEAN	.00	Sep 7	.00	Aug 7	.00	Oct 5 1997
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 7	.00	Aug 14	.00	Oct 5 1997
INSTANTANEOUS PEAK FLOW			224		1640	
INSTANTANEOUS PEAK STAGE			4.85		6.78	
10 PERCENT EXCEEDS	17		11		13	Jul 20 1998
50 PERCENT EXCEEDS	3.1		.48		1.6	
90 PERCENT EXCEEDS	.13		.01		.02	

e Estimated



KENTUCKY RIVER BASIN

03287600 NORTH ELKHORN CREEK AT BRYAN STATION ROAD AT MONTROSE, KY

LOCATION.--Lat 38°04'35", long 84°24'48", Fayette County, Hydrologic Unit 05100205, on right bank, downstream side of bridge on Bryan Station Road (Highway 57), 100 ft southwest of intersection of Briar Hill Road (highway 1970) and Bryan Station Road (Highway 57), 0.5 miles Northwest of Montrose, and at mile 86.0.

DRAINAGE AREA.--21.5 mi².

PERIOD OF RECORD.--October 1997 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 892.042 ft above sea level.

REMARKS.--Records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.04	.50	1.9	e3.0	221	52	17	5.3	2.3	1.6	.03	.00
2	e.03	.43	1.8	49	116	38	12	3.6	9.8	2.2	.02	.00
3	28	.41	1.8	120	69	109	12	2.8	2.2	2.8	.00	.00
4	13	.51	1.9	50	47	81	11	2.3	1.0	.99	.00	.00
5	3.2	.60	8.1	e30	31	53	9.2	6.3	.78	.68	.00	.00
6	1.3	.63	3.9	e20	26	51	13	17	.66	.52	.00	.00
7	35	.59	48	e14	32	33	7.9	5.3	.61	.44	.00	.00
8	21	.56	62	e232	23	28	6.9	2.8	.55	.40	.00	.00
9	3.7	.59	27	489	20	109	7.9	1.8	.51	.35	.00	.00
10	1.4	30	11	88	17	102	6.1	1.5	.48	.32	.00	.00
11	.88	9.5	6.2	49	16	61	5.3	1.3	.47	.57	.00	.00
12	.71	2.0	6.2	33	65	42	4.6	19	.47	.50	.00	.00
13	.57	1.1	98	29	58	31	4.2	9.5	.71	.35	.00	.00
14	.53	.83	50	50	41	190	4.1	2.7	10	.29	.00	.00
15	.47	.66	21	44	32	138	11	2.3	2.0	.23	.00	.00
16	.42	.79	13	33	26	72	11	1.4	.89	.22	.00	.00
17	.38	.83	14	32	30	47	5.6	1.0	.66	.21	.00	.00
18	.35	.78	7.3	66	22	32	4.7	1.0	.51	.20	.00	.00
19	6.0	.74	6.8	48	19	24	5.3	1.1	.46	.20	.00	.00
20	1.0	1.8	6.9	33	17	21	5.3	.81	.43	8.4	.00	.00
21	.59	3.1	6.1	26	14	18	4.5	.72	.40	7.3	.00	.00
22	.62	2.1	65	22	14	15	3.9	.71	.36	2.3	.00	.03
23	.63	2.3	34	151	13	49	3.8	13	.33	.69	.00	.00
24	.55	2.8	e30	102	12	47	2.9	14	.31	.35	19	.00
25	.57	16	e18	59	18	31	1.9	2.4	.53	.18	15	.00
26	.60	27	e12	38	15	24	14	1.1	.57	.14	2.0	.00
27	.72	4.3	e8.0	28	20	20	9.8	.85	.52	.12	.63	.00
28	2.5	2.0	e6.0	20	57	18	20	.72	41	.10	.32	.00
29	1.5	1.4	e4.5	16	---	16	16	.67	18	.08	.18	.00
30	1.7	1.5	e4.2	13	---	14	7.7	.61	4.8	.07	.13	.19
31	.89	---	e4.0	43	---	13	---	.55	---	.05	.06	---
TOTAL	128.85	116.35	588.6	2030.0	1091	1579	248.6	124.14	102.31	32.85	37.37	0.22
MEAN	4.16	3.88	19.0	65.5	39.0	50.9	8.29	4.00	3.41	1.06	1.21	.007
MAX	35	30	98	489	221	190	20	19	41	8.4	19	.19
MIN	.03	.41	1.8	3.0	12	13	1.9	.55	.31	.05	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 1999, BY WATER YEAR (WY)

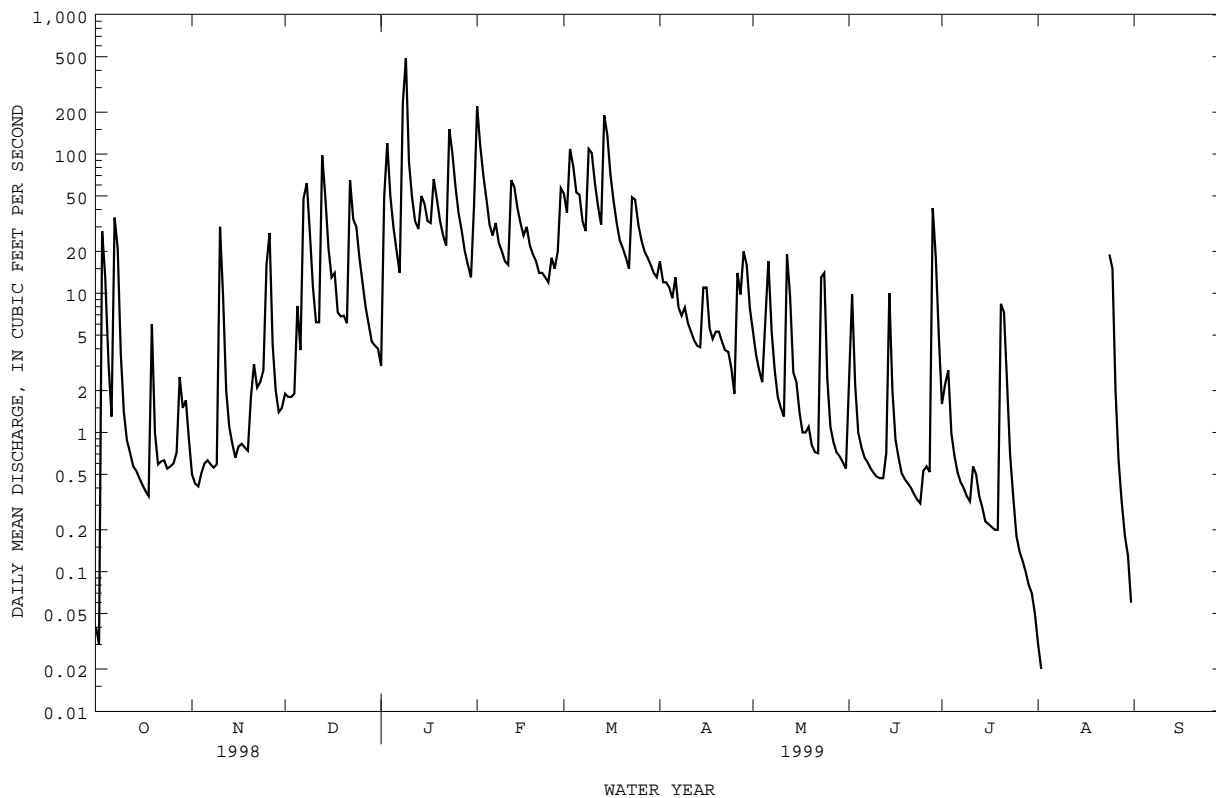
	1998	1999	1998	1998	1999	1998	1999	1998	1999	1998	1999	1998	1999
MEAN	2.59	5.16	16.0	64.2	53.2	40.6	32.7	26.5	60.7	42.8	1.17	.29	
MAX	4.16	6.43	19.0	65.5	67.5	50.9	57.0	48.9	118	84.5	1.21	.57	
(WY)	1999	1998	1999	1999	1998	1999	1998	1998	1998	1998	1999	1998	
MIN	1.03	3.88	13.0	63.0	39.0	30.3	8.29	4.00	3.41	1.06	1.13	.007	
(WY)	1998	1999	1998	1998	1999	1998	1999	1999	1999	1999	1998	1999	

KENTUCKY RIVER BASIN

03287600 NORTH ELKHORN CREEK AT BRYAN STATION ROAD AT MONTROSE, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1998 - 1999	
ANNUAL TOTAL	15057.20		6079.29			
ANNUAL MEAN	41.3		16.7		28.7	
HIGHEST ANNUAL MEAN					40.7	
LOWEST ANNUAL MEAN					16.7	
HIGHEST DAILY MEAN	1830	Jul 20	489	Jan 9	1830	Jul 20 1998
LOWEST DAILY MEAN	.00	Sep 8	.00	Aug 3	.00	Oct 8 1997
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 8	.00	Aug 3	.00	Sep 8 1998
INSTANTANEOUS PEAK FLOW			1460	Jan 9	7900	Jun 29 1998
INSTANTANEOUS PEAK STAGE			5.84	Jan 9	10.23	Jun 29 1998
INSTANTANEOUS LOW FLOW			.00	Aug 7	.00	Aug 7 1999
10 PERCENT EXCEEDS	73		47		59	
50 PERCENT EXCEEDS	11		2.5		6.9	
90 PERCENT EXCEEDS	.28		.00		.03	

e Estimated



KENTUCKY RIVER BASIN

03288000 NORTH ELKHORN CREEK NEAR GEORGETOWN, KY

LOCATION.--Lat 38°12'20", long 84°30'49", Scott County, Hydrologic Unit 05100205, on left bank at upstream side of bridge on Crumbaugh Lane, 1.7 mi downstream from Miller Run, 2.5 mi east of Georgetown, 2.7 mi upstream from Lanes Run at mile 58.3.

DRAINAGE AREA.--119 mi², of which about 8 mi² does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1949 to August 1984; October 1988 to June 1999 (discontinued). Monthly discharge only October 1949 to March 1950, published in WSP 1305.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 796.49 ft above sea level. Prior to Sept. 18, 1952, nonrecording gage and crest-stage gage at same site and datum.

REMARKS.--Records good except for those estimated, which are fair.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in April 1948 reached a stage of about 22 ft, from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	8.3	3.3	8.5	1000	295	98	39	7.6	---	---	---
2	3.7	8.7	2.4	7.5	1020	253	95	29	8.8	---	---	---
3	4.8	12	1.8	303	617	421	81	25	11	---	---	---
4	7.7	14	1.5	261	419	606	78	21	19	---	---	---
5	29	13	1.8	118	290	434	71	19	15	---	---	---
6	20	11	2.1	e52	226	388	68	25	11	---	---	---
7	12	9.9	4.1	e28	229	336	74	38	8.2	---	---	---
8	20	9.3	50	e130	230	262	64	32	6.9	---	---	---
9	52	8.9	126	2160	177	395	60	22	6.2	---	---	---
10	20	12	63	807	149	731	54	18	5.2	---	---	---
11	11	16	24	431	130	533	49	15	5.1	---	---	---
12	7.5	32	13	278	178	378	43	14	5.1	---	---	---
13	5.5	12	15	226	367	276	39	14	6.1	---	---	---
14	4.5	5.0	175	399	303	449	36	36	8.7	---	---	---
15	3.5	4.9	75	396	247	1090	38	23	9.3	---	---	---
16	3.3	7.0	34	315	203	638	45	16	8.6	---	---	---
17	2.7	5.7	21	252	182	436	49	17	11	---	---	---
18	1.8	5.4	17	308	161	308	38	15	7.6	---	---	---
19	2.7	5.2	12	356	135	223	33	14	5.8	---	---	---
20	2.4	7.1	9.4	273	116	172	32	12	5.3	---	---	---
21	1.7	7.4	11	234	100	146	32	10	5.4	---	---	---
22	2.5	4.7	50	242	88	121	31	10	5.4	---	---	---
23	3.6	6.3	111	507	81	133	28	9.6	5.3	---	---	---
24	2.8	8.0	59	847	79	269	24	12	6.5	---	---	---
25	2.4	8.6	38	523	80	213	22	27	7.3	---	---	---
26	2.0	11	23	347	88	162	24	22	6.6	---	---	---
27	1.4	35	16	253	95	135	40	14	8.1	---	---	---
28	2.7	24	12	190	210	117	49	10	12	---	---	---
29	4.3	9.9	10	143	---	104	56	8.4	62	---	---	---
30	6.3	5.1	9.6	115	---	91	61	7.5	64	---	---	---
31	9.1	---	9.3	108	---	82	---	7.5	---	---	---	---
TOTAL	256.7	327.4	1000.3	10618.0	7200	10197	1512	582.0	354.1	---	---	---
MEAN	8.28	10.9	32.3	343	257	329	50.4	18.8	11.8	---	---	---
MAX	52	35	175	2160	1020	1090	98	39	64	---	---	---
MIN	1.4	4.7	1.5	7.5	79	82	22	7.5	5.1	---	---	---
CFSM	.07	.10	.29	3.09	2.32	2.96	.45	.17	.11	---	---	---
IN.	.09	.11	.34	3.56	2.41	3.42	.51	.20	.12	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1998, BY WATER YEAR (WY)

MEAN	33.5	89.4	256	293	352	399	233	192	112	64.0	47.3	43.7
MAX	312	347	1028	798	1169	1187	746	881	630	460	375	702
(WY)	1976	1980	1979	1951	1989	1997	1972	1983	1997	1998	1974	1979
MIN	.000	.000	.28	11.5	24.8	39.8	45.6	14.3	4.41	1.59	.41	.000
(WY)	1954	1954	1954	1981	1954	1983	1955	1976	1954	1951	1983	1953

KENTUCKY RIVER BASIN

03288000 NORTH ELKHORN CREEK NEAR GEORGETOWN, KY--Continued

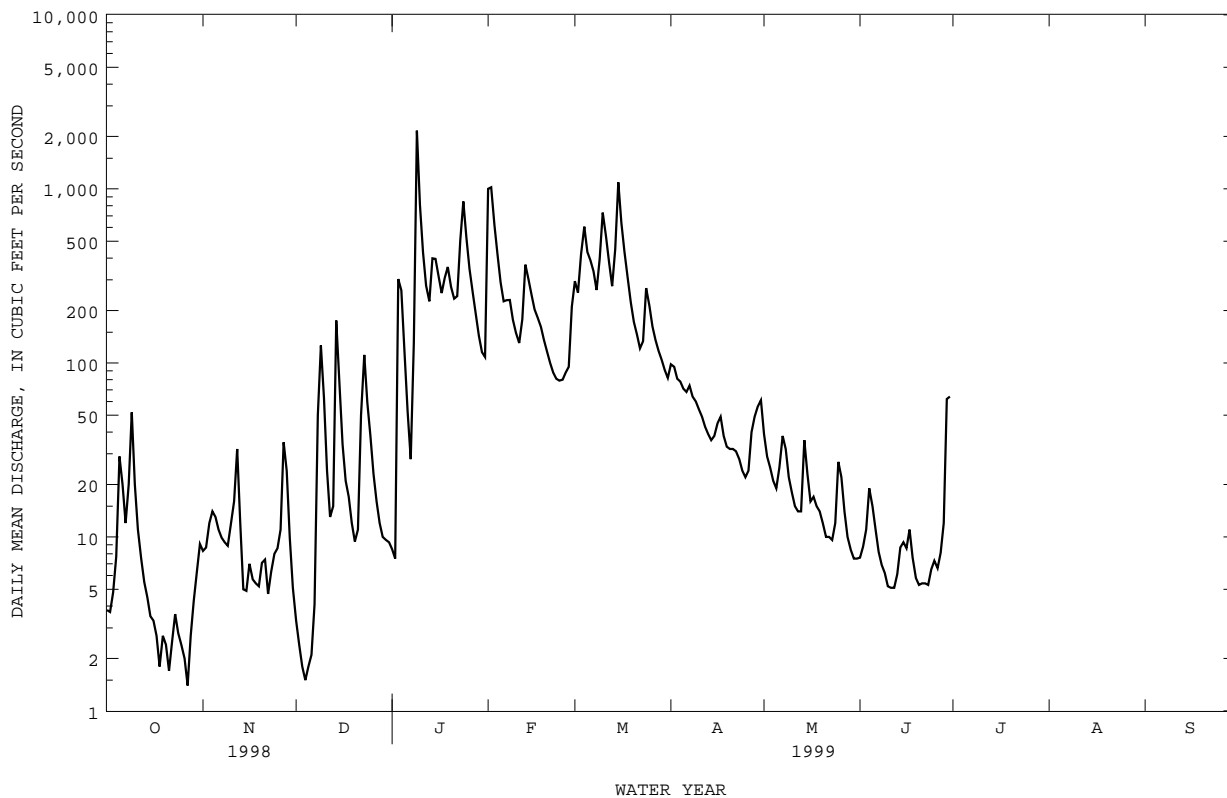
SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

WATER YEARS 1950 - 1998

ANNUAL TOTAL	74055.3		
ANNUAL MEAN	203		175
HIGHEST ANNUAL MEAN			319
LOWEST ANNUAL MEAN			28.0
HIGHEST DAILY MEAN	4460	Jul 21	8400
LOWEST DAILY MEAN	1.4	Oct 27	.00
ANNUAL SEVEN-DAY MINIMUM	2.2	Sep 8	.00
INSTANTANEOUS PEAK FLOW			15700
INSTANTANEOUS PEAK STAGE			26.04
ANNUAL RUNOFF (CFSM)	1.83		1.58
ANNUAL RUNOFF (INCHES)	24.82		21.45
10 PERCENT EXCEEDS	502		429
50 PERCENT EXCEEDS	65		49
90 PERCENT EXCEEDS	3.7		3.4

e Estimated



KENTUCKY RIVER BASIN

03288100 NORTH ELKHORN CREEK AT GEORGETOWN, KY

LOCATION.--Lat 38°13'10", long 84°33'47", Scott County, Hydrologic Unit 05100205, on right bank, 300 ft upstream of bridge on Highway 25, 0.4 mi downstream from Dry Run, and at mile 33.4.

DRAINAGE AREA.--147 mi², of which about 8 mi² does not contribute directly to surface runoff.

PERIOD OF RECORD.--December 1992 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 803.40 ft above sea level, from topographic map. Prior to Oct. 1, 1994 at datum 3.40 ft. lower.

REMARKS.--Records good except for periods of estimated discharges and discharges below 80 ft³/s which are fair.

PEAKS ABOVE BASE.--Peak discharges above base of 2,800 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 9	0600	2760	7.79

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	8.4	14	e23	1160	371	138	45	11	55	6.0	4.7
2	12	8.1	12	e22	1150	315	131	31	13	37	6.1	3.8
3	18	13	11	393	705	524	106	28	15	37	5.8	3.1
4	22	11	9.8	e700	481	663	100	25	16	17	5.2	2.9
5	27	9.2	11	e500	339	491	93	25	19	14	4.7	2.9
6	28	9.6	12	e310	268	464	101	33	16	14	3.9	2.8
7	25	9.6	15	e220	301	409	104	41	14	13	3.5	2.8
8	35	9.4	53	e400	297	322	86	42	13	12	3.7	3.0
9	57	11	119	2370	234	518	82	28	12	11	3.6	2.7
10	32	12	87	899	202	904	71	24	9.8	9.4	3.5	2.9
11	21	24	50	472	177	656	61	22	10	9.5	3.3	2.4
12	15	47	33	326	256	464	47	19	9.4	8.7	3.4	1.9
13	14	37	48	284	420	344	42	18	9.6	7.4	3.5	1.7
14	12	23	168	515	354	569	39	38	22	7.4	4.2	1.7
15	11	16	122	458	295	1220	42	38	24	6.1	4.8	2.0
16	10	12	67	359	247	748	51	26	16	4.5	5.5	1.7
17	9.7	10	48	298	228	516	56	22	15	5.1	5.2	1.5
18	8.0	9.2	37	339	208	369	44	23	14	4.8	4.1	1.3
19	12	8.0	31	386	177	274	36	21	9.9	5.2	4.0	1.3
20	14	9.7	27	311	149	221	35	18	8.5	5.2	5.7	1.4
21	13	12	31	327	126	193	34	17	8.4	8.6	4.9	2.0
22	13	9.4	171	316	109	159	35	16	8.4	23	4.0	1.7
23	14	8.1	155	610	100	195	32	16	8.9	13	4.2	1.8
24	14	8.7	98	944	97	339	28	18	10	10	5.0	2.6
25	12	10	66	583	100	274	25	23	12	10	11	2.1
26	10	29	49	394	107	218	27	35	11	10	7.1	1.9
27	9.8	37	38	300	130	185	39	25	14	9.0	4.4	2.3
28	11	43	32	236	332	155	63	19	35	7.6	3.5	3.3
29	12	25	29	190	---	136	52	16	135	7.6	4.5	5.2
30	9.2	17	e26	148	---	118	80	13	136	7.5	7.0	7.5
31	8.5	---	e24	149	---	104	---	11	---	6.2	6.5	---
TOTAL	522.2	496.4	1693.8	13782	8749	12438	1880	776	655.9	395.8	151.8	78.9
MEAN	16.8	16.5	54.6	445	312	401	62.7	25.0	21.9	12.8	4.90	2.63
MAX	57	47	171	2370	1160	1220	138	45	136	55	11	7.5
MIN	8.0	8.0	9.8	22	97	104	25	11	8.4	4.5	3.3	1.3
CFSM	.11	.11	.37	3.02	2.13	2.73	.43	.17	.15	.09	.03	.02
IN.	.13	.13	.43	3.49	2.21	3.15	.48	.20	.17	.10	.04	.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1999, BY WATER YEAR (WY)

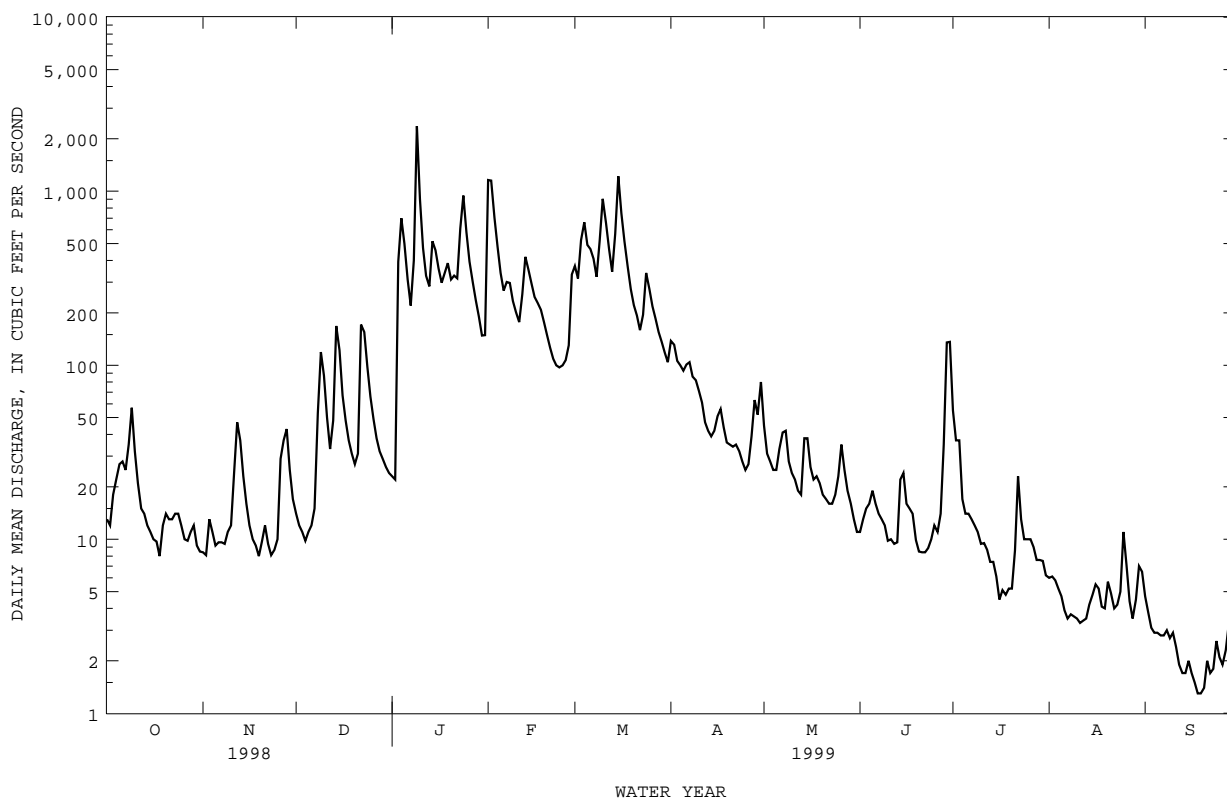
MEAN	35.1	143	234	467	402	613	232	353	284	105	50.5	29.5
MAX	71.2	398	564	631	552	1574	408	786	768	560	156	136
(WY)	1994	1994	1997	1994	1997	1997	1994	1995	1997	1998	1993	1996
MIN	12.8	16.5	54.6	333	211	242	62.7	25.0	19.6	12.8	4.90	2.63
(WY)	1995	1999	1999	1993	1996	1998	1999	1999	1994	1999	1999	1999

KENTUCKY RIVER BASIN

03288100 NORTH ELKHORN CREEK AT GEORGETOWN, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1993 - 1999	
ANNUAL TOTAL	94092.1		41619.8			
ANNUAL MEAN	258		114		252	
HIGHEST ANNUAL MEAN					371	
LOWEST ANNUAL MEAN					114	
HIGHEST DAILY MEAN	5290	Jul 20	2370	Jan 9	11000	Mar 3 1997
LOWEST DAILY MEAN	8.0	Oct 18	1.3	Sep 18	1.3	Sep 18 1999
ANNUAL SEVEN-DAY MINIMUM	9.3	Nov 18	1.6	Sep 14	1.6	Sep 14 1999
INSTANTANEOUS PEAK FLOW			2760	Jan 9	19300	Mar 2 1997
INSTANTANEOUS PEAK STAGE			7.79	Jan 9	19.01	Mar 2 1997
ANNUAL RUNOFF (CFSM)	1.75		.78		1.72	
ANNUAL RUNOFF (INCHES)	23.81		10.53		23.30	
10 PERCENT EXCEEDS	620		348		595	
50 PERCENT EXCEEDS	109		22		87	
90 PERCENT EXCEEDS	11		4.0		9.3	

e Estimated



KENTUCKY RIVER BASIN

03288110 ROYAL SPRINGS AT GEORGETOWN, KY

LOCATION.--Lat 38°12'34", long 84°33'43", Scott County, Hydrologic Unit 05100205, at Georgetown Water Plant, 200 ft downstream from dam, and 0.64 mi upstream from mouth.

PERIOD OF RECORD.--December 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 800.00 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 30, Dece. 1, 30, 31, Feb. 4-8, and Aug. 8, 9. Records good 10 ft³/s to 200 ft³/s and poor below 10 ft³/s. and above 200 ft³/s, and for periods of estimated record. Flow regulated by Georgetown Water Plant.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	3.4	1.3	2.8	77	30	30	8.0	.36	16	.79	.08
2	.00	3.0	1.1	6.5	77	31	26	6.3	11	13	14	.08
3	5.3	1.9	.88	42	69	52	23	5.0	8.7	13	7.7	.08
4	7.3	.44	.85	24	62	59	21	4.4	4.2	9.0	2.6	.08
5	4.6	.29	1.9	16	55	55	18	6.0	3.0	7.3	1.0	.08
6	2.3	.08	1.8	13	51	57	21	13	2.5	6.1	.11	.09
7	4.2	.07	6.5	11	50	50	20	8.5	1.3	3.8	.10	.09
8	10	.06	13	41	47	44	17	6.8	2.0	3.4	.25	.09
9	4.8	.16	9.3	100	43	57	20	5.1	.42	2.3	.20	.10
10	2.8	2.4	5.4	71	40	63	15	3.5	2.2	2.3	.14	.08
11	1.9	4.6	3.9	59	38	60	12	3.1	1.9	2.8	.10	.07
12	.00	2.0	3.5	51	48	55	11	3.6	3.9	.50	.09	.08
13	.00	1.5	15	44	49	48	11	22	2.8	.47	.09	.08
14	.00	1.3	14	60	47	61	9.9	11	8.3	.45	.09	.08
15	.00	1.2	7.9	59	45	72	11	7.2	6.7	.34	.09	.08
16	.00	1.1	5.7	52	43	65	12	4.4	5.0	.35	.09	.08
17	.08	.55	4.8	46	43	59	11	3.0	4.3	.92	.09	.08
18	.90	.69	3.9	49	40	53	11	3.1	3.2	.78	.09	.08
19	1.5	.24	3.5	46	37	47	8.5	2.4	2.3	.30	.10	.08
20	.66	.71	3.3	43	34	43	8.5	2.1	2.1	.43	.09	.08
21	.71	1.2	4.4	43	30	40	7.9	1.7	1.7	7.2	.08	.06
22	.63	1.2	22	42	25	38	7.3	1.6	.84	10	.08	.00
23	.61	1.0	13	63	23	43	6.8	1.7	.16	4.8	.08	.00
24	.05	.42	9.2	70	22	48	6.4	11	.92	2.9	1.3	.00
25	.33	2.8	6.7	62	23	42	5.3	5.7	3.5	1.0	8.2	.00
26	.00	7.1	5.2	55	22	39	9.3	3.5	3.3	.49	3.7	.00
27	.00	3.3	4.3	48	24	37	12	2.8	10	.49	2.3	.27
28	.07	3.5	3.8	44	31	36	11	2.4	21	.49	1.8	.11
29	.00	3.2	3.5	39	---	34	13	1.6	45	.49	1.2	3.3
30	.00	1.7	3.2	35	---	32	9.2	.83	20	.56	.16	4.2
31	.00	---	3.1	38	---	30	---	1.6	---	.52	.08	---
TOTAL	48.74	51.11	185.93	1375.3	1195	1480	405.1	162.93	182.60	112.48	46.79	9.58
MEAN	1.57	1.70	6.00	44.4	42.7	47.7	13.5	5.26	6.09	3.63	1.51	.32
MAX	10	7.1	22	100	77	72	30	22	45	16	14	4.2
MIN	.00	.06	.85	2.8	22	30	5.3	.83	.16	.30	.08	.00

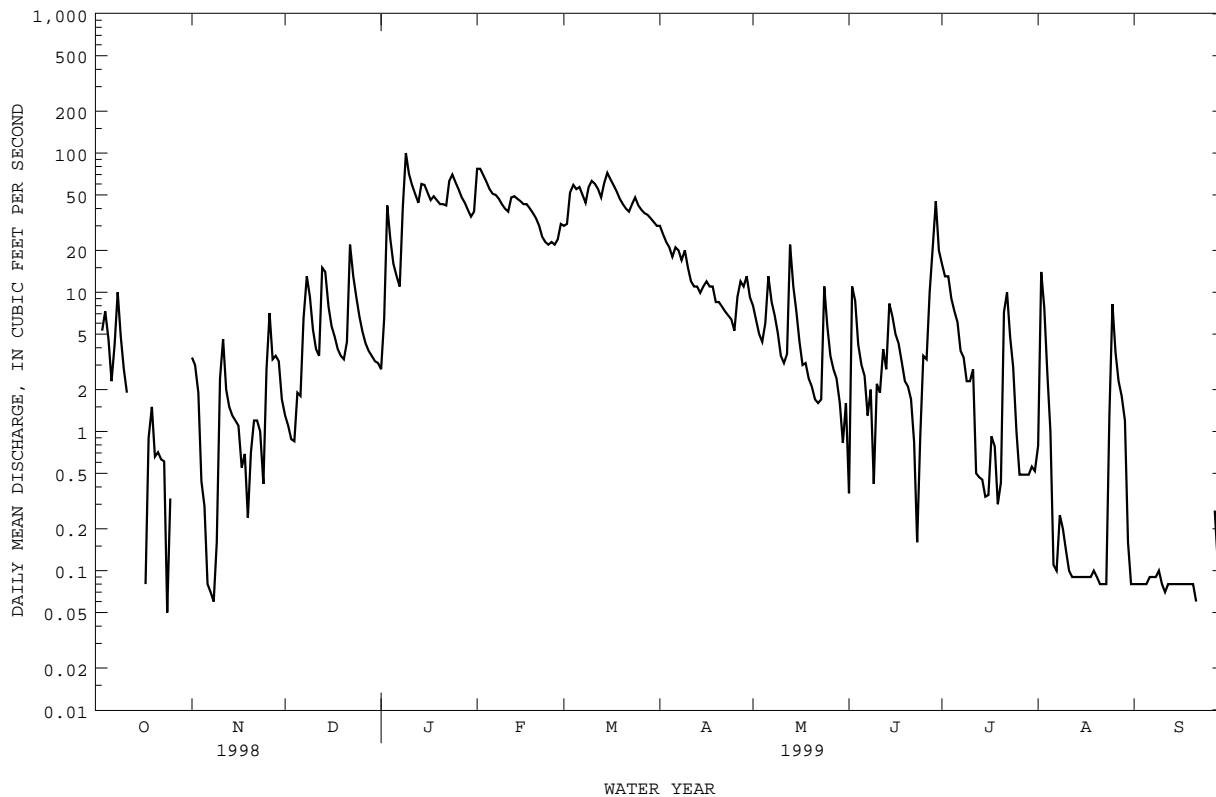
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1999, BY WATER YEAR (WY)

	1993	1994	1995	1996	1997	1998	1999
MEAN	5.62	16.1	27.3	41.8	40.2	50.2	31.2
MAX	9.63	35.9	48.3	49.0	52.5	77.5	47.5
(WY)	1997	1994	1997	1996	1994	1997	1996
MIN	1.57	1.70	6.00	33.5	29.4	35.9	13.5
(WY)	1999	1999	1999	1997	1996	1998	1999

KENTUCKY RIVER BASIN

03288110 ROYAL SPRINGS AT GEORGETOWN, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1993 - 1999	
ANNUAL TOTAL	9423.51		5255.56			
ANNUAL MEAN	25.8		14.4		25.2	
HIGHEST ANNUAL MEAN					30.5	
LOWEST ANNUAL MEAN					14.4	
HIGHEST DAILY MEAN	166	Jul 20	100	Jan 9	313	Mar 1 1997
LOWEST DAILY MEAN	.00	Sep 4	.00	Oct 1	.00	Oct 15 1993
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 4	.02	Sep 20	.00	Oct 4 1997
INSTANTANEOUS PEAK FLOW			128		2240	
INSTANTANEOUS PEAK STAGE			4.00		7.30	
10 PERCENT EXCEEDS	59		48		57	
50 PERCENT EXCEEDS	21		3.9		19	
90 PERCENT EXCEEDS	.07		.08		.99	



KENTUCKY RIVER BASIN

03289000 SOUTH ELKHORN CREEK AT FORT SPRING, KY

LOCATION.--Lat 38°02'35", long 84°37'35", Fayette County, Hydrologic Unit 05100205, on downstream side of bridge on Fort Spring Road at U.S. Highway 60 at Fort Spring, 1.7 mi upstream from Shannon Run, 6.5 mi west of Lexington, and at mile 42.6.

DRAINAGE AREA.--24.0 mi², of which about 3.0 mi² does not contribute directly to surface runoff.

PERIOD OF RECORD.--March 1950 to September 1992, October 1997 to current year.

REVISED RECORDS.--WSP 1275: 1951-52. WSP 1505: Drainage area. WSP 1625: 1951-52 (P).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 834.25 ft above sea level. Prior to Aug. 12, 1952, and Feb. 18 to Nov. 16, 1965, nonrecording gage and crest-stage gage at same site and datum.

REMARKS.- Records good.

PEAKS ABOVE BASE.--Peak discharges above base of 500 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 9	0200	*827	6.58

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	6.3	5.1	8.0	234	55	27	10	5.1	9.1	1.1	1.2
2	1.6	8.9	4.3	39	164	44	20	8.6	17	16	1.3	1.1
3	45	11	3.9	142	99	117	18	7.7	8.7	14	1.1	1.6
4	37	13	3.6	50	69	104	17	6.9	4.8	7.1	.94	1.1
5	15	12	11	30	48	74	15	11	3.4	4.5	.93	.78
6	7.5	11	7.7	22	39	71	20	24	2.8	3.2	.79	.62
7	12	12	42	18	40	49	16	12	2.3	2.5	.71	.57
8	14	12	55	195	31	40	14	9.0	2.2	2.0	.78	.54
9	6.9	13	34	290	26	116	14	7.4	2.8	1.7	1.5	.46
10	4.5	25	18	144	23	118	12	6.3	4.2	5.2	1.3	.39
11	3.4	14	12	128	20	83	11	5.5	4.8	4.9	.98	.28
12	2.9	6.4	11	66	58	60	10	4.7	6.7	2.1	.84	.26
13	2.6	4.3	74	47	53	45	9.4	4.4	8.4	2.0	.69	.28
14	2.2	3.4	41	55	42	194	8.9	4.2	20	1.5	.55	.57
15	2.0	3.2	23	46	36	199	14	11	7.9	1.2	.49	.48
16	1.7	2.9	16	39	32	112	17	5.3	4.2	1.0	.46	.42
17	1.6	2.8	15	38	38	75	11	4.0	3.1	1.0	.47	.36
18	1.6	2.7	11	68	30	53	9.9	3.8	2.4	.85	.36	.33
19	6.9	2.5	11	58	26	40	9.2	4.5	1.9	1.2	.28	.30
20	3.6	6.9	11	47	23	33	8.8	3.3	1.8	15	.25	1.8
21	2.5	5.8	11	40	21	29	8.4	2.9	1.5	20	.72	3.3
22	2.2	3.8	46	33	18	25	7.9	2.7	1.3	13	.55	1.6
23	2.0	2.9	27	166	17	58	9.7	3.0	.95	4.3	.34	1.2
24	2.2	2.6	20	125	17	56	8.5	20	5.9	2.6	11	.81
25	2.4	12	15	79	19	39	6.8	6.9	14	1.9	30	.78
26	2.6	31	13	55	17	32	23	4.9	4.6	1.5	4.6	1.2
27	2.9	10	11	42	20	28	20	3.6	12	3.3	2.6	2.1
28	4.5	7.5	9.9	33	61	24	18	2.9	64	2.5	1.7	3.6
29	5.7	5.9	9.2	27	---	22	18	2.5	43	3.1	1.2	7.1
30	4.5	5.0	9.6	23	---	20	12	2.2	15	1.6	1.1	11
31	5.9	---	8.8	51	---	19	---	2.1	---	1.1	1.1	---
TOTAL	211.3	259.8	590.1	2204.0	1321	2034	414.5	207.3	276.75	150.95	70.73	46.13
MEAN	6.82	8.66	19.0	71.1	47.2	65.6	13.8	6.69	9.23	4.87	2.28	1.54
MAX	45	31	74	290	234	199	27	24	64	20	30	11
MIN	1.6	2.5	3.6	8.0	17	19	6.8	2.1	.95	.85	.25	.26
CFSM	.32	.41	.90	3.35	2.23	3.09	.65	.32	.44	.23	.11	.07
IN.	.37	.46	1.04	3.87	2.32	3.57	.73	.36	.49	.26	.12	.08

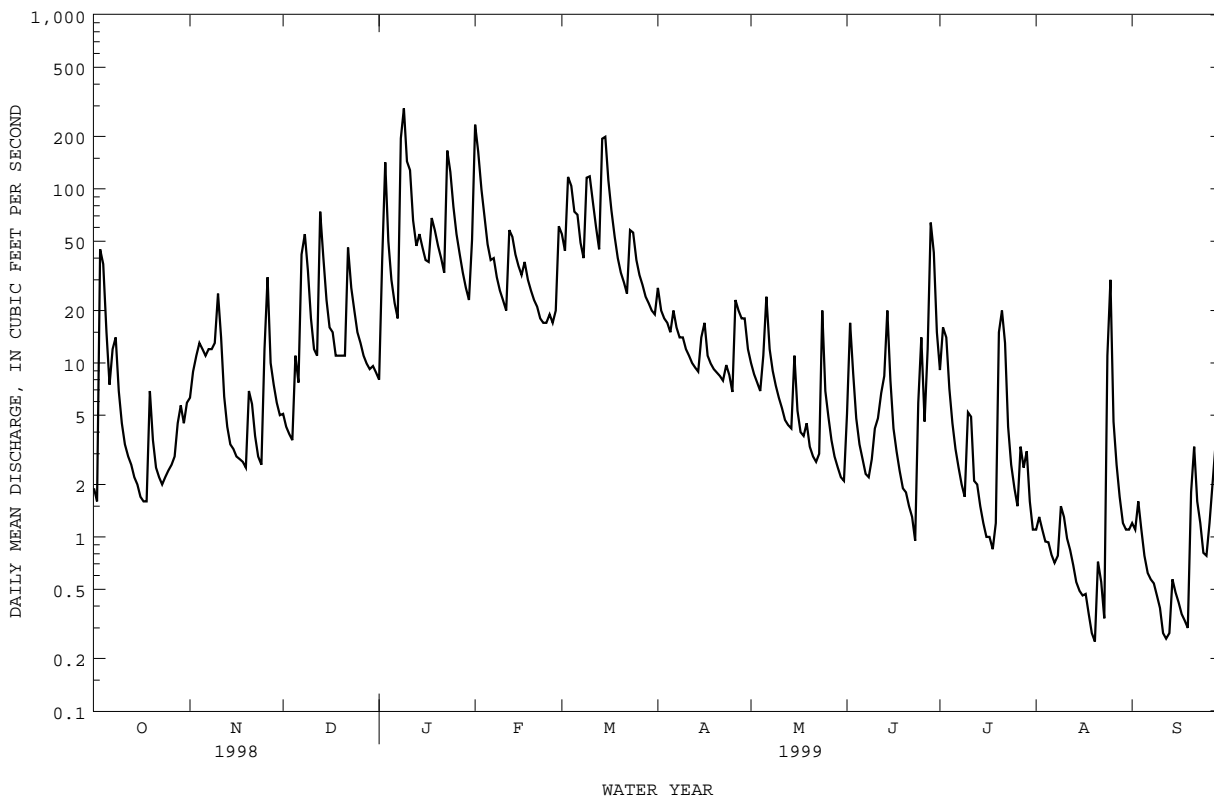
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1999, BY WATER YEAR (WY)

MEAN	8.43	21.0	50.6	51.2	64.8	69.2	43.9	32.7	20.4	15.9	11.5	9.20
MAX	57.0	64.0	198	159	227	172	145	156	83.2	97.0	68.0	81.4
(WY)	1976	1980	1979	1951	1989	1964	1972	1983	1960	1958	1974	1979
MIN	.000	.087	.86	4.43	6.48	11.0	10.3	3.92	1.14	.66	.006	.020
(WY)	1954	1954	1954	1981	1954	1954	1971	1952	1954	1951	1965	1953

KENTUCKY RIVER BASIN

03289000 SOUTH ELKHORN CREEK AT FORT SPRING, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1950 - 1999	
ANNUAL TOTAL	14983.3		7786.56			
ANNUAL MEAN	41.1		21.3		33.0	
HIGHEST ANNUAL MEAN					62.1	1989
LOWEST ANNUAL MEAN					6.75	1954
HIGHEST DAILY MEAN	712	Jul 20	290	Jan 9	1310	Feb 15 1989
LOWEST DAILY MEAN	1.6	Oct 2	.25	Aug 20	.00	Aug 6 1951
ANNUAL SEVEN-DAY MINIMUM	2.1	Oct 12	.38	Sep 11	.00	Aug 19 1951
INSTANTANEOUS PEAK FLOW			827	Jan 9	2280	Feb 15 1989
INSTANTANEOUS PEAK STAGE			6.58	Jan 9	12.13	Sep 21 1979
INSTANTANEOUS LOW FLOW					.00	Aug 6 1951
ANNUAL RUNOFF (CFSM)	1.94		1.01		1.56	
ANNUAL RUNOFF (INCHES)	26.29		13.66		21.17	
10 PERCENT EXCEEDS	91		55		81	
50 PERCENT EXCEEDS	21		8.7		12	
90 PERCENT EXCEEDS	3.3		.97		1.4	



KENTUCKY RIVER BASIN

03289193 WOLF RUN AT OLD FRANKFORT PIKE AT LEXINGTON, KY--Continued

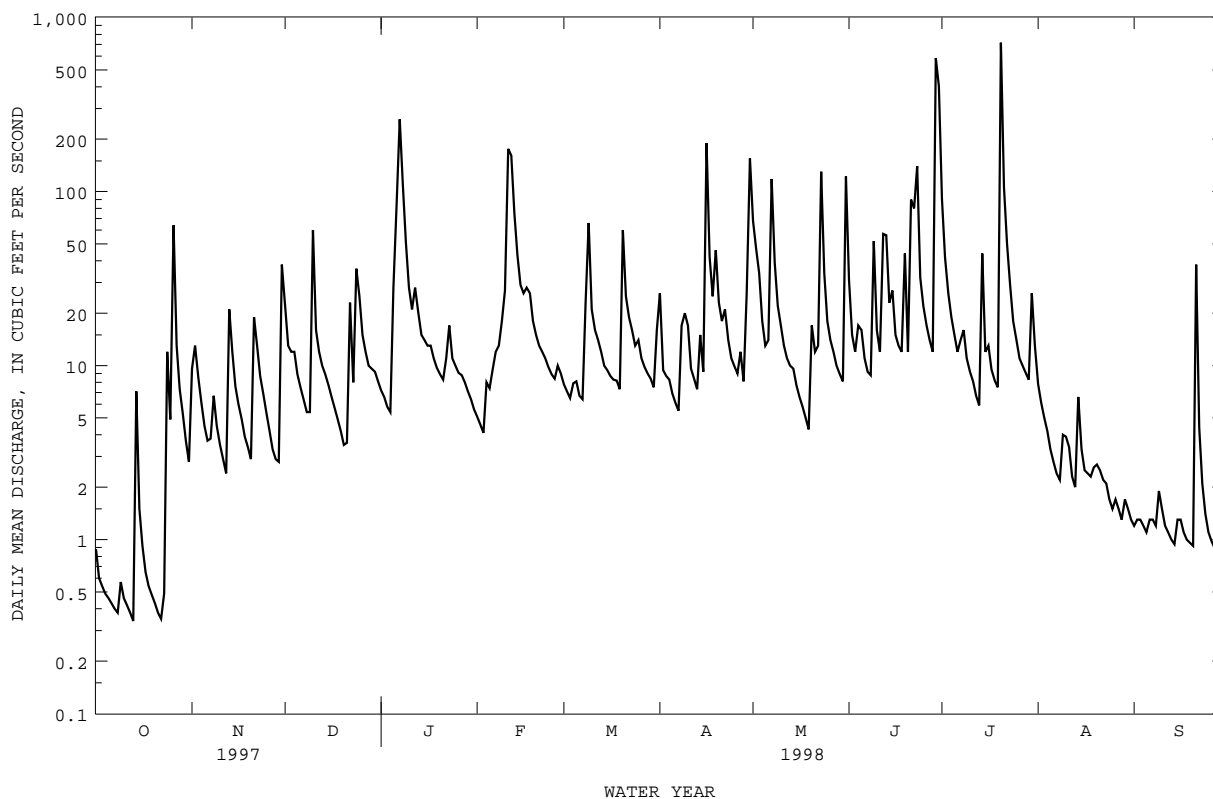
SUMMARY STATISTICS

FOR 1998 WATER YEAR

WATER YEARS 1995 - 1998

ANNUAL TOTAL	7901.65			
ANNUAL MEAN	21.6		21.6	
HIGHEST ANNUAL MEAN			21.6	1998
LOWEST ANNUAL MEAN			21.6	1998
HIGHEST DAILY MEAN	717	Jul 20	717	Jul 20 1998
LOWEST DAILY MEAN	.34	Oct 13	.34	Oct 13 1997
ANNUAL SEVEN-DAY MINIMUM	.42	Oct 7	.42	Oct 7 1997
INSTANTANEOUS PEAK FLOW	3120	Jun 29	3120	Jun 29 1998
INSTANTANEOUS PEAK STAGE	7.97	Jun 29	7.97	Jun 29 1998
ANNUAL RUNOFF (CFSM)	2.26		2.26	
ANNUAL RUNOFF (INCHES)	30.71		30.74	
10 PERCENT EXCEEDS	40		38	
50 PERCENT EXCEEDS	9.1		8.7	
90 PERCENT EXCEEDS	1.2		1.0	

e Estimated



KENTUCKY RIVER BASIN

03289193 WOLF RUN AT OLD FRANKFORT PIKE AT LEXINGTON, KY--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.77	.93	1.4	2.2	107	11	13	4.8	5.1	4.3	9.6	.79
2	.76	.87	e1.3	58	44	9.7	8.5	3.9	35	6.9	e3.8	.73
3	48	.93	1.2	29	23	69	7.9	3.3	4.0	3.5	e2.5	e.71
4	19	.86	e1.1	12	16	26	6.8	3.0	2.2	2.3	e1.0	e.69
5	6.7	e.82	11	10	12	18	5.8	7.3	1.8	2.0	e.85	e.64
6	4.2	e.78	2.6	7.9	10	31	14	30	1.7	1.8	e.80	e.60
7	18	e.74	35	6.1	15	14	7.0	6.5	1.6	1.7	e.77	e.55
8	8.2	e.70	22	205	9.3	11	5.9	4.9	1.5	1.5	1.8	e.51
9	4.4	8.1	11	279	8.1	84	5.3	4.0	e1.4	e1.4	2.5	e.48
10	2.8	24	7.8	49	6.8	36	4.7	3.3	e1.3	9.9	1.3	e.45
11	1.9	6.7	5.7	21	6.1	23	4.0	3.6	1.7	2.0	.94	e.42
12	1.5	3.4	6.2	15	39	16	3.6	3.5	1.5	1.5	.87	e.40
13	1.3	2.4	44	15	14	12	3.4	2.9	1.4	e1.2	.73	.94
14	1.2	1.7	13	18	11	182	3.1	3.9	19	e.92	.70	e.83
15	1.1	e1.3	9.5	13	10	69	8.9	5.2	2.8	e.82	e.62	e.77
16	1.0	e1.2	7.9	12	9.7	32	7.0	2.9	1.8	e.74	e.56	e.68
17	1.0	e1.0	7.8	17	21	20	4.4	2.7	1.6	e.62	e.50	e.59
18	1.1	e.85	5.7	23	8.7	15	3.7	2.6	1.5	e.70	e.45	e.49
19	7.8	e.73	5.9	15	7.5	11	3.9	2.6	1.4	1.1	e.41	.77
20	2.4	7.5	4.9	13	6.5	9.5	3.4	2.4	1.4	76	.86	2.9
21	1.5	2.6	6.2	13	5.6	8.5	3.1	2.4	1.3	15	.69	e2.0
22	1.3	1.7	29	11	5.0	7.3	2.8	2.3	1.2	6.3	e.60	1.3
23	1.1	1.4	9.3	124	4.6	66	3.3	51	e1.1	4.7	e.54	1.1
24	1.1	1.4	7.3	32	4.2	21	2.7	9.7	13	4.3	49	1.0
25	1.0	40	5.6	20	7.3	13	2.6	2.5	4.3	4.2	12	.93
26	.97	11	4.4	15	5.1	11	25	1.9	1.6	4.0	3.6	.87
27	1.0	4.1	3.3	12	12	9.8	8.5	1.7	5.7	13	2.2	2.0
28	2.0	2.4	2.5	11	18	9.0	17	1.6	105	4.7	1.6	1.8
29	1.2	1.7	2.4	9.2	---	8.5	8.1	1.4	16	4.4	1.3	11
30	.97	1.4	2.8	8.3	---	7.8	6.2	e1.3	6.9	4.3	1.0	4.1
31	.93	---	2.3	93	---	8.0	---	e1.2	---	4.2	.92	---
TOTAL	146.20	133.21	280.1	1168.7	446.5	869.1	203.6	180.3	245.8	190.00	105.01	41.04
MEAN	4.72	4.44	9.04	37.7	15.9	28.0	6.79	5.82	8.19	6.13	3.39	1.37
MAX	48	40	44	279	107	182	25	51	105	76	49	11
MIN	.76	.70	1.1	2.2	4.2	7.3	2.6	1.2	1.1	.62	.41	.40
CFSM	.49	.46	.94	3.94	1.67	2.93	.71	.61	.86	.64	.35	.14
IN.	.57	.52	1.09	4.54	1.74	3.38	.79	.70	.96	.74	.41	.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1999, BY WATER YEAR (WY)

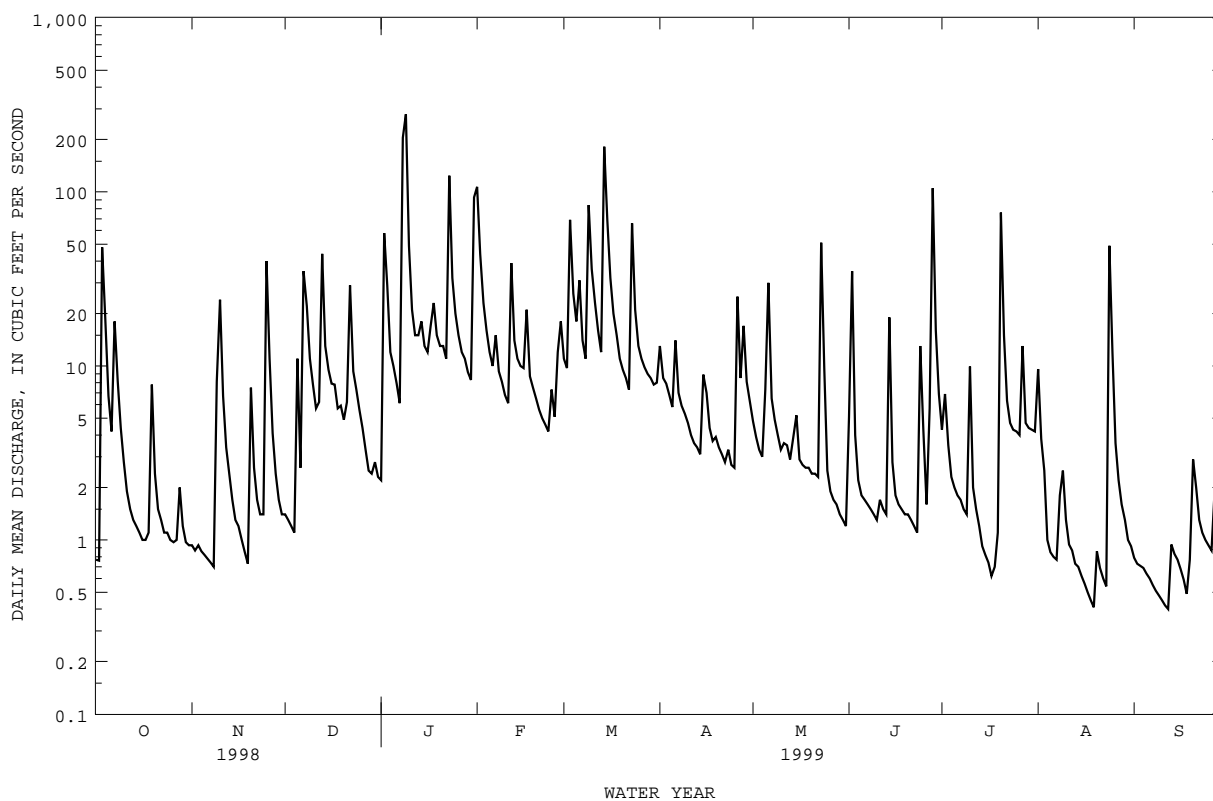
MEAN	4.49	6.14	10.8	32.5	22.0	21.5	16.5	16.8	35.0	25.3	3.16	1.94
MAX	4.72	7.83	12.6	37.7	28.1	28.0	26.1	27.8	61.8	44.6	3.39	2.52
(WY)	1999	1998	1998	1999	1998	1999	1998	1998	1998	1998	1999	1998
MIN	4.26	4.44	9.04	27.2	15.9	14.9	6.79	5.82	8.19	6.13	2.93	1.37
(WY)	1998	1999	1999	1998	1999	1998	1999	1999	1999	1999	1998	1999

KENTUCKY RIVER BASIN

03289193 WOLF RUN AT OLD FRANKFORT PIKE AT LEXINGTON, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1995 - 1999	
ANNUAL TOTAL	7702.47		4009.56			
ANNUAL MEAN	21.1		11.0		16.3	
HIGHEST ANNUAL MEAN					21.6	
LOWEST ANNUAL MEAN					11.0	
HIGHEST DAILY MEAN	717	Jul 20	279	Jan 9	717	Jul 20 1998
LOWEST DAILY MEAN	.70	Nov 8	.40	Sep 12	.34	Oct 13 1997
ANNUAL SEVEN-DAY MINIMUM	.81	Nov 2	.49	Sep 6	.42	Oct 7 1997
INSTANTANEOUS PEAK FLOW			1040	Jul 20	3120	Jun 29 1998
INSTANTANEOUS PEAK STAGE			4.79	Jul 20	7.97	Jun 29 1998
ANNUAL RUNOFF (CFSM)	2.21		1.15		1.70	
ANNUAL RUNOFF (INCHES)	29.94		15.59		23.17	
10 PERCENT EXCEEDS	41		22		29	
50 PERCENT EXCEEDS	8.4		4.0		6.5	
90 PERCENT EXCEEDS	1.1		.79		.92	

e Estimated

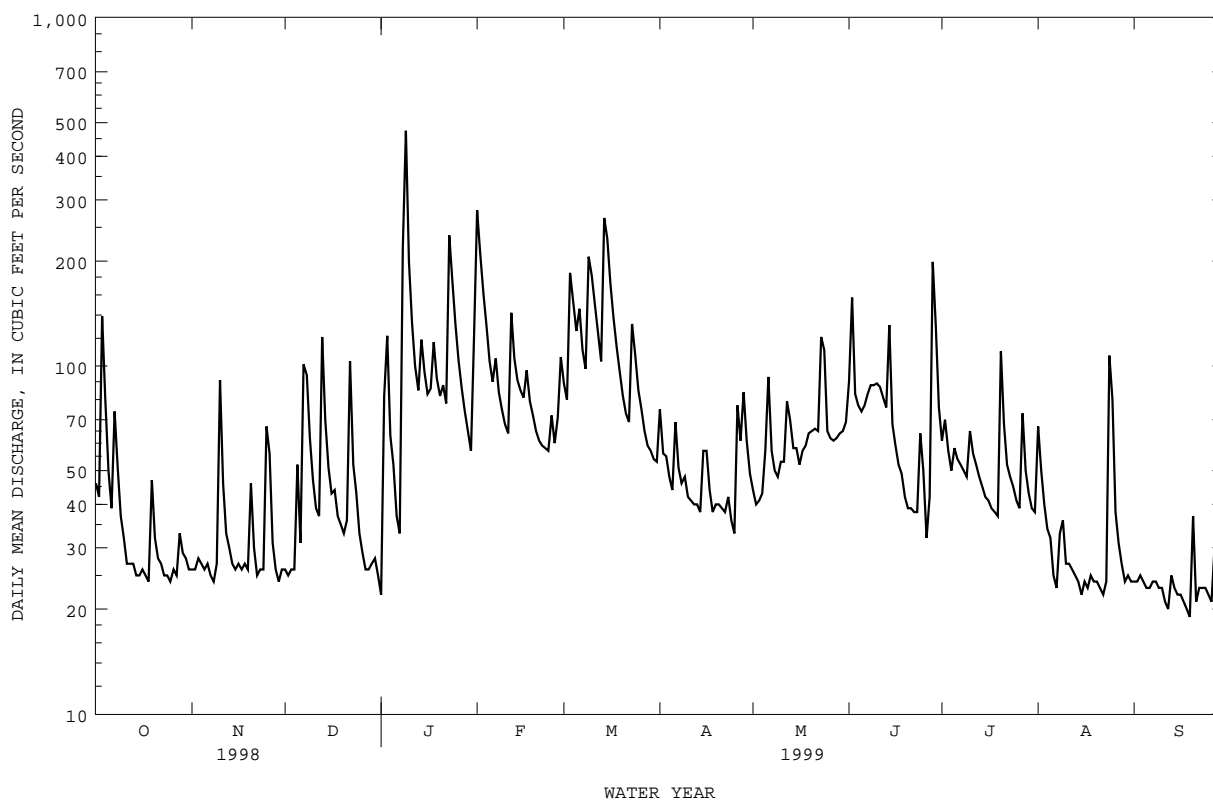


KENTUCKY RIVER BASIN

03289200 TOWN BRANCH AT YARNALLTON, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1998 - 1999	
ANNUAL TOTAL	40687		22636			
ANNUAL MEAN	111		62.0		87.5	
HIGHEST ANNUAL MEAN					113	
LOWEST ANNUAL MEAN					62.0	
HIGHEST DAILY MEAN	1960	Jul 20	474	Jan 9	1960	Jul 20 1998
LOWEST DAILY MEAN	24	Oct 18	19	Sep 19	17	Nov 29 1997
ANNUAL SEVEN-DAY MINIMUM	26	Oct 12	22	Sep 13	22	Sep 13 1999
INSTANTANEOUS PEAK FLOW			995		6750	
INSTANTANEOUS PEAK STAGE			4.34		9.12	
ANNUAL RUNOFF (CFSM)	.28		.15		.22	
ANNUAL RUNOFF (INCHES)	3.76		2.09		2.95	
10 PERCENT EXCEEDS	224		115		166	
50 PERCENT EXCEEDS	67		50		57	
90 PERCENT EXCEEDS	27		24		26	

e Estimated



KENTUCKY RIVER BASIN

03289300 SOUTH ELKHORN CREEK NEAR MIDWAY, KY

LOCATION.--Lat 38°08'27", long 84°38'43", Scott County, Hydrologic Unit 05100205, on right bank, 5 ft upstream from bridge on U.S. Route 62/421, 2.2 mi southeast of Midway, 6.5 mi downstream from Town Branch, and at mile 27.6.

DRAINAGE AREA.--105 mi² of which about 21 mi² does not contribute directly to surface runoff.

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 790 ft above sea level..

REMARKS.--Records good except for periods of estimated record, which are poor. Water is diverted from the Kentucky River for use by the city of Lexington and is discharged into Town Branch at a site 17 mi above gage. Discharge partially regulated by low-head turbine, 1 mile upstream, since October 1989. Regulation does not effect peak discharge.

PEAKS ABOVE BASE.--Peak discharges above base of 1,000 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 9	1015	*1890	11.78

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	15	30	e25	684	207	156	67	26	84	15	18
2	14	19	28	e30	643	195	135	55	89	63	62	21
3	65	17	29	393	473	339	123	54	88	92	28	9.8
4	154	18	21	231	361	426	117	e46	45	53	8.2	5.8
5	103	18	51	159	278	347	104	e44	32	37	23	6.7
6	56	14	50	124	235	337	123	e42	27	50	13	7.8
7	43	17	90	107	231	280	120	e54	33	35	7.0	16
8	122	15	185	297	207	242	101	e50	29	37	7.9	15
9	60	19	159	1480	179	373	98	e39	28	33	42	15
10	38	68	104	637	160	508	90	e33	30	6.1	22	9.0
11	30	124	75	394	145	409	80	e28	30	37	19	5.1
12	27	60	59	289	232	325	74	e24	16	50	17	6.0
13	24	39	158	240	260	263	74	e26	27	28	10	17
14	21	31	193	316	230	430	68	e29	79	17	5.5	16
15	19	27	126	295	211	720	77	e28	87	17	6.7	16
16	16	27	94	250	192	490	108	e27	53	19	20	18
17	16	26	85	217	202	372	82	e25	40	5.1	17	9.0
18	14	25	70	275	178	292	69	e23	16	7.9	11	13
19	35	25	54	258	161	237	66	e20	12	22	15	17
20	38	37	58	232	144	200	71	e18	14	22	8.1	33
21	28	48	58	225	130	178	64	e16	26	140	4.6	39
22	23	34	166	222	120	160	61	e20	22	76	6.0	20
23	21	28	145	477	114	194	55	e36	21	46	17	13
24	15	27	106	567	110	277	53	e62	20	26	14	9.1
25	15	26	79	408	118	206	46	e58	70	24	144	6.9
26	18	143	62	308	118	178	72	e40	43	30	64	7.8
27	17	66	53	253	114	159	132	e42	35	30	33	21
28	16	42	e38	213	183	144	107	e33	135	44	16	21
29	22	33	e34	179	---	136	131	e29	323	21	15	21
30	17	30	e31	154	---	125	86	e25	127	19	20	60
31	17	---	e29	146	---	119	---	e20	---	14	6.4	---
TOTAL	1121	1118	2520	9401	6413	8868	2743	1113	1623	1185.1	697.4	493.0
MEAN	36.2	37.3	81.3	303	229	286	91.4	35.9	54.1	38.2	22.5	16.4
MAX	154	143	193	1480	684	720	156	67	323	140	144	60
MIN	14	14	21	25	110	119	46	16	12	5.1	4.6	5.1
CFSM	.34	.35	.77	2.89	2.18	2.72	.87	.34	.52	.36	.21	.16
IN.	.40	.40	.89	3.33	2.27	3.14	.97	.39	.58	.42	.25	.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1999, BY WATER YEAR (WY)

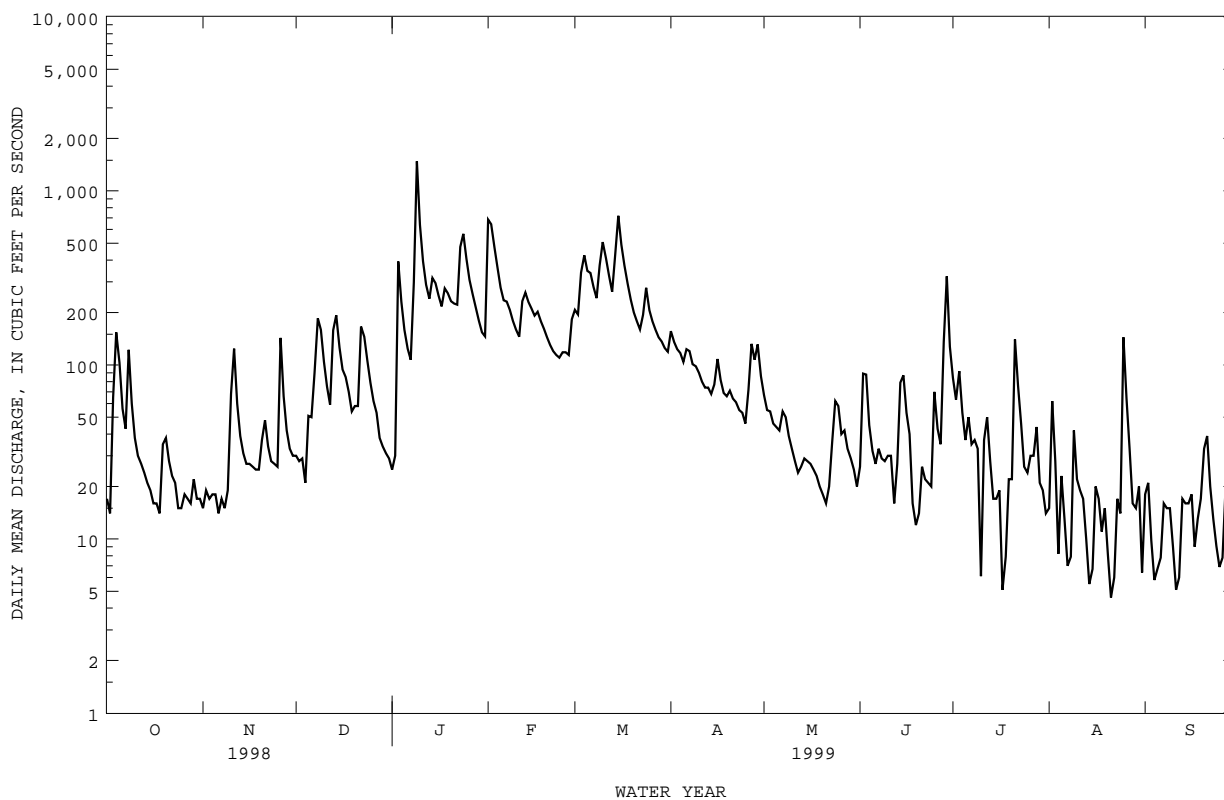
MEAN	64.1	131	232	251	292	315	183	215	182	105	67.1	53.9
MAX	151	307	673	405	1030	1165	366	718	606	443	255	108
(WY)	1991	1994	1991	1996	1989	1997	1984	1983	1997	1998	1992	1992
MIN	31.2	37.3	81.3	50.4	114	60.1	60.9	35.9	39.5	35.8	22.5	16.4
(WY)	1995	1999	1999	1986	1993	1983	1986	1999	1988	1983	1999	1999

KENTUCKY RIVER BASIN

03289300 SOUTH ELKHORN CREEK NEAR MIDWAY, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1982 - 1999	
ANNUAL TOTAL	70943.9		37295.5			
ANNUAL MEAN	194		102		174	
HIGHEST ANNUAL MEAN					276	
LOWEST ANNUAL MEAN					102	
HIGHEST DAILY MEAN	3940	Jul 21	1480	Jan 9	10700	Mar 2 1997
LOWEST DAILY MEAN	9.9	Sep 19	4.6	Aug 21	3.1	Oct 8 1994
ANNUAL SEVEN-DAY MINIMUM	14	Sep 10	11	Sep 6	11	Sep 6 1999
INSTANTANEOUS PEAK FLOW			1890		12300	
INSTANTANEOUS PEAK STAGE			11.78		26.37	
INSTANTANEOUS LOW FLOW					.00	
ANNUAL RUNOFF (CFSM)	1.85		.97		1.65	
ANNUAL RUNOFF (INCHES)	25.13		13.21		22.47	
10 PERCENT EXCEEDS	385		259		360	
50 PERCENT EXCEEDS	116		46		90	
90 PERCENT EXCEEDS	17		15		31	

e Estimated



KENTUCKY RIVER BASIN

03289500 ELKHORN CREEK NEAR FRANKFORT, KY

LOCATION.--Lat 38°16'07", long 84°48'53", Franklin County, Hydrologic Unit 05100205, on right bank, 50 ft downstream from bridge on State Highway 1900, 4.2 mi northeast of city limits of Frankfort, 7.4 mi downstream from confluence of North and South Elkhorn Creeks, and at mile 10.4.

DRAINAGE AREA.--473 mi² of which about 70 mi² does not contribute directly to surface runoff.

PERIOD OF RECORD.--May 1915 to December 1920 (gage heights only, October 1918 to December 1920), December 1939 to August 1984, October 1987 to current year. Published as "at Forks of Elkhorn" 1915-20.

REVISED RECORDS.--WSP 1555: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is approximately 540.20 ft above sea level. See WDR KY-90-1 for history of changes prior to Aug. 31, 1970.

REMARKS.--Records fair except for periods of estimated record, which are poor. City of Lexington diverts water from Hickman Creek in Kentucky River Basin for municipal water supply; return flow of which enters tributary above station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 2, 1932, reached a stage of about 17.5 ft, from information by local resident. Flood of January 1937 was about 0.3 ft lower.

PEAKS ABOVE BASE.--Peak discharges above base of 7,000 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 9	1700	*7030	9.27

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	35	93	e96	2670	1090	360	165	60	293	32	38
2	33	35	79	e92	3910	969	412	140	66	199	31	24
3	41	35	73	e1000	2610	1220	356	116	95	160	46	30
4	91	36	67	e1200	1780	2110	324	106	119	151	38	35
5	164	36	69	e720	1290	1760	294	95	90	122	32	26
6	128	39	70	e450	1000	1450	287	107	74	97	21	22
7	89	39	102	e300	958	1370	341	144	67	92	27	21
8	103	39	159	e500	1050	1080	307	139	69	73	24	21
9	164	40	344	6230	853	1390	279	111	67	71	22	27
10	114	43	304	4300	709	2520	265	99	66	65	26	26
11	99	86	221	2020	616	2140	235	86	64	53	38	25
12	66	142	162	1280	833	1580	209	77	60	46	29	22
13	53	123	164	1060	1320	1210	193	69	73	67	27	21
14	44	104	367	1630	1220	1300	180	88	77	52	24	20
15	39	92	434	1730	1020	3260	179	85	106	42	21	23
16	40	77	302	1310	873	2650	185	84	128	39	16	25
17	35	65	215	1030	777	1810	206	80	107	38	16	24
18	31	57	176	1040	726	1320	183	68	82	38	25	23
19	38	53	151	1070	621	991	170	60	66	24	24	22
20	33	56	129	932	537	781	159	55	60	24	20	20
21	52	53	134	1150	473	645	156	51	58	48	21	21
22	44	70	555	1150	411	539	146	45	54	134	18	32
23	41	66	629	1940	374	549	138	41	56	94	17	40
24	37	61	431	2970	351	916	127	43	53	71	16	28
25	37	59	294	2160	337	856	115	118	54	60	30	22
26	34	79	221	1460	347	665	120	108	70	53	116	21
27	34	165	182	1050	357	555	145	83	87	49	83	21
28	39	135	e150	819	979	481	190	87	116	45	60	21
29	39	108	e130	636	---	428	189	76	475	56	54	29
30	36	105	e110	492	---	382	185	67	471	41	42	32
31	38	---	e100	447	---	347	---	65	---	33	37	---
TOTAL	1875	2133	6617	42264	29002	38364	6635	2758	3090	2430	1033	762
MEAN	60.5	71.1	213	1363	1036	1238	221	89.0	103	78.4	33.3	25.4
MAX	164	165	629	6230	3910	3260	412	165	475	293	116	40
MIN	31	35	67	92	337	347	115	41	53	24	16	20
CFSM	.15	.18	.53	3.39	2.57	3.08	.55	.22	.26	.19	.08	.06
IN.	.17	.20	.61	3.91	2.68	3.55	.61	.25	.29	.22	.10	.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1999, BY WATER YEAR (WY)

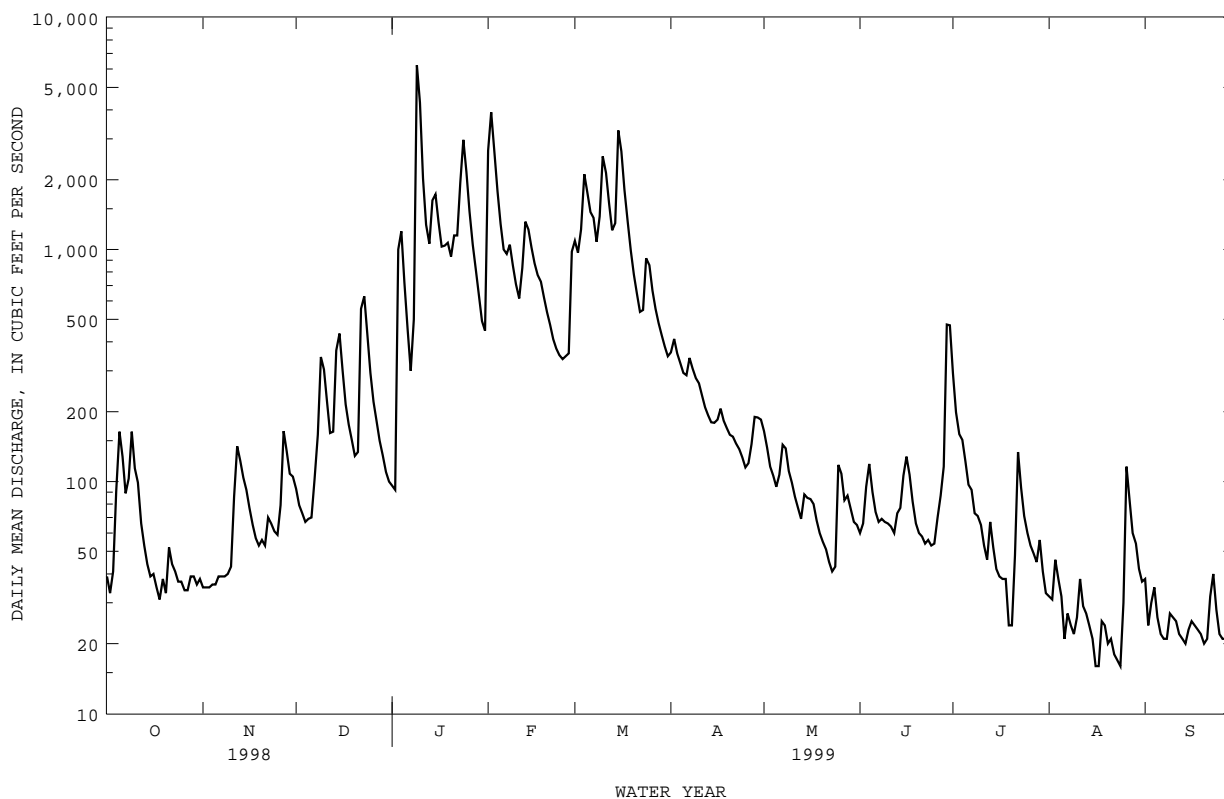
	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	128	323	863	1143	1294	1419	914	664	431	258	173	152																																																																								
MAX	1012	1379	3138	4630	4438	4309	3332	3747	2686	1708	963	2101																																																																								
(WY)	1976	1943	1979	1950	1989	1964	1948	1983	1997	1998	1992	1979																																																																								
MIN	5.94	12.1	17.3	33.8	64.5	145	119	51.8	31.7	15.9	17.7	9.21																																																																								
(WY)	1944	1944	1944	1944	1944	1941	1918	1941	1944	1944	1948	1953																																																																								

KENTUCKY RIVER BASIN

03289500 ELKHORN CREEK NEAR FRANKFORT, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1916 - 1999	
ANNUAL TOTAL	286580		136963			
ANNUAL MEAN	785		375		645	
HIGHEST ANNUAL MEAN					1103	
LOWEST ANNUAL MEAN					126	
HIGHEST DAILY MEAN	16600	Jul 21	6230	Jan 9	25000	Feb 16 1989
LOWEST DAILY MEAN	31	Oct 18	16	Aug 16	.00	Jan 7 1940
ANNUAL SEVEN-DAY MINIMUM	36	Oct 30	20	Aug 16	.00	Jan 7 1940
INSTANTANEOUS PEAK FLOW			7030	Jan 9	35900	Mar 4 1997
INSTANTANEOUS PEAK STAGE			9.27	Jan 9	17.96	Mar 3 1997
ANNUAL RUNOFF (CFSM)	1.95		.93		1.60	
ANNUAL RUNOFF (INCHES)	26.49		12.66		21.77	
10 PERCENT EXCEEDS	1920		1110		1620	
50 PERCENT EXCEEDS	365		96		205	
90 PERCENT EXCEEDS	41		26		33	

e Estimated



KENTUCKY RIVER BASIN

03290500 KENTUCKY RIVER AT LOCK 2, AT LOCKPORT, KY

LOCATION.--Lat 38°26'20", long 84°57'48", Henry County, Hydrologic Unit 05100205, on left bank at lock 2 at Lockport, 0.1 mi downstream from Sixmile Creek and at mile 31.0.

DRAINAGE AREA.--6,180 mi², of which about 196 mi² does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1925 to current year. Monthly discharge only for some periods, published in WSP 1305. Monthly discharge only for June to January 1931, published in WSP 1305; figures of daily discharge published in WSP 698 are unreliable.

REVISED RECORDS.--WSP 1385: 1926-29, 1932, 1934-37, 1945. WSP 1555: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 433.36 ft above sea level. Prior to August 29, 1975, nonrecording gage at same site and datum. Auxiliary nonrecording gage at lock 3, 11.0 mi upstream.

REMARKS.--Records fair. Flow regulated by Carr Fork Lake beginning January 1976 (station 03277446), Buckhorn Lake beginning December 1960 (station 03280800), Herrington Lake beginning November 1925 (station 03286000), and by hydroelectric plant at lock 7.

COOPERATION.--Auxiliary gage readings furnished by U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	315	311	541	3590	20100	7100	4830	13400	974	1350	389	526
2	323	310	531	3820	24300	8450	4090	9000	692	1080	351	403
3	378	334	656	9010	20900	14200	3780	6350	540	1140	316	311
4	627	327	457	10300	17200	22900	3690	4970	636	1140	291	307
5	798	329	610	10500	14100	26700	3580	4120	641	998	269	239
6	733	335	426	9740	11600	27600	4390	3800	633	805	243	210
7	670	344	447	7960	11400	24200	3860	3690	619	681	228	178
8	761	405	1380	8560	9640	20300	3320	4120	801	651	250	155
9	792	478	3440	34700	8410	18900	3010	5130	578	612	277	119
10	806	628	4510	53800	7570	19700	2840	5440	431	547	257	121
11	713	710	5760	51100	6910	18400	2780	5590	521	494	225	127
12	690	789	5290	48700	7910	16000	2800	4820	558	453	223	137
13	721	882	4330	29000	9310	14300	3140	3800	565	407	207	142
14	695	848	4900	19600	11000	13000	4020	3180	1010	388	191	122
15	626	867	8670	16400	10400	28500	5160	3270	762	324	197	116
16	558	903	12900	16700	9910	33000	4920	3080	599	300	192	112
17	516	869	9270	18100	9210	30100	4560	2600	554	279	190	127
18	474	831	5780	19400	8420	25200	4840	2250	528	258	186	137
19	449	798	3970	20900	7180	21400	5080	2000	514	241	180	159
20	432	857	3160	19000	6560	17800	4770	1880	505	237	183	165
21	444	835	2820	24000	6180	14600	4310	1260	451	254	182	162
22	456	730	5250	20200	5660	11600	3990	1570	397	317	181	153
23	419	687	4940	26000	6040	10100	3880	1590	365	394	189	153
24	388	620	5040	33200	5250	10100	3680	1540	404	400	217	171
25	349	542	4570	39400	4170	9760	3440	1540	439	384	269	166
26	333	680	4090	44800	4080	8950	3480	1650	383	383	283	164
27	315	674	3390	30700	4220	7310	3470	1580	564	432	326	166
28	318	710	2850	19300	7620	5770	3680	1520	1300	493	427	172
29	319	652	3070	15300	---	5040	5660	1420	5130	511	953	195
30	310	589	3110	12900	---	4630	10300	1220	2130	502	924	207
31	302	---	3400	11900	---	4690	---	1060	---	440	716	---
TOTAL	16030	18874	119558	688580	275250	500300	125350	108440	24224	16895	9512	5622
MEAN	517	629	3857	22210	9830	16140	4178	3498	807	545	307	187
MAX	806	903	12900	53800	24300	33000	10300	13400	5130	1350	953	526
MIN	302	310	426	3590	4080	4630	2780	1060	365	237	180	112

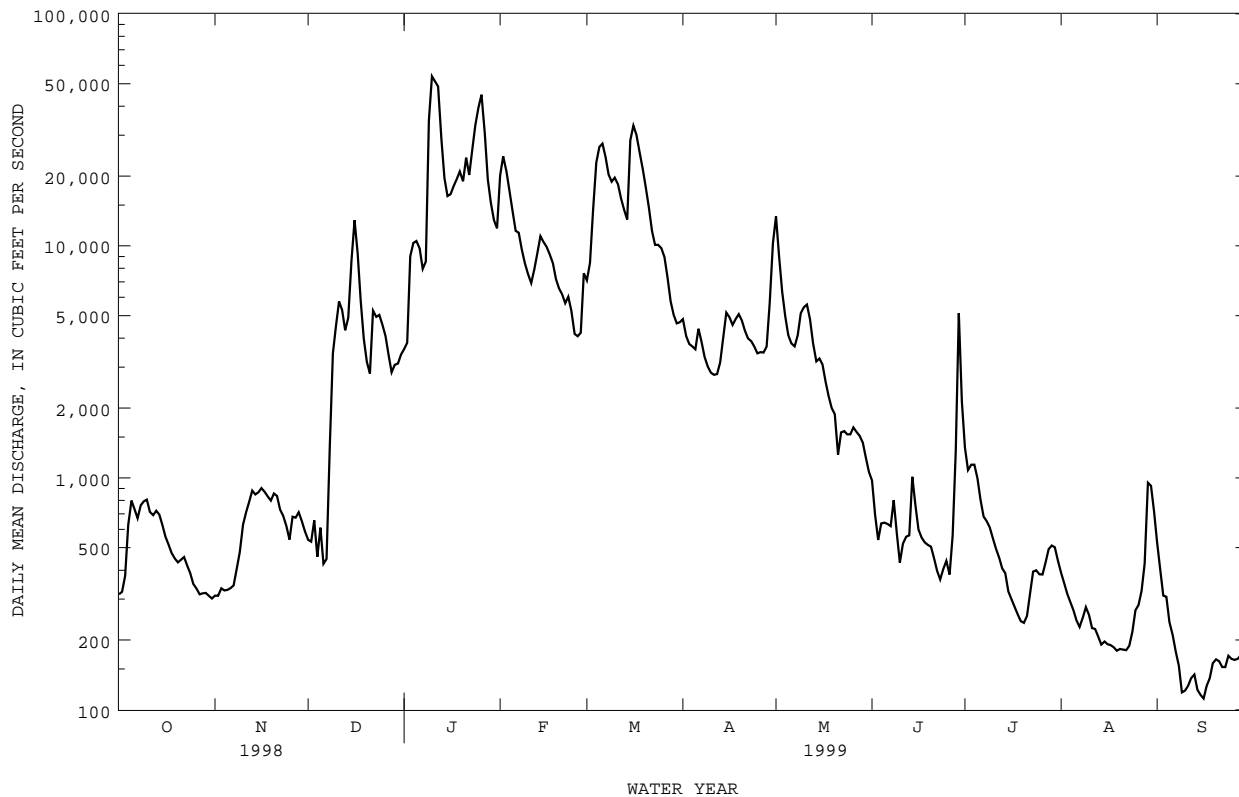
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1999, BY WATER YEAR (WY)

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999																					
MEAN	2316	4963	10950	13680	15080	18980	14020	10330	5680	2741	2336	2145	14120	13960	39510	37850	40180	40410	41540	34340	23380	8458	8589	14740	1990	1987	1979	1974	1989	1975	1972	1983	1997	1998	1992	1979	450	603	668	770	4073	4423	2074	1518	508	545	307	187	1970	1988	1966	1981	1968	1983	1986	1976	1988	1999	1999	1999

KENTUCKY RIVER BASIN

03290500 KENTUCKY RIVER AT LOCK 2, AT LOCKPORT, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1961 - 1999	
ANNUAL TOTAL	3362904		1908635			
ANNUAL MEAN	9213		5229		8574	
HIGHEST ANNUAL MEAN					14030	
LOWEST ANNUAL MEAN					3891	
HIGHEST DAILY MEAN	62000	Apr 22	53800	Jan 10	121000	Dec 11 1978
LOWEST DAILY MEAN	239	Sep 10	112	Sep 16	112	Sep 16 1999
ANNUAL SEVEN-DAY MINIMUM	312	Oct 27	125	Sep 10	125	Sep 10 1999
INSTANTANEOUS PEAK FLOW			55000		123000	
INSTANTANEOUS PEAK STAGE			26.68		56.85	
10 PERCENT EXCEEDS	23900		16900		21900	
50 PERCENT EXCEEDS	5160		1010		3870	
90 PERCENT EXCEEDS	476		214		624	



KENTUCKY RIVER BASIN

03291500 EAGLE CREEK AT GLENCOE, KY

LOCATION.--Lat 38°42'18", long 84°49'26", Gallatin County, Hydrologic Unit 05100205, on left bank 600 ft upstream from bridge on U.S. Highway 127, 0.6 mi south of Glencoe, 5.8 mi downstream from Tenmile Creek, and at mile 21.6.

DRAINAGE AREA.--437 mi².

PERIOD OF RECORD.--April 1915 - September 1918, October 1918 - December 1920 (gage heights only), May 1928 - September 1931, June 1938 - September 1977, December 1988 to current year. Monthly discharge only for May 1915, June 1938, published in WSP 1305.

REVISED RECORDS.--WSP 1275: 1916-17, 1920(M). WSP 1555: Drainage area. WSP 1908: 1939-40(M), 1943(M), 1945(M), 1948(P), 1950(M), 1956- 57(P), 1960(M).

GAGE.--Water-stage recorder. Datum of gage is 508.52 ft above sea level. Prior Oct. 1, 1950, nonrecording gages at same site and datum. Oct. 1, 1950 to Oct. 19, 1960, nonrecording gage 600 ft downstream at same datum.

REMARKS.--Records fair except for those estimated, which are poor.

PEAKS ABOVE BASE.--Peak discharges above base of 1,200 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)									
Jan. 9	0600	*11500	13.05									
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999 DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	4.7	54	60	6030	1770	137	96	9.1	e45	e2.0	.56
2	.98	5.3	41	62	3190	771	149	82	11	e56	e1.9	.45
3	1.7	7.6	34	2920	1120	845	143	67	13	e45	e2.5	.36
4	2.2	8.5	30	1640	639	1740	166	58	22	e40	e2.9	.28
5	2.2	7.7	27	408	406	738	157	52	46	e35	e3.5	.21
6	3.0	7.3	25	294	318	1130	199	55	30	e31	e4.3	.15
7	4.3	11	26	211	2820	1090	817	60	22	e27	e3.6	.11
8	9.1	15	380	690	1890	608	362	57	18	e23	e2.8	.08
9	21	14	557	9770	756	799	566	49	15	e20	e3.1	.05
10	14	15	407	2670	437	1050	355	42	16	e18	e3.5	.03
11	11	17	176	623	320	746	194	37	19	e15	e3.1	.01
12	9.7	34	109	479	595	572	163	32	15	e13	2.8	.00
13	8.9	37	83	4420	1580	464	132	29	12	e12	2.7	.00
14	11	41	239	3320	811	399	114	26	12	e15	2.6	e.00
15	10	30	421	1400	495	724	109	25	12	e13	2.4	e.00
16	8.3	22	202	593	384	1530	136	23	20	e11	2.2	e.00
17	7.6	17	123	447	333	1680	142	22	46	e9.6	2.0	e.00
18	6.0	14	89	821	319	1210	117	22	40	e8.2	1.8	e.00
19	5.7	13	71	850	316	582	109	20	29	e6.2	1.8	e.00
20	5.2	14	59	444	257	401	119	19	22	e5.2	1.9	e.05
21	4.5	15	111	2410	213	321	156	17	17	e4.3	1.7	e.20
22	4.0	16	3640	3780	182	269	175	15	14	e3.7	1.5	e.56
23	3.6	21	1430	4490	164	231	146	14	11	e5.8	1.3	e1.8
24	3.3	20	396	2450	158	217	124	14	11	e8.0	1.2	e2.5
25	3.2	24	201	863	154	276	101	13	12	e6.4	1.3	1.2
26	2.9	225	137	483	151	246	92	12	9.9	e4.3	1.5	.97
27	3.2	271	104	346	164	191	95	11	11	e3.2	1.4	.92
28	3.7	202	87	281	3260	167	106	11	12	e2.7	1.3	1.2
29	4.0	109	78	230	---	152	116	10	14	e2.5	1.1	2.8
30	4.4	71	74	191	---	136	92	10	e25	e2.2	.88	3.5
31	4.2	---	73	223	---	127	---	9.7	---	e2.1	.69	---
TOTAL	183.88	1309.1	9484	47869	27462	21182	5589	1009.7	566.0	493.4	67.07	17.99
MEAN	5.93	43.6	306	1544	981	683	186	32.6	18.9	15.9	2.16	.60
MAX	21	271	3640	9770	6030	1770	817	96	46	56	4.3	3.5
MIN	.98	4.7	25	60	151	127	92	9.7	9.1	2.1	.69	.00
CFSM	.01	.10	.70	3.53	2.24	1.56	.43	.07	.04	.04	.00	.00
IN.	.02	.11	.81	4.07	2.34	1.80	.48	.09	.05	.04	.01	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1999, BY WATER YEAR (WY)

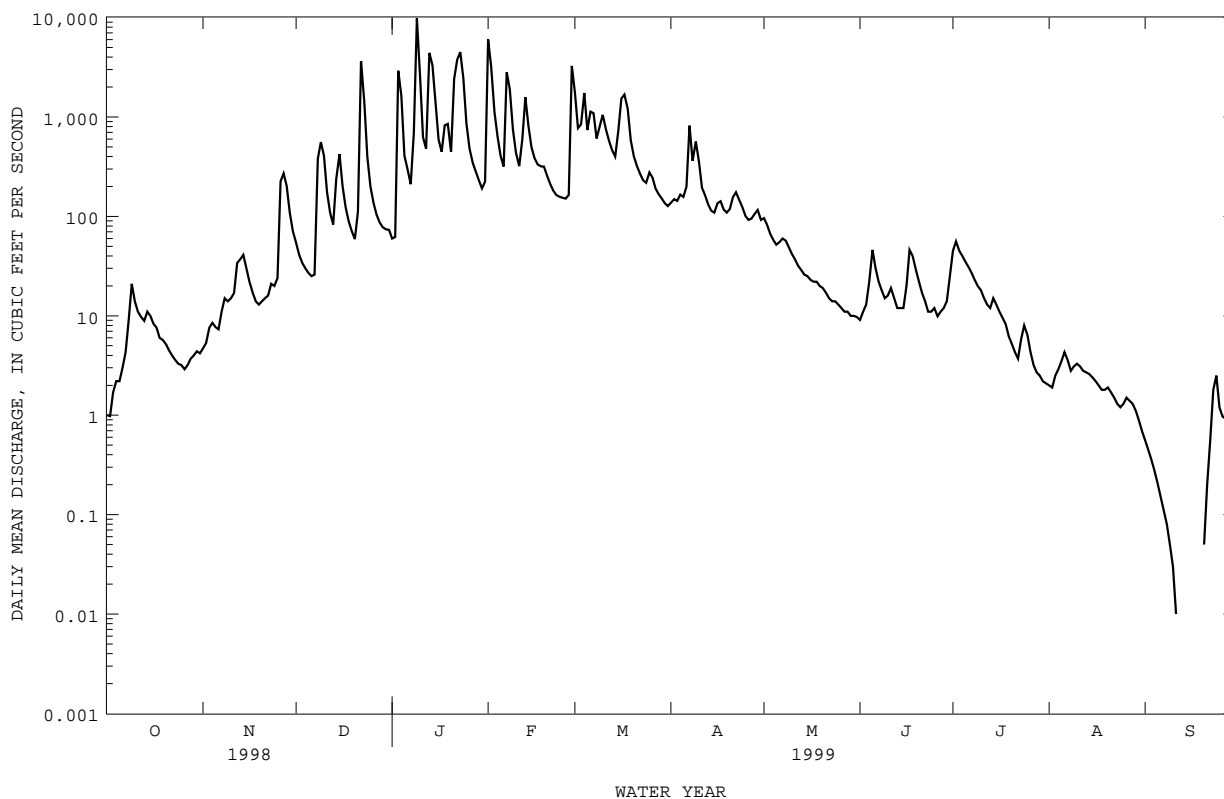
MEAN	103	336	643	964	1080	1302	932	670	466	242	122	102
MAX	1005	1641	1874	3170	3295	5197	2910	3190	2673	1016	755	1355
(WY)	1976	1973	1952	1950	1956	1964	1948	1996	1997	1957	1977	1965
MIN	.000	.000	.000	2.85	44.6	120	131	25.5	1.56	.14	.000	.000
(WY)	1931	1931	1931	1931	1954	1941	1976	1930	1930	1930	1930	1930

KENTUCKY RIVER BASIN

03291500 EAGLE CREEK AT GLENCOE, KY--Continued

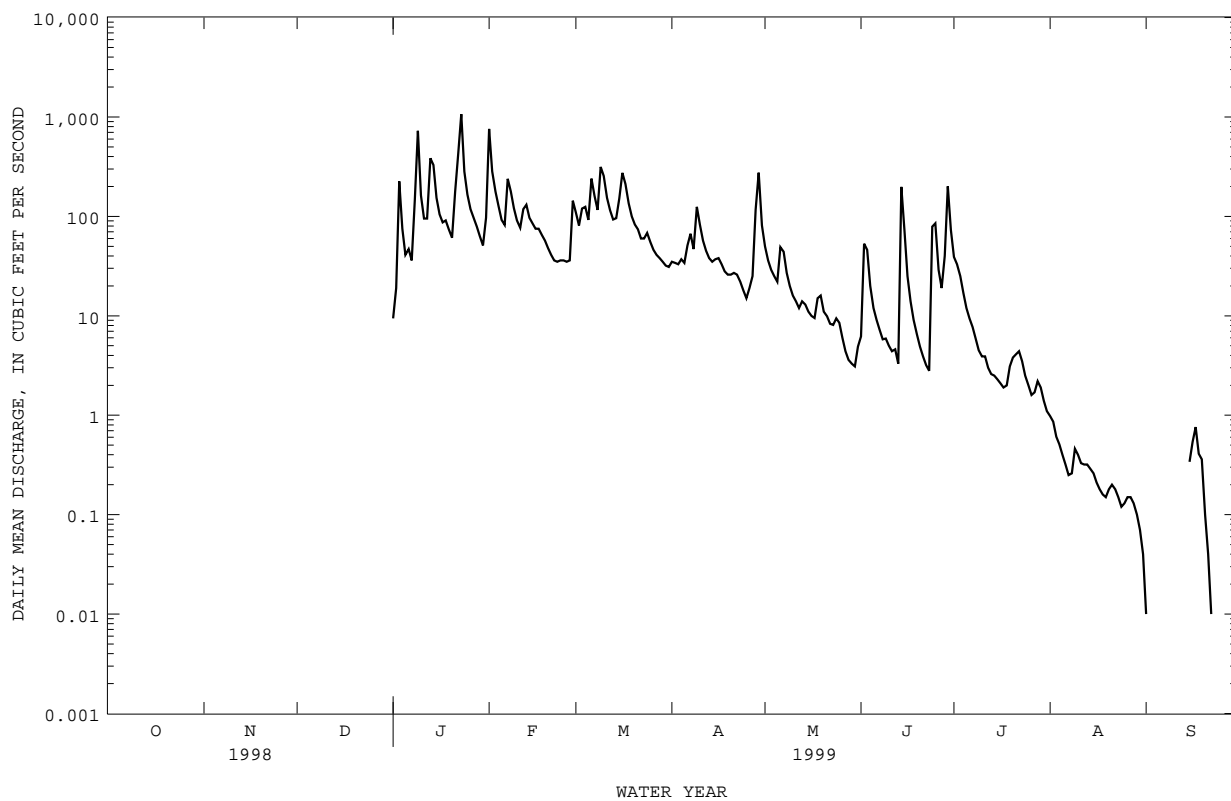
SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1916 - 1999	
ANNUAL TOTAL	244040.18		115233.14			
ANNUAL MEAN	669		316		576	
HIGHEST ANNUAL MEAN					1059	
LOWEST ANNUAL MEAN					117	
HIGHEST DAILY MEAN	11100	Jun 23	9770	Jan 9	39300	Mar 10 1964
LOWEST DAILY MEAN	.98	Oct 2	.00	Sep 12	.00	Jul 15 1930
ANNUAL SEVEN-DAY MINIMUM	1.7	Sep 28	.00	Sep 12	.00	Jul 15 1930
INSTANTANEOUS PEAK FLOW			11500		58300	
INSTANTANEOUS PEAK STAGE			13.05		29.08	
ANNUAL RUNOFF (CFSM)	1.53		.72		1.32	
ANNUAL RUNOFF (INCHES)	20.77		9.81		17.92	
10 PERCENT EXCEEDS	1750		762		1300	
50 PERCENT EXCEEDS	134		27		97	
90 PERCENT EXCEEDS	4.4		1.5		1.2	

e Estimated



HARRODS CREEK BASIN

03292470 HARRODS CREEK AT HIGHWAY 329 NEAR GOSHEN, KY--Continued



GOOSE CREEK BASIN

03292474 GOOSE CREEK AT OLD WESTPORT ROAD NR ST. MATTHEWS, KY

LOCATION.--Lat 38°16'33", long 85°36'22", Jefferson County, Hydrologic Unit 05140101, on downstream side of bridge on Westport Road, left bank, 1.2 mile northeast of St. Matthews, 5.0 miles above Little Goose Creek, and at mile 5.5

DRAINAGE AREA.--6.0 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1996 to current year.

GAGE.--Water-stage recorder and crest-stage gage.

COOPERATION--Filed determinations were made in cooperation with Louisville and Jefferson County Metropolitan Sewer District personnel.

REMARKS.--Records fair, except those for estimated discharges which are poor.

PEAKS ABOVE BASE.--Peak discharges above base of 150 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jun. 2	0840	185	2.43	Jun. 29	0215	*302	3.15

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.36	1.2	1.0	2.3	33	7.1	4.7	4.2	1.3	9.9	.50	e.03
2	.29	1.2	.95	11	24	6.2	4.2	3.3	30	9.7	.38	e.02
3	2.1	1.4	.90	15	19	12	4.3	3.0	6.0	6.3	.25	e.01
4	1.1	1.3	.85	8.1	15	9.7	4.1	2.7	3.2	4.2	.20	e.02
5	.93	1.2	.98	6.3	13	8.6	3.5	2.8	2.5	3.0	.20	e.03
6	.88	e1.1	.99	4.6	11	18	6.1	12	2.0	2.6	.10	.03
7	10	e1.0	4.6	4.0	19	12	4.7	4.4	1.9	2.4	.10	.04
8	3.1	1.2	3.8	e54	13	11	3.9	3.2	1.5	2.1	e.70	.03
9	1.5	1.4	2.5	38	12	26	3.8	2.7	1.9	1.9	.50	.83
10	1.2	6.3	1.9	19	10	19	3.3	2.4	1.5	1.8	.26	.29
11	1.1	2.4	1.5	15	9.2	15	3.1	2.1	1.3	1.8	.16	.06
12	.97	1.4	1.3	16	14	13	2.8	2.0	1.1	1.6	.08	.03
13	.88	1.1	3.4	e28	10	11	2.7	2.8	1.0	1.5	.05	e.02
14	.77	1.0	2.7	24	8.5	18	2.6	2.3	14	1.2	.03	e.01
15	.71	.87	2.0	18	8.0	18	e3.8	1.9	3.1	1.0	e.02	e.01
16	.69	.73	1.8	14	7.9	17	3.3	1.7	2.1	.78	e.01	e.01
17	.61	.68	1.8	12	7.6	14	2.7	1.7	1.7	.75	e.02	e.02
18	.77	.64	1.5	12	6.5	12	2.5	3.1	1.3	.69	.03	e.02
19	1.2	.65	1.4	9.1	5.9	10	2.4	2.1	1.1	.60	.12	.03
20	.96	3.3	1.3	8.1	5.1	8.4	2.4	1.7	.99	.59	.22	.04
21	.86	1.8	13	25	4.6	7.7	2.2	1.6	.86	.92	.09	.04
22	e1.2	1.2	25	35	4.1	6.0	2.2	1.3	.75	3.7	.05	.06
23	1.1	1.1	10	80	e3.9	14	2.0	1.5	.66	1.4	.03	.11
24	1.0	1.0	7.2	33	e3.8	10	1.8	1.8	16	1.1	e.02	.06
25	1.1	4.3	4.8	23	e3.6	7.8	1.7	1.4	4.7	.85	.07	.02
26	1.1	3.2	4.0	18	e3.5	6.4	5.0	1.2	2.9	.68	e.15	e.01
27	1.1	1.8	3.4	16	5.6	5.7	3.6	1.1	9.3	.67	.12	.02
28	1.2	1.4	3.1	13	11	5.2	11	1.0	14	.55	.07	5.2
29	1.4	1.2	3.0	11	---	4.7	14	.85	57	.55	.05	1.7
30	1.3	1.1	2.7	9.1	---	4.2	6.2	.91	13	.48	.04	.79
31	1.3	---	2.5	21	---	4.3	---	1.5	---	.41	.03	---
TOTAL	42.78	48.17	115.87	602.6	291.8	342.0	120.6	76.26	198.66	65.72	4.65	9.59
MEAN	1.38	1.61	3.74	19.4	10.4	11.0	4.02	2.46	6.62	2.12	.15	.32
MAX	.10	6.3	.25	.80	.33	.26	.14	.12	.57	.9.9	.70	5.2
MIN	.29	.64	.85	2.3	3.5	4.2	1.7	.85	.66	.41	.01	.01
CFSM	.23	.27	.62	3.24	1.74	1.84	.67	.41	1.10	.35	.03	.05
IN.	.27	.30	.72	3.74	1.81	2.12	.75	.47	1.23	.41	.03	.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 1999, BY WATER YEAR (WY)

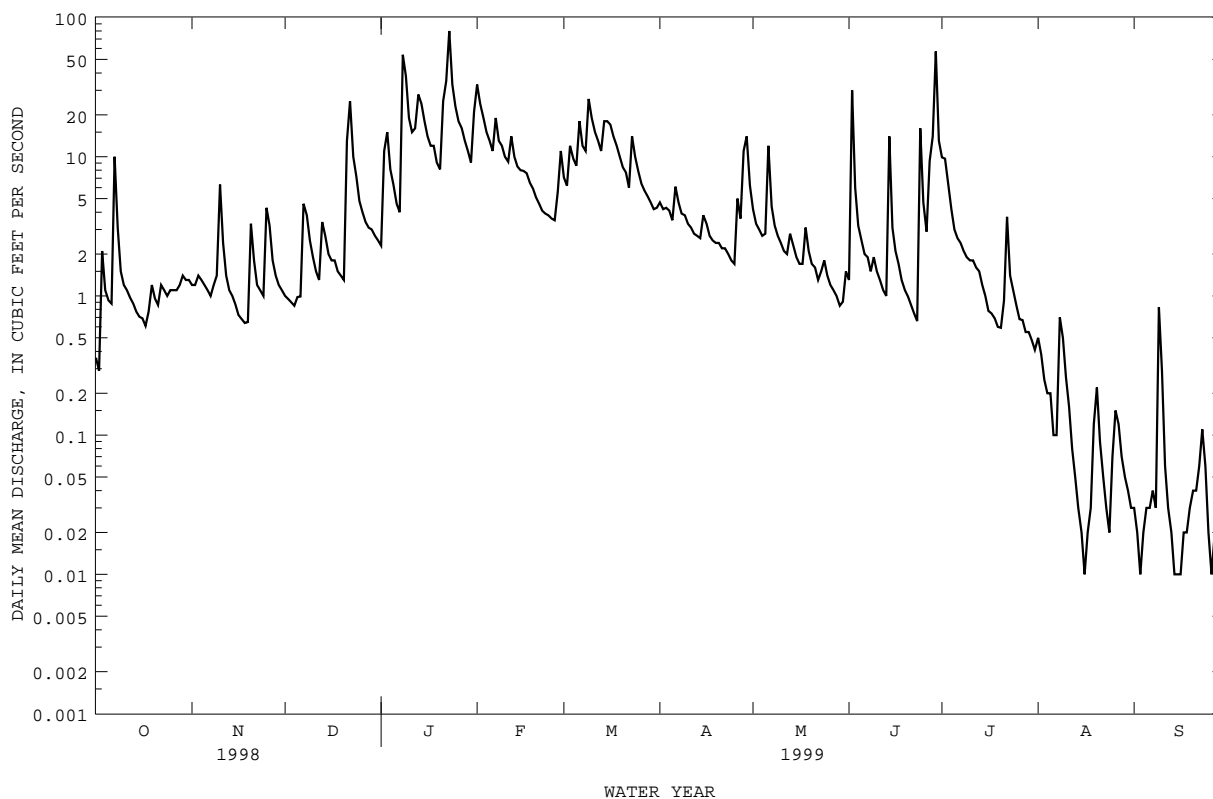
	1997	1998	1999	1997	1998	1999	1997	1998	1999	1997	1998	1999
MEAN	1.58	2.82	10.1	13.7	10.8	33.2	7.12	7.56	15.9	4.99	2.90	.49
MAX	2.79	3.80	21.8	19.4	11.2	77.1	12.6	10.5	26.3	11.0	4.31	.63
(WY)	1997	1997	1997	1999	1998	1997	1998	1997	1997	1998	1998	1997
MIN	.57	1.61	3.74	9.58	10.4	11.0	4.02	2.46	6.62	1.88	.15	.32
(WY)	1998	1999	1999	1998	1999	1999	1999	1999	1999	1997	1999	1999

GOOSE CREEK BASIN

03292474 GOOSE CREEK AT OLD WESTPORT ROAD NR ST. MATTHEWS, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1997 - 1999	
ANNUAL TOTAL	2787.63	1918.70		
ANNUAL MEAN	7.64	5.26	9.29	
HIGHEST ANNUAL MEAN			14.8	1997
LOWEST ANNUAL MEAN			5.26	1999
HIGHEST DAILY MEAN	75	80	800	Mar 2 1997
LOWEST DAILY MEAN	.18	.01	.01	Aug 16 1999
ANNUAL SEVEN-DAY MINIMUM	.26	.02	.02	Sep 12 1999
INSTANTANEOUS PEAK FLOW		302	3530	Mar 1 1997
INSTANTANEOUS PEAK STAGE		3.15	5.93	Mar 1 1997
ANNUAL RUNOFF (CFSM)	1.27	.88	1.55	
ANNUAL RUNOFF (INCHES)	17.28	11.90	21.03	
10 PERCENT EXCEEDS	18	14	19	
50 PERCENT EXCEEDS	4.4	2.0	3.9	
90 PERCENT EXCEEDS	.72	.07	.49	

e Estimated



GOOSE CREEK BASIN

03292480 LITTLE GOOSE CREEK NEAR HARRODS CREEK, KY

LOCATION.--Lat 38°18'45", long 85°37'33", Jefferson County, Hydrologic Unit 05140101, at downstream side of culvert on U.S. Highway 42 and at mile 1.8.

DRAINAGE AREA.--5.8 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder.

REMARKS.--Records fair, except those for periods estimated discharges which are poor.

PEAKS ABOVE BASE.--Peak discharges above base of 140 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 8	2220	150	5.84	Jan. 23	0215	144	5.73
Jun. 29	0345	*154	5.91				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	e1.9	1.7	72	8.6	6.1	4.6	1.6	8.5	.42	.00
2	---	---	e1.8	21	50	6.4	4.4	2.9	48	7.8	.41	.00
3	---	---	2.3	51	32	22	5.6	2.3	20	7.1	.34	.00
4	---	---	2.0	13	21	12	4.8	2.1	4.6	2.5	.30	.00
5	---	---	2.3	6.6	15	8.7	3.3	2.9	2.7	1.8	.29	.00
6	---	---	1.9	4.6	13	39	9.8	33	2.0	1.5	.21	.00
7	---	---	27	3.6	41	17	5.4	10	1.6	1.3	.19	.00
8	---	---	20	53	e23	12	4.0	4.6	1.3	1.1	.55	.00
9	---	---	8.2	84	e13	52	3.4	2.7	1.4	.98	1.5	.01
10	---	---	4.3	46	e11	41	2.8	2.2	1.5	1.1	.59	.04
11	---	---	3.2	23	e10	22	2.5	1.9	1.4	1.0	.38	.01
12	---	---	2.7	28	e20	15	2.2	1.9	.94	.85	.30	.00
13	---	---	19	56	e14	12	2.1	5.0	.94	.83	.18	.00
14	---	---	8.8	56	e9.6	27	2.1	2.2	37	.87	.31	.00
15	---	---	4.5	36	e8.4	44	3.6	1.7	9.4	.99	1.0	.00
16	---	---	2.9	22	e8.2	39	3.2	1.4	2.8	.92	1.2	.00
17	---	---	3.8	15	e7.8	26	2.2	1.3	2.0	.74	1.2	.00
18	---	---	2.4	16	e7.6	17	2.0	9.6	1.4	.68	.28	.00
19	---	---	2.3	10	e6.8	12	1.9	5.5	1.1	.59	.13	.00
20	---	---	2.2	8.7	e6.0	10	1.9	2.1	1.0	.68	.40	.00
21	---	---	42	53	e5.2	8.8	1.9	1.7	.86	2.5	.17	.00
22	---	---	75	77	e4.5	7.1	1.7	1.5	.76	3.9	.09	.06
23	---	---	32	108	e4.0	25	1.5	1.4	.75	1.1	.10	.05
24	---	---	10	65	e3.5	21	1.4	2.8	41	.85	.09	.02
25	---	---	6.4	44	e3.1	11	1.3	1.3	14	.70	.55	.02
26	---	---	4.4	27	2.8	8.0	14	1.1	3.9	.65	.90	.04
27	---	---	3.0	19	5.3	6.6	7.3	.94	21	.75	.32	.04
28	---	---	2.5	14	21	5.8	18	.84	42	.73	.16	6.9
29	---	---	2.3	11	---	5.0	26	.81	72	.74	.08	12
30	---	---	2.0	8.7	---	4.1	8.2	.80	28	.55	.03	3.2
31	---	---	1.8	33	---	4.2	---	3.1	---	.45	.00	---
TOTAL	---	---	304.9	1014.9	438.8	549.3	154.6	116.19	366.95	54.75	12.67	22.39
MEAN	---	---	9.84	32.7	15.7	17.7	5.15	3.75	12.2	1.77	.41	.75
MAX	---	---	75	108	72	52	26	33	72	8.5	1.5	12
MIN	---	---	1.8	1.7	2.8	4.1	1.3	.80	.75	.45	.00	.00
CFSM	---	---	1.70	5.65	2.71	3.06	.89	.65	2.11	.31	.07	.13
IN.	---	---	1.96	6.52	2.82	3.53	.99	.75	2.36	.35	.08	.14

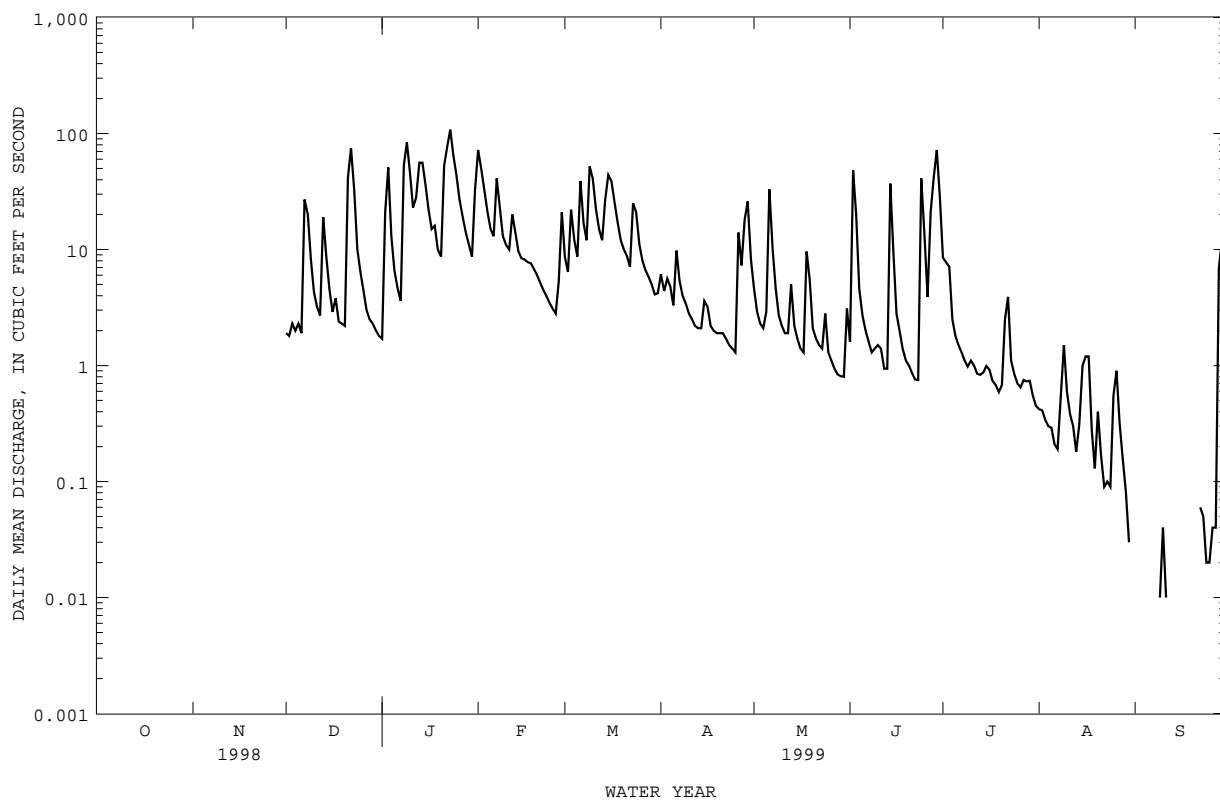
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 1999, BY WATER YEAR (WY)

	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999
MEAN	---	---	9.84	32.7	15.7	17.7	5.15	3.75	12.2	1.77	.41	.75
MAX	---	---	9.84	32.7	15.7	17.7	5.15	3.75	12.2	1.77	.41	.75
(WY)	---	---	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999
MIN	---	---	9.84	32.7	15.7	17.7	5.15	3.75	12.2	1.77	.41	.75
(WY)	---	---	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999

e Estimated

GOOSE CREEK BASIN

03292480 LITTLE GOOSE CREEK NEAR HARRODS CREEK, KY--Continued



BEARGRASS CREEK BASIN

03292500 SOUTH FORK BEARGRASS CREEK AT LOUISVILLE, KY

LOCATION.--Lat 38°12'41", long 85°42'09", Jefferson County, Hydrologic Unit 05140101, on right bank, 10 ft downstream of Trevilian Way Bridge at Louisville, 4.9 mi upstream from Middle Fork Beargrass, and at mile 6.5.

DRAINAGE AREA.--17.2 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to September 1940, August 1944 to September 1953, October 1954 to September 1983 (High water records only, October 1962 to June 1970), and June 1988 to current year. Monthly discharge only for October to December 1939, published in WSP 1305.

REVISED RECORDS.--WSP 1705: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 445.60 ft, Louisville city datum. Prior to Oct. 29, 1953, at datum 5.00 ft higher. Oct. 29, 1953, to June 24, 1970, at datum 3.00 ft higher. Prior to April 8, 1994, gage located 125 ft upstream at same datum.

REMARKS.--Records fair.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 19, 1943 reached a stage of 18.1 ft, present datum, from information furnished by U.S. Army Corps of Engineers.

PEAKS ABOVE BASE.--Peak discharges above base of 500 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Oct. 7	1600	735	8.59	Jan. 8	2235	778	8.84
Jan. 23	0215	573	7.56	Jun. 2	0900	965	9.87
Jun. 28	1105	539	733	Jun. 28	1810	*1400	11.99

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.1	11	3.2	4.0	93	17	11	13	3.6	19	2.6	1.3
2	9.5	12	3.6	80	39	14	8.7	11	172	15	3.5	1.3
3	49	12	3.9	44	26	40	15	8.7	15	9.8	2.6	1.1
4	6.4	4.3	3.7	13	20	18	10	7.7	8.2	7.6	2.4	1.2
5	3.5	3.2	2.4	9.5	16	14	7.9	15	6.7	6.4	2.3	1.2
6	3.2	2.9	1.7	7.8	14	73	30	104	5.1	5.7	1.9	1.3
7	130	2.8	42	7.2	64	22	11	18	4.8	5.2	1.9	1.3
8	12	4.9	25	246	21	18	8.7	12	4.6	4.9	2.5	1.2
9	3.4	9.1	6.1	141	16	116	7.5	9.8	4.8	4.9	3.8	1.7
10	2.1	60	3.3	35	14	42	6.8	8.4	4.1	5.1	2.6	2.0
11	1.6	5.6	2.2	23	12	26	6.3	7.1	3.8	4.5	2.1	1.4
12	1.4	1.4	1.8	24	41	20	5.9	6.2	3.4	3.8	2.4	1.5
13	1.2	1.1	33	43	17	17	5.7	21	3.3	3.5	2.3	1.3
14	1.4	1.0	7.0	46	14	87	5.5	8.4	24	3.3	2.0	1.6
15	1.1	1.2	4.1	24	12	43	13	6.4	5.5	3.3	2.0	1.4
16	1.2	1.3	2.8	19	12	27	7.4	5.6	3.5	3.1	1.6	1.5
17	2.1	2.3	3.8	16	15	22	5.8	11	3.3	3.1	1.3	1.6
18	5.7	3.1	2.1	20	11	19	5.2	23	3.0	3.3	1.4	1.2
19	5.7	5.2	2.5	13	9.3	16	5.2	9.7	2.8	3.8	5.5	1.1
20	1.2	43	2.3	19	8.3	14	6.6	6.3	2.8	3.4	3.6	1.0
21	1.0	3.5	64	65	7.8	13	6.4	5.3	2.6	4.0	1.1	1.1
22	1.6	1.8	99	141	7.1	12	5.5	4.8	2.5	3.5	1.0	.96
23	1.1	1.5	15	302	7.4	103	5.2	9.0	2.4	3.7	.89	1.1
24	1.1	2.5	10	68	9.3	28	5.0	11	84	3.3	.97	1.0
25	1.1	40	7.5	36	7.3	17	5.8	5.2	11	3.5	1.0	1.2
26	1.1	20	6.2	26	6.7	14	66	4.5	6.0	3.3	1.3	1.4
27	1.2	3.6	5.3	19	43	12	15	4.0	55	3.4	1.2	1.5
28	3.2	2.3	4.9	17	53	11	89	3.8	381	5.1	1.2	16
29	5.4	2.0	4.4	14	---	10	76	3.4	92	7.0	1.3	6.2
30	7.5	1.8	4.3	12	---	8.8	20	3.3	21	3.2	1.3	2.5
31	11	---	4.3	87	---	9.7	---	3.4	---	2.9	1.2	---
TOTAL	285.1	266.4	381.4	1621.5	616.2	903.5	477.1	370.0	941.8	161.6	62.76	60.16
MEAN	9.20	8.88	12.3	52.3	22.0	29.1	15.9	11.9	31.4	5.21	2.02	2.01
MAX	130	60	99	302	93	116	89	104	381	19	5.5	16
MIN	1.0	1.0	1.7	4.0	6.7	8.8	5.0	3.3	2.4	2.9	.89	.96
CFSM	.53	.52	.72	3.04	1.28	1.69	.92	.69	1.83	.30	.12	.12
IN.	.62	.58	.82	3.51	1.33	1.95	1.03	.80	2.04	.35	.14	.13

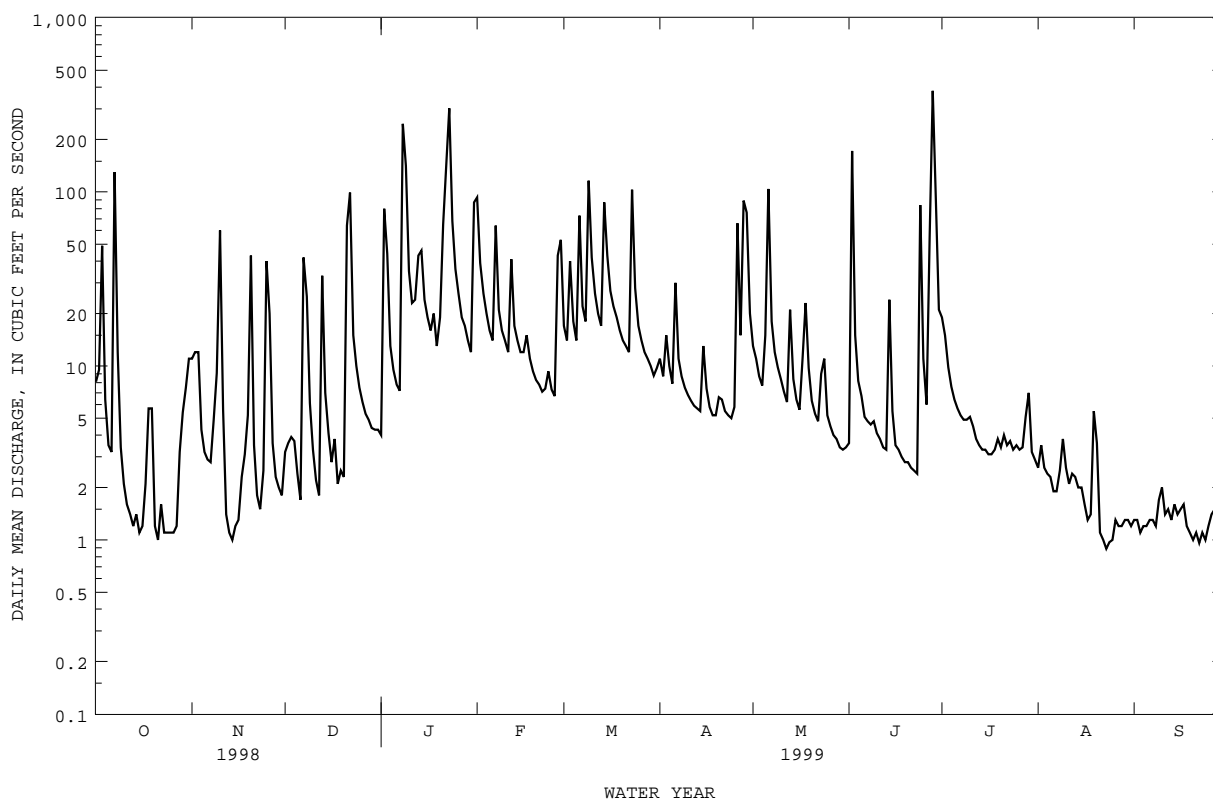
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1999, BY WATER YEAR (WY)

	7.51	13.7	23.1	31.7	39.0	44.7	32.1	28.4	20.3	15.7	10.1	7.44
MEAN	7.51	13.7	23.1	31.7	39.0	44.7	32.1	28.4	20.3	15.7	10.1	7.44
MAX	46.7	53.9	73.6	125	107	201	95.2	103	78.3	126	54.7	86.3
(WY)	1978	1974	1979	1950	1989	1997	1948	1961	1950	1973	1974	1979
MIN	.30	.84	1.32	.71	8.52	6.41	3.13	5.51	1.11	.89	.23	.000
(WY)	1953	1953	1977	1940	1953	1983	1976	1962	1959	1956	1952	1953

BEARGRASS CREEK BASIN

03292500 SOUTH FORK BEARGRASS CREEK AT LOUISVILLE, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1940 - 1999	
ANNUAL TOTAL	8996.1		6147.52			
ANNUAL MEAN	24.6		16.8		22.9	
HIGHEST ANNUAL MEAN					41.6	
LOWEST ANNUAL MEAN					9.35	
HIGHEST DAILY MEAN	376		381		1960	
LOWEST DAILY MEAN	1.0		.89		.00	
ANNUAL SEVEN-DAY MINIMUM	1.2		1.1		.00	
INSTANTANEOUS PEAK FLOW			1400		5290	
INSTANTANEOUS PEAK STAGE			11.99		17.81	
INSTANTANEOUS LOW FLOW					.00	
ANNUAL RUNOFF (CFSM)	1.43		.98		1.33	
ANNUAL RUNOFF (INCHES)	19.46		13.30		18.11	
10 PERCENT EXCEEDS	56		42		48	
50 PERCENT EXCEEDS	9.1		5.7		7.6	
90 PERCENT EXCEEDS	2.8		1.3		.95	



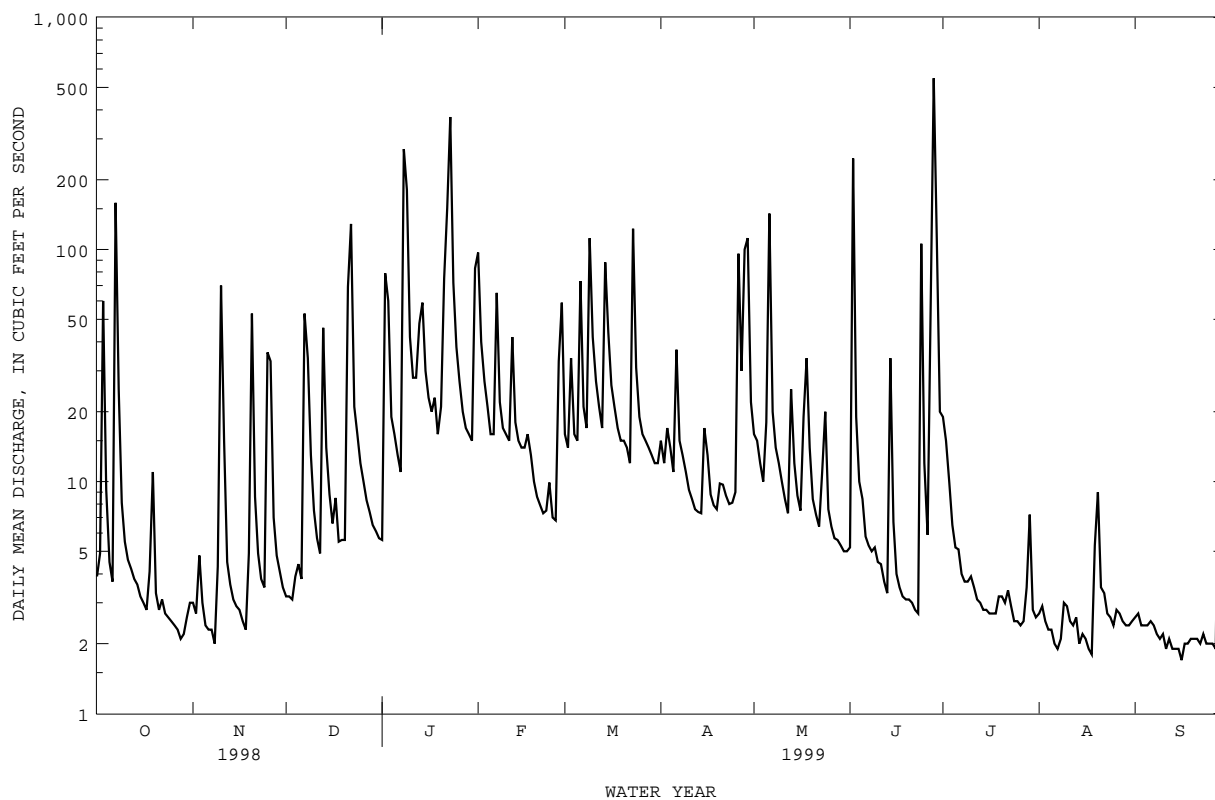
BEARGRASS CREEK BASIN

03292550 SOUTH FORK BEARGRASS CREEK AT WINTER AVENUE AT LOUISVILLE, KY--Continued

SUMMARY STATISTICS

FOR 1999 WATER YEAR

ANNUAL TOTAL	7368.0	
ANNUAL MEAN	20.2	
HIGHEST DAILY MEAN	548	Jun 28
LOWEST DAILY MEAN	1.7	Sep 16
ANNUAL SEVEN-DAY MINIMUM	1.9	Sep 11
INSTANTANEOUS PEAK FLOW	2010	Jun 28
INSTANTANEOUS PEAK STAGE	7.37	Jun 28
10 PERCENT EXCEEDS	43	
50 PERCENT EXCEEDS	7.3	
90 PERCENT EXCEEDS	2.3	



BEARGRASS CREEK BASIN

03293000 MIDDLE FORK BEARGRASS CREEK AT LOUISVILLE, KY

LOCATION.--Lat 38°14'14", long 85°39'53", Jefferson County, Hydrologic Unit 05140101, on right bank 75 ft downstream from bridge on Old Cannons Lane at Louisville, 1.7 mi downstream from Weicher Creek, 5.4 mi upstream from mouth and 7.0 mi upstream from Ohio River.

