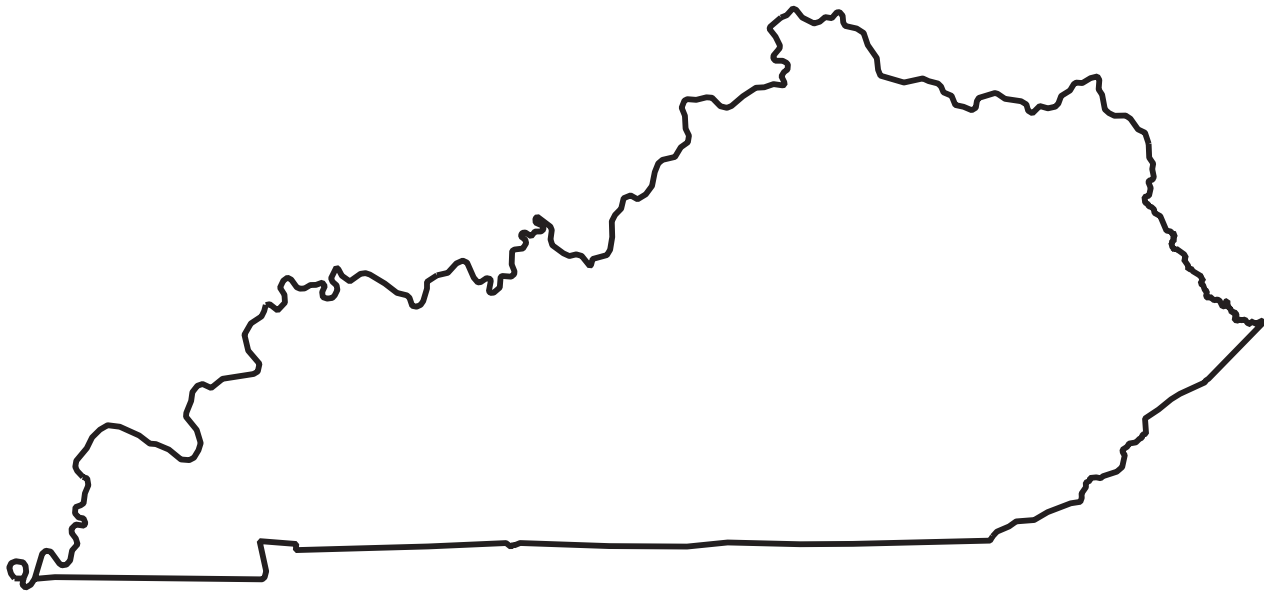


Prepared in cooperation with the Commonwealth of Kentucky and other agencies

# Water Resources Data Kentucky Water Year 2005



Water-Data Report KY-05-1

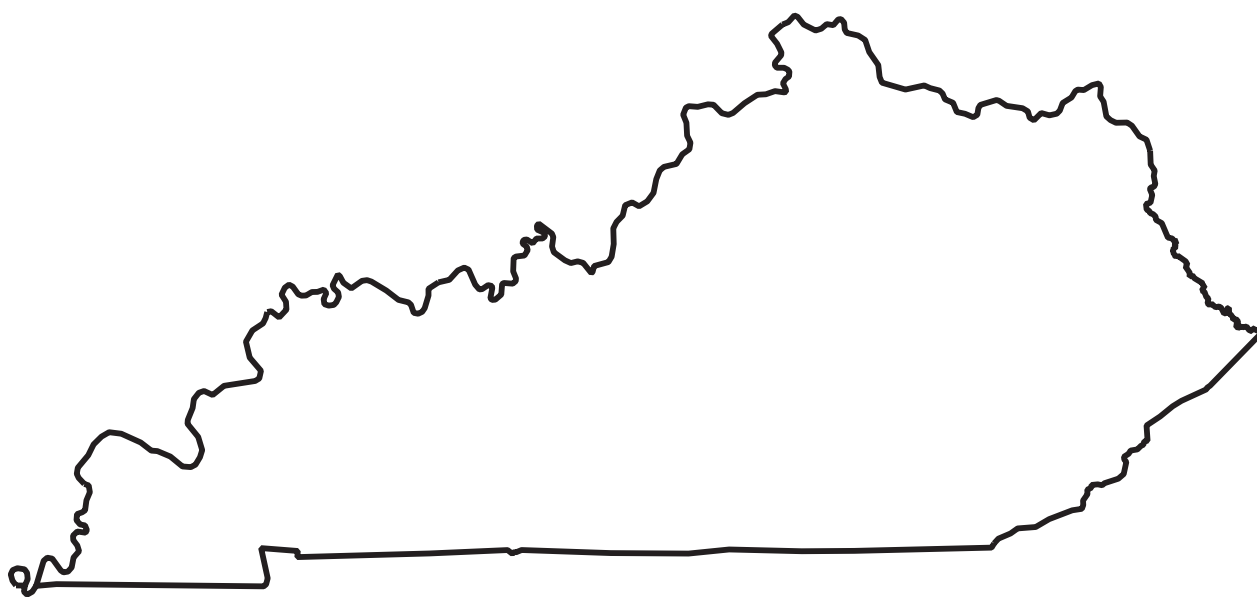




# Water Resources Data Kentucky Water Year 2005

By Dennis L. McClain, Clifford R. Moses, and Roy S. Darnell

Water-Data Report KY-05-1



Prepared in cooperation with the  
Commonwealth of Kentucky and other agencies

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



**U.S. Department of the Interior**

Gale A. Norton, Secretary

**U.S. Geological Survey**

P. Patrick Leahy, Acting Director

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## 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 (USGS) 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 USGS policy and established guidelines. Most of the data were collected, computed, and processed from the USGS Kentucky Water Science Center and field offices.

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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]

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**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,  
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[Letters after station name designate type of data: (d) discharge, (g) stage, (c) chemical,  
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**SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE  
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[Letters after station name designate type of data: (d) discharge, (g) stage, (c) chemical,  
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Well 381638085415801 (WC-4) . . . . .	522
Well 381648085421201 (WC-5) . . . . .	522
Well 381653085413302 (WC-9A) (r) . . . . .	523
Well 381701085414002 (WC-8A) (r) . . . . .	524
Well 381742085402001 (WC-13) . . . . .	525
