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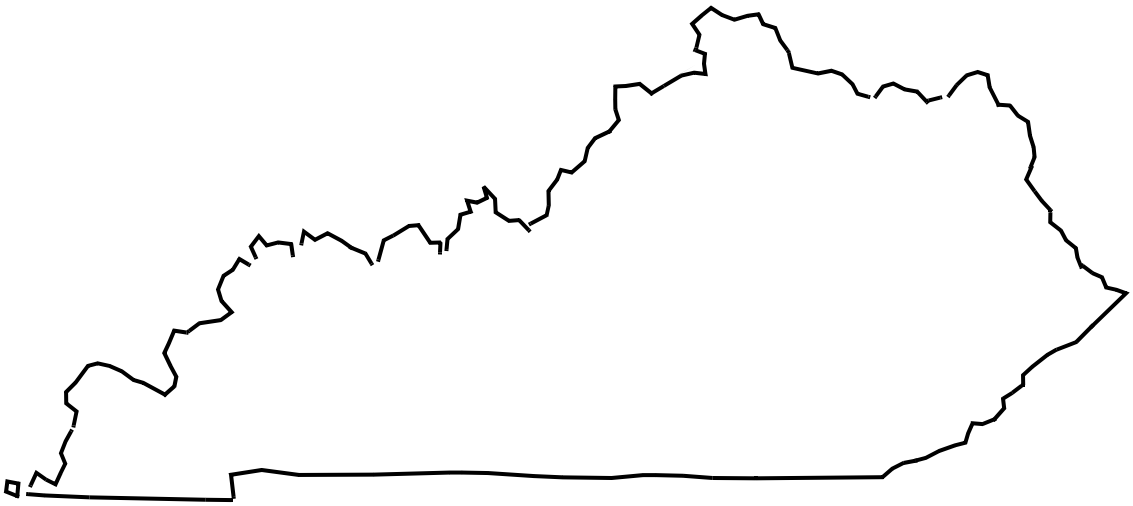
Water Resources Data
Kentucky
Water Year 2002

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

Water-Data Report KY-02-1



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

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Louisville, Kentucky 40299-1906

2003

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.

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Water resources data for the 2002 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 120 stream-gaging stations. It also includes water-quality data for eight stations sampled at regular intervals, continuous temperature at four stations, and continuous water quality at nine stations. Ground-water levels are published for 8 recording and 23 partial-record sites. Precipitation data at regular intervals are published for one 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.

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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, (r) recorder]

	STATION NUMBER	Page
OHIO RIVER BASIN		
Ohio River:		
BIG SANDY RIVER BASIN		
Levisa Fork (head of Big Sandy River):		
Grapevine Creek near Phyllis (d)	03207965	52
Levisa Fork at Pikeville (d)	03209500	54
Johns Creek near Meta (d)	03210000	56
Levisa Fork at Paintsville (d)	03212500	58
LITTLE SANDY RIVER BASIN		
Little Sandy River at Grayson (d)	03216500	60
Ohio River at Greenup Dam (d, c)	03216600	62
TYGARTS CREEK BASIN		
Tygarts Creek near Greenup (d)	03217000	70
KINNICONICK CREEK BASIN		
Kinniconick Creek below Trace Creek at Tannery (d)	03237255	72
Twelvemile Creek Basin:		
Twelvemile Creek at Highway 1997 near Alexandria (c, d)	03238745	76
FOUR MILE CREEK BASIN		
Four Mile Creek at Poplar Ridge Road near Alexandria (c)	03238772	86
LICKING RIVER BASIN		
Licking River below Mason Fork near Salyersville (d)	03248300	94
Slate Creek at Highway 713 near Mount Sterling (d)	03250190	96
Fox Creek:		
Rock Lick Creek above Unnamed Tributary near Sharkey (d)	03250310	98
Rock Lick Creek at State Highway 158 near Sharkey (d)	03250322	100
Licking River near Blue Lick Springs (d)	03250500	102
North Fork Licking River near Mt. Olivet (d)	03251200	104
Licking River at Mckinneysburg (d)	03251500	106
South Fork Licking River:		
Hinkston Creek near Carlisle (d)	03252300	108
Licking River at Catawba (d)	03253500	110
Cruises Creek at Highway 17 near Piner (c, d)	03254480	112
Banklick Creek at Hwy 1829 near Erlanger (c, d)	03254550	122
ELIJAHS CREEK BASIN		
Elijahs Creek at Elijahs Creek Road near Hebron (c)	03260100	132
WOOLPER CREEK BASIN		
Woolper Creek at Woolper Road near Burlington (c)	03262001	140
GUNPOWDER CREEK BASIN		
Gunpowder Creek at Camp Ernst Road near Union (c, d)	03277075	148
MUD LICK CREEK BASIN		
Mud Lick Creek at Highway 42 near Beaverlick (c, d)	03277130	158
Ohio River at Markland Dam (d)	03277200	168
KENTUCKY RIVER BASIN		
North Fork Kentucky River (head of Kentucky River):		
North Fork Kentucky River at Whitesburg (d)	03277300	170
North Fork Kentucky River at Jackson (d)	03280000	172
Middle Fork Kentucky River:		
Cutshin Creek at Wooton (d)	03280700	174
Middle Fork Kentucky River at Tallega (d)	03281000	176
Kentucky River:		
Goose Creek at Manchester (d)	03281100	178
South Fork Kentucky River at Booneville (d)	03281500	180
Kentucky River at Lock 14 at Heidelberg (d)	03282000	182
Sturgeon Creek at Cressmont (d)	03282040	184
Red River near Hazel Green (d)	03282500	186
Red River at Clay City (d)	03283500	188
Kentucky River at Lock 10 near Winchester (d)	03284000	190

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, (r) recorder]

	STATION NUMBER	Page
OHIO RIVER BASIN--Continued		
Ohio River--Continued		
KENTUCKY RIVER BASIN--Continued		
Kentucky River at Lock 9 at Valley View (d)	03284230	192
Hickman Creek:		
East Hickman Creek at Andover Village near Cadentown (d)	03284520	194
East Hickman Creek at Delong Road near East Hickman (d)	03284530	196
West Hickman Creek at Ash Grove Pike near East Hickman (d)	03284555	198
Dix River near Danville (d)	03285000	200
Kentucky River at Lock 7 near High Bridge (d)	03286500	202
Kentucky River at Lock 6 near Salvisa (d)	03287000	204
Kentucky River at Lock 4 at Frankfort (c, d)	03287500	206
Elkhorn Creek:		
North Elkhorn Creek at Bryant Road near Cadentown (d)	03287580	218
North Elkhorn Creek at Winchester Road near Lexington (d)	03287590	220
North Elkhorn Creek at Bryan Station Road at Montrose (d)	03287600	222
North Elkhorn Creek at Georgetown (d)	03288100	224
Royal Spring at Georgetown (d)	03288110	226
Cane Run at Berea Road near Donerail (d)	03288200	228
South Elkhorn Creek at Fort Springs (d)	03289000	230
Town Branch:		
Wolf Run at Old Frankfort Pike at Lexington (d)	03289193	232
Town Branch at Yarnallton Road at Yarnallton(d)	03289200	234
South Elkhorn Creek near Midway (d)	03289300	236
Elkhorn Creek near Frankfort (d)	03289500	238
Kentucky River at Lock 2 at Lockport (d)	03290500	240
Eagle Creek at Glencoe (d)	03291500	242
HARRODS CREEK BASIN		
Harrods Creek at Hwy 329 near Goshen (d)	03292470	244
GOOSE CREEK BASIN		
Goose Creek at Old Westport Road near St. Matthews (d)	03292474	246
Goose Creek at Highway 42 at Glenview Acres (d)	03292475	248
Little Goose Creek near Harrods Creek (d)	03292480	250
BEARGRASS CREEK BASIN		
South Fork Beargrass Creek at Louisville (d)	03292500	252
South Fork Beargrass Creek at Winter Avenue at Louisville (d)	03292550	254
Middle Fork Beargrass Creek at Louisville (d)	03293000	256
Ohio River at Louisville (d)	03294500	258
MILL CREEK BASIN		
Mill Creek Cutoff near Louisville (d)	03294550	260
Mill Creek at Orell Road near Louisville (d)	03294570	262
SALT RIVER BASIN		
Salt River at Glensboro (d)	03295400	264
Brashears Creek:		
Bullskin Creek near Simpsonville (d)	03295702	266
Brashears Creek at Taylorsville (d)	03295890	268
Floyds Fork near Pewee Valley (d)	03297900	270
Floyds Fork at Fisherville (d)	03298000	272
Chenoweth Run at Ruckriegal Parkway near Jeffersontown (d)	03298135	274
Chenoweth Run at Gelhaus Lane near Fern Creek (d)	03298150	276
Floyds Fork at Bardstown Road near Mount Washington (d)	03298200	278
Cedar Creek at Thixton Road near Louisville (d)	03298250	280
Pennsylvania Run at Mt. Washington Road near Louisville (d)	03298300	282
Salt River at Shepherdsville (d)	03298500	284
Long Lick near Clermont (d)	03298550	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, (r) recorder]

	STATION NUMBER	Page
OHIO RIVER BASIN--Continued		
Salt River Basin--Continued		
Rolling Fork:		
Beech Fork at Maud (d)	03300400	288
Beech Fork at Bardstown (d)	03301000	290
Rolling Fork near Boston (d)	03301500	292
Mill Creek near Fort Knox (d)	03301700	294
Pond Creek:		
Southern Ditch:		
Northern Ditch:		
Fern Creek at Old Bardstown Road at Louisville (d)	03301900	296
Northern Ditch at Okolona (d)	03301940	298
Pond Creek near Louisville (d)	03302000	300
Pond Creek at Pendleton Road near Louisville (d)	03302030	302
Brier Creek at Pendleton Road near Louisville (d)	03302050	304
OTTER CREEK BASIN		
Otter Creek at Otter Creek Park near Rock Haven (d)	03302110	306
Ohio River at Cannelton Dam (d,c)	03303280	308
GREEN RIVER BASIN		
Green River near Campbellsville (t)	03306000	316
Green River at Greensburg (t)	03306500	318
Russell Creek near Columbia (d, t)	03307000	320
Green River at Munfordville (d,t)	03308500	324
Nolin River at White Mills (d)	03310300	328
Nolin River at Kyrock (d)	03311000	330
Green River at Lock 6 at Brownsville (t)	03311500	332
Beaver Creek at Hwy 31 E near Glasgow (d)	03312765	334
Barren River:		
West Fork Drakes Creek near Franklin (d)	03313700	336
Barren River at Bowling Green (d)	03314500	338
Green River at Paradise (d)	03316500	340
Rough River near Dundee (d)	03319000	342
Green River at Lock 2 at Calhoun (d)	03320000	344
Pond River near Apex (d)	03320500	346
Pond River near Madisonville (g)	03321060	348
WABASH RIVER BASIN		
Wabash River at New Harmony, IN (c)	03378500	350
TRADEWATER RIVER BASIN		
Tradewater River at Olney (d)	03383000	356
Ohio River at Smithland Dam (d)	03399800	358
CUMBERLAND RIVER BASIN		
CUMBERLAND RIVER:		
Martins Fork Lake at Martins Fork Dam near Smith (c,t)	03400798	360
Martins Fork near Smith (d,c,t)	03400800	384
Cumberland River near Harlan (d)	03401000	392
Yellow Creek near Middlesboro (d)	03402000	394
Cumberland River at Pine St. Bridge at Pineville (d)	03402900	396
Cumberland River at Barbourville (d)	03403500	398
Clear Fork at Saxton (d)	03403910	400
Cumberland River at Williamsburg (d)	03404000	402
Laurel River:		
Lynn Camp Creek at Corbin (d)	03404900	404
Rockcastle River at Billows (d)	03406500	406
South Fork Cumberland River near Stearns (d,c)	03410500	408

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, (r) recorder]

	STATION NUMBER	Page
OHIO RIVER BASIN--Continued		
CUMBERLAND RIVER BASIN--Continued		
Beaver Creek near Monticello (d)	03413200	416
Little River near Cadiz (d)	03438000	418
Cumberland River near Grand Rivers (c)	03438220	420
Cumberland River at Smithland (c)	03438500	428
TENNESSEE RIVER BASIN		
Tennessee River at Hwy 60 near Paducah (c)	03609750	432
Clarks River at Almo (d)	03610200	436
MASSAC CREEK BASIN		
Massac Creek near Paducah (d)	03611260	438
Ohio River at Metropolis, IL (d)	03611500	440
BAYOU CREEK BASIN		
Bayou Creek near Heath (d)	03611800	442
Bayou Creek near Grahamville (d)	03611850	444
Little Bayou Creek near Grahamville (d)	03611900	446
Ohio River at Lock and Dam 53 near Grand Chain, IL (c)	03612500	448
LOWER MISSIPPI RIVER BASIN		
BAYOU DE CHEIN BASIN:		
Bayou De Chein near Clinton (d)	07024000	454

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

GRAVES COUNTY	
Well 365210088391301 (Viola) (r)	460
JEFFERSON COUNTY	
Well 381441085452701 Local number (Lib A-2) (r)	462
Well 381442085444801 (Metro United Way)	464
Well 381445085460201 (9th & Broadway QW)	464
Well 381447085454001 Local number (CJ&T #5)	464
Well 381501085445601 (UL Med.)	465
Well 381503085453301 (Ky. Towers)	465
Well 381504085443202 Local number (CP-7A)	465
Well 381517085455501 Local number 86-6 (Roy Wilkins Blvd)	466
Well 381518085453402 Local number 86-11 (Courthouse Annex)	468
Well 381522085445201 (LSM)	470
Well 381538085453001 Local Number 86-7 (Belvedere Well)	470
Well 381613085422801 (Edith Ln. Landfill)	470
Well 381638085415801 Local Number (WC-4)	471
Well 381648085421201 Local Number (WC-5)	471
Well 381653085413302 Local Number (WC-9A) (r)	472
Well 381701085414002 Local Number (WC-8A) (r)	474
Well 381742085402001 Local Number (WC-13)	476
Well 381827085392401 Local Number (WC-26)	476
Well 381904085384801 Local Number (WC-27)	476
Well 381958085380201 (Thompson Well)	477
Well 382007085373801 (Bird Man)	477
Well 382026085374301 (Little Dean)	477
Well 382032085375601 (Staples)	478
Well 382039085375201 Local Number (WP-7) (r)	480
Well 382051085380801 (LWC-1) (r)	482
Well 382058085373501 (Shirley Avenue)	484
Well 382102085380701 (WP-19)	484
Well 382105085375101 (Hays-Kennedy)	486
Well 382120085374701 (River Fields)	488
Well 382124085375401 (Abell)	488

PRECIPITATION STATION, BY COUNTY FOR WHICH RECORD IS PUBLISHED

ROWAN COUNTY, KENTUCKY		
390706083324900	National Atmospheric Deposition	490

INTRODUCTION

Water resources data for the 2002 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 120 stream-gaging stations. It also includes water-quality data for 8 stations sampled at regular intervals, continuous temperature at 4 stations, and continuous water-quality at 9 stations. Ground-water levels are published for 8 recording and 23 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 2002, 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 KY02-1". 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, Marsha Morgan, Secretary,

Kentucky Geological Survey, Dr. James C. Cobb, 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,

Northern Kentucky Sanitation District No. 1,

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City of Frankfort, William I. May Jr., Mayor,

City of Georgetown, Everette L. Varney, Mayor,

City of Glasgow, Charles B. Honeycutt, Mayor,

City of Lewisburg, Joan Tooley, Mayor,

City of Lexington, Pam Miller, Mayor,

City of Louisville, David L. Armstrong, Mayor,

City of Mt. Sterling, B. D. Wilson, Judge/Executive,

City of Owingsville, Clarence Rister, Mayor,

City of Simpsonville, Steve Eden, Mayor,

Kentucky Heritage Resource Conservation & Development Council, Kenneth Catlett, Chairman,

University of Louisville, Dr. John Schumaker, President, and

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Organizations that supplied data are acknowledged in station descriptions.

SUMMARY OF HYDROLOGIC CONDITIONS

Surface Water

Monthly and annual mean streamflow for the 2002 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 20 surface-water gaging stations across Kentucky, recurrence intervals for annual peak flows during the 2002 water year varied widely across the State. Recurrence intervals ranged from less than 2 years to less than 25 years. One peak flow in the northeast part of the state (Tygarts Creek Basin) had a recurrence interval of less than 25 year. Two peak flows in the south and west part of the State (Cumberland River Basin and Bayou De Chien Basin) had recurrence intervals of less than 10 years. Low flow recurrence intervals across the State ranged from less than 2 years to greater than 20 years (Salt River Basin). In general, flows were above average in the western part of the State and below in the eastern part of the state (table 1).

No major flooding occurred during the 2002 water year.

Quality of Water

Water-quality data were collected primarily within the National Stream Quality Accounting Network (NASQAN) program. During the 2002 water year, six NASQAN stations were operated including Ohio River at Greenup Dam near Greenup, Kentucky (03216600); Ohio River at Cannelton Dam, Kentucky (03302280); Wabash River at New Harmony, Indiana (03378500); Tennessee River at Highway 60 near Paducah, Kentucky (03609750); Cumberland River at Smithland, Kentucky (03438500); and the Ohio River at Grand Chain, Illinois (03612500). Each station is routinely sampled 12 times per year with biweekly sampling in March, April, May, and June, except for the Tennessee River at Highway 60 near Paducah, Kentucky, and the Cumberland River at Smithland, Kentucky stations, which are sampled 6 times per year. Three additional samples are collected at each station during an occurrence of extreme hydrologic events (high flow or low flow). The exceptions are the Tennessee River at Highway 60 near Paducah, Kentucky, and the Cumberland River at Smithland, Kentucky stations, which have completely regulated flow.

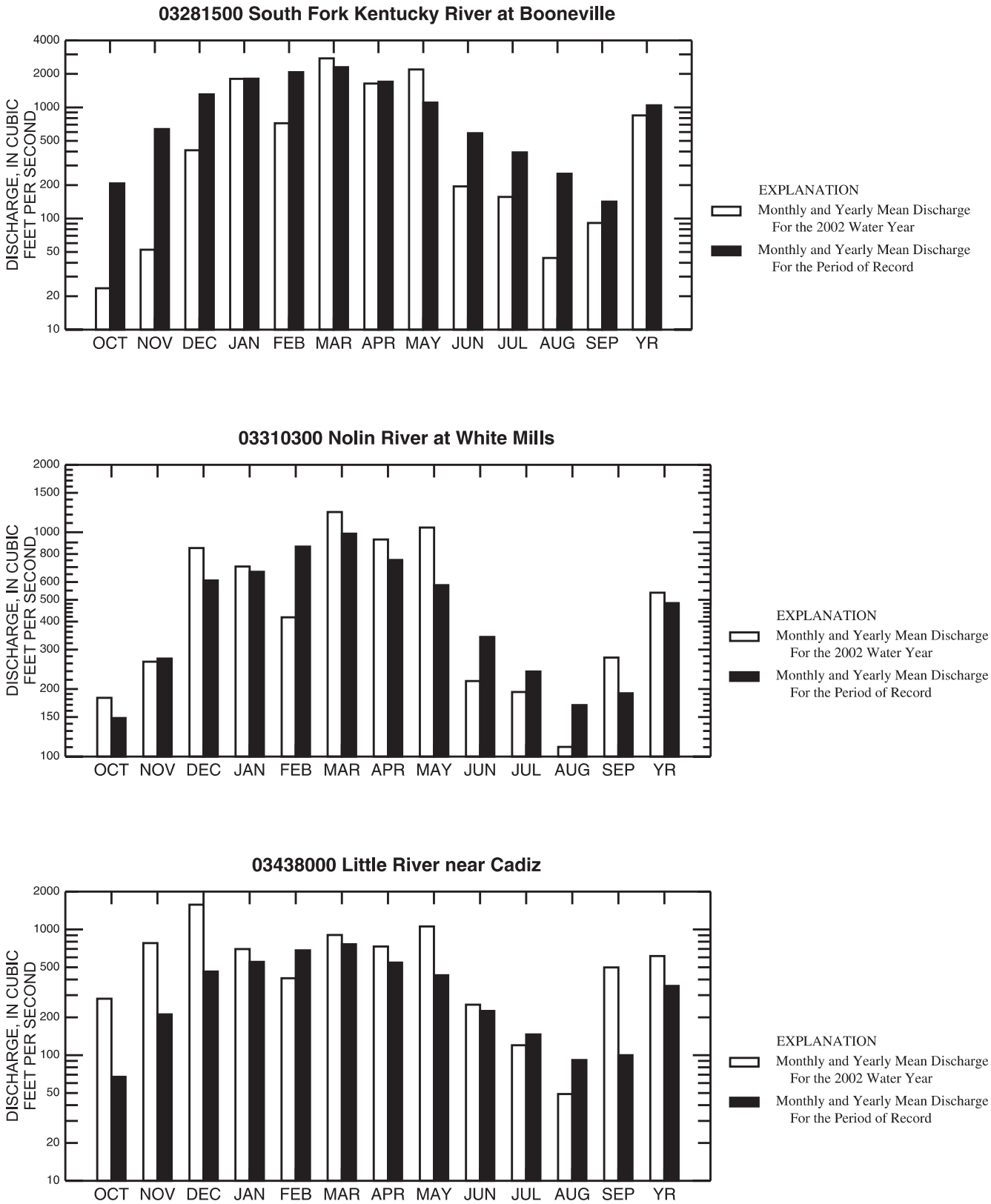

Figure 1. Mean discharge during 2002 water year and period of record for three representative gaging stations.

Table 1. Mean, maximum, and minimum streamflow for water year 2002 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)
			TYGARTS CREEK BASIN				
03217000	62	244	80	15200	<25	0.12	<10
			KENTUCKY RIVER BASIN				
03280700	45	79.1	87	6040	<5	1.2	<10
03281100	38	192	75	9430	<5	2.3	<2
03281500	69	846	81	21800	<2	4.7	<10
03282500	47	77.9	90	2140	<2	0.00	<10
03283500	65	448	91	13600	<5	6.5	<10
03285000	60	503	107	17700	<5	0.50	<2
			BEARGRASS CREEK BASIN				
03293000	58	36.2	142	1680	<5	0.16	<10
			SALT RIVER BASIN				
03298000	58	262	144	10500	<5	0.68	<2
03300400	30	608	99	22200	<5	0.35	>20
03301500	64	1785	100	30800	<5	4.9	<10
			GREEN RIVER BASIN				
03307000	63	227	79	12100	<5	4.5	<10
03310300	43	538	111	8600	<5	30	>10
03320500	62	440	162	7750	<5	0.28	<2
			CUMBERLAND RIVER BASIN				
03404900	29	70.0	82	3660	<5	0.46	<10
03406500	66	821	88	17600	<2	11	<2
03410500	60	1423	81	53700	<5	20	<10
03438000	62	616	174	12200	<10	21	<2
			MASSAC CREEK BASIN				
03611260	31	36.6	208	3340	<5	0.28	<2
			BAYOU DE CHIEN BASIN				
07024000	57	136	132	5300	<10	16	<2

A water-quality study related to the environmental effects of coal mining was started in June 1999 on the Big South Fork River 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 Stearns, Kentucky (03410600) and Big South Fork near Yamacraw,

Kentucky (03410500). Selection of these stations allow investigators to assess any changes in the water-quality of the Big South Fork River from the upstream station (03410600) to the downstream station (03410500) during the abatement of contaminated mine drainage. Each station is sampled every six weeks. The water-quality samples collected are analyzed for major cations and selected trace elements. Temperature, conductivity, and pH are continuously monitored at each station. This study ended in August 2000.

QUALITY-CONTROL DATA

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

BLANK SAMPLES

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

SPIKE SAMPLES

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

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 many of the water levels in the downtown area are lower than normal. Four wells reached record lows for the period of record. This decline is probably due to pumpage and low rates of recharge during the drought conditions of 1999-2000. Six wells measured in Northeast Jefferson County reached record lows for their period of record. This is probably caused by low recharge condition and sustained 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 streamflow representative of 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. At 10 of these sites, water-quality information is being gathered on major ions and nutrients, primarily to assess the effects of acid deposition on stream chemistry. Additional information on the Hydrologic Benchmark Program can be found at http://water.usgs.gov/hbn/.

National Stream-Quality Accounting Network (NASQAN) monitors the water quality of large rivers within the Nation's largest river basins. From 1995 through 1999, a network of approximately 40 stations was operated in the Mississippi, Columbia, Colorado, and Rio Grande basins. For the period 2000 through 2004, sampling was reduced to a few index stations on the Colorado and Columbia so that a network of 5 stations could be implemented on the Yukon River. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound 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. Additional information about the NASQAN Program can be found at http://water.usgs.gov/nasqan/.

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) provides continuous measurement and assessment of the chemical constituents in precipitation throughout the United States. As the lead federal agency, the USGS works together with over 100 organizations to provide a long-term, spatial and temporal record of atmospheric deposition generated from a network of 225 precipitation chemistry monitoring sites. This long-term, nationally consistent monitoring program, coupled with ecosystem research, provides critical information toward a national scorecard to evaluate the effectiveness of ongoing and future regulations intended to reduce atmospheric emissions and subsequent impacts to the Nation's land and water resources. Reports and other information on the NADP/NTN Program, as well as all data from the individual sites, can be found at http://bqs.usgs.gov/acidrain/.

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 59 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 can be found at http://water.usgs.gov/nawqa/

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 2002 water year that began October 1, 2001, and ended September 30, 2002. 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 3-10. 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 (mg/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 mg/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 indention in the "List of Stations" in the front of this report. Each indention represents one rank. This downstream order and system of indention 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."

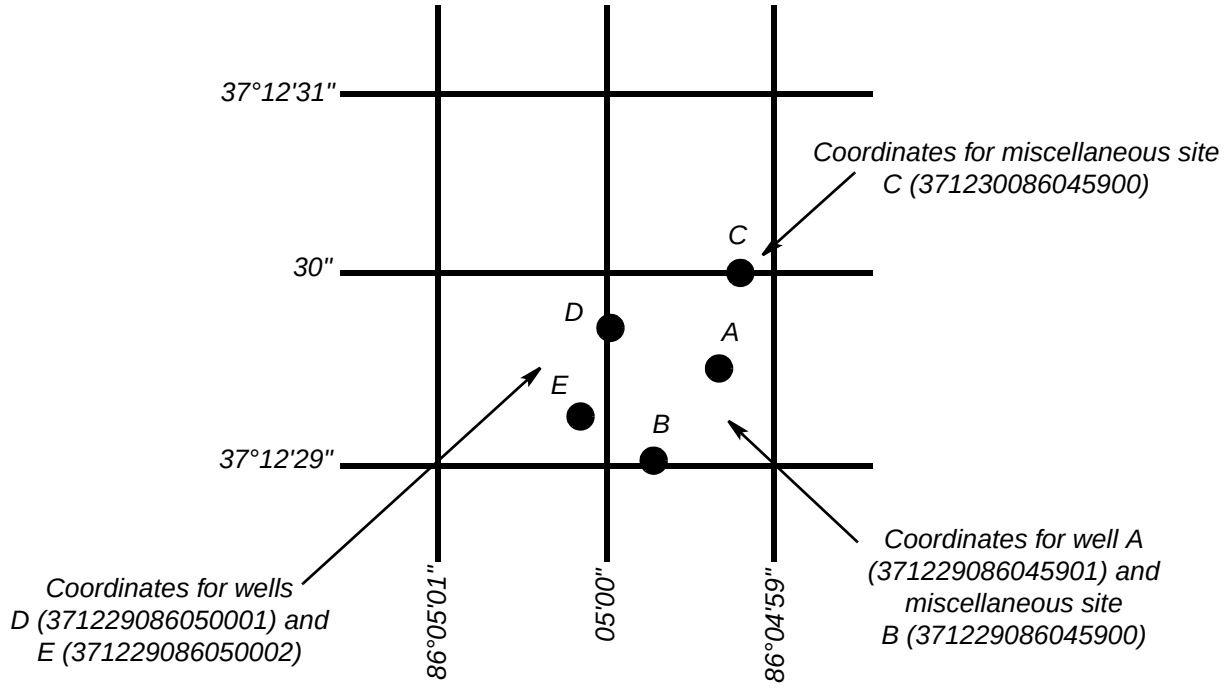

Figure 2. System for numbering wells, springs, and miscellaneous sites (latitude and longitude).

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."

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 or funding 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 ft^3/s; to the nearest tenth between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to three significant figures for more than 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules 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 7 and 8.

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

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 Program Office, Illinois State Water Survey, 2204 Griffith Drive, Champaign, IL 61820-7495 (217-333-7873.

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 9 and 10.

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 a water-level 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 special 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

Specialized technical terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. Definitions of common terms such as algae, water level, and precipitation are given in standard dictionaries. Not all terms defined in this alphabetical list apply to every State. See also table for converting inch/pound 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. This term designates titration of an “unfiltered” sample (formerly reported as alkalinity).

Acre-foot (AC-FT, acre-ft) is a unit of volume, commonly used to measure quantities of water used or stored, equivalent to the volume of water required to cover 1 acre to a depth of 1 foot and equivalent to 43,560 cubic feet, 325,851 gallons, or 1,233 cubic meters. (See also “Annual runoff”)

Adenosine triphosphate (ATP) is an organic, phosphate-rich compound important in the transfer of energy in organisms. Its central role in living cells makes ATP 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.

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. (See also “Biomass” and “Dry weight”)

Alkalinity is the capacity of solutes in an aqueous system to neutralize acid. This term designates titration of a “filtered” sample.

Annual runoff is the total quantity of water that is discharged (“runs off”) from a drainage basin in a year. Data reports may present annual runoff data as volumes in acre-feet, as discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches.

Annual 7-day minimum is the lowest mean value for any 7-consecutive-day period in a year. Annual 7-day minimum values are reported herein for the calendar year and the water year (October 1 through September 30). Most low-flow frequency analyses use a climatic year (April 1-March 31), which tends to prevent the low-flow period from being artificially split between adjacent years. 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.)

Aroclor is the registered trademark for a group of poly-chlorinated biphenyls that were manufactured by the Monsanto Company prior to 1976. Aroclors are assigned specific 4-digit reference numbers dependent upon molecular type and degree of substitution of the biphenyl ring hydrogen atoms by chlorine atoms. The first two digits of a numbered aroclor represent the molecular type, and the last two digits represent the percentage weight of the hydrogen-substituted chlorine.

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

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. Ash mass of zooplankton and phytoplankton is expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2). (See also “Biomass” and “Dry mass”)

Aspect is the direction toward which a slope faces with respect to the compass.

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

Bankfull stage, as used in this report, is the stage at which a stream first overflows its natural banks formed by floods with 1- to 3-year recurrence intervals.

Base discharge (for peak discharge) is a discharge value, determined for selected stations, above which peak discharge data are published. The base discharge at each station is selected so that an average of about three peak flows per year will be published. (See also “Peak flow”)

Base flow is sustained flow of a stream in the absence of direct runoff. It includes natural and human-induced streamflows. Natural base flow is sustained largely by ground-water discharge.

Bedload is material in transport that is supported primarily by the streambed. In this report, bedload is considered to consist of particles in transit from the bed to an elevation equal to the top of the bedload sampler nozzle (ranging from 0.25 to 0.5 foot) that are retained in the bedload sampler. A sample collected with a pressure-differential bedload sampler also may contain a component of the suspended load.

Bedload discharge (tons per day) is the rate of sediment moving as bedload, reported as dry weight, that passes through a cross section in a given time. NOTE: Bedload discharge values in this report may include a component of the suspended-sediment discharge. A correction may be necessary when computing the total sediment discharge by summing the bedload discharge and the suspended-sediment discharge. (See also “Bedload,” “Dry weight,” “Sediment,” and “Suspended-sediment discharge”)

Bed material is the sediment mixture of which a stream-bed, lake, pond, reservoir, or estuary bottom is composed. (See also “Bedload” and “Sediment”)

Benthic organisms are the group of organisms inhabiting the bottom of an aquatic environment. They include a number of types of organisms, such as bacteria, fungi, insect larvae and nymphs, snails, clams, and crayfish. 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 microorganisms, such as bacteria.

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

Biomass pigment ratio is an indicator of the total proportion of periphyton that are autotrophic (plants). This is also called the Autotrophic Index.

Blue-green algae (*Cyanophyta*) 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. Concentrations are expressed as a number of cells per milliliter (cells/mL) of sample. (See also “Phytoplankton”)

Bottom material (See “Bed material”)

Bulk electrical conductivity is the combined electrical conductivity of all material within a doughnut-shaped volume surrounding an induction probe. Bulk conductivity is affected by different physical and chemical properties of the material including the dissolved solids content of the pore water and lithology and porosity of the rock.

Cells/volume refers to the number of cells of any organism that 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 volume, and are generally reported as cells or units per milliliter (mL) or liter (L).

Cells volume (biovolume) determination is one of several common methods used to estimate biomass of algae in aquatic systems. Cell members of algae are frequently used in aquatic surveys as an indicator of algal production. However, cell numbers alone cannot represent true biomass because of considerable cell-size variation among the algal species. Cell volume (μm^3) is determined by obtaining critical cell measurements or cell dimensions (for example, length, width, height, or radius) for 20 to 50 cells of each important species to obtain an average biovolume per cell. Cells are categorized according to the correspondence of their cellular shape to the nearest geometric solid or combinations of simple solids (for example, spheres, cones, or cylinders). Representative formulae used to compute biovolume are as follows:

$$\text{sphere } 4/3\ \pi r^3 \quad \text{cone } 1/3\ \pi r^2 h \quad \text{cylinder } \pi r^2 h.$$

pi (π) is the ratio of the circumference to the diameter of a circle; pi = 3.14159….

From cell volume, total algal biomass expressed as biovolume (μm^3/mL) is thus determined by multiplying the number of cells of a given species by its average cell volume and then summing these volumes for all species.

Cfs-day (See “Cubic foot per second-day”)

Channel bars, as used in this report, are the lowest prominent geomorphic features higher than the channel bed.

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. [See also “Biochemical oxygen demand (BOD)”]

Clostridium perfringens *(C. perfringens)* is a spore-forming bacterium that is common in the feces of human and other warmblooded animals. Clostridial spores are being used experimentally as an indicator of past fecal contamination and presence of microorganisms that are resistant to disinfection and environmental stresses. (See also “Bacteria”)

Coliphages are viruses that infect and replicate in coliform bacteria. They are indicative of sewage contamination of water and of the survival and transport of viruses in the environment.

Color unit is produced by 1 milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Confined aquifer is a term used to describe an aquifer containing water between two relatively impermeable boundaries. The water level in a well tapping a confined aquifer stands above the top of the confined aquifer and can be higher or lower than the water table that may be present in the material above it. In some cases, the water level can rise above the ground surface, yielding a flowing well.

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.

Continuous-record station is a site where data are collected with sufficient frequency to define daily mean values and variations within a day.

Control designates a feature in the channel that physically affects the water-surface elevation and thereby determines the stage-discharge relation at the gage. This feature may be a constriction of the channel, a bedrock outcrop, a gravel bar, an artificial structure, or a uniform cross section over a long reach of the channel.

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

Cubic foot per second (CFS, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point in 1 second. It is equivalent to approximately 7.48 gallons per second or approximately 449 gallons per minute, or 0.02832 cubic meters per second. The term “second-foot” sometimes is used synonymously with “cubic foot per second” but is now obsolete.

Cubic foot per second-day (CFS-DAY, Cfs-day, [(ft^3/s)/d]) 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, 1.98347 acre-feet, 646,317 gallons, or 2,446.6 cubic meters. The daily mean discharges reported in the daily value data tables are numerically equal to the daily volumes in cfs-days, and the totals also represent volumes in cfs-days.

Cubic foot per second per square mile [CFSM, (ft^3/s)/mi^2] 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. (See also “Annual runoff”)

Daily mean suspended-sediment concentration is the time-weighted concentration of suspended sediment passing a stream cross section during a 24-hour day. (See also “Sediment” and “Suspended-sediment concentration”)

Daily-record station is a site where data are collected with sufficient frequency to develop a record of one or more data values per day. The frequency of data collection can range from continuous recording to periodic sample or data collection on a daily or near-daily basis.

Data collection platform (DCP) is an electronic instrument that collects, processes, and stores data from various sensors, and transmits the data by satellite data relay, line-of-sight radio, and/or landline telemetry.

Data logger is a microprocessor-based data acquisition system designed specifically to acquire, process, and store data. Data are usually downloaded from onsite data loggers for entry into office data systems.

Datum is a surface or point relative to which measurements of height and/or horizontal position are reported. A vertical datum is a horizontal surface used as the zero point for measurements of gage height, stage, or elevation; a horizontal datum is a reference for positions given in terms of latitude-longitude, State Plane coordinates, or UTM coordinates. (See also “Gage datum,” “Land-surface datum,” “National Geodetic Vertical Datum of 1929,” and “North American Vertical Datum of 1988”)

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. (See also “Phytoplankton”)

Diel is of or pertaining to a 24-hour period of time; a regular daily cycle.

Discharge, or **flow**, is the rate that matter passes through a cross section of a stream channel or other water body per unit of time. The term commonly refers to the volume of water (including, unless otherwise stated, any sediment or other constituents suspended or dissolved in the water) that passes a cross section in a stream channel, canal, pipeline, etc., within a given period of time (cubic feet per second). Discharge also can apply to the rate at which constituents, such as suspended sediment, bedload, and dissolved or suspended chemicals, pass through a cross section, in which cases the quantity is expressed as the mass of constituent that passes the cross section in a given period of time (tons per day).

Dissolved refers to that material in a representative water sample that passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal and State agencies that collect water-quality data. Determinations of “dissolved” constituent concentrations are made on sample water that has been filtered.

Dissolved oxygen (DO) is the molecular oxygen (oxygen gas) dissolved in water. The concentration in water is a function of atmospheric pressure, temperature, and dissolved-solids concentration of the water. The ability of water to retain oxygen decreases with increasing temperature or dissolved-solids concentration. Photosynthesis and respiration by plants commonly cause diurnal variations in dissolved-oxygen concentration in water from some streams.

Dissolved-solids concentration in water is the quantity of dissolved material in a sample of water. It 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, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. In the mathematical calculation, the bicarbonate value, in milligrams per liter, is multiplied by 0.4926 to convert it to carbonate. Alternatively, alkalinity concentration (as mg/L $CaCO_3$) can be converted to carbonate concentration by multiplying by 0.60.

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

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

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

Drainage area of a stream at a specific location is that area upstream from the location, measured in a horizontal plane, that has a common outlet at the site for its surface runoff from precipitation that normally drains by gravity into a stream. Drainage areas given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

Drainage basin is a part of the Earth's surface that contains a drainage system with a common outlet for its surface runoff. (See "Drainage area")

Dry mass refers to the mass of residue present after drying in an oven at 105 °C, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass. (See also "Ash mass," "Biomass," and "Wet mass")

Dry weight refers to the weight of animal tissue after it has been dried in an oven at 65 °C until a constant weight is achieved. Dry weight represents total organic and inorganic matter in the tissue. (See also "Wet weight")

Embeddedness is the degree to which gravel-sized and larger particles are surrounded or enclosed by finer-sized particles. (See also "Substrate embeddedness class")

Enterococcus bacteria are commonly found in the feces of humans and other warmblooded 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 that produce pink to red colonies with black or reddish-brown precipitate after incubation at 41 °C on mE agar (nutrient medium for bacterial growth) and subsequent transfer to EIA medium. Enterococci include *Streptococcus feacalis, Streptococcus feacium, Streptococcus avium,* and their variants. (See also "Bacteria")

EPT Index is the total number of distinct taxa within the insect orders Ephemeroptera, Plecoptera, and Trichoptera. This index summarizes the taxa richness within the aquatic insects that are generally considered pollution sensitive; the index usually decreases with pollution.

Escherichia coli *(E. coli)* are bacteria present in the intestine and feces of warmblooded animals. *E. coli* are a member species of the fecal coliform group of indicator bacteria. In the laboratory, they are defined as those bacteria that

produce yellow or yellow-brown colonies on a filter pad saturated with urea substrate broth after primary culturing for 22 to 24 hours at 44.5 °C on mTEC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also “Bacteria”)

Estimated (E) concentration value is reported when an analyte is detected and all criteria for a positive result are met. If the concentration is less than the method detection limit (MDL), an ‘E’ code will be reported with the value. If the analyte is qualitatively identified as present, but the quantitative determination is substantially more uncertain, the National Water Quality Laboratory will identify the result with an ‘E’ code even though the measured value is greater than the MDL. A value reported with an ‘E’ code should be used with caution. When no analyte is detected in a sample, the default reporting value is the MDL preceded by a less than sign (<).

Euglenoids (*Euglenophyta*) are a group of algae that are usually free-swimming and rarely creeping. They have the ability to grow either photosynthetically in the light or heterotrophically in the dark. (See also “Phytoplankton”)

Extractable organic halides (EOX) are organic compounds that contain halogen atoms such as chlorine. These organic compounds are semivolatile and extractable by ethyl acetate from air-dried streambed sediment. 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 streambed sediment.

Fecal coliform bacteria are present in the intestines or feces of warmblooded animals. They often are 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. (See also “Bacteria”)

Fecal streptococcal bacteria are present in the intestines of warmblooded animals and are ubiquitous in the environment. They are characterized as gram-positive, cocci bacteria that are capable of growth in brain-heart infusion broth. In the laboratory, they are defined as all the organisms that produce red or pink colonies within 48 hours at 35°C 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. (See also “Bacteria”)

Fire algae (*Pyrrhophyta*) are free-swimming unicells characterized by a red pigment spot. (See also “Phytoplankton”)

Flow-duration percentiles are values on a scale of 100 that indicate the percentage of time for which a flow is not exceeded. For example, the 90th percentile of river flow is greater than or equal to 90 percent of all recorded flow rates.

Gage datum is a horizontal surface used as a zero point for measurement of stage or gage height. This surface usually is located slightly below the lowest point of the stream bottom such that the gage height is usually slightly greater than the maximum depth of water. Because the gage datum itself is not an actual physical object, the datum usually is defined by specifying the elevations of permanent reference marks such as bridge abutments and survey monuments, and the gage is set to agree with the reference marks. Gage datum is a local datum that is maintained independently of any national geodetic datum. However, if the elevation of the gage datum relative to the national datum (North American Vertical Datum of 1988 or National Geodetic Vertical Datum of 1929) has been determined, then the gage readings can be converted to elevations above the national datum by adding the elevation of the gage datum to the gage reading.

Gage height (G.H.) is the water-surface elevation, in feet above the gage datum. If the water surface is below the gage datum, the gage height is negative. Gage height often is used interchangeably with the more general term “stage,” although gage height is more appropriate when used in reference to a reading on a gage.

Gage values are values that are recorded, transmitted, and/or computed from a gaging station. Gage values typically are collected at 5-, 15-, or 30-minute intervals.

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

Gas chromatography/flame ionization detector (GC/FID) is a laboratory analytical method used as a screening technique for semivolatile organic compounds that are extractable from water in methylene chloride.

Geomorphic channel units, as used in this report, are fluvial geomorphic descriptors of channel shape and stream velocity. Pools, riffles, and runs are types of geomorphic channel units considered for National Water-Quality Assessment (NAWQA) Program habitat sampling.

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. (See also “Phytoplankton”)

Habitat, as used in this report, includes all nonliving (physical) aspects of the aquatic ecosystem, although living components like aquatic macrophytes and riparian vegetation also are usually included. Measurements of habitat are typically made over a wider geographic scale than are measurements of species distribution.

Habitat quality index is the qualitative description (level 1) of instream habitat and riparian conditions surrounding the reach sampled. Scores range from 0 to 100 percent with higher scores indicative of desirable habitat conditions for aquatic life. Index only applicable to wadable streams.

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

High tide is the maximum height reached by each rising tide. The high-high and low-high tides are the higher and lower of the two high tides, respectively, of each tidal day. *See NOAA web site: http://www.co-ops.nos.noaa.gov/tideglos.html*

Hilsenhoff’s Biotic Index (HBI) is an indicator of organic pollution that uses tolerance values to weight taxa abundances; usually increases with pollution. It is calculated as follows:

$$HBI = sum \frac{(n)(a)}{N} \ ,$$

where n is the number of individuals of each taxon, a is the tolerance value of each taxon, and N is the total number of organisms in the sample.

Horizontal datum (See “Datum”)

Hydrologic index stations referred to in this report are continuous-record gaging stations that have been selected as representative of streamflow patterns for their respective regions. Station locations are shown on index maps.

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

Inch (IN., in.), as used in this report, refers to the depth to which the drainage area would be covered with water if all of the runoff for a given time period were uniformly distributed on it. (See also “Annual runoff”)

Instantaneous discharge is the discharge at a particular instant of time. (See also “Discharge”)

Island, as used in this report, is a mid-channel bar that has permanent woody vegetation, is flooded once a year on average, and remains stable except during large flood events.

Laboratory reporting level (LRL) is generally equal to twice the yearly determined long-term method detection level (LT-MDL). The LRL controls false negative error. The probability of falsely reporting a nondetection for a sample that contained an analyte at a concentration equal to or greater than the LRL is predicted to be less than or equal to 1 percent. The value of the LRL will be reported with a “less than” (<) remark code for samples in which the analyte was not detected. The National Water Quality Laboratory (NWQL) collects quality-control data from selected analytical methods on a continuing basis to determine LT-MDLs and to establish LRLs. These values are reevaluated annually on the basis of the most current quality-control data and, therefore, may change. [Note: In several previous NWQL documents (NWQL Technical Memorandum 98.07, 1998), the LRL was called the nondetection value or NDV—a term that is no longer used.]

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

Latent heat flux (often used interchangeably with latent heat-flux density) is the amount of heat energy that converts water from liquid to vapor (evaporation) or from vapor to liquid (condensation) across a specified cross-sectional area per unit time. Usually expressed in watts per square meter.

Light-attenuation coefficient, also known as the extinction coefficient, is a measure of water clarity. Light is attenuated according to the Lambert-Beer equation:

$$I = I_o e^{-\lambda L} \ ,$$

where I_o is the source light intensity, I is the light intensity at length L (in meters) from the source, λ is the light-attenuation coefficient, and e is the base of the natural logarithm. The light-attenuation coefficient is defined as

$$\lambda = -\frac{1}{L}\log_e \frac{I}{I_o} \ .$$

Lipid is any one of a family of compounds that are insoluble in water and that make up one of the principal components of living cells. Lipids include fats, oils, waxes, and steroids. Many environmental contaminants such as organochlorine pesticides are lipophilic.

Long-term method detection level (LT-MDL) is a detection level derived by determining the standard deviation of a minimum of 24 method detection limit (MDL) spike sample measurements over an extended period of time. LT-MDL data are collected on a continuous basis to assess year-to-year variations in the LT-MDL. The LT-MDL controls false positive error. The chance of falsely reporting a concentration at or greater than the LT-MDL for a sample that did not contain the analyte is predicted to be less than or equal to 1 percent.

Low tide is the minimum height reached by each falling tide. The high-low and low-low tides are the higher and lower of the two low tides, respectively, of each tidal day. *See NOAA web site: http://www.co-ops.nos.noaa.gov/tideglos.html*

Macrophytes are the macroscopic plants in the aquatic environment. The most common macrophytes are the rooted vascular plants that usually are arranged in zones in aquatic ecosystems and restricted in the area by the extent of illumination through the water and sediment deposition along the shoreline.

Mean concentration of suspended sediment (Daily mean suspended-sediment concentration) is the time-weighted concentration of suspended sediment passing a stream cross section during a given time period. (See also “Daily mean suspended-sediment concentration” and “Suspended-sediment concentration”)

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period. (See also “Discharge”)

Mean high or **low tide** is the average of all high or low tides, respectively, over a specific period.

Mean sea level is a local tidal datum. It is the arithmetic mean of hourly heights observed over the National Tidal Datum Epoch. Shorter series are specified in the name; for example, monthly mean sea level and yearly mean sea level. In order that they may be recovered when needed, such datums are referenced to fixed points known as bench-marks. (See also “Datum”)

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

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.

Method detection limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99-percent confidence that the analyte concentration is greater than zero. It is determined from the analysis of a sample in a given matrix containing the analyte. At the MDL concentration, the risk of a false positive is predicted to be less than or equal to 1 percent.

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

Micrograms per kilogram (UG/KG, µg/kg) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the constituent per unit mass (kilogram) of the material analyzed. One microgram per kilogram is equivalent to 1 part per billion.

Micrograms per liter (UG/L, µg/L) is a unit expressing the concentration of chemical constituents in water as mass (micrograms) of constituent per unit volume (liter) of water. One thousand micrograms per liter is equivalent to 1 milligram per liter. One microgram per liter is equivalent to 1 part per billion.

Microsiemens per centimeter (US/CM, µS/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 water as the mass (milligrams) of constituent per unit volume (liter) of water. Concentration of suspended sediment also is expressed in milligrams per liter and is based on the mass of dry sediment per liter of water-sediment mixture.

Minimum reporting level (MRL) is the smallest measured concentration of a constituent that may be reliably reported by using a given analytical method.

Miscellaneous site, miscellaneous station, or miscellaneous sampling site is a site where streamflow, sediment, and/or water-quality data or water-quality or sediment samples are collected once, or more often on a random or discontinuous basis to provide better areal coverage for defining hydrologic and water-quality conditions over a broad area in a river basin.

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. MPN 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.

Nanograms per liter (NG/L, ng/L) is a unit expressing the concentration of chemical constituents in solution as mass (nanograms) of solute per unit volume (liter) of water. One million nanograms per liter is equivalent to 1 milligram per liter.

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a fixed reference adopted as a standard geodetic datum for elevations determined by leveling. It was formerly called “Sea Level Datum of 1929” or “mean sea level.” Although the datum was derived from the mean sea level at 26 tide stations**,** it does not necessarily represent local mean sea level at any particular place. *See NOAA web site: http://www.ngs.noaa.gov/faq.shtml#WhatVD29VD88* (See “North American Vertical Datum of 1988”)

Natural substrate refers to any naturally occurring immersed or submersed solid surface, such as a rock or tree, upon which an organism lives. (See also “Substrate”)

Nekton are the consumers in the aquatic environment and consist of large free-swimming organisms that are capable of sustained, directed mobility.

Nephelometric turbidity unit (NTU) is the measurement for reporting turbidity that is based on use of a standard suspension of formazin. Turbidity measured in NTU uses nephelometric methods that depend on passing specific light of a specific wavelength through the sample.

North American Vertical Datum of 1988 (NAVD 1988) is a fixed reference adopted as the official civilian vertical datum for elevations determined by Federal surveying and mapping activities in the United States. This datum was established in 1991 by minimum-constraint adjustment of the Canadian**,** Mexican, and United States first-order terrestrial leveling networks.

Open or **screened interval** is the length of unscreened opening or of well screen through which water enters a well, in feet below land surface.

Organic carbon (OC) is a measure of organic matter present in aqueous solution, suspension, or bottom sediment. May be reported as dissolved organic carbon (DOC), particulate organic carbon (POC), or total organic carbon (TOC).

Organic mass or **volatile mass** of a living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. Organic mass is expressed in the same units as for ash mass and dry mass. (See also “Ash mass,” “Biomass,” and “Dry mass”)

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 (m^2), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

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

Organochlorine compounds are any chemicals that contain carbon and chlorine. Organochlorine compounds that are important in investigations of water, sediment, and biological quality include certain pesticides and industrial compounds.

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 or property.

Partial-record station is a site where discrete measurements of one or more hydrologic parameters are obtained over a period of time without continuous data being recorded or computed. A common example is a crest-stage gage partial-record station at which only peak stages and flows are recorded.

Particle size is the diameter, in millimeters (mm), of a particle determined by sieve or sedimentation methods. The sedimentation method utilizes the principle of Stokes law to calculate sediment particle sizes. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube, sedigraph) 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, as 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	>0.004 - 0.062	Sedimentation
Sand	>0.062 - 2.0	Sedimentation/sieve
Gravel	>2.0 - 64.0	Sieve
Cobble	>64 - 256	Manual measurement
Boulder	>256	Manual measurement

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. For the sedimentation method, 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.

Peak flow (peak stage) is an instantaneous local maximum value in the continuous time series of streamflows or stages, preceded by a period of increasing values and followed by a period of decreasing values. Several peak values ordinarily occur in a year. The maximum peak value in a year is called the annual peak; peaks lower than the annual peak are called secondary peaks. Occasionally, the annual peak may not be the maximum value for the year; in such cases, the maximum value occurs at midnight at the beginning or end of the year, on the recession from or rise toward a higher peak in the adjoining year. If values are recorded at a discrete series of times, the peak recorded value may be taken as an approximation of the true peak, which may occur between the recording instants. If the values are recorded with finite precision, a sequence of equal recorded values may occur at the peak; in this case, the first value is taken as the peak.

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

Percent shading is a measure of the amount of sunlight potentially reaching the stream. A clinometer is used to measure left and right bank canopy angles. These values are added together, divided by 180, and multiplied by 100 to compute percentage of shade.

Periodic-record station is a site where stage, discharge, sediment, chemical, physical, or other hydrologic measurements are made one or more times during a year but at a frequency insufficient to develop a daily record.

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

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

pH of water is the negative logarithm of the hydrogen-ion activity. Solutions with pH less than 7.0 standard units are termed “acidic,” and solutions with a pH greater than 7.0 are termed “basic.” Solutions with a pH of 7.0 are neutral. The presence and concentration of many dissolved chemical constituents found in water are affected, in part, by the hydrogen-ion activity of water. Biological processes including growth, distribution of organisms, and toxicity of the water to organisms also are affected, in part, by the hydrogen-ion activity of water.

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 commonly are known as algae. (See also “Plankton”)

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactive nuclide represented by a curie (Ci). A curie is the quantity of radioactive nuclide that yields 3.7×10^{10} radioactive disintegrations per second (dps). A picocurie yields 0.037 dps, or 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. Concentrations are expressed as a number of cells per milliliter (cells/mL) of sample.

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

Polychlorinated naphthalenes (PCNs) are industrial chemicals that are mixtures of chlorinated naphthalene compounds. They have properties and applications similar to polychlorinated biphenyls (PCBs) and have been identified in commercial PCB preparations.

Pool, as used in this report, is a small part of a stream reach with little velocity, commonly with water deeper than surrounding areas.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photo-synthetic 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 (carbon method) by the plants.

Primary productivity (carbon method) is expressed as milligrams of carbon per area per unit time [mg C/(m^2/time)] for periphyton and macrophytes or per volume [mg C/(m^3/time)] for phytoplankton. The carbon method defines 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 with unenriched water samples. Unit time may be either the hour or day, depending on the incubation period. (See also “Primary productivity”)

Primary productivity (oxygen method) is expressed as milligrams of oxygen per area per unit time [mg O/(m^2/time)] for periphyton and macrophytes or per volume [mg O/(m^3/time)] for phytoplankton. The oxygen method defines 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. (See also “Primary productivity”)

Radioisotopes are isotopic forms of elements that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus; for example, ordinary chlorine is a mixture of isotopes having atomic weights of 35 and 37, and the natural mixture has an atomic weight of about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron. There are 275 isotopes of the 81 stable elements, in addition to more than 800 radioactive isotopes.

Reach, as used in this report, is a length of stream that is chosen to represent a uniform set of physical, chemical, and biological conditions within a segment. It is the principal sampling unit for collecting physical, chemical, and biological data.

Recoverable from bed (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. (See also “Bed material”)

Recurrence interval, also referred to as return period, is the average time, usually expressed in years, between occurrences of hydrologic events of a specified type (such as exceedances of a specified high flow or nonexceedance of a specified low flow). The terms “return period” and “recurrence interval” do not imply regular cyclic occurrence. The actual times between occurrences vary randomly, with most of the times being less than the average and a few being substantially greater than the average. For example, the 100-year flood is the flow rate that is exceeded by the annual maximum peak flow at intervals whose average length is 100 years (that is, once in 100 years, on average); almost two-thirds of all exceedances of the 100-year flood occur less than 100 years after the previous exceedance, half occur less than 70 years after the previous exceedance, and about one-eighth occur more than 200 years after the previous exceedance. Similarly, the 7-day, 10-year low flow ($7Q_{10}$) is the flow rate below which the annual minimum 7-day-mean flow dips at intervals whose average length is 10 years (that is, once in 10 years, on average); almost two-thirds of the nonexceedances of the $7Q_{10}$ occur less than 10 years after the previous nonexceedance, half occur less than 7 years after, and about one-eighth occur more than 20 years after the previous nonexceedance. The recurrence interval for annual events is the reciprocal of the annual probability of occurrence. Thus, the 100-year flood has a 1-percent chance of being exceeded by the maximum peak flow in any year, and there is a 10-percent chance in any year that the annual minimum 7-day-mean flow will be less than the $7Q_{10}$.

Replicate samples are a group of samples collected in a manner such that the samples are thought to be essentially identical in composition.

Return period (See “Recurrence interval”)

Riffle, as used in this report, is a shallow part of the stream where water flows swiftly over completely or partially submerged obstructions to produce surface agitation.

River mileage is the curvilinear distance, in miles, measured upstream from the mouth along the meandering path of a stream channel in accordance with Bulletin No. 14 (October 1968) of the Water Resources Council and typically is used to denote location along a river.

Run, as used in this report, is a relatively shallow part of a stream with moderate velocity and little or no surface turbulence.

Runoff is the quantity of water that is discharged ("runs off") from a drainage basin during a given time period. Runoff data may be presented as volumes in acre-feet, as mean discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches. (See also "Annual runoff")

Sea level, as used in this report, refers to one of the two commonly used national vertical datums (NGVD 1929 or NAVD 1988). See separate entries for definitions of these datums.

Sediment is solid material that originates mostly from disintegrated rocks; when transported by, suspended in, or deposited from water, it is referred to as "fluvial sediment." Sediment 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 affected by environmental and land-use factors. Some major factors are topography, soil characteristics, land cover, and depth and intensity of pre-cipitation.

Sensible heat flux (often used interchangeably with latent sensible heat-flux density) is the amount of heat energy that moves by turbulent transport through the air across a specified cross-sectional area per unit time and goes to heating (cooling) the air. Usually expressed in watts per square meter.

Seven-day, 10-year low flow ($7Q_{10}$) is the discharge below which the annual 7-day minimum flow falls in 1 year out of 10 on the long-term average. The recurrence interval of the $7Q_{10}$ is 10 years; the chance that the annual 7-day minimum flow will be less than the $7Q_{10}$ is 10 percent in any given year. (See also "Annual 7-day minimum" and "Recurrence interval")

Shelves, as used in this report, are streambank features extending nearly horizontally from the flood plain to the lower limit of persistent woody vegetation.

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. Sodium hazard in water is an index that can be used to evaluate the suitability of water for irrigating crops.

Soil heat flux (often used interchangeably with soil heat-flux density) is the amount of heat energy that moves by conduction across a specified cross-sectional area of soil per unit time and goes to heating (or cooling) the soil. Usually expressed in watts per square meter.

Soil-water content is the water lost from the soil upon drying to constant mass at 105 °C; expressed either as mass of water per unit mass of dry soil or as the volume of water per unit bulk volume of soil.

Specific electrical conductance (conductivity) is a measure of the capacity of water (or other media) to conduct an electrical current. It is expressed in microsiemens per centimeter at 25 °C. Specific electrical conductance is a function of the types and quantity of dissolved substances in water 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.

Stable isotope ratio (per MIL) is a unit expressing the ratio of the abundance of two radioactive isotopes. Isotope ratios are used in hydrologic studies to determine the age or source of specific water, to evaluate mixing of different water, as an aid in determining reaction rates, and other chemical or hydrologic processes.

Stage (See "Gage height")

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

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

"streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

Substrate embeddedness class is a visual estimate of riffle streambed substrate larger than gravel that is surrounded or covered by fine sediment (<2mm, sand or finer). Below are the class categories expressed as the percentage covered by fine sediment:

0	no gravel or larger substrate	3	26-50 percent
1	> 75 percent	4	5-25 percent
2	51-75 percent	5	< 5 percent

Surface area of a lake is that area (acres) encompassed by the boundary of the lake as shown on USGS topographic maps, or other available maps or photographs. Because surface area changes with lake stage, surface areas listed in this report represent those determined for the stage at the time the maps or photographs were obtained.

Surficial bed material is the upper surface (0.1 to 0.2 foot) 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 defined operationally as 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 suspended water-sediment sample that is retained on a 0.45-micrometer 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 directly analyzing the suspended material collected on the filter or, more commonly, by difference, on the basis of determinations of (1) dissolved and (2) total recoverable concentrations of the constituent. (See also "Suspended")

Suspended sediment is the sediment maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid. (See also "Sediment")

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 foot above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L). The analytical technique uses the mass of all of the sediment and the net weight of the water-sediment mixture in a sample to compute the suspended-sediment concentration. (See also "Sediment" and "Suspended sediment")

Suspended-sediment discharge (tons/d) is the rate of sediment transport, as measured by dry mass or volume, that passes a cross section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft^3/s) x 0.0027. (See also "Sediment," "Suspended sediment," and "Suspended-sediment concentration")

Suspended-sediment load is a general term that refers to a given characteristic of the material in suspension that passes a point during a specified period of time. The term needs to be qualified, such as "annual suspended-sediment load" or "sand-size suspended-sediment load," and so on. It is not synonymous with either suspended-sediment discharge or concentration. (See also "Sediment")

Suspended, total is the total amount of a given constituent in the part of a water-sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at

least 95 percent of the constituent determined. 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 directly analyzing portions of the suspended material collected on the filter or, more commonly, by difference, on the basis of determinations of (1) dissolved and (2) total concentrations of the constituent. (See also "Suspended")

Suspended solids, total residue at 105 °C concentration is the concentration of inorganic and organic material retained on a filter, expressed as milligrams of dry material per liter of water (mg/L). An aliquot of the sample is used for this analysis.

Synoptic studies are 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.

Taxa (Species) richness is the number of species (taxa) present in a defined area or sampling unit.

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

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

Thalweg is the line formed by connecting points of minimum streambed elevation (deepest part of the channel).

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

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water resulting from the mixing of flow proportionally to the duration of the concentration.

Tons per acre-foot (T/acre-ft) is the dry mass (tons) of a constituent per unit volume (acre-foot) of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY, tons/d) is a common chemical or sediment discharge unit. It is the quantity of a substance in solution, in suspension, or as bedload that passes a stream section during a 24-hour period. It is equivalent to 2,000 pounds per day, or 0.9072 metric tons per day.

Total is the amount of a given constituent in a representative whole-water (unfiltered) 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 at least 95 percent of the constituent in the sample.)

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 warmblooded animals and those that inhabit soils. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria that 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 milliliters of sample. (See also “Bacteria”)

Total discharge is the quantity of a given constituent, measured as dry mass or volume, that passes a stream cross section per unit of time. When referring to constituents other than water, this term needs to be qualified, such as “total sediment discharge,” “total chloride discharge,” and so on.

Total in bottom material is the amount of a given constituent in a representative sample of bottom material. 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 judge when the results should be reported as “total in bottom material.”

Total length (fish) is the straight-line distance from the anterior point of a fish specimen’s snout, with the mouth closed, to the posterior end of the caudal (tail) fin, with the lobes of the caudal fin squeezed together.

Total load refers to all of a constituent in transport. When referring to sediment, it includes suspended load plus bed load.

Total organism count is the number of organisms collected and enumerated in any particular sample. (See also “Organism count/volume”)

Total recoverable is the amount of a given constituent in a whole-water sample after a 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 for whole-water samples, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures may produce different analytical results.

Total sediment discharge is the mass of suspended-sediment plus bed-load transport, measured as dry weight, that passes a cross section in a given time. It is a rate and is reported as tons per day. (See also “Bedload,” “Bedload discharge,” “Sediment,” “Suspended sediment,” and “Suspended-sediment concentration”)

Total sediment load or **total load** is the sediment in transport as bedload and suspended-sediment load. The term may be qualified, such as “annual suspended-sediment load” or “sand-size suspended-sediment load,” and so on. It differs from total sediment discharge in that load refers to the material, whereas discharge refers to the quantity of material, expressed in units of mass per unit time. (See also “Sediment,” “Suspended-sediment load,” and “Total load”)

Transect, as used in this report, is a line across a stream perpendicular to the flow and along which measurements are taken, so that morphological and flow characteristics along the line are described from bank to bank. Unlike a cross section, no attempt is made to determine known elevation points along the line.

Turbidity is the reduction in the transparency of a solution due to the presence of suspended and some dissolved substances. The measurement technique records the collective optical properties of the solution that cause light to be scattered and attenuated rather than transmitted in straight lines; the higher the intensity of scattered or attenuated

light, the higher the value of the turbidity. Turbidity is expressed in nephelometric turbidity units (NTU). Depending on the method used, the turbidity units as NTU can be defined as the intensity of light of a specified wavelength scattered or attenuated by suspended particles or absorbed at a method specified angle, usually 90 degrees, from the path of the incident light. Currently approved methods for the measurement of turbidity in the USGS include those that conform to U.S. EPA Method 180.1, ASTM D1889-00, and ISO 7027. Measurements of turbidity by these different methods and different instruments are unlikely to yield equivalent values.

Ultraviolet (UV) absorbance (absorption) at 254 or 280 nanometers is a measure of the aggregate concentration of the mixture of UV absorbing organic materials dissolved in the analyzed water, such as lignin, tannin, humic substances, and various aromatic compounds. UV absorbance (absorption) at 254 or 280 nanometers is measured in UV absorption units per centimeter of pathlength of UV light through a sample.

Unconfined aquifer is an aquifer whose upper surface is a water table free to fluctuate under atmospheric pressure. (See “Water-table aquifer”)

Vertical datum (See “Datum”)

Volatile organic compounds (VOCs) 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 VOCs are human-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.

Water table is that surface in a ground-water body at which the water pressure is equal to the atmospheric pressure.

Water-table aquifer is an unconfined aquifer within which the water table is found.

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, 2002, is called the “2002 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.

Wet mass is the mass of living matter plus contained water. (See also “Biomass” and “Dry mass”)

Wet weight refers to the weight of animal tissue or other substance including its contained water. (See also “Dry weight”)

WSP is used as an acronym for “Water-Supply Paper” in reference to previously published reports.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and often are 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. (See also “Plankton”)

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

The USGS publishes a series of manuals titled the "Techniques of Water-Resources Investigations" that describe procedures for planning and conducting specialized work in water-resources investigations. The material in these manuals 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. Each chapter then is limited to a narrow field of the section subject matter. This publication format permits flexibility when revision or printing is required.

Manuals in the Techniques of Water-Resources Investigations series, which are listed below, are available online at http://water.usgs.gov/pubs/twri/. Printed copies are available for sale from the USGS, Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (an authorized agent of the Superintendent of Documents, Government Printing Office). Please telephone "1-888-ASK-USGS" for current prices, and refer to the title, book number, section number, chapter number, and mention the "U.S. Geological Survey Techniques of Water-Resources Investigations." Other products can be viewed online at http://www.usgs.gov/sales.html, or ordered by telephone or by FAX to (303)236-4693. Order forms for FAX requests are available online at http://mac.usgs.gov/isb/pubs/forms/. Prepayment by major credit card or by a check or money order payable to the "U.S. Geological Survey" is required.

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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 p.

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 p.

Book 2. Collection of Environmental Data

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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 p.

2–D2. *Application of seismic-refraction techniques to hydrologic studies,* by F.P. Haeni: USGS–TWRI book 2, chap. D2. 1988. 86 p.

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 p.

2–E2. *Borehole geophysics applied to ground-water investigations,* by W.S. Keys: USGS–TWRI book 2, chap. E2. 1990. 150 p.

Section F. Drilling and Sampling Methods

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Book 3. Applications of Hydraulics

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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 p.

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3–A5. *Measurement of peak discharge at dams by indirect methods,* by Harry Hulsing: USGS–TWRI book 3, chap. A5. 1967. 29 p.

3–A6. *General procedure for gaging streams,* by R.W. Carter and Jacob Davidian: USGS–TWRI book 3, chap. A6. 1968. 13 p.

3–A7. *Stage measurement at gaging stations,* by T.J. Buchanan and W.P. Somers: USGS–TWRI book 3, chap. A7. 1968. 28 p.

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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 p.

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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 p.

3–A13. *Computation of continuous records of streamflow,* by E.J. Kennedy: USGS–TWRI book 3, chap. A13. 1983. 53 p.

3–A14. *Use of flumes in measuring discharge,* by F.A. Kilpatrick and V.R. Schneider: USGS–TWRI book 3, chap. A14. 1983. 46 p.

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3–A19. *Levels at streamflow gaging stations,* by E.J. Kennedy: USGS–TWRI book 3, chap. A19. 1990. 31 p.

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 p.

3–A21 *Stream-gaging cableways,* by C. Russell Wagner: USGS–TWRI book 3, chap. A21. 1995. 56 p.

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3–B1. *Aquifer-test design, observation, and data analysis,* by R.W. Stallman: USGS–TWRI book 3, chap. B1. 1971. 26 p.

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 p.

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 p.

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3–B8. *System and boundary conceptualization in ground-water flow simulation*, by T.E. Reilly: USGS–TWRI book 3, chap. B8. 2001. 29 p.

Section C. Sedimentation and Erosion Techniques

3–C1. *Fluvial sediment concepts*, by H.P. Guy: USGS–TWRI book 3, chap. C1. 1970. 55 p.

3–C2. *Field methods for measurement of fluvial sediment*, by T.K. Edwards and G.D. Glysson: USGS–TWRI book 3, chap. C2. 1999. 89 p.

3–C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS–TWRI book 3, chap. C3. 1972. 66 p.

Book 4. Hydrologic Analysis and Interpretation

Section A. Statistical Analysis

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4–A2. *Frequency curves*, by H.C. Riggs: USGS–TWRI book 4, chap. A2. 1968. 15 p.

4–A3. *Statistical methods in water resources*, by D.R. Helsel and R.M. Hirsch: USGS–TWRI book 4, chap. A3. 1991. Available only online at http://water.usgs.gov/pubs/twri/twri4a3/. (Accessed August 30, 2002.)

Section B. Surface Water

4–B1. *Low-flow investigations*, by H.C. Riggs: USGS–TWRI book 4, chap. B1. 1972. 18 p.

4–B2. *Storage analyses for water supply*, by H.C. Riggs and C.H. Hardison: USGS–TWRI book 4, chap. B2. 1973. 20 p.

4–B3. *Regional analyses of streamflow characteristics*, by H.C. Riggs: USGS–TWRI book 4, chap. B3. 1973. 15 p.

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 p.

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 p.

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 p.

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 p.

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 p.

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 p.

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 p.

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 p.

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 p.

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 p.

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 p.

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 p.

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 p.

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: USGS–TWRI book 6, chap. A6. 1996. 125 p.

6–A7. *User's guide to SEAWAT: A computer program for simulation of three-dimensional variable-density ground-water flow*, by Weixing Guo and Christian D. Langevin: USGS–TWRI book 6, chap. A7. 2002. 77 p.

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 p.

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 p.

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 p.

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 p.

8–A2. *Installation and service manual for U.S. Geological Survey manometers*, by J.D. Craig: USGS–TWRI book 8, chap. A2. 1983. 57 p.

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 p.

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 Gibs, 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 Gibs, 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 Gibs, 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 p.

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 p.

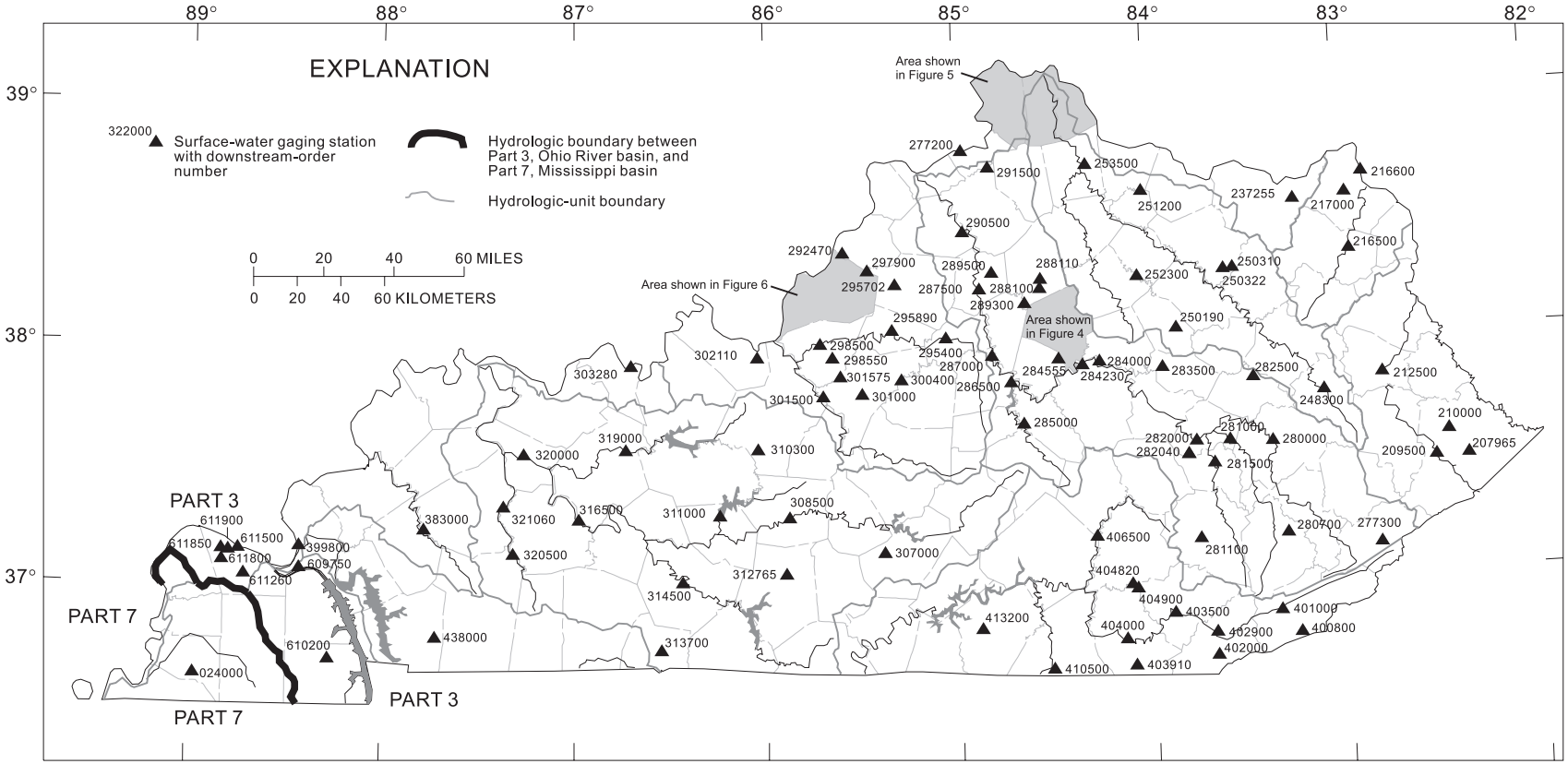

Figure 3. Location of gaging stations in Kentucky.

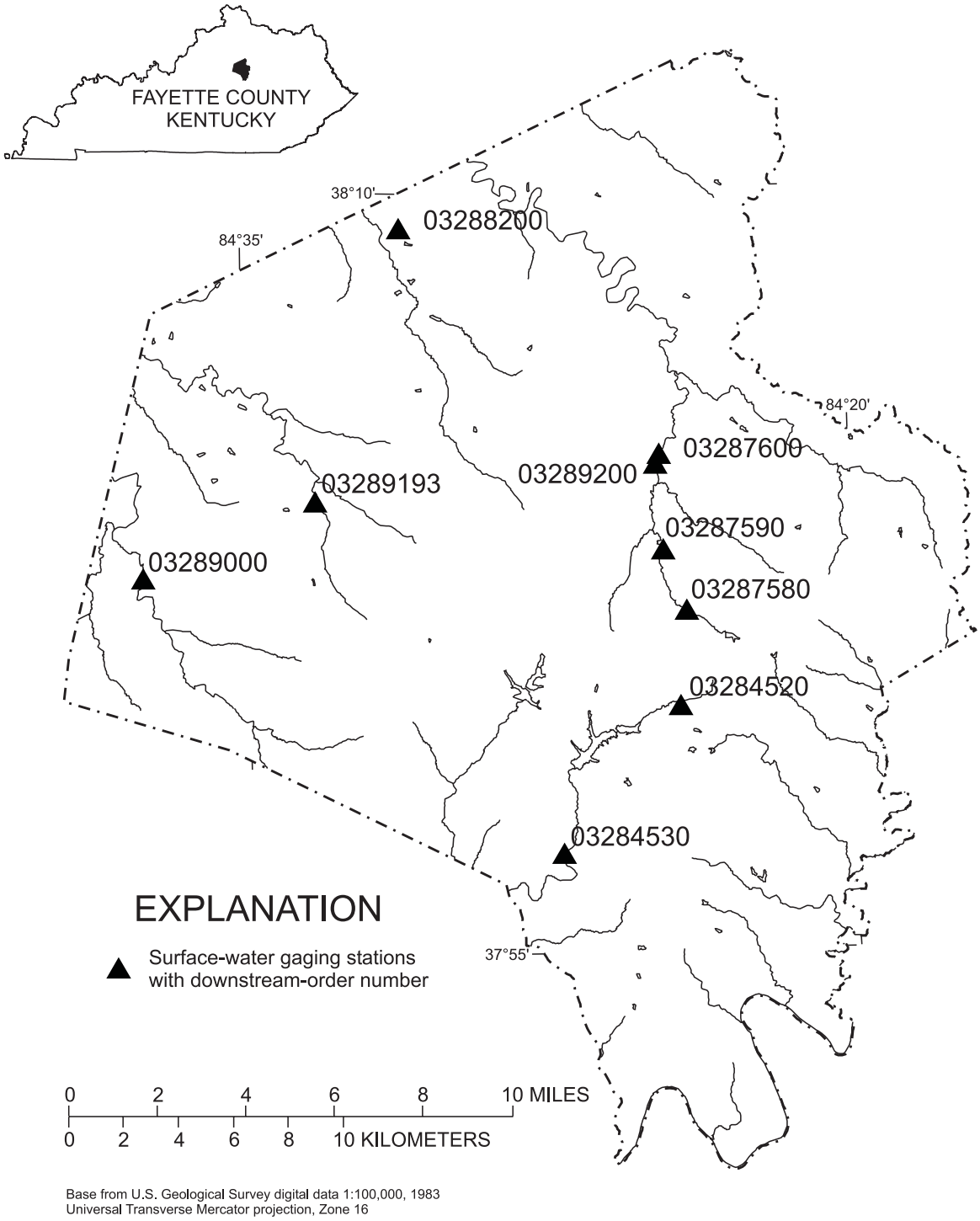

Figure 4. Location of surface-water gaging stations in Fayette County, Kentucky.

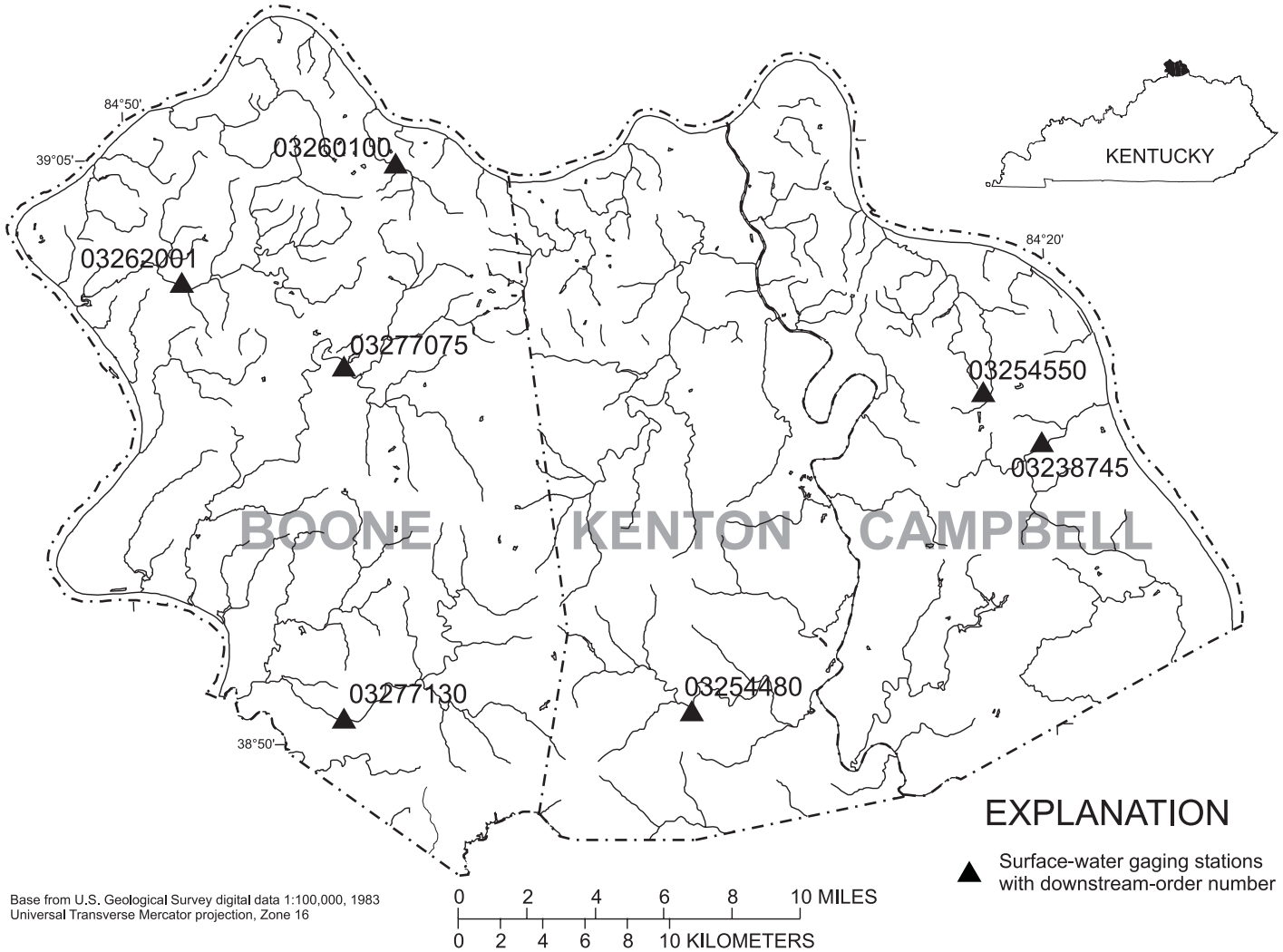

Figure 5. Location of surface-water gaging stations in Boone, Kenton, and Campbell Counties, Kentucky.

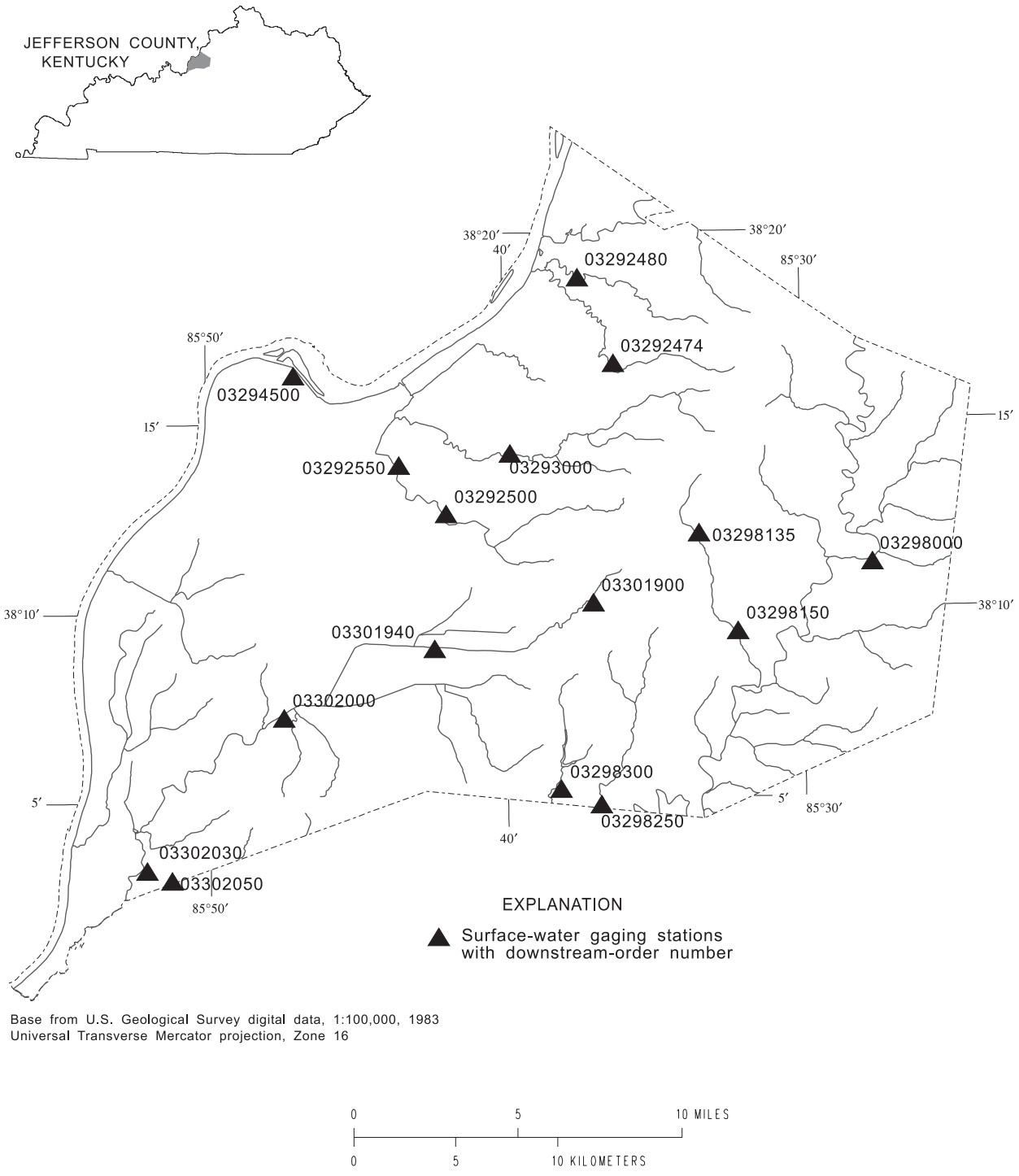

Figure 6. Location of gaging stations in Jefferson County, Kentucky.

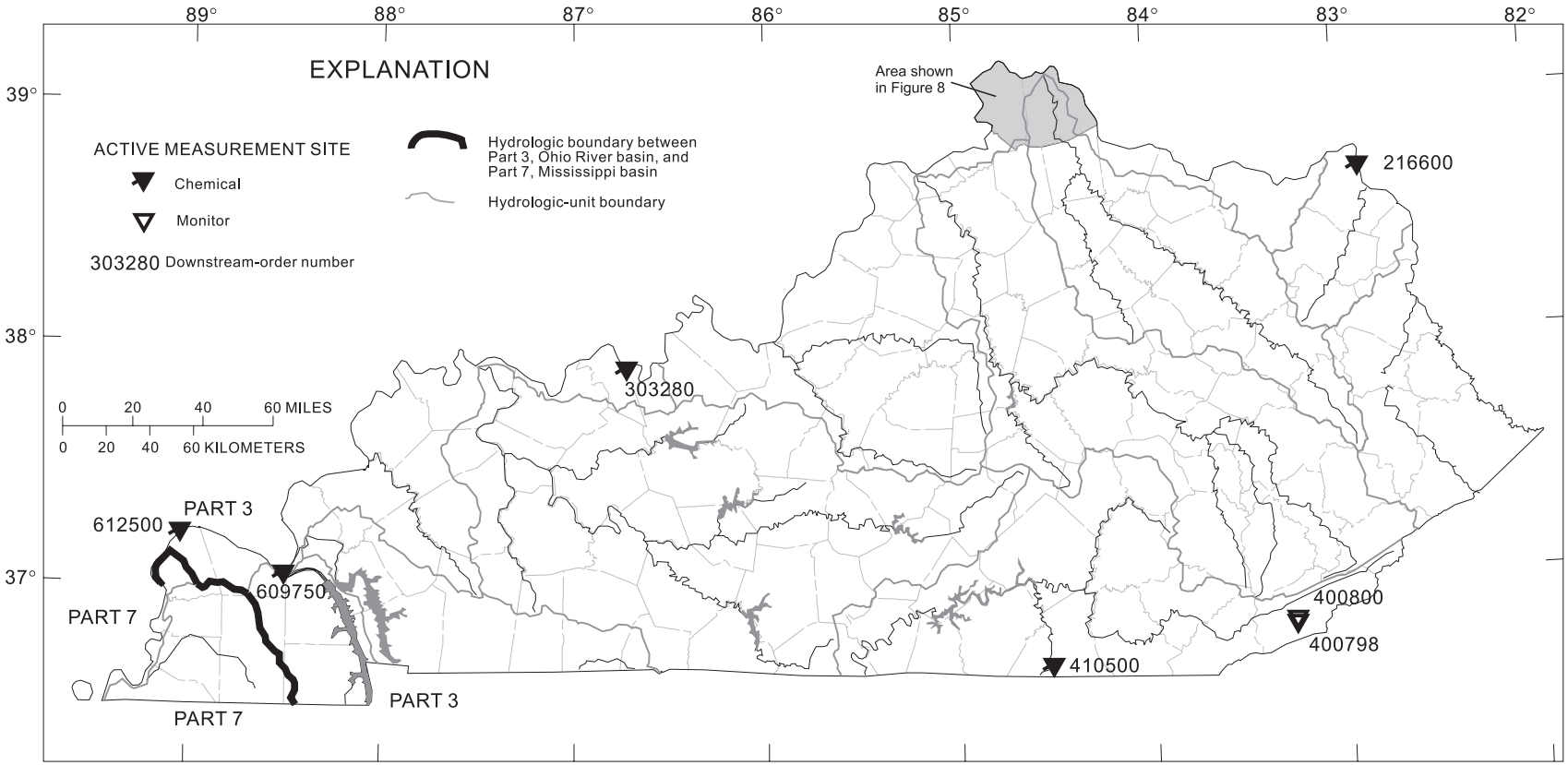

Figure 7. Location of surface-water-quality stations in Kentucky.

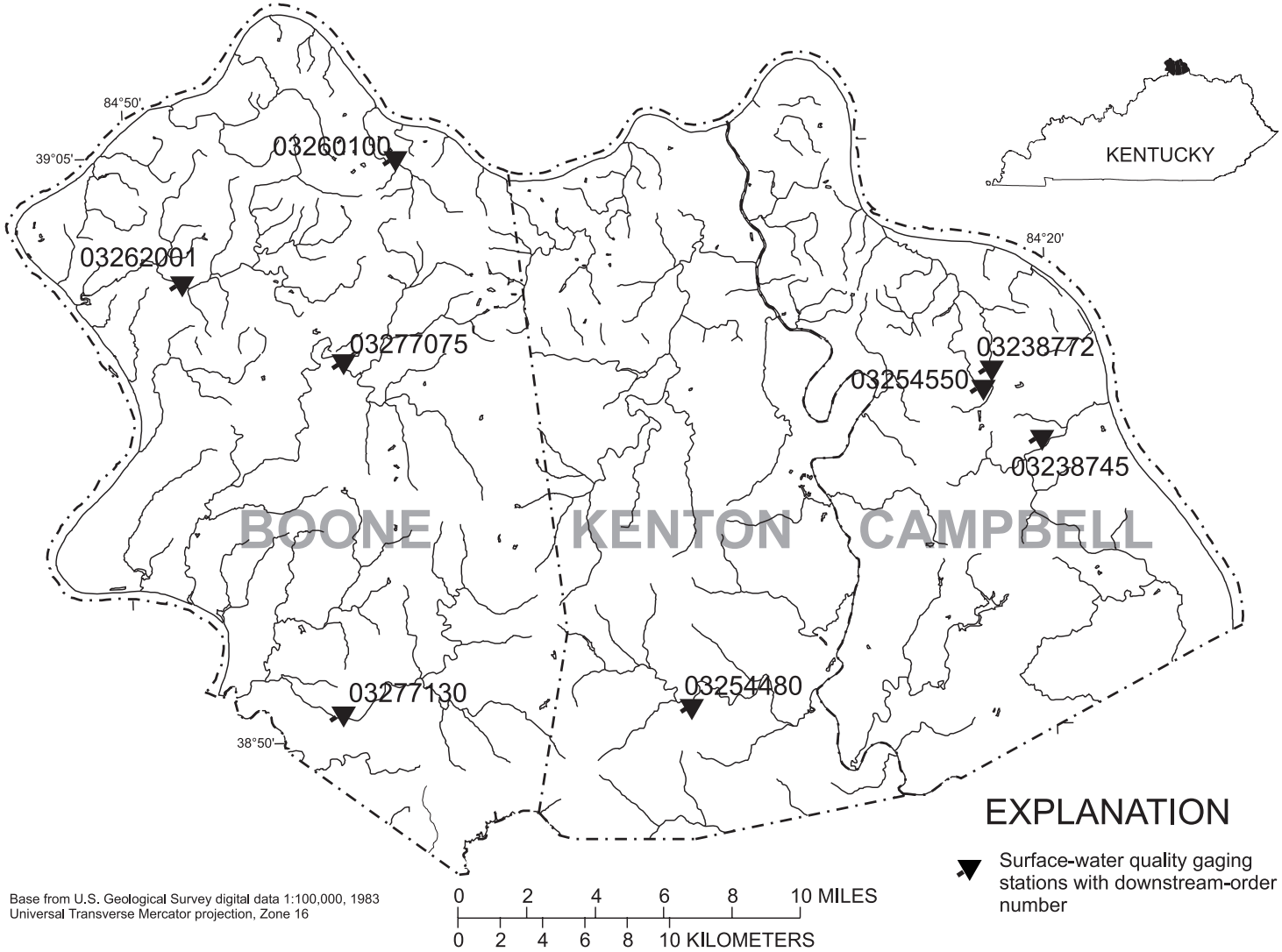

Figure 8. Location of water-quality stations in Boone, Kenton, and Campbell Counties, Kentucky.

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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 mi^2.

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 NGVD of 1929, from topographic map.

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

COOPERATION.--Kentucky Natural Resources and Enviromental Protection Cabinet.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 18	0345	219	1.90	May 2	1615	659	*2.69

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.7	1.3	e1.5	4.0	1.4	66	20	8.3	2.6	2.9	1.2
2	1.0	1.6	1.3	e1.4	2.9	3.0	29	e80	7.4	2.7	2.8	1.1
3	1.2	1.6	1.4	e1.3	2.7	3.0	20	e150	6.1	2.7	2.7	1.2
4	1.1	1.6	1.2	e1.2	2.8	2.4	16	e50	4.4	2.5	2.6	1.2
5	1.1	1.6	1.4	e1.1	2.2	2.3	13	e24	3.4	2.0	2.8	0.99
6	3.4	1.5	1.4	e1.0	2.4	2.0	11	e16	5.7	1.9	2.3	1.0
7	2.5	1.6	1.4	1.8	4.5	1.9	9.8	e13	5.7	1.8	2.4	1.00
8	2.4	1.7	5.2	1.3	4.0	2.0	9.5	e11	4.1	2.0	2.4	1.2
9	2.2	1.8	6.9	1.4	3.8	2.3	14	9.8	3.4	1.8	2.4	1.1
10	2.1	1.6	4.0	1.5	3.9	2.1	17	8.3	2.7	3.6	2.5	1.2
11	2.5	1.4	6.7	30	3.7	1.8	16	6.5	2.7	2.9	2.6	1.2
12	3.4	1.4	3.8	15	3.1	1.7	14	6.0	4.3	2.4	2.6	1.4
13	3.0	1.5	5.5	4.9	2.6	2.2	12	6.6	5.4	7.7	2.5	1.4
14	4.7	1.4	8.0	3.5	2.4	2.2	12	5.7	4.2	5.4	2.5	1.7
15	2.9	1.2	5.3	2.8	2.3	2.2	10	4.8	4.3	3.7	2.3	2.0
16	2.3	1.1	3.6	1.9	2.3	11	9.6	4.0	3.1	3.2	2.1	2.1
17	2.1	1.2	3.7	1.7	2.2	44	9.2	4.3	2.6	2.9	6.0	1.9
18	2.0	1.2	5.5	1.7	1.9	118	8.6	7.5	2.5	4.1	3.6	2.0
19	2.0	1.2	4.0	4.1	1.8	34	8.5	4.9	1.9	10	6.6	2.1
20	2.1	1.3	3.8	7.2	2.1	53	17	4.6	1.7	9.2	4.3	2.2
21	2.1	1.2	3.1	8.2	2.2	44	17	3.6	1.7	4.9	2.9	2.5
22	1.9	1.1	2.9	9.9	2.0	24	78	3.3	1.5	4.7	2.5	3.2
23	1.9	1.1	3.2	22	1.7	18	32	3.2	1.4	4.0	2.2	2.1
24	1.7	1.3	e2.8	55	1.6	14	21	3.0	1.9	3.4	2.2	1.7
25	2.7	2.3	e2.5	57	1.6	12	28	3.0	3.5	3.0	2.0	1.7
26	1.7	1.7	e2.3	20	1.8	15	22	2.8	3.3	3.1	2.8	8.5
27	1.6	1.4	e2.1	11	1.5	18	18	2.8	4.1	3.3	2.8	4.5
28	1.6	1.4	e2.0	8.1	1.3	16	39	2.9	3.5	2.9	2.4	2.6
29	1.7	1.4	e1.8	5.9	---	14	39	2.5	4.9	2.8	2.3	2.0
30	1.6	1.6	e1.7	4.8	---	16	25	2.5	3.0	3.5	1.6	1.8
31	1.6	---	e1.6	4.1	---	72	---	2.4	---	3.0	1.2	---
TOTAL	65.2	43.7	101.4	292.3	71.3	555.5	641.2	469.0	112.7	113.7	85.8	59.79
MEAN	2.103	1.457	3.271	9.429	2.546	17.92	21.37	15.13	3.757	3.668	2.768	1.993
MAX	4.7	2.3	8.0	57	4.5	118	78	150	8.3	10	6.6	8.5
MIN	1.0	1.1	1.2	1.0	1.3	1.4	8.5	2.4	1.4	1.8	1.2	0.99
CFSM	0.34	0.23	0.53	1.52	0.41	2.89	3.45	2.44	0.61	0.59	0.45	0.32
IN.	0.39	0.26	0.61	1.75	0.43	3.33	3.85	2.81	0.68	0.68	0.51	0.36

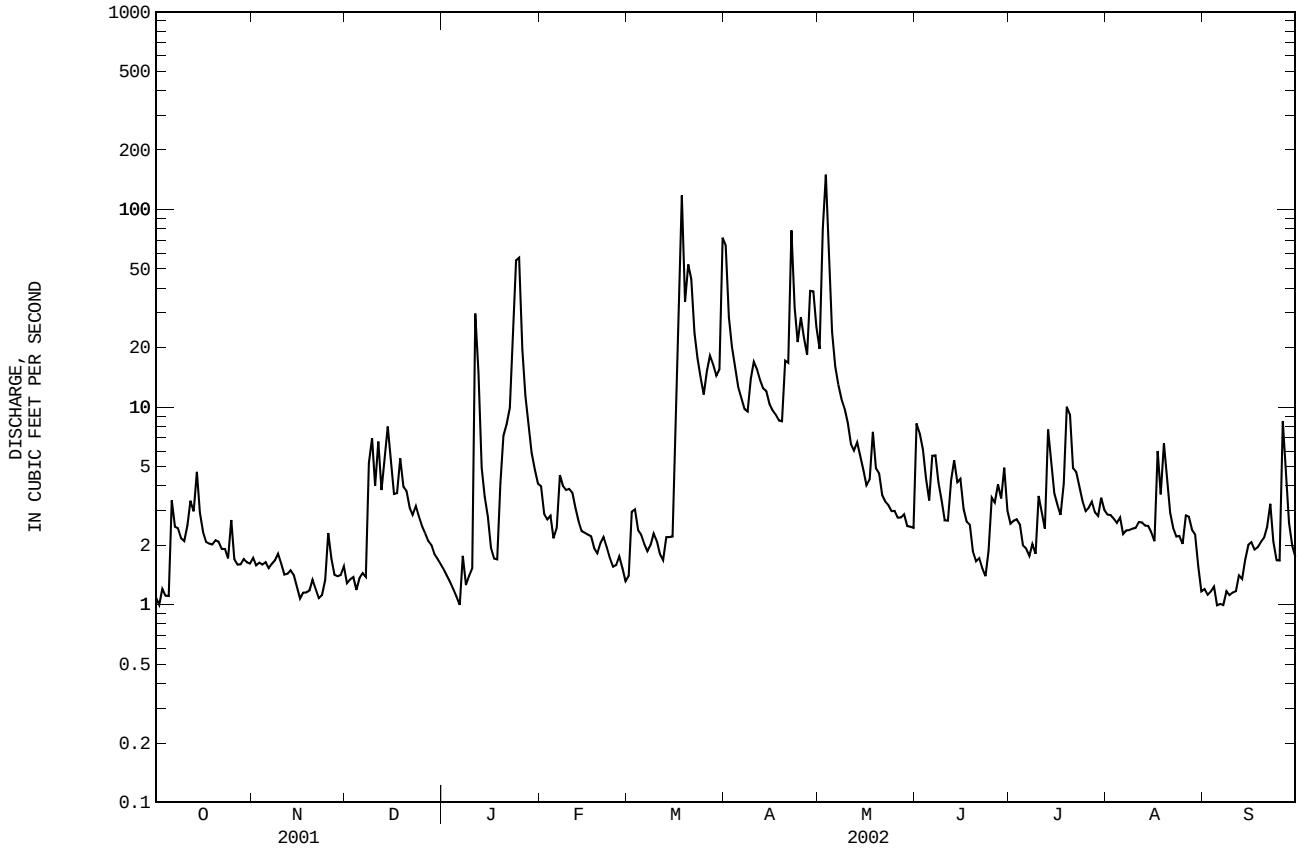
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2002, BY WATER YEAR (WY)

MEAN	3.670	5.894	7.430	13.51	12.51	17.74	13.31	11.18	7.353	3.814	3.318	2.102
MAX	28.0	31.0	18.8	42.6	34.0	53.6	30.7	47.7	23.7	23.2	14.0	5.75
(WY)	1990	1974	1979	1974	1990	1975	1998	1989	1998	2000	2001	1989
MIN	0.32	0.27	0.98	1.44	2.55	7.12	4.62	0.71	0.64	0.32	0.31	0.38
(WY)	1992	1982	1982	1981	2002	1977	1982	1976	1980	1991	1981	1981

03207965 GRAPEVINE CREEK NEAR PHYLLIS, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1974 - 2002	
ANNUAL TOTAL	2394.74		2611.59			
ANNUAL MEAN	6.561		7.155		8.246	
HIGHEST ANNUAL MEAN					17.2	1974
LOWEST ANNUAL MEAN					5.30	1992
HIGHEST DAILY MEAN	160	Aug 13	150	May 3	832	Oct 1 1982
LOWEST DAILY MEAN	0.60	Sep 19	0.99	Sep 5	0.00	Aug 19 1982
ANNUAL SEVEN-DAY MINIMUM	0.77	Sep 14	1.1	Sep 1	0.04	Sep 22 1981
MAXIMUM PEAK FLOW			659	May 2	1650	Jun 1 1974
MAXIMUM PEAK STAGE			2.69	May 2	9.10	Apr 7 1977
INSTANTANEOUS LOW FLOW					0.01	Aug 19 1982
ANNUAL RUNOFF (CFSM)	1.06		1.15		1.33	
ANNUAL RUNOFF (INCHES)	14.37		15.67		18.07	
10 PERCENT EXCEEDS	13		16		17	
50 PERCENT EXCEEDS	3.3		2.7		3.2	
90 PERCENT EXCEEDS	1.2		1.4		0.54	

e Estimated



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 mi^2.

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 with telemetry. Datum of gage is 631.98 ft above NGVD of 1929. 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 except those estimated which are poor. Flow regulated since March 1965 by John W. Flannagan Lake (station 03208990), since August 1966 by North Fork Pound River Lake (station 03208680) and since October 1968 by Fishtrap Lake (station 03207995).

COOPERATION.--U.S. Army Corps of Engineers, Huntington District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	304	414	241	e202	1100	487	7920	2090	614	520	327	209
2	470	384	240	e198	954	412	4440	5050	873	437	294	207
3	477	386	217	e195	893	455	2660	13300	969	1470	254	205
4	444	385	185	e192	809	517	2430	10800	732	1340	192	208
5	392	386	208	e240	699	625	2190	9160	554	540	232	211
6	463	381	183	258	571	444	1850	6030	527	405	240	224
7	625	453	186	269	664	424	1720	2910	908	352	225	225
8	577	474	211	259	1710	424	1550	2420	939	328	211	224
9	432	472	339	243	1660	419	1370	2060	888	329	218	227
10	466	404	319	246	1460	422	2590	1770	536	304	217	234
11	437	384	308	673	1710	397	2610	1550	433	422	215	332
12	380	381	346	952	1330	319	2110	1390	413	402	250	234
13	401	381	447	725	1160	312	2000	1280	495	497	234	231
14	578	410	719	993	944	354	1990	1580	1030	670	216	225
15	615	453	876	1180	792	346	1960	1360	945	503	216	228
16	602	462	754	742	687	625	2020	1110	758	379	296	236
17	642	472	573	540	668	4900	1910	1090	479	334	255	217
18	563	461	477	496	643	22100	2160	1450	398	336	261	229
19	496	457	460	436	700	11500	2520	2050	371	427	301	238
20	336	447	423	1000	725	10800	2260	1340	381	886	304	261
21	517	411	335	1580	614	10400	2060	1040	345	1170	244	236
22	594	408	360	2140	596	7970	2580	936	313	691	222	268
23	449	405	367	6800	517	4940	2880	854	304	366	203	318
24	376	404	372	10400	476	3280	2310	807	298	667	194	321
25	486	426	366	14000	462	2960	2890	779	336	543	209	305
26	564	428	350	9250	512	2290	3570	798	508	751	219	439
27	645	417	252	6730	438	2700	2640	913	446	564	425	1060
28	745	427	227	4740	481	2750	3000	761	1000	461	323	658
29	654	340	e218	3050	---	2200	3180	683	1100	389	243	522
30	470	266	e210	2040	---	2270	2710	559	679	380	220	407
31	462	---	e205	1170	---	4910	---	592	---	376	216	---
TOTAL	15662	12379	10974	71939	23975	102952	78080	78512	18572	17239	7676	9139
MEAN	505.2	412.6	354.0	2321	856.2	3321	2603	2533	619.1	556.1	247.6	304.6
MAX	745	474	876	14000	1710	22100	7920	13300	1100	1470	425	1060
MIN	304	266	183	192	438	312	1370	559	298	304	192	205

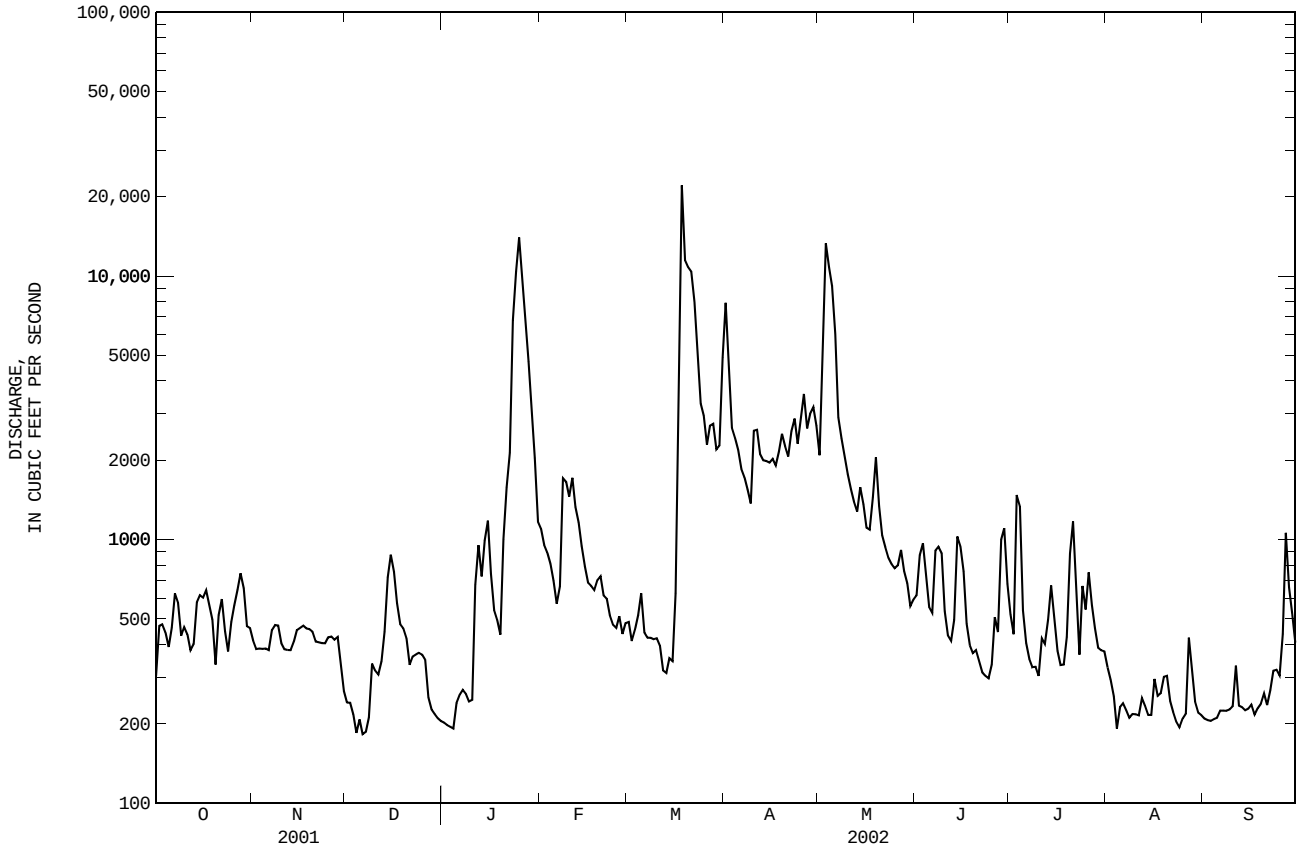
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2002, BY WATER YEAR (WY)

MEAN	779.4	1072	1481	2260	2716	2961	2263	1986	1010	631.7	497.7	448.9
MAX	3939	3991	5385	6861	6371	8081	7646	6067	3492	2028	1150	1606
(WY)	1990	1978	1973	1974	1994	1975	1977	1984	1979	2001	2001	1989
MIN	158	312	300	278	814	529	388	349	210	200	203	168
(WY)	1970	2001	1981	1981	1992	1988	1986	1976	1988	1988	1969	1969

03209500 LEVISA FORK AT PIKEVILLE, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1969 - 2002	
ANNUAL TOTAL	375987		447099			
ANNUAL MEAN	1030		1225		1503	
HIGHEST ANNUAL MEAN					2459	1979
LOWEST ANNUAL MEAN					522	1988
HIGHEST DAILY MEAN	11900	Feb 17	22100	Mar 18	69300	Apr 5 1977
LOWEST DAILY MEAN	183	Dec 6	183	Dec 6	66	Dec 3 1970
ANNUAL SEVEN-DAY MINIMUM	204	Dec 2	203	Dec 29	103	Oct 10 1968
MAXIMUM PEAK FLOW			25500	Mar 18	85500	Jan 30 1957
MAXIMUM PEAK STAGE			34.17	Mar 18	52.72	Jan 30 1957
INSTANTANEOUS LOW FLOW					66	Dec 3 1970
10 PERCENT EXCEEDS	1870		2600		3480	
50 PERCENT EXCEEDS	538		476		735	
90 PERCENT EXCEEDS	250		225		231	

e Estimated



03210000 JOHNS CREEK NEAR META, KY

LOCATION.--Lat 37°34'01", long 82°27'29", Pike County, Hydrologic Unit 05070203, on right bank 100 ft upstream 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 mi^2.

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 with telemetry and crest-stage gage. Datum of gage is 715.66 ft above NGVD of 1929. See WDR KY-90-1 for history of changes prior to Dec. 21, 1965.

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

COOPERATION.--Kentucky Natural Resources and Environmental Protection Cabinet and U.S. Army Corps of Engineers, Huntington District.

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 ft^3/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 18	0830	1,730	13.02	May 3	0000	*4,680	*18.17
Mar 31	2130	1,790	13.18				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.4	7.1	6.9	e8.4	51	11	664	137	31	14	20	6.2
2	11	6.4	7.1	e8.1	41	23	268	1050	46	13	15	7.0
3	18	9.7	7.0	e7.9	39	42	174	1410	34	15	13	6.6
4	14	16	6.2	e7.7	36	34	124	330	25	14	12	5.2
5	12	12	6.1	e7.5	30	29	98	208	21	11	9.6	5.9
6	24	10	6.0	e7.3	29	27	85	146	39	9.0	8.6	5.6
7	22	13	6.4	19	39	25	69	126	44	8.1	8.5	5.8
8	16	8.8	14	18	34	28	61	106	27	8.2	7.5	5.2
9	12	12	47	25	31	26	65	96	24	8.3	9.4	4.0
10	11	8.5	21	26	32	26	88	79	21	8.3	9.2	2.9
11	8.4	8.7	37	134	37	22	77	64	18	11	11	5.5
12	11	11	26	96	31	20	72	58	18	8.2	11	5.2
13	18	11	33	59	29	27	84	136	20	37	8.7	4.7
14	15	10	46	41	23	31	79	93	21	35	7.3	5.0
15	37	7.4	40	32	23	33	65	66	20	16	8.6	6.2
16	19	9.5	24	23	22	81	64	54	16	10	11	8.2
17	14	4.8	19	19	21	224	53	46	16	7.9	14	6.1
18	14	5.6	29	20	20	1090	54	92	14	13	22	6.3
19	13	6.2	26	20	17	373	53	66	12	87	35	7.2
20	14	15	25	43	17	511	100	55	11	51	31	5.7
21	17	14	19	54	19	428	188	47	8.6	25	13	5.2
22	20	11	17	89	16	231	470	41	7.7	18	10	18
23	12	8.3	17	168	15	162	260	36	8.6	101	7.8	21
24	13	8.7	e15	368	15	129	165	33	11	55	6.1	6.6
25	13	28	e14	579	15	104	169	32	12	28	8.7	4.9
26	13	19	e12	229	14	122	147	37	23	37	25	34
27	11	10	e11	128	13	155	121	34	28	34	12	40
28	13	10	e10	85	12	138	310	27	29	21	9.9	17
29	13	12	e9.6	65	---	121	281	25	35	17	9.0	11
30	11	11	e9.2	52	---	150	188	21	17	41	9.0	8.2
31	8.6	---	e8.8	55	---	683	---	19	---	38	8.8	---
TOTAL	456.4	324.7	575.3	2493.9	721	5106	4696	4770	657.9	800.0	391.7	280.4
MEAN	14.72	10.82	18.56	80.45	25.75	164.7	156.5	153.9	21.93	25.81	12.64	9.347
MAX	37	28	47	579	51	1090	664	1410	46	101	35	40
MIN	8.4	4.8	6.0	7.3	12	11	53	19	7.7	7.9	6.1	2.9
CFSM	0.26	0.19	0.33	1.43	0.46	2.93	2.78	2.73	0.39	0.46	0.22	0.17
IN.	0.30	0.21	0.38	1.65	0.48	3.37	3.10	3.15	0.43	0.53	0.26	0.19

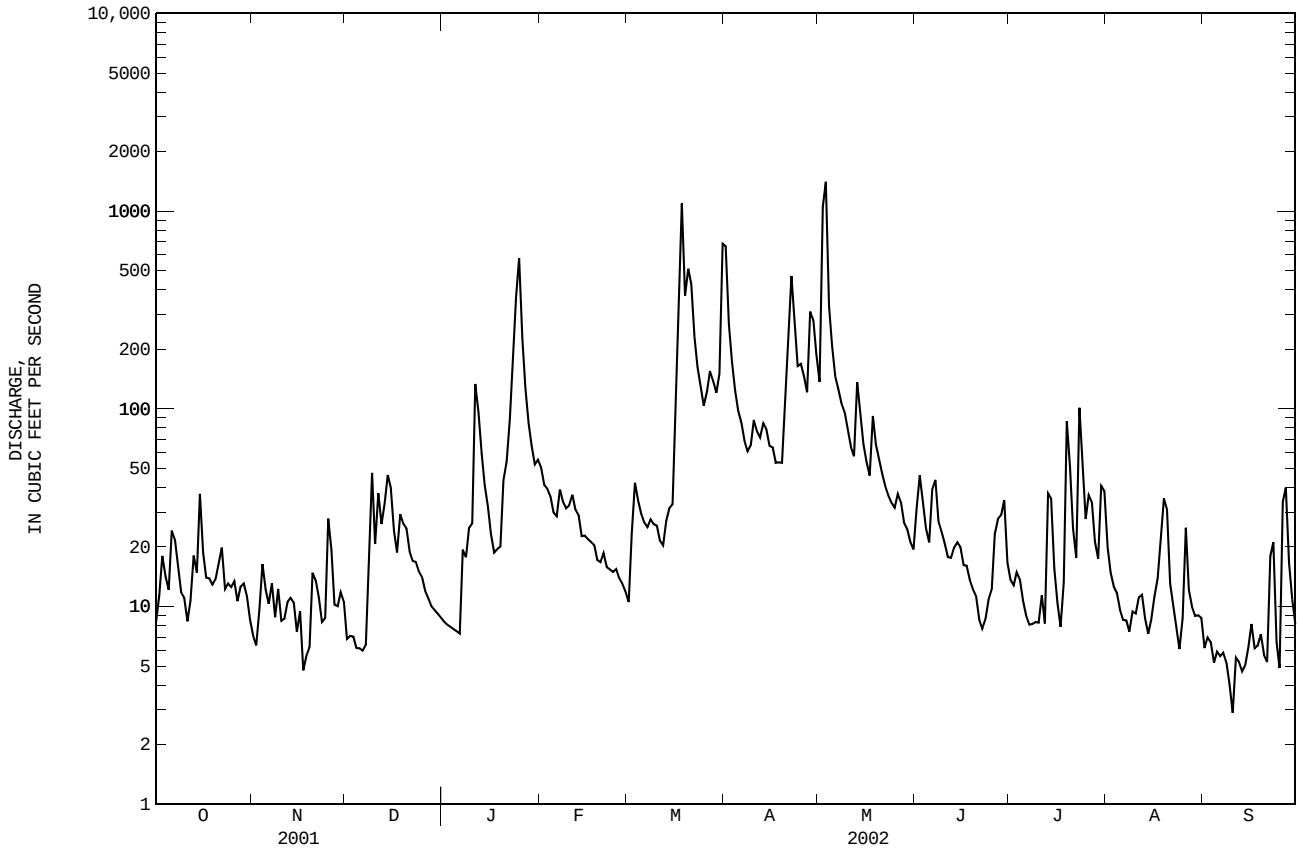
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2002, BY WATER YEAR (WY)

MEAN	17.42	36.58	72.00	106.0	134.6	161.7	117.1	73.52	38.95	27.68	18.28	15.50
MAX	175	213	319	413	338	489	356	271	193	167	155	153
(WY)	1990	1974	1973	1974	1972	1955	1948	1984	1979	2000	1942	1966
MIN	0.000	0.23	0.95	6.57	17.5	36.0	15.8	7.33	1.99	0.42	0.35	0.000
(WY)	1954	1954	1966	1966	1954	1988	1963	1941	1969	1944	1943	1943

03210000 JOHNS CREEK NEAR META, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1941 - 2002	
ANNUAL TOTAL	17078.3		21273.3			
ANNUAL MEAN	46.79		58.28		68.19	
HIGHEST ANNUAL MEAN					135	1974
LOWEST ANNUAL MEAN					24.5	1954
HIGHEST DAILY MEAN	894	Aug 4	1410	May 3	3340	May 7 1984
LOWEST DAILY MEAN	4.8	Nov 17	2.9	Sep 10	0.00	Oct 1 1941
ANNUAL SEVEN-DAY MINIMUM	5.7	Jan 11	4.6	Sep 8	0.00	Oct 1 1941
MAXIMUM PEAK FLOW			4680	May 3	7380	Mar 12 1963
MAXIMUM PEAK STAGE			18.17	May 3	19.62	May 7 1984
INSTANTANEOUS LOW FLOW					0.00	Oct 1 1941
ANNUAL RUNOFF (CFSM)	0.83		1.04		1.21	
ANNUAL RUNOFF (INCHES)	11.28		14.06		16.46	
10 PERCENT EXCEEDS	102		128		155	
50 PERCENT EXCEEDS	22		20		23	
90 PERCENT EXCEEDS	7.6		7.3		2.2	

e Estimated



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 mi^2.

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 with telemetry. Datum of gage is 566.84 ft above NGVD of 1929. See WDR KY-90-1 for history of changes prior to Oct. 19, 1954.

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

COOPERATION.--U.S. Army Corps of Engineers, Huntington District.

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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	284	533	473	e280	2040	669	16500	4910	904	928	762	302
2	296	600	395	e270	2030	719	15800	6330	1070	781	649	296
3	500	579	361	e260	1890	762	8740	18500	1740	1240	482	289
4	521	577	318	e255	1820	802	5350	18000	1590	1710	439	285
5	492	616	278	e250	1370	922	3990	14600	1120	1450	362	283
6	434	713	304	e245	1150	1040	3280	12800	1130	772	378	279
7	509	702	294	349	1080	844	2920	9320	1450	592	384	290
8	671	678	338	374	1270	718	2670	7650	1460	519	365	295
9	622	664	437	358	2300	715	2350	5820	1430	479	325	293
10	458	626	568	374	2130	714	2550	4930	1270	498	327	290
11	510	563	652	689	2000	693	3540	3870	836	448	343	300
12	502	523	750	1630	2170	671	3160	3400	714	537	335	371
13	435	515	669	1670	1730	608	2860	5300	753	1410	337	322
14	487	502	944	1300	1540	568	2800	8400	1000	2580	365	303
15	674	527	1320	1500	1320	602	3080	5400	1370	1750	317	310
16	718	594	1270	1470	1180	1310	2980	3360	1230	973	312	313
17	772	623	1100	1020	1070	2890	2860	2390	1110	697	394	300
18	737	610	920	793	957	15800	2560	e4400	726	618	400	307
19	645	600	771	727	915	25400	2870	e5600	625	2570	460	279
20	553	607	674	746	969	23300	3080	4200	565	2860	529	318
21	444	624	615	1510	1040	20400	3170	3070	517	2050	505	349
22	553	570	516	2400	940	17400	4770	2060	482	1680	406	333
23	635	564	514	3690	880	12100	5210	1880	440	1200	355	462
24	511	577	543	12100	797	7750	5080	1670	418	1510	317	524
25	481	699	534	16500	743	5760	4770	1400	411	1570	294	435
26	529	744	520	16200	699	4650	5690	1400	450	1480	307	484
27	629	704	493	10200	730	4870	4970	1580	737	1590	355	1090
28	722	655	414	7030	661	5120	6510	1690	785	1080	556	1490
29	807	649	347	5010	---	4300	8340	1260	1320	782	468	1030
30	724	577	e320	3540	---	4830	6660	1120	1340	688	359	778
31	539	---	e300	2520	---	7050	---	918	---	728	315	---
TOTAL	17394	18315	17952	95260	37421	173977	149110	167228	28993	37770	12502	13000
MEAN	561.1	610.5	579.1	3073	1336	5612	4970	5394	966.4	1218	403.3	433.3
MAX	807	744	1320	16500	2300	25400	16500	18500	1740	2860	762	1490
MIN	284	502	278	245	661	568	2350	918	411	448	294	279

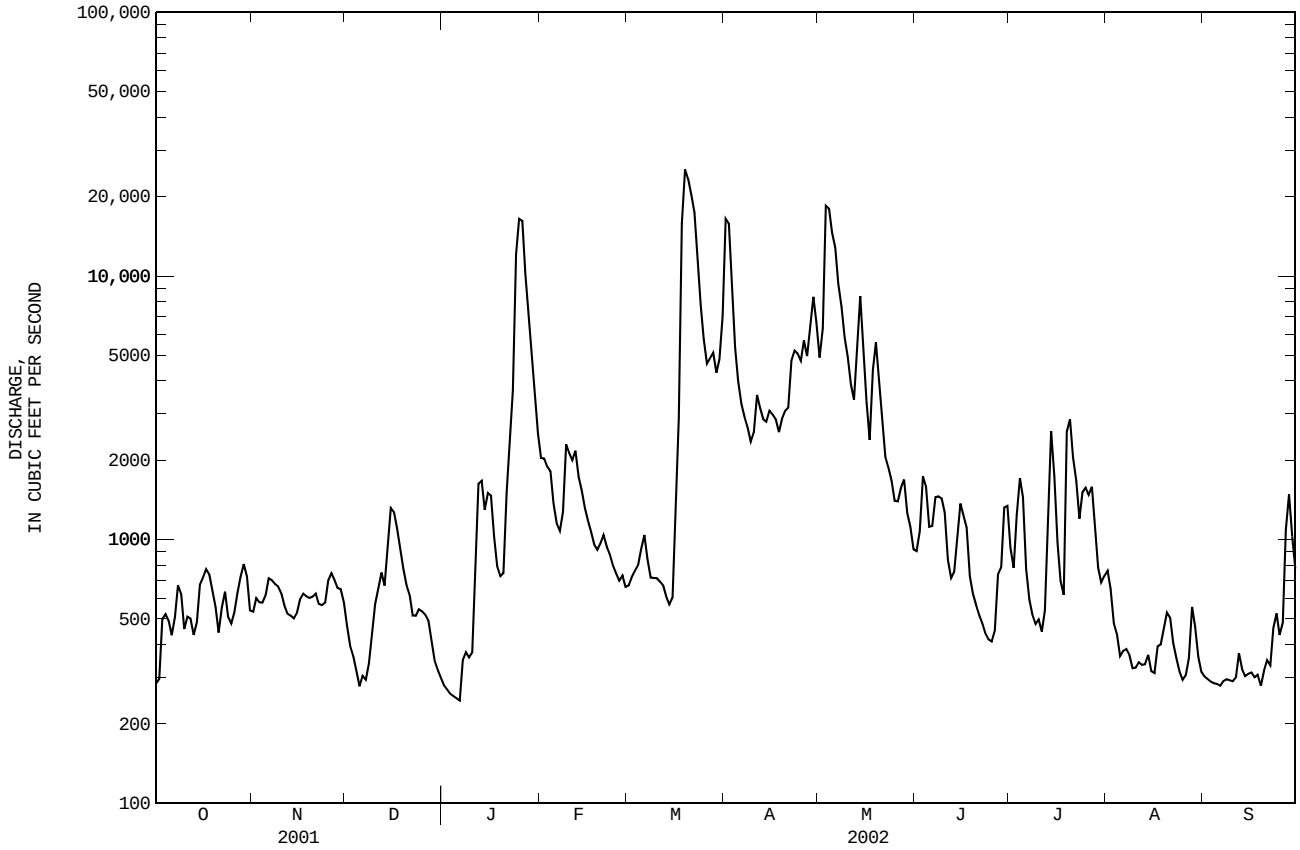
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2002, BY WATER YEAR (WY)

MEAN	1079	1720	2588	3825	4697	5140	4048	3367	1713	993.0	823.1	678.9
MAX	6560	4908	8870	12030	11000	13160	10040	9664	5426	2678	2244	2054
(WY)	1990	1978	1973	1974	1994	1975	1987	1984	1998	2000	2001	1989
MIN	181	447	570	435	1336	963	594	519	278	257	291	239
(WY)	1970	1970	1981	1981	2002	1988	1986	1976	1988	1988	1969	1969

03212500 LEVISA FORK AT PAINTSVILLE, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1969 - 2002	
ANNUAL TOTAL	584247		768922			
ANNUAL MEAN	1601		2107		2545	
HIGHEST ANNUAL MEAN					4234	1975
LOWEST ANNUAL MEAN					830	1988
HIGHEST DAILY MEAN	16700	Feb 18	25400	Mar 19	42000	Apr 6 1977
LOWEST DAILY MEAN	273	Sep 20	245	Jan 6	98	Oct 1 1968
ANNUAL SEVEN-DAY MINIMUM	295	Sep 17	266	Dec 31	122	Aug 27 1969
MAXIMUM PEAK FLOW			26000	Mar 19	69700	Jan 31 1957
MAXIMUM PEAK STAGE			27.61	Mar 19	45.92	Jan 31 1957
INSTANTANEOUS LOW FLOW					98	Oct 1 1968
10 PERCENT EXCEEDS	3410		5100		6120	
50 PERCENT EXCEEDS	761		737		1200	
90 PERCENT EXCEEDS	351		318		365	

e Estimated



03216500 LITTLE SANDY RIVER AT GRAYSON, KY

LOCATION.--Lat 38°19'48", long 82°56'22", Carter County, Hydrologic Unit 05090104, on left bank 0.3 mi upstream from bridge on U.S. Highway 60, 0.5 mi downstream from Town Branch, 0.5 mi east of Grayson, and at mile 38.1.

DRAINAGE AREA.--400 mi^2.

PERIOD OF RECORD.--April 1938 to current year. Prior to October 1964, published as "near Grayson."

REVISED RECORDS.--WSP 1435: 1939(M), 1943(M), 1948(P). WSP 1725: Drainage area.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 557.95 ft above NGVD of 1929. Prior to Aug. 11, 1939, nonrecording gage and Aug. 11, 1939 to Jan. 29, 1965, water-stage recorder at site 1.6 mi downstream at same datum. Apr. 6, 1948 to Jan. 29, 1965, supplementary nonrecording gage 800 ft downstream at same datum.

REMARKS.--Records good. Flow regulated since March 1968 by Grayson Lake (station 03216300).

COOPERATION.--U.S. Army Corps of Engineers, Huntington District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

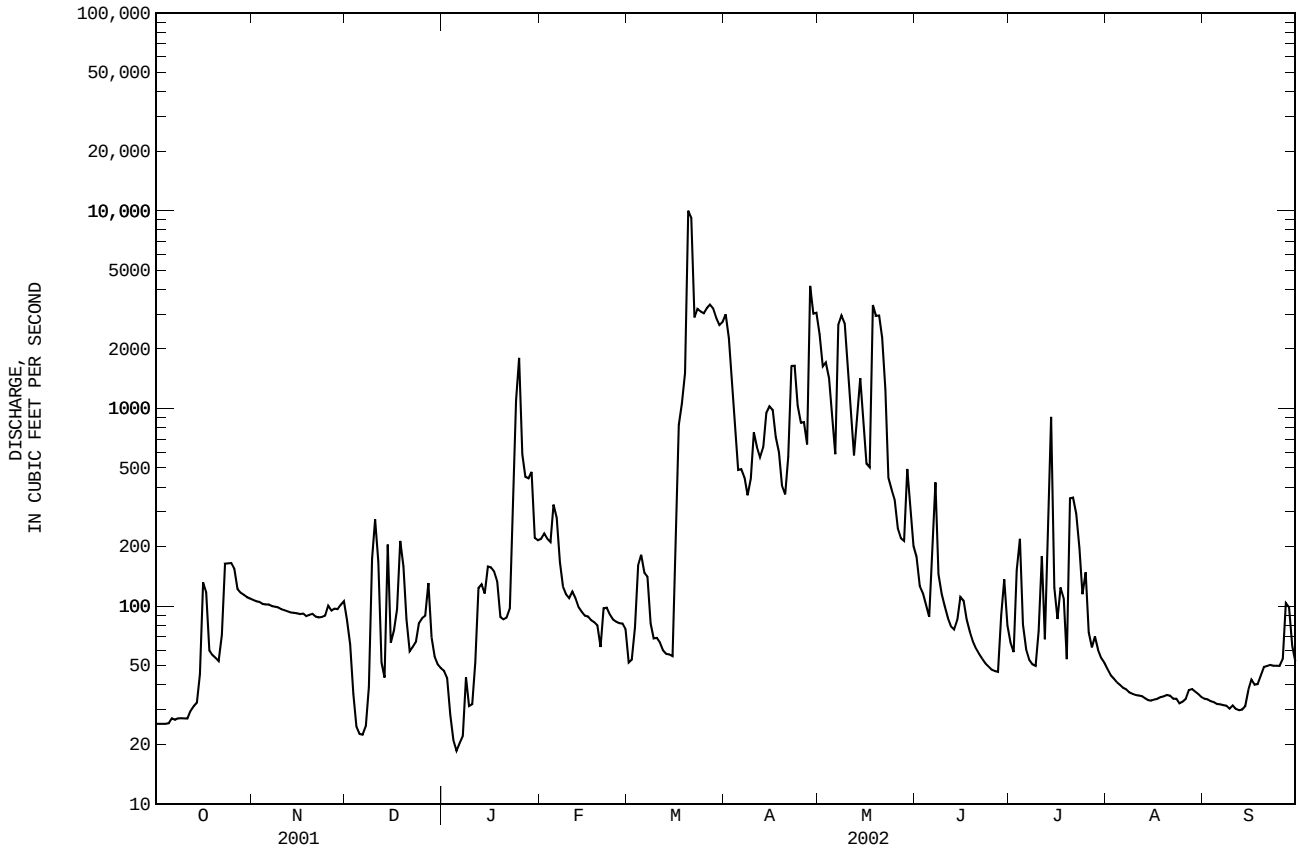
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	108	85	47	219	52	2990	2370	177	66	48	34
2	25	106	64	43	233	54	2270	1630	127	59	45	34
3	25	105	36	28	219	78	1430	1710	116	152	43	33
4	25	103	25	21	211	161	839	1430	101	219	41	33
5	26	102	23	19	326	182	489	924	88	81	40	32
6	27	102	22	20	280	148	493	587	186	61	39	32
7	27	100	25	22	167	141	447	2650	423	53	38	32
8	27	99	39	44	126	82	364	2950	145	51	37	31
9	27	99	174	31	115	69	442	2700	115	50	36	30
10	27	96	275	32	110	69	756	1710	100	75	36	31
11	27	95	168	52	118	66	636	982	87	179	35	30
12	30	94	52	124	110	60	566	580	79	68	35	30
13	31	93	44	129	99	57	637	910	76	181	34	30
14	32	93	205	116	94	57	947	1430	85	907	33	31
15	45	92	65	159	90	56	1030	875	111	124	33	38
16	132	91	76	157	89	254	984	527	107	86	34	42
17	118	92	96	150	85	826	718	505	86	124	34	40
18	60	89	214	134	83	1050	600	3330	74	110	35	40
19	57	90	159	88	80	1510	407	2940	66	54	35	45
20	55	91	86	86	62	10000	368	2950	61	351	36	49
21	53	89	59	87	98	9250	570	2280	57	354	35	50
22	71	88	62	97	98	2880	1640	1260	54	293	34	50
23	164	88	66	241	91	3190	1650	447	51	197	34	50
24	165	90	82	1100	86	3090	1030	389	49	115	32	50
25	165	100	87	1800	83	3030	848	346	48	148	33	50
26	155	95	89	586	82	3230	853	248	47	74	34	54
27	122	97	131	451	82	3350	657	220	47	62	38	104
28	117	97	69	443	77	3210	4170	214	90	70	38	99
29	114	101	56	477	---	2870	3020	495	137	60	37	63
30	111	106	51	221	---	2650	3050	312	80	55	36	53
31	109	---	49	215	---	2740	---	201	---	52	35	---
TOTAL	2194	2891	2734	7220	3613	54462	34901	40102	3070	4531	1133	1320
MEAN	70.77	96.37	88.19	232.9	129.0	1757	1163	1294	102.3	146.2	36.55	44.00
MAX	165	108	275	1800	326	10000	4170	3330	423	907	48	104
MIN	25	88	22	19	62	52	364	201	47	50	32	30

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2002, BY WATER YEAR (WY)

MEAN	157.7	319.4	586.0	710.5	902.8	1022	670.2	647.3	287.2	181.0	105.0	111.4
MAX	733	993	2630	1954	2886	3226	2291	2116	928	841	382	585
(WY)	1990	1987	1979	1974	1989	1997	1972	1996	1974	1971	1979	1979
MIN	30.1	28.4	53.6	45.2	129	133	109	62.1	34.4	33.6	34.7	30.4
(WY)	1981	1982	1982	1981	2002	1969	2001	1976	1999	1999	1988	1998

03216500 LITTLE SANDY RIVER AT GRAYSON, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1969 - 2002	
ANNUAL TOTAL	92887		158171			
ANNUAL MEAN	254.5		433.3		473.2	
HIGHEST ANNUAL MEAN					838	1979
LOWEST ANNUAL MEAN					116	1969
HIGHEST DAILY MEAN	3560	May 19	10000	Mar 20	14600	Mar 2 1997
LOWEST DAILY MEAN	22	Dec 6	19	Jan 5	5.8	Oct 1 1968
ANNUAL SEVEN-DAY MINIMUM	26	Sep 29	26	Oct 1	18	Nov 1 1968
MAXIMUM PEAK FLOW			14200	Mar 20	24500	Sep 22 1950
MAXIMUM PEAK STAGE			29.20	Mar 20	30.57	Mar 2 1997
INSTANTANEOUS LOW FLOW					1.5	Oct 12 1953
10 PERCENT EXCEEDS	619		1160		1350	
50 PERCENT EXCEEDS	90		92		157	
90 PERCENT EXCEEDS	35		33		38	



03216600 OHIO RIVER AT GREENUP DAM NEAR GREENUP, KY

LOCATION.--Lat 38°38'48", long 82°51'38", Greenup County, Hydrologic Unit 05090103, at left bank at downstream end of lock guidewall in lower pool at Greenup locks, 1.1 mi upstream from Grays Branch, 4.7 mi downstream from Little Sandy River, 5.0 mi north of Greenup, and at mile 341.5.

DRAINAGE AREA.--62,000 mi^2, approximately.

WATER DISCHARGE RECORDS

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

GAGE.--Records of Greenup Dam gate operations and hydropower releases are furnished by the U.S. Army Corps of Engineers and are used to determine daily discharge. Water-stage recorder in Greenup Dam tailwater for peak stage determinations. Datum of gage is 472.43 ft above NGVD of 1929 or 472.97 ft Ohio River Datum. Auxiliary water-stage recorder is located at the waste water treatment plant in Portsmouth, Ohio, 14.1 mi downstream, established Oct. 1, 1981 and used in slope rating computation from Oct. 1, 1981 to Sept. 30, 1983. Datum of gage is 470.43 ft above NGVD of 1929 or 470.99 ft Ohio River Datum. Record of Greenup Dam headwater, tailwater, gate openings and lockages used to determine discharge from Oct. 1, 1968 to Sept. 30, 1981. Slope rating computation from Oct. 1, 1981 to Sept. 30, 1983, and Branch Flow Model, gate and tailwater rating from Oct. 1, 1983 to current year.

REMARKS.--Records good except for those below 20,000 ft^3/s and those estimated, which are poor. Flow regulated by Ohio River system of locks, dams, and reservoirs upstream from the station.

COOPERATION.--U.S. Army Corps of Engineers, Huntington District.

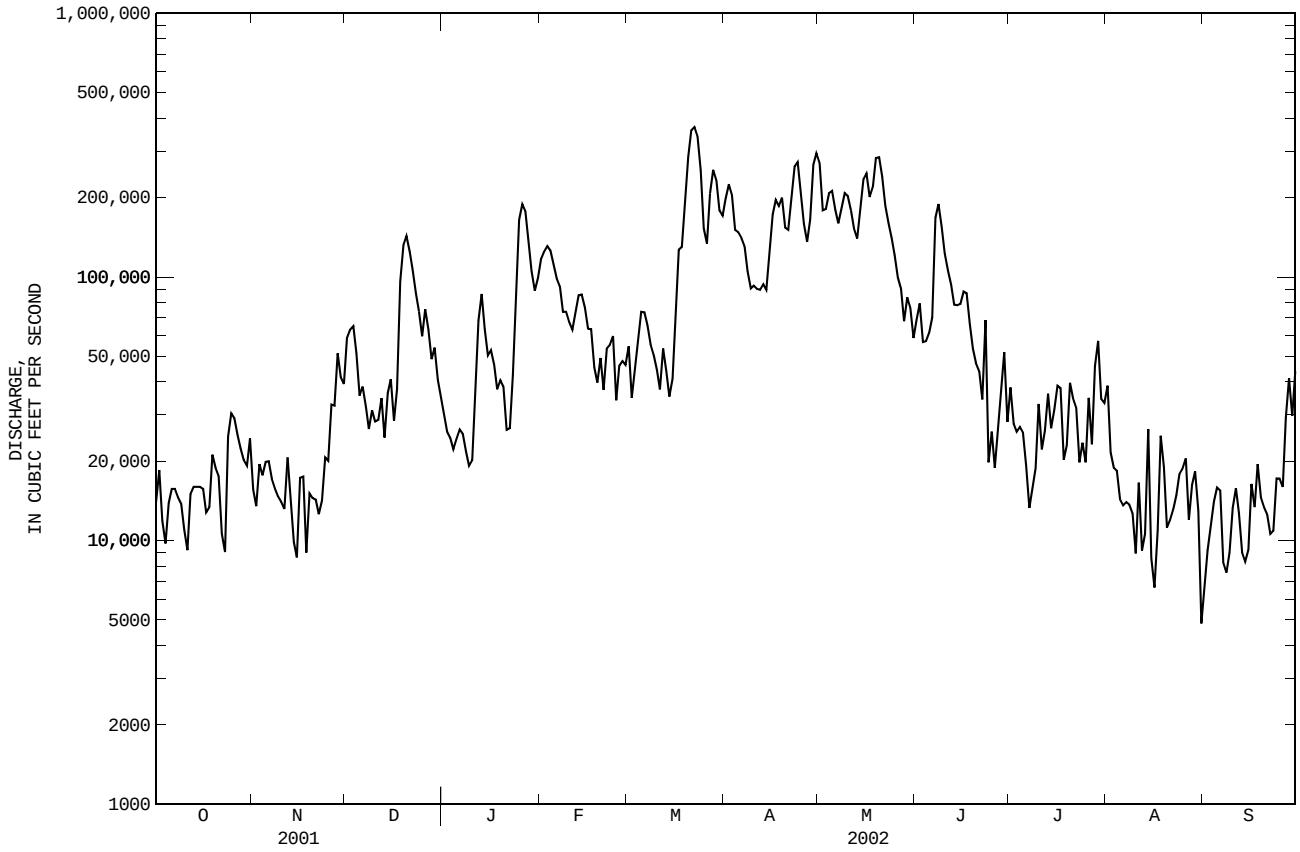
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14000	15600	58600	29800	117000	54600	199000	271000	68700	38100	38700	6640
2	18500	13500	63100	25900	125000	34800	225000	179000	79400	27800	21600	9190
3	11900	19500	65100	24500	131000	44300	205000	181000	56600	25900	18900	11500
4	9760	17700	51500	22200	126000	57700	151000	208000	57100	27000	18400	14100
5	13900	19900	35500	24300	112000	73800	148000	212000	61500	25700	14300	15900
6	15700	20000	38400	26400	98800	73500	141000	180000	70300	19200	13600	15500
7	15700	17100	32300	25400	92000	65700	131000	160000	168000	13300	14000	8260
8	14600	15700	26500	21800	73800	55400	105000	183000	189000	15600	13700	7560
9	13800	14700	31200	19200	73800	50700	90500	208000	155000	18800	12700	8990
10	11000	14000	28300	20200	67600	44500	92700	203000	123000	33000	8940	13300
11	9200	13200	28700	34500	63200	37500	90200	179000	106000	22200	16600	15800
12	15000	20700	34700	68500	72600	53500	89400	153000	93600	26100	9170	12700
13	16000	13900	24600	86200	85200	43900	93900	140000	78600	36100	10600	9000
14	16000	9870	36300	63600	85900	35200	89300	184000	78200	26700	26500	8330
15	16000	8640	41000	50400	76700	41100	125000	235000	79100	31400	8610	9240
16	15700	17300	28500	52800	63600	73700	173000	247000	88000	38700	6640	16400
17	12800	17500	37600	46500	63500	127000	196000	201000	86800	37900	10900	13400
18	13400	9010	96300	37500	45400	130000	186000	220000	66200	20300	25000	19500
19	21200	15100	132000	40500	39800	196000	200000	283000	53600	23000	19000	14600
20	18900	14500	143000	38400	49300	286000	154000	285000	47000	39700	11200	13400
21	17600	14300	125000	26300	37300	360000	151000	241000	43900	34700	12000	12600
22	10600	12600	106000	26700	53500	371000	200000	186000	34300	31900	13100	10600
23	9050	14200	86700	42500	55200	342000	263000	161000	68600	19800	14900	10900
24	24800	20700	74000	93100	59700	254000	273000	141000	19800	23500	17900	17200
25	30400	20100	59600	165000	34100	153000	208000	121000	25900	19800	18800	17200
26	29200	32800	75500	189000	46100	134000	159000	99600	18900	34800	20500	16000
27	25200	32500	63200	178000	48000	207000	136000	90200	25300	23200	12000	29300
28	22400	51300	48800	134000	46400	255000	165000	68000	35400	45900	16300	41300
29	20200	41800	54000	105000	---	233000	267000	83700	51800	57200	18300	29700
30	19200	39300	40700	88800	---	179000	295000	76600	28200	34500	13000	43900
31	24400	---	34900	99300	---	171000	---	58700	---	33300	4850	---
TOTAL	526110	587020	1801600	1906300	2042500	4237900	5002000	5438800	2157800	905100	480710	472010
MEAN	16970	19570	58120	61490	72950	136700	166700	175400	71930	29200	15510	15730
MAX	30400	51300	143000	189000	131000	371000	295000	285000	189000	57200	38700	43900
MIN	9050	8640	24600	19200	34100	34800	89300	58700	18900	13300	4850	6640

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2002, BY WATER YEAR (WY)

MEAN	38020	66390	106600	115400	142400	161100	141200	106400	66410	44110	35730	31680
MAX	111300	208600	252700	242700	259100	268600	258400	276700	174000	100700	113600	86310
(WY)	1980	1986	1973	1974	1994	1994	1994	1996	1981	1972	1980	1979
MIN	11310	14720	24080	27170	66240	53550	52660	36610	13440	13040	11270	9706
(WY)	1992	1999	1999	1977	1978	1969	1986	1976	1988	1999	1988	1999

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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1969 - 2002	
ANNUAL TOTAL	22662560		25557850			
ANNUAL MEAN	62090		70020		87670	
HIGHEST ANNUAL MEAN					120100	1996
LOWEST ANNUAL MEAN					49760	1988
HIGHEST DAILY MEAN	307000	May 24	371000	Mar 22	540000	Jan 12 1974
LOWEST DAILY MEAN	8640	Nov 15	4850	Aug 31	3920	Jun 11 1999
ANNUAL SEVEN-DAY MINIMUM	13000	Nov 13	10700	Aug 30	7740	Sep 22 1999
MAXIMUM PEAK FLOW			374000	Mar 22	520000	Mar 4 1997
MAXIMUM PEAK STAGE			49.03	Mar 22	54.50	Feb 21 2000
10 PERCENT EXCEEDS	145000		185000		201000	
50 PERCENT EXCEEDS	36400		38400		60700	
90 PERCENT EXCEEDS	14500		13100		16800	



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 2001 TO SEPTEMBER 2002

DATE	TIME	SAMPLE TYPE	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TURBID-ITY LAB HACH 2100AN (NTU) (99872)	UV ABSORB-ANCE 254 NM, WTR FLT (UNITS /CM) (50624)	UV ABSORB-ANCE 280 NM, WTR FLT (UNITS /CM) (61726)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
NOV												
15...	1410	ENVIRONMENTAL	7020	7.6	.054	.037	9.5	92	7.6	478	13.5	170
15...	1420	REPLICATE	--	7.5	.056	.037	--	--	--	--	--	170
DEC												
12...	1440	ENVIRONMENTAL	33000	9.4	.070	.051	9.4	87	7.3	454	11.3	170
12...	1448	FIELD BLANK	--	--	<.004	<.004	--	--	--	--	--	--
JAN												
09...	1440	ENVIRONMENTAL	15900	4.4	.070	.051	12.6	95	7.3	237	3.1	130
FEB												
14...	1510	ENVIRONMENTAL	74500	29	.063	.048	12.7	103	7.2	194	5.3	93
14...	1518	FIELD BLANK	--	--	--	--	--	--	--	--	--	--
MAR												
07...	1500	ENVIRONMENTAL	65000	14	.048	.034	13.2	106	7.5	247	5.4	110
20...	1520	ENVIRONMENTAL	309000	510	.102	.076	9.8	89	7.0	180	9.2	80
APR												
15...	1610	ENVIRONMENTAL	121000	25	.055	.040	10.6	105	7.2	254	13.5	100
15...	1620	REPLICATE	--	27	.055	.040	--	--	--	--	--	100
25...	1520	ENVIRONMENTAL	188000	150	.089	.066	9.1	92	6.6	177	15.2	71
25...	1528	FIELD BLANK	--	--	--	--	--	--	--	--	--	--
MAY												
09...	1550	ENVIRONMENTAL	196000	100	.067	.050	9.5	98	7.4	197	15.4	82
21...	1530	ENVIRONMENTAL	234000	100	.095	.070	9.2	91	7.4	196	13.7	87
JUN												
05...	1530	ENVIRONMENTAL	65200	13	.059	.044	9.2	108	7.5	309	21.8	110
05...	1538	FIELD BLANK	--	--	--	--	--	--	--	--	--	--
19...	1630	ENVIRONMENTAL	49900	18	.085	.062	7.0	85	7.4	360	24.1	120
19...	1638	FIELD BLANK	--	--	<.004	<.004	--	--	--	--	--	--
JUL												
30...	1130	ENVIRONMENTAL	29100	13	.061	.043	6.6	88	7.2	405	29.0	120
AUG												
14...	0930	ENVIRONMENTAL	28300	12	.062	.044	5.6	75	7.1	474	29.0	130
SEP												
11...	0940	ENVIRONMENTAL	29600	4.5	.059	.042	6.6	85	7.3	561	27.4	150
11...	0950	REPLICATE	--	--	.058	.041	--	--	--	--	--	150

03216600 OHIO RIVER AT GREENUP DAM, KY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)
NOV													
15...	43.4	14.0	3.59	46.4	--	--	54.1	.3	2.56	116	352	E.02	.21
15...	43.6	14.1	3.62	46.8	--	--	54.3	.3	2.56	116	350	<.04	.22
DEC													
12...	45.1	13.9	3.71	33.9	--	--	43.4	.2	3.51	114	330	.08	.32
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
09...	36.3	10.5	2.57	20.9	50	61	25.2	.1	5.27	80.1	236	.09	.29
FEB													
14...	25.2	7.35	1.93	17.3	39	48	25.4	.1	5.36	49.6	174	.05	.27
14...	.01	<.008	.01	<.09	--	--	.25	<.01	<.13	<.01	--	<.015	--
MAR													
07...	30.8	8.89	1.82	24.1	66	80	32.3	.2	4.17	64.6	204	<.04	.17
20...	21.5	6.40	2.11	13.1	35	42	17.0	.1	4.86	45.4	143	.06	.29
APR													
15...	27.0	8.28	1.98	16.1	38	46	18.9	.1	5.50	56.4	177	E.04	.20
15...	27.4	8.41	1.95	16.3	--	--	19.4	.1	5.57	57.0	175	E.04	.19
25...	18.8	5.68	1.77	8.48	29	36	9.67	<.1	5.64	39.6	120	<.04	.19
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
09...	21.8	6.74	1.83	9.56	36	44	10.3	E.1	5.57	45.9	139	<.04	.18
21...	23.8	6.61	1.77	9.46	39	48	9.39	E.1	6.13	44.4	146	<.04	.22
JUN													
05...	29.3	9.36	2.03	16.5	45	55	17.9	.2	4.63	65.1	197	<.04	.15
05...	.03	<.008	.01	<.09	--	--	.61	<.01	<.13	.07	--	<.015	--
19...	33.0	9.79	2.45	16.6	52	63	18.9	.1	5.56	69.2	207	<.04	.20
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
30...	30.3	11.4	2.61	21.5	62	75	23.3	.2	3.72	80.1	219	<.04	.19
AUG													
14...	32.7	12.7	3.00	29.0	32	39	32.1	.2	2.39	93.5	258	.04	.26
SEP													
11...	37.0	14.4	3.79	38.5	53	65	42.4	.3	1.36	123	314	E.03	.25
11...	37.2	14.6	3.78	37.5	50	61	39.8	.3	1.35	123	313	E.02	.26

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN,PAR TICULTE WAT FLT SUSP (MG/L AS N) (49570)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	CARBON, INORG + ORGANIC PARTIC. TOTAL (MG/L AS C) (00694)	CARBON, INOR- GANIC, PARTIC. TOTAL (MG/L AS C) (00688)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC PARTIC- ULATE TOTAL (MG/L AS C) (00689)	PHEO- PHYTIN A, PHYTO- PHYTON (UG/L) (62360)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70953)
NOV													
15...	.30	1.05	.014	.07	.020	.011	.033	.5	<.1	3.0	.5	2.2	4.0
15...	.31	1.04	.014	.04	.019	.010	.030	.5	<.1	2.7	.5	2.4	4.8
DEC													
12...	.38	1.07	.013	.07	.034	.023	.049	.5	<.1	2.9	.5	1.6	1.0
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
09...	.34	1.25	.013	.04	.023	.014	.034	.6	<.1	2.8	.6	E.7	E1.5
FEB													
14...	.38	1.18	.009	.08	.019	.011	.076	.9	<.1	2.5	.9	2.4	1.3
14...	--	<.013	<.002	--	--	<.007	--	--	--	--	--	--	--
MAR													
07...	.31	1.05	.012	.12	.013	E.005	.046	.8	<.1	2.1	.8	3.3	6.2
20...	1.4	.79	E.006	.67	.010	E.006	.45	9.2	.6	3.7	8.6	15.3	5.2
APR													
15...	.34	.89	.010	.04	.014	.012	.061	1.6	<.1	2.2	1.6	2.3	2.7
15...	.32	.89	.009	.12	.017	.009	.062	2.1	<.1	2.2	2.1	2.4	2.8
25...	.78	.57	.012	.51	.012	E.006	.198	5.7	<.1	3.1	5.7	5.2	2.0
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
09...	.62	.62	.009	.26	.013	E.005	.148	3.7	<.1	2.7	3.6	--	--
21...	.82	.63	.009	.50	.015	.008	.20	4.6	<.1	3.1	4.6	--	--
JUN													
05...	.24	.69	E.006	.08	.009	<.007	.029	.7	<.1	2.3	.7	3.9	4.9
05...	--	<.013	<.002	--	--	<.007	--	--	--	--	--	--	--
19...	.32	.93	.017	.05	.025	.017	.054	.6	<.1	3.2	.5	1.4	2.2
19...	--	--	--	<.02	--	--	--	<.1	<.1	1.2	<.1	--	--
JUL													
30...	.29	.60	.013	.10	.007	<.007	.029	.6	<.1	3.5	.6	3.3	7.4
AUG													
14...	.28	.69	.031	.08	.011	E.005	.031	.6	<.1	2.6	.6	3.0	2.2
SEP													
11...	.28	.74	.014	.08	.005	<.007	.017	.4	<.1	2.6	.4	3.9	2.7
11...	.28	.75	.014	.07	.011	<.007	.019	.4	<.1	2.6	.4	--	--

03216600 OHIO RIVER AT GREENUP DAM, KY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)
NOV													
15...	.5	85	E6	9.9	.4	285	.3	<.002	<.006	<.002	<.005	.047	<.010
15...	.6	85	<10	9.8	.6	287	.3	<.002	<.005	<.002	<.005	.046	<.010
DEC													
12...	.7	66	E5	9.4	.8	301	.7	<.002	<.004	<.002	<.005	.036	<.010
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
09...	.4	40	25	6.2	.4	212	.8	<.006	<.006	<.004	<.005	.018	<.010
FEB													
14...	.2	29	24	4.1	<.3	132	E.1	<.006	<.006	<.004	<.005	.013	<.010
14...	<.2	E4	<10	E.2	<.3	E.07	<.2	--	--	--	--	--	--
MAR													
07...	.4	41	35	6.1	1.0	170	<.2	<.006	<.006	<.004	<.005	.012	<.010
20...	.5	31	20	3.9	.4	135	E.2	<.006	<.006	<.004	<.005	.009	<.010
APR													
15...	.4	27	18	5.2	.6	159	.3	<.006	<.006	<.004	<.005	.015	<.010
15...	.4	29	15	5.3	.6	162	.2	<.006	<.006	<.004	<.005	.014	<.010
25...	.4	23	22	2.9	.4	105	.7	<.006	<.006	<.004	<.005	.067	<.010
25...	--	--	--	--	--	--	--	<.006	<.006	<.004	<.005	<.007	<.010
MAY													
09...	.3	24	18	3.5	.4	134	.6	<.006	.008	<.004	<.005	.055	<.010
21...	.4	26	36	3.3	E.3	120	.2	<.006	.034	<.004	<.005	.241	<.010
JUN													
05...	.4	31	E7	6.2	.4	179	.8	<.006	.014	<.004	<.005	.134	<.010
05...	<.2	<7	<10	<.3	<.3	E.05	<.2	--	--	--	--	--	--
19...	.6	42	E5	6.3	.5	188	.5	<.006	.103	.015	<.005	.894	<.010
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
30...	.5	57	<10	9.1	.4	210	.6	<.006	.017	<.004	<.005	.232	<.010
AUG													
14...	.7	67	<10	10.3	.5	252	.4	<.006	<.010	<.004	<.005	.156	<.010
SEP													
11...	.7	82	<10	12.8	.7	298	.6	<.006	.007	<.004	<.005	.117	<.010
11...	.7	85	<10	12.9	.8	301	.7	<.006	E.006	<.004	<.005	.107	<.010

DATE	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)
NOV													
15...	<.002	<.041	<.020	<.005	<.018	<.003	E.011	<.005	<.005	<.02	<.002	<.009	<.005
15...	<.002	<.041	<.020	<.005	<.018	<.003	E.010	<.005	<.005	<.02	<.002	<.009	<.005
DEC													
12...	<.002	<.041	<.020	<.005	<.018	<.003	E.012	<.005	<.005	<.02	<.002	<.009	<.005
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
09...	<.002	<.041	<.020	<.005	<.018	<.003	E.007	<.005	<.005	<.02	<.002	<.009	<.005
FEB													
14...	<.002	<.041	<.020	<.005	<.018	<.003	E.007	<.005	<.005	<.02	<.002	<.009	<.005
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
07...	<.002	<.041	<.020	<.005	<.018	<.003	E.006	<.005	<.005	<.02	<.002	<.009	<.005
20...	<.002	E.008	<.020	<.005	<.018	<.003	<.006	.007	<.005	<.02	<.002	<.009	<.005
APR													
15...	<.002	E.008	<.020	<.005	<.018	<.003	E.006	<.005	<.005	<.02	<.002	<.009	<.005
15...	<.002	E.008	<.020	<.005	<.018	<.003	E.006	<.005	<.005	<.02	<.002	<.009	<.005
25...	<.002	<.041	<.020	<.005	<.018	<.003	E.003	<.005	<.005	<.02	<.002	<.009	<.005
25...	<.002	<.041	<.020	<.005	<.018	<.003	<.006	<.005	<.005	<.02	<.002	<.009	<.005
MAY													
09...	<.002	E.006	<.020	<.005	<.018	<.003	E.007	E.004	<.005	<.02	<.002	<.009	<.005
21...	<.002	E.008	<.020	<.005	<.018	<.003	E.019	.006	<.005	<.02	<.002	<.009	<.005
JUN													
05...	<.002	<.041	<.020	<.005	<.018	<.003	E.013	E.003	<.005	<.02	<.002	<.009	<.005
05...	--	--	--	--	--	--	--	--	--	--	--	--	--
19...	<.002	<.041	<.020	<.005	<.018	<.003	E.054	.006	<.005	<.02	<.002	<.009	<.005
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
30...	<.002	<.041	<.020	<.005	<.018	<.003	E.026	E.002	<.005	<.02	<.002	<.009	<.005
AUG													
14...	<.002	<.041	<.020	<.005	<.018	<.003	E.019	<.005	<.005	<.02	<.002	<.009	<.005
SEP													
11...	<.002	<.041	<.020	<.005	<.018	<.003	E.020	<.005	<.005	<.02	<.002	<.009	<.005
11...	<.002	<.041	<.020	<.005	<.018	<.003	E.018	<.005	<.005	<.02	<.002	<.009	<.005

03216600 OHIO RIVER AT GREENUP DAM, KY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	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)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)
NOV													
15...	<.003	<.004	<.035	<.027	<.050	<.006	E.009	<.006	<.002	<.007	<.003	<.007	<.002
15...	<.003	<.004	<.035	<.027	<.050	<.006	E.009	<.006	<.002	<.007	<.003	<.007	<.002
DEC													
12...	<.003	<.004	<.035	<.027	<.050	<.006	E.007	<.006	<.002	<.007	<.003	<.007	<.002
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
09...	<.003	<.004	<.035	<.027	<.050	<.006	E.007	<.006	<.002	<.007	<.003	<.010	<.004
FEB													
14...	<.003	<.004	<.035	<.027	<.050	<.006	E.007	<.006	<.002	<.007	<.003	<.010	<.004
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
07...	<.003	<.004	<.035	<.027	<.050	<.006	E.008	<.006	<.002	<.007	<.003	<.010	<.004
20...	<.003	<.004	<.035	<.027	<.050	<.006	E.005	<.006	<.002	<.007	<.003	<.010	<.004
APR													
15...	<.003	<.004	<.035	<.027	<.050	<.006	E.012	<.006	<.002	<.007	<.003	<.010	<.004
15...	<.003	<.004	<.035	<.027	<.050	<.006	E.011	<.006	<.002	<.007	<.003	<.010	<.004
25...	<.003	<.004	<.035	<.027	<.050	<.006	.021	<.006	<.002	<.007	<.003	<.010	<.004
25...	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004
MAY													
09...	<.003	<.004	<.035	<.027	<.050	<.006	.020	<.006	<.002	<.007	<.003	<.010	<.004
21...	<.003	<.004	<.035	<.027	<.050	<.006	.057	<.007	<.002	<.007	<.003	<.010	<.004
JUN													
05...	<.003	<.004	<.035	<.027	<.050	<.006	.025	<.006	<.002	<.007	<.003	<.010	<.004
05...	--	--	--	--	--	--	--	--	--	--	--	--	--
19...	<.003	<.004	<.035	<.027	<.050	<.006	.144	<.006	<.002	<.007	<.003	<.010	<.004
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
30...	<.003	<.004	<.035	<.027	<.050	<.006	.042	<.006	<.002	<.007	<.003	<.010	<.004
AUG													
14...	<.003	<.004	<.035	<.027	<.050	<.006	.029	<.006	<.002	<.007	<.003	<.010	<.004
SEP													
11...	<.003	<.004	<.035	<.027	<.050	<.006	.020	<.006	<.002	<.007	<.003	<.010	<.004
11...	<.003	<.004	<.035	<.027	<.050	<.006	.018	<.006	<.002	<.007	<.003	<.010	<.004

DATE	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPA-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	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)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
NOV													
15...	<.010	<.006	<.011	.02	<.004	<.010	<.011	<.02	E.009	<.02	<.034	<.02	<.005
15...	<.010	<.006	<.011	E.01	<.004	<.010	<.011	<.02	E.008	<.02	<.034	<.02	<.005
DEC													
12...	<.010	<.006	<.011	E.01	<.004	<.010	<.011	<.02	E.010	M	<.034	<.02	<.005
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
09...	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02	<.007	<.02	<.034	<.02	<.005
FEB													
14...	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02	E.004	<.02	<.034	<.02	<.005
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
07...	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005
20...	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02	<.005	E.02	<.034	<.02	<.005
APR													
15...	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.010	<.02	<.034	<.02	<.005
15...	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.009	<.02	<.034	<.02	<.005
25...	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.018	<.02	<.034	<.02	<.005
25...	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005
MAY													
09...	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.016	E.01	<.034	<.02	<.005
21...	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.038	<.02	<.034	<.02	<.005
JUN													
05...	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.021	E.01	<.034	<.02	<.005
05...	--	--	--	--	--	--	--	--	--	--	--	--	--
19...	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.121	<.02	<.034	<.02	<.005
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
30...	<.022	<.006	<.011	.02	<.004	<.010	<.011	<.02	.036	<.02	<.034	<.02	<.005
AUG													
14...	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.021	<.02	<.034	<.02	<.005
SEP													
11...	<.022	<.006	<.011	.03	<.004	<.010	<.011	<.02	.027	E.01	<.034	<.02	<.005
11...	<.022	<.006	<.011	.02	<.004	<.010	<.011	<.02	.026	E.01	<.034	<.02	<.005

03216600 OHIO RIVER AT GREENUP DAM, KY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	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)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
NOV				
15...	<.002	<.009	98	7.0
15...	<.002	<.009	98	7.0
DEC				
12...	<.002	<.009	99	10
12...	--	--	99	10
JAN				
09...	<.002	<.009	100	4.0
FEB				
14...	<.002	<.009	98	30
14...	--	--	--	--
MAR				
07...	<.002	<.009	99	14
20...	<.002	<.009	--	--
APR				
15...	<.002	<.009	92	40
15...	<.002	<.009	92	40
25...	<.002	<.009	95	206
25...	<.002	<.009	--	--
MAY				
09...	<.002	<.009	86	141
21...	<.002	<.009	81	195
JUN				
05...	<.002	<.009	98	10
05...	--	--	--	--
19...	<.002	<.009	99	22
19...	--	--	--	--
JUL				
30...	<.002	<.009	99	15
AUG				
14...	<.002	<.009	98	12
SEP				
11...	<.002	<.009	97	5.0
11...	<.002	<.009	98	9.0

E--Laboratory estimated value.
M--Presence of material verified but not quantified.
<--Numeric result is less than the value shown.

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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 mi^2.

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 NGVD of 1929.

REMARKS.--Records fair except for daily discharges below 10 ft^3/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.

COOPERATION.--Kentucky Natural Resources and Environmental Protection Cabinet and U.S. Corps of Engineers, Huntington District.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 20	2000	*15,200	*21.29	May 19	0330	4,690	15.33
Apr 29	0930	6,060	17.06				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	14	113	e26	296	72	623	492	93	66	17	0.47
2	2.8	16	130	e23	308	70	513	434	91	48	13	0.31
3	2.0	14	97	e21	266	86	383	420	80	37	10	0.26
4	0.94	13	80	e19	220	143	303	325	72	30	8.2	0.24
5	1.8	11	64	e18	180	148	253	258	69	26	7.1	0.19
6	4.2	11	58	e17	149	126	226	328	862	21	5.8	0.15
7	1.0	12	54	e22	133	116	202	1650	564	19	3.7	0.13
8	0.53	9.5	56	e19	123	107	184	1480	203	15	0.33	0.13
9	0.44	7.6	149	e25	112	101	175	969	109	13	1.8	0.13
10	0.73	6.4	203	53	102	100	285	613	78	11	1.2	0.13
11	0.81	5.1	130	146	98	97	259	398	62	10	0.65	0.13
12	2.2	4.7	96	312	96	94	211	292	50	8.6	0.42	0.13
13	3.7	4.7	82	248	93	91	196	298	144	14	0.60	0.12
14	5.3	4.7	91	182	87	89	195	717	115	74	0.85	0.12
15	6.8	4.7	182	143	84	86	221	425	74	89	0.40	0.12
16	7.3	4.5	180	118	80	180	226	277	66	52	0.20	0.12
17	24	4.1	134	100	78	877	198	227	58	35	0.13	0.12
18	16	4.1	192	87	74	1170	179	3290	46	26	0.39	0.12
19	22	3.9	266	83	71	1600	164	2620	38	21	0.90	0.12
20	20	3.6	204	81	69	9670	150	623	32	18	0.58	0.12
21	16	3.2	146	76	74	9450	163	408	28	33	0.46	2.7
22	12	3.2	114	76	78	1470	1510	293	24	57	0.31	2.3
23	9.1	3.2	96	83	84	600	831	229	22	35	0.13	1.3
24	5.7	3.8	88	2000	78	406	418	192	20	29	0.13	0.14
25	3.4	7.4	87	1590	74	313	341	164	19	28	0.12	0.13
26	2.0	6.1	e80	528	72	1360	365	143	17	46	0.19	1.6
27	4.6	17	e60	332	72	2340	274	127	16	32	0.40	63
28	5.3	63	e50	248	72	812	2840	114	445	35	5.3	197
29	7.1	90	e40	201	---	513	4680	104	227	33	3.7	112
30	6.8	103	e33	175	---	731	829	106	112	25	1.6	59
31	6.7	---	e30	253	---	621	---	101	---	20	0.75	---
TOTAL	203.75	458.5	3385	7305	3323	33639	17397	18117	3836	1006.6	86.34	442.53
MEAN	6.573	15.28	109.2	235.6	118.7	1085	579.9	584.4	127.9	32.47	2.785	14.75
MAX	24	103	266	2000	308	9670	4680	3290	862	89	17	197
MIN	0.44	3.2	30	17	69	70	150	101	16	8.6	0.12	0.12
CFSM	0.03	0.06	0.45	0.97	0.49	4.48	2.40	2.41	0.53	0.13	0.01	0.06
IN.	0.03	0.07	0.52	1.12	0.51	5.17	2.67	2.78	0.59	0.15	0.01	0.07

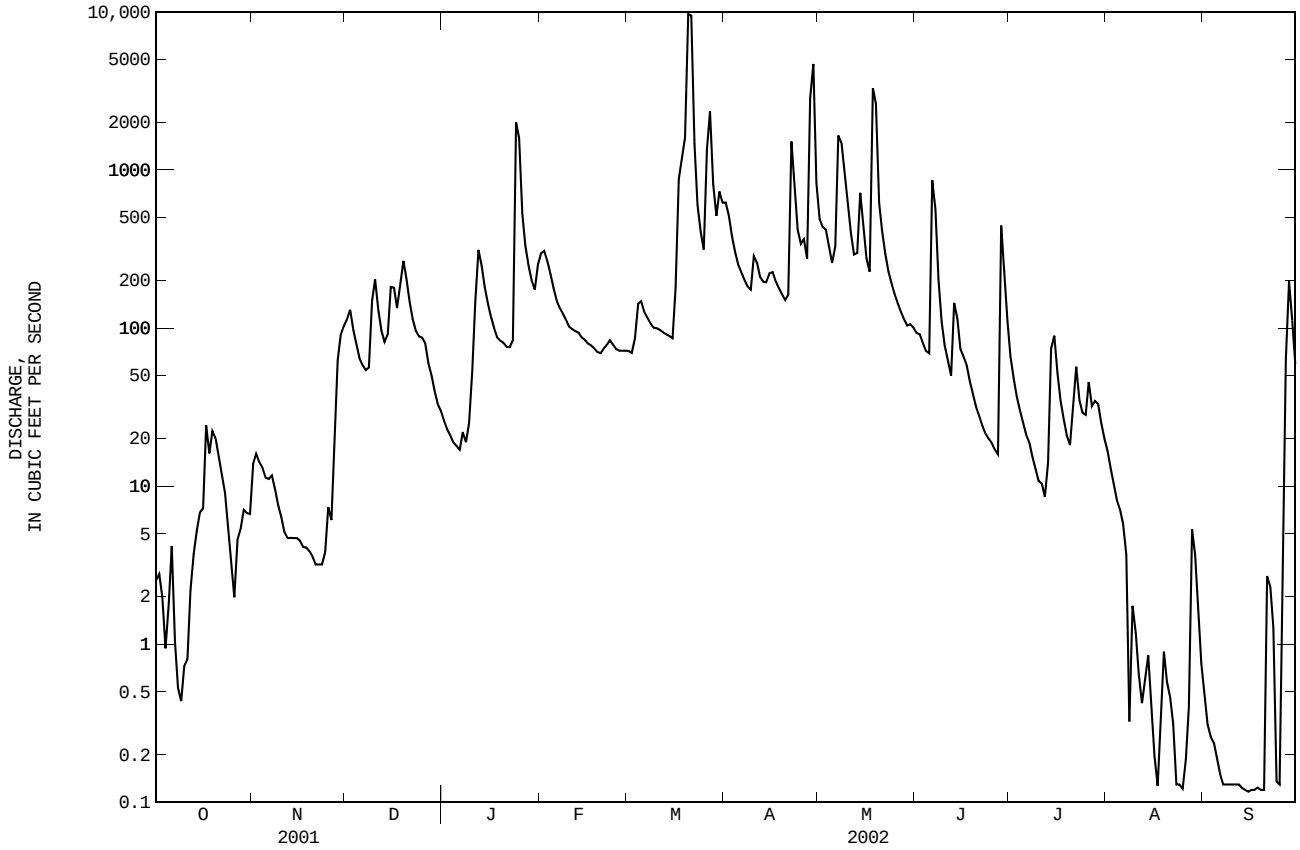
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2002, BY WATER YEAR (WY)

MEAN	54.32	146.1	370.5	473.5	604.2	696.5	506.7	391.0	177.5	115.0	80.97	65.19
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	0.35	0.70	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

03217000 TYGARTS CREEK NEAR GREENUP, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1940 - 2002	
ANNUAL TOTAL	79169.75		89199.72			
ANNUAL MEAN	216.9		244.4		305.5	
HIGHEST ANNUAL MEAN					589	1979
LOWEST ANNUAL MEAN					67.5	1954
HIGHEST DAILY MEAN	5650	May 19	9670	Mar 20	25800	Mar 2 1997
LOWEST DAILY MEAN	0.44	Oct 9	0.12	Aug 25	0.00	Aug 24 1952
ANNUAL SEVEN-DAY MINIMUM	1.3	Oct 7	0.12	Sep 13	0.00	Sep 17 1955
MAXIMUM PEAK FLOW			15200	Mar 20	34400	Mar 2 1997
MAXIMUM PEAK STAGE			21.29	Mar 20	23.65	Mar 2 1997
INSTANTANEOUS LOW FLOW					0.00	Aug 24 1952
ANNUAL RUNOFF (CFSM)	0.90		1.01		1.26	
ANNUAL RUNOFF (INCHES)	12.17		13.71		17.15	
10 PERCENT EXCEEDS	460		429		688	
50 PERCENT EXCEEDS	88		70		91	
90 PERCENT EXCEEDS	6.3		0.51		4.8	

e Estimated



03237255 KINNICONICK CREEK BELOW TRACE CREEK AT TANNERY, KY

LOCATION.--Lat 38°32'43", long 83°13'17", Lewis County, Hydrologic Unit 05090201, on bridge on Hwy 9, 0.10 mi downstream from Trace Creek, 0.20 mi west of Tannery, and 9.7 mi upstream from the mouth.

DRAINAGE AREA.--214 mi^2.

PERIOD OF RECORD.--December 7, 2000 to current year.

REVISED RECORDS.--WSP 1705: Drainage area.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 533.859 ft above NGVD of 1929.

REMARKS.-- Water year 2001: Records fair except for those estimated which are poor.
Water year 2002: Records fair except for those estimated which are poor.

COOPERATION.--Kentucky Natural Resources and Environmental Protection Cabinet.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

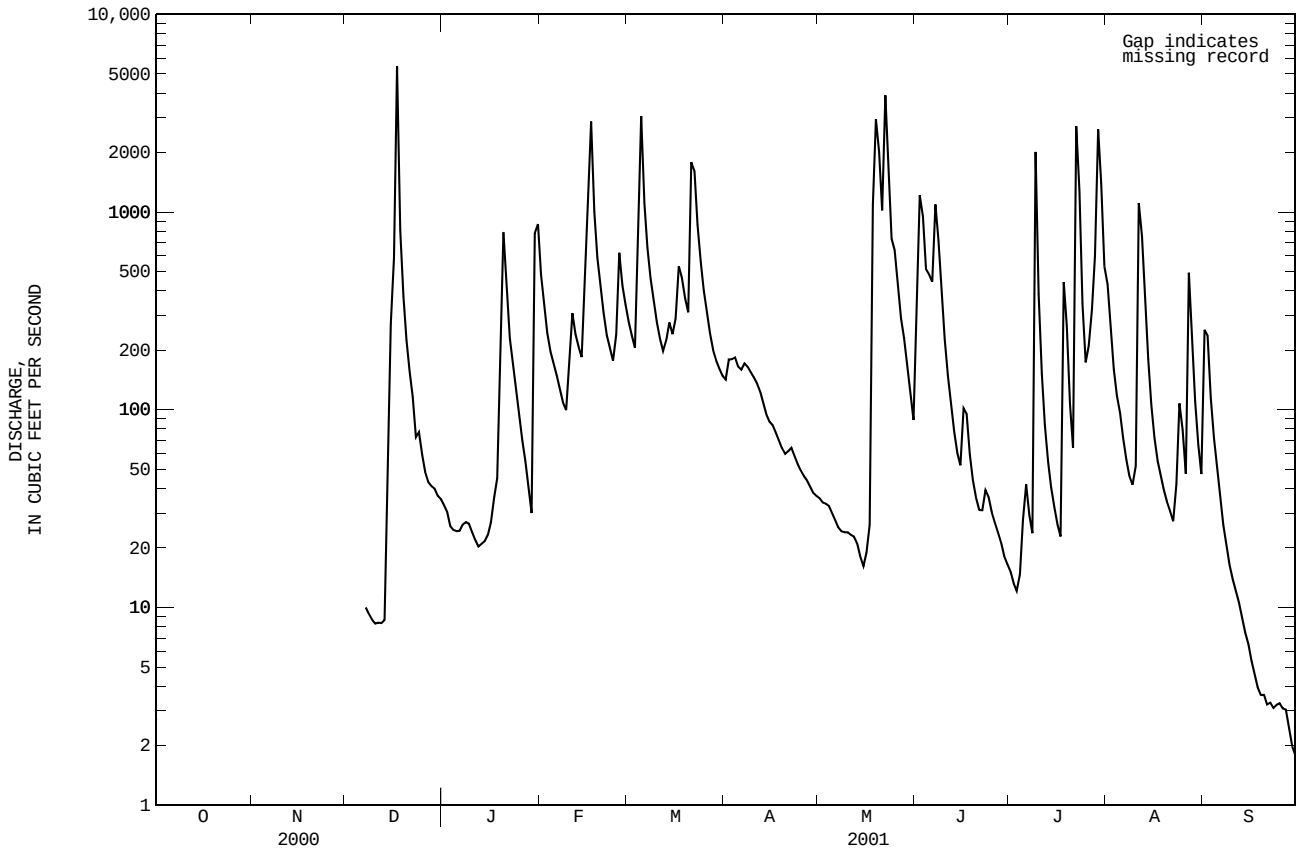
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	33	482	278	142	36	278	15	431	254
2	---	---	---	31	335	239	180	34	1220	13	261	237
3	---	---	---	26	244	206	180	34	949	12	159	114
4	---	---	---	25	197	829	184	33	515	15	118	72
5	---	---	---	24	172	3060	166	30	483	28	96	50
6	---	---	---	24	150	1110	159	28	445	42	72	35
7	---	---	10	26	128	659	172	25	1090	29	56	26
8	---	---	9.3	27	109	459	165	24	719	24	46	20
9	---	---	8.7	27	100	359	155	24	384	2010	42	16
10	---	---	8.3	24	182	277	146	24	228	385	52	14
11	---	---	8.4	22	308	230	136	23	148	152	1110	12
12	---	---	8.3	20	242	198	124	23	105	84	754	11
13	---	---	8.6	21	208	225	109	21	78	55	396	8.8
14	---	---	28	22	185	276	95	18	60	40	180	7.5
15	---	---	272	23	580	241	87	16	52	32	107	6.5
16	---	---	590	e27	1480	289	84	19	102	26	72	5.4
17	---	---	5480	e36	2870	533	77	26	95	23	55	4.6
18	---	---	812	e45	1010	467	70	1090	59	443	46	4.0
19	---	---	375	142	589	368	64	2950	44	266	39	3.6
20	---	---	226	791	414	311	60	2010	36	107	34	3.6
21	---	---	155	411	309	1790	62	1020	31	64	31	3.2
22	---	---	116	e230	238	1620	64	3900	31	2720	27	3.3
23	---	---	73	e170	207	865	58	1740	39	1290	42	3.1
24	---	---	77	e125	177	563	53	734	36	344	108	3.2
25	---	---	59	e95	240	402	49	643	30	174	79	3.3
26	---	---	48	e70	622	308	46	424	27	210	47	3.1
27	---	---	43	e55	423	244	44	289	24	320	493	3.0
28	---	---	41	e40	341	200	41	230	21	599	245	2.5
29	---	---	40	e30	---	177	38	167	18	2620	111	2.0
30	---	---	37	780	---	162	37	120	17	1400	66	1.8
31	---	---	35	869	---	148	---	89	---	531	47	---
TOTAL	---	---	---	4291	12542	17093	3047	15844	7364	14073	5422	933.5
MEAN	---	---	---	138.4	447.9	551.4	101.6	511.1	245.5	454.0	174.9	31.12
MAX	---	---	---	869	2870	3060	184	3900	1220	2720	1110	254
MIN	---	---	---	20	100	148	37	16	17	12	27	1.8

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

MEAN	---	---	---	138.4	447.9	551.4	101.6	511.1	245.5	454.0	174.9	31.12
MAX	---	---	---	138	448	551	102	511	245	454	175	31.1
(WY)	---	---	---	2001	2001	2001	2001	2001	2001	2001	2001	2001
MIN	---	---	---	138	448	551	102	511	245	454	175	31.1
(WY)	---	---	---	2001	2001	2001	2001	2001	2001	2001	2001	2001

e Estimated

03237255 KINNICONICK CREEK BELOW TRACE CREEK AT TANNERY, KY--Continued



KINNICONICK CREEK BASIN

03237255 KINNICONICK CREEK BELOW TRACE CREEK AT TANNERY, KY--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	12	342	e66	544	86	664	547	32	56	13	2.6
2	1.4	10	186	e54	671	89	543	471	28	39	10	2.3
3	1.6	8.5	120	e54	516	128	453	420	24	31	7.7	2.0
4	1.4	7.4	88	61	413	192	359	338	22	26	5.4	1.7
5	2.6	7.3	70	59	300	181	300	280	23	22	6.1	1.4
6	4.5	6.8	60	63	239	174	261	346	962	20	5.2	1.1
7	4.0	6.4	59	75	218	158	225	1390	983	18	4.4	1.1
8	3.6	6.4	115	81	194	144	201	1030	244	16	3.6	1.0
9	3.6	6.2	480	77	161	137	203	773	117	13	3.0	1.0
10	4.2	5.8	301	94	144	150	226	530	68	12	2.6	0.94
11	4.2	5.7	200	452	150	143	202	367	45	10	2.2	0.99
12	5.5	5.5	145	650	152	139	199	284	34	8.9	1.6	1.4
13	7.7	5.1	146	471	143	145	195	401	38	25	1.3	1.7
14	14	5.1	307	337	e140	140	211	1290	62	40	0.96	1.8
15	20	4.8	513	274	e125	128	445	671	60	53	0.46	1.9
16	31	4.9	340	218	e120	463	450	423	39	34	0.00	1.6
17	35	4.3	274	186	e110	819	363	406	30	26	0.12	1.5
18	26	4.0	1150	171	e100	1090	300	5900	25	20	0.09	1.4
19	21	4.0	821	157	e96	1840	254	1230	20	18	0.23	1.6
20	18	4.3	513	153	e96	13600	218	556	18	17	0.00	1.5
21	16	4.3	349	139	e100	2550	250	323	16	18	0.46	2.2
22	12	4.3	266	140	105	1010	1740	215	14	21	6.6	1.9
23	11	4.3	221	188	93	655	995	155	12	17	10	1.7
24	13	3.8	217	5600	86	481	607	115	11	14	8.4	1.6
25	19	8.6	195	1910	84	372	554	85	9.4	12	6.9	1.3
26	19	55	167	861	84	3000	595	64	7.9	11	4.6	2.3
27	35	77	150	570	95	2060	482	50	6.8	10	4.6	26
28	26	89	136	422	95	922	5060	41	641	35	4.0	131
29	21	135	e109	332	---	647	1700	36	393	26	3.8	50
30	17	246	e93	298	---	1020	817	36	103	20	3.3	25
31	14	---	e79	461	---	782	---	37	---	16	2.9	---
TOTAL	413.5	751.8	8212	14674	5374	33445	19072	18810	4088.1	704.9	123.52	273.53
MEAN	13.34	25.06	264.9	473.4	191.9	1079	635.7	606.8	136.3	22.74	3.985	9.118
MAX	35	246	1150	5600	671	13600	5060	5900	983	56	13	131
MIN	1.2	3.8	59	54	84	86	195	36	6.8	8.9	0.00	0.94

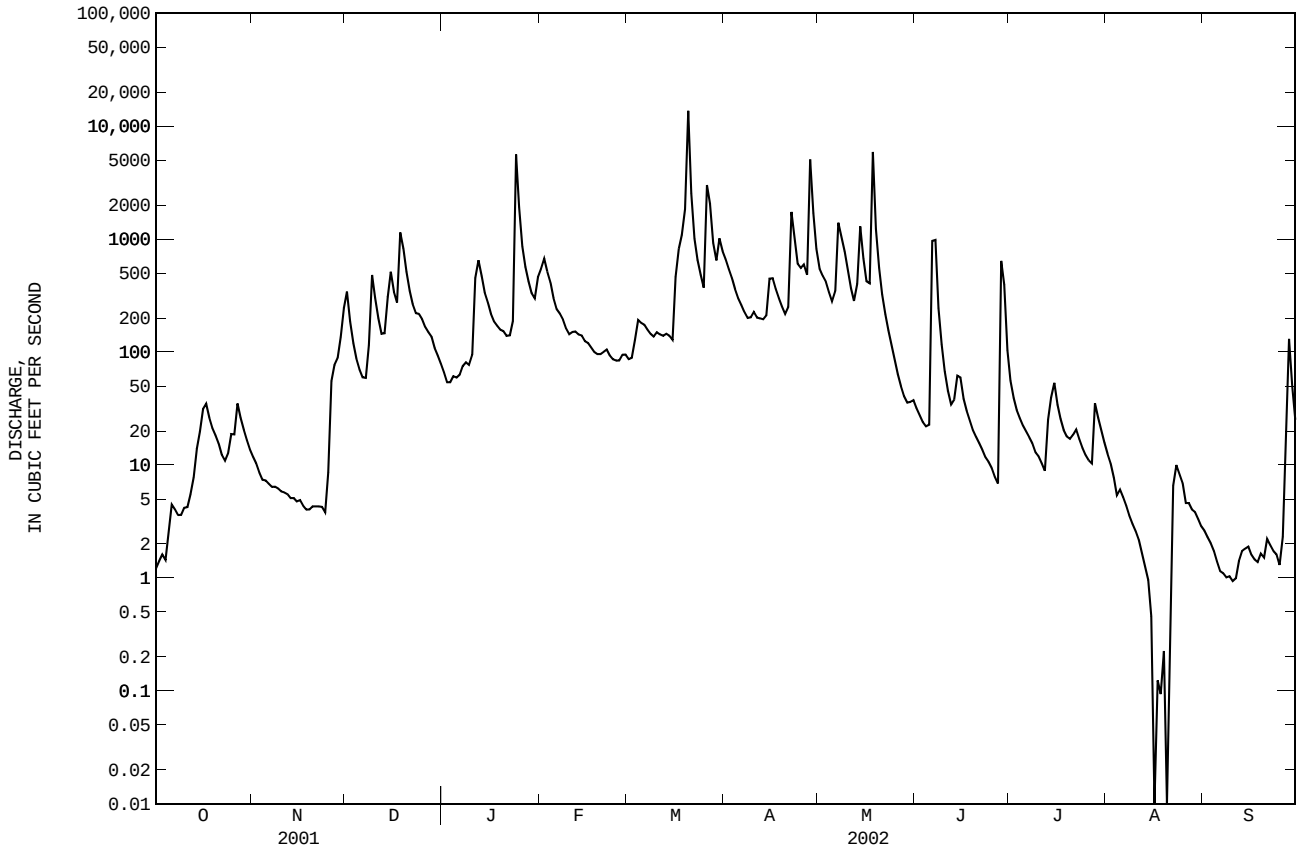
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2002, BY WATER YEAR (WY)

MEAN	13.34	25.06	264.9	305.9	319.9	815.1	368.6	558.9	190.9	238.4	89.44	20.12
MAX	13.3	25.1	265	473	448	1079	636	607	245	454	175	31.1
(WY)	2002	2002	2002	2002	2001	2002	2002	2002	2001	2001	2001	2001
MIN	13.3	25.1	265	138	192	551	102	511	136	22.7	3.98	9.12
(WY)	2002	2002	2002	2001	2002	2001	2001	2001	2002	2002	2002	2002

03237255 KINNICONICK CREEK BELOW TRACE CREEK AT TANNERY, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 2001 - 2002	
ANNUAL TOTAL	89986.8		105942.35			
ANNUAL MEAN	246.5		290.3		290.3	
HIGHEST ANNUAL MEAN					290	2002
LOWEST ANNUAL MEAN					290	2002
HIGHEST DAILY MEAN	3900	May 22	13600	Mar 20	13600	Mar 20 2002
LOWEST DAILY MEAN	1.2	Oct 1	0.00	Aug 16	0.00	Aug 16 2002
ANNUAL SEVEN-DAY MINIMUM	1.7	Sep 28	0.19	Aug 15	0.19	Aug 15 2002
MAXIMUM PEAK FLOW			16300	Mar 20	16300	Mar 20 2002
MAXIMUM PEAK STAGE			20.28	Mar 20	20.28	Mar 20 2002
10 PERCENT EXCEEDS	593		621		621	
50 PERCENT EXCEEDS	72		64		64	
90 PERCENT EXCEEDS	5.1		2.1		2.1	

e Estimated



03238745 TWELVEMILE CREEK AT HIGHWAY 1997 NEAR ALEXANDRIA, KY

LOCATION.--Lat 38°57'05" (revised), long 84°20'18", Campbell County, Hydrologic Unit 05090201,at bridge on Highway 1997, 1.0 miles upstream from Lick Branch, 2.5 miles east of Alexandria, and 2.8 miles upstream from the mouth.

DRAINAGE AREA.--39.0 mi^2.

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--January 17, 2001 to Septembet 30, 2001.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 505.854 ft above NGVD of 1929.

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

COOPERATION.--Northern Kentucky Sanitation District No. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	6.1	61	e10	301	9.8	25	52	8.4	2.0	1.8	4.1
2	0.94	6.5	34	e9.0	66	13	22	134	7.7	1.7	1.9	3.9
3	0.84	8.1	23	e7.2	41	29	23	50	6.0	1.6	1.5	5.2
4	1.2	7.4	18	e6.6	31	17	19	25	7.5	1.4	1.3	3.4
5	2.1	6.8	15	e6.0	22	12	18	18	8.1	1.2	1.2	3.8
6	8.2	5.7	90	e5.5	21	12	17	367	523	1.2	0.94	4.2
7	4.6	4.8	74	e5.2	20	11	15	398	78	1.2	0.99	3.6
8	3.8	4.7	59	e5.0	18	11	14	1170	25	1.2	0.96	6.7
9	3.5	4.7	46	13	16	18	15	120	14	1.2	0.97	7.3
10	3.8	4.5	26	31	18	22	15	49	8.9	2.7	0.82	5.7
11	3.8	4.4	20	17	21	14	14	31	6.5	1.8	0.93	6.2
12	27	4.1	17	e12	17	13	14	25	5.1	1.4	1.1	6.3
13	12	3.8	32	e10	15	13	23	853	4.7	1.4	0.89	6.4
14	93	4.0	133	e9.0	13	12	38	127	7.2	1.5	0.83	7.2
15	33	3.9	e66	e8.2	13	34	45	48	6.8	1.4	1.0	44
16	32	3.9	e300	e7.4	13	311	20	32	7.7	1.3	1.1	26
17	25	3.8	e1200	e6.8	12	59	15	595	5.9	1.4	1.0	13
18	8.6	3.6	e386	e6.4	11	43	13	333	5.6	1.7	1.6	8.1
19	9.1	4.4	61	e5.8	11	263	16	54	5.3	18	1.6	9.8
20	7.8	8.0	38	e5.6	25	735	18	33	3.7	14	1.1	62
21	7.6	7.5	e32	e5.3	41	98	614	25	3.2	6.0	0.93	93
22	6.2	5.8	23	e5.1	18	49	401	20	2.9	3.8	0.82	78
23	188	4.6	126	e4.9	14	36	49	18	2.7	2.9	0.70	60
24	657	8.8	57	e268	13	29	28	15	2.6	3.3	0.68	42
25	197	239	31	e156	12	30	126	13	28	2.3	0.80	31
26	36	28	e28	37	13	760	34	14	19	2.0	0.96	55
27	18	468	e21	25	13	86	132	12	4.8	1.9	0.95	561
28	12	207	18	20	10	48	e1290	224	8.0	1.8	2.6	56
29	9.9	691	13	18	---	39	68	62	3.2	6.5	3.3	12
30	8.9	349	8.1	e214	---	37	36	26	2.3	16	4.7	5.7
31	7.1	---	14	121	---	29	---	14	---	2.7	3.5	---
TOTAL	1428.98	2111.9	3070.1	1061.0	839	2892.8	3177	4957	821.8	108.5	43.47	1230.6
MEAN	46.10	70.40	99.04	34.23	29.96	93.32	105.9	159.9	27.39	3.500	1.402	41.02
MAX	657	691	1200	268	301	760	1290	1170	523	18	4.7	561
MIN	0.84	3.6	8.1	4.9	10	9.8	13	12	2.3	1.2	0.68	3.4
CFSM	1.18	1.81	2.54	0.88	0.77	2.39	2.72	4.10	0.70	0.09	0.04	1.05
IN.	1.36	2.01	2.93	1.01	0.80	2.76	3.03	4.73	0.78	0.10	0.04	1.17

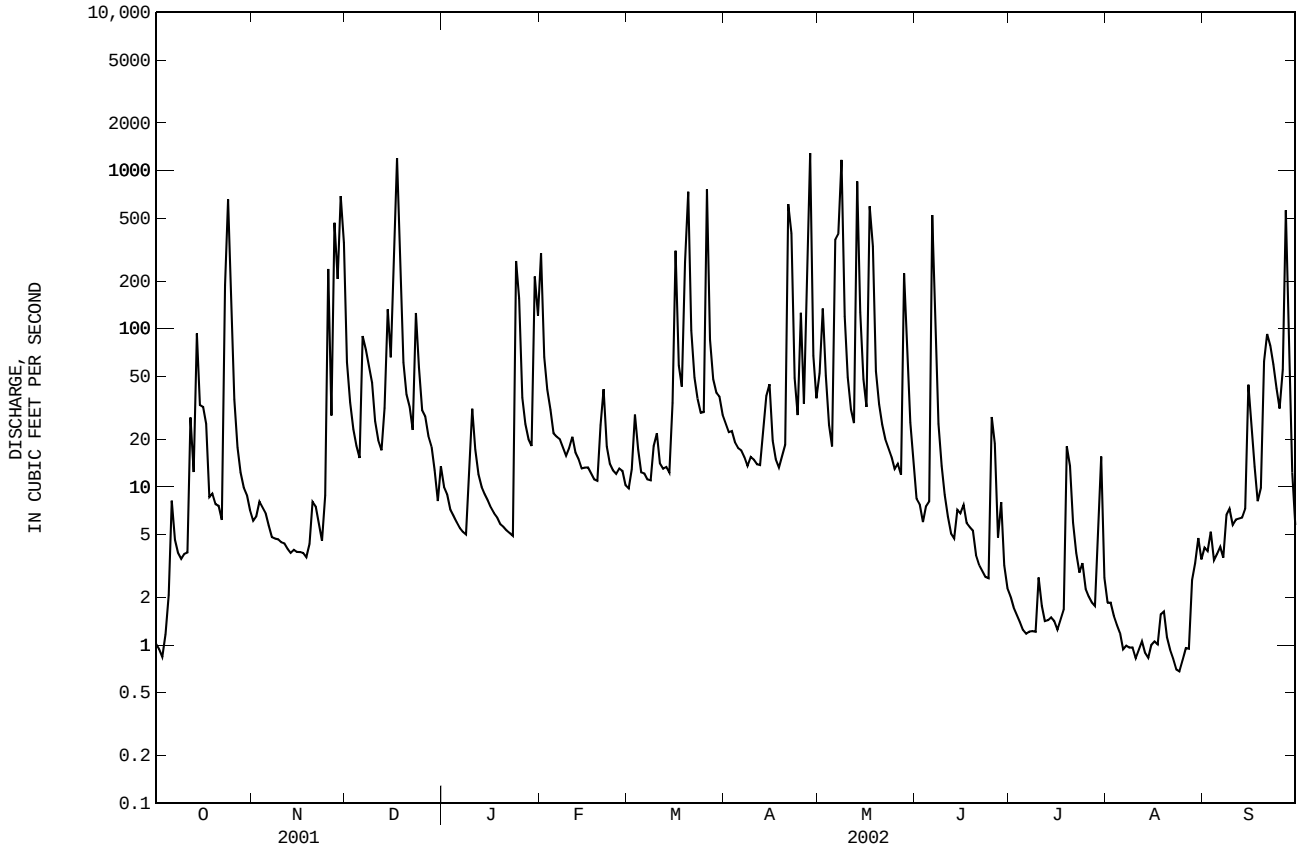
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2002, BY WATER YEAR (WY)

MEAN	46.10	70.40	99.04	34.23	31.75	63.69	58.57	87.36	32.46	29.40	21.88	22.52
MAX	46.1	70.4	99.0	34.2	33.5	93.3	106	160	37.5	55.3	42.4	41.0
(WY)	2002	2002	2002	2002	2001	2002	2002	2002	2001	2001	2001	2002
MIN	46.1	70.4	99.0	34.2	30.0	34.1	11.2	14.8	27.4	3.50	1.40	4.01
(WY)	2002	2002	2002	2002	2002	2001	2001	2001	2002	2002	2002	2001

03238745 TWELVEMILE CREEK AT HIGHWAY 1997 NEAR ALEXANDRIA, KY--Continued

SUMMARY STATISTICS	FOR 2002 WATER YEAR		WATER YEARS 2001 - 2002		
ANNUAL TOTAL	21742.15				
ANNUAL MEAN	59.57		59.57		
HIGHEST ANNUAL MEAN			59.6		2002
LOWEST ANNUAL MEAN			59.6		2002
HIGHEST DAILY MEAN	1290	Apr 28	1290	Apr 28	2002
LOWEST DAILY MEAN	0.68	Aug 24	0.68	Aug 24	2002
ANNUAL SEVEN-DAY MINIMUM	0.83	Aug 21	0.83	Aug 21	2002
MAXIMUM PEAK FLOW	5240	May 8	5240	May 8	2002
MAXIMUM PEAK STAGE	8.22	May 8	8.22	May 8	2002
ANNUAL RUNOFF (CFSM)	1.53		1.53		
ANNUAL RUNOFF (INCHES)	20.74		20.75		
10 PERCENT EXCEEDS	126		126		
50 PERCENT EXCEEDS	13		13		
90 PERCENT EXCEEDS	1.4		1.4		

e Estimated



03238745 TWELVEMILE CREEK AT HIGHWAY 1997 NEAR ALEXANDRIA, KY--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Northern Kentucky Sanitation District No. 1.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 2000 to current year.
pH: December 2000 to current year.
WATER TEMPERATURES: December 2000 to current year.
DISSOLVED OXYGEN: December 2000 to current year.
TURBIDITY: December 2000 to current year.

INSTRUMENTATION.--Water-quality monitor with telemetry.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 1010 microsiemens, Jan. 8, 2002; minimum recorded, 93 microsiemens, May 28, 2002.
pH: Maximum recorded, 9.1 units, May 13, 2001 and Jul. 18, 2002; minimum recorded, 6.6 units, Dec. 25-26, 2000.
WATER TEMPERATURES: Maximum recorded, 32.3'C, Aug. 8, 2001; minimum recorded, -0.1'C, several days Jan., Feb. and Mar. 2002.
DISSOLVED OXYGEN: Maximum recorded, 21.2 mg/L, Feb. 27, 28, 2002; minimum recorded, 0.3 mg/L, May 16, 2001.
TURBIDITY: Maximum recorded, >1000 NTU, several days in 2001 and 2002; minimum recorded, 1.1 NTU, Jun. 13, 2002.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 1010 microsiemens, Jan. 8, 2002; minimum recorded, 93 microsiemens, May 28, 2002.
pH: Maximum recorded, 9.1 units, Jul. 18, 2002; minimum recorded, 6.8 units, Jul. 30-31, 2002.
WATER TEMPERATURES: Maximum recorded, 32.3'C, Jul. 5, 2002; minimum recorded, 0.1'C, several days in Jan., Feb., and Mar. 2002.
DISSOLVED OXYGEN: Maximum recorded, 21.1 mg/L, Feb. 27,28, 2002; minimum recorded, 2.8 mg/L, Aug. 6, 2002.
TURBIDITY: Maximum recorded, >1000 NTU, several days in 2002; minimum recorded, 1.1 NTU, Jun. 13, 2002.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	802	759	777	601	578	594	376	282	331	710	691	701
2	815	784	799	619	598	611	444	376	408	724	697	712
3	815	791	805	635	586	613	492	444	466	729	702	718
4	818	796	809	614	588	600	533	492	511	742	715	731
5	829	799	821	623	598	610	564	533	546	749	718	734
6	799	729	776	635	604	623	571	343	487	734	712	724
7	730	699	714	663	631	647	445	389	407	999	734	866
8	723	685	709	670	639	655	448	408	426	1010	932	970
9	744	679	699	675	646	660	496	418	456	993	917	955
10	782	744	756	680	659	667	534	496	513	924	684	831
11	800	776	787	688	666	677	556	533	541	684	640	655
12	804	390	579	693	670	684	575	556	567	640	603	620
13	567	505	546	702	677	692	599	538	556	609	574	587
14	576	308	437	709	673	692	562	339	463	595	578	585
15	545	455	507	709	683	697	404	341	368	600	585	591
16	---	---	---	718	687	704	433	216	374	617	592	600
17	557	486	528	719	689	705	274	158	207	635	611	620
18	586	557	571	736	705	721	315	185	249	632	617	625
19	631	586	611	750	714	735	406	315	363	653	625	638
20	660	625	644	737	672	704	472	406	440	719	653	679
21	661	634	645	676	651	667	522	472	497	730	703	718
22	685	661	674	696	584	673	561	522	538	726	675	699
23	692	196	576	710	680	691	561	370	432	718	677	694
24	354	149	256	723	354	691	420	369	392	705	144	295
25	340	240	298	490	205	279	471	420	443	296	210	255
26	420	340	381	371	299	334	521	471	493	364	296	329
27	476	420	444	391	161	245	558	521	535	414	363	384
28	509	476	490	326	251	280	593	558	574	456	414	431
29	536	509	525	269	163	211	633	593	601	494	456	473
30	551	536	545	282	207	237	681	633	656	---	---	---
31	582	548	569	---	---	---	694	678	683	315	225	268
MONTH	---	---	---	750	161	587	694	158	468	---	---	---

03238745 TWELVEMILE CREEK AT HIGHWAY 1997 NEAR ALEXANDRIA, KY--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	324	227	259	675	630	652	611	571	596	499	232	450
2	305	243	278	719	642	667	616	559	594	419	256	348
3	355	305	332	723	648	680	616	577	601	480	417	447
4	382	355	368	656	622	642	616	563	595	532	480	504
5	409	382	395	676	642	659	616	539	588	556	525	535
6	432	409	417	694	647	674	615	548	588	570	191	436
7	448	431	440	699	650	675	618	553	591	273	156	219
8	466	447	454	704	652	679	639	584	615	---	---	---
9	480	462	470	771	680	714	656	618	639	363	217	298
10	505	476	486	760	647	692	669	626	651	446	363	406
11	537	488	495	673	640	658	689	657	672	503	446	473
12	530	516	523	686	655	674	713	686	699	541	495	521
13	584	526	566	699	661	685	723	699	710	507	163	248
14	587	569	576	709	661	687	730	698	712	346	197	278
15	591	575	584	711	379	680	739	685	702	440	346	396
16	596	578	589	418	245	315	742	688	723	---	---	---
17	602	580	593	437	338	387	749	709	725	---	---	---
18	604	585	595	502	437	468	764	726	747	300	181	234
19	614	597	606	544	250	467	788	719	767	403	300	354
20	619	591	613	254	186	214	799	707	752	472	403	437
21	591	539	556	390	254	327	808	304	653	522	472	494
22	600	577	590	481	390	435	513	365	442	560	522	535
23	603	588	597	544	481	511	617	513	568	586	546	561
24	610	591	601	585	544	561	681	617	651	595	550	576
25	612	593	603	609	541	595	681	578	610	606	541	579
26	635	608	619	541	146	238	654	602	626	615	543	580
27	644	614	631	389	251	327	689	547	650	616	538	585
28	660	625	643	477	389	434	---	---	---	596	93	442
29	---	---	---	541	477	508	437	395	417	---	---	---
30	---	---	---	575	541	554	467	437	453	---	---	---
31	---	---	---	603	575	584	---	---	---	---	---	---
MONTH	660	227	517	771	146	550	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	587	573	582	617	601	610	639	575	592	879	864	873
2	602	586	593	638	617	628	724	639	670	877	865	872
3	605	591	598	672	635	648	787	724	746	889	872	880
4	614	572	599	683	645	666	828	787	801	902	889	894
5	596	548	579	701	670	680	836	815	828	929	901	913
6	562	176	363	724	684	696	866	833	845	929	910	920
7	378	285	337	731	686	707	868	860	866	942	916	922
8	434	378	405	760	706	726	877	850	861	956	933	946
9	471	433	450	773	738	758	909	876	886	938	897	916
10	---	---	---	777	749	763	916	898	909	912	895	905
11	523	498	512	766	714	741	922	905	915	932	910	922
12	549	523	539	714	671	691	917	890	905	938	925	932
13	562	542	555	711	696	702	922	900	909	936	922	930
14	594	555	573	750	711	729	925	896	918	937	929	934
15	562	548	557	750	724	740	914	893	906	940	725	847
16	595	554	574	754	716	737	899	873	887	763	696	730
17	590	568	580	776	750	760	885	868	878	696	651	668
18	589	576	583	795	759	778	879	849	868	713	663	692
19	609	588	598	799	283	718	852	824	836	788	712	749
20	627	609	616	570	458	501	839	818	828	820	664	778
21	640	622	631	589	545	554	840	816	828	750	624	682
22	647	627	639	632	589	608	861	833	848	633	624	628
23	656	632	647	664	632	641	873	853	864	683	632	650
24	667	644	659	698	662	674	888	867	874	719	683	690
25	672	239	579	730	667	703	891	872	884	767	719	748
26	489	412	453	758	726	736	888	864	877	778	698	763
27	546	489	526	772	731	759	882	861	873	721	214	371
28	547	525	536	799	763	778	865	847	857	362	299	331
29	584	544	568	807	534	779	852	824	837	427	362	389
30	601	442	588	727	541	669	839	824	833	479	427	445
31	---	---	---	607	570	590	864	837	849	---	---	---
MONTH	---	---	---	807	283	693	925	575	848	956	214	764

03238745 TWELVEMILE CREEK AT HIGHWAY 1997 NEAR ALEXANDRIA, KY--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.5	7.7	8.0	8.3	7.9	8.1	7.8	7.7	7.7	8.1	8.0	8.0
2	8.4	7.6	8.0	8.2	7.9	8.0	7.9	7.7	7.8	8.1	8.0	8.0
3	8.3	7.6	7.9	8.5	7.9	8.1	8.0	7.8	7.9	8.2	8.0	8.0
4	8.4	7.5	7.9	8.5	7.9	8.2	8.0	7.8	7.9	8.1	7.9	8.0
5	8.3	7.6	7.9	8.6	7.9	8.3	8.1	7.8	7.9	8.1	7.9	7.9
6	8.1	7.5	7.7	8.8	8.0	8.4	8.0	7.8	7.9	8.0	7.9	8.0
7	8.2	7.7	7.9	8.8	8.2	8.6	7.9	7.8	7.8	8.1	7.9	8.0
8	8.4	7.7	8.0	8.9	8.2	8.6	7.9	7.8	7.8	8.2	7.9	8.0
9	8.5	7.7	8.0	9.0	8.2	8.7	8.0	7.8	7.9	8.1	8.0	8.0
10	8.6	7.8	8.1	9.0	8.3	8.7	8.0	7.8	7.9	8.1	7.9	8.0
11	8.6	7.7	8.0	8.9	8.2	8.6	8.1	7.8	8.0	8.1	7.9	7.9
12	7.9	7.5	7.6	8.9	8.2	8.6	8.1	7.9	8.0	8.1	7.9	8.0
13	8.1	7.5	7.7	8.9	8.2	8.6	8.0	7.9	7.9	8.2	7.9	8.0
14	7.7	7.5	7.6	8.9	8.2	8.6	8.0	7.8	7.9	8.2	7.9	8.0
15	7.9	7.6	7.7	8.9	8.2	8.6	7.9	7.8	7.8	8.3	7.9	8.0
16	7.8	7.6	7.7	9.0	8.2	8.6	7.9	7.7	7.8	8.4	7.9	8.1
17	8.0	7.7	7.8	9.0	8.1	8.6	7.8	7.6	7.7	8.4	7.9	8.1
18	8.1	7.7	7.8	9.0	8.1	8.6	7.7	7.7	7.7	8.4	7.9	8.1
19	8.2	7.7	7.9	8.6	8.1	8.3	8.0	7.7	7.8	8.3	7.9	8.1
20	8.3	7.8	8.0	8.6	8.0	8.2	8.0	7.8	7.9	8.4	8.0	8.2
21	8.4	7.8	8.1	8.6	8.0	8.3	8.1	7.9	8.0	8.4	8.0	8.2
22	8.5	7.9	8.2	8.6	8.0	8.3	8.2	7.9	8.0	8.5	8.0	8.2
23	8.4	7.6	8.0	8.6	8.0	8.3	8.0	7.9	8.0	8.4	7.9	8.2
24	7.7	7.6	7.6	8.4	7.9	8.2	8.0	7.9	7.9	8.2	7.7	7.8
25	7.7	7.7	7.7	8.0	7.7	7.7	8.0	7.7	7.9	7.9	7.4	7.8
26	7.9	7.7	7.8	7.8	7.7	7.8	8.1	7.8	7.9	8.0	7.8	7.9
27	8.0	7.8	7.9	7.8	7.6	7.7	8.1	7.9	8.0	8.2	7.8	8.0
28	8.1	7.8	8.0	7.8	7.7	7.8	8.1	7.9	8.0	8.3	7.9	8.0
29	8.1	7.9	8.0	7.8	7.6	7.7	8.1	8.0	8.0	8.3	7.8	8.0
30	8.2	7.9	8.0	7.7	7.6	7.6	8.1	7.7	8.0	8.0	7.8	7.9
31	8.2	7.8	8.0	---	---	---	8.1	8.0	8.0	7.9	7.7	7.8
MONTH	8.6	7.5	7.9	9.0	7.6	8.3	8.2	7.6	7.9	8.5	7.4	8.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.9	7.7	7.7	8.4	7.6	8.0	8.6	7.9	8.1	8.2	7.7	7.9
2	7.8	7.7	7.8	8.3	7.6	7.9	8.7	7.8	8.1	7.9	7.7	7.8
3	8.0	7.8	7.9	8.3	7.7	8.0	8.6	7.8	8.1	8.1	7.8	7.9
4	8.2	7.9	8.0	8.4	7.8	8.1	8.7	7.9	8.2	8.3	7.9	8.0
5	8.2	8.0	8.1	8.6	7.8	8.1	8.8	7.8	8.3	8.5	7.9	8.1
6	8.2	8.0	8.1	8.6	7.7	8.1	8.7	7.8	8.2	8.0	7.7	7.9
7	8.3	8.0	8.1	8.7	7.7	8.1	8.7	7.7	8.2	7.7	7.7	7.7
8	8.3	8.0	8.1	8.7	7.7	8.2	8.5	7.5	7.9	7.7	7.5	7.6
9	8.4	8.0	8.1	8.2	7.6	7.9	8.1	7.1	7.6	7.8	7.6	7.7
10	8.3	8.0	8.1	8.7	7.8	8.1	8.3	7.2	7.7	8.1	7.8	7.9
11	8.4	8.1	8.2	8.6	7.8	8.2	8.2	7.3	7.7	8.2	7.9	8.0
12	8.5	8.0	8.2	8.6	7.7	8.1	8.1	7.2	7.6	8.2	7.9	8.0
13	8.6	8.0	8.2	8.7	7.7	8.2	7.9	7.2	7.5	8.0	7.7	7.8
14	8.5	7.9	8.2	8.7	7.8	8.2	7.8	7.3	7.5	7.8	7.7	7.8
15	8.6	8.0	8.2	8.3	7.7	8.0	8.0	7.4	7.7	8.1	7.8	7.9
16	8.6	8.0	8.3	7.9	7.6	7.7	8.2	7.3	7.7	---	---	---
17	8.7	8.0	8.3	7.9	7.7	7.8	8.2	7.3	7.7	---	---	---
18	8.6	7.7	8.2	8.2	7.9	8.0	8.4	7.3	7.8	7.8	7.7	7.8
19	8.6	7.9	8.2	8.1	7.8	8.0	8.3	7.4	7.8	8.1	7.8	7.9
20	8.6	7.9	8.1	7.8	7.7	7.7	8.1	7.4	7.6	8.2	7.9	8.0
21	8.2	7.9	8.0	8.1	7.7	7.8	7.6	7.4	7.5	8.4	8.0	8.2
22	8.5	7.9	8.1	8.2	7.9	8.0	7.5	7.4	7.5	8.4	8.0	8.2
23	8.7	7.9	8.2	8.5	7.9	8.1	7.8	7.5	7.6	8.6	8.0	8.3
24	8.6	7.8	8.1	8.3	7.9	8.1	7.9	7.6	7.7	8.7	8.0	8.3
25	8.7	7.8	8.2	8.3	7.9	8.1	7.7	7.6	7.6	8.8	8.0	8.3
26	8.4	7.7	8.0	8.0	7.6	7.8	7.9	7.7	7.8	8.7	8.0	8.3
27	8.5	7.6	8.0	8.0	7.7	7.8	7.9	7.7	7.7	8.7	8.0	8.3
28	8.4	7.7	8.0	8.1	7.7	7.9	7.8	7.5	7.6	8.5	7.8	8.0
29	---	---	---	8.2	7.8	7.9	7.8	7.5	7.7	---	---	---
30	---	---	---	8.3	7.9	8.1	8.0	7.8	7.9	---	---	---
31	---	---	---	8.4	7.8	8.1	---	---	---	---	---	---
MONTH	8.7	7.6	8.1	8.7	7.6	8.0	8.8	7.1	7.8	---	---	---

03238745 TWELVEMILE CREEK AT HIGHWAY 1997 NEAR ALEXANDRIA, KY--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.3	7.8	8.0	8.6	7.7	8.1	8.6	6.9	7.6	8.4	7.4	7.9
2	8.3	7.8	8.1	8.6	7.7	8.1	8.4	6.9	7.6	8.3	7.4	7.8
3	8.3	7.8	8.0	8.8	7.6	8.1	8.5	6.9	7.6	8.3	7.3	7.8
4	8.2	7.8	8.0	8.8	7.6	8.1	8.4	6.9	7.6	8.4	7.2	7.7
5	8.3	7.8	8.0	8.7	7.5	8.1	8.4	7.0	7.6	8.3	7.2	7.7
6	7.9	7.6	7.7	8.8	7.6	8.1	8.3	6.9	7.6	8.3	7.2	7.7
7	7.8	7.6	7.7	8.8	7.5	8.1	8.3	7.1	7.6	8.4	7.3	7.8
8	8.0	7.7	7.8	8.8	7.5	8.0	8.5	7.2	7.7	8.5	7.3	7.8
9	8.2	7.8	7.9	8.8	7.5	8.0	8.5	7.2	7.8	8.6	7.3	7.8
10	---	---	---	8.2	7.5	7.8	8.5	7.1	7.7	8.5	7.2	7.8
11	8.4	7.7	8.0	8.7	7.5	8.0	8.3	7.1	7.6	8.4	7.2	7.7
12	8.4	8.0	8.2	8.7	7.7	8.2	8.6	7.2	7.8	8.4	7.2	7.7
13	8.4	8.0	8.2	8.5	7.7	7.9	8.3	7.2	7.7	8.3	7.3	7.8
14	8.4	8.0	8.2	8.7	7.6	8.0	8.3	7.1	7.6	8.0	7.3	7.7
15	8.5	8.0	8.2	8.9	7.5	8.1	8.4	7.1	7.6	7.7	7.2	7.4
16	8.5	8.0	8.2	9.0	7.5	8.2	8.5	7.2	7.7	7.7	7.1	7.3
17	8.6	8.0	8.3	8.7	7.6	8.1	8.3	7.2	7.6	8.2	7.2	7.6
18	8.6	8.0	8.3	9.1	7.5	8.1	7.8	7.2	7.4	8.3	7.3	7.7
19	8.7	8.0	8.4	9.0	7.4	8.0	8.5	7.2	7.7	8.4	7.2	7.7
20	8.6	8.0	8.3	7.9	7.4	7.6	8.5	7.3	7.8	8.0	7.3	7.5
21	8.6	7.9	8.2	8.5	7.4	7.8	8.7	7.3	8.0	7.9	7.3	7.6
22	8.7	7.9	8.3	8.6	7.5	7.9	---	---	---	8.1	7.4	7.7
23	8.7	7.9	8.3	8.1	7.5	7.7	---	---	---	8.2	7.5	7.8
24	8.8	7.9	8.2	8.6	7.5	7.9	8.6	7.3	7.9	8.2	7.5	7.8
25	8.8	7.6	8.1	8.7	7.5	8.1	8.7	7.4	7.9	8.2	7.4	7.8
26	8.1	7.6	7.8	8.6	7.5	8.0	8.7	7.4	8.0	7.7	7.2	7.5
27	8.4	7.6	7.9	8.6	7.4	7.8	8.4	7.4	7.8	7.5	7.2	7.4
28	8.3	7.7	7.9	8.7	7.4	7.9	8.5	7.3	7.8	7.5	7.3	7.4
29	8.4	7.7	8.0	8.6	7.0	7.7	8.6	7.3	7.9	7.6	7.2	7.4
30	8.5	7.7	8.1	7.7	6.8	7.1	8.6	7.4	8.0	7.6	7.3	7.4
31	---	---	---	8.5	6.8	7.5	8.6	7.4	8.0	---	---	---
MONTH	---	---	---	9.1	6.8	7.9	---	---	---	8.6	7.1	7.7

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	17.1	11.7	14.3	12.9	8.9	11.2	10.6	8.9	10.0	0.3	0.0	0.0
2	18.5	13.4	15.5	13.9	12.1	13.1	10.1	7.7	8.7	0.3	0.0	0.0
3	19.2	14.4	16.4	13.4	10.7	12.3	9.5	6.3	7.7	0.3	0.0	0.0
4	18.0	14.2	15.9	12.2	8.3	10.6	10.4	8.0	9.1	0.2	0.0	0.0
5	17.3	14.4	15.9	11.5	8.1	9.8	11.3	8.2	9.6	---	---	---
6	15.8	12.8	14.3	9.5	6.1	8.0	10.2	9.0	9.6	---	---	---
7	13.4	9.9	11.6	9.4	5.8	7.7	10.9	9.4	10.0	---	---	---
8	13.6	9.2	11.1	10.7	6.2	8.7	9.5	9.0	9.3	---	---	---
9	13.6	9.5	11.4	10.8	7.9	9.2	9.3	7.0	8.4	---	---	---
10	14.8	10.7	12.5	10.0	6.0	7.9	7.4	5.3	6.4	1.6	0.3	0.8
11	16.6	13.5	14.8	9.8	6.7	8.0	7.6	5.0	6.1	1.6	0.0	0.7
12	18.0	15.9	16.8	8.5	4.9	6.5	7.7	5.1	6.4	2.1	-0.1	0.7
13	19.5	16.8	18.1	8.3	4.5	6.3	9.3	7.6	8.7	2.5	-0.1	1.0
14	19.4	15.7	17.6	9.4	5.6	7.3	10.7	9.0	9.9	3.5	0.4	1.8
15	16.6	13.3	14.9	10.0	6.3	7.9	10.4	9.0	9.9	2.6	0.7	2.0
16	14.0	11.4	12.7	11.1	7.5	9.1	9.0	8.4	8.8	2.2	-0.1	0.9
17	12.9	9.5	11.2	12.2	9.1	10.3	10.7	8.8	9.7	2.5	1.4	2.0
18	11.9	7.7	10.1	12.4	9.2	10.6	10.3	8.0	9.5	2.3	-0.1	1.2
19	12.5	8.8	10.8	11.0	9.5	10.3	8.0	6.4	7.2	1.4	0.1	0.8
20	14.9	10.9	12.9	9.6	6.9	7.9	6.6	4.3	5.6	0.5	-0.1	0.1
21	15.5	11.7	13.7	7.2	4.5	6.1	5.3	2.7	3.8	2.6	0.2	1.2
22	16.4	12.7	14.6	7.2	3.9	5.7	5.2	2.1	3.6	3.4	-0.1	1.4
23	17.4	14.8	15.9	8.3	5.2	6.5	5.9	4.8	5.4	5.2	3.1	4.0
24	16.6	15.1	15.8	12.8	8.3	10.3	5.0	3.4	4.2	7.4	5.1	6.6
25	16.2	12.6	14.6	12.2	10.4	11.6	3.4	1.0	2.4	6.1	3.9	5.0
26	12.6	9.0	10.8	10.9	8.7	9.8	1.4	0.1	0.7	5.3	2.1	3.5
27	9.2	8.1	8.6	11.7	9.9	10.9	1.5	0.1	0.5	5.6	1.6	3.3
28	10.7	6.9	8.7	11.3	9.6	10.4	2.4	0.0	1.1	7.5	2.6	4.7
29	10.7	6.0	8.5	11.7	9.6	10.5	1.7	0.0	0.9	9.3	6.2	7.9
30	11.6	8.8	10.3	12.0	10.6	11.5	0.4	0.0	0	9.4	8.8	9.2
31	12.1	8.7	10.6	---	---	---	0.3	0.0	0.0	10.1	8.6	9.4
MONTH	19.5	6.0	13.3	13.9	3.9	9.2	11.3	0.0	6.2	---	---	---

03238745 TWELVEMILE CREEK AT HIGHWAY 1997 NEAR ALEXANDRIA, KY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10.7	7.4	9.6	5.9	-0.1	2.8	14.6	7.6	10.6	18.7	14.0	16.1
2	7.4	5.0	6.0	5.4	3.0	4.2	15.9	10.0	12.6	16.9	15.1	16.2
3	6.0	4.1	4.9	5.5	1.9	4.0	13.1	9.1	11.1	17.4	13.1	15.1
4	4.4	1.6	3.3	3.5	-0.1	1.5	11.3	7.1	9.2	20.0	13.2	15.8
5	3.7	0.4	1.7	6.3	0.2	2.8	14.2	7.0	10.0	21.5	13.7	16.8
6	2.1	0.8	1.5	9.4	2.0	5.3	14.7	7.7	10.4	17.3	14.4	15.0
7	5.8	1.8	3.2	11.3	5.1	7.9	15.3	6.7	10.5	17.9	14.6	16.2
8	6.2	1.2	3.3	13.1	6.8	9.9	15.4	11.0	13.1	17.6	16.4	16.9
9	6.9	1.3	3.7	11.6	7.0	10	16.2	13.6	14.6	19.2	17.2	17.9
10	5.8	3.1	4.3	9.6	4.6	6.6	19.4	10.8	14.5	19.3	15.3	17.1
11	6.8	3.5	4.7	8.5	2.9	5.7	20.6	10.7	15.3	19.3	14.7	16.9
12	7.0	2.6	4.4	9.4	5.6	7.3	20.4	15.2	17.6	19.6	16.6	18.1
13	6.6	2.9	4.3	12.5	7.5	9.5	19.4	16.2	17.7	18.5	14.1	16.1
14	5.8	0.6	3.0	13.6	6.8	10.2	17.9	16.3	17.0	16.3	13.3	14.6
15	6.7	1.9	4.0	12.8	10.3	11.5	23.3	16.1	19.0	18.0	12.8	15.2
16	6.4	2.0	4.2	11.1	8.0	9.4	26.0	17.5	21.1	---	---	---
17	6.4	2.8	4.4	8.0	7.3	7.6	25.2	18.8	21.6	---	---	---
18	6.4	0.8	3.6	10.4	7.8	8.8	26.5	18.1	21.9	14.2	12.5	13.2
19	5.2	2.2	3.7	9.1	8.5	8.8	26.1	20.2	22.7	15.2	10.7	12.8
20	8.3	5.0	6.3	9.0	8.5	8.7	23.4	19.7	21.3	14.4	12.2	13.3
21	6.7	5.2	6.0	9.7	5.9	8.0	20.7	12.7	16.6	14.4	11.4	12.6
22	5.2	3.4	4.7	8.0	3.9	5.6	15.3	13.3	14.0	16.6	9.9	13.0
23	7.2	1.4	4.0	9.2	3.4	5.8	17.2	11.3	13.9	19.9	11.3	15.1
24	7.4	1.7	4.3	9.2	4.5	6.6	18.4	12.2	15.1	20.5	14.0	17.0
25	9.5	3.0	6.1	7.7	6.1	7.1	17.3	14.4	15.5	22.8	16.5	19.2
26	8.1	3.1	6.1	6.2	5.1	5.4	18.9	12.8	15.2	23.0	17.4	19.9
27	3.1	1.1	2.0	8.1	5.0	6.2	---	---	---	24.0	17.6	20.4
28	3.9	-0.1	1.7	8.3	4.6	6.5	---	---	---	22.5	17.9	19.5
29	---	---	---	10.9	6.8	8.8	15.7	13.9	14.6	---	---	---
30	---	---	---	12.0	7.9	10	18.0	12.1	14.9	---	---	---
31	---	---	---	11.0	8.5	9.6	---	---	---	---	---	---
MONTH	10.7	-0.1	4.2	13.6	-0.1	7.2	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	25.9	21.5	23.6	30.4	25.2	27.5	30.1	24.9	27.5	25.6	22.3	24.0
2	26.4	22.6	24.3	31.4	26.0	28.4	29.9	25.6	27.8	25.5	22.5	24.1
3	27.4	20.9	24.0	31.7	25.7	28.5	30.7	25.7	28.2	26.6	22.5	24.4
4	26.9	22.8	25.0	31.9	25.9	28.7	30.7	26.2	28.5	26.6	23.3	25.1
5	27.4	22.1	24.5	32.3	26.3	28.9	30.2	25.8	28.0	25.1	20.5	22.9
6	24.3	18.8	20.7	30.4	24.0	27.0	29.7	25.2	27.2	24.4	19.9	22.2
7	20.0	18.2	18.9	29.7	22.9	26.2	27.6	21.7	24.5	24.7	20.3	22.5
8	24.0	17.5	20.3	30.1	23.1	26.3	26.8	20.7	23.6	25.1	21.7	23.4
9	26.2	19.8	22.6	28.6	23.7	26.1	26.5	20.2	23.3	25.5	21.5	23.5
10	---	---	---	27.6	24.9	26.1	26.8	20.5	23.6	24.7	21.3	23.2
11	26.0	21.8	24.0	28.9	22.7	25.2	26.0	21.9	24.0	24.7	22.0	23.3
12	26.0	22.9	24.5	27.7	21.3	24.4	28.0	22.9	25.1	22.3	18.5	20.6
13	25.8	23.3	24.3	25.1	23.0	23.9	26.8	22.8	25.0	20.9	17.1	19.1
14	24.8	21.8	23.1	27.0	21.5	23.7	27.1	23.8	25.4	22.2	20.4	21.3
15	24.4	19.5	21.9	28.3	22.1	25.0	27.1	24.2	25.6	23.0	21.4	22.0
16	24.0	19.5	21.7	28.7	22.8	25.7	27.7	24.4	25.9	23.1	21.7	22.4
17	23.9	17.9	21.2	26.6	23.2	25.2	27.1	24.0	25.4	22.7	20.4	21.6
18	25.0	19.4	22.3	28.8	23.5	25.8	26.1	24.5	25.3	24.0	21.1	22.4
19	26.0	20.4	23.4	28.9	24.1	25.7	26.2	22.9	24.4	24.7	21.8	23.2
20	28.2	22.4	25.1	27.1	23.1	24.9	26.7	22.6	24.5	24.1	22.6	23.3
21	28.5	23.5	26.0	29.5	24.6	26.8	27.4	21.7	24.5	22.8	21.2	22.1
22	29.3	23.5	26.1	30.6	25.7	28.0	---	---	---	22.4	20.1	21.4
23	29.8	23.1	26.2	28.4	26.1	27.1	---	---	---	20.1	17.0	18.5
24	28.2	23.9	26.0	28.8	24.0	26.2	27.9	24.5	26.1	18.4	15.2	17.0
25	---	---	---	28.2	23.2	25.8	27.8	24.0	25.7	18.2	16.0	17.3
26	26.8	21.9	24.2	27.5	24.0	25.9	27.1	22.8	24.8	18.1	17.4	17.7
27	27.9	24.1	25.7	28.7	24.9	26.4	25.2	22.5	23.8	18.2	17.4	17.7
28	26.7	23.1	24.7	30.2	25.2	27.5	25.0	21.6	23.1	20.5	17.1	18.4
29	27.6	22.7	25.1	31.2	26.1	28.1	25.6	21.3	23.3	20.8	16.2	18.2
30	28.5	23.8	26.1	28.8	25.0	26.7	25.9	21.5	23.6	20.5	16.7	18.7
31	---	---	---	30.0	24.5	27.0	26.0	21.2	23.6	---	---	---
MONTH	---	---	---	32.3	21.3	26.4	---	---	---	26.6	15.2	21.4

03238745 TWELVEMILE CREEK AT HIGHWAY 1997 NEAR ALEXANDRIA, KY--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	14.0	7.2	9.4	12.0	7.5	9.3	11.0	10.4	10.7	15.3	14.2	14.7
2	13.3	7.1	9.4	10.0	6.6	7.7	11.6	10.7	11.1	15.5	14.4	14.8
3	12.6	6.7	8.7	12.3	6.5	8.7	12.2	11.0	11.4	15.7	14.5	14.9
4	13.1	6.5	8.8	13.7	7.3	9.8	11.7	10.1	11.0	15.8	14.6	15.1
5	12.6	6.2	8.5	15.9	8.0	11.1	11.9	9.9	10.6	16.0	14.6	15.1
6	10.7	6.3	8.1	15.6	9.0	11.6	10.5	9.9	10.1	15.5	14.5	14.9
7	12.3	6.8	8.9	16.1	8.7	11.6	10.2	9.6	9.9	15.9	14.6	15.2
8	13.8	7.6	9.8	17.0	8.6	11.9	10.1	9.7	9.9	16.4	15.1	15.6
9	14.2	7.6	9.9	16.8	7.8	11.7	10.9	9.9	10.3	16.2	14.9	15.4
10	15.6	7.4	10	17.7	8.8	12.4	12.0	10.4	11.0	15.9	14.7	15.2
11	14.4	6.2	8.9	17.4	8.5	12.3	12.5	10.6	11.3	15.6	14.9	15.2
12	6.8	4.9	5.7	17.7	9.2	12.8	12.2	10.2	11.1	16.1	14.2	15.2
13	7.4	4.5	5.5	18.2	9.5	13.3	10.3	9.7	10	16.1	14.3	15.0
14	6.6	4.0	5.4	18.3	9.1	12.9	9.8	9.1	9.5	15.7	13.6	14.6
15	7.1	5.5	6.1	18.3	8.6	12.6	9.8	9.2	9.4	16.1	13.5	14.5
16	6.9	5.8	6.5	17.9	8.3	12.4	10.4	9.4	9.8	17.2	13.9	15.4
17	8.4	6.5	7.2	18.4	7.7	11.9	10.2	9.3	9.7	17.1	13.4	14.8
18	9.2	6.6	7.6	18.3	7.4	11.5	9.5	9.2	9.3	17.5	13.8	15.1
19	9.7	6.4	7.6	12.8	7.2	9.4	10.4	9.4	9.9	16.6	13.7	14.8
20	11.0	5.7	7.9	14.1	8.0	10.5	11.4	10.1	10.7	18.1	13.9	15.4
21	12.0	6.2	8.4	14.9	9.3	11.4	12.3	10.9	11.6	17.2	13.2	14.7
22	12.5	5.8	8.4	15.6	9.6	11.8	12.7	11.1	11.8	18.1	12.9	15.1
23	11.5	5.2	7.7	15.3	9.4	11.7	11.2	10.8	11.0	17.0	11.7	13.5
24	9.0	6.7	7.7	12.8	8.2	10.0	11.7	10.8	11.3	12.6	11.5	11.9
25	8.4	7.6	8.1	9.9	8.9	9.2	12.8	11.4	12.1	13.4	11.9	12.5
26	9.7	8.3	9.1	10.1	9.2	9.6	13.7	12.5	13.1	14.1	12.6	13.2
27	10.4	9.3	9.8	11.0	9.3	10.1	13.9	13.0	13.4	14.8	12.9	13.6
28	11.2	9.1	10.0	11.2	9.9	10.4	14.0	12.8	13.3	14.9	12.0	13.4
29	11.5	8.8	10.0	11.5	10.4	10.9	14.3	12.9	13.6	13.9	11.1	12.2
30	10.9	8.2	9.4	10.8	10.3	10.5	14.9	13.8	14.3	---	---	---
31	11.5	8.0	9.3	---	---	---	15.2	14.1	14.5	11.5	10.7	11.2
MONTH	15.6	4.0	8.3	18.4	6.5	11.0	15.2	9.1	11.2	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.6	10.6	11.2	21.0	13.8	17.1	15.6	8.5	11.4	10.1	7.5	8.4
2	12.6	11.5	12.2	18.9	12.5	14.9	16.7	7.7	11.2	8.7	8.3	8.5
3	13.4	12.3	12.7	18.7	12.4	14.8	16.6	7.6	10.9	10.1	8.4	9.2
4	14.2	12.4	13.3	20.9	13.9	16.9	18.9	8.8	12.6	11.1	8.0	9.3
5	15.0	13.5	14.1	20.8	13.4	16.8	20.0	8.5	13.0	12.0	7.5	9.4
6	15.0	13.5	14.1	20.8	12.0	16.0	20.0	8.4	12.6	9.6	7.4	8.5
7	15.2	13.1	13.8	20.7	10.9	14.8	20.0	7.7	12.4	9.5	7.9	8.7
8	15.6	13.1	14.0	20.7	9.7	14.1	17.6	6.7	10.9	9.6	7.9	8.4
9	15.7	12.8	14.0	13.3	8.7	10.6	16.0	7.5	10.9	8.3	7.3	7.7
10	14.5	12.4	13.1	17.8	10.9	13.5	17.8	7.6	11.7	9.4	8.1	8.7
11	15.8	12.4	13.6	19.2	11.0	14.3	16.3	6.8	10.9	10.3	7.9	9.1
12	16.6	12.3	13.9	18.2	10.0	12.9	14.4	6.4	9.5	10.0	7.7	8.7
13	---	---	---	18.3	9.1	12.4	12.1	6.1	8.3	9.8	7.7	9.1
14	18.5	12.9	14.9	18.0	8.3	12.3	10.4	7.0	8.2	9.2	8.2	8.7
15	18.6	12.5	14.8	12.6	7.9	9.8	11.1	6.2	8.4	9.4	7.7	8.6
16	19.0	12.4	14.7	10.9	10.1	10.4	12.3	5.3	8.2	---	---	---
17	19.3	12.2	14.9	10.8	10.0	10.4	11.2	5.2	7.2	---	---	---
18	20.3	12.6	15.5	11.4	9.4	10.1	12.0	5.2	7.8	10.3	8.4	9.3
19	19.1	12.4	14.8	11.1	9.4	10.2	11.6	4.8	7.0	9.8	8.2	9.0
20	17.1	11.5	13.4	11.4	10.2	11.0	9.3	5.3	6.6	9.7	8.2	8.8
21	12.9	11.6	12.2	11.2	10.2	10.7	10.5	5.4	7.4	10.4	8.2	9.2
22	16.6	12.0	13.6	13.0	11.2	12.1	9.7	8.3	9.1	10.9	7.7	9.2
23	19.0	12.6	14.8	13.6	11.2	12.3	9.7	8.0	8.9	11.2	7.1	9.1
24	19.0	12.3	14.8	13.7	10.7	12.2	9.6	7.3	8.5	12.0	6.7	8.9
25	19.0	11.2	14.4	12.9	10.5	11.3	8.9	7.6	8.1	12.4	6.5	8.9
26	18.9	10.6	13.7	12.4	11.0	11.8	9.0	7.4	8.1	12.6	5.9	8.8
27	21.1	13.3	16.8	11.8	10.7	11.3	9.9	7.4	8.3	11.8	6.6	8.6
28	21.1	14.4	17.5	12.5	10.5	11.3	---	---	---	12.3	6.4	8.6
29	---	---	---	12.4	9.4	10.7	8.5	8.0	8.2	---	---	---
30	---	---	---	12.8	9.2	10.7	8.8	7.5	8.2	---	---	---
31	---	---	---	13.6	9.2	10.8	---	---	---	---	---	---
MONTH	---	---	---	21.0	7.9	12.5	---	---	---	---	---	---

03238745 TWELVEMILE CREEK AT HIGHWAY 1997 NEAR ALEXANDRIA, KY--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.8	5.2	7.0	13.7	4.8	8.2	19.6	2.9	9.0	11.0	3.7	7.1
2	9.2	4.8	6.6	14.6	3.9	7.9	17.2	2.9	8.1	9.5	3.6	6.6
3	9.5	4.9	6.9	17.1	4.0	8.3	18.7	2.9	8.6	10.1	3.9	6.6
4	8.3	4.6	5.9	17.6	3.8	8.3	15.7	2.9	7.4	10.5	3.3	6.5
5	8.2	4.8	6.1	15.4	3.3	7.8	15.1	3.0	7.6	11.1	3.8	6.8
6	8.7	5.4	7.3	15.8	3.8	8.0	12.2	2.8	6.9	11.0	4.0	6.8
7	7.9	7.3	7.6	16.3	3.7	8.3	12.4	3.8	7.0	11.2	3.9	7.0
8	8.5	6.6	7.6	15.4	3.4	8.1	13.7	3.7	7.4	12.6	4.1	7.6
9	8.2	6.0	7.2	15.3	4.0	8.1	14.3	3.9	7.7	13.2	4.1	7.8
10	---	---	---	9.8	3.8	6.3	14.2	3.9	7.8	12.4	3.8	7.5
11	10.4	5.8	7.7	13.7	4.7	7.8	11.9	3.8	6.9	11.5	3.6	7.1
12	10.2	6.5	8.0	14.2	5.0	8.7	12.8	3.8	7.3	11.4	4.1	7.3
13	10.0	6.3	7.7	10.9	4.7	6.6	9.6	3.6	6.4	11.7	4.8	8.0
14	10.2	6.5	7.9	13.8	5.1	8.3	8.8	3.3	5.5	9.0	4.6	7.1
15	10.8	6.8	8.3	16.3	5.3	9.2	9.9	3.6	6.0	8.0	4.0	5.6
16	10.8	6.6	8.4	17.4	4.9	9.6	11.6	3.2	6.3	8.6	3.8	5.6
17	11.9	6.7	8.8	14.1	4.8	8.4	10.2	3.6	6.0	11.8	4.0	7.1
18	---	---	---	19.0	4.5	9.6	7.4	3.2	5.0	11.6	4.0	7.2
19	12.8	5.7	8.7	17.6	4.6	8.6	11.8	3.7	6.8	12.5	3.7	7.3
20	13.0	5.0	8.2	8.8	4.8	6.4	11.4	3.9	6.8	10.1	4.2	6.1
21	13.2	4.7	8.0	13.5	4.8	7.7	14.6	4.2	8.4	9.3	4.5	6.6
22	13.6	4.8	8.2	14.9	4.5	7.9	---	---	---	10.5	4.5	7.1
23	13.4	4.4	8.0	8.7	4.3	6.1	---	---	---	11.5	5.3	7.7
24	14.0	3.8	7.5	14.0	4.2	7.9	13.2	3.3	7.4	12.2	5.9	8.3
25	14.1	4.0	7.2	15.1	4.5	8.8	13.2	3.5	7.4	12.8	6.0	9.0
26	8.4	5.2	6.5	14.0	4.5	8.3	13.2	4.0	7.7	8.7	5.9	7.0
27	11.7	4.8	7.1	13.6	4.3	7.4	11.4	3.9	6.7	8.9	6.0	7.7
28	10.4	5.4	7.1	15.3	4.1	7.9	11.7	3.9	6.9	7.9	7.0	7.4
29	12.7	5.2	7.9	13.0	3.8	7.3	12.4	3.5	7.6	8.4	6.4	7.3
30	13.7	5.0	8.2	9.2	4.0	5.9	12.0	3.9	7.5	8.5	6.2	7.1
31	---	---	---	18.4	3.2	8.4	11.5	3.9	7.2	---	---	---
MONTH	---	---	---	19.0	3.2	7.9	---	---	---	13.2	3.3	7.1

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	50	36	40	35	18	27	140	92	110	12	8.0	9.0
2	50	39	41	37	17	22	94	68	81	11	7.0	8.5
3	50	41	44	29	20	24	68	47	57	12	6.0	8.1
4	50	19	35	48	18	27	53	31	39	11	5.0	7.9
5	24	19	20	28	10	19	35	25	29	11	5.0	6.7
6	38	23	32	26	8.2	18	360	23	130	13	5.0	7.0
7	32	23	25	14	7.3	8.2	150	120	130	13	5.0	7.8
8	38	23	27	15	7.8	9.7	120	95	110	11	6.0	7.6
9	40	24	28	21	9.3	12	140	63	82	17	5.0	8.9
10	32	21	23	14	7.7	9.9	81	45	53	82	11	29
11	30	20	23	17	7.1	9.0	80	37	45	79	32	55
12	>1000	18	290	13	6.6	8.5	57	24	33	58	30	34
13	130	45	75	11	6.0	7.9	76	40	58	200	30	38
14	800	40	230	67	6.1	9.7	440	41	180	42	19	30
15	120	59	82	15	5.8	8.0	250	120	180	30	17	23
16	---	---	---	37	6.3	8.6	980	91	240	820	14	57
17	---	---	---	9.8	6.7	7.9	640	240	440	79	6.9	16
18	---	---	---	14	7.0	9.4	600	130	280	18	8.7	14
19	72	44	49	40	8.3	16	130	73	98	18	11	15
20	79	48	52	130	16	51	74	23	57	25	12	14
21	65	44	52	770	13	73	45	17	33	17	8.8	13
22	63	40	46	810	16	55	29	17	23	70	10	18
23	---	---	---	510	17	61	330	17	190	25	13	16
24	960	280	560	>1000	16	120	220	87	150	---	---	---
25	440	190	270	>1000	320	620	110	71	88	320	130	190
26	190	110	150	400	190	250	76	48	61	130	82	110
27	120	79	99	>1000	170	460	51	30	39	110	59	71
28	87	61	71	270	160	200	35	17	24	76	42	53
29	67	49	57	520	170	280	21	12	15	96	34	43
30	63	41	46	230	140	180	15	9.0	12	---	---	---
31	76	32	38	---	---	---	17	9.0	11	400	150	230
MONTH	---	---	---	>1000	5.8	87	980	9.0	99	---	---	---

03238745 TWELVEMILE CREEK AT HIGHWAY 1997 NEAR ALEXANDRIA, KY--Continued

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	800	140	430	20	5.6	7.9	29	14	19	>1000	37	300
2	280	120	190	13	5.2	7.5	23	11	16	>1000	170	530
3	130	66	89	20	13	17	28	12	15	>1000	110	200
4	83	42	55	20	9.2	13	52	10	14	300	80	160
5	52	27	35	12	3.9	6.7	20	9.5	13	390	67	170
6	34	19	24	7.4	2.5	4.7	25	8.2	10	>1000	120	450
7	41	17	20	9.0	4.0	5.0	25	9.1	11	>1000	250	520
8	30	15	20	7.9	4.6	5.8	11	6.0	8.4	---	---	---
9	63	14	18	51	6.2	19	8.0	5.0	6.7	850	120	250
10	34	17	21	43	19	28	20	6.0	8.1	410	81	150
11	34	18	21	23	9.1	14	10	6.0	7.2	150	56	83
12	24	16	20	15	4.8	7.7	10	6.0	6.9	280	55	84
13	30	16	19	12	4.4	6.1	32	6.0	22	>1000	240	530
14	34	15	18	16	4.0	7.0	98	18	46	---	---	---
15	28	14	17	990	5.5	74	86	44	62	---	---	---
16	21	14	16	990	200	420	53	44	48	---	---	---
17	24	15	17	210	110	150	55	48	51	---	---	---
18	26	14	17	230	77	100	60	51	54	390	200	240
19	23	14	16	500	62	180	150	52	66	>100	180	390
20	180	16	32	810	260	460	420	88	170	>1000	170	360
21	310	82	160	260	100	150	>1000	84	280	>1000	160	330
22	84	48	60	110	60	80	>1000	180	470	---	---	---
23	62	41	50	70	39	48	>1000	120	180	260	120	170
24	56	45	49	47	28	34	>1000	86	140	210	86	130
25	64	38	46	290	24	41	>1000	180	310	---	---	---
26	45	19	32	950	230	560	180	120	140	---	---	---
27	26	11	17	260	96	140	---	---	---	220	82	120
28	17	7.1	10	98	56	73	---	---	---	>1000	82	310
29	---	---	---	57	38	46	960	120	380	---	---	---
30	---	---	---	52	24	33	890	46	170	---	---	---
31	---	---	---	32	18	24	---	---	---	---	---	---
MONTH	800	7.1	54	990	2.5	89	---	---	---	---	---	---

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	87	40	45	81	31	47	87	39	58	120	67	82
2	87	44	51	96	43	59	81	34	53	110	61	81
3	71	46	54	100	28	72	79	32	51	100	40	72
4	170	45	76	110	30	55	94	32	52	94	32	56
5	210	61	110	64	30	44	81	33	55	91	56	67
6	---	---	---	55	31	39	74	37	54	100	49	64
7	---	---	---	97	39	69	94	35	55	74	47	57
8	120	73	91	---	---	---	99	41	61	70	52	60
9	88	34	53	32	9.0	16	100	43	64	76	38	58
10	---	---	---	21	12	15	140	41	82	89	49	60
11	29	6.0	16	990	13	64	140	42	66	92	44	50
12	55	5.5	19	990	11	49	74	42	56	80	55	64
13	150	1.1	21	24	11	16	72	37	55	97	33	66
14	39	5.7	13	990	14	83	67	36	50	78	58	65
15	25	6.3	14	33	15	24	74	35	51	110	50	68
16	27	9.9	16	44	15	25	77	46	57	68	16	43
17	24	10	15	41	17	27	100	52	70	37	5.0	16
18	---	---	---	43	21	30	130	52	80	33	2.0	14
19	63	3.7	12	980	9.0	130	78	34	50	21	2.0	7.6
20	41	1.4	13	380	63	180	83	33	46	140	7.0	50
21	22	6.0	13	64	35	52	72	31	44	98	15	40
22	34	6.6	12	68	34	44	---	---	---	42	12	20
23	34	8.4	15	64	35	46	---	---	---	54	18	24
24	33	9.8	17	59	38	45	82	33	43	34	10	24
25	990	13	160	52	30	41	76	28	41	43	16	30
26	590	78	210	77	30	42	88	33	50	40	13	31
27	230	48	90	58	30	41	91	40	53	990	28	450
28	350	56	140	260	32	62	110	45	56	270	120	170
29	110	39	72	530	34	85	120	52	69	130	75	110
30	160	29	75	470	54	120	140	57	74	110	52	85
31	---	---	---	94	39	61	140	58	76	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	990	2.0	69

03238772 FOUR MILE CREEK AT POPLAR RIDGE ROAD NEAR ALEXANDRIA, KY

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 2001 to current year.

COOPERATION.--Northern Kentucky Sanitation District No. 1.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 2001 to current year.
pH: April 2001 to current year.
WATER TEMPERATURES: April 2001 to current year.
DISSOLVED OXYGEN: April 2001 to current year.
TURBIDITY: April 2001 to current year.