DRAINAGE AREA.--18.9 mi², of which about 0.5 mi² does not contribute directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1944 to current year.

REVISED RECORDS.--WSP 1625: 1945(M), 1948(M), 1950(P), 1951-52(M), 1954-55(M), 1957(M), drainage area. WRD KY 72-1: 1950(M).

GAGE.--Water-stage recorder. Datum of gage is 476.70 ft, Louisville city datum. See WDR KY-90-1 for history of changes prior to July 26, 1971.

REMARKS.--Records good.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1943 reached a stage of 9.1 ft, present site and datum, from information by local residents.

PEAKS ABOVE BASE.--Peak discharges above base of 600 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 8	2350	*680	4.67	Jan. 23	0350	649	4.58
Jun. 2	1020	676	4.66				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.4	3.2	4.7	113	22	12	17	2.0	24	1.1	.01
2	1.3	1.5	2.8	59	56	17	9.8	13	153	30	1.6	.01
3	30	4.6	2.7	59	40	47	15	11	24	14	.51	.03
4	7.0	3.2	2.8	23	29	26	11	8.9	11	9.7	.13	.00
5	3.5	3.0	4.1	14	23	20	8.8	14	8.4	7.2	.18	.08
6	2.7	2.5	3.7	11	20	73	33	85	5.4	5.2	.17	.12
7	97	2.3	39	9.8	63	33	15	21	4.2	4.2	.08	.05
8	22	2.2	30	199	29	25	12	14	3.6	3.0	.46	.03
9	6.6	2.7	14	169	22	108	10	11	6.6	2.6	5.2	.05
10	3.7	49	8.3	51	18	55	8.8	8.6	6.4	2.7	1.0	.05
11	2.6	11	6.0	33	16	39	7.7	7.2	2.9	2.3	.57	.21
12	1.9	3.3	5.1	33	46	30	6.7	6.2	2.4	1.8	.14	.05
13	1.9	2.1	31	61	25	24	6.5	21	2.0	1.6	.08	.01
14	1.5	1.6	15	65	19	76	6.2	8.0	41	1.6	.08	.02
15	1.3	1.4	8.9	38	16	54	13	5.9	9.2	1.3	.08	.11
16	1.2	1.3	7.1	28	15	41	11	4.9	4.9	1.2	.06	.20
17	1.2	1.5	7.8	23	16	32	7.4	5.2	3.3	1.8	.06	.62
18	2.1	1.5	5.5	26	13	26	6.4	11	2.4	1.3	.07	.10
19	4.5	2.2	5.2	17	11	21	5.8	7.5	2.0	1.3	1.1	.01
20	1.8	36	5.0	19	10	18	5.8	4.5	1.7	2.2	2.4	.00
21	1.3	6.1	57	86	9.1	15	5.4	3.7	1.4	2.5	.41	.00
22	1.4	3.1	118	130	8.2	12	5.2	3.0	1.4	2.4	.13	.00
23	1.3	2.4	28	332	8.2	80	4.9	5.8	1.3	1.2	.01	.00
24	1.2	2.2	17	87	9.2	37	4.3	11	94	.80	.00	.08
25	1.2	21	12	53	8.1	23	4.0	4.1	18	.61	.00	.05
26	1.0	23	9.4	37	7.1	18	40	3.1	8.8	.43	.31	.00
27	.94	7.0	8.0	28	33	15	17	2.5	31	.28	.08	.00
28	1.3	4.8	6.9	22	56	13	112	2.3	118	.62	.07	25
29	1.3	3.8	6.3	17	---	11	80	2.0	115	.67	.09	15
30	1.5	3.4	5.4	14	---	10	26	1.9	31	.33	.06	5.8
31	1.3	---	5.0	76	---	10	---	2.8	---	.36	.01	---
TOTAL	208.64	211.1	480.2	1824.5	738.9	1031	510.7	327.1	716.3	129.20	16.24	47.69
MEAN	6.73	7.04	15.5	58.9	26.4	33.3	17.0	10.6	23.9	4.17	.52	1.59
MAX	.97	.49	118	332	113	108	112	85	153	30	5.2	25
MIN	.94	1.3	2.7	4.7	7.1	10	4.0	1.9	1.3	.28	.00	.00
CFSM	.37	.38	.84	3.20	1.43	1.81	.93	.57	1.30	.23	.03	.09
IN.	.42	.43	.97	3.69	1.49	2.08	1.03	.66	1.45	.26	.03	.10

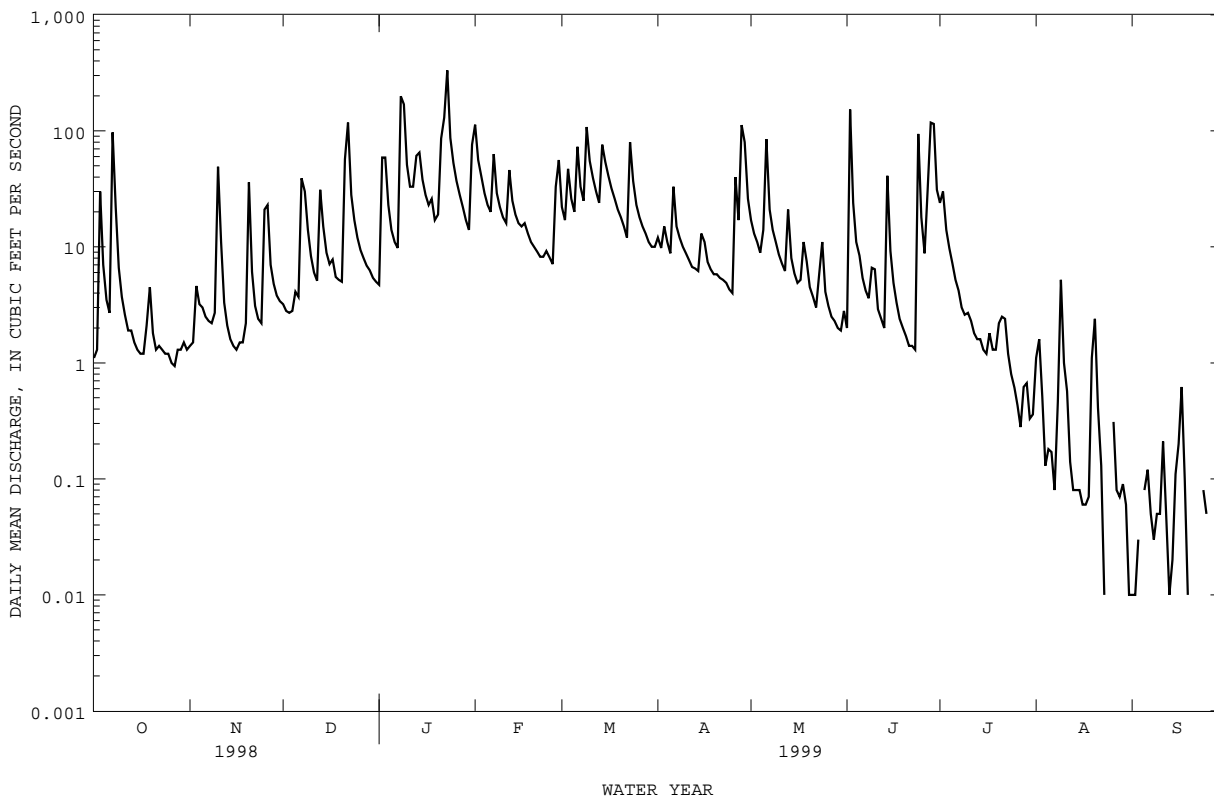
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1999, BY WATER YEAR (WY)

	8.44	16.3	26.9	33.9	42.2	50.9	38.1	30.6	20.9	16.5	11.1	9.22
MEAN	8.44	16.3	26.9	33.9	42.2	50.9	38.1	30.6	20.9	16.5	11.1	9.22
MAX	40.7	54.7	88.9	148	119	195	143	114	83.5	109	42.1	105
(WY)	1978	1974	1979	1950	1956	1964	1970	1961	1950	1973	1978	1979
MIN	.15	.71	1.90	3.31	3.44	4.20	5.27	3.04	.93	.37	.52	.033
(WY)	1954	1954	1954	1981	1954	1954	1954	1954	1954	1954	1999	1953

BEARGRASS CREEK BASIN

03293000 MIDDLE FORK BEARGRASS CREEK AT LOUISVILLE, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1944 - 1999	
ANNUAL TOTAL	9404.94		6241.57			
ANNUAL MEAN	25.8		17.1		25.4	
HIGHEST ANNUAL MEAN					49.2 1979	
LOWEST ANNUAL MEAN					3.76 1954	
HIGHEST DAILY MEAN	350	Jun 10	332	Jan 23	2000	Mar 9 1964
LOWEST DAILY MEAN	.94	Oct 27	.00	Aug 24	.00	Aug 27 1952
ANNUAL SEVEN-DAY MINIMUM	1.2	Oct 23	.02	Sep 20	.00	Sep 28 1952
INSTANTANEOUS PEAK FLOW			680	Jan 8	5900	Mar 2 1997
INSTANTANEOUS PEAK STAGE			4.67	Jan 8	8.70	Mar 2 1997
INSTANTANEOUS LOW FLOW					.00	Aug 27 1952
ANNUAL RUNOFF (CFSM)	1.40		.93		1.38	
ANNUAL RUNOFF (INCHES)	19.01		12.62		18.72	
10 PERCENT EXCEEDS	63		43		53	
50 PERCENT EXCEEDS	10		5.9		10	
90 PERCENT EXCEEDS	2.7		.10		1.9	



OHIO RIVER MAIN STEM

03294500 OHIO RIVER AT LOUISVILLE, KY

LOCATION.--Lat 38°16'49", long 85°47'57", Jefferson County, Hydrologic Unit 05140101, on left bank at downstream end of lock guide wall in lower pool at McAlpine Locks, at Louisville, 5.3 mi downstream from Beargrass Creek, and at mile 607.3.

DRAINAGE AREA.--91,170 mi², approximately.

PERIOD OF RECORD.--January 1928 to current year. Prior to October 1935 monthly discharge only, published in WSP 1305. Gage-height records collected in this vicinity since 1871 are published in reports of National Weather Service.

REVISED RECORDS.--WSP 893: 1939, KY-92-1 peak.

GAGE.--Water-stage recorder. Datum of gage is 373.18 ft above sea level or 374.00 ft Ohio River datum. Prior to Oct. 1, 1939, and Oct. 1, 1943 to Sept. 30, 1946, various combinations of gages near Louisville were used. Oct. 1, 1939 to Sept. 30, 1943, water-stage recorders at Louisville and Kosmosdale, downstream from McAlpine Dam (4 mi and 20.1 mi, respectively), were used to determine discharge. Oct. 1, 1946 to Sept. 30, 1961, nonrecording gage at site 0.3 mi upstream at same datum. Oct. 1, 1952 to Sept. 30, 1970, upper nonrecording gage at dam 43, 25.9 mi downstream used as an auxiliary gage. Since Oct. 1, 1970, auxiliary water-stage recorder at Kosmosdale, 19.8 mi downstream. Datum of auxiliary gage is 372.75 ft above sea level or 373.67 ft above Ohio River Dam.

REMARKS.--Records fair except for estimated periods and those below 20,000 ft³/s, which are poor. Flow regulated by Ohio River system of locks, dams, and reservoirs.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12600	18400	21900	31100	235000	138000	e80000	141000	33500	21100	e20000	e7500
2	4070	17900	9770	32400	237000	167000	e77000	128000	35200	9650	12500	e5800
3	19600	11500	23600	36700	225000	197000	e82000	91700	16600	44400	17200	16200
4	14200	3560	12400	43000	209000	220000	e80000	77400	33500	18400	e6000	11000
5	16900	24300	14200	57500	197000	253000	e86000	64100	20700	17700	e10000	50000
6	18000	13800	13400	67500	194000	292000	e80000	53400	28000	12800	e12500	10100
7	18100	4790	24000	42100	196000	321000	e82000	52700	14500	11900	e10500	17700
8	7290	10500	21000	48400	231000	319000	e80000	39500	19400	5560	e12000	13200
9	40900	15900	28000	96800	222000	320000	e90000	43900	22700	18200	e14500	15300
10	37500	21300	24200	198000	227000	323000	e105000	48500	25800	10800	e12000	15000
11	35400	24500	32600	230000	236000	298000	e135000	45700	6580	21200	e7000	12300
12	25200	25900	30900	234000	224000	266000	e160000	47000	5410	2530	e10000	19200
13	23700	16600	25300	205000	209000	236000	174000	43600	25400	3640	e16000	11600
14	22800	20300	31800	200000	186000	189000	180000	33800	8650	18300	e9000	e5200
15	10200	24600	25900	189000	174000	167000	178000	46400	27200	5150	e18000	e4800
16	22600	7770	44800	211000	156000	185000	162000	37400	10000	10600	e8500	16100
17	15500	21300	35200	232000	138000	220000	154000	49900	12500	9260	e9000	e5600
18	11200	24800	33100	259000	130000	234000	137000	42800	17600	16000	e11000	9550
19	19000	15200	34400	276000	118000	225000	134000	35300	14400	3600	12400	17300
20	21500	5670	16300	272000	112000	219000	128000	57100	6960	12200	13100	9200
21	16800	13900	22400	295000	105000	220000	122000	66200	6320	14100	9200	9260
22	14500	34300	87200	333000	93500	216000	152000	55300	17800	4820	8540	20100
23	8310	7540	71200	368000	93800	191000	168000	38700	15400	12400	12500	e6500
24	8910	14400	91200	380000	72500	160000	175000	51500	14900	3360	16900	e5000
25	18300	21600	90000	378000	67100	147000	177000	53900	7050	6360	26500	e4600
26	18800	21100	69300	386000	51200	145000	177000	67700	9020	11900	39700	e8000
27	12400	24600	43300	397000	60400	125000	181000	88000	12500	8570	29800	15300
28	13800	13200	31800	391000	94900	106000	173000	78400	26500	2740	18800	9870
29	12300	18300	39000	363000	---	92400	146000	59600	24300	23200	24200	13600
30	13600	29700	29800	302000	---	e87000	136000	42600	11000	35500	15500	20200
31	14200	---	34500	250000	---	e80000	---	36100	---	27700	e12000	---
TOTAL	548180	527230	1112470	6804500	4494400	6358400	3991000	1817200	529390	423640	454840	340080
MEAN	17680	17570	35890	219500	160500	205100	133000	58620	17650	13670	14670	11340
MAX	40900	34300	91200	397000	237000	323000	181000	141000	35200	44400	39700	20200
MIN	4070	3560	9770	31100	51200	80000	77000	33800	5410	2530	6000	4600

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1999, BY WATER YEAR (WY)

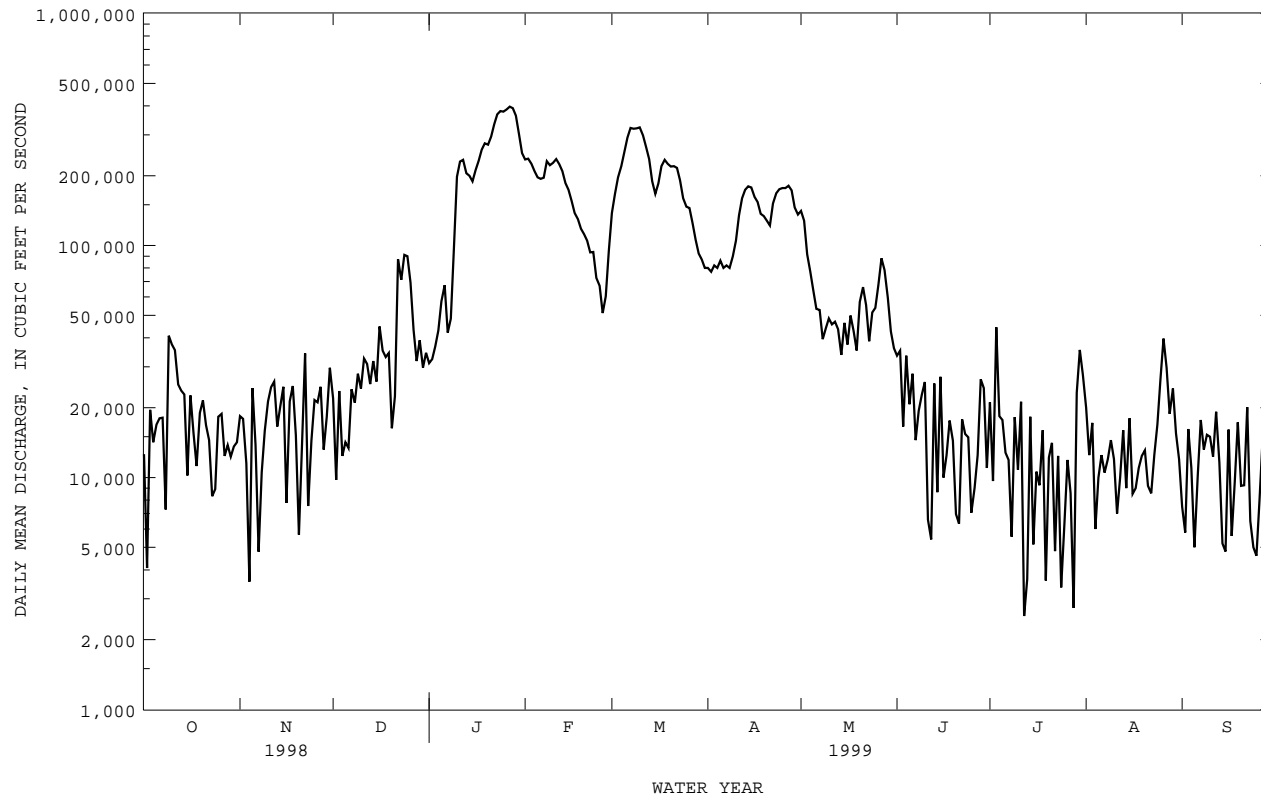
	MEAN	MAX	MIN	(WY)	(WY)	(WY)	(WY)	(WY)	(WY)	(WY)	(WY)	(WY)
MEAN	37370	69020	122300	167800	194100	244600	203900	144300	85530	55660	43610	32740
MAX	153500	245900	321300	595800	430400	524300	403300	392900	234400	163400	151300	166600
(WY)	1980	1986	1973	1937	1939	1945	1948	1996	1981	1958	1958	1979
MIN	4377	6660	14090	21630	38010	69390	66480	29350	16400	8035	4924	6005
(WY)	1931	1931	1931	1931	1934	1969	1986	1941	1988	1930	1930	1930

OHIO RIVER MAIN STEM

03294500 OHIO RIVER AT LOUISVILLE, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1929 - 1999	
ANNUAL TOTAL	43369620		27401330		116400	
ANNUAL MEAN	118800		75070		176700	
HIGHEST ANNUAL MEAN					57390	
LOWEST ANNUAL MEAN					1979	
HIGHEST DAILY MEAN	414000	Jan 13	397000	Jan 27	1110000	Jan 27 1937
LOWEST DAILY MEAN	3560	Nov 4	2530	Jul 12	2100	Aug 12 1930
ANNUAL SEVEN-DAY MINIMUM	11700	Sep 13	7160	Jul 22	3530	Oct 15 1930
INSTANTANEOUS PEAK FLOW			400000		1110000	
INSTANTANEOUS PEAK STAGE			47.36		85.44	
10 PERCENT EXCEEDS	313000		221000		280000	
50 PERCENT EXCEEDS	74800		27700		72400	
90 PERCENT EXCEEDS	13800		8560		16500	

e Estimated



SALT RIVER BASIN

03295400 SALT RIVER AT GLENSBORO, KY

LOCATION.--Lat 38°00'07", long 85°03'38", Anderson County, Hydrologic Unit 05140102, on left bank 5 ft downstream from bridge on Highway 53 at Glensboro, 0.9 mi upstream from Timber Creek, 2.0 mi downstream from Indian Creek, and at mile 82.5.

DRAINAGE AREA.--172 mi².

PERIOD OF RECORD.--May 1989 to current year.

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

REMARKS.--Records fair.

PEAKS ABOVE BASE.--Peak discharges above base of 6,000 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 9	0400	6370	8.97	Jun. 28	2100	*12300	10.82

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.7	8.4	29	66	1450	461	123	101	8.9	175	1.9	.73
2	4.0	10	24	250	1010	290	119	70	9.2	101	1.7	.44
3	4.8	10	21	1340	542	689	111	53	9.0	200	.59	.28
4	98	9.6	19	611	358	894	110	42	8.3	105	.06	.15
5	109	11	23	347	253	477	97	40	8.1	69	.00	.01
6	39	12	38	244	207	479	115	97	17	44	.00	.00
7	43	12	106	165	200	354	147	116	23	30	.00	.00
8	139	12	417	1200	181	269	113	134	49	22	.00	.00
9	47	13	398	4900	154	755	100	73	37	17	.06	.00
10	25	19	230	1850	132	759	90	48	151	14	.49	.00
11	17	30	146	557	120	444	80	35	29	11	.32	.00
12	10	24	101	351	501	317	70	27	18	9.3	.16	.00
13	7.2	17	271	335	619	249	63	28	14	8.0	.15	.00
14	5.1	20	457	810	369	1090	63	25	23	8.4	.22	.00
15	3.9	25	293	431	271	1880	68	20	31	6.3	.50	.00
16	3.5	24	187	322	223	673	84	18	19	4.9	.36	.00
17	2.8	21	140	265	213	405	76	17	15	4.3	.21	.00
18	2.4	17	112	408	197	281	69	15	19	2.9	.17	.00
19	2.6	14	98	305	175	216	57	15	13	2.6	.09	.00
20	3.1	13	89	257	150	177	51	13	9.9	2.0	.00	.00
21	3.0	14	134	300	129	157	47	11	7.8	2.7	.00	.00
22	2.6	14	909	254	113	135	45	9.9	5.9	4.2	.00	.48
23	2.4	12	367	1660	106	297	43	8.9	5.2	6.6	.00	.70
24	2.5	11	257	1200	104	423	37	11	8.0	7.7	.00	.74
25	2.5	22	176	534	100	314	30	13	22	11	.24	.80
26	2.4	113	135	337	96	226	59	32	21	7.0	1.5	.81
27	3.1	64	111	250	95	172	112	38	37	4.8	2.1	.92
28	4.5	37	96	203	405	145	81	22	2700	3.6	1.6	1.4
29	5.0	27	87	164	---	126	124	16	1750	2.8	1.4	2.7
30	6.2	38	81	137	---	109	178	12	391	2.3	1.5	3.6
31	7.2	---	77	234	---	101	---	9.7	---	1.7	1.2	---
TOTAL	614.5	674.0	5629	20287	8473	13364	2562	1170.5	5459.3	891.1	16.52	13.76
MEAN	19.8	22.5	182	654	303	431	85.4	37.8	182	28.7	.53	.46
MAX	139	113	909	4900	1450	1880	178	134	2700	200	2.1	3.6
MIN	2.4	8.4	19	66	95	101	30	8.9	5.2	1.7	.00	.00
CFSM	.12	.13	1.06	3.80	1.76	2.51	.50	.22	1.06	.17	.00	.00
IN.	.13	.15	1.22	4.39	1.83	2.89	.55	.25	1.18	.19	.00	.00

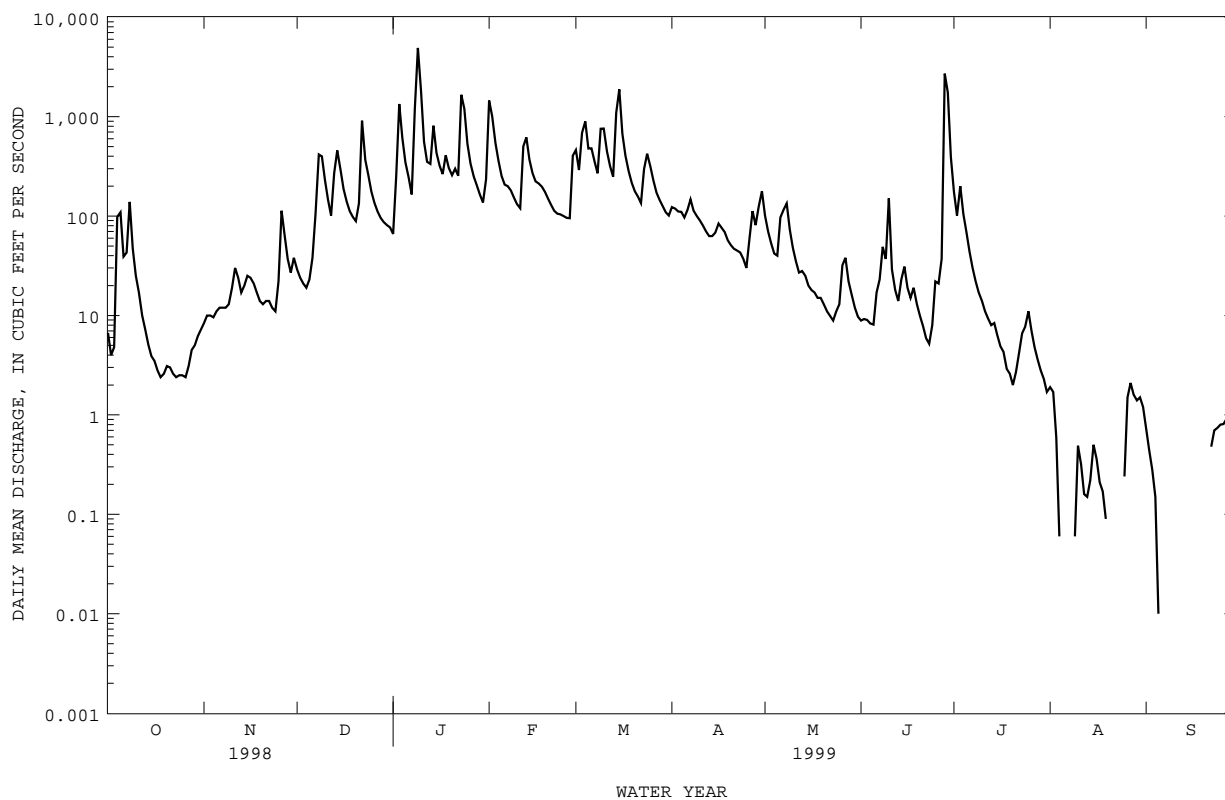
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1999, BY WATER YEAR (WY)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	
MEAN	59.9	157	370	502	436	614	218	338	328	158	57.1	51.8
MAX	262	359	1360	675	642	1845	480	925	926	528	137	241
(WY)	1991	1994	1991	1994	1991	1997	1998	1995	1997	1998	1992	1996
MIN	6.13	11.4	123	344	149	99.9	71.4	37.8	23.6	6.72	.53	.46
(WY)	1995	1992	1990	1993	1996	1990	1997	1999	1994	1993	1999	1999

SALT RIVER BASIN

03295400 SALT RIVER AT GLENSBORO, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1989 - 1999	
ANNUAL TOTAL	114758.8		59154.68			
ANNUAL MEAN	314		162		273	
HIGHEST ANNUAL MEAN					403	
LOWEST ANNUAL MEAN					162	
HIGHEST DAILY MEAN	7070	Jul 20	4900	Jan 9	16400	Mar 2 1997
LOWEST DAILY MEAN	1.9	Sep 10	.00	Aug 5	.00	Aug 5 1999
ANNUAL SEVEN-DAY MINIMUM	2.1	Sep 9	.00	Sep 6	.00	Sep 6 1999
INSTANTANEOUS PEAK FLOW			12300	Jun 28	22000	Mar 2 1997
INSTANTANEOUS PEAK STAGE			10.82	Jun 28	12.91	Mar 2 1997
ANNUAL RUNOFF (CFSM)	1.83		.94		1.59	
ANNUAL RUNOFF (INCHES)	24.82		12.79		21.60	
10 PERCENT EXCEEDS	807		401		586	
50 PERCENT EXCEEDS	136		30		88	
90 PERCENT EXCEEDS	6.0		.26		5.4	



SALT RIVER BASIN

03295702 BULLSKIN CREEK NEAR SIMPSONVILLE, KY--Continued

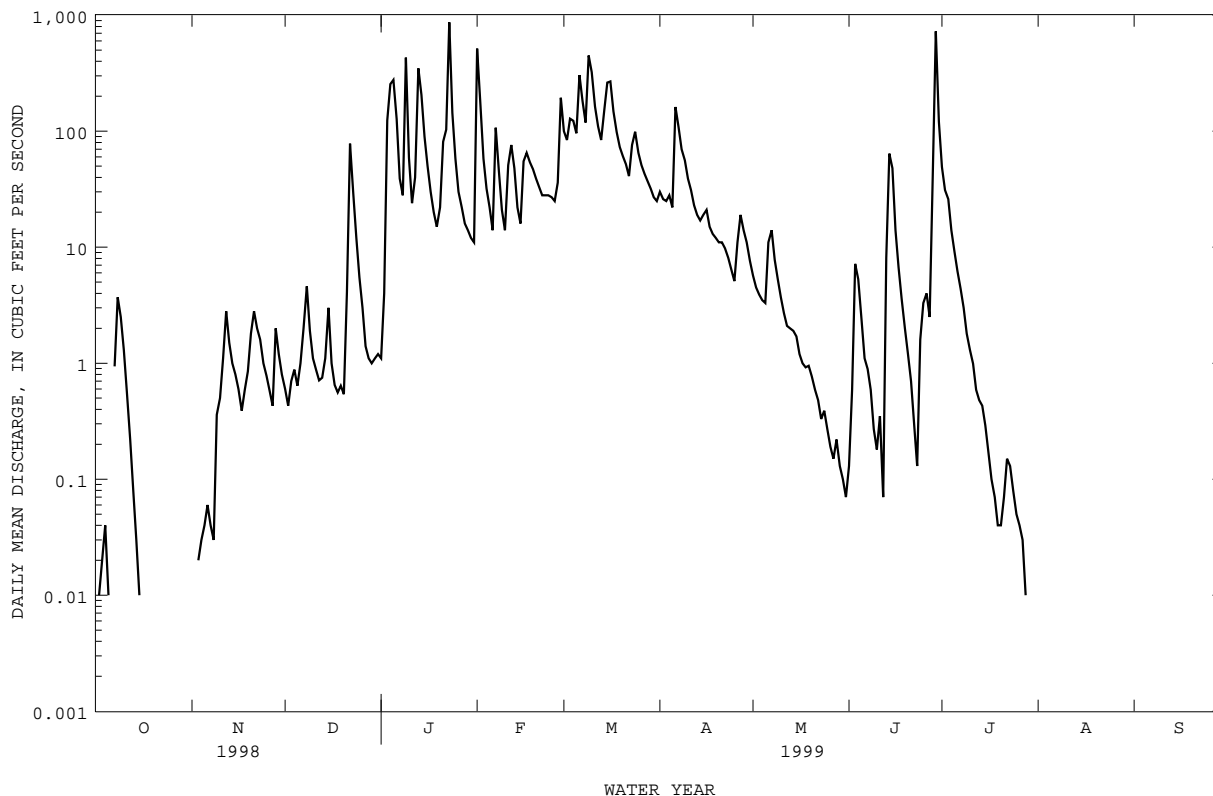
SUMMARY STATISTICS

FOR 1999 WATER YEAR

WATER YEARS 1998 - 1999

ANNUAL TOTAL	11655.02		
ANNUAL MEAN	31.9		31.9
HIGHEST ANNUAL MEAN			31.9
LOWEST ANNUAL MEAN			31.9
HIGHEST DAILY MEAN	870	Jan 23	1740
LOWEST DAILY MEAN	.00	Oct 1	.00
ANNUAL SEVEN-DAY MINIMUM	.00	Oct 16	.00
INSTANTANEOUS PEAK FLOW	2150	Jun 29	5350
INSTANTANEOUS PEAK STAGE	9.68	Jun 29	15.39
10 PERCENT EXCEEDS	86		123
50 PERCENT EXCEEDS	1.2		3.4
90 PERCENT EXCEEDS	.00		.00

e Estimated



SALT RIVER BASIN

03295890 BRASHEARS CREEK AT TAYLORSVILLE, KY

LOCATION.--Lat 38°02'13", long 85°20'27", Spencer County, Hydrologic Unit 05140102, on left bank at downstream side of bridge on State Highway 155, at the north edge of Taylorsville, 1.2 mi upstream from Salt River, and at mile 1.2.

DRAINAGE AREA.--259 mi²

PERIOD OF RECORD.--July 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 466.85 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair.

PEAKS ABOVE BASE.--Peak discharges above base of 5,000 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 9	0800	5590	14.21	Jan. 23	1600	*8340	17.04

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	6.8	27	135	3120	1030	172	63	9.4	563	5.4	.36
2	9.1	6.6	22	141	2400	707	173	52	12	323	4.8	.44
3	13	7.2	18	802	1360	697	158	45	13	220	2.7	.46
4	17	7.3	16	621	884	787	160	43	26	165	2.0	.49
5	23	6.4	20	381	607	633	154	43	22	110	1.7	.48
6	36	6.1	21	423	486	838	158	83	22	75	1.9	.53
7	33	5.8	23	314	570	993	469	141	17	55	1.9	.55
8	36	5.5	31	607	833	695	302	110	13	39	1.8	.53
9	77	5.3	49	4250	618	1260	248	79	10	28	2.1	.54
10	36	7.0	85	1750	486	1920	212	60	9.2	21	1.9	.54
11	19	6.6	70	943	404	1130	167	48	10	16	1.4	.57
12	12	14	55	648	492	768	143	41	11	12	1.2	.64
13	8.2	17	66	1170	679	570	123	45	9.3	9.5	1.2	.64
14	6.9	9.8	131	2200	548	824	112	36	13	7.9	1.0	.68
15	5.4	7.1	123	1340	474	1480	114	33	136	6.7	.87	.61
16	4.9	5.5	86	829	409	1180	118	29	138	6.0	.81	.66
17	7.3	4.9	65	614	383	879	118	25	66	5.0	.70	.70
18	6.6	4.6	53	540	339	626	132	22	37	4.2	.55	.67
19	6.3	4.3	46	468	292	466	116	19	24	4.0	.53	.75
20	6.5	5.7	39	409	252	375	103	17	18	3.5	.50	.80
21	6.6	6.7	41	1180	215	321	85	16	13	e18	.45	.97
22	7.4	7.7	643	1960	186	269	71	15	10	e120	.45	.93
23	8.0	14	624	6200	168	276	65	14	8.5	84	.37	.89
24	7.3	14	303	2800	164	660	60	17	16	28	.41	.78
25	6.5	13	193	1470	156	455	53	16	25	13	.47	.49
26	6.3	14	153	907	147	358	53	15	50	29	.48	.26
27	7.1	59	133	658	167	300	116	14	31	19	.45	.16
28	7.3	64	105	514	1030	258	124	11	1240	7.5	.37	.08
29	6.8	50	93	402	---	224	98	9.0	2370	5.3	.37	.19
30	7.1	37	86	324	---	193	79	8.1	1200	4.2	.33	.21
31	6.5	---	78	338	---	171	---	7.6	---	3.2	.30	---
TOTAL	451.1	422.9	3498	35338	17869	21343	4256	1176.7	5579.4	2005.0	39.41	16.60
MEAN	14.6	14.1	113	1140	638	688	142	38.0	186	64.7	1.27	.55
MAX	77	64	643	6200	3120	1920	469	141	2370	563	5.4	.97
MIN	4.9	4.3	16	135	147	171	53	7.6	8.5	3.2	.30	.08
CFSM	.06	.05	.44	4.40	2.46	2.66	.55	.15	.72	.25	.00	.00
IN.	.06	.06	.50	5.08	2.57	3.07	.61	.17	.80	.29	.01	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1999, BY WATER YEAR (WY)

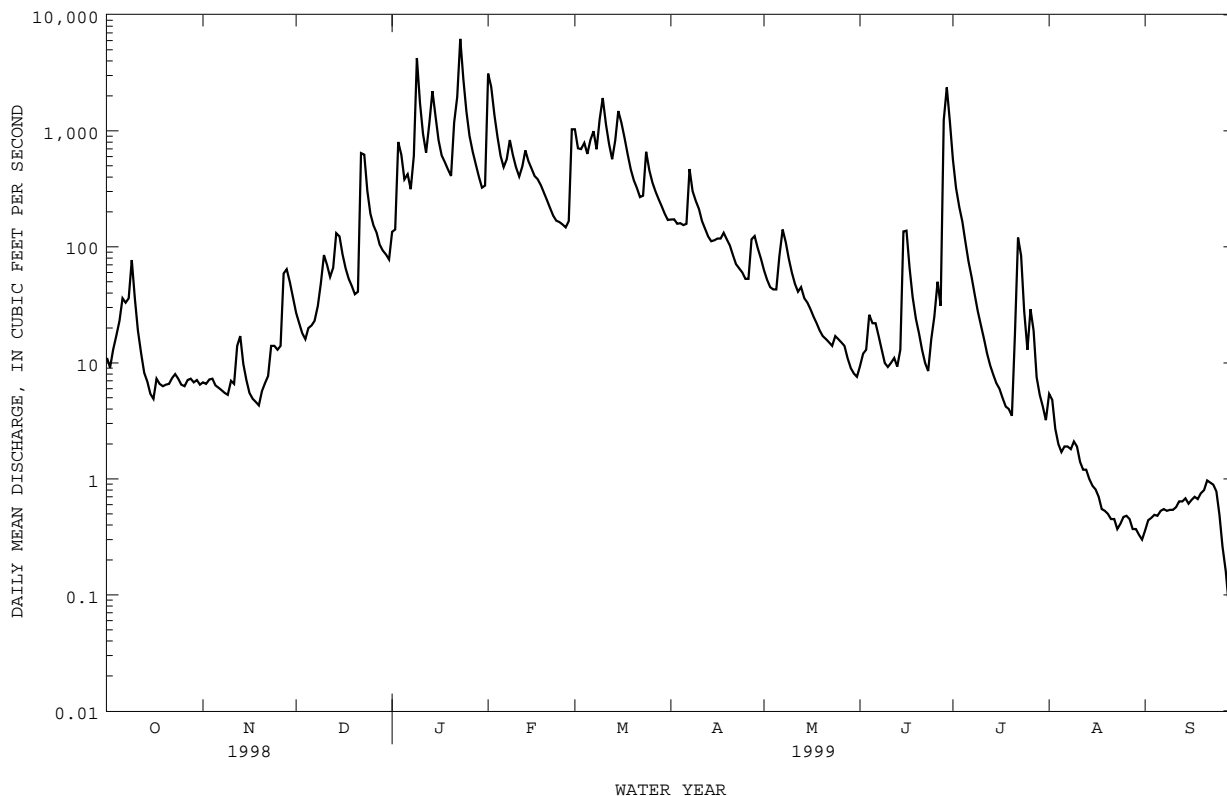
MEAN	50.2	158	463	724	748	882	451	440	484	128	69.1	27.1
MAX	240	419	1806	1140	1817	3025	841	1210	1318	584	291	137
(WY)	1991	1994	1991	1999	1990	1997	1996	1990	1997	1998	1992	1996
MIN	.80	7.98	113	405	212	228	142	38.0	14.9	4.44	1.27	.55
(WY)	1998	1992	1999	1998	1992	1990	1999	1999	1994	1994	1999	1999

SALT RIVER BASIN

03295890 BRASHEARS CREEK AT TAYLORSVILLE, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1990 - 1999	
ANNUAL TOTAL	140475.5		91995.11			
ANNUAL MEAN	385		252		397	
HIGHEST ANNUAL MEAN					642	
LOWEST ANNUAL MEAN					252	
HIGHEST DAILY MEAN	5430	Feb 12	6200	Jan 23	39600	Mar 2 1997
LOWEST DAILY MEAN	3.7	Sep 20	.08	Sep 28	.00	Oct 11 1997
ANNUAL SEVEN-DAY MINIMUM	4.4	Sep 14	.31	Sep 24	.00	Oct 15 1997
INSTANTANEOUS PEAK FLOW			6200	Jan 23	44800	Mar 2 1997
INSTANTANEOUS PEAK STAGE			17.04	Jan 23	31.54	Mar 2 1997
ANNUAL RUNOFF (CFSM)	1.49		.97		1.53	
ANNUAL RUNOFF (INCHES)	20.18		13.21		20.84	
10 PERCENT EXCEEDS	1050		701		933	
50 PERCENT EXCEEDS	144		36		116	
90 PERCENT EXCEEDS	7.1		.68		3.9	

e Estimated



SALT RIVER BASIN

03297900 FLOYDS FORK NEAR PEWEE VALLEY, KY

LOCATION.--Lat 38°17'07", long 85°28'03", Oldham County, Hydrologic Unit 05140102, on left bank at downstream side of bridge on State Highway 362, 2.0 mi south of PeWee Valley, 2.2 mi downstream from Curry's Fork, and at mile 44.3.

DRAINAGE AREA.--79.9 mi². (revised)

PERIOD OF RECORD.--June 1991 to current year.

REVISED RECORDS.--WRD KY-95-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 599.892 ft above sea level.

REMARKS.--Records fair except for discharges below 5.0 ft³/s and those estimated, which are poor.

PEAKS ABOVE BASE.--Peak discharges above base of 4,600 ft³/s and maximun*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Feb. 1	0200	*2420	12.17

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.3	9.5	e5.9	19	1360	e180	43	23	6.5	60	2.9	.03
2	9.2	10	e5.3	38	351	e110	40	17	126	43	2.4	.00
3	12	10	e5.0	201	219	e140	38	14	77	30	2.0	.00
4	18	10	e4.7	e680	159	177	43	12	23	17	1.8	.00
5	18	9.5	e5.0	e560	104	119	35	11	11	12	1.7	.00
6	15	9.6	5.6	e440	89	353	136	59	7.6	9.8	1.5	.03
7	35	9.8	15	e320	322	203	104	44	e7.8	8.6	1.2	.08
8	49	9.6	46	e240	219	144	63	23	e9.6	7.5	1.1	.13
9	11	10	48	e210	147	492	53	15	e5.8	6.7	1.2	.25
10	8.1	16	24	e160	100	306	41	11	e7.2	6.0	1.1	.18
11	7.5	29	16	e130	81	187	34	e9.5	e3.0	5.4	1.0	.11
12	e6.6	9.8	12	95	158	135	29	e8.0	e4.0	4.9	.99	.16
13	e5.9	6.5	19	657	172	102	25	e7.2	8.6	4.5	1.2	.27
14	e5.4	5.8	40	479	116	149	24	e6.7	221	4.1	.77	.19
15	e4.9	4.7	25	204	96	319	27	e6.3	112	3.7	.66	.15
16	e4.4	10	17	145	79	320	35	e6.0	28	3.6	.57	.16
17	e4.1	17	16	121	77	204	27	8.4	13	3.6	.49	.10
18	7.8	19	22	143	67	137	21	15	8.7	3.4	.42	.14
19	e6.4	19	24	104	58	96	20	25	e6.2	5.0	.35	.19
20	e5.4	27	19	85	50	79	20	9.3	e4.3	4.4	.41	.15
21	4.7	43	62	188	44	69	19	8.1	e2.8	3.9	.39	.15
22	4.1	32	230	e640	39	57	18	e5.8	e2.2	4.1	.32	.11
23	4.2	27	132	e580	38	105	16	e7.8	7.4	3.5	.25	.00
24	3.6	24	e74	e360	42	138	14	e5.8	117	3.7	.23	.00
25	3.3	26	e59	199	41	79	12	e4.6	57	3.6	.22	.02
26	3.3	49	e45	139	40	62	25	e3.5	21	3.3	.29	.00
27	3.3	23	e37	111	40	54	42	e2.7	57	2.9	.27	.01
28	3.3	12	31	84	238	48	37	e2.2	140	3.1	.23	.02
29	4.0	7.9	24	68	---	45	84	e1.8	737	3.2	.30	.03
30	7.1	e6.8	21	57	---	40	36	e1.6	166	3.2	.23	.07
31	7.1	---	19	188	---	36	---	e1.4	---	3.3	.11	---
TOTAL	291.0	502.5	1108.5	7645	4546	4685	1161	375.7	1997.7	281.0	26.60	2.73
MEAN	9.39	16.8	35.8	247	162	151	38.7	12.1	66.6	9.06	.86	.091
MAX	49	49	230	680	1360	492	136	59	737	60	2.9	.27
MIN	3.3	4.7	4.7	19	38	36	12	1.4	2.2	2.9	.11	.00
CFSM	.12	.21	.45	3.09	2.03	1.89	.48	.15	.83	.11	.01	.00
IN.	.14	.23	.52	3.56	2.12	2.18	.54	.17	.93	.13	.01	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1999, BY WATER YEAR (WY)

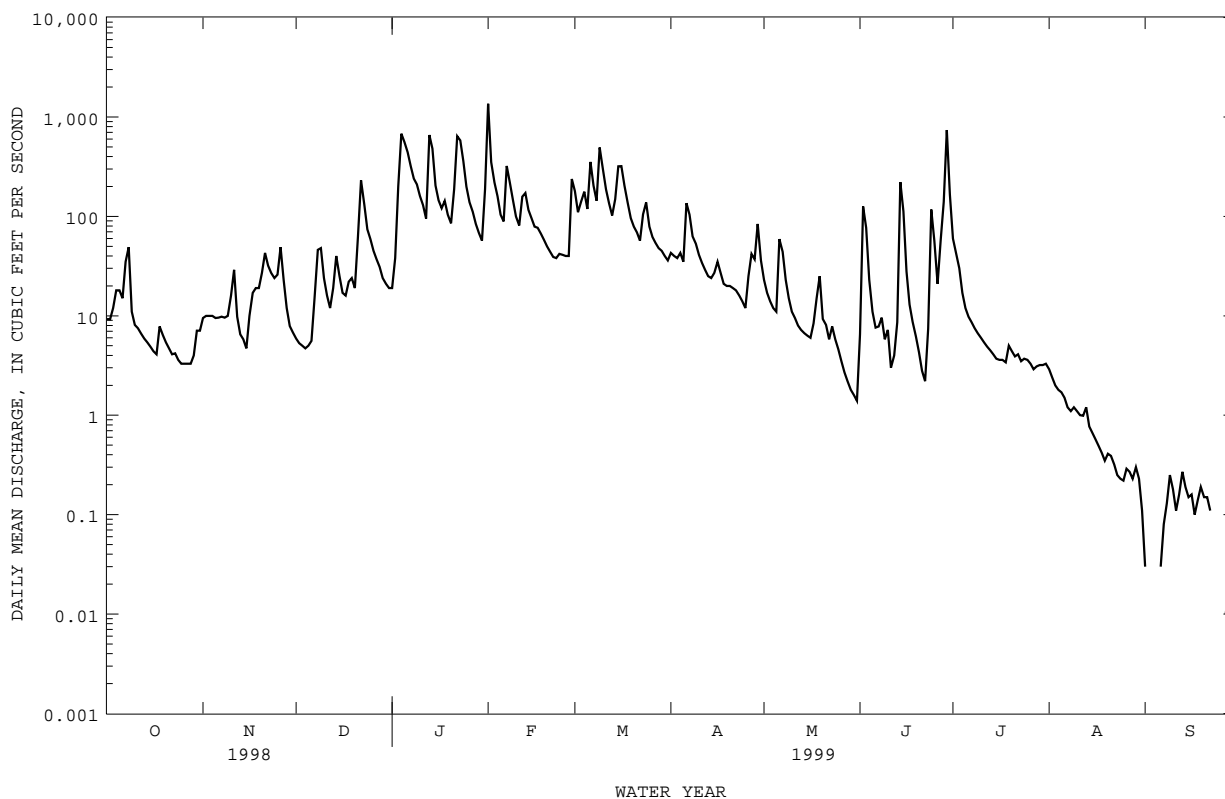
MEAN	12.0	46.6	111	225	151	287	139	153	134	30.5	29.9	14.1
MAX	26.3	118	331	320	202	958	306	398	381	66.7	103	87.7
(WY)	1994	1994	1997	1996	1993	1997	1996	1995	1997	1995	1993	1996
MIN	3.01	3.14	35.8	127	43.3	103	37.3	12.1	4.07	1.89	.86	.091
(WY)	1995	1992	1999	1992	1992	1995	1995	1999	1991	1991	1999	1999

SALT RIVER BASIN

03297900 FLOYDS FORK NEAR PEWEE VALLEY, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1991 - 1999	
ANNUAL TOTAL	41392.8		22622.73			
ANNUAL MEAN	113		62.0		113	
HIGHEST ANNUAL MEAN					198	
LOWEST ANNUAL MEAN					62.0	
HIGHEST DAILY MEAN	2030	Apr 16	1360	Feb 1	10500	Mar 2 1997
LOWEST DAILY MEAN	3.3	Oct 25	.00	Sep 2	.00	Sep 2 1999
ANNUAL SEVEN-DAY MINIMUM	3.6	Oct 23	.01	Sep 23	.01	Sep 23 1999
INSTANTANEOUS PEAK FLOW			2420	Feb 1	e18800	Mar 2 1997
INSTANTANEOUS PEAK STAGE			12.17	Feb 1	e28.60	Mar 2 1997
ANNUAL RUNOFF (CFSM)	1.42		.78		1.42	
ANNUAL RUNOFF (INCHES)	19.27		10.53		19.25	
10 PERCENT EXCEEDS	204		168		212	
50 PERCENT EXCEEDS	42		15		28	
90 PERCENT EXCEEDS	7.0		.27		1.4	

e Estimated



KENTUCKY RIVER BASIN

03284000 KENTUCKY RIVER AT LOCK 10 NEAR WINCHESTER, KY

LOCATION.--Lat 37°53'41", long 84°15'44", Madison County, Hydrologic Unit 05100205, on left bank at lock 10, 0.9 mi downstream from Otter Creek, 8.0 mi southwest of Winchester, and at mile 176.4.

DRAINAGE AREA.--3,955 mi².

PERIOD OF RECORD.--October 1907 to current year.

REVISED RECORDS.--WSP 1275: 1908-52. 1955: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 557.37 ft above sea level (Ohio River datum). Feb. 2, 1940 to Aug. 10, 1943, water-stage recorder 1.1 mi upstream at different datum. Aug. 11, 1943 to June 12, 1978, nonrecording gage at present site and datum.

REMARKS.--Records fair. Flow regulated since January 1976 by Carr Fork Lake (station 03277446), since December 1960 by Buckhorn Lake (station 03280800).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	266	240	358	3000	9210	5840	2640	7360	537	650	288	258
2	252	248	354	2890	10100	10200	2600	5170	488	816	273	216
3	277	252	349	5030	9670	13700	2650	4020	456	682	247	180
4	334	265	344	6720	8200	18200	2620	3280	446	544	252	147
5	365	314	348	6620	6640	20700	2530	2820	479	496	279	126
6	363	364	329	5010	5390	16800	2370	2750	510	522	268	111
7	355	451	466	3720	4690	13900	2170	3690	494	506	219	101
8	388	498	1660	6390	4250	11500	1960	4860	451	441	184	89
9	393	500	3760	31900	3840	10000	1930	4920	416	362	172	79
10	487	501	5230	44200	3460	10500	2010	5020	378	312	149	65
11	601	545	4240	40300	3090	10700	2240	3900	365	270	125	58
12	521	570	2840	17600	3880	9590	2630	2900	346	235	114	52
13	446	619	2670	10200	6090	8110	3830	2510	338	229	104	58
14	398	656	8060	8800	5940	11800	4430	2920	383	222	94	103
15	357	644	12000	10100	5590	20100	3730	2160	406	214	78	99
16	320	611	7550	12400	5090	21100	3550	1870	427	205	87	84
17	295	576	4150	13100	4900	18400	4180	1630	455	202	158	78
18	275	551	2850	13300	4920	14800	4280	1390	423	198	217	72
19	273	526	2320	12500	4850	12600	3690	1290	371	218	205	70
20	266	498	1950	14900	4570	10200	3320	1240	332	273	167	84
21	256	430	1690	13000	4170	7580	3210	1200	304	321	135	75
22	245	380	2370	10400	3730	6220	3070	1170	282	314	112	85
23	231	352	3080	15200	3310	5300	2820	1080	257	304	97	85
24	221	354	3110	25000	3020	5440	2600	1120	258	395	89	82
25	211	365	2780	30400	2870	5080	2420	1230	261	464	116	86
26	205	413	2340	21500	2970	4330	2320	1260	236	511	452	94
27	200	399	1960	13100	3000	3760	2560	1250	225	489	1230	102
28	213	379	1770	10500	3400	3370	4040	1030	283	474	891	103
29	220	368	1760	8910	---	3120	9660	804	480	416	541	107
30	221	363	2140	7370	---	2900	12100	667	542	356	379	101
31	226	---	2810	5560	---	2710	---	588	---	318	308	---
TOTAL	9681	13232	87638	429620	140840	318550	104160	77099	11629	11959	8030	3050
MEAN	312	441	2827	13860	5030	10280	3472	2487	388	386	259	102
MAX	601	656	12000	44200	10100	21100	12100	7360	542	816	1230	258
MIN	200	240	329	2890	2870	2710	1930	588	225	198	78	52

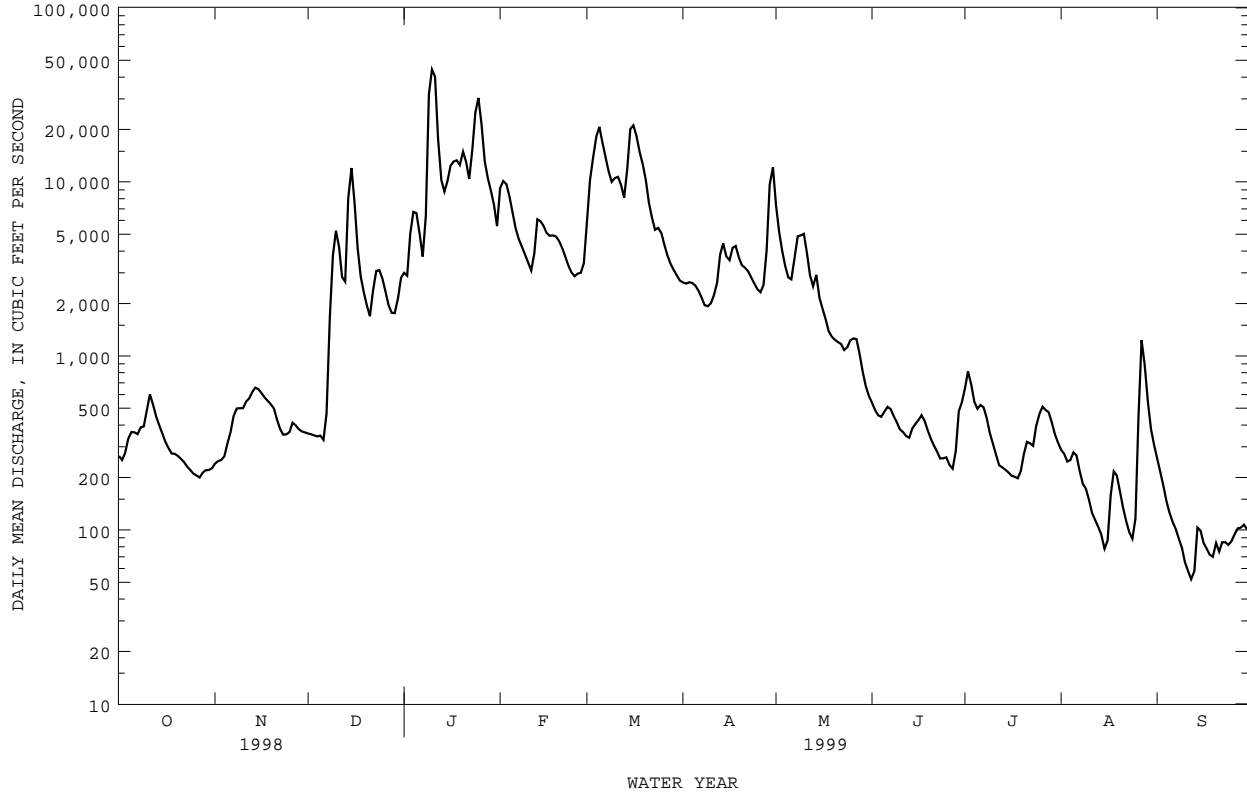
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1999, BY WATER YEAR (WY)

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999																					
MEAN	1541	3393	7035	8915	10050	12290	9402	6711	3503	1708	1467	1164	12850	10270	23400	25490	25060	27650	26100	19600	15220	4640	4916	6676	1990	1987	1979	1974	1989	1975	1972	1984	1997	1992	1992	1974	1977	372	416	446	2011	3125	1177	1031	265	292	258	102	1970	1964	1966	1981	1968	1988	1986	1976	1988	1970	1986	1999

KENTUCKY RIVER BASIN

03284000 KENTUCKY RIVER AT LOCK 10 NEAR WINCHESTER, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1961 - 1999	
ANNUAL TOTAL	2054021		1215488			
ANNUAL MEAN	5627		3330		5578	
HIGHEST ANNUAL MEAN					9815	1994
LOWEST ANNUAL MEAN					2228	1988
HIGHEST DAILY MEAN	52900	Apr 21	44200	Jan 10	99100	Dec 10 1978
LOWEST DAILY MEAN	158	Sep 18	52	Sep 12	52	Sep 12 1999
ANNUAL SEVEN-DAY MINIMUM	165	Sep 13	72	Sep 7	72	Sep 7 1999
INSTANTANEOUS PEAK FLOW			46200	Jan 10	101000	Dec 10 1978
INSTANTANEOUS PEAK STAGE			21.03	Jan 10	40.15	Dec 10 1978
10 PERCENT EXCEEDS	14300		10100		14100	
50 PERCENT EXCEEDS	3080		611		2410	
90 PERCENT EXCEEDS	266		131		336	



KENTUCKY RIVER BASIN

03284520 EAST HICKMAN CREEK AT ANDOVER VILLAGE NEAR CADENTOWN, KY

LOCATION.--Lat 37°59'50", long 84°24'20", Fayette County, Hydrologic Unit 05100205, on right wingwall, downstream side of culvert in Andover Village, 1.6 mi west of intersection of Todds Road and Walnut Hill-Chilesbug Road, and at mile 12.4.

DRAINAGE AREA.--1.58 mi².

PERIOD OF RECORD.--October 1997 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 980 ft above sea level from topographic map.

REMARKS.--Records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.19	.16	.24	18	4.2	2.1	.67	.10	.36	.09	.00
2	.02	.19	.13	6.6	8.9	3.3	1.7	.43	.29	2.4	.11	.00
3	4.9	.21	.13	6.5	4.9	8.1	1.5	.31	.12	.46	.06	.00
4	1.1	.21	.22	2.3	3.4	5.7	1.4	.30	.10	.25	.05	.00
5	.32	.20	.59	e1.2	2.5	4.1	1.3	.53	.08	.20	.05	.00
6	.21	.18	.23	e.40	2.1	4.5	1.5	1.4	.07	.19	.04	.00
7	10	.19	7.2	e.25	2.6	3.9	1.2	.34	.06	.19	.03	.00
8	2.0	.20	6.4	.22	2.5	2.6	1.2	.25	.06	.16	.04	.00
9	.34	.30	1.4	27	3.5	8.2	1.3	.19	.05	.16	.03	.00
10	.17	1.8	.52	7.9	3.3	6.7	1.2	.16	.04	2.1	.01	.00
11	.13	.20	.30	4.3	3.7	4.7	1.2	.23	.04	.36	.00	.00
12	.12	.16	.42	2.9	6.0	3.6	1.1	.36	.05	.26	.00	.00
13	.13	.14	8.7	3.0	4.0	3.0	1.1	.29	.05	.28	.06	.00
14	.16	.23	1.7	5.4	3.1	16	1.2	.28	1.4	.26	.00	.00
15	.17	.21	.67	4.4	2.6	8.3	2.3	.27	.18	.21	.00	.00
16	.17	.20	.46	3.2	2.4	5.3	1.6	.27	.11	.18	.07	.00
17	.17	.18	.46	3.8	2.9	4.3	1.1	.22	.09	.17	.00	.00
18	.18	.17	.32	6.5	2.2	3.6	.95	.20	.08	.16	.00	.00
19	.33	.18	.42	4.3	1.9	2.9	.94	.21	.06	.13	.01	.00
20	.13	.84	.40	3.0	1.7	2.5	.95	.23	.06	6.5	.00	.21
21	.11	.16	.76	4.0	1.6	2.3	.96	.34	.06	1.2	.00	.03
22	.12	.11	3.2	3.7	1.3	2.0	.92	.34	.05	.41	.00	.02
23	.14	.10	.83	17	1.4	5.9	1.3	.58	.06	.22	.00	.02
24	.13	.11	.54	8.5	1.4	4.7	.91	.36	.17	.15	.07	.01
25	.13	2.9	.40	4.4	2.2	3.4	.76	.17	.14	.12	.33	.00
26	.12	.75	e.34	2.8	1.8	2.7	2.4	.14	.10	.10	.30	.00
27	.12	.27	e.31	2.3	2.8	2.3	1.7	.12	.85	.11	.05	.01
28	.27	.18	.29	2.0	5.3	2.1	4.7	.11	5.7	.10	.02	.00
29	.23	.14	.28	1.6	---	1.8	2.3	.10	1.6	.09	.00	.04
30	.19	.13	.31	1.4	---	1.7	1.1	.11	.51	.07	.02	.04
31	.20	---	.28	6.3	---	1.8	---	.09	---	.05	.00	---
TOTAL	22.54	11.03	38.37	147.41	100.0	136.2	43.89	9.60	12.33	17.60	1.44	0.38
MEAN	.73	.37	1.24	4.76	3.57	4.39	1.46	.31	.41	.57	.046	.013
MAX	10	2.9	8.7	27	18	16	4.7	1.4	5.7	6.5	.33	.21
MIN	.02	.10	.13	.22	1.3	1.7	.76	.09	.04	.05	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 1999, BY WATER YEAR (WY)

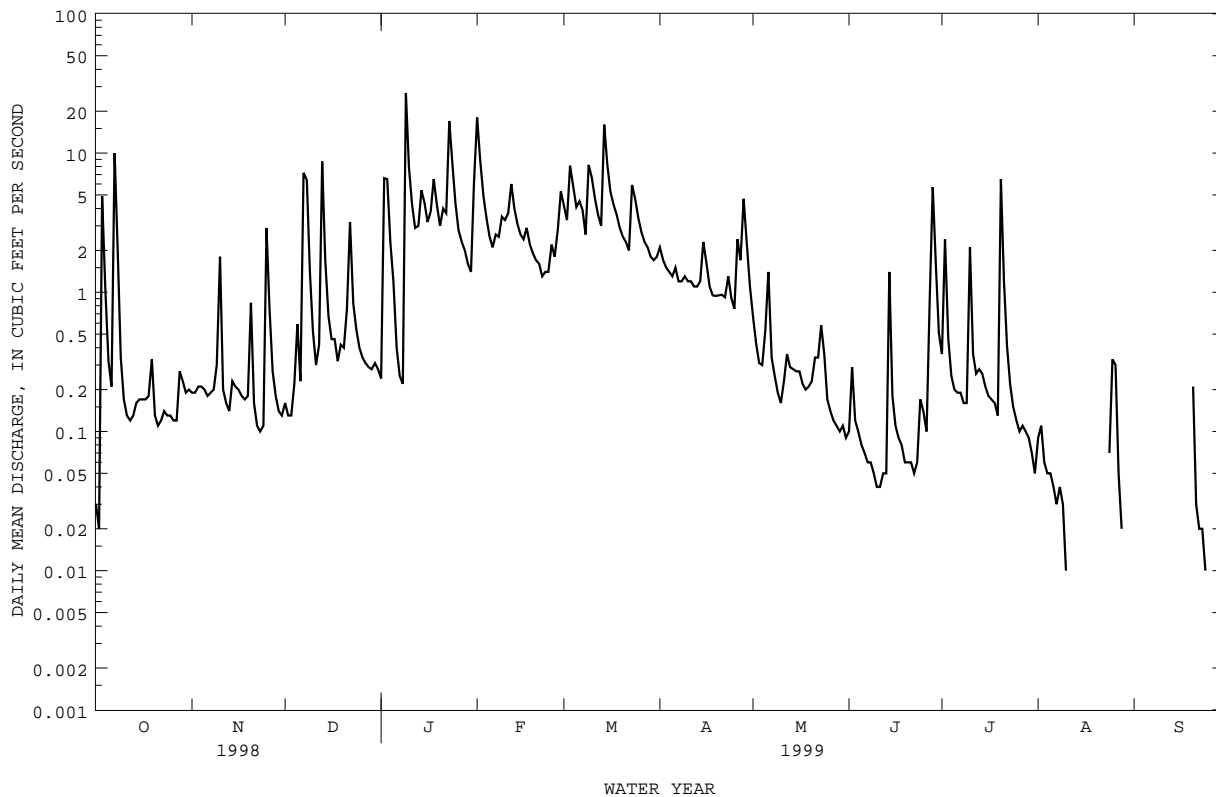
MEAN	.47	.65	1.38	5.22	4.27	3.61	3.40	2.09	3.57	2.67	.072	.047
MAX	.73	.93	1.52	5.69	4.96	4.39	5.34	3.87	6.73	4.78	.098	.081
(WY)	1999	1998	1998	1998	1998	1999	1998	1998	1998	1998	1998	1998
MIN	.21	.37	1.24	4.76	3.57	2.82	1.46	.31	.41	.57	.046	.013
(WY)	1998	1999	1999	1999	1999	1998	1999	1999	1999	1999	1999	1999

KENTUCKY RIVER BASIN

03284520 EAST HICKMAN CREEK AT ANDOVER VILLAGE NEAR CADENTOWN, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1998 - 1999	
ANNUAL TOTAL	1109.95		540.79			
ANNUAL MEAN	3.04		1.48		2.27	
HIGHEST ANNUAL MEAN					3.07 1998	
LOWEST ANNUAL MEAN					1.48 1999	
HIGHEST DAILY MEAN	59	Jul 20	27	Jan 9	59	Jul 20 1998
LOWEST DAILY MEAN	.00	Sep 20	.00	Aug 11	.00	Sep 20 1998
ANNUAL SEVEN-DAY MINIMUM	.01	Sep 14	.00	Aug 31	.00	Aug 31 1999
INSTANTANEOUS PEAK FLOW			73		205	
INSTANTANEOUS PEAK STAGE			3.21		4.63	
10 PERCENT EXCEEDS	6.9		4.3		5.6	
50 PERCENT EXCEEDS	1.3		.28		.76	
90 PERCENT EXCEEDS	.07		.01		.05	

e Estimated



KENTUCKY RIVER BASIN

03284525 EAST HICKMAN CREEK TRIBUTARY NEAR LEXINGTON, KY

LOCATION.--Lat 37°59'18", long 84°24'40", Fayette County, Hydrologic Unit 05100205, on left bak, downstream side of bridge on Walnut Hill-Chilesburg Road, 0.9 mi northeast of Athens Road (#418), and 0.9 mi southwest of Todds Road (1927).

DRAINAGE AREA.--0.96 mi².

PERIOD OF RECORD.--October 1997 to September 1998.

GAGE.--Water-stage recorder. Elevation of gage is 980 ft above sea level from topographic map.

REMARKS.--Records fair except for discharges below .10 ft³/s and periods of estimated record, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.02	.02	10	2.2	.28	.15	.01	.05	e.00	e.00
2	.00	.02	.02	.37	6.6	1.6	.24	.13	.01	.09	e.00	e.00
3	.00	.00	.02	.33	3.8	3.8	.22	.12	.01	.08	e.00	e.00
4	.00	.00	.02	.09	2.6	3.3	.21	.13	.01	.05	e.00	e.00
5	.00	.00	.03	.06	1.8	2.2	.19	.13	.01	.04	e.00	e.00
6	.00	.00	.02	.03	1.3	2.0	.18	.17	.01	.04	e.00	e.00
7	.01	.00	.08	.03	1.2	1.2	.16	.13	.01	.03	e.00	e.00
8	.00	.00	.11	8.2	.67	.93	.16	.11	.01	.03	e.00	e.00
9	.00	.00	.06	18	.48	3.4	.16	.10	.01	.02	e.00	e.00
10	.00	.05	.04	5.1	.37	3.8	.14	.10	.01	.04	e.00	e.00
11	.00	.05	.03	3.0	.33	2.5	.13	.09	.01	.04	e.00	e.00
12	.00	.03	.03	2.3	1.7	1.6	.12	.08	.01	.03	e.00	e.00
13	.00	.03	.14	2.1	1.8	1.1	.11	.07	.01	.03	e.00	e.00
14	.00	.03	.07	2.8	1.4	8.0	.11	.06	.04	.03	e.00	e.00
15	.00	.03	.05	2.7	1.2	6.2	.15	.07	.03	.02	e.00	e.00
16	.00	.03	.04	2.2	.92	3.3	.15	.06	.03	.02	e.00	e.00
17	.00	.03	.04	2.0	1.1	2.1	.13	.05	.02	.00	e.00	e.00
18	.00	.03	.03	3.4	.79	1.2	.12	.04	.02	.00	e.00	e.00
19	.00	.03	.03	2.6	.56	.73	.12	.04	.02	.21	e.00	e.00
20	.00	.05	.03	2.0	.40	.48	.13	.04	.02	.34	e.00	e.00
21	.00	.04	.03	1.8	.33	.40	.13	.03	.02	.05	e.00	e.00
22	.00	.03	.08	1.5	.28	.30	.12	.03	.02	.04	e.00	e.00
23	.00	.03	.05	7.5	.27	1.2	.12	.02	.02	.03	e.00	e.00
24	.00	.03	.07	5.8	.26	1.3	.10	.04	.03	.02	e.00	e.00
25	.00	.05	.03	3.5	.35	.88	.10	.03	.03	.02	e.00	e.00
26	.00	.05	.03	2.4	.28	.58	.14	.03	.03	.01	e.00	e.00
27	.00	.03	.05	1.8	.44	.42	.16	.02	.04	.00	e.00	e.00
28	.00	.03	.05	1.2	2.0	.35	.86	.01	.10	.00	e.00	e.00
29	.00	.03	.03	.83	---	.29	.27	.01	.10	.00	e.00	e.00
30	.00	.02	.02	.57	---	.25	.18	.01	.06	.00	e.00	e.00
31	.00	---	.02	1.8	---	.25	---	.01	---	e.00	e.00	---
TOTAL	0.01	0.75	1.37	86.03	43.23	57.86	5.39	2.11	0.76	1.36	0.00	0.00
MEAN	.000	.025	.044	2.78	1.54	1.87	.18	.068	.025	.044	.000	.000
MAX	.01	.05	.14	18	10	8.0	.86	.17	.10	.34	.00	.00
MIN	.00	.00	.02	.02	.26	.25	.10	.01	.01	.00	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 1999, BY WATER YEAR (WY)

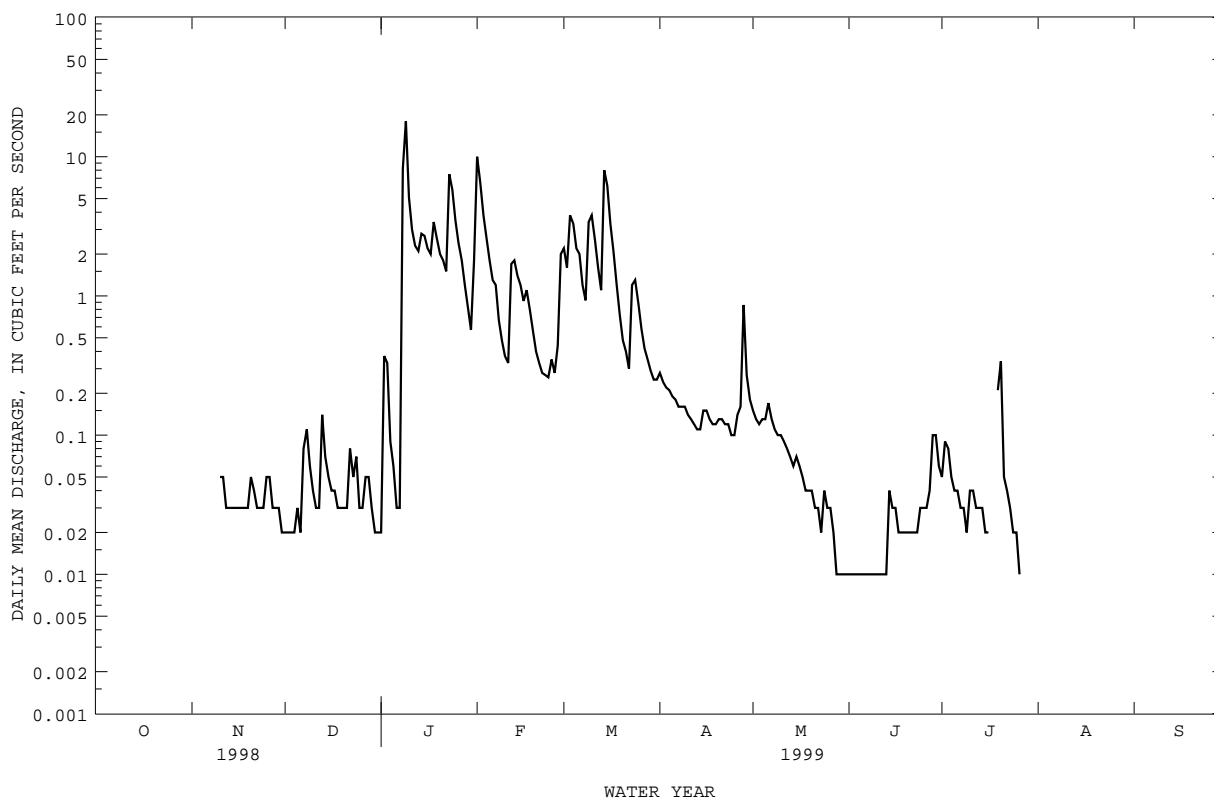
	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998
MEAN	.058	.096	.14	2.99	2.43	1.52	1.73	1.31	1.14	.83	.045	.019
MAX	.12	.17	.23	3.21	3.31	1.87	3.28	2.54	2.25	1.61	.090	.039
(WY)	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998
MIN	.000	.025	.044	2.78	1.54	1.18	.18	.068	.025	.044	.000	.000
(WY)	1999	1999	1999	1999	1999	1998	1999	1999	1999	1999	1999	1999

KENTUCKY RIVER BASIN

03284525 EAST HICKMAN CREEK TRIBUTARY NEAR LEXINGTON, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1998 - 1999	
ANNUAL TOTAL	529.44		198.87			
ANNUAL MEAN	1.45		.54		1.02	
HIGHEST ANNUAL MEAN					1.49	
LOWEST ANNUAL MEAN					.54	
HIGHEST DAILY MEAN	23	Jul 20	18	Jan 9	23	Jul 20 1998
LOWEST DAILY MEAN	.00	Sep 17	.00	Oct 1	.00	Sep 17 1998
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 27	.00	Oct 8	.00	Sep 27 1998
INSTANTANEOUS PEAK FLOW			51		113	
INSTANTANEOUS PEAK STAGE			1.93		3.72	
INSTANTANEOUS LOW FLOW			.00		.00	
10 PERCENT EXCEEDS	3.6		1.8		2.9	
50 PERCENT EXCEEDS	.39		.03		.14	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated



KENTUCKY RIVER BASIN

03284530 EAST HICKMAN CREEK NEAR EAST HICKMAN, KY

LOCATION.--Lat 37°56'59", long 84°27'19", Fayette County, Hydrologic Unit 05100205, on right bank, downstream side of bridge on Delong Road, 1.0 mi north of intersection with Walnut Hill Road, 1.6 mi south of intersection with Armstrong Mill Road, 2.0 mi north of East Hickman, and at mile 7.6.

DRAINAGE AREA.--15.1 mi².

PERIOD OF RECORD.--October 1997 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 913.491 ft above sea level.

REMARKS.--Records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.16	2.4	.60	e.90	154	20	12	5.2	.89	.59	.00	.00
2	.14	1.1	.46	17	100	15	10	3.4	1.4	6.4	.00	.00
3	9.5	1.3	.47	24	54	58	9.1	2.4	.79	8.7	.00	.00
4	3.7	1.4	.52	8.6	35	57	7.8	2.3	.47	2.9	.00	.00
5	1.7	1.3	1.1	e6.0	25	38	8.0	3.6	.30	.97	.00	.00
6	1.3	1.1	.69	e4.0	20	36	6.9	11	.52	.71	.00	.00
7	16	1.1	9.1	2.6	21	28	6.9	6.0	.72	.67	.47	.00
8	5.5	1.3	8.3	81	18	21	5.8	3.3	.51	.30	.36	.00
9	1.9	1.4	3.4	190	14	58	5.7	2.4	.45	.21	.30	.00
10	1.4	5.6	1.7	69	11	66	6.2	2.0	2.7	.86	.40	.00
11	1.3	1.5	1.2	31	9.8	42	3.5	1.6	.75	.83	.33	.00
12	1.2	.79	1.2	17	37	30	3.1	1.2	.26	.64	.18	.00
13	.99	.71	15	14	36	23	2.7	1.2	.23	.51	.07	.00
14	1.0	.67	5.4	18	28	124	2.4	1.2	3.0	.46	.07	.00
15	1.0	.88	2.6	26	23	108	4.7	1.5	.73	.38	.05	.00
16	.99	.56	1.9	27	20	53	6.6	1.2	.55	.28	.03	.00
17	.99	.44	1.9	27	25	34	4.3	1.4	.56	.21	.00	.00
18	1.2	.45	1.5	46	21	24	3.4	1.1	.55	.83	.00	.00
19	2.6	.46	1.5	38	18	18	2.8	1.3	.48	.72	.00	.00
20	1.7	1.6	1.4	29	13	15	3.0	1.2	.53	13	.00	.75
21	1.5	.83	1.4	26	12	14	2.9	1.1	.43	6.9	.00	1.2
22	1.6	.61	6.3	25	10	10	2.5	1.1	.40	16	.00	.37
23	1.5	.58	3.2	124	8.2	33	3.0	2.2	.36	15	.00	.14
24	1.6	.54	2.3	92	9.0	42	5.5	2.3	.58	8.1	.00	.09
25	1.6	3.9	1.8	50	13	26	3.2	1.1	.84	5.5	.44	.06
26	1.6	2.0	1.5	33	7.1	19	5.7	.81	.51	3.7	.11	.28
27	1.6	.78	1.3	24	10	14	8.8	.76	.82	3.9	.04	.55
28	3.1	.62	1.2	20	22	12	36	.65	11	3.8	.00	.33
29	3.6	1.1	1.1	17	---	11	24	.64	4.1	1.2	.01	.35
30	2.8	.52	1.2	14	---	9.4	11	.57	1.9	.89	.00	1.3
31	1.9	---	1.0	26	---	8.6	---	.55	---	.10	.00	---
TOTAL	76.67	37.54	82.24	1127.10	774.1	1067.0	217.5	66.28	37.33	105.26	2.86	5.42
MEAN	2.47	1.25	2.65	36.4	27.6	34.4	7.25	2.14	1.24	3.40	.092	.18
MAX	16	5.6	15	190	154	124	36	11	11	16	.47	1.3
MIN	.14	.44	.46	.90	7.1	8.6	2.4	.55	.23	.10	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 1999, BY WATER YEAR (WY)

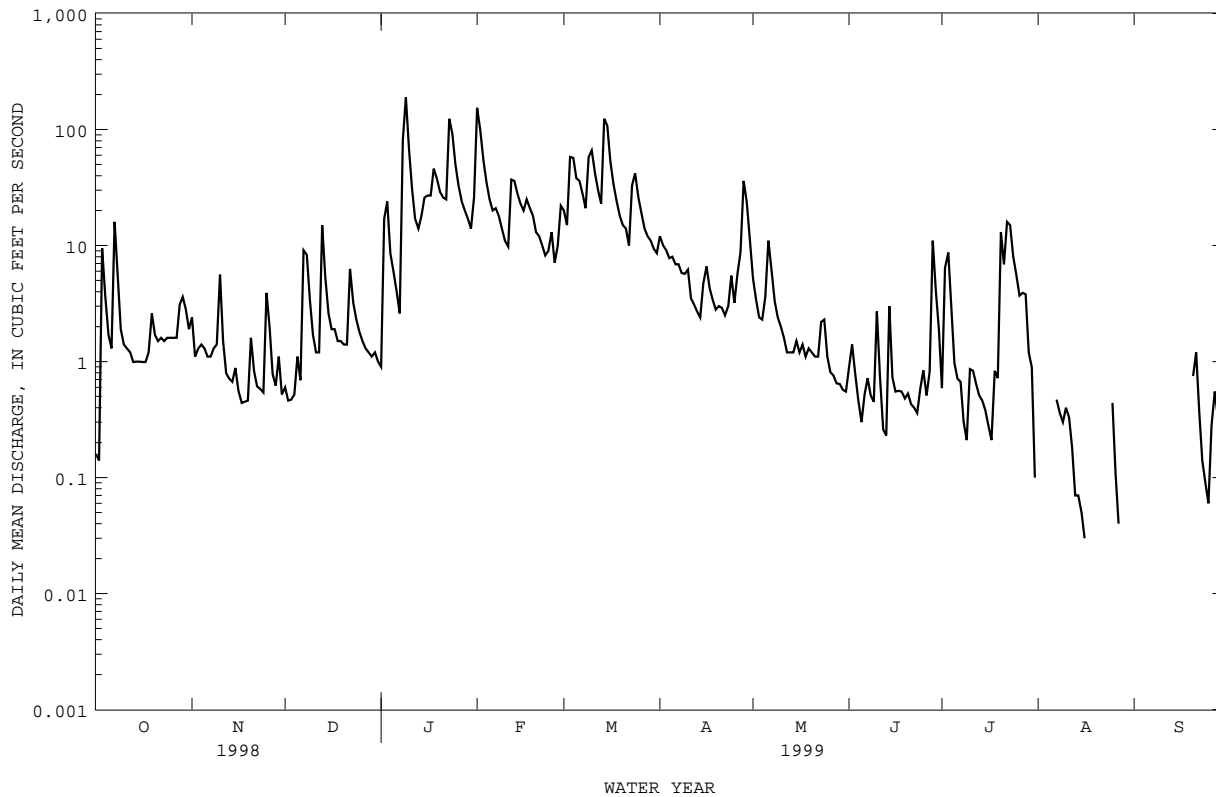
	1998	1999	1998	1999	1998	1999	1998	1999	1998	1999	1998	1999
MEAN	1.74	2.41	5.34	30.3	29.4	23.7	14.3	10.8	17.1	16.0	.61	.50
MAX	2.47	3.57	8.04	36.4	31.2	34.4	21.4	19.5	33.0	28.7	1.12	.83
(WY)	1999	1998	1998	1999	1998	1999	1998	1998	1998	1998	1998	1998
MIN	1.00	1.25	2.65	24.2	27.6	12.9	7.25	2.14	1.24	3.40	.092	.18
(WY)	1998	1999	1999	1998	1999	1998	1999	1999	1999	1999	1999	1999

KENTUCKY RIVER BASIN

03284530 EAST HICKMAN CREEK NEAR EAST HICKMAN, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1998 - 1999	
ANNUAL TOTAL	5406.75		3599.30			
ANNUAL MEAN	14.8		9.86		12.6	
HIGHEST ANNUAL MEAN					15.3	
LOWEST ANNUAL MEAN					9.86	
HIGHEST DAILY MEAN	512	Jul 20	190	Jan 9	512	Jul 20 1998
LOWEST DAILY MEAN	.06	Sep 30	.00	Aug 1	.00	Aug 1 1999
ANNUAL SEVEN-DAY MINIMUM	.09	Sep 14	.00	Aug 17	.00	Aug 17 1999
INSTANTANEOUS PEAK FLOW			438		1000	
INSTANTANEOUS PEAK STAGE			3.78		5.25	
10 PERCENT EXCEEDS	33		26		29	
50 PERCENT EXCEEDS	5.3		1.6		3.9	
90 PERCENT EXCEEDS	.54		.01		.22	

e Estimated



KENTUCKY RIVER BASIN

03284555 WEST HICKMAN CREEK NEAR EAST HICKMAN, KY

LOCATION.--Lat 37°56'04", long 84°30'08", Jessamine County, Hydrologic Unit 05100205, on center pier, downstream side of bridge on Ash Grove Pike (#1980), 0.7 mi northwest of intersection with Macker Road, 1.9 mi northwest of East Hickman, 2.4 mi southeast of Nicholasville Road (US 27); and at mile 28.3.

DRAINAGE AREA.--20.5 mi².

PERIOD OF RECORD.--October 1997 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 868.402 ft above sea level.

REMARKS.--Record fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	21	24	24	294	99	60	41	24	27	21	17
2	24	20	22	108	177	73	50	37	38	50	22	18
3	91	16	23	143	113	201	47	35	23	31	19	18
4	46	21	23	66	84	130	44	33	21	25	19	18
5	27	12	40	47	65	92	43	43	21	25	19	18
6	20	18	29	37	56	100	52	69	21	24	19	19
7	70	20	115	33	70	72	42	38	21	23	19	18
8	41	20	111	295	52	60	39	35	21	22	19	18
9	23	20	63	475	46	182	40	33	21	23	20	18
10	20	58	45	176	42	137	37	32	24	32	19	19
11	20	31	35	105	40	98	37	31	27	24	18	18
12	21	22	38	77	132	75	33	27	20	22	19	18
13	23	20	165	69	93	64	32	29	20	21	19	18
14	20	20	74	90	71	308	31	29	48	21	19	17
15	21	20	52	71	61	201	50	31	24	21	19	17
16	19	20	42	62	54	123	45	29	22	21	17	17
17	23	18	41	63	70	90	36	27	20	21	17	16
18	35	19	33	102	56	69	34	26	20	21	17	17
19	45	20	35	72	48	57	32	26	20	20	18	18
20	22	35	33	62	45	52	32	26	20	52	17	33
21	19	25	33	55	42	50	32	27	20	38	17	20
22	20	24	86	50	39	44	32	25	20	31	17	18
23	20	22	47	261	36	130	37	33	20	23	17	17
24	21	23	38	154	37	103	33	39	26	22	59	17
25	21	52	29	102	50	75	33	26	23	22	38	18
26	20	40	28	70	43	63	72	24	21	21	22	18
27	19	24	26	60	71	56	51	23	25	25	18	19
28	23	22	25	50	151	53	105	22	93	22	20	19
29	21	22	26	43	---	50	67	22	46	22	19	26
30	20	21	28	41	---	47	47	21	30	21	18	24
31	21	---	26	127	---	46	---	22	---	21	18	---
TOTAL	861	726	1435	3190	2138	3000	1325	961	800	794	639	566
MEAN	27.8	24.2	46.3	103	76.4	96.8	44.2	31.0	26.7	25.6	20.6	18.9
MAX	91	58	165	475	294	308	105	69	93	52	59	33
MIN	19	12	22	24	36	44	31	21	20	20	17	16

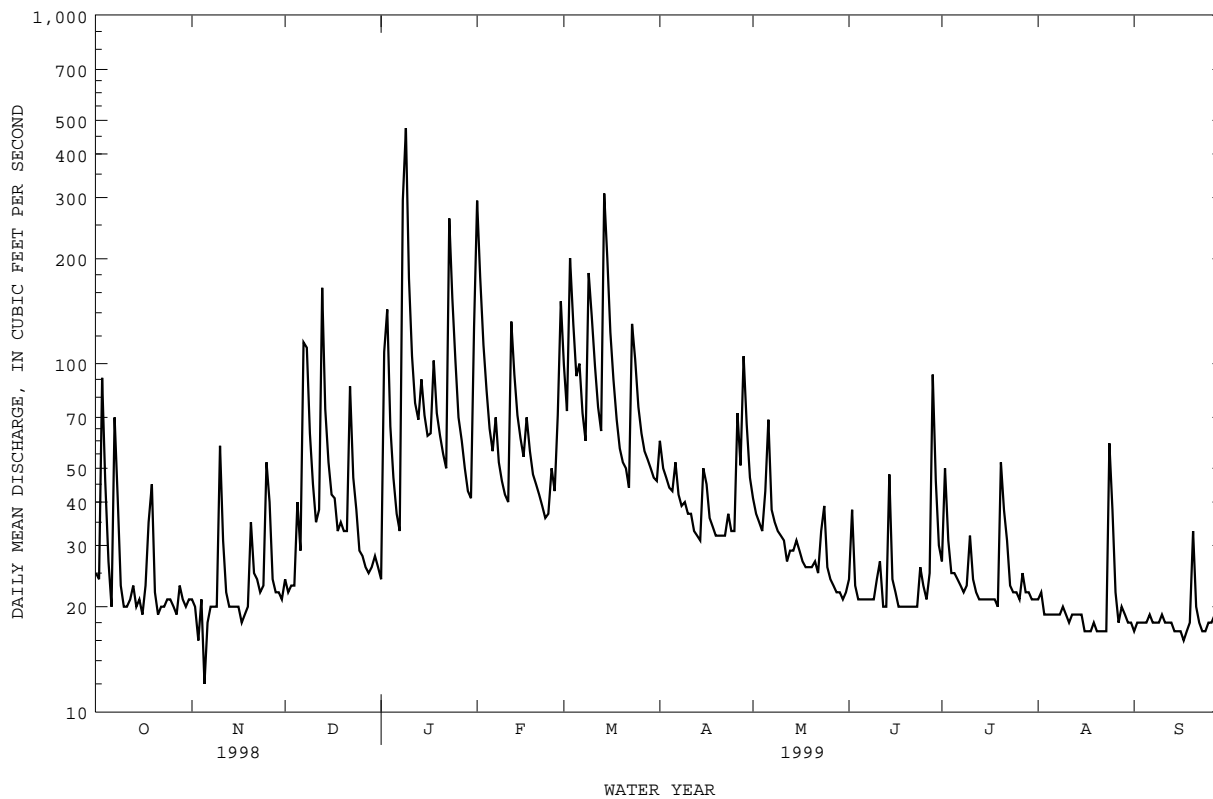
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 1999, BY WATER YEAR (WY)

	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998
MEAN	28.0	31.5	51.0	102	85.5	82.3	77.1	69.4	80.7	65.5	27.8	22.2
MAX	28.2	38.8	55.6	103	94.6	96.8	110	108	135	105	35.1	25.6
(WY)	1998	1998	1998	1999	1998	1999	1998	1998	1998	1998	1998	1998
MIN	27.8	24.2	46.3	101	76.4	67.8	44.2	31.0	26.7	25.6	20.6	18.9
(WY)	1999	1999	1999	1998	1999	1998	1999	1999	1999	1999	1999	1999

KENTUCKY RIVER BASIN

03284555 WEST HICKMAN CREEK NEAR EAST HICKMAN, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1998 - 1999	
ANNUAL TOTAL	26698		16435			
ANNUAL MEAN	73.1		45.0		60.1	
HIGHEST ANNUAL MEAN					75.2	1998
LOWEST ANNUAL MEAN					45.0	1999
HIGHEST DAILY MEAN	893	Jul 20	475	Jan 9	893	Jul 20 1998
LOWEST DAILY MEAN	12	Nov 5	12	Nov 5	12	Nov 5 1998
ANNUAL SEVEN-DAY MINIMUM	18	Nov 2	17	Aug 16	17	Aug 16 1999
INSTANTANEOUS PEAK FLOW			1230	Jan 9	3040	Jul 20 1998
INSTANTANEOUS PEAK STAGE			4.22	Jan 9	7.43	Jul 20 1998
INSTANTANEOUS LOW FLOW			1.4	Nov 5	1.4	Nov 5 1998
10 PERCENT EXCEEDS	131		90		113	
50 PERCENT EXCEEDS	46		28		39	
90 PERCENT EXCEEDS	22		18		20	



SALT RIVER BASIN

03298000 FLOYDS FORK AT FISHERVILLE, KY

LOCATION.--Lat 38°11'18", long 85°27'37", Jefferson County, Hydrologic Unit 05140102, on left bank on downstream side of bridge on former State Highway 155, at Fisherville, 0.2 mi downstream from Brush Run, 1.4 mi upstream from Pope Lick, and at mile 32.7.

DRAINAGE AREA.--138 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1944 to current year. Monthly discharge only for August 1944, published in WSP 1305.

REVISED RECORDS.--WSP 1275: 1946. WSP 1909: 1945(P), 1948(P), 1960(M).

GAGE.--Water-stage recorder. Datum of gage is 542.60 ft above sea level, from benchmark elevation supplied by Park Aerial Survey.

COOPERATION.--Field determinations were made in cooperation with Louisville and Jefferson County Metropolitan Sewer District personnel.

REMARKS.--Records good except for discharges below 2.0 ft³/s, which are poor. Diversions by local golf course for irrigation.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of January 1937 reached a stage of 16.8 ft, from floodmark.

PEAKS ABOVE BASE.--Peak discharges above base of 6,000 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 23	0930	* 5180	9.61

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	21	14	36	2160	302	86	68	12	124	5.5	.55
2	.00	e25	8.9	110	756	180	79	55	211	90	13	.32
3	.38	e23	5.0	e310	402	260	77	37	150	86	16	.20
4	11	e22	4.2	e820	247	320	82	30	60	58	14	.13
5	3.2	21	5.8	e980	164	188	72	29	36	42	11	.10
6	1.7	20	12	e720	136	678	275	134	23	33	7.7	.10
7	63	19	30	e530	473	410	233	101	16	26	4.6	.09
8	102	20	86	e430	410	233	130	59	17	21	4.6	.02
9	35	21	72	e350	216	831	110	40	10	17	6.4	.00
10	13	34	50	e275	153	735	94	30	13	15	3.8	.00
11	5.2	57	34	239	125	350	83	26	5.3	14	5.1	.00
12	3.4	46	25	234	237	233	65	20	7.5	13	3.8	.00
13	2.4	21	43	981	284	175	57	27	6.9	6.7	3.3	.00
14	2.0	11	63	1030	181	362	53	23	184	4.6	1.9	.00
15	1.4	4.2	51	390	149	551	68	18	192	4.9	1.1	.00
16	1.2	2.3	36	227	125	648	64	12	61	5.5	.99	.00
17	2.3	2.4	31	177	121	349	58	8.6	35	8.2	1.2	.00
18	6.3	3.2	26	188	104	222	50	15	22	11	.99	.00
19	12	17	29	160	92	159	46	37	15	16	1.3	.00
20	25	35	30	135	83	132	43	27	8.6	16	2.0	.00
21	25	39	55	797	76	117	42	15	5.1	133	.95	.00
22	23	33	986	876	68	99	40	9.7	2.6	223	.50	.00
23	26	25	237	3450	65	303	38	14	2.0	37	.26	.00
24	23	16	112	748	69	328	34	12	132	21	.15	.10
25	19	13	79	383	67	171	31	6.7	152	13	.10	.18
26	18	66	65	235	66	127	78	5.0	55	7.9	.12	.16
27	19	70	57	182	122	107	94	3.4	37	6.7	.46	.04
28	17	41	51	145	632	96	113	2.0	502	5.8	.72	.00
29	14	25	49	116	---	89	197	1.4	1320	6.1	.83	.03
30	14	16	46	97	---	78	93	.79	306	4.8	1.0	.09
31	13	---	41	229	---	74	---	1.4	---	3.9	.81	---
TOTAL	501.53	769.1	2433.9	15580	7783	8907	2585	867.99	3599.0	1074.1	114.18	2.11
MEAN	16.2	25.6	78.5	503	278	287	86.2	28.0	120	34.6	3.68	.070
MAX	102	70	986	3450	2160	831	275	134	1320	223	16	.55
MIN	.00	2.3	4.2	36	65	74	31	.79	2.0	3.9	.10	.00
CFSM	.12	.19	.57	3.64	2.01	2.08	.62	.20	.87	.25	.03	.00
IN.	.14	.21	.66	4.20	2.10	2.40	.70	.23	.97	.29	.03	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1999, BY WATER YEAR (WY)

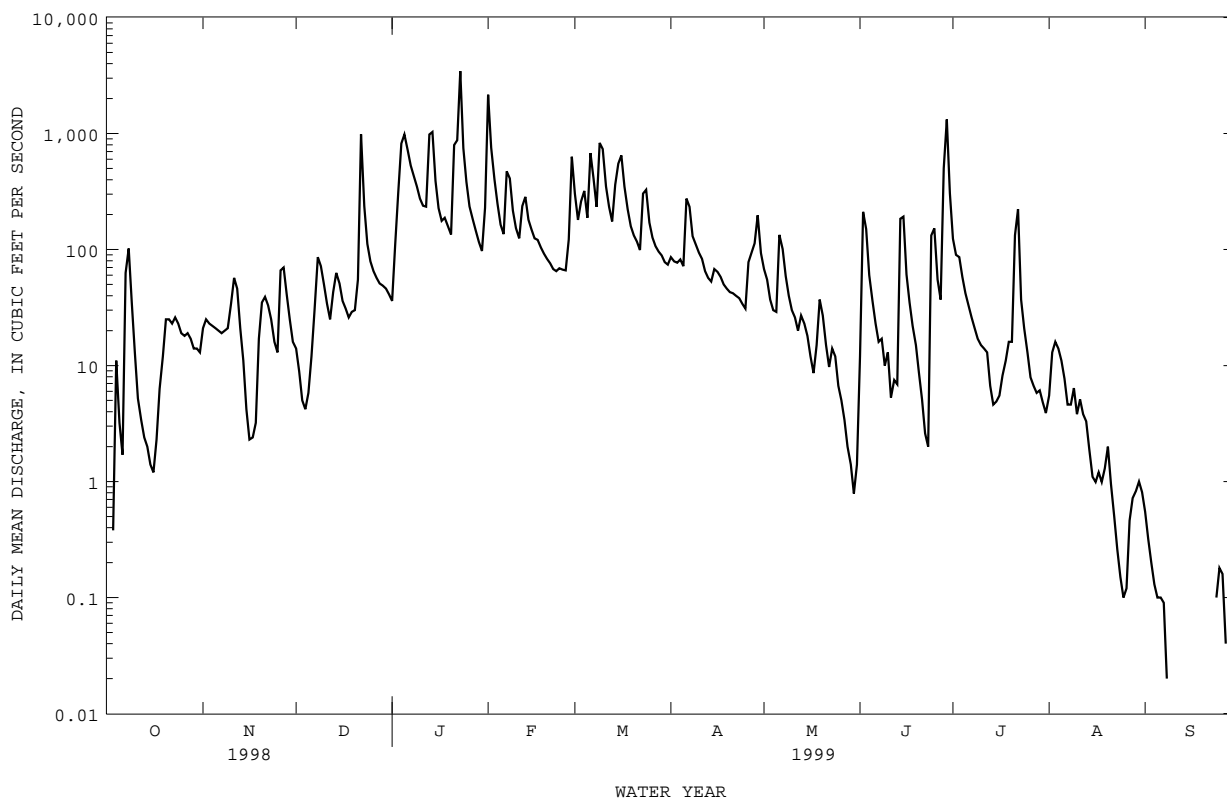
MEAN	32.5	105	229	297	361	406	279	212	129	64.2	44.4	38.9
MAX	423	485	1025	1252	990	1639	1021	971	622	331	290	1020
(WY)	1978	1974	1991	1950	1956	1997	1970	1983	1997	1973	1979	1979
MIN	.000	.000	.000	3.54	12.4	40.3	34.0	12.2	.90	1.73	.048	.000
(WY)	1949	1954	1954	1977	1954	1954	1959	1965	1988	1954	1962	1948

SALT RIVER BASIN

03298000 FLOYDS FORK AT FISHERVILLE, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1944 - 1999	
ANNUAL TOTAL	68668.95		44216.91			
ANNUAL MEAN	188		121		182	
HIGHEST ANNUAL MEAN					382	
LOWEST ANNUAL MEAN					29.0	
HIGHEST DAILY MEAN	3000	Apr 16	3450	Jan 23	20000	Mar 2 1997
LOWEST DAILY MEAN	.00	Oct 2	.00	Oct 2	.00	Sep 7 1945
ANNUAL SEVEN-DAY MINIMUM	.17	Sep 2	.00	Sep 9	.00	Sep 7 1945
INSTANTANEOUS PEAK FLOW			5180	Jan 23	42100	Mar 2 1997
INSTANTANEOUS PEAK STAGE			9.61	Jan 23	17.39	Mar 2 1997
INSTANTANEOUS LOW FLOW					.00	Sep 7 1945
ANNUAL RUNOFF (CFSM)	1.36		.88		1.32	
ANNUAL RUNOFF (INCHES)	18.51		11.92		17.95	
10 PERCENT EXCEEDS	421		304		368	
50 PERCENT EXCEEDS	65		31		35	
90 PERCENT EXCEEDS	1.3		.43		.40	

e Estimated



SALT RIVER BASIN

03298135 CHENOWETH RUN AT RUCKRIEGAL PARKWAY NR JEFFERSONTOWN, KY

LOCATION.--Lat 38°11'41", long 85°33'26", Jefferson County, Hydrologic Unit 05140102, on right downstream bank at bridge on Ruckriegal Parkway and 500 feet south of Penion Drive.

DRAINAGE AREA.--5.47 mi².

PERIOD OF RECORD.--May 5, 1993 to February 26, 1998; January 19, 1999 to current year.

GAGE.--Water-stage recorder.

COOPERATION.--Field determinations were made in cooperation with Louisville and Jefferson County Metropolitan Sewer District personnel.

REMARKS.--Records fair except for those estimated, which are poor.

PEAKS ABOVE BASE.--Peak discharges above base of 1,100 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Apr. 28	1745	*1370	*6.85	Jun. 28	1700	1130	6.14

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	e52	7.0	5.5	5.9	3.4	4.0	.69	.12
2	---	---	---	---	e21	5.5	4.1	4.6	60	3.2	.42	.10
3	---	---	---	---	e13	17	6.0	3.8	4.3	1.8	.19	.06
4	---	---	---	---	e9.0	7.1	4.8	3.3	2.1	1.3	.18	.12
5	---	---	---	---	e6.2	5.5	4.3	5.3	1.7	1.1	.16	.14
6	---	---	---	---	4.2	37	20	45	1.3	.98	.10	.16
7	---	---	---	---	26	7.8	6.5	6.8	1.2	.79	.05	.18
8	---	---	---	---	7.1	6.1	5.4	4.3	1.2	.68	1.7	.21
9	---	---	---	---	5.6	45	5.2	3.5	2.3	.65	.87	.34
10	---	---	---	---	4.4	9.9	4.7	2.9	1.4	.64	.33	.20
11	---	---	---	---	4.1	7.4	4.5	2.6	2.3	.56	.21	.15
12	---	---	---	---	17	5.9	3.8	2.3	1.1	.48	.17	.19
13	---	---	---	---	6.9	5.0	3.8	9.4	1.0	.55	.17	.22
14	---	---	---	---	5.2	43	3.7	3.0	22	.45	.09	.29
15	---	---	---	---	4.4	11	6.9	2.3	3.1	.42	.14	.22
16	---	---	---	---	4.4	7.9	4.5	2.1	1.4	.38	.13	.17
17	---	---	---	---	5.7	6.3	3.6	1.9	1.1	.35	.16	.19
18	---	---	---	---	3.8	5.2	3.3	8.9	.91	1.9	.10	.21
19	---	---	---	e6.2	3.2	4.5	3.2	3.2	.91	.55	5.9	.20
20	---	---	---	e9.0	2.7	4.1	3.4	2.0	.85	.43	.99	.27
21	---	---	---	e26	2.4	3.8	3.4	1.8	.73	.48	.41	.49
22	---	---	---	e56	2.2	3.3	3.1	1.8	.67	.41	.25	.43
23	---	---	---	e108	2.6	48	3.0	3.3	.61	.34	.16	.66
24	---	---	---	e28	3.5	8.5	2.6	3.8	60	.33	.13	.62
25	---	---	---	e13	2.6	6.1	2.6	1.8	5.7	.34	.18	.24
26	---	---	---	e9.6	2.3	4.7	32	1.6	1.9	.26	.23	.15
27	---	---	---	e8.0	40	4.2	7.3	1.4	6.2	.24	.23	.10
28	---	---	---	e6.8	17	3.8	164	1.4	148	.36	.15	.17
29	---	---	---	e6.0	---	3.6	26	1.4	25	.43	.12	1.8
30	---	---	---	e5.2	---	3.4	8.3	1.7	5.6	.26	.03	.90
31	---	---	---	e43	---	4.3	---	2.8	---	.23	.08	---
TOTAL	---	---	---	---	278.5	341.9	359.5	145.9	367.98	24.89	14.72	9.30
MEAN	---	---	---	---	9.95	11.0	12.0	4.71	12.3	.80	.47	.31
MAX	---	---	---	---	52	48	164	45	148	4.0	5.9	1.8
MIN	---	---	---	---	2.2	3.3	2.6	1.4	.61	.23	.03	.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1999, BY WATER YEAR (WY)

	1995	1996	1997	1998	1999
MEAN	2.31	8.04	15.6	13.8	9.31
MAX	3.07	9.79	22.5	13.9	10.5
(WY)	1997	1997	1997	1997	1997
MIN	1.55	6.29	8.69	13.7	7.57
(WY)	1998	1998	1998	1998	1996

SALT RIVER BASIN

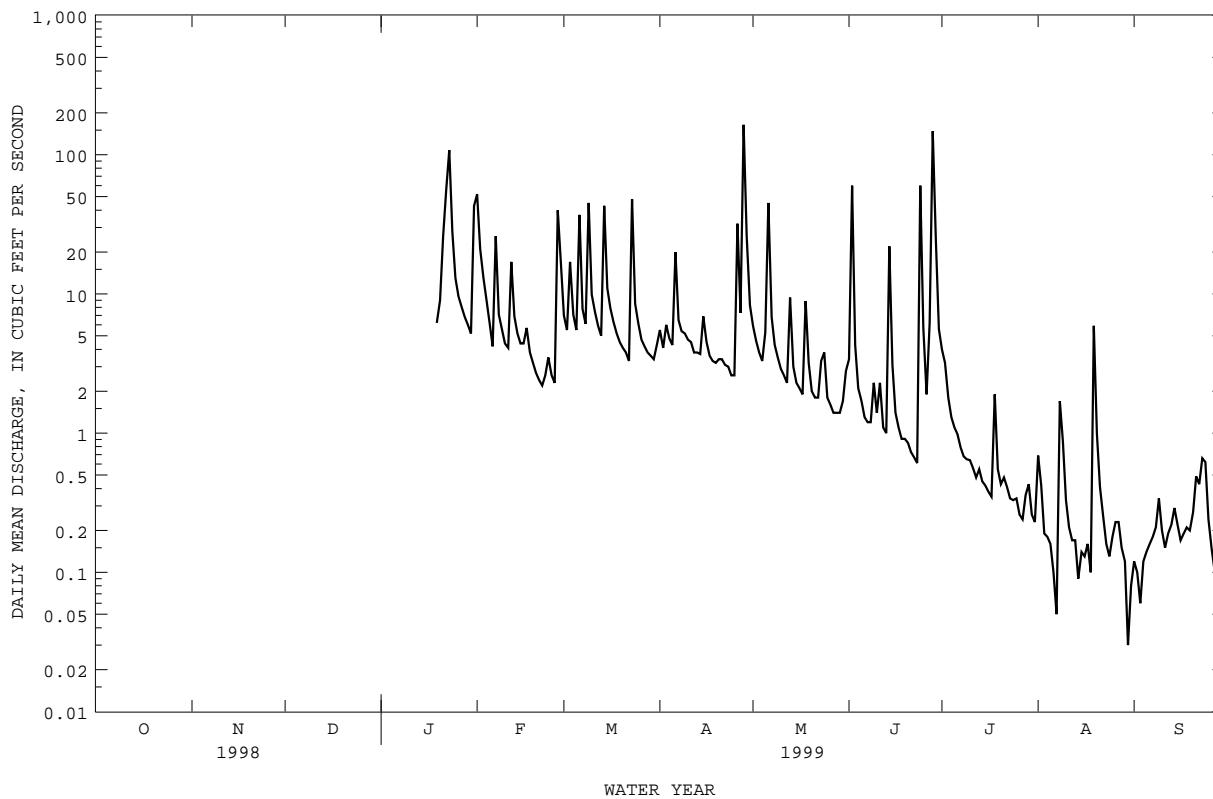
03298135 CHENOWETH RUN AT RUCKRIEGAL PARKWAY NR JEFFERSONTOWN, KY--Continued

SUMMARY STATISTICS

WATER YEARS 1995 - 1999

ANNUAL MEAN	15.7	
HIGHEST ANNUAL MEAN	15.7	1997
LOWEST ANNUAL MEAN	15.7	1997
HIGHEST DAILY MEAN	868	Mar 1 1997
LOWEST DAILY MEAN	.03	Aug 30 1999
ANNUAL SEVEN-DAY MINIMUM	.09	Aug 29 1999
INSTANTANEOUS PEAK FLOW	4680	Mar 1 1997
INSTANTANEOUS PEAK STAGE	9.33	Mar 1 1997
10 PERCENT EXCEEDS	26	
50 PERCENT EXCEEDS	4.0	
90 PERCENT EXCEEDS	.55	

e Estimated



SALT RIVER BASIN

03298150 CHENOWETH RUN AT GELHAUS LANE NEAR FERN CREEK, KY

LOCATION.--Lat 38°09'36", long 83°32'32", Jefferson County, Hydrologic Unit 05140102, at bridge on Gelhaus Lane, 100 ft above Razor Branch. and at mile 2.3

DRAINAGE AREA.--11.6 mi².

PERIOD OF RECORD.--January 1996 to current year.

COOPERATION.--Field determinations were made in cooperations with Louisville and Jefferson County Metropolitan Sewer District personnel.

GAGE.--Water-stage recorder.

REMARKS.--Records good. Diversions by a package treatment plant about 2.0 miles upstream.

PEAKS ABOVE BASE.--Peak discharges above base of 1,000 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 8	2200	1030	7.27	Jan. 23	0120	1150	7.59
Apr. 28	1700	*2280	10.28	Jun. 28	1710	2110	9.92

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	7.0	6.5	6.1	125	28	22	24	6.6	21	6.5	3.0
2	5.1	8.2	6.5	83	45	22	18	17	101	18	6.0	3.1
3	28	9.1	6.5	44	31	46	24	13	15	13	5.7	3.1
4	9.4	9.3	6.2	19	24	28	23	10	6.8	10	5.3	3.1
5	6.0	8.5	7.9	13	20	22	21	14	4.8	9.2	5.2	2.8
6	5.3	8.7	7.1	10	18	94	58	86	3.7	8.5	5.1	3.0
7	80	8.9	29	9.7	56	32	17	23	3.7	7.8	4.9	4.1
8	17	8.6	37	254	28	25	12	13	3.8	6.6	7.4	3.9
9	8.4	9.4	19	110	22	115	11	9.4	7.5	6.3	7.1	4.1
10	6.3	33	11	32	19	42	8.8	8.3	5.1	6.3	4.4	3.6
11	5.5	12	9.0	23	18	30	7.9	6.7	7.3	5.7	4.1	2.9
12	5.5	6.7	7.9	32	42	24	6.5	6.3	3.9	5.6	4.1	2.8
13	5.6	5.4	30	54	26	20	6.2	21	3.4	6.0	3.9	3.2
14	5.5	4.8	17	49	21	99	5.4	8.3	55	5.3	3.8	3.4
15	5.3	4.6	11	28	19	44	11	6.1	11	5.0	3.5	3.8
16	4.9	4.4	9.6	22	18	31	7.0	5.0	4.9	4.9	4.0	3.8
17	5.2	4.7	13	19	21	24	4.7	4.5	3.6	4.6	4.1	3.7
18	6.9	4.9	9.1	24	17	21	4.1	18	2.8	6.9	4.6	3.6
19	10	4.9	8.9	17	15	18	3.8	8.5	2.7	5.1	12	3.5
20	6.2	31	8.8	21	13	16	3.9	4.7	2.4	5.8	6.5	3.4
21	5.8	11	62	75	12	14	3.3	3.6	2.4	6.0	4.2	3.8
22	6.5	6.9	81	125	11	13	2.8	3.3	2.5	5.9	3.9	3.6
23	5.9	6.4	19	333	11	94	2.5	5.0	2.4	5.7	3.6	3.7
24	5.6	6.1	12	48	13	34	2.1	10	110	5.6	3.8	4.2
25	4.7	30	8.5	33	10	24	2.0	4.0	20	5.5	4.0	3.9
26	5.7	21	7.3	26	9.0	20	51	3.4	8.9	5.7	3.9	3.6
27	6.0	9.9	6.5	22	69	18	13	2.9	13	6.1	3.7	3.9
28	6.4	7.5	6.6	19	62	16	431	2.7	359	6.4	3.4	4.3
29	6.7	6.7	6.9	16	---	14	124	2.5	70	6.6	3.0	7.5
30	6.8	6.5	6.8	14	---	14	38	2.5	27	6.3	2.9	5.6
31	7.0	---	6.8	97	---	16	---	5.0	---	5.9	3.0	---
TOTAL	298.6	306.1	484.4	1677.8	795.0	1058	945.0	351.7	870.2	227.3	147.6	112.0
MEAN	9.63	10.2	15.6	54.1	28.4	34.1	31.5	11.3	29.0	7.33	4.76	3.73
MAX	80	33	81	333	125	115	431	86	359	21	12	7.5
MIN	4.7	4.4	6.2	6.1	9.0	13	2.0	2.5	2.4	4.6	2.9	2.8

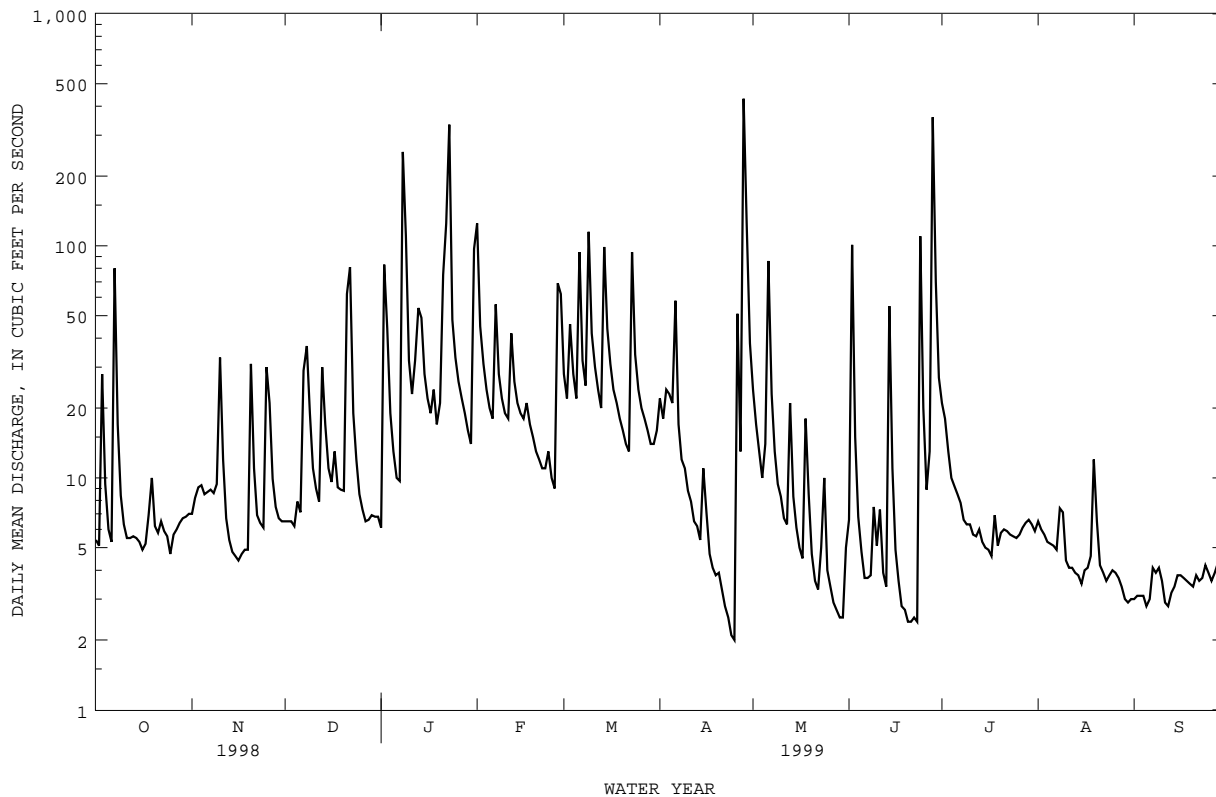
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 1999, BY WATER YEAR (WY)

	1997	1998	1999	1997	1998	1999	1997	1998	1999	1997	1998	1999
MEAN	6.70	11.6	26.3	40.9	30.0	63.2	29.5	23.3	46.0	11.0	7.97	7.22
MAX	9.66	14.5	44.3	57.8	31.9	119	40.0	28.9	73.4	20.2	10.0	13.8
(WY)	1999	1997	1997	1999	1998	1997	1998	1997	1997	1998	1997	1997
MIN	3.81	10.1	16.1	31.9	27.2	32.5	12.2	12.7	30.3	5.56	4.76	3.73
(WY)	1998	1998	1999	1997	1997	1998	1997	1999	1999	1997	1999	1999

SALT RIVER BASIN

03298150 CHENOWETH RUN AT GELHAUS LANE NEAR FERN CREEK, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1997 - 1999	
ANNUAL TOTAL	8175.5		7273.7			
ANNUAL MEAN	22.4		19.9		25.3	
HIGHEST ANNUAL MEAN					32.3	
LOWEST ANNUAL MEAN					21.4	
HIGHEST DAILY MEAN	298		431		1590	
LOWEST DAILY MEAN	3.3		2.0		2.2	
ANNUAL SEVEN-DAY MINIMUM	3.5		2.7		2.7	
INSTANTANEOUS PEAK FLOW			2280		4810	
INSTANTANEOUS PEAK STAGE			10.28		14.72	
10 PERCENT EXCEEDS	49		42		51	
50 PERCENT EXCEEDS	9.9		7.5		10	
90 PERCENT EXCEEDS	4.6		3.6		3.9	



SALT RIVER BASIN

03298250 CEDAR CREEK AT THIXTON ROAD NEAR LOUISVILLE, KY

LOCATION.--Lat 38°04'45", long 85°36'58", Jefferson County, Hydrologic Unit 05140102, at downstream side of culvert on Thixton Road, 4.2 mi above Pennsylvania Run, and at mile 7.4.

DRAINAGE AREA.--11.1 mi².

PERIOD OF RECORD.--January 1999 to current year.

GAGE.--Water-stage recorder.

REMARKS.--Records good.

COOPERATION.--Field determinations were made in cooperation with Louisville and Jefferson County Metropolitan Sewer District personnel.