Well 381827085392401 (WC-26) . . . . .	525
Well 381904085384801 (WC-27) . . . . .	525

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

JEFFERSON COUNTY

Well 381958085380201 (Thompson Well) . . . . .	526
Well 382007085373801 (Bird Man) . . . . .	526
Well 382016085382601 (LWC-P-4) . . . . .	526
Well 382026085374301 (Little Dean) . . . . .	527
Well 382032085375601 (Staples) . . . . .	527
Well 382034085381201 (LWC-P-1) . . . . .	527
Well 382037085381101 (LWC-P-2) . . . . .	528
Well 382038085382001 (Scott) . . . . .	529
Well 382039085375201 (WP-7) (r) . . . . .	530
Well 382051085380801 (LWC-1) (r) . . . . .	531
Well 382053085381301 (LWC-3B) . . . . .	532
Well 382054085380602 (LWC-7A) . . . . .	533
Well 382057085380801 (LWC-2B) . . . . .	534
Well 382058085373501 (Shirley Avenue) . . . . .	534
Well 382102085380701 (WP-19) . . . . .	534
Well 382105085375101 (Hays-Kennedy) (r) . . . . .	535
Well 382120085374701 (River Fields) . . . . .	536
Well 382124085375401 (Abell) . . . . .	536

**PRECIPITATION STATION, BY COUNTY FOR WHICH RECORD IS PUBLISHED**

JEFFERSON COUNTY

381353085401801 Seneca Park . . . . .	538
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ROWAN COUNTY, KENTUCKY

390706083324900 Clark State Fish Hatchery . . . . .	540
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## INTRODUCTION

Water resources data for the 2005 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 131 stream-gaging stations. It also includes water-quality data for 8 stations sampled at regular intervals, continuous temperature at 8 stations, and continuous water-quality at 11 stations. Ground-water levels are published for 25 recording and 22 partial record sites. Precipitation data at a regular interval are published for two sites. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurements and analyses. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Kentucky.