INSTRUMENTATION.--Water-quality monitor with telemetry.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 2600 microsiemens, Jan. 7, 2002; minimum recorded, 82 microsiemens, April 21, 2002.
pH.--Maximum recorded, 8.5 units, Mar. 24, 30, April 1-5, 2002; minimum recorded, 7.0 units, Aug. 19-21, 2002.
WATER TEMPERATURES: Maximum recorded, 26.9°C, July 5, 2002; minimum recorded, 0.0°C, several days in 2001 and 2002.
DISSOLVED OXYGEN: Maximum recorded, 18.0 mg/L, Feb. 24, 2002; minimum recorded, 1.7 mg/L, Aug. 19, 2002.
TURBIDITY: Maximum recorded, <1000 NTU, several days in 2002; minimum recorded, 1.0 NTU, Oct. 3, 2001.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 2600 microsiemens, Jan. 7, 2002; minimum recorded, 82 microsiemens, April 21, 2002.
pH: Maximum recorded, 8.5 units, Mar. 24, 30, April 1-5, 2002; minimum recorded, 7.0 units, Aug. 19-21, 2002
WATER TEMPERATURES: Maximum recorded, 26.9'C, July 5, 2002; minimum recorded, 0.0'C, several days in 2001 and 2002.
DISSOLVED OXYGEN: Maximum recorded, 18.0 mg/L, Feb. 24, 2002; minimum recorded, 1.7 mg/L, Aug. 19, 2002.
TURBIDITY: Maximum recorded, <1000 NTU, several days in 2002; minimum recorded, 1.0 NTU, October 3, 2001.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	820	800	809	531	444	514	543	452	522	618	568	597
2	836	814	822	562	422	526	576	542	568	610	556	588
3	847	829	836	600	527	569	573	541	562	600	555	579
4	---	---	---	562	398	511	566	530	552	596	552	575
5	---	---	---	551	420	516	567	450	517	588	552	571
6	864	574	639	541	500	531	529	244	405	2080	559	906
7	656	593	627	542	527	536	529	417	490	---	---	---
8	697	649	669	554	534	545	566	466	511	2530	1600	1990
9	736	697	710	625	548	590	679	555	633	1710	1220	1380
10	773	733	745	739	618	684	737	675	714	1550	752	1280
11	803	746	781	814	730	792	766	731	751	806	744	781
12	813	263	527	828	804	817	795	757	775	875	805	838
13	643	523	603	838	816	829	771	570	632	880	851	864
14	649	206	374	849	832	840	716	308	524	885	868	875
15	392	333	367	859	834	849	658	497	597	881	843	857
16	401	226	315	872	847	858	704	131	545	874	857	867
17	404	314	371	872	853	863	299	173	232	872	844	859
18	623	360	515	875	856	865	501	241	403	862	842	852
19	631	617	622	899	823	864	572	501	540	1350	832	893
20	631	621	625	861	714	769	578	566	571	1530	1230	1400
21	676	624	647	739	703	716	583	572	578	1540	1170	1380
22	763	675	726	799	735	772	590	576	582	1170	980	1070
23	841	183	671	836	766	813	594	267	422	980	948	965
24	418	168	298	873	392	835	555	481	529	1440	115	464
25	498	240	401	571	278	443	576	555	565	602	502	563
26	532	494	523	614	553	590	588	570	579	628	601	618
27	534	448	525	677	175	402	590	574	581	640	589	633
28	533	494	528	540	239	413	590	566	582	655	602	645
29	531	494	520	355	179	284	625	575	591	671	535	659
30	531	482	518	486	231	362	682	595	628	908	238	529
31	527	471	512	---	---	---	679	589	626	656	448	583
MONTH	---	---	---	899	175	650	795	131	558	---	---	---

03238772 FOUR MILE CREEK AT POPLAR RIDGE ROAD NEAR ALEXANDRIA, KY--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	661	231	461	883	856	871	635	588	616	510	182	443
2	638	556	606	1550	841	996	637	586	612	512	199	395
3	666	637	653	1450	820	893	642	598	620	550	512	538
4	671	648	661	909	837	889	622	574	601	571	541	557
5	658	633	645	914	883	903	628	572	603	579	540	563
6	670	646	655	893	863	881	623	569	601	636	201	449
7	674	660	668	928	891	910	625	569	604	482	115	344
8	673	649	661	936	918	925	634	574	610	539	188	340
9	659	645	654	1030	861	933	766	589	679	504	324	451
10	811	653	704	894	845	865	765	711	743	535	504	525
11	781	652	690	955	888	919	763	706	731	555	531	547
12	770	685	720	1000	944	966	769	707	738	598	551	565
13	812	766	798	1030	989	1000	778	477	599	572	93	207
14	825	797	811	1030	995	1010	710	467	600	471	329	414
15	822	797	807	1020	458	969	668	531	629	525	467	504
16	816	797	806	583	369	478	729	631	693	---	---	---
17	817	796	804	649	583	621	779	396	655	---	---	---
18	816	782	805	651	635	643	690	411	595	451	148	360
19	820	798	808	682	373	563	813	186	610	519	451	494
20	883	803	837	491	335	404	589	310	501	540	519	532
21	906	829	858	604	491	551	633	82	378	548	518	536
22	840	817	829	629	602	611	478	210	391	539	506	528
23	836	787	820	645	622	633	521	478	506	532	491	518
24	819	793	809	649	626	639	579	509	538	530	487	513
25	815	797	804	661	484	637	523	405	465	527	484	511
26	871	783	813	508	146	310	559	523	546	534	487	512
27	888	865	877	584	464	540	641	210	502	521	490	510
28	898	869	880	626	582	604	---	---	---	557	273	452
29	---	---	---	639	610	626	457	383	430	490	145	383
30	---	---	---	655	575	628	470	453	465	477	341	443
31	---	---	---	634	605	622	---	---	---	503	398	487
MONTH	906	231	748	1550	146	743	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	488	398	466	418	405	412	591	562	569	560	555	558
2	506	472	495	418	410	414	592	576	584	564	558	562
3	487	467	479	414	403	410	606	583	593	566	560	563
4	483	467	476	410	399	404	610	598	604	573	565	569
5	499	462	488	410	398	404	605	598	602	574	562	566
6	557	102	342	408	395	402	605	592	600	568	563	566
7	481	380	453	400	390	396	623	596	603	575	568	573
8	502	481	495	---	---	---	626	615	620	598	574	589
9	500	485	492	---	---	---	615	603	607	593	582	588
10	497	480	489	---	---	---	603	590	594	584	577	580
11	492	477	483	---	---	---	614	589	596	583	575	579
12	503	480	491	---	---	---	615	601	608	581	573	577
13	497	471	485	---	---	---	601	584	591	581	573	576
14	565	463	487	---	---	---	590	580	585	585	575	579
15	469	460	465	---	---	---	581	574	578	878	372	523
16	521	457	488	---	---	---	577	561	570	515	419	470
17	465	442	452	589	581	585	563	553	560	545	514	528
18	449	437	443	614	582	595	670	550	572	597	545	565
19	438	426	435	629	211	544	829	670	762	602	439	580
20	430	422	427	459	289	416	734	709	723	704	518	660
21	425	417	422	501	440	466	709	670	687	622	462	567
22	420	412	417	546	501	523	670	621	646	684	622	642
23	415	408	413	569	536	548	621	581	603	733	684	710
24	412	405	409	602	519	560	583	558	570	754	733	743
25	460	376	410	636	602	616	564	550	556	770	754	764
26	429	333	403	660	634	643	568	555	564	814	583	742
27	420	395	416	673	659	664	555	543	550	583	191	380
28	526	396	453	685	669	672	558	544	552	535	491	525
29	424	408	417	715	627	683	554	548	552	519	484	498
30	412	405	408	681	480	519	554	546	551	487	477	483
31	---	---	---	562	508	530	559	549	553	---	---	---
MONTH	565	102	450	---	---	---	829	543	597	878	191	580

03238772 FOUR MILE CREEK AT POPLAR RIDGE ROAD NEAR ALEXANDRIA, KY--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.6	7.6	7.6	7.9	7.8	7.8	7.9	7.8	7.8	8.1	7.9	8.0
2	7.6	7.5	7.5	7.9	7.7	7.7	8.0	7.8	7.9	8.1	7.8	7.9
3	7.5	7.4	7.5	8.0	7.7	7.9	8.1	7.9	8.0	8.0	7.9	7.9
4	---	---	---	8.0	7.9	7.9	8.1	7.9	8.0	8.0	7.9	7.9
5	---	---	---	8.0	7.9	7.9	8.2	7.8	7.9	8.1	7.9	8.0
6	7.5	7.2	7.3	8.2	7.9	8.0	8.0	7.7	7.9	8.0	7.9	7.9
7	7.2	7.1	7.1	8.2	8.0	8.1	8.1	7.8	7.9	8.0	7.8	7.9
8	7.2	7.1	7.1	8.3	8.0	8.2	8.0	7.9	7.9	7.9	7.7	7.8
9	7.2	7.1	7.1	8.3	8.0	8.1	8.1	7.9	8.0	7.9	7.8	7.8
10	7.2	7.1	7.1	8.1	7.9	8.0	8.1	7.9	8.0	8.1	7.7	7.9
11	7.2	7.1	7.1	8.1	8.0	8.0	8.1	8.0	8.0	8.1	7.8	8.0
12	7.5	7.1	7.2	8.1	8.0	8.1	8.1	7.9	8.0	8.0	7.8	7.9
13	7.4	7.3	7.3	8.1	8.0	8.1	8.0	7.8	7.9	8.0	7.8	7.9
14	7.5	7.3	7.4	8.0	7.9	8.0	8.0	7.7	7.8	8.0	7.8	7.9
15	7.5	7.4	7.5	8.0	7.9	8.0	8.0	7.8	7.9	8.0	7.9	8.0
16	7.6	7.4	7.5	8.0	7.9	8.0	8.1	7.6	7.9	8.0	7.8	7.9
17	7.6	7.5	7.5	8.0	7.9	7.9	7.8	7.6	7.7	7.9	7.8	7.9
18	7.6	7.5	7.6	8.0	7.9	8.0	7.8	7.6	7.7	7.9	7.9	7.9
19	7.7	7.5	7.6	8.0	7.9	7.9	8.0	7.8	7.9	7.9	7.8	7.9
20	7.7	7.5	7.6	8.1	8.0	8.1	8.1	7.9	8.0	7.9	7.8	7.8
21	7.7	7.5	7.6	8.0	7.9	8.0	8.1	8.0	8.0	7.8	7.7	7.7
22	7.5	7.4	7.4	8.0	7.9	8.0	8.1	7.9	8.0	7.9	7.7	7.8
23	7.7	7.4	7.5	8.0	7.9	8.0	8.0	7.8	7.9	8.0	7.9	7.9
24	7.6	7.3	7.4	8.1	7.9	8.0	8.1	7.9	8.0	7.9	7.5	7.6
25	7.5	7.4	7.5	8.0	7.8	7.9	8.1	7.9	8.0	7.8	7.5	7.7
26	7.6	7.5	7.5	8.2	7.9	8.0	8.1	8.0	8.0	7.9	7.7	7.8
27	7.7	7.5	7.6	8.1	7.7	7.8	8.2	8.0	8.1	8.0	7.7	7.9
28	7.7	7.7	7.7	7.9	7.7	7.8	8.1	7.9	8.0	8.1	7.8	7.9
29	7.8	7.7	7.7	7.8	7.7	7.7	8.1	8.0	8.0	8.0	7.8	7.9
30	7.8	7.7	7.7	7.8	7.6	7.7	8.1	8.0	8.0	7.9	7.6	7.8
31	7.9	7.7	7.8	---	---	---	8.1	7.9	8.0	8.0	7.8	7.9
MONTH	---	---	---	8.3	7.6	8.0	8.2	7.6	7.9	8.1	7.5	7.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.0	7.7	7.8	8.0	7.9	7.9	8.5	7.9	8.2	8.0	7.7	7.9
2	8.2	7.9	8.0	8.0	7.7	7.9	8.5	7.9	8.2	7.9	7.6	7.8
3	8.2	7.9	8.0	8.1	7.7	7.9	8.5	7.9	8.2	8.1	7.8	7.9
4	8.3	8.0	8.1	8.0	7.6	7.8	8.5	7.8	8.1	8.2	7.8	8.0
5	8.3	8.0	8.1	8.0	7.8	7.9	8.5	7.8	8.2	8.2	7.7	7.9
6	8.3	8.0	8.1	8.0	7.8	7.9	8.4	7.8	8.2	8.0	7.5	7.7
7	8.4	8.1	8.2	7.9	7.7	7.8	8.4	7.8	8.1	7.7	7.5	7.5
8	8.4	8.1	8.2	7.9	7.7	7.8	8.3	7.7	8.0	7.7	7.3	7.5
9	8.4	8.1	8.2	7.9	7.6	7.7	8.1	7.7	7.9	7.7	7.4	7.6
10	8.2	8.0	8.1	8.1	7.7	7.9	7.9	7.8	7.9	7.8	7.6	7.7
11	8.3	7.9	8.1	8.1	7.9	8.0	7.9	7.8	7.8	7.8	7.6	7.7
12	8.2	8.0	8.1	8.1	7.8	8.0	7.8	7.6	7.7	7.8	7.6	7.7
13	8.2	8.0	8.1	8.0	7.8	7.9	7.9	7.6	7.8	7.7	7.4	7.5
14	8.2	8.0	8.1	8.0	7.8	7.9	7.9	7.6	7.7	7.7	7.5	7.6
15	8.2	8.0	8.1	7.9	7.7	7.8	8.0	7.6	7.8	7.9	7.6	7.7
16	8.1	7.9	8.0	7.8	7.6	7.7	7.8	7.5	7.7	---	---	---
17	8.1	7.9	8.0	8.0	7.7	7.8	7.8	7.4	7.6	---	---	---
18	8.1	8.0	8.0	8.2	7.8	8.0	7.8	7.4	7.6	7.7	7.4	7.5
19	8.1	7.9	8.0	8.1	7.6	7.8	7.8	7.4	7.6	7.9	7.6	7.7
20	8.1	7.9	8.0	7.7	7.6	7.6	7.9	7.4	7.6	8.0	7.6	7.8
21	8.0	7.8	7.9	8.1	7.7	7.9	7.9	7.5	7.6	8.1	7.6	7.8
22	8.1	7.9	8.0	8.4	8.0	8.1	7.6	7.4	7.5	8.2	7.6	7.8
23	8.1	7.9	8.0	8.4	8.0	8.2	7.7	7.6	7.7	8.2	7.6	7.8
24	8.0	7.9	7.9	8.5	8.0	8.2	7.8	7.6	7.7	8.3	7.5	7.9
25	8.0	7.9	7.9	8.2	8.0	8.1	7.8	7.6	7.7	8.3	7.5	7.8
26	8.1	7.7	7.9	8.0	7.6	7.8	7.9	7.7	7.8	8.2	7.5	7.8
27	8.0	7.9	8.0	8.2	7.8	8.0	7.9	7.6	7.8	8.0	7.4	7.7
28	8.0	7.9	7.9	8.3	7.9	8.0	7.8	7.6	7.6	7.9	7.3	7.5
29	---	---	---	8.4	7.9	8.1	7.8	7.6	7.7	7.7	7.2	7.3
30	---	---	---	8.5	7.9	8.1	7.9	7.8	7.8	7.8	7.2	7.5
31	---	---	---	8.4	7.9	8.1	---	---	---	7.9	7.4	7.6
MONTH	8.4	7.7	8.0	8.5	7.6	7.9	8.5	7.4	7.8	---	---	---

03238772 FOUR MILE CREEK AT POPLAR RIDGE ROAD NEAR ALEXANDRIA, KY--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.8	7.3	7.5	7.9	7.6	7.7	7.4	7.3	7.4	7.7	7.5	7.6
2	8.0	7.4	7.7	7.8	7.5	7.6	7.5	7.4	7.4	7.7	7.5	7.6
3	8.0	7.6	7.8	7.8	7.5	7.6	7.5	7.4	7.4	7.7	7.5	7.6
4	7.9	7.5	7.7	7.8	7.5	7.6	7.5	7.3	7.4	7.7	7.5	7.6
5	8.0	7.6	7.7	7.7	7.5	7.6	7.5	7.3	7.4	7.7	7.6	7.6
6	7.7	7.5	7.6	7.7	7.4	7.6	7.5	7.3	7.4	7.7	7.6	7.6
7	7.8	7.5	7.7	7.7	7.5	7.6	7.5	7.4	7.4	7.7	7.6	7.6
8	7.9	7.8	7.8	---	---	---	7.5	7.3	7.4	7.7	7.6	7.6
9	7.9	7.8	7.8	---	---	---	7.5	7.4	7.4	7.7	7.6	7.6
10	8.1	7.8	7.9	---	---	---	7.5	7.4	7.4	7.8	7.6	7.6
11	8.1	7.9	8.0	---	---	---	7.5	7.3	7.4	7.7	7.6	7.6
12	8.1	7.9	8.0	---	---	---	7.4	7.3	7.3	7.8	7.6	7.7
13	8.2	7.9	8.0	---	---	---	7.4	7.3	7.3	7.8	7.7	7.7
14	8.0	7.9	8.0	---	---	---	7.4	7.3	7.3	7.7	7.6	7.7
15	8.1	7.9	8.0	---	---	---	7.4	7.2	7.3	7.6	7.4	7.6
16	8.1	8.0	8.0	---	---	---	7.3	7.2	7.2	7.4	7.3	7.3
17	8.2	8.0	8.1	7.3	7.3	7.3	7.3	7.2	7.2	7.6	7.2	7.4
18	8.1	7.9	8.0	7.4	7.3	7.3	7.2	7.2	7.2	7.7	7.6	7.6
19	8.1	7.8	8.0	7.6	7.3	7.3	7.3	7.0	7.1	7.8	7.5	7.6
20	8.1	7.8	7.9	7.6	7.3	7.4	7.1	7.0	7.0	7.8	7.5	7.6
21	8.1	7.8	7.9	7.6	7.4	7.5	7.4	7.0	7.2	7.8	7.6	7.7
22	8.1	7.8	7.9	7.6	7.3	7.4	7.6	7.4	7.4	7.6	7.4	7.5
23	8.0	7.7	7.9	7.5	7.3	7.4	7.6	7.4	7.5	7.5	7.4	7.5
24	8.0	7.7	7.8	7.4	7.3	7.3	7.7	7.3	7.5	7.5	7.4	7.5
25	8.0	7.7	7.8	7.4	7.3	7.3	7.8	7.3	7.5	7.5	7.4	7.5
26	7.9	7.6	7.7	7.4	7.3	7.4	7.7	7.5	7.6	7.7	7.4	7.5
27	7.9	7.6	7.8	7.4	7.3	7.4	7.7	7.5	7.6	7.7	7.6	7.6
28	7.9	7.6	7.7	7.5	7.4	7.4	7.6	7.5	7.5	7.7	7.6	7.6
29	7.9	7.6	7.7	7.8	7.4	7.5	7.7	7.5	7.6	7.6	7.5	7.6
30	7.9	7.6	7.7	7.8	7.5	7.6	7.7	7.5	7.6	7.6	7.5	7.5
31	---	---	---	7.6	7.3	7.4	7.7	7.5	7.6	---	---	---
MONTH	8.2	7.3	7.8	---	---	---	7.8	7.0	7.4	7.8	7.2	7.6

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	13.9	10.8	12.3	12.5	9.0	10.9	9.8	7.9	9.2	0.5	0.0	0.0
2	16.1	12.2	13.7	13.5	11.8	12.7	9.5	7.0	8.0	0.4	0.0	0.0
3	15.8	13.4	14.6	13.2	10.2	11.5	9.1	5.5	7.3	0.5	0.0	0.0
4	---	---	---	11.4	8.3	10	10.5	8.1	9.2	0.5	0.0	0.0
5	---	---	---	10.6	7.8	9.2	11.2	8.2	9.5	0.4	0.0	0.0
6	15.2	12.4	13.5	9.0	6.0	7.6	10.1	8.9	9.6	0.2	0.0	0.0
7	12.4	9.4	10.5	9.0	5.8	7.4	10.6	8.8	9.7	0.9	0.1	0.3
8	11.6	8.7	9.9	10.2	6.2	8.2	9.5	8.6	9.0	0.6	0.0	0.2
9	12.8	9.1	10.7	10.0	8.0	9.0	8.9	6.3	7.9	1.7	0.0	0.6
10	13.9	10.3	11.7	9.1	5.7	7.5	6.3	3.8	5.2	1.7	0.5	1.0
11	15.3	12.8	13.8	8.4	6.2	7.2	6.4	4.3	5.3	2.9	0.8	1.8
12	17.0	14.7	16.0	7.2	4.6	6.0	7.8	4.6	5.8	2.5	0.1	1.3
13	18.4	16.1	17.2	7.1	4.2	5.7	10.5	7.8	9.5	2.9	0.8	1.8
14	18.4	15.1	17.1	8.3	5.1	6.6	11.3	9.3	10.2	3.8	1.3	2.5
15	15.1	12.3	13.8	9.1	5.9	7.3	9.5	8.4	8.9	3.7	1.9	3.1
16	13.7	11.2	12.3	10.4	6.9	8.3	8.9	7.5	8.1	2.1	0.7	1.4
17	12.0	9.4	10.7	10.7	8.2	9.2	10.6	8.9	9.7	2.8	1.6	2.2
18	11.4	7.8	9.7	11.0	8.5	9.7	9.5	6.9	8.7	2.7	0.8	1.6
19	12.3	8.8	10.6	10.3	9.0	9.6	7.5	5.2	6.4	1.4	0.7	1.1
20	14.2	10.7	12.4	9.4	6.5	7.4	6.2	3.9	4.9	0.8	0.0	0.4
21	15.8	11.5	13.4	6.5	4.4	5.4	4.9	2.2	3.6	1.8	0.5	0.9
22	15.6	12.1	13.7	6.2	3.8	5.1	6.0	2.1	3.9	2.5	0.3	1.2
23	16.6	13.7	15.0	7.7	4.8	6.0	6.9	4.7	6.2	5.5	2.1	3.6
24	17.4	15.0	16.1	12.4	7.5	9.3	4.7	2.8	3.6	7.5	5.0	6.6
25	15.9	11.8	13.6	12.2	9.2	10.8	2.8	0.9	1.8	5.4	2.4	3.9
26	11.8	8.8	9.9	9.3	6.8	8.2	1.2	0.0	0.6	4.9	1.1	2.9
27	9.0	7.7	8.4	12.2	9.3	10.9	1.8	0.3	0.9	5.4	1.3	3.3
28	10.0	7.1	8.6	10.8	9.0	9.4	2.8	0.7	1.6	8.0	2.4	5.0
29	10.0	6.3	8.3	11.6	9.2	10.6	2.1	0.5	1.3	10.3	7.6	8.7
30	11.4	9.0	10.2	11.8	9.5	10.8	0.8	0.0	0.2	10.3	8.3	9.4
31	12.0	8.9	10.6	---	---	---	0.5	0.0	0.1	10.8	8.3	9.4
MONTH	---	---	---	13.5	3.8	8.6	11.3	0.0	6.0	10.8	0.0	2.4

03238772 FOUR MILE CREEK AT POPLAR RIDGE ROAD NEAR ALEXANDRIA, KY--Continued

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.0	5.8	8.6	4.0	0.9	2.3	12.2	6.1	9.1	17.2	12.9	14.9
2	6.1	3.3	4.8	5.4	2.8	3.7	13.9	8.1	11.1	16.2	14.0	15.5
3	6.4	3.4	4.7	5.6	2.1	4.1	13.0	7.6	9.6	16.5	10.9	13.5
4	5.0	1.8	3.5	2.6	0.5	1.4	9.1	5.0	7.3	17.9	11.5	14.1
5	3.2	0.3	1.6	4.0	0.5	1.9	10.9	5.6	8.4	19.1	11.9	15.0
6	2.7	0.8	1.7	8.2	2.1	4.4	10.8	6.3	8.8	17.2	13.1	14.3
7	6.1	2.5	3.9	10.9	5.9	7.8	11.9	5.3	8.7	19.3	14.5	16.6
8	5.9	1.3	3.6	12.7	7.5	9.7	14.2	10.5	12.3	18.7	15.0	16.6
9	6.5	1.7	4.1	11.3	6.5	10.0	15.3	13.6	14.3	18.7	15.8	17.1
10	6.0	3.7	4.9	7.4	3.1	5.1	17.1	10.6	13.4	17.8	13.1	15.3
11	6.1	3.7	4.9	6.7	2.4	4.4	18.2	10.3	14.0	17.4	12.4	14.8
12	6.2	2.3	4.1	7.8	5.4	6.5	18.6	14.7	16.4	18.4	15.0	16.7
13	6.1	3.2	4.4	11.7	7.3	8.9	17.5	14.3	16.2	17.6	13.7	15.5
14	4.2	1.3	2.6	12.4	6.8	9.5	16.6	14.7	15.6	16.9	12.9	14.6
15	5.5	1.9	3.6	11.9	10.3	11.1	21.8	14.1	17.5	18.6	11.9	14.8
16	5.8	2.6	4.2	10.4	7.0	8.3	23.3	16.5	19.7	---	---	---
17	6.1	3.3	4.3	7.5	6.2	6.8	22.9	18.0	19.8	---	---	---
18	5.5	1.8	3.2	10.5	7.5	8.8	22.7	16.2	19.3	15.2	12.4	13.5
19	4.7	2.5	3.5	9.3	8.1	8.5	23.7	17.8	20.2	15.1	10.1	12.4
20	8.3	4.7	6.5	9.2	8.0	8.6	20.5	16.7	18.3	13.8	11.7	12.7
21	7.7	5.2	6.2	8.9	4.4	7.1	18.6	11.5	14.4	13.6	11.0	12.1
22	5.2	3.0	4.2	7.5	1.9	4.4	14.8	12.0	13.1	16.5	9.2	12.2
23	5.5	1.6	3.0	9.0	1.9	5.1	16.2	9.5	12.5	18.4	10.8	14.1
24	6.1	2.0	3.6	9.2	3.8	6.3	16.8	10.7	13.6	18.9	13.4	15.9
25	8.8	3.4	5.8	8.1	5.3	6.6	16.8	12.2	14.4	20.2	15.5	17.6
26	8.1	2.9	6.2	6.2	4.5	5.3	16.9	10.8	13.5	19.6	15.6	17.6
27	3.0	1.0	1.8	10.0	4.3	6.4	14.9	11.7	12.4	20.0	15.5	17.7
28	3.3	0.7	1.7	8.9	3.6	6.3	19.0	12.2	15.5	19.3	16.3	17.7
29	---	---	---	11.1	6.1	8.5	14.6	11.3	12.6	19.9	16.4	17.6
30	---	---	---	11.4	7.1	9.3	17.2	10.1	13.3	21.5	16.5	18.6
31	---	---	---	9.6	6.8	8.2	---	---	---	22.7	17.0	19.3
MONTH	11.0	0.3	4.1	12.7	0.5	6.6	23.7	5.0	13.8	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	21.7	18.2	19.7	26.1	23.2	24.4	25.3	22.8	24.0	22.6	21.1	21.9
2	21.5	18.8	20.0	26.8	23.7	25.1	25.0	23.3	24.2	22.9	21.4	22.2
3	22.3	17.3	19.5	26.5	23.7	25.0	25.4	23.4	24.4	23.6	21.7	22.6
4	22.0	18.7	20.5	26.8	23.9	25.2	25.4	24.0	24.8	23.6	21.7	22.7
5	22.1	18.7	20.4	26.9	24.4	25.6	25.3	23.8	24.7	21.7	19.7	20.6
6	20.7	17.7	19.0	26.2	22.5	23.8	25.1	22.1	23.6	21.2	19.3	20.3
7	18.8	16.7	17.6	24.5	21.5	23.0	22.1	20.2	20.9	21.6	19.6	20.5
8	21.7	15.8	18.1	---	---	---	20.9	19.2	20.2	22.3	20.6	21.4
9	22.8	17.8	20.0	---	---	---	20.8	18.9	20.0	22.1	20.5	21.4
10	22.6	18.4	20.4	---	---	---	21.5	19.2	20.4	22.1	20.2	21.2
11	21.9	18.4	20.3	---	---	---	22.2	20.4	21.2	22.1	20.1	21.3
12	21.8	19.4	20.6	---	---	---	23.2	21.5	22.3	20.1	18.2	19.0
13	21.6	19.6	20.5	---	---	---	23.1	21.5	22.4	19.5	16.8	18.0
14	20.8	19.2	19.9	---	---	---	23.5	22.6	23.1	21.3	19.4	20.4
15	20.4	17.1	18.7	---	---	---	23.7	23.0	23.4	22.2	19.6	21.5
16	20.7	17.5	19.0	---	---	---	24.0	23.2	23.6	22.0	20.9	21.3
17	20.7	16.2	18.4	22.8	21.2	22.0	23.9	22.9	23.4	20.9	19.5	20.2
18	21.8	17.4	19.3	23.8	21.8	22.8	23.9	23.4	23.7	22.4	20.1	21.0
19	22.7	18.0	20.1	24.1	22.4	23.1	23.5	22.1	22.7	23.3	21.0	21.8
20	23.8	19.6	21.5	25.5	22.2	23.6	22.6	21.4	21.9	23.2	21.8	22.3
21	23.8	20.5	22.1	26.4	23.3	24.6	22.9	20.4	21.6	22.0	20.5	21.2
22	24.1	20.4	22.1	25.7	23.6	24.7	24.0	21.7	22.8	20.7	18.7	19.8
23	24.1	20.2	22.0	25.4	23.9	24.4	24.3	22.7	23.5	18.7	16.2	17.0
24	23.6	21.0	22.3	23.9	22.6	23.3	24.1	23.2	23.6	17.0	14.7	16.0
25	23.6	22.0	22.5	23.4	21.7	22.5	23.7	22.7	23.2	17.4	15.5	16.4
26	24.5	21.0	22.5	23.7	21.9	22.9	23.0	21.7	22.4	17.7	16.2	17.3
27	24.4	22.3	23.3	24.7	22.9	23.7	22.4	21.5	22.0	18.5	17.3	17.9
28	23.9	21.5	22.6	25.3	23.5	24.4	22.0	21.1	21.5	19.0	16.6	17.7
29	24.6	20.9	22.5	25.3	24.2	24.8	21.7	20.6	21.3	18.8	16.2	17.5
30	24.9	21.9	23.2	25.8	23.8	24.7	21.7	20.6	21.2	19.5	16.8	18.1
31	---	---	---	25.1	22.8	23.9	22.1	20.3	21.2	---	---	---
MONTH	24.9	15.8	20.6	---	---	---	25.4	18.9	22.6	23.6	14.7	20.0

03238772 FOUR MILE CREEK AT POPLAR RIDGE ROAD NEAR ALEXANDRIA, KY--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	6.7	6.3	6.6	9.9	9.0	9.4	10.8	6.8	8.1	15.0	14.0	14.6
2	6.7	6.1	6.4	9.1	7.9	8.3	11.3	10.4	10.9	15.3	14.4	14.7
3	6.1	5.2	5.8	10.3	8.1	9.2	11.6	9.6	10.9	15.3	14.3	14.7
4	---	---	---	11.1	9.3	10.2	11.1	9.7	10.3	15.5	14.3	14.9
5	---	---	---	11.5	9.3	10.3	11.5	9.7	10.3	15.6	14.2	14.9
6	7.7	6.6	7.3	11.7	10.5	11.1	10.5	9.9	10.2	15.0	14.0	14.3
7	7.2	6.1	6.5	12.2	9.7	10.9	10.9	9.7	10.2	15.3	14.0	14.5
8	6.8	6.1	6.5	12.0	9.6	10.8	10.3	9.6	10.1	15.9	14.3	15.1
9	6.6	5.9	6.2	10.5	8.5	9.3	10.8	9.6	10.1	15.7	14.2	14.9
10	6.5	5.6	6.0	10.5	8.8	9.7	11.4	9.9	10.7	15.9	13.2	14.8
11	6.2	4.5	5.4	10.6	8.6	9.7	11.2	10.1	10.6	16.0	14.0	14.9
12	9.7	4.0	7.3	10.8	9.2	10.0	10.8	10.0	10.4	16.1	13.9	14.9
13	7.8	5.0	6.6	11.2	9.8	10.5	10.0	8.2	9.0	15.9	13.1	14.5
14	9.3	4.2	7.5	10.9	9.8	10.3	9.2	8.0	8.7	15.3	13.1	14.2
15	8.4	7.2	8.0	10.3	9.3	9.8	10.3	9.1	9.6	15.4	12.2	13.8
16	9.3	7.0	8.3	10.1	9.0	9.5	10.3	9.1	9.6	16.7	13.7	15.0
17	8.8	7.9	8.4	10.0	8.7	9.3	9.8	8.7	9.3	16.3	12.9	14.7
18	8.8	7.6	8.3	9.6	8.6	9.1	9.7	9.2	9.4	16.6	13.7	15.0
19	8.9	7.3	7.8	9.3	8.2	8.7	10.7	9.6	10.1	15.9	13.4	14.8
20	7.8	6.5	7.1	10.2	9.1	9.6	11.6	10.0	10.9	17.2	13.6	15.2
21	7.3	6.2	6.5	10.8	9.6	10.3	12.0	10.8	11.5	16.5	13.3	15.0
22	6.4	5.3	5.8	11.0	10.2	10.6	12.2	10.6	11.6	16.9	13.2	14.5
23	8.9	4.7	5.9	11.2	10.4	10.8	11.3	10.5	10.9	13.3	10.9	12.2
24	9.4	6.9	8.4	11.2	9.5	10.1	12.3	11.0	11.7	11.5	10.0	10.3
25	9.6	8.6	9.1	11.4	9.0	9.4	13.2	11.7	12.5	12.4	10.5	11.4
26	9.8	8.5	9.2	11.7	9.0	10.2	13.7	12.6	13.1	13.2	11.0	12.0
27	10.4	9.1	9.8	12.9	9.6	11.3	13.5	12.6	13.1	13.5	11.1	12.2
28	10.3	9.2	9.8	13.3	11.2	12.3	13.3	12.5	13.0	13.5	10.5	12.0
29	10.7	9.2	10	13.0	8.8	10.6	14.0	12.5	13.3	11.9	9.8	10.7
30	9.8	8.9	9.4	9.8	7.1	8.1	14.7	13.5	14.2	11.6	9.4	10.5
31	10.1	8.9	9.5	---	---	---	14.9	14.0	14.4	11.5	10.4	11.0
MONTH	---	---	---	13.3	7.1	10.0	14.9	6.8	10.9	17.2	9.4	13.7

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.7	10.4	11.2	17.6	14.2	15.7	16.2	10.4	12.6	9.1	7.1	8.1
2	13.6	11.7	12.6	15.1	10.9	13.2	15.9	9.6	12.0	8.6	7.4	8.1
3	13.9	11.8	12.7	16.0	10.8	13.1	15.4	8.7	11.7	10.0	8.1	8.9
4	14.7	11.8	13.2	17.8	11.2	14.2	17.1	10.4	13.1	10.0	7.7	8.7
5	15.5	13.2	14.2	17.8	13.2	15.5	17.1	10.3	13.2	10.4	7.4	8.7
6	15.2	13.1	14.0	16.7	12.1	14.5	16.2	9.8	12.7	9.2	7.1	8.0
7	15.0	12.3	13.6	16.1	10.4	13.2	15.7	10.1	12.5	9.2	7.5	8.1
8	15.6	12.2	13.7	15.7	10.3	12.6	13.4	8.6	10.9	9.3	7.7	8.3
9	15.7	12.2	13.6	11.6	8.8	10.1	11.8	7.7	9.7	8.4	7.9	8.1
10	14.0	11.7	12.5	15.3	10.6	12.7	13.1	8.8	10.3	9.5	8.0	8.8
11	16.0	11.9	13.6	16.0	11.2	13.4	12.0	9.1	10.2	9.6	8.2	8.9
12	15.8	12.4	13.9	14.5	10.4	12.4	10.4	7.7	8.9	8.9	7.8	8.3
13	16.1	11.7	13.8	14.4	9.4	11.7	8.9	7.2	8.1	9.7	7.9	9.1
14	16.7	12.8	14.6	13.9	9.6	11.5	8.7	6.6	7.4	9.5	8.3	9.0
15	16.3	12.7	14.4	11.1	8.4	9.7	10.4	7.1	8.3	9.7	7.6	8.8
16	16.6	12.1	14.3	10.7	8.9	9.4	10.8	6.2	8.0	---	---	---
17	16.9	12.0	14.5	10.1	8.7	9.3	9.9	5.8	7.3	---	---	---
18	17.3	13.2	15.0	10.9	8.1	9.2	9.9	6.1	7.6	9.9	9.0	9.6
19	16.4	12.7	14.5	10.1	7.9	9.0	10.2	5.6	7.5	10.5	8.8	9.6
20	14.7	11.5	13.0	11.8	9.8	11.0	9.1	7.5	8.2	10.4	8.6	9.4
21	14.2	10.5	12.2	12.5	11.0	11.6	10.7	7.4	9.1	11.2	8.8	9.8
22	16.6	11.3	13.6	14.6	11.7	13.0	9.6	8.9	9.2	11.1	8.6	9.7
23	17.9	13.4	15.3	14.6	11.2	12.9	10.2	8.5	9.5	11.2	8.0	9.2
24	18.0	13.3	15.4	15.0	10.7	12.7	9.6	8.0	9.0	10.8	7.3	8.7
25	16.9	13.0	14.8	12.7	10.5	11.3	9.5	8.2	8.9	11.0	6.9	8.6
26	14.8	10.7	13.0	13.1	12.0	12.4	9.6	8.0	8.9	10.9	6.6	8.3
27	17.8	11.9	14.6	14.0	11.3	12.6	10.2	8.0	9.0	10.3	6.9	8.3
28	17.8	14.5	15.9	14.6	11.0	12.6	10.0	7.2	8.4	9.9	6.6	7.5
29	---	---	---	14.7	10.2	12.1	9.0	7.6	8.4	9.0	7.2	7.6
30	---	---	---	15.8	10.2	12.4	8.9	7.2	8.3	9.0	7.0	7.8
31	---	---	---	15.4	10.3	12.4	---	---	---	8.8	6.5	7.4
MONTH	18.0	10.4	13.8	17.8	7.9	12.2	17.1	5.6	9.6	---	---	---

03238772 FOUR MILE CREEK AT POPLAR RIDGE ROAD NEAR ALEXANDRIA, KY--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.5	6.3	7.1	7.0	5.2	6.0	4.1	2.8	3.4	6.0	4.9	5.3
2	8.9	6.3	7.3	6.7	4.9	5.7	4.6	3.2	3.8	5.9	4.9	5.3
3	9.1	6.5	7.6	6.5	4.8	5.6	4.5	2.8	3.6	6.2	4.4	5.4
4	8.4	6.3	7.3	6.6	5.0	5.7	4.2	2.4	3.4	6.2	4.4	5.3
5	8.4	6.6	7.3	6.2	4.3	5.4	4.8	2.8	3.7	6.5	5.3	5.9
6	9.0	6.8	8.0	7.0	5.1	5.8	5.2	3.0	3.9	6.7	5.6	6.1
7	8.8	8.0	8.4	7.3	5.7	6.4	5.1	3.6	4.3	6.8	5.4	6.1
8	8.9	7.5	8.4	---	---	---	6.2	4.4	5.0	6.5	5.4	5.9
9	8.8	7.4	8.1	---	---	---	6.5	4.7	5.3	6.6	5.5	5.9
10	8.8	7.5	8.0	---	---	---	6.3	4.7	5.3	6.8	5.2	5.9
11	8.5	7.4	7.9	---	---	---	6.0	4.1	4.9	6.7	5.0	5.8
12	8.2	7.0	7.6	---	---	---	5.9	4.1	4.6	7.2	5.6	6.4
13	7.9	6.7	7.3	---	---	---	5.9	4.0	4.7	7.7	6.1	6.9
14	7.7	6.7	7.2	---	---	---	5.5	3.7	4.4	6.5	5.0	5.8
15	8.0	6.7	7.3	---	---	---	5.6	3.7	4.4	6.7	3.6	5.5
16	7.8	6.6	7.2	---	---	---	5.9	4.0	4.7	5.2	2.8	3.7
17	8.0	6.5	7.2	5.1	4.1	4.6	6.0	4.2	4.7	3.4	2.6	2.9
18	8.0	6.5	7.2	5.1	3.6	4.4	4.8	3.6	4.3	3.4	2.8	3.1
19	7.8	6.4	7.0	7.8	3.9	5.0	4.9	1.7	3.5	5.3	2.6	3.3
20	7.6	6.0	6.7	6.8	6.0	6.5	3.3	1.9	2.7	5.4	3.1	4.0
21	7.4	5.8	6.5	6.4	5.2	5.8	4.2	2.8	3.5	5.5	4.5	5.1
22	7.5	5.8	6.5	6.1	3.9	5.1	5.0	3.8	4.2	4.5	3.4	3.7
23	7.4	5.6	6.4	5.3	4.0	4.5	4.9	3.8	4.2	4.5	3.5	4.0
24	7.2	5.7	6.4	5.3	3.7	4.2	5.1	3.7	4.5	5.1	4.3	4.8
25	7.4	5.7	6.5	5.2	4.1	4.6	5.6	4.4	4.9	5.7	4.9	5.2
26	7.0	5.9	6.4	5.0	4.2	4.6	6.2	4.7	5.3	7.8	4.4	5.6
27	6.8	5.4	6.0	5.1	4.0	4.5	6.1	5.0	5.3	9.0	6.5	7.9
28	6.8	5.7	6.2	5.0	4.2	4.5	6.1	5.0	5.4	7.3	6.4	6.9
29	7.1	5.7	6.3	6.9	3.9	4.6	6.5	5.2	5.7	7.1	6.3	6.7
30	7.2	5.5	6.2	6.4	4.7	5.2	6.5	5.3	5.7	7.1	6.2	6.6
31	---	---	---	4.7	2.8	3.5	6.2	5.0	5.5	---	---	---
MONTH	9.1	5.4	7.1	---	---	---	6.5	1.7	4.5	9.0	2.6	5.4

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	37	23	27	>1000	840	970	---	---	---	370	21	57
2	31	19	24	>1000	630	850	---	---	---	140	26	80
3	30	1.0	19	>1000	200	820	---	---	---	300	24	86
4	---	---	---	410	110	190	---	---	---	120	35	71
5	---	---	---	590	110	230	87	31	46	88	29	64
6	---	---	---	180	17	50	540	42	140	70	3.0	25
7	52	36	43	25	18	21	240	51	86	29	4.0	11
8	43	36	40	27	20	22	390	62	140	29	3.0	9.3
9	80	37	41	53	22	26	640	49	140	62	5.0	17
10	64	22	45	29	20	23	55	20	34	170	17	71
11	54	22	28	24	16	19	45	10	22	100	26	49
12	>1000	31	180	22	15	17	36	4.0	9.7	120	13	21
13	150	44	63	19	15	16	130	35	76	28	10	14
14	>1000	48	190	27	14	16	350	29	120	15	8.0	10
15	86	56	70	21	16	18	91	27	48	15	7.0	10
16	510	64	120	21	17	18	---	---	---	9.0	5.0	7.2
17	92	35	54	24	18	19	---	---	---	8.0	4.0	6.2
18	86	51	64	24	18	21	170	73	94	7.0	4.0	5.8
19	130	59	87	110	20	25	73	48	57	8.0	5.0	6.0
20	220	80	130	65	40	44	52	33	40	12	6.0	6.9
21	330	120	230	70	37	42	360	26	57	12	5.0	6.9
22	340	230	300	73	31	35	30	22	26	---	---	---
23	880	200	330	56	27	31	360	26	140	---	---	---
24	940	140	270	>1000	20	62	94	15	39	---	---	---
25	400	170	250	>1000	91	260	320	5.0	41	120	58	88
26	560	210	440	130	70	83	150	8.0	28	75	28	41
27	570	390	520	930	79	260	320	15	55	37	24	30
28	670	400	560	>1000	150	270	140	5.0	27	34	22	27
29	760	390	550	>1000	160	390	490	7.0	60	38	22	27
30	900	500	710	---	---	---	420	5.0	45	990	25	200
31	>1000	680	830	---	---	---	360	32	74	140	70	87
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

03238772 FOUR MILE CREEK AT POPLAR RIDGE ROAD NEAR ALEXANDRIA, KY--Continued

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	>1000	71	230	43	11	13	970	440	890	>1000	26	130
2	98	45	63	86	13	34	970	240	920	430	61	150
3	52	33	41	150	46	79	970	480	930	66	28	45
4	170	29	54	130	28	49	970	700	950	150	21	36
5	43	28	35	29	17	20	960	440	900	150	18	28
6	39	27	30	23	17	20	960	360	720	>1000	26	180
7	36	25	30	28	18	21	450	5.0	170	>1000	69	200
8	39	25	31	23	19	20	47	4.0	21	---	---	---
9	40	23	31	250	21	91	37	19	29	450	53	110
10	210	25	66	160	42	80	54	21	30	370	54	100
11	96	29	56	43	25	32	92	12	27	210	14	44
12	34	14	22	29	24	26	150	15	30	170	10	28
13	19	9.1	13	31	23	26	610	19	180	990	68	610
14	15	6.4	8.6	30	25	28	550	39	140	980	43	390
15	15	5.6	8.1	>1000	14	97	120	35	63	280	39	70
16	12	4.8	9.1	>1000	120	320	170	25	41	---	---	---
17	9.9	5.9	7.6	130	67	88	690	9.0	160	---	---	---
18	36	5.2	7.8	81	70	75	510	54	140	540	140	280
19	9.5	4.5	6.0	530	78	190	>1000	14	120	710	160	320
20	37	6.6	22	760	130	310	320	62	130	690	450	550
21	37	17	28	290	43	70	>1000	13	280	990	490	690
22	19	11	15	140	22	44	520	190	270	990	530	830
23	13	8.4	11	130	13	31	220	160	190	760	280	560
24	13	9.6	11	30	11	19	440	140	180	610	140	360
25	23	12	15	980	14	85	480	98	190	370	22	88
26	25	14	21	980	160	590	110	74	93	140	15	28
27	130	14	31	980	230	730	>1000	73	180	160	12	40
28	120	11	19	980	23	160	---	---	---	980	22	220
29	---	---	---	980	27	450	97	61	74	>1000	19	170
30	---	---	---	980	26	300	82	54	62	280	31	73
31	---	---	---	970	180	840	---	---	---	570	18	81
MONTH	>1000	4.5	33	>1000	11	160	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	420	34	130	23	13	16	---	---	---	12	7.0	8.1
2	51	25	36	21	13	17	---	---	---	10	7.0	8.2
3	170	25	37	21	11	16	---	---	---	11	7.0	8.0
4	180	30	47	21	12	15	---	---	---	9.0	7.0	8.2
5	99	38	51	21	13	17	---	---	---	9.0	7.0	8.2
6	>1000	82	400	24	14	19	---	---	---	9.0	7.0	8.2
7	860	620	740	27	15	21	---	---	---	19	8.0	8.7
8	630	24	310	---	---	---	---	---	---	10	8.0	8.9
9	160	19	32	---	---	---	---	---	---	11	8.0	9.1
10	49	21	28	---	---	---	8.5	8.3	8.4	10	8.0	9.4
11	59	18	31	---	---	---	8.3	8.1	8.2	22	9.0	10
12	39	16	26	---	---	---	8.1	7.9	8.0	12	9.0	10
13	110	17	34	---	---	---	7.9	7.6	7.7	15	10	11
14	240	31	78	---	---	---	26	7.4	7.8	13	11	12
15	39	18	28	---	---	---	---	---	---	240	12	74
16	170	14	32	---	---	---	---	---	---	94	25	58
17	33	12	22	---	---	---	---	---	---	25	5.0	13
18	33	12	20	---	---	---	---	---	---	16	7.0	9.4
19	30	11	19	---	---	---	---	---	---	320	6.3	34
20	170	14	34	680	110	270	---	---	---	460	40	180
21	28	11	19	120	30	65	---	---	---	320	96	170
22	29	8.7	19	120	18	33	9.0	4.0	5.3	99	39	71
23	33	8.1	18	30	14	19	11	5.0	6.3	120	21	33
24	31	8.6	18	24	8.7	13	7.0	5.0	6.3	140	15	27
25	360	11	49	18	8.8	11	8.0	5.0	6.4	170	8.6	20
26	360	16	96	18	8.5	10	8.0	6.0	6.4	220	8.4	27
27	29	14	21	17	9.3	10	11	6.0	6.8	990	20	330
28	65	18	41	19	9.9	10	8.0	6.0	6.8	250	53	76
29	33	13	22	300	11	25	8.0	6.0	7.2	140	45	58
30	24	11	17	400	130	220	8.0	6.0	7.3	54	33	45
31	---	---	---	140	39	79	9.0	6.0	7.4	---	---	---
MONTH	1000	8.1	82	---	---	---	---	---	---	990	5.0	45

03248300 LICKING RIVER BELOW MASON FORK NEAR SALYERSVILLE, KY

LOCATION.--Lat 37°45'50", long 83°03'29", Magoffin County, Hydrologic Unit 05100101, on left bank downstream side of bridge on State Highway 1090, 0.9 mi southeast of Salyersville, 2.2 mi us of Burning Fork and at mile 272.2.

DRAINAGE AREA.--107 mi^2

PERIOD OF RECORD.--October 2001 to current year.

GAGE.--Water-stage recorder. Datum of gage is 840 ft above NGVD of 1929 (from topographic map).

REMARKS.--Records fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	8.8	17	e17	60	28	1580	206	26	15	23	9.8
2	5.4	7.7	15	e16	64	30	490	510	25	15	20	8.9
3	5.2	7.6	15	e15	56	50	315	2580	29	18	19	8.3
4	4.8	9.3	13	e14	51	49	226	974	26	16	17	8.3
5	4.6	9.0	13	e14	43	39	178	425	22	13	17	8.0
6	5.3	8.5	13	e13	39	36	147	273	46	12	16	7.3
7	5.9	7.5	13	15	40	35	121	575	56	12	15	7.1
8	6.0	6.3	15	15	41	33	108	804	31	11	14	6.8
9	5.8	5.3	24	16	37	33	98	481	25	10	14	6.0
10	6.0	5.9	25	19	35	34	91	455	22	10	14	4.6
11	5.8	5.9	27	64	38	32	79	268	21	9.9	14	4.3
12	5.6	8.7	29	102	38	32	75	176	20	9.6	14	4.5
13	6.0	6.7	23	57	36	34	74	605	22	210	13	4.5
14	6.6	6.6	30	38	35	34	79	1320	41	208	13	4.4
15	7.8	5.8	41	31	34	33	96	451	29	45	13	5.0
16	13	4.6	29	26	35	215	91	250	26	25	17	6.3
17	12	4.4	24	24	34	373	83	184	22	19	14	6.2
18	11	4.3	27	23	32	815	76	1470	20	20	14	5.2
19	9.7	4.3	27	24	31	875	66	517	19	247	13	4.8
20	8.8	4.5	22	26	32	1860	76	254	18	438	13	5.0
21	8.1	4.9	19	32	40	1560	117	166	17	92	13	5.3
22	7.0	6.0	17	52	35	428	448	122	16	40	12	7.8
23	6.5	14	17	174	33	268	285	94	16	27	11	11
24	6.8	8.5	18	462	32	197	170	76	15	29	9.8	11
25	19	30	19	573	30	157	365	62	15	35	11	6.7
26	18	32	32	220	31	237	269	51	15	73	10	9.2
27	17	22	e27	125	32	343	184	43	16	41	40	46
28	17	18	e23	87	29	241	636	38	17	27	19	31
29	14	17	e20	69	---	194	555	34	17	23	14	18
30	11	16	e19	63	---	520	296	31	18	31	13	14
31	9.7	---	e18	62	---	822	---	28	---	40	11	---
TOTAL	275.0	300.1	671	2488	1073	9637	7474	13523	708	1821.5	470.8	285.3
MEAN	8.871	10.00	21.65	80.26	38.32	310.9	249.1	436.2	23.60	58.76	15.19	9.510
MAX	19	32	41	573	64	1860	1580	2580	56	438	40	46
CFSM	0.08	0.09	0.20	0.75	0.36	2.91	2.33	4.08	0.22	0.55	0.14	0.09
IN.	0.10	0.10	0.23	0.86	0.37	3.35	2.60	4.70	0.25	0.63	0.16	0.10

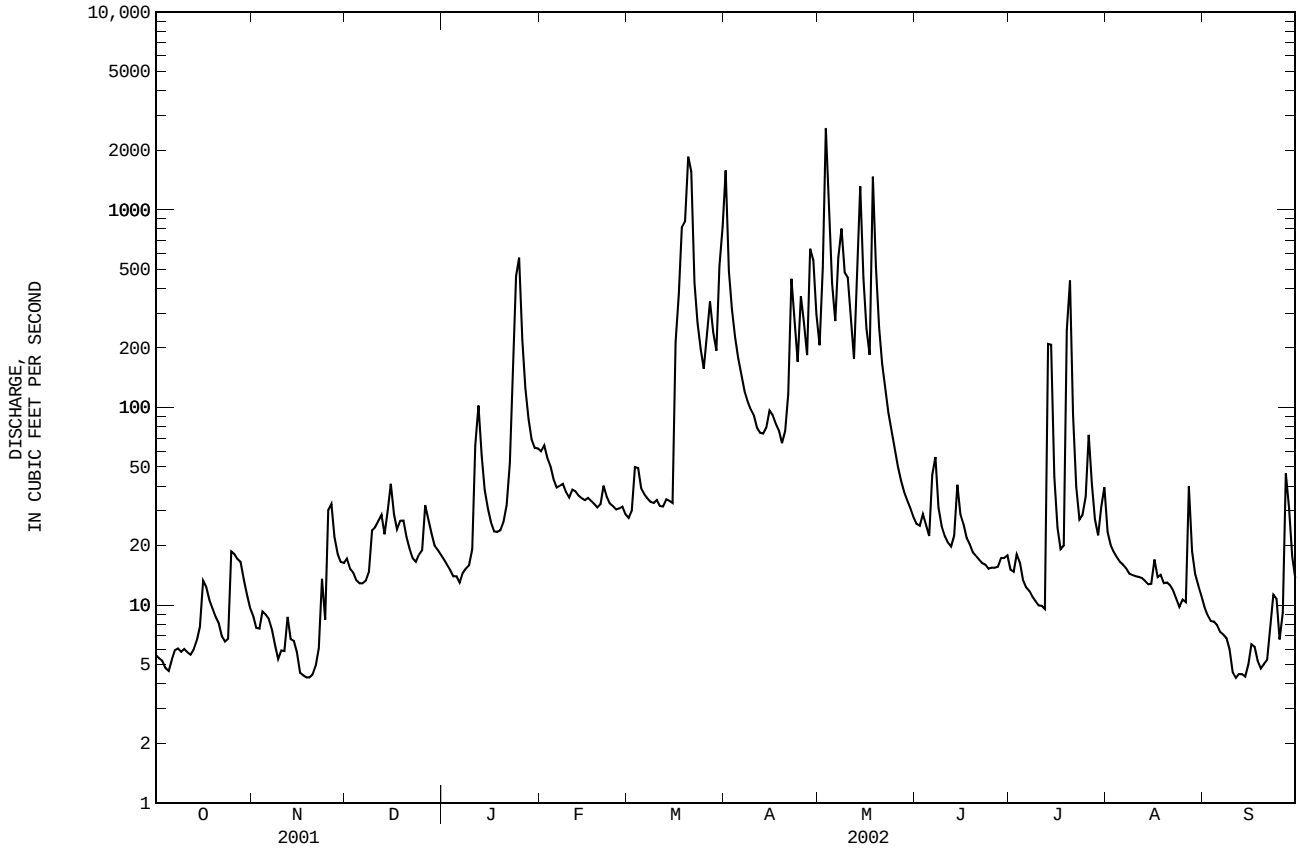
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2002, BY WATER YEAR (WY)

MEAN	8.871	10.00	21.65	80.26	38.32	310.9	249.1	219.8	13.72	31.27	9.240	6.233
MAX	8.87	10.0	21.6	80.3	38.3	311	249	436	23.6	58.8	15.2	9.51
(WY)	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002

03248300 LICKING RIVER BELOW MASON FORK NEAR SALYERSVILLE, KY--Continued

SUMMARY STATISTICS	FOR 2002 WATER YEAR		WATER YEARS 2001 - 2002	
ANNUAL TOTAL	38726.7			
ANNUAL MEAN	106.1		106.1	
HIGHEST ANNUAL MEAN			106	2002
HIGHEST DAILY MEAN	2580	May 3	2580	May 3 2002
LOWEST DAILY MEAN	4.3	Nov 18	2.7	Sep 19 2001
ANNUAL SEVEN-DAY MINIMUM	4.7	Nov 15	2.8	Sep 13 2001
MAXIMUM PEAK FLOW	2970	May 3	2970	May 3 2002
MAXIMUM PEAK STAGE	14.92	May 3	14.92	May 3 2002
ANNUAL RUNOFF (CFSM)	0.99		0.99	
ANNUAL RUNOFF (INCHES)	13.46		13.47	
10 PERCENT EXCEEDS	268		268	
50 PERCENT EXCEEDS	24		24	
90 PERCENT EXCEEDS	6.3		6.3	

e Estimated



03250190 SLATE CREEK AT HIGHWAY 713 NEAR MOUNT STERLING, KY

LOCATION.--Lat 38°01'26", long 83°49'54", Montgomery County, Hydrologic Unit 05100101, on right downstream side of bridge on Highway 713, 0.2 mi below Greenbrier Creek, 1.0 mi above Town Branch, 6.4 mi east of Mount Sterling, and at mile 43.2.

DRAINAGE AREA.--84.5 mi^2

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

GAGE.--Water-stage recorder with telemetry. Datum of gage is 800 ft above NGVD of 1929 (from topographic map).

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

COOPERATION.--City of Mount Sterling.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	31	82	e22	110	28	436	155	13	4.1	1.5	0.91
2	8.9	31	44	e19	118	29	213	1380	12	2.7	1.2	0.62
3	2.2	32	31	e18	86	52	146	633	10	8.9	0.97	6.5
4	0.38	34	24	e19	71	50	111	247	9.9	12	0.78	28
5	e0.20	34	21	e22	53	39	90	161	7.0	4.9	2.8	30
6	e1.0	33	24	e23	48	37	78	477	15	2.7	19	27
7	e2.0	34	193	e24	47	32	67	595	48	1.9	21	3.9
8	e3.5	43	193	24	41	30	59	342	19	1.6	17	1.1
9	e5.0	59	201	21	36	31	91	303	13	4.3	1.4	6.6
10	e4.4	59	88	54	35	40	126	218	8.9	5.6	0.56	36
11	6.0	49	60	307	37	34	83	127	6.3	2.6	0.60	43
12	9.3	18	45	188	32	33	70	92	5.5	1.7	7.4	42
13	15	11	159	116	30	32	61	556	25	1.6	26	9.2
14	33	2.6	225	86	26	30	53	380	32	4.5	29	2.6
15	43	2.1	150	72	25	44	59	161	19	6.4	30	1.5
16	42	2.0	85	57	25	1080	50	105	13	6.2	26	6.2
17	48	1.9	90	49	23	500	44	204	8.4	15	3.4	46
18	45	1.8	236	35	21	679	37	1780	5.9	9.5	1.6	54
19	51	1.8	131	38	21	1180	30	326	3.9	1.8	8.4	51
20	65	2.2	86	38	24	6610	28	190	2.8	13	31	12
21	61	10	76	40	74	1310	52	139	2.2	6.2	26	4.9
22	51	29	63	117	47	337	313	101	1.8	4.1	1.5	2.3
23	21	22	106	516	35	222	96	75	1.5	13	0.00	1.6
24	26	3.3	194	1030	30	173	59	56	1.3	9.2	0.00	1.2
25	37	7.3	104	422	28	141	339	39	2.6	3.9	0.00	0.94
26	31	11	71	202	31	898	133	33	13	2.7	10	2.0
27	33	17	e46	140	e35	489	98	29	7.1	4.2	28	100
28	33	15	e38	109	e28	216	1250	25	13	5.2	28	86
29	32	98	e32	93	---	199	382	26	13	3.9	28	28
30	40	193	e28	84	---	852	176	21	8.1	3.4	24	20
31	37	---	e24	72	---	446	---	17	---	2.1	2.7	---
TOTAL	825.88	888.0	2950	4057	1217	15873	4830	8993	341.2	168.9	377.81	655.07
MEAN	26.64	29.60	95.16	130.9	43.46	512.0	161.0	290.1	11.37	5.448	12.19	21.84
MAX	65	193	236	1030	118	6610	1250	1780	48	15	31	100
MIN	0.20	1.8	21	18	21	28	28	17	1.3	1.6	0.00	0.62

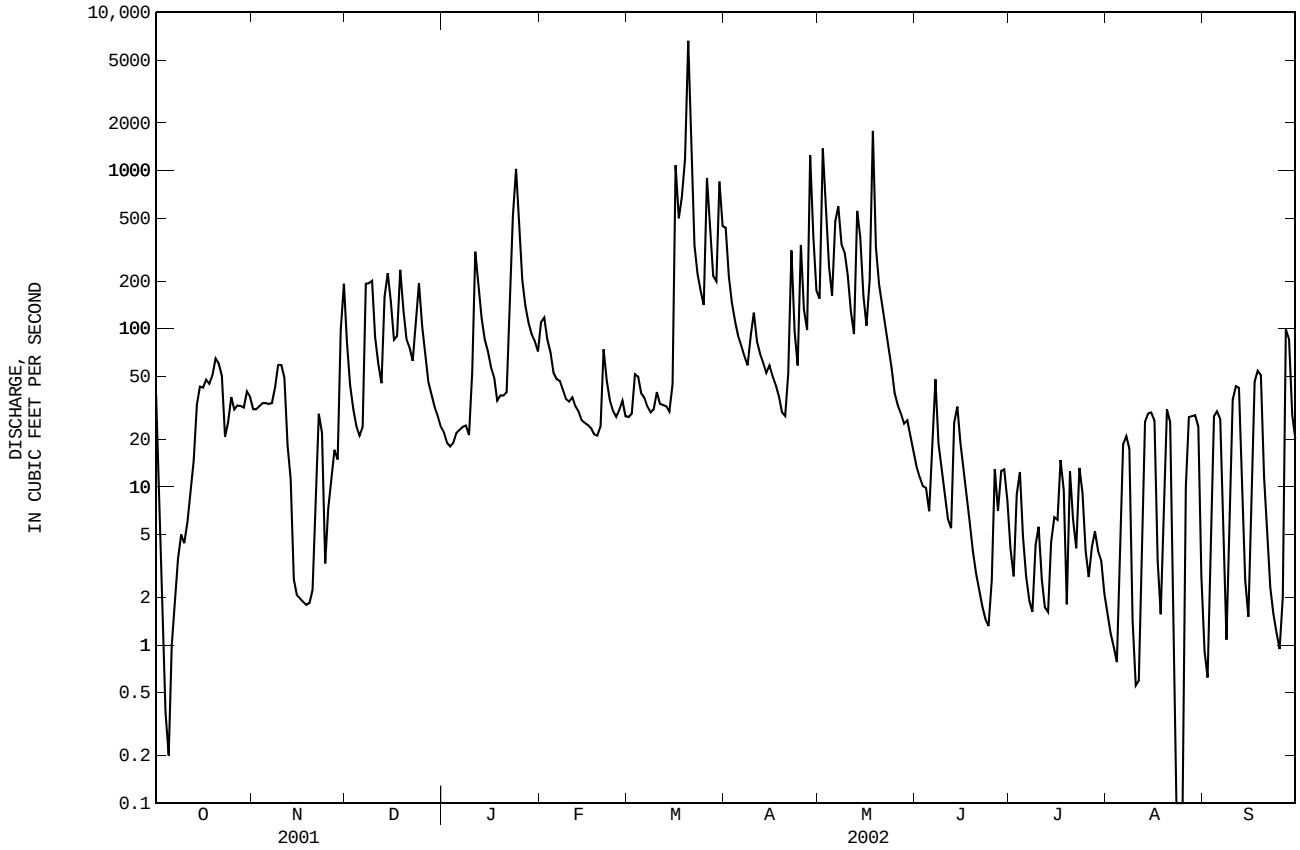
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2002, BY WATER YEAR (WY)

MEAN	15.45	19.24	84.83	98.01	119.0	270.6	126.8	127.6	28.78	83.89	35.94	12.72
MAX	26.6	29.6	95.2	131	195	512	169	290	61.1	215	48.4	21.8
(WY)	2002	2002	2002	2002	2001	2002	2000	2002	2001	2001	2000	2002
MIN	4.26	8.88	74.5	65.1	43.5	135	50.7	3.11	11.4	5.45	12.2	5.30
(WY)	2001	2001	2001	2001	2002	2000	2001	2000	2002	2002	2002	2001

03250190 SLATE CREEK AT HIGHWAY 713 NEAR MOUNT STERLING, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 2000 - 2002	
ANNUAL TOTAL	31676.57		41176.86			
ANNUAL MEAN	86.79		112.8		97.12	
HIGHEST ANNUAL MEAN					113	2002
LOWEST ANNUAL MEAN					81.4	2001
HIGHEST DAILY MEAN	1590	Jul 29	6610	Mar 20	6610	Mar 20 2002
LOWEST DAILY MEAN	0.00	Aug 29	0.00	Aug 23	0.00	Sep 22 2000
ANNUAL SEVEN-DAY MINIMUM	0.90	Sep 7	1.8	Jul 30	0.25	Sep 5 2000
MAXIMUM PEAK FLOW			9380	Mar 20	9380	Mar 20 2002
MAXIMUM PEAK STAGE			22.65	Mar 20	22.65	Mar 20 2002
10 PERCENT EXCEEDS	205		214		210	
50 PERCENT EXCEEDS	34		31		28	
90 PERCENT EXCEEDS	2.2		2.1		1.4	

e Estimated



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 mi^2

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

GAGE.--Water-stage recorder. Datum of gage is 694.94 ft above NGVD of 1929.

REMARKS.--Records poor.

COOPERATION.--Kentucky Natural Resources and Environmental Protection Cabinet.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.03	0.05	0.64	0.26	e1.4	e0.21	e1.8	e1.7	e0.22	e0.07	0.36	e0.12
2	0.03	0.04	0.31	0.25	e0.98	e0.31	e1.4	e2.4	e0.17	e0.03	0.22	e0.10
3	0.03	0.04	0.20	0.25	e0.79	e0.38	e1.3	e1.9	e0.14	e0.01	0.06	e0.08
4	0.03	0.04	0.14	0.24	e0.66	e0.43	e1.1	e1.3	e0.11	e0.00	0.07	e0.05
5	0.03	0.04	0.11	0.22	e0.55	e0.37	e0.96	e1.1	e0.09	e0.00	0.06	e0.02
6	0.05	0.03	0.11	0.21	e0.50	e0.27	e0.87	e4.7	e0.77	e0.00	0.06	e0.00
7	0.05	0.03	0.34	0.21	e0.51	e0.25	e0.79	e4.6	e0.37	e0.00	0.06	e0.00
8	0.05	0.03	1.8	0.24	e0.44	e0.23	e0.73	e2.8	e0.20	e0.00	0.06	e0.00
9	0.05	0.03	1.2	0.86	e0.40	e0.34	e0.81	e2.3	e0.14	e0.00	0.02	e0.00
10	0.05	0.03	0.55	5.8	e0.46	e0.26	e0.72	e1.5	e0.09	e0.05	0.02	e0.00
11	0.06	0.03	0.36	11	e0.42	e0.27	e0.67	e1.1	e0.07	e0.05	0.02	e0.00
12	0.04	0.03	0.28	3.4	e0.43	e0.27	e0.64	e0.84	e0.11	e0.03	0.03	e0.00
13	0.04	0.03	1.5	1.8	e0.38	e0.26	e0.63	e6.9	e0.07	e2.2	e0.02	e0.00
14	0.05	0.03	3.9	1.2	e0.34	e0.25	e1.5	e2.8	e0.40	e0.57	e0.00	e0.00
15	0.06	0.03	1.9	0.89	e0.31	e0.43	e1.6	e1.4	e0.28	e0.17	e0.00	e0.98
16	0.05	0.03	1.1	0.71	e0.29	e7.2	e1.0	e1.0	e0.12	e0.08	e0.00	e0.33
17	0.05	0.03	2.3	0.61	e0.26	e4.2	e0.82	e6.1	e0.06	e0.04	e0.10	0.02
18	0.04	0.03	10	e0.50	e0.24	e4.7	e0.71	e12	e0.03	e0.03	e0.41	0.03
19	0.04	0.03	2.9	e0.38	e0.23	e15	e0.64	e2.3	e0.02	e0.50	e0.97	0.02
20	0.03	0.03	1.6	e0.31	e0.31	e14	e0.60	e1.3	e0.01	e0.22	e0.49	0.02
21	0.03	0.03	1.0	e0.51	e0.24	e6.5	e3.0	e1.0	e0.00	e0.08	e0.37	0.03
22	0.03	0.03	0.82	e1.1	e0.22	e3.2	e3.7	e0.81	e0.00	e0.03	e0.28	0.03
23	0.03	0.03	0.77	e2.3	e0.22	e2.1	e1.6	e0.67	e0.00	e0.00	e0.74	0.03
24	0.04	0.03	1.1	e7.8	e0.20	e1.8	e1.3	e0.56	e0.00	e0.00	e0.55	0.03
25	0.05	0.06	0.89	e2.4	e0.19	e1.5	e3.0	e0.49	e0.38	e0.00	e0.29	0.03
26	0.06	0.07	0.68	e1.4	e0.30	e8.5	e1.5	e0.42	e0.31	e0.02	e0.44	0.12
27	0.05	0.15	0.55	e1.1	e0.19	e3.2	e1.9	e0.36	e0.07	0.25	e0.70	3.6
28	0.05	0.29	0.45	e0.88	e0.20	e2.2	e21	e0.41	e1.6	0.30	e0.35	0.70
29	0.05	0.43	0.37	e0.77	---	e2.0	e3.1	e0.71	e0.33	0.47	e0.28	0.27
30	0.04	1.3	0.30	e0.75	---	e1.9	e2.0	e0.35	e0.14	0.47	e0.21	0.15
31	0.05	---	0.28	e0.73	---	e1.9	---	e0.26	---	0.39	e0.15	---
TOTAL	1.34	3.08	38.45	49.08	11.66	84.43	61.39	66.08	6.30	6.06	7.39	6.76
MEAN	0.043	0.103	1.240	1.583	0.416	2.724	2.046	2.132	0.210	0.195	0.238	0.225
MAX	0.06	1.3	10	11	1.4	15	21	12	1.6	2.2	0.97	3.6
MIN	0.03	0.03	0.11	0.21	0.19	0.21	0.60	0.26	0.00	0.00	0.00	0.00

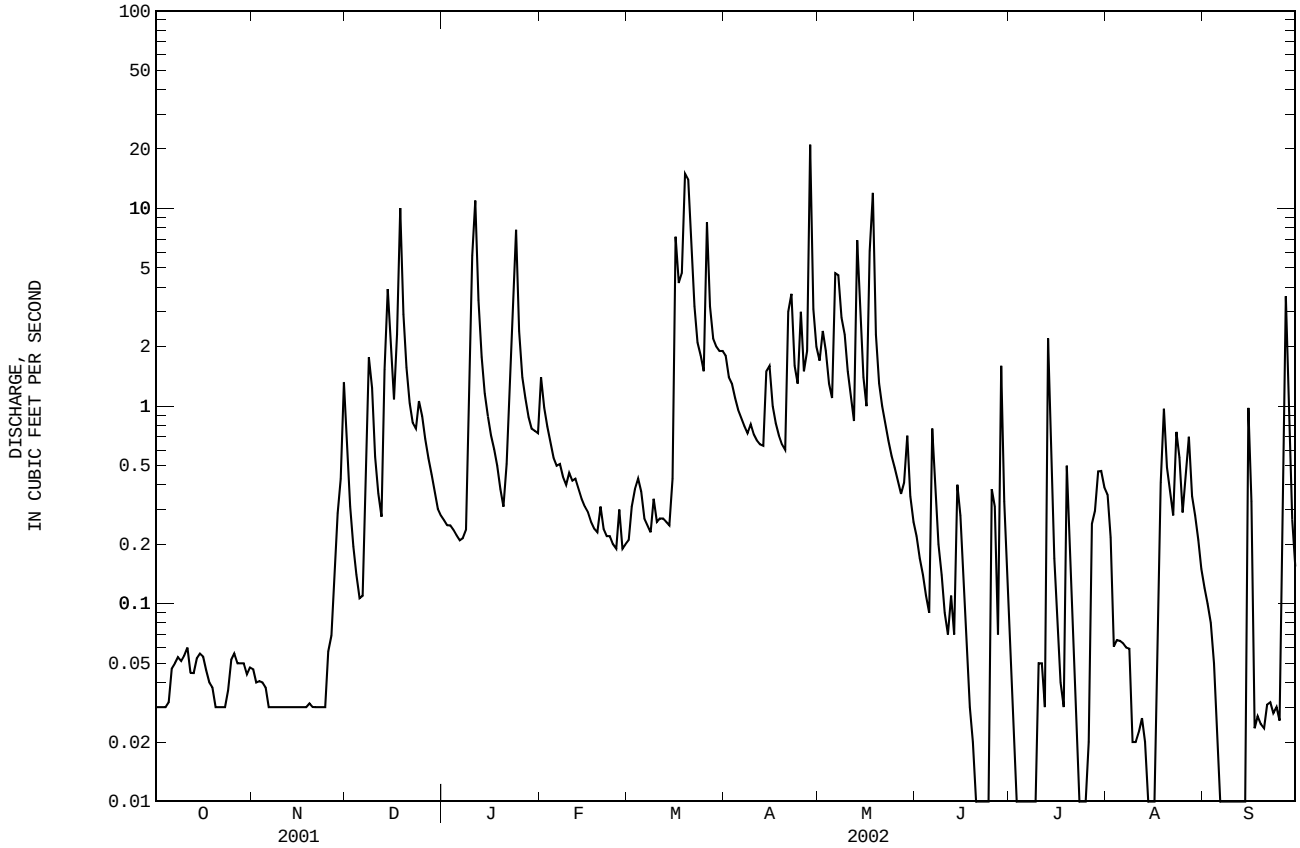
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2002, BY WATER YEAR (WY)

MEAN	0.045	0.247	1.070	1.986	3.888	3.487	1.850	1.446	1.219	2.080	0.441	0.242
MAX	0.13	0.92	2.80	3.42	11.4	8.93	4.05	3.45	4.29	10.4	1.16	1.06
(WY)	1997	1997	1997	1998	2000	1997	1998	1998	1997	2001	2001	1996
MIN	0.009	0.037	0.31	0.29	0.42	2.07	0.49	0.14	0.046	0.003	0.005	0.000
(WY)	1998	1999	1998	2000	2002	1998	1999	1999	2000	1999	1999	1999

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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1996 - 2002	
ANNUAL TOTAL	663.73		342.02			
ANNUAL MEAN	1.818		0.937		1.468	
HIGHEST ANNUAL MEAN					2.24	1997
LOWEST ANNUAL MEAN					0.65	1999
HIGHEST DAILY MEAN	227	Jul 9	21	Apr 28	227	Jul 9 2001
LOWEST DAILY MEAN	0.00	May 5	0.00	Jun 21	0.00	Sep 15 1997
ANNUAL SEVEN-DAY MINIMUM	0.00	May 5	0.00	Sep 6	0.00	Sep 15 1997
MAXIMUM PEAK FLOW			24	Jan 11	916	Jul 8 2001
MAXIMUM PEAK STAGE			1.59	Jan 11	6.51	Jul 8 2001
10 PERCENT EXCEEDS	2.8		2.2		2.7	
50 PERCENT EXCEEDS	0.24		0.28		0.27	
90 PERCENT EXCEEDS	0.00		0.02		0.00	

e Estimated



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 mi^2

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

REVISIONS.--Maximum discharge for the water year 1997 and period of record has been revised to 1320 ft^3/s, Mar. 2, 1997.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 645.451 ft above NGVD of 1929.

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

COOPERATION.--Kentucky Natural Resources and Environmental Protection Cabinet.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 20	1500	*530	*7.64	Apr 28	0445	488	7.40

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.04	3.9	e0.30	6.6	0.68	8.6	8.1	0.74	0.20	0.00	0.37
2	0.00	0.04	2.6	e0.23	4.3	1.1	6.7	12	0.55	0.08	0.00	0.28
3	0.00	0.13	1.9	e0.20	3.3	1.4	5.7	9.3	0.43	0.02	0.00	0.21
4	0.00	0.06	1.4	e0.16	2.7	1.6	4.8	6.1	0.34	0.00	0.00	0.13
5	0.00	0.00	1.1	e0.13	2.2	1.3	4.2	4.9	0.27	0.00	0.00	0.05
6	1.1	0.00	2.4	e0.85	1.9	0.94	3.7	27	3.2	0.00	0.00	0.00
7	0.01	0.00	3.3	e0.67	2.0	0.84	3.3	26	1.4	0.00	0.00	0.00
8	0.00	0.00	7.8	e1.8	1.7	0.77	3.0	15	0.66	0.00	0.00	0.00
9	0.00	0.00	6.2	e3.6	1.5	1.2	3.4	12	0.42	0.00	0.00	0.00
10	0.00	0.00	3.9	8.6	1.7	0.90	3.0	7.2	0.26	0.14	0.00	0.00
11	0.00	0.00	2.8	17	1.6	0.94	2.8	4.7	0.18	0.11	0.00	0.00
12	0.67	0.00	2.3	7.6	1.6	0.95	2.6	3.6	0.32	0.00	0.00	0.00
13	0.97	0.00	6.8	5.0	1.4	0.90	2.5	43	0.19	11	0.00	0.00
14	2.3	0.00	8.6	3.6	1.2	0.84	6.9	15	1.5	2.2	0.00	0.00
15	0.49	0.00	5.5	2.8	1.1	1.6	7.7	6.6	0.97	0.56	0.00	4.3
16	0.61	0.00	3.8	2.2	1.0	45	4.4	4.4	0.35	0.22	0.00	1.2
17	0.16	0.00	5.4	1.9	0.89	24	3.4	37	0.16	0.09	0.00	0.61
18	0.07	0.00	14	e1.6	0.80	27	2.9	80	0.08	0.08	1.6	0.36
19	0.04	0.03	5.5	e1.4	0.77	105	2.6	12	0.05	1.9	4.2	0.24
20	0.02	1.1	3.6	e1.1	1.1	e96	2.4	6.1	0.02	0.72	1.9	0.17
21	0.00	0.07	2.6	e2.0	0.84	e40	16	4.4	0.00	0.22	1.4	3.5
22	0.00	0.0	2.0	4.8	0.73	17	20	3.4	0.00	0.08	1.00	0.70
23	0.00	0.00	2.6	12	0.72	11	7.7	2.8	0.00	0.00	3.1	0.36
24	1.3	0.0	e1.9	50	0.67	8.7	6.0	2.2	0.00	0.00	2.2	0.22
25	1.7	2.7	e1.4	12	0.61	7.2	16	1.9	1.4	0.00	1.0	0.17
26	0.24	0.39	e1.1	6.7	1.0	55	7.2	1.6	1.1	0.05	1.6	9.0
27	0.15	3.2	e0.79	4.8	0.62	17	9.6	1.3	0.20	0.14	2.9	15
28	0.11	2.7	e0.61	3.8	0.67	11	157	1.5	7.4	0.04	1.3	4.0
29	0.12	4.3	e0.50	3.2	---	9.9	16	2.9	1.2	0.00	0.97	1.8
30	0.09	7.0	e0.40	3.1	---	9.6	9.9	1.3	0.42	0.16	0.70	1.0
31	0.07	---	e0.35	3.0	---	9.1	---	0.91	---	0.00	0.47	---
TOTAL	10.22	21.76	107.05	166.14	45.22	508.46	350.0	364.21	23.81	18.01	24.34	43.67
MEAN	0.330	0.725	3.453	5.359	1.615	16.40	11.67	11.75	0.794	0.581	0.785	1.456
MAX	2.3	7.0	14	50	6.6	105	157	80	7.4	11	4.2	15
MIN	0.00	0.00	0.35	0.13	0.61	0.68	2.4	0.91	0.00	0.00	0.00	0.00

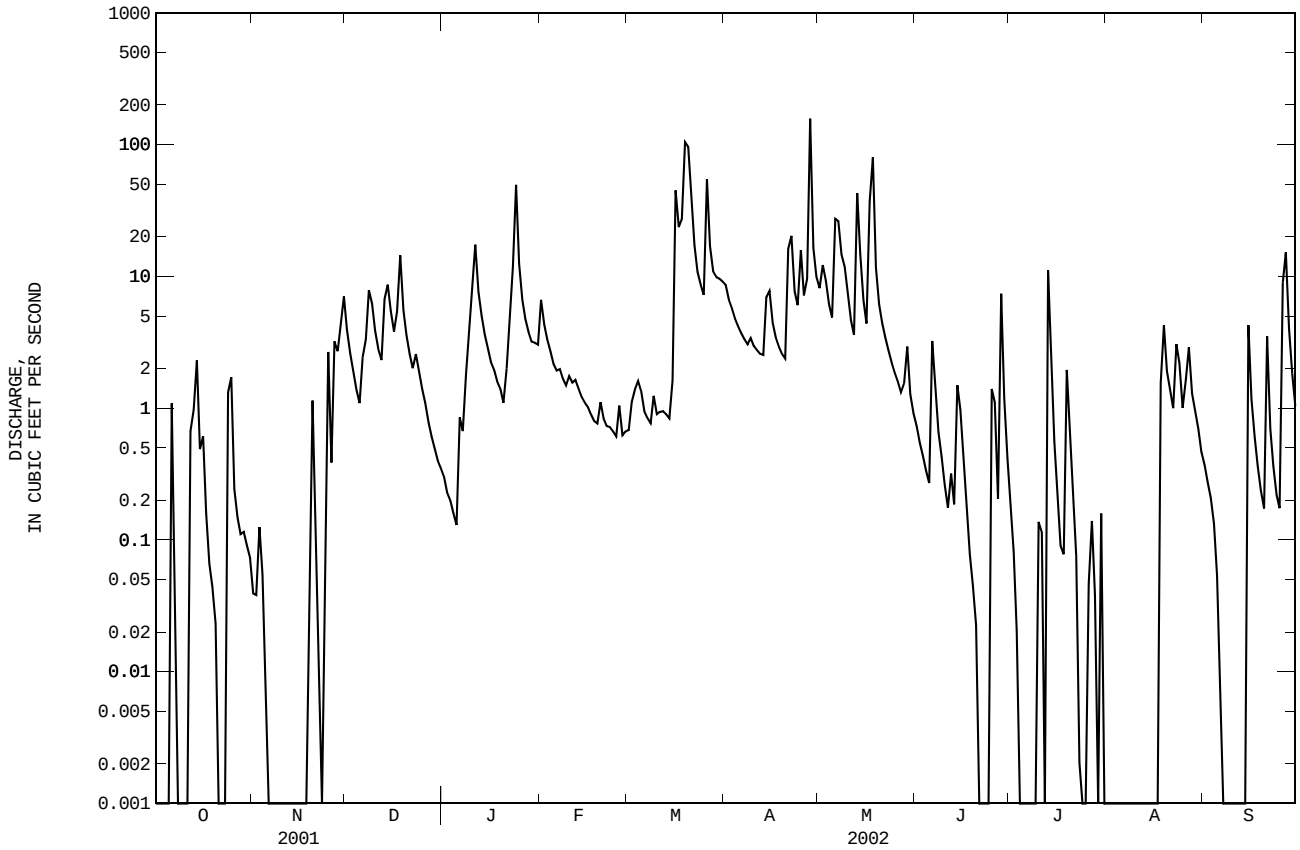
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2002, BY WATER YEAR (WY)

MEAN	0.211	1.183	3.881	8.097	10.91	10.77	6.872	5.997	4.523	5.015	2.138	0.535
MAX	0.33	4.79	10.0	14.9	28.6	17.5	16.2	13.9	15.3	20.2	9.53	1.46
(WY)	2002	1997	1997	1998	2000	1997	1998	1998	1997	2001	2001	2002
MIN	0.027	0.14	0.61	0.88	1.62	5.77	1.39	0.31	0.11	0.000	0.054	0.000
(WY)	2000	2000	2000	2000	2002	2000	1999	1999	1999	1999	1999	1999

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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1997 - 2002	
ANNUAL TOTAL	2055.01		1682.89			
ANNUAL MEAN	5.630		4.611		4.984	
HIGHEST ANNUAL MEAN					6.55	1998
LOWEST ANNUAL MEAN					2.65	1999
HIGHEST DAILY MEAN	215	Jul 8	157	Apr 28	505	Feb 19 2000
LOWEST DAILY MEAN	0.00	Jun 28	0.00	Oct 1	0.00	Sep 21 1997
ANNUAL SEVEN-DAY MINIMUM	0.00	Sep 12	0.00	Nov 5	0.00	Sep 21 1997
MAXIMUM PEAK FLOW			530	Mar 20	3190	Jul 8 2001
MAXIMUM PEAK STAGE			7.64	Mar 20	10.71	Mar 2 1997
10 PERCENT EXCEEDS	9.0		9.6		9.4	
50 PERCENT EXCEEDS	1.6		1.1		1.0	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

e Estimated



03250500 LICKING RIVER NEAR BLUE LICK SPRINGS, KY

LOCATION.--Lat 38°25'13", long 83°59'50", Nicholas County, Hydrologic Unit 05100101, at bridge on Highway 68, 1.3 mi upstream from Indian Run, 10 mi upstream from Johnson Creek, 10 mi downstream from Fleming Creek and at mile 97.6.

DRAINAGE AREA.--1785 mi^2

PERIOD OF RECORD.--April 1938 to September 1959 and October 2001 to current year.

GAGE.--Water-stage recorder with telemetry and crest-stage gage. Datum of gage is 560.99 ft above NGVD of 1929. Gage operated from April 1938 to September 1959 500 ft downstream at same datum.

REMARKS.--Records good except for those estimated which are fair. Flow regulated by Cane Run Lake since December 1973.

COOPERATION.--National Streamflow Information Program.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 35,900 ft^3/s April 13, 1948, maximum stage 45.0 ft April 13, 1948 from flood mark.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of January 1937 reached a stage of 47.4 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	264	265	1690	347	4030	612	6750	5580	4250	601	304	85
2	268	238	1290	e310	2750	606	6160	5100	4180	387	318	82
3	281	227	910	e280	2550	641	5790	7180	4120	209	322	78
4	264	218	728	e260	1870	711	5710	7310	4080	155	292	77
5	237	217	677	e240	1560	798	5770	5630	4050	e125	285	76
6	252	255	1310	260	1390	819	5640	5630	5210	e105	240	73
7	266	253	1500	281	1300	764	5500	8060	5040	e90	137	71
8	248	229	2340	310	1240	727	5390	7920	3640	e82	97	72
9	249	223	2940	336	966	702	5130	6020	2440	e73	93	72
10	258	253	2740	483	840	709	4120	6050	1460	e67	93	72
11	264	263	2150	1270	818	755	4390	5720	930	e62	82	76
12	262	253	1630	2040	816	778	5000	5220	796	81	59	77
13	266	230	1290	1980	812	753	5230	5320	947	96	46	75
14	266	245	1720	1300	753	638	5220	7850	875	232	41	78
15	288	224	2240	986	728	583	5150	7200	575	339	40	93
16	340	219	1790	910	707	1420	4680	5680	477	248	42	111
17	364	249	1480	826	686	4850	4720	5280	464	171	44	102
18	311	233	2840	740	667	5820	4630	12600	414	280	43	95
19	311	220	2990	695	635	7970	4520	13800	366	278	46	92
20	279	228	2400	669	638	22300	4230	10900	362	271	58	96
21	260	257	1680	646	632	25000	3130	5980	287	477	60	105
22	271	234	1320	711	626	25500	4480	5370	224	509	66	102
23	252	237	966	972	685	23200	6050	5110	175	1200	64	100
24	273	263	875	10100	701	13300	4980	4880	e150	1850	63	92
25	303	330	980	9620	666	5430	4440	4700	e130	1850	87	98
26	318	422	973	7700	640	10900	3600	4560	e120	1720	96	112
27	334	547	825	4650	639	11100	5060	4450	227	1130	93	243
28	328	736	694	4140	619	8800	12100	4380	219	683	94	1040
29	326	1030	554	4380	---	6200	14500	4750	778	403	95	898
30	305	1740	483	4350	---	6680	12100	4670	864	342	86	594
31	288	---	419	4350	---	7370	---	4380	---	320	85	---
TOTAL	8796	10538	46424	66142	30964	196436	174170	197280	47850	14436	3571	5037
MEAN	284	351	1498	2134	1106	6337	5806	6364	1595	466	115	168
MAX	364	1740	2990	10100	4030	25500	14500	13800	5210	1850	322	1040
MIN	237	217	419	240	619	583	3130	4380	120	62	40	71

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2002, BY WATER YEAR (WY)

MEAN	139	848	2229	3853	5289	5374	3915	2235	1414	1303	578	419
MAX	1032	4384	7695	12110	14010	12270	11340	7343	7300	5954	2390	4959
(WY)	1951	1943	1952	1950	1939	1955	1948	1958	1950	1938	1938	1950
MIN	6.09	10.8	26.8	409	308	1159	807	255	175	40.8	40.6	14.2
(WY)	1954	1954	1954	1940	1954	1941	1941	1941	1949	1944	1957	1953

03250500 LICKING RIVER NEAR BLUE LICK SPRINGS, KY--Continued

SUMMARY STATISTICS	FOR 2002 WATER YEAR		WATER YEARS 1938 - 2002	
ANNUAL TOTAL	801644			
ANNUAL MEAN	2196		2265	
HIGHEST ANNUAL MEAN			4083	1950
LOWEST ANNUAL MEAN			644	1954
HIGHEST DAILY MEAN	25500	Mar 22	35200	Apr 13 1948
LOWEST DAILY MEAN	40	Aug 15	2.9	Sep 9 1957
ANNUAL SEVEN-DAY MINIMUM	43	Aug 13	3.4	Sep 3 1957
MAXIMUM PEAK FLOW	25800	Mar 20	35900	Apr 13 1948
MAXIMUM PEAK STAGE	34.98	Mar 20	45.00	Apr 13 1948
10 PERCENT EXCEEDS	5740		6450	
50 PERCENT EXCEEDS	666		675	
90 PERCENT EXCEEDS	89		44	

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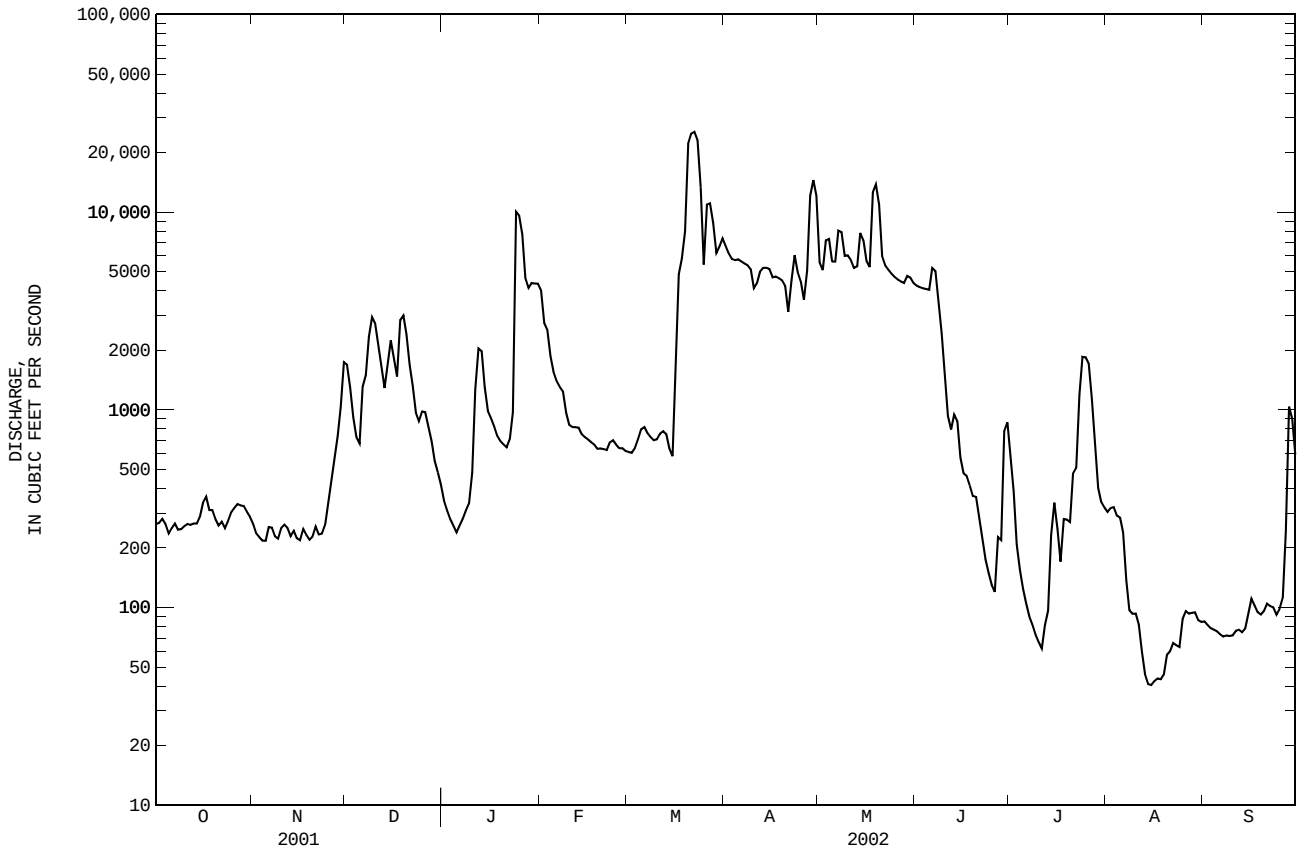


03251200 NORTH FORK LICKING RIVER NEAR MOUNT OLIVET, KY

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 mi^2

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

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

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

COOPERATION.--Kentucy Natural Resources and Environmental Protection Cabinet.

PEAKS ABOVE BASE.--Peak discharges above base of 5,000 ft^3/s and maximum*.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 25	0630	*7,160	*22.35	Mar 27	0830	4,840	19.12
Mar 21	0100	6,940	22.09	Apr 28	1200	5,290	19.98

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.34	4.6	788	110	925	66	457	440	33	76	0.50	0.13
2	0.34	3.7	392	83	806	69	373	350	26	27	0.46	0.08
3	0.28	3.5	234	70	578	101	309	330	18	14	0.37	0.00
4	0.26	3.9	168	62	419	90	258	260	14	7.8	0.33	0.00
5	0.28	3.1	127	57	317	92	224	191	13	5.9	0.36	0.00
6	0.39	2.4	101	62	260	99	196	537	950	4.3	0.48	0.00
7	0.38	2.1	113	74	231	90	175	1200	1280	2.8	0.34	0.00
8	0.35	1.9	320	71	204	83	157	773	527	2.6	0.22	0.00
9	0.33	1.7	742	73	179	84	148	508	232	2.5	0.21	e0.00
10	0.34	1.5	518	187	166	104	137	551	149	2.2	0.21	0.00
11	0.36	1.5	297	428	174	90	124	321	102	1.8	0.19	0.00
12	0.84	1.3	207	677	157	104	113	228	70	1.3	0.20	0.00
13	2.5	1.3	259	415	157	108	105	431	257	1.6	0.15	0.00
14	7.3	1.1	497	286	136	96	280	916	380	1.3	0.12	0.00
15	7.6	1.1	745	231	124	89	307	639	176	1.4	0.18	0.01
16	4.9	1.0	518	187	114	1350	173	313	101	1.1	0.13	0.20
17	4.1	0.94	613	163	104	1540	159	301	60	0.86	0.10	0.23
18	3.0	0.94	1420	144	92	981	157	1620	41	0.76	0.15	0.23
19	2.4	1.1	1220	132	84	1520	111	2030	33	0.66	0.22	0.21
20	2.0	3.0	586	122	86	5280	101	641	28	0.57	0.15	0.20
21	1.5	4.4	386	121	96	6040	315	324	22	0.46	0.11	0.43
22	1.2	3.4	311	136	93	2640	1490	230	13	0.37	0.21	0.37
23	1.0	2.5	346	157	91	697	709	173	11	0.35	0.33	0.25
24	10	2.3	309	3870	85	495	356	135	9.7	0.27	0.34	0.22
25	181	51	265	6430	76	390	309	101	10	0.26	0.33	0.17
26	28	128	227	2640	76	3260	230	76	30	0.23	0.31	0.38
27	12	1020	193	626	78	4450	382	57	12	0.22	0.29	1.6
28	18	595	165	438	69	1800	4480	46	31	0.27	0.27	2.4
29	13	920	145	347	---	641	4640	73	460	0.28	0.22	2.5
30	8.8	1080	122	569	---	737	1540	106	340	0.60	0.19	14
31	6.4	---	112	773	---	825	---	48	---	0.51	0.16	---
TOTAL	319.19	3848.28	12446	19741	5977	34011	18515	13949	5428.7	160.27	7.83	23.61
MEAN	10.30	128.3	401.5	636.8	213.5	1097	617.2	450.0	181.0	5.170	0.253	0.787
MAX	181	1080	1420	6430	925	6040	4640	2030	1280	76	0.50	14
MIN	0.26	0.94	101	57	69	66	101	46	9.7	0.22	0.10	0.00
CFSM	0.05	0.57	1.78	2.82	0.94	4.85	2.73	1.99	0.80	0.02	0.00	0.00
IN.	0.05	0.63	2.05	3.25	0.98	5.60	3.05	2.30	0.89	0.03	0.00	0.00

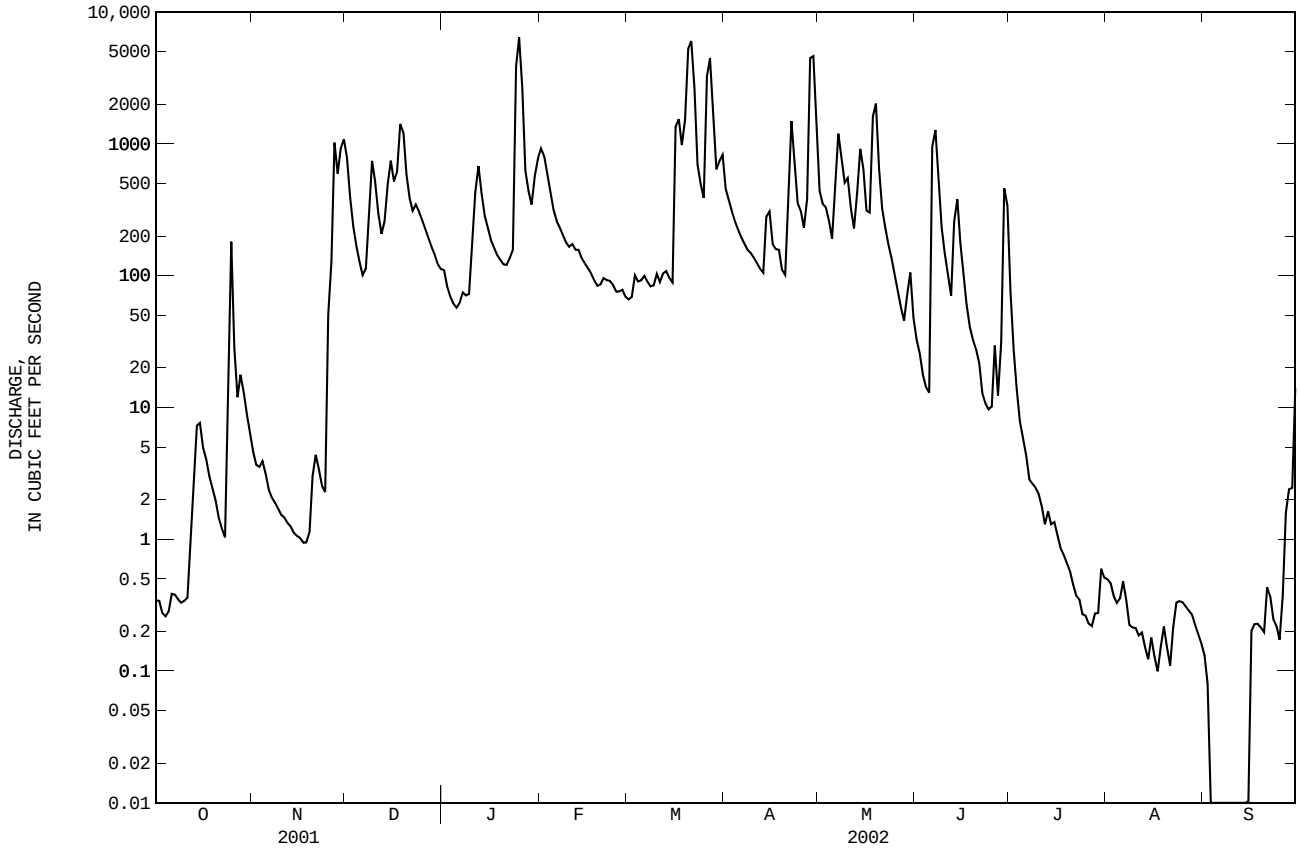
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2002, BY WATER YEAR (WY)

MEAN	11.87	109.7	330.4	605.8	514.7	724.2	360.3	422.8	256.8	128.8	70.34	40.47
MAX	36.8	454	857	1165	827	1796	676	1524	779	296	257	324
(WY)	2001	1994	1997	1994	1998	1997	1994	1996	1998	1992	2001	2000
MIN	0.014	0.008	15.0	152	213	228	73.2	18.9	1.34	0.20	0.25	0.057
(WY)	2000	2000	2000	2000	2002	1998	1999	1999	1999	1999	2002	1999

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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1991 - 2002	
ANNUAL TOTAL	75984.19		114426.88			
ANNUAL MEAN	208.2		313.5		299.2	
HIGHEST ANNUAL MEAN					440	1997
LOWEST ANNUAL MEAN					175	1999
HIGHEST DAILY MEAN	2390	Feb 17	6430	Jan 25	12400	Mar 2 1997
LOWEST DAILY MEAN	0.26	Oct 4	0.00	Sep 3	0.00	Oct 10 1997
ANNUAL SEVEN-DAY MINIMUM	0.31	Sep 29	0.00	Sep 3	0.00	Oct 17 1997
MAXIMUM PEAK FLOW			7160	Jan 25	13500	Mar 2 1997
MAXIMUM PEAK STAGE			22.35	Jan 25	34.71	Mar 2 1997
ANNUAL RUNOFF (CFSM)	0.92		1.39		1.32	
ANNUAL RUNOFF (INCHES)	12.51		18.83		17.98	
10 PERCENT EXCEEDS	574		739		745	
50 PERCENT EXCEEDS	70		78		69	
90 PERCENT EXCEEDS	1.1		0.22		0.76	

e Estimated



03251500 LICKING RIVER AT MCKINNEYSBURG, KY

LOCATION.--Lat 38°35'52", long 84°16'00", Pendleton County, Hydrologic Unit 05100101, on right bank at downstream side of highway bridge at McKinneysburg, 6.5 mi southeast of Falmouth, 9.0 mi upstream from Blanket Creek, 12.9 mi upstream from South Fork, and at mile 64.6.

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

PERIOD OF RECORD.--July 1924 to August 1926, October 1938 to September 1994, September 2000 to current year. Monthly discharge only for October, November 1938, published in WSP 1305.

REVISED RECORDS.--WSP 1705: Drainage area.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 520.83 ft above NGVD of 1929. July 23, 1924 to August 9, 1926, nonrecording gage at same site, datum unknown. Nov. 18, 1983 to June 30, 1939, nonrecording gage at present site an datum. Oct. 1, 1949 to Sept. 30, 1957, auxiliary water-stage recorder 4.0 mi downstream.

REMARKS.-- Records good except for those estimated which are poor. Flow requlated since December 1973 by Cave Run Lake (station 03249498).

COOPERATION.--National Streamflow Information Program.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in January 1937 reached a stage of 47.8 ft from flood marks. Flood of March 1997 reached a stage of 55.21 feet from flood marks. Discharge for the March 1997 flood was 74,000 cfs from rating extension.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	209	301	3290	e455	6190	572	7720	8610	3990	930	269	81
2	235	284	2120	e399	4550	571	6610	5270	3880	584	258	80
3	238	268	1400	e368	3450	601	6080	6850	3790	401	269	78
4	245	253	1000	e345	2700	673	5780	8020	3730	277	266	73
5	236	247	782	e336	1980	695	5760	6320	3720	227	249	68
6	232	247	988	e336	1700	757	5660	6250	8040	201	237	65
7	229	270	1520	e341	1550	743	5460	10200	8450	183	205	64
8	236	264	2600	e356	1440	690	5310	9700	5060	168	140	63
9	226	245	3980	e388	1270	670	5200	7360	3120	153	100	62
10	228	239	3550	540	1000	744	4320	6560	1900	149	87	62
11	235	261	2760	1580	981	710	3900	6240	1290	137	86	61
12	269	267	2050	2530	922	729	4600	5520	939	132	83	60
13	269	258	1730	2700	896	731	5140	5920	816	136	67	61
14	280	243	2060	1890	845	692	5330	8780	1420	155	54	63
15	331	251	3190	1380	760	579	5830	8750	920	301	49	105
16	330	238	2800	1140	738	5590	4830	6520	681	334	46	102
17	354	236	2740	1050	700	5250	4630	5520	550	273	44	93
18	336	255	5180	918	674	7800	4890	13000	511	237	48	92
19	299	250	4830	824	640	9040	4440	16100	446	310	50	82
20	293	253	3680	770	635	27800	4270	14200	409	310	50	80
21	271	261	2380	744	654	33200	3830	7730	392	309	49	96
22	259	286	1780	804	641	31500	8370	5560	315	502	55	100
23	266	269	1610	965	626	26200	6690	5190	279	612	58	94
24	392	270	1420	17000	665	18600	5860	4860	230	1400	62	92
25	1150	317	1210	19000	653	7580	4930	4600	198	1640	61	87
26	588	452	1270	14200	624	17600	3780	4410	277	1580	64	99
27	407	4750	1100	6860	615	18600	4940	4260	278	1240	87	266
28	369	2370	935	4470	600	13600	19700	4160	324	789	94	553
29	352	4340	750	4470	---	7830	20900	4310	514	455	86	933
30	343	4500	e602	5280	---	7780	17400	4540	1270	329	90	684
31	321	---	e507	6080	---	8130	---	4220	---	284	84	---
TOTAL	10028	22945	65814	98519	38699	256257	202160	219530	57739	14738	3447	4499
MEAN	323.5	764.8	2123	3178	1382	8266	6739	7082	1925	475.4	111.2	150.0
MAX	1150	4750	5180	19000	6190	33200	20900	16100	8450	1640	269	933
MIN	209	236	507	336	600	571	3780	4160	198	132	44	60

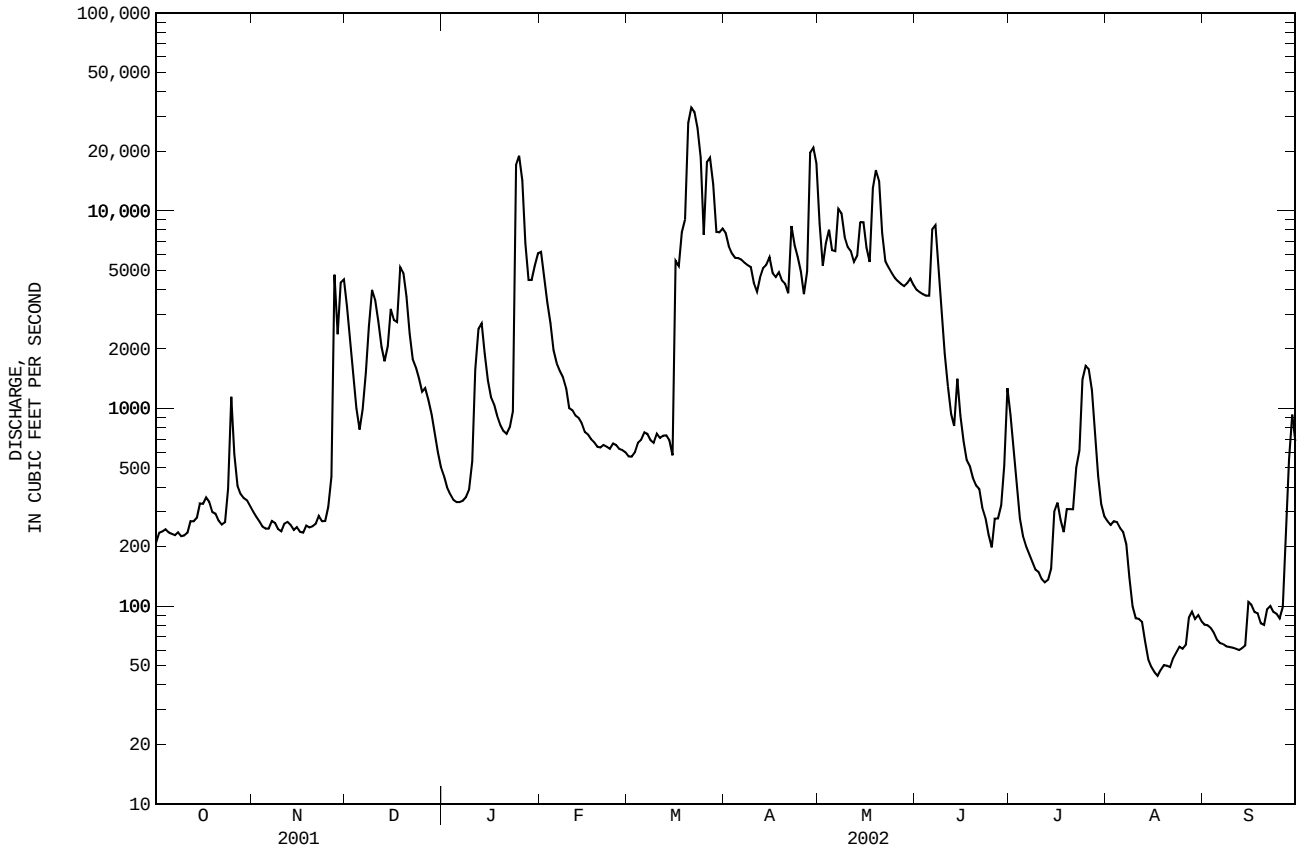
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2002, BY WATER YEAR (WY)

MEAN	1134	2135	4375	4738	5460	6192	4566	3301	1978	1201	983.9	1089
MAX	4877	5227	13020	10430	13960	10920	9136	11130	5339	5783	3537	8088
(WY)	1976	1987	1979	1974	1989	1994	1975	1983	1974	1979	1979	1979
MIN	121	228	859	275	1382	1006	465	293	100	164	69.9	144
(WY)	1974	1988	1981	1981	2002	1983	1986	1976	1988	1984	1983	1987

03251500 LICKING RIVER AT MCKINNEYSBURG, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1974 - 2002	
ANNUAL TOTAL	729982		994375			
ANNUAL MEAN	2000		2724		3086	
HIGHEST ANNUAL MEAN					5802	1979
LOWEST ANNUAL MEAN					1528	1988
HIGHEST DAILY MEAN	14600	Feb 17	33200	Mar 21	43100	Feb 16 1989
LOWEST DAILY MEAN	69	Sep 16	44	Aug 17	44	Aug 17 2002
ANNUAL SEVEN-DAY MINIMUM	104	Sep 11	48	Aug 15	48	Aug 15 2002
MAXIMUM PEAK FLOW			33500	Mar 21	59100	Mar 10 1964
MAXIMUM PEAK STAGE			34.03	Mar 21	50.26	Mar 10 1964
10 PERCENT EXCEEDS	5020		6850		7820	
50 PERCENT EXCEEDS	988		681		1260	
90 PERCENT EXCEEDS	229		87		187	

e Estimated



03252300 HINKSTON CREEK NEAR CARLISLE, KY

LOCATION.--Lat 38°14'33", long 84°03'10", 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 mi^2.

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

REVISED RECORDS.--WRD KY-93-1: Drainage area, WRD KY-99-1: Longitude.

GAGE.--Water-stage recorder with telemetry and crest-stage gage. Datum of gage is 764.88 ft above NGVD of 1929.

REMARKS.-- Records fair except for discharges below 10ft^3/s and for those estimated, which are poor.

COOPERATION.--Kentucky Natural Resources and Enviromental Protection Cabinet.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 20	2330	5310	29.63	No other peak greater than peak base			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

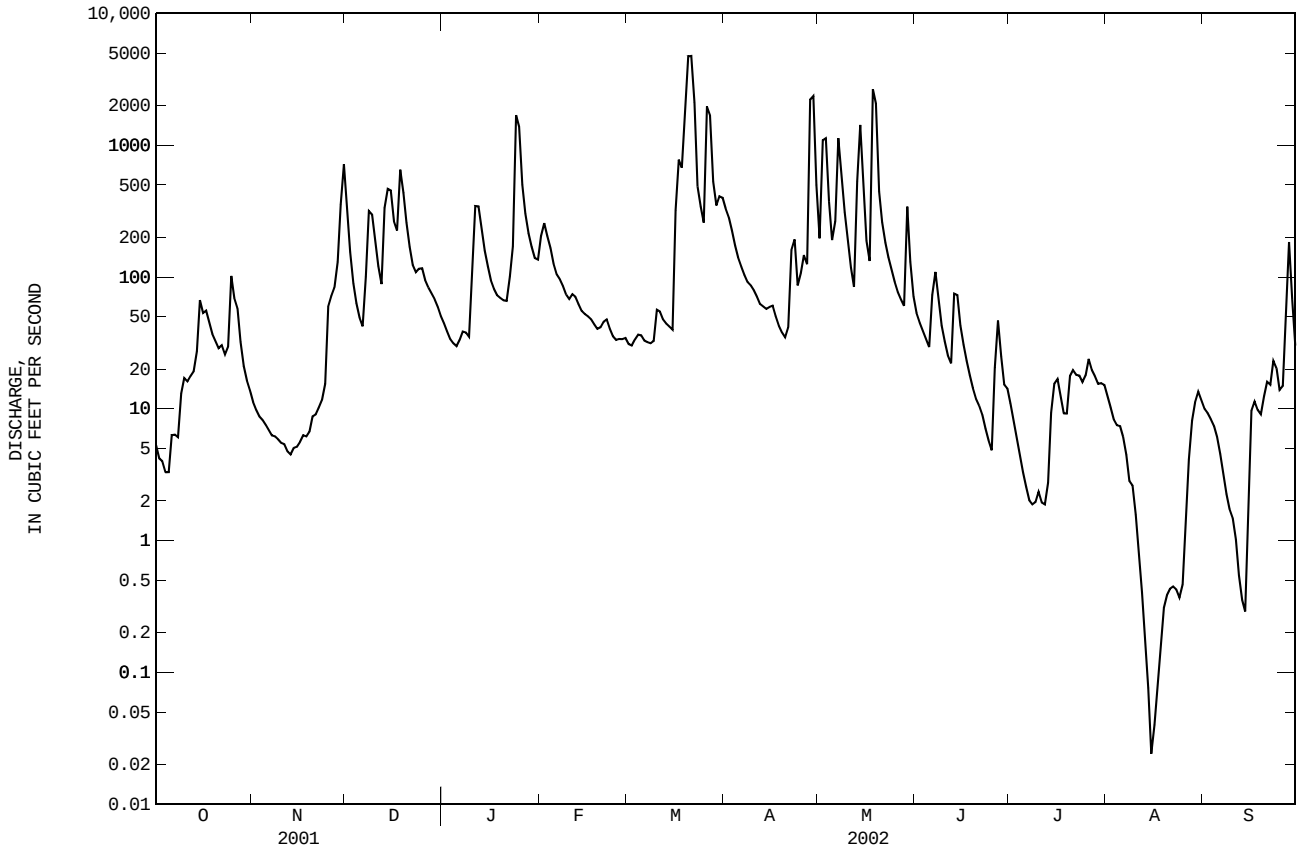
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	11	370	45	205	31	331	197	53	11	12	10
2	4.2	9.8	155	39	256	30	283	1090	45	8.0	10	9.3
3	4.0	8.8	90	34	205	34	226	1130	39	5.9	8.3	8.4
4	3.3	8.2	63	31	166	37	173	372	34	4.4	7.5	7.4
5	3.3	7.6	49	30	127	36	141	191	29	3.3	7.4	6.1
6	6.3	6.9	42	33	105	33	120	265	73	2.6	6.1	4.5
7	6.4	6.3	100	39	96	32	103	1130	109	2.0	4.5	3.2
8	6.1	6.2	317	38	86	31	92	618	67	1.9	2.8	2.3
9	13	5.9	298	35	74	33	86	310	43	2.0	2.6	1.7
10	17	5.5	189	95	68	56	80	193	33	2.3	1.6	1.5
11	16	5.4	121	346	74	55	71	118	25	1.9	0.79	1.0
12	18	4.7	88	344	71	48	62	84	22	1.9	0.41	0.54
13	19	4.5	334	229	62	44	60	534	75	2.7	0.16	0.35
14	27	5.0	467	159	55	42	57	1430	73	9.3	0.08	0.29
15	67	5.2	453	120	52	40	59	447	43	16	0.02	2.1
16	53	5.6	264	94	50	322	61	188	31	17	0.04	9.7
17	56	6.3	225	81	48	778	50	132	23	12	0.08	11
18	45	6.2	651	73	44	677	43	2660	18	9.2	0.16	9.8
19	37	6.7	435	69	40	1590	38	2070	14	9.2	0.31	9.1
20	33	8.8	259	67	42	4740	35	446	12	18	0.38	12
21	29	9.1	169	66	46	4770	41	260	11	20	0.43	16
22	30	10	124	100	48	2100	160	183	9.0	18	0.45	15
23	26	12	109	171	41	487	193	141	7.1	18	0.43	23
24	30	16	116	1690	36	342	87	114	5.8	16	0.37	20
25	102	60	116	1380	33	259	107	93	4.8	18	0.46	14
26	69	72	95	501	34	1970	147	77	20	24	1.3	15
27	58	83	83	302	34	1690	125	68	47	20	4.1	45
28	32	130	75	215	34	529	2220	60	25	18	8.1	184
29	21	356	68	170	---	349	2360	342	15	16	11	67
30	16	718	59	140	---	409	500	130	14	16	14	30
31	14	---	51	136	---	399	---	71	---	15	12	---
TOTAL	866.9	1600.7	6035	6872	2232	21993	8111	15144	1019.7	339.6	117.87	539.28
MEAN	27.96	53.36	194.7	221.7	79.71	709.5	270.4	488.5	33.99	10.95	3.802	17.98
MAX	102	718	651	1690	256	4770	2360	2660	109	24	14	184
MIN	3.3	4.5	42	30	33	30	35	60	4.8	1.9	0.02	0.29
CFSM	0.18	0.35	1.26	1.44	0.52	4.61	1.76	3.17	0.22	0.07	0.02	0.12
IN.	0.21	0.39	1.46	1.66	0.54	5.31	1.96	3.66	0.25	0.08	0.03	0.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2002, BY WATER YEAR (WY)

MEAN	20.14	82.36	184.8	375.0	311.9	498.7	185.9	288.6	148.9	79.55	65.07	14.26
MAX	48.2	302	453	675	526	1210	436	875	652	315	277	56.5
(WY)	1994	1994	1997	1994	1994	1997	1994	1996	1997	2001	2001	1996
MIN	1.33	3.10	9.99	35.3	79.7	240	40.4	17.7	14.5	8.92	3.80	0.70
(WY)	1998	2000	2000	2000	2002	1998	1999	1999	1999	1999	2002	1999

03252300 HINKSTON CREEK NEAR CARLISLE, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1992 - 2002	
ANNUAL TOTAL	58166.9		64871.05			
ANNUAL MEAN	159.4		177.7		187.9	
HIGHEST ANNUAL MEAN					304	1997
LOWEST ANNUAL MEAN					77.1	2000
HIGHEST DAILY MEAN	2560	Jul 29	4770	Mar 21	7520	Mar 2 1997
LOWEST DAILY MEAN	2.5	Jul 2	0.02	Aug 15	0.00	Aug 11 1999
ANNUAL SEVEN-DAY MINIMUM	3.7	Sep 13	0.12	Aug 13	0.00	Aug 11 1999
MAXIMUM PEAK FLOW			5310	Mar 20	7800	Mar 2 1997
MAXIMUM PEAK STAGE			29.63	Mar 20	37.00	Mar 2 1997
10 PERCENT EXCEEDS	382		352		435	
50 PERCENT EXCEEDS	56		40		48	
90 PERCENT EXCEEDS	6.4		3.3		2.6	



03253500 LICKING RIVER AT CATAWBA, KY

LOCATION.--Lat 38°42'31", long 84°18'38", Pendleton County, Hydrologic Unit 05100101, on left bank 1.0 mi southeast of Catawba, 1.5 mi upstream from Kincaid Creek, 2.3 mi north of Falmouth, and at mile 48.0.

DRAINAGE AREA.--3,300 mi^2.

PERIOD OF RECORD.--January 1914 to July 1920 (January 1914 to July 1915 and October 1917 to July 1920, gage heights only), July 1928 to current year. Published as "at Falmouth" 1914-16. Gage-height records collected in this vicinity since 1887 are published in reports of the National Weather Service.

REVISED RECORDS.--WSP 853: 1937. WSP 1003: 1943. WSP 1385: 1942. WSP 1705: Drainage.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 500.01 ft above NGVD of 1929 (levels by U.S. Army Corps of Engineers). Jan. 1 ,1914 to July 31, 1916, nonrecording gage at site 3.8 mi upstream at datum 12.2 ft higher. July 14, 1916 to July 5, 1920, nonrecording gage at site 1.4 mi downstream at present datum.

REMARKS.--Records good except for those estimated, which are fair. Flow regulated since December 1973 by Cave Run Lake (station 03249498).

COOPERATION.--U.S. Army Corps of Engineers, Louisville District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	193	445	6380	776	8750	731	10000	12700	4350	1170	231	78
2	182	406	4210	723	7170	715	8240	6970	4070	783	212	78
3	192	374	2490	717	5070	715	7410	11900	3910	561	204	77
4	196	341	1620	720	4110	751	6780	12000	3810	390	214	74
5	201	316	1200	633	3010	797	6520	8800	3760	281	198	71
6	206	293	1080	562	2440	824	6280	9110	9470	221	186	67
7	201	279	1740	550	2130	851	6160	15100	12600	187	171	65
8	196	282	2360	600	1910	823	5720	14800	6810	163	144	65
9	195	276	5490	576	1710	787	5550	11000	4110	152	112	64
10	192	262	5130	613	1380	844	4860	8590	2670	148	93	63
11	191	248	3880	1580	1300	895	4130	7680	1860	144	86	63
12	198	249	2830	3160	1250	858	4660	6610	1350	133	87	63
13	223	254	2330	4120	1180	865	5340	8760	1190	130	86	62
14	244	252	2920	3140	1120	870	5390	12000	1600	130	79	70
15	286	243	5000	2180	1020	826	6770	13700	2230	140	70	81
16	349	241	4950	1680	963	8890	5430	e9480	1460	313	63	101
17	413	234	6520	1440	919	7200	4880	e7110	1160	262	61	90
18	448	228	8450	1250	887	11000	5300	15500	1110	206	61	87
19	456	231	7780	1120	857	12500	4630	22600	1040	197	61	86
20	437	237	6170	1050	826	41400	4400	19800	913	310	61	84
21	404	237	3970	1010	961	51000	4020	11000	801	317	61	90
22	361	243	2780	1040	873	48600	12300	e6850	717	371	58	91
23	330	262	2610	1170	833	34600	7570	6140	618	512	57	90
24	996	262	2440	27700	812	22300	6990	5560	543	1040	61	87
25	2250	567	1840	29600	810	10700	5630	5130	472	1520	64	88
26	1230	535	1750	20200	795	25400	4520	4820	2040	1460	66	92
27	720	8010	1590	10600	768	29500	5250	4580	2280	1250	69	601
28	675	4110	1340	6170	752	20300	28500	4500	940	840	80	1260
29	600	9330	1150	5510	---	11600	30600	4480	716	554	84	1070
30	538	9570	968	6910	---	10200	24400	4840	1230	349	80	905
31	492	---	866	9030	---	10400	---	4810	---	261	81	---
TOTAL	13795	38817	103834	146130	54606	367742	248230	296920	79830	14495	3241	5863
MEAN	445.0	1294	3349	4714	1950	11860	8274	9578	2661	467.6	104.5	195.4
MAX	2250	9570	8450	29600	8750	51000	30600	22600	12600	1520	231	1260
MIN	182	228	866	550	752	715	4020	4480	472	130	57	62

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2002, BY WATER YEAR (WY)

MEAN	1247	2564	5443	6532	7534	8476	5687	4928	3093	1717	1252	1310
MAX	7178	6516	18500	15110	21140	21310	11920	16660	11230	6962	4630	12860
(WY)	1976	1987	1979	1974	1989	1997	1975	1983	1997	1979	1974	1979
MIN	79.8	107	1008	420	1950	1247	666	342	101	86.0	68.4	51.5
(WY)	2000	2000	2000	1981	2002	1983	1986	1999	1999	1999	1999	1999

03253500 LICKING RIVER AT CATAWBA, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1974 - 2002	
ANNUAL TOTAL	1079055		1373503			
ANNUAL MEAN	2956		3763		4134	
HIGHEST ANNUAL MEAN					7730	1979
LOWEST ANNUAL MEAN					2006	1977
HIGHEST DAILY MEAN	22000	Feb 17	51000	Mar 21	104000	Mar 3 1997
LOWEST DAILY MEAN	110	Sep 18	57	Aug 23	25	Jul 8 1988
ANNUAL SEVEN-DAY MINIMUM	145	Sep 13	60	Aug 17	38	Jul 3 1988
MAXIMUM PEAK FLOW			51400	Mar 21	110000	Mar 3 1997
MAXIMUM PEAK STAGE			34.02	Mar 21	2002.00	Mar 21 2002
INSTANTANEOUS LOW FLOW					2.5	Aug 5 1930
10 PERCENT EXCEEDS	8010		9740		10400	
50 PERCENT EXCEEDS	1340		919		1590	
90 PERCENT EXCEEDS	243		86		223	

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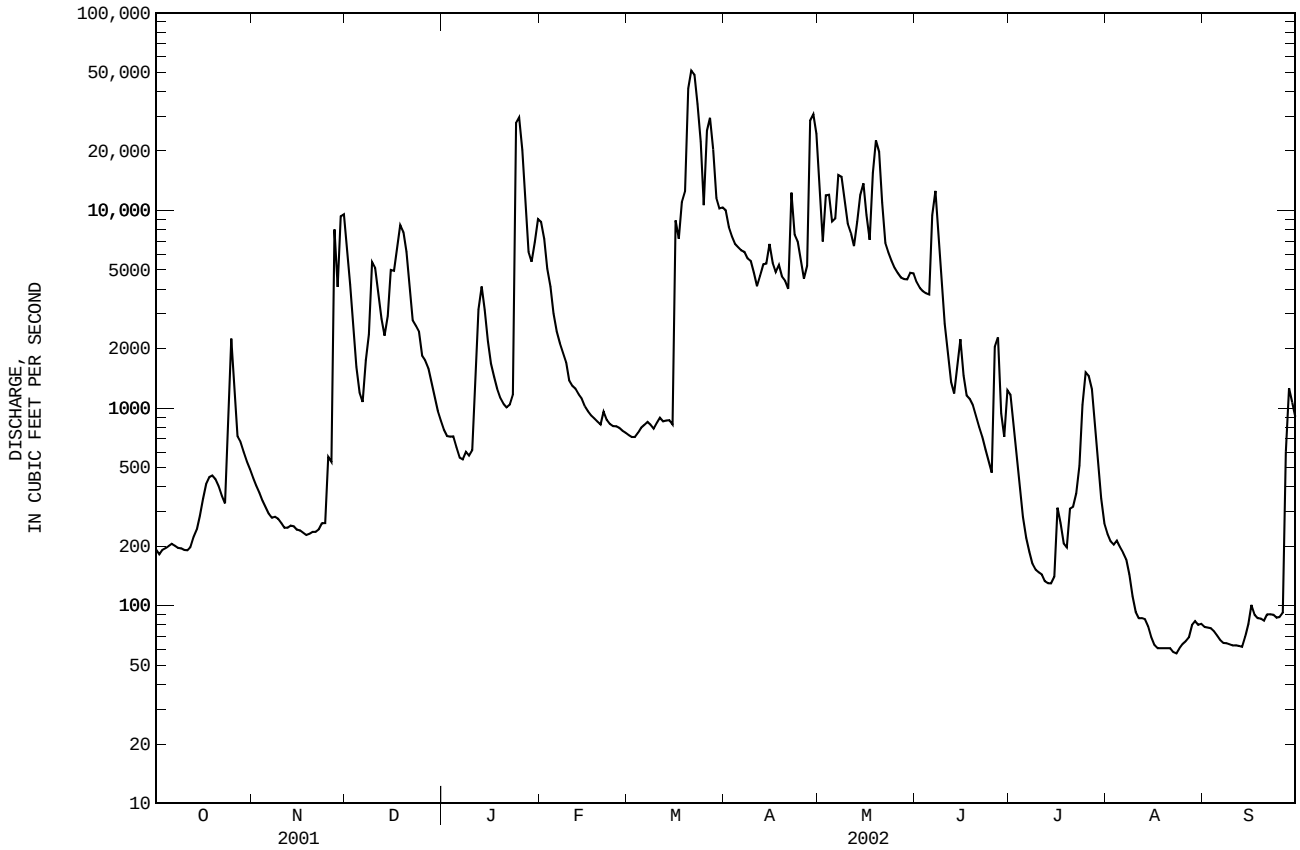


03254480 CRUISES CREEK AT HIGHWAY 17 NEAR PINER, KY

LOCATION.--Lat 38°50'40", long 84°31'56", Kenton County, Hydrologic Unit 05100101, at bridge on Highway 17, 0.6 mi downstream from Sawyers Fork, 0.9 mi north of Piner, and 7.8 mi upstream from the mouth.

DRAINAGE AREA.--18.0 mi^2

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--December 2000 to September 30, 2001.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 656.926 ft above NGVD of 1929.

REMARKS.--Records fair except for those above 700 ft^3/s, which are poor.

COOPERATION.--Northern Kentucky Sanitation District No. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY MEAN VALUES

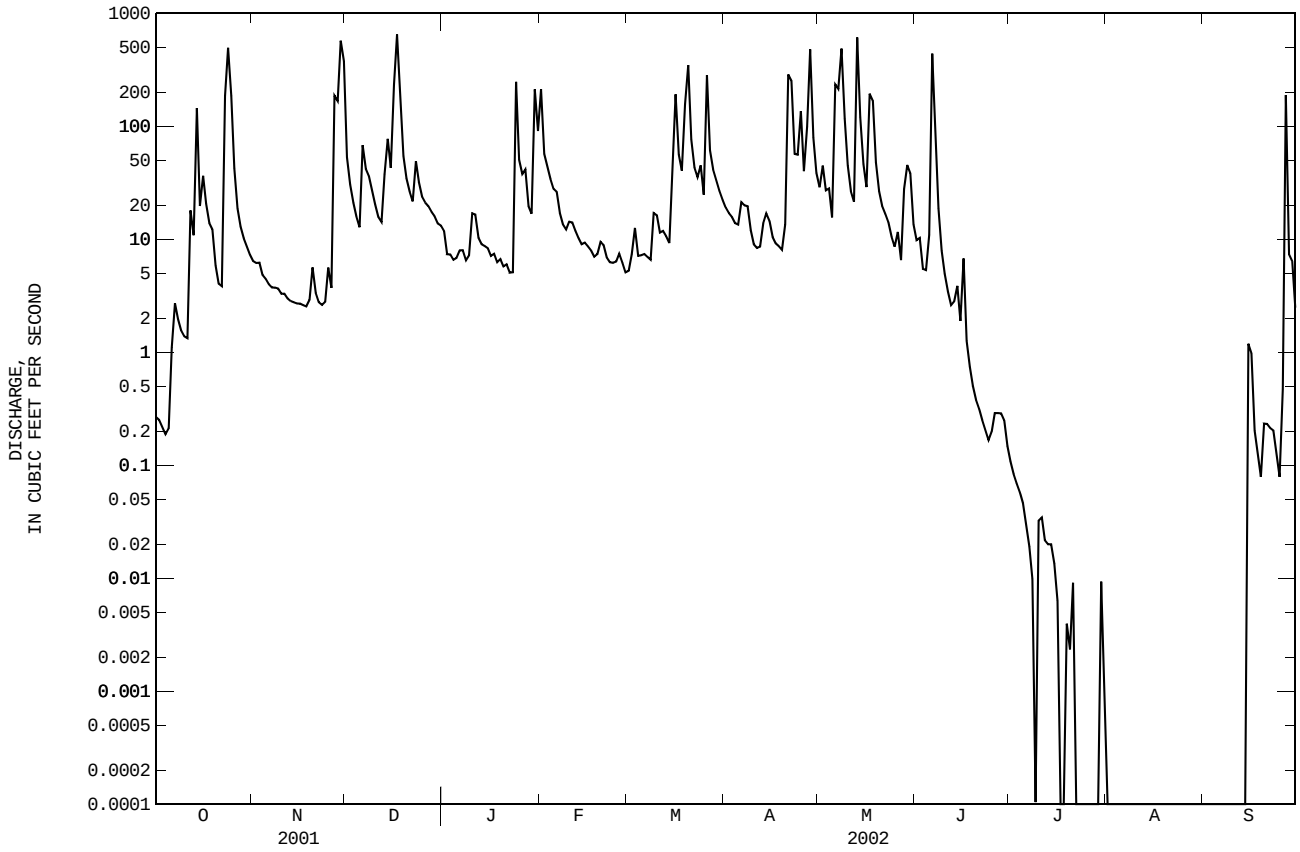
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.27	6.4	53	12	213	5.3	19	29	9.9	0.11	0.00	0.00
2	0.25	6.2	31	7.4	57	7.4	17	45	10	0.08	0.00	0.00
3	0.22	6.2	21	7.3	45	13	16	27	5.5	0.07	0.00	0.00
4	0.19	4.9	16	6.6	34	7.1	14	28	5.3	0.06	0.00	0.00
5	0.21	4.5	13	6.9	28	7.2	14	16	11	0.05	0.00	0.00
6	1.1	4.0	68	8.0	26	7.4	21	235	440	0.03	0.00	0.00
7	2.7	3.8	42	8.0	17	7.0	20	215	73	0.02	0.00	0.00
8	2.0	3.7	36	6.5	14	6.6	20	489	19	0.0	0.00	0.00
9	1.6	3.7	27	7.2	12	17	12	117	7.9	0.00	0.00	0.00
10	1.4	3.3	20	17	14	16	9.0	45	4.9	0.03	0.00	0.00
11	1.3	3.3	16	17	14	11	8.4	27	3.5	0.03	0.00	0.00
12	18	3.0	14	10	12	12	8.6	22	2.6	0.02	0.00	0.00
13	11	2.8	38	9.0	10	11	14	613	2.8	0.02	0.00	0.00
14	145	2.8	78	8.7	9.1	9.3	17	121	3.9	0.02	0.00	0.00
15	20	2.7	43	8.3	9.4	33	15	46	1.9	0.01	0.00	1.2
16	37	2.7	234	7.2	8.7	193	10	29	6.8	0.0	0.00	0.99
17	21	2.6	652	7.5	8.0	56	9.2	195	1.3	0.00	0.00	0.20
18	14	2.5	196	6.3	7.0	41	8.7	169	0.75	0.00	0.00	0.13
19	12	2.9	55	6.7	7.4	157	8.1	48	0.50	0.00	0.00	0.08
20	5.9	5.6	35	5.8	9.5	350	14	27	0.38	0.00	0.00	0.23
21	4.1	3.4	26	6.0	8.9	77	288	20	0.31	0.0	0.00	0.23
22	3.9	2.8	22	5.1	6.9	43	254	17	0.25	0.00	0.00	0.21
23	187	2.6	49	5.1	6.3	36	57	14	0.20	0.00	0.00	0.20
24	497	2.8	32	248	6.2	45	56	11	0.17	0.00	0.00	0.12
25	187	5.6	24	51	6.4	25	137	8.6	0.20	0.00	0.00	0.08
26	43	3.7	21	38	7.5	285	40	12	0.29	0.00	0.00	0.47
27	19	187	20	42	6.2	61	100	6.6	0.29	0.00	0.00	189
28	13	168	17	20	5.1	41	481	28	0.29	0.00	0.00	7.4
29	10	574	16	17	---	33	80	45	0.25	0.00	0.00	6.4
30	8.6	377	14	213	---	27	39	39	0.15	0.0	0.00	2.5
31	7.3	---	13	91	---	22	---	14	---	0.00	0.00	---
TOTAL	1275.04	1404.5	1942	909.6	608.6	1662.3	1807.0	2758.2	613.33	0.55	0.00	209.44
MEAN	41.1	46.8	62.6	29.3	21.7	53.6	60.2	89.0	20.4	0.018	0.000	6.98
MAX	497	574	652	248	213	350	481	613	440	0.11	0.00	189
MIN	0.19	2.5	13	5.1	5.1	5.3	8.1	6.6	0.15	0.00	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2002, BY WATER YEAR (WY)

MEAN	41.1	46.8	46.7	20.3	22.8	35.2	31.6	46.4	16.8	15.7	2.78	5.15
MAX	41.1	46.8	62.6	29.3	23.8	53.6	60.2	89.0	20.4	31.4	5.56	6.98
(WY)	2002	2002	2002	2002	2001	2002	2002	2002	2002	2001	2001	2002
MIN	41.1	46.8	30.7	11.3	21.7	16.8	2.89	3.83	13.1	0.018	0.000	3.32
(WY)	2002	2002	2001	2001	2002	2001	2001	2001	2001	2002	2002	2001

03254480 CRUISES CREEK AT HIGHWAY 17 NEAR PINER, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 2001 - 2002	
ANNUAL TOTAL	8006.96		13190.56			
ANNUAL MEAN	21.9		36.1		36.1	
HIGHEST ANNUAL MEAN					36.1	2002
LOWEST ANNUAL MEAN					36.1	2002
HIGHEST DAILY MEAN	652	Dec 17	652	Dec 17	670	Dec 16 2000
LOWEST DAILY MEAN	0.17	Jul 17	0.00	Jul 8	0.00	Jul 8 2002
ANNUAL SEVEN-DAY MINIMUM	0.30	Sep 29	0.00	Jul 16	0.00	Jul 16 2002
MAXIMUM PEAK FLOW			3090	Jun 6	3090	Jun 6 2002
MAXIMUM PEAK STAGE			8.12	Jun 6	8.12	Jun 6 2002
INSTANTANEOUS LOW FLOW			0.00	Jul 8	0.00	Jul 8 2002
10 PERCENT EXCEEDS	43		77		77	
50 PERCENT EXCEEDS	4.5		7.4		7.4	
90 PERCENT EXCEEDS	0.57		0.00		0.00	



03254480 CRUISES CREEK AT HIGHWAY 17 NEAR PINER, KY--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Northern Kentucky Sanitation District No. 1.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 2000 to current year. pH:December 2000 to current year.
WATER TEMPERATURES: December 2000 to current year.
DISSOLVED OXYGEN: December 2000 to current year.
TURBIDITY: December 2000 to current year.

INSTRUMENTATION.--Water-quality monitor with telemetry.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 916 microsiemens, Feb. 25, 2001; minimum recorded, 101 microsiemens, May 8, 2002.
pH: Maximum recorded, 8.6 units, March 3, 2001; minimum recorded, 6.8 units, Jan. 24, 2002.
WATER TEMPERATURES: Maximum recorded, 30.4'C, Aug. 3, 2002; minimum recorded, 0.0'C, Dec. 13, 18-26 2000 and Feb. 18, 2001.
DISSOLVED OXYGEN: Maximum recorded, 18.9 mg/L, Feb. 28, 2002; minimum recorded, 1.2 mg/L, July 24, 2001.
TURBIDITY: Maximum recorded, >1000 NTU, several days each year, minimum recorded, 1.0 NTU, May 22, 2002.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 660 microsiemens, Jan. 24, 2002; minimum recorded, 101 microsiemens, May 8, 2002.
pH: Maximum recorded, 8.4 units, May 21-23, Aug. 29, 2002; minimum recorded, 6.8 units, Jan. 24, 2002.
WATER TEMPERATURES: Maximum recorded, 30.4'C, Aug. 3, 2002; minimum recorded, 0.2'C, Jan. 12, 13, 16, 20, 22, 2002.
DISSOLVED OXYGEN: Maximum recorded, 18.9 mg/L, Feb. 28, 2002; minimum recorded, 1.7 mg/L, Sept. 22, 2002.
TURBIDITY: Maximum recorded, >1000 NTU, several days in 2002; minimum recorded, 1.0 NTU, May 22, 2002.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	593	582	588	285	281	283	438	368	403	535	509	520
2	619	588	594	565	285	368	479	411	463	557	521	541
3	609	598	602	568	555	563	508	462	492	596	554	583
4	616	595	603	565	554	559	522	503	513	637	583	603
5	610	572	598	564	551	558	524	515	519	595	545	582
6	627	569	603	568	550	555	530	333	447	582	541	557
7	569	545	553	574	546	553	474	349	430	555	513	532
8	559	547	552	567	553	560	489	474	484	604	516	555
9	569	555	563	567	558	562	505	483	493	647	600	620
10	585	567	571	569	558	564	524	504	514	656	490	587
11	593	574	581	569	560	565	531	519	525	511	490	501
12	624	440	509	571	561	566	532	510	526	541	502	526
13	477	438	460	572	566	569	510	465	479	552	520	535
14	480	285	374	575	570	572	504	362	441	548	514	533
15	480	377	440	579	572	574	478	394	448	530	509	520
16	483	430	450	583	571	576	500	200	421	556	522	540
17	466	439	458	582	575	579	318	173	243	552	522	537
18	469	460	465	587	578	582	400	244	332	553	522	537
19	470	464	467	588	574	582	449	400	428	580	529	546
20	488	467	477	580	563	570	473	449	463	576	535	554
21	530	488	509	576	563	569	491	471	483	564	537	550
22	584	530	559	579	570	574	506	489	497	635	546	601
23	597	148	500	590	577	583	505	416	441	580	541	561
24	217	157	191	593	576	587	487	434	467	660	200	338
25	216	179	199	587	561	573	503	486	496	472	388	438
26	238	216	224	585	573	578	526	496	513	500	472	490
27	257	238	249	585	266	380	509	494	502	490	439	472
28	267	257	261	481	293	426	500	486	496	546	449	495
29	270	265	267	322	198	268	507	480	491	559	542	551
30	281	270	274	368	237	296	502	477	489	584	198	400
31	285	279	282	---	---	---	529	488	510	461	326	413
MONTH	627	148	452	593	198	523	532	173	466	660	198	526

03254480 CRUISES CREEK AT HIGHWAY 17 NEAR PINER, KY--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	465	220	345	577	542	559	513	491	506	450	438	445
2	473	407	445	600	534	564	515	480	502	450	425	441
3	497	457	485	547	520	531	510	478	495	485	436	461
4	497	457	484	595	544	575	516	484	499	498	419	469
5	487	473	482	599	564	582	519	456	494	504	427	469
6	496	482	491	582	544	567	484	407	447	511	180	391
7	537	489	513	563	532	549	455	411	435	370	215	307
8	546	535	541	565	538	554	455	415	436	396	101	283
9	551	537	544	585	521	554	470	417	452	381	294	355
10	558	536	547	557	518	540	498	459	487	450	381	417
11	547	529	539	571	548	558	524	495	512	490	448	474
12	545	525	536	583	566	574	537	509	525	508	487	499
13	543	527	536	586	557	573	569	521	532	487	163	240
14	548	530	538	580	544	565	566	521	536	392	288	358
15	548	523	539	572	281	549	570	541	557	---	---	---
16	546	522	535	441	276	349	578	551	564	---	---	---
17	542	518	531	481	441	466	585	556	574	---	---	---
18	540	514	528	518	465	482	598	575	587	---	---	---
19	540	518	530	538	243	444	610	584	600	---	---	---
20	542	522	532	361	193	271	628	582	597	484	437	469
21	541	522	532	452	361	415	614	201	500	---	---	---
22	548	525	536	485	451	472	395	270	354	496	488	492
23	552	524	538	506	485	498	435	385	406	503	454	479
24	546	521	535	495	445	457	452	336	440	500	468	486
25	543	515	529	525	386	498	448	330	394	497	471	485
26	535	513	524	412	127	279	478	448	467	490	470	483
27	536	515	525	456	375	425	487	376	456	489	418	445
28	568	520	546	487	455	478	---	---	---	470	308	436
29	---	---	---	506	486	500	402	365	382	396	284	342
30	---	---	---	513	493	503	439	402	422	393	294	364
31	---	---	---	511	494	502	---	---	---	---	---	---
MONTH	568	220	517	600	127	498	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	530	519	524	588	555	568	546	505	530
2	517	468	499	534	523	527	582	555	568	544	521	530
3	496	435	462	540	530	534	577	551	565	541	522	533
4	489	436	463	545	535	539	571	540	561	581	534	546
5	528	445	514	558	533	542	564	546	554	---	---	---
6	449	148	310	548	536	542	572	553	560	554	543	549
7	384	334	367	546	532	541	563	550	559	556	544	551
8	453	384	425	550	533	541	562	549	557	---	---	---
9	504	453	488	555	535	544	---	---	---	557	542	552
10	517	504	512	551	527	538	557	540	550	559	547	554
11	525	517	521	555	539	548	550	511	538	562	553	558
12	535	523	531	560	543	551	543	525	535	563	555	561
13	543	521	536	562	547	553	541	529	536	565	556	561
14	534	517	530	577	541	560	543	528	536	567	554	563
15	518	509	514	567	537	560	544	531	538	609	379	513
16	519	474	509	566	549	556	543	516	533	399	380	392
17	474	400	427	574	555	561	540	515	532	---	---	---
18	445	402	427	584	557	568	534	517	526	402	373	389
19	471	444	458	604	562	580	536	517	528	457	394	420
20	495	470	483	592	564	585	534	515	527	565	424	449
21	509	494	502	592	578	585	531	512	524	515	466	485
22	522	507	514	593	574	583	531	513	523	505	442	472
23	527	510	517	587	572	580	531	511	522	455	443	449
24	526	502	513	582	567	576	530	508	520	---	---	---
25	523	484	514	579	560	572	526	508	518	498	458	475
26	524	504	514	579	562	571	524	500	514	---	---	---
27	517	509	513	575	561	568	518	442	504	---	---	---
28	525	514	520	573	554	564	559	484	505	---	---	---
29	524	506	519	570	514	559	542	498	519	533	422	454
30	526	514	519	548	533	542	546	504	526	530	338	393
31	---	---	---	572	545	561	562	521	533	---	---	---
MONTH	---	---	---	604	514	557	---	---	---	---	---	---

03254480 CRUISES CREEK AT HIGHWAY 17 NEAR PINER, KY--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

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

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

03254480 CRUISES CREEK AT HIGHWAY 17 NEAR PINER, KY--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	7.9	7.7	7.8	8.1	7.5	7.8	8.1	7.6	7.9
2	8.2	8.0	8.1	7.9	7.6	7.8	8.1	7.6	7.8	8.2	7.4	7.8
3	8.1	8.0	8.0	7.9	7.6	7.7	8.1	7.5	7.8	8.2	7.5	7.9
4	8.1	7.9	8.0	7.8	7.5	7.7	8.0	7.5	7.7	8.1	7.4	7.8
5	8.1	8.0	8.0	7.9	7.4	7.6	7.9	7.4	7.7	8.0	7.5	7.7
6	8.0	7.5	7.8	7.8	7.5	7.7	7.9	7.5	7.7	8.1	7.5	7.8
7	8.0	7.8	7.9	7.9	7.5	7.7	7.9	7.5	7.7	8.2	7.5	7.8
8	8.1	7.9	8.0	7.9	7.6	7.8	8.1	7.5	7.8	---	---	---
9	8.1	7.9	8.0	7.8	7.5	7.7	---	---	---	8.2	7.6	7.9
10	8.1	8.0	8.0	7.6	7.4	7.5	8.1	7.6	7.9	8.1	7.5	7.8
11	8.1	8.0	8.1	7.7	7.4	7.5	8.1	7.6	7.8	8.0	7.5	7.7
12	8.2	8.0	8.1	7.8	7.4	7.6	8.1	7.5	7.8	8.0	7.6	7.7
13	8.2	8.1	8.1	7.6	7.4	7.5	8.1	7.5	7.8	8.2	7.6	7.8
14	8.2	8.1	8.1	7.7	7.3	7.5	8.1	7.6	7.8	8.0	7.6	7.8
15	8.2	8.0	8.1	7.7	7.4	7.5	8.0	7.5	7.8	7.7	7.4	7.6
16	8.2	8.0	8.1	7.8	7.3	7.5	8.2	7.6	7.9	7.4	7.3	7.3
17	8.1	8.0	8.1	7.6	7.3	7.5	8.2	7.6	7.9	---	---	---
18	8.1	8.0	8.0	7.7	7.3	7.5	8.0	7.6	7.8	7.6	7.3	7.4
19	8.1	7.9	8.0	7.7	7.2	7.4	8.1	7.5	7.7	7.6	7.3	7.4
20	8.1	7.9	8.0	7.7	7.2	7.4	8.0	7.4	7.7	7.5	7.3	7.4
21	8.1	7.9	8.0	7.7	7.2	7.4	8.0	7.4	7.7	7.5	7.4	7.4
22	8.2	8.0	8.0	7.7	7.3	7.5	8.0	7.4	7.7	7.4	7.3	7.3
23	8.1	7.9	8.0	7.7	7.3	7.5	8.1	7.4	7.7	7.5	7.3	7.4
24	8.3	7.9	8.1	7.8	7.3	7.5	8.2	7.4	7.8	---	---	---
25	8.2	8.0	8.1	7.9	7.4	7.6	8.2	7.5	7.9	7.5	7.3	7.4
26	8.2	7.9	8.1	7.9	7.4	7.6	8.3	7.6	7.9	---	---	---
27	8.1	7.9	8.0	7.9	7.4	7.7	8.2	7.6	7.9	---	---	---
28	8.0	7.8	7.9	8.0	7.5	7.7	8.3	7.3	7.8	---	---	---
29	8.0	7.8	7.9	8.0	7.5	7.8	8.4	7.6	8.0	7.6	7.5	7.5
30	8.0	7.7	7.9	8.2	7.3	7.7	8.3	7.7	8.1	7.6	7.5	7.5
31	---	---	---	8.1	7.4	7.8	8.2	7.6	8.0	---	---	---
MONTH	---	---	---	8.2	7.2	7.6	---	---	---	---	---	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	14.1	10.6	12.3	12.2	8.9	10.6	9.6	8.1	9.1	0.2	0.0	0.0
2	15.5	11.9	13.5	13.4	11.6	12.5	8.1	6.6	7.4	0.3	0.0	0.0
3	16.3	12.7	14.4	13.1	10.8	11.9	7.4	5.5	6.5	0.3	0.0	0
4	16.4	13.0	14.6	11.3	8.8	10.2	9.5	6.9	8.1	0.4	0.0	0
5	16.7	13.8	15.1	10.5	7.9	9.0	9.8	7.9	8.9	0.3	0.0	0
6	15.0	12.3	13.6	8.2	6.1	7.2	10.3	8.6	9.3	0.1	0.0	0.0
7	12.5	9.8	10.8	7.7	5.5	6.6	10.3	9.0	9.7	0.1	0.0	0.0
8	10.7	9.1	10.0	8.9	5.4	7.1	9.2	8.6	8.9	0.1	0.0	0.0
9	11.9	9.1	10.5	8.6	6.7	7.9	8.9	6.1	7.7	0.3	0.0	0.0
10	12.8	10.0	11.4	8.2	5.7	6.9	6.1	4.0	4.9	0.5	0.0	0.1
11	14.6	12.4	13.4	7.7	5.9	6.8	5.6	3.9	4.8	0.5	0.0	0.2
12	16.3	14.5	15.3	6.4	4.4	5.5	7.3	4.3	5.4	0.5	-0.2	0
13	18.6	16.1	17.1	6.3	3.6	5.0	10.5	7.2	9.5	0.5	-0.2	0
14	18.4	15.1	16.8	7.2	4.5	5.8	11.1	9.7	10.5	0.7	-0.1	0.2
15	15.1	12.2	13.4	7.7	5.1	6.5	9.7	8.4	8.9	0.7	0.2	0.4
16	12.7	10.7	11.8	8.9	6.0	7.4	9.5	7.6	8.3	0.6	-0.2	0.2
17	11.0	9.0	10.1	9.8	7.5	8.6	10.8	9.5	10.1	1.0	0.4	0.7
18	10.7	7.8	9.3	10.2	8.0	9.1	10.0	7.8	9.2	0.8	-0.1	0.4
19	12.0	8.6	10.2	10.0	8.8	9.4	7.8	5.5	6.5	0.4	-0.1	0.1
20	13.6	10.5	12.1	9.3	6.3	7.3	6.5	3.8	4.8	0.2	-0.2	0
21	14.3	11.2	12.9	6.3	4.6	5.4	3.8	2.2	3.1	0.7	-0.1	0.2
22	14.8	12.3	13.6	5.6	3.4	4.5	4.6	1.8	3.0	1.0	-0.2	0.3
23	16.7	14.2	15.1	6.6	3.7	5.0	7.0	4.6	6.1	3.1	1.0	2.1
24	17.1	14.9	15.8	10.7	6.6	8.2	5.3	2.4	3.6	7.3	3.1	6.3
25	15.6	12.2	13.5	10.8	8.8	10.0	2.4	0.3	1.5	5.2	2.7	3.8
26	12.2	8.8	10.3	8.8	6.8	7.8	0.3	0.0	0	3.5	1.3	2.6
27	8.8	7.2	7.8	11.9	8.3	10.6	0.4	0.0	0.1	5.1	1.7	3.3
28	8.5	6.1	7.4	11.1	8.8	9.6	1.1	0.0	0.5	7.1	2.8	4.8
29	8.7	5.6	7.3	11.8	9.7	10.8	1.0	0.0	0.7	10.9	7.1	9.0
30	10.5	7.7	9.0	11.8	9.6	10.9	0.1	0.0	0.0	11.1	8.5	9.9
31	11.0	8.3	9.8	---	---	---	0.1	0.0	0.0	10.9	8.5	9.6
MONTH	18.6	5.6	12.2	13.4	3.4	8.1	11.1	0.0	5.7	11.1	-0.2	1.7

03254480 CRUISES CREEK AT HIGHWAY 17 NEAR PINER, KY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10.8	6.1	8.7	3.0	0.1	1.5	11.8	6.7	9.3	16.3	13.8	15.2
2	6.1	3.5	4.6	4.1	2.2	2.9	14.6	9.3	11.9	16.4	14.3	15.9
3	5.6	3.5	4.5	4.2	1.3	3.1	13.4	8.7	10.9	14.9	11.3	13.4
4	5.2	1.8	3.5	1.3	-0.1	0.6	9.2	6.0	7.8	16.5	12.0	14.1
5	2.2	0.0	1.2	3.1	-0.1	1.4	10.7	5.4	8.0	18.4	13.0	15.6
6	2.1	0.9	1.5	6.3	1.8	4.1	---	---	---	17.1	13.3	14.6
7	4.7	2.1	3.2	9.8	5.2	7.3	11.1	5.6	8.5	17.3	13.8	15.4
8	4.5	1.4	3.1	12.0	7.4	9.7	13.6	10.6	11.9	16.7	14.2	15.6
9	4.9	1.3	3.2	11.6	7.2	10.1	15.0	13.5	14.0	17.6	15.3	16.3
10	5.5	3.6	4.4	7.2	4.1	5.6	16.5	10.9	13.7	16.3	13.2	14.9
11	5.4	3.9	4.6	6.2	2.2	4.3	18.2	10.8	14.6	16.5	12.9	14.7
12	5.3	2.4	3.8	8.0	5.1	6.3	19.2	15.7	17.4	18.2	15.6	17.0
13	4.4	2.7	3.7	10.7	7.4	8.8	19.0	16.8	18.0	17.7	13.1	14.8
14	3.0	0.4	1.9	11.9	7.2	9.6	17.6	16.0	16.6	15.8	12.1	13.8
15	4.7	1.2	2.9	12.1	10.1	11.1	22.3	15.5	18.5	---	---	---
16	4.9	1.9	3.5	10.6	7.4	8.5	24.2	17.7	20.9	---	---	---
17	4.6	2.4	3.5	7.4	6.3	6.9	23.5	19.2	21.4	---	---	---
18	3.6	0.8	2.5	9.8	7.4	8.5	24.5	18.2	21.4	---	---	---
19	4.1	1.7	2.8	9.3	8.5	8.7	24.7	20.5	22.6	---	---	---
20	7.8	4.1	5.8	9.2	8.3	8.7	23.0	20.0	21.4	12.8	11.2	12.1
21	7.1	5.3	6.1	8.3	5.6	7.3	20.6	13.0	16.1	---	---	---
22	5.3	3.3	4.3	6.0	2.4	4.4	15.2	12.7	13.8	13.8	8.6	11.1
23	4.0	1.0	2.6	7.3	2.5	5.0	15.2	9.8	12.4	16.4	10.5	13.4
24	4.7	1.2	3.1	8.9	4.3	6.6	15.8	10.9	13.6	18.9	13.7	16.1
25	7.8	3.0	5.3	8.4	5.9	7.3	15.5	11.8	13.7	20.6	16.7	18.5
26	7.9	3.0	6.0	6.7	5.4	5.9	15.7	10.8	13.4	20.8	17.7	19.1
27	3.0	0.6	1.4	8.4	4.6	6.2	14.8	11.5	12.4	20.8	17.2	19.0
28	1.9	0.0	0.8	7.9	4.3	6.4	---	---	---	20.9	18.2	19.5
29	---	---	---	10.5	6.8	8.8	14.4	11.2	12.3	19.2	17.2	18.1
30	---	---	---	11.1	8.2	9.9	15.8	10.0	12.9	20.0	16.6	18.3
31	---	---	---	9.6	8.0	8.8	---	---	---	---	---	---
MONTH	10.8	0.0	3.7	12.1	-0.1	6.6	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	26.9	23.6	25.2	29.3	24.2	26.6	25.1	21.5	23.3
2	23.9	21.9	22.8	28.0	24.1	25.9	29.8	25.0	27.2	25.5	21.7	23.6
3	24.4	20.5	22.3	28.4	24.0	25.9	30.4	25.4	27.6	26.5	22.0	24.3
4	24.6	22.0	23.4	28.4	24.0	26.1	30.1	25.6	27.5	26.3	22.9	24.6
5	25.2	22.1	23.5	28.9	24.5	26.6	29.6	25.3	27.4	---	---	---
6	23.2	17.8	19.4	27.3	22.9	25.1	28.1	24.3	26.6	24.0	18.9	21.6
7	18.5	17.0	17.7	26.9	21.7	24.3	25.7	21.1	23.4	24.5	19.4	22.0
8	20.3	16.2	18.2	27.2	22.0	24.6	25.0	19.7	22.4	---	---	---
9	23.0	19.2	20.9	26.9	23.0	24.9	---	---	---	25.4	20.5	22.8
10	24.1	20.4	22.2	26.0	24.1	24.9	25.3	19.3	22.5	25.5	20.4	22.9
11	24.2	20.8	22.6	25.3	21.9	23.6	24.9	21.0	22.9	24.9	20.7	22.9
12	24.3	22.3	23.3	25.1	20.3	22.6	26.6	22.2	24.2	22.2	17.3	19.8
13	23.9	22.6	23.1	23.4	21.9	22.5	26.2	22.0	24.2	21.3	15.8	18.7
14	22.8	20.9	21.7	24.7	20.7	22.5	26.6	23.4	24.9	22.5	19.7	21.0
15	21.4	19.0	20.3	26.3	21.4	23.7	26.3	23.8	24.9	21.6	20.3	21.0
16	20.9	19.1	20.1	26.4	22.1	24.2	26.7	23.9	25.1	21.5	20.6	21.0
17	20.7	17.3	19.2	25.0	22.6	23.9	26.3	23.4	24.7	20.9	19.4	20.2
18	21.8	18.5	20.1	27.0	22.6	24.5	25.7	23.5	24.5	22.6	19.9	21.1
19	22.8	19.3	21.0	27.1	23.2	25.0	25.3	22.1	23.6	23.9	20.7	21.9
20	24.5	20.7	22.5	28.2	23.6	25.6	25.4	21.9	23.4	23.6	21.2	22.3
21	25.4	21.9	23.6	28.8	23.9	26.2	26.7	20.8	23.7	22.1	20.1	21.1
22	25.2	22.1	23.7	28.8	24.8	26.8	28.3	22.5	25.2	21.1	19.0	20.1
23	25.2	21.6	23.6	27.0	25.3	26.2	28.0	23.7	25.8	19.0	16.6	17.8
24	25.0	22.2	23.7	27.6	23.3	25.4	27.5	24.0	25.6	---	---	---
25	25.2	22.7	23.8	26.9	22.4	24.8	26.3	23.2	24.6	17.0	15.3	16.3
26	25.3	22.5	23.9	26.5	23.0	24.9	26.1	21.5	23.8	---	---	---
27	26.0	23.6	24.6	27.6	24.3	25.7	24.1	21.7	22.8	---	---	---
28	25.3	23.4	24.3	28.2	24.7	26.4	24.0	20.6	22.1	---	---	---
29	25.5	22.6	24.1	28.9	25.0	26.7	24.4	20.4	22.4	18.3	15.7	17.0
30	25.8	22.9	24.4	28.1	24.3	26.0	24.7	20.7	22.7	18.9	16.0	17.4
31	---	---	---	28.9	23.1	25.8	24.9	20.3	22.7	---	---	---
MONTH	---	---	---	28.9	20.3	25.0	---	---	---	---	---	---

03254480 CRUISES CREEK AT HIGHWAY 17 NEAR PINER, KY--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.6	7.2	7.7	11.3	9.2	10.1	10.4	9.5	9.9	15.2	14.0	14.5
2	8.7	7.0	7.5	10.3	8.5	9.4	11.2	10.0	10.6	15.6	14.1	14.7
3	8.2	6.2	7.0	11.7	8.3	10	11.9	10.5	11.2	15.7	14.1	14.8
4	8.4	5.8	6.9	12.6	9.3	10.6	11.8	10.5	11.2	16.0	14.3	15.0
5	7.3	5.9	6.5	12.2	8.4	10.4	11.7	10.3	10.8	16.1	14.2	14.9
6	7.5	6.0	6.7	13.2	10.3	11.5	10.7	9.9	10.3	14.9	13.8	14.3
7	7.8	6.2	7.2	12.7	10.7	11.7	11.2	9.9	10.5	15.7	13.8	14.6
8	7.7	7.2	7.4	12.3	11.0	11.6	10.9	10.2	10.4	16.1	14.1	15.0
9	7.5	6.8	7.2	11.6	10.2	11.0	12.1	10.2	11.1	16.5	14.1	15.1
10	6.8	6.1	6.5	11.6	10.8	11.1	13.0	11.1	11.9	15.7	13.9	14.7
11	6.6	4.8	6.0	11.3	10.5	10.9	13.0	11.4	12.0	15.5	13.6	14.3
12	7.7	4.1	6.5	11.7	10.9	11.2	13.0	10.8	11.9	15.4	13.2	14.1
13	7.4	5.7	6.6	11.8	11.2	11.5	10.8	9.4	9.9	15.2	12.8	13.7
14	8.8	5.3	7.5	11.6	11.2	11.4	9.7	9.3	9.5	14.7	12.2	13.2
15	10.0	8.2	8.9	11.4	10.8	11.0	11.4	9.6	10.4	15.0	11.3	12.8
16	10.0	8.5	9.4	10.9	10.3	10.6	11.1	9.9	10.3	16.1	12.5	14.0
17	11.2	9.7	10.4	10.4	9.8	10.1	10.3	9.6	9.9	16.1	12.1	13.8
18	11.2	10.0	10.6	10.1	9.5	9.8	10.1	9.5	9.9	16.2	12.5	14.3
19	10.8	9.6	10.2	9.8	8.9	9.2	11.2	9.7	10.5	15.9	12.7	14.2
20	10.0	9.0	9.5	10.5	8.8	9.7	11.9	10.2	11.2	17.3	13.2	14.9
21	9.8	8.2	9.1	10.8	10.2	10.5	12.6	11.3	11.9	16.7	13.1	14.7
22	9.7	8.0	8.8	11.2	10.6	10.9	12.6	11.4	12.1	17.3	13.4	15.1
23	8.8	7.0	7.9	11.3	11.0	11.1	11.4	10.3	10.7	15.2	12.3	13.8
24	8.7	7.4	8.1	11.0	9.3	10.3	12.5	10.8	11.9	13.4	10.9	11.3
25	8.9	8.0	8.6	9.6	8.4	9.0	13.5	12.1	12.8	13.0	11.1	12.2
26	10.1	8.8	9.6	10.8	9.0	9.9	14.0	13.0	13.5	13.8	11.9	12.8
27	10.9	9.7	10.3	10.5	9.0	9.6	14.0	13.1	13.5	13.6	11.5	12.5
28	11.3	10.1	10.6	10.4	9.0	9.7	13.8	13.0	13.3	13.5	11.0	12.2
29	11.4	10.2	10.7	10.6	9.4	9.8	14.0	12.8	13.3	11.2	8.4	10.1
30	11.0	9.8	10.3	9.6	9.2	9.5	14.7	13.6	14.1	11.2	8.1	9.6
31	10.9	9.4	10.1	---	---	---	15.1	13.9	14.4	10.5	9.3	10.0
MONTH	11.4	4.1	8.4	13.2	8.3	10.4	15.1	9.3	11.4	17.3	8.1	13.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.8	9.3	10.8	18.5	14.9	16.7	15.3	10.3	12.4	8.8	7.2	8.0
2	13.5	11.8	12.6	16.4	13.7	14.9	15.4	9.4	11.9	---	---	---
3	13.5	11.7	12.5	16.9	12.8	14.7	14.6	8.8	11.2	10.7	8.4	9.4
4	13.7	11.6	12.8	18.6	14.3	16.3	15.7	10.4	12.8	10.6	8.2	9.2
5	14.9	13.2	14.0	18.1	14.8	16.3	15.4	10.8	12.8	11.2	8.0	9.3
6	14.5	13.2	13.7	17.3	13.5	15.2	---	---	---	9.8	7.6	8.5
7	14.1	12.6	13.2	16.6	11.8	14.0	14.5	10.0	12.0	9.4	8.3	8.8
8	14.7	12.5	13.5	15.3	10.5	12.9	12.9	8.7	10.4	9.6	8.3	8.9
9	14.8	12.7	13.5	12.2	9.3	10.5	11.6	7.4	9.3	8.9	8.4	8.7
10	13.4	12.2	12.6	15.2	11.2	13.1	12.0	7.6	9.1	10.0	8.6	9.3
11	15.3	12.1	13.4	16.5	12.3	14.1	11.0	6.3	8.4	10.3	8.7	9.4
12	15.9	12.6	13.9	15.3	11.7	13.1	10.4	5.7	7.4	9.1	8.1	8.6
13	16.3	12.5	14.1	14.9	10.5	12.2	8.4	5.3	6.8	10.0	8.1	9.5
14	17.0	13.4	14.9	14.9	9.9	12.0	8.8	5.7	7.0	9.9	8.7	9.4
15	17.0	13.6	14.9	11.5	9.1	10.2	10.3	6.3	7.8	---	---	---
16	17.3	12.8	14.7	11.3	10.3	11.0	11.0	5.3	7.6	---	---	---
17	17.3	12.7	14.7	12.2	11.0	11.5	9.3	5.4	7.2	---	---	---
18	17.8	13.2	15.2	12.8	10.4	11.4	9.6	5.4	7.1	---	---	---
19	17.2	13.0	14.8	12.0	10.1	10.9	10.2	4.7	7.3	---	---	---
20	14.7	11.5	13.0	11.0	10.7	10.8	9.8	5.5	7.2	11.1	9.3	10.2
21	14.9	10.7	12.5	12.3	10.8	11.4	11.4	6.1	9.1	---	---	---
22	17.3	11.8	14.1	13.7	11.5	12.7	11.3	10.0	10.8	13.1	9.6	11.1
23	18.0	13.3	15.5	13.8	11.0	12.5	11.3	8.4	10.1	13.8	9.2	10.9
24	18.1	13.3	15.5	13.4	10.5	12.0	11.7	8.8	10.1	14.5	8.3	10.9
25	17.6	13.0	15.2	12.9	10.3	11.3	11.7	8.7	10.4	14.7	7.5	10.2
26	16.3	11.1	13.6	12.4	11.4	11.9	12.4	8.7	10.2	14.8	6.7	9.4
27	18.6	13.7	16.1	13.0	11.0	12.0	12.8	8.4	10.3	14.5	6.6	9.3
28	18.9	15.2	17.1	13.6	10.6	12.1	---	---	---	14.4	6.7	8.8
29	---	---	---	13.5	9.8	11.4	11.1	9.1	10.3	9.2	7.1	7.9
30	---	---	---	14.3	9.7	11.7	10.1	7.9	9.3	9.4	7.2	8.1
31	---	---	---	14.9	10.0	12.0	---	---	---	---	---	---
MONTH	18.9	9.3	14.0	18.6	9.1	12.7	---	---	---	---	---	---

03254480 CRUISES CREEK AT HIGHWAY 17 NEAR PINER, KY--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	7.9	5.7	6.8	9.3	4.3	6.8	9.3	5.2	7.4
2	8.3	5.6	6.6	8.3	5.4	6.6	9.3	4.3	6.8	10.7	5.1	7.9
3	7.5	5.8	6.5	7.9	4.6	6.0	8.9	4.0	6.3	9.4	5.1	7.4
4	6.8	5.3	6.1	8.0	4.4	6.1	8.3	3.8	5.7	8.3	4.0	6.3
5	7.7	6.0	6.7	9.4	4.4	6.6	7.7	3.0	5.4	---	---	---
6	9.3	6.7	8.4	8.5	4.6	6.5	7.7	3.6	5.5	7.8	4.2	5.9
7	9.3	8.5	9.0	8.9	4.8	6.7	7.3	4.1	5.6	8.8	4.2	6.5
8	9.5	8.4	8.9	8.7	4.9	6.8	8.3	4.4	6.1	---	---	---
9	9.5	8.0	8.6	9.5	5.0	7.1	---	---	---	10.1	5.2	7.4
10	9.4	7.7	8.4	8.2	5.0	6.4	9.0	5.4	7.1	9.8	5.3	7.6
11	9.4	7.5	8.4	8.5	4.7	6.6	9.5	5.6	7.6	8.9	5.2	6.9
12	8.1	6.6	7.5	9.7	5.1	7.2	10.8	5.3	7.9	8.9	5.1	6.4
13	7.7	6.3	6.9	8.3	5.3	6.7	10.3	5.8	7.9	9.4	5.4	7.1
14	8.0	6.6	7.3	10.7	5.3	7.6	9.7	5.3	7.3	7.7	5.0	6.5
15	8.5	6.7	7.5	11.1	6.1	8.5	9.1	4.6	6.9	7.0	4.4	5.8
16	8.7	6.8	7.6	12.0	6.6	9.3	10.4	5.2	7.7	5.1	4.1	4.5
17	8.2	6.9	7.5	10.3	6.6	8.5	9.9	5.4	7.7	---	---	---
18	8.4	6.9	7.7	10.9	6.0	8.2	8.6	5.4	6.9	6.5	3.6	4.8
19	8.6	6.8	7.7	10.1	5.4	7.6	10.8	5.0	7.4	6.3	3.1	4.4
20	8.2	6.8	7.5	9.8	5.2	7.3	11.3	5.4	7.9	5.3	2.8	4.1
21	8.3	6.6	7.4	9.4	4.8	7.0	11.7	5.7	8.3	4.5	2.6	3.6
22	8.4	6.7	7.5	9.8	4.9	7.5	11.2	5.4	8.2	2.6	1.7	2.0
23	9.0	6.6	7.9	8.4	5.0	6.9	11.3	4.9	8.0	1.8	1.6	1.7
24	10.6	6.9	8.8	9.6	4.8	6.9	10.6	4.5	7.5	---	---	---
25	9.9	7.5	8.6	10.1	5.4	7.4	10.9	4.7	7.5	1.6	1.5	1.6
26	9.4	6.5	8.0	9.2	5.3	7.3	11.5	4.9	7.8	---	---	---
27	8.8	7.0	7.8	9.7	4.9	7.3	9.6	4.8	6.9	---	---	---
28	7.6	5.9	6.8	9.8	5.1	7.5	10.2	4.0	6.9	---	---	---
29	7.3	5.7	6.5	9.3	5.3	7.2	13.3	5.6	9.3	1.1	1.0	1.1
30	7.5	5.5	6.6	11.3	3.5	7.1	11.4	6.6	9.0	1.1	1.0	1.1
31	---	---	---	9.6	4.8	7.0	10.0	5.8	8.0	---	---	---
MONTH	---	---	---	12.0	3.5	7.2	---	---	---	---	---	---

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	100	97	99	24	5.0	9.0	150	40	57	26	23	25
2	100	93	98	25	5.5	10	61	29	42	26	21	24
3	100	93	96	34	6.0	9.3	36	19	28	23	16	18
4	100	77	87	12	5.5	8.1	28	20	25	---	---	---
5	89	70	77	18	4.0	7.4	40	21	25	---	---	---
6	97	70	79	86	4.6	11	350	24	120	---	---	---
7	86	66	69	12	4.0	7.3	150	39	71	---	---	---
8	74	59	63	10	6.0	7.4	61	38	47	20	17	18
9	62	55	58	12	7.0	8.4	58	25	36	24	18	20
10	61	52	55	11	6.0	7.8	27	16	21	33	13	23
11	58	49	52	10	6.0	7.9	58	12	18	21	9.0	14
12	410	50	140	9.0	6.0	7.2	99	10	23	10	4.0	7.6
13	120	77	100	10	6.0	6.6	120	44	71	17	7.0	10
14	680	80	200	11	6.0	7.2	980	40	130	21	12	16
15	100	56	74	11	6.0	7.5	110	35	56	26	21	24
16	120	44	86	10	7.0	8.2	990	24	190	24	20	22
17	79	32	53	14	9.0	11	640	100	270	21	17	19
18	38	27	31	20	13	16	270	64	120	18	14	16
19	33	25	29	39	14	22	350	33	100	15	11	13
20	37	28	32	24	13	17	40	25	32	12	8.6	10
21	62	16	33	17	12	14	30	23	25	10	5.0	7.4
22	28	6.0	12	14	11	13	25	20	22	8.0	3.0	5.1
23	980	6.5	190	19	12	13	170	21	95	5.0	2.0	3.3
24	880	140	340	45	13	17	83	22	36	950	3.0	340
25	380	130	190	70	32	44	23	16	19	83	25	45
26	140	34	85	43	16	25	18	15	16	160	17	30
27	41	14	21	790	19	260	27	17	22	160	57	81
28	23	9.9	12	290	74	130	25	21	22	80	26	47
29	14	6.4	8.8	910	120	260	26	21	23	68	25	28
30	18	5.0	8.0	200	76	120	27	21	24	940	24	250
31	16	4.6	7.6	---	---	---	27	24	25	150	53	77
MONTH	980	4.6	80	910	4.0	36	990	10	58	---	---	---

03254480 CRUISES CREEK AT HIGHWAY 17 NEAR PINER, KY--Continued

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	840	58	230	20	17	19	11	3.0	5.9	280	36	50
2	82	36	52	41	20	29	8.0	3.0	5.2	---	---	---
3	69	30	40	45	35	39	10	4.0	6.3	97	35	57
4	69	38	48	38	33	35	8.0	2.0	4.4	450	24	78
5	42	34	37	35	31	33	7.0	2.0	3.5	600	18	48
6	41	35	37	40	34	36	12	4.0	7.5	990	20	270
7	42	32	37	45	39	41	13	7.0	9.5	710	81	210
8	35	28	31	52	40	46	18	6.0	8.7	990	88	470
9	42	29	33	160	40	77	11	5.0	6.9	770	110	170
10	44	34	37	180	62	80	10	4.0	6.5	440	32	110
11	45	34	37	80	39	49	7.1	2.1	5.3	550	12	97
12	46	35	37	45	38	40	8.2	4.1	6.3	430	10	47
13	40	32	35	54	42	46	13	6.2	9.1	690	110	280
14	40	30	33	57	48	51	380	11	67	120	51	72
15	39	31	33	1000	53	130	470	14	42	---	---	---
16	40	33	36	1000	96	330	22	11	15	---	---	---
17	42	35	38	96	48	66	19	12	15	---	---	---
18	40	33	36	57	6.8	35	87	14	18	---	---	---
19	42	37	39	490	15	150	74	14	20	---	---	---
20	88	39	49	900	81	250	170	18	36	28	6.0	14
21	52	39	45	82	33	48	1000	25	250	---	---	---
22	43	29	35	36	16	24	600	97	190	16	1.0	5.3
23	31	22	26	23	12	17	490	91	260	730	4.0	57
24	24	15	19	39	19	26	1000	73	140	580	3.0	23
25	28	11	15	740	11	44	1000	50	240	53	8.0	23
26	21	8.6	14	950	64	310	91	34	49	150	12	59
27	18	15	16	64	21	33	1000	36	190	220	20	140
28	27	16	17	25	12	17	---	---	---	510	25	160
29	---	---	---	19	8.6	13	270	100	190	530	85	240
30	---	---	---	17	8.3	11	220	37	62	230	77	120
31	---	---	---	12	5.0	7.8	---	---	---	---	---	---
MONTH	840	8.6	41	1000	5.0	69	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	19	12	15	40	23	33	310	20	44
2	54	36	45	32	14	19	39	19	29	36	18	27
3	70	45	53	60	14	24	34	16	25	33	13	23
4	59	37	47	76	15	30	31	14	24	52	14	24
5	100	42	52	38	17	27	35	18	27	---	---	---
6	1000	100	300	43	23	33	200	18	36	31	16	25
7	170	120	140	42	26	34	110	31	61	59	17	27
8	140	63	93	45	31	38	53	30	40	---	---	---
9	71	43	54	85	21	34	---	---	---	34	14	25
10	68	43	50	53	23	35	42	28	36	25	9.0	17
11	54	39	46	50	7.0	21	36	12	25	32	13	20
12	55	19	34	25	8.0	18	65	14	21	30	18	23
13	59	18	31	47	14	20	30	20	25	43	27	32
14	56	28	37	37	15	20	38	24	30	50	32	41
15	44	24	35	83	17	28	39	26	32	970	49	170
16	66	31	44	36	20	27	36	26	30	180	17	44
17	64	41	53	31	16	26	34	23	30	---	---	---
18	70	26	38	30	19	26	38	26	33	68	43	55
19	180	19	29	83	28	38	46	28	38	58	31	44
20	24	17	20	90	36	48	58	20	31	460	21	86
21	36	15	19	96	36	53	35	17	28	140	34	66
22	32	17	20	54	31	42	32	18	26	42	21	32
23	26	17	21	49	31	35	34	22	28	32	18	21
24	61	13	19	44	28	33	36	25	31	---	---	---
25	20	12	15	46	32	39	42	26	34	30	20	24
26	22	13	17	50	38	43	46	30	35	---	---	---
27	34	11	16	47	27	34	170	35	55	---	---	---
28	20	12	14	41	31	36	390	36	160	---	---	---
29	21	12	15	67	33	42	48	26	38	65	25	33
30	21	12	15	120	45	71	48	28	35	190	65	150
31	---	---	---	58	29	45	49	29	38	---	---	---
MONTH	---	---	---	120	7.0	33	---	---	---	---	---	---

03254550 BANKLICK CREEK AT HIGHWAY 1829 NEAR ERLANGER, KY

LOCATION.--Lat 38°58'34", long 84°32'40", Kenton County, Hydrologic Unit 05100101, at bridge on Highway 1829, 2.5 mi below Brushy Fork, 4.6 mi southeast of Erlanger, and at mile 8.2.

DRAINAGE AREA.--30.0 mi^2 (revised).

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--April 1999 to current year.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 540.33 ft above NGVD of 1929.

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

COOPERATION.--Northern Kentucky Sanitation District No. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	14	79	e12	342	10	26	56	17	1.8	0.32	0.08
2	1.6	12	45	e12	78	16	23	127	13	1.4	0.26	0.08
3	0.86	12	32	e11	50	28	23	60	10	1.1	0.21	0.08
4	0.41	9.8	25	e10	35	16	19	43	8.7	0.93	1.1	0.07
5	0.56	9.0	21	e10	27	14	17	34	9.8	0.79	0.67	0.06
6	19	8.2	86	e11	24	15	17	144	534	0.64	0.31	0.05
7	5.6	7.6	67	e12	22	14	15	559	79	0.66	0.23	0.06
8	3.2	7.2	59	e11	19	13	15	1330	31	0.56	0.20	0.06
9	3.7	7.0	e44	e10	17	43	18	140	19	0.49	0.17	0.05
10	3.7	6.7	e30	e10	25	41	16	65	13	30	0.14	0.04
11	3.7	6.5	24	e11	29	24	13	46	9.9	7.0	0.13	0.03
12	66	6.1	22	e13	21	25	13	36	8.5	3.1	0.16	0.02
13	64	5.7	58	e15	19	22	31	827	7.8	2.2	0.12	0.00
14	214	5.6	149	14	17	19	37	131	11	1.8	0.10	0.00
15	57	5.5	75	13	17	21	33	60	7.1	1.7	0.12	9.2
16	70	5.3	361	11	16	174	20	44	13	1.4	0.11	5.5
17	50	5.2	797	14	14	57	30	319	7.2	1.1	0.10	0.91
18	36	5.0	247	13	13	39	26	230	4.9	0.96	0.12	0.46
19	30	5.7	83	15	13	186	31	64	4.1	0.82	0.13	0.33
20	27	13	52	15	18	521	60	45	3.3	4.4	0.11	0.41
21	23	7.9	39	17	21	104	1320	35	3.0	6.7	0.14	3.2
22	21	5.9	32	14	14	58	306	29	2.6	3.0	0.20	1.2
23	144	5.3	101	11	12	43	79	25	2.2	2.0	0.26	0.52
24	801	5.5	54	388	12	35	58	21	2.0	1.4	0.22	0.35
25	241	11	37	74	12	41	116	18	1.9	0.98	0.19	0.31
26	58	7.8	30	43	14	467	53	18	1.7	0.84	0.16	1.3
27	34	140	26	32	13	90	99	15	1.6	0.72	0.14	368
28	25	148	23	27	9.9	56	661	43	6.7	0.60	0.14	31
29	20	505	20	24	---	44	81	50	4.2	0.55	0.12	12
30	18	380	e15	245	---	36	55	32	2.6	0.32	0.10	7.0
31	15	---	e14	121	---	30	---	19	---	0.38	0.08	---
TOTAL	2059.03	1373.5	2747	1239	923.9	2302	3311	4665	839.8	80.34	6.56	442.37
MEAN	66.42	45.78	88.61	39.97	33.00	74.26	110.4	150.5	27.99	2.592	0.212	14.75
MAX	801	505	797	388	342	521	1320	1330	534	30	1.1	368
MIN	0.41	5.0	14	10	9.9	10	13	15	1.6	0.32	0.08	0.00

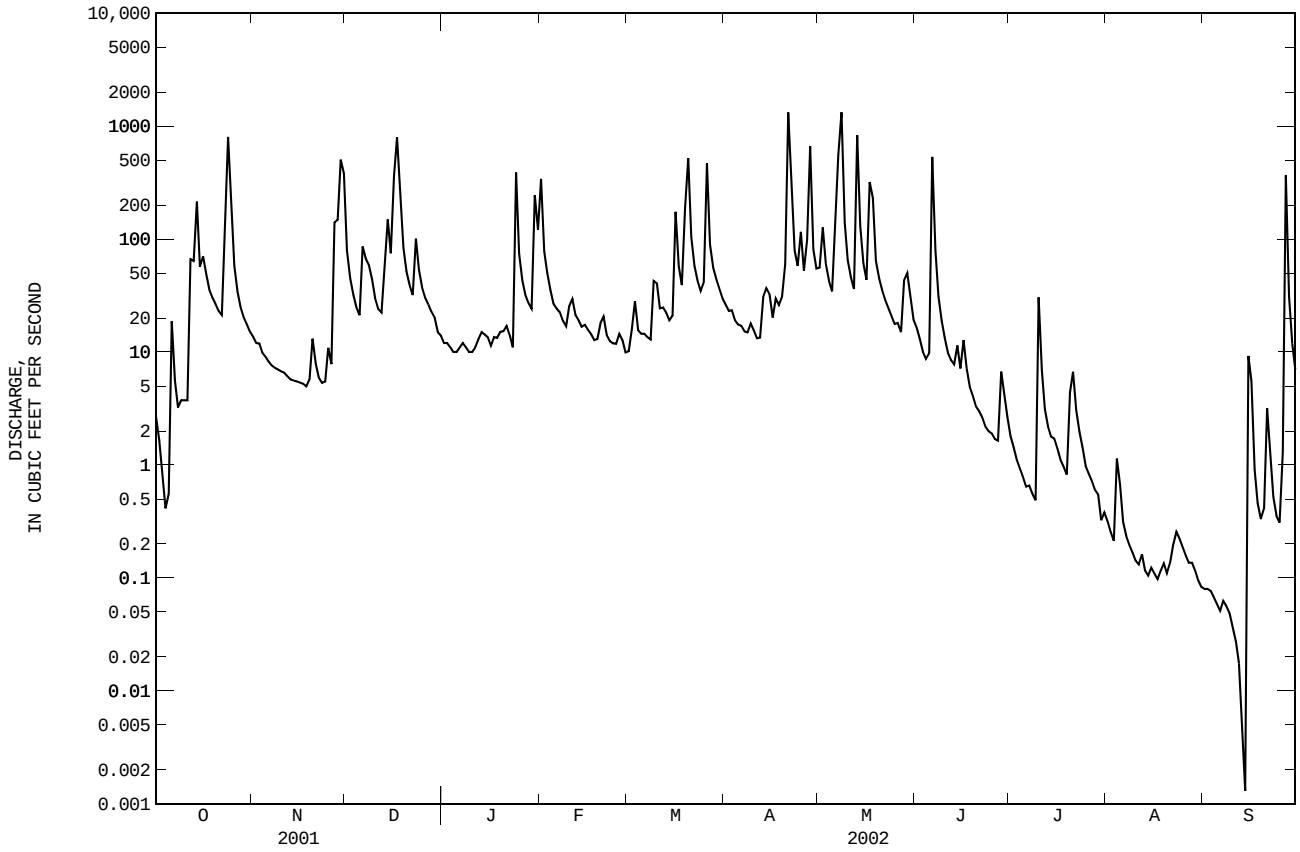
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	23.56	17.49	49.68	36.52	71.82	46.29	50.34	46.37	23.04	13.21	9.589	10.44
MAX	66.4	45.8	88.7	46.3	143	74.3	110	150	41.1	29.4	26.3	15.1
(WY)	2002	2002	2002	2000	2000	2002	2002	2002	2001	2001	2001	2000
MIN	1.65	1.27	10.5	21.3	33.0	21.4	6.62	5.10	2.71	2.59	0.21	0.071
(WY)	2000	2000	2000	2001	2002	2001	2001	1999	1999	2002	2002	1999

03254550 BANKLICK CREEK AT HIGHWAY 1829 NEAR ERLANGER, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL TOTAL	12448.62		19989.50			
ANNUAL MEAN	34.11		54.77		36.04	
HIGHEST ANNUAL MEAN					54.9	2002
LOWEST ANNUAL MEAN					22.1	2001
HIGHEST DAILY MEAN	801	Oct 24	1330	May 8	2130	Feb 18 2000
LOWEST DAILY MEAN	0.41	Oct 4	0.00	Sep 13	0.00	Sep 21 1999
ANNUAL SEVEN-DAY MINIMUM	1.6	Sep 29	0.03	Sep 8	0.00	Sep 21 1999
MAXIMUM PEAK FLOW			9570	Apr 21	9570	Apr 21 2002
MAXIMUM PEAK STAGE			10.65	Apr 21	10.65	Apr 21 2002
10 PERCENT EXCEEDS	74		102		61	
50 PERCENT EXCEEDS	12		14		9.0	
90 PERCENT EXCEEDS	2.9		0.21		0.50	

e Estimated



03254550 BANKLICK CREEK AT HIGHWAY 1829 NEAR ERLANGER, KY--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Northern Kentucky Sanitation District No. 1.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 2000 to current year. pH:December 2000 to current year.
WATER TEMPERATURES: December 2000 to current year.
DISSOLVED OXYGEN: December 2000 to current year.
TURBIDITY: December 2000 to current year.

INSTRUMENTATION.--Water-quality monitor with telemetry.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 1280 microsiemens, Dec. 13, 2000; minimum recorded, 111 microsiemens, May 8, 2002.
pH: Maximum recorded, 8.8 units, Apr. 15, 18, 20, 2002; minimum recorded, 7.2 units, Jan. 16, 2002.
WATER TEMPERATURES: Maximum recorded, 32.7'C, Aug. 8, 2001 and Jul. 5, 2002; minimum recorded, 0.3'C, Mar. 5, 2002.
DISSOLVED OXYGEN: Maximum recorded, 22.3 mg/L, Feb. 28, 2001; minimum recorded, 2.5 mg/L, Jun. 4, 2002.
TURBIDITY: Maximum recorded, >1000 NTU, several days each year; minimum recorded, 1.0 NTU, Feb. 28, 2001 and Apr. 6, 7, 2002.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 1040 microsiemens, Jan. 8, 2002; minimum recorded, 111 microsiemens, May 8,, 2002.
pH: Maximum recorded, 8.8 units,Apr. 15, 18, 20, 2002; minimum recorded, 7.2 units, Jan. 16, 2002.
WATER TEMPERATURES: Maximum recorded, 32.7'C, July 5, 2002; minimum recorded, -0.3'C, Mar. 5, 2002.
DISSOLVED OXYGEN: Maximum recorded, 17.2 mg/L, Mar, 4, 2002; minimum recorded, 2.5 mg/L, Jun. 4,, 2002.
TURBIDITY: Maximum recorded, >1000 NTU, several days in 2002; minimum recorded, 1.0 NTU, Apr. 6, 7 2002.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	706	656	680	621	606	615	530	456	502	713	663	684
2	726	657	704	623	610	616	564	530	547	706	657	682
3	---	---	---	620	589	607	591	564	578	683	643	665
4	---	---	---	614	592	603	608	590	599	677	632	655
5	754	699	740	611	593	602	616	584	612	649	607	630
6	948	630	705	630	599	611	622	387	538	697	606	637
7	659	635	648	640	629	634	530	390	468	901	641	769
8	682	659	673	653	634	644	560	530	541	1040	901	987
9	693	676	685	647	627	637	---	---	---	1030	918	983
10	711	685	700	647	632	639	---	---	---	951	710	859
11	726	694	713	651	635	641	---	---	---	728	599	648
12	823	511	645	649	639	643	624	610	616	637	580	610
13	576	531	553	652	642	647	638	543	568	630	596	610
14	586	340	464	656	646	650	567	371	476	623	564	611
15	607	518	568	659	649	653	555	427	510	616	588	603
16	616	531	575	662	652	656	577	207	484	623	590	606
17	632	567	600	663	653	657	366	219	279	613	582	600
18	666	632	650	661	651	657	463	265	379	615	585	599
19	673	666	670	665	644	656	510	462	490	635	593	614
20	688	669	678	687	616	640	542	510	526	701	615	642
21	691	669	681	631	617	626	560	540	550	826	701	791
22	693	665	682	638	629	634	572	559	566	795	691	733
23	688	313	613	656	638	648	569	418	470	715	671	696
24	405	198	319	657	638	650	528	454	497	768	278	434
25	499	298	389	688	616	642	558	527	543	536	461	505
26	559	498	536	627	605	623	580	557	568	576	535	557
27	586	558	572	628	348	448	583	569	576	600	576	588
28	603	583	594	523	367	457	587	578	583	609	598	604
29	617	602	609	413	279	347	592	582	586	619	603	612
30	622	611	615	456	293	363	686	592	647	628	253	490
31	624	615	619	---	---	---	709	652	683	522	355	466
MONTH	---	---	---	688	279	605	---	---	---	1040	253	651

03254550 BANKLICK CREEK AT HIGHWAY 1829 NEAR ERLANGER, KY--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	523	245	387	647	617	635	555	512	536	629	316	535
2	538	466	508	654	626	639	555	508	533	412	337	374
3	569	537	555	653	627	637	547	518	532	485	412	457
4	585	569	578	692	631	661	552	533	543	516	485	500
5	600	585	594	669	634	654	563	536	551	531	500	518
6	608	599	603	655	620	642	558	531	547	550	280	471
7	615	606	611	648	605	629	560	534	548	369	157	286
8	617	607	612	638	599	619	573	545	558	432	111	284
9	615	602	610	756	604	645	582	552	567	440	291	387
10	620	597	610	659	607	617	579	556	568	482	434	462
11	601	555	578	632	613	622	592	569	581	515	480	494
12	590	562	577	644	625	635	601	568	588	533	507	519
13	596	566	582	655	617	639	604	530	555	526	183	276
14	595	575	585	650	555	627	560	518	543	443	293	386
15	599	568	586	640	581	626	549	519	532	494	443	471
16	596	565	583	624	395	458	581	528	556	---	---	---
17	595	563	581	584	511	552	585	378	531	---	---	---
18	594	570	584	603	583	592	553	460	531	422	212	336
19	600	575	589	610	331	543	585	384	549	493	422	461
20	606	572	592	428	288	342	524	449	489	515	489	501
21	615	597	602	522	428	486	555	130	414	530	495	514
22	630	596	616	560	521	542	510	185	318	538	504	521
23	633	608	621	579	559	568	659	510	614	545	505	523
24	627	595	615	586	567	578	738	454	597	547	505	526
25	619	581	603	593	529	574	484	327	380	545	517	530
26	615	584	600	529	200	329	487	436	454	544	517	529
27	608	592	600	508	415	472	497	341	460	552	526	540
28	647	604	626	547	508	528	---	---	---	557	276	508
29	---	---	---	558	543	550	654	384	539	428	384	399
30	---	---	---	560	525	546	566	476	527	---	---	---
31	---	---	---	557	518	540	---	---	---	---	---	---
MONTH	647	245	585	756	200	572	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	513	478	500	503	459	483	605	575	585	756	747	751
2	533	505	521	513	479	501	592	573	585	775	753	769
3	549	525	538	526	503	518	614	592	602	796	772	787
4	563	549	555	537	523	532	---	---	---	804	784	795
5	616	540	567	552	536	544	683	563	607	807	798	804
6	---	---	---	559	549	556	644	611	632	812	804	808
7	---	---	---	567	552	561	613	597	605	816	804	812
8	---	---	---	565	556	561	628	606	615	819	802	813
9	---	---	---	577	565	572	647	624	636	823	811	818
10	---	---	---	686	313	433	656	644	650	825	815	821
11	---	---	---	363	319	341	679	656	670	830	819	824
12	559	539	550	390	363	378	675	630	657	834	827	830
13	---	---	---	424	390	412	684	658	674	838	827	833
14	---	---	---	448	424	441	696	670	681	840	836	838
15	560	540	550	485	446	467	694	669	681	939	448	678
16	590	529	548	512	485	503	706	676	692	483	421	446
17	553	523	538	530	506	515	709	689	699	525	476	502
18	555	516	540	547	530	542	710	686	698	588	521	561
19	570	533	552	554	542	549	716	697	705	665	588	624
20	580	536	558	789	376	557	748	708	734	699	665	674
21	592	544	566	460	343	414	769	739	749	988	523	657
22	584	546	565	482	454	471	814	769	792	574	511	546
23	579	549	566	482	460	475	793	718	748	596	574	589
24	581	556	568	499	478	491	742	723	732	638	596	618
25	583	562	576	526	499	515	746	730	738	672	638	663
26	596	580	588	549	524	539	750	737	745	860	663	691
27	610	583	597	569	546	557	750	732	743	860	262	374
28	715	500	549	584	567	578	748	740	745	528	438	497
29	519	480	505	597	581	590	757	746	752	578	525	551
30	508	458	486	687	580	640	757	748	753	617	578	594
31	---	---	---	701	578	655	754	747	751	---	---	---
MONTH	---	---	---	789	313	513	---	---	---	988	262	686

03254550 BANKLICK CREEK AT HIGHWAY 1829 NEAR ERLANGER, KY--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.9	7.6	7.7	8.4	8.1	8.2	8.5	8.1	8.3	8.1	7.8	8.0
2	8.0	7.8	7.9	8.4	8.1	8.2	8.5	8.1	8.3	7.9	7.8	7.8
3	8.0	7.8	7.9	8.5	8.2	8.3	8.4	8.1	8.2	8.0	7.8	7.9
4	8.0	7.9	7.9	8.4	8.1	8.3	8.4	8.1	8.2	8.1	7.7	7.9
5	8.0	7.9	7.9	8.4	8.2	8.3	8.4	8.1	8.2	8.1	7.7	7.9
6	8.0	7.9	7.9	8.5	8.2	8.3	8.3	8.0	8.1	7.9	7.6	7.7
7	8.1	7.9	8.0	8.5	8.1	8.3	8.3	8.0	8.1	7.7	7.5	7.6
8	8.1	7.9	8.0	8.5	8.1	8.3	8.3	8.0	8.1	7.8	7.5	7.6
9	8.2	7.9	8.1	8.3	8.1	8.2	8.3	8.0	8.1	7.9	7.7	7.8
10	8.2	8.0	8.1	8.4	8.1	8.3	8.5	8.1	8.2	8.0	7.9	7.9
11	8.3	8.0	8.1	8.5	8.2	8.3	8.4	8.1	8.2	8.0	7.9	7.9
12	8.4	8.0	8.1	8.5	8.2	8.3	8.4	8.1	8.2	8.1	7.8	8.0
13	8.4	8.0	8.2	8.5	8.2	8.3	8.6	8.1	8.3	8.0	7.7	7.8
14	8.3	8.0	8.1	8.5	8.2	8.3	8.5	8.2	8.3	8.1	7.8	8.0
15	8.4	8.0	8.2	8.4	8.2	8.3	8.8	8.3	8.5	8.2	7.9	8.0
16	8.4	8.0	8.2	8.3	8.1	8.2	8.7	8.2	8.4	---	---	---
17	8.4	8.0	8.2	8.4	8.2	8.3	8.7	8.3	8.4	---	---	---
18	8.3	8.0	8.1	8.6	8.3	8.4	8.8	8.3	8.5	8.1	7.8	8.0
19	8.3	8.0	8.1	8.5	8.1	8.3	8.7	8.3	8.4	8.3	8.0	8.1
20	8.4	8.0	8.1	8.2	8.0	8.1	8.8	8.4	8.6	8.3	8.0	8.2
21	8.4	8.1	8.2	8.4	8.2	8.3	8.6	8.2	8.5	8.4	8.0	8.2
22	8.5	8.1	8.2	8.5	8.3	8.4	8.2	8.0	8.1	8.4	8.0	8.2
23	8.4	8.1	8.2	8.5	8.3	8.4	8.0	7.8	7.9	8.5	8.0	8.3
24	8.4	8.1	8.2	8.6	8.3	8.4	7.8	7.8	7.8	8.5	8.1	8.3
25	8.5	8.1	8.3	8.4	8.2	8.3	7.9	7.8	7.9	8.4	8.0	8.2
26	8.4	8.1	8.2	8.3	7.9	8.1	8.0	7.9	7.9	8.4	8.1	8.2
27	8.4	8.2	8.3	8.4	8.1	8.3	8.1	8.0	8.0	8.4	8.0	8.2
28	8.4	8.1	8.2	8.5	8.2	8.3	---	---	---	8.3	8.0	8.2
29	---	---	---	8.5	8.2	8.3	8.1	8.0	8.0	8.3	8.1	8.1
30	---	---	---	8.6	8.2	8.4	8.1	8.1	8.1	---	---	---
31	---	---	---	8.5	8.1	8.3	---	---	---	---	---	---
MONTH	8.5	7.6	8.1	8.6	7.9	8.3	---	---	---	---	---	---

03254550 BANKLICK CREEK AT HIGHWAY 1829 NEAR ERLANGER, KY--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	17.4	13.1	15.2	13.7	9.2	11.4	9.7	7.9	9.1	0.2	0.0	0.0
2	19.8	14.7	16.9	14.2	12.0	13.1	9.1	7.0	7.8	0.2	0.0	0.0
3	---	---	---	13.7	10.4	12.2	8.7	5.6	7.1	0.3	0.0	0.0
4	---	---	---	12.6	8.4	10.6	10.3	7.5	8.8	0.2	0.0	0.0
5	18.6	16.5	17.7	11.1	7.8	9.6	11.2	8.3	9.7	0.2	0.0	0.0
6	17.5	13.1	15.0	9.7	5.9	7.8	10.3	9.3	9.8	0.0	0.0	0.0
7	13.9	9.8	12.0	9.3	5.3	7.3	10.8	9.2	10	0.2	0.0	0.0
8	13.9	9.6	11.7	10.7	5.8	8.1	9.4	8.9	9.1	0.1	0.0	0.0
9	14.3	10.4	12.3	9.9	7.1	8.6	---	---	---	0.5	0.0	0
10	15.7	11.5	13.4	9.4	5.8	7.5	---	---	---	0.4	-0.1	0.1
11	16.6	14.3	15.3	9.3	6.2	7.6	---	---	---	0.8	-0.1	0.2
12	18.0	15.1	16.8	7.8	4.4	6.1	7.5	4.4	5.7	0.8	-0.1	0.3
13	19.7	16.6	17.9	7.6	4.0	5.8	10.4	7.5	9.3	1.3	0.0	0.5
14	18.9	15.4	17.3	8.7	5.1	6.8	11.3	9.8	10.5	2.4	0.1	1.1
15	15.9	12.8	14.3	9.4	5.8	7.5	9.8	8.3	9.1	2.1	1.0	1.7
16	13.2	10.8	12.2	10.9	6.9	8.6	9.2	7.8	8.4	1.7	0.1	0.7
17	12.6	8.9	10.5	11.8	8.2	9.7	10.8	9.2	10.0	2.4	1.4	1.8
18	12.3	7.5	9.7	11.8	8.7	10.1	10.0	7.7	9.1	1.9	0.1	1.0
19	13.3	8.7	10.9	10.6	9.0	9.9	7.7	5.8	6.7	1.0	0.2	0.6
20	15.3	10.5	12.8	9.5	6.3	7.3	5.9	3.9	4.9	0.5	0.1	0.2
21	16.2	11.3	13.7	6.7	4.1	5.6	4.8	2.3	3.5	2.2	0.2	0.9
22	16.5	12.5	14.6	6.2	3.7	4.9	5.2	1.9	3.5	2.1	0.1	0.8
23	17.6	14.5	15.9	7.3	4.0	5.6	6.8	4.9	6.0	4.7	2.0	3.2
24	17.4	15.2	16.2	11.5	7.3	9.3	4.9	2.4	3.6	7.5	4.6	6.6
25	16.4	11.6	13.7	11.5	9.2	10.6	2.4	0.4	1.5	5.3	2.8	4.0
26	11.6	8.4	9.9	9.2	6.6	8.1	0.5	0.0	0.2	5.1	1.5	3.0
27	8.7	7.2	8.0	11.7	8.9	10.6	0.9	0.0	0.2	5.7	1.6	3.4
28	10.3	6.4	8.2	10.9	8.7	9.4	1.9	0.0	0.7	8.5	2.9	5.4
29	10.5	6.0	8.1	11.9	9.2	10.7	1.1	0.0	0.7	10.6	7.6	9.1
30	11.8	8.5	10	11.9	9.7	11.0	0.2	0.0	0.0	10.7	8.7	9.9
31	12.9	8.8	10.8	---	---	---	0.2	0.0	0.0	10.8	8.6	9.7
MONTH	---	---	---	14.2	3.7	8.7	---	---	---	10.8	-0.1	2.1

03254550 BANKLICK CREEK AT HIGHWAY 1829 NEAR ERLANGER, KY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.3	6.1	9.0	4.2	-0.2	1.8	14.3	6.9	10.3	17.3	13.6	15.5
2	6.1	3.6	4.8	4.9	2.5	3.6	16.1	9.3	12.5	16.8	14.5	16.0
3	6.1	3.7	4.6	5.0	1.3	3.5	13.6	8.5	10.7	16.5	11.9	14.2
4	4.5	1.4	3.4	1.3	-0.2	0.4	10.1	5.9	8.1	18.4	12.3	14.8
5	3.1	-0.1	1.3	4.2	-0.3	1.6	12.9	5.4	8.8	20.3	13.0	16.2
6	2.1	0.4	1.3	9.0	1.7	4.9	13.5	6.1	9.3	17.4	14.4	15.2
7	6.0	1.9	3.4	11.3	5.3	7.9	14.2	5.4	9.4	18.2	14.8	16.4
8	6.2	1.4	3.6	13.6	7.3	10.3	15.3	10.6	12.8	18.4	15.5	17.0
9	7.0	1.6	4.1	12.1	7.0	10.2	15.5	13.5	14.5	18.5	16.5	17.4
10	6.6	4.2	5.2	8.2	3.8	5.8	18.8	10.2	14.0	18.2	14.5	16.3
11	6.9	3.8	5.0	7.4	2.0	4.6	20.2	10.2	14.8	17.9	13.5	15.7
12	6.7	2.5	4.2	8.3	5.4	6.6	21.2	15.6	18.1	19.0	15.9	17.5
13	6.3	2.7	4.3	12.3	7.3	9.1	19.4	16.2	18.0	18.4	13.5	15.6
14	5.2	0.3	2.5	13.4	6.8	10.0	17.6	15.8	16.7	16.7	12.6	14.3
15	6.1	1.8	3.8	12.8	10.1	11.3	23.8	15.2	18.9	18.6	12.5	15.2
16	6.3	2.2	4.3	11.5	7.3	8.9	25.9	17.2	21.0	---	---	---
17	6.6	2.8	4.4	7.3	6.4	6.9	24.4	18.8	20.7	---	---	---
18	5.8	0.6	3.1	10.7	7.3	8.7	25.3	17.0	20.7	15.1	12.0	13.2
19	5.0	2.2	3.6	9.2	8.5	8.7	25.6	19.6	21.7	15.0	10.4	12.7
20	8.5	5.0	6.6	9.0	8.3	8.6	21.2	18.8	20.0	14.0	11.6	12.9
21	7.4	5.2	6.0	8.6	5.0	7.2	19.1	12.2	15.0	14.2	11.1	12.5
22	5.2	3.3	4.3	7.5	2.5	4.7	14.5	12.6	13.4	16.9	9.3	12.8
23	6.2	0.6	3.2	9.3	2.4	5.4	15.2	11.3	13.2	19.4	11.3	15.0
24	6.6	1.2	3.8	9.5	4.4	6.7	16.2	12.0	14.1	20.5	14.7	17.5
25	9.4	3.2	6.2	7.8	5.7	6.9	16.6	13.0	14.8	23.1	17.5	19.9
26	8.9	2.8	6.4	6.2	5.0	5.6	17.5	12.1	14.3	23.4	18.1	20.5
27	2.8	0.2	1.1	9.1	4.6	6.2	14.8	12.2	13.1	23.2	18.2	20.7
28	2.3	-0.2	0.8	9.1	4.7	6.8	---	---	---	23.5	19.2	20.7
29	---	---	---	11.0	6.6	8.9	15.6	12.5	13.6	21.6	18.6	20.0
30	---	---	---	12.6	8.0	10.3	16.5	11.2	13.7	---	---	---
31	---	---	---	11.1	8.1	9.4	---	---	---	---	---	---
MONTH	11.3	-0.2	4.1	13.6	-0.3	6.8	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	26.9	22.3	24.4	30.7	26.2	28.4	31.6	26.4	28.9	28.2	23.4	25.4
2	26.7	23.1	24.7	32.2	27.0	29.3	31.8	27.2	29.1	27.8	23.5	25.3
3	27.6	21.9	24.5	32.2	27.3	29.6	32.6	27.0	29.4	28.9	23.8	25.9
4	28.4	23.7	25.8	32.1	27.5	29.6	---	---	---	29.7	24.5	26.7
5	29.1	23.9	25.9	32.7	27.7	29.9	30.8	26.3	28.2	29.0	22.7	25.3
6	---	---	---	30.8	26.4	28.6	30.3	26.0	27.9	28.7	21.7	24.6
7	---	---	---	30.9	25.4	28.0	28.1	22.9	25.5	28.7	22.0	24.8
8	---	---	---	30.6	25.6	27.9	28.2	22.2	24.9	29.9	22.8	25.6
9	---	---	---	29.7	26.2	27.8	28.9	21.9	24.8	29.5	22.9	25.6
10	---	---	---	28.1	23.9	25.8	28.5	22.1	24.9	29.5	22.9	25.7
11	---	---	---	28.7	22.2	24.8	28.3	23.2	25.4	27.3	22.9	24.8
12	25.9	23.1	24.7	28.3	21.6	24.8	29.4	24.5	26.4	25.8	20.5	22.9
13	---	---	---	25.6	23.1	24.1	28.7	24.5	26.4	24.4	19.0	21.6
14	---	---	---	28.0	22.6	25.1	27.9	25.2	26.4	23.6	21.0	22.4
15	25.2	19.7	22.1	28.7	23.5	25.9	28.0	25.4	26.5	23.8	20.9	22.3
16	25.0	19.6	22.1	28.5	24.1	26.2	28.0	25.5	26.5	23.0	21.1	21.8
17	25.5	18.3	21.8	27.5	24.6	26.0	27.8	25.1	26.0	24.3	20.2	21.8
18	26.9	19.9	23.1	29.5	24.5	26.6	26.7	25.2	25.8	25.6	21.1	23.0
19	28.5	20.7	24.3	29.8	25.2	27.2	26.8	24.0	25.2	26.4	22.1	24.0
20	30.0	22.7	26.1	30.6	24.1	27.4	27.3	23.7	25.0	25.4	23.0	24.2
21	30.1	23.9	26.9	30.7	23.5	26.6	29.5	23.0	25.7	24.5	20.7	22.6
22	29.9	24.5	27.2	31.0	25.8	28.3	29.8	24.2	26.5	23.1	20.1	21.4
23	29.5	24.3	27.0	29.1	26.7	27.5	29.5	25.3	27.1	22.0	16.5	19.2
24	29.2	25.1	27.1	30.3	24.6	27.0	29.7	25.8	27.2	22.0	16.2	18.8
25	28.5	25.6	26.9	29.2	24.0	26.4	28.6	25.4	26.7	19.3	17.1	18.3
26	28.8	24.7	26.6	27.8	24.5	26.1	27.7	24.3	25.9	18.4	17.0	18.1
27	29.1	25.7	27.1	29.0	25.4	26.8	26.9	23.9	25.1	18.4	16.9	17.6
28	28.6	23.5	25.9	30.0	25.9	27.7	26.0	23.3	24.3	20.4	16.8	18.3
29	30.5	23.7	26.8	30.4	26.5	28.2	26.6	22.6	24.5	21.0	16.0	18.4
30	29.7	24.9	27.2	30.2	25.9	27.8	27.9	22.8	24.9	21.7	16.7	19.2
31	---	---	---	30.9	25.5	28.1	28.3	22.8	25.2	---	---	---
MONTH	---	---	---	32.7	21.6	27.2	---	---	---	29.9	16.0	22.5

03254550 BANKLICK CREEK AT HIGHWAY 1829 NEAR ERLANGER, KY--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	12.0	8.8	10.0	11.0	8.3	9.6	10.9	10.4	10.6	14.9	13.6	14.1
2	12.9	8.4	10.2	9.8	8.0	8.7	11.5	10.8	11.1	15.0	13.6	14.1
3	---	---	---	11.6	8.0	9.4	12.2	11.1	11.5	15.1	13.6	14.1
4	---	---	---	11.9	8.6	9.8	11.8	10.5	11.2	15.1	13.7	14.2
5	11.7	9.4	10.5	12.0	8.6	10.0	12.0	10.5	11.0	15.5	13.6	14.4
6	12.0	9.2	10.8	12.1	9.2	10.6	13.0	10.6	11.5	14.3	13.5	13.8
7	14.6	10.6	12.3	12.6	10.4	11.3	12.7	11.8	12.2	15.0	13.6	14.1
8	16.0	10.8	12.6	12.4	9.7	10.9	12.3	11.7	12.1	15.5	13.6	14.3
9	15.0	10.7	12.3	12.4	9.6	10.8	---	---	---	15.5	13.6	14.2
10	14.0	10.4	11.7	12.4	10.3	11.2	---	---	---	15.4	13.8	14.2
11	12.0	9.4	10.5	12.5	10.2	11.2	---	---	---	15.0	13.4	14.0
12	9.9	8.9	9.3	12.8	10.7	11.6	13.8	11.7	12.8	14.7	12.6	13.6
13	9.5	8.3	9.1	12.8	11.1	11.8	11.7	10.7	11.2	14.6	12.3	13.2
14	9.7	8.3	9.1	12.2	10.6	11.4	10.8	10.4	10.6	14.4	11.3	12.7
15	9.8	8.8	9.3	11.9	10.4	11.0	11.5	10.7	11.0	15.4	11.2	12.7
16	9.5	8.9	9.2	11.6	9.9	10.7	11.7	10.6	11.1	15.9	12.9	14.3
17	10.4	9.3	9.7	11.2	9.6	10.3	10.8	9.8	10.3	16.0	12.6	13.9
18	10.8	9.0	9.9	11.1	9.4	10.1	10.5	9.9	10.2	16.2	13.0	14.5
19	10.6	8.6	9.6	10.3	9.3	9.7	11.1	10.3	10.6	15.9	13.6	14.5
20	10.4	8.5	9.3	11.7	9.6	10.8	11.9	10.8	11.4	16.7	14.0	15.1
21	12.3	8.7	10.1	12.8	10.7	11.9	12.7	11.6	12.1	16.8	14.0	15.0
22	12.9	8.9	10.4	13.2	11.7	12.3	12.8	11.2	12.0	16.9	13.8	15.2
23	11.4	8.5	9.5	13.0	11.5	12.2	11.2	10.8	11.0	15.3	12.6	13.8
24	9.6	8.3	8.9	11.5	9.7	10.7	12.3	11.2	11.8	12.9	12.0	12.3
25	9.4	8.7	9.1	10.8	9.4	10.1	13.3	12.1	12.7	14.0	12.8	13.4
26	10.4	9.3	10	12.5	10.2	11.4	13.8	12.9	13.3	14.6	13.2	13.9
27	11.0	10.2	10.6	11.1	10.1	10.4	13.8	13.1	13.3	14.9	13.0	13.8
28	11.6	10.2	10.8	11.0	10.2	10.7	13.7	12.6	13.2	14.6	11.8	13.3
29	11.6	10.0	10.8	11.0	9.9	10.5	14.1	12.7	13.4	13.2	10.9	11.9
30	10.9	9.2	10.1	10.4	9.9	10.2	14.7	13.5	14.0	12.0	10.9	11.3
31	10.9	8.9	9.7	---	---	---	14.8	13.6	14.0	12.0	10.9	11.6
MONTH	---	---	---	13.2	8.0	10.7	---	---	---	16.9	10.9	13.7

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	12.8	10.9	11.9	16.5	13.6	15.3	14.4	10.1	12.1	---	---	---
2	13.9	12.8	13.4	15.0	12.8	13.9	12.9	9.0	11.0	8.7	8.2	8.5
3	13.9	12.7	13.3	15.3	12.7	14.1	12.3	9.2	10.8	10.2	8.4	9.3
4	14.4	13.0	13.8	17.2	14.5	15.9	13.3	10.6	11.9	11.0	7.9	9.4
5	15.7	14.0	14.7	16.7	13.8	15.5	13.4	10.2	11.7	11.1	7.5	9.3
6	15.3	13.9	14.6	15.8	12.4	14.3	13.1	10.0	11.4	9.0	7.5	8.3
7	15.0	13.1	14.0	15.0	11.3	13.2	13.1	9.6	11.4	8.8	7.5	8.1
8	15.4	12.9	14.1	14.1	10.3	12.3	11.3	8.2	10	9.2	7.1	7.9
9	15.4	12.6	13.9	12.2	10.1	11.1	9.9	8.2	8.8	7.6	7.1	7.4
10	14.2	12.4	13.0	13.9	12.2	13.1	11.2	7.9	9.5	8.1	7.2	7.7
11	15.2	12.7	13.6	15.4	12.4	13.9	10.6	6.9	8.9	8.4	7.0	7.8
12	15.5	12.7	13.9	14.2	11.7	12.9	9.1	6.6	7.8	8.2	6.7	7.4
13	15.9	12.8	14.0	14.1	10.8	12.3	8.2	6.5	7.4	8.6	6.8	7.8
14	16.7	13.4	14.7	13.9	10.3	12.1	8.0	6.9	7.4	8.6	7.8	8.2
15	16.0	12.6	14.2	11.9	10.2	11.0	8.8	5.9	7.5	8.9	7.3	8.2
16	15.8	12.6	13.9	12.1	10.6	11.6	9.0	5.5	7.0	---	---	---
17	15.7	12.6	13.8	12.7	11.7	12.2	8.3	5.5	6.5	---	---	---
18	16.0	13.0	14.3	13.2	11.0	11.9	8.2	5.2	6.8	9.0	8.5	8.7
19	15.2	12.6	13.8	12.3	11.1	11.5	8.5	5.5	6.5	10.1	8.3	9.2
20	13.6	11.5	12.5	11.7	11.2	11.4	7.1	6.0	6.4	10.3	8.5	9.4
21	13.5	11.6	12.5	12.8	11.4	12.0	---	---	---	11.5	8.7	10
22	15.0	12.4	13.5	14.7	12.8	13.5	---	---	---	11.9	8.0	10
23	15.6	13.0	14.1	14.8	11.9	13.4	---	---	---	11.6	7.5	9.5
24	15.4	12.6	14.0	14.5	11.4	13.0	---	---	---	10.7	6.9	8.7
25	14.7	11.5	13.2	13.6	11.6	12.3	---	---	---	10.0	6.3	7.9
26	14.2	11.3	12.6	13.2	12.4	12.8	---	---	---	9.4	6.2	7.6
27	16.5	13.3	15.1	13.6	12.0	12.9	---	---	---	9.0	6.1	7.2
28	16.7	14.7	15.5	14.0	11.7	12.8	---	---	---	8.7	6.0	7.0
29	---	---	---	13.9	10.6	12.1	---	---	---	7.4	6.3	6.8
30	---	---	---	14.4	10.6	12.1	---	---	---	---	---	---
31	---	---	---	14.2	10.8	12.2	---	---	---	---	---	---
MONTH	16.7	10.9	13.8	17.2	10.1	12.9	---	---	---	---	---	---

03254550 BANKLICK CREEK AT HIGHWAY 1829 NEAR ERLANGER, KY--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	10.4	3.8	6.6	10.7	6.4	8.5	9.8	4.4	6.8	7.7	5.2	6.4
2	12.8	2.9	6.6	9.6	5.5	7.6	8.6	4.3	6.5	8.1	5.3	6.7
3	11.4	4.5	6.4	8.9	5.0	7.0	8.3	4.6	6.5	7.6	5.3	6.5
4	8.0	4.6	5.9	8.9	5.7	7.4	---	---	---	8.2	5.2	6.7
5	8.8	4.4	6.0	9.3	6.0	7.5	7.7	4.5	6.0	8.0	5.7	6.6
6	---	---	---	8.2	6.0	7.1	8.6	4.8	6.4	8.4	5.3	6.8
7	---	---	---	8.7	6.0	7.2	9.3	5.7	7.2	8.5	5.4	7.0
8	---	---	---	7.7	5.9	6.8	9.1	6.1	7.5	8.8	5.9	7.3
9	---	---	---	7.7	6.0	6.8	9.3	6.2	7.7	8.6	5.6	7.4
10	---	---	---	6.9	5.5	6.4	9.8	6.6	8.0	8.4	5.6	7.3
11	---	---	---	7.2	6.1	6.7	8.2	6.5	7.5	9.2	6.0	7.5
12	10.8	6.5	8.5	8.9	6.3	7.6	8.6	6.0	7.2	9.0	6.3	7.3
13	---	---	---	9.2	6.2	7.4	8.2	6.1	7.2	9.5	6.3	7.7
14	---	---	---	10.4	6.1	8.1	7.3	5.8	6.7	8.5	6.9	7.7
15	11.6	7.3	9.1	11.0	6.4	8.4	7.7	5.3	6.5	7.4	6.1	6.7
16	10.6	7.1	8.7	10.1	6.4	8.0	7.9	5.3	6.7	7.1	6.5	6.9
17	13.0	7.1	9.5	8.7	5.8	7.2	7.9	5.8	6.7	8.0	6.6	7.0
18	13.8	6.6	9.6	8.6	5.1	7.0	7.4	5.3	6.4	8.3	5.7	6.7
19	14.0	6.2	9.7	8.6	5.4	7.2	9.7	4.6	6.8	8.7	5.2	6.7
20	14.1	5.8	9.5	7.9	5.7	6.9	9.6	6.2	7.8	8.1	5.3	6.4
21	13.7	5.5	9.4	9.2	5.7	7.0	10.0	6.3	7.7	8.2	5.4	6.7
22	13.5	5.3	9.0	12.2	5.1	7.3	8.3	6.4	7.3	8.9	5.9	7.1
23	12.6	5.3	8.2	9.1	5.1	6.6	8.1	4.5	6.4	9.0	6.0	7.2
24	10.2	5.4	7.7	9.3	5.0	6.6	8.8	4.9	6.9	8.4	5.9	7.0
25	9.6	5.6	7.5	8.6	5.4	6.9	9.1	5.6	7.2	7.8	6.0	6.9
26	9.1	4.9	7.1	8.5	5.4	6.9	8.3	6.0	7.1	7.6	6.1	6.7
27	9.6	5.8	7.6	8.4	6.3	7.5	8.2	6.0	7.0	7.7	7.0	7.4
28	10.9	5.8	7.9	8.4	6.1	7.3	7.6	5.7	6.5	7.9	6.7	7.3
29	12.9	5.5	8.7	8.8	5.5	6.9	7.7	5.5	6.6	8.3	6.4	7.4
30	13.3	5.2	8.9	10.2	4.4	6.7	7.4	5.5	6.5	8.6	6.2	7.3
31	---	---	---	10.6	4.5	6.7	7.5	5.4	6.4	---	---	---
MONTH	---	---	---	12.2	4.4	7.2	---	---	---	9.5	5.2	7.0

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	120	37	82	49	5.1	17	120	87	97	9.0	6.0	7.4
2	150	27	67	34	4.7	16	90	67	76	8.0	6.0	7.2
3	---	---	---	35	5.1	18	89	62	67	8.0	5.0	6.1
4	---	---	---	17	3.6	9.3	67	54	61	9.0	4.0	5.2
5	84	22	45	19	3.0	8.9	59	51	55	7.0	3.0	5.1
6	440	64	160	26	3.5	11	610	49	190	10	4.0	6.7
7	150	54	83	23	15	19	240	41	97	9.0	4.0	6.1
8	84	27	56	26	16	19	---	---	---	9.0	4.0	6.0
9	96	21	51	26	15	19	---	---	---	31	3.0	7.3
10	96	29	53	24	15	18	---	---	---	50	6.0	19
11	140	32	56	22	14	17	---	---	---	41	20	27
12	830	62	340	22	13	16	25	4.9	7.8	23	15	18
13	420	170	250	18	13	15	130	25	72	550	10	30
14	880	150	430	24	13	15	890	54	240	19	5.0	9.7
15	230	120	150	24	13	16	190	40	79	14	6.5	9.2
16	880	120	280	21	13	15	990	20	250	9.9	6.6	7.5
17	200	110	140	22	14	17	790	190	410	8.6	6.3	7.2
18	120	91	100	22	15	18	300	76	140	7.3	5.1	6.2
19	120	88	99	31	18	22	80	43	57	7.0	4.8	5.6
20	120	78	98	51	25	32	44	28	37	6.7	4.5	5.3
21	130	44	78	45	16	26	38	20	24	9.2	3.2	4.7
22	70	39	52	22	13	17	20	14	17	7.2	2.9	4.7
23	---	---	---	20	14	16	610	16	180	11	4.3	6.1
24	---	---	---	25	16	18	91	25	49	870	7.2	280
25	900	100	290	63	21	38	730	13	59	140	48	79
26	120	46	69	53	23	30	17	11	13	55	28	38
27	49	25	34	>1000	25	410	11	9.0	11	28	19	23
28	36	12	20	310	120	200	14	7.0	8.7	24	12	18
29	27	6.8	16	690	160	310	12	7.0	8.8	38	16	22
30	34	8.2	18	380	110	190	12	8.0	9.2	990	25	340
31	51	5.7	18	---	---	---	9.0	7.0	7.6	260	92	130
MONTH	---	---	---	>1000	3.0	53	---	---	---	990	2.9	37

03254550 BANKLICK CREEK AT HIGHWAY 1829 NEAR ERLANGER, KY--Continued

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	950	81	270	15	4.0	6.0	27	4.0	11	>1000	13	65
2	140	54	80	26	6.0	12	18	4.8	9.6	---	---	---
3	65	40	45	31	14	20	32	2.4	17	---	---	---
4	46	26	34	15	9.0	11	---	---	---	---	---	---
5	30	20	24	17	6.0	8.1	30	2.0	8.0	---	---	---
6	23	16	19	26	6.0	9.8	25	1.0	7.9	---	---	---
7	25	15	19	21	8.0	11	20	1.0	6.2	---	---	---
8	26	14	20	19	8.0	13	20	4.1	11	>1000	43	480
9	28	15	19	>1000	15	250	57	11	16	280	43	83
10	63	18	31	310	71	180	18	8.2	12	200	30	61
11	66	36	48	73	29	44	22	9.9	14	82	21	41
12	38	24	29	34	21	26	37	13	19	92	20	30
13	38	18	23	45	16	27	170	18	64	76	18	27
14	32	17	20	41	16	26	360	35	96	18	16	17
15	28	12	16	>1000	14	87	290	41	71	19	16	17
16	27	13	18	>1000	150	540	150	30	50	---	---	---
17	32	13	20	150	63	89	930	36	140	---	---	---
18	27	10	16	89	29	59	650	71	180	21	16	17
19	25	10	15	>1000	54	310	240	53	140	29	17	23
20	65	14	26	990	150	480	700	68	270	35	22	27
21	68	26	39	150	58	88	570	12	160	35	22	30
22	75	21	42	59	33	42	15	13	15	40	17	29
23	78	12	28	53	24	31	15	2.2	13	33	17	24
24	21	12	15	31	19	25	14	13	14	22	20	21
25	26	13	17	250	20	54	17	13	16	25	21	23
26	30	10	19	>1000	140	570	---	---	---	24	22	23
27	12	5.0	7.3	140	52	82	---	---	---	26	22	23
28	9.0	5.0	6.0	56	30	40	---	---	---	24	22	23
29	---	---	---	40	19	29	---	---	---	25	22	24
30	---	---	---	37	14	24	19	12	17	---	---	---
31	---	---	---	30	9.0	17	---	---	---	---	---	---
MONTH	950	5.0	34	>1000	4.0	100	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	430	23	48	---	---	0.0	100	46	64	90	42	59
2	50	22	34	---	---	0.0	110	48	68	120	46	69
3	110	22	34	---	---	---	95	56	75	110	48	70
4	53	16	30	---	---	---	---	---	---	100	49	65
5	280	18	45	---	---	---	290	95	170	130	46	80
6	---	---	---	---	---	---	180	97	130	110	35	62
7	---	---	---	---	---	---	180	96	130	110	30	53
8	---	---	---	---	---	---	160	76	110	79	31	42
9	---	---	---	---	---	---	130	64	95	100	34	54
10	---	---	---	---	---	---	130	63	90	100	33	53
11	---	---	---	---	---	0.0	130	65	85	85	34	60
12	---	---	---	---	---	0.0	150	54	84	120	54	94
13	---	---	---	---	---	0.0	110	58	79	110	29	67
14	---	---	---	---	---	0.0	110	65	83	940	27	74
15	---	---	---	---	---	---	110	54	78	970	37	440
16	---	---	---	---	---	---	110	63	79	970	280	850
17	---	---	---	---	---	---	130	72	93	620	150	350
18	---	---	---	---	---	---	190	79	92	900	84	190
19	---	---	---	---	---	---	130	60	95	160	60	99
20	---	---	---	---	---	---	110	60	84	130	62	90
21	---	---	---	---	---	---	160	49	92	230	94	130
22	---	---	---	---	---	---	110	43	62	120	48	78
23	---	---	---	---	---	---	120	39	57	96	41	63
24	---	---	---	---	---	---	140	40	70	97	32	64
25	---	---	---	---	---	---	170	45	75	110	35	69
26	---	---	---	---	---	---	110	49	75	990	47	82
27	---	---	---	---	---	---	120	51	78	990	170	450
28	---	---	---	---	---	---	130	54	86	220	92	120
29	---	---	---	---	---	---	110	47	73	150	57	77
30	---	---	0.0	180	65	120	130	48	69	92	49	71
31	---	---	---	130	41	75	120	44	69	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	990	27	140

03260100 ELIJAHS CREEK AT ELIJAHS CREEK ROAD NEAR HEBRON, KY

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 2001 to current year.

COOPERATION.--Northern Kentucky Sanitation District No. 1.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 2001 to current year.
pH: March 2001 to current year.
WATER TEMPERATURES: March 2001 to current year.
DISSOLVED OXYGEN: March 2001 to current year.
TURBIDITY: March 2001 to current year.

INSTRUMENTATION.--Water-quality monitor with telemetry.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 4530 microsiemens, Jan. 9, 2002; minimum recorded, 10 microsiemens, Jan. 10, 2002.
pH: Maximum recorded, 8.7 units, April 1, Aug. 3, 21, 22, and Sept. 25, 2002; minimum recorded, 7.0 units, July 20, 2001.
WATER TEMPERATURES: Maximum recorded, 29.3'C, Aug. 4, 2002; minimum recorded, 0.0'C, March 10, 2001, and Dec. 25-31, 2002.
DISSOLVED OXYGEN: Maximum recorded, 19.9 mg/L, May 6, 2001; minimum recorded, 0.5 mg/L, May 19, 2001.
TURBIDITY: Maximum recorded, >1000 NTU, several days in 2001 and 2002; minimum recorded, 0.0 NTU, several days in 2002.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 4530 microsiemens, Jan. 9, 2002; minimum recorded, 62 microsiemens, Oct. 23, 2001.
pH: Maximum recorded, 8.7 units, April 1, Aug. 3, 21, 22, Sept. 25, 2002; minimum recorded, 7.2 units, May 29, 2002.
WATER TEMPERATURES: Maximum recorded, 29.3'C, Aug. 4, 2002; minimum recorded, 0.0'C, Dec. 25-31, 2002.
DISSOLVED OXYGEN: Maximum recorded, 19.2 mg/L, Jan. 5, 2002; minimum recorded, 1.9 mg/L, May 10, 2002.
TURBIDITY: Maximum recorded, >1000 NTU, several days in 2002; minimum recorded, 1.0 NTU, Nov. 4, 2001 and June 5, 2002.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	841	811	828	666	621	645	618	535	574	2250	2140	2200
2	868	825	840	724	666	695	698	611	654	2310	2200	2270
3	937	868	901	771	724	750	739	698	716	2380	2310	2340
4	959	917	930	818	771	795	777	739	751	2340	2290	2320
5	1020	150	820	863	818	844	790	671	774	2390	2330	2360
6	528	261	412	910	863	890	840	198	552	4120	1760	2640
7	653	528	596	974	910	939	623	410	535	4400	1760	3040
8	703	605	668	988	967	980	743	395	522	4240	2870	3520
9	851	670	767	991	853	933	653	532	597	4530	386	2880
10	959	821	919	944	870	899	719	653	683	---	---	---
11	961	930	949	885	861	876	743	706	726	---	---	---
12	931	226	434	882	859	872	829	402	742	---	---	---
13	712	445	599	942	880	912	565	374	500	---	---	---
14	721	186	449	884	870	877	588	263	401	---	---	---
15	804	616	710	937	847	902	609	487	539	---	---	---
16	816	233	383	931	882	901	649	139	501	---	---	---
17	369	320	344	954	921	935	329	121	231	---	---	---
18	401	369	386	959	923	947	523	230	414	---	---	---
19	432	401	416	971	387	816	659	523	582	---	---	---
20	452	432	443	615	405	531	795	659	724	---	---	---
21	467	452	459	710	615	665	926	795	859	---	---	---
22	484	467	477	777	710	746	1070	926	978	---	---	---
23	496	62	373	833	777	808	1180	539	730	---	---	---
24	206	68	134	861	312	728	1100	877	999	---	---	---
25	292	118	227	637	429	572	1240	1100	1180	---	---	---
26	373	292	335	711	629	676	1390	1240	1320	---	---	---
27	433	373	402	631	269	447	1510	1370	1440	---	---	---
28	488	433	463	592	245	386	1670	1510	1580	---	---	---
29	536	488	512	446	280	335	1870	1670	1750	---	---	---
30	576	535	556	536	237	412	1970	1860	1890	---	---	---
31	621	576	596	---	---	---	2220	1970	2110	---	---	---
MONTH	1020	62	559	991	237	757	2220	121	857	---	---	---

03260100 ELIJAHS CREEK AT ELIJAHS CREEK ROAD NEAR HEBRON, KY--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	623	461	519	661	232	622
2	---	---	---	---	---	---	599	477	516	583	234	450
3	---	---	---	---	---	---	664	489	583	656	582	616
4	---	---	---	---	---	---	673	481	536	711	656	686
5	---	---	---	---	---	---	668	516	586	753	711	735
6	---	---	---	---	---	---	638	502	575	798	195	566
7	---	---	---	---	---	---	590	522	546	532	113	272
8	---	---	---	---	---	---	673	516	615	228	122	175
9	---	---	---	---	---	---	620	475	547	---	---	---
10	---	---	---	---	---	---	550	440	519	---	---	---
11	---	---	---	---	---	---	607	544	575	271	248	259
12	---	---	---	---	---	---	634	571	604	291	215	281
13	---	---	---	---	---	---	571	162	327	238	195	209
14	---	---	---	---	---	---	513	255	394	285	238	266
15	---	---	---	---	---	---	572	398	471	---	---	---
16	---	---	---	---	---	---	657	524	570	---	---	---
17	---	---	---	---	---	---	759	549	619	---	---	---
18	---	---	---	---	---	---	802	612	669	331	269	303
19	---	---	---	---	---	---	733	522	619	362	331	348
20	---	---	---	321	114	254	583	432	513	390	362	376
21	---	---	---	441	313	362	602	109	374	403	389	395
22	---	---	---	485	375	407	574	232	411	420	403	412
23	---	---	---	526	393	428	659	573	603	437	420	429
24	---	---	---	570	408	454	660	232	594	453	437	446
25	---	---	---	571	256	410	405	247	348	478	453	463
26	---	---	---	443	188	265	450	405	431	479	447	454
27	---	---	---	441	317	379	538	222	408	491	451	463
28	---	---	---	479	410	436	---	---	---	492	404	463
29	---	---	---	573	435	483	588	485	543	578	193	396
30	---	---	---	612	448	513	670	460	612	584	374	502
31	---	---	---	595	457	510	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	507	475	493	693	632	668
2	---	---	---	---	---	---	530	495	514	665	613	645
3	677	592	618	---	---	---	563	498	538	649	612	635
4	700	581	646	783	733	759	665	563	626	647	620	638
5	722	119	569	821	759	785	742	665	692	655	620	645
6	418	106	289	842	815	831	805	742	775	671	633	656
7	602	402	508	849	817	837	842	805	822	684	644	668
8	629	532	567	849	821	838	865	839	853	708	663	689
9	695	629	661	859	827	847	877	853	867	766	422	660
10	722	645	702	860	171	383	884	856	873	503	391	426
11	787	713	736	460	361	409	941	285	794	563	503	543
12	---	---	---	526	460	492	960	845	901	592	545	564
13	---	---	---	755	451	536	848	781	810	714	591	648
14	542	353	455	451	415	430	806	609	759	846	714	797
15	677	210	584	494	436	450	609	265	333	854	135	347
16	454	207	369	552	494	531	464	391	428	581	449	527
17	547	454	503	833	522	602	540	464	495	676	581	623
18	634	547	589	656	462	558	---	---	---	755	676	711
19	704	631	661	583	503	551	462	321	391	990	755	801
20	752	703	722	680	387	559	528	303	375	972	486	775
21	845	752	796	442	385	407	539	401	479	538	451	489
22	891	843	863	492	442	462	518	481	505	614	538	571
23	863	750	814	546	492	509	585	515	535	721	614	665
24	794	745	773	617	546	586	732	585	667	827	721	762
25	---	---	---	662	617	640	754	713	738	930	827	882
26	973	843	914	753	660	703	766	736	755	1140	520	822
27	869	145	717	802	752	780	789	336	717	609	394	515
28	503	378	465	838	802	816	741	617	705	767	609	686
29	525	500	507	851	242	730	698	660	681	845	759	802
30	---	---	---	420	272	345	696	659	682	878	841	860
31	---	---	---	485	420	438	701	657	685	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	1140	135	657

03260100 ELIJAHS CREEK AT ELIJAHS CREEK ROAD NEAR HEBRON, KY--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	8.7	7.9	8.1	8.5	7.8	8.2
2	---	---	---	---	---	---	8.6	7.9	8.2	8.2	7.7	8.0
3	---	---	---	---	---	---	8.2	7.9	8.1	8.4	8.0	8.2
4	---	---	---	---	---	---	8.6	8.0	8.3	8.4	8.0	8.1
5	---	---	---	---	---	---	8.4	8.0	8.2	8.4	7.9	8.1
6	---	---	---	---	---	---	8.3	8.0	8.1	8.0	7.7	7.9
7	---	---	---	---	---	---	8.5	8.0	8.3	8.0	7.6	7.7
8	---	---	---	---	---	---	8.4	8.1	8.2	7.9	7.5	7.7
9	---	---	---	---	---	---	8.6	7.8	8.1	---	---	---
10	---	---	---	---	---	---	8.4	7.6	7.9	---	---	---
11	---	---	---	---	---	---	8.3	7.7	7.9	8.1	7.9	8.0
12	---	---	---	---	---	---	8.3	7.6	7.9	8.1	7.8	8.0
13	---	---	---	---	---	---	8.3	7.5	7.7	7.9	7.5	7.6
14	---	---	---	---	---	---	7.8	7.6	7.7	8.0	7.7	7.8
15	---	---	---	---	---	---	8.6	7.6	8.0	---	---	---
16	---	---	---	---	---	---	8.5	7.7	8.0	---	---	---
17	---	---	---	---	---	---	8.5	7.7	8.0	---	---	---
18	---	---	---	---	---	---	8.3	7.7	8.0	7.8	7.5	7.7
19	---	---	---	---	---	---	8.6	7.5	7.9	8.0	7.8	7.9
20	---	---	---	7.8	7.7	7.8	8.0	7.4	7.6	8.1	7.8	8.0
21	---	---	---	8.1	7.7	7.9	8.0	7.4	7.6	8.0	7.8	7.9
22	---	---	---	8.3	7.9	8.1	7.9	7.4	7.6	8.0	7.8	7.9
23	---	---	---	8.3	8.0	8.2	7.8	7.6	7.7	8.1	7.8	7.9
24	---	---	---	8.3	8.0	8.2	8.0	7.4	7.8	8.2	7.8	8.0
25	---	---	---	8.2	7.9	8.0	7.9	7.4	7.7	8.2	7.8	8.0
26	---	---	---	8.0	7.8	7.9	8.0	7.7	7.9	8.0	7.5	7.7
27	---	---	---	8.2	7.8	8.0	7.9	7.6	7.8	8.0	7.5	7.7
28	---	---	---	8.3	7.9	8.1	---	---	---	8.0	7.3	7.7
29	---	---	---	8.5	7.9	8.2	8.0	7.7	7.9	8.0	7.2	7.5
30	---	---	---	8.5	7.9	8.1	8.2	7.9	8.0	7.8	7.3	7.6
31	---	---	---	8.5	7.9	8.1	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

03260100 ELIJAHS CREEK AT ELIJAHS CREEK ROAD NEAR HEBRON, KY--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	8.5	7.6	8.0	8.5	7.7	8.1
2	---	---	---	---	---	---	8.6	7.7	8.0	8.5	7.7	8.1
3	8.1	7.5	7.7	---	---	---	8.7	7.7	8.0	8.4	7.8	8.0
4	8.2	7.5	7.8	8.4	7.8	8.1	8.4	7.8	8.0	8.4	7.6	7.9
5	8.3	7.4	7.8	8.5	7.8	8.1	8.3	7.6	7.9	8.4	7.7	7.9
6	7.6	7.3	7.4	8.4	7.8	8.1	8.2	7.7	7.9	8.4	7.7	8.0
7	7.8	7.5	7.7	8.4	7.9	8.1	8.2	7.7	7.9	8.5	7.7	8.0
8	7.8	7.7	7.8	8.5	7.9	8.1	8.3	7.7	8.0	8.5	7.7	8.0
9	8.0	7.7	7.9	8.5	7.9	8.1	8.3	7.8	8.0	8.4	7.5	7.8
10	8.1	7.8	8.0	8.1	7.6	7.9	8.3	7.8	8.0	8.4	7.5	7.8
11	8.2	7.9	8.0	8.5	7.7	8.0	8.4	7.6	7.9	8.3	7.5	7.8
12	---	---	---	8.6	7.9	8.2	8.1	7.7	7.9	8.4	7.6	7.9
13	---	---	---	8.5	7.7	8.0	8.2	7.6	7.8	8.4	7.6	7.9
14	8.3	7.8	8.0	8.5	7.7	8.0	8.2	7.6	7.9	8.2	7.5	7.8
15	8.4	7.9	8.2	8.6	7.7	8.1	8.2	7.4	7.7	7.8	7.4	7.5
16	8.5	7.8	8.1	8.5	7.8	8.1	8.5	7.5	7.9	8.1	7.4	7.7
17	8.5	7.9	8.2	8.6	7.8	8.0	8.2	7.5	7.8	8.4	7.5	7.9
18	8.6	7.9	8.3	8.4	7.6	7.9	---	---	---	8.4	7.7	8.0
19	8.6	8.0	8.3	8.5	7.7	8.0	8.4	7.5	7.8	8.4	7.7	8.0
20	8.6	8.0	8.3	8.5	7.5	8.0	8.6	7.6	8.0	8.1	7.5	7.7
21	8.5	8.0	8.2	8.2	7.5	7.7	8.7	7.9	8.2	8.2	7.5	7.7
22	8.5	8.0	8.2	8.4	7.5	7.9	8.7	7.9	8.2	8.5	7.5	7.9
23	8.5	8.0	8.2	8.2	7.6	7.9	8.6	7.8	8.2	8.3	7.7	7.9
24	8.5	7.9	8.2	8.4	7.7	8.0	8.5	7.9	8.2	8.5	7.7	8.1
25	---	---	---	8.3	7.7	8.0	8.6	7.9	8.2	8.7	7.9	8.2
26	8.3	7.9	8.1	8.3	7.7	8.0	8.6	7.9	8.2	8.1	7.7	7.9
27	8.4	7.6	8.0	8.2	7.7	7.9	8.5	7.9	8.1	8.0	7.8	7.8
28	8.2	7.6	7.8	8.1	7.7	7.9	8.4	7.8	8.0	8.1	7.8	7.9
29	8.5	7.6	8.0	8.1	7.6	7.8	8.4	7.7	8.0	8.2	7.9	8.0
30	---	---	---	8.2	7.5	7.8	8.5	7.7	8.1	8.3	8.0	8.1
31	---	---	---	8.4	7.6	7.9	8.5	7.7	8.1	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	8.7	7.4	7.9

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	15.7	10.4	13.1	14.0	9.3	11.6	10.3	8.1	9.4	---	---	---
2	17.4	13.2	15.1	14.7	12.5	13.5	9.3	6.7	8.0	---	---	---
3	17.8	13.8	15.7	12.9	9.4	11.2	8.8	5.3	7.1	---	---	---
4	17.7	13.7	15.5	12.8	7.7	10.1	10.9	7.6	9.3	---	---	2620
5	19.3	14.3	16.1	10.1	7.0	8.6	11.8	8.6	10.1	---	---	2620
6	15.8	11.1	13.0	9.2	5.1	7.2	10.8	9.7	10.2	---	---	2620
7	11.5	8.1	10	9.6	4.8	7.1	10.7	9.0	9.9	---	---	---
8	12.8	7.9	10.3	11.7	5.8	8.6	9.5	8.3	9.1	---	---	---
9	13.7	9.3	11.5	9.6	6.5	8.0	8.3	5.2	7.2	---	---	---
10	15.7	11.2	13.3	9.9	5.6	7.6	6.4	3.6	5.0	---	---	---
11	17.6	14.3	15.7	8.8	5.9	7.2	6.1	3.2	4.7	---	---	---
12	19.1	16.1	17.3	7.7	3.8	5.7	9.9	4.0	6.2	---	---	---
13	19.4	17.0	18.1	8.4	3.6	5.9	11.4	9.8	10.6	---	---	---
14	18.4	14.9	16.9	9.8	5.2	7.3	11.5	9.2	10.4	---	---	---
15	15.1	12.3	13.7	10.4	5.9	7.9	9.5	8.0	8.7	---	---	---
16	13.3	10.3	11.9	12.2	7.5	9.5	9.1	7.4	8.1	---	---	---
17	11.6	8.5	9.9	12.2	8.6	10.1	11.1	9.0	9.7	---	---	---
18	11.3	6.9	9.1	12.6	8.7	10.5	9.3	6.8	8.5	---	---	---
19	13.0	8.8	10.8	12.2	9.6	10.7	7.4	5.3	6.3	---	---	---
20	14.6	9.9	12.3	10.3	5.8	7.6	5.4	3.1	4.2	---	---	---
21	15.8	11.0	13.4	7.1	3.7	5.3	4.4	1.6	3.0	---	---	---
22	16.3	12.2	14.3	7.3	3.1	5.0	6.0	1.8	3.8	---	---	---
23	19.0	14.5	16.4	9.0	3.9	6.6	7.4	4.1	6.2	---	---	---
24	17.7	15.1	16.3	14.4	8.4	11.4	4.1	2.1	3.0	---	---	---
25	15.7	10.7	13.1	13.5	8.6	11.4	2.1	0.0	0.9	---	---	---
26	10.7	7.3	8.8	10.4	6.0	8.5	0.6	0.0	0.1	---	---	---
27	8.5	6.5	7.4	12.4	10.1	11.4	0.7	0.0	0.2	---	---	---
28	9.5	5.8	7.7	10.6	7.6	8.7	2.1	0.0	0.8	---	---	---
29	10.2	5.4	7.8	12.4	8.9	10.8	0.8	0.0	0.3	---	---	---
30	12.1	8.7	10.3	12.7	9.6	11.1	0.1	0.0	0.0	---	---	---
31	12.8	8.8	10.8	---	---	---	---	---	---	---	---	---
MONTH	19.4	5.4	12.8	14.7	3.1	8.9	---	---	---	---	---	---

03260100 ELIJAHS CREEK AT ELIJAHS CREEK ROAD NEAR HEBRON, KY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	13.8	5.5	9.5	16.8	12.6	14.9
2	---	---	---	---	---	---	16.3	8.5	12.1	16.6	13.4	15.7
3	---	---	---	---	---	---	11.9	6.6	9.5	15.7	10.4	13.1
4	---	---	---	---	---	---	9.4	4.1	7.1	16.8	11.3	13.9
5	---	---	---	---	---	---	12.7	4.4	8.3	18.4	11.4	15.0
6	---	---	---	---	---	---	12.9	4.7	8.4	16.2	14.0	14.9
7	---	---	---	---	---	---	14.6	4.3	9.2	18.6	15.3	16.6
8	---	---	---	---	---	---	15.7	10.4	12.9	18.1	15.2	16.7
9	---	---	---	---	---	---	15.6	11.9	13.9	---	---	---
10	---	---	---	---	---	---	18.6	8.7	13.3	---	---	---
11	---	---	---	---	---	---	20.8	8.7	14.1	16.6	12.5	14.8
12	---	---	---	---	---	---	22.6	14.7	17.9	18.5	15.7	17.1
13	---	---	---	---	---	---	18.3	14.3	15.7	18.5	12.9	15.4
14	---	---	---	---	---	---	16.3	13.2	14.8	15.8	12.0	13.7
15	---	---	---	---	---	---	22.0	13.1	17.3	---	---	---
16	---	---	---	---	---	---	23.5	14.7	18.7	---	---	---
17	---	---	---	---	---	---	22.3	16.6	19.1	---	---	---
18	---	---	---	---	---	---	24.6	15.5	19.9	13.9	11.4	12.4
19	---	---	---	---	---	---	24.7	18.5	20.8	13.0	8.9	11.4
20	---	---	---	9.1	7.5	8.5	21.7	18.1	19.7	12.6	10.4	11.7
21	---	---	---	8.5	3.9	6.4	18.5	10.7	13.8	12.4	9.9	11.1
22	---	---	---	7.0	1.0	3.9	14.1	11.6	12.6	14.3	8.2	11.4
23	---	---	---	9.7	1.1	5.1	15.5	8.9	12.2	17.2	10.4	13.9
24	---	---	---	9.5	3.5	6.4	16.7	10.5	13.8	18.9	14.0	16.5
25	---	---	---	7.4	4.2	6.1	15.9	11.8	14.0	20.9	16.4	18.5
26	---	---	---	5.4	3.6	4.4	16.1	10.2	13.0	19.8	15.8	17.8
27	---	---	---	9.9	3.8	6.1	13.1	11.3	11.9	20.8	15.9	18.3
28	---	---	---	9.4	3.0	6.3	---	---	---	21.0	17.4	18.8
29	---	---	---	11.5	5.9	8.8	13.5	10.4	11.7	22.6	17.3	19.0
30	---	---	---	12.2	6.3	9.4	16.2	9.5	13.0	22.0	17.2	19.6
31	---	---	---	11.4	7.1	9.0	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	28.9	22.9	25.8	25.9	20.7	22.9
2	---	---	---	---	---	---	28.8	23.3	25.7	26.2	21.0	23.3
3	24.6	19.1	21.6	---	---	---	28.5	23.0	25.8	27.0	21.6	24.1
4	26.3	21.1	23.4	28.9	22.9	25.8	29.3	24.1	26.5	25.2	20.5	22.9
5	26.5	21.2	23.2	28.8	23.6	25.8	28.8	23.9	26.3	24.6	17.5	20.8
6	21.2	17.3	18.9	25.9	20.8	23.3	26.3	21.5	24.2	24.7	17.7	20.9
7	19.0	16.5	17.6	26.0	19.7	22.8	23.8	18.6	21.1	25.8	18.0	21.6
8	21.6	15.9	18.8	26.8	20.1	23.4	23.6	17.9	20.6	26.7	19.6	22.6
9	23.5	19.0	21.2	26.5	21.6	23.9	24.3	17.4	20.8	26.7	19.5	22.5
10	24.9	19.7	22.3	25.5	22.9	24.1	25.2	17.9	21.6	26.1	19.5	22.6
11	24.7	20.5	22.6	24.8	19.7	21.9	26.7	19.9	22.8	23.9	18.1	21.3
12	---	---	---	24.2	18.1	21.0	26.4	22.0	23.9	22.6	15.3	18.5
13	---	---	---	23.6	20.0	21.5	26.7	21.2	23.7	22.0	14.3	18.3
14	23.2	19.6	21.3	25.3	20.2	22.5	26.2	22.7	24.0	23.7	19.7	21.4
15	22.0	17.8	19.6	26.2	20.5	23.2	26.1	23.3	24.5	23.6	21.4	22.5
16	21.8	17.8	19.6	25.9	20.5	23.3	26.8	23.3	24.7	23.1	20.5	21.8
17	22.3	16.0	19.1	25.9	21.0	23.1	25.8	23.0	24.2	22.6	18.1	20.3
18	23.7	17.2	20.2	27.2	22.2	24.3	---	---	---	24.7	20.0	22.1
19	24.6	17.9	21.2	28.0	22.5	24.7	24.8	22.3	23.4	25.8	21.2	23.0
20	26.5	19.9	22.8	28.5	22.5	25.4	25.1	21.6	22.9	24.7	21.4	23.0
21	25.7	20.3	23.0	28.9	23.8	26.4	26.1	19.8	22.8	23.1	20.0	21.2
22	26.5	20.7	23.4	28.9	24.3	26.4	27.2	21.8	24.3	21.7	16.7	19.4
23	27.0	20.0	23.5	26.1	24.3	25.3	27.2	22.5	24.5	18.7	14.0	16.3
24	26.1	21.1	23.7	26.6	21.9	23.9	26.3	22.9	24.2	19.4	13.2	15.9
25	---	---	---	26.4	20.2	23.2	26.3	21.9	23.7	18.7	14.1	16.4
26	27.0	21.7	23.9	26.2	21.5	24.1	25.6	20.6	22.8	18.6	16.9	17.5
27	26.5	22.6	24.0	27.9	24.1	25.7	24.6	20.5	22.2	19.0	16.8	17.9
28	25.3	21.8	23.2	28.9	24.4	26.5	23.7	20.1	21.6	19.8	16.7	18.1
29	26.2	20.6	23.3	29.1	24.6	26.5	24.2	19.7	21.8	19.8	16.0	17.9
30	---	---	---	27.7	24.3	25.8	24.8	19.4	21.7	21.1	16.3	18.6
31	---	---	---	28.3	22.2	25.2	25.4	18.8	21.9	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	27.0	13.2	20.5

03260100 ELIJAHS CREEK AT ELIJAHS CREEK ROAD NEAR HEBRON, KY--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.3	6.4	7.5	11.4	8.2	9.7	10.1	8.8	9.2	18.1	13.8	15.4
2	8.5	5.7	6.8	9.9	7.7	8.4	10.5	8.2	9.1	18.2	13.5	15.3
3	10.8	5.5	7.8	10.0	7.7	8.6	11.7	7.9	9.1	18.1	13.8	15.4
4	10.8	7.8	8.9	11.1	8.0	9.3	12.4	7.8	9.5	18.8	14.0	15.9
5	10.0	7.4	8.3	12.2	8.7	10.6	13.0	8.5	10.2	19.2	14.5	16.3
6	9.7	8.4	8.9	12.8	10.6	11.6	10.8	9.1	9.7	17.6	14.5	15.5
7	11.9	8.5	10.0	13.5	10.1	11.7	12.8	9.6	10.6	16.2	13.4	14.9
8	12.2	8.5	9.9	13.6	9.4	11.1	10.2	9.2	9.7	16.6	12.6	14.2
9	10.5	8.2	9.2	13.3	9.3	11.0	13.7	9.6	11.3	16.4	11.6	14.3
10	10.3	8.0	8.8	13.0	9.6	11.1	14.8	10.9	12.2	---	---	---
11	10.2	7.3	8.5	13.1	9.5	11.0	15.6	10.9	12.4	---	---	---
12	9.4	6.3	8.3	12.9	10.3	11.4	15.4	8.7	11.9	---	---	---
13	8.5	6.3	7.4	12.9	10.1	11.2	9.5	7.4	8.3	---	---	---
14	9.5	6.4	8.1	12.2	9.4	10.6	9.4	7.5	8.7	---	---	---
15	9.8	6.8	8.2	12.3	9.3	10.4	12.2	9.0	10.1	---	---	---
16	10.0	6.2	8.0	11.9	8.6	10.1	12.8	9.0	10.5	---	---	---
17	7.8	5.7	6.4	11.6	8.3	9.7	10.2	8.8	9.6	---	---	---
18	10.1	6.1	7.7	11.4	8.3	9.5	10.4	9.5	9.9	---	---	---
19	8.4	4.9	6.5	10.3	6.9	8.3	12.1	10.0	10.9	---	---	---
20	7.8	4.7	6.1	10.6	6.9	8.7	13.7	11.1	12.3	---	---	---
21	10.1	5.6	7.6	11.8	8.7	10	14.3	12.2	13.0	---	---	---
22	8.4	5.5	6.7	13.0	9.3	10.7	14.7	11.7	13.1	---	---	---
23	8.2	5.0	6.2	12.8	8.7	10.3	12.0	11.0	11.6	---	---	---
24	8.6	4.8	7.0	11.5	6.5	8.5	14.1	11.8	12.8	---	---	---
25	9.1	7.7	8.4	9.3	6.3	7.5	15.4	12.7	13.9	---	---	---
26	9.6	7.9	8.7	12.3	7.6	9.5	15.8	13.7	14.4	---	---	---
27	9.8	5.4	8.4	9.2	7.6	8.4	16.0	13.8	14.5	---	---	---
28	9.1	5.4	6.9	10.3	8.0	9.3	16.1	13.5	14.4	---	---	---
29	11.2	7.6	9.5	9.4	7.8	8.6	16.7	13.6	14.9	---	---	---
30	10.6	8.5	9.3	9.1	8.0	8.6	17.3	14.5	15.5	---	---	---
31	10.9	8.5	9.6	---	---	---	17.7	14.2	15.4	---	---	---
MONTH	12.2	4.7	8.1	13.6	6.3	9.8	17.7	7.4	11.6	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	16.4	7.0	11.7	10.4	7.0	8.9
2	---	---	---	---	---	---	16.3	7.5	11.6	9.5	7.5	8.4
3	---	---	---	---	---	---	12.7	8.0	10.1	10.6	8.1	9.3
4	---	---	---	---	---	---	16.5	7.8	12.7	10.5	7.4	8.8
5	---	---	---	---	---	---	15.9	7.5	11.5	10.4	6.9	8.6
6	---	---	---	---	---	---	15.6	9.9	11.9	8.5	6.9	7.7
7	---	---	---	---	---	---	16.3	10.0	13.0	8.6	5.3	7.8
8	---	---	---	---	---	---	13.4	8.8	10.6	8.6	4.3	6.6
9	---	---	---	---	---	---	12.8	7.5	9.4	---	---	---
10	---	---	---	---	---	---	14.1	6.2	9.5	---	---	---
11	---	---	---	---	---	---	12.8	4.8	8.8	5.1	3.7	4.5
12	---	---	---	---	---	---	10.8	4.8	7.2	4.8	3.7	4.2
13	---	---	---	---	---	---	9.1	5.5	8.2	9.3	4.2	7.1
14	---	---	---	---	---	---	8.6	7.2	7.8	9.0	7.7	8.5
15	---	---	---	---	---	---	9.3	5.7	7.7	---	---	---
16	---	---	---	---	---	---	9.6	4.5	6.9	---	---	---
17	---	---	---	---	---	---	11.6	4.3	7.5	---	---	---
18	---	---	---	---	---	---	9.9	4.7	6.5	9.4	8.6	8.9
19	---	---	---	---	---	---	10.4	4.3	6.8	10.4	9.0	9.7
20	---	---	---	10.3	9.5	9.9	9.9	3.4	6.1	10.7	9.1	10
21	---	---	---	12.2	9.9	11.0	11.7	5.9	8.7	11.1	9.6	10.3
22	---	---	---	13.9	10.5	12.1	11.3	10.2	10.9	11.1	8.5	10
23	---	---	---	14.0	10.8	12.1	10.9	8.8	9.9	10.5	7.6	9.3
24	---	---	---	13.5	10.4	11.9	9.9	6.2	9.0	10.8	7.8	8.9
25	---	---	---	11.9	10.0	10.7	8.3	6.2	7.5	11.5	5.8	9.0
26	---	---	---	12.3	9.8	11.3	8.5	6.9	7.6	10.3	5.3	7.5
27	---	---	---	12.4	9.4	11.2	9.8	7.2	8.6	10.8	4.5	7.7
28	---	---	---	13.9	10.1	11.5	---	---	---	8.1	4.2	6.3
29	---	---	---	14.2	8.8	11.4	10.3	8.9	9.6	10.7	7.6	8.5
30	---	---	---	15.5	9.3	11.7	10.3	7.9	9.4	10.6	7.4	8.9
31	---	---	---	16.2	8.7	11.4	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

03260100 ELIJAHS CREEK AT ELIJAHS CREEK ROAD NEAR HEBRON, KY--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	11.0	4.9	7.1	14.8	6.1	8.7
2	---	---	---	---	---	---	11.5	4.5	7.1	13.1	6.3	8.7
3	11.3	6.2	8.1	---	---	---	16.2	4.5	7.8	13.0	6.3	8.5
4	12.0	6.1	8.5	10.8	5.3	7.3	10.9	5.1	7.4	13.4	6.1	8.6
5	14.0	6.7	9.2	10.9	5.2	6.9	10.3	5.1	7.1	14.9	6.9	9.3
6	9.4	8.0	8.6	11.0	5.3	7.2	10.7	5.0	7.1	15.2	7.0	9.3
7	9.1	7.9	8.7	11.5	5.6	7.6	11.7	6.1	7.9	15.1	6.6	9.5
8	9.4	8.0	8.8	12.2	5.6	8.1	12.9	6.6	8.4	15.2	6.6	9.2
9	9.6	7.6	8.6	12.8	6.1	8.3	12.9	6.9	8.6	14.9	6.6	8.4
10	9.7	7.0	8.4	8.1	5.9	6.9	12.5	6.7	8.6	12.6	6.0	8.1
11	10.4	7.0	8.4	10.7	5.7	7.7	12.6	6.9	8.4	12.8	5.6	8.0
12	---	---	---	12.0	6.4	8.6	10.3	4.6	6.9	13.8	6.2	8.9
13	---	---	---	11.5	5.7	7.4	11.6	4.9	7.2	15.4	6.5	9.6
14	9.2	5.0	7.0	10.8	5.6	7.5	9.9	4.9	7.1	12.2	6.5	8.2
15	10.7	6.9	8.5	11.8	5.6	8.0	9.2	6.1	7.4	9.4	6.4	8.1
16	9.4	6.6	7.8	11.4	5.5	7.7	11.3	6.6	8.3	10.2	6.8	8.0
17	11.8	6.2	8.9	11.6	3.9	7.0	11.2	6.3	7.9	12.4	6.8	8.9
18	12.7	6.0	9.2	9.5	3.8	6.0	---	---	---	13.4	6.4	9.0
19	14.0	6.4	9.6	10.1	4.6	6.6	10.4	7.0	8.2	13.2	6.5	8.9
20	14.4	6.4	9.3	10.5	4.4	6.8	11.6	6.9	8.6	10.3	5.2	6.8
21	12.2	6.1	8.7	7.4	4.4	5.6	12.5	7.3	9.0	10.4	7.1	8.4
22	13.6	5.9	8.8	8.9	4.3	6.1	12.8	5.9	8.6	12.8	7.5	9.7
23	12.4	5.7	8.2	9.0	4.5	6.4	12.2	5.9	8.2	13.2	9.0	10.9
24	12.9	5.6	8.4	9.6	5.2	6.8	11.6	6.2	8.1	15.8	10.3	12.4
25	---	---	---	12.2	5.1	7.6	14.1	6.3	8.9	18.1	11.0	13.6
26	11.6	5.2	7.6	11.8	5.8	8.3	13.5	6.8	9.0	14.4	11.1	12.4
27	11.3	4.5	6.9	10.6	6.0	7.6	14.2	6.7	8.7	15.4	11.3	13.5
28	8.6	4.7	6.2	10.5	5.9	7.4	11.1	6.5	7.9	11.4	10.0	10.7
29	10.6	5.0	7.0	10.7	5.6	7.4	12.2	6.3	8.3	10.8	9.9	10.3
30	---	---	---	8.6	5.0	6.7	12.6	5.8	8.4	11.8	10.0	10.5
31	---	---	---	10.1	4.9	6.9	14.3	6.4	8.8	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	18.1	5.2	9.5

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	14	7.6	9.2	14	10	13	420	30	56	12	10	11
2	13	8.3	9.8	15	11	13	190	9.1	28	13	11	12
3	---	---	---	18	13	16	48	8.4	17	14	11	13
4	---	---	---	19	1.0	9.5	160	6.9	17	12	10	11
5	---	---	---	15	9.0	12	160	3.0	12	13	10	11
6	91	18	31	16	11	14	260	5.0	72	35	10	17
7	25	15	17	---	---	---	670	75	190	70	15	31
8	97	15	35	---	---	---	630	74	140	21	7.0	12
9	62	28	34	---	---	---	74	56	63	120	7.0	29
10	36	32	34	---	---	---	59	48	51	---	---	---
11	40	35	38	---	---	---	110	46	49	---	---	---
12	880	40	150	---	---	---	380	46	86	---	---	---
13	99	67	75	---	---	---	110	58	66	---	---	---
14	900	69	200	---	---	---	350	58	130	---	---	---
15	94	69	74	---	---	---	110	67	74	---	---	---
16	350	70	100	---	---	---	650	63	200	---	---	---
17	80	74	77	---	---	---	530	180	340	---	---	---
18	80	76	79	---	---	---	200	32	120	---	---	---
19	93	80	84	---	---	---	170	15	61	---	---	---
20	90	85	87	---	---	---	16	11	13	---	---	---
21	160	89	92	11	5.0	8.2	15	9.0	11	---	---	---
22	95	90	92	---	---	---	71	8.0	12	---	---	---
23	710	27	120	5.0	3.0	4.1	470	29	88	---	---	---
24	150	7.1	44	310	2.0	39	29	13	19	---	---	---
25	56	12	24	93	13	31	22	10	12	---	---	---
26	18	12	15	33	13	15	22	11	12	---	---	---
27	19	16	17	410	26	83	13	10	11	---	---	---
28	20	7.0	12	750	21	130	12	10	11	---	---	---
29	10	5.0	8.5	320	54	110	11	10	11	---	---	---
30	12	6.0	7.9	>1000	48	190	13	10	11	---	---	---
31	14	7.0	12	---	---	---	13	10	12	---	---	---
MONTH	---	---	---	---	---	---	670	3.0	64	---	---	---

03260100 ELIJAHS CREEK AT ELIJAHS CREEK ROAD NEAR HEBRON, KY--Continued

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	31	16	25	670	12	91
2	---	---	---	---	---	---	34	12	23	250	17	54
3	---	---	---	---	---	---	52	17	41	18	10	14
4	---	---	---	---	---	---	45	28	36	15	11	13
5	---	---	---	---	---	---	48	26	36	17	13	15
6	---	---	---	---	---	---	430	23	36	710	15	110
7	---	---	---	---	---	---	34	23	29	---	---	---
8	---	---	---	---	---	---	30	20	27	---	---	---
9	---	---	---	---	---	---	89	7.0	32	---	---	---
10	---	---	---	---	---	---	23	4.0	8.7	---	---	---
11	---	---	---	---	---	---	16	3.0	7.3	470	450	450
12	---	---	---	---	---	---	17	3.0	8.2	450	380	440
13	---	---	---	---	---	---	---	---	---	380	230	280
14	---	---	---	---	---	---	---	---	---	380	240	290
15	---	---	---	---	---	---	130	26	47	---	---	---
16	---	---	---	---	---	---	41	22	30	---	---	---
17	---	---	---	---	---	---	60	28	39	---	---	---
18	---	---	---	---	---	---	82	25	47	540	280	390
19	---	---	---	---	---	---	110	26	39	770	540	680
20	---	---	---	490	60	190	68	26	38	---	---	---
21	---	---	---	620	25	91	>1000	25	240	---	---	---
22	---	---	---	500	17	39	---	---	---	---	---	---
23	---	---	---	87	14	19	---	---	---	---	---	---
24	---	---	---	460	11	36	---	---	---	---	---	---
25	---	---	---	660	10	88	---	---	---	---	---	---
26	---	---	---	610	48	170	---	---	---	---	---	---
27	---	---	---	460	24	51	---	---	---	---	---	---
28	---	---	---	32	18	22	---	---	---	---	---	---
29	---	---	---	450	15	45	---	---	---	---	---	---
30	---	---	---	66	14	19	---	---	---	73	9.0	24
31	---	---	---	44	22	27	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	97	15	---	---	---	---	---	---	---	---	---	---
2	64	19	---	---	---	---	---	---	---	---	---	---
3	61	13	23	---	---	---	---	---	---	---	---	---
4	310	---	39	---	---	---	---	---	---	---	---	---
5	>1000	---	140	---	---	---	---	---	---	---	---	---
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	---	---	---	---	---	---	---	---	---	---	---	---

03262001 WOOLPER CREEK AT WOOLPER ROAD NEAR BURLINGTON, KY

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 2001 to current year.