PEAKS ABOVE BASE.--Peak discharges above base of 2,500 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jun. 28	1835	*3300	6.07

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	4.8	154	27	7.0	19	5.4	12	2.8	2.4
2	---	---	---	54	53	20	6.2	13	71	9.1	3.0	2.3
3	---	---	---	64	30	40	7.5	9.2	10	7.7	2.4	2.4
4	---	---	---	18	22	25	8.0	7.7	6.0	6.5	2.5	2.3
5	---	---	---	11	15	19	6.5	7.8	4.8	5.9	2.8	2.5
6	---	---	---	7.9	14	79	60	64	4.4	5.5	2.8	2.2
7	---	---	---	7.1	42	30	19	18	4.0	4.7	2.9	2.7
8	---	---	---	195	25	22	13	10	3.6	4.3	3.8	2.5
9	---	---	---	167	18	121	11	8.1	3.5	4.5	4.0	2.4
10	---	---	---	34	14	36	8.5	7.1	3.3	4.5	3.1	2.3
11	---	---	---	20	12	21	8.2	6.5	4.0	4.2	2.7	2.3
12	---	---	---	23	33	13	7.2	6.0	3.4	3.8	2.5	2.5
13	---	---	---	37	25	10	6.7	7.7	3.2	3.2	2.1	2.6
14	---	---	---	60	19	77	6.5	6.4	53	3.2	2.0	2.6
15	---	---	---	26	16	36	8.5	5.5	6.8	3.1	2.1	2.2
16	---	---	---	18	14	19	8.0	5.0	4.7	2.9	2.1	1.8
17	---	---	---	14	16	13	6.5	4.7	4.2	5.5	2.3	1.7
18	---	---	---	17	13	9.4	6.0	5.1	3.7	2.8	3.4	1.8
19	---	---	---	12	11	7.8	5.8	5.3	3.5	2.8	2.5	2.2
20	---	---	---	12	9.6	7.2	5.8	4.2	3.5	2.9	2.1	2.3
21	---	---	---	90	8.8	6.8	5.6	3.8	3.3	2.8	1.9	2.1
22	---	---	---	111	e7.8	6.0	5.1	3.6	3.2	2.5	2.2	2.0
23	---	---	---	349	e8.4	41	5.1	4.4	3.0	2.5	2.4	1.9
24	---	---	---	61	e9.0	19	4.3	13	32	2.5	2.3	2.0
25	---	---	---	33	e8.0	11	4.1	5.0	10	2.7	2.5	1.8
26	---	---	---	23	7.1	8.3	17	4.2	5.7	2.8	2.3	1.9
27	---	---	---	19	36	7.3	8.5	3.6	4.9	2.9	2.3	1.9
28	---	---	---	15	75	6.7	315	3.4	613	2.9	2.4	1.9
29	---	---	---	11	---	6.2	172	3.2	63	3.5	2.6	2.1
30	---	---	---	9.8	---	5.6	34	3.2	22	3.1	2.8	2.2
31	---	---	---	53	---	5.6	---	5.0	---	2.8	2.6	---
TOTAL	---	---	---	1576.6	715.7	755.9	786.6	272.7	966.1	130.1	80.2	65.8
MEAN	---	---	---	50.9	25.6	24.4	26.2	8.80	32.2	4.20	2.59	2.19
MAX	---	---	---	349	154	121	315	64	613	12	4.0	2.7
MIN	---	---	---	4.8	7.1	5.6	4.1	3.2	3.0	2.5	1.9	1.7

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1999, BY WATER YEAR (WY)

MEAN	7.16	11.6	20.9	34.3	40.6	21.0	25.3	21.0	18.0	8.06	4.01	3.00
MAX	15.4	15.5	43.5	50.9	69.1	31.3	34.4	53.4	32.2	18.6	6.44	4.86
(WY)	1991	1989	1991	1999	1989	1989	1989	1990	1999	1989	1989	1990
MIN	1.32	9.14	5.21	21.2	21.8	13.4	20.0	5.97	1.70	3.54	2.55	1.47
(WY)	1989	1990	1990	1990	1991	1990	1988	1988	1988	1990	1988	1988

SALT RIVER BASIN

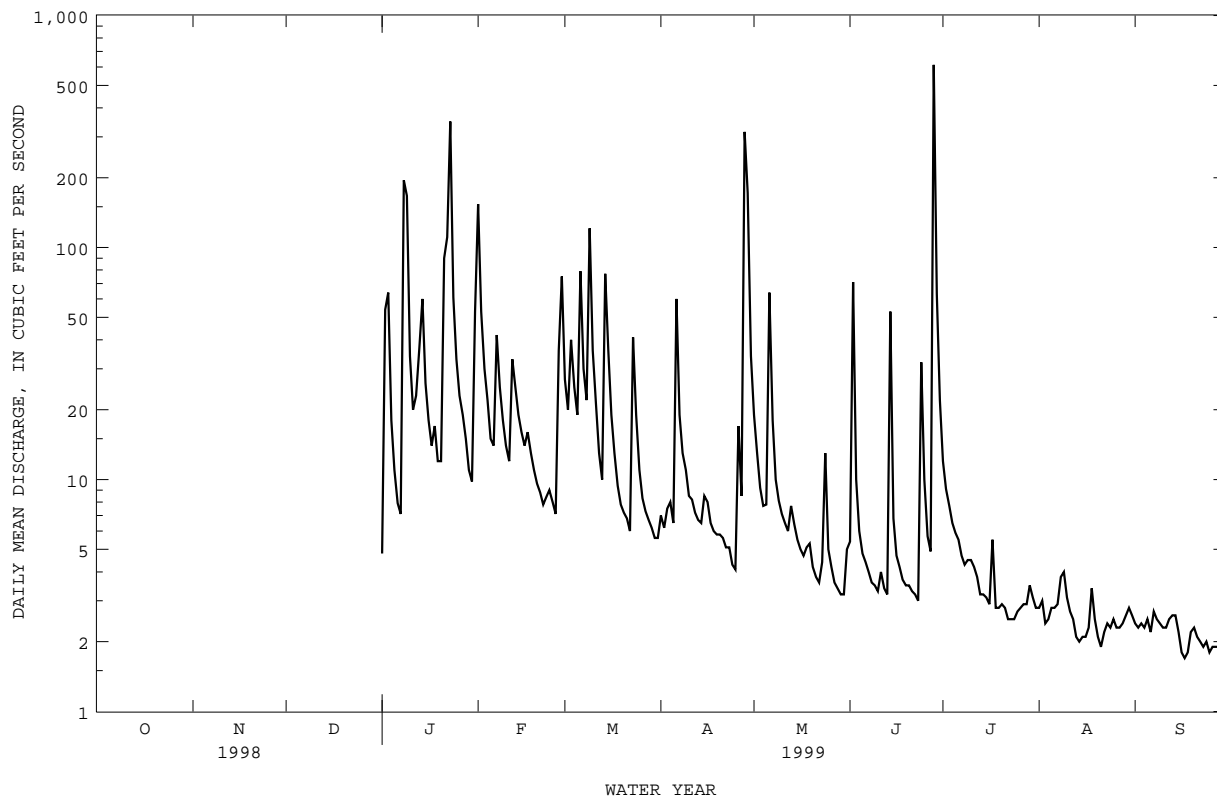
03298250 CEDAR CREEK AT THIXTON ROAD NEAR LOUISVILLE, KY--Continued

SUMMARY STATISTICS

WATER YEARS 1988 - 1999

ANNUAL MEAN	18.9	
HIGHEST ANNUAL MEAN	20.4	1989
LOWEST ANNUAL MEAN	17.4	1990
HIGHEST DAILY MEAN	613	Jun 28 1999
LOWEST DAILY MEAN	.99	Jun 29 1988
ANNUAL SEVEN-DAY MINIMUM	.99	Jun 29 1988
INSTANTANEOUS PEAK FLOW	3300	Jun 28 1999
INSTANTANEOUS PEAK STAGE	6.07	Jun 28 1999
10 PERCENT EXCEEDS	41	
50 PERCENT EXCEEDS	5.7	
90 PERCENT EXCEEDS	1.5	

e Estimated



SALT RIVER BASIN

03298300 PENNSYLVANIA RUN AT MOUNT WASHINGTON ROAD NEAR LOUISVILLE, KY

LOCATION.--Lat 38°05'15", long 85°38'33", Jefferson County, Hydrologic Unit 05140102, at bridge on Mt. Washington Road, and at mile 1.9.

DRAINAGE AREA.--6.4 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1998 to September 1999.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 430.38 ft above sea level. See WDR KY-90-1 for history of changes prior to Nov. 16, 1962.

REMARKS.--Records good except for periods of estimated discharge which are poor.

COOPERATION.--Field determinations were made in cooperation with Louisville and Jefferson County Metropolitan Sewer District personnel.

PEAKS ABOVE BASE.--Peak discharges above base of 150 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 8	2225	253	3.82	Jan. 23	0135	272	3.93
Apr. 28	2120	325	4.22	Jun. 28	1750	*1540	8.22

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.30	e1.7	2.7	e3.3	50	12	6.2	13	2.1	8.7	.51	e.50
2	e.40	e1.6	2.5	e22	24	8.7	5.1	9.3	15	6.4	.45	2.0
3	e.70	e1.9	2.5	e27	15	16	5.8	7.4	7.4	4.7	.37	1.8
4	e1.0	e1.8	2.2	e9.4	11	12	6.4	6.1	3.7	3.5	e.33	1.2
5	e1.1	e1.7	2.6	6.6	8.5	8.8	5.1	6.3	2.9	2.6	e.31	e1.0
6	e1.2	e1.6	2.5	5.5	7.7	27	19	28	2.0	2.0	e.29	e.90
7	5.4	e1.5	5.1	4.9	18	15	11	12	1.7	1.5	.45	e.80
8	3.0	e1.7	10	65	13	11	8.0	7.7	1.7	1.1	1.1	e.70
9	1.9	e2.0	7.2	69	9.7	46	7.1	6.1	1.6	.93	.38	.78
10	1.5	6.1	4.4	18	8.1	26	5.8	4.8	1.6	.88	.29	.54
11	e1.3	4.2	3.3	11	7.3	16	4.8	4.0	1.7	.85	.26	.61
12	e1.2	2.5	2.9	12	15	12	3.9	3.5	1.7	.90	.28	.64
13	e1.1	e1.8	9.7	16	12	9.8	3.5	4.9	1.7	.79	e.26	.75
14	e1.0	e1.5	7.7	23	9.3	34	3.4	3.8	9.9	.73	e.25	.75
15	e.94	e1.2	5.1	14	8.2	26	5.3	3.0	5.0	.94	e.24	.71
16	e.90	e.96	4.0	10	7.5	16	4.7	2.6	2.8	1.0	e.23	.65
17	e.84	e.88	3.7	8.6	8.1	12	3.8	2.3	2.1	.77	e.22	.69
18	2.2	e.86	3.3	9.2	7.0	9.3	3.4	3.9	1.9	.75	e.21	.71
19	2.1	e.92	3.0	7.5	6.2	7.7	3.2	3.4	1.7	.78	.35	.69
20	1.8	e4.8	3.3	7.1	5.4	7.1	3.1	2.5	1.6	.83	.26	.71
21	1.6	e3.8	10	27	4.9	6.7	3.1	2.1	1.5	.73	.23	.73
22	2.2	e2.6	e22	42	4.3	5.7	2.8	1.9	1.5	.45	.20	.72
23	2.4	e2.0	e12	137	4.4	19	2.7	3.7	1.2	.26	e.20	.65
24	e1.8	e1.7	e7.4	29	4.9	16	2.4	7.1	4.7	.26	e.21	.64
25	e1.4	4.6	5.2	18	4.4	9.5	2.1	3.7	5.3	.26	e.26	.64
26	e1.3	6.1	4.5	13	3.7	7.5	5.8	2.6	3.1	.27	.37	.63
27	e1.2	4.1	4.1	10	9.3	6.7	6.3	2.1	2.6	.27	.36	.62
28	e1.8	3.3	3.7	8.5	26	6.2	92	1.8	293	.36	e.35	.62
29	2.2	3.0	3.6	7.1	---	5.4	78	1.6	52	.39	e.40	.76
30	2.4	2.8	e3.5	6.3	---	4.7	20	1.6	12	.43	e.40	.92
31	e1.8	---	e3.4	18	---	4.9	---	1.7	---	.41	e.38	---
TOTAL	49.98	75.22	167.1	665.0	312.9	424.7	333.8	164.5	446.7	44.74	10.40	24.06
MEAN	1.61	2.51	5.39	21.5	11.2	13.7	11.1	5.31	14.9	1.44	.34	.80
MAX	5.4	6.1	22	137	50	46	92	28	293	8.7	1.1	2.0
MIN	.30	.86	2.2	3.3	3.7	4.7	2.1	1.6	1.2	.26	.20	.50

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

	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999
MEAN	1.61	2.51	5.39	21.5	11.2	13.7	11.1	5.31	14.9	1.44	.34	.80
MAX (WY)	1.61	2.51	5.39	21.5	11.2	13.7	11.1	5.31	14.9	1.44	.34	.80
MIN (WY)	1.61	2.51	5.39	21.5	11.2	13.7	11.1	5.31	14.9	1.44	.34	.80

SALT RIVER BASIN

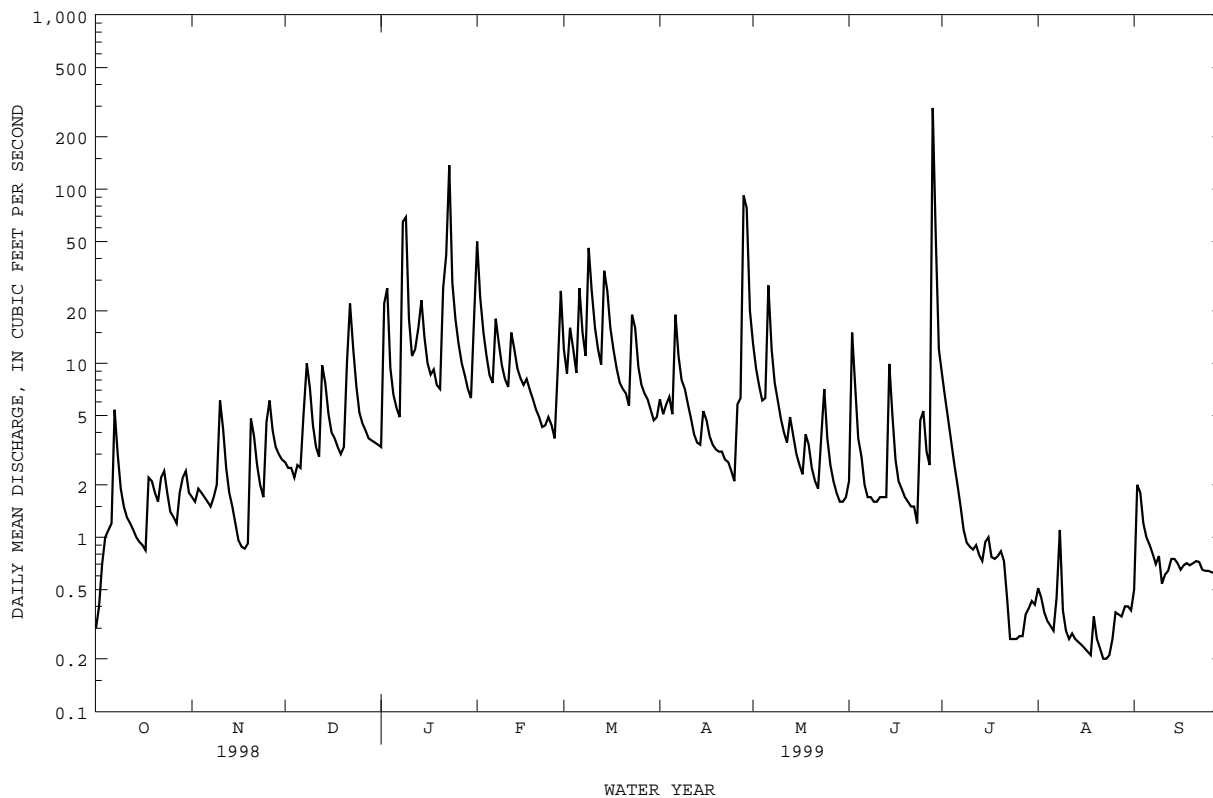
03298300 PENNSYLVANIA RUN AT MOUNT WASHINGTON ROAD NEAR LOUISVILLE, KY--Continued

SUMMARY STATISTICS

FOR 1999 WATER YEAR

ANNUAL TOTAL	2719.10	
ANNUAL MEAN	7.45	
HIGHEST DAILY MEAN	293	Jun 28
LOWEST DAILY MEAN	.20	Aug 22
ANNUAL SEVEN-DAY MINIMUM	.24	Aug 18
INSTANTANEOUS PEAK FLOW	1540	Jun 28
INSTANTANEOUS PEAK STAGE	8.22	Jun 28
10 PERCENT EXCEEDS	15	
50 PERCENT EXCEEDS	3.0	
90 PERCENT EXCEEDS	.41	

e Estimated



SALT RIVER BASIN

03298500 SALT RIVER AT SHEPHERDSVILLE, KY

LOCATION.--Lat 37°59'06", long 85°43'03", Bullitt County, Hydrologic Unit 05140102, on downstream side of bridge on State Highway 61 at Shepherdsville, 500 ft downstream from Louisville and Nashville Railroad bridge, 2.6 mi downstream from Floyds Fork, and at mile 22.9.

DRAINAGE AREA.--1,197 mi².

PERIOD OF RECORD.--May 1938 to current year.

REVISED RECORDS.--WSP 893: 1937(M). WSP 1435: 1955: WSP 1705: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 406.58 ft above sea level. See WDR KY-90-1 for history of changes prior to Oct. 16, 1969.

REMARKS.--Records fair except for periods of estimated record, which are poor. Flow regulated since January 1983 by Taylorsville Lake (station 03295597). Diversions for water supply by Sheperdsville and other municipalities.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 26, 1937, reached a stage of 47.3 ft, from floodmark (backwater from Ohio River).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	50	190	312	7050	2670	418	676	e110	2930	56	28
2	31	47	175	379	6460	2520	411	550	e130	2460	63	29
3	55	45	167	3300	4130	2640	391	481	e150	2200	69	29
4	118	45	162	1960	3740	3030	434	433	e210	2050	55	30
5	101	47	160	1690	3100	3090	401	380	181	1600	46	31
6	82	48	154	1910	2510	3550	933	1690	146	769	43	30
7	226	51	142	1820	1770	3350	1180	1490	120	425	42	31
8	606	52	306	2870	2440	2620	810	860	105	254	45	30
9	532	55	540	13500	1780	3120	612	561	98	182	53	28
10	397	70	418	5820	1170	4710	515	455	94	160	49	30
11	194	134	411	2620	953	3630	448	361	96	123	43	28
12	109	124	363	3070	1420	3120	388	320	96	100	39	27
13	87	103	493	3850	2320	2710	346	405	89	90	34	25
14	76	110	781	5610	1880	3160	322	393	136	83	32	27
15	72	90	1140	4410	1570	4430	353	300	391	80	28	28
16	70	78	1120	3760	1410	4050	432	235	367	77	26	28
17	68	75	770	3180	2040	3860	407	210	277	75	26	29
18	68	103	408	3020	1990	3300	374	195	179	78	25	30
19	74	108	246	2890	1160	2890	358	201	127	81	26	30
20	77	125	231	2780	665	1990	340	185	100	101	26	32
21	73	157	262	3900	563	1400	315	154	80	162	30	35
22	66	156	2940	5030	511	929	288	127	225	321	33	32
23	63	150	2600	16100	485	1070	267	115	e290	346	30	32
24	62	146	1440	11500	494	2390	249	141	e320	208	27	30
25	61	150	1040	2440	481	2010	223	154	362	125	26	30
26	61	260	863	2070	510	1650	245	122	554	87	26	30
27	59	276	804	2390	567	1080	465	107	e3100	141	27	30
28	56	252	744	2210	3020	618	627	99	e5450	148	26	34
29	55	229	707	2510	---	528	4500	e96	5360	83	27	41
30	54	206	678	2910	---	447	1120	e86	4470	68	27	43
31	54	---	457	1900	---	398	---	e94	---	58	28	---
TOTAL	3743	3542	20912	121711	56189	76960	18172	11676	23413	15665	1133	917
MEAN	121	118	675	3926	2007	2483	606	377	780	505	36.5	30.6
MAX	606	276	2940	16100	7050	4710	4500	1690	5450	2930	69	43
MIN	31	45	142	312	481	398	223	86	80	58	25	25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1999, BY WATER YEAR (WY)

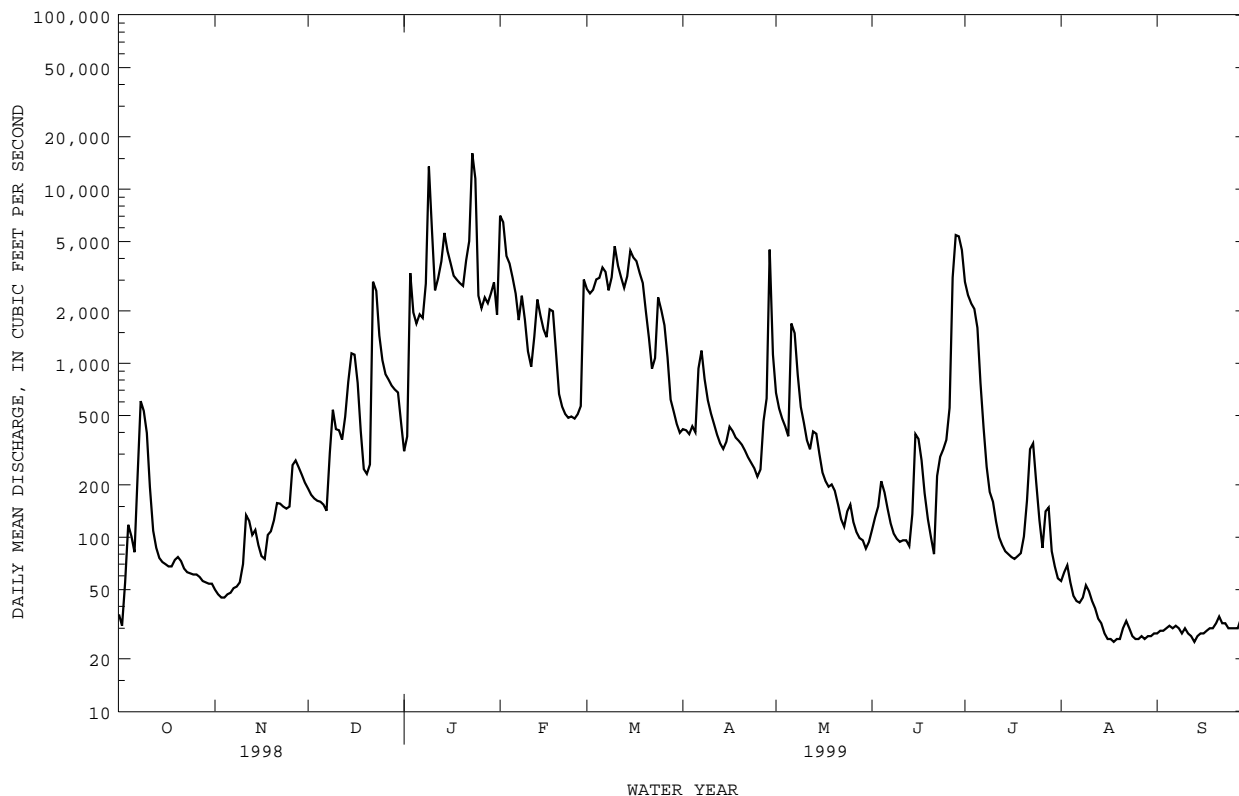
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	257	961	1997	2683	3790	3421	2103	1941	1572	571	273	186				
MAX	1166	2206	6329	5728	12370	11410	3506	5768	5192	1976	1018	583				
(WY)	1991	1994	1991	1991	1989	1997	1989	1995	1997	1998	1992	1996				
MIN	25.9	55.5	258	335	996	1113	377	216	38.9	63.6	36.5	30.6				
(WY)	1989	1988	1990	1986	1992	1990	1986	1985	1988	1994	1999	1999				

SALT RIVER BASIN

03298500 SALT RIVER AT SHEPHERDSVILLE, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1984 - 1999	
ANNUAL TOTAL	631959		354033			
ANNUAL MEAN	1731		970		1635	
HIGHEST ANNUAL MEAN					2809	
LOWEST ANNUAL MEAN					970	
HIGHEST DAILY MEAN	16100	Apr 17	16100	Jan 23	65600	Mar 2 1997
LOWEST DAILY MEAN	31	Oct 2	25	Aug 18	7.7	Jul 1 1988
ANNUAL SEVEN-DAY MINIMUM	38	Sep 5	27	Aug 24	9.3	Jun 26 1988
INSTANTANEOUS PEAK FLOW			19700		78200	Mar 10 1964
INSTANTANEOUS PEAK STAGE			21.36		41.50	Mar 11 1964
10 PERCENT EXCEEDS	4300		3020		4140	
50 PERCENT EXCEEDS	787		246		534	
90 PERCENT EXCEEDS	55		30		45	

e Estimated



SALT RIVER BASIN
03298550 LONG LICK NEAR CLERMONT, KY

LOCATION.--Lat 37°55'40", long 85°39'13", Bullitt County, Hydrologic Unit 05140102, downstream side of bridge at Jim Beam Distillery, at Clermont, and

10.8 mi upstream from mouth.

DRAINAGE AREA.-- 7.91 mi².

PERIOD OF RECORD.--April 1, 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 450 ft above sea level.

REMARKS.--Records fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.27	.84	.20	77	9.2	e5.1	11	.48	.69	.12	.04
2	.15	.48	.78	10	22	5.7	4.9	7.8	1.1	.32	.07	.01
3	.23	.70	.69	16	11	25	6.5	6.0	.80	.29	.02	.01
4	.25	.83	.20	.93	6.8	16	10	4.9	.32	.23	.01	.01
5	.19	.63	.32	.93	4.7	8.8	6.7	3.7	.38	.18	.01	.01
6	.21	.62	.18	.77	4.4	17	23	67	.33	.09	.01	.01
7	1.5	.73	.42	.16	12	12	14	13	.27	.01	.01	.03
8	.85	.65	.80	50	9.1	6.7	8.5	6.7	.44	.09	.08	.29
9	.64	.69	.84	84	5.7	54	6.7	4.6	.87	.02	.27	.55
10	.58	.93	.75	4.9	4.5	25	5.8	3.4	.60	.03	.88	.77
11	.55	.92	.78	.97	4.1	13	4.7	3.1	.08	.04	1.3	.09
12	.58	.92	.80	.80	23	8.6	3.0	2.7	.04	.02	1.3	.02
13	.52	.87	1.1	2.7	17	6.7	3.0	3.7	.02	.02	.89	.19
14	.52	.64	.74	42	8.6	90	3.0	2.9	.26	.01	.04	.72
15	.51	.58	.90	1.6	6.4	33	5.0	2.2	.13	.01	.02	1.0
16	.34	.68	.85	.64	5.7	18	8.3	1.9	.47	.02	.01	1.5
17	.21	.84	.73	.27	6.6	11	5.8	1.5	.61	.02	.07	1.2
18	.25	.86	.77	.23	6.1	8.3	4.4	1.6	.32	.01	.06	.05
19	.55	.62	.79	.48	5.0	5.9	2.8	1.5	.05	.04	.02	.02
20	.62	.68	.64	.60	4.4	6.1	2.8	1.1	.04	.85	.01	.18
21	.70	.33	.92	.50	4.3	5.2	2.9	.86	.02	1.0	.01	.78
22	.41	.25	6.8	14	2.3	4.0	2.9	.66	.01	.09	.01	.71
23	.28	.50	.64	240	2.7	28	3.2	.60	.01	.61	.01	.70
24	.28	.74	.59	22	3.2	22	2.8	.98	.62	.53	.01	.69
25	.27	.79	.66	9.9	2.9	14	2.5	1.8	.05	.34	.01	.05
26	.44	.60	.40	6.7	2.8	7.5	9.6	1.4	.03	.11	.01	.02
27	.48	.61	.28	5.5	4.1	5.9	12	.89	.98	.06	.01	.07
28	.53	.75	.41	4.7	20	5.5	120	.47	17	.04	.01	.67
29	.35	.91	.44	3.9	---	4.8	100	.02	7.0	.03	.01	.66
30	.53	.93	.51	3.7	---	e3.9	20	.01	1.7	.02	.01	1.1
31	.27	---	.29	21	---	4.2	---	.01	---	.02	.06	---
TOTAL	13.93	20.55	25.86	550.08	286.4	485.0	409.9	158.00	35.03	5.84	5.36	12.15
MEAN	.45	.69	.83	17.7	10.2	15.6	13.7	5.10	1.17	.19	.17	.41
MAX	1.5	.93	6.8	240	77	90	120	67	17	1.0	1.3	1.5
MIN	.14	.25	.18	.16	2.3	3.9	2.5	.01	.01	.01	.01	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1999, BY WATER YEAR (WY)

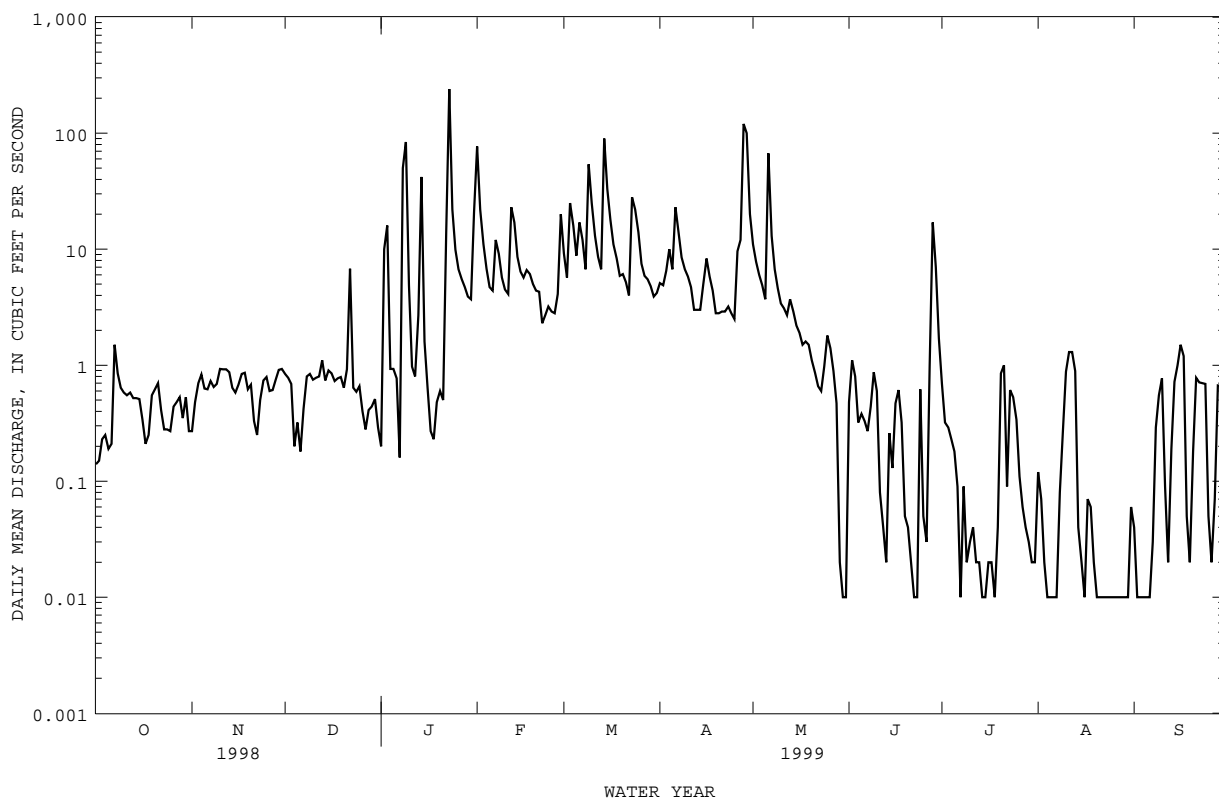
	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	1.83	3.04	6.58	18.9	16.4	34.6	20.1	20.0
MAX	4.92	9.13	16.3	29.2	25.8	101	42.2	47.2
(WY)	1996	1994	1997	1996	1994	1997	1998	1995
MIN	.098	.68	.83	8.87	10.2	11.5	8.16	5.10
(WY)	1998	1995	1999	1993	1996	1995	1997	1999

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1992 - 1999

ANNUAL TOTAL	4292.05	2008.10	
ANNUAL MEAN	11.8	5.50	11.7
HIGHEST ANNUAL MEAN			19.1
LOWEST ANNUAL MEAN			5.50
HIGHEST DAILY MEAN	340	May 21	240
LOWEST DAILY MEAN	.02	Jul 11	.01
ANNUAL SEVEN-DAY MINIMUM	.03	Aug 19	.01
INSTANTANEOUS PEAK FLOW			1260
INSTANTANEOUS PEAK STAGE			7.50
10 PERCENT EXCEEDS	23		11
50 PERCENT EXCEEDS	.80		.75
90 PERCENT EXCEEDS	.06		.02

e Estimated

SALT RIVER BASIN
03298550 LONG LICK NEAR CLERMONT, KY--Continued

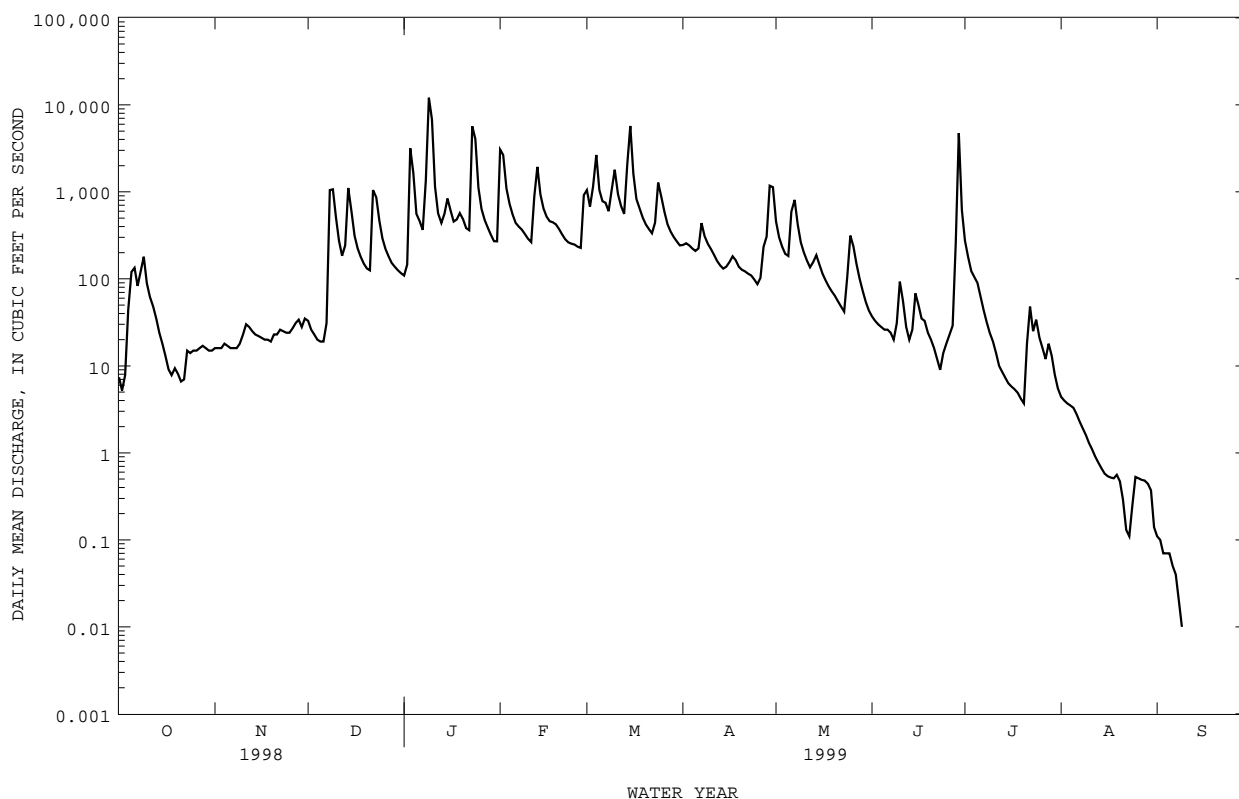


SALT RIVER BASIN

03300400 BEECH FORK AT MAUD, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1973 - 1999	
ANNUAL TOTAL	251623.1		130554.62			
ANNUAL MEAN	689		358		638	
HIGHEST ANNUAL MEAN					1243	
LOWEST ANNUAL MEAN					308	
HIGHEST DAILY MEAN	10500	Feb 12	12100	Jan 9	39800	Mar 2 1997
LOWEST DAILY MEAN	1.3	Sep 19	.00	Sep 10	.00	Oct 8 1983
ANNUAL SEVEN-DAY MINIMUM	1.5	Sep 14	.00	Sep 10	.00	Oct 23 1987
INSTANTANEOUS PEAK FLOW			14400	Jan 9	41500	Mar 2 1997
INSTANTANEOUS PEAK STAGE			19.41	Jan 9	27.60	Mar 2 1997
ANNUAL RUNOFF (CFSM)	1.58		.82		1.46	
ANNUAL RUNOFF (INCHES)	21.47		11.14		19.88	
10 PERCENT EXCEEDS	1820		848		1370	
50 PERCENT EXCEEDS	242		72		174	
90 PERCENT EXCEEDS	12		.41		4.9	

e Estimated



SALT RIVER BASIN

03301000 BEECH FORK AT BARDSTOWN, KY

LOCATION.--Lat 37°47'49", long 85°28'51", Nelson County, Hydrologic Unit 05140103 near center of span on downstream side of bridge on U.S. Highway 31E, 0.1 mile downstream from Rowan Creek, 1 mile southwest of Bardstown, and mile 20.7.

DRAINAGE AREA.--669 mi² (1,733 sq km).

PERIOD OF RECORD.--October 139 to September 1974; converted to a crest-stage partial-record station until 1984. Monthly discharge only for October, November 1939, published in WSP 1305. October 1997 to current year.

REVISIONS.--WSP 1705: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 439.3 ft above mean sea level.

REMARKS.--Records fair except for periods of estimated record which are poor. At times during periods of low flow, city of Bardstown diverts entire flow above station for municipal water supply. Some of this water is returned to stream by sewer outfall 300 ft above gage.

PEAKS ABOVE BASE.--Peak discharges above base of 9,000 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 10	0400	*17700	30.90	Jan. 23	1530	11300	24.28

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	22	36	157	3310	1490	523	875	65	578	e4.9	e1.6
2	4.9	22	40	280	4180	1040	513	633	68	392	e4.9	e1.3
3	24	22	39	2930	1860	1290	519	529	59	290	e4.8	e1.2
4	267	23	26	2870	1140	3020	512	453	51	173	e4.8	e1.2
5	184	23	31	962	875	1740	463	484	39	122	e4.8	e1.2
6	286	24	50	624	747	1130	514	1070	30	101	e4.7	e1.2
7	299	24	173	604	682	1040	612	1080	25	68	e4.7	e1.1
8	437	23	924	2240	637	879	619	815	21	39	e4.7	e1.0
9	355	25	e1200	15300	587	1290	526	573	18	25	e4.6	e.95
10	358	34	e900	15300	545	2320	463	469	13	16	e4.6	e.90
11	185	61	576	4520	510	1490	382	365	47	12	e4.5	e.90
12	107	60	415	1050	1120	1030	286	276	58	8.6	e4.4	e.88
13	80	58	533	e800	2400	850	222	301	25	7.0	e4.0	e.87
14	59	51	1060	e1000	1510	3090	191	338	74	5.9	e3.8	e.85
15	41	43	1030	e1400	986	7500	218	313	41	5.0	e3.4	e.84
16	28	36	628	e900	817	3550	261	222	42	4.3	e3.1	e.82
17	22	31	499	e700	758	1310	245	170	50	3.9	e2.8	e.81
18	19	29	386	e740	708	980	250	140	28	3.6	e2.7	e.80
19	23	26	287	e900	674	806	203	123	18	3.4	e2.9	e.80
20	22	34	242	831	625	700	180	104	15	6.0	e2.8	e.77
21	18	38	232	717	576	639	160	84	9.9	10	e2.4	e.75
22	17	40	986	692	531	590	144	63	7.4	10	e2.2	e.74
23	15	43	1350	9100	504	821	129	73	5.9	20	e2.2	e.71
24	14	41	842	8640	500	1500	115	392	74	22	e2.3	e.70
25	14	48	595	2510	481	1280	99	386	100	11	e2.5	e.69
26	16	85	490	1160	451	949	269	447	56	12	e2.5	e.68
27	17	104	402	886	453	748	461	311	41	8.1	e2.4	e.66
28	18	57	325	752	1150	653	662	186	134	6.3	e2.3	e.65
29	19	45	260	658	---	596	2160	123	3470	5.5	e2.1	e.64
30	21	43	226	593	---	551	1830	88	1590	e5.0	e2.0	e.60
31	22	---	192	626	---	518	---	67	---	e5.0	e1.8	---
TOTAL	2997.9	1215	14975	80442	29317	45390	13731	11553	6275.2	1978.6	106.6	26.81
MEAN	96.7	40.5	483	2595	1047	1464	458	373	209	63.8	3.44	.89
MAX	437	104	1350	15300	4180	7500	2160	1080	3470	578	4.9	1.6
MIN	4.9	22	26	157	451	518	99	63	5.9	3.4	1.8	.60
CFSM	.14	.06	.72	3.88	1.57	2.19	.68	.56	.31	.10	.01	.00
IN.	.17	.07	.83	4.47	1.63	2.52	.76	.64	.35	.11	.01	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1999, BY WATER YEAR (WY)

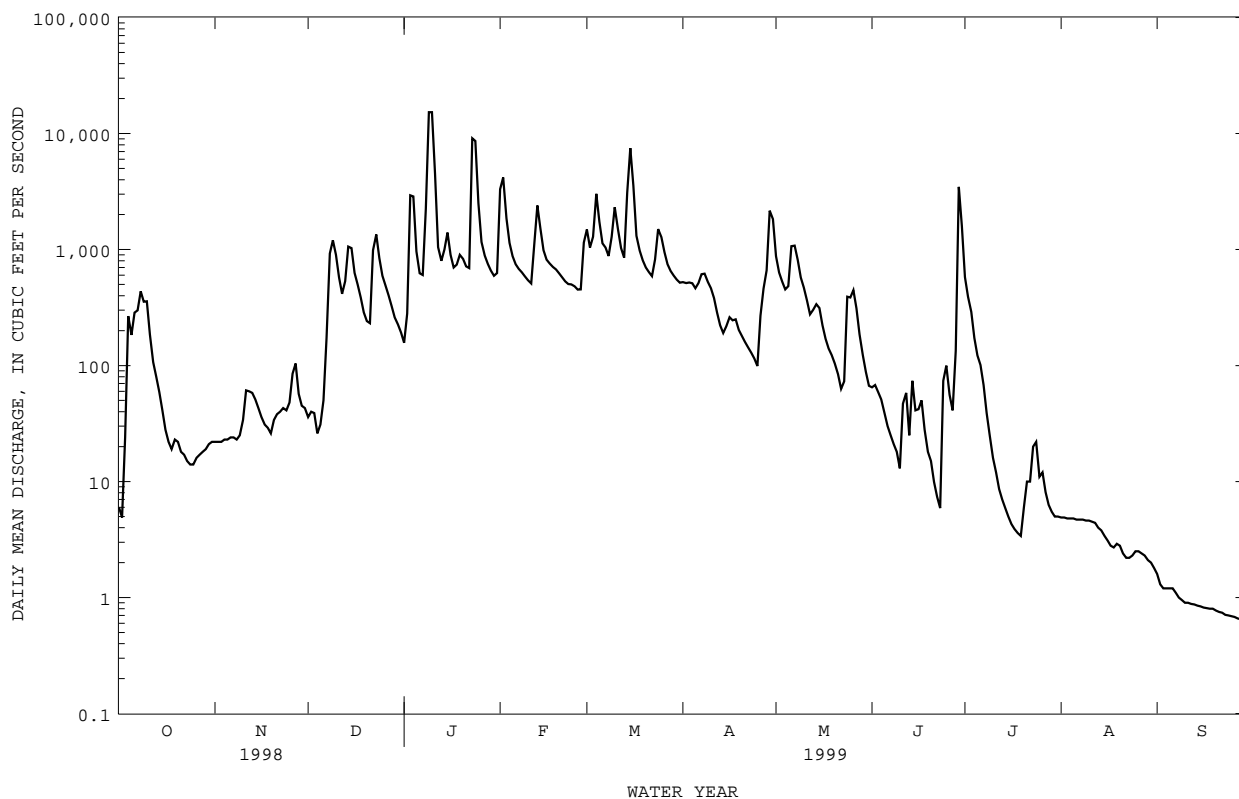
MEAN	105	525	1107	1683	1838	1999	1396	864	592	488	199	160
MAX	1973	2682	3631	7384	5269	6277	6321	3372	2565	2946	1115	2206
(WY)	1963	1958	1952	1950	1956	1964	1972	1967	1998	1958	1974	1974
MIN	.27	.70	1.40	42.7	123	153	145	46.1	22.2	1.36	3.44	.39
(WY)	1954	1964	1944	1944	1954	1941	1963	1941	1948	1954	1999	1953

SALT RIVER BASIN

03301000 BEECH FORK AT BARDSTOWN, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1940 - 1999	
ANNUAL TOTAL	382829.2		208008.11			
ANNUAL MEAN	1049		570		911	
HIGHEST ANNUAL MEAN					1733	
LOWEST ANNUAL MEAN					245	
HIGHEST DAILY MEAN	14800	Apr 17	15300	Jan 9	32200	Mar 5 1964
LOWEST DAILY MEAN	1.3	Sep 15	.60	Sep 30	.00	Sep 29 1948
ANNUAL SEVEN-DAY MINIMUM	1.4	Sep 9	.66	Sep 24	.03	Sep 28 1948
INSTANTANEOUS PEAK FLOW			17700	Jan 10	33900	Mar 5 1964
INSTANTANEOUS PEAK STAGE			30.90	Jan 10	43.50	Mar 5 1964
ANNUAL RUNOFF (CFSM)	1.57		.85		1.36	
ANNUAL RUNOFF (INCHES)	21.29		11.57		18.51	
10 PERCENT EXCEEDS	2470		1140		2050	
50 PERCENT EXCEEDS	499		123		200	
90 PERCENT EXCEEDS	14		2.3		5.4	

e Estimated



SALT RIVER BASIN

03301500 ROLLING FORK NEAR BOSTON, KY

LOCATION.--Lat 37°46'02", long 85°42'14", Nelson Cty, Hydrologic Unit 05140103, on downstream side of bridge on U.S. Hwy 62 and State Hwy 61, 0.4 mi downstream from Beech Fork, 2.3 mi southwest of Boston, and at mile 19.8.

DRAINAGE AREA.--1,299 mi².

PERIOD OF RECORD.--May 1938 to current year.

REVISED RECORDS.--WSP 1705: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 400.42 ft above sea level. See WDR KY-90-1 for history of changes prior to Sept. 30, 1971. Datum of Auxiliary gage (Rolling Fork at Lebanon Junction) 385.06 ft above sea level.

REMARKS.--Records good.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in January 1937 reached a stage of 55.2 ft, former site, from floodmarks (backwater from Ohio River).

PEAKS ABOVE BASE.--Peak discharges above base of 16,000 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 11	0800	*18700	37.62

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	32	90	325	4700	2990	872	3870	165	1000	21	9.8
2	36	33	93	328	8010	2600	859	1710	237	574	22	8.7
3	39	33	99	2710	6060	2110	880	1200	206	418	19	8.5
4	128	33	95	5050	3150	4720	994	957	165	327	16	8.2
5	244	34	90	2120	2100	5520	862	941	139	233	15	8.0
6	147	33	104	1260	1600	3100	1060	2320	119	195	14	8.0
7	212	34	165	983	1370	2620	1160	3010	103	161	13	8.1
8	279	36	845	1520	1260	2270	1190	2340	95	122	13	7.3
9	308	36	3070	10600	1110	2630	1010	1330	86	93	15	7.4
10	259	38	2200	11000	981	4410	852	963	77	80	17	8.4
11	201	68	1120	16700	875	4100	745	764	65	70	17	8.9
12	138	72	706	8950	1440	2620	654	644	96	59	14	8.8
13	105	70	623	2310	4060	1930	593	688	93	50	13	10
14	96	78	1380	1830	4260	3660	550	600	177	44	14	11
15	82	74	2340	2120	2520	10500	555	590	177	38	13	11
16	67	65	1230	2270	1830	11700	603	489	109	33	12	11
17	53	57	803	1760	1600	5940	725	395	100	31	11	12
18	43	51	610	1530	1490	2750	689	335	102	27	12	13
19	43	48	487	1750	1450	2020	610	301	92	24	11	14
20	45	51	418	1840	1260	1580	546	266	81	22	11	13
21	42	58	377	1520	1100	1320	494	235	70	27	10	15
22	37	61	843	1440	962	1150	457	204	61	42	11	15
23	33	60	2120	11000	861	1400	417	201	55	44	9.3	14
24	32	63	1850	15400	838	2660	379	561	124	71	9.5	14
25	28	64	1070	13300	805	2620	338	457	479	70	9.0	14
26	27	89	760	6990	757	2050	577	493	255	55	9.1	14
27	26	97	599	3490	712	1520	1170	448	262	49	8.7	14
28	28	107	497	2840	1620	1220	1560	333	363	42	10	14
29	28	99	436	2330	---	1060	6950	245	1890	34	10	17
30	28	94	395	1590	---	946	7420	194	3600	30	11	19
31	30	---	358	1230	---	860	---	171	---	25	9.8	---
TOTAL	2907	1768	25873	138086	58781	96576	35771	27255	9643	4090	400.4	345.1
MEAN	93.8	58.9	835	4454	2099	3115	1192	879	321	132	12.9	11.5
MAX	308	107	3070	16700	8010	11700	7420	3870	3600	1000	22	19
MIN	26	32	90	325	712	860	338	171	55	22	8.7	7.3
CFSM	.07	.05	.64	3.43	1.62	2.40	.92	.68	.25	.10	.01	.01
IN.	.08	.05	.74	3.95	1.68	2.77	1.02	.78	.28	.12	.01	.01

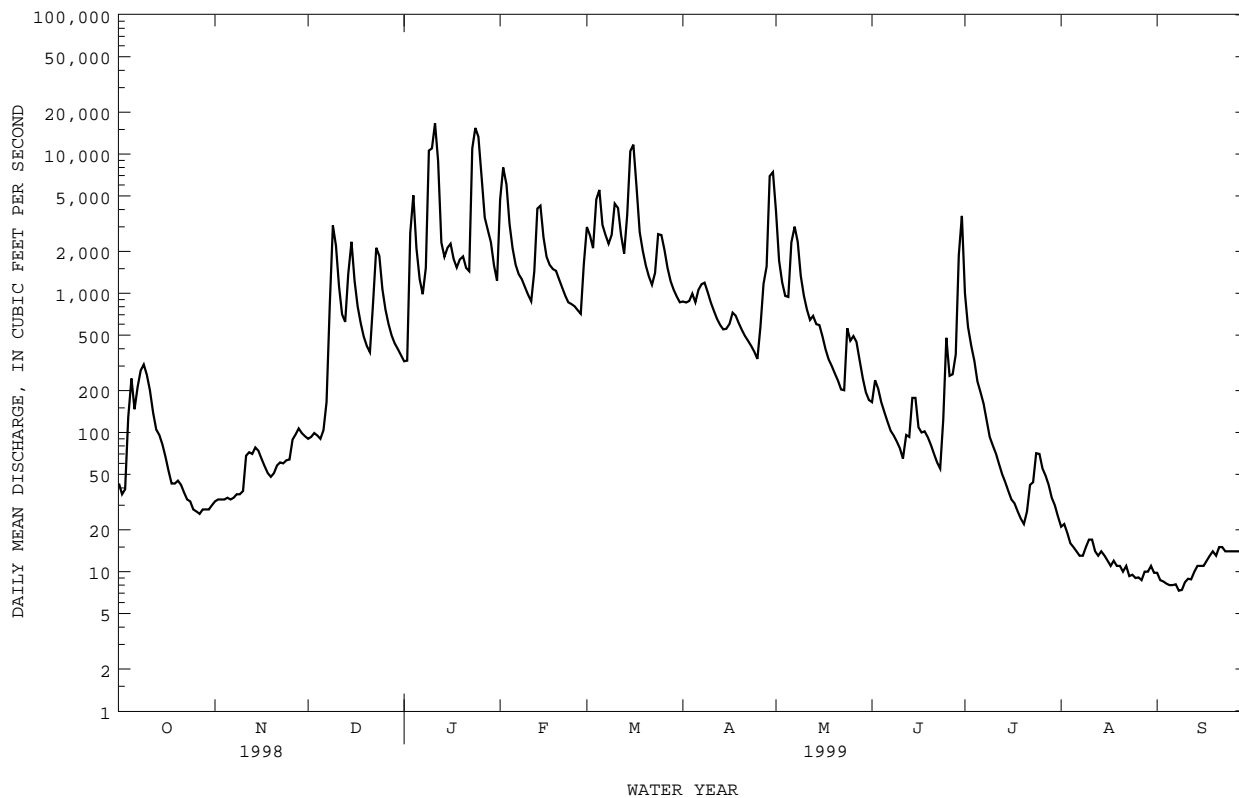
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1999, BY WATER YEAR (WY)

MEAN	304	1039	2390	3053	3800	3894	2792	1897	1158	752	414	450
MAX	2778	5310	11050	13420	16320	13540	11350	11810	6865	5339	2806	8265
(WY)	1976	1958	1979	1950	1989	1997	1972	1983	1997	1958	1977	1979
MIN	.57	4.32	5.84	77.0	288	344	353	150	24.4	6.78	12.9	1.89
(WY)	1954	1944	1944	1981	1954	1941	1986	1941	1988	1954	1999	1953

SALT RIVER BASIN

03301500 ROLLING FORK NEAR BOSTON, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1939 - 1999	
ANNUAL TOTAL	703777.6		401495.5			
ANNUAL MEAN	1928		1100		1819	
HIGHEST ANNUAL MEAN					4268	
LOWEST ANNUAL MEAN					473	
HIGHEST DAILY MEAN	17300	Apr 18	16700	Jan 11	68400	Mar 4 1997
LOWEST DAILY MEAN	8.1	Sep 20	7.3	Sep 8	.40	Oct 20 1939
ANNUAL SEVEN-DAY MINIMUM	8.3	Sep 14	7.9	Sep 4	.40	Oct 3 1953
INSTANTANEOUS PEAK FLOW			18700		69800	
INSTANTANEOUS PEAK STAGE			37.62		53.22	
INSTANTANEOUS LOW FLOW					.40	
ANNUAL RUNOFF (CFSM)	1.48		.85		1.40	
ANNUAL RUNOFF (INCHES)	20.15		11.50		19.02	
10 PERCENT EXCEEDS	5990		2640		4820	
50 PERCENT EXCEEDS	820		245		508	
90 PERCENT EXCEEDS	33		13		26	



SALT RIVER BASIN

03301575 WILSON CREEK AT HARRISON FORK ROAD NEAR DEATSVILLE, KY

LOCATION.--Lat 37°52'10", long 85°35'58", Nelson Cty, Hydrologic Unit 05140103, Bernheim State Forest, at Harrison Fork Road ford, 300 ft upstream from Harrison Fork, 2.9 mi southwest of Deatsville, 5.4 mi southeast of Clermont, and at mile 13.6.

DRAINAGE AREA.--5.7 mi².

PERIOD OF RECORD.--January 1997 to current year.

GAGE.--Water-stage recorder.

COOPERATION.--Field determinations were made in cooperation with Louisville and Jefferson County Metropolitan Sewer District personnel.

REMARKS.--Records good, except for periods of estimated record, which are fair.

PEAKS ABOVE BASE.--Peak discharges above base of 400 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 23	0050	*440	7.23

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	23	5.6	5.4	6.6	e2.2	e4.1	.00	.00
2	---	---	---	---	12	4.7	4.8	5.3	e27	e1.2	.01	.00
3	---	---	---	---	8.1	11	5.6	4.5	e9.0	1.1	.00	.00
4	---	---	---	---	6.6	7.7	6.4	3.7	e3.0	.77	.00	.00
5	---	---	---	---	5.4	6.0	5.3	4.4	e2.2	.62	.00	.00
6	---	---	---	---	5.1	7.0	9.9	14	e1.7	.54	.00	.00
7	---	---	---	2.0	6.7	5.6	7.5	6.4	e1.3	.46	.00	.00
8	---	---	---	24	6.0	5.0	6.6	4.6	e1.1	.35	.05	.00
9	---	---	---	25	5.2	15	6.3	3.9	e.90	.30	.03	.00
10	---	---	---	8.1	4.6	9.6	5.3	3.5	e.80	.30	.01	.00
11	---	---	---	5.5	4.4	7.1	4.9	3.3	e.72	.32	.00	.00
12	---	---	---	5.0	9.8	5.9	4.3	2.9	e.66	.26	.00	.00
13	---	---	---	7.0	8.3	5.3	4.1	4.5	e1.1	.19	.00	.00
14	---	---	---	15	6.3	22	4.1	3.1	e3.4	.17	.00	.00
15	---	---	---	7.0	5.7	13	5.7	2.6	e2.2	.14	.00	.00
16	---	---	---	5.2	5.3	8.9	5.7	2.3	e1.2	.11	.00	.00
17	---	---	---	4.3	6.9	7.2	4.8	2.1	e.98	.09	.00	.00
18	---	---	---	4.4	6.0	6.4	4.1	2.1	e.88	.07	.00	.00
19	---	---	---	3.7	5.1	6.1	3.8	2.0	e.80	.05	.00	.00
20	---	---	---	3.5	4.4	5.7	3.7	1.7	e.74	.07	.00	.00
21	---	---	---	5.1	4.0	5.3	3.6	e1.5	e.70	1.2	.00	.00
22	---	---	---	9.6	3.6	4.8	3.3	e1.3	e.66	.41	.00	.00
23	---	---	---	64	3.8	12	3.2	e1.8	e.64	.27	.00	.00
24	---	---	---	13	4.0	11	2.9	e4.9	e5.6	.19	.00	.00
25	---	---	---	8.7	3.8	7.6	2.8	e2.0	e3.7	.13	.00	.00
26	---	---	---	6.9	3.4	6.3	6.4	e1.4	e1.8	.09	.00	.00
27	---	---	---	6.0	3.7	5.6	6.6	e1.1	e7.4	.05	.00	.02
28	---	---	---	5.2	7.7	5.2	24	e1.0	e74	.04	.00	.00
29	---	---	---	4.3	---	4.7	25	e.96	e83	.02	.00	.01
30	---	---	---	3.9	---	4.3	9.1	e.90	e18	.01	.00	.00
31	---	---	---	8.8	---	4.5	---	e.82	---	.00	.00	---
MEAN	---	---	---	---	6.39	7.62	6.51	3.26	8.58	.44	.003	.001
MAX	---	---	---	---	23	22	25	14	83	4.1	.05	.02
MIN	---	---	---	---	3.4	4.3	2.8	.82	.64	.00	.00	.00

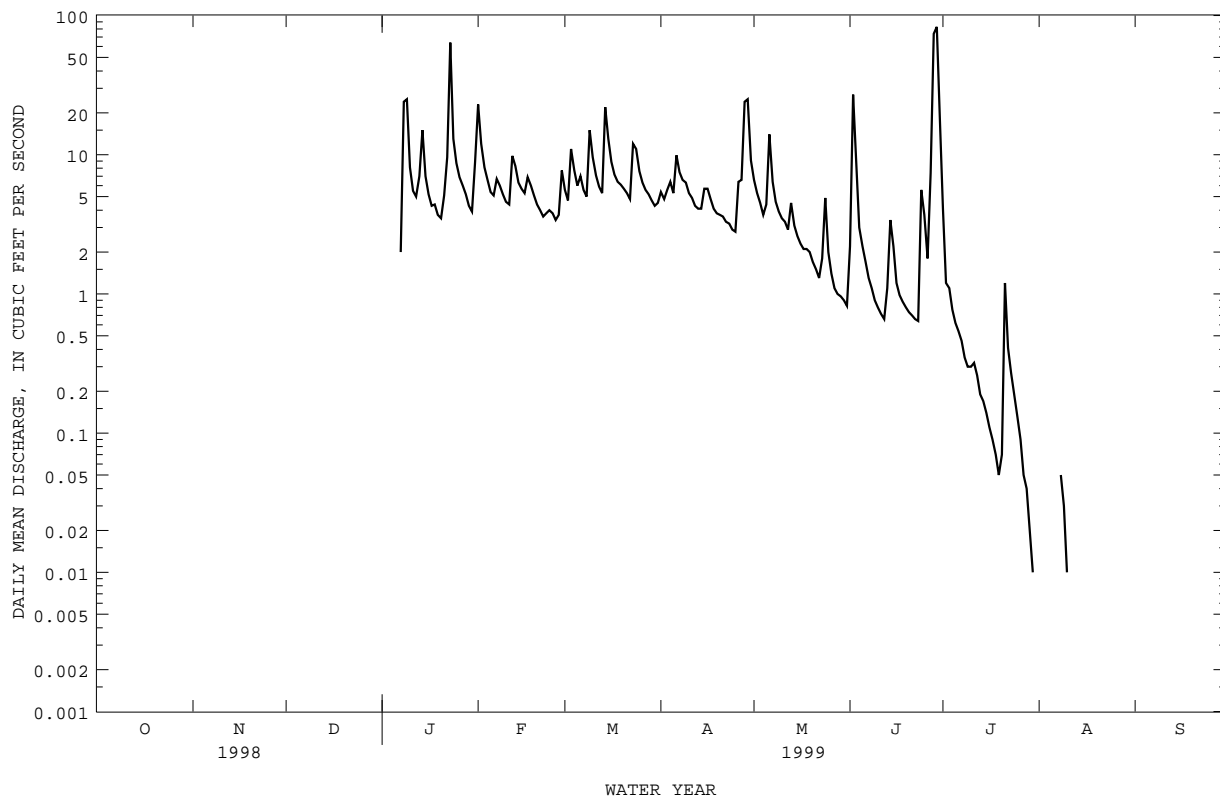
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 1999, BY WATER YEAR (WY)

MEAN	---	---	---	---	6.39	7.62	6.51	3.26	8.58	.44	.003	.001
MAX	---	---	---	---	6.39	7.62	6.51	3.26	8.58	.44	.003	.001
(WY)	---	---	---	---	1999	1999	1999	1999	1999	1999	1999	1999
MIN	---	---	---	---	6.39	7.62	6.51	3.26	8.58	.44	.003	.001
(WY)	---	---	---	---	1999	1999	1999	1999	1999	1999	1999	1999

e Estimated

SALT RIVER BASIN

03301575 WILSON CREEK AT HARRISON FORK ROAD NEAR DEATSVILLE, KY--Continued



SALT RIVER BASIN
03301700 MILL CREEK NEAR FORT KNOX, KY

LOCATION.--Lat 37°53'00", long 85°54'52", Hardin County, Hydrologic Unit 05140104, on wooden bridge on Poorman Road, 2.2 miles southeast of Fort Knox and at mile 8.0. This is on a military reservation, so movement of equipment maybe encountered. If the road is locked or icy contact the Range Officer at 624-2125.

DRAINAGE AREA.--38.2 mi².

PERIOD OF RECORD.--May 1998 to September 1999.

GAGE.--Water-stage recorder. Elevation of gage is 440 ft above mean sea level (from topographic map).

REMARKS.--Records fair except for periods of estimated record which are poor.

1998: Records fair except for periods of estimated record which is poor.

1999: Records fair except for periods of estimated record which is poor

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

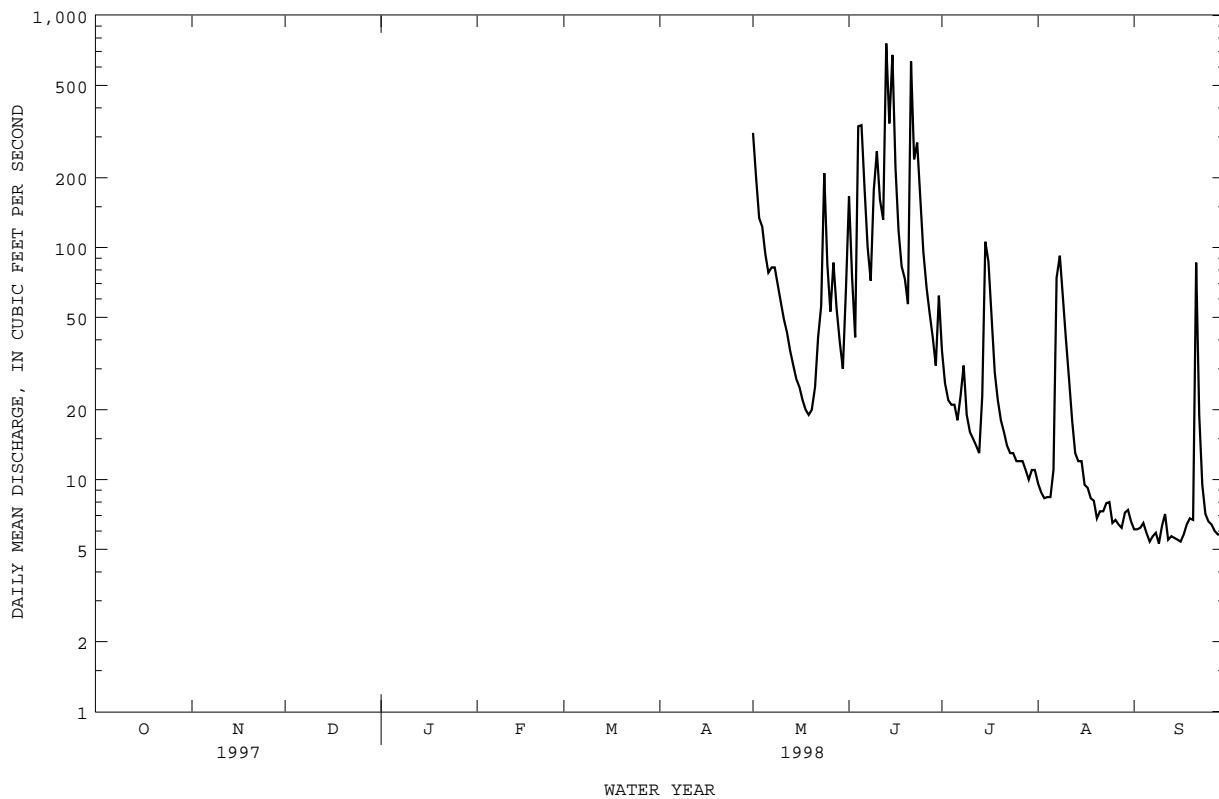
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	312	166	36	9.6	6.1
2	---	---	---	---	---	---	---	200	74	26	8.8	6.1
3	---	---	---	---	---	---	---	134	41	22	8.3	6.2
4	---	---	---	---	---	---	---	123	333	21	8.4	6.5
5	---	---	---	---	---	---	---	94	337	21	8.4	5.9
6	---	---	---	---	---	---	---	78	179	18	11	5.4
7	---	---	---	---	---	---	---	82	100	23	74	5.7
8	---	---	---	---	---	---	---	82	72	31	e92	5.9
9	---	---	---	---	---	---	---	69	177	19	e61	5.3
10	---	---	---	---	---	---	---	58	260	16	40	6.3
11	---	---	---	---	---	---	---	49	161	15	27	7.1
12	---	---	---	---	---	---	---	43	132	14	18	5.5
13	---	---	---	---	---	---	---	36	757	13	13	5.7
14	---	---	---	---	---	---	---	31	343	23	12	5.6
15	---	---	---	---	---	---	---	27	677	106	12	5.5
16	---	---	---	---	---	---	---	25	221	87	9.5	5.4
17	---	---	---	---	---	---	---	22	118	51	9.2	5.8
18	---	---	---	---	---	---	---	20	83	29	8.3	6.4
19	---	---	---	---	---	---	---	19	73	22	8.1	6.8
20	---	---	---	---	---	---	---	20	57	18	6.8	6.7
21	---	---	---	---	---	---	---	25	634	16	7.3	86
22	---	---	---	---	---	---	---	41	240	14	7.3	19
23	---	---	---	---	---	---	---	56	283	13	7.9	9.5
24	---	---	---	---	---	---	---	209	165	13	8.0	7.1
25	---	---	---	---	---	---	---	85	96	12	6.5	6.6
26	---	---	---	---	---	---	---	53	67	12	6.7	6.4
27	---	---	---	---	---	---	---	86	52	12	6.4	6.0
28	---	---	---	---	---	---	---	55	41	11	6.2	5.8
29	---	---	---	---	---	---	---	39	31	10	7.2	5.8
30	---	---	---	---	---	---	---	30	62	11	7.4	5.8
31	---	---	---	---	---	---	---	66	---	11	6.6	---
TOTAL	---	---	---	---	---	---	---	2269	6032	746	522.9	277.9
MEAN	---	---	---	---	---	---	---	73.2	201	24.1	16.9	9.26
MAX	---	---	---	---	---	---	---	312	757	106	92	86
MIN	---	---	---	---	---	---	---	19	31	10	6.2	5.3

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

	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998
MEAN	---	---	---	---	---	---	---	73.2	201	24.1	16.9	9.26
MAX	---	---	---	---	---	---	---	73.2	201	24.1	16.9	9.26
(WY)	---	---	---	---	---	---	---	1998	1998	1998	1998	1998
MIN	---	---	---	---	---	---	---	73.2	201	24.1	16.9	9.26
(WY)	---	---	---	---	---	---	---	1998	1998	1998	1998	1998

e Estimated

SALT RIVER BASIN
03301700 MILL CREEK NEAR FOR KNOX, KY--Continued



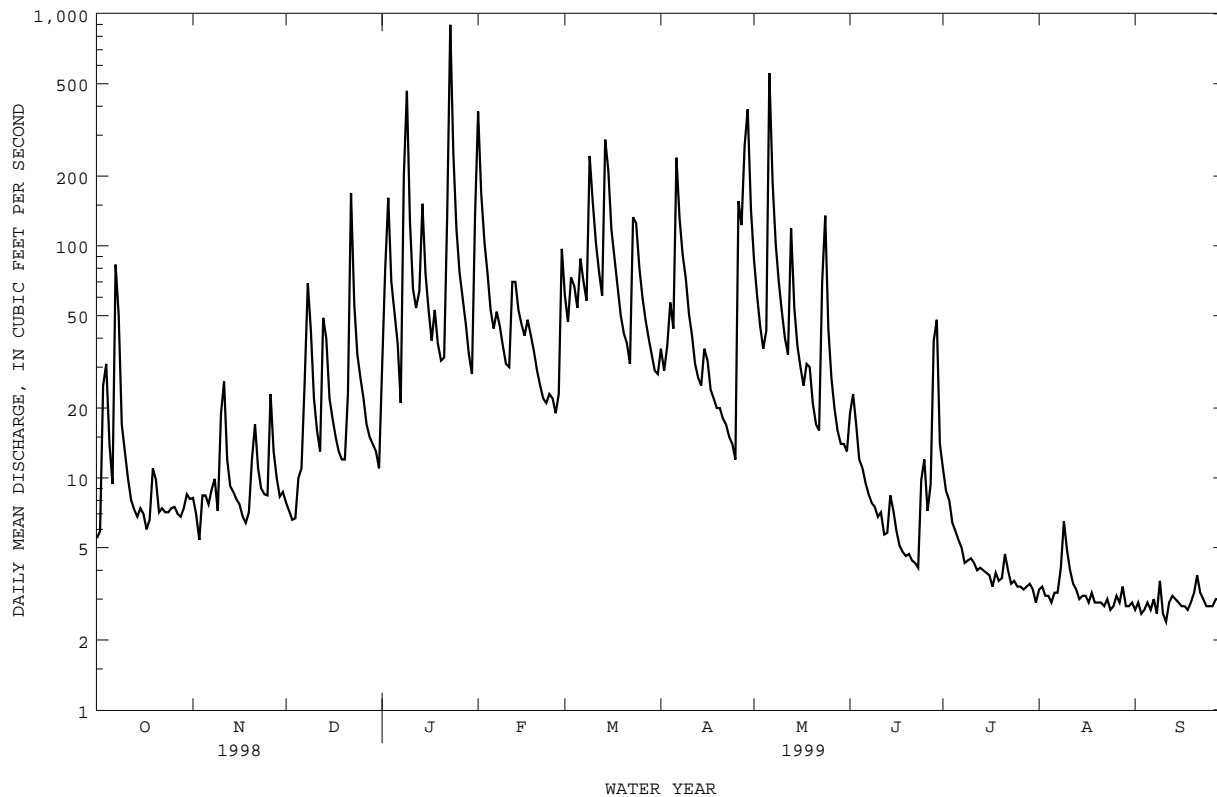
SALT RIVER BASIN
03301700 MILL CREEK NEAR FOR KNOX, KY--Continued

SUMMARY STATISTICS

FOR 1999 WATER YEAR

ANNUAL TOTAL	14539.8	
ANNUAL MEAN	39.8	
HIGHEST DAILY MEAN	897	Jan 23
LOWEST DAILY MEAN	2.4	Sep 11
ANNUAL SEVEN-DAY MINIMUM	2.8	Aug 29
INSTANTANEOUS PEAK FLOW	2160	Jan 23
INSTANTANEOUS PEAK STAGE	7.33	Jan 23
10 PERCENT EXCEEDS	90	
50 PERCENT EXCEEDS	14	
90 PERCENT EXCEEDS	3.0	

e Estimated



SALT RIVER BASIN

03301900 FERN CREEK AT OLD BARDSTOWN ROAD AT LOUISVILLE, KY

LOCATION.--Lat 38°10'32", long 85°36'55", Jefferson County, Hydrologic Unit 05140102, on right upstream wingwall, at bridge on Old Bardstown Road, and at mile 3.2.

DRAINAGE AREA.--3.5 mi².

PERIOD OF RECORD.--February 1991 to October 1995. September 1997 to current year.

GAGE.--Water-stage recorder. Datum of gage 550.74 ft.

COOPERATION.--Field determinations were made in cooperations with Louisville and Jefferson County Metropolitan Sewer District personnel.

REMARKS.--Records good except for periods of estimated discharge, which are fair.

PEAKS ABOVE BASE.--Peak discharges above base of 200 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 8	2100	220	2.51	Apr. 28	1750	568	3.44
Jun. 28	1650	*933	4.16				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e1.1	2.3	1.3	1.7	21	7.5	4.4	8.5	1.6	6.1	.95	.64
2	e1.5	2.7	1.1	16	14	5.9	3.9	6.5	14	4.7	.81	.67
3	e4.4	2.6	1.1	12	10	10	4.8	5.2	3.2	3.6	.75	.69
4	e1.8	2.3	1.1	5.8	7.9	6.9	4.2	4.2	2.2	2.8	.77	.80
5	e1.2	2.1	1.3	3.9	6.2	5.6	3.7	4.5	1.8	2.4	.71	.80
6	e1.0	2.1	1.2	3.1	5.7	18	8.4	14	1.7	2.1	.70	.81
7	e6.5	2.8	4.3	2.5	13	9.8	5.1	6.5	1.6	1.8	.75	.80
8	e3.2	3.1	6.8	43	8.1	7.8	4.7	4.7	1.4	1.6	.92	.68
9	1.7	3.7	3.1	21	6.5	22	4.5	3.7	1.4	1.5	.84	.67
10	1.5	7.0	2.0	11	5.4	15	4.0	3.3	1.3	1.5	.76	.77
11	1.4	2.4	1.7	7.9	4.9	12	3.9	2.6	1.5	1.4	.71	.81
12	1.2	1.4	1.6	8.0	8.5	11	3.5	2.4	1.2	1.2	.70	.79
13	1.1	1.2	5.2	11	6.3	9.7	3.5	4.2	1.2	1.2	.71	.76
14	1.2	1.3	3.2	12	5.4	19	3.6	2.5	5.7	1.1	.74	.69
15	1.2	1.3	2.5	8.3	5.0	15	5.0	2.3	2.1	1.1	.77	.66
16	1.0	1.2	2.3	6.9	4.7	12	4.2	2.1	1.6	1.0	.72	.73
17	1.2	1.2	2.2	5.9	4.6	10	3.9	1.9	1.4	1.0	.66	.75
18	2.0	1.1	2.0	6.0	4.0	8.1	3.7	3.3	1.3	1.1	.64	.68
19	1.6	1.4	2.1	4.5	3.7	6.8	3.6	2.2	1.2	.95	1.4	.72
20	1.4	6.3	1.9	4.9	3.5	6.2	3.5	1.9	1.2	.97	.76	.92
21	1.5	2.5	13	13	3.2	5.7	3.5	1.7	1.1	.89	.74	.89
22	1.7	1.6	18	21	2.8	4.8	3.1	1.8	1.1	.84	.73	.78
23	1.6	1.4	5.8	46	2.9	15	2.9	2.3	1.0	.80	.69	.82
24	1.7	1.3	3.9	17	3.0	11	2.7	2.0	12	.79	.69	.85
25	1.7	4.1	2.9	12	2.8	8.3	2.6	1.7	3.4	.93	.69	.83
26	1.8	3.6	2.6	9.7	2.5	6.7	8.4	1.5	2.3	.88	.67	.86
27	1.8	2.0	2.3	8.3	8.7	6.0	5.2	1.4	3.4	.91	.68	.87
28	1.9	1.7	2.1	6.0	12	5.4	51	1.4	96	1.6	.71	.86
29	2.1	1.6	2.1	4.7	---	4.7	21	1.3	16	.97	.70	1.3
30	2.1	1.4	2.0	4.3	---	4.2	12	1.2	8.7	.84	.64	.97
31	2.3	---	1.9	14	---	4.4	---	1.5	---	.84	.65	---
TOTAL	57.4	70.7	104.6	351.4	186.3	294.5	198.5	104.3	193.6	49.41	23.36	23.87
MEAN	1.85	2.36	3.37	11.3	6.65	9.50	6.62	3.36	6.45	1.59	.75	.80
MAX	6.5	7.0	18	46	21	22	51	14	96	6.1	1.4	1.3
MIN	1.0	1.1	1.1	1.7	2.5	4.2	2.6	1.2	1.0	.79	.64	.64

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1999, BY WATER YEAR (WY)

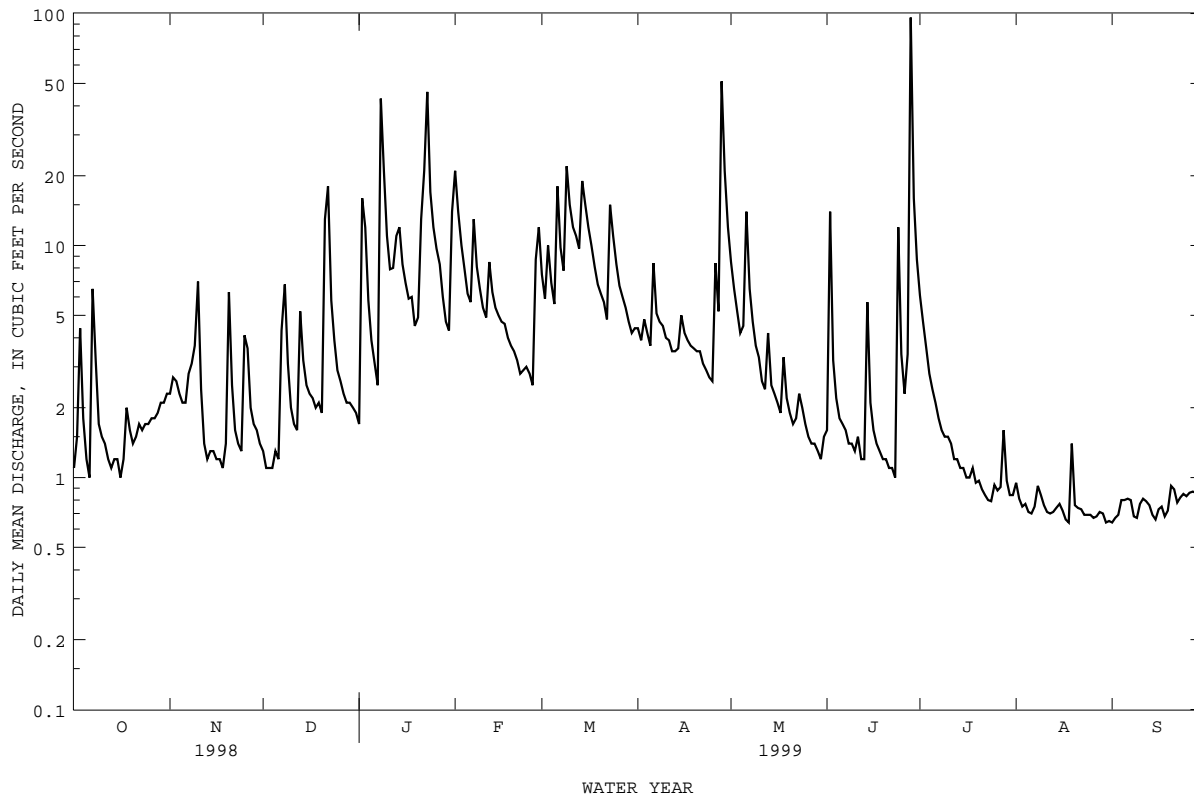
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	5.50	7.18	7.53	12.2	16.0	10.2	12.2	8.80	8.99	4.47	2.32	1.91
MAX	21.0	20.7	21.5	22.2	27.7	20.2	21.6	21.4	20.2	7.58	3.17	4.20
(WY)	1995	1995	1995	1995	1989	1995	1995	1990	1995	1989	1990	1990
MIN	1.18	2.36	2.05	8.44	6.65	5.34	6.62	2.91	1.30	1.59	.75	.80
(WY)	1998	1999	1990	1990	1999	1990	1999	1988	1988	1999	1999	1999

SALT RIVER BASIN

03301900 FERN CREEK AT OLD BARDSTOWN ROAD AT LOUISVILLE, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1988 - 1999	
ANNUAL TOTAL	2190.09		1657.94			
ANNUAL MEAN	6.00		4.54		6.74	
HIGHEST ANNUAL MEAN					8.39	
LOWEST ANNUAL MEAN					4.54	
HIGHEST DAILY MEAN	72	Apr 16	96	Jun 28	160	Apr 4 1989
LOWEST DAILY MEAN	.60	Sep 30	.64	Aug 18	.39	Nov 14 1989
ANNUAL SEVEN-DAY MINIMUM	.73	Sep 24	.67	Aug 26	.61	Oct 3 1997
INSTANTANEOUS PEAK FLOW			933		933	
INSTANTANEOUS PEAK STAGE			4.16		4.16	
10 PERCENT EXCEEDS	13		11		21	
50 PERCENT EXCEEDS	3.4		2.2		3.7	
90 PERCENT EXCEEDS	1.1		.77		.98	

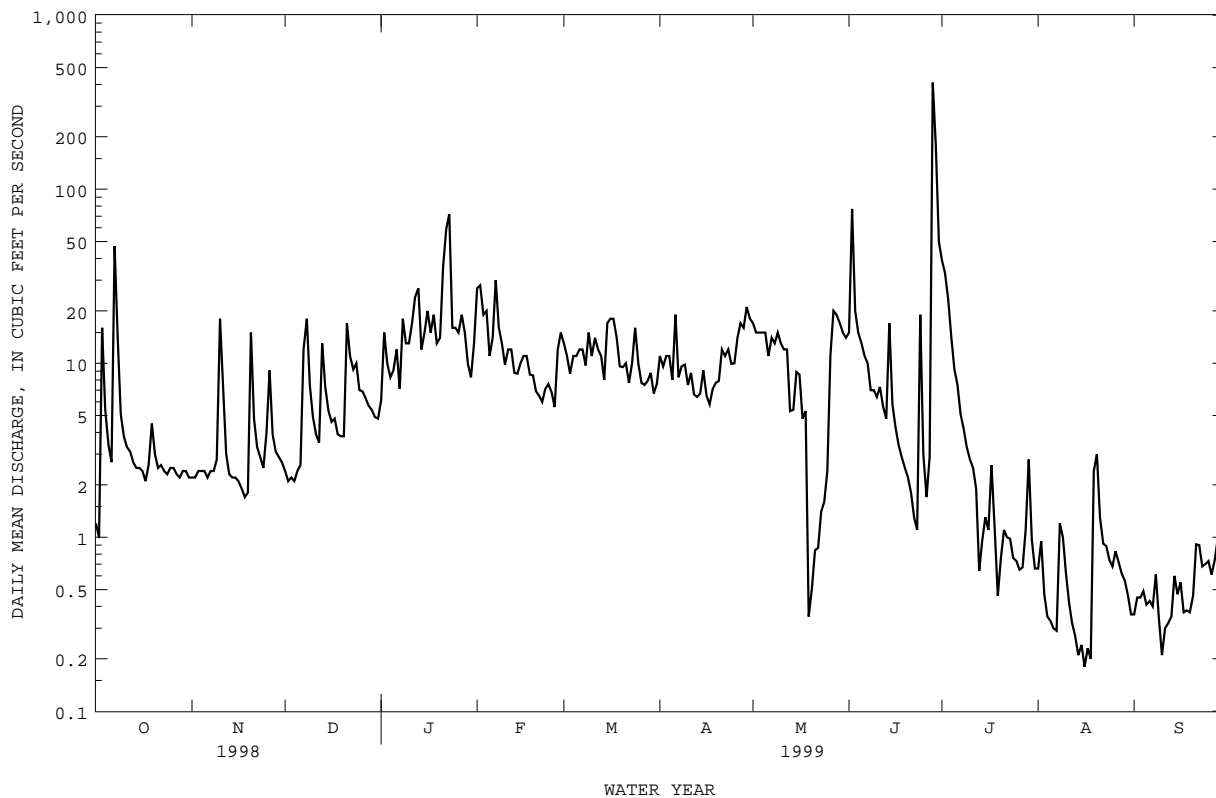
e Estimated



SALT RIVER BASIN

03301940 NORTHERN DITCH AT OKOLONA, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1992 - 1999	
ANNUAL TOTAL	6510.39		3475.30			
ANNUAL MEAN	17.8		9.52		14.8	
HIGHEST ANNUAL MEAN					18.5 1998	
LOWEST ANNUAL MEAN					9.52 1999	
HIGHEST DAILY MEAN	229	Apr 16	410	Jun 28	608	May 18 1995
LOWEST DAILY MEAN	.99	Oct 2	.18	Aug 16	.00	Sep 12 1997
ANNUAL SEVEN-DAY MINIMUM	2.0	Nov 13	.24	Aug 12	.00	Sep 12 1997
INSTANTANEOUS PEAK FLOW			1590		1590	
INSTANTANEOUS PEAK STAGE			13.19		13.19	
10 PERCENT EXCEEDS	38		17		34	
50 PERCENT EXCEEDS	9.6		5.6		8.3	
90 PERCENT EXCEEDS	2.5		.56		2.1	

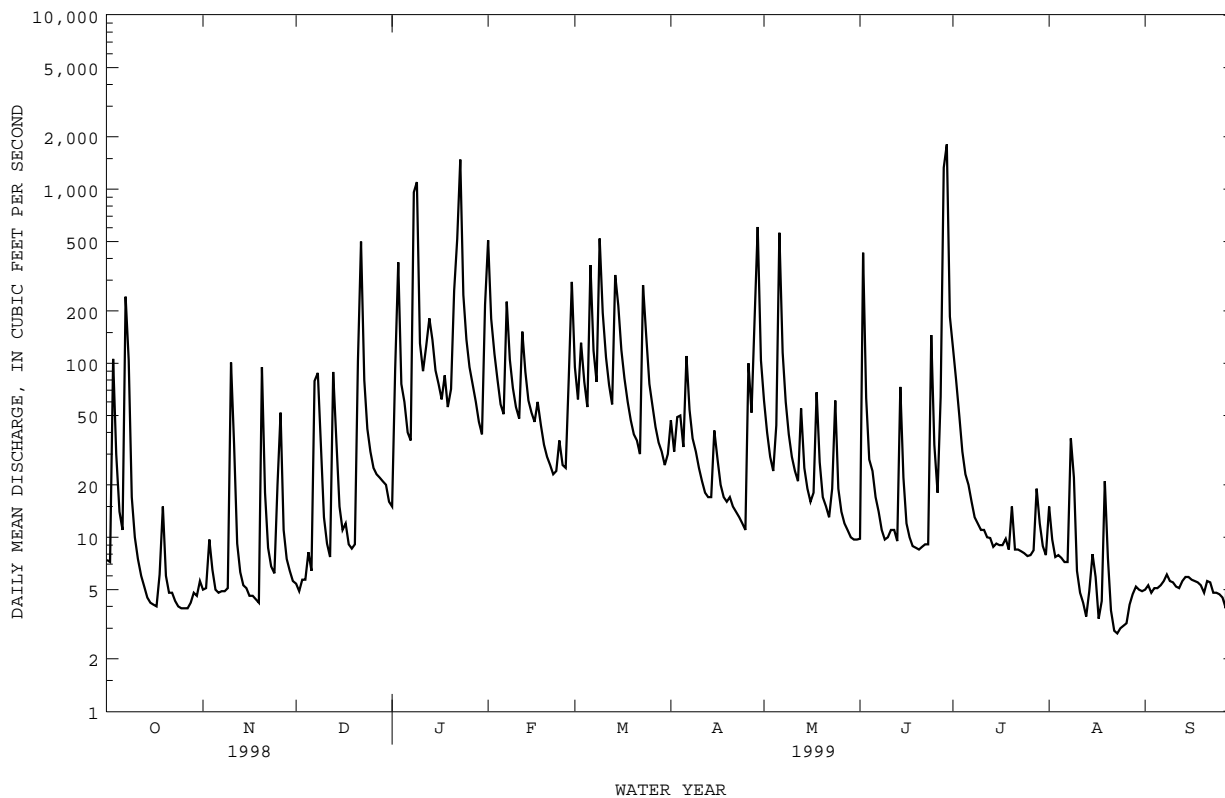


SALT RIVER BASIN

03302000 POND CREEK NEAR LOUISVILLE, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1944 - 1999	
ANNUAL TOTAL	33510.3		24437.5		90.7	
ANNUAL MEAN	91.8		67.0		159	
HIGHEST ANNUAL MEAN					11.4	
LOWEST ANNUAL MEAN					7200	
HIGHEST DAILY MEAN	1540	Apr 16	1810	Jun 29		Mar 2 1997
LOWEST DAILY MEAN	3.9	Oct 25	2.8	Aug 23	.10	Sep 3 1945
ANNUAL SEVEN-DAY MINIMUM	4.1	Oct 22	3.3	Aug 21	.19	Sep 17 1945
INSTANTANEOUS PEAK FLOW			3960	Jun 28	8020	Mar 9 1964
INSTANTANEOUS PEAK STAGE			19.72	Jun 28	25.74	Mar 2 1997
INSTANTANEOUS LOW FLOW					.10	Sep 3 1945
ANNUAL RUNOFF (CFSM)	1.43		1.05		1.42	
ANNUAL RUNOFF (INCHES)	19.48		14.20		19.25	
10 PERCENT EXCEEDS	181		123		190	
50 PERCENT EXCEEDS	30		17		26	
90 PERCENT EXCEEDS	6.1		4.8		5.7	

e Estimated



SALT RIVER BASIN

03302030 POND CREEK AT PENDELTON ROAD NEAR LOUISVILLE, KY

LOCATION.--Lat 38°03'15", long 85°52'18", Jefferson County, Hydrologic Unit 05140102, at bridge on Pendleton Road, 1.3 mi above Brier Creek and at mile 7.1.

DRAINAGE AREA.--80.3 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and crest-stage gage.

REMARKS.--Records good, except for periods of estimated discharge which are poor. No peaks above base will be published due to backwater conditions existing Jan. 23-29 from the Ohio River.

COOPERATION.--Field determinations were made in cooperation with Louisville and Jefferson County Metropolitan Sewer District personnel.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	e19	946	129	58	78	e11	134	29	4.6
2	---	---	---	81	228	89	48	56	e540	115	42	5.2
3	---	---	---	502	142	132	54	44	e96	95	28	5.4
4	---	---	13	99	105	109	68	37	e44	68	26	6.1
5	---	---	18	83	79	79	49	48	e30	57	26	6.2
6	---	---	18	56	69	479	108	864	e22	51	25	7.6
7	---	---	77	44	245	155	75	149	e17	48	23	8.7
8	---	---	112	1010	135	104	51	77	e14	43	24	10
9	---	---	73	2500	92	799	47	52	e13	41	57	12
10	---	---	37	183	75	294	40	40	e14	40	17	12
11	---	---	27	115	67	138	34	33	e16	39	9.9	12
12	---	---	21	123	144	100	30	27	e14	37	7.6	13
13	---	---	91	187	117	80	27	51	e13	36	6.5	14
14	---	---	76	271	83	374	26	e35	e88	34	4.2	16
15	---	---	40	124	72	342	42	e25	e39	32	11	17
16	---	---	30	93	63	e220	44	e21	e17	32	13	17
17	---	---	31	77	77	e150	31	e18	e14	31	8.2	17
18	---	---	26	96	64	e98	27	e85	e12	32	5.6	15
19	---	---	21	71	55	e80	25	e41	e11.5	31	13	16
20	---	---	25	72	49	58	25	e23	e11	40	31	21
21	---	---	89	271	42	55	23	e20	e11.5	32	9.0	28
22	---	---	657	862	39	49	20	e18	e12	29	6.1	33
23	---	---	92	e3000	39	355	19	e23	e14	28	4.9	30
24	---	---	58	1360	51	230	17	e76	e170	27	4.4	40
25	---	---	42	e900	45	99	14	e29	e62	26	4.6	49
26	---	---	34	e500	40	74	72	e18	e25	26	4.7	54
27	---	---	29	e350	55	59	64	e15	e73	27	4.6	58
28	---	---	27	e200	425	53	117	e14	e1700	27	4.8	67
29	---	---	25	e130	---	48	1180	e13	e2200	46	4.6	88
30	---	---	24	81	---	43	128	e12	e300	32	4.3	30
31	---	---	21	184	---	41	---	e11.5	---	28	3.9	---
TOTAL	---	---	---	13644	3643	5115	2563	2053.5	5604.0	1364	462.9	712.8
MEAN	---	---	---	440	130	165	85.4	66.2	187	44.0	14.9	23.8
MAX	---	---	---	3000	946	799	1180	864	2200	134	57	88
MIN	---	---	---	19	39	41	14	12	11	26	3.9	4.6

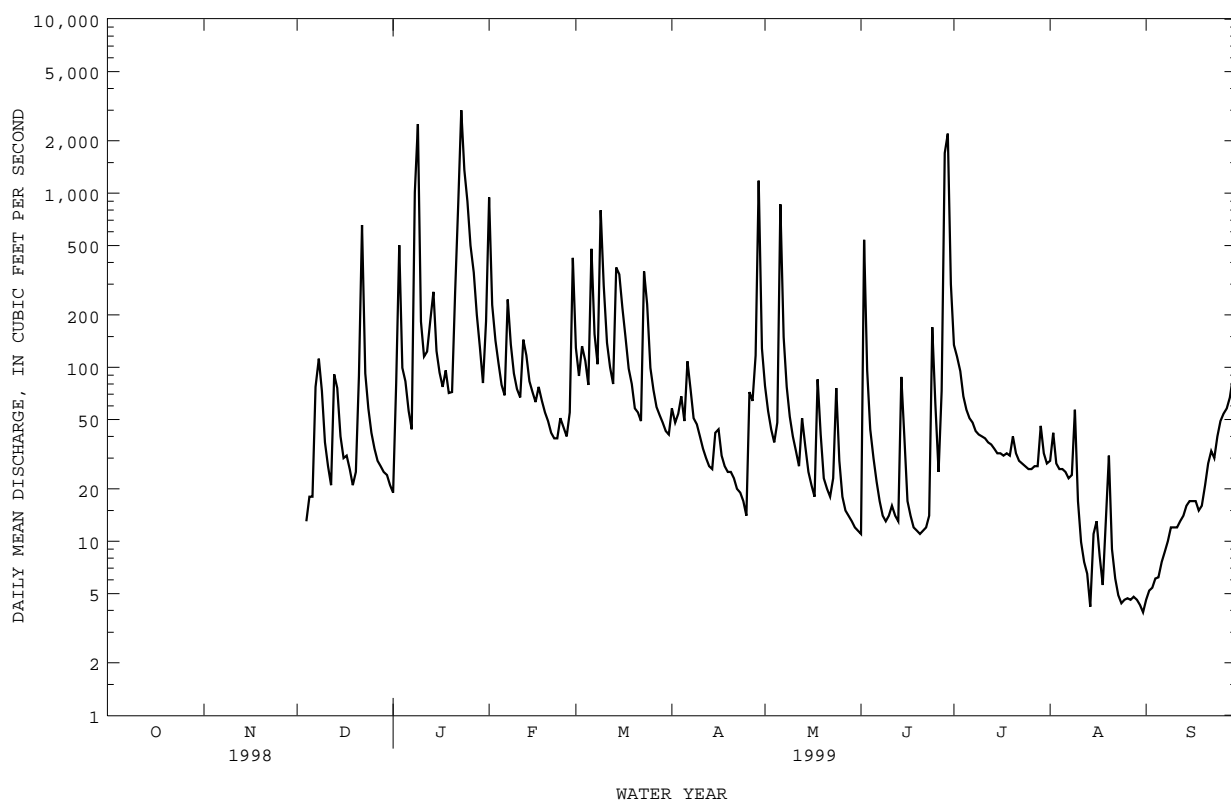
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 1999, BY WATER YEAR (WY)

	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	
MEAN	---	---	---	440	130	165	85.4	66.2	187	44.0	14.9	23.8
MAX	---	---	---	440	130	165	85.4	66.2	187	44.0	14.9	23.8
(WY)	---	---	---	1999	1999	1999	1999	1999	1999	1999	1999	1999
MIN	---	---	---	440	130	165	85.4	66.2	187	44.0	14.9	23.8
(WY)	---	---	---	1999	1999	1999	1999	1999	1999	1999	1999	1999

e Estimated

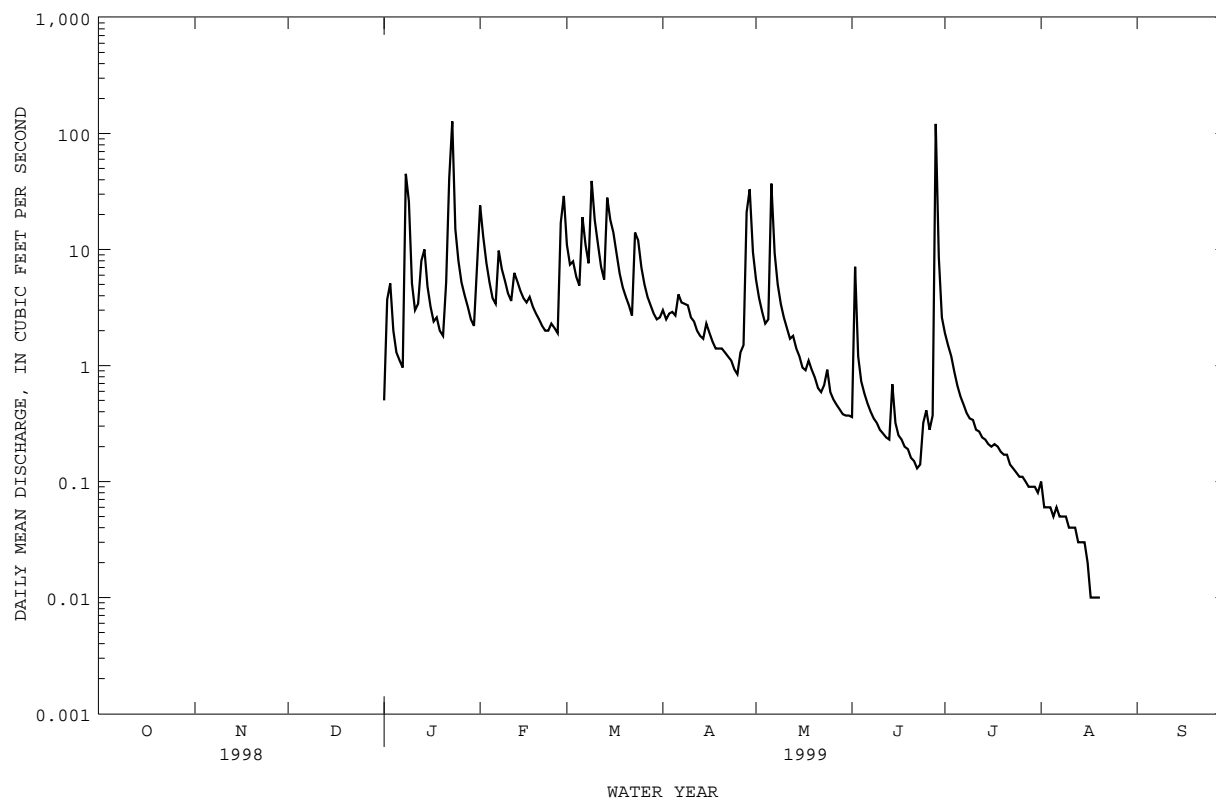
SALT RIVER BASIN

03302030 POND CREEK AT PENDELTON ROAD NEAR LOUISVILLE, KY--Continued



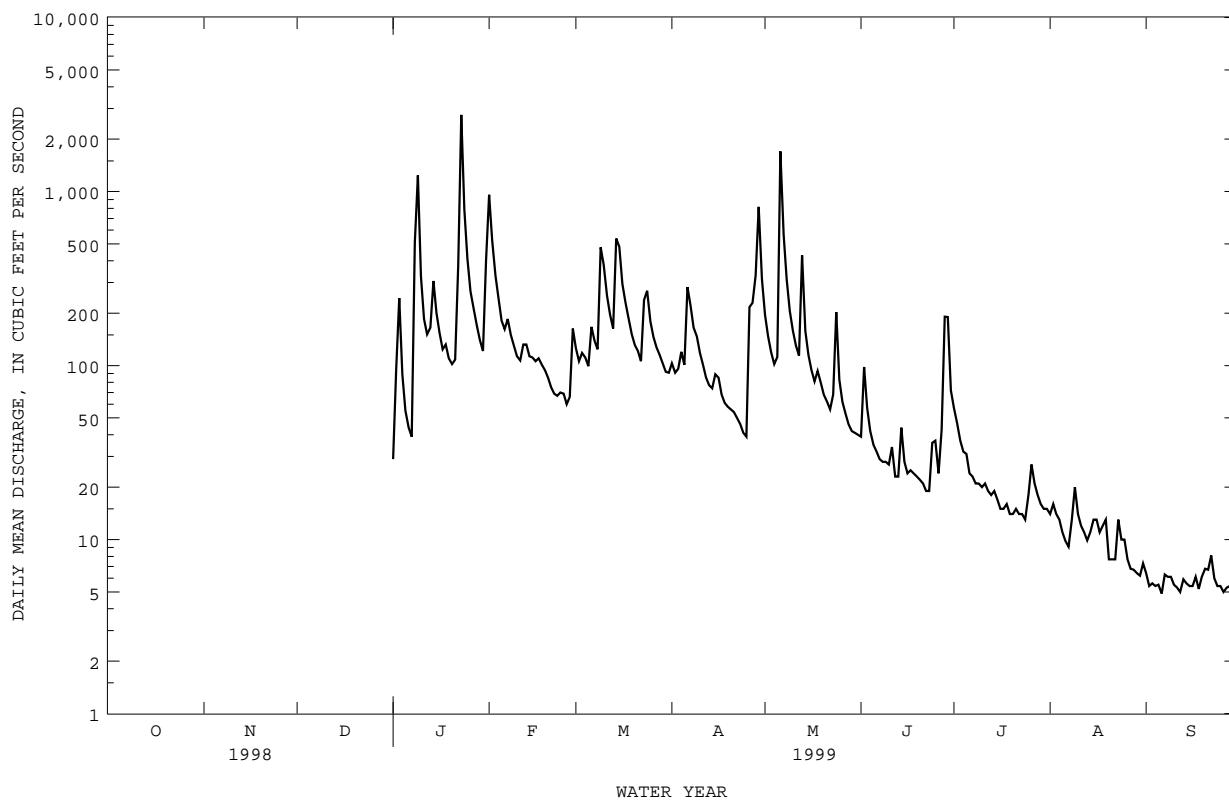
SALT RIVER BASIN

03302050 BRIER CREEK AT PENDLETON ROAD NEAR LOUISVILLE, KY--Continued



OTTER CREEK BASIN

03302110 OTTER CREEK AT OTTER CREEK PARK NEAR ROCK HAVEN, KY--Continued



OHIO RIVER MAIN STEM

03303280 OHIO RIVER AT CANNELTON DAM, KY

LOCATION.--Lat 37°53'58", long 86°42'20", Hancock County, Hydrologic Unit 05140201, at Cannelton Dam, 0.7 mi upstream from Indian Creek, 3.3 mi upstream from Lead Creek, and at mile 720.8.

DRAINAGE AREA.--97,000 mi², approximately.

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorders. Datum of headwater gage 0.4 mi upstream is 374.0 ft Ohio River datum. Datum of tailwater gage 0.4 mi downstream is 26.0 ft lower.

REMARKS.--Records poor. Daily discharge computed from head, gate openings, and lockages. Flow regulated by Ohio River system of locks, dams, and reservoirs upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26300	24000	26500	33000	266000	140000	96300	156000	36800	32400	10700	8920
2	e3850	27000	17100	39800	267000	167000	92100	145000	47700	21300	23800	e3920
3	21900	16700	23200	47700	260000	190000	92800	122000	34400	56300	27100	16100
4	27800	9130	20600	72000	237000	214000	97500	96400	37300	38200	18000	18900
5	11800	32900	22600	73900	217000	244000	94200	86000	35700	20500	e3700	e3600
6	25200	25000	6980	91200	204000	279000	103000	102000	28200	27200	14200	4090
7	19600	5630	32800	65200	195000	298000	98600	92200	23500	18800	21000	17700
8	22700	15300	28200	63300	223000	285000	99200	58900	22900	16100	4700	20000
9	56500	16400	36600	134000	236000	275000	92400	63000	31700	16700	28600	11200
10	56100	23700	38700	199000	231000	257000	103000	66200	33700	26000	17500	16700
11	40100	29400	42100	250000	235000	251000	110000	63800	7560	24500	5330	12200
12	37100	38900	46600	266000	237000	279000	131000	60900	e6500	13500	4010	13600
13	26700	21800	38400	254000	212000	267000	162000	63600	34900	4250	14500	10900
14	36000	24500	44000	233000	207000	236000	176000	48300	10900	27400	19900	e3850
15	8950	36000	36300	215000	187000	207000	176000	55500	41900	10900	16000	4270
16	27000	14200	59400	211000	173000	202000	172000	58500	14100	9680	17500	22700
17	21800	28300	56400	228000	158000	241000	160000	55200	24800	18300	6300	7530
18	8450	32100	41200	251000	146000	263000	153000	65700	18100	23000	14900	e3850
19	26300	26300	49600	272000	137000	268000	143000	39800	27000	8040	18300	22600
20	30500	11000	20500	276000	121000	263000	140000	70000	6630	9690	16800	5760
21	21700	16900	26300	275000	119000	253000	131000	84700	10400	24600	5440	12500
22	20800	49900	95900	301000	114000	252000	141000	76600	24700	5620	4250	22300
23	12700	10800	107000	383000	110000	240000	160000	46700	16400	26500	14700	6970
24	7380	18400	103000	420000	97300	213000	173000	65700	26400	8930	18200	e3600
25	28300	30900	112000	424000	83900	183000	172000	67300	10600	17100	27400	3830
26	29600	24000	94800	416000	76500	173000	179000	75400	12200	20900	56100	11800
27	16200	36500	65500	409000	74600	161000	183000	101000	17300	16400	39300	18900
28	7840	18800	40100	404000	105000	141000	186000	98500	45000	6850	23500	e3600
29	23500	21300	46300	396000	---	127000	184000	78600	74600	36800	24900	10800
30	18900	44700	44600	372000	---	111000	166000	56600	34800	48300	25100	26100
31	13000	---	37300	271000	---	103000	---	46900	---	34700	12400	---
TOTAL	734570	730460	1460580	7346100	4929300	6783000	4167100	2367000	796690	669460	554130	348790
MEAN	23700	24350	47120	237000	176000	218800	138900	76350	26560	21600	17880	11630
MAX	56500	49900	112000	424000	267000	298000	186000	156000	74600	56300	56100	26100
MIN	3850	5630	6980	33000	74600	103000	92100	39800	6500	4250	3700	3600

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1999, BY WATER YEAR (WY)

MEAN	57780	93240	157200	172100	204300	241000	202000	162700	105900	67020	52660	42530
MAX	155800	222400	334000	368700	358600	443300	360400	415100	235400	125500	148200	186600
(WY)	1980	1986	1979	1991	1994	1997	1994	1996	1981	1998	1980	1979
MIN	13980	24350	47120	36500	94740	125500	72990	46020	16490	18760	13130	11630
(WY)	1992	1999	1999	1977	1992	1983	1986	1976	1988	1988	1988	1999

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1976 - 1999

ANNUAL TOTAL	48227030	30887180	
ANNUAL MEAN	132100	84620	129500
HIGHEST ANNUAL MEAN			188900
LOWEST ANNUAL MEAN			72150
HIGHEST DAILY MEAN	429000	Apr 25	735000
LOWEST DAILY MEAN	3850	Oct 2	3180
ANNUAL SEVEN-DAY MINIMUM	15700	Sep 13	7650
INSTANTANEOUS PEAK FLOW			426000
INSTANTANEOUS PEAK STAGE			29.34
10 PERCENT EXCEEDS	314000		238000
50 PERCENT EXCEEDS	99400		38200
90 PERCENT EXCEEDS	18200		9460
			284000
			92700
			22400

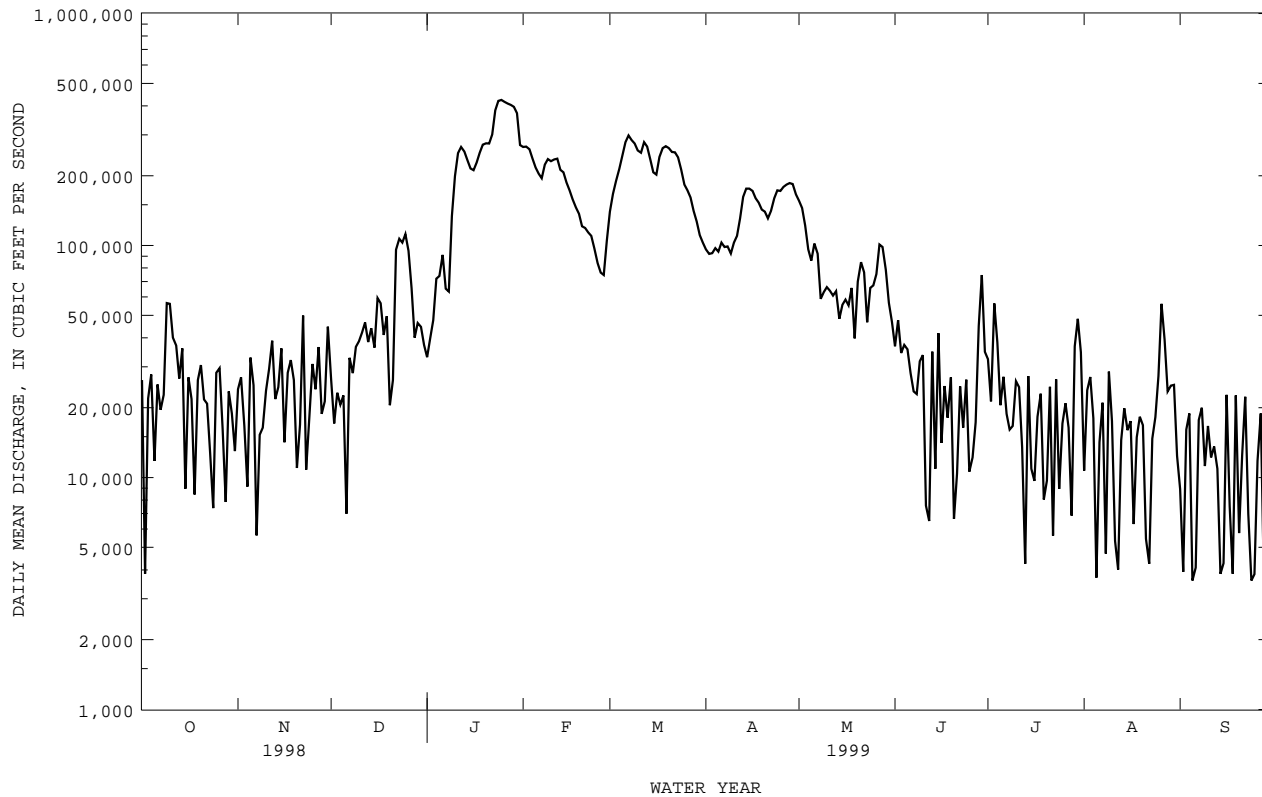
e Estimated

OHIO RIVER MAIN STEM

03303280 OHIO RIVER AT CANNELTON DAM, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1976 - 1999	
ANNUAL TOTAL	48227030		30887180		129500	
ANNUAL MEAN	132100		84620		188900	
HIGHEST ANNUAL MEAN					72150	
LOWEST ANNUAL MEAN					1979	
HIGHEST DAILY MEAN	429000	Apr 25	424000	Jan 25	735000	Mar 8 1997
LOWEST DAILY MEAN	3850	Oct 2	3600	Sep 5	3180	Aug 28 1995
ANNUAL SEVEN-DAY MINIMUM	15700	Sep 13	8500	Sep 23	7650	Jul 12 1988
INSTANTANEOUS PEAK FLOW			426000	Jan 25	736000	Mar 8 1997
INSTANTANEOUS PEAK STAGE			29.34	Jan 25	52.42	Mar 8 1997
10 PERCENT EXCEEDS	314000		238000		284000	
50 PERCENT EXCEEDS	99400		38200		92700	
90 PERCENT EXCEEDS	18200		9460		22400	

e Estimated



OHIO RIVER MAIN STEM

03303280 OHIO RIVER AT CANNELTON DAM, KY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	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)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, TOTAL (MG/L AS N) (00600)
NOV 23...	48	16	42	4.6	117	96	48	100	.48	2.1	345	1.7
DEC 21...	50	16	42	4.1	115	95	48	110	.31	2.6	356	1.7
JAN 13...	45	12	36	3.1	94	77	52	84	.22	3.8	317	3.2
13...	<.002	<.001	<.025	--	--	--	--	--	--	<.020	--	--
MAR 15...	33	8.6	14	2.3	76	62	20	47	.14	5.5	187	1.9
15...	33	8.6	14	2.0	--	--	21	47	.12	5.5	189	2.0
APR 05...	35	9.8	18	1.8	78	64	25	55	.11	4.8	208	1.3
21...	36	10	19	1.9	67	55	24	68	.13	3.7	209	1.4
21...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 04...	36	10	16	2.1	86	71	21	57	.14	5.1	208	1.7
19...	37	11	17	2.1	83	68	20	62	.15	4.5	229	1.7
19...	.004	.001	<.025	--	--	--	--	--	--	<.020	--	--
JUN 10...	35	11	21	2.4	78	64	24	68	.14	2.0	232	1.2
29...	35	11	23	2.5	73	60	28	72	.20	.97	242	1.0
29...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 04...	40	14	30	3.3	--	--	39	86	.24	2.0	276	1.5
25...	40	15	30	3.4	--	--	39	91	.28	1.6	281	1.1
25...	41	16	31	3.2	--	--	40	91	.27	1.6	285	1.1
SEP 13...	.004	<.001	<.025	--	--	--	--	--	--	<.020	--	--

DATE	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	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, NITRATE DIS- SOLVED (MG/L AS N) (00618)	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- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)
NOV 23...	1.7	.32	.31	.025	1.26	.160	1.24	.47	.48	.052	.045	.06
DEC 21...	2.0	.26	.52	.020	1.27	.158	1.25	.68	.42	.077	.077	.22
JAN 13...	2.0	1.5	.30	.019	1.52	.180	1.51	.48	1.7	.853	.051	.17
13...	--	--	--	<.001	.006	<.002	--	--	--	--	--	--
MAR 15...	1.6	.50	.17	.011	1.38	.050	1.37	.22	.55	.146	.029	.02
15...	1.6	.52	.19	.013	1.40	.040	1.38	.23	.56	.144	.029	.06
APR 05...	1.3	.21	.17	.014	1.04	.047	1.02	.21	.25	.037	.022	.02
21...	1.2	--	--	.029	1.02	<.020	.994	.15	.33	.082	.024	.06
21...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 04...	1.6	.25	.15	.024	1.36	.053	1.34	.20	.31	.060	.032	.06
19...	1.4	.43	.19	.013	1.18	.047	1.16	.24	.48	.035	.021	.05
19...	--	--	--	.017	1.13	.024	1.12	--	--	--	--	.05
JUN 10...	1.2	.24	.18	.039	.945	.040	.906	.22	.28	.037	.014	.03
29...	.97	.26	.22	.031	.706	.043	.675	.26	.30	.025	.007	--
29...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 04...	1.1	.62	.21	.048	.861	.051	.813	.26	.67	.019	.008	.00
25...	1.0	.34	.27	.093	.682	.058	.589	.33	.39	.020	.010	.00
25...	1.0	.36	.28	.095	.683	.060	.588	.34	.42	.022	.011	.00
SEP 13...	--	--	--	<.001	<.005	<.002	--	--	--	--	--	--

OHIO RIVER MAIN STEM

03303280 OHIO RIVER AT CANNELTON DAM, KY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	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- 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)	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)
NOV												
23...	.21	5.5	.08	.020	--	--	2	--	--	104	--	--
DEC												
21...	.20	5.5	.07	.073	6.5	<1.0	1	58	<1.0	98	<1.0	4.3
JAN												
13...	.23	6.7	.06	.056	5.6	<1.0	<1	43	<1.0	52	<1.0	<1.0
13...	--	--	--	<.001	<.30	<.20	--	<.20	<.20	<2.0	<.30	<.20
MAR												
15...	.06	6.1	.04	.008	--	--	<1	--	--	24	--	--
15...	.05	6.1	.04	.020	--	--	<1	--	--	21	--	--
APR												
05...	.06	4.5	.05	.008	11	<1.0	<1	37	<1.0	34	<1.0	<1.0
21...	--	4.4	.10	.018	--	--	<1	--	--	42	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
04...	.07	5.9	.08	.021	--	--	<1	--	--	33	--	--
19...	.06	5.2	.04	.015	--	--	1	--	--	40	--	--
19...	.03	4.9	.06	.015	.66	<.20	--	<.20	<.20	<2.0	<.30	<.20
JUN												
10...	.05	4.0	.13	.009	5.1	<1.0	<1	44	<1.0	48	<1.0	<1.0
29...	.06	3.0	.10	<.001	--	--	<1	--	--	64	--	--
29...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
04...	.07	3.6	.16	.001	8.0	<1.0	<1	53	<1.0	92	<1.0	<1.0
25...	.07	2.6	.31	.001	--	--	2	--	--	100	--	--
25...	.08	2.6	.31	.001	--	--	1	--	--	103	--	--
SEP												
13...	--	--	--	<.001	<.30	<.20	--	<.20	<.20	<2.0	<.30	<.20

DATE	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)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	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)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	THAL- LIUM, DIS- SOLVED (UG/L AS TL) (01057)
NOV												
23...	--	--	<10	--	14	--	--	--	<1	--	331	--
DEC												
21...	<1.0	2.6	<10	<1.0	11	13	7.8	3.6	<1	<1.0	342	--
JAN												
13...	<1.0	2.2	E8.5	<1.0	8	3.6	3.6	2.3	<1	<1.0	249	--
13...	<.20	<.20	<3.0	<.30	--	<.10	<.20	<.50	--	<.20	<.10	<.10
MAR												
15...	--	--	12	--	E3	--	--	--	<1	--	179	--
15...	--	--	E9.2	--	<6	--	--	--	<1	--	179	--
APR												
05...	<1.0	1.4	E9.6	<1.0	E5	7.6	1.9	2.2	<1	<1.0	195	--
21...	--	--	E7.1	--	13	--	--	--	<1	--	217	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
04...	--	--	E8.6	--	E6	--	--	--	1	--	210	--
19...	--	--	<10	--	7	--	--	--	<1	--	223	--
19...	<.20	<.20	<3.0	<.30	--	<.10	<.20	<.50	--	<.20	<.10	<.10
JUN												
10...	<1.0	1.7	<10	<1.0	6	<1.0	3.3	1.6	<1	<1.0	239	--
29...	--	--	<10	--	8	--	--	--	<1	--	232	--
29...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
04...	<1.0	2.0	<10	<1.0	11	<1.0	7.2	2.7	<1	<1.0	276	--
25...	--	--	<10	--	12	--	--	--	1	--	324	--
25...	--	--	<10	--	13	--	--	--	1	--	332	--
SEP												
13...	<.20	<.20	<3.0	<.30	--	<.10	<.20	<.50	--	<.20	<.10	<.10

GREEN RIVER BASIN

03307000 RUSSELL CREEK NEAR COLUMBIA, KY

LOCATION.--Lat 37°07'09", long 85°23'38", Adair County, Hydrologic Unit 05110001, on left bank at downstream side of bridge on State Highway 61, 0.3 mi upstream from Butlers Fork, 5.0 mi west of Columbia, and at mile 26.9. Records include flow of Butlers Fork.

DRAINAGE AREA.--188 mi² (includes Butlers Fork), of which about 15 mi² does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1939 to current year. Prior to December 1939, monthly discharge only, published in WSP 1305.

REVISED RECORDS.--WSP 1275: 1940. WSP 1335: 1953. WSP 1555: Drainage area. WRD KY-75-1: 1949(M), 1952(M), 1955(M), 1962(M), 1967(M), 1974(M).

GAGE.--Water-stage recorder. Datum of gage is 610.96 ft above sea level. Prior to June 25, 1953, nonrecording gage at same site and datum.

REMARKS.--Records fair.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in Jan. 1937 reached a stage of about 23 ft, from info. by local residents.

PEAKS ABOVE BASE.--Peak discharges above base of 4,500 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 9	1100	*9430	17.54	Jan. 23	1600	5790	14.93

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	20	26	105	1570	669	106	236	38	130	14	7.9
2	12	19	38	153	1030	481	107	163	41	90	13	6.7
3	18	20	35	1000	755	1420	99	126	50	80	12	5.9
4	22	20	27	515	575	1090	124	104	50	69	12	5.4
5	27	19	44	295	422	757	112	377	42	64	10	5.3
6	25	20	173	218	354	823	113	1550	81	59	9.3	4.9
7	22	20	100	180	334	738	110	711	67	57	8.1	4.3
8	28	21	541	1460	318	568	93	376	50	45	7.4	3.9
9	50	22	430	6930	262	624	148	236	42	41	6.8	3.7
10	31	26	152	1310	236	609	217	172	38	38	6.6	3.5
11	25	41	87	817	213	483	147	135	75	36	9.0	2.9
12	21	53	80	621	772	396	119	111	69	34	12	3.3
13	19	30	693	474	876	347	101	109	53	32	11	3.5
14	18	22	471	628	604	1700	94	107	148	31	9.6	4.0
15	17	20	206	702	470	1600	153	90	153	30	8.6	4.0
16	17	18	128	558	388	785	239	80	73	28	8.0	4.5
17	16	17	98	445	432	512	158	71	59	27	7.1	4.1
18	16	17	82	812	457	381	122	65	49	26	6.3	3.5
19	15	16	67	664	370	285	106	64	42	24	5.2	3.5
20	15	17	68	508	306	231	101	62	38	23	5.1	5.7
21	18	20	69	412	255	206	95	56	36	24	4.9	6.8
22	20	20	694	370	220	173	87	52	34	24	4.6	9.7
23	18	21	437	4170	202	147	79	49	32	23	4.9	13
24	17	19	253	1610	205	160	77	60	34	22	10	9.3
25	17	18	167	880	194	156	72	83	161	21	94	7.5
26	18	20	133	650	179	129	79	57	107	20	62	5.8
27	18	22	124	510	208	113	142	48	71	19	33	5.6
28	18	24	124	409	865	102	273	44	200	17	20	5.2
29	17	21	146	331	---	94	850	40	710	16	14	7.3
30	17	19	142	272	---	86	421	38	280	15	11	8.2
31	19	---	122	379	---	83	---	38	---	15	9.1	---
TOTAL	624	662	5957	28388	13072	15948	4744	5510	2923	1180	448.6	168.9
MEAN	20.1	22.1	192	916	467	514	158	178	97.4	38.1	14.5	5.63
MAX	50	53	694	6930	1570	1700	850	1550	710	130	94	13
MIN	12	16	26	105	179	83	72	38	32	15	4.6	2.9
CFSM	.12	.13	1.11	5.29	2.70	2.97	.91	1.03	.56	.22	.08	.03
IN.	.13	.14	1.28	6.10	2.81	3.43	1.02	1.18	.63	.25	.10	.04

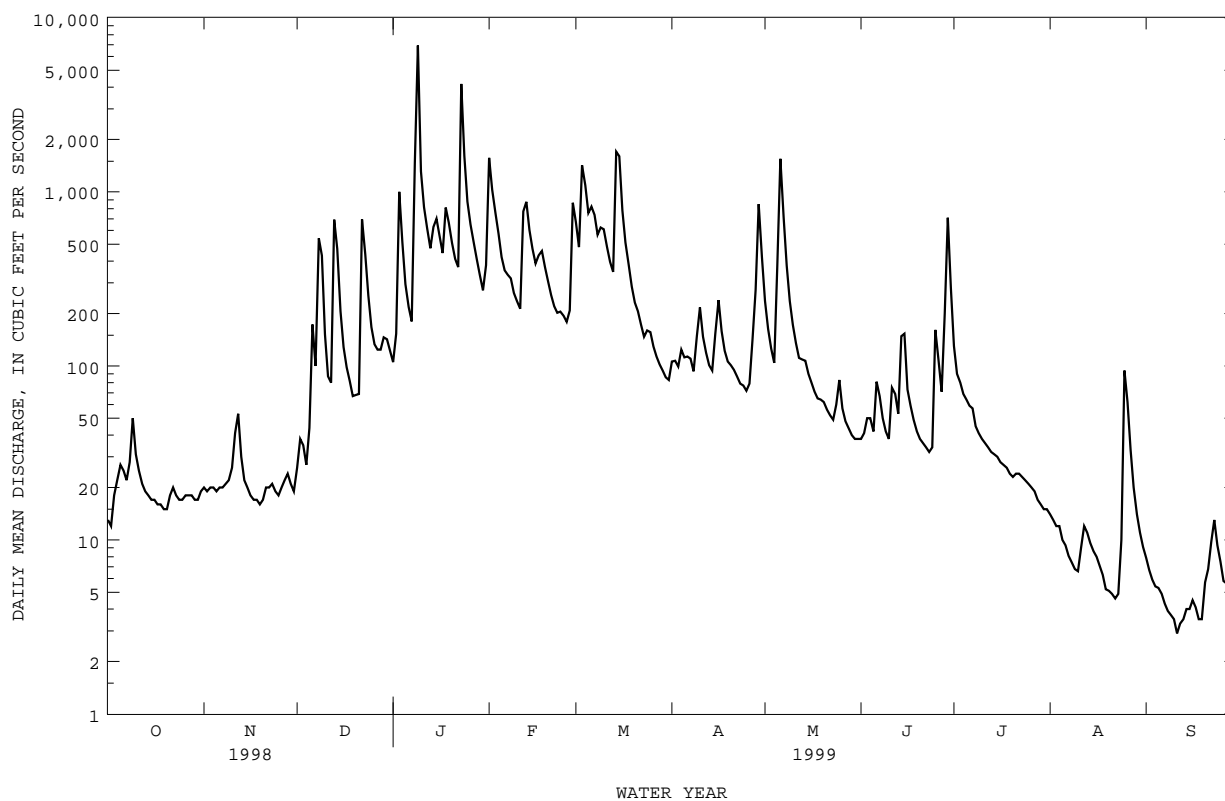
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1999, BY WATER YEAR (WY)

	73.8	203	408	485	566	585	394	280	198	128	87.8	107
MEAN	73.8	203	408	485	566	585	394	280	198	128	87.8	107
MAX	636	1047	2540	1779	1490	1787	856	1464	800	751	502	1114
(WY)	1976	1952	1979	1950	1956	1975	1972	1983	1950	1967	1967	1979
MIN	1.38	8.92	18.6	26.5	61.1	91.0	70.1	39.8	14.6	10.0	4.25	2.09
(WY)	1954	1954	1954	1981	1941	1941	1986	1941	1988	1944	1991	1953

GREEN RIVER BASIN

03307000 RUSSELL CREEK NEAR COLUMBIA, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1940 - 1999	
ANNUAL TOTAL	107619		79625.5			
ANNUAL MEAN	295		218		292	
HIGHEST ANNUAL MEAN					651	
LOWEST ANNUAL MEAN					118	
HIGHEST DAILY MEAN	5310	Jun 1	6930	Jan 9	25000	Dec 9 1978
LOWEST DAILY MEAN	12	Sep 16	2.9	Sep 11	.40	Sep 25 1952
ANNUAL SEVEN-DAY MINIMUM	13	Sep 12	3.5	Sep 8	.47	Oct 19 1953
INSTANTANEOUS PEAK FLOW			9410		40600	Sep 1 1982
INSTANTANEOUS PEAK STAGE			17.53		26.12	Sep 1 1982
INSTANTANEOUS LOW FLOW					5.7	Sep 2 1993
ANNUAL RUNOFF (CFSM)	1.70		1.26		1.69	
ANNUAL RUNOFF (INCHES)	23.14		17.12		22.91	
10 PERCENT EXCEEDS	693		614		634	
50 PERCENT EXCEEDS	124		65		102	
90 PERCENT EXCEEDS	18		8.0		15	

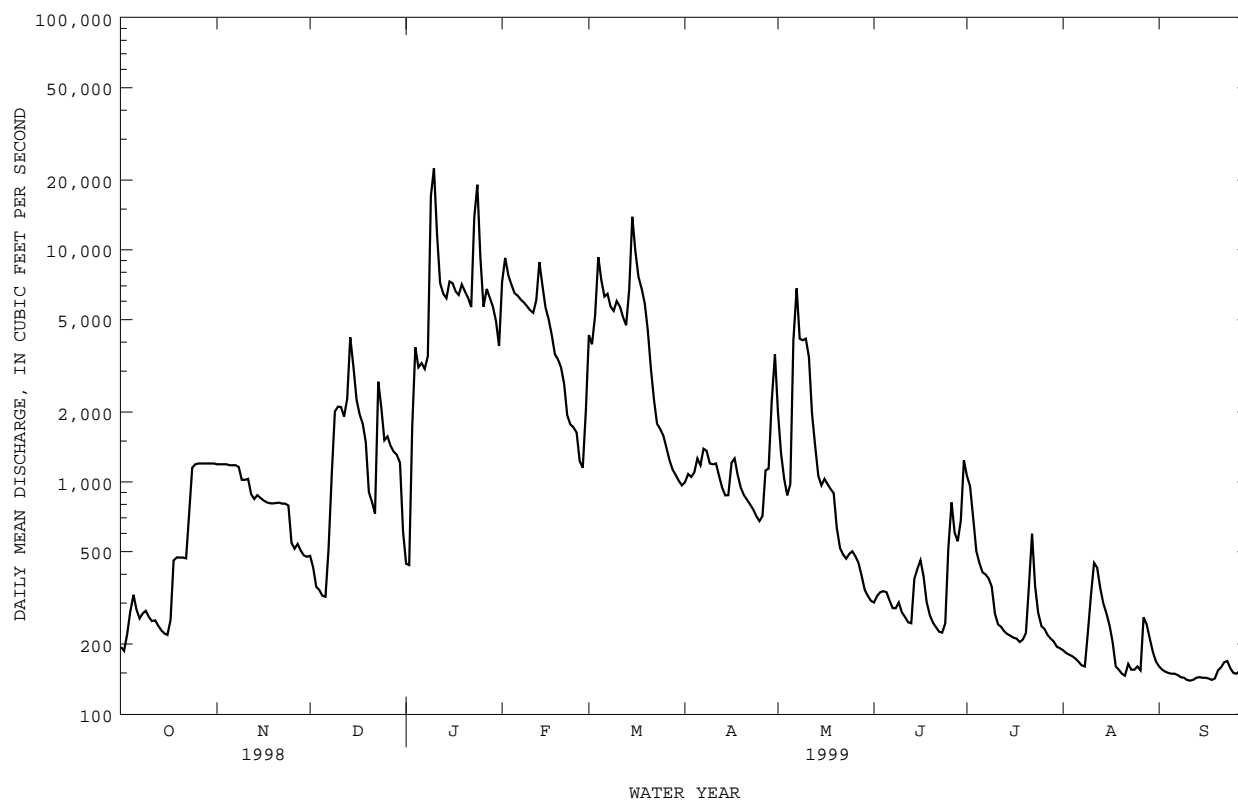


GREEN RIVER BASIN

03308500 GREEN RIVER AT MUNFORDVILLE, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1970 - 1999	
ANNUAL TOTAL	1296965		705052			
ANNUAL MEAN	3553		1932		2965	
HIGHEST ANNUAL MEAN					5285	
LOWEST ANNUAL MEAN					1348	
HIGHEST DAILY MEAN	20200	Jan 8	22500	Jan 10	62800	May 8 1984
LOWEST DAILY MEAN	187	Sep 16	139	Sep 11	139	Sep 11 1999
ANNUAL SEVEN-DAY MINIMUM	189	Sep 10	142	Sep 9	142	Sep 9 1999
INSTANTANEOUS PEAK FLOW			23200		76800	Mar 1 1962
INSTANTANEOUS PEAK STAGE			29.16		57.72	Mar 1 1962
INSTANTANEOUS LOW FLOW					157	Jul 8 1988
10 PERCENT EXCEEDS	8360		6140		7040	
50 PERCENT EXCEEDS	2030		815		1540	
90 PERCENT EXCEEDS	231		165		282	

e Estimated



GREEN RIVER BASIN

03310300 NOLIN RIVER AT WHITE MILLS, KY

LOCATION.--Lat 37°33'03", long 86°02'43", Hardin County, Hydrologic Unit 05110001, on right bank, 0.8 mi southwest of White Mills, 1.6 mi downstream from bridge on State Highway 84, and at mile 78.7.