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 2005, streamflow data have been released by the U.S. Geological Survey in annual reports on a State-boundary basis. Water-quality records beginning with the 1964 water year, and ground-water data since the 1971 water year have been similarly released either in separate reports or in conjunction with streamflow records. These reports provided rapid release of preliminary water data shortly after the end of the water year. The final data were then released in the water-supply paper series mentioned above. Beginning with the 1975 water year, water data will be released on a State-boundary basis in final form and will not be republished in the water-supply paper series. The 1975 and subsequent water year reports will be in a series which will carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this report is identified as "U.S. Geological Survey Water-Data Report KY-05-1." These reports are for sale to the public for a nominal fee by the U.S. Department of Commerce, National Technical Information Service, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the Director 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

Kentucky Cabinet for Health and Family Services, Dr. Mark Birdwhistell, Secretary,  
Kentucky Department of Agriculture, Ernest Collins, Technical Support Branch Manager,  
Kentucky Geological Survey, Dr. James C. Cobb, Director and State Geologist,  
Kentucky Natural Resources and Environmental and Public Protection Cabinet, LaJuana Wilcher, Secretary,  
Kentucky River Authority, Stephen Reeder, Executive Director,  
Kentucky Transportation Cabinet, Bill Nighbert, Secretary,  
Bullitt County, Kenneth J. Rigdon, Judge/Executive,  
Jefferson County, Ken Herndon (Mayor Abramson), Judge/Executive,  
Lexington-Fayette Urban County Government, Sandra M. Varellas, Judge/Executive,  
Northern Kentucky Sanitation District No. 1, Jim Gibson, Watershed Program Manager,

City of Bardstown, Dixie P. Hibbs, Mayor,  
City of Frankfort, William I. May, Jr., Mayor,  
City of Georgetown, Everette L. Varney, Mayor,  
City of Lewisburg, Kenneth Whitson, Mayor,  
City of Lexington, Teresa Ann Isaac, Mayor,  
City of Louisville, Jerry Abramson, Mayor,  
City of Mt. Sterling, B. D. Wilson Jr., Judge/Executive,  
City of Owingsville, Don Kincaid, Mayor,  
City of Simpsonville, Steve Eden, Mayor,  
Kentucky Heritage Resource Conservation and Development Council, Inc. Mary Lois Grundy, Chairman,  
University of Louisville, Dr. James Ramsey, President,  
Western Kentucky University, Dr. Phillip Myers, Executive Director of Research Foundation,  
Assistance in the form of funds or services was given by the Federal Highway Administration; U.S. Army Corps of Engineers; the U.S. Environmental Protection Agency, Region IV–Atlanta; and the U.S. Navy.

Organizations that supplied data are acknowledged in station descriptions.

## SUMMARY OF HYDROLOGIC CONDITIONS

### Surface Water

Monthly and annual mean streamflow for the 2005 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 2005 water year were generally about two years with one station in the east-central part of the State (Kentucky River Basin) and one station in the south-central part of the State (Cumberland River Basin) having a recurrence interval of greater than five years. Low flow recurrence intervals varied from less than two year recurrence intervals to greater than twenty years (Salt River Basin and Cumberland River Basin). Flows of less than the ten year recurrence interval were observed in the Kentucky, Beargrass Creek, Cumberland River, and Massac Creek Basins. In general, flows were within thirty percent of average across the State (table 1).

No major flooding occurred during the 2005 water year.

### Quality of Water

Nearly all the samples collected at the six National Stream Quality Accounting Network (NASQAN) stations contained detectable concentrations of agricultural chemicals. Dissolved nitrite plus nitrate as nitrogen (hereafter referred to as nitrate) were common during 2005 water year, with all samples containing concentrations greater than the detection limit of 0.05 milligrams per liter (mg/L). The largest concentration of nitrate was 4.87mg/L from the Wabash River on June 21.