COOPERATION.--Northern Kentucky Sanitation District No. 1.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 2000 to current year.
pH: December 2000 to current year.
WATER TEMPERATURES: December 2000 to current year.
DISSOLVED OXYGEN: December 2000 to current year.
TURBIDITY: December 2000 to current year.

INSTRUMENTATION.--Water-quality monitor with telemetry.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 1610 microsiemens, Jan. 9, 2002; minimum recorded, 96 microsiemens, May 8, 2002.
pH: Maximum recorded, 8.7 units, Feb. 27, 2001 and Mar. 29-31, 2002; minimum recorded, 7.0 units, Aug. 18, 2002.
WATER TEMPERATURES: Maximum recorded, 31.8'C, Jul. 4, 2002; minimum recorded, -0.3'C, several days in Jan, Feb. and Mar. 2002.
DISSOLVED OXYGEN: Maximum recorded, 20.0 mg/L, Dec. 4, 6, 2000; minimum recorded, 2.3 mg/L, Aug. 19, 2002.
TURBIDITY: Maximum recorded, >1000 NTU, several days in 2001; minimum recorded, 0.0 NTU, Nov. 7 and Jul. 7-9, 2002.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 1610 microsiemens, Jan. 9, 2002; minimum recorded, 96 microsiemens, May 8, 2002.
pH: Maximum recorded, 8.7 units, Mar. 29-31, 2002; minimum recorded, 7.0 units, Aug. 18, 2002.
WATER TEMPERATURES: Maximum recorded, 31.8'C, Jul. 4, 2002; minimum recorded, -0.3C, several days in Jan., Feb. and Mar. 2002.
DISSOLVED OXYGEN: Maximum recorded, 18.0 mg/L, Jan. 8, 2002; minimum recorded, 2.3 mg/L, Aug. 19, 2002.
TURBIDITY: Maximum recorded, >1000 NTU, several days in 2002; minimum recorded, 0.0 NTU, Nov. 7, 2001 and Jul. 7-9, 2002.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	588	582	585	564	553	559	469	386	433	629	602	617
2	591	585	589	571	559	565	---	---	---	---	---	---
3	604	590	595	574	558	567	538	513	527	614	598	606
4	607	586	596	570	556	563	550	538	545	623	595	610
5	602	565	592	568	556	562	---	---	---	601	570	589
6	591	463	505	564	558	562	---	---	---	570	540	557
7	526	487	508	571	559	564	489	342	427	---	---	---
8	542	525	532	576	569	572	544	489	513	---	---	---
9	556	541	546	577	572	574	---	---	---	---	---	---
10	574	556	562	579	572	575	582	544	564	---	---	---
11	589	573	582	579	574	577	605	582	592	943	717	813
12	588	370	489	581	573	577	616	605	612	---	---	---
13	475	378	420	583	575	579	668	601	623	666	630	650
14	485	207	323	589	582	584	611	370	483	630	605	612
15	471	365	425	590	582	587	565	442	514	606	593	599
16	483	440	463	593	585	589	600	238	500	609	596	603
17	518	451	489	595	587	592	321	210	265	610	594	602
18	553	518	537	598	589	594	399	268	341	605	593	599
19	569	553	562	598	587	594	458	395	427	603	591	597
20	579	569	576	593	588	590	490	458	476	660	596	618
21	585	579	582	601	593	597	507	490	500	821	659	727
22	589	577	584	613	601	606	521	507	514	860	818	834
23	597	241	517	619	613	615	---	---	---	864	749	822
24	345	154	245	620	602	613	---	---	---	749	274	391
25	413	176	330	608	602	604	---	---	---	502	412	464
26	475	413	447	602	593	597	510	489	504	545	502	528
27	513	475	497	601	374	451	518	509	515	566	545	558
28	535	513	526	456	224	360	---	---	---	577	566	572
29	547	535	541	329	241	287	---	---	---	588	461	572
30	554	546	552	386	222	300	563	540	552	577	304	435
31	559	552	556	---	---	---	602	563	584	484	341	428
MONTH	607	154	511	620	222	552	---	---	---	---	---	---

03262001 WOOLPER CREEK AT WOOLPER ROAD NEAR BURLINGTON, KY--ContinuedY

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	487	187	308	554	540	547	477	436	457	470	443	456
2	449	375	417	579	536	545	470	435	453	451	402	419
3	484	449	471	714	485	519	471	450	461	463	428	446
4	---	---	---	532	468	517	485	464	476	475	440	457
5	---	---	---	551	532	543	492	458	477	482	452	467
6	521	509	515	548	528	538	---	---	---	497	312	441
7	---	---	---	548	521	536	479	460	470	374	135	272
8	533	520	526	543	525	535	489	470	482	---	---	---
9	523	517	520	695	531	560	520	486	499	357	283	336
10	593	515	526	578	542	554	532	491	513	431	357	399
11	594	516	541	554	542	548	509	488	499	472	431	455
12	524	513	518	561	545	553	513	492	501	492	466	484
13	526	511	519	600	549	570	496	153	300	466	144	200
14	523	516	520	559	534	548	432	278	365	400	258	343
15	527	516	522	564	274	540	427	334	388	---	---	---
16	523	511	517	420	239	324	472	427	450	---	---	---
17	522	510	516	493	420	465	484	442	464	---	---	---
18	522	511	517	506	468	487	462	426	446	---	---	---
19	529	516	523	527	270	462	---	---	---	---	---	---
20	605	505	525	358	230	278	---	---	---	469	448	460
21	---	---	---	---	---	---	---	---	---	485	460	473
22	---	---	---	---	---	---	---	---	---	493	463	479
23	531	520	526	---	---	---	445	379	417	501	453	480
24	532	515	525	526	499	513	479	366	463	498	451	476
25	545	518	532	537	493	514	420	306	362	493	456	474
26	---	---	---	493	191	281	464	420	452	487	462	476
27	---	---	---	439	322	390	485	265	440	496	338	456
28	561	537	548	474	439	460	---	---	---	449	323	404
29	---	---	---	498	465	481	---	---	---	452	390	422
30	---	---	---	499	439	473	---	---	---	472	444	459
31	---	---	---	480	442	459	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	546	520	536	547	510	532	560	533	546
2	511	488	501	546	518	536	557	510	538	559	528	545
3	510	496	504	549	517	537	559	521	540	556	533	544
4	524	508	517	551	516	538	557	522	541	560	541	551
5	530	179	456	553	516	538	556	521	541	558	548	553
6	318	148	248	553	519	539	558	536	546	561	550	555
7	421	318	379	557	517	541	554	542	548	561	543	553
8	467	421	446	558	518	541	556	546	551	563	541	553
9	495	467	483	558	518	541	557	546	552	564	539	553
10	508	495	503	554	515	534	559	546	553	566	538	553
11	519	508	515	547	521	536	561	542	553	576	559	567
12	526	516	521	548	515	535	564	543	555	---	---	---
13	526	511	521	554	536	545	562	542	553	575	533	557
14	520	468	493	553	521	540	569	547	561	594	551	574
15	500	477	492	553	518	538	573	553	562	593	285	366
16	500	480	489	554	518	537	579	554	566	427	355	394
17	490	475	480	552	431	521	579	562	569	464	416	438
18	503	487	493	537	504	524	593	567	580	501	464	476
19	509	484	499	543	497	524	585	552	567	507	463	494
20	517	487	504	545	503	525	643	557	585	517	487	503
21	522	485	507	543	505	524	581	548	567	539	501	522
22	522	494	510	543	505	524	583	550	567	563	530	542
23	527	501	516	543	493	526	580	546	565	584	560	567
24	531	508	522	542	508	525	575	550	563	594	572	583
25	537	515	529	541	507	525	575	554	565	599	572	589
26	541	520	533	541	513	527	572	554	563	---	---	---
27	545	524	535	548	519	535	570	539	558	---	---	---
28	539	514	528	550	514	534	562	546	556	479	386	442
29	539	504	518	549	447	522	599	556	569	526	479	504
30	542	520	534	542	488	522	558	536	549	555	526	539
31	---	---	---	543	516	528	557	531	546	---	---	---
MONTH	---	---	---	558	431	532	643	510	557	---	---	---

03262001 WOOLPER CREEK AT WOOLPER ROAD NEAR BURLINGTON, KY--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.7	7.6	7.7	8.3	8.0	8.1	7.6	7.4	7.5	8.1	8.0	8.1
2	7.7	7.5	7.6	8.2	8.0	8.1	---	---	---	---	---	---
3	7.6	7.3	7.5	8.3	8.0	8.1	7.6	7.4	7.5	8.1	8.0	8.1
4	7.4	7.2	7.3	8.3	8.0	8.2	7.7	7.4	7.5	8.1	8.0	8.1
5	7.5	7.2	7.3	8.3	8.1	8.2	---	---	---	8.2	8.0	8.1
6	7.4	7.3	7.4	8.3	8.1	8.2	---	---	---	8.1	8.0	8.1
7	7.5	7.2	7.4	8.3	8.1	8.2	7.8	7.5	7.6	---	---	---
8	7.6	7.2	7.4	8.3	8.1	8.2	7.8	7.6	7.7	---	---	---
9	7.6	7.4	7.5	8.2	8.0	8.1	---	---	---	---	---	---
10	7.7	7.4	7.5	8.2	7.9	8.0	8.0	7.6	7.8	---	---	---
11	7.6	7.4	7.5	8.2	8.0	8.1	8.1	7.6	7.9	8.3	8.0	8.1
12	7.6	7.5	7.5	8.2	8.0	8.1	8.0	7.8	7.9	---	---	---
13	7.6	7.4	7.5	8.1	7.9	8.0	8.0	7.8	7.9	8.3	7.9	8.1
14	7.5	7.2	7.4	8.1	7.9	8.0	7.9	7.8	7.8	8.3	8.0	8.1
15	7.7	7.4	7.6	8.1	7.9	8.0	8.2	7.9	8.0	8.4	7.9	8.1
16	7.7	7.6	7.6	8.1	7.8	7.9	8.1	7.6	7.9	8.4	8.1	8.3
17	7.8	7.6	7.7	8.0	7.8	7.9	7.8	7.6	7.7	8.5	8.1	8.3
18	7.9	7.6	7.7	8.0	7.8	7.9	8.0	7.8	7.9	8.3	8.0	8.2
19	7.9	7.7	7.8	7.9	7.8	7.8	8.1	7.9	8.0	8.3	8.0	8.2
20	8.0	7.7	7.8	7.9	7.7	7.8	8.2	8.0	8.1	8.3	8.0	8.2
21	8.0	7.7	7.9	7.9	7.8	7.8	8.2	8.0	8.1	8.3	8.1	8.2
22	8.1	7.8	8.0	7.9	7.7	7.8	8.2	8.1	8.1	8.3	8.0	8.2
23	8.2	7.8	8.0	8.0	7.7	7.8	---	---	---	8.2	7.9	8.1
24	7.9	7.6	7.8	7.9	7.6	7.7	---	---	---	8.1	7.5	7.8
25	7.9	7.7	7.8	7.9	7.7	7.8	---	---	---	8.1	7.8	7.9
26	8.0	7.9	8.0	7.9	7.7	7.8	8.2	8.1	8.1	8.1	7.9	8.0
27	8.1	8.0	8.0	7.7	7.5	7.6	8.2	8.1	8.2	8.2	7.9	8.0
28	8.1	8.0	8.1	7.6	7.4	7.5	---	---	---	8.1	7.8	8.0
29	8.2	8.0	8.1	7.5	7.4	7.4	---	---	---	8.1	7.8	7.9
30	8.2	8.0	8.1	7.5	7.4	7.5	8.2	8.0	8.1	7.9	7.7	7.8
31	8.2	8.0	8.1	---	---	---	8.2	8.0	8.1	7.9	7.7	7.8
MONTH	8.2	7.2	7.7	8.3	7.4	7.9	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.8	7.5	7.7	8.1	7.7	7.9	8.6	7.9	8.3	8.5	7.9	8.2
2	8.0	7.8	7.9	8.0	7.7	7.9	8.6	7.9	8.3	8.3	7.9	8.1
3	8.1	7.8	7.9	8.1	7.7	7.9	8.6	7.9	8.2	8.5	7.9	8.2
4	---	---	---	8.1	7.7	7.9	8.5	8.0	8.3	8.4	7.8	8.1
5	---	---	---	8.0	7.6	7.8	8.5	8.0	8.3	8.3	7.8	8.1
6	8.1	7.9	8.0	8.1	7.6	7.8	---	---	---	8.0	7.7	7.9
7	---	---	---	8.1	7.6	7.8	8.4	7.9	8.2	7.8	7.5	7.7
8	8.2	7.9	8.0	8.1	7.6	7.8	8.4	7.9	8.1	---	---	---
9	8.2	7.9	8.0	7.8	7.5	7.6	8.3	7.9	8.1	7.8	7.7	7.8
10	8.1	7.9	8.0	7.9	7.5	7.7	8.3	7.8	8.1	7.9	7.7	7.8
11	8.3	7.9	8.1	8.0	7.5	7.7	8.3	7.8	8.0	8.0	7.8	7.9
12	8.4	7.9	8.1	8.0	7.5	7.7	8.3	7.8	8.0	8.0	7.8	7.9
13	8.4	8.0	8.2	7.9	7.4	7.7	7.9	7.5	7.8	7.9	7.5	7.6
14	8.3	8.0	8.2	7.9	7.4	7.6	8.0	7.8	7.9	7.9	7.7	7.8
15	8.4	8.0	8.2	7.7	7.3	7.5	8.5	7.9	8.2	---	---	---
16	8.4	8.0	8.2	7.5	7.3	7.4	8.6	8.0	8.2	---	---	---
17	8.4	8.0	8.2	7.6	7.4	7.5	8.5	7.9	8.2	---	---	---
18	8.4	8.0	8.2	7.8	7.4	7.6	8.6	7.9	8.2	---	---	---
19	8.4	8.0	8.2	8.3	7.4	7.7	---	---	---	---	---	---
20	8.4	8.0	8.2	7.9	7.8	7.8	---	---	---	8.2	7.8	8.0
21	---	---	---	---	---	---	---	---	---	8.3	7.7	8.0
22	---	---	---	---	---	---	---	---	---	8.3	7.7	8.0
23	8.4	8.0	8.2	---	---	---	---	---	---	8.3	7.7	8.0
24	8.4	8.0	8.2	8.5	8.0	8.2	---	---	---	8.3	7.7	8.0
25	8.4	7.9	8.1	8.3	8.0	8.1	---	---	---	8.3	7.7	7.9
26	---	---	---	8.0	7.7	7.9	---	---	---	8.2	7.7	7.9
27	---	---	---	8.6	7.9	8.2	---	---	---	8.1	7.4	7.7
28	8.1	7.8	8.0	8.6	8.0	8.3	---	---	---	8.0	7.4	7.6
29	---	---	---	8.7	8.0	8.3	---	---	---	8.3	7.5	7.8
30	---	---	---	8.7	7.9	8.3	---	---	---	8.4	8.0	8.2
31	---	---	---	8.7	7.9	8.3	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

03262001 WOOLPER CREEK AT WOOLPER ROAD NEAR BURLINGTON, KY--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	14.5	11.4	13.1	12.7	9.8	11.3	9.5	7.9	8.9	0.0	0.0	0.0
2	16.2	13.1	14.7	13.8	12.4	13.1	---	---	---	0.1	0.0	0.0
3	17.0	13.7	15.5	13.1	10.9	12.0	7.9	5.6	6.9	0.3	0.0	0.0
4	17.1	14.2	15.6	11.8	9.0	10.5	9.7	7.4	8.5	0.1	0.0	0.0
5	17.1	14.7	15.8	10.4	8.3	9.3	---	---	---	0.4	0.0	0.0
6	15.1	12.4	13.5	8.9	6.6	7.9	---	---	---	0.1	0.0	0.0
7	12.4	9.8	11.0	8.8	6.0	7.4	10.6	9.3	10.0	---	---	---
8	12.3	9.2	10.8	10.1	6.3	8.3	9.4	8.7	9.1	---	---	---
9	12.8	9.8	11.4	9.4	7.3	8.4	---	---	---	---	---	---
10	14.7	11.1	13.0	9.0	6.2	7.6	6.1	4.0	5.0	---	---	---
11	16.5	14.2	15.2	8.7	6.5	7.6	5.5	3.8	4.8	0.9	0.0	0.2
12	17.3	14.9	16.4	7.7	5.1	6.4	7.2	4.4	5.5	0.8	0.0	0.2
13	18.6	16.6	17.5	7.6	4.6	6.1	10.2	7.2	9.1	1.1	0.0	0.4
14	18.3	15.0	16.8	8.5	5.3	6.9	10.8	9.3	10.1	2.3	0.1	1.2
15	15.0	12.5	13.7	9.0	5.9	7.5	9.3	8.3	8.8	2.1	0.7	1.6
16	13.3	10.6	12.0	10.4	7.0	8.6	9.2	7.7	8.3	1.4	0.0	0.6
17	11.4	8.9	10.2	11.2	8.6	9.8	10.3	9.2	9.7	1.9	1.0	1.5
18	11.0	7.7	9.4	11.6	9.0	10.3	9.6	7.3	8.8	1.5	0.0	0.8
19	12.3	8.9	10.6	10.4	9.0	9.9	7.3	5.4	6.3	0.6	0.0	0.3
20	13.8	10.6	12.3	9.0	6.2	7.3	5.9	3.8	4.6	0.0	0.0	0.0
21	14.8	11.7	13.3	6.5	4.6	5.7	4.0	2.3	3.2	1.2	0.0	0.5
22	15.4	12.7	14.2	6.2	4.0	5.1	5.3	2.0	3.5	1.9	0.0	0.8
23	17.4	14.6	15.6	7.5	4.3	6.0	6.8	4.8	6.2	4.6	1.9	3.3
24	17.5	15.2	16.1	11.6	7.4	9.6	---	---	---	7.4	4.6	6.4
25	15.8	11.4	13.3	11.3	9.2	10.5	---	---	---	4.9	2.4	3.6
26	11.4	8.4	9.6	9.4	7.3	8.6	0.5	0.0	0.2	4.1	1.3	2.7
27	8.6	7.3	8.0	11.7	9.1	10.6	1.0	0.0	0.4	4.7	1.8	3.2
28	9.4	6.8	8.1	10.7	8.2	9.2	1.9	0.4	1.0	7.4	2.7	4.8
29	9.3	6.2	8.0	11.6	9.1	10.4	1.4	0.0	0.9	10.1	7.4	8.7
30	11.3	8.7	10	11.8	9.3	10.7	0.1	0.0	0.0	10.1	8.4	9.5
31	12.0	9.5	10.9	---	---	---	0.1	0.0	0.0	10.5	8.3	9.4
MONTH	18.6	6.2	12.8	13.8	4.0	8.8	---	---	---	---	---	---

03262001 WOOLPER CREEK AT WOOLPER ROAD NEAR BURLINGTON, KY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10.5	5.7	8.5	3.5	-0.3	1.7	12.3	6.7	9.5	16.1	12.9	14.7
2	5.7	3.2	4.4	4.7	2.7	3.4	14.1	9.2	11.6	16.0	13.9	15.5
3	5.7	3.3	4.4	5.0	1.0	3.5	12.7	7.9	10.1	16.0	10.9	13.4
4	---	---	---	1.0	-0.3	0.2	8.1	5.5	7.0	17.8	11.7	14.4
5	---	---	---	3.7	-0.3	1.5	10.0	4.8	7.4	18.9	12.1	15.4
6	1.9	0.4	1.1	7.3	2.0	4.5	---	---	---	17.2	14.0	14.8
7	5.0	1.9	3.2	10.0	5.8	7.8	11.5	5.6	8.6	18.3	14.8	16.2
8	5.0	1.8	3.5	12.0	7.7	9.9	13.4	10.2	11.8	---	---	---
9	5.6	2.0	3.9	11.2	6.9	10.2	15.1	13.2	13.9	18.1	16.3	17.1
10	6.3	4.6	5.4	6.9	3.7	5.4	16.0	10.3	13.2	17.3	13.4	15.3
11	6.0	4.2	5.0	6.1	2.1	4.3	17.8	10.5	14.2	16.8	12.7	14.8
12	5.3	2.5	4.0	7.5	5.2	6.2	20.5	15.4	17.8	17.9	15.2	16.6
13	4.7	2.8	3.9	10.9	7.1	8.6	19.1	13.6	15.5	17.3	13.2	15.2
14	3.4	0.5	2.2	11.6	7.0	9.5	15.7	13.7	14.6	15.8	12.2	13.8
15	4.8	1.6	3.2	11.6	10.1	10.9	21.2	13.5	16.9	---	---	---
16	5.2	2.4	3.9	10.4	7.1	8.3	22.6	15.9	19.1	---	---	---
17	4.8	2.8	3.9	7.2	6.2	6.7	21.5	17.6	19.6	---	---	---
18	4.1	1.1	2.9	10.0	7.2	8.5	23.3	16.8	19.9	---	---	---
19	4.8	2.5	3.5	9.1	8.3	8.6	---	---	---	---	---	---
20	7.8	4.8	6.3	8.9	8.0	8.5	---	---	---	12.6	10.6	11.7
21	7.6	5.1	6.2	8.0	4.6	6.6	---	---	---	12.6	10.1	11.3
22	5.1	3.0	4.3	---	---	---	---	---	---	15.0	8.4	11.5
23	4.3	0.9	2.8	---	---	---	15.8	9.5	12.5	17.3	10.5	13.8
24	4.9	1.5	3.4	8.2	4.2	6.1	16.3	10.8	13.6	18.2	13.8	16.0
25	7.8	3.5	5.6	7.7	5.4	6.6	16.5	12.1	14.3	21.0	16.4	18.4
26	7.8	2.5	5.7	5.6	4.6	5.0	16.7	10.8	13.5	21.2	16.8	19.0
27	2.5	0.2	0.8	8.6	4.1	6.0	14.2	11.6	12.2	20.2	16.9	18.5
28	1.7	-0.3	0.6	8.0	4.1	6.3	---	---	---	20.8	17.5	19.1
29	---	---	---	10.1	6.2	8.3	---	---	---	21.0	17.9	19.2
30	---	---	---	11.2	7.4	9.4	---	---	---	23.3	18.0	20.5
31	---	---	---	10.1	7.7	8.9	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	30.5	24.0	27.0	30.5	23.9	27.3	25.6	20.9	23.4
2	24.8	21.8	23.1	31.6	24.5	27.8	29.9	24.0	27.0	26.4	21.2	23.7
3	25.8	20.8	23.1	31.4	24.0	27.7	29.4	23.9	26.8	27.1	21.6	24.4
4	26.0	22.1	24.1	31.8	24.1	27.9	29.9	24.7	27.3	25.7	22.2	24.1
5	26.9	21.4	23.7	31.3	24.8	27.9	30.0	24.6	27.3	24.4	19.6	21.9
6	21.4	17.8	19.1	28.9	21.6	25.4	28.3	24.0	26.1	23.9	18.9	21.4
7	19.4	17.0	18.0	28.7	21.0	24.9	25.8	20.7	23.1	24.8	19.2	22.1
8	22.0	16.2	18.9	28.9	21.4	25.3	25.1	19.6	22.1	26.1	20.8	23.4
9	22.8	18.9	20.8	28.1	22.3	25.2	24.9	19.1	22.0	25.7	20.9	23.3
10	25.1	19.9	22.4	28.1	24.0	25.6	26.0	19.6	22.6	27.1	20.5	23.6
11	24.2	21.1	22.8	28.6	22.3	25.2	26.8	21.0	23.6	25.5	20.5	22.8
12	24.4	22.0	23.3	27.3	20.1	23.7	27.3	22.6	24.6	---	---	---
13	23.9	22.4	23.0	24.5	21.3	22.9	28.0	22.2	24.9	23.2	15.0	19.2
14	23.0	20.8	21.8	26.5	20.6	23.5	27.5	23.4	25.3	26.3	19.2	22.1
15	23.0	19.3	21.0	27.9	21.1	24.5	27.2	23.9	25.4	23.0	21.1	22.1
16	22.3	18.7	20.4	27.9	21.4	24.8	27.8	24.1	25.8	23.4	21.5	22.3
17	23.3	17.7	20.4	25.7	22.1	24.1	27.5	24.0	25.4	23.5	19.6	21.5
18	24.5	18.5	21.4	28.4	22.6	25.1	26.6	24.0	25.0	25.3	20.7	22.7
19	26.2	19.2	22.5	29.0	23.0	25.9	25.8	22.4	24.1	26.3	21.1	23.2
20	27.9	21.0	24.2	29.6	23.1	26.3	25.5	21.2	23.2	24.7	21.4	23.0
21	28.3	21.8	24.8	30.3	23.9	27.2	26.6	20.2	23.3	23.0	20.1	21.4
22	28.8	22.0	25.2	29.1	24.6	27.1	28.0	21.9	24.9	22.0	18.3	20.5
23	29.5	21.7	25.3	27.2	25.0	25.9	27.2	22.9	25.1	20.8	15.8	18.0
24	28.2	22.3	25.2	28.1	22.4	25.2	27.6	23.2	25.1	19.9	14.0	16.8
25	27.9	23.0	25.0	27.6	21.0	24.4	26.0	22.9	24.4	19.1	14.6	16.9
26	28.2	22.7	25.2	26.5	22.2	24.7	25.5	21.7	23.6	17.9	17.1	17.5
27	27.5	23.9	25.3	28.3	24.3	26.0	24.4	21.4	22.8	---	---	---
28	26.9	23.5	24.9	28.9	24.5	26.7	23.6	20.8	22.2	18.9	16.6	17.7
29	28.5	22.6	25.4	29.5	24.8	26.8	25.2	19.5	22.4	18.8	16.0	17.5
30	29.1	23.0	26.0	29.6	24.4	26.9	25.5	20.3	22.8	20.1	16.4	18.3
31	---	---	---	30.5	23.8	27.1	25.3	19.6	22.6	---	---	---
MONTH	---	---	---	31.8	20.1	25.8	30.5	19.1	24.5	---	---	---

03262001 WOOLPER CREEK AT WOOLPER ROAD NEAR BURLINGTON, KY--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	10.1	7.8	8.7	12.4	8.2	10.2	10.9	10.0	10.4	17.1	15.7	16.3
2	9.3	7.1	8.0	10.6	8.4	9.1	---	---	---	---	---	---
3	11.0	7.1	8.9	12.0	8.6	10	12.3	10.6	11.3	17.5	16.0	16.6
4	11.1	8.4	9.3	12.7	9.1	10.4	11.7	10.0	10.8	17.9	16.1	16.7
5	11.0	8.0	9.0	12.4	9.2	10.6	---	---	---	17.8	16.1	16.7
6	10.9	8.6	9.5	13.1	9.8	11.1	---	---	---	17.1	15.9	16.3
7	11.5	9.2	10.3	13.7	10.1	11.6	11.2	9.8	10.3	---	---	---
8	12.4	9.7	10.6	13.8	10.6	12.0	10.8	10.0	10.4	---	---	---
9	11.8	9.3	10.3	13.7	10.6	11.8	---	---	---	---	---	---
10	11.3	8.4	9.7	13.4	11.1	12.0	13.5	11.2	12.1	---	---	---
11	10.7	7.6	8.7	14.1	10.9	11.9	14.0	11.5	12.3	14.4	12.7	13.4
12	8.5	7.5	7.9	14.8	11.4	12.3	13.5	10.6	11.9	---	---	---
13	8.3	6.8	7.6	13.7	11.4	12.4	11.1	9.6	10.3	15.2	12.9	13.9
14	8.9	6.7	8.1	12.7	10.6	11.6	10.3	9.5	10	15.6	12.8	13.9
15	9.6	8.3	8.9	12.4	10.4	11.2	11.6	10.1	10.6	15.7	12.7	13.8
16	9.4	8.5	9.0	12.2	9.9	10.9	11.6	10.1	10.6	16.0	12.7	14.0
17	10.8	9.0	9.9	11.9	9.7	10.4	10.6	9.8	10.2	16.3	12.4	13.9
18	11.7	9.4	10.4	11.5	9.4	10.2	10.5	10.0	10.3	16.2	12.8	14.2
19	11.2	9.2	10.2	11.0	9.5	9.9	11.4	10.4	10.8	16.0	12.9	14.0
20	11.6	8.5	9.7	11.8	9.7	10.9	12.2	10.7	11.5	16.4	13.1	14.4
21	11.5	8.7	9.8	12.2	10.7	11.3	13.2	11.7	12.4	16.3	13.1	14.3
22	11.6	8.7	9.8	12.7	11.0	11.6	13.6	11.8	12.7	15.5	11.3	13.3
23	11.2	8.7	9.4	12.7	10.4	11.4	---	---	---	13.6	10.4	11.7
24	9.8	8.5	9.2	11.6	8.8	10.0	---	---	---	11.9	10.3	11.5
25	10.0	9.1	9.6	10.6	8.8	9.6	---	---	---	13.4	11.8	12.5
26	11.3	10.0	10.7	12.0	9.3	10.4	15.2	14.1	14.6	14.0	11.6	12.7
27	11.7	10.8	11.2	10.3	9.0	9.5	15.3	14.2	14.7	13.9	11.4	12.5
28	12.0	10.6	11.3	11.3	9.1	10.3	---	---	---	13.8	10.0	12.0
29	12.2	10.5	11.3	11.0	9.9	10.5	---	---	---	12.7	9.4	10.6
30	11.8	9.8	10.8	10.3	9.9	10.1	16.5	15.0	15.8	11.3	9.2	10.5
31	11.7	9.6	10.5	---	---	---	16.8	15.4	16.0	11.1	9.8	10.6
MONTH	12.4	6.7	9.6	14.8	8.2	10.8	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.4	10.1	11.0	15.9	11.4	13.6	15.3	10.0	12.5	12.7	8.4	10.0
2	13.1	11.2	12.0	13.9	11.1	12.2	14.6	9.3	11.6	9.9	8.3	8.8
3	12.7	10.8	11.7	13.7	11.6	12.6	14.2	9.4	11.7	12.8	8.4	10.3
4	---	---	---	16.2	12.8	14.4	15.2	11.2	13.0	12.4	7.8	9.9
5	---	---	---	16.0	12.2	14.1	15.2	10.9	13.0	11.6	7.2	9.3
6	13.5	11.1	12.4	15.1	10.2	12.8	---	---	---	9.0	7.1	8.1
7	---	---	---	14.3	9.4	11.6	14.5	10.2	12.3	9.4	7.8	8.5
8	13.4	10.3	11.6	14.0	8.5	10.9	12.7	9.3	10.8	---	---	---
9	13.3	9.5	11.5	11.1	8.3	9.7	11.5	8.6	9.8	8.8	8.4	8.6
10	11.9	9.4	10.4	14.7	10.8	12.5	12.2	8.6	10.1	9.7	8.6	9.1
11	13.5	10.0	11.4	15.6	10.9	13.1	11.7	7.8	9.8	10.0	8.5	9.3
12	13.4	9.9	11.4	14.0	10.2	11.8	10.6	7.2	8.7	9.5	8.0	8.7
13	13.8	9.7	11.6	13.6	8.9	11.1	10.0	7.1	9.2	9.6	8.0	9.3
14	14.1	10.8	12.3	13.7	8.3	10.8	9.9	8.9	9.2	9.8	8.7	9.4
15	14.0	9.9	11.8	11.1	8.2	9.5	9.9	7.6	9.0	---	---	---
16	14.2	10.2	11.8	12.0	11.1	11.7	11.1	7.3	9.0	---	---	---
17	14.1	10.3	11.8	12.4	11.2	11.8	11.3	7.3	8.7	---	---	---
18	14.8	10.5	12.5	12.9	10.1	11.5	11.3	6.8	8.8	---	---	---
19	14.4	10.6	12.0	12.0	10.1	11.1	---	---	---	---	---	---
20	13.0	9.8	10.8	11.7	11.2	11.4	---	---	---	11.5	9.1	10.2
21	---	---	---	---	---	---	---	---	---	12.8	9.2	10.7
22	---	---	---	---	---	---	---	---	---	14.0	8.2	10.8
23	14.5	10.5	12.3	---	---	---	11.2	9.3	10.3	14.1	7.3	10.3
24	14.9	10.1	12.2	15.0	11.0	13.0	11.1	9.1	10.1	14.5	6.8	9.7
25	15.8	9.7	11.9	13.8	11.0	12.1	10.8	9.4	10.0	13.1	6.6	8.9
26	---	---	---	13.2	12.1	12.8	11.9	9.2	10.5	11.9	6.3	8.5
27	---	---	---	14.2	11.5	12.9	11.4	9.3	10.5	11.4	6.4	8.1
28	16.2	12.2	14.1	15.1	11.2	12.9	---	---	---	9.6	6.5	7.6
29	---	---	---	15.2	10.4	12.3	---	---	---	10.1	6.6	7.8
30	---	---	---	15.5	10.5	12.5	---	---	---	10.6	6.4	8.3
31	---	---	---	15.4	10.5	12.5	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

03262001 WOOLPER CREEK AT WOOLPER ROAD NEAR BURLINGTON, KY--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	9.4	5.0	6.7	9.6	3.9	6.4	11.0	4.7	7.3
2	9.5	5.9	7.3	9.2	4.8	6.5	11.0	3.8	6.5	11.8	4.7	7.3
3	9.6	6.0	7.4	9.4	4.5	6.4	11.3	3.5	6.8	11.3	4.3	7.0
4	8.8	5.8	7.0	9.9	4.3	6.4	10.8	3.1	6.2	9.7	3.0	6.1
5	8.6	5.6	7.1	9.7	4.3	6.3	10.4	3.1	6.2	11.0	4.7	6.9
6	9.2	7.9	8.7	9.6	4.3	6.6	9.7	3.0	5.6	10.4	4.7	7.2
7	9.3	8.6	9.0	11.2	4.5	7.0	9.7	4.2	6.4	13.9	5.2	8.6
8	9.6	8.0	8.9	11.9	4.5	7.2	9.5	4.4	6.4	12.7	4.8	8.4
9	9.4	7.8	8.6	12.3	4.2	7.3	9.9	4.5	6.8	12.9	4.9	8.6
10	9.5	7.5	8.5	11.0	3.4	6.3	10.0	4.3	7.0	13.2	5.0	8.6
11	9.7	7.5	8.4	10.6	5.8	8.0	10.6	4.3	7.2	10.8	3.4	6.9
12	9.6	7.5	8.4	11.8	6.0	8.4	11.5	3.9	7.2	---	---	---
13	9.2	7.4	8.1	10.3	6.0	7.7	10.9	4.9	7.5	13.7	5.7	8.9
14	9.2	7.5	8.2	12.7	5.6	8.5	9.9	3.2	6.1	12.5	4.8	7.9
15	9.6	7.4	8.3	13.8	5.2	8.5	8.9	3.2	5.6	8.5	5.4	7.3
16	9.5	7.5	8.4	12.7	4.8	7.9	9.8	3.0	5.9	7.9	7.2	7.6
17	10.2	7.2	8.5	10.3	4.6	6.4	8.4	3.1	5.3	8.6	7.0	7.7
18	10.1	7.0	8.4	11.5	4.6	7.1	7.7	2.4	4.6	9.0	5.6	7.3
19	10.5	6.6	8.3	10.8	4.3	6.7	11.4	2.3	6.2	10.2	5.0	6.9
20	9.8	5.8	7.7	11.5	4.3	7.1	9.6	4.0	6.7	10.0	5.0	6.7
21	9.5	5.9	7.5	11.5	4.1	7.0	11.4	4.6	7.2	8.8	5.4	6.9
22	10.1	5.9	7.7	10.3	4.0	6.7	11.1	4.1	6.6	9.5	6.8	7.8
23	9.6	5.9	7.4	9.7	3.7	5.9	9.9	3.7	6.2	10.3	7.3	8.3
24	9.6	5.6	7.2	10.1	4.1	6.7	9.5	3.4	6.0	11.1	7.3	8.7
25	9.6	5.6	6.8	11.0	4.7	7.3	9.9	3.6	6.3	12.3	7.1	9.1
26	9.4	5.5	7.1	11.8	4.3	7.5	9.7	4.0	6.6	---	---	---
27	8.9	5.5	6.9	10.7	3.6	6.2	9.7	4.2	6.3	---	---	---
28	7.8	5.7	6.6	10.1	3.4	6.2	8.8	3.6	5.8	9.8	9.0	9.4
29	8.4	5.6	6.8	9.7	3.3	5.6	9.1	3.6	6.6	9.9	8.8	9.3
30	9.2	5.1	6.9	7.4	2.8	5.2	10.7	5.7	7.6	9.8	8.5	9.1
31	---	---	---	8.2	4.6	6.4	11.0	5.1	7.6	---	---	---
MONTH	---	---	---	13.8	2.8	6.9	11.5	2.3	6.4	---	---	---

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	13	5.6	9.0	---	---	---	66	32	48	11	9.0	9.5
2	7.6	5.7	6.4	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	31	23	28	12	8.0	8.4
4	---	---	---	---	---	---	26	23	24	8.0	7.0	7.8
5	72	8.0	14	---	---	---	---	---	---	8.0	6.0	6.9
6	610	41	210	---	---	---	---	---	---	7.0	5.0	6.5
7	95	40	63	---	---	---	160	30	66	---	---	---
8	46	23	32	50	8.0	16	98	24	40	---	---	---
9	26	16	21	150	16	24	---	---	---	---	---	---
10	23	14	17	42	19	25	20	11	14	---	---	---
11	29	11	14	34	20	29	14	9.0	11	60	18	30
12	970	14	200	40	23	29	15	8.9	10	---	---	---
13	540	80	190	33	20	26	48	15	27	10	5.0	7.5
14	940	74	270	30	2.8	12	320	30	140	7.0	2.0	4.4
15	110	42	59	3.7	2.3	3.2	90	33	53	4.0	2.0	2.8
16	340	41	79	6.0	2.0	3.1	>1000	23	190	3.2	2.1	2.3
17	67	36	46	3.8	2.4	2.9	930	150	310	2.6	1.5	2.1
18	38	28	32	14	2.1	3.2	190	51	92	2.8	1.6	2.5
19	34	22	25	5.6	1.7	3.1	51	28	36	3.1	1.8	2.4
20	28	19	22	7.4	3.4	5.1	30	19	23	3.3	2.1	3.0
21	24	19	20	4.0	1.5	2.7	20	14	17	7.4	2.4	3.4
22	42	19	21	2.5	1.1	1.3	18	12	14	4.7	2.6	3.6
23	640	10	140	1.1	0.6	0.9	---	---	---	7.0	3.8	5.0
24	870	270	470	4.3	0.4	1.1	---	---	---	950	6.0	450
25	---	---	---	6.0	2.2	4.5	---	---	---	120	27	59
26	---	---	---	4.3	0.4	1.8	18	14	16	49	12	21
27	---	---	---	930	1.2	180	14	12	13	18	6.3	9.5
28	---	---	---	900	60	250	---	---	---	110	3.1	9.1
29	---	---	---	990	120	280	---	---	---	13	2.3	6.1
30	---	---	---	340	64	120	140	9.0	13	780	7.8	200
31	---	---	---	---	---	---	11	8.0	9.7	480	55	180
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

03262001 WOOLPER CREEK AT WOOLPER ROAD NEAR BURLINGTON, KY--Continued

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	950	99	670	7.2	5.2	6.4	14	6.3	7.7	100	8.0	24
2	970	580	720	76	7.2	15	8.9	6.0	7.4	280	42	130
3	950	720	820	530	45	130	10	6.0	7.0	110	13	44
4	---	---	---	45	17	28	7.0	3.0	4.8	82	12	25
5	---	---	---	17	11	13	11	2.0	3.9	380	10	61
6	970	36	260	14	10	12	---	---	---	710	49	290
7	---	---	---	14	12	13	180	2.0	8.9	>1000	79	290
8	54	33	39	16	13	14	10	3.0	4.8	---	---	---
9	72	29	39	100	15	41	14	2.5	4.5	150	52	85
10	440	47	170	89	31	54	4.2	0.7	1.9	72	28	39
11	480	50	140	31	19	23	610	0.6	14	30	15	20
12	730	21	90	20	18	19	610	0.6	27	140	14	19
13	39	22	30	21	17	20	990	1.3	280	>1000	100	360
14	30	17	20	24	19	21	990	46	220	100	33	56
15	39	14	19	>1000	14	87	510	36	110	---	---	---
16	26	17	22	>1000	91	360	37	10	21	---	---	---
17	260	17	140	91	40	61	23	8.0	13	---	---	---
18	270	13	120	79	18	37	73	11	24	---	---	---
19	420	6.0	150	770	12	160	---	---	---	---	---	---
20	780	10	270	990	100	350	---	---	---	35	24	25
21	---	---	---	---	---	---	---	---	---	28	20	22
22	---	---	---	---	---	---	---	---	---	29	24	26
23	28	13	17	---	---	---	57	20	34	37	28	32
24	19	10	13	16	11	14	430	5.0	37	42	19	38
25	18	8.6	11	94	13	25	730	23	170	78	41	45
26	---	---	---	>1000	94	370	23	6.0	12	52	46	50
27	---	---	---	110	30	58	630	2.0	77	970	32	200
28	7.1	5.1	6.1	32	14	21	---	---	---	430	35	92
29	---	---	---	110	9.4	18	---	---	---	66	15	38
30	---	---	---	74	8.1	13	100	8.0	13	37	11	25
31	---	---	---	34	6.6	9.6	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	19	8.0	11	19	9.1	13	18	12	14
2	37	26	29	15	6.0	9.4	20	12	14	24	14	16
3	43	30	36	71	9.0	19	17	10	13	24	14	18
4	79	32	43	16	9.0	12	33	13	17	20	14	17
5	990	25	200	24	13	17	27	14	18	22	15	17
6	990	88	320	25	3.0	12	41	18	20	23	15	17
7	88	11	49	9.0	0.0	3.8	41	20	22	22	15	17
8	49	19	26	5.0	0.0	1.4	29	21	23	25	15	18
9	150	12	22	5.0	0.0	2.8	44	22	25	39	17	22
10	24	9.0	12	16	2.0	7.5	28	20	23	26	15	18
11	29	9.0	13	20	6.0	9.7	72	16	27	27	17	20
12	14	10	12	13	6.2	8.7	31	19	22	---	---	---
13	52	11	17	46	7.2	12	35	22	25	53	16	19
14	180	28	74	13	8.4	11	35	24	28	24	15	18
15	49	25	35	16	9.4	12	41	26	32	990	16	430
16	98	15	55	25	9.5	12	44	26	33	880	130	320
17	52	22	38	51	9.6	20	43	31	36	150	54	99
18	29	6.2	23	19	9.8	13	49	38	42	57	15	33
19	32	21	23	16	9.9	12	84	24	47	53	3.0	15
20	25	16	19	16	10	12	28	12	17	21	1.0	6.9
21	25	17	19	17	10	13	24	10	14	21	3.0	12
22	23	16	17	15	10	12	17	10	12	28	12	16
23	51	12	16	21	10	13	19	11	13	20	10	14
24	16	9.8	12	20	12	15	17	11	13	19	12	14
25	18	12	14	22	12	15	23	11	15	24	15	18
26	18	13	15	22	15	17	29	15	17	---	---	---
27	21	10	14	21	15	17	35	17	22	---	---	---
28	37	15	23	33	15	18	27	20	22	110	39	60
29	62	18	26	61	17	24	27	15	21	42	24	32
30	23	11	15	42	19	26	47	15	20	29	17	22
31	---	---	---	21	10	14	48	12	18	---	---	---
MONTH	---	---	---	71	0.0	13	84	9.1	22	---	---	---

03277075 GUNPOWDER CREEK AT CAMP ERNST ROAD NEAR UNION, KY

LOCATION.--Lat 38°59'39", long 84°42'58", Boone County, Hydrologic Unit 05090203, on upstream right wing wall of bridge on Camp Ernst Road, 0.65 mi below South Fork Gunpowder Creek, 3.8 mi northwest of Union, and 14.2 mi above the mouth.

DRAINAGE AREA.--36.6 mi^2.

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--April 1999 to current year.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 683.066 ft above NGVD of 1929.

REMARKS.--Records good except for periods of estimated records, which are fair.

COOPERATION.--Northern Kentucky Sanitation District No. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

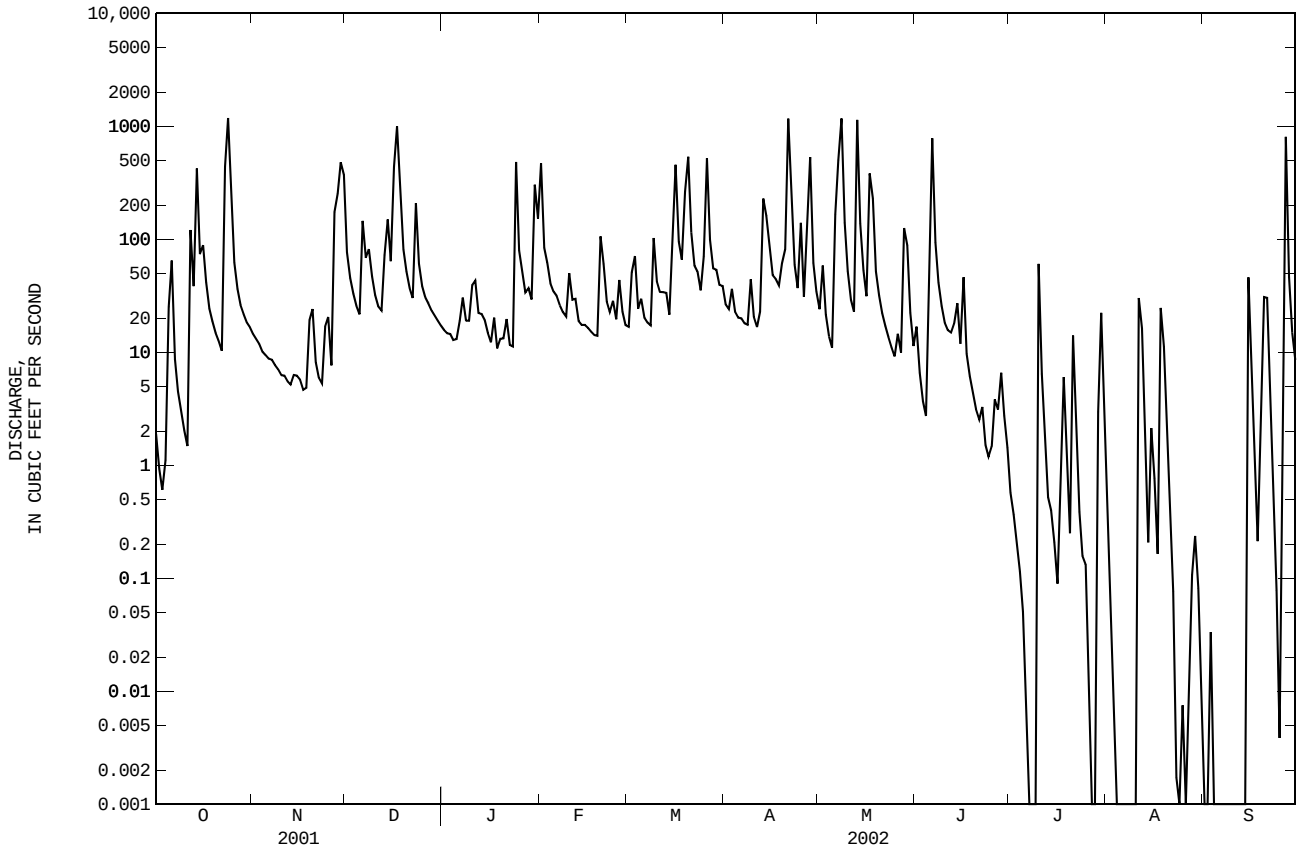
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	14	77	16	472	17	27	24	17	0.57	0.44	0.00
2	0.93	13	46	15	84	51	24	59	6.6	0.37	0.08	0.00
3	0.61	12	33	15	62	71	36	22	3.7	0.21	0.00	0.03
4	1.1	10	26	13	41	24	23	14	2.7	0.11	0.00	0.00
5	25	9.5	22	13	35	30	20	11	83	0.05	0.00	0.00
6	65	8.8	146	19	32	20	20	167	784	0.00	0.00	0.00
7	8.7	8.6	69	31	26	18	18	503	94	0.00	0.00	0.00
8	4.5	7.7	82	19	23	17	18	1170	41	0.00	0.00	0.00
9	3.0	7.1	47	19	21	103	44	140	26	0.00	0.00	0.00
10	2.0	6.3	32	39	50	42	21	52	18	61	0.00	0.00
11	1.5	6.2	25	43	29	34	17	29	16	6.5	30	0.00
12	121	5.5	23	22	30	34	23	23	15	2.0	16	0.00
13	39	5.2	73	22	19	34	230	1140	18	0.52	1.2	0.00
14	423	6.3	150	19	17	22	162	138	27	0.40	0.21	0.00
15	74	6.2	64	15	17	96	92	53	12	0.21	2.1	46
16	89	5.7	439	12	16	457	48	31	46	0.09	0.77	13
17	42	4.7	1000	20	15	95	45	383	9.7	0.45	0.16	2.0
18	24	4.9	238	11	14	66	39	230	6.1	6.0	25	0.21
19	19	19	81	13	14	264	61	52	4.4	1.3	11	2.1
20	15	24	52	13	106	538	82	32	3.1	0.25	1.7	31
21	13	8.2	37	20	61	115	1170	22	2.5	14	0.40	30
22	10	6.0	30	12	28	59	291	17	3.3	1.9	0.08	3.0
23	442	5.3	209	11	23	52	59	14	1.5	0.39	0.00	0.40
24	1190	17	61	485	29	35	37	11	1.2	0.16	0.00	0.08
25	277	21	39	80	20	71	140	9.2	1.5	0.13	0.00	0.00
26	62	7.7	31	52	44	522	31	15	3.8	0.02	0.00	27
27	36	175	27	34	23	99	136	10	3.1	0.00	0.00	807
28	26	254	23	37	17	55	536	126	6.6	0.00	0.11	47
29	22	481	21	29	---	54	62	88	2.7	3.0	0.24	15
30	18	373	19	304	---	40	34	22	1.4	22	0.08	8.6
31	17	---	17	153	---	39	---	11	---	2.3	0.00	---
TOTAL	3073.24	1532.9	3239	1606	1368	3174	3546	4618.2	1260.9	123.93	89.57	1032.42
MEAN	99.14	51.10	104.5	51.81	48.86	102.4	118.2	149.0	42.03	3.998	2.889	34.41
MAX	1190	481	1000	485	472	538	1170	1170	784	61	30	807
MIN	0.61	4.7	17	11	14	17	17	9.2	1.2	0.00	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	39.74	23.09	64.30	47.18	82.52	60.45	59.44	57.63	37.65	27.82	16.28	23.21
MAX	99.1	51.1	104	67.8	151	102	118	149	55.0	76.6	37.6	35.2
(WY)	2002	2002	2002	2000	2000	2002	2002	2002	2000	2001	2001	2000
MIN	7.91	5.68	31.8	21.9	44.8	22.5	10.9	9.25	9.79	4.00	2.89	1.01
(WY)	2001	2000	2000	2001	2001	2001	2001	1999	1999	2002	2002	1999

03277075 GUNPOWDER CREEK AT CAMP ERNST ROAD NEAR UNION, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL TOTAL	17441.30		24664.16			
ANNUAL MEAN	47.78		67.57		49.06	
HIGHEST ANNUAL MEAN					67.6	2002
LOWEST ANNUAL MEAN					32.8	2001
HIGHEST DAILY MEAN	1190	Oct 24	1190	Oct 24	1370	Jan 3 2000
LOWEST DAILY MEAN	0.14	Jun 27	0.00	Jul 6	0.00	Sep 10 1999
ANNUAL SEVEN-DAY MINIMUM	0.36	Apr 30	0.00	Aug 3	0.00	Sep 10 1999
MAXIMUM PEAK FLOW			6590	May 8	6590	May 8 2002
MAXIMUM PEAK STAGE			8.22	May 8	8.22	May 8 2002
10 PERCENT EXCEEDS	101		140		95	
50 PERCENT EXCEEDS	15		19		11	
90 PERCENT EXCEEDS	2.1		0.04		0.93	



03277075 GUNPOWDER CREEK AT CAMP ERNST ROAD NEAR UNION , KY--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Northern Kentucky Sanitation District No. 1.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 2000 to current year.
pH: November 2000 to current year.
WATER TEMPERATURES: November 2000 to current year.
DISSOLVED OXYGEN: November 2000 to current year.
TURBIDITY: November 2000 to current year.

INSTRUMENTATION.--Water-quality monitor with telemetry,

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 4990 microsiemens, Jan. 28, 2002; minimum recorded, 115 microsiemens, May 8, 2002.
pH: Maximum recorded, 10.4 units, Aug. 12, 2001; minimum recorded, 7.2 units, Feb. 27, 2002.
WATER TEMPERATURES: Maximum recorded, 31.8'C, June 18, 2001; minimum recorded, 0.0'C, several days in 2000, 2001 and 2002.
DISSOLVED OXYGEN: Maximum recorded, 18.8 mg/L, March 9, 2002; minimum recorded, 1.2 mg/L, March 22, 2001.
TURBIDITY: Maximum recorded, >1000 NTU, several days in 2001 and 2002; minimum recorded, 0.0 NTU, several days in 2002.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 4490 microsiemens, Jan. 8, 2002; minimum recorded, 115 microsiemens, May 8, 2002.
pH: Maximum recorded, 9.2 units, Jun. 5, 2002; minimum recorded, 7.2 units, Feb. 27, 2002.
WATER TEMPERATURES: Maximum recorded, 30.6'C, Jul. 31, 2002; minimum recorded, 0.0'C, several days in 2002.
DISSOLVED OXYGEN: Maximum recorded, 18.8 mg/L, Mar. 4, 2002; minimum recorded, 4.6 mg/L, Aug. 3, 2002.
TURBIDITY: Maximum recorded, >1000 NTU, several days in 2002; minimum recorded, 0.0 NTU, several days in 2002.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	670	651	658	606	527	591	512	419	471	2620	2410	2530
2	661	600	639	627	593	615	545	507	530	2540	2500	2520
3	643	618	633	635	585	619	588	539	559	2600	2520	2560
4	660	629	640	621	587	605	597	574	585	2710	2600	2680
5	666	377	633	619	585	605	605	595	599	2760	2700	2730
6	399	301	356	617	594	609	607	271	480	3890	2750	2890
7	465	399	429	616	589	609	501	343	437	4900	2250	3710
8	512	465	486	633	603	624	546	437	485	4990	4280	4740
9	543	512	523	627	602	616	530	452	497	4970	2410	3910
10	573	519	554	654	610	634	571	530	551	4680	3300	4030
11	601	573	589	661	640	652	596	570	585	3300	2530	2830
12	641	263	413	660	636	650	602	591	597	2540	2030	2300
13	493	376	439	650	625	644	664	487	539	2030	1580	1800
14	504	220	348	658	636	648	521	353	434	1620	1070	1350
15	524	362	452	636	525	571	529	407	476	1090	834	929
16	534	404	460	655	540	600	557	165	460	877	837	854
17	566	438	521	664	648	658	300	185	242	1030	845	893
18	616	566	592	684	661	674	422	239	345	851	805	830
19	638	616	625	703	639	672	554	422	476	844	797	822
20	649	638	644	689	480	523	684	554	627	1860	844	1390
21	660	641	653	514	490	505	853	683	771	2180	1200	1740
22	649	607	635	538	513	526	974	853	924	2040	1690	1930
23	655	191	522	576	538	554	977	720	841	1850	1370	1580
24	368	157	267	656	568	597	1150	940	1050	1380	459	656
25	445	196	361	638	471	509	1310	1150	1240	665	545	618
26	525	436	476	529	498	518	1450	1310	1380	713	616	669
27	568	516	552	531	267	381	1610	1450	1540	712	699	708
28	596	566	584	486	263	385	1740	1610	1680	759	676	696
29	601	547	592	361	245	309	1990	1740	1820	778	705	724
30	607	552	590	419	247	327	2170	1990	2100	715	418	589
31	598	556	585	---	---	---	2410	2170	2270	601	445	531
MONTH	670	157	531	703	245	568	2410	165	826	4990	418	1830

03277075 GUNPOWDER CREEK AT CAMP ERNST ROAD NEAR UNION , KY--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	560	302	412	647	625	639	541	489	517	542	529	537
2	563	442	521	1320	606	780	532	483	509	563	318	440
3	597	523	571	1190	726	801	618	505	548	489	395	444
4	609	597	605	734	693	714	606	560	578	495	478	487
5	638	609	625	712	592	661	570	552	562	511	493	503
6	635	608	622	683	587	659	564	542	557	939	251	448
7	641	632	636	668	603	640	573	546	559	365	158	286
8	637	627	633	641	601	625	582	554	569	402	115	278
9	636	625	632	1320	627	760	597	519	554	409	277	357
10	723	626	654	708	683	695	621	589	600	443	382	418
11	655	634	642	725	623	673	626	576	596	477	441	463
12	675	624	640	769	661	696	737	596	643	497	407	485
13	648	586	628	781	638	701	768	278	424	464	179	232
14	619	586	608	686	640	669	832	319	454	458	284	361
15	629	593	613	671	282	628	616	457	536	436	390	410
16	618	588	603	476	286	374	539	450	503	---	---	---
17	621	595	610	549	435	514	537	387	498	---	---	---
18	626	602	615	575	525	559	544	479	507	388	204	313
19	629	607	619	589	325	514	527	317	491	467	381	431
20	741	454	604	405	267	322	715	404	498	502	467	484
21	597	514	552	499	385	455	525	136	350	512	493	500
22	627	591	612	536	474	522	408	203	324	521	502	512
23	631	621	627	557	507	534	478	408	440	530	493	514
24	648	580	606	538	480	514	523	452	508	529	478	505
25	623	569	606	573	480	536	520	302	379	515	477	496
26	689	590	641	480	226	316	518	438	489	580	491	552
27	799	595	663	468	365	436	537	248	474	582	505	545
28	683	586	645	514	456	499	---	---	---	535	211	454
29	---	---	---	534	494	521	469	379	435	395	211	320
30	---	---	---	559	485	528	529	465	499	426	389	402
31	---	---	---	538	496	522	---	---	---	465	394	438
MONTH	799	302	609	1320	226	581	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	500	443	467	536	513	525	417	392	404	587	573	578
2	532	450	497	530	511	521	436	404	420	578	565	572
3	506	456	486	524	509	515	438	413	428	572	395	512
4	499	460	480	527	506	514	446	429	436	577	533	560
5	501	194	425	527	505	514	451	431	441	585	567	575
6	327	148	254	527	503	513	459	439	450	585	565	575
7	433	327	387	521	503	512	470	458	464	582	568	574
8	454	415	445	516	500	508	475	463	470	574	556	568
9	485	446	473	512	496	505	476	467	473	568	555	563
10	493	453	478	525	256	344	477	469	473	562	551	557
11	510	449	480	389	312	355	477	183	427	555	544	552
12	505	453	470	410	379	393	394	282	349	---	---	---
13	573	464	511	426	410	417	421	394	406	---	---	---
14	533	280	370	436	416	427	434	409	424	545	533	538
15	490	316	391	454	426	440	497	415	457	702	263	438
16	517	353	396	455	430	442	528	493	504	420	336	379
17	391	368	383	459	425	443	543	519	532	434	414	420
18	406	391	399	546	447	514	522	319	477	461	434	445
19	419	399	404	556	537	547	361	315	333	527	461	481
20	424	404	416	565	526	554	404	360	377	527	404	497
21	436	414	422	622	496	536	421	403	410	448	383	414
22	458	436	450	503	473	490	445	421	434	510	448	480
23	457	438	447	487	459	475	459	432	448	538	510	521
24	457	441	447	487	465	475	464	447	457	555	538	548
25	461	445	454	491	466	479	472	464	467	577	555	570
26	559	454	499	497	476	487	478	468	474	702	505	592
27	556	510	526	490	479	485	487	425	468	546	296	410
28	690	551	615	489	474	482	501	435	475	677	546	615
29	593	562	581	489	426	476	562	501	525	707	554	623
30	574	523	549	561	382	416	603	560	590	645	592	622
31	---	---	---	403	377	386	597	579	586	---	---	---
MONTH	690	148	453	622	256	474	603	183	454	---	---	---

03277075 GUNPOWDER CREEK AT CAMP ERNST ROAD NEAR UNION , KY--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.8	7.6	7.7	8.1	7.7	7.9	8.7	8.0	8.4	8.3	7.9	8.1
2	8.0	7.7	7.9	8.0	7.6	7.8	8.5	7.9	8.2	8.3	7.9	8.1
3	8.1	7.8	8.0	8.1	7.5	7.8	8.4	7.9	8.1	8.4	7.9	8.2
4	8.2	8.0	8.1	8.1	7.6	7.9	8.4	7.9	8.2	8.5	8.0	8.2
5	8.1	7.9	8.0	8.2	7.5	7.9	8.3	7.9	8.1	8.5	7.9	8.2
6	8.1	7.8	8.0	8.3	7.6	8.0	8.3	7.8	8.0	8.6	7.7	8.0
7	8.2	7.9	8.1	8.3	7.7	8.0	8.2	7.8	8.0	8.8	7.7	7.8
8	8.2	8.0	8.1	8.3	7.7	8.0	8.1	7.6	7.8	7.9	7.6	7.7
9	8.2	7.9	8.1	7.9	7.5	7.7	8.2	7.6	7.9	7.9	7.6	7.8
10	8.1	7.7	8.0	8.1	7.6	7.8	8.4	7.8	8.1	8.1	7.8	8.0
11	8.2	7.6	7.9	8.1	7.7	7.9	8.4	7.8	8.1	8.2	7.9	8.1
12	8.0	7.7	7.9	8.3	7.8	8.0	8.4	7.8	8.0	8.3	8.0	8.1
13	8.0	7.7	7.9	8.3	7.8	8.0	8.0	7.6	7.8	8.1	7.5	7.6
14	8.1	7.8	7.9	8.5	7.7	8.1	8.0	7.6	7.8	7.9	7.6	7.8
15	8.2	7.8	8.0	8.2	7.7	8.0	8.4	7.7	8.0	8.3	7.9	8.1
16	8.2	7.8	8.0	7.8	7.6	7.7	8.4	7.8	8.1	---	---	---
17	8.1	7.8	7.9	8.1	7.7	7.9	8.4	7.7	8.0	---	---	---
18	8.1	7.8	8.0	8.4	7.9	8.1	8.4	7.7	8.0	8.2	7.7	8.0
19	8.1	7.8	7.9	8.1	7.9	8.0	8.4	7.6	8.0	8.4	8.0	8.2
20	8.0	7.5	7.8	8.2	8.1	8.1	8.1	7.6	7.8	8.5	8.1	8.3
21	7.6	7.3	7.5	8.5	8.1	8.3	7.9	7.5	7.7	8.6	8.2	8.4
22	7.8	7.6	7.7	8.7	8.3	8.5	7.7	7.5	7.6	8.7	8.2	8.4
23	7.9	7.6	7.8	8.7	8.4	8.5	8.0	7.7	7.9	8.7	8.1	8.4
24	7.9	7.4	7.7	8.7	8.2	8.5	8.2	7.8	8.0	8.8	8.1	8.5
25	8.1	7.3	7.8	8.5	8.1	8.3	7.9	7.6	7.7	8.7	8.1	8.4
26	8.0	7.5	7.7	8.1	8.0	8.1	8.1	7.8	7.9	8.6	8.1	8.4
27	8.0	7.2	7.7	8.6	8.0	8.3	8.1	7.5	7.9	8.6	8.0	8.3
28	8.0	7.5	7.8	8.6	8.1	8.3	7.9	7.5	7.7	8.5	7.9	8.1
29	---	---	---	8.5	8.1	8.3	8.1	7.7	7.9	8.4	7.8	8.1
30	---	---	---	8.7	8.0	8.3	8.2	7.9	8.0	8.6	8.1	8.3
31	---	---	---	8.7	8.0	8.3	---	---	---	8.5	8.0	8.3
MONTH	8.2	7.2	7.9	8.7	7.5	8.1	8.7	7.5	8.0	---	---	---

03277075 GUNPOWDER CREEK AT CAMP ERNST ROAD NEAR UNION , KY--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.5	8.1	8.3	8.4	7.7	8.1	8.6	7.7	8.2	8.1	7.7	7.9
2	8.6	8.0	8.3	8.4	7.7	8.1	8.5	7.8	8.2	8.1	7.7	7.9
3	8.5	7.9	8.2	8.3	7.8	8.0	8.3	7.7	8.0	8.0	7.6	7.8
4	8.5	7.9	8.2	8.3	7.7	8.0	8.3	7.7	8.0	7.9	7.5	7.7
5	9.2	7.7	8.1	8.3	7.6	8.0	8.3	7.7	8.0	7.9	7.6	7.7
6	7.9	7.5	7.7	8.2	7.7	7.9	8.2	7.7	7.9	7.9	7.6	7.7
7	8.2	7.9	8.0	8.3	7.6	8.0	8.1	7.8	7.9	7.8	7.7	7.7
8	8.3	8.0	8.1	8.3	7.7	8.0	8.2	7.8	7.9	8.0	7.7	7.8
9	8.3	7.9	8.1	8.4	7.7	8.0	8.2	7.9	8.0	8.0	7.7	7.8
10	8.3	7.9	8.1	8.1	7.6	7.9	8.2	7.9	8.0	8.0	7.8	7.9
11	8.4	7.9	8.2	8.2	7.9	8.0	8.4	7.6	8.0	8.1	7.8	7.9
12	8.4	8.0	8.2	8.5	8.0	8.2	7.8	7.5	7.6	---	---	---
13	8.4	8.0	8.2	8.5	8.0	8.2	8.3	7.6	7.9	---	---	---
14	8.4	7.9	8.2	8.5	8.0	8.2	8.5	7.7	8.1	7.8	7.7	7.8
15	8.3	8.0	8.1	8.6	8.0	8.3	8.4	7.7	8.1	7.8	7.4	7.6
16	8.5	7.8	8.2	8.5	8.0	8.3	8.4	7.7	8.0	7.8	7.4	7.5
17	8.6	7.8	8.2	8.4	8.0	8.2	8.0	7.6	7.8	8.1	7.5	7.7
18	8.7	7.9	8.3	8.5	8.0	8.2	8.2	7.6	7.7	8.1	7.5	7.8
19	8.7	7.9	8.2	8.6	8.0	8.3	8.1	7.6	7.8	8.1	7.4	7.7
20	8.5	7.8	8.1	8.3	8.0	8.2	8.3	7.6	7.9	7.8	7.4	7.6
21	8.5	7.8	8.1	8.4	7.9	8.1	8.4	7.7	8.0	7.9	7.5	7.7
22	8.5	7.8	8.1	8.6	7.8	8.2	8.3	7.7	8.0	8.1	7.6	7.8
23	8.4	7.7	8.0	8.5	7.8	8.1	8.2	7.7	8.0	8.1	7.7	7.9
24	8.5	7.7	8.1	8.4	7.9	8.2	8.1	7.7	7.9	8.2	7.7	7.9
25	8.4	7.7	8.0	8.5	8.0	8.2	8.1	7.6	7.9	8.5	7.7	8.1
26	8.5	7.8	8.1	8.4	7.9	8.2	8.1	7.7	7.9	8.3	7.8	8.0
27	8.5	7.8	8.1	8.3	7.8	8.0	8.1	7.7	7.9	8.0	7.7	7.8
28	8.4	7.9	8.1	8.2	7.8	8.0	8.2	7.6	7.9	8.0	7.8	7.9
29	8.4	7.8	8.1	8.2	7.8	8.0	8.3	7.7	8.0	8.0	7.9	8.0
30	8.5	7.8	8.1	8.2	7.7	7.9	8.2	7.7	7.9	8.2	7.9	8.1
31	---	---	---	8.6	7.7	8.1	8.1	7.7	7.9	---	---	---
MONTH	9.2	7.5	8.1	8.6	7.6	8.1	8.6	7.5	7.9	---	---	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	16.5	11.6	14.0	13.3	10.1	11.8	9.2	7.8	8.7	0.1	0.0	0.0
2	18.9	13.8	15.9	14.4	12.7	13.5	8.3	6.5	7.4	---	---	---
3	18.1	14.4	16.4	13.7	10.9	12.2	8.1	5.6	7.0	---	---	---
4	18.5	13.8	16.1	12.0	9.1	10.8	10.0	7.6	8.7	---	---	---
5	18.3	14.6	16.3	11.1	8.5	9.7	10.7	8.6	9.9	---	---	---
6	16.8	12.7	14.2	9.3	6.7	8.1	10.0	9.7	9.9	---	---	---
7	12.7	9.5	11.0	8.9	6.2	7.6	10.4	9.1	9.8	---	---	---
8	12.9	9.2	11.1	10.1	6.5	8.5	9.3	8.5	9.0	---	---	---
9	14.2	10.1	12.0	9.9	7.4	8.6	8.5	6.0	7.4	---	---	---
10	16.1	11.4	13.5	9.4	6.4	7.7	6.0	3.8	5.0	---	---	---
11	17.9	14.5	15.9	9.1	6.7	7.7	5.6	3.8	4.8	---	---	---
12	17.8	16.1	17.0	8.0	5.1	6.4	7.5	4.4	5.6	---	---	---
13	19.5	17.1	18.2	8.1	4.6	6.2	10.8	7.5	9.7	1.2	0.0	0.5
14	18.7	15.0	17.3	8.9	5.6	7.1	10.9	9.4	10.4	3.1	0.6	1.8
15	15.0	12.7	13.9	9.8	6.5	7.9	9.4	8.2	8.8	2.9	1.4	2.5
16	13.6	11.0	12.3	10.9	7.7	9.1	8.9	7.5	8.1	2.2	0.0	1.1
17	11.4	8.9	10.2	12.0	8.8	10.1	10.6	8.9	9.7	2.4	1.3	2.0
18	11.1	7.6	9.4	12.1	8.8	10.3	9.7	7.6	8.9	1.8	0.0	0.9
19	12.6	9.1	10.8	11.3	9.4	10.3	7.6	5.7	6.7	1.0	0.0	0.5
20	14.3	10.7	12.7	9.8	6.5	7.8	6.3	4.0	4.8	0.2	0.0	0.0
21	15.2	11.7	13.7	6.5	4.4	5.5	4.2	2.3	3.4	1.5	0.0	0.6
22	15.8	12.8	14.6	6.4	3.9	5.0	5.6	2.3	3.8	2.8	0.1	1.2
23	17.8	14.9	16.2	7.9	4.4	6.1	6.7	4.8	6.2	5.5	2.8	4.1
24	17.6	15.3	16.3	12.3	7.5	9.8	4.8	2.5	3.3	8.2	5.3	7.1
25	16.0	11.9	13.7	12.1	9.5	11.2	2.5	0.3	1.3	5.3	2.7	4.1
26	12.0	8.5	9.9	9.5	7.0	8.5	0.8	0.0	0.1	4.3	1.8	3.2
27	8.5	7.0	7.9	12.0	9.3	10.9	0.6	0.0	0.2	5.0	2.1	3.6
28	9.4	6.5	8.1	11.0	8.0	9.0	1.8	0.0	0.9	8.0	3.4	5.4
29	9.7	6.2	8.2	11.9	8.6	10.3	1.3	0.0	0.7	11.3	8.0	9.7
30	11.7	8.9	10.4	11.9	9.2	10.7	0.0	0.0	0.0	11.3	8.8	10.3
31	12.2	9.7	11.2	---	---	---	0.1	0.0	0.0	11.4	8.6	9.9
MONTH	19.5	6.2	13.2	14.4	3.9	8.9	10.9	0.0	5.8	---	---	---

03277075 GUNPOWDER CREEK AT CAMP ERNST ROAD NEAR UNION , KY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.0	6.3	9.1	4.3	0.0	2.2	12.9	7.0	10.2	17.2	13.9	15.8
2	6.3	3.6	4.9	5.4	3.3	4.2	15.0	10.0	12.6	17.5	15.5	16.6
3	6.1	3.8	4.8	5.6	1.2	3.9	13.5	8.3	10.6	16.7	12.6	14.9
4	5.1	1.5	3.3	1.2	0.0	0.4	8.8	5.7	7.6	18.2	12.9	15.4
5	2.3	0.0	1.1	4.4	0.0	2.1	11.0	5.3	8.4	19.6	13.2	16.6
6	2.0	0.7	1.5	7.8	2.6	5.3	11.6	6.6	9.4	18.2	14.9	16.0
7	5.2	1.9	3.4	10.7	6.5	8.6	12.9	6.3	9.7	19.3	15.9	17.3
8	5.2	2.0	3.7	13.1	8.4	10.8	15.0	11.4	13.2	19.3	16.3	17.8
9	5.9	2.1	4.2	12.5	7.4	10.8	15.4	13.8	14.6	19.1	17.2	18.1
10	6.7	5.0	5.7	7.4	3.5	5.6	16.6	10.6	13.8	18.0	14.7	16.5
11	5.8	4.1	5.0	7.6	2.3	5.0	19.0	11.1	15.4	18.2	14.1	16.2
12	5.7	2.7	4.4	8.3	6.1	7.1	20.8	16.4	18.7	19.3	16.7	18.1
13	5.0	3.0	4.2	11.4	7.8	9.3	19.9	15.1	16.8	18.7	13.8	16.0
14	3.9	0.7	2.7	12.6	7.7	10.4	16.6	15.1	15.8	18.0	12.7	15.0
15	5.6	2.3	4.0	12.9	10.9	11.8	22.1	14.8	18.1	18.3	13.2	15.9
16	5.7	2.7	4.4	11.0	7.5	8.9	23.4	17.4	20.5	---	---	---
17	5.3	3.0	4.1	7.6	6.5	7.1	23.1	19.1	21.0	---	---	---
18	4.6	1.1	3.3	11.0	7.6	8.9	24.4	18.0	21.2	15.4	12.1	13.5
19	5.3	3.1	4.2	9.4	8.7	9.0	24.8	20.7	22.3	14.2	10.4	12.6
20	8.0	5.3	6.4	9.3	8.4	8.9	21.3	19.3	20.3	14.1	11.7	13.0
21	7.0	4.8	5.8	8.4	5.1	7.2	19.9	12.1	15.4	13.6	11.0	12.3
22	4.8	2.8	4.0	6.6	1.9	4.4	15.1	12.6	13.7	15.8	9.3	12.6
23	4.7	0.6	2.8	8.5	2.7	5.5	16.2	10.1	13.2	18.5	11.6	15.1
24	5.8	2.1	4.1	8.9	5.0	6.9	17.1	12.0	14.8	20.3	15.2	17.8
25	8.9	4.1	6.5	8.2	5.6	7.0	17.1	13.2	15.3	22.3	17.9	20.0
26	8.9	3.0	6.4	5.8	4.5	5.0	17.5	11.9	14.7	21.9	17.6	20.0
27	5.0	0.4	1.6	9.3	4.2	6.2	15.6	12.6	13.5	23.2	17.9	20.6
28	2.3	0.0	1.0	8.7	4.5	6.9	18.5	12.6	15.7	22.9	18.9	20.8
29	---	---	---	10.7	6.9	8.9	15.4	11.7	13.1	22.0	18.6	20.0
30	---	---	---	11.9	8.1	10.2	16.8	11.0	14.0	24.2	19.1	21.5
31	---	---	---	10.8	8.5	9.6	---	---	---	25.9	20.5	23.2
MONTH	11.0	0.0	4.2	13.1	0.0	7.0	24.8	5.3	14.8	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	26.0	22.1	24.0	29.3	24.0	26.7	30.3	24.6	27.5	25.6	22.4	24.1
2	25.4	22.6	24.0	30.4	24.5	27.4	29.8	25.0	27.5	25.8	22.5	24.2
3	26.5	21.2	23.8	29.5	24.1	27.0	29.3	25.3	27.5	26.4	22.6	24.5
4	27.9	22.6	25.0	30.0	24.4	27.2	30.3	25.9	27.9	26.2	23.1	24.8
5	28.1	22.6	24.5	29.8	25.2	27.4	29.7	25.7	27.8	24.2	20.8	22.6
6	23.2	18.6	20.2	27.0	22.7	25.1	28.4	24.7	26.4	23.9	20.5	22.3
7	20.0	17.8	18.8	26.3	21.6	24.0	24.7	21.3	23.1	23.9	20.9	22.4
8	23.2	17.2	20.2	26.7	21.9	24.3	23.9	20.6	22.3	24.7	21.8	23.2
9	25.1	20.4	22.8	26.3	22.7	24.5	23.8	20.4	22.1	24.9	22.0	23.4
10	26.5	21.3	24.0	26.1	23.5	24.7	24.2	20.7	22.4	24.7	22.0	23.4
11	25.7	22.2	24.2	26.5	21.6	24.1	24.4	21.1	22.8	24.5	22.1	23.4
12	25.5	22.9	24.4	26.3	20.5	23.5	26.7	22.7	24.6	---	---	---
13	25.1	23.5	24.2	24.0	21.3	22.6	28.0	22.6	25.4	---	---	---
14	25.4	21.7	23.7	25.9	20.8	23.4	26.8	23.3	25.2	21.6	20.2	20.9
15	24.3	21.3	22.6	27.0	21.8	24.5	26.9	24.0	25.3	23.1	21.0	22.0
16	22.8	18.8	20.9	27.6	22.3	25.0	27.5	24.0	25.7	23.2	21.5	22.3
17	23.4	17.8	20.9	25.9	22.9	24.5	25.9	23.6	24.8	23.4	19.7	21.6
18	25.1	19.0	22.0	28.4	23.4	25.6	25.5	23.9	24.6	24.8	20.9	22.8
19	26.9	19.9	23.2	29.5	23.7	26.4	25.0	22.7	23.8	25.6	21.9	23.7
20	28.5	21.6	24.8	29.7	23.8	26.7	25.0	22.4	23.6	24.9	22.9	23.7
21	28.2	22.2	25.2	30.2	25.0	27.6	26.8	21.2	24.0	22.9	20.9	22.0
22	28.5	22.4	25.5	30.5	25.7	28.2	28.1	22.9	25.5	22.1	18.5	20.8
23	28.8	21.8	25.3	28.2	25.6	26.4	27.8	23.9	26.0	19.4	15.5	17.8
24	28.6	22.6	25.5	27.9	22.8	25.2	27.4	24.1	25.8	18.5	14.2	16.8
25	28.6	23.6	25.7	27.8	21.9	25.0	25.9	23.6	24.9	18.4	15.3	17.1
26	28.9	22.9	25.4	26.9	23.3	25.4	25.3	22.4	24.0	18.3	17.4	17.8
27	28.5	23.9	26.0	27.4	24.7	26.0	24.2	22.2	23.1	18.7	17.2	18.0
28	27.2	23.9	25.3	29.2	25.1	27.0	23.3	20.9	22.2	19.5	16.8	18.2
29	28.3	22.3	25.3	29.1	25.8	27.2	25.1	20.8	23.1	19.5	16.2	18.1
30	29.2	22.9	26.0	29.2	25.1	27.0	25.2	21.0	23.0	20.8	17.2	19.2
31	---	---	---	30.6	24.7	27.5	25.3	20.7	23.2	---	---	---
MONTH	29.2	17.2	23.8	30.6	20.5	25.7	30.3	20.4	24.7	---	---	---

03277075 GUNPOWDER CREEK AT CAMP ERNST ROAD NEAR UNION , KY--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	10.8	8.4	9.4	11.0	8.9	9.9	9.7	9.1	9.3	16.0	14.6	15.2
2	10.5	8.0	8.9	10.2	8.7	9.2	10.2	9.3	9.7	16.4	14.7	15.4
3	10.8	8.0	9.0	11.8	8.7	10.1	10.7	8.8	9.7	16.4	14.7	15.4
4	10.7	8.2	9.0	12.6	9.3	10.6	10.0	8.6	9.2	16.5	14.8	15.6
5	10.6	8.3	9.0	12.6	9.4	10.9	12.2	8.5	10	16.8	14.9	15.7
6	10.0	8.3	9.3	13.2	10.3	11.6	10.7	9.9	10.2	16.0	15.0	15.4
7	11.2	9.3	10.2	13.7	10.7	11.9	11.4	10.1	10.6	16.3	14.7	15.4
8	11.6	9.8	10.4	13.8	10.5	11.9	10.8	10.2	10.5	16.5	14.5	15.4
9	11.3	9.4	10.1	13.4	10.2	11.6	12.2	10.4	11.2	16.7	14.7	15.5
10	11.1	8.7	9.8	13.4	10.9	11.8	13.2	11.1	12.0	16.2	14.7	15.2
11	10.4	7.9	8.9	13.3	10.7	11.7	13.4	11.4	12.2	16.1	14.4	14.9
12	8.7	7.7	8.2	13.4	11.2	12.0	13.3	10.5	11.8	15.9	13.5	14.6
13	9.0	7.5	8.0	13.5	11.2	12.1	10.6	9.2	9.9	16.0	13.1	14.4
14	9.1	7.6	8.4	12.9	10.5	11.5	10.2	9.1	9.7	14.6	11.6	13.0
15	9.8	8.7	9.3	12.1	10.2	10.8	11.8	10.1	10.7	15.2	11.3	12.9
16	9.8	9.0	9.3	11.5	9.5	10.4	11.9	10.1	10.7	16.3	12.5	14.0
17	10.7	9.5	10.0	11.3	9.1	10	10.4	9.5	10	14.9	11.7	13.0
18	11.3	9.6	10.3	11.2	8.8	9.7	10.7	9.8	10.3	15.4	11.6	13.4
19	10.5	8.9	9.8	10.3	8.7	9.2	11.2	10.2	10.7	16.0	12.7	14.0
20	10.3	8.6	9.4	10.6	8.7	9.6	12.3	10.6	11.5	17.0	13.3	14.8
21	10.5	8.6	9.4	11.6	9.4	10.4	13.0	11.6	12.3	15.6	12.2	13.8
22	11.0	8.7	9.6	12.4	9.9	10.9	13.1	11.4	12.3	15.9	12.2	13.7
23	10.6	8.1	9.0	12.8	9.7	11.0	11.7	11.0	11.4	14.7	11.3	12.5
24	9.0	8.3	8.7	11.3	7.9	9.3	13.3	11.6	12.6	11.8	10.9	11.3
25	9.7	8.6	9.2	9.0	7.4	8.1	14.4	12.6	13.5	13.8	11.5	12.7
26	10.7	9.5	10.2	12.1	8.2	9.8	14.8	13.6	14.2	14.4	12.1	13.1
27	11.3	10.3	10.8	9.4	8.4	8.9	14.8	13.8	14.2	15.0	12.7	13.6
28	11.4	10.3	10.8	10.4	8.6	9.6	14.8	13.4	14.1	14.6	11.3	12.9
29	11.7	10.1	10.9	10.0	8.7	9.4	15.1	13.5	14.4	13.8	10.4	11.6
30	11.4	9.4	10.3	9.3	8.6	9.0	15.8	14.4	15.0	11.4	10.2	10.9
31	10.9	9.2	9.9	---	---	---	15.9	14.6	15.1	11.3	9.9	10.8
MONTH	11.7	7.5	9.5	13.8	7.4	10.4	15.9	8.5	11.6	17.0	9.9	13.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	12.1	9.5	10.9	18.4	13.2	15.8	14.2	9.6	11.6	10.8	8.2	9.3
2	13.6	11.5	12.7	16.1	11.8	13.5	13.3	9.0	10.8	9.1	7.8	8.4
3	13.4	11.4	12.4	15.7	11.8	13.6	12.6	9.0	10.5	11.1	8.4	9.5
4	14.5	12.0	13.4	18.8	14.1	16.3	13.8	10.0	11.8	11.9	8.2	9.8
5	15.6	13.4	14.6	17.8	12.8	15.4	13.3	9.6	11.5	12.3	7.8	9.7
6	15.2	12.4	14.0	16.6	11.4	14.0	12.7	9.6	10.9	9.2	7.7	8.3
7	14.8	12.7	13.7	16.1	10.6	13.0	12.5	9.0	10.8	8.8	8.1	8.4
8	15.2	12.7	13.7	15.1	9.6	12.1	11.2	8.4	9.6	9.0	7.0	8.2
9	15.1	12.3	13.6	11.1	9.3	10.2	10.2	8.1	9.0	8.1	6.8	7.5
10	13.9	10.8	12.1	14.6	11.1	12.9	11.5	6.6	9.1	9.2	7.0	8.3
11	15.1	11.0	13.2	15.9	10.5	12.8	10.1	5.8	7.8	8.6	7.5	8.1
12	13.8	10.3	12.4	13.8	10.3	11.6	9.0	5.7	7.0	8.9	7.2	8.1
13	15.1	11.3	13.1	12.9	7.6	10.5	8.5	5.9	7.4	9.2	7.2	8.4
14	15.9	12.6	14.3	13.7	7.6	10.6	8.5	7.0	7.7	8.4	5.5	7.3
15	15.7	12.8	14.1	12.2	8.6	10.2	9.2	5.9	7.7	9.2	7.5	8.4
16	16.0	12.6	14.0	12.0	10.5	11.7	9.1	6.0	7.3	---	---	---
17	15.7	12.8	14.1	13.0	10.9	12.1	10.6	6.1	7.8	---	---	---
18	16.3	13.4	14.7	13.4	9.3	11.4	11.3	6.8	8.6	10.3	9.0	9.8
19	16.1	13.2	14.3	12.2	9.5	10.8	10.3	6.8	7.9	11.6	9.0	10.6
20	13.2	8.7	12.1	10.9	10.6	10.8	8.2	6.2	7.2	12.1	9.7	10.8
21	12.6	8.5	11.1	12.6	10.8	11.7	9.8	7.1	8.6	12.8	9.8	11.1
22	15.9	12.4	14.0	14.6	11.6	13.0	8.6	7.8	8.3	13.4	9.1	11.1
23	16.6	13.8	15.0	14.4	11.2	12.6	9.6	7.9	8.7	13.3	8.6	10.7
24	16.1	9.8	13.5	14.1	10.9	12.4	9.9	8.1	9.0	13.7	8.1	10.5
25	17.1	11.9	14.3	13.3	10.7	11.5	9.1	7.6	8.5	12.1	7.6	9.4
26	15.6	11.6	13.2	12.2	11.1	12.0	10.6	8.9	9.6	11.8	7.5	9.2
27	18.0	9.5	15.0	13.3	10.9	12.1	10.7	8.9	9.7	11.8	7.3	9.0
28	18.6	12.7	16.0	13.8	10.4	11.9	10.3	8.2	9.0	10.2	6.9	8.2
29	---	---	---	13.7	9.8	11.3	10.8	8.9	9.9	9.3	7.8	8.5
30	---	---	---	14.7	9.6	11.8	11.0	8.4	9.9	9.9	7.1	8.4
31	---	---	---	14.7	9.6	11.6	---	---	---	10.1	6.7	8.0
MONTH	18.6	8.5	13.6	18.8	7.6	12.3	14.2	5.7	9.1	---	---	---

03277075 GUNPOWDER CREEK AT CAMP ERNST ROAD NEAR UNION , KY--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.2	6.3	7.6	10.1	7.2	8.4	9.9	5.0	6.8	9.0	6.0	7.4
2	9.6	6.1	7.5	10.1	7.1	8.3	9.6	4.8	6.9	9.2	6.2	7.5
3	9.8	6.3	7.6	9.8	7.2	8.3	8.9	4.6	6.6	8.3	6.2	7.2
4	9.1	6.2	7.4	10.0	7.2	8.3	9.2	4.8	6.9	8.3	5.5	6.7
5	9.4	6.3	7.6	9.7	7.0	8.1	9.5	5.2	7.1	8.4	6.2	7.1
6	9.0	7.4	8.4	9.0	7.1	7.8	8.9	5.2	6.7	8.3	6.4	7.2
7	9.3	8.5	9.0	8.6	6.9	7.5	8.7	5.8	6.9	8.8	6.7	7.5
8	9.5	8.0	8.7	10.3	6.7	7.6	8.8	6.0	7.1	9.3	6.9	8.0
9	9.4	7.7	8.5	9.7	7.1	7.8	9.5	6.5	7.6	10.1	7.3	8.4
10	9.7	7.5	8.4	7.8	6.2	6.8	11.0	7.0	8.5	10.6	7.8	9.0
11	9.8	7.4	8.3	7.9	6.2	7.0	12.6	6.3	8.5	10.3	7.9	8.9
12	9.4	7.1	8.0	9.3	6.7	7.8	7.8	5.9	6.8	---	---	---
13	9.1	6.5	7.8	9.6	6.9	8.1	8.9	5.7	7.1	---	---	---
14	8.1	6.4	7.3	10.9	7.5	8.9	10.2	5.9	7.6	9.1	7.8	8.4
15	8.7	6.8	7.7	10.4	7.4	8.7	10.4	6.0	7.7	8.3	6.7	7.4
16	9.2	6.8	8.0	7.4	5.6	6.6	10.0	5.8	7.6	8.0	6.9	7.4
17	10.0	7.0	8.2	5.6	5.1	5.4	8.9	6.0	7.2	9.3	6.9	7.8
18	10.2	6.9	8.2	5.1	4.7	4.9	8.1	6.0	6.8	9.3	6.5	7.6
19	10.1	7.2	8.2	5.0	4.7	4.8	8.4	7.0	7.5	9.2	5.8	7.1
20	9.9	7.0	8.1	5.0	4.8	4.9	9.7	6.7	7.7	7.7	6.3	6.8
21	10.2	7.1	8.3	5.0	4.7	4.8	10.2	6.4	7.8	7.7	6.4	7.0
22	10.6	7.2	8.6	5.1	4.7	4.9	9.7	5.9	7.4	8.3	6.3	7.1
23	10.3	7.4	8.4	5.5	5.0	5.3	9.3	5.7	7.3	9.3	6.8	7.8
24	10.4	7.3	8.4	5.8	5.5	5.6	8.9	5.6	7.0	9.9	7.2	8.4
25	10.0	7.2	8.1	6.0	5.8	5.9	9.8	5.9	7.5	11.1	7.4	8.9
26	10.0	7.2	8.3	6.3	5.9	6.1	9.3	6.1	7.6	9.0	7.1	8.0
27	9.8	7.3	8.3	6.6	6.3	6.4	8.8	6.4	7.3	8.5	7.8	8.2
28	10.1	7.1	8.3	7.0	6.6	6.9	9.7	5.8	7.5	8.9	7.9	8.4
29	10.4	7.3	8.5	7.6	7.0	7.3	10.5	6.5	8.0	9.3	7.7	8.4
30	10.6	7.3	8.7	7.8	5.3	7.3	10.2	6.3	7.9	9.5	7.4	8.3
31	---	---	---	9.6	5.0	6.8	9.4	6.4	7.7	---	---	---
MONTH	10.6	6.1	8.1	10.9	4.7	6.9	12.6	4.6	7.4	---	---	---

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	32	19	21	39	18	27	64	25	37	6.2	4.2	5.0
2	220	16	28	27	13	20	27	16	22	7.3	5.3	6.1
3	22	9.0	13	20	12	16	21	10	15	9.4	5.4	6.8
4	29	11	17	14	4.0	9.6	25	11	18	5.5	4.5	4.9
5	710	11	87	9.0	3.0	5.4	22	5.5	13	5.6	3.6	4.5
6	580	80	210	6.0	2.0	3.1	490	8.5	120	9.8	3.7	4.9
7	160	34	93	9.0	1.0	4.7	110	26	55	14	9.8	12
8	190	22	37	7.0	5.0	5.7	97	22	54	13	6.9	8.3
9	27	19	22	10	5.0	6.0	49	14	26	11	4.8	6.3
10	26	18	20	6.0	5.0	5.1	14	8.0	11	44	10	20
11	22	16	19	6.0	5.0	5.0	9.9	4.3	6.5	140	21	43
12	960	19	330	6.0	5.0	5.0	44	3.0	6.0	22	8.0	16
13	360	32	97	7.0	5.0	5.1	55	29	39	26	2.0	5.6
14	900	30	250	28	5.0	6.1	240	27	98	28	3.0	8.6
15	180	33	76	140	27	78	69	17	33	3.0	1.0	2.1
16	260	30	120	120	28	62	990	9.0	170	5.0	1.0	2.5
17	560	24	92	29	17	24	470	110	220	12	1.0	4.0
18	460	27	110	23	15	17	180	53	79	2.0	1.0	1.6
19	160	43	83	200	14	37	55	27	41	2.0	1.0	1.3
20	97	36	63	96	44	66	28	15	21	3.0	2.0	2.1
21	68	31	45	45	30	36	16	9.2	13	15	2.0	5.1
22	46	22	30	33	28	30	10	6.3	8.3	3.0	1.0	2.1
23	920	20	190	32	28	30	570	8.3	160	3.0	2.0	2.1
24	940	140	380	350	30	57	49	16	27	940	3.0	250
25	490	100	160	130	45	74	16	9.6	13	89	23	45
26	140	59	86	46	35	39	11	7.7	9.2	61	14	24
27	83	35	47	940	35	230	7.8	5.8	7.1	14	11	12
28	47	22	31	430	61	160	6.9	4.8	5.8	25	11	15
29	45	18	27	340	80	150	7.0	4.9	5.7	19	11	13
30	49	22	35	220	58	100	9.0	5.0	5.9	>1000	17	300
31	43	19	29	---	---	---	6.2	4.2	5.2	170	65	97
MONTH	960	9.0	92	940	1.0	44	990	3.0	43	>1000	1.0	30

03277075 GUNPOWDER CREEK AT CAMP ERNST ROAD NEAR UNION , KY--Continued

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	5.2	1.2	2.2	330	5.8	13	17	7.0	13
2	---	---	---	270	1.2	36	33	5.1	11	180	14	87
3	---	---	---	230	22	72	12	7.4	9.1	88	14	24
4	---	---	---	23	9.4	15	32	4.7	8.5	62	6.6	14
5	---	---	---	55	8.4	21	24	5.1	7.7	9.3	4.6	6.5
6	---	---	---	12	7.5	9.0	7.0	4.0	5.4	>1000	3.9	250
7	---	---	---	16	6.5	8.8	6.0	3.0	4.4	>1000	30	210
8	---	---	---	19	6.6	9.7	7.0	2.0	3.9	990	26	250
9	---	---	---	980	7.6	260	31	3.0	16	220	56	150
10	---	---	---	710	44	180	15	3.0	7.0	110	26	46
11	---	---	---	86	25	39	15	4.0	6.0	51	15	23
12	---	---	---	31	24	27	18	5.0	11	100	12	18
13	---	---	---	61	23	33	>1000	14	240	970	35	350
14	---	---	---	30	24	27	>1000	37	280	610	50	84
15	---	---	---	>1000	28	130	210	49	94	53	30	38
16	---	---	---	>1000	160	490	61	41	50	---	---	---
17	---	---	---	230	120	160	480	40	130	---	---	---
18	---	---	---	230	96	150	230	61	98	220	32	65
19	---	---	---	600	49	210	>1000	32	220	42	15	23
20	---	---	---	590	76	220	490	120	180	22	12	16
21	---	---	---	76	26	43	>1000	27	420	18	14	16
22	---	---	---	33	13	20	500	140	260	32	8.0	16
23	---	---	---	20	10	14	140	71	97	16	11	13
24	---	---	---	15	6.4	9.3	330	56	74	33	5.0	12
25	---	---	---	79	5.0	30	840	88	250	15	10	12
26	---	---	---	890	71	340	97	70	81	18	11	13
27	210	5.1	21	71	22	39	950	63	180	73	10	15
28	32	2.1	4.8	26	11	16	---	---	---	970	37	260
29	---	---	---	32	8.5	14	100	50	74	970	46	210
30	---	---	---	12	7.6	9.0	54	15	29	55	23	36
31	---	---	---	12	4.2	7.4	---	---	---	150	9.1	22
MONTH	---	---	---	>1000	1.2	85	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	56	14	28	16	11	13	---	---	---	4.0	0.0	0.0
2	22	7.9	15	22	11	15	---	---	---	10	0.0	0.7
3	22	9.3	14	29	9.0	14	---	---	---	>1000	0.0	120
4	23	9.6	15	16	9.0	11	---	---	---	54	4.0	20
5	990	6.2	140	22	9.0	13	---	---	---	23	0.0	8.1
6	990	14	280	35	11	17	---	---	---	39	1.0	12
7	220	30	56	39	11	18	---	---	---	19	0.0	5.5
8	32	15	22	23	10	14	---	---	---	27	1.0	5.8
9	21	8.7	14	28	10	14	---	---	---	20	1.0	6.0
10	17	9.1	13	>1000	11	590	---	---	---	15	0.0	3.4
11	88	8.0	25	610	110	300	---	---	---	14	1.0	5.7
12	14	8.0	11	130	47	77	710	230	400	---	---	---
13	210	11	28	58	20	34	230	71	130	---	---	---
14	480	30	83	36	7.7	17	82	32	51	8.0	0.0	1.3
15	42	22	28	---	---	---	66	18	35	>1000	0.0	340
16	370	30	100	---	---	---	60	7.4	13	340	45	130
17	47	20	31	170	1.1	12	---	---	---	45	15	26
18	24	15	19	22	2.2	10	---	---	---	18	1.0	5.2
19	61	15	18	11	2.3	4.1	480	110	220	92	0.0	8.6
20	70	12	15	8.4	2.4	3.9	110	32	63	>1000	89	180
21	190	14	19	42	3.6	25	36	12	21	>1000	110	330
22	24	14	16	16	2.8	7.7	21	0.0	5.7	110	47	77
23	41	16	19	21	2.9	6.5	5.0	0.0	0.7	48	26	36
24	99	17	21	28	3.1	7.4	2.0	0.0	0.0	50	19	25
25	25	19	22	41	3.2	6.8	5.0	0.0	0.3	34	14	19
26	27	16	21	18	3.3	7.1	0.0	0.0	0.0	550	14	48
27	24	15	18	24	3.5	5.9	370	0.0	26	>1000	68	450
28	35	11	13	16	3.6	6.5	59	1.0	16	150	62	110
29	23	14	16	150	3.8	25	---	---	---	62	26	41
30	20	9.0	14	510	53	130	10	0.0	0.5	28	11	18
31	---	---	---	53	26	36	9.0	0.0	0.5	---	---	---
MONTH	990	6.2	38	---	---	---	---	---	---	---	---	---

03277130 MUD LICK CREEK AT HIGHWAY 42 NEAR BEAVERLICK, KY

LOCATION.--Lat 38°50'42", long 84°43'15", Boone County, Hydrologic Unit 05090203, at bridge on Highway 42 2.8 mi southwest of Beaverlick, 2.9 mi upstream from the mouth, and 3.0 mi downstream from the confluence of Fullers Creek and McCoys Fork.

DRAINAGE AREA.--36.4 mi^2.

WATER DISCHARGE RECORDS

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

GAGE.--Water-stage recorder with telemetry. Datum of gage is 487.73 ft above NGVD of 1929.

REMARKS.--Records fair except for those below 1.0 ft^3/s and those estimated, which are poor.

COOPERATION.--Northern Kentucky Sanitation District No. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.77	3.0	111	e14	478	e12	32	44	9.5	e0.30	e0.10	e0.00
2	0.79	3.1	63	e12	115	e15	30	102	7.9	e0.15	e0.00	e0.00
3	0.61	3.2	46	e14	73	e26	30	53	6.4	e0.08	e0.00	e0.00
4	0.55	e2.8	39	e14	53	e15	24	35	8.0	e0.05	e0.00	e0.00
5	0.67	e2.5	31	e15	e38	e13	22	26	14	e0.03	e0.00	e0.00
6	2.9	e2.2	119	e18	e32	16	20	301	662	e0.02	e0.00	e0.00
7	2.1	2.3	86	e19	36	15	19	461	98	e0.01	e0.00	e0.00
8	e1.4	2.2	70	e15	29	15	18	1620	33	e0.0	e0.00	e0.00
9	e1.6	2.1	53	e16	26	35	21	183	17	e0.15	e0.00	e0.00
10	e1.2	2.1	40	31	31	36	19	67	11	e1.3	e0.00	e0.00
11	0.92	2.1	34	38	33	23	17	40	8.6	e0.70	e20	e0.00
12	26	2.0	29	e25	26	24	16	31	7.5	e0.32	e3.0	e0.00
13	5.5	1.9	62	e22	23	22	27	1160	7.1	e0.15	e0.40	e0.00
14	176	1.9	137	e19	21	20	33	205	11	e0.07	e0.03	e0.10
15	8.3	1.9	81	e18	21	20	30	70	6.5	e0.04	e0.45	6.3
16	e9.4	1.9	400	e16	20	256	20	43	8.9	e0.02	e0.14	6.9
17	e2.9	1.9	1090	e16	19	79	17	415	5.9	e0.13	e0.02	3.2
18	e2.6	1.9	352	e15	17	57	18	292	4.8	e1.3	e0.20	3.0
19	2.3	2.0	118	e14	17	238	16	70	4.3	e0.40	e0.01	2.5
20	1.8	3.7	74	e14	20	699	48	42	e3.8	e0.06	e0.00	2.6
21	1.4	2.5	54	e16	22	160	1720	29	e3.5	e6.2	e0.00	5.4
22	1.3	1.9	45	e15	17	83	482	22	e4.6	e0.80	e0.00	4.8
23	198	1.8	112	17	17	61	90	16	e1.2	e0.10	e0.00	3.3
24	836	1.8	66	503	16	48	69	12	e0.80	e0.02	e0.00	2.7
25	297	2.7	48	109	15	49	253	11	e1.1	e0.01	e0.00	2.2
26	21	2.4	e40	61	17	639	64	9.5	e2.0	e0.00	e0.00	2.5
27	7.1	136	e34	46	e16	126	143	9.5	e1.4	e0.00	e0.00	394
28	5.0	150	e29	39	e10	74	1460	65	e3.5	e0.00	e0.00	18
29	4.3	661	e26	35	---	58	114	103	e1.3	e0.20	e0.03	6.2
30	3.7	507	e18	416	---	46	64	31	e0.60	e10	e0.0	4.6
31	3.2	---	e16	181	---	37	---	13	---	e1.0	e0.00	---
TOTAL	1626.31	1513.8	3523	1803	1258	3017	4936	5581.0	955.20	23.61	24.38	468.30
MEAN	52.46	50.46	113.6	58.16	44.93	97.32	164.5	180.0	31.84	0.762	0.786	15.61
MAX	836	661	1090	503	478	699	1720	1620	662	10	20	394
MIN	0.55	1.8	16	12	10	12	16	9.5	0.60	0.00	0.00	0.00

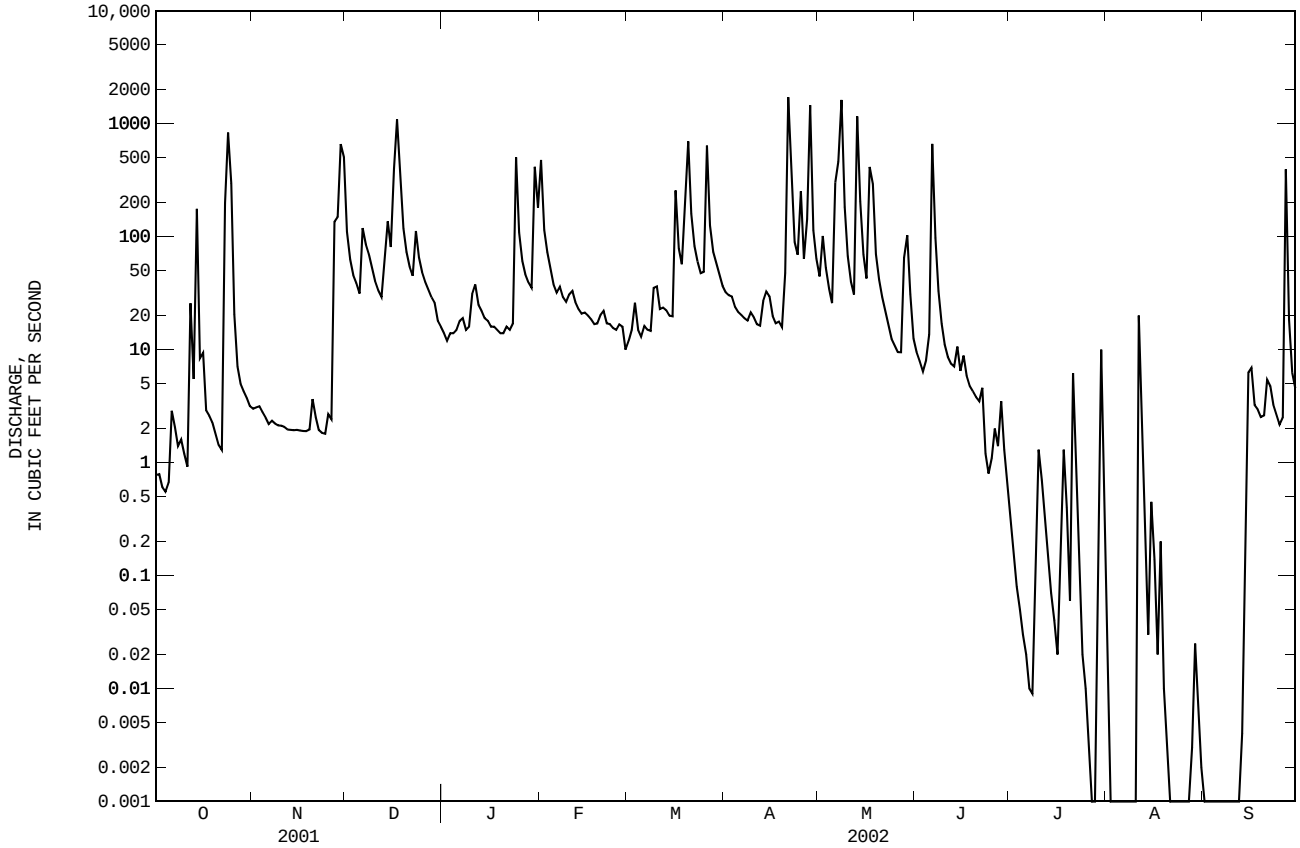
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2002, BY WATER YEAR (WY)

MEAN	52.46	50.46	83.46	38.88	45.61	62.97	88.20	94.26	36.50	35.20	9.016	12.83
MAX	52.5	50.5	114	58.2	46.3	97.3	165	180	41.2	69.6	17.2	15.6
(WY)	2002	2002	2002	2002	2001	2002	2002	2002	2001	2001	2001	2002
MIN	52.5	50.5	53.3	19.6	44.9	28.6	11.9	8.49	31.8	0.76	0.79	10.1
(WY)	2002	2002	2001	2001	2002	2001	2001	2001	2002	2002	2002	2001

03277130 MUD LICK CREEK AT HIGHWAY 42 NEAR BEAVERLICK, KY

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 2001 - 2002	
ANNUAL TOTAL	14302.11		24729.60			
ANNUAL MEAN	39.18		67.75		67.75	
HIGHEST ANNUAL MEAN					67.8	2002
LOWEST ANNUAL MEAN					67.8	2002
HIGHEST DAILY MEAN	1090	Dec 17	1720	Apr 21	1720	Apr 21 2002
LOWEST DAILY MEAN	0.55	Oct 4	0.00	Jul 8	0.00	Jul 8 2002
ANNUAL SEVEN-DAY MINIMUM	0.83	Sep 29	0.00	Aug 2	0.00	Aug 2 2002
MAXIMUM PEAK FLOW			12600	Apr 21	12600	Apr 21 2002
MAXIMUM PEAK STAGE			10.26	Apr 21	10.26	Apr 21 2002
10 PERCENT EXCEEDS	83		130		130	
50 PERCENT EXCEEDS	12		15		15	
90 PERCENT EXCEEDS	2.4		0.00		0.00	

e Estimated



03277130 MUD LICK CREEK AT HIGHWAY 42 NEAR BEAVERLICK, KY--Continued

WATER-QUALITY RECORDS

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

COOPERATION.--Northern Kentucky Sanitation District No. 1.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 2000 to current year.
pH: December 2000 to current year.
WATER TEMPERATURES: December 2000 to current year.
DISSOLVED OXYGEN: December 2000 to current year.
TURBIDITY: December 2000 to current year.

INSTRUMENTATION.--Water-quality monitor with telemetry.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 1520 microsiemens, Dec. 15, 2000; minimum recorded, 113 microsiemens, Apr. 21, 2002.
pH: Maximum recorded, 9.4 units, Sept. 10, 2002; minimum recorded, 5.0 units, Jun. 20, 2002.
WATER TEMPERATURES: Maximum recorded, 33.8'C, Jun. 25, 2002; minimum recorded, 0.0'C, several days in 2000, 2001, and 2002.
DISSOLVED OXYGEN: Maximum recorded, 18.2 mg/L, Feb. 24, 28, 2002; minimum recorded, 1.5 mg/L, Sept. 8, 2002.
TURBIDITY: Maximum recorded, >1000 NTU, many days in 2001 and 2002; minimum recorded, 0.0 NTU, Feb. 25 and April 2, 6-8, 2002.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 1480 microsiemens, Jan. 9, 2002; minimum recorded, 113 microsiemens, Apr. 21, 2002.
pH: Maximum recorded, 9.4 units, Sept. 10, 2002; minimum recorded, 5.0 units, Jun. 20, 2002.
WATER TEMPERATURES: Maximum recorded, 33.8'C, Jun. 25, 2002; minimum recorded, 0.0'C, several days in 2002.
DISSOLVED OXYGEN: Maximum recorded, 18.2 mg/L, Feb, 24, 28, 2002; minimum recorded, 1.5 mg/L, Sept. 8, 2002.
TURBIDITY: Maximum recorded, >1000 NTU, several days in 2002; minimum recorded, 0.0 NTU, Feb. 23, Apr. 2, 6-8, 2002.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	609	595	603	576	557	568	479	406	450	649	607	635
2	599	595	598	585	564	577	507	479	493	668	644	656
3	604	594	598	589	564	579	537	507	524	663	636	651
4	603	589	596	597	572	588	553	536	547	659	628	643
5	600	545	583	604	569	587	555	541	548	641	617	630
6	656	547	589	591	571	582	555	353	488	---	---	---
7	660	652	656	595	578	588	506	376	449	614	586	596
8	680	660	666	607	591	599	542	506	527	---	---	---
9	697	680	689	615	602	609	542	531	535	1480	1280	1430
10	699	681	691	620	611	615	566	542	558	1360	912	1220
11	690	682	687	625	617	621	578	566	573	912	734	799
12	686	597	644	632	624	626	585	577	580	734	689	709
13	597	523	545	638	629	633	580	539	561	696	664	683
14	526	350	431	641	631	636	549	440	506	690	671	682
15	525	407	477	644	636	640	528	441	492	674	600	665
16	589	525	554	647	635	642	551	228	461	684	642	675
17	561	535	544	655	641	647	348	225	277	686	672	681
18	607	558	585	662	647	655	430	266	362	689	678	684
19	639	607	626	665	644	658	472	429	451	735	685	695
20	642	628	635	665	654	658	490	453	482	716	692	703
21	632	603	615	672	664	667	511	446	503	752	707	724
22	615	592	606	674	666	671	524	510	519	839	752	803
23	619	238	535	668	645	656	523	417	463	1060	839	966
24	395	223	315	654	628	648	505	438	480	1040	379	529
25	461	292	384	650	635	642	523	505	518	525	468	499
26	516	461	494	654	644	650	538	476	531	556	525	545
27	537	516	530	654	306	433	542	533	538	569	556	566
28	554	536	546	483	346	441	546	541	543	576	567	573
29	569	461	557	353	263	310	565	543	548	583	570	578
30	573	563	568	406	279	328	574	553	565	597	281	449
31	576	563	570	---	---	---	607	572	589	509	366	455
MONTH	699	223	572	674	263	592	607	225	505	---	---	---

03277130 MUD LICK CREEK AT HIGHWAY 42 NEAR BEAVERLICK, KY--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	512	282	379	635	613	624	508	485	497	473	461	468
2	500	440	475	701	635	646	496	474	485	475	403	437
3	524	500	516	745	638	666	487	471	479	482	447	470
4	538	524	535	862	745	806	498	483	490	503	481	497
5	550	537	545	867	802	845	504	487	495	505	498	502
6	558	544	552	804	716	754	500	484	493	524	198	413
7	563	555	560	719	666	688	499	489	494	367	212	288
8	558	546	551	674	647	661	517	499	506	340	125	257
9	562	551	555	794	608	665	532	510	520	390	284	351
10	574	555	562	798	678	754	550	531	539	423	390	409
11	611	571	597	766	710	727	566	548	554	---	---	---
12	605	594	601	710	668	685	573	552	564	---	---	---
13	602	577	590	672	641	659	578	555	566	368	196	248
14	588	577	584	661	639	652	583	551	574	387	277	347
15	588	572	581	663	625	656	588	544	567	420	387	407
16	581	562	573	667	410	456	570	543	555	---	---	---
17	576	556	567	558	492	528	579	557	571	---	---	---
18	567	550	561	580	558	572	580	559	570	380	237	320
19	571	556	564	589	343	521	583	566	577	420	380	405
20	579	560	570	398	280	330	584	452	513	432	420	429
21	593	572	582	487	398	452	572	113	434	441	430	435
22	602	585	595	514	487	503	443	212	360	441	430	437
23	610	597	603	530	514	525	505	443	479	442	433	438
24	611	579	596	544	526	536	534	294	509	448	424	437
25	---	---	---	546	447	537	476	311	394	444	428	438
26	---	---	---	452	226	321	531	476	512	453	437	445
27	---	---	---	474	395	443	547	353	500	473	425	456
28	620	595	607	499	474	491	---	---	---	466	263	435
29	---	---	---	515	499	508	436	367	409	---	---	---
30	---	---	---	529	491	511	462	436	452	---	---	---
31	---	---	---	514	491	502	---	---	---	490	437	463
MONTH	---	---	---	867	226	588	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	516	490	500	---	---	---	587	557	573	618	593	606
2	533	515	522	---	---	---	591	562	577	619	591	606
3	540	519	531	---	---	---	588	557	575	624	580	600
4	560	298	523	---	---	---	586	560	573	630	584	607
5	525	416	506	---	---	---	581	563	571	643	558	611
6	493	145	325	---	---	---	624	570	609	657	567	616
7	453	340	409	---	---	---	642	623	632	661	567	618
8	485	453	471	---	---	---	640	622	632	664	586	624
9	507	485	494	---	---	---	642	622	632	666	594	629
10	517	502	509	502	483	493	639	619	630	672	580	630
11	522	511	518	509	483	495	640	569	625	698	607	657
12	535	517	524	502	484	493	627	610	618	745	607	668
13	538	479	532	518	492	510	630	615	622	687	323	565
14	543	534	538	525	501	515	631	561	624	679	129	366
15	544	467	527	522	495	510	617	601	611	839	349	623
16	514	496	505	512	489	501	623	610	617	835	536	606
17	548	501	516	513	495	505	625	608	619	548	540	543
18	---	---	---	---	---	---	623	571	610	551	513	544
19	---	---	---	---	---	---	614	595	604	559	540	551
20	---	---	---	500	466	486	617	585	604	568	482	553
21	---	---	---	---	---	---	604	567	592	599	539	569
22	---	---	---	509	485	500	622	388	577	584	550	566
23	---	---	---	521	498	513	626	400	552	599	584	591
24	---	---	---	529	496	513	629	612	620	609	599	605
25	---	---	---	518	484	501	628	610	621	622	609	618
26	---	---	---	506	483	497	625	603	616	629	556	615
27	---	---	---	508	495	501	624	589	614	706	287	396
28	---	---	---	510	495	503	619	599	611	434	362	400
29	---	---	---	507	430	496	618	591	606	503	434	468
30	---	---	---	506	481	494	614	587	602	555	503	527
31	---	---	---	562	497	517	613	591	603	---	---	---
MONTH	---	---	---	---	---	---	642	388	606	839	129	573

03277130 MUD LICK CREEK AT HIGHWAY 42 NEAR BEAVERLICK, KY--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.3	7.9	8.1	8.4	8.0	8.2	7.9	7.8	7.9	8.3	8.1	8.2
2	8.2	7.8	8.0	8.3	8.0	8.1	8.0	7.9	7.9	8.2	8.0	8.1
3	7.9	7.6	7.7	8.4	8.0	8.2	8.2	7.9	8.0	8.2	8.0	8.1
4	7.9	7.5	7.7	8.5	8.1	8.3	8.2	8.1	8.2	8.2	8.0	8.1
5	7.7	7.5	7.6	8.6	8.0	8.3	8.3	8.1	8.2	8.2	8.1	8.1
6	7.7	7.2	7.5	8.5	8.1	8.3	8.2	8.0	8.1	8.2	8.0	8.1
7	7.9	7.5	7.7	8.5	8.1	8.3	8.3	8.0	8.1	8.1	7.9	8.0
8	8.0	7.5	7.7	8.5	8.1	8.3	8.2	8.1	8.2	8.1	8.0	8.0
9	8.0	7.5	7.7	8.5	8.1	8.2	8.4	8.1	8.3	8.1	7.9	8.0
10	8.1	7.5	7.8	8.4	8.1	8.3	8.4	8.2	8.3	8.1	7.9	8.0
11	7.9	7.5	7.7	8.4	8.1	8.3	8.4	8.2	8.3	8.2	7.9	8.0
12	7.7	7.4	7.6	8.3	8.1	8.2	8.4	8.2	8.3	8.2	7.9	8.1
13	7.8	7.5	7.6	8.4	8.1	8.2	8.3	8.2	8.2	8.2	8.0	8.1
14	7.7	7.4	7.6	8.4	8.0	8.2	8.2	8.1	8.1	8.2	8.0	8.1
15	7.9	7.7	7.8	8.4	8.0	8.1	8.4	8.1	8.3	8.3	8.0	8.2
16	7.9	7.8	7.9	8.4	8.0	8.1	8.3	7.9	8.2	8.4	8.1	8.2
17	8.0	7.8	7.9	8.4	8.0	8.1	8.0	7.8	7.9	8.4	8.0	8.2
18	8.1	7.9	7.9	8.4	8.0	8.1	8.2	7.9	8.1	8.4	8.1	8.2
19	8.1	7.9	8.0	8.2	7.9	8.0	8.3	8.1	8.2	8.3	8.1	8.2
20	8.1	7.9	8.0	8.3	7.9	8.1	8.3	8.2	8.3	8.4	8.1	8.2
21	8.2	7.8	8.0	8.3	8.0	8.1	8.4	8.2	8.3	8.4	8.1	8.2
22	8.4	7.8	8.0	8.3	8.0	8.2	8.3	8.2	8.3	8.4	8.1	8.2
23	8.2	7.5	7.9	8.4	8.1	8.2	8.2	8.1	8.1	8.3	8.0	8.2
24	7.8	7.4	7.6	8.3	7.9	8.1	8.3	8.1	8.2	8.1	7.6	7.8
25	7.9	7.6	7.8	8.2	7.9	8.0	8.3	8.2	8.3	8.1	7.9	8.0
26	8.0	7.8	7.9	8.4	7.9	8.1	8.3	8.2	8.3	8.2	8.0	8.1
27	8.0	7.9	8.0	8.1	7.7	7.8	8.3	8.2	8.2	8.3	8.1	8.1
28	8.1	7.9	8.0	7.9	7.8	7.9	8.3	8.2	8.2	8.2	8.0	8.1
29	8.1	8.0	8.0	7.8	7.6	7.7	8.3	8.2	8.2	8.2	8.0	8.1
30	8.2	8.0	8.1	7.8	7.6	7.7	8.3	8.2	8.2	8.1	7.8	7.9
31	8.3	8.1	8.2	---	---	---	8.3	8.2	8.2	8.0	7.9	7.9
MONTH	8.4	7.2	7.8	8.6	7.6	8.1	8.4	7.8	8.2	8.4	7.6	8.1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.9	7.7	7.8	8.6	8.2	8.3	8.4	8.0	8.2	8.3	8.1	8.2
2	8.0	7.9	7.9	8.4	8.1	8.3	8.4	7.8	8.1	8.3	8.1	8.2
3	8.1	7.9	8.0	8.4	8.1	8.3	8.3	7.8	8.1	8.5	8.2	8.3
4	8.0	7.8	8.0	8.5	8.2	8.4	8.3	7.9	8.2	8.5	8.2	8.4
5	8.0	7.8	7.9	8.5	8.2	8.3	8.4	7.9	8.2	8.6	8.2	8.4
6	8.0	7.8	7.9	8.6	8.2	8.4	8.4	7.9	8.1	8.4	8.0	8.2
7	8.0	7.9	8.0	8.6	8.1	8.3	8.2	7.8	8.0	8.2	7.9	8.1
8	8.0	7.8	7.9	8.5	8.1	8.3	8.2	7.7	7.9	8.1	7.8	8.0
9	8.0	7.8	7.9	8.1	8.0	8.0	8.2	7.7	7.9	8.2	7.9	8.1
10	7.9	7.8	7.9	8.3	7.9	8.1	8.4	7.8	8.1	8.3	8.1	8.2
11	8.1	7.8	7.9	8.4	8.0	8.2	8.4	7.8	8.1	8.4	8.2	8.3
12	8.0	7.7	7.9	8.3	8.1	8.2	8.4	7.7	8.0	8.3	8.1	8.2
13	8.0	7.8	7.9	8.5	8.1	8.2	8.2	7.7	8.0	8.2	7.9	8.0
14	8.0	7.8	7.9	8.5	8.1	8.3	8.2	7.7	8.0	8.3	8.1	8.2
15	8.1	7.8	7.9	8.3	8.0	8.2	8.5	7.8	8.1	8.4	8.2	8.3
16	8.0	7.7	7.8	8.1	7.9	8.0	8.5	7.8	8.1	---	---	---
17	8.1	7.7	7.9	8.3	8.0	8.1	8.4	7.7	8.0	---	---	---
18	8.1	7.7	7.9	8.4	8.1	8.2	8.5	7.7	8.1	8.3	7.9	8.1
19	8.0	7.7	7.8	8.3	7.9	8.1	8.4	7.7	8.0	8.4	8.2	8.3
20	7.9	7.6	7.7	8.0	7.8	7.9	8.0	7.7	7.9	8.5	8.2	8.3
21	7.8	7.6	7.7	8.2	7.9	8.0	8.1	7.7	7.9	8.6	8.2	8.4
22	7.9	7.6	7.7	8.3	8.0	8.1	8.0	7.7	7.9	8.6	8.3	8.4
23	7.9	7.6	7.7	8.3	8.0	8.2	8.2	8.0	8.1	8.7	8.3	8.5
24	7.9	7.5	7.7	8.4	8.0	8.2	8.2	8.0	8.1	8.8	8.3	8.5
25	---	---	---	8.3	8.0	8.2	8.2	7.9	8.1	8.7	8.2	8.5
26	---	---	---	8.0	7.7	7.8	8.3	8.1	8.2	8.6	8.1	8.3
27	---	---	---	8.2	7.8	8.0	8.3	8.1	8.2	8.5	8.0	8.3
28	8.6	8.2	8.4	8.3	7.9	8.1	8.1	7.8	8.0	8.4	7.8	8.1
29	---	---	---	8.3	7.9	8.1	8.2	8.1	8.2	---	---	---
30	---	---	---	8.5	7.9	8.2	8.3	8.1	8.2	---	---	---
31	---	---	---	8.5	7.9	8.2	---	---	---	8.5	8.0	8.2
MONTH	---	---	---	8.6	7.7	8.2	8.5	7.7	8.1	---	---	---

03277130 MUD LICK CREEK AT HIGHWAY 42 NEAR BEAVERLICK, KY--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.4	8.0	8.2	---	---	---	8.3	7.6	7.9	8.5	7.4	8.0
2	8.4	7.9	8.1	---	---	---	8.4	7.5	7.9	8.6	7.3	8.0
3	8.3	7.9	8.1	---	---	---	8.4	7.5	7.9	8.8	7.3	8.0
4	8.3	7.9	8.0	---	---	---	8.2	7.4	7.8	8.8	7.2	7.9
5	8.2	7.8	8.0	---	---	---	8.2	7.4	7.8	9.0	7.3	8.0
6	8.0	7.7	7.9	---	---	---	8.3	7.5	7.9	8.9	7.2	7.9
7	8.2	8.0	8.1	---	---	---	8.3	7.5	7.9	9.0	7.2	7.9
8	8.2	8.1	8.2	---	---	---	8.2	7.5	7.9	8.7	7.2	7.8
9	8.2	8.0	8.1	---	---	---	8.3	7.5	7.9	8.9	7.2	7.8
10	8.2	8.0	8.1	---	---	---	8.3	7.5	7.8	9.4	7.2	8.0
11	8.2	8.0	8.1	8.3	7.6	8.0	8.1	7.4	7.7	9.2	7.3	8.1
12	8.4	7.9	8.2	8.4	7.6	8.1	8.2	7.3	7.7	8.9	7.7	8.1
13	8.4	8.1	8.2	8.2	7.7	7.9	8.3	7.4	7.8	7.9	6.6	7.4
14	8.4	8.2	8.3	8.3	7.7	8.0	8.1	7.5	7.7	7.2	6.4	6.9
15	8.5	8.2	8.3	8.3	7.7	8.0	8.0	7.4	7.7	8.0	7.1	7.3
16	8.5	8.1	8.3	8.3	7.6	8.0	8.3	7.3	7.7	7.6	7.2	7.3
17	8.6	8.1	8.4	8.2	7.6	7.9	8.2	7.4	7.7	8.1	7.3	7.6
18	8.9	8.3	8.6	8.3	7.5	7.8	8.0	7.4	7.6	8.4	7.3	7.8
19	8.7	5.7	7.6	8.3	7.5	7.9	8.4	7.4	7.8	8.6	7.3	7.9
20	7.7	5.0	7.0	---	---	---	8.7	7.5	8.0	8.3	7.3	7.8
21	7.6	5.3	6.8	---	---	---	8.8	7.5	8.2	7.8	7.1	7.4
22	7.5	5.4	6.8	8.4	7.7	8.0	8.7	7.4	8.1	8.2	7.3	7.7
23	7.4	5.4	6.8	8.2	7.5	7.8	8.5	7.3	7.9	8.3	7.3	7.7
24	7.5	6.2	7.2	8.4	7.6	8.0	8.4	7.3	7.8	8.2	7.4	7.7
25	8.0	6.4	7.4	8.5	7.6	8.0	8.4	7.4	7.9	8.0	7.4	7.7
26	9.1	6.1	7.4	8.6	7.6	8.0	8.6	7.5	8.0	7.7	7.4	7.5
27	7.8	6.4	7.2	8.3	7.6	7.9	8.4	7.5	7.9	7.6	7.3	7.5
28	7.5	6.1	6.9	8.4	7.6	8.0	8.7	7.5	8.0	7.7	7.5	7.6
29	7.2	5.4	6.6	8.3	7.6	7.9	8.7	7.6	8.2	7.9	7.5	7.6
30	7.3	5.1	6.6	8.4	7.3	7.8	8.7	7.5	8.2	8.0	7.5	7.7
31	---	---	---	8.5	7.3	8.0	8.6	7.5	8.1	---	---	---
MONTH	9.1	5.0	7.7	---	---	---	8.8	7.3	7.9	9.4	6.4	7.7

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	18.5	11.5	14.8	13.2	9.4	11.3	9.9	8.5	9.4	0.6	0.0	0.1
2	20.1	13.4	16.6	13.7	11.8	12.8	8.8	7.2	8.0	0.6	0.0	0.1
3	20.0	14.7	17.4	14.2	11.5	12.8	8.0	6.1	7.2	0.5	0.0	0.1
4	20.2	14.4	17.3	13.1	9.4	11.3	9.4	7.3	8.3	0.5	0.0	0.1
5	18.0	15.3	17.0	11.4	8.3	9.9	10.5	8.3	9.4	0.4	0.0	0.1
6	16.5	12.4	14.0	10.3	6.6	8.4	10.3	9.2	9.7	0.1	0.0	0.0
7	14.0	9.7	11.7	9.8	6.0	8.0	10.7	9.6	10.1	0.6	0.0	0.1
8	14.6	8.9	11.5	11.2	6.2	8.8	9.6	9.0	9.3	0.6	0.0	0.1
9	15.3	9.5	12.3	10.8	7.6	9.2	9.0	6.7	8.1	1.1	0.0	0.4
10	17.0	10.9	13.7	10.4	6.3	8.3	6.7	4.4	5.4	0.7	0.0	0.3
11	17.2	14.4	15.6	9.6	6.5	8.0	6.0	4.3	5.2	0.8	0.0	0.3
12	17.3	15.9	16.6	8.8	5.1	6.9	7.2	4.8	5.7	1.0	0.0	0.4
13	18.7	16.4	17.6	8.8	4.7	6.6	10.4	7.2	9.2	1.4	0.0	0.5
14	18.2	15.3	17.1	9.6	5.6	7.4	11.1	9.9	10.6	2.0	0.0	0.9
15	15.3	12.8	14.0	10.3	6.1	8.0	9.9	8.5	9.1	2.1	0.6	1.3
16	13.5	10.5	12.1	11.4	7.3	9.1	9.5	8.0	8.5	1.7	0.0	0.8
17	11.3	8.7	10.1	11.8	8.5	10	11.1	9.5	10.3	2.2	1.1	1.6
18	11.2	7.6	9.4	12.6	8.9	10.6	10.3	8.1	9.4	2.6	0.0	1.1
19	12.1	8.2	10.1	10.9	9.4	10.2	8.1	6.1	7.0	0.9	0.1	0.6
20	14.2	10.2	12.1	9.5	6.6	7.8	6.6	4.2	5.3	0.5	0.0	0.1
21	15.8	11.1	13.4	7.8	4.8	6.2	4.3	2.7	3.6	2.5	0.1	0.9
22	17.3	12.3	14.5	7.2	4.0	5.5	5.4	2.5	3.8	2.8	0.0	1.2
23	17.7	14.8	16.0	8.0	4.5	6.2	7.1	5.3	6.3	4.2	2.3	3.3
24	17.7	15.3	16.4	11.7	7.6	9.8	5.3	2.7	3.8	7.8	4.2	6.7
25	16.4	12.0	13.9	11.6	9.3	10.6	2.7	0.7	1.7	5.7	3.3	4.3
26	12.0	8.8	10.1	9.9	7.3	8.8	0.7	0.0	0.2	4.2	1.7	3.1
27	8.8	7.5	8.1	12.0	9.6	10.9	0.9	0.0	0.2	4.6	1.8	3.3
28	9.5	6.7	8.1	11.3	9.0	9.8	1.7	0.0	0.7	7.6	2.9	5.0
29	9.8	6.4	8.1	12.3	9.5	11.0	1.4	0.0	0.8	10.8	7.6	9.1
30	11.1	8.5	9.7	12.3	9.9	11.3	0.6	0.0	0.1	10.9	8.8	10.0
31	12.6	9.1	10.8	---	---	---	0.3	0.0	0	10.9	8.7	9.8
MONTH	20.2	6.4	13.2	14.2	4.0	9.2	11.1	0.0	6.0	10.9	0.0	2.1

03277130 MUD LICK CREEK AT HIGHWAY 42 NEAR BEAVERLICK, KY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10.9	6.2	8.9	5.3	0.0	2.2	12.4	7.3	9.9	16.7	14.2	15.6
2	6.2	3.8	4.9	4.5	2.8	3.6	14.6	9.7	12.2	16.9	14.7	16.3
3	5.6	3.8	4.7	4.5	1.2	3.3	13.4	8.7	11.0	16.0	12.3	14.2
4	5.0	2.0	3.7	2.8	0.0	1.0	9.2	6.4	8.0	17.8	12.5	15.0
5	2.4	0.0	1.3	4.9	0.0	2.2	11.2	5.8	8.5	19.2	13.6	16.4
6	1.9	0.7	1.3	8.0	1.9	4.8	12.3	7.3	9.6	17.5	14.3	15.6
7	5.3	1.9	3.4	10.8	5.7	8.0	12.9	6.6	9.8	18.4	14.8	16.4
8	5.5	2.0	3.8	13.0	7.9	10.4	14.5	11.1	12.7	18.0	15.6	16.9
9	6.1	2.2	4.2	11.7	7.3	10.5	15.7	13.9	14.6	18.3	16.5	17.3
10	6.2	4.8	5.4	7.8	4.5	6.2	17.8	11.7	14.6	17.4	14.4	16.0
11	6.7	4.4	5.3	6.9	3.0	5.2	18.7	11.8	15.4	17.5	13.6	15.6
12	6.1	3.0	4.5	7.9	5.7	6.7	20.1	16.2	18.0	18.8	16.3	17.6
13	6.1	3.2	4.4	11.6	7.4	9.1	18.9	17.2	18.2	17.4	13.6	15.5
14	5.0	1.1	2.9	12.7	7.7	10.3	17.8	16.3	17.0	16.1	12.5	14.1
15	5.4	2.0	3.6	12.4	10.7	11.5	22.1	15.8	18.8	17.5	12.5	14.9
16	5.8	2.6	4.2	11.6	7.6	9.1	24.7	18.4	21.4	---	---	---
17	6.2	3.2	4.4	7.6	6.6	7.1	24.3	20.0	21.9	---	---	---
18	6.0	1.7	3.8	10.0	7.5	8.8	25.0	18.6	21.8	14.7	12.2	13.2
19	4.9	2.8	3.9	9.6	8.8	9.0	25.8	21.0	23.0	13.7	10.4	12.2
20	8.3	4.8	6.6	9.3	8.6	8.9	22.6	20.3	21.4	13.3	11.6	12.6
21	7.4	5.6	6.6	8.7	5.5	7.5	20.6	13.6	16.5	13.4	11.1	12.1
22	5.6	3.6	4.9	6.5	2.6	4.6	15.2	12.8	13.9	15.1	9.6	12.2
23	6.2	1.6	3.7	7.9	2.7	5.3	15.6	10.5	13.0	17.6	11.8	14.6
24	6.6	2.0	4.2	8.6	4.8	6.7	15.9	12.1	14.2	19.8	15.0	17.3
25	---	---	---	8.3	6.0	7.6	16.3	12.6	14.5	21.9	17.6	19.5
26	---	---	---	6.4	5.3	5.9	16.6	11.7	14.1	22.8	18.4	20.4
27	---	---	---	8.9	4.7	6.5	15.3	12.1	13.0	22.7	18.5	20.5
28	3.2	0.0	1.1	8.3	5.0	6.9	18.0	12.1	15.2	22.8	18.9	20.5
29	---	---	---	11.0	7.2	9.1	15.3	11.6	13.0	21.1	18.4	19.5
30	---	---	---	11.6	8.6	10.3	16.3	10.8	13.6	22.8	18.3	20.4
31	---	---	---	10.3	8.4	9.3	---	---	---	24.9	20.1	22.5
MONTH	---	---	---	13.0	0.0	7.0	25.8	5.8	15.0	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	25.9	22.1	23.9	---	---	---	33.0	25.6	29.5	27.5	22.2	24.6
2	26.4	22.8	24.4	---	---	---	32.4	26.5	29.6	28.7	22.2	25.2
3	27.1	21.9	24.5	---	---	---	32.7	27.1	30.1	30.5	22.4	26.3
4	28.0	21.8	24.3	---	---	---	33.4	27.7	30.3	30.0	22.7	26.2
5	27.1	22.7	24.2	---	---	---	32.0	27.3	29.7	29.6	18.6	23.7
6	23.3	18.3	20.1	---	---	---	30.9	26.2	28.5	29.7	18.2	23.7
7	19.2	17.5	18.2	---	---	---	28.5	22.0	25.4	30.7	19.2	24.4
8	21.7	16.9	19.2	---	---	---	27.9	21.5	24.9	30.2	20.8	25.1
9	24.4	20.2	22.2	---	---	---	28.1	21.5	24.9	29.5	20.2	24.5
10	26.0	21.5	23.8	28.8	26.3	27.6	29.1	22.3	25.8	31.8	19.8	24.8
11	25.7	22.2	24.0	29.0	23.6	26.2	29.3	24.0	26.3	27.4	18.3	22.9
12	26.1	23.0	24.4	29.2	22.2	25.8	29.5	24.6	26.9	26.7	13.5	19.8
13	26.1	23.3	24.2	26.9	23.5	24.5	29.3	24.3	26.8	27.5	12.2	20.2
14	23.8	21.6	22.7	28.0	21.8	24.8	28.4	24.9	26.4	26.4	19.9	22.6
15	24.1	19.5	21.7	30.6	23.4	26.9	27.6	25.0	26.2	25.8	21.6	22.5
16	23.0	19.7	21.4	30.3	24.2	27.6	28.5	25.1	26.4	24.2	21.4	22.5
17	24.5	18.0	20.8	28.2	24.9	26.6	27.9	24.7	26.0	25.1	20.2	22.4
18	26.7	15.3	21.0	29.6	24.5	26.7	26.8	24.9	25.8	27.6	21.4	24.2
19	30.3	16.4	23.5	30.7	24.5	27.5	26.5	23.4	24.8	28.4	22.5	25.2
20	31.8	18.9	25.3	33.1	25.5	29.2	26.8	23.0	24.7	26.9	23.4	25.1
21	32.4	19.1	25.7	33.4	26.7	30.0	30.3	22.4	26.1	24.6	21.6	23.1
22	31.8	18.9	25.1	32.7	27.2	30.2	30.5	24.9	27.7	24.4	20.3	22.2
23	33.2	16.7	24.8	30.6	27.4	28.6	30.2	25.8	27.9	23.4	16.7	19.8
24	32.6	18.9	25.2	30.2	24.8	27.5	29.1	25.6	27.2	22.7	15.5	19.0
25	33.8	20.8	24.9	30.6	24.5	27.5	28.0	24.9	26.2	19.9	16.4	18.4
26	31.7	19.4	24.9	29.6	25.7	27.8	27.5	23.4	25.2	19.2	17.8	18.4
27	30.6	21.8	25.2	30.4	26.7	28.4	25.0	22.9	23.9	18.8	17.3	18.0
28	30.3	21.2	24.8	31.0	27.0	28.9	25.1	21.6	23.1	19.8	17.4	18.6
29	32.4	19.2	25.7	30.8	27.1	28.9	26.0	21.4	23.7	21.2	16.7	18.9
30	33.0	19.6	26.3	31.2	26.5	28.8	26.6	21.6	23.8	22.5	17.2	19.8
31	---	---	---	33.2	25.7	29.3	26.9	21.3	24.2	---	---	---
MONTH	33.8	15.3	23.5	---	---	---	33.4	21.3	26.4	31.8	12.2	22.4

03277130 MUD LICK CREEK AT HIGHWAY 42 NEAR BEAVERLICK, KY--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	12.4	7.8	9.8	12.4	8.8	10.2	11.1	10.6	10.8	15.8	14.3	15.0
2	12.6	7.2	9.7	11.1	8.2	9.1	11.9	10.7	11.2	16.3	14.6	15.2
3	11.3	7.4	9.4	12.8	8.1	9.9	12.5	10.8	11.4	16.3	14.7	15.3
4	11.1	6.9	8.9	13.7	8.5	10.5	11.9	10.4	11.1	16.8	14.7	15.5
5	9.1	6.6	7.9	14.7	8.9	11.1	12.4	10.3	11.0	16.6	14.9	15.5
6	9.9	6.1	8.2	14.9	9.8	11.7	11.0	10.1	10.5	15.9	14.9	15.3
7	11.7	8.6	9.8	14.6	10.1	11.9	11.2	10.0	10.4	16.9	14.8	15.7
8	12.0	8.6	10.0	15.2	10.2	12.2	11.2	10.1	10.5	17.4	15.2	16.1
9	12.4	8.2	10.0	14.7	10.0	11.8	12.4	10.3	11.2	17.5	15.4	16.1
10	13.0	7.7	10	14.1	10.6	11.9	13.4	11.1	12.1	16.9	15.1	15.7
11	10.3	6.6	8.5	13.9	10.4	11.7	13.7	11.5	12.3	16.8	15.3	15.9
12	8.2	6.2	7.3	14.2	10.8	12.1	13.6	11.1	12.1	17.0	15.2	15.8
13	8.0	6.1	7.1	14.4	11.0	12.2	11.1	9.9	10.5	16.9	15.0	15.7
14	8.8	6.0	7.6	14.1	10.7	11.9	10.7	9.8	10.2	16.8	14.7	15.5
15	10.0	8.5	9.1	13.9	10.3	11.6	11.8	10.3	10.8	17.0	14.4	15.5
16	9.9	8.2	9.1	13.6	9.6	11.2	11.9	10.5	11.0	17.6	14.7	15.8
17	11.4	9.2	10.5	13.0	9.0	10.5	10.9	10.2	10.5	17.4	14.2	15.4
18	12.0	10.2	10.9	13.0	8.9	10.4	10.7	10.3	10.5	17.2	14.6	15.6
19	11.7	9.5	10.6	10.8	8.4	9.3	11.6	10.6	11.0	16.8	14.4	15.3
20	11.5	8.9	10.0	11.9	8.8	10.4	11.9	10.7	11.4	17.8	14.6	15.8
21	12.2	8.4	10	13.3	10.2	11.4	13.0	11.5	12.2	16.8	14.3	15.2
22	13.5	8.1	9.9	13.8	10.6	11.7	13.0	11.5	12.3	17.1	14.1	15.3
23	12.3	7.5	8.9	13.8	10.3	11.7	11.8	10.9	11.3	15.7	13.0	14.1
24	8.9	8.1	8.6	11.6	8.4	10	12.7	11.1	12.0	13.2	11.7	12.3
25	9.5	8.7	9.1	11.1	8.1	9.3	13.9	12.4	13.2	13.2	12.1	12.5
26	10.5	9.2	9.9	13.5	9.1	10.8	14.5	13.4	13.9	14.0	12.3	13.0
27	11.2	10.0	10.6	10.7	9.2	9.8	14.6	13.8	14.1	14.2	12.1	13.1
28	11.5	10.3	10.8	11.2	9.3	10.3	14.5	13.1	13.9	14.2	11.1	12.7
29	11.9	10.2	10.9	10.9	10.0	10.6	14.4	13.2	13.7	12.4	10.1	11.1
30	11.6	9.4	10.4	10.7	10.3	10.5	15.1	13.9	14.5	11.2	9.8	10.6
31	11.9	9.1	10.2	---	---	---	15.4	14.2	14.7	11.3	10.4	10.9
MONTH	13.5	6.0	9.5	15.2	8.1	10.9	15.4	9.8	11.8	17.8	9.8	14.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	12.1	10.4	11.2	17.9	13.0	15.1	15.9	10.1	12.6	10.1	8.3	9.2
2	13.4	12.0	12.7	15.2	12.0	13.2	15.4	9.2	11.8	8.9	8.3	8.8
3	13.4	12.1	12.7	15.1	11.9	13.4	14.2	9.1	11.3	10.6	8.7	9.6
4	14.0	11.8	13.0	18.0	13.4	15.3	15.5	10.6	12.8	11.3	8.5	9.8
5	15.2	13.3	14.2	17.5	12.9	15.0	15.9	10.7	12.9	12.1	8.2	9.9
6	14.8	13.4	14.0	16.4	11.4	13.9	15.0	10.4	12.3	9.9	7.9	8.9
7	14.5	12.4	13.5	15.6	10.1	12.5	15.1	9.8	12.1	9.7	8.6	9.1
8	15.1	12.6	13.6	14.7	8.8	11.3	13.0	8.6	10.3	10.0	8.7	9.0
9	15.3	12.5	13.7	10.6	8.0	9.3	12.0	7.9	9.5	9.1	8.6	8.8
10	14.2	11.8	12.7	14.1	10.4	12.0	14.6	8.0	10.6	10.0	8.7	9.3
11	15.4	12.1	13.4	15.3	11.0	12.7	14.2	7.4	10.1	10.3	8.8	9.6
12	15.9	12.5	13.9	13.9	10.2	11.6	13.2	6.7	9.2	9.8	8.4	9.1
13	16.5	12.4	14.1	14.9	9.3	11.3	10.5	6.2	7.9	10.1	8.6	9.5
14	17.4	13.3	14.8	14.7	8.7	11.1	10.4	6.6	8.0	10.1	9.1	9.6
15	16.9	13.0	14.7	10.9	8.1	9.2	12.0	5.9	8.6	10.6	8.9	9.8
16	17.1	12.8	14.3	10.7	8.2	10.3	12.4	5.5	8.1	---	---	---
17	17.2	12.7	14.5	11.6	10.3	10.9	11.2	5.0	7.2	---	---	---
18	17.8	13.1	15.0	13.2	10.1	11.0	11.6	5.5	7.9	10.7	10.0	10.5
19	16.8	13.0	14.3	12.3	10.3	11.1	10.9	4.8	6.9	11.8	10.1	10.9
20	15.7	11.7	13.2	11.4	11.0	11.2	7.2	5.1	6.5	12.1	10.2	11.1
21	14.5	11.4	12.7	12.5	11.2	11.7	10.1	6.2	8.1	13.1	10.4	11.6
22	17.2	12.2	14.0	14.7	11.9	13.2	10.0	9.4	9.7	13.8	10.4	12.1
23	17.7	13.5	15.1	14.8	11.6	13.3	10.6	9.0	9.8	14.4	9.9	12.0
24	18.2	13.4	15.2	14.8	11.1	12.9	10.2	8.6	9.5	15.1	9.5	11.8
25	---	---	---	13.6	10.9	11.9	10.1	9.1	9.6	14.4	8.9	11.1
26	---	---	---	12.9	11.9	12.5	10.6	8.9	9.8	13.9	8.5	10.7
27	---	---	---	13.6	11.3	12.6	10.3	8.9	9.8	13.1	8.4	10.3
28	18.2	14.0	15.6	14.1	11.1	12.4	10.1	9.0	9.5	12.8	8.3	9.7
29	---	---	---	13.8	10.2	11.8	10.6	9.4	10.0	9.1	8.0	8.5
30	---	---	---	14.8	10.2	12.0	10.7	8.7	9.9	10.8	7.3	8.8
31	---	---	---	15.4	10.2	12.3	---	---	---	11.2	6.8	8.6
MONTH	---	---	---	18.0	8.0	12.2	15.9	4.8	9.7	---	---	---

03277130 MUD LICK CREEK AT HIGHWAY 42 NEAR BEAVERLICK, KY--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	10.4	6.6	7.9	---	---	---	12.1	5.0	8.6	10.6	4.2	7.5
2	10.1	6.3	7.9	---	---	---	12.3	4.5	8.4	11.8	3.7	7.6
3	9.9	5.7	7.5	---	---	---	11.4	4.4	8.1	14.3	3.3	8.7
4	8.7	5.6	6.7	---	---	---	10.9	4.3	7.7	14.5	1.7	7.5
5	8.4	5.9	6.8	---	---	---	10.0	4.7	7.4	17.9	1.9	7.8
6	9.1	6.5	8.1	---	---	---	10.2	4.6	7.3	17.9	1.6	7.9
7	9.0	8.3	8.7	---	---	---	9.9	4.6	7.1	18.0	1.6	7.6
8	9.5	7.9	8.7	---	---	---	9.4	4.4	7.0	14.2	1.5	6.7
9	9.5	7.5	8.5	---	---	---	9.7	4.5	7.0	13.7	2.2	7.1
10	10.0	7.2	8.4	---	---	---	9.9	4.6	7.1	14.8	2.5	7.5
11	9.9	7.2	8.3	10.7	4.5	7.7	8.7	4.4	6.4	17.1	2.2	7.6
12	10.1	7.0	8.2	10.9	4.9	8.1	9.1	2.8	5.8	16.2	1.6	7.9
13	9.8	6.8	7.7	9.0	4.4	6.5	9.1	3.8	6.4	13.7	4.1	8.0
14	9.4	6.9	7.9	9.8	4.8	7.2	8.2	3.8	5.6	8.9	2.1	4.7
15	10.6	7.2	8.5	9.8	4.2	7.2	6.7	3.1	4.9	9.0	2.9	6.0
16	9.7	7.0	8.1	10.2	4.2	7.3	8.8	3.2	5.6	7.4	5.4	6.5
17	11.1	6.0	8.5	8.9	4.2	6.7	8.4	3.6	5.6	9.4	5.1	6.6
18	10.4	5.8	7.6	10.4	4.2	6.6	7.2	3.2	5.0	10.7	4.2	6.9
19	9.0	6.8	7.9	10.1	3.7	6.9	9.8	3.0	5.9	11.8	3.6	7.0
20	9.4	6.0	8.0	11.1	4.0	7.5	11.7	4.2	7.6	9.3	2.6	5.5
21	9.4	6.6	8.1	10.5	3.8	7.0	12.9	5.2	8.8	6.5	2.6	4.5
22	12.0	5.6	8.5	12.5	4.4	8.2	12.6	3.8	8.4	8.7	4.1	6.0
23	12.3	6.9	9.7	10.0	3.9	7.0	10.6	3.4	7.2	10.0	4.6	6.7
24	13.9	7.5	11.2	11.6	4.5	8.2	9.2	3.8	6.4	10.6	5.0	7.3
25	13.9	7.7	10.8	12.3	5.5	8.7	9.3	4.0	6.4	9.9	5.1	7.1
26	9.1	6.3	8.1	11.7	5.8	8.7	10.1	4.4	7.1	6.9	4.8	5.9
27	11.4	7.2	9.4	9.9	5.4	7.6	8.9	4.3	6.5	7.7	5.8	7.0
28	10.0	5.6	8.2	10.4	5.8	7.8	10.9	4.5	7.3	7.4	6.2	6.9
29	10.2	5.9	8.1	10.0	5.3	7.3	11.2	5.0	8.0	7.9	5.6	6.8
30	13.5	7.8	9.5	10.1	3.2	6.5	11.3	5.1	8.2	8.4	5.2	6.6
31	---	---	---	12.9	4.4	8.4	11.3	5.0	8.1	---	---	---
MONTH	13.9	5.6	8.4	---	---	---	12.9	2.8	7.0	18.0	1.5	6.9

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	56	48	51	24	16	18	79	34	51	7.2	4.9	6.2
2	---	---	---	23	15	19	35	23	29	6.7	4.5	5.5
3	---	---	---	26	17	21	27	6.5	20	5.5	3.2	4.6
4	46	27	34	35	16	19	24	14	17	6.7	2.8	3.9
5	64	33	42	29	16	19	20	11	15	13	2.3	3.4
6	89	45	68	24	17	20	300	15	110	---	---	---
7	95	60	75	---	---	---	240	40	92	4.8	1.6	2.2
8	60	41	50	---	---	---	43	29	37	3.4	1.2	2.2
9	47	36	41	---	---	---	46	21	33	6.2	1.0	2.3
10	44	36	39	---	---	---	26	13	17	21	2.3	8.8
11	52	32	37	---	---	---	18	10	12	23	9.3	16
12	230	37	81	---	---	---	22	6.7	10	11	6.8	9.2
13	230	100	150	---	---	---	52	16	41	9.9	5.2	6.9
14	>1000	95	380	---	---	---	330	41	120	8.8	3.7	5.6
15	150	67	93	---	---	---	150	33	69	17	3.2	4.5
16	130	69	91	---	---	---	>1000	16	270	7.6	3.7	5.7
17	98	48	69	---	---	---	960	130	390	9.3	4.0	6.1
18	210	38	110	---	---	---	250	66	120	41	4.0	6.6
19	230	38	120	---	---	---	66	28	43	5.6	4.0	4.8
20	130	50	82	---	---	---	35	20	27	6.1	4.6	5.7
21	65	24	41	---	---	---	150	15	26	26	5.1	6.5
22	40	12	22	---	---	---	140	12	23	120	5.6	18
23	920	9.9	210	---	---	---	170	13	110	120	7.4	33
24	940	130	470	---	---	---	---	---	---	---	---	---
25	750	71	210	---	---	---	24	16	19	460	28	69
26	81	39	60	---	---	---	19	14	15	30	16	21
27	42	31	35	---	---	---	14	11	13	17	12	14
28	34	22	26	300	73	130	14	8.4	9.4	26	11	14
29	25	16	20	590	130	260	9.4	7.1	8.3	21	13	16
30	25	17	20	270	79	150	9.9	6.7	7.8	>1000	17	300
31	23	15	19	---	---	---	7.6	5.3	6.5	190	56	86
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

03277130 MUD LICK CREEK AT HIGHWAY 42 NEAR BEAVERLICK, KY--Continued

TURBIDITY (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	950	59	300	14	7.0	8.6	5.3	2.0	3.5	34	24	29
2	87	35	52	18	9.0	11	4.0	0.0	2.2	430	27	200
3	37	26	30	21	12	14	5.0	1.0	2.8	120	44	73
4	31	18	24	14	11	13	7.0	1.0	2.8	46	28	35
5	21	14	17	13	10	11	3.0	1.0	1.4	35	22	28
6	17	12	13	19	8.0	11	4.0	0.0	1.8	>1000	26	330
7	16	12	13	24	9.0	12	4.0	0.0	2.0	>1000	140	360
8	19	15	16	30	11	15	7.0	0.0	2.7	>1000	90	330
9	19	13	15	130	13	49	11	3.0	5.0	320	85	130
10	23	14	17	130	63	85	16	7.1	9.5	87	59	72
11	30	21	25	63	27	39	20	13	15	64	58	60
12	22	14	16	27	19	23	21	16	18	740	51	72
13	21	14	16	32	18	22	35	19	27	>1000	190	550
14	19	10	13	36	19	22	56	34	40	190	84	120
15	11	9.0	10	57	19	23	58	43	50	86	63	74
16	13	10	11	>1000	57	420	50	41	45	---	---	---
17	13	10	11	110	25	59	55	43	46	---	---	---
18	13	9.0	10	27	12	18	64	48	53	370	84	150
19	11	9.0	10	710	11	200	66	56	60	86	62	73
20	17	10	12	>1000	130	430	350	64	190	69	56	63
21	17	13	14	130	41	68	>1000	62	210	61	56	59
22	14	7.6	11	52	19	31	>1000	87	300	64	54	59
23	7.6	3.6	5.9	24	14	18	430	39	98	85	53	63
24	5.7	2.0	3.2	18	8.9	13	>1000	26	96	58	54	55
25	---	---	---	560	6.4	23	>1000	92	440	76	52	56
26	---	---	---	990	99	460	93	49	67	59	52	55
27	---	---	---	100	29	52	740	43	190	120	55	65
28	27	7.0	8.6	32	15	23	---	---	---	990	66	200
29	---	---	---	19	9.4	15	660	44	100	---	---	---
30	---	---	---	16	7.9	12	47	28	36	---	---	---
31	---	---	---	12	3.4	6.9	---	---	---	51	20	34
MONTH	---	---	---	>1000	3.4	71	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	36	23	29	---	---	---	39	4.9	10	26	18	21
2	39	28	33	---	---	---	12	4.5	8.3	25	17	20
3	81	11	38	---	---	---	36	6.9	14	25	16	20
4	500	18	100	---	---	---	20	2.4	7.7	28	14	17
5	310	64	130	---	---	---	11	4.3	7.9	54	14	18
6	>1000	100	370	---	---	---	26	7.0	10	130	12	19
7	140	67	89	---	---	---	18	8.5	12	68	14	19
8	82	44	58	---	---	---	25	15	17	96	14	19
9	49	39	44	---	---	---	25	16	19	76	18	25
10	46	38	42	---	---	---	28	14	19	34	18	23
11	48	37	43	17	14	15	38	5.1	13	43	15	20
12	46	15	29	---	---	---	16	4.4	10	19	12	14
13	40	20	23	---	---	---	12	2.4	7.8	19	12	15
14	46	27	34	---	---	---	54	2.0	10	17	13	15
15	80	27	35	---	---	---	22	4.6	9.0	350	14	86
16	68	36	41	---	---	---	19	1.2	7.2	130	47	83
17	58	30	41	---	---	---	27	1.9	6.8	71	15	30
18	---	---	---	---	---	---	110	5.4	14	30	5.0	14
19	---	---	---	---	---	---	17	7.0	11	16	3.1	6.9
20	84	13	32	---	---	---	16	7.0	10	72	1.9	17
21	27	14	16	---	---	---	18	10	13	120	20	40
22	37	18	26	---	---	---	18	12	15	78	21	29
23	39	17	35	---	---	---	25	13	15	29	14	23
24	38	17	36	---	---	---	27	11	18	18	13	15
25	39	11	29	---	---	---	32	14	19	29	9.1	18
26	35	11	22	---	---	---	32	16	22	230	9.2	25
27	36	19	32	---	---	---	47	17	22	>1000	140	460
28	36	24	33	---	---	---	24	16	20	140	51	80
29	33	11	16	---	---	---	23	11	16	59	31	39
30	36	15	29	---	---	---	31	16	20	37	15	23
31	---	---	---	---	---	---	32	17	21	---	---	---
MONTH	---	---	---	---	---	---	110	1.2	14	1000	1.9	42

03277200 OHIO RIVER AT MARKLAND DAM NEAR WARSAW, KY

LOCATION.--Lat 38°46'29", long 84°57'52", Gallatin County, Hydrologic Unit 05090203, at left end of Markland Dam, 0.4 mi upstream from Stephens Creek, 3.4 mi west of Warsaw, and at mile 531.5.

DRAINAGE AREA.--83,170 mi^2, approximately.

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

REVISED RECORDS.--WDR KY-88-1: 1987.

GAGE.--Water-stage recorder with telemetry in tailwater gage. Datum of headwater gage 0.5 mi upstream is 443 ft Ohio River datum. Datum of tailwater gage 0.4 mi downstream is 35 ft lower. Records of Markland Dam gate operations, headwater gage readings, and turbine flow are furnished by U.S. Army Corps of Engineers.

REMARKS.--Records good except for estimated period and those below 20,000 ft^3/s, which are poor. Daily discharge computed from head, gate openings, turbine flow, and tailwater rating. Flow regulated by Ohio River system of locks, dams, and reservoirs upstream from station.

COOPERATION.--U.S. Army Corps of Engineers.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 26, 1937, reached a stage of 76.1 ft (tailwater gage).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

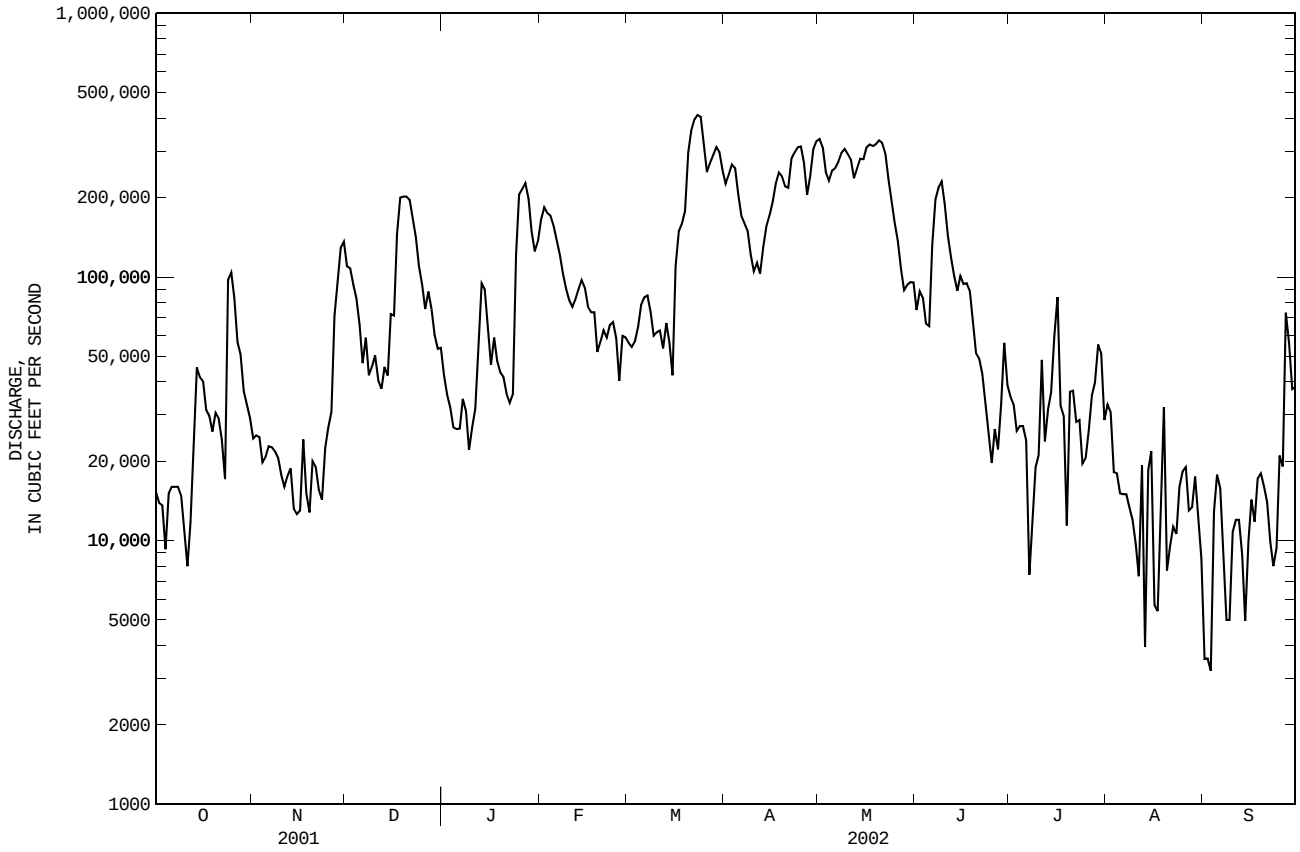
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15300	24400	110000	42200	165000	56200	226000	334000	75000	35200	32800	3560
2	13900	25100	108000	35800	184000	54300	245000	310000	88300	32800	30800	3570
3	13600	24700	93500	31900	175000	57100	267000	250000	83300	26100	18200	3210
4	9270	19800	83000	26900	171000	64900	259000	232000	66600	27200	18000	12900
5	15100	20800	65800	26500	157000	78500	207000	253000	65100	27200	15100	17800
6	16000	22800	47100	26600	138000	83800	171000	259000	132000	24000	15000	15800
7	16000	22600	58900	34500	121000	85100	160000	273000	197000	7420	15000	8850
8	16000	21800	42400	31000	103000	73500	150000	296000	218000	11900	13400	5000
9	14800	20600	45800	22100	90000	59900	121000	306000	230000	19000	12000	5000
10	10800	17700	50400	27000	81700	61700	105000	293000	189000	21100	9700	10800
11	8000	16000	40500	31600	77100	62600	113000	278000	143000	48500	7320	12000
12	11700	17600	37700	55500	82200	53600	103000	237000	118000	23800	19300	12000
13	22100	18800	45600	94700	90000	66800	130000	258000	101000	31500	3960	8850
14	45400	13200	42300	89900	97300	56700	155000	281000	88800	36500	18500	4960
15	41700	12600	72300	63300	91100	42400	171000	280000	101000	59500	21800	9870
16	40200	13000	71400	46400	77000	110000	193000	310000	94200	84000	5700	14300
17	31400	24200	146000	58900	73500	149000	226000	318000	94800	32600	5400	11800
18	29700	15100	200000	48000	73500	159000	249000	314000	88600	29700	16200	17200
19	25900	12800	202000	43400	52000	178000	241000	319000	69300	11400	32100	18000
20	30500	20000	202000	41800	56900	297000	221000	330000	51300	36700	7700	16000
21	29100	19000	196000	36000	62900	359000	218000	323000	48900	37000	9580	14000
22	24100	15600	167000	33300	59000	396000	281000	294000	42900	28200	11300	9880
23	17100	14300	141000	35900	65700	412000	297000	236000	32100	28700	10600	8000
24	97500	22400	110000	122000	67500	405000	310000	193000	25200	19600	16000	9380
25	104000	26800	93400	206000	58500	324000	313000	161000	19700	20600	18300	21000
26	83400	30800	75600	216000	40400	250000	272000	137000	26500	26100	19000	19100
27	56600	71200	88000	227000	59800	270000	205000	107000	22200	35600	13000	73200
28	50900	96700	75300	198000	59000	290000	241000	89200	33200	39800	13400	56400
29	36900	129000	60200	149000	---	311000	306000	93400	56300	55400	17500	37600
30	32600	136000	53400	125000	---	298000	327000	95600	38900	51400	11700	38200
31	29200	---	53800	137000	---	253000	---	95500	---	28700	8590	---
TOTAL	988770	945400	2878400	2363200	2629100	5418100	6483000	7555700	2640200	997220	466950	498230
MEAN	31900	31510	92850	76230	93900	174800	216100	243700	88010	32170	15060	16610
MAX	104000	136000	202000	227000	184000	412000	327000	334000	230000	84000	32800	73200
MIN	8000	12600	37700	22100	40400	42400	103000	89200	19700	7420	3960	3210

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2002, BY WATER YEAR (WY)

MEAN	46740	80980	136600	144300	174600	206800	179000	140100	90280	57660	43800	37890
MAX	144100	230600	288700	289900	291200	338500	292200	370100	219100	109500	146200	143800
(WY)	1980	1986	1973	1974	1975	1997	1972	1996	1981	1972	1980	1979
MIN	13910	16810	29220	34060	77100	98440	61160	43510	15030	13890	13060	9033
(WY)	1992	1999	1999	1977	1992	1990	1986	1976	1999	1999	1988	1999

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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1970 - 2002	
ANNUAL TOTAL	28576680		33864270			
ANNUAL MEAN	78290		92780		111500	
HIGHEST ANNUAL MEAN					157300	1979
LOWEST ANNUAL MEAN					60450	1988
HIGHEST DAILY MEAN	329000	May 25	412000	Mar 23	579000	Mar 6 1997
LOWEST DAILY MEAN	8000	Oct 11	3210	Sep 3	3210	Sep 3 2002
ANNUAL SEVEN-DAY MINIMUM	13300	Oct 6	8370	Sep 8	7310	Jul 1 1988
MAXIMUM PEAK FLOW			414000	Mar 23	582000	Mar 6 1997
MAXIMUM PEAK STAGE			46.97	Mar 23	60.72	Mar 6 1997
10 PERCENT EXCEEDS	179000		258000		256000	
50 PERCENT EXCEEDS	48500		54300		77000	
90 PERCENT EXCEEDS	17700		12700		19800	



03277300 NORTH FORK KENTUCKY RIVER AT WHITESBURG, KY

LOCATION.--Lat 37°07'03", long 82°49'29", Letcher County, Hydrologic Unit 05100201, on downstream side of bridge on State Highway 15 at Whitesburg, 0.6 mile downstream from Solomon Branch, and at mile 405.4

DRAINAGE AREA.--66.4 mi^2.

PERIOD OF RECORD.--October 1952 to September 1954 and October 1957 to September 1975 (crest-stage partial-record), October 1987 to September 1998 (gage heights only), October 1998 to current year.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 1,127.924 ft above NGVD of 1929. Prior to October 1, 1998, crest-stage gage and recording gage at same site and datum 1.0 ft higher.

REMARKS.--Records fair except for those estimated, which are poor. Small diversions by City of Whitesburg waterworks.

COOPERATION.--Kentucky River Authority and U.S. Army Corps of Engineers, Louisville District.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 23	1300	2,050	7.03	Mar 18	0830	*2,880	*8.68
Jan 24	2330	1,930	6.77	May 3	0000	2,060	7.05

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	10	11	e9.5	79	29	387	94	30	27	24	10
2	11	10	9.5	e9.0	71	34	228	449	32	43	20	9.6
3	11	11	8.2	e8.7	65	37	171	705	32	277	18	9.1
4	11	13	8.2	e8.5	60	33	136	265	29	70	16	8.7
5	10	11	7.9	e8.2	56	31	117	197	26	46	16	8.0
6	29	10	7.2	e9.0	56	30	104	156	54	55	14	7.3
7	18	9.6	7.5	12	104	29	93	144	46	34	13	7.2
8	13	9.8	17	12	113	28	86	125	30	30	13	7.1
9	12	9.6	53	13	94	28	102	115	26	27	12	6.5
10	11	9.2	32	20	85	29	146	99	25	72	12	6.5
11	10	8.9	50	144	81	26	112	87	23	68	12	6.2
12	10	8.5	40	101	73	27	101	79	22	32	11	6.3
13	12	8.5	e60	65	67	29	94	90	31	58	10	6.1
14	13	8.2	88	47	60	27	93	73	47	64	10	6.4
15	19	8.2	65	41	55	26	84	64	31	40	10	7.3
16	12	8.0	45	34	52	58	78	59	25	32	22	8.7
17	12	8.4	36	29	49	406	75	60	26	30	21	8.6
18	11	7.8	37	29	46	1780	73	89	22	33	13	7.3
19	10	7.9	31	56	43	405	70	61	21	33	24	7.0
20	10	8.7	28	117	42	297	67	52	20	32	15	6.6
21	10	8.9	24	98	45	279	63	49	18	28	12	7.4
22	9.8	8.0	22	93	40	214	93	47	16	26	11	13
23	10	7.2	21	964	38	165	75	45	16	34	10	22
24	10	7.7	23	896	35	137	70	43	15	87	9.7	9.4
25	20	21	20	852	34	117	177	41	82	45	13	7.8
26	14	17	e16	272	33	115	137	39	68	36	52	68
27	11	11	e15	179	33	105	113	41	51	30	33	62
28	10	9.9	e13	133	32	92	143	37	88	26	16	32
29	10	9.1	e12	108	---	85	116	34	68	23	13	20
30	10	11	e11	93	---	92	100	32	37	22	12	15
31	10	---	e10	80	---	300	---	31	---	34	11	---
TOTAL	381.8	297.1	828.5	4540.9	1641	5090	3504	3502	1057	1494	498.7	407.1
MEAN	12.32	9.903	26.73	146.5	58.61	164.2	116.8	113.0	35.23	48.19	16.09	13.57
MAX	29	21	88	964	113	1780	387	705	88	277	52	68
MIN	9.8	7.2	7.2	8.2	32	26	63	31	15	22	9.7	6.1

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	10.46	12.30	28.10	86.57	76.58	116.5	105.9	75.63	32.76	57.13	21.93	13.49
MAX	12.3	19.0	53.4	146	127	164	136	113	57.4	126	35.4	18.7
(WY)	2002	2000	1999	2002	2001	2002	2000	2002	2001	2000	2001	2001
MIN	9.08	9.90	13.6	24.6	56.8	45.5	80.2	52.9	17.6	13.4	7.66	5.47
(WY)	2000	2002	2000	2000	2000	2000	2001	1999	1999	1999	1999	1999

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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL TOTAL	19621.8		23242.1			
ANNUAL MEAN	53.76		63.68		53.07	
HIGHEST ANNUAL MEAN					63.7	2002
LOWEST ANNUAL MEAN					45.8	2000
HIGHEST DAILY MEAN	900	Feb 17	1780	Mar 18	1780	Mar 18 2002
LOWEST DAILY MEAN	4.8	Jan 17	6.1	Sep 13	1.9	Oct 8 1999
ANNUAL SEVEN-DAY MINIMUM	5.1	Jan 11	6.4	Sep 8	3.8	Sep 13 1999
MAXIMUM PEAK FLOW			2880	Mar 18	7730	Jan 29 1957
MAXIMUM PEAK STAGE			8.68	Mar 18	14.90	Jan 29 1957
10 PERCENT EXCEEDS	114		115		112	
50 PERCENT EXCEEDS	29		30		27	
90 PERCENT EXCEEDS	9.0		8.7		7.7	

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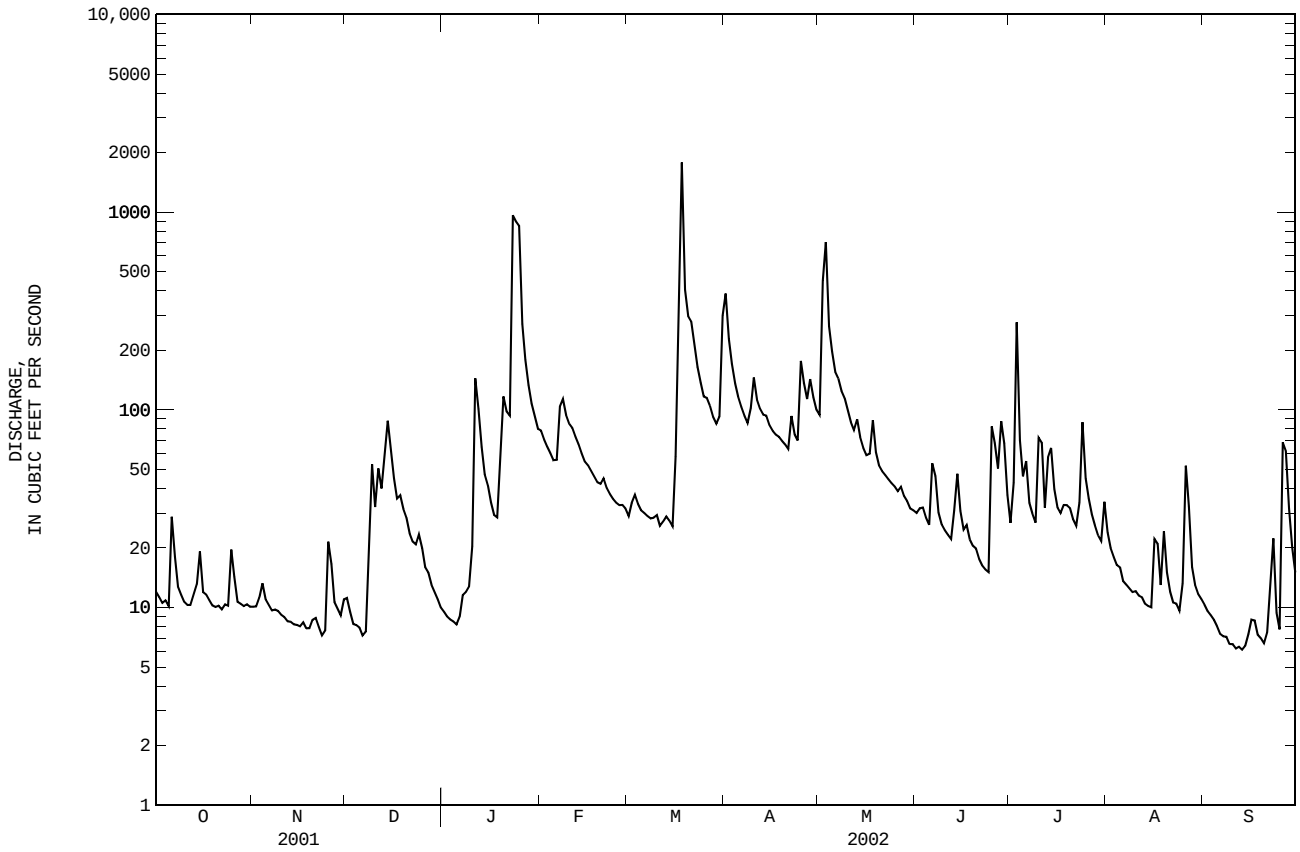

03280000 NORTH FORK KENTUCKY RIVER AT JACKSON, KY

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 mi^2.

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 with telemetry. Datum of gage is 697.67 ft above NGVD of 1929. See WDR KY-90-1 for history of changes prior to Aug. 22, 1980.

REMARKS.--Records good except for those estimated, which are poor. Small diversions by City of Jackson waterworks. Flow regulated by Carr Fork Lake (station 03277446) beginning January 1976.

COOPERATION.--U.S. Army Corps of Engineers, Louisville District and Kentucky River Authority.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	191	181	182	e230	1740	406	12300	2160	546	442	311	115
2	180	174	177	e220	1340	407	6710	3130	531	341	265	99
3	175	174	174	e210	1040	502	4220	14800	679	369	234	89
4	170	165	164	e200	950	547	2920	8110	555	587	203	84
5	162	167	136	e190	865	495	2160	4450	493	619	181	73
6	168	161	123	e200	780	467	1810	3380	615	405	165	64
7	182	160	124	e220	806	448	1570	2930	1160	393	146	59
8	224	154	135	258	1340	430	1400	3060	879	306	133	56
9	238	152	208	262	1710	419	1250	2730	646	258	120	53
10	197	149	594	295	1580	431	1220	2740	504	234	115	48
11	172	144	698	768	1480	427	1490	2180	432	220	109	49
12	171	139	831	2560	1290	406	1290	1750	400	448	104	48
13	159	136	798	1730	1100	402	1180	4970	520	951	104	45
14	169	135	1650	1150	988	403	1180	6660	854	2500	106	45
15	175	135	2080	881	876	411	1430	3210	714	1050	100	52
16	270	130	1360	784	810	1490	1320	2230	589	702	102	58
17	253	129	916	670	726	2800	1190	1720	472	487	99	68
18	234	129	777	612	667	12100	1120	3870	436	393	129	94
19	204	127	714	580	617	17900	1190	2930	365	440	222	105
20	194	135	630	674	605	11600	1060	2050	324	1140	233	105
21	184	138	491	1490	617	8110	998	1660	317	2240	224	124
22	188	142	416	1680	609	4950	1740	1390	300	908	173	174
23	184	141	370	3280	536	3780	1980	1150	264	590	135	585
24	180	142	366	10800	485	2930	1510	1000	250	460	112	395
25	191	247	e360	13200	456	2270	2730	876	279	642	101	235
26	241	464	e330	8600	448	2060	3120	782	391	632	106	252
27	224	324	e310	3330	458	2910	2380	708	364	533	155	738
28	213	266	e290	2620	436	2450	3380	690	550	379	237	877
29	211	215	e280	2510	---	2080	4490	727	579	307	303	556
30	195	192	e260	2180	---	3340	2980	660	576	272	181	386
31	193	---	e250	1980	---	5230	---	584	---	330	135	---
TOTAL	6092	5247	16194	64364	25355	92601	73318	89287	15584	19578	5043	5731
MEAN	196.5	174.9	522.4	2076	905.5	2987	2444	2880	519.5	631.5	162.7	191.0
MAX	270	464	2080	13200	1740	17900	12300	14800	1160	2500	311	877
MIN	159	127	123	190	436	402	998	584	250	220	99	45
CFSM	0.18	0.16	0.47	1.89	0.82	2.71	2.22	2.62	0.47	0.57	0.15	0.17
IN.	0.21	0.18	0.55	2.17	0.86	3.13	2.48	3.02	0.53	0.66	0.17	0.19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2002, BY WATER YEAR (WY)

MEAN	468.3	827.1	1497	1938	2476	2667	2280	1829	996.2	523.7	422.9	286.3
MAX	4189	3019	4649	5168	6392	7268	5944	7189	4166	1484	945	1154
(WY)	1990	1986	1992	1979	1994	1994	1998	1984	1989	2000	1977	1989
MIN	92.8	152	196	155	790	541	452	526	136	90.2	85.6	37.5
(WY)	1981	1982	1981	1981	1988	1988	1986	2001	1988	1988	1988	1999

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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1977 - 2002	
ANNUAL TOTAL	306153		418394			
ANNUAL MEAN	838.8		1146		1345	
HIGHEST ANNUAL MEAN					2570	1994
LOWEST ANNUAL MEAN					477	1988
HIGHEST DAILY MEAN	14400	Feb 17	17900	Mar 19	52200	May 8 1984
LOWEST DAILY MEAN	92	Jan 18	45	Sep 13	21	Sep 20 1999
ANNUAL SEVEN-DAY MINIMUM	102	Jan 12	49	Sep 9	26	Sep 17 1999
MAXIMUM PEAK FLOW			18200	Mar 19	53500	Jan 30 1957
MAXIMUM PEAK STAGE			24.10	Mar 19	43.10	Feb 4 1939
INSTANTANEOUS LOW FLOW					0.00	Oct 16 1930
ANNUAL RUNOFF (CFSM)	0.76		1.04		1.22	
ANNUAL RUNOFF (INCHES)	10.34		14.14		16.60	
10 PERCENT EXCEEDS	1840		2760		3070	
50 PERCENT EXCEEDS	416		440		615	
90 PERCENT EXCEEDS	155		128		127	

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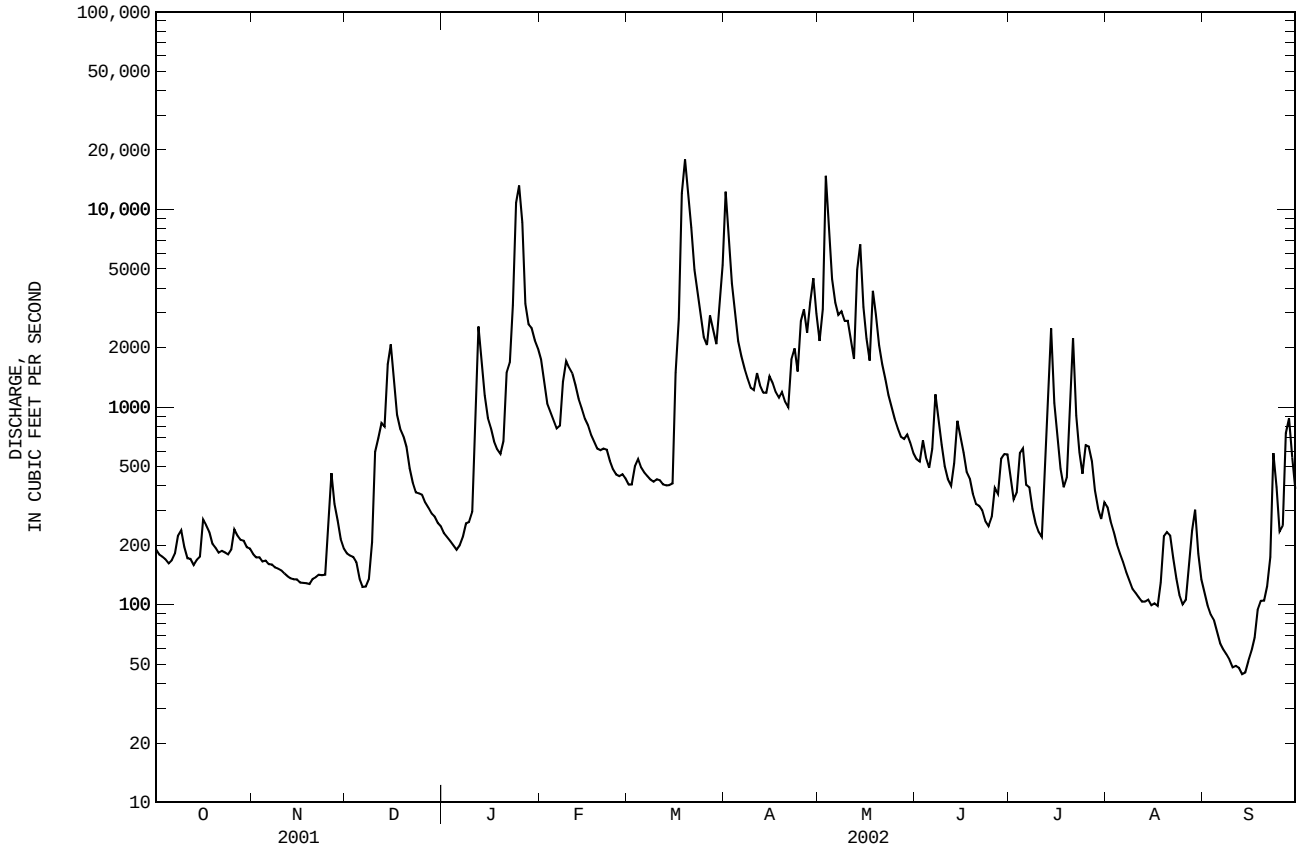


03280700 CUTSHIN CREEK AT WOOTON, KY

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 mi^2.

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

GAGE.--Water-stage recorder with telemetry. Datum of gage is 869.84 ft above NGVD of 1929. Prior to Dec. 26, 1957, nonrecording gage at same site and datum.

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

COOPERATION.--U.S. Army Corps of Engineers, Louisville District and Kentucky Natural Resources and Environmental Protection Cabinet.

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

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 23	unknown	4,450	8.82	Mar 31	unknown	3,560	7.88
Jan 24	unknown	4,350	8.72	May 2	1900	2,020	5.96
Mar 18	unknown	*6,040	*10.32				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	4.0	19	e12	76	24	665	159	13	8.3	7.3	1.8
2	2.9	4.2	15	e11	62	28	315	1020	12	7.2	4.9	2.1
3	3.1	5.4	14	e10	58	28	204	685	14	e6.7	3.5	2.5
4	3.2	5.7	13	e9.6	54	24	147	307	11	e6.2	3.0	3.0
5	3.9	5.4	13	e9.2	46	22	118	188	10	5.7	2.8	2.9
6	16	4.7	12	e12	50	21	99	135	30	5.5	2.6	2.5
7	8.4	4.7	12	19	145	21	85	119	23	5.0	2.2	2.1
8	4.7	4.3	44	16	169	21	78	101	14	4.7	5.2	1.9
9	4.1	4.1	85	17	140	24	85	96	11	7.8	3.2	1.6
10	3.9	4.0	46	52	120	23	91	75	9.6	7.5	2.3	1.3
11	4.4	4.0	96	350	99	21	83	61	9.0	25	2.0	1.3
12	5.8	3.8	60	169	85	22	78	54	8.5	9.9	2.0	1.2
13	7.8	3.6	239	97	70	25	77	79	13	59	2.2	1.2
14	12	3.6	284	66	60	23	70	60	16	39	2.0	1.8
15	14	3.3	126	51	56	22	63	50	11	15	2.3	2.7
16	5.3	3.4	71	40	53	75	55	43	9.2	10	3.5	3.6
17	4.3	3.3	55	35	46	1090	49	40	9.7	7.9	9.4	3.1
18	3.6	4.1	50	34	40	3060	46	138	7.8	9.6	6.1	2.9
19	3.3	3.8	41	107	37	521	43	77	6.8	13	7.4	2.6
20	3.1	4.4	35	171	40	427	42	62	6.1	110	6.8	2.2
21	3.5	4.4	29	183	40	370	41	53	5.5	24	4.3	2.7
22	3.6	4.1	27	192	34	241	50	45	5.0	9.7	2.7	10
23	3.9	4.0	31	2110	31	178	38	38	5.0	6.7	2.2	6.1
24	5.1	4.7	32	2580	29	143	37	32	6.2	8.2	2.4	3.6
25	18	57	27	986	28	120	90	28	23	32	2.3	2.3
26	11	28	e23	326	31	184	68	24	30	47	8.9	29
27	4.4	20	e20	183	28	190	64	21	50	11	6.7	35
28	3.7	16	e18	125	25	160	81	20	34	6.8	2.7	11
29	3.7	15	e16	96	---	140	71	19	17	5.4	2.0	5.4
30	4.1	18	e15	77	---	132	61	16	10	17	2.0	3.5
31	4.0	---	e13	64	---	1300	---	15	---	17	2.0	---
TOTAL	181.8	255.0	1581	8209.8	1752	8680	3094	3860	430.4	547.8	118.9	152.9
MEAN	5.865	8.500	51.00	264.8	62.57	280.0	103.1	124.5	14.35	17.67	3.835	5.097
MAX	18	57	284	2580	169	3060	665	1020	50	110	9.4	35
MIN	2.9	3.3	12	9.2	25	21	37	15	5.0	4.7	2.0	1.2
CFSM	0.10	0.14	0.83	4.32	1.02	4.57	1.68	2.03	0.23	0.29	0.06	0.08
IN.	0.11	0.15	0.96	4.98	1.06	5.27	1.88	2.34	0.26	0.33	0.07	0.09

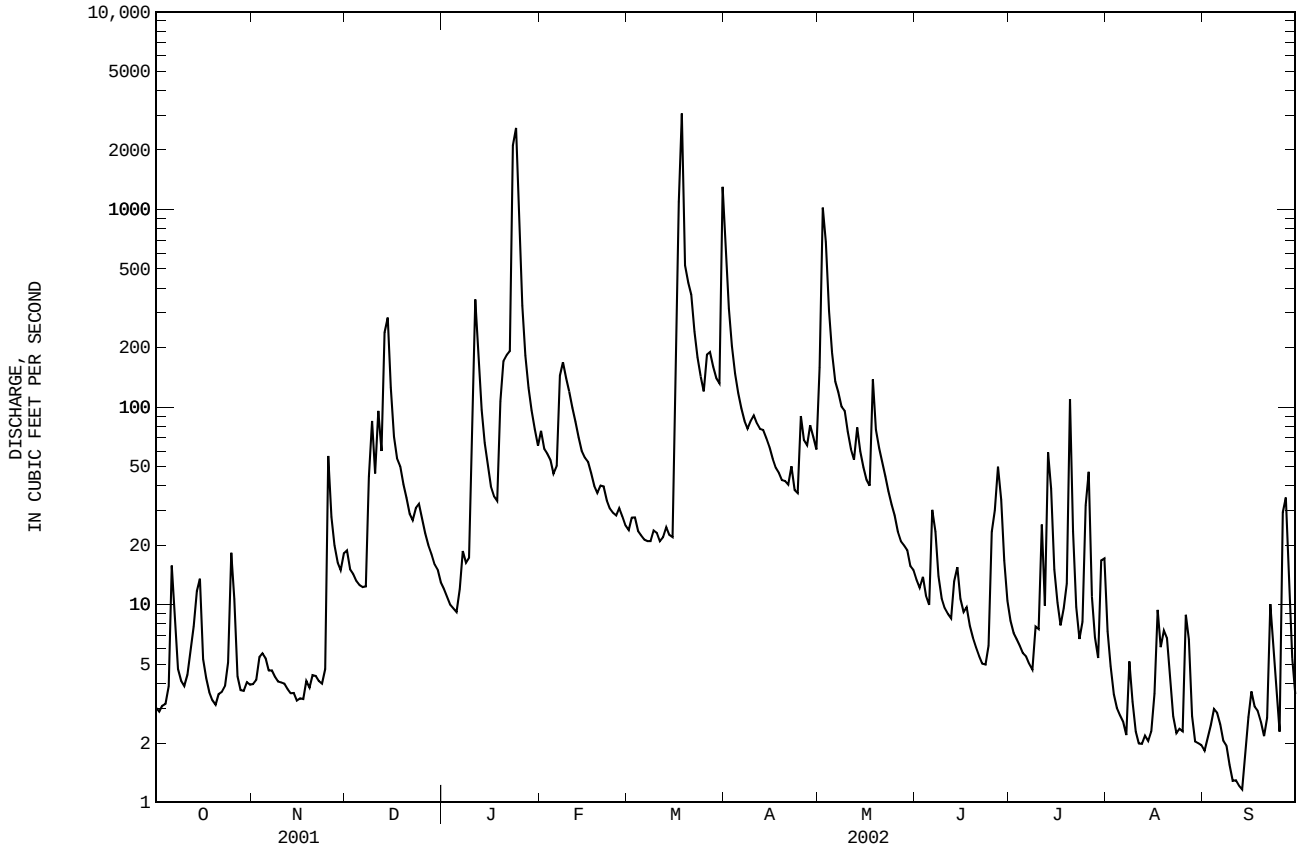
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2002, BY WATER YEAR (WY)

MEAN	25.61	59.05	104.0	145.5	165.1	199.5	161.3	112.2	54.76	31.95	23.38	17.06
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	0.26	5.05	3.30	6.97	27.0	21.4	16.6	14.0	3.17	2.17	1.16	0.73
(WY)	1964	2001	1966	1981	1968	1988	1963	1964	1988	1970	1988	1969

03280700 CUTSHIN CREEK AT WOOTON, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1958 - 2002	
ANNUAL TOTAL	20970.4		28863.6			
ANNUAL MEAN	57.45		79.08		91.26	
HIGHEST ANNUAL MEAN					212	1974
LOWEST ANNUAL MEAN					27.6	1988
HIGHEST DAILY MEAN	1700	Feb 16	3060	Mar 18	4890	May 7 1984
LOWEST DAILY MEAN	2.7	Sep 16	1.2	Sep 12	0.00	Sep 29 1959
ANNUAL SEVEN-DAY MINIMUM	3.0	Sep 28	1.5	Sep 8	0.01	Sep 11 1964
MAXIMUM PEAK FLOW			6040	Mar 18	14200	Mar 12 1963
MAXIMUM PEAK STAGE			10.32	Mar 18	16.23	Mar 12 1963
INSTANTANEOUS LOW FLOW					0.00	Sep 29 1959
ANNUAL RUNOFF (CFSM)	0.94		1.29		1.49	
ANNUAL RUNOFF (INCHES)	12.73		17.52		20.23	
10 PERCENT EXCEEDS	121		140		199	
50 PERCENT EXCEEDS	17		18		31	
90 PERCENT EXCEEDS	4.0		2.9		2.9	

e Estimated



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 mi^2.

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 with telemetry. Datum of gage is 642.13 ft above NGVD of 1929. 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).

COOPERATION.--U.S.Army Corps of Engineers, Louisville District and Kentucky River Authority.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	279	70	15	158	3300	188	4280	430	111	232	93	27
2	346	56	14	89	2800	395	3880	708	122	174	62	27
3	358	51	13	103	2260	397	3710	4820	241	158	55	27
4	357	49	12	166	1960	346	4000	4020	139	76	51	25
5	355	46	11	134	1630	234	3920	3990	116	65	49	24
6	363	40	9.8	90	1130	207	2950	3790	212	67	37	24
7	356	28	9.2	92	486	180	1620	3710	336	60	27	24
8	352	16	17	89	613	144	885	2500	252	48	25	24
9	351	10	41	88	700	129	570	1970	212	40	25	24
10	348	e6.5	48	90	1150	116	537	1470	196	40	25	24
11	347	e5.0	54	135	1170	90	519	954	170	39	25	24
12	349	e4.4	70	474	1110	74	524	862	139	38	27	24
13	346	e4.0	65	621	859	203	696	2100	255	63	28	24
14	344	e3.8	115	996	623	314	720	3480	243	347	27	28
15	342	e3.7	264	864	602	251	921	1820	193	285	27	30
16	342	e3.7	247	1020	387	609	566	1100	162	182	28	28
17	340	e7.0	226	404	554	1030	481	715	143	134	29	26
18	337	9.8	237	284	410	3110	425	2470	128	135	30	25
19	264	11	635	284	348	4140	384	1610	117	355	34	24
20	331	14	1150	453	348	5050	343	1070	111	120	34	24
21	330	14	1280	548	349	3900	321	853	101	80	35	35
22	327	15	1700	934	236	4210	758	639	79	66	29	36
23	324	16	1450	1770	199	4210	596	484	75	61	28	45
24	322	19	856	2700	195	4000	403	408	54	86	28	51
25	326	30	782	3420	193	3870	1020	379	45	104	28	104
26	317	65	580	3390	198	4180	703	358	93	135	28	126
27	312	45	206	3650	199	4500	462	285	68	111	28	286
28	177	30	109	3730	191	4100	977	250	139	99	28	242
29	120	22	197	3640	---	3860	1870	245	209	94	27	209
30	161	18	213	3520	---	3930	640	190	235	89	27	201
31	130	---	208	3410	---	4140	---	119	---	68	27	---
TOTAL	9653	712.9	10834.0	37346	24200	62107	39681	47799	4696	3651	1051	1842
MEAN	311.4	23.76	349.5	1205	864.3	2003	1323	1542	156.5	117.8	33.90	61.40
MAX	363	70	1700	3730	3300	5050	4280	4820	336	355	93	286
MIN	120	3.7	9.2	88	191	74	321	119	45	38	25	24
CFSM	0.58	0.04	0.65	2.24	1.61	3.73	2.46	2.87	0.29	0.22	0.06	0.11
IN.	0.67	0.05	0.75	2.59	1.68	4.30	2.75	3.31	0.33	0.25	0.07	0.13

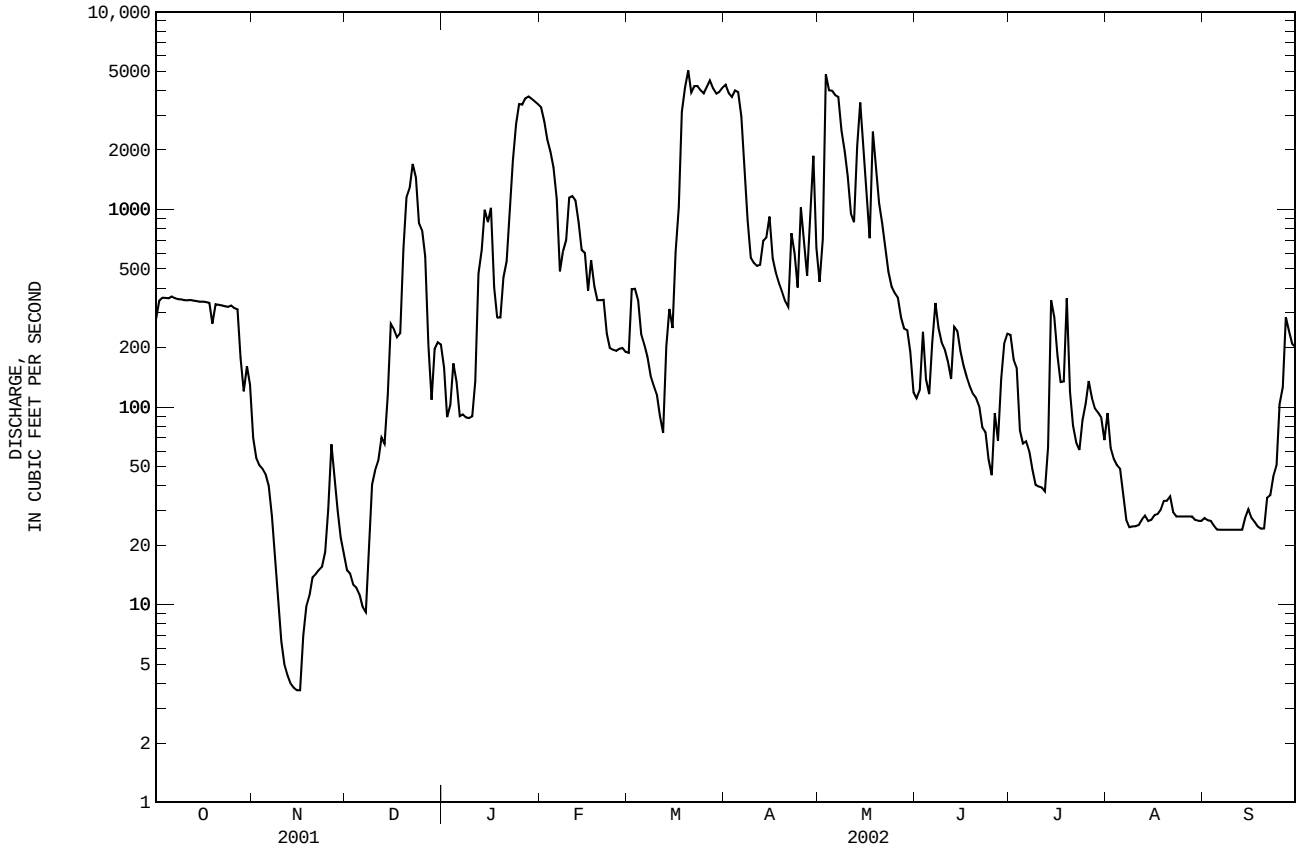
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2002, BY WATER YEAR (WY)

MEAN	304.9	556.1	903.2	1287	1429	1673	1165	931.1	469.0	225.7	174.0	165.7
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	23.8	45.5	56.8	270	241	98.7	57.9	49.1	43.6	33.9	45.9
(WY)	1989	2002	1966	1981	1968	1988	1986	1986	1988	1988	2002	1987

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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1961 - 2002	
ANNUAL TOTAL	183614.9		243572.9			
ANNUAL MEAN	503.1		667.3		770.7	
HIGHEST ANNUAL MEAN					1492	1994
LOWEST ANNUAL MEAN					267	1988
HIGHEST DAILY MEAN	4920	Feb 17	5050	Mar 20	10300	Feb 27 1962
LOWEST DAILY MEAN	3.7	Nov 15	3.7	Nov 15	3.7	Nov 15 2001
ANNUAL SEVEN-DAY MINIMUM	4.4	Nov 10	4.4	Nov 10	4.4	Nov 10 2001
MAXIMUM PEAK FLOW			5970	Mar 20	52700	Jan 30 1957
MAXIMUM PEAK STAGE			18.35	Mar 20	43.33	Jan 30 1957
INSTANTANEOUS LOW FLOW					0.10	Oct 12 1953
ANNUAL RUNOFF (CFSM)	0.94		1.24		1.44	
ANNUAL RUNOFF (INCHES)	12.72		16.87		19.50	
10 PERCENT EXCEEDS	1710		2580		2490	
50 PERCENT EXCEEDS	161		203		291	
90 PERCENT EXCEEDS	46		24		62	

e Estimated



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 mi^2.

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

GAGE.--Water-stage recorder with telemetry and crest-stage gages. Datum of gage is 819.37 ft above NGVD of 1929. 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.

COOPERATION.--Kentucky River Authority.

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 ft^3/s, 37.3 ft, discharge, 29,800 ft^3/s, and 33.5 ft, discharge, 21,500 ft^3/s, respectively, present site.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 23	1800	6,080	19.16	Mar 18	1300	*9,430	*23.95

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	e4.7	25	e42	321	63	2420	219	28	20	16	3.6
2	3.1	e5.0	25	e36	429	64	791	1080	31	15	13	3.5
3	2.5	e6.6	20	e33	371	72	513	1630	43	13	9.7	3.4
4	2.3	e6.2	18	e31	316	66	366	719	31	11	7.7	3.7
5	3.0	e6.0	17	e29	242	58	289	541	35	9.9	6.2	3.0
6	12	e5.4	16	34	208	56	237	409	146	8.7	5.1	2.6
7	8.9	4.8	16	40	279	53	199	358	210	7.2	4.1	3.0
8	e7.0	4.9	33	38	427	52	173	442	90	6.4	3.6	3.2
9	e5.2	5.2	173	35	405	55	155	383	57	6.6	3.0	3.3
10	e4.8	4.9	117	46	363	61	138	360	42	19	2.9	3.1
11	e4.5	5.0	162	528	330	54	116	270	33	73	3.7	2.9
12	e5.0	4.9	142	533	279	53	106	206	28	29	5.2	2.8
13	e6.0	4.6	936	334	243	62	115	256	42	47	3.6	2.8
14	e8.0	4.3	847	232	202	64	141	274	48	43	2.9	3.6
15	e11	4.4	466	173	177	62	166	196	37	30	3.4	7.0
16	e8.2	4.5	247	127	161	145	150	152	31	20	6.8	5.3
17	e6.0	4.8	164	107	143	1410	140	126	28	15	19	4.6
18	e5.2	4.6	140	100	121	7450	180	327	21	13	7.5	5.1
19	e4.8	4.6	110	148	107	2080	158	261	17	16	4.9	8.7
20	e4.4	5.2	93	522	110	1290	140	195	14	15	5.9	11
21	e4.6	4.8	76	520	115	1370	126	155	12	12	4.5	28
22	e6.2	4.7	65	502	97	680	129	125	11	9.7	4.0	18
23	e4.6	4.9	78	3850	87	468	111	103	9.6	46	3.8	41
24	e5.6	6.4	150	4000	80	357	93	86	8.4	72	4.5	20
25	e12	178	145	3450	76	286	263	72	8.3	49	4.5	10
26	e10	84	122	888	80	405	246	61	72	67	6.8	70
27	e7.2	42	103	542	78	567	212	53	54	29	14	245
28	e5.8	30	87	391	69	431	203	46	57	19	10	105
29	e4.5	24	e70	306	---	353	214	40	43	16	6.1	50
30	e4.6	26	e60	253	---	317	175	37	28	18	4.8	29
31	e4.9	---	e49	225	---	1300	---	32	---	25	3.8	---
TOTAL	185.8	505.4	4772	18095	5916	19804	8465	9214	1315.3	780.5	201.0	702.2
MEAN	5.994	16.85	153.9	583.7	211.3	638.8	282.2	297.2	43.84	25.18	6.484	23.41
MAX	12	178	936	4000	429	7450	2420	1630	210	73	19	245
MIN	2.3	4.3	16	29	69	52	93	32	8.3	6.4	2.9	2.6
CFSM	0.04	0.10	0.94	3.58	1.30	3.92	1.73	1.82	0.27	0.15	0.04	0.14
IN.	0.04	0.12	1.09	4.13	1.35	4.52	1.93	2.10	0.30	0.18	0.05	0.16

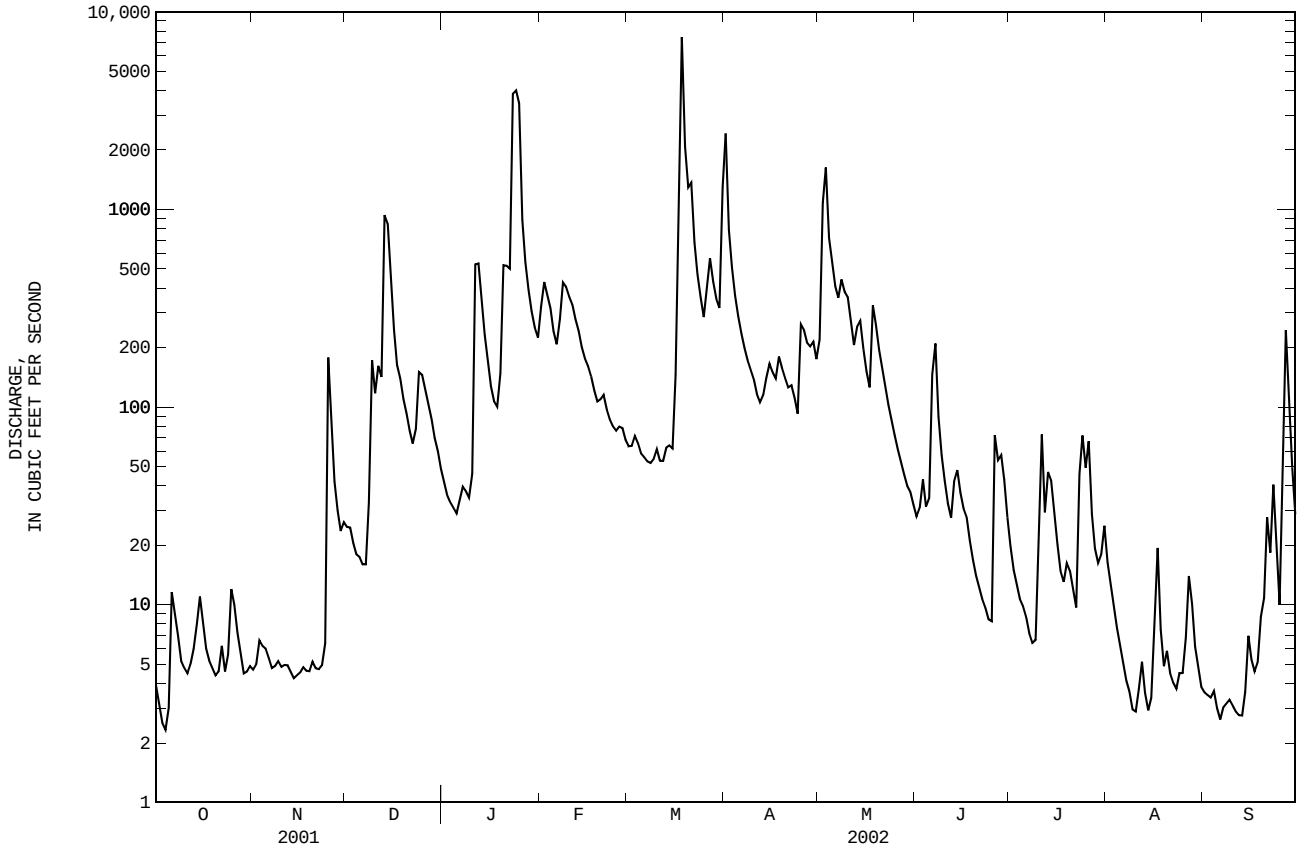
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2002, BY WATER YEAR (WY)

MEAN	78.21	184.0	348.1	440.9	471.1	527.1	426.0	292.4	149.9	92.22	50.20	40.44
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

03281100 GOOSE CREEK AT MANCHESTER, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1965 - 2002	
ANNUAL TOTAL	63897.3		69956.2			
ANNUAL MEAN	175.1		191.7		257.4	
HIGHEST ANNUAL MEAN					456	1994
LOWEST ANNUAL MEAN					107	1988
HIGHEST DAILY MEAN	4250	Feb 17	7450	Mar 18	13700	May 7 1984
LOWEST DAILY MEAN	2.3	Oct 4	2.3	Oct 4	0.00	Oct 8 1980
ANNUAL SEVEN-DAY MINIMUM	3.4	Sep 29	3.0	Sep 6	0.16	Oct 4 1980
MAXIMUM PEAK FLOW			9430	Mar 18	19200	May 7 1984
MAXIMUM PEAK STAGE			23.95	Mar 18	32.85	May 7 1984
INSTANTANEOUS LOW FLOW					0.00	Oct 8 1980
ANNUAL RUNOFF (CFSM)	1.07		1.18		1.58	
ANNUAL RUNOFF (INCHES)	14.58		15.97		21.46	
10 PERCENT EXCEEDS	424		397		553	
50 PERCENT EXCEEDS	53		43		86	
90 PERCENT EXCEEDS	5.1		4.5		6.0	

e Estimated



03281500 SOUTH FORK KENTUCKY RIVER AT BOONEVILLE, KY

LOCATION.--Lat 37°28'47", long 83°40'31", Owsley County, Hydrologic Unit 05100203, on right bank 100 ft downstream from Buck Creek, 350 ft downstream from bridge on State Highway 30 at Booneville, 0.3 mi downstream from Meadow Creek, and at mile 11.7.

DRAINAGE AREA.--722 mi^2.

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 with telemetry. Datum of gage is 642.49 ft above NGVD of 1929. See WDR KY-92-1 for history of changes prior to Nov. 27, 1929. Nov. 28, 1929 to July 26, 2000, recording gage 500 ft downstream at present site and datum.

REMARKS.--Records fair except for those estimated, which are poor. Diversions by City of Booneville.

COOPERATION.--U.S. Army Corps of Engineers, Louisville District and Kentucky River Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 14,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 25	1100	15,100	24.34	May 3	0900	18,800	27.77
Mar 19	0700	*21,800	*29.98				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	30	90	e140	773	265	11400	1030	176	163	162	40
2	25	24	83	e120	1160	261	5520	4820	162	118	135	30
3	24	23	78	e110	1170	292	2780	16200	161	109	98	25
4	17	22	70	e105	1040	302	1790	5720	153	85	80	18
5	12	21	67	e100	855	282	1320	2990	149	72	65	14
6	12	21	60	107	705	268	1070	2000	203	70	53	11
7	11	26	59	109	690	258	901	2210	570	71	42	8.6
8	12	23	74	116	949	251	791	3220	569	57	32	7.1
9	12	20	120	121	1270	249	716	2080	310	45	27	5.5
10	18	19	327	124	1290	256	663	1670	213	38	22	4.8
11	41	19	405	245	1300	257	594	1280	164	31	24	4.7
12	34	18	433	1960	1150	248	527	1000	171	180	54	4.7
13	27	17	496	1230	989	247	516	2300	217	191	27	5.1
14	21	15	2670	798	831	264	600	3780	225	514	18	9.3
15	14	14	2120	588	713	274	1130	1910	260	413	15	9.2
16	13	15	984	456	640	928	1030	1290	200	232	20	8.5
17	12	16	599	364	577	3090	871	944	166	171	22	8.0
18	11	16	481	318	504	14400	844	3700	141	131	20	7.4
19	11	17	427	304	440	19100	815	2690	130	128	23	7.2
20	11	18	359	533	410	9390	717	1540	106	106	69	6.8
21	13	19	299	1200	420	8470	644	1130	90	97	51	26
22	43	25	250	1380	413	4170	1020	888	78	90	46	39
23	36	25	224	4860	363	2400	881	723	68	81	34	125
24	23	26	233	13000	325	1670	724	601	62	237	28	130
25	19	52	316	14400	302	1280	1870	498	63	470	25	147
26	14	336	321	6460	298	1620	1740	410	67	223	20	148
27	17	304	287	2480	307	3160	1300	367	84	227	16	448
28	28	170	256	1520	291	2390	2610	305	290	175	15	780
29	74	121	e220	1110	---	1760	2390	258	354	123	16	417
30	57	102	e190	892	---	3210	1370	223	240	105	60	240
31	40	---	e160	801	---	4620	---	205	---	101	52	---
TOTAL	730	1574	12758	56051	20175	85632	49144	67982	5842	4854	1371	2734.9
MEAN	23.55	52.47	411.5	1808	720.5	2762	1638	2193	194.7	156.6	44.23	91.16
MAX	74	336	2670	14400	1300	19100	11400	16200	570	514	162	780
MIN	11	14	59	100	291	247	516	205	62	31	15	4.7
CFSM	0.03	0.07	0.57	2.50	1.00	3.83	2.27	3.04	0.27	0.22	0.06	0.13
IN.	0.04	0.08	0.66	2.89	1.04	4.41	2.53	3.50	0.30	0.25	0.07	0.14

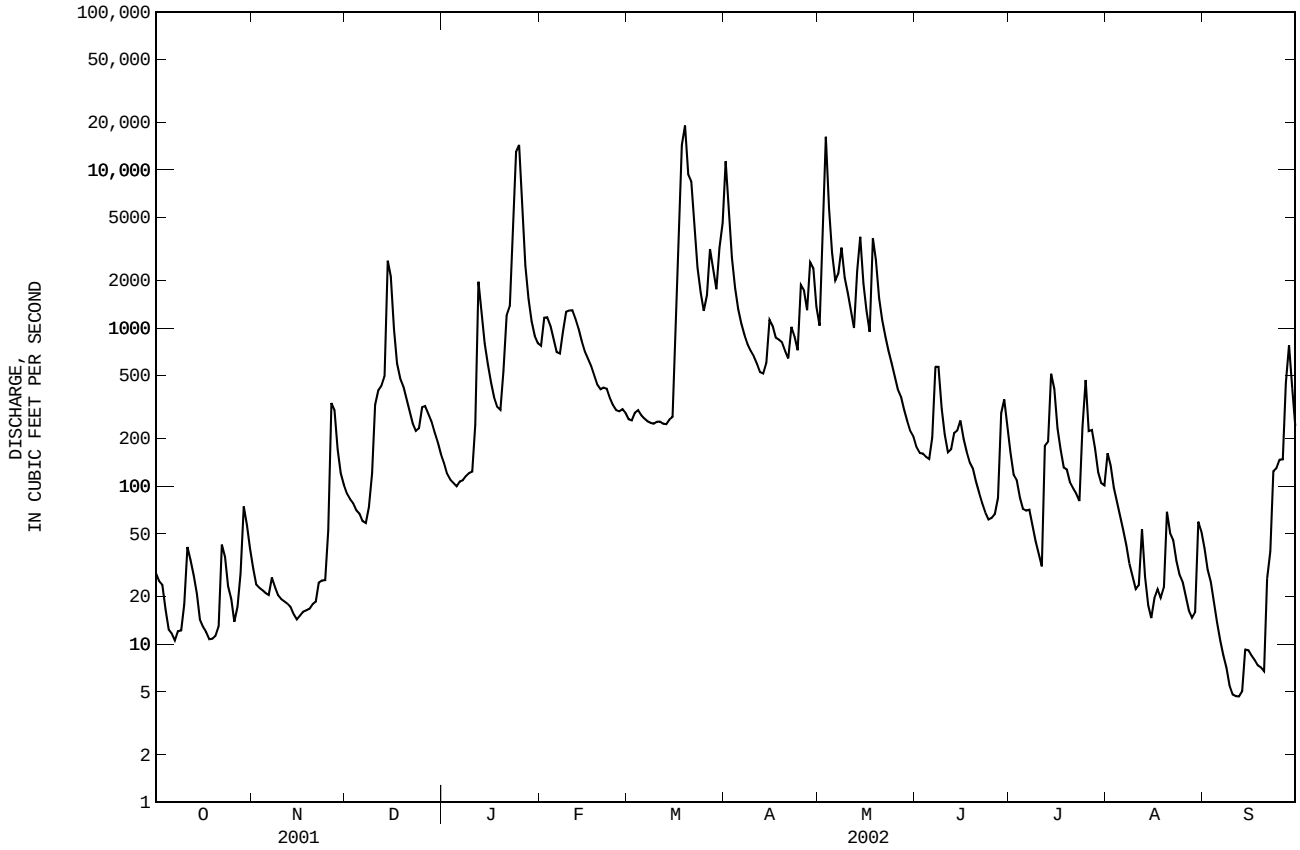
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2002, BY WATER YEAR (WY)

MEAN	206.9	638.3	1310	1810	2077	2300	1701	1103	585.3	393.0	252.7	141.8
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	0.084	0.32	12.1	104	178	568	222	119	36.7	3.67	4.56	0.68
(WY)	1954	1954	1954	1981	1941	1988	1963	1941	1966	1944	1930	1930

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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1925 - 2002	
ANNUAL TOTAL	241659.7		308847.9			
ANNUAL MEAN	662.1		846.2		1043	
HIGHEST ANNUAL MEAN					1808	1994
LOWEST ANNUAL MEAN					413	1988
HIGHEST DAILY MEAN	16000	Feb 17	19100	Mar 19	51300	Jan 30 1957
LOWEST DAILY MEAN	9.7	Sep 23	4.7	Sep 11	0.00	Oct 11 1953
ANNUAL SEVEN-DAY MINIMUM	12	Oct 15	5.8	Sep 7	0.00	Oct 11 1953
MAXIMUM PEAK FLOW			21800	Mar 19	66100	Jan 30 1957
MAXIMUM PEAK STAGE			29.98	Mar 19	43.40	Jan 30 1957
INSTANTANEOUS LOW FLOW					0.00	Oct 11 1953
ANNUAL RUNOFF (CFSM)	0.92		1.17		1.44	
ANNUAL RUNOFF (INCHES)	12.45		15.91		19.62	
10 PERCENT EXCEEDS	1510		1930		2390	
50 PERCENT EXCEEDS	196		213		350	
90 PERCENT EXCEEDS	19		16		26	

e Estimated



03282000 KENTUCKY RIVER AT LOCK 14 AT HEIDELBERG, KY

LOCATION.--Lat 37°33'19", long 83°46'06", Lee County, Hydrologic Unit 05100204, on right bank 200 ft upstream from lock 14 at Heidelberg, 0.3 mi upstream from Sturgeon Creek, and at mile 249.2.

DRAINAGE AREA.--2,657 mi^2.

PERIOD OF RECORD.--October 1925 to September 1931, December 1936 to February 1937, July 1938 to current year. Gage-height records collected in this vicinity since 1902 are published in reports of National Weather Service.

REVISED RECORDS.--WSP 1385: 1926-27, 1928(M), 1929, 1931(M), 1937, 1939(M), drainage area.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 626.66 ft, Ohio River datum. Prior to September 2, 1939, nonrecording gage at lock 14 at same datum.

REMARKS.--Records fair except for those below 150 ft^3/s and for those estimated, which are poor. Flow regulated by Buckhorn Lake beginning December 1960 (station 03280800), and by Carr Fork Lake beginning January 1976 (station 03277446). Small diversions by City of Lexington waterworks.

COOPERATION.--U.S. Army Corps of Engineers, louisville District and Kentucky River Authority.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e432	e376	373	512	7470	929	34000	5840	898	1140	571	228
2	e460	e339	330	407	6940	1010	28600	8380	e2440	890	584	195
3	e441	e321	310	364	5770	1240	17700	35800	e3050	716	462	169
4	e451	e302	296	374	4820	1280	13100	31400	e1310	610	394	151
5	e469	e284	284	389	4040	1240	10200	19500	e950	800	350	136
6	e534	e284	265	378	3240	1090	8010	13700	e918	877	313	126
7	e506	e256	249	368	2480	1010	5660	12000	1680	616	269	116
8	e460	182	296	359	2560	928	4100	13600	2280	547	236	106
9	e450	172	485	370	3910	872	3290	10800	1620	447	215	101
10	e450	162	583	404	4740	865	2880	8840	1240	391	202	95
11	e497	160	1250	553	4750	833	2790	6850	972	348	267	88
12	e497	156	1310	3300	4420	798	2840	5160	882	381	276	82
13	e515	152	1470	5240	3720	805	2760	7410	1360	921	189	79
14	e552	150	3270	3830	3020	1040	3000	21500	1710	2890	155	94
15	e589	148	5100	2780	2600	1060	4410	13500	1780	3310	150	106
16	e598	148	3880	2580	2240	2150	4380	7220	1400	1700	150	105
17	e571	150	2390	1910	2050	7890	3450	4850	1150	1200	148	99
18	e543	147	1840	1420	1900	26800	3140	15400	888	886	155	101
19	e552	146	1830	1340	1610	44300	2910	13200	782	1150	184	106
20	e543	152	2110	1450	1500	42900	2710	7680	660	1090	262	129
21	e506	151	2240	2670	1490	35100	2480	5270	576	1980	322	169
22	e487	153	2270	4230	1430	22100	4250	3980	519	2240	303	188
23	e487	160	2200	8930	1290	15900	5280	3120	477	1200	261	243
24	e506	171	1700	28300	1160	12400	4110	2500	435	857	214	623
25	e571	228	1500	36700	1050	10100	6210	2120	400	1170	184	644
26	e589	429	1420	30800	1020	10200	8440	1830	442	1180	170	594
27	e580	879	1070	17700	1020	14300	6670	1600	557	1100	164	1220
28	e571	633	714	11000	998	13000	7140	1470	702	940	162	2060
29	e543	472	702	9540	---	10600	13400	1520	1260	675	239	1790
30	e469	415	701	8770	---	13200	8970	1310	1290	564	329	1200
31	e404	---	597	7900	---	17800	---	1080	---	580	289	---
TOTAL	15823	7878	43035	194868	83238	313740	226880	288430	34628	33396	8169	11143
MEAN	510.4	262.6	1388	6286	2973	10120	7563	9304	1154	1077	263.5	371.4
MAX	598	879	5100	36700	7470	44300	34000	35800	3050	3310	584	2060
MIN	404	146	249	359	998	798	2480	1080	400	348	148	79
CFSM	0.19	0.10	0.52	2.37	1.12	3.81	2.85	3.50	0.43	0.41	0.10	0.14
IN.	0.22	0.11	0.60	2.73	1.17	4.39	3.18	4.04	0.48	0.47	0.11	0.16

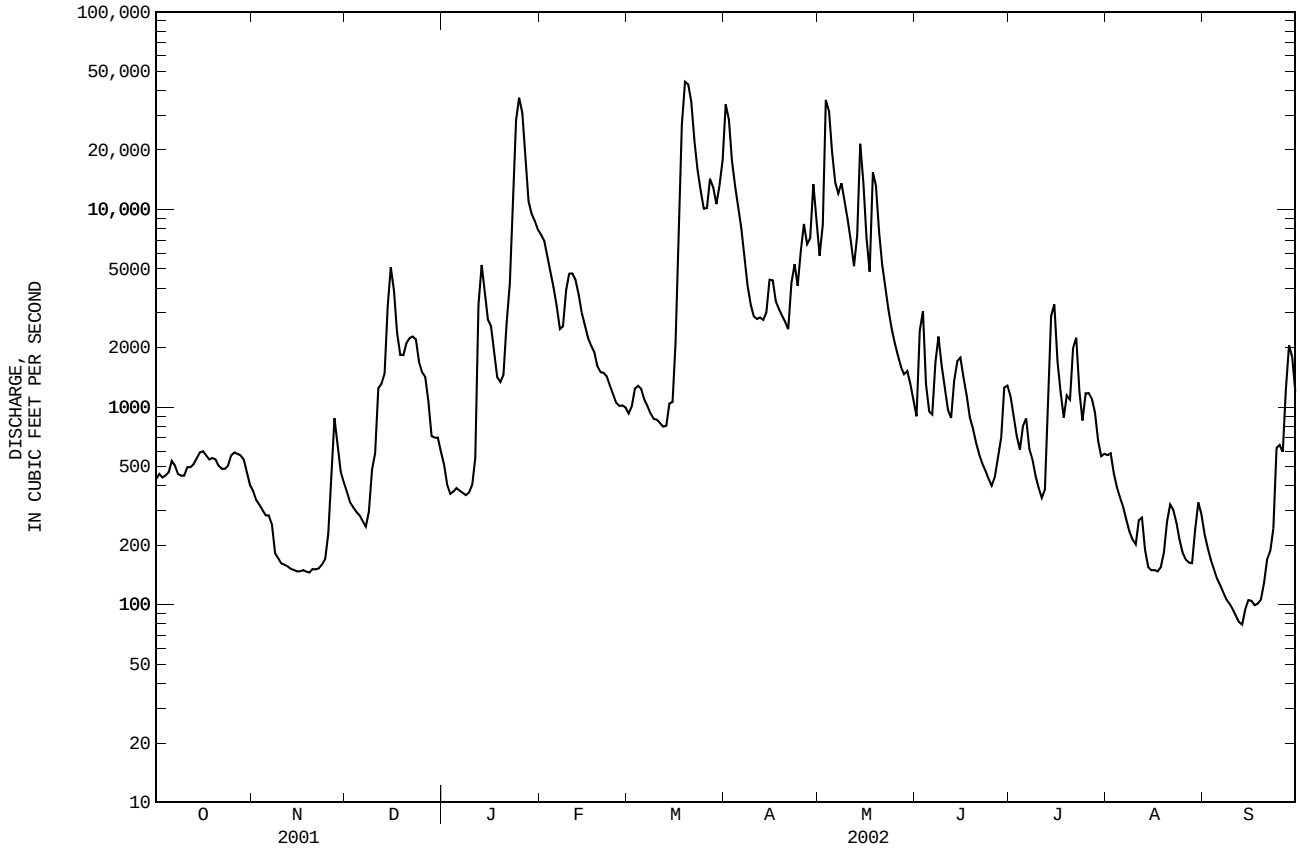
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2002, BY WATER YEAR (WY)

MEAN	1257	2483	4517	5791	6956	7621	6024	4872	2533	1230	964.9	700.8
MAX	10380	7006	14850	14010	16710	18260	15260	16010	10380	3320	3006	3680
(WY)	1990	1978	1991	1994	1994	1994	1998	1984	1989	1992	1977	1989
MIN	232	263	582	362	2345	1791	855	910	247	206	154	70.1
(WY)	2000	2002	1981	1981	1988	1988	1986	1986	1988	1988	1988	1999

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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1977 - 2002	
ANNUAL TOTAL	837717		1261228			
ANNUAL MEAN	2295		3455		3730	
HIGHEST ANNUAL MEAN					6973	1994
LOWEST ANNUAL MEAN					1461	1988
HIGHEST DAILY MEAN	33600	Feb 17	44300	Mar 19	85900	May 8 1984
LOWEST DAILY MEAN	146	Nov 19	79	Sep 13	45	Jul 10 1988
ANNUAL SEVEN-DAY MINIMUM	149	Nov 13	92	Sep 8	51	Sep 11 1999
MAXIMUM PEAK FLOW			46200	Mar 19	120000	Feb 4 1939
MAXIMUM PEAK STAGE			20.76	Mar 19	35.60	Feb 4 1939
INSTANTANEOUS LOW FLOW					4.0	Oct 20 1930
ANNUAL RUNOFF (CFSM)	0.86		1.30		1.40	
ANNUAL RUNOFF (INCHES)	11.73		17.66		19.08	
10 PERCENT EXCEEDS	5780		9760		9470	
50 PERCENT EXCEEDS	880		950		1520	
90 PERCENT EXCEEDS	293		162		271	

e Estimated



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 of 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 mi^2.

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

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 704.53 ft above NGVD of 1929.

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

COOPERATION.--Kentucky Natural Resources and Environmental Protection Cabinet.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 18	0715	2,310	8.70	May 3	0100	2,860	9.49
Mar 20	1415	*3,970	*10.92	May 18	0330	3,660	10.54
Mar 31	1715	3,400	10.20				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e1.0	3.2	12	e16	116	26	850	228	16	8.3	3.9	0.27
2	e0.90	2.8	9.1	e14	117	29	389	794	47	6.7	2.3	0.23
3	e0.80	2.8	6.1	e13	110	47	254	1040	101	5.6	1.7	0.18
4	e0.60	2.7	4.3	e12	100	41	184	345	38	4.6	1.4	0.15
5	e0.70	2.5	3.2	e11	79	38	145	241	23	3.8	1.1	0.11
6	e0.80	2.2	2.8	e14	74	39	117	182	57	3.3	0.70	0.07
7	e0.80	2.0	3.2	17	80	38	96	525	91	3.0	0.46	0.06
8	e0.90	1.8	19	16	88	37	84	675	45	2.9	0.34	0.05
9	e0.86	1.7	80	15	120	39	90	374	30	2.5	0.26	0.03
10	e0.75	1.6	48	20	133	44	74	279	22	2.3	0.22	0.02
11	e0.70	1.5	64	49	141	36	61	203	17	2.1	0.44	0.02
12	0.89	1.4	54	63	126	36	55	156	117	2.0	6.8	0.02
13	1.2	1.4	84	57	111	38	58	863	215	6.4	2.8	0.02
14	2.5	1.3	165	49	92	38	94	583	118	12	1.3	0.07
15	4.7	1.3	132	43	82	36	197	302	65	8.4	0.64	0.16
16	5.1	1.2	79	35	74	241	158	199	40	6.6	2.1	2.7
17	4.3	1.1	62	31	64	400	137	156	31	4.6	1.8	3.8
18	3.5	1.1	83	31	53	1520	227	1490	22	6.0	1.0	5.0
19	2.9	1.1	73	33	48	1130	155	410	17	5.6	1.1	3.9
20	2.3	1.3	58	38	48	2090	122	247	13	3.9	15	3.3
21	2.1	1.3	44	42	49	777	104	176	11	3.4	7.9	17
22	2.0	1.4	36	102	41	357	354	130	9.3	2.9	3.7	15
23	2.0	1.3	40	600	36	239	224	99	7.6	2.7	2.3	7.1
24	2.4	1.4	64	1090	32	182	174	76	9.5	2.1	1.6	3.9
25	6.1	11	53	632	30	146	677	58	21	1.8	2.5	2.8
26	8.3	14	e42	288	34	456	323	45	31	1.7	1.9	50
27	5.9	8.7	e36	190	34	434	238	38	14	1.7	1.2	176
28	4.5	5.9	e30	141	28	277	977	30	14	1.9	0.78	75
29	3.7	5.1	e25	112	---	210	613	25	13	3.7	0.54	29
30	3.4	8.6	e20	108	---	488	326	21	11	3.4	0.41	16
31	3.5	---	e18	107	---	1370	---	18	---	7.7	0.31	---
TOTAL	80.10	94.7	1449.7	3989	2140	10879	7557	10008	1266.4	133.6	68.50	411.96
MEAN	2.584	3.157	46.76	128.7	76.43	350.9	251.9	322.8	42.21	4.310	2.210	13.73
MAX	8.3	14	165	1090	141	2090	977	1490	215	12	15	176
MIN	0.60	1.1	2.8	11	28	26	55	18	7.6	1.7	0.22	0.02
CFSM	0.03	0.04	0.60	1.66	0.99	4.54	3.26	4.18	0.55	0.06	0.03	0.18
IN.	0.04	0.05	0.70	1.92	1.03	5.24	3.64	4.82	0.61	0.06	0.03	0.20

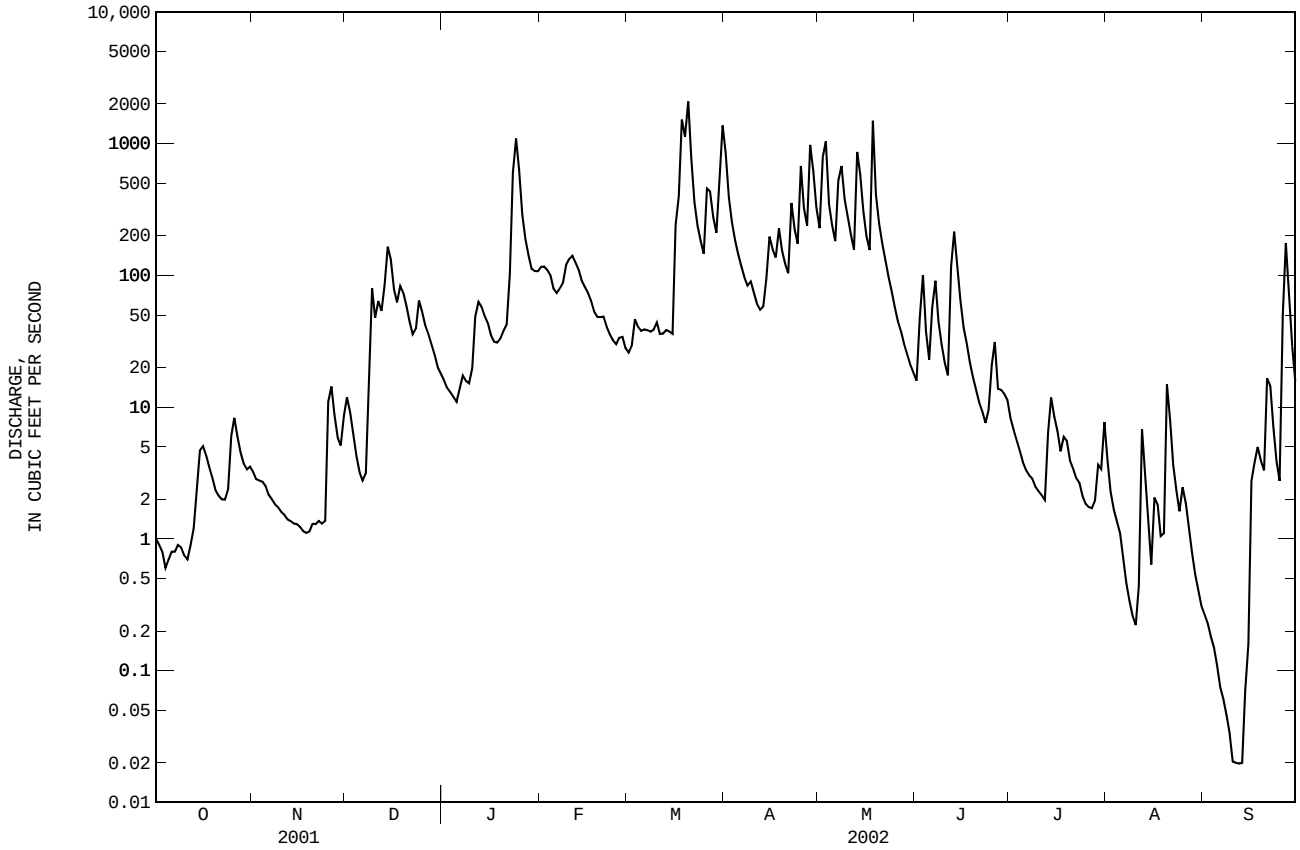
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2002, BY WATER YEAR (WY)

MEAN	24.54	61.20	98.64	209.0	192.7	267.1	186.6	142.7	90.19	22.43	13.25	12.76
MAX	108	246	193	403	484	540	441	345	304	53.3	29.3	59.5
(WY)	1997	1997	1994	1994	1994	1994	1998	1995	1997	2000	1994	1996
MIN	1.22	2.70	16.8	30.3	76.4	85.7	49.6	22.4	2.20	1.22	0.11	0.30
(WY)	2001	2001	2000	2000	2002	2000	1997	2001	1999	1999	1999	1999

03282040 STURGEON CREEK AT CRESSMONT, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1993 - 2002	
ANNUAL TOTAL	22675.50		38077.96			
ANNUAL MEAN	62.12		104.3		109.7	
HIGHEST ANNUAL MEAN					195	1994
LOWEST ANNUAL MEAN					53.4	2000
HIGHEST DAILY MEAN	2200	Feb 17	2090	Mar 20	4230	Mar 3 1997
LOWEST DAILY MEAN	0.60	Oct 4	0.02	Sep 10	0.00	Aug 18 1999
ANNUAL SEVEN-DAY MINIMUM	0.77	Oct 4	0.03	Sep 7	0.00	Aug 18 1999
MAXIMUM PEAK FLOW			3970	Mar 20	8340	Jan 9 1999
MAXIMUM PEAK STAGE			10.92	Mar 20	14.84	Jan 9 1999
INSTANTANEOUS LOW FLOW					0.00	Aug 18 1999
ANNUAL RUNOFF (CFSM)	0.80		1.35		1.42	
ANNUAL RUNOFF (INCHES)	10.91		18.32		19.28	
10 PERCENT EXCEEDS	141		250		256	
50 PERCENT EXCEEDS	12		21		36	
90 PERCENT EXCEEDS	1.7		0.90		1.7	

e Estimated



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 mi^2.

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 NGVD of 1929.

REMARKS.--Records fair except for daily discharges below 2.0 ft^3/s and for those estimated, which are poor.

Cooperation.--Kentucky Natural Resources and Environmental Protection Cabinet.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 20	1745	*2,140	*8.02	May 3	0615	1,230	5.41
Apr 1	0500	1,380	5.85	May 18	1100	1,150	5.20

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	2.7	7.8	e7.6	67	16	1020	144	21	8.9	5.1	0.14
2	0.94	2.3	7.5	e6.8	78	16	384	395	24	6.1	4.0	0.12
3	0.70	2.4	6.7	e6.2	71	25	232	884	61	5.0	3.2	0.09
4	0.53	2.4	4.8	e5.8	63	31	156	336	37	4.3	2.6	0.03
5	0.42	2.3	3.9	e5.4	51	27	121	218	24	3.6	2.2	0.0
6	0.50	2.1	3.7	e5.0	46	27	96	157	20	2.8	2.0	0.00
7	0.45	1.9	3.7	6.6	45	27	78	374	34	2.3	1.6	0.00
8	0.44	1.8	19	e7.5	44	26	68	705	32	2.2	1.4	0.00
9	0.44	1.7	111	e6.8	40	25	64	527	25	2.2	1.5	0.00
10	0.44	1.4	51	e10	39	27	59	384	21	2.1	1.9	0.00
11	0.47	1.2	37	e22	39	26	50	236	16	2.0	1.8	0.00
12	0.51	1.2	33	e60	38	25	47	155	9.9	2.4	1.7	0.00
13	0.72	1.1	30	e45	32	25	53	392	8.5	69	1.5	0.00
14	1.0	0.99	49	e33	30	25	78	504	21	130	1.3	0.00
15	1.8	0.95	81	e25	28	25	178	262	33	39	0.85	0.00
16	e5.0	0.89	51	e20	27	313	149	161	26	23	0.61	0.00
17	e3.9	0.81	42	15	25	379	120	121	19	14	0.50	0.00
18	e2.8	0.68	82	11	24	682	98	932	12	11	0.69	0.00
19	1.9	0.62	63	13	23	648	80	402	7.9	51	0.82	0.00
20	2.4	0.56	45	16	22	1820	76	223	6.5	31	0.96	0.00
21	1.8	0.56	31	17	23	1260	104	149	5.7	22	1.2	0.00
22	1.6	0.56	25	23	22	358	672	112	5.0	13	1.2	0.00
23	1.8	0.56	22	244	21	215	339	84	3.9	10	1.00	0.00
24	2.0	0.56	22	632	19	151	199	67	3.2	9.2	0.81	0.02
25	2.7	1.2	22	442	18	118	275	54	2.8	9.2	0.69	0.0
26	5.0	8.2	e19	181	17	216	212	46	4.1	13	0.60	0.04
27	7.9	12	e16	112	18	321	165	41	4.0	16	0.34	19
28	5.1	9.0	e13	79	18	214	377	39	4.8	11	0.35	25
29	3.8	6.9	e12	62	---	209	311	39	7.9	7.9	0.30	10
30	3.2	7.0	e10	54	---	741	199	32	16	6.2	0.23	5.2
31	2.9	---	e8.8	56	---	719	---	25	---	4.6	0.18	---
TOTAL	64.26	76.54	932.9	2229.7	988	8737	6060	8200	516.2	534.0	43.13	59.64
MEAN	2.073	2.551	30.09	71.93	35.29	281.8	202.0	264.5	17.21	17.23	1.391	1.988
MAX	7.9	12	111	632	78	1820	1020	932	61	130	5.1	25
MIN	0.42	0.56	3.7	5.0	17	16	47	25	2.8	2.0	0.18	0.00
CFSM	0.03	0.04	0.46	1.09	0.54	4.28	3.07	4.02	0.26	0.26	0.02	0.03
IN.	0.04	0.04	0.53	1.26	0.56	4.94	3.43	4.64	0.29	0.30	0.02	0.03

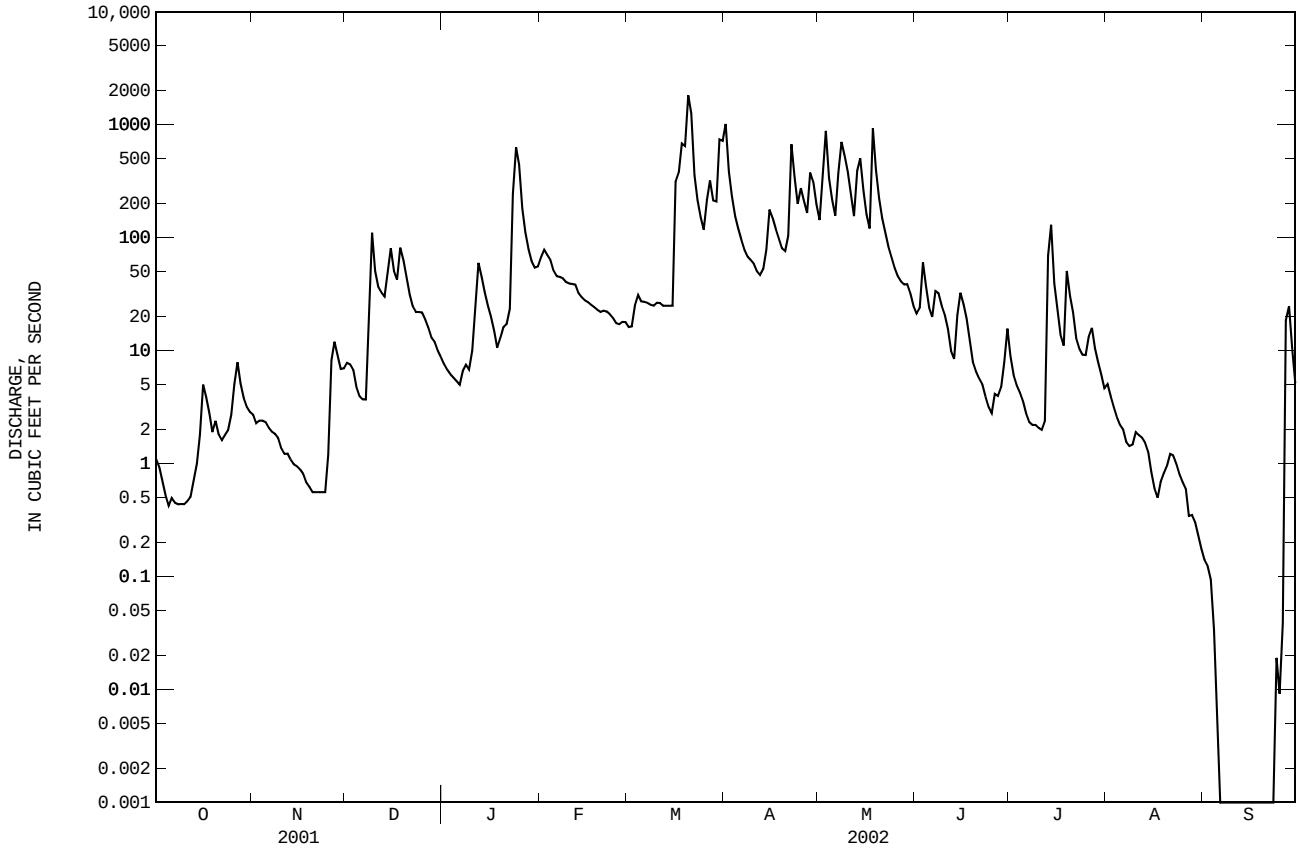
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 2002, BY WATER YEAR (WY)

MEAN	15.68	47.99	108.8	129.3	172.5	192.4	154.0	99.81	46.37	33.47	24.99	13.45
MAX	138	227	555	357	555	523	472	318	351	159	141	180
(WY)	1990	1986	1979	1974	1989	1955	1972	1983	1997	2001	1974	1974
MIN	0.22	0.54	2.76	17.5	27.6	49.1	16.6	13.9	1.19	0.99	0.27	0.048
(WY)	1964	1956	1964	1981	1968	1969	1986	1986	1988	1999	1957	1999

03282500 RED RIVER NEAR HAZEL GREEN, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1954 - 2002	
ANNUAL TOTAL	22430.20		28441.37			
ANNUAL MEAN	61.45		77.92		86.48	
HIGHEST ANNUAL MEAN					153	1994
LOWEST ANNUAL MEAN					39.6	1969
HIGHEST DAILY MEAN	1550	Jul 29	1820	Mar 20	6170	Dec 9 1978
LOWEST DAILY MEAN	0.42	Oct 5	0.00	Sep 5	0.00	Sep 14 1954
ANNUAL SEVEN-DAY MINIMUM	0.45	Oct 5	0.00	Sep 5	0.00	Sep 12 1955
MAXIMUM PEAK FLOW			2140	Mar 20	9080	Feb 27 1962
MAXIMUM PEAK STAGE			8.02	Mar 20	22.12	Feb 27 1962
INSTANTANEOUS LOW FLOW					0.00	Sep 14 1954
ANNUAL RUNOFF (CFSM)	0.93		1.18		1.31	
ANNUAL RUNOFF (INCHES)	12.68		16.08		17.86	
10 PERCENT EXCEEDS	125		217		200	
50 PERCENT EXCEEDS	22		16		30	
90 PERCENT EXCEEDS	1.8		0.46		1.4	

e Estimated



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 mi^2.

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 with telemetry and crest-stage gage. Datum of gage is 600.47 ft above NGVD of 1929 (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.

COOPERATION.--U.S. Army Corps of Engineers, Louisville District and Kentucky River Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 21	0700	*13,600	*20.47	May 19	1400	5,680	15.42

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	26	223	e76	399	104	3980	860	161	68	30	13
2	18	24	143	e68	484	104	3010	1610	144	64	26	15
3	17	24	94	e64	439	152	1360	3140	136	50	22	9.8
4	16	24	69	e60	401	194	898	1920	184	61	20	10
5	17	24	56	e56	347	173	685	1030	149	46	19	11
6	20	24	64	e54	294	163	564	761	159	37	17	9.6
7	18	21	259	71	276	163	489	985	200	31	14	8.7
8	20	21	327	78	264	157	441	2380	177	38	12	7.8
9	20	20	521	75	238	152	475	2100	144	43	11	7.7
10	19	21	384	100	215	167	537	1540	116	31	9.9	8.5
11	18	20	255	321	212	160	435	979	99	26	12	7.0
12	18	20	202	388	199	149	393	703	94	23	10	6.6
13	21	18	223	332	184	148	367	1560	201	98	8.7	6.5
14	65	18	292	276	169	148	364	2560	207	457	7.7	6.9
15	95	18	321	218	158	169	422	1420	251	311	7.7	8.6
16	74	18	282	181	153	1550	515	848	189	153	11	13
17	53	18	230	152	148	2400	456	739	135	102	14	26
18	39	18	301	141	139	2880	422	4080	105	76	18	24
19	32	18	391	140	129	3570	391	5230	86	65	21	19
20	27	20	305	144	132	7110	375	1830	72	60	27	14
21	24	20	227	158	157	11900	446	894	65	109	35	22
22	24	21	178	219	144	5640	1660	659	55	72	26	31
23	24	21	206	795	128	1440	1810	529	47	58	21	34
24	22	21	299	2930	118	914	918	445	42	52	15	25
25	39	31	240	3500	111	705	1270	382	40	87	13	20
26	57	58	190	1300	115	1640	1060	325	103	74	19	45
27	56	98	160	739	123	2180	787	281	86	68	26	329
28	46	92	e130	549	115	1300	1640	245	126	72	40	397
29	35	152	e110	455	---	1270	2630	254	158	60	25	198
30	30	256	e94	394	---	3970	1320	211	86	44	17	107
31	28	---	e85	361	---	4130	---	188	---	34	13	---
TOTAL	1011	1185	6861	14395	5991	54902	30120	40688	3817	2570	568.0	1440.7
MEAN	32.61	39.50	221.3	464.4	214.0	1771	1004	1313	127.2	82.90	18.32	48.02
MAX	95	256	521	3500	484	11900	3980	5230	251	457	40	397
MIN	16	18	56	54	111	104	364	188	40	23	7.7	6.5

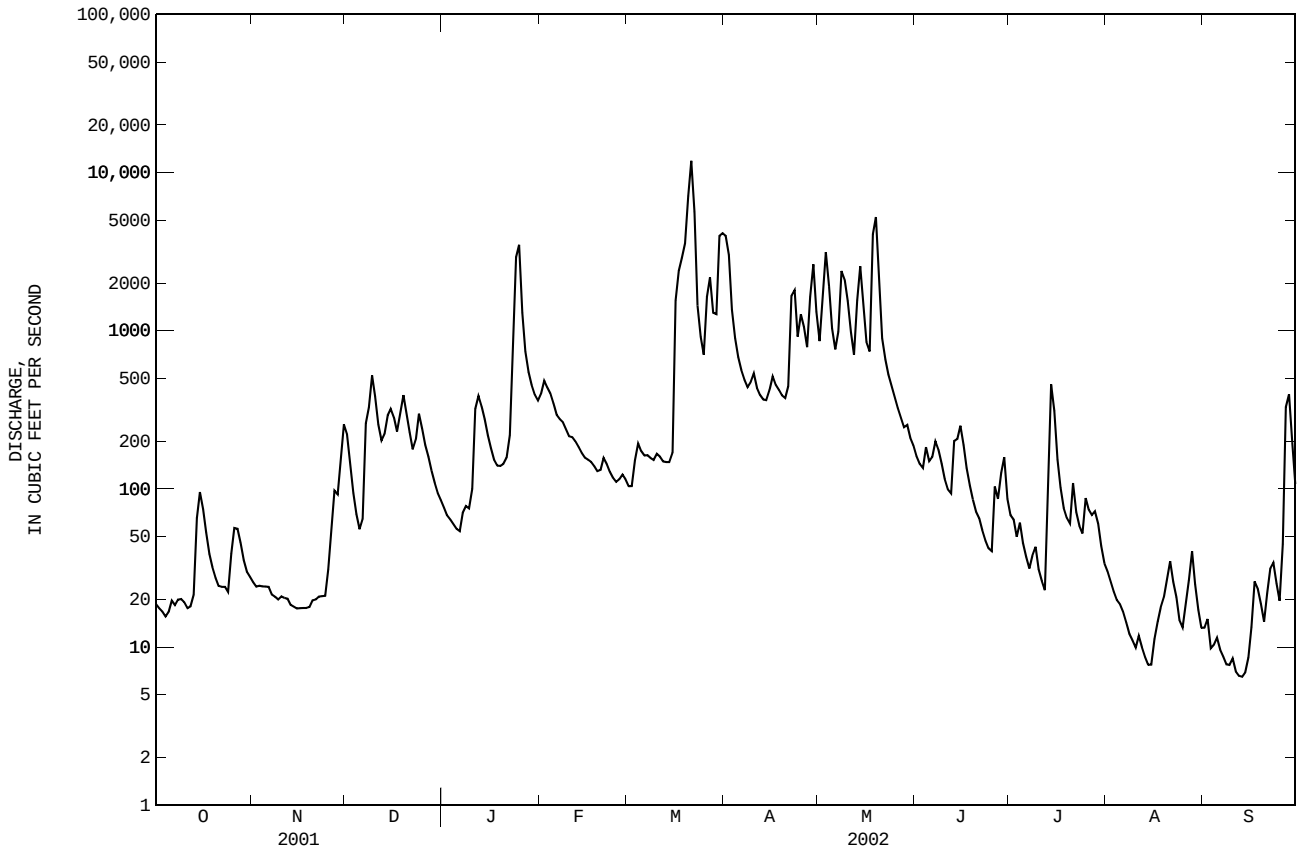
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2002, BY WATER YEAR (WY)

MEAN	84.53	262.0	591.8	771.7	988.6	1078	820.8	541.1	299.5	272.0	178.6	103.0
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

03283500 RED RIVER AT CLAY CITY, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1931 - 2002	
ANNUAL TOTAL	129042		163548.7			
ANNUAL MEAN	353.5		448.1		492.2	
HIGHEST ANNUAL MEAN					884	1989
LOWEST ANNUAL MEAN					158	1941
HIGHEST DAILY MEAN	9360	Jul 30	11900	Mar 21	26100	Dec 9 1978
LOWEST DAILY MEAN	16	Oct 4	6.5	Sep 13	1.2	Aug 10 1944
ANNUAL SEVEN-DAY MINIMUM	18	Oct 1	7.3	Sep 8	2.0	Oct 2 1930
MAXIMUM PEAK FLOW			13600	Mar 21	28800	Dec 9 1978
MAXIMUM PEAK STAGE			20.47	Mar 21	26.75	Dec 9 1978
INSTANTANEOUS LOW FLOW					1.2	Aug 10 1944
10 PERCENT EXCEEDS	665		1280		1160	
50 PERCENT EXCEEDS	161		123		177	
90 PERCENT EXCEEDS	24		18		22	

e Estimated



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 mi^2.

PERIOD OF RECORD.--October 1907 to current year.

REVISED RECORDS.--WSP 1275: 1908-52. 1955: Drainage area.

GAGE.--Water-stage recorder with telemetry. 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, December 1960 by Buckhorn Lake (station 03280800), since January 1976 by Carr Fork Lake (station 03277446).