DRAINAGE AREA.--357 mi², of which about 120 mi² does not contribute directly to surface runoff.

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

GAGE.--Water-stage recorder. Datum of gage is 583.08 ft above sea level. Prior to Jan. 8, 1960, nonrecording gage at same site and datum.

REMARKS.--Records fair except for those estimated which are poor.

PEAKS ABOVE BASE.--Peak discharges above base of 2,500 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 8	0515	*3090	11.73

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	91	71	95	e258	616	346	400	138	159	54	35
2	55	145	60	90	e458	530	339	325	158	138	55	35
3	51	104	59	89	e345	522	318	294	153	127	53	35
4	48	89	106	90	e179	551	409	271	139	e118	53	35
5	44	80	79	95	e119	488	360	309	130	e110	50	35
6	43	78	69	150	e90	506	549	989	123	e102	48	34
7	42	87	65	835	e165	539	569	740	119	97	e55	33
8	40	78	63	2550	e330	483	471	535	115	90	e63	33
9	40	72	80	754	e690	609	423	434	112	86	e69	33
10	39	68	98	420	553	783	378	380	114	86	70	32
11	39	65	95	338	542	680	335	336	123	89	65	33
12	39	63	82	292	601	611	304	304	108	e87	57	33
13	38	81	75	260	702	567	282	362	100	e84	53	32
14	37	89	71	237	624	891	276	349	111	e80	49	32
15	34	78	66	324	574	1740	294	293	152	74	e48	32
16	30	71	63	394	545	1150	307	259	e105	71	e47	32
17	31	66	62	315	556	915	270	247	e88	69	e46	32
18	30	63	59	267	525	759	244	227	e95	67	46	32
19	42	61	57	251	487	655	229	215	e92	65	44	31
20	32	59	55	235	448	582	220	201	91	65	44	45
21	29	61	55	230	403	541	219	188	88	e67	42	46
22	29	91	106	270	367	493	216	179	87	e74	40	42
23	27	71	85	377	347	455	206	172	86	e84	40	40
24	41	64	161	284	346	547	199	253	95	e105	40	37
25	88	60	224	245	339	483	188	207	e470	136	40	35
26	489	59	142	230	321	421	288	176	e795	93	39	35
27	442	58	175	e198	316	390	481	160	e450	77	40	35
28	188	55	152	e162	586	374	347	151	157	69	41	36
29	131	54	128	e132	---	345	1230	144	247	64	41	46
30	105	64	117	e90	---	324	509	138	200	e61	39	43
31	90	---	107	e69	---	312	---	135	---	e57	36	---
TOTAL	2477	2225	2887	10368	11816	18862	10806	9373	5041	2751	1507	1069
MEAN	79.9	74.2	93.1	334	422	608	360	302	168	88.7	48.6	35.6
MAX	489	145	224	2550	702	1740	1230	989	795	159	70	46
MIN	27	54	55	69	90	312	188	135	86	57	36	31
CFSM	.34	.31	.39	1.41	1.78	2.57	1.52	1.28	.71	.37	.21	.15
IN.	.39	.35	.45	1.63	1.85	2.96	1.70	1.47	.79	.43	.24	.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1999, BY WATER YEAR (WY)

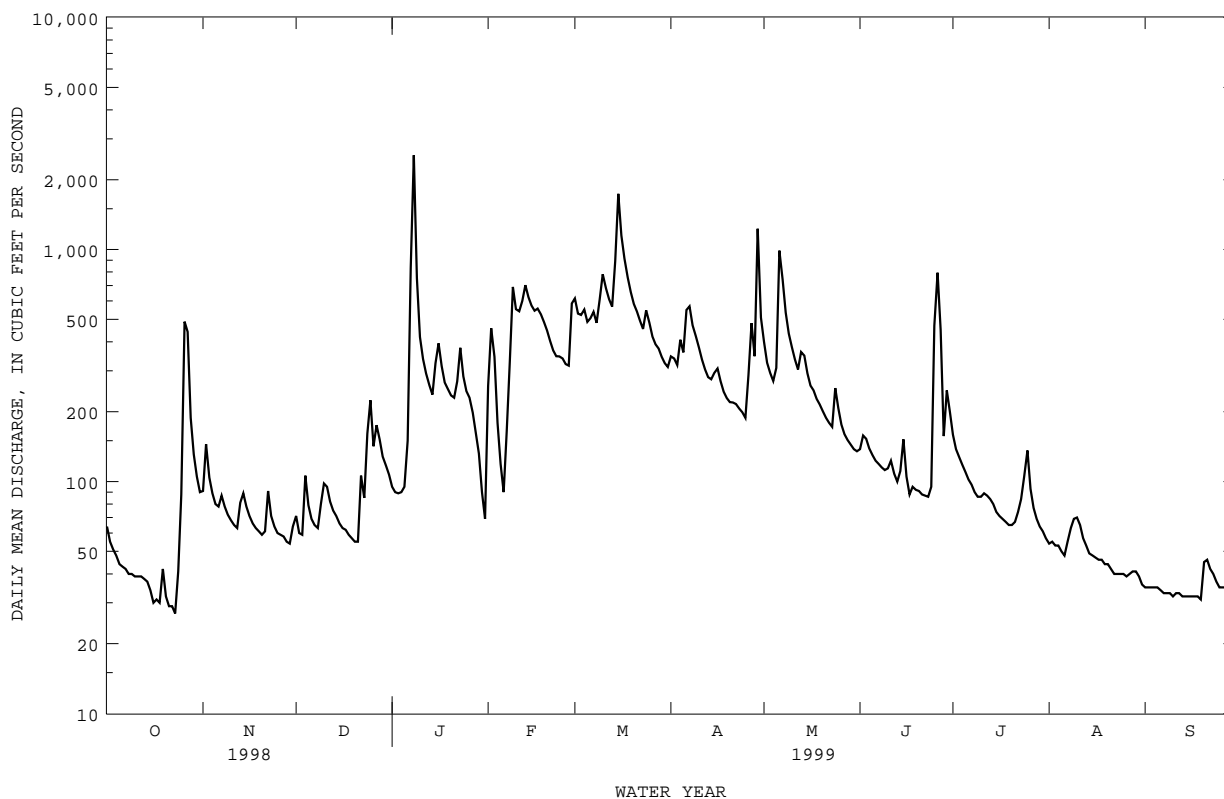
MEAN	153	284	622	686	879	997	755	586	350	244	170	196
MAX	692	1206	2356	1603	3807	3353	2447	2715	1630	972	966	2258
(WY)	1978	1989	1979	1974	1989	1997	1972	1983	1997	1967	1967	1979
MIN	37.0	48.6	44.7	55.5	156	228	200	131	71.9	83.2	48.6	35.6
(WY)	1970	1964	1964	1981	1964	1983	1986	1976	1988	1994	1999	1999

GREEN RIVER BASIN

03310300 NOLIN RIVER AT WHITE MILLS, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1960 - 1999	
ANNUAL TOTAL	171157		79182			
ANNUAL MEAN	469		217		492	
HIGHEST ANNUAL MEAN					971	
LOWEST ANNUAL MEAN					217	
HIGHEST DAILY MEAN	4020		2550		20000	
LOWEST DAILY MEAN	27		27		27	
ANNUAL SEVEN-DAY MINIMUM	31		31		31	
INSTANTANEOUS PEAK FLOW			3090		24500	
INSTANTANEOUS PEAK STAGE			11.73		36.46	
INSTANTANEOUS LOW FLOW					31	
ANNUAL RUNOFF (CFSM)	1.98		.92		2.07	
ANNUAL RUNOFF (INCHES)	26.87		12.43		28.19	
10 PERCENT EXCEEDS	1110		537		1060	
50 PERCENT EXCEEDS	285		106		242	
90 PERCENT EXCEEDS	58		39		60	

e Estimated



GREEN RIVER BASIN

03311000 NOLIN RIVER AT KYROCK, KY

LOCATION.--Lat 37°16'42", long 86°14'51", Edmonson County, Hydrologic Unit 05110001, in intake structure of Nolin River Dam on Nolin River, 0.3 mi upstream from Dismal Creek, 1.1 mi northeast of Kyrock, and at mile 7.8.

DRAINAGE AREA.--703 mi², of which about 223 mi² does not contribute directly to surface runoff. Area at site used Oct. 1, 1960, to Sept. 30, 1973, 707 mi².

PERIOD OF RECORD.--October 1930 to March 1932, July 1939 to September 1950, October 1960 to current year.

GAGE.--Water-stage recorder and outflow gate dials. Datum of gage 400 ft above sea level. See WDR KY-90-1 for history of changes prior to Sept. 30, 1973.

REMARKS.--Water-discharge records not rated, see COOPERATION. Maximum gage height for period of record affected by backwater from the Green River. Flow regulated since March 1963 by Nolin Lake (station 03310900). Discharge records computed using gate openings.

COOPERATION.--Record of discharge furnished by U.S. Army Corps of Engineers.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since 1854, 26.35 ft, in January 1937, from floodmarks, at site and datum used in 1939-50.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	264	1050	478	196	2640	480	77	49	52	160	52	52
2	264	1050	325	197	3190	792	77	49	52	267	52	52
3	265	1040	197	199	3190	1160	78	50	52	267	52	52
4	265	1040	149	542	3930	1410	78	50	52	267	52	52
5	265	1030	126	945	4230	1410	79	50	52	267	52	52
6	265	1030	126	943	4190	1410	79	50	52	267	52	52
7	398	1030	127	940	4150	1400	80	50	52	267	52	52
8	530	1020	128	941	4110	1120	80	50	52	267	52	52
9	530	1020	178	470	4070	939	80	51	52	234	52	52
10	529	1010	385	218	4020	941	81	51	52	168	52	52
11	528	1010	481	224	3970	943	81	51	52	168	52	52
12	528	1010	481	594	3920	944	81	51	52	168	52	52
13	527	1000	482	1010	3860	945	81	51	52	168	52	52
14	526	998	482	2170	3180	950	82	51	52	168	52	52
15	888	994	805	2980	2600	482	82	51	52	168	52	134
16	1100	990	948	2960	1520	245	82	51	52	124	52	168
17	1100	986	944	2930	940	247	82	51	52	90	52	168
18	1100	982	786	1290	939	495	82	51	52	90	52	168
19	1090	977	477	347	939	989	82	51	52	90	52	168
20	1090	973	325	246	842	989	83	51	52	90	52	168
21	1090	969	196	246	707	989	83	51	52	90	52	168
22	1090	965	197	247	707	988	63	51	52	77	52	168
23	1080	960	198	254	554	484	48	51	52	52	52	168
24	1080	956	385	260	476	219	48	51	52	52	52	167
25	1080	642	477	264	477	105	48	51	52	52	52	167
26	1070	481	477	777	477	108	48	51	52	52	52	167
27	1070	480	301	1780	477	142	49	51	52	52	52	167
28	1060	480	196	2880	478	142	49	51	52	52	52	167
29	1060	479	196	3190	---	99	49	51	52	52	52	167
30	1060	479	196	3180	---	77	49	51	52	52	52	167
31	1050	---	196	2450	---	77	---	52	---	52	52	---
TOTAL	23842	27131	11445	35870	64783	21721	2141	1572	1560	4390	1612	3375
MEAN	769	904	369	1157	2314	701	71.4	50.7	52.0	142	52.0	112
MAX	1100	1050	948	3190	4230	1410	83	52	52	267	52	168
MIN	264	479	126	196	476	77	48	49	52	52	52	52

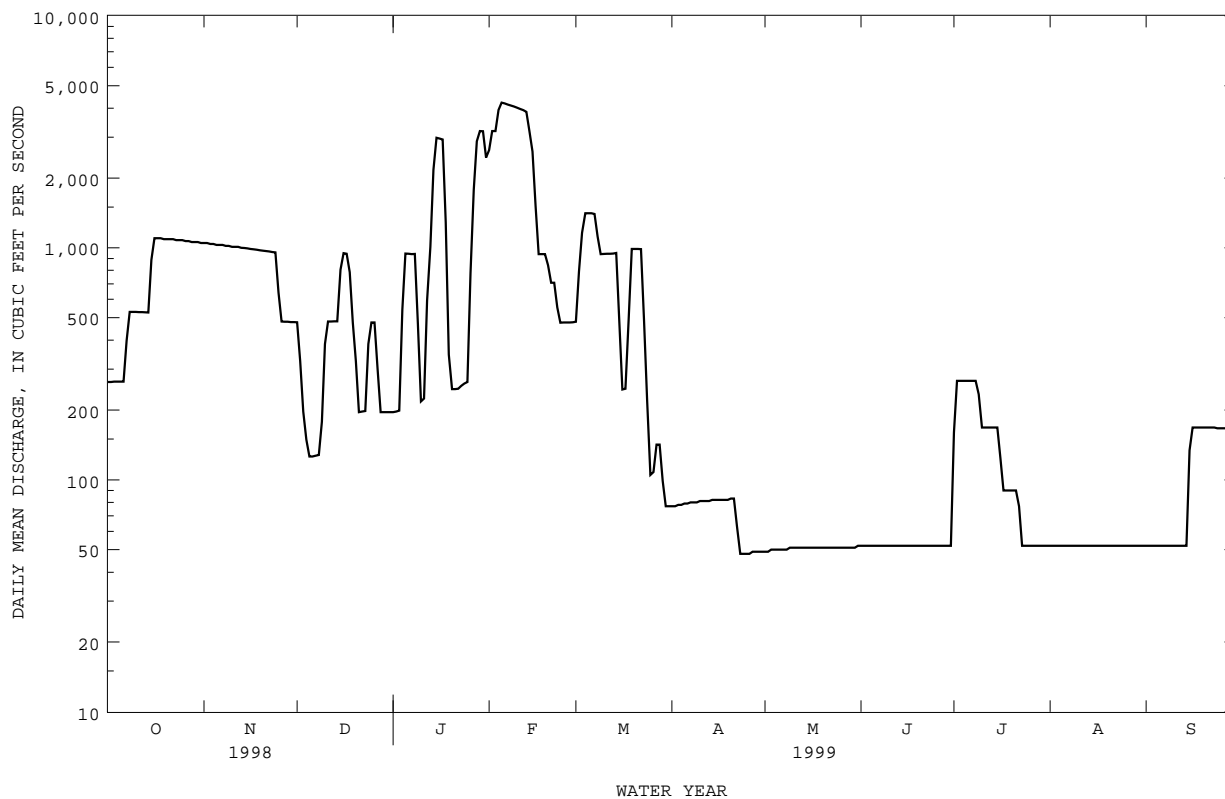
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1999, BY WATER YEAR (WY)

	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
MEAN	921	1339	1239	1549	1633	1229	883	1070	860	513	286	508
MAX	4959	3393	4491	4852	4541	5533	4777	4161	4437	2009	1335	2266
(WY)	1980	1973	1978	1979	1985	1989	1975	1984	1983	1967	1967	1982
MIN	.000	452	1.50	122	91.4	203	.63	.39	.000	.000	.000	.000
(WY)	1976	1964	1985	1981	1992	1983	1966	1964	1964	1964	1964	1975

GREEN RIVER BASIN

03311000 NOLIN RIVER AT KYROCK, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1964 - 1999	
ANNUAL TOTAL	295438		199442			
ANNUAL MEAN	809		546		999	
HIGHEST ANNUAL MEAN					1880 1989	
LOWEST ANNUAL MEAN					546 1999	
HIGHEST DAILY MEAN	4010	Jan 13	4230	Feb 5	10300	May 28 1983
LOWEST DAILY MEAN	49	Apr 9	48	Apr 23	.00	May 2 1964
ANNUAL SEVEN-DAY MINIMUM	50	Apr 9	48	Apr 23	.00	May 2 1964
INSTANTANEOUS PEAK FLOW					22700 Jan 30 1932	
INSTANTANEOUS PEAK STAGE			29.21	Jan 10	59.27	Mar 2 1962
10 PERCENT EXCEEDS	1920		1090		2550	
50 PERCENT EXCEEDS	529		168		476	
90 PERCENT EXCEEDS	54		51		52	



GREEN RIVER BASIN

03312765 BEAVER CREEK AT HWY 31 E NEAR GLASGOW, KY

LOCATION.--Lat 37°02'05", long 85°54'13", Barren County, Hydrologic Unit 05110002, on downstream side of bridge on U.S. Highway 31 E, 2.7 mi northeast of Glasgow, 8.3 mi upstream from Little Beaver Creek, and at mile 23.1.

DRAINAGE AREA.--49.6 mi².

PERIOD OF RECORD.--September 1991 to current year.

GAGE.--Water-stage recorder. Datum of gage is 651.43 ft above sea level.

REMARKS.--Records poor.

PEAKS ABOVE BASE.--

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 9	unknown	unknown	unknown	Mar. 14	1230	*772	7.69
Mar. 15	0030	772	7.69				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e9.0	12	e19	e36	e400	318	e52	18	11	23	5.5	3.2
2	e9.8	e12	e23	e60	e250	e250	e45	17	13	20	6.3	3.3
3	e11	e13	e21	258	e170	680	e42	16	14	18	5.5	3.2
4	e12	e14	e18	170	e230	589	e40	16	11	14	4.1	3.2
5	e13	e15	e25	e110	e350	408	e52	105	11	11	4.4	3.3
6	e12	e16	43	e74	e200	395	e48	294	11	12	4.5	3.2
7	e11	e17	48	e160	e160	347	e45	e150	13	12	4.4	3.0
8	e17	e18	112	e500	e110	315	e43	e91	14	13	4.5	3.1
9	e22	e19	68	e1800	e84	322	e61	e69	14	13	8.1	3.3
10	e17	e23	32	e700	e64	e300	e88	e47	15	13	6.8	4.0
11	e12	35	22	396	e58	e240	e60	e36	14	16	5.2	4.0
12	e10	34	21	301	e700	e200	e50	32	13	15	4.6	4.2
13	e7.6	e26	144	248	507	e280	e44	30	14	15	4.1	4.6
14	e6.0	e19	87	328	360	e1100	e40	29	20	16	3.6	5.5
15	5.8	e17	45	257	e200	e800	e57	24	19	15	3.9	5.6
16	5.9	e14	31	205	e90	518	e96	21	17	13	4.5	5.6
17	6.3	e13	25	168	e100	391	e71	18	16	14	4.0	5.5
18	5.6	e12	19	e260	e140	e250	e59	17	15	13	3.3	5.5
19	7.8	e13	16	e180	e120	e180	e50	17	15	9.9	3.6	5.5
20	8.5	e15	15	e140	e100	e140	e42	15	14	11	3.8	7.8
21	8.7	e16	14	e110	e80	e98	e36	14	13	12	3.3	9.1
22	8.5	e14	288	e86	e90	e82	e32	14	13	14	3.7	8.8
23	9.1	e17	192	e1000	e110	e68	e28	13	15	10	3.5	8.0
24	9.4	e15	e130	e540	e92	e90	e26	18	89	8.7	3.2	7.9
25	9.9	e14	e90	417	e100	e72	e24	15	64	8.1	3.4	8.0
26	9.3	e15	e60	301	e78	e61	e23	13	29	7.0	3.8	7.8
27	8.4	e17	e37	232	e200	e52	e22	12	22	6.0	3.8	8.3
28	9.7	e19	e45	e140	359	e48	e21	12	25	5.1	3.7	9.1
29	10	e17	e56	e96	---	e45	26	11	62	5.6	3.6	12
30	12	e17	e70	e82	---	e42	21	11	37	5.5	3.5	15
31	12	---	e50	e150	---	e40	---	11	---	4.8	3.2	---
TOTAL	316.3	518	1866	9505	5502	8721	1344	1206	653	373.7	133.4	180.6
MEAN	10.2	17.3	60.2	307	196	281	44.8	38.9	21.8	12.1	4.30	6.02
MAX	22	35	288	1800	700	1100	96	294	89	23	8.1	15
MIN	5.6	12	14	36	58	40	21	11	11	4.8	3.2	3.0
CFSM	.21	.35	1.21	6.18	3.96	5.67	.90	.78	.44	.24	.09	.12
IN.	.24	.39	1.40	7.13	4.13	6.54	1.01	.90	.49	.28	.10	.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1999, BY WATER YEAR (WY)

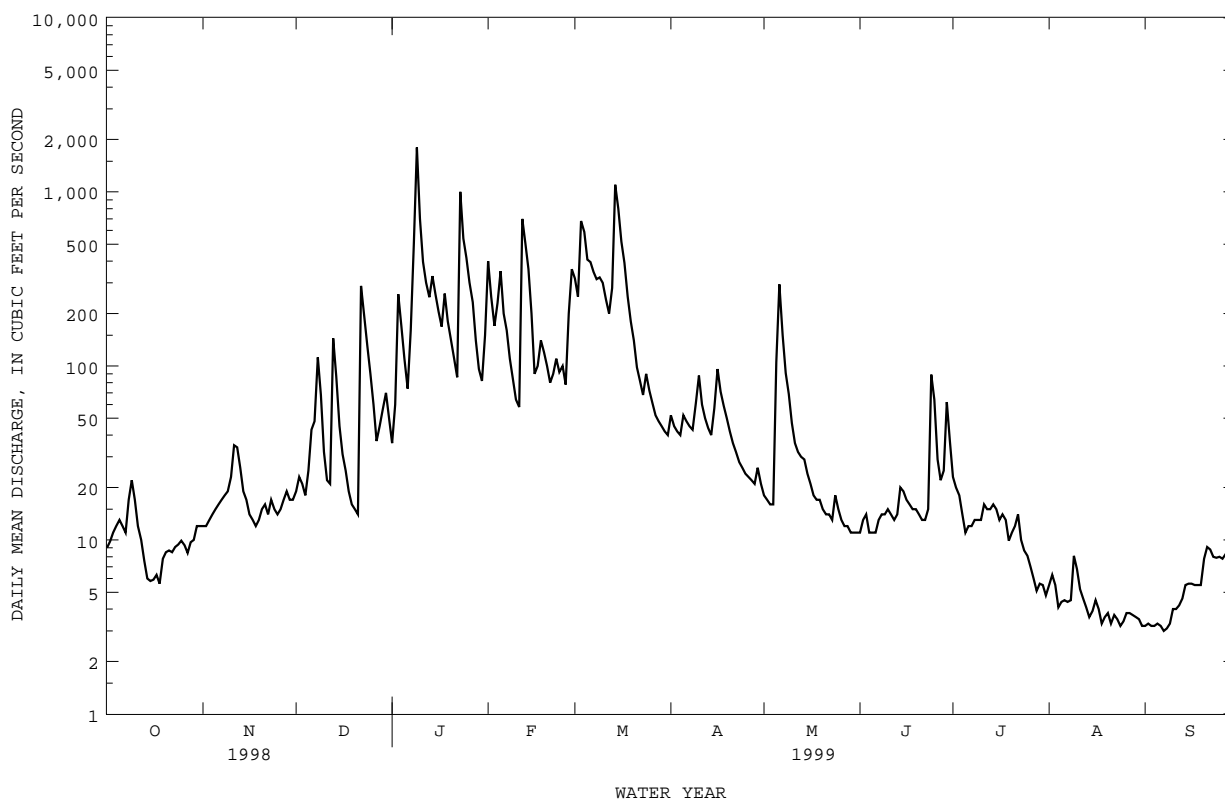
MEAN	16.2	46.9	101	163	182	260	131	96.0	113	30.6	15.8	19.4
MAX	39.6	169	246	307	489	477	307	381	250	79.5	39.2	67.7
(WY)	1997	1997	1997	1999	1994	1997	1994	1995	1997	1998	1994	1996
MIN	5.98	8.53	22.8	50.3	78.8	95.0	44.8	38.8	19.9	7.41	4.30	3.71
(WY)	1998	1998	1998	1998	1992	1998	1999	1994	1993	1993	1999	1993

GREEN RIVER BASIN

03312765 BEAVER CREEK AT HWY 31 E NEAR GLASGOW, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1992 - 1999	
ANNUAL TOTAL	31230.1		30319.0			
ANNUAL MEAN	85.6		83.1		97.5	
HIGHEST ANNUAL MEAN					142	
LOWEST ANNUAL MEAN					49.7	
HIGHEST DAILY MEAN	1810	Apr 16	1800	Jan 9	2930	Mar 9 1994
LOWEST DAILY MEAN	5.6	Oct 18	3.0	Sep 7	1.7	Sep 14 1993
ANNUAL SEVEN-DAY MINIMUM	6.4	Oct 13	3.2	Sep 2	1.8	Sep 8 1993
INSTANTANEOUS PEAK FLOW					6620	Jun 18 1992
INSTANTANEOUS PEAK STAGE					15.10	Jun 18 1992
ANNUAL RUNOFF (CFSM)	1.73		1.67		1.97	
ANNUAL RUNOFF (INCHES)	23.42		22.74		26.72	
10 PERCENT EXCEEDS	190		250		216	
50 PERCENT EXCEEDS	32		18		34	
90 PERCENT EXCEEDS	12		4.6		6.8	

e Estimated



GREEN RIVER BASIN

03313700 WEST FORK DRAKES CREEK NEAR FRANKLIN, KY

LOCATION.--Lat 36°43'24", long 86°33'08", Simpson County, Hydrologic Unit 05110002, near left bank at upstream side of city of Franklin pumping plant intake, 20 ft upstream from dam, 0.8 mi downstream from bridge on State Highways 73 and 100, 1.5 mi east of Franklin, 3.3 mi downstream from Sharps Branch, and at mile 46.7.

DRAINAGE AREA.--110 mi², of which about 19 mi² does not contribute directly to surface runoff.

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

GAGE.--Water-stage recorder and broad-crested weir. Datum of gage is 581.54 ft above sea level. Prior to Oct. 1, 1981, at site 0.8 mi upstream at datum 8.05 ft lower.

REMARKS.--Records good except for periods of estimated record, which are fair. Subsequent to Apr. 24, 1976, records of daily discharge less than about 300 ft³/s does not include approximately 3 ft³/s which is diverted by city of Franklin for municipal supply.

PEAKS ABOVE BASE.--Peak discharges above base of 2,500 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 9	0800	3890	10.04	Jan. 23	0900	*6470	11.07

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e5.0	5.9	17	52	875	768	125	77	33	61	11	e3.2
2	e4.8	5.9	16	76	582	500	118	70	34	668	11	e3.1
3	29	7.1	16	432	405	1430	204	64	33	402	8.6	e3.4
4	49	8.0	12	273	325	951	246	60	32	197	6.7	e3.5
5	33	8.0	79	188	249	663	203	718	33	138	6.9	e3.0
6	20	7.9	101	148	217	781	190	1500	33	97	6.3	e2.8
7	18	9.7	74	126	223	586	180	787	36	78	6.3	e2.7
8	19	13	489	868	204	444	160	417	40	64	11	e2.5
9	19	13	327	2540	176	434	401	283	35	57	13	e2.3
10	16	22	167	981	155	382	327	213	32	95	11	e2.4
11	13	20	111	560	145	296	235	161	29	96	10	e2.5
12	13	23	109	398	544	241	173	133	26	64	9.4	e2.6
13	11	22	525	327	517	242	142	117	26	54	12	e2.7
14	10	20	348	444	357	1150	130	105	29	49	22	e2.9
15	10	18	217	361	290	1350	211	93	45	45	17	e2.7
16	8.6	18	160	299	244	1030	229	83	38	43	12	e2.8
17	7.4	17	124	251	247	763	169	71	31	37	9.0	e2.9
18	7.9	14	97	305	223	539	141	62	27	35	7.3	e2.7
19	8.3	13	82	260	199	403	123	58	24	32	6.5	e2.6
20	8.1	12	71	227	173	320	123	53	23	30	5.4	e2.9
21	7.8	13	69	198	149	253	116	48	22	28	5.1	e3.3
22	6.6	15	135	370	131	203	101	45	21	26	6.2	e4.5
23	5.7	15	123	4180	122	176	90	45	22	24	5.6	e3.8
24	6.3	15	103	1340	118	174	81	74	108	24	4.6	e3.2
25	7.4	15	86	816	111	153	72	59	281	22	3.7	e2.8
26	8.6	17	76	508	102	133	76	47	113	19	e3.4	e2.6
27	8.7	17	70	391	176	120	85	42	80	16	e3.0	e2.5
28	8.0	16	68	315	1410	108	99	38	69	16	e2.9	e2.4
29	7.5	17	67	246	---	103	94	36	91	17	e2.8	e2.3
30	7.3	18	64	211	---	96	86	34	85	14	e2.9	e2.2
31	6.4	---	57	551	---	99	---	33	---	13	e3.0	---
TOTAL	390.4	435.5	4060	18242	8669	14891	4730	5626	1531	2561	245.6	85.8
MEAN	12.6	14.5	131	588	310	480	158	181	51.0	82.6	7.92	2.86
MAX	49	23	525	4180	1410	1430	401	1500	281	668	22	4.5
MIN	4.8	5.9	12	52	102	96	72	33	21	13	2.8	2.2
CFSM	.14	.16	1.44	6.47	3.40	5.28	1.73	1.99	.56	.91	.09	.03
IN.	.16	.18	1.66	7.46	3.54	6.09	1.93	2.30	.63	1.05	.10	.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1999, BY WATER YEAR (WY)

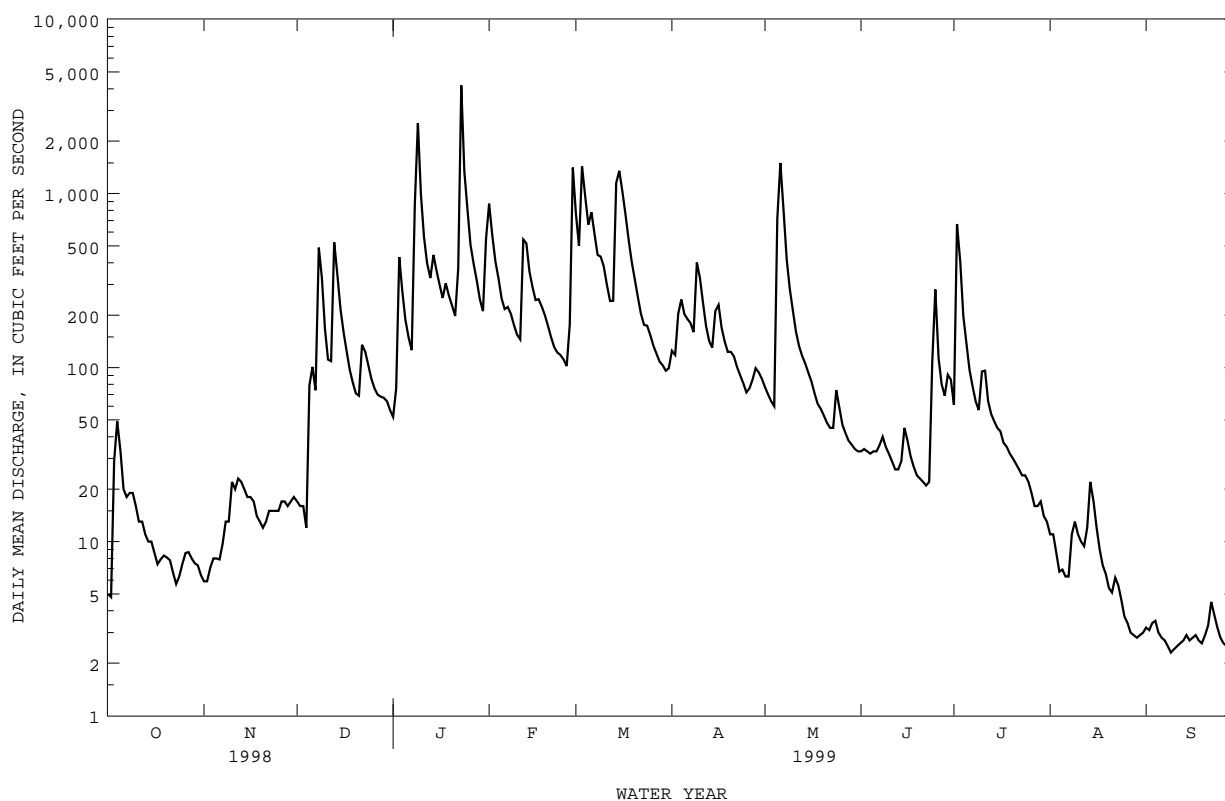
MEAN	44.0	133	295	309	365	394	255	219	164	67.5	34.0	60.1
MAX	219	474	971	867	1356	1412	568	982	795	251	142	677
(WY)	1976	1980	1979	1974	1989	1975	1979	1983	1998	1989	1971	1979
MIN	1.87	14.5	11.8	10.4	138	113	38.3	22.8	18.8	5.47	2.80	2.28
(WY)	1988	1988	1981	1981	1980	1998	1986	1988	1985	1985	1986	1986

GREEN RIVER BASIN

03313700 WEST FORK DRAKES CREEK NEAR FRANKLIN, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1968 - 1999	
ANNUAL TOTAL	82288.7		61467.3			
ANNUAL MEAN	225		168		194	
HIGHEST ANNUAL MEAN					351	
LOWEST ANNUAL MEAN					87.8	
HIGHEST DAILY MEAN	3170	Jun 9	4180	Jan 23	12800	Mar 12 1975
LOWEST DAILY MEAN	4.8	Oct 2	2.2	Sep 30	.00	Sep 19 1985
ANNUAL SEVEN-DAY MINIMUM	5.7	Sep 26	2.5	Sep 7	.00	Aug 13 1988
INSTANTANEOUS PEAK FLOW			6470	Jan 23	27300	Mar 12 1975
INSTANTANEOUS PEAK STAGE			11.07	Jan 23	23.20	Mar 12 1975
ANNUAL RUNOFF (CFSM)	2.48		1.85		2.14	
ANNUAL RUNOFF (INCHES)	33.64		25.13		29.02	
10 PERCENT EXCEEDS	544		423		435	
50 PERCENT EXCEEDS	111		59		72	
90 PERCENT EXCEEDS	9.7		4.2		8.8	

e Estimated

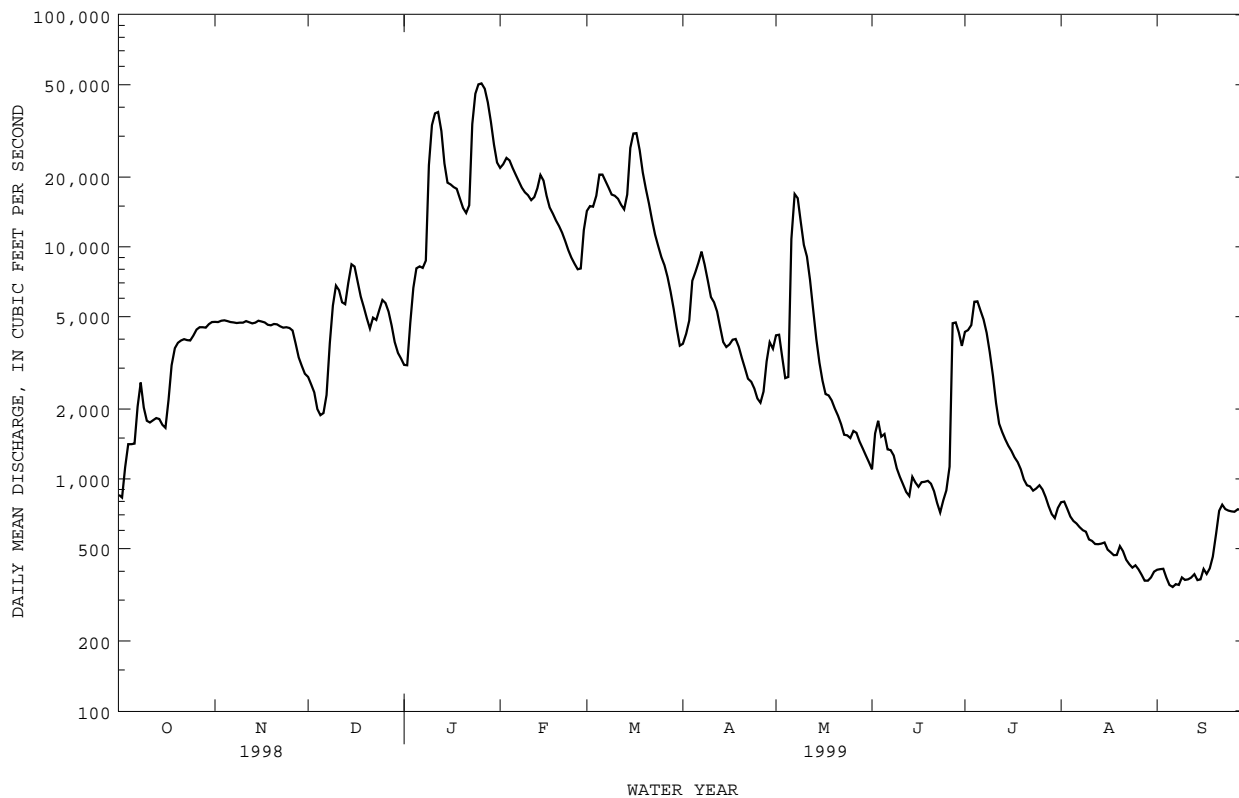


GREEN RIVER BASIN

03316500 GREEN RIVER AT PARADISE, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1970 - 1999	
ANNUAL TOTAL	3145867		2446769		10120	
ANNUAL MEAN	8619		6703		18460	
HIGHEST ANNUAL MEAN					6044	
LOWEST ANNUAL MEAN					1979	
HIGHEST DAILY MEAN	38000	Jun 13	50600	Jan 26	83800	Mar 7 1997
LOWEST DAILY MEAN	505	Sep 14	342	Sep 6	277	Sep 13 1995
ANNUAL SEVEN-DAY MINIMUM	524	Sep 9	358	Sep 5	320	Sep 8 1995
INSTANTANEOUS PEAK FLOW			51200	Jan 26	107000	Mar 5 1962
INSTANTANEOUS PEAK STAGE			27.30	Jan 27	40.46	Mar 5 1962
INSTANTANEOUS LOW FLOW					250	Oct 23 1940
10 PERCENT EXCEEDS	19200		18000		23300	
50 PERCENT EXCEEDS	5940		3880		6140	
90 PERCENT EXCEEDS	845		524		1360	

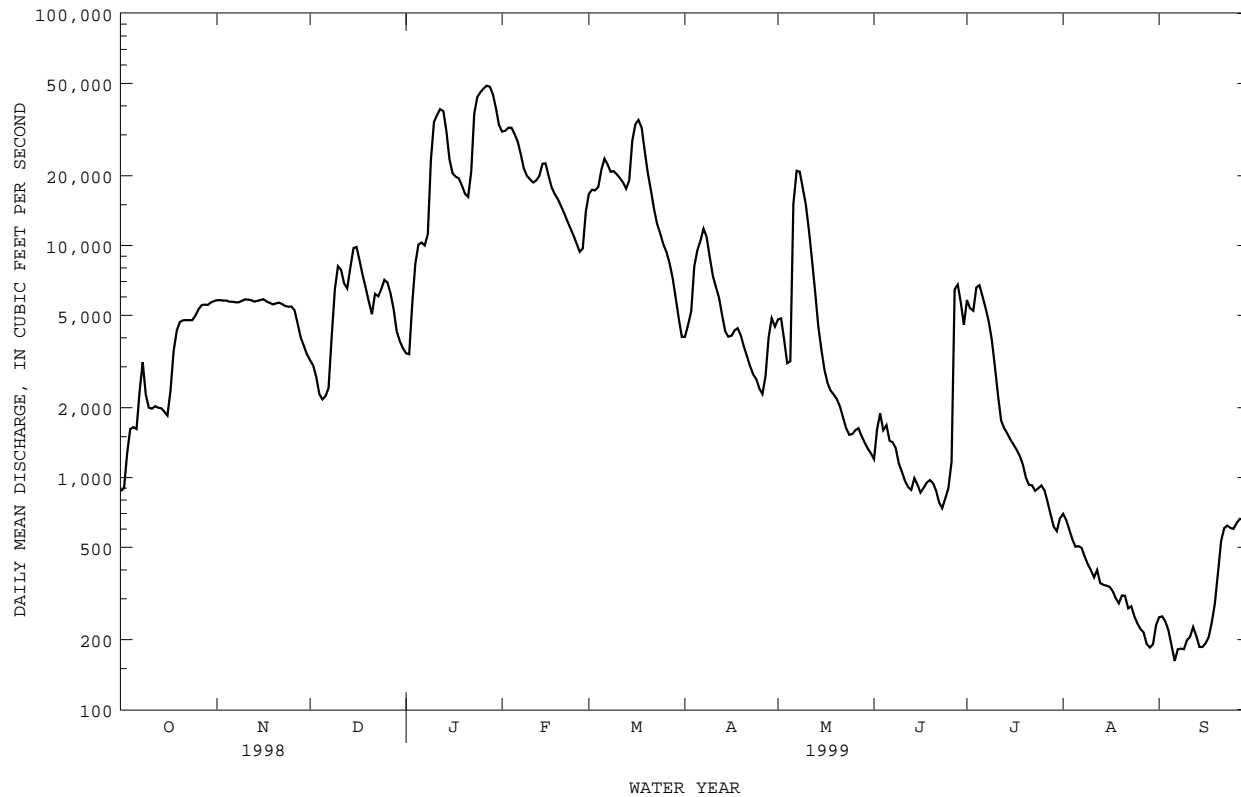
e Estimated



GREEN RIVER BASIN

03320000 GREEN RIVER AT LOCK 2, AT CALHOUN, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1970 - 1999	
ANNUAL TOTAL	3808792		2836977		12050	
ANNUAL MEAN	10440		7773		7249	
HIGHEST ANNUAL MEAN					22070	
LOWEST ANNUAL MEAN					1986	
HIGHEST DAILY MEAN	43800	Apr 21	48800	Jan 27	85200	Mar 7 1997
LOWEST DAILY MEAN	556	Sep 16	162	Sep 6	162	Sep 6 1999
ANNUAL SEVEN-DAY MINIMUM	583	Sep 11	186	Sep 5	186	Sep 5 1999
INSTANTANEOUS PEAK FLOW			49300	Jan 27	208000	Jan 27 1937
INSTANTANEOUS PEAK STAGE			27.47	Jan 28	42.40	Jan 30 1937
INSTANTANEOUS LOW FLOW					107	Sep 14 1999
10 PERCENT EXCEEDS	25600		20800		30500	
50 PERCENT EXCEEDS	7020		4470		7430	
90 PERCENT EXCEEDS	990		344		1430	



GREEN RIVER BASIN

03320500 POND RIVER NEAR APEX, KY

LOCATION.--Lat 37°07'20", long 87°19'10", Muhlenberg County, Hydrologic Unit 05110006, on downstream side of right pier f bridge on State Highway 189, 1.1 mi downstream from Coal Creek, 2.1 mi northeast of Apex, 5.7 mi upstream from West Fork, and at mile 62.8.

DRAINAGE AREA.--194 mi².

PERIOD OF RECORD.--August 1940 to current year. October 1953 to September 1971, published as "East Fork Pond River near Apex."

REVISED RECORDS.--WSP 1083: 1942-46. WSP 1555: 1945-46(P), drainage area, WRD KY-93: 1989-91(P), WRD KY-96: 1989-96(P).

GAGE.--Water-stage recorder. Datum of gage is 384.53 ft above sea level. Prior to Aug. 21, 1942, nonrecording gage at same site. Prior to Oct. 1, 1974, at datum 6.11 ft higher.

REMARKS.--Records fair except for periods of estimated record, which are poor.

PEAKS ABOVE BASE.--Peak discharges above base of 2,700 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 23	0600	*7860	19.80	May 6	0400	2910	16.74

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.66	2.0	e5.5	e84	1670	991	157	168	6.1	94	4.2	e.03
2	e.72	2.4	e5.7	e82	e1300	742	191	123	7.8	e260	3.7	e.02
3	e.96	2.2	e6.4	e110	e900	511	282	102	7.7	158	3.1	e.01
4	e.82	1.9	e7.4	e180	e540	421	756	86	7.1	107	2.7	e.00
5	e.90	2.0	e17	e170	e340	296	725	248	44	75	2.2	e.00
6	e.98	1.9	e100	e160	236	476	935	2780	41	55	e1.8	e.00
7	e100	e2.0	e150	e150	194	604	888	e2000	63	41	e1.6	e.00
8	336	e2.2	e130	e190	183	397	617	e1400	108	28	e1.4	e.00
9	221	e2.8	e170	e1300	169	465	391	e800	57	19	e1.2	e.00
10	124	e3.6	e180	e1100	146	e580	276	e400	32	15	e1.0	e.00
11	76	e8.0	e130	e1000	129	e410	224	e230	21	12	e.90	e.00
12	48	e70	e110	e900	155	267	196	181	15	9.3	e1.6	e.00
13	30	e50	e92	e660	223	207	165	141	12	7.8	3.2	.00
14	18	e30	e110	e500	189	e530	147	112	12	7.1	e1.8	.00
15	10	e20	e140	e400	157	e1400	197	94	11	6.4	e1.4	.00
16	6.2	e14	e130	e320	137	e1100	227	82	8.7	6.0	e.90	.00
17	5.2	e11	e100	e240	134	e800	e180	71	7.0	5.6	e.60	.00
18	4.7	e9.4	e82	442	134	e480	e130	61	5.5	5.4	e.50	.00
19	4.7	e8.0	e68	456	126	326	e110	52	4.1	5.1	e.40	.00
20	4.3	e8.4	e58	310	113	230	e100	45	3.7	4.8	e.30	.00
21	4.0	e9.0	e60	235	101	185	e90	37	3.0	4.6	e.24	.00
22	3.8	e8.0	e400	3070	90	156	e80	31	2.5	4.2	e.20	.00
23	3.4	e9.0	e700	e5000	83	143	e74	26	3.9	4.0	e.16	.00
24	3.4	e10	e520	e3400	90	154	e70	23	18	7.4	e.12	.00
25	3.2	e11	e230	e2000	100	145	e66	19	34	8.5	e.10	.00
26	3.0	e9.0	e160	e1500	102	126	e62	17	36	8.0	e.09	.00
27	2.9	e8.0	e130	e1100	331	110	138	14	e540	7.2	e.08	.00
28	2.7	e7.0	e110	e900	1230	101	680	11	e400	6.5	e.07	.00
29	2.5	e6.0	e100	e600	---	93	870	9.1	e160	5.9	e.06	.00
30	2.3	e5.3	e96	368	---	94	339	7.4	82	5.3	e.05	.00
31	2.2	---	e86	1230	---	90	---	6.8	---	4.8	e.04	---
TOTAL	1026.54	334.1	4384.0	28157	9302	12630	9363	9377.3	1753.1	987.9	35.71	0.06
MEAN	33.1	11.1	141	908	332	407	312	302	58.4	31.9	1.15	.002
MAX	336	70	700	5000	1670	1400	935	2780	540	260	4.2	.03
MIN	.66	1.9	5.5	82	83	90	62	6.8	2.5	4.0	.04	.00
CFSM	.17	.06	.73	4.68	1.71	2.10	1.61	1.56	.30	.16	.01	.00
IN.	.20	.06	.84	5.40	1.78	2.42	1.80	1.80	.34	.19	.01	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1999, BY WATER YEAR (WY)

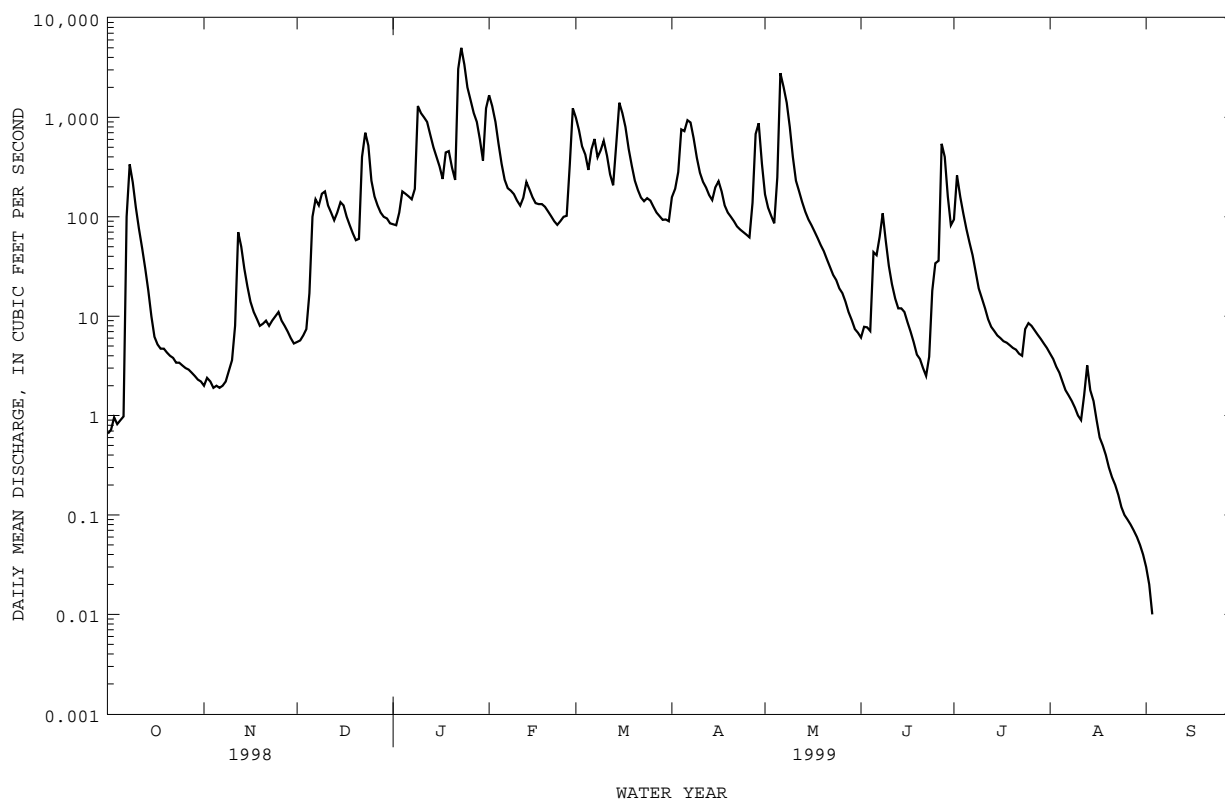
MEAN	22.3	171	396	463	623	617	434	318	121	60.1	31.0	57.6
MAX	208	1430	2167	2024	3988	2519	1822	2607	900	440	239	988
(WY)	1986	1958	1979	1950	1989	1997	1979	1984	1969	1989	1984	1979
MIN	.000	.000	.000	3.56	42.6	35.2	39.2	6.46	1.37	.44	.19	.000
(WY)	1954	1954	1964	1981	1941	1941	1986	1941	1964	1964	1993	1953

GREEN RIVER BASIN

03320500 POND RIVER NEAR APEX, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1941 - 1999	
ANNUAL TOTAL	77016.04		77350.71			
ANNUAL MEAN	211		212		274	
HIGHEST ANNUAL MEAN					643	
LOWEST ANNUAL MEAN					59.8	
HIGHEST DAILY MEAN	4510	Jun 10	5000	Jan 23	28400	Feb 15 1989
LOWEST DAILY MEAN	.50	Sep 11	.00	Sep 4	.00	Oct 21 1940
ANNUAL SEVEN-DAY MINIMUM	.60	Sep 11	.00	Sep 4	.00	Oct 21 1940
INSTANTANEOUS PEAK FLOW			7860	Jan 23	35700	May 7 1984
INSTANTANEOUS PEAK STAGE			19.87	Jan 23	26.81	Nov 19 1957
ANNUAL RUNOFF (CFSM)	1.09		1.09		1.41	
ANNUAL RUNOFF (INCHES)	14.77		14.83		19.22	
10 PERCENT EXCEEDS	612		588		724	
50 PERCENT EXCEEDS	65		55		47	
90 PERCENT EXCEEDS	1.7		.10		.70	

e Estimated



GREEN RIVER BASIN

03321060 POND RIVER NEAR MADISONVILLE, KY

LOCATION.--Lat 37°19'02", long 87°22'09", Hopkins County, Hydrologic Unit 05110006, on left bank 3 ft downstream from bridge on State Highway 70, 4.2 mi downstream from Flat Creek, 5.0 mi upstream from Earle Creek, 6.3 mi east of Madisonville, and at mile 25.9.

DRAINAGE AREA.--469 mi².

PERIOD OF RECORD.--July 1991 to September 1996 discharge records. October 1996 to current year, gage height only.

GAGE.--Water-stage recorder. Datum of gage is 361.80 ft above sea level.

REMARKS.--Records fair.

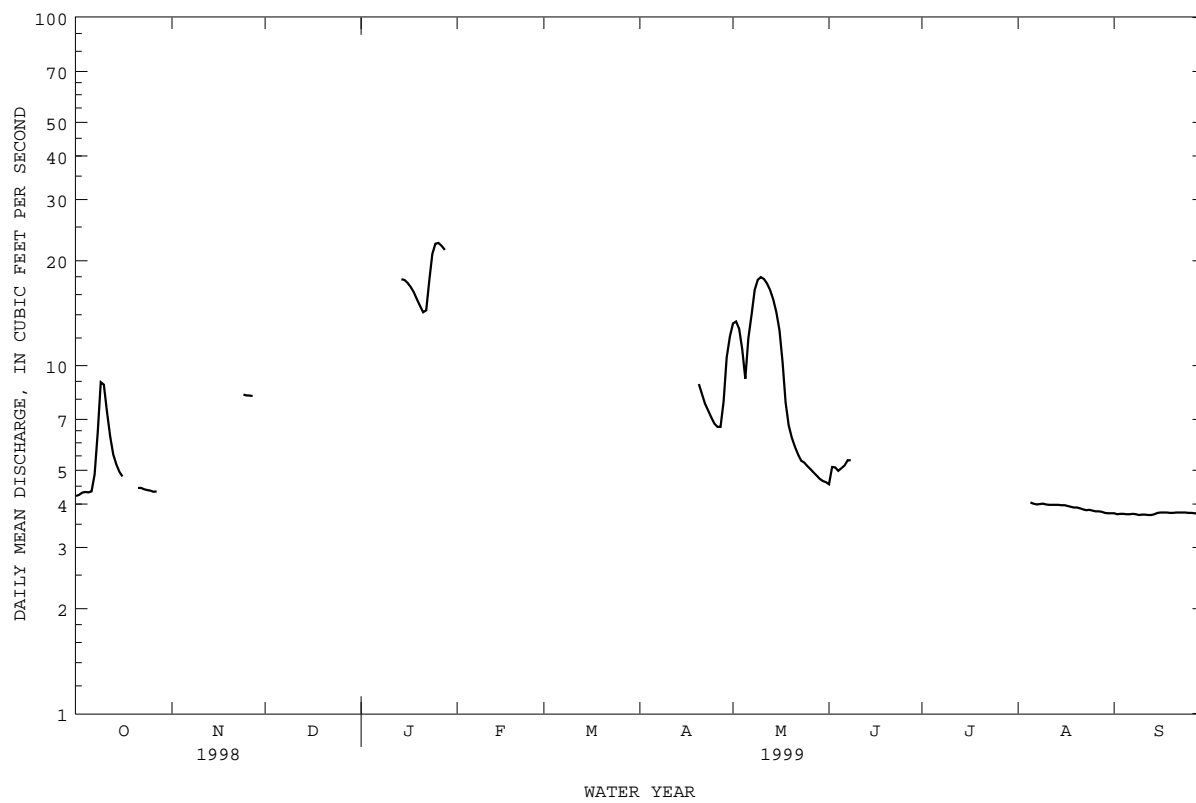
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.22	---	---	---	---	---	---	13.22	4.56	---	---	3.76
2	4.25	---	---	---	---	---	---	13.39	5.11	---	---	3.74
3	4.31	---	---	---	---	---	---	12.74	5.10	---	---	3.75
4	4.33	---	---	---	---	---	---	11.14	4.98	---	---	3.75
5	4.32	---	---	---	---	e15.00	---	9.17	5.07	---	e4.04	3.74
6	4.35	---	---	---	---	---	---	11.99	5.16	---	4.01	3.74
7	4.86	---	---	---	---	---	---	14.05	5.34	---	3.99	3.75
8	6.41	---	---	---	---	---	---	16.50	5.34	---	4.00	3.74
9	8.96	---	---	---	---	---	---	17.64	---	---	4.01	3.72
10	8.81	---	---	---	---	---	---	17.94	---	---	3.99	3.73
11	7.40	---	---	---	---	---	---	17.73	---	---	3.98	3.73
12	6.25	---	---	---	---	---	---	17.21	---	---	3.98	3.72
13	5.55	---	---	---	---	---	---	16.49	---	---	3.98	3.72
14	5.20	---	---	e17.70	---	---	---	15.46	---	---	3.98	3.74
15	4.95	---	---	17.61	---	---	---	14.19	---	---	3.97	3.77
16	e4.80	---	---	17.27	---	---	---	12.62	---	---	3.97	3.78
17	---	---	---	16.83	---	---	---	10.24	---	---	3.95	3.78
18	---	---	---	16.25	---	---	---	7.82	---	---	3.93	3.78
19	---	---	---	15.53	---	---	---	6.73	---	---	3.91	3.77
20	---	---	---	14.84	---	---	e8.85	6.21	---	---	3.91	3.77
21	e4.45	---	---	14.22	---	---	8.29	5.83	---	---	3.89	3.78
22	4.45	---	---	14.40	---	---	7.77	5.55	---	---	3.86	3.78
23	4.41	---	---	17.55	---	---	7.41	5.33	---	---	3.84	3.78
24	4.39	e8.25	---	20.92	---	---	7.09	5.26	---	---	3.85	3.78
25	4.37	8.21	---	22.40	---	---	6.81	5.14	---	---	3.83	3.77
26	4.34	8.20	---	22.51	---	---	6.66	5.04	---	---	3.81	3.77
27	e4.35	e8.18	---	22.05	---	---	6.66	4.93	---	---	3.81	3.76
28	---	---	---	e21.51	---	---	7.89	4.83	---	---	3.80	3.75
29	---	---	---	---	---	---	10.55	4.72	---	e4.19	3.77	3.78
30	---	---	---	---	---	---	12.14	4.66	---	---	3.76	3.78
31	---	---	---	---	---	---	---	4.62	---	---	3.76	---
MEAN	---	---	---	---	---	---	---	10.27	---	---	---	3.76
MAX	---	---	---	---	---	---	---	17.94	---	---	---	3.78
MIN	---	---	---	---	---	---	---	4.62	---	---	---	3.72

e Estimated

GREEN RIVER BASIN

03321060 POND RIVER NEAR MADISONVILLE, KY--Continued



WABASH RIVER BASIN

03378500 WABASH RIVER AT NEW HARMONY, IN

(National stream-quality accounting network station)

LOCATION.--Lat 38°07'55', long 87°56'25", Posey County, Hydrologic Unit 05120113, at bridge on U.S. Highway 66 at New Harmony, and at mile 51.5.

DRAINAGE AREA.--29,234 mi²

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL ANALYSES: October 1974 to 1986, 1997 to current water year.

SEDIMENT DISCHARGE: Partial record station--October 1974 to 1985

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1974 to September 1980.

WATER TEMPERATURE: October 1974 to September 1980.

REMARKS.--Water discharge obtained from station Wabash River at Mount Carmel, IL. (03377500).

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 805 microsiemens Feb. 15, 1977; minimum, 200 micorsiemens Mar. 3, 1979.

WATER TEMPERATURE: Maximum, 32.0° C June 28, 1978, July 14-18, 1980; minimum, freezing point on many days during winter period.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	SAMPLE TYPE	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	UV ABSORB-ANCE 254 NM, WTR FLT (UNITS /CM) (50624)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)
NOV 12...	1220	ENVIRONMENTAL	13500	--	640	8.4	10.5	27	11.3	--	280
DEC 16...	1330	ENVIRONMENTAL	7800	--	655	8.5	8.0	7.5	13.2	112	300
DEC 16...	1338	FIELD BLANK	--	--	--	--	--	--	--	--	0
JAN 27...	1200	ENVIRONMENTAL	145000	--	248	7.5	6.0	120	10.4	83	100
MAR 15...	1250	ENVIRONMENTAL	63500	.111	433	7.8	4.0	40	12.4	94	190
MAR 15...	1300	REPLICATE	--	.112	--	--	--	39	--	--	190
APR 13...	1200	ENVIRONMENTAL	27900	.106	502	7.8	15.5	55	9.2	91	220
APR 26...	1240	ENVIRONMENTAL	57400	.136	486	7.7	15.5	3.0	8.9	90	230
APR 26...	1248	FIELD BLANK	--	--	--	--	--	--	--	--	0
MAY 11...	1320	ENVIRONMENTAL	26600	.137	553	8.1	21.0	36	10.1	114	250
MAY 11...	1328	FIELD BLANK	--	--	--	--	--	--	--	--	--
MAY 26...	1150	ENVIRONMENTAL	23600	.092	571	8.0	21.0	30	8.7	97	240
JUN 08...	1240	ENVIRONMENTAL	49700	.141	429	7.3	25.5	150	5.5	67	180
JUN 08...	1248	FIELD BLANK	--	--	--	--	--	--	--	--	--
JUN 22...	1230	ENVIRONMENTAL	13700	.086	590	8.2	25.0	--	9.9	120	--
JUN 22...	1238	FIELD BLANK	--	--	--	--	--	--	--	--	--
JUL 21...	1250	ENVIRONMENTAL	7570	.083	528	8.3	30.5	15	12.5	166	200
JUL 21...	1300	REPLICATE	--	.083	--	--	--	15	--	--	210
AUG 24...	1150	ENVIRONMENTAL	4320	.091	639	7.9	27.0	18	9.0	115	230

WABASH RIVER BASIN

03378500 WABASH RIVER AT NEW HARMONY, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	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)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, TOTAL (MG/L AS N) (00600)
NOV												
12...	71	24	26	4.6	227	186	35	71	.27	4.6	391	2.4
DEC												
16...	78	25	28	3.7	285	234	38	75	.23	2.9	400	2.5
16...	.018	.003	<.025	--	--	--	--	--	--	<.020	--	--
JAN												
27...	28	7.7	7.3	3.4	--	68	13	22	.14	5.4	153	3.5
MAR												
15...	51	15	11	2.4	137	112	20	41	.15	6.3	263	4.6
15...	50	15	11	2.4	158	130	20	40	.15	6.3	261	4.6
APR												
13...	57	18	15	2.8	178	146	24	57	.17	3.3	298	2.8
26...	60	20	12	2.5	167	137	22	38	.19	6.6	291	7.5
26...	.012	.001	.032	--	--	--	--	--	--	.039	--	--
MAY												
11...	66	21	14	2.4	203	167	23	55	.19	3.4	324	4.2
11...	--	--	--	--	--	--	--	--	--	--	--	--
26...	63	21	16	2.8	223	183	26	57	.20	3.6	340	4.7
JUN												
08...	47	15	9.8	3.8	140	115	19	37	.22	6.7	275	7.5
08...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	.006	<.001	<.025	--	--	--	--	--	--	<.020	--	--
JUL												
21...	41	24	24	2.9	--	--	37	62	.17	.24	284	--
21...	41	25	25	3.0	--	--	36	62	.16	.21	287	--
AUG												
24...	48	27	39	3.5	--	--	52	80	.24	.16	355	--
DATE	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	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, NITRATE DIS- SOLVED (MG/L AS N) (00618)	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- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)
NOV												
12...	1.8	.91	.30	.016	1.51	.027	1.50	.33	.94	.202	.076	.23
DEC												
16...	2.0	.79	.30	.019	1.71	.034	1.69	.34	.82	.129	.054	.13
16...	--	--	--	<.001	<.005	.002	--	--	--	--	--	.00
JAN												
27...	2.9	1.1	.46	.018	2.33	.086	2.31	.54	1.2	.414	.106	.29
MAR												
15...	4.2	.67	.28	.012	3.93	.026	3.92	.31	.70	.172	.060	.16
15...	4.2	.62	.28	.013	3.93	.028	3.91	.31	.64	.178	.061	.16
APR												
13...	2.2	--	--	<.010	1.90	<.020	--	.32	.86	.213	.044	.12
26...	6.9	--	--	.030	6.49	<.020	6.46	.38	1.0	.219	.070	.19
26...	--	--	--	<.001	<.005	.007	--	--	--	--	--	.01
MAY												
11...	3.5	--	--	.013	3.20	<.020	3.19	.32	.99	.194	.032	.07
11...	--	--	--	--	--	--	--	--	--	--	--	--
26...	4.5	--	--	.012	3.43	<.020	3.42	1.1	1.3	.212	.040	.10
JUN												
08...	6.5	--	--	.079	6.00	<.020	5.92	.52	1.5	.397	.105	.29
08...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	<.001	.005	.006	--	--	--	--	--	.00
JUL												
21...	--	--	--	<.010	<.050	<.020	--	.26	1.4	.113	.013	--
21...	--	--	--	<.010	<.050	<.020	--	.26	1.5	.111	.015	--
AUG												
24...	--	--	--	<.010	<.050	<.020	--	.34	1.2	.145	.014	--

WABASH RIVER BASIN

03378500 WABASH RIVER AT NEW HARMONY, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	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- 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)	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)
NOV												
12...	.03	6.6	.05	.074	1.4	<1.0	3	53	<1.0	130	<1.0	2.0
DEC												
16...	.04	7.5	.06	.042	2.7	<1.0	2	55	<1.0	138	<1.0	<1.0
16...	.00	--	--	.001	<.30	<.20	--	<.20	<.20	<2.0	<.30	<.20
JAN												
27...	.11	10	.06	.096	4.6	<1.0	<1	27	<1.0	35	<1.0	2.6
MAR												
15...	.03	17	.04	.052	--	--	1	--	--	36	--	--
15...	.04	17	.04	.051	--	--	1	--	--	37	--	--
APR												
13...	--	--	--	.038	5.5	<1.0	<1	46	<1.0	64	<1.0	<1.0
26...	--	29	.10	.063	--	--	<1	--	--	49	--	--
26...	.01	--	--	.002	<.30	<.20	--	<.20	<.20	<2.0	<.30	<.20
MAY												
11...	--	14	.04	.023	--	--	1	--	--	72	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	15	.04	.032	--	--	1	--	--	82	--	--
JUN												
08...	--	26	.26	.094	4.3	<1.0	1	46	<1.0	55	<1.0	<1.0
08...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	.01	--	--	.001	<.30	<.20	--	<.20	<.20	<2.0	<.30	<.20
JUL												
21...	--	--	--	<.001	--	--	<1	--	--	121	--	--
21...	--	--	--	<.001	--	--	<1	--	--	128	--	--
AUG												
24...	--	--	--	<.001	7.0	<1.0	1	57	<1.0	178	<1.0	<1.0

DATE	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)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	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)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	THAL- LIUM, DIS- SOLVED (UG/L AS TL) (01057)
NOV												
12...	<1.0	1.4	<10	<1.0	E4	2.7	5.8	2.2	1	<1.0	253	--
DEC												
16...	<1.0	1.4	<10	<1.0	6	4.8	5.9	3.3	<1	<1.0	289	--
16...	<.20	<.20	<3.0	<.30	--	<.10	<.20	<.50	--	<.20	<.10	<.10
JAN												
27...	<1.0	1.5	21	<1.0	<6	7.7	1.0	1.7	<1	<1.0	72	--
MAR												
15...	--	--	E7.3	--	<6	--	--	--	1	--	146	--
15...	--	--	E6.8	--	<6	--	--	--	2	--	145	--
APR												
13...	<1.0	1.7	<10	<1.0	E5	2.3	3.2	2.5	<1	<1.0	168	--
26...	--	--	<10	--	10	--	--	--	<1	--	171	--
26...	<.20	.52	<3.0	<.30	--	.13	<.20	<.50	--	<.20	<.10	<.10
MAY												
11...	--	--	<10	--	<6	--	--	--	<1	--	191	--
11...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	<10	--	E4	--	--	--	1	--	187	--
JUN												
08...	<1.0	1.9	<10	<1.0	<6	<1.0	2.7	1.7	1	<1.0	140	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	<.20	<.20	<3.0	<.30	--	<.10	<.20	<.50	--	<.20	<.10	<.10
JUL												
21...	--	--	E6.2	--	E4	--	--	--	<1	--	173	--
21...	--	--	10	--	<6	--	--	--	<1	--	180	--
AUG												
24...	<1.0	1.5	<10	<1.0	9	<1.0	11	2.8	<1	<1.0	209	--

WABASH RIVER BASIN

03378500 WABASH RIVER AT NEW HARMONY, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	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- PENDEED 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)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)
NOV											
12...	<10	2.6	<1.0	3.9	2.9	E.004	.0149	.470	<.0020	<.0020	<.0040
DEC											
16...	<10	3.7	1.1	3.2	2.8	E.002	.0078	.223	<.0020	<.0020	<.0040
16...	--	.64	<.20	--	--	--	--	--	--	--	--
JAN											
27...	<10	1.6	<1.0	4.6	3.9	<.010	.0156	.141	<.0020	<.0020	<.0040
MAR											
15...	<10	--	--	3.6	1.1	<.007	.0077	.091	<.0020	<.0020	E.0027
15...	<10	--	--	3.5	.50	.005	.0073	.090	<.0020	<.0020	E.0021
APR											
13...	<10	4.7	1.0	3.5	--	<.002	.0166	1.22	<.0020	<.0020	<.0040
26...	<10	--	--	4.3	--	.029	.288	2.24	<.0020	<.0020	.0080
26...	--	4.8	<.20	--	--	--	--	--	--	--	--
MAY											
11...	<10	--	--	3.5	3.2	.009	.261	2.31	<.0020	<.0020	<.0040
11...	--	--	--	<.10	.20	<.002	<.0020	<.001	<.0020	<.0020	<.0040
26...	<10	--	--	3.2	3.3	.078	.703	3.82	<.0020	<.0020	.0154
JUN											
08...	<10	1.0	<1.0	4.4	3.8	.089	1.60	11.6	<.0020	<.0020	E.0132
08...	--	--	--	<.10	<.20	--	--	--	--	--	--
22...	--	--	--	3.5	4.4	.019	.164	2.83	<.0020	<.0020	<.0040
22...	--	.95	<.20	--	--	--	--	--	--	--	--
JUL											
21...	<10	--	--	3.4	>5.0	<.002	<.0020	.689	<.0020	<.0020	<.0040
21...	<10	--	--	3.5	>5.0	<.002	.0146	.687	<.0020	<.0020	<.0040
AUG											
24...	<10	1.3	<1.0	3.7	4.9	<.002	<.0020	.370	<.0020	<.0020	<.0040

DATE	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS- SOLVED (UG/L) (39341)	MALA- THON, DIS- SOLVED (UG/L) (39532)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARA- THON, DIS- SOLVED (UG/L) (39542)
NOV											
12...	.161	E.143	<.002	<.001	<.0030	<.004	<.005	<.004	.154	<.0060	<.004
DEC											
16...	.0683	E.0866	<.002	<.001	<.0030	<.004	<.005	.010	.087	<.0060	<.004
16...	--	--	--	--	--	--	--	--	--	--	--
JAN											
27...	.0272	E.0443	<.002	<.001	<.0030	<.004	<.005	.036	.075	<.0060	<.004
MAR											
15...	.0153	E.0383	<.002	<.001	<.0030	<.004	<.005	<.004	.050	<.0060	<.004
15...	.0133	E.0348	<.002	<.001	<.0030	<.004	<.005	.005	.041	<.0060	<.004
APR											
13...	.0934	E.0749	<.002	<.001	<.0030	<.004	<.005	.039	.120	<.0060	<.004
26...	.157	E.125	E.003	<.001	<.0030	<.004	<.005	.116	.948	<.0060	<.004
26...	--	--	--	--	--	--	--	--	--	--	--
MAY											
11...	.170	E.165	E.004	<.001	<.0030	<.004	<.005	.047	.415	<.0060	<.004
11...	<.0040	<.0020	<.002	<.001	<.0030	<.004	<.005	<.004	<.002	<.0060	<.004
26...	.354	E.281	E.004	<.001	<.0030	<.004	<.005	.032	1.05	<.0060	<.004
JUN											
08...	.560	E.836	.007	<.001	<.0030	<.004	<.005	.087	2.48	<.0060	<.004
08...	--	--	--	--	--	--	--	--	--	--	--
22...	E.127	E.364	<.002	<.001	<.0030	<.004	<.005	.012	.704	<.0060	<.004
22...	--	--	--	--	--	--	--	--	--	--	--
JUL											
21...	.0564	E.143	<.002	<.001	<.0030	<.004	<.005	<.004	.113	<.0060	<.004
21...	.0527	E.144	<.002	<.001	<.0030	<.004	<.005	<.004	.105	<.0060	<.004
AUG											
24...	.0343	E.0811	<.002	<.015	<.0030	<.004	<.005	<.004	.057	<.0060	<.004

WABASH RIVER BASIN

03378500 WABASH RIVER AT NEW HARMONY, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
NOV											
12...	<.0070	.0213	.0746	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
DEC											
16...	<.0070	E.0112	.0277	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
16...	--	--	--	--	--	--	--	--	--	--	--
JAN											
27...	<.0070	<.0180	.107	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
MAR											
15...	<.0070	E.0051	.0197	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
15...	<.0070	<.0180	.0198	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
APR											
13...	<.0070	E.0075	.506	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
26...	<.0070	E.0118	.148	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
26...	--	--	--	--	--	--	--	--	--	--	--
MAY											
11...	<.0070	E.0171	.346	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
11...	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
26...	<.0070	.0262	.333	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
JUN											
08...	<.0070	.0351	1.00	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	.0150
08...	--	--	--	--	--	--	--	--	--	--	--
22...	<.0070	.0422	.159	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
22...	--	--	--	--	--	--	--	--	--	--	--
JUL											
21...	<.0070	.0400	.0617	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
21...	<.0070	.0405	.0624	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
AUG											
24...	<.0070	.0371	.0386	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
DATE	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)
NOV											
12...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
DEC											
16...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
16...	--	--	--	--	--	--	--	--	--	--	--
JAN											
27...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
MAR											
15...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
15...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
APR											
13...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
26...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
26...	--	--	--	--	--	--	--	--	--	--	--
MAY											
11...	<.0030	E.0010	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
11...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
26...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
JUN											
08...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
08...	--	--	--	--	--	--	--	--	--	--	--
22...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
22...	--	--	--	--	--	--	--	--	--	--	--
JUL											
21...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
21...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
AUG											
24...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030

WABASH RIVER BASIN

03378500 WABASH RIVER AT NEW HARMONY, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 12...	<.0040	<.0130	.0122	<.0070	<.0130	<.0010	<.0020	<.0020	70	2550	99
DEC 16...	<.0040	<.0130	E.0067	<.0070	<.0130	<.0010	<.0020	<.0020	17	358	96
16...	--	--	--	--	--	--	--	--	--	--	--
JAN 27...	<.0040	<.0130	E.0048	<.0070	<.0130	<.0010	<.0020	<.0020	247	96700	84
MAR 15...	<.0040	<.0130	E.0098	<.0070	<.0130	<.0010	<.0020	<.0020	85	14600	85
15...	<.0040	<.0130	E.0071	<.0070	<.0130	<.0010	E.0016	<.0020	--	--	--
APR 13...	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020	142	10700	99
26...	<.0040	<.0130	.0102	<.0070	<.0130	<.0010	E.0015	<.0020	136	21100	93
26...	--	--	--	--	--	--	--	--	--	--	--
MAY 11...	<.0040	<.0130	E.0074	<.0070	<.0130	<.0010	<.0020	<.0020	121	8690	97
11...	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020	--	--	--
26...	<.0040	<.0130	E.0070	<.0070	<.0130	<.0010	<.0020	<.0020	129	8220	98
JUN 08...	<.0040	<.0900	.0120	<.0070	<.0130	<.0010	<.0020	<.0020	248	33300	98
08...	--	--	--	--	--	--	--	--	--	--	--
22...	<.0040	<.0130	E.0085	<.0070	<.0130	<.0010	<.0020	<.0020	116	4290	99
22...	--	--	--	--	--	--	--	--	--	--	--
JUL 21...	<.0040	<.0130	E.0105	<.0070	<.0130	<.0010	<.0020	<.0020	23	470	98
21...	<.0040	<.0130	E.0105	<.0070	<.0130	<.0010	<.0020	<.0020	--	--	--
AUG 24...	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020	45	525	99

TRADEWATER RIVER BASIN

03383000 TRADEWATER RIVER AT OLNEY, KY

LOCATION.--Lat 37°13'26", long 87°46'53", Caldwell County, Hydrologic Unit 05140205, on left bank at downstream side of bridge on State Highway 1220 at Olney, 0.9 mi upstream from Cave Creek, 5.4 mi downstream from Flynn Creek, 9.5 mi northeast of Princeton, and at mile 72.7.

DRAINAGE AREA.--255 mi², of which about 9 mi² does not contribute directly to surface runoff.

PERIOD OF RECORD.--August 1940 to May 1984, March 1985 to current year.

GAGE.--Water-stage recorder. Datum of gage is 362.80 ft above sea level. Prior to July 31, 1942, nonrecording gage at same site and datum.

REMARKS.--Records fair except for periods of estimated record, which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of January 1937 reached a stage of 19.27 ft, from floodmarks, discharge, 17,000 ft³/s, by slope-area measurement from U.S. Army Corp of Engineers.

PEAKS ABOVE BASE.--Peak discharges above base of 2000 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 25	0500	*5000	16.26

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e1.0	e2.1	e8.0	e88	1320	1220	121	238	11	1030	5.4	.64
2	e.98	e2.0	e7.8	e86	e1100	1040	189	180	13	1770	3.9	.63
3	e1.0	e2.0	e8.4	e120	e800	809	263	150	e12	1690	3.2	.56
4	e1.2	e1.9	e9.2	e200	e500	623	971	130	e11	1070	3.1	.53
5	e6.0	e1.8	e20	e180	309	400	1330	142	e20	388	2.8	.47
6	17	e1.9	e120	e170	200	818	e1500	1180	e60	215	2.3	.42
7	22	e2.0	168	152	162	1140	e1600	1700	71	167	2.2	.38
8	29	e2.4	146	198	158	854	e1200	e1600	61	135	4.0	.36
9	50	e3.0	185	1190	149	737	e800	e1400	96	110	4.3	.33
10	53	e4.0	188	1460	133	1030	511	e900	70	89	3.4	.29
11	49	e10	143	e1300	117	905	320	e400	44	72	2.9	.34
12	33	e100	111	e1000	118	557	234	e215	29	58	2.3	.56
13	23	61	97	e700	171	323	190	e177	23	45	2.6	.60
14	14	39	119	453	196	692	168	155	101	33	2.3	.48
15	9.3	25	163	379	155	1450	228	140	96	25	1.7	.43
16	6.3	18	135	328	134	e1300	386	121	47	19	1.2	.57
17	4.4	e15	108	237	124	e900	353	106	27	16	.87	.77
18	e4.0	e12	88	335	121	e500	256	101	17	13	.75	.62
19	e3.8	e10	73	432	115	299	204	103	11	10	.75	.51
20	e4.1	e11	62	339	104	199	176	92	8.6	7.9	.75	.47
21	e4.0	e11	62	239	91	159	159	77	6.7	6.5	.64	.62
22	e3.9	e10	335	1090	79	136	146	66	13	5.6	.53	.61
23	e3.6	e11	799	3810	71	131	131	57	15	4.9	.55	.51
24	e3.4	e12	589	4580	74	218	116	48	31	4.6	.66	.38
25	e3.2	e13	259	e4000	96	217	102	39	163	4.2	.69	.23
26	e3.0	e11	169	e3000	108	170	92	33	122	3.7	.61	.22
27	e2.8	e10	140	e2400	190	140	221	27	497	3.5	.50	.22
28	e2.7	e9.2	122	e1900	1040	120	699	21	531	3.4	.43	.22
29	e2.6	e8.4	111	e1500	---	107	753	17	234	3.7	.47	.24
30	e2.5	e7.8	103	e1200	---	96	403	14	168	3.8	.38	.24
31	e2.2	---	e90	e900	---	90	---	13	---	4.6	.63	---
TOTAL	365.98	427.5	4738.4	33966	7935	17380	13822	9642	2609.3	7011.4	56.81	13.45
MEAN	11.8	14.2	153	1096	283	561	461	311	87.0	226	1.83	.45
MAX	53	100	799	4580	1320	1450	1600	1700	531	1770	5.4	.77
MIN	.98	1.8	7.8	86	71	90	92	13	6.7	3.4	.38	.22
CFM	.05	.06	.62	4.45	1.15	2.28	1.87	1.26	.35	.92	.01	.00
IN.	.06	.06	.72	5.14	1.20	2.63	2.09	1.46	.39	1.06	.01	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1999, BY WATER YEAR (WY)

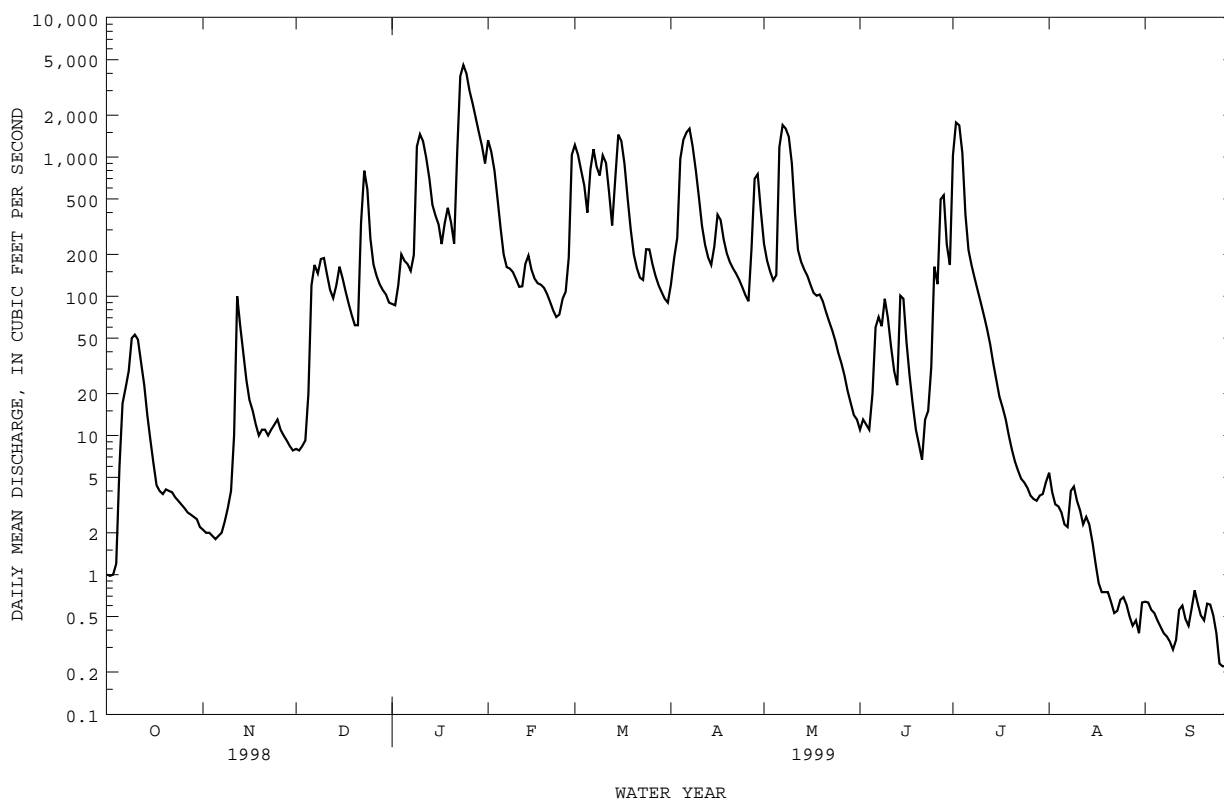
MEAN	29.3	207	441	570	731	778	594	396	153	92.2	36.5	50.2
MAX	324	2178	1963	2268	3529	2360	1851	1878	949	946	275	798
(WY)	1997	1958	1979	1950	1989	1997	1979	1983	1969	1989	1985	1950
MIN	.000	.000	.96	4.85	19.2	61.9	53.7	7.09	1.18	.003	.000	.000
(WY)	1941	1954	1964	1964	1964	1941	1986	1941	1944	1952	1952	1953

TRADEWATER RIVER BASIN

03383000 TRADEWATER RIVER AT OLNEY, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1941 - 1999	
ANNUAL TOTAL	87467.28		97967.84			
ANNUAL MEAN	240		268		334	
HIGHEST ANNUAL MEAN					701	
LOWEST ANNUAL MEAN					61.6	
HIGHEST DAILY MEAN	3210	Jun 13	4580	Jan 24	14000	Feb 16 1989
LOWEST DAILY MEAN	.82	Sep 11	.22	Sep 26	.00	Oct 1 1940
ANNUAL SEVEN-DAY MINIMUM	.96	Sep 11	.25	Sep 24	.00	Oct 1 1940
INSTANTANEOUS PEAK FLOW			5000	Jan 25	14600	Feb 16 1989
INSTANTANEOUS PEAK STAGE			16.26	Jan 25	18.85	Feb 16 1989
ANNUAL RUNOFF (CFSM)	.97		1.09		1.36	
ANNUAL RUNOFF (INCHES)	13.23		14.81		18.44	
10 PERCENT EXCEEDS	700		902		1130	
50 PERCENT EXCEEDS	68		74		62	
90 PERCENT EXCEEDS	1.9		.64		1.1	

e Estimated



OHIO RIVER MAIN STEM

03399800 OHIO RIVER AT SMITHLAND DAM, SMITHLAND, KY

LOCATION.--Lat 37°09'30", long 88°25'34", Livingston County, Hydrologic Unit 05140203, 2400 ft below Smithland Dam, 1.1 mi upstream from Cumberland Island, 1.8 mi northwest of Smithland, and at mile 919.0

DRAINAGE AREA.--144,000 mi², approximately.

PERIOD OF RECORD.--October 1993 to current year.

GAGE.--Gate opening, lockage and water-stage recorders. Datum of headwater gage is 311.94 ft above sea level. Datum of tailwater gage 0.8 mi downstream is 289.98 ft above sea level.

REMARKS.--Records fair. Daily discharge computed from tailwater elevation, head, gate openings, and lockages. Flow regulated by Ohio River system of locks, dams, and reservoirs upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36900	28300	38400	47200	626000	169000	129000	254000	57600	66200	20500	8310
2	18400	33100	29500	63200	620000	203000	129000	235000	83100	79600	27100	7670
3	14100	33300	19900	62400	611000	231000	125000	218000	94300	83700	23400	6600
4	37800	24800	33400	87700	601000	256000	151000	185000	71300	115000	34700	25700
5	13100	24700	21600	87000	584000	278000	170000	162000	95400	66300	3090	10100
6	24100	35300	23200	87800	561000	309000	184000	168000	77600	88900	9160	6080
7	24600	38300	28700	103000	533000	332000	189000	187000	105000	46500	22800	7270
8	52100	16600	46000	80400	494000	350000	188000	176000	66400	67900	14000	26300
9	53300	27400	45400	101000	463000	373000	176000	135000	97400	36600	23500	7200
10	74100	29700	42500	171000	442000	396000	164000	127000	77000	73500	19600	10900
11	59200	34300	48000	226000	419000	411000	163000	123000	69300	36100	8470	15800
12	45600	46300	63600	267000	406000	421000	164000	112000	37200	51200	8040	14800
13	40600	37200	54600	294000	397000	422000	179000	103000	36500	25900	10600	13800
14	35300	40900	49200	311000	389000	424000	203000	99700	73700	35300	28500	9010
15	27200	43600	50000	310000	380000	429000	221000	74400	46800	39300	12600	9300
16	21500	43800	52100	298000	367000	421000	219000	90800	49200	27000	21900	15900
17	32600	37600	69100	283000	351000	410000	218000	74900	42800	28000	15600	16000
18	25700	45600	58300	288000	332000	398000	208000	94600	40600	15500	11100	6850
19	26600	38900	58600	312000	299000	391000	192000	77900	53000	27000	13300	13600
20	34500	33300	47200	329000	276000	386000	184000	76200	26700	12700	17100	14000
21	27000	29000	27000	347000	253000	367000	181000	94600	34100	34000	15900	11900
22	27900	47100	82600	384000	235000	353000	186000	101000	37700	17300	10700	18700
23	38100	35400	143000	441000	211000	337000	185000	89500	40100	18400	10600	13500
24	20400	25300	131000	505000	200000	320000	203000	66900	35900	26700	15200	10000
25	21800	37500	124000	564000	177000	309000	217000	95300	31500	20800	22400	7790
26	33300	25800	127000	598000	154000	279000	226000	88700	26900	36000	41000	9290
27	27500	46400	101000	600000	134000	250000	240000	102000	39300	31900	45400	16500
28	16800	34200	74000	592000	141000	221000	258000	116000	53900	15900	35400	10500
29	26800	24900	54500	587000	---	193000	275000	115000	105000	33300	18900	8610
30	27600	45300	52300	597000	---	163000	271000	90000	96800	39300	22000	22600
31	27600	---	47100	616000	---	148000	---	70100	---	40700	12400	---
TOTAL	992100	1043900	1842800	9639700	10656000	9950000	5798000	3802600	1802100	1336500	594960	374580
MEAN	32000	34800	59450	311000	380600	321000	193300	122700	60070	43110	19190	12490
MAX	74100	47100	143000	616000	626000	429000	275000	254000	105000	115000	45400	26300
MIN	13100	16600	19900	47200	134000	148000	125000	66900	26700	12700	3090	6080

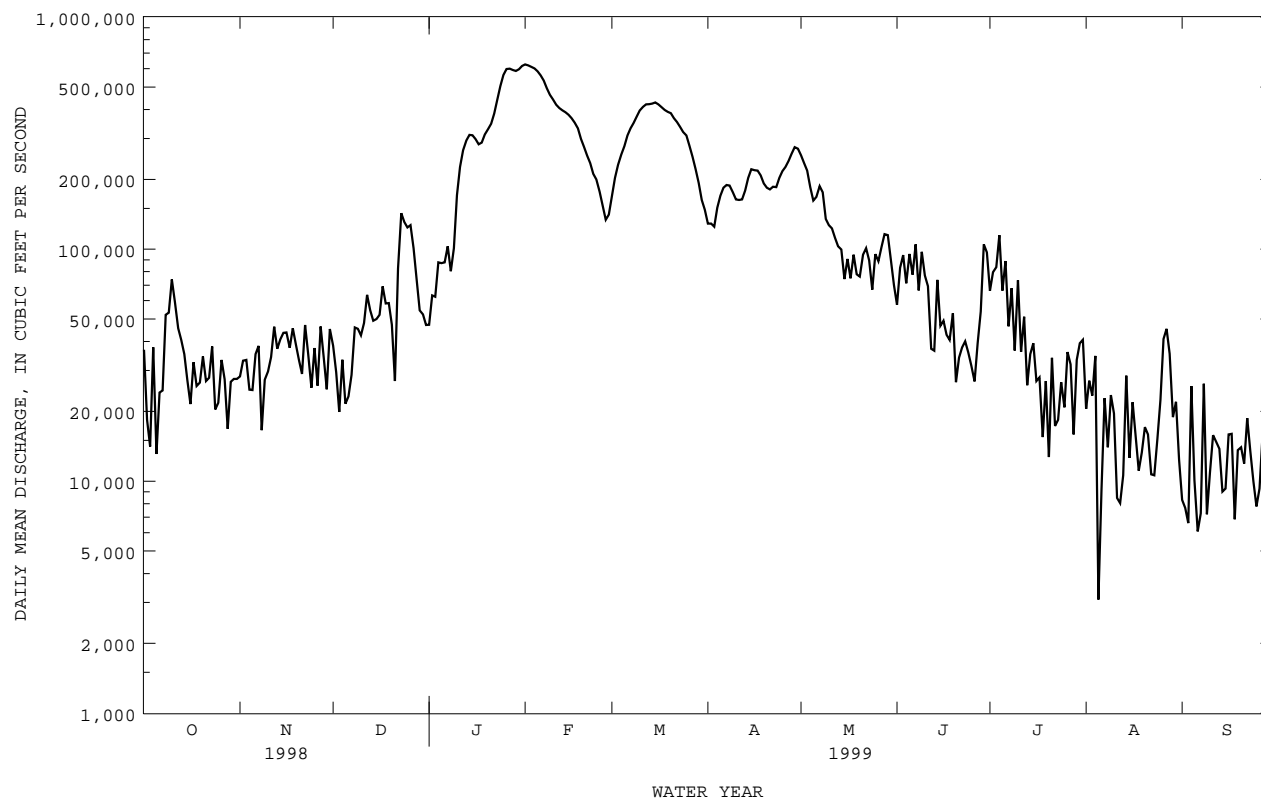
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1999, BY WATER YEAR (WY)

	1994	1995	1996	1997	1998	1999
MEAN	55560	113400	178600	251700	343600	408800
MAX	107500	226400	379200	311000	536200	700900
(WY)	1997	1994	1997	1999	1994	1997
MIN	29390	34800	59450	224200	213000	266700
(WY)	1998	1999	1999	1997	1995	1995

OHIO RIVER MAIN STEM

03399800 OHIO RIVER AT SMITHLAND DAM, SMITHLAND, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1994 - 1999	
ANNUAL TOTAL	71123500		47833240		199700	
ANNUAL MEAN	194900		131000		131000	
HIGHEST ANNUAL MEAN					247000	
LOWEST ANNUAL MEAN					131000	
HIGHEST DAILY MEAN	571000	Apr 21	626000	Feb 1	831000	Mar 12 1997
LOWEST DAILY MEAN	13100	Oct 5	3090	Aug 5	3090	Aug 5 1999
ANNUAL SEVEN-DAY MINIMUM	22300	Sep 14	10200	Sep 1	10200	Sep 1 1999
INSTANTANEOUS PEAK FLOW			629000		832000	
INSTANTANEOUS PEAK STAGE			44.05	Feb 1	51.44	Mar 12 1997
10 PERCENT EXCEEDS	443000		376000		475000	
50 PERCENT EXCEEDS	161000		58600		133000	
90 PERCENT EXCEEDS	25800		14500		28800	



CUMBERLAND RIVER BASIN
03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1979 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1979 to current year.

pH: October 1979 to current year.

WATER TEMPERATURE: October 1979 to current year.

DISSOLVED OXYGEN: October 1979 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1979.

REMARKS.--Four submersible pumps are located on Martins Fork Dam, at four different elevations referenced to sea level. Pump 1 is located near the bottom of the lake, at an elevation of 1,272 ft; pump 2 is at an elevation of 1,285 ft; pump 3 at an elevation of 1,298 ft; and pump 4 at an elevation of 1,308 ft, occasional operation. Each lake level is sampled once every four hours, or six times per day. A maximum and minimum value for pH and a maximum, minimum, and mean value for temperature, specific conductance, and dissolved oxygen are determined for each level. The monitor was shut down Nov. 24 to Mar. 23.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	143	138	140	164	159	163	---	---	---	---	---	---
2	147	143	145	164	160	164	---	---	---	---	---	---
3	153	140	146	165	161	162	---	---	---	---	---	---
4	154	145	148	166	161	163	---	---	---	---	---	---
5	151	146	149	167	166	166	---	---	---	---	---	---
6	156	148	151	167	147	158	---	---	---	---	---	---
7	153	145	150	156	152	154	---	---	---	---	---	---
8	150	149	150	153	152	152	---	---	---	---	---	---
9	150	146	148	153	149	150	---	---	---	---	---	---
10	155	147	150	154	149	150	---	---	---	---	---	---
11	152	148	150	151	150	150	---	---	---	---	---	---
12	153	149	152	155	151	152	---	---	---	---	---	---
13	157	149	152	163	156	160	---	---	---	---	---	---
14	162	154	158	160	156	158	---	---	---	---	---	---
15	154	153	153	161	157	159	---	---	---	---	---	---
16	154	154	154	158	154	156	---	---	---	---	---	---
17	158	154	155	158	154	156	---	---	---	---	---	---
18	155	151	154	159	151	155	---	---	---	---	---	---
19	163	155	157	160	155	158	---	---	---	---	---	---
20	156	152	154	160	156	157	---	---	---	---	---	---
21	156	152	154	157	153	156	---	---	---	---	---	---
22	157	153	155	162	157	158	---	---	---	---	---	---
23	157	153	156	158	154	156	---	---	---	---	---	---
24	158	150	154	---	---	---	---	---	---	---	---	---
25	159	146	154	---	---	---	---	---	---	---	---	---
26	163	155	159	---	---	---	---	---	---	---	---	---
27	164	156	158	---	---	---	---	---	---	---	---	---
28	165	153	160	---	---	---	---	---	---	---	---	---
29	161	157	160	---	---	---	---	---	---	---	---	---
30	162	158	160	---	---	---	---	---	---	---	---	---
31	163	159	162	---	---	---	---	---	---	---	---	---
MONTH	165	138	153	167	147	157	---	---	---	---	---	---

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN												
													OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	147	142	144	148	144	145	---	---	---	---	---	---												
2	148	139	143	149	141	144	---	---	---	---	---	---												
3	149	144	147	149	141	146	---	---	---	---	---	---												
4	154	146	150	149	141	144	---	---	---	---	---	---												
5	158	150	154	142	141	142	---	---	---	---	---	---												
6	160	151	154	150	146	147	---	---	---	---	---	---												
7	161	149	153	150	146	149	---	---	---	---	---	---												
8	154	149	152	151	147	148	---	---	---	---	---	---												
9	159	150	154	151	147	149	---	---	---	---	---	---												
10	159	155	156	154	149	150	---	---	---	---	---	---												
11	156	152	154	151	150	150	---	---	---	---	---	---												
12	161	152	158	155	151	154	---	---	---	---	---	---												
13	161	153	156	163	155	157	---	---	---	---	---	---												
14	158	153	154	160	152	155	---	---	---	---	---	---												
15	153	149	150	157	153	154	---	---	---	---	---	---												
16	150	146	149	158	154	157	---	---	---	---	---	---												
17	154	146	150	158	154	155	---	---	---	---	---	---												
18	151	147	148	159	155	156	---	---	---	---	---	---												
19	155	147	150	156	152	155	---	---	---	---	---	---												
20	152	148	149	160	152	156	---	---	---	---	---	---												
21	152	148	151	160	157	158	---	---	---	---	---	---												
22	153	145	148	162	157	159	---	---	---	---	---	---												
23	153	145	148	158	158	158	---	---	---	---	---	---												
24	146	145	145	---	---	---	---	---	---	---	---	---												
25	146	142	144	---	---	---	---	---	---	---	---	---												
26	146	142	143	---	---	---	---	---	---	---	---	---												
27	146	142	144	---	---	---	---	---	---	---	---	---												
28	147	143	145	---	---	---	---	---	---	---	---	---												
29	151	143	146	---	---	---	---	---	---	---	---	---												
30	148	143	145	---	---	---	---	---	---	---	---	---												
31	148	144	147	---	---	---	---	---	---	---	---	---												
MONTH	161	139	149	163	141	152	---	---	---	---	---	---												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN												
													FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	118	110	115	119	115	116												
2	---	---	---	---	---	---	118	110	113	119	116	117												
3	---	---	---	---	---	---	118	110	114	117	116	116												
4	---	---	---	---	---	---	114	106	113	118	116	117												
5	---	---	---	---	---	---	114	110	113	118	118	118												
6	---	---	---	---	---	---	118	114	115	124	119	121												
7	---	---	---	---	---	---	114	114	114	125	119	122												
8	---	---	---	---	---	---	118	114	115	123	119	121												
9	---	---	---	---	---	---	118	114	115	120	118	119												
10	---	---	---	---	---	---	118	114	115	122	117	118												
11	---	---	---	---	---	---	118	114	115	119	115	117												
12	---	---	---	---	---	---	118	114	116	118	108	112												
13	---	---	---	---	---	---	118	114	117	111	107	109												
14	---	---	---	---	---	---	118	114	117	110	107	108												
15	---	---	---	---	---	---	118	114	117	107	105	106												
16	---	---	---	---	---	---	118	114	117	107	105	106												
17	---	---	---	---	---	---	122	114	119	110	104	106												
18	---	---	---	---	---	---	118	114	117	110	106	108												
19	---	---	---	---	---	---	118	114	117	109	106	107												
20	---	---	---	---	---	---	118	110	113	108	105	107												
21	---	---	---	---	---	---	122	114	117	108	104	106												
22	---	---	---	---	---	---	126	118	121	106	104	105												
23	---	---	---	---	---	---	122	114	118	109	103	104												
24	---	---	---	---	---	---	122	118	121	106	103	104												
25	---	---	---	127	111	118	122	118	120	105	103	104												
26	---	---	---	119	107	112	122	118	120	105	103	104												
27	---	---	---	107	103	106	122	118	119	104	103	103												
28	---	---	---	115	107	109	122	118	119	105	103	104												
29	---	---	---	119	107	113	---	---	---	104	103	104												
30	---	---	---	115	107	112	---	---	---	104	103	104												
31	---	---	---	114	106	111	---	---	---	105	103	104												
MONTH	---	---	---	127	103	112	126	106	116	125	103	110												

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	104	103	104	112	109	110	123	119	122	---	---	---
2	105	103	104	115	112	114	123	122	123	---	---	---
3	104	103	104	115	112	113	122	121	122	---	---	---
4	105	104	104	117	113	115	123	121	122	---	---	---
5	104	104	104	115	113	114	122	122	122	---	---	---
6	104	103	104	115	113	113	123	121	122	---	---	---
7	104	104	104	117	111	113	123	121	122	---	---	---
8	105	104	105	113	111	112	124	123	124	142	137	139
9	105	103	104	114	111	113	123	122	123	150	139	143
10	105	103	104	115	113	114	123	123	123	147	138	141
11	105	103	104	115	114	114	126	124	125	148	142	146
12	105	103	104	115	114	114	127	127	127	149	145	146
13	105	103	104	115	115	115	127	124	126	147	146	147
14	105	104	104	115	114	115	129	127	128	147	145	146
15	105	104	104	128	114	120	130	128	129	147	147	147
16	106	104	105	128	126	127	129	128	128	149	146	148
17	107	104	105	128	126	127	133	131	132	149	148	148
18	106	104	105	128	127	127	131	130	130	150	148	149
19	107	104	105	129	126	127	132	131	131	150	149	149
20	107	105	106	126	125	125	134	132	133	150	150	150
21	107	105	106	128	126	127	---	---	---	151	150	150
22	108	106	107	126	125	126	---	---	---	150	150	150
23	109	106	107	127	126	126	---	---	---	150	150	150
24	110	108	108	129	118	123	---	---	---	151	150	150
25	110	108	109	122	116	119	---	---	---	151	151	151
26	110	107	109	116	114	115	---	---	---	152	151	152
27	109	108	109	116	114	115	---	---	---	152	152	152
28	112	108	110	115	113	114	---	---	---	153	152	153
29	112	109	111	118	115	117	---	---	---	154	152	153
30	112	109	110	118	116	117	---	---	---	153	152	152
31	---	---	---	120	118	119	---	---	---	---	---	---
MONTH	112	103	106	129	109	118	134	119	126	154	137	148
YEAR	163	103	127									
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	155	150	152	152	147	151	---	---	---	---	---	---
2	155	151	153	152	148	151	---	---	---	---	---	---
3	156	152	153	153	148	152	---	---	---	---	---	---
4	158	153	156	154	149	153	---	---	---	---	---	---
5	159	154	158	158	154	155	---	---	---	---	---	---
6	160	156	158	159	155	157	---	---	---	---	---	---
7	161	153	156	160	156	158	---	---	---	---	---	---
8	158	149	154	160	156	158	---	---	---	---	---	---
9	---	---	---	157	153	154	---	---	---	---	---	---
10	---	---	---	154	149	152	---	---	---	---	---	---
11	---	---	---	154	150	152	---	---	---	---	---	---
12	---	---	---	155	151	153	---	---	---	---	---	---
13	---	---	---	163	156	158	---	---	---	---	---	---
14	157	153	156	156	152	155	---	---	---	---	---	---
15	154	149	153	157	157	157	---	---	---	---	---	---
16	154	150	151	158	153	156	---	---	---	---	---	---
17	155	150	152	158	154	157	---	---	---	---	---	---
18	155	151	154	163	155	159	---	---	---	---	---	---
19	159	155	156	160	155	159	---	---	---	---	---	---
20	156	152	154	164	156	160	---	---	---	---	---	---
21	156	152	153	165	157	162	---	---	---	---	---	---
22	153	149	152	165	157	161	---	---	---	---	---	---
23	153	149	152	162	153	159	---	---	---	---	---	---
24	154	149	150	---	---	---	---	---	---	---	---	---
25	151	146	148	---	---	---	---	---	---	---	---	---
26	151	147	150	---	---	---	---	---	---	---	---	---
27	152	148	150	---	---	---	---	---	---	---	---	---
28	153	148	150	---	---	---	---	---	---	---	---	---
29	153	149	150	---	---	---	---	---	---	---	---	---
30	154	146	149	---	---	---	---	---	---	---	---	---
31	155	147	151	---	---	---	---	---	---	---	---	---
MONTH	161	146	153	165	147	156	---	---	---	---	---	---

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6.6	6.5	6.8	6.7	---	---	---	---	---	---	---	---
2	6.6	6.5	6.8	6.7	---	---	---	---	---	---	---	---
3	6.6	6.5	6.8	6.7	---	---	---	---	---	---	---	---
4	6.6	6.6	6.8	6.7	---	---	---	---	---	---	---	---
5	6.6	6.6	6.7	6.7	---	---	---	---	---	---	---	---
6	6.6	6.5	6.7	6.6	---	---	---	---	---	---	---	---
7	6.7	6.5	6.8	6.7	---	---	---	---	---	---	---	---
8	6.7	6.6	6.8	6.8	---	---	---	---	---	---	---	---
9	6.7	6.6	6.8	6.8	---	---	---	---	---	---	---	---
10	6.7	6.6	6.8	6.8	---	---	---	---	---	---	---	---
11	6.7	6.6	6.8	6.7	---	---	---	---	---	---	---	---
12	6.6	6.6	6.8	6.7	---	---	---	---	---	---	---	---
13	6.7	6.6	6.8	6.7	---	---	---	---	---	---	---	---
14	6.7	6.6	6.8	6.7	---	---	---	---	---	---	---	---
15	6.7	6.7	6.7	6.7	---	---	---	---	---	---	---	---
16	6.7	6.7	6.8	6.7	---	---	---	---	---	---	---	---
17	6.7	6.7	6.8	6.7	---	---	---	---	---	---	---	---
18	6.7	6.7	6.8	6.7	---	---	---	---	---	---	---	---
19	6.7	6.7	6.8	6.7	---	---	---	---	---	---	---	---
20	6.7	6.7	6.8	6.7	---	---	---	---	---	---	---	---
21	6.7	6.7	6.9	6.8	---	---	---	---	---	---	---	---
22	6.7	6.7	6.9	6.9	---	---	---	---	---	---	---	---
23	6.7	6.7	6.9	6.9	---	---	---	---	---	---	---	---
24	6.7	6.7	---	---	---	---	---	---	---	---	6.5	6.4
25	6.7	6.7	---	---	---	---	---	---	---	---	6.4	6.2
26	6.7	6.7	---	---	---	---	---	---	---	---	6.4	6.2
27	6.7	6.7	---	---	---	---	---	---	---	---	7.1	6.4
28	6.7	6.6	---	---	---	---	---	---	---	---	7.0	7.0
29	6.7	6.6	---	---	---	---	---	---	---	---	7.0	6.9
30	6.7	6.6	---	---	---	---	---	---	---	---	7.0	6.9
31	6.7	6.6	---	---	---	---	---	---	---	---	6.9	6.9
MONTH	6.7	6.5	---	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.0	6.9	6.4	6.4	6.4	6.4	6.5	6.5	6.3	6.3	---	---
2	6.9	6.8	6.4	6.4	6.4	6.4	6.5	6.4	6.3	6.3	---	---
3	6.9	6.8	6.4	6.4	6.5	6.4	6.5	6.5	6.3	6.3	---	---
4	6.8	6.7	6.5	6.4	6.5	6.5	6.5	6.5	6.3	6.3	---	---
5	6.8	6.7	6.5	6.4	6.5	6.5	6.5	6.5	6.3	6.3	---	---
6	6.9	6.8	6.5	6.5	6.5	6.5	6.5	6.5	6.3	6.3	---	---
7	---	---	6.6	6.5	6.5	6.4	6.5	6.4	6.3	6.3	---	---
8	---	---	6.5	6.5	6.5	6.4	6.4	6.4	6.3	6.3	6.4	6.4
9	---	---	6.6	6.5	6.5	6.4	6.4	6.4	6.3	6.3	6.4	6.4
10	---	---	6.5	6.5	6.5	6.5	6.4	6.4	6.3	6.3	6.4	6.4
11	---	---	6.5	6.5	6.5	6.5	6.4	6.3	6.4	6.4	6.4	6.4
12	---	---	6.6	6.5	6.5	6.5	6.3	6.3	6.4	6.4	6.4	6.4
13	---	---	6.4	6.4	6.5	6.5	6.3	6.3	6.5	6.4	6.4	6.3
14	---	---	6.5	6.4	6.5	6.5	6.4	6.3	6.5	6.4	6.4	6.4
15	---	---	6.5	6.4	6.5	6.5	6.4	6.3	6.5	6.4	6.4	6.3
16	---	---	6.5	6.4	6.5	6.5	6.4	6.3	6.4	6.3	6.4	6.3
17	---	---	6.5	6.4	6.5	6.5	6.4	6.3	6.3	6.3	6.4	6.3
18	---	---	6.4	6.4	6.5	6.5	6.4	6.4	6.3	6.2	6.4	6.3
19	---	---	6.5	6.5	6.5	6.5	6.4	6.3	6.2	6.2	6.3	6.3
20	---	---	6.5	6.5	6.5	6.5	6.3	6.3	6.2	6.2	6.4	6.3
21	---	---	6.5	6.4	6.5	6.5	6.3	6.3	---	---	6.3	6.3
22	---	---	6.5	6.4	6.5	6.5	6.3	6.3	---	---	6.5	6.3
23	---	---	6.5	6.4	6.6	6.5	6.3	6.3	---	---	6.5	6.4
24	---	---	6.5	6.4	6.6	6.5	6.3	6.3	---	---	6.5	6.5
25	---	---	6.5	6.4	6.6	6.6	6.3	6.3	---	---	6.5	6.4
26	---	---	6.5	6.4	6.6	6.6	6.3	6.3	---	---	6.5	6.4
27	---	---	6.4	6.4	6.6	6.6	6.3	6.3	---	---	6.4	6.4
28	---	---	6.4	6.4	6.6	6.6	6.3	6.3	---	---	6.4	6.4
29	---	---	6.4	6.4	6.6	6.6	6.3	6.3	---	---	6.4	6.4
30	6.4	6.4	6.4	6.4	6.6	6.4	6.3	6.3	---	---	6.4	6.3
31	---	---	6.4	6.4	---	---	6.3	6.3	---	---	---	---
MONTH	---	---	6.6	6.4	6.6	6.4	6.5	6.3	---	---	---	---

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	7.1	7.0	---	---	---	---	---	---
2	---	---	---	---	7.0	7.0	---	---	---	---	---	---
3	---	---	---	---	7.1	7.0	---	---	---	---	---	---
4	---	---	---	---	7.2	7.0	---	---	7.0	7.0	---	---
5	---	---	---	---	7.2	7.2	---	---	7.1	7.0	---	---
6	---	---	---	---	7.2	7.1	---	---	7.2	7.0	---	---
7	---	---	---	---	7.1	7.1	---	---	7.2	7.1	---	---
8	---	---	---	---	7.2	7.1	---	---	7.1	7.1	---	---
9	---	---	---	---	7.2	7.1	---	---	7.1	7.0	---	---
10	---	---	---	---	7.1	7.0	---	---	7.1	7.0	---	---
11	---	---	---	---	7.1	7.0	---	---	7.1	7.0	---	---
12	---	---	---	---	7.1	7.0	---	---	6.9	6.8	---	---
13	---	---	---	---	7.1	7.0	---	---	7.0	6.7	---	---
14	---	---	---	---	7.0	7.0	---	---	7.0	6.8	---	---
15	---	---	---	---	7.0	7.0	---	---	6.9	6.8	---	---
16	---	---	---	---	7.0	7.0	---	---	6.9	6.9	---	---
17	---	---	7.1	7.0	7.0	7.0	---	---	6.9	6.8	---	---
18	---	---	7.2	7.1	---	---	---	---	6.9	6.8	---	---
19	---	---	7.3	7.2	---	---	---	---	6.9	6.8	---	---
20	---	---	7.2	7.2	---	---	---	---	6.8	6.8	---	---
21	---	---	7.2	7.2	---	---	---	---	6.8	6.7	---	---
22	---	---	7.2	7.1	---	---	---	---	6.8	6.7	---	---
23	---	---	7.2	7.1	---	---	---	---	6.8	6.7	---	---
24	---	---	7.1	7.1	---	---	---	---	6.8	6.7	---	---
25	---	---	7.1	7.1	---	---	---	---	---	---	---	---
26	---	---	7.1	7.1	---	---	---	---	---	---	---	---
27	---	---	7.2	7.1	---	---	---	---	---	---	---	---
28	---	---	7.2	7.1	---	---	---	---	---	---	---	---
29	---	---	7.2	7.1	---	---	---	---	---	---	---	---
30	---	---	7.1	7.1	---	---	---	---	---	---	---	---
31	---	---	7.1	7.0	---	---	---	---	---	---	---	---
MONTH	---	---	7.3	7.0	7.2	7.0	---	---	7.2	6.7	---	---
YEAR	7.3	6.7										

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	18.8	18.6	18.7	20.0	19.8	19.9	---	---	---	---	---	---
2	18.8	18.6	18.7	20.0	19.8	19.8	---	---	---	---	---	---
3	18.8	18.6	18.7	20.0	19.8	19.9	---	---	---	---	---	---
4	18.8	18.6	18.7	20.0	19.8	19.9	---	---	---	---	---	---
5	19.0	18.6	18.8	20.0	20.0	20.0	---	---	---	---	---	---
6	19.0	18.8	18.9	20.2	20.0	20.0	---	---	---	---	---	---
7	19.0	18.8	19.0	20.0	19.8	19.9	---	---	---	---	---	---
8	19.0	18.8	19.0	19.8	19.4	19.7	---	---	---	---	---	---
9	19.0	18.8	18.9	19.8	19.6	19.7	---	---	---	---	---	---
10	19.0	19.0	19.0	19.8	19.6	19.7	---	---	---	---	---	---
11	19.2	19.0	19.0	19.8	19.6	19.7	---	---	---	---	---	---
12	19.4	19.0	19.2	19.8	19.6	19.7	---	---	---	---	---	---
13	19.4	19.0	19.3	19.8	19.6	19.7	---	---	---	---	---	---
14	19.8	18.8	19.3	19.8	19.6	19.7	---	---	---	---	---	---
15	19.0	18.6	18.8	19.8	19.6	19.7	---	---	---	---	---	---
16	18.8	18.8	18.8	19.8	19.6	19.7	---	---	---	---	---	---
17	19.0	18.8	18.8	19.8	19.6	19.7	---	---	---	---	---	---
18	19.0	18.8	18.9	19.8	19.6	19.7	---	---	---	---	---	---
19	19.2	18.6	19.0	19.8	19.4	19.6	---	---	---	---	---	---
20	18.6	17.4	17.8	19.8	19.4	19.6	---	---	---	---	---	---
21	18.4	18.2	18.3	19.8	19.6	19.6	---	---	---	---	---	---
22	18.6	18.2	18.5	19.6	19.4	19.5	---	---	---	---	---	---
23	18.6	18.6	18.6	19.6	19.4	19.5	---	---	---	---	---	---
24	18.6	18.4	18.6	---	---	---	---	---	---	---	---	---
25	18.8	18.6	18.7	---	---	---	---	---	---	---	---	---
26	19.4	18.6	19.0	---	---	---	---	---	---	---	---	---
27	19.4	19.2	19.3	---	---	---	---	---	---	---	---	---
28	19.4	19.0	19.3	---	---	---	---	---	---	---	---	---
29	19.6	19.4	19.5	---	---	---	---	---	---	---	---	---
30	19.8	19.6	19.7	---	---	---	---	---	---	---	---	---
31	19.8	19.8	19.8	---	---	---	---	---	---	---	---	---
MONTH	19.8	17.4	18.9	20.2	19.4	19.7	---	---	---	---	---	---

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	22.3	21.4	21.9	20.8	20.6	20.7	---	---	---	---	---	---
2	22.1	21.4	21.9	20.8	20.6	20.7	---	---	---	---	---	---
3	22.1	21.5	21.8	20.8	20.6	20.7	---	---	---	---	---	---
4	22.1	21.5	21.8	20.8	20.6	20.7	---	---	---	---	---	---
5	22.3	21.7	22.0	20.8	20.6	20.7	---	---	---	---	---	---
6	22.5	21.7	22.1	20.6	20.6	20.6	---	---	---	---	---	---
7	22.5	21.7	22.0	20.6	20.4	20.5	---	---	---	---	---	---
8	22.3	21.7	22.0	20.4	20.2	20.3	---	---	---	---	---	---
9	22.1	21.7	21.9	20.2	20.0	20.1	---	---	---	---	---	---
10	22.1	21.7	21.8	20.2	20.0	20.1	---	---	---	---	---	---
11	21.9	21.5	21.8	20.2	20.0	20.1	---	---	---	---	---	---
12	21.9	21.4	21.6	20.2	20.0	20.0	---	---	---	---	---	---
13	21.7	21.5	21.6	20.0	19.8	19.9	---	---	---	---	---	---
14	21.9	21.7	21.7	20.0	19.8	20.0	---	---	---	---	---	---
15	21.9	21.5	21.7	20.0	19.8	19.9	---	---	---	---	---	---
16	21.7	21.5	21.6	20.0	19.8	19.9	---	---	---	---	---	---
17	21.7	21.4	21.6	20.0	19.8	19.9	---	---	---	---	---	---
18	21.7	21.4	21.6	20.0	19.8	19.9	---	---	---	---	---	---
19	21.5	21.4	21.4	20.0	19.8	19.9	---	---	---	---	---	---
20	21.4	20.4	20.9	20.0	19.6	19.8	---	---	---	---	---	---
21	21.4	21.2	21.3	20.0	19.8	19.8	---	---	---	---	---	---
22	21.4	21.0	21.2	19.8	19.6	19.7	---	---	---	---	---	---
23	21.0	20.8	20.9	19.8	19.6	19.7	---	---	---	---	---	---
24	20.8	20.6	20.7	---	---	---	---	---	---	---	---	---
25	20.8	20.6	20.8	---	---	---	---	---	---	---	---	---
26	20.6	20.4	20.5	---	---	---	---	---	---	---	---	---
27	20.6	20.4	20.4	---	---	---	---	---	---	---	---	---
28	20.6	20.4	20.5	---	---	---	---	---	---	---	---	---
29	20.8	20.4	20.5	---	---	---	---	---	---	---	---	---
30	20.6	20.6	20.6	---	---	---	---	---	---	---	---	---
31	20.8	20.6	20.7	---	---	---	---	---	---	---	---	---
MONTH	22.5	20.4	21.4	20.8	19.6	20.2	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	12.0	11.4	11.5	14.4	13.6	13.9
2	---	---	---	---	---	---	11.8	11.2	11.5	14.6	13.8	14.0
3	---	---	---	---	---	---	12.1	11.3	11.6	14.1	13.8	14.0
4	---	---	---	---	---	---	13.3	11.3	12.0	14.4	13.9	14.1
5	---	---	---	---	---	---	12.9	11.7	12.0	14.5	14.2	14.4
6	---	---	---	---	---	---	12.5	11.7	12.1	15.3	14.3	14.7
7	---	---	---	---	---	---	13.1	11.7	12.3	15.6	14.6	15.0
8	---	---	---	---	---	---	12.9	12.1	12.3	15.6	14.7	15.2
9	---	---	---	---	---	---	13.5	12.3	12.8	15.5	15.3	15.4
10	---	---	---	---	---	---	13.3	12.3	12.6	16.2	15.4	15.8
11	---	---	---	---	---	---	12.9	12.3	12.5	16.3	15.7	16.1
12	---	---	---	---	---	---	13.3	12.7	13.0	16.5	15.7	16.1
13	---	---	---	---	---	---	13.7	12.5	12.9	16.2	15.7	16.0
14	---	---	---	---	---	---	13.1	12.3	12.8	16.9	15.7	16.2
15	---	---	---	---	---	---	13.1	12.7	12.8	16.2	16.1	16.2
16	---	---	---	---	---	---	16.4	12.9	14.2	16.5	16.1	16.3
17	---	---	---	---	---	---	15.5	12.9	13.8	17.0	16.1	16.5
18	---	---	---	---	---	---	13.7	13.1	13.4	16.9	16.3	16.6
19	---	---	---	---	---	---	15.5	13.1	14.0	17.3	16.6	16.7
20	---	---	---	---	---	---	14.1	13.1	13.7	16.9	16.7	16.8
21	---	---	---	---	---	---	15.3	13.3	14.0	17.0	16.8	16.9
22	---	---	---	---	---	---	14.7	13.5	13.9	17.1	16.7	16.9
23	---	---	---	---	---	---	14.3	13.7	13.9	17.2	16.6	16.9
24	---	---	---	11.7	11.2	11.4	14.5	13.5	13.9	17.3	16.7	16.9
25	---	---	---	11.3	10.6	11.0	13.9	13.5	13.8	17.5	16.9	17.1
26	---	---	---	11.7	11.2	11.4	13.9	13.5	13.7	17.4	16.8	17.1
27	---	---	---	11.7	11.2	11.5	14.1	13.7	13.8	17.3	17.0	17.2
28	---	---	---	11.8	11.2	11.5	13.9	13.7	13.8	17.4	17.0	17.2
29	---	---	---	11.8	11.1	11.4	---	---	---	17.4	17.0	17.2
30	---	---	---	12.0	11.1	11.6	---	---	---	17.4	17.1	17.3
31	---	---	---	12.8	11.2	11.5	---	---	---	17.7	17.3	17.4
MONTH	---	---	---	12.8	10.6	11.4	16.4	11.2	13.0	17.7	13.6	16.1