Pesticide analysis were completed for 65 water samples collected at the six NASQAN stations. Atrazine, simazine, and metolachlor, three of the most commonly used herbicides in Kentucky, were detected throughout the year at the six NASQAN stations. The largest herbicide concentration was 6.67 micrograms per liter ( $\mu\text{g/L}$ ) of atrazine in the water sample collected from the Wabash River on May 24. Herbicide concentrations generally were larger in samples collected in March, April, May, and June than in samples collected at other times during water year 2005.



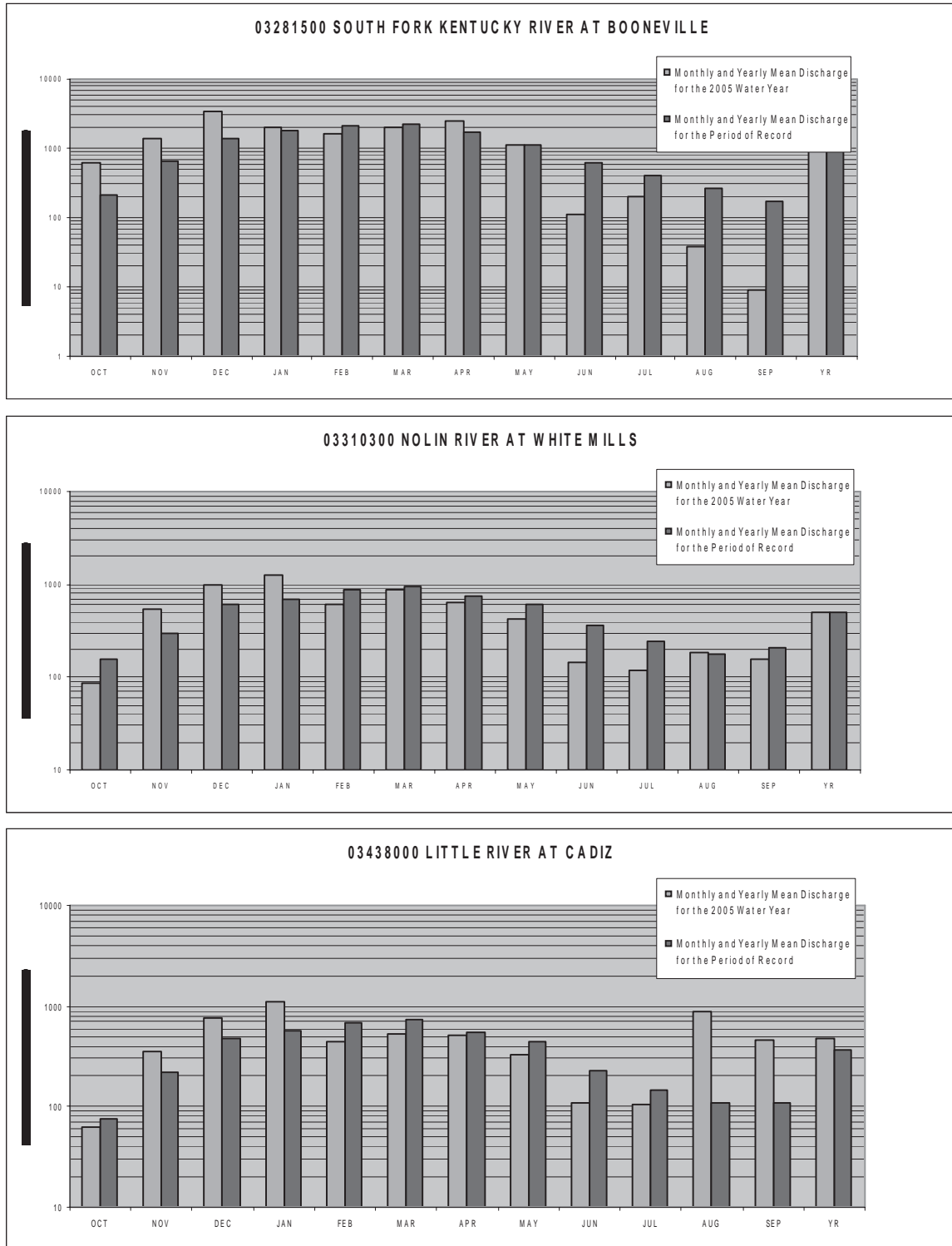


Figure 1. Mean discharge during 2005 water year and period of record for three representative gaging stations.

Water-quality data were collected at two surface-water sites and five springs during the 2005 water year. These sites were located in the Sinking Creek Basin in portions of Breckinridge, Hardin, and Meade Counties. Other water-quality activities included the following:

Operation of eight continuous monitors to measure temperature, dissolved oxygen, pH, turbidity, and specific conductance in the Licking River Basin, in cooperation with the Northern Kentucky Sanitation District No. 1.

Operation of one continuous water-quality monitor to measure temperature, dissolved oxygen, pH, turbidity, and specific conductance in the Mammoth Cave National Park, in cooperation with the National Park Service.

Operation of one continuous water-quality monitor to measure temperature, dissolved oxygen, pH, and specific conductance in the Sinking Creek Basin, in cooperation with the Kentucky Department of Agriculture.

#### Ground-Water Levels

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

Ground-water levels in these areas respond to rainfall, pumpage, river stage and natural flow to the Ohio River. In general the wells in the downtown area are starting to level off after rebounding from record lows in previous years. This may be attributed to at or slightly below normal rainfall in recent years.