COOPERATION.--Kentucky River Authority and U.S. Army Corps of Engineers, Louisville District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	490	411	1380	919	7400	1420	29200	9170	1470	1400	716	442
2	474	383	936	822	7440	1360	32200	9740	1710	1260	707	418
3	462	350	703	716	6800	1480	23100	23100	12600	1090	701	365
4	476	318	573	647	5780	1720	14800	31700	6090	933	632	322
5	513	295	495	628	5020	1780	11600	24300	2520	852	550	286
6	558	284	473	651	4350	1700	9440	15300	1830	934	484	262
7	525	279	1060	690	3700	1600	7560	13500	2020	957	423	244
8	494	269	1300	690	3150	1530	6010	16000	2560	814	372	226
9	484	259	1980	676	3410	1450	5010	15400	2620	738	333	211
10	490	242	1800	766	4380	1460	4700	12400	2060	649	304	192
11	517	220	1490	1460	4900	1460	4160	9850	1610	561	288	177
12	539	209	1680	2270	4840	1410	3920	7600	1360	509	325	163
13	518	202	2140	4420	4500	1360	3790	12000	2130	716	384	157
14	528	194	2920	4850	3900	1410	3750	19200	3070	2280	346	191
15	619	187	4750	3860	3330	1610	4430	18900	3270	3760	301	218
16	623	176	5070	3120	2980	6130	5620	11300	2680	3070	275	225
17	597	175	3870	2790	2670	10500	5160	8080	2050	1970	280	196
18	578	177	3260	2270	2520	19000	4490	24500	1640	1430	315	181
19	583	177	3040	1920	2300	35200	4180	24200	1320	1120	324	194
20	572	194	2810	1820	2070	62300	3860	15600	1110	1280	328	200
21	532	194	2740	2050	2060	64600	3740	8830	961	1330	370	271
22	516	187	2640	3520	2030	56200	5770	6420	852	2160	442	283
23	504	180	2740	7610	1900	28000	8620	5060	764	2110	458	302
24	520	181	3010	21600	1740	14700	7150	4090	727	1450	441	350
25	591	226	2580	31600	1600	11600	7890	3370	728	1240	404	599
26	582	253	2220	31700	1520	13800	10200	2880	711	1320	372	854
27	587	442	1950	22800	1520	17900	9080	2530	740	1300	338	1360
28	585	958	1570	12900	1490	15800	11500	2230	853	1210	314	2370
29	560	1330	1240	9670	---	13800	15400	2060	1040	1070	315	2510
30	495	1820	1120	8540	---	19600	13900	1960	1420	875	337	1980
31	434	---	1020	7820	---	20100	---	1710	---	756	405	---
TOTAL	16546	10772	64560	195795	99300	431980	280230	362980	64516	41144	12584	15749
MEAN	533.7	359.1	2083	6316	3546	13930	9341	11710	2151	1327	405.9	525.0
MAX	623	1820	5070	31700	7440	64600	32200	31700	12600	3760	716	2510
MIN	434	175	473	628	1490	1360	3740	1710	711	509	275	157

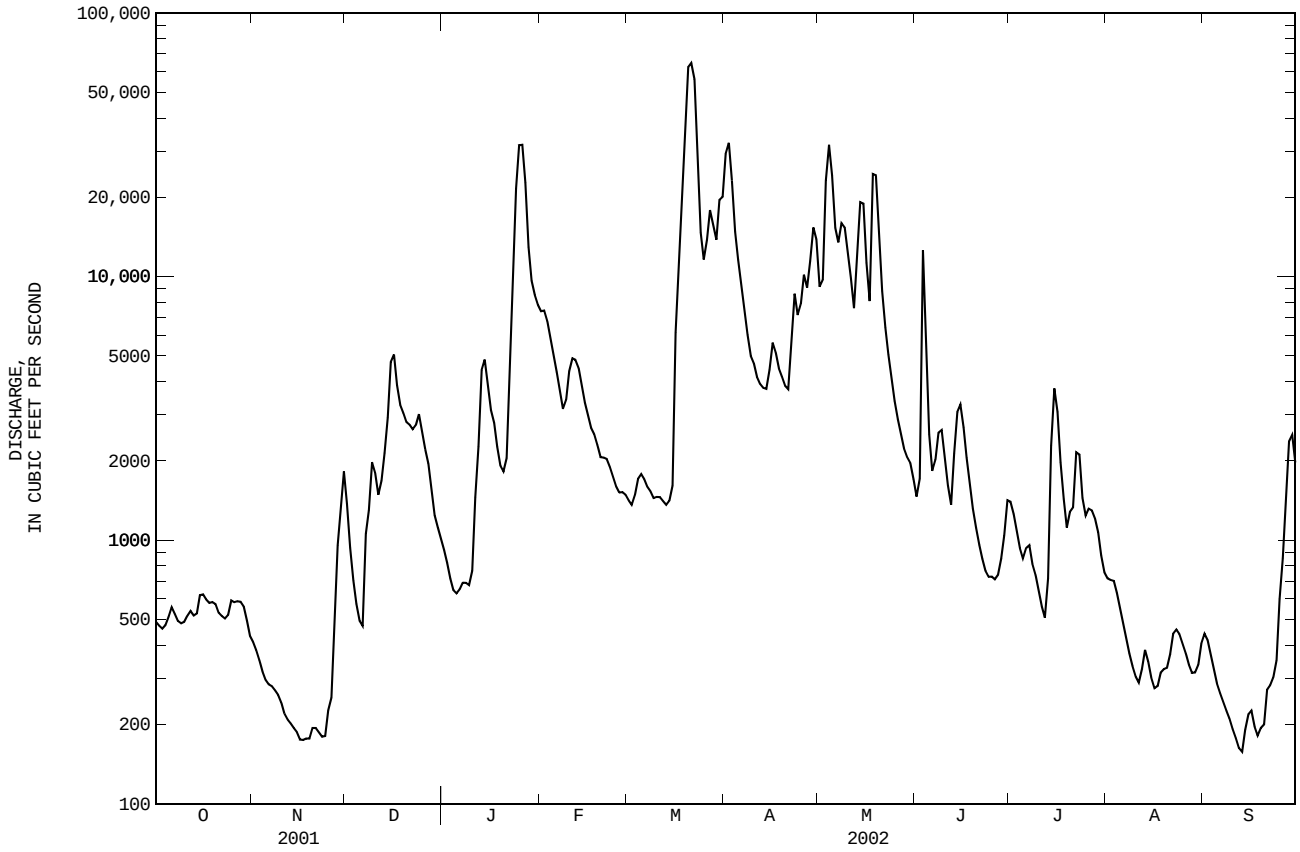
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2002, BY WATER YEAR (WY)

MEAN	1459	3183	6696	8553	9816	12000	9235	6607	3406	1795	1503	1118
MAX	12850	10270	23400	25490	25060	27650	26100	19600	15220	4640	4916	6676
(WY)	1990	1987	1979	1974	1989	1975	1972	1984	1997	1992	1992	1974
MIN	177	359	416	446	2011	3125	1177	1031	265	292	258	102
(WY)	1970	2002	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 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1961 - 2002	
ANNUAL TOTAL	1164813		1596156			
ANNUAL MEAN	3191		4373		5428	
HIGHEST ANNUAL MEAN					9815	1994
LOWEST ANNUAL MEAN					2228	1988
HIGHEST DAILY MEAN	38900	Feb 18	64600	Mar 21	99100	Dec 10 1978
LOWEST DAILY MEAN	175	Nov 17	157	Sep 13	22	Oct 1 1999
ANNUAL SEVEN-DAY MINIMUM	183	Nov 14	183	Nov 14	72	Sep 7 1999
MAXIMUM PEAK FLOW			67600	Mar 20	101000	Dec 10 1978
MAXIMUM PEAK STAGE			28.08	Mar 20	40.15	Dec 10 1978
10 PERCENT EXCEEDS	8280		12700		13800	
50 PERCENT EXCEEDS	1330		1450		2300	
90 PERCENT EXCEEDS	303		277		328	



03284230 KENTUCKY RIVER AT LOCK 9 AT VALLEY VIEW, KY

LOCATION.--Lat 37°50'36", long 84°26'27", Madison County, Hydrologic Unit 05100205, At Lock and Dam No. 9 at Valley View, 1.0 mi below Tate Creek, and at mile 157.9.

DRAINAGE AREA.--4,101 mi^2.

PERIOD OF RECORD.--October 1999 to current year.

REVISIONS.--Peak discharge for the water year 2001 has been revised to 34,800 ft^3/s February 18, 2001 based on rating number 2.

GAGE.--Water-stage recorder. Datum of gage is 538.71 ft above NGVD of 1929.

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

COOPERATION.--Kentucky River Authority.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

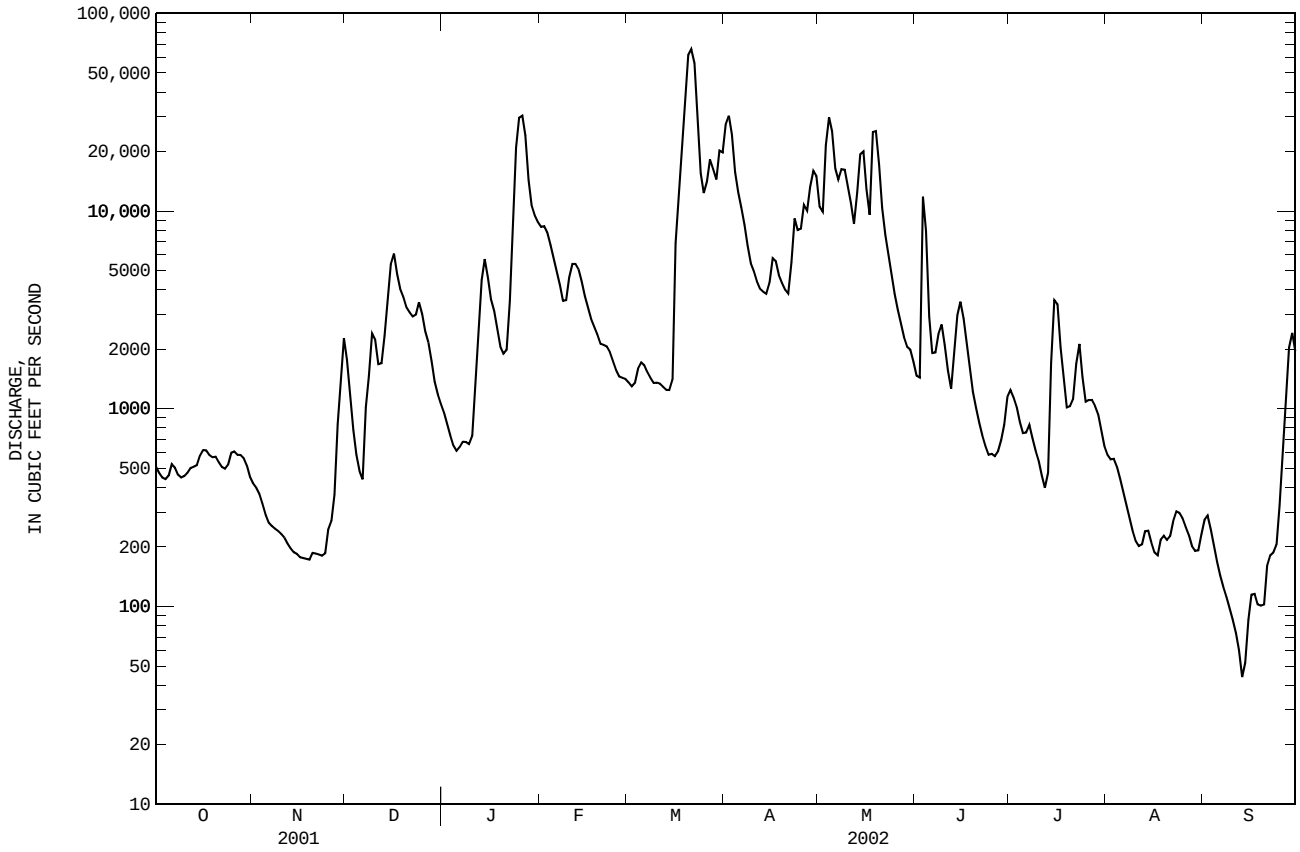
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	509	419	1770	956	8330	1360	27400	10500	1470	1250	584	274
2	473	399	1150	842	8390	1300	30400	9930	1440	1140	555	288
3	449	370	780	733	7810	1350	24400	21600	11800	1020	558	245
4	441	331	585	653	6760	1600	15700	29900	7960	856	511	203
5	460	292	483	613	5830	1720	12500	25300	2930	755	444	169
6	525	266	440	641	4970	1660	10400	16400	1910	758	384	143
7	504	255	1020	682	4220	1530	8480	14400	1930	830	327	126
8	464	248	1460	679	3520	1430	6700	16300	2390	713	281	112
9	449	241	2410	664	3550	1350	5450	16200	2670	615	242	99
10	456	233	2240	730	4630	1360	4980	13400	2100	547	214	86
11	475	223	1680	1360	5410	1340	4400	11000	1560	459	202	74
12	501	208	1700	2360	5410	1290	4050	8620	1260	399	206	60
13	509	197	2340	4480	5060	1250	3910	12400	1890	475	240	44
14	518	188	3550	5710	4410	1250	3820	19400	2980	1700	242	52
15	578	184	5370	4600	3720	1410	4340	20000	3480	3550	211	85
16	619	178	6090	3590	3250	6900	5780	12900	2860	3380	188	115
17	617	176	4830	3130	2850	11300	5590	9570	2120	2050	181	116
18	584	174	4040	2540	2600	18000	4740	25100	1580	1390	217	102
19	569	173	3680	2060	2380	31000	4340	25400	1220	1020	228	101
20	572	187	3260	1910	2130	61500	4000	17100	1010	1030	217	102
21	539	185	3070	1990	2110	65900	3830	10400	850	1120	227	160
22	509	183	2940	3500	2070	56100	5500	7560	734	1690	269	182
23	498	181	3000	7850	1940	30700	9180	5930	647	2130	302	188
24	521	186	3460	21000	1750	15500	8030	4710	587	1450	298	206
25	600	245	3020	29700	1570	12300	8140	3820	592	1090	279	326
26	609	271	2470	30400	1460	14200	10800	3170	576	1110	252	625
27	585	368	2170	24200	1430	18300	10000	2690	610	1110	230	1080
28	584	835	1740	14400	1410	16300	13300	2300	696	1040	201	2040
29	563	1300	1370	10700	---	14500	16000	2050	832	939	191	2420
30	516	2280	1180	9520	---	20200	15100	1990	1150	779	192	1950
31	453	---	1060	8790	---	19800	---	1730	---	648	231	---
TOTAL	16249	10976	74358	200983	108970	433700	291260	381770	63834	37043	8904	11773
MEAN	524.2	365.9	2399	6483	3892	13990	9709	12320	2128	1195	287.2	392.4
MAX	619	2280	6090	30400	8390	65900	30400	29900	11800	3550	584	2420
MIN	441	173	440	613	1410	1250	3820	1730	576	399	181	44

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	379.9	463.6	2495	3990	7191	8780	7482	5533	2171	2975	2033	494.6
MAX	524	602	3770	6483	10410	13990	9709	12320	2330	4145	3933	656
(WY)	2002	2001	2001	2002	2001	2002	2002	2002	2001	2001	2001	2000
MIN	256	366	1317	1452	3892	4572	3631	1652	2056	1195	287	392
(WY)	2000	2002	2000	2000	2002	2000	2001	2001	2000	2002	2002	2002

03284230 KENTUCKY RIVER AT LOCK 9 AT VALLEY VIEW, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL TOTAL	1252712		1639820			
ANNUAL MEAN	3432		4493		3651	
HIGHEST ANNUAL MEAN					4493	2002
LOWEST ANNUAL MEAN					2909	2000
HIGHEST DAILY MEAN	38400	Feb 18	65900	Mar 21	65900	Mar 21 2002
LOWEST DAILY MEAN	173	Nov 19	44	Sep 13	9.7	Sep 19 1999
ANNUAL SEVEN-DAY MINIMUM	179	Nov 16	71	Sep 9	9.8	Sep 13 1999
MAXIMUM PEAK FLOW			69600	Mar 20	69600	Mar 20 2002
MAXIMUM PEAK STAGE			34.47	Mar 20	34.47	Mar 20 2002
10 PERCENT EXCEEDS	9060		13700		9810	
50 PERCENT EXCEEDS	1340		1370		1320	
90 PERCENT EXCEEDS	327		202		252	



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 mi^2.

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

GAGE.--Water-stage recorder with telemetry. Elevation of gage is 980 ft above NGVD of 1929 from topographic map.

REMARKS.--Records fair except for December and January, which are poor.

COOPERATION.--Lexington-Fayette Urban County Government.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

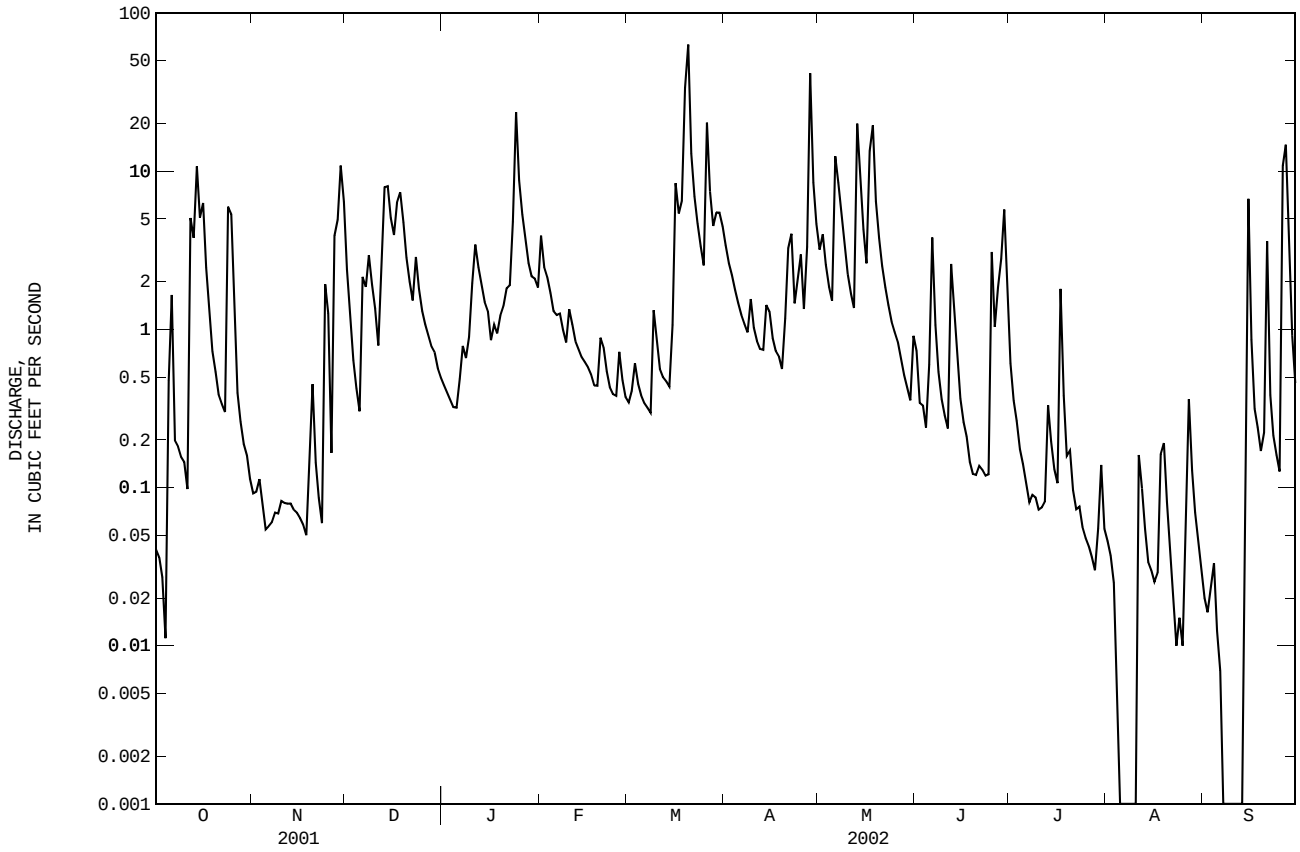
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.04	0.09	2.4	0.44	3.9	0.35	3.4	3.2	0.73	0.61	0.05	0.02
2	0.04	0.09	1.2	0.40	2.5	0.41	2.6	4.0	0.34	0.35	0.04	0.02
3	0.03	0.11	0.64	0.36	2.1	0.61	2.2	2.6	0.33	0.26	0.02	0.02
4	0.01	0.08	0.43	0.32	1.7	0.45	1.8	1.9	0.24	0.17	0.0	0.03
5	0.48	0.05	0.30	0.32	1.3	0.38	1.5	1.5	0.60	0.14	0.00	0.01
6	1.7	0.06	2.1	0.49	1.2	0.34	1.2	12	3.8	0.11	0.00	0.0
7	0.20	0.06	1.9	0.79	1.3	0.32	1.1	8.5	1.1	0.08	0.00	0.00
8	0.18	0.07	2.9	0.66	1.00	0.30	0.96	5.2	0.54	0.09	0.00	0.00
9	0.16	0.07	1.9	0.89	0.83	1.3	1.6	3.4	0.36	0.09	0.00	0.00
10	0.14	0.08	1.4	2.0	1.3	0.87	1.0	2.2	0.29	0.07	0.00	0.00
11	0.10	0.08	0.79	3.4	1.1	0.56	0.84	1.7	0.24	0.07	0.16	0.00
12	5.1	0.08	2.6	2.5	0.84	0.50	0.75	1.4	2.6	0.08	0.10	0.00
13	3.8	0.08	7.9	1.9	0.75	0.47	0.74	20	1.3	0.33	0.05	0.00
14	11	0.07	8.1	1.5	0.67	0.44	1.4	9.0	0.66	0.20	0.03	0.05
15	5.1	0.07	5.1	1.3	0.62	1.1	1.3	4.3	0.36	0.13	0.03	6.7
16	6.3	0.06	4.0	0.86	0.58	8.4	0.88	2.6	0.26	0.11	0.03	0.86
17	2.5	0.06	6.3	1.1	0.52	5.4	0.73	13	0.21	1.8	0.03	0.31
18	1.3	0.05	7.4	0.94	0.44	6.5	0.67	20	0.15	0.38	0.16	0.24
19	0.73	0.17	4.7	1.2	0.44	34	0.56	6.4	0.12	0.16	0.19	0.17
20	0.54	0.45	2.8	1.4	0.89	63	1.2	3.8	0.12	0.17	0.08	0.22
21	0.39	0.14	2.0	1.8	0.77	13	3.3	2.5	0.14	0.10	0.04	3.6
22	0.34	0.09	1.5	1.9	0.54	6.9	4.0	1.8	0.13	0.07	0.02	0.38
23	0.30	0.06	2.9	4.8	0.43	4.7	1.5	1.4	0.12	0.08	0.01	0.21
24	6.0	1.9	1.8	24	0.39	3.4	2.1	1.1	0.12	0.06	0.02	0.16
25	5.4	1.3	1.3	8.8	0.38	2.5	3.0	0.96	3.1	0.05	0.01	0.13
26	1.3	0.17	1.1	5.3	0.72	20	1.3	0.83	1.0	0.04	0.08	11
27	0.40	3.9	0.91	3.7	0.48	7.5	3.3	0.65	1.8	0.04	0.36	15
28	0.26	4.9	0.78	2.6	0.37	4.5	42	0.52	2.8	0.03	0.13	2.8
29	0.19	11	0.72	2.2	---	5.5	8.5	0.43	5.7	0.06	0.07	0.91
30	0.16	6.4	0.57	2.1	---	5.5	4.6	0.36	1.5	0.14	0.04	0.46
31	0.11	---	0.50	1.8	---	4.5	---	0.91	---	0.05	0.03	---
TOTAL	54.30	31.79	78.94	81.77	28.06	203.70	100.03	138.16	30.76	6.12	1.78	43.30
MEAN	1.752	1.060	2.546	2.638	1.002	6.571	3.334	4.457	1.025	0.197	0.057	1.443
MAX	11	11	8.1	24	3.9	63	42	20	5.7	1.8	0.36	15
MIN	0.01	0.05	0.30	0.32	0.37	0.30	0.56	0.36	0.12	0.03	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2002, BY WATER YEAR (WY)

MEAN	0.890	0.636	1.734	3.131	3.353	3.977	2.561	2.408	1.945	1.774	0.394	0.789
MAX	1.75	1.06	2.55	5.69	4.96	6.57	5.34	4.46	6.73	4.78	1.56	2.20
(WY)	2002	2002	2002	1998	1998	2002	1998	2002	1998	1998	2001	2000
MIN	0.19	0.37	1.02	1.18	1.00	2.82	0.82	0.31	0.41	0.20	0.046	0.013
(WY)	2001	1999	2000	2001	2002	1998	2001	1999	1999	2002	1999	1999

03284520 EAST HICKMAN CREEK AT ANDOVER VILLAGE NEAR CADENTOWN, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1998 - 2002	
ANNUAL TOTAL	647.27		798.71			
ANNUAL MEAN	1.773		2.188		1.961	
HIGHEST ANNUAL MEAN					3.07	1998
LOWEST ANNUAL MEAN					1.48	1999
HIGHEST DAILY MEAN	21	May 19	63	Mar 20	63	Mar 20 2002
LOWEST DAILY MEAN	0.00	Sep 17	0.00	Aug 4	0.00	Sep 20 1998
ANNUAL SEVEN-DAY MINIMUM	0.03	Sep 12	0.00	Aug 4	0.00	Aug 31 1999
MAXIMUM PEAK FLOW			155	Mar 20	205	Jul 20 1998
MAXIMUM PEAK STAGE			4.19	Mar 20	4.63	Jul 20 1998
INSTANTANEOUS LOW FLOW			0.00	Oct 5	0.00	Oct 1 1999
10 PERCENT EXCEEDS	5.1		5.3		5.0	
50 PERCENT EXCEEDS	0.51		0.64		0.46	
90 PERCENT EXCEEDS	0.10		0.04		0.04	



03284530 EAST HICKMAN CREEK AT DELONG ROAD 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 mi^2.

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

GAGE.--Water-stage recorder with telemetry. Datum of gage is 913.491 ft above NGVD of 1929.

REMARKS.--Records fair except for those estimated and those below 1.0 ft^3/s, which are poor.

COOPERATION.--Lexington-Fayette Urban County Government.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

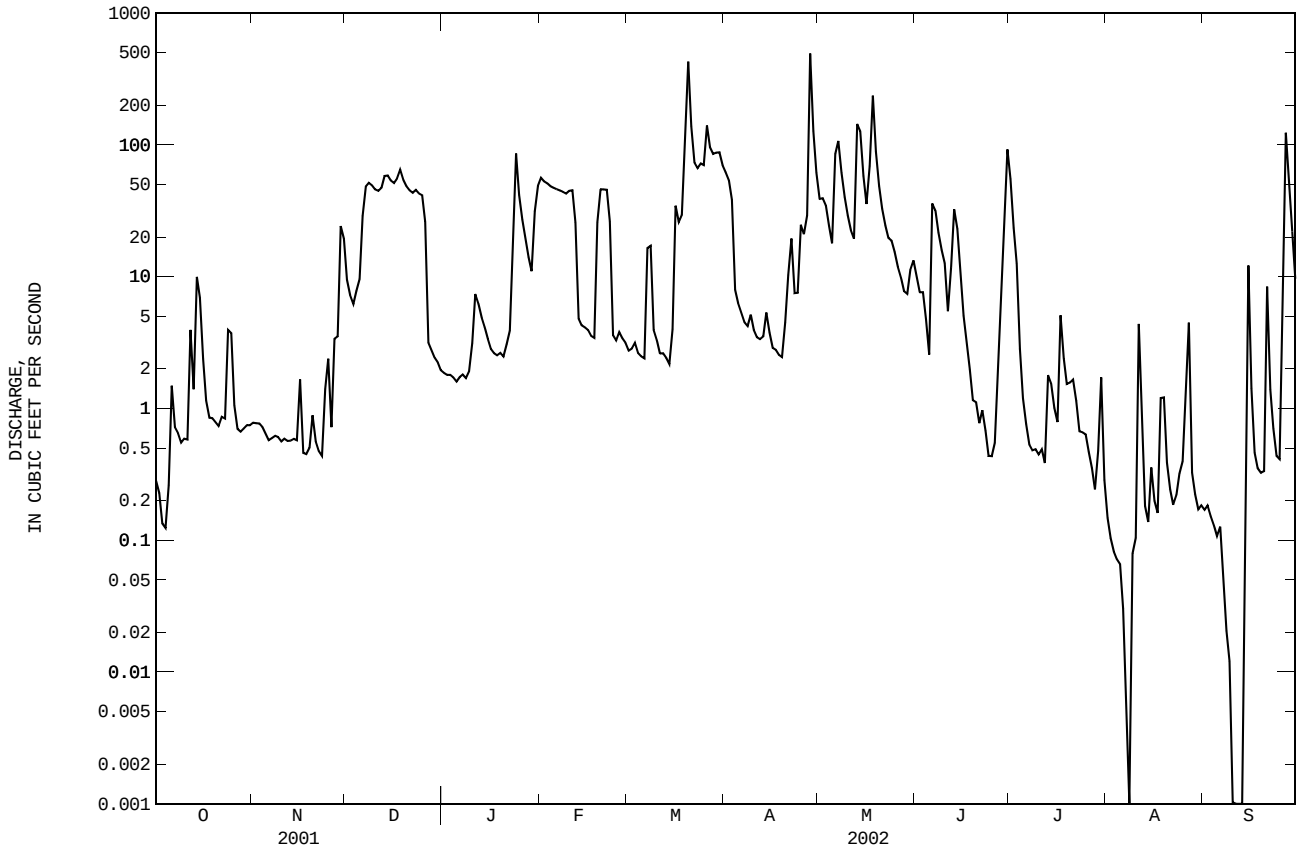
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.28	0.78	9.5	1.9	56	2.8	62	39	10	55	0.15	0.17
2	0.23	0.77	7.2	1.8	53	2.8	54	39	7.6	23	0.10	0.18
3	0.13	0.77	6.2	1.8	51	3.2	38	35	7.6	13	0.08	0.15
4	0.12	0.72	7.8	1.7	49	2.6	8.0	24	4.8	2.8	0.07	0.13
5	0.26	0.64	9.6	1.6	47	2.5	6.3	18	2.6	1.2	0.07	0.11
6	1.5	0.58	29	1.7	46	2.4	5.3	85	36	0.76	0.03	0.13
7	0.72	0.60	48	1.8	45	17	4.5	107	32	0.53	0.0	0.06
8	0.65	0.62	52	1.7	44	17	4.2	61	22	0.48	0.00	0.02
9	0.55	0.61	49	1.9	43	3.9	5.2	40	16	0.49	0.08	0.01
10	0.59	0.56	46	3.1	45	3.3	3.9	29	13	0.45	0.10	0.00
11	0.58	0.59	45	7.4	45	2.6	3.5	22	5.5	0.49	4.4	0.00
12	3.9	0.57	47	6.2	26	2.6	3.4	19	12	0.39	0.64	0.00
13	1.4	0.57	58	4.9	4.8	2.4	3.5	144	32	1.8	0.18	0.00
14	10	0.59	59	4.1	4.3	2.2	5.3	127	23	1.6	0.14	0.0
15	6.9	0.57	54	3.4	4.1	4.0	3.8	58	11	1.0	0.36	12
16	2.4	1.7	51	2.8	3.9	35	2.9	36	5.0	0.79	0.20	1.4
17	1.1	0.46	56	2.6	3.6	26	2.8	69	3.2	5.1	0.16	0.46
18	0.85	0.45	65	2.5	3.4	29	2.5	237	2.0	2.4	1.2	0.35
19	0.84	0.50	54	2.6	26	118	2.5	89	1.2	1.5	1.2	0.32
20	0.79	0.89	49	2.5	46	429	4.5	49	1.1	1.6	0.39	0.33
21	0.73	0.56	45	3.1	46	139	10	33	0.77	1.7	0.24	8.4
22	0.87	0.48	43	3.9	46	73	19	24	0.97	1.1	0.19	1.4
23	0.84	0.44	46	19	26	67	7.5	20	0.68	0.67	0.22	0.71
24	3.9	1.4	43	86	3.6	72	7.6	19	0.44	0.66	0.32	0.44
25	3.7	2.4	42	42	3.3	70	25	15	0.43	0.64	0.40	0.41
26	1.1	0.72	26	27	3.8	140	21	12	0.55	0.47	1.5	22
27	0.70	3.4	3.2	20	3.4	96	29	9.8	3.9	0.35	4.5	124
28	0.67	3.5	2.8	14	3.2	85	494	7.8	15	0.24	0.33	56
29	0.70	24	2.4	11	---	87	128	7.4	41	0.48	0.22	22
30	0.75	19	2.2	31	---	88	61	11	92	1.7	0.17	9.7
31	0.75	---	2.0	49	---	70	---	13	---	0.29	0.18	---
TOTAL	48.50	69.44	1059.9	364.0	781.4	1695.3	1028.2	1499.0	403.34	122.68	17.82	260.88
MEAN	1.565	2.315	34.19	11.74	27.91	54.69	34.27	48.35	13.44	3.957	0.575	8.696
MAX	10	24	65	86	56	429	494	237	92	55	4.5	124
MIN	0.12	0.44	2.0	1.6	3.2	2.2	2.5	7.4	0.43	0.24	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2002, BY WATER YEAR (WY)

MEAN	1.761	2.062	13.76	17.49	32.89	33.38	17.73	23.45	11.32	11.44	4.684	5.935
MAX	2.47	3.57	34.7	36.4	41.8	55.6	34.9	48.0	33.0	28.7	10.9	19.2
(WY)	1999	1998	2002	1999	2001	2002	2002	2002	1998	1998	2001	2000
MIN	1.00	1.25	1.70	3.94	27.6	12.9	7.25	1.86	1.24	3.40	0.092	0.18
(WY)	1998	1999	2000	2000	1999	1998	1999	2000	1999	1999	1999	1999

03284530 EAST HICKMAN CREEK AT DELONG ROAD NEAR EAST HICKMAN, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1998 - 2002	
ANNUAL TOTAL	6225.01		7350.46			
ANNUAL MEAN	17.05		20.14		14.58	
HIGHEST ANNUAL MEAN					20.3	2002
LOWEST ANNUAL MEAN					9.86	1999
HIGHEST DAILY MEAN	394	May 19	494	Apr 28	512	Jul 20 1998
LOWEST DAILY MEAN	0.12	Oct 4	0.00	Aug 7	0.00	Aug 1 1999
ANNUAL SEVEN-DAY MINIMUM	0.34	Sep 13	0.00	Sep 8	0.00	Aug 17 1999
MAXIMUM PEAK FLOW			1430	Mar 20	1470	Feb 18 2000
MAXIMUM PEAK STAGE			6.31	Mar 20	6.31	Mar 20 2002
INSTANTANEOUS LOW FLOW			0.00	Sep 13	0.00	Sep 13 2002
10 PERCENT EXCEEDS	47		54		38	
50 PERCENT EXCEEDS	2.8		3.4		2.8	
90 PERCENT EXCEEDS	0.61		0.24		0.36	



03284555 WEST HICKMAN CREEK AT ASH GROVE PIKE 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 mi^2.

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

GAGE.--Water-stage recorder with telemetry. Elevation of gage is 868.402 ft above NGVD of 1929.

REMARKS.--Record fair.

COOPERATION.--Lexington-Fayette Urban County Government.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	27	93	32	94	28	86	92	32	59	23	31
2	21	27	66	29	66	31	69	100	31	44	24	34
3	22	30	51	29	57	35	62	77	30	34	25	33
4	22	30	44	28	47	29	53	66	29	29	25	33
5	30	29	40	29	42	28	48	58	40	25	25	34
6	43	29	66	33	39	27	44	242	121	23	25	34
7	28	30	67	37	38	28	43	186	47	22	23	37
8	27	30	88	35	35	28	39	121	36	21	25	37
9	24	30	68	38	34	70	50	96	33	20	26	35
10	25	31	54	50	45	40	42	74	30	20	27	35
11	30	30	44	72	38	31	40	63	28	20	53	36
12	70	29	65	57	35	28	38	57	72	20	31	36
13	42	28	131	49	32	28	40	372	58	32	30	36
14	121	28	101	43	31	29	55	196	40	24	33	45
15	49	28	73	39	30	65	47	110	33	21	38	59
16	56	28	69	38	30	283	42	83	29	20	30	68
17	38	31	99	36	29	128	39	212	27	26	34	51
18	33	31	111	37	28	152	38	343	28	22	56	42
19	29	34	76	41	27	558	38	137	24	21	41	37
20	28	44	61	44	32	1190	57	93	24	64	33	37
21	28	32	52	56	32	328	109	73	24	30	30	68
22	26	28	46	62	28	169	166	61	24	24	30	43
23	26	27	69	131	29	116	72	54	23	22	29	35
24	107	50	53	437	28	89	82	46	23	21	29	33
25	87	54	44	164	27	74	145	42	22	22	30	29
26	43	31	42	102	38	392	75	39	28	21	38	e75
27	36	91	39	79	30	168	114	38	41	22	49	e100
28	33	86	37	64	29	104	766	37	29	22	35	e200
29	31	269	36	55	---	163	213	34	33	24	33	e90
30	29	189	34	56	---	152	125	33	110	33	32	e60
31	26	---	33	50	---	106	---	31	---	25	32	---
TOTAL	1232	1461	1952	2052	1050	4697	2837	3266	1149	833	994	1523
MEAN	39.74	48.70	62.97	66.19	37.50	151.5	94.57	105.4	38.30	26.87	32.06	50.77
MAX	121	269	131	437	94	1190	766	372	121	64	56	200
MIN	21	27	33	28	27	27	38	31	22	20	23	29

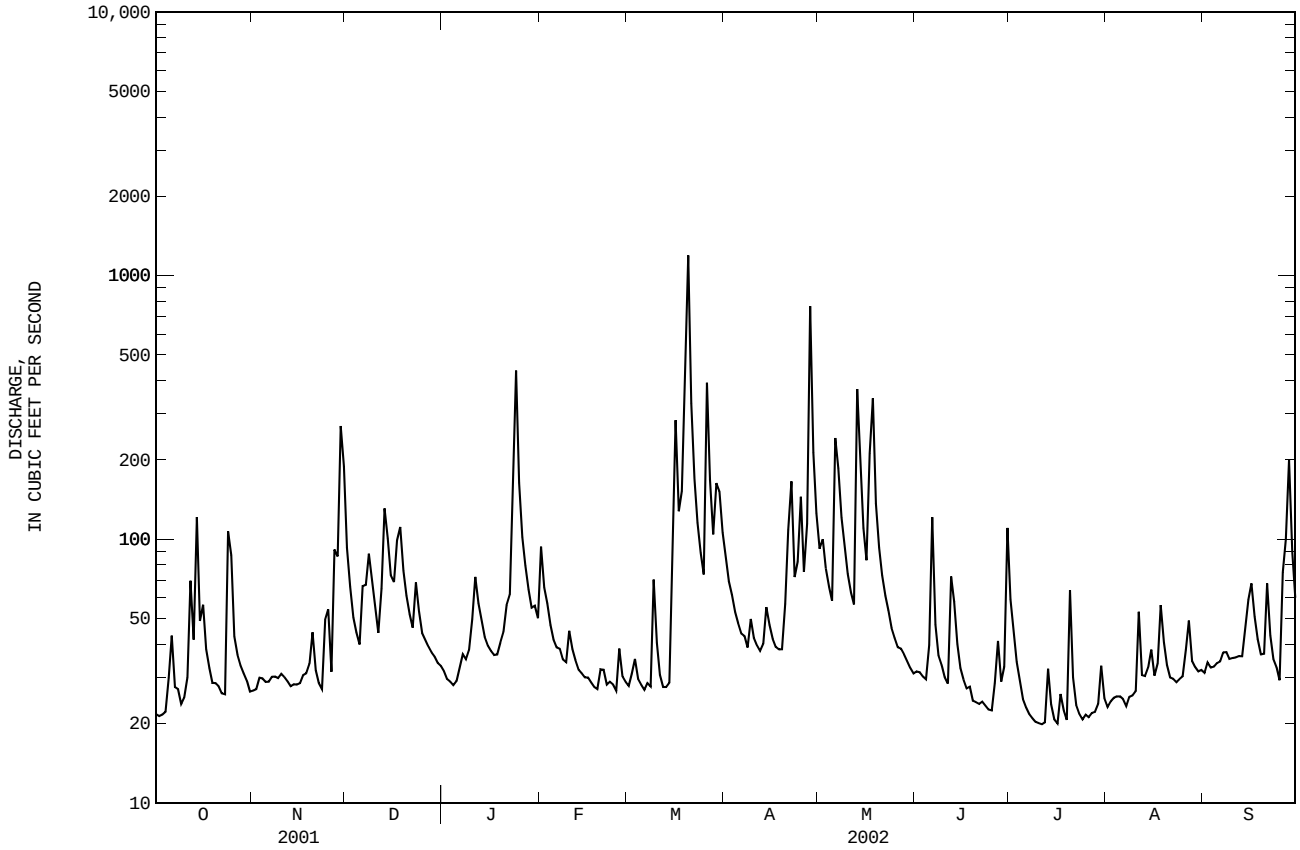
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2002, BY WATER YEAR (WY)

MEAN	30.21	33.03	53.10	71.97	79.76	95.60	68.43	74.85	57.11	52.67	36.78	38.11
MAX	39.7	48.7	67.2	103	96.5	152	110	108	135	105	58.1	69.8
(WY)	2002	2002	2001	1999	2000	2002	1998	1998	1998	1998	2001	2000
MIN	26.3	23.6	33.4	42.6	37.5	67.8	39.6	31.0	26.7	25.6	20.6	18.9
(WY)	2000	2000	2000	2001	2002	1998	2001	1999	1999	1999	1999	1999

03284555 WEST HICKMAN CREEK AT ASH GROVE PIKE NEAR EAST HICKMAN, KY

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1998 - 2002	
ANNUAL TOTAL	21306		23046			
ANNUAL MEAN	58.37		63.14		57.56	
HIGHEST ANNUAL MEAN					75.2	1998
LOWEST ANNUAL MEAN					45.0	1999
HIGHEST DAILY MEAN	526	May 19	1190	Mar 20	1190	Mar 20 2002
LOWEST DAILY MEAN	20	May 15	20	Jul 9	12	Nov 5 1998
ANNUAL SEVEN-DAY MINIMUM	22	Sep 28	21	Jul 6	17	Aug 16 1999
MAXIMUM PEAK FLOW			2610	Mar 20	3040	Jul 20 1998
MAXIMUM PEAK STAGE			6.73	Mar 20	7.43	Jul 20 1998
INSTANTANEOUS LOW FLOW			4.9	Aug 7	1.4	Nov 5 1998
10 PERCENT EXCEEDS	107		110		106	
50 PERCENT EXCEEDS	38		37		35	
90 PERCENT EXCEEDS	25		25		21	

e Estimated



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 at mile 34.6.

DRAINAGE AREA.--318 mi^2.

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 with telemetry. Datum of gage is 750.10 ft above NGVD of 1929. 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 those estimated, which are poor.

COOPERATION.--Kentucky Natural Resources and Environmental Protection Cabinet.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 20	1800	1800	12.61	May 7	2200	11,400	10.45
May 2	0600	9,480	9.62	May 18	0800	12,400	10.82
May 7	0600	11,400	10.44				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	26	609	e73	361	114	4130	482	66	46	22	1.2
2	3.3	24	280	e65	502	106	1320	6470	57	34	17	1.1
3	3.7	20	184	e60	401	107	830	4520	e66	27	13	1.1
4	3.8	16	137	e60	341	109	612	1440	123	23	11	1.1
5	3.6	13	106	e63	278	99	470	900	86	24	9.4	1.0
6	4.4	12	88	e67	237	88	383	697	61	18	6.8	1.2
7	4.7	11	107	e73	234	83	317	9210	87	13	5.0	1.3
8	7.6	9.5	431	85	242	79	271	4760	136	11	3.5	1.3
9	8.0	8.7	1240	80	272	76	244	1500	82	9.8	2.7	1.2
10	6.5	7.3	570	99	309	109	278	1050	54	8.4	2.1	1.1
11	6.0	6.6	349	230	398	139	242	696	41	7.1	1.6	0.98
12	6.1	6.9	268	398	407	123	206	508	35	6.3	1.4	0.81
13	7.3	7.3	544	312	343	117	182	3790	32	14	1.2	0.63
14	12	7.3	1020	245	282	112	177	2470	115	184	1.0	0.53
15	30	7.3	944	202	245	104	195	1040	193	129	0.81	0.50
16	44	7.3	546	168	220	1310	245	667	99	71	0.69	0.50
17	49	7.3	400	146	194	1270	184	589	60	44	0.70	0.50
18	56	7.3	486	140	169	3160	160	9140	45	37	1.3	0.83
19	47	8.4	524	139	149	3760	139	4330	38	28	2.2	1.3
20	39	9.8	371	152	143	12800	123	1070	32	56	2.8	1.2
21	34	9.5	274	162	157	7030	116	688	26	53	2.6	1.6
22	28	9.5	220	e1830	167	1870	992	496	21	63	2.1	2.3
23	26	9.5	219	e6720	143	1020	607	381	17	35	1.9	3.8
24	25	11	574	e6540	128	726	307	294	14	664	1.6	3.7
25	20	25	447	3440	116	556	966	235	12	390	1.4	3.5
26	40	67	314	1230	112	2150	770	191	11	170	1.5	15
27	96	76	248	801	128	2470	e500	161	15	97	1.6	66
28	64	80	209	587	131	1080	e8000	138	66	74	1.5	278
29	45	284	178	463	---	770	e5500	117	125	55	1.2	183
30	36	1280	152	387	---	675	712	96	71	38	1.2	85
31	30	---	e88	347	---	1690	---	79	---	29	1.2	---
TOTAL	789.2	2074.5	12127	25364	6809	43902	29178	58205	1886	2458.6	124.00	661.28
MEAN	25.46	69.15	391.2	818.2	243.2	1416	972.6	1878	62.87	79.31	4.000	22.04
MAX	96	1280	1240	6720	502	12800	8000	9210	193	664	22	278
MIN	3.2	6.6	88	60	112	76	116	79	11	6.3	0.69	0.50
CFSM	0.08	0.22	1.23	2.57	0.76	4.45	3.06	5.90	0.20	0.25	0.01	0.07
IN.	0.09	0.24	1.42	2.97	0.80	5.14	3.41	6.81	0.22	0.29	0.01	0.08

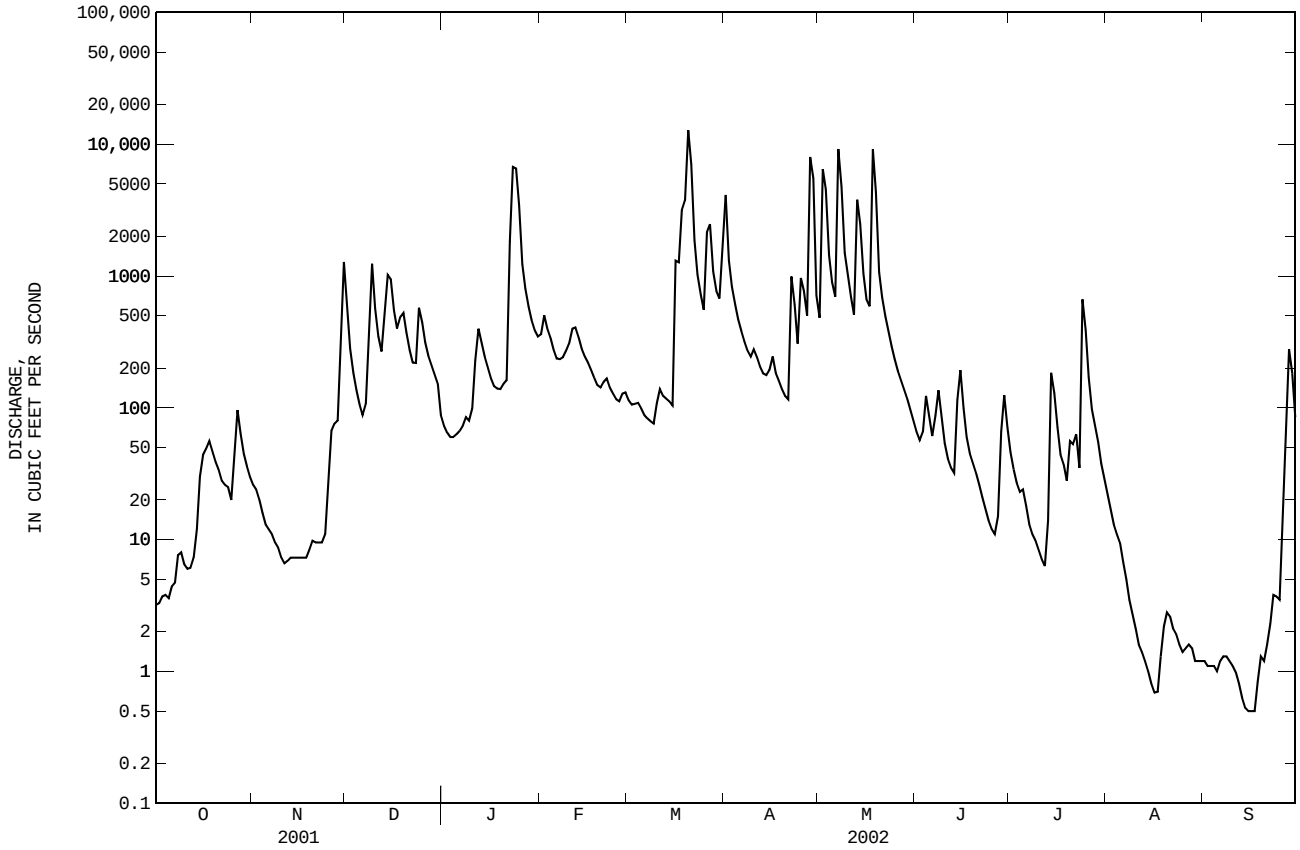
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2002, BY WATER YEAR (WY)

MEAN	95.06	291.1	646.0	795.5	968.8	1012	668.2	474.5	274.0	171.7	92.63	149.3
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	0.000	0.030	0.69	17.0	72.1	174	57.1	51.8	8.83	0.31	0.93	0.013
(WY)	1953	1954	1954	1981	1954	1983	1986	1976	1988	1944	1952	1953

03285000 DIX RIVER NEAR DANVILLE, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1943 - 2002	
ANNUAL TOTAL	96314.1		183578.58			
ANNUAL MEAN	263.9		503.0		467.5	
HIGHEST ANNUAL MEAN					1184	1979
LOWEST ANNUAL MEAN					119	1954
HIGHEST DAILY MEAN	5160	Feb 17	12800	Mar 20	35100	Jul 20 1996
LOWEST DAILY MEAN	2.4	Sep 24	0.50	Sep 15	0.00	Jul 21 1944
ANNUAL SEVEN-DAY MINIMUM	3.3	Sep 18	0.61	Sep 12	0.00	Jul 29 1944
MAXIMUM PEAK FLOW			17700	Mar 20	52400	Jul 20 1996
MAXIMUM PEAK STAGE			12.61	Mar 20	21.81	Dec 9 1978
ANNUAL RUNOFF (CFSM)	0.83		1.58		1.47	
ANNUAL RUNOFF (INCHES)	11.27		21.48		19.97	
10 PERCENT EXCEEDS	615		1020		1050	
50 PERCENT EXCEEDS	65		96		120	
90 PERCENT EXCEEDS	7.3		1.6		2.9	

e Estimated



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 mi^2.

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 with telemetry. Datum of gage is 503.92 ft above sea level, Kentucky River datum.

REMARKS.--Estimated daily discharges: Oct. 1 to Sept. 30. Discharge computed using percent of drainage area of Kentucky River at Lock #9 and Lock #6. Record fair above 1,000 ft^3/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.

COOPERATION.--Kentucky Utilities.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

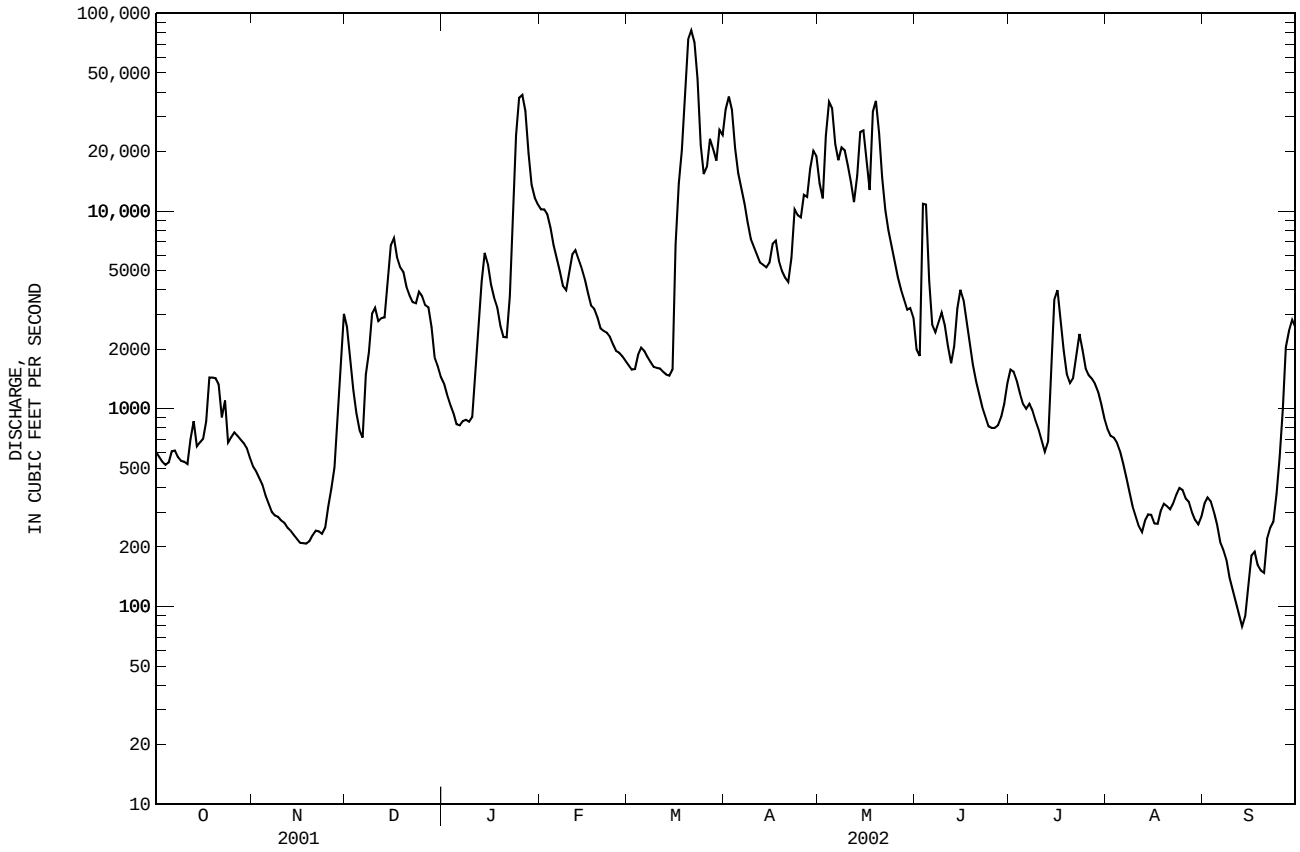
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	605	510	2600	1340	10200	1660	32800	13800	2000	1580	790	332
2	570	482	1770	1180	10200	1580	38000	11600	1850	1540	730	356
3	540	446	1240	1050	9650	1590	32600	24000	10900	1390	715	340
4	520	413	950	955	8250	1880	20800	35800	10800	1200	675	300
5	535	364	780	835	6750	2040	15600	33200	4440	1060	610	260
6	610	332	715	825	5750	1960	13000	21800	2670	1000	530	212
7	615	301	1490	865	4940	1830	10900	18100	2440	1060	450	194
8	570	288	1930	880	4190	1720	8800	21000	2720	985	380	172
9	545	284	3020	860	3980	1630	7250	20300	3060	870	322	140
10	540	272	3240	910	4860	1610	6600	17100	2660	785	286	122
11	525	265	2780	1470	6050	1600	6000	14000	2080	690	255	106
12	700	250	2880	2640	6350	1540	5500	11100	1700	605	238	92
13	865	242	2900	4420	5700	1490	5350	15100	2070	680	272	79
14	645	230	4410	6150	5150	1470	5200	25100	3220	1740	292	89
15	675	220	6700	5400	4520	1580	5500	25600	4000	3560	291	132
16	705	210	7300	4270	3840	6800	6850	18000	3540	3980	263	181
17	860	209	5850	3650	3330	13800	7100	12800	2740	2770	262	189
18	1440	208	5200	3270	3200	20300	5600	31900	2100	1960	304	162
19	1440	214	4920	2630	2920	35900	4980	36100	1670	1500	331	152
20	1430	229	4140	2310	2550	74000	4610	24800	1380	1350	322	148
21	1330	242	3740	2300	2480	82000	4380	14800	1180	1430	310	220
22	905	240	3460	3720	2430	71500	5800	10100	1020	1820	332	250
23	1100	233	3420	8950	2320	46800	10200	8000	910	2390	368	268
24	675	250	3910	24300	2120	21600	9550	6550	815	1990	398	372
25	720	320	3710	37400	1960	15400	9300	5500	800	1600	388	565
26	760	397	3350	38700	1920	16800	12100	4640	800	1480	352	990
27	730	505	3260	32200	1840	23200	11800	4010	825	1420	338	2050
28	700	915	2580	19600	1750	20600	16400	3570	910	1340	299	2480
29	670	1580	1820	13600	---	18000	20200	3170	1060	1220	274	2820
30	630	3020	1640	11700	---	25800	19000	3230	1350	1060	260	2600
31	565	---	1450	10800	---	24300	---	2880	---	895	284	---
TOTAL	23720	13671	97155	249180	129200	541980	361770	497650	77710	46950	11921	16373
MEAN	765.2	455.7	3134	8038	4614	17480	12060	16050	2590	1515	384.5	545.8
MAX	1440	3020	7300	38700	10200	82000	38000	36100	10900	3980	790	2820
MIN	520	208	715	825	1750	1470	4380	2880	800	605	238	79

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2002, BY WATER YEAR (WY)

MEAN	1137	2636	5391	10760	11160	16070	10530	9054	5285	2434	1664	767.8
MAX	3052	9309	12670	22370	26380	29500	21390	22020	18360	4867	4660	2020
(WY)	1994	1997	1994	1994	1994	1997	1994	1995	1997	1998	2001	1996
MIN	324	456	1567	1876	4614	5553	3730	1973	417	435	306	153
(WY)	1998	2002	2000	2000	2002	2000	1999	2001	1999	1999	1999	1999

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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1992 - 2002	
ANNUAL TOTAL	1501471		2067280			
ANNUAL MEAN	4114		5664		6389	
HIGHEST ANNUAL MEAN					11250	1994
LOWEST ANNUAL MEAN					3371	2000
HIGHEST DAILY MEAN	46100	Feb 18	82000	Mar 21	87900	Mar 2 1997
LOWEST DAILY MEAN	208	Nov 18	79	Sep 13	79	Sep 13 2002
ANNUAL SEVEN-DAY MINIMUM	217	Nov 14	109	Sep 9	109	Sep 9 2002
MAXIMUM PEAK FLOW			83800	Mar 21	92800	Mar 10 1994
MAXIMUM PEAK STAGE			34.50	Mar 21	37.90	Mar 10 1994
10 PERCENT EXCEEDS	10400		17500		16500	
50 PERCENT EXCEEDS	1680		1740		2440	
90 PERCENT EXCEEDS	404		264		411	



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 mi^2, of which about 101 mi^2 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 with telemetry. 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 1,000 ft^3/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.

COOPERATION.--Kentucky River Authority, U.S. Army Corps of Engineers, Louisville District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	594	512	3050	1520	10200	1660	32100	14900	2210	1650	867	329
2	565	478	2150	1340	10200	1590	38900	11000	1950	1690	780	361
3	531	441	1550	1210	9810	1540	35600	21500	7340	1550	750	382
4	508	423	1190	1120	8240	1820	22400	35200	11900	1360	730	353
5	506	372	972	929	6380	1990	16100	35800	5320	1200	684	314
6	581	340	900	874	5430	1890	13300	23400	3020	1090	593	252
7	617	291	1750	901	4730	1800	11400	18700	2550	1100	504	234
8	575	275	2080	931	4090	1690	9400	22100	2540	1100	419	207
9	544	275	3110	915	3640	1620	7890	20900	2880	998	350	160
10	525	259	3760	929	4060	1580	7130	17800	2770	906	312	138
11	468	259	3530	1280	5530	1560	6680	14500	2260	824	265	122
12	787	245	3700	2400	6080	1510	6120	11700	1870	724	225	111
13	1110	245	2940	3360	5180	1450	5930	15100	1840	784	251	105
14	661	231	4480	5300	4920	1410	5790	26600	2800	1390	290	115
15	643	217	6870	5140	4490	1430	5720	27000	3770	2770	324	160
16	653	204	7230	4160	3730	5130	6690	20200	3600	3830	298	223
17	973	204	5840	3480	3180	13800	7370	13800	2900	3050	304	237
18	2180	204	5480	3450	3230	18700	5450	33200	2290	2240	342	198
19	2200	217	5350	2760	2940	34000	4680	41400	1860	1760	386	181
20	2180	230	4320	2300	2500	72600	4340	28900	1550	1440	380	173
21	2020	259	3750	2180	2380	83800	4100	17100	1330	1500	344	246
22	1190	259	3330	3180	2330	74900	4910	11000	1160	1570	337	279
23	1600	245	3180	8290	2260	56300	9050	8760	1030	2180	370	307
24	719	275	3600	23000	2110	24300	9330	7380	920	2220	432	495
25	704	341	3750	38700	2000	15900	8690	6320	879	1890	436	738
26	784	466	3700	40400	2080	16400	11000	5440	897	1600	399	1220
27	751	562	3890	35000	1940	24100	11400	4760	911	1480	398	2800
28	688	810	3060	21700	1790	21400	16600	4350	979	1400	354	2460
29	658	1590	1960	14100	---	18300	21000	3860	1100	1310	315	2700
30	628	3270	1850	11800	---	26800	19600	4050	1300	1170	287	2820
31	583	---	1620	10800	---	24400	---	3670	---	999	288	---
TOTAL	27726	13999	103942	253449	125450	555370	368670	530390	77726	48775	13014	18420
MEAN	894.4	466.6	3353	8176	4480	17920	12290	17110	2591	1573	419.8	614.0
MAX	2200	3270	7230	40400	10200	83800	38900	41400	11900	3830	867	2820
MIN	468	204	900	874	1790	1410	4100	3670	879	724	225	105

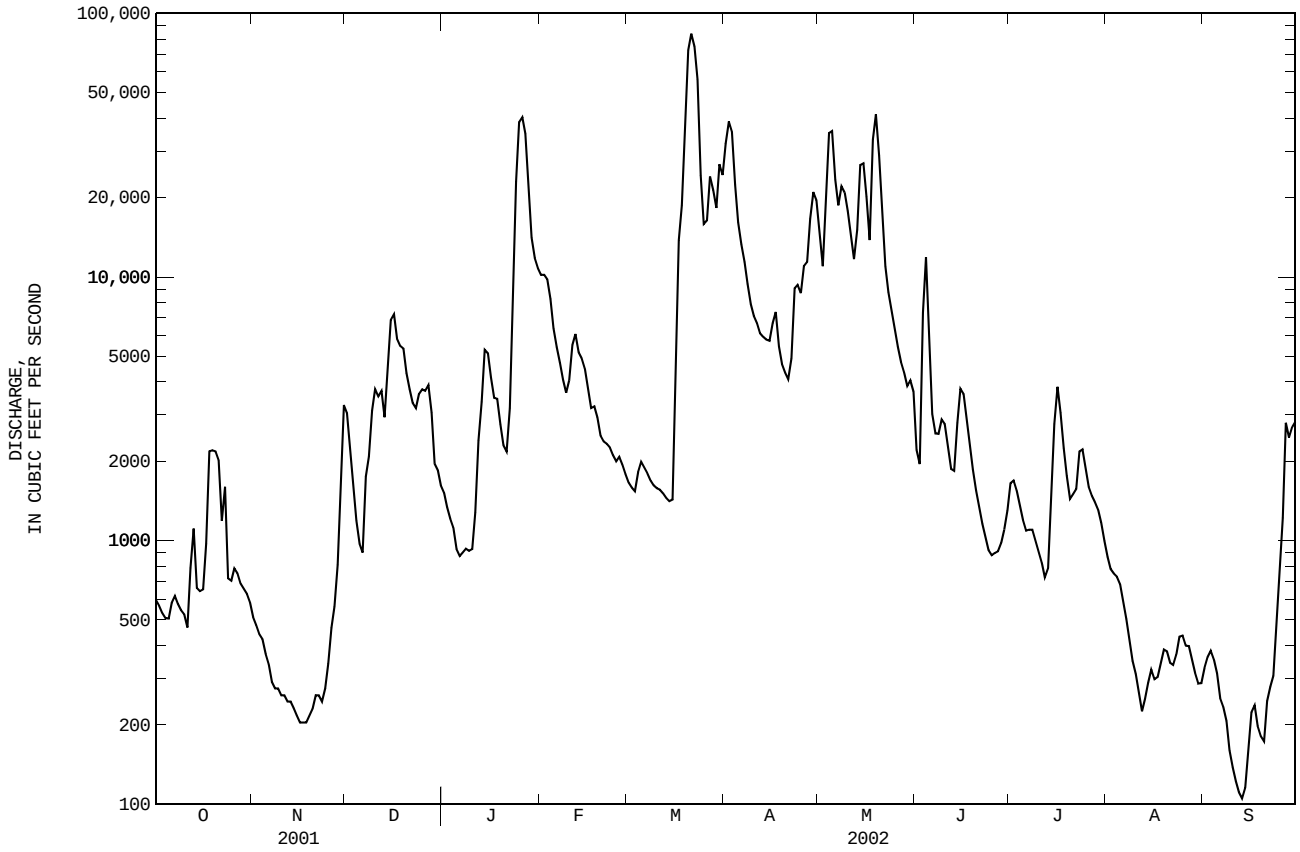
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2002, BY WATER YEAR (WY)

MEAN	1833	3878	8526	10750	12260	14960	11360	8282	4362	2240	1929	1602
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	467	525	502	2655	3769	1491	1127	362	420	277	188
(WY)	1981	2002	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 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1961 - 2002	
ANNUAL TOTAL	1476582		2136931			
ANNUAL MEAN	4045		5855		6808	
HIGHEST ANNUAL MEAN					11050	1994
LOWEST ANNUAL MEAN					2826	1988
HIGHEST DAILY MEAN	45900	Feb 17	83800	Mar 21	125000	Dec 10 1978
LOWEST DAILY MEAN	204	Nov 16	105	Sep 13	83	Sep 4 1984
ANNUAL SEVEN-DAY MINIMUM	215	Nov 14	130	Sep 9	112	Nov 8 1991
MAXIMUM PEAK FLOW			86000	Mar 21	130000	Dec 10 1978
MAXIMUM PEAK STAGE			33.55	Mar 21	49.04	Dec 10 1978
10 PERCENT EXCEEDS	10300		18000		17400	
50 PERCENT EXCEEDS	1750		1870		2900	
90 PERCENT EXCEEDS	403		277		460	



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 mi^2, (includes that of Benson Creek), of which about 120 mi^2 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 with telemetry. Datum of gage is 462.10 ft above NGVD of 1929. See WDR KY-90-1 for history of changes prior to Jan. 28, 1982.

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

COOPERATION.--U.S. Army Corps of Engineers, Louisville District, Kentucky River Authority, and City of Frankfort.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	470	439	4080	1550	12300	1620	30000	17400	2230	1770	581	161
2	440	409	2640	1230	11500	1540	38300	12500	1630	1800	510	194
3	418	393	1790	1080	11000	1470	37000	19800	4740	1660	478	211
4	425	370	1210	952	9650	1650	26100	e32600	13000	1360	469	204
5	441	333	870	790	7370	1920	18100	36200	6680	1070	446	182
6	523	297	765	702	6230	1840	14400	28500	4880	901	371	151
7	543	267	1710	720	5280	1780	12100	21500	2980	853	310	118
8	539	245	2880	740	4460	1690	10000	23400	2400	909	260	106
9	501	236	3540	726	3820	1680	8360	22500	2580	825	222	96
10	419	232	4050	779	4030	1820	7410	19700	2600	695	192	88
11	412	210	4100	1180	5390	1700	6940	15900	2090	591	180	83
12	775	207	4040	2290	6820	1640	6360	12700	1910	490	154	79
13	1560	206	4010	3400	5650	1580	6160	16500	2180	494	150	78
14	1550	192	5280	5600	5240	1500	6410	28400	2350	927	167	85
15	1070	182	8070	6120	4690	1540	6250	28200	3480	2560	196	108
16	744	177	9280	4850	4140	4940	6560	23100	3520	3730	190	126
17	793	175	9180	3880	3310	14900	7570	16200	2810	3190	188	153
18	2180	173	8230	3640	3140	19300	5940	28500	2090	2150	232	144
19	2530	169	7330	3230	3090	34000	4600	41000	1660	1610	249	126
20	2460	189	5630	2430	2570	64800	4190	32200	1510	1110	225	131
21	2400	186	4570	2250	2380	81100	3990	20400	1590	1060	210	203
22	1360	186	3960	2990	2310	77100	5900	12100	1240	1200	194	169
23	1800	186	4050	7760	2220	64800	8780	9330	991	1790	194	174
24	e1000	208	4190	27800	2070	35400	9710	7810	863	2100	217	209
25	e1210	433	4440	37900	1920	18600	9450	6660	782	1780	248	400
26	e916	341	4110	39800	1950	25800	11000	5590	812	1420	260	734
27	717	4120	4430	36500	1970	26600	12800	4720	782	1180	238	4540
28	640	1360	3840	25900	1760	24200	23200	4250	878	1080	216	2830
29	577	4380	2260	16200	---	20800	24200	4070	965	989	191	e2520
30	537	5730	1850	12900	---	28000	21600	3830	1250	874	168	e2740
31	493	---	1690	11800	---	26600	---	3700	---	719	157	---
TOTAL	30443	22231	128075	267689	136260	591910	393380	559260	77473	42887	8063	17143
MEAN	982.0	741.0	4131	8635	4866	19090	13110	18040	2582	1383	260.1	571.4
MAX	2530	5730	9280	39800	12300	81100	38300	41000	13000	3730	581	4540
MIN	412	169	765	702	1760	1470	3990	3700	782	490	150	78

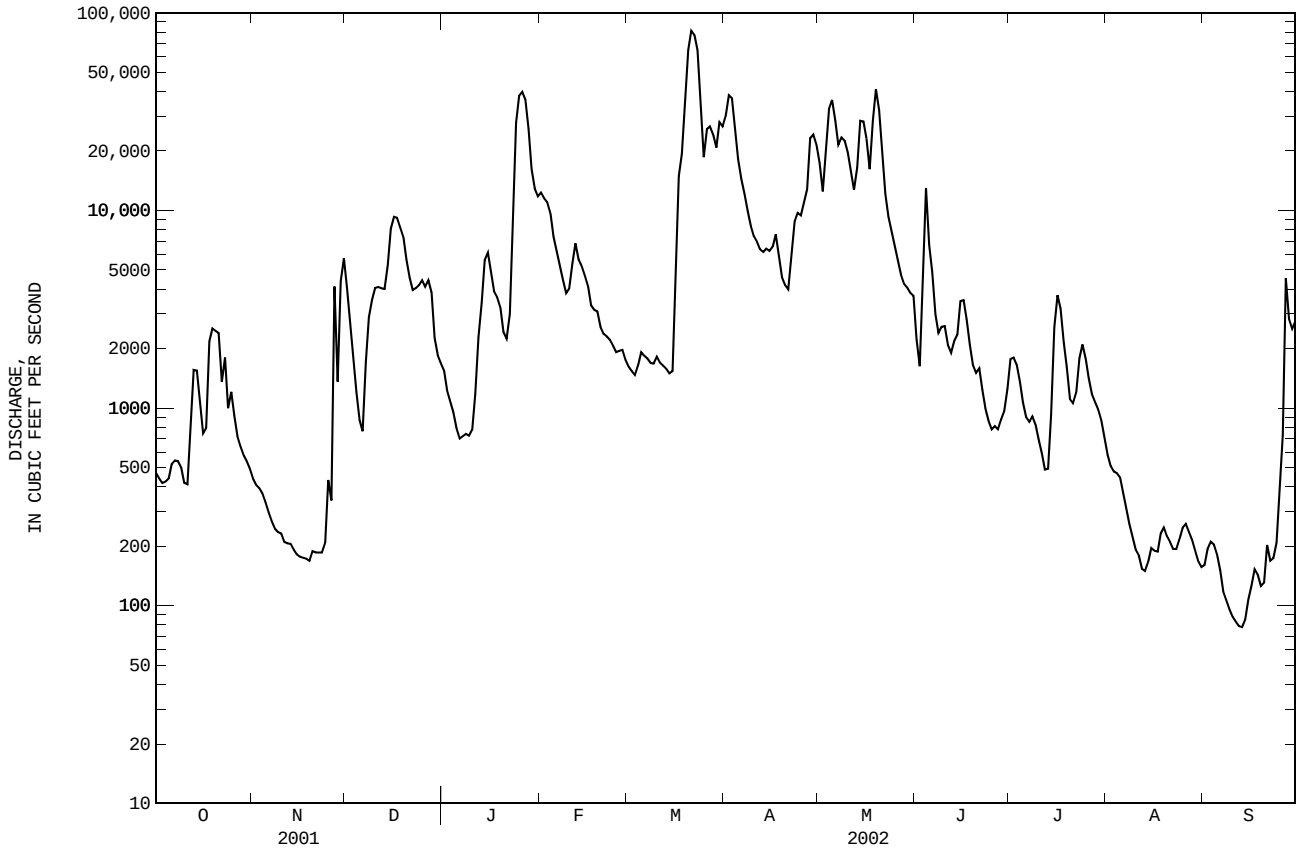
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2002, BY WATER YEAR (WY)

MEAN	1932	4151	9064	11350	12910	15890	11830	8683	4602	2396	2070	1724
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	260	207
(WY)	1981	1966	1966	1981	1968	1983	1986	1976	1988	1970	2002	1999

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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1961 - 2002	
ANNUAL TOTAL	1647820		2274814			
ANNUAL MEAN	4515		6232		7192	
HIGHEST ANNUAL MEAN					11860	1979
LOWEST ANNUAL MEAN					3182	1988
HIGHEST DAILY MEAN	45600	Feb 18	81100	Mar 21	116000	Dec 10 1978
LOWEST DAILY MEAN	169	Nov 19	78	Sep 13	78	Sep 13 2002
ANNUAL SEVEN-DAY MINIMUM	179	Nov 15	88	Sep 8	88	Sep 8 2002
MAXIMUM PEAK FLOW			81900	Mar 21	118000	Dec 9 1978
MAXIMUM PEAK STAGE			35.81	Mar 21	48.47	Dec 10 1978
10 PERCENT EXCEEDS	11500		20600		18000	
50 PERCENT EXCEEDS	1880		1850		3160	
90 PERCENT EXCEEDS	354		191		505	

e Estimated



03287500 KENTUCKY RIVER AT LOCK 4 AT FRANKFORT, KY

WATER-QUALITY RECORDS

PERIOD OF RECORD.-June 2001 to September 2002.

COOPERATION.--Kentucky River Authority

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 2001 to September 2002.
pH: June 2001 to September 2002.
WATER TEMPERATURES: June 2001 to September 2002.
DISSOLVED OXYGEN: June 2001 to September 2002.

INSTRUMENTATION.-- Water-quality monitor with telemetry.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 634 microsiemens, Dec 28-29, 2001; minimum recorded, 135 microsiemens, Nov 27, 2001.
pH: Maximum recorded, 8.7 units, Jan 23, 2002; minimum recorded, 6.7 units, Aug 31, and Sept 1, 3-5, 2001.
WATER TEMPERATURES: Maximum recorded, 31.3 C, Aug 5, 2002; minimum recorded, 3.3 C, Jan 8-9, 2002.
DISSOLVED OXYGEN: Maximum recorded, 15.4 mg/L, Jan 23, 2002; minimum recorded, 0.2 mg/L, Sept 13, 2001.
EXTREMES FOR 2001 WATER YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 445 microsiemens, July 22-23, 2001; minimum recorded, 255 microsiemens, Sept 3, 2001.
pH: Maximum recorded, 8.6 units, July 21, 2001; minimum recorded, 6.7 units, Aug 31, and Sept 1, 3-5, 2001.
WATER TEMPERATURES: Maximum recorded, 30.0 C, July 24, 2001; minimum recorded, 20.1 C, Sept 30, 2001.
DISSOLVED OXYGEN: Maximum recorded, 10.5 mg/L, June 27, 2001; minimum recorded, 0.2 mg/L, Sept 13, 2001.
EXTREMES FOR 2002 WATER YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 634 microsiemens, Dec 28-29, 2001; minimum recorded, 135 microsiemens, Nov 27, 2001.
pH: Maximum recorded, 8.6 units, Jan 23, 2002; minimum recorded, 7.2 units, Sept 18, 2002.
WATER TEMPERATURES: Maximum recorded, 31.3 C, Aug 5, 2002; minimum recorded, 3.3 C, Jan 8-9, 2002.
DISSOLVED OXYGEN: Maximum recorded, 15.4 mg/L, Jan 23, 2002; minimum recorded, 1.6 mg/L, Sept 16, 2002.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	386	379	382	---	---	---	331	266	286
2	---	---	---	388	376	385	---	---	---	301	268	274
3	---	---	---	389	382	386	---	---	---	296	255	274
4	---	---	---	385	370	382	---	---	---	368	270	309
5	---	---	---	396	382	388	---	---	---	321	276	287
6	---	---	---	402	392	396	---	---	---	334	287	298
7	---	---	---	402	374	392	---	---	---	355	287	301
8	---	---	---	374	354	363	---	---	---	338	287	298
9	---	---	---	355	349	353	---	---	---	313	286	296
10	---	---	---	355	334	350	---	---	---	298	296	297
11	---	---	---	334	303	314	---	---	---	302	295	299
12	---	---	---	329	304	317	---	---	---	307	299	303
13	---	---	---	347	329	339	---	---	---	308	303	305
14	---	---	---	358	346	352	---	---	---	309	307	308
15	---	---	---	362	355	358	---	---	---	312	308	310
16	---	---	---	357	348	353	---	---	---	334	310	316
17	---	---	---	355	345	351	354	318	330	364	332	345
18	---	---	---	358	342	350	363	347	357	404	357	366
19	---	---	---	392	358	374	347	316	326	372	345	356
20	---	---	---	422	388	406	316	302	308	354	341	347
21	---	---	---	438	422	429	303	293	299	385	349	360
22	---	---	---	445	421	439	296	286	291	367	342	350
23	350	344	346	445	438	442	288	279	285	366	335	352
24	351	333	348	443	437	440	284	276	280	375	352	362
25	351	346	349	---	---	---	278	266	273	379	336	358
26	355	349	351	---	---	---	274	266	269	337	331	333
27	359	350	353	---	---	---	---	---	---	333	330	331
28	364	351	357	---	---	---	---	---	---	334	333	334
29	371	357	365	---	---	---	---	---	---	337	334	335
30	381	367	375	---	---	---	---	---	---	337	336	336
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	404	255	321

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

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	27.4	26.3	26.8	---	---	---	28.2	27.3	27.6
2	---	---	---	27.2	26.2	26.7	---	---	---	28.2	27.0	27.5
3	---	---	---	27.3	26.1	26.6	---	---	---	27.4	27.0	27.1
4	---	---	---	27.0	26.0	26.6	---	---	---	27.6	26.9	27.1
5	---	---	---	27.2	26.2	26.7	---	---	---	28.1	27.2	27.5
6	---	---	---	26.9	26.4	26.7	---	---	---	27.4	26.8	27.1
7	---	---	---	26.6	26.4	26.5	---	---	---	28.0	27.2	27.5
8	---	---	---	26.7	26.3	26.4	---	---	---	28.0	27.1	27.5
9	---	---	---	26.6	26.1	26.3	---	---	---	28.1	27.2	27.7
10	---	---	---	26.3	25.8	26.0	---	---	---	28.1	26.8	27.3
11	---	---	---	27.3	25.7	26.5	---	---	---	29.0	26.3	27.2
12	---	---	---	27.2	26.7	27.0	---	---	---	27.2	26.2	26.6
13	---	---	---	27.1	26.5	26.9	---	---	---	28.0	26.0	26.7
14	---	---	---	26.9	26.5	26.7	---	---	---	26.6	25.7	26.0
15	---	---	---	27.3	26.5	26.8	---	---	---	25.9	25.2	25.5
16	---	---	---	27.6	26.3	26.9	---	---	---	25.7	24.8	25.1
17	---	---	---	27.5	26.6	27.0	28.1	27.7	27.9	24.9	24.3	24.6
18	---	---	---	27.4	26.6	26.9	27.7	27.3	27.5	24.5	24.3	24.5
19	---	---	---	28.3	26.7	27.2	27.4	26.9	27.2	24.3	23.9	24.1
20	---	---	---	28.4	27.5	27.9	27.4	26.5	26.8	24.1	23.6	23.8
21	---	---	---	28.8	27.7	28.3	27.7	26.3	26.9	24.0	23.3	23.6
22	---	---	---	28.6	28.1	28.4	27.6	26.5	27.0	24.6	23.3	23.7
23	25.7	24.7	25.1	29.5	28.1	28.7	28.6	26.7	27.2	24.2	22.9	23.5
24	25.9	24.6	25.1	30.0	28.6	29.2	29.1	27.0	27.7	23.7	22.5	23.1
25	26.4	25.0	25.5	---	---	---	28.4	27.5	27.9	22.5	22.0	22.3
26	26.4	25.4	25.9	---	---	---	28.6	27.8	28.1	22.2	21.3	21.8
27	26.6	25.5	26.0	---	---	---	28.4	27.6	27.9	22.3	21.1	21.5
28	26.7	25.5	26.0	---	---	---	---	---	---	21.3	20.6	20.9
29	27.0	25.6	26.2	---	---	---	---	---	---	21.0	20.2	20.6
30	27.2	26.1	26.7	---	---	---	---	---	---	20.9	20.1	20.5
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	29.0	20.1	25.0

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

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	7.7	5.2	6.0	---	---	---	---	---	---
2	---	---	---	8.1	5.0	5.8	---	---	---	---	---	---
3	---	---	---	7.8	5.2	6.1	---	---	---	---	---	---
4	---	---	---	8.2	5.6	6.5	---	---	---	---	---	---
5	---	---	---	8.2	5.4	6.3	---	---	---	---	---	---
6	---	---	---	7.8	5.5	6.2	---	---	---	---	---	---
7	---	---	---	7.9	5.6	6.3	---	---	---	---	---	---
8	---	---	---	8.1	6.0	6.7	---	---	---	---	---	---
9	---	---	---	7.3	6.1	6.3	---	---	---	---	---	---
10	---	---	---	7.9	6.1	6.6	---	---	---	6.5	2.3	3.4
11	---	---	---	8.0	6.0	6.8	---	---	---	8.9	2.7	4.1
12	---	---	---	8.1	5.5	6.2	---	---	---	4.6	0.5	3.0
13	---	---	---	8.5	5.3	6.2	---	---	---	6.2	0.2	3.2
14	---	---	---	8.0	5.2	6.2	---	---	---	4.2	1.0	2.8
15	---	---	---	8.1	5.1	6.1	---	---	---	4.1	2.2	3.0
16	---	---	---	7.2	5.0	5.5	---	---	---	---	---	---
17	---	---	---	7.3	4.7	5.2	5.6	2.6	3.6	---	---	---
18	---	---	---	6.4	4.3	5.0	6.6	2.6	4.0	---	---	---
19	---	---	---	7.0	4.3	4.9	6.0	2.7	4.0	---	---	---
20	---	---	---	8.4	4.4	5.4	5.0	2.9	3.6	---	---	---
21	---	---	---	8.7	4.8	6.2	5.5	2.6	3.4	---	---	---
22	---	---	---	7.3	4.7	5.6	4.8	2.2	3.0	---	---	---
23	6.5	3.4	4.3	7.2	4.5	5.2	3.9	1.8	2.7	---	---	---
24	6.8	3.4	4.9	7.4	4.9	5.5	5.4	1.8	2.9	---	---	---
25	7.6	3.7	5.0	---	---	---	5.7	1.6	3.1	---	---	---
26	7.4	3.8	5.3	---	---	---	---	---	---	4.5	4.0	4.3
27	10.5	4.5	6.3	---	---	---	---	---	---	5.7	4.3	4.6
28	8.6	6.8	7.5	---	---	---	---	---	---	6.2	4.4	4.7
29	7.9	6.2	6.8	---	---	---	---	---	---	6.7	4.4	5.1
30	8.2	5.5	6.4	---	---	---	---	---	---	7.4	4.8	5.6
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	340	336	338	376	372	374	415	388	401	584	559	573
2	343	340	341	377	374	375	415	402	406	559	483	520
3	344	340	342	385	374	376	405	400	401	483	470	473
4	343	341	342	379	376	377	406	399	401	488	473	482
5	342	335	340	377	375	376	404	399	401	489	470	481
6	340	335	338	377	374	376	412	401	406	471	459	463
7	340	338	339	380	376	378	445	412	426	463	460	461
8	342	340	341	379	376	377	515	434	458	485	463	472
9	343	338	341	377	375	376	563	484	516	510	485	499
10	344	341	343	382	377	379	555	525	543	515	510	514
11	344	342	343	381	378	380	525	506	513	514	485	503
12	343	331	340	383	380	381	507	457	490	485	412	449
13	353	341	348	384	380	381	552	457	506	413	393	399
14	355	350	353	387	383	385	575	548	566	396	385	392
15	368	353	360	389	386	388	549	450	495	393	385	387
16	382	367	375	390	388	389	500	440	470	401	393	396
17	385	376	379	390	386	389	496	431	448	411	389	403
18	389	385	388	390	386	388	478	439	453	389	374	380
19	401	386	392	---	---	---	487	443	468	391	374	383
20	409	401	407	---	---	---	476	447	457	406	390	396
21	408	396	402	367	365	366	458	447	453	429	403	415
22	398	393	396	366	365	366	456	439	445	443	429	438
23	393	382	386	367	365	366	468	446	458	438	389	420
24	---	---	---	371	366	369	484	446	466	394	357	377
25	---	---	---	371	360	368	508	474	489	432	325	391
26	---	---	---	371	365	368	565	504	525	327	260	307
27	399	391	396	371	135	312	622	565	601	260	205	222
28	391	376	382	376	351	366	634	622	628	---	---	---
29	377	370	373	401	373	386	634	626	631	---	---	---
30	372	370	371	409	378	389	626	604	615	---	---	---
31	374	370	372	---	---	---	605	584	594	238	236	237
MONTH	---	---	---	---	---	---	634	388	488	---	---	---

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

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	247	237	242	370	367	368	---	---	---	313	289	302
2	255	246	250	374	369	371	262	244	250	290	284	287
3	261	255	258	389	374	381	248	211	234	292	273	282
4	270	261	264	402	389	396	212	198	204	295	259	272
5	271	268	270	409	402	407	237	211	225	261	223	251
6	278	271	274	409	401	405	247	237	243	---	---	---
7	279	269	273	402	389	394	247	245	245	---	---	---
8	282	272	279	389	384	387	256	247	251	---	---	---
9	286	281	283	384	372	378	264	256	260	---	---	---
10	297	286	291	376	369	372	276	263	271	---	---	---
11	301	297	299	369	364	366	289	276	282	---	---	---
12	302	300	301	365	362	363	296	289	293	---	---	---
13	305	302	303	362	361	362	304	296	300	---	---	---
14	320	305	312	363	361	362	311	304	307	---	---	---
15	322	310	318	361	356	359	314	311	313	---	---	---
16	310	305	307	360	350	357	314	312	314	---	---	---
17	307	305	306	360	344	351	313	311	312	---	---	---
18	314	305	308	370	360	367	311	305	308	---	---	---
19	314	307	309	391	334	370	309	306	307	---	---	---
20	327	308	319	361	239	324	307	306	306	---	---	---
21	325	318	320	239	200	212	310	303	308	---	---	---
22	324	318	321	201	175	185	316	303	309	---	---	---
23	332	324	328	175	167	170	346	316	330	---	---	---
24	346	332	338	202	172	191	378	346	366	---	---	---
25	350	346	349	221	202	210	413	376	395	---	---	---
26	353	348	351	243	221	230	402	364	384	---	---	---
27	359	353	356	256	243	249	364	338	346	---	---	---
28	367	359	363	269	256	260	338	281	310	---	---	---
29	---	---	---	---	---	---	332	281	317	253	236	242
30	---	---	---	---	---	---	320	296	304	236	234	235
31	---	---	---	---	---	---	---	---	---	240	235	237
MONTH	367	237	303	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	241	240	241	287	277	282	481	475	479	576	566	571
2	246	240	243	304	287	296	492	480	488	576	563	569
3	250	246	249	331	304	313	496	489	492	573	564	568
4	266	250	253	343	327	334	499	490	494	570	564	566
5	289	266	280	346	337	342	497	492	495	568	563	566
6	292	280	289	358	345	353	499	489	494	570	564	566
7	288	276	281	376	357	365	503	492	498	573	566	569
8	303	285	297	381	370	375	493	488	490	572	570	571
9	304	293	299	399	380	387	491	486	489	573	567	570
10	325	303	311	413	392	401	489	486	488	570	567	568
11	334	312	320	417	404	408	495	489	491	568	529	563
12	330	317	323	419	413	415	501	495	498	567	564	565
13	334	303	329	436	417	421	504	498	500	568	565	566
14	346	332	339	430	420	423	507	502	504	568	561	566
15	359	328	341	459	428	438	515	504	508	573	560	566
16	328	289	303	466	442	456	515	510	513	568	565	567
17	363	299	334	493	466	475	520	514	516	571	568	570
18	364	334	346	472	455	464	520	510	517	577	569	571
19	335	308	322	455	448	451	529	519	521	572	568	570
20	318	292	303	452	449	451	526	519	522	570	559	567
21	293	275	285	450	430	444	534	525	528	568	558	564
22	281	267	271	430	421	426	540	534	536	566	561	563
23	284	264	269	447	429	438	546	540	542	566	561	563
24	266	254	259	455	447	452	548	543	545	567	557	560
25	268	251	258	458	448	454	548	527	546	562	558	560
26	256	246	251	454	442	448	550	543	546	565	546	559
27	253	238	250	444	436	440	561	549	554	547	522	531
28	265	253	257	448	437	445	563	550	553	530	516	519
29	274	262	265	458	448	454	566	554	559	518	508	512
30	280	268	272	466	457	462	573	554	563	534	503	513
31	---	---	---	475	463	471	575	562	569	---	---	---
MONTH	364	238	288	493	277	412	575	475	517	577	503	560

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

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.8	7.7	7.7	7.7	7.6	7.6	7.9	7.8	7.9	8.4	8.3	8.3
2	7.7	7.5	7.6	7.7	7.5	7.6	7.9	7.8	7.9	8.3	8.2	8.3
3	7.8	7.5	7.6	7.9	7.6	7.7	7.9	7.8	7.9	8.3	8.3	8.3
4	7.6	7.4	7.5	7.7	7.6	7.6	7.9	7.8	7.9	8.3	8.3	8.3
5	7.6	7.5	7.5	7.8	7.6	7.7	7.9	7.8	7.9	8.3	8.3	8.3
6	7.6	7.5	7.5	7.7	7.6	7.6	7.9	7.8	7.8	8.3	8.2	8.2
7	7.6	7.5	7.5	7.7	7.6	7.7	7.9	7.8	7.9	8.3	8.2	8.2
8	7.6	7.5	7.5	7.7	7.6	7.7	7.9	7.9	7.9	8.4	8.3	8.3
9	7.7	7.5	7.5	7.7	7.5	7.7	7.9	7.9	7.9	8.4	8.3	8.4
10	7.6	7.5	7.6	7.7	7.6	7.7	8.1	7.9	8.0	8.4	8.4	8.4
11	7.8	7.5	7.6	7.8	7.6	7.7	8.1	8.0	8.1	8.4	8.4	8.4
12	7.9	7.5	7.6	7.7	7.6	7.7	8.1	8.0	8.1	8.4	8.4	8.4
13	7.9	7.4	7.6	7.7	7.6	7.6	8.2	8.0	8.1	8.4	8.4	8.4
14	7.6	7.5	7.6	7.7	7.6	7.7	8.3	8.2	8.3	8.4	8.4	8.4
15	7.8	7.5	7.6	7.7	7.6	7.6	8.3	8.1	8.1	8.5	8.4	8.4
16	7.6	7.6	7.6	7.7	7.6	7.6	8.2	8.1	8.1	8.5	8.4	8.4
17	7.6	7.5	7.6	8.0	7.6	7.8	8.2	8.1	8.1	8.5	8.4	8.5
18	7.6	7.6	7.6	8.1	7.8	7.9	8.1	8.0	8.1	8.5	8.5	8.5
19	7.6	7.6	7.6	7.9	7.7	7.8	8.2	8.1	8.1	8.5	8.5	8.5
20	7.7	7.6	7.6	7.9	7.7	7.7	8.2	8.2	8.2	8.5	8.5	8.5
21	7.7	7.6	7.6	7.7	7.7	7.7	8.2	8.2	8.2	8.6	8.5	8.5
22	7.6	7.6	7.6	7.7	7.7	7.7	8.2	8.1	8.1	8.6	8.6	8.6
23	7.7	7.6	7.6	7.8	7.7	7.7	8.2	8.1	8.1	8.7	8.5	8.6
24	---	---	---	7.8	7.7	7.8	8.3	8.1	8.2	8.5	8.3	8.5
25	---	---	---	7.8	7.8	7.8	8.3	8.3	8.3	8.4	8.2	8.3
26	---	---	---	8.0	7.8	7.9	8.3	8.3	8.3	8.3	8.2	8.2
27	7.7	7.6	7.6	7.9	7.7	7.8	8.4	8.3	8.3	8.2	8.0	8.0
28	7.7	7.6	7.7	7.8	7.8	7.8	8.4	8.3	8.4	8.1	8.0	8.0
29	7.7	7.6	7.6	7.8	7.7	7.8	8.4	8.3	8.4	8.0	7.7	7.9
30	7.7	7.6	7.6	7.9	7.7	7.8	8.4	8.3	8.3	7.7	7.6	7.7
31	7.7	7.6	7.6	---	---	---	8.4	8.3	8.3	7.7	7.7	7.7
MONTH	---	---	---	8.1	7.5	7.7	8.4	7.8	8.1	8.7	7.6	8.3

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

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

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	21.0	20.0	20.4	12.2	11.6	11.9	12.1	11.4	11.6	4.9	4.4	4.7
2	21.2	19.9	20.4	12.6	11.7	12.1	11.4	10.8	11.1	4.5	4.1	4.3
3	21.1	20.1	20.4	13.6	11.9	12.4	10.9	10.5	10.7	4.1	3.8	4.0
4	20.7	19.9	20.3	13.0	11.8	12.2	10.7	10.3	10.5	3.9	3.6	3.7
5	20.5	19.9	20.1	12.7	12.0	12.3	10.9	10.3	10.5	3.6	3.4	3.5
6	20.2	19.3	19.7	12.6	11.7	12.0	10.7	10.5	10.6	3.6	3.4	3.5
7	19.8	18.9	19.2	12.6	11.7	12.1	10.9	10.7	10.8	3.7	3.4	3.5
8	19.2	18.5	18.8	13.0	11.6	12.2	10.9	10.7	10.8	3.6	3.3	3.4
9	19.1	18.4	18.7	12.7	11.7	12.1	10.7	10.4	10.6	3.8	3.3	3.5
10	18.9	18.3	18.6	12.4	11.5	11.9	10.5	10.3	10.4	3.9	3.5	3.7
11	19.1	18.4	18.7	12.4	11.5	11.8	10.5	10.3	10.4	4.0	3.7	3.9
12	18.9	18.5	18.7	12.3	11.2	11.6	10.4	10.1	10.3	4.0	3.6	3.9
13	19.0	18.5	18.8	12.1	11.0	11.4	10.7	10.0	10.3	4.0	3.9	3.9
14	19.3	18.8	18.9	12.3	11.2	11.5	11.3	10.7	11.1	4.2	4.0	4.1
15	19.4	18.5	18.7	12.2	11.0	11.4	11.3	10.3	10.8	4.3	4.0	4.2
16	18.6	17.6	18.1	12.0	11.0	11.4	10.8	10.1	10.5	4.0	3.7	3.8
17	17.6	16.7	17.2	12.8	11.2	11.7	10.8	10.2	10.5	4.2	3.9	4.1
18	16.7	16.4	16.6	12.5	11.3	11.8	11.2	10.8	11.0	4.2	4.0	4.1
19	16.5	16.2	16.3	11.8	11.4	11.7	11.0	10.8	10.9	4.2	4.1	4.2
20	16.7	16.1	16.3	11.4	10.8	11.1	10.8	10.1	10.4	4.5	4.1	4.3
21	16.4	15.9	16.2	11.1	10.5	10.8	10.1	9.6	9.8	4.8	4.5	4.6
22	17.4	16.2	16.6	11.0	10.3	10.6	9.6	9.0	9.2	4.7	4.4	4.5
23	16.6	15.9	16.2	11.3	10.3	10.8	9.2	8.9	9.1	4.5	4.1	4.3
24	---	---	---	11.3	11.0	11.2	8.9	8.5	8.8	6.2	4.2	5.2
25	---	---	---	11.4	11.0	11.2	8.5	7.8	8.2	6.1	5.4	5.7
26	---	---	---	11.7	11.0	11.3	7.8	7.0	7.4	5.8	5.2	5.5
27	14.9	13.8	14.4	12.7	11.3	12.0	7.0	6.6	6.8	7.0	5.4	6.4
28	13.9	12.5	13.2	12.3	11.9	12.1	6.6	6.4	6.4	7.7	7.0	7.3
29	12.9	12.0	12.3	12.3	12.0	12.2	6.4	6.0	6.3	8.0	7.7	7.9
30	12.7	11.8	12.1	12.5	12.1	12.3	6.0	5.5	5.8	8.1	8.0	8.0
31	12.4	11.5	11.9	---	---	---	5.5	4.9	5.2	8.3	8.0	8.2
MONTH	---	---	---	13.6	10.3	11.7	12.1	4.9	9.6	8.3	3.3	4.7

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.4	8.2	8.3	5.8	5.3	5.6	10.5	10.0	10.2	16.1	15.7	15.9
2	8.2	7.8	8.0	5.9	5.6	5.7	11.0	10.4	10.6	15.9	15.6	15.7
3	7.8	7.5	7.6	5.9	5.3	5.6	11.2	10.8	11.1	15.7	15.1	15.4
4	7.6	7.0	7.3	5.3	5.1	5.2	10.8	10.5	10.6	15.8	14.9	15.3
5	7.0	6.8	6.9	5.5	5.1	5.3	10.7	10.3	10.5	16.2	15.5	15.7
6	7.0	6.7	6.8	6.2	5.3	5.8	10.8	10.4	10.6	16.2	15.3	15.7
7	6.9	6.7	6.8	6.9	6.2	6.5	11.0	10.4	10.6	15.3	15.1	15.2
8	6.9	6.6	6.8	7.5	6.7	7.1	11.3	10.9	11.1	15.7	15.2	15.4
9	7.1	6.7	6.9	8.1	7.4	7.7	11.7	11.3	11.6	16.4	15.7	16.0
10	7.2	6.9	7.1	8.0	7.5	7.7	12.1	11.4	11.7	16.1	15.6	15.9
11	7.2	7.0	7.1	7.5	7.1	7.3	12.7	11.8	12.2	16.5	15.8	16.1
12	7.1	6.9	7.0	7.4	7.2	7.3	12.9	12.6	12.7	16.8	16.3	16.6
13	7.1	6.9	7.0	8.0	7.3	7.6	13.3	12.9	13.2	16.8	16.4	16.7
14	7.0	6.7	6.9	8.8	7.9	8.3	13.4	13.3	13.3	16.9	16.2	16.5
15	7.0	6.7	6.8	9.2	8.7	8.9	13.8	13.3	13.5	17.0	16.4	16.7
16	7.0	6.7	6.8	9.2	8.8	9.1	14.6	13.7	14.2	---	---	---
17	6.7	6.5	6.6	8.9	8.3	8.7	14.7	14.3	14.5	---	---	---
18	6.5	6.1	6.3	9.8	8.9	9.4	15.5	14.7	15.2	16.6	15.8	16.3
19	6.4	6.2	6.3	10.1	9.7	9.9	16.5	15.5	16.0	16.0	14.8	15.3
20	6.9	6.3	6.6	10.7	9.6	10.1	17.0	16.3	16.6	15.2	15.0	15.1
21	7.0	6.7	6.8	10.8	10.6	10.7	17.9	16.7	17.1	15.0	14.6	14.7
22	6.7	6.2	6.4	10.6	10.0	10.3	18.1	17.6	17.9	14.7	14.3	14.5
23	6.5	6.0	6.3	10.0	9.6	9.7	18.2	17.7	17.9	14.7	14.3	14.5
24	6.6	6.1	6.4	9.6	9.3	9.5	18.8	17.9	18.3	15.3	14.4	14.8
25	7.1	6.5	6.8	9.5	9.3	9.4	18.9	17.3	18.1	15.7	14.9	15.2
26	6.9	6.4	6.8	9.4	9.1	9.2	19.0	18.1	18.6	15.7	15.5	15.7
27	6.4	5.8	6.1	9.4	9.1	9.3	---	---	---	16.4	15.5	15.9
28	5.8	5.4	5.6	9.3	9.0	9.1	---	---	---	16.7	16.2	16.5
29	---	---	---	9.5	9.0	9.3	17.4	16.7	17.2	17.4	16.5	16.9
30	---	---	---	9.9	9.4	9.7	16.7	16.1	16.4	17.7	17.2	17.4
31	---	---	---	10.4	9.9	10.2	---	---	---	18.7	17.5	18.1
MONTH	8.4	5.4	6.8	10.8	5.1	8.2	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	19.3	18.2	18.6	29.1	27.4	28.2	30.8	29.1	29.9	28.5	27.2	27.7
2	20.4	18.8	19.3	29.7	27.8	28.6	31.0	29.3	30.0	28.5	27.2	27.7
3	20.1	19.1	19.5	29.3	28.1	28.7	31.0	29.4	30.1	28.9	27.3	27.9
4	20.8	18.4	19.5	29.4	28.5	28.9	31.1	29.7	30.3	28.9	27.6	28.3
5	22.0	20.5	21.4	30.1	28.6	29.3	31.3	29.6	30.3	28.8	27.0	27.8
6	21.8	21.6	21.7	29.6	28.5	29.0	30.2	29.5	29.9	28.5	26.9	27.6
7	21.6	21.3	21.4	29.5	28.1	28.8	29.6	28.7	29.2	28.7	27.0	27.6
8	22.2	21.3	21.8	29.7	28.2	28.9	29.6	28.4	29.0	28.4	27.1	27.7
9	22.9	21.9	22.3	29.8	28.6	29.2	29.5	28.0	28.8	28.7	26.9	27.7
10	23.3	22.4	22.9	29.4	28.5	28.9	29.3	27.8	28.6	29.0	26.8	27.6
11	23.6	23.1	23.4	29.2	28.1	28.6	28.5	28.0	28.2	27.5	26.6	27.0
12	24.6	23.3	23.8	29.0	27.7	28.3	28.7	27.6	28.1	27.0	26.2	26.6
13	23.9	22.1	23.6	28.3	27.7	27.9	28.6	27.9	28.2	27.1	25.9	26.3
14	24.1	23.7	23.9	28.2	27.4	27.7	28.4	27.8	28.1	26.3	26.0	26.2
15	24.3	23.8	24.1	28.4	27.5	27.8	28.6	27.7	28.0	26.0	25.7	25.9
16	24.0	23.4	23.7	28.2	27.8	28.0	28.2	27.7	27.9	26.4	25.5	25.9
17	24.1	23.2	23.7	28.0	27.6	27.7	28.0	27.5	27.7	26.2	25.4	25.7
18	24.8	23.7	24.1	28.4	27.4	27.7	28.0	27.4	27.6	26.4	25.4	25.9
19	25.9	23.8	24.6	28.4	27.3	27.8	27.8	27.2	27.4	26.6	25.8	26.2
20	28.9	24.1	25.7	28.8	27.5	28.1	28.4	27.0	27.6	26.5	25.7	26.1
21	27.3	24.5	25.5	28.9	27.5	28.0	29.0	27.1	28.0	26.7	25.4	25.9
22	26.5	24.9	25.6	28.9	27.2	28.0	29.2	27.7	28.4	25.7	25.0	25.4
23	26.9	25.2	26.0	28.3	27.4	27.7	29.3	28.4	28.9	25.8	24.6	25.0
24	27.7	25.8	26.4	28.3	27.5	27.8	29.2	28.4	28.7	25.4	24.0	24.6
25	29.0	26.2	27.2	28.7	27.8	28.1	28.9	28.0	28.4	24.2	23.8	24.0
26	28.4	26.1	27.2	28.5	27.7	28.1	28.8	27.0	28.2	23.8	23.2	23.6
27	27.8	26.5	27.2	28.8	27.8	28.3	28.2	27.5	27.8	23.3	22.5	23.0
28	27.7	26.3	27.0	29.3	28.2	28.7	27.7	27.2	27.5	22.9	22.4	22.6
29	28.1	26.6	27.3	29.6	28.5	29.0	28.1	27.0	27.4	22.5	22.1	22.3
30	28.1	27.0	27.6	29.9	28.6	29.2	28.0	26.9	27.4	23.0	22.3	22.6
31	---	---	---	30.5	29.0	29.7	28.2	26.9	27.5	---	---	---
MONTH	29.0	18.2	23.9	30.5	27.2	28.4	31.3	26.9	28.5	29.0	22.1	25.9

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

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	6.7	5.3	5.7	9.4	8.5	8.9	9.9	9.0	9.5	14.0	12.8	13.7
2	6.0	4.8	5.4	9.4	8.3	8.8	10.2	9.8	10	14.4	12.8	13.7
3	6.2	4.5	5.0	10.7	8.5	9.1	10.4	9.9	10.2	14.7	13.9	14.2
4	5.8	4.4	5.0	9.8	8.7	9.0	10.5	9.9	10.3	14.7	13.9	14.3
5	5.4	4.4	4.9	10.1	8.9	9.4	10.5	9.9	10.2	14.9	14.0	14.5
6	6.0	4.7	5.2	9.3	8.5	8.9	10.2	9.8	10.0	14.7	14.0	14.4
7	6.3	5.0	5.4	9.5	8.7	9.1	10.5	10.0	10.3	14.7	14.0	14.3
8	6.1	4.9	5.4	9.5	8.7	9.0	10.8	10.2	10.5	14.8	13.8	14.3
9	6.6	5.1	5.5	9.6	7.8	9.0	11.2	10.7	10.9	15.0	14.3	14.6
10	6.3	5.0	5.5	9.4	8.7	9.2	11.4	11.0	11.2	14.9	14.0	14.5
11	6.0	5.0	5.5	10.4	8.7	9.4	11.5	11.3	11.4	14.8	13.9	14.4
12	6.0	4.8	5.5	9.8	8.8	9.2	11.7	11.4	11.6	14.9	14.2	14.5
13	7.2	5.1	5.7	9.7	8.2	9.1	11.9	11.5	11.7	14.9	14.0	14.6
14	6.6	5.4	5.9	9.9	8.9	9.2	12.0	11.4	11.7	14.9	14.5	14.7
15	6.4	5.7	6.0	10.2	8.5	9.2	11.5	11.1	11.3	15.0	14.5	14.7
16	6.4	5.7	6.1	10.0	8.8	9.3	11.7	11.3	11.5	15.3	14.9	15.1
17	6.8	5.8	6.2	11.6	9.0	10.3	11.6	11.1	11.4	15.1	14.7	14.9
18	6.7	6.0	6.5	12.8	10.0	11.0	11.2	10.5	10.8	14.9	14.6	14.8
19	7.8	6.5	6.9	12.8	10.5	11.5	11.0	10.7	10.9	14.9	14.4	14.7
20	8.5	7.1	7.4	11.6	8.4	10.5	11.3	11.0	11.2	14.6	14.0	14.3
21	8.6	7.3	7.5	10.7	9.7	10.2	11.6	11.2	11.4	14.4	13.7	14.1
22	8.4	7.1	7.5	10.7	9.0	9.5	11.9	11.5	11.7	14.7	14.1	14.4
23	8.4	7.3	7.7	10.2	9.1	9.4	11.9	11.7	11.8	15.4	14.3	14.8
24	---	---	---	10.2	9.0	9.7	12.0	11.7	11.8	14.9	13.2	14.1
25	---	---	---	10.4	9.7	10.1	12.3	11.8	12.1	14.2	13.3	13.9
26	---	---	---	10.7	9.7	10.1	12.8	12.1	12.5	14.2	13.6	13.9
27	8.2	7.7	8.0	10.4	6.2	8.9	13.1	12.7	12.9	13.8	12.1	12.8
28	9.4	8.2	8.4	9.2	6.1	8.3	13.3	12.9	13.1	---	---	---
29	8.9	8.5	8.7	8.9	8.5	8.7	13.2	12.8	13.1	---	---	---
30	9.6	8.1	8.8	9.1	7.3	8.5	13.4	12.9	13.1	14.3	10.5	13.1
31	9.0	8.3	8.7	---	---	---	13.7	13.0	13.3	14.1	13.7	13.8
MONTH	---	---	---	12.8	6.1	9.4	13.7	9.0	11.4	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	13.7	13.4	13.5	13.8	13.4	13.6	11.5	11.0	11.2	9.2	8.9	9.1
2	13.9	13.5	13.7	13.8	13.4	13.6	11.2	10.9	11.0	9.1	8.8	8.9
3	13.9	13.7	13.8	13.9	13.5	13.7	10.9	10.7	10.8	9.5	8.9	9.2
4	14.0	13.7	13.9	14.2	13.7	13.9	11.1	10.9	11.0	9.6	9.2	9.4
5	14.1	13.9	14.0	13.9	13.5	13.7	11.1	10.8	10.9	9.2	8.9	9.1
6	14.0	13.8	13.9	13.9	13.3	13.6	11.1	10.8	10.9	9.5	8.8	9.0
7	13.9	13.6	13.8	13.7	13.2	13.4	11.0	10.7	10.9	9.5	8.8	9.2
8	13.9	13.6	13.7	13.6	12.9	13.2	10.9	10.5	10.7	9.2	7.9	8.7
9	13.8	13.4	13.7	13.1	12.3	12.7	10.6	10.3	10.4	8.3	7.2	7.8
10	13.7	13.4	13.6	12.5	12.1	12.3	10.4	10.2	10.4	9.1	7.3	8.4
11	13.7	13.3	13.5	12.9	11.7	12.3	10.4	10.1	10.3	9.7	8.5	8.8
12	13.8	13.5	13.7	12.4	11.3	11.9	10.2	10.0	10.1	9.7	8.3	8.7
13	13.8	13.5	13.6	12.6	11.3	12.0	10.0	9.8	9.9	9.1	8.1	8.5
14	13.9	13.5	13.7	12.5	9.5	11.5	9.9	9.7	9.8	9.4	8.7	9.1
15	13.9	13.5	13.7	11.7	10.4	10.9	9.9	9.8	9.8	9.3	8.7	9.0
16	13.8	13.4	13.6	11.5	10.5	10.9	9.9	9.6	9.7	---	---	---
17	13.9	13.4	13.6	11.3	10.7	11.1	9.8	9.6	9.7	---	---	---
18	13.9	13.5	13.7	11.4	10.7	11.0	9.6	9.4	9.5	9.9	7.8	8.9
19	13.9	13.6	13.7	11.1	10.6	10.9	9.4	9.1	9.3	9.7	8.9	9.3
20	13.7	13.1	13.5	11.0	8.7	10.0	9.2	8.9	9.0	9.4	8.4	9.0
21	13.5	13.1	13.3	8.7	7.9	8.2	9.0	8.6	8.8	9.4	7.6	8.2
22	13.6	13.2	13.4	8.2	7.9	8.1	8.6	8.3	8.5	9.4	7.3	7.8
23	13.7	13.3	13.5	8.7	7.8	8.4	8.7	8.3	8.5	10.3	7.6	8.5
24	13.6	13.0	13.3	8.8	6.2	7.9	8.8	8.6	8.7	10.4	8.1	9.1
25	13.5	12.9	13.2	---	---	---	8.9	8.4	8.7	10.4	9.1	9.9
26	13.4	12.9	13.2	---	---	---	8.8	8.3	8.5	10.5	8.9	9.8
27	13.6	13.1	13.4	---	---	---	---	---	---	10.4	9.6	9.9
28	13.7	13.2	13.5	---	---	---	---	---	---	10.1	9.4	9.6
29	---	---	---	---	---	---	9.1	8.4	8.8	9.5	9.3	9.4
30	---	---	---	13.5	12.7	13.1	9.2	8.9	9.1	9.5	9.2	9.3
31	---	---	---	12.7	10.7	11.5	---	---	---	9.4	8.9	9.2
MONTH	14.1	12.9	13.6	---	---	---	---	---	---	---	---	---

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

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.1	4.5	8.5	9.3	5.1	6.5	6.4	6.0	6.2	7.3	5.8	6.5
2	8.8	3.0	6.4	8.9	4.7	6.7	6.4	5.9	6.1	7.1	5.6	6.3
3	8.0	2.5	5.7	8.2	4.2	6.2	6.5	6.0	6.2	7.1	5.1	6.0
4	8.5	5.9	6.9	7.1	4.5	6.0	6.5	5.9	6.2	8.1	5.9	7.0
5	8.1	3.3	6.4	6.6	4.4	5.5	6.7	6.0	6.3	7.9	5.5	6.9
6	6.5	3.3	5.8	7.4	5.0	6.0	7.0	6.2	6.5	6.9	5.4	6.2
7	7.3	3.6	5.9	7.6	5.1	6.1	7.9	6.1	6.9	6.8	4.9	6.1
8	7.6	4.1	6.0	7.7	4.9	5.8	9.4	5.7	7.4	7.9	5.7	6.7
9	7.4	4.3	6.2	9.3	5.6	7.1	9.2	5.4	7.2	7.7	5.4	6.6
10	7.1	4.0	5.5	8.9	5.0	6.7	7.5	5.7	6.6	7.7	5.6	6.6
11	7.1	3.8	5.2	8.2	5.3	6.3	7.3	6.1	6.6	6.6	5.1	6.0
12	7.1	3.6	4.8	8.4	4.8	6.3	8.1	5.1	6.3	6.2	4.5	5.3
13	6.8	2.9	4.7	7.5	5.4	6.1	8.1	5.9	7.1	5.2	2.1	4.2
14	6.7	4.0	5.1	7.5	5.2	6.1	7.7	5.8	6.9	4.3	2.1	3.0
15	6.9	3.9	5.5	7.1	4.9	5.7	7.7	5.5	6.8	3.8	1.8	2.7
16	7.0	4.0	5.5	6.7	4.2	5.3	7.7	6.2	7.0	4.1	1.6	2.6
17	6.7	4.3	5.2	7.0	4.6	5.8	7.8	5.9	6.7	3.9	2.0	2.6
18	7.5	4.0	5.7	8.0	6.7	7.1	7.7	5.9	6.8	4.9	1.8	2.9
19	7.2	4.0	5.4	8.8	7.1	7.7	7.6	5.2	6.1	6.3	3.1	4.4
20	7.4	3.7	5.6	8.9	7.4	8.0	8.1	5.3	6.6	7.7	3.6	4.8
21	7.5	4.3	5.8	8.6	7.2	7.7	9.0	5.7	7.4	7.3	3.3	5.0
22	7.7	3.5	6.3	10.3	6.9	8.0	8.8	7.6	8.3	7.2	3.7	5.0
23	7.5	4.4	6.0	8.1	6.7	7.3	8.6	7.4	7.9	6.8	3.1	4.4
24	7.9	3.7	5.5	9.2	7.0	7.9	8.0	6.5	7.2	6.4	3.2	4.4
25	8.6	4.7	6.0	8.3	6.8	7.4	7.5	5.6	6.6	5.1	3.6	4.1
26	10.3	5.1	6.7	7.6	6.7	7.0	7.5	5.2	6.2	3.9	3.2	3.5
27	8.6	4.8	6.6	7.2	6.5	6.8	7.1	5.1	5.8	3.8	3.1	3.4
28	7.6	5.0	6.3	7.4	6.3	6.8	7.0	5.2	6.0	5.0	3.5	3.9
29	8.3	5.5	6.6	6.9	6.1	6.5	7.5	4.7	5.8	5.6	3.9	4.3
30	8.0	5.7	6.6	6.8	6.0	6.4	7.5	4.9	6.2	4.3	3.3	3.7
31	---	---	---	6.5	6.1	6.3	7.2	5.1	6.2	---	---	---
MONTH	10.3	2.5	5.9	10.3	4.2	6.6	9.4	4.7	6.6	8.1	1.6	4.8

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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 mi^2.

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

GAGE.--Water-stage recorder with telemetry. Datum of gage is 942.109 ft above NGVD of 1929.

REMARKS.--Records fair except for those below 2.0 ft^3/s and those estimated, which are poor.

COOPEARTION.--Lexington-Fayette County Urban Government.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.04	0.21	1.2	e0.60	1.2	0.20	3.4	4.1	0.19	0.10	0.0	0.0
2	0.03	0.19	0.81	e0.56	1.0	0.23	2.5	3.9	0.18	0.06	0.0	0.0
3	0.02	0.18	0.63	e0.52	0.89	0.26	1.8	2.9	0.17	0.04	0.0	0.0
4	0.01	0.16	0.54	e0.49	0.79	0.25	1.4	2.0	0.16	0.01	0.0	0.0
5	0.01	0.15	0.46	0.46	0.72	0.24	1.3	1.6	0.16	0.0	0.0	0.0
6	0.10	0.14	0.61	0.44	0.67	0.25	1.2	12	0.43	0.0	0.0	0.0
7	0.18	0.13	1.0	0.44	0.88	0.28	1.1	10	0.28	0.00	0.0	0.0
8	0.15	0.12	2.1	0.43	0.84	0.29	1.0	5.8	0.22	0.00	0.0	0.0
9	0.15	0.11	2.0	0.48	0.57	0.36	1.1	3.5	0.19	e0.00	0.0	0.0
10	0.08	0.11	1.5	0.82	0.61	0.38	0.78	2.1	0.17	e0.00	0.0	0.0
11	0.05	0.11	1.3	1.7	0.60	0.38	0.55	1.5	0.14	e0.00	0.0	0.0
12	0.25	0.11	1.5	1.4	0.57	0.38	0.51	1.3	0.19	e0.00	0.0	0.0
13	0.49	0.11	4.7	1.1	0.44	0.36	0.50	15	0.26	0.0	0.0	0.0
14	1.0	0.10	4.5	0.93	0.26	0.36	0.57	8.6	0.19	0.01	0.0	0.0
15	0.54	0.10	3.6	0.81	0.25	0.40	0.54	3.2	0.14	0.01	0.0	0.28
16	0.72	0.09	2.7	0.73	0.24	3.6	0.46	1.6	0.11	0.0	0.0	0.17
17	0.61	0.10	3.6	0.64	0.23	3.0	0.44	7.5	0.09	0.10	0.0	0.01
18	0.51	0.10	6.6	0.60	0.23	4.8	0.43	24	0.06	0.17	0.0	0.0
19	0.57	0.11	4.1	0.60	0.22	46	0.43	5.2	0.05	0.07	0.0	0.0
20	0.43	0.15	2.5	0.58	0.26	98	0.47	2.3	0.04	0.03	0.0	0.0
21	0.29	0.15	1.8	0.66	0.26	17	0.65	1.3	0.03	0.02	0.0	0.25
22	0.31	0.13	1.5	0.85	0.23	8.0	1.4	0.89	0.01	0.0	0.0	0.11
23	0.30	0.12	1.8	2.7	0.22	4.4	0.82	0.53	0.0	0.01	0.0	0.02
24	0.86	0.17	1.5	24	0.21	2.8	0.79	0.50	0.0	0.0	0.0	0.0
25	1.4	0.80	e1.2	8.0	0.21	2.0	1.4	0.46	0.07	0.0	0.0	0.0
26	0.71	0.41	e1.1	3.1	0.24	23	1.1	0.42	0.24	0.0	0.0	1.2
27	0.58	1.0	e1.0	1.5	0.24	9.3	1.4	0.37	0.18	0.0	0.0	3.8
28	0.46	1.2	e0.90	1.1	0.22	4.6	48	0.41	0.16	0.0	0.0	0.69
29	0.38	3.5	e0.83	0.85	---	4.7	11	0.27	0.19	0.0	0.0	0.38
30	0.32	2.9	e0.74	0.77	---	7.4	6.5	0.23	0.16	0.0	0.0	0.25
31	0.25	---	e0.66	0.73	---	4.6	---	0.21	---	0.0	0.0	---
TOTAL	11.80	12.96	58.98	58.59	13.30	247.82	93.54	123.69	4.46	0.63	0.0	7.16
MEAN	0.381	0.432	1.903	1.890	0.475	7.994	3.118	3.990	0.149	0.020	0.000	0.239
MAX	1.4	3.5	6.6	24	1.2	98	48	24	0.43	0.17	0.00	3.8
MIN	0.01	0.09	0.46	0.43	0.21	0.20	0.43	0.21	0.00	0.00	0.00	0.00

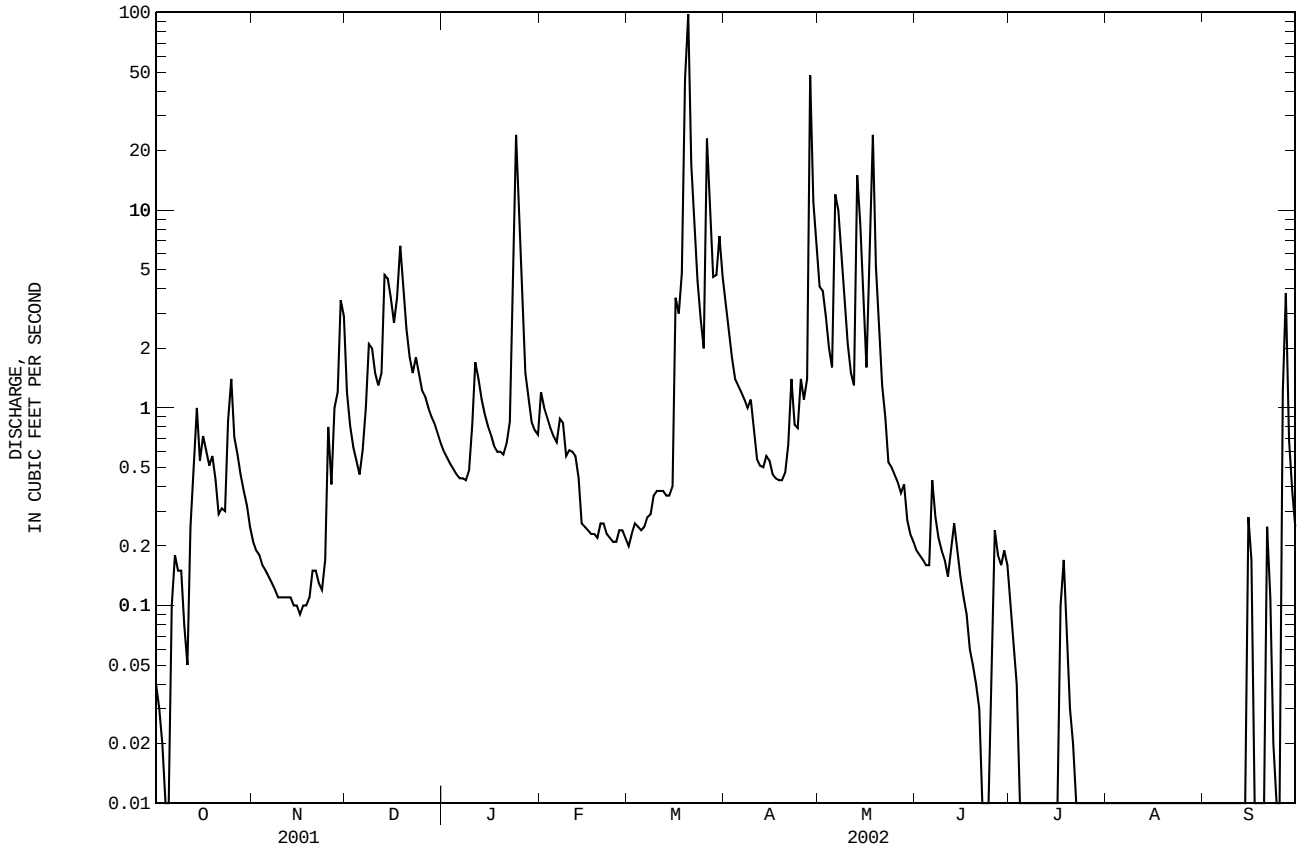
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2002, BY WATER YEAR (WY)

MEAN	0.197	0.241	1.246	3.068	3.814	4.836	2.535	2.410	1.631	1.340	0.144	0.211
MAX	0.38	0.50	1.90	6.35	6.84	7.99	6.19	5.27	7.61	6.20	0.58	0.63
(WY)	2002	1998	2002	1998	1998	2002	1998	1998	1998	1998	2001	2000
MIN	0.000	0.000	0.068	0.25	0.47	3.55	0.73	0.20	0.028	0.016	0.000	0.000
(WY)	2000	2000	2000	2000	2002	2001	2001	1999	1999	1999	1999	1999

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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1998 - 2002	
ANNUAL TOTAL	466.96		632.93			
ANNUAL MEAN	1.279		1.734		1.798	
HIGHEST ANNUAL MEAN					3.66	1998
LOWEST ANNUAL MEAN					0.83	2000
HIGHEST DAILY MEAN	20	Feb 16	98	Mar 20	98	Mar 20 2002
LOWEST DAILY MEAN	0.00	Jul 1	0.00	Jun 23	0.00	Oct 1 1997
ANNUAL SEVEN-DAY MINIMUM	0.02	Sep 29	0.00	Jul 5	0.00	Oct 1 1997
MAXIMUM PEAK FLOW			218	Mar 20	281	Jun 29 1998
MAXIMUM PEAK STAGE			4.53	Mar 20	5.11	Jun 29 1998
INSTANTANEOUS LOW FLOW			0.00	Jul 5	0.00	Jul 1 2001
10 PERCENT EXCEEDS	3.3		3.5		4.4	
50 PERCENT EXCEEDS	0.33		0.31		0.28	
90 PERCENT EXCEEDS	0.09		0.00		0.00	

e Estimated



03287590 NORTH ELKHORN CREEK AT WINCHESTER ROAD NEAR 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 mi^2.

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

GAGE.--Water-stage recorder with telemetry. Elevation of gage is 921.258 ft above NGVD of 1929.

REMARKS.--Records fair except for discharges below 8.0 cfs, above 250 cfs, and those estimated, which are poor. Some of the zero flow daily discharges actually had an observed tricke but less than .01 ft^3/s.

COOPERATION.--Lexington-Fayette County Urban Government.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.03	0.21	4.5	e1.8	9.3	1.1	10	7.7	0.88	0.67	0.03	0.04
2	0.03	0.18	2.5	e1.7	6.2	1.2	7.5	9.8	0.94	0.28	0.02	0.02
3	0.02	0.31	1.8	e1.6	5.3	1.5	5.9	6.3	0.77	0.19	0.00	0.02
4	0.00	0.27	1.4	e1.6	4.3	1.2	4.6	4.5	0.50	0.10	0.00	0.01
5	1.1	0.27	1.1	e1.5	3.6	1.1	3.9	3.4	1.6	0.07	0.00	0.00
6	2.1	0.27	4.5	e1.4	3.5	1.0	3.5	39	6.3	0.05	0.00	0.00
7	0.21	0.27	3.6	e1.4	3.5	0.97	3.2	22	1.8	0.02	0.00	0.00
8	0.12	0.29	8.3	e1.3	3.0	0.93	3.1	12	1.1	0.01	0.00	0.00
9	0.12	0.32	5.7	2.2	2.7	3.1	4.9	8.2	0.69	0.00	0.00	0.00
10	0.11	0.27	4.1	3.5	4.1	1.5	2.7	5.8	0.45	0.00	0.00	0.00
11	0.08	0.33	3.0	6.4	3.1	1.2	1.7	4.0	0.33	0.00	4.4	0.00
12	4.4	0.30	5.5	4.3	2.8	1.2	1.5	3.4	3.2	0.00	0.44	0.00
13	2.2	0.32	15	3.1	2.4	1.1	1.6	46	1.4	1.2	0.16	0.00
14	9.9	0.33	12	2.5	1.5	1.1	3.1	23	0.70	0.23	0.11	4.2
15	3.3	0.40	8.0	2.1	1.5	2.4	1.9	11	0.37	0.10	0.29	16
16	3.6	0.33	7.2	2.1	1.4	19	1.5	6.3	0.30	0.06	0.07	1.7
17	1.2	0.35	11	1.8	1.3	13	1.2	20	0.24	1.7	0.59	0.57
18	0.53	0.35	14	1.5	1.1	18	1.1	51	0.18	0.88	1.6	0.31
19	0.47	1.6	8.8	1.6	1.1	126	1.1	15	0.12	0.26	0.45	0.25
20	0.41	1.1	5.5	1.6	2.2	235	2.1	9.1	0.08	0.53	0.14	0.45
21	0.22	0.19	4.0	2.6	1.6	37	5.1	5.9	0.06	0.16	0.07	5.3
22	0.15	0.12	3.4	3.0	1.3	19	8.4	4.2	0.06	0.07	0.05	0.65
23	0.16	0.10	6.0	8.7	1.1	13	2.9	2.6	0.05	0.07	0.03	0.29
24	7.1	2.8	3.9	66	1.1	9.2	4.0	2.2	0.05	0.06	0.03	0.18
25	6.0	3.0	3.2	24	1.1	6.5	8.6	2.0	0.20	0.04	0.05	0.15
26	1.4	0.81	e2.9	13	1.9	62	4.0	1.7	1.6	0.03	1.6	13
27	0.71	6.1	e2.6	8.7	1.2	22	7.7	1.5	0.99	0.03	2.0	22
28	0.81	6.6	e2.4	6.3	1.2	14	127	1.5	1.4	0.02	0.22	3.3
29	0.54	21	e2.2	5.4	---	18	22	1.1	2.8	0.01	0.13	1.3
30	0.39	13	e2.0	5.0	---	20	11	0.95	2.0	0.45	0.07	1.0
31	0.30	---	e1.9	4.3	---	13	---	0.90	---	0.06	0.05	---
TOTAL	47.71	61.79	162.0	192.0	74.4	665.30	266.8	332.05	31.16	7.35	12.60	70.74
MEAN	1.539	2.060	5.226	6.194	2.657	21.46	8.893	10.71	1.039	0.237	0.406	2.358
MAX	9.9	21	15	66	9.3	235	127	51	6.3	1.7	4.4	22
MIN	0.00	0.10	1.1	1.3	1.1	0.93	1.1	0.90	0.05	0.00	0.00	0.00

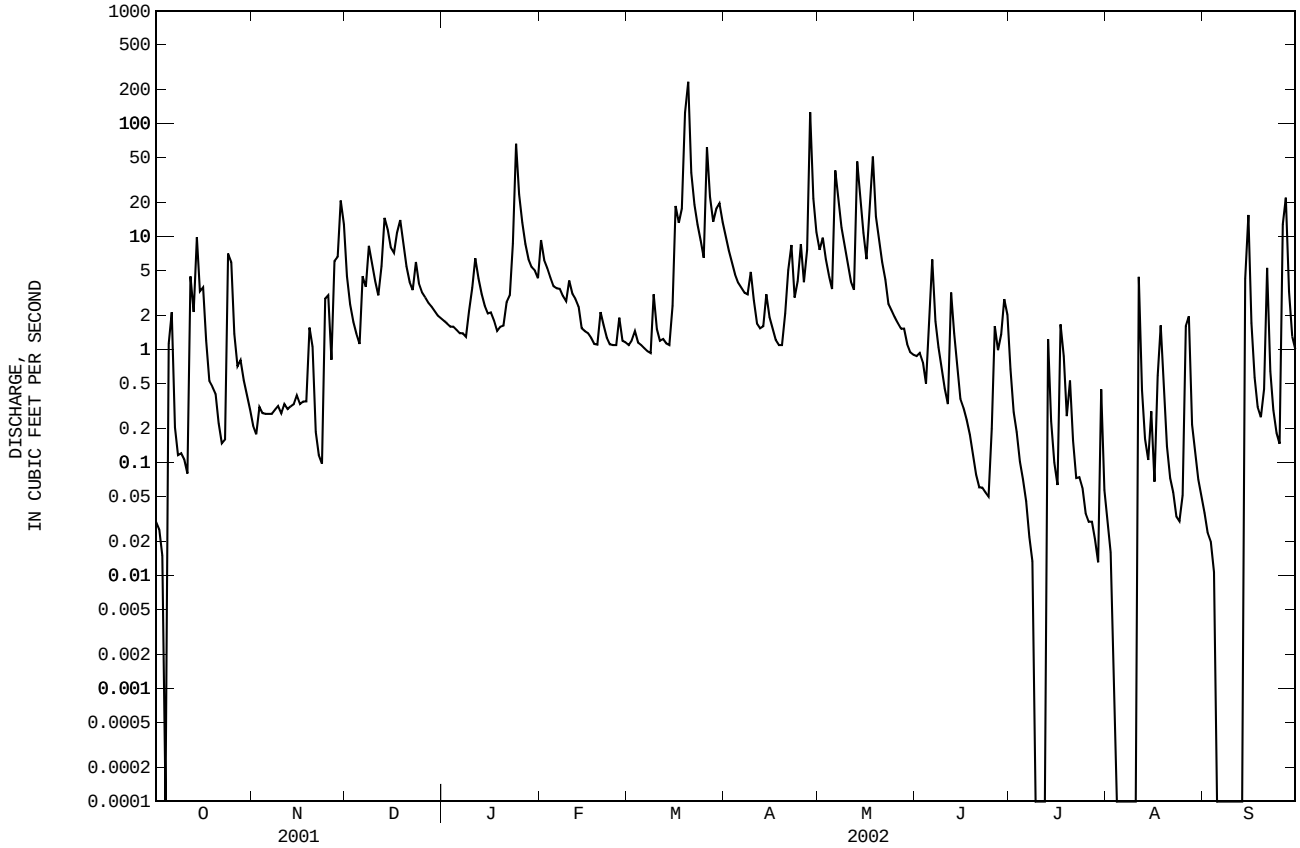
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2002, BY WATER YEAR (WY)

MEAN	0.823	1.281	4.687	8.283	10.59	11.80	5.954	5.994	3.814	4.832	0.894	1.526
MAX	1.54	2.06	11.2	13.7	17.7	21.5	12.3	11.0	15.3	18.6	2.93	4.48
(WY)	2002	2002	2001	1999	2001	2002	1998	1998	1998	1998	2001	2000
MIN	0.33	0.67	1.40	2.25	2.66	6.88	1.49	0.49	0.78	0.24	0.16	0.14
(WY)	1998	2000	2000	2000	2002	1998	1999	1999	2001	2002	1999	1999

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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1998 - 2002	
ANNUAL TOTAL	1762.86		1923.90			
ANNUAL MEAN	4.830		5.271		5.018	
HIGHEST ANNUAL MEAN					7.88	1998
LOWEST ANNUAL MEAN					3.11	2000
HIGHEST DAILY MEAN	98	Feb 16	235	Mar 20	357	Jul 20 1998
LOWEST DAILY MEAN	0.00	Oct 4	0.00	Oct 4	0.00	Oct 5 1997
ANNUAL SEVEN-DAY MINIMUM	0.04	Sep 28	0.00	Aug 3	0.00	Oct 5 1997
MAXIMUM PEAK FLOW			619	Mar 20	1640	Jul 20 1998
MAXIMUM PEAK STAGE			6.45	Mar 20	6.78	Jul 20 1998
INSTANTANEOUS LOW FLOW			0.00	Oct 3	0.00	Nov 8 2000
10 PERCENT EXCEEDS	11		11		11	
50 PERCENT EXCEEDS	1.6		1.5		1.1	
90 PERCENT EXCEEDS	0.18		0.03		0.05	

e Estimated



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, amd at mile 86.0.

DRAINAGE AREA.--21.5 mi^2.

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

GAGE.--Water-stage recorder with telemetry. Datum of gage is 892.042 ft above NGVD of 1929.

REMARKS.--Records fair except for those below 10 ft^3/s, those estimated, and record from June 26 to Sept. 27, which are poor.

COOPERATION.--Lexington-Fayette Urban County Government.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.07	0.27	21	e5.2	50	6.3	51	42	4.3	7.6	0.0	0.04
2	0.04	0.25	11	e4.9	33	6.7	39	56	3.6	1.3	0.0	0.01
3	0.01	0.22	7.1	e4.7	27	8.0	31	36	4.3	0.76	0.0	0.0
4	0.0	0.21	5.6	e4.6	22	7.0	24	27	2.9	0.54	0.0	0.0
5	0.02	0.20	4.6	e4.4	17	6.1	20	22	2.3	0.42	0.0	0.0
6	3.3	0.17	16	e4.3	16	5.7	18	177	28	0.31	0.0	0.0
7	0.34	0.15	15	e4.2	15	5.7	16	125	7.4	0.25	0.0	0.0
8	0.17	0.15	30	e4.1	13	5.7	15	65	3.8	0.22	0.0	0.0
9	0.12	0.15	20	e4.0	12	12	20	49	2.5	0.21	0.0	0.0
10	0.09	0.14	13	15	16	9.0	15	31	1.9	0.18	0.0	0.0
11	0.07	0.14	9.2	33	14	7.0	13	23	1.5	0.16	47	0.0
12	4.2	0.13	13	24	12	7.0	12	20	14	0.10	3.6	0.0
13	2.2	0.12	74	17	11	7.0	12	204	9.1	0.41	0.76	0.0
14	28	0.13	49	13	9.7	6.5	15	127	3.2	0.77	0.42	7.7
15	2.1	0.12	30	9.6	9.2	7.9	15	60	1.8	0.31	0.61	59
16	3.5	0.13	23	7.9	8.5	88	12	38	1.4	0.10	0.25	3.8
17	1.0	0.13	40	7.4	8.2	50	11	67	1.1	6.0	0.17	1.3
18	0.70	0.12	69	6.5	7.5	74	11	268	0.89	1.2	0.60	0.87
19	0.49	0.14	36	6.9	7.5	789	10	84	0.74	0.51	1.2	0.60
20	0.40	2.0	21	7.2	11	1570	14	49	0.65	0.27	0.35	0.69
21	0.29	0.39	13	11	9.9	204	21	31	0.55	0.32	0.16	17
22	0.22	0.26	10	e19	8.0	102	54	22	0.49	0.18	0.11	2.8
23	0.20	0.21	20	e45	7.2	63	17	16	0.45	0.09	0.06	1.5
24	26	3.2	13	e350	6.8	44	14	13	0.43	0.0	0.0	1.1
25	25	13	9.8	143	6.6	33	46	11	0.45	0.0	0.0	0.96
26	1.5	1.3	8.7	71	9.9	338	20	9.6	1.2	0.0	0.30	36
27	0.89	26	7.3	44	7.1	123	35	8.7	1.7	0.0	0.94	114
28	0.65	25	e6.7	32	6.6	68	809	7.7	1.3	0.0	0.36	20
29	0.48	107	e6.2	25	---	84	128	7.1	1.8	0.0	0.18	8.5
30	0.39	72	e5.9	24	---	107	63	6.6	31	0.0	0.11	6.1
31	0.31	---	e5.4	21	---	68	---	5.7	---	0.0	0.08	---
TOTAL	102.75	253.43	613.5	972.9	381.7	3912.6	1581	1708.4	134.75	22.21	57.26	281.97
MEAN	3.315	8.448	19.79	31.38	13.63	126.2	52.70	55.11	4.492	0.716	1.847	9.399
MAX	28	107	74	350	50	1570	809	268	31	7.6	47	114
MIN	0.00	0.12	4.6	4.0	6.6	5.7	10	5.7	0.43	0.00	0.00	0.00

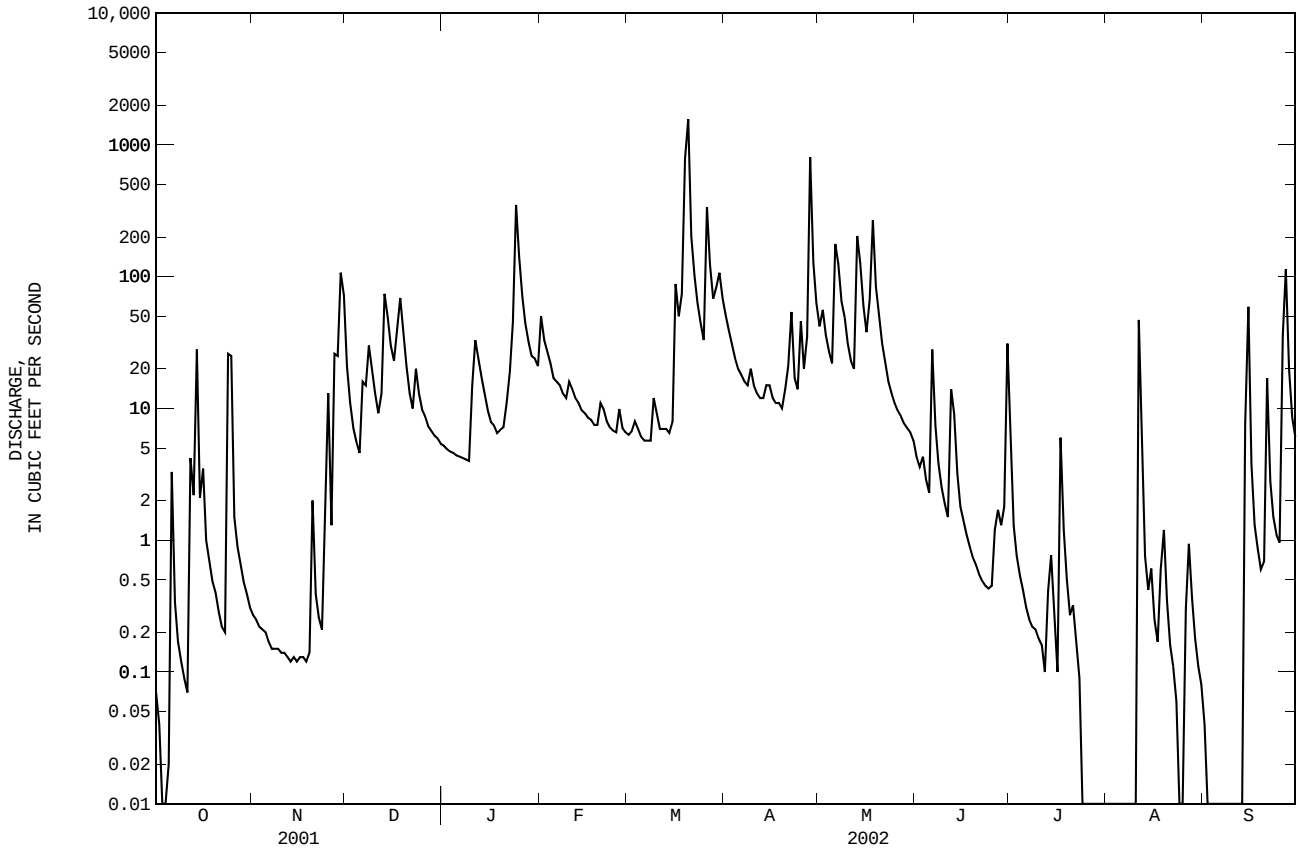
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2002, BY WATER YEAR (WY)

MEAN	2.387	4.742	17.20	38.62	45.90	59.00	30.78	28.39	26.90	19.93	3.048	6.639
MAX	4.16	8.45	27.4	65.5	67.5	126	57.0	55.1	118	84.5	6.29	22.0
(WY)	1999	2002	2001	1999	1998	2002	1998	2002	1998	1998	2001	2000
MIN	1.03	2.26	6.78	15.8	13.6	30.3	8.29	4.00	3.22	0.72	1.13	0.007
(WY)	1998	2000	2000	2000	2002	1998	1999	1999	2001	2002	1998	1999

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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1998 - 2002	
ANNUAL TOTAL	6051.77		10022.47			
ANNUAL MEAN	16.58		27.46		23.53	
HIGHEST ANNUAL MEAN					40.7	1998
LOWEST ANNUAL MEAN					16.2	2000
HIGHEST DAILY MEAN	271	Feb 16	1570	Mar 20	1830	Jul 20 1998
LOWEST DAILY MEAN	0.00	Sep 17	0.00	Oct 4	0.00	Oct 8 1997
ANNUAL SEVEN-DAY MINIMUM	0.09	Sep 29	0.00	Jul 24	0.00	Sep 8 1998
MAXIMUM PEAK FLOW			4620	Mar 20	7900	Jun 29 1998
MAXIMUM PEAK STAGE			8.54	Mar 20	10.23	Jun 29 1998
INSTANTANEOUS LOW FLOW					0.00	Aug 7 1999
10 PERCENT EXCEEDS	43		52		50	
50 PERCENT EXCEEDS	3.7		6.5		5.0	
90 PERCENT EXCEEDS	0.24		0.04		0.12	

e Estimated



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 at Georgetown, 0.4 mi downstream from Dry Run, and at mile 33.4.

DRAINAGE AREA.--147 mi^2, of which about 8 mi^2 does not contribute directly to surface runoff.

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

GAGE.--Water-stage recorder with telemetry. Datum of gage is 803.40 ft above NGVD of 1929. Prior to Oct. 1, 1994 at datum 3.40 ft. lower.

REMARKS.--Records good except for those below 80 ft^3/s and those estimated, which are fair.

COOPERATION.--City of Georgetown.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 24	0900	3,540	8.28	Apr 28	Unknown	4,400	Unknown
Mar 20	1400	*6,420	*10.59	May 2	0400	3,120	7.91
Mar 26	1000	4,240	8.87	Jun 26	0200	3,080	7.87

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	28	539	e57	572	42	377	507	62	32	3.2	3.6
2	8.8	25	308	e53	481	40	302	2080	46	50	2.8	3.4
3	7.0	26	210	e48	365	45	247	1000	40	28	2.8	3.4
4	6.1	22	155	e44	286	43	198	615	33	18	2.8	3.3
5	6.0	21	116	e42	218	40	165	406	37	14	2.8	2.8
6	19	19	112	50	182	39	138	717	642	11	2.5	2.5
7	17	17	167	56	161	35	118	1200	407	8.3	2.4	2.5
8	15	17	443	54	136	33	107	693	181	8.2	2.2	2.5
9	16	16	421	51	113	37	110	461	112	7.8	2.2	2.2
10	12	16	304	69	107	56	107	337	81	7.3	2.2	2.2
11	11	16	226	235	115	63	86	240	61	7.3	2.2	2.2
12	68	15	180	282	100	53	77	192	66	6.0	2.2	2.2
13	64	15	305	235	88	48	81	388	341	5.7	6.5	2.2
14	186	15	451	191	78	47	138	1000	269	7.5	13	2.8
15	171	15	423	156	72	46	148	549	122	6.5	8.3	9.9
16	106	13	388	123	67	334	98	353	86	4.3	4.8	28
17	76	12	555	108	63	571	72	276	65	79	3.7	53
18	61	12	784	97	58	651	61	972	49	137	5.0	24
19	45	12	585	e88	54	1820	52	711	39	38	6.1	11
20	35	18	393	e84	57	5820	57	419	34	22	6.0	8.2
21	26	17	277	e80	70	3730	88	293	29	16	5.7	28
22	22	16	214	e78	65	1130	327	217	23	10	4.1	26
23	21	18	218	e74	55	736	205	171	21	8.5	4.7	28
24	37	16	211	1990	48	523	119	136	19	7.8	4.6	14
25	266	17	e150	1490	45	389	149	113	130	5.8	4.0	9.0
26	173	27	e124	775	49	2410	157	94	1150	4.6	4.4	17
27	95	222	e108	503	53	1520	247	80	212	4.3	4.0	243
28	66	226	e93	360	50	794	e3400	72	88	4.0	6.0	246
29	49	718	e80	274	---	560	1720	260	55	3.6	6.0	92
30	39	938	e71	281	---	681	697	96	38	3.6	5.0	51
31	33	---	e64	349	---	489	---	82	---	3.6	4.0	---
TOTAL	1766.9	2565	8675	8377	3808	22825	9848	14730	4538	569.7	136.2	925.9
MEAN	57.00	85.50	279.8	270.2	136.0	736.3	328.3	475.2	151.3	18.38	4.394	30.86
MAX	266	938	784	1990	572	5820	3400	2080	1150	137	13	246
MIN	6.0	12	64	42	45	33	52	72	19	3.6	2.2	2.2
CFSM	0.39	0.58	1.90	1.84	0.93	5.01	2.23	3.23	1.03	0.13	0.03	0.21
IN.	0.45	0.65	2.20	2.12	0.96	5.78	2.49	3.73	1.15	0.14	0.03	0.23

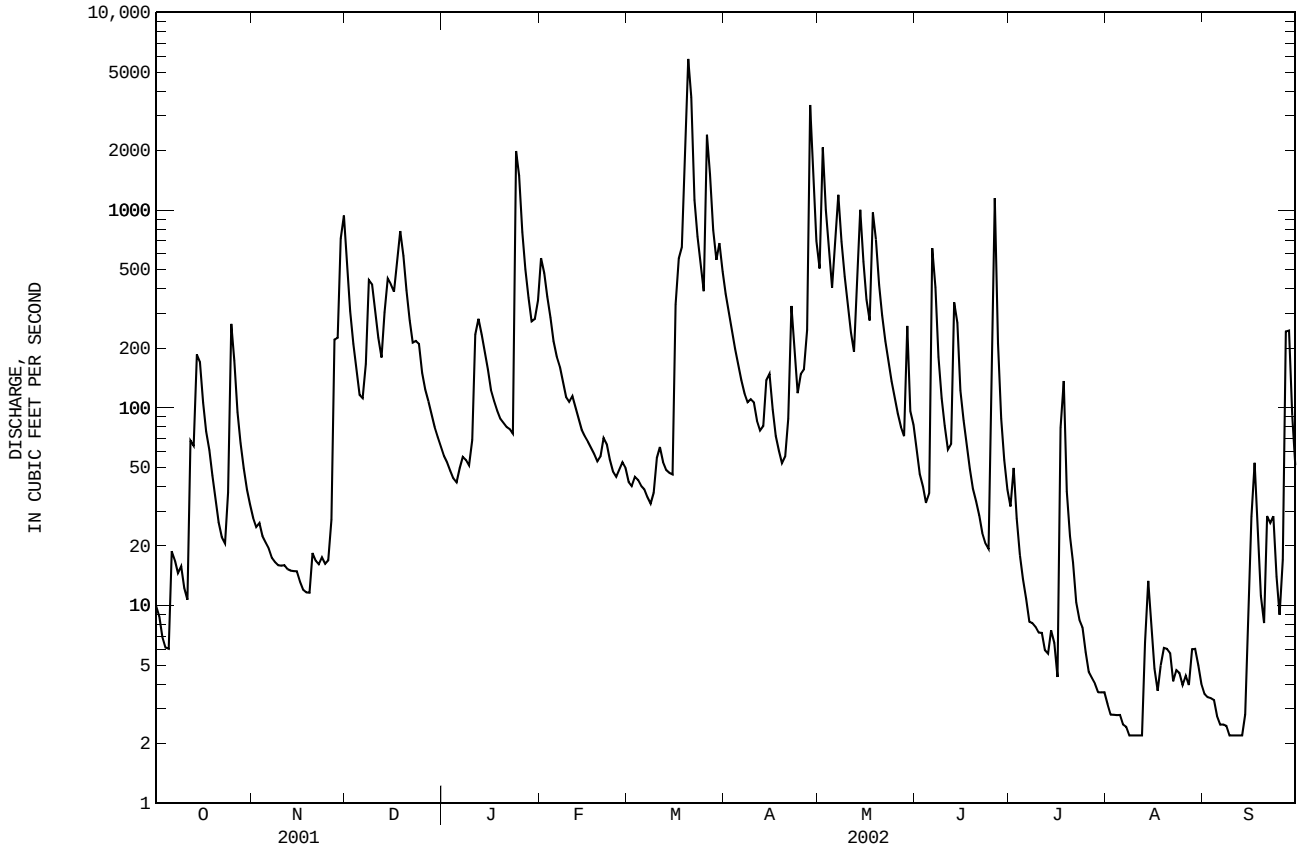
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2002, BY WATER YEAR (WY)

MEAN	32.63	109.1	214.9	369.0	381.0	564.6	226.6	310.1	222.9	119.1	54.13	35.84
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	6.82	9.49	29.7	55.1	136	242	62.7	25.0	19.6	12.8	4.39	2.63
(WY)	2000	2000	2000	2000	2002	1998	1999	1999	1994	1999	2002	1999

03288100 NORTH ELKHORN CREEK AT GEORGETOWN, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1993 - 2002	
ANNUAL TOTAL	60995.0		78764.7			
ANNUAL MEAN	167.1		215.8		221.7	
HIGHEST ANNUAL MEAN					371	1997
LOWEST ANNUAL MEAN					114	2000
HIGHEST DAILY MEAN	3040	Jul 22	5820	Mar 20	11000	Mar 3 1997
LOWEST DAILY MEAN	6.0	Oct 5	2.2	Aug 8	1.3	Sep 18 1999
ANNUAL SEVEN-DAY MINIMUM	8.8	Sep 29	2.3	Aug 6	1.6	Sep 14 1999
MAXIMUM PEAK FLOW			6420	Mar 20	19300	Mar 2 1997
MAXIMUM PEAK STAGE			10.59	Mar 20	19.01	Mar 2 1997
ANNUAL RUNOFF (CFSM)	1.14		1.47		1.51	
ANNUAL RUNOFF (INCHES)	15.44		19.93		20.49	
10 PERCENT EXCEEDS	410		543		523	
50 PERCENT EXCEEDS	62		61		62	
90 PERCENT EXCEEDS	14		4.3		8.7	

e Estimated



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 with telemetry. Datum of gage is 797.16 ft above NGVD of 1929.

REMARKS.--Records fair 10 ft^3/s to 200 ft^3/s, poor below 10 ft^3/s and above 200 ft^3/s, and for those estimated.

COOPERATION.--City of Georgetown.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	6.5	25	15	40	6.0	31	33	13	2.4	0.01	0.00
2	1.8	6.1	21	13	14	6.0	34	35	9.8	2.2	0.00	0.00
3	1.5	5.8	23	12	28	5.7	42	49	6.9	1.8	0.00	0.00
4	1.4	e4.1	27	11	44	5.1	39	53	5.2	1.5	0.00	0.00
5	1.7	e2.8	27	10	38	4.8	36	45	5.0	1.4	0.00	0.00
6	8.5	2.0	26	10	34	4.4	33	33	27	1.2	0.00	0.00
7	5.5	1.7	28	9.6	31	4.0	31	24	19	0.91	0.00	0.00
8	4.0	1.9	33	9.3	27	4.0	29	24	18	0.54	0.00	0.00
9	3.2	1.7	18	8.7	25	5.2	29	20	12	0.59	0.00	0.00
10	2.5	1.4	37	12	23	7.5	27	14	9.1	0.61	0.00	0.00
11	2.1	2.3	32	19	25	5.4	24	8.8	7.2	0.41	0.00	0.00
12	9.9	1.0	29	22	20	4.9	19	6.4	8.1	0.28	0.93	0.00
13	9.9	0.67	46	23	18	4.5	16	17	17	0.04	0.09	0.00
14	21	0.77	48	20	15	3.9	16	42	9.9	0.56	0.00	0.00
15	7.8	0.72	47	18	14	4.3	14	62	6.9	1.2	0.00	2.3
16	21	0.63	39	16	13	25	11	54	6.0	0.23	0.00	4.6
17	18	0.94	31	14	12	17	9.1	42	5.2	1.3	0.00	1.0
18	14	1.0	35	12	9.5	25	7.7	25	3.4	2.2	0.00	0.57
19	12	0.99	7.4	12	8.8	41	7.1	21	3.0	1.4	0.13	0.27
20	9.8	1.9	31	12	9.2	52	8.4	18	2.5	0.77	0.07	0.10
21	8.5	1.6	47	12	9.1	30	15	35	2.2	0.55	0.01	11
22	7.4	1.3	42	15	8.5	15	40	42	2.1	0.43	0.00	3.1
23	6.5	1.3	42	17	7.5	e13	27	37	1.9	0.28	0.00	1.5
24	9.9	1.2	37	38	6.9	e9.8	22	34	1.7	0.23	0.00	0.78
25	24	6.4	32	35	6.6	e7.8	31	31	2.7	0.13	0.00	0.49
26	17	3.0	28	46	7.3	6.1	23	30	3.5	0.08	0.00	3.9
27	14	17	26	37	7.0	e16	26	27	2.6	0.07	0.00	36
28	6.1	24	23	28	6.4	41	54	25	2.4	0.04	0.00	11
29	3.0	35	22	33	---	61	36	24	2.1	0.01	0.00	9.1
30	8.0	35	20	42	---	39	36	23	1.8	0.04	0.00	5.4
31	8.1	---	17	41	---	35	---	20	---	0.00	0.00	---
TOTAL	270.3	170.72	946.4	622.6	507.8	509.4	773.3	954.2	217.2	23.40	1.24	91.11
MEAN	8.719	5.691	30.53	20.08	18.14	16.43	25.78	30.78	7.240	0.755	0.040	3.037
MAX	24	35	48	46	44	61	54	62	27	2.4	0.93	36
MIN	1.4	0.63	7.4	8.7	6.4	3.9	7.1	6.4	1.7	0.00	0.00	0.00

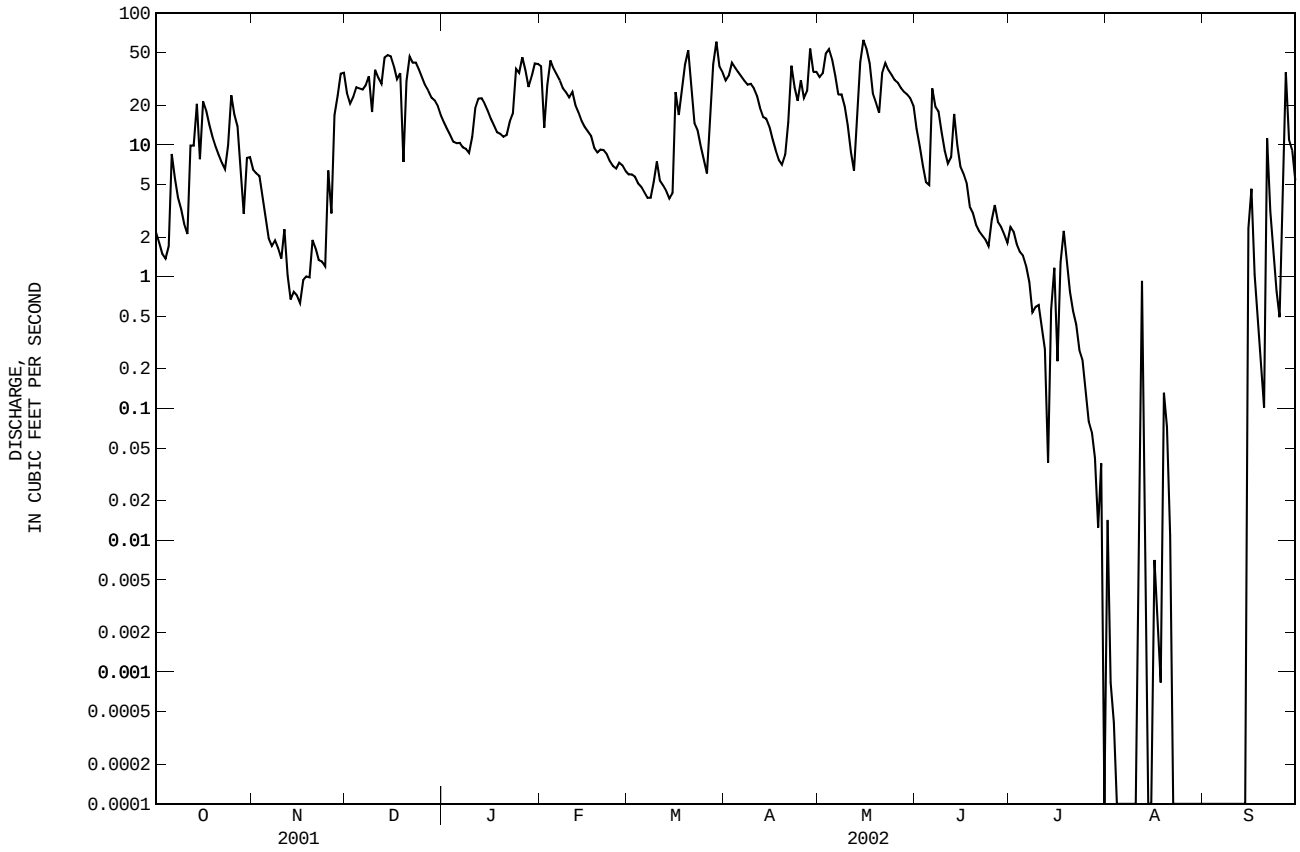
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2002, BY WATER YEAR (WY)

MEAN	5.335	11.70	23.69	33.68	34.03	41.83	28.10	27.37	23.58	10.24	7.533	4.661
MAX	9.63	35.9	48.3	49.0	52.5	77.5	47.5	55.9	65.1	44.1	13.0	12.7
(WY)	1997	1994	1997	1996	1994	1997	1994	1996	1997	1998	1993	1996
MIN	1.57	0.98	6.00	5.67	13.7	15.2	13.5	5.26	3.04	0.75	0.045	0.26
(WY)	1999	2000	1999	2000	2000	2002	2001	1999	1994	2002	2002	1998

03288110 ROYAL SPRINGS AT GEORGETOWN, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1993 - 2002	
ANNUAL TOTAL	5497.93		5087.67			
ANNUAL MEAN	15.06		13.94		20.77	
HIGHEST ANNUAL MEAN					30.5	1997
LOWEST ANNUAL MEAN					9.07	2000
HIGHEST DAILY MEAN	49	Mar 23	62	May 15	313	Mar 1 1997
LOWEST DAILY MEAN	0.63	Jul 16	0.00	Jul 31	0.00	Oct 15 1993
ANNUAL SEVEN-DAY MINIMUM	0.82	Nov 13	0.00	Aug 2	0.00	Oct 4 1997
MAXIMUM PEAK FLOW			183	Apr 28	2240	Mar 1 1997
MAXIMUM PEAK STAGE			6.11	Apr 28	7.30	Mar 1 1997
10 PERCENT EXCEEDS	33		36		52	
50 PERCENT EXCEEDS	12		8.5		13	
90 PERCENT EXCEEDS	2.3		0.00		0.65	

e Estimated



03288200 CANE RUN AT BEREA ROAD NEAR DONERAIL, KY

LOCATION.--Lat 38°08'19", long 84°31'02", Fayette County, Hydrologic Unit 05100205, on right bank, upstream side of bridge on Berea Road, 0.2 mi southwest of Ironworks Road (Hwy 1973), 0.8 mi northeast of Georgetown Road (U.S. Hwy 25), 1.0 mi southeast of Donerail, Ky., and 9.0 mi upstream from North Elkhorn Creek.

DRAINAGE AREA.--19.9 mi^2.

PERIOD OF RECORD.--February 1999 to current year.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 850 ft above NGVD of 1929, (from topographic map).

REMARKS.--Records poor.

COOPERATION.--Lexington-Fayette Urban County Government.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.64	0.00	4.3	0.00	2.6	13	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.31	52	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.8	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	41	5.6	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	33	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.2	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.5	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.24	0.00	0.00	0.00	0.00	40	0.00	0.00	0.00	0.00
14	2.8	0.00	0.00	0.00	0.00	0.00	0.00	29	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.76	0.00	2.8	0.00	0.00	0.00	0.00
17	0.00	0.00	0.51	0.00	0.00	0.00	0.00	8.7	0.00	0.00	0.00	0.00
18	0.00	0.00	15	0.00	0.00	0.00	e0.00	58	0.00	0.00	0.00	0.00
19	0.00	0.00	1.7	0.00	0.00	286	e0.00	19	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	772	e0.00	6.7	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	132	e0.00	1.9	0.00	0.00	0.00	0.31
22	0.00	0.00	0.00	0.00	0.00	54	e6.6	0.16	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	30	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	69	0.00	15	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	40	0.00	5.9	3.5	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	18	0.00	127	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	4.3	0.00	53	5.1	0.00	0.00	0.00	0.00	37
28	0.00	0.00	0.00	0.39	0.00	29	233	0.00	0.00	0.00	0.00	0.00
29	0.00	30	0.00	0.00	---	25	59	0.00	0.00	0.00	0.00	0.00
30	0.00	22	0.00	0.00	---	20	28	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	8.2	---	0.00	---	0.00	0.00	---
TOTAL	2.80	52.00	18.09	131.69	4.30	1557.86	338.11	392.18	5.60	0.00	0.00	37.31
MEAN	0.090	1.733	0.584	4.248	0.154	50.25	11.27	12.65	0.187	0.000	0.000	1.244
MAX	2.8	30	15	69	4.3	772	233	58	5.6	0.00	0.00	37
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

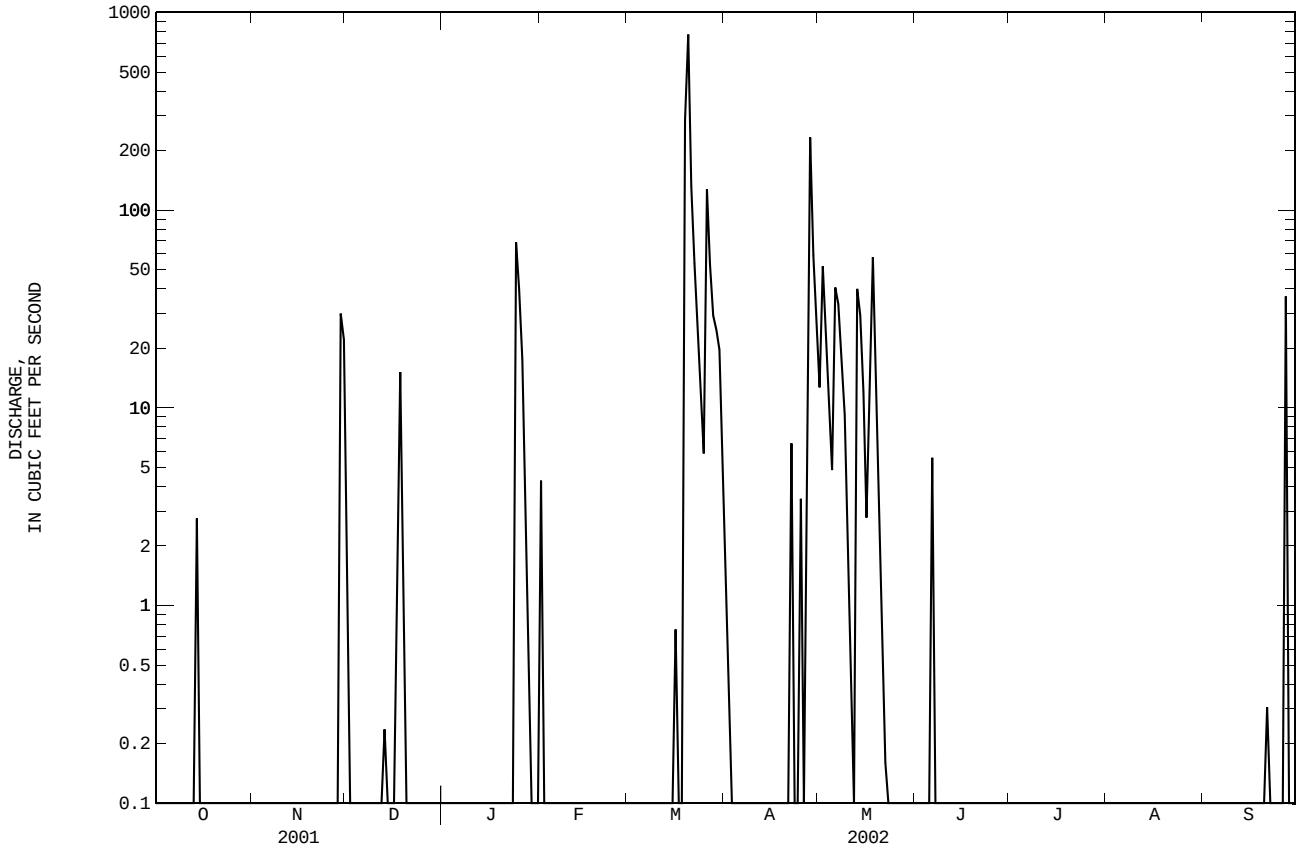
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	0.030	0.578	2.397	1.791	7.027	17.66	3.197	3.700	0.185	0.548	0.193	1.032
MAX	0.090	1.73	6.61	4.25	12.1	50.3	11.3	12.7	0.40	2.15	0.68	2.50
(WY)	2002	2002	2001	2002	2000	2002	2002	2002	2000	2001	2001	2000
MIN	0.000	0.000	0.000	0.000	0.15	5.97	0.000	0.032	0.011	0.000	0.000	0.000
(WY)	2000	2000	2000	2001	2002	2001	1999	2000	2001	1999	1999	1999

03288200 CANE RUN AT BEREA ROAD NEAR DONERAIL, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL TOTAL	668.01		2539.94			
ANNUAL MEAN	1.830		6.959		3.711	
HIGHEST ANNUAL MEAN					6.96	2002
LOWEST ANNUAL MEAN					1.99	2000
HIGHEST DAILY MEAN	64	Feb 17	772	Mar 20	772	Mar 20 2002
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 1	0.00	Feb 17 1999
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Oct 1	0.00	Feb 17 1999
MAXIMUM PEAK FLOW			1750	Mar 20	1750	Mar 20 2002
MAXIMUM PEAK STAGE			7.60	Mar 20	7.60	Mar 20 2002
INSTANTANEOUS LOW FLOW			0.00	Oct 1	0.00	Oct 1 2001
10 PERCENT EXCEEDS	1.8		7.3		1.6	
50 PERCENT EXCEEDS	0.00		0.00		0.00	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

e Estimated



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 mi^2, of which about 3.0 mi^2 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: Drinage area. WSP 1625: 1951-52 (P).

GAGE.--Water-stage recorder with telemetry. Datum of gage is 834.25 ft above NGVD of 1929. 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 fair.

COOPERATION.--Lexington-Fayette Urban County Government.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 24	0830	734	6.31	Apr 28	0745	1,350	7.84
Mar 20	1010	*1,690	*8.51	May 6	1750	761	6.39
Mar 26	0945	724	6.28	May 13	1655	656	6.07

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	2.8	52	7.7	65	8.6	79	83	7.8	5.6	1.3	1.4
2	2.1	2.5	28	7.1	48	8.7	63	73	7.1	12	1.1	1.3
3	1.6	2.5	19	6.1	40	10	51	52	5.0	3.8	1.7	1.1
4	2.1	2.3	14	5.5	33	8.7	40	37	4.0	2.7	1.2	1.1
5	2.5	2.0	11	5.3	27	8.0	32	28	6.1	2.3	1.7	0.95
6	18	1.8	22	6.5	24	7.5	27	165	67	2.1	1.8	0.83
7	3.8	1.6	30	8.2	22	7.0	24	159	26	1.8	1.5	0.79
8	2.5	1.7	39	8.0	20	6.6	21	99	14	1.7	1.3	0.72
9	1.9	2.1	32	7.5	17	12	19	75	9.8	2.0	2.2	0.65
10	1.8	2.2	24	12	22	12	20	49	8.0	2.2	4.6	0.66
11	2.5	2.1	18	22	20	9.0	16	35	6.7	2.1	4.2	0.67
12	18	2.1	15	20	17	8.4	16	28	45	2.2	2.9	0.73
13	9.8	2.1	92	17	15	8.1	16	225	42	5.5	2.3	0.79
14	62	2.2	68	14	13	7.4	22	190	17	7.0	2.0	1.5
15	23	2.2	44	12	13	7.7	21	100	11	3.9	3.8	76
16	20	2.1	39	10	12	101	12	70	9.2	2.6	4.4	25
17	11	2.3	57	10	11	68	13	88	7.8	10	2.5	9.1
18	7.4	2.4	94	9.4	10	81	9.0	248	6.5	6.0	7.0	6.0
19	5.8	3.0	61	9.8	10	440	7.8	117	5.9	2.7	10	4.8
20	4.6	9.8	39	10	12	1020	20	75	5.0	2.1	3.8	18
21	3.4	3.3	27	14	14	390	31	52	4.7	8.0	2.5	75
22	3.3	2.2	21	20	11	209	141	37	4.4	3.8	1.8	16
23	3.9	1.8	32	51	9.7	127	42	29	4.0	1.7	1.4	9.5
24	25	1.7	24	345	8.9	88	28	24	3.9	1.4	1.3	6.7
25	41	29	19	187	8.4	67	96	20	4.0	1.3	3.5	5.3
26	12	7.9	16	104	14	310	43	17	10	1.3	11	50
27	8.2	41	14	69	11	188	55	14	9.7	1.3	11	230
28	5.9	42	12	48	9.5	112	513	12	6.4	1.1	4.7	66
29	4.8	165	11	36	---	128	241	11	4.1	1.0	2.8	28
30	3.8	118	9.6	32	---	162	127	9.6	3.0	5.2	2.0	18
31	3.1	---	8.6	27	---	107	---	6.5	---	2.2	1.6	---
TOTAL	316.9	463.7	992.2	1141.1	537.5	3727.7	1845.8	2228.1	365.1	108.6	104.9	656.59
MEAN	10.22	15.46	32.01	36.81	19.20	120.2	61.53	71.87	12.17	3.503	3.384	21.89
MAX	62	165	94	345	65	1020	513	248	67	12	11	230
MIN	1.6	1.6	8.6	5.3	8.4	6.6	7.8	6.5	3.0	1.0	1.1	0.65
CFSM	0.48	0.73	1.51	1.74	0.91	5.67	2.90	3.39	0.57	0.17	0.16	1.03
IN.	0.56	0.81	1.74	2.00	0.94	6.54	3.24	3.91	0.64	0.19	0.18	1.15

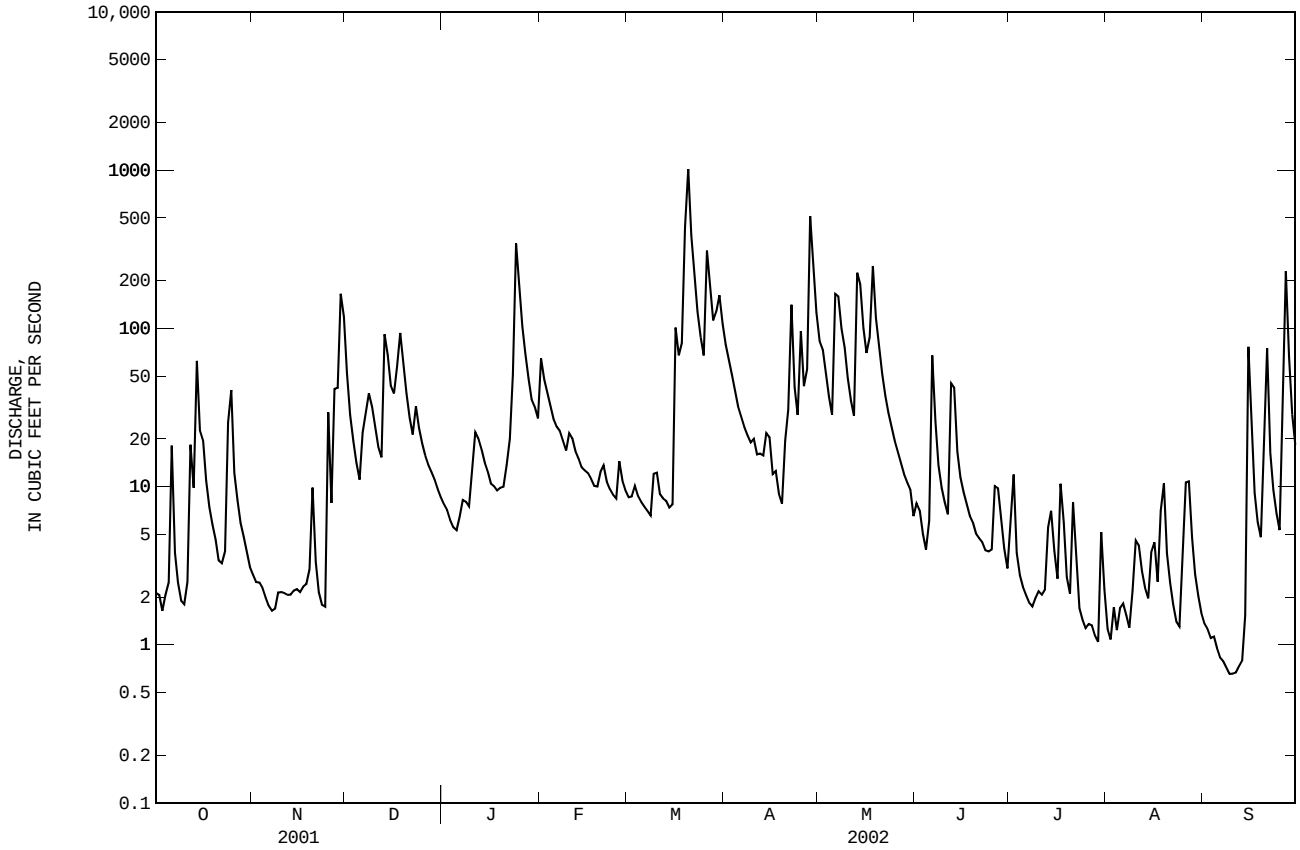
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2002, BY WATER YEAR (WY)

MEAN	8.388	20.20	49.09	49.47	63.85	69.52	43.46	33.31	19.97	15.59	11.32	9.557
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	0.000	0.087	0.86	4.43	6.48	11.0	10.3	3.92	1.14	0.66	0.006	0.020
(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 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1950 - 2002	
ANNUAL TOTAL	9087.9		12488.19			
ANNUAL MEAN	24.90		34.21		32.61	
HIGHEST ANNUAL MEAN					62.1	1989
LOWEST ANNUAL MEAN					6.75	1954
HIGHEST DAILY MEAN	292	Feb 16	1020	Mar 20	1310	Feb 15 1989
LOWEST DAILY MEAN	1.6	Oct 3	0.65	Sep 9	0.00	Aug 6 1951
ANNUAL SEVEN-DAY MINIMUM	1.9	Nov 5	0.72	Sep 7	0.00	Aug 19 1951
MAXIMUM PEAK FLOW			1690	Mar 20	2280	Feb 15 1989
MAXIMUM PEAK STAGE			8.51	Mar 20	12.13	Sep 21 1979
INSTANTANEOUS LOW FLOW					0.00	Aug 6 1951
ANNUAL RUNOFF (CFSM)	1.17		1.61		1.54	
ANNUAL RUNOFF (INCHES)	15.95		21.91		20.90	
10 PERCENT EXCEEDS	57		82		80	
50 PERCENT EXCEEDS	11		10		12	
90 PERCENT EXCEEDS	2.4		1.8		1.4	



03289193 WOLF RUN AT OLD FRANKFORT PIKE AT LEXINGTON, KY

LOCATION.--Lat 38°04'00", long 84°33'16", Fayette County, Hydrologic Unit 05100205, on left bank, downstream side of bridge on Old Frankfort Pike (1681), at Lexington 0.3 mile southeast of the intersection of Old Frankfort Pike and Viley Road, 0.7 mile northwest of the intersection of Old Frankfort Pike and New Circle Road (Hwy 4), and 0.5 mile above mouth.

DRAINAGE AREA.--9.57 mi^2.

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

GAGE.--Water-stage recorder with telemetry. Elevation of gage is 860 ft above NGVD of 1929 (from topographic map).

REMARKS.--Records fair except those estimated and those above 100 ft^3/s, which are poor.

COOPERATION.--Lexington-Fayette Urban County Government.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.82	3.0	18	e3.9	30	3.3	20	26	4.7	6.7	0.90	0.72
2	0.76	3.0	12	e3.7	11	3.3	17	29	4.3	2.0	1.2	0.65
3	0.71	3.1	9.2	e3.5	9.6	3.4	15	19	4.1	1.3	0.86	0.64
4	0.65	3.0	7.6	e3.2	8.3	3.2	14	16	3.8	1.1	0.78	0.64
5	11	2.9	6.6	e3.0	7.1	3.2	12	15	8.4	1.0	0.76	0.64
6	8.0	2.9	18	5.1	6.4	3.2	12	111	32	0.96	0.81	0.63
7	1.4	2.9	11	5.7	6.1	3.2	11	40	4.8	0.90	0.76	0.62
8	1.1	2.9	19	5.2	5.6	3.1	11	22	3.7	0.89	0.72	0.62
9	0.97	2.9	11	5.3	5.2	9.5	14	24	3.4	0.90	0.70	0.62
10	1.0	2.9	8.9	6.2	11	4.0	11	16	3.0	1.3	0.70	0.63
11	1.1	2.9	7.6	8.9	6.0	3.3	10	14	2.7	0.82	5.7	0.63
12	21	2.9	18	6.9	5.2	3.2	9.9	13	24	0.81	1.3	0.59
13	4.2	3.7	26	6.4	4.8	3.2	9.8	96	5.0	3.2	0.85	0.59
14	47	3.2	20	5.9	4.5	3.1	14	37	3.0	1.6	0.98	4.1
15	7.1	2.6	13	5.4	4.3	5.5	10	21	2.6	1.1	2.4	92
16	12	2.6	18	5.1	4.2	36	9.8	16	2.4	0.96	1.1	10
17	4.8	2.6	27	4.8	3.9	11	9.1	55	2.2	12	1.0	3.1
18	3.7	2.6	24	4.6	3.5	17	8.8	59	2.1	2.3	3.3	2.2
19	3.2	5.3	17	5.0	3.5	281	8.7	23	1.8	1.3	1.7	1.9
20	2.9	6.5	12	5.4	4.8	507	14	16	1.7	8.4	0.99	27
21	2.7	3.3	9.7	7.8	4.5	99	35	12	1.6	3.2	0.88	38
22	2.7	2.9	8.4	7.6	3.7	49	e34	11	1.5	1.4	0.78	5.1
23	2.7	2.7	18	13	3.5	30	12	9.5	1.3	1.1	0.76	3.2
24	29	15	9.2	138	3.3	21	24	8.5	1.2	1.0	0.76	2.3
25	18	13	e7.4	40	3.3	17	29	8.1	1.2	0.99	0.75	1.9
26	6.5	5.2	e6.6	23	7.5	143	13	7.3	11	0.93	4.2	55
27	5.0	33	e5.8	15	3.6	42	30	6.7	3.3	0.87	9.4	104
28	4.2	26	e5.3	11	3.4	27	399	7.6	4.4	0.80	1.3	20
29	3.7	87	e4.9	8.9	---	66	64	6.1	1.6	0.91	1.0	9.0
30	3.5	40	e4.5	12	---	36	34	5.5	6.3	6.4	0.84	6.1
31	3.2	---	e4.2	7.9	---	26	---	5.3	---	1.3	0.76	---
TOTAL	214.61	292.5	387.9	387.4	177.8	1465.7	915.1	755.6	153.1	68.44	48.94	393.12
MEAN	6.923	9.750	12.51	12.50	6.350	47.28	30.50	24.37	5.103	2.208	1.579	13.10
MAX	47	87	27	138	30	507	399	111	32	12	9.4	104
MIN	0.65	2.6	4.2	3.0	3.3	3.1	8.7	5.3	1.2	0.80	0.70	0.59
CFSM	0.72	1.02	1.31	1.31	0.66	4.94	3.19	2.55	0.53	0.23	0.16	1.37
IN.	0.83	1.14	1.51	1.51	0.69	5.70	3.56	2.94	0.60	0.27	0.19	1.53

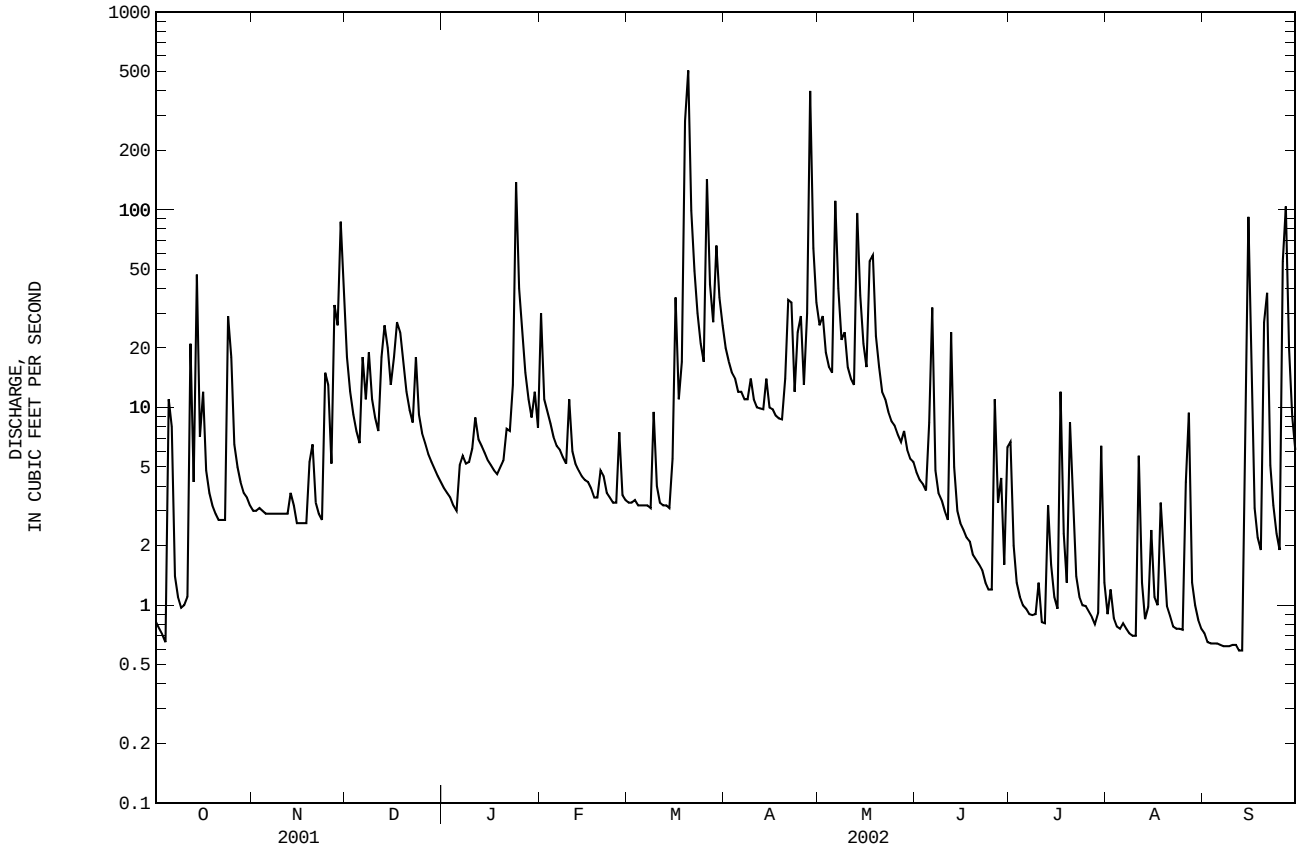
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2002, BY WATER YEAR (WY)

MEAN	4.276	5.489	11.62	18.96	19.01	24.83	16.18	16.72	19.35	14.86	3.921	6.341
MAX	6.92	9.75	18.7	37.7	28.1	47.3	30.5	27.8	61.8	44.6	6.97	13.1
(WY)	2002	2002	2001	1999	1998	2002	2002	1998	1998	1998	2001	2002
MIN	1.59	2.45	5.19	6.31	6.35	14.9	5.84	5.82	5.10	2.21	1.58	1.37
(WY)	2001	2000	2000	2001	2002	1998	2001	1999	2002	2002	2002	1999

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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1998 - 2002	
ANNUAL TOTAL	3909.01		5260.21			
ANNUAL MEAN	10.71		14.41		13.44	
HIGHEST ANNUAL MEAN					21.6	1998
LOWEST ANNUAL MEAN					9.93	2000
HIGHEST DAILY MEAN	126	Jul 26	507	Mar 20	717	Jul 20 1998
LOWEST DAILY MEAN	0.65	Oct 4	0.59	Sep 12	0.34	Oct 13 1997
ANNUAL SEVEN-DAY MINIMUM	0.85	Sep 28	0.61	Sep 7	0.42	Oct 7 1997
MAXIMUM PEAK FLOW			1470	Apr 28	3120	Jun 29 1998
MAXIMUM PEAK STAGE			5.85	Apr 28	7.97	Jun 29 1998
INSTANTANEOUS LOW FLOW			0.59	Sep 5	0.00	Dec 9 1999
ANNUAL RUNOFF (CFSM)	1.12		1.51		1.40	
ANNUAL RUNOFF (INCHES)	15.19		20.45		19.08	
10 PERCENT EXCEEDS	26		29		26	
50 PERCENT EXCEEDS	5.2		5.0		4.8	
90 PERCENT EXCEEDS	2.0		0.88		0.94	

e Estimated



03289200 TOWN BRANCH AT YARNALLTON ROAD AT YARNALLTON, 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, amd at mile 86.0.

DRAINAGE AREA.--30.0 mi^2.

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

GAGE.--Water-stage recorder with telemetry. Elevation of gage is 830 ft above NGVD of 1929 (from topographic map).

REMARKS.--Records fair except for those estimated, which are poor. Flow regulated by a Sewage Treatment Plant and Federal Correctional Institute upstream.

COOPEARTION.--Lexington-Fayette County Urban Government.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	32	116	35	135	34	115	145	43	50	26	26
2	26	32	83	e36	90	33	97	191	41	42	26	23
3	26	31	68	36	79	35	88	134	e42	33	25	24
4	26	29	58	34	73	34	76	101	e41	30	23	24
5	43	30	52	32	64	33	70	83	46	28	25	23
6	73	29	83	e39	59	32	61	263	157	26	25	23
7	33	30	75	44	55	32	56	205	72	24	23	22
8	31	31	97	42	51	30	55	146	53	26	23	22
9	29	29	77	44	46	55	72	134	47	27	23	23
10	28	27	e69	51	63	41	57	98	45	33	22	22
11	28	26	60	65	55	36	52	81	43	27	68	23
12	94	27	68	57	49	34	51	71	e115	27	35	22
13	51	27	147	52	45	34	49	290	75	40	28	22
14	173	28	115	50	43	32	64	201	51	33	26	30
15	76	27	90	48	42	40	54	139	44	30	42	184
16	85	27	97	44	37	156	50	107	40	28	31	64
17	56	26	128	42	35	88	47	156	40	57	28	41
18	46	25	157	42	36	119	45	286	38	40	37	35
19	41	33	115	41	35	749	46	155	37	32	38	32
20	35	e53	90	43	42	1480	62	120	36	33	31	69
21	33	33	75	57	44	513	87	97	e31	41	29	153
22	34	28	64	59	38	304	187	82	e29	31	26	51
23	33	26	90	75	34	210	81	71	e28	28	26	41
24	86	40	67	381	32	159	66	63	30	27	24	36
25	121	85	56	227	33	129	147	57	30	26	24	31
26	56	41	53	153	52	475	74	52	e41	e27	41	138
27	44	122	50	114	39	260	113	50	e44	25	54	366
28	38	117	46	94	35	184	825	49	41	24	32	128
29	37	272	43	82	---	215	304	53	31	25	28	76
30	35	202	40	83	---	180	198	46	79	51	26	60
31	34	---	39	72	---	137	---	45	---	29	24	---
TOTAL	1577	1565	2468	2274	1441	5893	3349	3771	1490	1000	939	1834
MEAN	50.87	52.17	79.61	73.35	51.46	190.1	111.6	121.6	49.67	32.26	30.29	61.13
MAX	173	272	157	381	135	1480	825	290	157	57	68	366
MIN	26	25	39	32	32	30	45	45	28	24	22	22
CFSM	1.70	1.74	2.65	2.45	1.72	6.34	3.72	4.05	1.66	1.08	1.01	2.04
IN.	1.96	1.94	3.06	2.82	1.79	7.31	4.15	4.68	1.85	1.24	1.16	2.27

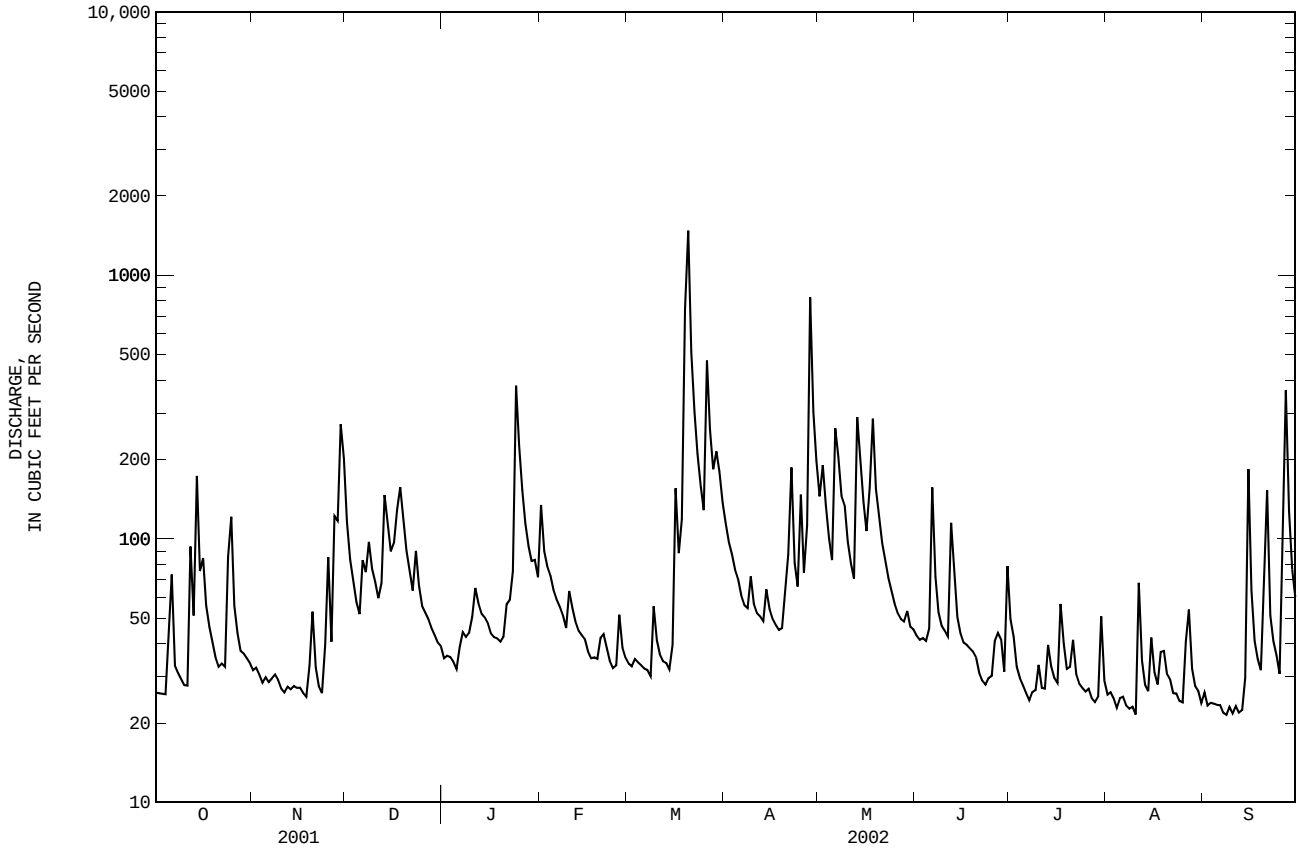
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2002, BY WATER YEAR (WY)

MEAN	38.06	37.93	61.83	80.80	102.0	117.4	85.11	98.46	103.7	81.88	42.58	48.30
MAX	50.9	52.2	81.3	117	136	190	127	174	284	199	52.4	70.5
(WY)	2002	2002	2001	1998	1998	2002	1998	1998	1998	1998	1998	2000
MIN	32.1	32.0	41.2	47.8	51.5	84.9	49.6	46.5	46.4	32.3	30.3	24.9
(WY)	2000	2000	2000	2001	2002	1998	1999	2000	2001	2002	2002	1999

03289200 TOWN BRANCH AT YARNALLTON ROAD AT YARNALLTON, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1998 - 2002	
ANNUAL TOTAL	23632		27601			
ANNUAL MEAN	64.75		75.62		74.69	
HIGHEST ANNUAL MEAN					113	1998
LOWEST ANNUAL MEAN					60.8	2000
HIGHEST DAILY MEAN	397	Jul 26	1480	Mar 20	1960	Jul 20 1998
LOWEST DAILY MEAN	20	Jul 15	22	Aug 10	17	Nov 29 1997
ANNUAL SEVEN-DAY MINIMUM	24	Sep 12	22	Sep 7	22	Sep 13 1999
MAXIMUM PEAK FLOW			3180	Mar 20	6750	Jun 29 1998
MAXIMUM PEAK STAGE			6.81	Mar 20	9.12	Jun 29 1998
INSTANTANEOUS LOW FLOW			17	Aug 7	13	Jul 16 2001
ANNUAL RUNOFF (CFSM)	2.16		2.52		2.49	
ANNUAL RUNOFF (INCHES)	29.30		34.23		33.83	
10 PERCENT EXCEEDS	120		147		146	
50 PERCENT EXCEEDS	46		44		47	
90 PERCENT EXCEEDS	27		26		26	

e Estimated



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.--95.0 mi^2, of which about 12 mi^2 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 NGVD of 1929 (from topographic map).

REMARKS.--Records fair except for those estimated 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.

COOPERATION.--Kentucky River Authority.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 18	0500	*2,600	14.07	Mar 26	unknown	unknown	unknown
Jan 24	unknown	unknown	unknown	Apr 28	unknown	unknown	unknown
Mar 20	unknown	unknown	unknown				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	e39	e329	53	e313	e68	e333	e367	e73	e48	e19	23
2	31	e36	e213	51	e290	e68	e283	e511	e67	e69	e17	25
3	27	e35	e159	50	e244	e73	e244	e376	e56	e41	e21	27
4	27	e34	e127	51	e208	e69	e209	e277	e50	e34	e16	40
5	23	e31	e106	49	e177	e65	e181	e218	e57	e29	e19	20
6	90	e29	e130	49	e158	e62	e163	e458	e242	e26	e19	20
7	49	e28	e170	50	144	e60	e148	e613	e228	e24	14	15
8	39	e27	e200	53	130	e58	e137	e435	e124	e23	28	18
9	e30	e29	e220	53	114	e76	e130	e340	e92	e23	24	30
10	e25	e29	e180	49	e130	e81	e134	e258	e76	e25	14	28
11	e27	e29	e150	49	e125	e77	e118	e204	e66	e23	31	20
12	e76	e28	e110	48	e115	e72	e115	e172	e150	e23	58	17
13	e78	e27	e190	47	e105	e70	e112	e465	e240	e35	29	20
14	e187	e28	e400	47	e100	e66	e131	e588	e164	e36	21	17
15	e165	e28	220	51	e93	e67	e145	e408	e102	e32	41	137
16	e130	e27	156	52	e88	e270	e107	e305	e81	e28	23	166
17	e94	e28	464	51	e83	e318	e103	e304	e71	e46	29	69
18	e74	e28	1790	51	e80	e358	e86	e556	e62	e41	27	51
19	e62	e31	600	157	e76	e869	e79	e448	e56	e41	57	52
20	e53	e52	366	250	e83	e1950	e112	e317	e51	e31	46	35
21	e44	e36	248	e95	e88	e1310	e136	e244	e47	e47	35	240
22	e41	e32	190	e115	e81	e732	e328	e196	e43	e34	22	87
23	e42	e28	150	e176	e76	e508	e220	e165	e40	e25	19	60
24	e94	e27	119	e938	e72	e389	e161	e144	e39	e22	24	52
25	e172	e121	107	e721	e69	e318	e250	e126	e46	e20	e27	46
26	e118	e65	88	e462	e84	e936	e191	e113	e134	e20	e31	74
27	e85	e283	80	e340	e75	e743	e209	e102	e97	e19	e38	579
28	e65	e241	78	e263	e72	e495	e1100	e92	e68	e16	44	e350
29	e56	e525	70	e213	---	e464	e851	e98	e49	e16	42	e134
30	e48	e537	64	e195	---	e524	e500	e93	e40	e32	31	91
31	e42	---	58	e198	---	e412	---	e71	---	e24	18	---
TOTAL	2121	2518	7532	5027	3473	11628	7016	9064	2711	953	884	2543
MEAN	68.4	83.9	243	162	124	375	234	292	90.4	30.7	28.5	84.8
MAX	187	537	1790	938	313	1950	1100	613	242	69	58	579
MIN	23	27	58	47	69	58	79	71	39	16	14	15
CFSM	0.65	0.80	2.31	1.54	1.18	3.57	2.23	2.78	0.86	0.29	0.27	0.81
IN.	0.75	0.89	2.67	1.78	1.23	4.12	2.49	3.21	0.96	0.34	0.31	0.90

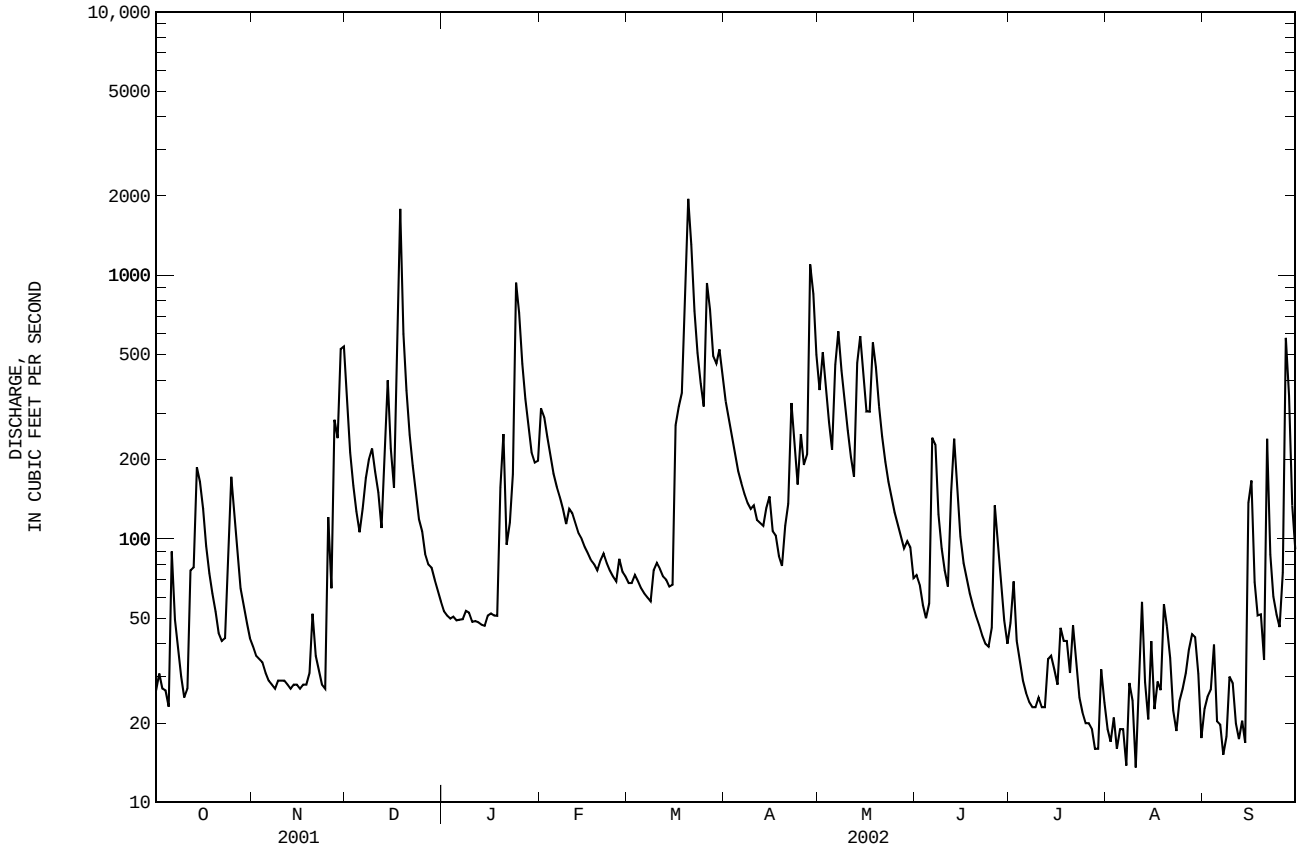
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2002, BY WATER YEAR (WY)

MEAN	60.5	118	219	229	281	309	182	208	166	98.0	64.7	57.3
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	24.5	21.1	42.6	50.4	114	60.1	60.9	35.9	39.5	30.7	22.5	16.4
(WY)	2000	2000	2000	1986	1993	1983	1986	1999	1988	2002	1999	1999

03289300 SOUTH ELKHORN CREEK NEAR MIDWAY, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1982 - 2002	
ANNUAL TOTAL	44416.0		55470			
ANNUAL MEAN	122		152		166	
HIGHEST ANNUAL MEAN					276	1997
LOWEST ANNUAL MEAN					99.6	2000
HIGHEST DAILY MEAN	1790	Dec 18	1950	Mar 20	10700	Mar 2 1997
LOWEST DAILY MEAN	12	Jul 15	14	Aug 7	3.1	Oct 8 1994
ANNUAL SEVEN-DAY MINIMUM	21	Jul 11	18	Aug 1	8.5	Nov 18 2000
MAXIMUM PEAK FLOW					12300	Mar 2 1997
MAXIMUM PEAK STAGE					26.37	Mar 2 1997
INSTANTANEOUS LOW FLOW					0.00	Oct 7 1992
ANNUAL RUNOFF (CFSM)	1.16		1.45		1.58	
ANNUAL RUNOFF (INCHES)	15.74		19.65		21.42	
10 PERCENT EXCEEDS	260		366		350	
50 PERCENT EXCEEDS	73		74		85	
90 PERCENT EXCEEDS	27		24		28	

e Estimated



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 mi^2 of which about 70 mi^2 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 with telemetry. Datum of gage is approximately 540.20 ft above NGVD of 1929. See WDR KY-90-1 for history of changes prior to Aug. 31, 1970.

REMARKS.--Records fair except for those estimated, 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.

COOPERATION.--Kentucky River Authority.

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.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 24	0930	7,780	9.40	Mar 26	2100	8,780	9.95
Mar 21	0330	*16,000	12.85	Apr 28	2100	9,060	10.10

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	150	2460	e294	1660	e206	1570	1960	285	122	47	51
2	48	135	1420	e258	1910	e199	1270	5980	245	143	43	38
3	47	131	948	e246	1420	210	1060	3670	221	120	43	39
4	49	126	716	e238	1120	211	897	2250	208	105	30	42
5	44	116	558	e227	881	e195	765	1520	183	76	33	45
6	52	111	492	229	728	e182	674	1670	740	65	31	49
7	90	104	642	237	639	e178	604	4090	1940	57	40	35
8	108	96	1010	242	559	e175	556	2620	698	53	33	30
9	81	87	1550	234	488	188	537	1770	422	51	23	28
10	68	86	1140	245	450	e227	548	1310	314	52	28	23
11	62	85	872	416	e459	282	489	975	257	49	34	40
12	115	79	694	634	e423	e246	446	772	296	43	25	40
13	262	76	832	622	e369	e235	434	1210	1250	48	49	30
14	383	76	1280	545	e333	221	468	2940	1230	42	43	31
15	879	73	1460	e464	e302	219	673	2140	476	56	39	47
16	519	72	1290	e403	299	639	527	1400	319	62	34	121
17	403	72	2040	e360	278	1640	439	1060	259	53	56	138
18	309	70	3020	345	260	1890	386	1830	218	73	52	99
19	244	71	2360	334	e235	3450	356	2360	175	190	56	73
20	202	79	1630	323	e235	13700	333	1430	163	111	67	67
21	171	97	1160	318	e254	13200	350	1040	138	78	66	74
22	147	111	881	e351	e258	4990	758	801	117	72	56	178
23	131	97	870	e408	e246	3080	968	648	112	75	52	112
24	146	94	880	5720	233	2180	628	546	101	59	43	86
25	495	261	716	5450	219	1650	541	469	161	54	37	71
26	683	196	599	2980	e209	6460	631	413	1230	50	44	70
27	411	2080	523	1940	e209	5910	608	372	500	47	52	329
28	285	1280	467	1410	e213	3300	5740	340	283	33	67	954
29	227	2490	424	1090	---	2350	6560	458	193	38	71	401
30	194	3960	378	956	---	2530	2960	454	148	40	62	224
31	166	---	333	1210	---	2040	---	316	---	46	52	---
TOTAL	7071	12561	33645	28729	14889	72183	32776	48814	12882	2163	1408	3565
MEAN	228.1	418.7	1085	926.7	531.8	2328	1093	1575	429.4	69.77	45.42	118.8
MAX	879	3960	3020	5720	1910	13700	6560	5980	1940	190	71	954
MIN	44	70	333	227	209	175	333	316	101	33	23	23
CFSM	0.57	1.04	2.70	2.30	1.32	5.79	2.72	3.91	1.07	0.17	0.11	0.30
IN.	0.65	1.16	3.11	2.66	1.38	6.67	3.03	4.51	1.19	0.20	0.13	0.33

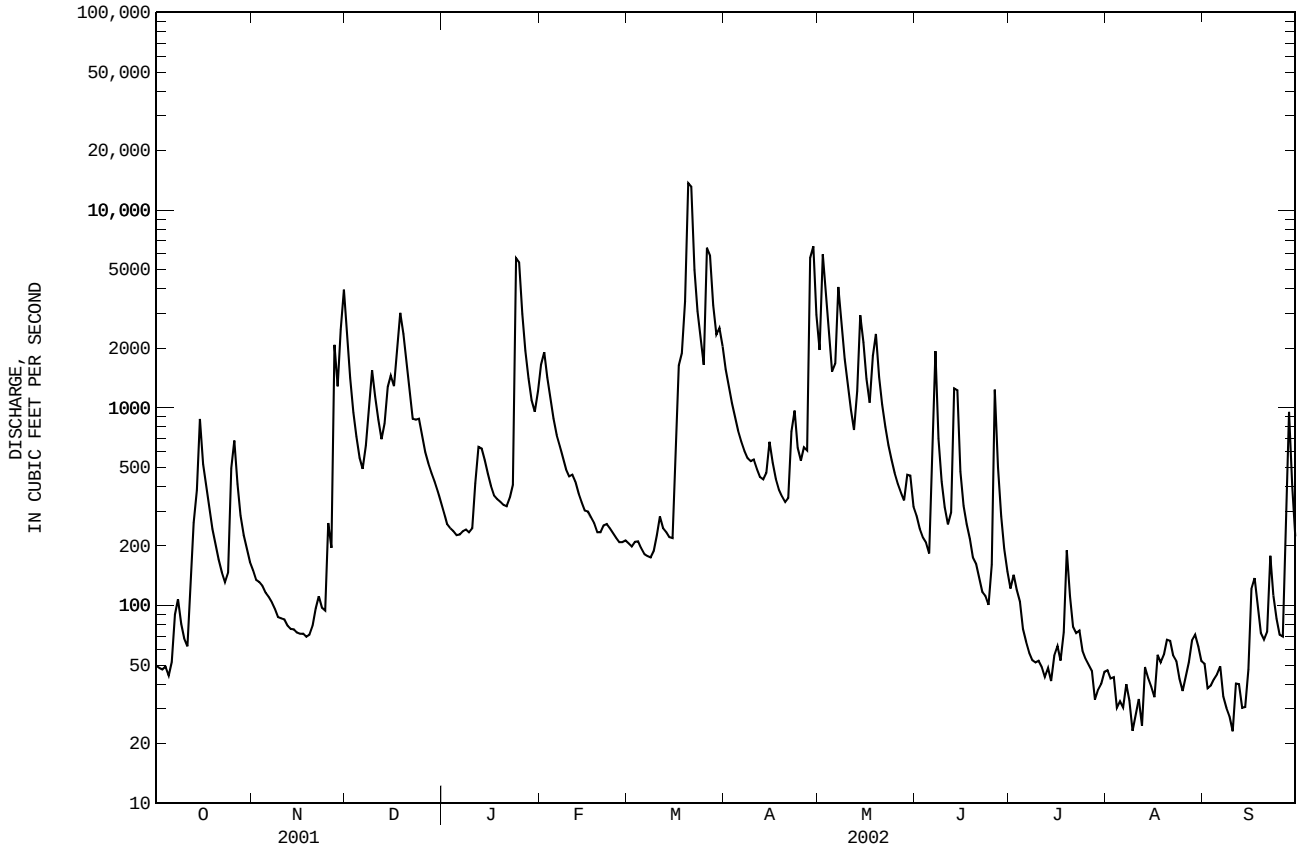
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 2002, BY WATER YEAR (WY)

MEAN	127.9	316.9	853.8	1113	1286	1418	903.9	666.8	422.7	259.2	173.8	153.6
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

03289500 ELKHORN CREEK NEAR FRANKFORT, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1916 - 2002	
ANNUAL TOTAL	188167		270686			
ANNUAL MEAN	515.5		741.6		638.9	
HIGHEST ANNUAL MEAN					1103	1997
LOWEST ANNUAL MEAN					126	1954
HIGHEST DAILY MEAN	5550	Feb 17	13700	Mar 20	25000	Feb 16 1989
LOWEST DAILY MEAN	44	Oct 5	23	Aug 9	0.00	Jan 7 1940
ANNUAL SEVEN-DAY MINIMUM	49	Sep 30	31	Aug 6	0.00	Jan 7 1940
MAXIMUM PEAK FLOW			16000	Mar 21	35900	Mar 4 1997
MAXIMUM PEAK STAGE			12.85	Mar 21	17.96	Mar 3 1997
ANNUAL RUNOFF (CFSM)	1.28		1.84		1.59	
ANNUAL RUNOFF (INCHES)	17.40		25.02		21.57	
10 PERCENT EXCEEDS	1210		1920		1600	
50 PERCENT EXCEEDS	241		258		204	
90 PERCENT EXCEEDS	77		47		34	

e Estimated



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 mi^2, of which about 196 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1925 to September 1930, March 1931 to September 1931, December 1931 to April 1932, October 1933 to September 1937, and July 1939 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 with telemetry. Datum of gage is 433.36 ft above NGVD of 1929. 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 Herrington Lake beginning November 1925 (station 03286000),Buckhorn Lake beginning December 1960 (station 03280800), Carr Fork Lake beginning January 1976 (station 03277446),and by hydroelectric plant at lock 7. Auxiliary gage readings furnished by U.S. Army Corps of Engineers, Louisville District.

COOPERATION.--U.S. Army Corps of Engineers, Louisville District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	669	758	7580	2140	16000	2260	e30600	19500	3460	1670	987	374
2	659	693	4950	1910	14400	2150	e36800	15000	2390	1990	842	384
3	613	669	3410	1730	13200	2120	e38600	23100	3290	1920	780	412
4	587	637	2550	1580	11700	2170	e21100	28600	12400	1770	795	410
5	582	585	1990	1440	8930	2450	e19800	29900	8860	1490	769	398
6	657	547	1720	1300	7430	2440	16600	33400	7810	1240	673	372
7	663	507	2450	1280	6460	2350	13900	28700	6480	1120	562	346
8	736	463	3890	1310	5630	2240	11600	26600	4130	1120	507	303
9	711	424	5100	1280	4890	2190	9550	24500	3580	1100	443	269
10	654	410	5190	1420	4730	2460	8330	22500	3530	984	401	227
11	628	387	5200	1970	5610	2360	7700	18600	3050	864	390	195
12	842	381	4730	2730	7290	2280	7100	14900	2750	753	374	184
13	1790	371	5260	3800	6450	2190	6820	17600	5000	709	344	178
14	2170	360	6090	5220	5900	2100	7060	31700	5070	845	364	206
15	2510	342	8660	6310	5460	2040	7540	31800	4480	1850	390	501
16	1770	331	11200	5430	5060	6290	7040	28100	4510	3450	378	415
17	1450	324	14800	4460	4120	14800	8030	20700	3850	3680	372	411
18	2110	319	12300	3980	3740	20100	7230	26500	3030	2780	387	438
19	2740	329	9790	3890	3840	e33800	5560	47100	2430	2250	456	395
20	2660	359	7600	3100	3480	e64000	5040	44700	1970	1790	448	359
21	2600	367	6060	2830	3270	e80700	5450	28200	1680	1540	460	430
22	2020	383	5150	3140	3070	e78900	7560	15100	1480	1600	440	485
23	1810	400	5640	5960	2960	e67100	9080	11000	1280	1880	416	533
24	2730	398	5380	e26200	2800	e40700	10800	8960	1150	2390	420	486
25	3010	952	5280	e38800	2600	e39500	10500	7590	1270	2190	454	606
26	1980	821	4860	e41200	2540	39000	11300	6530	2310	1860	514	964
27	1550	8280	4930	e38800	2660	33800	15200	5670	2190	1620	496	9420
28	1240	5050	4680	30900	2430	29900	30000	5110	1560	1500	483	5270
29	1040	10300	3280	19600	---	25200	32500	6090	1380	1430	461	3700
30	938	11700	2600	16900	---	21500	26500	4890	1440	1370	425	3330
31	855	---	2340	14500	---	e28000	---	4610	---	1170	396	---
TOTAL	44974	47847	174660	295110	166650	657090	434890	637250	107810	51925	15627	32001
MEAN	1451	1595	5634	9520	5952	21200	14500	20560	3594	1675	504.1	1067
MAX	3010	11700	14800	41200	16000	80700	38600	47100	12400	3680	987	9420
MIN	582	319	1720	1280	2430	2040	5040	4610	1150	709	344	178

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2002, BY WATER YEAR (WY)

MEAN	2214	4688	10500	13140	14790	18610	13760	10240	5485	2797	2370	2067
MAX	14120	13960	39510	37850	40180	40410	41540	34340	23380	8458	8589	14740
(WY)	1990	1987	1979	1974	1989	1975	1972	1983	1997	1998	1992	1979
MIN	421	511	668	770	4073	4423	2074	1518	508	545	307	187
(WY)	2000	2000	1966	1981	1968	1983	1986	1976	1988	1999	1999	1999

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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1961 - 2002	
ANNUAL TOTAL	1850554		2665834			
ANNUAL MEAN	5070		7304		8360	
HIGHEST ANNUAL MEAN					14030	1979
LOWEST ANNUAL MEAN					3891	1988
HIGHEST DAILY MEAN	46000	Feb 17	80700	Mar 21	121000	Dec 11 1978
LOWEST DAILY MEAN	319	Nov 18	178	Sep 13	112	Sep 16 1999
ANNUAL SEVEN-DAY MINIMUM	338	Nov 14	223	Sep 8	125	Sep 10 1999
MAXIMUM PEAK FLOW			0.00	Mar 22	123000	Jan 26 1937
MAXIMUM PEAK STAGE			41.08	Mar 22	56.85	Jan 24 1937
10 PERCENT EXCEEDS	13000		23700		21400	
50 PERCENT EXCEEDS	2600		2550		3700	
90 PERCENT EXCEEDS	549		399		600	

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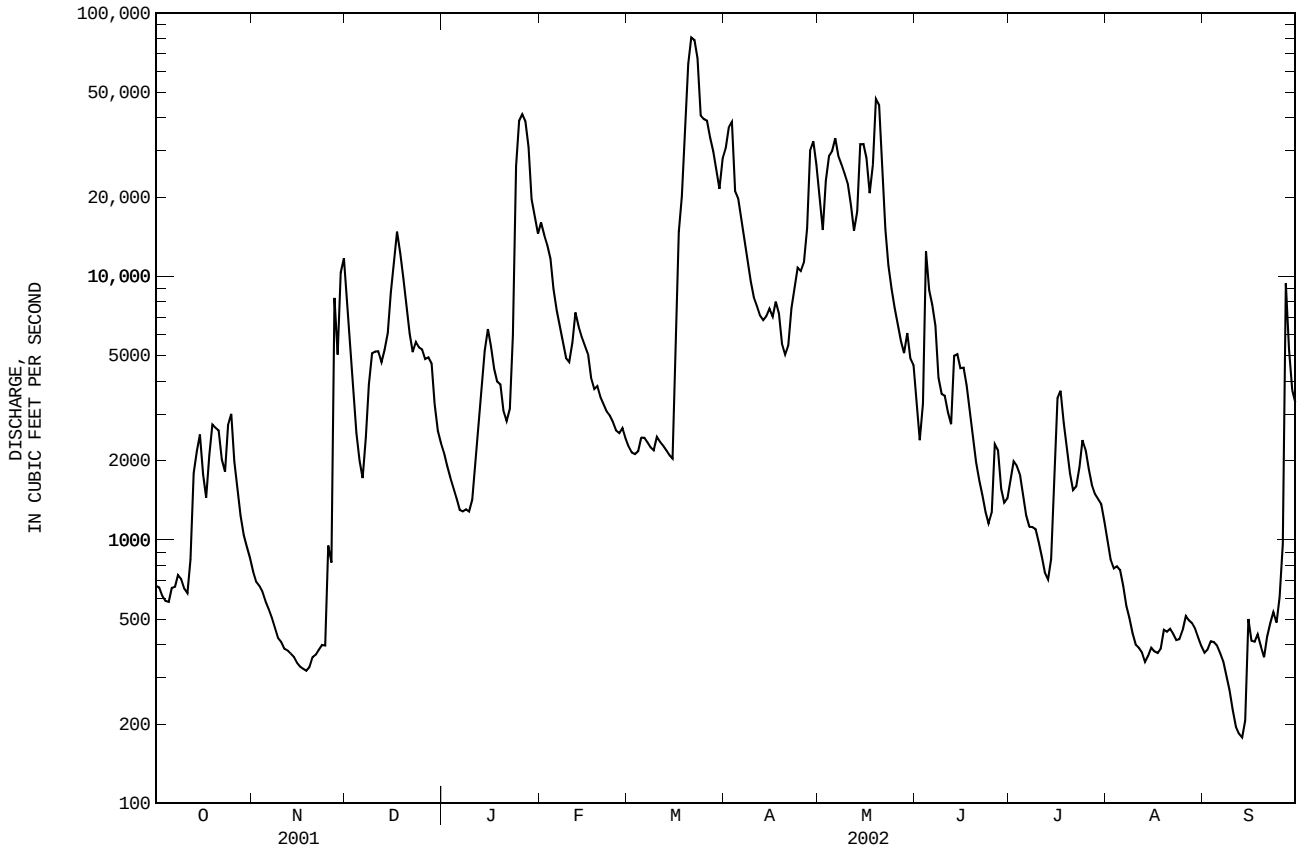


03291500 EAGLE CREEK AT GLENCOE, KY

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 mi^2.

PERIOD OF RECORD.--April 1915 to September 1918, October 1918 to December 1920 (gage heights only), May 1928 to September 1931, June 1938 to 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 with telemetry. Datum of gage is 508.52 ft above NGVD of 1929. 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 poor.

COOPERATION.--Kentucky Natural Resources and Environmental Protection Cabinet.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 12,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr 28	1130	*19,200	*16.71	May 6	2200	13,900	14.28

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e3.3	119	2000	e190	e5620	e202	526	493	124	80	9.1	1.3
2	e4.6	108	736	e178	e1000	e607	396	951	92	54	14	1.2
3	e5.8	107	418	e165	e738	e845	328	2230	75	40	17	1.1
4	e5.7	103	295	e155	e488	e286	273	785	63	32	14	1.0
5	e6.2	94	230	e155	e416	e357	232	415	59	27	12	0.90
6	e8.8	88	390	e226	e381	e238	206	3900	2550	22	11	0.79
7	e11	80	842	e369	e309	e214	187	5280	3130	20	9.8	0.73
8	e12	66	601	e226	e274	e202	174	2660	705	17	8.3	0.68
9	e13	60	1300	e226	e250	e1230	170	1190	322	15	6.9	0.62
10	e13	58	608	e464	e595	e500	164	663	205	17	5.8	0.56
11	e13	54	332	e512	e345	e400	150	432	143	16	4.9	0.51
12	e16	50	245	e262	e357	e325	153	320	106	21	3.9	0.44
13	e20	59	499	e192	e226	e300	146	4960	87	19	3.1	0.39
14	e109	63	1070	e170	e202	e262	180	3930	733	17	2.5	0.47
15	e1020	61	1250	e151	e202	e1140	784	1040	543	18	2.4	e0.42
16	568	58	e5220	e143	e190	e5440	596	536	223	16	2.5	e0.38
17	314	54	e11900	e140	e178	e1130	268	738	141	16	2.3	e0.38
18	266	52	e2830	e131	e167	e785	208	4220	98	15	2.2	e0.42
19	192	52	e964	e124	e167	e3140	204	1400	74	14	2.2	e0.57
20	141	56	e619	e120	e1260	e6400	166	584	58	35	2.2	e0.66
21	112	58	e440	e118	e726	e1370	338	379	47	51	2.3	e0.76
22	95	60	e357	e116	e333	e702	4620	286	39	55	2.4	e0.82
23	96	73	e2490	e114	e274	e619	1140	234	33	42	2.2	e0.89
24	3430	76	e726	e5770	e345	e416	456	198	29	28	2.1	e1.0
25	3640	581	e464	e952	e238	e845	585	169	27	20	1.9	e1.8
26	1320	743	e369	e619	e524	e6210	394	156	2380	17	1.7	e2.8
27	429	3070	e321	e405	e274	e1180	820	141	1260	14	1.6	2810
28	235	5130	e274	e440	e202	e654	12500	120	405	13	1.9	2410
29	164	7110	e250	e345	---	e643	4310	181	207	12	1.8	524
30	131	6690	e226	e3620	---	e476	820	237	124	13	1.6	264
31	129	---	e202	e1820	---	e464	---	197	---	10	1.5	---
TOTAL	12523.4	25033	38468	18618	16281	37582	31494	39025	14082	786	157.1	6029.59
MEAN	404.0	834.4	1241	600.6	581.5	1212	1050	1259	469.4	25.35	5.068	201.0
MAX	3640	7110	11900	5770	5620	6400	12500	5280	3130	80	17	2810
MIN	3.3	50	202	114	167	202	146	120	27	10	1.5	0.38
CFSM	0.92	1.91	2.84	1.37	1.33	2.77	2.40	2.88	1.07	0.06	0.01	0.46
IN.	1.07	2.13	3.27	1.58	1.39	3.20	2.68	3.32	1.20	0.07	0.01	0.51

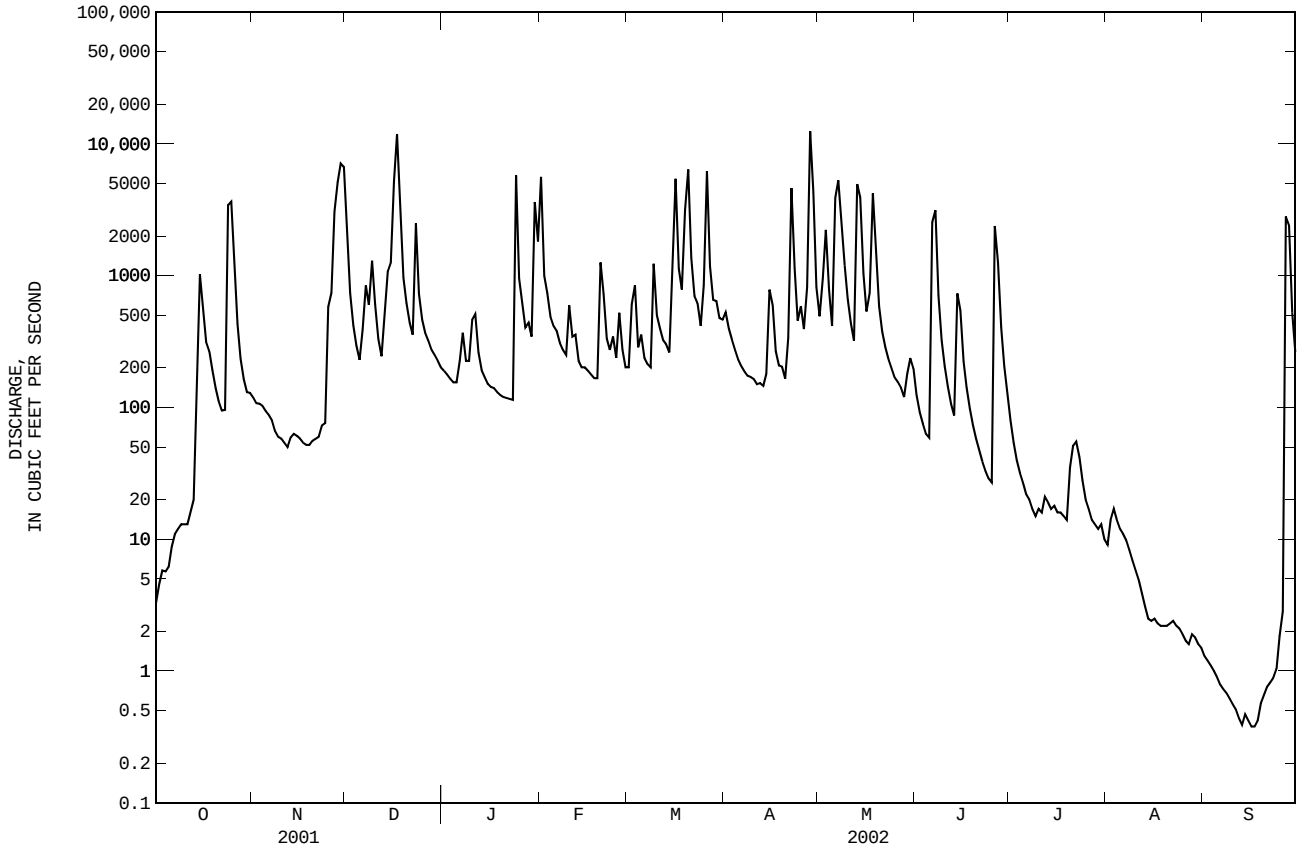
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 2002, BY WATER YEAR (WY)

MEAN	105.5	335.6	635.6	939.4	1069	1275	918.9	666.2	467.8	248.5	125.5	105.9
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	0.000	0.000	0.000	2.85	44.6	120	131	25.5	1.56	0.14	0.000	0.000
(WY)	1931	1931	1931	1931	1954	1941	1976	1930	1930	1930	1930	1930

03291500 EAGLE CREEK AT GLENCOE, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1916 - 2002	
ANNUAL TOTAL	191759.60		240079.09			
ANNUAL MEAN	525.4		657.8		570.4	
HIGHEST ANNUAL MEAN					1059	1973
LOWEST ANNUAL MEAN					117	1954
HIGHEST DAILY MEAN	12300	Jun 6	12500	Apr 28	39300	Mar 10 1964
LOWEST DAILY MEAN	0.52	Sep 18	0.38	Sep 16	0.00	Jul 15 1930
ANNUAL SEVEN-DAY MINIMUM	0.67	Sep 16	0.41	Sep 12	0.00	Jul 15 1930
MAXIMUM PEAK FLOW			19200	Apr 28	58300	Mar 2 1997
MAXIMUM PEAK STAGE			16.71	Apr 28	29.08	Mar 2 1997
ANNUAL RUNOFF (CFSM)	1.20		1.51		1.31	
ANNUAL RUNOFF (INCHES)	16.32		20.44		17.73	
10 PERCENT EXCEEDS	1250		1340		1280	
50 PERCENT EXCEEDS	164		190		98	
90 PERCENT EXCEEDS	13		2.2		1.2	

e Estimated



03292470 HARRODS CREEK AT HIGHWAY 329 NEAR GOSHEN, KY

LOCATION.--Lat 38°21'42", long 85°34'30", Oldham County, Hydrologic Unit 05140101, on downstream side of bridge on Highway 329 (Covered Bridge Road) 0.8 mi upstream from South Fork, 3.1 mi south of Goshen, and at mile 7.29.

DRAINAGE AREA.--70.3 mi^2.

PERIOD OF RECORD.--December 15, 1998 to current year.

GAGE.--Water-stage recorder.

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

COOPERATION.--Louisville and Jefferson County Metropolitan Sewer District.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 26	0645	9,060	9.73	No other peaks greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	33	446	e38	1820	30	133	334	36	e37	9.7	e2.0
2	1.9	30	217	e35	441	31	106	2130	378	e32	6.4	e2.0
3	2.1	30	135	e33	246	54	88	578	400	e27	5.0	e2.4
4	2.1	27	94	e30	164	44	73	233	102	e24	4.4	e2.0
5	7.3	24	70	e28	114	37	66	142	e400	e20	3.5	e17
6	64	21	112	e27	99	35	60	759	e1300	e18	2.7	e18
7	19	20	219	38	88	32	55	923	e600	e16	2.3	e3.0
8	7.0	18	165	32	70	30	53	374	e275	e14	1.9	e8.0
9	5.0	17	143	34	57	38	60	232	e180	e12	1.8	e19
10	3.9	15	97	48	56	92	55	136	e120	e14	1.8	e8.0
11	4.4	15	73	72	58	52	49	97	e80	e9.0	2.0	e3.5
12	355	14	66	55	48	49	47	86	e57	e7.4	5.5	e1.7
13	110	14	270	50	40	46	225	3610	e400	e20	4.9	e1.7
14	1490	13	277	42	35	39	276	898	e270	e15	4.0	e20
15	332	13	228	39	34	36	228	304	e180	e11	4.2	e450
16	138	13	1320	33	32	e500	121	174	e120	e8.2	3.7	e140
17	83	12	3840	33	30	282	89	325	e82	e7.4	3.7	e40
18	55	12	1410	30	26	162	77	996	e70	13	3.2	e18
19	42	13	440	31	25	1270	66	239	e60	11	3.0	e16
20	34	21	239	31	35	3100	70	148	e50	23	3.0	e30
21	29	20	160	31	61	699	145	108	e47	14	3.0	e77
22	24	16	122	31	40	300	572	85	e43	10	e3.0	e28
23	212	14	286	31	33	200	150	73	e38	9.3	e3.0	e23
24	2450	15	191	3470	30	149	101	61	e35	9.1	e3.0	e21
25	1150	30	123	569	29	136	91	53	e33	6.1	e2.7	e22
26	253	30	e96	245	34	3890	68	73	e110	5.1	e2.3	e200
27	125	426	e80	157	36	626	431	53	e120	4.5	e3.5	e2700
28	75	536	e65	117	30	303	3050	217	e75	3.7	e2.3	e850
29	55	3870	e55	96	---	255	449	127	e50	7.0	e2.9	e200
30	45	2250	e48	1390	---	254	208	63	e40	47	e2.5	e90
31	38	---	e44	765	---	170	---	45	---	20	e2.0	---
TOTAL	7214.0	7582	11131	7661	3811	12941	7262	13676	5751	474.8	106.9	5013.3
MEAN	232.7	252.7	359.1	247.1	136.1	417.5	242.1	441.2	191.7	15.32	3.448	167.1
MAX	2450	3870	3840	3470	1820	3890	3050	3610	1300	47	9.7	2700
MIN	1.9	12	44	27	25	30	47	45	33	3.7	1.8	1.7

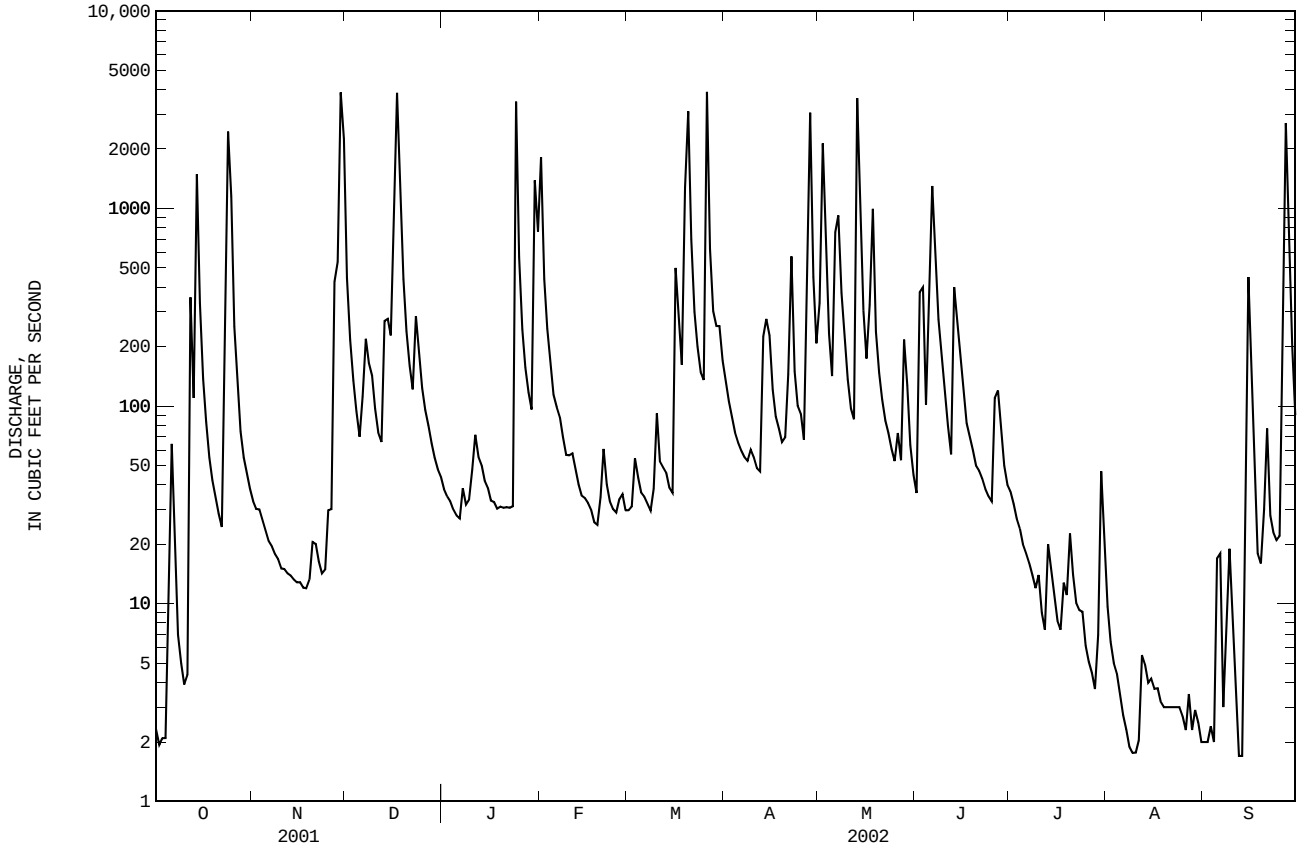
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	81.03	92.26	218.2	189.2	258.6	203.4	123.6	148.6	108.5	16.68	6.318	53.74
MAX	233	253	359	289	526	417	242	441	192	29.5	14.9	167
(WY)	2002	2002	2002	2000	2000	2002	2002	2002	2002	2001	2000	2002
MIN	1.99	3.33	83.5	40.6	121	89.9	25.9	16.5	35.0	6.81	0.29	0.089
(WY)	2000	2000	2000	2001	1999	2001	2001	1999	1999	1999	1999	1999

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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL TOTAL	45926.10		82624.0			
ANNUAL MEAN	125.8		226.4		140.3	
HIGHEST ANNUAL MEAN					226	2002
LOWEST ANNUAL MEAN					75.2	2001
HIGHEST DAILY MEAN	3870	Nov 29	3890	Mar 26	7360	Feb 18 2000
LOWEST DAILY MEAN	0.71	Aug 25	1.7	Sep 12	0.00	Sep 2 1999
ANNUAL SEVEN-DAY MINIMUM	0.98	Aug 19	2.3	Aug 29	0.00	Sep 2 1999
MAXIMUM PEAK FLOW			9060	Mar 26	16500	Feb 18 2000
MAXIMUM PEAK STAGE			9.73	Mar 26	14.76	Feb 18 2000
10 PERCENT EXCEEDS	243		443		251	
50 PERCENT EXCEEDS	25		48		21	
90 PERCENT EXCEEDS	3.9		3.8		2.5	

e Estimated



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

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

DRAINAGE AREA.--6.0 mi^2.

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

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

REMARKS.--Records poor.

COOPERATION.--Louisville and Jefferson County Metropolitan Sewer District.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 24	0205	*424	*3.96	Sep 27	0305	395	3.75
Mar 26	0220	324	3.29				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.44	e4.4	27	e4.3	47	2.4	13	16	3.7	1.1	0.41	e0.02
2	0.35	e4.0	19	e4.0	21	3.1	12	20	3.7	1.0	0.31	0.03
3	e0.31	e3.6	15	e3.8	16	4.0	10	15	4.4	0.92	0.19	0.04
4	0.28	e3.3	13	e3.6	12	3.1	9.1	11	3.5	0.74	0.13	0.03
5	6.8	e3.0	12	e3.5	10	2.9	8.2	9.6	13	0.62	3.8	0.27
6	e3.4	e2.8	13	4.3	9.0	2.7	7.5	12	65	0.50	1.4	0.28
7	2.1	e2.6	11	4.3	8.2	2.6	7.1	13	17	0.45	0.57	0.04
8	1.6	e2.4	12	3.8	6.9	2.4	6.2	9.7	11	0.39	0.37	0.11
9	1.3	e2.3	9.8	3.7	6.2	5.3	7.2	8.9	8.8	0.35	0.23	0.32
10	1.1	e2.1	8.7	4.2	6.3	4.3	5.7	7.6	7.1	0.97	0.17	0.16
11	0.92	e1.9	7.2	4.2	5.4	3.4	5.2	6.8	6.1	0.60	0.17	0.04
12	43	e1.8	11	3.9	4.5	3.5	5.0	11	6.1	0.48	0.23	0.02
13	6.9	e1.7	15	3.6	4.0	3.4	15	92	17	3.0	0.13	0.02
14	111	e1.6	14	3.5	3.7	3.3	17	42	7.6	1.5	0.20	0.37
15	18	e1.5	12	3.0	3.7	4.2	13	22	5.5	0.88	0.37	17
16	14	e1.4	43	2.9	3.4	19	10	17	4.4	0.67	0.18	1.8
17	10	e1.3	77	2.8	3.1	10	9.0	35	3.4	0.64	0.25	0.74
18	8.4	e1.2	45	2.6	2.8	8.8	7.9	30	2.9	0.73	0.19	0.50
19	6.6	2.0	26	3.0	2.8	36	8.7	17	2.5	0.90	0.22	0.34
20	5.1	2.7	19	2.9	4.9	86	10	14	2.1	1.7	0.27	0.99
21	4.3	2.0	15	3.1	4.3	35	35	11	1.8	0.91	0.17	2.0
22	4.0	1.7	13	2.9	3.3	21	38	9.8	1.6	0.64	0.10	0.92
23	9.1	1.7	18	3.0	3.0	17	17	9.0	1.4	0.61	0.08	0.71
24	54	3.9	12	156	2.7	13	14	7.9	1.3	0.57	0.08	0.66
25	52	4.4	e8.8	32	2.6	15	14	7.5	1.3	0.46	0.06	0.67
26	16	2.8	e7.5	19	3.8	167	11	6.9	3.0	0.38	0.05	7.5
27	11	21	e6.7	14	3.1	41	32	5.9	3.1	0.30	0.10	161
28	e7.8	24	e5.9	12	2.6	24	94	5.5	2.2	0.22	0.05	20
29	e6.4	125	e5.4	9.9	---	26	35	7.2	1.6	1.8	0.07	10
30	e5.6	66	e4.9	28	---	20	19	5.3	1.3	1.5	0.05	7.6
31	e4.9	---	e4.6	19	---	16	---	4.2	---	0.59	0.03	---
TOTAL	416.70	300.1	511.5	370.8	206.3	605.4	495.8	489.8	213.4	26.12	10.63	234.18
MEAN	13.44	10.00	16.50	11.96	7.368	19.53	16.53	15.80	7.113	0.843	0.343	7.806
MAX	111	125	77	156	47	167	94	92	65	3.0	3.8	161
MIN	0.28	1.2	4.6	2.6	2.6	2.4	5.0	4.2	1.3	0.22	0.03	0.02
CFSM	2.24	1.67	2.75	1.99	1.23	3.25	2.75	2.63	1.19	0.14	0.06	1.30
IN.	2.58	1.86	3.17	2.30	1.28	3.75	3.07	3.04	1.32	0.16	0.07	1.45

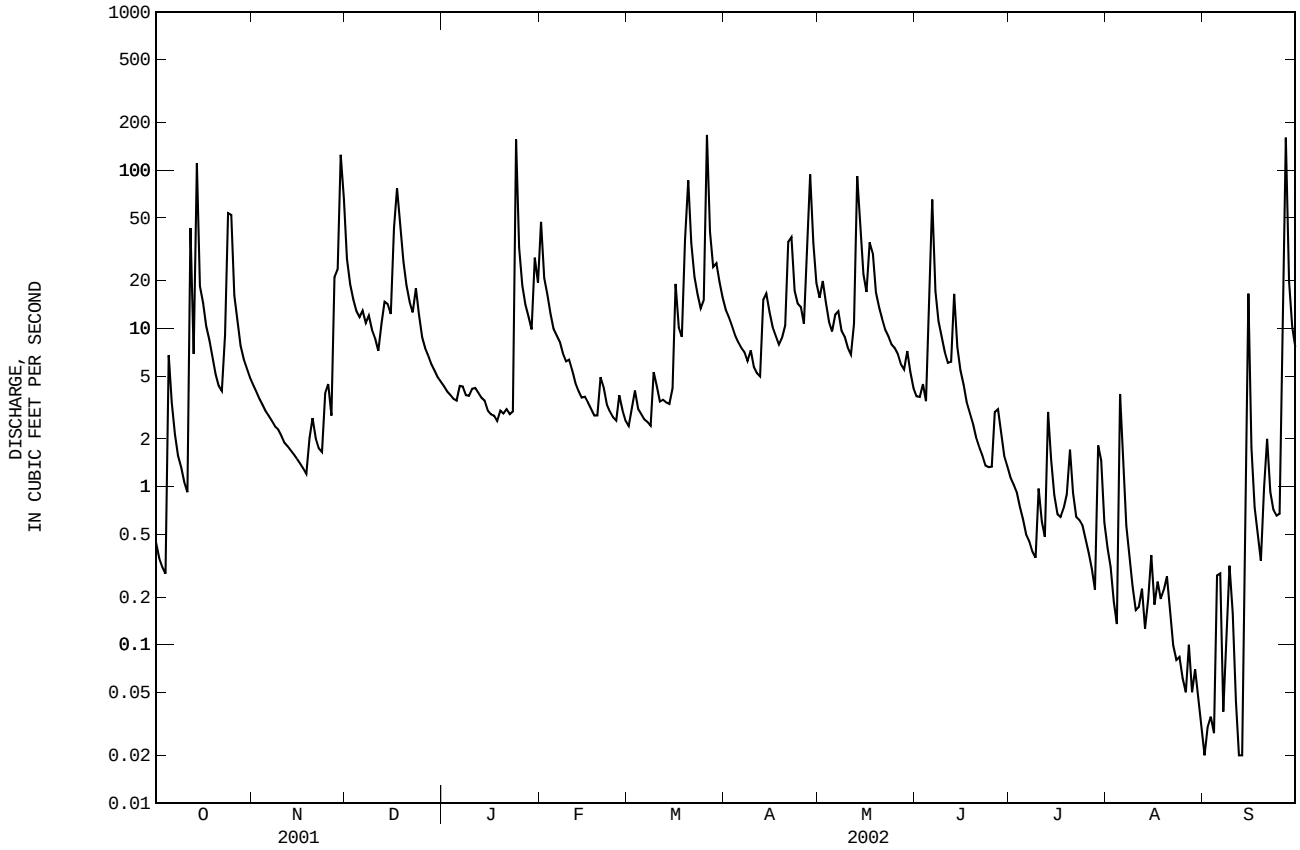
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2002, BY WATER YEAR (WY)

MEAN	3.284	3.482	10.43	11.80	14.46	22.64	8.164	7.792	10.05	5.071	2.339	2.359
MAX	13.4	10.0	21.8	19.4	27.5	77.1	16.5	15.8	26.3	11.0	4.31	7.81
(WY)	2002	2002	1997	1999	2000	1997	2002	2002	1997	1998	1998	2002
MIN	0.57	0.48	3.74	3.16	10.4	6.83	3.56	2.46	2.74	1.45	0.15	0.32
(WY)	1998	2000	1999	2001	1999	2001	2001	1999	2001	2000	1999	1999

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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1997 - 2002	
ANNUAL TOTAL	2637.50		3880.73			
ANNUAL MEAN	7.226		10.63		7.856	
HIGHEST ANNUAL MEAN					14.8	1997
LOWEST ANNUAL MEAN					5.00	2001
HIGHEST DAILY MEAN	125	Nov 29	167	Mar 26	800	Mar 2 1997
LOWEST DAILY MEAN	0.28	Oct 4	0.02	Sep 1	0.00	Aug 16 1999
ANNUAL SEVEN-DAY MINIMUM	0.51	Sep 28	0.04	Aug 29	0.02	Sep 12 1999
MAXIMUM PEAK FLOW			424	Jan 24	3530	Mar 1 1997
MAXIMUM PEAK STAGE			3.96	Jan 24	5.93	Mar 1 1997
ANNUAL RUNOFF (CFSM)	1.20		1.77		1.31	
ANNUAL RUNOFF (INCHES)	16.35		24.06		17.79	
10 PERCENT EXCEEDS	14		21		16	
50 PERCENT EXCEEDS	3.4		4.2		3.0	
90 PERCENT EXCEEDS	1.2		0.28		0.45	

e Estimated



03292475 GOOSE CREEK AT HIGHWAY 42 AT GLENVIEW ACRES, KY

LOCATION.--Lat 38°18'12", long 85°37'41", Jefferson County, Hydrologic Unit 05140101, on downstream side of of culvert on U.S. Highway 42, 0.5 mi northeast of Glenview Acres, 1.7 mi above Little Goose Creek, and at mile 2.1.

DRAINAGE AREA.--10.1 mi^2.

PERIOD OF RECORD.--November 1999 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 430.06 ft above NGVD of 1929.

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

COOPERATION.--Louisville and Jefferson County Metropolitan Sewer District.

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

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 24	0415	731	6.10	Jun 6	0920	*808	*6.28
Mar 26	0320	502	5.48				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	3.9	55	e6.2	94	4.2	26	51	12	1.6	e0.78	e0.05
2	2.7	e3.2	40	e5.6	49	5.1	23	57	10	1.4	e0.52	e0.06
3	e3.3	e2.7	29	e5.0	39	7.7	20	50	13	1.2	e0.37	e0.08
4	4.3	e2.3	21	4.7	30	5.4	17	39	15	1.1	e0.29	e0.07
5	26	e2.0	17	4.5	23	4.8	15	33	33	0.98	e8.0	e0.20
6	e11	e1.7	23	5.6	20	4.4	13	43	168	0.83	e2.8	e0.60
7	6.6	e1.5	20	6.5	18	4.2	11	47	57	0.80	e1.1	e0.09
8	3.7	1.3	23	5.1	16	4.0	10	36	35	0.76	e0.72	e0.20
9	2.5	e1.1	18	4.9	13	9.2	13	30	25	0.74	e0.51	e0.68
10	1.8	e1.0	14	5.6	14	8.0	9.2	24	18	2.0	e0.37	e0.28
11	e1.3	e0.91	12	5.6	12	5.7	7.9	21	14	e1.2	e0.34	e0.11
12	88	e0.82	15	4.8	9.3	5.8	7.2	24	12	e1.1	e0.48	e0.05
13	20	e0.75	34	4.5	7.8	5.6	29	153	45	e6.4	e0.29	e0.04
14	141	e0.68	30	4.1	6.9	5.1	35	92	22	e3.5	e0.48	e1.4
15	47	e0.62	24	3.7	6.8	11	29	64	13	e2.0	e0.77	e26
16	e25	e0.58	73	3.3	6.0	62	21	52	8.9	e1.4	e0.40	e5.9
17	e17	e0.54	142	3.3	5.3	30	18	68	6.0	e1.3	e0.51	e1.6
18	e12	e0.50	80	3.0	4.8	23	15	79	4.7	e1.6	e0.42	e1.0
19	e8.6	0.90	51	3.5	4.7	74	14	55	3.8	e2.0	e0.48	e0.78
20	6.1	1.5	37	3.6	11	148	19	46	3.0	e3.4	e0.56	e1.8
21	4.5	1.1	28	3.6	9.7	69	49	38	2.6	e1.8	e0.32	e4.2
22	3.5	0.82	23	3.6	6.6	48	61	32	2.2	e1.3	e0.22	e1.8
23	9.2	0.71	35	3.5	5.5	50	34	29	2.0	e1.0	e0.17	e1.6
24	79	2.8	24	241	4.9	70	27	25	1.8	e0.85	e0.14	e1.5
25	66	4.8	e18	66	4.7	31	27	24	1.8	e0.72	e0.12	e1.4
26	29	1.6	e15	43	7.2	216	19	25	1.8	e0.62	e0.11	e15
27	19	44	e12	33	5.5	68	51	19	8.4	e0.54	e0.21	e260
28	13	44	e10	28	4.5	49	159	16	4.5	e0.48	e0.11	e88
29	10	197	e9.0	25	---	50	83	27	2.4	e3.8	e0.14	e23
30	6.5	114	e8.0	61	---	42	61	20	2.0	e3.2	e0.10	e20
31	4.9	---	e7.0	49	---	32	---	14	---	e1.3	e0.07	---
TOTAL	675.3	439.33	947.0	649.8	439.2	1152.2	923.3	1333	547.9	50.92	21.90	457.49
MEAN	21.78	14.64	30.55	20.96	15.69	37.17	30.78	43.00	18.26	1.643	0.706	15.25
MAX	141	197	142	241	94	216	159	153	168	6.4	8.0	260
MIN	1.3	0.50	7.0	3.0	4.5	4.0	7.2	14	1.8	0.48	0.07	0.04
CFSM	2.16	1.45	3.02	2.08	1.55	3.68	3.05	4.26	1.81	0.16	0.07	1.51
IN.	2.49	1.62	3.49	2.39	1.62	4.24	3.40	4.91	2.02	0.19	0.08	1.69

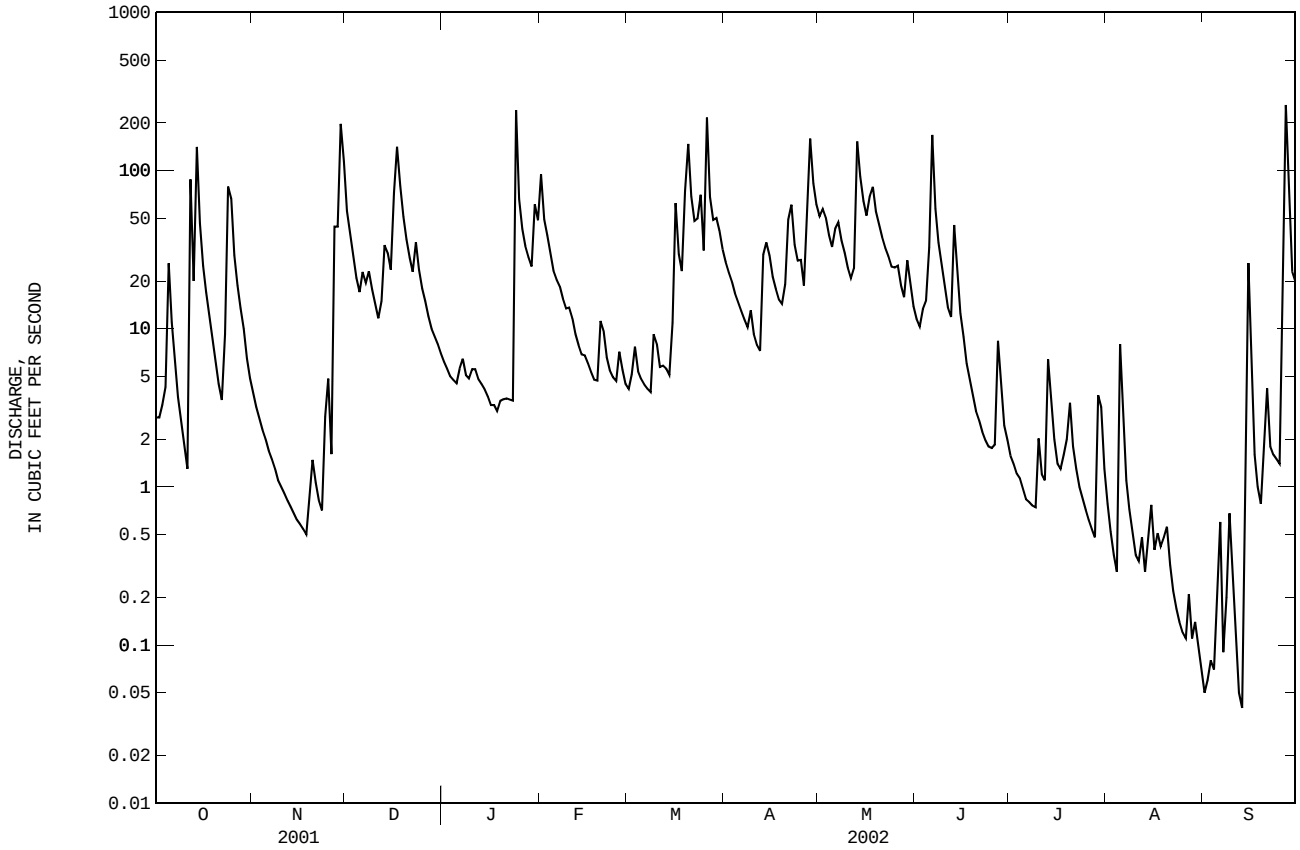
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	11.98	11.54	19.44	14.29	25.97	21.02	16.48	20.74	9.788	4.571	3.294	14.44
MAX	21.8	15.8	30.5	21.0	41.5	37.2	30.8	43.0	18.3	8.92	5.58	19.4
(WY)	2002	2000	2002	2002	2000	2002	2002	2002	2002	2001	2000	2000
MIN	2.17	4.19	13.5	1.99	15.7	10.3	6.85	5.09	5.23	1.64	0.71	8.66
(WY)	2001	2001	2001	2001	2002	2001	2001	2000	2000	2002	2002	2001

03292475 GOOSE CREEK AT HIGHWAY 42 AT GLENVIEW ACRES, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL TOTAL	4474.65		7637.34			
ANNUAL MEAN	12.26		20.92		14.60	
HIGHEST ANNUAL MEAN					20.9	2002
LOWEST ANNUAL MEAN					8.28	2001
HIGHEST DAILY MEAN	197	Nov 29	260	Sep 27	560	Feb 18 2000
LOWEST DAILY MEAN	0.50	Nov 18	0.04	Sep 13	0.04	Sep 13 2002
ANNUAL SEVEN-DAY MINIMUM	0.62	Jan 12	0.08	Aug 29	0.08	Aug 29 2002
MAXIMUM PEAK FLOW			808	Jun 6	2460	Jan 24 2002
MAXIMUM PEAK STAGE			6.28	Jun 6	7.83	Feb 18 2000
ANNUAL RUNOFF (CFSM)	1.21		2.07		1.45	
ANNUAL RUNOFF (INCHES)	16.48		28.13		19.65	
10 PERCENT EXCEEDS	30		53		39	
50 PERCENT EXCEEDS	4.5		6.8		4.5	
90 PERCENT EXCEEDS	1.1		0.52		0.73	

e Estimated



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, 1.1 mi south of Harrods Creek, and at mile 2.0.