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	17.7	17.5	17.6	21.1	20.3	20.8	21.1	21.0	21.0	---	---	---
2	17.9	17.4	17.6	20.7	20.0	20.3	21.0	20.9	21.0	---	---	---
3	18.0	17.5	17.8	21.5	20.1	20.7	21.0	21.0	21.0	---	---	---
4	18.0	17.7	17.9	20.8	19.9	20.5	21.1	21.0	21.1	---	---	---
5	18.1	17.7	18.0	20.8	20.3	20.5	21.1	21.1	21.1	---	---	---
6	18.2	17.9	18.1	21.0	20.2	20.7	21.2	21.1	21.1	---	---	---
7	18.5	17.8	18.1	21.1	20.2	20.8	21.2	21.1	21.2	---	---	---
8	18.5	17.6	18.1	21.2	20.4	20.8	21.2	21.1	21.2	24.5	24.2	24.3
9	18.7	17.8	18.2	21.3	20.6	20.9	21.3	21.2	21.2	24.7	23.8	24.3
10	18.5	18.0	18.4	21.1	20.6	20.9	21.3	21.2	21.2	24.6	24.1	24.4
11	19.2	18.0	18.4	21.1	20.6	20.9	21.4	21.2	21.3	24.7	24.1	24.6
12	18.8	18.1	18.5	21.0	20.8	20.9	21.4	21.3	21.3	24.5	24.0	24.3
13	19.6	18.3	18.7	21.1	20.9	21.0	21.7	21.3	21.4	24.4	24.0	24.3
14	19.0	18.3	18.6	21.2	20.8	21.0	21.4	21.3	21.4	24.3	24.1	24.2
15	19.0	18.5	18.8	21.3	19.8	20.6	21.4	21.3	21.3	24.3	24.0	24.1
16	18.9	18.4	18.7	20.0	19.8	19.9	21.3	21.3	21.3	24.0	23.8	23.9
17	19.4	18.4	18.9	20.0	19.9	20.0	21.4	21.3	21.3	23.8	23.5	23.6
18	19.3	18.4	18.9	20.0	20.0	20.0	21.5	21.4	21.4	23.4	23.3	23.3
19	19.4	18.4	18.9	20.1	19.9	20.0	21.7	21.4	21.5	23.3	23.1	23.2
20	19.4	18.5	18.9	20.2	20.1	20.1	21.4	21.4	21.4	23.2	23.1	23.1
21	19.4	18.8	19.1	20.2	20.1	20.2	---	---	---	23.1	23.0	23.0
22	19.3	18.7	19.0	20.3	20.2	20.2	---	---	---	22.8	22.5	22.6
23	20.0	19.0	19.4	20.4	20.3	20.3	---	---	---	22.5	22.2	22.3
24	19.6	19.1	19.3	20.6	20.3	20.4	---	---	---	22.3	22.1	22.2
25	19.5	18.8	19.2	20.4	20.2	20.3	---	---	---	22.0	22.0	22.0
26	19.9	19.0	19.4	20.6	20.4	20.5	---	---	---	22.0	21.9	21.9
27	20.1	19.1	19.4	20.7	20.5	20.6	---	---	---	21.9	21.8	21.9
28	21.0	18.9	19.8	20.7	20.6	20.7	---	---	---	21.9	21.8	21.8
29	20.0	19.0	19.5	20.9	20.7	20.8	---	---	---	21.9	21.8	21.8
30	20.8	19.6	20.2	21.1	21.0	21.0	---	---	---	21.9	21.8	21.9
31	---	---	---	21.1	21.0	21.1	---	---	---	---	---	---
MONTH	21.0	17.4	18.7	21.5	19.8	20.6	21.7	20.9	21.2	24.7	21.8	23.2
YEAR	24.7	10.6	18.8									
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	24.5	24.1	24.3	21.5	21.4	21.5	---	---	---	---	---	---
2	24.1	23.9	24.0	21.5	21.4	21.4	---	---	---	---	---	---
3	23.9	23.7	23.8	21.5	21.4	21.5	---	---	---	---	---	---
4	24.1	23.5	23.7	21.5	21.4	21.5	---	---	---	---	---	---
5	23.7	23.3	23.5	21.5	21.4	21.4	---	---	---	---	---	---
6	23.9	23.3	23.6	21.4	21.2	21.3	---	---	---	---	---	---
7	23.9	23.3	23.6	21.2	20.8	21.0	---	---	---	---	---	---
8	23.7	23.3	23.5	21.0	20.6	20.8	---	---	---	---	---	---
9	---	---	---	20.8	20.2	20.6	---	---	---	---	---	---
10	---	---	---	20.6	20.6	20.6	---	---	---	---	---	---
11	---	---	---	20.8	20.6	20.7	---	---	---	---	---	---
12	---	---	---	20.8	20.6	20.7	---	---	---	---	---	---
13	---	---	---	20.8	20.4	20.6	---	---	---	---	---	---
14	22.5	22.3	22.4	20.6	20.4	20.5	---	---	---	---	---	---
15	22.5	22.3	22.4	20.6	20.4	20.5	---	---	---	---	---	---
16	22.3	22.3	22.3	20.6	20.2	20.5	---	---	---	---	---	---
17	22.3	22.1	22.2	20.6	20.4	20.5	---	---	---	---	---	---
18	22.5	22.1	22.2	20.6	20.4	20.4	---	---	---	---	---	---
19	22.3	22.1	22.2	20.6	20.2	20.4	---	---	---	---	---	---
20	22.1	21.7	21.9	20.6	20.2	20.4	---	---	---	---	---	---
21	22.1	21.7	21.9	20.4	20.2	20.3	---	---	---	---	---	---
22	21.9	21.5	21.7	20.4	20.0	20.2	---	---	---	---	---	---
23	21.7	21.5	21.6	20.2	20.2	20.2	---	---	---	---	---	---
24	21.5	21.2	21.4	---	---	---	---	---	---	---	---	---
25	21.5	21.2	21.4	---	---	---	---	---	---	---	---	---
26	21.4	21.2	21.3	---	---	---	---	---	---	---	---	---
27	21.4	20.8	21.2	---	---	---	---	---	---	---	---	---
28	21.4	21.0	21.2	---	---	---	---	---	---	---	---	---
29	21.5	21.4	21.4	---	---	---	---	---	---	---	---	---
30	21.5	21.2	21.4	---	---	---	---	---	---	---	---	---
31	21.5	21.4	21.5	---	---	---	---	---	---	---	---	---
MONTH	24.5	20.8	22.4	21.5	20.0	20.8	---	---	---	---	---	---

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	.2	.1	.1	.2	.2	.2	---	---	---	---	---	---
2	.1	.1	.1	.2	.2	.2	---	---	---	---	---	---
3	.2	.1	.1	.3	.2	.3	---	---	---	---	---	---
4	.3	.2	.2	.3	.3	.3	---	---	---	---	---	---
5	.3	.2	.2	.3	.3	.3	---	---	---	---	---	---
6	.3	.2	.2	4.2	.3	1.1	---	---	---	---	---	---
7	.3	.2	.2	5.8	4.3	5.1	---	---	---	---	---	---
8	.2	.2	.2	6.4	5.9	6.1	---	---	---	---	---	---
9	.2	.1	.1	6.5	5.9	6.2	---	---	---	---	---	---
10	.1	.1	.1	5.8	4.7	5.4	---	---	---	---	---	---
11	.1	.1	.1	5.5	4.1	5.1	---	---	---	---	---	---
12	.1	.0	.1	7.4	3.9	5.7	---	---	---	---	---	---
13	.0	.0	.0	8.3	6.2	7.3	---	---	---	---	---	---
14	.0	.0	.0	8.0	6.0	6.8	---	---	---	---	---	---
15	.0	.0	.0	7.0	6.7	6.8	---	---	---	---	---	---
16	.0	.0	.0	8.6	7.0	7.6	---	---	---	---	---	---
17	.0	.0	.0	7.8	5.9	6.7	---	---	---	---	---	---
18	.0	.0	.0	8.2	6.9	7.5	---	---	---	---	---	---
19	.1	.1	.1	---	---	---	---	---	---	---	---	---
20	.1	.1	.1	---	---	---	---	---	---	---	---	---
21	.3	.1	.2	---	---	---	---	---	---	---	---	---
22	.1	.1	.1	8.2	7.9	8.0	---	---	---	---	---	---
23	.2	.1	.1	8.0	7.9	8.0	---	---	---	---	---	---
24	.1	.1	.1	---	---	---	---	---	---	---	---	---
25	.1	.1	.1	---	---	---	---	---	---	---	---	---
26	.1	.1	.1	---	---	---	---	---	---	---	---	---
27	.2	.2	.2	---	---	---	---	---	---	---	---	---
28	.2	.2	.2	---	---	---	---	---	---	---	---	---
29	.2	.2	.2	---	---	---	---	---	---	---	---	---
30	.2	.2	.2	---	---	---	---	---	---	---	---	---
31	.2	.2	.2	---	---	---	---	---	---	---	---	---
MONTH	.3	.0	.1	8.6	.2	4.7	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	5.4	5.2	5.3
2	---	---	---	---	---	---	---	---	---	5.4	5.2	5.3
3	---	---	---	---	---	---	---	---	---	5.5	5.3	5.4
4	---	---	---	---	---	---	---	---	---	5.7	5.3	5.5
5	---	---	---	---	---	---	---	---	---	5.7	5.3	5.6
6	---	---	---	---	---	---	---	---	---	6.2	5.5	5.8
7	---	---	---	---	---	---	---	---	---	6.2	5.6	6.0
8	---	---	---	---	---	---	---	---	---	6.1	5.9	6.0
9	---	---	---	---	---	---	---	---	---	6.2	5.8	6.0
10	---	---	---	---	---	---	---	---	---	6.1	5.7	5.9
11	---	---	---	---	---	---	---	---	---	6.0	5.8	5.9
12	---	---	---	---	---	---	---	---	---	6.2	5.6	5.8
13	---	---	---	---	---	---	---	---	---	5.6	5.3	5.5
14	---	---	---	---	---	---	---	---	---	5.7	5.3	5.5
15	---	---	---	---	---	---	---	---	---	5.6	5.3	5.4
16	---	---	---	---	---	---	---	---	---	5.6	5.4	5.5
17	---	---	---	---	---	---	---	---	---	5.6	5.4	5.5
18	---	---	---	---	---	---	---	---	---	5.6	5.2	5.4
19	---	---	---	---	---	---	---	---	---	5.7	5.3	5.5
20	---	---	---	---	---	---	---	---	---	5.8	5.3	5.6
21	---	---	---	---	---	---	---	---	---	5.6	4.5	5.2
22	---	---	---	---	---	---	---	---	---	4.7	4.2	4.5
23	---	---	---	---	---	---	---	---	---	4.5	4.1	4.4
24	---	---	---	---	---	---	---	---	---	4.5	4.2	4.4
25	---	---	---	---	---	---	---	---	---	4.4	4.1	4.3
26	---	---	---	---	---	---	---	---	---	4.5	3.9	4.2
27	---	---	---	---	---	---	---	---	---	4.3	3.9	4.0
28	---	---	---	---	---	---	---	---	---	4.1	3.9	4.0
29	---	---	---	---	---	---	---	---	---	3.9	3.8	3.9
30	---	---	---	---	---	---	5.3	5.2	5.3	3.8	3.4	3.6
31	---	---	---	---	---	---	---	---	---	3.8	3.4	3.6
MONTH	---	---	---	---	---	---	5.3	5.2	5.3	6.2	3.4	5.1

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	3.4	3.2	3.3	2.1	1.3	1.7	.7	.6	.6	---	---	---
2	3.5	3.1	3.3	1.0	.9	1.0	.7	.6	.7	---	---	---
3	3.2	2.9	3.1	.9	.9	.9	.8	.7	.7	---	---	---
4	3.3	3.1	3.2	.9	.9	.9	.8	.7	.7	---	---	---
5	3.4	3.1	3.3	1.0	.9	.9	.7	.6	.7	---	---	---
6	3.2	3.0	3.1	.9	.9	.9	.6	.4	.5	---	---	---
7	3.2	2.6	3.0	1.0	.9	.9	.4	.4	.4	---	---	---
8	2.5	2.1	2.3	1.0	.9	.9	.4	.4	.4	1.3	1.3	1.3
9	2.2	2.0	2.1	1.0	.9	1.0	.4	.4	.4	1.3	1.2	1.2
10	2.0	1.9	1.9	.9	.9	.9	.4	.4	.4	1.2	1.1	1.2
11	2.0	1.6	1.9	.9	.8	.9	.4	.4	.4	1.2	1.1	1.1
12	1.9	1.6	1.7	.9	.9	.9	.4	.3	.4	1.0	1.0	1.0
13	1.6	1.4	1.6	.9	.8	.8	.6	.3	.4	1.0	1.0	1.0
14	1.6	1.5	1.6	.9	.9	.9	.6	.4	.4	1.1	1.0	1.0
15	1.7	1.5	1.6	.9	.8	.9	.4	.3	.3	1.2	1.0	1.2
16	1.6	1.3	1.4	1.0	.8	.9	.5	.3	.4	1.1	1.0	1.0
17	1.4	1.2	1.3	.9	.9	.9	.7	.7	.7	3.8	1.0	1.6
18	1.3	1.1	1.2	.9	.9	.9	.7	.6	.6	3.1	1.9	2.6
19	1.3	1.0	1.1	1.0	.9	1.0	.7	.6	.6	3.1	2.3	2.7
20	1.2	1.0	1.1	1.0	1.0	1.0	.6	.5	.6	3.7	2.9	3.1
21	1.2	1.0	1.1	1.0	1.0	1.0	---	---	---	2.9	2.1	2.4
22	1.1	.9	1.0	1.3	1.1	1.2	---	---	---	5.9	2.1	4.6
23	.9	.9	.9	1.7	1.1	1.4	---	---	---	6.6	5.1	6.0
24	.9	.8	.8	.9	.6	.7	---	---	---	5.9	5.6	5.8
25	.9	.8	.9	.8	.6	.7	---	---	---	5.3	4.8	5.0
26	.9	.9	.9	.7	.7	.7	---	---	---	5.8	4.6	5.3
27	.9	.8	.9	.6	.6	.6	---	---	---	4.7	4.3	4.5
28	.9	.8	.8	.6	.6	.6	---	---	---	4.1	3.9	4.0
29	.9	.9	.9	.7	.6	.7	---	---	---	4.3	3.6	4.0
30	2.0	.8	1.2	.7	.7	.7	---	---	---	4.0	3.5	3.7
31	---	---	---	.7	.6	.6	---	---	---	---	---	---
MONTH	3.5	.8	1.8	2.1	.6	.9	.8	.3	.5	6.6	1.0	2.8
YEAR	8.6	.0	2.2									
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	.2	.1	.2	5.2	1.5	3.5	---	---	---	---	---	---
2	.1	.1	.1	3.1	2.3	2.7	---	---	---	---	---	---
3	.1	.1	.1	3.5	1.1	2.6	---	---	---	---	---	---
4	.2	.1	.2	5.0	1.5	3.8	---	---	---	---	---	---
5	.2	.2	.2	4.6	4.0	4.2	---	---	---	---	---	---
6	.2	.2	.2	4.9	3.8	4.4	---	---	---	---	---	---
7	.2	.2	.2	5.5	5.2	5.4	---	---	---	---	---	---
8	.2	.2	.2	5.7	5.6	5.7	---	---	---	---	---	---
9	.2	.1	.1	6.0	5.6	5.8	---	---	---	---	---	---
10	.1	.1	.1	5.7	5.3	5.4	---	---	---	---	---	---
11	.1	.1	.1	6.8	5.5	6.1	---	---	---	---	---	---
12	.1	.0	.1	8.0	5.9	6.8	---	---	---	---	---	---
13	.0	.0	.0	8.5	7.4	7.6	---	---	---	---	---	---
14	.0	.0	.0	8.2	6.1	7.0	---	---	---	---	---	---
15	1.6	.0	.5	---	---	---	---	---	---	---	---	---
16	1.3	.0	.2	---	---	---	---	---	---	---	---	---
17	1.6	.0	.6	8.6	7.7	8.0	---	---	---	---	---	---
18	3.5	.0	1.1	8.5	7.2	7.8	---	---	---	---	---	---
19	3.1	.1	1.1	---	---	---	---	---	---	---	---	---
20	3.4	.7	1.7	---	---	---	---	---	---	---	---	---
21	3.9	.1	2.5	---	---	---	---	---	---	---	---	---
22	2.9	.1	1.1	7.5	7.3	7.4	---	---	---	---	---	---
23	4.1	1.1	3.3	7.4	7.3	7.3	---	---	---	---	---	---
24	4.2	2.2	3.8	---	---	---	---	---	---	---	---	---
25	4.1	2.2	3.3	---	---	---	---	---	---	---	---	---
26	3.9	1.1	2.9	---	---	---	---	---	---	---	---	---
27	3.5	.8	2.9	---	---	---	---	---	---	---	---	---
28	3.8	.6	2.0	---	---	---	---	---	---	---	---	---
29	1.5	.5	1.0	---	---	---	---	---	---	---	---	---
30	2.9	.9	1.8	---	---	---	---	---	---	---	---	---
31	2.5	.9	1.7	---	---	---	---	---	---	---	---	---
MONTH	4.2	.0	1.1	8.6	1.1	5.6	---	---	---	---	---	---

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.1	4.8	6.4	6.4	3.9	5.5	---	---	---	---	---	---
2	5.5	4.7	5.1	6.2	6.2	6.2	---	---	---	---	---	---
3	5.4	4.8	5.0	6.5	5.9	6.1	---	---	---	---	---	---
4	5.4	4.5	4.8	5.7	4.4	5.2	---	---	---	---	---	---
5	5.2	4.2	4.7	5.1	4.7	4.9	---	---	---	---	---	---
6	6.0	4.3	5.3	4.9	4.5	4.7	---	---	---	---	---	---
7	5.6	4.3	4.8	5.6	5.4	5.5	---	---	---	---	---	---
8	5.7	4.4	4.9	5.8	5.6	5.7	---	---	---	---	---	---
9	---	---	---	6.3	5.5	5.8	---	---	---	---	---	---
10	---	---	---	5.4	5.2	5.3	---	---	---	---	---	---
11	---	---	---	6.5	5.8	6.2	---	---	---	---	---	---
12	---	---	---	7.6	7.0	7.4	---	---	---	---	---	---
13	---	---	---	8.9	7.3	8.2	---	---	---	---	---	---
14	5.0	4.0	4.4	8.1	7.2	7.5	---	---	---	---	---	---
15	4.3	4.0	4.2	---	---	---	---	---	---	---	---	---
16	4.7	3.9	4.3	---	---	---	---	---	---	---	---	---
17	4.6	4.1	4.3	8.3	7.4	7.9	---	---	---	---	---	---
18	5.6	4.0	4.6	7.5	6.8	7.1	---	---	---	---	---	---
19	5.3	3.3	4.5	---	---	---	---	---	---	---	---	---
20	4.8	3.8	4.4	---	---	---	---	---	---	---	---	---
21	5.6	4.5	4.8	7.3	6.9	7.1	---	---	---	---	---	---
22	5.2	4.6	4.8	7.0	6.7	6.9	---	---	---	---	---	---
23	5.0	4.3	4.7	6.9	6.9	6.9	---	---	---	---	---	---
24	4.9	4.6	4.7	---	---	---	---	---	---	---	---	---
25	5.3	4.2	4.6	---	---	---	---	---	---	---	---	---
26	4.7	4.1	4.4	---	---	---	---	---	---	---	---	---
27	4.3	4.1	4.2	---	---	---	---	---	---	---	---	---
28	5.5	3.6	4.6	---	---	---	---	---	---	---	---	---
29	5.2	2.5	4.4	---	---	---	---	---	---	---	---	---
30	6.0	3.2	4.6	---	---	---	---	---	---	---	---	---
31	6.1	4.0	4.8	---	---	---	---	---	---	---	---	---
MONTH	7.1	2.5	4.7	8.9	3.9	6.3	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	7.3	7.0	7.1
2	---	---	---	---	---	---	---	---	---	7.5	7.0	7.1
3	---	---	---	---	---	---	---	---	---	7.6	7.1	7.3
4	---	---	---	---	---	---	---	---	---	8.0	7.3	7.6
5	---	---	---	---	---	---	---	---	---	7.7	7.1	7.4
6	---	---	---	---	---	---	---	---	---	7.9	7.0	7.4
7	---	---	---	---	---	---	---	---	---	8.2	7.6	7.9
8	---	---	---	---	---	---	---	---	---	8.3	7.2	8.0
9	---	---	---	---	---	---	---	---	---	8.3	8.0	8.1
10	---	---	---	---	---	---	---	---	---	8.2	7.9	8.0
11	---	---	---	---	---	---	---	---	---	8.3	7.9	8.1
12	---	---	---	---	---	---	---	---	---	8.2	7.9	8.1
13	---	---	---	---	---	---	---	---	---	8.2	7.1	7.9
14	---	---	---	---	---	---	---	---	---	8.4	8.0	8.2
15	---	---	---	---	---	---	---	---	---	8.7	8.0	8.4
16	---	---	---	---	---	---	---	---	---	8.7	8.2	8.4
17	---	---	---	---	---	---	---	---	---	9.0	8.0	8.4
18	---	---	---	---	---	---	---	---	---	8.9	8.1	8.6
19	---	---	---	---	---	---	---	---	---	9.3	8.5	8.9
20	---	---	---	---	---	---	---	---	---	9.0	8.0	8.4
21	---	---	---	---	---	---	---	---	---	8.9	7.5	8.3
22	---	---	---	---	---	---	---	---	---	8.7	6.9	7.6
23	---	---	---	---	---	---	---	---	---	8.4	7.4	7.8
24	---	---	---	---	---	---	---	---	---	7.9	6.9	7.4
25	---	---	---	---	---	---	---	---	---	8.6	6.9	7.8
26	---	---	---	---	---	---	---	---	---	8.3	7.0	7.5
27	---	---	---	---	---	---	---	---	---	7.6	7.2	7.4
28	---	---	---	---	---	---	---	---	---	7.5	7.1	7.3
29	---	---	---	---	---	---	---	---	---	7.6	7.3	7.4
30	---	---	---	---	---	---	7.2	6.7	7.0	8.5	7.3	7.6
31	---	---	---	---	---	---	---	---	---	7.7	7.3	7.4
MONTH	---	---	---	---	---	---	7.2	6.7	7.0	9.3	6.9	7.8

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.9	7.1	7.3	8.3	7.7	8.0	6.7	5.7	6.0	7.1	6.5	6.7
2	7.4	6.9	7.2	8.0	7.6	7.8	5.9	4.9	5.4	6.8	6.3	6.6
3	7.8	6.7	7.3	8.1	7.5	7.7	7.3	6.4	6.8	7.1	6.4	6.8
4	8.5	6.8	7.2	8.3	7.5	8.0	7.3	7.0	7.1	6.9	6.6	6.8
5	7.7	6.9	7.1	8.7	8.0	8.3	7.5	6.8	7.1	6.9	6.1	6.6
6	7.5	7.1	7.2	8.7	8.2	8.4	7.4	7.0	7.2	7.3	5.5	6.6
7	7.2	6.9	7.0	8.5	7.6	8.0	7.4	7.1	7.2	7.7	6.2	7.1
8	7.1	6.7	6.9	8.3	7.5	7.8	7.3	6.9	7.1	7.6	6.5	7.0
9	7.5	6.6	7.0	8.2	6.9	7.4	7.1	6.7	6.9	7.5	6.5	7.1
10	6.9	6.7	6.8	8.8	7.1	8.2	7.0	6.4	6.7	7.0	5.0	5.9
11	7.1	6.7	6.9	9.2	8.7	8.9	6.9	6.5	6.7	6.3	5.5	5.9
12	7.0	6.7	6.8	9.0	7.9	8.6	6.6	6.3	6.5	6.8	5.6	6.2
13	7.8	6.6	7.0	8.1	7.8	7.9	6.2	5.0	5.8	6.7	6.0	6.4
14	6.9	6.4	6.6	8.6	7.7	8.0	6.2	5.5	5.9	7.1	6.6	6.9
15	7.5	6.4	6.8	8.4	7.7	8.1	6.7	5.8	6.2	6.1	5.7	5.9
16	6.6	6.5	6.6	8.9	7.8	8.1	6.3	5.4	6.0	6.6	5.6	6.0
17	7.1	6.4	6.6	8.4	7.9	8.1	6.1	5.4	5.8	6.5	5.6	6.2
18	7.0	6.7	6.8	8.4	8.0	8.2	6.4	5.3	5.7	7.6	6.2	6.7
19	7.2	6.8	6.9	8.5	7.8	8.0	6.2	5.7	6.0	8.1	6.3	7.0
20	7.0	6.7	6.8	8.4	7.8	8.1	5.5	4.6	5.0	7.8	6.3	7.2
21	7.0	6.6	6.8	8.0	7.8	7.8	5.3	4.8	5.1	7.3	6.8	7.0
22	7.2	6.5	6.8	7.8	7.2	7.6	5.6	4.6	5.2	7.4	6.8	7.0
23	7.5	6.5	6.8	7.4	6.6	7.0	6.4	5.6	6.0	7.5	7.1	7.4
24	7.1	6.7	6.9	7.1	6.6	6.9	6.6	4.9	5.7	7.6	7.4	7.5
25	7.1	6.6	6.8	7.2	6.9	7.0	6.9	4.3	5.0	8.1	7.3	7.6
26	7.3	6.8	7.0	7.5	6.8	7.2	6.5	4.3	5.0	8.5	7.1	7.8
27	7.3	7.1	7.2	7.7	6.8	7.2	6.2	5.9	6.0	7.7	7.4	7.5
28	7.5	7.2	7.3	7.3	6.8	7.1	7.0	6.1	6.3	8.2	6.9	7.8
29	8.3	7.3	7.7	7.6	6.9	7.4	6.8	6.1	6.5	8.6	7.1	7.8
30	8.6	7.7	8.0	7.4	6.6	6.9	6.9	6.4	6.6	7.9	7.0	7.4
31	---	---	---	7.2	6.2	6.6	6.7	6.1	6.4	---	---	---
MONTH	8.6	6.4	7.0	9.2	6.2	7.8	7.5	4.3	6.2	8.6	5.0	6.9
YEAR	9.3	2.5	6.7									

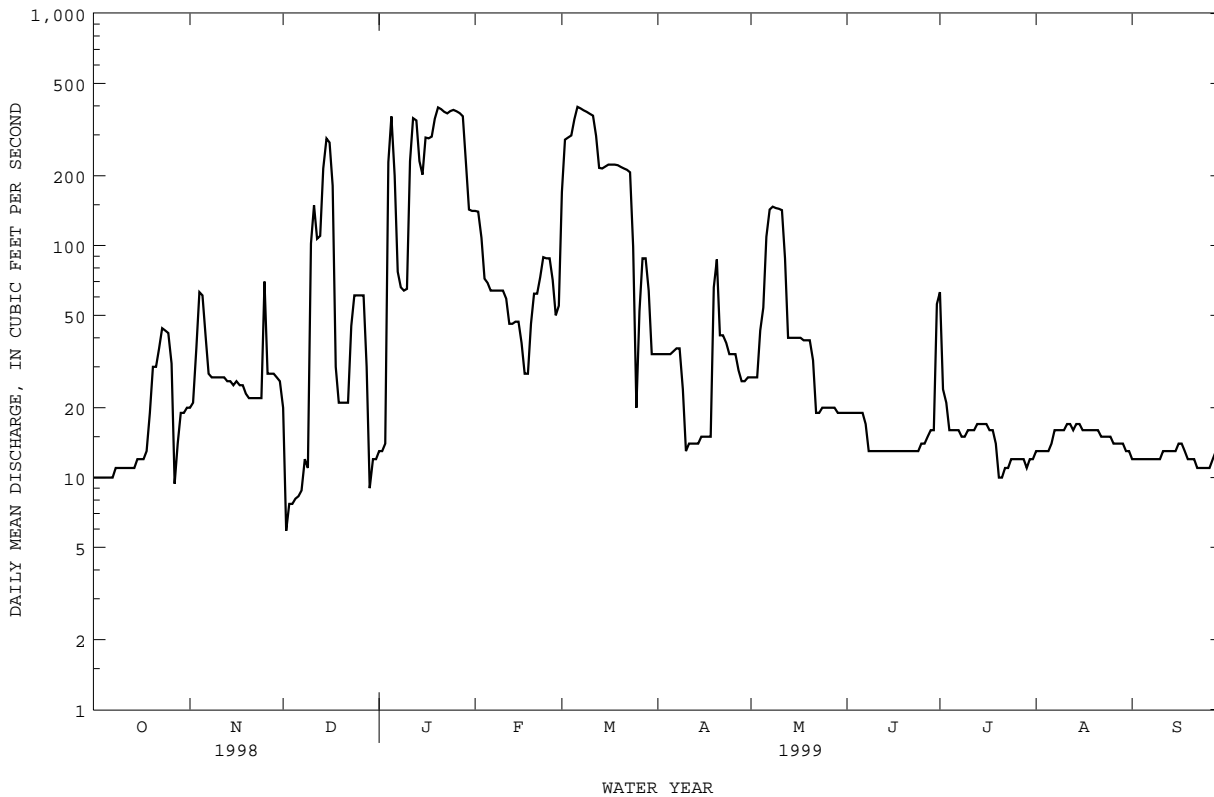
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	7.7	6.8	7.3
18	---	---	---	---	---	---	---	---	---	7.5	7.1	7.3
19	---	---	---	---	---	---	---	---	---	8.5	7.5	7.8
20	---	---	---	---	---	---	---	---	---	8.2	7.7	8.0
21	---	---	---	---	---	---	---	---	---	7.5	6.8	7.3
22	---	---	---	---	---	---	---	---	---	6.9	6.7	6.8
23	---	---	---	---	---	---	---	---	---	6.9	6.7	6.8
24	---	---	---	---	---	---	---	---	---	6.8	6.6	6.8
25	---	---	---	---	---	---	---	---	---	7.0	6.7	6.8
26	---	---	---	---	---	---	---	---	---	7.1	6.9	7.0
27	---	---	---	---	---	---	---	---	---	7.3	7.1	7.2
28	---	---	---	---	---	---	---	---	---	7.5	7.1	7.2
29	---	---	---	---	---	---	---	---	---	7.9	7.1	7.4
30	---	---	---	---	---	---	---	---	---	7.3	6.9	7.1
31	---	---	---	---	---	---	---	---	---	7.0	6.8	6.9
MONTH	---	---	---	---	---	---	---	---	---	8.5	6.6	7.2



CUMBERLAND RIVER BASIN

03400800 MARTINS FORK NEAR SMITH, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1980 - 1999	
ANNUAL TOTAL	39297.9		24135.9		104	
ANNUAL MEAN	108		66.1		139	
HIGHEST ANNUAL MEAN					58.0	
LOWEST ANNUAL MEAN					1997	
HIGHEST DAILY MEAN	1510	Apr 20	396	Mar 6	1510	Apr 20 1998
LOWEST DAILY MEAN	5.9	Dec 2	5.9	Dec 2	5.4	Aug 31 1996
ANNUAL SEVEN-DAY MINIMUM	8.4	Dec 2	8.4	Dec 2	6.7	Jul 16 1980
INSTANTANEOUS PEAK FLOW			400		9000	
INSTANTANEOUS PEAK STAGE			10.47		24.24	
INSTANTANEOUS LOW FLOW					.10	
10 PERCENT EXCEEDS	225		222		285	
50 PERCENT EXCEEDS	42		21		48	
90 PERCENT EXCEEDS	10		12		11	



CUMBERLAND RIVER BASIN

03400800 MARTINS FORK NEAR SMITH, KY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1971 to current year.

pH: December 1979 to current year.

WATER TEMPERATURE: October 1971 to current year.

DISSOLVED OXYGEN: December 1979 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1971.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE (water years 1972-77, 1980 to current year): Maximum, 561 microsiemens, Feb. 12, 1972; minimum, 49 microsiemens, Feb. 26, 1985.

pH: Maximum, 8.2 units, July 2, 1980; minimum, 5.9 units, Jan. 6, 7, 1996, Sept. 20, 1998.

WATER TEMPERATURE: Maximum, 32.5°C, Aug. 6, 1982; minimum, 0.0°C, on many days during winter months.

DISSOLVED OXYGEN: Maximum, 15.6 mg/L, Jan. 20, 21, 1985; minimum, 4.6 mg/L, Aug. 10, 1994.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 173 microsiemens, Dec. 8, 9; minimum, 93 microsiemens, Jan. 27.

pH: Maximum, 7.4 units, Nov. 20; minimum, 6.1 units, Aug. 31 to Sept. 2.

WATER TEMPERATURE: Maximum, 27.5°C, July 31; minimum, 2.8°C, Jan. 6, 7.

DISSOLVED OXYGEN: Maximum, 13.6 mg/L, Dec. 7, 8; minimum, 5.6 mg/L, Aug. 9.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	155	151	155	161	157	160	165	161	162	142	142	142
2	155	151	155	161	161	161	165	165	165	166	142	146
3	155	155	155	161	157	161	165	165	165	162	143	148
4	155	151	153	161	157	160	165	165	165	143	135	141
5	156	151	153	161	161	161	165	161	164	139	135	139
6	156	152	154	161	161	161	165	161	165	139	128	133
7	156	152	155	161	161	161	165	161	164	132	132	132
8	156	152	155	161	161	161	173	149	168	136	132	133
9	156	156	156	161	161	161	173	165	168	136	132	134
10	160	156	156	161	157	160	170	162	165	148	132	141
11	160	156	157	161	161	161	170	162	164	136	116	127
12	157	157	157	162	161	161	166	150	157	120	116	118
13	161	157	157	166	162	162	154	142	148	128	120	122
14	161	157	157	162	162	162	151	146	147	143	116	129
15	161	157	157	162	162	162	151	143	147	159	116	130
16	161	157	157	162	162	162	151	147	148	124	108	114
17	157	157	157	162	162	162	147	143	145	123	111	116
18	161	157	157	162	162	162	143	135	139	119	111	116
19	162	157	158	163	162	162	140	135	138	115	111	114
20	158	158	158	163	159	163	136	136	136	119	111	115
21	158	158	158	163	163	163	139	135	137	142	111	134
22	158	158	158	163	163	163	135	135	135	141	110	123
23	160	156	159	163	161	162	144	135	137	149	110	127
24	160	156	160	161	161	161	140	136	139	133	122	127
25	160	160	160	161	161	161	140	136	140	132	109	117
26	160	160	160	---	---	---	144	140	141	136	105	115
27	160	160	160	165	161	161	145	141	142	121	93	104
28	160	160	160	165	161	164	145	141	143	105	97	101
29	160	160	160	165	161	164	145	137	142	113	105	111
30	160	160	160	165	161	164	145	141	142	117	105	109
31	161	160	160	---	---	---	142	142	142	125	113	118
MONTH	162	151	157	166	157	162	173	135	150	166	93	125

CUMBERLAND RIVER BASIN

03400800 MARTINS FORK NEAR SMITH, KY--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	113	101	106	---	---	---	123	119	121	---	---	---
2	113	101	104	---	---	---	123	119	120	---	---	---
3	109	105	105	---	---	---	123	119	119	---	---	---
4	109	109	109	---	---	---	119	119	119	---	---	---
5	117	109	111	---	---	---	123	119	119	---	---	---
6	117	113	114	---	---	---	123	119	119	121	118	120
7	113	113	113	---	---	---	119	119	119	123	119	120
8	113	113	113	---	---	---	119	119	119	124	120	121
9	117	113	116	---	---	---	119	119	119	122	118	120
10	121	117	117	---	---	---	119	119	119	121	115	119
11	126	117	118	---	---	---	123	119	120	119	115	117
12	129	122	125	---	---	---	123	119	120	119	115	117
13	126	122	123	---	---	---	123	119	120	120	113	117
14	126	122	122	---	---	---	123	119	121	120	114	117
15	122	122	122	---	---	---	123	119	122	119	113	116
16	122	122	122	---	---	---	123	123	123	119	114	116
17	122	118	121	---	---	---	123	123	123	119	113	116
18	126	122	124	---	---	---	123	123	123	117	113	115
19	130	123	123	---	---	---	123	119	121	117	110	114
20	123	123	123	---	---	---	119	115	118	114	111	113
21	123	123	123	---	---	---	119	119	119	114	112	113
22	123	123	123	---	---	---	123	119	120	115	112	114
23	127	123	123	---	---	---	123	119	121	115	113	114
24	123	123	123	122	118	118	123	123	123	116	110	114
25	123	123	123	122	118	121	123	123	123	115	113	114
26	127	123	126	122	114	119	123	123	123	115	112	113
27	127	127	127	118	110	113	123	123	123	115	112	113
28	---	---	---	129	114	117	126	123	123	113	110	112
29	---	---	---	125	114	121	---	---	---	113	111	112
30	---	---	---	125	118	121	---	---	---	113	111	112
31	---	---	---	123	119	121	---	---	---	113	111	112
MONTH	130	101	118	129	110	119	126	115	121	124	110	115
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	113	109	111	134	124	127	129	125	128	145	142	144
2	115	106	109	136	133	135	129	128	128	147	145	147
3	115	112	114	139	135	137	130	128	129	150	147	149
4	115	111	114	138	134	136	130	129	129	153	150	151
5	116	114	115	137	134	136	130	129	129	155	152	153
6	116	115	116	138	135	136	130	129	130	156	154	155
7	125	116	118	138	133	136	131	129	130	158	155	157
8	127	125	126	139	135	137	131	130	131	159	156	158
9	127	126	127	139	135	137	131	130	130	160	156	159
10	128	126	127	140	133	137	130	130	130	161	157	160
11	128	127	128	139	136	138	131	130	130	162	158	160
12	129	127	128	138	134	137	131	130	130	164	161	162
13	129	127	129	138	133	136	132	130	131	163	159	161
14	131	129	130	137	131	134	132	131	132	161	158	160
15	130	128	129	136	131	133	132	132	132	161	158	160
16	130	128	129	134	125	130	132	132	132	160	157	159
17	135	127	130	136	123	126	132	132	132	159	157	158
18	134	129	131	134	127	131	134	132	132	159	157	159
19	131	129	130	137	126	131	134	133	134	160	157	159
20	131	130	130	132	128	130	134	132	134	161	158	160
21	131	128	130	131	127	129	134	134	134	161	158	160
22	131	127	129	129	126	127	134	133	134	161	158	160
23	131	128	130	127	126	127	135	134	134	162	159	161
24	130	128	129	128	123	126	136	135	136	162	160	161
25	132	130	131	129	126	128	137	130	136	163	159	161
26	132	128	131	129	126	127	137	136	137	163	160	162
27	133	131	132	129	127	127	138	137	138	164	160	162
28	137	132	134	128	126	127	140	138	139	164	160	162
29	137	134	136	129	125	127	141	140	140	165	161	163
30	136	123	130	129	127	128	141	140	140	166	163	164
31	---	---	---	129	127	128	142	140	142	---	---	---
MONTH	137	106	126	140	123	132	142	125	133	166	142	158

CUMBERLAND RIVER BASIN

03400800 MARTINS FORK NEAR SMITH, KY--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.7	6.6	---	7.3	6.8	---	7.3	7.1	---	6.8	6.7	---
2	6.7	6.6	---	7.2	7.0	---	7.1	7.1	---	7.1	6.7	---
3	6.7	6.6	---	7.2	6.9	---	7.2	7.1	---	7.0	6.7	---
4	6.9	6.6	---	7.0	6.8	---	7.2	7.1	---	6.7	6.7	---
5	6.7	6.6	---	7.0	6.8	---	7.2	7.1	---	6.7	6.7	---
6	6.7	6.6	---	6.9	6.8	---	7.3	7.0	---	6.7	6.6	---
7	6.8	6.6	---	6.9	6.8	---	7.3	7.1	---	6.7	6.6	---
8	6.8	6.7	---	7.0	6.9	---	7.2	7.0	---	6.9	6.7	---
9	6.8	6.7	---	7.2	6.9	---	7.1	7.0	---	6.9	6.7	---
10	7.0	6.7	---	7.3	7.1	---	7.0	6.9	---	6.7	6.7	---
11	7.1	6.8	---	7.2	7.1	---	7.0	6.9	---	6.7	6.6	---
12	7.0	6.8	---	7.1	7.0	---	6.9	6.9	---	6.7	6.7	---
13	7.0	6.9	---	7.1	7.0	---	7.0	6.8	---	6.7	6.7	---
14	7.1	6.9	---	7.4	7.1	---	6.9	6.8	---	6.9	6.7	---
15	7.1	6.9	---	7.3	7.1	---	6.9	6.8	---	6.7	6.7	---
16	7.1	7.0	---	7.3	7.0	---	7.0	6.9	---	6.7	6.6	---
17	7.2	7.0	---	7.3	7.0	---	7.0	6.8	---	6.9	6.6	---
18	7.2	7.0	---	7.2	7.0	---	6.9	6.8	---	6.9	6.8	---
19	7.1	7.0	---	7.2	7.1	---	6.8	6.8	---	6.8	6.7	---
20	7.2	7.0	---	7.4	7.1	---	6.8	6.7	---	6.9	6.7	---
21	7.2	7.1	---	7.2	7.0	---	7.0	6.6	---	6.8	6.8	---
22	7.1	7.1	---	7.2	7.1	---	7.0	6.8	---	6.9	6.8	---
23	7.2	6.9	---	7.2	7.1	---	6.8	6.7	---	6.9	6.8	---
24	7.2	6.9	---	7.3	7.1	---	6.7	6.7	---	6.8	6.7	---
25	7.2	6.9	---	7.2	7.2	---	6.7	6.7	---	6.7	6.6	---
26	7.1	6.9	---	---	---	---	6.7	6.7	---	6.6	6.6	---
27	7.0	6.9	---	7.3	7.2	---	6.8	6.7	---	6.8	6.6	---
28	7.1	6.9	---	7.3	7.2	---	6.9	6.7	---	6.7	6.6	---
29	7.2	6.9	---	7.3	7.2	---	7.1	6.7	---	6.6	6.5	---
30	7.2	6.9	---	7.3	7.1	---	6.8	6.7	---	6.6	6.5	---
31	7.2	6.8	---	---	---	---	6.9	6.8	---	6.6	6.5	---
MONTH	7.2	6.6	---	7.4	6.8	---	7.3	6.6	---	7.1	6.5	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	6.9	6.6	---	---	---	---	6.9	6.7	---	---	---	3.4
2	6.9	6.7	---	---	---	---	6.9	6.7	---	---	---	3.4
3	6.7	6.7	---	---	---	---	6.9	6.7	---	---	---	3.4
4	6.7	6.7	---	---	---	---	6.9	6.7	---	---	---	3.5
5	6.7	6.7	---	---	---	---	6.9	6.7	---	---	---	3.4
6	6.7	6.7	---	---	---	---	6.8	6.6	---	---	---	5.9
7	6.9	6.7	---	---	---	---	6.6	6.5	6.6	---	---	10.2
8	6.8	6.6	---	---	---	---	6.7	6.5	6.6	---	---	10.3
9	6.6	6.6	---	---	---	---	6.9	6.5	6.7	---	---	10.2
10	6.6	6.6	---	---	---	---	6.6	6.4	6.5	---	---	10.2
11	6.6	6.6	---	---	---	---	6.6	6.4	6.5	---	---	10.3
12	6.7	6.6	---	---	---	---	6.4	6.4	6.4	---	---	10.3
13	6.6	6.6	---	---	---	---	6.4	6.3	6.4	---	---	10.1
14	6.7	6.6	---	---	---	---	6.4	6.3	6.3	---	---	7.1
15	7.0	6.6	---	---	---	---	6.7	6.4	6.5	---	---	7.1
16	7.0	6.7	---	---	---	---	6.6	6.4	6.5	7.1	6.9	7.1
17	7.0	6.8	---	---	---	---	6.5	6.4	6.4	7.1	6.8	7.1
18	7.0	6.7	---	---	---	---	6.4	6.3	6.3	7.1	6.8	7.0
19	6.8	6.7	---	---	---	---	6.6	6.3	6.4	7.1	6.9	---
20	6.8	6.7	---	---	---	---	6.7	6.3	6.5	7.1	6.9	7.0
21	6.8	6.7	---	---	---	---	6.8	6.5	6.6	7.1	6.8	7.0
22	6.7	6.7	---	---	---	---	6.7	6.5	6.6	6.9	6.8	6.9
23	6.7	6.6	---	---	---	---	6.8	6.6	6.6	6.9	6.8	6.9
24	6.7	6.7	---	6.8	6.7	---	6.6	6.6	6.6	6.9	6.8	6.9
25	6.8	6.7	---	6.8	6.7	---	6.8	6.6	6.7	6.9	6.9	6.9
26	6.9	6.7	---	6.7	6.7	---	6.6	6.6	6.6	6.9	6.8	6.9
27	6.9	6.7	---	6.8	6.7	---	6.9	6.6	6.7	6.9	6.8	6.9
28	---	---	---	6.9	6.7	---	6.9	6.6	6.7	6.9	6.8	6.9
29	---	---	---	6.9	6.7	---	---	---	---	6.9	6.8	---
30	---	---	---	6.9	6.7	---	---	---	3.4	6.9	6.8	6.8
31	---	---	---	6.9	6.7	---	---	---	---	6.9	6.8	6.8
MONTH	7.0	6.6	---	6.9	6.7	---	6.9	6.3	6.4	7.1	6.8	7.1

CUMBERLAND RIVER BASIN

03400800 MARTINS FORK NEAR SMITH, KY--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.9	6.8	6.8	7.1	6.8	6.9	7.0	6.5	6.8	6.7	6.1	6.5
2	6.9	6.8	6.8	7.2	6.8	7.1	7.0	6.5	6.8	6.8	6.1	6.5
3	6.9	6.8	6.8	7.2	6.7	7.0	6.9	6.7	---	6.8	6.3	---
4	6.9	6.8	6.8	7.1	6.6	6.9	6.9	6.5	---	6.9	6.4	6.7
5	6.9	6.8	6.9	7.1	6.6	6.9	6.9	6.4	6.7	6.8	6.5	6.7
6	6.9	6.8	6.9	7.0	6.7	6.9	6.8	6.4	6.7	6.8	6.8	6.8
7	7.0	6.8	6.9	7.1	6.7	---	6.8	6.4	6.7	6.8	6.4	6.7
8	7.0	6.9	6.9	7.2	6.8	---	6.8	6.5	---	6.8	6.2	6.7
9	7.0	6.9	6.9	7.1	6.8	7.0	6.8	6.4	6.7	6.9	6.7	6.8
10	7.0	6.9	6.9	7.1	6.7	6.9	6.8	6.4	6.7	6.9	6.3	6.7
11	7.0	6.9	6.9	7.1	6.6	6.9	6.7	6.3	6.5	6.8	6.3	6.7
12	7.0	6.9	6.9	7.1	6.6	6.9	6.7	6.3	6.5	6.8	6.4	6.7
13	7.0	6.9	6.9	7.1	6.9	7.1	6.7	6.4	6.6	6.9	6.4	6.8
14	6.9	6.9	6.9	7.1	6.6	6.9	6.7	6.3	6.6	6.9	6.5	6.8
15	7.0	6.9	6.9	7.1	6.8	7.0	6.7	6.5	6.7	6.9	6.5	6.8
16	6.9	6.9	6.9	7.1	6.7	7.0	6.7	6.3	6.6	6.9	6.8	6.8
17	6.9	6.8	6.9	7.1	6.8	7.0	6.7	6.3	6.6	6.9	6.3	6.8
18	6.9	6.8	6.9	7.0	6.7	6.9	6.7	6.4	6.7	7.1	6.5	6.9
19	6.9	6.8	6.9	7.0	6.6	6.9	6.7	6.3	6.7	7.0	6.6	6.9
20	6.9	6.8	6.9	6.9	6.4	6.8	6.7	6.3	---	7.0	6.5	6.8
21	6.9	6.8	6.9	6.8	6.4	6.7	6.7	6.3	---	7.0	6.5	---
22	6.9	6.8	6.9	6.8	6.6	6.8	6.7	6.2	---	7.0	6.9	---
23	7.0	6.8	6.9	6.9	6.5	6.7	6.7	6.3	6.6	7.1	6.4	6.9
24	7.2	6.6	6.9	6.9	6.4	6.7	6.7	6.2	6.5	7.1	6.5	6.9
25	7.2	6.6	6.9	6.8	6.4	6.7	6.7	6.3	---	7.0	6.4	6.8
26	7.1	6.8	7.1	6.9	6.4	6.7	6.7	6.3	6.6	7.1	6.3	6.8
27	7.1	6.6	6.9	6.9	6.6	6.9	6.7	6.2	6.5	7.1	6.6	7.0
28	7.1	6.6	---	6.9	6.5	6.7	6.7	6.2	6.5	7.1	6.5	6.8
29	7.1	6.6	6.9	6.9	6.7	6.8	6.7	6.2	6.5	6.9	6.5	6.6
30	7.1	6.7	7.0	6.9	6.4	6.8	6.7	6.6	---	7.0	6.7	6.9
31	---	---	---	6.9	6.4	6.8	6.7	6.1	6.5	---	---	---
MONTH	7.2	6.6	6.9	7.2	6.4	6.9	7.0	6.1	6.6	7.1	6.1	6.8

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	24.5	22.1	23.5	19.0	17.0	17.6	13.1	11.0	12.4	6.4	5.2	5.7
2	25.1	21.2	22.7	18.2	17.0	17.6	---	---	---	6.5	5.6	6.0
3	22.9	21.5	22.2	18.6	17.6	18.0	12.9	11.3	12.2	6.2	4.8	5.5
4	25.3	21.9	23.2	17.6	16.8	17.1	13.9	11.0	12.0	4.8	3.8	4.2
5	25.1	22.3	23.4	16.8	15.9	16.4	12.3	11.5	11.9	3.8	3.6	3.7
6	25.1	22.1	23.4	16.1	14.9	15.6	13.9	11.9	12.7	3.6	2.8	3.0
7	24.7	22.3	23.4	16.1	14.7	15.1	13.5	12.5	13.0	3.4	2.8	3.1
8	22.9	21.4	22.2	14.7	14.5	14.5	12.8	11.8	12.5	3.9	3.2	3.6
9	22.5	20.8	21.5	15.1	14.3	14.8	12.6	10.2	11.4	4.3	3.5	3.9
10	23.3	20.4	21.4	15.9	14.9	15.2	11.5	10.0	10.8	4.5	3.4	3.8
11	23.5	20.2	21.4	15.5	14.3	14.9	11.6	11.1	11.3	4.2	3.4	3.8
12	23.3	20.2	21.3	15.3	13.9	14.5	11.4	11.0	11.1	4.6	4.2	4.4
13	22.7	20.2	21.1	14.9	14.1	14.5	11.4	10.9	11.1	4.8	4.4	4.6
14	22.3	19.4	20.5	14.7	14.5	14.6	10.9	9.9	10.3	5.6	4.8	5.2
15	22.5	19.2	20.3	15.3	13.9	14.7	10.0	9.6	9.8	5.7	5.1	5.3
16	22.9	19.2	20.4	15.5	13.7	14.5	10.3	9.6	9.9	6.1	5.3	5.6
17	22.7	19.2	20.4	15.3	13.9	14.7	9.9	8.9	9.4	6.1	5.5	5.7
18	22.1	19.2	20.5	15.1	13.5	14.2	10.0	8.4	9.1	6.6	6.1	6.3
19	20.8	20.2	20.5	14.9	14.1	14.4	9.7	8.8	9.4	6.9	5.8	6.4
20	21.0	19.4	20.1	14.5	13.5	14.2	10.5	9.7	10.0	7.3	6.5	6.9
21	20.4	19.2	19.6	14.1	12.9	13.4	10.9	10.0	10.3	7.1	6.5	6.8
22	19.6	18.4	19.0	13.9	12.7	13.2	11.3	8.7	9.8	8.3	6.9	7.4
23	19.4	18.0	18.5	13.1	12.5	12.8	8.7	7.9	8.2	8.4	6.9	7.7
24	19.2	17.6	18.2	13.7	12.1	12.9	7.9	7.3	7.7	8.2	7.4	7.8
25	19.0	17.4	18.1	---	---	---	7.3	6.7	7.0	8.8	7.2	8.3
26	18.6	16.6	17.7	---	---	---	7.3	6.7	7.0	8.8	7.2	8.2
27	---	---	---	12.9	11.7	12.5	6.9	6.4	6.8	9.4	8.0	8.7
28	18.4	16.1	17.3	12.9	11.1	12.0	---	---	---	9.7	8.7	9.1
29	18.8	17.0	17.8	12.9	11.0	11.9	---	---	---	9.1	8.5	8.6
30	18.8	16.8	17.7	12.9	10.8	11.9	6.9	5.8	6.2	9.1	8.5	8.7
31	19.0	17.0	17.7	---	---	---	6.5	5.6	5.9	8.5	8.3	8.4
MONTH	25.3	16.1	20.5	19.0	10.8	14.6	13.9	5.6	10.0	9.7	2.8	6.0

CUMBERLAND RIVER BASIN

03400800 MARTINS FORK NEAR SMITH, KY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	9.2	8.5	8.9	---	---	---	10.8	9.6	9.9	---	---	---
2	9.6	9.0	9.3	---	---	---	11.3	9.6	10.2	---	---	---
3	9.6	9.0	9.3	---	---	---	11.5	9.6	10.4	---	---	---
4	10.0	9.4	9.6	---	---	---	11.9	10.0	10.7	---	---	---
5	9.6	8.8	9.2	---	---	---	12.5	10.2	11.0	---	---	---
6	9.7	8.7	9.3	---	---	---	12.3	10.6	11.2	---	---	---
7	10.3	9.3	9.7	---	---	---	12.5	10.4	11.2	15.9	15.3	15.6
8	9.9	9.0	9.5	---	---	---	12.3	10.4	11.0	16.7	15.3	15.8
9	9.6	8.8	9.1	---	---	---	15.5	11.0	12.5	16.3	15.7	15.9
10	9.9	9.1	9.4	---	---	---	14.7	10.8	12.4	16.7	15.8	16.2
11	10.1	9.1	9.5	---	---	---	14.9	11.3	12.7	17.2	16.2	16.6
12	9.9	8.8	9.5	---	---	---	11.5	10.6	11.1	18.2	16.0	16.7
13	9.4	8.4	8.9	---	---	---	13.9	10.2	11.8	17.9	15.9	16.4
14	9.4	8.4	8.8	---	---	---	12.3	10.4	11.3	17.5	15.9	16.5
15	9.5	8.0	8.7	---	---	---	12.9	11.1	11.9	18.1	16.0	16.7
16	10.5	8.1	9.2	---	---	---	13.5	10.6	11.9	18.5	16.1	16.9
17	10.9	9.9	10.4	---	---	---	12.5	10.8	11.5	18.6	16.4	17.1
18	10.2	9.0	9.5	---	---	---	12.9	11.1	11.8	18.6	16.6	17.2
19	9.2	8.4	8.8	---	---	---	14.3	11.0	12.4	18.8	16.6	17.4
20	9.2	8.2	8.5	---	---	---	14.7	12.3	13.3	19.1	16.9	17.6
21	8.5	7.9	8.3	---	---	---	15.3	12.9	13.8	19.6	16.9	17.9
22	8.0	7.5	7.8	---	---	---	15.7	13.1	14.2	19.4	16.6	17.6
23	7.8	7.4	7.6	---	---	---	16.3	13.7	14.9	19.6	16.7	17.7
24	7.6	7.2	7.4	10.2	8.4	9.2	16.3	14.5	15.2	18.9	16.7	17.5
25	7.4	7.0	7.2	9.8	8.0	8.7	17.2	14.7	15.7	19.4	16.7	17.7
26	7.6	6.8	7.1	9.2	7.6	8.4	15.9	15.1	15.4	19.8	17.0	17.9
27	7.4	6.8	7.1	10.0	8.8	9.3	16.6	15.3	15.8	20.0	16.7	17.9
28	---	---	---	10.4	8.8	9.5	17.2	15.5	16.3	20.0	16.6	17.9
29	---	---	---	10.6	8.8	9.5	---	---	---	20.2	16.9	18.2
30	---	---	---	11.1	8.6	9.6	---	---	---	20.0	17.1	18.3
31	---	---	---	10.4	8.8	9.5	---	---	---	20.0	17.2	18.2
MONTH	10.9	6.8	8.8	11.1	7.6	9.2	17.2	9.6	12.6	20.2	15.3	17.2
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	19.2	17.6	18.2	24.1	20.6	21.9	27.0	24.0	25.1	26.7	23.3	24.6
2	20.1	17.6	18.6	24.9	23.4	24.0	27.0	24.0	25.1	26.9	23.3	24.6
3	20.3	17.9	18.7	25.7	23.0	24.0	26.7	23.8	24.8	27.0	23.6	24.8
4	20.8	17.9	18.9	25.0	22.9	23.7	27.0	23.7	24.9	27.1	23.4	24.8
5	20.9	18.0	18.9	25.6	23.1	24.0	26.5	23.7	24.8	25.5	23.7	24.5
6	21.1	18.2	19.2	25.5	23.1	24.0	27.1	23.6	24.8	26.1	24.5	25.1
7	22.5	18.4	20.1	25.4	23.2	24.0	27.3	23.7	25.0	27.4	24.4	25.4
8	24.6	20.6	22.2	25.9	23.3	24.3	25.1	23.6	24.3	27.1	23.9	25.1
9	25.0	21.2	22.5	26.5	23.3	24.6	26.5	23.9	24.9	26.2	24.2	25.0
10	24.8	21.4	22.4	25.7	23.7	24.3	27.1	23.6	24.9	26.7	23.4	24.8
11	25.0	21.2	22.7	25.0	23.6	24.1	26.9	23.8	24.9	26.8	23.3	24.7
12	24.8	21.2	22.6	24.1	23.3	23.7	26.5	23.9	24.8	27.2	24.1	25.4
13	25.2	21.5	23.0	24.9	23.4	24.0	26.9	24.0	25.2	25.4	24.1	24.8
14	22.9	21.6	22.2	25.8	23.5	24.2	26.7	24.1	25.1	26.3	24.3	25.2
15	24.8	21.5	22.8	25.7	23.6	24.4	26.3	23.6	24.7	26.2	23.6	24.7
16	22.7	21.5	22.0	25.9	23.7	24.5	26.7	23.7	24.9	26.0	23.5	24.5
17	24.1	20.9	22.2	26.3	23.8	24.6	27.0	23.6	24.9	26.3	23.0	24.4
18	24.7	20.5	22.0	26.0	23.9	24.5	26.9	23.6	25.0	25.9	23.0	24.2
19	24.0	20.3	21.8	26.4	23.0	24.6	26.0	23.6	24.5	26.0	23.1	24.3
20	24.7	20.5	22.1	25.3	22.8	23.7	24.9	23.6	24.2	24.9	23.3	24.0
21	25.0	20.8	22.4	25.7	22.9	23.9	26.2	23.6	24.6	23.9	23.6	23.8
22	24.6	20.9	22.5	26.0	23.0	23.9	26.6	23.2	24.4	24.8	22.2	23.2
23	24.9	21.1	22.7	26.5	23.2	24.2	26.1	23.4	24.4	24.7	21.6	22.9
24	22.5	21.5	22.0	25.3	23.0	23.7	26.0	23.9	24.7	24.4	21.4	22.7
25	23.9	21.7	22.4	26.4	23.0	24.2	26.2	23.8	24.7	24.6	21.5	22.8
26	24.5	21.9	22.9	26.4	23.2	24.4	26.1	24.0	24.8	24.7	21.4	22.8
27	23.8	21.9	22.6	25.8	23.3	24.1	26.1	23.8	24.7	24.6	22.3	23.1
28	25.3	22.1	23.0	26.8	23.4	24.5	27.0	24.1	25.1	24.8	22.5	23.3
29	24.4	22.0	22.8	27.0	23.6	24.8	27.0	24.1	25.2	23.5	22.2	23.0
30	22.2	20.5	21.3	27.2	23.8	25.1	26.0	23.4	24.6	23.5	21.1	22.2
31	---	---	---	27.5	23.9	25.2	26.5	22.9	24.3	---	---	---
MONTH	25.3	17.6	21.6	27.5	20.6	24.2	27.3	22.9	24.8	27.4	21.1	24.2

CUMBERLAND RIVER BASIN

03400800 MARTINS FORK NEAR SMITH, KY--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.8	6.3	6.5	9.3	8.6	8.9	10.9	9.9	10.2	13.2	12.3	12.5
2	6.8	6.4	6.6	9.1	8.7	8.8	10.9	10.4	10.7	12.8	11.4	12.2
3	6.8	6.4	6.6	9.3	8.2	8.8	12.1	11.9	12.0	12.8	11.7	12.1
4	6.8	6.4	6.6	9.5	7.5	8.8	12.2	11.9	12.0	12.7	11.3	12.2
5	6.9	6.5	6.7	9.2	8.3	9.0	12.8	11.7	12.2	13.0	11.4	12.2
6	7.1	6.7	6.8	9.4	7.9	9.1	12.2	11.8	12.0	12.8	12.2	12.5
7	7.0	6.3	6.7	9.6	8.8	9.3	13.6	11.4	12.3	13.0	12.8	12.9
8	6.8	6.1	6.5	9.9	9.3	9.7	13.6	10.8	12.9	12.9	12.6	12.8
9	6.8	6.1	6.5	9.9	9.5	9.7	13.5	10.8	12.7	12.8	12.4	12.6
10	6.5	6.1	6.3	9.5	9.2	9.3	12.8	9.1	11.0	13.0	12.5	12.7
11	6.4	6.1	6.2	9.6	9.2	9.4	9.9	9.6	9.8	12.8	12.5	12.7
12	6.4	6.1	6.2	9.7	9.5	9.6	9.9	9.7	9.8	12.6	12.4	12.5
13	6.5	6.1	6.3	9.7	9.1	9.6	10.6	9.4	9.7	12.8	12.4	12.5
14	6.8	6.3	6.5	9.8	9.3	9.5	9.8	9.2	9.6	12.5	11.9	12.3
15	6.7	6.4	6.6	9.7	9.5	9.6	10.0	9.6	9.8	12.2	11.7	12.0
16	7.0	6.6	6.8	9.9	9.2	9.5	9.7	9.5	9.7	12.2	11.2	12.0
17	7.3	6.8	7.0	10.1	9.3	9.7	9.9	9.4	9.6	12.2	11.0	11.9
18	7.6	7.0	7.3	10.2	9.2	9.8	12.0	9.3	10.7	12.1	10.6	11.6
19	7.6	6.9	7.1	10.0	9.3	9.8	12.0	10.9	11.5	12.4	11.5	12.0
20	8.1	7.6	7.8	10.2	9.1	9.9	11.5	11.0	11.4	12.3	11.4	11.9
21	8.5	8.1	8.3	10.4	9.3	10.0	12.6	11.1	11.9	12.2	11.8	12.0
22	8.9	8.4	8.6	10.4	10.0	10.2	12.9	12.1	12.6	12.0	11.5	11.8
23	9.3	8.9	9.1	10.4	9.6	10.0	13.0	11.1	11.9	12.3	10.9	11.6
24	9.3	9.0	9.2	9.8	9.4	9.5	12.1	11.2	11.6	12.0	11.4	11.7
25	9.3	8.9	9.1	9.6	9.5	9.6	12.1	11.3	11.7	12.6	10.5	11.3
26	9.9	8.6	9.1	---	---	---	12.1	11.8	11.9	11.5	10.5	11.0
27	8.7	8.2	8.5	10.0	9.6	9.8	12.0	11.9	11.9	11.1	9.7	10.8
28	9.0	8.3	8.6	9.9	9.6	9.8	12.2	11.4	11.8	11.1	10.1	10.7
29	9.0	8.6	8.8	9.9	9.7	9.8	13.5	11.5	12.5	11.1	10.5	10.8
30	9.0	8.6	8.7	10.0	9.8	9.9	13.4	11.7	12.9	11.1	9.9	10.6
31	9.0	8.6	8.8	---	---	---	13.2	12.5	12.7	11.0	10.5	10.7
MONTH	9.9	6.1	7.4	10.4	7.5	9.5	13.6	9.1	11.4	13.2	9.7	11.9
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	11.1	9.7	10.6	---	---	---	10.7	9.5	10.1	---	---	---
2	11.0	10.1	10.6	---	---	---	10.9	9.4	10.0	---	---	---
3	10.9	10.1	10.6	---	---	---	11.1	9.2	9.9	---	---	---
4	11.0	9.8	10.5	---	---	---	10.7	9.3	10.0	---	---	---
5	11.0	10.3	10.6	---	---	---	11.2	9.2	10.0	---	---	---
6	10.9	10.1	10.6	---	---	---	10.9	9.8	10.1	9.9	9.7	9.8
7	11.1	9.6	10.6	---	---	---	---	---	---	10.0	9.7	9.9
8	11.1	10.7	10.9	---	---	---	---	---	---	9.9	9.6	9.8
9	11.5	10.5	11.1	---	---	---	---	---	---	9.9	9.6	9.8
10	11.4	10.7	11.0	---	---	---	---	---	---	9.9	9.6	9.7
11	11.0	10.5	10.8	---	---	---	---	---	---	9.7	9.5	9.6
12	11.0	10.4	10.7	---	---	---	---	---	---	9.7	9.3	9.5
13	10.9	10.4	10.7	---	---	---	---	---	---	9.5	9.0	9.3
14	11.2	10.6	10.8	---	---	---	---	---	---	9.5	9.3	9.4
15	11.3	10.8	11.1	---	---	---	---	---	---	9.5	9.1	9.4
16	11.4	10.7	11.0	---	---	---	---	---	---	9.4	9.1	9.3
17	11.3	10.4	10.9	---	---	---	---	---	---	9.4	9.1	9.3
18	11.7	11.0	11.4	---	---	---	---	---	---	---	---	---
19	12.0	11.3	11.6	---	---	---	---	---	---	9.4	9.1	9.2
20	11.9	10.9	11.6	---	---	---	---	---	---	9.3	9.0	9.1
21	12.0	10.9	11.6	---	---	---	---	---	---	9.3	8.6	8.9
22	12.0	11.1	11.7	---	---	---	---	---	---	8.7	8.4	8.6
23	11.8	11.2	11.6	---	---	---	---	---	---	8.6	8.4	8.5
24	11.8	11.5	11.7	11.1	9.3	10.3	---	---	---	8.7	8.3	8.5
25	11.7	11.0	11.4	11.7	10.1	11.1	---	---	---	8.7	8.4	8.5
26	11.7	11.2	11.5	10.7	9.4	10.1	---	---	---	8.7	8.3	8.5
27	11.5	11.3	11.5	11.4	9.1	10.2	---	---	---	8.7	8.3	8.5
28	---	---	---	11.4	9.1	9.9	---	---	---	8.9	8.4	8.6
29	---	---	---	11.0	9.3	10.0	---	---	---	8.7	8.3	8.5
30	---	---	---	11.3	9.2	10.0	---	---	---	8.7	8.3	8.5
31	---	---	---	11.1	9.3	10.0	---	---	---	8.7	8.3	8.5
MONTH	12.0	9.6	11.1	11.7	9.1	10.2	11.2	9.1	10.2	10.0	8.3	9.1

CUMBERLAND RIVER BASIN

03400800 MARTINS FORK NEAR SMITH, KY--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.6	8.3	8.5	8.7	7.9	8.4	6.5	6.2	6.4	6.9	6.3	6.6
2	8.6	8.1	8.4	8.3	7.9	8.1	6.6	6.3	6.4	6.6	6.1	6.3
3	8.5	8.3	8.4	8.4	7.7	8.2	7.0	6.6	6.8	6.4	6.1	6.2
4	8.6	8.1	8.4	8.0	7.6	7.8	7.0	6.8	6.9	6.4	6.1	6.2
5	8.7	8.4	8.5	7.9	7.5	7.7	7.1	6.8	6.9	6.3	6.0	6.1
6	8.7	8.4	8.5	7.9	7.5	7.6	7.0	6.5	6.7	6.1	5.9	6.0
7	8.7	7.9	8.4	7.7	7.5	7.6	6.7	6.4	6.5	6.2	5.8	6.0
8	8.1	7.6	7.9	8.0	7.3	7.7	6.5	6.3	6.4	6.1	5.7	5.9
9	8.0	7.6	7.8	7.9	7.3	7.6	6.6	5.6	6.1	6.1	5.9	6.0
10	8.4	7.7	8.2	7.9	7.3	7.6	6.6	5.9	6.4	6.2	5.8	6.0
11	8.5	7.7	8.0	7.7	7.3	7.5	6.6	5.8	6.2	6.4	5.7	6.1
12	8.0	7.7	7.9	8.0	7.3	7.6	6.9	6.2	6.7	6.2	5.8	6.0
13	7.9	7.6	7.7	8.0	7.5	7.7	6.5	5.9	6.2	6.3	6.0	6.2
14	8.1	7.6	7.9	8.3	7.3	7.8	6.3	5.9	6.1	6.3	6.1	6.2
15	8.0	7.6	7.8	7.8	7.5	7.7	6.5	6.3	6.4	6.3	6.1	6.2
16	8.1	7.7	7.9	7.9	7.1	7.7	6.8	6.4	6.6	6.3	6.0	6.1
17	8.1	7.8	7.9	7.9	7.1	7.3	6.7	6.3	6.6	6.7	6.0	6.4
18	8.2	7.8	8.0	8.1	7.8	7.9	6.5	6.0	6.3	6.9	6.5	6.7
19	8.2	7.8	8.0	8.3	7.9	8.0	6.1	5.8	6.0	6.8	6.5	6.6
20	8.0	7.7	7.9	8.0	7.7	7.9	6.1	6.0	6.0	6.8	6.6	6.7
21	8.0	7.7	7.8	8.0	7.8	7.9	6.2	6.0	6.1	6.9	6.6	6.8
22	8.0	7.6	7.7	8.1	7.8	8.0	6.2	6.0	6.1	7.2	6.9	7.0
23	7.9	7.5	7.8	8.0	7.3	7.7	6.3	6.1	6.2	7.6	7.2	7.4
24	8.0	7.6	7.8	7.5	7.1	7.3	6.3	6.1	6.2	7.7	7.3	7.5
25	8.1	7.6	7.8	7.2	6.7	6.9	6.6	6.0	6.2	7.6	7.2	7.4
26	8.1	7.5	7.7	7.0	6.8	6.9	6.3	6.2	6.2	7.7	7.2	7.4
27	7.9	7.5	7.7	6.8	6.6	6.7	6.5	6.3	6.4	7.5	7.2	7.4
28	7.9	7.5	7.7	6.8	6.4	6.6	6.8	6.3	6.4	7.5	7.1	7.4
29	8.0	7.6	7.7	6.6	6.3	6.4	6.9	6.6	6.7	7.5	7.1	7.3
30	8.6	7.5	8.1	6.4	6.2	6.3	6.8	6.6	6.7	7.8	7.3	7.7
31	---	---	---	6.4	6.2	6.3	6.9	6.3	6.6	---	---	---
MONTH	8.7	7.5	8.0	8.7	6.2	7.5	7.1	5.6	6.4	7.8	5.7	6.6



CUMBERLAND RIVER BASIN

03401000 CUMBERLAND RIVER NEAR HARLAN, KY

LOCATION.--Lat 36°50'48", long 83°21'21", Harlan County, Hydrologic Unit 05130101, on right downstream side of bridge on State Highway 840 at Loyall, 1.6 mi upstream from Fourmile Branch, 1.8 mi west of Harlan, 2.3 mi downstream from confluence of Poor and Clover Forks, and at mile 691.9.

DRAINAGE AREA.--374 mi².

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

REVISED RECORDS.--WSP 953: 1940(M). WSP 1173: 1947(M).

GAGE.--Water-stage recorder. Datum of gage is 1,139.10 ft above sea level. Prior to Aug. 28, 1984, datum of gage 1.00 ft higher. Prior to Nov. 4, 1941, nonrecording gage at same site and datum.

REMARKS.--Records fair. Flow slightly regulated by Martins Fork Dam (station 03400798) beginning January 1979.

PEAKS ABOVE BASE.--Peak discharges above base of 8,200 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 9	1300	6010	8.24

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e39	e39	e49	246	721	2460	498	688	150	217	84	44
2	e40	e39	e48	241	749	1700	482	589	146	157	231	42
3	e37	e40	e47	1550	719	3220	455	514	143	139	120	42
4	e38	e41	e42	1180	608	3210	433	456	137	116	87	41
5	e37	e43	e40	993	548	2110	411	458	129	103	74	39
6	e36	e57	e51	757	505	2010	388	977	144	95	70	40
7	e35	e56	e63	488	509	1860	366	1100	125	92	65	42
8	e66	e53	e420	542	508	1560	349	1010	113	87	65	39
9	e100	e45	e1000	3740	466	1520	361	815	114	82	69	37
10	e78	e46	e450	2340	443	1650	322	701	125	131	63	36
11	e55	e67	e300	1290	419	1510	704	621	113	167	60	33
12	e46	e90	e270	1140	422	1310	966	552	102	114	55	32
13	e41	e80	e1400	968	408	1090	717	418	98	101	55	32
14	e37	e59	e1300	999	362	1210	591	431	95	96	52	33
15	e36	e50	e690	2760	349	1850	794	402	95	92	52	30
16	e35	e48	e640	1830	346	1860	990	340	90	87	50	28
17	e34	e47	563	1340	380	1900	876	309	89	99	48	28
18	e33	e46	283	3380	418	1710	737	306	84	94	46	30
19	e32	e45	221	2980	447	1440	638	339	81	108	44	28
20	e33	e44	204	1870	518	1210	680	277	78	94	109	30
21	e34	e47	184	1420	496	1080	533	247	78	82	98	32
22	e38	e46	214	1180	466	935	472	225	76	81	67	30
23	e43	e45	258	1910	470	832	430	217	73	76	55	30
24	e42	e45	422	3360	452	746	398	323	77	175	52	31
25	e46	e44	373	2350	444	531	356	266	105	300	179	30
26	e46	e47	332	1640	435	511	386	216	108	131	123	29
27	e45	e69	306	1320	382	578	429	195	117	100	77	29
28	e44	e53	299	1130	2660	607	753	180	224	131	63	48
29	e39	e51	260	930	---	578	1060	170	422	104	59	76
30	e32	e50	298	708	---	486	837	165	231	88	54	109
31	e32	---	277	644	---	464	---	158	---	80	47	---
TOTAL	1329	1532	11304	47226	15650	43738	17412	13665	3762	3619	2373	1150
MEAN	42.9	51.1	365	1523	559	1411	580	441	125	117	76.5	38.3
MAX	100	90	1400	3740	2660	3220	1060	1100	422	300	231	109
MIN	32	39	40	241	346	464	322	158	73	76	44	28
CFSM	.11	.14	.97	4.07	1.49	3.77	1.55	1.18	.34	.31	.20	.10
IN.	.13	.15	1.12	4.70	1.56	4.35	1.73	1.36	.37	.36	.24	.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1999, BY WATER YEAR (WY)

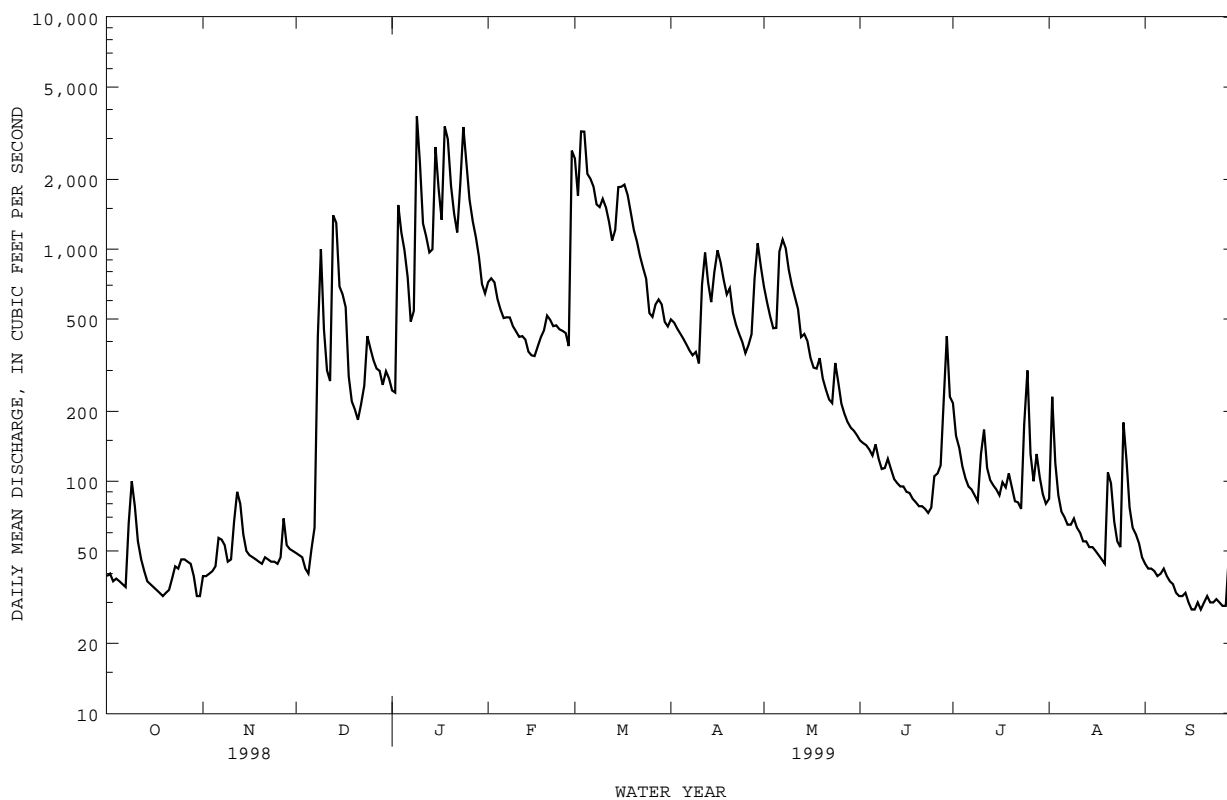
MEAN	177	460	903	1194	1327	1469	1052	749	396	304	218	126
MAX	1129	2004	2704	2767	3259	4148	2986	2003	1789	1414	1202	864
(WY)	1990	1978	1992	1974	1994	1963	1998	1984	1989	1941	1942	1989
MIN	9.00	25.8	43.6	63.5	105	334	211	119	76.0	21.4	40.0	14.3
(WY)	1954	1954	1966	1981	1941	1988	1986	1941	1948	1944	1951	1953

CUMBERLAND RIVER BASIN

03401000 CUMBERLAND RIVER NEAR HARLAN, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1940 - 1999	
ANNUAL TOTAL	273366		162760			
ANNUAL MEAN	749		446		695	
HIGHEST ANNUAL MEAN					1130	
LOWEST ANNUAL MEAN					293	
HIGHEST DAILY MEAN	16300	Apr 19	3740	Jan 9	33900	Apr 4 1977
LOWEST DAILY MEAN	32	Oct 19	28	Sep 16	5.0	Oct 9 1953
ANNUAL SEVEN-DAY MINIMUM	34	Oct 15	29	Sep 15	6.7	Oct 7 1953
INSTANTANEOUS PEAK FLOW			6010	Jan 9	64500	Apr 5 1977
INSTANTANEOUS PEAK STAGE			8.24	Jan 9	30.20	Apr 5 1977
INSTANTANEOUS LOW FLOW					3.0	Oct 9 1953
ANNUAL RUNOFF (CFSM)	2.00		1.19		1.86	
ANNUAL RUNOFF (INCHES)	27.19		16.19		25.25	
10 PERCENT EXCEEDS	1500		1240		1570	
50 PERCENT EXCEEDS	400		165		333	
90 PERCENT EXCEEDS	45		39		53	

e Estimated



CUMBERLAND RIVER BASIN

03402000 YELLOW CREEK NEAR MIDDLESBORO, KY

LOCATION.--Lat 36°40'05", long 83°41'19", Bell County, Hydrologic Unit 05130101, on left bank 35 ft downstream from bridge on U.S. Highway 25E, 1.2 mi downstream from Browne Branch, 4.6 mi north of Middlesboro, and at mile 11.4.

DRAINAGE AREA.--60.6 mi². See WRD-KY-98-1 for history of changes.

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

REVISED RECORDS.--WSP 953: 1941(M). WSP 973: 1942(M). WSP 1436: Drainage area. WRD KY 1969: 1965(M), 1967(M).

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 1,097.99 ft above sea level. See WDR KY-90-1 for history of changes prior to Sept. 30, 1973.

REMARKS.--Estimated daily discharges: Aug. 9. Records good except for those estimated, which are poor. Occasional regulation from Fern Lake.

PEAKS ABOVE BASE.--Peak discharges above base of 3,000 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 23	1500	* 2830	12.21

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	e6.8	7.9	41	113	230	76	60	23	27	11	6.9
2	5.5	e6.9	7.1	42	98	165	64	56	23	26	11	6.4
3	5.2	e7.0	6.9	282	94	427	60	52	23	26	8.1	5.7
4	5.8	e7.1	6.8	111	85	365	57	49	24	20	7.6	6.0
5	6.4	e11	11	72	77	252	54	53	25	16	7.2	5.8
6	6.2	e10	11	57	74	251	53	476	28	15	7.5	5.7
7	6.0	e9.8	23	53	78	204	50	319	22	14	5.7	6.4
8	33	e9.0	205	65	70	163	102	568	20	14	7.6	6.6
9	7.1	e7.9	84	847	68	206	126	197	19	12	9.4	5.4
10	5.1	e8.0	35	289	87	204	91	131	19	18	8.0	4.2
11	4.7	35	26	151	77	175	148	100	18	34	7.1	2.8
12	4.5	9.2	36	112	89	149	125	81	17	39	6.6	4.1
13	4.5	6.9	475	91	85	136	111	81	18	29	6.4	5.6
14	4.8	6.2	112	204	75	215	97	98	17	21	7.1	7.1
15	4.6	6.6	61	655	73	648	177	73	17	20	7.5	4.3
16	4.8	7.2	44	250	73	385	154	62	15	15	6.8	5.9
17	4.8	6.5	37	157	89	283	126	54	15	15	6.3	3.7
18	4.8	6.3	30	1130	86	211	109	52	14	17	5.9	3.9
19	5.5	6.2	29	447	86	163	96	57	14	14	5.8	5.2
20	6.2	6.8	28	225	84	138	91	44	14	13	16	5.0
21	5.9	8.0	25	154	75	127	77	39	14	13	8.5	4.1
22	6.4	8.0	33	120	69	106	67	37	13	14	6.6	4.3
23	6.7	7.8	39	1310	66	93	61	34	13	11	6.0	6.9
24	6.5	7.7	71	868	64	88	59	63	15	35	7.9	5.8
25	7.1	7.5	47	338	61	79	53	40	54	36	54	8.4
26	7.1	14	41	205	57	77	57	33	28	15	11	7.0
27	e7.0	10	40	153	57	73	58	30	26	12	7.3	7.2
28	e7.0	8.5	42	122	301	64	57	27	250	13	6.7	7.4
29	e6.5	7.8	47	102	---	60	77	26	105	11	7.5	33
30	e5.5	8.0	56	86	---	55	65	25	48	9.9	7.6	40
31	e7.0	---	47	80	---	55	---	24	---	9.3	8.4	---
TOTAL	207.9	267.7	1763.7	8819	2411	5847	2598	3041	951	584.2	290.1	230.8
MEAN	6.71	8.92	56.9	284	86.1	189	86.6	98.1	31.7	18.8	9.36	7.69
MAX	33	35	475	1310	301	648	177	568	250	39	54	40
MIN	4.5	6.2	6.8	41	57	55	50	24	13	9.3	5.7	2.8
CFSM	.11	.15	.94	4.69	1.42	3.11	1.43	1.62	.52	.31	.15	.13
IN.	.13	.16	1.08	5.41	1.48	3.59	1.59	1.87	.58	.36	.18	.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1999, BY WATER YEAR (WY)

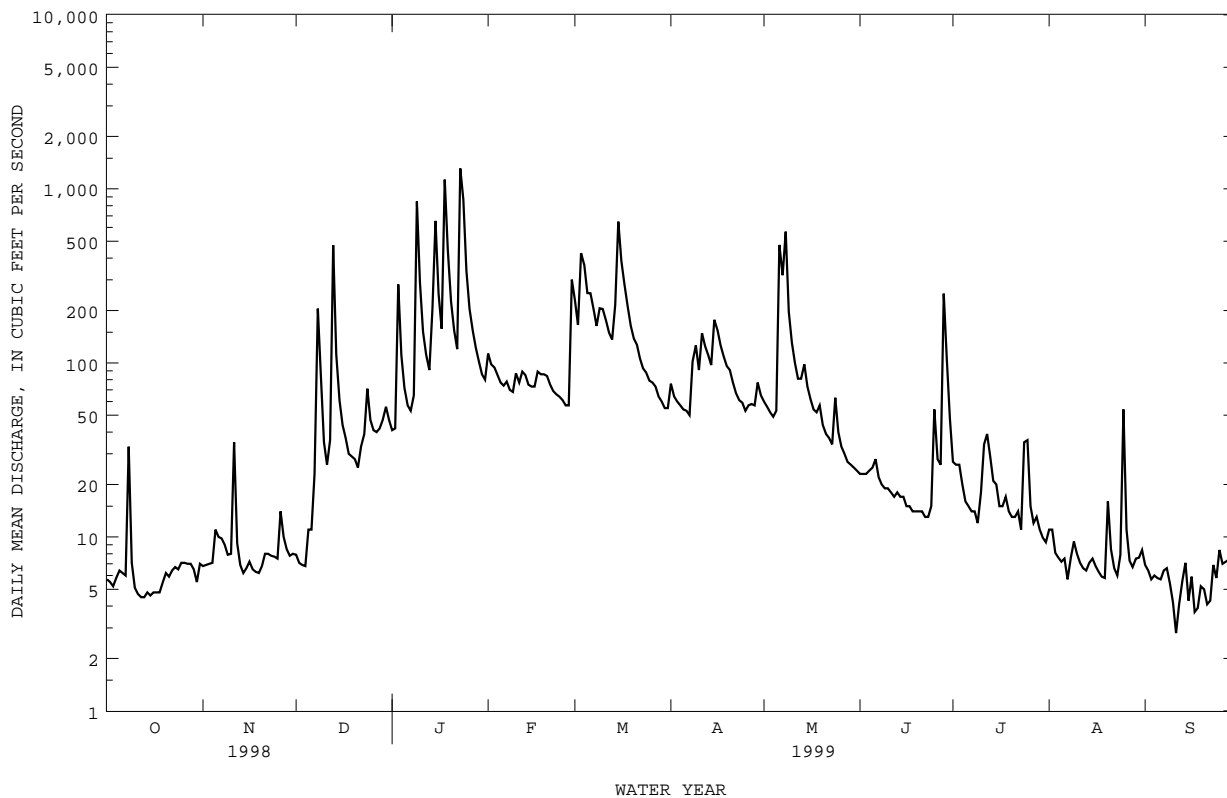
MEAN	24.9	78.6	165	213	232	257	179	120	67.2	51.7	35.6	19.6
MAX	155	416	609	551	677	610	569	539	298	345	197	109
(WY)	1978	1974	1991	1974	1991	1975	1998	1984	1989	1967	1942	1982
MIN	3.05	5.35	7.34	14.4	14.9	47.6	34.9	17.2	13.8	4.26	6.00	3.02
(WY)	1954	1941	1966	1981	1941	1988	1986	1941	1988	1944	1951	1954

CUMBERLAND RIVER BASIN

03402000 YELLOW CREEK NEAR MIDDLESBORO, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1941 - 1999	
ANNUAL TOTAL	46362.6		27011.4		120	
ANNUAL MEAN	127		74.0		49.5	
HIGHEST ANNUAL MEAN					219	
LOWEST ANNUAL MEAN					7000	
HIGHEST DAILY MEAN	5660	Apr 19	1310	Jan 23	1991	Apr 4 1977
LOWEST DAILY MEAN	4.5	Oct 12	2.8	Sep 11	1941	Oct 7 1952
ANNUAL SEVEN-DAY MINIMUM	4.7	Oct 11	4.6	Sep 15	1955	Sep 17 1955
INSTANTANEOUS PEAK FLOW			2830	Jan 23	1977	Apr 4 1977
INSTANTANEOUS PEAK STAGE			12.21	Jan 23	1977	Apr 4 1977
INSTANTANEOUS LOW FLOW					1952	Sep 26 1952
ANNUAL RUNOFF (CFSM)	2.10		1.22		1.98	
ANNUAL RUNOFF (INCHES)	28.46		16.58		26.86	
10 PERCENT EXCEEDS	287		169		255	
50 PERCENT EXCEEDS	49		28		46	
90 PERCENT EXCEEDS	6.2		6.0		7.6	

e Estimated



CUMBERLAND RIVER BASIN

03402900 CUMBERLAND RIVER AT PINE ST BRIDGE AT PINEVILLE, KY

LOCATION.--Lat 36°45'47", long 83°41'31", Bell County, Hydrologic Unit 05130101, on pier near right bank on Pine St. bridge at Pineville, 0.2 mi downstream from Straight Creek, and at mile 654.4.

DRAINAGE AREA.--770 mi².

PERIOD OF RECORD.--October 1991 to current year.

GAGE.--Water-stage recorder. Datum of gage is 970.00 ft above sea level, Sandy Hook datum.

REMARKS.--Records good except for those estimated, which are fair. Flow slightly regulated by Martins Fork Dam (station 03400798) beginning January 1979.

PEAKS ABOVE BASE.--Peak discharges above base of 15,000 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 24	0700	11200	19.84

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	79	100	622	1200	4790	833	1140	264	430	143	74
2	79	80	99	577	1220	3140	839	1030	257	369	261	69
3	75	81	95	2200	1190	4800	797	906	248	306	294	67
4	77	84	85	2370	1090	7110	769	796	236	250	188	64
5	76	88	82	e1400	983	4340	742	776	220	212	133	61
6	73	117	103	e1100	918	3870	716	2990	218	188	113	61
7	71	115	129	991	872	3580	679	2920	221	170	102	60
8	134	108	855	889	879	2890	698	3030	201	151	92	58
9	205	92	2130	6320	817	2780	875	1990	185	139	100	58
10	160	94	918	5910	823	2950	810	1510	185	145	101	57
11	113	137	596	2620	777	2760	976	1240	204	346	96	56
12	93	186	555	1950	804	2390	1760	1030	177	309	92	54
13	84	164	2920	1610	865	2000	1470	921	165	255	88	51
14	76	120	2600	1690	791	2110	1230	863	160	200	79	50
15	73	101	1410	5810	769	4270	1490	837	169	179	75	51
16	71	97	1020	4020	767	4450	2030	727	151	164	74	51
17	70	97	845	2620	807	4060	1820	644	137	143	74	50
18	67	94	700	6680	872	3420	1520	602	135	148	72	49
19	65	91	478	7190	894	2730	1290	686	132	140	66	49
20	68	90	425	3800	959	2250	1190	611	127	149	73	48
21	70	94	382	2650	923	1950	1110	507	134	159	111	49
22	78	94	376	2100	868	1680	968	462	130	161	135	49
23	87	93	470	6110	852	1440	863	424	127	155	97	51
24	86	92	706	10000	843	1320	785	590	124	168	83	51
25	94	91	738	5590	789	1100	721	605	177	363	190	51
26	94	96	654	3350	782	934	724	469	231	341	295	52
27	92	140	619	2520	739	975	827	396	203	236	182	51
28	91	109	608	2050	3130	962	874	345	725	189	122	50
29	80	105	650	1700	---	930	1460	317	1130	185	98	65
30	65	102	678	1340	---	873	1360	294	755	168	86	185
31	66	---	683	1160	---	813	---	275	---	139	81	---
TOTAL	2709	3131	22709	98939	27223	83667	32226	29933	7528	6657	3796	1792
MEAN	87.4	104	733	3192	972	2699	1074	966	251	215	122	59.7
MAX	205	186	2920	10000	3130	7110	2030	3030	1130	430	295	185
MIN	65	79	82	577	739	813	679	275	124	139	66	48
CFSM	.11	.14	.95	4.14	1.26	3.51	1.40	1.25	.33	.28	.16	.08
IN.	.13	.15	1.10	4.78	1.32	4.04	1.56	1.45	.36	.32	.18	.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1999, BY WATER YEAR (WY)

MEAN	237	824	2090	2585	2526	3510	2365	1751	914	369	407	198
MAX	670	3009	5204	4201	6720	5367	5977	3091	1640	684	923	510
(WY)	1997	1997	1992	1994	1994	1994	1998	1995	1997	1996	1996	1996
MIN	87.4	104	394	1308	972	2139	817	796	251	176	107	59.7
(WY)	1999	1999	1998	1998	1999	1992	1995	1993	1999	1993	1995	1999

CUMBERLAND RIVER BASIN

03402900 CUMBERLAND RIVER AT PINE ST BRIDGE AT PINEVILLE, KY--Continued

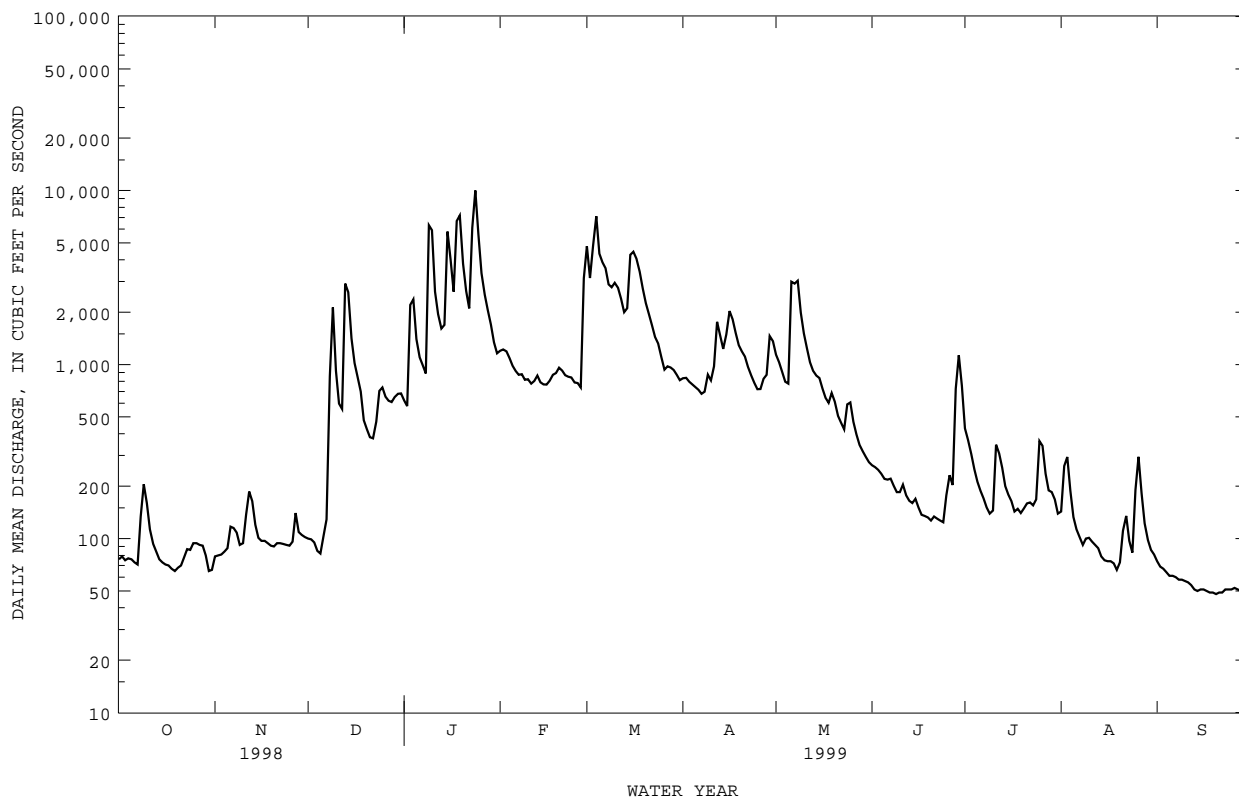
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1999, BY WATER YEAR (WY)

MEAN	237	824	2090	2585	2526	3510	2365	1751	914	369	407	198
MAX	670	3009	5204	4201	6720	5367	5977	3091	1640	684	923	510
(WY)	1997	1997	1992	1994	1994	1994	1998	1995	1997	1996	1996	1996
MIN	87.4	104	394	1308	972	2139	817	796	251	176	107	59.7
(WY)	1999	1999	1998	1998	1999	1992	1995	1993	1999	1993	1995	1999

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1992 - 1999

ANNUAL TOTAL	542463		320310			
ANNUAL MEAN	1486		878		1478	
HIGHEST ANNUAL MEAN					2241	
LOWEST ANNUAL MEAN					878	
HIGHEST DAILY MEAN	25900	Apr 19	10000	Jan 24	30800	Dec 3 1991
LOWEST DAILY MEAN	65	Oct 19	48	Sep 20	48	Sep 20 1999
ANNUAL SEVEN-DAY MINIMUM	69	Oct 15	49	Sep 16	49	Sep 16 1999
INSTANTANEOUS PEAK FLOW			11200		38700	
INSTANTANEOUS PEAK STAGE			19.84		43.67	
INSTANTANEOUS LOW FLOW			47		47	
ANNUAL RUNOFF (CFSM)	1.93		1.14		1.92	
ANNUAL RUNOFF (INCHES)	26.21		15.47		26.08	
10 PERCENT EXCEEDS	3500		2550		3240	
50 PERCENT EXCEEDS	771		306		734	
90 PERCENT EXCEEDS	89		71		117	

e Estimated



CUMBERLAND RIVER BASIN

03403500 CUMBERLAND RIVER AT BARBOURVILLE, KY

LOCATION.--Lat 36°51'45", long 83°53'31", Knox County, Hydrologic Unit 05130101, on right bank 100 ft upstream from bridge on State Highway 11, at Barbourville, 0.4 mi upstream from Richland Creek, and at mile 635.2.

DRAINAGE AREA.--960 mi².

PERIOD OF RECORD.--October 1922 to September 1931, April 1948 to July 2, 1993, October 1995 to current year. Monthly discharge only April to June 1948, published in WSP 1306.

REVISED RECORDS.--WSP 603: 1923-24. WSP 1336: 1923(M). 1927, 1929, 1950-51. WSP 1436: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 942.97 ft above sea level. See WRD KY-90-1 for history of changes prior to Oct. 17, 1975.

REMARKS.--Records fair. Flow slightly regulated by Martins Fork Dam (station 03400798) beginning January 1979. Diversion above station by city of Barbourville for municipal water supply.

PEAKS ABOVE BASE.--Peak discharges above base of 18,000 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 24	1400	15400	22.75

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86	79	103	768	1440	6130	1020	1420	269	502	127	79
2	88	91	99	648	1510	4290	1080	1220	267	367	244	74
3	88	93	99	2160	1490	4400	997	1080	263	387	264	69
4	88	97	95	3460	1400	9170	944	951	258	263	230	67
5	86	103	95	2050	1230	6560	896	918	237	228	152	64
6	86	113	98	1580	1130	4680	843	2790	222	185	123	62
7	86	141	135	1270	1090	4410	796	4240	215	163	108	62
8	118	141	553	1080	1110	3680	755	3700	209	149	101	62
9	174	128	2520	6330	1030	3390	1030	2730	184	143	99	60
10	206	107	1300	11900	1020	3650	976	2020	172	137	99	60
11	143	126	638	5300	964	3450	1020	1610	196	217	99	60
12	108	171	536	2490	1010	2980	1970	1330	181	367	96	57
13	93	226	3250	2020	1220	2530	1880	1230	166	264	93	57
14	88	171	4900	1980	1120	2560	1550	1430	160	222	88	56
15	83	135	2030	5720	1080	5150	1680	1200	180	182	83	55
16	79	119	1260	6330	1070	6770	2430	988	165	168	79	55
17	78	108	1000	3680	1140	5480	2290	801	150	151	77	55
18	78	103	838	5620	1280	4400	1990	699	140	140	75	54
19	78	97	521	10700	1300	3480	1700	826	133	143	72	50
20	78	95	418	6180	1320	2820	1510	742	125	160	70	50
21	78	98	368	3530	1280	2430	1420	579	119	170	82	51
22	79	99	390	2600	1180	2150	1180	495	113	145	134	54
23	90	99	480	5320	1100	1860	1040	452	109	174	119	55
24	99	96	678	14700	1070	1690	993	576	109	183	96	55
25	99	96	869	11200	1010	1490	882	679	129	263	123	55
26	103	102	742	5530	978	1230	861	531	198	397	254	55
27	104	114	681	3270	933	1220	1040	422	193	250	234	55
28	109	140	647	2560	2650	1200	1060	364	509	232	146	55
29	111	115	739	2140	---	1180	1580	319	1430	171	109	59
30	96	110	855	1760	---	1110	1720	294	977	175	94	113
31	82	---	865	1450	---	992	---	282	---	146	87	---
TOTAL	3062	3513	27802	135326	34155	106532	39133	36918	7778	6844	3857	1815
MEAN	98.8	117	897	4365	1220	3437	1304	1191	259	221	124	60.5
MAX	206	226	4900	14700	2650	9170	2430	4240	1430	502	264	113
MIN	78	79	95	648	933	992	755	282	109	137	70	50
CFSM	.10	.12	.93	4.55	1.27	3.58	1.36	1.24	.27	.23	.13	.06
IN.	.12	.14	1.08	5.24	1.32	4.13	1.52	1.43	.30	.27	.15	.07

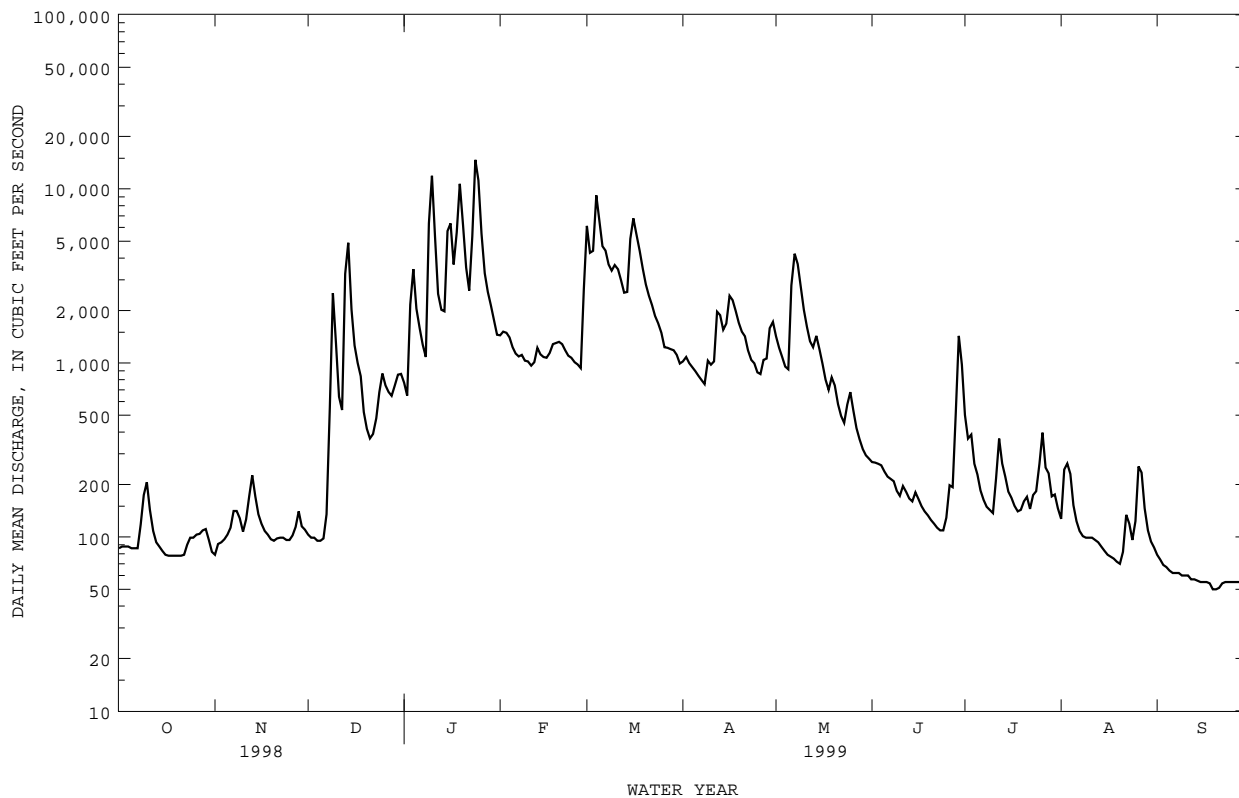
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 1999, BY WATER YEAR (WY)

MEAN	393	1248	2384	3045	3316	3742	2722	2009	1021	614	419	292
MAX	3058	5231	9398	8182	7919	10470	8578	6782	5524	2346	1432	1894
(WY)	1990	1974	1927	1974	1956	1963	1998	1984	1989	1967	1971	1989
MIN	9.86	43.7	102	135	568	791	549	459	121	62.8	27.0	15.8
(WY)	1954	1923	1966	1981	1954	1988	1986	1962	1930	1930	1925	1930

CUMBERLAND RIVER BASIN

03403500 CUMBERLAND RIVER AT BARBOURVILLE, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1923 - 1999	
ANNUAL TOTAL	709092		406735			
ANNUAL MEAN	1943		1114		1767	
HIGHEST ANNUAL MEAN					3018	
LOWEST ANNUAL MEAN					824	
HIGHEST DAILY MEAN	34400	Apr 20	14700	Jan 24	47200	Apr 5 1977
LOWEST DAILY MEAN	76	Sep 25	50	Sep 19	.50	Oct 5 1930
ANNUAL SEVEN-DAY MINIMUM	78	Oct 16	53	Sep 16	5.4	Oct 2 1930
INSTANTANEOUS PEAK FLOW			15400	Jan 24	56100	Apr 6 1977
INSTANTANEOUS PEAK STAGE			22.75	Jan 24	45.91	Apr 6 1977
INSTANTANEOUS LOW FLOW					.20	Oct 5 1930
ANNUAL RUNOFF (CFSM)	2.02		1.16		1.84	
ANNUAL RUNOFF (INCHES)	27.48		15.76		25.00	
10 PERCENT EXCEEDS	4360		3090		4140	
50 PERCENT EXCEEDS	865		282		785	
90 PERCENT EXCEEDS	94		78		100	

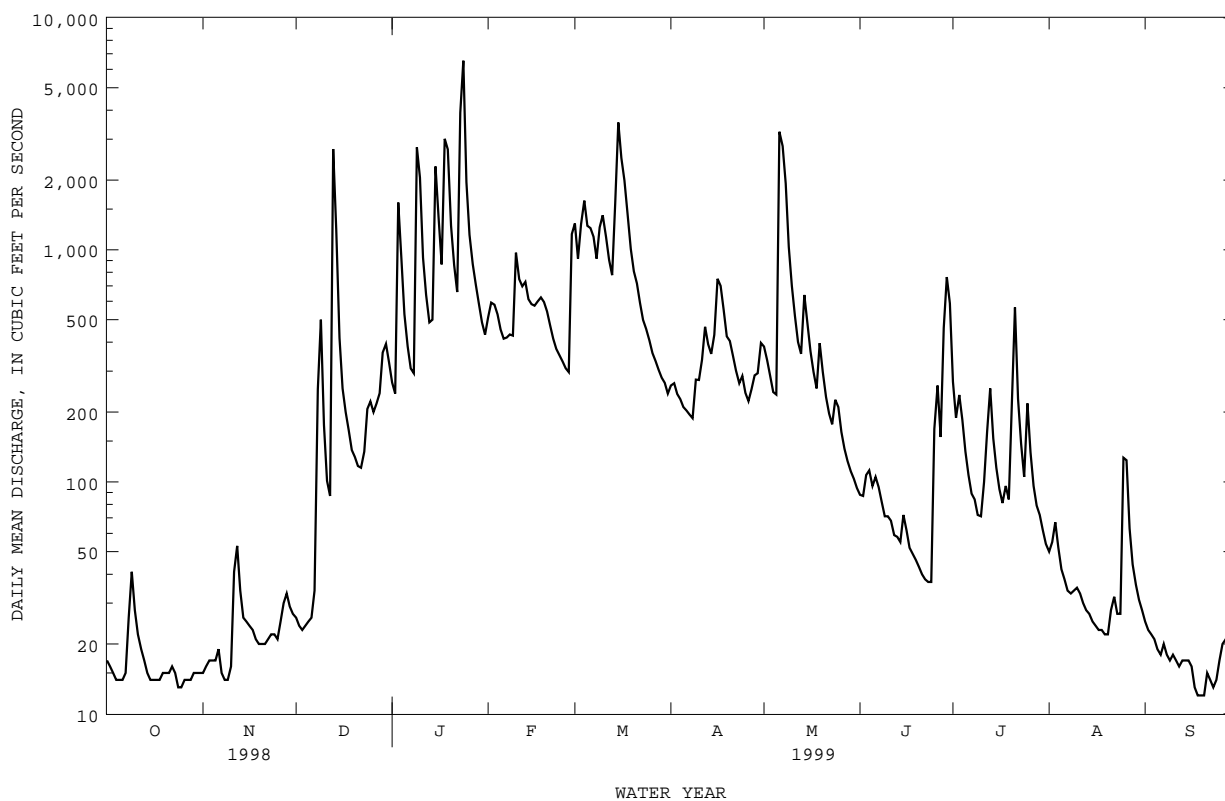


CUMBERLAND RIVER BASIN

03403910 CLEAR FORK AT SAXTON, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1968 - 1999	
ANNUAL TOTAL	208405		137144			
ANNUAL MEAN	571		376		557	
HIGHEST ANNUAL MEAN					894	
LOWEST ANNUAL MEAN					233	
HIGHEST DAILY MEAN	11900	Apr 20	6540	Jan 24	19400	May 28 1973
LOWEST DAILY MEAN	13	Oct 24	12	Sep 18	3.3	Aug 19 1988
ANNUAL SEVEN-DAY MINIMUM	14	Oct 23	13	Sep 17	6.7	Jul 5 1988
INSTANTANEOUS PEAK FLOW			8650	Jan 24	22800	Jan 24 1977
INSTANTANEOUS PEAK STAGE			23.93	Jan 24	41.51	Apr 5 1977
ANNUAL RUNOFF (CFSM)	1.72		1.14		1.68	
ANNUAL RUNOFF (INCHES)	23.42		15.41		22.88	
10 PERCENT EXCEEDS	1340		925		1200	
50 PERCENT EXCEEDS	208		137		261	
90 PERCENT EXCEEDS	17		16		36	

e Estimated



CUMBERLAND RIVER BASIN

03404000 CUMBERLAND RIVER AT WILLIAMSBURG, KY

LOCATION.--Lat 36°44'36", long 84°09'22", Whitley County, Hydrologic Unit 05130101, on right bank 100 ft upstream from bridge on State Highway 296E at Williamsburg, 2.0 mi downstream from Clear Fork, and at mile 590.4.

DRAINAGE AREA.--1,607 mi².

PERIOD OF RECORD.--October 1950 to current year. Gage-height records collected in this vicinity since 1908 are published in reports of National Weather Service.

REVISED RECORDS.--WSP 1436: Drainage area.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 891.52 ft above sea level. See WDR KY-90-1 for history of changes prior to June 26, 1990.

REMARKS.--Records good except for those estimated, which are fair. Flow slightly regulated by Martins Fork Dam (station 03400798) beginning January 1979.

PEAKS ABOVE BASE.--Peak discharges above base of 20,000 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 24	1600	*20800	20.72

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e100	102	149	1400	2300	6900	1440	2240	469	1380	285	146
2	e97	90	139	1240	2570	7430	1520	1890	444	864	346	133
3	e95	90	132	3000	2570	6190	1510	1640	436	814	348	123
4	e93	102	127	5000	2430	9840	1400	1430	456	763	390	114
5	91	109	139	4140	2190	10900	1310	1300	443	552	356	109
6	90	107	137	2740	1940	8100	1250	3670	410	444	271	101
7	91	113	177	2150	1810	6960	1190	8750	404	379	218	95
8	125	127	431	1830	1830	6000	1140	6730	376	331	188	92
9	183	147	2050	7250	1820	5530	1280	5350	361	301	174	92
10	214	145	2850	14000	2380	6040	1540	3670	328	278	170	90
11	264	148	1450	12100	2150	5690	1450	2720	320	328	164	87
12	217	157	870	5690	2030	4970	1900	2160	324	525	161	85
13	164	202	4480	3490	2360	4240	2690	1800	316	823	157	85
14	133	254	8100	3050	2320	4540	2370	2130	298	604	150	84
15	117	237	5000	6120	2130	8880	2220	2190	310	459	143	80
16	104	195	2490	9520	2060	11400	3120	1740	333	377	133	77
17	97	158	1670	7130	2090	10200	3530	1410	305	334	124	74
18	90	136	1340	7150	2270	8030	3130	1200	272	310	122	74
19	88	128	1110	13300	2320	6190	2650	1310	247	309	118	72
20	88	124	841	11900	2230	4880	2300	1330	237	282	118	72
21	89	123	714	7060	2110	4070	2090	1110	225	805	116	70
22	89	123	700	4600	1950	3520	1880	910	211	565	115	68
23	88	123	792	7310	1770	3020	1610	810	203	411	141	66
24	88	123	959	19200	1650	2640	1470	873	199	390	198	66
25	98	124	1180	17700	1580	2400	1390	1020	227	498	230	66
26	104	127	1240	13200	1470	2090	1260	966	488	556	330	68
27	106	128	1160	6660	1410	1820	1380	801	437	588	343	67
28	113	145	1150	4460	2870	1740	1610	671	791	470	366	65
29	115	179	1290	3600	---	1680	1660	597	1620	418	266	76
30	115	174	1500	2990	---	1620	2310	542	2450	337	205	88
31	113	---	1530	2440	---	1510	---	499	---	306	164	---
TOTAL	3659	4240	45897	211420	58610	169020	55600	63459	13940	15801	6610	2585
MEAN	118	141	1481	6820	2093	5452	1853	2047	465	510	213	86.2
MAX	264	254	8100	19200	2870	11400	3530	8750	2450	1380	390	146
MIN	88	90	127	1240	1410	1510	1140	499	199	278	115	65
CFSM	.07	.09	.92	4.24	1.30	3.39	1.15	1.27	.29	.32	.13	.05
IN.	.08	.10	1.06	4.89	1.36	3.91	1.29	1.47	.32	.37	.15	.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1999, BY WATER YEAR (WY)

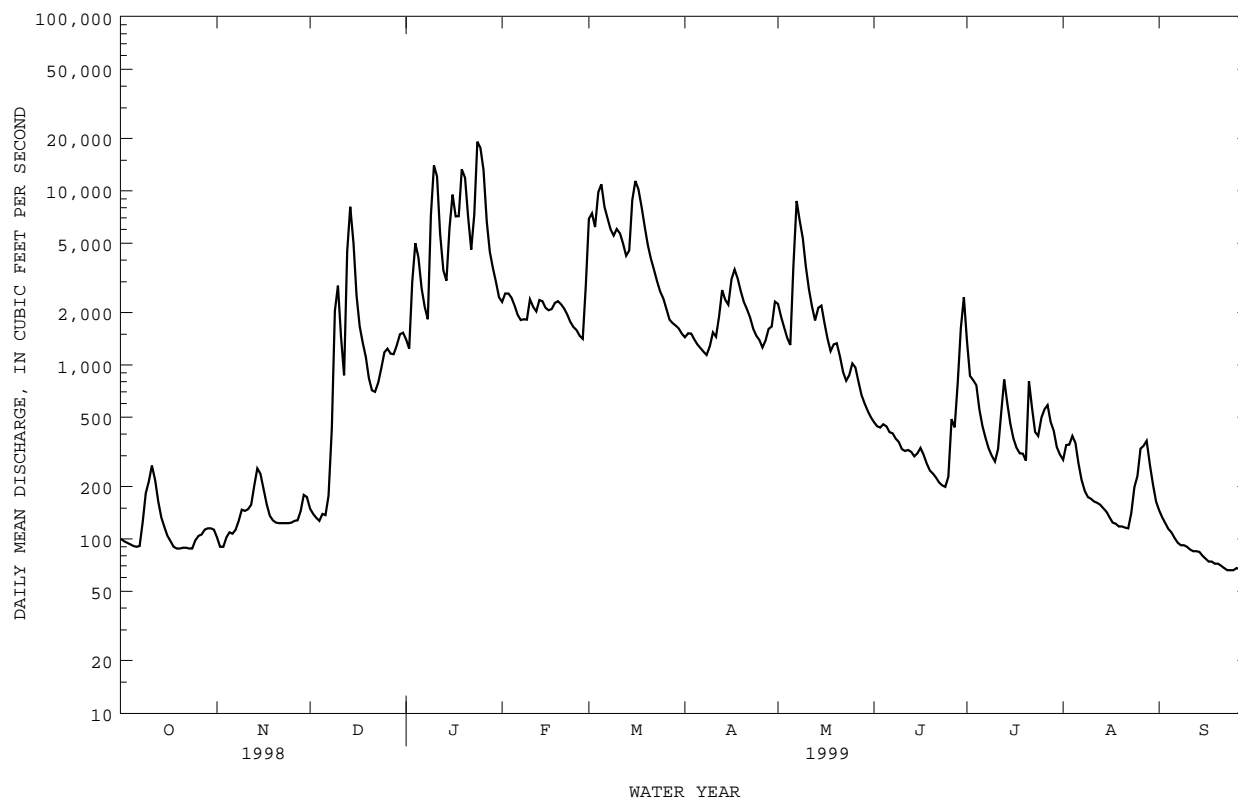
MEAN	613	1737	3638	4707	5176	6059	4328	2970	1574	927	673	455
MAX	4413	6552	9751	11860	13550	14670	11520	9572	8305	4906	2142	3280
(WY)	1990	1978	1992	1974	1956	1963	1998	1984	1989	1967	1971	1989
MIN	10.2	50.6	150	203	1190	1193	730	705	277	122	109	33.3
(WY)	1954	1954	1966	1981	1968	1988	1986	1962	1988	1952	1954	1953

CUMBERLAND RIVER BASIN

03404000 CUMBERLAND RIVER AT WILLIAMSBURG, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1951 - 1999	
ANNUAL TOTAL	1051805		650841		2728	
ANNUAL MEAN	2882		1783		4390	
HIGHEST ANNUAL MEAN					1159	
LOWEST ANNUAL MEAN					1988	
HIGHEST DAILY MEAN	35500	Apr 21	19200	Jan 24	47600	Feb 1 1957
LOWEST DAILY MEAN	88	Oct 19	65	Sep 28	6.1	Oct 26 1953
ANNUAL SEVEN-DAY MINIMUM	89	Oct 18	67	Sep 22	6.9	Oct 22 1953
INSTANTANEOUS PEAK FLOW			20800		49700	Jan 31 1957
INSTANTANEOUS PEAK STAGE			20.72		35.03	Apr 7 1977
INSTANTANEOUS LOW FLOW					6.1	Oct 23 1953
ANNUAL RUNOFF (CFSM)	1.79		1.11		1.70	
ANNUAL RUNOFF (INCHES)	24.35		15.07		23.06	
10 PERCENT EXCEEDS	6660		5140		6570	
50 PERCENT EXCEEDS	1340		588		1210	
90 PERCENT EXCEEDS	113		94		160	

e Estimated



CUMBERLAND RIVER BASIN

03404900 LYNN CAMP CREEK AT CORBIN, KY

LOCATION.--Lat 36°57'05", long 84°05'37", Whitley County, Hydrologic Unit 05130101, on left bank 40 ft downstream from bridge on State Highway 312, (East Masters Street) at Corbin, 0.8 mi downstream from East Fork Lynn Camp Creek, and at mile 3.9.

DRAINAGE AREA.--53.8 mi².

PERIOD OF RECORD.--Annual maximums, water years 1957-73, October 1973 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,049.00 ft above sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Records good except for discharges below 2.0 ft³/s, which are fair.

PEAKS ABOVE BASE.--Peak discharges above base of 1,500 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 9	1500	* 2140	8.50

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	3.2	3.4	60	97	133	52	36	4.2	9.2	2.3	1.2
2	1.2	3.1	3.5	71	95	91	47	29	10	32	2.2	1.5
3	1.1	9.0	2.8	402	91	248	36	24	13	19	1.1	.46
4	1.4	6.2	2.7	154	73	263	33	19	8.5	9.4	.83	.35
5	1.0	4.6	24	88	61	161	29	31	6.3	6.0	.72	.22
6	.44	3.9	20	65	56	199	28	311	5.5	3.9	.68	.25
7	1.2	3.1	58	59	58	150	28	135	5.2	3.3	.59	.18
8	12	4.0	232	253	58	111	29	75	4.7	2.9	1.0	.16
9	5.2	4.0	139	1790	50	215	49	43	5.7	2.2	1.1	.19
10	2.4	8.5	49	528	45	180	40	30	6.2	3.1	.74	.21
11	1.6	18	32	183	39	129	116	23	7.8	8.8	.62	.20
12	1.8	10	47	122	71	99	75	18	6.1	51	.59	.14
13	1.4	5.1	843	95	89	85	54	16	4.1	26	.60	.17
14	1.5	3.5	350	206	67	212	45	21	17	9.3	.44	.15
15	1.3	3.4	102	401	64	644	96	21	26	5.5	.75	.15
16	1.2	3.9	62	204	59	406	78	13	12	3.2	.64	.14
17	.79	3.5	50	132	66	219	54	9.6	7.7	2.2	.49	.18
18	.64	2.6	40	319	64	153	46	15	6.2	2.1	.54	.10
19	1.4	2.0	35	232	56	114	40	31	5.1	1.8	5.5	.11
20	1.7	3.2	36	150	48	92	39	13	4.3	1.9	8.9	.46
21	1.6	5.2	29	109	44	84	33	9.2	3.8	2.1	5.2	.31
22	1.8	4.4	70	83	38	72	29	7.3	4.0	2.8	2.3	.22
23	1.9	3.5	65	792	36	61	26	6.7	3.9	3.4	3.7	.23
24	1.8	2.7	60	746	36	61	24	25	9.9	3.5	6.9	.26
25	1.6	4.3	49	248	34	55	22	13	18	21	24	.28
26	1.8	9.9	48	155	31	48	59	8.3	15	5.9	8.6	.18
27	2.1	7.2	53	114	31	42	81	7.5	8.8	3.5	4.0	.17
28	1.8	5.6	72	88	182	38	76	5.9	25	3.4	1.9	.15
29	1.6	3.8	100	74	---	35	66	4.9	98	7.2	1.4	.59
30	1.7	3.2	97	63	---	32	49	4.7	25	10	1.4	.74
31	2.4	---	74	56	---	32	---	4.6	---	7.0	1.3	---
TOTAL	60.97	154.6	2848.4	8042	1739	4464	1479	1010.7	377.0	272.6	91.03	9.65
MEAN	1.97	5.15	91.9	259	62.1	144	49.3	32.6	12.6	8.79	2.94	.32
MAX	.12	.18	843	1790	182	644	116	311	98	51	24	1.5
MIN	.44	2.0	2.7	56	31	32	22	4.6	3.8	1.8	.44	.10
CFSM	.04	.10	1.71	4.82	1.15	2.68	.92	.61	.23	.16	.05	.01
IN.	.04	.11	1.97	5.56	1.20	3.09	1.02	.70	.26	.19	.06	.01

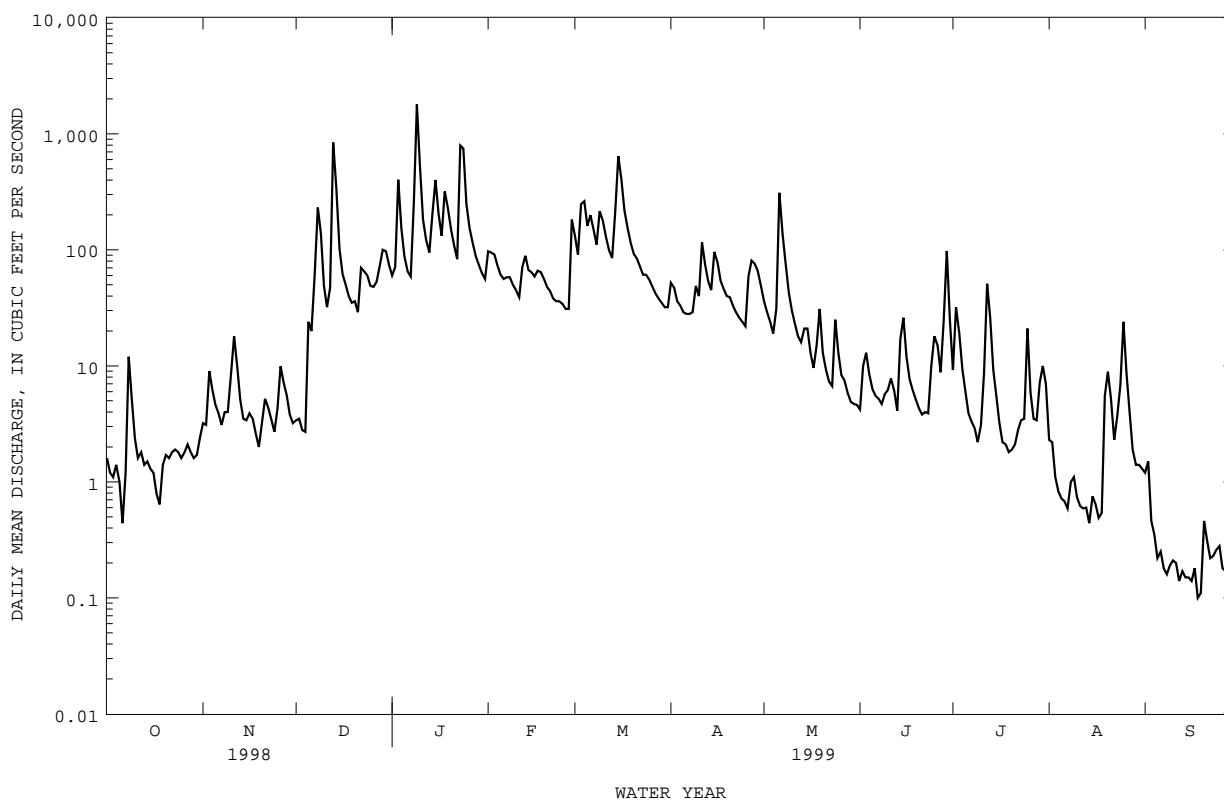
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1999, BY WATER YEAR (WY)

MEAN	30.8	86.4	119	158	155	164	112	94.5	57.9	37.5	26.8	28.0
MAX	133	267	378	372	326	458	413	387	203	110	78.4	100
(WY)	1990	1974	1991	1974	1994	1975	1998	1983	1997	1978	1979	1982
MIN	1.35	5.15	10.4	5.13	56.9	41.9	16.5	9.47	2.38	2.11	2.50	.32
(WY)	1981	1999	1981	1981	1977	1988	1986	1986	1988	1975	1976	1999

CUMBERLAND RIVER BASIN

03404900 LYNN CAMP CREEK AT CORBIN, KY--Continued

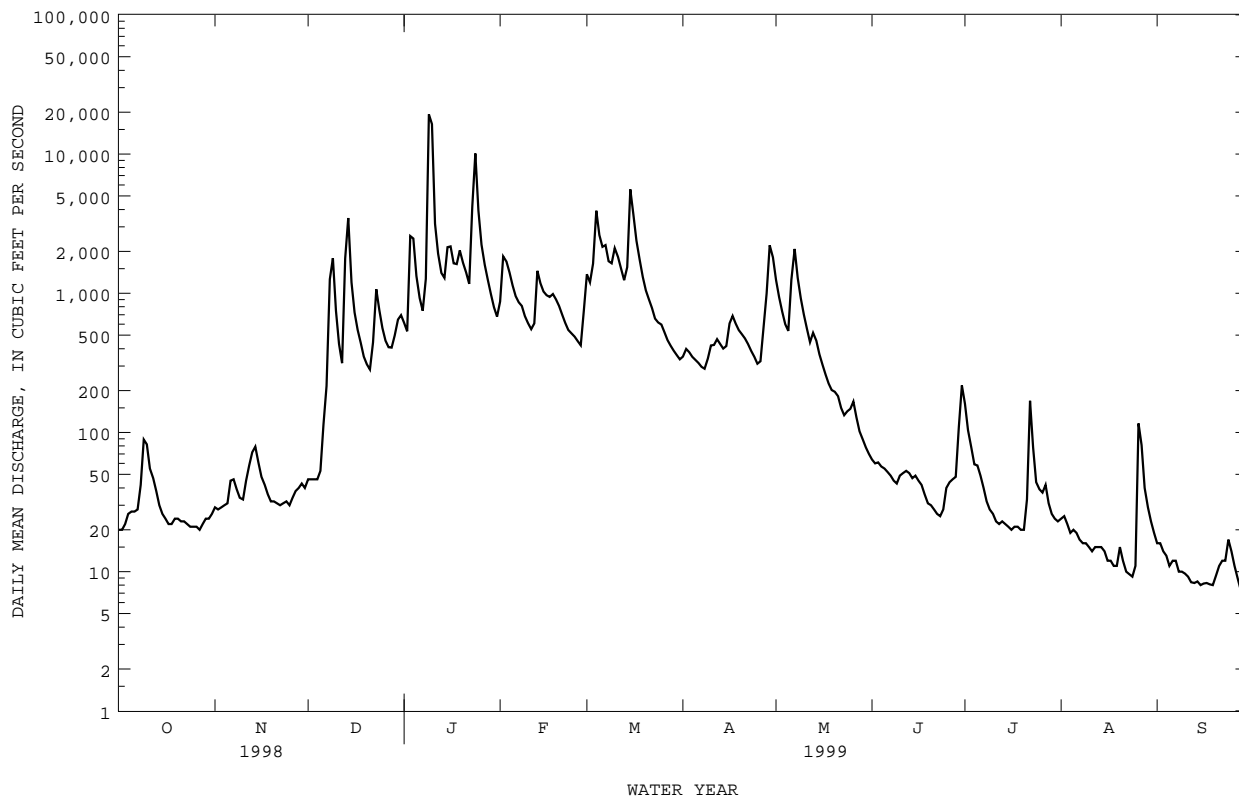
SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1967 - 1999	
ANNUAL TOTAL	36918.37		20548.95			
ANNUAL MEAN	101		56.3		88.9	
HIGHEST ANNUAL MEAN					141	
LOWEST ANNUAL MEAN					36.5	
HIGHEST DAILY MEAN	4530	Apr 17	1790	Jan 9	4530	Apr 17 1998
LOWEST DAILY MEAN	.44	Oct 6	.10	Sep 18	.02	Jun 24 1988
ANNUAL SEVEN-DAY MINIMUM	1.1	Oct 1	.14	Sep 13	.02	Jun 24 1988
INSTANTANEOUS PEAK FLOW			2140	Jan 9	9000	Jan 29 1957
INSTANTANEOUS PEAK STAGE			8.50	Jan 9	22.50	Jan 29 1957
INSTANTANEOUS LOW FLOW					.02	Jun 24 1988
ANNUAL RUNOFF (CFSM)	1.88		1.05		1.65	
ANNUAL RUNOFF (INCHES)	25.53		14.21		22.46	
10 PERCENT EXCEEDS	233		132		198	
50 PERCENT EXCEEDS	45		13		37	
90 PERCENT EXCEEDS	2.4		.64		3.4	



CUMBERLAND RIVER BASIN

03406500 ROCKCASTLE RIVER AT BILLOWS, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1936 - 1999	
ANNUAL TOTAL	390228		224740.6			
ANNUAL MEAN	1069		616		945	
HIGHEST ANNUAL MEAN					1575	
LOWEST ANNUAL MEAN					345	
HIGHEST DAILY MEAN	19600	Jan 8	19300	Jan 9	46200	Dec 9 1978
LOWEST DAILY MEAN	14	Sep 16	6.7	Sep 29	.90	Sep 9 1957
ANNUAL SEVEN-DAY MINIMUM	16	Sep 12	8.2	Sep 13	1.4	Sep 11 1964
INSTANTANEOUS PEAK FLOW			25300	Jan 9	50000	Dec 9 1978
INSTANTANEOUS PEAK STAGE			31.73	Jan 9	47.17	Dec 9 1978
INSTANTANEOUS LOW FLOW					.80	Sep 9 1957
ANNUAL RUNOFF (CFSM)	1.77		1.02		1.57	
ANNUAL RUNOFF (INCHES)	24.03		13.84		21.27	
10 PERCENT EXCEEDS	2640		1620		2150	
50 PERCENT EXCEEDS	444		82		331	
90 PERCENT EXCEEDS	24		14		24	



CUMBERLAND RIVER BASIN

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY

LOCATION (revised).--Lat 36°37'47", long 84°31'55", McCreary County, Hydrologic Unit 05130104, on right bank, 400 ft upstream from Salt Branch, 1,000 ft downstream from Bear Creek, 5.3 mi southwest of Stearns, and at mile 49.4.