Despite nine wells reaching record highs, wells in the northeast section of Jefferson County showed a gradual decline. The temporary highs were caused by a flood event on the Ohio river during January 2005. The overall decline in water levels is due to the resumption of pumpage, a stable river pool, and at or below normal rainfall totals in the area.

This report also includes monitoring wells at the Maxey Flats Project in Fleming county. Most of these wells are shallow (less than 25 ft.), and are finished in shale and sandstone beds underlying the site.

Ground-water levels in wells at Maxey Flats show response to recharge from rainfall. Most of the water levels show a rising trend over the last few years with five wells reaching highs for the period of record. This trend may be caused by above normal rainfall at the site during water years 2002-2005.

**Table 1.** Mean, maximum, and minimum streamflow for water year 2005 and recurrence intervals.

Station number	Length of record (years)	Mean		Maximum		Minimum	
		Daily streamflow (ft <sup>3</sup> /s)	Percent of average	Peak streamflow (ft <sup>3</sup> /s)	Recurrence interval (years)	Daily streamflow (ft <sup>3</sup> /s)	Recurrence interval (years)
<u>TYGARTS CREEK BASIN</u>							
03217000	65	354	114	3910	<2	3.1	<2
<u>KENTUCKY RIVER BASIN</u>							
03280700	48	91.3	98	2520	<2	2.2	<2
03281100	41	260	99	5660	<2	2.2	=2
03281500	72	1243	117	20600	<2	3.1	<10
03282500	50	111	125	3390	>5	0	>2
03283500	68	595	119	9630	>2	12	<2
03285000	63	476	101	10200	<2	0.44	<2
<u>BEARGRASS CREEK BASIN</u>							
03293000	61	29.6	115	1610	>2	0.11	<10
<u>SALT RIVER BASIN</u>							
03298000	61	242	130	11800	>2	1.8	<2
03300400	33	655	103	12000	<2	0.19	>20
03301500	67	1870	103	16800	<2	15	<2
<u>GREEN RIVER BASIN</u>							
03307000	66	293	101	6290	<2	8.7	<2
03310300	46	503	102	5600	<2	57	<2
03320500	65	323	117	6360	<2	0.48	<2
<u>CUMBERLAND RIVER BASIN</u>							
03404900	32	90.3	104	1890	<2	0.26	>20
03406500	69	1052	111	24400	>2	9.2	<10
03410500	63	1996	112	44300	<2	68	<2
03438000	65	471	131	11600	>5	33	<2
<u>MASSAC CREEK BASIN</u>							
03611260	34	15.5	89	1270	<2	0.12	<10
<u>BAYOU DE CHIEN BASIN</u>							
07024000	60	116	113	1820	<2	17	<2