DRAINAGE AREA.--5.8 mi^2.

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

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

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

COOPERATION.--Louisville and Jefferson County Metropolitan Sewer District.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft^3/s and maximum (*):

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 12	0650	306	5.69	Apr 21	2215	251	5.39
Dec 16	1615	287	5.59	Apr 28	0515	357	5.94
Jan 24	0330	619	7.19	May 13	0135	268	5.49
Mar 20	0715	261	5.45	Jun 6	0920	*644	*7.31
Mar 26	0330	431	6.32	Sep 27	0455	604	7.12

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.98	5.0	e41	e4.6	86	4.6	18	22	5.2	2.0	1.9	0.79
2	0.85	5.1	e27	e4.3	31	5.7	15	24	7.4	1.8	1.5	0.83
3	0.70	5.2	e17	e3.9	23	9.3	14	19	11	1.6	1.3	0.65
4	0.65	4.1	e14	e3.7	19	6.3	11	15	11	1.5	1.2	0.53
5	19	3.8	11	e3.6	15	5.5	9.5	10	28	1.4	4.7	0.39
6	20	3.5	18	5.0	12	5.0	8.6	25	196	1.2	5.0	0.32
7	5.5	3.3	16	6.5	11	4.7	8.0	24	40	1.1	2.0	0.26
8	3.3	3.2	19	5.4	9.4	4.5	7.6	18	22	1.1	1.6	0.46
9	2.5	3.3	15	5.3	8.3	12	12	14	16	1.0	1.3	0.66
10	2.0	3.2	11	5.9	9.4	9.5	8.4	9.5	11	3.4	0.96	0.63
11	1.9	3.1	9.5	5.7	8.1	7.0	7.4	7.8	8.5	1.9	0.91	0.60
12	74	2.9	17	5.1	7.2	6.7	6.9	7.7	6.4	1.5	1.8	0.44
13	e26	2.9	26	4.7	6.4	6.1	27	158	19	4.5	1.3	0.51
14	e78	2.9	24	4.4	5.7	5.5	36	49	11	2.3	1.2	4.7
15	e42	2.8	19	4.0	5.4	11	31	28	7.0	1.8	2.6	44
16	e30	2.7	75	3.8	5.0	86	19	23	5.3	1.4	1.5	14
17	e23	2.6	137	3.7	4.7	29	15	46	4.2	1.6	1.8	5.3
18	e18	2.6	60	3.5	4.3	21	12	41	3.5	3.8	1.6	3.8
19	e15	3.9	31	4.0	4.2	79	11	25	3.0	6.3	1.7	3.0
20	e12	5.4	22	4.5	11	140	14	21	2.7	6.6	1.4	4.3
21	e10	e4.1	18	4.8	10	54	41	18	2.4	3.0	0.99	10
22	e8.6	e3.3	15	4.8	6.9	31	36	13	2.2	2.2	0.81	4.3
23	e12	e2.8	26	4.8	5.7	23	22	9.5	2.0	2.3	0.87	3.0
24	e52	e6.3	17	225	5.0	19	18	8.2	2.0	2.0	1.2	2.3
25	e26	e9.6	e12	40	4.7	22	18	7.5	1.9	1.7	1.1	2.0
26	e18	e5.6	e10	24	8.2	195	11	11	1.9	1.4	0.99	14
27	e13	e15	e8.4	19	6.1	45	42	6.8	5.2	1.3	1.2	272
28	9.4	e40	e7.3	15	5.0	32	165	5.8	7.1	1.1	1.1	32
29	7.7	e110	e6.4	13	---	35	37	19	2.9	2.3	1.2	16
30	6.5	e74	e5.7	62	---	28	26	12	2.3	7.3	0.85	9.4
31	5.6	---	e5.1	35	---	21	---	6.7	---	2.7	0.80	---
TOTAL	544.18	342.2	740.4	539.0	337.7	963.4	707.4	704.5	448.1	75.1	48.38	451.17
MEAN	17.55	11.41	23.88	17.39	12.06	31.08	23.58	22.73	14.94	2.423	1.561	15.04
MAX	78	110	137	225	86	195	165	158	196	7.3	5.0	272
MIN	0.65	2.6	5.1	3.5	4.2	4.5	6.9	5.8	1.9	1.0	0.80	0.26
CFSM	3.03	1.97	4.12	3.00	2.08	5.36	4.07	3.92	2.58	0.42	0.27	2.59
IN.	3.49	2.19	4.75	3.46	2.17	6.18	4.54	4.52	2.87	0.48	0.31	2.89

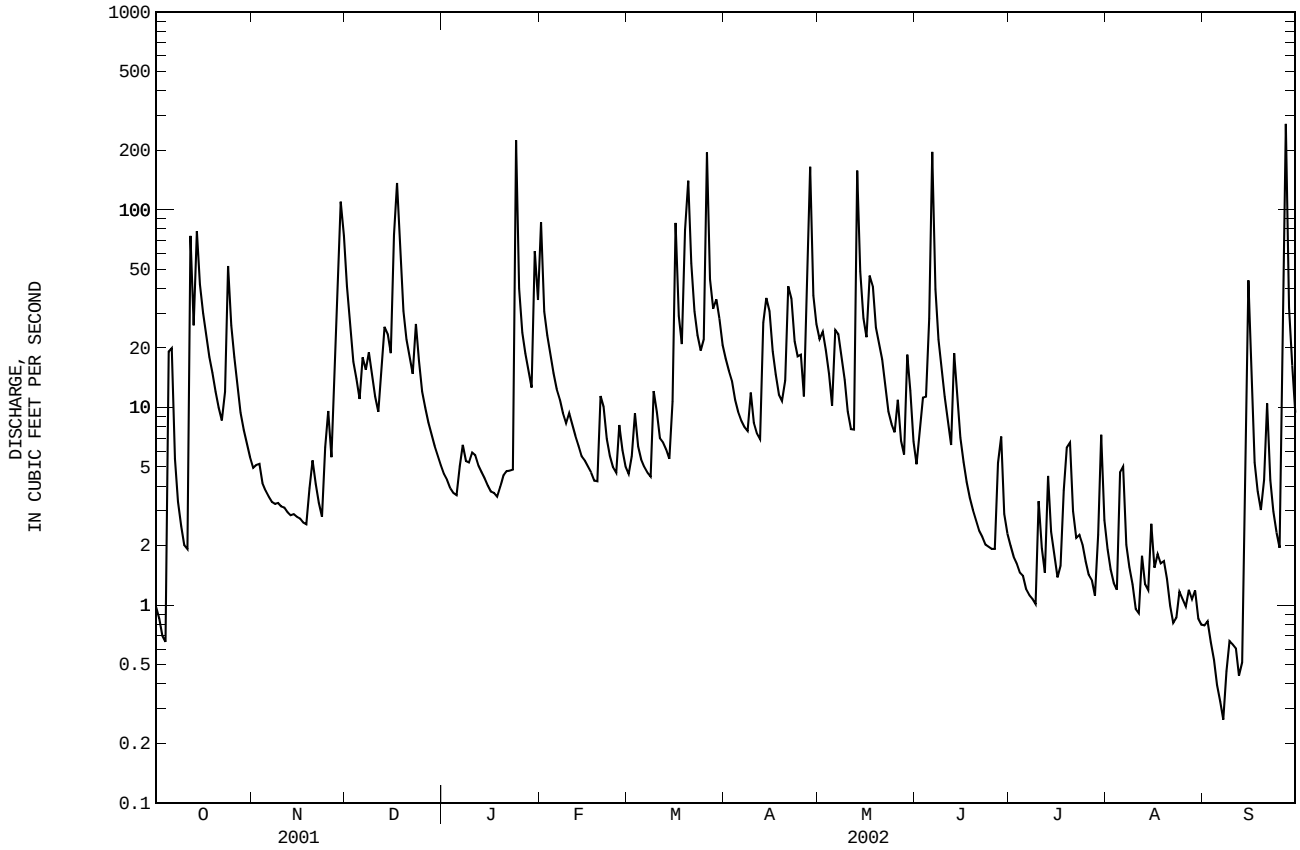
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	7.530	6.225	18.21	16.37	16.82	16.65	10.44	11.07	9.618	7.516	2.913	7.705
MAX	17.6	11.4	27.4	32.7	26.6	31.1	23.6	22.7	14.9	23.4	4.91	15.0
(WY)	2002	2002	2000	1999	2000	2002	2002	2002	2002	2001	2001	2002
MIN	0.77	3.06	9.84	2.06	12.1	5.08	2.38	3.49	5.52	1.77	0.41	0.75
(WY)	2001	2000	1999	2001	2002	2001	2001	2000	2001	1999	1999	1999

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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL TOTAL	4018.33		5901.53			
ANNUAL MEAN	11.01		16.17		11.38	
HIGHEST ANNUAL MEAN					16.2	2002
LOWEST ANNUAL MEAN					7.96	2001
HIGHEST DAILY MEAN	170	Jul 18	272	Sep 27	322	Feb 18 2000
LOWEST DAILY MEAN	0.34	May 3	0.26	Sep 7	0.00	Aug 31 1999
ANNUAL SEVEN-DAY MINIMUM	0.46	Apr 29	0.46	Sep 4	0.00	Aug 31 1999
MAXIMUM PEAK FLOW			644	Jun 6	694	Feb 18 2000
MAXIMUM PEAK STAGE			7.31	Jun 6	7.54	Feb 18 2000
ANNUAL RUNOFF (CFSM)	1.90		2.79		1.96	
ANNUAL RUNOFF (INCHES)	25.77		37.85		26.67	
10 PERCENT EXCEEDS	26		35		27	
50 PERCENT EXCEEDS	3.6		6.6		3.5	
90 PERCENT EXCEEDS	0.95		1.2		0.75	

e Estimated



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 mi^2.

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 are poor.

COOPERATION.--Louisville and Jefferson County Metropolitan Sewer District.

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, Louisville District.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 29	0740	1,150	10.85	Mar 26	0515	1,530	12.55
Jan 24	0425	1,600	12.85	Sep 27	0700	*1,910	*14.10

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	e6.0	68	9.6	178	e5.1	e24	e40	7.0	2.6	2.2	3.9
2	7.2	e5.1	39	8.7	56	e8.4	e20	e117	21	2.1	2.3	4.7
3	8.3	e7.1	26	8.4	35	e12	e23	e52	13	2.1	2.7	1.8
4	11	e4.8	19	7.8	26	e5.9	e16	e22	6.6	2.2	3.1	1.7
5	98	e4.6	15	7.4	20	e5.3	e14	19	37	1.9	3.1	2.0
6	42	e4.2	40	e7.2	17	e5.1	e14	161	103	1.9	9.1	2.9
7	6.5	e4.0	21	e7.0	15	e4.9	e12	94	21	1.8	2.0	2.9
8	3.0	e3.7	37	e6.8	13	e4.7	e14	38	11	1.8	1.5	3.3
9	2.9	e3.3	20	e6.5	13	e33	e26	27	8.3	4.9	1.2	4.3
10	2.7	e3.3	16	e6.3	14	e11	e12	20	6.8	28	1.4	5.7
11	2.8	e3.3	14	e6.0	11	e9.5	e11	16	5.8	4.5	1.9	7.1
12	165	e3.0	46	e5.8	9.9	e8.5	e11	24	161	3.4	2.2	7.8
13	18	e3.0	52	e5.8	9.2	e7.9	e122	559	69	3.8	1.7	8.4
14	302	e2.8	45	e5.6	8.6	e7.0	e84	141	20	3.6	3.8	11
15	40	e2.8	25	e5.4	8.3	e11	e33	56	12	3.1	4.5	85
16	30	e2.8	194	e5.4	8.0	91	e20	32	9.1	2.8	1.9	9.5
17	16	e2.8	288	e5.2	8.7	19	e17	109	7.6	2.7	2.0	2.0
18	12	e2.8	140	e5.1	8.3	16	e16	77	6.3	3.1	2.4	1.6
19	10	e4.0	68	e6.6	8.8	243	e14	32	5.4	2.5	e2.4	1.1
20	9.5	e8.4	37	e6.3	22	374	e19	23	4.9	7.0	e1.7	15
21	9.4	e3.7	22	e5.8	13	108	e127	19	4.6	3.1	e1.7	24
22	13	e3.2	19	e5.6	8.3	46	e90	15	4.3	2.7	e1.7	2.6
23	45	e3.2	48	e7.0	7.2	30	e21	13	3.9	2.9	e1.9	1.5
24	211	e33	20	570	e5.9	22	e66	10	5.8	2.8	e1.7	1.1
25	97	e17	17	87	e5.5	45	e97	12	4.6	2.7	e1.7	1.1
26	27	e5.5	16	38	e14	602	e21	14	3.3	2.6	2.5	69
27	17	170	14	25	e6.4	95	e173	7.9	4.3	2.6	3.6	869
28	14	130	13	20	e5.4	e71	e636	11	7.7	2.4	2.2	41
29	e13	541	12	17	---	e112	e103	36	3.5	22	1.7	15
30	e8.4	235	11	235	---	e82	e56	25	2.7	17	1.6	8.4
31	e7.4	---	10	87	---	e40	---	9.1	---	2.6	1.7	---
TOTAL	1255.2	1223.4	1412	1230.3	555.5	2135.3	1912	1831.0	580.5	149.2	75.1	1214.4
MEAN	40.49	40.78	45.55	39.69	19.84	68.88	63.73	59.06	19.35	4.813	2.423	40.48
MAX	302	541	288	570	178	602	636	559	161	28	9.1	869
MIN	2.7	2.8	10	5.1	5.4	4.7	11	7.9	2.7	1.8	1.2	1.1
CFSM	2.35	2.37	2.65	2.31	1.15	4.00	3.71	3.43	1.12	0.28	0.14	2.35
IN.	2.71	2.65	3.05	2.66	1.20	4.62	4.14	3.96	1.26	0.32	0.16	2.63

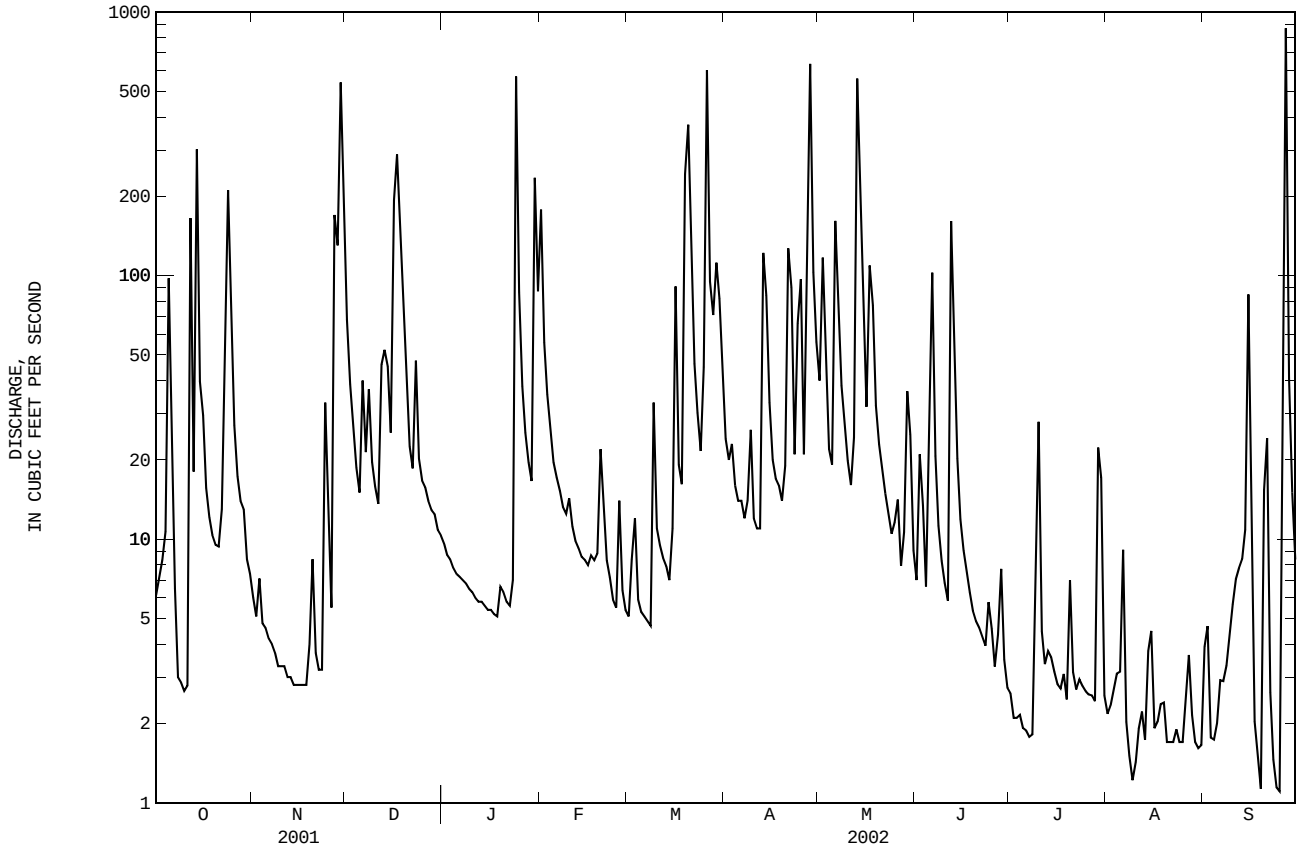
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2002, BY WATER YEAR (WY)

MEAN	8.167	14.05	23.69	31.83	39.21	44.25	31.96	28.62	19.98	15.47	9.994	8.506
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	0.30	0.84	1.32	0.71	8.52	6.41	3.13	5.51	1.11	0.89	0.23	0.000
(WY)	1953	1953	1977	1940	1953	1983	1976	1962	1959	1956	1952	1953

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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1940 - 2002	
ANNUAL TOTAL	8303.9		13573.9			
ANNUAL MEAN	22.75		37.19		23.09	
HIGHEST ANNUAL MEAN					41.6	1997
LOWEST ANNUAL MEAN					9.35	1959
HIGHEST DAILY MEAN	541	Nov 29	869	Sep 27	1960	Mar 2 1997
LOWEST DAILY MEAN	1.5	Sep 6	1.1	Sep 19	0.00	Sep 4 1940
ANNUAL SEVEN-DAY MINIMUM	2.5	Sep 12	1.7	Aug 7	0.00	Sep 4 1940
MAXIMUM PEAK FLOW			1910	Sep 27	5290	Mar 2 1997
MAXIMUM PEAK STAGE			14.10	Sep 27	17.81	Mar 2 1997
INSTANTANEOUS LOW FLOW					0.00	Sep 4 1940
ANNUAL RUNOFF (CFSM)	1.32		2.16		1.34	
ANNUAL RUNOFF (INCHES)	17.96		29.36		18.24	
10 PERCENT EXCEEDS	45		92		50	
50 PERCENT EXCEEDS	7.7		9.5		7.8	
90 PERCENT EXCEEDS	2.8		2.3		1.1	

e Estimated



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

LOCATION.--Lat 38°14'04", long 85°45'50", Jefferson County, Hydrologic Unit 05140101, on left bank of floodwall, 150 ft. upstream of Winter Avenue, at Louisville, 1.4 mi above Middle Fork Beargrass Creek, and at mile 3.3

DRAINAGE AREA.--22.6 mi^2.

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

GAGE.--Water-stage recorder.

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

COOPERATION.--Louisville and Jefferson County Metropolitan Sewer District.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 29	0835	1,690	7.33	Apr 28	0755	2,310	7.89
Jan 24	0430	3,120	8.48	May 13	1420	2,140	7.75
Mar 26	0515	3,200	8.53	Sep 27	0550	*3,890	*8.95

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	7.9	83	8.2	221	6.7	35	53	13	4.3	2.7	2.5
2	3.0	6.7	44	7.2	73	11	27	148	31	4.1	2.7	6.5
3	2.7	9.3	28	6.9	45	17	31	60	28	5.4	2.5	2.4
4	2.6	6.3	19	6.5	31	7.7	21	32	12	5.0	2.5	2.0
5	104	6.0	16	6.2	22	7.0	19	24	62	4.9	2.5	1.8
6	65	5.5	48	e6.0	19	6.7	18	231	182	5.0	8.7	2.0
7	12	5.3	22	e5.5	18	6.5	16	129	33	4.9	3.3	1.9
8	7.5	4.9	44	e4.9	16	6.2	18	53	18	5.4	2.4	1.9
9	5.6	4.4	20	e4.7	15	40	33	36	15	13	2.0	1.8
10	4.8	4.3	17	e4.5	17	14	16	24	12	45	2.1	1.8
11	4.3	4.3	15	e4.3	13	10	15	20	10	4.9	4.6	1.9
12	235	4.0	46	e4.0	11	9.8	15	37	224	3.4	2.9	1.6
13	31	3.9	72	e3.9	9.8	8.5	155	1200	112	3.8	2.9	1.9
14	383	3.7	60	e3.7	8.7	7.9	107	288	28	3.9	5.0	5.4
15	64	3.7	30	e3.5	8.5	14	42	121	17	3.2	7.4	104
16	50	3.7	247	e3.4	7.7	124	28	61	14	2.9	2.9	13
17	25	3.7	365	e3.3	7.3	27	22	155	12	2.7	2.9	3.5
18	18	3.7	167	4.7	6.8	21	21	121	9.6	3.2	2.8	2.9
19	13	5.2	92	6.9	7.0	309	19	47	8.3	2.5	3.1	2.4
20	10	11	45	6.3	26	543	26	32	7.5	7.2	2.3	14
21	8.5	4.9	25	6.0	17	153	167	23	7.0	3.4	2.2	36
22	7.4	4.2	20	5.5	9.9	85	114	19	6.6	2.0	2.2	4.0
23	38	4.2	60	7.9	8.3	50	29	18	6.2	0.47	2.5	2.6
24	229	43	21	958	7.7	33	87	16	8.9	1.0	2.3	2.2
25	137	22	18	113	7.2	64	124	21	9.0	1.0	2.3	2.1
26	45	7.3	e15	56	19	1100	30	25	6.0	1.6	2.5	74
27	31	196	e14	31	8.4	159	227	14	8.0	2.5	3.4	1550
28	22	145	e12	22	7.1	80	837	16	12	2.4	2.5	68
29	17	703	e11	18	---	140	131	44	5.6	22	2.1	31
30	11	269	e10	264	---	97	61	47	4.5	33	2.0	18
31	9.8	---	e9.0	108	---	47	---	16	---	3.4	2.0	---
TOTAL	1599.0	1506.1	1695.0	1694.0	667.4	3205.0	2491	3131	922.2	207.47	94.2	1963.1
MEAN	51.58	50.20	54.68	54.65	23.84	103.4	83.03	101.0	30.74	6.693	3.039	65.44
MAX	383	703	365	958	221	1100	837	1200	224	45	8.7	1550
MIN	2.6	3.7	9.0	3.3	6.8	6.2	15	14	4.5	0.47	2.0	1.6

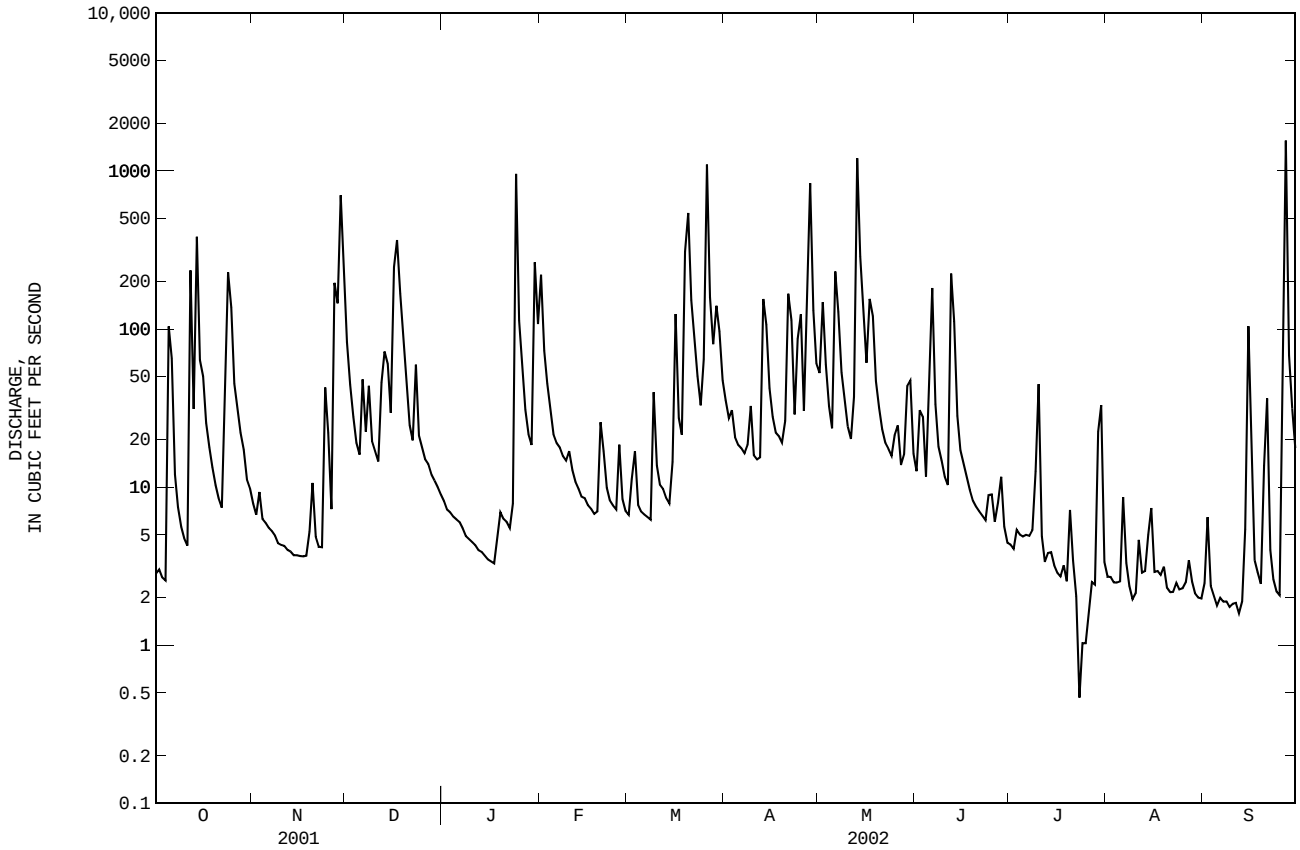
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2002, BY WATER YEAR (WY)

MEAN	19.36	19.20	35.40	49.54	52.65	46.19	36.94	42.26	26.36	13.61	9.651	28.70
MAX	51.6	50.2	54.7	73.5	125	103	83.0	101	41.6	30.1	19.6	65.4
(WY)	2002	2002	2002	2000	2000	2002	2002	2002	1999	2001	2000	2002
MIN	4.80	4.05	17.1	9.40	22.9	19.7	10.1	16.1	13.8	4.55	2.78	3.29
(WY)	2001	2000	1999	2001	1999	2001	2001	1999	2001	1999	1999	1999

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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1998 - 2002	
ANNUAL TOTAL	10395.3		19175.47			
ANNUAL MEAN	28.48		52.54		31.54	
HIGHEST ANNUAL MEAN					52.5	2002
LOWEST ANNUAL MEAN					20.2	1999
HIGHEST DAILY MEAN	703	Nov 29	1550	Sep 27	2230	Feb 18 2000
LOWEST DAILY MEAN	2.6	Oct 4	0.47	Jul 23	0.47	Jul 23 2002
ANNUAL SEVEN-DAY MINIMUM	2.8	Sep 28	1.6	Jul 22	1.3	Nov 6 1999
MAXIMUM PEAK FLOW			3890	Sep 27	8470	Feb 18 2000
MAXIMUM PEAK STAGE			8.95	Sep 27	10.89	Feb 18 2000
10 PERCENT EXCEEDS	62		122		60	
50 PERCENT EXCEEDS	9.5		12		8.0	
90 PERCENT EXCEEDS	4.1		2.5		2.4	

e Estimated



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, and 5.4 mi upstream from mouth.

DRAINAGE AREA.--18.9 mi^2, of which about 0.5 mi^2 does not contribute directly to surface runoff.

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 except for those estimated, which are poor.

COOPEARTION.--Louisville and Jefferson County Metropolitan Sewer District.

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.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 14	0815	613	4.47	Mar 26	0510	1,440	6.26
Nov 29	0815	1,030	5.50	Apr 21	2140	649	4.58
Dec 16	1715	619	4.49	Apr 28	0800	1,080	5.60
Jan 24	0450	1,620	6.53	Sep 27	0615	*1,680	*6.59
Mar 20	0805	659	4.61				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	6.3	74	7.9	178	5.6	37	49	7.5	2.4	e1.3	0.71
2	1.2	6.5	45	7.3	66	8.6	31	91	7.0	2.4	e0.98	0.58
3	1.2	7.2	30	6.8	47	14	30	59	10	2.2	e0.60	0.49
4	1.0	5.4	22	6.3	34	7.7	22	35	10	1.7	e0.41	0.33
5	68	4.4	16	e5.7	26	6.6	18	26	38	1.7	e12	0.30
6	38	4.1	35	e5.6	21	5.9	15	77	144	1.4	e4.4	0.25
7	9.5	3.7	23	e5.4	18	5.4	14	61	42	1.3	e1.8	0.16
8	5.9	4.0	33	e5.3	14	4.9	13	34	23	1.0	e1.2	0.30
9	4.1	4.3	22	e5.2	12	30	25	27	16	0.92	e0.72	0.29
10	3.3	4.7	16	e5.1	15	14	14	20	12	4.8	e0.54	0.19
11	3.1	4.3	14	e5.0	12	9.4	11	16	10	2.3	e0.54	0.25
12	156	4.2	33	e4.9	10	8.8	11	23	23	1.6	e0.72	0.26
13	26	3.9	54	e4.9	9.1	7.9	96	458	49	3.4	e0.41	0.93
14	282	4.0	44	e4.8	7.8	7.1	75	136	21	4.8	e0.63	5.2
15	51	3.1	29	e4.7	7.4	7.2	41	74	13	2.5	e1.2	88
16	37	4.9	183	e4.6	6.9	92	29	43	10	1.7	e0.57	17
17	19	12	293	4.8	6.3	33	27	110	8.3	e2.0	e0.79	6.5
18	14	13	132	5.9	5.8	25	27	99	7.3	e2.3	e0.60	4.1
19	10	14	66	6.9	5.8	206	30	48	6.3	e2.8	1.3	2.8
20	8.5	12	42	e6.7	17	386	51	35	6.7	e5.4	1.0	11
21	7.3	6.4	31	6.1	12	123	124	27	5.1	e2.9	1.1	23
22	6.5	4.9	24	e5.9	8.0	67	148	20	3.8	e2.0	0.91	5.7
23	37	4.1	59	5.8	6.7	47	55	17	3.2	e1.9	0.76	3.0
24	155	20	26	683	6.0	36	59	14	2.8	e1.8	0.67	1.8
25	83	14	20	98	5.6	49	69	13	2.8	e1.4	0.62	1.4
26	29	5.6	16	57	14	633	34	19	8.2	e1.2	0.58	45
27	18	120	14	38	7.6	118	150	10	11	e0.95	0.71	774
28	13	102	12	28	6.2	70	471	8.6	7.3	e0.69	1.6	66
29	10	544	11	22	---	103	104	34	4.1	e5.7	1.2	32
30	8.3	218	9.8	154	---	82	61	22	3.2	e4.7	0.71	20
31	7.2	---	8.7	72	---	51	---	9.8	---	e1.9	0.55	---
TOTAL	1114.3	1165.0	1437.5	1283.6	585.2	2264.1	1892	1715.4	515.6	73.76	41.12	1111.54
MEAN	35.95	38.83	46.37	41.41	20.90	73.04	63.07	55.34	17.19	2.379	1.326	37.05
MAX	282	544	293	683	178	633	471	458	144	5.7	12	774
MIN	1.0	3.1	8.7	4.6	5.6	4.9	11	8.6	2.8	0.69	0.41	0.16
CFSM	1.95	2.11	2.52	2.25	1.14	3.97	3.43	3.01	0.93	0.13	0.07	2.01
IN.	2.25	2.36	2.91	2.60	1.18	4.58	3.83	3.47	1.04	0.15	0.08	2.25

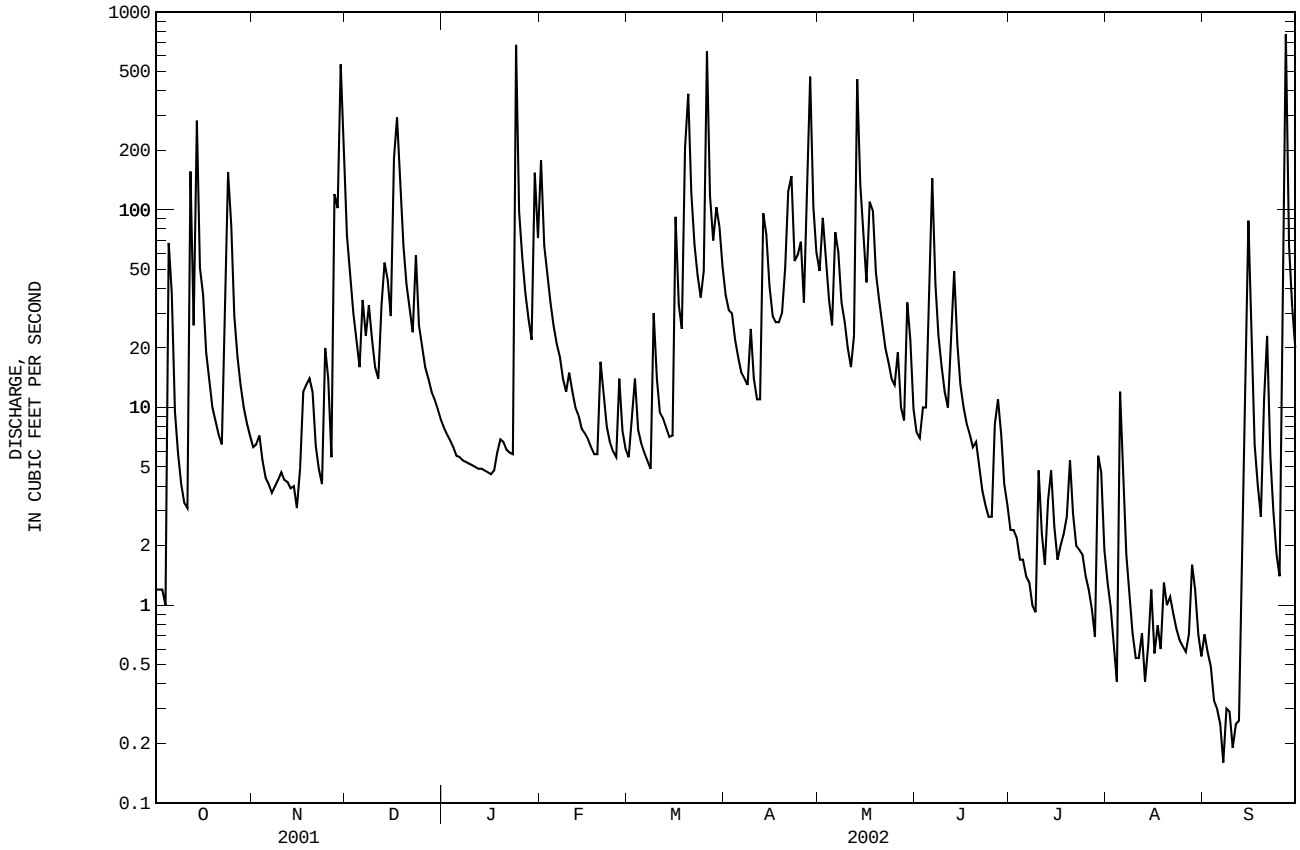
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2002, BY WATER YEAR (WY)

MEAN	8.821	16.41	27.32	33.93	42.51	50.31	37.72	30.56	20.56	17.55	10.94	9.893
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	0.15	0.71	1.90	3.31	3.44	4.20	5.27	3.04	0.93	0.37	0.52	0.033
(WY)	1954	1954	1954	1981	1954	1954	1954	1954	1954	1954	1999	1953

03293000 MIDDLE FORK BEARGRASS CREEK AT LOUISVILLE, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1944 - 2002	
ANNUAL TOTAL	10577.75		13199.12			
ANNUAL MEAN	28.98		36.16		25.48	
HIGHEST ANNUAL MEAN					49.2	1979
LOWEST ANNUAL MEAN					3.76	1954
HIGHEST DAILY MEAN	1900	Jul 18	774	Sep 27	2000	Mar 9 1964
LOWEST DAILY MEAN	0.95	Aug 25	0.16	Sep 7	0.00	Aug 27 1952
ANNUAL SEVEN-DAY MINIMUM	1.4	Sep 28	0.24	Sep 6	0.00	Sep 28 1952
MAXIMUM PEAK FLOW			1680	Sep 27	5900	Mar 2 1997
MAXIMUM PEAK STAGE			6.59	Sep 27	8.70	Mar 2 1997
INSTANTANEOUS LOW FLOW					0.00	Aug 27 1952
ANNUAL RUNOFF (CFSM)	1.58		1.97		1.38	
ANNUAL RUNOFF (INCHES)	21.39		26.69		18.81	
10 PERCENT EXCEEDS	54		82		53	
50 PERCENT EXCEEDS	9.6		9.8		9.9	
90 PERCENT EXCEEDS	3.0		0.99		1.9	

e Estimated



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 mi^2, 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 with telemetry. Datum of gage is 373.18 ft above NGVD of 1929 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 NGVD of 1929 or 373.67 ft above Ohio River Dam.

REMARKS.--Records good except for estimated periods and those below 20,000 ft^3/s, which are poor. Flow regulated by Ohio River system of locks, dams, and reserviors.

COOPERATION.--U.S. Army Corps of Engineers, Louisville District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13400	31600	155000	56600	196000	53000	304000	360000	88100	31400	32000	1550
2	12100	26100	126000	38000	224000	56200	346000	405000	85700	38000	34600	2370
3	12100	32000	123000	40800	215000	50600	322000	336000	95800	22600	20500	1730
4	12800	19400	93200	36200	202000	64100	384000	289000	75400	25900	19400	949
5	18600	17800	84400	36000	188000	76200	253000	295000	83400	23200	13400	10400
6	17100	25800	53100	30400	169000	81800	287000	322000	123000	20900	12400	16900
7	13000	23700	65300	32400	136000	88600	203000	343000	210000	12100	7250	4420
8	15900	21200	54200	39800	118000	81100	183000	351000	230000	10900	3990	e5750
9	18000	20800	54300	24400	98800	66200	157000	375000	290000	11700	6820	e5520
10	12900	23800	61100	24800	88500	66100	125000	424000	236000	36800	10800	e8890
11	23500	14500	42800	32500	82500	65100	121000	392000	277000	67100	5400	3220
12	14600	16700	45600	53000	80700	60200	121000	300000	210000	53900	14400	4280
13	31500	18500	57000	84200	93200	59400	128000	304000	158000	37600	7810	4070
14	44000	16400	65100	103000	98600	65500	162000	349000	142000	36200	7250	2620
15	59500	20700	77500	88400	103000	48700	217000	345000	132000	18600	26100	13600
16	45400	9880	94700	59700	90700	90500	203000	360000	100000	41200	4830	17100
17	48300	23300	173000	58200	73500	194000	231000	372000	92100	73800	2510	2790
18	31000	27300	246000	64200	77000	265000	258000	374000	94400	67800	4710	8400
19	29300	22000	246000	47700	58000	298000	260000	380000	75100	27800	31900	12500
20	39300	29000	235000	50200	52200	299000	251000	403000	75000	31700	8370	10500
21	26400	17900	229000	43200	64900	440000	281000	370000	63000	41700	1790	11300
22	26600	13800	206000	35200	56900	501000	343000	344000	61200	34300	4220	2190
23	12600	11300	203000	38400	61500	515000	322000	322000	33200	27300	3750	2540
24	114000	22900	148000	114000	65800	516000	341000	312000	28400	27300	13800	3890
25	140000	27100	115000	246000	53800	469000	356000	204000	14400	18600	17300	17400
26	128000	38800	96100	283000	44800	380000	338000	164000	26100	23400	15600	13100
27	72600	62200	97300	292000	50900	349000	277000	136000	24400	36500	12500	104000
28	58300	116000	103000	284000	69700	336000	257000	104000	33800	39000	7740	93100
29	52400	161000	60100	271000	---	359000	308000	97800	50400	53400	14500	47000
30	32900	202000	70900	165000	---	371000	343000	89800	53900	61900	9120	36700
31	35500	---	49000	173000	---	340000	---	111000	---	31700	1800	---
TOTAL	1211600	1113480	3529700	2945300	2913000	6705300	7682000	9333600	3261800	1084300	376560	468779
MEAN	39080	37120	113900	95010	104000	216300	256100	301100	108700	34980	12150	15630
MAX	140000	202000	246000	292000	224000	516000	384000	424000	290000	73800	34600	104000
MIN	12100	9880	42800	24400	44800	48700	121000	89800	14400	10900	1790	949

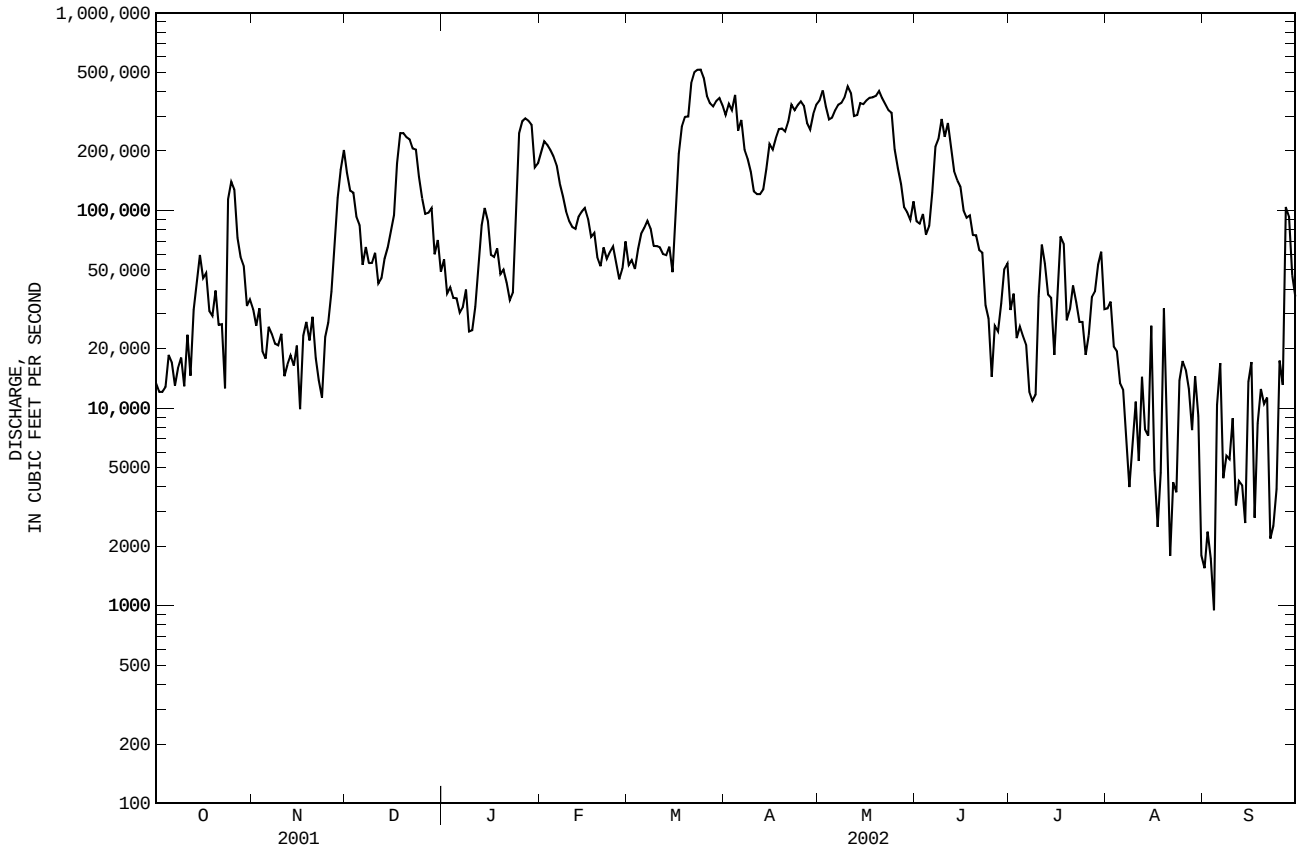
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2002, BY WATER YEAR (WY)

MEAN	37190	67660	121200	164100	193100	241400	204100	145500	85940	55630	43590	32590
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

03294500 OHIO RIVER AT LOUISVILLE, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1929 - 2002	
ANNUAL TOTAL	32596780		40625419			
ANNUAL MEAN	89310		111300		115600	
HIGHEST ANNUAL MEAN					176700	1979
LOWEST ANNUAL MEAN					57390	1954
HIGHEST DAILY MEAN	346000	May 26	516000	Mar 24	1110000	Jan 27 1937
LOWEST DAILY MEAN	9880	Nov 16	949	Sep 4	949	Sep 4 2002
ANNUAL SEVEN-DAY MINIMUM	13500	Sep 13	3990	Aug 30	3530	Oct 15 1930
MAXIMUM PEAK FLOW			519000	Mar 24	1110000	Jan 27 1937
MAXIMUM PEAK STAGE			54.69	Mar 24	85.44	Jan 27 1937
10 PERCENT EXCEEDS	206000		322000		279000	
50 PERCENT EXCEEDS	57000		59500		71600	
90 PERCENT EXCEEDS	19400		10700		16600	

e Estimated



03294550 MILL CREEK CUTOFF NEAR LOUISVILLE, KY

LOCATION.--Lat 38°10'39", long 85°52'01", Jefferson County, Hydrologic Unit 05140101, on left bank at bridge on Highway 1230, 0.8 mi downstream from Big Run Creek, 1.5 mi upstream from Ohio River.

DRAINAGE AREA.--24.4 mi^2.

PERIOD OF RECORD.--May 1988 to January 1995, August 1999 to current year.

GAGE.--Water-stage recorder.

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

COOPERATION.--Louisville and Jefferson County Metropolitan Sewer District.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 24	0310	*2,130	*10.84	Sep 27	0210	2,030	10.57
Mar 26	0405	1,670	9.60				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

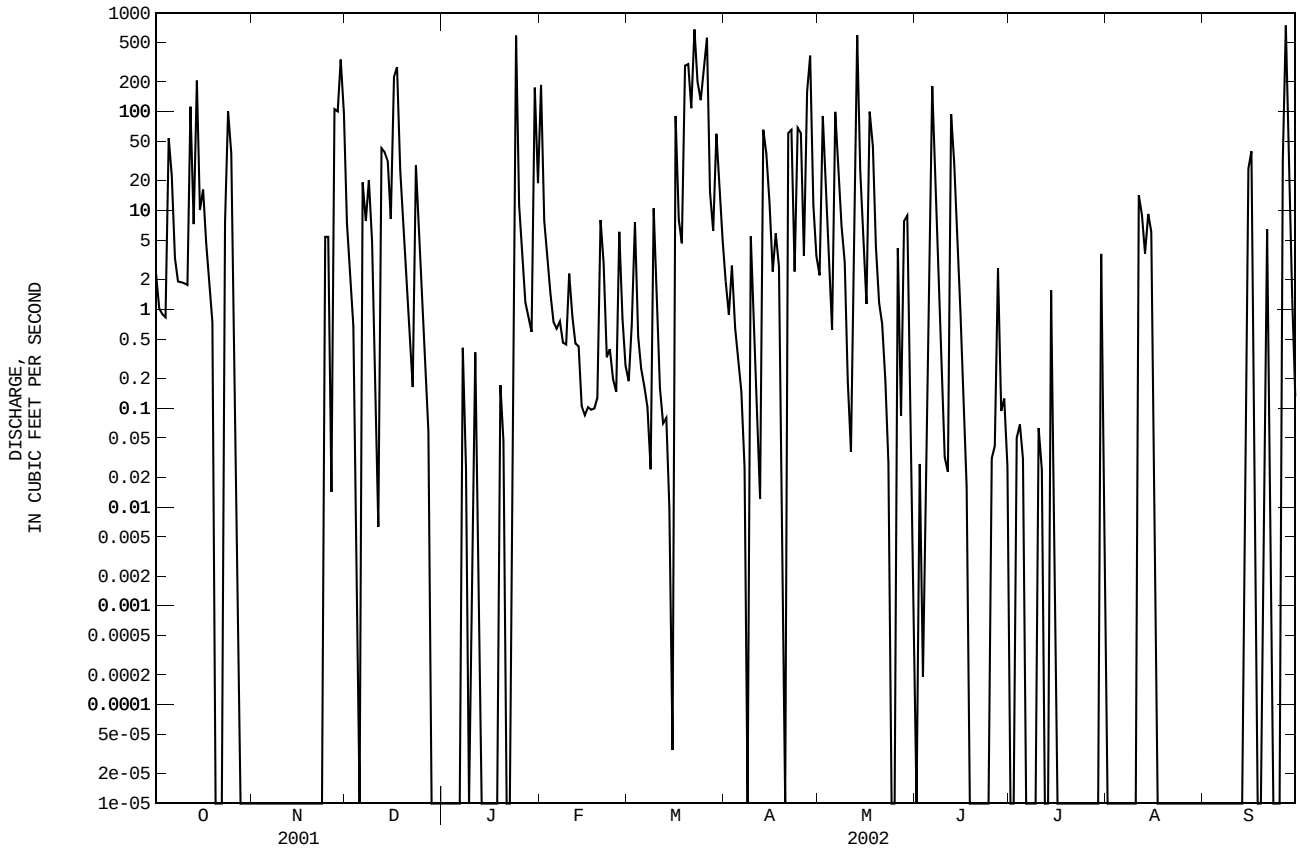
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	0.00	7.4	0.00	186	0.19	1.9	2.2	0.00	0.00	0.00	0.00
2	1.0	0.00	2.1	0.00	7.9	0.70	0.88	90	0.03	0.00	0.00	0.00
3	0.90	0.00	0.67	0.00	3.3	7.6	2.8	12	0.00	0.05	0.00	0.00
4	0.83	0.00	0.03	0.00	1.4	0.53	0.65	2.3	0.08	0.07	0.00	0.00
5	54	0.00	0.00	0.00	0.75	0.25	0.30	0.62	3.9	0.03	0.00	0.00
6	23	0.00	19	0.00	0.64	0.16	0.15	99	181	0.00	0.00	0.00
7	3.3	0.00	7.8	0.41	0.75	0.10	0.03	29	7.2	0.00	0.00	0.00
8	1.9	0.00	20	0.02	0.46	0.02	0.00	7.0	0.74	0.00	0.00	0.00
9	1.9	0.00	4.8	0.00	0.44	11	5.5	3.0	0.11	0.00	0.00	0.00
10	1.8	0.00	0.44	0.00	2.3	2.0	0.72	0.19	0.03	0.06	0.00	0.00
11	1.8	0.00	0.0	0.37	0.84	0.16	0.08	0.04	0.02	0.02	14	0.00
12	112	0.00	43	0.00	0.45	0.07	0.01	0.53	95	0.00	8.9	0.00
13	7.3	0.00	39	0.00	0.42	0.08	66	592	31	0.00	3.7	0.00
14	206	0.00	32	0.00	0.11	0.00	38	25	3.8	1.6	9.2	0.03
15	10	0.00	8.2	0.00	0.08	0.00	12	5.6	0.97	0.02	6.1	27
16	16	0.00	224	0.00	0.10	90	2.4	1.1	0.09	0.00	0.08	40
17	4.7	0.00	282	0.00	0.10	8.0	5.9	100	0.02	0.00	0.00	0.17
18	1.7	0.00	26	0.00	0.10	4.6	2.7	44	0.00	0.00	0.00	0.00
19	0.74	0.00	7.4	0.17	0.13	291	0.09	4.3	0.00	0.00	0.00	0.00
20	0.00	0.00	2.3	0.05	8.0	302	0.00	1.2	0.00	0.00	0.00	0.03
21	0.00	0.00	0.70	0.00	3.0	108	61	0.71	0.00	0.00	0.00	6.4
22	0.00	0.00	0.16	0.00	0.33	679	66	0.19	0.00	0.00	0.00	0.04
23	7.6	0.00	29	0.13	0.40	201	2.4	0.03	0.00	0.00	0.00	0.00
24	101	5.4	4.7	586	0.20	131	69	0.00	0.00	0.00	0.00	0.00
25	38	5.4	1.00	11	0.15	261	61	0.00	0.03	0.00	0.00	0.00
26	2.8	0.01	0.25	3.7	6.1	559	3.5	4.2	0.04	0.00	0.00	32
27	0.13	106	0.06	1.2	0.81	15	160	0.08	2.6	0.00	0.00	741
28	0.00	101	0.00	0.84	0.27	6.2	369	7.8	0.09	0.00	0.00	11
29	0.00	337	0.00	0.59	---	60	11	8.9	0.13	0.00	0.00	1.3
30	0.00	96	0.00	175	---	20	3.5	0.43	0.03	3.6	0.00	0.13
31	0.00	---	0.00	19	---	5.0	---	0.02	---	0.04	0.00	---
TOTAL	600.70	650.81	762.01	798.48	225.53	2763.66	946.51	1041.44	326.91	5.49	41.98	859.10
MEAN	19.38	21.69	24.58	25.76	8.055	89.15	31.55	33.59	10.90	0.177	1.354	28.64
MAX	206	337	282	586	186	679	369	592	181	3.6	14	741
MIN	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CFSM	0.79	0.89	1.01	1.06	0.33	3.65	1.29	1.38	0.45	0.01	0.06	1.17
IN.	0.92	0.99	1.16	1.22	0.34	4.21	1.44	1.59	0.50	0.01	0.06	1.31

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2002, BY WATER YEAR (WY)

MEAN	6.127	9.643	19.76	23.68	35.47	33.70	13.99	18.19	10.65	7.624	6.679	7.489
MAX	19.4	21.7	73.0	72.3	87.0	89.2	31.5	69.8	49.1	23.5	33.4	28.6
(WY)	2002	2002	1991	1991	1989	2002	2002	1990	1990	1989	1992	2002
MIN	0.18	0.31	1.35	3.26	3.97	6.67	0.93	3.21	0.042	0.18	0.83	0.067
(WY)	1989	2000	1990	2001	1992	2001	2001	2000	1988	2002	2001	1988

03294550 MILL CREEK CUTOFF NEAR LOUISVILLE, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1988 - 2002	
ANNUAL TOTAL	3759.65		9022.62			
ANNUAL MEAN	10.30		24.72		16.28	
HIGHEST ANNUAL MEAN					25.5	1991
LOWEST ANNUAL MEAN					7.41	2001
HIGHEST DAILY MEAN	337	Nov 29	741	Sep 27	1070	Feb 15 1990
LOWEST DAILY MEAN	0.00	Mar 25	0.00	Oct 20	0.00	May 15 1988
ANNUAL SEVEN-DAY MINIMUM	0.00	Apr 7	0.00	Oct 28	0.00	May 28 1988
MAXIMUM PEAK FLOW			2130	Jan 24	4310	Aug 8 1992
MAXIMUM PEAK STAGE			10.84	Jan 24	15.83	Aug 8 1992
ANNUAL RUNOFF (CFSM)	0.42		1.01		0.67	
ANNUAL RUNOFF (INCHES)	5.73		13.76		9.06	
10 PERCENT EXCEEDS	19		56		30	
50 PERCENT EXCEEDS	0.73		0.15		1.4	
90 PERCENT EXCEEDS	0.00		0.00		0.00	



03294570 MILL CREEK AT ORELL ROAD NEAR LOUISVILLE, KY

LOCATION.--Lat 38°04'41", long 85°53'24", Jefferson County, Hydrologic Unit 05140101, on on right bank at bridge on Orell Road, 5.0 mi southwest of Louisville, and at mile 1.5

DRAINAGE AREA.--13.5 mi^2.

PERIOD OF RECORD.--August 1999 to current year.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 415 ft above NGVD of 1929(from topographic map).

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

Cooperation.--Louisville and Jefferson County Metropolitan Sewer District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e1.6	e1.9	e60	e0.70	239	2.4	13	e31	e3.5	1.5	2.1	0.94
2	e2.2	e2.2	e25	e0.50	24	2.6	7.2	e200	e2.8	1.4	1.2	1.6
3	3.5	e1.7	e8.0	e0.40	8.1	7.2	7.8	e60	e8.0	1.5	0.38	7.4
4	3.0	e1.5	e4.0	e0.32	4.3	3.3	6.4	e27	e4.0	1.6	0.68	7.1
5	35	e1.5	e2.5	e0.24	2.9	2.5	5.3	5.5	e5.4	1.5	0.82	3.1
6	52	e1.3	e25	0.44	2.3	2.4	4.9	47	e150	2.0	0.83	2.1
7	6.3	e1.3	18	1.8	2.4	2.3	4.2	276	e40	1.7	0.98	1.2
8	3.5	e1.3	23	1.4	1.9	2.2	3.8	e55	e16	1.4	1.4	1.1
9	2.7	e1.3	12	1.2	1.5	7.4	8.0	e25	e8.0	2.5	1.3	1.8
10	2.5	e1.3	4.6	1.4	2.2	7.3	5.4	e13	e4.0	5.1	0.82	2.5
11	2.9	e1.3	3.0	1.5	2.1	3.2	3.7	e7.0	e2.7	3.4	0.89	2.9
12	126	e1.5	19	1.5	1.5	3.0	3.9	3.7	e10	2.3	12	2.8
13	14	e1.3	90	1.2	1.2	3.6	87	1240	e30	1.8	4.7	2.7
14	288	e1.3	45	1.2	1.2	2.7	45	e450	e5.4	1.0	7.7	4.3
15	24	e1.2	21	0.68	1.3	2.4	20	e100	e3.6	0.48	7.6	47
16	23	e1.3	260	0.55	1.4	71	9.1	e31	e2.9	0.68	2.6	46
17	8.6	e1.5	490	0.63	1.6	21	6.6	e74	2.2	1.2	1.9	6.8
18	4.2	e1.3	89	0.71	2.0	11	7.8	e110	2.3	1.4	1.0	3.2
19	3.1	e4.1	16	0.88	2.1	340	5.6	e33	2.3	1.6	0.72	2.7
20	2.7	e2.4	6.3	1.1	6.8	e600	3.9	e23	2.1	2.0	0.65	3.5
21	2.3	e2.0	3.8	1.1	7.3	e170	59	e20	1.5	1.6	0.68	14
22	2.4	e1.8	3.1	1.7	4.1	e60	130	e17	1.6	1.3	0.60	4.8
23	e13	e1.7	31	1.4	2.5	e30	12	9.8	1.4	1.6	0.51	2.5
24	e150	e18	10	1090	2.1	e18	36	2.5	1.5	1.2	0.42	1.7
25	e45	e4.9	4.4	79	2.0	e30	307	2.3	4.8	0.96	0.40	3.3
26	e10	e100	3.0	12	4.9	e1400	e37	4.8	2.6	1.1	0.51	12
27	e7.2	e80	2.3	5.4	4.0	e320	e160	e2.7	1.9	1.0	0.67	1270
28	e4.9	e300	1.9	3.5	2.8	e56	668	e3.3	1.7	0.83	0.56	82
29	e3.7	e560	e1.5	2.9	---	e150	e150	e6.2	1.5	0.57	0.47	8.3
30	e3.0	e120	e1.1	218	---	e65	e43	e10	1.5	0.98	0.50	4.2
31	e2.4	---	e0.86	58	---	e30	---	e4.2	---	2.4	1.5	---
TOTAL	852.7	1220.9	1284.36	1491.35	339.5	3426.5	1860.6	2894.0	325.2	49.60	57.09	1553.54
MEAN	27.51	40.70	41.43	48.11	12.12	110.5	62.02	93.35	10.84	1.600	1.842	51.78
MAX	288	560	490	1090	239	1400	668	1240	150	5.1	12	1270
MIN	1.6	1.2	0.86	0.24	1.2	2.2	3.7	2.3	1.4	0.48	0.38	0.94

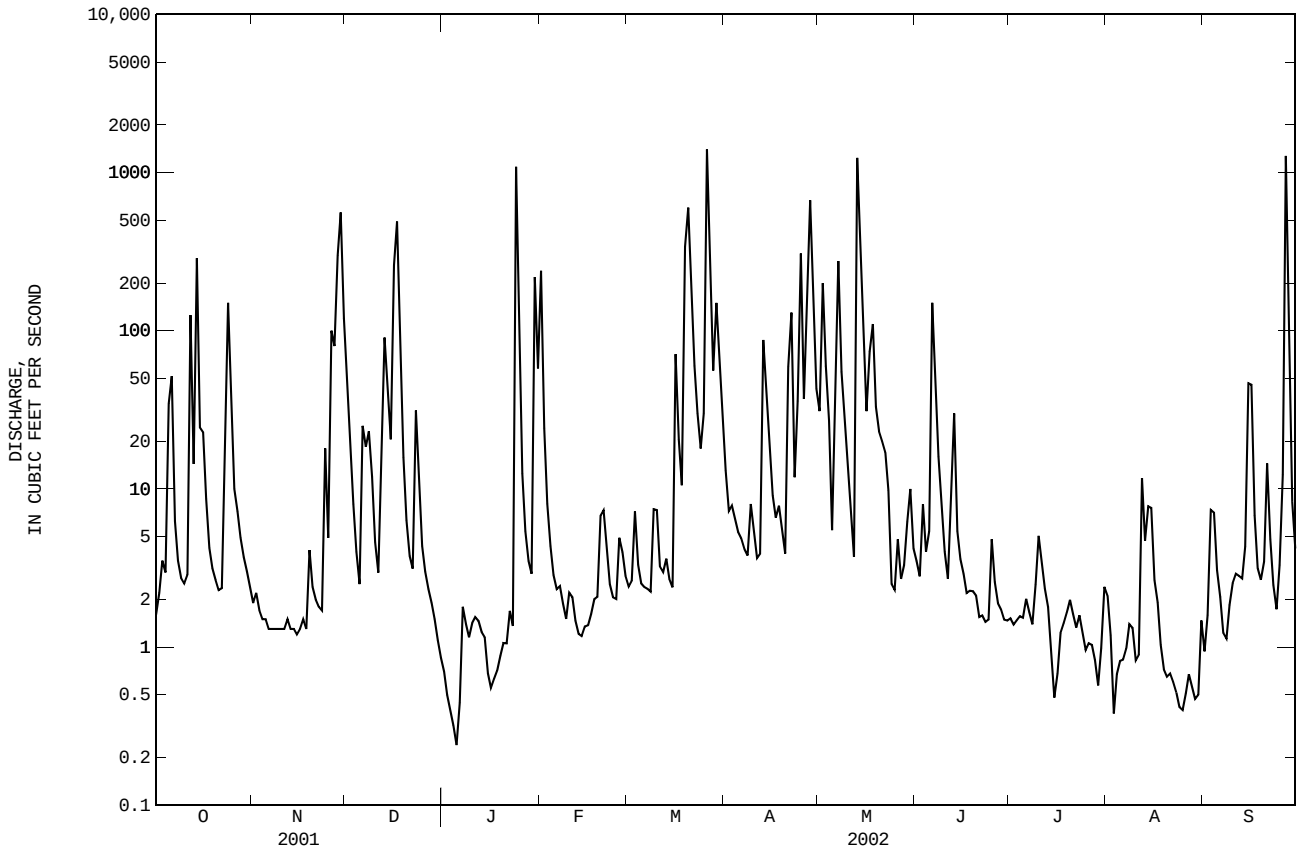
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	11.80	19.35	32.10	40.91	49.86	47.27	61.75	41.09	6.906	3.054	3.260	17.69
MAX	27.5	40.7	41.4	71.3	75.2	111	121	93.4	10.8	5.55	4.41	51.8
(WY)	2002	2002	2002	2000	2000	2002	2000	2002	2002	2001	2000	2002
MIN	2.15	8.14	18.0	3.28	12.1	9.79	2.16	4.46	4.09	1.60	1.84	3.86
(WY)	2001	2001	2000	2001	2002	2001	2001	2000	2001	2002	2002	1999

03294570 MILL CREEK AT ORELL ROAD NEAR LOUISVILLE, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL TOTAL	6929.89		15355.34			
ANNUAL MEAN	18.99		42.07		28.17	
HIGHEST ANNUAL MEAN					42.1	2002
LOWEST ANNUAL MEAN					13.8	2001
HIGHEST DAILY MEAN	712	Feb 20	1400	Mar 26	1680	Apr 9 2000
LOWEST DAILY MEAN	0.34	Jun 11	0.24	Jan 5	0.08	Jan 1 2000
ANNUAL SEVEN-DAY MINIMUM	0.72	Apr 30	0.49	Dec 31	0.15	Dec 26 1999
MAXIMUM PEAK FLOW			7430	Mar 26	7430	Mar 26 2002
MAXIMUM PEAK STAGE			14.98	Mar 26	16.53	Feb 19 2000
10 PERCENT EXCEEDS	29		79		34	
50 PERCENT EXCEEDS	2.5		3.1		2.3	
90 PERCENT EXCEEDS	1.1		0.97		0.55	

e Estimated



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 mi^2.

PERIOD OF RECORD.--May 1989 to current year.

GAGE.--Water-stage recorder. Datum of gage is 593.29 ft above NGVD of 1929.

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

COOPERATION.--Kentucky Natural Resources and Environmental Protection Cabinet and U.S. Army Corps of Engineers, Louisville District.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 24	1000	6,170	8.88	Mar 20	0900	*9,480	*10.05
Mar 19	1800	8,220	9.65	Apr 28	0700	8,130	9.62

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

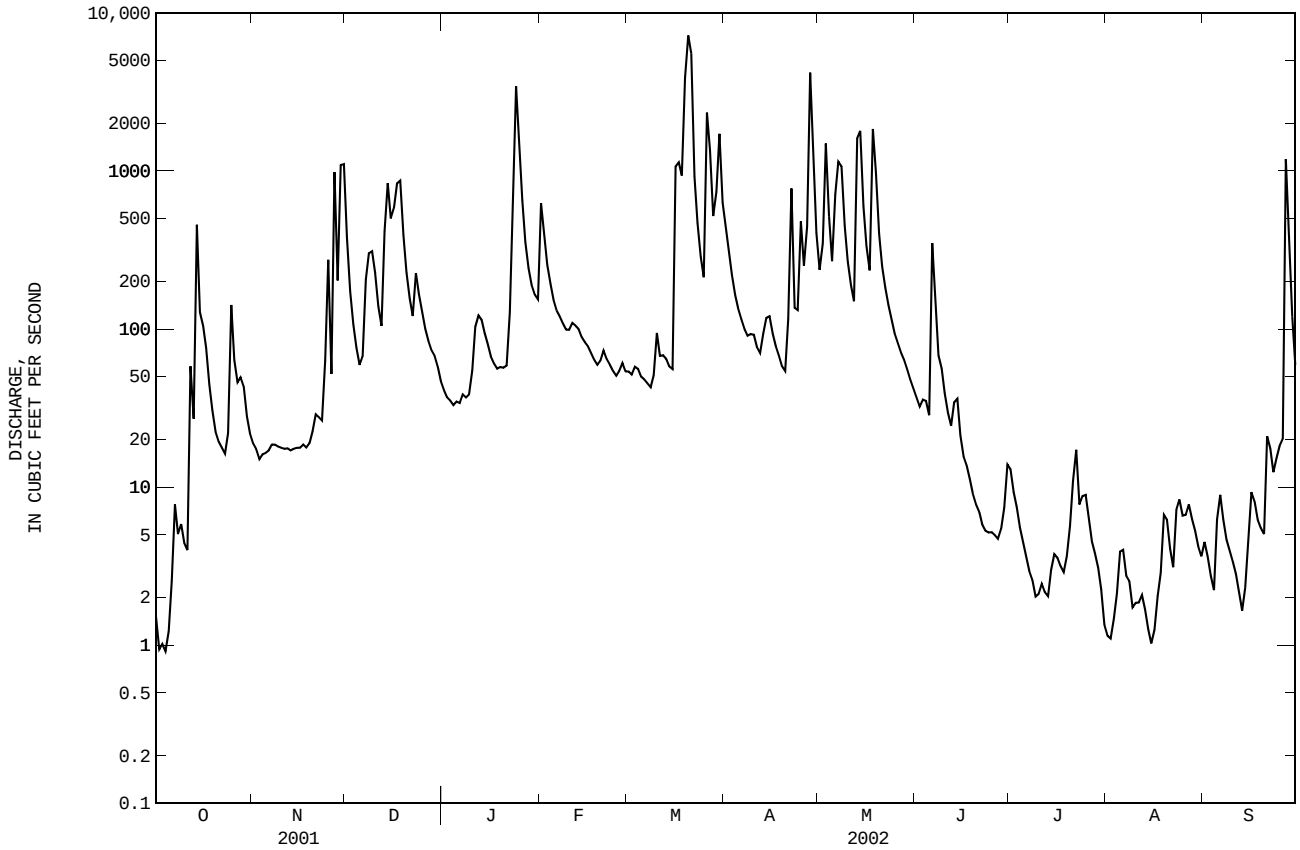
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	19	378	41	625	54	450	237	37	13	1.1	4.5
2	0.94	17	174	37	408	52	319	349	32	9.3	1.1	3.7
3	1.0	15	107	35	254	58	220	1490	36	7.5	1.5	2.8
4	0.92	16	77	33	194	56	165	518	35	5.6	2.1	2.2
5	1.2	16	59	35	153	50	135	269	29	4.6	3.9	6.2
6	2.6	17	67	34	131	48	116	710	350	3.7	4.0	8.9
7	7.8	19	206	39	120	45	100	1150	164	2.9	2.7	6.2
8	5.1	19	302	37	109	43	91	1070	68	2.6	2.5	4.7
9	5.8	18	311	39	99	51	93	450	56	2.0	1.7	4.0
10	4.5	18	227	54	99	95	92	268	39	2.1	1.9	3.4
11	4.0	18	140	103	109	68	77	189	30	2.4	1.9	2.8
12	58	18	105	122	105	68	71	150	24	2.2	2.1	2.2
13	27	17	416	114	100	65	94	1610	34	2.0	1.7	1.7
14	456	17	838	94	89	58	118	1790	36	3.0	1.3	2.3
15	128	18	501	80	83	56	120	599	21	3.8	1.0	4.4
16	105	18	585	67	78	1070	94	334	16	3.6	1.3	9.3
17	76	19	832	60	71	1130	78	235	14	3.2	2.1	8.1
18	44	18	867	56	64	936	68	1840	11	2.9	2.9	6.2
19	31	19	392	58	59	3880	58	980	9.1	3.7	6.7	5.5
20	22	23	228	57	63	7180	54	400	7.8	5.7	6.2	5.0
21	19	29	157	59	73	5520	116	249	7.0	11	4.1	21
22	18	28	121	128	64	922	775	182	5.8	17	3.1	18
23	16	26	226	476	60	468	136	143	5.3	7.8	7.2	12
24	22	64	166	3430	54	287	132	115	5.2	8.8	8.4	15
25	142	274	128	1700	51	213	480	94	5.2	8.9	6.6	18
26	64	52	101	651	54	2340	252	82	5.0	6.3	6.7	20
27	46	983	84	354	61	1360	446	71	4.7	4.5	7.8	1190
28	50	203	73	242	54	519	4180	64	5.5	3.8	6.3	356
29	43	1090	68	191	---	736	1380	56	7.4	3.1	5.3	121
30	28	1100	58	165	---	1720	407	48	14	2.3	4.2	59
31	22	---	47	154	---	629	---	42	---	1.4	3.7	---
TOTAL	1452.36	4208	8041	8745	3484	29777	10917	15784	1114.0	160.7	113.1	1924.1
MEAN	46.85	140.3	259.4	282.1	124.4	960.5	363.9	509.2	37.13	5.184	3.648	64.14
MAX	456	1100	867	3430	625	7180	4180	1840	350	17	8.4	1190
MIN	0.92	15	47	33	51	43	54	42	4.7	1.4	1.0	1.7
CFSM	0.27	0.82	1.51	1.64	0.72	5.58	2.12	2.96	0.22	0.03	0.02	0.37
IN.	0.31	0.91	1.74	1.89	0.75	6.44	2.36	3.41	0.24	0.03	0.02	0.42

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2002, BY WATER YEAR (WY)

MEAN	53.20	137.1	332.7	427.3	417.0	591.2	214.7	311.1	267.3	127.9	51.67	50.47
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	7.28	29.1	111	124	99.9	71.4	18.4	13.8	4.29	0.53	0.46
(WY)	1995	2000	2000	2001	2002	1990	1997	2000	2000	2000	1999	1999

03295400 SALT RIVER AT GLENSBORO, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1989 - 2002	
ANNUAL TOTAL	51324.26		85720.26			
ANNUAL MEAN	140.6		234.9		247.2	
HIGHEST ANNUAL MEAN					403	1997
LOWEST ANNUAL MEAN					103	2000
HIGHEST DAILY MEAN	2430	Feb 16	7180	Mar 20	16400	Mar 2 1997
LOWEST DAILY MEAN	0.92	Oct 4	0.92	Oct 4	0.00	Aug 5 1999
ANNUAL SEVEN-DAY MINIMUM	1.5	Sep 30	1.6	Aug 10	0.00	Sep 6 1999
MAXIMUM PEAK FLOW			9480	Mar 20	22000	Mar 2 1997
MAXIMUM PEAK STAGE			10.05	Mar 20	12.91	Mar 2 1997
ANNUAL RUNOFF (CFSM)	0.82		1.37		1.44	
ANNUAL RUNOFF (INCHES)	11.10		18.54		19.52	
10 PERCENT EXCEEDS	302		545		538	
50 PERCENT EXCEEDS	44		54		69	
90 PERCENT EXCEEDS	7.8		2.9		4.8	



03295702 BULLSKIN CREEK NEAR SIMPSONVILLE, KY

LOCATION.--Lat 38°13'07", long 85°18'07", Shelby County, Hydrologic Unit 05140102, at center span on the downstream side of bridge on Highway 60, 2.6 miles east of Simpsonville, 2.6 miles below Fox Run, and at mile 21.7.

DRAINAGE AREA.--54.8 mi^2.

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

GAGE.--Water-stage recorder with telemetry. Datum of gage is 680 ft above NGVD of 1929 (from topographic map).

REMARKS.--Records fair except for those below 2.0 ft^3/s and those estimated, which are poor.

COOPERATION.--City of Simpsonville.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	5.7	216	e32	842	37	102	103	20	4.1	0.00	0.00
2	0.00	5.3	125	e45	296	38	81	868	101	2.4	0.00	0.00
3	0.00	5.4	86	e35	191	47	67	332	88	1.5	0.00	0.00
4	0.00	5.4	63	e27	139	e41	55	155	36	1.1	0.00	0.00
5	0.00	4.8	49	e23	108	39	48	98	40	0.55	0.00	0.00
6	0.00	4.3	57	21	97	39	41	222	298	0.31	0.00	0.00
7	0.00	4.0	96	22	88	37	35	336	166	0.34	0.00	0.12
8	0.00	4.0	85	21	73	35	32	149	89	0.35	0.00	0.22
9	0.00	3.1	80	19	65	40	34	111	66	0.17	0.00	0.22
10	0.00	2.4	65	27	64	49	30	82	45	0.63	0.00	0.27
11	0.00	1.9	53	44	65	41	25	61	31	0.27	0.00	0.03
12	0.41	1.8	46	40	55	43	24	50	73	0.19	0.00	0.18
13	0.31	1.7	143	37	50	42	31	1530	279	0.21	0.00	0.32
14	3.4	1.6	e152	34	44	38	56	499	135	0.24	0.00	0.68
15	1.00	1.5	e133	31	44	36	67	183	72	0.21	0.00	1.2
16	1.4	1.6	e791	26	41	186	42	120	47	0.13	0.00	0.60
17	4.0	1.6	1690	27	38	169	40	146	34	0.23	0.00	4.3
18	5.0	1.6	589	23	33	147	104	444	23	3.8	0.00	3.0
19	5.4	2.8	226	25	34	973	45	160	15	3.3	0.00	1.4
20	5.3	4.4	138	24	54	2340	36	112	11	5.3	0.00	0.19
21	4.4	4.3	100	23	87	473	40	83	7.4	3.9	0.00	0.41
22	3.2	4.5	79	25	59	237	157	64	5.4	1.5	0.00	0.08
23	2.8	4.5	303	26	49	169	70	51	4.0	1.1	0.00	0.02
24	65	5.6	170	3420	46	131	51	40	2.7	0.37	0.00	0.00
25	210	6.0	109	463	43	115	57	32	4.8	0.15	0.00	0.00
26	52	8.0	81	244	45	2530	40	29	3.3	0.04	0.00	1.0
27	23	184	65	175	43	365	210	25	32	0.00	0.00	1570
28	13	183	54	140	39	186	1920	19	28	0.00	0.00	220
29	9.0	1170	46	119	---	166	276	76	14	0.00	0.00	88
30	7.7	946	39	872	---	256	143	63	7.2	0.00	0.00	49
31	6.7	---	e37	460	---	138	---	32	---	0.00	0.00	---
TOTAL	423.02	2580.8	5966	6550	2832	9183	3959	6275	1777.8	32.39	0.00	1941.24
MEAN	13.65	86.03	192.5	211.3	101.1	296.2	132.0	202.4	59.26	1.045	0.000	64.71
MAX	210	1170	1690	3420	842	2530	1920	1530	298	5.3	0.00	1570
MIN	0.00	1.5	37	19	33	35	24	19	2.7	0.00	0.00	0.00

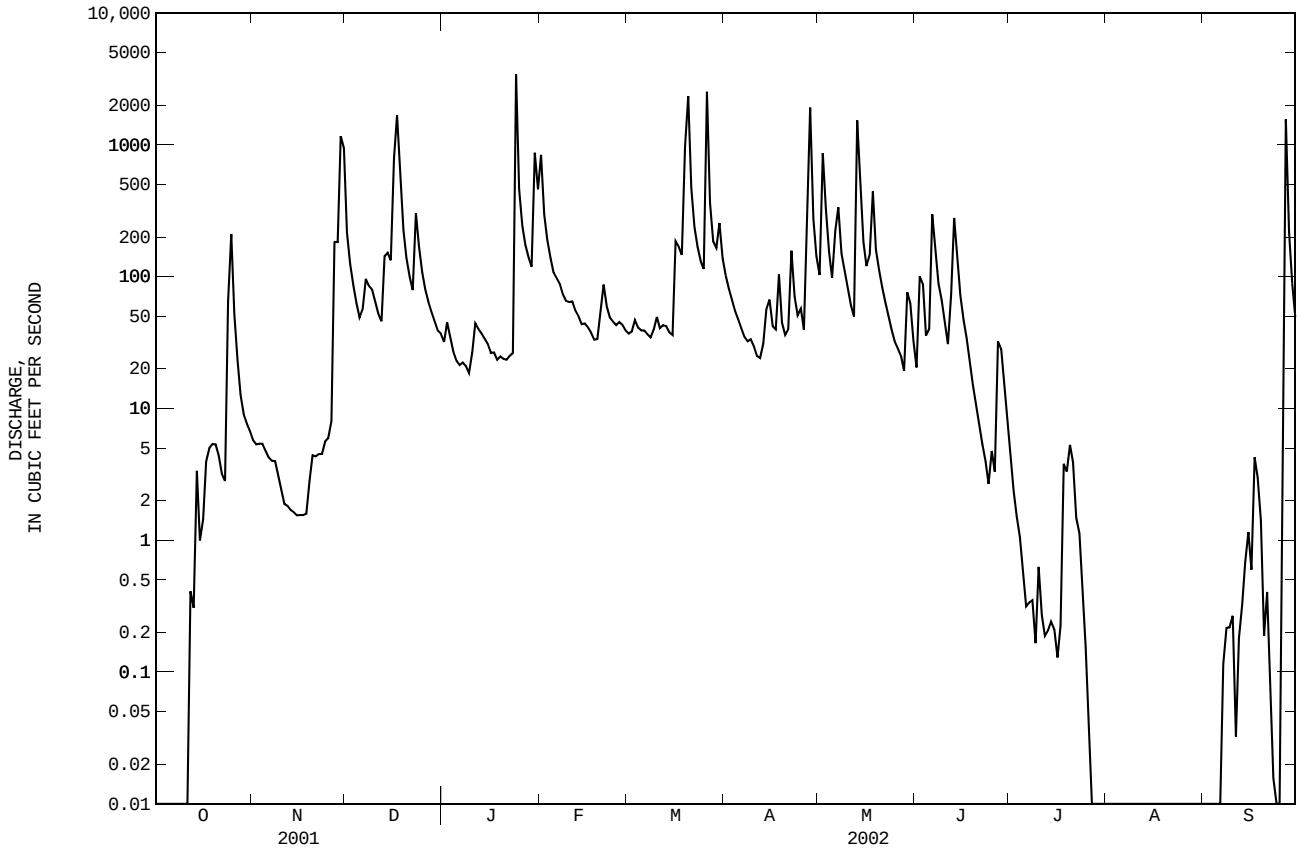
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2002, BY WATER YEAR (WY)

MEAN	5.452	27.46	77.56	128.5	157.0	154.4	70.03	69.32	86.30	14.12	2.151	15.92
MAX	13.6	86.0	192	211	316	296	132	202	293	54.1	5.71	64.7
(WY)	2002	2002	2002	2002	2000	2002	2002	2002	1998	1998	1998	2002
MIN	0.000	0.18	5.20	44.3	67.4	80.7	28.4	2.61	8.99	0.25	0.000	0.000
(WY)	2000	2000	1999	2001	1999	2001	1999	1999	2000	2001	1999	1999

03295702 BULLSKIN CREEK NEAR SIMPSONVILLE, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1998 - 2002	
ANNUAL TOTAL	19211.22		41520.25			
ANNUAL MEAN	52.63		113.8		60.92	
HIGHEST ANNUAL MEAN					114	2002
LOWEST ANNUAL MEAN					31.9	1999
HIGHEST DAILY MEAN	1690	Dec 17	3420	Jan 24	3830	Feb 18 2000
LOWEST DAILY MEAN	0.00	Jul 17	0.00	Oct 1	0.00	Aug 25 1998
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 15	0.00	Oct 1	0.00	Sep 5 1998
MAXIMUM PEAK FLOW			6650	Jan 24	8990	Feb 18 2000
MAXIMUM PEAK STAGE			17.48	Jan 24	21.05	Feb 18 2000
10 PERCENT EXCEEDS	122		210		119	
50 PERCENT EXCEEDS	7.7		32		7.2	
90 PERCENT EXCEEDS	0.02		0.00		0.00	

e Estimated



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 mi^2

PERIOD OF RECORD.--July 1981 to current year.

GAGE.--Water-stage recorder with telemetry and crest-stage gage. Datum of gage is 466.85 ft above NGVD of 1929.

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

COOPEARTION.--Kentucky Natural Resources and Environmental Protection Cabinet and U.S. Army Corps of Engineers, Louisville, District.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 18	0100	5,790	14.44	Mar 26	1600	11,800	19.92
Jan 24	2100	*13,200	*20.92	Apr 28	1500	8,130	16.84
Mar 20	1600	9,260	17.86	May 14	0000	5,730	14.37

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	49	1700	e157	2110	125	771	780	218	23	5.5	22
2	2.9	43	936	e139	1580	124	628	1290	159	16	3.4	18
3	2.8	39	655	e127	1000	134	531	1570	548	11	2.3	16
4	2.3	35	493	e118	757	152	448	936	301	6.1	1.5	14
5	2.6	36	386	e107	585	136	378	659	314	4.0	0.93	12
6	3.8	35	333	e99	488	126	324	982	1180	3.1	0.23	8.8
7	3.0	32	455	e93	429	117	277	2300	1570	1.9	0.00	5.8
8	2.8	29	627	e88	365	115	246	1200	709	1.2	0.00	3.8
9	3.3	30	651	e84	310	119	226	835	462	0.81	0.00	2.1
10	7.0	29	536	111	e270	148	215	668	288	1.1	0.00	1.5
11	5.8	27	445	184	e240	160	187	515	188	1.6	0.00	0.90
12	24	24	373	165	e212	142	186	427	138	1.8	0.00	0.32
13	47	23	598	162	e190	143	294	3140	958	9.5	0.00	0.01
14	117	23	793	174	e173	143	587	3510	1210	13	0.00	1.6
15	168	23	867	158	e162	138	664	1440	616	10	0.00	8.9
16	88	22	862	140	e149	556	440	877	362	8.4	0.00	5.5
17	44	22	3560	127	e137	1030	329	687	235	7.4	0.00	5.5
18	32	23	3570	120	e130	1030	308	1450	157	27	0.00	37
19	23	25	1570	119	123	2850	298	1030	111	29	0.00	42
20	16	29	966	116	132	7920	236	745	80	20	0.00	41
21	12	31	698	123	191	3380	236	578	59	14	0.00	42
22	6.9	35	536	151	210	1600	834	451	44	17	0.00	42
23	5.6	36	792	168	158	1030	584	355	34	18	0.00	58
24	27	35	956	7960	143	773	432	285	25	56	0.00	60
25	651	34	686	4230	138	697	661	222	20	32	0.00	54
26	484	33	526	1560	142	8140	474	182	17	21	0.35	64
27	222	1590	418	999	147	3140	711	157	11	15	1.5	1690
28	133	1120	337	756	136	1510	5830	144	19	11	2.1	1540
29	92	3330	283	619	---	1200	2360	652	35	8.5	2.3	453
30	70	3980	e198	702	---	1310	1170	515	34	11	19	252
31	57	---	e168	1680	---	972	---	324	---	8.9	26	---
TOTAL	2359.0	10822	25974	21536	10807	39160	20865	28906	10102	408.31	65.11	4501.73
MEAN	76.10	360.7	837.9	694.7	386.0	1263	695.5	932.5	336.7	13.17	2.100	150.1
MAX	651	3980	3570	7960	2110	8140	5830	3510	1570	56	26	1690
MIN	2.3	22	168	84	123	115	186	144	11	0.81	0.00	0.01
CFSM	0.29	1.39	3.24	2.68	1.49	4.88	2.69	3.60	1.30	0.05	0.01	0.58
IN.	0.34	1.55	3.73	3.09	1.55	5.62	3.00	4.15	1.45	0.06	0.01	0.65

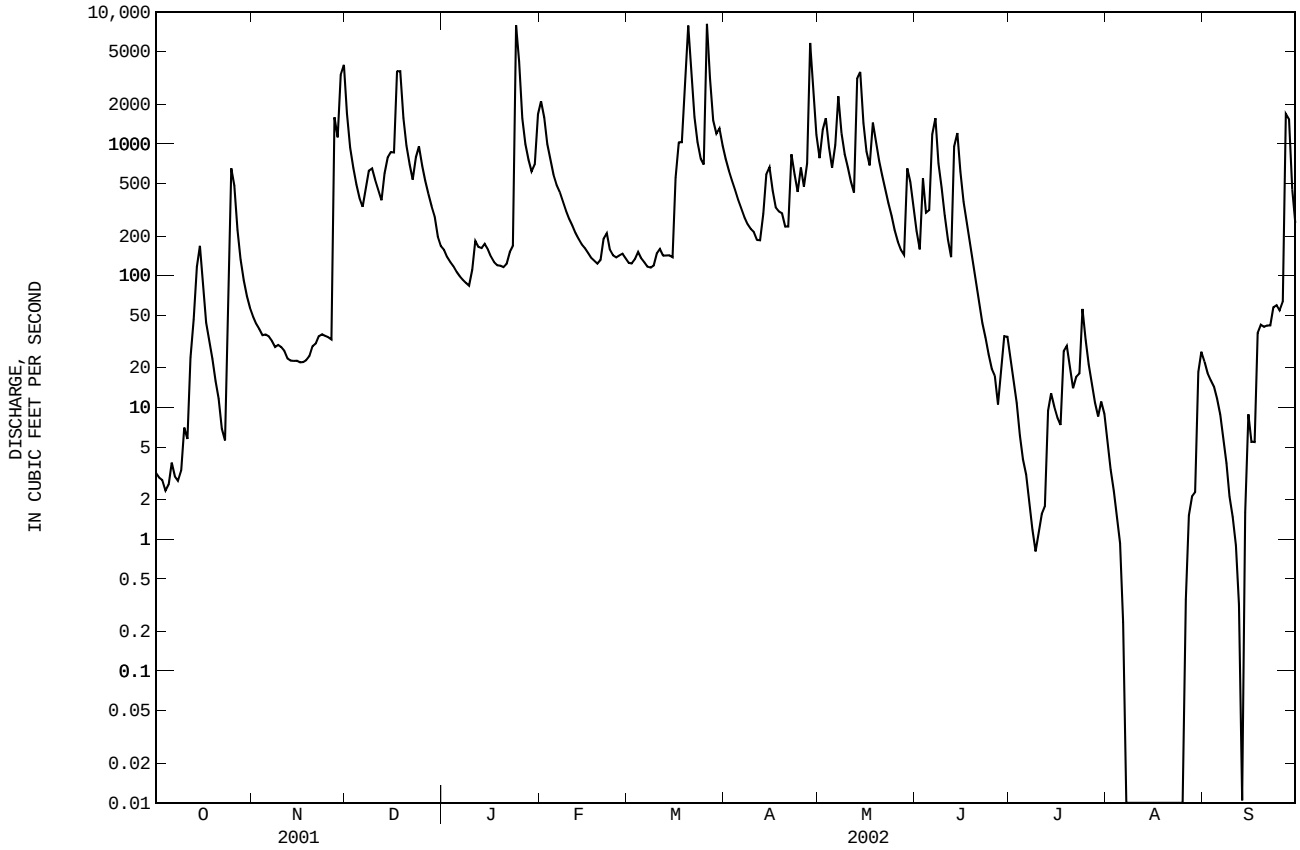
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2002, BY WATER YEAR (WY)

MEAN	36.10	173.4	449.0	548.3	762.0	727.8	439.8	457.4	300.0	93.91	44.27	25.70
MAX	240	586	1806	1140	1984	3025	841	1912	1318	584	291	150
(WY)	1991	1986	1991	1999	1989	1997	1996	1983	1997	1998	1992	2002
MIN	0.012	2.76	51.1	47.0	212	80.5	48.4	37.2	1.90	4.44	0.030	0.001
(WY)	1989	2000	2000	1986	1992	1983	1986	2000	1988	1994	1983	1983

03295890 BRASHEARS CREEK AT TAYLORSVILLE, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1981 - 2002	
ANNUAL TOTAL	91368.9		175506.15			
ANNUAL MEAN	250.3		480.8		336.5	
HIGHEST ANNUAL MEAN					642	1997
LOWEST ANNUAL MEAN					184	2001
HIGHEST DAILY MEAN	3980	Nov 30	8140	Mar 26	39600	Mar 2 1997
LOWEST DAILY MEAN	1.0	Aug 23	0.00	Aug 7	0.00	Aug 19 1983
ANNUAL SEVEN-DAY MINIMUM	1.1	Aug 19	0.00	Aug 7	0.00	Aug 19 1983
MAXIMUM PEAK FLOW			13200	Jan 24	44800	Mar 2 1997
MAXIMUM PEAK STAGE			20.92	Jan 24	31.54	Mar 2 1997
INSTANTANEOUS LOW FLOW					0.08	Oct 1 1994
ANNUAL RUNOFF (CFSM)	0.97		1.86		1.30	
ANNUAL RUNOFF (INCHES)	13.12		25.21		17.65	
10 PERCENT EXCEEDS	637		1190		822	
50 PERCENT EXCEEDS	55		139		86	
90 PERCENT EXCEEDS	3.6		2.1		2.0	

e Estimated



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 mi^2.

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

REVISED RECORDS.--WRD KY-95-1: Drainage area.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 599.892 ft above NGVD of 1929.

REMARKS.--Records fair except for discharges below 5.0 ft^3/s and those estimated, which are poor.

COOPERATION.--Kentucky Natural Resources and Environmental Protection Cabinet.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 24	1000	*6,730	*18.93	Jun 6	1600	5,740	17.60
Mar 26	0900	5,710	17.55	Sep 27	1200	5,280	16.88
Apr 28	0600	4,670	15.87				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	27	336	e52	1100	33	109	212	19	20	14	5.9
2	1.0	27	169	e29	336	36	90	1340	217	18	14	6.4
3	1.2	27	110	e20	195	58	76	432	303	17	13	6.7
4	1.5	25	81	e20	130	47	63	204	209	17	13	6.8
5	3.1	24	66	e20	94	40	55	127	312	17	e13	6.4
6	10	27	103	e15	81	40	49	411	2570	16	e13	6.3
7	2.9	26	163	e17	74	37	45	569	491	16	e12	6.0
8	1.9	25	125	e17	62	34	42	238	196	16	e12	6.0
9	3.0	29	112	e8.7	54	61	47	145	107	16	e11	5.8
10	3.0	31	82	59	55	91	42	105	69	28	e11	5.6
11	3.8	29	68	82	57	58	35	78	48	17	e10	5.7
12	48	28	64	64	48	54	33	68	445	16	e10	6.1
13	6.6	27	323	51	44	52	100	2100	353	20	e9.6	6.7
14	533	27	258	45	38	44	182	593	150	20	e9.3	7.0
15	176	27	191	41	37	40	165	239	77	16	e8.9	16
16	75	23	888	34	35	857	86	137	53	16	e8.6	13
17	51	19	2160	33	32	277	65	324	41	50	e8.2	3.9
18	36	34	794	30	30	174	109	741	29	181	e7.9	2.9
19	30	53	304	31	29	1130	64	210	23	62	e7.6	2.5
20	27	58	169	32	52	2250	58	130	22	41	e7.3	2.5
21	25	55	119	31	91	498	142	95	21	35	e7.3	7.9
22	30	47	92	35	52	247	541	74	20	15	e7.0	5.5
23	41	47	412	36	43	161	145	61	19	26	e6.8	3.2
24	867	63	203	3480	39	124	97	49	19	17	e6.5	2.5
25	749	70	121	466	36	113	e131	41	50	14	e6.2	2.5
26	139	48	94	228	42	2910	e94	45	e120	14	e6.2	3.1
27	81	513	78	142	41	440	503	36	e165	13	e6.0	2750
28	53	450	64	105	36	230	e3460	29	e137	13	e6.0	386
29	41	2580	e44	84	---	182	370	71	53	13	e5.7	121
30	36	1450	e29	1030	---	234	184	59	26	71	5.7	59
31	30	---	e26	559	---	136	---	28	---	28	5.8	---
TOTAL	3107.1	5916	7848	6896.7	2963	10688	7182	8991	6364	879	282.6	3468.9
MEAN	100.2	197.2	253.2	222.5	105.8	344.8	239.4	290.0	212.1	28.35	9.116	115.6
MAX	867	2580	2160	3480	1100	2910	3460	2100	2570	181	14	2750
MIN	1.0	19	26	8.7	29	33	33	28	19	13	5.7	2.5
CFSM	1.25	2.47	3.17	2.78	1.32	4.32	3.00	3.63	2.65	0.35	0.11	1.45
IN.	1.45	2.75	3.65	3.21	1.38	4.98	3.34	4.19	2.96	0.41	0.13	1.62

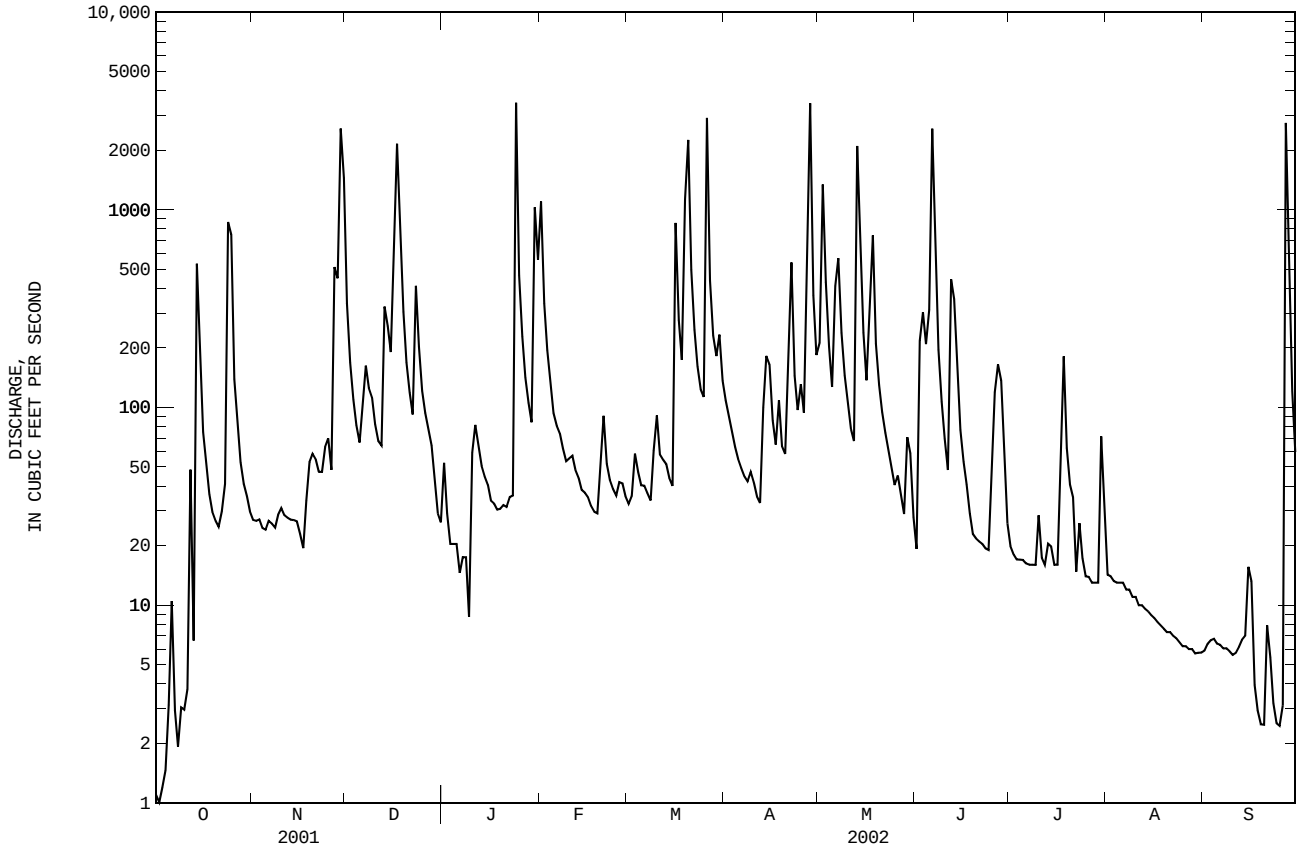
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2002, BY WATER YEAR (WY)

MEAN	19.58	55.85	123.0	208.5	176.0	259.5	133.1	143.9	126.0	28.48	24.15	23.06
MAX	100	197	331	320	448	958	306	398	381	66.7	103	116
(WY)	2002	2002	1997	1996	2000	1997	1996	1995	1997	1995	1993	2002
MIN	1.03	3.14	35.8	46.9	43.3	79.0	27.8	12.1	4.07	1.89	0.86	0.091
(WY)	2000	1992	1999	2001	1992	2001	2001	1999	1991	1991	1999	1999

03297900 FLOYDS FORK NEAR PEWEE VALLEY, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1991 - 2002	
ANNUAL TOTAL	30955.7		64586.3			
ANNUAL MEAN	84.81		176.9		111.3	
HIGHEST ANNUAL MEAN					198	1997
LOWEST ANNUAL MEAN					57.5	2001
HIGHEST DAILY MEAN	2580	Nov 29	3480	Jan 24	10500	Mar 2 1997
LOWEST DAILY MEAN	1.0	Oct 2	1.0	Oct 2	0.00	Sep 2 1999
ANNUAL SEVEN-DAY MINIMUM	1.7	Sep 28	3.0	Oct 1	0.01	Sep 23 1999
MAXIMUM PEAK FLOW			6730	Jan 24	18800	Mar 2 1997
MAXIMUM PEAK STAGE			18.93	Jan 24	28.60	Mar 2 1997
ANNUAL RUNOFF (CFSM)	1.06		2.21		1.39	
ANNUAL RUNOFF (INCHES)	14.41		30.07		18.93	
10 PERCENT EXCEEDS	184		396		210	
50 PERCENT EXCEEDS	26		45		28	
90 PERCENT EXCEEDS	2.9		6.5		2.1	

e Estimated



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 mi^2.

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 with telemetry. Datum of gage is 542.60 ft above NGVD of 1929, from benchmark elevation supplied by Park Aerial Survey.

REMARKS.--Records fair except for discharges below 2.0 ft^3/s and those estimated, which are poor. Diversions by local golf course for irrigation.

COOPERATION.--Louisville and Jefferson County Metropolitan Sewer District.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of January 1937 reached a stage of 16.8 ft, from floodmark.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 24	0715	*10,500	*12.54	Sep 27	1000	6,620	10.77
Mar 26	0740	8,220	11.60				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.68	30	624	56	1560	48	247	254	34	20	24	3.2
2	0.68	28	347	50	618	50	202	1380	105	11	11	2.5
3	0.82	25	220	45	381	86	176	712	577	5.9	3.7	2.2
4	2.0	19	155	42	261	78	145	356	144	3.6	2.0	1.9
5	3.1	15	117	40	180	59	121	230	417	3.1	1.7	2.5
6	75	12	143	44	153	57	104	350	2360	2.8	6.8	2.3
7	30	11	310	57	136	53	93	906	813	2.0	2.3	2.3
8	6.8	9.3	250	48	113	48	86	413	320	1.7	1.6	2.1
9	2.3	8.5	227	46	97	79	94	279	180	1.2	1.5	2.0
10	1.6	5.3	161	86	93	156	89	198	115	3.5	1.4	1.8
11	2.1	5.3	125	125	98	98	73	144	81	27	1.8	1.8
12	172	4.4	112	107	84	e86	69	121	161	11	1.8	1.6
13	125	3.7	522	91	72	e84	203	2890	697	5.3	1.5	1.6
14	702	4.1	442	74	60	e69	374	1040	266	30	1.9	2.1
15	412	4.2	390	65	55	63	369	458	127	15	6.8	50
16	135	3.7	1000	52	52	991	199	280	81	5.2	13	89
17	75	3.1	3040	47	46	507	148	408	59	6.9	7.7	26
18	41	2.8	1290	45	41	339	178	1110	41	244	8.0	13
19	26	3.1	565	45	38	1580	175	408	29	108	7.2	6.9
20	19	8.7	344	46	86	3520	169	256	20	78	9.3	5.2
21	15	13	230	46	167	877	301	180	14	61	13	31
22	12	14	176	52	103	487	947	139	9.3	32	11	22
23	9.3	e11	692	53	70	341	330	114	4.6	18	12	13
24	1030	e17	419	5960	59	258	214	92	3.2	32	13	4.5
25	1120	e26	243	840	52	239	287	74	12	19	13	2.5
26	299	e23	176	449	63	4360	180	71	36	11	10	8.1
27	137	e760	143	294	70	778	e580	64	208	5.8	11	3870
28	80	e500	116	210	54	457	e3500	48	165	3.8	8.2	661
29	49	3420	101	171	---	444	675	62	89	2.3	7.6	230
30	36	2100	82	1420	---	562	373	106	36	24	6.4	109
31	29	---	63	996	---	323	---	52	---	66	4.4	---
TOTAL	4648.38	7090.2	12825	11702	4862	17177	10701	13195	7204.1	860.1	224.6	5171.1
MEAN	149.9	236.3	413.7	377.5	173.6	554.1	356.7	425.6	240.1	27.75	7.245	172.4
MAX	1120	3420	3040	5960	1560	4360	3500	2890	2360	244	24	3870
MIN	0.68	2.8	63	40	38	48	69	48	3.2	1.2	1.4	1.6
CFSM	1.09	1.71	3.00	2.74	1.26	4.02	2.58	3.08	1.74	0.20	0.05	1.25
IN.	1.25	1.91	3.46	3.15	1.31	4.63	2.88	3.56	1.94	0.23	0.06	1.39

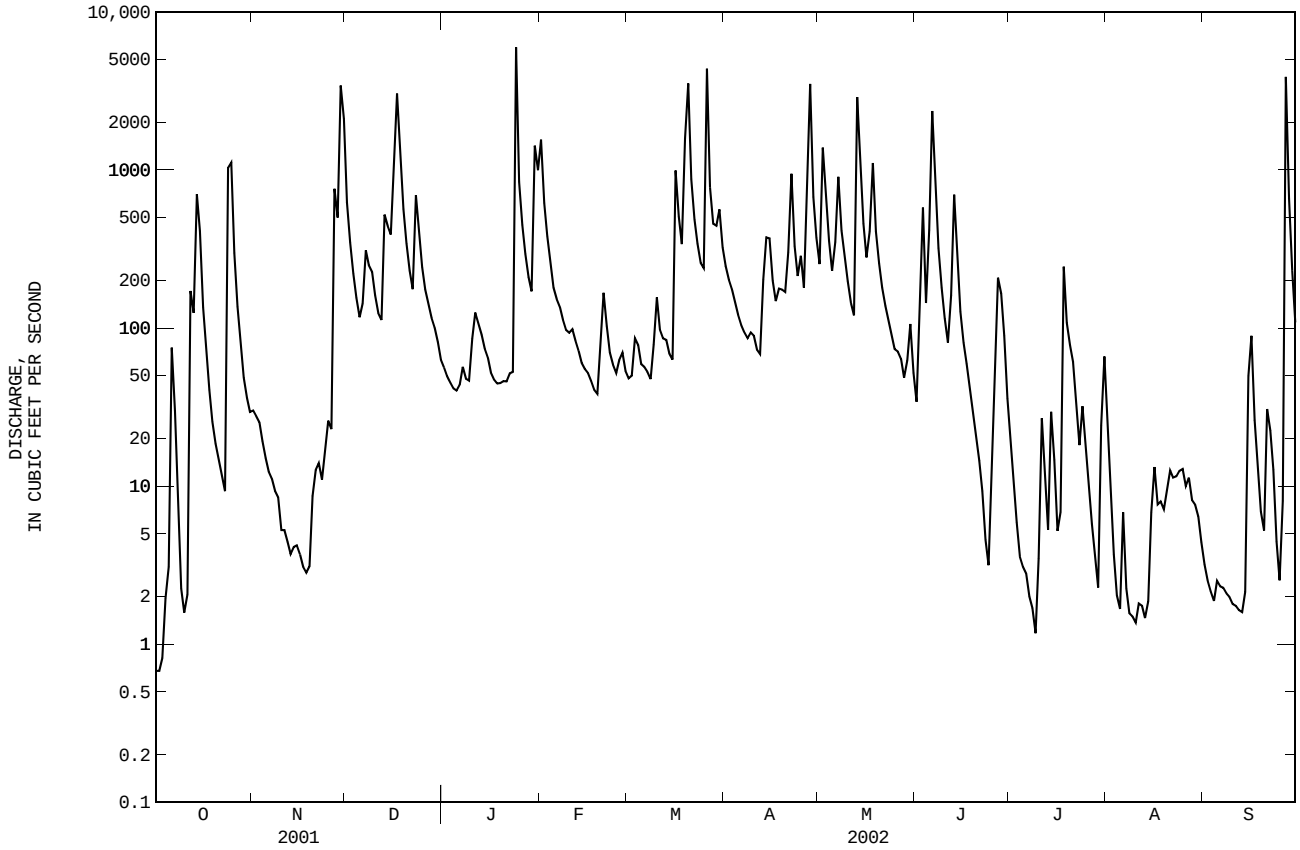
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2002, BY WATER YEAR (WY)

MEAN	33.70	104.8	230.4	296.0	364.0	401.8	275.4	210.4	129.2	63.51	42.83	40.99
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	0.000	0.000	0.000	3.54	12.4	40.3	34.0	12.2	0.90	1.73	0.048	0.000
(WY)	1949	1954	1954	1977	1954	1954	1959	1965	1988	1954	1962	1948

03298000 FLOYDS FORK AT FISHERVILLE, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1944 - 2002	
ANNUAL TOTAL	52863.78		95660.48			
ANNUAL MEAN	144.8		262.1		181.9	
HIGHEST ANNUAL MEAN					382	1979
LOWEST ANNUAL MEAN					29.0	1954
HIGHEST DAILY MEAN	3420	Nov 29	5960	Jan 24	20000	Mar 2 1997
LOWEST DAILY MEAN	0.68	Oct 1	0.68	Oct 1	0.00	Sep 7 1945
ANNUAL SEVEN-DAY MINIMUM	1.2	Sep 28	1.6	Aug 8	0.00	Sep 7 1945
MAXIMUM PEAK FLOW			10500	Jan 24	42100	Mar 2 1997
MAXIMUM PEAK STAGE			12.54	Jan 24	17.39	Mar 2 1997
INSTANTANEOUS LOW FLOW					0.00	Sep 7 1945
ANNUAL RUNOFF (CFSM)	1.05		1.90		1.32	
ANNUAL RUNOFF (INCHES)	14.25		25.79		17.91	
10 PERCENT EXCEEDS	379		620		370	
50 PERCENT EXCEEDS	35		69		35	
90 PERCENT EXCEEDS	2.3		2.8		0.50	

e Estimated



03298135 CHENOWETH RUN AT RUCKRIEGAL PARKWAY NEAR 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, 500 feet south of Penion Drive, near Jeffersontown.

DRAINAGE AREA.--5.47 mi^2.

PERIOD OF RECORD.--May 5, 1993 to February 26, 1998; January 19, 1999 to current year.

GAGE.--Water-stage recorder.

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

COOPERATION.--Louisville and Jefferson County Metropolitan Sewer District.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 24	0225	*1,180	6.06				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.43	2.6	15	e3.0	60	2.3	7.5	15	3.4	0.92	0.43	23
2	0.39	3.8	8.7	e3.3	14	6.2	6.5	45	6.9	0.68	0.39	2.5
3	0.29	3.3	6.1	e3.0	9.9	5.6	8.6	13	4.4	0.61	0.36	0.59
4	0.27	2.6	4.9	e2.8	6.9	2.8	5.0	7.9	4.3	0.58	0.33	0.37
5	35	2.4	4.1	e2.7	5.4	2.5	4.5	5.9	15	0.53	3.2	0.34
6	8.8	e2.3	17	e4.1	4.8	2.4	4.0	59	43	0.44	1.2	0.28
7	1.9	e2.2	7.7	e3.6	4.4	2.1	3.8	24	7.8	0.44	0.41	0.28
8	1.2	e2.1	15	e3.4	3.8	2.1	3.9	11	4.2	0.43	0.33	0.25
9	1.0	e2.0	6.3	e3.8	3.4	15	7.8	9.1	3.3	0.38	0.32	e0.23
10	0.90	e2.0	4.5	e4.0	5.6	4.7	3.9	5.9	2.7	3.9	0.28	e0.20
11	0.87	e1.9	3.9	e3.8	3.7	3.0	3.8	4.9	2.3	0.73	e0.23	e0.18
12	52	e2.1	19	e3.6	3.0	3.0	4.0	18	59	0.48	e0.19	e0.16
13	4.6	e1.9	18	e3.4	2.5	2.7	53	187	19	0.65	e0.16	e0.14
14	112	2.3	19	e3.2	2.4	2.4	25	24	6.1	0.67	e1.0	4.1
15	12	2.2	e12	e3.0	2.3	3.0	12	12	3.8	0.63	1.4	32
16	12	1.8	e36	e2.9	2.1	52	7.6	8.8	2.8	0.44	0.44	5.5
17	4.8	1.8	e120	e2.8	2.0	12	25	56	2.4	4.0	0.44	1.4
18	3.8	1.9	e52	e2.7	1.8	8.9	11	23	2.0	1.7	0.38	0.92
19	3.3	7.0	e24	e3.3	2.0	122	15	10	1.6	0.60	0.35	1.6
20	2.9	4.4	e15	e3.2	25	e160	16	7.4	1.4	13	0.39	15
21	2.6	2.3	e9.8	e3.6	6.5	22	80	6.0	1.2	1.6	0.39	8.9
22	2.6	1.9	e7.6	e3.4	3.7	13	33	5.3	1.1	0.67	0.32	1.7
23	31	1.8	e330	e3.7	2.8	9.0	12	4.7	0.90	1.1	3.1	0.81
24	101	21	e16	262	2.5	7.2	32	4.5	0.92	0.59	0.91	0.61
25	21	6.6	e8.5	17	2.4	28	22	5.9	0.97	0.47	0.34	0.52
26	8.0	2.8	e5.9	11	7.9	201	10	6.1	3.5	0.43	9.1	53
27	4.8	73	e5.0	7.1	2.9	19	75	4.0	9.6	0.40	2.7	264
28	3.9	66	e4.5	5.7	2.4	13	163	4.2	6.0	0.38	0.51	9.5
29	3.4	178	e3.9	4.8	---	39	18	39	1.5	5.1	0.38	4.6
30	3.0	54	e3.5	139	---	17	11	7.9	1.0	3.0	0.31	3.2
31	2.7	---	e3.2	22	---	10	---	4.0	---	0.56	0.28	---
TOTAL	442.45	460.0	806.1	544.9	196.1	792.9	683.9	638.5	222.09	46.11	30.57	435.88
MEAN	14.27	15.33	26.00	17.58	7.004	25.58	22.80	20.60	7.403	1.487	0.986	14.53
MAX	112	178	330	262	60	201	163	187	59	13	9.1	264
MIN	0.27	1.8	3.2	2.7	1.8	2.1	3.8	4.0	0.90	0.38	0.16	0.14

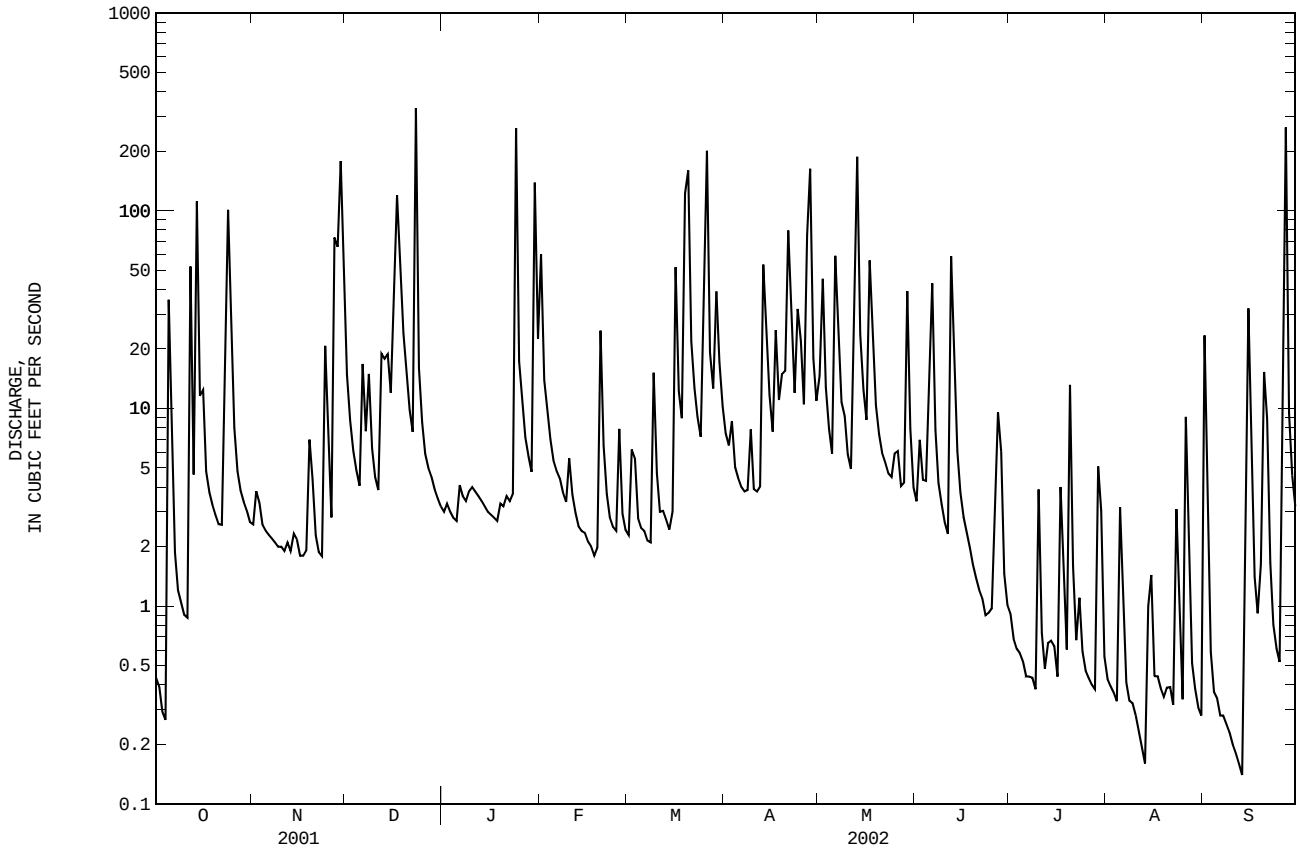
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	6.418	7.250	14.59	10.54	12.01	12.67	11.21	8.979	6.376	1.749	2.036	6.007
MAX	14.3	15.3	26.0	17.6	21.5	25.6	22.8	20.6	12.3	2.72	4.77	14.5
(WY)	2002	2002	2002	2002	2000	2002	2002	2002	1999	2001	2000	2002
MIN	2.36	1.80	8.57	2.94	7.00	4.56	2.45	3.40	1.44	0.80	0.47	0.31
(WY)	2001	2000	2000	2001	2002	2001	2001	2000	2001	1999	1999	1999

03298135 CHENOWETH RUN AT RUCKRIEGAL PARKWAY NEAR JEFFERSONTOWN, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL TOTAL	2805.02		5299.50			
ANNUAL MEAN	7.685		14.52		8.565	
HIGHEST ANNUAL MEAN					14.5	2002
LOWEST ANNUAL MEAN					4.37	2001
HIGHEST DAILY MEAN	330	Dec 23	330	Dec 23	402	Feb 18 2000
LOWEST DAILY MEAN	0.10	Jul 6	0.14	Sep 13	0.02	Jul 17 2000
ANNUAL SEVEN-DAY MINIMUM	0.16	Jul 1	0.21	Sep 7	0.03	Jul 21 2000
MAXIMUM PEAK FLOW			1180	Jan 24	4680	Mar 1 1997
MAXIMUM PEAK STAGE			6.06	Jan 24	9.33	Mar 1 1997
10 PERCENT EXCEEDS	15		31		16	
50 PERCENT EXCEEDS	2.2		3.8		2.0	
90 PERCENT EXCEEDS	0.43		0.43		0.33	

e Estimated



03298150 CHENOWETH RUN AT GELHAUS LANE NEAR FERN CREEK, KY

LOCATION.--Lat 38°09'36", long 85°32'32", Jefferson County, Hydrologic Unit 05140102, at bridge on Gelhaus Lane, 100 ft above Razor Branch, near Fern Creek, and at mile 2.3.

DRAINAGE AREA.--11.6 mi^2.

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

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

REMARKS.--Records good. Diversions by a package treatment plant about 2.0 miles upstream.

COOPERATION.--Louisville and Jefferson County Metropolitan Sewer District.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 24	0345	*2,030	*9.74	Sep 27	0615	1,530	8.58
Mar 26	0510	1,600	8.75				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	6.3	38	7.9	134	8.4	29	29	12	5.2	4.6	26
2	3.8	7.2	24	8.4	36	12	26	90	15	4.9	4.7	8.0
3	3.8	7.5	18	8.0	26	15	27	37	15	4.7	4.3	5.8
4	3.8	6.2	14	7.6	20	9.5	21	24	13	4.6	4.1	5.2
5	51	6.0	12	7.1	16	e8.7	20	18	24	4.4	5.7	5.4
6	25	5.9	28	9.5	e14	e8.3	18	139	140	4.2	5.9	5.1
7	7.4	5.9	20	10	e13	e7.9	17	67	26	4.1	4.4	4.6
8	5.7	5.8	30	8.8	12	e7.6	17	34	14	4.3	4.2	4.4
9	5.3	5.6	19	9.2	11	24	23	28	11	4.2	4.2	4.5
10	5.0	5.5	14	10	13	14	17	19	9.5	7.5	4.0	4.3
11	5.2	5.4	12	10	11	11	16	16	8.6	5.0	4.1	4.5
12	103	5.5	31	9.1	9.5	10	17	17	84	4.6	4.4	4.5
13	15	5.4	40	8.6	8.7	9.8	98	531	63	4.6	4.4	4.7
14	168	5.4	41	8.3	8.2	9.3	68	78	21	4.6	5.1	7.8
15	23	5.4	25	7.8	e7.7	9.1	41	38	12	4.8	6.6	40
16	20	5.4	156	7.6	e7.4	109	30	27	9.9	4.6	4.9	12
17	10	5.2	231	7.5	e7.0	34	49	111	8.8	7.0	4.9	7.0
18	8.5	4.9	67	7.3	e6.7	26	35	69	8.0	6.9	4.7	6.5
19	7.6	9.1	36	8.6	e6.4	290	32	31	7.3	5.2	4.8	6.8
20	6.7	9.2	23	8.4	33	351	36	23	6.8	16	4.8	18
21	5.9	5.9	18	9.4	16	68	133	18	6.4	6.2	4.7	20
22	5.9	5.1	15	9.0	11	40	98	16	5.9	5.2	4.6	7.5
23	36	4.6	62	9.5	9.3	29	39	15	5.5	5.5	6.2	6.5
24	161	25	24	578	8.6	23	68	13	5.6	4.9	5.6	5.9
25	50	12	17	33	8.4	51	69	13	5.6	4.8	4.6	5.7
26	17	6.5	14	18	16	489	34	16	7.3	4.8	11	58
27	11	131	12	12	9.8	60	165	12	11	4.5	8.5	479
28	8.8	112	11	9.8	8.8	40	406	12	13	4.3	5.4	27
29	7.8	354	9.7	8.8	---	74	50	90	6.0	6.2	5.1	15
30	7.1	119	9.1	214	---	52	31	26	5.3	8.4	5.2	11
31	6.7	---	8.8	48	---	35	---	15	---	4.8	4.8	---
TOTAL	798.7	897.9	1079.6	1119.2	488.5	1935.6	1730	1672	580.5	171.0	160.5	820.7
MEAN	25.76	29.93	34.83	36.10	17.45	62.44	57.67	53.94	19.35	5.516	5.177	27.36
MAX	168	354	231	578	134	489	406	531	140	16	11	479
MIN	3.7	4.6	8.8	7.1	6.4	7.6	16	12	5.3	4.1	4.0	4.3

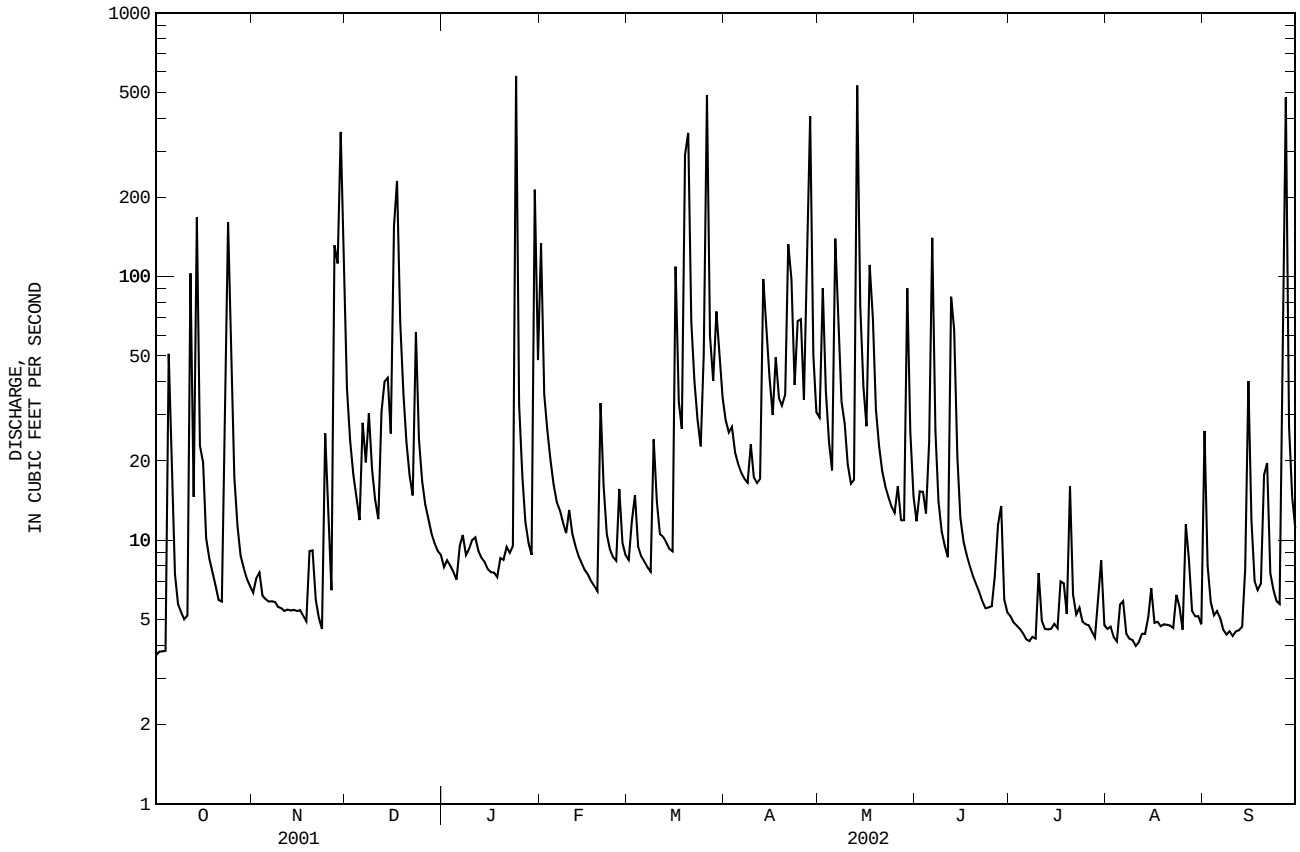
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2002, BY WATER YEAR (WY)

MEAN	10.34	13.92	26.73	33.25	31.78	48.50	30.16	26.20	30.36	9.465	8.872	13.44
MAX	25.8	29.9	44.3	54.1	54.3	119	57.7	53.9	73.4	20.2	17.4	27.4
(WY)	2002	2002	1997	1999	2000	1997	2002	2002	1997	1998	2000	2002
MIN	3.81	7.23	15.6	9.24	17.4	15.7	9.17	11.3	9.29	5.52	4.76	3.73
(WY)	1998	2000	1999	2001	2002	2001	2001	1999	2001	2002	1999	1999

03298150 CHENOWETH RUN AT GELHAUS LANE NEAR FERN CREEK, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1997 - 2002	
ANNUAL TOTAL	6354.5		11454.2			
ANNUAL MEAN	17.41		31.38		23.54	
HIGHEST ANNUAL MEAN					32.3	1997
LOWEST ANNUAL MEAN					13.7	2001
HIGHEST DAILY MEAN	354	Nov 29	578	Jan 24	1590	Mar 1 1997
LOWEST DAILY MEAN	3.3	Aug 22	3.7	Oct 1	1.9	Mar 10 2000
ANNUAL SEVEN-DAY MINIMUM	3.7	Sep 28	4.2	Aug 7	2.3	Mar 4 2000
MAXIMUM PEAK FLOW			2030	Jan 24	4810	Mar 2 1997
MAXIMUM PEAK STAGE			9.74	Jan 24	14.72	Mar 2 1997
10 PERCENT EXCEEDS	31		67		42	
50 PERCENT EXCEEDS	8.1		9.8		9.1	
90 PERCENT EXCEEDS	4.5		4.7		4.2	

e Estimated



03298200 FLOYDS FORK AT BARDSTOWN ROAD NEAR MOUNT WASHINGTON, KY

LOCATION.--Lat 38°05'07", long 85°33'18", Jefferson County, Hydrologic Unit 05140102, on right downstream side of bridge on U.S. Highway 31E, 0.2 mi below Old Mans Run, 2.0 mi north of Mount Washington, and 18.7 miles above the mouth.

DRAINAGE AREA.--213 mi^2.

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

GAGE.--Water-stage recorder.

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

COOPERATION.--Louisville and Jefferson County Metropolitan Sewer District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e7.0	50	699	e105	876	90	390	405	82	52	33	14
2	e6.8	50	320	e95	536	128	326	1750	67	37	19	30
3	6.9	49	203	e88	401	125	290	1020	583	28	15	14
4	5.8	41	140	e80	300	103	241	487	212	24	12	13
5	15	34	101	e74	256	97	199	347	368	22	10	13
6	116	28	117	e72	232	91	174	1430	2760	21	11	13
7	65	26	252	e69	195	85	153	1450	2050	20	11	12
8	28	25	233	e65	e150	128	141	606	400	18	11	12
9	17	23	213	87	e140	216	151	431	242	18	9.4	12
10	13	22	145	115	e130	163	140	328	158	19	8.8	12
11	10	20	107	158	e115	135	120	243	113	22	8.2	12
12	206	20	89	161	e108	130	118	200	168	36	8.1	12
13	226	19	447	132	e98	126	476	6390	1320	26	8.6	13
14	884	18	400	116	e93	116	746	2290	431	29	8.8	14
15	589	18	350	103	e86	104	575	663	235	39	9.5	56
16	205	18	1050	89	e80	1280	349	431	150	27	8.9	104
17	124	17	4800	82	78	820	271	572	118	22	9.0	69
18	81	16	2790	77	75	520	272	1820	92	140	9.7	32
19	58	17	753	78	124	3140	226	583	74	107	9.2	23
20	40	27	470	81	239	7650	302	393	59	86	8.8	21
21	31	24	342	83	167	1610	418	301	46	64	8.5	59
22	26	23	272	90	118	686	1840	237	38	46	8.3	45
23	22	22	902	94	101	488	499	193	31	26	8.5	30
24	1190	29	599	5380	92	387	384	158	27	22	9.6	24
25	1790	83	363	628	111	370	663	131	26	24	8.6	19
26	393	74	276	440	114	8710	338	122	50	18	8.5	27
27	196	1500	226	343	97	1370	1360	113	161	15	15	7070
28	132	1060	194	284	88	648	7450	96	179	13	9.6	1420
29	93	6110	168	1760	---	637	1120	173	160	12	8.9	355
30	73	3890	137	1830	---	922	552	216	78	13	8.5	191
31	60	---	e111	2660	---	492	---	119	---	34	8.1	---
TOTAL	6709.5	13353	17269	15519	5200	31567	20284	23698	10478	1080	331.1	9741
MEAN	216.4	445.1	557.1	500.6	185.7	1018	676.1	764.5	349.3	34.84	10.68	324.7
MAX	1790	6110	4800	5380	876	8710	7450	6390	2760	140	33	7070
MIN	5.8	16	89	65	75	85	118	96	26	12	8.1	12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2002, BY WATER YEAR (WY)

MEAN	216.4	269.6	479.6	311.5	354.2	640.5	395.8	465.3	243.1	57.13	15.21	167.9
MAX	216	445	557	501	523	1018	676	764	349	79.4	19.7	325
(WY)	2002	2002	2002	2002	2001	2002	2002	2002	2002	2001	2001	2002
MIN	216	94.1	402	122	186	263	116	166	137	34.8	10.7	11.0
(WY)	2002	2001	2001	2001	2002	2001	2001	2001	2001	2002	2002	2001

03298200 FLOYDS FORK AT BARDSTOWN ROAD NEAR MOUNT WASHINGTON, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 2001 - 2002	
ANNUAL TOTAL	80031.2		155229.6			
ANNUAL MEAN	219.3		425.3		425.3	
HIGHEST ANNUAL MEAN					425	2002
LOWEST ANNUAL MEAN					425	2002
HIGHEST DAILY MEAN	6110	Nov 29	8710	Mar 26	8710	Mar 26 2002
LOWEST DAILY MEAN	3.0	Sep 30	5.8	Oct 4	3.0	Sep 30 2001
ANNUAL SEVEN-DAY MINIMUM	4.1	Sep 13	8.7	Aug 20	4.1	Sep 13 2001
MAXIMUM PEAK FLOW			13900	Jan 24	13900	Jan 24 2002
MAXIMUM PEAK STAGE			19.65	Jan 24	19.65	Jan 24 2002
10 PERCENT EXCEEDS	448		910		910	
50 PERCENT EXCEEDS	73		108		108	
90 PERCENT EXCEEDS	10		12		12	

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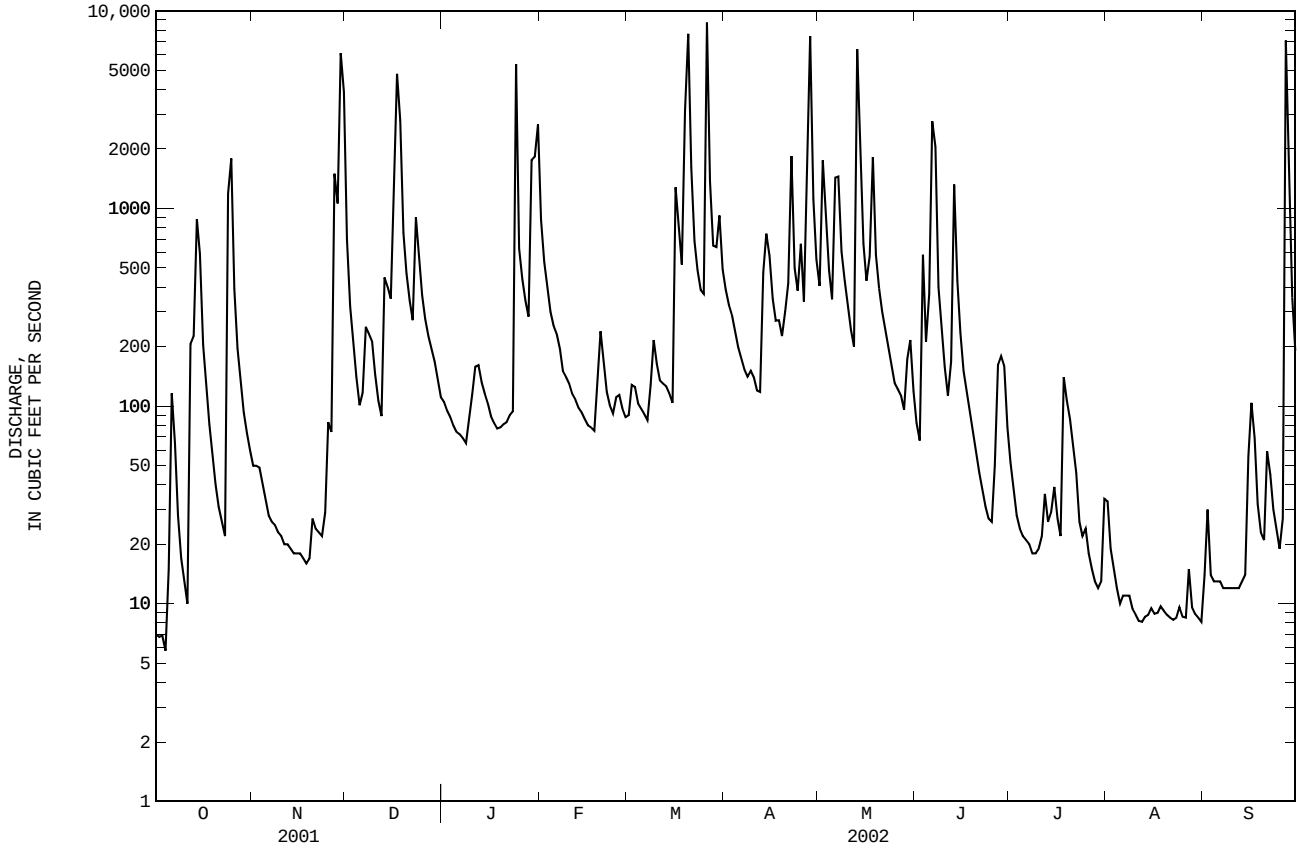


03298250 CEDAR CREEK AT THIXTON ROAD NEAR LOUISVILLE, KY

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 mi^2.

PERIOD OF RECORD.--January 1999 to current year.

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

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

COOPERATION.--Louisville and Jefferson County Metropolitan Sewer District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	4.3	48	6.9	140	7.3	25	24	7.9	3.5	2.5	e2.2
2	2.0	4.4	29	6.3	44	8.3	21	42	13	4.2	2.8	e2.8
3	1.9	4.6	20	6.0	31	13	18	30	22	4.9	2.8	e2.6
4	2.0	4.7	15	5.4	23	9.3	15	21	7.9	4.8	2.7	e2.5
5	5.1	4.7	13	5.3	18	8.1	13	17	9.8	3.7	2.8	e2.6
6	18	4.5	24	6.1	16	7.8	13	173	158	3.4	2.6	e2.4
7	4.5	4.2	25	6.6	15	7.3	12	75	28	3.2	2.4	e2.3
8	3.4	3.9	37	5.8	13	7.1	12	37	14	2.8	2.3	e2.3
9	2.7	4.0	28	6.1	11	14	15	28	9.1	3.8	2.2	e2.2
10	2.6	4.2	19	7.7	12	14	12	20	6.8	4.2	2.2	e2.3
11	2.7	4.3	13	8.1	11	11	12	16	5.5	4.2	2.4	e2.2
12	69	4.6	17	7.6	9.9	10	16	14	6.7	4.0	2.6	e2.3
13	12	4.0	58	7.2	8.9	9.5	111	480	30	4.3	2.5	e2.6
14	119	3.8	45	6.6	e8.9	8.6	106	84	12	4.7	2.5	e4.4
15	19	3.7	30	5.8	8.1	8.2	52	41	7.8	4.7	2.9	e4.8
16	12	3.9	136	5.4	7.9	72	30	29	6.3	4.4	2.8	e1.4
17	7.9	3.8	258	5.3	7.3	72	44	66	5.3	4.2	2.7	e1.3
18	5.9	5.1	96	5.6	6.7	43	32	77	4.6	3.8	2.8	e1.4
19	5.8	4.7	44	5.8	6.7	263	22	36	4.5	3.3	2.9	e1.6
20	4.3	5.0	25	5.7	12	333	19	26	4.5	3.9	2.5	e4.3
21	4.0	4.8	19	6.0	12	71	70	21	4.2	3.6	2.6	e1.8
22	3.9	5.0	16	6.2	9.8	39	101	18	4.2	4.6	2.3	e0.82
23	3.5	4.6	73	6.6	8.1	29	33	15	4.5	3.7	2.5	e0.88
24	80	11	31	731	7.5	24	38	13	4.6	3.3	2.3	e0.84
25	69	12	21	60	7.2	31	75	12	4.1	2.9	2.5	e0.78
26	15	6.0	16	33	10	483	27	12	4.0	3.3	2.7	e70
27	8.6	144	14	24	9.0	59	136	11	4.0	3.2	2.8	e580
28	7.0	115	12	19	7.6	37	318	11	4.7	2.9	e2.7	35
29	5.6	384	10	17	---	67	50	14	4.4	2.7	e2.8	36
30	5.0	174	8.3	75	---	52	31	15	4.0	2.6	e2.6	31
31	4.7	---	7.6	50	---	33	---	9.1	---	2.6	e2.2	---
TOTAL	508.7	946.8	1207.9	1153.1	481.6	1851.5	1479	1487.1	406.4	115.4	79.9	807.62
MEAN	16.41	31.56	38.96	37.20	17.20	59.73	49.30	47.97	13.55	3.723	2.577	26.92
MAX	119	384	258	731	140	483	318	480	158	4.9	2.9	580
CFSM	1.48	2.84	3.51	3.35	1.55	5.38	4.44	4.32	1.22	0.34	0.23	2.43
IN.	1.70	3.17	4.05	3.86	1.61	6.21	4.96	4.98	1.36	0.39	0.27	2.71

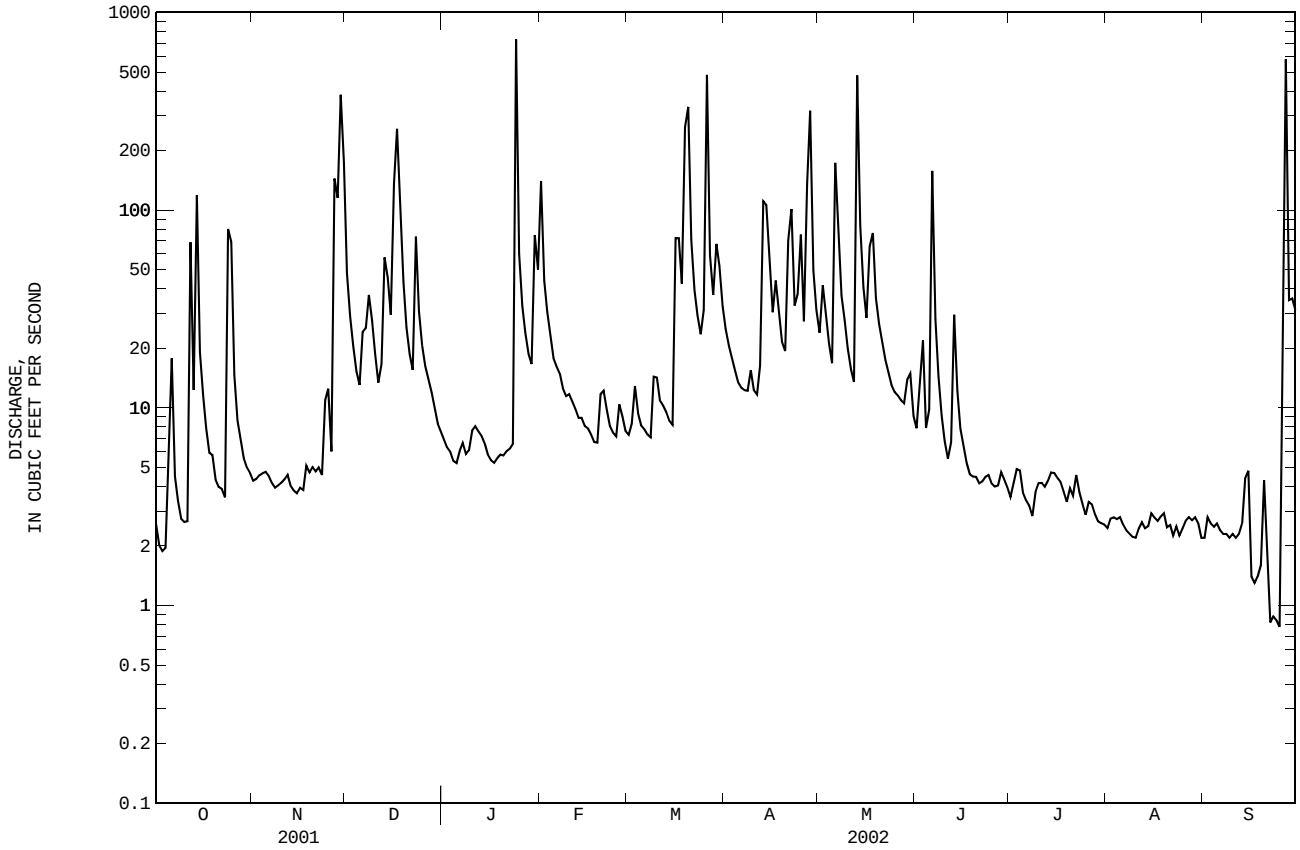
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2002, BY WATER YEAR (WY)

MEAN	7.992	14.86	24.99	25.29	28.36	32.70	25.76	20.90	10.11	4.358	2.973	13.67
MAX	16.4	31.6	39.0	37.2	42.2	59.7	49.3	48.0	14.1	5.28	3.27	26.9
(WY)	2002	2002	2002	2002	2000	2002	2002	2002	2000	2000	2000	2002

03298250 CEDAR CREEK AT THIXTON ROAD NEAR LOUISVILLE, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 2000 - 2002	
ANNUAL TOTAL	5090.1		10525.02			
ANNUAL MEAN	13.95		28.84		17.60	
HIGHEST ANNUAL MEAN					28.8	2002
HIGHEST DAILY MEAN	384	Nov 29	731	Jan 24	731	Jan 24 2002
LOWEST DAILY MEAN	1.2	Jul 6	0.78	Sep 25	0.78	Sep 25 2002
ANNUAL SEVEN-DAY MINIMUM	1.3	Jul 11	1.6	Sep 19	1.3	Jul 11 2001
MAXIMUM PEAK FLOW			2430	Jan 24	3300	Jun 28 1999
MAXIMUM PEAK STAGE			5.44	Jan 24	6.07	Jun 28 1999
ANNUAL RUNOFF (CFSM)	1.26		2.60		1.59	
ANNUAL RUNOFF (INCHES)	17.06		35.27		21.55	
10 PERCENT EXCEEDS	25		68		31	
50 PERCENT EXCEEDS	5.8		7.8		6.0	
90 PERCENT EXCEEDS	2.1		2.6		2.4	

e Estimated



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, near Louisville, Ky. and at mile 1.9.

DRAINAGE AREA.--6.4 mi^2.

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 430.38 ft above NGVD of 1929. See WDR KY-90-1 for history of changes prior to Nov. 16, 1962.

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

COOPERATION.--Louisville and Jefferson County Metropolitan Sewer District.

PEAKS ABOVE BASE.--Peak discharges above base of 400 ft^3/s and maximum*.

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 24	0355	*1,120	*7.05	Mar 26	0450	954	5.94

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	e2.1	e26	2.4	58	1.6	17	e15	1.2	0.25	0.20	0.91
2	0.91	e2.2	e16	2.0	21	2.3	14	e26	0.99	0.21	0.23	1.1
3	e0.74	e2.3	e9.4	1.9	15	3.9	12	e18	0.93	0.24	0.31	1.1
4	e0.68	e2.4	e7.2	1.7	12	2.4	9.0	e13	0.91	0.27	0.36	1.0
5	e2.7	e2.3	e6.0	1.7	9.3	2.0	7.3	e9.4	0.96	0.26	0.46	1.0
6	e9.3	e2.1	e9.0	2.5	8.3	1.9	6.2	e125	55	0.33	0.47	1.00
7	e2.5	e1.9	e10	2.5	7.4	1.8	5.5	e53	11	0.35	0.51	0.98
8	e1.6	e1.7	e13	2.0	5.8	1.7	5.3	e29	2.9	0.34	0.54	0.98
9	e1.2	e1.8	e13	2.0	4.9	6.1	6.7	e20	1.6	0.34	0.59	0.95
10	e1.0	e1.9	e8.8	2.3	5.1	5.6	e5.0	e14	0.93	0.36	0.64	0.97
11	e1.2	e2.0	e5.2	2.5	4.2	3.4	e6.4	e10	0.63	0.27	0.79	0.97
12	e33	e2.1	e9.2	2.1	3.5	3.2	e12	e7.5	0.82	0.26	0.81	0.97
13	e6.2	e1.8	17	e1.9	2.9	2.9	e86	e290	4.9	0.36	0.78	1.1
14	e76	e1.7	16	e1.7	2.4	2.5	e78	e84	2.2	0.32	1.1	1.5
15	e15	e1.6	12	e1.5	2.3	2.6	e37	e24	0.74	0.28	0.95	1.6
16	e6.6	e1.7	45	1.4	2.2	27	e20	17	0.48	0.28	0.88	0.62
17	e4.0	e1.6	85	1.4	1.9	31	e28	30	0.40	0.32	0.96	0.57
18	e2.9	e2.4	33	1.3	1.7	19	e19	37	0.35	0.35	1.1	0.63
19	e2.8	e2.2	18	1.9	1.7	122	e14	18	0.38	0.34	1.0	0.73
20	e1.8	e2.4	12	1.6	4.7	159	e12	12	0.23	0.40	0.95	1.4
21	e1.7	e2.2	9.8	1.6	4.0	34	e52	9.4	0.20	0.31	0.88	0.62
22	e1.6	e2.4	8.0	1.6	2.5	20	e77	7.3	0.19	0.40	0.89	0.35
23	e1.4	e2.0	23	4.0	2.1	16	e23	5.7	0.20	0.24	0.92	0.38
24	e43	e4.1	13	308	1.9	13	e29	4.4	0.25	0.23	0.96	0.38
25	e33	e6.6	e8.3	28	1.8	20	e51	3.3	0.23	0.24	0.95	0.34
26	e11	e2.8	e6.4	17	3.0	278	e18	3.2	0.24	0.21	1.0	4.4
27	e5.6	e87	e5.2	13	2.3	39	e120	2.6	0.25	0.24	1.0	109
28	e3.9	e6.0	e4.3	11	1.8	26	e240	2.3	0.33	0.35	1.1	12
29	e3.0	e200	e3.7	9.6	---	41	e43	2.9	0.28	0.56	1.1	3.1
30	e2.6	e46	3.2	27	---	38	e23	2.1	0.26	0.25	1.1	1.7
31	e2.3	---	2.7	22	---	23	---	1.5	---	0.17	0.92	---
TOTAL	280.43	399.3	458.4	481.1	193.7	949.9	1076.4	896.6	89.98	9.33	24.45	152.35
MEAN	9.046	13.31	14.79	15.52	6.918	30.64	35.88	28.92	2.999	0.301	0.789	5.078
MAX	76	200	85	308	58	278	240	290	55	0.56	1.1	109
MIN	0.68	1.6	2.7	1.3	1.7	1.6	5.0	1.5	0.19	0.17	0.20	0.34

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	3.115	4.659	8.635	13.59	13.89	15.31	13.98	10.15	5.910	0.977	0.571	2.434
MAX	9.05	13.3	14.8	21.5	24.7	30.6	35.9	28.9	14.9	1.51	0.79	5.08
(WY)	2002	2002	2002	1999	2000	2002	2002	2002	1999	2000	2002	2002
MIN	0.66	0.45	4.34	2.85	6.92	6.26	1.58	0.94	0.92	0.30	0.34	0.66
(WY)	2000	2000	2000	2001	2002	2001	2001	2000	2001	2002	1999	2001

03298300 PENNSYLVANIA RUN AT MOUNT WASHINGTON ROAD NEAR LOUISVILLE, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL TOTAL	2067.17		5011.94			
ANNUAL MEAN	5.663		13.73		7.734	
HIGHEST ANNUAL MEAN					13.7	2002
LOWEST ANNUAL MEAN					3.69	2001
HIGHEST DAILY MEAN	200	Nov 29	308	Jan 24	353	Feb 18 2000
LOWEST DAILY MEAN	0.36	Jul 25	0.17	Jul 31	0.17	Jul 31 2002
ANNUAL SEVEN-DAY MINIMUM	0.42	Jul 30	0.22	Jun 20	0.22	Jun 20 2002
MAXIMUM PEAK FLOW			1120	Jan 24	1540	Jun 28 1999
MAXIMUM PEAK STAGE			7.05	Jan 24	8.22	Jun 28 1999
10 PERCENT EXCEEDS	11		30		15	
50 PERCENT EXCEEDS	1.6		2.3		1.7	
90 PERCENT EXCEEDS	0.47		0.34		0.40	

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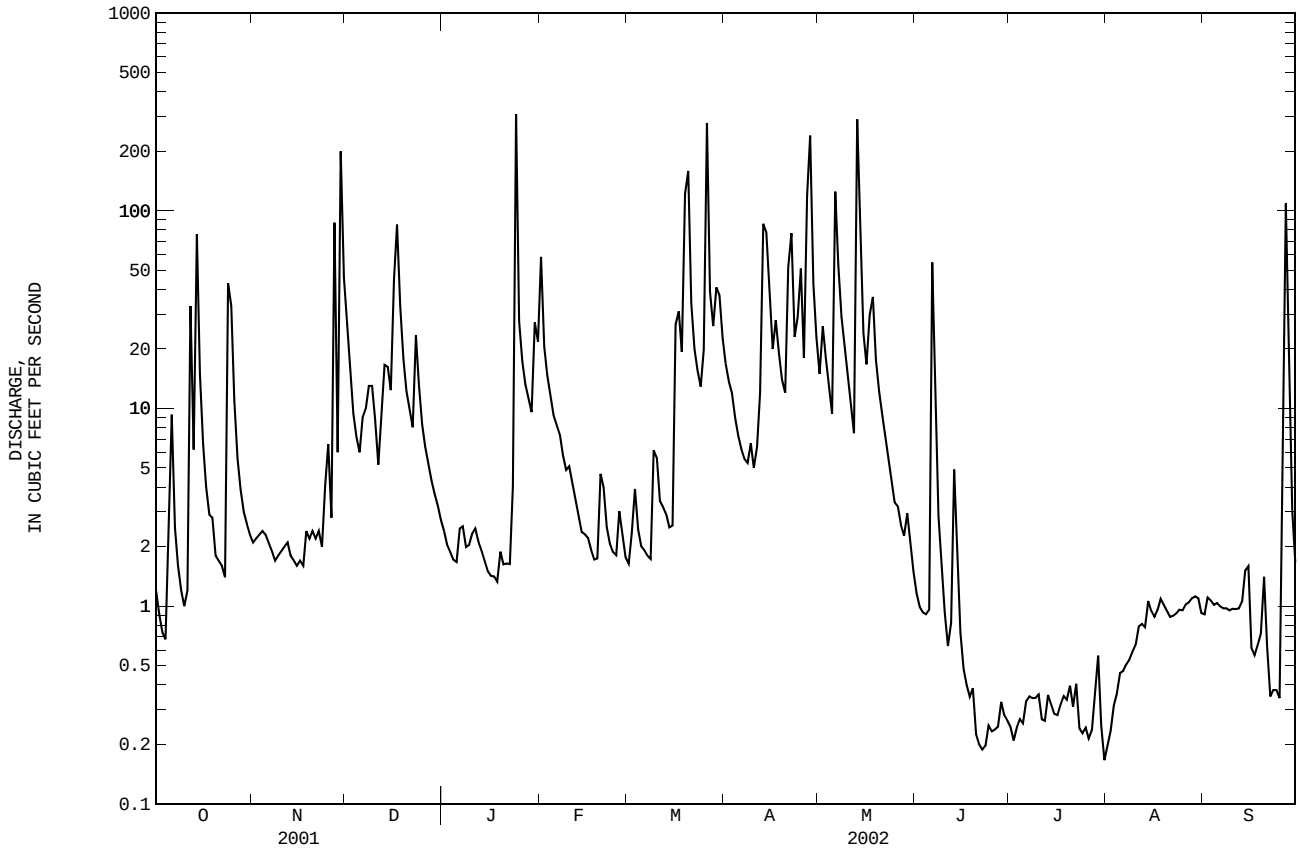

03298500 SALT RIVER AT SHEPHERDSVILLE, KY

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 mi^2.

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 with telemetry. Datum of gage is 406.58 ft above NGVD of 1929. See WDR KY-90-1 for history of changes prior to Oct. 16, 1969. Auxillary gage located at mouth of Floyds Fork 2.6 mi upstream.

REMARKS.--Records fair. Flow regulated since January 1983 by Taylorsville Lake (station 03295597). Diversions for water supply by Sheperdsville and other municipalities.

COOPERATION.--U.S. Army Corps of Engineers,Louisville District and Kentucky Natural Resources and Environmental Protection Cabinet.

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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	282	5870	505	7320	455	4050	4190	493	141	51	27
2	17	267	3820	427	6050	444	3760	5890	375	112	66	31
3	15	266	3080	403	4160	506	3460	6090	702	90	50	52
4	15	256	2680	379	2940	454	3230	4470	923	74	39	49
5	17	225	2450	354	2390	404	3040	3630	631	65	33	45
6	77	157	2370	336	1380	376	2890	4510	2210	57	28	39
7	123	136	2750	364	1090	359	2800	10800	5330	50	21	31
8	90	95	3320	349	957	347	2710	4940	2690	46	22	31
9	60	79	3030	334	833	381	2110	4070	1510	41	23	32
10	42	71	2130	370	773	581	2600	3680	800	40	24	32
11	32	69	1230	473	756	569	2580	3260	577	38	22	31
12	267	67	1000	609	709	514	2690	2780	510	38	22	31
13	614	66	2080	622	1030	482	3650	12100	1860	55	21	29
14	1180	66	2350	595	859	457	4590	14300	2230	55	20	38
15	1610	65	2630	572	616	435	4510	5530	1260	54	22	88
16	1320	65	3120	759	534	2540	3600	4140	792	66	22	153
17	1300	65	9190	845	503	3010	3090	3870	600	56	23	169
18	1140	65	10600	541	428	2560	2940	5820	471	47	26	122
19	508	110	4640	424	375	7900	2830	4040	374	138	31	81
20	282	349	3790	411	422	22000	2140	3800	292	151	28	72
21	218	365	3100	422	581	16700	2600	3490	206	136	26	133
22	144	359	2740	585	603	4980	5300	3320	174	120	24	145
23	128	359	3640	684	488	3570	3720	2510	148	110	23	116
24	607	382	3630	17100	429	3460	2960	2230	130	78	22	96
25	3220	472	2430	18900	398	3240	3740	2100	115	77	23	87
26	1630	464	1400	5710	449	20400	2220	2030	116	89	29	119
27	830	4760	1110	3820	520	18800	2710	1980	119	71	34	9270
28	568	4460	953	3260	479	6460	e6000	1900	231	58	44	6700
29	441	11400	841	3200	---	5360	13300	1080	212	50	44	1410
30	356	14300	721	3670	---	7520	4680	1080	187	44	35	733
31	311	---	603	5930	---	4820	---	685	---	40	29	---
TOTAL	17180	40142	93298	72953	38072	140084	110500	134315	26268	2287	927	19992
MEAN	554.2	1338	3010	2353	1360	4519	3683	4333	875.6	73.77	29.90	666.4
MAX	3220	14300	10600	18900	7320	22000	13300	14300	5330	151	66	9270
MIN	15	65	603	334	375	347	2110	685	115	38	20	27

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2002, BY WATER YEAR (WY)

MEAN	253.9	901.0	1967	2518	3656	3330	2082	1904	1405	503.3	246.1	216.1
MAX	1166	2206	6329	5728	12370	11410	3683	5768	5192	1976	1018	666
(WY)	1991	1994	1991	1991	1989	1997	2002	1995	1997	1998	1992	2002
MIN	25.9	48.1	258	335	996	1113	377	201	38.9	63.6	29.9	30.6
(WY)	1989	2000	1990	1986	1992	1990	1986	2000	1988	1994	2002	1999

03298500 SALT RIVER AT SHEPHERDSVILLE, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1984 - 2002	
ANNUAL TOTAL	356851		696018			
ANNUAL MEAN	977.7		1907		1571	
HIGHEST ANNUAL MEAN					2809	1997
LOWEST ANNUAL MEAN					772	2001
HIGHEST DAILY MEAN	14300	Nov 30	22000	Mar 20	65600	Mar 2 1997
LOWEST DAILY MEAN	15	Oct 3	15	Oct 3	7.7	Jul 1 1988
ANNUAL SEVEN-DAY MINIMUM	19	Sep 29	22	Aug 11	9.3	Jun 26 1988
MAXIMUM PEAK FLOW			26100	Mar 26	78200	Mar 10 1964
MAXIMUM PEAK STAGE			25.09	Mar 27	41.50	Mar 11 1964
10 PERCENT EXCEEDS	2900		4710		4040	
50 PERCENT EXCEEDS	336		506		481	
90 PERCENT EXCEEDS	42		32		44	

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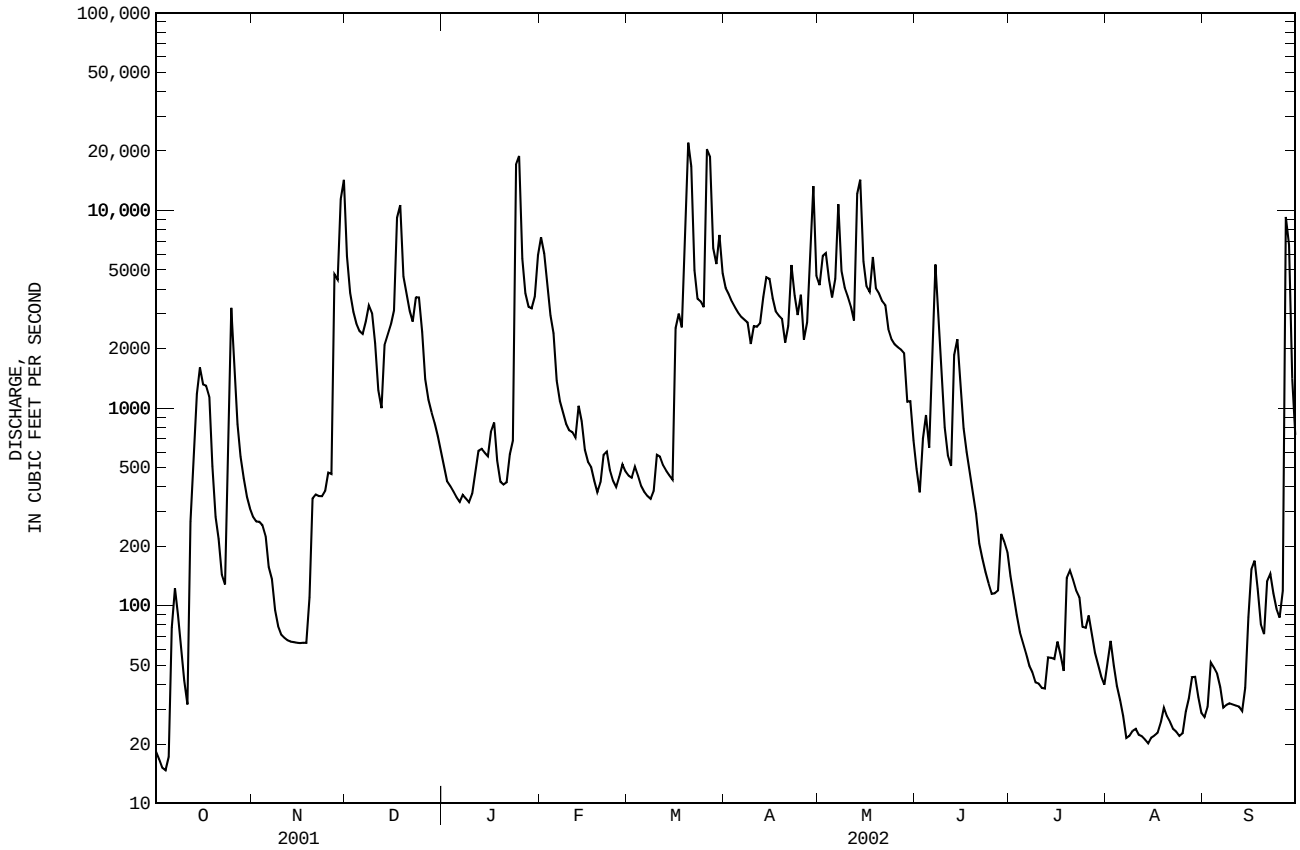


03298550 LONG LICK AT CLERMONT, KY

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 mi^2.

PERIOD OF RECORD.--April 1, 1992 to current year.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 450 ft above NGVD of 1929.

REMARKS.--Records fair except for those estimated, which are poor. Slight regulation from Jim Beam Distillery.

COOPERATION.--Bullitt County.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 24	0430	1,050	6.83	May 6	1830	*2,820	*11.44
Mar 26	0500	1,330	7.71	Sep 27	1000	1,080	6.92
Apr 28	0630	1,310	7.64				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.11	0.04	8.9	1.1	76	2.3	16	28	1.1	0.81	1.5	0.08
2	0.21	0.09	2.4	1.00	21	2.8	12	50	2.0	1.0	1.7	0.07
3	1.1	0.07	1.1	1.0	13	3.7	11	26	1.5	1.4	2.2	0.17
4	0.72	0.07	0.77	0.82	8.3	2.5	9.5	12	0.59	1.8	2.7	1.4
5	1.3	0.03	0.42	0.81	5.0	2.1	8.1	8.2	1.0	1.8	2.9	1.7
6	0.86	0.01	1.5	0.65	4.5	1.8	7.0	e317	9.7	2.0	2.5	1.9
7	0.80	0.09	3.8	0.57	4.2	1.2	6.5	e82	4.1	1.3	2.3	1.9
8	0.93	0.09	25	0.43	3.4	1.1	5.0	e31	1.9	0.75	1.7	2.1
9	1.1	0.09	9.7	0.43	2.7	7.2	4.9	e18	1.1	0.17	0.38	3.1
10	1.8	0.18	3.6	1.3	3.4	11	4.5	12	0.64	0.29	0.23	3.7
11	1.4	0.11	1.6	1.6	2.4	6.2	4.4	9.5	0.90	0.46	0.37	4.2
12	5.3	0.02	2.9	0.45	2.1	4.1	55	9.2	16	0.06	0.53	2.9
13	1.7	0.0	25	0.38	1.7	3.7	73	198	12	e1.3	0.28	3.3
14	16	0.10	17	0.38	1.4	3.3	87	47	4.3	e0.62	0.58	4.3
15	0.46	0.03	10	0.46	1.4	3.1	38	21	2.1	e0.14	0.68	2.8
16	0.03	0.04	44	0.14	1.2	74	20	17	1.8	e0.10	0.42	1.5
17	0.03	0.28	90	0.18	1.3	23	14	25	1.6	e0.50	1.6	1.0
18	0.04	0.33	41	0.05	1.1	15	11	46	0.58	e0.10	2.0	1.5
19	0.05	0.33	18	0.06	0.90	207	8.4	19	0.67	e0.14	1.6	0.38
20	0.10	0.14	10	0.27	2.9	223	6.8	12	0.65	e0.18	1.6	0.11
21	0.04	0.01	6.7	0.81	3.3	41	7.4	9.3	1.0	e0.10	1.6	1.7
22	0.02	0.09	3.9	6.0	2.9	22	19	7.1	0.45	e0.08	1.6	0.56
23	0.01	0.04	20	10	2.2	15	8.9	5.9	0.38	e0.06	1.6	0.18
24	0.98	0.05	13	252	2.5	12	9.4	4.6	1.2	e0.06	1.8	0.14
25	7.7	0.02	6.9	33	1.8	39	36	3.9	1.9	e0.62	1.7	0.14
26	0.13	0.01	4.0	16	3.5	339	12	4.5	0.82	0.64	1.7	0.62
27	0.09	68	3.0	10	3.2	41	35	3.6	1.1	1.2	1.7	142
28	0.39	35	2.3	6.7	2.6	23	e239	1.8	1.4	1.3	2.7	8.1
29	0.27	145	1.7	4.9	---	59	27	1.5	1.1	1.5	0.40	1.3
30	0.15	63	1.1	7.4	---	46	14	1.2	0.89	1.8	0.16	0.76
31	0.31	---	1.2	13	---	23	---	0.98	---	1.6	0.13	---
TOTAL	44.13	313.36	380.49	371.89	179.90	1258.1	809.8	1032.28	74.47	23.88	42.86	193.61
MEAN	1.424	10.45	12.27	12.00	6.425	40.58	26.99	33.30	2.482	0.770	1.383	6.454
MAX	16	145	90	252	76	339	239	317	16	2.0	2.9	142
MIN	0.01	0.00	0.42	0.05	0.90	1.1	4.4	0.98	0.38	0.06	0.13	0.07

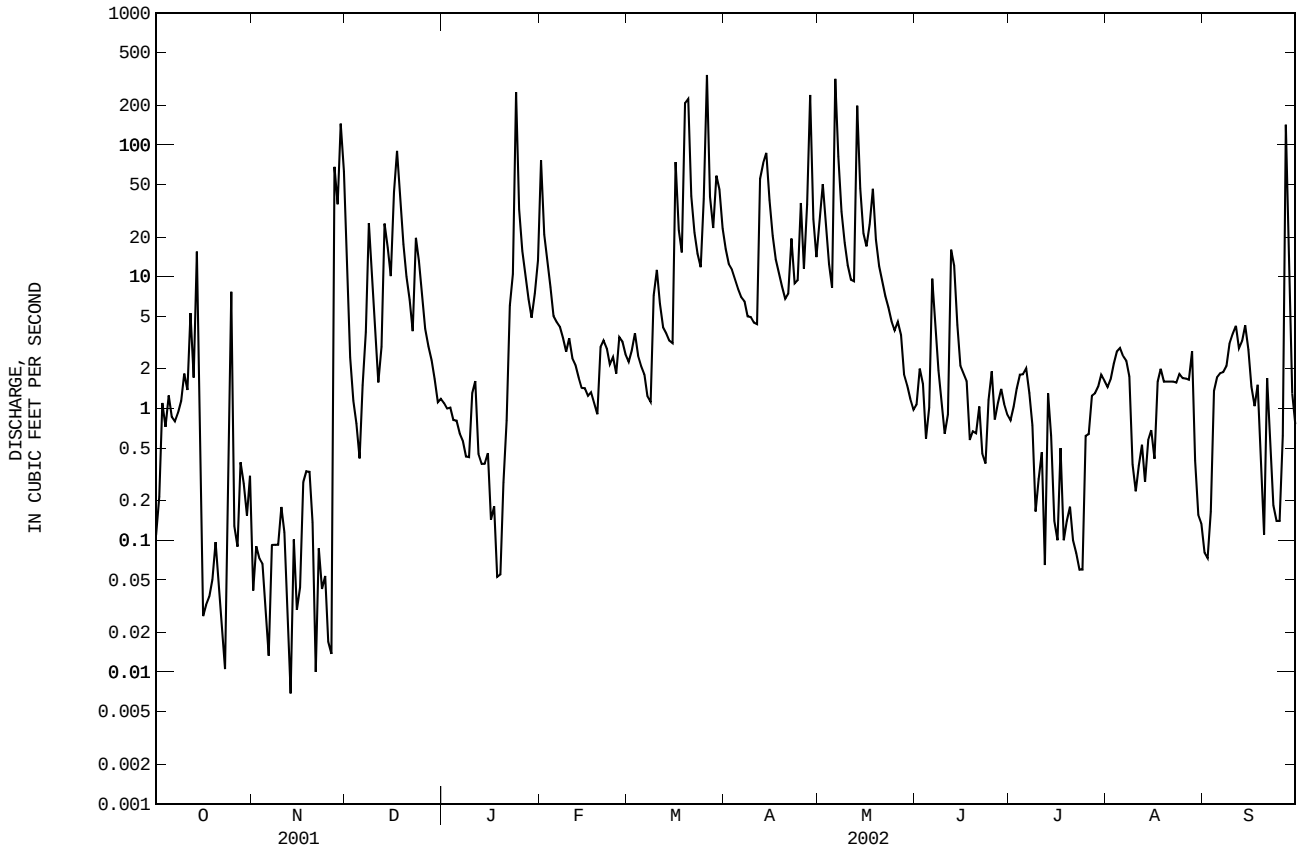
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2002, BY WATER YEAR (WY)

MEAN	1.554	3.382	6.677	16.47	16.87	30.74	18.72	17.82	8.957	0.916	1.377	1.183
MAX	4.92	10.4	16.3	29.2	27.7	101	42.2	47.2	35.0	3.02	9.21	6.45
(WY)	1996	2002	1997	1996	2000	1997	1998	1995	1997	1992	1995	2002
MIN	0.098	0.68	0.83	1.79	6.43	10.0	2.40	1.34	0.054	0.043	0.057	0.13
(WY)	1998	1995	1999	2001	2002	2001	2001	2000	2001	2001	1998	1998

03298550 LONG LICK AT CLERMONT, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1992 - 2002	
ANNUAL TOTAL	1806.45		4724.77			
ANNUAL MEAN	4.949		12.94		10.56	
HIGHEST ANNUAL MEAN					19.1	1997
LOWEST ANNUAL MEAN					3.59	2001
HIGHEST DAILY MEAN	145	Nov 29	339	Mar 26	680	Mar 1 1997
LOWEST DAILY MEAN	0.00	Nov 13	0.00	Nov 13	0.00	Nov 13 2001
ANNUAL SEVEN-DAY MINIMUM	0.01	Jul 8	0.04	Oct 17	0.01	Aug 20 1999
MAXIMUM PEAK FLOW			2820	May 6	2820	May 6 2002
MAXIMUM PEAK STAGE			11.44	May 6	11.44	May 6 2002
10 PERCENT EXCEEDS	9.1		26		22	
50 PERCENT EXCEEDS	0.52		1.8		1.3	
90 PERCENT EXCEEDS	0.02		0.10		0.09	

e Estimated



03300400 BEECH FORK AT MAUD, KY

LOCATION.--Lat 37°49'58", long 85°17'46", Nelson County, Hydrologic Unit 05140103, on right bank on downstream side of bridge on State Highway 55, 100 ft upstream from Nealy Run, 0.8 mi north of Maud, 1.7 mi downstream from Chaplin River, and at mile 48.1.

DRAINAGE AREA.--436 mi^2..

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

GAGE.--Water-stage recorder with telemetry. Datum of gage is 530.00 ft above NGVD of 1929.

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

COOPERATION.--Kentucky Natural Resources and Environmental Protection Cabinet.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 24	2230	11,100	17.78	Apr 28	2200	11,600	18.01
Mar 21	0200	*22,200	*22.52	May 2	2200	9,160	16.79
Mar 26	2330	8,470	16.45	May 14	0430	8,410	16.42

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e0.64	16	1510	115	945	130	849	802	87	47	6.4	6.7
2	e0.38	12	511	108	1400	121	875	6050	74	39	5.5	5.6
3	e0.35	8.5	284	105	719	120	620	6650	61	26	4.2	4.1
4	e0.35	6.0	200	102	497	119	476	1970	52	18	8.2	3.2
5	e0.35	4.6	153	93	379	114	388	858	47	13	16	2.2
6	e0.37	3.2	132	e80	310	108	336	1060	73	9.5	15	1.9
7	e0.35	2.4	497	e120	282	101	297	6100	286	7.1	15	1.6
8	e0.35	2.5	939	e100	263	95	265	4090	177	5.9	8.2	1.6
9	e0.35	2.8	1160	e90	239	99	255	1370	121	5.1	5.4	1.5
10	e0.35	2.5	771	100	227	193	254	747	89	4.4	3.7	1.4
11	e0.35	2.1	393	188	243	202	230	518	68	3.4	2.9	1.4
12	e2.9	1.9	279	393	256	179	207	403	55	2.9	2.4	1.4
13	2.1	1.6	829	398	264	165	211	3010	314	3.0	2.1	1.4
14	15	1.5	1600	289	240	151	250	5990	388	3.9	1.9	1.4
15	102	1.4	1700	228	215	142	304	1490	257	3.2	1.9	1.6
16	69	1.4	954	189	198	2750	265	772	149	2.7	1.9	1.9
17	39	1.4	1500	162	184	3880	238	553	99	2.4	2.4	1.9
18	37	1.2	2360	145	166	2280	201	5300	84	2.2	2.8	1.6
19	22	1.2	1190	e140	151	4000	173	3380	64	2.2	4.5	1.6
20	14	1.4	618	e135	e158	17600	155	938	49	11	5.5	2.0
21	9.7	1.5	396	e130	e165	16600	153	586	38	17	4.9	4.6
22	5.1	1.6	295	222	e155	4240	280	436	29	43	3.9	2.8
23	2.8	1.7	359	1470	e140	1100	591	349	23	25	3.1	1.8
24	2.6	1.9	458	7900	131	778	372	288	18	15	2.6	1.4
25	16	94	349	6290	118	612	1210	241	15	9.7	2.3	1.3
26	171	162	285	1500	116	4420	971	210	14	9.4	66	15
27	159	1100	232	747	122	4960	526	183	15	9.9	57	2360
28	86	811	199	528	133	1350	8260	161	27	17	27	1760
29	53	1360	175	419	---	1270	5220	143	47	14	16	405
30	34	3120	154	360	---	4340	1100	122	42	12	10	206
31	23	---	127	322	---	1310	---	103	---	9.0	7.2	---
TOTAL	869.39	6729.3	20609	23168	8416	73529	25532	54873	2862	392.9	315.9	4803.9
MEAN	28.04	224.3	664.8	747.4	300.6	2372	851.1	1770	95.40	12.67	10.19	160.1
MAX	171	3120	2360	7900	1400	17600	8260	6650	388	47	66	2360
MIN	0.35	1.2	127	80	116	95	153	103	14	2.2	1.9	1.3
CFSM	0.06	0.51	1.52	1.71	0.69	5.44	1.95	4.06	0.22	0.03	0.02	0.37
IN.	0.07	0.57	1.76	1.98	0.72	6.27	2.18	4.68	0.24	0.03	0.03	0.41

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 2002, BY WATER YEAR (WY)

MEAN	150.3	462.5	978.5	944.6	1148	1253	731.8	683.5	475.9	195.5	153.7	221.7
MAX	1042	1699	3691	2461	5071	4663	2022	2359	2499	764	939	2284
(WY)	1976	1989	1979	1974	1989	1997	1979	1995	1997	1998	1978	1979
MIN	0.011	0.059	37.2	16.2	203	134	103	43.6	3.32	2.45	0.87	0.018
(WY)	1988	2000	2000	1981	1980	1983	1986	1976	1988	1975	1986	1999

03300400 BEECH FORK AT MAUD, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1973 - 2002	
ANNUAL TOTAL	122014.99		222100.39			
ANNUAL MEAN	334.3		608.5		614.1	
HIGHEST ANNUAL MEAN					1243	1979
LOWEST ANNUAL MEAN					256	2000
HIGHEST DAILY MEAN	6860	Feb 17	17600	Mar 20	39800	Mar 2 1997
LOWEST DAILY MEAN	0.35	Oct 3	0.35	Oct 3	0.00	Oct 8 1983
ANNUAL SEVEN-DAY MINIMUM	0.35	Oct 3	0.35	Oct 3	0.00	Oct 23 1987
MAXIMUM PEAK FLOW			22200	Mar 21	41500	Mar 2 1997
MAXIMUM PEAK STAGE			22.52	Mar 21	27.60	Mar 2 1997
ANNUAL RUNOFF (CFSM)	0.77		1.40		1.41	
ANNUAL RUNOFF (INCHES)	10.41		18.95		19.14	
10 PERCENT EXCEEDS	819		1360		1310	
50 PERCENT EXCEEDS	103		119		160	
90 PERCENT EXCEEDS	1.5		1.9		3.7	

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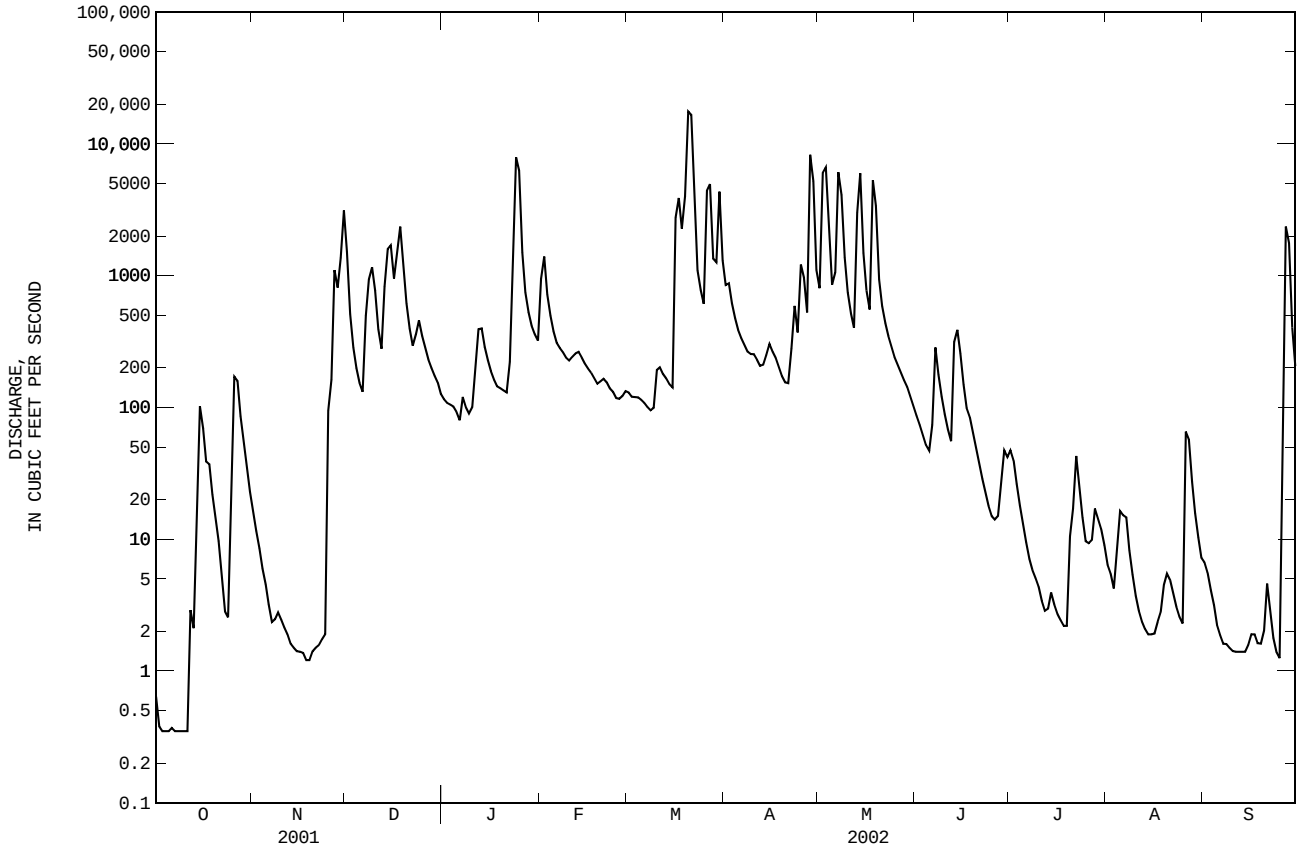

03301000 BEECH FORK AT BARDSTOWN, KY

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 mi^2.

PERIOD OF RECORD.--October 1939 to September 1974; converted to a crest-stage partial-record station. Monthly discharge only for October, November 1939, published in WSP 1305. October 1997 to September 1999 and January 2001 to to present.

REVISIONS.--WSP 1705: Drainage area.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 439.3 ft above mean sea level.

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

COOPERATION.--City of Bardstown.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	30	2780	899	1930	195	1550	4700	177	60	18	22
2	3.3	23	1140	878	2180	192	1530	11300	153	48	18	16
3	3.3	17	611	863	1400	191	1200	10200	134	47	19	12
4	3.3	12	386	847	1050	174	970	3900	124	34	25	10
5	3.5	8.7	276	848	815	168	816	1770	112	25	19	9.1
6	5.6	6.7	246	856	683	160	709	4680	158	19	13	7.6
7	3.3	6.2	664	880	612	151	628	9780	321	15	11	7.5
8	3.3	5.7	1590	864	537	142	567	6310	345	12	11	7.6
9	3.3	5.2	1670	884	460	178	548	2460	208	10	12	7.5
10	3.3	4.9	1470	925	459	252	514	1510	159	10	11	7.6
11	3.3	4.6	834	972	462	316	463	1140	126	9.5	10	7.7
12	57	4.2	562	1070	451	271	525	968	169	7.8	10	7.7
13	16	3.8	1330	1160	452	246	643	6530	300	31	10	7.6
14	106	3.6	2240	1100	406	220	705	8200	686	151	10	36
15	141	3.6	2510	1040	367	298	723	2830	421	72	10	15
16	134	3.6	1780	995	328	4440	592	1600	256	34	22	7.9
17	116	3.6	2140	967	297	5270	517	2650	169	22	17	8.2
18	60	3.6	3640	944	265	3480	443	7190	125	17	43	7.6
19	46	3.9	3050	938	245	7380	371	5040	105	16	79	7.5
20	35	3.7	1370	946	256	22000	325	1840	83	23	64	22
21	24	3.6	1250	950	266	21700	441	1260	63	117	37	23
22	13	3.6	1150	1030	240	10700	894	967	49	78	24	41
23	7.9	4.4	1180	e3500	224	2540	1040	776	38	53	16	27
24	18	6.5	1270	e10400	207	1510	1250	633	31	62	15	16
25	124	7.4	1190	e7600	190	1530	2170	523	29	43	94	11
26	130	115	1120	e2800	198	7820	1680	450	24	29	1060	1020
27	187	1080	1070	e1400	197	7200	1590	376	43	23	336	6470
28	166	1820	1030	e1100	187	2500	10300	317	120	18	140	2600
29	106	1920	1000	e1000	---	2220	8490	279	76	18	87	905
30	71	4470	958	e900	---	5230	2120	242	71	18	49	480
31	47	---	908	785	---	2230	---	206	---	18	31	---
TOTAL	1643.7	9588.1	42415	50341	15364	110904	44314	100627	4875	1140.3	2321	11827.1
MEAN	53.02	319.6	1368	1624	548.7	3578	1477	3246	162.5	36.78	74.87	394.2
MAX	187	4470	3640	10400	2180	22000	10300	11300	686	151	1060	6470
MIN	3.3	3.6	246	785	187	142	325	206	24	7.8	10	7.5
CFSM	0.08	0.48	2.05	2.43	0.82	5.35	2.21	4.85	0.24	0.05	0.11	0.59
IN.	0.09	0.53	2.36	2.80	0.85	6.17	2.46	5.60	0.27	0.06	0.13	0.66

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2002, BY WATER YEAR (WY)

MEAN	101.3	506.3	1087	1621	1804	2006	1364	896.9	557.1	456.1	191.5	164.4
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	0.27	0.70	1.40	42.7	123	153	145	46.1	22.2	1.36	3.44	0.39
(WY)	1954	1964	1944	1944	1954	1941	1963	1941	1948	1954	1999	1953

03301000 BEECH FORK AT BARDSTOWN, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1940 - 2002	
ANNUAL TOTAL	196618.0		395360.2			
ANNUAL MEAN	538.7		1083		904.0	
HIGHEST ANNUAL MEAN					1733	1950
LOWEST ANNUAL MEAN					245	1941
HIGHEST DAILY MEAN	10500	Feb 17	22000	Mar 20	32200	Mar 5 1964
LOWEST DAILY MEAN	3.3	Oct 1	3.3	Oct 1	0.00	Sep 29 1948
ANNUAL SEVEN-DAY MINIMUM	3.4	Sep 28	3.7	Oct 1	0.03	Sep 28 1948
MAXIMUM PEAK FLOW			24900	Mar 20	33900	Mar 5 1964
MAXIMUM PEAK STAGE			38.80	Mar 20	43.50	Mar 5 1964
ANNUAL RUNOFF (CFSM)	0.81		1.62		1.35	
ANNUAL RUNOFF (INCHES)	10.93		21.98		18.36	
10 PERCENT EXCEEDS	1330		2520		2050	
50 PERCENT EXCEEDS	138		224		200	
90 PERCENT EXCEEDS	4.5		7.6		5.5	

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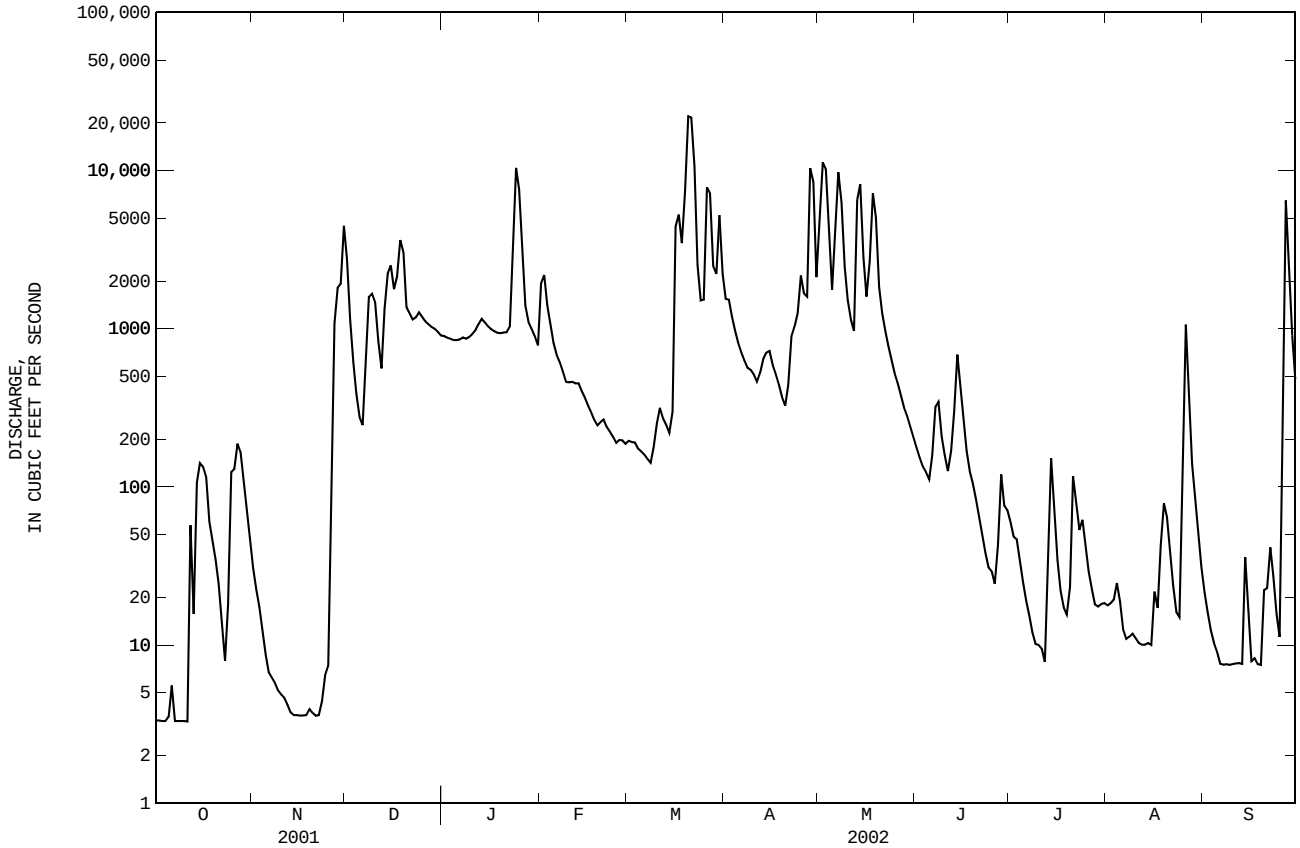

03301500 ROLLING FORK NEAR BOSTON, KY

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 mi^2.

PERIOD OF RECORD.--May 1938 to current year.

REVISED RECORDS.--WSP 1705: Drainage area.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 400.42 ft above NGVD of 1929. See WDR KY-90-1 for history of changes prior to Sept. 30, 1971. Datum of Auxilary gage (Rolling Fork at Lebanon Junction) 385.06 ft above sea level.

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

COOPERATION.--U.S. Army Coprs of Engineers, Louisville District.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in January 1937 reached a stage of 55.2 ft, former site, from floodmarks (backwater from Ohio River).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 16,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 22	1400	*30,800	*43.93	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	126	5260	469	2030	431	2990	5080	371	125	51	92
2	15	107	2290	426	3060	429	3070	12300	322	111	45	67
3	15	97	1210	e392	2650	433	2330	15100	283	100	39	52
4	14	84	814	e368	1880	415	1870	14600	249	96	38	41
5	13	75	602	351	1480	391	1550	7500	229	85	34	32
6	14	65	502	e346	1230	371	1260	3530	232	73	38	26
7	18	55	770	e355	1110	351	1090	12300	293	63	29	22
8	13	49	1680	e373	1020	332	971	13000	454	56	23	18
9	7.1	43	2450	402	933	350	904	9780	447	53	19	15
10	4.9	39	2320	444	862	510	868	4260	336	56	18	12
11	5.2	34	1520	523	873	571	800	2390	267	45	19	12
12	182	34	1050	630	876	623	908	1790	240	40	18	10
13	150	32	1650	882	905	587	1380	5050	341	392	17	9.1
14	229	32	2650	904	843	541	1780	11400	491	1190	16	9.1
15	258	31	3270	764	768	499	1730	10800	650	1130	18	46
16	235	29	2910	642	705	2050	1360	4180	463	376	25	42
17	232	27	3200	568	645	7040	1160	2760	318	226	25	23
18	168	28	4140	517	595	6660	998	7940	237	161	35	17
19	116	29	3920	499	550	6970	852	11000	199	126	52	14
20	132	32	2380	503	547	16500	734	9910	174	100	90	14
21	115	41	1580	551	569	26000	700	4170	150	89	78	19
22	97	38	1190	728	566	30200	1630	2490	128	132	57	48
23	79	35	1110	1850	540	21000	2770	1810	111	122	42	45
24	79	35	1340	9010	496	13100	2250	1340	98	98	39	48
25	284	39	1310	15000	453	8390	4500	1050	102	98	29	39
26	288	50	1120	13100	440	10800	4520	890	129	92	292	40
27	252	1370	960	5340	448	13000	2930	751	107	77	872	6060
28	291	2120	835	2240	442	10700	8940	644	231	63	260	6880
29	248	2540	733	1740	---	4870	13200	561	198	53	152	2360
30	190	5470	641	1460	---	5010	11200	496	142	56	150	1010
31	153	---	546	1300	---	5510	---	430	---	57	119	---
TOTAL	3911.2	12786	55953	62677	27516	194634	81245	179302	7992	5541	2739	17122.2
MEAN	126.2	426.2	1805	2022	982.7	6279	2708	5784	266.4	178.7	88.35	570.7
MAX	291	5470	5260	15000	3060	30200	13200	15100	650	1190	872	6880
MIN	4.9	27	502	346	440	332	700	430	98	40	16	9.1
CFSM	0.10	0.33	1.39	1.56	0.76	4.83	2.08	4.45	0.21	0.14	0.07	0.44
IN.	0.11	0.37	1.60	1.79	0.79	5.57	2.33	5.13	0.23	0.16	0.08	0.49

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2002, BY WATER YEAR (WY)

MEAN	293.0	999.7	2336	2969	3748	3881	2748	1918	1116	725.3	402.2	441.2
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	0.57	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

03301500 ROLLING FORK NEAR BOSTON, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1939 - 2002	
ANNUAL TOTAL	323681.2		651418.4			
ANNUAL MEAN	886.8		1785		1789	
HIGHEST ANNUAL MEAN					4268	1979
LOWEST ANNUAL MEAN					473	1941
HIGHEST DAILY MEAN	15000	Feb 17	30200	Mar 22	68400	Mar 4 1997
LOWEST DAILY MEAN	4.9	Oct 10	4.9	Oct 10	0.40	Oct 20 1939
ANNUAL SEVEN-DAY MINIMUM	11	Oct 5	11	Oct 5	0.40	Oct 3 1953
MAXIMUM PEAK FLOW			30800	Mar 22	69800	Mar 3 1997
MAXIMUM PEAK STAGE			43.93	Mar 22	53.22	Mar 3 1997
INSTANTANEOUS LOW FLOW					0.40	Oct 20 1939
ANNUAL RUNOFF (CFSM)	0.68		1.37		1.38	
ANNUAL RUNOFF (INCHES)	9.27		18.65		18.71	
10 PERCENT EXCEEDS	2260		5150		4720	
50 PERCENT EXCEEDS	284		430		492	
90 PERCENT EXCEEDS	24		28		26	

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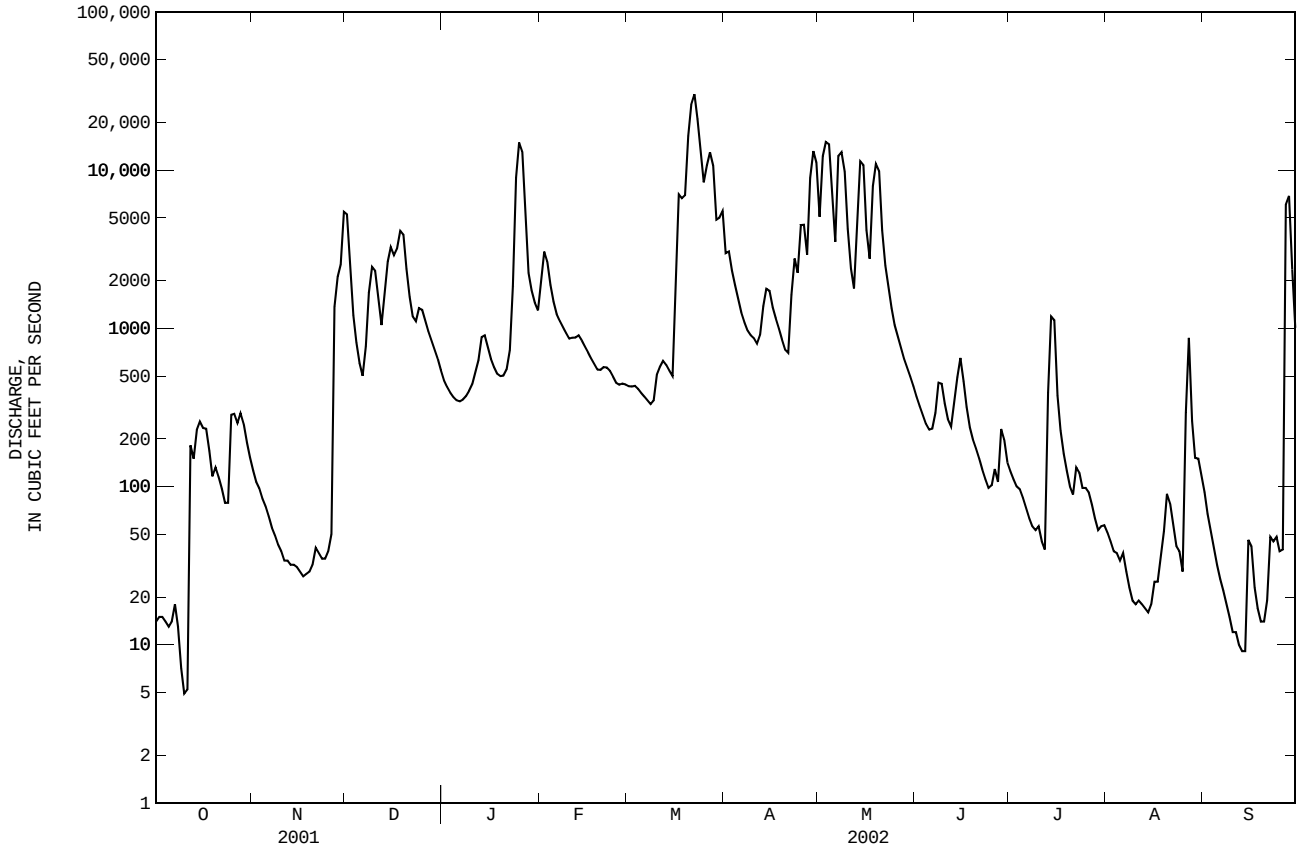


03301700 MILL CREEK NEAR FORT KNOX, KY

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.

DRAINAGE AREA.--38.2 mi^2 .

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

GAGE.--Water-stage recorder with telemetry. Elevation of gage is 440 ft above NGVD of 1929 (from topographic map).

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

COOPERATION.--U.S. Army Corps of Engineers, Louisville District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	14	185	e25	327	27	87	903	18	10	4.4	3.9
2	4.4	13	108	e22	126	29	75	1030	15	8.1	3.9	3.8
3	4.4	14	71	e21	89	38	66	412	14	7.6	4.7	3.9
4	4.3	12	53	e20	70	33	59	189	14	6.8	4.4	3.6
5	8.3	10	42	e19	57	31	55	119	13	6.1	4.1	3.0
6	29	9.7	51	21	52	29	51	767	30	5.8	3.7	2.9
7	11	9.0	62	21	48	28	48	597	24	5.1	3.9	3.6
8	7.3	8.8	128	18	42	27	47	202	16	5.0	3.4	3.2
9	6.2	8.2	91	17	38	39	48	113	14	5.1	3.9	3.5
10	5.6	8.4	64	18	39	46	43	78	12	8.5	3.8	3.4
11	5.7	8.0	50	19	36	39	41	63	11	6.8	3.7	3.3
12	201	7.8	73	17	33	39	217	55	24	5.2	3.7	3.3
13	58	7.5	217	15	30	37	480	999	40	18	3.4	3.4
14	324	7.5	147	15	28	33	396	356	23	17	4.4	7.6
15	102	7.4	103	15	27	32	336	141	15	8.9	11	15
16	60	7.0	321	14	26	269	151	86	13	6.8	6.7	7.9
17	40	7.0	547	13	23	113	106	148	11	6.2	6.1	5.4
18	29	6.8	249	13	21	90	91	194	9.2	5.8	6.9	4.9
19	23	7.4	125	15	21	1030	73	97	8.5	5.7	12	4.8
20	19	8.4	83	15	34	1840	65	71	7.9	5.4	8.0	5.2
21	16	7.5	65	18	37	447	66	58	7.4	5.3	6.4	30
22	14	7.3	54	35	32	204	133	50	7.0	7.0	5.6	11
23	13	6.7	132	57	29	131	71	45	6.8	12	3.9	6.3
24	78	26	82	1500	27	87	82	39	6.7	6.7	20	5.2
25	196	47	64	329	26	105	422	35	6.5	5.8	6.2	4.3
26	59	20	55	133	32	2730	126	32	9.6	4.7	4.8	40
27	37	600	46	84	e29	441	187	29	7.8	5.3	4.9	1490
28	26	350	42	68	e28	211	2050	25	72	4.7	4.1	184
29	21	951	36	59	---	195	377	24	23	4.5	4.0	69
30	18	520	e31	56	---	161	174	23	14	7.8	4.4	40
31	15	---	e28	57	---	107	---	21	---	5.4	4.0	---
TOTAL	1439.7	2717.4	3405	2749	1407	8668	6223	7001	493.4	223.1	174.4	1975.4
MEAN	46.44	90.58	109.8	88.68	50.25	279.6	207.4	225.8	16.45	7.197	5.626	65.85
MAX	324	951	547	1500	327	2730	2050	1030	72	18	20	1490
MIN	4.3	6.7	28	13	21	27	41	21	6.5	4.5	3.4	2.9

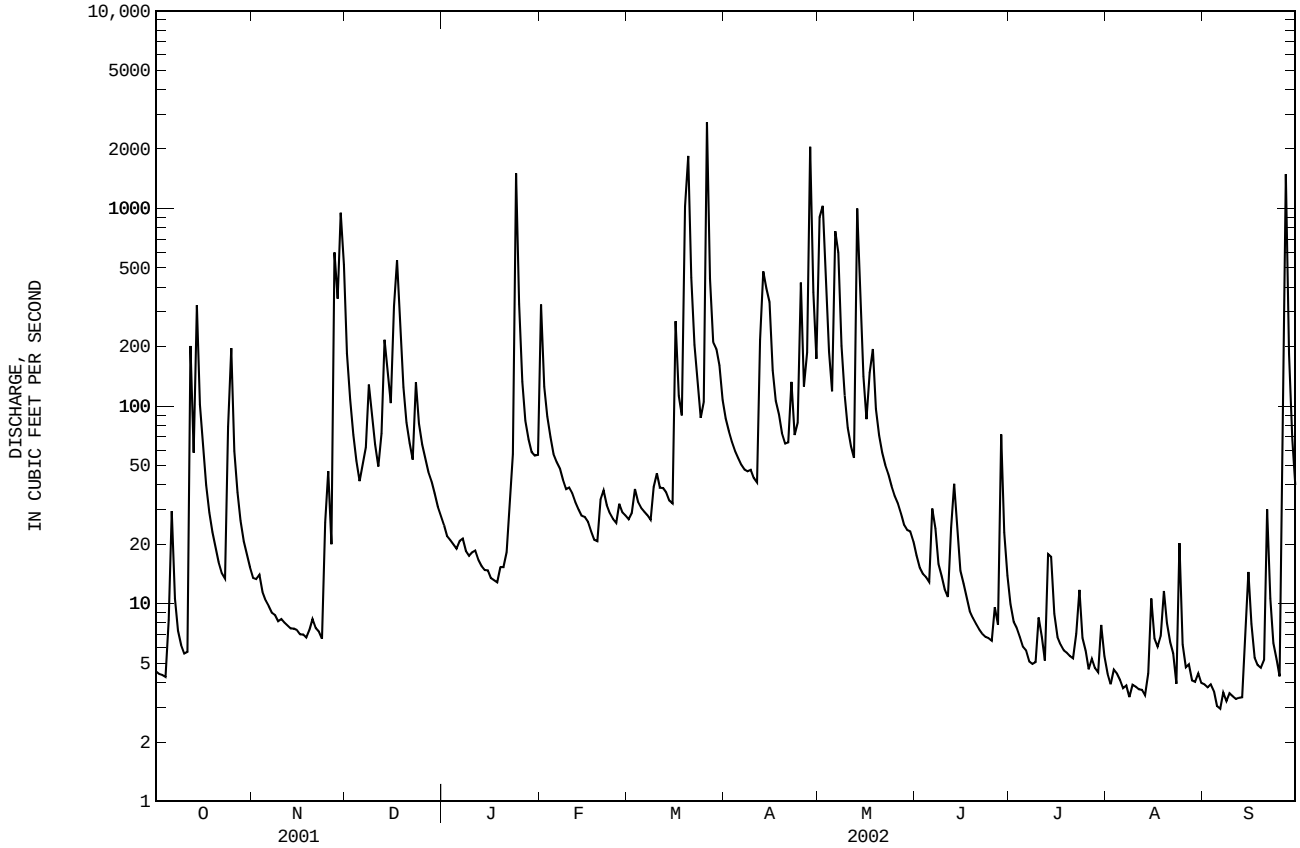
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	18.97	30.47	62.29	80.07	88.67	124.0	93.05	87.80	13.08	13.91	11.18	23.44
MAX	46.4	90.6	110	119	131	280	207	226	16.4	28.0	25.7	66.1
(WY)	2002	2002	2002	1999	2000	2002	2002	2002	2002	2001	2000	2002
MIN	6.50	4.67	26.4	21.1	50.2	58.6	29.4	16.2	9.16	4.56	3.28	2.99
(WY)	2001	2000	1999	2001	2002	2001	2001	2001	2001	1999	1999	1999

03301700 MILL CREEK NEAR FORT KNOX, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL TOTAL	16238.1		36476.4			
ANNUAL MEAN	44.49		99.94		53.81	
HIGHEST ANNUAL MEAN					100	2002
LOWEST ANNUAL MEAN					31.6	2001
HIGHEST DAILY MEAN	951	Nov 29	2730	Mar 26	2730	Mar 26 2002
LOWEST DAILY MEAN	3.5	Jul 14	2.9	Sep 6	2.4	Sep 11 1999
ANNUAL SEVEN-DAY MINIMUM	3.6	Jul 11	3.3	Sep 5	2.8	Aug 29 1999
MAXIMUM PEAK FLOW			9220	Mar 26	9220	Mar 26 2002
MAXIMUM PEAK STAGE			9.46	Mar 26	10.29	Jan 4 2000
10 PERCENT EXCEEDS	92		201		102	
50 PERCENT EXCEEDS	14		25		14	
90 PERCENT EXCEEDS	4.7		4.5		4.0	

e Estimated



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, at Louisville, and at mile 3.2.

DRAINAGE AREA.--3.5 mi^2.

PERIOD OF RECORD.--February 1991 to October 1995, (medium and high flows only), September 1997 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage 550.74 ft above NGVD of 1929.

REMARKS.--Records good except those for estimated periods, which are poor. Flow partially requlated by sewage treatment plant upstream.

COOPERATION.--Louisville and Jefferson County Metropolitan Sewer District.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 24	0410	*435	*3.12	Mar 26	0535	432	3.11
Mar 26	0255	420	3.08	Apr 28	0600	424	3.09

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	2.6	17	3.2	48	2.8	12	17	4.2	1.5	e1.2	1.3
2	1.1	2.8	10	3.0	20	3.9	11	34	7.8	1.6	e1.1	0.96
3	e1.0	2.6	7.8	2.8	15	3.8	9.6	19	4.3	1.4	e1.2	0.88
4	e0.96	2.5	6.3	2.6	11	3.0	8.0	14	3.8	1.4	e1.3	0.88
5	12	2.3	5.2	2.7	8.8	2.9	7.1	11	6.8	1.3	e1.5	0.88
6	4.4	2.3	8.3	3.3	7.8	2.8	6.5	41	37	1.3	e1.4	0.87
7	1.8	2.2	6.0	2.9	6.9	2.7	6.1	30	9.8	1.2	e1.3	0.90
8	1.4	2.1	8.4	2.7	5.9	2.6	5.7	19	6.7	1.2	e1.2	0.92
9	1.4	2.0	6.1	e2.6	5.5	6.0	6.2	14	5.4	1.2	e1.1	0.90
10	1.5	2.2	5.2	e2.5	5.6	3.6	4.8	11	4.6	2.1	e0.98	0.89
11	1.8	2.1	4.5	e2.4	4.6	3.2	4.6	9.4	4.0	1.3	e1.0	0.90
12	24	2.0	10	e2.3	4.3	3.2	4.4	14	17	1.2	e1.1	0.94
13	4.4	1.9	9.6	e2.2	3.7	3.2	29	123	18	1.4	e1.0	0.97
14	49	2.0	11	e2.1	3.4	2.9	17	35	7.6	1.3	e1.1	1.9
15	7.5	1.9	8.0	2.1	3.4	3.0	11	21	5.5	1.2	e1.3	5.8
16	6.0	2.0	45	2.0	3.3	32	8.9	15	4.7	1.1	e1.2	1.8
17	3.9	2.0	71	2.0	3.0	11	8.2	29	3.9	e1.3	e1.1	1.3
18	3.4	1.9	31	1.9	2.8	8.9	7.1	23	3.3	e1.2	e1.0	1.2
19	2.9	2.5	18	2.3	2.8	73	6.3	15	2.9	e1.3	e0.96	1.3
20	2.7	2.1	12	2.1	13	106	6.5	12	2.7	e1.4	e0.94	3.8
21	2.6	1.9	9.0	2.3	5.5	35	29	10	2.4	e1.5	0.93	2.6
22	2.4	2.0	8.1	2.1	4.1	20	22	8.4	2.2	e1.4	0.93	1.4
23	9.3	1.8	18	3.5	3.7	15	11	7.7	2.3	e1.4	0.94	1.2
24	44	6.4	9.1	138	3.5	12	18	6.7	1.9	e1.3	0.97	1.1
25	15	2.6	7.3	24	3.3	20	15	6.4	1.8	e1.2	0.97	1.1
26	6.0	1.8	6.3	14	4.3	139	9.7	5.8	2.4	e1.3	1.1	14
27	4.3	34	5.6	10	3.3	34	41	5.3	2.2	e1.2	1.0	113
28	3.5	33	5.0	8.4	3.0	22	112	6.4	2.5	e1.2	0.94	7.4
29	3.0	102	4.3	7.1	---	27	29	28	1.8	e1.1	0.93	4.5
30	2.7	47	3.8	73	---	20	19	7.4	1.7	e1.2	0.91	3.3
31	2.5	---	3.5	30	---	15	---	5.1	---	e1.3	0.91	---
TOTAL	227.56	276.5	380.4	362.1	209.5	639.5	485.7	603.6	181.2	41.0	33.51	178.89
MEAN	7.341	9.217	12.27	11.68	7.482	20.63	16.19	19.47	6.040	1.323	1.081	5.963
MAX	49	102	71	138	48	139	112	123	37	2.1	1.5	113
MIN	0.96	1.8	3.5	1.9	2.8	2.6	4.4	5.1	1.7	1.1	0.91	0.87
CFSM	2.10	2.63	3.51	3.34	2.14	5.89	4.63	5.56	1.73	0.38	0.31	1.70
IN.	2.42	2.94	4.04	3.85	2.23	6.80	5.16	6.42	1.93	0.44	0.36	1.90

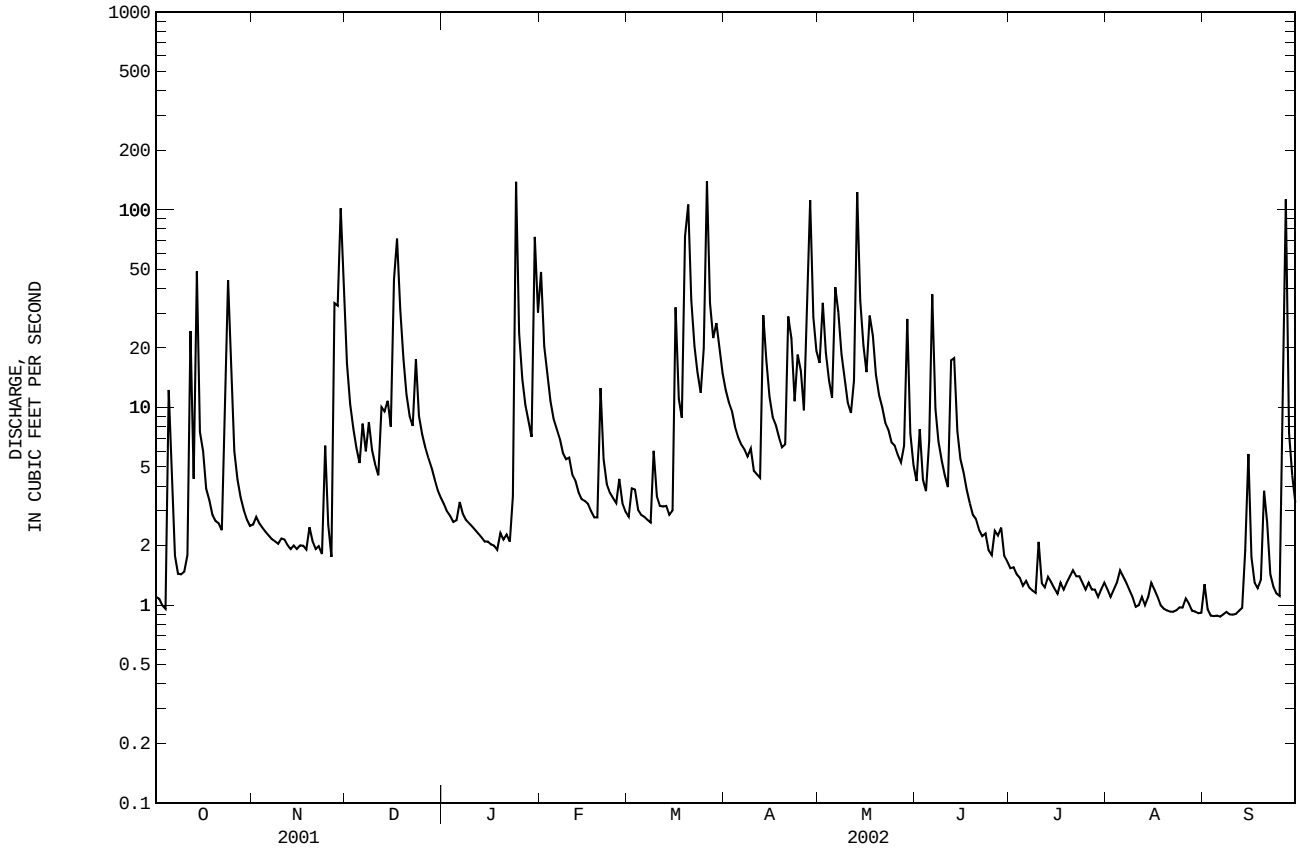
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2002, BY WATER YEAR (WY)

MEAN	2.837	3.820	6.458	8.517	8.210	10.04	8.499	7.563	5.308	2.564	1.706	2.604
MAX	7.34	9.22	12.3	11.7	13.6	20.6	16.2	19.5	8.09	5.49	2.86	5.96
(WY)	2002	2002	2002	2002	2000	2002	2002	2002	1998	1998	1998	2002
MIN	1.18	1.74	3.37	1.48	4.92	3.26	2.32	2.31	1.77	1.32	0.75	0.80
(WY)	1998	2000	1999	2001	2001	2001	2001	2000	2001	2002	1999	1999

03301900 FERN CREEK AT OLD BARDSTOWN ROAD AT LOUISVILLE, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1998 - 2002	
ANNUAL TOTAL	1579.89		3619.46			
ANNUAL MEAN	4.328		9.916		5.665	
HIGHEST ANNUAL MEAN					9.92	2002
LOWEST ANNUAL MEAN					2.86	2001
HIGHEST DAILY MEAN	102	Nov 29	139	Mar 26	163	Feb 18 2000
LOWEST DAILY MEAN	0.74	Jul 15	0.87	Sep 6	0.40	Oct 6 1997
ANNUAL SEVEN-DAY MINIMUM	0.80	Jul 10	0.89	Sep 3	0.61	Oct 3 1997
MAXIMUM PEAK FLOW			435	Jan 24	933	Jun 28 2000
MAXIMUM PEAK STAGE			3.12	Jan 24	4.16	Jun 28 2000
ANNUAL RUNOFF (CFSM)	1.24		2.83		1.62	
ANNUAL RUNOFF (INCHES)	16.79		38.47		21.99	
10 PERCENT EXCEEDS	8.0		23		12	
50 PERCENT EXCEEDS	2.0		3.4		2.5	
90 PERCENT EXCEEDS	0.98		1.1		0.98	

e Estimated



03301940 NORTHERN DITCH AT OKOLONA, KY

LOCATION.--Lat 38°09'01", long 85°41'37", Jefferson County, Hydrologic Unit 05140102, at bridge on Preston Highway, 0.1 mi above Spring Ditch, and at mile 5.1.

DRAINAGE AREA.--11.1 mi^2.

PERIOD OF RECORD.--July 1992 to October 1995, September 1997 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 447.32 ft above NGVD of 1929.

REMARKS.--Records good.

COOPERATION.--Louisville and Jefferson County Metropolitan Sewer District.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 24	0455	920	9.55	Sep 27	0545	*1,100	*10.54
Mar 26	0520	827	9.01				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	5.9	39	e7.1	64	8.2	36	36	23	3.4	1.5	0.84
2	e1.1	5.9	28	e6.7	28	10	35	55	31	3.2	1.5	1.2
3	e1.0	5.4	23	e6.5	23	7.4	34	40	28	3.0	1.5	1.0
4	e0.96	5.1	19	e6.2	19	7.9	32	34	23	3.2	1.8	0.83
5	20	5.0	15	e6.0	16	7.6	31	32	26	2.2	1.9	0.74
6	22	4.8	21	8.5	15	7.6	31	92	90	2.4	1.8	0.69
7	3.3	4.9	20	9.0	14	7.4	30	55	34	2.4	1.7	0.66
8	2.3	4.6	24	7.6	11	7.2	30	40	29	2.1	1.6	0.67
9	1.9	4.3	20	e6.8	9.1	13	30	35	26	2.0	1.3	0.67
10	1.7	4.3	16	e6.4	11	9.6	27	31	24	3.6	0.95	0.74
11	1.5	4.3	13	e6.0	10	8.2	27	30	23	2.4	0.97	0.66
12	69	4.0	20	e5.8	10	8.1	27	30	31	2.1	1.3	0.63
13	13	4.0	33	e5.6	8.7	8.0	60	293	47	2.0	1.2	0.71
14	128	3.8	32	e5.4	8.5	7.5	45	66	12	2.2	1.2	1.6
15	27	3.7	24	e5.2	8.5	7.5	37	44	9.3	2.0	1.7	15
16	20	3.8	90	e5.0	8.3	42	34	37	8.2	2.0	1.4	4.4
17	11	4.0	127	5.3	8.0	22	32	53	7.3	2.1	1.4	2.7
18	8.4	3.5	59	5.1	7.5	20	31	50	5.8	1.9	1.3	2.5
19	6.9	4.1	37	5.8	9.8	99	29	37	5.2	1.9	1.2	2.0
20	5.8	4.9	28	5.9	16	151	29	33	5.2	2.0	1.2	5.4
21	5.4	4.3	23	6.1	11	45	45	32	4.9	2.1	1.1	10
22	5.0	3.9	21	6.1	9.4	29	51	30	4.5	1.9	0.98	3.3
23	7.4	3.8	37	7.7	8.4	23	33	29	4.3	1.8	0.89	2.5
24	81	12	24	286	8.4	20	37	28	7.3	1.8	0.94	2.0
25	54	11	e18	43	11	24	44	27	4.5	1.7	0.93	1.8
26	21	5.6	e15	32	11	275	32	27	4.2	1.7	1.00	29
27	14	78	e12	27	5.9	55	66	25	4.5	1.6	1.3	452
28	9.5	65	e10	24	7.2	44	205	25	5.0	1.6	1.2	28
29	8.6	217	e9.0	20	---	48	50	40	3.8	1.6	1.0	15
30	7.4	97	e8.2	84	---	44	40	29	3.7	1.7	0.93	9.0
31	6.6	---	e7.6	39	---	39	---	24	---	1.8	0.83	---
TOTAL	566.06	587.9	872.8	700.8	377.7	1105.2	1270	1439	534.7	67.4	39.52	596.24
MEAN	18.26	19.60	28.15	22.61	13.49	35.65	42.33	46.42	17.82	2.174	1.275	19.87
MAX	128	217	127	286	64	275	205	293	90	3.6	1.9	452
MIN	0.96	3.5	7.6	5.0	5.9	7.2	27	24	3.7	1.6	0.83	0.63

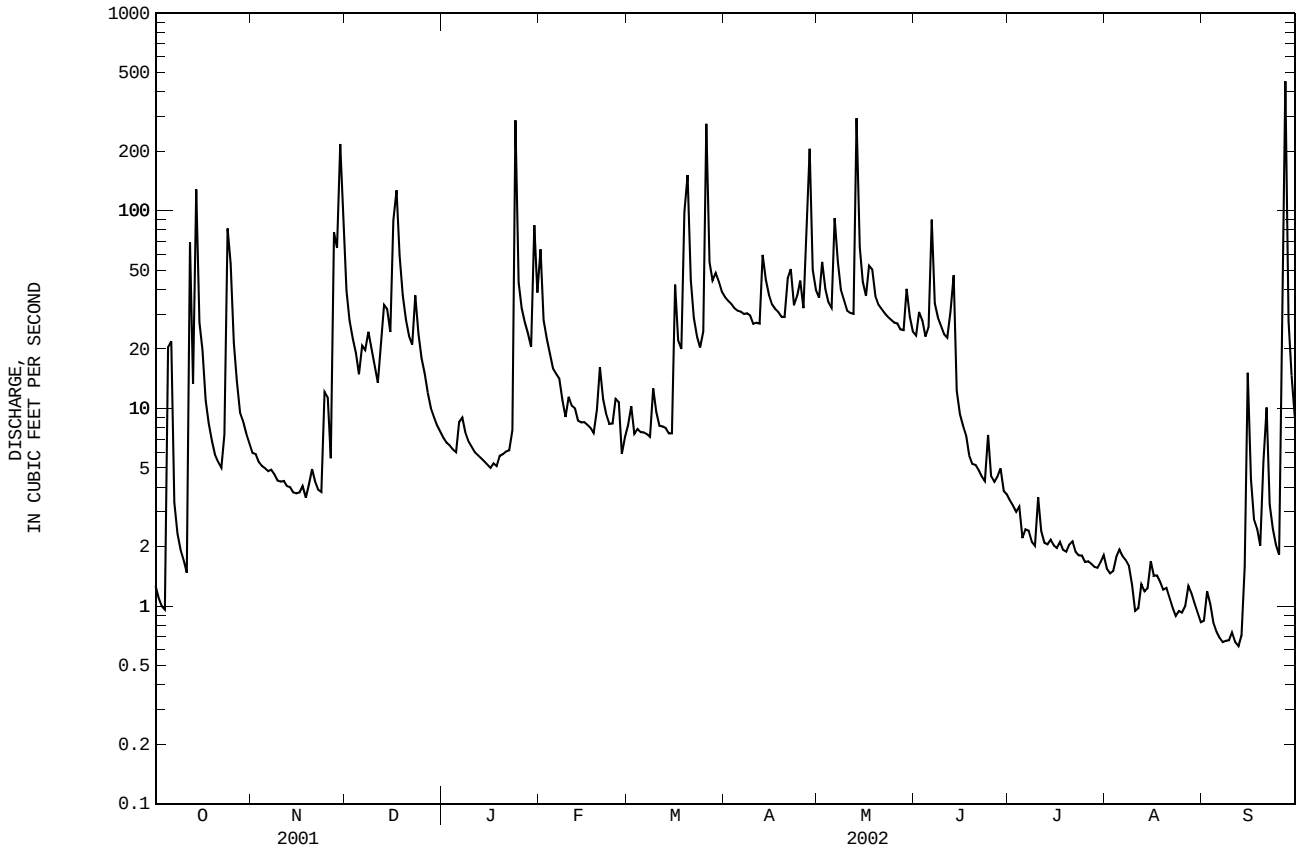
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2002, BY WATER YEAR (WY)

MEAN	6.052	7.651	16.03	23.27	21.68	18.86	19.47	25.25	15.74	7.234	5.845	6.954
MAX	18.3	19.6	28.2	35.8	31.2	35.7	42.3	58.8	30.2	18.9	17.3	19.9
(WY)	2002	2002	2002	2000	1998	2002	2002	1995	1999	1998	1995	2002
MIN	2.47	3.20	6.39	6.50	12.6	11.1	5.34	4.49	4.08	2.17	0.70	0.61
(WY)	1998	2000	1999	2001	1999	1999	2001	2000	2001	2002	1999	1999

03301940 NORTHERN DITCH AT OKOLONA, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1992 - 2002	
ANNUAL TOTAL	4179.66		8157.32			
ANNUAL MEAN	11.45		22.35		14.39	
HIGHEST ANNUAL MEAN					22.3	2002
LOWEST ANNUAL MEAN					8.31	2001
HIGHEST DAILY MEAN	217	Nov 29	452	Sep 27	608	May 18 1995
LOWEST DAILY MEAN	0.96	Oct 4	0.63	Sep 12	0.00	Sep 12 1997
ANNUAL SEVEN-DAY MINIMUM	1.2	Sep 28	0.67	Sep 6	0.00	Sep 12 1997
MAXIMUM PEAK FLOW			1100	Sep 27	1590	Jun 28 1999
MAXIMUM PEAK STAGE			10.54	Sep 27	13.19	Jun 28 1999
10 PERCENT EXCEEDS	24		45		30	
50 PERCENT EXCEEDS	5.1		8.4		6.5	
90 PERCENT EXCEEDS	1.8		1.3		1.7	

e Estimated



03302000 POND CREEK NEAR LOUISVILLE, KY

LOCATION.--Lat 38°07'11", long 85°47'45", Jefferson County, Hydrologic Unit 05140102, on upstream side of bridge on Manslick Rd, right bank, 0.4 mi south of Third Street Rd, 0.6 mi downstream from Bee Lick Creek, 1.5 mi downstream from confluence of Northern and Southern Ditches, 2.4 mi south of Louisville city limits, and at mile 15.4.

DRAINAGE AREA.--64.0 mi^2.

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

REVISED RECORDS.--WSP 1705: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 430.38 ft above NGVD of 1929. See WDR KY-90-1 for history of changes prior to Nov. 16, 1962.

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

COOPERATION.--Louisville and Jefferson County Metropolitan Sewer District.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in January 1937 reached a stage of about 23 ft present datum, backwater from Ohio River, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 14	0010	1,480	12.41	Mar 20	0835	2,350	15.66
Nov 28	2120	2,670	16.63	Mar 26	0615	3,740	19.28
Dec 16	1755	1,640	13.07	Apr 22	0055	1,310	11.69
Dec 17	1300	1,720	13.39	Apr 28	0755	2,770	16.92
Jan 24	0655	*3,810	*19.42	May 6	2100	1,500	12.50
Jan 30	1515	1,510	12.54	May 13	1530	2,760	16.88
Feb 1	0610	1,340	11.82	Sep 27	0745	3,690	19.18

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	15	145	e28	665	23	99	137	23	9.8	5.4	5.4
2	7.9	18	102	e26	186	37	85	367	22	9.4	5.2	7.1
3	6.5	15	88	e23	125	61	85	182	52	8.8	5.4	6.5
4	5.6	13	74	e22	97	28	66	104	30	13	5.4	5.9
5	217	13	61	e21	79	25	53	77	41	12	5.0	6.8
6	50	12	147	48	68	28	44	406	476	9.4	4.9	6.3
7	17	12	110	54	63	25	37	470	115	6.9	5.6	6.1
8	12	12	129	39	52	24	32	170	59	6.5	12	7.1
9	11	12	73	39	40	93	66	113	39	6.5	13	7.0
10	11	12	64	42	52	60	31	80	27	35	14	6.0
11	216	12	58	42	42	34	28	57	21	14	6.9	5.1
12	264	13	133	35	38	34	34	47	171	11	7.9	5.3
13	326	12	273	30	34	33	554	2230	207	12	13	5.9
14	542	12	208	24	29	28	451	814	67	11	17	7.7
15	101	11	112	26	29	29	185	236	37	7.4	25	181
16	70	12	612	26	26	351	101	136	28	7.0	9.5	85
17	41	13	1080	25	23	204	77	320	21	8.2	7.7	25
18	29	12	387	26	21	137	63	364	17	12	6.9	17
19	21	24	167	33	25	1130	53	127	14	9.2	7.1	11
20	18	16	110	30	121	1630	51	94	14	18	12	17
21	15	14	90	31	80	388	156	87	13	12	12	78
22	14	13	76	28	46	187	498	84	17	8.2	11	20
23	110	13	196	29	32	127	103	58	14	8.6	9.6	12
24	452	92	95	2210	25	98	138	57	27	13	10	10
25	109	24	72	455	25	135	360	43	68	6.5	7.3	9.5
26	55	325	60	196	56	2300	97	47	20	6.0	6.5	77
27	37	293	53	125	27	463	487	35	19	6.3	7.1	2480
28	27	1180	e46	90	21	203	1760	39	25	7.5	6.1	476
29	21	1360	e41	74	---	310	384	56	22	9.3	5.8	150
30	19	317	e35	836	---	284	165	69	11	17	5.7	64
31	16	---	e31	308	---	131	---	28	---	6.3	5.5	---
TOTAL	2847.4	3902	4928	5021	2127	8640	6343	7134	1717	327.8	275.5	3800.7
MEAN	91.85	130.1	159.0	162.0	75.96	278.7	211.4	230.1	57.23	10.57	8.887	126.7
MAX	542	1360	1080	2210	665	2300	1760	2230	476	35	25	2480
MIN	5.6	11	31	21	21	23	28	28	11	6.0	4.9	5.1
CFSM	1.44	2.03	2.48	2.53	1.19	4.35	3.30	3.60	0.89	0.17	0.14	1.98
IN.	1.66	2.27	2.86	2.92	1.24	5.02	3.69	4.15	1.00	0.19	0.16	2.21

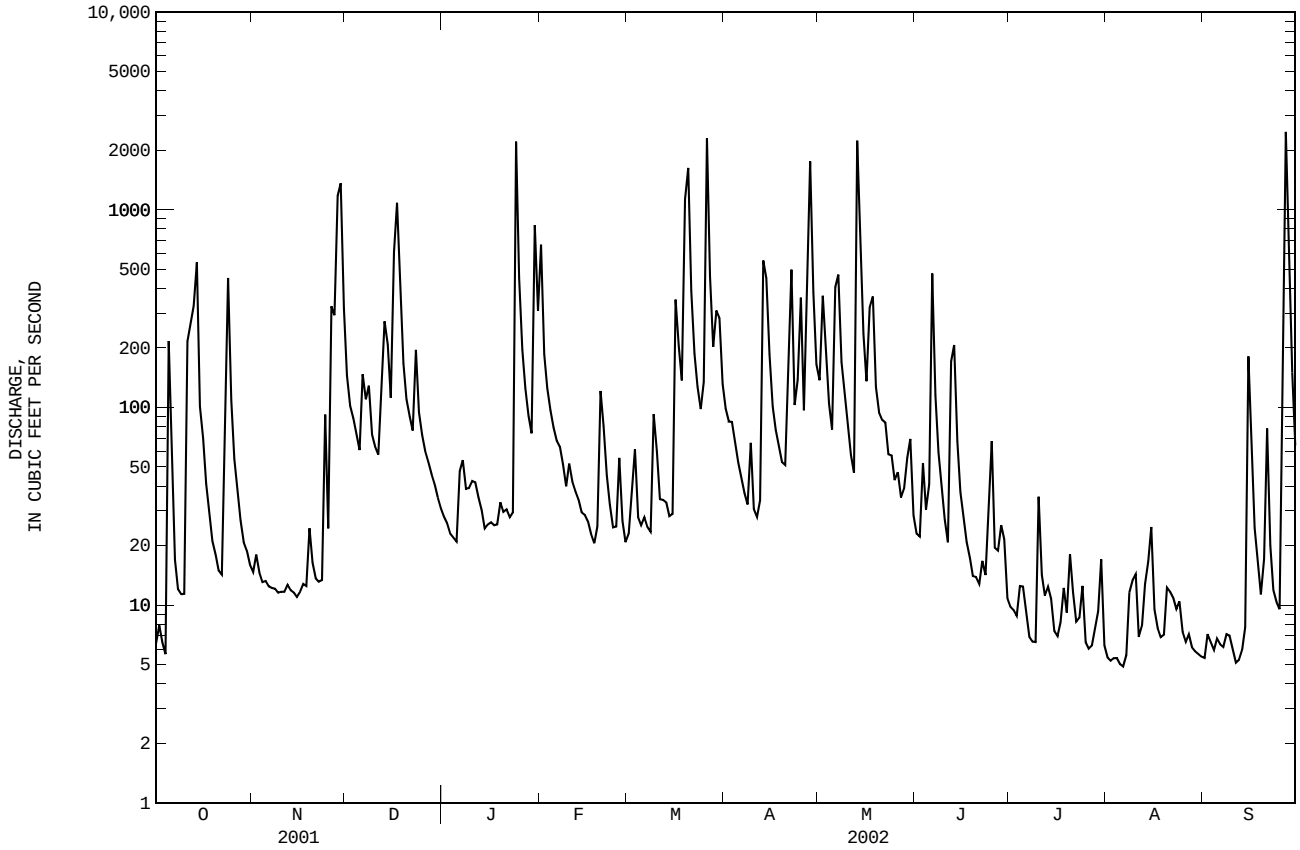
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	28.65	58.36	97.99	132.4	155.4	187.9	133.1	106.5	69.72	46.29	33.69	34.18
MAX	117	256	310	614	454	814	551	505	328	282	186	399
(WY)	1976	1974	1979	1950	1989	1997	1970	1983	1997	1973	1992	1979
MIN	1.76	2.60	4.48	8.52	10.1	11.4	21.2	10.6	4.54	2.96	0.78	1.15
(WY)	1947	1945	1954	1977	1954	1954	2001	1954	1954	1952	1945	1945

03302000 POND CREEK NEAR LOUISVILLE, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1944 - 2002	
ANNUAL TOTAL	23357.3		47063.4			
ANNUAL MEAN	63.99		128.9		90.37	
HIGHEST ANNUAL MEAN					159	1950
LOWEST ANNUAL MEAN					11.4	1954
HIGHEST DAILY MEAN	1360	Nov 29	2480	Sep 27	7200	Mar 2 1997
LOWEST DAILY MEAN	1.5	Jul 17	4.9	Aug 6	0.10	Sep 3 1945
ANNUAL SEVEN-DAY MINIMUM	3.6	Jul 11	5.3	Aug 1	0.19	Sep 17 1945
MAXIMUM PEAK FLOW			3810	Jan 24	8020	Mar 9 1964
MAXIMUM PEAK STAGE			19.42	Jan 24	25.74	Mar 2 1997
INSTANTANEOUS LOW FLOW					0.10	Sep 3 1945
ANNUAL RUNOFF (CFSM)	1.000		2.01		1.41	
ANNUAL RUNOFF (INCHES)	13.58		27.36		19.19	
10 PERCENT EXCEEDS	127		318		189	
50 PERCENT EXCEEDS	20		33		26	
90 PERCENT EXCEEDS	6.5		7.1		5.9	

e Estimated



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 near Louisville, 1.3 mi above Brier Creek and at mile 7.1.

DRAINAGE AREA.--80.3 mi^2.

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

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

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

COOPERATION.--Louisville and Jefferson County Metropolitan Sewer District.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 26	1155	*4,250	*19.82	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.3	18	210	e34	997	39	127	224	28	12	7.0	e8.0
2	e9.6	16	122	e31	203	42	111	541	26	11	6.2	e6.6
3	e12	19	99	e28	137	80	105	313	47	10	6.4	e7.6
4	8.0	16	86	e26	112	46	90	121	33	12	6.8	e7.0
5	31	15	73	e25	97	39	78	93	27	14	6.5	e6.8
6	225	16	102	42	86	42	69	294	542	12	6.0	e7.6
7	29	e15	119	60	83	40	61	739	145	8.1	4.9	e7.4
8	15	e15	144	43	73	37	56	183	72	7.8	9.6	e6.8
9	12	e15	102	40	62	79	87	154	50	8.5	18	e6.0
10	13	e14	77	43	69	93	57	116	35	32	23	e6.4
11	19	e14	70	43	64	56	48	75	28	22	16	e7.6
12	561	e14	87	38	56	52	51	62	68	15	11	26
13	90	e15	385	35	52	51	677	2790	223	15	14	23
14	1090	e14	213	27	45	45	619	1420	88	16	24	26
15	173	e14	130	26	43	43	240	256	47	10	35	145
16	90	e13	730	27	43	422	127	145	35	9.4	20	126
17	52	e14	1850	25	40	228	100	261	27	8.8	12	45
18	35	e15	607	24	33	162	85	518	21	14	e8.0	35
19	25	e14	171	31	36	1560	72	162	19	13	e8.2	28
20	20	e32	115	35	103	2680	67	205	17	12	e14	25
21	18	e20	91	32	114	e1000	91	252	16	20	e13	84
22	16	e16	79	34	68	e500	802	145	18	11	e12	40
23	17	e15	180	32	53	e200	125	73	18	9.7	e11	27
24	248	e36	101	2830	42	e150	103	66	13	14	e12	22
25	499	105	78	690	39	e200	496	54	70	12	e10	22
26	80	52	67	207	68	3690	119	53	24	7.2	e8.0	30
27	49	801	e58	140	51	1090	525	41	21	7.7	e9.6	2920
28	36	391	e52	109	37	276	2710	39	27	8.0	e7.6	704
29	28	2570	e46	94	---	367	495	50	26	12	e6.8	162
30	23	1340	e42	1150	---	501	213	80	14	20	e6.6	102
31	20	---	e38	459	---	165	---	35	---	13	e6.4	---
TOTAL	3550.9	5664	6324	6460	2906	13975	8606	9560	1825	397.2	359.6	4669.8
MEAN	114.5	188.8	204.0	208.4	103.8	450.8	286.9	308.4	60.83	12.81	11.60	155.7
MAX	1090	2570	1850	2830	997	3690	2710	2790	542	32	35	2920
MIN	7.3	13	38	24	33	37	48	35	13	7.2	4.9	6.0

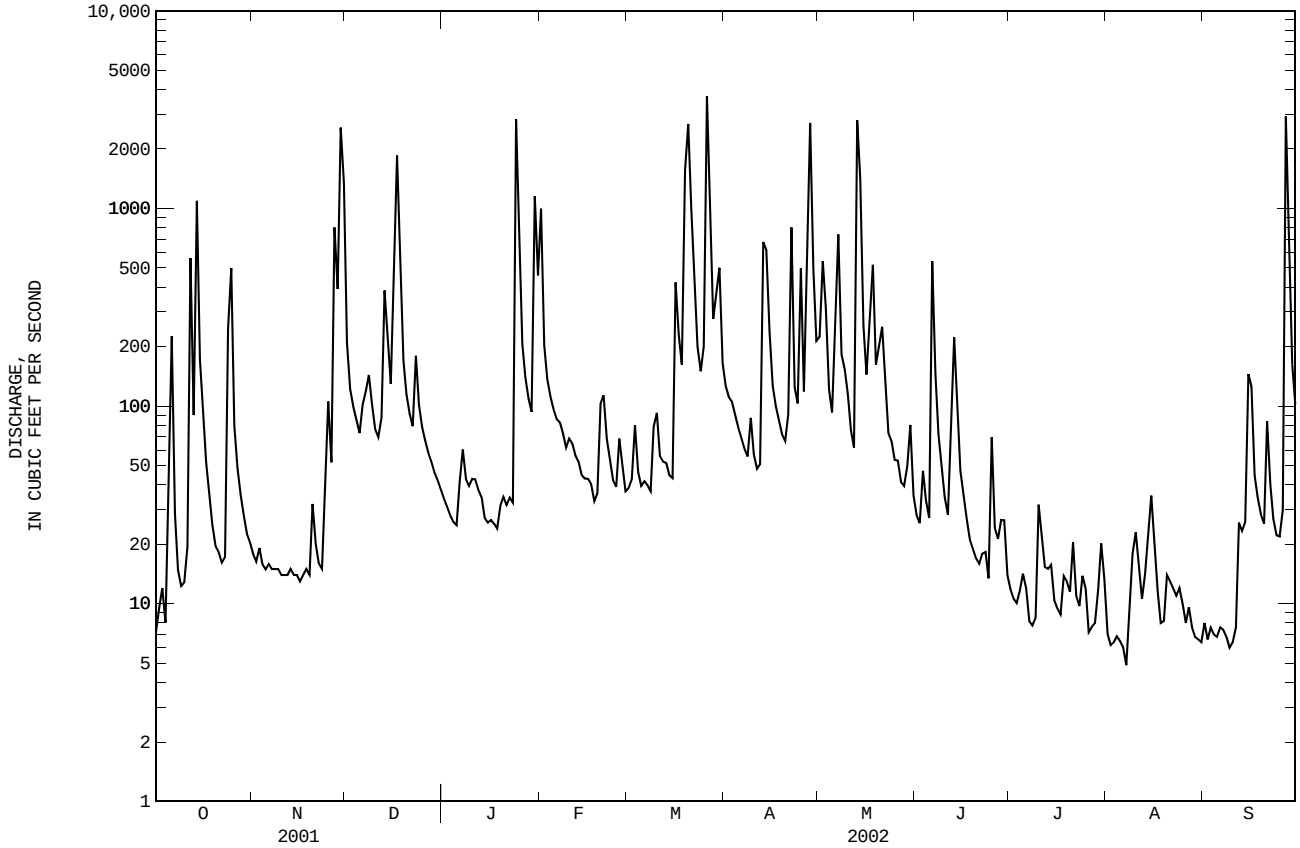
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	57.17	86.49	148.8	265.5	168.2	213.1	124.6	124.6	80.42	30.25	16.89	71.86
MAX	115	189	204	440	285	451	287	308	187	44.0	26.1	156
(WY)	2002	2002	2002	1999	2000	2002	2002	2002	1999	1999	2000	2002
MIN	26.9	21.3	100	44.0	104	84.8	33.0	23.4	22.0	12.8	11.6	23.8
(WY)	2001	2000	2000	2001	2002	2001	2001	2000	2001	2002	2002	1999

03302030 POND CREEK AT PENDELTON ROAD NEAR LOUISVILLE, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL TOTAL	31056.2		64297.5			
ANNUAL MEAN	85.09		176.2		113.7	
HIGHEST ANNUAL MEAN					176	2002
LOWEST ANNUAL MEAN					60.9	2001
HIGHEST DAILY MEAN	2570	Nov 29	3690	Mar 26	6220	Jan 4 2000
LOWEST DAILY MEAN	1.7	Jul 17	4.9	Aug 7	1.7	Jul 17 2001
ANNUAL SEVEN-DAY MINIMUM	4.1	Jul 11	6.3	Aug 1	4.1	Jul 11 2001
MAXIMUM PEAK FLOW			4250	Mar 26	10500	Jan 4 2000
MAXIMUM PEAK STAGE			19.82	Mar 26	19.82	Mar 26 2002
10 PERCENT EXCEEDS	126		437		172	
50 PERCENT EXCEEDS	32		42		30	
90 PERCENT EXCEEDS	7.4		9.6		8.7	

e Estimated



03302050 BRIER CREEK AT PENDLETON ROAD NEAR LOUISVILLE, KY

LOCATION.--Lat 38°02'52", long 85°51'26", Jefferson County, Hydrologic Unit 05140102, at bridge on Pendleton Road, 0.4 mi below Headley Hollow, 10 miles south of Louisville, and at mile 1.64

DRAINAGE AREA.--4.01 mi^2.

PERIOD OF RECORD.--January 1999 to current year.

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

REMARKS.--Records fair except those estimated and those above 500 ft^3/s, which are poor.

COOPERATION.--Louisville and Jefferson County Metropolitan Sewer District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

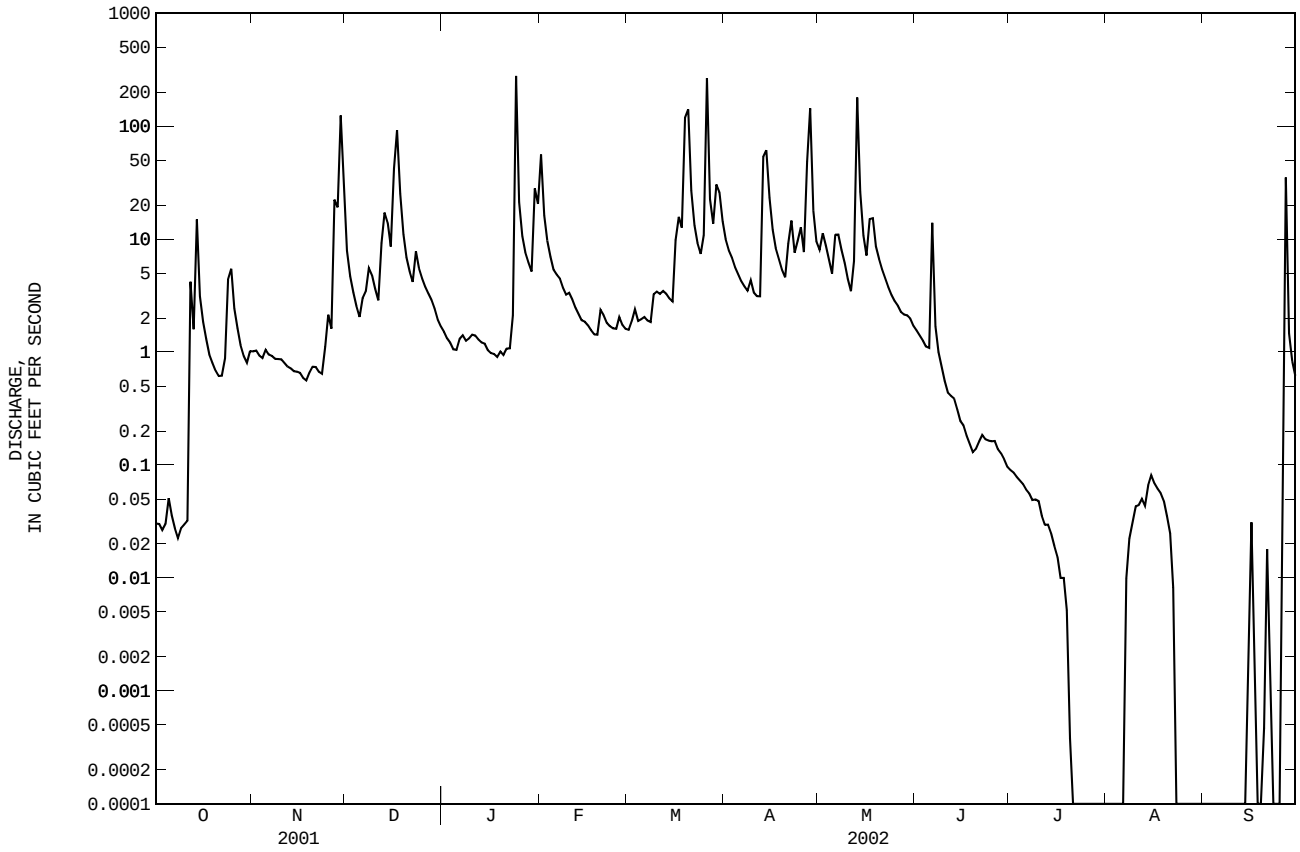
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.03	1.0	7.9	1.5	56	1.6	10	8.1	1.6	0.09	0.00	0.00
2	0.03	1.0	4.7	1.3	16	1.9	7.9	11	1.4	0.09	0.00	0.00
3	0.03	0.93	3.4	1.2	9.7	2.4	6.9	8.8	1.3	0.08	0.00	0.00
4	0.03	0.88	2.6	1.1	7.0	1.9	5.6	6.6	1.1	0.07	0.00	0.00
5	0.05	1.0	2.0	1.0	5.4	2.0	4.9	4.9	1.1	0.07	0.00	0.00
6	0.04	0.95	3.0	1.3	4.8	2.0	4.2	11	14	0.06	0.00	0.00
7	0.03	0.92	3.5	1.4	4.5	1.9	3.8	11	1.7	0.06	0.00	0.00
8	0.02	0.87	5.5	1.3	3.7	1.8	3.5	8.0	1.0	0.05	0.02	0.00
9	0.03	0.87	4.8	1.3	3.2	3.2	4.3	6.1	0.74	0.05	0.03	0.00
10	0.03	0.86	3.6	1.4	3.3	3.4	3.4	4.5	0.55	0.05	0.04	0.00
11	0.03	0.80	2.9	1.4	2.9	3.3	3.1	3.5	0.44	0.04	0.04	0.00
12	4.2	0.74	9.2	1.3	2.5	3.5	3.1	6.4	0.41	0.03	0.05	0.00
13	1.6	0.72	17	1.2	2.2	3.3	53	179	0.39	0.03	0.04	0.00
14	15	0.68	14	1.2	1.9	3.0	61	26	0.31	0.02	0.07	0.00
15	3.1	0.67	8.6	1.0	1.9	2.8	23	11	0.24	0.02	0.08	0.00
16	1.8	0.65	42	0.98	1.7	9.8	12	7.1	0.22	0.02	0.07	0.03
17	1.3	0.59	92	0.96	1.6	16	8.3	15	0.18	0.01	0.06	0.00
18	0.95	0.56	25	0.90	1.4	13	6.6	15	0.15	0.01	0.06	0.00
19	0.81	0.66	11	1.0	1.4	118	5.4	8.6	0.13	0.00	0.05	0.00
20	0.68	0.74	6.9	0.94	2.4	141	4.6	6.7	0.14	0.00	0.04	0.00
21	0.61	0.74	5.2	1.1	2.1	27	9.1	5.4	0.16	0.00	0.02	0.02
22	0.62	0.67	4.2	1.1	1.8	13	15	4.5	0.18	0.00	0.00	0.00
23	0.88	0.64	7.8	2.1	1.7	9.2	7.6	3.7	0.17	0.00	0.00	0.00
24	4.4	1.1	5.5	278	1.6	7.4	9.6	3.2	0.16	0.00	0.00	0.00
25	5.5	2.1	4.5	21	1.6	11	13	2.8	0.16	0.00	0.00	0.00
26	2.4	1.6	3.8	11	2.0	265	7.7	2.6	0.16	0.00	0.00	0.17
27	1.6	22	3.3	7.6	1.7	23	49	2.3	0.14	0.00	0.00	35
28	1.2	19	2.9	6.2	1.6	14	144	2.1	0.13	0.00	0.00	1.5
29	0.92	124	2.4	5.2	---	30	18	2.1	0.11	0.00	0.00	0.83
30	0.80	34	1.9	28	---	26	9.6	2.0	0.10	0.00	0.00	0.62
31	1.0	---	1.7	21	---	14	---	1.7	---	0.00	0.00	---
TOTAL	49.72	221.94	312.8	405.98	147.6	775.4	517.2	390.7	28.57	0.85	0.67	38.17
MEAN	1.604	7.398	10.09	13.10	5.271	25.01	17.24	12.60	0.952	0.027	0.022	1.272
MAX	15	124	92	278	56	265	144	179	14	0.09	0.08	35
MIN	0.02	0.56	1.7	0.90	1.4	1.6	3.1	1.7	0.10	0.00	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	0.612	2.638	4.742	12.26	12.53	12.38	7.546	4.754	1.715	0.146	0.064	0.483
MAX	1.60	7.40	10.1	23.2	30.7	25.0	17.2	12.6	4.95	0.38	0.11	1.27
(WY)	2002	2002	2002	2000	2000	2002	2002	2002	1999	1999	2001	2002
MIN	0.000	0.000	0.68	1.32	5.27	4.19	1.91	1.42	0.26	0.027	0.022	0.000
(WY)	2000	2000	2000	2001	2002	2001	2001	2000	2001	2002	2002	1999

03302050 BRIER CREEK AT PENDLETON ROAD NEAR LOUISVILLE, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL TOTAL	1097.95		2889.60			
ANNUAL MEAN	3.008		7.917		5.279	
HIGHEST ANNUAL MEAN					7.92	2002
LOWEST ANNUAL MEAN					1.76	2001
HIGHEST DAILY MEAN	124	Nov 29	278	Jan 24	685	Feb 18 2000
LOWEST DAILY MEAN	0.02	Oct 8	0.00	Jul 19	0.00	Aug 21 1999
ANNUAL SEVEN-DAY MINIMUM	0.03	Oct 2	0.00	Jul 19	0.00	Aug 21 1999
MAXIMUM PEAK FLOW			1780	Jan 24	2410	Jun 28 1999
MAXIMUM PEAK STAGE			6.32	Jan 24	7.61	Feb 18 2000
10 PERCENT EXCEEDS	4.8		14		7.7	
50 PERCENT EXCEEDS	0.73		1.4		0.54	
90 PERCENT EXCEEDS	0.08		0.00		0.00	



03302110 OTTER CREEK AT OTTER CREEK PARK NEAR ROCK HAVEN, KY

LOCATION.--Lat 37°56'37", long 86°01'47", Meade County, Hydrologic Unit 05140104, at downstream side of bridge on Highway 1638, 1.4 mi east of Rock Haven, and at mile 3.3.

DRAINAGE AREA.--99.2 mi^2.

PERIOD OF RECORD.--January 1999 to current year.

GAGE.--Water-stage recorder.