DRAINAGE AREA.--954 mi².

PERIOD OF RECORD.--September 1942 to current year.

REVISED RECORDS.--WSP 1113: 1946(M). WSP 1436: Drainage area.

GAGE--Water-stage recorder. Datum of gage is 763.83 ft above sea level; prior to Oct. 1, 1980 at site 1,000 ft upstream at datum 0.98 ft higher.

REMARKS.--Records good.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1929 reached a stage of 52.9 ft from information by local residents.

PEAKS ABOVE BASE.--Peak discharges above base of 22,000 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Dec. 13	1900	24500	22.03	Jan. 9	2200	27500	23.48
Jan. 24	0200	*38700	28.20	May 6	2300	23600	21.50

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	41	84	1350	2680	6770	864	2110	205	3580	330	82
2	32	42	84	1140	4340	3880	1050	1650	196	3180	266	72
3	34	44	80	2690	3510	3330	1040	1320	299	6590	214	66
4	54	52	76	3720	2730	5550	998	1090	427	3350	190	61
5	51	55	84	2340	2140	4090	940	983	430	1990	164	56
6	54	55	107	1690	1740	3780	865	10000	586	1340	144	51
7	55	53	107	1370	1600	4200	809	12500	479	1040	126	49
8	187	49	419	1390	1780	3240	797	5120	380	780	118	44
9	165	48	1100	18000	1630	3050	1100	3230	293	607	131	40
10	149	56	1040	13200	1580	4410	1210	2180	227	538	129	37
11	140	88	555	5050	1720	3730	1140	1600	203	1080	118	34
12	110	105	406	3160	1730	2900	1130	1230	176	1760	110	32
13	93	104	12700	2360	2100	2370	1030	1020	162	7350	102	30
14	78	164	8820	2140	2010	5000	933	1120	169	3500	95	29
15	70	128	2820	7210	1780	8750	1040	1260	195	2490	84	28
16	65	108	1560	6210	1670	6230	1860	926	179	1560	78	26
17	59	93	1100	3690	1660	4290	1930	738	156	1080	74	25
18	54	82	854	6080	1920	3180	1610	613	142	833	69	24
19	53	74	705	9050	1960	2460	1360	691	124	705	63	23
20	56	68	610	4750	1760	2010	1230	788	109	579	73	23
21	53	67	559	3250	1500	1760	1160	598	97	2210	83	23
22	49	66	549	2460	1280	1640	1000	488	94	1210	76	23
23	47	64	569	13900	1110	1400	881	452	93	1020	65	24
24	46	63	770	24500	1040	1280	809	571	89	907	66	26
25	44	63	1370	7840	984	1170	747	618	3450	2720	312	25
26	44	69	1280	4390	925	1060	675	520	4580	1890	596	23
27	43	74	1160	3070	864	966	687	422	3400	1090	413	22
28	43	83	1340	2380	4300	879	809	360	9620	746	245	22
29	42	81	2250	1910	---	821	1140	303	12100	574	168	22
30	40	77	2200	1560	---	772	2230	257	10800	473	125	22
31	40	---	1730	1420	---	742	---	225	---	383	99	---
TOTAL	2078	2216	47088	163270	54043	95710	33074	54983	49460	57155	4926	1064
MEAN	67.0	73.9	1519	5267	1930	3087	1102	1774	1649	1844	159	35.5
MAX	187	164	12700	24500	4340	8750	2230	12500	12100	7350	596	82
MIN	28	41	76	1140	864	742	675	225	89	383	63	22
CFSM	.07	.08	1.59	5.52	2.02	3.24	1.16	1.86	1.73	1.93	.17	.04
IN.	.08	.09	1.84	6.37	2.11	3.73	1.29	2.14	1.93	2.23	.19	.04

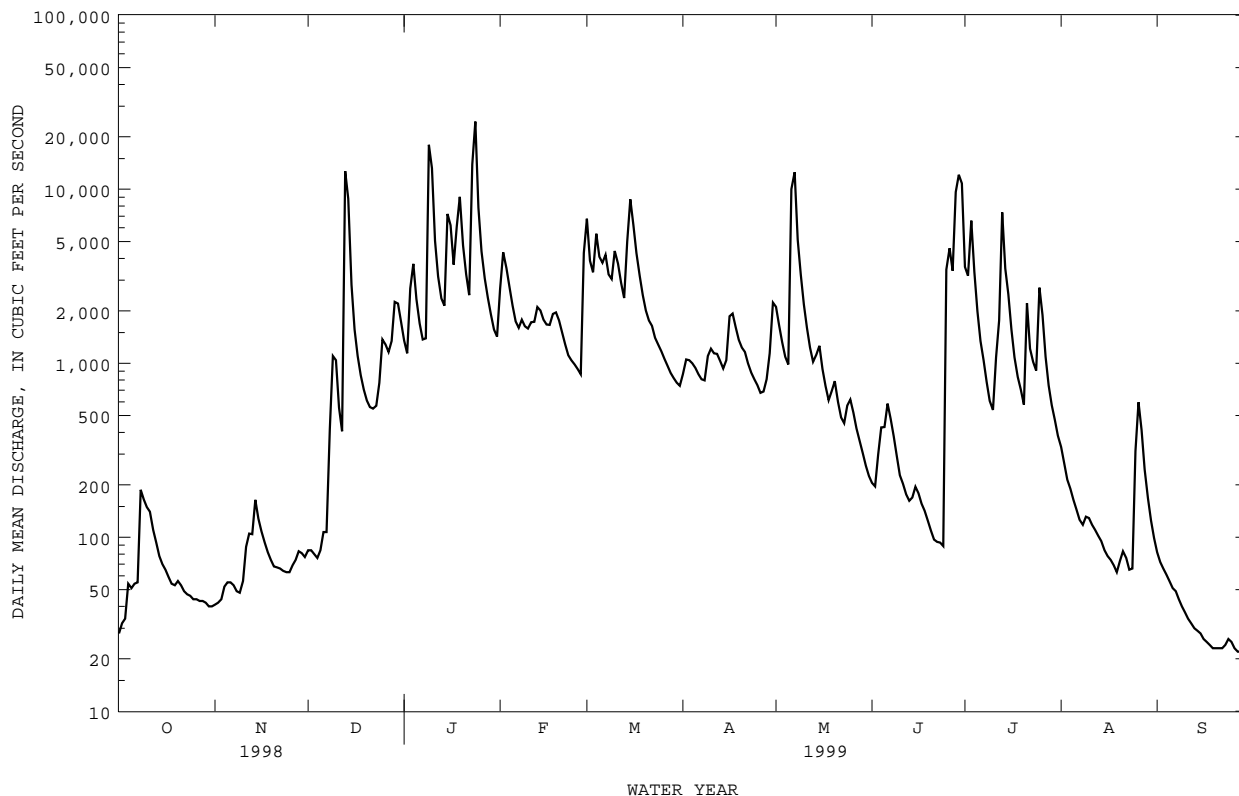
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1999, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
	391	2553	1990	20.8	1954
	1257	4556	1958	30.6	1954
	2648	7388	1991	150	1964
	3381	9615	1950	145	1981
	3523	8747	1956	725	1968
	3689	10580	1975	1248	1985
	2545	6038	1977	568	1986
	1743	6555	1984	224	1988
	999	5152	1989	72.8	1988
	621	3772	1967	34.5	1944
	410	2997	1971	65.4	1951
	354	2983	1982	29.6	1953

CUMBERLAND RIVER BASIN

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1943 - 1999	
ANNUAL TOTAL	768470		565067		1789	
ANNUAL MEAN	2105		1548		3023	
HIGHEST ANNUAL MEAN					810	
LOWEST ANNUAL MEAN					1988	
HIGHEST DAILY MEAN	30100	Apr 17	24500	Jan 24	80200	Mar 13 1975
LOWEST DAILY MEAN	28	Sep 26	22	Sep 27	11	Sep 18 1954
ANNUAL SEVEN-DAY MINIMUM	28	Sep 25	23	Sep 24	12	Sep 13 1954
INSTANTANEOUS PEAK FLOW			38700		93200	
INSTANTANEOUS PEAK STAGE			28.20		46.29	
INSTANTANEOUS LOW FLOW			21		11	
ANNUAL RUNOFF (CFSM)	2.21		1.62		1.88	
ANNUAL RUNOFF (INCHES)	29.97		22.03		25.48	
10 PERCENT EXCEEDS	5240		3750		4100	
50 PERCENT EXCEEDS	749		705		725	
90 PERCENT EXCEEDS	48		45		82	



CUMBERLAND RIVER BASIN

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY --Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-72, 1979 to 1990; July 1999 to Sep. 1999.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1980 to Sep. 1990, July 1999 to Sep. 1999.
 pH: May 1980 to Sept. 1990, July 1999 to Sep. 1999.
 WATER TEMPERATURE: May 1980 to Sep. 1990, July 1999 to Sep. 1999.
 DISSOLVED OXYGEN: May 1980 to Sep. 1990 (discontinued)
 TURBIDITY: May 1980 to Sep. 1987.
 SUSPENDED SEDIMENT DISCHARGE: May 1980 to Sep. 1990 (discontinued).

INSTRUMENTATION.--Five parameter water-quality monitor and sediment pumping sampler May 1980 to Sep. 1990. Three parameter water-quality monitor since July 1999.

REMARKS.--Miscellaneous samples prior to 1979. Miscellaneous measurement values may fall outside the range observed for that day by the water-quality monitor due to minor differences in sampling location.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 434 microsiemens, July 17, 1985; minimum recorded, 40 microsiemens, May 7, 1984.
 pH: Maximum recorded, 8.6 units, Aug. 10, 1989; minimum recorded, 5.2 units, May 19, Nov. 24, 1980.
 WATER TEMPERATURE: Maximum recorded, 34.6°C, Aug. 31, Sep. 1, 1989; minimum recorded, 4.5 mg/L, May 22, 1980.
 SEDIMENT CONCENTRATIONS: Maximum daily mean, 1980 mg/L, Aug. 9, 1981; minimum daily mean, 0 mg/L, on several days in 1983-84, 1987-88.
 SEDIMENT LOADS: Maximum daily, 200,000 tons, Sep. 2, 1982; minimum daily, 0.04 ton, Nov. 25, 1987.

EXTREMES FOR CURRENT RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 195 microsiemens, July 30; minimum recorded, 75 microsiemens, July 18.
 pH: Maximum recorded, 7.5 units, Aug. 3-11; minimum recorded, 6.4 units, Aug. 25.
 WATER TEMPERATURE: Maximum recorded, 29.6°C, Aug. 13; minimum recorded 20.8°C, July 14.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	SAMPLE TYPE	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	PH WATER WHOLE LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)
JUN	15...	1500 ENVIRONMENTAL	190	157	7.1	7.6	25.5	1.4	56
JUL	28...	1130 ENVIRONMENTAL	744	108	6.9	8.0	26.2	17	38
AUG	24...	1055 ENVIRONMENTAL	64	142	6.8	7.6	25.4	.50	49
	24...	1103 BLANK	--	--	--	8.0	--	.26	--
SEP	28...	1220 ENVIRONMENTAL	22	146	6.9	7.8	21.5	.39	51

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM AD-SORP-TION RATIO (00931)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ANC WATER UNFLTRD FET FIELD (MG/L AS CAC03) (00410)	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)	
JUN	15...	13	5.6	.3	5.1	16	1.6	29	3.7	36	<.10
JUL	28...	9.2	3.6	.2	2.7	13	1.5	20	1.6	18	<.10
AUG	24...	12	4.9	.3	4.8	17	1.5	29	4.0	27	<.10
	24...	.029	<.12	--	<.090	--	<.10	--	.29	<.10	<.10
SEP	28...	12	4.9	.4	7.0	22	2.1	31	5.8	28	<.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	
JUN	15...	3.1	17	31	<2.0	29	79	48	105	85
JUL	28...	5.2	15	21	<.010	25	15	31	65	54
AUG	24...	2.8	E13	28	<.010	32	7.6	45	70	75
	24...	E.061	<15	<1.0	<.010	<10	<2.2	<1.0	<10	--
SEP	28...	1.1	E13	30	<.010	34	8.3	52	82	80



CUMBERLAND RIVER BASIN

03410600 SOUTH FORK CUMBERLAND RIVER AT YAMACRAW, KY

LOCATION.--Lat 36°43'32", long 84°32'38", McCreary County, Hydrologic Unit 05130104, on left bank, 200 feet upstream of bridge on State Highway 92 at Yamacraw, 700 feet upstream from Wolf Creek, 0.6 mile downstream from Rock Creek, and at mile 40.3.

DRAINAGE AREA.--1,083 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1999 to September 30, 1999.

GAGE.--Water-stage recorder. Datum of gage is 730 ft above sea level from topographic map.

REMARKS.--Records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	e230	e4100	e380	e93
2	---	---	---	---	---	---	---	---	e220	e3600	e300	e82
3	---	---	---	---	---	---	---	---	e340	e7500	e240	e75
4	---	---	---	---	---	---	---	---	e480	e3800	e220	e69
5	---	---	---	---	---	---	---	---	e490	e2300	e190	e64
6	---	---	---	---	---	---	---	---	e660	e1500	e160	e58
7	---	---	---	---	---	---	---	---	e540	e1200	e140	e56
8	---	---	---	---	---	---	---	---	e430	e880	e130	e50
9	---	---	---	---	---	---	---	---	e330	e690	e150	e45
10	---	---	---	---	---	---	---	---	e260	e610	e150	e42
11	---	---	---	---	---	---	---	---	e230	e1200	e130	e39
12	---	---	---	---	---	---	---	---	e200	e2000	e120	e36
13	---	---	---	---	---	---	---	---	e180	e8300	e120	e34
14	---	---	---	---	---	---	---	---	e190	e4000	e110	e33
15	---	---	---	---	---	---	---	---	e220	e2800	e95	e32
16	---	---	---	---	---	---	---	---	e200	e1800	e89	e30
17	---	---	---	---	---	---	---	---	e180	e1200	e84	e28
18	---	---	---	---	---	---	---	---	e160	e940	e78	e27
19	---	---	---	---	---	---	---	---	e140	e800	e72	e26
20	---	---	---	---	---	---	---	---	e120	e660	e83	e26
21	---	---	---	---	---	---	---	---	e110	e2500	e94	e26
22	---	---	---	---	---	---	---	---	e110	e1400	e86	e26
23	---	---	---	---	---	---	---	---	e110	e1200	e74	e27
24	---	---	---	---	---	---	---	---	e100	e1000	e75	e30
25	---	---	---	---	---	---	---	---	e3900	e3100	e350	e28
26	---	---	---	---	---	---	---	---	e5200	e2100	e680	e26
27	---	---	---	---	---	---	---	---	e3900	e1200	e470	e25
28	---	---	---	---	---	---	---	---	e11000	e850	e280	e25
29	---	---	---	---	---	---	---	---	e14000	e650	e190	e25
30	---	---	---	---	---	---	---	---	e12000	e540	e140	e25
31	---	---	---	---	---	---	---	---	---	e440	e110	---
TOTAL	---	---	---	---	---	---	---	---	56230	64860	5590	1208
MEAN	---	---	---	---	---	---	---	---	1874	2092	180	40.3
MAX	---	---	---	---	---	---	---	---	14000	8300	680	93
MIN	---	---	---	---	---	---	---	---	100	440	72	25
CFSM	---	---	---	---	---	---	---	---	1.73	1.93	.17	.04
IN.	---	---	---	---	---	---	---	---	1.93	2.23	.19	.04

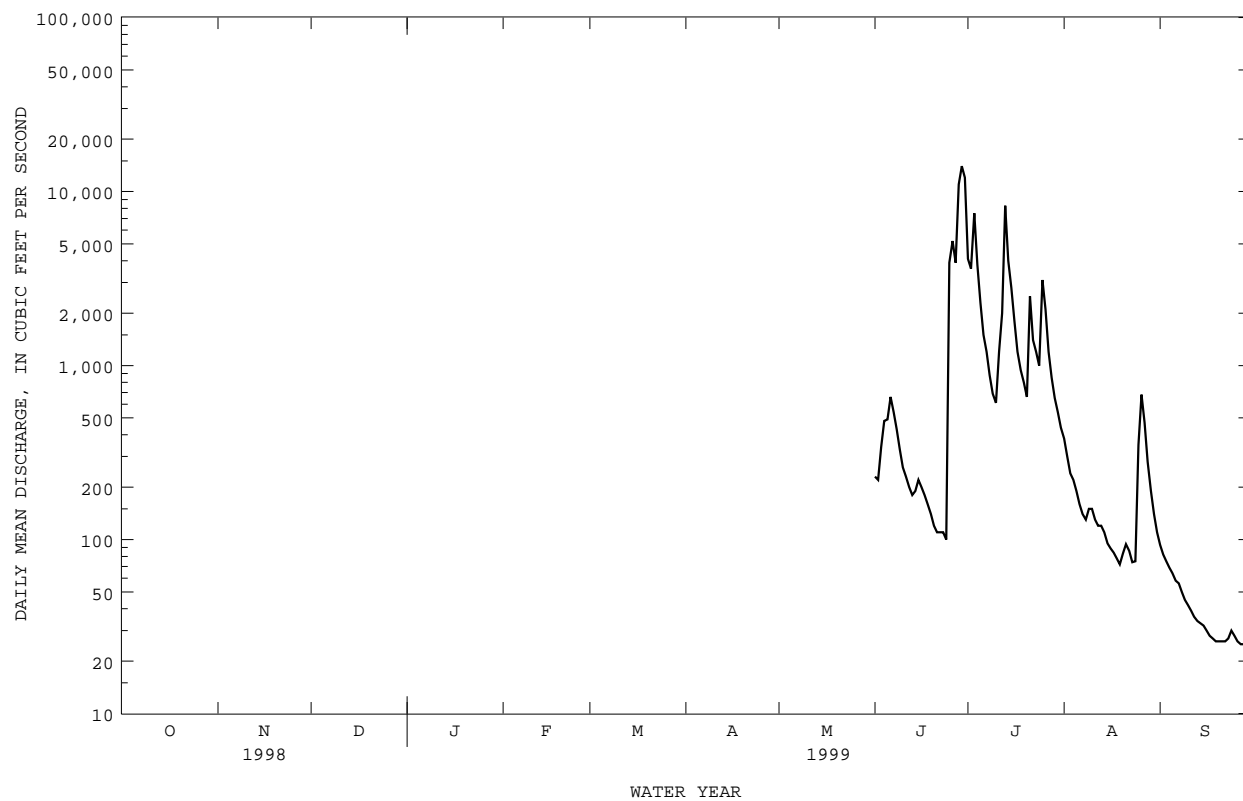
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 1999, BY WATER YEAR (WY)

MEAN	---	---	---	---	---	---	---	---	1874	2092	180	40.3
MAX	---	---	---	---	---	---	---	---	1874	2092	180	40.3
(WY)	---	---	---	---	---	---	---	---	1999	1999	1999	1999
MIN	---	---	---	---	---	---	---	---	1874	2092	180	40.3
(WY)	---	---	---	---	---	---	---	---	1999	1999	1999	1999

e Estimated

CUMBERLAND RIVER BASIN

03410600 SOUTH FORK CUMBERLAND RIVER AT YAMACRAW, KY--Continued



CUMBERLAND RIVER BASIN

03410600 SOUTH FORK CUMBERLAND RIVER AT YAMACRAW, KY --Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL ANALYSES: June 1999 to Sep. 1999.

WATER TEMPERATURE: Oct. 1949 to Sep. 1963, unpublished; Oct. 1963 to Sep. 1976.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1999 to Sep. 1999.

pH: June 1999 to Sep. 1999.

WATER TEMPERATURE: June 1999 to Sep. 1999.

INSTRUMENTATION.--Water-quality monitor since June 1999.

EXTREMES FOR CURRENT YEAR.--

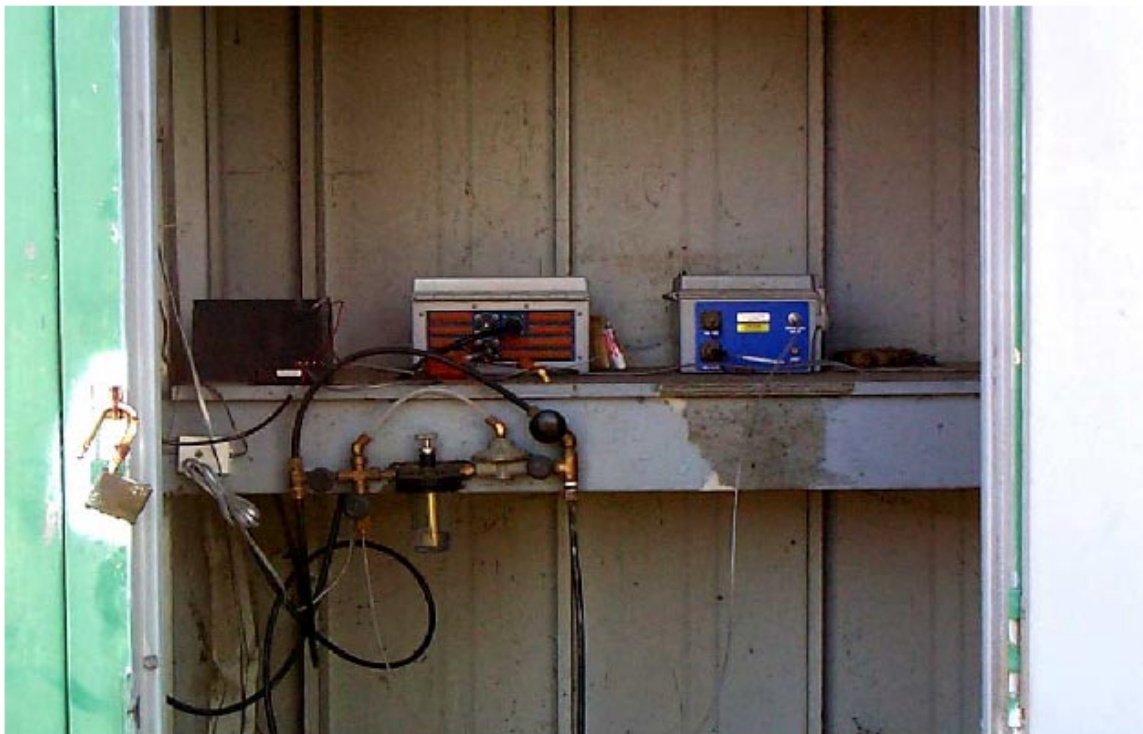
SPECIFIC CONDUCTANCE: Maximum recorded, 207 microsiemens, Sep. 26, 27; minimum recorded, 133 microsiemens, Aug. 27, 28.

pH: Maximum recorded, 7.3 units, June 8-14; minimum recorded, 6.4 units, July 24, 25.

WATER TEMPERATURE: Maximum recorded, 30.1°C, Aug. 13; minimum recorded, 18.6°C, Sep. 24.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	SAMPLE TYPE	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	PH WATER WHOLE LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	
JUN 16...	1240	ENVIRONMENTAL	203	145	7.3	7.6	22.0	25.2	1.8	
JUL 27...	0910	ENVIRONMENTAL	1260	114	6.4	7.1	28.4	25.6	20	
AUG 25...	1025	ENVIRONMENTAL	345	160	7.4	7.8	--	25.0	1.4	
25...	1035	REPLICATE	--	--	--	7.3	--	--	1.1	
SEP 29...	0955	ENVIRONMENTAL	25	192	7.0	8.0	--	21.4	.64	
DATE	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 AD-SORP-TION RATIO (00931)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ANC WATER UNFLTRD FET FIELD (MG/L AS CACO3) (00410)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
JUN 16...	54	13	5.1	.3	5.4	17	1.6	26	4.9	35
JUL 27...	42	10	3.9	.2	3.0	13	1.5	25	1.9	20
AUG 25...	56	14	5.3	.4	6.4	19	1.5	28	3.4	36
25...	57	14	5.3	.4	6.4	19	1.7	--	3.8	36
SEP 29...	61	15	5.8	.6	11	28	2.1	34	6.1	47
DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
JUN 16...	<.10	3.1	37	30	<.010	43	45	59	98	84
JUL 27...	<.10	5.3	16	22	<.010	30	12	36	72	61
AUG 25...	<.10	3.3	26	28	<.010	22	52	68	81	87
25...	<.10	3.2	28	28	<.010	24	52	69	82	--
SEP 29...	<.10	1.6	23	30	<.010	34	46	91	100	109



CUMBERLAND RIVER BASIN

03413200 BEAVER CREEK NEAR MONTICELLO, KY

LOCATION.--Lat 36°47'51", long 84°53'46", Wayne County, Hydrologic Unit 05130103, on left bank upstream of bridge on State Highway 200, 0.6 mi downstream from unnamed tributary, 0.8 mi northeast of Bethesda, 0.9 mi upstream from unnamed tributary, 3.8 mi southwest of Monticello, and at mile 24.0.

DRAINAGE AREA.--43.4 mi².

PERIOD OF RECORD.--October 1968 to September 1983, October 1989 to current year.

REVISED RECORDS.--WDR-98-1: Peak discharges and annual maximum.

GAGE.--Water-stage recorder. Datum of gage is 804.72 ft above sea level.

REMARKS.--Records fair.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1946 reached a stage of 10.8 ft from information by local residents.

PEAKS ABOVE BASE.--Peak discharges above base of 1,500 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 23	1230	*1740	5.99

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	2.0	2.0	14	211	92	23	30	7.8	16	4.6	2.2
2	1.4	2.0	2.0	21	149	65	23	26	7.7	34	4.4	2.2
3	1.8	2.0	2.0	184	109	155	22	23	7.3	24	4.4	2.2
4	2.0	2.0	2.0	74	80	149	22	21	6.9	16	4.3	2.2
5	1.9	2.1	8.0	47	60	125	21	23	7.8	13	4.2	2.1
6	1.8	2.3	11	38	50	157	21	88	9.2	12	3.9	2.1
7	2.2	2.2	12	29	50	125	20	49	7.7	10	3.6	2.1
8	7.9	2.0	171	211	48	92	20	33	7.0	9.4	3.4	2.1
9	3.4	2.3	76	427	38	117	21	27	6.7	8.7	2.8	2.0
10	2.0	3.7	21	262	31	107	20	23	6.5	8.3	2.9	2.0
11	1.8	5.7	10	134	27	80	22	20	6.3	8.3	2.6	1.9
12	1.8	5.5	15	92	116	68	21	19	6.2	7.9	2.5	1.9
13	1.8	4.2	594	66	119	58	20	18	7.0	7.4	2.3	2.0
14	1.8	3.4	122	93	78	183	20	49	8.1	7.1	2.4	2.0
15	1.7	3.1	44	122	64	208	32	27	10	6.7	2.8	2.0
16	1.6	3.0	23	87	51	142	31	22	7.5	6.5	2.6	2.0
17	1.6	2.7	19	67	57	108	27	20	6.4	6.3	2.5	2.0
18	1.6	2.5	17	117	53	86	24	18	5.9	6.0	2.4	1.9
19	1.6	2.5	12	96	44	67	23	16	5.7	5.6	2.4	1.9
20	1.6	2.4	10	76	35	59	23	13	5.6	5.9	2.5	2.1
21	1.7	2.3	8.7	62	29	53	23	12	5.4	5.8	2.5	2.2
22	1.8	2.3	14	49	25	44	22	12	5.3	5.4	2.5	2.1
23	1.8	2.3	18	971	23	37	21	11	5.3	5.2	2.3	2.1
24	1.8	2.3	13	336	21	35	20	11	10	5.5	2.2	2.0
25	1.8	2.3	11	153	20	32	19	11	31	5.8	2.7	2.0
26	1.8	2.8	11	99	18	29	19	10	17	5.0	2.7	2.0
27	1.8	2.6	13	74	17	26	18	9.5	12	5.4	2.5	2.0
28	1.8	2.4	17	57	185	24	19	8.9	18	4.9	2.5	2.0
29	1.8	2.2	23	40	---	23	76	7.6	64	4.8	2.4	2.5
30	1.9	2.0	20	32	---	21	40	7.3	24	4.8	2.3	2.4
31	2.0	---	16	46	---	21	---	7.8	---	4.2	2.3	---
TOTAL	63.0	81.1	1337.7	4176	1808	2588	733	673.1	335.3	275.9	90.4	62.2
MEAN	2.03	2.70	43.2	135	64.6	83.5	24.4	21.7	11.2	8.90	2.92	2.07
MAX	7.9	5.7	594	971	211	208	76	88	64	34	4.6	2.5
MIN	1.4	2.0	2.0	14	17	21	18	7.3	5.3	4.2	2.2	1.9
CFSM	.05	.06	.99	3.10	1.49	1.92	.56	.50	.26	.21	.07	.05
IN.	.05	.07	1.15	3.58	1.55	2.22	.63	.58	.29	.24	.08	.05

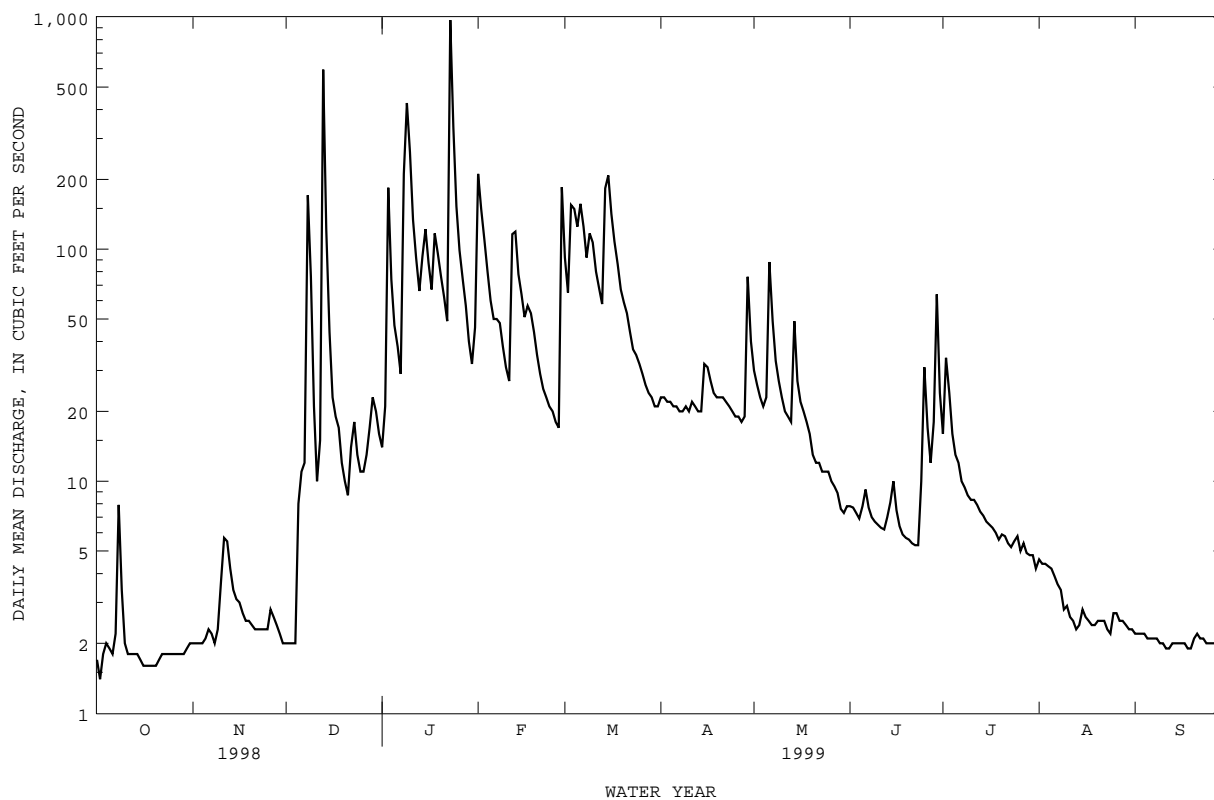
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1999, BY WATER YEAR (WY)

MEAN	22.2	34.5	97.9	118	116	135	114	57.3	47.2	16.7	16.9	15.1
MAX	281	109	459	265	225	479	242	215	193	101	124	106
(WY)	1990	1980	1991	1974	1991	1975	1998	1983	1981	1971	1971	1982
MIN	1.72	2.70	2.41	2.36	28.1	24.0	21.4	16.6	4.83	3.13	1.89	1.17
(WY)	1981	1999	1981	1981	1981	1983	1995	1982	1980	1980	1980	1980

CUMBERLAND RIVER BASIN

03413200 BEAVER CREEK NEAR MONTICELLO, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1969 - 1999	
ANNUAL TOTAL	28121.9		12223.7			
ANNUAL MEAN	77.0		33.5		65.8	
HIGHEST ANNUAL MEAN					103	
LOWEST ANNUAL MEAN					32.5	
HIGHEST DAILY MEAN	1580		971		4280	
LOWEST DAILY MEAN	1.4	Apr 17	1.4	Jan 23	.50	Oct 17 1989
ANNUAL SEVEN-DAY MINIMUM	1.6	Oct 2	1.6	Oct 2	.95	Oct 2 1968
INSTANTANEOUS PEAK FLOW			1740		3130	
INSTANTANEOUS PEAK STAGE			5.99		8.67	
INSTANTANEOUS LOW FLOW					.50	
ANNUAL RUNOFF (CFSM)	1.78		.77		1.52	
ANNUAL RUNOFF (INCHES)	24.10		10.48		20.59	
10 PERCENT EXCEEDS	176		90		134	
50 PERCENT EXCEEDS	17		10		20	
90 PERCENT EXCEEDS	1.8		2.0		2.6	

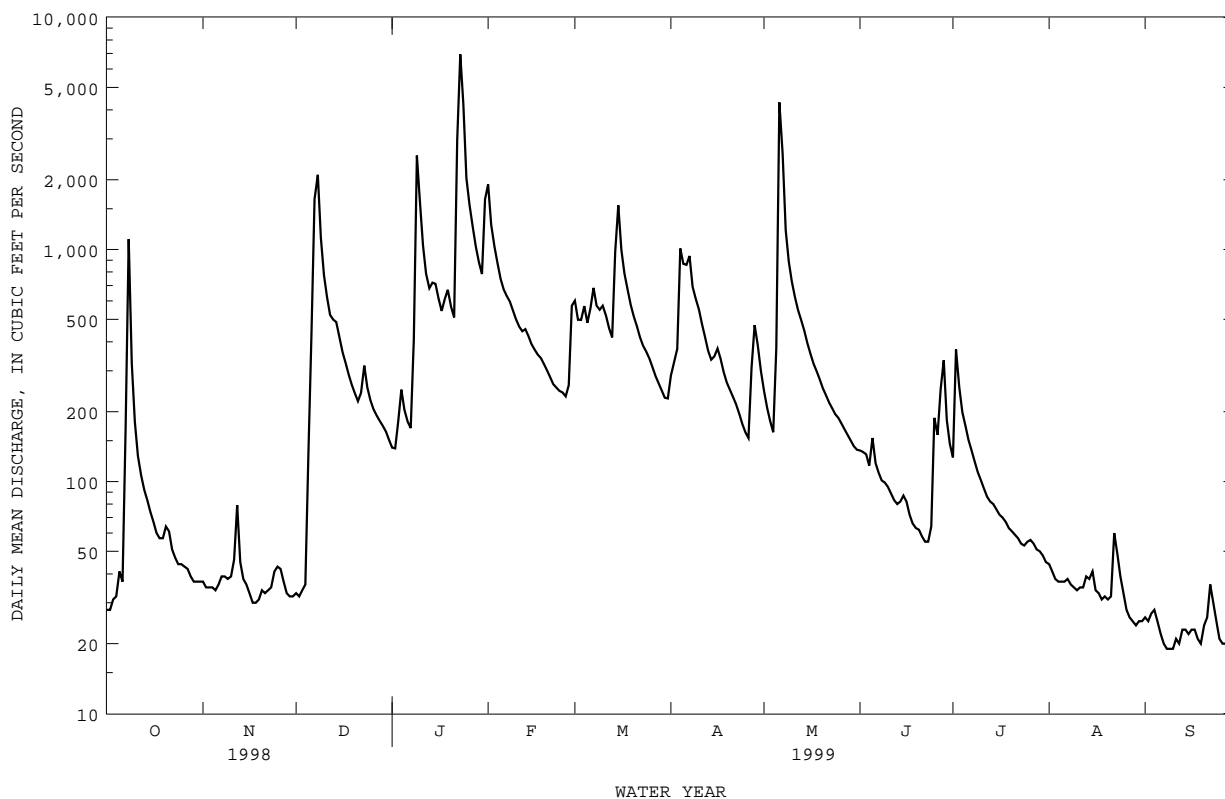


CUMBERLAND RIVER BASIN

03438000 LITTLE RIVER NEAR CADIZ, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1940 - 1999	
ANNUAL TOTAL	126445		123059		356	
ANNUAL MEAN	346		337		757	
HIGHEST ANNUAL MEAN					58.9	
LOWEST ANNUAL MEAN					24300	
HIGHEST DAILY MEAN	9140	Jun 10	6930	Jan 23	3.6	Oct 3 1941
LOWEST DAILY MEAN	28	Oct 1	19	Sep 8	7.0	Oct 24 1940
ANNUAL SEVEN-DAY MINIMUM	30	Sep 28	20	Sep 6	37600	Mar 1 1997
INSTANTANEOUS PEAK FLOW			7630		26.44	
INSTANTANEOUS PEAK STAGE			16.39		1.0	
INSTANTANEOUS LOW FLOW					1.46	
ANNUAL RUNOFF (CFSM)	1.42		1.38		19.84	
ANNUAL RUNOFF (INCHES)	19.28		18.76		831	
10 PERCENT EXCEEDS	677		735		140	
50 PERCENT EXCEEDS	186		159		28	
90 PERCENT EXCEEDS	36		29			

e Estimated



CUMBERLAND RIVER BASIN
03438220 CUMBERLAND RIVER NEAR GRAND RIVERS, KY

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969 to 1986, September 1995 to September 1996, November 1998 to September 1999.

INSTRUMENTATION.--Water-quality monitor since September 1995.

REMARKS.--Flow regulated by Barkley Dam and reservoirs above station. Periods of missing record were due to instrument malfunctions. Supersaturation of oxygen may occur due to local hydraulic conditions.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 948 microsiemens, June 13, 1996; minimum 183 microsiemens, June 26, 1996.

pH: Maximum, 9.7 units, June 20, 1996; minimum, 6.0 units, Sept. 12, 1995.

WATER TEMPERATURE: Maximum, 29.6°C, Sept. 1, 1995; minimum, 0.5°C, Feb. 6, 1995.

DISSOLVED OXYGEN: Maximum, 14.9 mg/L, Apr. 3, 1999; minimum, 3.1 mg/L, Sept. 1, 1995.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 263 microsiemens, Jan. 9; minimum 158 microsiemens, July 14.

pH: Maximum, 9.1 units, Mar. 30; minimum, 7.4 units, Sept. 8, 9.

WATER TEMPERATURE: Maximum, 32.4°C, July 30, 31; minimum, 1.9°C, Jan. 5.

DISSOLVED OXYGEN: Maximum, 14.9 mg/L, Apr. 3; minimum, 4.7 mg/L, July 25, 31, Aug. 2, 5.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	211	198	205	244	223	232
2	---	---	---	---	---	---	207	195	201	247	206	225
3	---	---	---	---	---	---	206	195	200	237	220	228
4	---	---	---	---	---	---	206	195	201	252	228	244
5	---	---	---	---	---	---	203	191	195	253	248	251
6	---	---	---	---	---	---	212	203	208	255	238	250
7	---	---	---	---	---	---	212	211	211	259	255	257
8	---	---	---	---	---	---	212	197	208	259	229	249
9	---	---	---	---	---	---	210	198	206	263	257	260
10	---	---	---	---	---	---	210	201	205	260	256	258
11	---	---	---	---	---	---	209	199	205	258	240	251
12	---	---	---	---	---	---	210	203	206	241	226	232
13	---	---	---	---	---	---	211	199	206	229	224	226
14	---	---	---	---	---	---	221	199	208	232	225	230
15	---	---	---	---	---	---	227	221	224	236	226	232
16	---	---	---	---	---	---	238	220	226	240	230	235
17	---	---	---	---	---	---	237	220	230	244	226	239
18	---	---	---	---	---	---	230	216	221	---	---	---
19	---	---	---	---	---	---	234	220	227	---	---	---
20	---	---	---	---	---	---	233	221	228	---	---	---
21	---	---	---	---	---	---	232	207	222	---	---	---
22	---	---	---	---	---	---	232	207	220	---	---	---
23	---	---	---	204	198	200	219	202	213	---	---	---
24	---	---	---	214	194	203	221	212	216	---	---	---
25	---	---	---	198	188	194	224	208	215	---	---	---
26	---	---	---	206	195	202	226	211	217	---	---	---
27	---	---	---	208	196	201	220	208	214	---	---	---
28	---	---	---	210	196	204	232	216	224	---	---	---
29	---	---	---	206	196	203	243	210	222	---	---	---
30	---	---	---	200	193	196	239	211	222	---	---	---
31	---	---	---	---	---	---	223	208	214	---	---	---
MONTH	---	---	---	214	188	200	243	191	214	263	206	241

CUMBERLAND RIVER BASIN

03438220 CUMBERLAND RIVER NEAR GRAND RIVERS, KY--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	240	237	239	238	233	236	219	212	217
2	---	---	---	240	237	239	235	228	232	222	217	220
3	---	---	---	240	224	235	230	224	228	221	200	215
4	---	---	---	235	226	230	227	223	225	221	183	201
5	---	---	---	231	227	229	224	217	220	227	184	203
6	---	---	---	229	225	228	218	214	217	228	188	209
7	---	---	---	231	225	228	215	210	213	234	225	231
8	---	---	---	232	223	229	212	202	210	235	209	226
9	---	---	---	229	208	220	213	177	201	225	179	199
10	---	---	---	228	216	221	213	203	209	207	182	193
11	---	---	---	231	218	226	214	205	210	204	179	193
12	---	---	---	234	222	228	213	210	211	235	180	216
13	---	---	---	235	218	227	211	208	210	240	228	236
14	---	---	---	238	215	227	209	202	206	235	223	229
15	---	---	---	250	232	241	207	202	205	223	219	221
16	---	---	---	257	249	253	206	203	205	223	220	222
17	---	---	---	258	251	255	205	202	204	225	207	220
18	---	---	---	252	240	246	204	200	202	227	206	218
19	---	---	---	242	234	237	201	194	198	226	188	207
20	---	---	---	240	235	238	197	191	195	231	200	219
21	---	---	---	243	239	241	193	188	190	229	203	218
22	227	---	---	244	235	239	188	177	182	237	217	228
23	234	214	226	246	225	242	188	179	183	232	206	220
24	232	218	225	240	217	231	190	186	189	234	199	220
25	237	205	221	241	217	231	194	190	193	216	191	209
26	241	225	234	238	215	228	204	192	197	232	189	218
27	241	225	234	228	195	208	205	201	203	227	211	222
28	242	238	240	236	224	233	207	196	202	215	205	211
29	---	---	---	246	235	241	209	204	207	214	207	210
30	---	---	---	242	232	237	213	206	209	214	205	208
31	---	---	---	239	233	236	---	---	---	224	214	219
MONTH	242	205	230	258	195	234	238	177	206	240	179	215
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	222	210	217	220	191	203	197	170	183	182	166	173
2	224	211	219	228	189	210	203	166	188	198	173	184
3	220	216	218	226	193	209	203	160	186	203	175	187
4	216	204	211	220	198	211	198	171	185	212	181	198
5	209	202	206	218	186	204	197	167	185	203	185	196
6	214	204	211	216	178	194	204	168	184	211	180	198
7	217	210	213	203	167	181	209	173	193	206	191	200
8	216	203	211	196	167	182	213	185	201	200	164	187
9	206	195	201	202	170	182	215	187	204	189	164	176
10	204	195	199	201	184	191	218	182	200	191	173	184
11	212	197	204	211	189	203	200	174	188	213	189	197
12	215	203	210	212	188	199	203	168	186	218	206	212
13	216	204	209	206	174	186	222	175	190	216	205	212
14	207	192	199	180	158	166	220	192	208	211	191	201
15	210	174	198	177	161	171	220	192	206	202	181	193
16	189	173	180	184	165	173	221	215	219	206	188	197
17	201	176	190	176	163	169	222	216	219	199	174	187
18	211	185	199	173	166	170	219	195	209	198	180	192
19	212	175	197	187	170	178	207	187	199	201	191	196
20	223	199	208	188	164	174	211	180	195	206	191	200
21	218	201	209	175	165	170	197	183	191	208	185	197
22	216	199	209	183	172	175	208	188	198	202	183	193
23	214	199	205	186	168	176	206	179	195	202	179	189
24	226	191	209	191	170	179	203	178	194	202	182	194
25	224	214	220	202	176	188	205	172	192	200	173	186
26	224	215	219	196	164	176	207	186	196	189	178	182
27	230	217	225	181	161	169	206	190	200	201	187	193
28	230	215	225	174	162	166	210	181	198	210	186	198
29	230	211	222	175	163	169	207	183	196	200	186	193
30	225	213	219	185	168	175	208	180	196	190	164	178
31	---	---	---	196	174	186	201	175	187	---	---	---
MONTH	230	173	209	228	158	183	222	160	196	218	164	192

CUMBERLAND RIVER BASIN

03438220 CUMBERLAND RIVER NEAR GRAND RIVERS, KY--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	8.2	7.9	8.1	8.0	---	---	8.5	8.3
2	---	---	---	---	8.4	8.2	8.1	7.9	---	---	8.5	8.2
3	---	---	---	---	8.4	8.1	8.0	8.0	---	---	8.4	8.2
4	---	---	---	---	8.5	8.1	8.1	8.0	---	---	8.4	8.2
5	---	---	---	---	8.3	8.1	8.3	8.1	---	---	8.2	8.1
6	---	---	---	---	8.5	8.2	8.3	8.1	---	---	8.1	8.0
7	---	---	---	---	8.4	8.3	8.2	8.1	---	---	8.2	8.1
8	---	---	---	---	8.4	8.0	8.2	8.0	---	---	8.2	8.1
9	---	---	---	---	8.3	8.0	8.1	8.1	---	---	8.1	8.0
10	---	---	---	---	8.2	8.0	8.3	8.0	---	---	8.2	8.1
11	---	---	---	---	8.1	7.9	8.1	7.7	---	---	8.3	8.1
12	---	---	---	---	8.0	7.9	7.8	7.6	---	---	8.3	8.1
13	---	---	---	---	8.0	7.9	7.7	7.7	---	---	8.3	8.2
14	---	---	---	---	8.0	7.8	7.8	7.7	---	---	8.2	8.1
15	---	---	---	---	7.9	7.8	7.8	7.7	---	---	8.3	8.2
16	---	---	---	---	7.9	7.8	7.9	7.8	---	---	8.4	8.2
17	---	---	---	---	7.9	7.8	7.9	7.8	---	---	8.4	8.2
18	---	---	---	---	8.0	7.8	---	---	---	---	8.3	8.1
19	---	---	---	---	8.0	7.9	---	---	---	---	8.2	8.1
20	---	---	---	---	8.0	7.9	---	---	---	---	8.2	8.0
21	---	---	---	---	8.0	7.9	---	---	---	---	8.4	8.1
22	---	---	---	---	8.0	7.9	---	---	8.4	8.1	8.4	8.2
23	---	---	8.2	8.0	8.0	7.9	---	---	8.4	8.2	8.4	8.2
24	---	---	8.3	8.0	8.0	7.9	---	---	8.4	8.2	8.5	8.2
25	---	---	8.1	7.9	8.0	7.9	---	---	8.4	8.1	8.6	8.2
26	---	---	8.2	8.0	8.0	7.9	---	---	8.4	8.2	8.7	8.3
27	---	---	8.2	8.0	8.0	7.9	---	---	8.4	8.2	8.7	8.2
28	---	---	8.5	8.1	8.0	7.9	---	---	8.4	8.2	8.7	8.5
29	---	---	8.4	8.1	8.0	7.8	---	---	---	---	8.9	8.6
30	---	---	8.2	8.0	8.1	7.9	---	---	---	---	9.1	8.9
31	---	---	---	---	8.0	7.9	---	---	---	---	9.0	8.8
MONTH	---	---	8.5	7.9	8.5	7.8	8.3	7.6	8.4	8.1	9.1	8.0
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.9	8.7	8.7	8.6	8.6	8.0	8.5	8.0	8.3	7.9	7.9	7.6
2	8.9	8.7	8.7	8.6	8.6	7.7	8.4	7.9	8.3	7.8	8.3	7.7
3	8.9	8.7	8.8	8.6	8.4	7.7	8.4	8.0	8.6	7.9	8.4	7.8
4	8.8	8.7	8.7	8.5	8.4	7.8	8.4	8.0	8.5	7.9	8.4	7.8
5	8.8	8.7	8.6	8.3	8.1	7.8	8.4	7.8	8.5	8.0	8.2	7.7
6	8.7	8.6	8.6	8.2	8.1	7.7	8.2	7.7	8.5	7.9	8.0	7.6
7	8.8	8.6	8.7	8.4	8.3	7.7	8.2	7.5	8.7	7.7	8.3	7.8
8	8.6	8.5	8.5	8.1	8.4	7.8	8.2	7.6	8.4	7.7	8.1	7.4
9	8.5	8.3	8.2	7.9	8.4	7.7	8.3	7.6	8.5	7.8	7.6	7.4
10	8.5	8.2	8.4	7.9	8.3	7.7	8.2	7.6	8.5	7.7	8.0	7.6
11	8.5	8.0	8.4	7.8	8.3	7.6	8.5	7.8	8.1	7.5	8.1	7.6
12	8.1	8.0	8.8	7.9	8.3	7.6	8.4	7.8	8.1	7.5	8.2	7.8
13	8.3	8.0	8.5	8.0	8.4	7.8	8.3	7.8	8.2	7.7	7.9	7.7
14	8.4	8.2	8.2	7.9	7.9	7.6	8.0	7.6	8.0	7.7	8.0	7.8
15	8.3	7.9	7.9	7.6	8.1	7.8	8.5	7.7	8.5	7.8	8.2	7.7
16	7.9	7.9	7.8	7.6	8.1	7.7	8.6	7.9	8.3	7.9	8.1	7.8
17	8.0	7.9	7.8	7.6	8.1	7.8	8.4	7.7	8.1	7.7	8.2	7.9
18	8.1	8.0	7.7	7.6	8.5	7.8	8.2	7.7	8.2	7.6	8.5	7.8
19	8.5	8.1	7.7	7.6	8.4	8.0	8.3	7.7	7.9	7.6	8.4	7.9
20	8.6	8.1	8.0	7.7	8.2	7.8	8.3	7.6	7.8	7.6	8.3	7.9
21	8.8	8.6	8.2	7.8	8.1	7.7	7.9	7.5	7.8	7.6	8.1	7.8
22	8.8	8.6	7.8	7.6	8.2	7.7	8.1	7.5	7.8	7.6	8.1	7.8
23	8.7	8.4	8.2	7.7	8.2	7.7	8.0	7.6	8.0	7.6	8.1	7.8
24	8.7	8.5	8.0	7.7	8.1	7.6	8.2	7.5	7.9	7.7	8.2	7.9
25	8.8	8.7	8.2	7.9	8.3	7.7	8.5	7.5	7.8	7.5	8.4	7.8
26	8.8	8.7	7.9	7.8	8.5	8.2	8.4	7.6	8.0	7.7	8.3	7.7
27	8.8	8.6	8.4	7.9	8.3	7.8	8.0	7.5	8.2	7.8	8.3	7.8
28	8.6	8.3	8.3	8.0	8.2	7.7	8.1	7.5	8.1	7.8	8.4	7.8
29	8.5	8.3	8.2	8.0	7.9	7.6	8.3	7.6	8.1	7.8	7.9	7.7
30	8.6	8.5	8.3	7.8	8.5	7.9	8.1	7.7	8.1	7.9	7.9	7.6
31	---	---	8.3	7.8	---	---	8.3	7.7	8.1	7.8	---	---
MONTH	8.9	7.9	8.8	7.6	8.6	7.6	8.6	7.5	8.7	7.5	8.5	7.4

CUMBERLAND RIVER BASIN

03438220 CUMBERLAND RIVER NEAR GRAND RIVERS, KY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	13.6	13.3	13.4	5.7	4.5	5.1
2	---	---	---	---	---	---	13.6	13.2	13.4	6.0	4.5	5.3
3	---	---	---	---	---	---	13.7	13.4	13.5	5.4	4.5	4.9
4	---	---	---	---	---	---	14.4	13.6	13.9	4.6	2.9	3.6
5	---	---	---	---	---	---	14.6	14.1	14.3	3.0	1.9	2.3
6	---	---	---	---	---	---	15.2	14.4	14.7	3.3	2.2	3.0
7	---	---	---	---	---	---	15.1	14.5	14.6	3.5	3.0	3.3
8	---	---	---	---	---	---	14.5	13.8	14.2	4.1	3.0	3.5
9	---	---	---	---	---	---	13.8	13.3	13.4	3.7	3.2	3.5
10	---	---	---	---	---	---	13.4	12.4	12.8	3.5	2.3	3.0
11	---	---	---	---	---	---	12.8	12.1	12.5	4.7	3.5	3.9
12	---	---	---	---	---	---	12.3	11.9	12.2	5.9	4.6	5.2
13	---	---	---	---	---	---	12.2	11.4	12.0	6.3	5.9	6.1
14	---	---	---	---	---	---	12.0	11.2	11.6	5.9	5.3	5.6
15	---	---	---	---	---	---	11.2	10.8	11.1	5.5	5.0	5.3
16	---	---	---	---	---	---	11.4	10.9	11.1	5.9	5.1	5.5
17	---	---	---	---	---	---	11.1	10.5	10.9	6.5	---	---
18	---	---	---	---	---	---	10.6	10.3	10.4	---	---	---
19	---	---	---	---	---	---	10.3	10.0	10.2	---	---	---
20	---	---	---	---	---	---	10.2	9.9	10.1	---	---	---
21	---	---	---	---	---	---	10.7	9.9	10.3	---	---	---
22	---	---	---	---	---	---	9.9	8.8	9.3	---	---	---
23	---	---	---	13.1	12.9	13.0	8.9	7.4	8.0	---	---	---
24	---	---	---	13.3	12.9	13.1	7.9	6.9	7.5	---	---	---
25	---	---	---	13.2	12.9	13.1	7.2	6.0	6.8	---	---	---
26	---	---	---	13.2	13.0	13.1	7.1	6.4	6.7	---	---	---
27	---	---	---	13.3	12.9	13.1	6.9	6.4	6.6	---	---	---
28	---	---	---	13.4	12.9	13.1	6.9	6.4	6.6	---	---	---
29	---	---	---	13.9	13.2	13.5	7.0	6.4	6.7	---	---	---
30	---	---	---	13.8	13.5	13.6	6.4	5.3	5.9	---	---	---
31	---	---	---	---	---	---	6.1	5.3	5.7	---	---	---
MONTH	---	---	---	13.9	12.9	13.2	15.2	5.3	10.7	6.5	1.9	4.3
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	9.8	9.0	9.5	12.8	12.1	12.5	18.8	18.3	18.5
2	---	---	---	10.3	9.5	9.9	13.5	12.6	13.0	19.1	18.8	18.9
3	---	---	---	10.0	9.1	9.6	14.7	13.2	13.7	20.3	19.1	19.7
4	---	---	---	9.6	8.6	9.2	14.5	14.0	14.2	20.5	19.5	19.8
5	---	---	---	9.2	8.9	9.1	15.6	14.5	15.1	20.0	19.4	19.7
6	---	---	---	9.2	8.7	9.1	15.5	15.0	15.3	20.3	19.4	19.8
7	---	---	---	9.0	7.9	8.6	16.8	15.3	16.0	20.6	20.0	20.3
8	---	---	---	8.7	7.9	8.2	17.2	16.2	16.6	20.8	20.1	20.4
9	---	---	---	8.6	7.9	8.4	17.3	16.5	16.9	20.9	20.2	20.6
10	---	---	---	8.4	7.6	8.0	18.1	17.2	17.5	21.8	20.6	21.1
11	---	---	---	8.4	7.3	7.9	18.1	17.5	17.7	22.4	21.4	21.9
12	---	---	---	8.4	7.6	8.0	17.6	17.5	17.6	23.0	21.8	22.4
13	---	---	---	8.2	7.7	7.9	17.8	17.4	17.6	22.6	22.0	22.2
14	---	---	---	7.9	7.3	7.6	17.7	17.1	17.5	22.1	21.9	22.0
15	---	---	---	7.8	6.6	7.3	17.1	16.5	16.7	22.3	21.5	21.9
16	---	---	---	8.7	7.7	8.1	16.6	15.6	16.3	22.5	21.7	22.0
17	---	---	---	9.8	8.5	9.1	15.6	14.6	15.0	22.9	22.1	22.4
18	---	---	---	10.2	9.5	9.9	14.6	14.1	14.3	22.8	22.3	22.5
19	---	---	---	10.6	9.9	10.2	14.7	13.9	14.3	23.3	22.5	22.7
20	---	---	---	10.5	10.2	10.4	15.4	14.3	14.6	23.6	22.9	23.2
21	---	---	---	11.0	10.2	10.6	16.3	15.4	15.9	23.8	23.0	23.3
22	9.0	---	---	11.1	10.6	10.9	17.0	16.1	16.5	23.2	22.8	23.0
23	8.5	7.9	8.1	10.9	10.3	10.6	16.6	16.2	16.5	23.9	23.2	23.5
24	8.3	7.6	7.9	11.5	10.5	11.0	17.0	16.3	16.7	23.4	23.2	23.3
25	8.4	7.6	8.1	11.5	10.9	11.2	17.1	17.0	17.1	23.3	23.0	23.2
26	8.6	7.9	8.3	11.0	10.6	10.9	17.2	16.7	16.9	23.1	22.9	23.0
27	9.3	8.5	8.9	11.7	10.4	11.0	17.7	17.1	17.4	23.5	22.9	23.2
28	9.3	8.9	9.1	11.3	11.1	11.2	17.5	17.2	17.3	23.5	23.0	23.3
29	---	---	---	12.0	11.2	11.5	18.0	17.2	17.7	24.1	23.3	23.6
30	---	---	---	12.5	11.8	12.1	18.4	18.0	18.1	24.6	23.6	24.0
31	---	---	---	12.4	12.1	12.3	---	---	---	24.4	23.8	24.1
MONTH	9.3	7.6	8.4	12.5	6.6	9.7	18.4	12.1	16.1	24.6	18.3	21.9

CUMBERLAND RIVER BASIN

03438220 CUMBERLAND RIVER NEAR GRAND RIVERS, KY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	24.7	24.0	24.3	27.6	27.1	27.3	32.1	31.9	32.0	27.4	26.5	26.8
2	24.7	23.8	24.3	27.9	27.1	27.5	31.9	31.4	31.6	27.6	26.9	27.3
3	25.0	23.8	24.4	28.7	27.7	28.2	31.4	30.3	31.0	27.9	27.2	27.5
4	25.5	25.0	25.3	29.2	28.3	28.7	30.7	30.4	30.6	27.8	27.4	27.6
5	25.9	25.1	25.6	29.8	28.8	29.2	30.5	30.2	30.3	27.8	27.4	27.5
6	26.3	25.6	26.0	29.8	29.2	29.5	30.5	29.9	30.2	27.7	27.5	27.5
7	27.1	25.6	26.3	29.8	29.1	29.4	30.5	29.8	30.1	27.9	27.5	27.7
8	27.7	26.4	27.0	29.7	29.1	29.4	30.0	29.6	29.8	27.6	27.2	27.4
9	28.2	26.8	27.4	30.2	29.3	29.7	30.0	29.5	29.7	27.2	26.8	27.0
10	28.7	27.3	28.0	29.6	29.3	29.4	30.2	29.5	29.7	26.8	26.4	26.6
11	29.0	27.6	28.1	29.3	28.8	29.0	30.0	29.4	29.7	26.6	26.2	26.4
12	28.9	27.8	28.4	28.8	28.1	28.5	30.5	29.6	29.9	26.3	25.8	26.0
13	29.2	28.4	28.8	28.6	27.8	28.2	30.2	29.5	29.8	25.9	25.7	25.8
14	28.4	27.9	28.2	29.0	27.8	28.4	29.5	28.9	29.2	25.7	25.2	25.5
15	28.2	27.6	27.8	29.2	28.4	28.8	28.9	28.2	28.4	25.4	25.0	25.2
16	27.7	27.2	27.4	29.2	28.5	28.9	28.3	28.0	28.1	25.1	24.4	24.7
17	27.2	26.4	26.7	29.5	28.7	29.1	28.4	28.0	28.2	24.5	23.8	24.2
18	26.7	26.1	26.3	29.8	29.0	29.4	28.9	28.0	28.5	24.2	23.8	24.0
19	26.5	25.8	26.0	30.1	29.2	29.6	28.9	28.4	28.7	24.1	23.6	23.9
20	25.9	25.6	25.7	30.3	29.6	29.9	28.5	28.1	28.3	24.3	23.9	24.0
21	26.1	25.5	25.8	30.5	29.6	30.0	28.3	27.7	28.0	23.9	23.2	23.6
22	26.4	25.8	26.1	30.9	30.0	30.3	27.9	27.5	27.7	23.2	22.5	22.8
23	26.6	26.2	26.5	31.1	30.4	30.7	27.9	27.5	27.7	22.6	22.3	22.5
24	26.3	25.7	25.8	31.6	30.5	31.0	27.7	27.3	27.4	22.6	21.9	22.3
25	26.8	25.8	26.1	32.0	30.6	31.3	27.5	27.1	27.3	23.1	22.1	22.5
26	26.9	26.6	26.8	32.1	31.3	31.7	27.4	27.1	27.2	23.0	22.2	22.6
27	26.7	26.4	26.5	32.2	31.4	31.8	27.6	27.2	27.4	23.2	22.5	22.8
28	27.1	26.7	26.9	32.1	31.6	31.8	28.1	27.4	27.7	23.8	23.1	23.4
29	26.9	26.6	26.8	32.2	31.4	31.8	28.0	27.6	27.8	23.2	22.4	22.8
30	27.6	26.7	27.1	32.4	31.5	31.9	27.9	27.0	27.4	22.4	21.8	22.1
31	---	---	---	32.4	31.5	32.0	27.0	26.2	26.7	---	---	---
MONTH	29.2	23.8	26.5	32.4	27.1	29.8	32.1	26.2	28.9	27.9	21.8	25.0

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	10.3	9.3	9.8	12.5	11.5	12.0
2	---	---	---	---	---	---	9.8	9.2	9.5	12.4	11.4	11.9
3	---	---	---	---	---	---	9.7	9.1	9.4	12.3	11.4	11.9
4	---	---	---	---	---	---	10.4	8.2	9.6	13.0	11.6	12.4
5	---	---	---	---	---	---	10.6	8.5	10.0	13.8	11.8	13.1
6	---	---	---	---	---	---	11.3	9.7	10.6	13.5	12.2	13.0
7	---	---	---	---	---	---	11.1	10.2	10.6	13.8	11.6	12.9
8	---	---	---	---	---	---	11.2	9.7	10.0	13.5	12.2	12.7
9	---	---	---	---	---	---	10.8	10.0	10.4	12.8	12.5	12.6
10	---	---	---	---	---	---	10.7	---	---	13.6	12.7	13.0
11	---	---	---	---	---	---	10.5	---	---	12.8	11.4	12.2
12	---	---	---	---	---	---	10.6	9.6	10.0	11.5	11.1	11.2
13	---	---	---	---	---	---	10.8	---	---	11.7	11.3	11.5
14	---	---	---	---	---	---	11.0	10.2	10.5	11.9	11.6	11.8
15	---	---	---	---	---	---	11.1	9.9	10.5	11.8	11.4	11.6
16	---	---	---	---	---	---	11.0	10.0	10.5	11.5	11.1	11.3
17	---	---	---	---	---	---	11.4	10.1	10.7	11.3	11.1	11.2
18	---	---	---	---	---	---	11.5	10.6	11.1	---	---	---
19	---	---	---	---	---	---	10.9	10.5	10.7	---	---	---
20	---	---	---	---	---	---	11.0	10.4	10.6	---	---	---
21	---	---	---	---	---	---	10.8	10.3	10.5	---	---	---
22	---	---	---	---	---	---	11.5	10.3	10.9	---	---	---
23	---	---	---	---	---	---	11.3	10.1	10.9	---	---	---
24	---	---	---	11.5	10.2	10.7	11.4	10.8	11.1	---	---	---
25	---	---	---	11.4	10.8	11.0	11.4	10.9	11.1	---	---	---
26	---	---	---	11.6	10.7	11.0	11.6	10.9	11.2	---	---	---
27	---	---	---	11.1	9.7	10.4	11.6	11.0	11.2	---	---	---
28	---	---	---	10.2	9.0	9.7	11.4	10.8	11.2	---	---	---
29	---	---	---	10.0	8.9	9.4	11.9	10.4	11.2	---	---	---
30	---	---	---	9.8	8.8	9.3	12.1	10.3	11.5	---	---	---
31	---	---	---	---	---	---	12.0	10.9	11.6	---	---	---
MONTH	---	---	---	11.6	8.8	10.2	12.1	8.2	10.6	13.8	11.1	12.1

CUMBERLAND RIVER BASIN

03438220 CUMBERLAND RIVER NEAR GRAND RIVERS, KY--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	13.3	12.2	12.8	14.3	13.5	13.8	12.5	11.7	11.9
2	---	---	---	13.1	12.1	12.5	14.8	13.9	14.3	13.2	12.1	12.4
3	---	---	---	12.4	11.9	12.0	14.9	13.8	14.4	13.6	11.6	12.9
4	---	---	---	12.5	12.0	12.3	14.4	13.6	13.8	11.8	10.4	11.3
5	---	---	---	12.1	11.7	11.9	14.0	13.3	13.6	10.4	8.6	9.6
6	---	---	---	11.8	11.5	11.6	13.3	12.9	13.0	10.2	9.0	9.6
7	---	---	---	12.4	11.6	12.0	13.5	12.8	13.0	10.2	9.3	9.7
8	---	---	---	12.2	11.7	11.9	13.2	12.5	12.9	10.4	8.9	9.6
9	---	---	---	12.0	11.6	11.7	12.6	12.0	12.3	9.8	9.2	9.5
10	---	---	---	12.4	11.7	12.0	13.3	12.0	12.8	11.1	9.3	9.9
11	---	---	---	12.7	11.9	12.3	13.0	11.6	12.0	10.7	9.1	9.8
12	---	---	---	13.0	12.2	12.6	12.4	11.7	12.0	11.5	9.1	10.3
13	---	---	---	12.7	12.1	12.4	12.9	12.0	12.3	10.1	7.6	8.6
14	---	---	---	12.4	12.0	12.2	13.0	12.5	12.7	8.2	7.3	7.7
15	---	---	---	13.1	12.2	12.7	12.6	11.4	11.9	7.7	6.4	6.8
16	---	---	---	13.3	12.5	12.9	11.5	11.3	11.4	7.2	6.3	6.6
17	---	---	---	13.5	12.7	13.0	11.6	11.5	11.6	7.5	6.4	6.9
18	---	---	---	12.8	12.3	12.6	11.8	11.5	11.6	7.3	6.7	7.0
19	---	---	---	12.6	12.2	12.4	12.4	11.7	12.0	8.0	7.2	7.6
20	---	---	---	12.9	12.2	12.5	12.8	11.7	12.0	9.1	6.9	8.2
21	---	---	---	13.2	12.3	12.7	12.8	12.2	12.6	9.5	8.0	8.6
22	---	11.7	---	13.6	12.6	13.1	12.3	11.8	12.0	8.3	7.0	7.5
23	12.5	12.1	12.3	13.3	12.3	12.7	11.8	10.8	11.4	9.8	7.7	8.7
24	12.8	12.0	12.4	13.4	12.1	12.7	11.8	10.8	11.3	8.9	7.6	8.3
25	13.1	12.2	12.6	13.4	12.1	12.7	11.8	11.3	11.5	9.4	8.2	8.7
26	13.5	12.6	13.1	13.5	11.8	12.5	---	11.4	---	8.5	7.4	8.0
27	13.3	12.4	12.7	13.6	11.4	12.1	13.1	10.9	12.2	9.9	7.9	8.7
28	12.9	12.3	12.5	12.6	12.2	12.3	12.1	10.6	11.2	9.8	8.2	9.2
29	---	---	---	14.1	12.1	12.8	11.3	10.5	11.0	10.8	9.4	10.0
30	---	---	---	14.6	13.0	13.8	11.7	11.0	11.3	11.6	9.2	10.2
31	---	---	---	14.5	13.6	14.1	---	---	---	10.1	8.4	9.2
MONTH	13.5	11.7	12.6	14.6	11.4	12.5	14.9	10.5	12.3	13.6	6.3	9.1
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	10.7	8.8	9.6	9.1	7.6	8.3	7.2	5.2	6.1	7.2	5.8	6.6
2	10.7	7.4	9.0	---	---	---	7.5	4.7	6.0	7.4	5.8	6.7
3	9.9	7.5	8.8	---	---	---	8.2	4.9	6.5	7.5	6.4	6.9
4	10.1	8.6	9.7	---	---	---	7.7	5.1	6.6	8.0	6.6	7.4
5	9.3	8.0	8.9	---	---	---	6.9	4.7	5.4	7.4	5.5	6.5
6	8.4	6.2	7.4	---	---	---	8.4	5.1	6.8	6.3	5.5	6.0
7	8.2	6.2	7.0	---	---	---	9.0	5.3	6.9	8.2	6.2	7.0
8	8.4	6.7	7.5	---	---	---	7.9	5.0	6.0	7.3	5.6	6.8
9	8.7	6.6	7.3	---	---	---	8.5	5.4	6.4	6.7	5.6	6.1
10	8.3	6.8	7.5	---	---	---	8.8	6.0	7.0	7.8	6.7	7.1
11	7.9	5.7	6.8	---	---	---	7.8	5.9	6.6	7.2	6.1	6.6
12	8.2	5.9	6.8	---	---	---	8.1	6.4	7.2	8.0	5.7	6.9
13	8.7	6.4	7.7	---	---	---	7.5	5.7	7.0	7.6	5.6	6.1
14	7.9	6.3	6.8	---	---	---	6.8	5.2	5.9	8.4	7.1	7.6
15	8.5	7.4	8.0	9.6	7.0	8.3	8.9	6.2	7.2	8.9	7.3	7.9
16	8.8	7.9	8.3	9.2	7.7	8.2	9.5	7.3	8.2	8.5	7.7	8.2
17	8.5	7.3	8.1	8.9	7.1	7.9	8.9	5.6	7.4	8.9	8.0	8.5
18	9.7	7.6	8.5	8.4	6.9	7.7	9.1	5.1	7.0	9.4	7.8	8.5
19	9.4	8.1	8.7	8.3	6.6	7.3	7.8	5.0	6.7	9.1	7.6	8.3
20	8.9	7.6	8.2	7.9	6.5	7.1	7.0	5.3	6.1	8.8	7.2	7.9
21	9.1	7.3	8.2	7.8	5.8	6.8	9.2	6.1	7.4	8.4	7.4	7.9
22	9.8	7.3	8.4	8.1	5.8	6.8	8.9	6.8	7.6	8.4	7.7	8.2
23	9.4	8.0	8.7	7.6	6.2	6.8	8.7	5.5	7.4	8.6	7.7	8.2
24	8.2	5.4	6.5	8.2	5.0	6.8	6.9	4.9	5.8	9.2	7.8	8.5
25	8.7	6.3	7.4	8.7	4.7	6.9	8.7	4.9	5.9	9.8	7.7	8.5
26	9.3	7.4	8.4	8.7	6.2	7.1	7.1	5.2	5.9	9.4	8.1	8.7
27	8.2	6.1	6.7	7.7	5.4	6.8	8.1	5.2	6.7	9.0	7.8	8.4
28	7.7	6.1	6.9	7.7	5.3	6.6	7.2	5.3	6.6	9.2	8.2	8.7
29	7.4	5.7	6.5	8.1	5.1	6.5	7.4	6.0	6.6	8.2	7.2	7.7
30	9.3	6.8	7.9	7.5	5.2	6.2	7.4	6.0	6.8	9.1	8.0	8.5
31	---	---	---	7.3	4.7	6.0	7.2	6.1	6.6	---	---	---
MONTH	10.7	5.4	7.9	9.6	4.7	7.1	9.5	4.7	6.7	9.8	5.5	7.6

TENNESSEE RIVER BASIN

03609750 TENNESSEE RIVER AT HIGHWAY 60, NEAR PADUCAH, KY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	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)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, TOTAL (MG/L AS N) (00600)
DEC												
04...	18	4.9	12	1.9	63	52	13	13	.10	6.3	111	.51
18...	20	4.8	9.4	1.8	69	57	10	14	<.10	5.5	107	.56
JAN												
29...	19	3.1	5.2	1.5	56	46	5.7	10	<.10	4.7	90	.95
29...	.005	.001	<.025	--	--	--	--	--	--	<.020	--	--
FEB												
17...	18	3.0	5.4	1.7	58	48	6.0	10	<.10	4.7	95	.93
MAR												
17...	22	3.5	5.6	1.5	67	55	6.5	11	<.10	4.2	100	.97
APR												
28...	22	3.7	6.1	1.4	66	54	9.1	12	<.10	.59	103	.58
28...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
13...	18	3.0	5.3	1.3	58	46	7.3	11	<.10	2.6	100	.61
13...	.004	.001	<.025	--	--	--	--	--	--	<.020	--	--
18...	17	2.9	5.1	1.4	55	42	7.3	10	<.10	2.6	100	.62
18...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
10...	17	3.3	5.8	1.6	59	48	7.3	11	.12	2.5	87	.41
10...	17	3.2	5.7	1.6	--	--	7.2	10	.11	2.6	--	--
JUL												
22...	14	3.4	8.1	1.8	--	--	9.2	11	<.10	2.6	78	.38
AUG												
25...	13	4.2	8.7	1.8	--	--	9.8	13	.11	4.0	83	.38
SEP												
07...	12	4.3	9.1	1.8	54	--	12	12	<.10	4.7	89	.37
07...	.005	.002	<.025	--	--	--	--	--	--	<.020	--	--
DATE	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	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, NITRATE DIS- SOLVED (MG/L AS N) (00618)	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- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)
DEC												
04...	.44	.20	.13	.016	.281	.029	.265	.16	.23	.045	.025	.13
18...	.52	.19	.16	.016	.281	.080	.265	.24	.27	.062	E.041	.13
JAN												
29...	.82	.28	.15	.010	.611	.057	.601	.21	.34	.166	.059	.17
29...	--	--	--	<.001	.005	<.002	--	--	--	--	--	.00
FEB												
17...	.90	.18	.15	<.010	.694	.056	--	.20	.24	.067	.042	.12
MAR												
17...	.88	.22	.12	<.010	.720	.035	--	.16	.25	.072	.043	.11
APR												
28...	.48	.26	.16	<.010	.266	.051	--	.21	.31	.036	.014	.02
28...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
13...	.48	.25	.12	<.010	.311	.053	--	.17	.30	.053	.029	.05
13...	--	--	--	<.001	<.005	.004	--	--	--	--	--	.01
18...	.54	.23	.15	.012	.337	.054	.325	.20	.28	.054	.028	.06
18...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
10...	.26	.33	.18	<.010	.051	.028	--	.21	.36	.043	.009	.01
10...	--	.38	.18	<.010	<.050	.027	--	.21	.41	.042	.008	.01
JUL												
22...	.23	--	--	<.010	.077	<.020	--	.15	.31	.049	.022	.05
AUG												
25...	.23	--	--	<.010	.069	<.020	--	.17	.31	.048	.024	--
SEP												
07...	.32	--	--	<.010	.090	<.020	--	.23	.28	.043	.027	.06
07...	--	--	--	<.001	<.005	.007	--	--	--	--	--	--

TENNESSEE RIVER BASIN

03609750 TENNESSEE RIVER AT HIGHWAY 60, NEAR PADUCAH, KY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	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- 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)	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)
DEC												
04...	.04	1.2	.05	.041	--	--	2	--	--	26	--	--
18...	.10	1.2	.05	.042	4.5	<1.0	2	21	<1.0	27	<1.0	<1.0
JAN												
29...	.07	2.7	.03	.056	3.9	<1.0	<1	19	<1.0	E15	<1.0	2.0
29...	--	--	--	.001	<.30	<.20	--	<.20	<.20	<2.0	<.30	<.20
FEB												
17...	.07	--	--	.040	--	--	<1	--	--	E9.9	--	--
MAR												
17...	.05	--	--	.037	3.2	<1.0	1	21	<1.0	E16	<1.0	2.4
APR												
28...	.07	--	--	.008	--	--	1	--	--	17	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
13...	.07	--	--	.017	--	--	<1	--	--	E16	--	--
13...	.01	--	--	.003	<.30	<.20	--	<.20	<.20	<2.0	<.30	<.20
18...	.07	1.4	.04	.021	2.5	<1.0	<1	20	<1.0	E12	<1.0	<1.0
18...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
10...	.04	--	--	.002	3.8	<1.0	<1	19	<1.0	21	<1.0	<1.0
10...	.03	--	--	.002	4.5	<1.0	<1	19	<1.0	19	<1.0	<1.0
JUL												
22...	--	--	--	.017	4.1	<1.0	<1	20	<1.0	28	<1.0	<1.0
AUG												
25...	--	--	--	<.001	--	--	1	--	--	30	--	--
SEP												
07...	--	--	--	.020	--	--	1	--	--	27	--	--
07...	.01	--	--	<.001	<.30	<.20	--	<.20	<.20	<2.0	<.30	<.20

DATE	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)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	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)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	THAL- LIUM, DIS- SOLVED (UG/L AS TL) (01057)
DEC												
04...	--	--	<10	--	<6	--	--	<1	--	66	--	--
18...	<1.0	1.0	<10	<1.0	<6	3.5	1.3	<1.0	<1	<1.0	65	--
JAN												
29...	<1.0	<1.0	E8.2	<1.0	<6	<1.0	<1.0	<1.0	<1	<1.0	53	--
29...	<.20	<.20	<3.0	<.30	--	<.10	<.20	<.50	--	<.20	<.10	<.10
FEB												
17...	--	--	19	--	<6	--	--	<1	--	53	--	--
MAR												
17...	<1.0	<1.0	E9.3	<1.0	<6	3.8	<1.0	<1.0	<1	<1.0	62	--
APR												
28...	--	--	E5.6	--	E3	--	--	2	--	71	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
13...	--	--	E8.6	--	<6	--	--	<1	--	56	--	--
13...	<.20	<.20	<3.0	<.30	--	<.10	<.20	<.50	--	<.20	<.10	<.10
18...	<1.0	<1.0	E8.6	<1.0	<6	1.1	<1.0	<1.0	<1	<1.0	53	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
10...	<1.0	<1.0	<10	<1.0	<6	<1.0	<1.0	<1.0	<1	<1.0	59	--
10...	<1.0	<1.0	E7.5	<1.0	<6	<1.0	<1.0	<1.0	<1	<1.0	59	--
JUL												
22...	<1.0	<1.0	<10	<1.0	<6	1.1	1.3	<1.0	<1	<1.0	55	--
AUG												
25...	--	--	<10	--	E3	--	--	<1	--	58	--	--
SEP												
07...	--	--	<10	--	<4	--	--	<1	--	60	--	--
07...	<.20	<.20	<3.0	<.30	--	<.10	<.20	<.50	--	<.20	<.10	<.10

TENNESSEE RIVER BASIN

03610200 CLARKS RIVER AT ALMO, KY

LOCATION.--Lat 36°41'30", long 88°16'25", Calloway County, Hydrologic Unit 06040006, on left bank at downstream side of bridge on State Highway 464, 0.3 mi southeast of Almo, 5.1 mi upstream from Rockhouse Creek, and at mile 53.5.

DRAINAGE AREA.--134 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 413.46 ft above sea level.

REMARKS.--Records fair except for periods of estimated record, which are poor.

PEAKS ABOVE BASE.--Peak discharges above base of 4,000 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 23	0430	*12600	16.69	Mar. 14	1300	4540	13.87
Apr. 27	2300	4860	14.06	May 06	0900	6370	14.81

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e17	e17	13	e55	449	136	409	65	25	1610	11	7.9
2	e17	e17	12	e400	203	89	130	55	39	1440	11	8.5
3	e16	e17	12	e150	117	455	99	50	24	181	11	8.1
4	e17	e16	17	e66	79	110	1120	47	23	64	11	7.8
5	e17	e16	902	e52	62	67	263	836	70	46	10	7.1
6	e18	e16	110	e50	55	1510	1440	4820	34	39	9.4	6.3
7	69	e16	e60	e60	58	251	262	337	105	35	8.9	6.6
8	28	e18	e90	e400	54	114	135	127	27	32	9.6	6.6
9	18	e30	e50	e300	48	356	222	73	24	30	9.5	6.6
10	16	e200	e44	e180	45	157	129	57	22	28	9.6	5.8
11	16	e40	e42	e100	44	86	105	48	26	26	9.2	6.4
12	16	e26	e52	e90	65	67	79	46	21	24	8.9	6.1
13	e15	e24	e90	e100	54	83	67	49	25	23	9.1	11
14	e15	e22	e60	e300	44	3050	84	40	27	22	8.3	7.7
15	e15	e18	e46	91	41	649	253	37	22	21	8.3	6.6
16	e16	e17	e40	57	41	240	139	36	21	20	7.7	6.2
17	e16	e16	e35	85	43	148	80	36	19	19	7.8	5.5
18	e20	e16	e30	547	40	103	66	44	19	18	7.4	5.3
19	e30	e17	e26	108	38	83	61	37	18	17	7.5	5.9
20	e20	e20	e30	59	36	73	58	33	18	16	7.8	6.2
21	e18	e22	e100	48	35	67	55	32	19	15	8.0	6.5
22	e18	e20	e300	4560	33	60	53	32	19	15	7.4	5.9
23	e17	e19	e70	7520	35	70	50	30	27	15	7.4	5.5
24	e17	e18	e50	442	39	131	47	27	67	67	7.4	5.6
25	e17	e17	e46	200	36	78	47	26	37	21	7.6	5.7
26	e19	e16	e44	114	35	63	70	26	24	12	8.0	5.4
27	e20	e15	e44	79	577	56	2620	25	48	11	7.9	5.0
28	e19	e15	e50	64	635	54	959	24	363	11	8.3	5.5
29	e18	e16	e50	61	---	64	151	23	721	11	8.8	5.5
30	e18	e14	e48	470	---	61	85	23	74	12	8.8	5.5
31	e17	---	e46	1280	---	179	---	27	---	11	8.2	---
TOTAL	610	751	2609	18088	3041	8710	9338	7168	2008	3912	270.8	194.3
MEAN	19.7	25.0	84.2	583	109	281	311	231	66.9	126	8.74	6.48
MAX	69	200	902	7520	635	3050	2620	4820	721	1610	11	11
MIN	15	14	12	48	33	54	47	23	18	11	7.4	5.0
CFSM	.15	.19	.63	4.35	.81	2.10	2.32	1.73	.50	.94	.07	.05
IN.	.17	.21	.72	5.02	.84	2.42	2.59	1.99	.56	1.09	.08	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1999, BY WATER YEAR (WY)

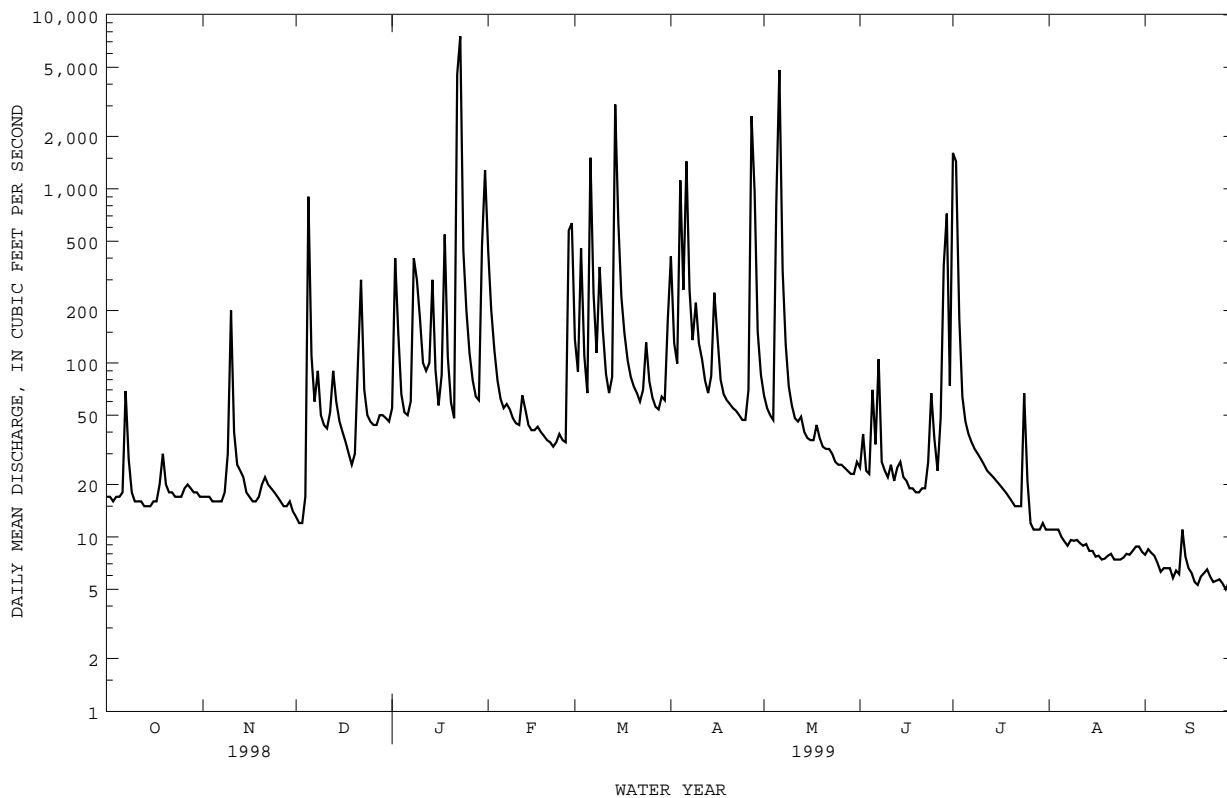
	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	47.6	160	330	235	412	289	230	212	132	70.6	46.6	25.6					
MAX	205	684	1065	583	1693	1336	623	925	667	264	377	141					
(WY)	1986	1989	1983	1999	1989	1997	1983	1983	1998	1989	1995	1996					
MIN	2.96	19.5	24.4	27.4	65.5	61.7	21.6	12.4	3.88	4.95	2.40	2.36					
(WY)	1988	1998	1996	1987	1996	1995	1986	1988	1988	1986	1983	1983					

TENNESSEE RIVER BASIN

03610200 CLARKS RIVER AT ALMO, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1983 - 1999	
ANNUAL TOTAL	55856		56700.1			
ANNUAL MEAN	153		155		181	
HIGHEST ANNUAL MEAN					367	1989
LOWEST ANNUAL MEAN					69.8	1987
HIGHEST DAILY MEAN	7650	Jun 5	7520	Jan 23	14000	Mar 2 1997
LOWEST DAILY MEAN	12	Dec 2	5.0	Sep 27	1.6	Aug 29 1983
ANNUAL SEVEN-DAY MINIMUM	14	Nov 27	5.5	Sep 23	1.7	Aug 31 1983
INSTANTANEOUS PEAK FLOW			12600	Jan 23	23300	Mar 2 1997
INSTANTANEOUS PEAK STAGE			16.69	Jan 23	18.35	Mar 2 1997
ANNUAL RUNOFF (CFSM)	1.14		1.16		1.35	
ANNUAL RUNOFF (INCHES)	15.51		15.74		18.39	
10 PERCENT EXCEEDS	228		244		320	
50 PERCENT EXCEEDS	40		34		32	
90 PERCENT EXCEEDS	17		7.9		5.5	

e Estimated



MASSAC CREEK BASIN

03611260 MASSAC CREEK NEAR PADUCAH, KY

LOCATION.--Lat 37°02'29", long 88°42'39", McCracken County, Hydrologic Unit 05140206, on left upstream wingwall of bridge n U.S. Highway 62, 1.2 mi upstream from Middle Fork, 6.9 mi west of post office in Paducah, and at mile 8.3.

DRAINAGE AREA.--14.6 mi².

PERIOD OF RECORD.--October 1971 to current year.

REVISED RECORDS.--1983 (M), 1984 (M).

GAGE.--Water-stage recorder. Datum of gage is 345.53 ft above sea level.

REMARKS.--Records fair except for periods of estimated record, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.78	.80	.89	2.3	26	9.6	7.7	5.8	e1.7	4.5	.68	e.56
2	.79	.79	.92	101	11	8.9	6.5	5.6	e7.4	2.8	.67	e.55
3	.95	.92	.97	7.7	7.1	9.9	212	5.5	e1.3	1.9	.66	e.55
4	.97	.93	1.9	e4.0	5.8	7.7	175	5.5	e1.1	1.5	.83	e.54
5	1.1	.99	e7.6	e3.4	5.2	8.3	e66	136	e1.1	1.3	e.80	e.54
6	2.9	1.6	e3.0	e2.8	5.9	151	e164	71	e120	1.2	e.74	e.54
7	106	.86	e2.5	2.7	13	13	20	8.4	21	1.1	e.68	e.54
8	1.4	.99	e3.2	56	6.2	11	14	5.3	3.5	1.0	e.80	e.56
9	.93	1.1	2.8	e8.0	5.3	19	12	4.4	2.6	.95	e.74	e.60
10	.89	2.6	2.4	e4.0	4.7	10	9.8	3.8	2.2	1.1	e.66	e.60
11	1.0	1.3	2.4	e3.2	4.5	8.7	8.7	3.4	1.9	.99	e.64	e.58
12	.94	.80	4.3	4.3	6.3	7.7	7.6	3.1	1.8	.94	.61	e.66
13	.87	.79	6.6	8.2	4.5	7.6	7.3	3.1	1.9	e.90	.59	e.64
14	.78	.80	e3.4	6.1	4.1	86	30	2.7	2.3	e.88	.62	e.62
15	.86	.80	e2.8	3.7	4.0	14	110	2.5	1.7	.87	e.60	e.62
16	e.84	.82	2.7	3.3	4.0	9.7	17	2.4	e1.7	.87	e.60	e.60
17	e.82	e.82	2.6	24	4.3	8.5	11	2.4	e1.5	.83	e.58	e.60
18	2.9	e.80	2.5	31	4.0	7.4	9.1	3.0	e1.4	.79	e.58	e.60
19	2.3	e1.2	2.5	11	3.7	6.9	8.2	2.1	1.2	.78	e.60	e.58
20	1.0	e3.0	2.4	9.8	3.3	6.7	7.5	2.0	3.7	.76	e.60	e1.0
21	.93	1.2	84	9.3	3.1	6.4	7.0	3.5	1.7	.74	e.62	e.80
22	.84	1.1	28	617	3.1	6.1	6.4	2.9	1.6	.73	e.62	e.76
23	.86	.93	4.2	73	3.4	9.3	6.1	2.0	2.0	.73	e.60	e.72
24	.85	.94	3.2	12	3.7	8.0	5.8	1.9	12	.81	e.62	e.68
25	.87	1.0	2.8	8.0	3.3	6.7	5.7	e1.7	3.0	.91	e.62	e.66
26	.87	1.0	2.6	6.5	3.1	6.2	6.1	e1.6	3.2	.76	e.59	e.72
27	.89	.99	2.7	6.0	26	6.1	25	e1.5	3.7	.75	e.58	e.68
28	.93	.97	2.7	5.7	19	6.0	7.9	e1.4	2.6	.74	e.58	e.66
29	.94	1.1	2.6	5.1	---	6.0	8.3	e1.3	2.1	.74	e.58	e.70
30	.88	.96	2.4	26	---	5.8	6.4	e1.3	2.0	.71	e.56	e.68
31	.90	---	2.3	127	---	7.4	---	e2.7	---	.71	e.56	---
TOTAL	138.78	32.90	195.88	1192.1	197.6	485.6	988.1	299.8	214.9	34.29	19.81	19.14
MEAN	4.48	1.10	6.32	38.5	7.06	15.7	32.9	9.67	7.16	1.11	.64	.64
MAX	106	3.0	84	617	26	151	212	136	120	4.5	.83	1.0
MIN	.78	.79	.89	2.3	3.1	5.8	5.7	1.3	1.1	.71	.56	.54
CFSM	.31	.08	.43	2.63	.48	1.07	2.26	.66	.49	.08	.04	.04
IN.	.35	.08	.50	3.04	.50	1.24	2.52	.76	.55	.09	.05	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1999, BY WATER YEAR (WY)

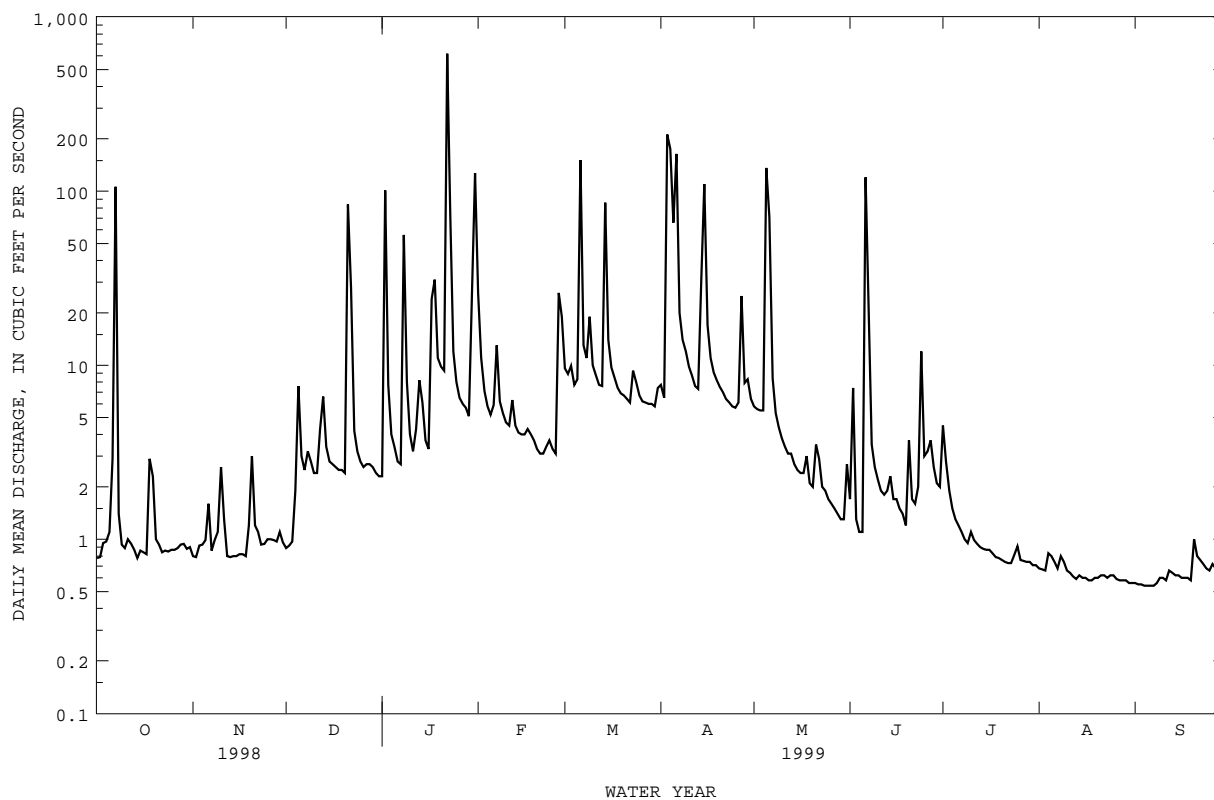
MEAN	3.15	15.0	27.5	21.8	36.1	31.4	31.9	17.6	9.87	8.53	3.09	4.19
MAX	19.4	70.8	105	48.1	160	109	121	58.8	53.8	37.3	13.9	50.1
(WY)	1986	1997	1983	1974	1989	1997	1973	1983	1998	1983	1982	1985
MIN	.25	.37	.71	.58	4.19	8.36	2.14	1.17	.32	.37	.30	.23
(WY)	1982	1972	1977	1977	1996	1987	1986	1992	1972	1974	1980	1976

MASSAC CREEK BASIN

03611260 MASSAC CREEK NEAR PADUCAH, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1972 - 1999	
ANNUAL TOTAL	5811.30		3818.90			
ANNUAL MEAN	15.9		10.5		17.4	
HIGHEST ANNUAL MEAN					37.9	1979
LOWEST ANNUAL MEAN					6.54	1987
HIGHEST DAILY MEAN	750	Jun 9	617	Jan 22	1780	Feb 13 1989
LOWEST DAILY MEAN	.71	Sep 23	.54	Sep 4	.09	Nov 13 1971
ANNUAL SEVEN-DAY MINIMUM	.73	Sep 22	.55	Sep 1	.10	Nov 10 1971
INSTANTANEOUS PEAK FLOW			1090	Jan 22	5990	Sep 5 1985
INSTANTANEOUS PEAK STAGE			9.62	Jan 22	15.86	Sep 5 1985
INSTANTANEOUS LOW FLOW					.06	Nov 14 1971
ANNUAL RUNOFF (CFSM)	1.09		.72		1.19	
ANNUAL RUNOFF (INCHES)	14.81		9.73		16.19	
10 PERCENT EXCEEDS	22		12		28	
50 PERCENT EXCEEDS	3.0		2.4		2.2	
90 PERCENT EXCEEDS	.89		.62		.43	

e Estimated

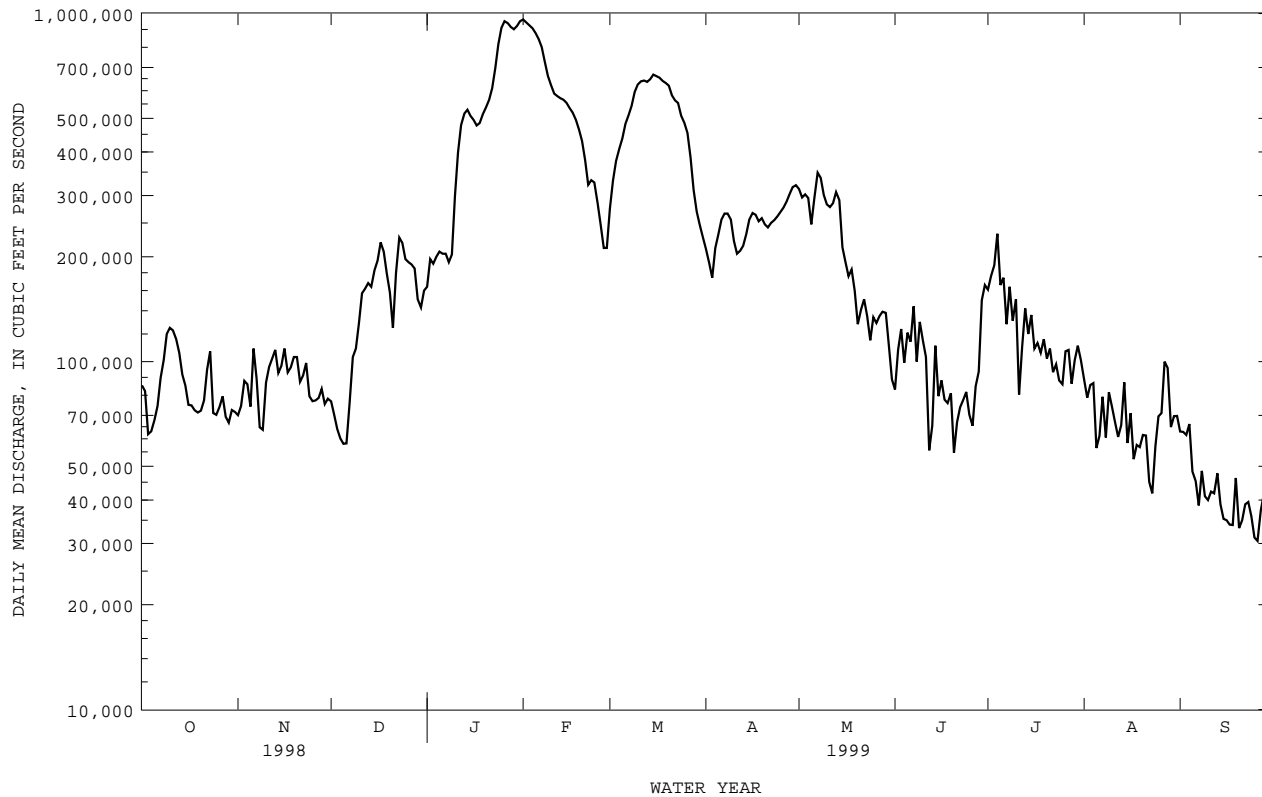


OHIO RIVER MAIN STEM

03611500 OHIO RIVER AT METROPOLIS, IL--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1928 - 1999	
ANNUAL TOTAL	118335200		81807200		277700	
ANNUAL MEAN	324200		224100		120300	
HIGHEST ANNUAL MEAN					436600 1979	
LOWEST ANNUAL MEAN					120300 1931	
HIGHEST DAILY MEAN	850000	Apr 21	961000	Feb 1	1850000	Feb 1 1937
LOWEST DAILY MEAN	58000	Dec 5	30500	Sep 26	15000	Jul 20 1930
ANNUAL SEVEN-DAY MINIMUM	66100	Dec 1	34900	Sep 20	16600	Jul 20 1930
INSTANTANEOUS PEAK FLOW			968000	Feb 1	1850000	Feb 1 1937
INSTANTANEOUS PEAK STAGE			51.93	Feb 1	66.60	Feb 2 1937
10 PERCENT EXCEEDS	666000		567000		640000	
50 PERCENT EXCEEDS	276000		129000		191000	
90 PERCENT EXCEEDS	77200		58100		68000	

e Estimated



BAYOU CREEK BASIN

03611800 BAYOU CREEK NEAR HEATH, KY

LOCATION.--Lat 37°05'58", long 88°49'27", McCracken County, Hydrologic Unit 05140206, on left downstream wingwall of bridge on Dyke Road, 1.0 mi southwest of Paducah Gaseous Diffusion Plant, 2.0 mi northwest of Heath, 3.0 mi upstream from Brushy Creek, and at mile 7.3.

DRAINAGE AREA.--6.55 mi².

PERIOD OF RECORD.--October 1990 to November 1991, June 1993 to current year.

GAGE.--Water-stage recorder. Datum of gage is 366.06 ft above sea level (levels by U.S. Department of Energy).

REMARKS.--Records fair except for periods of estimated record, which are poor.

PEAKS ABOVE BASE.--Peak discharges above base of 900 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 22	0330	1270	7.57	Apr. 3	0645	*1340	7.84

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.13	.13	e.24	.63	50	3.7	1.4	.47	.72	32	.27	.20
2	.11	.17	e.24	93	11	2.2	.95	.36	4.2	2.6	.27	.22
3	.14	e.16	e.26	e15	4.7	1.4	199	.32	.39	.93	.29	.23
4	.12	e.15	e1.0	e5.0	2.9	1.0	e70	.34	.24	.38	.31	.25
5	.10	e.14	2.7	e2.5	2.0	1.5	e20	31	.33	.27	.28	.20
6	5.9	e.13	.72	e1.3	9.8	30	e44	21	.28	.22	.29	.18
7	96	e.12	1.1	e1.1	30	4.0	e7.0	3.3	.24	.21	.29	.16
8	1.4	e.12	e.60	19	6.4	6.9	e3.0	1.6	.18	.21	.48	.18
9	.36	.38	e.40	e10	3.8	23	e2.4	.92	.18	.20	.23	.19
10	.26	1.6	.35	e4.0	2.7	5.4	e2.0	.63	.18	.22	.22	.17
11	.20	1.3	.33	e2.8	3.5	3.0	e1.5	.53	.18	.21	.23	.18
12	.20	.85	.54	4.7	7.5	2.0	1.1	.54	.18	.22	.20	.20
13	.19	e.70	1.8	19	2.6	1.8	.86	.55	.36	.23	.20	.26
14	.18	e.54	.98	6.9	1.9	38	15	.37	.52	.24	.22	.21
15	.14	e.44	.51	2.6	1.6	8.0	43	.38	.25	.24	.22	.18
16	.18	e.36	.42	2.4	1.8	3.7	7.3	.37	.26	.22	.22	.17
17	.24	e.30	.37	29	3.7	2.4	3.5	.46	.24	.24	.21	.16
18	.35	e.26	.35	21	2.6	1.6	2.1	.80	.23	.23	.20	.18
19	.14	e.80	.36	4.4	2.0	1.2	1.5	.47	.26	.23	.23	.18
20	.15	3.0	.35	2.6	1.5	.98	1.1	.39	36	.23	.26	.19
21	.16	e.70	82	2.3	1.1	.81	.76	.59	1.3	.23	.28	.27
22	.17	e.40	20	395	.97	.60	.52	.61	.47	.23	.32	.20
23	.17	e.30	e4.0	26	1.4	6.8	.36	.29	16	.24	.27	.23
24	.15	e.32	e1.8	7.1	1.8	3.7	.26	.26	13	.24	.25	.21
25	.14	e.34	e1.3	3.8	1.5	1.7	.25	.26	4.5	.22	.22	.21
26	e.14	e.32	e1.2	e2.7	1.2	1.2	.33	.26	1.4	.23	.21	.20
27	e.13	e.28	e1.0	e2.0	21	.80	4.6	.29	.93	.23	.20	.21
28	e.12	e.26	1.2	e1.7	12	.75	1.7	.33	.49	.25	.20	.19
29	e.11	e.24	1.2	e1.6	---	.70	1.8	.33	.37	.27	.18	.26
30	.10	e.22	.88	e10	---	.53	.83	.39	22	.27	.18	.20
31	.12	---	.64	56	---	1.1	---	.64	---	.24	.19	---
TOTAL	108.00	15.03	128.84	755.13	192.97	160.47	438.12	69.05	105.88	42.18	7.62	6.07
MEAN	3.48	.50	4.16	24.4	6.89	5.18	14.6	2.23	3.53	1.36	.25	.20
MAX	96	3.0	82	395	50	38	199	31	36	32	.48	.27
MIN	.10	.12	.24	.63	.97	.53	.25	.26	.18	.20	.18	.16
CFSM	.53	.08	.63	3.72	1.05	.79	2.23	.34	.54	.21	.04	.03
IN.	.61	.09	.73	4.29	1.10	.91	2.49	.39	.60	.24	.04	.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1999, BY WATER YEAR (WY)

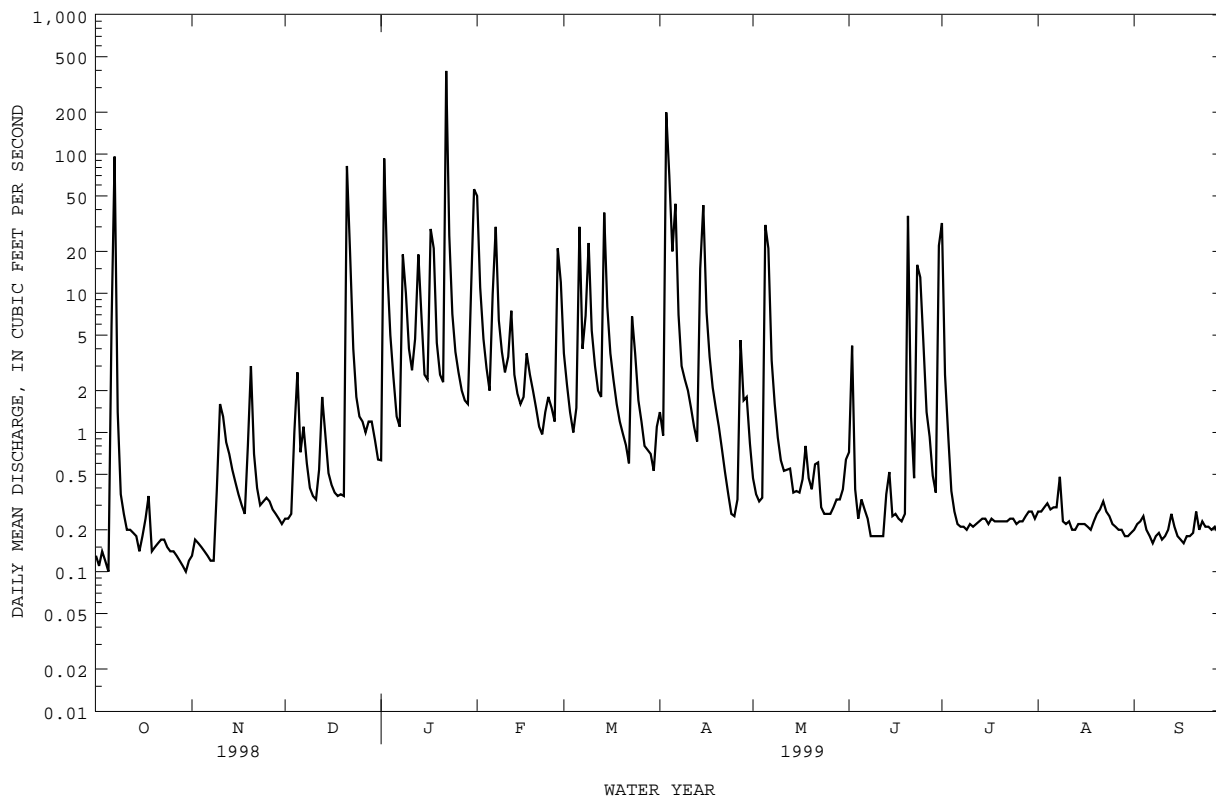
	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	1.27	5.19	9.89	10.2	10.4	11.2	9.29	8.70	5.12
MAX	3.48	22.8	37.2	24.4	15.6	34.9	16.6	16.5	16.6
(WY)	1999	1997	1991	1999	1991	1997	1994	1995	1998
MIN	.21	.45	.50	1.69	.60	3.26	4.90	.56	.17
(WY)	1998	1998	1998	1998	1996	1995	1991	1994	1993

BAYOU CREEK BASIN

03611800 BAYOU CREEK NEAR HEATH, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1991 - 1999	
ANNUAL TOTAL	2248.31		2029.36			
ANNUAL MEAN	6.16		5.56		6.42	
HIGHEST ANNUAL MEAN					10.0	
LOWEST ANNUAL MEAN					3.85	
HIGHEST DAILY MEAN	375	Jun 9	395	Jan 22	710	Mar 1 1997
LOWEST DAILY MEAN	.08	Jan 1	.10	Oct 5	.05	Sep 7 1991
ANNUAL SEVEN-DAY MINIMUM	.12	Sep 26	.12	Oct 26	.06	Jul 2 1993
INSTANTANEOUS PEAK FLOW			1340	Apr 3	1870	Mar 1 1997
INSTANTANEOUS PEAK STAGE			7.84	Apr 3	9.90	Mar 1 1997
ANNUAL RUNOFF (CFSM)	.94		.85		.98	
ANNUAL RUNOFF (INCHES)	12.77		11.53		13.32	
10 PERCENT EXCEEDS	5.6		8.7		5.7	
50 PERCENT EXCEEDS	.47		.40		.45	
90 PERCENT EXCEEDS	.14		.18		.14	

e Estimated



BAYOU CREEK BASIN

03611850 BAYOU CREEK NEAR GRAHAMVILLE, KY

LOCATION.--Lat 37°08'41", long 88°49'38", McCracken County, Hydrologic Unit 05140206, near right bank on downstream side of bridge on State Highway 358, 750 ft downstream of Brushy Creek, 1.4 mi north of Paducah Gaseous Diffusion Plant, 3.6 mi northwest of Grahamville, and at mile 4.1.

DRAINAGE AREA.--14.9 mi².

PERIOD OF RECORD.--October 1990 to November 1991, June 1993 to current year.

GAGE.--Water-stage recorder. Datum of gage is 330 ft above sea level (from topographic map).

REMARKS.--Records fair except for periods of estimated record, which are poor.

PEAKS ABOVE BASE.--Peak discharges above base of 1,000 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 22	0445	*1370	11.17	Apr. 3	0830	1210	10.52

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	e3.8	5.5	5.6	143	14	15	7.4	5.4	93	11	9.9
2	5.4	e5.0	e5.4	219	37	11	12	7.5	37	16	11	10
3	5.8	4.8	e5.2	e18	21	9.3	285	7.5	7.3	12	11	10
4	5.9	4.0	e9.0	e14	16	8.2	223	7.4	5.8	11	11	9.9
5	6.2	3.6	12	e12	13	13	80	72	6.8	11	10	10
6	32	e3.5	7.1	e10	26	106	159	71	18	10	9.8	10
7	209	e3.4	9.5	10	96	18	26	14	11	9.6	9.5	10
8	8.6	e3.5	7.9	54	24	20	20	10	5.6	9.7	12	10
9	6.6	e6.0	5.4	e18	16	79	17	8.9	5.2	9.6	10	10
10	5.4	e14	4.4	e11	13	21	13	7.8	5.7	11	10	10
11	5.5	9.1	4.3	e12	14	15	11	6.1	6.1	9.8	10	10
12	5.4	8.3	e4.2	15	21	12	9.7	7.9	4.9	9.8	10	9.9
13	5.4	e6.8	e4.1	37	12	11	8.5	8.2	9.5	9.9	9.9	11
14	5.4	e6.4	e4.0	19	10	100	26	6.9	24	9.8	10	9.7
15	5.2	e6.0	e3.9	12	9.8	28	125	6.2	9.3	9.0	10	9.4
16	5.0	e5.4	e3.9	11	11	16	24	6.4	5.6	8.1	9.7	9.2
17	4.8	e5.2	e3.9	52	13	12	15	7.4	3.8	8.8	9.5	6.0
18	8.5	e5.0	e3.8	58	12	10	12	8.1	3.5	9.1	9.7	4.6
19	5.8	e4.8	e3.8	15	10	9.1	11	6.3	4.3	9.2	9.8	4.1
20	4.6	16	e3.8	12	9.1	8.9	10	6.0	89	9.1	9.8	4.0
21	4.5	6.2	e180	12	8.8	8.9	9.8	8.1	8.9	9.0	10	5.6
22	e4.3	5.2	58	713	8.7	9.0	8.2	6.9	7.0	9.6	10	4.8
23	e4.3	5.0	e9.4	88	9.0	22	7.3	5.7	35	10	10	3.8
24	e4.2	5.0	e8.8	31	8.6	15	6.9	5.6	24	10	10	3.5
25	e4.2	5.8	e8.0	19	7.5	10	6.8	5.7	15	11	11	3.2
26	e4.2	5.8	e6.8	15	6.9	8.9	7.7	8.1	11	10	11	3.5
27	e4.1	5.9	7.2	14	41	7.0	16	5.9	12	10	11	3.3
28	e4.1	5.7	7.8	13	37	8.4	8.6	3.7	10	10	9.9	3.6
29	e4.0	5.7	8.1	11	---	8.4	14	3.5	12	10	9.8	5.5
30	e4.0	6.0	7.1	26	---	7.7	7.2	3.7	22	10	9.8	5.1
31	e3.9	---	6.0	173	---	11	---	7.1	---	10	9.8	---
TOTAL	391.7	180.9	418.3	1729.6	654.4	637.8	1194.7	347.0	424.7	395.1	316.0	219.6
MEAN	12.6	6.03	13.5	55.8	23.4	20.6	39.8	11.2	14.2	12.7	10.2	7.32
MAX	209	16	180	713	143	106	285	72	89	93	12	11
MIN	3.9	3.4	3.8	5.6	6.9	7.0	6.8	3.5	3.5	8.1	9.5	3.2
CFSM	.85	.40	.91	3.74	1.57	1.38	2.67	.75	.95	.86	.68	.49
IN.	.98	.45	1.04	4.32	1.63	1.59	2.98	.87	1.06	.99	.79	.55

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1999, BY WATER YEAR (WY)

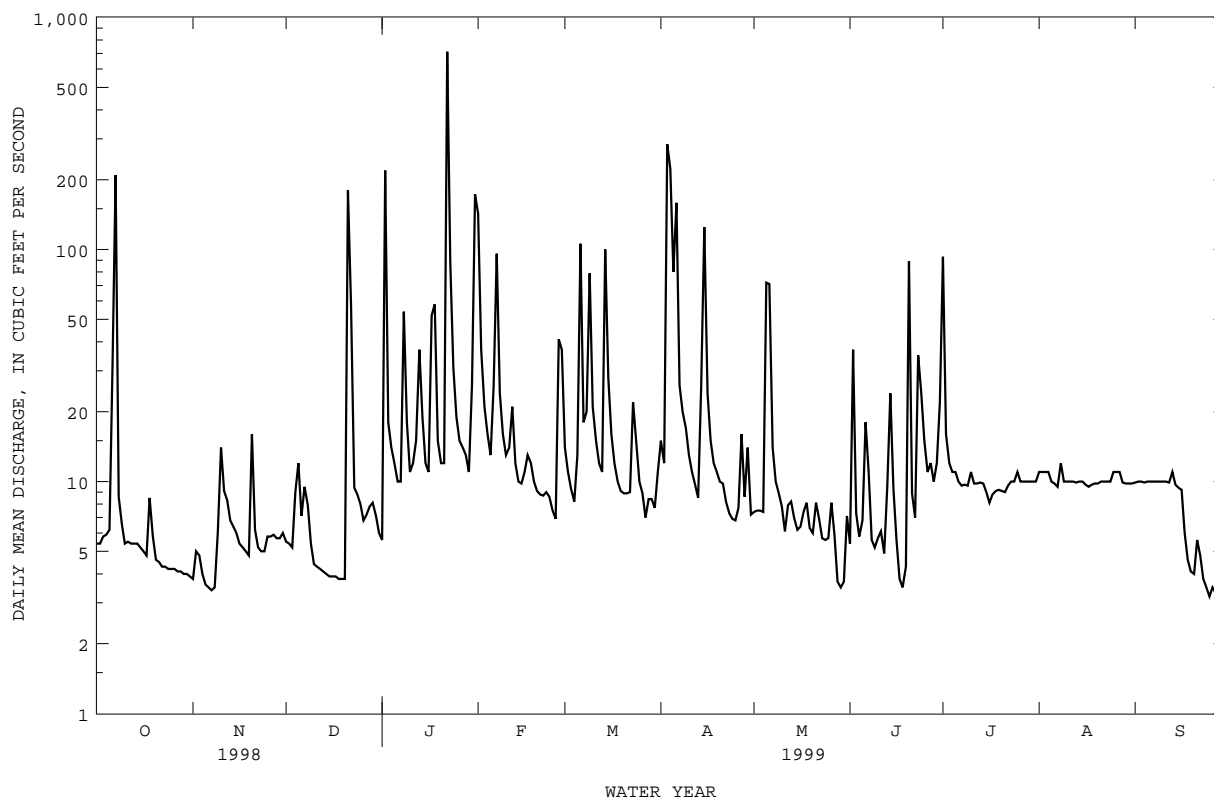
	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	9.66	18.5	25.9	29.7	28.7	31.5	29.6	24.8	18.9
MAX	20.0	56.7	60.7	55.8	37.9	77.5	41.0	38.4	32.4
(WY)	1997	1997	1991	1999	1997	1994	1996	1998	1998
MIN	5.57	5.76	6.66	10.1	6.13	15.0	17.2	9.30	7.56
(WY)	1998	1991	1996	1998	1996	1995	1991	1994	1991

BAYOU CREEK BASIN

03611850 BAYOU CREEK NEAR GRAHAMVILLE, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1991 - 1999	
ANNUAL TOTAL	6840.9		6909.8			
ANNUAL MEAN	18.7		18.9		20.8	
HIGHEST ANNUAL MEAN					30.9	1997
LOWEST ANNUAL MEAN					16.4	1996
HIGHEST DAILY MEAN	502	Jun 9	713	Jan 22	923	Mar 1 1997
LOWEST DAILY MEAN	3.4	Nov 7	3.2	Sep 25	1.9	Oct 9 1996
ANNUAL SEVEN-DAY MINIMUM	3.9	Dec 14	3.7	Sep 22	2.7	Oct 2 1997
INSTANTANEOUS PEAK FLOW			1370	Jan 22	1750	Mar 1 1997
INSTANTANEOUS PEAK STAGE			11.17	Jan 22	12.60	Mar 1 1997
ANNUAL RUNOFF (CFSM)	1.26		1.27		1.40	
ANNUAL RUNOFF (INCHES)	17.08		17.25		18.99	
10 PERCENT EXCEEDS	22		26		26	
50 PERCENT EXCEEDS	8.6		9.6		8.6	
90 PERCENT EXCEEDS	4.7		4.3		4.9	

e Estimated



BAYOU CREEK BASIN

03611900 LITTLE BAYOU CREEK NEAR GRAHAMVILLE, KY

LOCATION.--Lat 37°08'22", long 88°47'26", McCracken County, Hydrologic Unit 05140206, on left bank on reservation of Tennessee Valley Authority Shawnee Steam Plant, 30 ft upstream of bridge on unnamed county road, 1.1 mi southwest of Shawnee Steam Plant, 2.2 mi upstream from Bayou Creek, and 2.3 mi north of Grahamville.