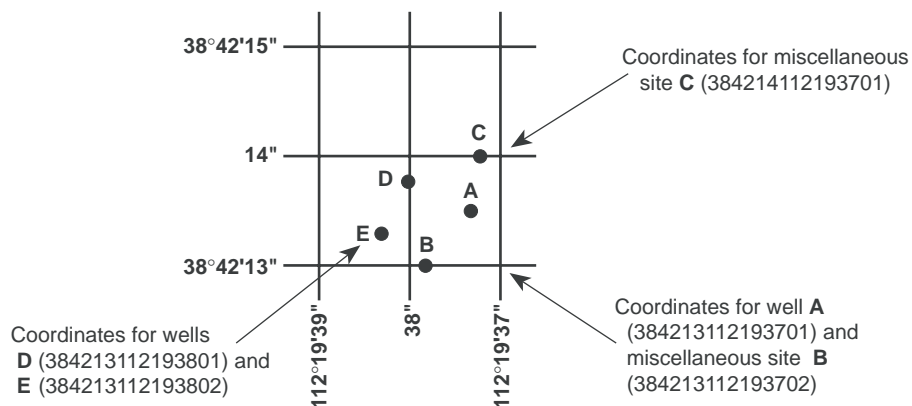
## DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, hydrologic-station records in USGS reports have been listed in order of downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary entering between two main-stream stations is listed between those stations. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is located with respect to the stream to which it is immediately tributary is indicated by an indentation in that list of stations in the front of this report. Each indentation represents one rank. This downstream order and system of indentation indicates which stations are on tributaries between any two stations and the rank of the tributary on which each station is located.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These station numbers are in the same downstream order used in this report. In assigning a station number, 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 composed of both types of stations. Gaps are consecutive. The complete 8-digit (or 10-digit) number for each station such as 09004100, which appears just to the left of the station name, includes a 2-digit part number "09" plus the 6-digit (or 8-digit) downstream order number "004100." In areas of high station density, an additional two digits may be added to the station identification number to yield a 10-digit number. The stations are numbered in downstream order as described above between stations of consecutive 8-digit numbers.