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

COOPERATION.--Louisville and Jefferson County Metropolitan Sewer District.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 24	0855	5,180	7.81	Apr 28	0605	4,120	7.27
Mar 20	1015	5,660	8.03	May 7	0130	4,420	7.43
Mar 26	0615	*6,990	*8.63	May 13	1620	4,120	7.27

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e10	42	643	84	691	52	312	755	77	38	19	13
2	e11	41	394	76	386	54	219	1660	71	32	17	12
3	e9.0	41	284	71	291	67	190	1010	68	29	17	13
4	e8.0	37	209	68	226	58	155	569	64	28	16	12
5	e50	33	166	64	168	55	136	371	60	26	16	12
6	37	33	167	66	152	55	122	811	124	25	14	12
7	24	32	180	63	137	55	109	1710	82	23	15	12
8	17	30	265	58	117	54	101	711	63	23	15	13
9	15	30	236	58	103	67	99	451	57	23	14	13
10	15	28	180	59	98	71	85	306	54	41	15	13
11	16	29	147	58	87	64	79	243	52	31	15	13
12	335	28	187	56	82	66	209	207	81	26	15	13
13	118	25	724	54	74	66	679	2630	126	39	18	13
14	537	25	463	52	66	63	784	1280	70	42	25	14
15	209	27	335	49	65	62	928	652	57	31	24	26
16	108	26	785	48	63	414	436	426	53	26	20	21
17	74	25	1590	47	60	269	284	563	50	26	19	18
18	60	27	1010	46	56	199	238	620	47	26	19	17
19	53	26	542	48	55	980	187	364	46	23	21	17
20	46	30	335	47	73	2630	155	285	43	24	22	17
21	41	26	255	49	76	1170	159	235	42	24	17	30
22	39	26	207	54	64	648	247	195	41	24	13	25
23	37	24	339	79	60	456	144	172	41	31	14	19
24	199	40	261	2130	58	349	203	150	41	27	16	17
25	360	56	204	825	56	357	983	133	44	24	16	16
26	122	40	176	431	60	3590	305	120	46	21	16	28
27	76	713	152	292	57	1370	494	108	42	20	16	1260
28	60	490	134	227	54	805	2260	97	276	20	15	228
29	53	2000	117	184	---	665	928	96	98	21	14	91
30	47	1470	100	185	---	587	513	95	47	33	13	61
31	44	---	91	182	---	377	---	82	---	24	12	---
TOTAL	2830.0	5500	10878	5810	3535	15775	11743	17107	2063	851	518	2069
MEAN	91.29	183.3	350.9	187.4	126.2	508.9	391.4	551.8	68.77	27.45	16.71	68.97
MAX	537	2000	1590	2130	691	3590	2260	2630	276	42	25	1260
MIN	8.0	24	91	46	54	52	79	82	41	20	12	12

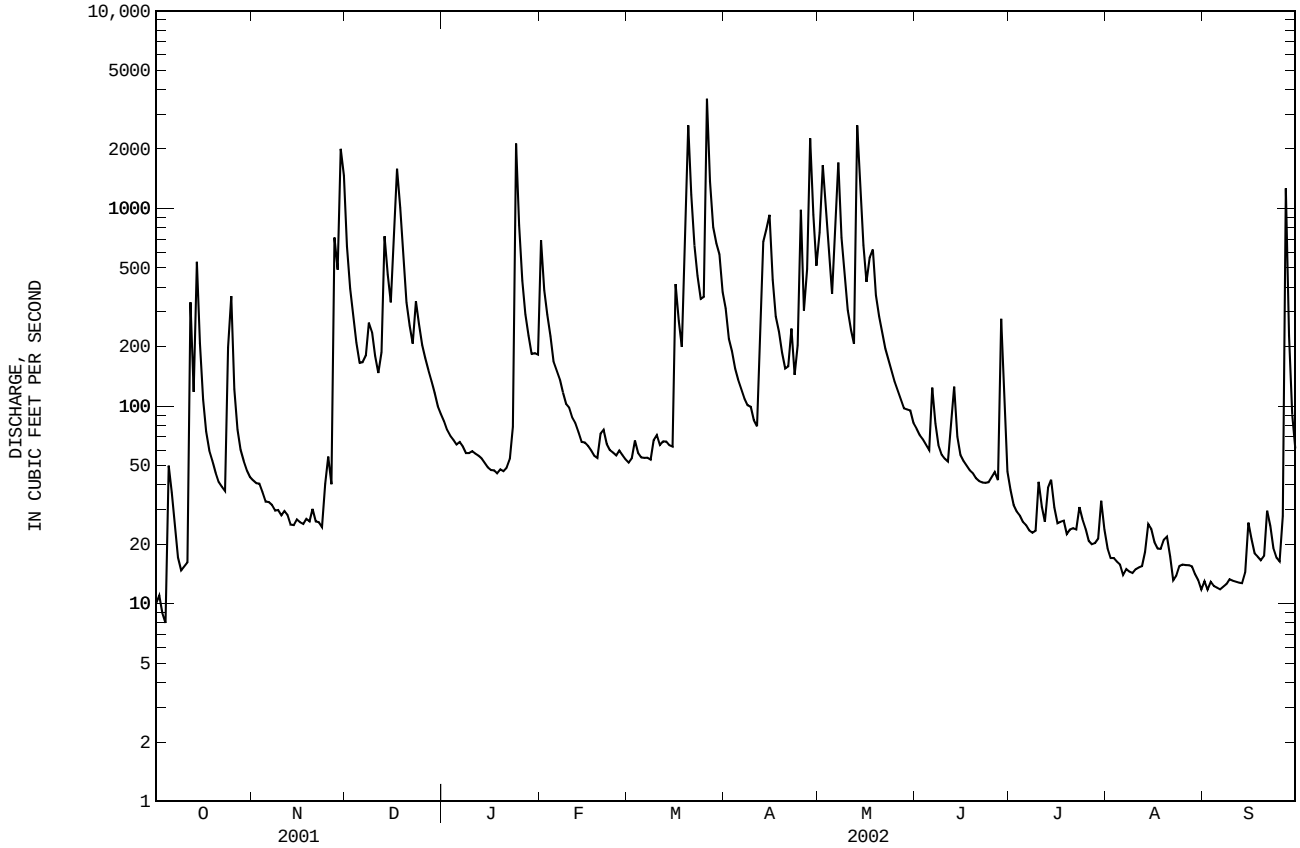
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	42.03	72.21	178.4	188.2	193.3	248.2	175.3	216.8	55.18	30.10	25.45	34.60
MAX	91.3	183	351	324	282	509	391	552	71.3	41.1	50.4	69.0
(WY)	2002	2002	2002	1999	2000	2002	2002	2002	2000	2000	2000	2002
MIN	15.5	11.9	58.6	33.4	126	130	45.6	46.7	36.1	21.5	10.9	5.82
(WY)	2001	2000	2000	2001	2002	2001	2001	2001	2001	1999	1999	1999

03302110 OTTER CREEK AT OTTER CREEK PARK NEAR ROCK HAVEN, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL TOTAL	36181.2		78679.0			
ANNUAL MEAN	99.13		215.6		123.3	
HIGHEST ANNUAL MEAN					216	2002
LOWEST ANNUAL MEAN					60.3	2001
HIGHEST DAILY MEAN	2000	Nov 29	3590	Mar 26	3590	Mar 26 2002
LOWEST DAILY MEAN	8.0	Oct 4	8.0	Oct 4	4.9	Sep 6 1999
ANNUAL SEVEN-DAY MINIMUM	10	Apr 29	12	Aug 31	5.4	Sep 10 1999
MAXIMUM PEAK FLOW			6990	Mar 26	8810	Jan 4 2000
MAXIMUM PEAK STAGE			8.63	Mar 26	8.63	Mar 26 2002
10 PERCENT EXCEEDS	232		600		262	
50 PERCENT EXCEEDS	35		60		36	
90 PERCENT EXCEEDS	15		16		13	

e Estimated



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 mi^2, approximately.

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorders with telemetry. 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 good except those below 20,000 ft^3/s, which are poor. Daily discharge computed from head, gate openings, and lockages. Flow regulated by Ohio River system of locks, dams, and reservoirs upstream from station.

COOPERATION.--U.S. Army Corps of Engineers, Louisville District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

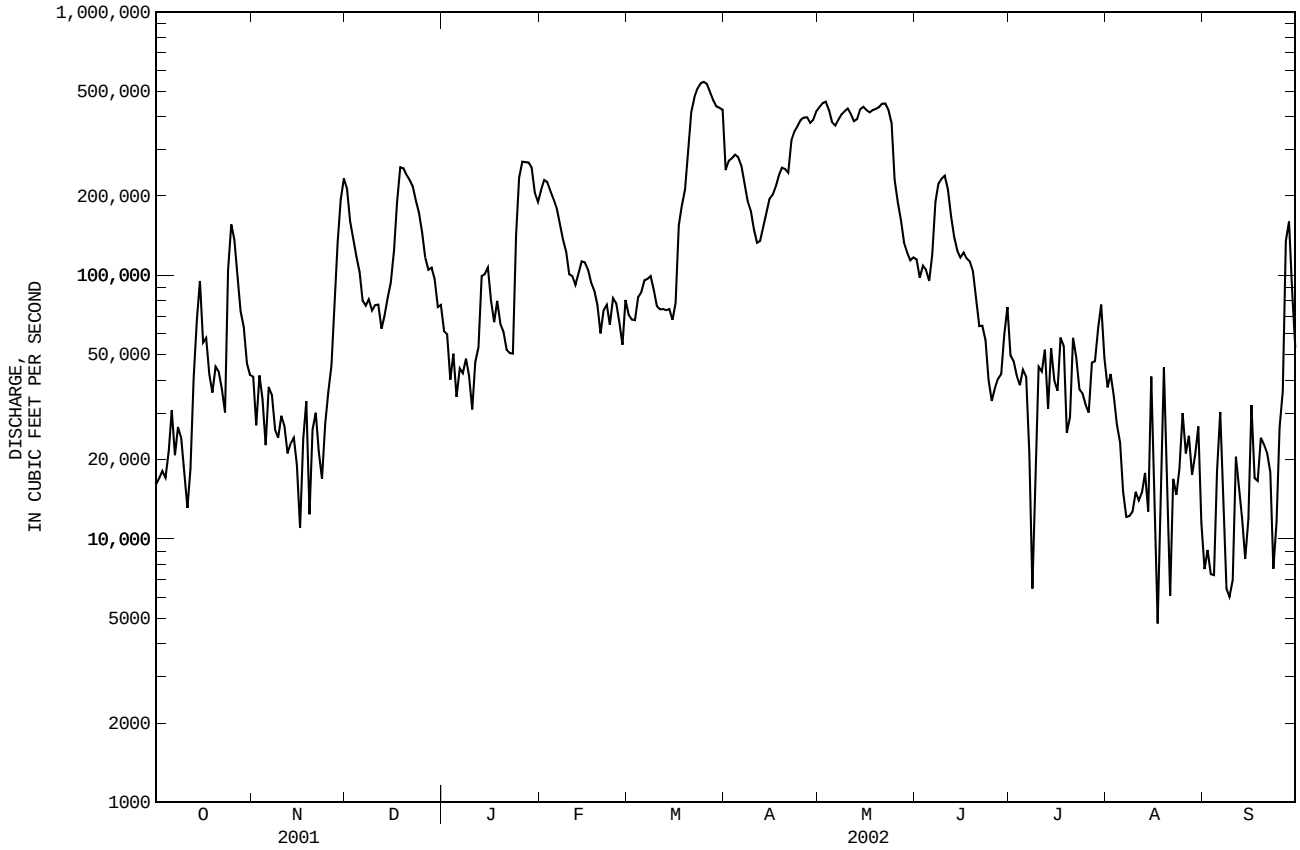
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16100	41300	214000	61400	210000	70800	251000	435000	115000	49800	37600	7680
2	17000	27000	160000	59800	230000	68000	272000	450000	97900	47200	42200	9070
3	18100	41700	136000	40200	226000	67600	278000	456000	109000	41700	34700	7350
4	17100	34000	118000	50400	209000	82700	287000	424000	105000	38300	27200	7290
5	21500	22700	103000	34600	195000	86100	281000	381000	95200	43900	23200	18100
6	30800	37700	80200	44400	180000	95700	261000	370000	120000	41300	15100	30300
7	20800	35200	76700	42600	157000	96800	223000	389000	190000	21000	12100	16300
8	26600	26000	81100	48300	137000	99300	192000	408000	223000	6480	12200	6490
9	24200	24200	73500	41600	123000	88400	176000	420000	233000	20500	12700	6040
10	17700	29300	77100	31000	101000	76500	150000	429000	239000	45000	15100	6980
11	13100	26900	77400	46900	99300	74400	133000	409000	212000	43200	14000	20500
12	18500	21100	62700	53300	92100	74500	135000	385000	167000	52200	15000	15600
13	41000	23000	70400	99400	102000	73800	153000	392000	140000	31200	17800	11900
14	67800	24200	82500	101000	113000	74500	173000	426000	124000	52900	12700	8400
15	95200	19100	93900	107000	112000	67800	195000	436000	117000	40000	41300	11900
16	55600	11000	124000	80500	105000	78500	202000	424000	122000	36500	14200	32200
17	57900	24100	189000	66400	94100	155000	217000	415000	116000	58100	4780	17000
18	42000	33300	257000	80000	87600	184000	240000	424000	113000	54000	12600	16600
19	35900	12400	255000	65500	77400	212000	256000	428000	104000	25300	44700	24200
20	45000	26000	241000	61200	60200	292000	253000	435000	80500	29000	22300	22800
21	43200	30100	230000	52200	73600	417000	245000	448000	64200	57900	6080	21200
22	37100	21400	218000	50700	77300	474000	325000	449000	64400	48900	16900	17900
23	30200	16900	192000	50500	64900	512000	353000	425000	56800	36900	14700	7710
24	105000	27300	173000	142000	81900	535000	369000	378000	40100	35700	18500	11600
25	156000	35900	145000	235000	78300	542000	389000	230000	33400	32300	30000	26500
26	137000	45400	117000	270000	66600	532000	397000	189000	37200	30200	21100	36400
27	98900	71300	105000	269000	54500	497000	398000	161000	40500	46600	24600	135000
28	73200	134000	107000	268000	80700	463000	379000	133000	42200	47200	17500	160000
29	63700	194000	96800	257000	---	438000	390000	122000	59400	63100	20800	85800
30	46300	233000	76000	206000	---	432000	419000	114000	75800	77500	26700	53300
31	41900	---	77200	190000	---	425000	---	117000	---	48700	11500	---
TOTAL	1514400	1349500	4109500	3205900	3288500	7385400	7992000	11102000	3336600	1302580	639860	852110
MEAN	48850	44980	132600	103400	117400	238200	266400	358100	111200	42020	20640	28400
MAX	156000	233000	257000	270000	230000	542000	419000	456000	239000	77500	44700	160000
MIN	13100	11000	62700	31000	54500	67600	133000	114000	33400	6480	4780	6040

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 2002, BY WATER YEAR (WY)

MEAN	55540	87510	151800	162500	202500	234100	203300	166200	105400	66540	52550	41900
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

03303280 OHIO RIVER AT CANNELTON DAM, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1976 - 2002	
ANNUAL TOTAL	36176700		46078350			
ANNUAL MEAN	99110		126200		127100	
HIGHEST ANNUAL MEAN					188900	1979
LOWEST ANNUAL MEAN					72150	1988
HIGHEST DAILY MEAN	407000	Feb 21	542000	Mar 25	735000	Mar 8 1997
LOWEST DAILY MEAN	11000	Nov 16	4780	Aug 17	3180	Aug 28 1995
ANNUAL SEVEN-DAY MINIMUM	20200	Oct 1	10800	Sep 8	7650	Jul 12 1988
MAXIMUM PEAK FLOW			544000	Mar 25	736000	Mar 8 1997
MAXIMUM PEAK STAGE			43.25	Mar 25	52.42	Mar 8 1997
10 PERCENT EXCEEDS	204000		387000		282000	
50 PERCENT EXCEEDS	73200		74500		89700	
90 PERCENT EXCEEDS	26000		17000		22600	



03303280 OHIO RIVER AT CANNELTON DAM, KY--Continued

(National stream-quality accounting network station)

WATER-QUALITY RECORDS

LOCATION.--Samples are collected 2.0 mi^2 upstream from discharge station.

PERIOD OF RECORD.--Water years 1975 to 1986 and 1996 to current water year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE.--ctober 1974 to September 1986 (discontinued).
WATER TEMPERATURES.--October 1974 to September 1986 (discontinued).

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

COOPERATION.--Records of conductance and temperature collected on right bank at Cannelton Dam and furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE.--Maximum daily recorded, 691 microsiemens, Nov. 14, 1978; minimum daily recorded, 176 microsiemens, Dec. 15, 1978.
WATER TEMPERATURES.--Maximum daily recorded, 30.0°C, July 23, 24, 1977, Aug. 5, 1982, several days in July and August, 1983; minimum daily recorded, 0.0°C, on several days during most winter months.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	TIME	SAMPLE TYPE	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TURBID-ITY LAB HACH 2100AN (NTU) (99872)	UV ABSORB-ANCE 254 NM, WTR FLT (UNITS /CM) (50624)	UV ABSORB-ANCE 254 NM, WRT FLT (UNITS) /CM) (61726)	OXYGEN DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3 (00900)
NOV												
14...	1230	ENVIRONMENTAL	24300	21	.173	.131	7.3	72	7.4	341	14.1	160
DEC												
11...	1200	ENVIRONMENTAL	79800	14	.137	.105	8.9	82	7.3	397	11.1	170
11...	1208	FIELD BLANK	--	--	--	--	--	--	--	--	--	--
JAN												
08...	1240	ENVIRONMENTAL	47500	11	.093	.069	11.7	90	7.1	307	3.8	190
08...	1250	REPLICATE	--	11	.090	.066	--	--	--	--	--	190
FEB												
13...	1310	ENVIRONMENTAL	95900	31	.066	.050	11.6	96	7.4	310	6.2	160
MAR												
06...	1330	ENVIRONMENTAL	96700	15	.068	.048	12.0	97	7.4	257	5.6	140
06...	1338	FIELD BLANK	--	--	<.004	<.004	--	--	--	--	--	--
19...	1210	ENVIRONMENTAL	217000	86	.068	.050	11.3	98	7.5	336	8.5	160
APR												
09...	1440	ENVIRONMENTAL	177000	150	.075	.056	10.6	98	7.3	243	10.7	120
24...	1240	ENVIRONMENTAL	287000	280	.097	.072	8.3	87	7.0	299	16.4	130
MAY												
08...	1320	ENVIRONMENTAL	256000	150	<.004	<.004	8.8	92	7.5	227	16.1	100
20...	1330	ENVIRONMENTAL	369000	110	.088	.065	8.2	85	7.6	277	16.5	130
20...	1338	FIELD BLANK	--	--	--	--	--	--	--	--	--	--
JUN												
04...	1330	ENVIRONMENTAL	104000	17	.077	.058	7.7	90	7.5	304	30.5	130
04...	1340	REPLICATE	--	16	.078	.058	--	--	--	--	--	130
18...	1200	ENVIRONMENTAL	122000	20	.105	.077	6.2	76	7.4	373	23.9	140
18...	1208	FIELD BLANK	--	--	--	--	--	--	--	--	--	--
JUL												
26...	1230	ENVIRONMENTAL	30000	11	.075	.054	7.6	102	7.6	480	29.7	150
AUG												
15...	1250	ENVIRONMENTAL	42000	6.8	.075	.054	5.5	74	7.4	492	29.1	150
15...	1300	REPLICATE	--	6.6	.076	.054	--	--	--	--	--	150
SEP												
12...	1300	ENVIRONMENTAL	15100	4.2	.068	.048	5.4	70	7.6	485	27.8	150

03303280 OHIO RIVER AT CANNELTON DAM, KY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)
NOV													
14...	42.6	11.9	5.09	16.6	--	--	25.6	.2	5.66	42.9	236	.09	.53
DEC													
11...	47.0	13.1	4.63	23.3	--	--	33.6	.3	4.92	63.6	290	.07	.46
11...	E.01	<.008	.01	<.09	--	--	.14	<.01	<.13	<.01	--	--	--
JAN													
08...	52.3	13.9	3.35	19.1	54	66	30.8	.2	5.64	67.1	286	.08	.38
08...	52.3	14.0	3.30	19.3	--	--	29.1	.3	5.61	67.5	290	.08	.37
FEB													
13...	43.1	12.1	2.49	25.2	92	113	38.7	.2	5.71	64.8	264	.07	.32
MAR													
06...	36.9	10.4	1.99	17.9	75	91	27.0	.2	4.77	50.8	212	.07	.30
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
19...	43.2	12.8	2.41	22.6	93	113	34.1	.2	3.72	61.2	254	.05	.27
APR													
09...	31.9	8.91	2.18	12.9	62	76	17.6	.2	5.75	43.6	176	<.04	.23
24...	35.3	9.30	2.36	12.4	57	69	18.8	.1	4.97	46.7	196	<.04	.26
MAY													
08...	28.8	7.75	2.05	7.94	58	70	9.32	E.1	5.63	39.5	158	<.04	.21
20...	35.1	9.44	2.05	10.3	66	81	13.4	.1	5.86	45.9	183	<.04	.23
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
04...	34.5	9.49	2.12	12.0	75	91	16.4	E.1	5.86	47.4	192	E.03	.24
04...	34.4	9.47	2.11	12.1	--	--	16.6	.2	5.79	47.2	192	E.03	.26
18...	37.8	10.8	2.73	13.3	84	102	19.4	.2	5.41	53.9	216	<.04	.21
18...	.03	<.008	.02	<.09	--	--	2.04	<.01	<.13	<.01	--	<.015	--
JUL													
26...	39.8	13.4	2.84	20.0	67	82	25.2	.2	1.68	69.4	243	E.03	.28
AUG													
15...	38.3	13.9	3.20	25.1	62	76	43.5	.2	.49	76.0	256	<.04	.26
15...	36.5	13.8	3.22	25.2	86	105	30.3	.2	.46	78.5	259	<.04	.25
SEP													
12...	36.4	13.8	3.45	26.2	74	90	31.7	.3	.91	85.4	263	E.03	.29

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN,PAR TICULTE WAT FLT SUSP (MG/L AS N) (49570)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	CARBON, INORG + ORGANIC PARTIC. TOTAL (MG/L AS C) (00694)	CARBON, INOR- GANIC, PARTIC. TOTAL (MG/L AS C) (00688)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC PARTIC- ULATE TOTAL (MG/L AS C) (00689)	PHEO- PHYTIN A, PHYTO- PHYTON (UG/L) (62360)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70953)
NOV													
14...	.66	1.66	.033	.07	.145	.125	.197	.8	<.1	5.2	.8	1.2	.6
DEC													
11...	.64	1.67	.016	.06	.107	.092	.152	.5	<.1	4.6	.5	.7	.4
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
08...	.41	1.83	.012	.06	.064	.053	.080	.6	<.1	3.1	.5	E.8	E.4
08...	.41	1.84	.013	.07	.064	.055	.081	.6	<.1	3.2	.6	E.7	E.5
FEB													
13...	.38	1.81	.018	.08	.044	.036	.090	.9	<.1	2.9	.9	2.0	.9
MAR													
06...	.36	1.46	.017	.08	.039	.028	.067	.5	<.1	2.8	.5	2.1	2.1
06...	--	--	--	<.02	--	--	--	<.1	<.1	.4	<.1	--	--
19...	.62	1.43	.014	.24	.038	.030	.23	3.4	.3	2.9	3.0	11.0	2.9
APR													
09...	.78	1.35	.019	.43	.029	.022	.25	5.5	<.1	2.8	5.4	5.4	2.2
24...	1.5	1.20	.014	1.02	.045	.035	.62	10.5	.3	3.2	10.2	9.2	3.6
MAY													
08...	.73	.86	.012	.50	.034	.027	.32	5.7	.1	.6	5.6	4.1	1.3
20...	.64	1.14	.010	.40	.039	.031	.25	4.7	<.1	3.1	4.7	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
04...	.32	1.13	.024	.05	.033	.024	.065	.6	<.1	2.8	.6	1.2	2.0
04...	.30	1.13	.024	.07	.034	.024	.063	.7	<.1	2.9	.7	.9	1.8
18...	.20	1.62	.021	.04	.047	.038	.039	.4	<.1	3.5	.4	1.2	1.3
18...	--	<.013	<.002	--	--	<.007	--	--	--	--	--	--	--
JUL													
26...	.33	.94	.063	.06	.019	.012	.034	.4	<.1	3.8	.4	2.1	3.1
AUG													
15...	.28	.97	.139	.06	.031	.022	.047	.4	<.1	3.4	.4	--	--
15...	.28	.95	.138	.05	.031	.021	.049	.4	<.1	3.3	.4	--	--
SEP													
12...	.35	.74	.123	.08	.034	.024	.051	.4	<.1	3.0	.4	2.2	2.8

03303280 OHIO RIVER AT CANNELTON DAM, KY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	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)	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)
NOV													
14...	--	--	1.1	--	--	57	--	--	--	--	18	--	3.5
DEC													
11...	--	--	.9	--	--	59	--	--	--	--	17	--	5.4
11...	--	--	<.2	--	--	<7	--	--	--	--	<10	--	<.3
JAN													
08...	--	--	.7	--	--	49	--	--	--	--	E6	--	5.1
08...	--	--	.8	--	--	50	--	--	--	--	E5	--	5.1
FEB													
13...	--	--	.3	--	--	50	--	--	--	--	11	--	5.3
MAR													
06...	--	--	.5	--	--	41	--	--	--	--	16	--	4.3
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	.5	--	--	50	--	--	--	--	E9	--	5.2
APR													
09...	--	--	.4	--	--	25	--	--	--	--	15	--	3.2
24...	--	--	.7	--	--	33	--	--	--	--	E8	--	3.4
MAY													
08...	--	--	.5	--	--	26	--	--	--	--	15	--	2.5
20...	--	--	.6	--	--	30	--	--	--	--	11	--	3.5
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
04...	--	--	.6	--	--	33	--	--	--	--	E8	--	3.5
04...	--	--	.5	--	--	33	--	--	--	--	E6	--	3.4
18...	--	--	.8	--	--	47	--	--	--	--	<10	--	4.5
18...	--	--	<.2	--	--	11	--	--	--	--	<10	--	<.3
JUL													
26...	--	--	.9	--	--	69	--	--	--	--	<10	--	7.1
AUG													
15...	--	--	1.2	--	--	72	--	--	--	--	<10	--	7.9
15...	--	--	1.0	--	--	69	--	--	--	--	<10	--	7.4
SEP													
12...	--	--	1.2	--	--	82	--	--	--	--	<10	--	9.6

DATE	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)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	2,6-DI-ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)
NOV													
14...	--	--	--	.4	--	223	.8	--	<.002	.007	<.002	<.005	.128
DEC													
11...	--	--	--	.5	--	272	.8	--	<.002	<.004	<.002	<.005	.127
11...	--	--	--	<.3	--	E.05	<.2	--	--	--	--	--	--
JAN													
08...	--	--	--	.5	--	310	1.5	--	<.006	<.010	<.004	<.005	.069
08...	--	--	--	.6	--	311	1.5	--	<.006	<.010	<.004	<.005	.067
FEB													
13...	--	--	--	.5	--	305	.8	--	<.006	.018	<.004	<.005	.061
MAR													
06...	--	--	--	.8	--	223	<.2	--	<.006	.013	<.004	<.005	.040
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	.5	--	258	.2	--	<.006	<.006	<.004	<.005	.095
APR													
09...	--	--	--	.6	--	181	.4	--	<.006	.007	<.004	<.005	.028
24...	--	--	--	.6	--	192	1.4	--	<.006	.020	<.004	<.005	.321
MAY													
08...	--	--	--	.4	--	150	.9	--	<.006	.056	<.004	<.005	.391
20...	--	--	--	E.3	--	171	.5	--	<.006	.130	.008	<.005	.750
20...	--	--	--	--	--	--	--	--	<.006	<.006	<.004	<.005	.010
JUN													
04...	--	--	--	.3	--	179	1.1	--	<.006	.077	<.004	<.005	.785
04...	--	--	--	.3	--	178	1.0	--	<.006	.079	<.004	<.005	.691
18...	--	--	--	.5	--	219	.6	--	<.006	.410	.018	<.005	2.58
18...	--	--	--	<.3	--	.18	<.2	--	--	--	--	--	--
JUL													
26...	--	--	--	.4	--	272	1.1	--	<.006	.058	<.009	<.005	.837
AUG													
15...	--	--	--	.4	--	304	1.2	--	<.006	.048	<.004	<.005	.429
15...	--	--	--	.6	--	302	1.3	--	<.006	.046	<.004	<.005	.448
SEP													
12...	--	--	--	.7	--	279	1.0	--	<.006	.023	<.004	<.005	.314

03303280 OHIO RIVER AT CANNELTON DAM, KY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)
NOV													
14...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.040	.015	<.005	<.02	<.002	<.009
DEC													
11...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.038	<.005	<.005	<.02	<.002	<.009
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
08...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.020	<.005	<.005	<.02	<.010	<.009
08...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.020	<.005	<.005	<.02	<.004	<.009
FEB													
13...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.018	<.005	<.005	<.02	<.002	<.009
MAR													
06...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.010	<.005	<.005	<.02	<.002	<.009
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
19...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.008	<.005	<.005	<.02	<.002	<.009
APR													
09...	<.010	<.002	E.012	<.020	<.005	<.018	<.003	E.008	E.004	<.005	<.02	<.030	<.009
24...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.015	.008	<.005	<.02	<.002	<.009
MAY													
08...	<.010	<.002	E.004	<.020	<.005	<.018	<.003	E.020	.006	<.005	<.02	<.002	<.009
20...	<.010	<.002	E.005	<.020	<.005	<.018	<.003	E.049	.007	<.005	<.02	<.002	<.009
20...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	<.006	<.005	<.005	<.02	<.002	<.009
JUN													
04...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.032	E.005	<.005	<.02	<.002	<.009
04...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.032	.005	<.005	<.02	<.002	<.009
18...	<.010	<.002	<.041	<.020	<.005	E.011	<.003	E.136	.007	<.005	<.02	<.002	<.009
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
26...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.092	E.003	<.005	<.02	<.120	<.009
AUG													
15...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.037	E.004	<.005	<.02	<.002	<.009
15...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.042	E.005	<.005	<.02	<.002	<.009
SEP													
12...	<.010	<.002	<.041	<.020	<.005	E.008	<.003	E.047	.006	<.005	<.02	<.002	<.009

DATE	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	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)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)
NOV													
14...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.070	<.006	<.002	<.007	<.003	<.007
DEC													
11...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.039	.065	<.002	<.007	<.003	<.007
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
08...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.033	<.010	<.002	<.007	<.003	<.010
08...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.034	<.007	<.002	<.007	<.003	<.010
FEB													
13...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.025	<.006	<.002	<.007	<.003	<.010
MAR													
06...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.030	<.006	<.002	<.007	<.003	<.010
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
19...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.056	<.006	<.002	<.007	<.003	<.010
APR													
09...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.019	.010	<.002	<.007	<.003	<.010
24...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.065	<.006	<.002	<.007	<.003	<.010
MAY													
08...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.057	.006	<.002	<.007	<.003	<.010
20...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.170	.012	<.002	<.007	<.003	<.010
20...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	E.007	<.006	<.002	<.007	<.003	<.010
JUN													
04...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.112	<.006	<.002	<.007	<.003	<.010
04...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.115	<.006	<.002	<.007	<.003	<.010
18...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.410	.016	<.002	<.007	<.003	<.010
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
26...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.157	<.006	<.002	<.007	<.003	<.010
AUG													
15...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.087	<.006	<.002	<.007	<.003	<.010
15...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.094	<.006	<.002	<.007	<.003	<.010
SEP													
12...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.057	<.006	<.002	<.007	<.003	<.010

03303280 OHIO RIVER AT CANNELTON DAM, KY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPA-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	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)
NOV													
14...	<.002	<.010	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.042	<.02	<.034	<.02
DEC													
11...	<.002	<.010	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.160	M	<.034	<.02
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
08...	<.004	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02	.018	<.02	<.034	<.02
08...	<.004	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02	.020	<.02	<.034	<.02
FEB													
13...	<.004	<.022	<.006	<.011	M	<.004	<.010	<.011	<.02	.014	E.01	<.034	<.02
MAR													
06...	<.004	<.022	<.006	<.011	M	<.004	<.010	<.011	<.02	.012	<.02	<.034	<.02
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
19...	<.004	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02	.012	<.02	<.034	<.02
APR													
09...	<.004	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.014	E.01	<.034	<.02
24...	<.004	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.042	<.02	<.034	<.02
MAY													
08...	<.004	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.087	E.01	<.034	<.02
20...	<.004	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.123	E.01	<.034	<.02
20...	<.004	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
JUN													
04...	<.004	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.093	E.01	<.034	<.02
04...	<.004	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.093	E.01	<.034	<.02
18...	<.004	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.339	<.02	<.034	<.02
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
26...	<.004	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.105	<.02	<.034	<.02
AUG													
15...	<.004	<.022	<.006	<.011	.02	<.004	<.010	<.011	<.02	.050	<.02	<.034	<.02
15...	<.004	<.022	<.006	<.011	.02	<.004	<.010	<.011	<.02	.056	<.02	<.034	<.02
SEP													
12...	<.004	<.022	<.006	<.011	.04	<.004	<.010	<.011	<.02	.044	.02	<.034	<.02

DATE	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	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)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
NOV						
14...	<.005	<.002	<.009	--	100	16
DEC						
11...	<.005	<.002	<.009	--	100	18
11...	--	--	--	--	--	--
JAN						
08...	<.005	<.002	<.009	--	99	7.0
08...	<.005	<.002	<.009	--	99	7.0
FEB						
13...	<.005	<.002	<.009	--	100	30
MAR						
06...	<.005	<.002	<.009	--	100	12
06...	--	--	--	--	--	--
19...	<.005	<.002	<.009	--	97	140
APR						
09...	<.005	<.002	<.009	--	99	176
24...	<.005	<.002	<.009	--	95	402
MAY						
08...	<.005	<.002	<.009	--	86	258
20...	<.005	<.002	<.009	--	84	206
20...	<.005	<.002	<.009	--	--	--
JUN						
04...	<.005	<.002	<.009	--	99	16
04...	<.005	<.002	<.009	--	99	17
18...	<.005	<.002	<.009	--	100	24
18...	--	--	--	--	--	--
JUL						
26...	<.005	<.002	<.009	--	98	6.0
AUG						
15...	<.005	<.002	<.009	--	100	7.0
15...	<.005	<.002	<.009	--	100	7.0
SEP						
12...	<.005	<.002	<.009	--	100	5.0

E--Laboratory estimated value.
M--Presence of material verified but not quantified.
<--Numeric result is less than the value shown.

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03306000 GREEN RIVER NEAR CAMPBELLSVILLE, KY

LOCATION.--Lat 37°14'25", long 85°20'50", Taylor County, Hydrologic Unit 05110001, on right bank on downstream side of pier of bridge on State Highway 55, 0.6 mi downstream from Green River Dam, 0.8 mi upstream from Pinch Creek, 6.9 mi south of Campbellsville, and at mile 305.1.

DRAINAGE AREA.--669 mi^2 (1,733 sq km).

WATER-QUALITY RECORDS

INSTRUMENTATION.--Water Temperature recorder with telemetry.

REMARKS.--Records fair.

COOPERATION.--U.S. Army Corps of Engineers, Louisville District.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum recorded, 31.0°C, August. 3-5, 1964; minimum recorded, 0.0°C, on many days.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum recorded, 25.7°C, August, 27, minimum recorded, 6.2°C, Jan. 22, 23.

WATER TEMPERATURE FROM THE DCP, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20.5	19.2	19.8	14.6	14.4	14.5	13.4	13.2	13.3	9.7	9.1	9.3
2	20.4	19.2	19.8	14.7	14.5	14.6	13.3	13.2	13.2	10.0	9.7	9.8
3	20.1	19.2	19.6	14.9	14.6	14.7	13.2	13.1	13.1	9.8	9.4	9.5
4	20.0	19.3	19.6	14.8	14.6	14.7	13.1	13.0	13.0	9.4	9.1	9.2
5	19.8	19.4	19.6	14.8	14.6	14.7	13.0	12.9	13.0	9.2	8.9	9.0
6	19.6	19.2	19.4	14.6	14.4	14.5	13.0	13.0	13.0	9.1	7.4	8.3
7	19.4	18.6	19.0	14.6	14.3	14.4	13.1	13.0	13.0	7.4	7.2	7.3
8	19.1	18.6	18.9	14.4	14.3	14.4	13.2	13.1	13.1	7.2	7.0	7.1
9	19.1	18.5	18.8	14.5	14.3	14.4	13.1	12.8	13.0	7.5	7.0	7.2
10	19.0	18.7	18.8	14.3	14.2	14.2	12.8	12.7	12.7	7.6	7.4	7.6
11	19.1	18.7	18.9	14.4	14.1	14.3	12.7	12.6	12.6	7.6	7.3	7.5
12	19.1	18.9	19.0	14.3	14.1	14.2	12.6	12.6	12.6	7.3	6.8	7.1
13	19.1	18.9	19.0	14.2	14.0	14.1	12.6	12.6	12.6	7.2	7.0	7.1
14	19.0	18.7	18.9	14.1	14.0	14.0	12.7	12.6	12.6	7.2	7.1	7.2
15	18.7	17.8	18.3	14.2	13.9	14.0	12.6	12.6	12.6	7.2	7.0	7.0
16	18.5	17.4	17.8	14.2	14.0	14.1	12.6	12.5	12.5	7.0	6.7	6.8
17	17.5	16.8	17.1	14.2	14.1	14.1	12.5	12.5	12.5	6.7	6.6	6.7
18	17.5	16.5	16.9	14.1	14.0	14.1	12.5	12.4	12.5	6.6	6.5	6.5
19	17.3	16.6	17.0	14.0	13.9	14.0	12.4	12.2	12.3	6.5	6.4	6.4
20	17.6	17.2	17.4	13.9	13.8	13.9	12.2	11.9	12.0	6.4	6.3	6.4
21	17.6	17.1	17.3	13.8	13.5	13.6	11.9	11.8	11.9	6.5	6.3	6.4
22	17.7	17.2	17.4	13.5	13.4	13.4	11.9	11.7	11.7	6.3	6.2	6.2
23	17.4	17.0	17.2	13.4	13.3	13.4	11.7	11.5	11.6	6.7	6.2	6.4
24	17.4	17.1	17.2	13.4	13.3	13.4	11.5	11.2	11.4	7.3	6.7	7.1
25	17.2	16.9	17.1	13.4	13.3	13.4	11.2	10.9	11.1	7.1	6.6	6.9
26	16.9	15.1	16.2	13.4	13.3	13.3	10.9	10.6	10.7	6.6	6.3	6.5
27	15.1	14.8	14.9	13.4	13.4	13.4	10.6	10.2	10.4	6.4	6.3	6.3
28	14.9	14.7	14.8	13.5	13.4	13.5	10.2	10.0	10.1	6.4	6.3	6.4
29	14.8	14.6	14.7	13.6	13.5	13.5	10.0	9.8	9.9	6.5	6.4	6.4
30	14.8	14.5	14.6	13.6	13.3	13.4	9.9	9.6	9.7	6.8	6.5	6.6
31	14.7	14.5	14.6	---	---	---	9.6	9.2	9.4	7.0	6.8	6.9
MONTH	20.5	14.5	17.7	14.9	13.3	14.0	13.4	9.2	12.0	10.0	6.2	7.3

03306000 GREEN RIVER NEAR CAMPBELLSVILLE, KY--Continued

WATER TEMPERATURE FROM THE DCP, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.3	7.0	7.2	7.3	7.1	7.2	10.3	10.2	10.3	14.2	13.8	14.1
2	7.4	7.3	7.3	7.3	7.3	7.3	10.3	10.1	10.2	14.2	13.9	14.0
3	7.4	7.3	7.3	7.3	7.0	7.2	10.7	10.1	10.4	14.0	13.7	13.9
4	7.3	7.2	7.3	7.0	6.9	6.9	10.9	10.7	10.8	14.2	14.0	14.1
5	7.3	7.2	7.2	7.0	6.8	6.9	11.0	10.8	10.9	14.4	14.1	14.2
6	7.3	7.3	7.3	7.0	6.7	6.9	11.1	10.8	11.0	14.4	14.1	14.3
7	7.3	7.2	7.2	7.2	6.9	7.0	11.1	10.9	11.0	14.4	14.1	14.3
8	7.2	7.1	7.1	7.8	7.1	7.3	10.9	10.6	10.8	---	---	14.1
9	7.1	7.0	7.1	8.1	7.8	8.0	11.2	10.7	11.0	---	---	14.3
10	8.0	7.0	7.4	8.1	7.7	7.9	11.5	11.2	11.3	14.5	13.6	14.1
11	8.1	8.0	8.0	8.0	7.7	7.8	11.5	11.3	11.4	13.6	13.4	13.5
12	8.1	7.3	7.7	8.1	8.0	8.0	11.3	11.2	11.3	14.1	13.4	13.6
13	7.5	7.2	7.3	8.4	8.1	8.2	11.4	11.3	11.3	13.8	13.4	13.6
14	7.5	7.2	7.3	---	---	8.4	11.4	11.3	11.3	14.6	13.3	13.7
15	7.3	7.2	7.3	8.6	8.5	8.5	11.8	11.3	11.5	15.8	14.5	15.0
16	7.3	7.1	7.2	8.8	8.6	8.7	12.0	11.7	11.9	---	---	15.9
17	7.4	7.1	7.3	9.0	8.8	8.9	12.2	11.9	12.0	---	---	15.8
18	7.5	7.2	7.3	9.3	9.0	9.2	12.3	12.1	12.2	15.1	13.8	14.3
19	7.4	7.3	7.3	9.6	9.3	9.4	12.3	12.2	12.3	14.9	13.5	14.1
20	7.5	7.3	7.4	9.8	9.6	9.7	12.5	12.1	12.3	16.2	14.9	15.5
21	7.6	7.4	7.5	9.8	9.2	9.7	12.5	12.1	12.3	16.4	16.0	16.2
22	7.6	7.5	7.5	9.2	8.8	9.0	12.4	12.1	12.2	16.4	16.2	16.3
23	7.7	7.4	7.5	9.1	9.0	9.1	12.7	12.4	12.5	16.5	16.3	16.4
24	7.8	7.5	7.6	9.2	9.1	9.2	12.8	12.5	12.7	16.6	16.3	16.5
25	7.7	7.5	7.6	9.4	9.2	9.3	13.0	12.5	12.8	16.3	16.0	16.2
26	7.6	7.4	7.5	9.7	9.4	9.7	13.0	12.3	12.6	16.0	15.7	15.8
27	7.4	7.2	7.3	9.6	9.5	9.5	13.2	12.6	13.0	15.8	15.6	15.7
28	7.3	7.1	7.2	9.5	9.5	9.5	---	---	12.6	15.7	15.6	15.7
29	---	---	---	9.6	9.4	9.5	13.8	12.7	13.1	15.8	15.7	15.7
30	---	---	---	10.1	9.4	9.8	14.0	13.8	13.9	15.8	15.7	15.8
31	---	---	---	10.3	10.1	10.2	---	---	---	15.9	15.0	15.5
MONTH	8.1	7.0	7.4	---	---	8.5	---	---	11.8	---	---	14.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	15.0	14.6	14.9	22.5	21.9	22.1	23.4	23.0	23.1	25.5	25.0	25.2
2	14.7	14.4	14.5	22.9	22.1	22.4	23.5	23.2	23.3	25.4	24.9	25.2
3	15.6	14.2	14.6	23.4	22.5	22.9	23.6	23.2	23.4	25.5	24.9	25.1
4	16.8	15.6	16.3	23.6	22.9	23.2	24.1	23.4	23.8	25.6	24.9	25.2
5	18.5	16.8	17.5	23.7	23.1	23.4	24.0	23.7	23.9	25.5	24.7	25.1
6	18.9	18.3	18.6	23.9	23.2	23.5	24.7	23.7	24.1	25.5	24.7	25.1
7	19.2	18.6	18.9	24.0	23.2	23.6	24.7	24.2	24.4	25.4	24.9	25.2
8	19.3	19.0	19.2	24.0	23.4	23.6	24.4	23.7	24.0	25.5	24.8	25.1
9	19.5	19.1	19.3	23.7	23.2	23.4	24.3	23.7	24.0	25.5	24.8	25.1
10	19.7	19.4	19.6	23.6	23.1	23.3	24.4	23.7	24.0	25.5	24.7	25.1
11	19.6	19.5	19.6	24.1	23.3	23.6	24.4	24.0	24.1	25.4	24.7	25.0
12	19.7	19.3	19.5	24.1	23.6	23.8	24.4	23.9	24.1	25.2	24.2	24.6
13	19.8	19.5	19.7	23.6	23.0	23.2	24.4	23.5	23.8	24.6	23.8	24.1
14	19.8	19.4	19.7	23.2	23.0	23.1	23.7	23.1	23.4	24.3	24.0	24.1
15	19.6	19.2	19.4	23.1	22.2	22.6	23.5	22.7	23.0	24.1	24.0	24.1
16	19.7	19.2	19.4	22.4	22.1	22.2	23.2	22.5	22.8	24.1	23.8	23.9
17	20.2	19.6	19.9	22.4	22.2	22.3	22.5	21.8	22.0	24.0	23.6	23.8
18	20.4	19.9	20.1	22.2	21.9	22.1	22.2	21.6	21.9	23.9	23.5	23.7
19	20.4	20.1	20.3	22.3	22.0	22.1	22.2	21.6	21.9	23.8	23.4	23.6
20	20.4	20.2	20.3	22.5	22.0	22.2	22.4	21.2	21.6	23.4	23.0	23.2
21	20.4	20.0	20.2	22.8	22.3	22.6	23.2	22.0	22.4	23.2	22.8	23.0
22	20.3	19.8	20.0	22.8	22.5	22.6	25.2	23.2	24.3	23.1	22.5	22.7
23	20.6	20.1	20.3	22.8	22.4	22.5	25.5	24.8	25.1	22.8	21.8	22.3
24	20.6	20.1	20.3	22.9	22.5	22.7	25.3	24.9	25.1	22.3	21.5	21.9
25	20.9	20.5	20.6	22.9	22.7	22.8	25.4	25.0	25.2	22.2	21.7	21.9
26	21.2	20.8	20.9	22.8	22.6	22.7	25.6	24.9	25.2	21.9	21.1	21.6
27	21.3	21.0	21.1	22.9	22.6	22.8	25.7	25.0	25.3	21.1	20.6	20.8
28	21.1	20.8	20.9	22.9	22.7	22.8	25.6	25.0	25.2	20.6	20.2	20.4
29	21.9	21.0	21.3	22.9	22.6	22.7	25.3	24.6	25.0	---	---	20.3
30	22.2	21.6	21.8	23.0	22.7	22.8	25.5	24.8	25.1	---	---	e20.1
31	---	---	---	23.1	22.8	22.9	25.6	25.0	25.3	---	---	---
MONTH	22.2	14.2	19.3	24.1	21.9	22.9	25.7	21.2	23.9	---	---	23.6

e Estimated

03306500 GREEN RIVER AT GREENSBURG, KY

LOCATION.--Lat 37°15'12", long 85°03'11", Green County, Hydrologic Unit 05110001, at bridge on State Highway 61 and 70, 300 ft upstream from Clover Lick Creek, 0.25 mi south of Greensburg, 2.6 mi upstream from Russell Creek, and at mile 279.7.

DRAINAGE AREA.--736 mi^2.

PERIOD OF DAILY RECORD.--Water-temperature: December 22, 1999 to current year.

GAGE.--Water-temperature recorder with telemetry.

REMARKS.-Records good.

COOPERATION.--U.S. Army Corps of Engineers, Louisville District.

EXTREMES FOR PERIOD OF DAILY RECORD.--Maximum recorded water-temperature discharge, 32.0°C , July 4, 5, 2002; minimum recorded water-temperature, 0.0°C , Jan. 26-29, Feb. 1, 2, 2000.

EXTREMES FOR CURRENT YEAR.--Water temperature: maximum recorded, 32.0°C , July 4, 5; minimum recorded, 0.9°C, Jan. 4, 5.,

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	18.6	15.4	16.8	14.3	12.9	13.6	12.1	11.3	11.7	4.4	3.6	4.0
2	19.1	16.0	17.3	15.4	14.0	14.7	12.0	11.3	11.7	4.0	3.1	3.6
3	19.5	16.6	17.8	15.5	14.3	15.1	11.9	11.1	11.6	3.1	1.9	2.3
4	19.3	16.9	18.1	14.3	13.0	13.6	12.4	11.5	11.9	1.9	0.9	1.4
5	19.4	17.6	18.5	13.6	12.7	13.2	12.5	11.8	12.3	2.4	0.9	1.6
6	19.0	17.4	18.1	12.9	11.8	12.4	12.8	12.2	12.4	2.8	2.2	2.5
7	17.4	15.6	16.4	12.9	11.7	12.4	12.7	12.4	12.6	4.1	2.7	3.4
8	16.0	14.7	15.4	13.3	11.9	12.6	12.7	12.5	12.7	4.2	3.4	3.9
9	15.8	14.0	15.0	13.5	12.6	13.1	12.5	11.5	11.9	5.4	3.7	4.5
10	17.3	15.1	16.1	12.6	11.5	12.1	11.7	10.9	11.3	6.9	5.4	6.1
11	18.7	17.2	17.9	12.7	11.6	12.2	11.8	11.3	11.6	7.2	6.1	6.8
12	19.2	18.6	18.9	12.4	11.3	11.9	12.2	11.7	11.9	6.1	5.0	5.5
13	20.1	18.8	19.4	12.5	11.2	11.9	12.6	12.2	12.4	5.4	4.5	5.1
14	20.1	19.0	19.5	12.9	11.7	12.3	12.5	12.2	12.4	6.2	5.1	5.6
15	19.0	17.2	18.1	12.8	11.7	12.3	12.2	11.5	11.8	5.9	5.0	5.5
16	17.8	15.1	16.3	13.1	12.1	12.6	12.2	11.5	11.8	5.4	4.4	5.0
17	15.1	13.2	14.1	13.5	12.7	13.1	12.5	12.2	12.4	5.8	5.1	5.5
18	14.4	11.9	13.0	13.7	13.0	13.4	12.3	11.4	11.8	5.5	4.8	5.1
19	14.1	12.1	13.0	13.4	13.0	13.2	11.6	10.6	11.0	5.0	3.5	4.0
20	15.0	12.4	13.5	13.2	11.6	12.4	11.6	11.0	11.4	5.1	3.9	4.4
21	16.1	13.5	14.7	11.6	10.8	11.3	11.6	10.8	11.2	6.0	5.0	5.4
22	17.0	15.4	16.2	11.7	11.0	11.3	10.9	9.8	10.4	5.7	4.5	5.2
23	18.3	16.6	17.4	13.0	11.5	12.1	11.0	10.1	10.7	8.5	5.6	7.0
24	19.4	18.0	18.6	13.6	13.0	13.3	10.1	8.0	8.9	10.4	8.5	9.6
25	18.7	16.2	17.3	13.6	12.6	13.2	8.0	7.2	7.5	9.5	7.2	8.3
26	16.2	13.6	14.7	12.6	11.6	12.1	7.8	7.1	7.4	7.2	5.4	6.1
27	13.6	12.1	12.8	13.6	12.6	13.3	7.9	7.5	7.7	6.9	5.7	6.4
28	12.7	11.5	12.1	13.6	12.7	13.1	8.2	7.5	7.9	7.2	6.1	6.7
29	13.1	11.8	12.5	13.5	12.7	13.1	8.2	6.9	7.8	7.5	6.8	7.2
30	13.5	12.2	12.9	13.5	12.1	12.9	6.9	4.9	5.6	7.7	7.3	7.5
31	13.9	12.5	13.2	---	---	---	4.9	3.7	4.2	8.3	7.2	7.8
MONTH	20.1	11.5	16.0	15.5	10.8	12.8	12.8	3.7	10.6	10.4	0.9	5.3

03306500 GREEN RIVER AT GREENSBURG, KY--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.1	7.4	7.8	6.6	4.2	5.4	12.2	10.5	11.4	15.6	14.4	15.0
2	7.7	7.2	7.4	7.9	6.3	6.9	12.8	10.3	11.7	15.4	14.5	15.0
3	7.3	7.1	7.2	7.9	5.6	6.9	12.7	10.1	11.1	14.5	13.5	13.9
4	7.2	6.6	6.9	5.6	3.8	4.5	11.9	10.7	11.3	14.9	13.6	14.2
5	7.0	6.2	6.6	6.7	3.8	5.2	12.2	10.9	11.5	15.8	13.9	14.8
6	6.6	6.0	6.2	8.6	5.8	7.2	12.4	10.9	11.7	15.7	14.2	14.9
7	6.5	6.1	6.3	9.9	7.8	8.9	12.6	10.8	11.8	16.0	14.6	15.3
8	6.4	5.3	6.0	11.1	8.6	9.9	12.5	10.9	11.9	16.4	14.8	15.6
9	7.0	5.7	6.4	11.5	9.9	10.8	12.5	11.1	11.8	16.0	14.6	15.4
10	7.3	6.9	7.1	10.1	8.2	9.2	13.6	11.1	12.3	15.4	14.3	14.8
11	7.7	6.2	6.9	9.8	7.4	8.8	14.0	12.9	13.5	17.1	14.0	15.5
12	7.5	5.6	6.6	10.6	9.5	9.9	15.6	13.8	14.5	18.7	16.2	17.2
13	7.2	6.0	6.6	11.7	10.3	10.9	15.9	13.9	14.8	17.1	15.0	16.1
14	6.4	5.0	5.9	12.7	9.8	11.2	15.4	14.4	14.8	16.3	13.7	15.0
15	7.5	5.5	6.4	13.9	12.1	13.0	16.9	13.6	15.2	16.0	13.9	15.1
16	7.8	6.3	7.2	13.8	12.4	13.2	17.0	15.1	16.0	---	---	16.0
17	7.6	6.2	6.8	12.5	11.6	12.2	16.7	15.5	16.0	---	---	16.7
18	7.0	5.2	6.2	12.9	12.4	12.6	17.0	14.9	15.9	16.6	14.6	15.2
19	7.3	6.0	6.5	12.6	11.8	12.1	17.0	15.7	16.2	15.4	13.7	14.6
20	9.4	7.3	8.2	12.7	12.1	12.4	16.4	15.4	15.8	15.4	14.3	14.8
21	9.6	8.2	8.8	12.7	11.3	12.1	16.9	15.0	15.9	16.6	15.3	16.1
22	8.6	6.8	7.6	11.3	8.6	9.7	16.5	14.5	15.8	17.5	15.7	16.6
23	7.0	5.2	6.3	10.3	7.8	8.8	14.8	13.2	14.1	17.7	16.0	16.9
24	7.9	5.6	6.8	10.7	8.9	9.8	14.6	13.6	14.0	18.0	16.5	17.2
25	9.4	6.9	8.1	10.6	9.4	10.1	15.3	14.0	14.6	18.1	16.4	17.4
26	9.3	6.6	8.1	10.6	9.8	10.2	14.6	11.9	13.0	17.9	16.2	16.8
27	6.6	3.9	4.8	10.0	9.4	9.6	13.9	13.0	13.4	17.8	15.8	16.8
28	5.3	3.0	4.2	11.0	9.3	10.1	---	---	14.9	17.5	16.0	16.9
29	---	---	---	11.6	10.0	10.8	15.3	13.3	14.3	17.8	16.3	17.1
30	---	---	---	11.5	10.1	10.8	15.7	13.9	14.8	17.9	16.1	17.1
31	---	---	---	11.2	10.2	10.7	---	---	---	18.1	16.2	17.3
MONTH	9.6	3.0	6.8	13.9	3.8	9.8	---	---	13.8	---	---	15.8

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	18.7	17.8	18.2	30.0	27.0	28.7	27.6	25.3	26.3	28.7	25.6	26.9
2	21.2	17.8	19.3	31.0	28.0	29.2	27.3	25.9	26.6	29.0	25.8	27.3
3	---	---	20.3	31.0	28.0	29.5	28.0	25.9	26.8	29.1	26.3	27.6
4	---	---	21.6	32.0	28.0	29.8	28.6	26.4	27.4	28.8	26.5	27.5
5	24.1	21.1	22.9	32.0	28.0	30.0	28.6	26.7	27.6	27.8	24.5	26.1
6	24.1	22.1	23.1	31.0	28.0	29.4	28.3	27.0	27.6	27.3	23.7	25.4
7	---	---	21.5	30.0	26.0	28.1	27.1	25.2	26.2	27.8	24.6	26.0
8	23.1	20.1	21.8	29.0	26.0	27.5	26.4	24.0	25.2	27.8	24.7	26.1
9	25.1	22.1	23.4	29.0	27.0	27.7	26.8	23.3	25.1	27.5	24.9	26.1
10	25.1	23.1	24.2	28.8	27.0	27.9	27.4	23.7	25.6	27.4	24.4	25.7
11	25.1	23.1	24.3	28.9	26.6	27.7	26.8	25.5	26.0	26.2	24.1	25.2
12	26.1	24.1	24.5	28.4	26.1	27.1	27.7	24.8	26.2	25.3	22.2	23.6
13	24.1	23.1	23.4	26.8	23.6	25.1	28.0	25.3	26.6	24.1	21.9	23.0
14	23.1	22.1	22.5	24.7	22.5	23.5	27.0	25.5	26.2	24.7	23.2	23.8
15	23.1	21.1	22.0	26.6	23.7	25.1	27.7	24.9	26.3	24.8	23.7	24.1
16	22.1	20.1	21.2	27.9	25.2	26.4	26.3	24.4	25.3	25.0	23.6	24.1
17	22.1	20.1	20.9	27.4	26.0	26.6	25.1	23.9	24.4	24.1	23.2	23.7
18	24.1	20.1	21.9	26.7	25.3	25.9	26.6	24.1	25.1	24.3	23.1	23.6
19	25.1	22.1	23.4	26.7	24.9	25.7	---	---	24.0	25.5	23.2	24.2
20	26.1	23.1	24.6	27.1	25.1	26.0	---	---	24.8	25.7	24.0	24.8
21	27.1	24.1	25.3	27.1	25.3	26.1	26.7	23.3	25.2	24.6	23.4	23.9
22	27.1	24.1	25.4	27.8	25.8	26.7	---	---	25.9	23.6	22.3	22.9
23	27.1	24.1	26.0	27.4	26.4	26.8	29.1	24.7	26.5	22.6	20.5	21.5
24	28.1	26.1	26.6	26.5	25.2	25.5	29.2	27.8	28.4	21.5	19.0	20.2
25	28.0	26.0	27.1	25.9	24.3	25.1	28.1	26.9	27.6	20.1	19.5	19.8
26	28.0	26.0	27.3	26.2	24.9	25.5	26.9	25.5	26.2	19.8	19.3	19.6
27	28.0	26.0	27.1	26.7	25.0	25.8	---	---	25.8	19.3	18.7	19.0
28	27.0	25.0	26.1	27.4	25.5	26.4	25.9	24.7	25.3	20.1	18.8	19.4
29	28.0	25.0	26.2	27.7	26.1	26.9	26.7	23.7	25.1	20.6	19.0	19.8
30	30.0	26.0	28.0	27.1	25.9	26.4	27.5	24.4	25.8	20.8	19.8	20.3
31	---	---	---	26.6	25.0	25.8	28.3	25.0	26.4	---	---	---
MONTH	---	---	23.7	32.0	22.5	26.9	---	---	26.0	29.1	18.7	23.7

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 mi^2 (includes Butlers Fork), of which about 15 mi does not contribute directly to surface runoff.

WATER DISCHARGE RECORDS

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 NGVD of 1929. Prior to June 25, 1953, nonrecording gage at same site and datum.

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

COOPERATION.--Kentucky Natural Resources and Environmental Protection Cabinet and U.S. Army Corps of Engineers, Louisville District.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in Jan. 1937 reached a stage of about 23 ft, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 24	1900	4,900	13.71	May 18	1200	*12,100	*18.74
Mar 20	2100	5,680	14.78				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.8	21	399	65	528	80	1750	140	62	e30	86	12
2	8.0	21	194	63	541	77	832	437	55	27	49	11
3	6.7	21	125	59	392	82	584	998	50	24	36	9.2
4	6.0	20	92	56	317	82	419	428	61	21	29	8.5
5	5.4	20	74	55	241	73	320	283	196	19	25	8.1
6	5.0	21	65	59	205	70	254	231	80	17	22	6.7
7	5.2	20	110	73	193	68	228	215	115	14	19	6.2
8	9.3	19	286	67	172	66	182	458	79	13	17	5.9
9	18	19	461	70	147	68	169	275	56	12	15	5.8
10	15	19	266	69	139	90	158	207	46	12	14	5.1
11	11	18	190	146	153	91	131	153	40	13	13	5.1
12	9.0	18	157	251	138	82	133	128	37	13	13	4.8
13	8.8	18	1190	180	126	80	174	980	92	491	13	4.5
14	170	18	966	141	112	80	319	907	208	163	14	5.1
15	251	18	677	118	105	73	439	496	87	78	16	14
16	81	18	411	97	100	116	262	338	58	51	22	15
17	47	18	318	86	94	563	188	914	48	39	26	14
18	35	18	345	87	87	1810	154	7780	42	35	30	16
19	30	18	266	95	82	1070	132	1120	36	37	36	19
20	26	18	201	151	86	4150	115	679	31	58	31	23
21	22	19	153	217	99	1890	107	466	28	209	30	51
22	20	20	127	296	90	837	105	334	25	103	24	58
23	19	21	151	2530	81	593	88	255	24	65	18	40
24	19	22	231	3500	76	450	82	200	22	192	15	24
25	52	203	180	1540	73	346	480	161	e70	90	14	18
26	77	138	142	784	79	1070	249	135	e55	67	13	45
27	54	82	123	560	99	980	156	117	e44	45	13	953
28	35	68	109	421	87	628	153	102	e63	36	14	432
29	28	429	97	334	---	511	125	88	e47	32	14	158
30	25	930	83	320	---	694	99	78	e35	30	15	82
31	23	---	72	390	---	2060	---	70	---	121	13	---
TOTAL	1131.2	2313	8261	12880	4642	18930	8587	19173	1892	2157	709	2060.0
MEAN	36.49	77.10	266.5	415.5	165.8	610.6	286.2	618.5	63.07	69.58	22.87	68.67
MAX	251	930	1190	3500	541	4150	1750	7780	208	491	86	953
MIN	5.0	18	65	55	73	66	82	70	22	12	13	4.5
CFSM	0.21	0.45	1.54	2.40	0.96	3.53	1.65	3.58	0.36	0.40	0.13	0.40
IN.	0.24	0.50	1.78	2.77	1.00	4.07	1.85	4.12	0.41	0.46	0.15	0.44

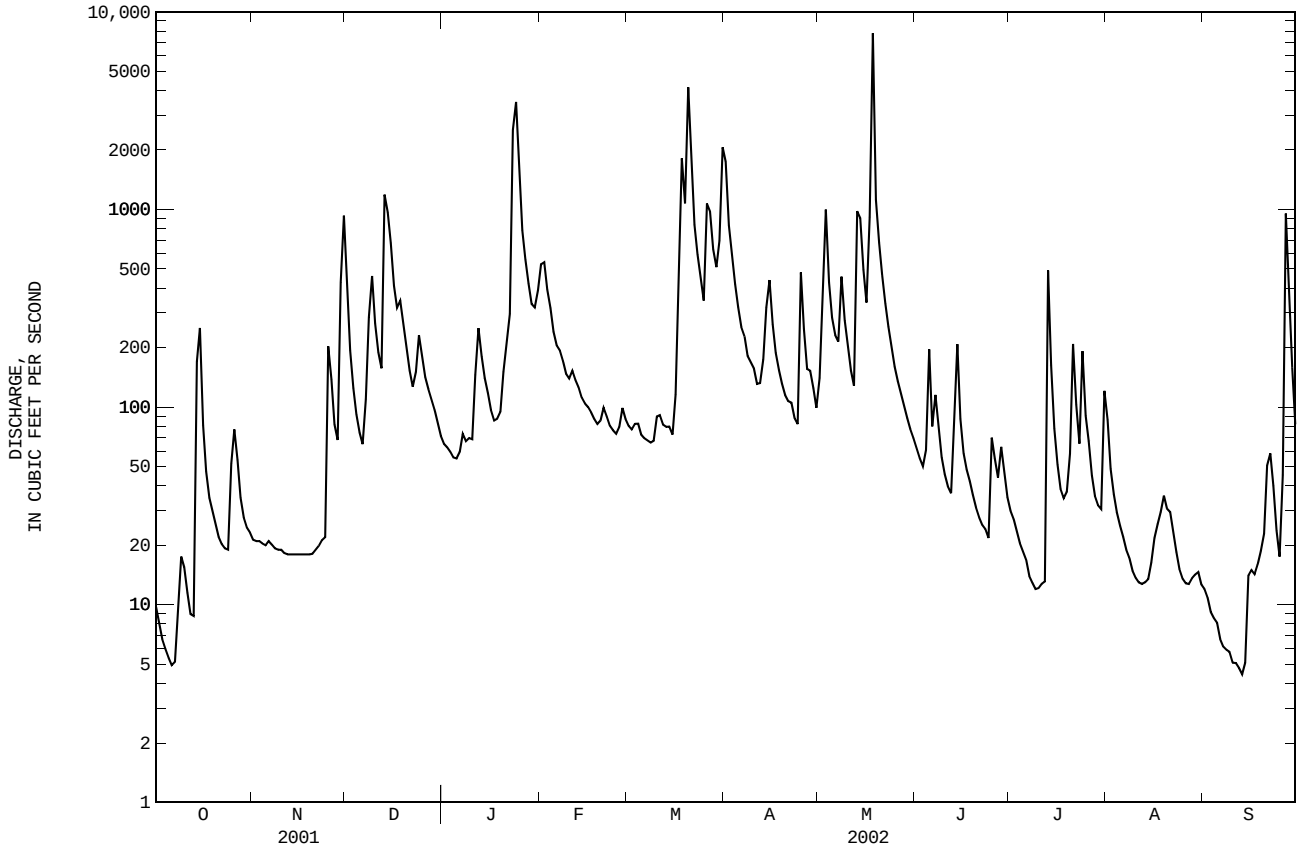
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2002, BY WATER YEAR (WY)

MEAN	70.59	199.7	399.4	474.9	570.8	580.9	386.8	276.4	196.2	124.4	85.12	106.1
MAX	636	1047	2540	1779	1588	1787	856	1464	800	751	502	1114
(WY)	1976	1952	1979	1950	1989	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

03307000 RUSSELL CREEK NEAR COLUMBIA, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1940 - 2002	
ANNUAL TOTAL	57668.4		82735.2			
ANNUAL MEAN	158.0		226.7		287.9	
HIGHEST ANNUAL MEAN					651	1979
LOWEST ANNUAL MEAN					118	1941
HIGHEST DAILY MEAN	2400	Feb 17	7780	May 18	25000	Dec 9 1978
LOWEST DAILY MEAN	4.2	Sep 18	4.5	Sep 13	0.40	Sep 25 1952
ANNUAL SEVEN-DAY MINIMUM	5.2	Sep 12	5.2	Sep 8	0.47	Oct 19 1953
MAXIMUM PEAK FLOW			12100	May 18	40600	Sep 1 1982
MAXIMUM PEAK STAGE			18.74	May 18	26.12	Sep 1 1982
INSTANTANEOUS LOW FLOW					5.7	Sep 2 1993
ANNUAL RUNOFF (CFSM)	0.91		1.31		1.66	
ANNUAL RUNOFF (INCHES)	12.40		17.79		22.61	
10 PERCENT EXCEEDS	399		493		623	
50 PERCENT EXCEEDS	55		80		99	
90 PERCENT EXCEEDS	11		14		15	

e Estimated



03307000 RUSSELL CREEK NEAR COLUMBIA, KY--Contiuned

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--December 22, 1999 to current year.

GAGE.--Water-temperture recorder.

REMARKS.-Records fair with telemetry.

COOPERATION.--Nature Conservancy and Green County.

EXTREMES FOR CURRENT YEAR.--Maximum recorded water-temperature discharge, 31.3°C , Sept. 10, minimum recorded water-temperature, 0.0°C, several days in Dec. and Jan.

EXTREMES FOR PERIOD OF DAILY RECORD.--Maximun recorded water-temperature, 31.3°C , Sept. 10, 2002; minimum recorded 0.0°C, many days.

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20.0	11.3	15.1	13.4	7.8	10.6	12.2	10.5	11.2	0.4	0.0	0.1
2	22.0	12.6	16.4	14.7	10.2	12.9	10.5	9.4	9.9	0.3	0.0	0.1
3	23.1	14.1	17.4	14.1	9.7	12.5	9.7	8.3	9.0	0.2	0.0	0.1
4	22.8	14.3	17.6	12.7	7.8	10.2	9.8	8.4	9.0	0.3	0.0	0.1
5	23.4	15.0	18.2	11.5	7.4	9.4	10.2	8.5	9.2	0.6	0.0	0.3
6	16.6	12.2	15.2	10.3	6.6	8.1	11.0	9.2	10.2	0.5	0.2	0.4
7	14.6	10.2	12.1	10.3	6.1	7.8	11.9	10.9	11.4	1.1	0.4	0.6
8	13.8	9.2	11.6	11.2	5.8	8.8	12.4	11.9	12.2	1.0	0.0	0.4
9	14.4	9.3	12.1	10.7	6.4	8.4	12.0	10.0	11.1	2.3	0.3	1.1
10	19.1	11.4	14.8	10.5	5.0	7.4	10.0	9.1	9.4	3.7	1.5	2.8
11	21.4	14.2	17.4	9.8	5.5	7.3	9.4	8.6	9.1	4.5	3.5	3.9
12	20.0	17.1	18.3	9.2	5.0	6.5	10.6	9.2	9.7	4.1	3.1	3.7
13	22.2	17.7	19.8	10.3	4.5	6.9	12.9	10.6	12.2	4.2	3.2	3.8
14	18.8	17.4	18.1	10.4	5.3	7.3	13.3	12.8	13.0	5.1	4.0	4.6
15	17.5	16.1	16.7	10.2	5.0	7.0	12.8	11.3	12.1	5.2	4.0	4.6
16	16.1	13.1	14.8	10.7	4.7	7.4	11.5	10.9	11.2	4.7	3.4	4.1
17	13.5	10.8	12.1	12.3	5.9	8.6	12.7	11.5	12.2	5.5	4.1	4.9
18	12.8	9.0	10.8	12.8	6.4	9.2	12.4	10.6	11.7	4.3	3.4	3.7
19	13.2	9.7	11.4	12.5	7.4	10.0	10.6	8.6	9.6	3.5	2.5	2.9
20	14.0	10.0	11.8	8.7	6.1	7.1	8.6	6.4	7.3	3.7	2.5	3.1
21	14.7	10.5	12.6	7.4	4.9	6.0	6.4	5.3	5.8	4.9	3.4	4.1
22	15.6	11.4	13.7	7.0	5.1	6.0	6.1	4.6	5.4	5.3	3.6	4.4
23	18.9	14.2	16.8	9.3	6.0	7.7	7.1	6.0	6.6	9.4	5.3	7.2
24	19.5	16.7	18.0	12.1	9.1	10.8	6.0	4.5	5.4	11.0	9.4	10.5
25	16.7	14.3	15.7	11.5	10.3	11.0	4.5	2.6	3.5	10.1	7.9	8.7
26	14.3	11.9	13.3	11.6	10.3	11.0	2.6	1.4	1.8	7.9	6.7	7.2
27	11.9	9.0	10.6	13.0	11.4	12.4	2.1	1.2	1.6	7.7	6.5	7.2
28	10.4	7.8	8.7	12.8	12.4	12.6	2.6	1.2	1.8	9.1	7.4	8.2
29	10.3	7.2	8.4	13.8	12.4	13.1	2.8	1.5	2.3	11.9	9.1	10.6
30	10.4	6.9	8.5	13.8	12.2	13.1	1.5	0.4	0.9	13.9	11.9	13.1
31	11.1	7.1	9.0	---	---	---	0.8	0.0	0.3	14.7	13.6	14.2
MONTH	23.4	6.9	14.1	14.7	4.5	9.2	13.3	0.0	7.9	14.7	0.0	4.5

03307000 RUSSELL CREEK NEAR COLUMBIA, KY--Contiuned

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	14.6	11.0	13.1	5.0	2.2	3.5	12.2	10.0	11.0	19.0	18.1	18.6
2	11.0	7.9	9.1	6.2	4.2	5.1	14.0	11.5	12.8	19.3	17.2	18.7
3	7.9	6.5	7.1	6.2	3.6	5.1	14.0	11.4	13.0	17.8	14.7	15.9
4	6.5	5.0	5.8	4.0	2.2	3.0	11.5	9.8	10.8	14.8	14.0	14.4
5	5.0	4.1	4.5	6.0	2.4	3.9	12.0	9.5	10.8	16.8	14.1	15.3
6	4.3	3.9	4.1	7.7	3.8	5.5	12.4	9.4	10.9	17.2	15.8	16.5
7	4.6	4.0	4.2	9.5	6.1	7.6	---	---	---	19.0	17.2	18.1
8	5.3	3.4	4.3	12.1	8.0	9.9	14.4	11.8	13.0	20.9	18.7	19.8
9	6.2	3.8	4.9	12.3	9.7	11.2	15.3	14.2	14.6	20.9	20.0	20.3
10	6.8	5.8	6.3	10.7	8.3	9.2	16.7	13.3	15.0	20.0	17.7	18.8
11	7.4	6.0	6.5	9.9	7.0	8.5	17.0	14.2	15.8	19.2	16.5	17.9
12	7.1	5.1	6.0	9.7	8.8	9.2	17.8	16.3	17.0	20.8	18.4	19.5
13	7.0	5.3	6.0	11.1	9.4	10.1	18.0	16.5	17.2	20.2	16.6	18.8
14	6.4	4.3	5.2	12.4	9.2	10.6	17.7	17.1	17.3	16.6	14.9	15.6
15	6.7	4.6	5.6	14.2	11.2	12.8	19.2	16.0	17.6	16.8	14.6	15.7
16	7.5	5.2	6.3	13.8	12.1	13.1	21.1	18.1	19.7	---	---	---
17	7.3	5.4	6.1	12.2	10.8	11.6	21.8	19.8	20.8	17.8	16.5	17.2
18	7.1	4.4	5.6	12.0	11.7	11.9	22.5	20.0	21.3	16.5	13.9	15.0
19	6.6	5.2	5.8	11.8	11.5	11.7	23.2	21.0	22.0	14.1	12.8	13.5
20	9.3	6.6	7.9	12.0	11.7	11.9	23.6	21.4	22.4	14.0	13.3	13.8
21	9.6	7.6	8.5	11.8	10.6	11.3	24.0	21.7	22.7	13.6	12.5	13.1
22	8.4	6.8	7.9	10.6	8.1	9.0	22.7	19.2	21.3	14.5	11.8	13.2
23	8.1	5.4	6.6	8.9	7.0	8.1	20.1	17.2	18.5	16.3	13.1	14.7
24	8.3	5.1	6.5	10.7	8.1	9.5	18.3	16.7	17.3	17.6	14.9	16.2
25	9.6	6.4	7.9	12.1	10.2	11.2	17.2	15.6	16.4	19.3	16.3	17.8
26	8.7	5.7	7.6	11.9	9.9	11.0	16.0	14.5	15.3	20.2	18.3	19.2
27	5.7	3.3	4.3	9.9	7.8	8.7	15.2	14.3	14.7	21.9	18.6	20.1
28	4.7	2.2	3.3	10.3	7.1	8.6	---	---	---	22.6	19.9	21.1
29	---	---	---	14.2	10.3	12.2	19.1	16.4	17.6	23.7	21.0	22.2
30	---	---	---	14.0	12.9	13.5	19.8	16.3	17.9	24.5	21.4	22.8
31	---	---	---	12.9	10.5	11.4	---	---	---	25.4	22.0	23.5
MONTH	14.6	2.2	6.3	14.2	2.2	9.4	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	25.8	22.7	24.1	---	---	---	28.3	25.4	26.6	27.9	23.7	25.5
2	26.8	23.4	24.9	29.4	26.0	27.6	28.3	25.3	26.8	28.7	23.8	26.1
3	28.0	23.9	25.7	30.2	26.3	28.0	29.7	25.5	27.4	29.9	24.3	26.7
4	28.4	24.3	26.2	30.6	26.4	28.3	30.3	26.3	28.1	29.4	24.2	26.5
5	26.7	23.5	25.1	30.3	26.7	28.4	29.9	26.3	28.1	28.5	21.8	24.5
6	24.8	22.7	23.7	29.9	26.5	28.0	29.2	26.4	27.8	30.1	20.7	24.4
7	23.5	21.8	22.5	29.2	24.4	26.7	27.1	23.3	25.2	29.8	22.1	25.2
8	24.3	21.3	22.7	28.3	24.8	26.7	26.4	21.6	23.9	30.1	22.3	25.5
9	25.8	22.2	23.8	28.2	25.6	27.0	26.9	21.3	23.8	31.0	22.3	25.6
10	27.0	22.5	24.5	27.0	25.5	26.3	27.4	22.1	24.7	31.3	21.7	25.4
11	27.0	22.9	24.8	27.4	24.8	26.0	26.6	24.2	25.1	27.6	21.7	23.8
12	27.3	24.1	25.3	26.6	24.2	25.3	29.5	22.9	25.5	26.6	19.0	22.1
13	25.2	23.6	24.5	25.1	22.1	23.1	28.6	23.6	26.0	27.7	19.0	22.8
14	24.2	22.7	23.4	23.5	22.0	22.5	28.6	25.1	26.4	28.4	21.5	24.5
15	24.0	21.2	22.4	25.8	22.4	23.9	27.0	24.6	26.0	23.7	21.9	22.8
16	22.2	20.4	21.3	27.4	23.4	25.2	26.2	24.9	25.5	23.8	22.0	22.7
17	23.6	19.3	21.1	27.4	24.5	25.9	26.0	24.2	24.9	23.5	21.4	22.3
18	24.7	19.4	21.8	28.2	25.2	26.5	26.5	24.1	25.2	24.6	21.5	23.0
19	26.0	21.1	23.3	28.4	25.4	26.7	25.4	24.2	24.8	25.5	22.7	24.0
20	27.1	22.6	24.6	28.2	25.6	26.7	27.1	23.5	25.1	24.9	22.6	23.9
21	27.7	23.5	25.3	27.4	25.4	26.5	28.2	24.3	26.0	23.5	21.9	22.6
22	27.6	22.8	25.0	28.1	25.4	26.7	28.8	25.3	27.0	23.0	21.1	22.0
23	27.4	23.2	25.3	27.5	25.9	26.5	28.9	25.9	27.4	21.4	18.7	19.9
24	28.0	25.1	26.4	26.4	24.0	25.4	28.8	26.0	27.1	19.8	16.6	18.2
25	26.5	25.0	25.6	27.3	24.8	25.8	28.0	25.5	26.6	18.7	17.0	18.0
26	26.2	24.1	25.1	26.7	25.2	25.9	27.1	24.1	25.4	18.8	18.1	18.5
27	26.3	24.3	25.1	27.6	24.8	26.0	26.2	23.6	24.6	18.9	18.6	18.8
28	---	---	---	28.5	25.4	26.9	24.7	22.2	23.0	19.7	18.4	19.0
29	26.9	23.5	24.9	28.9	26.0	27.3	26.0	21.5	23.4	20.4	18.3	19.2
30	28.5	24.5	26.2	27.5	26.1	26.7	26.2	22.2	24.2	20.8	18.7	19.7
31	---	---	---	27.5	25.4	26.3	26.7	23.2	25.0	---	---	---
MONTH	---	---	---	---	---	---	30.3	21.3	25.7	31.3	16.6	22.8

03308500 GREEN RIVER AT MUNFORDVILLE, KY

LOCATION.--Lat 37°16'05", long 85°53'10", Hart County, Hydrologic Unit 05110001, on right bank at downstream side of pier of bridge on U.S. Highway 31W at Munfordville, and at mile 225.9.

DRAINAGE AREA.--1,673 mi^2, of which about 180 mi^2 does not contribute directly to surface runoff.

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--February 1915 to December 1922, October to September 1931, December 1936 to February 1937 (in WSP 838), October 1937 to current year. Monthly discharge only October 1937 to March 1938, published in WSP 1305. Gage-height records collected at same site since 1924 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 1555: 1916(M), drainage area, WSP 1909: 1937.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 451.70 ft above NGVD of 1929. See WRD-KY-90-1 for history of changes prior to Nov. 29, 1940.

REMARKS.-Records good except for estimated daily discharges, which are poor. Flow regulared by Green River Lake beginning February 1969 (station 03305990).

COOPERATION.--U.S. Army Corps of Engineers, Louisville District.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of January 1913 reached a stage of 54.0 ft at former site, discharge, 67,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	146	854	5040	1310	6340	817	12500	5910	2370	580	545	e267
2	144	846	2870	1070	7470	799	9740	5390	1420	572	532	e263
3	139	835	2130	768	6600	796	6460	6620	1050	564	527	e260
4	136	829	1820	668	5260	796	6290	6270	990	556	514	e256
5	137	819	1830	493	4820	786	7650	4820	883	548	500	e250
6	151	808	2440	489	3890	762	7090	4230	867	541	483	e246
7	194	802	2660	478	2520	750	5670	4060	1140	535	458	e242
8	206	801	3360	535	2280	742	4380	3910	1020	532	431	e236
9	208	793	4710	695	1840	741	3810	3390	920	530	e410	e231
10	206	789	4060	715	1740	684	3330	3130	828	529	e394	e225
11	208	783	3370	667	1650	597	2320	2550	754	526	e384	e220
12	285	777	3020	626	1060	594	1840	1500	721	523	e378	e214
13	333	776	4090	758	887	596	1630	1800	974	523	e369	e210
14	296	776	7550	922	979	589	2010	5330	1400	1040	e363	e207
15	659	772	6120	756	1030	578	2120	4430	1370	1060	e358	e204
16	887	773	4660	677	993	599	2430	4030	1080	553	e351	e200
17	632	1170	3920	630	956	1350	2190	4890	928	416	e346	e197
18	414	1220	4220	645	926	4980	1950	13500	814	498	e341	e195
19	311	1220	4270	725	887	7880	1810	18900	751	564	e330	e193
20	262	1240	4080	756	885	14500	1710	10100	706	593	e325	e190
21	235	1220	4520	798	896	21400	1650	5750	677	538	e322	203
22	327	1210	4040	1070	891	13700	1600	6510	644	507	e318	285
23	433	1190	3030	4120	870	6080	1530	6470	594	540	e313	333
24	438	1200	3140	12700	833	5860	1450	6550	580	559	e309	237
25	468	1230	2330	15500	806	7690	3550	6450	575	551	e301	186
26	523	1190	2070	8790	798	7900	4800	4680	633	581	e296	229
27	672	1480	2200	5800	799	10300	4320	3290	693	603	e292	3680
28	735	1560	2100	6200	812	8690	6150	3030	689	598	e284	5830
29	895	1960	1990	6280	---	8700	5980	2920	654	590	e280	2690
30	889	6350	1760	6310	---	8250	4680	2830	598	569	e277	1470
31	868	---	1360	6160	---	7010	---	2750	---	552	e273	---
TOTAL	12437	36273	104760	88111	59718	145516	122640	165990	27323	17971	11604	19649
MEAN	401.2	1209	3379	2842	2133	4694	4088	5355	910.8	579.7	374.3	655.0
MAX	895	6350	7550	15500	7470	21400	12500	18900	2370	1060	545	5830
MIN	136	772	1360	478	798	578	1450	1500	575	416	273	186

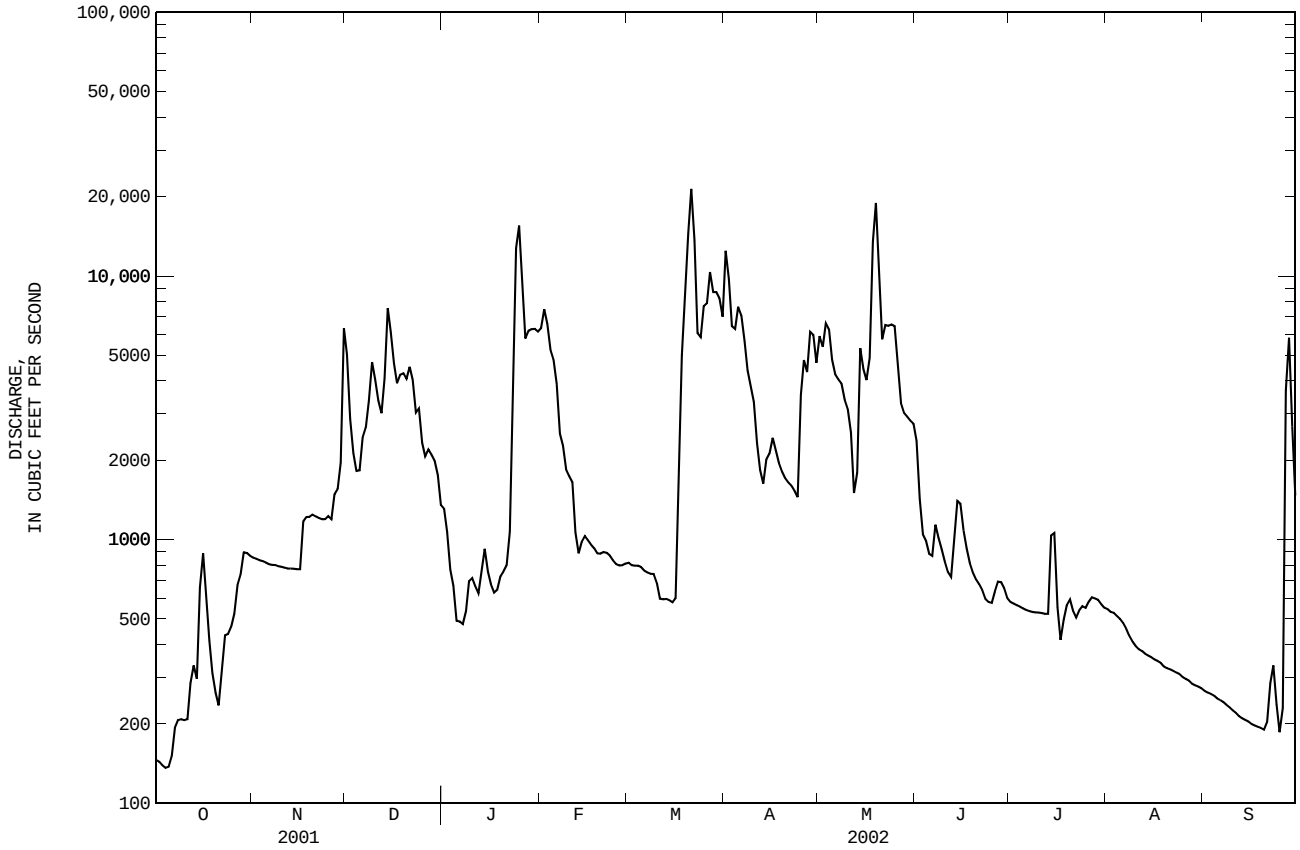
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2002, BY WATER YEAR (WY)

MEAN	1235	2335	3984	4562	5393	4963	3616	3249	2297	1052	846.0	1181
MAX	5337	5187	12800	12130	13610	12040	8632	13250	7209	3132	3642	6104
(WY)	1976	1978	1979	1974	1989	1975	1994	1983	1997	1973	1977	1979
MIN	193	210	545	255	1952	1066	552	487	214	280	202	152
(WY)	2001	1972	1981	1981	1992	1983	1986	1988	1988	1993	1993	1999

03308500 GREEN RIVER AT MUNFORDVILLE, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1970 - 2002	
ANNUAL TOTAL	548979		811992			
ANNUAL MEAN	1504		2225		2880	
HIGHEST ANNUAL MEAN					5285	1979
LOWEST ANNUAL MEAN					1233	2000
HIGHEST DAILY MEAN	13100	Feb 17	21400	Mar 21	62800	May 8 1984
LOWEST DAILY MEAN	136	Oct 4	136	Oct 4	136	Oct 4 2001
ANNUAL SEVEN-DAY MINIMUM	142	Sep 29	150	Oct 1	142	Sep 9 1999
MAXIMUM PEAK FLOW			22200	Mar 21	76800	Mar 1 1962
MAXIMUM PEAK STAGE			28.29	Mar 21	57.72	Mar 1 1962
INSTANTANEOUS LOW FLOW					157	Jul 8 1988
10 PERCENT EXCEEDS	4240		6230		6960	
50 PERCENT EXCEEDS	777		846		1390	
90 PERCENT EXCEEDS	185		265		276	

e Estimated



03308500 GREEN RIVER AT MUNFORDVILLE, KY--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--WATER-TEMPERATURE; Water years 1950-77, 1980, 1983-90, August 1992 to September 1994, December 22, 1999 to current year.

GAGE.--Water-temperture recorder with telemetry.

REMARKS.-Records fair.

COOPERATION.--Nature Conservancy.

EXTREMES FOR PERIOD OF DAILY RECORD.--Maximum daily, 29°C, July 13-17, 1980; minimum daily 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--Maximum recorded water temperature 27.8°C , Sept. 3, 4; minimum recorded water temperature 3.5°C , Jan. 5.

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	18.7	10.4	14.1	11.5	10.8	11.0	14.4	13.2	13.8	---	---	5.9
2	19.4	11.6	15.1	12.6	11.5	12.1	13.2	12.8	12.9	---	---	5.8
3	20.2	12.3	15.7	13.3	12.6	13.0	12.8	11.8	12.2	5.6	5.1	5.4
4	19.9	12.6	16.0	13.1	12.1	12.5	12.0	11.6	11.8	5.1	4.0	4.6
5	20.1	14.4	16.9	12.7	12.0	12.3	12.2	11.9	12.1	4.0	3.5	3.8
6	14.8	10.6	13.0	12.0	10.9	11.3	12.7	12.2	12.4	3.7	3.6	3.6
7	12.8	7.9	10.8	11.1	10.3	10.7	13.2	12.7	13.0	4.0	3.7	3.8
8	13.0	10.3	11.7	11.0	10.1	10.5	14.1	13.2	13.8	4.6	4.0	4.2
9	14.0	11.2	12.6	11.3	10.9	11.1	14.0	13.1	13.6	4.6	4.5	4.6
10	15.9	13.2	14.5	11.0	9.8	10.3	13.1	12.0	12.4	4.9	4.6	4.8
11	16.6	15.6	16.1	10.7	10.2	10.5	12.0	11.7	11.9	5.8	4.9	5.4
12	16.8	16.4	16.6	10.6	10.0	10.3	12.3	12.0	12.1	5.8	5.5	5.7
13	17.7	16.8	17.1	10.4	9.6	10.0	13.9	12.3	13.1	5.9	5.5	5.8
14	17.9	16.2	17.2	10.6	9.9	10.2	14.4	13.9	14.2	5.9	5.4	5.6
15	16.5	14.4	15.7	10.7	9.9	10.3	14.4	13.8	14.2	5.9	5.4	5.6
16	16.3	14.0	15.2	10.8	10.1	10.4	13.8	13.3	13.4	5.6	5.1	5.3
17	14.0	11.9	12.7	11.6	10.8	11.2	13.8	13.3	13.5	5.6	5.3	5.5
18	11.9	10.3	11.0	12.2	11.6	11.9	14.0	13.4	13.8	5.5	5.2	5.3
19	12.3	11.0	11.6	12.6	12.2	12.4	13.4	12.0	12.7	5.3	4.8	5.1
20	13.8	11.4	12.6	12.7	11.2	12.0	12.0	10.8	11.2	5.1	4.6	4.8
21	14.8	11.5	13.4	11.2	10.1	10.4	10.9	10.5	10.7	5.0	4.6	4.8
22	14.5	13.0	13.7	10.2	9.7	10.0	10.7	10.2	10.4	5.3	4.7	5.1
23	15.8	14.5	15.1	10.6	10.0	10.2	10.7	10.5	10.6	7.4	5.2	6.0
24	17.2	15.8	16.4	11.5	10.6	11.0	10.5	9.7	10.1	10.4	7.4	9.0
25	17.0	14.5	15.4	12.4	11.5	12.0	9.7	7.5	8.6	10.6	10.1	10.4
26	14.5	12.7	13.3	12.5	11.9	12.2	7.5	5.8	6.4	10.1	8.4	9.2
27	12.7	10.8	11.6	13.1	12.3	12.7	5.8	5.3	5.5	8.4	7.4	7.8
28	10.8	9.7	10.1	13.3	13.1	13.2	5.7	5.3	5.4	7.8	7.1	7.4
29	10.3	9.5	9.9	13.5	13.2	13.3	5.8	5.6	5.7	8.4	7.8	8.0
30	10.5	9.6	10.0	14.6	13.5	14.3	6.1	5.7	6.0	9.0	8.4	8.6
31	10.8	10.0	10.3	---	---	---	6.1	5.8	6.0	9.3	8.8	9.0
MONTH	20.2	7.9	13.7	14.6	9.6	11.4	14.4	5.3	11.1	---	---	6.0

03308500 GREEN RIVER AT MUNFORDVILLE, KY--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	9.5	9.1	9.4	7.0	6.9	7.0	13.8	13.3	13.4	16.5	16.2	16.3
2	9.1	8.2	8.8	7.6	7.0	7.2	13.9	13.4	13.5	16.5	16.4	16.4
3	8.2	7.5	7.8	7.7	6.7	7.3	14.4	13.9	14.2	16.5	16.3	16.3
4	7.5	6.7	7.1	7.5	7.2	7.3	14.4	13.6	14.1	16.3	15.9	16.1
5	6.7	6.2	6.3	7.3	7.1	7.2	13.6	13.2	13.3	15.9	15.6	15.8
6	6.2	5.9	6.0	7.6	7.3	7.4	13.3	13.0	13.2	16.1	15.8	16.0
7	6.5	6.2	6.3	8.7	7.6	8.2	13.4	13.1	13.2	16.5	16.1	16.3
8	6.3	5.9	6.2	10.0	8.7	9.4	13.9	13.4	13.6	17.0	16.4	16.7
9	6.4	6.0	6.2	11.5	10.0	10.8	14.6	13.9	14.3	17.7	17.0	17.4
10	7.2	6.4	6.8	11.5	9.2	10.0	14.6	14.4	14.5	17.8	17.5	17.7
11	7.4	7.1	7.2	9.2	7.9	8.5	14.6	14.4	14.5	17.5	17.1	17.3
12	7.2	6.6	6.9	10.7	9.1	10.0	15.0	14.6	14.8	17.1	17.0	17.1
13	7.3	6.6	6.9	11.8	10.7	11.3	15.4	15.0	15.2	17.4	17.0	17.2
14	6.7	5.8	6.2	11.9	11.4	11.7	16.0	15.4	15.7	17.5	17.3	17.4
15	7.2	6.5	6.7	13.6	11.9	12.7	16.4	16.0	16.2	17.3	16.8	17.0
16	7.7	7.1	7.3	14.1	13.0	13.7	17.0	16.4	16.7	---	---	16.7
17	7.7	7.3	7.5	13.4	12.9	13.2	17.7	17.0	17.3	---	---	16.6
18	7.4	6.4	6.8	14.8	13.4	14.4	18.3	17.7	18.0	16.7	16.4	16.6
19	7.4	6.9	7.1	14.7	14.6	14.6	18.8	18.3	18.6	16.4	15.8	16.1
20	8.6	7.4	8.0	14.6	14.5	14.5	19.2	18.8	19.0	15.8	15.3	15.6
21	9.1	8.6	8.9	14.5	14.4	14.5	19.5	19.2	19.3	15.3	15.0	15.1
22	9.1	7.7	8.5	14.4	13.6	14.0	19.6	19.1	19.4	15.3	15.0	15.1
23	7.7	6.5	6.9	13.6	12.7	13.1	19.1	17.6	18.2	15.7	15.3	15.5
24	7.3	6.4	6.8	12.7	12.3	12.4	17.6	17.1	17.3	16.3	15.7	16.0
25	8.4	7.3	7.8	12.9	12.4	12.5	17.2	16.9	17.1	16.8	16.3	16.6
26	8.9	7.0	8.3	13.0	12.8	12.9	17.1	16.8	16.9	17.4	16.8	17.2
27	7.0	6.4	6.6	13.0	12.5	12.8	16.8	15.8	16.4	17.7	17.4	17.6
28	7.0	6.5	6.8	12.5	12.1	12.2	---	---	15.5	17.9	17.7	17.8
29	---	---	---	12.9	12.1	12.3	16.6	15.7	16.2	18.1	17.9	18.0
30	---	---	---	13.7	12.9	13.2	16.6	16.5	16.6	18.5	18.1	18.3
31	---	---	---	13.9	13.7	13.8	---	---	---	18.7	18.5	18.6
MONTH	9.5	5.8	7.2	14.8	6.7	11.3	---	---	15.9	---	---	16.7

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	19.0	18.7	18.9	25.3	24.6	24.9	26.5	26.3	26.4	27.2	26.4	26.7
2	19.4	19.0	19.2	25.6	25.1	25.3	26.6	26.3	26.4	27.3	26.7	27.0
3	20.2	19.4	19.8	25.9	25.4	25.6	26.7	26.4	26.5	27.8	26.8	27.2
4	21.0	20.2	20.6	26.1	25.5	25.8	27.0	26.7	26.8	27.8	27.4	27.6
5	21.6	21.0	21.3	26.2	25.8	26.0	27.2	26.8	27.0	27.6	25.9	26.5
6	21.8	21.6	21.7	26.2	25.2	25.5	27.3	26.8	27.1	26.4	25.1	25.8
7	21.7	21.1	21.4	25.2	23.9	24.4	26.8	25.3	25.9	26.9	26.2	26.5
8	21.1	20.8	21.0	25.0	23.8	24.3	25.3	24.4	24.7	27.0	26.1	26.6
9	21.3	20.9	21.1	25.6	24.8	25.1	24.8	23.9	24.3	27.2	26.6	26.9
10	21.7	21.3	21.5	25.7	25.3	25.5	24.9	23.8	24.2	27.1	26.4	26.7
11	22.0	21.7	21.9	25.5	25.0	25.2	25.3	24.9	25.2	27.1	26.5	26.8
12	---	---	22.3	25.1	24.3	24.6	25.3	24.6	24.9	---	---	25.4
13	---	---	22.7	24.6	24.1	24.4	25.4	24.8	25.1	---	---	---
14	22.6	22.4	22.5	24.1	23.8	24.0	25.8	25.3	25.5	---	---	---
15	22.4	21.9	22.2	24.1	24.0	24.0	26.1	25.4	25.6	---	---	---
16	21.9	21.4	21.7	24.4	23.9	24.0	26.2	26.0	26.1	---	---	---
17	21.4	20.7	21.0	25.2	24.4	24.8	26.1	25.8	25.9	---	---	---
18	20.7	20.3	20.5	25.2	25.0	25.1	26.3	25.8	26.0	---	---	---
19	21.0	20.4	20.7	25.2	25.0	25.1	26.4	26.1	26.2	---	---	---
20	21.8	21.0	21.3	25.3	25.0	25.1	26.3	25.7	26.0	---	---	---
21	22.5	21.8	22.1	25.6	25.2	25.3	26.8	25.9	26.2	24.5	23.7	24.0
22	22.6	22.3	22.4	26.0	25.6	25.8	27.4	26.5	26.8	23.8	23.3	23.5
23	23.1	22.5	22.7	26.2	26.0	26.1	27.6	27.2	27.4	23.3	22.8	23.1
24	23.9	23.1	23.4	26.2	25.9	26.0	27.6	27.2	27.4	22.8	22.1	22.3
25	24.2	23.9	24.0	25.9	25.7	25.8	27.4	27.0	27.2	22.1	21.8	22.0
26	24.2	23.6	23.8	25.9	25.8	25.9	27.2	25.8	26.3	21.8	21.7	21.8
27	23.9	23.7	23.8	26.0	25.9	25.9	26.0	25.5	25.8	21.9	21.3	21.5
28	23.8	23.6	23.7	26.3	26.0	26.1	26.0	25.3	25.6	22.3	21.5	21.9
29	23.9	23.6	23.6	26.6	26.3	26.4	25.9	25.0	25.4	22.3	22.1	22.2
30	24.6	23.9	24.1	26.7	26.6	26.6	26.3	25.5	25.9	22.1	21.8	21.9
31	---	---	---	26.7	26.4	26.5	26.8	26.0	26.3	---	---	---
MONTH	---	---	21.9	26.7	23.8	25.3	27.6	23.8	26.0	---	---	---

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 mi^2, of which about 120 mi^2 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 NGVD of 1929. Prior to Jan. 8, 1960, nonrecording gage at same site and datum.

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

COOPERATION.--Kentucky Natural Resources and Environmental Protection Cabinet.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	122	1220	508	1240	186	955	1120	335	e229	e114	e200
2	30	113	809	482	1050	183	839	1270	311	e195	e105	e180
3	34	115	636	461	824	188	747	1650	288	e184	e96	e159
4	33	110	535	442	722	183	669	1150	268	e174	e87	e137
5	33	105	457	430	621	173	608	940	258	e165	e78	e121
6	38	99	412	429	557	166	562	833	275	e162	e69	e108
7	61	93	475	435	530	163	523	2130	297	e153	e56	e96
8	56	91	636	420	492	160	496	1290	262	e143	e69	e87
9	44	87	753	402	446	160	479	890	235	e133	e60	e81
10	43	84	602	396	414	191	451	731	216	e126	e55	e73
11	39	81	516	394	396	186	418	624	204	e122	e50	e67
12	760	78	468	391	366	181	517	562	201	e126	e49	e61
13	473	77	946	381	343	177	890	1660	276	e113	e50	e61
14	492	75	949	371	319	174	1140	2590	300	e107	e49	e56
15	441	75	845	361	302	170	1240	1380	256	e316	e48	e53
16	253	71	968	347	290	416	881	1030	218	e534	e46	e53
17	200	73	2090	341	275	834	732	1030	200	e521	e50	e115
18	167	68	1900	336	258	728	675	2490	186	e310	e65	e110
19	144	69	1530	342	245	1190	596	1650	173	e243	e65	e83
20	131	72	1230	340	250	4650	537	1180	162	e207	e101	e72
21	119	78	1030	354	257	7810	617	958	153	e185	e121	108
22	109	73	914	421	242	3170	1280	811	145	e165	e157	100
23	106	71	925	808	224	1920	830	712	138	e157	e147	70
24	124	72	911	2420	212	1570	663	637	132	e189	e127	61
25	553	109	805	2740	204	1270	1620	578	130	e182	e110	53
26	330	98	741	1720	208	3210	1060	542	124	e164	e106	62
27	222	991	692	1360	209	3260	813	498	e167	e164	e92	2500
28	177	948	651	1150	197	1770	3080	454	e187	e150	e275	2110
29	150	1570	615	1020	---	1410	2550	419	e171	e141	e461	728
30	138	2180	570	930	---	1290	1410	393	e246	e132	e260	517
31	129	---	532	864	---	1050	---	363	---	e123	e202	---
TOTAL	5664	7948	26363	21796	11693	38189	27878	32565	6514	6015	3420	8282
MEAN	182.7	264.9	850.4	703.1	417.6	1232	929.3	1050	217.1	194.0	110.3	276.1
MAX	760	2180	2090	2740	1240	7810	3080	2590	335	534	461	2500
MIN	30	68	412	336	197	160	418	363	124	107	46	53
CFSM	0.77	1.12	3.59	2.97	1.76	5.20	3.92	4.43	0.92	0.82	0.47	1.16
IN.	0.89	1.25	4.14	3.42	1.84	5.99	4.38	5.11	1.02	0.94	0.54	1.30

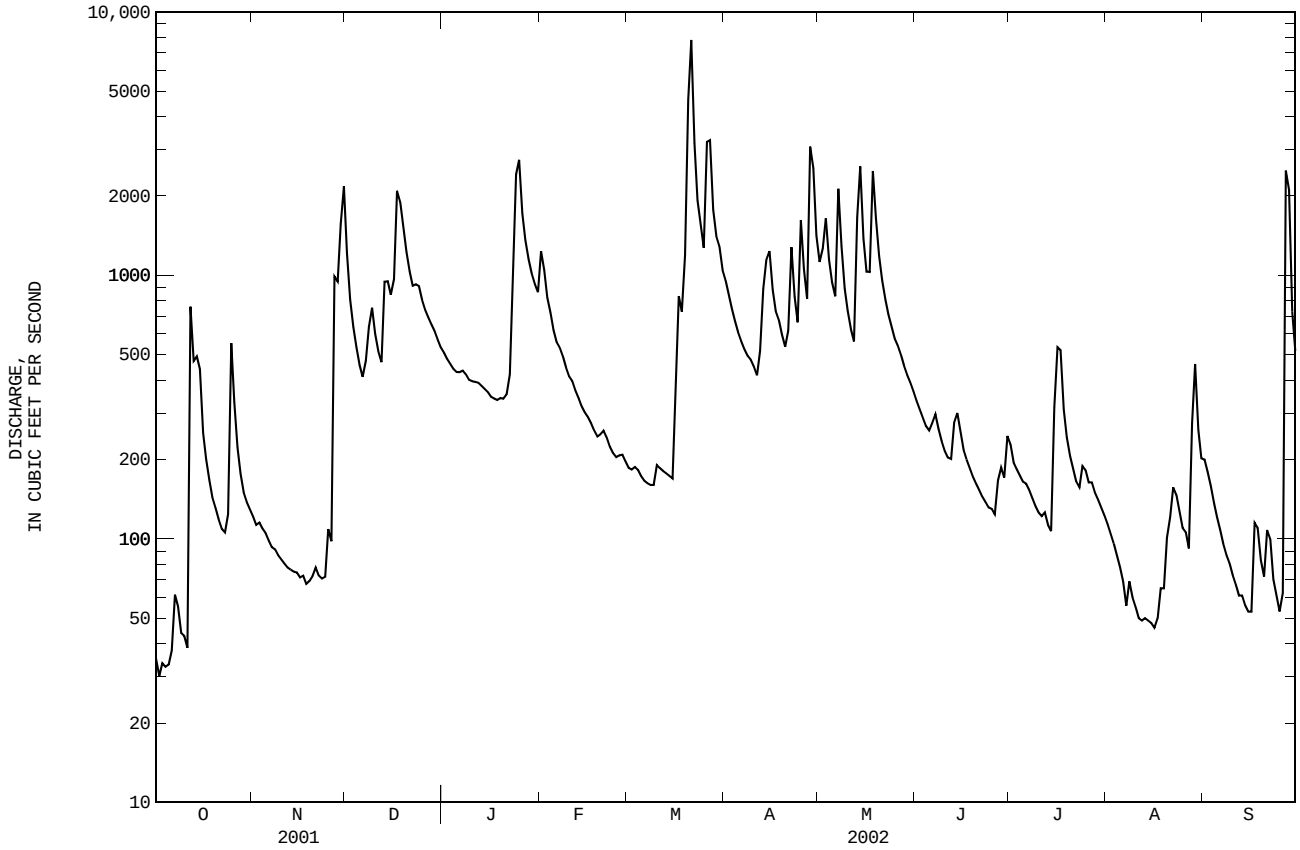
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2002, BY WATER YEAR (WY)

MEAN	148.5	273.4	609.3	666.6	863.1	986.7	752.3	580.8	341.4	239.4	169.6	191.4
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	44.3	44.7	55.5	156	228	200	131	71.9	83.2	48.6	35.6
(WY)	1970	2000	1964	1981	1964	1983	1986	1976	1988	1994	1999	1999

03310300 NOLIN RIVER AT WHITE MILLS, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1960 - 2002	
ANNUAL TOTAL	118734		196327			
ANNUAL MEAN	325.3		537.9		483.4	
HIGHEST ANNUAL MEAN					971	1979
LOWEST ANNUAL MEAN					217	1999
HIGHEST DAILY MEAN	3020	Feb 17	7810	Mar 21	20000	Mar 2 1997
LOWEST DAILY MEAN	30	Oct 2	30	Oct 2	27	Oct 23 1998
ANNUAL SEVEN-DAY MINIMUM	34	Sep 29	38	Oct 1	31	Oct 17 1998
MAXIMUM PEAK FLOW			8600	Mar 21	24500	Mar 2 1997
MAXIMUM PEAK STAGE			24.74	Mar 21	36.46	Mar 2 1997
INSTANTANEOUS LOW FLOW					31	Oct 1 1959
ANNUAL RUNOFF (CFSM)	1.37		2.27		2.04	
ANNUAL RUNOFF (INCHES)	18.64		30.82		27.71	
10 PERCENT EXCEEDS	785		1250		1050	
50 PERCENT EXCEEDS	170		275		236	
90 PERCENT EXCEEDS	48		70		60	

e Estimated



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 mi^2, of which about 223 mi^2 does not contribute directly to surface runoff. Area at site used Oct. 1, 1960, to Sept. 30, 1973, 707 mi^2.

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 is 400 ft above NGVD of 1929. 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, Louisville District.

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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

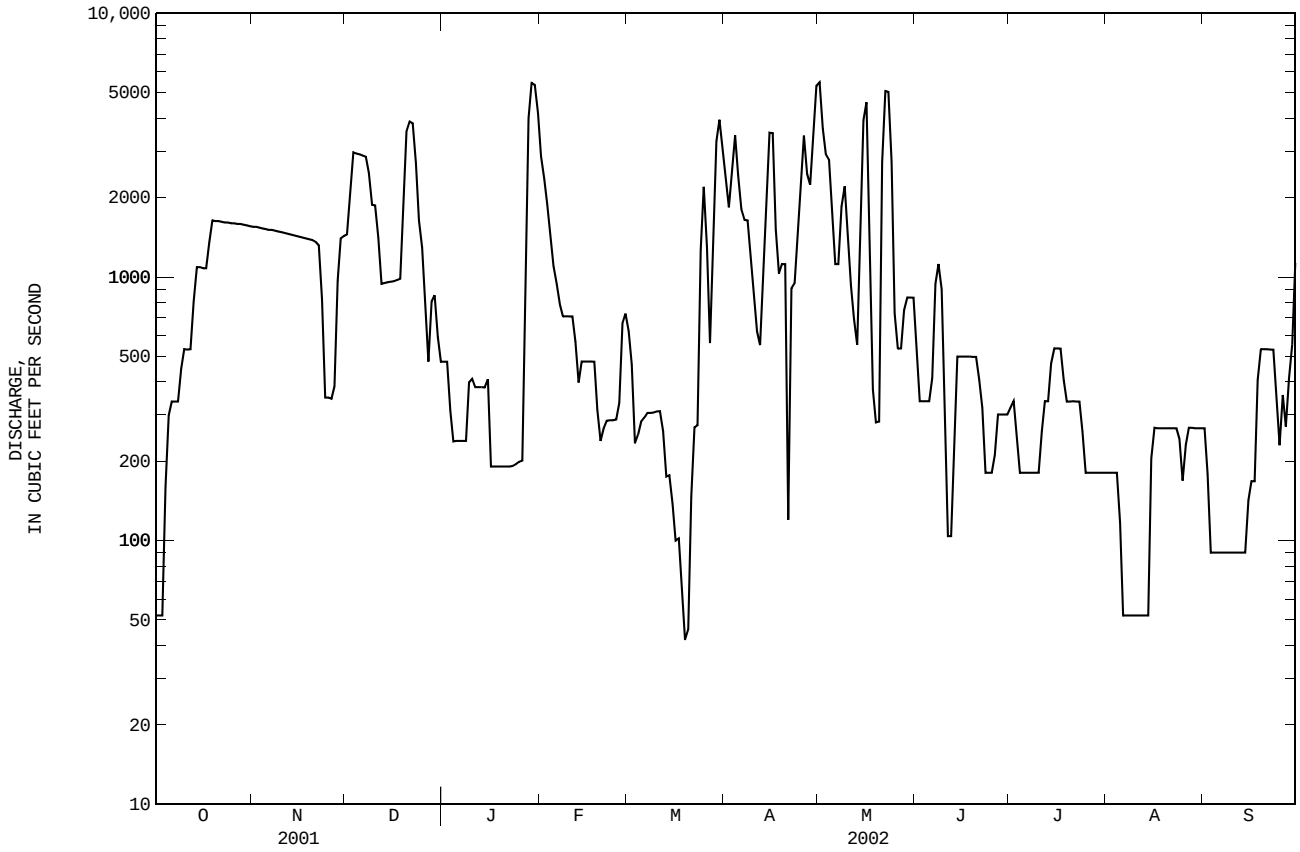
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	1550	1450	477	2870	622	2460	5480	560	319	181	267
2	52	1550	2050	477	2360	466	1840	3660	338	338	181	179
3	52	1540	2970	311	1880	234	2510	2920	338	246	181	90
4	160	1530	2940	238	1410	253	3450	2780	338	181	181	90
5	299	1520	2920	239	1100	283	2430	1760	338	181	117	90
6	337	1510	2890	239	941	293	1810	1120	413	181	52	90
7	337	1510	2860	239	786	305	1650	1120	943	181	52	90
8	337	1500	2480	239	709	305	1640	1850	1120	181	52	90
9	449	1490	1880	398	710	306	1140	2210	898	181	52	90
10	532	1480	1870	411	709	309	834	1440	335	181	52	90
11	531	1470	1410	382	709	310	622	929	104	260	52	90
12	532	1460	943	382	568	260	552	693	104	338	52	90
13	808	1450	949	382	398	175	1100	553	203	338	52	90
14	1090	1440	956	381	478	177	2080	1670	499	470	52	90
15	1090	1430	960	409	478	138	3530	3930	499	536	205	142
16	1080	1420	964	191	478	100	3520	4600	499	536	268	168
17	1080	1410	973	191	478	102	1520	1770	499	535	267	168
18	1360	1400	984	191	477	68	1030	375	499	406	267	407
19	1640	1390	2120	191	313	42	1120	281	498	337	267	533
20	1630	1380	3560	191	239	46	1120	283	498	337	267	532
21	1630	1360	3890	191	266	147	120	2730	406	338	267	532
22	1620	1320	3830	191	285	269	907	5080	319	337	267	531
23	1610	826	2710	192	286	274	949	5040	181	337	267	530
24	1610	349	1640	195	286	1270	1370	2730	181	259	243	365
25	1600	349	1290	199	288	2200	2130	729	181	181	169	230
26	1600	345	757	201	333	1300	3440	535	211	181	231	357
27	1590	385	478	1260	667	561	2460	536	301	181	268	271
28	1590	969	806	4010	726	1460	2240	749	301	181	268	414
29	1580	1400	853	5450	---	3270	3580	836	301	181	267	556
30	1570	1430	592	5360	---	3950	5310	836	301	181	267	1130
31	1560	---	477	4190	---	3120	---	835	---	181	267	---
TOTAL	31008	38163	55452	27598	21228	22615	58464	60060	12206	8801	5631	8392
MEAN	1000	1272	1789	890.3	758.1	729.5	1949	1937	406.9	283.9	181.6	279.7
MAX	1640	1550	3890	5450	2870	3950	5310	5480	1120	536	268	1130
MIN	52	345	477	191	239	42	120	281	104	181	52	90

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2002, BY WATER YEAR (WY)

MEAN	904.8	1311	1220	1473	1592	1191	872.5	1050	813.4	491.9	285.8	484.8
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	0.000	452	1.50	122	91.4	203	0.63	0.39	0.000	0.000	0.000	0.000
(WY)	1976	1964	1985	1981	1992	1983	1966	1964	1964	1964	1964	1975

03311000 NOLIN RIVER AT KYROCK, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1964 - 2002	
ANNUAL TOTAL	219942		349618			
ANNUAL MEAN	602.6		957.9		970.7	
HIGHEST ANNUAL MEAN					1880	1989
LOWEST ANNUAL MEAN					456	2001
HIGHEST DAILY MEAN	5440	Feb 22	5480	May 1	10300	May 28 1983
LOWEST DAILY MEAN	41	Sep 19	42	Mar 19	0.00	May 2 1964
ANNUAL SEVEN-DAY MINIMUM	48	Apr 21	52	Aug 6	0.00	May 2 1964
MAXIMUM PEAK FLOW					22700	Jan 30 1932
MAXIMUM PEAK STAGE			29.05	Jan 28	59.27	Mar 2 1962
10 PERCENT EXCEEDS	1590		2460		2450	
50 PERCENT EXCEEDS	138		498		470	
90 PERCENT EXCEEDS	50		155		52	



03311500 GREEN RIVER AT LOCK 6 AT BROWNSVILLE, KY

LOCATION.--Lat 37°12'25", long 85°15'40", Edmonson County, Hydrologic Unit 05110001, on right bank 200 ft upstream from lock and dam 6, 0.8 mi downstream from Indian Creek, 1.0 mi northeast of Brownsville, 1.8 mi downstream from Nolin River, and at mile 181.7.

DRAINAGE AREA.--2,762 mi^2, of which about 600 mi^2 does not contribute directly to surface runoff.

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--December 1999 to current year.

INSTRUMENTATION.--Temperature recorder with telemetry since December 1999.

COOPERATION.--U. S. Army Corps of Engineers, Louisville District and Nature Conservancy.

EXTREMES FOR PERIOD OF DAILY RECORD.--Maximum recorded 29.0°C, July 7, 2002, minimum recorded 20°C, Jan. 3, 4, 2001.

EXTREMES FOR CURRENT YEAR.--Maximum recorded 29.0°C , July 7; minimum recorded 3.3°C , Jan. 6.

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	13.3	13.2	13.3	---	---	---	12.7	12.5	12.6	5.0	4.6	4.8
2	13.3	13.3	13.3	---	---	---	12.6	12.3	12.4	4.8	4.3	4.6
3	13.3	13.3	13.3	---	---	---	12.3	12.0	12.1	4.5	3.8	4.2
4	13.5	13.3	13.3	---	---	---	12.1	11.9	12.0	3.8	3.5	3.6
5	13.3	13.3	13.3	14.9	14.8	14.8	11.9	11.7	11.8	3.7	3.4	3.5
6	13.9	13.3	13.5	14.9	14.6	14.7	11.9	11.8	11.8	3.5	3.3	3.4
7	14.1	13.3	13.4	14.7	14.4	14.5	12.1	11.8	11.9	3.9	3.5	3.7
8	13.4	13.3	13.4	14.5	14.2	14.4	12.4	12.1	12.3	4.0	3.6	3.8
9	13.4	13.3	13.3	14.5	14.0	14.2	12.3	11.9	12.2	4.6	4.0	4.3
10	13.4	13.4	13.4	14.0	13.7	13.8	11.9	11.4	11.6	5.0	4.6	4.8
11	13.7	13.4	13.4	13.8	13.5	13.6	11.4	10.9	11.2	5.1	4.7	4.9
12	---	---	---	13.6	13.3	13.4	10.9	10.7	10.8	5.2	4.8	5.0
13	---	---	---	13.3	13.1	13.2	11.8	10.9	11.2	5.3	4.8	5.0
14	13.0	12.6	12.7	13.2	13.0	13.1	12.2	11.8	12.1	5.5	5.2	5.4
15	12.7	12.6	12.7	13.1	12.8	13.0	12.4	12.2	12.3	5.7	5.2	5.5
16	13.2	12.7	13.1	13.0	12.7	12.9	12.3	12.2	12.2	5.9	5.4	5.6
17	---	---	---	13.1	12.8	12.9	12.2	12.1	12.2	5.9	5.4	5.6
18	---	---	---	12.8	12.6	12.7	12.1	11.8	12.0	5.6	5.3	5.4
19	---	---	---	12.8	12.6	12.7	11.8	11.4	11.6	5.3	4.9	5.1
20	---	---	---	12.6	12.4	12.5	11.4	10.6	11.0	5.4	4.9	5.1
21	---	---	---	12.4	12.1	12.3	10.6	9.7	10.2	5.3	4.8	5.1
22	---	---	---	12.2	11.9	12.0	9.8	9.6	9.7	5.0	4.6	4.9
23	---	---	---	11.9	10.8	11.4	9.7	9.5	9.7	6.5	5.0	5.5
24	---	---	---	11.1	10.7	10.9	9.5	9.1	9.4	9.5	6.5	8.7
25	---	---	---	11.4	10.9	11.2	9.1	8.4	8.7	9.9	9.1	9.6
26	---	---	---	11.7	11.2	11.5	8.4	7.4	7.9	9.9	9.6	9.8
27	---	---	---	12.5	11.7	12.3	7.4	6.3	6.9	9.6	8.2	8.9
28	---	---	---	12.9	12.5	12.7	6.3	6.0	6.2	8.2	7.2	7.7
29	---	---	---	12.9	12.8	12.9	6.2	5.8	6.1	7.5	7.2	7.4
30	---	---	---	12.9	12.7	12.8	5.8	5.3	5.7	8.0	7.5	7.7
31	---	---	---	---	---	---	5.3	4.9	5.1	8.7	8.0	8.3
MONTH	---	---	---	---	---	---	12.7	4.9	10.4	9.9	3.3	5.7

03311500 GREEN RIVER AT LOCK 6 AT BROWNSVILLE, KY--Continued

WATER TEMPERATURE , in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	9.0	8.7	8.9	7.2	6.7	7.0	---	---	---	14.9	14.5	14.7
2	9.0	8.8	8.9	7.2	6.7	6.9	---	---	---	14.8	14.7	14.7
3	8.8	8.2	8.6	6.9	6.5	6.7	---	---	---	14.7	14.6	14.7
4	8.2	7.6	7.9	6.6	6.2	6.4	11.5	11.4	11.4	14.8	14.5	14.6
5	7.6	7.0	7.3	6.8	6.1	6.4	11.6	11.1	11.4	14.9	14.7	14.8
6	7.0	6.7	6.8	6.7	5.8	6.3	11.2	10.9	11.0	14.9	14.8	14.8
7	6.7	6.6	6.7	7.5	6.4	7.0	11.2	10.9	11.1	15.2	14.9	15.0
8	7.0	6.6	6.8	8.5	7.3	7.9	11.5	11.2	11.3	15.7	15.2	15.4
9	7.0	6.8	6.9	9.1	8.4	8.8	11.9	11.5	11.6	16.1	15.7	15.9
10	7.4	7.0	7.2	9.4	8.6	9.0	12.4	11.9	12.1	16.3	16.0	16.1
11	7.6	7.3	7.5	9.7	8.7	9.2	12.9	12.3	12.5	16.4	16.1	16.2
12	7.7	7.4	7.6	9.8	9.2	9.4	13.0	12.8	12.9	16.5	16.4	16.5
13	7.7	7.4	7.6	10.3	9.4	9.8	13.3	13.0	13.1	16.7	16.2	16.5
14	7.8	7.5	7.6	11.3	9.7	10.5	13.2	13.0	13.1	16.2	15.9	16.0
15	8.0	7.5	7.7	11.3	10.7	11.0	13.1	12.9	13.0	16.3	16.0	16.1
16	8.0	7.6	7.8	11.4	11.2	11.3	13.6	13.0	13.2	16.4	16.2	16.3
17	8.0	7.6	7.8	11.8	11.4	11.7	14.8	13.6	14.0	16.4	16.3	16.3
18	8.0	7.5	7.7	12.3	11.8	12.0	15.4	14.8	15.2	16.3	15.2	15.6
19	7.9	7.6	7.7	12.3	11.8	12.1	15.8	15.4	15.6	15.5	15.1	15.4
20	8.3	7.8	8.0	11.9	11.8	11.9	16.1	15.7	15.9	15.1	14.7	14.9
21	8.7	8.1	8.4	11.9	11.7	11.8	16.4	16.0	16.2	14.9	14.4	14.6
22	8.7	8.4	8.6	11.7	11.2	11.4	16.4	16.1	16.2	15.1	14.9	14.9
23	8.7	8.3	8.5	11.2	10.6	10.9	16.5	15.9	16.3	15.5	15.1	15.2
24	8.6	8.0	8.3	10.6	10.1	10.3	15.9	15.0	15.3	15.8	15.5	15.6
25	8.9	8.0	8.5	10.2	10.1	10.2	15.2	14.5	15.0	16.1	15.8	15.9
26	8.6	8.3	8.4	10.5	10.1	10.3	14.5	14.1	14.2	16.4	16.1	16.2
27	8.3	7.2	7.8	10.5	10.3	10.4	14.2	13.8	14.0	16.8	16.4	16.6
28	7.5	7.1	7.2	10.3	9.8	10.1	14.2	14.0	14.2	17.4	16.8	17.1
29	---	---	---	10.2	10.0	10.1	14.1	13.8	13.9	17.5	17.3	17.4
30	---	---	---	---	---	---	14.5	14.1	14.2	17.9	17.5	17.7
31	---	---	---	---	---	---	---	---	---	18.2	17.9	18.0
MONTH	9.0	6.6	7.8	---	---	---	---	---	---	18.2	14.4	15.8

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	18.8	18.2	18.4	25.6	24.4	25.1	28.5	26.7	27.5	26.8	24.3	25.3
2	19.6	18.8	19.1	26.6	24.7	25.6	28.5	26.7	27.6	27.1	24.7	25.7
3	20.9	19.6	20.1	27.7	25.5	26.5	28.7	26.8	27.8	26.8	24.9	25.9
4	21.8	20.5	21.1	28.0	25.9	27.0	28.6	26.9	27.8	27.3	25.2	26.2
5	22.5	21.1	21.7	28.4	26.5	27.4	28.8	26.8	27.8	27.1	24.4	25.6
6	22.2	21.7	21.8	28.8	26.4	27.5	28.5	27.3	27.8	27.7	24.1	25.7
7	21.7	20.8	21.1	29.0	26.1	27.3	27.9	26.7	27.3	27.7	24.7	26.1
8	20.8	19.9	20.1	28.4	26.3	27.3	28.4	26.5	27.3	27.9	24.8	26.1
9	20.2	19.2	19.6	28.8	26.8	27.7	28.3	26.1	27.2	27.5	24.9	26.1
10	22.6	20.2	21.2	28.1	26.7	27.2	28.4	25.7	27.0	27.3	24.7	25.9
11	23.1	21.8	22.4	27.5	26.1	26.8	27.3	25.6	26.2	26.0	24.8	25.2
12	24.0	22.6	23.2	26.7	25.6	26.1	28.7	25.0	26.5	26.0	23.8	24.6
13	23.6	22.9	23.1	26.0	25.1	25.4	28.4	21.7	24.8	25.1	23.5	24.2
14	23.0	22.2	22.5	25.6	24.4	24.9	26.6	21.0	23.4	25.0	23.8	24.3
15	22.2	20.8	21.3	24.8	23.0	23.6	27.7	24.1	25.9	24.8	24.0	24.3
16	20.8	20.4	20.5	24.9	22.7	23.6	26.4	25.4	25.9	24.7	23.7	24.1
17	21.5	20.3	20.8	24.7	22.9	23.7	25.8	24.8	25.3	24.2	23.4	23.7
18	22.1	20.5	21.2	26.1	23.5	24.5	26.2	24.7	25.5	23.9	22.9	23.2
19	22.9	21.1	21.9	25.8	23.7	24.7	25.9	24.8	25.3	23.6	22.2	22.9
20	23.4	21.8	22.5	---	---	---	26.7	24.7	25.7	23.4	22.4	22.8
21	24.1	22.5	23.2	---	---	---	---	---	---	22.9	22.0	22.4
22	24.3	22.9	23.6	---	---	---	27.5	26.5	26.7	22.6	21.8	22.3
23	25.2	23.3	24.2	---	---	---	28.1	25.9	26.8	22.4	21.7	22.1
24	26.1	24.1	25.1	---	---	---	27.2	26.1	26.7	22.5	21.6	22.0
25	25.9	24.8	25.4	---	---	---	27.8	26.0	26.8	21.9	21.3	21.5
26	25.9	24.4	25.2	---	---	---	26.6	25.5	26.0	21.3	20.2	21.1
27	25.7	24.9	25.3	---	---	---	26.3	25.1	25.7	20.3	16.2	17.9
28	25.1	24.2	24.5	---	---	---	25.6	24.5	25.1	17.4	16.3	16.7
29	25.2	24.0	24.6	---	---	---	25.7	23.9	24.7	18.5	17.4	18.0
30	25.3	24.3	24.8	28.5	27.0	27.4	25.8	23.8	24.7	19.7	18.1	18.9
31	---	---	---	28.6	26.3	27.3	25.7	23.8	24.8	---	---	---
MONTH	26.1	18.2	22.3	---	---	---	---	---	---	27.9	16.2	23.4

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 mi^2.

PERIOD OF RECORD.--September 1991 to current year (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 651.43 ft above NGVD of 1929.

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

COOPERATION.--City of Glasgow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 24	1500	1,720	10.36	May 18	0730	*2,860	*11.91
Mar 20	1630	1,780	10.45				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

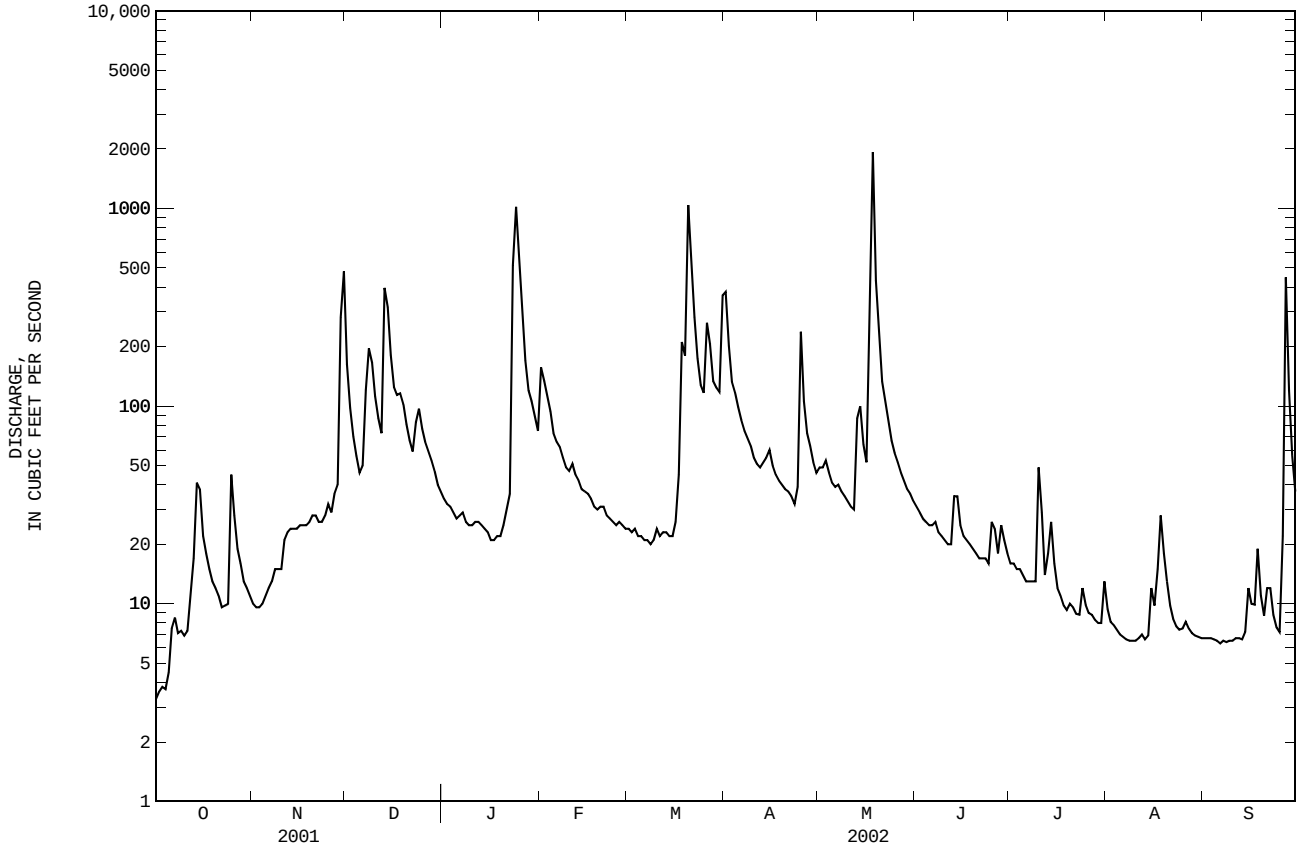
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	10	163	34	157	24	378	49	31	16	9.4	6.7
2	3.6	9.6	98	32	134	23	202	49	29	16	8.1	6.7
3	3.8	9.6	70	31	112	24	133	53	27	15	7.8	6.7
4	3.7	10	56	29	94	22	117	46	26	15	7.4	6.6
5	4.5	11	46	27	73	22	99	41	25	14	7.0	6.5
6	7.5	12	50	28	66	21	85	39	25	13	6.8	6.3
7	8.5	13	121	29	62	21	75	40	26	13	6.6	6.5
8	7.1	15	196	26	55	20	69	37	23	13	6.5	6.4
9	7.3	15	166	25	49	21	63	35	22	13	6.5	6.5
10	6.9	15	112	25	47	24	55	33	21	49	6.5	6.5
11	7.3	21	87	26	51	22	51	31	20	29	6.7	6.7
12	11	23	73	26	45	23	49	30	20	14	7.0	6.7
13	17	24	396	25	42	23	52	87	35	18	6.6	6.6
14	41	24	316	24	38	22	55	100	35	26	6.9	7.2
15	38	24	181	23	37	22	60	64	25	16	12	12
16	22	25	125	21	36	26	50	52	22	12	9.8	10
17	18	25	114	21	34	45	45	319	21	11	15	9.9
18	15	25	116	22	31	211	42	1930	20	9.8	28	19
19	13	26	102	22	30	180	40	431	19	9.3	18	11
20	12	28	81	25	31	1040	38	246	18	10	13	8.7
21	11	28	67	30	31	569	37	133	17	9.6	9.8	12
22	9.6	26	59	36	28	282	35	106	17	8.9	8.4	12
23	9.8	26	83	516	27	175	32	84	17	8.8	7.7	8.8
24	10	28	97	1020	26	128	39	67	16	12	7.4	7.6
25	45	32	77	498	25	117	238	58	26	9.9	7.5	7.2
26	28	29	66	269	26	264	106	52	24	9.0	8.1	22
27	19	36	59	170	25	206	73	46	18	8.8	7.5	448
28	16	40	53	120	24	134	63	42	25	8.3	7.1	120
29	13	282	47	106	---	124	52	38	21	8.0	6.9	56
30	12	480	40	89	---	118	46	36	18	8.0	6.8	37
31	11	---	37	75	---	363	---	33	---	13	6.7	---
TOTAL	434.9	1372.2	3354	3450	1436	4316	2479	4407	689	436.4	279.5	893.8
MEAN	14.03	45.74	108.2	111.3	51.29	139.2	82.63	142.2	22.97	14.08	9.016	29.79
MAX	45	480	396	1020	157	1040	378	1930	35	49	28	448
MIN	3.3	9.6	37	21	24	20	32	30	16	8.0	6.5	6.3
CFSM	0.28	0.92	2.18	2.24	1.03	2.81	1.67	2.87	0.46	0.28	0.18	0.60
IN.	0.33	1.03	2.52	2.59	1.08	3.24	1.86	3.31	0.52	0.33	0.21	0.67

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2002, BY WATER YEAR (WY)

MEAN	14.28	41.07	93.97	133.9	155.5	215.5	112.5	92.20	89.43	26.26	14.79	17.99
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	5.32	7.73	8.43	10.2	47.7	73.7	44.8	38.8	19.9	7.41	4.30	3.71
(WY)	2000	2000	2000	2000	2000	2000	1999	1994	1993	1993	1999	1993

03312765 BEAVER CREEK AT HWY 31 E NEAR GLASGOW, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1992 - 2002	
ANNUAL TOTAL	18109.1		23547.8			
ANNUAL MEAN	49.61		64.51		83.63	
HIGHEST ANNUAL MEAN					142	1994
LOWEST ANNUAL MEAN					27.7	2000
HIGHEST DAILY MEAN	661	Feb 17	1930	May 18	2930	Mar 9 1994
LOWEST DAILY MEAN	3.3	Oct 1	3.3	Oct 1	1.5	Oct 7 1999
ANNUAL SEVEN-DAY MINIMUM	3.5	Sep 28	5.0	Oct 1	1.8	Oct 1 1999
MAXIMUM PEAK FLOW			2860	May 18	6620	Jun 18 1992
MAXIMUM PEAK STAGE			11.91	May 18	15.10	Jun 18 1992
ANNUAL RUNOFF (CFSM)	1.00		1.30		1.69	
ANNUAL RUNOFF (INCHES)	13.58		17.66		22.91	
10 PERCENT EXCEEDS	117		126		181	
50 PERCENT EXCEEDS	23		26		28	
90 PERCENT EXCEEDS	6.0		7.3		6.3	



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 mi^2, of which about 19 mi^2 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 NGVD of 1929. Prior to Oct. 1, 1981, at site 0.8 mi upstream at datum 8.05 ft lower.

REMARKS.--Records good except for those estimated, which are fair. Subsequent to Apr. 24, 1976, records of daily discharge less than about 300 ft^3/s does not include approximately 3 ft^3/s which is diverted by city of Franklin for municipal supply.
COOPERATION.--Kentucky Natural Resources and Environmental Protection Cabinet.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 24	1600	*3,510	*9.87	May 18	0100	2,510	9.39
Mar 20	1500	3,170	9.71				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e4.0	17	541	76	671	67	886	957	78	21	8.6	6.2
2	e3.8	16	299	70	496	66	535	675	72	17	6.9	5.1
3	e3.6	15	202	65	364	69	371	439	70	52	6.2	4.5
4	e3.6	14	156	61	283	64	276	376	63	49	6.0	e4.0
5	e3.8	12	125	57	217	59	224	346	52	29	6.4	e3.9
6	e4.2	11	105	59	189	57	192	284	57	22	3.9	e3.8
7	e5.0	10	103	58	180	56	169	252	93	17	e3.6	e3.7
8	e5.4	10	156	53	162	54	154	221	74	14	e3.5	e3.6
9	e4.4	10	221	49	144	60	143	199	61	58	e3.5	e3.8
10	e3.8	9.4	171	50	134	92	124	187	54	44	e3.3	e3.6
11	e3.8	9.5	139	58	125	93	111	158	50	32	e3.4	e3.5
12	e4.4	10	129	61	112	92	148	142	46	27	e3.5	e3.4
13	e5.2	7.5	1320	57	106	90	199	514	55	109	e3.3	e3.5
14	77	7.2	950	53	104	85	277	510	60	101	e3.4	e7.0
15	111	7.8	573	50	94	78	341	312	46	59	e3.5	e12
16	64	8.4	373	47	89	78	224	238	39	41	6.4	18
17	43	8.3	354	45	85	725	186	907	35	30	16	15
18	32	8.4	433	48	79	1730	180	1640	31	26	14	16
19	25	9.5	320	51	77	977	156	800	28	23	58	13
20	20	10	235	65	82	2100	138	465	26	19	31	19
21	16	9.4	186	75	85	1200	126	333	22	24	19	50
22	14	9.2	154	82	76	701	114	254	21	23	13	37
23	13	10	237	687	71	466	97	207	21	22	10	24
24	13	13	252	2040	68	363	185	177	20	77	8.8	18
25	24	15	198	1120	70	287	911	158	20	56	9.4	16
26	45	14	168	644	76	748	425	152	18	37	19	195
27	35	178	148	424	79	586	283	138	23	26	15	1020
28	28	233	130	326	70	410	226	118	24	20	10	338
29	24	1070	113	261	---	341	181	104	26	17	9.7	177
30	21	1460	96	270	---	345	149	95	24	13	7.7	128
31	18	---	85	267	---	871	---	87	---	11	6.9	---
TOTAL	678.0	3222.6	8672	7329	4388	13010	7731	11445	1309	1116	322.9	2155.6
MEAN	21.87	107.4	279.7	236.4	156.7	419.7	257.7	369.2	43.63	36.00	10.42	71.85
MAX	111	1460	1320	2040	671	2100	911	1640	93	109	58	1020
MIN	3.6	7.2	85	45	68	54	97	87	18	11	3.3	3.4
CFSM	0.24	1.18	3.07	2.60	1.72	4.61	2.83	4.06	0.48	0.40	0.11	0.79
IN.	0.28	1.32	3.55	3.00	1.79	5.32	3.16	4.68	0.54	0.46	0.13	0.88

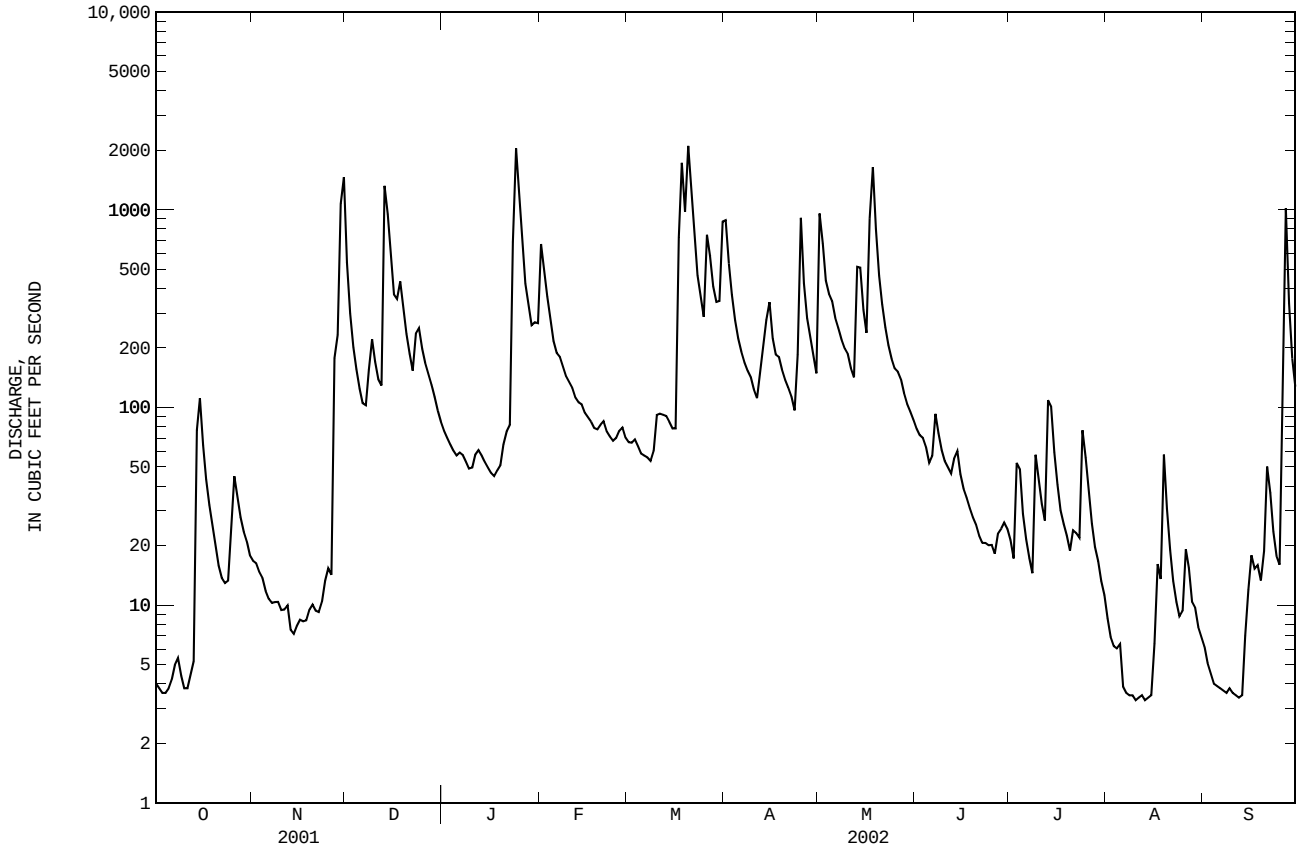
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2002, BY WATER YEAR (WY)

MEAN	41.02	125.1	280.6	291.9	353.6	379.9	249.1	215.3	153.3	63.58	32.74	57.30
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	6.95	11.8	10.4	138	113	38.3	22.8	18.8	5.47	2.80	2.01
(WY)	1988	2000	1981	1981	1980	1998	1986	1988	1985	1985	1986	2000

03313700 WEST FORK DRAKES CREEK NEAR FRANKLIN, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1968 - 2002	
ANNUAL TOTAL	37374.8		61379.1			
ANNUAL MEAN	102.4		168.2		186.3	
HIGHEST ANNUAL MEAN					351	1989
LOWEST ANNUAL MEAN					63.5	2000
HIGHEST DAILY MEAN	1500	Feb 16	2100	Mar 20	12800	Mar 12 1975
LOWEST DAILY MEAN	3.6	Aug 26	3.3	Aug 10	0.00	Sep 19 1985
ANNUAL SEVEN-DAY MINIMUM	3.9	Sep 30	3.4	Aug 8	0.00	Aug 13 1988
MAXIMUM PEAK FLOW			3510	Jan 24	27300	Mar 12 1975
MAXIMUM PEAK STAGE			9.87	Jan 24	23.20	Mar 12 1975
ANNUAL RUNOFF (CFSM)	1.13		1.85		2.05	
ANNUAL RUNOFF (INCHES)	15.28		25.09		27.82	
10 PERCENT EXCEEDS	227		428		421	
50 PERCENT EXCEEDS	43		61		69	
90 PERCENT EXCEEDS	6.0		6.1		8.0	

e Estimated



03314500 BARREN RIVER AT BOWLING GREEN, KY

LOCATION.--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 mi upstream from Jennings Creek, and at mile 37.6.

DRAINAGE AREA.--1,849 mi^2, of which about 490 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--June 1938 to September 1994, March 2002 to September 2002. Gage-height records collected in vicinity since 1901 are published in reports of National Weather Service (prior to 1940 records are for site about 7 mi downstream and are fragmentary prior to July 1924).

REVISED RECORDS.--WSP 1385; 1943, 1945, 1946(M). WRD KY-80-1; Drainage area.

GAGE.--Water-stage. Datum of gage is 409.83 ft above NGVD of 1929. Prior to June 21, 1944, nonrecording gage at same site and datum.

REMARKS.-Records good except those estimated, which are fair. Flow regulated by Barren River Lake beginning March 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 8, 1913 reached a stage of 52.2 ft, from floodmarks.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	1080	7250	4770	2130	433	392	e120
2	---	---	---	---	---	1070	6270	6600	1480	446	373	e118
3	---	---	---	---	---	1070	5520	5600	1390	572	368	e115
4	---	---	---	---	---	1060	5680	5130	864	631	365	e113
5	---	---	---	---	---	1030	5430	4840	631	514	e323	111
6	---	---	---	---	---	742	5160	4590	626	453	e261	109
7	---	---	---	---	---	629	4460	4440	756	420	e243	106
8	---	---	---	---	---	615	4200	4310	884	412	e187	104
9	---	---	---	---	---	490	3660	4160	825	390	e182	101
10	---	---	---	---	---	398	2550	3120	758	370	e179	98
11	---	---	---	---	---	443	2260	2770	711	540	e174	94
12	---	---	---	---	---	461	2130	2310	677	697	e172	92
13	---	---	---	---	---	455	2550	2030	743	915	e162	94
14	---	---	---	---	---	443	2670	3470	858	1380	e166	97
15	---	---	---	---	---	429	3410	2890	826	1530	e164	124
16	---	---	---	---	---	428	3070	3630	759	1400	e162	167
17	---	---	---	---	---	e743	2900	4620	720	1330	e157	351
18	---	---	---	---	---	e6020	2770	14000	692	1280	e154	453
19	---	---	---	---	---	6160	2580	9360	670	764	e149	510
20	---	---	---	---	---	7150	2060	5890	650	467	e147	622
21	---	---	---	---	---	12700	1860	5820	641	485	e145	762
22	---	---	---	---	---	6010	1760	5360	630	517	e142	1110
23	---	---	---	---	---	4760	1280	5020	622	483	e140	1270
24	---	---	---	---	---	5380	1170	4780	608	466	e149	1230
25	---	---	---	---	---	5240	4710	4610	516	719	e145	749
26	---	---	---	---	---	4410	4650	4520	434	804	e138	946
27	---	---	---	---	---	5430	4550	4420	424	731	e135	7830
28	---	---	---	---	---	4010	3420	4340	436	671	e135	6990
29	---	---	---	---	---	3340	2490	4260	448	641	e131	3270
30	---	---	---	---	---	3420	3860	4200	431	656	e126	2180
31	---	---	---	---	---	3690	---	4100	---	554	e122	---
TOTAL	---	---	---	---	---	89306	106330	149960	22840	21671	5988	30036
MEAN	---	---	---	---	---	2881	3544	4837	761.3	699.1	193.2	1001
MAX	---	---	---	---	---	12700	7250	14000	2130	1530	392	7830
MIN	---	---	---	---	---	398	1170	2030	424	370	122	92

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2002, BY WATER YEAR (WY)

MEAN	1782	3098	3909	4371	4789	4085	3050	2783	2062	1497	847.8	1171
MAX	4027	6097	9210	9141	9830	10450	8368	9408	5825	5059	3468	5358
(WY)	1975	1980	1979	1979	1989	1975	1979	1983	1981	1989	1971	1979
MIN	381	286	573	228	1624	1128	379	247	102	118	110	251
(WY)	1977	1977	1981	1981	1992	1981	1986	1988	1988	1988	1991	1993

03314500 BARREN RIVER AT BOWLING GREEN, KY--Continued

SUMMARY STATISTICS	WATER YEARS 1965 - 2002	
ANNUAL MEAN	2781	
HIGHEST ANNUAL MEAN	5001	1979
LOWEST ANNUAL MEAN	1292	1988
HIGHEST DAILY MEAN	57500	Mar 13 1975
LOWEST DAILY MEAN	75	Jul 9 1988
ANNUAL SEVEN-DAY MINIMUM	76	Jul 6 1988
MAXIMUM PEAK FLOW	85000	Feb 28 1962
MAXIMUM PEAK STAGE	49.55	Feb 28 1962
INSTANTANEOUS LOW FLOW	44	Sep 19 1954
10 PERCENT EXCEEDS	5970	
50 PERCENT EXCEEDS	1970	
90 PERCENT EXCEEDS	286	

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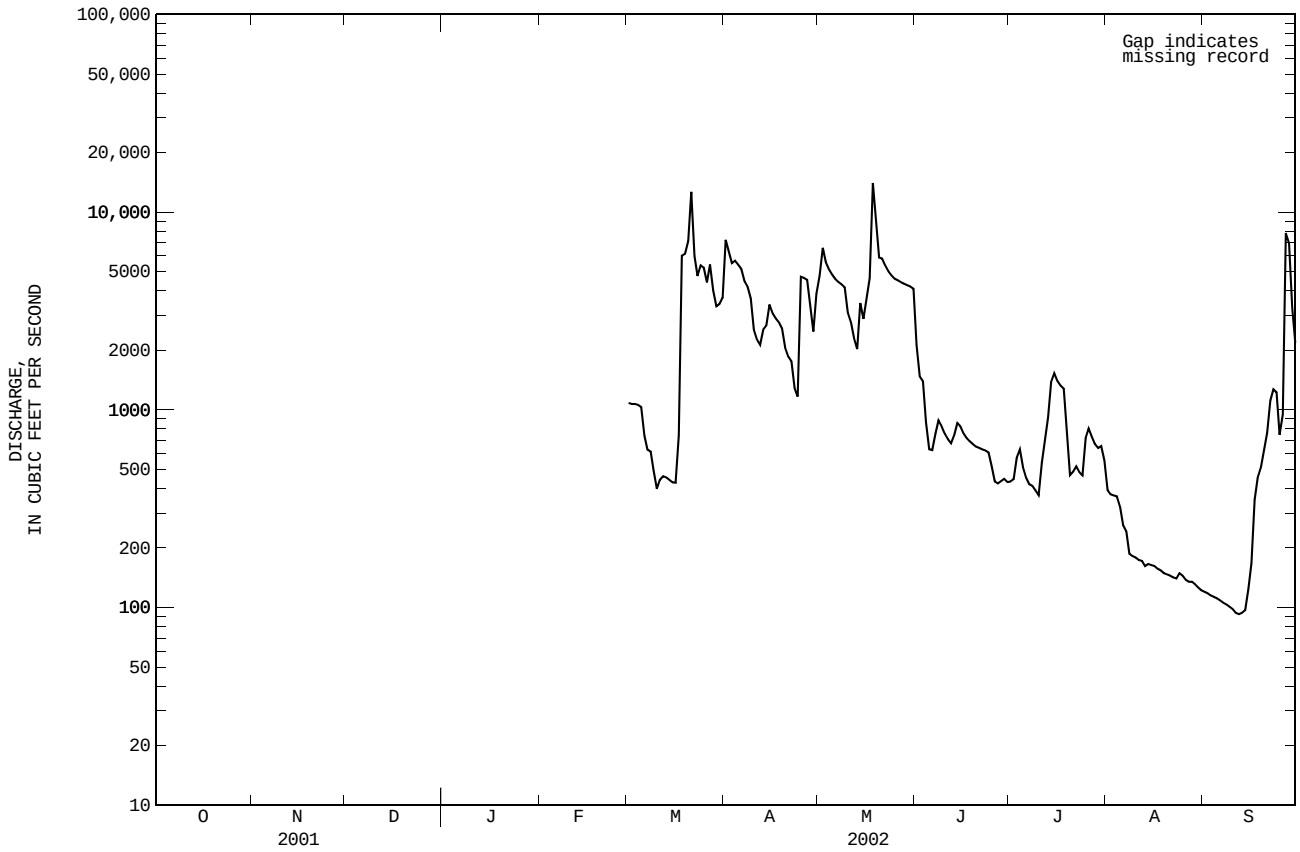


03316500 GREEN RIVER AT PARADISE, KY

LOCATION.--Lat 37°15'50", long 86°58'40", Muhlenberg County, Hydrologic Unit 05110003, on left bank of reservation of Tennessee Valley Authority generating plant, 0.4 mi southeast of Paradise, 1.1 mi downstream from Jacobs Creek, 2.8 mi upstream from Pond Creek, and at mile 98.8.

DRAINAGE AREA.--6,183 mi^2, of which about 1,380 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1939 to September 1950 (published as "at Green River"), October 1959 to September 1960 (low-water records only), October 1960 to September 1981 and July 1991 to current year.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 363.19 ft above NGVD of 1929 (levels by Tennessee Valley Authority). See WDR KY-81-1 for history of changes prior to October 31, 1979. Auxiliary water-stage recorder on U.S. Highway 62 bridge at Rockport, 4.4 mi downstream.

REMARKS.--Records fair except for those below 2000 ft^3/s, which are poor. Flow regulated by Nolin River Lake beginning March 1963, Barren River Lake beginning March 1964, and Green River Lake beginning February 1969.

COOPERATION.--Kentucky Natural Resources and Environmental Protection Cabinet.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

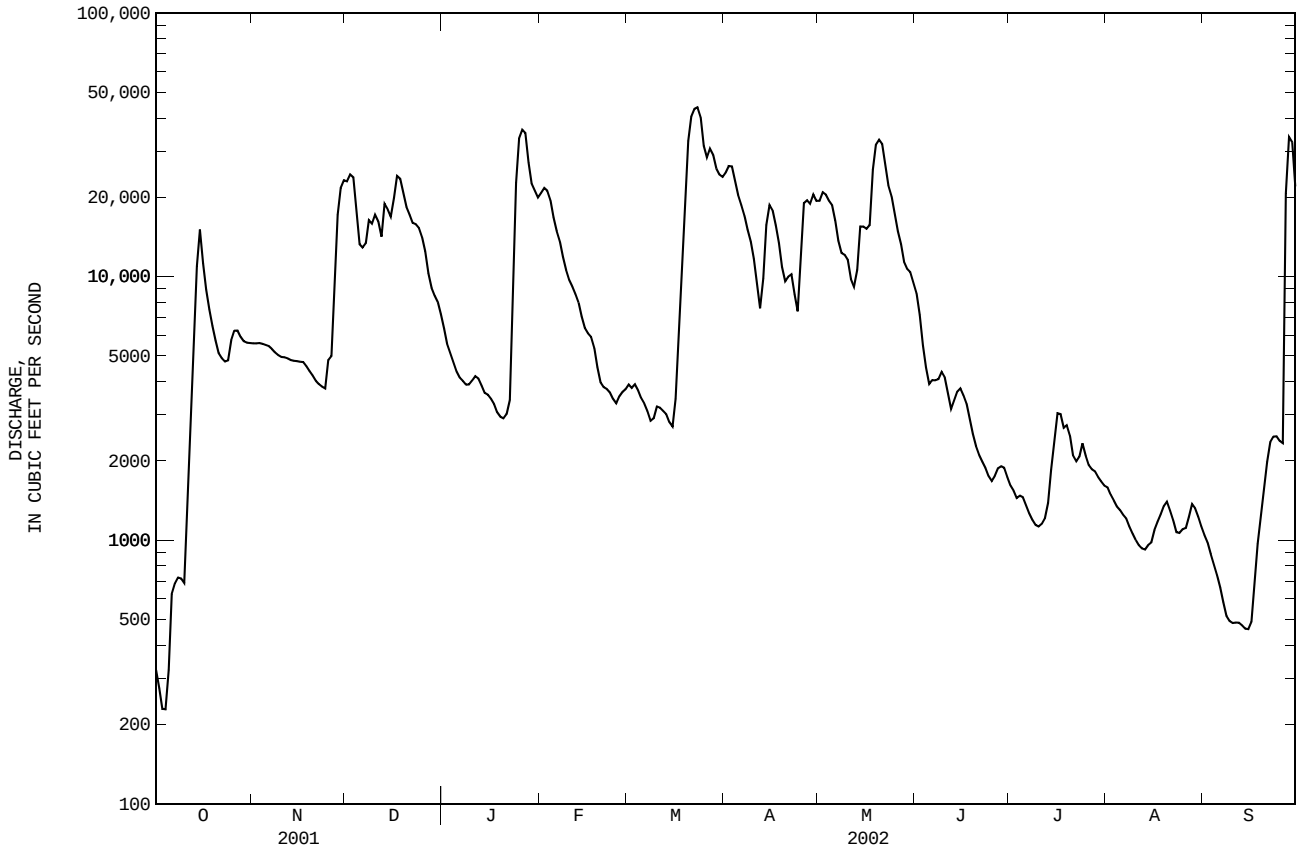
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	322	5590	23000	6360	20800	3900	24800	19400	8650	1620	1590	1040
2	274	5580	24400	5570	21700	3790	26300	20900	7160	1540	1490	982
3	230	5600	23800	5120	21200	3910	26200	20500	5480	1450	1420	886
4	228	5560	17800	4750	19500	3700	23000	19400	4530	1480	1350	807
5	322	5510	13300	4370	16800	3460	20400	18700	3910	1460	1300	738
6	625	5450	12900	4140	14900	3300	18700	16300	4050	1360	1250	662
7	686	5320	13400	4030	13600	3090	17000	13700	4050	1260	1210	583
8	721	5160	16400	3890	11900	2840	15100	12300	4080	1190	1130	516
9	716	5040	15900	3900	10600	2900	13600	12100	4350	1140	1060	494
10	688	4960	17200	4040	9730	3220	11700	11600	4150	1130	1000	485
11	1170	4950	16200	4190	9170	3190	9270	9800	3620	1160	959	487
12	1950	4900	14200	4110	8610	3100	7580	9160	3140	1210	931	486
13	3980	4830	18900	3860	7970	3010	9860	10600	3390	1390	921	475
14	11000	4800	18000	3630	7060	2810	15700	15500	3670	1850	958	462
15	15100	4790	16900	3570	6390	2700	18700	15500	3770	2360	981	460
16	11200	4760	19900	3440	6090	3440	17800	15200	3540	3030	1090	490
17	8940	4740	24100	3290	5910	5700	15700	15700	3300	3010	1180	719
18	7500	4580	23500	3060	5360	8970	13400	25500	2890	2670	1250	971
19	6520	4390	20700	2940	4540	17300	10900	31700	2530	2730	1350	1240
20	5720	4230	18400	2900	3970	32700	9610	33100	2270	2490	1400	1550
21	5130	4030	17200	3010	3820	40500	10000	31900	2100	2100	1300	1980
22	4910	3920	16000	3410	3750	43300	10200	26400	1990	1990	1190	2360
23	4760	3830	15800	7570	3640	43900	8560	22200	1880	2080	1070	2470
24	4810	3770	15300	22700	3440	40200	7390	20200	1750	2330	1070	2480
25	5740	4810	14100	33500	3310	31400	12100	17300	1680	2100	1100	2380
26	6240	5000	12500	36100	3510	28300	19000	14900	1750	1930	1110	2340
27	6250	9930	10300	35100	3650	30600	19500	13300	1880	1860	1230	20700
28	5920	17200	9080	27100	3740	29000	18900	11400	1910	1830	1370	33900
29	5690	21700	8480	22600	---	25700	20500	10700	1880	1740	1320	32400
30	5620	23200	8010	21300	---	24400	19400	10400	1730	1670	1230	22000
31	5600	---	7220	20000	---	23900	---	9470	---	1610	1130	---
TOTAL	138562	198130	502890	313550	254660	478230	470870	534830	101080	56770	36940	137543
MEAN	4470	6604	16220	10110	9095	15430	15700	17250	3369	1831	1192	4585
MAX	15100	23200	24400	36100	21700	43900	26300	33100	8650	3030	1590	33900
MIN	228	3770	7220	2900	3310	2700	7390	9160	1680	1130	921	460

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2002, BY WATER YEAR (WY)

MEAN	4779	7764	12910	15530	15620	17250	13250	10190	7503	3786	2614	3516
MAX	16950	19310	42250	36020	26410	41520	34210	25950	20190	8811	8743	22540
(WY)	1980	1980	1979	1974	1994	1997	1979	1995	1981	1973	1971	1979
MIN	1750	2548	2103	954	6083	6150	4345	1881	1523	1270	524	512
(WY)	2001	2000	1981	1981	1977	1981	2001	2001	1999	2000	1999	1999

03316500 GREEN RIVER AT PARADISE, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1970 - 2002	
ANNUAL TOTAL	2068912		3224055			
ANNUAL MEAN	5668		8833		9573	
HIGHEST ANNUAL MEAN					18460	1979
LOWEST ANNUAL MEAN					4432	2001
HIGHEST DAILY MEAN	33900	Feb 18	43900	Mar 23	83800	Mar 7 1997
LOWEST DAILY MEAN	228	Oct 4	228	Oct 4	228	Oct 4 2001
ANNUAL SEVEN-DAY MINIMUM	333	Sep 29	384	Oct 1	320	Sep 8 1995
MAXIMUM PEAK FLOW			44600	Mar 23	107000	Mar 5 1962
MAXIMUM PEAK STAGE			25.04	Mar 23	40.46	Mar 5 1962
INSTANTANEOUS LOW FLOW					228	Oct 4 2001
10 PERCENT EXCEEDS	16600		22100		22600	
50 PERCENT EXCEEDS	2850		4760		5770	
90 PERCENT EXCEEDS	725		1070		1300	



03319000 ROUGH RIVER NEAR DUNDEE, KY

LOCATION.--Lat 37°32'51", long 86°43'18", Ohio County, Hydrologic Unit 05110004, on right bank, 150 ft downstream from bridge on State Highway 919, 1.5 mi downstream from Caney Creek, 3 mi southeast of Dundee, and at mi 62.5.

DRAINAGE AREA.--757 mi^2, of which about 120 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1939 to September 1992 and March 2002 to September 2002. October 1939-January 1940 monthly discharge only, published in WSP 1305.

REVISED RECORDS.--WSP 1555: Drainage area.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 393.18 ft above NGVD of 1929. See WDR KY-90-1 for history of changes prior to Aug. 14, 1979.

REMARKS.--Records fair except for those estimated, which are poor. Flow regulated by Rough River Lake beginning (Station 03318005) October 1959.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1937 reached a stage of 31.8 ft, from floodmarks.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	453	3050	1810	1770	30	29	103
2	---	---	---	---	---	470	2890	2170	1800	28	29	102
3	---	---	---	---	---	665	2740	2940	1870	28	29	101
4	---	---	---	---	---	623	2620	2770	1880	28	29	100
5	---	---	---	---	---	527	2520	2610	1870	28	28	100
6	---	---	---	---	---	489	2190	2840	1900	32	28	99
7	---	---	---	---	---	429	1680	2850	1930	31	28	100
8	---	---	---	---	---	444	1530	2490	1890	28	28	99
9	---	---	---	---	---	446	1060	2510	1880	29	27	99
10	---	---	---	---	---	684	822	2590	1840	29	28	100
11	---	---	---	---	---	526	611	2530	1540	30	27	99
12	---	---	---	---	---	465	507	1970	1120	30	27	98
13	---	---	---	---	---	445	196	3700	833	29	28	100
14	---	---	---	---	---	403	156	e5600	747	30	33	122
15	---	---	---	---	---	367	e1330	e3800	626	32	146	203
16	---	---	---	---	---	1400	e1660	2440	448	31	102	166
17	---	---	---	---	---	1650	2070	2830	235	28	126	119
18	---	---	---	---	---	1150	2500	5090	86	30	74	128
19	---	---	---	---	---	2960	2040	3060	37	341	46	207
20	---	---	---	---	---	7320	1550	1580	48	153	38	227
21	---	---	---	---	---	e6600	1470	1560	97	50	35	264
22	---	---	---	---	---	e4400	2490	1840	93	36	34	281
23	---	---	---	---	---	e3000	1780	2090	91	41	33	243
24	---	---	---	---	---	e2000	1750	2110	90	50	38	230
25	---	---	---	---	---	1300	5800	2070	89	55	70	219
26	---	---	---	---	---	6090	4600	2100	87	39	64	211
27	---	---	---	---	---	7490	2280	2060	55	34	111	e2900
28	---	---	---	---	---	4620	5490	1790	33	32	126	e7000
29	---	---	---	---	---	2740	6180	1680	31	30	114	e4800
30	---	---	---	---	---	3090	3400	1650	30	29	107	e2600
31	---	---	---	---	---	3190	---	1690	---	29	105	---
TOTAL	---	---	---	---	---	66436	68962	78820	25046	1450	1767	21220
MEAN	---	---	---	---	---	2143	2299	2543	834.9	46.77	57.00	707.3
MAX	---	---	---	---	---	7490	6180	5600	1930	341	146	7000
MIN	---	---	---	---	---	367	156	1560	30	28	27	98

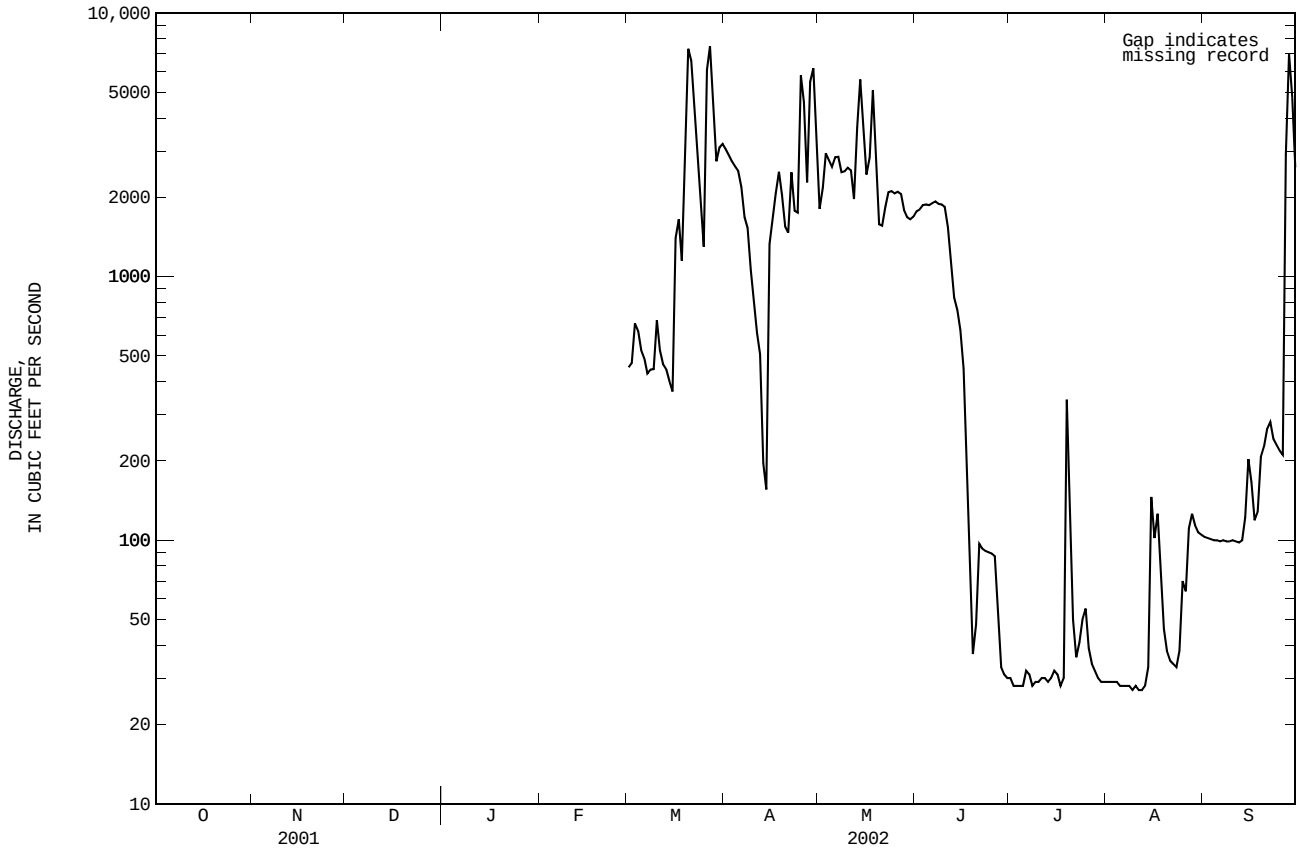
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2002, BY WATER YEAR (WY)

MEAN	737.3	1179	1622	1749	2257	1864	1412	1271	714.6	392.7	235.3	437.6
MAX	1718	3187	4041	3488	5717	4420	4602	4658	1999	1670	1050	3832
(WY)	1980	1980	1979	1978	1989	1989	1979	1983	1983	1967	1979	1979
MIN	26.1	223	60.4	167	331	520	134	111	50.2	46.8	53.5	55.9
(WY)	1961	1981	1964	1977	1964	1981	1986	1988	1988	2002	1960	1983

03319000 ROUGH RIVER NEAR DUNDEE, KY--Continued

SUMMARY STATISTICS	WATER YEARS 1960 - 2002	
ANNUAL MEAN	1144	
HIGHEST ANNUAL MEAN	2274	1979
LOWEST ANNUAL MEAN	593	1963
HIGHEST DAILY MEAN	19100	Feb 15 1989
LOWEST DAILY MEAN	4.5	Sep 16 2001
ANNUAL SEVEN-DAY MINIMUM	4.6	Sep 13 2001
MAXIMUM PEAK FLOW	22200	Sep 22 1979
MAXIMUM PEAK STAGE	29.05	Sep 22 1979
10 PERCENT EXCEEDS	2690	
50 PERCENT EXCEEDS	625	
90 PERCENT EXCEEDS	72	

e Estimated



03320000 GREEN RIVER AT LOCK 2 AT CALHOUN, KY

LOCATION.--Lat 37°32'02", long 87°15'50", McLean County, Hydrologic Unit 05110005, 870 ft upstream from Lock and Dam 2, on right bank 0.2 mi downstream from bridge on State Highway 81 at Calhoun, 0.2 mi upstream from Long Falls Creek, and at mile 63.3.

DRAINAGE AREA.--7,566 mi^2, of which about 1,540 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--March 1930 to current year. Prior to October 1958, published as "at Livermore."

REVISED RECORDS.--WSP 1385: 1939. WDR KY-82-1: Drainage area.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 353.95 ft above NGVD of 1929. Auxiliary water-stage recorder at Livermore, 8.0 mi upstream at datum 360.11 ft above NGVD of 1929. See WDR KY-88-1 for history of changes prior to Sept. 30, 1958.

REMARKS.--Records good except for those estimated and discharges below 2000 ft^3/s, which are fair. Flow regulated by Rough River Lake beginning October 1959, Nolin Lake beginning March 1963, Barren River Lake beginning March 1964, and Green River Lake beginning February 1969.

COOPERATION.--U.S. Army Corps of Engineers, Louisville District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	658	7450	42400	8660	28500	4390	35300	26000	11000	1680	1670	1100
2	561	7370	42700	7620	28800	4250	37300	27200	9450	1590	1590	993
3	542	7390	38400	6950	26900	4290	37700	27300	7490	1500	1460	883
4	537	7350	31400	6440	23900	4190	34800	26100	6160	1510	1410	801
5	616	7270	26100	5860	20400	3970	30400	25500	5350	1480	1350	743
6	1090	7180	21400	5410	18100	3800	27600	24000	5280	1370	1310	693
7	1220	6970	19600	5200	16900	3530	24500	20000	5500	1270	1230	648
8	1300	6470	23100	5140	15100	3260	19500	17500	5430	1230	1150	593
9	1270	6200	28000	5170	13400	3170	16600	16600	6000	1140	1050	569
10	1260	6110	25100	5280	12400	3570	14200	15800	5720	1160	958	521
11	1740	6030	21700	5500	11600	3660	11500	14300	4880	1180	893	501
12	2320	6010	19900	5330	10700	3560	9370	13700	4190	1230	832	472
13	4730	5920	24700	4900	9600	3450	11500	15700	4330	1400	800	422
14	14400	5880	31400	4420	8400	3260	19300	21900	4440	1860	931	412
15	18800	5840	32300	4190	7540	2990	23600	22200	4480	2390	1030	493
16	15500	5780	31900	4070	7160	3960	23000	21600	4120	3180	1160	596
17	13000	5790	34300	3740	6910	7130	20300	23000	3860	3280	1280	751
18	11200	5590	34700	3420	6240	11100	17300	31900	3320	2850	1330	898
19	9530	5280	31900	3150	5310	e19000	14900	37900	2790	2920	1420	1230
20	7930	5020	28400	3100	4530	e32100	12700	39900	2470	2710	1490	1550
21	6680	4800	26100	3250	4210	e37000	12700	40400	2270	2300	1400	2060
22	6240	4680	24900	3780	4160	e44700	13400	36600	2130	2210	1280	2430
23	5950	4590	e24300	8040	4010	46800	11700	31900	2030	2210	1150	2670
24	6180	4730	e21100	25200	3880	45600	10100	28100	1900	2520	1080	2650
25	7780	6310	e18500	35700	3680	42200	15600	24900	1800	2260	1100	2540
26	8480	6910	e17100	39500	3750	39500	21200	20900	1860	2040	1160	2360
27	8470	12500	e15300	40200	3990	39500	24700	17100	2040	1990	1240	21600
28	7860	22700	12800	36000	4160	40300	26600	14400	2020	1970	1380	36200
29	7470	31000	11700	30900	---	37500	27900	14300	1990	1890	1380	37300
30	7320	39000	11000	28400	---	35700	27100	13600	1830	1770	1310	31600
31	7380	---	9890	26900	---	34700	---	11900	---	1700	1180	---
TOTAL	188014	264120	782090	381420	314230	572130	632370	722200	126130	59790	38004	156279
MEAN	6065	8804	25230	12300	11220	18460	21080	23300	4204	1929	1226	5209
MAX	18800	39000	42700	40200	28800	46800	37700	40400	11000	3280	1670	37300
MIN	537	4590	9890	3100	3680	2990	9370	11900	1800	1140	800	412

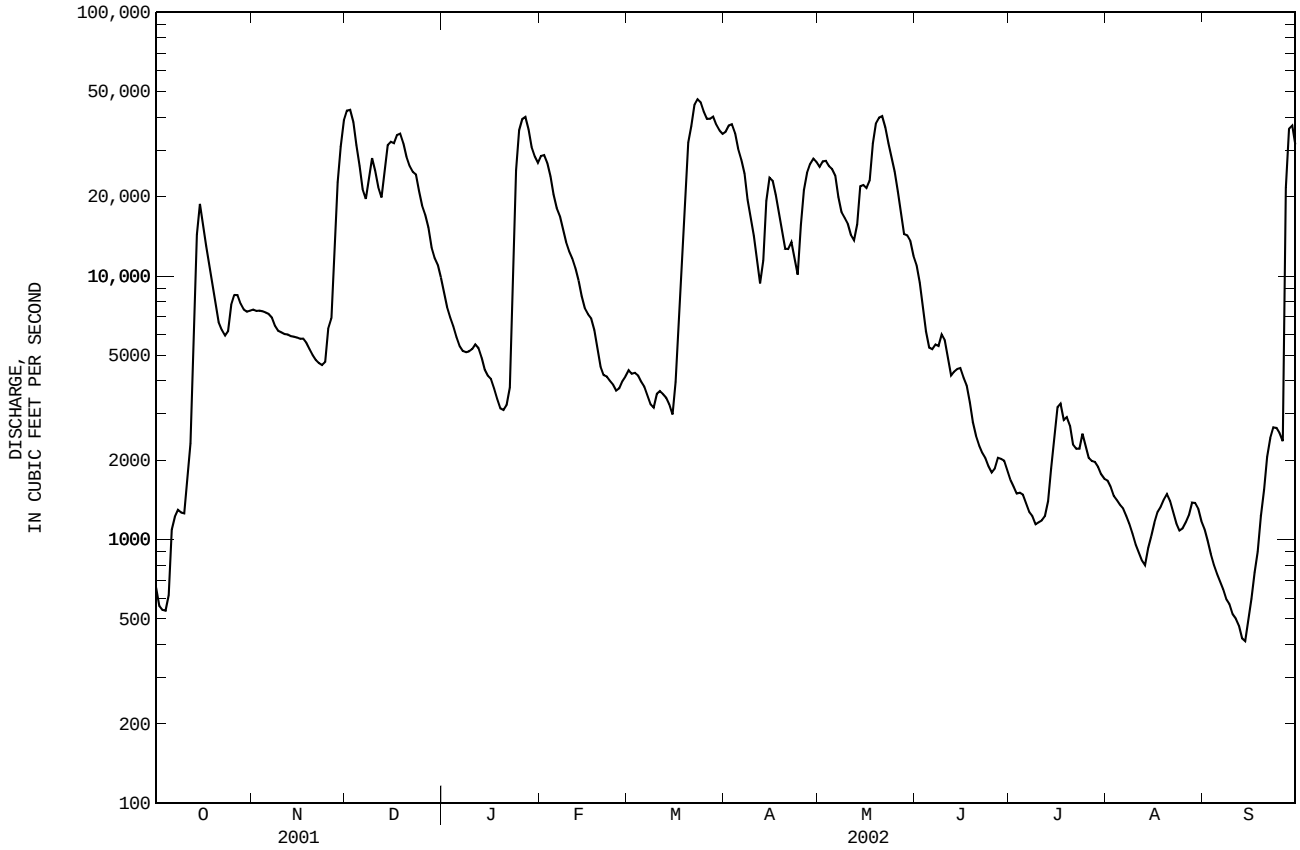
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2002, BY WATER YEAR (WY)

MEAN	5313	10050	16280	18400	21700	19940	15430	13180	8590	4517	2780	4037
MAX	19100	22770	46530	41100	52100	53330	42430	50460	23850	12260	8763	27360
(WY)	1980	1980	1979	1974	1989	1997	1979	1983	1981	1989	1971	1979
MIN	1875	2737	2496	1223	7116	7479	2260	1706	541	1235	362	354
(WY)	2000	2000	1981	1981	1977	1981	1986	1988	1988	2000	1999	1999

03320000 GREEN RIVER AT LOCK 2 AT CALHOUN, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1970 - 2002	
ANNUAL TOTAL	2758997		4236777			
ANNUAL MEAN	7559		11610		11630	
HIGHEST ANNUAL MEAN					22070	1979
LOWEST ANNUAL MEAN					5345	2000
HIGHEST DAILY MEAN	42700	Dec 2	46800	Mar 23	85200	Mar 7 1997
LOWEST DAILY MEAN	537	Oct 4	412	Sep 14	162	Sep 6 1999
ANNUAL SEVEN-DAY MINIMUM	632	Sep 29	484	Sep 9	186	Sep 5 1999
MAXIMUM PEAK FLOW			47800	Mar 23	208000	Jan 27 1937
MAXIMUM PEAK STAGE			27.01	Mar 27	42.40	Jan 30 1937
INSTANTANEOUS LOW FLOW					107	Sep 14 1999
10 PERCENT EXCEEDS	22500		31900		29600	
50 PERCENT EXCEEDS	3720		5950		6960	
90 PERCENT EXCEEDS	1070		1160		1380	

e Estimated



03320500 POND RIVER NEAR APEX, KY

LOCATION.--Lat 37°07'20", long 87°19'10", Muhlenberg County, Hydrologic Unit 05110006, on downstream side of bridge near right bank 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 mi^2.

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-97: 1989-96(P).

GAGE.--Water-stage recorder with telemetry. Datum of gage is 384.53 ft above NGVD of 1929. 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 those estimated, which are poor.

COOPERATION.--Kentucky Natural Resources and Environmental Protection Cabinet.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 30	0500	*7,750	*20.03	Mar 26	unknown	e2,890	e16.72
Dec 17	1200	3,450	17.25	May 13	1600	2,890	16.72
Jan 24	1000	3,110	16.94	May 18	0300	3,400	17.20
Mar 20	1300	5,710	18.94	Sep 27	1200	4,910	18.39

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e2.4	13	e3800	e104	1010	112	980	1160	216	12	6.7	e0.86
2	e2.4	12	e2000	e100	e971	103	752	1430	163	11	6.0	e0.80
3	e2.2	11	1700	89	e755	e125	580	1080	135	9.6	5.2	e0.70
4	e2.3	11	1310	85	e458	e122	440	744	116	8.9	4.5	e0.64
5	e2.4	13	907	78	e297	110	317	525	102	8.1	3.9	e0.60
6	e2.5	12	590	78	e231	101	248	362	107	7.4	e3.4	e0.62
7	e2.6	9.9	443	83	e191	98	205	257	106	6.6	e3.0	e0.64
8	e2.5	9.2	1120	81	159	90	176	203	83	5.7	e2.4	e0.56
9	e2.4	8.6	e1210	78	135	95	211	174	69	5.1	e2.0	e0.50
10	e2.2	7.6	e892	77	122	e141	245	156	59	4.6	e1.8	e0.42
11	e2.2	7.1	e596	e78	113	e144	207	135	51	4.3	e2.0	e0.36
12	e2.5	6.8	588	e75	105	132	176	117	46	5.3	e2.1	e0.34
13	e5.0	6.4	2050	e71	97	131	384	1530	42	93	e2.3	e0.32
14	792	6.1	2170	e68	90	125	1290	1940	38	263	e2.6	e0.30
15	966	6.4	1730	e63	85	114	1920	e1400	33	144	e2.8	e0.28
16	741	6.4	2120	58	81	139	e1300	e1000	29	94	e2.9	e0.30
17	403	8.8	3030	56	75	445	e860	1540	30	73	e3.0	e0.32
18	174	7.8	e2000	56	70	857	e600	3230	37	59	e3.1	e0.38
19	99	7.2	e1000	60	66	1850	455	e2200	34	46	e3.2	e0.60
20	65	7.6	e800	65	78	5010	306	e1300	27	34	e3.3	e1.0
21	46	7.4	e700	75	104	e4000	493	e900	20	25	e3.0	e1.6
22	32	7.4	e609	133	111	e1800	557	e600	16	18	e2.8	e2.0
23	22	7.1	e835	1250	102	e1200	324	446	13	20	e2.4	e1.8
24	19	64	e865	2780	86	e840	516	298	11	33	e2.0	e1.6
25	30	332	e670	e2510	74	650	1150	214	14	25	e1.8	e1.4
26	29	231	e428	e1620	e109	e2250	925	348	24	16	e1.6	e10
27	30	1710	e281	e1070	e150	e1700	659	352	35	11	e1.4	4280
28	25	2330	e211	720	e133	e1400	804	231	26	9.5	e1.2	4180
29	21	5870	e172	536	---	1060	704	1090	19	8.1	e1.0	2330
30	17	e6200	e143	385	---	967	451	648	15	7.2	e0.96	1450
31	15	---	e121	284	---	932	---	360	---	6.5	e0.90	---
TOTAL	3559.6	16936.8	35091	12866	6058	26843	18235	25970	1716	1073.9	85.26	12268.94
MEAN	114.8	564.6	1132	415.0	216.4	865.9	607.8	837.7	57.20	34.64	2.750	409.0
MAX	966	6200	3800	2780	1010	5010	1920	3230	216	263	6.7	4280
MIN	2.2	6.1	121	56	66	90	176	117	11	4.3	0.90	0.28
CFSM	0.59	2.91	5.83	2.14	1.12	4.46	3.13	4.32	0.29	0.18	0.01	2.11
IN.	0.68	3.25	6.73	2.47	1.16	5.15	3.50	4.98	0.33	0.21	0.02	2.35

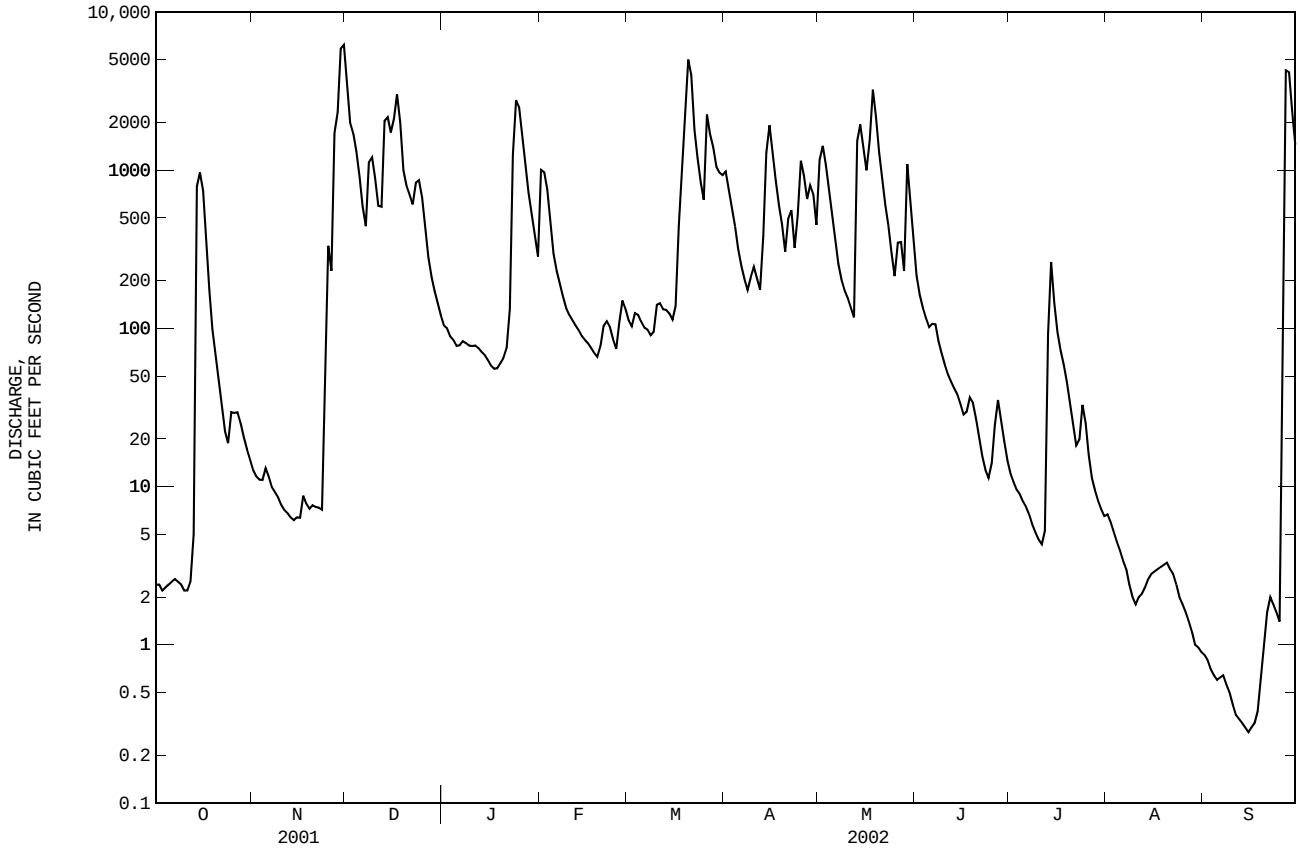
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2002, BY WATER YEAR (WY)

MEAN	23.15	172.3	399.2	449.9	611.4	607.4	430.9	324.6	116.6	58.43	29.84	61.65
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	0.000	0.000	0.000	3.56	42.6	35.2	39.2	6.46	1.37	0.44	0.19	0.000
(WY)	1954	1954	1964	1981	1941	1941	1986	1941	1964	1964	1993	1953

03320500 POND RIVER NEAR APEX, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1941 - 2002	
ANNUAL TOTAL	83910.8		160703.50			
ANNUAL MEAN	229.9		440.3		272.1	
HIGHEST ANNUAL MEAN					643	1979
LOWEST ANNUAL MEAN					59.8	1941
HIGHEST DAILY MEAN	6200	Nov 30	6200	Nov 30	28400	Feb 15 1989
LOWEST DAILY MEAN	1.0	Aug 9	0.28	Sep 15	0.00	Oct 21 1940
ANNUAL SEVEN-DAY MINIMUM	1.4	Aug 3	0.32	Sep 11	0.00	Oct 21 1940
MAXIMUM PEAK FLOW			7750	Nov 30	35700	May 7 1984
MAXIMUM PEAK STAGE			20.03	Nov 30	26.81	Nov 19 1957
ANNUAL RUNOFF (CFSM)	1.19		2.27		1.40	
ANNUAL RUNOFF (INCHES)	16.09		30.82		19.06	
10 PERCENT EXCEEDS	649		1300		722	
50 PERCENT EXCEEDS	26		89		46	
90 PERCENT EXCEEDS	2.4		2.1		0.70	

e Estimated



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 mi^2.

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 NGVD of 1929.

REMARKS.--Records good.

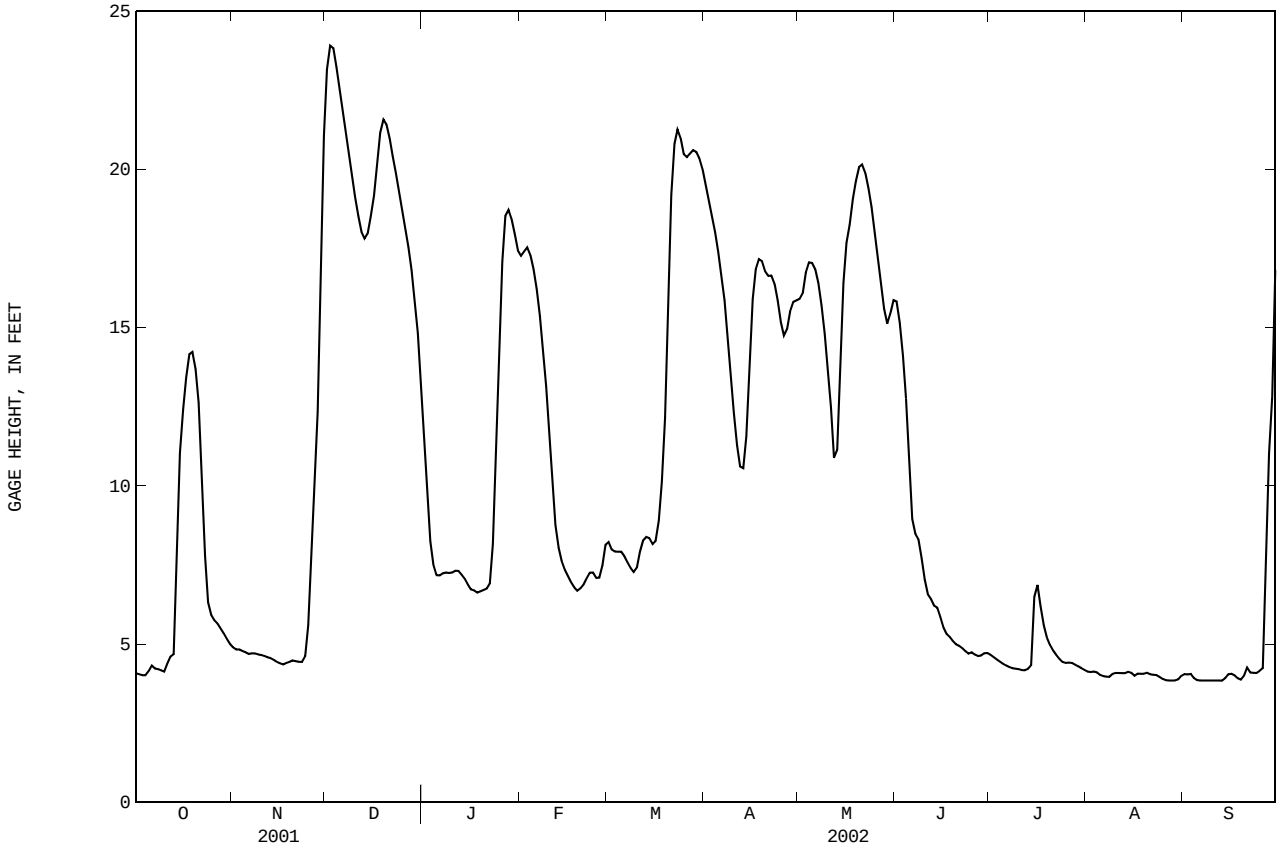
COOPERATION.--Kentucky Natural Resources and Environmental Protection Cabinet.

GAGE HEIGHT *EDL*, in FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.07	4.89	23.17	11.96	17.27	8.22	19.55	15.91	15.83	4.66	4.13	4.05
2	4.05	4.83	23.92	9.94	17.41	7.99	19.05	16.10	15.16	4.59	4.12	4.04
3	4.01	4.83	23.84	8.25	17.54	7.92	18.55	16.74	14.12	4.51	4.13	4.05
4	4.01	4.78	23.25	7.51	17.29	7.92	18.02	17.06	12.77	4.45	4.10	3.92
5	4.15	4.74	22.53	7.18	16.86	7.92	17.41	17.05	10.85	4.38	4.03	3.86
6	4.32	4.69	21.81	7.17	16.22	7.78	16.68	16.85	8.96	4.32	3.99	3.85
7	4.23	4.71	21.09	7.23	15.37	7.58	15.86	16.42	8.48	4.27	3.97	3.85
8	4.21	4.70	20.43	7.26	14.33	7.40	14.82	15.71	8.30	4.23	3.96	3.85
9	4.17	4.67	19.76	7.25	13.15	7.28	13.61	14.81	7.70	4.22	4.05	3.85
10	4.13	4.65	19.13	7.26	11.72	7.41	12.31	13.75	7.04	4.20	4.09	3.85
11	4.39	4.62	18.54	7.32	10.08	7.92	11.29	12.49	6.57	4.18	4.08	3.85
12	4.60	4.58	18.03	7.31	8.76	8.27	10.62	10.89	6.42	4.17	4.08	3.84
13	4.68	4.55	17.82	7.19	8.04	8.38	10.56	11.14	6.21	4.22	4.08	3.84
14	8.30	4.50	17.99	7.07	7.63	8.34	11.56	13.53	6.15	4.33	4.12	3.92
15	11.04	4.43	18.53	6.88	7.35	8.16	13.67	16.42	5.85	6.49	4.09	4.05
16	12.41	4.39	19.18	6.73	7.14	8.26	15.91	17.68	5.52	6.87	4.00	4.06
17	13.42	4.35	20.18	6.70	6.95	8.90	16.84	18.26	5.32	6.19	4.07	4.01
18	14.16	4.40	21.17	6.63	6.79	10.13	17.17	19.07	5.22	5.59	4.06	3.92
19	14.23	4.43	21.58	6.66	6.68	12.14	17.11	19.64	5.10	5.22	4.06	e3.87
20	13.68	4.48	21.43	6.70	6.76	15.99	16.78	20.08	4.99	4.97	4.09	e4.00
21	12.63	4.46	20.99	6.75	6.88	19.19	16.64	20.16	4.94	4.80	4.04	4.25
22	10.58	4.44	20.42	6.92	7.08	20.81	16.65	19.89	4.87	4.65	4.03	4.10
23	7.79	4.43	19.88	8.17	7.25	21.27	16.38	19.42	4.77	4.53	4.02	4.09
24	6.32	4.62	19.28	11.38	7.26	20.99	15.86	18.81	4.70	4.43	3.96	4.09
25	5.92	5.59	18.71	14.00	7.09	20.49	15.17	18.05	4.74	4.40	3.90	4.15
26	5.75	8.51	18.16	17.09	7.10	20.39	14.75	17.26	4.67	4.41	3.86	4.24
27	5.65	10.60	17.55	18.53	7.49	20.51	14.96	16.42	4.62	4.40	3.85	8.32
28	5.49	12.34	16.81	18.72	8.14	20.62	15.52	15.60	4.64	4.35	3.85	11.02
29	5.33	16.58	15.91	18.43	---	20.56	15.82	15.13	4.71	4.30	3.85	12.84
30	5.16	21.07	14.83	17.96	---	20.35	15.86	15.44	4.72	4.24	3.88	16.82
31	5.00	---	13.53	17.43	---	20.00	---	15.87	---	4.19	3.99	---
MEAN	7.03	6.16	19.66	9.86	10.42	12.87	15.50	16.50	7.13	4.67	4.02	5.08
MAX	14.23	21.07	23.92	18.72	17.54	21.27	19.55	20.16	15.83	6.87	4.13	16.82
MIN	4.01	4.35	13.53	6.63	6.68	7.28	10.56	10.89	4.62	4.17	3.85	3.84

e Estimated

03321060 POND RIVER NEAR MADISONVILLE, KY--Continued



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 mi^2.

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 TEMPERATURES.--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 daily recorded, 805 microsiemens, Feb. 15, 1977; minimum daily recorded, 200 microsiemens, Mar. 3, 1979.
WATER TEMPERATURES.--Maximum daily recorded, 32.0°C, June 28, 1978, July 14-18, 1980; minimum daily recorded, freezing point on many days during the winter period.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	TIME	SAMPLE TYPE	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TURBID-ITY LAB HACH 2100AN (NTU) (99872)	UV ABSORB-ANCE 254 NM, WTR FLT (UNITS /CM) (50624)	UV ABSORB-ANCE 254 NM, WRT FLT (UNITS) /CM) (61726)	OXYGEN DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3 (00900)
OCT												
30...	1230	ENVIRONMENTAL	79600	41	.230	.177	7.8	70	7.4	402	11.0	180
DEC												
11...	1240	ENVIRONMENTAL	43500	38	.137	.103	9.4	82	7.4	486	9.0	220
11...	1248	FIELD BLANK	--	--	<.004	<.004	--	--	--	--	--	--
JAN												
29...	1300	ENVIRONMENTAL	20400	34	.076	.057	12.7	109	7.7	563	8.0	250
29...	1308	FIELD BLANK	--	--	--	--	--	--	--	--	--	--
FEB												
12...	1220	ENVIRONMENTAL	62200	63	.138	.103	12.0	94	7.8	480	5.0	210
MAR												
05...	1300	ENVIRONMENTAL	44200	77	.104	.078	13.3	100	7.9	551	3.5	240
05...	1310	REPLICATE	--	74	.102	.077	--	--	--	--	--	240
19...	1300	ENVIRONMENTAL	62400	140	.124	.093	10.5	92	7.8	454	9.0	190
APR												
09...	1230	ENVIRONMENTAL	64800	52	.112	.083	11.0	99	7.6	481	10.5	220
23...	1300	ENVIRONMENTAL	85700	60	.157	.118	7.9	86	7.4	425	19.0	180
23...	1308	FIELD BLANK	--	--	--	--	--	--	--	--	--	--
MAY												
06...	1330	ENVIRONMENTAL	120000	53	.150	.112	8.8	93	7.6	325	17.5	170
28...	1330	ENVIRONMENTAL	8000	48	.133	.098	7.3	83	7.5	455	21.0	210
28...	1340	REPLICATE	--	50	.134	.099	--	--	--	--	--	210
JUN												
11...	1300	ENVIRONMENTAL	39300	260	.107	.080	7.0	85	7.9	484	24.5	230
11...	1308	FIELD BLANK	--	--	--	--	--	--	--	--	--	--
25...	1240	ENVIRONMENTAL	22300	67	.087	.065	8.7	90	8.1	553	27.5	250
JUL												
16...	1310	ENVIRONMENTAL	11700	31	.086	.064	8.0	98	8.2	521	28.0	210
16...	1318	FIELD BLANK	--	--	<.004	<.004	--	--	--	--	--	--
AUG												
06...	1250	ENVIRONMENTAL	8650	37	.085	.063	7.8	99	8.3	538	28.0	200
06...	1300	REPLICATE	--	45	.086	.064	--	--	--	--	--	200
SEP												
09...	1200	ENVIRONMENTAL	5770	18	--	--	7.5	97	8.0	575	28.0	230

03378500 WABASH RIVER AT NEW HARMONY, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)
OCT													
30...	47.6	14.0	5.62	7.64	133	162	18.3	.2	8.66	29.0	238	E.02	.62
DEC													
11...	58.3	17.1	4.44	10.5	158	193	24.0	.2	8.38	43.7	298	E.03	.45
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
29...	65.7	20.0	2.73	17.2	180	220	26.2	.1	6.92	62.0	344	<.04	.24
29...	E.01	<.008	.01	<.09	--	--	.06	<.01	<.13	<.01	--	<.015	--
FEB													
12...	55.7	17.2	3.46	9.81	152	183	23.6	.2	7.15	41.7	282	E.03	.49
MAR													
05...	62.7	20.6	2.40	15.7	179	213	29.2	.2	6.39	55.1	330	<.04	.35
05...	64.2	20.5	2.59	15.2	--	--	29.6	.2	6.50	55.3	332	<.04	.37
19...	51.2	16.0	2.45	10.2	155	189	21.4	.2	6.05	43.8	260	<.04	.35
APR													
09...	58.0	18.0	2.55	11.6	154	187	24.3	.2	5.61	41.5	284	<.04	.33
23...	49.1	15.0	2.94	8.56	138	168	17.6	.1	5.56	35.1	262	<.04	.43
23...	.01	<.008	.01	<.09	--	--	.06	<.01	<.13	<.01	--	<.015	--
MAY													
06...	45.6	13.5	3.15	7.28	130	159	16.0	.2	5.67	30.5	231	<.04	.45
28...	56.5	16.3	3.19	8.44	158	192	15.6	.2	6.18	39.8	271	<.04	.35
28...	56.6	16.3	3.19	8.46	152	186	15.6	.2	6.19	39.7	271	<.04	.35
JUN													
11...	60.4	18.1	3.32	12.9	166	203	21.8	.2	5.63	41.7	250	<.04	.26
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
25...	66.2	21.1	2.72	13.7	188	229	24.6	.1	5.08	47.1	330	<.04	.28
JUL													
16...	47.3	22.8	2.87	20.1	146	179	30.4	.2	.16	61.7	297	<.04	.28
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
06...	42.2	24.1	3.13	25.2	140	122	36.7	.2	<.13	65.5	300	<.04	.33
06...	42.2	23.8	3.18	25.0	--	--	36.9	.2	<.13	65.5	288	<.04	.32
SEP													
09...	51.1	23.9	3.44	28.0	169	206	38.5	.2	.79	62.9	325	E.03	.39

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN,PAR TICULTE WAT FLT SUSP (MG/L AS N) (49570)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	CARBON, INORG + ORGANIC PARTIC. TOTAL (MG/L AS C) (00694)	CARBON, INOR- GANIC, PARTIC. TOTAL (MG/L AS C) (00688)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC PARTIC- ULATE TOTAL (MG/L AS C) (00689)	PHEO- PHYTIN A, PHYTO- PHYTON (UG/L) (62360)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70953)
OCT													
30...	.91	2.86	.021	.48	.144	.124	.27	3.8	.1	7.2	3.6	5.5	3.5
DEC													
11...	.77	3.15	.016	.19	.101	.085	.21	2.5	<.1	4.6	2.5	4.7	4.8
11...	--	--	--	<.02	--	--	--	.3	<.1	.4	.3	--	--
JAN													
29...	.57	2.77	.008	.26	.051	.043	.140	2.4	<.1	3.0	2.3	5.6	24.9
29...	--	<.013	<.002	--	--	<.007	--	--	--	--	--	--	--
FEB													
12...	.77	5.01	.016	.26	.116	.098	.21	2.5	<.1	4.7	2.5	2.5	5.2
MAR													
05...	.80	4.14	.008	.40	.070	.051	.21	3.4	<.1	3.8	3.3	4.6	11.9
05...	.70	4.13	.008	.42	.070	.048	.21	3.7	<.1	3.7	3.7	5.5	9.3
19...	.94	3.56	<.008	.50	.068	.055	.28	9.1	<.1	4.2	9.1	5.0	8.2
APR													
09...	.83	4.64	.013	.41	.068	.054	.173	3.3	<.1	3.7	3.3	4.6	13.4
23...	1.4	2.61	.027	.46	.075	.057	.20	3.5	<.1	4.8	3.4	--	--
23...	--	<.013	<.002	--	--	<.007	--	--	--	--	--	--	--
MAY													
06...	.67	3.37	.036	.18	.085	.065	.194	4.7	<.1	4.8	4.7	3.8	8.8
28...	.71	2.64	.023	.40	.066	.051	.185	2.9	<.1	4.1	2.9	--	--
28...	.71	2.59	.023	.35	.067	.052	.186	2.9	.2	4.1	2.6	--	--
JUN													
11...	1.2	3.89	.025	1.02	.089	.073	.44	8.3	.1	3.5	8.1	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
25...	1.4	3.14	.009	.78	.035	.024	.23	6.5	<.1	3.0	6.4	--	--
JUL													
16...	1.4	.54	.012	1.06	.013	<.007	.138	8.8	.2	2.9	8.6	50.5	124
16...	--	--	--	<.02	--	--	--	<.1	<.1	.7	<.1	--	--
AUG													
06...	1.4	<.05	<.008	1.11	.014	<.007	.142	8.6	<.1	3.3	8.6	51.7	149
06...	1.4	<.05	<.008	1.25	.016	<.007	.141	11.1	<.1	3.3	11.1	51.7	150
SEP													
09...	.99	.14	E.005	.63	.019	<.007	.111	4.0	<.1	3.6	4.0	53.4	34.7

03378500 WABASH RIVER AT NEW HARMONY, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)
OCT													
30...	1.1	42	29	1.5	.4	128	1.0	<.002	.014	<.002	<.005	.107	<.010
DEC													
11...	1.0	52	11	2.1	.5	180	1.4	<.002	<.013	<.002	<.005	.133	<.010
11...	--	--	--	--	--	--	--	<.002	<.004	<.002	<.005	<.007	<.010
JAN													
29...	.9	75	E6	3.4	.6	211	2.5	<.006	<.006	<.004	<.005	.063	<.010
29...	<.2	<7	<10	<.3	<.3	<.08	<.2	--	--	--	--	--	--
FEB													
12...	.9	42	10	1.6	.9	174	1.6	--	--	--	--	--	--
MAR													
05...	2.4	62	E6	2.8	.9	188	<.2	<.006	.013	.005	<.005	.086	<.010
05...	2.4	60	E6	2.7	.7	188	<.2	<.006	.014	E.004	<.005	.090	<.010
19...	.8	37	11	1.8	.7	139	.3	<.006	.011	<.004	<.005	.084	<.010
APR													
09...	.7	36	E6	1.9	.4	166	2.0	<.006	.009	<.004	<.005	.066	<.010
23...	1.1	41	E10	1.7	.6	133	1.8	<.006	.035	<.004	<.005	1.97	<.010
23...	<.2	<7	<10	<.3	<.3	<.08	<.2	--	--	--	--	--	--
MAY													
06...	.9	36	E8	1.7	.4	120	1.7	<.006	.361	.012	<.005	4.40	<.010
28...	1.2	46	E7	2.0	.5	142	2.0	<.006	.196	.009	<.005	1.89	<.010
28...	1.2	46	E7	2.0	.5	144	1.8	<.006	.205	.009	<.005	1.94	<.010
JUN													
11...	1.2	57	<10	2.3	.5	161	2.5	<.006	1.64	.054	<.005	9.28	<.010
11...	--	--	--	--	--	--	--	<.006	<.006	<.004	<.005	<.007	<.010
25...	1.1	79	<10	3.1	.7	173	1.4	<.006	.246	.020	<.005	2.79	<.010
JUL													
16...	1.0	120	<10	5.8	.8	168	1.1	<.006	.043	<.004	<.005	1.15	<.010
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
06...	1.2	144	<10	5.5	.5	184	1.7	<.006	.019	<.004	<.005	.576	<.010
06...	1.2	147	<10	5.5	.5	185	1.7	<.006	.019	<.004	<.005	.576	<.010
SEP													
09...	1.5	187	<10	4.6	.7	199	2.6	<.006	.016	<.004	<.005	.400	<.010

DATE	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)
OCT													
30...	<.002	<.041	<.020	<.005	<.018	<.003	E.049	E.005	<.005	<.02	<.002	<.009	<.005
DEC													
11...	<.002	<.041	<.020	<.005	<.018	<.003	E.040	<.005	<.005	<.02	<.002	<.009	<.005
11...	<.002	<.041	<.020	<.005	<.018	<.003	<.006	<.005	<.005	<.02	<.002	<.009	<.005
JAN													
29...	<.002	E.007	<.020	<.005	<.018	<.003	E.032	<.005	<.005	<.02	<.002	<.009	<.005
29...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
05...	<.002	<.041	<.020	<.005	<.018	<.003	E.020	<.005	<.005	<.02	<.002	<.009	<.005
05...	<.002	<.041	<.020	<.005	<.018	<.003	E.020	<.005	<.005	<.02	<.002	<.009	<.005
19...	<.002	<.041	<.020	<.005	<.018	<.003	E.014	<.005	<.005	<.02	<.002	<.009	<.005
APR													
09...	<.002	<.041	<.020	<.005	<.018	<.003	E.012	E.003	<.005	<.02	<.002	<.009	<.005
23...	<.002	E.014	<.020	<.005	<.018	<.003	E.052	<.005	<.005	<.02	<.002	<.009	<.005
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
06...	<.002	E.004	<.020	<.005	E.011	<.003	E.117	.008	<.005	<.02	<.002	<.009	<.005
28...	<.002	<.041	<.020	<.005	<.018	<.003	E.140	E.004	<.005	<.02	.002	<.009	<.005
28...	<.002	<.041	<.020	<.005	<.018	<.003	E.145	<.005	<.005	<.02	<.002	<.009	<.005
JUN													
11...	<.002	<.041	<.020	E.003	<.018	<.003	E.381	E.004	<.005	<.02	<.002	<.009	<.005
11...	<.002	<.041	<.020	<.005	<.018	<.003	<.006	<.005	<.005	<.02	<.002	<.009	<.005
25...	<.002	<.041	<.020	<.005	<.018	<.003	E.286	E.003	<.005	<.02	.003	<.009	<.005
JUL													
16...	<.002	<.041	<.020	<.005	<.018	<.003	E.124	E.002	<.005	<.02	<.002	<.009	<.005
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
06...	<.002	<.041	<.020	E.004	<.018	<.003	E.099	E.004	<.005	<.02	E.002	<.009	<.005
06...	<.002	<.041	<.020	E.004	<.018	<.003	E.112	E.004	E.004	<.02	E.002	<.009	<.005
SEP													
09...	<.002	<.041	<.020	<.005	<.018	<.003	E.096	<.005	<.005	<.02	<.002	<.009	<.005

03378500 WABASH RIVER AT NEW HARMONY, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	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)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)
OCT													
30...	<.003	<.004	<.035	E.003	<.050	<.006	.073	<.006	<.002	<.007	<.003	<.007	<.002
DEC													
11...	<.003	<.004	<.035	<.027	<.050	<.006	.056	.022	<.002	<.007	<.003	<.007	<.002
11...	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007	<.003	<.007	<.002
JAN													
29...	<.003	<.004	<.035	<.027	<.050	<.006	.026	<.006	<.002	<.007	<.003	<.010	<.004
29...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
05...	<.003	<.004	<.035	<.027	<.050	<.006	.046	<.006	<.002	<.007	<.003	<.010	<.004
05...	<.003	<.004	<.035	<.027	<.050	<.006	.045	<.006	<.002	<.007	<.003	<.010	<.004
19...	<.003	<.004	<.035	<.027	<.050	<.006	.039	<.006	<.002	<.007	<.003	<.010	<.004
APR													
09...	<.003	<.004	<.035	<.027	<.050	<.006	.050	.007	<.002	<.007	<.003	<.010	<.004
23...	<.003	<.004	<.035	<.027	<.050	<.006	.131	.011	<.002	<.007	<.003	<.010	<.004
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
06...	<.003	<.004	<.035	<.027	<.050	<.006	.988	.033	<.002	<.007	<.003	<.010	<.004
28...	<.003	<.004	<.035	<.027	<.050	<.006	.436	.019	<.002	<.007	<.003	<.010	<.004
28...	<.003	<.004	<.035	<.027	<.050	<.006	.439	.019	<.002	<.007	<.003	<.010	<.004
JUN													
11...	<.003	<.004	<.035	<.027	<.050	<.006	2.04	.027	<.002	<.007	<.003	<.010	<.004
11...	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007	<.003	<.010	<.004
25...	<.003	<.004	<.035	<.027	<.050	<.006	.607	.009	<.002	<.007	<.003	<.010	<.004
JUL													
16...	<.003	<.004	<.035	<.027	<.050	<.006	.238	<.006	<.002	<.007	<.003	<.010	<.004
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
06...	<.003	<.004	<.035	<.027	<.050	<.006	.124	<.006	<.002	<.007	<.003	<.010	<.004
06...	<.003	<.004	<.035	<.027	<.050	<.006	.125	<.006	<.002	<.007	<.003	<.010	<.004
SEP													
09...	<.003	<.004	<.035	<.027	<.050	<.006	.116	<.006	<.002	<.007	<.003	<.010	<.004

DATE	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPA-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	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)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)
OCT													
30...	<.010	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.113	M	<.034	<.02	<.005
DEC													
11...	<.010	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.600	M	<.034	<.02	<.005
11...	<.010	<.006	<.011	<.01	<.004	<.010	<.011	<.02	<.011	<.02	<.034	<.02	<.005
JAN													
29...	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.097	<.02	<.034	<.02	<.005
29...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
05...	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.287	<.02	<.034	<.02	<.005
05...	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.302	<.02	<.034	<.02	<.005
19...	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02	.253	M	<.034	<.02	<.005
APR													
09...	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.082	<.02	<.034	<.02	<.005
23...	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.899	<.02	<.034	<.02	<.005
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
06...	<.022	<.006	<.011	.02	<.004	<.010	<.011	<.02	.413	E.01	<.034	<.02	<.005
28...	<.022	<.006	<.011	.02	<.004	<.010	<.011	<.02	.244	<.02	<.034	<.02	<.005
28...	<.022	<.006	<.011	.02	<.004	<.010	<.011	<.02	.244	<.02	<.034	<.02	<.005
JUN													
11...	<.022	<.006	<.011	.02	<.004	<.010	<.011	<.02	.610	<.02	<.034	<.02	<.005
11...	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005
25...	<.022	<.006	<.011	.03	<.004	<.010	<.011	<.02	.220	E.01	<.034	<.02	<.005
JUL													
16...	<.022	<.006	<.011	.02	<.004	<.010	<.011	<.02	.124	E.01	<.034	<.02	<.005
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
06...	<.022	<.006	<.011	.05	<.004	<.010	<.011	<.02	.054	E.01	<.034	<.02	<.005
06...	<.022	<.006	<.011	.05	<.004	<.010	<.011	<.02	.054	E.01	<.034	<.02	<.005
SEP													
09...	<.022	<.006	<.011	.04	<.004	<.010	<.011	<.02	.035	E.01	<.034	<.02	<.005

03378500 WABASH RIVER AT NEW HARMONY, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	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)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
OCT				
30...	<.002	<.009	87	119
DEC				
11...	<.002	<.009	90	85
11...	<.002	<.009	--	--
JAN				
29...	<.002	<.009	97	52
29...	--	--	--	--
FEB				
12...	--	--	86	81
MAR				
05...	<.002	<.009	95	126
05...	<.002	<.009	96	123
19...	<.002	<.009	96	209
APR				
09...	<.002	<.009	89	59
23...	<.002	<.009	92	93
23...	--	--	--	--
MAY				
06...	<.002	<.009	77	73
28...	<.002	<.009	89	71
28...	<.002	<.009	85	72
JUN				
11...	<.002	<.009	99	293
11...	--	--	99	296
25...	<.002	<.009	98	133
JUL				
16...	<.002	<.009	99	71
16...	--	--	--	--
AUG				
06...	<.002	<.009	95	57
06...	<.002	<.009	96	55
SEP				
09...	<.002	<.009	99	24

E--Laboratory estimated value.
M--Presence of material verified but not quantified.
<--Numeric result is less than the value shown.

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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 mi^2, of which about 9 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--August 1940 to May 1984, March 1985 to current year.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 362.80 ft above NGVD of 1929. Prior to July 31, 1942, nonrecording gage at same site and datum.

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

COOPERATION.--Kentucky Natural Resources and Environmental Protection Cabinet.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of January 1937 reached a stage of 19.27 ft, from floodmarks, discharge, 17,000 ft^3/s, by slope-area measurement from U.S. Army Corp of Engineers.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 1	1100	*5,660	*16.34	Mar 27	0200	2,670	14.39
Dec 18	0600	4,200	15.59	Mar 29	1700	2,170	13.30
Feb 2	0300	2,330	13.74	May 14	1900	2,120	13.16
Mar 21	0500	2,670	14.38	May 18	1900	2,580	14.25

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	34	5620	150	1990	175	1230	992	174	30	2.9	0.86
2	5.6	32	e5190	132	2260	171	845	1640	123	25	2.7	0.74
3	8.4	31	e3690	126	e2000	312	537	e1490	96	20	2.5	0.59
4	7.7	35	e2650	115	e1660	243	385	e1030	78	34	2.4	0.53
5	8.5	38	e2050	109	e1220	212	309	539	63	35	2.2	0.51
6	41	35	e1700	110	542	189	260	331	84	19	1.6	0.53
7	73	34	e1360	116	308	173	229	263	149	11	1.0	0.53
8	50	36	1300	119	252	160	209	221	115	10	0.78	0.53
9	40	39	e1460	116	226	159	207	193	88	9.7	0.81	0.53
10	23	32	e1170	116	206	175	210	186	69	7.8	0.86	0.50
11	51	27	e735	116	191	202	206	165	55	6.8	0.97	0.44
12	143	24	422	112	176	200	189	149	48	6.2	1.3	0.44
13	160	21	1120	105	162	203	458	1150	43	6.0	1.7	0.40
14	1270	20	1650	101	153	202	936	2040	38	22	3.2	0.35
15	1780	17	1810	95	145	191	1600	e2020	33	95	3.2	0.35
16	e1650	16	2070	86	139	208	e1520	e1860	26	53	3.3	0.82
17	e1250	15	3540	79	133	292	e1190	e1980	22	29	3.8	0.89
18	e679	14	4120	76	125	358	e772	2460	20	18	4.7	0.97
19	204	14	3780	79	121	913	412	e2380	18	13	5.1	1.1
20	123	15	e3030	87	132	2200	302	e2060	16	10	5.0	3.7
21	102	16	e2360	94	153	2630	865	e1780	14	7.9	4.8	5.4
22	83	18	e2010	106	153	e2420	1290	e1390	12	6.3	4.8	9.2
23	67	20	e1840	297	146	e2200	866	e859	11	5.4	4.4	14
24	62	48	e1720	1430	135	e2000	631	290	9.8	4.6	3.7	10
25	84	182	e1400	1860	127	e1860	e1310	160	9.7	4.0	3.0	6.6
26	81	203	e958	e1810	153	2310	e1160	143	10	3.5	2.2	7.0
27	63	525	541	e1600	192	2540	e772	190	13	3.5	2.0	126
28	51	1520	322	e1190	198	e2170	610	174	21	3.3	1.6	732
29	47	3030	249	e646	---	e2040	713	378	38	3.5	1.5	1010
30	42	5000	203	395	---	e1880	512	392	36	3.9	1.3	847
31	37	---	172	801	---	e1580	---	282	---	3.5	1.1	---
TOTAL	8291.3	11091	60242	12374	13398	30568	20735	29187	1532.5	509.9	80.42	2782.51
MEAN	267.5	369.7	1943	399.2	478.5	986.1	691.2	941.5	51.08	16.45	2.594	92.75
MAX	1780	5000	5620	1860	2260	2630	1600	2460	174	95	5.1	1010
MIN	5.1	14	172	76	121	159	189	143	9.7	3.3	0.78	0.35
CFSM	1.09	1.50	7.90	1.62	1.95	4.01	2.81	3.83	0.21	0.07	0.01	0.38
IN.	1.25	1.68	9.11	1.87	2.03	4.62	3.14	4.41	0.23	0.08	0.01	0.42

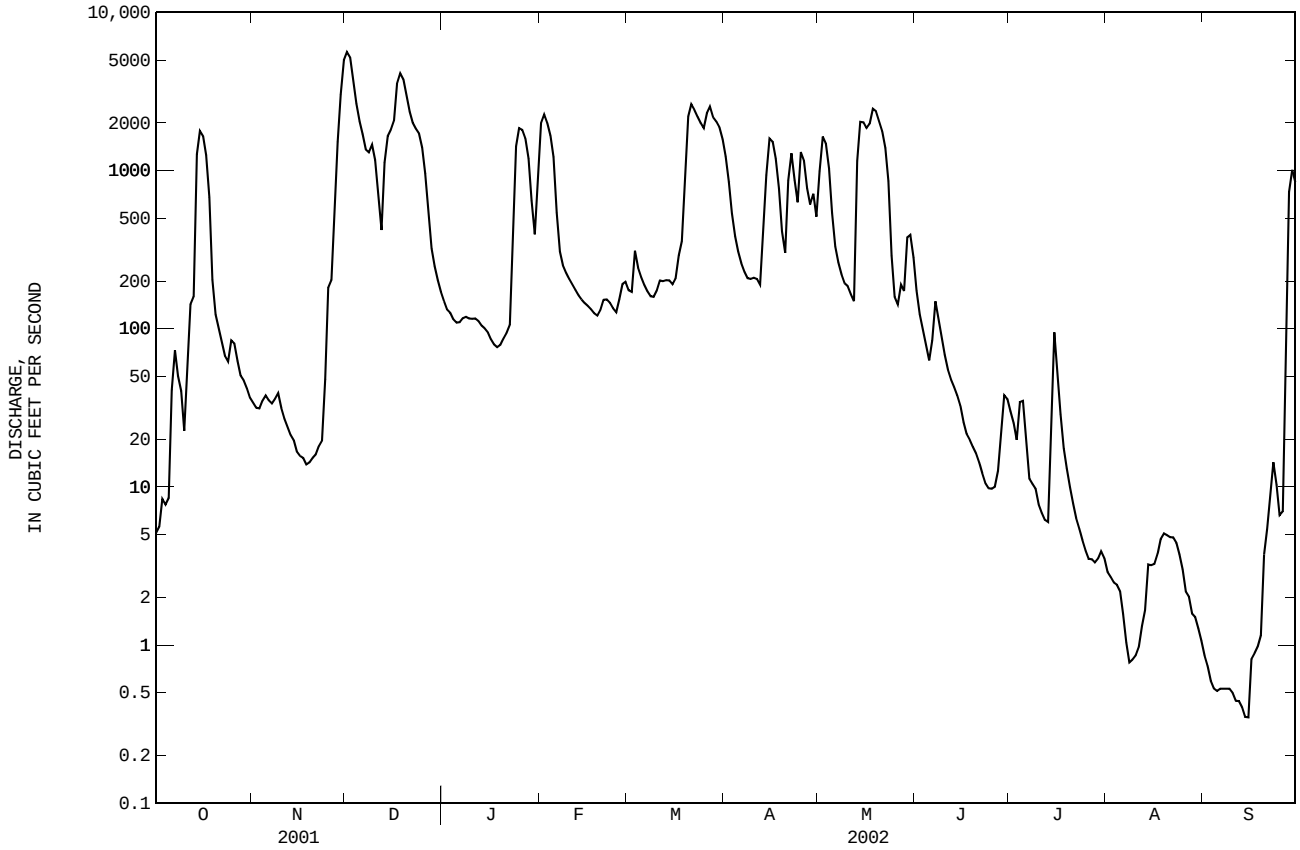
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2002, BY WATER YEAR (WY)

MEAN	32.02	202.7	456.6	556.8	724.2	768.1	587.1	397.1	148.2	88.29	34.99	49.21
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	0.000	0.000	0.96	4.85	19.2	61.9	53.7	7.09	1.18	0.003	0.000	0.000
(WY)	1941	1954	1964	1964	1964	1941	1986	1941	1944	1952	1952	1953

03383000 TRADEWATER RIVER AT OLNEY, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1941 - 2002	
ANNUAL TOTAL	120542.79		190791.63			
ANNUAL MEAN	330.3		522.7		331.3	
HIGHEST ANNUAL MEAN					701	1989
LOWEST ANNUAL MEAN					61.6	1941
HIGHEST DAILY MEAN	5620	Dec 1	5620	Dec 1	14000	Feb 16 1989
LOWEST DAILY MEAN	0.05	Jul 19	0.35	Sep 14	0.00	Oct 1 1940
ANNUAL SEVEN-DAY MINIMUM	0.10	Aug 5	0.43	Sep 9	0.00	Oct 1 1940
MAXIMUM PEAK FLOW			5660	Dec 1	14600	Feb 16 1989
MAXIMUM PEAK STAGE			16.34	Dec 1	18.85	Feb 16 1989
ANNUAL RUNOFF (CFSM)	1.34		2.12		1.35	
ANNUAL RUNOFF (INCHES)	18.23		28.85		18.30	
10 PERCENT EXCEEDS	1180		1850		1130	
50 PERCENT EXCEEDS	45		123		61	
90 PERCENT EXCEEDS	1.1		2.6		1.1	

e Estimated



03399800 OHIO RIVER AT SMITHLAND DAM, SMITHLAND, KY

LOCATION.--Lat 37°09'30", long 88°25'34", Livingston County, Hydrologic Unit 05140203, at Smithland Dam, 1.1 mi upstream from Cumberland Island, 1.8 mi northwest of Smithland, and at mile 919.0

DRAINAGE AREA.--144,000 mi^2, approximately.

PERIOD OF RECORD.--October 1993 to current year.

GAGE.--Gate opening and water-stage recorders with telemetry. Datum of headwater gage is 311.22 ft above NGVD of 1929. Datum of tailwater gage 0.8 mi downstream is 289.28 ft above NGVD of 1929.

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.

COOPERATION.--U.S. Army Corps of Engineers, Louisville District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28700	128000	425000	193000	493000	123000	523000	408000	223000	84500	53000	18700
2	13500	122000	451000	150000	474000	129000	546000	421000	206000	75500	44600	17600
3	18500	101000	447000	112000	455000	115000	552000	429000	178000	64000	41900	15600
4	24500	126000	403000	87800	414000	120000	554000	428000	173000	68400	37000	15400
5	25100	113000	264000	91500	370000	133000	544000	444000	171000	57700	20600	15500
6	39600	119000	231000	74300	e330000	134000	521000	482000	161000	64300	21300	18600
7	31600	102000	212000	77700	303000	140000	478000	490000	177000	54700	27500	26200
8	21600	76700	204000	66400	282000	148000	441000	491000	214000	22500	16900	16900
9	26600	61000	203000	84200	255000	151000	389000	495000	252000	20500	9340	12300
10	32500	65100	198000	71400	229000	153000	332000	503000	271000	39200	28400	9160
11	23300	69100	181000	67700	209000	152000	279000	512000	281000	60200	20000	12100
12	36400	53400	174000	79200	197000	145000	230000	513000	275000	59700	18200	12200
13	46800	50300	161000	84000	194000	146000	232000	523000	234000	54500	19800	14500
14	84800	51300	179000	122000	182000	147000	275000	533000	190000	41600	24900	18200
15	182000	56400	197000	119000	178000	152000	297000	540000	163000	44900	31000	15600
16	171000	45400	232000	136000	173000	162000	317000	555000	159000	64800	21700	27200
17	147000	44400	e340000	108000	150000	184000	326000	580000	156000	47800	15600	24800
18	141000	48900	412000	85500	138000	236000	328000	601000	162000	51000	13300	25600
19	113000	44200	429000	85700	124000	287000	339000	606000	150000	48600	33900	16700
20	113000	47300	440000	91300	112000	427000	352000	602000	140000	47500	31200	31700
21	131000	54000	427000	73200	100000	474000	367000	601000	111000	49100	22100	34700
22	120000	60800	419000	71200	106000	512000	365000	600000	90700	58300	15700	31300
23	110000	39600	403000	74900	111000	539000	366000	605000	86900	52200	12500	15900
24	143000	31700	e380000	173000	115000	558000	e345000	607000	73300	40000	26800	18500
25	222000	52500	353000	e280000	118000	569000	e350000	602000	60400	31400	46000	23800
26	250000	76600	337000	395000	141000	593000	363000	587000	64900	39300	46600	44400
27	241000	100000	302000	450000	123000	587000	373000	560000	49100	33400	40500	79700
28	197000	182000	271000	476000	116000	579000	388000	527000	55600	55500	32000	163000
29	158000	279000	257000	490000	---	561000	397000	485000	72200	63500	33200	188000
30	152000	329000	240000	495000	---	544000	399000	404000	74800	71300	30400	132000
31	129000	---	204000	494000	---	529000	---	255000	---	71200	30100	---
TOTAL	3173500	2729700	9376000	5459000	6192000	9429000	11568000	15989000	4674900	1637100	866040	1095860
MEAN	102400	90990	302500	176100	221100	304200	385600	515800	155800	52810	27940	36530
MAX	250000	329000	451000	495000	493000	593000	554000	607000	281000	84500	53000	188000
MIN	13500	31700	161000	66400	100000	115000	230000	255000	49100	20500	9340	9160

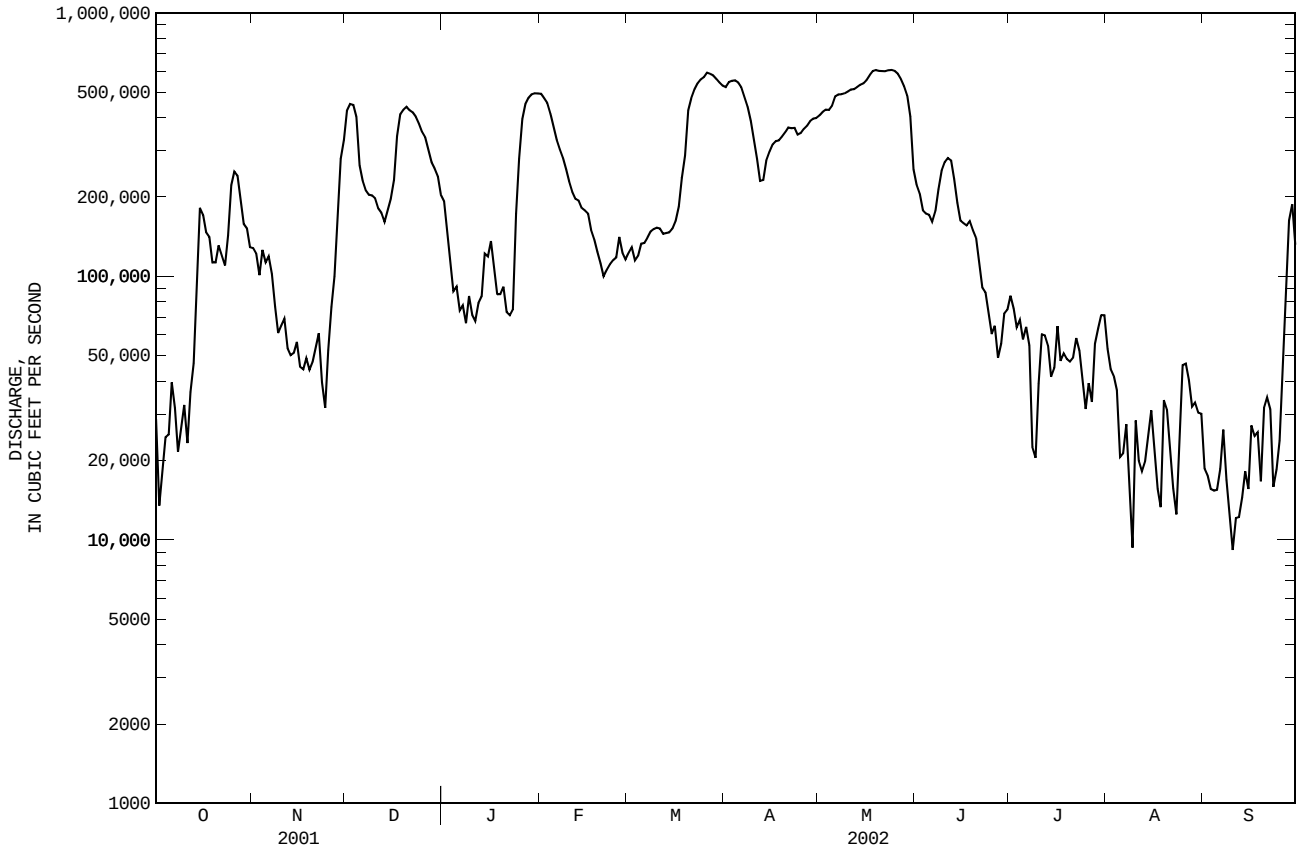
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2002, BY WATER YEAR (WY)

MEAN	62060	104200	193500	197100	304600	358600	306500	322800	218700	96810	72490	42250
MAX	107500	226400	379200	254400	536200	700900	594100	562200	376000	203600	88600	86710
(WY)	1997	1994	1997	1998	1994	1997	1994	1996	1997	1998	1996	1996
MIN	24530	39700	86960	89880	213000	216300	150000	112600	71710	52810	27940	22380
(WY)	2000	2000	2000	2001	1995	2000	1995	2000	1994	2002	2002	1995

03399800 OHIO RIVER AT SMITHLAND DAM, SMITHLAND, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1994 - 2002	
ANNUAL TOTAL	54100300		72190100			
ANNUAL MEAN	148200		197800		189400	
HIGHEST ANNUAL MEAN					247000	1994
LOWEST ANNUAL MEAN					120900	2000
HIGHEST DAILY MEAN	488000	Feb 23	607000	May 24	831000	Mar 12 1997
LOWEST DAILY MEAN	13500	Oct 2	9160	Sep 10	6870	Oct 13 1997
ANNUAL SEVEN-DAY MINIMUM	24900	Oct 2	13400	Sep 9	13400	Sep 9 2002
MAXIMUM PEAK FLOW			609000	May 19	832000	Mar 12 1997
MAXIMUM PEAK STAGE			43.16	May 19	51.44	Mar 12 1997
10 PERCENT EXCEEDS	312000		495000		453000	
50 PERCENT EXCEEDS	119000		136000		127000	
90 PERCENT EXCEEDS	39100		23600		31600	

e Estimated



03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE.--October 1979 to current water year.
pH.--October 1979 to current water year.
WATER TEMPERATURES.--October 1979 to current water year.
DISSOLVED OXYGEN.--October 1979 to current water 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, occassional 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 Oct. 30 to Mar. 20.