DRAINAGE AREA.--5.78 mi².

PERIOD OF RECORD.--October 1990 to November 1991, June 1993 to current year.

GAGE.--Water-stage recorder. Datum of gage is 324.80 ft above sea level (levels by U.S. Department of Energy).

REMARKS.--Records fair except for periods of estimated record, which are poor. Some regulation from Paducah Gaseous Diffusion Plant, 0.4 mi upstream.

PEAKS ABOVE BASE.--Peak discharges above base of 400 ft³/s and maximum*.

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Jan. 22	0415	573	7.45	Apr. 3	0800	*595	7.59

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.85	e.58	e.56	1.1	29	3.8	1.9	1.5	1.4	47	e.86	.93
2	.84	e.64	e.60	70	5.6	2.4	1.6	1.3	19	3.8	e.84	.93
3	1.1	e.60	e.66	e17	2.7	1.9	143	1.3	2.4	1.4	e.84	.95
4	1.0	e.58	e1.5	e8.0	1.9	1.6	86	1.3	1.1	1.1	e.84	.94
5	1.0	e.58	e4.0	e4.0	1.6	2.1	24	30	1.9	.99	e.82	.89
6	13	e.56	e2.2	e2.5	15	34	64	40	49	.94	e.82	.84
7	86	e.56	e2.6	1.7	18	5.5	8.1	4.4	18	.95	e.82	.81
8	1.5	e.54	e1.8	23	5.4	3.8	4.0	2.0	1.9	.95	e.80	.82
9	.76	e1.0	e1.4	e12	3.2	27	3.1	1.5	1.1	1.0	e.80	.82
10	.65	e4.0	e1.0	e6.0	2.6	6.7	2.6	1.4	1.0	1.2	e.80	.83
11	.65	e2.0	e.90	e3.2	4.2	3.2	1.9	1.3	1.1	.99	.77	.81
12	.65	e1.7	e1.6	3.8	9.8	2.1	1.6	1.3	.98	.98	.76	.84
13	.66	e1.3	e2.8	8.4	3.8	2.0	1.4	1.9	1.7	.95	.87	1.1
14	.66	e.90	e2.0	6.2	2.5	35	6.7	1.3	5.1	.91	.82	.80
15	.68	e.70	e1.4	3.2	2.3	11	55	1.2	1.0	1.6	.78	.80
16	.73	e.64	e1.2	2.2	2.4	4.7	10	1.2	.91	.87	.81	.84
17	.77	e.62	e1.0	8.6	3.4	2.5	3.9	1.3	.87	.98	.82	.87
18	2.3	e.60	e.94	22	2.6	1.9	2.6	3.0	.74	.90	.86	.86
19	.73	e1.3	e.88	5.0	2.2	1.5	2.1	1.4	.78	.87	.85	.87
20	.52	e4.0	e.82	2.9	1.9	1.4	1.8	1.2	24	.85	.85	.90
21	.65	e2.0	58	3.6	1.7	1.3	1.6	1.8	2.0	.93	.84	1.2
22	.75	e1.0	e22	286	1.5	1.2	1.6	1.8	1.0	.88	.85	.73
23	e.70	e.70	e6.0	34	2.2	5.6	1.5	1.2	8.4	.90	.86	.73
24	e.66	e.66	e4.0	e9.0	2.5	4.7	1.4	1.2	11	.89	.84	.73
25	e.64	e.70	e3.0	e6.0	2.0	2.4	1.5	2.5	3.2	.89	.88	.72
26	e.62	e.66	e2.0	e4.0	1.9	2.0	1.8	3.5	5.1	.89	.94	.71
27	e.60	e.60	1.3	e3.0	11	1.4	5.6	2.6	3.4	.91	1.0	.77
28	e.58	e.58	1.2	2.0	12	1.3	2.2	1.1	1.5	.94	.94	.77
29	e.56	e.56	1.2	2.0	---	1.3	5.4	1.1	1.2	e.92	.96	.97
30	e.54	e.58	1.1	12	---	1.2	2.1	1.1	6.8	e.90	.94	.85
31	e.54	---	1.1	61	---	1.7	---	2.6	---	e.88	.90	---
TOTAL	121.89	31.44	130.76	633.4	154.9	178.2	450.0	120.3	177.58	79.16	26.38	25.63
MEAN	3.93	1.05	4.22	20.4	5.53	5.75	15.0	3.88	5.92	2.55	.85	.85
MAX	.86	4.0	.58	286	.29	.35	143	.40	.49	.47	1.0	1.2
MIN	.52	.54	.56	1.1	1.5	1.2	1.4	1.1	.74	.85	.76	.71
CFSM	.68	.18	.73	3.53	.96	.99	2.60	.67	1.02	.44	.15	.15
IN.	.78	.20	.84	4.08	1.00	1.15	2.90	.77	1.14	.51	.17	.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1999, BY WATER YEAR (WY)

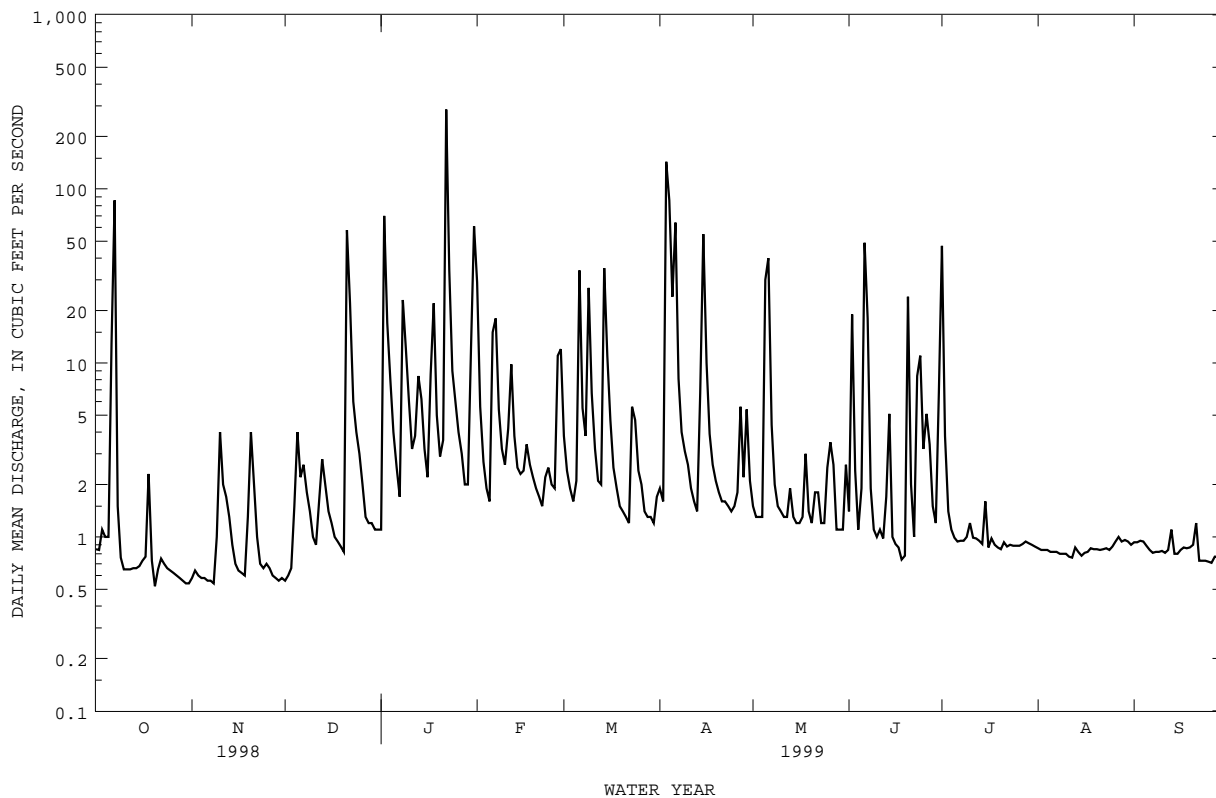
MEAN	2.37	5.63	9.49	10.5	9.37	11.1	10.4	8.22	4.81	2.52	2.17	1.47
MAX	4.25	18.3	33.5	20.4	17.0	32.5	19.2	13.5	12.4	7.87	8.11	2.98
(WY)	1997	1997	1991	1999	1991	1997	1994	1997	1998	1996	1998	1993
MIN	1.28	1.05	1.26	1.67	1.02	3.79	5.62	1.48	1.04	.82	.72	.78
(WY)	1998	1999	1996	1998	1996	1995	1991	1994	1994	1991	1996	1998

BAYOU CREEK BASIN

03611900 LITTLE BAYOU CREEK NEAR GRAHAMVILLE, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1991 - 1999	
ANNUAL TOTAL	1974.52		2129.64			
ANNUAL MEAN	5.41		5.83		6.59	
HIGHEST ANNUAL MEAN					10.1 1997	
LOWEST ANNUAL MEAN					4.35 1996	
HIGHEST DAILY MEAN	259	Jun 9	286	Jan 22	506	Mar 1 1997
LOWEST DAILY MEAN	.40	Jan 2	.52	Oct 20	.02	May 25 1995
ANNUAL SEVEN-DAY MINIMUM	.57	Oct 26	.57	Oct 26	.42	Dec 29 1997
INSTANTANEOUS PEAK FLOW			595	Apr 3	1300	Mar 1 1997
INSTANTANEOUS PEAK STAGE			7.59	Apr 3	11.26	Mar 1 1997
ANNUAL RUNOFF (CFSM)	.94		1.01		1.14	
ANNUAL RUNOFF (INCHES)	12.71		13.71		15.49	
10 PERCENT EXCEEDS	6.4		9.9		8.9	
50 PERCENT EXCEEDS	1.2		1.3		1.2	
90 PERCENT EXCEEDS	.66		.69		.70	

e Estimated



OHIO RIVER MAIN STEM

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 mi², 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 1998 TO SEPTEMBER 1999

DATE	TIME	SAMPLE TYPE	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	UV ABSORB-ANCE 254 NM, WTR FLT (UNITS /CM) (50624)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)
NOV											
13...	1110	ENVIRONMENTAL	160000	--	381	7.7	14.5	10	8.9	86	140
DEC											
17...	1220	ENVIRONMENTAL	226000	--	290	7.8	11.0	22	11.6	104	97
JAN											
28...	1240	ENVIRONMENTAL	941000	--	254	7.4	8.5	99	11.8	100	99
28...	1248	FIELD BLANK	--	--	--	--	--	--	--	--	0
MAR											
16...	1140	ENVIRONMENTAL	660000	.087	270	7.5	6.0	40	12.6	101	110
APR											
14...	1250	ENVIRONMENTAL	248000	.090	356	7.5	15.7	28	9.2	92	140
14...	1300	REPLICATE	248000	.095	356	7.5	15.7	28	9.2	92	140
27...	1300	ENVIRONMENTAL	319000	.065	367	7.5	16.0	85	9.2	94	150
27...	1308	FIELD BLANK	--	--	--	--	--	--	--	--	--
MAY											
12...	1240	ENVIRONMENTAL	354000	.077	278	7.4	21.0	14	9.4	105	110
12...	1248	FIELD BLANK	--	--	278	7.4	--	--	--	--	--
25...	1300	ENVIRONMENTAL	185000	.078	354	7.5	23.0	12	8.1	94	140
25...	1308	FIELD BLANK	--	--	354	7.5	--	--	--	--	--
JUN											
09...	1400	ENVIRONMENTAL	182000	.083	334	7.4	27.5	8.7	6.2	78	130
09...	1408	FIELD BLANK	--	--	--	--	--	--	--	--	--
24...	1200	ENVIRONMENTAL	124000	.065	320	7.9	26.5	15	8.0	100	120
JUL											
08...	1140	ENVIRONMENTAL	174000	.143	210	7.4	29.5	8.2	6.8	90	78
08...	1330	ENVIRONMENTAL	174000	.085	222	7.6	29.5	8.5	7.2	94	84
26...	1030	REPLICATE	--	.072	--	--	--	12	--	--	77

OHIO RIVER MAIN STEM

03612500 OHIO RIVER AT LOCK AND DAM 53, NEAR GRAND CHAIN, IL--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	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)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, TOTAL (MG/L AS N) (00600)
NOV 13...	36	13	21	3.1	98	80	23	59	.18	3.5	229	.90
DEC 17...	27	7.0	15	2.3	88	72	16	32	<.10	4.4	160	.83
JAN 28...	29	6.7	15	2.4	76	62	19	34	.11	5.1	164	2.0
28...	.008	.001	<.025	--	--	--	--	--	--	<.020	--	--
MAR 16...	31	7.7	9.4	2.0	81	66	13	35	.10	5.2	162	1.9
APR 14...	37	11	14	2.2	100	82	19	52	.13	4.1	210	1.7
14...	38	11	14	2.2	100	82	20	54	.13	4.1	211	1.7
27...	40	11	16	2.0	87	71	22	56	.15	3.7	222	2.7
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 12...	30	7.9	10	1.8	82	67	13	35	.11	3.3	154	1.5
12...	--	--	--	--	--	66	--	--	--	--	--	--
25...	37	10	12	2.2	110	90	16	45	.14	3.1	207	1.9
25...	--	--	--	--	--	82	--	--	--	--	--	--
JUN 09...	34	10	12	2.5	108	--	17	38	.16	3.3	212	2.2
09...	.004	<.001	<.025	--	--	--	--	--	--	<.020	--	--
24...	33	9.5	13	2.3	--	--	15	36	.15	.76	187	1.5
JUL 08...	22	5.8	9.0	2.3	--	--	11	24	.11	1.9	121	.88
08...	23	6.3	9.5	2.3	--	--	11	26	.12	1.8	124	.94
26...	21	6.0	11	2.3	--	--	12	25	<.10	2.1	121	.70
26...	21	6.1	10	2.3	--	--	11	25	<.10	2.0	120	.67

DATE	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	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, NITRATE DIS- SOLVED (MG/L AS N) (00618)	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- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)
NOV 13...	.90	.23	.23	.029	.553	.119	.524	.35	.35	.055	.040	.10
DEC 17...	.77	.28	.21	.013	.465	.091	.452	.31	.37	.129	E.034	.13
JAN 28...	1.6	.65	.26	.012	1.27	.079	1.26	.34	.73	.317	.053	.15
28...	--	--	--	<.001	.005	<.002	--	--	--	--	--	.00
MAR 16...	1.7	.43	.18	.012	1.48	.039	1.46	.22	.47	.149	.036	.10
APR 14...	1.5	.41	.22	.013	1.22	.043	1.21	.26	.46	.118	.033	.09
14...	1.5	.43	.22	.013	1.23	.035	1.21	.25	.46	.120	.034	.09
27...	2.5	--	--	.016	2.25	<.020	2.23	.23	.42	.108	.037	.10
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 12...	1.3	.37	.17	.019	1.07	.039	1.05	.21	.41	.073	.031	.07
12...	--	--	--	--	--	--	--	--	--	--	--	--
25...	1.6	.39	.17	.019	1.40	.059	1.38	.23	.45	.056	.028	.06
25...	--	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	2.0	.51	.30	.069	1.64	.068	1.57	.37	.58	.086	.047	.12
09...	--	--	--	<.001	.005	.006	--	--	--	--	--	.00
24...	1.3	--	--	.022	1.03	<.020	1.01	.27	.45	.070	.022	.05
JUL 08...	.62	--	--	.022	.407	<.020	.385	.21	.47	.085	.024	.06
08...	.69	--	--	.025	.466	<.020	.441	.23	.48	.088	.029	.07
26...	.37	--	--	.017	.201	<.020	.184	.17	.50	.072	.024	.06
26...	.37	--	--	.018	.197	<.020	.179	.17	.47	.070	.024	.05

OHIO RIVER MAIN STEM

03612500 OHIO RIVER AT LOCK AND DAM 53, NEAR GRAND CHAIN, IL--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	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- 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)	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)
NOV												
13...	.15	2.3	.10	.034	2.3	<1.0	2	41	<1.0	82	<1.0	<1.0
DEC												
17...	.12	2.0	.04	.042	4.2	<1.0	1	28	<1.0	44	<1.0	<1.0
JAN												
28...	.10	5.6	.04	.050	5.1	<1.0	<1	30	<1.0	27	<1.0	2.1
28...	--	--	--	.001	<.30	<.20	--	<.20	<.20	3.2	<.30	<.20
MAR												
16...	.05	6.5	.04	.032	--	--	<1	--	--	20	--	--
APR												
14...	.06	5.4	.04	.029	--	--	<1	--	--	38	--	--
14...	.05	5.4	.04	.030	--	--	<1	--	--	38	--	--
27...	--	9.9	.05	.032	6.2	<1.0	<1	37	<1.0	41	<1.0	<1.0
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
12...	.05	4.6	.06	.024	--	--	<1	--	--	37	--	--
12...	--	--	--	--	--	--	--	--	--	--	--	--
25...	.08	6.1	.06	.021	--	--	1	--	--	40	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
09...	.09	6.9	.23	.039	3.8	<1.0	1	36	<1.0	40	<1.0	<1.0
09...	.01	--	--	.001	<.30	<.20	--	<.20	<.20	<2.0	<.30	<.20
24...	--	4.5	.07	.016	7.9	<1.0	1	33	<1.0	45	<1.0	<1.0
JUL												
08...	--	1.7	.07	.019	--	--	<1	--	--	43	--	--
08...	--	2.0	.08	.022	--	--	<1	--	--	42	--	--
26...	--	.81	.06	.018	--	--	<1	--	--	37	--	--
26...	--	.79	.06	.016	--	--	<1	--	--	39	--	--

DATE	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)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	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)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	THAL- LIUM, DIS- SOLVED (UG/L AS TL) (01057)
NOV												
13...	<1.0	1.4	<10	<1.0	E4	3.5	4.9	1.5	<1	<1.0	199	--
DEC												
17...	<1.0	1.3	<10	<1.0	<6	6.6	2.6	1.5	<1	<1.0	118	--
JAN												
28...	<1.0	1.7	13	<1.0	<6	3.8	1.1	1.8	<1	<1.0	121	--
28...	<.20	<.20	<3.0	<.30	--	<.10	<.20	<.50	--	<.20	.16	<1.0
MAR												
16...	--	--	13	--	<6	--	--	--	<1	--	127	--
APR												
14...	--	--	16	--	E5	--	--	--	<1	--	162	--
14...	--	--	<10	--	E5	--	--	--	<1	--	164	--
27...	<1.0	1.4	<10	<1.0	7	<1.0	2.4	1.7	<1	<1.0	190	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
12...	--	--	<10	--	<6	--	--	--	<1	--	120	--
12...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	<10	--	E3	--	--	--	<1	--	153	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
09...	<1.0	1.5	<10	<1.0	<6	2.5	2.3	1.3	2	<1.0	143	--
09...	<.20	<.20	<3.0	<.30	--	<.10	<.20	<.50	--	<.20	<.10	<1.0
24...	<1.0	1.4	E9.5	<1.0	<6	1.4	2.5	1.1	<1	<1.0	141	--
JUL												
08...	--	--	E8.6	--	<6	--	--	--	<1	--	91	--
08...	--	--	<10	--	E3	--	--	--	<1	--	99	--
26...	--	--	<10	--	<6	--	--	--	<1	--	87	--
26...	--	--	<10	--	<6	--	--	--	<1	--	87	--

OHIO RIVER MAIN STEM

03612500 OHIO RIVER AT LOCK AND DAM 53, NEAR GRAND CHAIN, IL--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	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- PENDEED 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)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)
NOV 13...	<10	7.6	<1.0	2.4	.80	<.002	.0090	.162	<.0020	<.0020	<.0040
DEC 17...	<10	3.0	<1.0	2.3	.80	<.002	<.0020	.115	<.0020	<.0020	<.0040
JAN 28...	<10	1.6	<1.0	3.1	2.6	<.002	.0049	.069	<.0020	<.0020	<.0040
JAN 28...	--	.69	<.20	--	--	--	--	--	--	--	--
MAR 16...	<10	--	--	2.5	.90	<.002	E.0036	.048	<.0020	<.0020	<.0040
APR 14...	<10	--	--	2.6	1.0	<.002	.0124	.620	<.0020	<.0020	<.0040
APR 14...	<10	--	--	2.6	1.1	E.003	.0115	.608	<.0020	<.0020	<.0040
APR 27...	<10	1.4	<1.0	3.0	.60	.005	.0836	.642	<.0020	<.0020	<.0040
APR 27...	--	--	--	.30	<.20	--	--	--	--	--	--
MAY 12...	<10	--	--	2.7	.70	<.002	<.0020	<.001	<.0020	<.0020	<.0040
MAY 12...	--	--	--	--	--	.013	.215	2.73	<.0020	<.0020	<.0040
MAY 25...	<10	--	--	2.5	.20	.012	.247	2.20	<.0020	<.0020	.0048
MAY 25...	--	--	--	<.10	<.20	--	--	--	--	--	--
JUN 09...	<10	8.3	<1.0	3.0	.70	--	--	--	--	--	--
JUN 09...	--	1.5	<.20	--	--	--	--	--	--	--	--
JUN 24...	<10	2.4	<1.0	3.1	1.3	.015	.126	1.79	<.0020	<.0020	<.0040
JUL 08...	<10	--	--	2.6	.70	.008	.0264	.616	<.0020	<.0020	<.0040
JUL 08...	<10	--	--	2.7	.60	<.008	.0224	.566	<.0020	<.0020	<.0040
JUL 26...	<10	--	--	2.7	.80	<.006	.0149	.476	<.0020	<.0020	<.0040
JUL 26...	<10	--	--	2.8	1.1	<.006	<.0020	.484	<.0020	<.0020	<.0040

DATE	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS- SOLVED (UG/L) (39341)	MALA- THON, DIS- SOLVED (UG/L) (39532)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARA- THON, DIS- SOLVED (UG/L) (39542)
NOV 13...	.0420	E.0434	<.002	<.001	<.0030	<.004	<.005	<.004	.041	<.0060	<.004
DEC 17...	.0150	E.0375	<.002	<.001	<.0030	<.004	<.005	<.004	.032	<.0060	<.004
JAN 28...	.0130	E.0213	<.002	<.001	<.0030	<.004	<.005	.005	.033	<.0060	<.004
JAN 28...	--	--	--	--	--	--	--	--	--	--	--
MAR 16...	.0071	E.0133	<.002	<.001	<.0030	<.004	<.005	<.004	.018	<.0060	<.004
APR 14...	.0683	E.0336	E.003	<.001	<.0030	<.004	<.005	.020	.084	<.0060	<.004
APR 14...	.0652	E.0327	<.002	<.001	<.0030	<.004	<.005	.019	.081	<.0060	<.004
APR 27...	.0454	E.0410	E.003	<.001	<.0030	<.004	<.005	.032	.291	<.0060	<.004
APR 27...	--	--	--	--	--	--	--	--	--	--	--
MAY 12...	<.0040	<.0020	<.002	<.001	<.0030	<.004	<.005	<.004	<.002	<.0060	<.004
MAY 12...	.173	E.118	<.002	<.001	<.0030	<.004	<.005	.023	.473	<.0060	<.004
MAY 25...	.102	E.0955	E.004	<.001	<.0030	<.004	<.005	.011	.505	<.0060	<.004
MAY 25...	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--
JUN 24...	E.124	E.317	<.002	<.001	<.0030	<.004	<.005	<.004	.440	<.0060	<.004
JUL 08...	.0799	E.159	<.002	<.001	<.0030	<.004	<.005	<.004	.149	<.0060	<.004
JUL 08...	.0660	E.156	E.002	<.001	<.0030	<.004	<.005	<.004	.146	<.0060	<.004
JUL 26...	.127	E.0931	<.002	<.001	<.0030	<.004	<.005	<.004	.113	<.0060	<.004
JUL 26...	.131	E.113	<.002	<.001	<.0030	<.004	<.005	<.004	.108	<.0060	<.004

OHIO RIVER MAIN STEM

03612500 OHIO RIVER AT LOCK AND DAM 53, NEAR GRAND CHAIN, IL--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)
NOV 13...	<.0070	E.0106	.0219	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
DEC 17...	<.0070	<.0180	.0331	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
JAN 28...	<.0070	<.0180	.0452	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
28...	--	--	--	--	--	--	--	--	--	--	--
MAR 16...	<.0070	<.0180	.0115	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
APR 14...	<.0070	E.0055	.358	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
14...	<.0070	E.0055	.344	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
27...	<.0070	E.0049	.0478	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
27...	--	--	--	--	--	--	--	--	--	--	--
MAY 12...	<.0070	<.0180	<.0050	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
12...	<.0070	E.0088	.557	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
25...	<.0070	E.0112	.285	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
25...	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
24...	<.0070	E.0117	.197	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
JUL 08...	<.0070	E.0119	.0759	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
08...	<.0070	E.0118	.0721	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
26...	<.0070	<.0180	.0654	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
26...	<.0070	<.0180	.0636	<.0020	<.0030	<.0030	<.0020	<.0030	<.0170	<.0040	<.0040
DATE	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)
NOV 13...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
DEC 17...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
JAN 28...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
28...	--	--	--	--	--	--	--	--	--	--	--
MAR 16...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
APR 14...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
14...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
27...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
27...	--	--	--	--	--	--	--	--	--	--	--
MAY 12...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
12...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
25...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
25...	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
24...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
JUL 08...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
08...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
26...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030
26...	<.0030	<.0020	<.0020	<.0010	<.0060	<.0040	<.0030	<.0040	<.0050	<.0020	<.0030

OHIO RIVER MAIN STEM

03612500 OHIO RIVER AT LOCK AND DAM 53, NEAR GRAND CHAIN, IL--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

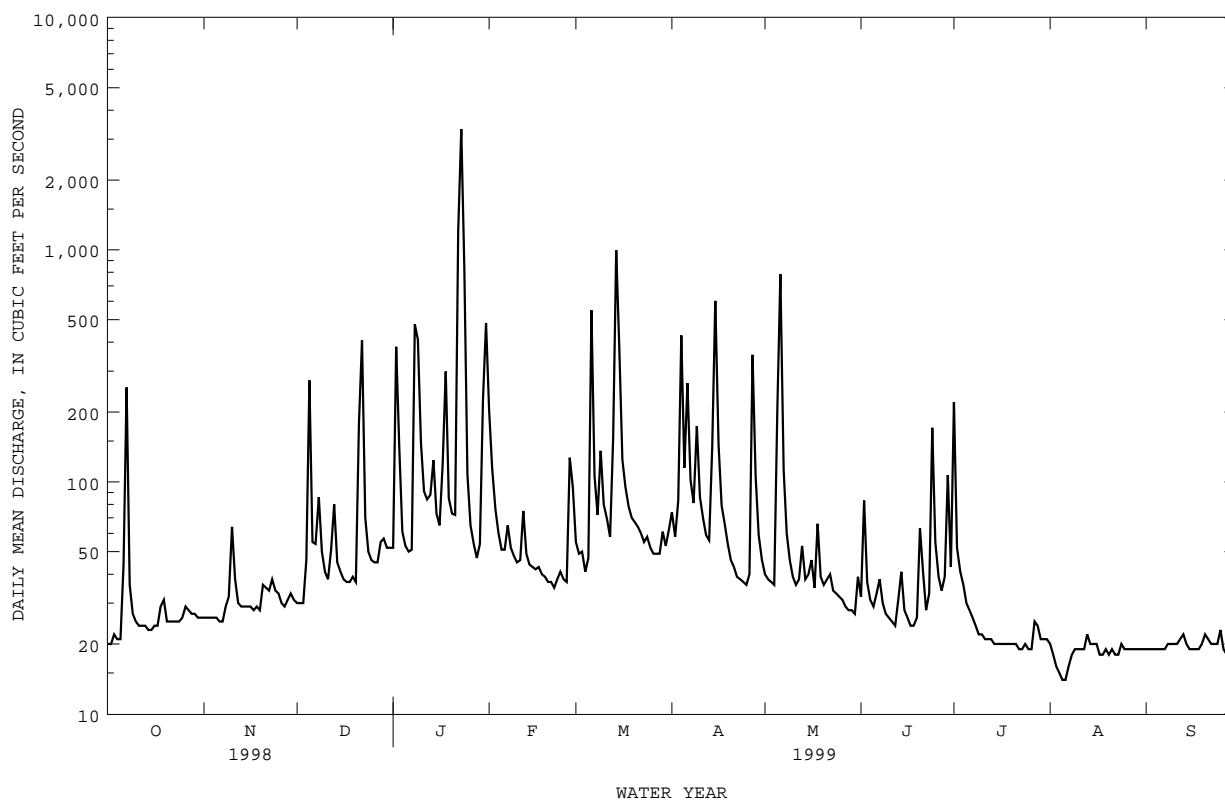
DATE	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 13...	<.0040	<.0130	.0171	<.0070	<.0130	<.0010	<.0020	<.0020	32	13800	99
DEC 17...	<.0040	<.0130	.0139	<.0070	<.0130	<.0010	<.0020	<.0020	61	37200	88
JAN 28...	<.0040	<.0130	E.0083	<.0070	<.0130	<.0010	<.0020	<.0020	192	488000	90
JAN 28...	--	--	--	--	--	--	--	--	--	--	--
MAR 16...	<.0040	<.0130	E.0095	<.0070	<.0130	<.0010	<.0020	<.0020	79	141000	84
APR 14...	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020	56	37500	99
APR 14...	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020	--	--	--
APR 27...	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020	62	53400	99
APR 27...	--	--	--	--	--	--	--	--	--	--	--
MAY 12...	<.0040	<.0130	<.0100	<.0070	<.0130	<.0010	<.0020	<.0020	23	22000	98
MAY 12...	<.0040	<.0130	.0102	<.0070	<.0130	<.0010	<.0020	<.0020	--	--	--
MAY 25...	<.0040	<.0130	E.0079	<.0070	<.0130	<.0010	<.0020	<.0020	12	5990	98
MAY 25...	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	28	13800	100
JUN 09...	--	--	--	--	--	--	--	--	--	--	--
JUN 24...	<.0040	<.0130	.0128	<.0070	<.0130	<.0010	<.0020	<.0020	20	6700	99
JUL 08...	<.0040	--	E.0170	<.0070	<.0130	<.0010	<.0020	<.0020	30	14100	99
JUL 08...	<.0040	--	E.0152	<.0070	<.0130	<.0010	<.0020	<.0020	33	15500	99
JUL 26...	<.0040	<.0130	E.0231	<.0070	<.0130	<.0010	<.0020	<.0020	18	5830	99
JUL 26...	<.0040	<.0130	E.0219	<.0070	<.0130	<.0010	<.0020	<.0020	--	--	--

BAYOU DE CHIEN BASIN

07024000 BAYOU DE CHIEN NEAR CLINTON, KY--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1940 - 1999	
ANNUAL TOTAL	39021		28250			
ANNUAL MEAN	107		77.4		103	
HIGHEST ANNUAL MEAN					268	1976
LOWEST ANNUAL MEAN					18.7	1941
HIGHEST DAILY MEAN	2950	Jun 6	3320	Jan 23	7150	Jan 2 1966
LOWEST DAILY MEAN	19	Sep 15	14	Aug 5	4.0	May 29 1943
ANNUAL SEVEN-DAY MINIMUM	20	Sep 13	16	Aug 2	4.7	Jun 20 1942
INSTANTANEOUS PEAK FLOW			3780	Jan 23	9460	Jan 2 1966
INSTANTANEOUS PEAK STAGE			16.06	Jan 23	16.48	Mar 2 1997
ANNUAL RUNOFF (CFSM)	1.56		1.13		1.50	
ANNUAL RUNOFF (INCHES)	21.13		15.30		20.40	
10 PERCENT EXCEEDS	197		117		190	
50 PERCENT EXCEEDS	37		37		24	
90 PERCENT EXCEEDS	24		19		11	

e Estimated



DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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 U.S. 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.

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. At a few of these stations crest stages are determined from continuous water-stage recorder graphs. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations during water year 1999

Station number	Station name	Location	Drainage area (mi ²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft ³ /s)
CUMBERLAND RIVER BASIN							
03400500	Poor Fork at Cumberland, Ky.	Lat 36°58'26", long 82°59'38", Harlan County, Hydrologic Unit 05130101, at left upstream side of New York Avenue bridge at Cumberland, 250 ft upstream from Cloverlick Creek, 0.6 mi downstream from Looney Creek, and at river mile 718.8.	82.3	1941-92†, 1993-99	01-09-99	6.96	1,820
03404820	Laurel River at Municipal Dam, near Corbin, Ky.	Lat 36°58'13", long 84°07'11", Lauren County, Hydrologic Unit 05130101, on left bank adjacent to State Highway 709, 200 ft upstream from Corbin Municipal Dam, 0.1 mi upstream from Lynn Camp Creek, 2.0 mi northwest of Corbin, and at mile 21.4.	140	1974-92†, 1993-99	01-09-99	23.39	4,240

†Operated as a continuous-record gaging station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Low-flow partial-record station

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same site.

Discharge measurements made at low-flow partial-record stations during water year 1999

Station no.	Station name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Dis- charge (ft ³ /s)
BIG SANDY RIVER BASIN						
03209300	Russell Fork at Elkhorn City, Ky.	Lat 37°18'14", long 82°20'35", Pike County, Hydrologic Unit 05070202, on left bank 10 ft downstream from steel highway bridge on abandoned section of State Highway 80, at Elkhorn City, 0.9 mi upstream from Elkhorn Creek, and at mile 13.2.	554	1999	09-28-99	115
03209800	Levisa Fork at Prestonsburg, Ky.	Lat 37°40'15", long 82°46'38", Floyd County, Hydrologic Unit 05070203, on right bank, 50 ft downstream from concrete highway bridge on State Highway 114 at Prestonburg, 150 ft downstream from mouth of Trimble Branch, 450 ft upstream from Middle Creek and at mile 81.4	1702	1999	09-28-99	257
LICKING RIVER BASIN						
03248380	Burning Fork near Salyersville, Ky.	Lat 37°44'28", long 83°03'22", Magoffin County, Hydrologic Unit 05100101, at bridge on Mountain Parkway, 1.0 mile above mouth and 0.3 mi east of Salyersville.	17.5	1999	08-12-99, 09-28-99	0.20 0.12
03248620	Licking River at Gordon Ford, Ky.	Lat 37°56'52", long 83°12'58", Morgan County, Hydrologic Unit 05100101, at bridge on unmarked road off Federal Highway 460, 6.6 mi below Jones Creek and 2.6 mi south of West Liberty.	327	1987-88, 1999	08-12-99, 09-27-99	18.2 6.76

Discharge measurements made at low-flow partial-record stations during water year 1999--Continued

Station no.	Station name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Dis- charge (ft ³ /s)
LICKING RIVER BASIN--Continued						
03250000	Triplett Creek at Morehead, Ky.	Lat 38°10'46", long 83°25'55", Rowan County, Hydrologic Unit 05100101, at bridge on road off Federal Highway 670, 1.3 mi below Christy Creek, and at Morehead.	47.9	1941-80, 1987-88, 1999	08-10-99, 09-27-99	0.16 0.19
03250100	North Fork Triplett Creek near Morehead, Ky.	Lat 38°11'57", long 83°28'50", Rowan County, Hydrologic Unit 05100101, on right bank at downstream side of bridge on State Highway 32, 6.2 mi upstream from Triplett Creek, 2.0 mi downstream from Big Bushy Creek, 2.8 mi northwest of Morehead.	84.7	1968-94, 1999	08-10-99, 09-27-99	0.08 0.03
03250115	Salt Lick Creek at Salt Lick, Ky.	Lat 38°06'45", long 83°37'15", Bath County, Hydrologic Unit 05100101, at bridge on State Highway 211, 2.5 mi above mouth and 0.5 mi south of Salt Lick.	38.6	1988, 1999	08-11-99	0
03250195	Spencer Creek near Howards Mill, Ky.	Lat 38°01'45", long 83°50'24", Montgomery County, Hydrologic Unit 05100101, at bridge on Ridge Road, 0.7 mi above mouth, 2.5 mi south of Howards Mill, and 3.8 mi west of Hope.	11.5	1988, 1999	08-11-99, 09-27-99	<0.01 0.01
03250220	Mill Creek near Preston, Ky.	Lat 38°05'53", long 83°44'55", Bath County, Hydrologic Unit 05100101, at bridge on State Highway 965, 1.3 mi above mouth, 4 mi north of Preston, and 2.8 mi west of Olympia.	21.1	1988, 1999	08-11-99	0

Discharge measurements made at low-flow partial-record stations during water year 1999--Continued

Station no.	Station name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Dis- charge (ft ³ /s)
LICKING RIVER BASIN--Continued						
03250240	Slate Creek near Owingsville, Ky.	Lat 38° 08'29", long 83° 43'43", Bath County, Hydrologic Unit , 05100101, at bridge on U.S. Highway 60, 0.7 mi upstream from Rose Run, and 2.0 mi east of Owingsville.	185	1954, 1957, 1962, 1964, 1968-72, 1999	08-10-99	0
03250350	Locust Creek near Hillsboro, Ky.	Lat 38°18'20", long 83° 44'04", Fleming County, Hydrologic Unit 05100101, at bridge on State Highway 1336, 2.7 mi above mouth, 4.9 mi southeast of Poplar Plains, and 4.2 mi northwest of Hillsboro.	28.8	1988, 1999	08-12-99	0
03250390	Flat Creek near Sherburne, Ky.	Lat 38°16'19", long 83°48'01", Bath County, Hydrologic Unit 05100101, at bridge on State Highway 1325, 0.7 mi south of Sherburne, and 2.5 mi west of Pebble.	49.9	1988, 1999	08-11-99	0
03251000	North Fork Licking River near Lewisburg, Ky.	Lat 38°32'57", long 83°47'37", Mason County, Hydrologic Unit 05100101, on left bank at downstream side of bridge on State Highway 419, 1.2 mi west of Lewisburg, 1.3 mi downstream from Mill Creek and at mi 50.1.	119	1946-74, 1999	08-12-99	0
03252000	Stoner Creek at Paris, Ky.	Lat 38° 13'45", long 84°15'22", Bourbon County, Hydrologic Unit 05100102, on left bank 25 ft upstream from bridge on county road, 0.5 mi north of Paris, 1.5mi downstream from Houston Creek, and at mi 79.2	239	1953-74, 1999	08-11-99, 09-27-99	0.97 1.43
03252190	Hinston Creek near Sharpsburg, Ky.	Lat 38°10'03", long 83° 58'32", Bath County, Hydrologic Unit 05100101, at bridge on county road, 0.8 mi below Grassy Lick Creek, 2.9 mi above Paytons Lick Branch, 3.4 mi southwest of Sharpsburg, 43.7 mi upstream from Stoner Creek, and at mi 113.4.	79.8	1973-77, 1979-81, 1987-88, 1999	08-11-99, 09-27-99	1.46 0.54

Discharge measurements made at low-flow partial-record stations during water year 1999--Continued

Station no.	Station name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Dis- charge (ft ³ /s)
LICKING RIVER BASIN--Continued						
03252220	Hinston Creek near Little Rock, Ky.	Lat 38°12'53", long 84°01'25", Bourbon, County, Hydrologic Unit 05100102, at bridge on unnamed road off State Highway 587, 0.2 mi upstream from Boone Creek, and 2.1 mi northeast of Little Rock.	121	1999	08-11-99	0
03252500	South Fork Licking River at Cynthiana, Ky.	Lat 38°23'27", long 84°18'11", Harrison County, Hydrologic Unit 05100102, on left bank at downstream side of bridge on State Highway 356 and 36 at Cynthiana 0.3 mi downstream from Grays Run, in pool formed by old mill dam 2.6 mi downstream, and at mi 49.1	621	1938-74, 1999	08-11-99, 09-27-99	5.50 1.72
03252600	Mill Creek near Cynthiana, Ky.	Lat 38°26'27", long 84°20'15", Harrison County, Hydrologic Unit 05100101, at bridge on unmarked road off State Highway 36, 2.8 mi above Licking River, 1.8 mi west of Poindexter, and 3.9 mi northwest of Cynthiana.	31.8	1988, 1999	08-11-99	0
SALT RIVER BASIN						
03297880	Currys Fork near Crestwood, Ky.	Lat 38° 18'26", long 85°27'02", Oldham County, Hydrologic Unit 05140101, at bridge on State Highway 1408, 0.4 mi above mouth, 0.1 mi below Ashers Run, and 1.5 mi Southeast of Crestwood.	28.5	1999	08-12-99, 09-27-99	0.42 0.18
03299445	Pottinger Creek near New Hope, Ky.	Lat 37°38'35", long 85° 31'57", Nelson County, Hydrologic Unit 05140103, at low-water bridge on unmarked road, 0.8 mi below Monks Creek, 1.5 mi northwest of New Hope, and 3.3 mi above mouth.	43.5	1974-81, 1988, 1999	08-12-99, 09-27-99	<0.01 0

Discharge measurements made at low-flow partial-record stations during water year 1999--Continued

Station no.	Station name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Dis- charge (ft ³ /s)
SALT RIVER BASIN--Continued						
03300100	Beech Fork near Maud, Ky.	Lat 37°49'57", long 85°17'46", Washington County, Hydrologic Unit 05140103, at bridge on State Highway 458, 3.8 mi above Chaplin River and 2.3 mi east of Maud.	159	1988, 1999	08-12-99, 09-27-99	0.28 0
03300350	Beaver Creek near Johnsonville, Ky.	Lat 37°55'01", long 85°07'37", Washington County, Hydrologic Unit 05140103, at bridge on unmarked road off Federal Highway 62, 4.9 mi above mouth and 5.0 mi east of Chaplin.	20.6	1988, 1999	08-13-99, 09-27-99	0.02 0
03300390	Chaplin River near Chaplin, Ky.	Lat 37°52'14", long 85° 13'51", Washington County, Hydrologic Unit 05140103, at bridge on State Highway 458, 200 ft above Jessie Run, 2.0 mi south of Chaplin, and 6.8 mi above mouth.	262	1973-76, 1988, 1999	08-12-99, 09-27-99	0.55 0.02
03300498	Cartwright Creek at Frederick- town, Ky.	Lat 37°45'45", long 85°19'29", Washington County, Hydrologic Unit 05140103, at rural bridge, 0.7 mi below Parker Run, 0.9 mi east of Fredericktown, and 1.8 mi above mouth.	82.3	1972-76, 1988, 1999	08-11-99, 09-27-99	0.56 0.30
03300980	Beech Fork near Bardstown, Ky.	Lat 37°45'38", long 85°27'37", Nelson County, Hydrologic Unit 05140103, at bridge on State Highway 49, 0.3 mi above Glickey Run and 3.0 mi south of Bardstown.	645	1988, 1999	08-11-99, 09-27-99	6.36 0.08

Discharge measurements made at low-flow partial-record stations during water year 1999--Continued

Station no.	Station name	Location	Drainage area (mi ²)	Period of record	Measurements	
					Date	Dis- charge (ft ³ /s)
GREEN RIVER BASIN						
03314000	Drakes Creek near Alvaton, Ky.	Lat 36°53'43", long 86° 22'50", Warren County, Hydrologic Unit 05110002, near right bank at downstream side of U.S. Highway 231 bridge, 2.1 miles northwest of Alvaton, and 5.3 miles downstream from Trammel Fork.	478	1999	09-28-99	25.6
03314500	Barren River at Bowling Green, Ky.	Lat 37°00'04", long 86°25'51", Warren County, Hydrologic Unit 05110002, near center of downstream side of abandoned College Street bridge, 700 ft upstream from bridge on U.S. Highways 31W and 68 at Bowling Green, 6.0 mi downstream from Drakes Creek, 8.9 miles upstream from Jennings Creek, and at mile 37.6	1849	1999	09-28-99	208
CUMBERLAND RIVER BASIN						
03400500	Poor Fork at Cumberland, Ky.	Lat 36°58'26", long 82°59'38", Harlan County, Hydrologic Unit 05130101, at left upstream side of New York Avenue bridge at Cumberland, 250 ft upstream from from Cloverlick Creek, 0.6 mi downstream from Looney Creek, and at river mile 718.8	82.3	1999	09-27-99	6.70

Discharge Measurements made at miscellaneous sites during water year 1999.

Station no.	Station name	Location	Period of record	Date	Discharge (ft ³ /s)
03410540	White Oak Creek above Cabin Branch at Co-operative, Ky.	Lat 36°41'27", Long 84°37'24", McCreary County, Hydrologic Unit 05130104, 20 ft upstream of mouth of Cabin Branch, 400 ft downstream of Old Kidds Grocery, and 1,650 ft upstream of Boarding House Hollow.	1999	04-28-99	1.53
				05-25-99	.64
				06-22-99	.10
				07-20-99	.57
				08-30-99	.03
09-15-99	0				
03410542	Cabin Branch at Mouth at Co-operative, Ky	Lat 36°41'28", Long 84°37'25", McCreary County, Hydrologic Unit 05130104, 20 ft upstream of State Highway 1363, 40 ft upstream of Rock Creek, and 1600 ft above Boarding House Hollow.	1999	04-28-99	.59
				05-25-99	.14
				06-22-99	.05
				07-20-99	.08
				08-30-99	0
09-15-99	0				
03410545	Unnamed Tributary at Mouth Below Boarding House Hollow at Co-operative, Ky	Lat 36°41'36", Long 84°36'56", McCreary County, Hydrologic Unit 05130104, 10 ft downstream of State Highway 1363, 10 ft upstream of Rock Creek, and 1000 ft above Unnamed Tributary at Co-operative.	1999	04-28-99	.12
				05-25-99	.04
				06-22-99	.01
				07-20-99	.02
				08-30-99	0
09-15-99	0				
03410547	Unnamed Tributary to White Oak Creek at Culvert at Co-operative, Ky.	Lat 36°41'34", Long 84°36'37", McCreary County, Hydrologic Unit 05130104, 10 ft downstream of State Highway 1363, 20 ft upstream of Rock Creek, and 1000 ft below Boarding House Hollow.	1999	04-28-99	3.23
				05-25-99	1.40
				06-22-99	.48
				07-20-99	.99
				08-30-99	.08
09-15-99	0				
03410552	White Oak Creek Above Jones Branch at White Oak Junction, Ky.	Lat 36°42'06", Long 84°35'52", McCreary County, Hydrologic Unit 05130104, 20 ft above Mouth of Jones Branch, 220 ft upstream of Bridge near Mouth of White Oak Creek, and 240 ft upstream of Rock Creek.	1999	04-28-99	.51
				05-25-99	.21
				06-22-99	.01
				07-20-99	.70
				08-30-99	.02
09-15-99	0				
03410555	Jones Branch Above Unnamed Tributary at White Oak Junction, Ky.	Lat 36°42'29" Long 84°36'33", McCreary County, Hydrologic Unit 05130104, 20 ft downstream of Forest Service Road 821, 2000 ft upstream of State Highway 1363, and 2050 ft upstream of Mouth Of Jones Branch.	1999	04-28-99	4.99
				05-25-99	1.55
				06-22-99	.47
				07-20-99	1.50
				08-30-99	.03
09-15-99	0				
03410557	White Oak Creek at Mouth at White Oak Junction, Ky.	Lat 36°42'09", Long 84°35'47", McCreary County, Hydrologic Unit 05130104, 20 ft upstream of bridge near Mouth of White Oak Creek, 40 ft upstream of Rock Creek, and 200 ft below Mouth of Jones Branch.	1999	04-28-99	19.6
				05-25-99	1.55
				06-22-99	4.58
				07-20-99	9.00
				08-30-99	3.95
09-15-99	.52				

Discharge Measurements made at miscellaneous sites during water year 1999.

Station no.	Station name	Location	Period of record	Date	Discharge (ft ³ /s)
03410559	Rock Creek Above White Oak Creek at White Oak Junction, Ky.	Lat 36°42'09", Long 84°35'43", McCreary County, Hydrologic Unit 05130104, 250 ft upstream of confluence with White Oak Creek, 1.0 mile upstream of Mouth of Roberts Hollow, and at mile 2.85.	1999	04-28-99	43.9
				05-25-99	21.2
				06-22-99	7.59
				07-20-99	13.7
				08-30-99	7.03
03410565	Limestone Spring Below unnamed Tributary at White Oak Junction, Ky.	Lat 36°42'27", Long 84°35'26", McCreary County, Hydrologic Unit 05130104, 15 ft upstream of Rock Creek, 25 ft downstream of Old Kentucky & Tennessee Railroad Grade, and 2600 ft downstream of White Oak Junction.	1999	04-28-99	46.2
				05-25-99	25.9
				06-22-99	8.60
				07-20-99	17.5
				08-30-99	6.57
03410569	Rock Creek Above Roberts Hollow at White Oak Junction, Ky.	Lat 36°42'35", Long 84°35'03", McCreary County, Hydrologic Unit 05130104, 50 ft above Mouth of Roberts Hollow, 4600 ft downstream of White Oak Junction, and at mile 3.75	1999	04-28-99	.13
				05-25-99	0
				06-22-99	0
				07-20-99	.04
				08-30-99	0
03410570	Roberts Hollow at Mouth at Paint Cliff, Ky.	Lat 36°42'37", Long 84°35'02", McCreary County, Hydrologic Unit 05130104, 20 ft upstream of Rock Creek, 30 ft downstream of State Highway 1363, and 75 ft above Unnamed Tributary Below Roberts Hollow.	1999	04-28-99	.56
				05-25-99	.14
				06-22-99	.02
				07-20-99	.47
				08-30-99	.01
03410571	Unnamed Tributary at Culvert Below Roberts Hollow at Paint Cliff, Ky.	Lat 36°42'38", Long 84°34'57", McCreary County, Hydrologic Unit 05130104, 20 ft downstream of State Highway 1363, 20 ft upstream of Rock Creek, and 75 ft downstream of Mouth of Roberts Hollow.	1999	04-28-99	43.5
				05-25-99	40.5
				06-22-99	9.25
				07-20-99	15.9
				08-30-99	7.41
03410575	Paint Cliff Discharge at Paint Cliff, Ky.	Lat 36°42'25", Long 84°34'36", McCreary County, Hydrologic Unit 05130104, 20 ft upstream of State Highway 1363, 150 ft upstream of Rock Creek, and 1800 ft above mouth of Poplar Spring Hollow.	1999	04-28-99	1.90
				05-25-99	.18
				06-22-99	.13
				07-20-99	1.19
				08-30-99	.05
03410578	Poplar Spring Hollow at Mouth at Paint Cliff, Ky.	Lat 36°42'22", Long 84°34'06", McCreary County, Hydrologic Unit 05130104, 20 ft downstream of State Highway 1363, 40 ft upstream of Rock Creek, and 50 ft downstream of Old Kentucky and Tennessee Railroad Grade.	1999	04-28-99	52.3
				05-25-99	27.4
				06-22-99	7.25
				07-20-99	21.2
				08-30-99	8.87
03410578	Poplar Spring Hollow at Mouth at Paint Cliff, Ky.	Lat 36°42'22", Long 84°34'06", McCreary County, Hydrologic Unit 05130104, 20 ft downstream of State Highway 1363, 40 ft upstream of Rock Creek, and 50 ft downstream of Old Kentucky and Tennessee Railroad Grade.	1999	09-15-99	2.80

Discharge Measurements made at miscellaneous sites during water year 1999.

Station no.	Station name	Location	Period of record	Date	Discharge (ft ³ /s)
03410580	Rock Creek Below Poplar Spring Hollow at Paint Cliff, Ky.	Lat 36°42'11", Long 84°33'50", McCreary County, Hydrologic Unit 05130104, 75 ft upstream of Forest Service Road 1271, 1100 ft downstream of Mouth of Poplar Spring Hollow, and at mile 1.7	1999	04-28-99	.31
				05-25-99	.32
				06-22-99	.16
				07-20-99	.08
				08-30-99	.22
				09-15-99	.06
03410585	Koger Fork above Mouth at Paint Cliff, Ky.	Lat 36°42'03", Long 84°32'49", McCreary County, Hydrologic Unit 05130104, 10 ft upstream of Rock Creek, 60 ft above Forest Service Road 1271, and 1400 ft downstream of Forks of Koger Fork.	1999	04-28-99	.15
				05-25-99	.02
				06-22-99	0
				07-20-99	0
				08-30-99	0
09-15-99	0				
03410594	Water Tank Hollow above Mouth at Yamacraw, Ky.	Lat 36°42'44", Long 84°33'05", McCreary County, Hydrologic Unit 05130104, 20 ft upstream of State Highway 1363, 130 ft upstream of Rock Creek, and 1000 ft above Mouth of Grassy Fork.	1999	04-28-99	.22
				05-25-99	.05
				06-22-99	.01
				07-20-99	.33
				08-30-99	0
09-15-99	0				
03410595	Water Tank Hollow at Mouth at Yamacraw, Ky.	Lat 36°42'43", Long 84°33'01", McCreary County, Hydrologic Unit 05130104, 10 ft upstream of Rock Creek, 100 ft downstream of State Highway 1363, and 1000 ft above Mouth of Grassy Fork.	1999	04-28-99	.73
				05-25-99	.10
				06-22-99	0
				07-20-99	.39
				08-30-99	0
09-15-99	0				
03410597	Rock Creek Below Grassy Fork at Yamacraw, Ky.	Lat 36°42'54", Long 84°32'49", McCreary County, Hydrologic Unit 05130104, 20 ft below Mouth of Grassy Fork, 1000 ft downstream from Mouth of Water Tank Hollow, and at mile 0.35.	1999	04-28-99	.73
				05-25-99	.10
				06-22-99	0
				07-20-99	.39
				08-30-99	0
09-15-99	0				

Discharge Measurements made at miscellaneous sites during water year 1999.

Station no.	Station name	Location	Period of record	Date	Discharge (ft ³ /s)
37531508601350	McCraken Spring near Fort Knox, Ky.	Lat 37°53'15", Long 86°01'35", Meade County, Hydrologic Unit 05140104, 0.4 mi southeast of the intersection of Grahamton-Vine Grove Road and Highway 60, 1.0 mi south of Grahamton, and 5.0 mi west of Fort Knox.	1997-98	11-05-96	3.13
				12-03-96	25.2
				02-06-97	63.5
				04-08-97	35.7
				07-29-97	7.25
				07-29-97	7.25
				08-13-97	5.69
				08-29-97	4.62
				09-12-97	6.41
				10-06-97	3.39
				10-22-97	2.55
				11-06-97	2.61
				12-05-97	3.50
				12-19-97	3.31
				01-09-98	38.2
				01-29-98	8.77
02-25-98	18.9				
04-24-98	9.65				
08-06-98	5.31				
08-06-98	6.75				

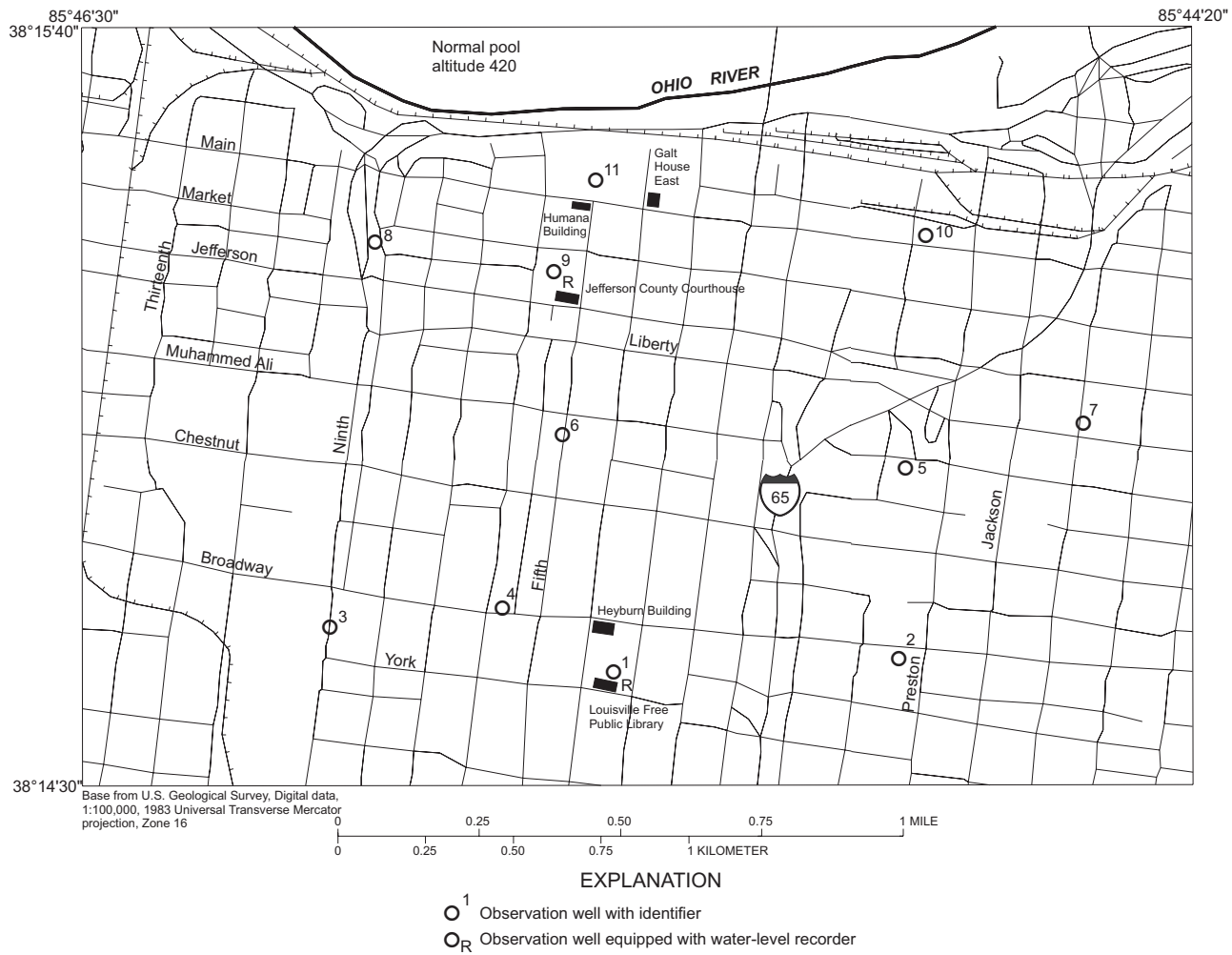


Figure 6. Location of observation wells in downtown Louisville, Kentucky.

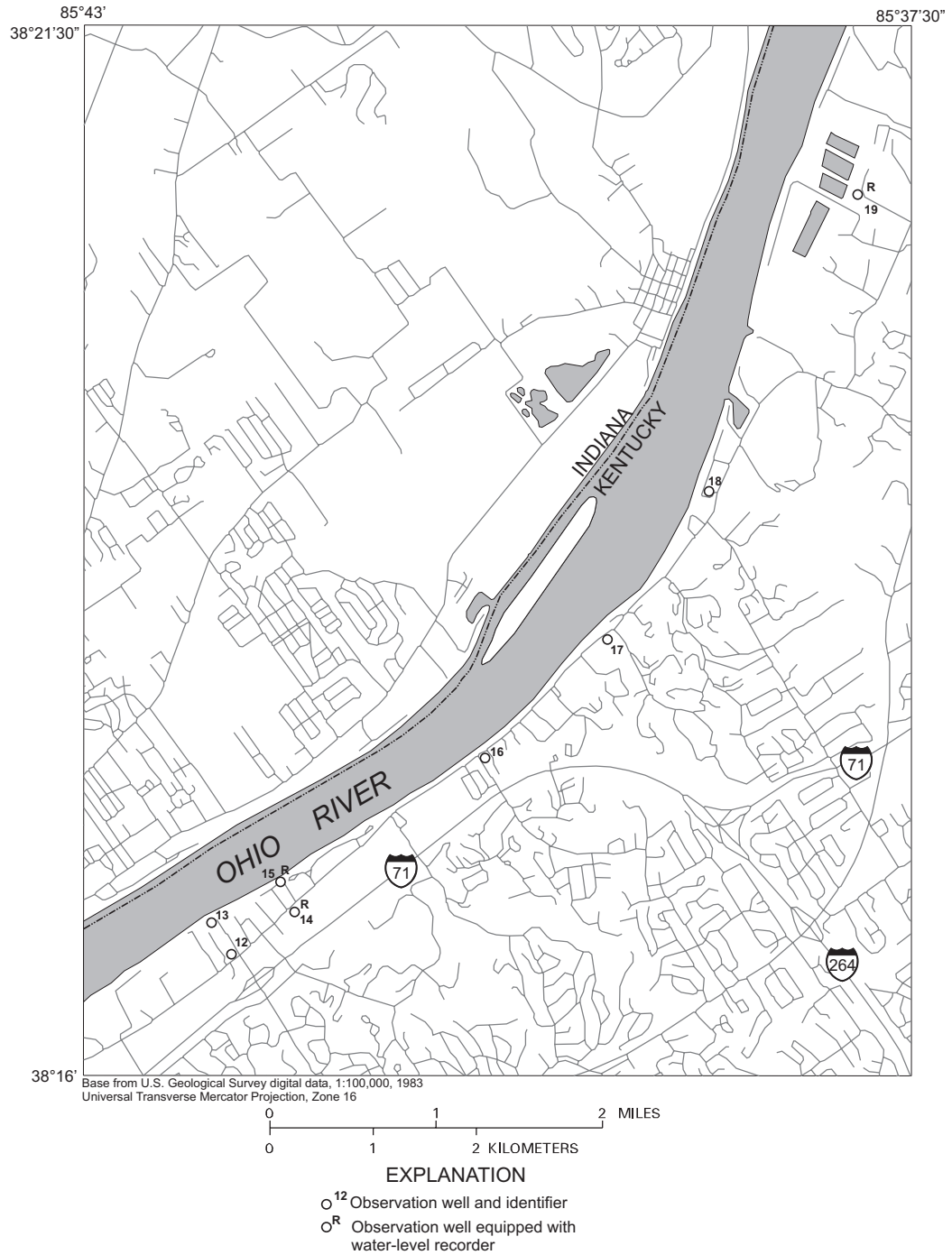


Figure 7. Location of observation wells in northeast Jefferson County, Kentucky.

GROUND-WATER LEVELS

GRAVES COUNTY

365210088391301. Viola well.

LOCATION.--Lat 36°52'10", long 88°39'13", Hydrologic Unit 08010201, County Code 083, Hickory quadrangle, in a cultivated field, 200 ft east of a private road, 1.2 mi northwest of Viola. Owner: J. Whittemore.

AQUIFER.--Sand of Claiborne Group of Eocene age. Aquifer code: 124CLBR.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 10 in., depth 105 ft, cased to 85 ft, screened 85-105 ft.

INSTRUMENTATION.--EDL recorder, 60 minute interval.

DATUM.--Elevation of land-surface datum is 405.65 ft above sea level. Measuring point: Floor of shelter, 4.03 ft above land-surface datum.

PERIOD OF RECORD.--February 1951 to September 1984 and October 1988 to current year.

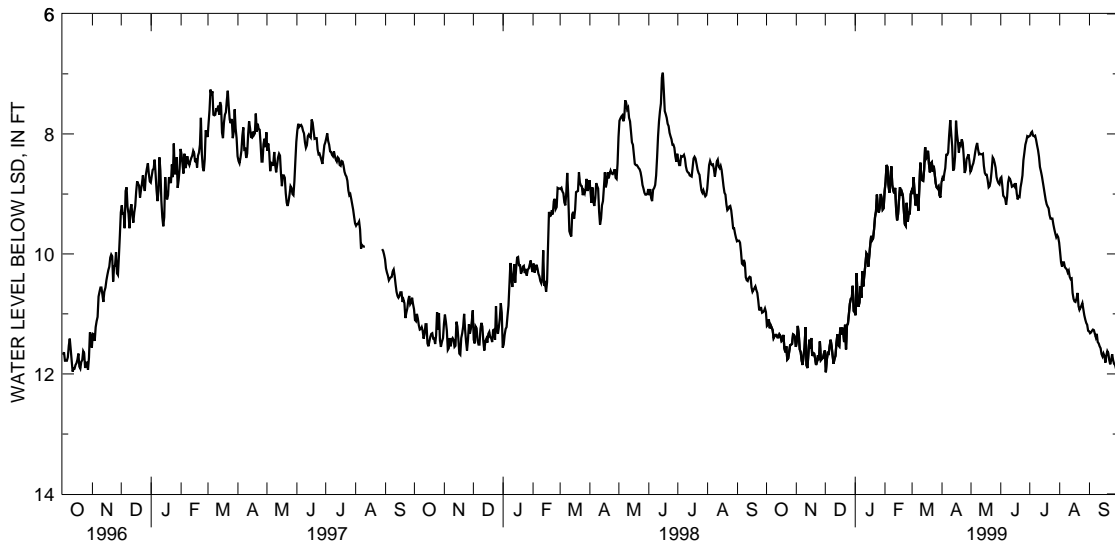
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.98 ft below land-surface datum, June 15, 1998; lowest measured, 19.24 ft below land-surface datum, Jan. 10, 1975.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY OBSERVATION AT 12:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.20	11.45	11.97	11.02	8.80	9.00	8.74	8.60	8.72	8.03	9.97	11.32
2	11.18	11.20	11.76	10.32	8.52	8.72	8.78	8.53	8.86	7.98	10.14	11.31
3	11.09	11.35	11.65	10.71	8.55	8.97	8.66	8.49	9.03	7.96	10.21	11.28
4	11.24	11.59	11.66	10.88	8.85	9.19	8.57	8.41	9.05	8.03	10.14	11.26
5	11.19	11.64	11.53	10.81	8.98	9.00	8.35	8.30	9.08	8.04	10.14	11.27
6	11.23	11.78	11.43	10.54	8.75	9.11	8.35	8.21	9.18	8.03	10.22	11.33
7	11.27	11.85	11.54	10.73	8.54	9.28	8.31	8.15	9.05	8.10	10.24	11.39
8	11.40	11.69	11.69	10.29	8.85	8.89	8.03	8.26	8.81	8.19	10.26	11.33
9	11.37	11.56	11.83	10.54	8.94	8.48	7.77	8.34	8.73	8.27	10.31	11.47
10	11.35	11.22	11.75	10.36	8.99	8.71	8.00	8.33	8.75	8.38	10.28	11.49
11	11.35	11.85	11.70	10.17	8.90	8.77	8.20	8.34	8.80	8.55	10.38	11.54
12	11.39	11.90	11.49	9.99	9.25	8.78	8.61	8.34	8.88	8.62	10.42	11.57
13	11.39	11.67	11.34	10.02	9.44	8.59	8.58	8.33	8.87	8.70	10.41	11.67
14	11.34	11.43	11.52	10.21	9.34	8.22	8.38	8.53	8.85	8.80	10.65	11.71
15	11.37	11.58	11.54	10.04	9.10	8.41	7.78	8.65	8.88	8.90	10.75	11.66
16	11.45	11.40	11.23	9.85	8.89	8.38	8.00	8.68	8.82	9.00	10.79	11.71
17	11.43	11.70	11.34	9.70	9.03	8.28	8.13	8.68	8.99	9.10	10.80	11.81
18	11.35	11.65	11.23	9.77	8.97	8.50	8.31	8.77	9.09	9.17	10.74	11.69
19	11.57	11.66	11.27	9.74	9.02	8.64	8.14	8.89	9.04	9.21	10.65	11.62
20	11.64	11.74	11.47	9.59	9.27	8.49	8.18	8.87	9.05	9.24	10.87	11.65
21	11.54	11.85	11.18	9.39	9.50	8.47	8.09	8.79	8.89	9.35	10.93	11.77
22	11.76	11.80	11.59	9.29	9.53	8.63	8.15	8.63	8.80	9.41	10.90	11.84
23	11.74	11.69	11.19	9.01	9.15	8.53	8.37	8.39	8.69	9.41	10.86	11.77
24	11.63	11.77	11.16	9.25	9.46	8.67	8.65	8.42	8.44	9.41	10.82	11.67
25	11.52	11.46	11.00	9.31	9.30	8.82	8.60	8.48	8.31	9.51	10.92	11.77
26	11.51	11.77	10.83	9.22	9.34	8.89	8.42	8.56	8.18	9.59	11.02	11.83
27	11.50	11.75	10.75	9.00	9.00	8.91	8.38	8.72	8.12	9.66	11.09	11.85
28	11.34	11.73	10.74	9.08	8.95	8.88	8.34	8.78	8.04	9.72	11.15	11.91
29	11.35	11.66	10.53	9.26	---	9.02	8.46	8.82	8.05	9.69	11.18	11.94
30	11.39	11.61	10.95	9.24	---	9.06	8.63	8.84	8.04	9.72	11.28	12.04
31	11.55	---	10.97	8.96	---	8.81	---	8.74	---	9.81	11.29	---
MAX	11.76	11.90	11.97	11.02	9.53	9.28	8.78	8.89	9.18	9.81	11.29	12.04
MIN	11.09	11.20	10.53	8.96	8.52	8.22	7.77	8.15	8.04	7.96	9.97	11.26

WTR YR 1999 HIGH 7.77 LOW 12.04



GROUND-WATER LEVELS

JEFFERSON COUNTY

381441085452701. Local number 45-14-71, (owner's number A-2), map number 1.

LOCATION.--Lat 38°14'41", long 85°45'27", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at the Louisville Free Public Library, 301 West York Street, on east side of building at base of the TV-radio tower, in Louisville. Owner: City of Louisville.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 1120TSH.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 8 in., depth 105 ft, cased and screened.

INSTRUMENTATION.--Continuous recorder, 30 minute interval.

DATUM.--Elevation of land-surface datum is 454.23 ft above sea level. Measuring point: Top of casing, 1.00 ft above land-surface datum.

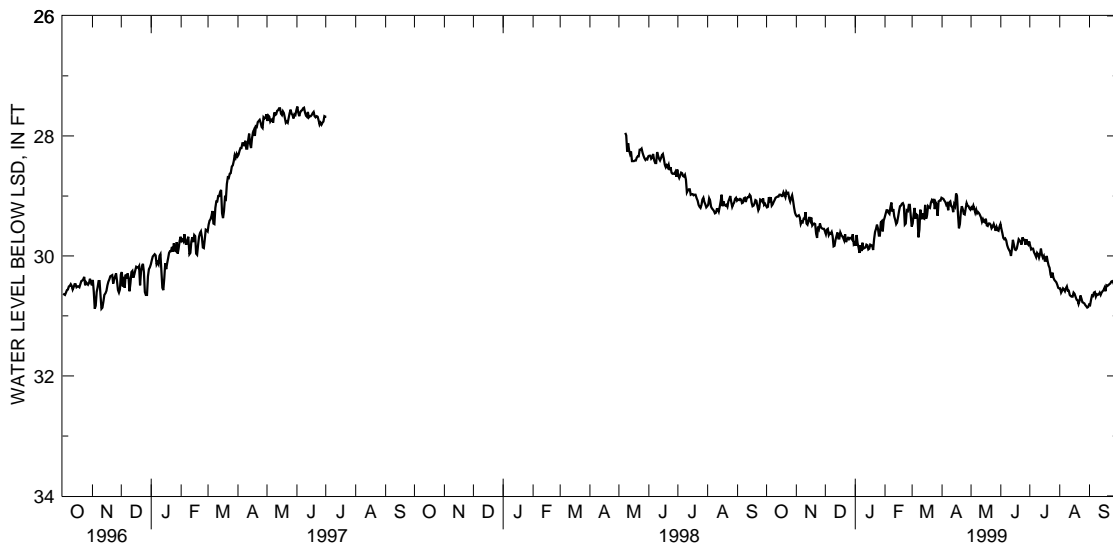
REMARKS.--Water-quality sample collected May 8, 1956.

PERIOD OF RECORD.--February 1937 to current year. February 1937 to September 1976 published in hydrograph form and on file at district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level observed, 27.51 ft below land-surface datum, June 1, 1997; lowest, 77.82 ft below land-surface datum, Sept. 18, 1955.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 12:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29.19	29.34	29.64	29.83	29.30	29.46	29.04	29.19	29.55	29.83	30.54	30.82
2	29.18	29.33	29.56	29.65	29.24	29.31	29.05	29.21	29.62	29.89	30.61	30.73
3	29.02	29.32	29.55	29.79	29.24	29.20	29.08	29.16	29.70	29.88	30.58	30.66
4	29.07	29.36	29.65	29.86	29.28	29.38	29.10	29.22	29.72	29.88	30.54	30.67
5	29.02	29.47	29.62	29.95	29.30	29.31	29.15	29.28	29.71	29.94	30.56	30.61
6	29.16	29.43	29.63	29.82	29.19	29.32	29.13	29.23	29.74	29.98	30.59	30.60
7	29.14	29.44	29.60	29.92	29.11	29.69	29.24	29.29	29.82	30.02	30.54	30.68
8	29.10	29.38	29.67	29.78	29.26	29.56	29.11	29.27	29.87	29.95	30.51	30.64
9	29.07	29.38	29.84	29.88	29.22	29.23	29.09	29.29	29.90	29.97	30.58	30.65
10	29.03	29.27	29.83	29.87	29.34	29.39	29.17	29.32	29.93	30.03	30.58	30.64
11	29.02	29.46	29.73	29.86	29.40	29.29	29.18	29.36	30.00	29.97	30.65	30.61
12	29.01	29.48	29.67	29.81	29.47	29.37	29.27	29.43	29.88	29.88	30.67	30.65
13	29.01	29.41	29.61	29.82	29.44	29.38	29.14	29.39	29.73	29.98	30.68	30.61
14	28.98	29.35	29.71	29.89	29.35	29.15	29.17	29.43	29.81	30.03	30.68	30.59
15	28.98	29.41	29.71	29.88	29.25	29.38	28.96	29.44	29.89	30.00	30.61	30.57
16	29.00	29.36	29.61	29.81	29.17	29.32	29.00	29.38	29.90	30.08	30.63	30.53
17	29.00	29.49	29.65	29.82	29.16	29.17	29.31	29.49	29.88	30.08	30.68	30.59
18	28.94	29.47	29.67	29.83	29.13	29.19	29.54	29.50	29.80	30.00	30.73	30.49
19	28.98	29.46	29.70	29.90	29.12	29.20	29.47	29.46	29.72	30.09	30.74	30.50
20	29.02	29.47	29.74	29.72	29.16	29.11	29.26	29.46	29.74	30.16	30.80	30.49
21	28.93	29.63	29.64	29.60	29.48	29.07	29.17	29.48	29.77	30.20	30.75	30.47
22	28.96	29.70	29.77	29.55	29.46	29.09	29.22	29.54	29.81	30.31	30.66	30.46
23	28.95	29.51	29.72	29.48	29.24	29.05	29.30	29.51	29.69	30.36	30.71	30.43
24	29.04	29.55	29.70	29.54	29.25	29.22	29.31	29.47	29.73	30.28	30.77	30.42
25	29.09	29.46	29.72	29.66	29.15	29.11	29.21	29.52	29.73	30.36	30.78	30.44
26	29.03	29.52	29.70	29.66	29.15	29.15	29.12	29.58	29.81	30.40	30.79	30.48
27	28.99	29.54	29.70	29.44	29.33	29.33	29.16	29.52	29.72	30.42	30.82	30.55
28	29.08	29.55	29.72	29.42	29.51	29.09	29.17	29.57	29.79	30.44	30.84	30.58
29	29.19	29.55	29.64	29.59	---	29.08	29.21	29.58	29.81	30.48	30.86	30.66
30	29.28	29.59	29.80	29.41	---	29.08	29.23	29.51	29.76	30.53	30.85	30.61
31	29.32	---	29.78	29.36	---	29.03	---	29.47	---	30.54	30.81	---
MAX	29.32	29.70	29.84	29.95	29.51	29.69	29.54	29.58	30.00	30.54	30.86	30.82
MIN	28.93	29.27	29.55	29.36	29.11	29.03	28.96	29.16	29.55	29.83	30.51	30.42
WTR YR 1999	HIGH	28.93	LOW	30.86								



GROUND-WATER LEVELS

443

JEFFERSON COUNTY

381442085444801. (Metro United Way), map number 2.

LOCATION.--Lat 38°14'42", long 85°44'48", Hydrologic Unit 05140101, County Code 111, Louisville East quadrangle, near the southwest corner of east Broadway and Preston strret on west side of Metro United Way Buliding in window vault next to parking lot in rear.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 1120TSH.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 10 in., depth, 104 ft, screen unknown.

INSTRUMENTATION.--Quarterly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 461.78 ft above sea level. Measuring point: Top of casing 5.99 ft below land-surface datum.

PERIOD OF RECORD.--April 1991 to May 1992 and February 1998 to currnet year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.40 ft below land-surface datum, May 6, 1998; lowest measured, 38.81 ft below land-surface datum, Oct. 29, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Water Level	Date	Water Level
Dec. 4, 1998	35.80	Jun. 22, 1999	36.74
Feb. 22, 1999	36.58	Sept. 28, 1999	37.65

381445085460201. (QW well 9th and Broadway), map number 3.

LOCATION.--Lat 38°14'45", long 85°46'02" Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, in median of South 9th street 300 ft south of West Broadway. Owner: City of Louisville.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer sode: 1120TSH.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2 in., depth 77 ft, screened 67-77 ft.

INSTRUMENTATION.--Quarterly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 454.14 ft above sea level. Measuring point: Top of casing, 0.34 ft below land-surface datum.

REMARKS.--Deeper of two wells drilled for water quality study 10 feet south of shallow well.

PERIOD OF RECORD.--August 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.95 ft below land-surface datum Feb. 20, 1998; lowest measured, 29.60 ft below land-surface datum Aug. 7, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Water Level	Date	Water Level
Dec. 4, 1998	27.07	Jun. 22, 1999	27.95
Feb. 22, 1999	27.83	Sept. 28, 1999	28.84

381447085454001. Local number 45-14-66. (owner number 5), map number 4.

LOCATION.--Lat 38°14'47", long 85°45'40", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at Courier Journal-Louisville Times, Sixth and Broadway Streets in subbasement below building entrance walkway from Armory Street, in Louisville. Owner Gannett.

AQUIFER.--Louisville Limestone and Laurel Dolomite of Middle Silurian age. Aquifer code: 354LVLL.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 12 in., depth 190 ft, eased to 121 ft, open-hole 121-190 ft.

INSTRUMENTATION.--Quarterly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 455.83 ft above sea level. Measuring point: Top of metal well cover, 15.87 ft below land-surface datum.

PERIOD OF RECORD.--October 1953 to current year. October 1953 to September 1998 published in hydrograph form an on file in district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level observed, 28.49 ft below land-surface datum, June 1, 1997; lowest, 86.85 ft below land-surface datum, Sept. 20, 1955.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Water Level	Date	Water Level
Dec. 3, 1998	30.07	Jun. 22, 1999	30.33
Feb. 22, 1999	29.96	Sept. 28, 1999	31.23

GROUND-WATER LEVELS

JEFFERSON COUNTY

381501085445601. (QW Well U OF L Medical School), map number 5.

LOCATION.--Lat 38°15'01", long 85°44'56", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, near southeast corner of Floyd Street and Muhammad Ali Blvd, 250 feet east of Floyd Street and 10 ft South of Muhammad Ali Blvd. Owner: University of Louisville.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 1120TSH.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2 in., depth 83.2 ft, screened 73.2 ft to 83.2 ft.

INSTRUMENTATION.--Quarterly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 459.97 ft above sea level. Measuring point: Top of casing, 0.25 ft below land-surface datum.

REMARKS.--Deeper of two wells drilled for water-quality study 10 ft east of shallow well.

PERIOD OF RECORD.--September 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.44 ft below land-surface datum, May 4, 1998: lowest measured, 37.98 ft below land-surface datum, Sept. 28, 1999.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Water Level	Date	Water Level
Dec. 4, 1998	36.75	Jun. 22, 1999	37.11
Feb. 22, 1999	36.76	Sept. 28, 1999	37.98

381503085453301. Local number 45-15-36, map 6.

LOCATION.--Lat 38°15'03", long 85°45'33" Hydrologic Unit 05140101, County Code 111, New Albany quadrangle, in subbasement of Kentucky Towers Apartments, on east side of South Fifth Street, at Fifth and Muhammad Ali Blvd., in Louisville. Owner: Kentucky Towers (formerly Kentucky Hotel).

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 1120TSH.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 10 in., depth 104 ft, screened 84-104 ft.

INSTRUMENTATION.--Quarterly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 460.00 ft above sea level. Measuring point: Floor of recorder shelter 22.81 ft below land-surface datum.

PERIOD OF RECORD.--September 1948 to current year. November 1973 to September 1976 published in hydrograph form and on file at district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.53 ft below land-surface datum, Apr. 24, 1984: lowest measured, 87.74 ft below land-surface datum, Sept. 23, 1955.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Water Level	Date	Water Level
Dec. 3, 1998	35.30	Jun. 22, 1999	35.96
Feb. 22, 1999	35.18	Sept. 28, 1999	36.80

381504085443202. Local number CP7A, map number 7.

LOCATION.--Lat 38°15'04", long 85°44'32", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, at the southwest corner of east Louisville Park, 13.7 ft west of a tennis court fence, 16.5 ft east of curb on south Hancock Street, 58.2 ft north of curb on east Liberty Street, in Louisville. Owner: City of Louisville.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 1120TSH.

WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in., depth 84.6 ft, screened 71.1-74.1 ft.

INSTRUMENTATION.--Quarterly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 467.19 ft above sea level. Measuring point: Top of casing, at land-surface datum.

REMARKS.--Replaces destroyed well 381504085443201 (CP7), which was 10 ft north.

PERIOD OF RECORD.--July 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.41 ft below land-surface datum, May 6, 1997: lowest measured, 47.69 ft below land-surface datum, Oct. 25, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Water Level	Date	Water Level
Dec. 3, 1998	44.38	Jun. 22, 1999	45.38
Feb. 22, 1999	45.10	Sept. 28, 1999	46.34

GROUND-WATER LEVELS

445

JEFFERSON COUNTY

381517085455501. Local number 86-6 (Roy Wilkins Blvd.), map number 8.

LOCATION.--Lat 38°15'17", long 85°45'55", Hydrologic Unit 05140101, County Code 111, New Albany quadrangle, in median of Roy Wilkins Blvd. near Market Street, in Louisville. Owner: City Of Louisville.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 1120TSH.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 2.5 in, depth 86.4 ft, screened 82.4-86.4 ft.

INSTRUMENTATION.--Quarterly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 457.59 ft above National Geodetic Vertical Datum Measuring point: Top of casing, at land-surface datum.

REMARKS.--Water levels affected by Ohio River stage and pumping from nearby wells.

PERIOD OF RECORD.--October 1986 to May 1991 and February 1998 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.08 ft below land-surface datum Feb. 20, 1998; lowest measured, 38.41 ft below land-surface datum Sept. 26, 27, 29, 30, and Oct. 5, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Water Level	Date	Water Level
Dec. 3, 1998	33.15	Jun. 22, 1999	33.82
Feb. 22, 1999	33.34	Sept. 28, 1999	34.79

GROUND-WATER LEVELS

JEFFERSON COUNTY

381518085453402. Local number 86-11 (Courthouse Annex), map number 9.

LOCATION.--Lat 38°15'18", long 85°45'34", Hydrologic Unit 05140101, County Code 111, New Albany quadrangle, at northwest corner behind Courthouse Annex building between 5th and 6th Streets, east of walkway to parking garage. Owner: City of Louisville.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 1120TSH.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 2.5 in., depth 102 ft, screened 42-44 ft, 61-63 ft, 99-101 ft.

INSTRUMENTATION.--Continuous recorder, 30 minute interval.

DATUM.--Elevation of land-surface datum is 461.63 ft above sea level. Measuring point: Top of casing, 3.0 ft above land-surface datum.

REMARKS.--Water levels affected by Ohio River stage and pumping from nearby wells.

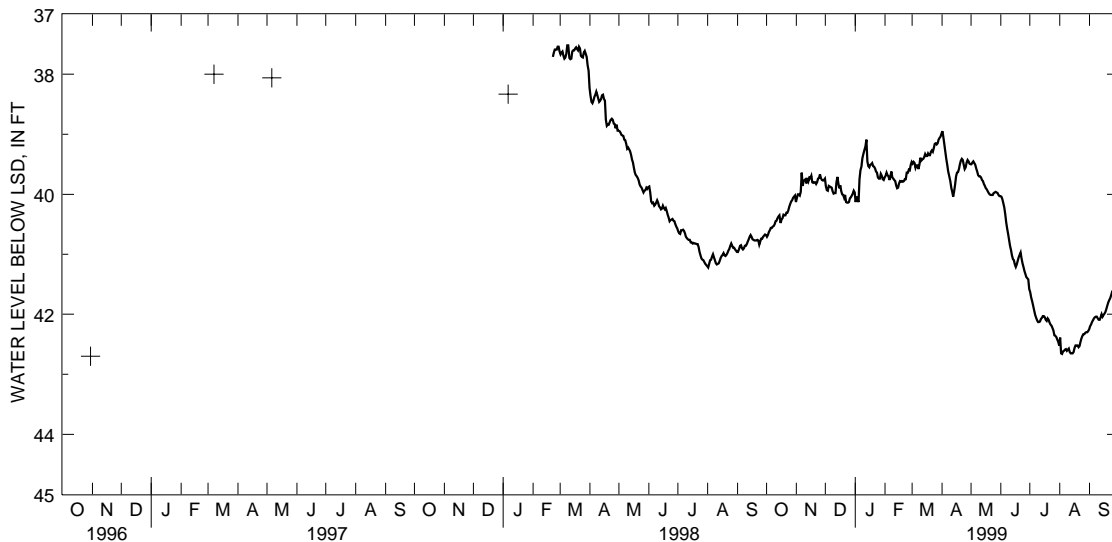
PERIOD OF RECORD.--November 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 37.49 ft below land-surface datum, March 8, 1998; lowest, 46.82 ft below land-surface datum, July 27, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY OBSERVATION AT 12:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40.71	40.06	39.87	40.13	39.69	39.49	38.95	39.50	40.04	41.63	42.39	42.20
2	40.68	40.00	39.93	40.04	39.64	39.46	39.05	39.47	40.08	41.72	42.65	42.17
3	40.63	40.00	39.94	40.09	39.68	39.48	39.17	39.45	40.15	41.78	42.66	42.13
4	40.60	40.02	39.86	40.13	39.70	39.56	39.29	39.48	40.22	41.85	42.62	42.10
5	40.56	39.96	39.87	39.75	39.76	39.52	39.41	39.51	40.33	41.94	42.61	42.07
6	40.56	39.64	39.88	39.60	39.70	39.52	39.51	39.57	40.47	42.01	42.59	42.05
7	40.54	39.86	39.89	39.54	39.62	39.58	39.62	39.62	40.57	42.06	42.58	42.04
8	40.53	39.78	39.95	39.40	39.72	39.51	39.69	39.68	40.66	42.10	42.61	42.04
9	40.50	39.76	39.99	39.33	39.74	39.39	39.78	39.70	40.76	42.13	42.59	42.07
10	40.45	39.75	39.98	39.27	39.76	39.44	39.89	39.70	40.86	42.13	42.57	42.09
11	40.44	39.82	39.98	39.20	39.78	39.42	39.96	39.72	40.93	42.12	42.63	42.09
12	40.40	39.73	39.80	39.09	39.85	39.41	40.04	39.76	41.02	42.08	42.65	42.05
13	40.37	39.78	39.71	39.45	39.90	39.38	39.95	39.78	41.08	42.06	42.65	42.00
14	40.35	39.72	39.82	39.53	39.89	39.33	39.84	39.83	41.10	42.03	42.65	42.04
15	40.48	39.73	39.90	39.55	39.82	39.36	39.70	39.86	41.17	42.03	42.63	42.01
16	40.42	39.69	39.85	39.51	39.78	39.36	39.64	39.90	41.21	42.05	42.56	41.99
17	40.40	39.80	39.95	39.50	39.79	39.32	39.63	39.92	41.17	42.09	42.52	41.96
18	40.34	39.81	40.00	39.48	39.78	39.35	39.58	39.95	41.11	42.11	42.52	41.91
19	40.35	39.80	40.01	39.53	39.79	39.35	39.50	39.98	41.05	42.07	42.52	41.85
20	40.35	39.80	40.06	39.54	39.78	39.29	39.44	40.00	41.01	42.09	42.55	41.80
21	40.31	39.83	40.01	39.57	39.75	39.27	39.41	40.01	40.97	42.14	42.53	41.76
22	40.31	39.80	40.13	39.62	39.75	39.29	39.43	40.01	41.07	42.17	42.46	41.73
23	40.27	39.74	40.14	39.64	39.64	39.23	39.51	40.01	41.15	42.19	42.40	41.68
24	40.21	39.73	40.14	39.72	39.64	39.16	39.58	39.98	41.21	42.23	42.36	41.62
25	40.16	39.67	40.13	39.74	39.59	39.15	39.55	39.97	41.28	42.27	42.33	41.60
26	40.12	39.73	40.07	39.74	39.60	39.17	39.47	39.96	41.33	42.35	42.33	41.60
27	40.10	39.76	40.05	39.66	39.51	39.15	39.43	39.97	41.38	42.36	42.31	41.60
28	40.06	39.77	40.02	39.69	39.46	39.09	39.45	39.98	41.40	42.38	42.30	41.64
29	40.04	39.76	39.99	39.75	---	39.06	39.49	40.01	41.42	42.42	42.30	41.68
30	40.02	39.74	39.94	39.76	---	39.04	39.50	40.03	41.58	42.46	42.28	41.64
31	40.13	---	39.97	39.72	---	38.99	---	40.03	---	42.52	42.25	---
MAX	40.71	40.06	40.14	40.13	39.90	39.58	40.04	40.03	41.58	42.52	42.66	42.20
MIN	40.02	39.64	39.71	39.09	39.46	38.99	38.95	39.45	40.04	41.63	42.25	41.60
WTR YR 1999	HIGH	38.95	LOW	42.66								



GROUND-WATER LEVELS

447

JEFFERSON COUNTY

381522085445201 (Louisville Scrap Metal), map number 10.

LOCATION.--Lat 38°15'22", long 85°50'26", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, at northeast corner of Floyd and Main Streets behind Louisville Scrap Metal Office. Owner: Louisville Scrap Metal.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 1120TSH.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 10 in. with 2" PVC casing and screen inserted for measurement access, depth 90.0 ft, screened 85.0-90.0 ft.

INSTRUMENTATION.--Quarterly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 460.04 ft above sea level. Measuring point: Top of 2" coupling 1.11 ft above land-surface datum.

PERIOD OF RECORD.--May 1991 to June 1993 and May 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.22 ft below land-surface datum, Mar. 7, 1997; lowest measured, 40.29 ft below land-surface datum, Oct. 29, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Water Level	Date	Water Level
Dec. 3, 1998	38.87	Jun. 22, 1999	39.63
Feb. 22, 1999	38.64	Sept. 28, 1999	40.15

381527085453001. Local number 86-7 (Belvedere Well), map number 11.

LOCATION.--Lat 38°15'27", long 85°45'30", Hydrologic Unit 05140101, County Code 111, New Albany quadrangle, at Place Montpelier and Main Street, 3 ft east of east sidewalk. Owner: City of Louisville.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 1120TSH.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 2.5 in., depth 89.9 ft, screened 85.1-87.1 ft.

INSTRUMENTATION.--Quarterly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 452.43 ft above sea level. Measuring point: Top of casing, 3.0 ft above land-surface datum.

REMARKS.-- Water levels affected by Ohio River stage and pumping from nearby wells .

PERIOD OF RECORD.--October 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 23.92 ft below land-surface datum, Mar. 9, 1997; lowest, 39.64 ft below land-surface datum, Sept. 2-3, 1993, Aug. 31, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Water Level	Date	Water Level
Dec. 3, 1998	31.08	Jun. 22, 1999	32.90
Feb. 22, 1999	30.82	Sept. 28, 1999	33.15

381638085415801. Local number 41-16-3, (WC-4), map number 12.

LOCATION.--Lat 38°16'38", long 85°41'58", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, at the northwest corner of River Road and Zorn Avenue, in Louisville. Owner: Louisville Water Company.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 1120TSH.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 4 in., depth 104 ft, screened 98-100 ft.

INSTRUMENTATION.--Quarterly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 435.79 ft above sea level. Measuring point: Floor of recorder shelter, 4.41 ft above land-surface datum.

REMARKS.-- Water levels affected by Ohio River, which causes level to rise above land-surface and nearby pumpage. Water-quality sample collected July 10, 1979.

PERIOD OF RECORD.--October 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level observed, 3.71 ft above land-surface datum, Mar. 13, 1967; lowest, 19.61 ft below land-surface datum, Feb. 13, 1948.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Water Level	Date	Water Level
Dec. 2, 1998	15.29	Jul. 7, 1999	15.11
Mar. 1, 1999	14.52	Sept. 27, 1999	15.66
May 5, 1999	14.53		

GROUND-WATER LEVELS

JEFFERSON COUNTY

381648085421201. Local number 42-16-15,(WC-5), map number 13.

LOCATION.--Lat 38°16'48", long 85°42'12", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, 200 ft west of Louisville Water Company pump house, 200 ft south of the Ohio River, 0.2 mi northwest of junction of River Road and Zorn Avenue, in Louisville. Owner: Louisville Water Company.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 1120TSH.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 4 in., depth 98 ft, screened 96-98 ft.

INSTRUMENTATION.--Quarterly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 435.11 ft above sea level. Measuring point: Top of pipe flange, 2.21 ft above land-surface datum.

REMARKS.-- Water levels affected by Ohio River, which causes level to rise above land-surface. Water-quality collected Apr. 30, 1948.

PERIOD OF RECORD.--May 1946 to current year. May 1946 to April 1977 published in hydrograph form and on file at the district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.04 ft above land-surface datum, Jan. 17, 1950; lowest measured, 18.31 ft below land-surface datum, Nov. 6, 1946.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Water Level	Date	Water Level
Dec. 2, 1998	14.79	Jul. 7, 1999	14.61
Mar. 1, 1999	15.67	Sept. 27, 1999	14.88
May 5, 1999	14.11		

GROUND-WATER LEVELS

449

JEFFERSON COUNTY

381653085413302. Local number (WC-9A), map number 14.

LOCATION.--Lat 38°16'53", long 85°41'33", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, 45 ft east of River Road at Wagner Lane, opposite the southwest corner of Cox Park, in Louisville. Owner: Louisville Water Company.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 1120TSH.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 1.5 in., depth 90 ft, screened 76-78 ft, 88-90 ft.

INSTRUMENTATION.--Continuous recorder, 30 minute interval.

DATUM.--Elevation of land-surface datum is 437.65 ft above sea level. Measuring point: Top of casing, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--December 1979 to current year.

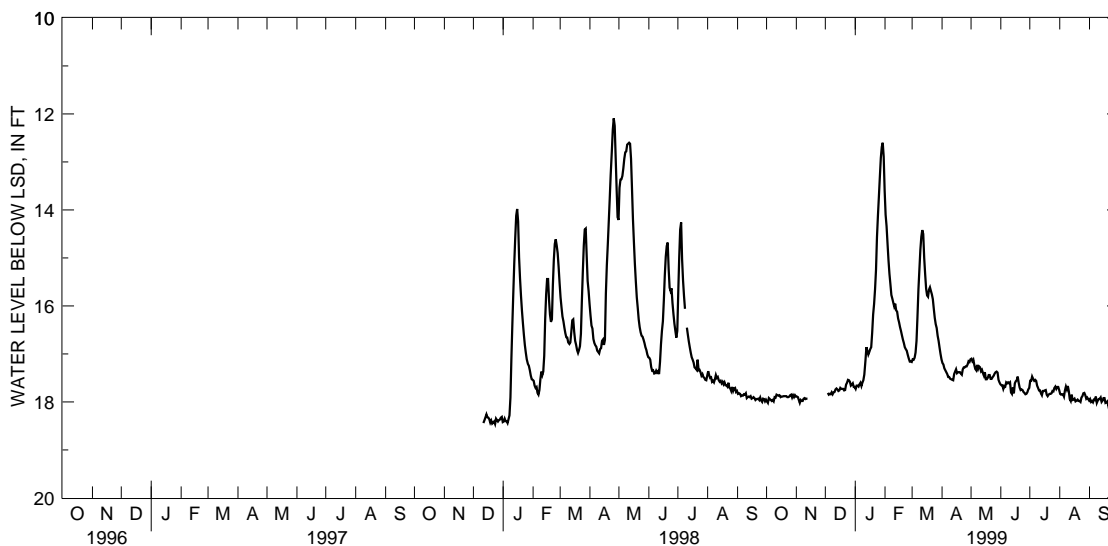
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.40 ft below land-surface datum, May 20, 1996; lowest measured, 19.04 ft below land-surface datum, July 21, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY OBSERVATION AT 12:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.99	17.89	---	17.73	14.10	17.11	17.19	17.10	17.65	17.56	17.83	17.94
2	18.02	17.90	---	17.66	14.34	17.12	17.22	17.15	17.65	17.56	17.85	18.00
3	17.92	17.96	17.81	17.66	14.70	17.08	17.30	17.12	17.73	17.47	17.84	17.98
4	17.94	18.02	17.85	17.68	15.05	16.97	17.34	17.23	17.67	17.52	17.84	18.01
5	17.96	17.96	17.83	17.63	15.33	16.73	17.38	17.31	17.68	17.56	17.89	17.95
6	17.98	17.98	17.84	17.60	15.55	16.22	17.42	17.34	17.59	17.54	17.76	17.96
7	17.96	17.98	17.80	17.67	15.77	15.65	17.48	17.23	17.61	17.56	17.68	17.89
8	17.99	17.93	17.84	17.60	15.85	15.24	17.48	17.31	17.59	17.66	17.74	18.02
9	17.90	17.92	17.80	17.55	15.93	14.83	17.52	17.26	17.61	17.71	17.67	17.97
10	17.91	17.94	17.79	17.43	16.01	14.56	17.53	17.28	17.59	17.76	17.77	17.94
11	17.85	17.93	17.74	17.14	15.95	14.42	17.54	17.36	17.80	17.76	17.94	17.94
12	17.86	17.93	17.72	16.86	16.09	14.50	17.55	17.33	17.83	17.82	17.98	17.91
13	17.87	---	17.74	16.93	16.12	15.00	17.42	17.40	17.70	17.86	17.85	18.00
14	17.86	---	17.77	17.01	16.26	15.34	17.37	17.45	17.82	17.77	17.96	17.97
15	17.90	---	17.76	16.96	16.34	15.64	17.32	17.38	17.61	17.77	17.95	17.92
16	17.89	---	17.71	16.90	16.44	15.78	17.40	17.53	17.57	17.76	17.93	17.92
17	17.89	---	17.73	16.86	16.52	15.81	17.38	17.53	17.55	17.75	17.99	18.02
18	17.88	---	17.73	16.56	16.61	15.66	17.38	17.50	17.47	17.85	17.97	18.01
19	17.88	---	17.73	16.18	16.70	15.61	17.38	17.44	17.60	17.88	17.95	17.99
20	17.88	---	17.76	15.96	16.77	15.69	17.41	17.44	17.70	17.85	17.98	18.08
21	17.88	---	17.75	15.65	16.86	15.76	17.43	17.52	17.75	17.83	17.98	18.03
22	17.90	---	17.64	15.25	16.90	15.86	17.32	17.52	17.74	17.83	18.00	17.99
23	17.90	---	17.60	14.57	16.93	16.06	17.28	17.48	17.75	17.82	17.91	18.07
24	17.89	---	17.54	14.12	17.03	16.25	17.28	17.45	17.79	17.77	17.88	18.09
25	17.86	---	17.55	13.72	17.10	16.38	17.26	17.41	17.81	17.78	17.82	18.08
26	17.85	---	17.58	13.31	17.16	16.46	17.26	17.38	17.84	17.71	17.81	18.12
27	17.91	---	17.66	12.92	17.16	16.62	17.22	17.37	17.83	17.68	17.86	18.13
28	17.86	---	17.64	12.69	17.17	16.73	17.15	17.39	17.80	17.73	17.93	18.10
29	17.90	---	17.61	12.60	---	16.87	17.17	17.54	17.74	17.69	17.91	17.97
30	17.86	---	17.69	12.89	---	17.00	17.11	17.59	17.71	17.69	17.94	17.96
31	17.89	---	17.69	13.60	---	17.11	---	17.63	---	17.75	17.97	---
MAX	18.02	---	---	17.73	17.17	17.12	17.55	17.63	17.84	17.88	18.00	18.13
MIN	17.85	---	---	12.60	14.10	14.42	17.11	17.10	17.47	17.47	17.67	17.89

WTR YR 1999 HIGH 12.60 LOW 18.13



GROUND-WATER LEVELS

JEFFERSON COUNTY

381701085414002. Local number (WC-8A), map number 15.

LOCATION.--Lat 38 17' 01", long 85 41' 40", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, on the south bank of the Ohio River at the northwest corner of Cox Park, in Louisville. Owner: Louisville Water Company.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 1.5 in., depth 86.8 ft, screened 86.8-90.8 ft.

INSTRUMENTATION.--Continuous recorder, 30 minute interval.

DATUM.--Elevation of land-surface datum is 432.62 ft above sea level. Measuring point: Top of casing, 2.65 ft above land-surface datum.

REMARKS.--Replaces well 381702085414001 (WC-8) which was 100 ft north. Water levels affected by Ohio River.

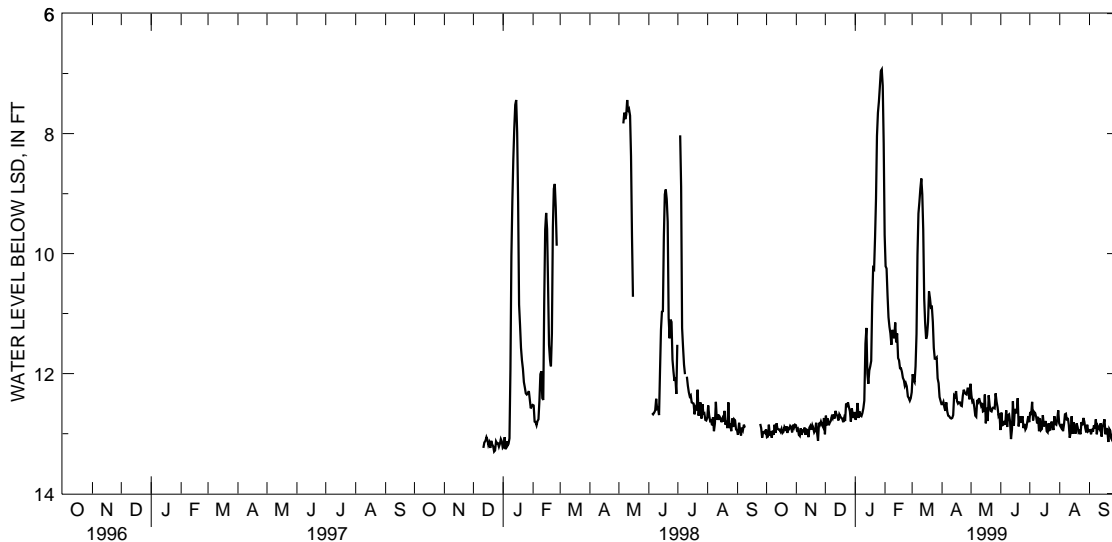
PERIOD OF RECORD.--August 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.38 ft below land-surface datum, Mar. 21, 1998; lowest measured, 14.35 ft below land-surface datum, Oct. 18, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY OBSERVATION AT 12:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.06	12.94	12.70	12.77	10.21	12.01	12.51	12.36	12.65	12.64	12.87	12.94
2	13.05	12.92	12.86	12.69	10.25	12.11	12.47	12.47	12.86	12.69	12.90	13.01
3	12.85	13.02	12.75	12.49	10.69	12.14	12.56	12.45	12.85	12.47	12.84	12.92
4	13.03	13.04	12.86	12.74	11.06	11.88	12.62	12.56	12.79	12.78	12.96	12.97
5	12.96	12.91	12.82	12.63	11.22	11.34	12.48	12.70	12.85	12.64	12.85	12.86
6	13.07	13.02	12.79	12.70	11.33	10.02	12.63	12.72	12.61	12.66	12.68	12.91
7	12.95	12.95	12.72	12.71	11.52	9.33	12.70	12.44	12.89	12.72	12.67	12.76
8	13.02	12.96	12.75	12.66	11.27	9.14	12.71	12.47	12.69	12.83	12.78	13.01
9	12.85	12.90	12.68	12.58	11.33	8.92	12.74	12.41	12.68	12.72	12.74	12.87
10	12.99	13.02	12.75	12.45	11.41	8.75	12.75	12.47	12.80	12.96	12.85	12.90
11	12.83	12.93	12.62	11.50	11.15	9.01	12.74	12.53	13.09	12.75	13.07	12.93
12	12.92	12.94	12.68	11.24	11.48	9.61	12.69	12.49	12.93	12.94	12.98	12.83
13	12.93	13.06	12.71	12.00	11.33	10.75	12.36	12.63	12.46	12.92	12.71	13.05
14	12.93	12.90	12.78	12.17	11.74	11.16	12.38	12.62	12.87	12.69	13.00	12.89
15	12.97	12.87	12.68	11.95	11.78	11.42	12.29	12.35	12.59	12.88	12.81	12.84
16	12.92	12.93	12.71	11.88	11.91	11.36	12.46	12.83	12.65	12.84	12.91	12.76
17	12.99	12.86	12.74	11.79	11.91	11.14	12.50	12.57	12.65	12.79	13.00	13.01
18	12.97	12.91	12.75	10.84	11.97	10.63	12.48	12.79	12.41	12.96	12.83	12.91
19	12.89	12.98	12.81	10.24	12.07	10.74	12.48	12.36	12.88	12.98	12.89	12.95
20	12.92	12.95	12.74	10.26	12.11	10.90	12.53	12.53	12.71	12.83	12.98	13.14
21	12.88	12.82	12.79	9.73	12.20	10.89	12.54	12.62	12.82	12.94	12.96	12.92
22	12.99	12.99	12.50	9.08	12.16	11.14	12.37	12.63	12.77	12.93	13.01	12.95
23	12.91	13.12	12.56	8.04	12.21	11.57	12.27	12.57	12.71	12.80	12.81	13.08
24	12.92	12.82	12.48	7.65	12.38	11.75	12.31	12.57	12.91	12.86	12.86	13.11
25	12.87	12.85	12.56	7.47	12.41	11.75	12.34	12.58	12.84	12.94	12.74	12.99
26	12.89	12.80	12.63	7.22	12.45	11.73	12.35	12.33	12.93	12.71	12.80	13.13
27	12.98	12.85	12.80	6.96	12.41	12.08	12.25	12.47	12.90	12.84	12.91	13.15
28	12.85	12.89	12.58	6.93	12.31	12.16	12.25	12.56	12.80	12.85	12.98	13.09
29	12.90	12.74	12.68	7.20	---	12.39	12.43	12.70	12.71	12.76	12.85	12.87
30	12.85	13.01	12.74	8.16	---	12.45	12.17	12.67	12.81	12.61	12.96	13.02
31	12.86	---	12.64	9.69	---	12.51	---	12.94	---	12.83	12.94	---
MAX	13.07	13.12	12.86	12.77	12.45	12.51	12.75	12.94	13.09	12.98	13.07	13.15
MIN	12.83	12.74	12.48	6.93	10.21	8.75	12.17	12.33	12.41	12.47	12.67	12.76
WTR YR 1999	HIGH	6.93	LOW	13.15								



GROUND-WATER LEVELS

451

JEFFERSON COUNTY

381742085402001. Local number 40-17-5,(WC-13), map number 16.

LOCATION.--Lat 38°17'42", long 85°40'20", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, 30 ft east of River Road, 300 ft northeast of junction of River Road and Blankenbaker Lane, in Louisville. Owner: Louisville Water Company.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 1120TSH.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 4 in., depth 106 ft, screened 104-106 ft.

INSTRUMENTATION.--Quarterly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 438.87 ft above sea level. Measuring point: Top of plug, 3.07 ft above land-surface datum.

PERIOD OF RECORD.--June 1946 to current year. June 1946 to November 1976 published in hydrograph form and on file at the district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.28 ft below land-surface datum, Jan. 18, 1950: lowest measured, 19.75 ft below land-surface datum, Jan. 29, 1954.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Water Level	Date	Water Level
Dec. 2, 1998	18.05	Jul. 7, 1999	17.84
Mar. 1, 1999	17.15	Sept. 7, 1999	18.25
May 5, 1999	17.26		

381827085392401. Local number 39-18-1,(WC-26), map number 17.

LOCATION.--Lat 38°18'27", long 85°39'24", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, 20 ft east of River Road, opposite River Valley Club in Louisville. Owner: Louisville Water Company.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 1120TSH.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 4 in., depth 130 ft, screened 128-130 ft.

INSTRUMENTATION.--Quarterly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 455.94 ft above sea level. Measuring point: Top of plug, 4.68 ft above land-surface datum.

PERIOD OF RECORD.--July 1946 to current year. July 1946 to November 1976 published in hydrograph form and on file at the district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.93 ft below land-surface datum, Jan. 18, 1950: lowest measured, 38.53 ft below land-surface datum, Feb. 3, 1948.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Water Level	Date	Water Level
Dec. 2, 1998	34.27	Jul. 7, 1999	34.33
Mar. 1, 1999	34.01	Sept. 27, 1999	34.55
May 5, 1999	33.93		

381904085384801. Local number 38-19-2,(WC-27), map number 18.

LOCATION.--Lat 38°19'04", long 85°38'48", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, 30 ft west of River Road, 250 ft north of north end of bridge over Goose Creek, in Louisville. Owner: Louisville Water Company.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 1120TSH.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 4 in., depth 96 ft, screened 94-96 ft.

INSTRUMENTATION.--Quarterly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 438.46 ft above sea level. Measuring point: Top of plug, 2.29 ft above land-surface datum.

PERIOD OF RECORD.--August 1946 to current year. August 1946 to November 1976 published in hydrograph form and on file at the district office.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.84 ft above land-surface datum, Jan. 17, 1950: lowest measured, 20.97 ft below land-surface datum, Feb. 3, 1948.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Water Level	Date	Water Level
Dec. 2, 1999	18.25	Jul. 7, 1999	18.26
Mar. 1, 1999	17.60	Sept. 27, 1999	18.47
May 3, 1999	17.62		

GROUND-WATER LEVELS

JEFFERSON COUNTY

382039085375201. Local number (WP-7), map number 19.

LOCATION.--Lat 38°20'39", long 85°37'52", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, at Louisville Water Company B.E. Payne treatment plant. Owner: Louisville Water Company.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 1120TSH.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 2.0 in., depth 83.5 ft, screen: unknown.

INSTRUMENTATION.--Continuous recorder, 30 minute interval.

DATUM.--Elevation of land-surface datum is 462.66 ft above sea level. Measuring point: Top of casing, 3.80 ft above land-surface datum.

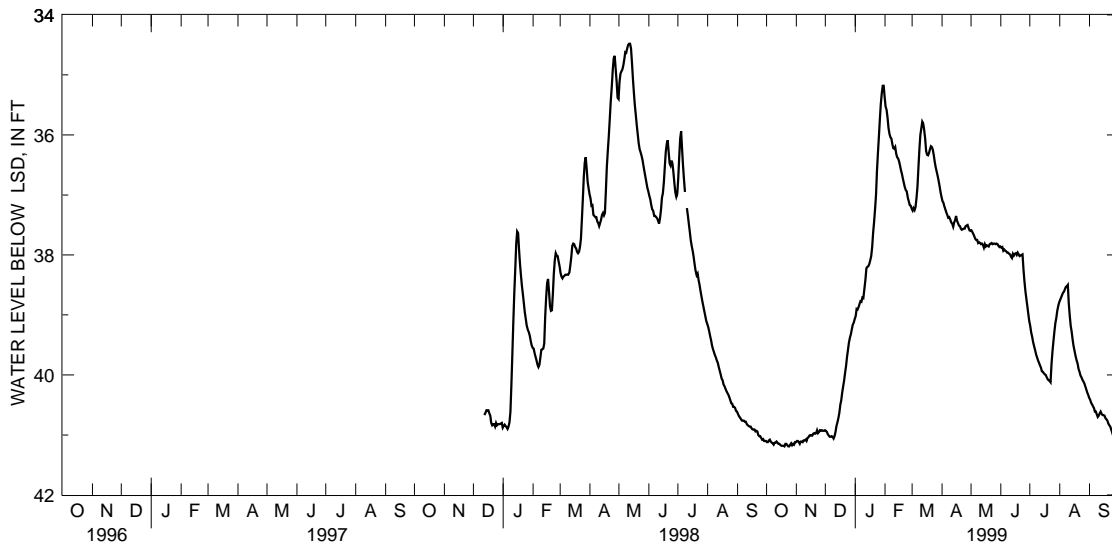
REMARKS.--Water levels affected by pumping.

PERIOD OF RECORD.--December 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.44 ft below land-surface datum, May 12, 1998; lowest measured, 41.21 ft below land-surface datum, Sept. 30, 1999.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY OBSERVATION AT 12:00 VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41.12	41.10	40.93	39.02	35.53	37.26	37.10	37.59	37.88	39.18	38.75	40.41
2	41.12	41.10	40.95	38.90	35.58	37.22	37.13	37.62	37.87	39.29	38.71	40.46
3	41.09	41.12	40.99	38.91	35.71	37.25	37.19	37.65	37.93	39.36	38.67	40.49
4	41.08	41.15	41.01	38.87	35.88	37.20	37.24	37.69	37.91	39.45	38.63	40.52
5	41.11	41.11	41.03	38.82	35.98	37.05	37.29	37.73	37.93	39.53	38.61	40.55
6	41.13	41.11	41.03	38.77	36.04	36.86	37.33	37.75	37.94	39.59	38.57	40.61
7	41.14	41.12	41.02	38.78	36.06	36.54	37.38	37.75	37.96	39.66	38.53	40.61
8	41.16	41.09	41.03	38.71	36.15	36.24	37.37	37.80	37.96	39.71	38.52	40.66
9	41.13	41.09	41.06	38.72	36.22	36.00	37.41	37.79	37.98	39.76	38.50	40.70
10	41.13	41.08	41.02	38.58	36.23	35.89	37.46	37.80	37.99	39.80	38.81	40.68
11	41.11	41.10	40.95	38.41	36.20	35.78	37.48	37.82	38.03	39.84	39.01	40.64
12	41.13	41.05	40.85	38.22	36.31	35.81	37.53	37.81	38.05	39.88	39.18	40.61
13	41.15	41.04	40.79	38.20	36.37	35.92	37.46	37.83	37.98	39.94	39.28	40.65
14	41.15	41.01	40.72	38.19	36.39	36.06	37.42	37.88	38.01	39.95	39.41	40.67
15	41.17	41.00	40.63	38.15	36.44	36.27	37.35	37.82	37.98	39.97	39.52	40.67
16	41.18	41.01	40.50	38.09	36.51	36.33	37.43	37.86	37.97	39.99	39.60	40.68
17	41.18	41.01	40.42	38.02	36.59	36.34	37.47	37.84	38.00	40.00	39.68	40.72
18	41.18	40.98	40.29	37.87	36.65	36.30	37.51	37.85	37.96	40.04	39.76	40.74
19	41.19	40.97	40.19	37.63	36.73	36.24	37.52	37.86	37.99	40.07	39.81	40.76
20	41.15	40.98	40.09	37.45	36.80	36.19	37.56	37.82	38.02	40.09	39.90	40.81
21	41.15	40.97	39.96	37.24	36.87	36.20	37.58	37.81	38.01	40.10	39.95	40.84
22	41.17	40.92	39.85	37.00	36.92	36.25	37.57	37.80	38.00	40.12	40.01	40.86
23	41.19	40.97	39.70	36.60	36.94	36.34	37.56	37.82	37.99	39.82	40.04	40.91
24	41.19	40.95	39.58	36.30	37.05	36.45	37.56	37.81	38.24	39.61	40.08	40.96
25	41.16	40.92	39.46	36.03	37.11	36.54	37.52	37.81	38.44	39.44	40.11	41.01
26	41.14	40.93	39.38	35.74	37.17	36.61	37.51	37.82	38.60	39.28	40.14	41.06
27	41.17	40.92	39.32	35.48	37.18	36.68	37.50	37.81	38.73	39.14	40.19	41.10
28	41.15	40.93	39.24	35.31	37.23	36.76	37.55	37.82	38.85	39.05	40.24	41.14
29	41.16	40.93	39.16	35.18	---	36.85	37.59	37.85	38.98	38.93	40.29	41.16
30	41.12	40.92	39.13	35.18	---	36.95	37.60	37.87	39.10	38.85	40.33	41.19
31	41.12	---	39.07	35.37	---	37.03	---	37.86	---	38.79	40.38	---
MAX	41.19	41.15	41.06	39.02	37.23	37.26	37.60	37.88	39.10	40.12	40.38	41.19
MIN	41.08	40.92	39.07	35.18	35.53	35.78	37.10	37.59	37.87	38.79	38.50	40.41
WTR YR 1999	HIGH	35.18	LOW	41.19								



CHEMICAL QUALITY OF PRECIPITATION

380706083324900 - CLARK STATE FISH HATCHERY, ROWAN COUNTY, KY

(National Atmospheric Deposition Program network station)

LOCATION.--Lat 38°06'58", Long 83°33'18", Rowan County, Hydrologic Unit 05100101 at Clark State Fish Hatchery, 0.9 mi southwest of Clark State Fish Hatchery office, 1.2 mi west of Cave Run Reservoir Dam.

PERIOD OF RECORD.--September 1983 to current year.

INSTRUMENTATION.--Wet/dry precipitation collector, weighing bucket type recording rain gage.

REMARKS.--Samples collected on weekly basis by observer.