SPECIFIC CONDUCTANCE LAKE LEVEL ONE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	136	135	135	---	---	---	---	---	---	---	---	---
2	138	136	137	---	---	---	---	---	---	---	---	---
3	142	138	140	---	---	---	---	---	---	---	---	---
4	144	142	143	---	---	---	---	---	---	---	---	---
5	146	145	145	---	---	---	---	---	---	---	---	---
6	148	146	147	---	---	---	---	---	---	---	---	---
7	152	146	148	---	---	---	---	---	---	---	---	---
8	153	151	152	---	---	---	---	---	---	---	---	---
9	155	151	154	---	---	---	---	---	---	---	---	---
10	152	149	151	---	---	---	---	---	---	---	---	---
11	149	149	149	---	---	---	---	---	---	---	---	---
12	152	149	150	---	---	---	---	---	---	---	---	---
13	153	152	152	---	---	---	---	---	---	---	---	---
14	154	153	154	---	---	---	---	---	---	---	---	---
15	154	153	154	---	---	---	---	---	---	---	---	---
16	156	153	155	---	---	---	---	---	---	---	---	---
17	153	149	151	---	---	---	---	---	---	---	---	---
18	151	148	150	---	---	---	---	---	---	---	---	---
19	153	146	151	---	---	---	---	---	---	---	---	---
20	147	144	145	---	---	---	---	---	---	---	---	---
21	148	147	147	---	---	---	---	---	---	---	---	---
22	147	147	147	---	---	---	---	---	---	---	---	---
23	147	146	147	---	---	---	---	---	---	---	---	---
24	147	146	146	---	---	---	---	---	---	---	---	---
25	149	148	148	---	---	---	---	---	---	---	---	---
26	151	149	150	---	---	---	---	---	---	---	---	---
27	153	152	152	---	---	---	---	---	---	---	---	---
28	154	152	153	---	---	---	---	---	---	---	---	---
29	153	152	152	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	156	135	149	---	---	---	---	---	---	---	---	---

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

SPECIFIC CONDUCTANCE LAKE LEVEL ONE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	121	99	105	111	111	111
2	---	---	---	---	---	---	116	97	107	111	111	111
3	---	---	---	---	---	---	109	93	103	112	111	112
4	---	---	---	---	---	---	114	101	106	112	112	112
5	---	---	---	---	---	---	113	103	107	112	112	112
6	---	---	---	---	---	---	116	104	110	112	112	112
7	---	---	---	---	---	---	116	100	107	113	112	113
8	---	---	---	---	---	---	116	103	109	113	108	112
9	---	---	---	---	---	---	106	104	105	111	107	110
10	---	---	---	---	---	---	107	106	106	111	108	110
11	---	---	---	---	---	---	107	106	107	109	109	109
12	---	---	---	---	---	---	107	106	107	109	109	109
13	---	---	---	---	---	---	106	106	106	---	---	---
14	---	---	---	---	---	---	106	106	106	---	---	---
15	---	---	---	---	---	---	107	106	107	---	---	---
16	---	---	---	---	---	---	107	106	107	---	---	---
17	---	---	---	---	---	---	108	107	108	---	---	---
18	---	---	---	---	---	---	109	108	108	---	---	---
19	---	---	---	---	---	---	109	108	108	---	---	---
20	---	---	---	119	113	115	109	109	109	---	---	---
21	---	---	---	118	114	116	109	109	109	---	---	---
22	---	---	---	122	110	116	114	109	110	---	---	---
23	---	---	---	123	106	118	110	109	110	---	---	---
24	---	---	---	120	107	113	110	110	110	---	---	---
25	---	---	---	119	98	106	111	110	110	---	---	---
26	---	---	---	107	93	101	111	110	110	---	---	---
27	---	---	---	97	95	96	111	110	110	---	---	---
28	---	---	---	106	95	98	112	111	111	---	---	---
29	---	---	---	105	93	99	111	111	111	---	---	---
30	---	---	---	100	95	98	111	111	111	---	---	---
31	---	---	---	102	97	100	---	---	---	133	133	133
MONTH	---	---	---	123	93	106	121	93	108	133	107	113

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	135	134	134	165	163	164	184	180	182	183	181	181
2	136	136	136	166	165	166	184	179	182	184	182	182
3	137	136	137	169	165	167	184	180	182	187	184	184
4	139	134	138	168	166	167	179	176	178	185	184	184
5	140	139	139	169	167	168	183	179	180	186	185	185
6	141	137	140	171	168	170	183	179	181	189	186	186
7	142	139	141	173	169	170	181	178	180	188	187	187
8	143	142	142	173	170	172	180	164	173	190	188	188
9	144	143	143	172	170	171	180	178	179	191	188	188
10	144	144	144	173	171	172	184	180	182	192	190	190
11	146	145	145	174	170	172	181	171	177	198	193	193
12	146	145	146	174	172	173	169	161	164	199	194	197
13	147	146	146	175	173	174	189	162	179	199	196	198
14	148	145	147	175	173	174	188	183	186	203	196	198
15	148	147	147	176	173	174	185	181	182	201	197	198
16	149	148	148	179	175	177	182	175	179	197	196	196
17	150	148	149	180	175	178	181	176	178	198	195	197
18	152	142	149	179	177	178	183	178	181	198	196	197
19	154	152	153	179	178	178	183	180	181	201	198	200
20	155	153	154	180	177	179	183	180	182	204	198	200
21	159	152	155	179	178	179	186	184	185	203	200	202
22	159	154	156	182	178	180	---	---	---	200	199	200
23	159	156	158	182	178	180	188	186	186	199	197	198
24	160	157	158	182	177	180	191	187	189	205	196	201
25	161	156	160	181	178	180	189	187	188	203	200	202
26	162	160	160	184	180	181	193	180	188	205	202	204
27	162	159	161	183	180	181	189	184	186	207	204	206
28	163	161	162	182	179	180	185	180	183	207	203	206
29	164	162	163	182	178	180	185	181	183	209	205	207
30	164	163	163	181	179	181	185	181	182	206	204	205
31	---	---	---	182	179	181	183	181	182	---	---	---
MONTH	164	134	149	184	163	175	193	162	181	209	181	195

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

SPECIFIC CONDUCTANCE LAKE LEVEL 2, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	142	138	141	---	---	---	---	---	---	---	---	---
2	147	138	145	---	---	---	---	---	---	---	---	---
3	149	142	146	---	---	---	---	---	---	---	---	---
4	149	145	147	---	---	---	---	---	---	---	---	---
5	150	146	148	---	---	---	---	---	---	---	---	---
6	151	147	150	---	---	---	---	---	---	---	---	---
7	151	149	150	---	---	---	---	---	---	---	---	---
8	152	151	151	---	---	---	---	---	---	---	---	---
9	152	151	152	---	---	---	---	---	---	---	---	---
10	152	151	152	---	---	---	---	---	---	---	---	---
11	151	150	151	---	---	---	---	---	---	---	---	---
12	152	151	152	---	---	---	---	---	---	---	---	---
13	152	152	152	---	---	---	---	---	---	---	---	---
14	153	149	151	---	---	---	---	---	---	---	---	---
15	154	152	153	---	---	---	---	---	---	---	---	---
16	155	153	154	---	---	---	---	---	---	---	---	---
17	153	152	153	---	---	---	---	---	---	---	---	---
18	151	150	150	---	---	---	---	---	---	---	---	---
19	153	150	152	---	---	---	---	---	---	---	---	---
20	152	149	151	---	---	---	---	---	---	---	---	---
21	152	151	152	---	---	---	---	---	---	---	---	---
22	152	149	151	---	---	---	---	---	---	---	---	---
23	153	151	152	---	---	---	---	---	---	---	---	---
24	152	150	151	---	---	---	---	---	---	---	---	---
25	152	151	151	---	---	---	---	---	---	---	---	---
26	152	151	151	---	---	---	---	---	---	---	---	---
27	155	152	153	---	---	---	---	---	---	---	---	---
28	155	152	153	---	---	---	---	---	---	---	---	---
29	153	153	153	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	155	138	151	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	112	97	102	112	111	111
2	---	---	---	---	---	---	109	94	98	112	111	111
3	---	---	---	---	---	---	104	91	99	111	111	111
4	---	---	---	---	---	---	107	98	101	112	111	111
5	---	---	---	---	---	---	106	99	100	112	110	111
6	---	---	---	---	---	---	110	100	104	111	111	111
7	---	---	---	---	---	---	107	100	102	111	110	110
8	---	---	---	---	---	---	110	103	105	111	108	110
9	---	---	---	---	---	---	106	103	104	112	108	110
10	---	---	---	---	---	---	105	105	105	110	107	108
11	---	---	---	---	---	---	107	105	106	115	107	110
12	---	---	---	---	---	---	106	106	106	119	110	113
13	---	---	---	---	---	---	107	106	107	119	111	116
14	---	---	---	---	---	---	107	106	106	122	115	118
15	---	---	---	---	---	---	108	106	106	121	115	117
16	---	---	---	---	---	---	107	106	107	122	115	117
17	---	---	---	---	---	---	107	107	107	117	116	116
18	---	---	---	---	---	---	108	107	108	122	117	119
19	---	---	---	---	---	---	108	107	108	119	117	118
20	---	---	---	115	112	114	110	108	109	118	114	116
21	---	---	---	118	109	114	109	109	109	119	112	116
22	---	---	---	119	93	110	110	109	110	129	119	124
23	---	---	---	120	98	114	110	109	109	129	117	125
24	---	---	---	116	92	106	110	109	110	133	124	130
25	---	---	---	109	91	100	112	110	110	132	125	128
26	---	---	---	106	92	102	111	110	110	131	126	129
27	---	---	---	96	92	94	111	110	110	131	127	129
28	---	---	---	104	92	95	111	110	111	132	127	129
29	---	---	---	102	93	96	111	111	111	133	128	130
30	---	---	---	98	94	96	111	111	111	134	133	133
31	---	---	---	103	95	98	---	---	---	134	133	134
MONTH	---	---	---	120	91	103	112	91	106	134	107	118

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

SPECIFIC CONDUCTANCE LAKE LEVEL 2, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	135	134	134	147	146	147	168	163	165	188	172	182
2	136	135	135	149	145	147	168	163	165	188	177	182
3	136	135	135	148	145	147	169	163	164	188	183	185
4	137	135	136	149	146	148	164	163	164	191	183	186
5	138	137	137	149	146	148	166	163	164	191	183	187
6	139	135	137	151	146	148	166	163	165	192	185	189
7	140	136	138	149	148	148	166	164	165	194	187	190
8	139	137	138	150	145	148	166	162	164	194	185	190
9	139	138	138	155	145	150	169	164	166	195	185	190
10	139	138	139	153	145	150	169	163	168	198	184	192
11	139	137	139	151	146	149	170	166	169	200	191	195
12	141	139	140	156	148	151	167	162	164	204	195	200
13	141	138	140	160	149	153	177	163	169	203	193	199
14	141	139	140	---	---	---	178	172	176	203	186	198
15	141	140	141	---	---	---	176	173	175	204	193	199
16	142	141	142	156	156	156	173	167	171	204	192	199
17	143	141	142	159	156	158	174	171	173	202	188	198
18	143	141	142	162	155	157	175	167	172	210	185	199
19	143	141	142	163	154	158	177	169	173	205	195	202
20	144	141	143	163	157	160	179	175	177	207	195	202
21	144	142	144	162	158	160	177	173	175	202	182	196
22	145	142	144	167	150	160	---	---	---	207	193	200
23	146	142	144	163	155	159	187	178	181	203	188	197
24	147	142	145	165	158	162	187	183	185	206	182	199
25	147	143	145	167	157	162	187	183	186	204	198	201
26	147	143	145	166	158	162	189	182	186	209	197	204
27	147	143	145	168	159	162	190	180	185	212	164	194
28	148	144	146	167	161	164	186	181	183	200	183	193
29	147	144	146	167	158	163	185	182	184	177	168	173
30	148	146	146	167	162	164	187	175	182	168	166	168
31	---	---	---	166	162	164	188	177	184	---	---	---
MONTH	148	134	141	168	145	155	190	162	173	212	164	193

SPECIFIC CONDUCTANCE LAKE LEVEL 3, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	147	146	147	---	---	---	---	---	---	---	---	---
2	148	147	147	---	---	---	---	---	---	---	---	---
3	149	148	148	---	---	---	---	---	---	---	---	---
4	150	148	149	---	---	---	---	---	---	---	---	---
5	150	148	149	---	---	---	---	---	---	---	---	---
6	151	147	149	---	---	---	---	---	---	---	---	---
7	151	150	151	---	---	---	---	---	---	---	---	---
8	152	151	151	---	---	---	---	---	---	---	---	---
9	152	151	152	---	---	---	---	---	---	---	---	---
10	153	152	153	---	---	---	---	---	---	---	---	---
11	153	152	152	---	---	---	---	---	---	---	---	---
12	152	150	151	---	---	---	---	---	---	---	---	---
13	152	150	152	---	---	---	---	---	---	---	---	---
14	154	150	152	---	---	---	---	---	---	---	---	---
15	152	150	151	---	---	---	---	---	---	---	---	---
16	154	152	153	---	---	---	---	---	---	---	---	---
17	153	153	153	---	---	---	---	---	---	---	---	---
18	151	151	151	---	---	---	---	---	---	---	---	---
19	153	151	152	---	---	---	---	---	---	---	---	---
20	152	152	152	---	---	---	---	---	---	---	---	---
21	153	152	152	---	---	---	---	---	---	---	---	---
22	153	151	152	---	---	---	---	---	---	---	---	---
23	153	151	152	---	---	---	---	---	---	---	---	---
24	153	151	152	---	---	---	---	---	---	---	---	---
25	152	151	152	---	---	---	---	---	---	---	---	---
26	152	151	152	---	---	---	---	---	---	---	---	---
27	153	152	152	---	---	---	---	---	---	---	---	---
28	154	153	153	---	---	---	---	---	---	---	---	---
29	154	154	154	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	154	146	151	---	---	---	---	---	---	---	---	---

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SPECIFIC CONDUCTANCE LAKE LEVEL 3, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	98	94	96	120	113	117
2	---	---	---	---	---	---	97	92	95	120	116	119
3	---	---	---	---	---	---	100	95	98	122	120	121
4	---	---	---	---	---	---	98	97	98	121	119	120
5	---	---	---	---	---	---	100	97	99	121	120	120
6	---	---	---	---	---	---	102	99	100	122	120	121
7	---	---	---	---	---	---	102	100	101	122	114	119
8	---	---	---	---	---	---	105	101	103	122	113	120
9	---	---	---	---	---	---	104	101	102	125	117	121
10	---	---	---	---	---	---	106	104	105	127	121	124
11	---	---	---	---	---	---	106	105	106	125	123	124
12	---	---	---	---	---	---	106	105	106	125	123	124
13	---	---	---	---	---	---	108	104	106	127	125	126
14	---	---	---	---	---	---	111	104	108	132	126	128
15	---	---	---	---	---	---	117	106	109	130	128	129
16	---	---	---	---	---	---	108	106	108	131	128	130
17	---	---	---	---	---	---	109	107	108	134	129	131
18	---	---	---	---	---	---	109	108	108	133	124	130
19	---	---	---	---	---	---	111	108	109	133	131	132
20	---	---	---	112	105	108	111	108	109	131	124	130
21	---	---	---	110	98	105	115	108	112	131	126	130
22	---	---	---	111	92	99	115	109	112	131	131	131
23	---	---	---	114	89	100	116	111	113	131	131	131
24	---	---	---	110	90	99	116	112	14	134	132	132
25	---	---	---	99	90	94	112	111	112	133	132	133
26	---	---	---	100	90	94	115	111	112	133	133	133
27	---	---	---	97	91	93	116	112	114	134	133	133
28	---	---	---	93	92	92	118	111	116	135	133	134
29	---	---	---	94	93	93	121	112	116	134	133	133
30	---	---	---	96	92	94	119	117	118	134	133	133
31	---	---	---	96	93	94	---	---	---	134	132	133
MONTH	---	---	---	114	89	97	121	92	104	135	113	127

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	133	132	133	157	146	151	157	155	156	156	154	155
2	133	133	133	152	150	151	156	155	156	154	153	154
3	134	133	133	152	146	149	155	155	155	156	154	155
4	136	133	135	149	144	148	155	154	154	156	155	156
5	140	134	137	149	145	148	155	154	155	157	155	156
6	141	132	137	149	148	148	155	154	154	157	155	156
7	139	136	138	155	145	150	156	154	155	158	157	157
8	140	135	138	150	148	149	157	154	155	159	157	158
9	141	137	139	152	149	150	156	154	155	160	158	159
10	139	137	138	152	147	150	156	154	155	161	159	160
11	141	136	139	152	147	150	157	154	156	162	159	160
12	139	138	138	153	151	152	158	157	158	160	159	160
13	141	136	139	152	151	151	159	157	158	160	160	160
14	139	137	138	151	150	151	159	158	158	161	159	160
15	139	136	138	152	150	151	159	156	158	161	158	160
16	140	139	139	153	151	152	156	154	156	162	160	161
17	140	137	139	153	151	152	155	152	154	163	160	162
18	142	140	142	155	154	154	155	153	154	161	160	161
19	142	138	141	156	154	155	156	156	156	164	162	163
20	142	141	142	156	154	154	156	154	155	165	163	164
21	144	139	142	155	153	154	156	156	156	166	164	164
22	144	139	142	155	154	155	---	---	---	165	161	163
23	145	138	143	156	154	155	163	161	162	166	163	164
24	145	143	144	156	155	155	162	160	161	166	164	165
25	145	142	143	157	154	156	162	160	161	167	165	166
26	144	142	144	158	155	156	160	160	160	167	165	166
27	145	140	143	157	155	156	157	155	156	166	163	164
28	149	144	146	159	157	158	156	155	155	165	163	164
29	152	145	148	159	156	158	155	154	155	167	162	163
30	149	145	147	161	157	159	154	153	154	162	161	162
31	---	---	---	158	155	156	155	154	155	---	---	---
MONTH	152	132	140	161	144	153	163	152	156	167	153	161

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SPECIFIC CONDUCTANCE LAKE LEVEL 4, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	148	146	147	---	---	---	---	---	---	---	---	---
2	149	147	148	---	---	---	---	---	---	---	---	---
3	149	149	149	---	---	---	---	---	---	---	---	---
4	149	148	149	---	---	---	---	---	---	---	---	---
5	149	149	149	---	---	---	---	---	---	---	---	---
6	152	148	149	---	---	---	---	---	---	---	---	---
7	152	150	151	---	---	---	---	---	---	---	---	---
8	152	151	152	---	---	---	---	---	---	---	---	---
9	152	151	152	---	---	---	---	---	---	---	---	---
10	153	152	152	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	153	146	150	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	120	120	120
2	---	---	---	---	---	---	---	---	---	121	120	120
3	---	---	---	---	---	---	---	---	---	121	121	121
4	---	---	---	---	---	---	---	---	---	121	120	120
5	---	---	---	---	---	---	---	---	---	123	120	121
6	---	---	---	---	---	---	---	---	---	123	121	122
7	---	---	---	---	---	---	---	---	---	123	121	122
8	---	---	---	---	---	---	---	---	---	122	121	122
9	---	---	---	---	---	---	---	---	---	123	121	122
10	---	---	---	---	---	---	---	---	---	125	122	123
11	---	---	---	---	---	---	---	---	---	125	125	125
12	---	---	---	---	---	---	---	---	---	126	125	125
13	---	---	---	---	---	---	---	---	---	126	124	125
14	---	---	---	---	---	---	---	---	---	127	126	126
15	---	---	---	---	---	---	---	---	---	131	128	129
16	---	---	---	---	---	---	---	---	---	131	129	130
17	---	---	---	---	---	---	---	---	---	131	131	131
18	---	---	---	---	---	---	---	---	---	131	131	131
19	---	---	---	---	---	---	---	---	---	133	132	132
20	---	---	---	113	104	107	---	---	---	132	131	132
21	---	---	---	100	82	88	---	---	---	131	131	131
22	---	---	---	106	88	94	116	115	115	133	131	132
23	---	---	---	93	89	92	117	116	116	135	132	133
24	---	---	---	91	90	90	118	117	117	136	134	135
25	---	---	---	98	90	92	117	117	117	136	135	136
26	---	---	---	94	90	91	117	117	117	136	136	136
27	---	---	---	92	91	91	117	116	117	137	136	136
28	---	---	---	95	92	93	118	117	118	135	134	135
29	---	---	---	94	93	94	119	118	118	136	135	135
30	---	---	---	---	---	---	120	119	119	138	136	137
31	---	---	---	---	---	---	---	---	---	138	133	136
MONTH	---	---	---	113	82	93	120	115	117	138	120	128

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

SPECIFIC CONDUCTANCE LAKE LEVEL 4, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	138	137	137	147	146	147	157	156	156	---	---	---
2	138	137	138	148	147	147	157	156	156	---	---	---
3	139	137	138	149	148	149	157	156	156	---	---	---
4	140	139	139	150	149	149	156	155	156	---	---	---
5	140	140	140	150	149	149	157	155	156	---	---	---
6	140	135	139	150	149	149	156	155	155	---	---	---
7	140	137	140	150	149	150	156	155	155	---	---	---
8	141	140	140	151	150	150	156	155	155	---	---	---
9	142	140	141	151	150	150	156	155	155	---	---	---
10	142	134	140	151	150	151	156	155	156	---	---	---
11	143	141	142	151	150	151	156	155	156	---	---	---
12	143	141	142	152	151	152	158	156	157	---	---	---
13	143	142	143	152	150	151	160	159	160	---	---	---
14	143	142	143	152	150	151	---	---	---	---	---	---
15	143	142	143	152	151	152	---	---	---	---	---	---
16	142	142	142	154	151	153	---	---	---	---	---	---
17	142	141	142	155	153	154	---	---	---	---	---	---
18	144	143	144	155	154	155	---	---	---	---	---	---
19	144	143	144	155	154	154	---	---	---	---	---	---
20	145	144	144	156	154	155	---	---	---	---	---	---
21	145	144	144	157	155	156	---	---	---	---	---	---
22	145	142	144	156	155	156	---	---	---	---	---	---
23	146	144	145	156	154	156	---	---	---	---	---	---
24	146	145	146	156	155	156	---	---	---	---	---	---
25	146	145	146	156	155	155	---	---	---	---	---	---
26	145	144	145	156	156	156	---	---	---	---	---	---
27	145	144	145	157	156	157	---	---	---	---	---	---
28	145	144	145	157	157	157	---	---	---	---	---	---
29	147	145	146	158	156	157	---	---	---	---	---	---
30	147	146	146	158	156	157	---	---	---	---	---	---
31	---	---	---	157	156	157	---	---	---	---	---	---
MONTH	147	134	142	158	146	153	160	155	156	---	---	---

PH, WH, FIELD LAKE LEVEL ONE, in (STANDARD UNITS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6.8	6.8	---	---	---	---	---	---	---	---	---	---
2	6.8	6.8	---	---	---	---	---	---	---	---	---	---
3	6.9	6.8	---	---	---	---	---	---	---	---	---	---
4	6.9	6.8	---	---	---	---	---	---	---	---	---	---
5	6.8	6.8	---	---	---	---	---	---	---	---	---	---
6	6.8	6.8	---	---	---	---	---	---	---	---	---	---
7	6.9	6.8	---	---	---	---	---	---	---	---	---	---
8	7.1	6.9	---	---	---	---	---	---	---	---	---	---
9	7.1	7.1	---	---	---	---	---	---	---	---	---	---
10	7.1	7.1	---	---	---	---	---	---	---	---	---	---
11	7.1	6.9	---	---	---	---	---	---	---	---	---	---
12	6.9	6.9	---	---	---	---	---	---	---	---	---	---
13	6.9	6.9	---	---	---	---	---	---	---	---	---	---
14	6.9	6.9	---	---	---	---	---	---	---	---	---	---
15	7.0	6.9	---	---	---	---	---	---	---	---	---	---
16	7.1	6.9	---	---	---	---	---	---	---	---	---	---
17	7.2	7.1	---	---	---	---	---	---	---	---	---	---
18	7.2	7.1	---	---	---	---	---	---	---	---	---	---
19	7.2	7.1	---	---	---	---	---	---	---	---	---	---
20	7.1	7.1	---	---	---	---	---	---	---	---	7.1	7.0
21	7.1	7.1	---	---	---	---	---	---	---	---	7.0	7.0
22	7.1	7.0	---	---	---	---	---	---	---	---	7.0	7.0
23	7.0	6.9	---	---	---	---	---	---	---	---	7.0	7.0
24	6.9	6.9	---	---	---	---	---	---	---	---	7.0	7.0
25	7.0	6.9	---	---	---	---	---	---	---	---	7.0	7.0
26	7.0	6.9	---	---	---	---	---	---	---	---	7.0	6.9
27	7.2	7.1	---	---	---	---	---	---	---	---	6.9	6.9
28	7.2	7.2	---	---	---	---	---	---	---	---	6.9	6.9
29	7.2	7.2	---	---	---	---	---	---	---	---	7.1	6.9
30	---	---	---	---	---	---	---	---	---	---	7.0	6.9
31	---	---	---	---	---	---	---	---	---	---	7.0	6.9
MONTH	7.2	6.8	---	---	---	---	---	---	---	---	7.1	6.9

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PH, WH, FIELD LAKE LEVEL ONE, in (STANDARD UNITS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.0	6.9	6.9	6.9	6.8	6.8	6.9	6.9	7.0	6.9	7.2	7.1
2	7.1	7.0	7.0	6.9	6.8	6.8	7.0	6.9	7.0	7.0	7.2	7.2
3	7.1	7.0	6.9	6.9	6.8	6.8	7.0	7.0	7.0	7.0	7.2	7.2
4	7.1	7.0	6.9	6.9	6.8	6.7	7.0	7.0	7.1	7.0	7.2	7.2
5	7.1	7.1	6.9	6.9	6.7	6.7	7.0	7.0	7.2	7.1	7.2	7.2
6	7.1	7.1	6.9	6.9	6.7	6.7	7.0	7.0	7.2	7.1	7.3	7.2
7	7.2	7.1	6.9	6.9	6.7	6.7	7.0	7.0	7.2	7.2	7.2	7.1
8	7.2	7.1	6.9	6.9	6.7	6.7	7.0	7.0	7.3	7.2	7.2	7.2
9	7.1	7.0	7.0	6.8	6.8	6.7	7.0	7.0	7.3	7.3	7.2	7.2
10	7.0	7.0	6.9	6.9	6.8	6.8	7.1	7.0	7.3	7.3	7.2	7.2
11	7.1	7.0	6.9	6.9	6.8	6.8	7.0	7.0	7.4	7.3	7.2	7.0
12	7.0	7.0	7.1	6.9	6.8	6.8	7.1	7.0	7.4	7.4	7.0	6.9
13	7.0	7.0	---	---	6.8	6.8	7.1	7.0	7.4	7.4	6.9	6.9
14	7.0	6.9	---	---	6.8	6.8	7.0	7.0	7.4	7.4	6.9	6.9
15	6.9	6.8	---	---	6.8	6.8	7.1	7.0	7.4	7.3	6.9	6.9
16	6.8	6.8	---	---	6.9	6.8	7.1	6.8	7.3	7.2	6.9	6.8
17	6.8	6.8	---	---	6.9	6.9	6.8	6.8	7.3	7.2	6.9	6.9
18	6.8	6.8	---	---	6.9	6.7	6.8	6.8	7.3	7.3	7.0	6.8
19	6.8	6.8	---	---	6.7	6.7	6.8	6.8	7.3	7.2	7.0	6.9
20	6.8	6.8	---	---	6.7	6.7	6.9	6.9	7.2	7.2	7.0	6.9
21	6.8	6.8	---	---	6.7	6.7	6.9	6.9	7.4	7.2	6.9	6.9
22	7.2	6.8	---	---	6.8	6.7	6.9	6.8	7.2	7.2	6.9	6.9
23	6.9	6.9	---	---	6.8	6.7	6.9	6.9	7.2	7.2	6.9	6.9
24	6.9	6.9	---	---	6.8	6.8	6.9	6.9	7.2	7.2	6.9	6.9
25	6.9	6.9	---	---	6.8	6.8	6.9	6.9	7.2	7.2	6.9	6.9
26	6.9	6.9	---	---	6.8	6.8	6.9	6.9	7.2	7.2	6.9	6.8
27	7.0	6.9	---	---	6.8	6.8	7.0	7.0	7.2	7.2	6.9	6.8
28	6.9	6.9	---	---	6.9	6.8	7.0	7.0	7.2	7.2	6.9	6.8
29	6.9	6.9	---	---	6.9	6.9	7.0	7.0	7.2	7.2	6.8	6.8
30	6.9	6.9	---	---	6.9	6.9	7.0	6.9	7.2	7.1	6.9	6.8
31	---	---	6.8	6.8	---	---	6.9	6.9	7.1	7.1	---	---
MONTH	7.2	6.8	7.1	6.8	6.9	6.7	7.1	6.8	7.4	6.9	7.3	6.8

PH, WH, FIELD LAKE LEVEL 2, in (STANDARD UNITS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6.9	6.8	---	---	---	---	---	---	---	---	---	---
2	7.0	6.8	---	---	---	---	---	---	---	---	---	---
3	7.1	6.9	---	---	---	---	---	---	---	---	---	---
4	7.1	7.0	---	---	---	---	---	---	---	---	---	---
5	7.0	6.9	---	---	---	---	---	---	---	---	---	---
6	7.0	6.9	---	---	---	---	---	---	---	---	---	---
7	7.0	6.9	---	---	---	---	---	---	---	---	---	---
8	7.1	7.0	---	---	---	---	---	---	---	---	---	---
9	7.1	7.1	---	---	---	---	---	---	---	---	---	---
10	7.1	7.1	---	---	---	---	---	---	---	---	---	---
11	7.1	7.1	---	---	---	---	---	---	---	---	---	---
12	7.0	7.0	---	---	---	---	---	---	---	---	---	---
13	7.0	7.0	---	---	---	---	---	---	---	---	---	---
14	7.1	7.0	---	---	---	---	---	---	---	---	---	---
15	7.1	7.0	---	---	---	---	---	---	---	---	---	---
16	7.1	7.0	---	---	---	---	---	---	---	---	---	---
17	7.2	7.2	---	---	---	---	---	---	---	---	---	---
18	7.2	7.2	---	---	---	---	---	---	---	---	---	---
19	7.2	7.2	---	---	---	---	---	---	---	---	---	---
20	7.1	7.1	---	---	---	---	---	---	---	---	7.1	7.1
21	7.1	7.1	---	---	---	---	---	---	---	---	7.1	7.0
22	7.1	7.0	---	---	---	---	---	---	---	---	7.1	7.0
23	7.0	7.0	---	---	---	---	---	---	---	---	7.0	7.0
24	7.1	7.0	---	---	---	---	---	---	---	---	7.0	7.0
25	7.2	7.0	---	---	---	---	---	---	---	---	7.1	7.0
26	7.1	7.0	---	---	---	---	---	---	---	---	7.1	6.9
27	7.2	7.1	---	---	---	---	---	---	---	---	7.0	6.9
28	7.2	7.2	---	---	---	---	---	---	---	---	7.0	7.0
29	7.2	7.2	---	---	---	---	---	---	---	---	7.1	7.0
30	---	---	---	---	---	---	---	---	---	---	7.1	7.0
31	---	---	---	---	---	---	---	---	---	---	7.0	7.0
MONTH	7.2	6.8	---	---	---	---	---	---	---	---	7.1	6.9

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

PH, WH, FIELD LAKE LEVEL 2, in (STANDARD UNITS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.1	7.0	7.2	6.9	6.9	6.9	6.7	6.7	7.0	6.9	7.3	7.2
2	7.2	7.0	7.0	6.9	7.0	6.9	6.8	6.7	7.0	6.9	7.3	7.2
3	7.1	7.0	7.0	7.0	7.0	6.9	6.8	6.8	7.0	6.9	7.3	7.3
4	7.1	7.1	7.1	7.0	6.9	6.9	6.8	6.8	7.1	7.0	7.3	7.3
5	7.2	7.1	7.1	7.0	6.9	6.9	6.8	6.8	7.1	7.1	7.3	7.3
6	7.2	7.1	7.0	7.0	6.9	6.8	6.9	6.8	7.2	7.1	7.3	7.3
7	7.2	7.1	7.1	7.0	6.9	6.8	6.8	6.8	7.2	7.2	7.3	7.2
8	7.3	7.1	7.1	7.0	6.9	6.8	6.9	6.8	7.3	7.2	7.2	7.2
9	7.2	7.1	7.1	7.0	6.9	6.8	6.9	6.8	7.3	7.2	7.2	7.2
10	7.1	7.0	7.2	7.0	6.9	6.9	6.9	6.8	7.3	7.3	7.2	7.2
11	7.1	7.0	7.2	7.0	7.0	6.9	6.9	6.8	7.4	7.3	7.2	7.0
12	7.0	7.0	7.3	7.1	6.9	6.8	6.9	6.9	7.4	7.4	7.1	7.1
13	7.0	7.0	7.3	7.0	6.9	6.8	7.1	6.9	7.4	7.4	7.1	7.0
14	7.0	7.0	7.3	7.2	6.9	6.9	---	---	7.4	7.3	7.1	7.0
15	7.1	7.0	7.3	7.2	6.9	6.8	---	---	7.4	7.3	7.1	7.0
16	6.9	6.9	7.3	7.1	6.9	6.9	6.7	6.7	7.3	7.2	7.1	7.1
17	7.0	6.9	7.2	7.1	6.9	6.8	6.7	6.7	7.3	7.3	7.1	7.0
18	6.9	6.9	7.3	7.1	6.9	6.7	6.7	6.7	7.3	7.3	7.1	7.0
19	6.9	6.9	7.2	7.1	6.7	6.7	6.7	6.7	7.4	7.3	7.2	7.1
20	6.9	6.8	7.1	7.1	6.7	6.7	6.8	6.8	7.3	7.3	7.1	7.1
21	6.9	6.8	7.1	7.0	6.7	6.7	6.8	6.8	7.3	7.3	7.1	7.1
22	7.0	6.8	7.4	7.2	6.7	6.7	6.8	6.7	7.3	7.2	7.1	7.1
23	7.0	7.0	7.4	7.2	6.8	6.7	6.8	6.8	7.3	7.3	7.1	7.1
24	7.0	7.0	7.6	7.3	6.8	6.7	6.8	6.8	7.3	7.2	7.1	7.0
25	7.0	6.9	7.4	7.3	6.8	6.7	6.9	6.8	7.3	7.2	7.1	7.1
26	7.0	6.9	7.3	7.3	6.7	6.7	6.9	6.8	7.5	7.2	7.1	7.0
27	7.0	6.9	7.3	7.3	6.8	6.7	7.0	6.9	7.3	7.3	7.1	6.9
28	7.0	6.9	7.3	7.2	6.8	6.7	7.0	7.0	7.3	7.3	7.0	6.9
29	7.0	6.9	7.3	7.2	6.7	6.7	7.0	7.0	7.3	7.3	6.9	6.8
30	7.0	6.9	7.3	7.3	6.7	6.7	7.0	6.9	7.3	7.2	6.9	6.8
31	---	---	7.3	6.9	---	---	6.9	6.9	7.2	7.2	---	---
MONTH	7.3	6.8	7.6	6.9	7.0	6.7	7.1	6.7	7.5	6.9	7.3	6.8

PH, WH, FIELD LAKE LEVEL 3, in (STANDARD UNITS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.0	7.0	---	---	---	---	---	---	---	---	---	---
2	7.1	7.1	---	---	---	---	---	---	---	---	---	---
3	7.2	7.1	---	---	---	---	---	---	---	---	---	---
4	7.3	7.1	---	---	---	---	---	---	---	---	---	---
5	7.3	7.1	---	---	---	---	---	---	---	---	---	---
6	7.3	7.1	---	---	---	---	---	---	---	---	---	---
7	7.1	7.1	---	---	---	---	---	---	---	---	---	---
8	7.2	7.1	---	---	---	---	---	---	---	---	---	---
9	7.1	7.1	---	---	---	---	---	---	---	---	---	---
10	7.2	7.1	---	---	---	---	---	---	---	---	---	---
11	7.1	7.1	---	---	---	---	---	---	---	---	---	---
12	7.2	7.1	---	---	---	---	---	---	---	---	---	---
13	7.2	7.1	---	---	---	---	---	---	---	---	---	---
14	7.2	7.1	---	---	---	---	---	---	---	---	---	---
15	7.2	7.1	---	---	---	---	---	---	---	---	---	---
16	7.2	7.1	---	---	---	---	---	---	---	---	---	---
17	7.2	7.2	---	---	---	---	---	---	---	---	---	---
18	7.2	7.2	---	---	---	---	---	---	---	---	---	---
19	7.2	7.2	---	---	---	---	---	---	---	---	---	---
20	7.2	7.2	---	---	---	---	---	---	---	---	7.1	7.1
21	7.2	7.1	---	---	---	---	---	---	---	---	7.1	7.0
22	7.2	7.1	---	---	---	---	---	---	---	---	7.1	7.0
23	7.1	7.1	---	---	---	---	---	---	---	---	7.1	7.0
24	7.2	7.0	---	---	---	---	---	---	---	---	7.1	7.0
25	7.2	7.0	---	---	---	---	---	---	---	---	7.1	7.0
26	7.2	7.1	---	---	---	---	---	---	---	---	7.1	7.0
27	7.2	7.2	---	---	---	---	---	---	---	---	7.1	7.0
28	7.2	7.2	---	---	---	---	---	---	---	---	7.1	7.0
29	7.2	7.2	---	---	---	---	---	---	---	---	7.1	7.0
30	---	---	---	---	---	---	---	---	---	---	7.1	7.0
31	---	---	---	---	---	---	---	---	---	---	7.1	7.1
MONTH	7.3	7.0	---	---	---	---	---	---	---	---	7.1	7.0

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

PH, WH, FIELD LAKE LEVEL 3, in (STANDARD UNITS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.1	7.1	7.6	7.2	7.5	7.3	7.4	7.4	7.2	7.1	7.4	7.3
2	7.2	7.1	7.6	7.3	7.4	7.3	7.4	7.5	7.3	7.2	7.4	7.4
3	7.1	7.1	7.5	7.4	7.4	7.2	7.5	7.4	7.3	7.2	7.4	7.4
4	7.2	7.1	7.6	7.4	7.4	7.3	7.5	7.4	7.4	7.3	7.4	7.3
5	7.2	7.1	7.6	7.4	7.4	7.3	7.4	7.4	7.4	7.4	7.4	7.3
6	7.2	7.1	7.6	7.5	7.4	7.3	7.4	7.4	7.4	7.4	7.4	7.3
7	7.2	7.2	7.6	7.3	7.4	7.3	7.4	7.4	7.4	7.3	7.3	7.2
8	7.3	7.2	7.6	7.3	7.4	7.3	7.4	7.4	7.5	7.3	7.3	7.2
9	7.4	7.2	7.5	7.4	7.5	7.3	7.4	7.4	7.5	7.5	7.2	7.2
10	7.3	7.2	7.6	7.5	7.5	7.4	7.4	7.4	7.5	7.5	7.2	7.2
11	7.2	7.2	7.6	7.4	7.5	7.3	7.4	7.3	7.6	7.5	7.2	7.1
12	7.2	7.1	7.6	7.4	7.5	7.4	7.3	7.3	7.5	7.5	7.1	7.0
13	7.3	7.2	7.6	7.4	7.4	7.4	7.4	7.3	7.7	7.4	7.1	7.0
14	7.4	7.2	7.6	7.6	7.5	7.4	7.4	7.3	7.6	7.6	7.2	7.0
15	7.4	7.1	7.7	7.6	7.6	7.4	7.4	7.3	7.6	7.5	7.1	7.0
16	7.1	7.0	7.7	7.5	7.5	7.5	7.4	7.1	7.6	7.4	7.1	7.0
17	7.1	7.0	7.8	7.4	7.5	7.5	7.1	7.1	7.6	7.5	7.0	7.0
18	7.0	7.0	7.8	7.3	7.6	7.3	7.1	7.1	7.5	7.4	7.1	7.0
19	7.0	7.0	7.6	7.4	7.3	7.2	7.1	7.1	7.5	7.5	7.1	7.1
20	7.1	6.9	7.5	7.2	7.3	7.3	7.2	7.1	7.4	7.4	7.1	7.1
21	7.4	6.9	7.5	7.3	7.3	7.3	7.1	7.1	7.5	7.4	7.1	7.0
22	7.2	7.0	7.5	7.5	7.4	7.3	7.2	7.1	7.6	7.4	7.2	7.1
23	7.3	7.1	7.6	7.5	7.4	7.3	7.2	7.2	7.6	7.5	7.1	7.1
24	7.5	7.1	7.8	7.6	7.4	7.4	0.2	7.1	7.6	7.5	7.1	7.0
25	7.4	7.1	7.7	7.5	7.4	7.3	7.1	7.1	7.5	7.5	7.1	7.1
26	7.4	7.2	7.7	7.6	7.4	7.4	7.1	7.1	7.5	7.5	7.1	6.9
27	7.5	7.2	7.8	7.6	7.4	7.3	7.2	7.2	7.5	7.1	7.0	6.9
28	7.6	7.1	7.8	7.5	7.4	7.4	7.2	7.2	7.6	7.5	7.0	7.0
29	7.4	7.2	7.8	7.6	7.4	7.4	7.2	7.2	7.6	7.5	7.0	6.9
30	7.6	7.3	7.8	7.7	7.4	7.4	7.3	7.1	7.6	7.4	7.1	7.0
31	---	---	7.8	7.4	---	---	7.1	7.1	7.4	7.4	---	---
MONTH	7.6	6.9	7.8	7.2	7.6	7.2	7.5	7.1	7.7	7.1	7.4	6.9

PH, WH, FIELD LAKE LEVEL 4, in (STANDARD UNITS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.2	7.1	---	---	---	---	---	---	---	---	---	---
2	7.2	7.1	---	---	---	---	---	---	---	---	---	---
3	7.3	7.2	---	---	---	---	---	---	---	---	---	---
4	7.4	7.3	---	---	---	---	---	---	---	---	---	---
5	7.4	7.4	---	---	---	---	---	---	---	---	---	---
6	7.4	7.2	---	---	---	---	---	---	---	---	---	---
7	7.2	7.1	---	---	---	---	---	---	---	---	---	---
8	7.2	7.1	---	---	---	---	---	---	---	---	---	---
9	7.2	7.1	---	---	---	---	---	---	---	---	---	---
10	7.2	7.2	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	7.1	7.0
21	---	---	---	---	---	---	---	---	---	---	7.1	7.0
22	---	---	---	---	---	---	---	---	---	---	7.1	7.0
23	---	---	---	---	---	---	---	---	---	---	7.1	7.1
24	---	---	---	---	---	---	---	---	---	---	7.1	7.1
25	---	---	---	---	---	---	---	---	---	---	7.1	7.0
26	---	---	---	---	---	---	---	---	---	---	7.1	7.1
27	---	---	---	---	---	---	---	---	---	---	7.1	7.0
28	---	---	---	---	---	---	---	---	---	---	7.1	7.0
29	---	---	---	---	---	---	---	---	---	---	7.2	7.0
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	7.4	7.1	---	---	---	---	---	---	---	---	7.2	7.0

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

PH, WH, FIELD LAKE LEVEL 4, in (STANDARD UNITS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	7.8	7.4	7.5	7.4	7.6	7.4	7.4	7.3	---	---
2	---	---	7.7	7.6	7.5	7.4	7.6	7.5	7.4	7.4	---	---
3	---	---	7.7	7.6	7.5	7.4	7.6	7.5	7.4	7.4	---	---
4	---	---	7.7	7.7	7.5	7.4	7.6	7.5	7.5	7.4	---	---
5	---	---	7.7	7.6	7.4	7.4	7.5	7.5	7.5	7.5	---	---
6	---	---	7.7	7.6	7.4	7.4	7.6	7.5	7.6	7.5	---	---
7	---	---	7.7	7.6	7.5	7.3	7.6	7.5	7.5	7.5	---	---
8	---	---	7.7	7.5	7.4	7.3	7.5	7.5	7.7	7.5	---	---
9	---	---	7.6	7.5	7.5	7.3	7.5	7.5	7.7	7.6	---	---
10	---	---	7.6	7.6	7.5	7.4	7.5	7.5	7.7	7.6	---	---
11	---	---	7.7	7.6	7.5	7.4	7.5	7.5	7.7	7.6	---	---
12	---	---	7.7	7.6	7.5	7.4	7.5	7.5	7.6	7.5	---	---
13	---	---	7.7	7.6	7.5	7.4	7.5	7.5	7.5	7.4	---	---
14	---	---	7.7	7.6	7.5	7.4	7.5	7.4	---	---	---	---
15	---	---	7.8	7.6	7.6	7.5	7.5	7.5	---	---	---	---
16	---	---	7.8	7.7	7.6	7.5	7.5	7.2	---	---	---	---
17	---	---	7.9	7.7	7.7	7.5	7.2	7.2	---	---	---	---
18	---	---	7.8	7.7	7.6	7.4	7.2	7.2	---	---	---	---
19	---	---	7.8	7.7	7.5	7.4	7.2	7.2	---	---	---	---
20	---	---	7.6	7.5	7.4	7.4	7.3	7.3	---	---	---	---
21	---	---	7.6	7.5	7.5	7.4	7.2	7.2	---	---	---	---
22	7.6	7.5	7.6	7.5	7.5	7.4	7.3	7.2	---	---	---	---
23	7.6	7.5	7.7	7.6	7.4	7.3	7.3	7.3	---	---	---	---
24	7.7	7.6	7.9	7.7	7.6	7.3	7.3	7.2	---	---	---	---
25	7.6	7.6	7.9	7.8	7.5	7.4	7.3	7.2	---	---	---	---
26	7.7	7.5	7.9	7.8	7.5	7.4	7.3	7.2	---	---	---	---
27	7.7	7.5	8.0	7.9	7.5	7.4	7.3	7.3	---	---	---	---
28	7.8	7.6	8.0	7.8	7.5	7.4	7.3	7.3	---	---	---	---
29	7.7	7.6	8.0	7.9	7.6	7.5	7.3	7.3	---	---	---	---
30	7.7	7.7	7.9	7.9	7.5	7.5	7.3	7.3	---	---	---	---
31	---	---	7.8	7.5	---	---	7.3	7.2	---	---	---	---
MONTH	7.8	7.5	8.0	7.4	7.7	7.3	7.6	7.2	7.7	7.3	---	---

WATER TEMPERATURE LAKE LEVEL ONE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	20.9	20.8	20.8	---	---	---	---	---	---	---	---	---
2	20.9	20.8	20.9	---	---	---	---	---	---	---	---	---
3	21.0	20.6	20.8	---	---	---	---	---	---	---	---	---
4	21.0	20.7	20.9	---	---	---	---	---	---	---	---	---
5	20.7	20.6	20.6	---	---	---	---	---	---	---	---	---
6	20.7	20.6	20.7	---	---	---	---	---	---	---	---	---
7	20.7	20.7	20.7	---	---	---	---	---	---	---	---	---
8	20.7	20.6	20.7	---	---	---	---	---	---	---	---	---
9	20.6	20.4	20.5	---	---	---	---	---	---	---	---	---
10	20.4	20.0	20.2	---	---	---	---	---	---	---	---	---
11	20.0	19.9	20.0	---	---	---	---	---	---	---	---	---
12	20.0	19.9	19.9	---	---	---	---	---	---	---	---	---
13	19.9	19.9	19.9	---	---	---	---	---	---	---	---	---
14	19.9	19.8	19.9	---	---	---	---	---	---	---	---	---
15	20.0	19.9	20.0	---	---	---	---	---	---	---	---	---
16	20.0	19.9	20.0	---	---	---	---	---	---	---	---	---
17	20.0	19.6	19.8	---	---	---	---	---	---	---	---	---
18	19.6	19.4	19.5	---	---	---	---	---	---	---	---	---
19	19.3	19.2	19.3	---	---	---	---	---	---	---	---	---
20	19.0	19.0	19.0	---	---	---	---	---	---	---	---	---
21	18.9	18.8	18.9	---	---	---	---	---	---	---	---	---
22	18.8	18.8	18.8	---	---	---	---	---	---	---	---	---
23	18.8	18.7	18.8	---	---	---	---	---	---	---	---	---
24	18.8	18.7	18.7	---	---	---	---	---	---	---	---	---
25	18.9	18.8	18.8	---	---	---	---	---	---	---	---	---
26	18.9	18.8	18.8	---	---	---	---	---	---	---	---	---
27	19.0	18.8	18.9	---	---	---	---	---	---	---	---	---
28	18.7	18.5	18.6	---	---	---	---	---	---	---	---	---
29	18.4	18.3	18.3	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	21.0	18.3	19.8	---	---	---	---	---	---	---	---	---

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

WATER TEMPERATURE LAKE LEVEL ONE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	12.0	11.2	11.5	12.8	12.6	12.7
2	---	---	---	---	---	---	12.0	11.4	11.6	13.0	12.8	12.9
3	---	---	---	---	---	---	11.9	11.6	11.8	13.0	12.8	12.9
4	---	---	---	---	---	---	12.0	11.7	11.8	13.0	12.9	13.0
5	---	---	---	---	---	---	12.0	11.6	11.8	13.2	13.0	13.1
6	---	---	---	---	---	---	12.0	11.6	11.7	13.6	13.1	13.3
7	---	---	---	---	---	---	12.3	11.7	12.0	13.7	13.3	13.5
8	---	---	---	---	---	---	12.6	11.8	12.0	14.5	13.5	13.8
9	---	---	---	---	---	---	13.1	11.8	12.0	14.8	14.0	14.3
10	---	---	---	---	---	---	11.8	11.7	11.7	14.8	14.3	14.5
11	---	---	---	---	---	---	11.8	11.7	11.7	15.1	14.6	14.8
12	---	---	---	---	---	---	11.8	11.8	11.8	16.1	14.9	15.2
13	---	---	---	---	---	---	11.8	11.8	11.8	---	---	---
14	---	---	---	---	---	---	11.9	11.8	11.8	---	---	---
15	---	---	---	---	---	---	11.9	11.8	11.9	---	---	---
16	---	---	---	---	---	---	12.0	11.9	11.9	---	---	---
17	---	---	---	---	---	---	12.0	12.0	12.0	---	---	---
18	---	---	---	---	---	---	12.1	12.0	12.0	---	---	---
19	---	---	---	---	---	---	12.1	12.1	12.1	---	---	---
20	---	---	---	11.0	10.8	10.9	12.2	12.1	12.1	---	---	---
21	---	---	---	11.0	10.9	10.9	12.2	12.1	12.2	---	---	---
22	---	---	---	11.1	10.9	11.0	12.3	12.2	12.3	---	---	---
23	---	---	---	11.3	10.9	11.0	12.4	12.3	12.3	---	---	---
24	---	---	---	11.1	10.9	11.0	12.4	12.3	12.3	---	---	---
25	---	---	---	11.6	10.8	11.1	12.4	12.3	12.4	---	---	---
26	---	---	---	12.1	10.9	11.2	12.4	12.4	12.4	---	---	---
27	---	---	---	11.0	10.8	10.9	12.5	12.4	12.4	---	---	---
28	---	---	---	11.1	10.9	11.0	12.5	12.5	12.5	---	---	---
29	---	---	---	13.0	10.9	11.6	12.6	12.5	12.5	---	---	---
30	---	---	---	12.0	11.1	11.4	12.6	12.5	12.6	---	---	---
31	---	---	---	11.4	11.2	11.2	---	---	---	16.7	16.6	16.7
MONTH	---	---	---	13.0	10.8	11.1	13.1	11.2	12.0	16.7	12.6	13.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	16.8	16.7	16.7	17.3	17.2	17.2	18.2	18.2	18.2	18.5	18.5	18.5
2	16.9	16.8	16.8	17.3	17.2	17.3	18.3	18.2	18.2	18.6	18.5	18.5
3	17.0	16.8	16.9	17.3	17.2	17.3	18.4	18.2	18.3	18.6	18.5	18.6
4	17.1	16.8	17.0	17.4	17.3	17.3	18.4	18.3	18.4	18.6	18.6	18.6
5	16.8	16.7	16.7	17.4	17.4	17.4	18.5	18.4	18.4	18.6	18.3	18.5
6	16.9	16.7	16.8	17.4	17.4	17.4	18.5	18.4	18.4	18.4	18.2	18.3
7	16.9	16.8	16.8	17.5	17.4	17.4	18.5	18.5	18.5	18.5	18.3	18.4
8	16.8	16.8	16.8	17.5	17.4	17.5	18.6	18.2	18.5	18.6	18.4	18.5
9	16.8	16.8	16.8	17.5	17.5	17.5	18.5	18.4	18.5	18.7	18.6	18.7
10	16.8	16.8	16.8	17.6	17.5	17.5	18.6	18.5	18.6	18.7	18.7	18.7
11	16.8	16.8	16.8	17.6	17.6	17.6	18.8	18.6	18.7	18.9	18.8	18.8
12	16.8	16.8	16.8	17.6	17.6	17.6	19.5	18.8	19.2	18.9	18.9	18.9
13	16.8	16.8	16.8	17.6	17.4	17.5	19.6	18.7	19.0	19.0	18.9	18.9
14	16.8	16.8	16.8	17.7	17.6	17.7	18.6	18.5	18.6	19.1	19.0	19.0
15	16.9	16.8	16.8	17.7	17.7	17.7	18.6	18.5	18.6	19.1	19.1	19.1
16	16.9	16.8	16.8	17.7	17.7	17.7	18.6	18.4	18.5	19.3	19.1	19.2
17	16.9	16.9	16.9	17.8	17.7	17.7	18.6	18.5	18.6	19.3	19.2	19.2
18	16.9	16.9	16.9	17.8	17.8	17.8	18.6	18.4	18.4	19.3	19.3	19.3
19	16.9	16.9	16.9	17.8	17.8	17.8	18.5	18.4	18.4	19.4	19.3	19.4
20	17.0	16.9	16.9	17.8	17.8	17.8	18.4	18.3	18.3	19.5	19.4	19.4
21	17.0	16.9	17.0	17.9	17.8	17.8	18.3	18.2	18.2	19.5	19.5	19.5
22	17.0	16.5	16.6	17.9	17.8	17.9	18.3	18.2	18.2	19.5	19.5	19.5
23	16.9	16.4	16.7	18.0	17.9	18.0	18.3	18.2	18.2	19.6	19.5	19.6
24	17.0	16.8	16.9	18.0	18.0	18.0	18.3	18.2	18.2	19.5	19.2	19.3
25	17.0	16.9	17.0	18.0	17.9	18.0	18.3	18.3	18.3	19.3	19.2	19.2
26	17.1	17.0	17.0	18.0	18.0	18.0	18.3	18.2	18.3	19.4	19.3	19.3
27	17.1	17.1	17.1	18.0	18.0	18.0	18.4	18.3	18.3	19.5	19.4	19.4
28	17.1	17.1	17.1	18.1	18.0	18.1	18.4	18.3	18.4	19.6	19.5	19.5
29	17.2	17.1	17.1	18.1	18.1	18.1	18.4	18.4	18.4	19.8	19.6	19.7
30	17.3	17.2	17.2	18.2	18.1	18.1	18.5	18.4	18.4	19.9	19.6	19.8
31	---	---	---	18.2	18.1	18.2	18.5	18.4	18.5	---	---	---
MONTH	17.3	16.4	16.9	18.2	17.2	17.7	19.6	18.2	18.4	19.9	18.2	19.0

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WATER TEMPERATURE LAKE LEVEL 2, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	21.6	21.5	21.6	---	---	---	---	---	---	---	---	---
2	21.7	21.5	21.6	---	---	---	---	---	---	---	---	---
3	21.6	21.4	21.5	---	---	---	---	---	---	---	---	---
4	21.6	21.1	21.4	---	---	---	---	---	---	---	---	---
5	21.4	21.2	21.3	---	---	---	---	---	---	---	---	---
6	21.3	21.1	21.2	---	---	---	---	---	---	---	---	---
7	21.3	21.1	21.2	---	---	---	---	---	---	---	---	---
8	21.1	20.9	21.0	---	---	---	---	---	---	---	---	---
9	20.9	20.8	20.8	---	---	---	---	---	---	---	---	---
10	20.7	20.5	20.6	---	---	---	---	---	---	---	---	---
11	20.5	20.4	20.5	---	---	---	---	---	---	---	---	---
12	20.6	20.4	20.4	---	---	---	---	---	---	---	---	---
13	20.5	20.4	20.4	---	---	---	---	---	---	---	---	---
14	20.8	20.4	20.5	---	---	---	---	---	---	---	---	---
15	20.7	20.4	20.5	---	---	---	---	---	---	---	---	---
16	20.4	20.4	20.4	---	---	---	---	---	---	---	---	---
17	20.4	20.2	20.3	---	---	---	---	---	---	---	---	---
18	20.0	19.8	19.9	---	---	---	---	---	---	---	---	---
19	19.8	19.7	19.8	---	---	---	---	---	---	---	---	---
20	19.6	19.5	19.6	---	---	---	---	---	---	---	---	---
21	19.5	19.4	19.4	---	---	---	---	---	---	---	---	---
22	19.4	19.3	19.4	---	---	---	---	---	---	---	---	---
23	19.4	19.3	19.3	---	---	---	---	---	---	---	---	---
24	19.9	19.3	19.5	---	---	---	---	---	---	---	---	---
25	19.9	19.4	19.7	---	---	---	---	---	---	---	---	---
26	19.5	19.4	19.4	---	---	---	---	---	---	---	---	---
27	19.5	19.2	19.4	---	---	---	---	---	---	---	---	---
28	19.1	18.8	19.0	---	---	---	---	---	---	---	---	---
29	18.7	18.7	18.7	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	21.7	18.7	20.3	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	12.0	11.7	11.9	13.3	12.8	13.0
2	---	---	---	---	---	---	14.2	11.8	12.4	13.6	13.1	13.3
3	---	---	---	---	---	---	12.2	11.9	12.0	13.6	13.2	13.5
4	---	---	---	---	---	---	12.7	12.0	12.4	13.7	13.5	13.6
5	---	---	---	---	---	---	12.5	11.9	12.3	14.2	13.5	13.8
6	---	---	---	---	---	---	12.4	11.9	12.1	14.5	13.9	14.1
7	---	---	---	---	---	---	13.5	12.1	12.6	15.1	14.3	14.8
8	---	---	---	---	---	---	14.6	12.1	12.9	15.4	14.4	14.9
9	---	---	---	---	---	---	12.5	12.1	12.3	16.4	15.0	15.8
10	---	---	---	---	---	---	12.3	11.9	12.0	16.5	15.4	16.0
11	---	---	---	---	---	---	12.0	11.9	12.0	17.0	16.0	16.5
12	---	---	---	---	---	---	12.1	11.9	12.0	17.1	16.5	16.9
13	---	---	---	---	---	---	12.1	12.0	12.1	17.7	16.1	17.2
14	---	---	---	---	---	---	12.2	12.0	12.1	17.8	17.3	17.6
15	---	---	---	---	---	---	12.7	12.0	12.3	17.9	17.1	17.4
16	---	---	---	---	---	---	12.5	12.1	12.3	17.7	16.8	17.2
17	---	---	---	---	---	---	12.7	12.2	12.3	17.4	16.9	17.2
18	---	---	---	---	---	---	12.3	12.2	12.3	17.9	17.1	17.5
19	---	---	---	---	---	---	12.6	12.3	12.4	17.5	17.2	17.3
20	---	---	---	11.1	11.0	11.1	12.7	12.3	12.4	17.3	17.0	17.1
21	---	---	---	11.2	11.0	11.1	12.6	12.4	12.5	17.5	16.8	17.3
22	---	---	---	11.8	11.1	11.2	12.7	12.5	12.6	17.8	17.5	17.7
23	---	---	---	11.5	11.0	11.2	12.6	12.5	12.6	17.9	17.3	17.5
24	---	---	---	11.7	11.0	11.2	12.7	12.5	12.6	18.0	16.8	17.4
25	---	---	---	12.5	10.9	11.5	13.3	12.5	12.8	17.4	16.7	17.0
26	---	---	---	12.3	11.0	11.4	12.8	12.6	12.7	17.1	16.7	17.0
27	---	---	---	11.7	11.0	11.2	12.7	12.6	12.6	17.0	16.8	16.9
28	---	---	---	11.6	11.1	11.4	12.9	12.7	12.8	17.2	16.7	16.9
29	---	---	---	13.4	11.1	12.2	13.2	12.8	12.9	17.3	16.8	17.0
30	---	---	---	12.3	11.4	11.9	13.0	12.7	12.8	17.5	17.2	17.4
31	---	---	---	12.4	11.8	12.0	---	---	---	17.6	17.4	17.6
MONTH	---	---	---	13.4	10.9	11.5	14.6	11.7	12.4	18.0	12.8	16.3

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

WATER TEMPERATURE LAKE LEVEL 2, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	17.8	17.4	17.6	19.0	18.6	18.7	20.5	19.9	20.2	23.1	21.4	22.2
2	17.9	17.6	17.7	19.0	18.6	18.8	20.3	20.0	20.2	22.8	21.3	22.2
3	18.0	17.6	17.8	19.1	18.7	18.9	20.5	20.0	20.4	22.5	21.7	22.2
4	18.0	17.8	17.9	19.0	18.6	18.8	20.7	20.3	20.5	22.6	21.7	22.2
5	18.1	17.5	17.8	19.1	18.8	19.0	20.8	20.3	20.5	22.8	21.9	22.4
6	17.9	17.5	17.8	19.2	18.7	19.0	21.0	20.3	20.6	22.7	21.8	22.3
7	17.9	17.7	17.8	19.2	19.0	19.1	20.9	20.2	20.6	22.7	21.7	22.3
8	18.0	17.7	17.8	19.5	19.0	19.2	21.0	20.3	20.7	22.9	22.1	22.5
9	18.0	17.7	17.9	19.4	18.8	19.1	21.1	20.4	20.8	23.1	21.9	22.7
10	18.1	17.6	17.9	19.5	18.9	19.1	21.5	20.6	20.9	23.4	22.0	22.7
11	18.5	17.8	18.0	19.4	19.1	19.2	21.3	20.7	21.0	23.5	22.6	22.9
12	18.2	17.6	17.9	19.4	19.0	19.2	21.2	20.7	21.0	23.1	22.4	22.9
13	18.4	17.7	18.0	19.4	19.1	19.3	21.4	20.9	21.0	23.5	22.5	23.0
14	18.4	17.7	18.0	---	---	---	22.4	20.5	21.2	23.8	22.8	23.1
15	18.3	17.9	18.1	---	---	---	21.2	20.8	21.0	23.5	22.7	23.2
16	18.3	17.9	18.1	19.5	19.4	19.5	22.4	20.3	21.2	23.5	23.0	23.2
17	18.2	17.9	18.1	19.6	19.3	19.4	21.0	20.6	20.9	23.6	23.2	23.3
18	18.3	17.9	18.2	19.8	19.3	19.6	21.4	20.6	21.0	23.7	22.8	23.3
19	18.4	18.2	18.2	19.9	19.2	19.6	21.5	20.4	21.0	23.6	23.3	23.4
20	18.5	18.1	18.2	19.9	19.3	19.6	21.0	20.6	20.8	23.5	23.2	23.4
21	18.5	18.2	18.4	19.9	19.4	19.7	21.2	20.9	21.1	23.9	23.4	23.6
22	18.5	17.6	18.1	20.6	19.2	19.8	23.1	20.8	21.5	23.5	23.2	23.4
23	18.4	17.7	18.1	20.4	19.6	19.9	22.1	20.4	21.4	23.7	23.2	23.5
24	18.8	18.1	18.4	20.0	19.5	19.8	21.8	21.2	21.4	23.8	23.2	23.4
25	18.8	18.4	18.5	20.2	19.4	19.9	21.8	20.6	21.4	23.4	23.3	23.3
26	18.7	18.2	18.5	20.4	19.6	20.0	23.1	20.9	21.8	23.6	23.2	23.3
27	18.7	18.4	18.5	20.5	19.4	20.0	22.0	20.8	21.5	23.7	22.9	23.3
28	18.9	18.3	18.6	20.2	19.8	20.0	22.1	21.4	21.8	23.3	22.9	23.1
29	18.9	18.4	18.6	20.9	19.8	20.2	22.1	21.6	21.8	23.4	22.9	23.1
30	18.8	18.5	18.6	20.4	19.8	20.1	22.8	21.3	22.0	23.2	23.0	23.1
31	---	---	---	20.5	20.0	20.2	22.6	21.2	21.9	---	---	---
MONTH	18.9	17.4	18.1	20.9	18.6	19.5	23.1	19.9	21.1	23.9	21.3	22.9

WATER TEMPERATURE LAKE LEVEL 3, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	22.0	21.8	21.9	---	---	---	---	---	---	---	---	---
2	21.9	21.8	21.9	---	---	---	---	---	---	---	---	---
3	22.1	21.8	21.9	---	---	---	---	---	---	---	---	---
4	22.6	21.9	22.1	---	---	---	---	---	---	---	---	---
5	22.0	21.7	21.8	---	---	---	---	---	---	---	---	---
6	21.9	21.6	21.8	---	---	---	---	---	---	---	---	---
7	21.6	21.4	21.5	---	---	---	---	---	---	---	---	---
8	21.6	21.2	21.3	---	---	---	---	---	---	---	---	---
9	21.2	21.1	21.1	---	---	---	---	---	---	---	---	---
10	21.1	21.0	21.0	---	---	---	---	---	---	---	---	---
11	21.0	20.9	20.9	---	---	---	---	---	---	---	---	---
12	21.1	20.9	21.0	---	---	---	---	---	---	---	---	---
13	21.1	20.9	21.0	---	---	---	---	---	---	---	---	---
14	21.2	20.9	21.0	---	---	---	---	---	---	---	---	---
15	21.2	20.8	21.0	---	---	---	---	---	---	---	---	---
16	21.0	20.8	20.9	---	---	---	---	---	---	---	---	---
17	20.8	20.6	20.7	---	---	---	---	---	---	---	---	---
18	20.6	20.4	20.5	---	---	---	---	---	---	---	---	---
19	20.4	20.2	20.3	---	---	---	---	---	---	---	---	---
20	20.5	20.1	20.3	---	---	---	---	---	---	---	---	---
21	20.3	20.1	20.2	---	---	---	---	---	---	---	---	---
22	20.2	20.0	20.1	---	---	---	---	---	---	---	---	---
23	20.4	20.0	20.2	---	---	---	---	---	---	---	---	---
24	20.5	20.0	20.2	---	---	---	---	---	---	---	---	---
25	20.5	20.1	20.3	---	---	---	---	---	---	---	---	---
26	20.1	20.0	20.0	---	---	---	---	---	---	---	---	---
27	19.9	19.8	19.9	---	---	---	---	---	---	---	---	---
28	19.7	19.5	19.6	---	---	---	---	---	---	---	---	---
29	19.4	19.3	19.4	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	22.0	19.3	20.8	---	---	---	---	---	---	---	---	---

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WATER TEMPERATURE LAKE LEVEL 3, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	13.4	12.2	12.7	17.6	16.1	16.8
2	---	---	---	---	---	---	15.0	12.5	13.6	19.5	16.4	18.0
3	---	---	---	---	---	---	13.7	12.6	13.2	18.0	17.4	17.6
4	---	---	---	---	---	---	13.1	12.7	12.8	18.1	17.2	17.7
5	---	---	---	---	---	---	13.9	12.4	13.2	18.1	17.2	17.6
6	---	---	---	---	---	---	13.4	12.5	12.7	19.2	17.7	18.6
7	---	---	---	---	---	---	15.0	12.3	13.5	19.5	17.1	18.4
8	---	---	---	---	---	---	15.6	13.3	14.4	20.3	17.0	18.4
9	---	---	---	---	---	---	15.1	14.2	14.6	20.3	17.9	18.8
10	---	---	---	---	---	---	14.7	14.3	14.4	19.4	18.4	18.8
11	---	---	---	---	---	---	15.5	14.1	14.7	20.1	18.6	19.0
12	---	---	---	---	---	---	16.0	13.6	14.6	21.5	18.8	19.9
13	---	---	---	---	---	---	17.6	14.0	14.8	21.5	18.9	20.5
14	---	---	---	---	---	---	18.7	14.5	16.2	20.0	19.4	19.7
15	---	---	---	---	---	---	18.4	13.8	15.0	19.8	19.5	19.6
16	---	---	---	---	---	---	15.4	13.9	14.9	20.0	18.8	19.4
17	---	---	---	---	---	---	15.7	14.2	14.9	21.0	18.8	19.9
18	---	---	---	---	---	---	15.5	14.2	14.8	21.1	18.5	19.4
19	---	---	---	---	---	---	15.5	14.2	15.0	19.4	18.8	19.1
20	---	---	---	11.3	11.2	11.2	17.2	13.8	15.6	18.9	18.1	18.6
21	---	---	---	11.6	11.3	11.4	22.0	14.4	17.0	18.5	18.3	18.4
22	---	---	---	12.3	11.2	11.7	17.1	14.7	15.7	18.3	18.1	18.2
23	---	---	---	12.4	11.3	11.8	17.2	14.8	13.4	18.3	18.1	18.2
24	---	---	---	12.5	11.4	11.8	18.9	15.4	16.8	19.5	18.1	18.5
25	---	---	---	12.7	11.1	11.9	16.1	14.4	15.5	18.8	18.2	18.4
26	---	---	---	12.7	11.5	12.2	17.8	16.3	16.9	18.9	18.4	18.6
27	---	---	---	12.5	11.4	11.8	17.9	16.1	16.8	18.9	18.3	18.6
28	---	---	---	13.1	11.5	12.1	18.4	15.6	17.6	19.4	18.3	18.7
29	---	---	---	13.7	11.5	12.5	17.5	16.2	16.8	19.1	18.6	18.8
30	---	---	---	13.2	12.1	12.7	19.7	16.9	17.9	19.1	18.8	19.0
31	---	---	---	13.5	12.7	13.1	---	---	---	19.7	19.0	19.2
MONTH	---	---	---	13.7	11.1	12.0	22.0	12.2	15.0	21.5	16.1	18.7

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	20.1	19.1	19.6	25.2	24.5	24.9	26.5	26.4	26.5	25.9	25.8	25.9
2	20.0	19.3	19.6	25.4	24.9	25.1	26.6	26.4	26.5	26.1	25.8	25.9
3	20.2	19.4	19.8	26.0	24.8	25.4	26.9	26.6	26.7	26.2	25.8	25.9
4	20.6	19.9	20.2	25.9	24.3	25.3	26.9	26.1	26.6	26.0	25.8	25.9
5	22.1	20.1	20.8	25.9	24.9	25.4	27.0	26.5	26.8	26.0	25.7	25.8
6	21.5	20.2	20.6	26.1	25.4	25.8	26.9	26.4	26.7	25.8	25.3	25.6
7	21.2	20.5	20.8	26.1	25.3	25.9	26.6	26.2	26.4	26.1	25.3	25.6
8	21.9	20.6	21.1	26.7	25.8	26.1	26.2	25.8	26.0	25.7	25.5	25.6
9	22.1	20.7	21.4	26.7	25.6	26.1	26.8	25.8	26.1	25.6	25.5	25.6
10	21.7	21.1	21.5	26.6	25.3	26.0	26.5	25.8	26.1	25.6	25.4	25.5
11	23.5	21.0	22.0	26.1	25.2	25.8	26.4	25.6	25.9	25.6	25.3	25.4
12	23.0	21.7	22.2	26.0	25.9	25.9	25.6	25.0	25.3	25.4	25.0	25.2
13	25.5	21.3	22.9	26.0	25.5	25.7	26.4	24.5	25.6	25.4	25.0	25.1
14	22.9	22.1	22.5	25.4	25.3	25.3	26.0	25.5	25.8	25.5	25.0	25.1
15	23.6	22.1	22.8	25.3	25.1	25.2	25.9	25.5	25.8	25.4	25.4	25.1
16	23.8	23.0	23.4	25.9	25.3	25.5	25.5	25.1	25.3	25.1	24.9	25.0
17	23.4	22.6	23.1	25.5	25.2	25.4	25.4	25.1	25.3	25.2	24.8	25.0
18	23.7	22.9	23.5	25.6	25.4	25.5	25.2	24.9	25.1	25.4	24.9	25.1
19	23.5	22.8	23.3	26.0	25.1	25.6	25.0	24.7	24.8	25.5	24.9	25.0
20	23.7	23.1	23.4	25.9	25.5	25.7	24.8	24.5	24.6	25.4	24.9	25.0
21	24.2	23.0	23.6	25.8	25.5	25.7	26.3	24.1	25.2	25.0	24.9	24.9
22	24.2	22.9	23.7	26.2	25.6	25.9	27.2	26.0	26.4	24.9	24.7	24.8
23	24.6	23.0	24.1	26.4	25.5	25.8	27.3	26.2	26.5	24.7	24.5	24.6
24	24.8	23.8	24.2	26.3	25.7	26.2	27.0	26.1	26.6	24.9	24.3	24.5
25	24.4	23.9	24.1	26.5	25.7	26.2	26.6	26.5	26.6	24.4	24.2	24.2
26	25.4	24.3	24.6	26.8	25.3	26.1	26.6	26.5	26.5	24.1	24.0	24.0
27	25.7	23.7	24.7	27.0	25.8	26.4	27.0	26.1	26.3	24.0	23.9	23.9
28	25.1	24.1	24.6	26.8	25.7	26.4	26.2	26.1	26.2	23.9	23.7	23.8
29	25.0	24.4	24.7	27.3	25.7	26.5	26.1	25.9	26.0	23.9	23.6	23.7
30	25.0	24.4	24.8	27.1	25.8	26.4	26.0	25.8	26.0	24.0	23.7	23.8
31	---	---	---	26.6	26.1	26.5	26.8	25.9	26.2	---	---	---
MONTH	25.7	19.1	22.6	27.3	24.3	25.8	27.3	24.1	26.0	26.2	23.6	25.0

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WATER TEMPERATURE LAKE LEVEL 4, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	23.0	22.0	22.4	---	---	---	---	---	---	---	---	---
2	23.2	22.0	22.5	---	---	---	---	---	---	---	---	---
3	23.3	22.1	22.7	---	---	---	---	---	---	---	---	---
4	23.1	22.5	22.8	---	---	---	---	---	---	---	---	---
5	22.6	22.1	22.3	---	---	---	---	---	---	---	---	---
6	22.1	21.8	22.0	---	---	---	---	---	---	---	---	---
7	22.1	21.6	21.8	---	---	---	---	---	---	---	---	---
8	21.9	21.4	21.6	---	---	---	---	---	---	---	---	---
9	22.1	21.2	21.6	---	---	---	---	---	---	---	---	---
10	21.6	21.2	21.4	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	23.3	21.2	22.1	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	20.1	19.5	19.8
2	---	---	---	---	---	---	---	---	---	20.0	19.7	19.9
3	---	---	---	---	---	---	---	---	---	19.5	18.7	19.1
4	---	---	---	---	---	---	---	---	---	18.7	18.4	18.5
5	---	---	---	---	---	---	---	---	---	21.0	18.2	19.3
6	---	---	---	---	---	---	---	---	---	20.1	18.7	19.7
7	---	---	---	---	---	---	---	---	---	20.0	19.5	19.7
8	---	---	---	---	---	---	---	---	---	20.6	19.5	20.0
9	---	---	---	---	---	---	---	---	---	21.1	20.3	20.5
10	---	---	---	---	---	---	---	---	---	21.0	20.4	20.6
11	---	---	---	---	---	---	---	---	---	22.1	20.0	20.8
12	---	---	---	---	---	---	---	---	---	22.1	20.7	21.5
13	---	---	---	---	---	---	---	---	---	21.6	21.0	21.3
14	---	---	---	---	---	---	---	---	---	20.8	20.2	20.5
15	---	---	---	---	---	---	---	---	---	22.3	19.6	20.6
16	---	---	---	---	---	---	---	---	---	21.1	19.8	20.5
17	---	---	---	---	---	---	---	---	---	21.5	20.3	21.0
18	---	---	---	---	---	---	---	---	---	21.1	20.1	20.6
19	---	---	---	---	---	---	---	---	---	20.1	19.3	19.6
20	---	---	---	11.6	11.5	11.5	---	---	---	19.2	18.7	19.0
21	---	---	---	13.5	11.7	12.5	---	---	---	19.1	18.5	18.7
22	---	---	---	12.4	11.5	12.0	22.2	21.6	21.9	20.3	18.2	19.2
23	---	---	---	12.4	11.8	12.1	21.5	20.0	20.8	21.4	18.7	20.0
24	---	---	---	12.9	11.8	12.4	20.1	19.4	19.7	22.2	19.6	20.8
25	---	---	---	12.8	11.5	12.3	20.2	19.1	9.5	22.2	20.5	21.3
26	---	---	---	12.8	12.5	12.6	19.2	18.5	18.8	21.5	21.0	21.3
27	---	---	---	12.7	11.9	12.3	18.6	18.2	18.4	22.9	20.7	21.6
28	---	---	---	17.2	11.6	13.8	19.1	18.2	8.7	23.7	21.6	22.3
29	---	---	---	13.4	12.7	13.1	19.6	18.2	18.8	24.7	22.5	23.4
30	---	---	---	---	---	---	20.2	17.9	19.0	25.8	23.0	24.2
31	---	---	---	---	---	---	---	---	---	25.3	23.4	24.2
MONTH	---	---	---	17.2	11.5	12.5	22.2	17.9	17.3	25.8	18.2	20.6

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

WATER TEMPERATURE LAKE LEVEL 4, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	25.8	23.9	24.8	27.4	26.4	26.8	28.6	26.6	27.4	---	---	---
2	25.1	24.0	24.5	27.4	26.4	26.7	28.6	26.8	27.4	---	---	---
3	26.4	24.0	25.0	28.3	26.0	26.7	28.5	26.8	27.5	---	---	---
4	27.0	24.7	25.8	28.3	26.1	27.0	28.6	26.9	27.7	---	---	---
5	26.6	25.5	26.2	27.9	26.4	27.0	28.2	27.1	27.7	---	---	---
6	25.9	25.1	25.4	27.8	26.3	26.9	27.9	27.0	27.4	---	---	---
7	25.6	24.5	25.0	27.7	26.2	27.0	27.6	26.4	26.8	---	---	---
8	26.1	24.4	25.2	27.0	26.5	26.8	27.3	26.0	26.5	---	---	---
9	26.9	24.9	25.8	27.3	26.5	26.9	27.2	25.9	26.5	---	---	---
10	27.0	25.1	26.1	27.0	26.5	26.8	26.8	25.9	26.4	---	---	---
11	26.5	25.2	25.9	27.5	26.4	26.9	26.5	25.8	26.2	---	---	---
12	26.1	25.3	25.8	26.4	26.0	26.2	26.5	24.3	25.7	---	---	---
13	26.4	25.3	25.8	26.1	25.6	25.9	---	---	---	---	---	---
14	25.9	25.5	25.7	26.1	25.5	25.8	---	---	---	---	---	---
15	25.3	24.8	25.0	27.1	25.5	26.1	---	---	---	---	---	---
16	24.6	24.2	24.4	27.4	25.5	26.3	---	---	---	---	---	---
17	24.7	23.9	24.2	27.6	25.9	26.5	---	---	---	---	---	---
18	26.0	23.6	24.6	27.2	26.3	26.7	---	---	---	---	---	---
19	25.4	24.2	24.8	27.1	26.2	26.6	---	---	---	---	---	---
20	26.4	24.2	25.2	27.3	25.9	26.6	---	---	---	---	---	---
21	25.9	24.5	25.0	27.9	26.4	27.1	---	---	---	---	---	---
22	25.4	24.4	24.8	28.3	26.6	27.4	---	---	---	---	---	---
23	26.9	24.6	25.6	27.5	26.6	27.0	---	---	---	---	---	---
24	26.9	25.3	26.1	27.8	26.5	27.0	---	---	---	---	---	---
25	27.0	25.9	26.4	27.4	26.6	27.0	---	---	---	---	---	---
26	26.8	25.9	26.4	27.4	26.7	27.0	---	---	---	---	---	---
27	26.5	25.8	26.2	27.7	26.7	27.2	---	---	---	---	---	---
28	26.4	26.0	26.2	27.5	26.8	27.2	---	---	---	---	---	---
29	28.1	25.7	26.6	28.1	26.8	27.3	---	---	---	---	---	---
30	27.9	25.9	26.8	27.6	26.9	27.2	---	---	---	---	---	---
31	---	---	---	27.6	26.7	27.1	---	---	---	---	---	---
MONTH	28.1	23.6	25.5	28.3	25.5	26.8	28.6	24.2	26.9	---	---	---

OXYGEN DISSOLVED LAKE LEVEL ONE, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	2.4	2.1	2.2	---	---	---	---	---	---	---	---	---
2	2.5	2.1	2.2	---	---	---	---	---	---	---	---	---
3	2.5	1.6	2.2	---	---	---	---	---	---	---	---	---
4	2.4	1.9	2.2	---	---	---	---	---	---	---	---	---
5	2.1	1.7	1.8	---	---	---	---	---	---	---	---	---
6	1.9	1.3	1.6	---	---	---	---	---	---	---	---	---
7	2.8	1.3	1.8	---	---	---	---	---	---	---	---	---
8	6.1	1.7	4.6	---	---	---	---	---	---	---	---	---
9	6.0	5.4	5.7	---	---	---	---	---	---	---	---	---
10	6.4	5.8	6.2	---	---	---	---	---	---	---	---	---
11	6.4	5.9	6.2	---	---	---	---	---	---	---	---	---
12	6.2	5.9	6.1	---	---	---	---	---	---	---	---	---
13	5.9	5.5	5.7	---	---	---	---	---	---	---	---	---
14	5.6	5.2	5.4	---	---	---	---	---	---	---	---	---
15	5.6	5.2	5.4	---	---	---	---	---	---	---	---	---
16	6.9	4.6	5.3	---	---	---	---	---	---	---	---	---
17	7.8	7.2	7.5	---	---	---	---	---	---	---	---	---
18	7.6	7.0	7.4	---	---	---	---	---	---	---	---	---
19	7.2	6.7	7.0	---	---	---	---	---	---	---	---	---
20	6.8	6.3	6.6	---	---	---	---	---	---	---	---	---
21	6.7	6.2	6.4	---	---	---	---	---	---	---	---	---
22	6.5	6.2	6.3	---	---	---	---	---	---	---	---	---
23	6.0	5.6	5.8	---	---	---	---	---	---	---	---	---
24	5.7	5.4	5.6	---	---	---	---	---	---	---	---	---
25	5.2	4.2	4.8	---	---	---	---	---	---	---	---	---
26	4.5	4.1	4.3	---	---	---	---	---	---	---	---	---
27	7.7	6.7	7.5	---	---	---	---	---	---	---	---	---
28	7.7	7.6	7.7	---	---	---	---	---	---	---	---	---
29	7.9	7.8	7.8	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	7.9	1.3	5.2	---	---	---	---	---	---	---	---	---

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OXYGEN DISSOLVED LAKE LEVEL ONE, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	9.9	9.3	9.5	6.8	6.0	6.6
2	---	---	---	---	---	---	10.5	9.8	10.1	6.9	6.4	6.6
3	---	---	---	---	---	---	10.4	9.1	9.8	6.9	6.4	6.6
4	---	---	---	---	---	---	9.9	9.6	9.7	6.6	6.2	6.3
5	---	---	---	---	---	---	10.2	9.7	10.0	6.4	5.8	6.1
6	---	---	---	---	---	---	10.1	8.7	9.6	6.5	5.8	6.1
7	---	---	---	---	---	---	9.4	9.2	9.3	6.4	5.5	5.8
8	---	---	---	---	---	---	9.9	9.2	9.5	7.0	5.5	6.0
9	---	---	---	---	---	---	9.8	9.4	9.6	7.1	5.8	6.1
10	---	---	---	---	---	---	10.3	9.8	10.1	6.6	5.7	6.1
11	---	---	---	---	---	---	10.2	9.5	9.8	6.3	5.8	6.1
12	---	---	---	---	---	---	9.9	9.5	9.7	7.5	6.0	6.4
13	---	---	---	---	---	---	10.3	9.9	10.1	---	---	---
14	---	---	---	---	---	---	11.1	10.1	10.5	---	---	---
15	---	---	---	---	---	---	11.0	10.5	10.7	---	---	---
16	---	---	---	---	---	---	10.9	10.6	10.8	---	---	---
17	---	---	---	---	---	---	10.8	10.4	10.6	---	---	---
18	---	---	---	---	---	---	10.4	8.2	8.6	---	---	---
19	---	---	---	---	---	---	8.6	8.3	8.4	---	---	---
20	---	---	---	11.1	10.8	10.9	9.1	8.5	8.8	---	---	---
21	---	---	---	11.5	10.6	11.0	9.0	8.4	8.7	---	---	---
22	---	---	---	11.4	10.4	11.1	8.8	7.6	8.2	---	---	---
23	---	---	---	11.1	10.6	10.8	7.7	7.4	7.6	---	---	---
24	---	---	---	11.2	10.1	10.6	7.5	7.3	7.4	---	---	---
25	---	---	---	10.9	10.2	10.5	7.5	7.1	7.2	---	---	---
26	---	---	---	10.9	9.5	10.5	7.6	7.1	7.4	---	---	---
27	---	---	---	10.3	10.0	10.1	7.3	7.1	7.2	---	---	---
28	---	---	---	10.9	10.2	10.6	7.2	6.7	7.0	---	---	---
29	---	---	---	10.6	9.1	9.8	7.3	6.8	7.0	---	---	---
30	---	---	---	10.4	9.6	10.0	7.0	6.7	6.8	---	---	---
31	---	---	---	10.4	8.8	10.1	---	---	---	5.8	5.3	5.5
MONTH	---	---	---	11.5	8.8	10.5	11.1	6.7	9.0	7.5	5.3	6.2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	5.5	4.8	5.2	1.0	1.0	1.0	0.5	0.4	0.5	0.4	0.3	0.3
2	5.0	4.7	4.8	1.2	1.0	1.1	0.3	0.3	0.3	---	---	---
3	5.1	4.5	4.8	1.1	1.1	1.1	0.6	0.3	0.4	---	---	---
4	4.9	3.9	4.4	1.2	1.1	1.2	0.6	0.3	0.5	---	---	---
5	3.9	3.4	3.6	1.2	1.2	1.2	0.3	0.2	0.3	---	---	---
6	3.6	3.2	3.3	1.3	1.2	1.3	0.2	0.2	0.2	---	---	---
7	3.1	2.7	2.9	1.3	1.3	1.3	---	---	---	---	---	---
8	2.9	2.2	2.6	1.4	1.4	1.4	---	---	---	---	---	---
9	2.3	2.1	2.2	1.5	1.4	1.4	---	---	---	---	---	---
10	2.2	1.9	2.1	1.5	1.5	1.5	---	---	---	---	---	---
11	2.0	1.8	1.8	1.5	1.5	1.5	---	---	---	1.0	0.9	1.0
12	2.0	1.9	1.9	1.5	1.5	1.5	---	---	---	1.0	1.0	1.0
13	2.0	1.8	1.9	1.6	1.5	1.5	1.0	0.6	0.8	1.1	1.0	1.0
14	2.0	1.9	1.9	1.8	1.6	1.7	1.0	0.8	0.9	1.1	1.0	1.1
15	2.0	1.8	1.9	1.8	0.6	1.2	1.1	0.9	1.0	---	---	---
16	2.0	1.9	2.0	1.8	0.6	1.2	1.3	1.1	1.2	---	---	---
17	2.1	2.0	2.0	0.8	0.7	0.7	1.3	1.2	1.3	---	---	---
18	2.1	0.7	1.2	0.8	0.7	0.8	---	---	---	---	---	---
19	0.9	0.7	0.8	0.8	0.7	0.8	---	---	---	---	---	---
20	0.8	0.8	0.8	0.8	0.7	0.8	---	---	---	---	---	---
21	0.9	0.8	0.9	0.9	0.8	0.9	---	---	---	---	---	---
22	1.0	0.9	1.0	1.1	0.9	1.0	---	---	---	---	---	---
23	1.1	1.0	1.0	1.2	1.1	1.1	---	---	---	---	---	---
24	1.0	0.9	1.0	1.3	1.1	1.2	---	---	---	---	---	---
25	1.0	0.9	1.0	1.4	1.2	1.3	---	---	---	---	---	---
26	1.0	0.9	0.9	1.5	1.4	1.4	0.9	0.6	0.7	1.0	0.9	0.9
27	1.0	0.9	1.0	1.7	1.5	1.6	0.9	0.6	0.8	1.0	0.8	0.9
28	1.0	0.9	0.9	---	---	---	0.8	0.7	0.8	1.1	0.9	1.0
29	1.0	0.9	1.0	1.7	1.7	1.7	0.8	0.7	0.7	1.2	1.1	1.2
30	1.0	0.9	1.0	1.8	0.6	1.1	0.7	0.6	0.6	1.3	1.1	1.2
31	---	---	---	0.6	0.5	0.6	0.6	0.4	0.5	---	---	---
MONTH	5.5	0.7	2.1	1.8	0.5	1.2	1.3	0.2	0.7	1.3	0.3	1.0

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OXYGEN DISSOLVED LAKE LEVEL 2, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	4.4	3.4	4.1	---	---	---	---	---	---	---	---	---
2	5.2	3.2	4.7	---	---	---	---	---	---	---	---	---
3	5.7	3.8	4.8	---	---	---	---	---	---	---	---	---
4	5.4	3.9	4.7	---	---	---	---	---	---	---	---	---
5	5.8	4.0	5.0	---	---	---	---	---	---	---	---	---
6	5.0	3.5	4.4	---	---	---	---	---	---	---	---	---
7	5.6	4.1	5.2	---	---	---	---	---	---	---	---	---
8	6.4	5.7	6.1	---	---	---	---	---	---	---	---	---
9	6.8	6.2	6.5	---	---	---	---	---	---	---	---	---
10	7.0	6.2	6.7	---	---	---	---	---	---	---	---	---
11	7.1	6.6	6.9	---	---	---	---	---	---	---	---	---
12	7.2	6.6	7.0	---	---	---	---	---	---	---	---	---
13	7.1	6.6	6.8	---	---	---	---	---	---	---	---	---
14	6.9	6.5	6.7	---	---	---	---	---	---	---	---	---
15	7.3	6.1	6.8	---	---	---	---	---	---	---	---	---
16	7.1	5.7	6.4	---	---	---	---	---	---	---	---	---
17	7.9	7.4	7.6	---	---	---	---	---	---	---	---	---
18	7.5	7.3	7.4	---	---	---	---	---	---	---	---	---
19	7.5	7.0	7.2	---	---	---	---	---	---	---	---	---
20	6.7	6.7	6.7	---	---	---	---	---	---	---	---	---
21	6.8	6.7	6.8	---	---	---	---	---	---	---	---	---
22	6.7	6.5	6.6	---	---	---	---	---	---	---	---	---
23	6.6	6.2	6.5	---	---	---	---	---	---	---	---	---
24	7.9	6.1	6.8	---	---	---	---	---	---	---	---	---
25	7.8	5.8	7.0	---	---	---	---	---	---	---	---	---
26	7.4	5.5	6.4	---	---	---	---	---	---	---	---	---
27	7.7	7.2	7.5	---	---	---	---	---	---	---	---	---
28	7.6	7.4	7.5	---	---	---	---	---	---	---	---	---
29	7.7	7.7	7.7	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	7.9	3.2	6.4	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	9.9	9.4	9.6	8.0	6.8	7.3
2	---	---	---	---	---	---	10.2	9.6	9.9	7.7	7.0	7.4
3	---	---	---	---	---	---	10.4	9.1	9.8	7.7	7.3	7.6
4	---	---	---	---	---	---	9.7	9.5	9.5	7.7	7.0	7.4
5	---	---	---	---	---	---	10.0	9.5	9.8	7.8	7.0	7.4
6	---	---	---	---	---	---	10.0	8.8	9.5	7.7	6.7	7.2
7	---	---	---	---	---	---	9.4	9.0	9.2	7.9	6.9	7.5
8	---	---	---	---	---	---	9.5	9.1	9.2	7.7	7.1	7.4
9	---	---	---	---	---	---	9.9	9.5	9.7	8.2	7.1	7.8
10	---	---	---	---	---	---	10.2	9.7	10.0	8.2	7.4	7.8
11	---	---	---	---	---	---	10.2	9.4	9.9	8.4	7.3	7.9
12	---	---	---	---	---	---	9.9	9.5	9.6	8.3	7.8	8.1
13	---	---	---	---	---	---	10.1	9.8	9.9	8.7	7.0	8.0
14	---	---	---	---	---	---	10.7	9.9	10.2	8.5	7.7	8.1
15	---	---	---	---	---	---	10.7	10.3	10.4	8.2	7.4	7.7
16	---	---	---	---	---	---	10.6	10.5	10.5	8.1	7.3	7.4
17	---	---	---	---	---	---	10.5	10.2	10.4	7.4	6.6	7.0
18	---	---	---	---	---	---	10.2	8.4	9.1	8.1	6.4	7.2
19	---	---	---	---	---	---	8.8	8.5	8.6	6.9	6.6	6.7
20	---	---	---	11.0	10.9	10.9	8.9	8.8	8.8	6.6	5.9	6.3
21	---	---	---	11.5	10.8	11.2	9.0	8.7	8.9	6.9	5.9	6.5
22	---	---	---	11.4	10.7	11.2	8.7	8.2	8.4	7.8	6.9	7.4
23	---	---	---	11.2	10.5	10.7	8.2	8.0	8.1	8.0	7.1	7.5
24	---	---	---	11.1	9.9	10.5	8.1	7.9	8.0	8.6	7.2	7.8
25	---	---	---	10.8	10.0	10.2	8.4	7.6	8.0	7.5	7.0	7.2
26	---	---	---	10.8	9.6	10.4	8.0	7.8	7.8	7.2	6.8	6.9
27	---	---	---	10.3	9.8	10.0	7.8	7.7	7.8	6.7	6.7	6.7
28	---	---	---	10.6	10.1	10.5	7.9	7.5	7.8	6.8	6.3	6.5
29	---	---	---	10.5	9.3	9.8	8.1	7.3	7.7	6.7	6.2	6.4
30	---	---	---	10.2	9.6	9.9	7.6	7.2	7.4	6.7	6.5	6.6
31	---	---	---	10.2	9.0	9.9	---	---	---	6.7	6.3	6.5
MONTH	---	---	---	11.5	9.0	10.4	10.7	7.2	9.1	8.7	5.9	7.3

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

OXYGEN DISSOLVED LAKE LEVEL 2, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.5	6.1	6.3	2.1	1.4	1.6	0.5	0.4	0.4	0.3	0.2	0.2
2	6.5	5.9	6.2	1.9	1.3	1.6	0.3	0.3	0.3	---	---	---
3	6.6	6.0	6.2	2.0	1.3	1.6	0.3	0.2	0.3	---	---	---
4	6.4	6.0	6.2	1.7	1.3	1.4	0.5	0.3	0.4	---	---	---
5	6.2	5.3	5.8	1.5	1.3	1.4	0.2	0.2	0.2	---	---	---
6	5.7	5.1	5.5	1.7	1.3	1.4	0.2	0.2	0.2	---	---	---
7	5.3	4.8	5.1	1.6	1.4	1.5	---	---	---	---	---	---
8	5.8	4.8	5.2	1.8	1.3	1.5	---	---	---	---	---	---
9	5.7	4.6	5.1	1.5	1.3	1.4	---	---	---	---	---	---
10	5.5	4.3	4.7	1.5	1.4	1.4	---	---	---	---	---	---
11	5.8	4.3	4.6	1.5	1.4	1.4	---	---	---	0.9	0.6	0.7
12	5.2	3.5	4.4	1.5	1.5	1.5	---	---	---	0.8	0.7	0.8
13	5.3	3.9	4.6	1.6	1.5	1.5	0.6	0.6	0.6	1.0	0.8	0.8
14	5.0	3.9	4.5	---	---	---	0.8	0.6	0.7	1.0	0.9	0.9
15	4.6	3.5	4.1	---	---	---	0.9	0.7	0.8	---	---	---
16	4.7	3.7	4.2	0.6	0.6	0.6	1.2	0.8	1.0	---	---	---
17	4.4	3.5	4.0	0.7	0.6	0.6	1.1	1.1	1.1	---	---	---
18	4.3	2.0	3.3	0.8	0.7	0.7	---	---	---	---	---	---
19	3.3	2.5	2.8	0.8	0.7	0.7	---	---	---	---	---	---
20	3.1	2.0	2.4	0.9	0.8	0.8	---	---	---	---	---	---
21	3.3	2.1	2.6	1.0	0.8	0.9	---	---	---	---	---	---
22	3.5	1.4	2.3	1.0	0.9	1.0	---	---	---	---	---	---
23	3.5	1.6	2.4	1.0	1.0	1.0	---	---	---	---	---	---
24	3.7	1.3	2.2	1.2	1.1	1.1	---	---	---	---	---	---
25	3.2	1.8	2.3	1.3	1.2	1.2	---	---	---	---	---	---
26	2.5	1.4	1.9	1.4	1.3	1.3	0.6	0.5	0.6	1.0	0.7	0.8
27	2.8	1.4	1.9	---	---	---	0.6	0.5	0.5	0.9	0.7	0.8
28	2.3	1.2	1.7	---	---	---	0.5	0.5	0.5	1.0	0.8	0.9
29	2.4	1.2	1.6	---	---	---	0.5	0.5	0.5	1.4	1.0	1.2
30	1.7	1.1	1.4	0.6	0.5	0.5	0.5	0.4	0.4	1.8	1.4	1.6
31	---	---	---	0.5	0.5	0.5	0.4	0.3	0.4	---	---	---
MONTH	6.6	1.1	3.9	2.1	0.5	1.2	1.2	0.2	0.5	1.8	0.2	0.9

OXYGEN DISSOLVED LAKE LEVEL 3, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	5.9	5.7	5.8	---	---	---	---	---	---	---	---	---
2	6.6	5.7	6.1	---	---	---	---	---	---	---	---	---
3	7.3	6.5	6.9	---	---	---	---	---	---	---	---	---
4	7.9	5.7	6.3	---	---	---	---	---	---	---	---	---
5	7.8	5.9	6.4	---	---	---	---	---	---	---	---	---
6	7.8	5.5	6.7	---	---	---	---	---	---	---	---	---
7	5.8	5.3	5.4	---	---	---	---	---	---	---	---	---
8	7.2	5.6	6.0	---	---	---	---	---	---	---	---	---
9	6.5	6.0	6.2	---	---	---	---	---	---	---	---	---
10	7.1	6.3	6.7	---	---	---	---	---	---	---	---	---
11	6.5	6.4	6.5	---	---	---	---	---	---	---	---	---
12	7.9	6.4	7.1	---	---	---	---	---	---	---	---	---
13	8.0	6.4	7.1	---	---	---	---	---	---	---	---	---
14	7.6	6.4	7.0	---	---	---	---	---	---	---	---	---
15	7.6	7.2	7.3	---	---	---	---	---	---	---	---	---
16	7.2	6.4	6.9	---	---	---	---	---	---	---	---	---
17	7.8	7.4	7.5	---	---	---	---	---	---	---	---	---
18	7.8	7.2	7.4	---	---	---	---	---	---	---	---	---
19	7.6	7.0	7.3	---	---	---	---	---	---	---	---	---
20	7.6	6.7	7.1	---	---	---	---	---	---	---	---	---
21	7.6	6.6	7.2	---	---	---	---	---	---	---	---	---
22	7.7	6.6	7.2	---	---	---	---	---	---	---	---	---
23	7.8	6.7	7.2	---	---	---	---	---	---	---	---	---
24	8.0	6.4	7.3	---	---	---	---	---	---	---	---	---
25	7.9	6.7	7.6	---	---	---	---	---	---	---	---	---
26	7.5	7.0	7.3	---	---	---	---	---	---	---	---	---
27	7.6	7.4	7.5	---	---	---	---	---	---	---	---	---
28	7.5	7.2	7.4	---	---	---	---	---	---	---	---	---
29	7.5	7.4	7.5	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	8.0	5.3	6.9	---	---	---	---	---	---	---	---	---

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

OXYGEN DISSOLVED LAKE LEVEL 3, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	9.7	8.9	9.4	9.3	8.5	9.0
2	---	---	---	---	---	---	9.9	9.5	9.8	9.1	8.6	8.8
3	---	---	---	---	---	---	10.1	8.8	9.6	9.3	8.9	9.0
4	---	---	---	---	---	---	9.7	9.4	9.6	9.1	8.6	8.8
5	---	---	---	---	---	---	9.8	9.6	9.7	9.3	8.6	8.9
6	---	---	---	---	---	---	10.0	8.9	9.6	9.1	8.7	8.9
7	---	---	---	---	---	---	9.2	8.8	9.1	9.1	8.4	8.7
8	---	---	---	---	---	---	9.3	8.9	9.1	9.1	8.3	8.9
9	---	---	---	---	---	---	10.4	9.2	9.8	9.4	8.7	9.0
10	---	---	---	---	---	---	10.5	10.2	10.4	9.7	9.1	9.3
11	---	---	---	---	---	---	10.4	9.5	10.1	9.3	9.0	9.1
12	---	---	---	---	---	---	9.7	9.6	9.6	9.1	8.7	8.9
13	---	---	---	---	---	---	10.0	9.5	9.8	9.0	8.5	8.7
14	---	---	---	---	---	---	10.0	9.5	9.8	9.2	8.6	8.9
15	---	---	---	---	---	---	10.2	9.5	10.1	9.1	8.7	8.8
16	---	---	---	---	---	---	10.2	10.0	10.1	9.3	8.8	9.0
17	---	---	---	---	---	---	10.1	9.8	9.9	9.4	8.6	9.2
18	---	---	---	---	---	---	9.9	8.6	9.1	9.3	8.0	8.8
19	---	---	---	---	---	---	8.8	8.5	8.6	9.1	8.4	8.8
20	---	---	---	11.1	10.4	10.8	9.2	8.8	9.0	8.8	7.2	8.4
21	---	---	---	11.4	10.5	11.0	8.9	8.6	8.8	8.6	7.6	8.3
22	---	---	---	11.4	9.9	10.7	9.0	8.4	8.8	8.6	8.3	8.5
23	---	---	---	10.9	10.4	10.6	9.2	8.7	8.8	8.8	8.3	8.6
24	---	---	---	11.1	9.9	10.7	9.2	8.5	8.9	9.5	8.4	8.7
25	---	---	---	10.5	10.0	10.2	9.5	8.3	8.8	9.3	8.1	8.6
26	---	---	---	10.7	9.6	10.3	9.5	9.1	9.3	9.0	8.3	8.8
27	---	---	---	10.3	9.8	10.1	9.5	8.7	9.1	8.9	8.2	8.6
28	---	---	---	10.6	9.9	10.3	9.5	9.0	9.4	9.4	8.1	8.8
29	---	---	---	10.4	9.5	10.0	9.4	8.8	9.1	9.2	8.5	8.9
30	---	---	---	10.1	9.3	9.7	9.6	8.8	9.4	9.2	8.7	9.0
31	---	---	---	10.1	8.7	9.7	---	---	---	9.2	8.5	8.9
MONTH	---	---	---	11.4	8.7	10.3	10.5	8.3	9.4	9.7	7.2	8.8

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.0	8.5	8.7	9.2	8.6	8.9	6.7	5.9	6.4	5.3	4.4	4.9
2	8.7	8.4	8.5	9.1	8.3	8.8	6.6	6.2	6.4	---	---	---
3	8.7	8.2	8.4	9.4	7.8	8.4	6.6	6.0	6.2	---	---	---
4	9.1	8.2	8.6	9.5	7.7	8.7	6.2	5.4	5.6	---	---	---
5	9.0	8.5	8.7	9.2	7.8	8.4	5.6	5.4	5.5	---	---	---
6	9.1	8.2	8.7	9.1	7.5	8.2	5.7	4.9	5.2	---	---	---
7	9.2	8.6	8.8	8.7	7.3	7.8	---	---	---	---	---	---
8	9.1	8.7	8.9	7.7	7.2	7.5	---	---	---	---	---	---
9	9.4	8.5	9.1	7.9	7.3	7.6	---	---	---	---	---	---
10	9.8	9.1	9.3	8.8	7.2	7.8	---	---	---	---	---	---
11	9.7	8.8	9.2	7.8	7.2	7.5	---	---	---	5.9	5.0	5.5
12	10.1	9.2	9.8	7.4	7.0	7.2	---	---	---	5.7	4.4	4.9
13	9.8	9.0	9.5	7.2	7.0	7.1	6.7	5.8	6.2	5.5	4.7	5.0
14	10.1	9.6	9.8	7.6	6.8	7.0	6.1	5.7	5.9	5.4	4.4	4.8
15	10.2	9.3	9.8	7.5	6.9	7.2	6.0	5.6	5.9	---	---	---
16	9.4	8.6	9.2	7.6	7.0	7.2	6.0	5.1	5.6	---	---	---
17	9.6	9.0	9.2	7.9	6.9	7.4	5.7	5.5	5.6	---	---	---
18	8.9	8.3	8.5	7.8	7.2	7.5	---	---	---	---	---	---
19	9.3	7.9	8.5	7.7	7.3	7.4	---	---	---	---	---	---
20	9.0	8.1	8.5	7.7	7.4	7.5	---	---	---	---	---	---
21	9.3	8.0	8.6	7.5	7.1	7.3	---	---	---	---	---	---
22	9.4	8.2	8.5	7.3	6.7	7.0	---	---	---	---	---	---
23	9.5	7.7	8.2	7.4	6.8	7.1	6.7	6.1	6.5	---	---	---
24	8.9	8.1	8.4	7.1	6.5	6.7	7.9	6.3	7.1	---	---	---
25	8.7	8.1	8.3	7.1	6.2	6.5	7.9	7.3	7.6	---	---	---
26	8.6	7.9	8.1	6.6	4.4	5.6	7.8	7.4	7.6	4.2	3.5	3.8
27	9.2	7.6	8.2	---	---	---	7.3	6.2	6.7	4.9	3.4	4.0
28	8.9	8.2	8.6	---	---	---	7.1	6.4	6.8	4.8	4.3	4.6
29	9.1	8.4	8.8	6.3	6.1	6.2	6.6	6.2	6.3	5.2	4.1	4.8
30	9.3	8.4	8.7	6.9	5.6	6.4	6.4	5.7	6.0	5.2	4.7	5.0
31	---	---	---	6.8	6.2	6.4	6.3	5.5	5.8	---	---	---
MONTH	10.2	7.6	8.8	9.5	4.4	7.4	7.9	4.9	6.2	5.9	3.5	4.7

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OXYGEN DISSOLVED LAKE LEVEL 4, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.0	6.4	6.6	---	---	---	---	---	---	---	---	---
2	7.2	6.3	6.8	---	---	---	---	---	---	---	---	---
3	8.1	7.1	7.6	---	---	---	---	---	---	---	---	---
4	8.4	7.6	7.9	---	---	---	---	---	---	---	---	---
5	8.4	7.8	8.0	---	---	---	---	---	---	---	---	---
6	8.5	5.8	7.6	---	---	---	---	---	---	---	---	---
7	7.1	5.3	5.9	---	---	---	---	---	---	---	---	---
8	7.4	5.6	6.4	---	---	---	---	---	---	---	---	---
9	7.3	6.3	6.8	---	---	---	---	---	---	---	---	---
10	7.1	6.7	6.9	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	8.5	5.3	7.1	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	9.4	9.0	9.2
2	---	---	---	---	---	---	---	---	---	8.9	8.7	8.8
3	---	---	---	---	---	---	---	---	---	9.2	8.6	8.9
4	---	---	---	---	---	---	---	---	---	9.2	8.9	9.1
5	---	---	---	---	---	---	---	---	---	9.2	8.8	9.0
6	---	---	---	---	---	---	---	---	---	9.1	8.7	8.9
7	---	---	---	---	---	---	---	---	---	8.9	8.6	8.8
8	---	---	---	---	---	---	---	---	---	8.9	8.6	8.8
9	---	---	---	---	---	---	---	---	---	8.8	8.5	8.6
10	---	---	---	---	---	---	---	---	---	8.9	7.8	8.6
11	---	---	---	---	---	---	---	---	---	9.2	8.6	8.9
12	---	---	---	---	---	---	---	---	---	8.9	8.1	8.6
13	---	---	---	---	---	---	---	---	---	8.8	8.4	8.6
14	---	---	---	---	---	---	---	---	---	8.9	8.3	8.6
15	---	---	---	---	---	---	---	---	---	9.7	8.6	8.8
16	---	---	---	---	---	---	---	---	---	9.4	8.6	9.0
17	---	---	---	---	---	---	---	---	---	9.4	9.1	9.3
18	---	---	---	---	---	---	---	---	---	9.2	8.9	9.1
19	---	---	---	---	---	---	---	---	---	9.4	9.0	9.1
20	---	---	---	10.8	9.0	10.0	---	---	---	9.0	8.6	8.8
21	---	---	---	11.1	9.8	10.5	---	---	---	8.7	8.3	8.5
22	---	---	---	11.1	10.0	10.8	8.7	8.4	8.5	8.6	8.4	8.4
23	---	---	---	10.7	10.6	10.6	9.0	8.4	8.7	8.9	8.4	8.7
24	---	---	---	11.0	10.0	10.6	9.5	8.9	9.2	9.0	8.7	8.8
25	---	---	---	10.5	9.9	10.3	9.3	9.0	9.2	9.1	8.6	8.8
26	---	---	---	10.6	9.5	10.2	9.6	9.1	9.3	9.1	8.5	8.9
27	---	---	---	10.2	9.8	10.0	9.9	9.2	9.6	9.4	9.0	9.2
28	---	---	---	10.6	9.6	10.1	9.6	9.4	9.5	9.2	8.7	8.8
29	---	---	---	10.1	7.2	8.6	9.5	9.3	9.4	8.9	8.6	8.7
30	---	---	---	---	---	---	9.5	9.3	9.4	8.4	8.2	8.3
31	---	---	---	---	---	---	---	---	---	8.0	7.6	7.8
MONTH	---	---	---	11.1	7.2	10.2	9.9	8.4	9.2	9.7	7.6	8.8

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY--Continued

OXYGEN DISSOLVED LAKE LEVEL 4, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.9	7.3	7.6	8.4	7.4	7.8	6.8	6.4	6.6	---	---	---
2	7.6	7.1	7.4	7.9	7.5	7.6	6.8	6.4	6.6	---	---	---
3	7.8	7.5	7.6	7.9	7.6	7.8	6.8	6.4	6.6	---	---	---
4	7.7	7.2	7.4	8.1	7.6	7.8	6.2	5.8	6.0	---	---	---
5	7.5	7.2	7.3	7.7	7.5	7.6	5.9	5.6	5.8	---	---	---
6	7.2	7.1	7.2	7.9	7.7	7.8	5.9	5.3	5.6	---	---	---
7	8.3	7.1	7.4	8.3	7.6	7.8	---	---	---	---	---	---
8	7.7	7.2	7.5	7.8	7.7	7.7	---	---	---	---	---	---
9	7.7	7.1	7.4	7.6	7.5	7.6	---	---	---	---	---	---
10	8.1	7.3	7.6	7.6	7.5	7.6	---	---	---	---	---	---
11	8.1	7.5	7.8	7.5	7.4	7.4	---	---	---	---	---	---
12	8.1	7.6	7.8	7.8	7.4	7.6	---	---	---	---	---	---
13	8.1	7.8	7.9	7.5	7.3	7.4	---	---	---	---	---	---
14	8.0	7.8	7.9	7.6	7.3	7.4	---	---	---	---	---	---
15	8.5	7.9	8.2	7.8	7.3	7.6	---	---	---	---	---	---
16	8.5	8.1	8.3	7.7	7.0	7.3	---	---	---	---	---	---
17	8.9	8.2	8.5	7.7	7.0	7.3	---	---	---	---	---	---
18	8.4	7.8	8.1	7.5	7.0	7.2	---	---	---	---	---	---
19	9.0	8.0	8.3	7.4	7.1	7.2	---	---	---	---	---	---
20	8.2	7.5	7.9	7.7	7.2	7.4	---	---	---	---	---	---
21	8.5	7.7	7.9	7.3	7.0	7.2	---	---	---	---	---	---
22	8.7	7.7	8.1	7.0	6.8	6.9	---	---	---	---	---	---
23	8.1	7.4	7.9	7.0	6.8	6.9	---	---	---	---	---	---
24	8.6	7.5	7.8	7.2	6.6	6.8	---	---	---	---	---	---
25	7.6	7.4	7.6	6.8	6.5	6.6	---	---	---	---	---	---
26	7.5	7.2	7.4	6.4	5.9	6.2	---	---	---	---	---	---
27	7.8	7.3	7.6	---	---	---	---	---	---	---	---	---
28	8.0	7.4	7.6	---	---	---	---	---	---	---	---	---
29	8.2	7.4	7.8	6.6	6.5	6.6	---	---	---	---	---	---
30	7.9	7.3	7.6	7.1	6.2	6.5	---	---	---	---	---	---
31	---	---	---	7.1	6.3	6.7	---	---	---	---	---	---
MONTH	9.0	7.1	7.7	8.4	5.9	7.3	6.8	5.3	6.2	---	---	---

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03400800 MARTINS FORK NEAR SMITH, KY

LOCATION.--Lat 36°45'08", long 83°15'27", Harlan County, Hydrologic Unit 05130101, on left bank 150 ft downstream from State Highway 987 bridge, 0.3 mi downstream from Martins Fork Dam, 0.7 mi downstream from Crane Creek, 1.0 mi north of Smith, and at mile 15.3.

DRAINAGE AREA.--55.8 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1968-71, and annual maximums, water years 1968-70. April 1971 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,259.00 ft above NGVD of 1929. July 25, 1967 to Apr. 9, 1971, crest-stage gage at site 30 ft downstream at same datum, and Apr. 10, 1971 to Sept. 30, 1977, water-stage recorder at site 0.8 mi downstream at same datum.

REMARKS.--Records good. Flow regulated by Martins Fork Dam (station 03400798) beginning January 1979.

COOPERATION.--U.S. Army Corps of Engineers, Nashville District and Kentucky Division of Water.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	15	9.8	25	211	13	615	49	52	13	12	12
2	41	17	9.6	25	204	13	619	97	51	13	12	12
3	41	18	22	52	196	13	607	97	51	13	12	12
4	41	18	37	77	191	13	592	97	32	13	12	12
5	41	37	37	77	98	37	381	97	9.6	13	12	12
6	43	30	37	75	32	57	206	97	9.4	13	12	12
7	43	30	37	48	33	32	203	97	8.0	14	12	13
8	42	28	38	12	79	4.4	198	116	7.8	14	12	13
9	41	42	39	12	118	4.3	106	136	7.8	13	12	12
10	41	70	40	20	118	4.4	8.2	136	8.1	12	12	12
11	50	69	88	30	117	4.4	8.2	136	8.1	12	12	13
12	58	68	181	30	117	4.4	8.2	135	8.4	12	12	13
13	58	68	181	30	116	4.4	8.2	134	8.6	12	12	13
14	59	45	193	75	70	4.3	8.2	135	8.9	12	12	13
15	60	9.9	210	138	29	19	9.3	88	8.9	12	12	12
16	60	9.9	210	138	29	37	10	36	8.9	11	12	12
17	60	9.7	228	136	29	57	10	36	8.9	11	12	12
18	60	9.3	244	e135	29	941	10	37	9.1	11	12	12
19	60	9.3	240	e135	29	1880	11	37	9.1	11	12	12
20	60	19	234	e140	21	1810	11	37	9.3	12	12	12
21	60	35	174	e145	13	1280	11	143	9.5	11	12	13
22	59	35	103	e230	13	728	11	220	9.4	11	12	14
23	58	35	102	343	13	714	11	216	9.4	11	12	12
24	58	35	101	423	13	696	11	113	9.6	9.7	12	12
25	61	36	101	696	13	678	11	9.6	9.7	9.6	12	12
26	61	63	100	843	13	665	11	9.6	11	10	12	13
27	61	97	100	820	13	651	11	10	13	12	12	54
28	61	97	61	790	13	631	11	10	13	12	12	86
29	37	96	25	755	---	612	12	28	13	11	12	85
30	14	63	25	719	---	596	12	52	13	11	12	85
31	15	---	25	425	---	592	---	52	---	12	12	---
TOTAL	1545	1214.1	3232.4	7599	1970	12795.6	3741.3	2693.2	435.5	367.3	372	632
MEAN	49.84	40.47	104.3	245.1	70.36	412.8	124.7	86.88	14.52	11.85	12.00	21.07
MAX	61	97	244	843	211	1880	619	220	52	14	12	86
MIN	14	9.3	9.6	12	13	4.3	8.2	9.6	7.8	9.6	12	12

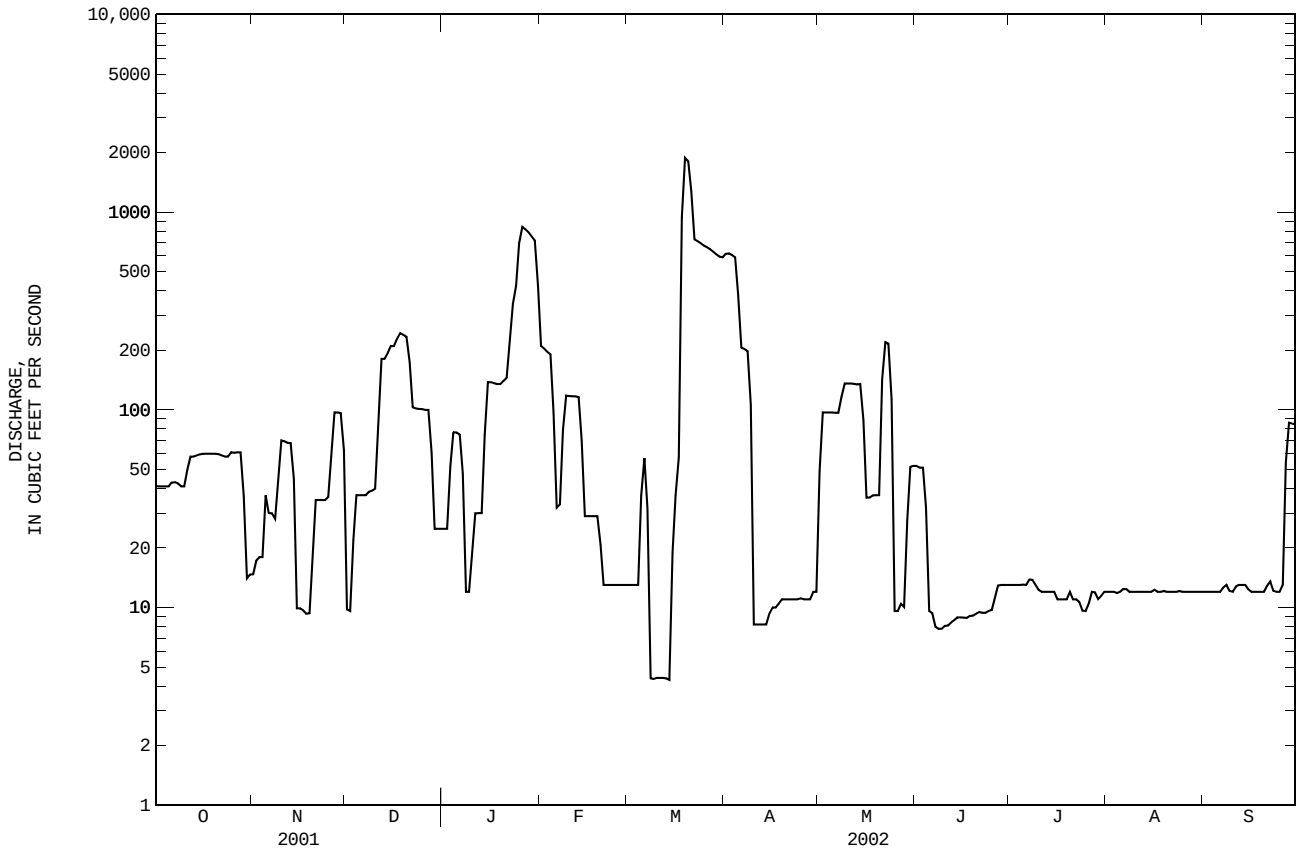
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2002, BY WATER YEAR (WY)

MEAN	50.22	96.49	139.4	176.5	197.7	202.9	125.7	122.2	61.88	24.24	30.21	24.66
MAX	181	226	452	357	481	413	428	322	267	75.3	117	117
(WY)	1990	1997	1992	1982	1994	2002	1998	1983	1989	1990	1996	1989
MIN	11.0	28.9	16.4	10.1	66.9	33.5	12.4	36.7	12.5	9.34	9.43	9.49
(WY)	1998	1981	1981	1981	1999	1988	1986	1987	1988	1988	1988	1984

03400800 MARTINS FORK NEAR SMITH, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1980 - 2002	
ANNUAL TOTAL	27289.5		36597.4			
ANNUAL MEAN	74.77		100.3		103.9	
HIGHEST ANNUAL MEAN					173	1994
LOWEST ANNUAL MEAN					58.0	1988
HIGHEST DAILY MEAN	469	Aug 14	1880	Mar 19	1880	Mar 19 2002
LOWEST DAILY MEAN	9.3	Nov 18	4.3	Mar 9	4.3	Mar 9 2002
ANNUAL SEVEN-DAY MINIMUM	12	Apr 21	4.4	Mar 8	4.4	Mar 8 2002
MAXIMUM PEAK FLOW			1940	Mar 18	9000	Apr 4 1977
MAXIMUM PEAK STAGE			14.18	Mar 18	24.24	Apr 4 1977
INSTANTANEOUS LOW FLOW					0.10	Oct 30 1978
10 PERCENT EXCEEDS	192		210		288	
50 PERCENT EXCEEDS	37		25		44	
90 PERCENT EXCEEDS	12		9.6		11	

e Estimated



03400800 MARTINS FORK NEAR SMITH, KY

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE.--October 1971 to current water year.
PH.--December 1979 to current water year.
WATER TEMPERATURES.--October 1971 to current water year.
DISSOLVED OXYGEN.--October 1971 to current water year.

INSTRUMENTATION.--Water-quality monitor since October 1971.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE.--(water years 1972-77, 1980 to current water year) Maximum recorded, 561 microsiemens, Feb. 12, 1972; minimum recorded 49 microsiemens, Feb 26, 1985.
pH.--Maximum recorded, 8.2 units, July 2, 1980; minimum recorded, 5.9 units, Jan. 6, 7, 1996, Sept. 20, 1998.
WATER TEMPERATURES.--Maximum recorded, 32.5°C, Aug. 6, 1982; minimum recorded, 0.0°C, on many days during the winter months.
DISSOLVED OXYGEN.--Maximum recorded, 15.6 mg/L, Jan. 20, 21, 1985; minimum recorded, 4.6 mg/L, Aug. 10, 1994.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 188 microsiemens, Sept. 26, 27; minimum recorded 8.7 microsiemens, Jan. 28.
pH: Maximum recorded, 8.1 units, Apr. 9, 10; minimum recorded, 5.9 units, Jan. 19, and Feb. 8, 9.
WATER TEMPERATURES: Maximum recorded, 28.1°C, Sept. 2; minimum recorded, 3.7°C, Jan. 8, 9.
DISSOLVED OXYGEN: Maximum recorded, 12.9, Jan. 7, Mar. 8-10; minimum recorded, 5.5 Aug. 19.

SPECIFIC CONDUCTANCE FROM THE DCP, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	148	138	143	160	151	157	155	143	149	130	129	130
2	149	143	146	161	150	157	155	143	148	129	126	128
3	152	145	149	160	149	156	156	142	150	127	122	124
4	153	146	151	160	150	154	158	149	155	129	120	126
5	153	146	150	162	151	158	149	139	145	131	121	125
6	153	146	150	160	157	160	149	133	141	130	127	129
7	156	147	151	161	160	160	149	139	145	130	122	125
8	157	148	152	163	161	162	149	136	142	135	122	130
9	158	148	153	164	162	163	149	137	141	139	126	133
10	157	148	154	162	160	161	152	137	142	141	131	138
11	156	147	152	162	160	161	165	126	151	144	129	136
12	157	148	153	161	159	160	130	117	123	138	127	128
13	158	149	152	160	157	159	131	121	126	140	131	134
14	158	144	152	164	154	158	133	122	128	143	124	133
15	156	145	150	165	153	160	132	126	129	130	119	121
16	155	145	149	167	154	159	131	124	127	137	129	134
17	156	145	152	166	150	158	144	121	134	130	125	126
18	154	145	149	166	154	159	131	120	126	152	124	136
19	157	148	152	166	150	160	131	123	127	178	147	159
20	155	145	149	166	148	155	130	122	125	164	152	157
21	155	146	150	152	145	148	128	122	125	160	133	148
22	156	146	151	153	145	150	126	119	123	137	121	126
23	155	146	150	154	145	148	124	116	120	126	120	122
24	156	145	151	155	146	150	126	120	123	121	108	116
25	156	145	150	154	144	149	124	119	121	127	104	115
26	158	148	151	154	145	148	128	119	127	121	102	113
27	157	150	154	154	145	150	130	125	128	128	115	123
28	157	148	153	153	148	151	134	125	128	127	87	109
29	158	148	154	155	146	150	133	132	133	119	89	102
30	158	147	153	153	146	150	132	131	131	119	88	101
31	160	150	156	---	---	---	131	130	130	120	95	107
MONTH	160	138	151	167	144	156	165	116	134	178	87	127

03400800 MARTINS FORK NEAR SMITH, KY--Continued

SPECIFIC CONDUCTANCE FROM THE DCP, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	122	97	104	113	109	111	105	94	101	113	111	112
2	122	109	112	120	109	117	105	93	99	111	111	111
3	112	106	110	119	113	116	105	94	99	112	111	111
4	110	106	108	120	111	113	105	100	102	112	111	111
5	114	110	112	120	118	119	112	96	103	112	111	112
6	113	108	111	121	113	116	112	101	106	112	111	112
7	113	109	111	121	112	119	115	96	104	113	110	112
8	116	108	112	123	112	117	115	101	105	112	109	111
9	115	110	112	121	112	116	111	101	108	113	111	112
10	116	109	113	121	112	117	112	106	109	113	110	111
11	110	109	109	124	115	119	112	108	109	112	110	111
12	111	109	110	125	116	120	110	104	108	114	111	111
13	111	108	110	125	116	120	109	105	108	116	113	114
14	111	106	109	126	117	121	110	105	108	119	114	115
15	118	105	112	129	117	123	110	107	109	119	113	115
16	111	104	109	128	118	122	110	107	109	116	114	115
17	112	104	107	126	114	121	111	110	110	117	114	115
18	112	103	108	125	92	111	112	110	111	118	115	116
19	113	107	111	118	90	100	111	110	110	117	114	116
20	113	105	109	117	105	110	111	110	110	115	112	113
21	113	109	112	116	97	108	110	106	108	116	112	114
22	114	105	107	118	91	106	112	104	108	117	114	116
23	114	111	113	118	95	108	109	106	108	125	114	120
24	114	109	112	119	95	106	112	106	108	130	120	125
25	118	108	114	106	90	98	113	108	111	121	119	120
26	115	110	113	104	90	97	112	111	112	123	120	121
27	116	109	114	97	90	94	112	112	112	124	111	122
28	116	113	114	102	89	92	113	111	112	128	124	126
29	---	---	---	102	91	96	113	112	112	132	128	130
30	---	---	---	100	91	95	113	112	113	133	131	132
31	---	---	---	104	95	97	---	---	---	133	132	133
MONTH	122	97	111	129	89	110	115	93	108	133	109	117

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	134	130	132	158	150	154	159	157	158	175	172	173
2	135	133	134	158	152	155	158	157	158	175	172	174
3	137	134	136	159	150	155	158	156	157	175	172	173
4	140	137	138	159	146	154	157	154	156	174	172	173
5	141	140	141	154	142	149	157	154	156	175	171	173
6	141	138	140	153	148	151	161	157	159	175	172	173
7	141	139	140	161	148	154	162	160	161	176	172	174
8	140	139	140	159	150	157	162	160	161	177	172	175
9	140	137	139	159	148	152	162	160	161	178	173	175
10	138	132	135	159	156	158	162	160	162	178	174	176
11	141	130	136	158	151	155	163	160	162	177	173	175
12	141	138	140	153	150	152	163	160	162	177	173	175
13	144	134	138	152	149	150	164	163	163	178	175	176
14	143	137	141	153	149	152	166	163	164	178	175	177
15	140	135	138	152	147	149	166	164	166	177	176	177
16	139	135	137	153	152	149	166	160	165	179	177	178
17	143	127	136	155	153	154	168	165	167	179	177	178
18	143	140	141	157	155	156	168	165	167	180	177	179
19	143	140	141	158	156	157	168	166	167	181	178	179
20	144	140	142	158	154	156	---	---	---	181	178	179
21	145	142	143	159	155	157	---	---	---	179	174	177
22	147	144	146	158	153	156	---	---	---	180	174	178
23	148	145	147	157	143	154	---	---	---	180	177	178
24	149	147	148	163	153	156	---	---	---	181	178	179
25	150	147	149	163	161	162	---	---	---	181	179	181
26	149	143	148	165	157	162	171	169	170	188	178	183
27	150	147	149	160	156	158	171	170	171	188	170	180
28	153	148	151	159	155	157	172	169	171	185	170	178
29	153	147	150	164	153	156	172	171	172	175	162	167
30	155	151	154	159	156	157	173	172	172	174	171	173
31	---	---	---	159	157	158	176	171	173	---	---	---
MONTH	155	127	142	165	142	155	176	154	164	188	162	176

03400800 MARTINS FORK NEAR SMITH, KY--Continued

PH, WH, FIELD FROM THE DCP, in (STANDARD UNITS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.4	7.2	7.5	7.3	7.8	7.2	7.6	7.5	7.3	6.5	7.5	7.4
2	7.5	7.3	7.5	7.3	7.7	6.9	7.5	7.5	7.3	7.2	7.4	6.3
3	7.5	7.3	7.4	7.0	7.7	6.9	7.5	7.5	7.3	6.2	7.5	6.4
4	7.5	7.3	7.5	7.1	7.7	6.9	7.5	7.5	7.3	7.1	7.5	7.4
5	7.6	7.3	7.6	7.2	7.9	6.9	7.5	7.5	7.3	7.2	7.5	7.3
6	7.5	7.3	7.7	7.5	8.0	7.6	7.5	6.3	7.3	6.1	7.5	7.3
7	7.4	7.4	7.7	7.6	7.6	7.0	7.5	6.3	7.3	6.1	7.5	7.4
8	7.5	7.2	7.7	7.4	7.6	6.9	7.5	7.4	7.3	5.9	7.5	7.2
9	7.4	7.1	7.7	7.6	7.6	7.4	7.4	7.4	7.5	6.6	7.4	6.8
10	7.5	7.2	7.7	7.2	7.5	6.9	7.4	6.0	7.5	6.3	7.5	7.4
11	7.4	7.2	7.7	7.6	7.5	6.9	7.5	6.1	7.5	6.5	7.5	7.4
12	7.4	7.1	7.7	7.3	7.5	6.8	7.5	6.9	7.5	7.3	7.4	6.2
13	7.4	7.1	7.7	7.6	7.5	6.9	7.5	7.5	7.5	7.4	7.4	6.2
14	7.5	7.2	7.7	7.2	7.7	6.9	7.5	7.4	7.4	7.3	7.4	6.2
15	7.4	7.1	7.7	7.3	7.6	6.9	7.4	7.3	7.3	7.2	7.4	7.3
16	7.5	7.3	7.6	7.2	7.5	7.4	7.3	7.3	7.3	5.9	7.3	6.7
17	7.5	7.5	7.6	7.2	7.5	7.0	7.4	6.3	7.3	7.3	7.3	6.3
18	7.5	7.2	7.6	7.2	7.6	6.8	7.3	6.1	7.3	7.1	7.2	6.4
19	7.5	7.2	7.6	7.2	7.5	6.8	7.3	5.9	7.3	6.3	7.2	6.5
20	7.5	7.1	7.6	7.2	7.5	7.4	7.3	7.3	7.4	6.1	7.1	6.4
21	7.5	7.1	7.6	7.5	7.4	7.4	7.4	6.3	7.4	6.1	7.1	6.2
22	7.5	7.1	7.8	7.6	7.4	7.3	7.3	6.2	7.4	7.3	7.1	7.1
23	7.5	7.2	7.8	7.1	7.4	6.6	7.2	6.3	7.4	7.3	7.2	7.1
24	7.5	7.3	7.8	7.0	7.4	7.1	7.3	6.5	7.4	7.3	7.2	7.0
25	7.5	7.3	7.7	6.9	7.5	7.4	7.3	7.1	7.4	7.3	7.3	7.0
26	7.5	7.4	7.7	6.8	7.5	7.4	7.3	6.3	7.4	6.3	7.2	6.5
27	7.5	7.5	8.0	7.7	7.5	7.4	7.3	6.2	7.5	7.4	7.2	7.1
28	7.5	7.5	8.0	7.7	7.5	7.4	7.3	6.1	7.5	7.4	7.2	7.1
29	7.5	7.5	7.7	7.0	7.5	7.4	7.2	7.1	---	---	7.3	6.7
30	7.5	7.1	8.0	7.1	7.6	7.5	7.3	6.2	---	---	7.2	6.4
31	7.5	7.1	---	---	7.6	7.5	7.3	6.2	---	---	7.0	6.5
MONTH	7.6	7.1	8.0	6.8	8.0	6.6	7.6	5.9	7.5	5.9	7.5	6.2

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.3	6.5	7.2	6.5	7.2	7.0	7.4	7.2	7.5	7.3	6.9	6.8
2	7.4	6.5	7.2	6.6	7.2	6.9	7.4	7.2	7.4	7.2	6.9	6.6
3	7.3	7.3	7.2	6.7	7.2	6.8	7.3	7.1	7.4	7.2	6.9	6.6
4	7.4	7.3	7.2	6.7	7.2	6.9	7.3	7.1	7.4	7.3	6.9	6.6
5	7.4	7.3	7.2	6.7	7.2	7.1	7.3	7.1	7.4	7.3	6.8	6.6
6	7.5	7.3	7.2	6.7	7.2	6.8	7.3	7.1	7.3	7.2	6.9	6.7
7	7.6	7.4	7.2	6.8	7.3	6.9	7.3	7.1	7.3	7.1	7.0	6.6
8	7.6	7.4	7.2	6.7	7.3	7.1	7.3	7.2	7.2	7.1	7.1	6.6
9	8.1	6.8	7.2	6.7	7.3	6.9	7.3	7.1	7.2	7.2	7.1	6.7
10	8.1	7.0	7.2	7.0	7.3	7.1	7.3	7.2	7.2	7.2	7.2	6.8
11	8.0	7.4	7.2	7.1	7.3	6.9	7.3	7.2	7.2	7.0	7.2	7.1
12	7.9	7.1	7.3	6.8	7.3	7.1	7.3	7.1	7.1	7.1	7.2	6.8
13	7.9	6.9	7.3	6.8	7.3	7.0	7.2	7.1	7.3	6.8	7.3	7.1
14	7.8	6.9	7.3	7.2	7.2	6.9	7.2	7.1	7.3	7.1	7.3	7.0
15	7.7	6.8	7.3	7.0	7.2	7.1	7.3	7.2	7.3	7.2	7.3	6.9
16	7.7	7.2	7.3	7.1	7.2	7.0	7.5	7.1	7.3	7.1	7.3	7.0
17	7.6	7.4	7.3	7.0	7.2	7.0	7.5	7.3	7.3	7.1	7.3	6.9
18	7.5	6.6	7.3	6.9	7.4	6.8	7.5	7.3	7.2	7.0	7.3	6.9
19	7.5	7.2	7.3	6.9	7.4	7.1	7.5	7.3	7.2	7.0	7.2	6.9
20	7.4	7.2	7.2	7.1	7.4	7.1	7.4	7.2	---	---	7.2	6.9
21	7.4	7.0	7.2	7.1	7.4	7.0	7.4	7.2	---	---	7.3	7.0
22	7.3	6.4	7.3	7.0	7.4	7.0	7.3	7.3	---	---	7.3	7.0
23	7.3	7.2	7.3	7.2	7.4	7.2	7.3	7.2	---	---	7.3	6.9
24	7.3	6.6	7.3	7.0	7.4	7.2	7.3	7.1	---	---	7.4	6.9
25	7.2	6.6	7.2	6.8	7.4	7.1	7.3	7.2	---	---	7.4	7.1
26	7.2	7.1	7.1	7.0	7.3	7.0	7.3	7.1	7.2	7.0	7.3	7.0
27	7.2	7.0	7.1	6.8	7.4	7.2	7.2	7.0	7.1	7.0	7.3	6.9
28	7.2	6.5	7.1	6.8	7.4	7.2	7.1	7.0	7.1	6.8	7.3	7.0
29	7.1	7.1	7.1	6.8	7.4	7.2	7.1	7.0	7.1	6.8	7.3	6.9
30	7.1	6.5	7.2	6.8	7.4	7.2	7.5	7.0	7.1	6.8	7.3	6.9
31	---	---	7.3	6.9	---	---	7.5	7.4	7.0	6.8	---	---
MONTH	8.1	6.4	7.3	6.5	7.4	6.8	7.5	7.0	7.5	6.8	7.4	6.6

03400800 MARTINS FORK NEAR SMITH, KY--Continued

WATER TEMPERATURE FROM THE DCP, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	21.3	20.1	20.5	15.9	13.0	14.2	13.9	12.2	12.9	6.2	5.1	5.5
2	21.3	20.0	20.6	15.6	13.5	14.3	13.3	11.6	12.2	5.7	4.9	5.2
3	21.5	20.1	20.6	15.5	13.4	14.4	12.7	11.2	11.9	5.1	4.6	4.9
4	21.5	20.1	20.7	15.4	12.8	13.9	12.8	11.9	12.2	5.0	4.3	4.6
5	21.3	20.0	20.6	14.5	12.8	13.5	12.6	11.6	12.0	4.7	4.1	4.3
6	20.8	19.7	20.2	14.5	12.9	13.5	13.0	11.4	12.2	4.3	3.9	4.1
7	20.4	19.2	19.7	14.4	12.7	13.3	13.1	12.3	12.8	4.3	3.9	4.1
8	20.2	18.9	19.5	14.3	12.7	13.3	12.9	12.2	12.5	5.0	3.7	4.1
9	20.1	18.7	19.3	14.1	12.9	13.3	12.9	11.8	12.2	5.7	3.7	4.5
10	19.8	18.5	19.1	13.6	12.9	13.1	12.2	11.8	12.1	5.3	4.3	4.8
11	19.6	18.5	19.0	13.5	12.6	13.1	12.4	11.7	12.1	5.6	4.4	4.9
12	19.4	18.8	19.1	13.1	12.4	12.7	11.8	11.6	11.7	5.2	4.4	4.7
13	19.5	18.7	19.1	13.0	12.3	12.5	12.4	11.7	12.0	5.3	4.4	4.7
14	19.7	18.9	19.2	13.3	12.2	12.6	12.9	12.0	12.4	5.4	4.4	4.8
15	19.6	18.4	19.0	14.1	11.9	12.7	12.6	12.1	12.3	4.9	4.6	4.8
16	18.7	18.1	18.4	14.1	12.0	12.9	12.3	12.0	12.1	5.0	4.6	4.8
17	18.5	17.5	18.1	14.3	12.3	13.1	12.4	12.0	12.1	5.2	4.8	5.0
18	18.1	17.2	17.6	14.4	12.5	13.2	12.4	12.0	12.2	5.7	4.9	5.2
19	17.9	16.9	17.4	14.5	12.3	13.3	12.0	11.7	11.9	5.6	4.7	5.2
20	17.8	16.7	17.1	13.6	11.5	12.4	11.8	11.0	11.4	6.8	5.2	5.7
21	17.8	16.5	17.1	12.3	11.4	11.7	11.0	10.5	10.8	7.5	5.6	6.3
22	17.7	16.5	16.9	12.2	11.2	11.6	10.5	10.0	10.2	6.0	4.9	5.6
23	17.9	16.6	17.1	12.2	11.1	11.6	10.0	9.6	9.9	6.1	5.7	5.9
24	18.5	16.7	17.6	11.9	11.4	11.6	9.6	9.1	9.4	7.7	6.0	6.7
25	18.3	16.7	17.6	12.1	11.2	11.6	9.1	8.6	8.9	7.7	6.7	7.1
26	17.3	16.5	16.9	11.9	11.1	11.4	8.6	8.1	8.3	7.4	6.8	7.2
27	16.5	15.8	16.3	13.1	11.4	12.1	8.1	7.4	7.8	7.4	6.9	7.1
28	16.2	15.0	15.6	13.1	11.8	12.2	7.8	6.9	7.3	8.4	7.1	7.6
29	16.5	14.0	15.1	12.4	11.8	12.1	7.2	6.5	6.9	8.7	7.7	8.2
30	16.2	13.5	14.5	14.2	12.1	13.2	6.8	5.8	6.3	9.4	7.8	8.7
31	15.9	11.4	13.8	---	---	---	6.5	5.5	5.9	9.8	8.0	8.8
MONTH	21.5	11.4	18.2	15.9	11.1	12.8	13.9	5.5	10.8	9.8	3.7	5.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10.2	8.4	9.7	7.9	6.4	7.0	12.0	11.4	11.6	14.3	12.2	12.6
2	9.1	8.4	8.9	7.3	6.7	7.0	13.8	11.3	12.0	12.6	12.3	12.5
3	9.0	8.8	8.9	7.5	6.5	7.0	11.9	11.5	11.7	12.9	12.2	12.4
4	8.8	8.1	8.5	6.7	5.8	6.2	12.2	11.6	11.9	12.6	12.3	12.5
5	8.2	7.7	7.9	6.9	5.7	6.4	12.3	11.2	11.8	13.8	12.4	12.9
6	7.7	7.3	7.5	7.4	6.4	6.9	12.3	11.1	11.6	13.6	12.7	13.1
7	7.5	7.2	7.4	9.8	6.9	7.8	12.9	11.2	11.9	13.8	13.1	13.5
8	7.2	6.8	7.0	10.6	6.6	8.3	13.9	11.4	12.3	14.7	13.4	13.8
9	7.1	6.8	7.0	10.1	7.7	8.9	12.8	11.7	12.0	15.0	13.9	14.4
10	8.0	7.0	7.4	10.4	6.9	8.4	15.1	11.3	12.7	15.4	14.2	14.8
11	7.7	7.0	7.3	10.8	7.0	8.7	15.0	11.1	12.7	15.7	14.9	15.2
12	7.2	6.7	7.0	8.9	8.4	8.7	13.7	11.6	12.5	16.8	15.3	15.7
13	7.5	6.8	7.2	10.0	8.4	9.0	13.7	11.7	12.4	16.8	15.5	16.1
14	7.3	6.7	7.0	12.0	8.5	9.8	13.6	11.8	12.5	17.0	15.9	16.5
15	7.6	6.7	7.2	11.7	8.9	10.0	15.6	11.4	13.1	17.9	15.7	16.7
16	8.1	7.2	7.7	10.3	9.1	9.6	15.4	11.6	13.2	17.7	15.7	16.7
17	8.0	7.2	7.7	10.3	9.1	9.8	14.4	11.9	13.0	17.7	16.4	16.9
18	7.8	6.8	7.2	11.2	9.7	10.9	16.0	11.9	13.5	17.1	16.2	16.7
19	7.4	6.6	7.0	11.2	10.4	10.9	15.1	12.0	13.2	18.0	16.4	16.9
20	8.0	7.2	7.5	10.8	10.4	10.5	15.1	12.2	13.3	17.4	16.2	16.6
21	8.7	7.4	7.9	10.8	10.2	10.5	15.8	12.3	13.7	17.5	16.2	16.8
22	7.8	7.4	7.6	11.2	10.1	10.5	14.8	11.9	13.3	17.8	17.0	17.3
23	8.4	7.0	7.5	11.2	10.2	10.6	14.8	11.0	12.7	17.7	16.9	17.3
24	8.4	6.7	7.4	11.5	10.2	10.6	13.0	11.1	12.1	19.3	16.8	17.9
25	8.4	6.7	7.5	12.2	10.2	11.0	14.7	11.8	12.9	20.1	16.4	17.8
26	8.5	7.4	8.0	12.1	10.4	10.9	12.9	10.9	11.9	19.4	16.3	17.6
27	7.4	6.7	7.0	10.9	10.3	10.6	13.7	11.3	12.2	20.1	16.6	17.8
28	7.7	6.3	6.9	11.2	10.6	10.8	14.9	12.2	13.3	19.7	16.7	17.9
29	---	---	---	13.3	10.5	11.7	15.1	11.7	13.0	19.9	16.8	17.5
30	---	---	---	12.6	11.1	11.6	15.6	11.6	13.3	18.5	16.9	17.5
31	---	---	---	12.0	11.1	11.6	---	---	---	18.7	17.1	17.7
MONTH	10.2	6.3	7.6	13.3	5.7	9.4	16.0	10.9	12.6	20.1	12.2	15.8

03400800 MARTINS FORK NEAR SMITH, KY--Continued

WATER TEMPERATURE FROM THE DCP, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	18.7	17.2	17.8	26.1	22.6	23.7	27.1	23.4	24.7	27.6	24.7	25.8
2	18.5	17.3	17.7	25.6	22.7	23.6	26.7	23.6	24.8	28.1	24.9	26.1
3	18.8	17.4	17.9	26.4	22.5	23.8	27.2	23.5	25.0	27.9	25.2	26.2
4	21.6	17.6	19.0	26.6	22.4	24.0	27.4	23.4	25.0	27.7	25.5	26.3
5	21.5	17.8	19.2	26.7	22.8	24.1	27.4	23.7	25.1	27.2	23.9	25.5
6	19.1	17.7	18.3	26.4	23.0	24.2	26.7	23.6	24.9	27.2	23.3	24.8
7	22.8	18.1	20.0	26.9	22.5	24.2	27.0	22.8	24.4	27.4	23.5	25.0
8	23.0	18.0	20.0	26.1	22.9	24.0	26.7	22.4	24.1	27.1	23.9	25.2
9	23.1	18.2	20.1	25.7	23.2	24.2	26.8	22.5	24.3	27.3	24.0	25.2
10	23.4	18.4	20.3	25.6	23.0	24.0	26.5	22.9	24.5	27.0	23.7	25.1
11	23.4	18.4	20.3	26.2	23.2	24.3	26.6	23.3	24.6	26.1	23.5	24.4
12	21.8	18.3	19.7	24.8	22.9	23.7	26.6	23.6	24.8	26.7	23.0	24.5
13	22.6	18.5	20.2	23.5	22.6	23.2	26.6	23.5	24.8	26.2	23.1	24.5
14	20.4	18.6	19.5	25.0	22.9	23.6	26.6	23.3	24.8	25.7	24.1	24.8
15	21.2	17.7	19.1	26.1	23.0	24.2	26.6	24.0	25.1	25.5	24.1	24.7
16	20.5	18.0	18.9	26.2	23.1	24.2	26.4	23.8	24.8	26.0	24.3	24.8
17	22.8	18.1	19.8	26.3	23.2	24.3	26.9	24.0	24.9	26.3	24.1	24.9
18	23.2	17.7	19.8	25.7	23.3	24.0	27.1	24.2	25.2	25.9	24.3	25.1
19	23.0	17.9	19.8	25.9	23.4	24.4	26.4	23.9	24.7	26.6	24.2	25.1
20	22.6	18.2	19.9	26.7	23.3	24.4	---	---	---	26.2	24.4	25.1
21	22.6	17.9	19.9	27.0	23.6	24.8	---	---	---	25.2	24.5	24.8
22	23.2	17.9	20.0	27.6	23.7	25.5	---	---	---	24.7	24.2	24.5
23	22.8	18.1	20.0	27.5	23.6	24.9	---	---	---	26.2	23.1	24.5
24	23.1	18.8	20.3	26.9	23.7	24.8	---	---	---	25.8	22.9	24.1
25	22.0	18.8	20.1	27.2	23.9	24.9	---	---	---	24.8	23.4	24.0
26	22.0	19.0	20.4	26.3	23.8	24.9	26.6	24.9	25.7	24.0	23.2	23.4
27	24.9	21.6	22.9	27.0	23.8	25.1	27.7	24.5	25.6	24.4	23.3	23.7
28	24.0	22.1	22.8	26.1	24.0	24.9	28.0	24.3	25.6	24.3	23.4	23.7
29	25.6	22.3	23.4	27.6	24.0	25.4	26.8	24.1	25.4	24.4	23.6	23.9
30	25.9	22.4	23.6	26.2	23.6	24.7	26.9	24.6	25.5	24.7	23.8	24.2
31	---	---	---	26.1	23.4	24.3	27.9	24.7	25.9	---	---	---
MONTH	25.9	17.2	20.0	27.6	22.4	24.3	28.0	22.4	25.0	28.1	22.9	24.8

OXYGEN DISSOLVED FROM THE DCP, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.5	8.0	8.2	10.9	9.9	10.5	9.9	9.7	9.8	11.8	11.6	11.7
2	8.7	8.2	8.5	11.0	10.6	10.8	10.1	9.8	10.0	12.1	11.7	11.9
3	8.6	7.8	8.3	11.2	10.6	10.9	10.3	9.4	10.0	12.4	12.1	12.2
4	8.3	7.8	8.1	11.5	11.0	11.3	9.9	9.7	9.8	12.6	12.3	12.4
5	8.1	7.8	7.9	11.4	10.2	10.7	10.1	9.8	10.0	12.7	12.2	12.5
6	8.2	7.5	7.8	10.8	10.1	10.4	10.1	9.7	10.0	12.5	12.1	12.3
7	8.2	7.7	8.0	10.6	10.2	10.4	10.2	9.8	10.0	12.9	12.3	12.4
8	8.4	7.7	8.1	10.5	10.1	10.4	10.2	9.7	10.0	12.6	12.3	12.4
9	8.3	7.8	8.1	10.5	10.1	10.3	10.3	9.7	10.0	12.4	12.1	12.3
10	8.4	8.0	8.2	10.6	10.1	10.3	10.3	9.7	10.0	12.4	11.8	12.1
11	8.5	8.0	8.3	10.5	10.1	10.3	10.2	9.8	10.0	12.1	11.6	11.8
12	8.5	8.0	8.2	10.6	10.4	10.5	10.1	9.8	9.9	12.1	11.6	11.8
13	8.5	8.2	8.4	10.7	10.4	10.5	10.3	9.6	9.8	11.9	11.5	11.7
14	8.6	8.3	8.4	11.7	10.5	10.7	9.9	9.5	9.7	12.2	11.7	11.9
15	9.0	8.5	8.7	11.0	10.5	10.8	9.8	9.4	9.6	12.3	12.0	12.2
16	9.4	8.7	9.1	11.0	10.4	10.6	10.0	9.3	9.7	12.4	11.7	12.0
17	9.4	9.1	9.3	10.7	10.1	10.4	9.8	9.4	9.6	11.8	11.6	11.7
18	9.6	9.0	9.4	10.4	10.0	10.2	9.9	9.5	9.7	12.4	11.6	11.9
19	9.4	9.0	9.2	10.4	9.7	10.1	9.9	9.5	9.7	12.5	11.7	12.0
20	9.6	9.2	9.4	10.2	9.7	10.0	10.0	9.7	9.9	12.2	11.5	11.9
21	9.6	9.3	9.4	10.2	9.7	9.9	10.1	9.9	10.0	12.5	11.9	12.1
22	9.5	9.3	9.4	10.1	9.6	9.9	10.3	9.9	10.1	12.6	12.2	12.4
23	9.5	9.2	9.4	10.0	9.8	9.9	10.5	10.0	10.2	12.3	11.9	12.0
24	9.4	8.9	9.1	10.3	9.7	10.0	10.5	10.2	10.3	12.2	11.5	11.8
25	9.4	8.9	9.1	9.9	9.6	9.8	10.7	10.5	10.6	12.2	11.2	11.8
26	9.5	9.1	9.3	10.2	9.5	9.9	10.8	10.5	10.6	12.2	11.8	12.0
27	9.7	9.3	9.5	9.8	9.6	9.7	11.1	10.7	10.9	12.2	11.6	11.9
28	9.8	9.5	9.6	9.7	9.5	9.6	11.3	10.9	11.1	12.1	11.5	11.8
29	10.1	9.7	9.9	9.6	9.4	9.5	11.2	10.8	11.0	11.8	11.4	11.7
30	10.6	9.9	10.2	9.8	9.2	9.5	11.6	11.1	11.4	11.8	11.2	11.4
31	10.9	9.3	10.3	---	---	---	11.7	11.4	11.5	11.8	11.2	11.4
MONTH	10.9	7.5	8.9	11.7	9.2	10.3	11.7	9.3	10.2	12.9	11.2	12.0

03400800 MARTINS FORK NEAR SMITH, KY--Continued

OXYGEN DISSOLVED FROM THE DCP, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.7	11.2	11.4	12.0	11.6	11.9	11.4	10.8	11.2	12.0	9.7	10.0
2	11.8	11.3	11.6	12.1	11.6	11.9	11.3	10.6	11.0	10.5	9.3	9.9
3	11.6	11.2	11.4	11.9	11.5	11.7	11.8	11.2	11.5	10.2	9.2	9.6
4	11.8	11.4	11.6	12.4	11.7	12.2	12.0	11.6	11.8	9.7	9.5	9.6
5	11.8	11.4	11.6	12.3	12.0	12.2	12.2	10.6	11.0	9.7	9.2	9.5
6	11.9	11.4	11.6	12.3	11.8	12.0	11.1	10.7	10.9	9.7	9.2	9.4
7	11.8	11.5	11.7	12.8	11.4	12.1	11.0	10.5	10.8	10.5	9.2	9.6
8	11.9	11.7	11.8	12.9	11.6	12.4	11.9	10.9	11.1	10.5	9.0	9.8
9	11.9	11.4	11.6	12.7	11.7	12.1	12.0	10.1	10.7	10.4	9.0	9.8
10	11.8	11.3	11.5	12.9	11.9	12.4	10.4	9.8	10.1	10.3	8.9	9.9
11	11.7	11.4	11.6	12.6	11.8	12.2	10.4	9.6	10.1	10.1	8.8	9.5
12	11.6	11.5	11.6	12.2	12.0	12.2	10.2	9.8	10.0	10.2	8.8	9.7
13	11.8	11.5	11.6	12.1	11.8	12.0	10.4	10.0	10.2	9.9	8.6	9.2
14	12.4	11.6	12.0	12.1	11.4	11.7	10.6	9.9	10.2	9.8	8.6	9.2
15	12.4	11.6	12.2	11.6	11.0	11.3	10.4	9.8	10.1	9.9	8.7	9.4
16	12.2	11.9	12.0	11.5	11.2	11.3	10.5	9.6	10.1	9.9	8.8	9.1
17	12.3	11.7	12.0	11.4	10.7	11.1	10.1	9.9	10.0	9.4	8.9	9.1
18	12.5	11.8	12.2	11.1	10.2	10.6	10.3	9.6	9.9	9.6	9.0	9.2
19	12.3	11.8	12.2	11.0	10.5	10.7	10.2	9.4	9.8	9.4	9.2	9.3
20	12.2	11.6	11.8	11.0	10.6	10.8	9.8	9.3	9.6	9.8	8.8	9.3
21	12.0	11.8	11.8	12.2	10.7	11.2	9.9	9.2	9.5	9.1	8.5	8.8
22	12.0	11.8	11.9	12.6	11.8	12.0	10.5	9.3	9.9	9.8	8.8	9.1
23	12.0	11.8	11.9	12.1	11.5	11.8	10.7	10.5	10.6	9.2	8.4	8.7
24	12.0	11.7	11.9	12.4	11.0	11.8	10.9	9.8	10.4	9.7	8.2	9.0
25	12.4	11.8	12.0	11.9	11.4	11.7	10.5	9.8	10.2	8.5	8.1	8.2
26	11.9	11.6	11.7	11.9	10.9	11.4	10.7	10.3	10.5	8.6	8.2	8.4
27	11.9	11.6	11.7	11.8	11.6	11.7	10.9	9.7	10.4	8.6	8.2	8.4
28	12.0	11.6	11.7	12.1	10.9	11.8	10.2	9.5	9.9	8.7	8.1	8.4
29	---	---	---	11.4	10.3	11.0	10.5	9.9	10.2	9.1	8.2	8.6
30	---	---	---	11.0	10.4	10.8	10.1	9.8	9.9	8.9	8.6	8.7
31	---	---	---	11.3	10.8	11.1	---	---	---	9.9	8.6	9.1
MONTH	12.5	11.2	11.8	12.9	10.2	11.6	12.2	9.2	10.4	12.0	8.1	9.2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.8	9.3	9.6	8.0	7.3	7.6	7.3	6.8	7.1	6.3	6.0	6.2
2	9.8	9.5	9.7	8.2	7.2	7.7	7.5	7.1	7.3	6.2	5.9	6.1
3	9.7	9.1	9.5	7.8	7.0	7.4	7.7	7.2	7.4	6.1	5.8	6.0
4	9.8	8.6	9.3	7.7	7.0	7.3	7.7	7.2	7.5	5.9	5.7	5.8
5	9.2	8.5	8.8	7.9	7.1	7.5	7.6	7.3	7.4	6.2	5.7	5.9
6	9.0	8.5	8.7	7.7	7.1	7.4	7.7	7.2	7.4	6.4	6.0	6.2
7	9.4	8.4	8.9	7.8	7.0	7.6	7.4	7.0	7.2	6.6	5.9	6.3
8	9.4	8.6	9.0	7.5	7.0	7.2	7.3	6.9	7.1	6.5	5.9	6.3
9	9.4	8.4	8.9	7.3	6.8	7.1	7.2	6.7	7.0	6.5	6.3	6.4
10	9.4	8.2	8.8	7.2	6.7	7.0	7.1	6.6	6.8	6.6	6.4	6.5
11	9.5	8.3	8.6	7.2	6.7	7.0	6.9	6.5	6.7	6.8	6.4	6.5
12	9.4	8.2	8.7	7.3	6.8	7.0	7.0	6.6	6.7	7.2	6.4	6.8
13	9.1	8.1	8.5	7.2	6.0	6.9	7.5	6.6	7.0	7.1	6.3	6.7
14	9.1	8.1	8.6	7.1	6.8	7.0	7.3	6.6	7.0	6.9	6.3	6.5
15	9.0	8.0	8.4	7.2	6.8	7.0	6.9	6.4	6.7	6.8	6.2	6.4
16	9.0	8.2	8.6	8.1	7.1	7.5	6.8	6.1	6.4	6.5	6.1	6.3
17	9.0	8.3	8.6	8.2	7.3	7.8	6.3	5.8	6.1	6.6	6.0	6.2
18	9.4	8.3	8.8	7.8	7.2	7.5	6.1	6.1	5.8	6.2	5.7	6.0
19	9.7	8.7	9.1	7.8	7.3	7.5	5.8	5.5	5.6	6.0	5.6	5.8
20	9.6	8.7	9.1	7.7	7.3	7.5	---	---	---	6.0	5.6	5.7
21	9.7	8.6	9.2	7.7	7.3	7.4	---	---	---	6.0	5.8	5.9
22	9.8	8.6	9.0	7.7	7.1	7.4	---	---	---	6.2	5.8	6.0
23	9.4	8.6	9.0	7.4	7.1	7.2	---	---	---	6.2	6.0	5.8
24	9.8	8.5	9.0	7.5	6.9	7.2	---	---	---	6.5	6.3	6.4
25	9.5	8.4	8.9	7.3	6.9	7.1	---	---	---	6.5	6.3	6.4
26	9.6	7.9	8.8	7.4	6.8	7.1	7.7	6.9	7.4	7.0	6.3	6.6
27	8.4	7.6	7.9	7.2	7.0	7.1	7.6	7.1	7.3	7.4	6.2	6.8
28	8.2	7.5	7.8	7.2	6.9	7.0	7.4	6.8	7.1	6.9	6.3	6.7
29	8.2	7.4	7.7	7.2	6.9	7.0	6.9	6.3	6.7	6.8	6.2	6.5
30	8.0	7.3	7.6	7.1	6.7	6.9	6.4	6.0	6.2	6.6	6.0	6.4
31	---	---	---	7.2	6.6	6.9	6.4	6.0	6.2	---	---	---
MONTH	9.8	7.3	8.8	8.2	6.0	7.3	7.7	5.5	6.8	7.4	5.6	6.3

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 mi^2.

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

REVISED RECORDS.--WSP 953: 1940(M). WSP 1173: 1947(M).

GAGE.--Water-stage recorder with telemetry. Datum of gage is 1,139.10 ft above NGVD of 1929. 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 good. Flow slightly regulated by Martins Fork Dam (station 03400798) beginning January 1979.

COOPERATION.--U.S. Army Corps of Engineers, Nashville District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	150	73	202	e235	861	288	3850	496	304	100	86	59
2	141	69	149	e220	780	302	2160	1290	292	96	80	55
3	132	74	128	e205	721	367	1600	2490	281	183	76	50
4	125	76	136	e195	688	328	1320	1450	257	156	76	50
5	120	76	135	e185	610	313	1110	1050	197	112	73	47
6	235	93	128	e180	484	376	851	847	213	95	66	45
7	203	81	131	292	785	372	772	837	263	86	62	43
8	153	80	344	208	1110	291	714	852	200	100	57	39
9	134	79	1050	190	1010	279	796	780	169	94	57	37
10	124	100	699	216	928	294	1120	714	157	84	56	34
11	118	111	820	988	878	262	972	631	145	285	57	33
12	133	110	836	1170	801	263	837	586	136	188	64	34
13	136	111	1090	794	737	273	750	623	150	151	66	39
14	239	110	1670	605	657	265	803	659	163	196	56	41
15	236	77	1320	616	543	250	702	572	140	148	52	68
16	175	55	945	548	520	503	624	465	131	116	57	54
17	158	55	794	509	491	4670	567	434	121	99	71	50
18	145	54	987	490	451	21300	646	867	112	112	72	46
19	137	54	974	866	424	5650	596	743	104	112	94	44
20	135	58	838	1740	424	3530	540	595	106	183	118	42
21	133	71	704	1140	411	2940	496	541	99	161	71	93
22	129	84	532	930	371	1930	479	596	95	110	65	233
23	126	85	510	4030	351	1600	434	558	92	93	71	208
24	124	87	528	6320	336	1390	396	516	91	473	66	101
25	149	281	472	7450	327	1250	534	362	89	244	59	72
26	136	235	e420	3080	329	1220	492	329	167	236	78	376
27	129	217	e375	2030	319	1310	475	352	134	163	172	640
28	123	198	e335	1640	297	1190	546	491	183	120	109	383
29	119	185	e310	1410	---	1110	572	381	139	101	81	248
30	89	254	e280	1270	---	1210	494	351	110	96	67	187
31	77	---	e250	1080	---	2590	---	325	---	104	60	---
TOTAL	4463	3293	18092	40832	16644	57916	26248	21783	4840	4597	2295	3451
MEAN	144.0	109.8	583.6	1317	594.4	1868	874.9	702.7	161.3	148.3	74.03	115.0
MAX	239	281	1670	7450	1110	21300	3850	2490	304	473	172	640
MIN	77	54	128	180	297	250	396	325	89	84	52	33
CFSM	0.38	0.29	1.56	3.52	1.59	5.00	2.34	1.88	0.43	0.40	0.20	0.31
IN.	0.44	0.33	1.80	4.06	1.66	5.76	2.61	2.17	0.48	0.46	0.23	0.34

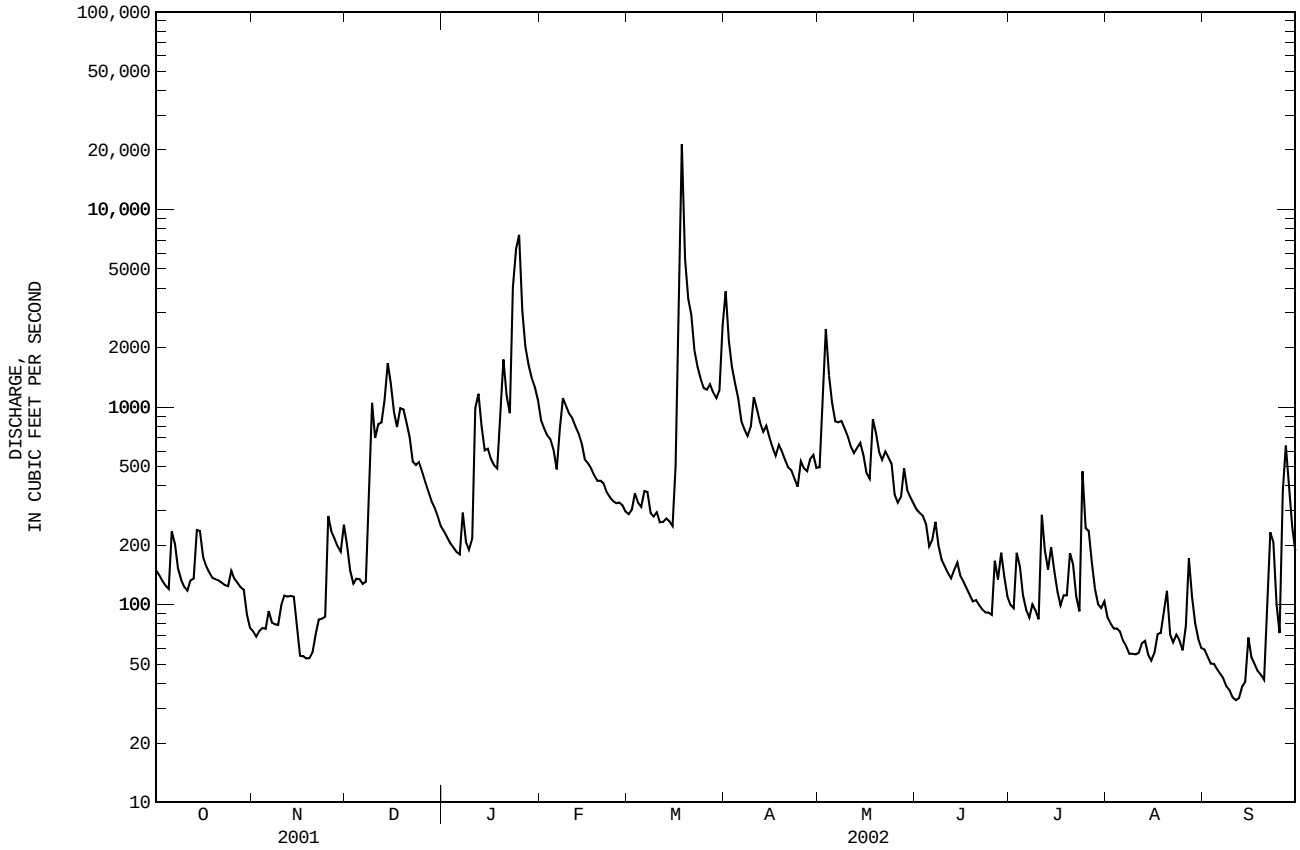
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2002, BY WATER YEAR (WY)

MEAN	188.1	451.2	806.1	1010	1248	1320	1013	838.8	443.9	237.1	210.7	159.4
MAX	1129	1532	2704	1783	3259	2684	2986	2003	1789	453	534	864
(WY)	1990	1997	1992	1994	1994	1994	1998	1984	1989	1991	1996	1989
MIN	30.0	51.1	88.9	63.5	554	334	211	330	96.1	57.3	52.7	38.3
(WY)	1998	1999	1981	1981	1988	1988	1986	1982	1988	1988	1988	1999

03401000 CUMBERLAND RIVER NEAR HARLAN, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1980 - 2002	
ANNUAL TOTAL	182538		204454			
ANNUAL MEAN	500.1		560.1		657.7	
HIGHEST ANNUAL MEAN					1130	1994
LOWEST ANNUAL MEAN					333	1988
HIGHEST DAILY MEAN	7170	Feb 17	21300	Mar 18	21300	Mar 18 2002
LOWEST DAILY MEAN	54	Nov 18	33	Sep 11	16	Oct 9 1997
ANNUAL SEVEN-DAY MINIMUM	61	Nov 15	37	Sep 8	17	Oct 4 1997
MAXIMUM PEAK FLOW			29600	Mar 18	64500	Apr 5 1977
MAXIMUM PEAK STAGE			26.12	Mar 18	30.20	Apr 5 1977
INSTANTANEOUS LOW FLOW					3.0	Oct 9 1953
ANNUAL RUNOFF (CFSM)	1.34		1.50		1.76	
ANNUAL RUNOFF (INCHES)	18.16		20.34		23.89	
10 PERCENT EXCEEDS	1110		1110		1480	
50 PERCENT EXCEEDS	300		236		353	
90 PERCENT EXCEEDS	90		66		66	

e Estimated



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 mi^2. 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 with telemetry and crest-stage gages. Datum of gage is 1,097.99 ft above NGVD of 1929. See WDR KY-90-1 for history of changes prior to Sept. 30, 1973.

REMARKS.--Flows affected by channelization work above gage during the current year. Records good except for those estimated, which are poor. Occasional regulation from Fern Lake.

COOPERATION.--U.S. Army Corps of Engineers, Nashville District and Kentucky Natural Resources and Enviromental Protection Cabinet.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 17	1030	4,010	14.48	Mar 18	0800	*6,270	*18.60

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.7	11	25	e23	114	30	866	103	22	16	9.2	5.0
2	9.2	11	21	e22	88	34	347	84	22	19	8.0	4.7
3	9.2	12	19	e21	81	34	228	117	27	19	7.6	e4.6
4	9.0	11	17	e20	76	29	168	96	21	12	7.1	4.5
5	9.0	11	16	e19	66	28	135	87	19	12	7.4	4.6
6	31	9.5	16	e18	66	27	114	74	21	11	6.0	4.5
7	13	9.4	18	25	111	27	99	71	28	9.7	5.5	4.4
8	9.9	9.6	74	23	109	26	90	73	20	9.3	5.3	4.5
9	9.1	9.3	121	23	103	29	103	61	18	9.5	5.2	4.5
10	8.7	8.9	60	33	96	29	111	54	16	14	5.5	4.4
11	8.8	9.1	69	93	88	25	87	47	15	16	5.4	4.3
12	9.9	8.6	49	75	77	29	81	45	15	13	5.4	4.3
13	12	8.2	66	60	70	30	80	81	14	60	5.1	4.0
14	30	8.1	226	50	63	28	81	70	36	42	4.8	5.3
15	18	7.9	138	43	59	28	71	50	18	24	4.7	10
16	11	7.3	78	37	58	54	65	43	15	13	9.5	6.8
17	10	7.1	64	35	52	2080	61	39	14	11	27	5.6
18	9.2	8.1	77	35	47	3960	76	66	12	13	12	6.4
19	8.9	8.3	64	352	45	798	60	43	12	12	56	5.9
20	9.2	7.6	53	339	51	426	56	38	11	11	29	5.8
21	9.2	5.1	44	166	47	301	53	35	11	11	10	58
22	9.3	5.2	39	103	42	223	58	33	10	9.7	7.4	52
23	9.0	5.6	59	1030	39	180	47	32	9.6	9.4	6.7	34
24	9.4	8.1	66	1720	37	149	44	30	10	9.7	6.3	13
25	26	163	52	1500	35	123	108	28	9.8	8.4	6.1	11
26	16	37	e45	439	36	123	63	27	11	10	11	110
27	11	26	e40	252	34	103	58	40	15	8.6	7.9	138
28	12	22	e35	179	32	89	57	53	39	9.6	5.7	55
29	12	19	e31	136	---	84	53	30	14	17	5.2	29
30	11	40	e28	109	---	110	47	27	12	16	5.2	19
31	11	---	e25	91	---	951	---	24	---	20	5.1	---
TOTAL	380.7	514.0	1735	7071	1822	10187	3567	1701	517.4	475.9	302.3	623.1
MEAN	12.28	17.13	55.97	228.1	65.07	328.6	118.9	54.87	17.25	15.35	9.752	20.77
MAX	31	163	226	1720	114	3960	866	117	39	60	56	138
MIN	8.7	5.1	16	18	32	25	44	24	9.6	8.4	4.7	4.0
CFSM	0.20	0.28	0.92	3.76	1.07	5.42	1.96	0.91	0.28	0.25	0.16	0.34
IN.	0.23	0.32	1.07	4.34	1.12	6.25	2.19	1.04	0.32	0.29	0.19	0.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2002, BY WATER YEAR (WY)

MEAN	24.16	75.61	158.7	208.2	227.6	253.0	178.6	116.6	65.03	50.63	35.15	19.46
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

03402000 YELLOW CREEK NEAR MIDDLESBORO, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1941 - 2002	
ANNUAL TOTAL	24177.9		28896.4			
ANNUAL MEAN	66.24		79.17		117.3	
HIGHEST ANNUAL MEAN					219	1991
LOWEST ANNUAL MEAN					49.5	1941
HIGHEST DAILY MEAN	1640	Feb 17	3960	Mar 18	7000	Apr 4 1977
LOWEST DAILY MEAN	5.1	Nov 21	4.0	Sep 13	1.2	Oct 7 1952
ANNUAL SEVEN-DAY MINIMUM	6.7	Nov 17	4.3	Sep 7	1.6	Sep 17 1955
MAXIMUM PEAK FLOW			6270	Mar 18	11700	Apr 4 1977
MAXIMUM PEAK STAGE			18.60	Mar 18	23.35	Apr 4 1977
INSTANTANEOUS LOW FLOW					0.00	Sep 26 1952
ANNUAL RUNOFF (CFSM)	1.09		1.31		1.94	
ANNUAL RUNOFF (INCHES)	14.84		17.74		26.29	
10 PERCENT EXCEEDS	137		110		249	
50 PERCENT EXCEEDS	27		27		44	
90 PERCENT EXCEEDS	9.6		6.4		7.6	

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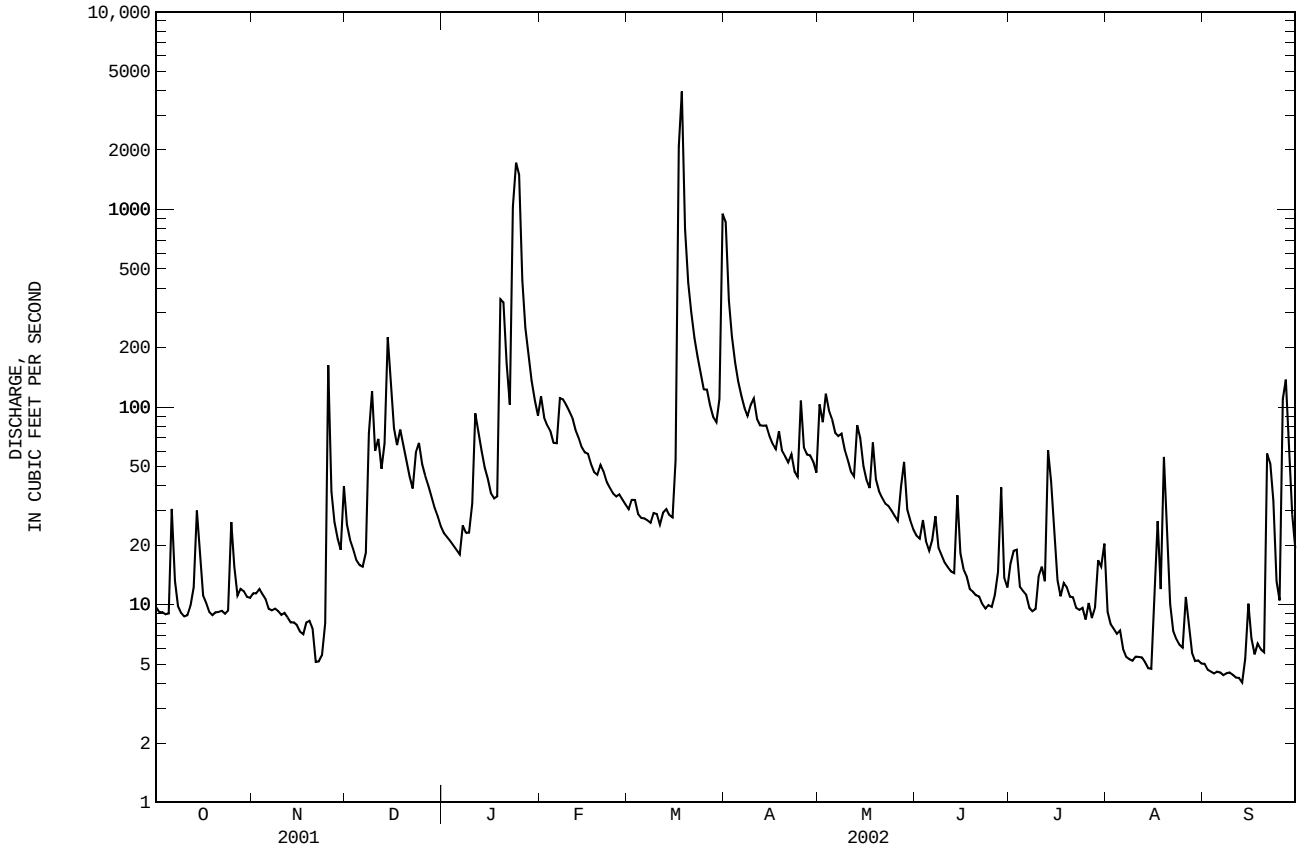


03402900 CUMBERLAND RIVER AT PINE STREET BRIDGE AT PINEVILLE, KY

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 mi^2.

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

GAGE.--Water-stage recorder with telemetry. Datum of gage is 970.00 ft above NGVD of 1929, Sandy Hook datum.

REMARKS.--Records good except for those estimated which are poor. Flow slightly regulated by Martins Fork Dam (station 03400798) beginning January 1979.

COOPERATION.--U.S. Army Corps of Engineers, Nashville District.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 46,700 ft^3/s, Mar. 18, gage height, 47.32 ft; minimum daily discharge, 53 ft^3/s Sept 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	211	128	420	e395	1410	458	9710	848	411	176	145	99
2	199	125	324	e370	1270	454	4680	1330	386	197	122	88
3	191	122	260	e350	1120	516	3000	3050	372	187	104	82
4	179	125	231	e330	1060	539	2260	2490	358	234	97	78
5	170	123	229	e315	966	477	1840	1870	326	210	92	75
6	243	122	226	e300	818	499	1400	1500	299	166	92	71
7	367	134	223	470	1020	549	1180	1550	378	140	80	68
8	275	133	492	433	1830	520	1050	1880	352	135	76	65
9	216	130	1870	334	1750	449	1190	1530	274	159	71	63
10	194	126	1430	373	1600	474	2090	1360	244	156	69	59
11	176	130	1350	1130	1480	450	1730	1140	228	160	71	57
12	176	157	1380	2320	1320	429	1450	1010	210	310	68	56
13	191	156	1510	1650	1210	454	1210	1060	201	295	74	53
14	221	158	3190	1240	1080	437	1200	1220	239	417	82	58
15	445	157	2800	1070	939	332	1090	1020	244	319	82	69
16	326	149	1830	977	853	321	929	880	208	229	83	85
17	247	113	1430	872	796	10100	819	755	194	181	118	94
18	226	106	1560	833	727	41500	804	1170	183	161	129	83
19	209	105	1660	1810	674	25300	855	1340	173	170	169	76
20	196	106	1470	4470	663	8550	754	1030	161	175	221	72
21	195	107	1210	2740	679	5330	683	875	155	246	184	159
22	188	108	984	1880	613	3430	666	848	145	222	120	405
23	184	128	877	6320	563	2590	619	831	137	168	107	624
24	184	144	1020	13900	536	2140	568	767	136	199	98	297
25	204	616	902	18500	515	1780	837	661	135	463	106	179
26	227	591	e800	7370	512	1630	815	506	229	319	183	390
27	196	388	e710	3800	518	1760	762	463	238	276	207	1300
28	179	336	e640	2760	483	1550	773	612	258	215	243	902
29	173	303	e580	2250	---	1430	861	603	268	175	182	538
30	165	327	e520	1930	---	1610	752	489	205	155	140	373
31	150	---	e460	1690	---	6070	---	458	---	156	112	---
TOTAL	6703	5653	32588	83182	27005	122128	46577	35146	7347	6771	3727	6618
MEAN	216.2	188.4	1051	2683	964.5	3940	1553	1134	244.9	218.4	120.2	220.6
MAX	445	616	3190	18500	1830	41500	9710	3050	411	463	243	1300
MIN	150	105	223	300	483	321	568	458	135	135	68	53
CFSM	0.28	0.24	1.37	3.48	1.25	5.12	2.02	1.47	0.32	0.28	0.16	0.29
IN.	0.32	0.27	1.57	4.02	1.30	5.90	2.25	1.70	0.35	0.33	0.18	0.32

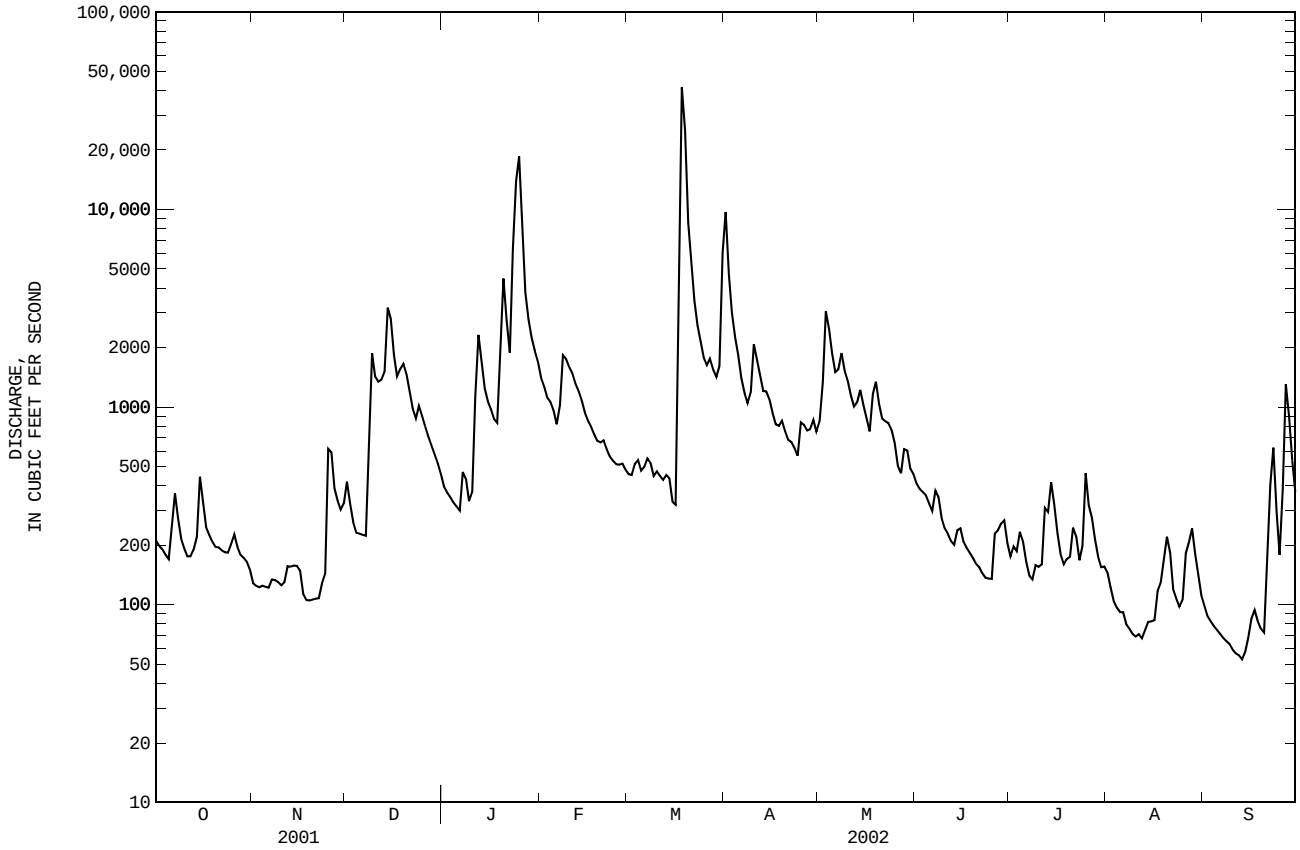
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2002, BY WATER YEAR (WY)

MEAN	211.1	651.6	1689	2275	2309	3188	2250	1537	774.2	382.0	409.8	203.6
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	342	640	964	1367	817	796	245	176	107	59.7
(WY)	1999	1999	2000	2000	2002	2000	1995	1993	2002	1993	1995	1999

03402900 CUMBERLAND RIVER AT PINE STREET BRIDGE AT PINEVILLE, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1992 - 2002	
ANNUAL TOTAL	332968		383445			
ANNUAL MEAN	912.2		1051		1320	
HIGHEST ANNUAL MEAN					2241	1994
LOWEST ANNUAL MEAN					792	2000
HIGHEST DAILY MEAN	16200	Feb 17	41500	Mar 18	41500	Mar 18 2002
LOWEST DAILY MEAN	105	Nov 19	53	Sep 13	48	Sep 20 1999
ANNUAL SEVEN-DAY MINIMUM	110	Nov 17	59	Sep 8	49	Sep 16 1999
MAXIMUM PEAK FLOW			46700	Mar 18	46700	Mar 18 2002
MAXIMUM PEAK STAGE			47.32	Mar 18	47.32	Mar 18 2002
INSTANTANEOUS LOW FLOW					47	Sep 20 1999
ANNUAL RUNOFF (CFSM)	1.18		1.36		1.71	
ANNUAL RUNOFF (INCHES)	16.09		18.52		23.29	
10 PERCENT EXCEEDS	1920		1820		2910	
50 PERCENT EXCEEDS	514		373		614	
90 PERCENT EXCEEDS	149		106		115	

e Estimated



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 mi^2.

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 with telemetry. Datum of gage is 942.97 ft above NGVD of 1929. See WRD KY-90-1 for history of changes prior to Oct. 17, 1975.

REMARKS.--Records fair except for those estimated, which are poor. Flow slightly regulated by Martins Fork Dam (station 03400798) beginning January 1979. Diversions by City of Barbourville for municipal water supply.

COOPERATION.--U.S. Army Corps of Engineers, Nashville District.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 39,400 ft^3/s, Feb. 17, gage height, 38.72 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	224	166	375	e430	2060	585	14200	1040	422	198	166	106
2	209	139	386	e400	1930	552	10300	1300	382	199	148	90
3	198	133	298	e370	1680	583	5300	2960	364	196	123	84
4	188	133	263	e350	1580	668	3500	3390	355	209	108	82
5	178	134	230	e330	1460	599	2880	2550	332	258	100	79
6	235	136	228	e320	1280	549	2420	2020	336	204	93	76
7	334	136	228	467	1310	607	2050	1880	405	168	91	72
8	344	152	334	456	2220	616	1840	2450	408	149	82	67
9	264	145	1810	375	2400	528	1720	2060	319	156	79	63
10	214	139	1950	351	2220	544	2630	1830	273	175	76	60
11	193	135	1590	986	2090	546	2550	1490	248	172	74	58
12	183	149	1660	2710	1880	493	2200	1240	230	209	73	56
13	186	181	1760	2260	1690	499	1970	1240	210	340	72	51
14	201	182	3430	1640	1520	518	1910	1610	212	410	73	52
15	325	182	3840	1270	1340	492	1830	1350	271	367	76	57
16	410	181	2410	1140	1170	495	1580	1120	240	300	82	64
17	307	149	1760	974	1090	5640	1400	875	210	225	93	80
18	263	104	1730	906	991	28500	1280	1420	197	190	121	85
19	234	92	1970	1390	896	38000	1360	1870	182	177	136	82
20	219	91	1790	4700	850	28700	1210	1430	169	208	230	76
21	208	96	1460	3900	888	18100	1080	1140	156	199	197	135
22	204	97	1190	2670	833	10700	996	981	151	279	159	322
23	199	99	958	4890	744	5460	974	974	148	233	108	772
24	189	131	1120	15000	692	3490	844	866	143	269	94	495
25	220	475	1080	22800	655	2990	1120	773	142	417	89	262
26	237	733	e950	19800	637	2770	1310	579	174	392	130	418
27	252	491	e840	10800	658	3090	1130	491	242	320	304	1370
28	226	351	e730	4840	636	2850	1100	494	279	285	224	1330
29	210	322	e640	3010	---	2570	1170	683	282	218	270	736
30	201	305	e560	2600	---	2600	1080	524	260	188	169	478
31	193	---	e490	2310	---	4840	---	447	---	170	132	---
TOTAL	7248	5959	38060	114445	37400	169174	74934	43077	7742	7480	3972	7758
MEAN	233.8	198.6	1228	3692	1336	5457	2498	1390	258.1	241.3	128.1	258.6
MAX	410	733	3840	22800	2400	38000	14200	3390	422	417	304	1370
MIN	178	91	228	320	636	492	844	447	142	149	72	51
CFSM	0.24	0.21	1.28	3.85	1.39	5.68	2.60	1.45	0.27	0.25	0.13	0.27
IN.	0.28	0.23	1.47	4.43	1.45	6.56	2.90	1.67	0.30	0.29	0.15	0.30

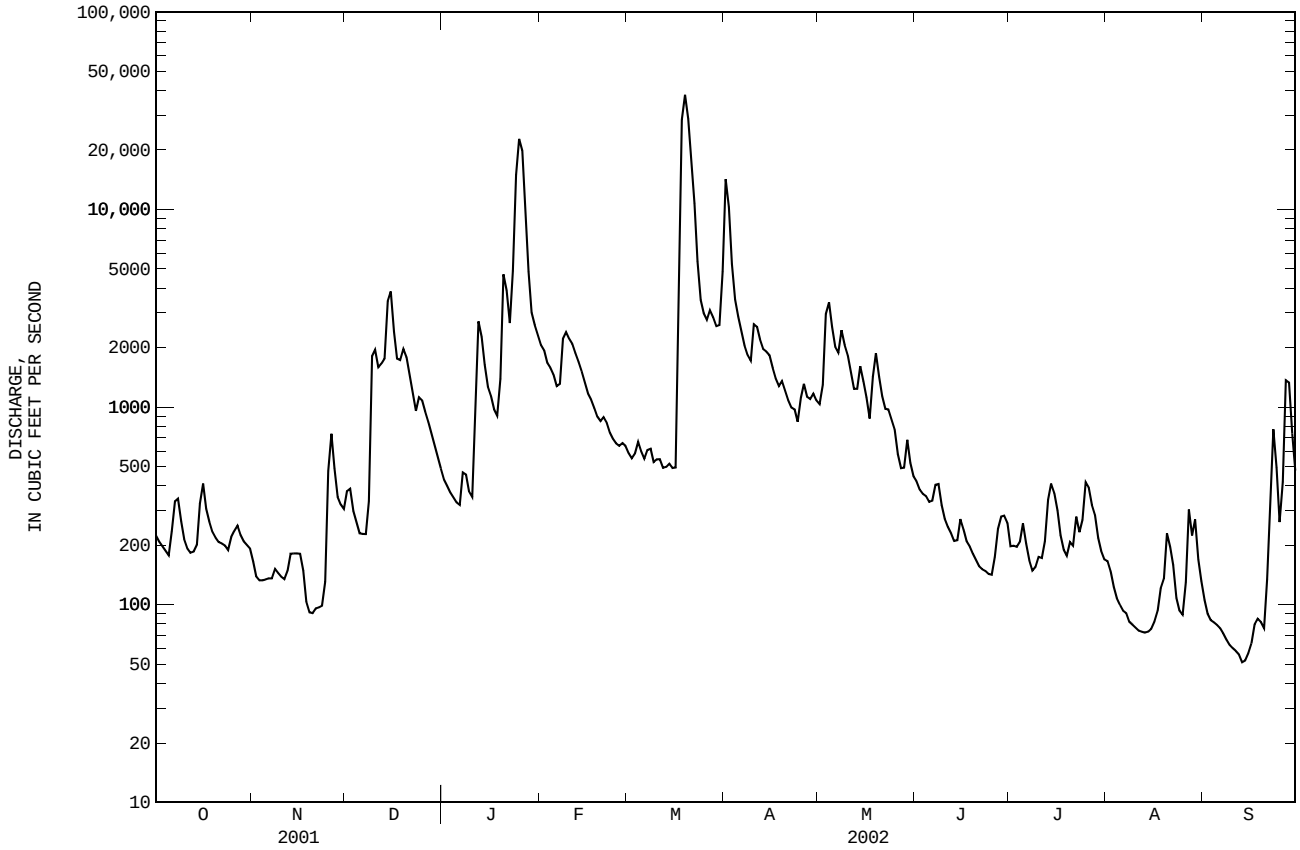
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2002, BY WATER YEAR (WY)

MEAN	437.0	1149	2043	2576	2975	3358	2593	2032	1150	532.6	438.6	388.9
MAX	3058	3816	5837	5582	5776	6208	8578	6782	5524	1071	1005	1894
(WY)	1990	1997	1992	1982	1991	1997	1998	1984	1989	1989	1996	1989
MIN	87.9	117	193	135	1220	791	549	635	201	141	124	60.5
(WY)	1981	1999	1981	1981	1999	1988	1986	1986	1988	1988	1999	1999

03403500 CUMBERLAND RIVER AT BARBOURVILLE, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1980 - 2002	
ANNUAL TOTAL	404806		517249			
ANNUAL MEAN	1109		1417		1631	
HIGHEST ANNUAL MEAN					2417	1989
LOWEST ANNUAL MEAN					824	1988
HIGHEST DAILY MEAN	18300	Feb 17	38000	Mar 19	41600	May 8 1984
LOWEST DAILY MEAN	91	Nov 20	51	Sep 13	50	Sep 19 1999
ANNUAL SEVEN-DAY MINIMUM	101	Nov 18	57	Sep 9	53	Sep 16 1999
MAXIMUM PEAK FLOW			39400	Mar 19	56100	Apr 6 1977
MAXIMUM PEAK STAGE			38.72	Mar 19	45.91	Apr 6 1977
INSTANTANEOUS LOW FLOW					0.20	Oct 5 1930
ANNUAL RUNOFF (CFSM)	1.16		1.48		1.70	
ANNUAL RUNOFF (INCHES)	15.69		20.04		23.08	
10 PERCENT EXCEEDS	2420		2580		3630	
50 PERCENT EXCEEDS	530		405		793	
90 PERCENT EXCEEDS	158		97		121	

e Estimated



03403910 CLEAR FORK AT SAXTON, KY

LOCATION.--Lat 36°38'02",long 84°06'42", Whitley County, Hydrologic Unit 05130101, on State Highway 1804 bridge, at Saxton, 100 ft upstream from CSX Railroad bridge, 150 ft downstream from unnamed stream. 7.2 mi southeast of Williamsburg, and at mile 12.2.

DRAINAGE AREA.--331 mi^2.

PERIOD OF RECORD.--July 1968 to September 1990, October 1995 to current year.

GAGE.--Water-stage recorder with telemetry and crest-stage gage. Datum of gage is 921.83 ft above NGVD of 1929.

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

COOPERATION.--U.S. Army Corps of Engineers, Nashville District.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 25	1300	10,300	26.65	Apr 1	unknown	6,560	20.27
Mar 19	unknown	*13,100	31.04				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	42	87	e105	495	136	e4900	480	72	49	38	25
2	34	43	78	e100	484	133	1890	642	66	42	29	23
3	31	41	69	e94	414	140	1170	661	65	40	24	20
4	31	40	64	e89	399	131	835	596	73	33	21	19
5	30	38	60	e86	345	118	671	541	70	29	19	17
6	50	35	58	e105	321	116	569	436	82	28	19	16
7	64	33	58	118	453	111	492	392	140	25	17	14
8	44	33	159	104	617	109	436	434	91	23	15	15
9	36	31	732	97	583	109	411	363	66	22	13	13
10	30	30	440	123	538	134	472	322	56	23	12	12
11	29	29	731	369	493	119	389	276	49	23	12	12
12	28	28	537	510	417	115	355	236	44	30	12	12
13	31	27	450	412	374	124	345	286	41	57	13	11
14	36	26	1410	327	326	126	344	418	101	216	13	12
15	55	24	1210	277	296	120	324	303	100	182	13	21
16	45	25	639	228	281	134	301	248	64	99	13	37
17	38	25	445	203	259	e4600	281	209	51	61	39	28
18	37	26	428	197	230	e9100	336	331	44	47	53	24
19	36	26	355	1370	211	e9800	293	278	40	41	32	24
20	35	25	303	2830	210	2200	258	215	36	35	54	21
21	35	25	248	1300	226	1400	237	186	34	35	40	129
22	34	25	213	799	196	993	231	166	34	33	27	171
23	34	24	211	e3200	181	798	211	150	32	42	22	193
24	37	26	283	e6700	171	683	184	132	30	69	30	86
25	51	411	254	e8000	160	587	476	119	37	48	28	54
26	56	249	229	e3000	160	563	448	107	39	39	136	237
27	61	134	e200	1360	159	589	369	100	78	33	196	707
28	54	96	e180	951	144	503	342	95	117	30	64	444
29	52	78	e160	742	---	478	343	131	106	35	40	217
30	47	76	e135	600	---	517	286	94	61	38	31	127
31	44	---	e120	496	---	e2500	---	83	---	37	27	---
TOTAL	1261	1771	10546	34892	9143	37286	18199	9030	1919	1544	1102	2741
MEAN	40.68	59.03	340.2	1126	326.5	1203	606.6	291.3	63.97	49.81	35.55	91.37
MAX	64	411	1410	8000	617	9800	4900	661	140	216	196	707
MIN	28	24	58	86	144	109	184	83	30	22	12	11
CFSM	0.12	0.18	1.03	3.40	0.99	3.63	1.83	0.88	0.19	0.15	0.11	0.28
IN.	0.14	0.20	1.19	3.92	1.03	4.19	2.05	1.01	0.22	0.17	0.12	0.31

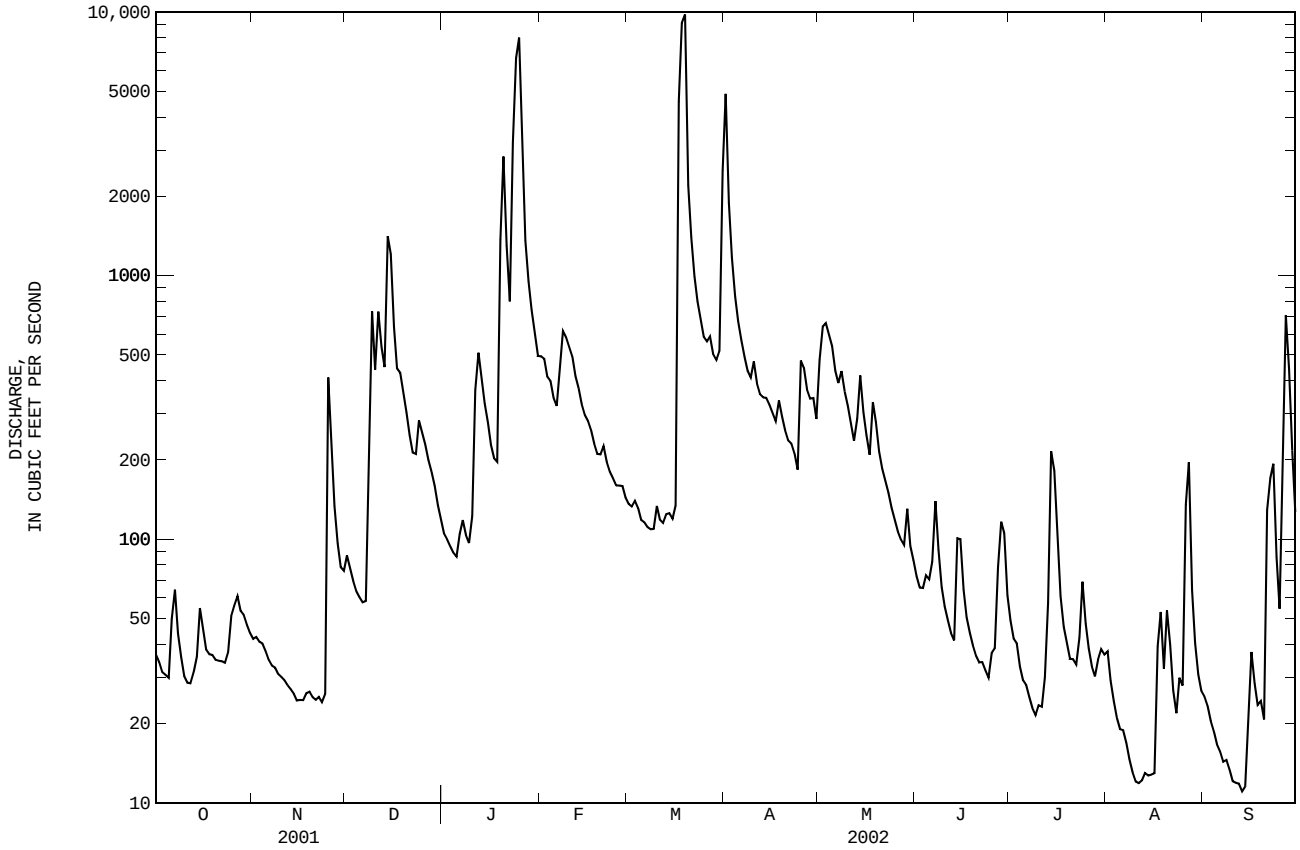
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2002, BY WATER YEAR (WY)

MEAN	164.3	421.5	613.1	904.3	894.7	1022	815.7	649.8	385.1	192.6	174.4	125.2
MAX	1472	1624	1824	2534	1418	3356	2193	2087	1923	659	557	707
(WY)	1990	1974	1973	1974	1990	1975	1998	1984	1989	1971	1985	1989
MIN	6.07	15.0	53.7	41.0	327	300	147	122	31.1	44.0	34.3	16.0
(WY)	2001	2001	1981	1981	2002	1988	1986	1985	1988	1970	1997	2000

03403910 CLEAR FORK AT SAXTON, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1968 - 2002	
ANNUAL TOTAL	104569		129434			
ANNUAL MEAN	286.5		354.6		529.2	
HIGHEST ANNUAL MEAN					894	1973
LOWEST ANNUAL MEAN					233	1988
HIGHEST DAILY MEAN	4790	Feb 17	9800	Mar 19	19400	May 28 1973
LOWEST DAILY MEAN	20	Jan 16	11	Sep 13	3.3	Aug 19 1988
ANNUAL SEVEN-DAY MINIMUM	21	Jan 11	12	Sep 8	4.5	Oct 11 2000
MAXIMUM PEAK FLOW			13100	Mar 19	22800	Apr 5 1977
MAXIMUM PEAK STAGE			31.04	Mar 19	41.51	Apr 5 1977
ANNUAL RUNOFF (CFSM)	0.87		1.07		1.60	
ANNUAL RUNOFF (INCHES)	11.75		14.55		21.72	
10 PERCENT EXCEEDS	683		592		1130	
50 PERCENT EXCEEDS	127		105		243	
90 PERCENT EXCEEDS	31		24		33	

e Estimated



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 mi^2.

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 with telemetry and crest-stage gages. Datum of gage is 891.52 ft above NGVD of 1929. See WDR KY-90-1 for history of changes prior to June 26, 1990.

REMARKS.--Records good except for those estimated, which are poor. Flow slightly regulated by Martins Fork Dam (station 03400798) beginning January 1979.

COOPERATION.--U.S. Army Corps of Engineers, Nashville District and Kentucky Natural Resources and Environmental Protection Cabinet.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 34,900 ft^3/s, Mar. 21, gage height, 29.96 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	269	220	475	e680	3080	890	16800	1600	613	359	264	205
2	246	209	519	e620	2940	841	16700	2050	564	300	241	154
3	232	192	529	e580	2630	826	12000	2580	519	259	209	138
4	219	183	434	e540	2370	850	6460	4300	502	268	176	124
5	209	178	382	e520	2190	875	4610	3960	529	247	154	112
6	259	173	355	e490	1980	809	3800	3040	567	282	146	104
7	310	169	347	e580	1960	765	3130	2520	690	260	135	95
8	362	167	468	693	2480	803	2660	2760	724	208	126	89
9	381	169	1520	664	3330	810	2410	2950	605	179	119	85
10	299	183	2720	636	3280	781	2590	2470	479	185	106	81
11	248	178	2900	961	3010	773	3330	2120	400	198	97	79
12	221	168	2530	2420	2720	748	2940	1750	352	206	92	75
13	213	169	2480	3570	2430	730	2590	1690	321	254	90	70
14	212	187	4320	2700	2180	749	2420	2140	312	525	89	67
15	224	198	6440	2010	1950	754	2330	2060	377	623	84	78
16	316	200	4680	1640	1760	733	2170	1680	375	572	95	85
17	439	199	2990	1450	1610	5870	1920	1440	343	438	116	111
18	343	192	2360	1310	1500	29000	1780	1860	297	342	148	112
19	288	164	2290	2090	1370	33200	1690	2250	277	270	171	117
20	262	149	2310	6990	1280	34600	1670	2160	259	244	197	122
21	247	143	2010	7520	1290	33400	1520	1680	240	238	246	388
22	233	141	1670	5120	1300	26300	1410	1410	214	250	255	609
23	227	140	1460	6690	1180	16800	1340	1260	195	317	207	864
24	219	146	1420	18800	1070	6830	1240	1200	185	353	157	1020
25	233	601	1540	25700	1010	4390	1500	1080	176	562	143	659
26	242	1140	1430	25100	965	3980	1900	966	180	532	268	783
27	260	1020	1290	20700	963	4270	1770	797	214	516	455	2200
28	278	714	e1150	14800	944	4210	1580	714	385	406	460	2500
29	257	544	e1000	5730	---	3720	1610	740	448	358	329	1700
30	237	496	e890	4100	---	3590	1580	834	403	307	302	1020
31	229	---	e790	3440	---	6640	---	699	---	284	243	---
TOTAL	8214	8732	55699	168844	54772	229537	109450	58760	11745	10342	5920	13846
MEAN	265.0	291.1	1797	5447	1956	7404	3648	1895	391.5	333.6	191.0	461.5
MAX	439	1140	6440	25700	3330	34600	16800	4300	724	623	460	2500
MIN	209	140	347	490	944	730	1240	699	176	179	84	67
CFSM	0.16	0.18	1.12	3.39	1.22	4.61	2.27	1.18	0.24	0.21	0.12	0.29
IN.	0.19	0.20	1.29	3.91	1.27	5.31	2.53	1.36	0.27	0.24	0.14	0.32

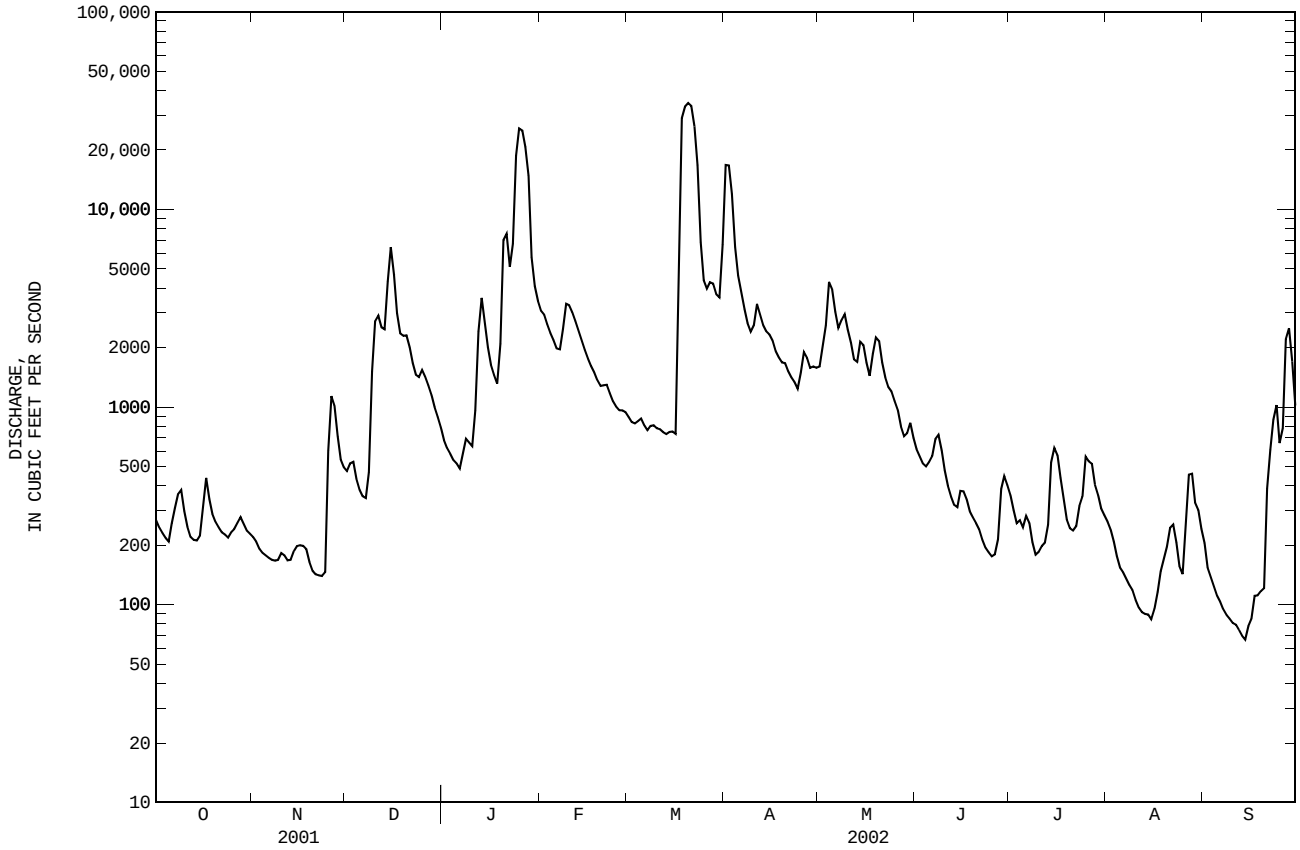
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2002, BY WATER YEAR (WY)

MEAN	605.5	1569	3124	4079	4837	5297	3909	3071	1745	765.2	692.5	587.1
MAX	4413	4923	9751	8015	12920	10400	11520	9572	8305	1684	1429	3280
(WY)	1990	1997	1992	1994	1994	1994	1998	1984	1989	1989	1985	1989
MIN	107	141	300	203	1803	1193	730	943	277	211	191	86.2
(WY)	1981	1999	1981	1981	1988	1988	1986	1986	1988	1988	2002	1999

03404000 CUMBERLAND RIVER AT WILLIAMSBURG, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1980 - 2002	
ANNUAL TOTAL	595622		735861			
ANNUAL MEAN	1632		2016		2512	
HIGHEST ANNUAL MEAN					4390	1994
LOWEST ANNUAL MEAN					1159	1988
HIGHEST DAILY MEAN	20700	Feb 18	34600	Mar 20	38500	Feb 13 1994
LOWEST DAILY MEAN	140	Nov 23	67	Sep 14	62	Oct 18 1980
ANNUAL SEVEN-DAY MINIMUM	154	Nov 18	76	Sep 9	63	Oct 17 1980
MAXIMUM PEAK FLOW			34900	Mar 21	49700	Jan 31 1957
MAXIMUM PEAK STAGE			29.96	Mar 21	35.03	Apr 7 1977
INSTANTANEOUS LOW FLOW					6.1	Oct 23 1953
ANNUAL RUNOFF (CFSM)	1.02		1.25		1.56	
ANNUAL RUNOFF (INCHES)	13.79		17.03		21.24	
10 PERCENT EXCEEDS	3800		3640		5770	
50 PERCENT EXCEEDS	810		620		1180	
90 PERCENT EXCEEDS	225		149		188	

e Estimated



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 mi^2.

PERIOD OF RECORD.--Annual maximums, water years 1957-73, October 1973 to current year.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 1,049.00 ft above NGVD of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Records good except for discharges below 2.0 ft^3/s, which are fair and for those estimated, which are poor.

COOPERATION.--U.S. Army Corps of Engineers, Nashville District.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 24	2330	1,600	7.55	Mar 18	0900	*3,660	*10.72

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.81	0.77	12	e13	123	24	742	48	8.1	3.1	10	4.6
2	0.69	0.84	7.9	e12	100	27	244	50	7.7	2.4	5.9	3.7
3	0.75	0.95	6.0	e11	77	34	149	89	6.4	2.3	3.9	3.1
4	0.84	1.0	5.4	e10	70	27	106	82	6.4	2.4	3.2	2.8
5	1.1	0.92	5.6	e9.5	54	23	83	84	9.8	2.7	3.1	2.3
6	13	0.95	5.0	12	51	23	67	51	84	2.0	1.8	1.7
7	4.7	0.95	4.5	16	135	23	55	41	53	1.4	1.3	1.4
8	2.6	0.91	61	13	142	22	48	37	19	0.84	1.1	1.2
9	1.6	0.68	106	14	101	23	47	44	14	1.9	1.1	1.0
10	0.88	0.87	47	34	90	28	41	42	11	1.1	2.6	0.92
11	0.54	0.77	99	157	93	23	33	23	9.0	2.8	3.2	0.96
12	0.93	0.60	52	96	73	24	29	18	7.9	2.2	3.3	1.8
13	1.5	0.47	684	64	61	50	47	68	9.0	20	1.5	1.3
14	4.4	0.55	478	47	52	39	52	63	10	13	0.72	1.9
15	3.2	0.52	158	36	48	34	69	30	9.1	4.6	1.9	5.2
16	1.8	0.46	79	30	46	49	41	21	7.9	2.9	21	6.0
17	1.4	0.47	69	26	40	772	34	25	7.2	4.7	73	3.0
18	1.1	0.47	78	27	33	2810	31	282	6.9	13	22	2.4
19	0.99	0.54	51	132	31	626	29	91	6.7	5.2	17	2.1
20	0.93	1.2	38	219	36	483	25	55	6.4	3.6	15	2.2
21	0.77	1.4	31	158	40	400	24	40	5.7	5.3	4.4	144
22	0.74	1.3	25	119	32	190	27	33	6.1	25	4.6	350
23	0.65	1.4	66	1030	29	131	18	27	7.6	159	3.8	242
24	0.67	6.5	81	1210	27	99	16	23	12	368	2.7	44
25	8.3	193	50	980	25	80	94	19	10	61	1.9	25
26	12	33	38	268	33	269	34	18	21	45	255	425
27	2.4	14	32	162	32	272	25	18	28	18	219	626
28	1.4	10	27	113	26	151	25	15	35	20	39	177
29	1.2	8.2	22	87	---	113	26	13	10	32	17	81
30	0.83	12	18	74	---	193	18	11	3.8	32	9.2	50
31	0.76	---	e15	69	---	655	---	9.4	---	36	6.2	---
TOTAL	73.48	295.69	2451.4	5248.5	1700	7717	2279	1470.4	438.7	893.44	755.42	2213.58
MEAN	2.370	9.856	79.08	169.3	60.71	248.9	75.97	47.43	14.62	28.82	24.37	73.79
MAX	13	193	684	1210	142	2810	742	282	84	368	255	626
MIN	0.54	0.46	4.5	9.5	25	22	16	9.4	3.8	0.84	0.72	0.92
CFSM	0.04	0.18	1.47	3.15	1.13	4.63	1.41	0.88	0.27	0.54	0.45	1.37
IN.	0.05	0.20	1.70	3.63	1.18	5.34	1.58	1.02	0.30	0.62	0.52	1.53

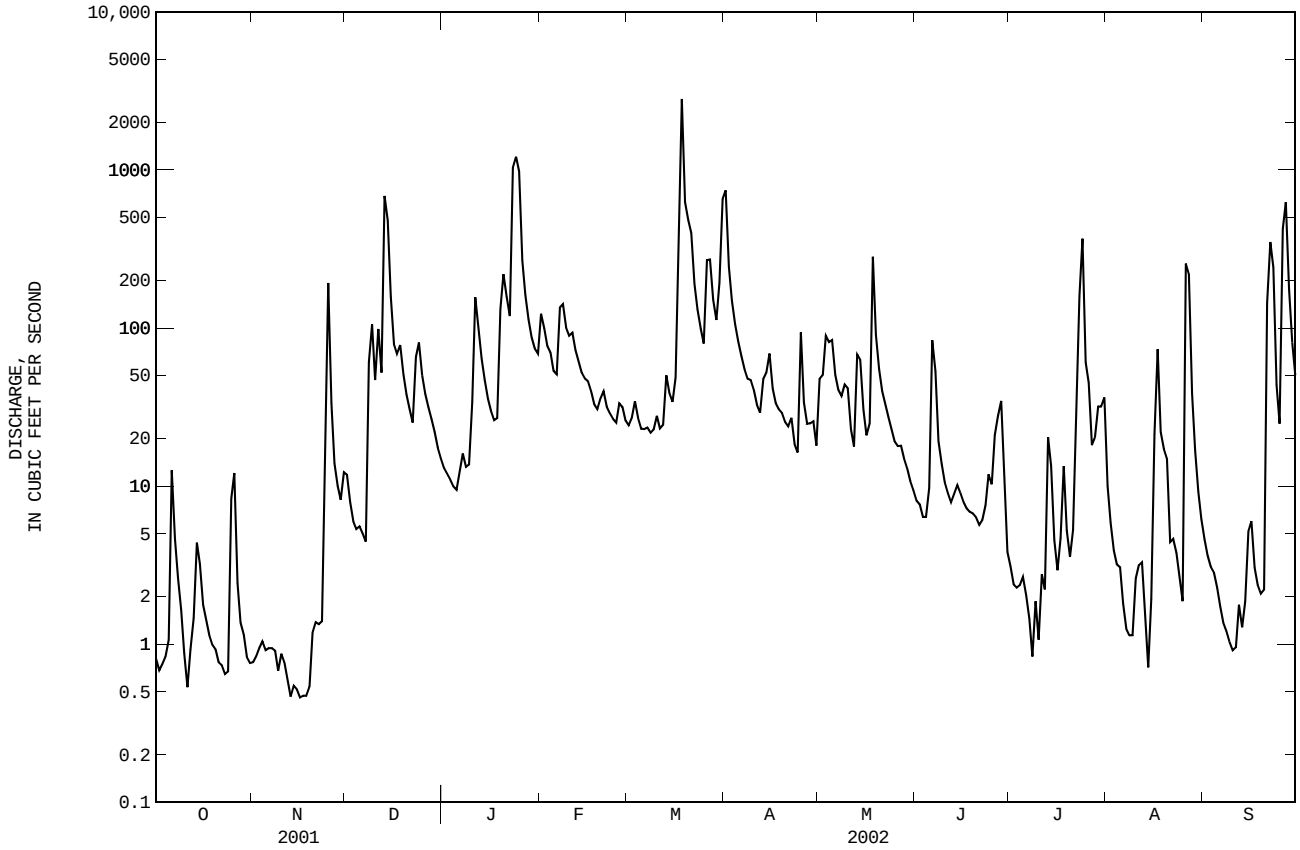
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2002, BY WATER YEAR (WY)

MEAN	27.94	78.24	112.4	152.0	149.9	161.0	110.3	89.40	54.24	37.15	26.32	27.93
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	2.39	2.11	2.50	0.32
(WY)	1981	1999	1981	1981	1977	1988	1986	1986	1988	1975	1976	1999

03404900 LYNN CAMP CREEK AT CORBIN, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1974 - 2002	
ANNUAL TOTAL	18527.18		25536.61			
ANNUAL MEAN	50.76		69.96		85.27	
HIGHEST ANNUAL MEAN					141	1994
LOWEST ANNUAL MEAN					36.5	1988
HIGHEST DAILY MEAN	1060	Feb 17	2810	Mar 18	4530	Apr 17 1998
LOWEST DAILY MEAN	0.46	Nov 16	0.46	Nov 16	0.02	Jun 24 1988
ANNUAL SEVEN-DAY MINIMUM	0.50	Nov 13	0.50	Nov 13	0.02	Jun 24 1988
MAXIMUM PEAK FLOW			3660	Mar 18	9000	Jan 29 1957
MAXIMUM PEAK STAGE			10.72	Mar 18	22.50	Jan 29 1957
INSTANTANEOUS LOW FLOW					0.02	Jun 24 1988
ANNUAL RUNOFF (CFSM)	0.94		1.30		1.58	
ANNUAL RUNOFF (INCHES)	12.81		17.66		21.54	
10 PERCENT EXCEEDS	114		146		190	
50 PERCENT EXCEEDS	15		21		35	
90 PERCENT EXCEEDS	1.00		0.98		3.0	

e Estimated



03406500 ROCKCASTLE RIVER AT BILLOWS, KY

LOCATION.--Lat 37°10'16", long 84°17'46", Laurel County, Hydrologic Unit 05130102, on left bank 200 ft upstream from bridge on State Highway 80 at Billows, 0.9 mi upstream from Pine Creek, 1.1 mi downstream from Hawk Creek, 13 mi west London, and at mile 24.4.

DRAINAGE AREA.--604 mi^2.

PERIOD OF RECORD.--July 1936 to current year.

REVISED RECORDS.--WSP 1436: Drainage area.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 802.90 ft above NGVD of 1929. Prior to Nov. 19, 1940, nonrecording gage at same site and datum.

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

COOPERATION.--U.S. Army Corps of Engineers, Nashville District and Kentucky Natural Resources and Environmental Protection Cabinet.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 25	0400	12,600	21.19	May 3	0830	*17,600	*25.75
Mar 18	1730	13,600	22.19	May 18	2000	12,100	20.72
Mar 21	0500	16,100	24.45				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	35	350	199	989	269	10400	1710	195	113	73	32
2	13	31	243	e170	1270	262	4030	7650	172	98	94	29
3	13	31	183	e155	1120	286	2390	15700	446	165	64	25
4	12	28	136	e140	990	323	1660	5210	545	138	48	22
5	11	26	107	e135	818	294	1270	2650	300	111	39	20
6	21	25	92	140	687	280	1020	1820	317	89	32	17
7	22	24	95	153	669	277	842	3440	616	72	27	15
8	20	24	130	158	677	273	727	5780	479	58	24	14
9	22	24	323	148	693	271	667	2980	322	49	21	14
10	21	23	475	150	768	287	677	2200	245	42	19	13
11	20	23	374	247	863	302	577	1550	198	52	18	12
12	24	22	404	576	882	289	517	1180	170	55	16	11
13	30	21	564	602	825	298	486	1710	197	103	15	11
14	42	21	1260	515	722	307	527	4050	289	587	14	12
15	87	20	1300	444	637	302	1130	2270	369	418	13	19
16	100	20	775	379	581	572	1140	1550	274	233	15	20
17	92	20	552	327	520	2120	937	1130	212	156	35	19
18	71	20	596	304	453	11100	1100	7440	177	122	35	22
19	51	20	708	303	400	8190	1100	6340	151	133	28	23
20	42	22	575	332	385	10200	838	2350	128	115	49	24
21	36	22	447	389	400	12700	706	1570	107	90	59	34
22	27	23	360	570	395	3920	850	1150	91	81	45	40
23	23	24	341	3760	347	2270	1170	886	78	e90	39	69
24	23	25	513	9520	318	1640	870	701	69	e130	30	66
25	36	63	634	9910	299	1270	2200	562	62	e145	26	47
26	46	130	509	3570	295	1630	2400	452	62	130	25	61
27	92	166	432	2050	304	4170	1620	376	70	123	28	488
28	53	113	372	1430	298	2510	2540	326	79	114	41	874
29	51	94	321	1110	---	1830	4590	290	172	77	35	417
30	48	159	275	924	---	2420	2350	253	160	64	33	234
31	41	---	233	956	---	3860	---	223	---	73	39	---
TOTAL	1204	1299	13679	39766	17605	74722	51331	85499	6752	4026	1079	2704
MEAN	38.84	43.30	441.3	1283	628.8	2410	1711	2758	225.1	129.9	34.81	90.13
MAX	100	166	1300	9910	1270	12700	10400	15700	616	587	94	874
MIN	11	20	92	135	295	262	486	223	62	42	13	11
CFSM	0.06	0.07	0.73	2.12	1.04	3.99	2.83	4.57	0.37	0.22	0.06	0.15
IN.	0.07	0.08	0.84	2.45	1.08	4.60	3.16	5.27	0.42	0.25	0.07	0.17

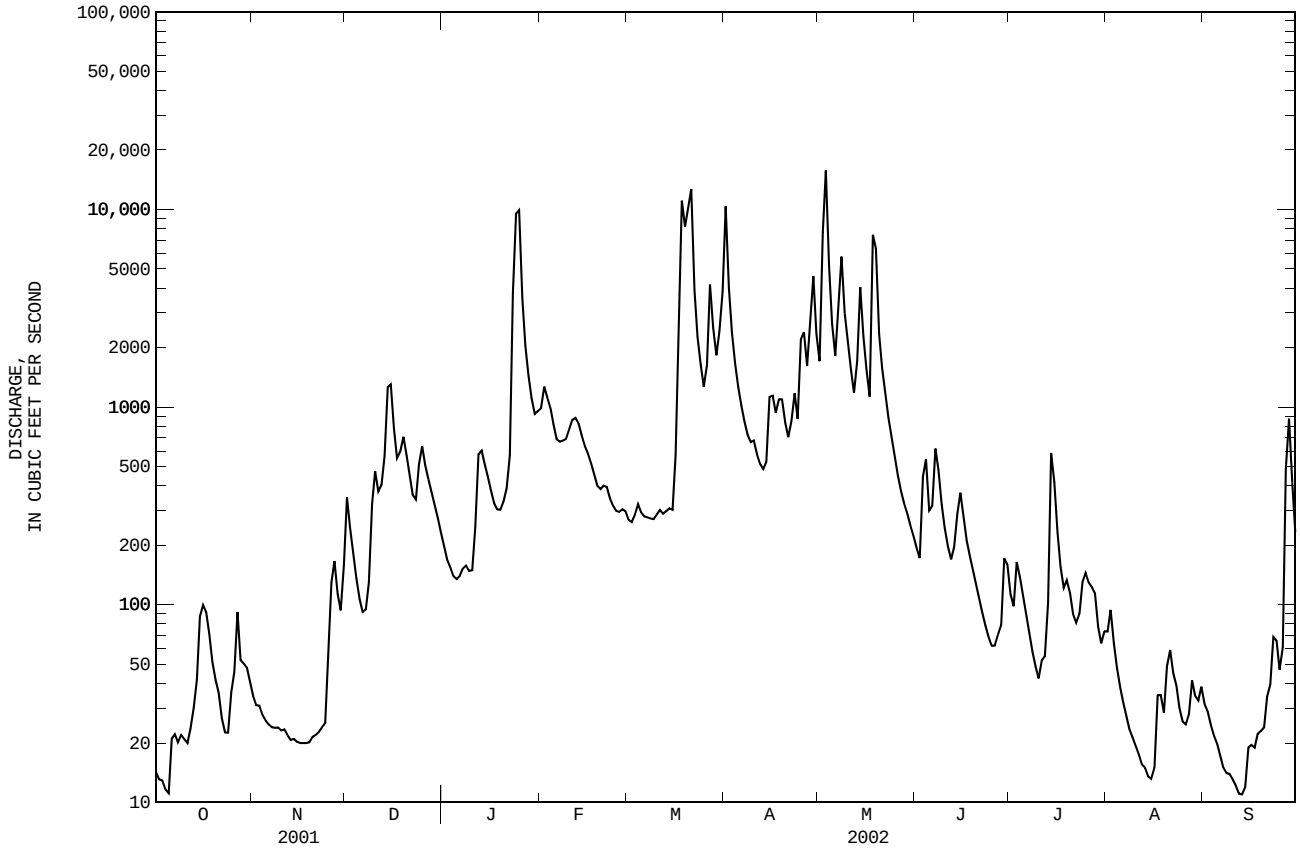
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 2002, BY WATER YEAR (WY)

MEAN	190.6	548.7	1224	1671	1882	1992	1464	977.9	562.7	351.8	197.9	148.6
MAX	2887	2374	5279	5990	5236	5860	4051	4207	2862	1830	1263	1052
(WY)	1990	1987	1991	1937	1956	1975	1972	1983	1947	1941	1977	1974
MIN	3.18	11.5	16.5	56.9	208	507	188	115	37.9	10.8	10.1	4.95
(WY)	1954	1954	1954	1981	1941	1983	1986	1941	1988	1944	1957	1936

03406500 ROCKCASTLE RIVER AT BILLOWS, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1936 - 2002	
ANNUAL TOTAL	190796		299666			
ANNUAL MEAN	522.7		821.0		930.3	
HIGHEST ANNUAL MEAN					1575	1979
LOWEST ANNUAL MEAN					345	1954
HIGHEST DAILY MEAN	12000	Feb 17	15700	May 3	46200	Dec 9 1978
LOWEST DAILY MEAN	11	Oct 5	11	Oct 5	0.90	Sep 9 1957
ANNUAL SEVEN-DAY MINIMUM	14	Sep 29	12	Sep 8	1.4	Sep 11 1964
MAXIMUM PEAK FLOW			17600	May 3	50000	Dec 9 1978
MAXIMUM PEAK STAGE			25.75	May 3	47.17	Dec 9 1978
INSTANTANEOUS LOW FLOW					0.80	Sep 9 1957
ANNUAL RUNOFF (CFSM)	0.87		1.36		1.54	
ANNUAL RUNOFF (INCHES)	11.75		18.46		20.93	
10 PERCENT EXCEEDS	1250		2080		2120	
50 PERCENT EXCEEDS	167		233		322	
90 PERCENT EXCEEDS	23		21		24	

e Estimated



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 mi^2.

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--September 1942 to current year.

REVISED RECORDS.--WSP 1113: 1946(M). WSP 1436: Drainage area.

GAGE--Water-stage recorder with telemetry. Datum of gage is 763.83 ft above NGVD of 1929; prior to Oct. 1, 1980 at site 1,000 ft upstream at datum 0.98 ft higher.

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

COOPERATION.--Kentucky Natural Resources and Environmental Protection Cabinet, National Park Service, and U.S. Army Corps of Engineers, Nashville District.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1929 reached a stage of 52.9 ft from information by local residents.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 22,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 24	1300	44,900	30.57	Apr 1	0800	22,200	20.91
Mar 18	1700	*53,700	*33.65				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	82	473	e510	1640	625	17200	1570	323	236	126	88
2	83	76	655	e450	1980	611	7350	4430	282	173	119	72
3	74	73	512	e410	1830	651	4420	3780	250	145	112	58
4	67	72	418	e380	1710	660	3090	3470	226	123	103	51
5	62	68	353	e350	1520	618	2390	2940	338	107	82	45
6	129	65	311	e320	1320	578	1950	2360	621	89	68	39
7	163	61	291	432	1520	552	1630	1930	1800	76	56	34
8	124	61	529	422	2580	536	1430	2470	1000	66	47	31
9	94	60	1840	395	2820	529	1290	2560	615	64	41	28
10	82	59	1730	406	2510	568	1260	1780	416	75	36	26
11	95	57	1610	695	2220	631	1190	1490	314	72	33	24
12	87	56	1990	1480	1880	615	1030	1300	253	74	30	21
13	81	55	1600	1420	1630	715	951	1320	216	188	28	20
14	79	55	3390	1190	1400	838	e915	3080	209	299	25	20
15	85	54	5640	1010	1240	853	e900	2450	211	743	23	24
16	86	53	2810	864	1130	888	e930	1800	266	521	31	28
17	88	52	1860	754	1040	18000	e865	1300	219	303	89	28
18	125	53	1670	708	925	50800	799	1700	183	209	77	41
19	117	54	1790	2180	827	21600	860	1760	160	159	74	35
20	99	54	1480	10900	809	7700	797	1300	144	131	95	27
21	89	54	1160	5420	911	6230	731	1030	128	132	83	262
22	81	54	937	3220	941	4240	685	866	115	116	68	398
23	75	53	892	8510	817	3100	627	743	101	155	58	307
24	71	59	1610	40500	758	2480	589	637	93	293	60	373
25	85	777	1970	33100	720	2040	1260	550	94	269	56	249
26	96	1850	1530	10200	712	2150	3080	482	113	324	72	303
27	92	873	1230	5170	720	3420	2050	444	153	279	68	1090
28	80	562	1020	3480	684	2820	1660	560	207	190	128	1700
29	72	435	876	2630	---	2290	1450	491	249	161	186	1030
30	89	411	744	2110	---	2140	1250	491	245	136	146	582
31	93	---	618	1750	---	6000	---	385	---	114	107	---
TOTAL	2837	6348	43539	141366	38794	145478	64629	51469	9544	6022	2327	7034
MEAN	91.52	211.6	1404	4560	1386	4693	2154	1660	318.1	194.3	75.06	234.5
MAX	163	1850	5640	40500	2820	50800	17200	4430	1800	743	186	1700
MIN	62	52	291	320	684	529	589	385	93	64	23	20
CFSM	0.10	0.22	1.47	4.78	1.45	4.92	2.26	1.74	0.33	0.20	0.08	0.25
IN.	0.11	0.25	1.70	5.51	1.51	5.67	2.52	2.01	0.37	0.23	0.09	0.27

*

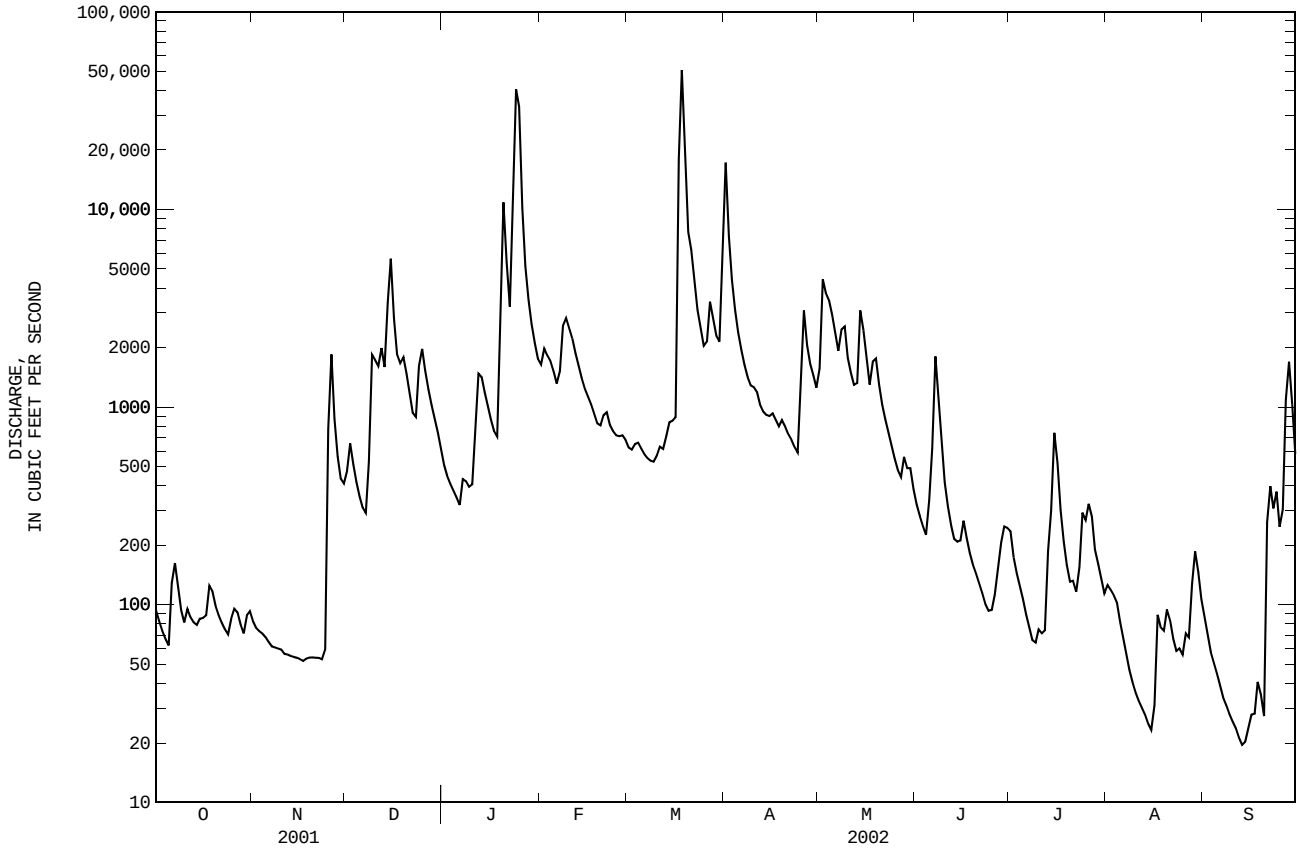
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2002, BY WATER YEAR (WY)

MEAN	374.7	1201	2558	3328	3472	3649	2544	1717	969.5	603.1	402.4	343.2
MAX	2553	4556	7388	9615	8747	10580	6038	6555	5152	3772	2997	2983
(WY)	1990	1958	1991	1950	1956	1975	1977	1984	1989	1967	1971	1982
MIN	20.8	30.6	150	145	725	1248	568	224	72.8	34.5	65.4	29.6
(WY)	1954	1954	1964	1981	1968	1985	1986	1948	1988	1944	1951	1953

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1943 - 2002	
ANNUAL TOTAL	370092		519387			
ANNUAL MEAN	1014		1423		1756	
HIGHEST ANNUAL MEAN					3023	1973
LOWEST ANNUAL MEAN					810	1988
HIGHEST DAILY MEAN	30200	Feb 17	50800	Mar 18	80200	Mar 13 1975
LOWEST DAILY MEAN	51	Sep 18	20	Sep 13	11	Sep 18 1954
ANNUAL SEVEN-DAY MINIMUM	53	Nov 15	23	Sep 9	12	Sep 13 1954
MAXIMUM PEAK FLOW			53700	Mar 18	93200	May 28 1973
MAXIMUM PEAK STAGE			33.65	Mar 18	46.29	May 28 1973
INSTANTANEOUS LOW FLOW					11	Oct 4 1948
ANNUAL RUNOFF (CFSM)	1.06		1.49		1.84	
ANNUAL RUNOFF (INCHES)	14.43		20.25		25.01	
10 PERCENT EXCEEDS	2030		2530		4010	
50 PERCENT EXCEEDS	315		444		700	
90 PERCENT EXCEEDS	76		55		80	

e Estimated



03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-72, 1979 to 1990; July 1999 to Aug. 2000. Oct. 10, 2001 to Sept. 30, 2002.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE.--May 1980 to Sept. 1990, July 1999 to Aug. 22, 2000, Oct. 10, 2001 to Sept. 30, 2002.
pH.--May 1980 to Sept. 1990, July 1999 to Aug. 22, 2000, Oct. 10, 2001 to Sept. 30, 2002.
WATER TEMPERATURES.--May 1980 to Sept. 1990, July 1999 to Aug. 22, 2000. Oct. 10, 2001 to Sept. 30, 2002.
DISSOLVED OXYGEN.--May 1980 to Sept. 1990, Oct. 10, 2001 to Sept. 30, 2002.
TURBIDITY.--May 1980 to Sept. 1987 (discontinued).
SUSPENDED SEDIMENT DISCHARGE.--May 1980 to Sept. 1990 (discontinued).

INSTRUMENTATION.--Five parameter water-quality monitor and sediment pumping sampler May 1980 to Sept. 1990. Three parameter water-quality monitor from July 1999 to Aug. 22, 2000. Four parameter water-quality monitor since Oct. 10, 2001.
REMARKS.--Miscellaneous samples prior to 1979. Miscellaneous measurements 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 TEMPERATURES.--Maximum recorded, 34.6°C, Aug. 31, Sept. 1, 1989; minimum recorded, 0.0 mg/L, Jan. 29, 2002.
SEDIMENT CONCENTRATIONS.--Maximum daily mean, 1980 mg/L, Aug. 9,1981; minimum daily mean, 0.0 mg/L, on several days in 1983-84, 1987-88.
SEDIMENT LOADS.--Maximum daily, 200,000 tons, Sept. 2, 1982; minimum daily, 0.04 tons, Nov. 25, 1987.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 261 microsiemens, July 21; minimum recorded 51 microsiemens, Mar. 17, 18.
pH: Maximum recorded 8.0 units, July 22; minimum recorded, 6.9 units, Mar. 17, 18.
WATER TEMPERATURES: Maximum recorded, 31.6°C, Aug. 5; minimum recorded, 0.0°C, Jan. 2-9.
DISSOLVED OXYGEN: Maximum recorded, 14.4, Jan. 11, 12; minimum recorded, 5.5, Sept. 18, 19.

SPECIFIC CONDUCTANCE FROM THE DCP, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	171	167	169	203	200	201	111	111	111
2	---	---	---	168	166	167	201	193	197	113	111	112
3	---	---	---	167	166	167	194	180	189	115	113	114
4	---	---	---	168	167	167	180	171	174	117	115	116
5	---	---	---	171	168	169	179	172	176	119	117	118
6	---	---	---	176	171	174	178	170	175	120	118	119
7	---	---	---	183	176	179	171	164	167	118	115	116
8	---	---	---	190	182	186	165	147	161	120	115	117
9	---	---	---	196	190	194	148	129	135	125	120	122
10	220	217	219	199	195	197	133	101	113	125	125	125
11	217	211	212	200	198	199	126	120	124	126	124	125
12	---	---	---	200	199	200	146	117	127	128	121	124
13	---	---	---	200	197	198	149	133	143	129	128	128
14	---	---	---	197	193	195	133	109	119	128	118	122
15	---	---	---	194	189	192	132	107	120	118	115	116
16	---	---	---	190	185	188	106	100	101	115	113	115
17	---	---	---	186	182	184	101	100	101	113	112	112
18	194	190	193	183	181	182	104	101	102	112	111	111
19	190	185	187	181	178	180	116	103	108	111	94	106
20	185	179	182	180	177	178	127	116	122	106	82	94
21	180	174	177	178	176	177	134	127	132	81	79	79
22	174	168	171	178	175	176	134	130	133	82	80	81
23	168	162	165	177	175	176	130	123	127	82	64	73
24	162	156	160	176	167	174	123	115	119	83	54	64
25	158	156	158	195	131	158	120	112	115	63	55	61
26	160	158	159	164	134	150	123	120	121	72	63	68
27	164	159	161	211	150	182	124	120	123	81	72	77
28	171	164	167	212	198	206	120	112	115	87	81	84
29	176	171	174	198	194	195	112	110	111	94	87	90
30	176	173	175	200	194	197	110	109	109	99	94	97
31	173	171	172	---	---	---	111	109	110	102	99	100
MONTH	220	156	177	212	131	182	203	100	135	129	54	103

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--Continued

SPECIFIC CONDUCTANCE FROM THE DCP, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	103	102	103	134	130	132	81	68	74	98	90	95
2	111	104	107	131	130	130	73	69	70	102	89	96
3	120	111	117	131	127	129	79	73	76	107	98	105
4	121	117	119	127	124	126	82	79	80	110	98	107
5	121	119	121	126	124	125	86	82	84	106	95	100
6	118	112	115	126	125	125	90	86	88	95	92	93
7	112	107	109	127	125	126	94	90	92	93	92	93
8	117	106	110	129	127	128	97	94	95	97	93	94
9	117	112	115	128	126	127	100	97	98	96	67	77
10	112	103	108	126	125	125	105	100	102	80	69	75
11	103	97	100	130	126	127	112	105	107	85	80	83
12	98	97	97	134	130	132	120	112	117	89	85	87
13	98	97	98	140	133	135	120	119	119	91	88	90
14	101	98	99	145	140	143	119	118	119	91	84	86
15	103	101	102	145	141	143	123	119	122	88	83	85
16	105	103	104	141	138	140	123	119	122	89	88	88
17	107	105	106	142	51	96	120	118	119	93	90	92
18	110	107	109	60	51	55	120	118	119	90	81	83
19	111	110	111	68	60	64	121	119	120	87	82	85
20	114	111	112	73	68	71	125	121	123	89	87	89
21	114	112	113	75	72	74	130	125	127	89	88	89
22	117	114	116	82	75	79	130	129	129	89	88	89
23	121	116	118	85	82	83	131	129	129	92	89	91
24	123	121	122	89	85	87	133	131	132	96	92	94
25	126	123	124	93	89	91	133	114	129	99	96	98
26	128	124	125	95	92	94	117	95	105	103	99	101
27	129	127	128	93	83	89	102	99	101	104	102	103
28	134	128	131	85	80	83	107	103	106	109	104	106
29	---	---	---	91	85	88	106	104	105	115	109	112
30	---	---	---	93	91	92	104	98	101	120	115	118
31	---	---	---	92	62	80	---	---	---	121	118	120
MONTH	134	97	112	145	51	107	133	68	107	121	67	94

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	118	113	114	113	108	110	129	126	127	96	95	95
2	123	115	118	114	113	113	135	129	132	100	96	98
3	130	123	126	114	114	114	136	134	135	103	100	102
4	147	130	135	115	113	114	134	128	131	105	103	104
5	176	147	164	118	115	117	128	122	125	107	105	106
6	163	150	156	121	119	120	121	117	119	108	106	107
7	151	85	125	124	121	122	117	113	115	108	106	107
8	85	69	73	125	124	124	113	110	111	108	105	107
9	71	68	69	127	125	126	110	108	109	109	106	107
10	80	71	76	127	125	126	108	107	107	109	107	108
11	87	80	83	132	127	130	107	106	106	109	107	107
12	91	87	89	132	129	131	106	105	105	108	107	107
13	94	91	93	138	125	129	106	105	105	107	106	107
14	99	94	97	141	134	138	107	105	106	107	104	106
15	103	99	101	140	137	138	106	105	105	106	103	105
16	106	103	104	149	137	141	106	104	105	104	103	103
17	107	106	106	186	149	165	104	103	104	103	97	102
18	107	102	107	220	186	204	104	103	103	100	99	99
19	107	107	107	244	220	233	104	102	103	99	95	97
20	107	107	107	257	244	251	102	100	101	97	92	96
21	108	107	107	261	257	260	100	100	100	225	90	138
22	108	107	107	260	253	257	101	100	101	101	87	94
23	108	108	108	253	218	244	101	100	101	95	90	93
24	110	108	109	218	156	172	100	99	99	90	88	89
25	111	110	111	173	157	168	99	98	98	92	88	89
26	112	109	111	176	168	172	99	97	98	135	93	108
27	112	106	108	175	165	168	102	99	101	167	131	141
28	109	105	106	166	165	166	112	102	107	209	153	179
29	107	105	106	165	155	161	108	107	108	248	184	233
30	108	107	107	155	137	146	108	98	103	243	212	225
31	---	---	---	137	128	132	98	95	96	---	---	---
MONTH	176	68	108	261	108	158	136	95	109	248	87	115

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--Continued

PH, WH, FIELD FROM THE DCP, in (STANDARD UNITS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	7.7	7.6	7.8	7.7	7.6	7.6	7.5	7.5	7.7	7.6
2	---	---	7.7	7.6	7.8	7.7	7.7	7.6	7.6	7.5	7.6	7.6
3	---	---	7.7	7.6	7.8	7.7	7.7	7.6	7.6	7.5	7.6	7.6
4	---	---	7.7	7.6	7.8	7.7	7.6	7.6	7.6	7.5	7.6	7.6
5	---	---	7.7	7.6	7.8	7.7	7.7	7.6	7.6	7.5	7.6	7.6
6	---	---	7.7	7.6	7.9	7.8	7.7	7.6	7.5	7.5	7.6	7.6
7	---	---	7.7	7.6	7.9	7.8	7.7	7.6	7.5	7.4	7.6	7.6
8	---	---	7.7	7.6	7.8	7.7	7.7	7.6	7.5	7.4	7.6	7.5
9	---	---	7.8	7.7	7.7	7.7	7.8	7.6	7.5	7.5	7.7	7.6
10	7.9	7.9	7.8	7.8	7.7	7.6	7.8	7.7	7.5	7.5	7.7	7.6
11	7.9	7.8	7.9	7.8	7.7	7.7	7.8	7.6	7.5	7.5	7.7	7.6
12	---	---	7.9	7.8	7.8	7.6	7.7	7.6	7.5	7.5	7.7	7.6
13	---	---	7.9	7.8	7.8	7.7	7.7	7.6	7.5	7.5	7.6	7.5
14	---	---	7.9	7.8	7.7	7.6	7.6	7.6	7.5	7.5	7.7	7.6
15	---	---	7.9	7.8	7.7	7.6	7.7	7.5	7.5	7.5	7.7	7.6
16	---	---	7.9	7.8	7.6	7.6	7.7	7.5	7.6	7.5	7.7	7.6
17	---	---	7.9	7.8	7.6	7.6	7.9	7.6	7.6	7.5	7.6	6.9
18	7.8	7.7	7.9	7.8	7.7	7.6	7.9	7.6	7.6	7.5	7.1	6.9
19	7.8	7.7	7.9	7.8	7.8	7.7	7.7	7.5	7.6	7.6	7.2	7.0
20	7.8	7.7	7.9	7.8	7.8	7.7	7.5	7.3	7.6	7.6	7.2	7.1
21	7.7	7.6	7.9	7.8	7.8	7.8	7.3	7.3	7.7	7.6	7.2	7.1
22	7.7	7.6	7.9	7.8	7.8	7.7	7.4	7.3	7.7	7.6	7.2	7.2
23	7.7	7.6	7.9	7.9	7.7	7.7	7.4	7.2	7.7	7.6	7.3	7.2
24	7.7	7.5	7.9	7.9	7.7	7.6	7.2	7.1	7.7	7.6	7.3	7.2
25	7.6	7.5	7.9	7.5	7.7	7.6	7.2	7.1	7.7	7.6	7.3	7.3
26	7.6	7.5	7.8	7.7	7.7	7.6	7.2	7.2	7.6	7.6	7.3	7.3
27	7.6	7.5	7.8	7.8	7.7	7.7	7.3	7.2	7.7	7.6	7.4	7.3
28	7.6	7.6	7.8	7.8	7.7	7.6	7.3	7.3	7.7	7.6	7.3	7.2
29	7.6	7.6	7.8	7.8	7.7	7.6	7.4	7.3	---	---	7.3	7.2
30	7.7	7.6	7.8	7.7	7.6	7.6	7.4	7.4	---	---	7.3	7.3
31	7.6	7.6	---	---	7.7	7.5	7.5	7.4	---	---	7.3	7.0
MONTH	7.9	7.5	7.9	7.5	7.9	7.5	7.9	7.1	7.7	7.4	7.7	6.9

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.2	7.1	7.5	7.4	7.7	7.5	7.6	7.4	7.4	7.1	7.5	7.1
2	7.1	7.1	7.4	7.4	7.8	7.5	7.6	7.4	7.5	7.1	7.5	7.1
3	7.2	7.1	7.5	7.4	7.9	7.6	7.6	7.4	7.5	7.2	7.4	7.0
4	7.3	7.2	7.5	7.4	7.8	7.2	7.7	7.4	7.6	7.1	7.5	7.1
5	7.2	7.1	7.5	7.3	7.7	7.2	7.8	7.4	7.6	7.1	7.4	7.0
6	7.3	7.2	7.4	7.3	7.6	7.4	7.8	7.4	7.6	7.1	7.3	7.0
7	7.3	7.2	7.4	7.3	7.5	7.3	7.7	7.3	7.7	7.2	7.3	7.0
8	7.3	7.2	7.5	7.3	7.3	7.2	7.8	7.3	7.7	7.2	7.4	7.0
9	7.3	7.3	7.4	7.2	7.3	7.2	7.8	7.4	7.7	7.2	7.4	7.0
10	7.4	7.3	7.3	7.2	7.5	7.2	7.6	7.4	7.7	7.3	7.5	7.0
11	7.4	7.3	7.5	7.3	7.8	7.3	7.6	7.3	7.7	7.3	7.4	7.1
12	7.4	7.3	7.5	7.3	7.9	7.4	7.6	7.4	7.7	7.3	7.5	7.1
13	7.4	7.3	7.4	7.3	7.6	7.4	7.5	7.3	7.7	7.2	7.8	7.4
14	7.4	7.3	7.4	7.3	7.6	7.3	7.5	7.3	7.6	7.2	7.8	7.5
15	7.4	7.3	7.5	7.3	7.6	7.3	7.6	7.3	7.5	7.2	7.7	7.4
16	7.5	7.3	7.5	7.4	7.6	7.4	7.7	7.4	7.5	7.2	7.7	7.3
17	7.5	7.3	7.5	7.4	7.6	7.4	7.8	7.6	7.4	7.2	7.6	7.3
18	7.5	7.3	7.4	7.3	7.7	7.4	7.9	7.6	7.5	7.2	7.6	7.3
19	7.6	7.3	7.6	7.4	7.7	7.4	7.9	7.6	7.5	7.3	7.6	7.2
20	7.6	7.4	7.5	7.5	7.8	7.4	7.8	7.6	7.8	7.3	7.6	7.2
21	7.7	7.4	7.6	7.5	7.8	7.4	7.9	7.6	7.9	7.5	7.5	7.1
22	7.7	7.4	7.6	7.5	7.9	7.4	8.0	7.7	7.7	7.4	7.2	7.2
23	7.8	7.5	7.7	7.5	7.7	7.4	7.9	7.7	7.8	7.4	7.4	7.2
24	7.7	7.5	7.8	7.5	7.7	7.4	7.6	7.3	7.8	7.4	7.4	7.3
25	7.6	7.4	7.8	7.6	7.6	7.3	7.5	7.3	7.7	7.3	7.3	7.2
26	7.4	7.4	7.8	7.6	7.5	7.3	7.5	7.3	7.6	7.3	7.3	7.2
27	7.4	7.3	7.8	7.6	7.5	7.3	7.6	7.3	7.6	7.3	7.4	7.3
28	7.5	7.4	7.7	7.5	7.5	7.3	7.6	7.3	7.5	7.2	7.5	7.4
29	7.6	7.4	7.7	7.5	7.5	7.3	7.6	7.3	7.5	7.2	7.7	7.5
30	7.6	7.4	7.7	7.5	7.6	7.3	7.5	7.2	7.5	7.3	7.8	7.6
31	---	---	7.7	7.6	---	---	7.4	7.2	7.4	7.1	---	---
MONTH	7.8	7.1	7.8	7.2	7.9	7.2	8.0	7.2	7.9	7.1	7.8	7.0

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--Continued

WATER TEMPERATURE FROM THE DCP, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	12.6	11.0	11.8	11.6	11.3	11.4	0.7	0.2	0.4
2	---	---	---	13.2	11.8	12.5	11.4	11.2	11.3	0.3	0.0	0.1
3	---	---	---	13.9	12.6	13.0	11.2	10.7	10.9	0.0	0.0	0.0
4	---	---	---	13.0	11.5	12.2	10.9	10.3	10.6	0.0	0.0	0.0
5	---	---	---	12.5	11.0	11.6	10.5	10.1	10.3	0.1	0.0	0.0
6	---	---	---	11.8	10.2	11.0	10.7	9.9	10.3	0.0	0.0	0.0
7	---	---	---	11.6	9.7	10.5	10.8	10.6	10.7	0.2	0.0	0.0
8	---	---	---	11.2	9.6	10.4	11.1	10.7	10.8	0.1	0.0	0.0
9	---	---	---	11.6	10.2	10.7	10.9	9.8	10.3	0.3	0.0	0.1
10	17.5	16.7	17.0	10.9	9.4	10.1	10.0	9.8	9.9	0.6	0.1	0.4
11	16.7	15.9	16.3	10.7	9.2	9.9	10.0	9.7	9.8	1.0	0.6	0.7
12	---	---	---	10.3	8.8	9.5	10.2	9.8	9.9	0.9	0.5	0.7
13	---	---	---	10.0	8.5	9.1	10.6	10.2	10.4	1.1	0.8	1.0
14	---	---	---	9.8	8.4	9.0	11.6	10.6	11.1	1.5	0.8	1.2
15	---	---	---	9.9	8.3	8.9	11.9	11.6	11.8	1.8	1.3	1.5
16	---	---	---	9.8	8.2	8.9	11.5	11.2	11.4	2.1	1.5	1.8
17	---	---	---	10.0	8.4	9.1	11.3	11.1	11.1	2.8	2.0	2.4
18	15.3	13.5	14.2	10.4	8.7	9.4	11.1	10.5	10.9	2.8	2.4	2.6
19	15.1	13.9	14.4	10.1	9.0	9.6	10.5	9.8	10.2	3.1	2.5	2.8
20	15.5	13.7	14.4	10.1	8.8	9.6	9.8	8.4	9.2	5.1	3.1	4.4
21	15.7	13.7	14.5	9.0	7.8	8.3	8.3	7.4	7.8	5.5	5.1	5.3
22	15.4	14.0	14.7	8.1	7.2	7.8	7.4	6.6	6.7	5.4	5.0	5.3
23	16.3	14.4	15.2	8.6	7.5	8.0	6.6	6.1	6.4	6.8	5.3	5.9
24	17.1	15.3	16.1	9.8	8.5	9.1	6.1	4.9	5.5	9.3	6.8	8.5
25	16.6	15.3	15.9	10.1	9.4	9.8	5.0	4.1	4.5	9.3	7.9	8.8
26	15.3	13.6	14.3	10.0	9.0	9.6	4.1	3.1	3.5	7.9	6.5	7.1
27	13.6	12.5	13.0	10.6	9.9	10.3	3.1	2.6	3.0	6.5	6.2	6.3
28	12.9	11.4	12.0	11.1	10.4	10.7	2.6	2.2	2.4	6.7	5.9	6.3
29	12.7	10.8	11.7	11.6	10.9	11.3	2.3	1.8	2.1	7.8	6.6	7.1
30	12.3	10.7	11.5	12.0	11.5	11.7	1.8	1.1	1.3	9.3	7.8	8.4
31	12.5	10.9	11.6	---	---	---	1.1	0.6	0.8	10.4	9.3	9.8
MONTH	17.5	10.7	14.2	13.9	7.2	10.1	11.9	0.6	8.3	10.4	0.0	3.2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.0	10.4	10.8	5.1	4.0	4.5	10.6	10.1	10.4	17.3	16.6	16.9
2	10.5	9.8	10.2	4.7	4.3	4.6	11.2	10.2	10.7	17.1	16.4	16.9
3	9.8	8.3	9.1	4.7	3.9	4.4	11.6	11.0	11.4	16.4	15.5	16.0
4	8.3	6.7	7.6	3.9	3.2	3.5	11.1	10.3	10.7	15.5	14.6	15.0
5	6.7	5.4	6.0	4.3	2.8	3.5	10.7	9.8	10.3	15.2	14.1	14.6
6	5.3	4.4	4.9	5.0	3.4	4.1	10.4	9.6	9.9	15.7	14.6	15.1
7	4.4	3.9	4.1	5.4	4.3	4.8	10.2	9.4	9.8	16.3	15.4	15.8
8	4.2	3.7	3.9	6.3	4.6	5.4	11.1	9.9	10.5	18.1	16.3	17.1
9	4.8	3.9	4.3	6.8	5.9	6.3	12.3	11.1	11.6	18.5	17.9	18.2
10	5.4	4.6	5.0	7.4	6.1	6.7	13.8	12.1	12.8	18.4	18.0	18.2
11	6.0	5.3	5.6	7.5	6.1	6.9	14.6	13.4	13.9	18.8	17.6	18.2
12	6.1	5.5	5.8	7.7	7.2	7.4	15.3	14.4	14.8	19.5	18.4	18.8
13	5.9	5.4	5.7	8.0	7.7	7.8	15.9	15.3	15.5	19.1	18.4	18.9
14	5.6	5.1	5.3	9.1	7.7	8.4	16.4	15.8	16.0	18.4	17.0	17.7
15	5.6	4.9	5.2	10.2	8.8	9.5	17.5	15.9	16.6	17.1	15.9	16.6
16	5.8	5.2	5.5	10.4	10.0	10.2	18.4	16.9	17.6	17.0	16.1	16.6
17	5.8	5.2	5.5	11.2	10.0	10.5	19.0	17.8	18.3	17.5	16.6	17.0
18	5.9	5.0	5.4	11.1	10.9	11.0	19.8	18.2	18.9	17.1	15.6	16.2
19	5.7	5.1	5.4	11.5	11.0	11.2	20.6	18.8	19.6	16.1	15.0	15.5
20	6.5	5.4	5.9	11.6	11.5	11.5	21.0	19.8	20.3	15.4	14.4	14.8
21	6.8	5.9	6.3	11.9	11.3	11.6	21.7	20.4	21.0	14.4	13.7	14.0
22	6.4	6.2	6.2	11.3	9.4	10.4	21.9	20.6	21.2	14.9	13.2	14.0
23	7.0	6.0	6.4	9.4	8.3	8.8	21.1	19.6	20.4	15.8	13.6	14.6
24	7.1	5.8	6.4	8.6	7.5	8.2	20.2	18.9	19.2	16.7	14.4	15.5
25	7.2	6.0	6.6	9.3	8.0	8.6	18.9	17.4	18.3	17.7	15.5	16.6
26	6.8	6.1	6.6	9.9	9.4	9.7	17.4	14.8	15.9	17.8	17.0	17.4
27	6.1	4.6	5.3	9.9	9.0	9.5	14.8	14.0	14.2	19.1	17.4	18.2
28	5.1	4.1	4.5	9.3	8.2	8.8	15.8	14.3	15.0	20.0	18.3	19.1
29	---	---	---	10.5	8.7	9.5	16.2	15.1	15.6	21.2	19.4	20.2
30	---	---	---	11.0	10.5	10.8	17.0	15.6	16.3	22.2	20.5	21.3
31	---	---	---	11.1	10.4	10.7	---	---	---	23.5	21.3	22.2
MONTH	11.0	3.7	6.1	11.9	2.8	8.0	21.9	9.4	15.2	23.5	13.2	17.0

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--Continued

WATER TEMPERATURE FROM THE DCP, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.3	22.2	23.2	29.0	26.6	27.7	29.9	27.5	28.6	27.8	25.7	26.7
2	25.0	23.2	24.0	29.1	27.1	28.1	30.6	28.1	29.2	28.0	25.8	26.8
3	26.2	23.8	24.9	29.4	27.6	28.3	31.1	28.6	29.7	28.6	26.2	27.3
4	26.9	24.6	25.7	30.2	27.2	28.6	31.5	28.8	30.0	28.7	26.3	27.5
5	26.9	24.5	25.6	30.7	27.9	29.2	31.6	29.0	30.2	28.4	25.5	27.0
6	26.2	24.5	25.1	31.0	28.2	29.5	31.3	29.2	30.0	28.1	24.9	26.5
7	24.5	22.7	24.0	30.9	27.5	29.2	30.4	27.2	28.9	27.9	25.3	26.6
8	23.1	21.7	22.4	31.0	28.1	29.5	29.9	26.4	28.1	28.2	25.4	26.7
9	24.2	22.1	23.1	30.7	28.4	29.6	29.7	26.1	27.9	28.3	25.4	26.8
10	24.7	22.8	23.7	29.8	28.4	29.0	29.6	26.8	28.2	28.0	25.1	26.5
11	25.9	23.5	24.6	29.8	27.6	28.5	29.9	27.3	28.5	26.6	25.0	25.7
12	26.3	24.3	25.2	28.7	27.2	27.8	29.5	27.2	28.4	26.5	23.4	24.8
13	26.4	25.0	25.6	27.5	25.5	26.5	29.5	26.9	28.2	26.0	23.6	24.7
14	25.8	24.9	25.3	26.4	25.5	25.8	29.1	27.0	28.0	26.3	24.6	25.3
15	25.6	23.9	24.7	26.5	25.0	25.8	28.8	27.0	27.8	25.5	24.8	25.2
16	25.0	23.8	24.2	27.6	25.7	26.6	27.9	26.9	27.3	26.6	24.4	25.3
17	25.3	23.0	24.0	27.5	26.4	26.9	28.1	26.6	27.2	25.4	24.7	25.1
18	25.6	23.0	24.3	28.2	26.3	27.2	29.2	26.5	27.7	25.8	24.2	24.9
19	26.0	23.9	24.9	28.7	26.7	27.6	27.9	26.8	27.4	26.5	24.3	25.3
20	27.0	24.4	25.6	28.0	27.1	27.5	28.8	26.6	26.4	26.5	24.7	25.5
21	27.6	25.1	26.3	29.3	26.6	27.8	29.3	26.7	27.9	24.8	21.6	23.4
22	28.1	25.1	26.5	30.0	27.6	28.7	29.0	27.1	28.1	24.2	23.3	23.8
23	27.5	25.5	26.6	29.6	27.6	28.6	29.6	27.0	28.2	23.8	22.5	23.1
24	28.2	26.2	27.0	27.6	25.4	26.3	29.5	27.7	28.5	23.0	22.0	22.5
25	27.6	26.3	27.0	28.1	26.5	27.2	29.2	27.5	28.3	22.3	21.7	21.9
26	27.8	26.2	26.9	28.5	27.1	27.8	28.4	26.6	27.5	21.6	20.4	21.1
27	27.3	26.1	26.6	29.0	27.3	28.1	27.8	26.3	26.9	20.4	20.0	20.3
28	26.9	25.8	26.3	29.6	27.8	28.6	28.0	25.5	26.6	20.0	19.5	19.8
29	27.8	25.7	26.6	29.9	28.0	28.9	27.5	25.9	26.7	20.4	19.5	19.9
30	28.2	26.1	27.1	29.7	28.2	28.8	27.3	25.8	26.6	21.0	19.8	20.3
31	---	---	---	29.4	27.7	28.5	27.5	25.8	26.6	---	---	---
MONTH	28.2	21.7	25.2	31.0	25.0	28.0	31.6	25.5	28.1	28.7	19.5	24.5

OXYGEN DISSOLVED FROM THE DCP, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	10.1	9.4	9.7	10.5	10.3	10.4	14.0	13.4	13.6
2	---	---	---	9.8	9.1	9.5	10.6	10.4	10.5	13.8	13.1	13.4
3	---	---	---	9.5	8.7	9.2	10.8	10.5	10.7	13.5	12.8	13.1
4	---	---	---	9.5	9.0	9.2	11.0	10.7	10.8	13.4	12.7	13.0
5	---	---	---	9.7	8.9	9.3	11.1	10.8	10.9	13.5	12.7	13.1
6	---	---	---	9.6	9.0	9.3	11.2	10.8	11.0	13.3	12.7	13.0
7	---	---	---	9.7	9.1	9.4	11.1	10.7	10.9	13.4	12.9	13.1
8	---	---	---	9.6	9.0	9.3	10.9	10.6	10.8	13.5	12.7	13.1
9	---	---	---	9.6	8.9	9.2	11.1	10.9	11.0	13.7	12.8	13.2
10	---	---	---	9.8	9.1	9.4	11.2	11.0	11.1	13.9	13.1	13.5
11	---	---	---	9.7	8.9	9.4	11.4	11.2	11.3	14.4	13.6	14.0
12	---	---	---	10.0	9.2	9.6	11.4	11.2	11.3	14.4	13.8	14.1
13	---	---	---	10.2	9.3	9.6	11.2	11.0	11.1	14.3	13.9	14.1
14	---	---	---	10.1	9.4	9.7	11.0	10.5	10.8	14.2	13.9	14.1
15	---	---	---	10.1	9.5	9.8	10.7	10.4	10.6	14.1	13.8	13.9
16	---	---	---	10.3	9.4	9.8	10.8	10.6	10.7	14.1	13.7	13.9
17	---	---	---	10.2	9.4	9.8	10.8	10.7	10.8	13.8	13.4	13.6
18	9.1	8.6	8.8	10.3	9.4	9.8	10.9	10.7	10.8	13.8	13.3	13.5
19	9.0	8.7	8.8	10.6	9.5	10.0	11.1	10.8	11.0	13.4	13.1	13.3
20	8.9	8.6	8.7	10.6	9.9	10.3	11.6	11.1	11.3	13.3	12.9	13.2
21	9.0	8.6	8.7	10.6	9.9	10.3	12.0	11.5	11.8	13.0	12.7	12.8
22	8.8	8.5	8.7	11.0	10.2	10.6	12.3	11.9	12.2	12.9	12.8	12.8
23	8.7	8.4	8.6	10.8	10.1	10.5	12.4	12.2	12.3	12.9	12.3	12.7
24	8.6	8.2	8.4	10.8	9.8	10.4	12.8	12.3	12.6	12.3	11.6	11.8
25	8.6	8.2	8.4	11.3	10.7	11.1	13.1	12.7	12.9	11.8	11.6	11.7
26	9.0	8.4	8.7	11.4	11.0	11.1	13.4	13.0	13.2	12.1	11.8	11.9
27	9.2	8.8	9.0	11.1	10.9	11.0	13.5	13.3	13.4	12.1	11.9	12.0
28	9.4	9.1	9.2	10.9	10.7	10.8	13.8	13.5	13.6	12.1	11.8	12.0
29	9.6	9.2	9.4	10.7	10.4	10.6	13.9	13.6	13.8	11.8	11.4	11.7
30	9.8	9.5	9.7	10.4	10.3	10.3	14.2	13.8	14.0	11.5	10.9	11.3
31	10.6	9.6	10.0	---	---	---	14.3	13.8	14.0	10.9	10.7	10.8
MONTH	10.6	8.2	8.9	11.4	8.7	9.9	14.3	10.3	11.7	14.4	10.7	12.9

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--Continued

OXYGEN DISSOLVED FROM THE DCP, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10.6	10.4	10.5	12.2	11.9	12.0	10.9	10.5	10.6	7.5	7.1	7.3
2	10.7	10.5	10.6	12.1	11.9	12.0	10.5	10.2	10.4	7.9	7.1	7.3
3	11.1	10.7	10.9	12.1	11.9	12.0	10.2	9.8	10.0	8.4	7.9	8.2
4	11.6	11.1	11.3	12.4	12.1	12.3	10.3	10.1	10.2	8.3	8.0	8.1
5	12.1	11.6	11.9	12.5	12.2	12.4	10.4	10.1	10.3	8.1	8.0	8.1
6	12.4	12.1	12.2	12.3	12.1	12.2	10.5	10.1	10.3	8.0	7.8	7.9
7	12.6	12.4	12.5	12.1	11.9	12.0	10.5	10.1	10.4	7.9	7.8	7.9
8	12.7	12.5	12.6	12.1	11.8	11.9	10.4	10.1	10.2	8.2	7.9	8.0
9	12.8	12.4	12.6	11.9	11.5	11.7	10.1	9.7	9.9	8.4	8.0	8.1
10	12.5	12.1	12.3	11.6	11.4	11.5	9.9	9.7	9.8	8.7	8.4	8.5
11	12.2	11.9	12.1	11.5	11.2	11.4	9.6	9.4	9.5	8.7	8.5	8.6
12	12.1	11.9	12.0	11.3	10.9	11.1	9.4	9.0	9.2	8.8	8.3	8.5
13	12.1	11.9	12.0	11.0	10.8	10.9	9.2	8.9	9.0	8.6	8.1	8.2
14	12.2	12.1	12.2	11.0	10.7	10.9	9.1	8.7	8.9	8.8	8.2	8.5
15	12.3	12.1	12.2	10.8	10.4	10.7	9.1	8.8	8.9	9.0	8.7	8.8
16	12.2	12.0	12.1	10.4	10.2	10.3	9.2	8.6	8.9	9.1	8.6	8.9
17	12.1	12.0	12.0	10.8	10.2	10.4	9.0	8.7	8.9	8.9	8.8	8.8
18	12.1	11.9	12.0	10.9	10.7	10.8	8.7	8.5	8.6	9.1	8.8	8.9
19	12.1	11.9	12.0	10.8	10.3	10.5	8.5	8.2	8.4	9.2	9.0	9.1
20	11.9	11.6	11.8	10.3	10.1	10.2	8.3	8.0	8.1	9.2	9.0	9.1
21	11.8	11.6	11.7	10.2	10.1	10.1	8.0	7.7	7.9	9.2	9.1	9.2
22	11.7	11.5	11.6	10.7	10.1	10.4	7.8	7.5	7.7	9.2	9.0	9.1
23	11.6	11.5	11.5	11.0	10.6	10.8	7.8	7.5	7.6	9.2	9.1	9.1
24	11.7	11.4	11.5	11.2	10.9	11.0	7.7	7.5	7.6	9.5	9.1	9.3
25	11.6	11.4	11.5	11.0	10.6	10.9	7.8	7.6	7.6	9.2	8.8	9.0
26	11.5	11.3	11.4	10.6	10.3	10.5	7.9	7.7	7.8	8.8	8.4	8.6
27	11.8	11.4	11.7	10.6	10.3	10.4	8.2	7.9	8.1	8.4	8.2	8.3
28	12.1	11.8	12.0	10.9	10.6	10.8	8.2	7.8	8.0	8.3	7.9	8.2
29	---	---	---	10.8	10.3	10.6	7.9	7.6	7.8	7.9	7.5	7.7
30	---	---	---	10.3	9.9	10.1	7.7	7.5	7.6	7.6	7.2	7.5
31	---	---	---	10.5	9.9	10.1	---	---	---	7.5	7.0	7.2
MONTH	12.8	10.4	11.8	12.5	9.9	11.1	10.9	7.5	8.9	9.5	7.0	8.4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.5	6.9	7.2	7.4	6.9	7.2	7.2	5.9	6.6	7.3	6.5	6.9
2	7.5	6.8	7.1	7.3	6.6	6.9	7.3	6.1	6.8	7.5	6.7	7.0
3	7.7	6.7	7.2	7.3	6.3	6.8	7.2	6.1	6.7	6.9	6.2	6.6
4	7.7	6.8	7.2	6.9	6.3	6.5	6.9	6.1	6.5	7.0	6.1	6.5
5	7.5	6.8	7.1	6.9	6.0	6.4	7.2	6.2	6.7	6.9	6.2	6.5
6	7.3	7.0	7.2	7.0	5.9	6.5	7.2	6.0	6.6	6.9	6.2	6.5
7	7.9	7.3	7.6	7.0	6.0	6.6	7.5	6.1	6.8	6.9	6.0	6.4
8	8.0	7.6	7.9	7.1	6.2	6.6	7.4	6.3	6.8	8.1	6.3	7.2
9	7.7	7.4	7.5	7.0	6.1	6.6	8.0	6.4	7.4	7.9	6.9	7.4
10	7.7	7.3	7.5	7.2	6.2	6.7	8.0	7.1	7.6	8.3	6.8	7.3
11	7.8	7.1	7.5	7.4	6.3	6.8	8.0	7.1	7.6	7.8	6.8	7.2
12	7.8	7.0	7.3	7.2	6.5	6.9	8.1	7.2	7.6	7.6	6.9	7.2
13	7.4	6.8	7.1	7.7	6.8	7.2	7.8	6.9	7.5	7.5	6.9	7.1
14	7.4	6.8	7.1	7.9	7.3	7.5	7.8	7.0	7.4	7.6	6.6	7.0
15	7.6	6.9	7.2	8.1	7.7	7.9	7.5	6.8	7.2	7.5	6.5	7.1
16	7.8	7.0	7.5	8.2	7.7	7.9	7.4	6.6	7.1	7.4	6.5	7.0
17	8.7	7.3	8.0	8.1	7.4	7.8	7.7	6.8	7.2	7.1	6.1	6.5
18	8.9	8.1	8.5	8.0	7.3	7.6	7.8	6.8	7.2	7.2	5.5	6.3
19	8.7	8.0	8.3	7.4	6.8	7.1	7.5	6.7	7.0	7.3	5.5	6.2
20	8.5	7.8	8.1	7.1	6.5	6.8	8.3	6.8	7.4	6.8	5.9	6.2
21	8.4	7.4	8.0	7.3	6.4	6.8	8.1	7.1	7.6	8.6	6.2	7.8
22	8.2	7.3	7.7	6.9	6.2	6.6	8.1	7.1	7.5	8.7	7.4	8.3
23	7.9	7.1	7.5	7.2	6.1	6.6	7.5	6.7	7.2	8.8	8.4	8.6
24	7.3	6.7	7.1	8.1	7.0	7.5	7.0	6.3	6.7	9.1	8.4	8.7
25	7.3	6.6	7.0	8.0	7.4	7.7	6.9	6.0	6.4	8.6	8.1	8.4
26	7.4	6.7	7.1	8.0	7.2	7.6	6.8	6.0	6.3	8.8	7.9	8.3
27	7.6	6.9	7.2	8.0	7.3	7.6	6.8	6.1	6.4	9.5	8.6	9.0
28	7.7	7.2	7.4	7.6	6.7	7.2	7.9	6.2	6.8	9.8	9.4	9.6
29	7.8	7.1	7.4	7.3	6.4	6.8	7.5	6.9	7.3	9.7	9.4	9.6
30	7.7	7.1	7.3	6.7	6.1	6.4	7.5	6.9	7.2	9.8	9.2	9.5
31	---	---	---	6.8	5.8	6.3	7.2	6.6	6.9	---	---	---
MONTH	8.9	6.6	7.5	8.2	5.8	7.0	8.3	5.9	7.0	9.8	5.5	7.5

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 mi^2.

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 with telemetry. Datum of gage is 804.72 ft above NGVD of 1929.

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

COOPERATION.--Kentucky Natural Resources and Environmental Protection Cabinet and U.S. Army Corps of Engineers, Nashville District.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1946 reached a stage of 10.8 ft from information by local residents.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan 24	1330	2,060	6.73	Mar 18	0300	*3,180	*8.79

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	3.5	26	e14	112	17	396	51	15	4.6	3.9	1.8
2	3.4	3.4	15	e13	91	18	187	61	14	4.3	3.2	1.8
3	3.5	3.3	12	e12	70	21	121	103	13	3.8	2.7	1.8
4	3.3	3.2	9.7	e11	59	20	84	272	12	3.7	2.4	1.7
5	3.8	3.1	8.4	e10	48	18	65	219	11	3.6	2.2	1.6
6	22	3.1	7.6	12	44	18	55	113	16	3.4	2.1	1.6
7	16	3.0	7.5	11	49	18	46	80	14	3.2	1.9	1.6
8	6.0	3.0	33	10	63	17	41	68	12	3.1	1.6	1.6
9	4.4	2.9	98	10	55	19	37	56	10	3.1	1.5	1.6
10	3.7	2.8	42	11	51	24	33	54	9.5	3.3	1.5	1.5
11	3.6	2.8	60	62	55	21	29	44	8.8	3.7	1.5	1.6
12	4.4	2.7	41	52	50	22	27	37	8.2	3.1	1.6	1.5
13	5.9	2.7	345	37	45	29	27	139	10	6.5	1.6	1.6
14	15	2.7	342	28	39	33	46	134	13	8.9	1.6	1.6
15	31	2.7	145	24	36	28	58	74	9.6	5.2	1.5	1.7
16	15	2.6	78	21	33	26	36	56	8.0	3.7	1.7	1.8
17	7.7	2.7	55	20	28	803	30	80	7.3	3.2	1.9	1.9
18	5.3	2.6	46	18	24	1830	31	309	6.7	2.9	2.1	2.3
19	4.7	2.6	36	80	26	427	29	125	6.5	3.6	2.5	2.2
20	4.2	2.7	28	127	27	558	26	83	6.3	3.7	3.3	2.7
21	4.0	2.6	23	100	33	367	24	64	6.1	3.6	2.2	7.8
22	3.9	2.5	21	78	24	176	22	52	5.8	3.6	1.9	6.3
23	3.9	2.5	41	548	22	123	20	44	5.7	3.7	1.8	5.9
24	3.8	3.1	65	1240	21	92	20	36	6.3	4.3	1.7	2.9
25	5.0	36	44	e600	20	71	109	29	7.0	3.8	1.7	2.5
26	5.2	18	35	e223	21	165	61	26	5.8	3.5	7.9	95
27	5.3	10	29	147	21	139	46	22	5.8	3.1	3.6	101
28	4.2	8.7	25	102	19	96	41	21	6.2	2.8	2.5	38
29	3.8	8.4	21	77	---	82	32	18	5.4	2.6	2.1	17
30	3.7	30	18	61	---	157	27	17	5.0	3.8	1.9	10
31	3.5	---	e15	53	---	609	---	16	---	5.6	1.9	---
TOTAL	212.8	179.9	1772.2	3812	1186	6044	1806	2503	270.0	121.0	71.5	321.9
MEAN	6.865	5.997	57.17	123.0	42.36	195.0	60.20	80.74	9.000	3.903	2.306	10.73
MAX	31	36	345	1240	112	1830	396	309	16	8.9	7.9	101
MIN	3.3	2.5	7.5	10	19	17	20	16	5.0	2.6	1.5	1.5
CFSM	0.16	0.14	1.32	2.83	0.98	4.49	1.39	1.86	0.21	0.09	0.05	0.25
IN.	0.18	0.15	1.52	3.27	1.02	5.18	1.55	2.15	0.23	0.10	0.06	0.28

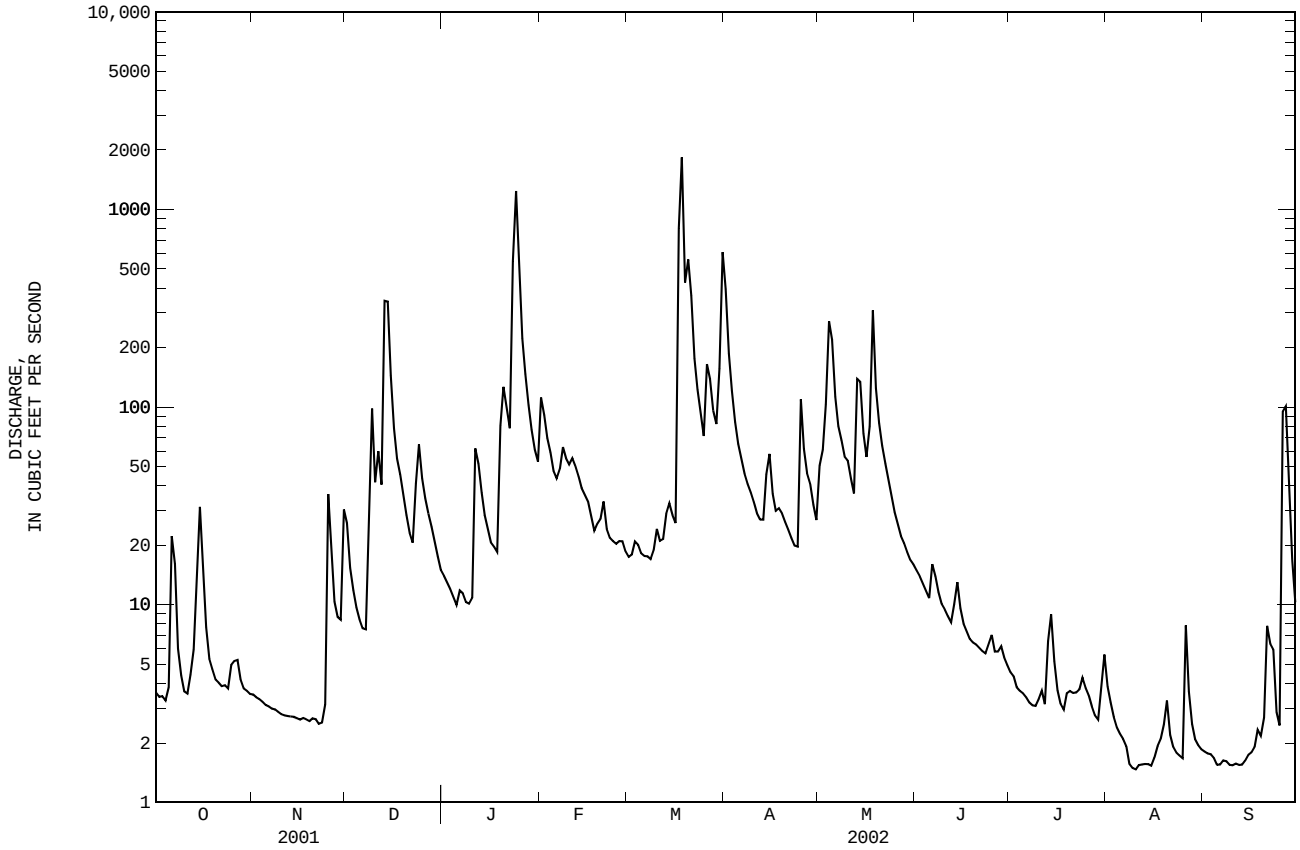
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2002, BY WATER YEAR (WY)

MEAN	17.75	23.10	72.52	95.21	105.0	129.3	76.76	46.11	37.37	10.63	7.679	6.005
MAX	164	78.6	306	155	206	299	242	114	151	37.5	25.9	27.6
(WY)	1990	1997	1991	1994	1998	1997	1998	1995	1998	2001	1996	1992
MIN	1.49	2.08	8.31	26.7	42.4	47.9	21.4	11.0	7.98	3.89	1.91	1.77
(WY)	2000	2001	1998	2000	2002	2000	1995	2001	1991	1990	1990	2000

03413200 BEAVER CREEK NEAR MONTICELLO, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1990 - 2002	
ANNUAL TOTAL	11531.4		18300.3			
ANNUAL MEAN	31.59		50.14		52.06	
HIGHEST ANNUAL MEAN					74.5	1998
LOWEST ANNUAL MEAN					24.7	2000
HIGHEST DAILY MEAN	617	Feb 16	1830	Mar 18	1890	Oct 17 1989
LOWEST DAILY MEAN	2.5	Nov 22	1.5	Aug 9	1.2	Sep 6 1995
ANNUAL SEVEN-DAY MINIMUM	2.6	Nov 17	1.5	Aug 9	1.2	Oct 23 1999
MAXIMUM PEAK FLOW			3180	Mar 18	3180	Mar 18 2002
MAXIMUM PEAK STAGE			8.79	Mar 18	8.79	Mar 18 2002
INSTANTANEOUS LOW FLOW					0.50	Oct 2 1968
ANNUAL RUNOFF (CFSM)	0.73		1.16		1.20	
ANNUAL RUNOFF (INCHES)	9.88		15.69		16.30	
10 PERCENT EXCEEDS	66		99		117	
50 PERCENT EXCEEDS	9.7		14		16	
90 PERCENT EXCEEDS	3.2		2.1		2.3	

e Estimated



03438000 LITTLE RIVER NEAR CADIZ, KY

LOCATION.--Lat 36°46'40", long 87°43'18", Trigg County, Hydrologic Unit 05130205, on right bank at upstream side of bridge on State Highway 1253, 50 ft downstream from Casey Creek, 8.8 mi southeast of Cadiz, and at mile 34.3.

DRAINAGE AREA.--244 mi^2, of which about 94 mi^2 does not contribute directly to surface runoff.

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

REVISED RECORDS.--WSP 1173: 1942-43, 1946(M), 1949. WSP 1306: 1940(M). WSP 1626: Drainage area.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 391.45 ft above NGVD of 1929. Prior to July 31, 1945, nonrecording gage at same site and datum.

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

COOPERATION.--U.S. Army Corps of Engineer, Nashville District and Kentucky Natural Resources and Environmental Protection Cabinet.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 14	1030	3,540	10.81	Jan 24	0930	4,840	12.90
Nov 29	2330	12,200	19.78	Mar 20	0830	6,180	14.72
Dec 13	1500	4,530	12.39	May 18	0030	6,360	14.95
Dec 17	1100	5,290	13.54	Sept 27	0730	9,540	18.00

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	121	e3570	472	1090	200	1430	970	589	106	51	31
2	e23	115	e2140	440	1040	196	1060	1430	510	100	50	33
3	e21	108	e1690	417	794	191	875	790	452	102	46	41
4	e22	108	1340	391	703	190	753	631	408	133	44	37
5	26	96	1110	370	632	183	666	529	378	121	42	36
6	33	89	966	362	571	173	599	456	374	105	40	54
7	46	84	927	352	532	165	549	409	352	96	39	61
8	47	79	1780	333	488	161	511	367	320	86	38	45
9	33	71	1800	316	446	161	500	342	297	80	36	46
10	28	67	1160	304	414	169	487	339	281	77	37	43
11	30	64	956	294	385	173	439	298	268	76	37	44
12	33	61	1060	284	360	171	402	275	250	74	37	41
13	169	60	3950	274	335	174	460	1130	263	180	35	36
14	2410	59	3240	263	312	174	1050	2110	240	738	49	35
15	1340	58	1950	253	297	169	1730	1020	223	278	59	36
16	686	56	2290	243	284	168	1000	748	210	180	77	36
17	527	56	4050	235	270	623	768	2150	198	139	67	41
18	419	54	2780	229	256	1300	647	5860	189	121	74	50
19	352	52	1730	227	246	1220	565	2430	180	103	71	47
20	299	50	1330	221	247	4720	500	1490	171	91	80	56
21	261	55	1120	221	247	3540	450	1160	162	83	63	90
22	232	55	982	228	238	1740	412	946	156	77	54	123
23	208	49	1080	2060	225	1300	370	811	147	75	52	65
24	188	62	1120	3970	216	1020	1000	713	138	79	56	51
25	225	422	909	2940	209	867	1380	639	132	74	48	43
26	251	254	801	1580	208	2270	977	926	168	70	49	228
27	195	1950	725	1180	217	2080	697	753	139	63	44	7510
28	168	2130	666	967	214	1240	620	625	125	57	41	3820
29	150	7950	608	831	---	1030	574	734	131	53	35	1280
30	138	e8960	551	735	---	1060	481	982	115	51	35	903
31	130	---	507	667	---	1190	---	718	---	52	33	---
TOTAL	8714	23395	48888	21659	11476	28018	21952	32781	7566	3720	1519	14962
MEAN	281.1	779.8	1577	698.7	409.9	903.8	731.7	1057	252.2	120.0	49.00	498.7
MAX	2410	8960	4050	3970	1090	4720	1730	5860	589	738	80	7510
MIN	21	49	507	221	208	161	370	275	115	51	33	31
CFSM	1.15	3.20	6.46	2.86	1.68	3.70	3.00	4.33	1.03	0.49	0.20	2.04
IN.	1.33	3.57	7.45	3.30	1.75	4.27	3.35	5.00	1.15	0.57	0.23	2.28

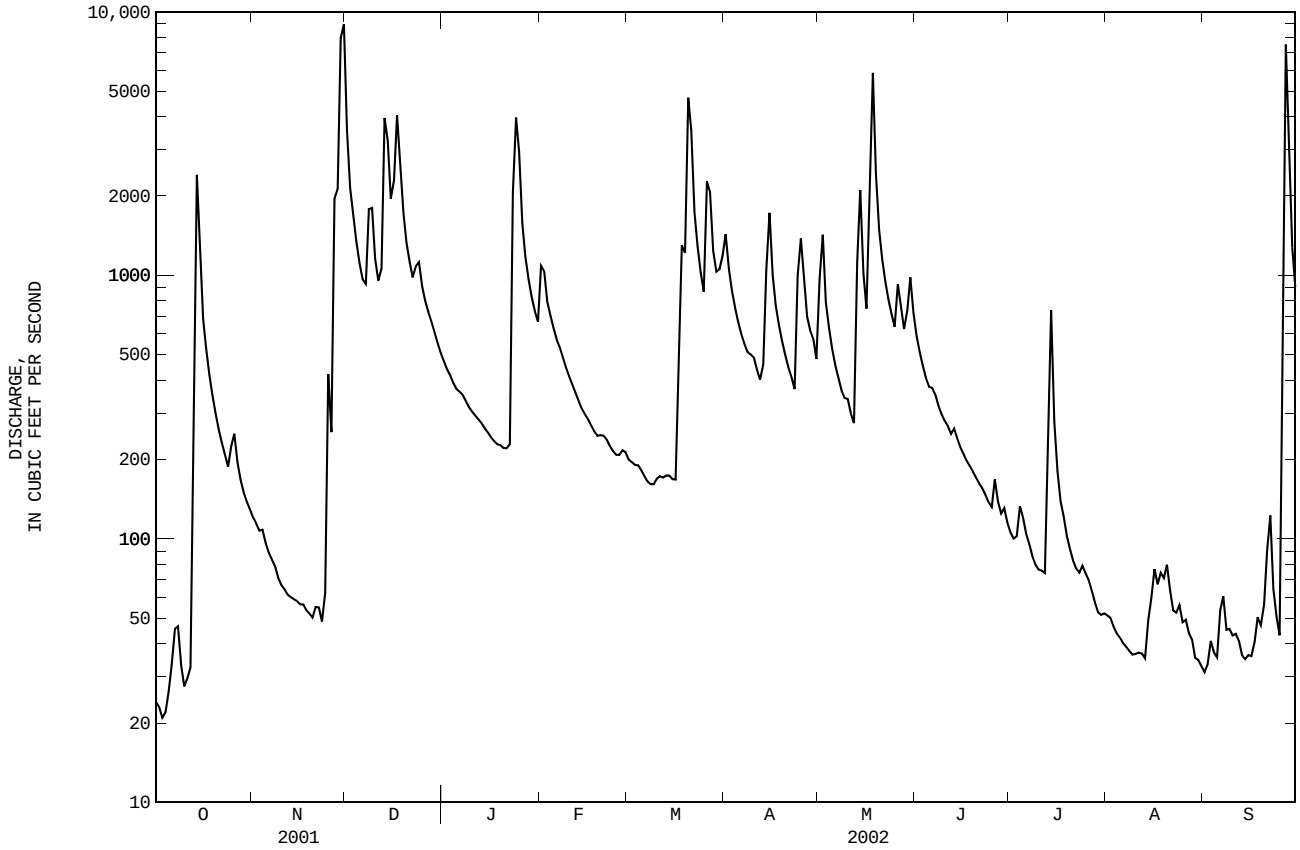
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2002, BY WATER YEAR (WY)

MEAN	67.29	211.4	462.3	552.7	682.0	762.9	545.6	432.0	224.9	146.1	91.41	100.0
MAX	504	1677	1985	2168	2130	3653	1924	1875	1498	790	381	925
(WY)	1997	1958	1979	1950	1989	1997	1979	1984	1998	1989	1950	1950
MIN	12.3	14.1	14.2	27.3	39.6	28.1	37.5	21.4	34.0	29.6	23.9	15.7
(WY)	1944	1941	1964	1963	1963	1941	1941	1941	1963	1988	1952	1941

03438000 LITTLE RIVER NEAR CADIZ, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1940 - 2002	
ANNUAL TOTAL	124340		224650			
ANNUAL MEAN	340.7		615.5		355.2	
HIGHEST ANNUAL MEAN					757	1997
LOWEST ANNUAL MEAN					58.9	1941
HIGHEST DAILY MEAN	8960	Nov 30	8960	Nov 30	24300	Mar 2 1997
LOWEST DAILY MEAN	17	Aug 8	21	Oct 3	3.6	Oct 3 1941
ANNUAL SEVEN-DAY MINIMUM	20	Aug 4	28	Oct 1	7.0	Oct 24 1940
MAXIMUM PEAK FLOW			12200	Nov 29	37600	Mar 1 1997
MAXIMUM PEAK STAGE			19.78	Nov 29	26.44	Mar 1 1997
INSTANTANEOUS LOW FLOW					1.0	Oct 3 1941
ANNUAL RUNOFF (CFSM)	1.40		2.52		1.46	
ANNUAL RUNOFF (INCHES)	18.96		34.25		19.78	
10 PERCENT EXCEEDS	937		1400		831	
50 PERCENT EXCEEDS	85		250		138	
90 PERCENT EXCEEDS	29		44		28	

e Estimated



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 160 microsiemens, Dec. 6, 8, 2001.
pH: Maximum, 9.7 units, June 20, 1996; minimum, 6.0 units, Sept. 12, 1995.
WATER TEMPERATURES: Maximum, 32.4°C, July 30, 1999; minimum, 0.5°C, Feb. 6, 1995.
DISSOLVED OXYGEN: Maximum, 20.6 mg/L, Jan. 13, 2001; minimum, 1.8 mg/L, August 11, 14, 2001.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 286 microsiemens, Jan. 15; minimum 160 microsiemens, Dec. 6, 8.
pH: Maximum, 9.0 units, Mar. 11; minimum, 6.9 units, several days.
WATER TEMPERATURES: Maximum, 31.4°C, Aug. 4; minimum, 3.9°C, Jan. 8.
DISSOLVED OXYGEN: Maximum, 15.5 mg/L, Mar. 8, 11; minimum, 2.1 mg/L, Sept. 15.

SPECIFIC CONDUCTANCE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	223	205	215	212	193	200	242	198	214	213	191	203
2	219	202	208	225	203	213	198	181	189	255	196	232
3	207	199	203	226	204	214	182	177	178	247	213	228
4	208	196	202	216	195	205	182	176	178	243	205	228
5	225	196	205	209	199	204	188	176	183	219	202	211
6	219	208	214	207	198	202	187	160	177	271	202	246
7	212	202	206	216	200	207	194	174	184	271	256	264
8	222	205	216	224	204	213	201	160	180	263	218	237
9	229	200	212	227	206	217	207	180	193	244	208	227
10	224	201	212	225	208	214	208	172	193	267	209	248
11	224	202	213	227	216	222	236	197	214	275	265	271
12	217	211	215	220	201	210	246	218	232	274	251	263
13	224	213	218	223	205	213	260	226	247	282	261	274
14	224	206	215	225	210	215	268	260	264	281	253	268
15	224	198	214	224	214	219	266	263	264	286	223	260
16	216	195	209	240	221	228	263	240	251	245	215	232
17	215	209	212	241	235	239	240	229	232	256	211	228
18	222	213	218	244	238	240	231	226	229	268	230	251
19	224	212	216	256	241	247	227	219	224	280	238	260
20	222	215	218	256	244	251	225	206	217	280	241	264
21	222	216	219	245	222	234	213	204	209	269	238	252
22	222	213	217	223	214	219	220	206	211	276	223	252
23	222	216	219	223	213	217	219	204	210	281	223	266
24	225	198	212	237	221	230	216	202	209	281	270	277
25	226	188	214	245	231	237	221	206	214	276	251	265
26	225	196	215	256	244	248	223	209	217	251	213	234
27	220	186	204	259	227	244	231	213	221	218	208	211
28	195	181	189	262	245	253	233	216	224	230	218	226
29	204	181	193	254	229	246	236	220	226	231	227	229
30	201	189	194	262	242	256	242	219	230	235	227	230
31	209	190	198	---	---	---	229	209	216	241	227	236
MONTH	229	181	210	262	193	225	268	160	214	286	191	244

03438220 CUMBERLAND RIVER NEAR GRAND RIVERS, KY--Continued

SPECIFIC CONDUCTANCE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	245	229	237	247	214	232	221	213	218	228	219	225
2	250	244	247	245	220	229	225	221	223	228	226	228
3	252	226	244	247	243	246	224	218	222	227	222	224
4	243	212	232	246	190	226	219	213	217	222	218	219
5	243	229	235	212	184	195	220	212	218	225	190	215
6	238	224	231	207	184	194	220	212	217	218	195	206
7	235	218	226	223	199	211	224	216	220	232	209	227
8	236	222	228	234	206	223	228	205	221	232	200	222
9	237	224	231	238	218	230	231	228	230	224	198	214
10	239	219	230	236	231	233	230	221	227	229	222	226
11	239	215	230	234	221	228	227	223	225	228	216	222
12	232	212	224	224	178	201	223	216	221	237	228	234
13	233	218	226	202	178	192	216	214	215	238	234	236
14	232	212	221	203	188	195	215	212	214	238	234	236
15	234	205	220	222	188	200	214	213	214	240	236	238
16	241	195	212	227	221	224	215	211	213	238	237	238
17	242	236	240	227	220	226	213	212	212	238	229	235
18	241	215	232	239	211	227	219	211	213	236	233	234
19	233	196	217	247	239	244	219	201	212	233	228	231
20	239	189	217	241	208	218	218	208	213	228	226	227
21	245	232	239	222	209	216	219	213	217	227	224	226
22	244	238	242	222	215	220	222	202	214	224	221	222
23	245	244	245	220	215	216	216	194	207	222	216	220
24	245	242	244	232	220	226	213	195	208	224	214	218
25	248	235	245	233	226	232	217	207	213	217	209	213
26	249	231	247	227	217	220	220	215	218	215	200	210
27	244	206	225	220	216	218	223	219	221	216	205	212
28	227	205	215	223	220	221	225	222	223	218	193	207
29	---	---	---	224	222	223	225	202	217	219	194	207
30	---	---	---	223	218	221	219	206	211	220	194	204
31	---	---	---	219	213	217	---	---	---	220	196	206
MONTH	252	189	232	247	178	219	231	194	217	240	190	222

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	221	188	206	210	199	207	215	194	204	212	187	202
2	218	205	210	209	194	203	222	190	209	215	199	206
3	214	202	208	206	193	199	221	184	207	220	207	214
4	207	184	198	207	193	199	205	195	200	220	194	211
5	213	190	202	212	198	203	---	---	---	215	178	202
6	216	172	193	219	208	213	---	---	---	206	179	195
7	203	176	188	221	209	214	---	---	---	215	192	207
8	223	202	216	214	210	210	---	---	---	216	202	209
9	226	212	218	225	196	218	---	---	---	219	199	212
10	231	211	223	212	194	206	---	---	---	226	196	216
11	224	198	214	215	188	203	---	---	---	218	182	201
12	222	202	211	221	205	213	---	---	---	200	180	192
13	225	186	210	234	208	222	---	---	---	216	191	205
14	213	184	202	236	231	233	222	193	209	208	193	201
15	205	184	195	237	222	232	223	202	215	208	201	204
16	211	189	197	235	185	218	232	207	221	223	207	217
17	213	197	206	211	186	200	237	220	229	219	200	209
18	213	202	208	236	195	215	243	221	236	226	203	212
19	213	204	210	235	190	213	240	207	230	226	188	214
20	214	203	209	237	221	235	230	193	213	205	184	196
21	204	189	197	235	225	232	201	171	187	218	186	202
22	201	191	196	228	217	222	198	187	192	203	183	195
23	205	195	199	233	199	219	207	182	195	218	184	198
24	213	204	208	215	189	202	217	182	201	193	174	183
25	213	204	209	222	189	209	207	179	193	207	179	190
26	221	202	210	217	189	201	217	180	202	189	178	183
27	210	197	206	216	197	207	223	180	205	216	174	194
28	208	189	196	220	201	211	216	194	205	221	216	219
29	195	188	192	231	191	208	224	191	212	217	214	215
30	208	195	202	235	194	219	229	184	213	215	202	210
31	---	---	---	226	182	205	213	188	204	---	---	---
MONTH	231	172	205	237	182	213	---	---	---	226	174	204

03438220 CUMBERLAND RIVER NEAR GRAND RIVERS, KY--Continued

PH, WH, FIELD, in (STANDARD UNITS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.1	7.8	7.9	7.7	7.3	7.5	7.4	7.1	7.3	7.1	7.0	7.0
2	8.0	7.6	7.7	7.6	7.4	7.5	7.1	7.0	7.1	7.8	7.0	7.5
3	7.8	7.5	7.7	7.6	7.4	7.5	7.0	6.9	7.0	7.8	7.7	7.8
4	7.8	7.6	7.7	7.6	7.3	7.4	7.0	6.9	7.0	7.9	7.8	7.8
5	7.7	7.5	7.6	7.4	7.3	7.3	7.0	6.9	7.0	7.8	7.7	7.8
6	7.7	7.6	7.6	7.6	7.3	7.4	7.0	6.9	7.0	7.9	7.7	7.8
7	8.0	7.5	7.7	7.7	7.4	7.5	7.0	6.9	7.0	7.9	7.9	7.9
8	8.3	7.7	7.9	7.6	7.4	7.5	7.0	6.9	7.0	8.0	7.9	7.9
9	7.9	7.6	7.8	7.7	7.5	7.6	7.1	7.0	7.1	7.9	7.9	7.9
10	8.0	7.6	7.8	7.7	7.6	7.7	7.1	7.0	7.1	8.0	7.8	8.0
11	7.7	7.5	7.6	7.7	7.6	7.6	7.2	7.1	7.1	8.1	8.0	8.1
12	7.6	7.5	7.5	7.8	7.6	7.7	7.3	7.2	7.2	8.2	8.1	8.1
13	7.7	7.5	7.6	7.9	7.6	7.7	7.5	7.2	7.4	8.4	8.2	8.3
14	7.6	7.4	7.5	7.8	7.5	7.7	7.6	7.4	7.5	8.4	8.3	8.3
15	8.2	7.4	7.7	7.8	7.6	7.7	7.5	7.5	7.5	8.5	8.3	8.4
16	7.8	7.6	7.7	7.7	7.6	7.6	7.5	7.3	7.4	8.6	8.3	8.4
17	7.9	7.7	7.8	7.9	7.7	7.8	7.3	7.2	7.3	8.5	8.1	8.3
18	8.2	7.7	7.9	8.1	7.7	7.8	7.2	7.2	7.2	8.6	8.5	8.6
19	7.9	7.7	7.8	8.0	7.7	7.8	7.2	7.1	7.2	8.7	8.5	8.6
20	8.2	7.8	8.0	7.8	7.6	7.7	7.1	7.1	7.1	8.8	8.6	8.7
21	8.2	7.9	8.1	7.8	7.6	7.7	7.1	7.0	7.1	8.9	8.6	8.7
22	8.2	7.8	8.1	7.7	7.5	7.6	7.2	7.0	7.1	8.8	8.4	8.7
23	8.2	7.8	8.0	7.7	7.4	7.5	7.2	7.1	7.1	8.7	8.4	8.6
24	7.9	7.5	7.7	7.9	7.6	7.7	7.1	7.0	7.1	8.7	8.5	8.6
25	7.8	7.5	7.7	7.9	7.7	7.8	7.1	7.1	7.1	8.6	8.1	8.4
26	7.8	7.6	7.8	8.1	7.8	8.0	7.1	7.1	7.1	8.1	7.6	7.8
27	7.8	7.6	7.7	8.1	7.8	7.9	7.2	7.1	7.1	7.6	7.5	7.5
28	7.8	7.6	7.7	7.9	7.8	7.9	7.1	7.1	7.1	7.6	7.5	7.6
29	7.7	7.5	7.6	7.8	7.6	7.7	7.2	7.1	7.1	7.6	7.5	7.5
30	7.6	7.4	7.5	7.7	7.4	7.6	7.2	7.1	7.1	7.6	7.5	7.5
31	7.8	7.5	7.6	---	---	---	7.1	7.0	7.1	7.7	7.6	7.6
MONTH	8.3	7.4	7.7	8.1	7.3	7.6	7.6	6.9	7.1	8.9	7.0	8.1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.7	7.6	7.7	8.5	8.1	8.3	7.6	7.5	7.5	8.1	8.0	8.1
2	7.7	7.7	7.7	8.4	8.1	8.2	7.6	7.5	7.5	8.0	7.7	7.8
3	7.7	7.6	7.7	8.2	8.1	8.2	7.7	7.5	7.6	7.7	7.6	7.7
4	7.7	7.6	7.7	8.6	8.2	8.4	7.6	7.6	7.6	7.7	7.5	7.6
5	7.7	7.7	7.7	8.6	8.1	8.3	7.7	7.6	7.6	7.9	7.6	7.7
6	7.7	7.7	7.7	8.6	8.2	8.4	7.6	7.5	7.6	7.8	7.5	7.7
7	7.7	7.6	7.7	8.7	8.4	8.6	7.7	7.6	7.6	7.8	7.5	7.7
8	7.8	7.7	7.7	8.9	8.6	8.8	7.7	7.5	7.6	7.8	7.5	7.7
9	7.8	7.7	7.8	8.8	8.7	8.8	7.8	7.6	7.7	7.6	7.4	7.5
10	7.8	7.7	7.7	8.9	8.8	8.8	7.8	7.7	7.7	7.6	7.5	7.5
11	7.9	7.8	7.8	9.0	8.8	8.9	8.0	7.7	7.8	7.7	7.4	7.5
12	7.9	7.8	7.8	8.9	8.4	8.7	7.9	7.8	7.9	7.7	7.6	7.6
13	8.0	7.8	7.9	8.7	8.4	8.6	8.0	7.8	7.9	7.6	7.5	7.6
14	8.1	7.8	7.9	8.8	8.6	8.7	8.1	7.9	8.0	7.7	7.5	7.6
15	8.1	7.9	7.9	8.7	8.5	8.6	8.2	7.9	8.0	7.8	7.4	7.6
16	8.1	7.8	7.9	8.6	8.6	8.6	8.2	7.9	8.1	7.7	7.6	7.7
17	8.1	8.0	8.1	8.6	8.5	8.5	8.0	7.9	7.9	7.7	7.6	7.6
18	8.4	8.1	8.3	8.5	8.2	8.4	8.4	8.1	8.3	7.7	7.5	7.6
19	8.3	8.0	8.2	8.4	8.0	8.3	8.4	8.1	8.2	7.6	7.5	7.6
20	8.2	7.9	8.1	8.0	7.4	7.6	8.4	8.1	8.2	7.7	7.5	7.6
21	8.2	8.1	8.2	7.4	7.4	7.4	8.4	7.9	8.2	7.7	7.5	7.6
22	8.3	8.2	8.3	7.4	7.3	7.4	8.2	7.9	8.1	7.9	7.5	7.7
23	8.4	8.2	8.3	7.4	7.3	7.3	8.4	8.1	8.3	7.9	7.6	7.7
24	8.5	8.3	8.4	7.5	7.3	7.4	8.4	8.2	8.3	7.7	7.5	7.6
25	8.5	8.2	8.4	7.5	7.4	7.4	8.2	8.0	8.1	7.9	7.5	7.7
26	8.3	8.2	8.3	7.5	7.4	7.5	8.4	8.0	8.2	8.1	7.4	7.7
27	8.4	8.0	8.2	7.5	7.5	7.5	8.2	8.0	8.1	8.1	7.5	7.8
28	8.4	8.1	8.2	7.5	7.5	7.5	8.1	7.9	8.0	8.1	7.7	7.9
29	---	---	---	7.5	7.4	7.5	8.2	7.9	8.0	8.2	7.8	8.0
30	---	---	---	7.5	7.4	7.5	8.3	7.9	8.1	8.1	7.8	8.0
31	---	---	---	7.5	7.4	7.5	---	---	---	8.1	7.8	8.0
MONTH	8.5	7.6	8.0	9.0	7.3	8.1	8.4	7.5	7.9	8.2	7.4	7.7

03438220 CUMBERLAND RIVER NEAR GRAND RIVERS, KY--Continued

PH, WH, FIELD, in (STANDARD UNITS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.2	7.8	8.0	8.3	7.6	7.9	8.2	7.1	7.8	8.5	8.1	8.3
2	8.2	7.7	8.0	8.1	7.6	7.8	8.4	7.2	8.1	8.5	8.1	8.2
3	8.2	8.0	8.1	7.9	7.5	7.7	8.2	7.6	8.0	8.3	7.8	8.0
4	8.2	7.8	8.0	8.1	7.5	7.8	8.1	7.7	7.9	8.5	7.8	8.0
5	8.1	7.5	7.7	7.9	7.5	7.7	---	---	---	8.6	7.8	8.3
6	8.1	7.4	7.8	7.6	7.4	7.5	---	---	---	8.3	7.8	8.0
7	8.4	7.4	7.8	7.7	7.5	7.6	---	---	---	8.5	7.9	8.2
8	7.6	7.3	7.4	7.8	7.7	7.8	---	---	---	8.1	7.7	7.9
9	7.7	7.4	7.5	8.0	7.4	7.9	---	---	---	8.1	7.6	7.8
10	8.3	7.2	7.6	7.9	7.1	7.5	---	---	---	7.6	7.3	7.5
11	8.3	7.5	7.9	7.9	7.0	7.3	---	---	---	7.7	7.3	7.4
12	8.2	7.6	7.8	8.0	7.5	7.7	---	---	---	7.9	7.3	7.6
13	8.1	7.6	7.8	8.3	7.6	7.9	---	---	---	8.3	7.7	8.0
14	7.8	7.6	7.7	8.6	7.6	8.0	8.2	7.8	8.1	8.4	7.8	8.1
15	7.8	7.5	7.6	8.6	8.0	8.3	8.5	7.8	8.0	8.1	7.7	7.8
16	7.7	7.5	7.6	8.4	7.8	8.2	8.4	7.8	8.0	7.9	7.6	7.6
17	8.5	7.6	7.9	8.2	7.8	8.0	8.4	7.9	8.0	8.0	7.6	7.7
18	8.6	7.8	8.2	8.1	7.7	7.9	8.4	7.9	8.1	8.1	7.6	7.8
19	8.6	7.8	8.2	8.2	7.8	8.0	8.4	8.0	8.2	8.3	7.5	7.9
20	8.3	7.7	8.0	8.2	7.8	8.0	8.4	7.7	8.1	7.7	7.5	7.6
21	8.3	7.6	7.9	8.1	7.9	8.0	8.5	7.3	7.9	8.3	7.6	7.8
22	7.9	7.5	7.7	8.1	7.6	7.8	8.6	7.8	8.2	8.1	7.7	7.8
23	8.2	7.7	7.9	8.0	7.5	7.8	8.5	7.8	8.2	8.6	8.0	8.2
24	8.1	7.6	7.8	8.2	7.5	7.7	8.4	7.8	8.1	8.2	7.8	8.0
25	8.1	7.6	7.9	8.4	7.6	8.0	8.2	7.9	8.0	8.2	7.8	8.0
26	7.8	7.6	7.7	8.3	7.6	7.9	8.6	8.0	8.2	7.9	7.6	7.8
27	7.7	7.4	7.5	8.2	7.8	8.0	8.5	8.1	8.2	8.2	7.5	7.9
28	8.2	7.4	7.8	8.3	7.7	7.9	8.4	8.1	8.2	8.4	7.9	8.1
29	8.1	7.7	7.9	8.2	7.8	8.0	8.7	8.3	8.4	8.1	7.7	7.9
30	7.9	7.6	7.8	8.3	7.8	8.0	8.8	8.2	8.4	7.8	7.6	7.6
31	---	---	---	8.3	7.2	7.8	8.5	8.1	8.3	---	---	---
MONTH	8.6	7.2	7.8	8.6	7.0	7.9	---	---	---	8.6	7.3	7.9

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	21.8	21.1	21.4	15.8	15.3	15.5	12.4	12.1	12.3	6.8	6.3	6.5
2	21.8	21.1	21.5	15.7	15.3	15.5	12.5	12.0	12.3	6.6	4.8	5.7
3	21.9	21.4	21.6	16.0	15.4	15.6	12.8	12.1	12.5	6.0	5.0	5.6
4	21.9	21.2	21.5	16.1	15.5	15.8	13.1	12.6	12.9	5.7	4.7	5.3
5	21.5	20.9	21.3	15.9	15.7	15.7	13.5	12.8	13.1	5.8	5.2	5.5
6	20.9	20.3	20.4	15.7	15.3	15.5	13.3	13.1	13.2	5.7	4.8	5.1
7	20.3	19.9	20.1	15.8	14.9	15.4	13.5	13.1	13.3	4.8	4.5	4.7
8	20.1	19.4	19.8	15.9	15.2	15.4	13.4	13.1	13.3	5.0	3.9	4.6
9	20.0	19.3	19.6	15.4	14.9	15.2	13.1	12.3	12.7	5.4	4.6	5.0
10	19.8	18.9	19.4	15.2	14.8	15.0	12.7	12.0	12.3	5.3	5.0	5.1
11	19.7	19.3	19.4	15.0	14.8	14.9	12.3	11.6	12.0	5.3	5.0	5.2
12	19.5	19.3	19.4	15.1	14.5	14.8	12.2	12.0	12.1	5.4	5.2	5.3
13	19.9	19.4	19.7	15.0	14.3	14.7	12.4	12.1	12.3	5.6	5.3	5.5
14	19.7	19.4	19.5	15.0	14.4	14.7	12.7	12.2	12.5	5.7	5.5	5.6
15	19.5	19.1	19.3	15.2	14.5	14.8	12.5	12.1	12.3	5.8	5.5	5.7
16	19.2	17.7	18.6	14.9	14.6	14.8	12.4	12.1	12.2	6.0	5.5	5.7
17	18.0	17.3	17.7	14.9	14.6	14.7	12.5	12.2	12.4	5.8	5.7	5.8
18	17.7	17.2	17.4	15.1	14.8	14.9	12.3	11.8	12.0	5.7	5.4	5.6
19	17.7	17.1	17.4	15.1	14.4	14.7	12.1	11.1	11.8	5.7	5.3	5.4
20	17.9	17.3	17.6	14.4	13.9	14.1	11.4	10.8	11.1	5.4	4.9	5.2
21	18.2	17.6	17.9	13.9	13.3	13.5	11.6	11.0	11.2	6.0	4.9	5.5
22	18.5	18.0	18.1	13.6	13.2	13.4	11.2	10.6	10.9	6.2	5.5	5.9
23	18.5	18.0	18.2	13.6	13.2	13.4	11.2	10.6	10.9	7.0	6.1	6.5
24	19.1	18.2	18.6	14.0	13.5	13.7	10.8	9.6	10.1	7.5	7.0	7.2
25	18.4	17.9	18.2	13.6	13.3	13.5	9.8	8.5	9.2	8.2	7.1	7.6
26	17.9	16.5	17.2	13.8	13.2	13.4	9.0	8.0	8.6	9.2	7.9	8.5
27	16.5	15.6	16.1	13.9	13.4	13.7	8.5	7.5	8.1	9.4	8.8	9.1
28	16.1	15.5	15.8	13.4	12.2	12.8	8.2	7.5	7.9	9.6	8.5	9.0
29	15.9	15.2	15.6	12.7	12.1	12.4	8.2	6.9	7.7	10.4	9.4	9.8
30	16.0	15.6	15.8	12.7	12.2	12.5	7.4	6.2	6.8	10.6	10.3	10.5
31	16.0	15.5	15.7	---	---	---	7.2	6.5	6.8	11.5	10.6	11.1
MONTH	21.9	15.2	18.7	16.1	12.1	14.5	13.5	6.2	11.2	11.5	3.9	6.4

03438220 CUMBERLAND RIVER NEAR GRAND RIVERS, KY--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.5	10.4	11.0	7.5	6.8	7.2	13.3	12.3	12.8	19.9	19.5	19.7
2	10.6	9.9	10.3	7.5	7.1	7.3	14.0	12.7	13.3	19.8	19.3	19.6
3	10.4	9.9	10.2	7.3	6.5	6.9	13.5	12.4	13.0	19.3	18.5	18.8
4	10.1	8.9	9.7	6.6	5.9	6.3	12.6	11.8	12.2	18.7	18.3	18.5
5	9.3	8.6	9.0	7.3	5.6	6.6	12.9	11.5	12.2	20.0	18.7	19.3
6	9.0	8.5	8.8	7.5	6.6	7.1	13.4	12.1	12.7	20.0	19.5	19.8
7	9.0	8.4	8.7	8.5	7.2	7.8	13.2	12.1	12.8	20.2	19.6	19.9
8	9.4	8.6	9.0	9.6	8.2	8.9	13.8	13.0	13.3	21.1	20.1	20.5
9	9.7	8.8	9.2	10.0	8.9	9.4	13.8	13.3	13.5	20.9	20.6	20.7
10	9.4	9.1	9.3	9.4	9.2	9.3	14.2	13.4	13.7	20.7	20.3	20.5
11	9.3	8.6	8.9	9.5	8.8	9.2	15.0	13.9	14.4	21.0	19.9	20.4
12	9.1	8.6	8.8	9.4	9.0	9.2	15.4	14.7	15.0	21.1	20.5	20.9
13	8.9	8.4	8.7	9.9	9.0	9.4	15.8	15.2	15.4	20.9	20.2	20.6
14	8.9	8.2	8.6	10.9	9.7	10.2	16.5	15.7	16.1	20.5	20.0	20.2
15	8.8	8.2	8.5	10.9	10.5	10.7	17.5	16.2	16.8	20.8	20.0	20.3
16	8.9	8.5	8.7	11.1	10.8	11.0	18.1	17.0	17.6	20.6	20.3	20.5
17	8.9	8.7	8.8	11.5	10.9	11.2	17.8	17.7	17.7	20.5	19.9	20.3
18	9.3	8.4	8.8	11.9	11.2	11.6	18.8	18.6	18.8	19.9	19.2	19.4
19	9.7	8.8	9.2	12.5	11.9	12.2	19.6	18.6	19.0	19.5	19.0	19.2
20	9.8	9.4	9.7	12.3	12.1	12.2	20.2	19.1	19.6	19.1	18.9	19.0
21	10.0	9.7	9.8	12.1	10.7	11.7	20.8	19.6	20.0	19.0	18.5	18.7
22	9.8	9.5	9.7	11.4	10.2	10.8	20.4	19.6	20.1	19.0	18.1	18.5
23	9.8	9.4	9.6	11.7	10.2	10.9	20.3	19.6	20.0	19.2	18.5	18.8
24	10.1	9.4	9.7	12.2	11.0	11.6	20.1	19.3	19.8	19.4	18.7	19.0
25	10.0	9.6	9.8	12.0	11.6	11.9	19.9	19.2	19.4	20.0	19.0	19.5
26	9.8	8.4	9.3	11.6	10.5	11.2	19.4	19.0	19.2	20.6	19.4	19.9
27	8.4	7.0	7.7	11.6	10.2	10.9	19.0	18.5	18.7	20.9	19.9	20.4
28	7.7	6.7	7.3	12.0	10.7	11.3	19.5	18.7	19.0	21.7	20.5	21.0
29	---	---	---	12.8	11.8	12.3	19.8	19.0	19.4	22.1	20.8	21.5
30	---	---	---	12.7	12.5	12.6	19.9	19.2	19.5	22.4	21.4	21.8
31	---	---	---	12.8	12.3	12.5	---	---	---	23.0	21.7	22.4
MONTH	11.5	6.7	9.2	12.8	5.6	10.0	20.8	11.5	16.5	23.0	18.1	20.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	23.6	22.1	22.8	29.5	28.4	29.0	30.4	29.7	30.1	28.7	28.2	28.4
2	24.5	22.6	23.4	30.2	29.0	29.5	31.3	30.1	30.6	28.8	28.3	28.5
3	25.2	24.0	24.5	30.1	29.3	29.7	31.0	30.6	30.8	28.9	28.3	28.5
4	25.8	24.4	24.9	30.5	29.3	30.0	31.4	30.8	31.1	29.5	28.5	28.8
5	25.9	24.2	25.0	30.7	29.7	30.1	---	---	---	29.1	28.7	28.9
6	26.0	24.4	25.2	30.4	30.0	30.2	---	---	---	28.7	28.4	28.5
7	26.1	24.9	25.5	30.4	30.1	30.3	---	---	---	29.2	28.7	28.9
8	25.4	24.5	24.8	30.2	30.1	30.2	---	---	---	28.9	28.5	28.6
9	25.6	25.1	25.4	30.8	30.0	30.5	---	---	---	28.9	28.5	28.7
10	27.0	25.1	25.8	30.5	29.8	30.1	---	---	---	28.8	28.5	28.6
11	27.1	25.7	26.4	29.9	29.5	29.7	---	---	---	28.7	28.4	28.6
12	27.2	26.0	26.6	29.9	29.4	29.6	---	---	---	28.4	27.7	28.0
13	27.3	26.3	26.7	29.7	29.3	29.5	---	---	---	27.8	27.3	27.5
14	26.8	26.3	26.6	30.0	29.2	29.5	28.3	28.0	28.1	27.4	26.9	27.2
15	26.6	26.2	26.4	30.2	29.4	29.8	28.3	27.8	28.1	27.4	27.1	27.2
16	26.3	25.9	26.1	30.1	29.5	29.8	28.1	27.8	27.9	27.3	27.0	27.1
17	26.7	25.9	26.3	29.9	29.5	29.7	28.2	27.5	27.8	27.1	26.8	27.0
18	27.1	26.2	26.6	29.5	29.2	29.4	28.1	27.7	27.9	27.0	26.6	26.8
19	27.9	26.4	26.9	29.6	29.0	29.3	28.3	27.7	28.0	27.1	26.5	26.8
20	27.6	26.7	27.1	29.7	29.1	29.4	28.6	28.0	28.3	26.8	25.8	26.3
21	28.3	26.8	27.6	30.0	29.5	29.7	28.9	28.2	28.5	26.4	26.0	26.2
22	28.2	27.2	27.8	30.5	29.8	30.1	29.1	28.3	28.7	26.0	25.5	25.8
23	28.7	27.9	28.2	30.4	30.0	30.1	29.6	28.8	29.1	25.5	24.6	25.1
24	28.6	27.9	28.3	30.5	29.8	30.1	29.3	28.8	29.0	25.2	24.7	24.9
25	29.1	28.0	28.7	30.8	30.1	30.4	29.1	29.0	29.0	24.8	24.1	24.4
26	28.9	28.5	28.7	30.8	30.1	30.4	29.2	28.9	29.0	24.3	23.3	23.9
27	28.7	28.3	28.5	30.7	30.1	30.4	29.1	28.5	28.8	23.7	23.3	23.4
28	28.5	28.2	28.4	30.5	30.0	30.2	28.8	28.1	28.3	24.1	23.1	23.5
29	28.8	28.2	28.5	30.3	29.8	30.0	28.5	28.0	28.2	24.4	23.4	23.9
30	28.7	28.4	28.6	30.4	29.8	30.0	28.5	28.1	28.3	24.1	23.6	23.8
31	---	---	---	30.2	29.6	29.9	28.5	28.1	28.3	---	---	---
MONTH	29.1	22.1	26.5	30.8	28.4	29.9	---	---	---	29.5	23.1	26.8

03438220 CUMBERLAND RIVER NEAR GRAND RIVERS, KY--Continued

OXYGEN DISSOLVED, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	5.7	5.4	5.5	11.1	8.0	9.6	9.4	8.7	9.0	12.3	10.7	11.4
2	5.7	5.5	5.6	9.5	9.1	9.3	8.7	8.2	8.4	12.4	10.6	11.3
3	5.9	5.6	5.8	10.2	9.3	9.9	8.2	8.0	8.1	11.3	10.9	11.0
4	6.2	5.7	6.0	10.5	9.6	10.0	8.3	8.0	8.2	11.5	11.0	11.2
5	6.1	5.8	6.0	9.9	9.5	9.6	8.6	8.2	8.4	11.7	11.3	11.6
6	6.1	5.8	6.0	10.0	8.9	9.5	8.6	8.3	8.4	11.7	11.5	11.6
7	6.0	5.8	5.9	10.1	9.4	9.9	9.2	8.6	8.9	11.6	11.3	11.5
8	6.3	5.9	6.1	10.2	9.2	9.7	9.9	9.2	9.6	11.6	11.4	11.5
9	6.4	6.1	6.2	10.4	9.5	9.8	10.2	9.8	10.0	11.7	11.4	11.5
10	6.6	6.4	6.5	11.2	9.7	10.8	9.9	9.0	9.5	12.2	11.6	11.7
11	6.7	6.5	6.6	10.7	10.3	10.5	9.1	8.4	8.7	11.8	11.6	11.7
12	7.0	6.7	6.8	10.4	9.5	9.9	8.5	8.2	8.3	11.9	11.6	11.7
13	7.2	6.9	7.1	11.1	9.5	10.1	8.9	7.8	8.4	12.0	11.7	11.9
14	7.6	7.2	7.4	10.4	9.7	10.0	7.9	7.5	7.7	12.0	11.6	11.8
15	9.7	7.5	8.3	10.8	9.6	10.1	8.2	7.8	8.1	11.8	11.5	11.7
16	11.5	7.8	9.2	9.9	9.6	9.8	8.4	8.1	8.3	11.8	11.3	11.5
17	9.3	8.6	8.9	10.9	9.6	10.1	8.6	8.3	8.5	11.6	11.3	11.5
18	10.5	8.7	9.4	11.8	9.7	10.6	8.8	8.5	8.7	11.7	11.4	11.6
19	9.7	8.8	9.2	11.2	9.6	10.2	9.1	8.7	8.9	11.6	11.4	11.5
20	10.3	9.1	9.6	10.0	9.5	9.8	9.5	9.0	9.2	11.5	11.3	11.4
21	10.5	9.3	9.9	11.4	9.8	10.6	9.6	9.4	9.5	11.8	11.2	11.4
22	10.5	9.1	9.8	11.7	10.0	10.7	10.2	9.6	9.9	11.5	11.1	11.3
23	10.0	9.1	9.5	11.8	10.0	10.9	10.4	10.0	10.2	11.6	11.1	11.4
24	9.2	8.5	8.9	11.9	10.5	11.3	10.7	10.3	10.5	11.6	11.4	11.5
25	9.1	8.6	8.8	11.2	10.5	10.9	10.9	10.6	10.7	11.6	11.3	11.5
26	9.5	8.9	9.1	11.6	10.1	10.7	11.1	10.8	10.9	11.4	11.2	11.3
27	9.6	9.2	9.4	10.8	10.0	10.2	11.4	11.0	11.2	11.3	11.2	11.2
28	9.8	9.2	9.4	10.6	10.0	10.3	11.6	11.3	11.4	11.3	11.1	11.2
29	9.5	9.1	9.3	10.3	9.7	10.0	11.9	11.5	11.7	11.2	11.1	11.2
30	9.4	9.0	9.2	10.0	9.4	9.7	12.1	11.8	11.9	11.1	11.1	11.1
31	9.9	9.2	9.4	---	---	---	12.3	11.9	12.1	11.1	11.0	11.1
MONTH	11.5	5.4	7.9	11.9	8.0	10.2	12.3	7.5	9.5	12.4	10.6	11.4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.0	10.8	11.0	13.2	12.1	12.6	11.2	10.7	10.9	10.0	9.3	9.6
2	10.9	10.7	10.8	13.5	13.0	13.2	11.1	10.7	10.9	9.3	8.4	8.7
3	10.7	10.6	10.7	13.7	13.3	13.5	10.9	10.5	10.7	8.8	8.3	8.5
4	10.7	10.4	10.5	13.9	12.4	13.5	11.0	10.5	10.8	9.0	8.1	8.5
5	10.4	10.2	10.3	14.0	12.3	12.9	11.4	10.8	11.0	10.4	8.7	9.3
6	10.2	10.1	10.2	13.8	12.4	13.1	11.3	10.8	11.0	9.6	8.6	9.2
7	10.1	10.0	10.1	14.7	13.0	13.8	11.6	10.9	11.2	9.7	8.7	9.0
8	10.0	10.0	10.0	15.5	13.4	14.5	11.2	10.5	10.8	9.3	8.2	9.0
9	10.0	9.9	10.0	14.4	12.8	13.8	11.0	10.5	10.8	8.6	8.2	8.3
10	9.9	9.9	9.9	14.2	13.6	13.9	11.4	10.6	10.9	8.7	7.8	8.3
11	9.9	9.8	9.8	15.5	13.5	14.3	12.2	10.9	11.5	9.2	8.1	8.6
12	9.8	9.8	9.8	14.4	12.8	13.6	11.9	10.9	11.4	9.0	8.4	8.7
13	9.8	9.8	9.8	14.0	12.8	13.3	12.2	11.2	11.6	8.7	8.2	8.5
14	9.8	9.7	9.7	14.0	13.1	13.6	12.5	11.6	12.0	9.2	8.2	8.6
15	9.8	9.7	9.7	13.1	12.4	12.7	13.1	11.4	12.2	10.1	8.3	9.0
16	9.7	9.7	9.7	12.4	11.5	11.9	13.1	11.9	12.5	9.2	8.5	9.0
17	9.7	9.7	9.7	11.5	10.9	11.2	12.4	11.7	11.8	8.9	8.6	8.7
18	9.7	9.7	9.7	11.2	10.4	10.7	12.6	10.6	12.0	9.1	8.4	8.7
19	10.1	9.6	9.8	11.6	10.2	10.8	11.0	10.2	10.5	9.0	8.5	8.7
20	11.2	10.1	10.7	10.7	9.0	9.5	11.3	9.8	10.3	9.6	8.6	9.0
21	11.8	10.9	11.4	9.8	9.0	9.3	10.2	8.4	9.5	10.0	8.9	9.2
22	11.5	10.9	11.2	9.9	9.6	9.7	8.8	8.4	8.6	11.1	9.4	10.1
23	11.8	11.2	11.5	9.6	9.4	9.5	9.7	8.3	8.9	10.8	9.6	10.1
24	12.0	11.2	11.5	9.7	9.3	9.5	9.3	8.4	9.0	10.2	9.3	9.8
25	11.6	11.0	11.2	10.1	9.6	9.8	9.0	7.6	8.3	10.9	9.1	9.8
26	11.5	11.2	11.3	10.4	9.9	10.2	10.0	8.2	9.0	11.6	8.9	10.0
27	12.1	11.2	11.5	10.4	10.2	10.3	9.5	8.3	8.7	11.3	9.4	10.3
28	12.6	11.6	12.0	10.6	10.4	10.5	9.7	8.8	9.1	11.4	9.9	10.5
29	---	---	---	10.5	10.3	10.4	10.2	9.2	9.6	11.3	10.0	10.6
30	---	---	---	10.5	10.2	10.3	11.1	9.2	10.0	10.6	9.5	10.1
31	---	---	---	10.8	10.4	10.6	---	---	---	11.1	9.5	10.3
MONTH	12.6	9.6	10.5	15.5	9.0	11.8	13.1	7.6	10.5	11.6	7.8	9.2

03438220 CUMBERLAND RIVER NEAR GRAND RIVERS, KY--Continued

OXYGEN DISSOLVED, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	11.0	9.4	10.3	7.9	5.2	6.3	9.6	7.2	7.8	9.1	7.9	8.5
2	10.8	9.0	9.8	7.4	5.3	6.0	8.3	7.5	7.6	9.2	7.5	8.3
3	10.9	9.5	10.0	6.3	4.2	5.5	7.5	7.5	7.5	7.7	6.1	7.1
4	9.7	8.2	9.0	7.1	4.1	5.5	7.5	7.5	7.5	8.6	6.1	7.1
5	8.6	6.8	7.7	6.3	4.0	5.1	---	---	---	9.3	7.4	8.4
6	8.7	6.9	7.7	4.9	3.7	4.3	---	---	---	9.0	7.5	8.3
7	10.0	6.5	7.9	5.4	4.1	4.8	---	---	---	9.9	8.0	8.9
8	6.9	5.5	6.0	5.3	4.8	5.3	---	---	---	8.7	6.9	7.7
9	7.5	5.8	6.8	6.6	5.4	6.0	---	---	---	8.1	6.0	7.2
10	9.5	3.8	6.1	8.2	5.1	6.4	---	---	---	6.8	5.1	5.9
11	9.4	5.8	7.4	8.4	4.8	6.2	---	---	---	7.2	4.5	5.4
12	7.8	5.7	6.5	8.6	5.9	7.1	---	---	---	7.7	4.9	6.4
13	7.7	5.2	6.2	9.9	6.8	8.1	---	---	---	8.8	5.6	7.4
14	6.8	5.2	6.0	11.4	6.9	8.4	5.6	5.3	5.4	7.6	4.6	6.0
15	6.2	5.6	5.9	11.6	8.4	9.9	5.9	5.3	5.6	6.9	2.1	4.8
16	6.7	5.0	6.1	10.1	7.7	9.3	6.0	5.6	5.8	6.7	5.0	5.5
17	9.5	5.3	6.9	8.8	7.8	8.3	6.3	5.8	6.0	5.9	4.6	5.5
18	10.4	6.8	8.2	8.8	6.9	7.7	6.7	6.0	6.4	7.2	4.9	6.1
19	11.4	7.0	8.7	8.8	7.2	7.9	7.1	6.7	6.8	8.5	5.3	6.4
20	9.3	7.1	8.1	9.4	6.6	8.1	7.4	6.9	7.2	7.2	5.8	6.2
21	9.9	6.6	8.1	8.7	7.1	7.7	7.7	7.0	7.3	7.6	5.6	6.3
22	7.9	5.8	7.2	8.8	7.2	8.0	7.2	6.9	7.0	7.4	5.7	6.4
23	9.7	6.6	8.2	8.1	7.2	7.5	7.1	6.9	7.0	8.5	6.9	7.7
24	7.7	5.1	6.9	7.2	6.9	7.0	7.2	6.9	7.0	7.7	6.8	7.2
25	6.8	5.0	5.9	7.2	6.9	7.1	7.4	7.1	7.2	7.7	7.1	7.4
26	5.0	3.1	4.0	7.0	6.9	7.0	7.5	7.3	7.4	7.8	7.2	7.4
27	4.7	2.6	3.4	7.2	6.9	7.0	7.6	7.4	7.5	8.6	7.1	7.8
28	7.3	3.7	5.6	7.3	7.1	7.2	8.0	7.5	7.7	9.0	7.2	8.0
29	7.6	5.9	6.5	7.7	6.1	7.3	9.2	7.5	8.0	8.3	6.9	7.6
30	6.7	5.3	6.1	8.0	6.0	6.9	9.4	7.1	8.1	6.9	6.0	6.3
31	---	---	---	8.3	7.0	7.5	9.1	7.7	8.4	---	---	---
MONTH	11.4	2.6	7.1	11.6	3.7	7.0	---	---	---	9.9	2.1	7.0

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03438500 CUMBERLAND RIVER AT SMITHLAND, KY

(National stream-quality accounting network station)

LOCATION.--Lat 37°08'55", long 88°23'57", Livingston County, Hydrologic Unit 05130205, 1.0 mi (1.6 km) downstream from McCormick Creek, 27.8 mi (44.7 km) downstream from gaging station near Grand Rivers, and at mile 2.8 (4.5 km).

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950-65, 1968-1980, 2002 to current water year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES.--October 1949 to July 1966, July 1967 to August 1980.

REMARKS.--Records of daily discharge are published for gaging station near Grand Rivers (station 03438220). Flow is completely regulated. Barkley-Kentucky Canal (station 03438190) diverts waters from or to Kentucky Lake in the Tennessee River Basin.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	TIME	SAMPLE TYPE	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TURBID-ITY LAB HACH 2100AN (NTU) (99872)	UV ABSORB-ANCE 254 NM, WTR FLT (UNITS /CM) (50624)	UV ABSORB-ANCE 280 NM, WTR FLT (UNITS /CM) (61726)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
DEC												
12...	1300	ENVIRONMENTAL	55900	20	.083	.062	8.8	82	7.2	201	12.0	87
12...	1310	REPLICATE	--	22	.082	.060	--	--	--	--	--	89
FEB												
14...	1350	ENVIRONMENTAL	32100	16	.058	.044	11.7	99	7.9	224	8.5	99
14...	1358	FIELD BLANK	--	--	<.004	<.004	--	--	--	--	--	--
MAR												
21...	1410	ENVIRONMENTAL	122000	71	.071	.054	11.4	106	7.6	217	12.0	94
MAY												
03...	1230	ENVIRONMENTAL	17500	12	.061	.046	8.3	--	7.8	202	19.0	99
JUN												
27...	1230	ENVIRONMENTAL	17300	14	.066	.048	7.0	92	7.9	218	29.0	95
27...	1238	FIELD BLANK	--	--	--	--	--	--	--	--	--	--
AUG												
09...	1210	ENVIRONMENTAL	13200	15	.064	.046	6.9	90	8.1	212	29.0	86

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)
DEC													
12...	28.4	3.99	2.13	3.83	72	88	6.14	.2	5.29	15.3	116	.07	.26
12...	29.0	4.05	2.19	3.84	72	88	6.23	.2	5.32	15.2	122	.07	.25
FEB													
14...	32.2	4.53	1.53	3.49	87	105	4.66	E.1	3.87	14.7	128	<.04	.17
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
21...	29.7	4.74	1.64	4.42	71	86	5.85	.1	2.62	22.5	119	.06	.22
MAY													
03...	31.4	5.09	1.63	4.11	76	93	6.20	E.1	1.62	21.3	131	.05	.27
JUN													
27...	29.6	5.01	1.73	4.16	79	97	5.32	E.1	3.43	17.6	122	E.04	.25
27...	.06	E.007	.03	E.09	--	--	.43	<.01	<.13	.02	--	<.015	--
AUG													
09...	25.7	5.17	1.96	6.53	71	86	6.92	.1	2.28	19.8	119	<.04	.21

DATE	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN,PAR TICULTE WAT FLT SUSP (MG/L AS N) (49570)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	CARBON, INORG + ORGANIC PARTIC. TOTAL (MG/L AS C) (00694)	CARBON, INOR-GANIC, PARTIC. TOTAL (MG/L AS C) (00688)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC PARTIC-ULATE TOTAL (MG/L AS C) (00689)	PHEO-PHYTIN A, PHYTO-PHYTON (UG/L) (62360)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)
DEC													
12...	.39	1.03	.011	.05	.062	.053	.134	2.5	<.1	2.9	2.5	3.1	2.5
12...	.39	1.01	.011	.10	.061	.053	.132	.8	<.1	3.0	.8	3.2	2.1
FEB													
14...	.24	.82	E.004	.08	.039	.029	.078	9.7	E.2	2.3	E9.6	4.9	6.1
14...	--	--	--	<.02	--	--	--	<.1	M	.5	E.1	--	--
MAR													
21...	.61	.50	<.008	.28	.046	.038	.29	2.4	<.1	2.6	2.4	12.3	9.0
MAY													
03...	.42	.47	.010	.16	.020	.011	.070	1.3	<.1	2.5	1.3	--	--
JUN													
27...	.56	.09	.009	.26	.022	.011	.086	1.6	<.1	2.5	1.6	--	--
27...	--	<.013	<.002	--	--	<.007	--	--	--	--	--	--	--
AUG													
09...	.59	<.05	<.008	.43	.035	.025	.122	2.5	<.1	3.3	2.5	12.7	33.2

03438500 CUMBERLAND RIVER AT SMITHLAND, KY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	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)	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)
DEC													
12...	4	.07	.4	25	<.06	20	<.04	<.8	.10	.9	13	<.08	1.0
12...	4	.07	.5	25	<.06	22	<.04	<.8	.10	1.3	15	<.08	1.0
FEB													
14...	4	.06	.4	20	<.06	18	<.04	<.8	.09	.8	E9	E.07	.8
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
21...	5	E.05	.6	22	<.06	18	<.04	<.8	.10	.7	16	<.08	1.1
MAY													
03...	--	--	.5	--	--	27	--	--	--	--	<10	--	1.1
JUN													
27...	--	--	.8	--	--	40	--	--	--	--	<10	--	.8
27...	--	--	<.2	--	--	<7	--	--	--	--	<10	--	<.3
AUG													
09...	10	.13	1.7	21	<.06	34	<.04	<.8	.10	.7	<10	<.08	1.1

DATE	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)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)
DEC													
12...	2.0	.6	.65	<.3	<1	102	.7	15	<.002	<.004	<.002	<.005	.037
12...	1.7	.6	.64	E.2	<1	102	.8	5	<.002	<.004	<.002	<.005	.034
FEB													
14...	1.9	.6	.22	.3	<1	108	1.1	3	<.006	<.006	<.004	<.005	.031
14...	--	--	--	--	--	--	--	--	<.006	<.006	<.004	<.005	<.007
MAR													
21...	.9	.6	.21	E.3	<1	105	.3	2	<.006	<.006	<.004	<.005	.156
MAY													
03...	--	--	--	E.3	--	116	1.4	--	<.006	.014	<.004	<.005	.751
JUN													
27...	--	--	--	E.2	--	113	1.0	--	<.006	.007	<.004	<.005	.599
27...	--	--	--	<.3	--	.13	<.2	--	--	--	--	--	--
AUG													
09...	.3	1.4	.39	E.3	<1	103	1.6	3	<.006	<.006	<.004	<.005	.186

Date	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)
DEC													
12...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.032	<.005	<.005	<.02	<.002	<.009
12...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.030	<.005	<.005	<.02	<.002	<.009
FEB													
14...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.027	<.005	<.005	<.02	<.002	<.009
14...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	<.006	<.005	<.005	<.02	<.002	<.009
MAR													
21...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.011	.009	<.005	<.02	<.002	<.009
MAY													
03...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.058	E.005	<.005	<.02	<.002	<.009
JUN													
27...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.088	E.002	<.005	<.02	<.002	<.009
27...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
09...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.039	<.005	<.005	<.02	<.002	<.009

03438500 CUMBERLAND RIVER AT SMITHLAND, KY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	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)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)
DEC													
12...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	E.008	<.006	<.002	<.007	<.003	<.007
12...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	E.008	<.006	<.002	<.007	<.003	<.007
FEB													
14...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	E.008	<.006	<.002	<.007	<.003	<.010
14...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007	<.003	<.010
MAR													
21...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	E.012	<.006	<.002	<.007	<.003	<.010
MAY													
03...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.058	<.006	<.002	<.007	<.003	<.010
JUN													
27...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.051	<.006	<.002	<.007	<.003	<.010
27...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
09...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.013	<.006	<.002	<.007	<.003	<.010

DATE	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPA-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	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)
DEC													
12...	<.002	<.010	<.006	<.011	<.01	<.004	<.010	<.011	<.02	.341	E.01	<.034	<.02
12...	<.002	<.010	<.006	<.011	M	<.004	<.010	<.011	<.02	.313	E.01	<.034	<.02
FEB													
14...	<.004	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.024	E.01	<.034	<.02
14...	<.004	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
MAR													
21...	<.004	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02	.026	E.01	<.034	<.02
MAY													
03...	<.004	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.063	E.01	<.034	<.02
JUN													
27...	<.004	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.055	E.02	<.034	<.02
27...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
09...	<.004	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.021	.02	<.034	<.02

DATE	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	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)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
DEC						
12...	<.005	<.002	<.009	.21	73	26
12...	<.005	<.002	<.009	.21	81	26
FEB						
14...	<.005	<.002	<.009	.25	98	13
14...	<.005	<.002	<.009	--	--	--
MAR						
21...	<.005	<.002	<.009	.27	95	77
MAY						
03...	<.005	<.002	<.009	--	99	14
JUN						
27...	<.005	<.002	<.009	--	100	19
27...	--	--	--	--	--	--
AUG						
09...	<.005	<.002	<.009	.27	97	28

E--Laboratory estimated value.
M--Presence of material verified but not quantified.
<--Numeric result is less than the value shown.

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03609750 TENNESSEE RIVER AT HIGHWAY 60 NEAR PADUCAH, KY

(National stream-quality accounting network and radiochemical network station)

LOCATION.--Lat 37°02'16", long 88°31'46", McCracken County, Hydrologic unit 06040006, at auxiliary gaging station at bridge on U.S. Highway 60, 16.3 mi downstream from gaging station, 2.4 mi east of Paducah, and at mile 5.3.

DRAINAGE AREA.--40,330 mi^2; 40,200 mi^2 at gaging station.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950, 1952, 1967-72, 1974-86, 1997 to current water year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE.--November 1973 to September 1981.
WATER TEMPERATURES.--November 1973 to September 1981.

REMARKS.--Records of daily discharge are published for gaging station near Paducah (station 03609500) 16.3 mi upstream. Flow is completely regulated. Barkley-Kentucky Canal (station 03438190) diverts water from or to Lake Barkley in the Cumberland River Basin.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	TIME	SAMPLE TYPE	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TURBID-ITY LAB HACH 2100AN (NTU) (99872)	UV ABSORB-ANCE 254 NM, WTR FLT (UNITS /CM) (50624)	UV ABSORB-ANCE 280 NM, WTR FLT (UNITS /CM) (61726)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
NOV												
21...	1340	ENVIRONMENTAL	36000	4.3	.052	.036	9.8	95	7.5	208	14.0	75
21...	1348	FIELD BLANK	--	--	--	--	--	--	--	--	--	--
JAN												
31...	1340	ENVIRONMENTAL	332000	70	.079	.062	13.9	128	7.5	145	11.0	58
MAR												
07...	1330	ENVIRONMENTAL	29200	6.8	.064	.046	12.5	104	7.8	162	7.5	62
07...	1338	FIELD BLANK	--	--	--	--	--	--	--	--	--	--
APR												
11...	1250	ENVIRONMENTAL	27100	12	.073	.055	11.5	115	7.6	169	15.5	66
11...	1258	FIELD BLANK	--	--	--	--	--	--	--	--	--	--
MAY												
30...	1310	ENVIRONMENTAL	68400	6.3	.074	.055	9.8	115	8.1	154	23.0	61
30...	1318	FIELD BLANK	--	--	<.004	<.004	--	--	--	--	--	--
JUL												
18...	1240	ENVIRONMENTAL	23300	6.4	.067	.049	5.1	67	7.2	162	28.5	57
18...	1250	REPLICATE	--	7.3	.068	.049	--	--	--	--	--	56

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)
NOV													
21...	22.3	4.69	2.21	10.6	60	73	12.5	<.1	5.14	17.0	120	E.03	.22
21...	<.01	<.008	<.01	<.09	--	--	.03	<.01	<.13	<.01	--	<.015	--
JAN													
31...	18.4	2.97	1.80	4.17	52	63	4.86	<.1	4.04	10.1	84	.06	.24
MAR													
07...	19.5	3.12	1.47	5.72	53	64	6.65	E.1	3.75	10.7	88	E.03	.17
07...	.04	<.008	.01	<.09	--	--	.82	<.01	<.13	<.01	--	.019	--
APR													
11...	21.0	3.27	1.63	5.16	56	68	6.59	.1	3.23	11.3	81	<.04	.15
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
30...	19.4	3.11	1.68	4.69	56	68	6.27	E.1	2.42	9.6	86	<.04	.21
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
18...	16.9	3.46	1.48	7.06	50	--	8.39	E.1	2.69	9.7	90	<.04	.24
18...	16.8	3.43	1.44	6.95	--	--	8.45	E.1	2.68	9.8	82	<.04	.20

03609750 TENNESSEE RIVER AT HIGHWAY 60 NEAR PADUCAH, KY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN,PAR TICULTE WAT FLT SUSP (MG/L AS N) (49570)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	CARBON, INORG + ORGANIC PARTIC. TOTAL (MG/L AS C) (00694)	CARBON, INOR-GANIC, PARTIC. TOTAL (MG/L AS C) (00688)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC PARTIC-ULATE TOTAL (MG/L AS C) (00689)	PHEO-PHYTIN A, PHYTO-PHYTON (UG/L) (62360)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)
NOV													
21...	.29	.34	.021	.07	.053	.045	.065	.4	<.1	2.4	.4	2.5	1.8
21...	--	<.013	<.002	--	--	<.007	--	--	--	--	--	--	--
JAN													
31...	.47	.48	E.004	.24	.057	.052	.26	2.0	<.1	2.6	2.0	7.7	2.0
MAR													
07...	.27	.49	E.006	.07	.027	.017	.050	.5	<.1	2.3	.5	2.7	4.0
07...	--	<.013	<.002	--	--	<.007	--	--	--	--	--	--	--
APR													
11...	.29	.41	E.006	.08	.040	.030	.086	.8	<.1	2.5	.8	6.7	13.5
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
30...	.39	.18	.011	.21	.013	E.004	.055	1.3	<.1	2.5	1.3	8.3	15.2
30...	--	--	--	.07	--	--	--	.2	<.1	E.3	.2	--	--
JUL													
18...	.47	.05	.015	.21	.015	E.005	.053	1.1	<.1	2.5	1.1	8.1	14.6
18...	.61	.05	.014	.20	.013	E.005	.054	1.1	<.1	2.5	1.1	8.2	13.6

DATE	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)	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)
NOV													
21...	5	.14	.8	21	<.06	25	<.04	<.8	.08	1.3	E5	E.07	1.3
21...	--	--	<.2	--	--	<7	--	--	--	--	<10	--	<.3
JAN													
31...	7	.08	.5	18	<.06	13	<.04	<.8	.09	.8	26	<.08	.5
MAR													
07...	--	--	1.8	--	--	16	--	--	--	--	21	--	1.2
07...	--	--	<.2	--	--	<7	--	--	--	--	<10	--	<.3
APR													
11...	6	.09	.3	19	<.06	13	<.04	<.8	.09	.8	16	<.08	.8
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
30...	--	--	.6	--	--	15	--	--	--	--	10	--	.8
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
18...	4	.11	1.3	24	<.06	20	<.04	<.8	.07	.6	<10	<.08	1.2
18...	4	.11	1.4	24	<.06	20	<.04	<.8	.07	.6	<10	<.08	1.2

DATE	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)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)
NOV													
21...	1.7	.8	.22	<.3	<1	78.5	.7	7	<.002	<.004	<.002	<.005	.015
21...	--	--	--	<.3	--	<.08	<.2	--	--	--	--	--	--
JAN													
31...	2.6	.7	.52	<.3	<1	52.0	1.2	<1	<.006	<.006	<.004	<.005	.021
MAR													
07...	--	--	--	E.2	--	60.9	.2	--	<.006	<.006	<.004	<.005	.020
07...	--	--	--	1.1	--	<.08	<.2	--	--	--	--	--	--
APR													
11...	1.2	.6	.63	<.3	<1	57.8	1.0	<1	<.006	<.006	<.004	<.005	.040
11...	--	--	--	--	--	--	--	--	<.006	<.006	<.004	<.005	<.007
MAY													
30...	--	--	--	<.3	--	55.7	.8	--	<.006	.008	<.004	<.005	.513
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
18...	.4	1.0	.61	<.3	<1	64.1	.9	<1	<.006	<.006	<.004	<.005	.539
18...	.4	1.0	.56	<.3	<1	63.9	.6	<1	<.006	<.006	<.004	<.005	.515

03609750 TENNESSEE RIVER AT HIGHWAY 60 NEAR PADUCAH, KY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)
NOV													
21...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.009	<.005	<.005	<.02	<.002	<.009
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
31...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.009	<.005	<.005	<.02	<.002	<.009
MAR													
07...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.008	<.005	<.005	<.02	<.002	<.009
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
11...	<.010	<.002	<.041	E.004	<.005	<.018	<.003	E.004	E.003	<.005	<.02	<.002	<.009
11...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	<.006	<.005	<.005	<.02	<.002	<.009
MAY													
30...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.037	E.005	<.005	<.02	<.002	<.009
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
18...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.046	<.005	<.005	<.02	<.002	<.009
18...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.037	<.005	<.005	<.02	<.002	<.009

DATE	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	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)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)
NOV													
21...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	E.003	<.006	<.002	<.007	<.003	<.007
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
31...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	E.008	<.006	<.002	<.007	<.003	<.010
MAR													
07...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	E.007	<.006	<.002	<.007	<.003	<.010
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
11...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	E.006	<.006	<.002	<.007	<.003	<.010
11...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007	<.003	<.010
MAY													
30...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.074	<.006	<.002	<.007	<.003	<.010
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
18...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.036	<.006	<.002	<.007	<.003	<.010
18...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.035	<.006	<.002	<.007	<.003	<.010

DATE	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPA-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	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)
NOV													
21...	<.002	<.010	<.006	<.011	M	<.004	<.010	<.011	<.02	.012	E.01	<.034	<.02
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
31...	<.004	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02	.020	E.01	<.034	<.02
MAR													
07...	<.004	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02	.028	E.01	<.034	<.02
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
11...	<.004	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02	.028	E.01	<.034	<.02
11...	<.004	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
MAY													
30...	<.004	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.063	E.02	<.034	<.02
30...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
18...	<.004	<.022	<.006	<.011	M	<.004	<.010	<.011	<.02	.042	E.03	<.034	<.02
18...	<.004	<.022	<.006	<.011	M	<.004	<.010	<.011	<.02	.039	E.02	<.034	<.02

03609750 TENNESSEE RIVER AT HIGHWAY 60 NEAR PADUCAH, KY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	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)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
NOV						
21...	<.005	<.002	<.009	.21	97	4.0
21...	--	--	--	--	--	--
JAN						
31...	<.005	<.002	<.009	.13	99	65
MAR						
07...	<.005	<.002	<.009	--	98	6.0
07...	--	--	--	--	--	--
APR						
11...	<.005	<.002	<.009	.14	98	11
11...	<.005	<.002	<.009	--	--	--
MAY						
30...	<.005	<.002	<.009	--	98	8.0
30...	--	--	--	--	--	--
JUL						
18...	<.005	<.002	<.009	.07	97	8.0
18...	<.005	<.002	<.009	.07	97	10

E--Laboratory estimated value.
M--Presence of material verified but not quantified.
<--Numeric result is less than the value shown.

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 mi^2.

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 413.46 ft above NGVD of 1929.

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

COOPERATION.--Kentucky Natural Resources and Environmental Protection Cabinet.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 14	1200	4,190	13.64	Feb 1	unknown	4,770	13.72
Nov 29	1400	*14,500	*17.09	Mar 20	1500	5,330	14.31
Dec 13	0830	6,410	14.58	Apr 14	2030	4,620	13.92
Dec 17	0630	9,530	15.52	Apr 25	0000	7,340	15.20
Dec 23	0900	4,350	13.35	May 18	unknown	*14,500	17.09
Jan 24	unknown	6,570	14.50	Sep 27	1800	6,980	15.07

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	18	710	89	2770	30	538	1950	83	17	11	4.8
2	13	19	393	82	353	47	248	427	63	16	9.6	4.5
3	13	18	306	78	204	135	153	215	53	219	8.6	5.1
4	12	16	195	74	139	55	101	139	46	65	7.7	5.7
5	23	16	150	72	95	36	78	98	51	25	7.4	5.7
6	41	17	183	81	81	31	65	76	106	19	7.4	5.5
7	15	17	198	79	75	28	55	64	112	15	7.2	5.5
8	12	17	e2930	72	66	26	52	56	48	14	7.4	5.5
9	12	17	525	70	54	80	68	50	38	14	8.7	5.4
10	12	18	273	69	46	91	47	41	33	14	8.8	6.0
11	112	18	191	77	39	45	40	37	31	28	8.7	5.8
12	140	20	1510	67	36	61	37	34	30	23	5.7	5.8
13	289	21	4920	64	33	70	407	1550	147	18	6.8	6.1
14	2580	23	1770	62	29	49	2570	501	56	20	27	21
15	337	27	484	59	28	40	941	154	33	19	e18	26
16	207	32	4330	57	26	43	274	78	26	18	e11	90
17	105	34	8080	56	25	831	157	4500	24	15	10	43
18	61	37	1330	57	22	1010	105	6350	22	28	42	18
19	45	40	481	66	22	773	79	334	21	26	21	12
20	36	37	338	64	89	4050	64	220	19	17	14	1300
21	29	30	279	64	56	704	55	141	18	109	26	1030
22	26	27	246	100	34	285	55	99	18	41	11	92
23	25	26	2480	4280	27	170	41	81	17	13	7.7	43
24	55	66	478	4680	24	116	3430	68	17	20	7.5	29
25	112	42	297	786	24	98	2190	73	56	13	6.2	22
26	36	68	239	291	146	2410	339	1180	67	12	8.6	590
27	24	3040	194	192	68	528	203	207	42	11	11	6190
28	21	e4540	163	140	37	243	721	127	21	9.5	8.2	829
29	20	e13700	138	110	---	231	313	241	19	9.3	7.2	186
30	19	e9160	113	90	---	597	167	461	18	11	6.2	108
31	19	---	98	339	---	1410	---	151	---	17	5.5	---
TOTAL	4463	31161	34022	12467	4648	14323	13593	19703	1335	895.8	353.1	10700.4
MEAN	144.0	1039	1097	402.2	166.0	462.0	453.1	635.6	44.50	28.90	11.39	356.7
MAX	2580	13700	8080	4680	2770	4050	3430	6350	147	219	42	6190
MIN	12	16	98	56	22	26	37	34	17	9.3	5.5	4.5
CFSM	1.07	7.75	8.19	3.00	1.24	3.45	3.38	4.74	0.33	0.22	0.09	2.66
IN.	1.24	8.65	9.44	3.46	1.29	3.98	3.77	5.47	0.37	0.25	0.10	2.97

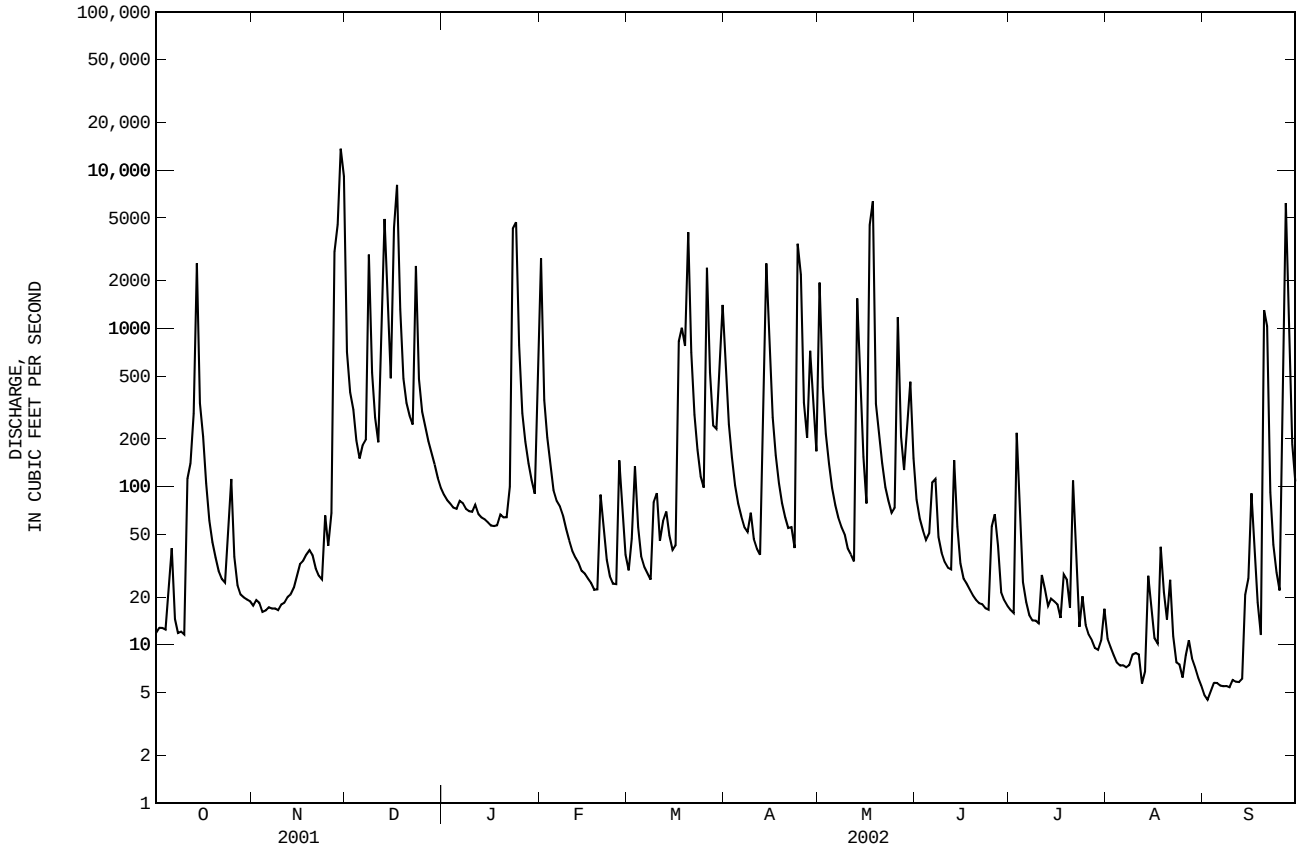
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2002, BY WATER YEAR (WY)

MEAN	48.35	189.0	341.1	223.2	398.7	284.5	239.4	248.3	118.9	69.10	42.47	43.00
MAX	205	1039	1097	583	1693	1336	623	925	667	264	377	357
(WY)	1986	2002	2002	1999	1989	1997	1983	1983	1998	1989	1995	2002
MIN	2.96	7.43	24.4	27.1	65.5	61.7	21.6	12.4	3.88	4.95	2.40	2.36
(WY)	1988	2000	1996	2001	1996	1995	1986	1988	1988	1986	1983	1983

03610200 CLARKS RIVER AT ALMO, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1983 - 2002	
ANNUAL TOTAL	98713.7		147664.3			
ANNUAL MEAN	270.4		404.6		186.0	
HIGHEST ANNUAL MEAN					405	2002
LOWEST ANNUAL MEAN					69.8	1987
HIGHEST DAILY MEAN	13700	Nov 29	13700	Nov 29	14000	Mar 2 1997
LOWEST DAILY MEAN	7.9	Jul 17	4.5	Sep 2	1.6	Aug 29 1983
ANNUAL SEVEN-DAY MINIMUM	8.7	Jul 11	5.3	Aug 31	1.7	Aug 31 1983
MAXIMUM PEAK FLOW			14500	Nov 29	23300	Mar 2 1997
MAXIMUM PEAK STAGE			17.10	May 18	18.35	Mar 2 1997
ANNUAL RUNOFF (CFSM)	2.02		3.02		1.39	
ANNUAL RUNOFF (INCHES)	27.40		40.99		18.86	
10 PERCENT EXCEEDS	305		742		312	
50 PERCENT EXCEEDS	28		55		31	
90 PERCENT EXCEEDS	12		11		5.6	

e Estimated



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 on 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 mi^2.

PERIOD OF RECORD.--October 1971 to current year.

REVISED RECORDS.--1983 (M), 1984 (M).

GAGE.--Water-stage recorder with telemetry. Datum of gage is 345.53 ft above NGVD of 1929.

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

COOPERATION.--Kentucky Natural Resources and Environmental Protection Cabinet.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 17	Unknown	2,680	12.90	May 13	0715	2,410	12.50
Feb 1	0015	1,980	11.77	May 17	0945	*3,340	*13.71
Mar 26	0230	2,190	12.15				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.93	e1.5	33	5.7	321	5.7	19	134	2.5	0.49	e0.48	e0.28
2	e0.90	e56	17	4.8	53	71	14	121	2.3	0.46	e0.44	e0.30
3	e0.86	14	10	4.3	30	44	13	40	1.6	0.48	e0.42	e0.32
4	e0.84	6.7	6.3	4.2	19	13	8.6	20	1.2	0.48	e0.42	e0.36
5	29	4.8	3.9	4.1	15	9.7	6.0	14	3.2	0.46	e0.44	e0.40
6	6.7	4.1	64	4.7	13	7.3	4.2	12	2.6	e0.44	e0.48	0.45
7	e1.4	3.4	25	4.8	10	5.1	3.4	11	1.1	e0.42	e0.46	0.50
8	e1.1	3.3	100	4.8	8.0	3.7	4.1	10	0.97	e0.40	e0.42	0.53
9	e0.96	3.4	18	5.5	6.8	137	8.8	35	e0.94	e1.0	e0.40	0.50
10	e0.90	e3.4	9.2	5.8	7.0	25	2.8	11	e0.90	e16	e0.38	0.51
11	84	e3.5	4.7	5.0	4.1	13	1.8	9.1	e0.86	8.3	e0.37	0.53
12	30	e3.6	127	4.4	3.8	14	1.3	8.2	e3.0	1.3	e0.36	0.53
13	118	e3.8	66	4.2	2.5	9.2	165	819	e4.0	1.1	e1.5	0.53
14	153	e4.0	166	4.0	1.8	5.7	107	65	e1.0	1.0	e0.70	0.67
15	15	e4.4	28	3.3	1.8	3.9	27	27	e0.90	0.99	e0.50	0.73
16	11	e5.4	e483	3.0	1.4	23	13	179	e0.86	0.99	e0.47	0.69
17	e7.4	e6.6	e1180	3.1	0.94	8.6	8.5	1300	e0.80	1.0	e0.44	1.0
18	e5.6	e8.0	108	3.4	0.84	6.5	4.9	129	e0.76	1.2	e0.42	0.88
19	e4.2	e10	42	6.5	22	207	4.9	53	e0.70	0.99	e0.40	0.83
20	e3.6	e9.0	25	7.2	109	246	3.6	31	e0.66	e0.80	e0.39	39
21	e3.0	e8.0	20	11	18	33	4.5	23	e0.60	e0.70	e0.37	6.2
22	e2.6	e7.4	17	14	9.1	20	e3.0	17	e0.56	e0.62	e0.34	0.65
23	e2.3	e7.0	46	92	6.1	17	e2.6	14	e0.50	e0.56	e0.33	e0.50
24	e9.0	59	23	455	4.7	15	331	12	e1.0	e0.70	e0.32	e0.40
25	11	11	17	60	24	266	42	11	e2.0	e0.58	e0.31	e0.36
26	e3.4	6.8	14	36	58	611	19	10	e1.0	e0.50	e0.36	e30
27	e2.6	71	12	27	12	56	21	8.8	e0.80	e0.44	e0.42	97
28	e2.2	282	10	23	7.9	29	25	9.3	0.69	e0.40	e0.38	2.8
29	e1.9	637	9.0	20	---	131	7.9	15	0.61	e0.36	e0.36	e0.70
30	e1.7	184	7.0	149	---	63	29	8.4	0.49	e0.40	e0.33	e0.50
31	e1.6	---	6.4	477	---	29	---	4.7	---	e0.50	e0.30	---
TOTAL	516.69	1432.1	2697.5	1456.8	770.78	2128.4	905.9	3161.5	39.10	44.06	13.71	188.65
MEAN	16.67	47.74	87.02	46.99	27.53	68.66	30.20	102.0	1.303	1.421	0.442	6.288
MAX	153	637	1180	477	321	611	331	1300	4.0	16	1.5	97
MIN	0.84	1.5	3.9	3.0	0.84	3.7	1.3	4.7	0.49	0.36	0.30	0.28
CFSM	1.14	3.27	5.96	3.22	1.89	4.70	2.07	6.99	0.09	0.10	0.03	0.43
IN.	1.32	3.65	6.87	3.71	1.96	5.42	2.31	8.06	0.10	0.11	0.03	0.48

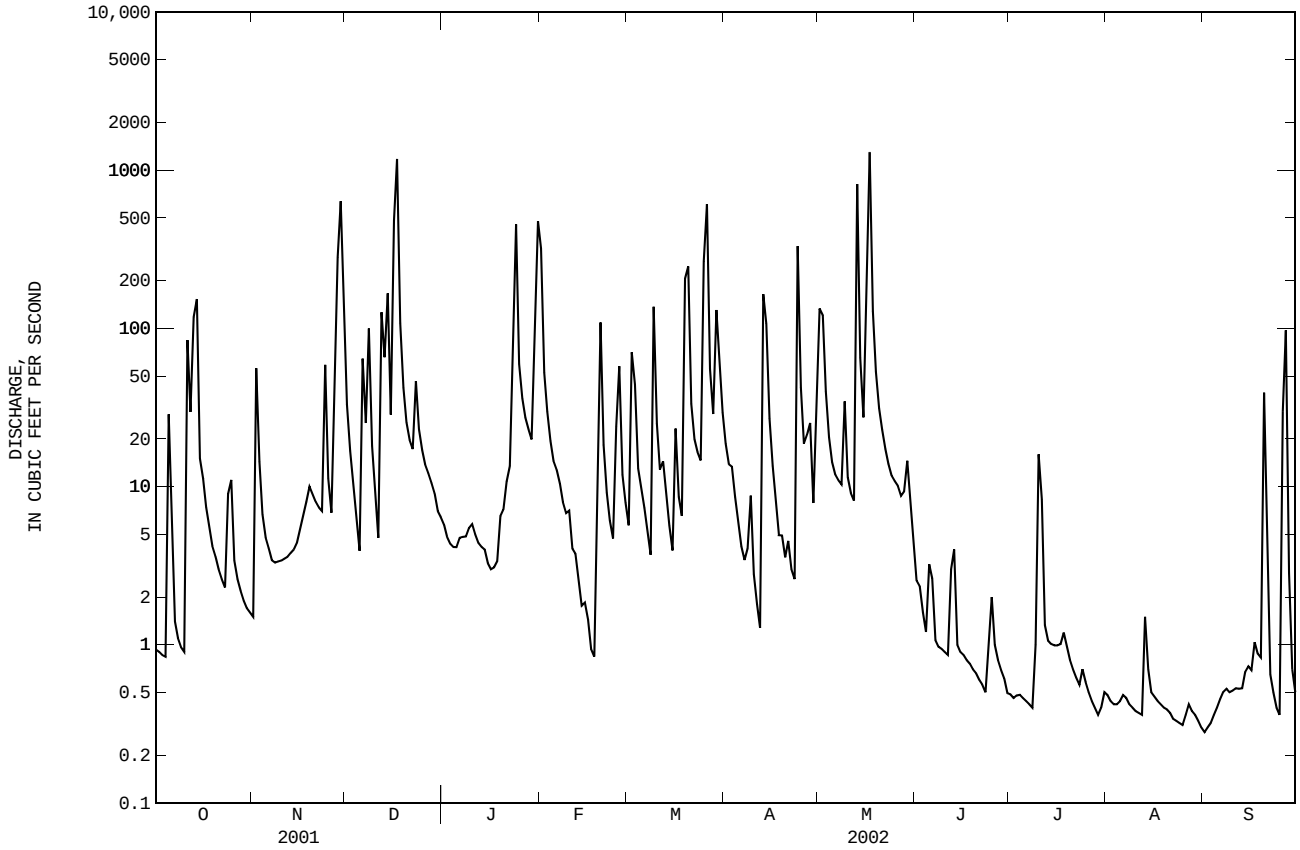
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2002, BY WATER YEAR (WY)

MEAN	3.516	15.21	28.11	23.43	35.22	31.60	30.40	19.80	9.314	8.254	2.899	4.138
MAX	19.4	70.8	105	65.8	160	109	121	102	53.8	37.3	13.9	50.1
(WY)	1986	1997	1983	2000	1989	1997	1973	2002	1998	1983	1982	1985
MIN	0.25	0.37	0.71	0.58	4.19	8.37	2.14	1.17	0.32	0.37	0.30	0.23
(WY)	1982	1972	1977	1977	1996	1987	1986	1992	1972	1974	1980	1976

03611260 MASSAC CREEK NEAR PADUCAH, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1972 - 2002	
ANNUAL TOTAL	6987.59		13355.19			
ANNUAL MEAN	19.14		36.59		17.56	
HIGHEST ANNUAL MEAN					37.9	1979
LOWEST ANNUAL MEAN					6.54	1987
HIGHEST DAILY MEAN	1180	Dec 17	1300	May 17	1910	Jan 3 2000
LOWEST DAILY MEAN	0.70	Jul 16	0.28	Sep 1	0.09	Nov 13 1971
ANNUAL SEVEN-DAY MINIMUM	0.74	Sep 11	0.32	Aug 29	0.10	Nov 10 1971
MAXIMUM PEAK FLOW			3340	May 17	5990	Sep 5 1985
MAXIMUM PEAK STAGE			13.71	May 17	15.86	Sep 5 1985
INSTANTANEOUS LOW FLOW					0.06	Nov 14 1971
ANNUAL RUNOFF (CFSM)	1.31		2.51		1.20	
ANNUAL RUNOFF (INCHES)	17.80		34.03		16.34	
10 PERCENT EXCEEDS	28		68		28	
50 PERCENT EXCEEDS	2.9		4.8		2.2	
90 PERCENT EXCEEDS	0.78		0.44		0.45	

e Estimated



03611500 OHIO RIVER AT METROPOLIS, IL

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

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

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

GAGE.--Water-stage recorder. Datum of gage is 276.27 ft above NGVD of 1929. Prior to Dec. 22, 1936, water-stage recorders (temporary installations) at Paducah, Ky., Metropolis and Joppa, Il., and Dam 52. Auxiliary water-stage recorder near Grand Chain, 0.5 mi upstream from Dam 53, and 18 mi downstream from base gage. Prior to May 29, 1936, auxiliary nonrecording gage at Dam 53.

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

COOPERATION.--Kentucky Natural Resources and Environmental Protection Cabinet and U.S. Army Corps of Engineers, Louisville District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89100	178000	709000	249000	816000	208000	795000	560000	e381000	e98100	115000	59400
2	76100	173000	741000	232000	760000	189000	863000	583000	e281000	e96400	98000	55000
3	70600	142000	729000	206000	708000	178000	878000	587000	e237000	83400	e97300	38400
4	71800	167000	656000	162000	627000	185000	883000	583000	e217000	102000	e82400	45500
5	78900	174000	500000	122000	573000	193000	862000	615000	163000	95400	e77000	43500
6	84800	161000	350000	139000	535000	184000	815000	699000	133000	81400	e78100	36100
7	76700	163000	313000	142000	514000	185000	721000	717000	191000	93300	e75100	52800
8	76500	134000	304000	144000	460000	193000	664000	709000	240000	72700	e66000	46900
9	79900	118000	307000	139000	398000	197000	598000	699000	273000	71500	e62900	43900
10	76500	118000	299000	120000	373000	193000	483000	702000	308000	85500	e54500	42000
11	60700	122000	288000	108000	348000	197000	358000	709000	341000	96900	e47500	41600
12	63300	118000	312000	120000	322000	193000	268000	695000	e347000	54800	46700	41500
13	78800	114000	326000	123000	316000	192000	269000	696000	e283000	59400	67600	37500
14	123000	114000	373000	149000	287000	196000	310000	693000	e226000	72500	70600	33100
15	237000	121000	442000	198000	274000	195000	341000	691000	e169000	79300	53400	30500
16	250000	103000	498000	214000	254000	193000	381000	700000	e141000	123000	67600	43200
17	255000	76200	615000	163000	222000	211000	403000	738000	e147000	131000	64500	64100
18	248000	83200	656000	116000	217000	361000	401000	774000	e177000	116000	56600	61300
19	240000	85800	673000	134000	217000	576000	406000	773000	151000	128000	66200	58700
20	233000	86400	678000	150000	197000	702000	420000	767000	123000	97000	93500	84300
21	243000	102000	652000	166000	189000	768000	424000	772000	e110000	74800	89700	77500
22	234000	111000	641000	196000	165000	e831000	453000	779000	e100000	92400	64500	82800
23	202000	84800	622000	293000	148000	e874000	435000	797000	e86000	100000	61200	75100
24	195000	60800	564000	e438000	160000	e897000	432000	814000	e64000	88400	66800	77500
25	250000	92500	537000	588000	166000	e915000	479000	810000	e56000	81100	87800	99600
26	308000	140000	502000	685000	190000	e940000	524000	801000	e60000	83900	102000	136000
27	307000	164000	447000	768000	207000	905000	532000	760000	e68000	80400	91700	208000
28	267000	230000	387000	803000	209000	877000	558000	e711000	e80000	89200	82900	320000
29	232000	369000	363000	824000	---	853000	562000	e652000	107000	129000	86100	374000
30	224000	628000	349000	831000	---	818000	559000	560000	e93700	132000	74400	328000
31	195000	---	288000	824000	---	795000	---	446000	---	131000	68700	---
TOTAL	5226700	4533700	15121000	9546000	9852000	14394000	16077000	21592000	5353700	2919800	2316300	2737800
MEAN	168600	151100	487800	307900	351900	464300	535900	696500	178500	94190	74720	91260
MAX	308000	628000	741000	831000	816000	940000	883000	814000	381000	132000	115000	374000
MIN	60700	60800	288000	108000	148000	178000	268000	446000	56000	54800	46700	30500

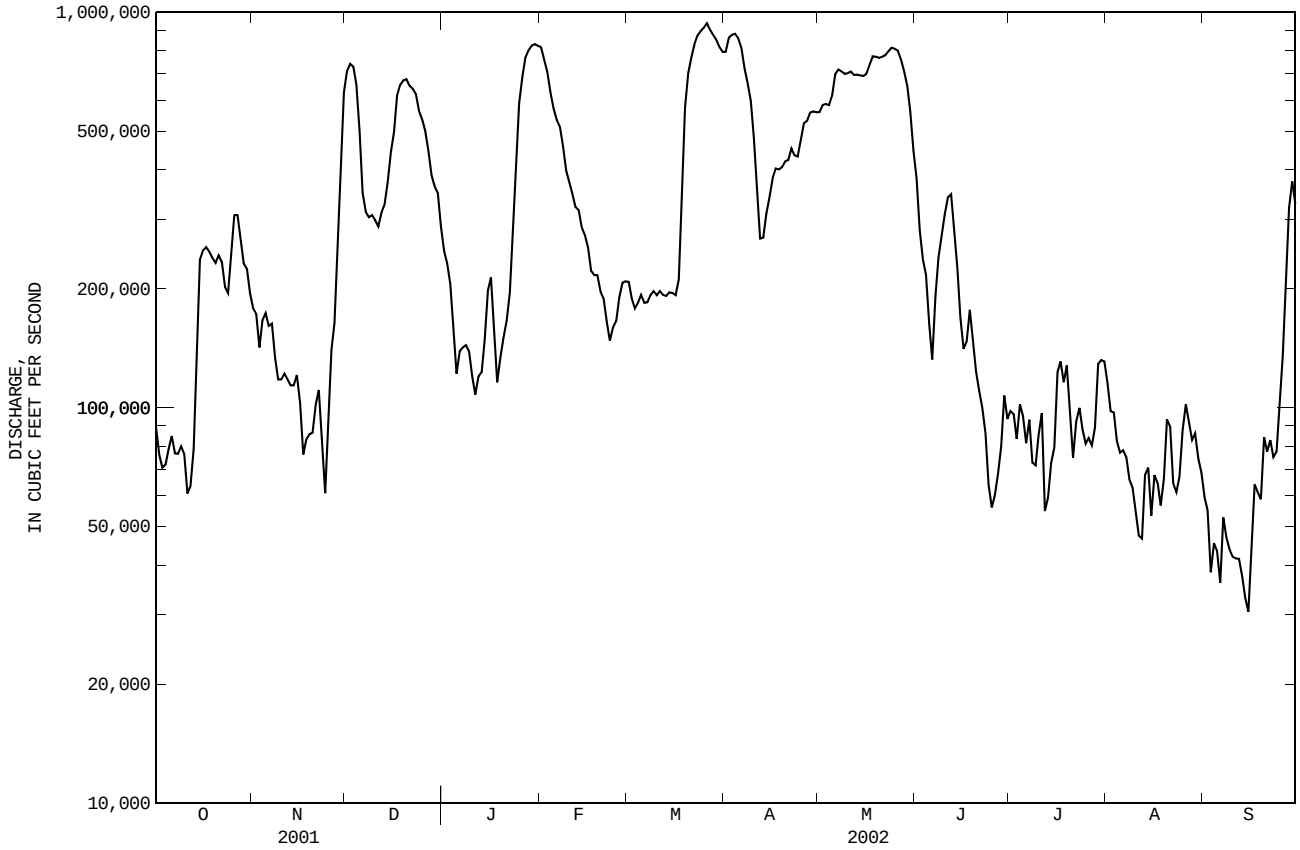
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2002, BY WATER YEAR (WY)

MEAN	103800	163200	289700	393500	467500	521900	455500	340000	219500	153200	121800	99340
MAX	335600	450300	717500	1022000	1217000	1039000	896400	917800	596400	441200	331100	383500
(WY)	1980	1986	1973	1937	1937	1997	1994	1983	1997	1928	1958	1979
MIN	22710	33400	48610	71650	77380	154700	129900	75180	53840	23350	25390	29330
(WY)	1931	1931	1931	1940	1934	1941	1986	1941	1936	1930	1930	1930

03611500 OHIO RIVER AT METROPOLIS, IL--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1928 - 2002	
ANNUAL TOTAL	84733900		109670000			
ANNUAL MEAN	232100		300500		275700	
HIGHEST ANNUAL MEAN					436600	1979
LOWEST ANNUAL MEAN					120300	1931
HIGHEST DAILY MEAN	777000	Feb 23	940000	Mar 26	1850000	Feb 1 1937
LOWEST DAILY MEAN	60000	Jul 5	30500	Sep 15	15000	Jul 20 1930
ANNUAL SEVEN-DAY MINIMUM	73200	Oct 7	38500	Sep 10	16600	Jul 20 1930
MAXIMUM PEAK FLOW			954000	Mar 26	1850000	Feb 1 1937
MAXIMUM PEAK STAGE			52.69	May 19	66.60	Feb 2 1937
10 PERCENT EXCEEDS	409000		733000		636000	
50 PERCENT EXCEEDS	191000		195000		189000	
90 PERCENT EXCEEDS	88300		65400		68300	

e Estimated



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 mi^2.

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 NGVD of 1929 (levels by U.S. Department of Energy).

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

COOPERATION.--Kentucky Cabinet for Health Services.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 17	0500	*1,570	*8.74	Apr 24	0745	1,420	8.16
Jan 31	2030	1,210	7.30	May 13	0230	1,460	8.31
Mar 25	2200	1,310	7.72	May 17	0415	1,420	8.16

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.35	1.0	5.0	e1.1	51	1.6	1.4	31	e0.20	0.21	0.22	0.09
2	0.36	1.6	2.5	e0.90	9.9	20	1.1	25	e0.16	0.24	0.20	0.09
3	0.38	2.2	1.7	e0.90	5.6	9.9	1.4	5.1	e0.12	0.77	0.16	0.08
4	0.43	1.3	1.2	e0.80	3.4	e3.2	0.87	19	e0.10	0.08	0.15	0.08
5	19	1.4	0.92	e1.0	2.5	2.2	0.67	2.0	2.7	0.08	0.13	0.07
6	1.3	1.5	24	1.8	2.3	1.7	0.58	0.80	0.70	0.07	0.14	0.07
7	0.21	1.5	5.5	1.6	2.0	1.4	0.52	0.99	e0.50	0.07	0.12	0.07
8	0.13	1.5	48	1.3	1.6	1.1	0.60	53	e0.40	0.09	0.11	0.10
9	0.12	1.6	3.7	1.4	1.5	25	0.68	16	e0.30	0.09	0.13	0.11
10	0.17	1.8	2.0	1.4	1.5	4.5	0.43	2.3	2.5	0.25	0.13	0.11
11	69	1.9	1.4	1.00	1.3	2.5	0.37	0.89	0.25	0.15	0.13	0.12
12	17	1.8	44	0.83	1.2	2.7	0.53	1.5	0.19	0.15	0.12	0.12
13	96	2.1	18	0.74	1.0	2.0	66	351	0.20	0.13	8.0	0.14
14	80	2.0	77	0.68	0.88	1.5	51	11	0.16	0.12	1.6	0.21
15	4.5	1.7	5.4	0.52	0.89	1.3	5.5	2.7	0.13	0.12	0.07	0.29
16	4.9	1.5	258	0.47	0.78	3.2	2.0	1.2	0.21	0.18	0.09	0.26
17	1.7	1.5	513	0.57	0.67	1.9	1.1	411	0.18	0.15	0.09	0.40
18	1.0	1.5	24	0.61	0.63	1.6	0.63	21	0.16	0.16	0.10	0.26
19	0.70	1.9	7.8	1.2	10	68	0.90	4.8	0.15	0.16	0.09	1.1
20	0.55	2.1	3.7	1.3	31	96	1.2	2.0	0.14	0.15	0.09	31
21	0.45	1.8	2.6	1.6	5.1	12	3.2	1.3	0.14	0.15	0.07	1.1
22	0.45	1.6	15	2.8	2.5	4.8	0.58	0.63	0.14	0.16	0.08	e0.20
23	0.72	1.8	18	27	1.9	3.4	0.31	0.33	0.16	0.17	0.08	e0.18
24	1.9	32	3.3	156	1.5	2.6	213	0.20	0.29	0.17	0.09	e0.17
25	2.4	3.9	1.9	5.5	4.8	275	7.2	0.15	0.32	0.17	0.11	e0.16
26	0.80	1.8	1.5	2.3	12	152	2.6	0.09	0.16	0.18	0.10	e17
27	0.78	66	1.3	1.1	e2.6	8.6	4.0	0.06	0.19	0.19	0.09	28
28	0.78	152	1.4	0.71	e1.8	3.9	5.3	0.36	0.17	0.18	0.09	e0.20
29	0.92	227	1.5	0.53	---	6.4	1.2	0.62	0.15	0.20	0.09	e0.06
30	0.95	57	e1.2	29	---	4.0	12	e0.40	0.14	0.39	0.09	e0.04
31	1.0	---	e1.2	240	---	2.0	---	e0.30	---	0.24	0.08	---
TOTAL	308.95	578.3	1095.72	486.66	161.85	726.0	386.87	966.72	11.31	5.62	12.84	81.88
MEAN	9.966	19.28	35.35	15.70	5.780	23.42	12.90	31.18	0.377	0.181	0.414	2.729
MAX	96	227	513	240	51	275	213	411	2.7	0.77	8.0	31
MIN	0.12	1.0	0.92	0.47	0.63	1.1	0.31	0.06	0.10	0.07	0.07	0.04
CFSM	1.52	2.94	5.40	2.40	0.88	3.58	1.97	4.76	0.06	0.03	0.06	0.42
IN.	1.75	3.28	6.22	2.76	0.92	4.12	2.20	5.49	0.06	0.03	0.07	0.47

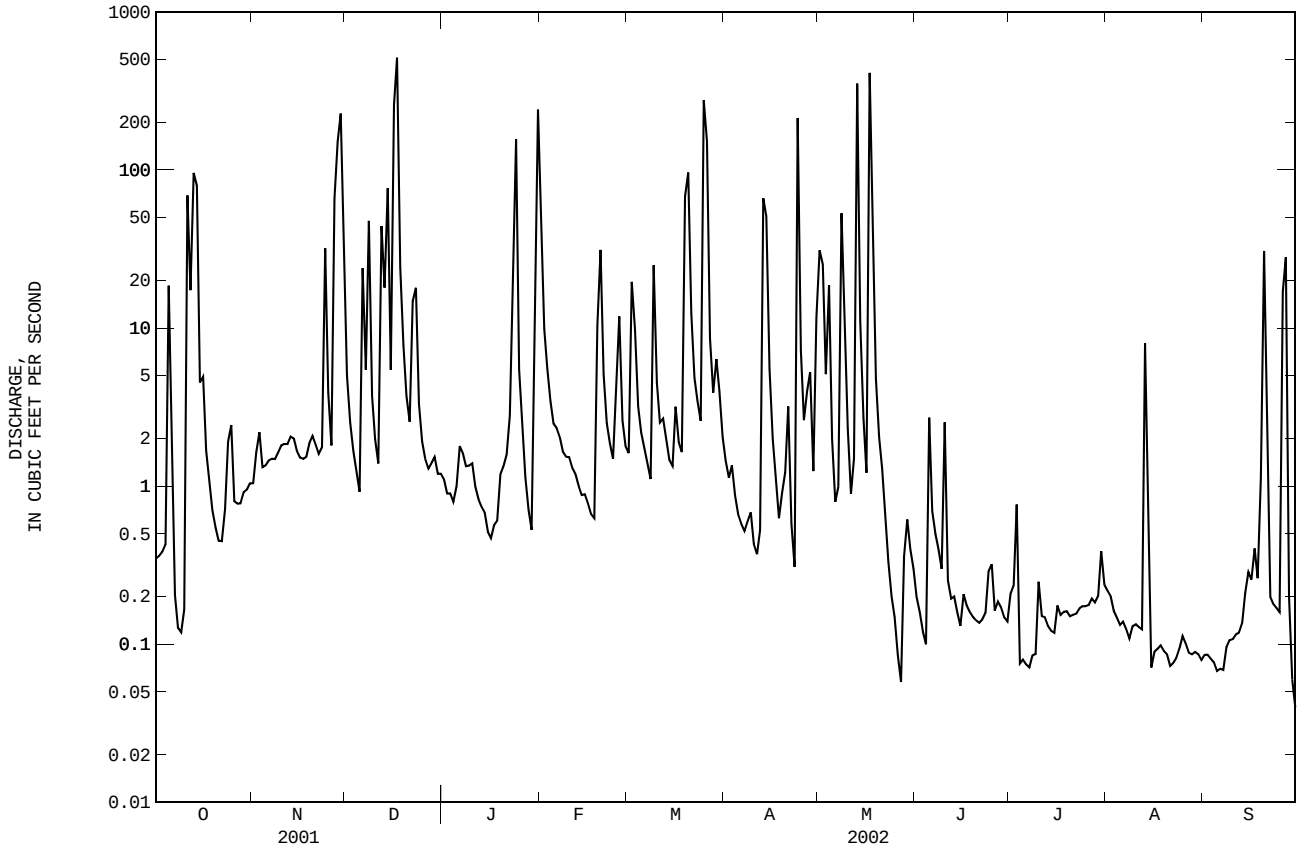
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2002, BY WATER YEAR (WY)

MEAN	1.908	5.741	11.18	10.56	10.41	11.28	8.562	9.532	4.096	2.818	1.521	0.904
MAX	9.97	22.8	37.2	24.4	15.6	34.9	16.6	31.2	16.6	7.59	8.31	2.78
(WY)	2002	1997	1991	1999	1991	1997	1994	2002	1998	1998	1998	2002
MIN	0.21	0.21	0.50	0.89	0.60	3.26	3.47	0.56	0.17	0.089	0.12	0.15
(WY)	1998	2000	1998	2001	1996	1995	2001	1994	1994	1993	1993	1998

03611800 BAYOU CREEK NEAR HEATH, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1991 - 2002	
ANNUAL TOTAL	3043.86		4822.72			
ANNUAL MEAN	8.339		13.21		6.608	
HIGHEST ANNUAL MEAN					13.2	2002
LOWEST ANNUAL MEAN					3.60	2001
HIGHEST DAILY MEAN	513	Dec 17	513	Dec 17	710	Mar 1 1997
LOWEST DAILY MEAN	0.12	Apr 19	0.04	Sep 30	0.02	Jun 1 2002
ANNUAL SEVEN-DAY MINIMUM	0.16	Jun 11	0.08	Sep 1	0.06	Jul 2 1993
MAXIMUM PEAK FLOW			1570	Dec 17	1870	Mar 1 1997
MAXIMUM PEAK STAGE			8.77	Dec 17	9.90	Mar 1 1997
INSTANTANEOUS LOW FLOW			0.01	Jun 4	0.01	Jun 4 8005
ANNUAL RUNOFF (CFSM)	1.27		2.02		1.01	
ANNUAL RUNOFF (INCHES)	17.29		27.39		13.71	
10 PERCENT EXCEEDS	10		22		6.1	
50 PERCENT EXCEEDS	0.68		1.1		0.47	
90 PERCENT EXCEEDS	0.19		0.11		0.15	

e Estimated



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 mi^2.

PERIOD OF RECORD.--October 1990 to November 1991, June 1993 to current year.

GAGE.--Water-stage recorder. Datum of gage is 330 ft above NGVD of 1929 (from topographic map).

REMARKS.--Records fair.

COOPERATION.--Kentucky Cabinet for Health Services.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 17	0615	*1,580	*12.01	Apr 24	1015	1,380	11.19
Jan 24	0245	1,140	10.21	May 13	0600	1,470	11.56
Jan 31	2145	1,370	11.15	May 17	0645	1,510	11.74
Mar 25	2300	1,480	11.61				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

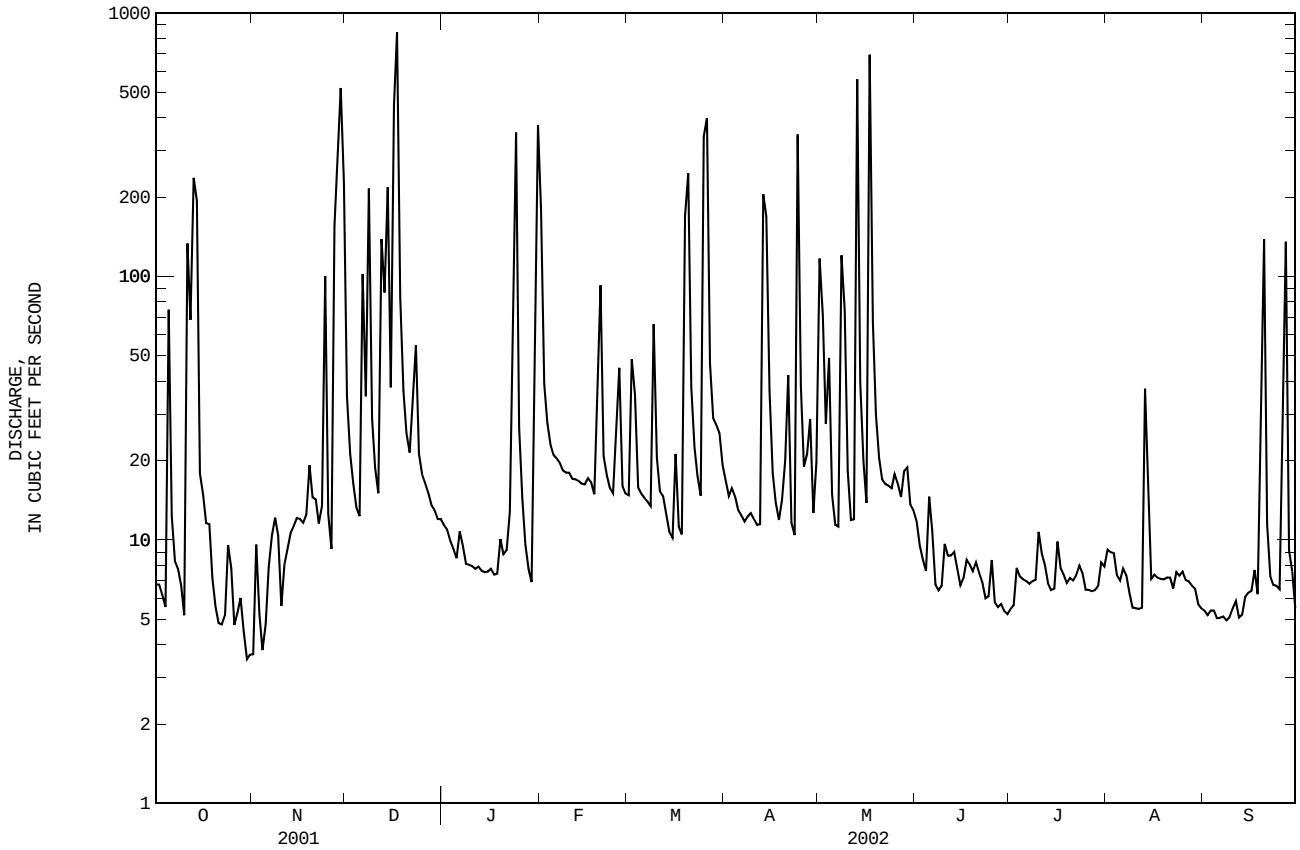
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	3.7	35	11	179	15	17	117	12	5.5	9.2	5.4
2	6.8	9.6	21	11	39	49	15	71	9.5	5.6	9.0	5.2
3	6.2	5.2	16	9.9	28	36	16	28	8.4	7.8	8.9	5.4
4	5.6	3.8	13	9.3	23	16	15	49	7.6	7.3	7.4	5.4
5	75	4.8	12	8.5	21	15	13	15	15	7.1	7.0	5.1
6	12	7.9	102	11	20	14	12	11	11	7.0	7.8	5.1
7	8.3	10	35	9.5	20	14	12	11	6.8	6.8	7.3	5.1
8	7.8	12	215	8.1	18	13	12	120	6.4	7.0	6.3	5.0
9	6.7	10	29	8.0	18	66	13	74	6.7	7.1	5.5	5.1
10	5.2	5.6	19	7.9	18	21	12	18	9.7	11	5.5	5.5
11	133	8.0	15	7.8	17	15	11	12	8.7	8.9	5.5	5.9
12	68	9.3	138	7.9	17	15	11	12	8.7	8.1	5.5	5.1
13	236	11	87	7.6	17	13	205	559	9.0	6.8	37	5.2
14	194	11	218	7.5	16	11	169	40	7.7	6.5	18	6.1
15	18	12	38	7.6	16	10	37	20	6.7	6.5	7.1	6.3
16	15	12	449	7.8	17	21	18	14	7.2	9.9	7.4	6.4
17	12	12	844	7.4	17	11	14	693	8.4	7.8	7.2	7.7
18	11	12	83	7.4	15	10	12	67	8.1	7.4	7.1	6.2
19	7.2	19	37	10	32	170	14	30	7.6	6.9	7.1	16
20	5.5	15	25	8.8	92	246	20	20	8.2	7.2	7.2	138
21	4.8	14	21	9.1	21	38	42	17	7.5	7.0	7.2	11
22	4.8	12	34	13	18	23	12	16	6.9	7.4	6.5	7.3
23	5.2	13	55	102	16	17	10	16	6.0	8.0	7.6	6.7
24	9.6	100	21	351	15	15	345	16	6.1	7.5	7.3	6.7
25	7.8	13	18	27	24	340	38	18	8.4	6.5	7.6	6.5
26	4.8	9.2	16	14	45	399	19	16	5.8	6.5	7.0	42
27	5.3	156	15	9.6	16	47	21	15	5.6	6.4	7.0	135
28	6.0	312	14	7.8	15	29	29	18	5.7	6.4	6.7	9.1
29	4.5	518	13	6.9	---	27	13	19	5.4	6.7	6.5	7.6
30	3.5	227	12	74	---	25	20	14	5.2	8.2	5.7	5.5
31	3.7	---	12	374	---	19	---	13	---	7.9	5.5	---
TOTAL	900.1	1568.1	2662	1162.4	810	1760	1197	2159	236.0	226.7	257.6	492.6
MEAN	29.04	52.27	85.87	37.50	28.93	56.77	39.90	69.65	7.867	7.313	8.310	16.42
MAX	236	518	844	374	179	399	345	693	15	11	37	138
MIN	3.5	3.7	12	6.9	15	10	10	11	5.2	5.5	5.5	5.0
CFSM	1.95	3.51	5.76	2.52	1.94	3.81	2.68	4.67	0.53	0.49	0.56	1.10
IN.	2.25	3.91	6.65	2.90	2.02	4.39	2.99	5.39	0.59	0.57	0.64	1.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2002, BY WATER YEAR (WY)

MEAN	10.64	19.57	29.32	28.43	29.60	31.52	27.61	26.67	16.98	13.70	11.22	9.146
MAX	29.0	56.7	85.9	55.8	38.4	77.5	41.0	69.2	32.4	27.4	21.4	16.7
(WY)	2002	1997	2002	1999	2001	1997	1994	2002	1998	2001	1998	2002
MIN	4.87	4.32	6.66	7.02	6.13	15.0	12.4	8.86	7.54	6.37	6.51	5.11
(WY)	2001	2000	1996	2001	1996	1995	2001	2001	2002	1994	1993	1997

03611850 BAYOU CREEK NEAR GRAHAMVILLE, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1991 - 2002	
ANNUAL TOTAL	9478.8		13431.5			
ANNUAL MEAN	25.97		36.80		21.36	
HIGHEST ANNUAL MEAN					36.8	2002
LOWEST ANNUAL MEAN					14.7	2001
HIGHEST DAILY MEAN	844	Dec 17	844	Dec 17	923	Mar 1 1997
LOWEST DAILY MEAN	3.5	Oct 30	3.5	Oct 30	1.9	Oct 9 1996
ANNUAL SEVEN-DAY MINIMUM	4.5	Oct 26	4.5	Oct 26	2.7	Oct 2 1997
MAXIMUM PEAK FLOW			1580	Dec 17	1750	Mar 1 1997
MAXIMUM PEAK STAGE			12.01	Dec 17	12.60	Mar 1 1997
ANNUAL RUNOFF (CFSM)	1.74		2.47		1.43	
ANNUAL RUNOFF (INCHES)	23.67		33.53		19.48	
10 PERCENT EXCEEDS	38		74		28	
50 PERCENT EXCEEDS	8.7		11		8.9	
90 PERCENT EXCEEDS	5.6		5.6		4.8	



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 mi^2.

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 NGVD of 1929 (levels by U.S. Department of Energy).

REMARKS.--Records fair except for those estimated, which are poor. Some regulation from Paducah Gaseous Diffusion Plant, 0.4 mi upstream.

COOPERATION.--Kentucky Cabinet for Health Services.

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 17	0645	*1,050	*10.14	Apr 24	1115	650	7.94
Jan 24	0300	445	6.57	May 13	0715	952	9.65
Jan 31	2130	715	8.33	May 17	0800	793	8.78
Mar 26	0000	939	9.58				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.41	0.98	10	1.4	71	1.8	1.7	46	0.95	0.81	0.73	0.66
2	0.43	2.0	4.4	1.4	7.9	19	1.5	21	0.95	0.84	0.69	0.66
3	0.46	1.2	2.6	1.4	3.9	18	2.0	10	0.90	1.3	0.79	0.70
4	0.49	0.97	2.0	1.3	2.3	e3.5	1.5	16	0.93	0.94	0.81	0.78
5	13	1.1	1.9	1.3	1.6	2.7	1.4	4.3	2.8	0.81	0.92	0.73
6	1.6	1.2	27	2.5	2.2	2.3	1.3	2.3	1.9	0.77	1.1	0.71
7	0.43	2.1	9.5	1.7	2.7	1.9	1.3	2.5	1.0	0.77	1.1	0.76
8	e0.42	2.7	59	1.4	1.8	1.7	1.3	45	0.90	0.79	0.90	0.76
9	e0.40	1.1	5.8	1.4	1.1	35	2.3	38	0.90	1.1	0.88	0.77
10	e0.70	1.3	2.7	1.4	1.2	7.8	2.8	6.9	0.92	3.5	0.89	0.79
11	29	1.3	2.3	1.3	1.7	3.1	2.6	2.8	0.88	1.6	0.92	0.84
12	23	2.0	36	1.3	2.0	3.7	1.7	2.2	0.87	0.89	0.91	0.89
13	68	1.8	27	1.2	0.99	2.7	71	329	0.80	0.86	4.1	0.87
14	70	1.8	60	1.2	0.96	2.0	63	14	0.72	0.81	2.2	0.92
15	4.9	1.4	8.9	1.1	1.0	1.8	11	5.0	0.74	0.81	0.71	0.95
16	4.1	1.4	145	1.1	1.0	15	3.3	3.7	0.73	1.7	0.70	0.87
17	0.92	1.5	436	1.1	0.97	4.6	1.7	322	0.73	1.3	0.70	1.0
18	0.67	1.6	28	1.2	0.96	3.6	1.3	e42	0.71	0.84	0.71	1.3
19	0.59	3.5	8.8	2.1	5.0	71	1.7	e16	0.71	0.82	0.69	2.9
20	0.59	1.9	3.9	1.5	34	91	2.0	e10	0.70	0.70	0.70	16
21	e0.54	1.2	2.5	1.7	7.4	12	8.0	e7.7	0.68	0.72	0.65	1.5
22	e0.53	1.3	6.8	2.1	3.8	3.9	2.5	e5.5	0.69	0.91	0.63	0.74
23	e0.52	1.5	21	27	1.7	2.5	1.6	e4.5	0.67	1.2	0.65	0.72
24	e2.0	29	5.0	141	1.4	1.8	160	e3.6	0.81	0.91	0.72	0.72
25	1.8	4.2	2.7	12	3.7	182	13	e2.1	0.93	0.66	0.68	0.71
26	0.89	1.1	2.2	5.1	15	225	4.2	e1.2	0.70	0.65	0.73	8.9
27	0.86	60	1.9	3.2	e3.6	11	5.4	1.1	0.76	0.66	0.65	26
28	0.90	99	1.6	2.4	e2.3	4.8	11	1.4	0.82	0.68	0.63	0.91
29	0.94	178	1.4	2.1	---	3.5	3.6	2.1	0.81	0.75	0.64	0.67
30	0.89	86	1.4	32	---	3.2	4.8	1.3	0.81	1.3	0.66	0.68
31	0.92	---	1.4	177	---	2.3	---	0.96	---	0.77	0.65	---
TOTAL	230.90	494.15	928.7	433.9	183.18	744.2	390.5	970.16	27.42	31.17	28.44	75.41
MEAN	7.448	16.47	29.96	14.00	6.542	24.01	13.02	31.30	0.914	1.005	0.917	2.514
MAX	70	178	436	177	71	225	160	329	2.8	3.5	4.1	26
MIN	0.40	0.97	1.4	1.1	0.96	1.7	1.3	0.96	0.67	0.65	0.63	0.66
CFSM	1.29	2.85	5.18	2.42	1.13	4.15	2.25	5.41	0.16	0.17	0.16	0.43
IN.	1.49	3.18	5.98	2.79	1.18	4.79	2.51	6.24	0.18	0.20	0.18	0.49

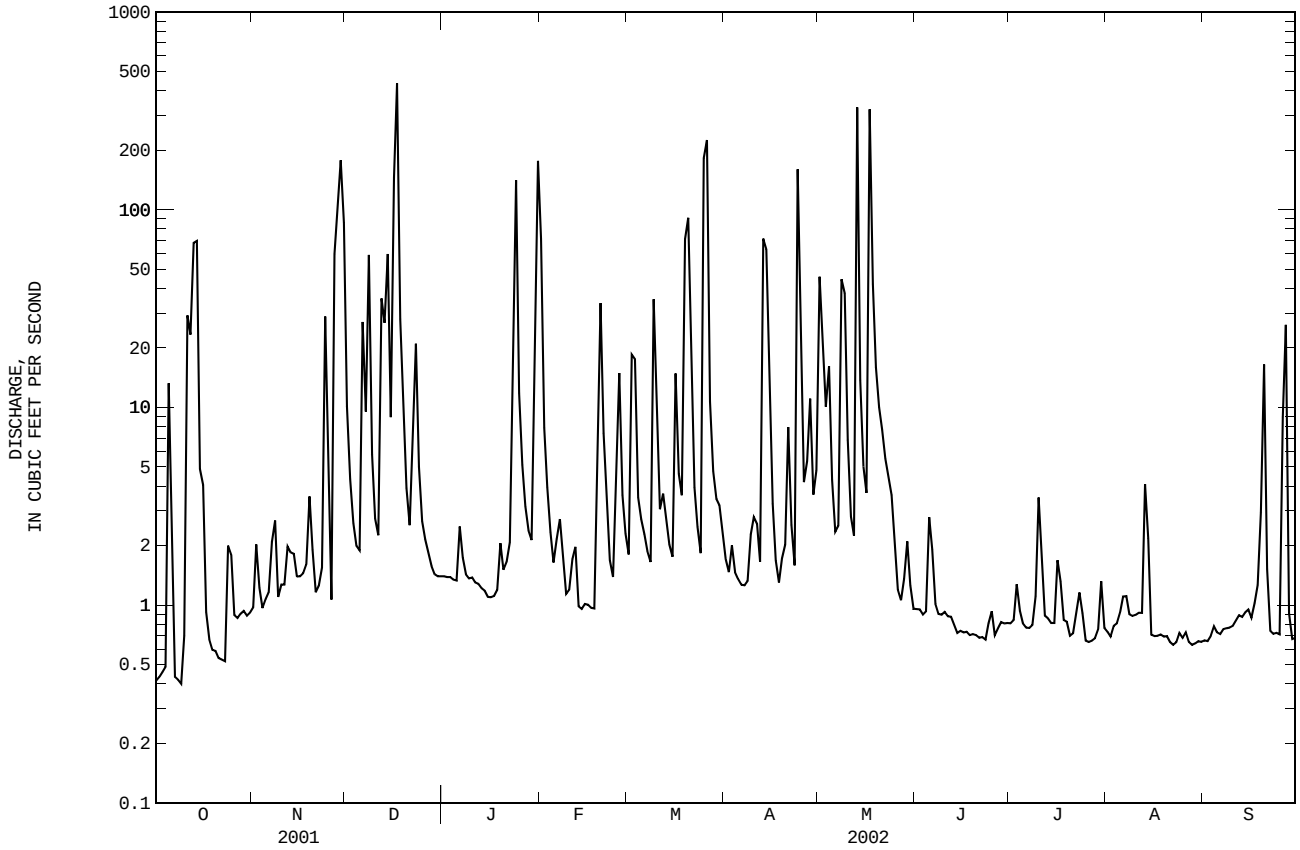
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2002, BY WATER YEAR (WY)

MEAN	2.627	5.856	10.43	10.31	9.665	11.38	9.277	9.840	3.990	2.981	2.054	1.503
MAX	7.45	18.3	33.5	20.4	17.0	32.5	19.2	33.1	12.4	8.74	8.11	2.98
(WY)	2002	1997	1991	1999	1991	1997	1994	2002	1998	2001	1998	1993
MIN	1.16	0.71	1.26	1.17	1.02	3.79	2.25	1.48	0.91	0.82	0.72	0.78
(WY)	2001	2000	1996	2001	1996	1995	2001	1994	2002	1991	1996	1998

03611900 LITTLE BAYOU CREEK NEAR GRAHAMVILLE, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1991 - 2002	
ANNUAL TOTAL	2744.88		4538.13			
ANNUAL MEAN	7.520		12.43		6.717	
HIGHEST ANNUAL MEAN					12.6	2002
LOWEST ANNUAL MEAN					3.75	2001
HIGHEST DAILY MEAN	436	Dec 17	436	Dec 17	506	Mar 1 1997
LOWEST DAILY MEAN	0.33	Aug 23	0.40	Oct 9	0.02	May 25 1995
ANNUAL SEVEN-DAY MINIMUM	0.35	Aug 2	0.62	Oct 17	0.35	Aug 2 2001
MAXIMUM PEAK FLOW			1050	Dec 17	1300	Mar 1 1997
MAXIMUM PEAK STAGE			10.14	Dec 17	11.26	Mar 1 1997
ANNUAL RUNOFF (CFSM)	1.30		2.15		1.16	
ANNUAL RUNOFF (INCHES)	17.67		29.21		15.79	
10 PERCENT EXCEEDS	9.9		26		9.1	
50 PERCENT EXCEEDS	1.3		1.5		1.2	
90 PERCENT EXCEEDS	0.39		0.70		0.69	

e Estimated



03612500 OHIO RIVER AT LOCK AND DAM 53 NEAR GRAND CHAIN, IL

(National stream-quality accounting network station)

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

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

WATER-QUALITY RECORDS

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 dams and reservoirs.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE.--Maximum daily recorded, 693 microsiemens, Nov. 25, 1968; minimum daily recorded, 170 microsiemens, Feb. 9, 1957.
WATER TEMPERATURES.--Maximum daily recorded, 30.0°C, July 15,1964, July 17-21, 25, 1977; minimum daily recorded, 0.0°C, on several days during most winter months.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	TIME	SAMPLE TYPE	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TURBID-ITY LAB HACH 2100AN (NTU) (99872)	UV ABSORB-ANCE 254 NM, WTR FLT (UNITS /CM) (50624)	UV ABSORB-ANCE 280 NM, WTR FLT (UNITS /CM) (61726)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
NOV												
20...	1250	ENVIRONMENTAL	85300	13	.093	.065	10.6	101	7.6	398	13.5	160
DEC												
07...	1150	ENVIRONMENTAL	328000	59	.140	.107	9.2	86	7.3	306	12.0	120
JAN												
30...	1410	ENVIRONMENTAL	766000	140	.086	.065	12.6	109	7.7	271	8.5	110
30...	1420	REPLICATE	--	140	.087	.067	--	--	--	--	--	110
FEB												
13...	1410	ENVIRONMENTAL	318000	63	.100	.075	11.6	95	7.7	302	7.0	120
13...	1418	FIELD BLANK	--	--	<.004	<.004	--	--	--	--	--	--
MAR												
06...	1400	ENVIRONMENTAL	186000	32	.078	.057	12.8	101	7.9	401	5.5	160
20...	1330	ENVIRONMENTAL	659000	81	.084	.063	12.2	110	7.8	310	10.5	130
20...	1338	FIELD BLANK	--	--	--	--	--	--	--	--	--	--
APR												
10...	1420	ENVIRONMENTAL	460000	100	.086	.064	10.4	95	7.4	316	12.0	130
25...	1320	ENVIRONMENTAL	470000	110	.105	.078	--	--	7.7	--	--	130
25...	1328	FIELD BLANK	--	--	--	--	--	--	--	--	--	--
MAY												
07...	1410	ENVIRONMENTAL	694000	100	.111	.083	8.4	89	7.3	223	18.0	100
29...	1400	ENVIRONMENTAL	611000	52	.124	.092	7.5	83	7.3	287	20.0	130
JUN												
12...	1510	ENVIRONMENTAL	376000	83	.081	.060	6.7	82	7.7	337	25.0	140
12...	1518	FIELD BLANK	--	--	<.004	<.004	--	--	--	--	--	--
26...	1330	ENVIRONMENTAL	60000	19	.084	.062	7.6	100	7.6	333	29.0	140
26...	1340	REPLICATE	--	17	.084	.062	--	--	--	--	--	140
JUL												
17...	1340	ENVIRONMENTAL	129000	20	.077	.056	6.6	88	7.8	340	30.0	130
17...	1348	FIELD BLANK	--	--	--	--	--	--	--	--	--	--
AUG												
08...	1410	ENVIRONMENTAL	65200	16	.069	.049	8.0	107	8.0	287	30.0	100
SEP												
10...	1410	ENVIRONMENTAL	48000	--	.071	.052	8.0	105	8.0	275	29.0	98
10...	1420	REPLICATE	--	9.5	.070	.052	--	--	--	--	--	100

03612500 OHIO RIVER AT LOCK AND DAM 53 NEAR GRAND CHAIN, IL--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)
NOV													
20...	44.1	12.3	3.31	14.0	120	147	20.6	.1	5.95	39.2	238	<.04	.29
DEC													
07...	33.9	9.15	3.81	12.1	76	92	17.3	.3	5.68	41.3	192	E.03	.35
JAN													
30...	32.5	7.50	2.44	10.9	77	94	14.1	.1	4.52	37.2	168	.06	.27
30...	32.2	7.38	2.37	10.7	--	--	14.1	.1	4.48	36.1	170	.07	.28
FEB													
13...	33.5	8.61	2.53	8.97	89	107	14.7	.1	5.42	31.7	172	E.03	.32
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
06...	44.2	12.8	2.16	15.5	107	130	24.7	.2	5.34	51.0	236	E.03	.25
20...	36.8	10.1	2.17	13.6	90	110	21.2	.1	3.76	41.2	198	.04	.25
20...	.04	<.008	<.01	<.09	--	--	.31	<.01	<.13	.02	--	.019	--
APR													
10...	36.1	9.81	2.09	11.0	84	102	16.6	.2	5.17	43.2	183	<.04	.24
25...	36.0	10.5	2.57	11.3	86	105	16.8	E.1	5.36	46.1	213	<.04	.27
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
07...	29.3	7.42	2.39	6.96	77	94	9.51	E.1	4.58	31.0	148	<.04	.28
29...	35.4	9.14	2.67	7.26	88	108	10.3	.1	5.64	32.6	154	<.04	.32
JUN													
12...	38.4	10.4	2.52	11.4	96	117	15.8	.1	4.89	40.8	200	<.04	.17
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
26...	38.6	10.3	2.48	10.4	96	117	14.7	.1	4.44	36.7	195	<.04	.23
26...	38.0	10.2	2.50	10.2	--	--	15.3	.1	4.35	36.6	192	<.04	.23
JUL													
17...	35.2	10.6	2.45	11.7	93	113	14.8	.2	.96	41.9	189	<.04	.26
17...	E.01	<.008	<.01	<.09	--	--	.04	<.01	<.13	<.01	--	<.015	--
AUG													
08...	28.3	8.25	2.53	12.9	76	93	13.7	.2	1.74	35.0	163	<.04	.22
SEP													
10...	25.9	8.13	2.37	12.5	76	93	13.7	.2	2.59	32.2	147	<.04	.24
10...	26.4	8.29	2.31	12.6	--	--	13.7	.1	2.59	31.6	152	<.04	.24

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN,PAR TICULTE WAT FLT SUSP (MG/L AS N) (49570)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	CARBON, INORG + ORGANIC PARTIC. TOTAL (MG/L AS C) (00694)	CARBON, INOR- GANIC, PARTIC. TOTAL (MG/L AS C) (00688)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC PARTIC- ULATE TOTAL (MG/L AS C) (00689)	PHEO- PHYTIN A, PHYTO- PHYTON (UG/L) (62360)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70953)
NOV													
20...	.44	1.48	.017	.13	.072	.064	.109	1.1	<.1	3.5	1.0	4.7	4.6
DEC													
07...	.76	1.16	.017	.31	.075	.062	.27	3.2	<.1	4.8	3.2	6.6	1.8
JAN													
30...	.86	1.10	.010	.60	.056	.048	.42	6.6	.2	3.0	6.4	8.8	3.9
30...	.87	1.09	.010	.58	.057	.049	.40	5.9	<.1	2.9	5.9	8.4	3.9
FEB													
13...	.53	1.91	.010	.18	.062	.049	.166	2.4	E.4	3.6	E2.0	2.7	3.1
13...	--	--	--	<.02	--	--	--	<.1	<.1	.4	<.1	--	--
MAR													
06...	.39	2.23	.012	.18	.044	.030	.109	1.4	<.1	2.9	1.4	4.3	6.2
20...	.58	1.48	.014	.30	.049	.035	.23	3.8	<.1	2.9	3.8	9.8	6.9
20...	--	<.013	<.002	--	--	<.007	--	--	--	--	--	--	--
APR													
10...	.71	1.72	.012	.47	.038	.030	.24	5.2	<.1	3.0	5.1	8.2	9.7
25...	.81	1.56	.013	.55	.049	.036	.26	5.9	.1	3.5	5.8	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
07...	.59	1.14	.016	.30	.047	.033	.23	3.6	<.1	3.6	3.6	--	--
29...	.57	1.31	.012	.28	.048	.035	.162	2.1	<.1	3.7	2.1	--	--
JUN													
12...	.68	1.37	E.005	.47	.043	.033	.23	4.3	<.1	2.7	4.2	--	--
12...	--	--	--	.03	--	--	--	<.1	<.1	.5	<.1	--	--
26...	.46	1.61	.009	.21	.039	.028	.091	1.3	<.1	2.9	1.3	--	--
26...	.41	1.59	.009	.22	.038	.028	.089	1.5	<.1	3.0	1.5	--	--
JUL													
17...	.54	.71	.030	.33	.023	.010	.087	2.0	<.1	2.7	1.9	12.8	19.6
17...	--	<.013	<.002	--	--	<.007	--	--	--	--	--	--	--
AUG													
08...	.52	.26	.036	.32	.016	.007	.069	1.9	<.1	3.0	1.9	10.2	30.4
SEP													
10...	.51	.42	.051	.23	.029	.018	.071	1.6	<.1	2.7	1.6	18.9	24.9
10...	.45	.43	.051	.23	.029	.017	.073	1.6	<.1	2.7	1.5	18.8	22.8

03612500 OHIO RIVER AT LOCK AND DAM 53 NEAR GRAND CHAIN, IL--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ANTIMONY, DISSOLVED (UG/L AS SB) (01095)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM DISSOLVED (UG/L AS LI) (01130)
NOV													
20...	3	.18	1.0	35	<.06	48	<.04	<.8	.13	1.6	<10	<.08	2.4
DEC													
07...	5	.14	.8	33	<.06	43	<.04	<.8	.13	1.8	21	<.08	2.8
JAN													
30...	--	--	.6	--	--	29	--	--	--	--	12	--	2.4
30...	--	--	.6	--	--	26	--	--	--	--	20	--	2.1
FEB													
13...	--	--	.6	--	--	25	--	--	--	--	21	--	1.6
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
06...	--	--	2.1	--	--	45	--	--	--	--	E6	--	3.4
20...	--	--	.6	--	--	34	--	--	--	--	56	--	2.6
20...	--	--	<.2	--	--	<7	--	--	--	--	<10	--	E.2
APR													
10...	--	--	.4	--	--	26	--	--	--	--	E6	--	2.1
25...	--	--	.8	--	--	33	--	--	--	--	E6	--	2.9
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
07...	--	--	.7	--	--	25	--	--	--	--	E9	--	2.1
29...	--	--	.8	--	--	30	--	--	--	--	16	--	2.1
JUN													
12...	--	--	.8	--	--	35	--	--	--	--	<10	--	3.0
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	.9	--	--	42	--	--	--	--	<10	--	2.7
26...	--	--	.9	--	--	40	--	--	--	--	<10	--	2.6
JUL													
17...	--	--	1.2	--	--	58	--	--	--	--	<10	--	3.2
17...	--	--	<.2	--	--	<7	--	--	--	--	<10	--	<.3
AUG													
08...	10	.21	1.2	36	<.06	42	<.04	<.8	.12	1.1	<10	<.08	2.8
SEP													
10...	--	--	1.3	--	--	60	--	--	--	--	<10	--	2.5
10...	--	--	1.3	--	--	60	--	--	--	--	<10	--	2.5

DATE	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	2,6-DIETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETOCHLOR, WATER FLTRD REC (UG/L) (49260)	ALACHLOR, WATER, DISS, REC, (UG/L) (46342)	ALPHA BHC DISSOLVED (UG/L) (34253)	ATRAZINE, WATER, DISS, REC (UG/L) (39632)
NOV													
20...	1.6	2.3	.43	<.3	<1	173	.8	1	<.002	.007	<.002	<.005	.106
DEC													
07...	1.8	2.0	1.51	.4	<1	161	1.2	9	<.002	<.004	<.002	<.005	.109
JAN													
30...	--	--	--	E.3	--	144	1.4	--	<.006	.010	<.004	<.005	.037
30...	--	--	--	E.3	--	142	1.4	--	<.006	.009	<.004	<.005	.035
FEB													
13...	--	--	--	.5	--	132	1.2	--	<.006	.009	<.004	<.005	.052
13...	--	--	--	--	--	--	--	--	<.006	<.006	<.004	<.005	<.007
MAR													
06...	--	--	--	.5	--	188	<.2	--	<.006	.018	<.004	<.005	.087
20...	--	--	--	.5	--	165	<.2	--	<.006	<.006	<.004	<.005	.061
20...	--	--	--	<.3	--	.09	<.2	--	--	--	--	--	--
APR													
10...	--	--	--	<.3	--	154	1.2	--	<.006	<.006	.008	<.005	.072
25...	--	--	--	.6	--	174	1.3	--	<.006	.021	<.004	<.005	.800
25...	--	--	--	--	--	--	--	--	<.006	<.006	<.004	<.005	<.007
MAY													
07...	--	--	--	E.3	--	114	1.5	--	<.006	.121	.005	<.005	1.75
29...	--	--	--	E.3	--	125	1.2	--	<.006	.160	.008	<.005	1.74
JUN													
12...	--	--	--	E.3	--	173	1.4	--	<.006	.256	.012	<.005	2.52
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	.3	--	149	.9	--	<.006	.297	.014	<.005	1.31
26...	--	--	--	.4	--	148	.9	--	<.006	.292	.012	<.005	1.25
JUL													
17...	--	--	--	.5	--	161	1.1	--	<.006	.130	.010	<.005	1.31
17...	--	--	--	<.3	--	<.08	<.2	--	--	--	--	--	--
AUG													
08...	.3	2.7	.98	<.3	<1	145	1.4	<1	<.006	.024	.005	<.005	.538
SEP													
10...	--	--	--	.4	--	116	1.7	--	<.006	.011	<.004	<.005	.265
10...	--	--	--	.5	--	115	1.4	--	<.006	.011	<.004	<.005	.262

03612500 OHIO RIVER AT LOCK AND DAM 53 NEAR GRAND CHAIN, IL--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)
NOV													
20...	<.010	<.002	<.041	<.020	E.001	<.018	<.003	E.041	<.005	<.005	<.02	<.002	<.009
DEC													
07...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.022	<.005	<.005	<.02	<.002	<.009
JAN													
30...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.015	<.005	<.005	<.02	<.002	<.009
30...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.015	<.005	<.005	<.02	<.002	<.009
FEB													
13...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.023	<.005	<.005	<.02	<.002	<.009
13...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	<.006	<.005	<.005	<.02	<.002	<.009
MAR													
06...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.014	<.005	<.005	<.02	<.002	<.009
20...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.007	<.005	<.005	<.02	<.002	<.009
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
10...	<.010	<.002	E.004	<.020	<.005	<.018	<.003	E.008	E.003	<.005	<.02	<.002	<.009
25...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.028	<.005	<.005	<.02	<.002	<.009
25...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	<.006	<.005	<.005	<.02	<.002	<.009
MAY													
07...	<.010	<.002	E.003	<.020	<.005	E.006	<.003	E.053	.006	<.005	<.02	<.002	<.009
29...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.110	.006	<.005	<.02	<.002	<.009
JUN													
12...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.098	.006	<.005	<.02	<.002	<.009
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
26...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.205	E.004	<.005	<.02	<.002	<.009
26...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.205	E.004	<.005	<.02	<.002	<.009
JUL													
17...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.133	E.003	<.005	<.02	<.002	<.009
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
08...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.068	<.005	<.005	<.02	<.002	<.009
SEP													
10...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.050	<.005	<.005	<.02	<.002	<.009
10...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.054	<.005	<.005	<.02	<.002	<.009

DATE	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	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)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)
NOV													
20...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.034	<.006	<.002	<.007	<.003	<.007
DEC													
07...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.024	.012	<.002	<.007	<.003	<.007
JAN													
30...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.014	<.006	<.002	<.007	<.003	<.010
30...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.013	<.006	<.002	<.007	<.003	<.010
FEB													
13...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.033	.006	<.002	<.007	<.003	<.010
13...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007	<.003	<.010
MAR													
06...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.034	<.006	<.002	<.007	<.003	<.010
20...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.026	<.006	<.002	<.007	<.003	<.010
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
10...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.028	<.006	<.002	<.007	<.003	<.010
25...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.101	<.006	<.002	<.007	<.003	<.010
25...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007	<.003	<.010
MAY													
07...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.310	.013	<.002	<.007	<.003	<.010
29...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.348	.014	<.002	<.007	<.003	<.010
JUN													
12...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.404	.010	<.002	<.007	<.003	<.010
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
26...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.588	.010	<.002	<.007	<.003	<.010
26...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.569	.009	<.002	<.007	<.003	<.010
JUL													
17...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.245	<.006	<.002	<.007	<.003	<.010
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
08...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.070	<.006	<.002	<.007	<.003	<.010
SEP													
10...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.075	<.006	<.002	<.007	<.003	<.010
10...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.071	<.006	<.002	<.007	<.003	<.010

03612500 OHIO RIVER AT LOCK AND DAM 53 NEAR GRAND CHAIN, IL--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPA-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	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)
NOV													
20...	<.002	<.010	<.006	<.011	M	<.004	<.010	<.011	<.02	.043	<.02	E.011	<.02
DEC													
07...	<.002	<.010	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.743	E.01	<.034	<.02
JAN													
30...	<.004	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.038	E.01	<.034	<.02
30...	<.004	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.038	E.01	<.034	<.02
FEB													
13...	<.004	<.022	<.006	<.011	E.01	<.004	.011	<.011	<.02	.137	E.01	<.034	<.02
13...	<.004	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
MAR													
06...	<.004	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02	.075	<.02	<.034	<.02
20...	<.004	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02	.083	E.01	<.034	<.02
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
10...	<.004	<.022	<.006	<.011	M	<.004	<.010	<.011	<.02	.050	E.01	<.034	<.02
25...	<.004	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02	.263	<.02	<.034	<.02
25...	<.004	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
MAY													
07...	<.004	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.304	E.01	<.034	<.02
29...	<.004	<.022	<.006	<.011	.02	<.004	<.010	<.011	<.02	.236	E.01	<.034	<.02
JUN													
12...	<.004	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.280	<.02	<.034	<.02
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
26...	<.004	<.022	<.006	<.011	.02	<.004	<.010	<.011	<.02	.155	E.01	<.034	<.02
26...	<.004	<.022	<.006	<.011	.02	<.004	<.010	<.011	<.02	.149	E.01	<.034	<.02
JUL													
17...	<.004	<.022	<.006	<.011	.02	<.004	<.010	<.011	<.02	.129	E.01	<.034	<.02
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
08...	<.004	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.062	.02	<.034	<.02
SEP													
10...	<.004	<.022	<.006	<.011	E.01	<.007	<.010	<.011	<.02	.026	.02	<.034	<.02
10...	<.004	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.024	.02	<.034	<.02

DATE	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	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)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
NOV						
20...	<.005	<.002	<.009	.67	98	15
DEC						
07...	<.005	<.002	<.009	.36	97	138
JAN						
30...	<.005	<.002	<.009	--	89	231
30...	<.005	<.002	<.009	--	86	248
FEB						
13...	<.005	<.002	<.009	--	97	75
13...	<.005	<.002	<.009	--	--	--
MAR						
06...	<.005	<.002	<.009	--	98	36
20...	<.005	<.002	<.009	--	88	155
20...	--	--	--	--	--	--
APR						
10...	<.005	<.002	<.009	--	96	153
25...	<.005	<.002	<.009	--	91	162
25...	<.005	<.002	<.009	--	--	--
MAY						
07...	<.005	<.002	<.009	--	95	141
29...	<.005	<.002	<.009	--	97	68
JUN						
12...	<.005	<.002	<.009	--	100	131
12...	--	--	--	--	--	--
26...	<.005	<.002	<.009	--	100	22
26...	<.005	<.002	<.009	--	99	22
JUL						
17...	<.005	<.002	<.009	--	98	31
17...	--	--	--	--	--	--
AUG						
08...	<.005	<.002	<.009	.31	100	16
SEP						
10...	<.005	<.002	<.009	--	98	12
10...	<.005	<.002	<.009	--	99	11

E--Laboratory estimated value.
M--Presence of material verified but not quantified.
<--Numeric result is less than the value shown.

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07024000 BAYOU DE CHIEN NEAR CLINTON, KY

LOCATION.--Lat 36°37'43", long 88°57'50", Hickman County, Hydrologic Unit 08010201, on right bank at downstream side of bridge on U.S. Highway 51, 1.1 mi upstream from Cane Creek, 3.2 mi southeast of Clinton, and at mile 15.1.

DRAINAGE AREA.--68.7 mi^2.

PERIOD OF RECORD.--October 1939 to September 1950 (monthly discharge only for some periods, published in WSP 1311), October 1950 to September 1978, September 1984 to current year. Published as "Bayou du Chien near Clinton," October 1954 to September 1968.

REVISED RECORDS.--WSP 1311: 1940 (M), 1942-44 (M). WSP 1711: Drainage area. WDR-KY-89: 1985-89 (m).

GAGE.--Water-Stage recorder with telemetry. Datum of gage is 307.71 ft above NGVD of 1929. Prior to Aug. 2, 1951, nonrecording gage at same site and datum.

REMARKS.-- Records fair except for those estimated, which are poor. Minimum flow affected by backwater from the Mississippi River.

COOPERATION.--Kentucky Natural Resources and Environmental Protection Cabinet.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 30	0330	3,700	16.00	Dec 17	1330	*5,300	*16.50

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	24	854	34	1520	41	125	155	56	20	20	17
2	17	30	86	34	623	212	71	57	54	20	20	17
3	17	29	44	34	108	167	55	44	52	24	19	18
4	17	24	33	33	72	61	46	40	50	21	19	16
5	25	23	28	34	59	52	42	37	52	20	19	16
6	27	22	84	48	57	47	40	35	72	20	19	16
7	18	22	73	44	57	43	38	38	41	19	18	16
8	18	24	1080	40	52	42	40	38	37	19	18	16
9	18	23	370	42	50	60	47	36	36	19	18	16
10	19	22	77	43	48	45	38	33	35	20	18	16
11	209	22	49	41	45	42	36	32	35	23	18	16
12	125	22	306	39	44	52	36	31	33	21	18	16
13	220	21	647	39	42	47	150	860	113	21	20	16
14	551	21	574	39	42	42	917	319	36	21	27	17
15	83	22	162	36	42	40	1210	77	31	20	23	17
16	45	e22	784	33	41	38	157	55	29	20	20	17
17	30	e24	3660	34	40	45	69	791	28	20	20	17
18	25	e26	2180	36	39	79	55	1300	27	21	20	18
19	24	e28	276	44	62	610	48	403	26	20	21	23
20	23	32	127	43	200	1200	44	210	25	20	17	345
21	23	24	96	41	62	439	42	183	24	20	17	113
22	22	23	114	55	46	93	40	134	24	20	16	22
23	23	26	583	890	42	67	36	100	23	20	16	18
24	27	189	137	1060	41	58	182	83	23	21	17	17
25	33	74	79	683	42	84	69	150	24	20	17	16
26	24	42	63	115	75	1170	41	503	26	20	17	90
27	23	147	56	76	45	579	41	93	22	20	17	562
28	25	710	53	65	42	96	209	74	22	19	16	42
29	23	2000	47	59	---	76	52	140	22	19	17	26
30	24	3080	38	62	---	75	46	68	24	20	17	23
31	23	---	36	684	---	331	---	59	---	20	17	---
TOTAL	1798	6798	12796	4560	3638	6033	4022	6178	1102	628	576	1595
MEAN	58.00	226.6	412.8	147.1	129.9	194.6	134.1	199.3	36.73	20.26	18.58	53.17
MAX	551	3080	3660	1060	1520	1200	1210	1300	113	24	27	562
MIN	17	21	28	33	39	38	36	31	22	19	16	16
CFSM	0.84	3.30	6.01	2.14	1.89	2.83	1.95	2.90	0.53	0.29	0.27	0.77
IN.	0.97	3.68	6.93	2.47	1.97	3.27	2.18	3.35	0.60	0.34	0.31	0.86

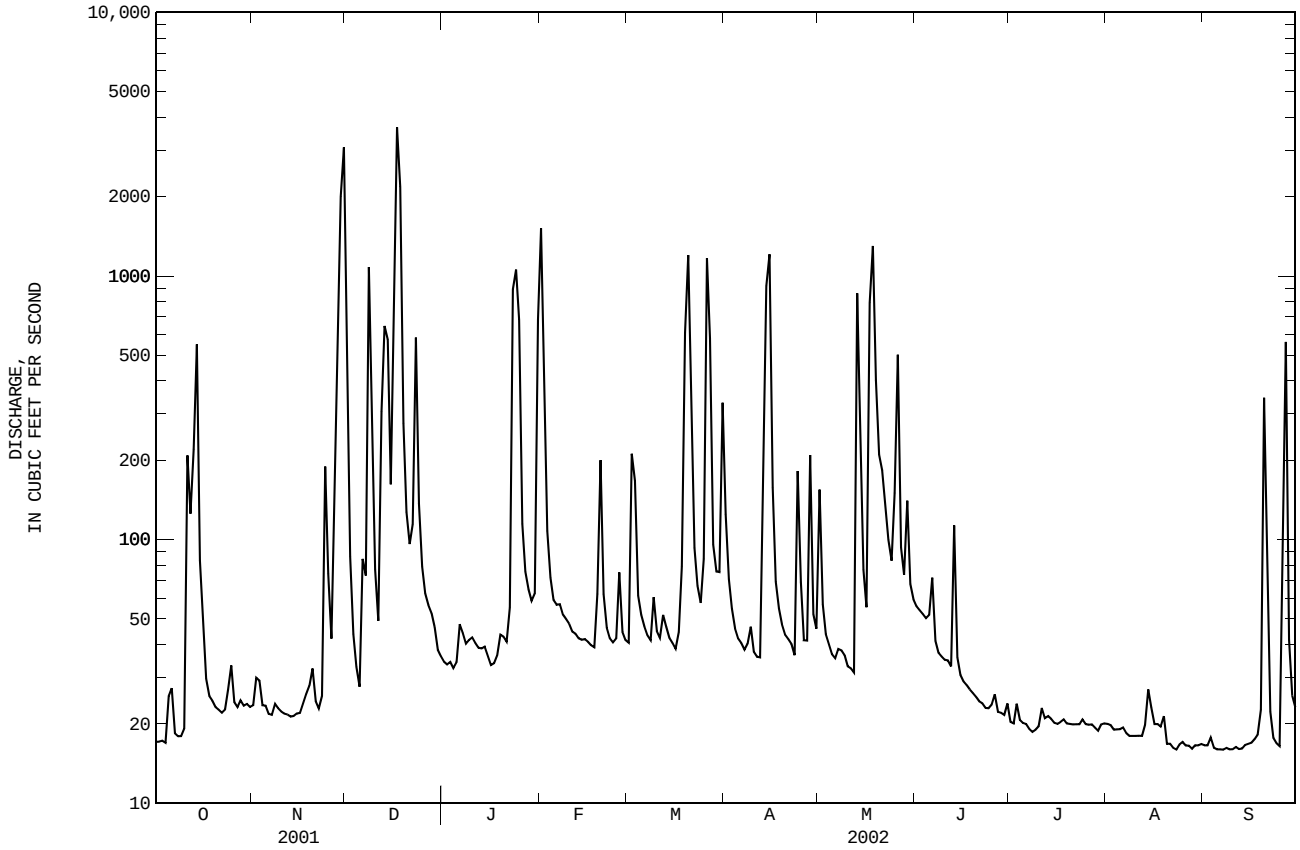
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2002, BY WATER YEAR (WY)

MEAN	32.80	82.11	130.3	151.7	184.5	209.1	135.7	105.3	74.35	57.54	39.47	34.82
MAX	165	520	557	586	672	1138	335	470	419	397	206	268
(WY)	1985	1958	1991	1950	1989	1975	1970	1978	1976	1976	1977	1977
MIN	7.27	9.41	12.1	12.7	16.2	14.2	18.6	12.1	11.7	10.7	9.43	8.74
(WY)	1944	1944	1944	1944	1941	1941	1986	1969	1952	1943	1953	1941

07024000 BAYOU DE CHIEN NEAR CLINTON, KY--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1940 - 2002	
ANNUAL TOTAL	37724		49724			
ANNUAL MEAN	103.4		136.2		102.8	
HIGHEST ANNUAL MEAN					268	1976
LOWEST ANNUAL MEAN					18.7	1941
HIGHEST DAILY MEAN	3660	Dec 17	3660	Dec 17	7150	Jan 2 1966
LOWEST DAILY MEAN	16	Jul 13	16	Aug 22	4.0	May 29 1943
ANNUAL SEVEN-DAY MINIMUM	16	Jul 11	16	Sep 4	4.7	Jun 20 1942
MAXIMUM PEAK FLOW			5300	Dec 17	9460	Jan 2 1966
MAXIMUM PEAK STAGE			16.50	Dec 17	16.50	Dec 17 2001
ANNUAL RUNOFF (CFSM)	1.50		1.98		1.50	
ANNUAL RUNOFF (INCHES)	20.43		26.92		20.33	
10 PERCENT EXCEEDS	131		288		187	
50 PERCENT EXCEEDS	25		38		24	
90 PERCENT EXCEEDS	18		18		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 2002

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†, 1993-2002	03-18-02	12.63	8,850
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†, 1993-2002	03-18-02	23.42	4,300

†Operated as a continuous-record gaging station.

Discharge Measurements made at miscellaneous sites during water year 2001.

Station no.	Station name	Location	Period of record	Date	Discharge (ft^3/s)
		GREEN RIVER BASIN			
03316000	Mud River near Lewisburg, Ky.	Lat 37×°00’15”, Long 86°54’26”, Logan County, Hydrologic Unit 05110003, at upstream side of bridge on State Highway 106, 2.5 mi northeast of Lewisburg, 7.5 mi downstream from Motts Lick Creek, and 14.0 mi upstream from Wolf Lick Creek.	2001-2002	10-04-01 10-04-01 07-25-02	2.83 3.09 29.0

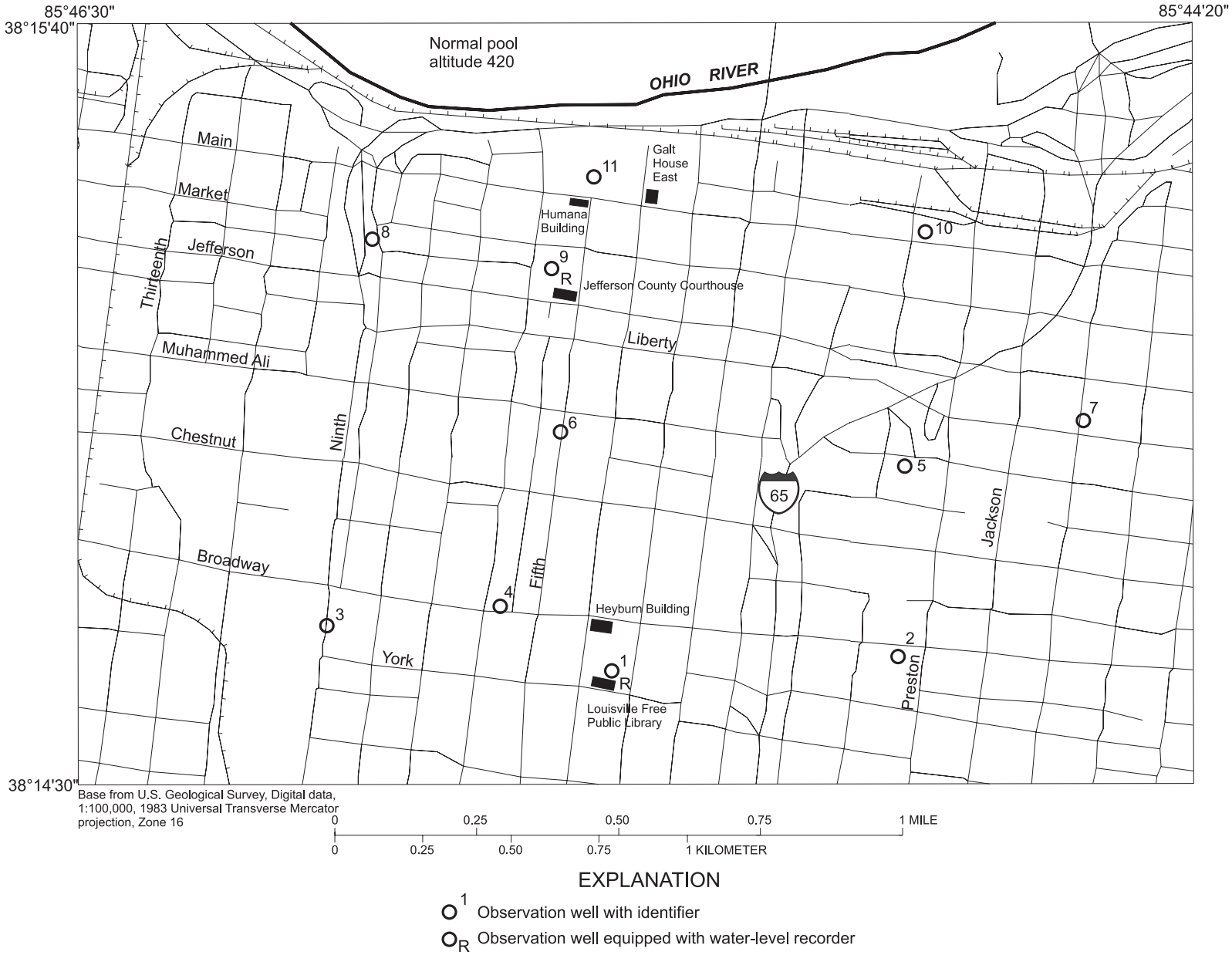


Figure 9. Location of observation wells in downtown Louisville, Kentucky.

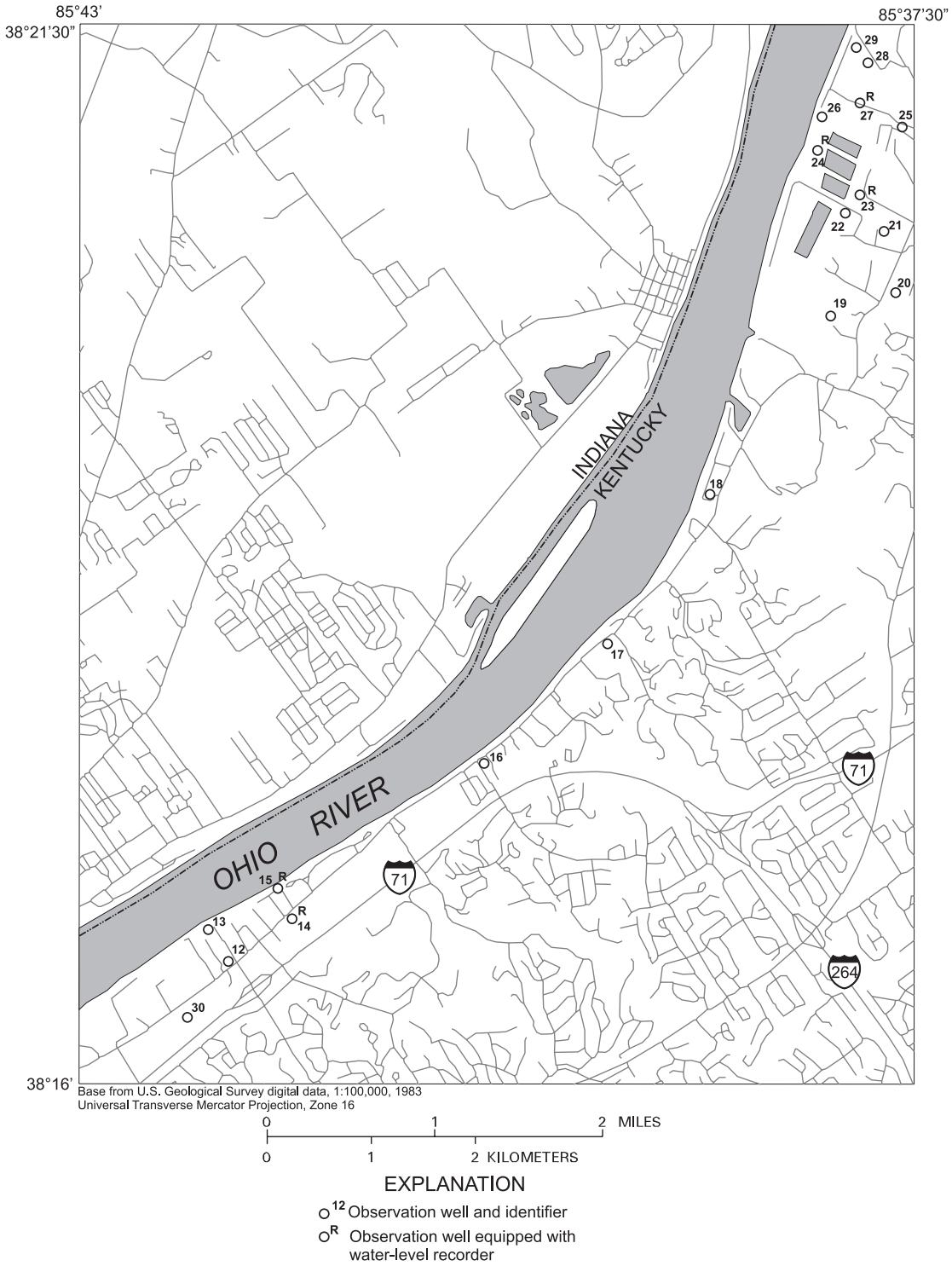


Figure 10. Location of observation wells in northeastern Jefferson County, Kentucky.

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: 124 CLBR.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 10 in., depth 105 ft, cased to 85 ft, screened 85-105 ft.

INSTRUMENTATION.--Continuous water level recorder with telemetey, 60 minute interval.

DATUM.--Elevation of land-surface datum is 405.65 ft above NGVD of 1929. 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.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

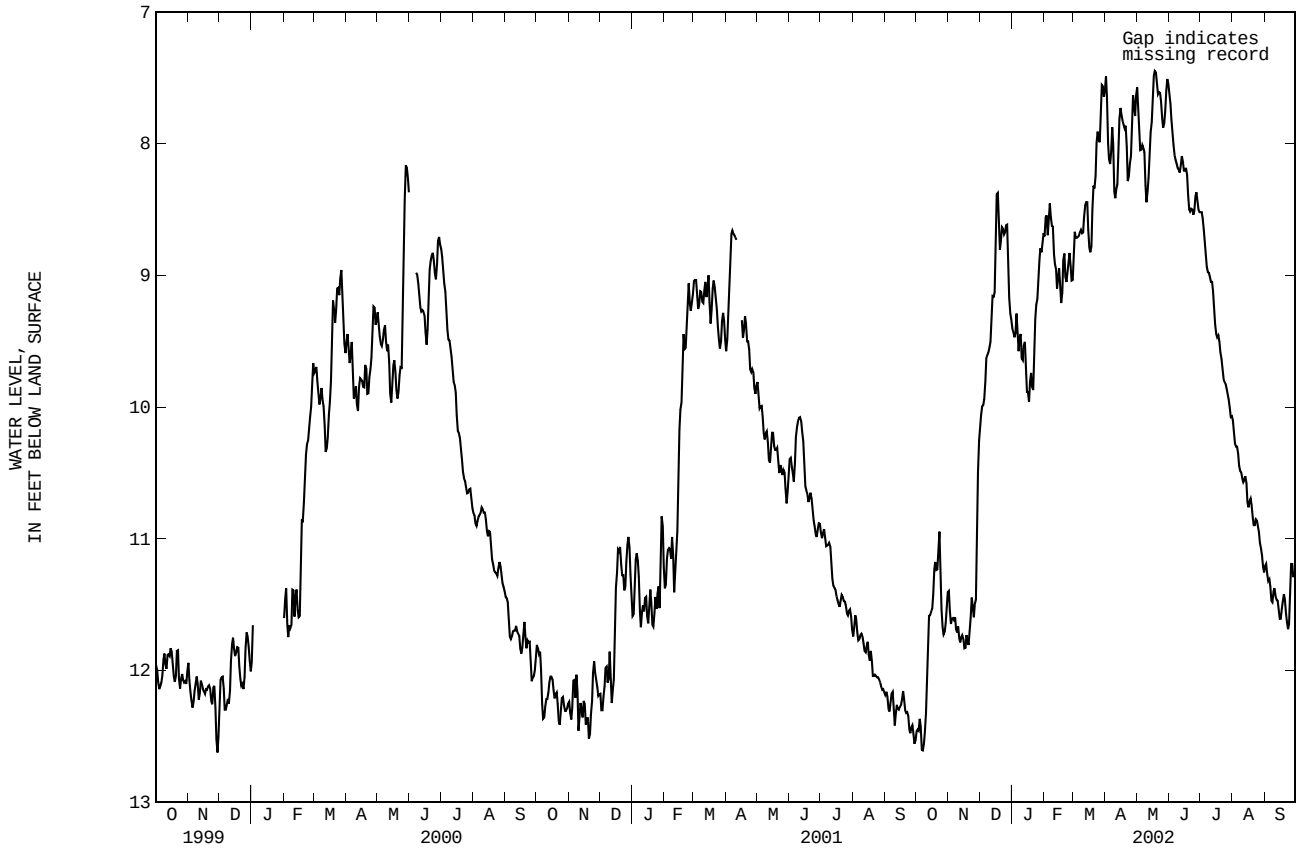
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.49	11.36	10.21	9.38	8.71	9.04	7.59	7.54	7.59	8.52	10.06	11.25
2	12.43	11.43	10.12	9.43	8.70	8.63	7.39	7.61	7.64	8.52	10.14	11.16
3	12.46	11.66	10.01	9.43	8.42	8.71	7.91	7.90	7.76	8.52	10.25	11.22
4	12.45	11.63	9.98	9.51	8.67	8.72	8.08	7.96	7.88	8.61	10.30	11.32
5	12.28	11.58	9.99	9.37	8.72	8.71	8.16	8.14	7.96	8.69	10.30	11.32
6	12.57	11.62	9.89	9.21	8.46	8.71	8.15	7.95	8.06	8.80	10.30	11.29
7	12.63	11.61	9.72	9.62	8.45	8.69	7.98	8.07	8.12	8.90	10.41	11.43
8	12.58	11.58	9.54	9.53	8.66	8.66	7.77	8.00	8.13	8.97	10.48	11.51
9	12.53	11.79	9.67	9.41	8.59	8.65	8.24	8.13	8.18	8.98	10.49	11.45
10	12.40	11.63	9.50	9.48	8.67	8.71	8.49	8.51	8.19	8.98	10.50	11.35
11	12.24	11.70	9.59	9.78	9.01	8.64	8.34	8.38	8.21	9.05	10.58	11.40
12	11.96	11.81	9.42	9.51	8.82	8.47	8.34	8.34	8.23	9.05	10.56	11.47
13	11.60	11.76	9.26	9.56	9.09	8.47	8.28	8.18	8.09	9.05	10.54	11.45
14	11.57	11.73	9.05	9.45	9.11	8.42	7.91	7.94	8.10	9.19	10.51	11.49
15	11.59	11.73	9.27	9.92	8.93	8.47	7.71	7.89	8.18	9.34	10.65	11.57
16	11.52	11.79	8.99	9.85	8.96	8.84	7.75	7.78	8.23	9.40	10.79	11.64
17	11.54	11.87	8.34	9.92	9.19	8.74	7.82	7.52	8.18	9.49	10.73	11.57
18	11.31	11.78	8.43	10.00	9.23	8.91	7.84	7.45	8.19	9.45	10.70	11.49
19	11.15	11.68	8.32	9.62	9.03	8.65	7.87	7.45	8.29	9.46	10.69	11.46
20	11.20	11.87	8.78	9.86	8.74	8.35	7.90	7.47	8.48	9.55	10.80	11.38
21	11.27	11.74	8.83	9.83	8.93	8.29	7.83	7.61	8.52	9.62	10.87	11.54
22	11.19	11.66	8.65	9.91	9.09	8.39	8.23	7.64	8.51	9.65	10.92	11.59
23	10.96	11.54	8.62	9.47	9.01	8.10	8.34	7.58	8.48	9.75	10.87	11.67
24	10.93	11.35	8.67	9.19	8.94	7.89	8.15	7.65	8.52	9.82	10.83	11.70
25	11.44	11.67	8.71	9.26	8.85	7.93	8.16	7.71	8.56	9.80	10.89	11.59
26	11.63	11.52	8.64	9.10	8.81	8.01	8.03	7.90	8.46	9.85	10.91	11.29
27	11.72	11.47	8.60	8.97	9.05	7.97	7.72	7.86	8.34	9.87	10.99	11.09
28	11.73	11.45	8.63	8.80	9.03	7.67	7.55	7.83	8.40	9.94	11.07	11.29
29	11.68	10.69	9.05	8.79	---	7.44	7.85	7.68	8.48	9.95	11.08	11.29
30	11.60	10.29	9.29	8.86	---	7.69	7.73	7.51	8.52	10.07	11.17	11.23
31	11.45	---	9.29	8.65	---	7.60	---	7.51	---	10.08	11.26	---
MAX	12.63	11.87	10.21	10.00	9.23	9.04	8.49	8.51	8.56	10.08	11.26	11.70
MIN	10.93	10.29	8.32	8.65	8.42	7.44	7.39	7.45	7.59	8.52	10.06	11.09

WTR YR 2002 HIGH 7.39 LOW 12.63

GRAVES COUNTY

365210088391301. Viola well--Continued.



JEFFERSON COUNTY

381441085452701. (Lib 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: 112OTSH.

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 NGVD of 1929. 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.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

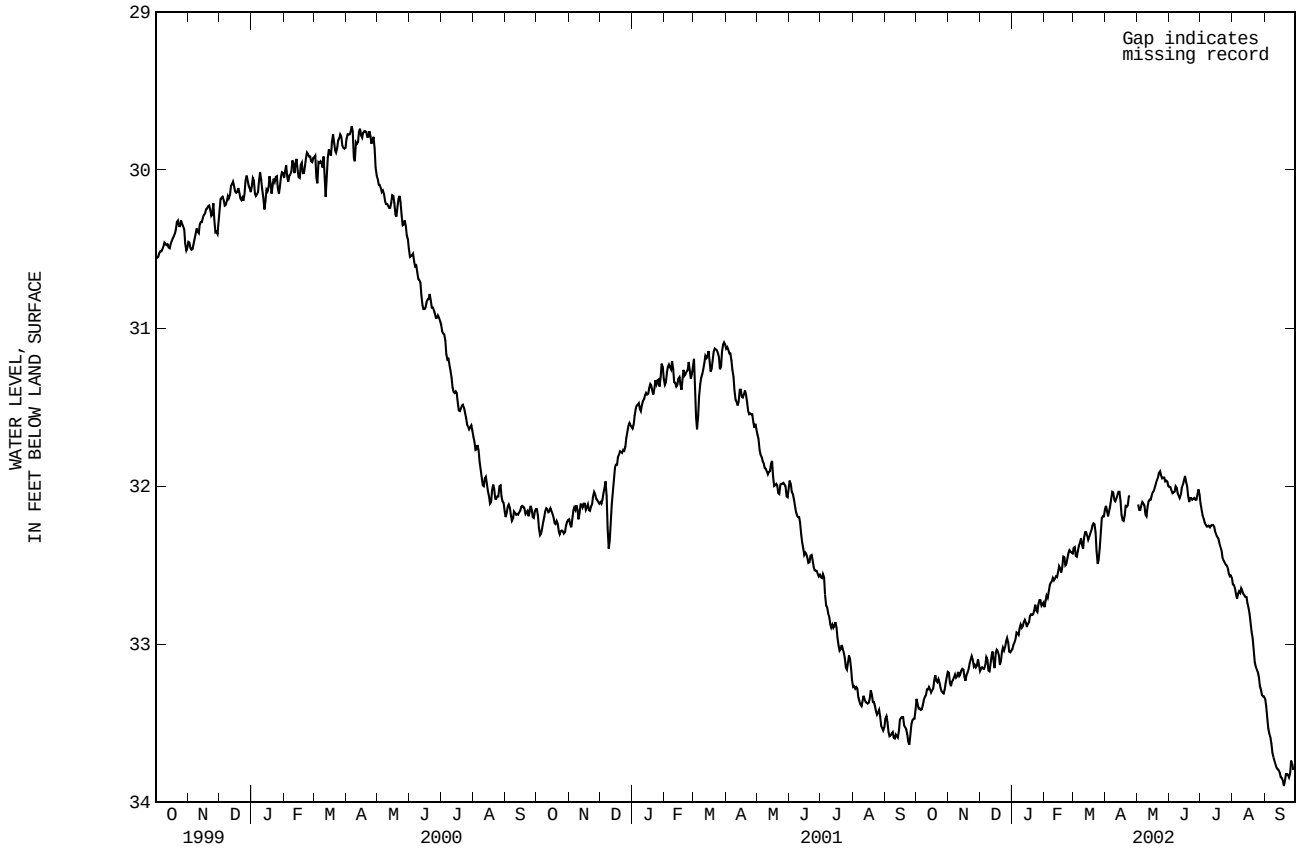
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33.34	33.17	33.17	33.04	32.76	32.43	32.14	---	32.00	32.09	32.61	33.34
2	33.35	33.19	33.17	33.02	32.77	32.35	32.11	32.08	32.01	32.13	32.63	33.35
3	33.41	33.29	33.14	32.99	32.67	32.42	32.20	32.15	32.00	32.17	32.62	33.43
4	33.40	33.24	33.15	32.99	32.71	32.46	32.18	32.15	32.05	32.20	32.67	33.51
5	33.41	33.23	33.16	32.95	32.70	32.43	32.14	32.15	32.04	32.21	32.70	33.55
6	33.42	33.22	33.15	32.90	32.64	32.39	32.11	32.09	32.04	32.25	32.72	33.58
7	33.40	33.20	33.11	32.96	32.61	32.36	32.06	32.11	32.03	32.24	32.64	33.59
8	33.37	33.18	33.05	32.92	32.61	32.36	32.01	32.11	31.97	32.27	32.69	33.67
9	33.33	33.24	33.14	32.88	32.59	32.30	32.07	32.13	32.05	32.24	32.66	33.70
10	33.34	33.16	33.19	32.87	32.57	32.44	32.10	32.23	32.04	32.26	32.63	33.73
11	33.30	33.19	33.15	32.92	32.62	32.35	32.09	32.15	32.08	32.26	32.69	33.74
12	33.27	33.21	33.10	32.85	32.55	32.30	32.07	32.11	32.07	32.24	32.67	33.78
13	33.30	33.17	33.05	32.87	32.59	32.28	32.05	32.08	32.04	32.25	32.71	33.78
14	33.24	33.16	33.04	32.82	32.56	32.30	32.02	32.09	31.98	32.24	32.69	33.80
15	33.33	33.15	33.18	32.90	32.52	32.33	32.05	32.08	32.00	32.27	32.71	33.79
16	33.28	33.17	33.12	32.88	32.49	32.35	32.14	32.04	31.93	32.30	32.77	33.83
17	33.30	33.24	32.99	32.86	32.55	32.29	32.22	32.04	31.94	32.31	32.77	33.85
18	33.26	33.22	33.08	32.86	32.54	32.31	32.21	32.02	32.00	32.33	32.84	33.84
19	33.19	33.17	33.01	32.78	32.48	32.25	32.23	32.00	32.00	32.33	32.89	33.88
20	33.20	33.19	33.12	32.84	32.41	32.25	32.14	31.97	32.12	32.39	32.95	33.91
21	33.26	33.13	33.14	32.79	32.49	32.22	32.11	31.96	32.08	32.37	32.98	33.82
22	33.22	33.11	33.08	32.83	32.51	32.26	32.15	31.93	32.07	32.44	33.09	33.82
23	33.22	33.09	33.01	32.75	32.47	32.33	32.09	31.90	32.08	32.46	33.14	33.82
24	33.26	33.06	33.03	32.75	32.44	32.49	32.04	31.91	32.09	32.48	33.14	33.83
25	33.29	33.13	33.05	32.82	32.40	32.49	32.08	31.95	32.07	32.48	33.18	33.85
26	33.30	33.15	32.99	32.77	32.41	32.44	---	31.95	32.08	32.51	33.17	33.78
27	33.31	33.11	32.97	32.73	32.42	32.34	---	31.94	32.09	32.49	33.25	33.69
28	33.31	33.18	32.95	32.71	32.42	32.24	---	31.95	32.08	32.54	33.28	33.82
29	33.26	33.09	33.03	32.73	---	32.16	---	31.99	32.02	32.56	33.30	33.77
30	33.23	33.10	33.06	32.78	---	32.22	---	31.94	32.02	32.58	33.34	---
31	33.18	---	33.04	32.71	---	32.16	---	32.00	---	32.55	33.32	---
MAX	33.42	33.29	33.19	33.04	32.77	32.49	---	---	32.12	32.58	33.34	---
MIN	33.18	33.06	32.95	32.71	32.40	32.16	---	---	31.93	32.09	32.61	---

WTR YR 2002 HIGH 31.90 LOW 33.91

JEFFERSON COUNTY

381441085452701. (Lib A-2), map number 1.--Continued



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 street on west side of Metro United Way Building 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, 94 ft, screen unknown.

INSTRUMENTATION.--Quarterly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 461.78 ft above NGVD of 1929. 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, 40.25 ft below land-surface datum, Sept. 30, 2002.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Water Level	Date	Water Level
Jan. 04, 2002	39.89	Jun. 28 2002	38.20
Mar. 29, 2002	38.93	Sept. 30, 2002	40.25

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 NGVD of 1929. 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, 31.77 ft below land-surface datum Sept. 27, 2001.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Water Level	Date	Water Level
Jan. 04, 2002	31.75	Jun. 28, 2002	30.48
Mar. 29, 2002	30.89	Sept. 30, 2002	31.20

381447085454001. (Courier Journal), map number 4.

LOCATION.--Lat 38°14'47", long 85°45'40", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at Courier Journal, 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, cased 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 NGVD of 1929. 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 from 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 2001 TO SEPTEMBER 2002

Date	Water Level	Date	Water Level
Jan. 04, 2002	34.01	Jun. 28, 2002	32.96
Mar. 29, 2002	33.04	Sept. 30, 2002	34.30

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 NGVD of 1929. Measuring point: Top of casing, 0.25 ft below land-surface datum.

REMARKS.--Deeper of two wells drlled 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, 40.78 ft below land-surface datum, Sept. 30, 2002.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Water Level	Date	Water Level
Jan. 04, 2002	39.85	Jun. 28, 2002	38.90
Mar. 29, 2002	38.58	Sept. 30, 2002	40.78

381503085453301. (Ky. Towers), 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 Muhammand Ali Blvd., in Louisville. Owner: Kentucky Towers (formerly Kentucky Hotel).

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer sode: 1120TSH.

WELL CHARACTERISTICS.--Drilled unused water-table well, diamete 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 NGVD of 1929. 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.--Hightest 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 2001 TO SEPTEMBER 2002

Date	Water Level	Date	Water Level
Jan. 04, 2002	42.14	Jun. 28, 2002	41.69
Mar. 29, 2002	40.41	Sept. 30, 2002	Not Measured

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 NGVD of 1929. 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, 49.31 ft below land-surface datum, Sept. 30, 2002.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Water Level	Date	Water Level
Jan. 04, 2002	46.98	Jun. 28, 2002	45.74
Apr. 01, 2002	46.23	Sept. 30, 2002	49.31

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 sode: 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 NGVD of 1929. 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 2001 TO SEPTEMBER 2002

Date	Water Level	Date	Water Level
Jan. 04, 2002	36.77	Jun. 28, 2002	36.73
Mar. 29, 2002	36.34	Sept. 30, 2002	37.59

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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: 112OTSH.

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 NGVD of 1929. 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.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

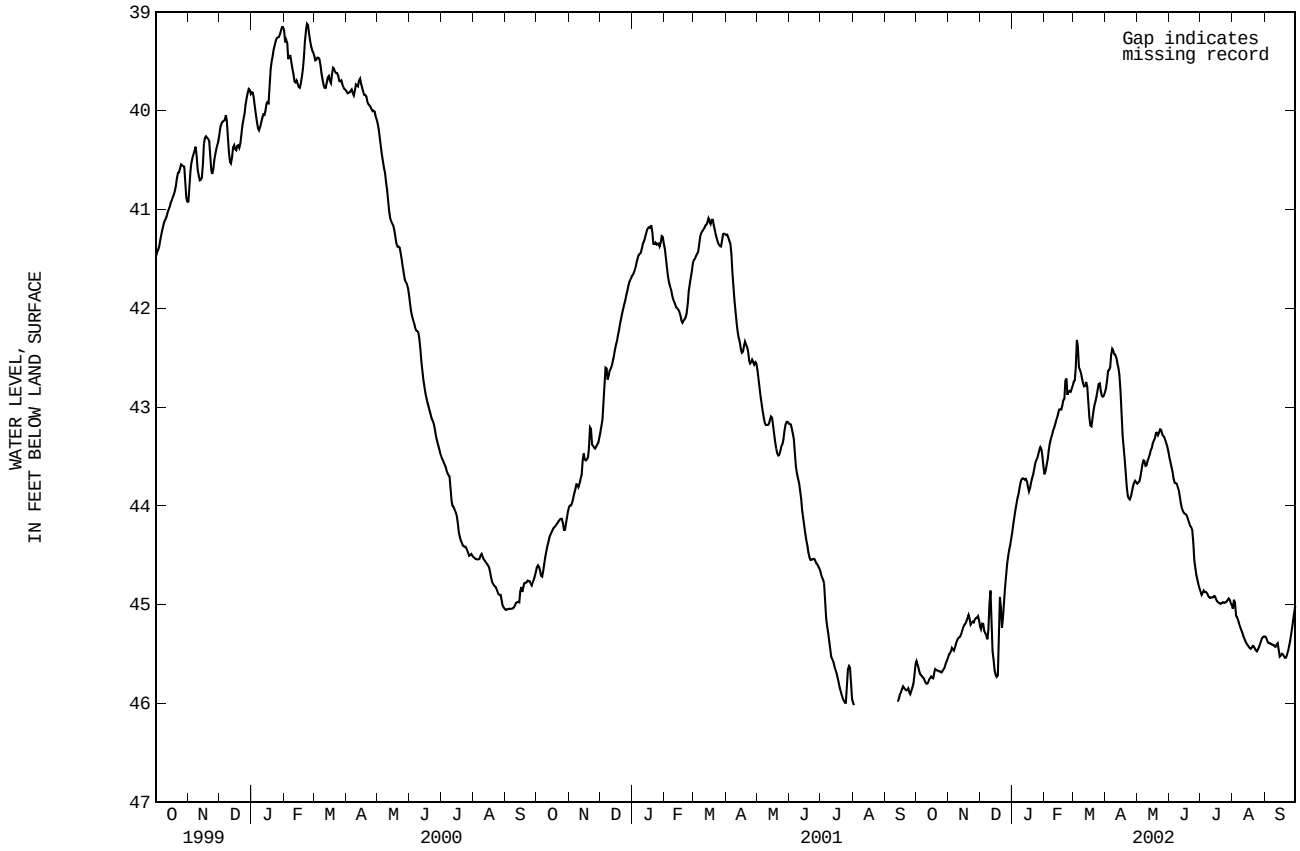
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45.55	45.53	45.20	44.29	43.68	42.77	42.84	43.79	43.48	44.85	45.02	45.32
2	45.59	45.49	45.24	44.22	43.68	42.72	42.78	43.76	43.53	44.88	45.06	45.32
3	45.62	45.49	45.25	44.14	43.61	42.74	42.70	43.77	43.58	44.92	44.84	45.34
4	45.67	45.45	45.13	44.07	43.56	42.46	42.57	43.74	43.62	44.84	45.11	45.38
5	45.71	45.42	45.26	44.01	43.49	42.18	42.68	43.69	43.69	44.87	45.11	45.39
6	45.71	45.48	45.27	43.94	43.39	42.59	42.52	43.61	43.75	44.87	45.14	45.39
7	45.73	45.45	45.30	43.90	43.34	42.60	42.43	43.56	43.78	44.87	45.17	45.39
8	45.74	45.41	45.32	43.85	43.31	42.64	42.39	43.52	43.76	44.89	45.21	45.41
9	45.75	45.37	45.38	43.78	43.27	42.67	42.46	43.57	43.79	44.91	45.24	45.40
10	45.79	45.35	45.11	43.73	43.22	42.75	42.47	43.62	43.82	44.93	45.26	45.41
11	45.80	45.33	44.86	43.73	43.21	42.77	42.47	43.56	43.86	44.93	45.30	45.43
12	45.80	45.33	44.85	43.71	43.15	42.81	42.53	43.53	43.95	44.92	45.33	45.42
13	45.78	45.31	45.43	43.74	43.13	42.76	42.58	43.51	44.00	44.93	45.35	45.39
14	45.74	45.28	45.51	43.73	43.09	42.73	42.63	43.46	44.04	44.92	45.38	45.39
15	45.74	45.24	45.62	43.72	43.04	42.86	42.73	43.42	44.06	44.90	45.40	45.52
16	45.71	45.21	45.71	43.78	43.01	43.05	42.96	43.41	44.08	44.93	45.41	45.53
17	45.77	45.20	45.71	43.83	43.04	43.15	43.22	43.33	44.08	44.96	45.43	45.50
18	45.72	45.18	45.75	43.88	43.01	43.22	43.36	43.35	44.09	44.97	45.44	45.49
19	45.65	45.15	45.68	43.77	42.96	43.17	43.46	43.29	44.12	44.98	45.45	45.51
20	45.65	45.12	45.05	43.75	42.90	43.07	43.60	43.24	44.15	44.99	45.42	45.53
21	45.67	45.09	44.79	43.69	42.93	43.01	43.74	43.28	44.19	44.99	45.41	45.54
22	45.66	45.20	45.26	43.67	42.54	42.95	43.88	43.29	44.21	44.98	45.43	45.53
23	45.68	45.20	45.20	43.59	42.88	42.92	43.91	43.24	44.22	44.97	45.45	45.49
24	45.67	45.16	45.06	43.55	42.87	42.86	43.94	43.21	44.26	44.98	45.47	45.45
25	45.68	45.18	44.89	43.53	42.82	42.79	43.93	43.25	44.50	44.98	45.47	45.39
26	45.69	45.18	44.76	43.50	42.85	42.74	43.88	43.29	44.60	44.97	45.44	45.34
27	45.65	45.12	44.64	43.45	42.84	42.78	43.83	43.29	44.67	44.96	45.42	45.26
28	45.65	45.15	44.54	43.41	42.80	42.88	43.77	43.31	44.73	44.94	45.39	45.19
29	45.62	45.11	44.47	43.40	---	42.89	43.76	43.35	44.77	44.93	45.35	45.11
30	45.58	45.12	44.42	43.46	---	42.90	43.73	43.38	44.82	44.97	45.33	45.03
31	45.56	---	44.36	43.55	---	42.87	---	43.42	---	44.99	45.32	---
MAX	45.80	45.53	45.75	44.29	43.68	43.22	43.94	43.79	44.82	44.99	45.47	45.54
MIN	45.55	45.09	44.36	43.40	42.54	42.18	42.39	43.21	43.48	44.84	44.84	45.03

WTR YR 2002 HIGH 42.18 LOW 45.80

JEFFERSON COUNTY

381518085453402. Local number 86-11 (Courthouse Annex), map number 9.--Continued



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 NGVD of 1929. 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, 42.51 ft below land-surface, datum, Sept. 30, 2002.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Water Level	Date	Water Level
Jan. 04, 2002	40.95	Jun. 28, 2002	40.47
Mar. 29, 2002	39.10	Sept. 30, 2002	42.51

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: 112OTSH.

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 NGVD of 1929. 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 2000 TO SEPTEMBER 2001

Date	Water Level	Date	Water Level
Jan.. 04, 2002	34.14	Jun. 28, 2002	36.17
Mar. 29, 2002	33.01	Sept. 30, 2002	36.23

381613085422801. (Edith Lane Landfill), map number 30.

LOCATION.--Lat 38°16'13", long 85°42'28", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, 50 feet east of landfill, 200 feet south of River Road. Owner: City of Louisville.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 2 in., depth 60.9, screen: unknown.

INSTRUMENTATION.--Quarterly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 433.66 ft above NGVD of 1929. Measuring point: Top of pvc casing, 68 ft land-surface datum.

REMARKS.-- Unused landfill monitoring well.

PERIOD OF RECORD.--March 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.23 ft below land-surface datum, Mar. 29, 2002; lowest measured, 14.29 ft below land-surface datum, Sept. 25, 2002.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Water Level	Date	Water Level
Jan. 04, 2002	13.32	Jun. 28, 2002	13.05
Mar. 29, 2002	8.23	Sept. 25, 2002	14.29

JEFFERSON COUNTY

381638085415801. Local number (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: 112OTSH.

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 NGVD of 1929. 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. 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 2001 TO SEPTEMBER 2002

Date	Water Level	Date	Water Level
Jan. 04, 2002	14.72	Jun. 28, 2002	14.63
Mar. 29, 2002	9.45	Sept. 25, 2002	15.54

381648085421201. Local number (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: 112OTSH.

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 NGVD of 1929. 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 2001 TO SEPTEMBER 2002

Date	Water Level	Date	Water Level
Jan. 04, 2002	14.41	Jun. 28, 2002	12.26
Mar. 29, 2002	12.16	Sept. 25, 2002	14.17

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: 112OTSH.

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 NGVD of 1929. 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.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

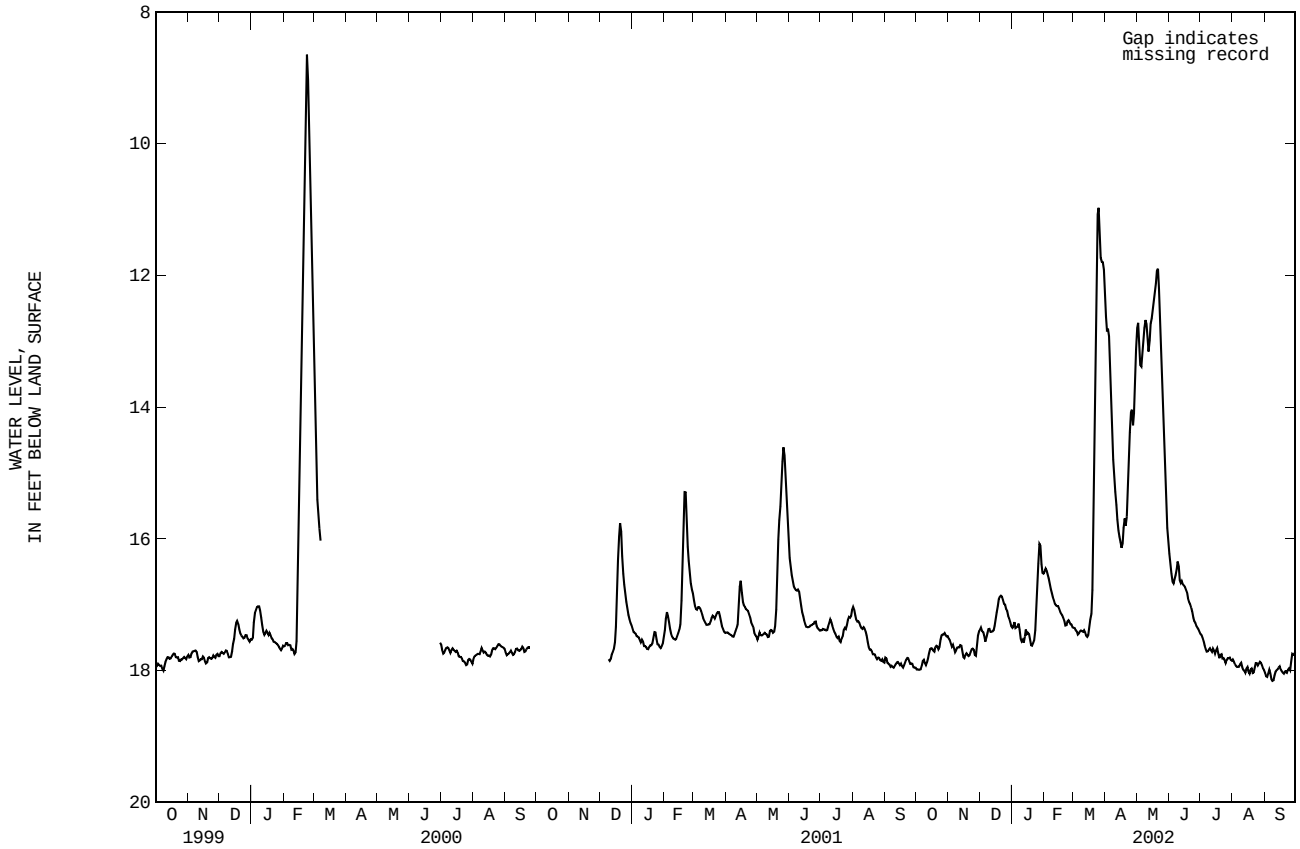
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.98	17.49	17.41	17.21	16.54	17.38	12.43	12.92	16.14	17.45	17.82	18.00
2	17.98	17.54	17.34	17.49	16.46	17.32	12.82	12.68	16.31	17.44	17.84	18.07
3	17.98	17.53	17.35	17.16	16.44	17.39	12.85	12.76	16.45	17.48	17.89	18.10
4	17.99	17.65	17.45	17.37	16.52	17.38	12.80	13.26	16.60	17.52	17.91	18.09
5	17.98	17.62	17.38	17.34	16.57	17.43	13.05	13.46	16.70	17.59	17.95	18.00
6	17.98	17.59	17.56	17.34	16.63	17.47	13.72	13.31	16.65	17.65	17.94	17.97
7	17.87	17.72	17.56	17.33	16.74	17.40	14.26	13.05	16.56	17.70	17.94	18.11
8	17.84	17.72	17.46	17.24	16.78	17.41	14.65	12.92	16.54	17.72	17.94	18.15
9	17.83	17.67	17.40	17.51	16.87	17.37	14.94	12.68	16.38	17.69	17.86	18.16
10	17.93	17.63	17.34	17.52	16.90	17.43	15.19	12.68	16.31	17.67	17.90	18.13
11	17.90	17.66	17.39	17.59	16.97	17.39	15.38	12.78	16.53	17.65	18.00	18.02
12	17.85	17.63	17.43	17.47	17.00	17.38	15.59	13.10	16.72	17.73	17.97	18.01
13	17.77	17.60	17.39	17.68	17.02	17.46	15.82	13.21	16.62	17.70	18.03	17.98
14	17.70	17.64	17.42	17.29	17.02	17.47	15.93	12.77	16.66	17.63	18.03	17.98
15	17.64	17.77	17.35	17.46	17.02	17.50	16.00	12.70	16.72	17.77	17.90	17.93
16	17.68	17.82	17.29	17.43	17.09	17.42	16.10	12.60	16.69	17.72	17.99	17.94
17	17.65	17.80	17.14	17.42	17.12	17.26	16.17	12.46	16.77	17.66	18.05	18.02
18	17.74	17.72	17.09	17.47	17.15	17.18	15.97	12.33	16.77	17.66	18.04	18.00
19	17.68	17.75	16.95	17.57	17.17	17.09	15.70	12.23	16.86	17.82	17.92	18.06
20	17.61	17.77	16.88	17.66	17.22	16.46	15.68	12.01	16.95	17.80	18.01	18.03
21	17.63	17.79	16.87	17.58	17.27	15.38	15.92	11.86	16.97	17.72	18.06	18.00
22	17.63	17.74	16.85	17.58	17.36	14.16	15.41	11.94	17.01	17.78	17.99	18.05
23	17.72	17.70	16.90	17.50	17.26	12.76	14.96	12.45	17.08	17.85	17.91	18.02
24	17.57	17.65	16.95	17.27	17.25	11.39	14.56	13.19	17.13	17.77	17.86	17.95
25	17.49	17.68	17.02	16.99	17.22	10.76	14.20	13.89	17.26	17.90	17.91	17.98
26	17.44	17.69	16.97	16.55	17.30	11.19	13.96	14.33	17.24	17.87	17.93	18.01
27	17.46	17.83	17.16	16.20	17.29	11.64	14.12	14.77	17.31	17.81	17.85	17.73
28	17.44	17.72	17.02	15.95	17.31	11.83	14.43	15.16	17.33	17.81	17.88	17.76
29	17.42	17.54	17.32	16.25	---	11.76	13.75	15.46	17.37	17.81	17.88	17.76
30	17.50	17.39	17.09	16.52	---	11.84	13.32	15.74	17.37	17.79	17.95	17.74
31	17.46	---	17.44	16.51	---	11.99	---	15.93	---	17.88	17.98	---
MAX	17.99	17.83	17.56	17.68	17.36	17.50	16.17	15.93	17.37	17.90	18.06	18.16
MIN	17.42	17.39	16.85	15.95	16.44	10.76	12.43	11.86	16.14	17.44	17.82	17.73

WTR YR 2002 HIGH 10.76 LOW 18.16

JEFFERSON COUNTY

381653085413302. Local number (WC-9A), map number 14.--Continued



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 NGVD of 1929. 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, 1.74 ft below land-surface datum, Feb. 23, 2000; lowest measured, 14.35 ft below land-surface datum, Oct. 18, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

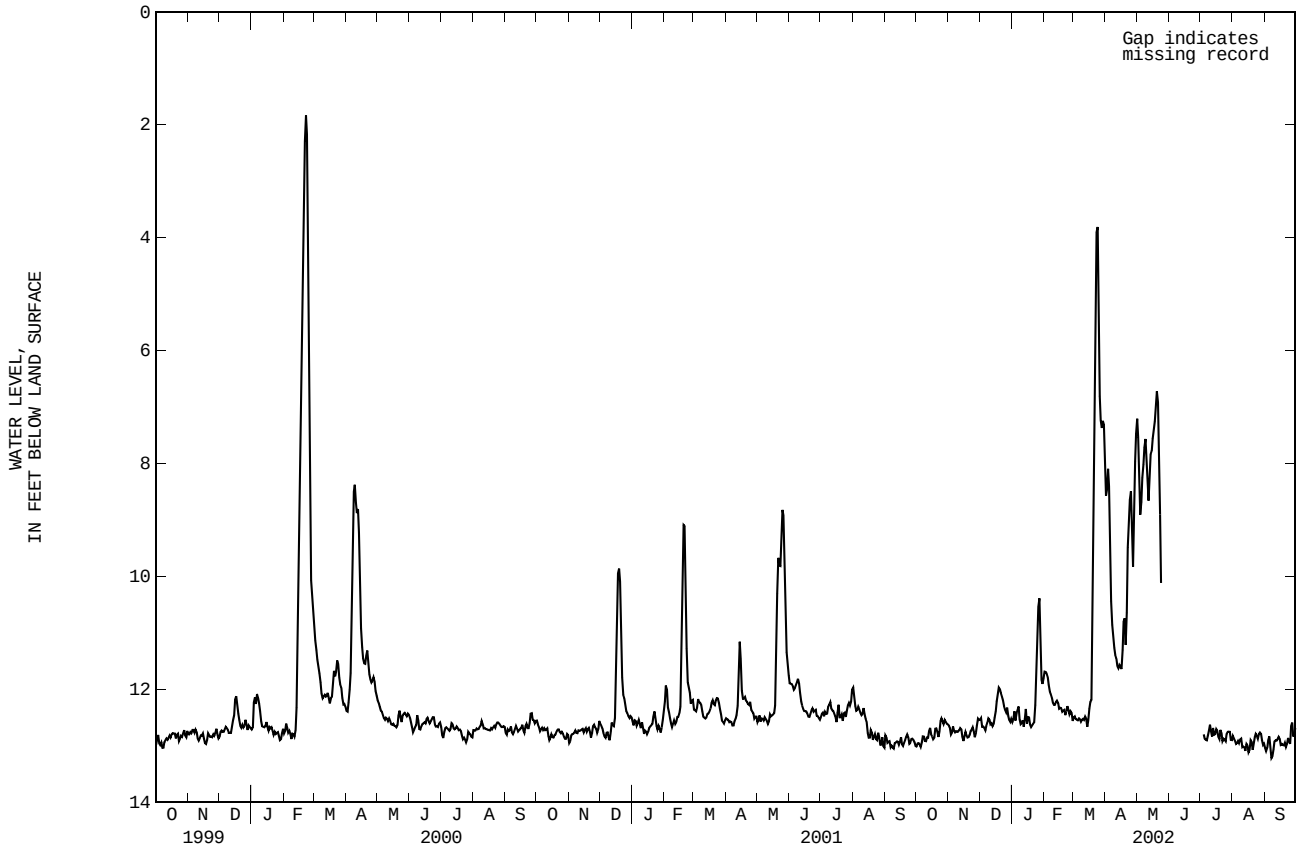
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.03	12.64	12.66	12.20	11.73	12.54	8.36	7.25	---	---	12.80	12.98
2	12.99	12.63	12.41	12.96	11.64	12.45	8.78	7.16	---	---	12.84	13.10
3	12.92	12.72	12.60	12.09	11.74	12.50	8.15	7.90	---	---	12.89	13.09
4	12.98	12.88	12.72	12.68	11.69	12.54	8.03	8.92	---	12.72	12.92	12.98
5	12.97	12.66	12.59	12.42	11.87	12.53	8.77	8.89	---	12.87	13.01	12.82
6	13.06	12.65	12.76	12.43	11.97	12.56	10.11	8.47	---	12.87	12.89	12.84
7	12.81	12.80	12.68	12.31	12.10	12.46	10.76	8.03	---	12.91	12.93	13.20
8	12.85	12.72	12.61	12.29	12.06	12.59	10.95	8.00	---	12.89	12.97	13.23
9	12.82	12.76	12.56	12.76	12.23	12.55	11.16	7.43	---	12.74	12.80	13.14
10	13.00	12.74	12.46	12.47	12.23	12.52	11.37	7.70	---	12.73	12.94	12.98
11	12.83	12.75	12.61	12.72	12.31	12.52	11.41	8.05	---	12.52	13.10	12.86
12	12.87	12.69	12.62	12.37	12.23	12.56	11.50	8.59	---	12.95	12.92	12.94
13	12.84	12.68	12.57	12.95	12.21	12.40	11.67	8.72	---	12.71	13.12	12.87
14	12.64	12.73	12.73	12.07	12.18	12.63	11.58	7.78	---	12.65	13.05	12.88
15	12.72	12.94	12.49	12.62	12.30	12.69	11.55	7.90	---	12.95	12.88	12.80
16	12.86	12.88	12.51	12.59	12.38	12.41	11.65	7.65	---	12.63	13.10	12.95
17	12.81	12.78	12.26	12.39	12.27	12.27	11.62	7.46	---	12.77	13.13	13.01
18	12.95	12.72	12.16	12.60	12.39	12.18	10.98	7.32	---	12.69	13.02	12.92
19	12.75	12.89	11.99	12.63	12.40	12.19	10.62	7.19	---	12.98	12.77	13.05
20	12.64	12.81	11.94	12.70	12.35	10.12	10.86	6.76	---	12.77	13.08	12.93
21	12.74	12.88	12.05	12.57	12.37	7.93	11.56	6.68	---	12.66	13.06	12.96
22	12.75	12.73	12.07	12.64	12.54	6.06	9.72	7.15	---	12.88	12.88	13.08
23	12.93	12.74	12.18	12.53	12.24	4.41	9.25	8.14	---	12.95	12.81	12.86
24	12.57	12.67	12.20	12.02	12.35	3.40	8.84	9.66	---	12.79	12.76	12.86
25	12.55	12.67	12.39	11.56	12.37	4.22	8.45	10.57	---	12.98	12.88	12.96
26	12.47	12.82	12.32	10.73	12.51	6.51	8.53	---	---	12.85	12.86	12.96
27	12.66	12.87	12.48	10.35	12.26	7.10	9.56	---	---	12.72	12.71	12.34
28	12.56	12.67	12.16	10.42	12.57	7.37	10.09	---	---	12.78	12.81	12.83
29	12.52	12.61	12.77	11.72	---	7.37	8.24	---	---	12.71	12.76	12.83
30	12.62	12.42	12.31	11.93	---	7.12	7.69	---	---	12.79	13.03	12.74
31	12.59	---	12.84	11.87	---	7.51	---	---	---	12.99	12.94	---
MAX	13.06	12.94	12.84	12.96	12.57	12.69	11.67	---	---	---	13.13	13.23
MIN	12.47	12.42	11.94	10.35	11.64	3.40	7.69	---	---	---	12.71	12.34

WTR 2002 HIGH 3.40 LOW 13.23

JEFFERSON COUNTY

381701085414002. Local number (WC-8A), map number 15.--Continued



JEFFERSON COUNTY

381742085402001. Local number (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: 112OTSH.

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 NGVD of 1929. 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 2001 TO SEPTEMBER 2002

Date	Water Level	Date	Water Level
Jan. 04, 2002	18.22	Jun. 28, 2002	15.89
Mar. 29, 2002	16.78	Sept. 25, 2002	17.10

381827085392401. Local number (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: 112OTSH.

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 NGVD of 1929. 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 2001 TO SEPTEMBER 2002

Date	Water Level	Date	Water Level
Jan. 04, 2002	34.09	Jun. 28, 2002	34.11
Mar. 29, 2002	27.59	Sept. 25, 2002	34.33

381904085384801. Local number (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: 112OTSH.

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 NGVD of 1929. 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 2001 TO SEPTEMBER 2002

Date	Water Level	Date	Water Level
Jan. 04, 2002	18.19	Jun. 28, 2002	17.98
Mar. 29 2002	11.99	Sept. 25, 2002	18.23

JEFFERSON COUNTY

381958085380201. (Thompson well), map number 19.

LOCATION.--Lat 38°19'58", long 85°37'52", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, at 6600 Upper River Road, in well house next to drive, near horse barn. Owner: Thompson.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled used water-table well, diameter 6 in., depth 53 ft, screen: unknown.

INSTRUMENTATION.--Quarterly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 461.44 above NGVD of 1929. Measuring point: Top of well seal, 7.00 ft below land-surface datum.

REMARKS.--Water levels affected by pumping.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.58 ft below land-surface datum, Mar. 28, 2002; lowest measured, 42.05 ft below land-surface datum, Sept. 28, 2001.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Water Level	Date	Water Level
Jan. 04, 2002	41.52	Jun. 28, 2002	39.17
Mar. 28, 2002	35.58	Sept. 25, 2002	40.44
May 28 2002	36.20		

382007085373801. (Bird Man), map number 20.

LOCATION.--Lat 38°20'07", long 85°37'38", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, at 7105 Upper River Road, in well house next to drive, near main house. Owner: Bird Man.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in., depth 61.5 ft, screen: unknown.

INSTRUMENTATION.--Quarterly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 453.83 ft above NGVD of 1929. Measuring point: Top of casing, at land-surface datum.

REMARKS.--Water levels affected by pumping.

PERIOD OF RECORD.--March 1999 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.02 ft below land-surface datum, May 5, 2002; lowest measured, 33.99 ft below land-surface datum, Sept. 28, 2001.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Water Level	Date	Water Level
Jan. 04, 2002	33.62	Jun. 28, 2002	30.48
Mar. 28, 2002	28.85	Sept. 25, 2002	31.90
May 28, 2002	28.02		

382026085374301. (Little Dean), map number 21.

LOCATION.--Lat 38°20'26", long 85°37'43", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, at 6203 Mason Road, well is next to drive, 50 ft. northwest of house. Owner: Little Dean.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in., depth 90 ft, screen: unknown.

INSTRUMENTATION.--Quarterly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 460.26 ft above NGVD of 1929. Measuring point: Top of well seal, 1.30 ft above land-surface datum.

REMARKS.--Water levels affected by pumping.

PERIOD OF RECORD.--March 1999 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.68 ft below land-surface datum, Jun. 28, 2002; lowest measured, 34.84 ft below land-surface datum, Sept. 28, 2001.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Water Level	Date	Water Level
Jan. 04, 2002	34.50	Jun. 28, 2002	31.68
Mar. 28, 2002	33.90	Sept. 25, 2002	33.00
May 28, 2002	32.03		

JEFFERSON COUNTY

382032085375601. (Staples), map number 22.

LOCATION.--Lat 38°20'32", long 85°37'56", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, at 6301 Mayfair Road, in concrete well pit next to drive, 15ft. north of garage. Owner: Staples.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in., depth 73 ft, screen: unknown.

INSTRUMENTATION.--Quarterly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 459.07 ft above NGVD of 1929 . Measuring point: Top of concrete slab above hole in well seal at land-surface datum.

REMARKS.--Water levels affected by pumping.

PERIOD OF RECORD.--March 1999 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.35 ft below land-surface datum, Mar. 25, 1999; lowest measured, 42.30 ft below land-surface datum, Jan. 04, 2002.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Water Level	Date	Water Level
Jan. 04, 2002	42.30	Jun. 28, 2002	35.48
Mar. 28, 2002	35.04	Sept. 25, 2002	36.95
May 28, 2002	33.53		

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JEFFERSON COUNTY

382039085375201. (WP-7), map number 23.
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: 112OTSH.
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 NGVD of 1929. 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, 48.10 ft below land-surface datum, Jan. 15, 2002.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

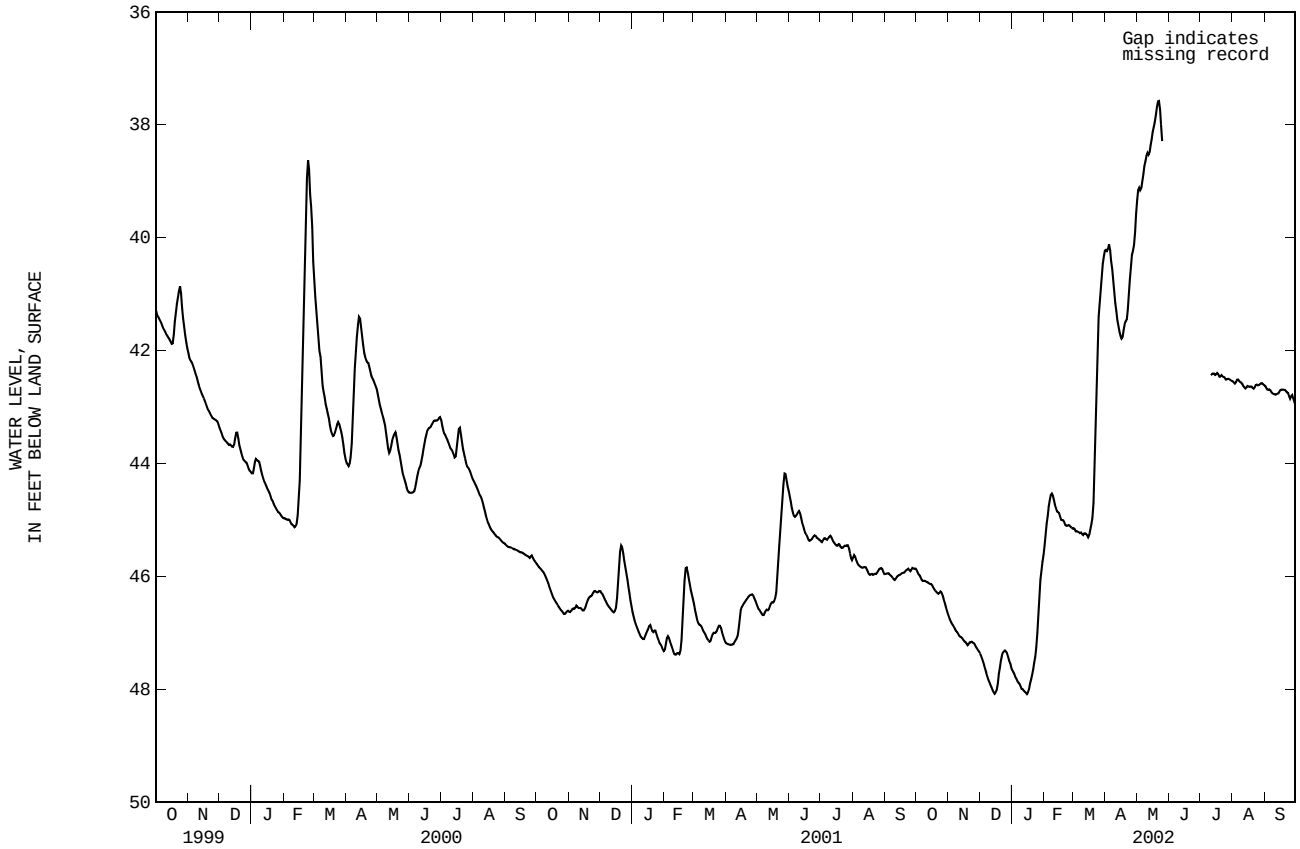
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45.86	46.68	47.34	47.64	45.57	45.17	40.22	39.43	---	---	42.54	42.61
2	45.90	46.73	47.38	47.68	45.34	45.12	40.21	39.22	---	---	42.55	42.63
3	45.95	46.78	47.42	47.70	45.12	45.20	40.26	39.10	---	---	42.58	42.68
4	45.97	46.82	47.49	47.76	45.02	45.20	40.13	39.13	---	---	42.59	42.70
5	45.99	46.85	47.54	47.80	44.83	45.20	40.11	39.19	---	---	42.53	42.69
6	46.04	46.88	47.61	47.82	44.69	45.21	40.34	39.05	---	---	42.50	42.68
7	46.08	46.91	47.68	47.89	44.59	45.22	40.49	38.95	---	---	42.52	42.72
8	46.08	46.95	47.74	47.88	44.52	45.24	40.63	38.79	---	---	42.55	42.75
9	46.07	46.98	47.81	47.92	44.54	45.20	40.90	38.67	---	---	42.56	42.76
10	46.08	46.99	47.84	47.97	44.59	45.29	41.09	38.61	---	---	42.57	42.77
11	46.09	47.04	47.90	48.01	44.71	45.24	41.23	38.49	---	42.46	42.61	42.78
12	46.11	47.06	47.93	47.98	44.75	45.23	41.39	38.50	---	42.41	42.64	42.78
13	46.10	47.07	47.99	48.06	44.83	45.24	41.53	38.56	---	42.42	42.66	42.76
14	46.14	47.08	48.02	48.02	44.86	45.25	41.61	38.41	---	42.39	42.68	42.76
15	46.12	47.11	48.08	48.09	44.86	45.29	41.71	38.31	---	42.42	42.62	42.74
16	46.14	47.14	48.07	48.07	44.89	45.32	41.77	38.19	---	42.44	42.63	42.69
17	46.17	47.15	48.02	48.04	44.99	45.20	41.80	38.06	---	42.40	42.64	42.70
18	46.21	47.17	48.00	47.95	45.00	45.13	41.71	38.01	---	42.39	42.64	42.68
19	46.24	47.20	47.79	47.85	45.00	45.01	41.57	37.89	---	42.44	42.63	42.70
20	46.26	47.23	47.67	47.79	45.01	44.91	41.49	37.76	---	42.48	42.64	42.69
21	46.28	47.16	47.55	47.70	45.07	44.48	41.47	37.63	---	42.44	42.68	42.70
22	46.30	47.17	47.43	47.59	45.10	43.90	41.42	37.55	---	42.43	42.67	42.73
23	46.31	47.16	47.36	47.47	45.10	43.18	41.15	37.61	---	42.48	42.63	42.75
24	46.27	47.15	47.33	47.37	45.10	42.34	40.85	37.86	---	42.45	42.59	42.75
25	46.26	47.19	47.32	47.15	45.08	41.61	40.64	38.14	---	42.50	42.61	42.85
26	46.30	47.17	47.30	46.84	45.11	41.19	40.38	38.44	---	42.52	42.62	42.85
27	46.36	47.23	47.36	46.51	45.13	40.98	40.24	---	---	42.50	42.60	42.77
28	46.43	47.26	47.36	46.17	45.13	40.76	40.21	---	---	42.50	42.59	42.80
29	46.49	47.28	47.49	45.95	---	40.51	40.06	---	---	42.50	42.57	42.88
30	46.56	47.32	47.49	45.83	---	40.41	39.73	---	---	42.52	42.58	42.93
31	46.62	---	47.58	45.65	---	40.24	---	---	---	42.53	42.61	---
MAX	46.62	47.32	48.08	48.09	45.57	45.32	41.80	---	---	---	42.68	42.93
MIN	45.86	46.68	47.30	45.65	44.52	40.24	39.73	---	---	---	42.50	42.61

WTR 2002 HIGH 37.55 LOW 48.09

JEFFERSON COUNTY

382039085375201. (WP-7), map number 23.--Continued



JEFFERSON COUNTY

382051085380801. (LWC-1), map number 24.
LOCATION.--Lat 38°20'51", long 85°37'08", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, at Louisville Water Company B.E. Payne treatment plant, 300 ft. west of lagoon #2, 100 ft. north of Mayfair road, along treeline. Owner: Louisville Water Company.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 2 in., depth 76.5 ft, screened: 66-76 ft.
INSTRUMENTATION.--Continuous recorder, 30 minute interval.
DATUM.--Elevation of land-surface datum is 434.26 ft above NGVD of 1929. Measuring point: Top of casing, 3.40 ft above land-surface datum.
REMARKS.--Water levels affected by pumping.
PERIOD OF RECORD.--March 2000 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.44 ft below land-surface datum, Mar. 24, 2002; lowest measured, 25.08 ft below land-surface datum, Dec. 14, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

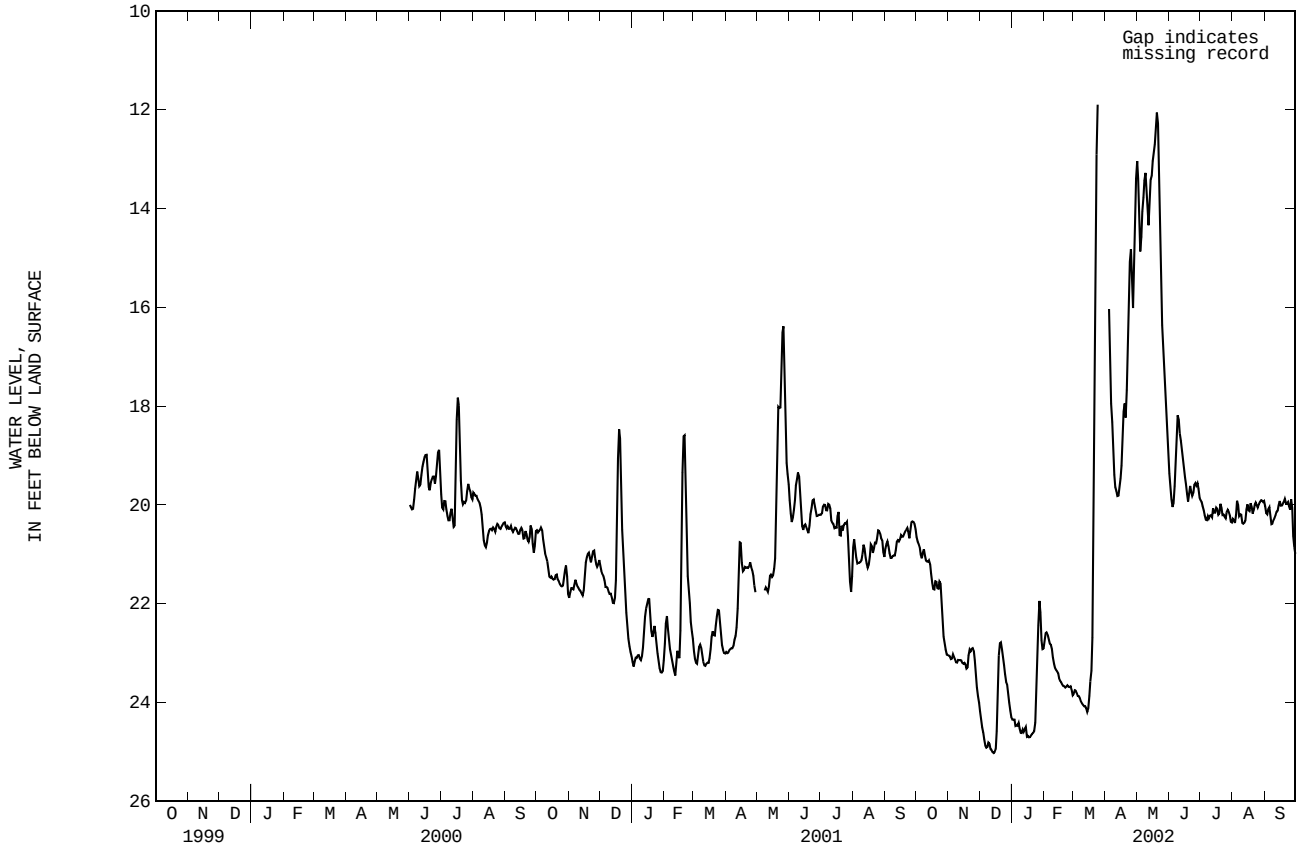
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.54	23.03	24.13	24.16	22.89	23.90	---	13.10	19.27	19.91	20.29	19.94
2	20.75	23.07	24.23	24.52	22.63	23.76	---	12.98	19.46	19.89	20.27	20.12
3	20.73	23.05	24.42	24.17	22.56	23.74	---	13.82	19.77	19.99	20.35	20.20
4	20.84	23.19	24.58	24.52	22.60	23.78	15.70	14.89	20.00	20.06	20.38	20.17
5	20.87	23.03	24.64	24.42	22.66	23.84	16.37	14.85	20.08	20.16	20.01	20.00
6	21.14	23.01	24.85	24.49	22.76	23.89	17.69	14.30	19.87	20.26	19.82	20.09
7	21.02	23.13	24.89	24.44	22.85	23.85	18.21	13.83	19.37	20.33	20.19	20.34
8	20.92	23.12	24.93	24.38	22.80	23.97	18.43	13.73	18.94	20.28	20.26	20.44
9	20.88	23.25	24.86	24.66	23.03	23.99	19.20	13.14	18.24	20.17	20.12	20.32
10	21.15	23.13	24.75	24.56	23.14	24.04	19.58	13.42	18.13	20.38	20.27	20.29
11	21.10	23.14	24.92	24.67	23.28	24.05	19.70	13.74	18.43	20.06	20.46	20.25
12	21.19	23.14	24.96	24.41	23.30	24.09	19.74	14.29	18.67	20.36	20.30	20.17
13	21.11	23.14	24.96	24.77	23.37	24.05	19.90	14.39	18.73	20.14	20.42	20.11
14	21.13	23.15	25.04	24.30	23.36	24.17	19.72	13.35	19.01	20.00	20.22	20.12
15	21.26	23.24	25.00	24.69	23.45	24.21	19.57	13.49	19.16	20.30	19.96	19.89
16	21.53	23.19	25.00	24.69	23.56	24.04	19.36	13.18	19.34	20.01	20.02	19.95
17	21.63	23.20	24.88	24.66	23.56	23.69	19.05	12.91	19.55	20.10	20.20	20.07
18	21.77	23.25	24.27	24.74	23.61	23.45	18.33	12.79	19.62	20.06	20.05	19.95
19	21.65	23.37	23.25	24.65	23.66	23.26	17.89	12.62	19.95	20.33	19.88	20.01
20	21.44	23.20	22.85	24.67	23.67	22.11	18.00	12.11	19.91	20.00	20.17	19.86
21	21.67	22.89	22.75	24.59	23.67	19.09	18.46	12.01	19.60	19.95	20.18	19.90
22	21.70	22.96	22.81	24.63	23.72	16.48	16.89	12.55	19.63	20.17	20.05	20.04
23	21.69	22.96	23.04	24.52	23.63	14.00	16.00	13.63	19.84	20.24	19.94	19.90
24	21.41	22.86	23.13	24.29	23.67	11.82	15.33	14.69	19.80	20.15	19.96	19.98
25	21.77	22.93	23.36	23.60	23.69	11.98	14.83	16.24	19.72	20.32	20.05	20.07
26	22.08	22.98	23.48	22.76	23.68	---	14.81	16.48	19.46	20.22	20.06	20.12
27	22.56	23.30	23.68	22.10	23.66	---	15.84	17.10	19.65	20.08	19.91	19.65
28	22.77	23.53	23.58	21.78	23.81	---	16.19	17.65	19.57	20.12	19.97	20.47
29	22.83	23.85	24.09	22.56	---	---	14.42	18.10	19.55	20.15	19.84	20.78
30	23.02	23.89	23.91	22.92	---	---	13.68	18.51	19.79	20.26	19.98	20.93
31	23.04	---	24.42	22.91	---	---	---	18.74	---	20.41	19.90	---
MAX	23.04	23.89	25.04	24.77	23.81	---	---	18.74	20.08	20.41	20.46	20.93
MIN	20.54	22.86	22.75	21.78	22.56	---	---	12.01	18.13	19.89	19.82	19.65

WTR YR 2002 HIGH 11.82 LOW 25.04

JEFFERSON COUNTY

382051085380801. Local number (LWC-1), map number 24.--Continued



JEFFERSON COUNTY

382058085373501. (Shirley Avenue), map number 25.

LOCATION.--Lat 38°20'58", long 85°37'35", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, at 6401 Shirley Avenue, 50 ft. to rear of house. Owner: Resident.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in., depth 45 ft, screen: unknown.

INSTRUMENTATION.--Quarterly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 463.40 ft above NGVD of 1929. Measuring point: Under hand pump thru hole in side of casing, at land-surface datum.

REMARKS.--Water levels affected by pumping.

PERIOD OF RECORD.--July 1999 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.40 ft below land-surface datum, Jul. 7, 1999; lowest measured, 44.03 ft below land-surface datum, Mar. 26, 2001.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Water Level	Date	Water Level
Jan. 04, 2002	43.81	Jun. 28, 2002	41.01
Mar. 28, 2002	43.60	Sept. 25, 2002	41.85
May 28, 2002	40.95		

382102085380701. (WP-19), map number 26.

LOCATION.--Lat 38°21'02", long 85°38'07", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, at Louisville Water Company B.E. Payne treatment plant, 200 ft. east of collector well. Owner: Louisville Water Company.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 2 in., depth 106 ft, screen: unknown.

INSTRUMENTATION.--Quarterly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 434.48 ft above NGVD of 1929. Measuring point: Top of casing, 2.28 ft above land-surface datum.

REMARKS.--Water levels affected by pumping.

PERIOD OF RECORD.--March 1999 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.25 ft below land-surface datum, Mar. 1, 1999; lowest measured, 49.70 ft below land-surface datum, Mar. 26, 2001.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Water Level	Date	Water Level
Jan. 04, 2002	48.73	Jun. 28, 2002	42.52
Mar. 28, 2002	41.36	Sept.. 25, 2002	42.02

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JEFFERSON COUNTY

382105085375101. (Hays-Kennedy), map number 27.

LOCATION.--Lat 38°21'05", long 85°37'51", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, at Hays Kennedy Park, 20 ft. south of Bass Road, along west edge of parking lot for picnic shelter. Owner: County Parks Dept.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 2 in., depth 76.5 ft, screened: 66-76 ft.

INSTRUMENTATION.--Continuous recorder, 30 minute interval.

DATUM.--Elevation of land-surface datum is 439.68 ft above NGVD of 1929. Measuring point: Top of casing, 0.27 ft below land-surface datum.

REMARKS.--Water levels affected by pumping.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.16 ft below land-surface datum, May 21, 2002; lowest measured, 30.83 ft below land-surface datum, Mar. 14, 2002.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

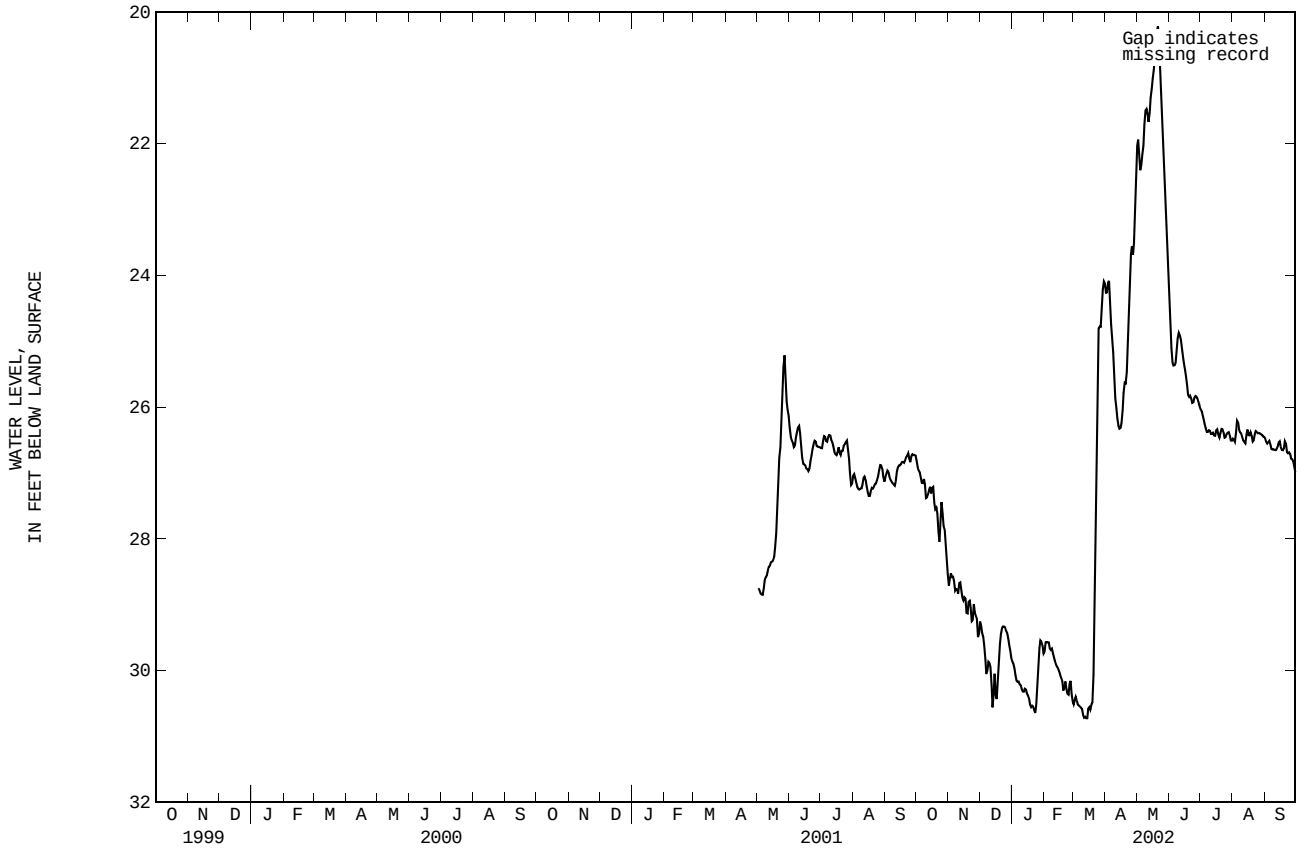
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.74	28.65	29.28	29.82	29.82	30.50	24.21	22.19	24.40	26.03	26.49	26.45
2	26.88	28.77	29.23	29.90	29.60	30.52	24.32	21.88	24.70	26.03	26.47	26.50
3	26.94	28.44	29.39	29.88	29.54	30.37	24.20	22.00	24.98	26.09	26.52	26.55
4	26.98	28.60	29.47	30.05	29.59	30.42	24.03	22.36	25.23	26.15	26.53	26.56
5	27.00	28.56	29.51	30.08	29.55	30.49	24.14	22.45	25.42	26.23	26.23	26.51
6	27.13	28.59	29.73	30.22	29.59	30.54	24.63	22.19	25.32	26.29	26.18	26.51
7	27.17	28.68	29.91	30.12	29.74	30.52	24.86	22.15	25.41	26.36	26.29	26.61
8	27.14	28.89	30.19	30.21	29.63	30.57	25.05	21.91	25.25	26.39	26.39	26.66
9	27.04	28.63	29.81	30.20	29.70	30.55	25.29	21.51	25.04	26.36	26.38	26.63
10	27.29	28.91	29.92	30.24	29.76	30.61	25.78	21.48	24.87	26.34	26.42	26.65
11	27.47	28.75	29.85	30.31	29.83	30.73	25.95	21.47	24.87	26.38	26.49	26.65
12	27.27	28.59	30.05	30.32	29.88	30.70	26.08	21.64	24.94	26.43	26.52	26.66
13	27.38	28.73	30.39	30.32	29.93	30.70	26.26	21.70	25.01	26.38	26.54	26.62
14	27.14	28.83	30.72	30.23	29.95	30.74	26.31	21.36	25.17	26.40	26.56	26.58
15	27.28	28.94	29.97	30.34	29.98	30.70	26.34	21.25	25.29	26.46	26.28	26.50
16	27.34	28.93	30.12	30.35	30.03	30.45	26.29	21.08	25.38	26.41	26.40	26.54
17	27.11	28.84	30.63	30.40	30.10	30.65	26.19	20.95	25.49	26.29	26.45	26.66
18	27.31	28.97	30.23	30.44	30.11	30.53	25.91	20.80	25.58	26.38	26.41	26.64
19	27.60	29.27	30.14	30.58	30.20	30.50	25.65	20.64	25.76	26.45	26.35	26.67
20	27.50	28.99	29.69	30.52	30.40	30.47	25.61	20.38	25.86	26.47	26.50	26.58
21	27.55	28.92	29.51	30.54	30.12	29.65	25.67	20.20	25.83	26.32	26.55	26.45
22	27.68	28.96	29.39	30.55	30.21	28.60	25.27	20.24	25.82	26.34	26.46	26.66
23	28.10	29.12	29.33	30.64	30.35	27.46	24.70	20.61	25.92	26.33	26.36	26.70
24	27.99	29.38	29.33	30.64	30.35	26.11	24.20	21.07	25.95	26.44	26.37	26.70
25	27.47	29.08	29.33	30.40	30.38	24.86	23.83	21.80	25.90	26.49	26.39	26.67
26	27.41	28.90	29.35	30.06	30.04	24.74	23.53	22.25	25.82	26.42	26.41	26.75
27	27.82	29.32	29.44	29.79	30.27	24.81	23.59	22.59	25.84	26.40	26.38	26.81
28	27.79	29.02	29.41	29.52	30.43	24.75	23.78	22.98	25.84	26.38	26.42	26.77
29	27.93	29.40	29.61	29.56	---	24.28	23.22	23.34	25.90	26.38	26.40	26.87
30	28.15	29.58	29.61	29.57	---	24.15	22.67	23.72	25.94	26.48	26.44	26.95
31	28.42	---	29.79	29.66	---	24.03	---	24.01	---	26.53	26.45	---
MAX	28.42	29.58	30.72	30.64	30.43	30.74	26.34	24.01	25.95	26.53	26.56	26.95
MIN	26.74	28.44	29.23	29.52	29.54	24.03	22.67	20.20	24.40	26.03	26.18	26.45

WTR YR 2002 HIGH 20.20 LOW 30.74

JEFFERSON COUNTY

38105085375101. (Hays-Kennedy), map number 27,--Continued



JEFFERSON COUNTY

382120085374701. (River Fields), map number 28.

LOCATION.--Lat 38°21'20", long 85°37'47", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, at Garvin-Brown Preserve, 1000 ft. north of Bass Road, along tree line separating Garvin-Brown Preserve from Hays-Kennedy Park. Owner: River Fields.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 2 in., depth 71.5 ft, screened: 61-71 ft.

INSTRUMENTATION.--Quarterly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 440.05 ft above NGVD of 1929. Measuring point: Top of casing, 0.19 ft below land-surface datum.

REMARKS.--Water levels affected by pumping.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.27 ft below land-surface datum, May 28, 2002; lowest measured, 23.76 ft below land-surface datum, Jan. 04, 2002.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Water Level	Date	Water Level
Jan. 04, 2002	23.76	Jun. 28, 2002	21.13
Mar. 28, 2002	19.45	Sept. 25, 2002	22.02
May 28, 2002	19.27		

382124085375401. (Abell), map number 29.

LOCATION.--Lat 38°21'24", long 85°37'54", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, at 7222 Beechland Road, in well pit 200 ft. east of road Owner: Abell.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled used water-table well, diameter 4 in., depth 45 ft, screen: unknown.

INSTRUMENTATION.--Quarterly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 438.58 ft above NGVD of 1929. Measuring point: Top of well seal 3.66 ft below land-surface datum.

REMARKS.--Water levels affected by pumping.

PERIOD OF RECORD.--March 1999 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.04 ft below land-surface datum, Mar. 28, 2002; lowest measured, 20.81 ft below land-surface datum, Jan. 04, 2002.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Water Level	Date	Water Level
Jan. 04, 2002	20.81	Jun. 28, 2002	19.19
Mar. 28, 2002	15.04	Sept. 25, 2002	19.76

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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.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	TOTAL PRECIP-ITATION FOR DEFINED PERIOD (IN) (00193)	VOLUME ATM DEP WET (L) (83177)	PH FIELD ATM DEP WET T (UNITS) (83106)	SPEC. CONDUC-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)	POTAS-SIUM ATM DEP WET DIS (MG/L) (83120)	SODIUM ATM DEP WET DIS (MG/L) (83138)	CHLO-RIDE ATM DEP WET DIS (MG/L) (82944)	SULFATE ATM DEP WET DIS AS SO4 (MG/L) (83160)	NI-TROGEN AMMON. ATM DEP WET DIS AS NH4 (MG/L) (83047)	NI-TROGEN NITRATE ATM DEP WET DIS AS NO3 (MG/L) (83071)	PHOS-PHORUS ORTHO ATM DEP WET DIS AS PO4 (MG/L) (83111)
OCT 09-16	1.12	2.086	5.01	8.6	.10	.03	.02	.10	.24	.75	.100	.55	<.009
OCT 16-23	.15	.309	4.60	16.5	.24	.02	.04	.02	.09	1.48	.250	1.68	<.009
OCT 23-30	.75	1.352	4.77	11.0	.18	.02	.02	.05	.08	1.27	.180	.80	<.009
OCT 30-NOV 06	.15	.247	4.32	27.7	.26	.05	.03	.28	.48	2.92	.660	3.39	<.009
NOV 13-20	.45	.731	4.53	17.6	.07	.01	.02	M	.05	1.63	.190	1.36	<.009
NOV 20-27	.60	1.028	4.81	9.2	.08	.01	.01	.05	.08	.91	.180	.39	<.009
NOV 27-DEC 04	1.25	2.090	6.26	15.1	.20	.17	1.80	.18	.38	2.08	.390	1.37	.552
DEC 04-11	1.32	2.195	4.44	19.5	.10	.05	.40	.08	.14	2.03	.180	1.37	--
DEC 11-18	.90	1.631	5.25	11.5	.22	.13	1.16	.09	.20	1.19	<.020	<.01	.136
DEC 18-25	.35	.599	4.38	15.9	.08	.01	.02	.04	.11	1.47	.280	1.84	<.009
DEC 25 2001-JAN 01 2002	.05	.112	4.77	16.7	.40	.04	.04	.02	.10	.75	.560	4.83	<.009
JAN 01-08	.45	.769	4.25	25.4	.08	.01	M	.02	.18	1.66	.300	3.35	<.009
JAN 08-15	.40	.726	5.32	29.7	2.58	.21	1.53	.29	.88	4.69	8.64	5.56	2.74
JAN 15-22	.65	1.173	4.65	4.6	.10	.01	M	.02	.06	.45	.060	.90	<.009
JAN 22-29	.82	1.493	--	13.3	.07	.02	.02	.12	.19	1.24	.180	.82	<.009
JAN 29-FEB 05	.42	.704	4.91	14.5	.12	.03	.28	.29	.64	2.28	.630	1.22	.116
FEB 05-12	.15	.227	4.29	21.0	.19	.02	.01	.08	.14	2.05	.410	1.94	<.009
FEB 12-19	.02	.057	--	--	.44	.09	.02	.07	.41	1.66	.860	4.79	<.009
FEB 19-26	.32	.586	6.46	23.4	.72	.09	.95	.29	.57	2.82	4.51	2.05	.548
FEB 26-MAR 05	.35	.661	4.39	14.5	.13	.01	.03	.06	.08	1.24	.130	1.06	<.009
MAR 05-12	.20	.310	6.58	9.0	.26	.03	.11	.07	.16	.82	.090	.70	<.009
MAR 12-19	1.49	2.626	4.45	15.3	.27	.03	.05	.11	.17	1.97	.290	1.13	<.009
MAR 19-26	4.90	8.357	4.34	17.0	.06	.01	.04	.10	.17	2.05	.220	1.24	<.009
MAR 26-APR 02	1.95	3.367	4.42	16.4	.13	.02	.02	.08	.14	2.09	.240	1.10	<.009
APR 02-09	.25	.273	4.41	33.7	.58	.10	.12	.38	.59	4.05	.960	4.60	<.009
APR 09-16	.69	1.301	4.44	17.3	.17	.02	.03	.05	.12	1.92	.340	1.45	<.009
APR 16-23	1.45	2.252	5.12	13.8	.16	.04	.08	.11	.16	1.60	.330	1.22	<.009
APR 23-30	2.60	4.494	6.50	13.8	.18	.03	.14	.18	.27	2.06	.630	1.39	<.009

380706083324900 - CLARK STATE FISH HATCHERY, ROWAN COUNTY, KY--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	TOTAL PRECIP-ITATION FOR DEFINED PERIOD (IN) (00193)	VOLUME ATM DEP WET (L) (83177)	PH FIELD ATM DEP WET T (UNITS) (83106)	SPEC. CONDUC-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)	POTAS-SIUM ATM DEP WET DIS (MG/L) (83120)	SODIUM ATM DEP WET DIS (MG/L) (83138)	CHLO-RIDE ATM DEP WET DIS (MG/L) (82944)	SULFATE ATM DEP WET DIS AS SO4 (MG/L) (83160)	NI-TROGEN AMMON. ATM DEP WET DIS AS NH4 (MG/L) (83047)	NI-TROGEN NITRATE ATM DEP WET DIS AS NO3 (MG/L) (83071)	PHOS-PHORUS ORTHO ATM DEP WET DIS AS PO4 (MG/L) (83111)
APR 30-MAY 07	1.69	2.954	4.90	14.8	.36	.05	.08	.18	.27	1.96	.530	1.61	<.009
MAY 07-14	1.17	1.990	5.65	10.6	.15	.03	.07	.17	.24	1.22	.300	.92	<.009
MAY 14-21	2.10	3.748	4.78	12.3	.06	.01	.02	.06	.11	1.46	.300	.80	<.009
MAY 28-JUN 04	.15	.283	6.21	32.8	2.44	.28	.43	.30	.42	4.57	1.21	4.42	<.009
JUN 04-11	.95	1.655	4.91	9.4	.16	.01	.03	.01	.05	1.00	.310	.80	<.009
JUN 11-18	.57	1.061	5.20	16.8	.29	.03	.04	.07	.15	2.07	.650	2.16	<.009
JUN 25-JUL 02	.90	1.523	6.06	27.8	.45	.14	1.16	.11	.39	2.72	7.90	1.78	.920
JUL 02-09	.85	1.411	4.16	21.8	.55	.04	.03	.02	.15	5.53	.820	2.16	<.009
JUL 09-16	.82	1.457	4.83	8.8	.08	.01	M	.01	.03	.80	.130	.81	<.009
JUL 16-23	1.04	1.944	3.80	27.4	.21	.02	.02	.01	.12	5.10	.410	3.54	<.009
JUL 23-30	.36	.643	4.53	15.9	.28	.03	.02	.06	.12	--	.350	1.71	<.009
JUL 30-AUG 06	.00	.022	--	--	.99	.15	.04	.36	.53	--	.890	3.62	<.056
AUG 13-20	.60	.903	4.67	9.2	.32	.03	.03	.07	.11	1.24	.220	1.17	<.009
AUG 20-27	.30	.492	4.08	32.6	.77	.05	.02	.01	.18	6.24	.390	3.37	<.009
AUG 27-SEP 03	.05	.097	4.30	33.1	.22	.02	.06	.05	.23	3.76	.450	2.57	<.009
SEP 10-17	.72	1.326	4.91	9.5	.06	.01	<.003	.03	.07	.95	.110	.64	<.009
SEP 17-24	.62	1.035	4.75	7.7	.08	.01	.01	.01	.04	.93	.160	.64	<.009
SEP 24-OCT 01	2.65	4.704	7.70	4.8	.02	<.003	.04	.02	.03	.28	.060	.24	.021

M--Presence of material verified but not quantified.
<--Numeric result is less than the value shown.

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
CARD CR AT MOUTHCARD, 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	E		E	E	
			1989-92					
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				E	
			1972-81					
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					E
			1972-81					
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			E
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					E
			1972-81					
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 CANNNONSBURG, 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	
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				E	
			1980-81					
OHIO R AT MAYSVILLE, KY	03238000	70130.00	1939-80		E	E		
LAWRENCE CR NR MAYSVILLE, KY	03238030	1.90	1975-86			E		
BRACKEN CR NR AUGUSTA, KY	03238620	28.80	1975-78				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
			1980-81					
LOCUST CR NR AUGUSTA, KY	03238660	41.70	1975-78				E	
			1980-81					
TWELVEMILE CR NR CALIFORNIA, KY	03238750	44.30	1975-81				E	
FOURMILE CR AT HWY 547 NR ALEXANDRIA, KY	03238780	5.3	1999-2001	E	E	E	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,	E	E	E	E	
			1994-97					
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				E	
			1981					
BLACKWATER CR NR EZEL, KY	03248815	38.30	1974-81				E	
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		E			
			1928-31	E	E			
			1936-87	E	E			
			1938-94	E	E	E	E	
TRIPLETT CR AT MOREHEAD, KY	03250000	47.5	1941-82	E		E	E	
			1989-92					
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 JEFFERSNVILLE, 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
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	
LICKING R AT MCKINNEYSBURG, KY	03251500	2326.00	1924-26	E	E	E	E	
			1939-94					
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		E
N FK GRASSY CR NR PINER, KY	03254400	13.60	1967-83		E			
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 BLACKEY, KY	03277340	131.00	1965-65				E	
			1972-81					

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	
RED BIRD RIVER NR BIG CREEK	03281040	155	1973-00	E	E	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				E	
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 BEREA, 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	
N ELKHORN CR NR GEORGETOWN, KY	03288000	119	1950-84	E	E	E	E	
			1989-99					
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				E	
SALT R NR VAN BUREN, KY	03295500	196.00	1938-82		E			
BEECH CR NR TAYOLORSVILLE, 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	

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS

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CHAPLIN R NR CHAPLIN, KY	03300390	262.00	1972-77				E	
CARTWRIGHT CR AT FREDRICKTOWN, KY	03300498	82.30	1972-77				E	
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 AT HARRISON FK RD NR DEATSVILLE, KY	033015075	5.7	1999-2001	E	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	
MCDOUGAL 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	

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS

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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	
			1972-94	E	E	E	E	
BEAR CR NR LEITCHFIELD, KY	03312000	30.80	1950-71*	E	E	E		
BEAR CR NR ROUNDHILL, KY	03312100	137.00	1953-72				E	
BARREN R NR PAGEVILLE, KY	03312500	531.00	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	E	E	E	E	
			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	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		E			
			1961-81					
MUD R NR HUNTSVILLE, KY	03316275	268	1974-80				E	
			1991-94	E	E	E	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	1940-51		E			
ROCK LICK CR NR GLEN DEAN, KY	03318200	20.10	1957-71*	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	E	E			
			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				E	
			1991-94		E			
ROSE CR AT NEBO, KY	03384000	2.10	1952-70*	E	E	E		
TRADEWATER R	03384180	861	1975-80					E
			1980-81	E	E			
OHIO R AT DAM 51 AT GOLCONDA, IL	03384500	143900.00	1941-52		C			

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
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	
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
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				E	
			1974-81					
CUMBERLAND R AT CUMBERLAND FALLS, KY	03404500	1,977	1907-11	E	E			
			1914-94	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				E	
WOOD CR NR LONDON, KY	03406000	3.89	1954-71*	E	E		E	
			1972-87, 90			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				E	
			1975-81					
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	

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
CROCUS CR NR BAKERTON, KY	03414080	108.00	1972-76				E	
BEAR CR NR BURKESVILLE, KY	03414102	3.52	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		
CHESTNUT CR NR BENTON, KY	03610503	.82	1975-86			E		
WEST FK CLARKS R NR BREWERS, KY	03610545	68.7	1968-83	E	E	E	E	
			1988-94	E	E	E	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					
			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. ACTIVE STATUS	PHY. ACTIVE STATUS	SED. ACTIVE STATUS	CHEMICAL ACTIVE STATUS
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			N	
			1982-84			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
JONES FK AT BETTY, KY	03209603		1980-82		N	N	N
SALTLICK 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 PRESTONBURG, 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. ACTIVE STATUS	PHY. ACTIVE STATUS	SED. ACTIVE STATUS	CHEMICAL ACTIVE 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		
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		
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		
SLATE CR NR OWINGSVILLE, KY	03250240	185.00	1970-71		N		N
ROCK LICK CR NR SHARKEY, KY	03250320	4.01	1978-83		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. ACTIVE STATUS	PHY. ACTIVE STATUS	SED. ACTIVE STATUS	CHEMICAL ACTIVE STATUS
			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 BLACKEY, 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 VANCLEAVE, 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. AC-TIVE STA-TUS	PHY. AC-TIVE STA-TUS	SED. AC-TIVE STA-TUS	CHEM-ICAL AC-TIVE STA-TUS
			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
SPEARS CR AT STREAMLAMD DR NR DANVILLE, KY	03285290		1998-2001		N		N
MOCKS BR AT HWY 1896 NR DANVILLE, KY	03285335		1998-99		N		N
			2001				
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

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

STATION NAME AND NUMBER	STATION NUMBER	DRAINAGE AREA (MI^2)	PERIOD OF RECORD	BIO. ACTIVE STATUS	PHY. ACTIVE STATUS	SED. ACTIVE STATUS	CHEMICAL ACTIVE STATUS
OHIO R AT LOUISVILLE, KY	03294500	91170.00	1968-83		N	N	N
MILL CR CUTOFF NR LOUISVILLE, KY	03294550	24.4	1988-92, 98		N		N
MILL CR AT ORELL RD NR LOUIVILLE, 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 1979-92	N	N	N	N
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 1992-96		N		N
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		

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
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
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
MCDOUGAL 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		
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		
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		
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

DISCONTINUED SURFACE-WATER-QUALITY STATIONS

STATION NAME AND NUMBER	STATION NUMBER	DRAINAGE AREA (MI^2)	PERIOD OF RECORD	BIO. ACTIVE STATUS	PHY. ACTIVE STATUS	SED. ACTIVE STATUS	CHEMICAL ACTIVE STATUS
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
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

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STATION NAME AND NUMBER	STATION NUMBER	DRAINAGE AREA (MI^2)	PERIOD OF RECORD	BIO. ACTIVE STATUS	PHY. ACTIVE STATUS	SED. ACTIVE STATUS	CHEMICAL ACTIVE STATUS
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
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	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	N	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

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STATION NAME AND NUMBER	STATION NUMBER	DRAINAGE AREA (MI^2)	PERIOD OF RECORD	BIO. ACTIVE STATUS	PHY. ACTIVE STATUS	SED. ACTIVE STATUS	CHEMICAL ACTIVE STATUS
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		
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

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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

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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
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

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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
381722085405801	Jefferson	WC-11	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

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