COOPERATION.--Chemical quality data were provided by the National Atmospheric Deposition Program.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TOTAL PRECIP- ITATION FOR	VOLUME	PH	SPEC. CONDCU- TANCE	CALCIUM ATM DEP WET DIS (MG/L) (82932)	MAG- NESIUM ATM DEP WET DIS (MG/L) (83002)	SODIUM ATM DEP WET DIS (MG/L) (83138)
	DEFINED PERIOD (IN) (00193)	ATM DEP WET (L) (83177)	FIELD ATM DEP WET T (UNITS) (83106)	FIELD ATM DEP WET TOT (US/CM) (83154)			
OCT							
OCT 06-13	.90	1.527	4.68	19.8	.074	.015	.012
OCT 13-20	.25	.409	4.15	36.0	.158	.046	.028
OCT 20-27	.05	.060	--	--	.922	.091	.035
OCT 27- NOV 03	.75	1.300	3.90	40.3	.133	.021	.014
NOV 03-10	.40	.664	5.06	22.0	.276	.094	1.81
NOV 10-17	.65	1.072	5.99	7.2	.088	.009	.023
NOV 17-24	.25	.477	4.02	43.6	.091	.010	.020
NOV 24- DEC 01	.70	1.162	4.39	14.8	.085	.010	.027
DEC 01-08	1.40	2.372	4.65	9.4	.019	.007	.012
DEC 08-15	1.10	1.828	4.44	15.2	.075	.022	.076
DEC 15-22	.70	1.274	4.37	17.8	.102	.014	.027
DEC 22-29	.07	.116	4.19	32.3	.180	.013	.380
DEC 29 1998- JAN 05 1999	.75	1.174	4.51	14.3	.035	.006	.008
JAN 05-12	2.25	3.966	4.48	12.6	<.009	.003	.005
JAN 12-19	1.17	2.043	4.19	27.4	.148	.028	.023
JAN 19-26	.95	1.700	5.72	11.8	.579	.075	.201
JAN 26- FEB 02	.90	1.544	4.74	8.0	.040	.006	<.003
FEB 02-09	.12	.262	3.78	70.0	.505	.053	.073
FEB 09-16	.92	1.603	3.94	15.0	.076	.013	.035
FEB 16-23	.05	.081	4.17	47.7	.844	.103	.065
FEB 23- MAR 02	.95	1.608	4.37	27.0	.153	.019	.012
MAR 02-09	1.25	2.175	4.31	21.2	.181	.019	.023
MAR 09-16	1.23	2.119	4.32	24.7	.139	.015	.010
MAR 16-23	.15	.282	4.17	40.7	.240	.021	.027
MAR 23-30	.70	1.267	4.23	17.4	.078	.101	.008
MAR 30- APR 06	.15	.291	4.09	35.4	.407	.056	.065
APR 06-13	.12	.201	4.80	21.8	.899	.088	.136
APR 13-20	.64	1.161	4.30	26.9	.289	.027	.048
APR 20-27	.37	.600	3.99	43.7	.493	.061	.067
APR 27- MAY 04	.55	.929	4.28	21.4	.107	.020	.081
MAY 04-11	.39	.704	7.28	62.9	1.05	.214	2.15
MAY 11-18	.45	.675	3.87	46.3	.426	.044	.074
MAY 18-25	1.42	2.427	4.54	14.3	.119	.012	.010
JUN 01-08	--	--	--	--	.607	.100	1.42
JUN 08-15	.75	1.313	4.27	18.1	.106	.018	.247

CHEMICAL QUALITY OF PRECIPITATION

380706083324900 - CLARK STATE FISH HATCHERY, ROWAN COUNTY, KY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	POTAS- SIUM ATM DEP WET DIS (MG/L) (83120)	SULFATE ATM DEP WET DIS AS SO4 (MG/L) (83160)	CHLO- RIDE ATM DEP WET DIS (MG/L) (82944)	NI- TROGEN NITRATE ATM DEP WET DIS AS NO3 (MG/L) (83071)	NI- TROGEN AMMON. ATM DEP WET DIS AS NH4 (MG/L) (83047)	PHOS- PHORUS ORTHO ATM DEP WET DIS AS PO4 (MG/L) (83111)
OCT						
06-13	.074	1.89	.17	1.49	.120	<.003
OCT						
13-20	.295	3.46	.46	2.19	.490	<.003
OCT						
20-27	.027	5.63	.21	4.50	.980	<.003
OCT 27- NOV 03	.090	3.65	.18	2.61	.470	<.003
NOV						
03-10	.083	2.89	.52	2.18	.730	.587
NOV						
10-17	.026	.82	.05	.28	.080	<.003
NOV						
17-24	.029	3.35	.21	3.21	.620	<.003
NOV 24- DEC 01	.013	1.30	.04	1.07	.230	<.003
DEC						
01-08	.055	.75	.09	.40	.070	<.003
DEC						
08-15	.015	1.68	.10	.71	.110	.142
DEC						
15-22	.047	1.55	.13	1.53	.290	<.003
DEC						
22-29	.038	2.40	.18	2.59	.370	<.003
DEC 29 1998- JAN 05 1999	.023	1.03	.06	1.25	.200	<.003
JAN						
05-12	.012	.84	.05	.94	.070	<.003
JAN						
12-19	.189	2.42	.35	1.96	.250	<.003
JAN						
19-26	.122	1.97	.18	1.28	.730	.430
JAN 26- FEB 02	.013	.58	.05	.42	<.020	<.003
FEB						
02-09	.271	5.86	.56	5.58	.980	<.003
FEB						
09-16	.050	1.47	.09	1.04	.250	<.003
FEB						
16-23	.381	4.10	.61	4.52	.550	<.010
FEB 23- MAR 02	.087	1.92	.15	2.62	.430	<.003
MAR						
02-09	.065	1.66	.14	2.31	.230	<.003
MAR						
09-16	.031	2.62	.07	1.29	.120	<.003
MAR						
16-23	.032	3.15	.11	3.02	.530	<.003
MAR						
23-30	.012	1.35	.04	1.18	.180	<.003
MAR 30- APR 06	.090	3.52	.19	2.26	.340	<.003
APR						
06-13	.326	3.44	.41	2.25	.700	<.003
APR						
13-20	.037	2.25	.10	2.13	.630	<.003
APR						
20-27	.228	4.57	.31	3.52	.800	<.003
APR 27- MAY 04	.048	1.43	.10	1.94	.180	<.003
MAY						
04-11	.247	3.05	.48	1.12	7.84	2.56
MAY						
11-18	.035	4.71	.17	3.99	.880	.026
MAY						
18-25	.012	1.52	.05	1.09	.340	<.003
JUN						
01-08	.257	3.66	.53	1.34	6.14	1.47
JUN						
08-15	.103	1.91	.12	1.28	.730	.332

CHEMICAL QUALITY OF PRECIPITATION

380706083324900 - CLARK STATE FISH HATCHERY, ROWAN COUNTY, KY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TOTAL PRECIP- ITATION FOR DEFINED PERIOD (IN) (00193)	VOLUME ATM DEP WET (L) (83177)	PH FIELD ATM DEP WET T (UNITS) (83106)	SPEC. CONDUCT- TANCE FIELD ATM DEP WET TOT (US/CM) (83154)	CALCIUM ATM DEP WET DIS (MG/L) (82932)	MAG- NESIUM ATM DEP WET DIS (MG/L) (83002)	SODIUM ATM DEP WET DIS (MG/L) (83138)
	JUN 22-29	1.15	2.040	4.34	11.7	.103	.034	.311
JUL 06-13	.22	.391	7.06	43.1	.366	.292	2.55
JUL 13-20	.05	.083	3.29	98.7	1.13	.110	.083
JUL 20-27	1.35	2.335	3.73	38.6	.471	.063	.140
JUL 27- AUG 03	.35	.553	3.65	58.0	.396	.038	.052
AUG 03-10	.30	.544	4.09	14.1	.117	.011	.004
AUG 17-24	.95	1.640	3.83	40.5	.645	.077	.111
AUG 24-31	1.42	2.475	4.33	21.2	.271	.066	.686
SEP 07-14	.09	.158	3.63	80.0	.705	.064	.071
SEP 14-21	.75	1.319	3.97	25.6	.122	.013	.007
SEP 21-28	.01	.025	--	--	.773	.049	<.021
SEP 28- OCT 05	.96	1.647	4.02	32.6	.265	.050	.059

DATE	POTAS- SIUM ATM DEP WET DIS (MG/L) (83120)	SULFATE ATM DEP WET DIS AS SO4 (MG/L) (83160)	CHLO- RIDE ATM DEP WET DIS (MG/L) (82944)	NI- TROGEN NITRATE ATM DEP WET DIS AS NO3 (MG/L) (83071)	NI- TROGEN AMMON. ATM DEP WET DIS AS NH4 (MG/L) (83047)	PHOS- PHORUS ORTHO ATM DEP WET DIS AS PO4 (MG/L) (83111)
	JUN 22-29	.093	1.06	.12	.74	1.39	.497
JUL 06-13	.716	4.01	.24	1.24	5.71	2.12
JUL 13-20	.076	10.1	.31	6.14	1.07	<.010
JUL 20-27	.037	4.55	.14	2.89	.550	<.003
JUL 27- AUG 03	.043	5.79	.16	4.40	.780	<.003
AUG 03-10	.006	1.61	.05	1.56	.280	<.003
AUG 17-24	.018	4.90	.14	2.67	.500	<.003
AUG 24-31	.019	2.72	.10	1.64	<.020	.009
SEP 07-14	.047	8.56	.25	4.33	1.24	<.003
SEP 14-21	.038	1.83	.09	1.45	.170	<.003
SEP 21-28	.042	1.90	.21	1.40	<.140	<.021
SEP 28- OCT 05	.172	3.14	.23	2.37	.360	<.003

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS

STATION NAME AND LOCATION	STATION NUMBER	DRAINAGE		PERIOD OF RECORD	COMPLETE FLOW	COM- PLETE STAGE	PEAK FLOW	LOW FLOW	MISC FLOW MEAS
		AREA (MI ²)							
CARD CR AT MOUTH CARD, KY	03207845	4.18		1973-75	E	E			
FEDS CR AT FEDS CR, KY	03207875	11.60		1973-75	E	E			
BIG CR AT DUNLAP, KY	03207905	9.55		1974-76	E	E			
ELKFOOT BRANCH NR NIGH, KY	03207915	.70		1980-84	E	E			
ISLAND CR NR PHYLLIS, KY	03207925	2.42		1974	E	E			
LICK CR AT LICK CR, KY	03207935	6.70		1973-76	E	E			
MILLERS CR NR PHYLLIS, KY	03207940	1.68		1973-75	E	E			
DICKS FK AT PHYLLIS, KY	03207962	.82		1975-84	E	E			
GRAPEVINE CR NR PHYLLIS, KY	03207965	6.20		1974-82 1989-92	E		E	E	
LEVISA FK BELOW FISHTRAP DAM, NR MILLARD, KY	03208000	392		1938-92*	E		C	E	
RUSSELL FORK AT ELKHORN CITY, KY	03209300	554.00		1960-92	E	E		E	
ELKHORN CR NR ELKHORN CITY, KY	03209400	48.80		1967-72	E		E	E	
SHELBY CR AT DORTON, KY	03209440	12.60		1971-76*	E	E	E	E	
SHELBY CR AT SHELBIANA, KY	03209460	112.00		1965 1972-81				E	
MUD CR AT HAROLD, KY	03209545	51.90		1975-81				E	
BILL D BR NR KITE, KY	03209575	3.17		1976-86			E		
RIGHT FK BEAVER CR AT WAYLAND, KY	03209600	73.90		1959-75				E	
BEAVER CR AT MARTIN, KY	03209700	228.00		1953-72				E	
LEVISA FK AT PRESTONSBURG, KY	03209800	1702.00		1964-81		E			
MIDDLE CR NR PRESTONSBURG, KY	03209890	62.10		1975-81				E	
RACCOON CR NR ZEBULON, KY	03210040	14.80		1974-75*	E	E			
CANEY FK NR GULNARE, KY	03210160	3.74		1974-75*	E	E	E		
BRUSHY FK AT HEENON, KY	03210310	20.40		1974-76	E	E			
BUFFALO CR NR ENDICOTT, KY	03210420	6.21		1974-75*	E	E			
JOHNS CR NR PRESTONSBURG, KY	03210500	197.00		1938-40		E			
JOHNS CR NR VAN LEAR, KY	03211500	206		1939-92*	E		C	E	
OPEN FK PAINT CR NR RELIEF, KY	03211945	25.50		1975-81				E	
PAINT CR NR STAFFORDSVILLE, KY	03212000	103.00		1950-75*	E	E	E	E	
KERSHAW BR NR HURLEY, VA	03213577	.60		1981-82		E			
CAMP CR NR ARGO, KY	03213594	1.60		1981-82		E			
KNOX CR AT ARGO, KY	03213600	95.90		1958-72				E	
R FK HURRICANE CR NR STOPOVER, KY	03213630	.82		1980-83		E			
BIG CR NR HATFIELD, KY	03213790	59.10		1975-81				E	
WOLF CR AT PILGRIM, KY	03214400	62.80		1975-81				E	
ROCKCASTLE CR AT CLIFFORD, KY	03214730	121.00		1965-65 1972-81					E
BIG SANDY R AUXILIARY AT LOUISA, KY	03214980	3885.00		1938-76		E			
BIG SANDY R AT LOUISA, KY	03215000	3897.00		1939-77		E			C
BLAINE CR ABOVE CAINS CR NR BLAINE, KY	03215362	64.70		1975-81				E	
BLAINE CR NR BLAINE, KY	03215410	119.00		1972-76				E	
BLAINE CR AT YATESVILLE, KY	03215500	217.00		1915-75*	E	E	E	E	
OHIO R AT ASHLAND, KY	03216000	60750.00		1939-75		E			
LITTLE SANDY R AT SANDY HOOK, KY	03216190	35.70		1970-74				E	
LITTLE SANDY R NR SANDY HOOK, KY	03216200	60.40		1954-69				E	
LITTLE SANDY R BELOW GRAYSON DAM NR LEON, KY	03216350	196		1966-92	E		C	E	
LITTLE SANDY R AT LEON, KY	03216400	255.00		1962-80		C			
LITTLE FK LITTLE SANDY R NR WILLARD, KY	03216438	58.10		1975-81				E	
LITTLE FK LITTLE SANDY R NR GRAYSON, KY	03216480	132.00		1965-65 1972-81					E
BECKWITH BR TRIBUTARY NR GRAYSON, KY	03216505	.51		1977-86			E		
E FK LITTLE SANDY R NR FALLSBURG, KY	03216540	12.20		1972-91	E	E	E	E	
E FK LITTLE SANDY R NR CANNONSBURG, KY	03216550	38.20		1980-81		E		E	
MILE BRANCH NR RUSH, KY	03216563	.94		1976-90			E		
MILE BR NR COALTON, KY	03216564	1.61		1977-86			E		
E FK LITTLE SANDY R NR ARGILLITE, KY	03216570	138.00		1968-76				E	
TYGARTS CREEK AT OLIVE HILL, KY	03216800	59.6		1957-94	E	E	E	E	
TROUGH CAMP CR TRIB NR OLIVE HILL, KY	03216901	1.11		1976-86			E		
TYGARTS CR NR KEHOE, KY	03216935	124.00		1963-74		E			E
BUFFALO CR BELOW GRASSY CR AT KEHOE, KY	03216965	54.60		1975-81				E	
KINNICONICK CR NR KINNICONICK, KY	03237225	60.10		1975-81				E	
KINNICONICK CR NR RUGLESS, KY	03237230	109.00		1954-72				E	
LAUREL FK NR CAMP DIX, KY	03237246	57.00		1975-81				E	
SALT LICK CR NR VANCEBURG, KY	03237285	47.50		1954-62					
INDIAN RUN TRIB NR TOLLESBORO, KY	03237895	.23		1975-86					
CABIN CR NR TOLLESBORO, KY	03237900	22.40		1972-91	E	E	E	E	
CABIN CR NR PLUMVILLE, KY	03237985	57.60		1975-78 1980-81				E	
OHIO R AT MAYSVILLE, KY	03238000	70130.00		1939-80		E	E		
LAWRENCE CR NR MAYSVILLE, KY	03238030	1.90		1975-86			E		

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS

STATION NAME AND LOCATION	STATION NUMBER	DRAINAGE AREA (MI ²)	PERIOD OF RECORD	COMPLETE FLOW	COM- PLETE STAGE	PEAK FLOW	LOW FLOW	MISC FLOW MEAS
BRACKEN CR NR AUGUSTA, KY	03238620	28.80	1975-78 1980-81				E	
LOCUST CR NR AUGUSTA, KY	03238660	41.70	1975-78 1980-81				E	
TWELVEMILE CR NR CALIFORNIA, KY	03238750	44.30	1975-81				E	
DUCK CR AT COLD SPRING, KY	03238795	.49	1975-78			E		
LICKING R AT FREDVILLE, KY	03248170	40.30	1973-76				E	
LICKING R AT ROYALTON, KY	03248250	76.70	1973-76				E	
LICKING R NR SALYERSVILLE, KY	03248500	140	1939-92, 1994-97	E	E	E	E	
ELK FK NR LENOX, KY	03248685	59.40	1958-73				E	
CANEY CR NR W LIBERTY, KY	03248730	41.40	1973-75				E	
GRASSY CR NR W LIBERTY, KY	03248765	46.10	1974-79 1981				E	
BLACKWATER CR NR EZEL, KY	03248815	38.30	1974-81					
N FK LICKING R NR WRIGLEY, KY	03248855	33.70	1974-81			E		
LICKING R AT YALE, KY	03249000	714.00	1937-42		E			
LICKING R AT FARMERS, KY	03249500	827	1915-20 1928-31 1936-87	E	E			
TRIPLETT CR AT MOREHEAD, KY	03250000	47.5	1941-82 1989-92	E	E	E	E	
JACKS BRANCH NR MOREHEAD, KY	03250080	.19	1976-86			E		
N FK TRIPLETT CR AT MOREHEAD, KY	03250100	84.7	1967-94	E	E	E	E	
INDIAN CR NR OWINGSVILLE, KY	03250150	2.43	1975-90			E		
SLATE CR NR JEFFERSVILLE, KY	03250185	56.70	1973-81				E	
SLATE CR NR OWINGSVILLE, KY	03250240	185.00	1954-72				E	
ROSE RUN TRIB NR OLYMPIA, KY	03250243	.70	1975-86			E		
ROCK LICK CR NR SHARKEY, KY	03250320	4.01	1973-82		E			
FOX CR NR HILLSBORO, KY	03250330	110.00	1953-72			E	E	
FLEMING CR NR HILL TOP, KY	03250470	77.20	1954-72				E	
LICKING R AT BLUE LICK SPRINGS, KY	03250500	1785.00	1938-59*	E	E	E		
JOHNSON CR TRIB NR FAIRVIEW, KY	03250620	.33	1976-86			E		
JOHNSON CR AT PIQUA, KY	03250640	72.40	1973-74				E	
N FK LICKING R NR LEWISBURG, KY	03251000	119.00	1946-91	E	E	E	E	
WELLS CR TRIB NR WASHINGTON, KY	03251008	.96	1977-86		E	E		
LEES CR TRIB AT MAYS LICK, KY	03251015	.45	1975-86		E	E		
N FK LICKING R NR MILFORD, KY	03251400	286.00	1954-72		E	E		
LICKING R AT MCKINNEYSBURG, KY	03251500	2326.00	1924-26 1939-94	E	E	E	E	
STONER CR NR N MIDDLETOWN, KY	03251665	51.60	1974-81			E		
STRODES CR NR N MIDDLETOWN, KY	03251790	53.60	1973-81			E		
STONER CR AT PARIS, KY	03252000	239.00	1953-91	E	E	E	E	
GRASSY LICK CR NR SHARPSBURG, KY	03252188	40.60	1973-74			E		
HINKSTON CR NR SHARPSBURG, KY	03252190	78.90	1973-77			E		
HINKSTON CR NR CARLISLE, KY	03252300	154.00	1968-76			E		
S FK LICKING R AT CYNTHIANA, KY	03252500	621.00	1938-94	E		E	E	
RAVEN CR NR BERRY, KY	03252770	46.60	1973-81			E		
FK LICK CR AT MORGAN, KY	03252940	50.20	1973-81			E		
SF LICKING R AT HAYES, KY	03253000	920.00	1915-31		E			
LICKING R AT BUTLER, KY	03254000	3385.00	1938-42			E		
N FK GRASSY CR NR PINER, KY	03254400	13.60	1967-83		E			C
GRASSY CR AT DEMOSSVILLE, KY	03254460	119.00	1950-72				E	
LICKING R AT MORNING VIEW, KY	03254500	3539.00	1914-16		E			
BANKLICK CR NR S FT MITCHELL, KY	03254680	54.60	1974-81			E		
OHIO R AT CINCINNATI, OH	03255000	76580.00	1936-76		E	E		
FOWLERS FORK AT UNION, KY	03277070	1.54	1976-90			E		
PLEASANT RUN CR AT CRESENT SPRINGS, KY	03260010	.68	1973-86			E		
PLEASANT RUN CR TRIB AT FT MITCHELL, KY	03260012	1.62	1973-90			E		
GUNPOWDER CR NR UNION, KY	03277100	50.20	1975-81				E	
CRAIGS CR TRIB NR WARSAW, KY	03277185	.68	1976-86					
OHIO R AT MARKLAND D NR WARSAW, KY	03277210	83170.00	1915-65					
BOTTOM FK NR MAYKING, KY	03277290	3.03	1976-87			E		
N FK KENTUCKY R AT WHITESBURG, KY	03277300	66.40	1953-75		E	E		
N FK KENTUCKY R AT BLACKKEY, KY	03277340	131.00	1965-65 1972-81				E	

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS

STATION NAME AND LOCATION	STATION NUMBER	DRAINAGE AREA (MI ²)	PERIOD OF RECORD	COMPLETE FLOW	COM- PLETE STAGE	PEAK FLOW	LOW FLOW	MISC FLOW MEAS
ROCKHOUSE CR NR FLETCHER, KY	03277360	51.60	1958-67				E	
LINE FK AT DEFEATED CR, KY	03277370	40.80	1958-76				E	
LEATHERWOOD CR AT DAISY, KY	03277400	40.9	1964-74, 1991-98	E	E	E	E	
N FK KENTUCKY R AT CORNETTSVILLE, KY	03277411	322.00	1958-72				E	
BREEDING CR NR ISOM, KY	03277437	.69	1977-85			E		
CARR FORK NR SASSAFRAS, KY	03277450	60.6	1963-94	E	E	E	E	
N FK KENTUCKY R AT HAZARD, KY	03277500	466	1940-92	E		E	E	
BRIAR FK NR HAZARD, KY	03277630	1.32	1976-85			E		
TROUBLESOME CR AT DRAWF, KY	03277835	59.90	1958-67				E	
BALLS FK AT ARY, KY	03277915	45.40	1959-75				E	
BEAR BR NR NOBLE, KY	03278000	2.21	1955-73*		E	E		
TROUBLESOME CR AT NOBLE, KY	03278500	177.00	1950-81		E			
TROUBLESOME CR NR CLAYHOLE, KY	03279000	187.00	1928-31		E			
QUICKSAND CR AT LUNAH, KY	03279400	101.00	1958-72				E	
QUICKSAND CR NR JACKSON, KY	03279500	153.00	1928-31		E			
N FK KENTUCKY R NR AIRDALE, KY	03280500	1294.00	1928-42		E			
MIDDLE FK KENTUCKY R AT ASHER, KY	03280551	70.60	1958-76				E	
GREASY CR AT NAPIER, KY	03280570	37.70	1975-81				E	
GREASY CR AT HOSKINSTON, KY	03280590	95.00	1958-67				E	
MIDDLE FK KENTUCKY R NR HYDEN, KY	03280600	202	1957-92	E		E	E	
BULL CR NR HYDEN, KY	03280728	1.84	1976-86			E		
MIDDLE FK KENTUCKY R AT BUCKHORN, KY	03280900	420.00	1957-75*	E	E	E		
STAMPER FK AT CANOE, KY	03280935	1.57	1975-87			E		
RED BIRD R NR SPRING CR, KY	03281016	52.70	1976-81				E	
RED BIRD R AT BIG CR, KY	03281030	125.00	1954-72			E	E	
GOOSE CR AT GOOSEROCK, KY	03281065	49.60	1976-81				E	
COLLINS FK AT BLUEHOLE, KY	03281080	67.40	1958-76				E	
PACES CR NR GARRARD, KY	03281090	.47	1976-85			E		
S FK KENTUCKY R AT ONEIDA, KY	03281200	486.00	1958-82			E		
SEXTON CR AT TAFT, KY	03281350	71.00	1959-64 1967 1975-77 1979-81				E	
STURGEON CR NR HEIDELBERG, KY	03282045	96.40	1942-72				E	
BIG SINKING CR NR CRYSTAL, KY	03282075	23.4	1988-89*	E	E			
FURNACE FK NR CRYSTAL, KY	03282100	9.94	1988-89*	E	E			
S FK STATION CAMP CR NR DRIP ROCK, KY	03282135	41.40	1959-76				E	
STATION CAMP CR AT WAGERSVILLE, KY	03282170	115.00	1954-72				E	
REDLICK CR NR STATION CAMP, KY	03282190	69.50	1959-76				E	
CLEAR CR TRIB NR WEST IRVINE, KY	03282198	.59	1975-86			E		
STILLWATER CR AT STILLWATER, KY	03283000	24.00	1954-73*	E	E	E		
RED R NR PINE RIDGE, KY	03283100	142.00	1969-76					
M FK RED R AT ZACHARIAH, KY	03283305	.58	1975-86			E		
CAT CR NR STANTON, KY	03283370	8.30	1987-89*	E	E			
LULBEGRUD CR TRIB AT WESTBEND, KY	03283610	.33	1975-86					
LULBEGRUD CR AT LOG LICK, KY	03283630	49.30	1973-81				E	
MUDDY CR AT DOYLESVILLE, KY	03283830	63.80	1973-77 1979-81				E	
OTTER CR NR FORD, KY	03283995	63.50	1973-77				E	
BOONE CR AT GRIMES MILL RD NR LOCUST GROVE, KY	03284100	41.80	1967-74				E	
SILVER CR NR KINGSTON, KY	03284300	28.60	1967-83		E			
SILVER CR NR BEREIA, KY	03284310	53.40	1975-83			E	E	
OLD TOWN BR TR NR RICHMOND, KY	03284340	1.83	1976-85			E		
SILVER CR NR RICHMOND, KY	03284350	98.50	1972-77 1979-81				E	
PAINT LICK CR AT PAINT LICK, KY	03284415	54.40	1973-74				E	
PAINT LICK CR NR MCCREARY, KY	03284450	97.60	1954-74				E	
SUGAR CR NR BUCKEYE, KY	03284495	41.50	1975-77				E	
KENTUCKY R AT LOCK 8 NR CAMP NELSON, KY	03284500	4414.00	1910-71*	E	E	E		
W HICKMAN CR AT JONESTOWN, KY	03284550	11.00	1975-84		E			
KENTUCKY R AT CAMP NELSON, KY	03284600	4528.00	1940-71		E	E		
DIX R AB COPPER CR NR CRAB ORCHARD, KY	03284720	44.40	1973-76				E	
DIX R BL COPPER CR NR CRAB ORCHARD, KY	03284750	70.60	1973-76				E	
DIX R NR STANFORD, KY	03284800	160.00	1973-76				E	
HANGING FK CR NR STANFORD, KY	03284935	46.90	1973-74				E	
HANGING FK CR NR HUBBLE, KY	03284995	91.10	1973-74				E	

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS

STATION NAME AND LOCATION	STATION NUMBER	DRAINAGE AREA (MI ²)	PERIOD OF RECORD	COMPLETE FLOW	COM- PLETE STAGE	PEAK FLOW	LOW FLOW	MISC FLOW MEAS
BALLS BR TRIB NR DANVILLE, KY	03285100	.13	1976-86			E		
CLARKS RUN NR DANVILLE, KY	03285200	26.4	1992-97		E	E	E	
DIX R NR BURGIN, KY	03285500	395.00	1909-22		E			
KENTUCKY R AT L7 AT HIGHBRIDGE, KY	03286500	5036.00	1901-27		E			
TANNERS CREEK AT MORTONSVILLE, KY	03287128	1.49	1976-88, 90			E		
CLEAR CR NR MORTONSVILLE, KY	03287130	61.60	1973-77				E	
GILBERT CR TR NR SALVISA, KY	03287160	.81	1975-78			E		
S BENSON CR NR FRANKFORT, KY	03287534	4.47	1976-86			E		
BENSON CR NR FRANKFORT, KY	03287550	107.00	1943-72				E	
CANE RUN NR GEORGETOWN, KY	03288260	45.40	1973-74				E	
N ELKHORN CR AT SWITZER, KY	03288450	265.00	1972-77				E	
CAVE CR NR FORT SPRING, KY	03288500	2.53	1953-72*	E	E	E	E	
S ELKHORN CR AT FORT SPRING, KY	03289000	24.0	1950-92	E		E	E	
WOLF RUN AT CAMBRIDGE DR AT LEXINGTON, KY	03289190	5.30	1976-88			E		
S ELKHORN CR NR WOODLAKE, KY	03289410	156.00	1972-81				E	
FLAT CR NR FRANKFORT, KY	03290000	5.63	1952-71		E	E		
SIX MILE NR DEFOE, KY	03290420	42.60	1973-74				E	
SIX MILE CR NR LOCKPORT, KY	03290490	76.50	1973-74				E	
TOWN CR AT NEW CASTLE, KY	03290580	5.62	1976-86			E		
DRENNON CR AT DRENNON SP, KY	03290675	82.50	1973-74				E	
EAGLE CR AT SADIEVILLE, KY	03291000	42.90	1941-75*	E	E	E	E	
S RAYS FK TRIB NR CORINTH, KY	03291050	0.58	1976-86			E		
EAGLE CR NR NEW COLUMBUS, KY	03291110	124.00	1972-74				E	
EAGLE CR NR HOLBROOK, KY	03291270	258.00	1954				E	
			1957					
			1962					
			1972-81					
TEN MILE CR NR FOLSOM, KY	03291490	68.40	1973-76				E	
LITTLE KY R NR BEDFORD, KY	03291700	73.20	1950-72				E	
CORN CR NR BEDFORD, KY	03292100	27.50	1975-81				E	
JEFF BR NR SLIGO, KY	03292200	.87	1976-86			E		
HARRODS CR NR LAGRANGE, KY	03292460	24.1	1967-94	E	E	E	E	
HARRODS CR NR SKYLIGHT, KY	03292467	60.30	1972-74				E	
S FK HARRODS CR NR CRESTWOOD, KY	03292472	.97	1975-88			E		
MILL CREEK CUTOFF NR LOUISVILLE, KY	03294550	24.4	1988-94	E	E	E	E	
SALT R NR HARRODSBURG, KY	03295000	41.40	1953-73*	E	E	E		
SALT R AT FOX CR, KY	03295290	131.00	1972-76					
SALT R NR VAN BUREN, KY	03295500	196.00	1938-82		E			
BEECH CR NR TAYLORSVILLE, KY	03295580	53.20	1974-76				E	
SALT R AT TAYLORSVILLE, KY	03295610	359.00	1937-75				E	
			1972-76					
BULLSKIN CR AT FINCHVILLE, KY	03295705		1974-75		E		E	
BRASHEARS CR NR FINCHVILLE, KY	03295800	147.00	1953-72				E	
BRADSHAW CR NR SHELBYVILLE, KY	03295845	1.36	1976-86			E		
SIMPSON CR NR TAYLORSVILLE, KY	03295985	57.30	1974-76			E		
PLUM CR SUBWATER SHED NO 4 NR SIMPSONVILLE, KY	03296000	1.55	1955-64*		E			
PLUM CR NR WILSONVILLE, KY	03296500	19.10	1954-61*	E	E	E	E	
PLUM CR SWS N 15 NR WILSONVILLE, KY	03296700	1.03	1957-61*		E			
PLUM CR SWS N 17 NR WATERFORD, KY	03296800	.52	1957-61*		E			
LITTLE PLUM CR NR WATERFORD, KY	03297000	5.15	1954-61*	E	E	E		
PLUM CR AT WATERFORD, KY	03297500	31.80	1954-74*	E	E	E		
COX CR NR HIGHGROVE, KY	03297700	95.80	1968-72				E	
FLOYDS FK NR CRESTWOOD, KY	03297845	46.70	1979-91	E	E	E	E	
LONG RUN NR EASTWOOD, KY	03297970	15.20	1974-77*	E	E	E		
FLOYDS FK NR GAP IN KNOB, KY	03298390	259.00	1972-76				E	
ELM LICK CR NR CLERMONT, KY	03298535	.68	1976-86			E		
N ROLLING FK NR GRAVEL SWITCH, KY	03298710	66.20	1974-81				E	
N ROLLING FK AT BRADSFORDVILLE, KY	03298760	95.70	1972-77				E	
BIG S FK AT BRADSFORDVILLE, KY	03298865	59.60	1974-81				E	
ROLLING FK NR LEBANON, KY	03299000	239	1938-92	E		E	E	
POTTINGER CR NR NEW HOPE, KY	03299445	43.50	1974-78				E	
			1980-81					
BEECH FK NR SPRINGFIELD, KY	03300000	85.90	1953-72		E	E		
N PRONG NR WILLISBURG, KY	03300065	1.71	1975-89			E		
CHAPLIN R AT SHARPSVILLE, KY	03300300	140.00	1954-72				E	
CHAPLIN R NR CHAPLIN, KY	03300390	262.00	1972-77				E	
CARTWRIGHT CR AT FREDRICKTOWN, KY	03300498	82.30	1972-77				E	

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS

STATION NAME AND LOCATION	STATION NUMBER	DRAINAGE		PERIOD OF RECORD	COMPLETE FLOW	COM- PLETE STAGE	PEAK FLOW	LOW FLOW	MISC FLOW MEAS
		AREA (MI ²)							
BEECH FK AT FREDERICKTOWN, KY	03300500	542.00		1929-32		E			
HARDINS CR NR HOLY CROSS, KY	03300780	57.80		1975-78				E	
				1980-81					
TOWN CR TRIB AT BARDSTOWN, KY	03300990	.32		1975-86					
BEECH FK AT BARDSTOWN, KY	03301000	669.00		1939-74	E	E	E		
WILSON CR NR DEATSVILLE, KY	03301580	27.7		1991-96	E	E	E	E	
SLOP DITCH NR OKOLONA, KY	03301885	1.4		1994-96	E	E	E	E	
NORTHERN DITCH AT OKOLONA, KY	03301940	11.10		1974-79		E			
OTTER CR TRIB NR VINE GROVE, KY	03302085	.90		1975-86					
OTTER CR AT GRAHAMTON, KY	03302100	88.40		1953-72				E	
DOE RUN NR BRANDENBURG STATION, KY	03302150	52.70		1953-72				E	
SINKING CR AT ROSETTA, KY	03303195	36.00		1970-76				E	
SINKING CR DENTS BR NR IRVINGTON, KY	03303198	66.10		1970-76				E	
SINKING CR NR IRVINGTON, KY	03303200	86.70		1953-72				E	
SINKING CR NR LODIBURG, KY	03303205	125.00		1971-77				E	
SINKING CR AT SAMPLE, KY	03303210	222.00		1953-70				E	
BLACKFORD CR NR MACEO, KY	03303450	111.00		1953-74				E	
OHIO R AT OWENSBORO, KY	03303500	97200.00		1940-54*	E	E	E		
MCGILLS CR NR MCKINNEY, KY	03304500	2.14		1951-71*	E		E		
GREEN R NR MCKINNEY, KY	03305000	22.40		1951-73*	E	E	E		
GREEN R NR MOUNT SALEM, KY	03305500	36.30		1954-61*	E	E	E		
GREEN R AT MIDDLEBURG KY	03305520	66.50		1972-74				E	
CARPENTER CR TRIB NR HUSTONVILLE, KY	03305559	.88		1976-86					
GREEN R NR DUNNVILLE, KY	03305660	221.00		1972-77				E	
S FK NR DUNNVILLE, KY	03305720	71.00		1972-78				E	
IRVIN BRANCH NR SALEM, KY	03305725	1.37		1976-86			E		
GOOSE CR AT DUNNVILLE, KY	03305760	51.60		1972-77				E	
GREEN R AT NEATSVILLE, KY	03305800	399.00		1953-73				E	
GUM LICK TRIB NR CLEMENTSVILLE, KY	03305835	.71		1976-90			E		
CASEY CR AT CASEY CR, KY	03305865	74.70		1972-77				E	
ROBINSON CR AT ACTON, KY	03305945	48.40		1974-81				E	
GREEN R AT CAMPBELLSVILLE, KY	03306000	682		1930-32	E	E			
				1963-94	E	E	E	E	
GREEN R AT GREENSBURG, KY	03306500	736.00		1939-75*	E	E	E		
WHITE OAK CR TR NR MONTPELIER, KY	03306640	.50		1976-86	E		E		
RUSSELL CR NR JOPPA, KY	03306690	62.90		1974-81				E	
RUSSELL CR AT COLUMBIA, KY	03306850			1972-74				E	
RUSSELL CR NR GRESHAM, KY	03307100	265.00		1965-75*	E	E	E	E	
BIG PITMAN CR NR BENGAL, KY	03307215	47.70		1974-78				E	
				1980-81					
LITTLE PITTMAN CR NR CAMPBELLSVILLE, KY	03307260	19.3		1990-95	E	E	E	E	
BIG PITMAN CR NR SUMMERSVILLE, KY	03307295	126.00		1953-72				E	
BIG BRUSH CR NR SUMMERSVILLE, KY	03307400	45.70		1974-78				E	
				1980-81					
S FK LITTLE BARREN R AT EDMONTON, KY	03307500	18.30		1941-72*	E	E	E		
S FK LITTLE BARREN R AT SULPHUR WELL, KY	03307600	79.60		1975-81				E	
PRICES CR NR GRADYVILLE, KY	03307670	2.53		1976-86			E		
E FK LITTLE BARREN R NR SULPHUR WELL, KY	03307730	87.40		1975-81				E	
LITTLE BARREN R NR MONROE, KY	03307800	244.00		1960-76				E	
ECHO R OUTLET AT MAMMOTH CAVE, KY	03308950			1953-74				E	
GREEN R AT MAMMOTH CAVE, KY	03309000	1983.00		1938-50	E	E	E		
WET PRONG BUFFALO CR NR MAMMOTH CAVE, KY	03309100	2.26		1962-74				E	
MCDUGAL CR NR HODGENVILLE, KY	03309500	5.34		1953-71*	E	E	E	E	
N FK NOLIN R AT HODGENVILLE, KY	03310000	36.40		1941-73*	E	E	E		
S FK NOLIN R AT MATHERS MILL, KY	03310078	49.60		1974-78				E	
NOLIN R NR GLENDALE, KY	03310160	185.00		1972-73				E	
VALLEY CR NR GLENDALE, KY	03310270	90.10		1973-81				E	
BACON CR AT HIGHWAY 31W AT BONNIEVILLE, KY	03310380	53.50		1974-81				E	
BACON CR TRIB NR UPTON, KY	03310385	.56		1975-90			E		
BACON CR NR PRICEVILLE, KY	03310400	85.4		1959-94	E	E	E	E	
NOLIN R AT WAX, KY	03310500	600.00		1935-62*	E	E	E		
DOG CR NR MAMMOTH CAVE, KY	03310600	8.12		1961-74				E	
BRIER CR TRIB NR OLLIE, KY	03310880	.31		1976-86			E		
BYLEW CR NR MAMMOTH CAVE, KY	03311100	5.16		1961-74			E	E	
GREEN R AT LOCK 6 AT BROWNSVILLE, KY	03311500	2762		1925-31	E		E	E	
				1936-92					
BEAVERDAM CR NR RHODA, KY	03311600	10.9		1961-72				E	

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS

STATION NAME AND LOCATION	STATION NUMBER	DRAINAGE		PERIOD OF RECORD	COMPLETE FLOW	COM- PLETE STAGE	PEAK FLOW	LOW FLOW	MISC FLOW MEAS
		AREA (MI ²)							
BEAR CR NR LEITCHFIELD, KY	03312000	30.80		1972-94 1950-71*	E	E	E	E	
BEAR CR NR ROUNDHILL, KY	03312100	137.00		1953-72		E		E	
BARREN R NR PAGEVILLE, KY	03312500	533.00		1939-63	E	E	E		
LITTLE BEAVER CR NR GLASGOW, KY	03312795	.89		1976-86		E			
BARREN R NR FINNEY, KY	03313000	942		1941-50 1960-94	E	E	E	E	
SOLOMON CR TRIB NR SCOTTSVILLE, KY	03313020	.24		1976-90			E		
W BAYS FK AT SCOTTSVILLE, KY	03313500	7.47		1951-72		E			
LICK CR NR FRANKLIN, KY	03313800	21.60		1959-83			E		
TRAMMEL CR NR SCOTTSVILLE, KY	03313900	93.40		1953-72				E	
DRAKES CR NR ALVATON, KY	03314000	478.00		1940-71	E	C	E	E	
BARREN R AT BOWLING GREEN, KY	03314500	1,849		1938-94	E	E	E	E	
LOST R BLUE HOLE NR BOWLING GREEN, KY	03314670			1985-86	E	E	E	E	
LOST R RISE AT LAMPKIN PK AT BOWLING GREEN, KY	03314675			1985-86	E	E	E	E	
BARREN R TRIB NR BOWLING GREEN, KY	03314750	.50		1976-90			E		
BARREN R AT LOCK 1 AT GREENCASTLE, KY	03315000	1968.00		1923-37	E	E	E		
GASPER R NR RICHELIEU, KY	03315265			1972-77					E
GREEN R AT WOODBURY, LOCK #4, KY	03315500	5404.00		1936-92	E		E	E	
GASPER R AT HADLEY, KY	03315300	190.00		1953-72					E
MUDDY CR AT DUNBAR, KY	03315810	94.30		1953-74					E
POINDEXTER BR TRIB NR RUSSELLVILLE, KY	03315885	.25		1976-86			E		
MUD R NR LEWISBURG, KY	03316000	90.50		1940-72*	E	E	E		
WOLFLICK CR NR LEWISBURG, KY	03316200	116.00		1953-72					E
MUD RIVER NR HUNTSVILLE, KY	03316275	268.00		1991-94	E	E	E	E	
GREEN R NR PARADISE, KY	03316500	6182.00		1940-81 1961-81		E			
MUD R NR HUNTSVILLE, KY	03316275	268		1974-80 1991-94					E
ROUGH R NR MADRID, KY	03317000	225.00		1936-59	E	E	E		
N FK ROUGH T NR WESTVIEW, KY	03317500	42.00		1954-73*	E	E	E		
LONG LICK CR TRIB NR AXTEL, KY	03317965	.38		1975-86			E		
ROUGH R NR FALLS OF ROUGH, KY	03318000	454.00		1940-56		E			
ROCK LICK CR NR GLEN DEAN, KY	03318200	20.10		1955-71*	E	E			E
ROUGH R AT FALLS OF ROUGH, KY	03318500	504		1939-94	E	E	E	E	
PLEASANT RUN TRIB NR FALLS OF ROUGH, KY	03318505	.22		1975-90			E		
CANEY CR NR HORSE BRANCH, KY	03318800	124		1956-92	E	E	E	E	
ROUGH R NR DUNDEE, KY	03319000	757		1939-92	E		E	E	
W FK ADAMS FK NR FORDSVILLE, KY	03319520	.26		1976-86			E		
ROUGH RIVER AT HARTFORD, KY	03319600	880.00		1991-94	E	E	E	E	
POND R NR WHITE PLAINS, KY	03321000	343.00		1927-40	E	E	E		
CYPRESS CR NR CALHOUN, KY	03321210	142		1979-81 1990-94	E	E	E	E	
CYPRESS CR NR RUMSEY, KY	03321215	149.00		1972-76					E
E FK DEER CR TRIB NR ONTON, KY	03321275	.95		1976-86			E		
S FK PANTHER CR NR WHITESVILLE, KY	03321350	58.20		1968-83		E			
S FK PANTHER CR NR MASONVILLE, KY	03321370	109.00		1954-72					E
N FK PANTHER CR NR MASONVILLE, KY	03321410	88.30		1954-72					E
RHODES CR TRIB NR OWENSBORO, KY	03321465	.29		1975-86			E		
GREEN R AT LOCK AND DAM 1 AT SPOTTSVILLE, KY	03321500	9181.00		1928-31		E			
OHIO R AT MOUNT VERNON, KY	03322250			1977-80		E			
HIGHLAND CR NR WAVERLY, KY	03322350	62.30		1975-77					E
BEAVERDAM CREEK NR CORYDON, KY	03322360	14.3		1972-94	E	E	E	E	
HIGHLAND CR NR UNIONTOWN, KY	03322400	166.00		1953-77					E
OHIO R UNIONTOWN DAM	03322420	108000.00		1985-93	E	E	E	E	
WARD CR AT LEWISTOWN, KY	03382975	.91		1975-86			E		
TRADEWATER R NR DALTON, KY	03383500	283.00		1927-40		E	E		
W FK DONALDSON CR NR FREDONIA, KY	03383605	2.52		1975-86			E		
CLEAR CR NR RICHLAND, KY	03383755	17.0		1966-80 1991-94					E
ROSE CR AT NEBO, KY	03384000	2.10		1952-70*	E	E	E		
TRADEWATER R	03384180	861		1975-80 1980-81		E			E
OHIO R AT DAM 51 AT GOLCONDA, IL	03384500	143900.00		1941-52		C			
POOR FK AT HARLAN, KY	03400000	51.70		1940-43		E			
POOR FK AT CUMBERLAND, KY	03400500	82.3		1940-92	E		C	E	
POOR FK AT ROSSPOINT, KY	03400585	142.00		1972-77				E	

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS

STATION NAME AND LOCATION	STATION NUMBER	DRAINAGE		PERIOD OF RECORD	COMPLETE FLOW	COM- PLETE STAGE	PEAK FLOW	LOW FLOW	MISC FLOW MEAS
		AREA (MI ²)							
WOOD CR NR LONDON, KY	03400600	3.89		1953-71 1972-87			E E		
CLOVER FK AT EVARTS, KY	03400700	82.40		1959-87, 90			E		
MARTINS FK ABOVE SMITH, KY	03400785	23.80		1985-90*	E	E	E	E	
CRANE CR NR SMITH, KY	03400796	1.63		1976-77		E			
MARTINS FK AT HARLAN, KY	03400985	116.00		1960					E
CLOVER FK AT HARLAN, KY	03400990	222		1977-92	E	E	E	E	
PEARL BR AT WALLINS CR, KY	03401040	1.40		1976-85			E		
LITTLE YELLOW CR AT MIDDLESBORO, KY	03401400	10.80		1959-66		E	E		
BENNETTS FORK AT MIDDLESBORO, KY	03401428	60.6		1985-94	E	E	E	E	
YELLOW CR BYPASS AT MIDDLESBORO, KY	03401500	35.30		1941-83			E		
SHILALAN CR NR PAGE, KY	03402020	2.96		1976-86			E		
YELLOW CR NR FERNDALE, KY	03402230	99.50		1972-81				E	
CLEAR CR AT CLEAR CR SPRINGS, KY	03402480	38.50		1975-81				E	
CUMBERLAND R AT PINEVILLE, KY	03402500	676.00		1928-31		E			
LEFT FK STRAIGHT CR AT CARY, KY	03402850	33.70		1958-76				E	
STRAIGHT CR AT STRAIGHT CR, KY	03402852	89.80		1953-67				E	
CUMBERLAND RIVER NR PINEVILLE, KY	03403000	809.00		1938-92	E	E	E	E	
STINKING CR AT DEWITT, KY	03403180	49.10		1961-75				E	
ROAD E CR AT DEWITT, KY	03403255	25.20		1961-75				E	
RICHLAND CR NR BARBOURVILLE, KY	03403530	27.70		1961-76				E	
LITTLE RICHLAND CR NR HINKLE, KY	03403538	11.60		1974-83			E		
CLEAR FK AT SAXTON, KY	03403910	331.00		1968-90*	E	E	E	E	
JELLICO CR NR WILLIAMSBURG, KY	03404200	103.00		1953-72				E	
MARSH CR NR WHITELY CITY, KY	03404390	72.00		1960-61 1974-81				E	
CUMBERLAND R AT CUMBERLAND FALLS, KY	03404500	1,977		1907-11 1914-94	E E	E	E	E	
LAUREL R NR LILY, KY	03404688	52.30		1974-81				E	
LITTLE LAUREL R NR LILY, KY	03404810	42.40		1975-81				E	
LAUREL R AT MUNICIPAL DAM NR CORBIN, KY	03404820	140		1973-92	E		C	E	
GOZEY HOLLOW NR CORBIN, KY	03404867	.31		1976-85			E		
LAUREL R AT CORBIN, KY	03405000	201.00		1910-73	E	E	E		
LAUREL R NR VOX, KY	03405500	245.00		1929-31		E			
S FK ROCKCASTLE R NR PEOPLES, KY	03405700	95.10		1961-72				E	
MIDDLE FK ROCKCASTLE R NR PARROT, KY	03405818	79.00		1975-81				E	
HORSE LICK CR NR LAMERO, KY	03405842	61.70		1975-81				E	
BIG HURRICANE BR AT CONWAY, KY	03405854	1.91		1976-85			E		
ROUNDSTONE CR AT HOMMEL, KY	03405868	52.90		1975-81				E	
ROUNDSTONE CR AT LIVINGSTON, KY	03405900	144.00		1953-76					
WOOD CR NR LONDON, KY	03406000	3.89		1954-71* 1972-87, 90	E	E	E	E	
SKEGG CR NR BILLOWS, KY	03406330	55.90		1975-81				E	
ROCKCASTLE R AT ROCKCASTLE SPRINGS, KY	03407000	745.00		1921-31	E	E	E		
CANE BR NR PARKERS LAKE, KY	03407100	.67		1956-87		E	E		
W FK CANE BR NR PARKERS LAKE, KY	03407200	.26		1956-86			E		
HELTON BR AT GREENWOOD, KY	03407300	.85		1956-74		E	E		
BUCK CR NR WOODSTOCK, KY	03407425	73.00		1975-81				E	
BUCK CR NR SHOPVILLE, KY	03407500	165.00		1952-91	E	E	E	E	
BUCK CR AT DYKES, KY	03407640	253.00		1972-81				E	
ROCK CR NR YAMACRAW, KY	03410590	58.90		1965 1975-81				E	
LITTLE S FK CUMBERLAND R NR GRIFFIN, KY	03410825	56.40		1975-81				E	
LITTLE S FK CUMBERLAND R NR OIL VALLEY, KY	03410900	98.20		1953-72				E	
S FK CUMBERLAND R AT NEVELSVILLE, KY	03411000	1271.00		1915-50		E	E		
CUMBERLAND R AT BURNSIDE, KY	03411500	4865.00		1925-50		E	E		
LAKE CUMBERLAND AT BURNSIDE, KY	03411700	4869.00		1951-70					
PITMAN CR NR SOMERSET, KY	03412000	26.30		1949-53		E			
PITMAN CR AT SOMERSET, KY	03412500	31.30		1953-72*	E	E	E		
FISHING CR NR HOGUE, KY	03412700	59.80		1968-77				E	
CUMBERLAND R NR JAMESTOWN, KY	03413000	5331.00		1937-40		E			
BEAVER CR NR MONTICELLO, KY	03413200	43.40		1968-83		E			
ELK SPRING CR NR SPANN, KY	03413202	0.57		1976-87, 90			E		
OTTER CR NR SUSIE, KY	03413345	67.10		1953-66				E	
WILLIAMS CR TRIB NR CARTWRIGHT, KY	03413425	.76		1976-86			E		
CUMBERLAND R NR ROWENA, KY	03414000	5790		1939-92	E	E	E	E	
CROCUS CR NR BAKERTON, KY	03414080	108.00		1972-76				E	

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS

STATION NAME AND LOCATION	STATION NUMBER	DRAINAGE		PERIOD OF RECORD	COMPLETE FLOW	COM- PLETE STAGE	PEAK FLOW	LOW FLOW	MISC FLOW MEAS
		AREA (MI ²)							
BEAR CR NR BURKESVILLE, KY	03414102	352.00		1976-87, 90			E		
MARROWBONE CR AT GRIDER, KY	03414175	80.70		1975-81				E	
RED R NR ADAIRVILLE, KY	03435100	229.00		1957-72				E	
WHIPPOORILL CR NR CLAYMOUR, KY	03435140	20.80		1973-91	E	E	E	E	
ELBOW CR TRIB NR CANTON, KY	03437380	.83		1975-86			E		
LICK CR NR CANTON, KY	03437390	.39		1977-86			E		
S FK LITTLE R TRIB NR HOPKINSVILLE, KY	03437490	2.62		1977-87, 90			E		
S FK LITTLE R AT HOPKINSVILLE, KY	03437500	46.50		1950-73*	E	E	E		
WHITE CR TR NR HOPKINSVILLE, KY	03437610	.19		1975-76		E			
MUDDY R NR DERULEAN, KY	03438070	30.50		1968-83		E			
N FK DRYDEN CR TRIB NR CONFEDERATE, KY	03438120	.10		1975-90			E		
DRY CR NR LAMASCO, KY	03438167	34.60		1968-72			E	E	
EDDY CR NR LAMASCO, KY	03438170	71.70		1968-74				E	
BARKLEY-KENTUCKY CANAL NR GRAND RIVERS, KY	03438190			1966-97	E	E	E	E	
KENTUCKY-BARKLEY CANAL NR GRAND RS, KY	03438191			1971-74		E			
CUMBERLAND R AT EUREKA, KY	03438200	17594.00		1939-64		E			
CUMBERLAND RIVER NR GRAND RIVERS	03438220	17598.00		1939-97	E	E	E	E	
LIVINGSTON CR NR DYCUSBURG, KY	03438470	112.00		1954-74				E	
TENNESSEE R AT SHANNON DAM SITE NR MURRAY, KY	03608000	39780.00		1931-37		E			
TENNESSEE R AT AURORA LANDING, KY	03608500	40010.00		1930-32		E			
TENNESSEE R NR PADUCAH, KY	03609500	40200.00		1941-89	E		E		
CLARKS R AT MURRAY, KY	03610000	89.70		1952-71*	E	E	E		
YORK CR NR BENTON, KY	03610470	.96		1975-90			E		
CLARKS R NR BENTON, KY	03610500	227.00		1938-73*	E	E	E		
WEST FK CLARKS R NR BREWERS, KY	03610545	68.7		1968-83	E	E	E	E	
				1988-94	E	E	E	E	
CHESTNUT CR NR BENTON, KY	03610503	.82		1975-86			E		
CLARKS R TRIB NR REIDLAND, KY	03610820	.13		1975-86			E		
OHIO R AT PADUCAH, KY	03611000	202800.00		1873-75		C			
LITTLE BAYOU CR NR GRAHAMVILLE, KY	03611600	5.78		1990-91	E	E	E	E	
BAYOU CR NR HEATH, KY	03611800	6.55		1990-91	E	E	E	E	
BAYOU CR NR GRAHAMVILLE, KY	03611850	14.90		1990-91	E	E	E	E	
HUMPHREY CR AT LACENTER, KY	03613000	44.20		1953-72				E	
PERRY CR NR MAYFIELD, KY	07022500	1.72		1953-65*	E	E		E	
				1968-72					
				1973-90			E		
LICK CR TRIB NR KERBYTON, KY	07023040	.53		1975-90			E		
MAYFIELD CR NR BLANDVILLE, KY	07023100	295		1938-72	E	E			
				1991-94		E			
MAYFIELD CR AT MAYFIELD, KY	07022600	95.10		1954-72				E	
MAYFIELD CR AT LOVELACEVILLE, KY	07023000	204.00		1938-72*	E	E	E		
MISSISSIPPI R AT COLUMBUS, KY	07023200	921900.00		1843-58			E		
OBION CR AT PRYORSBURG, KY	07023500	36.30		1951-73	E	E	E		
OBION CR NR ARLINGTON, KY	07023700	203.00		1953-72				E	
S FK BAYOU de CHIEN TRIB AT WATER VALLEY, KY	07023935	.23		1975-90			E		
MISSISSIPPI R AT HICKMAN, KY	07024070	922500.00		1926-58			E		

* Period of complete flow only

C Currently operated

E Eliminated

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

STATION NAME AND NUMBER	STATION NUMBER	DRAINAGE AREA (MI ²)	PERIOD OF RECORD	BIO.	PHY.	SED.	CHEM-
				AC-TIVE STA-TUS	AC-TIVE STA-TUS	AC-TIVE STA-TUS	ICAL AC-TIVE STA-TUS
BRUSHY FK AT THOMAS, KY	03201400		1980-82		N	N	N
CARD CR AT MOUTHCARD, KY	03207845	4.18	1974-80		N	N	N
FEDS CR AT FEDS CREEK, KY	03207875	11.60	1972-75		N	N	N
BIG CR AT DUNLAP, KY	03207905	9.55	1974-76		N	N	N
ELKFOOT BRANCH NR NIGH, KY	03207915	.70	1980-84			N	
ISLAND CR NR PHYLLIS, KY	03207925	2.42	1974-80		N	N	N
LICK CR AT LICK CREEK, KY	03207935	6.70	1972-76		N	N	N
MILLERS CR NR PHYLLIS, KY	03207940	1.68	1973-81		N	N	N
DICKS FK AT PHYLLIS, KY	03207962	.82	1975-79 1982-84			N N	
LEVISA FK BELOW FISHTRAP DAM, KY	03208000	392.00	1965-79		N	N	N
RUSSELL FK AT ELKHORN CITY, KY	03209300	554.00	1961-83		N	N	N
ELKHORN CR NR ELKHORN CITY, KY	03209402		1980-82		N	N	N
MARROWBONE CR AT WOLFPIT, KY	03209420		1980-82		N	N	N
GREASY CR NR SUTTON, KY	03209430		1980-82		N	N	N
DORTON CR NR DORTON, KY	03209438		1980-82		N	N	N
LONG FK NR VIRGIE, KY	03209453		1980-82		N	N	N
ROBINSON CR AT ROBINSON CREEK, KY	03209457		1980-82		N	N	N
SHELBY CR AT SHELBIANA, KY	03209460	112.00	1965-79		N	N	N
MUD CR NR GRETHEL, KY	03209530		1980-82		N	N	N
TOLLAR CR NR HAROLD, KY	03209540		1980-82		N	N	N
MUD CR AT HAROLD, KY	03209545	51.90	1978-80		N	N	N
RIGHT FK BEAVER CR AT TOPMOST, KY	03209585		1980-82		N	N	N
CANEY FK BEAVER CR NR RAVEN, KY	03209590		1980-82		N	N	N
RIGHT FK BEAVER CR AT WAYLAND, KY	03209600	73.90	1978-80		N	N	N
JONES FK AT BETTY, KY	03209603		1980-82		N	N	N
SALTICK CR NR BOSCO, KY	03209607		1980-82		N	N	N
LEFT FK BEAVER CR AT DRIFT, KY	03209650	58.50	1978-80		N		N
LEFT FK BEAVER CR AT PRINTER, KY	03209680		1980-82		N	N	N
BEAVER CR AT MARTIN, KY	03209700	228.00	1961-71		N		N
LEVISA FK AT PRESTONSBURG, KY	03209800	1702.00	1976-79		N	N	N
MIDDLE CR NR PRESTONSBURG, KY	03209850		1980-82		N	N	N
LEFT FK MIDDLE CR NR GOODLOE, KY	03209870		1980-82		N	N	N
MIDDLE CR NR PRESTONSBURG, KY	03209890	62.10	1978-80		N	N	N
ABBOTT CR NR PRESTONSBURG, KY	03209910		1980-82		N	N	N
RACCOON CR NR ZEBULON, KY	03210040	14.80	1973-80		N	N	N
RACKOON CR NR ZEBULLON, KY	03210060		1980-82		N	N	N
CANEY FK NR GULNARE, KY	03210160	3.74	1973-80		N	N	N
BRUSHY FK AT HEENON, KY	03210310	20.40	1973-76		N	N	N
BUFFALO CR NR ENDICOTT, KY	03210420	6.21	1973-80		N	N	N
BUFFALO CR NR GERMAN, KY	03210450		1980-82		N	N	N
DANIELS CR NR ODDS, KY	03211690		1980-82		N	N	N
DANIELS CR AT MOUTH NR VAN LEAR, KY	03211700	12.00	1978-80		N		N
LEVISA FK ABOVE PAINT CR AT PAINTSVILLE, KY	03211800	1975.00	1974-79		N		N
PAINT CR NR ELNA, KY	03211970	79.30	1967		N		N
PAINT CR ABOVE BARNETTS CR NR STAFFORDSVILLE, KY	03211997		1971-72		N		N
GREASY CR NR OFFUTT, KY	03212510		1980-82		N	N	N
TOMS CR NR TUTOR KEY, KY	03212520		1980-82		N	N	N
GEORGES CR NR ULYSSES, KY	03212530		1980-82		N	N	N
RIGHT FK CR NR CHARLEY, KY	03212535		1980-82		N	N	N
RIGHT FK HURRICANE CR NR STOPOVER, KY	03213630	.82	1980-84			N	
LEFT FK PETER CR AT JAMBOREE, KY	03213670		1980-82		N	N	N
RIGHT FK PETER CR NR PHELPS, KY	03213680		1980-82		N	N	N
BLACKBERRY CR AT RANSOM, KY	03213690		1980-82		N	N	N
POND CR NR TOLER, KY	03213698		1980-82		N	N	N
BIG CR NR HATFIELD, KY	03213750		1980-82		N	N	N
WOLF CR NR MCCLURE, KY	03214300		1980-82		N	N	N
MIDDLE FK ROCKCASTLE CR AT INEZ, KY	03214600	33.34	1980-82		N	N	N
COLDWATER FK NR INEZ, KY	03214650	17.85	1980-82		N	N	N
ROCKCASTLE CR AT INEZ, KY	03214700	63.10	1970-72	N	N	N	N
ROCKHOUSE FK NR MILO, KY	03214720		1980-82		N	N	N
ROCKCASTLE CR AT CLIFFORD, KY	03214730	121.00	1965-75		N		N

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

STATION NAME AND NUMBER	STATION NUMBER	DRAINAGE AREA (MI ²)	PERIOD OF RECORD	BIO.	PHY.	SED.	CHEM-
				AC-STATUS	AC-STATUS	AC-STATUS	ICAL AC-STATUS
BIG SANDY R AT LOUISA, KY	03215000	3897	1950, 1966-72, 1974-92	N	N	N	N
LEFT FK BLAINE CR NR MARTHA, KY	03215250		1980-82		N	N	N
LOWER LAUREL CR NR FLATGAP, KY	03215320		1967		N		N
CAINES CR NR BLAINE, KY	03215367		1980-82		N	N	N
BLAINE CR AT HWY 32 BR AT BLAINE, KY	03215370	73.80	1978-80		N		N
HOOD CR AT BLAINE, KY	03215380		1980-82		N	N	N
BRUSHY CR NR CORDELL, KY	03215420		1980-82		N	N	N
BLAINE CR BELOW BRUSHY CR NR BLAINE, KY	03215430	151.00	1971-80		N		N
RICH CR NR ADAMS, KY	03215440		1971-72		N		N
LITTLE BLAINE CR NR EVERGREEN, KY	03215470		1980-82		N	N	N
LITTLE BLAINE CR AT EVERGREEN, KY	03215480	23.00	1971-80		N		N
BLAINE CR NR YATESVILLE, KY	03215490	206.00	1971-72		N		N
BLAINE CR AT YATESVILLE, KY	03215500	217.00	1965-79		Y		N
CAT FK CR AT FALLSBURG, KY	03215550		1980-82		N	N	N
BIG SANDY R AT CATLETTSBURG, KY	03215700	4281.00	1955-75		N		N
LITTLE SANDY R AT SANDY HOOK, KY	03216180		1980-82		N	N	N
BIG CANEY CR NR STARK, KY	03216230		1980-82		N	N	N
LITTLE SANDY R BELOW GRAYSON DAM NR LEON, KY	03216350	196.00	1966-79		N		N
BIG SINKING CR NR ADEN, KY	03216370		1980-82		N	N	N
LITTLE SANDY R AT LEON, KY	03216400	255.00	1978-80		N		N
LITTLE SANDY R AT DOBBINS, KY	03216430		1980-82		N	N	N
DRY FK AT WILLARD, KY	03216450		1980-82		N	N	N
LITTLE FK LITTLE SANDY R NR GRAYSON, KY	03216480	132.00	1973-75		N		N
BERET CR NR GRAYSON, KY	03216520		1980-82		N	N	N
E FK LITTLE SANDY R NR FALLSBURG, KY	03216540	12.20	1978-83		N		N
E FK LITTLE SANDY R NR CANNONSBURG, KY	03216558		1980-82		N	N	N
WILLIAMS CR AT PRINCESS, KY	03216567		1980-82		N	N	N
E FK LITTLE SANDY R NR ARGILLITE, KY	03216570	138.00	1970-72		N		N
OHIO R AT GREENUP DAM, KY	03216600	62000.00	1974-86	N	N	N	N
SOLDIER FK AT LAWTON, KY	03216770		1971-72		N		N
TYGARTS CR AT IRON HILL, KY	03216930		1971-72		N		N
BUFFALO CR NR GESLING, KY	03216960		1980-82		N	N	N
KINNICONICK CR NR RUGLESS, KY	03237230	109.00	1970-72		N		N
OHIO R AT MELDAHL DAM NR CHILO, OH	03238680	70800.00	1967-70		N		N
OHIO R AT RAW WATER INTAKE, CINCINNATI, OH	03238800		1970				N
LICKING R NR FREDVILLE, KY	03248165		1980-82		N	N	N
BURNING FK AT SAYLERSVILLE, KY	03248380		1980-82		N	N	N
LEFT FK NR HENDRICKS, KY	03248520		1980-82		N	N	N
RIGHT FK AT FRITZ, KY	03248530		1980-82		N	N	N
JOHNSON CR AT KERNIE, KY	03248560		1980-82		N	N	N
LICK CR NR BLOOMINGTON, KY	03248580		1980-82		N	N	N
WHITE OAK CR AT WHITE OAK, KY	03248610		1980-82		N	N	N
WILLIAMS CR NR ELAMTON, KY	03248670		1980-82		N	N	N
ELK FK NR LENOX, KY	03248685	59.40	1980-82		N	N	N
CANEY CR NR CANEY, KY	03248710		1980-82		N	N	N
GRASSY CR AT GRASSY CREEK, KY	03248750		1980-82		N	N	N
LICKING R AT FARMERS, KY	03249500	827.00	1948-79		N	N	N
TRIPLETT CR AT MOREHEAD, KY	03250000	47.50	1978-80		N		N
SLATE CR NR OWINGSVILLE, KY	03250240	185.00	1970-71		N		N
ROCK LICK CR NR SHARKEY, KY	03250320	4.01	1978-83		N		N
LICKING R AT SHERBURNE, KY	03250400		1981-83	N	N	N	N
N FK LICKING R NR MILFORD, KY	03251400	286.00	1970-72		N		N
LICKING R AT MCKINNEYSBURG, KY	03251500	2326.00	1951-79		N	N	N
STONER CR NR MIDDLETOWN, KY	03251665	51.60	1974		N		N
HINKSTON CR NR SHARPSBURG, KY	03252190	78.90	1973		N		N
HINKSTON CR NR CARLISLE, KY	03252300	154.00	1970-74		N		N
S FK LICKING R AT CYNTHIANA, KY	03252500	621.00	1949-83	N	N	N	N
LICKING R AT CATAWBA, KY	03253500	3300.00	1962-79		N		N
LICKING R AT BUTLER, KY	03254000	3375.00	1950, 1975-94	N	N	N	N
OHIO R AT MARKLAND DAM, KY	03277200	83170.00	1960-70	N	N	N	N

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

STATION NAME AND NUMBER	STATION NUMBER	DRAINAGE AREA (MI ²)	PERIOD OF RECORD	BIO. AC-TIVE STA-TUS	PHY. AC-TIVE STA-TUS	SED. AC-TIVE STA-TUS	CHEM-ICAL AC-TIVE STA-TUS
			1974-86	N	N	N	N
OHIO R AT LOCK AND DAM 39 NR FLORENCE, KY	03277205	82910.00	1953-75		N		
YONTS CR NR NEON, KY	03277260		1980-82		N	N	N
N FK KENTUCKY R AT WHITESBURG, KY	03277300	66.40	1970-75		N		N
KINGS CR NR ROXANA, KY	03277320		1980-82		N	N	N
N FK KENTUCKY R AT BLACKKEY, KY	03277340	131.00	1971-75		N		N
ROCKHOUSE CR NR FLETCHER, KY	03277361		1980-82		N	N	N
ROCKHOUSE CR AT LETCHER, KY	03277362		1971		N		N
LINE FK AT DEFEATED CREEK, KY	03277370	40.80	1980-82		N	N	N
LINE FK AT ULVAH, KY	03277380		1971		N		N
N FK KENTUCKY R AT CORNETTSVILLE, KY	03277411	322.00	1970-72		N		N
RIGHT FK MACYS CR NR FARLAR, KY	03277415		1980-82		N	N	N
YELLOW CR AT SASSAFRAS, KY	03277455		1965-75		N		N
CARR FK NR HAZARD, KY	03277480		1971		N		N
LOTTS CR NR DARFORK, KY	03277515		1980-82		N	N	N
BIG CR NR AVAWAN, KY	03277580		1980-82		N	N	N
GRAPEVINE CR NR LAMONT, KY	03277700		1980-82		N	N	N
TROUBLESOME CR NR ARY, KY	03277800		1980-82		N	N	N
BALLS FK NR TALCUM, KY	03277900		1980-82		N	N	N
BUCKHORN CR NR NOBLE, KY	03278100		1980-82		N	N	N
LOST CR NR LOST CREEK, KY	03279150		1980-82		N	N	N
LAUREL FK NR ELMROCK, KY	03279250		1980-82		N	N	N
MIDDLE FK QUICKSAND CR NR DECOY, KY	03279300		1980-82		N	N	N
HAWLS FK NR TIPTOP, KY	03279370		1980-82		N	N	N
QUICKSAND CR AT LUNAH, KY	03279400	101.00	1970-72		N		N
CANEY CR NR CAMP LEWIS, KY	03279430		1980-82		N	N	N
HUNTING CR NR ROUSSEAU, KY	03279460		1980-82		N	N	N
S FK QUICKSAND CR AT PORTSMOUTH, KY	03279650		1980-82		N	N	N
QUICKSAND CR AT QUICKSAND, KY	03279700	203.00	1965-75		N		N
N FK KENTUCKY R AT JACKSON, KY	03280000	1101.00	1948-75	N	N	N	N
			1979-81				
			1987-91				
CANE CR NR JACKSON, KY	03280100		1980-82		N	N	N
ROCKHOUSE CR NR HYDEN, KY	03280360		1980-82		N	N	N
FROZEN CR NR TAULBEE, KY	03280400		1980-82		N	N	N
BOONE FK NR VANCELEAVE, KY	03280450		1980-82		N	N	N
MIDDLE FK KENTUCKY R NR WARBRANCH, KY	03280520		1980-82		N	N	N
MIDDLE FK KENTUCKY R AT ASHER, KY	03280530		1971		N		N
BEECH FK NR HELTON, KY	03280540		1980-82		N	N	N
BEECH FK AT ASHER, KY	03280550	33.90	1971		N		N
GREASY CR NR NAPIER, KY	03280560		1980-82		N	N	N
LAUREL FK NR LEWIS CREEK, KY	03280575		1980-82		N	N	N
GREASY CR AT HOSKINSTON, KY	03280590	95.00	1971		N		N
MIDDLE FK KENTUCKY R NR HAYDEN, KY	03280600	202.00	1975-82	N	N	N	N
			1988		N		N
CUTSHIN CR NR CINDA, KY	03280670		1980-82		N	N	N
HELL FOR CERTAIN CR NR KALIOPI, KY	03280750		1980-82		N	N	N
TURKEY CR NR TURKEY, KY	03280950		1980-82		N	N	N
MIDDLE FK KENTUCKY R AT TALLEGA, KY	03281000	537.00	1950-75	N	N	N	N
			1978-83				
			1987-90				
RED BIRD R AT BIG CREEK, KY	03281030	125.00	1970-72		N		N
BIG CR NR BIG CREEK, KY	03281035		1980-82		N	N	N
HECTOR BRANCH NR ERILINE, KY	03281045		1980-82		N	N	N
GOOSE CR NR GOOSEROCK, KY	03281065	49.60	1979-82		N	N	N
COLLINS FK NR BLUEHOLE, KY	03281075		1980-82		N	N	N
HORSE CR NR HIMA, KY	03281097		1980-82		N	N	N
LITTLE GOOSE CR NR MANCHESTER, KY	03281133		1980-82		N	N	N
BULLSKIN CR NR BRUTUS, KY	03281175		1980-82		N	N	N
S FK KENTUCKY R AT ONEIDA, KY	03281200	486.00	1970-72		N		N
SEXTON CR NR CHESTNUTBURG, KY	03281340		1980-82		N	N	N
LOWER ALLEN CR NR CONKLING, KY	03281360		1980-82		N	N	N
S FK KENTUCKY R AT BOONEVILLE, KY	03281500	722.00	1950-75	N	N	N	N

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

STATION NAME AND NUMBER	STATION NUMBER	DRAINAGE AREA (MI ²)	PERIOD OF RECORD	BIO.	PHY.	SED.	CHEM-
				AC-STATIVE	AC-STATIVE	AC-STATIVE	ICAL AC-STATIVE
			1979-83				
			1987-90				
BIG SINKING CR NR CRYSTAL, KY	03282075	23.40	1987-89		N	N	N
FURNACE FK NR CRYSTAL, KY	03282100	9.94	1987-89		N	N	N
STATION CAMP CR AT WAGERSVILLE, KY	03282170	115.00	1970-72		N		N
KENTUCKY R NR TRAPP, KY	03282300		1982-83		N	N	N
RED R AT DAYSBORO, KY	03282400		1980-82		N	N	N
RED R NR PINE RIDGE, KY	03283100	142.00	1968-76		N		N
CAT CR NR STANTON, KY	03283370	8.30	1987-89		N	N	N
KENTUCKY R AT LOCK 10 NR WINCHESTER, KY	03284000	3955.00	1987-91	N	N	N	N
BAUGHMAN FK AT GENTRY ROAD NR ATHENS, KY	03284090	7.18	1967-68		N		N
BOONE CR AT GRIMES MILL RD NR LOCUST GROVE, KY	03284100	41.80	1967-68		N		N
KENTUCKY R NR LEXINGTON, KY	03284105		1970				N
SILVER CR NR KINGSTON, KY	03284300	28.60	1978-83		N		
SILVER CR NR RICHMOND, KY	03284350		1973-75		N		N
PAINT LICK CR NR MCCREARY, KY	03284450	97.60	1970-72		N		N
KENTUCKY R AT LOCK 8 NR CAMP NELSON, KY	03284500	4414.00	1948-75		N		N
DIX R NR STANFORD, KY	03284800	160.00	1973-75		N		N
HANGING F CR NR STANFORD, KY	03284935	46.90	1974		N		N
DIX R NR DANVILLE, KY	03285000	318.00	1988		N		N
DIX R AT DIX DAM NR BURGIN, KY	03286200	439.00	1961-79		N		N
KENTUCKY R AT LOCK 4 AT FRANKFORT, KY	03287500	5411.00	1949-73	N	N	N	N
			1987-90				
BENSON CR AT FRANKFORT, KY	03287530	71.20	1973		N		N
BENSON CR NR FRANKFORT, KY	03287550	107.00	1970-72		N		N
N ELKHORN CR AT BRYAN STATION RD AT MONTROSE, KY	03287600	21.50	1967-68		N		N
N ELKHORN CR UNNAMED TR AT MUIR STA RD NR MUI, KY	03287620	15.80	1967-68		N		N
N ELKHORN CR AT HUFFMAN MILL RD NR MATTOXTOWN, KY	03287700	62.70	1967-68		N		N
GOOSE CR AT MT HOREB RD NR NEWTOWN, KY	03287800	14.20	1967-68		N		N
GOOSE CR AT NEWTOWN RD, NR NEW ZION, KY	03287810		1967		N		N
N ELKHORN CR NR GEORGETOWN, KY	03288000	119.00	1988-89		N		N
CANE RUN AT BEREA ROAD NR DONERAIL, KY	03288200	19.90	1967-68		N		N
CANE RUN NR GEORGETOWN, KY	03288260	45.40	1973		N		N
CAVE CR NR FORT SPRING, KY	03288500	2.53	1968		N		N
STEELES RUN AT OLD FRANKFORT RD AT FAYWOOD, KY	03289100	6.67	1967-68		N		N
TOWN BRANCH AT YARNALLTON RD AT YARNALLTON, KY	03289200		1967-68		N		N
ELKHORN CR NR FRANKFORT, KY	03289500	473.00	1987-91	N	N	N	N
SIX MILE NR DEFOE, KY	03290420	42.60	1973		N		N
SIX MILE CR NR LOCKPORT, KY	03290490	76.50	1973-74		N		N
KENTUCKY R AT LOCK #2 AT LOCKPORT, KY	03290500	6180.00	1974-95	N	N	N	N
DRENNON CR AT DRENNON SP, KY	03290675	82.50	1973-74		N		N
EAGLE CR NR HOLBROOK, KY	03291270	258.00	1973-75		N		N
TEN MILE CR NR FOLSOM, KY	03291490	68.40	1973		N		N
EAGLE CR AT GLENCOE, KY	03291500	437.00	1948-79		N	N	N
LITTLE KY R NR BEDFORD, KY	03291700	73.20	1970-72		N		N
HARRODS CR NR SKYLIGHT, KY	03292467	60.30	1974-75		N		N
HARRODS CR NR PROSPECT, KY	03292473	92.1	1988-98		N		N
GOOSE CR AT OLD WESTPORT RD AT ST. MATTHEWS, KY	03292474		1988-98		N		N
GOOSE CR AT U.S. HWY 42 AT GLENVIEW ACRES, KY	03292475	10.1	1988-98		N		N
LITTLE GOOSE CR NR HARRODS CR, KY	03292480	5.8	1988-98		N		N
OHIO R AT WATER SUPPLY INTAKE AT LOUISVILLE, KY	03292494		1970				N
S FK BEARGRASS CR AT LOUISVILLE, KY	03292500	17.2	1988-92,		N		N
			95-98				
S. FK. BEARGRASS CR NR EASTERN PKY AT LOUISVILLE, KY	03292530	21.6	1995-98		N		N
S. FK BEARGRASS CR NR WINTER AVE., KY.	03292550	22.6	1988-98		N		N
MIDDLE FK BEARGRASS CR AT LOUISVILLE, KY	03293000	18.9	1988-92,		N		N
			96-98				
M. FK. BEARGRASS CR NR SCENIC LOOP AT LOUISVILLE, KY	03293200	22.7	1988-98		N		N
M. FK. BEARGRASS CR NR LEXINGTON RD AT LOUISVILLE, KY	03293500	24.4	1996-98		N		N
MUDDY FK. MOCKINGBIRD VALLEY RD AT LOUISVILLE, KY	03293550	6.2	1988-98		N		N
OHIO R AT LOUISVILLE, KY	03294500	91170.00	1968-83		N	N	N
MILL CR CUTOFF NR LOUISVILLE, KY	03294550	24.4	1988-92,		N		N
			98				

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

STATION NAME AND NUMBER	STATION NUMBER	DRAINAGE AREA (MI ²)	PERIOD OF RECORD	BIO.	PHY.	SED.	CHEM-
				AC-TIVE STA-TUS	AC-TIVE STA-TUS	AC-TIVE STA-TUS	ICAL AC-TIVE STA-TUS
MILL CR AT ORELL RD NR LOUISVILLE, KY	03294570	13.5	1988-98		N		N
OHIO R AT KOSMOSDALE, KY	03294600	91200.00	1970				N
SALT R NR HARRODSBURG, KY	03295000	41.40	1970-72		N		N
SALT R NR VAN BUREN, KY	03295500	196.00	1970-79		N		N
SALT R AT TAYLORSVILLE, KY	03295610	359.00	1970-72		N		N
BRASHEARS CR NR FINCHVILLE, KY	03295800	147.00	1970-72		N		N
BRASHEARS CR AT TAYLORSVILLE, KY	03295900	262.00	1973-75		N		N
PLUM CR SUBWATER SHED NO 4 NR SIMPSONVILLE, KY	03296000	1.55	1953-64			N	
PLUM CR AT WATERFORD, KY	03297500	31.80	1953-61		N	N	N
COX CR NR HIGHGROVE, KY	03297700	95.80	1970-72		N		N
FLOYDS FK NR CRESTWOOD, KY	03297845	46.70	1979-83	N	N	N	N
LONG RUN NR FISHERVILLE, KY	03297980	22.5	1988-98		N		N
FLOYDS FK AT FISHERVILLE, KY	03298000	138.	1988-98		N		N
POPE LICK AT POPE LICK RD AT MIDDLETOWN, KY	03298100	2.9	1988-98		N		N
CHENOWETH RUN NR RUCKRIEGEL PKY, AT LOUISVILLE, KY	03298135	5.47	1996-98		N		N
CHENOWETH RUN NR GELHAUS LANE, AT FERN CREEK, KY	03298150	11.6	1988-98		N		N
FLOYDS FK NR MOUNT WASHINGTON, KY	03298200	21.3	1988-98		N		N
CEDAR CR AT FAIRMOUNT RD NR MOUNT WASHINGTON, KY	03298242	7.8	1992-98		N		N
CEDAR CREEK AT THIXTON RD NR LOUISVILLE, KY	03298250	11.1	1988-98		N		N
PENNSYLVANIA R AT MT WASHINGTON RD AT LOUISVILLE, KY	03298300	6.4	1988-98		N		N
FLOYDS FK NR GAP IN KNOB, KY	03298390	259.00	1973-75		N		N
SALT R AT SHEPHERDSVILLE, KY	03298500	1197	1948-75	N	N	N	N
			1979-92				
N ROLLING FK AT BRADSFORDVILLE, KY	03298760	95.70	1973-75		N		N
ROLLING FK NR LEBANON, KY	03299000	239.00	1970-80		N		N
BEECH FK NR SPRINGFIELD, KY	03300000	85.90	1970-72		N		N
CHAPLIN R AT SHARPSVILLE, KY	03300300	140.00	1970-72		N		N
BEECH FK AT MAUD, KY	03300400	436.00	1979-83	N	N	N	N
CARTWRIGHT CR AT FREDRICKTOWN, KY	03300498	82.30	1973-75		N		N
BEECH FK AT BARDSTOWN, KY	03301000	669.00	1962-72		N		N
ROLLING FK NR BOSTON, KY	03301500	1299.00	1948-79		N		N
WILSON CR HARRISON FK RD AT DEATSVILLE, KY	03301575	5.7	1990-98		N		N
WILSON CR NR DEATSVILLE, KY	03301580	27.7	1991-92		N		N
			1992-96				
ROLLING FORK NR LEBANON JUNCTION, KY	03301630	1375.00	1975-94	N	N	N	N
SOUTHERN DITCH AT MINORS LN NR OKOLONA, KY	03301880	12.8	1988-98		N		N
FERN CR NR OLD BARDSTOWN RD AT LOUISVILLE, KY	03301900	3.5	1988-98		N		N
NORTHERN DITCH AT OKOLONA, KY	03301940	11.1	1988-98		N		N
SPRING DITCH AT PRIVATE DRIVE NR OKOLONA, KY	03301950	1.6	1988-98		N		N
POND CR NR LOUISVILLE, KY	03302000	64.0	1988-98		N		
POND CR AT PENDLETON RD NR LOUISVILLE, KY	03302030	80.3	1988-98		N		N
SALT R AT MOUTH NR LOUISVILLE, KY	03302060		1970				N
OTTER CR NR VINE GROVE, KY	03302080		1970-71		N		N
OTTER CR AT GRAHAMTON, KY	03302100	88.40	1970-72		N		N
OTTER CR AT OTTER CR PARK NR ROCKHAVEN, KY	03302110	99.2	1993-98		N		N
DOE RUN NR BRANDENBURG STATION, KY	03302150	52.70	1970-72		N		N
SINKING CR NR LODIBURG, KY	03303205	125.00	1971		N		N
SINKING CR AT SAMPLE, KY	03303210	222.00	1970		N		N
BEECH FK NR CLOVERPORT, KY	03303220		1980-82		N	N	N
TAR FK NR CLOVERPORT, KY	03303230		1980-82		N	N	N
OHIO R AT CANNELTON DAM, KY	03303280	97000.00	1975-86	N	N	N	N
BLACKFORD CR NR MACEO, KY	03303447		1980-82		N	N	N
BLACKFORD CR NR MACEO, KY	03303450	111.00	1973-75		N		N
PUP CR NR MACEO, KY	03303490		1980-82		N	N	N
OHIO R AT OWENSBORO, KY	03303500	97200.00	1970				N
GREEN R NR MCKINNEY, KY	03305000	22.40	1970-72		N		N
GREEN R NR DUNNVILLE, KY	03305660	221.00	1973-75		N		N
GREEN R AT NEATSVILLE, KY	03305800	399.00	1959-72		N	N	N
CASEY CR AT CASEY CR, KY	03305865	74.70	1973-75		N		N
GREEN R AT GREENSBURG, KY	03306500	736.00	1948-59		N		
BIG PITMAN CR NR GREENSBURG, KY	03307300		1966		N		N
LITTLE BARREN R NR MONROE, KY	03307800	244.00	1960-72		N		N
GREEN RIVER AT MUNFORDVILLE, KY	03308500	1673.00	1950-94	N	N	N	N

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

STATION NAME AND NUMBER	STATION NUMBER	DRAINAGE AREA (MI ²)	PERIOD OF RECORD	BIO.	PHY.	SED.	CHEM-
				AC- STA- TUS	AC- STA- TUS	AC- STA- TUS	ICAL AC- STA- TUS
ECHO R OUTLET AT MAMMOTH CAVE, KY	03308950		1974		N		N
GREEN R AT MAMMOTH CAVE, KY	03309000	1983.00	1958-74		N		N
WET PRONG BUFFALO CR NR MAMMOTH CAVE, KY	03309100	2.26	1962-74		N	N	N
MCDUGAL CR AT HODGENVILLE, KY	03309600		1970		N		N
N FK NOLIN R AT HODGENVILLE, KY	03310000	36.40	1970-72		N		N
N FK NOLIN R NR EAGLE MILLS, KY	03310030		1970-79		N		N
NOLIN R AT EAGLE MILLS, KY	03310100		1970-72		N		N
MIDDLE CR AT NEELY BRANCH, KY	03310117		1971		N		N
MIDDLE CR NR TONIEVILLE, KY	03310120		1970-72		N		N
MIDDLE CR AT EAGLE MILLS, KY	03310130		1971-72		N		N
NOLIN R NR GLENDALE, KY	03310160	185.00	1971-75		N		N
VALLEY CR AT ELIZABETHTOWN, KY	03310210		1970-73		N		N
VALLEY CR AT GAITHERS, KY	03310225		1971-73		N		N
W RHUDES CR NR CECILIA, KY	03310250		1970-72		N		N
VALLEY CR NR GLENDALE, KY	03310270	90.10	1960-75		N		N
NOLIN R NR STAR MILLS, KY	03310273		1971-72		N		N
NOLIN R AT WAX, KY	03310500	600.00	1949-61		N	N	N
ROCK CR NR CLARKSON, KY	03310550		1980-82		N	N	N
DOG CR NR MAMMOTH CAVE, KY	03310600	8.12	1961-74		N		N
BYLEW CR NR MAMMOTH CAVE, KY	03311100	5.16	1965-74		N		N
GREEN R AT LOCK 6 AT BROWNSVILLE, KY	03311500	2762.00	1978-82		N		N
BEAVERDAM CR AT RHODA, KY	03311600	10.90	1965-79		N		N
BEAR CR NR BEE SPRING, KY	03312040		1980-82		N	N	N
SUNFISH CR NR BEE SPRING, KY	03312070		1980-82		N	N	N
BEAR CR NR ROUNDHILL, KY	03312100	137.00	1960-72		N		N
BIG REEDY CR NR ROUNDHILL, KY	03312120		1980-82		N	N	N
LITTLE REEDY CR NR ROUNDHILL, KY	03312130		1980-82		N	N	N
BARREN R AT ACKERSVILLE, KY	03312400	298.00	1970-72		N		N
SKAGGS CR NR GLASGOW, KY	03312680	141.00	1970-72		N		N
BAYS FK AT CLAYPOOL, KY	03313570	80.90	1960-68		N		N
UNNAMED NON-CONTRIB STREAM AT GREENHILL, KY	03313590		1968		N		N
TRAMMEL CR NR SCOTTSVILLE, KY	03313900	93.40	1970-72		N		N
DRAKES CR NR ALVATON, KY	03314000	478.00	1968-72		N	N	N
UNNAMED NON-CONTRIB STREAM AT THREE SPRINGS, KY	03314595		1968		N		N
JENNINGS CR NR LOST RIVER, KY	03314610		1968		N		N
JENNINGS CR AT US 231 AT BOWLING GREEN, KY	03314650		1968		N		N
JENNINGS CR BELOW LOST R OUTLET AT BOWLING GREEN, KY	03314680		1968		N		N
JENNINGS CR AT BARREN R RD NR BOWLING GREEN, KY	03314700		1968		N		N
GASPER R AT HADLEY, KY	03315300	190.00	1960-72		N		N
WELCH CR NR ABERDEEN, KY	03315510		1980-82		N	N	N
INDIAN CAMP CR NR MORGANTOWN, KY	03315590		1980-82		N	N	N
E PRONG INDIAN CAMP CR NR MORGANTOWN, KY	03315600		1980-82		N	N	N
MUDDY CR AT DUNBAR, KY	03315810	94.30	1960-82		N	N	N
PANTHER CR NR ROCHESTER, KY	03315830		1980-82		N	N	N
MUD R NR LEWISBURG, KY	03316000	90.50	1960-72		N		N
WOLFLICK CR NR LEWISBURG, KY	03316200	116.00	1970-72		N		N
ROCKY CR NR PENROD, KY	03316300		1980-82		N	N	N
GREEN R AT PARADISE, KY	03316500	6183.00	1978-82		N		N
POND CR NR MARTWICK, KY	03316640	125.00	1972-82		N	N	N
LEWIS CR AT ROCKPORT, KY	03316660		1980-82		N	N	N
MEETING CR NR BIG CLIFTY, KY	03316885		1980-82		N	N	N
N FK ROUGH R NR WESTVIEW, KY	03317500	42.00	1970-72		N		N
ROUGH R AT ROUGH R DAM NR FALLS OF ROUGH, KY	03318010	454.00	1962-83		N		N
ROCK LICK CR NR FALLS OF ROUGH, KY	03318300		1980-82		N	N	N
SHORT CR NR FALLS OF ROUGH, KY	03318600		1980-82		N	N	N
S FK CANEY CR AT CANEYVILLE, KY	03318700		1980-82		N	N	N
ADAMS FK NR FORDSVILLE, KY	03319510		1980-82		N	N	N
W FK ADAMS FK NR FORDSVILLE, KY	03319530		1980-82		N	N	N
HALLS CR NR DUNDEE, KY	03319570		1980-82		N	N	N
ROUGH R AT HARTFORD, KY	03319600		1966-72		N		N
MUDDY CR NR BEAVER DAM, KY	03319615		1980-82		N	N	N
THREELICK CR NR BEAVER DAM, KY	03319620		1980-82		N	N	N
BARNETT CR NR HARTFORD, KY	03319700		1980-82		N	N	N

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

STATION NAME AND NUMBER	STATION NUMBER	DRAINAGE AREA (MI ²)	PERIOD OF RECORD	BIO.	PHY.	SED.	CHEM-
				AC- TIVE STA- TUS	AC- TIVE STA- TUS	AC- TIVE STA- TUS	ICAL AC- TIVE STA- TUS
N FK BARNETT CR NR HARTFORD, KY	03319750		1980-82		N	N	N
GREEN R AT LIVERMORE, KY	03319885	7512.00	1948-75		N		
BUCK CR NR LIVERMORE, KY	03319925		1980-82		N	N	N
LONG FALLS CR NR RUMSEY, KY	03320075		1980-82		N	N	N
LONG CR NR KIRKMANSVILLE, KY	03320400		1980-82		N	N	N
W FK POND R NR APEX, KY	03320700		1980-82		N	N	N
MCFARLAN CR NR WHITE PLAINS, KY	03320740		1980-82		N	N	N
DRAKES CR NR WHITE PLAINS, KY	03321035	52.50	1979-82		N	N	N
FLAT CR NR MADISONVILLE, KY	03321050		1980-82		N	N	N
POND R NR SACRAMENTO, KY	03321100	523.00	1959-73		N		N
POND R NR VANDETTA, KY	03321120		1980-82		N	N	N
OTTER CR NR HANSON, KY	03321150		1980-82		N	N	N
CYPRESS CR NR MIDLAND, KY	03321160		1980-82		N	N	N
CYPRESS CR NR CENTRAL CITY, KY	03321170		1980-82		N	N	N
LITTLE CYPRESS CR AT CENTRAL CITY, KY	03321180		1980-82		N	N	N
CYPRESS CR NR RUMSEY, KY	03321215	149.00	1973-75		N		N
GREEN R NR BEECH GROVE, KY	03321230	8545.00	1975-86	N	N	N	N
DEER CR NR SEBREE, KY	03321290	122.00	1974-75		N		N
N FK PANTHER CR NR MASONVILLE, KY	03321400		1980-82		N	N	N
N FK PANTHER CR NR MASONVILLE, KY	03321410	88.30	1970-71		N		N
PANTHER CR NR CURDSVILLE, KY	03321450	344.00	1973-80		N		N
LICK CR NR BLUFF CITY, KY	03321455		1980-82		N	N	N
KNOBLICK CR NR CURDSVILLE, KY	03321455		1980-82		N	N	N
GREEN R AT LOCK AND DAM 1 AT SPOTTSVILLE, KY	03321500	9181.00	1955-62		N		N
CANOE CR NR HENDERSON, KY	03322180	56.00	1979-82		N	N	N
CASEY CR NR WAVERLY, KY	03322370		1980-82		N	N	N
HIGHLAND CR NR UNIONTOWN, KY	03322400	166.00	1970-72		N		N
OHIO R NR UNIONTOWN DAM, KY	03322420		1975		N		N
EAGLE CR NR MORGANFIELD, KY	03382570		1980-82		N	N	N
TRADEWATER R AT POOLS MILL BR NR DAWSON SPRINGS, KY	03382600	60.40	1966-82		N	N	N
CASTLEBERRY CR NR DAWSON SPRINGS, KY	03382650		1980-82		N	N	N
TRADEWATER R AT COLLINS BRDG, NR DAWSON SPRINGS, KY	03382680		1965-67		N		N
TRADEWATER R AT MURPHY FK NR DAWSON SPRINGS, KY	03382685	94.10	1966-75		N		N
BUFFALO CR AT ST HWY 1338 NR DAWSON SPRINGS, KY	03382700		1965-69		N		
BUFFALO CR NR DAWSON SPRINGS, KY	03382720	12.70	1965-67		N		N
COPPERAS CR AT HWY BRIDGE NR ILSLEY, KY	03382835		1966-67		N		N
CANY CR AT MOUTH NR DAWSON SPRINGS, KY	03382855		1965-67		N		N
TRADEWATER R AT ST HWY 109 AT DAWSON SPRINGS, KY	03382870	143.00	1966-67		N		N
PINY CR BL LK BESHEAR D NR DAWSON SPRINGS, KY	03382890		1966-67		N		N
TRADEWATER R AT OLNEY, KY	03383000	255.00	1949-83	N	N	N	N
TRADEWATER R NR DALTON, KY	03383500	283.00	1965-66		N		N
DONALDSON CR NR FRYER, KY	03383650		1980-82		N	N	N
DONALDSON CR AT BR ON HWY 293 NR DALTON, KY	03383700		1966		N		N
TRADEWATER R AT ST HWY 293 NR DALTON, KY	03383710		1965-66		N		N
CLEAR CR AT HWY 70 BR NR RICHLAND, KY	03383755	17.00	1966-82		N	N	N
RICHLAND CR ABOVE TRIBUTARY NO 1 NR ILSLEY, KY	03383770		1966-67		N		N
UNNAMED TRIB NO 1 TO RICHLAND CR NR ILSLEY, KY	03383775		1966-67		N		N
UNNAMED TRIB NO 2 TO RICHLAND CR NR ILSLEY, KY	03383780		1966-67		N		N
RICHLAND CR AT RICHLAND, KY	03383800		1966		N		
UNNAMED TRIB TO CLEAR CR NR BEULAH, KY	03383901		1966		N		N
LICK CR NR RABBIT RIDGE, KY	03384035		1980-82		N	N	N
CLEAR CR AT BRIDGE ON ST HWY 293 NR PROVIDENCE, KY	03384050	197.00	1966-67		N		N
TRADEWATER R AT DAM NR PROVIDENCE, KY	03384060		1965-66		N		N
TRADEWATER R AT BRIDGE BELOW DAM NR PROVIDENCE, KY	03384072		1966-67		N		N
TRADEWATER R NR PROVIDENCE, KY	03384100	605.00	1965-72		N		N
TRADEWATER R NR BLACKFORD, KY	03384103		1980		N	N	N
PINEY CR NR SHADY GROVE, KY	03384106		1980-82		N	N	N
UNNAMED TRIB TO SLOVER CR NR PROVIDENCE, KY	03384133		1968				N
SLOVER CR NR CLAY, KY	03384136		1969		N		N
UNNAMED TRIB TO SLOVER CR NR CLAY, KY	03384138		1969		N		N
UNNAMED TRIB TO SLOVER CR NR CLAY, KY	03384140		1969-79		N		N
FREDRICKS DITCH NR CLAY, KY	03384145		1969		N		N
CRABORCHARD CR NR CLAY, KY	03384150		1965-82		N	N	N

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

STATION NAME AND NUMBER	STATION NUMBER	DRAINAGE AREA (MI ²)	PERIOD OF RECORD	BIO.	PHY.	SED.	CHEM-
				AC-STATUS	AC-STATUS	AC-STATUS	ICAL AC-STATUS
CRABORCHARD CR NR CLAY, KY	03384151		1969		N		N
CRABORCHARD CR AT CLAY, KY	03384152		1966		N		N
CRABORCHARD CR AT CLAY, KY	03384154	86.60	1969-72		N	N	N
CANEY FK NR CLAY, KY	03384158		1980-82		N	N	N
TRADEWATER R NR SULLIVAN, KY	03384180	861.19	1975-77		N	N	N
SMITH DITCH NR STURGIS, KY	03384200		1980-82		N	N	N
LOONEY CR NR CLUTTS, KY	03400480		1980-82		N	N	N
CLOVER FK NR SHIELDS, KY	03400650		1980-82		N	N	N
CLOVER FK AT EVARTS, KY	03400700	82.40	1960-72		N		N
MARTINS FK ABOVE SMITH, KY	03400785	23.80	1986-88			N	
CRANE CR NR SMITH, KY	03400796	1.63	1978-80		N		
BROWNICE CR NR OAKS, KY	03401290		1980-82		N		N
CLEAR CR NR PINEVILLE, KY	03402400		1980-82		N	N	N
LITTLE CLEAR CR NR PINEVILLE, KY	03402450		1980-82		N	N	N
STRAIGHT CR NR KETTLE ISLAND, KY	03402800		1980-82		N	N	N
LEFT FK STRAIGHT CR NR CARY, KY	03402830		1980-82		N	N	N
MIDDLE FK STINKING CR NR WALKER, KY	03403100		1980-82		N	N	N
ROAD FK CR NR BARNYARD, KY	03403150		1980-82		N	N	N
LITTLE INDIAN CR NR PERMON, KY	03403550		1980-82		N	N	N
FOURMILE BRANCH NR BRYANTS STORE, KY	03403590		1980-82		N	N	N
WATTS CR NR WOFFORD, KY	03404100		1980-82		N	N	N
JELLICO CR NR WILLIAMSBURG, KY	03404200	103.00	1979-82		N	N	N
MARSH CR NR DUCKRUN, KY	03404350		1980-82		N	N	N
TRIBUTARY TO LAUREL R NR LESBAS, KY	03404650		1980-82		N	N	N
TRIBUTARY TO LAUREL R NR PINE GROVE, KY	03404800		1980-82		N	N	N
LAUREL R AT MUNICIPAL DAM NR CORBIN, KY	03404820	140.00	1977-83		N		
LYNN CAMP CR AT CORBIN, KY	03404900	53.80	1973-83		N		
LAUREL R AT CORBIN, KY	03405000	201.00	1949-73		N		N
CRAIG CR NR HIGHTOP, KY	03405550		1980-82		N	N	N
S FK TO ROCKCASTLE R NR CRAWFORD, KY	03405600		1980-82		N	N	N
S FK ROCKCASTLE R NR PEOPLES, KY	03405700	95.10	1961-72		N		N
POND CR NR PEOPLES, KY	03405730		1980-82		N	N	N
LAUREL FK NR MCKEE, KY	03405780		1980-82		N	N	N
INDIAN CR NR HURLEY, KY	03405800		1980-82		N	N	N
ROUNDSTONE CR AT LIVINGSTON, KY	03405900	144.00	1960-72		N		N
WOOD CR NR LONDON, KY	03406000	3.89	1976-80	N	N		
CANE BRANCH NR PARKERS LAKE, KY	03407100	.67	1955-74		N	N	N
W FK CANE BR NR PARKERS LAKE, KY	03407200	.26	1957-73		N	Y	N
HELTON BRANCH AT GREENWOOD, KY	03407300	.85	1955-73		N	N	N
BUCK CR AT DYKES, KY	03407640	253.00	1973-75		N		N
S FK CUMBERLAND R NR STEARNS, KY	03410500	954.00	1960-72				
			1979-95	N	N	N	N
ROARING PAUNCH CR NR BARTHELL, KY	03410530		1980-82		N	N	N
ROCK CR AT WHITE OAK JUNCTION, KY	03410560		1980-82		N	N	N
S FK CUMBERLAND R NR YAMACRAW, KY	03410600	1083.00	1948-76		N		
WOLF CR AT WOLF CREEK, KY	03410700		1980-82		N	N	N
LITTLE S FK CUMBERLAND R NR OIL VALLEY, KY	03410900	98.20	1970-72		N		N
S FK CUMBERLAND R AT NEVELSVILLE, KY	03411000	1271.00	1960-75		N		
SINKING CR NR GREGORY, KY	03411100		1980-82		N	N	N
PUCKETT CR NR PATHFORK, KY	03411250		1980-82		N	N	N
PITMAN CR AT SOMERSET, KY	03412500	31.30	1970-72		N		N
FISHING CR NR HOGUE, KY	03412700	59.80	1970-72		N		N
CUMBERLAND R NR ROWENA, KY	03414000	5790.00	1965-79		N		N
CROCUS CR NR BAKERTON, KY	03414080	108.00	1973-75		N		N
CUMBERLAND R NR BURKESVILLE, KY	03414110	6050.00	1948-79		N		N
RED R NR ADAIRVILLE, KY	03435100	229.00	1970-72		N		N
WHIPPOORWILL CR NR CLAYMOUR, KY	03435140	20.80	1978-82		N		
WHIPPOORWILL CR AT DOT, KY	03435265	115.00	1973-75		N		N
ELK FK NR HADENSVILLE, KY	03435380	88.50	1973-75		N		N
W FK RED R NR SAINT ELMO, KY	03436190	162.00	1973-75		N		N
S FK LITTLE R AT HOPKINSVILLE, KY	03437500	46.50	1949-75		N		
LITTLE R NR CADIZ, KY	03438000	244.00	1958-73		N	N	N
MUDDY FK LITTLE R NR CERULEAN, KY	03438070	30.50	1978-82		N		

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

STATION NAME AND NUMBER	STATION NUMBER	DRAINAGE AREA (MI ²)	PERIOD OF RECORD	BIO.	PHY.	SED.	CHEM-
				AC- TIVE STA- TUS	AC- TIVE STA- TUS	AC- TIVE STA- TUS	ICAL AC- TIVE STA- TUS
EDDY CR NR LAMASCO, KY	03438170	71.70	1970-74		N		N
BARKLEY-KENTUCKY CANAL NR GRAND RIVERS, KY	03438190		1978-82		N		
CUMBERLAND R NR GRAND RIVERS, KY	03438220	17598.00	1969-86	N	N	N	N
LIVINGSTON CR NR DYCUSBURG, KY	03438470	112.00	1970-72		N		N
TENNESSEE R NR PADUCAH, KY	03609500	40200.00	1951-73		N		N
TENNESSEE R AT HWY 60 NR PADUCAH, KY	03609750	40330.00	1950		N		
			1952		N		
			1967-72		N		
			1974-86	N	N	N	N
CLARKS R AT MURRAY, KY	03610000	89.10	1970-72		N		N
CLARKS R AT ALMO, KY	03610200	134.00	1982-83	N	N	N	N
CLARKS R NR BENTON, KY	03610500	227.00	1948-61		N		N
W FK CLARKS R NR BREWERS, KY	03610545	68.70	1970-81		N	N	N
W FK CLARKS R AT KALER, KY	03610585	150.00	1973-75		N		N
HUMPHREY CR AT LACENTER, KY	03613000	44.20	1970-72		N		N
MAYFIELD CR AT LOVELACEVILLE, KY	07023000	212.00	1960-72		N		N
BAYOU DE CHIEN NR CLINTON, KY	07024000	68.70	1954-83	N	N	N	N
OBION CR NR ARLINGTON, KY	07023700	203.00	1970-72		N		N
MISSISSIPPI R AT HICKMAN, KY	07024070	922500.00	1969-70	N	N		N

N Eliminated activity

DISCONTINUED GROUND-WATER STATIONS

Station Number	County	Station Name	Period of Record
363634088191601	Calloway	Joe Parks	1948-83, 1988-97
365142087270401	Christian	Western State Hospital	1950-83, 1988-97
374638087054101	Daviess	OMU	1951-83, 1990-97
380425083091901	Elliott	Roy Adkins	1952-84, 1998-97
375928084362001	Fayette	M.A. Kehrt	1952-84, 1988-97
382031084553901	Franklin	Harp Road	1973-83, 1988-97
373925085540301	Hardin	OW-6	1989-95
374020085530601	Hardin	OW-5	1989-90, 1994,95
374035085525401	Hardin	OW-1-82	1982-98
374046085523501	Hardin	OW-1-81	1982-98 1994,95
375958085575401	Hardin	Hart #1	1980-92
374441087421001	Henderson	Town of Corydon	1952-83, 1988-97
380122085545001	Jefferson	80-1	1980-97
380252085530601	Jefferson	79-3	1979-97
380308085533501	Jefferson	79-4	1979-92
380341085534501	Jefferson	83-1	1983-97
380423085541501	Jefferson	Genewein	1976-97
380434085525101	Jefferson	E-1-d	1980-92
380458085523201	Jefferson	86-4	1986-97
380517085535201	Jefferson	77-1	1977-97
380532085515301	Jefferson	76-1	1976-97
380616085532801	Jefferson	Lou. Ext. Water District	1962-92
380619085512301	Jefferson	86-3	1986-97
380637085521301	Jefferson	D-1-d	1980-92
380709085531101	Jefferson	C-5-m	1980-97
380716085521801	Jefferson	RR-47	1945-97
380718085515802	Jefferson	C-3-s	1984-92
380718085524202	Jefferson	C-4-m	1983-92
380816085520701	Jefferson	Dohn	1943-97
380827085503001	Jefferson	86-5	1986-97
380843085530701	Jefferson	B-3-d	1980-97
380843085522801	Jefferson	B-2-d	1980-92
380846085520101	Jefferson	B-1-d	1980-92
380850085534701	Jefferson	78-2	1978-97
380852085515901	Jefferson	Waller	1943-92
380940085514001	Jefferson	81-1	1981-97
380955085531801	Jefferson	83-2	1983-97
381011085491601*	Jefferson	86-1	1986-93
381034085502601	Jefferson	RR-30	1945-97
381050085511001	Jefferson	RR-29	1945-97
381102085485601	Jefferson	86-2	1986-97
381102085512102	Jefferson	Kaufman	1944-92
381108085511301	Jefferson	Baugh	1945-92
381123085491401	Jefferson	RR-32	1945-87
381130085515001	Jefferson	Thienemen	1944-97
381139085502301	Jefferson	81-2	1991-97

DISCONTINUED GROUND-WATER STATIONS

Station Number	County	Station Name	Period of Record
381142085475702	Jefferson	RR-42	1945-97
381143085465801	Jefferson	RR-25	1945-97
381155085483401	Jefferson	Mathis	1944-92
381157085510201	Jefferson	RR-39	1945-92
381204085455301	Jefferson	CP-16	1979-97
381207085484601	Jefferson	RR-41	1945-97
381209085472101	Jefferson	C-7	1935-97
381212085473801	Jefferson	C-6	1935-92
381213085521701	Jefferson	RR-22	1945-97
381221085475001	Jefferson	C-5	1935-92
381222085505201	Jefferson	RR-27	1945-97
381224085474001	Jefferson	Early Times	1947-92
381229085510201	Jefferson	Triangle Refinery	1978-92
381246085470601	Jefferson	Seagrams TW #2	1943-97
381246085463201	Jefferson	CP-18A	1984-97
381250085484901	Jefferson	C-2	1935-92
381251085500501	Jefferson	RR-35	1945-97
381256085471501	Jefferson	National Distillery TW-2	1941-92
381257085471801	Jefferson	TW-4	1942-97
381259085471502	Jefferson	National Distillery TW-1	1941-92
381259085511002	Jefferson	RR-21	1945-97
381305085501302	Jefferson	Reynolds Metals	1980-92
381309085505302	Jefferson	RR-24	1945-92
381313085495501	Jefferson	B.F. Goodrich TW-2	1947-92
381315085501401	Jefferson	Airco TW-11	1956-92
381315085502602	Jefferson	NC-TW-D	1956-97
381316085502101	Jefferson	Airco TW-12	1956-92
381320085464101	Jefferson	CP-15	1978-97
381324085460401*	Jefferson	American Standard	1978-93
381331085491601	Jefferson	RR-26	1945-97
381338085481601	Jefferson	CP-8	1977-92
381346085453801	Jefferson	St. Patricks's well	1981-97
381346085454201	Jefferson	CP-1	1977-97
381355085465901	Jefferson	Louisville Cooperage	1948-92
381400085445001	Jefferson	CP-6	1977-97
381406085463001	Jefferson	United Catalyst	1978-92
381417085500301	Jefferson	RR-23	1945-97
381424085454602	Jefferson	CP12A	1980-92
381428085485701	Jefferson	78-6	1978-97
381430085452602	Jefferson	Conna	1943-92
381430085472501	Jefferson	CP-17	1982-97
381500085445501	Jefferson	89-2	1989-92
381500085454701	Jefferson	78-5	1978-92
381501085464601	Jefferson	CP-10	1977-97
381503085452601	Jefferson	Stewarts	1981-92
381505085475701	Jefferson	CP-5	1977-92
381508085455701	Jefferson	CP-4	1977-97
381514085453502	Jefferson	CP11A	1984-92
381517085455501	Jefferson	86-6	1986-92
381518085451801	Jefferson	87-1	1986-96
381518085454401	Jefferson	86-10	1986-97
381524085452301	Jefferson	86-8	1986-92
381528085454201	Jefferson	86-9	1986-92
381536085492801	Jefferson	CP-2	1977-92
381538085434401*	Jefferson	78-7	1978-92

DISCONTINUED GROUND-WATER STATIONS

Station Number	County	Station Name	Period of Record
381539085465201	Jefferson	CP-9	1977-97
361343085480101	Jefferson	CP-14	1978-97
381553085431602	Jefferson	M-2	1978-97
381604085430501	Jefferson	WC-1	1946-97
381607085483601	Jefferson	CP-3	1977-97
381613085421901	Jefferson	WC-14	1946-92
381628085473101	Jefferson	CP-13	1978-92
381638085415801	Jefferson	WC-4	1946-97
381648085421201	Jefferson	WC-5	1946-97
381653085413302	Jefferson	WC-9A	1979-97
381701085414002	Jefferson	WC-8A	1979-92
381722085405801	Jefferson	WC-11	1946-92
381742085402001	Jefferson	WC-13	1946-92
381827085392401	Jefferson	WC-26	1946-92
374151085413201	Larue	Wagner	1971-83, 1988-97
370757084045001	Laurel	Hale	1951-62, 1965-84,
371033082374301*	Letcher	C&ORR	1962-92 1988-97
372739084402101	Lincoln	Peck	1953-84 1988-97
365046086444901	Logan	Appling	1988-97
370551088510401	Mccracken	Heath	1969-83, 1988-97
370211085354301	Metcalfe	Froedge	1979-83, 1988-97
370342086080101	Warren	Estes	1961-83, 1988-97

* destroyed



INDEX

	Page		Page
Access to USGS Data	21,22	Bottom material, definition of	24
Acid neutralizing, definition of	23	Bowling Green, Barren River at	434
Acre-foot, definition of	23	Brashears Creek at Taylorsville	252,253
Adenosine triphosphate, definition of	23	Brier Creek at Pendleton Road	290,291
Algae, definition of	23	Bullskin Creek near Simpsonville	250,251
Algal growth potential, definition of	23	Burning Fork near Salyersville	429
Alkalinity, definition of	23		
Almo, Clarks River at	408,409	Cadentown, East Hickman Creek at Andover Village near ..	100,101
Annual seven-day minimum	25	Cadentown, North Elkhorn Creek at Bryant Road near	206,207
Apex, Pond River near	318,319	Cadiz, Little River near	394,395
Ash mass, definition of	24	Calhoun, Green River at lock 2, at	316,317
Alvaton, Drakes near	434	Cannelton Dam, Ohio River at	294-301
		Carlisle, Hinkston Creek near	70,71
Bacteria, definition of	23	Cartwright Creek at Fredicktown	433
Barbourville, Cumberland River at	370,371	Catawba, Licking River at	72,73
Bardstown, Beech Fork at	272,273	Cedar Creek,	
Bardstown, Beech Fork near	433	at Thixton Road near Louisville	262,263
Barren River at Bowling Green	434	Cells/volume, definition of	24
Bayou Creek Basin,		Cfs-day, definition of	24
gaging-station records in	414-419	Chaplin River near Chaplin	433
Bayou Creek,		Chemical Oxygen Demand, definition of	24
near Grahamville	416,417	Chenoweth Run, at Gelhaus Lane near Fern Creek	260,261
near Heath	414,415	Chenoweth Run, at Ruckriegal Pky near Jeffersontown	258,259
Bayou de Chien Basin,		Chlorophyll, definition of	24
gaging-station records in	426,427	Clarks River at Almo	408,409
Bayou de Chien near Clinton	426,427	Classification size (mm) Method of Analysis, definition of	28
Beargrass Creek Basin,		Clay City, Red River at	96,97
gaging-station records in	240-245	Clear Fork at Saxton	372,373
Beargrass Creek,		Clermont, Long Lick near	268,269
Middle Fork, at Louisville	244,245	Clinton, Bayou de Chien near	426,427
South Fork, at Louisville	240,241	Color Unit, definition of	24
South Fork, at Winter Avenue, at Louisville	242,243	Columbia, Russell Creek near	302,303
Beaver Creek (tributary to Green River)		Contents, definition of	24
at Hwy 31 E near Glasgow	310,311	Continuing-record station, definition of	25
Beaver Creek near Johnsonville	433	Control, definition of	25
Beaver Creek near Monticello	392,393	Cooperation	1,2
Bed load, definition of	30	Corbin, Laurel River at Municipal Dam near	428
Bedload, definition of	24	Lynn Camp Creek at	376,377
Bed load discharge, definition of	30	Cressmont, Sturgeon Creek at	92,93
Bed material, definition of	24	Cubic feet per second, definition of	25
Beech Fork at Bardstown	272,273	Cumberland, Poor Fork at	428,434
Beech Fork near Bardstown	433	Cumberland River,	
Beech Fork at Maud	270,271	near Grand Rivers	396-401
Beech Fork near Maud	433	at Barbourville	370,371
Benthic invertebrates, definition of	24	at Pine Street Bridge at Pineville	368,369
Big Creek, Red Bird River near	84,85	at Williamsburg	374,375
Big Sandy River Basin,		near Harlan	364,365
crest-stage partial-record stations in	429	South Fork, near Stearns	380-384
gaging-station records in	42-49	South Fork at Yamacraw	386-390
Billows, Rockcastle River at	378,379	Cumberland River Basin,	
Biochemical Oxygen Demand, definition of	24	crest-stage partial-record stations in	428
Biomass, definition of	24	gaging-station records in	332-401
Blue-green algae, definition of	28	low-flow partial-record stations in	434
Booneville, South Fork Kentucky River at	88,89	Currys Fork near Crestwood	432
Boston, Rolling Fork near	274,275	Crestwood, Currys Fork near	432

INDEX

Page	Page		
Cutshin Creek at Wooton	80,81	Flat Creek near Sherburne	431
Cynthiana, South Fork Licking River at	432	Floyds Fork,	
Cynthiana, Mill Creek near.....	432	at Fisherville.....	256,257
		near Pewee Valley.....	254,255
Danville, Dix River near	108,109	Fort Knox, Mill Creek near	278-281
Danville, Mocks Branch at Bluegrass Pike near	138-144	Fort Spring, South Elkhorn Creek at.....	218-219
Danville, Mocks Branch at Highway 1915 near	146-163	Frankfort,	
Danville, Mocks Branch at Highway 127 near	164-181	Elkhorn Creek near.....	228,229
Danville, Mocks Branch at Highway 1896 near	182-199	Kentucky River at lock 4, at.....	204,205
Danville, Spears Creek at Railroad Culvert near	110-127	Franklin, West Fork Drakes Creek near.....	312,313
Danville, Spears Creek at Streamland Drive near.....	128-136	Fredericktown, Cartwright Creek at.....	433
Deatsville, Wilson Creek at Harrison Fork Road near.....	276,277		
Definition of terms	23-33	Gaging-station records,	
Determinations of "suspended, recoverable" constituents,		crest-stage partial-records stations	428-438
definition of	31	discontinued.....	456-472
Determinations of "suspended, total" constituents,		surface-water stations	42-427
definition of	31	Georgetown,	
Diatoms, definition of	28	North Elkhorn Creek at	214,215
Discharge, definition of.....	25	North Elkhorn Creek near	212,213
Discharge, miscellaneous measurements.....	435-438	Royal Springs at	216,217
Discontinued records, gaging station.....	456-472	Glasgow, Beaver Creek at Hwy 31 E near	310,311
surface-water	456-463	Glencoe, Eagle Creek at.....	232,233
water-quality.....	464-472	Glensboro, Salt River at	248,249
Discontinued records, ground water	473-475	Goose Creek Basin, (tributary to the Ohio River)	
Dissolved, definition of.....	25	gaging-station records in	236-239
Dissolved-solids concentration, definition of	25	Goose Creek, (tributary to Ohio River)	
Dix River near Danville	108,109	at Old Westport Road near St. Matthews	236,237
Downstream order system.....	8	Goose Creek (tributary to South Fork	
Drainage area, definition of.....	25	Kentucky River) at Manchester	86,87
Drainage basin, definition of.....	25	Gordon Ford, Licking River at	429
Drakes Creek near Alvaton.....	434	Goshen, Harrods Creek at Highway 329 near	234,235
Dry mass, definition of.....	24	Grahamville,	
		Bayou Creek near	416,417
Eagle Creek, at Glencoe.....	232,233	Little Bayou Creek near	418,419
East Hickman, West Hickman Creek near	106,107	Grand Chain, Ill., Ohio River at lock and dam 53 near	420-425
East Hickman Creek at Andover Village near Cadentown ...	100,101	Grand Rivers, Cumberland River near.....	396-401
East Hickman Creek near East Hickman.....	104,105	Grapevine Creek near Phyllis	42-43
East Hickman Creek Tributary near Lexington	102,103	Graves County, ground-water levels	441
Elkhorn City, Russell Fork at.....	429	Grayson, Little Sandy River at.....	50-51
Elkhorn Creek near Frankfort	228,229	Green algae, definition of.....	28
Enterococcus bacteria, definition of.....	23	Green River,	
Explanation, of ground-water level records	19,20	at lock 2, at Calhoun.....	316,317
of precipitation quality records.....	20-22	at Munfordville.....	304,305
of stage and water discharge records.....	9-15	at Paradise.....	314,315
of surface water-quality records	15-19	Green River Basin,	
Explanation of the records	8-21	gaging-station records in	302-321
Extractable organic halides, definition of	25	low-flow partial record.....	434
		Greenup, Ohio River at Greenup Dam near.....	52-58
Fecal-coliform bacteria, definition of	23	Greenup, Tygarts Creek near	60-61
Fecal-streptococcal bacteria, definition of	23	Ground-water levels	
Fern Creek,		by county	441-452
at Old Bardstown Road at Louisville	282,283	explanation of	19,20
Chenoweth Run at Gelhaus Lane near	260,261	Ground-water, summary of hydrologic conditions	6
Fisherville,			
Floyds Fork at.....	256,257	Hardness of water, definition of.....	26

INDEX

Page	Page		
Harlan, Cumberland River near	364,365	Levisa Fork,	
Harrods Creek Basin, gaging-station records in	234,235	at Paintsville	48,49
Harrods Creek at Highway 329 near Goshen	234,235	at Pikeville	44,45
Harrods Creek, Little Goose Creek near	238,239	at Prestonsburg	429
Hazel Green, Red River near	94,95	Lewisburg, North Fork Licking River near	431
Heath, Bayou Creek near	414,415	Lexington, East Hickman Creek Tributary near	102,103
Heidelberg, Kentucky River at lock 14, at	90,91	Lexington, North Elkhorn Creek at Winchester Road	208,209
High Bridge, Kentucky River at lock 7 at	200,201	Lexington, Wolf Run at Old Frankfort Pike at	220-223
High tide, definition of	26	Licking River,	
Hillsboro, Locust Creek near	431	at Catawba	72,73
Hinkston Creek near Carlisle	70,71	North Fork, near Lewisburg	431
Hinkston Creek near Little Rock	432	North Fork, near Mount Olivet	68,69
Hinkston Creek near Sharpsburg	431	at Gordon Ford	429
Howards Mill, Spencer Creek near	430	South Fork, at Cynthiana	432
Hydrologic Bench-Mark Network	6	Licking River Basin,	
definition of	26	gaging-station records in	64-73
Hydrologic conditions, summary of	2-6	low flow partial records	429-432
Hydrologic unit, definition of	26	Little Bayou Creek near Grahamville	418,419
Instantaneous discharge, definition of	25	Little Goose Creek near Harrods Creek	238,239
Introduction	1	Little River near Cadiz	394,395
Jackson, North Fork Kentucky River at	78-79	Little Rock, Hinkston Creek near	432
Jefferson County, ground-water levels	442-452	Little Sandy River,	
Jeffersontown, Chenoweth Run near Ruckriegal Pky	258-259	at Grayson	50,51
Johns Creek,		Little Sandy River Basin,	
near Meta	46,47	gaging-station records in	50,51
Johnsonville, Beaver Creek near	433	Lockport, Kentucky River at lock 2, at	230,231
Kentucky River,		Locust Creek near Hillsboro	431
at lock 2, at Lockport	230,231	Long Lick near Clermont	268,269
at lock 4, at Frankfort	204,205	Louisville,	
at lock 6, near Salvisa	202,203	Brier Creek at Pendleton Road near	290,291
at lock 7, at High Bridge	200,201	Cedar Creek at Thixton Road near	262,263
at lock 10, near Winchester	98,99	Fern Creek at Old Bardstown Road at	282,283
at lock 14, at Heidelberg	90,91	Middle Fork Beargrass Creek at	244,245
Middle Fork, at Tallega	82,83	Ohio River at	246,247
North Fork, at Jackson	78,79	Pennsylvania Run at Mount Washington Road near	264,265
North Fork at Whitesburg	76,77	Pond Creek at Pendleton Road near	288,289
South Fork, at Booneville	88,89	Pond Creek near	286,287
Kentucky River Basin,		South Fork Beargrass Creek at	240,241
gaging-station records in	76-233	Winter Avenue, at	242,243
Kinniconick Creek at Tannery	62,63	Low tide, definition of	26
Kinniconick Creek Basin,		Lynn Camp Creek at Corbin	376,377
gaging-station records in	62,63	Madisonville, Pond River near	320,321
Kyrook, Nolin River at	308,309	Manchester, Goose Creek at	86,87
Lakes:		Maps:	
Martins Fork Lake at Martins Fork Dam near Smith	332-352	location of gaging stations in Kentucky	39
Latitude-Longitude System	9	location of observation wells in downtown area in	
Laurel River, at Municipal Dam near Corbin	428	Louisville	439
Levels, ground-water	441-452	location of surface water-quality stations in Kentucky	40
		Martins Fork,	
		Lake at Martins Fork Dam near Smith	332-352
		near Smith	354-362
		Massac Creek Basin,	
		gaging-station records in	410,411
		Massac Creek near Paducah	410,411

INDEX

Page	Page		
Maud, Beech Fork at.....	270,271	North Elkhorn Creek,	
Maud, Beech Fork near.....	433	at Bryan Station Road at Montrose.....	210,211
Mean concentration, definition of.....	30	at Bryant Road near Cadentown.....	206,207
Mean discharge, definition of.....	25	at Georgetown.....	214,215
Mean high tide, definition of.....	26	near Georgetown.....	212,213
Mean low tide, definition of.....	26	at Winchester Road at Lexington.....	208,209
Mean water level, definition of.....	26	Northern Ditch at Okolona.....	284,285
Membrane filter, definition of.....	26	Numbering system for wells and miscellaneous sites.....	8
Meta, Johns Creek near.....	46,47		
Metamorphic stage, definition of.....	26	Ohio River, at Cannelton Dam.....	294-301
Methylene blue active substances, definition of.....	26	at Greenup Dam.....	52-58
Metropolis, Ill., Ohio River at.....	412,413	at lock and dam 53 near Grand Chain, Ill.....	420-425
Micrograms per gram, definition of.....	26	at Louisville.....	246,247
Micrograms per liter, definition of.....	26	at Metropolis, Ill.....	412,413
Microsiemens per centimeter, definition of.....	26	at Markland Dam near Warsaw.....	74,75
Middlesboro, Yellow Creek near.....	366,367	at Smithland Dam.....	330-331
Middletown,		Ohio River Main Stem,	
Midway, South Elkhorn Creek near.....	226,227	gaging-station records in.....	52-58,74,75,246,247,294-301,
Mill Creek near Cynthiana.....	432	.....	330,331,412,413,420-425
Mill Creek near Fort Knox.....	278-281	Olney, Tradewater River at.....	328,329
Mill Creek near Preston.....	430	Okolona,	
Milligrams of carbon per area or volume per unit time.....	29	Northern Ditch at.....	284,285
Milligrams of oxygen per area or volume per unit time.....	29	Order, downstream, of listing stations.....	8
Milligrams per liter, definition of.....	26	Organism, definition of.....	27
Miscellaneous discharge measurements.....	435-438	count/area.....	27
Mocks Branch at Bluegrass Pike near Danville.....	138-144	count/volume.....	27
Mocks Branch at Highway 1915 near Danville.....	146-163	organic mass.....	24
Mocks Branch at Highway 127 near Danville.....	164-181	Otter Creek Basin,	
Mocks Branch at Highway 1896 near Danville.....	182-199	gaging-station records in.....	292,293
Monticello, Beaver Creek near.....	392,393	Otter Creek at Otter Creek Park near Rock Haven.....	292,293
Montrose, North Elkhorn Creek at Bryan Station Road.....	210,211	Owingsville, Slate Creek near.....	431
Morehead, Triplett Creek at.....	430		
Morehead, North Fork Triplett Creek near.....	430	Paducah,	
Most probable number, definition of.....	26	Massac Creek near.....	410,411
Mount Olivet, North Fork Licking River near.....	68,69	Tennessee River at Highway 60 near.....	402-407
Multiple plate samplers, definition of.....	27	Paintsville, Levisa Fork at.....	48,49
Munfordville, Green River at.....	304,305	Paradise, Green River at.....	314,315
National Atmospheric Deposition Program/		Parameter Code, definition of.....	27
National Trends Network.....	6,7	Paris, Stoner Creek at.....	431
definition of.....	27	Partial-record station,	
National Geodetic Vertical Datum of 1929,		definition of.....	28
definition of.....	27	discharge at.....	428-438
National stream-quality accounting		Particle size, definition of.....	28
network, (NASQAN).....	6	Particle size classification, definition of.....	28
definition of.....	27	Particle size distribution, definition of.....	28
National Water-Quality Assessment Network (NAWQA).....	7,8	Pewee Valley, Floyds Fork near.....	254,255
definition of.....	27	Pennsylvania Run at Mt Washington Road near Louisville.....	264,265
National trends network, definition of.....	27	Phyllis, Grapevine Creek near.....	42,43
New Harmony, Ind., Wabash River at.....	322-327	Phytoplankton, definition of.....	28
New Hope, Pottinger Creek near.....	432	Picocurie, definition of.....	28
Nolin River,		Pikeville, Levisa Fork at.....	44,45
at Kyrock.....	308,309	Pineville, Cumberland River at Pinestreet Bridge at.....	368,369
at White Mills.....	306,307	Plankton, definition of.....	28
		Polychlorinated biphenyls, definition of.....	29

INDEX

	Page		Page
Pond Creek (tributary to Salt River),		Rock Lick Creek,	
at Pendleton Road near Louisville.....	288,289	above Unnamed tributary near Sharkey	64,65
near Louisville.....	286,287	at Highway 158 near Sharkey	66,67
Pond River near Apex.....	318,319	Rolling Fork, near Boston.....	274,275
Pond River near Madisonville.....	320,321	Rowan County,	
Poor Fork at Cumberland.....	428,434	chemical quality of precipitation, records in	253-255
Pottinger Creek near New Hope	432	Royal Springs at Georgetown	216,217
Precipitation quality, records of.....	453-455	Runoff in inches, definition of	29
Preston, Mill Creek near	430	Russell Creek near Columbia.....	302,303
Prestonsburg, Levisa Fork at.....	429	Russell Fork at Elkhorn City.....	429
Primary Productivity, definition of.....	29		
Publications of techniques of water resources investigations ..	34-38	Salt Lick Creek at Salt Lick.....	430
		Salt River,	
Quality of Water, Summary of Hydrologic Conditions	2-6	at Glensboro	248,249
Radiochemical Program, definition of	29	at Shepherdsville	266,267
Records of		Salt River Basin,	
Data Table of daily mean values	12	gaging-station records in	248-291
Ground-Water Levels	441-452	low-flow partial-records	432,433
Data Collection and Computation.....	19	Salvisa, Kentucky River at lock 6, near	202,203
Data Presentation	19,20	Salyersville, Burning Fork near	429
Precipitation Quality.....	20,21,453-455	Saxton, Clear Fork at	372,373
On-site Measurements and Sample Collection	20,21	Sea level, definition of	29
Data Presentation	21	Sediment, definition of.....	29
Station Manuscript	11,12	Sharpsburg, Hinkston Creek near	431
Stage and Water Discharge	9-15	Sharkey, Rock Lick Creek	
Accuracy of the Records.....	14	above unnamed tributary near	64,65
Data Collection and Computation.....	9,10	at Highway 158 near.....	66,67
Data Presentation	10	Shepherdsville, Salt River at.....	266,267
Data Table of Daily Mean Values	12	Sherburne, Flat Creek near	431
Identifying Estimated Daily Discharge.....	14	Slate Creek near Owingsville.....	431
Other Records Available.....	15	Simpsonville, Bullskin Creek near	250,251
Station Manuscript.....	11,12	Smith,	
Statistics of Monthly Mean Data	12	Martins Fork Lake at Martins Fork Dam near	332-352
Summary Statistics	12-14	Martins Fork near	354-362
Surface-Water Quality.....	15-19	Smithland Dam, Ohio River at.....	330,331
Arrangements of Records	15	Sodium-adsorption-ratio, definition of.....	30
Change in National Trends Network Procedures.....	18,19	Solute, definition of.....	30
Classification of Records	15	South Elkhorn Creek at Fort Spring.....	218,219
Data Presentation	17,18	near Midway.....	226,227
Dissolved Trace-Element Concentrations.....	18	Spears Creek at Railroad Culvert near Danville	110-127
Laboratory Measurements	17	Spears Creek at Streamland Drive at Danville	128-136
On-site Measurements and Sample Collection	15,16	Special networks and programs	6-8
Remarks Codes	18	Specific conductance, definition of.....	30
Sediment	16	Spencer Creek near Howards Mill.....	430
Water Temperature	16	St. Matthews, Goose Creek near.....	236,237
Recoverable from bottom material, definition of.....	29	Stage and water-discharge records, explanation of.....	9-15
Red Bird River near Big Creek.....	84,85	Stage-discharge relation, definition of	30
Red River,		Station Identification Numbers	8
at Clay City.....	96,97	Stearns, South Fork Cumberland River near.....	380-384
near Hazel Green	94,95	Streamflow, definition of.....	30
Return period, definition of.....	29	Stoner Creek at Paris.....	431
River mile as used herein, definition of	29	Sturgeon Creek, at Cressmont.....	92,93
Rockcastle River at Billows	378,379	Substrate, definition of	31
Rock Haven, Otter Creek at Otter Creek Park near	292,293	artificial, definition of.....	31
		natural, definition of.....	31

INDEX

Page	Page		
Surface area of a lake, definition of	31	USGS data, access to	21-22
Surface-water, summary of hydrologic conditions	2		
Surficial bed material, definition of	31	Volatile Organic Compounds, definition of	33
Suspended, definition of	31		
recoverable, definition of	31	Wabash River Basin,	
Total, definition of	31	gaging-station records in	322,327
Suspended-sediment, definition of	30	Wabash River at New Harmony, Ind.	322-327
concentration, definition of	30	Warsaw, Ohio River at Markland Dam near	74,75
discharge, definition of	30	Water-quality records,	
load, definition of	30	discontinued	464-472
mean concentration, definition of	30	explanation of	15-19
Suspended total residue at 105 Deg. C concentration, definition of	30	Water-resources investigations,	
Synoptic Studies Short-term Investigations, definition of	31	Publications on techniques of	34-38
System, Downstream Order	8	Water year, definition of	33
		WDR, definition of	33
Tallega, Middle Fork Kentucky River at	82,83	Weighted average, definition of	33
Tannery, Kinniconick Creek at	62,63	West Fork Drakes Creek near Franklin	312,313
Taxonomy, definition of	32	West Hickman Creek near East Hickman	106,107
Taylorsville, Brashears Creek at	252,253	Wet mass, definition of	24
Tennessee River Basin,		White Mills, Nolin River at	306,307
gaging-station records in	402-409	Whitesburg, North Fork Kentucky River at	76,77
Tennessee River at Highway 60 near Paducah	402-407	Williamsburg, Cumberland River at	374,375
Time-weighted average, definition of	32	Wilson Creek, at Harrison Fork Road near Deatsville	276,277
Tons per acre-foot, definition of	32	Winchester, Kentucky River at lock 10, near	98,99
Tons per day, definition of	32	Wolf Run at Old Frankfort Pike at Lexington	220-223
total, definition of	32	Wooton, Cutshin Creek at	80,81
organism count, definition of	27	WSP, definition of	33
recoverable, definition of	32		
total coliform bacteria	23	Yamacraw, South Fork Cumberland River at	386-390
Total discharge, definition of	32	Yarnallton, Town Branch at	224,225
Total sediment discharge, definition of	30	Yellow Creek near Middlesboro	366,367
Total sediment load or total load, definition of	30		
Town Branch at Yarnallton	224,225	Zooplankton, definition of	28
Tradewater River at Olney	328,329		
Tradewater River Basin,			
gaging-station records in	328,329		
Triplett Creek at Morehead	430		
Triplette Creek, North Fork, near Morehead	430		
Tritium Network, definition of	33		
Tygarts Creek near Greenup	60,61		
Tygarts Creek Basin,			
gaging-station records in	60,61		