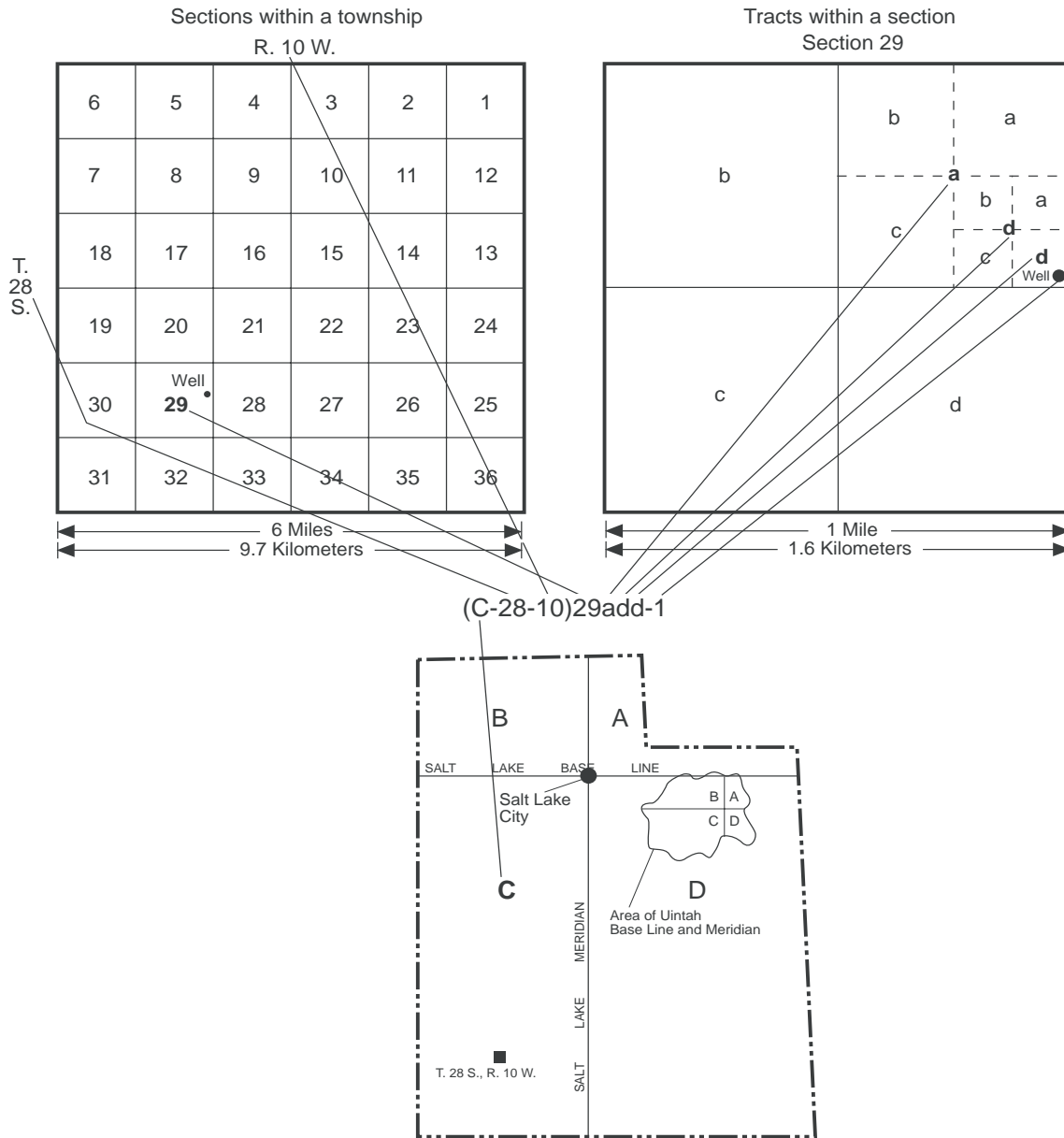
## NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The USGS well and miscellaneous site-numbering system is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, and the next 7 digits denote degrees, minutes, and seconds of longitude; the last 2 digits are a sequential number for wells within a 1-second grid. In the event that the latitude-longitude coordinates for a well and miscellaneous site are the same, a sequential number such as "01," "02," and so forth, would be assigned as one would for wells (see fig. 2). The 8-digit, downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.



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

In addition to the well number that is based on the latitude and longitude for each well, another well number may be provided which in many States is based on the Public Land Survey System, a set of rectangular surveys that is used to identify land parcels. This well number is familiar to the water users of Kentucky and shows the location of the well by quadrant, township, range section, and position within the section (see fig. 3).



**Figure 3.** System for numbering wells and miscellaneous sites (township and range).

The capital letter at the beginning of the location number indicates the quadrant in which the well is located. Four quadrants are formed by the intersection of the base line and the principal meridian—A indicates the northeast quadrant, B the northwest, C the southwest, and D the southeast. The first numeral indicates the township, the second the range, and the third the section in which the well is located. Lowercase letters following the section number locate the well within the section. The first letter denotes the quarter section, the second the quarter-quarter section, and the third the quarter-quarter-quarter section. The letters are assigned within the section in a counter-clockwise direction beginning with (a) in the northeast quarter of the section. Letters are assigned within each quarter section and quarter-quarter section in the same manner. Where two or more wells are located within the smallest subdivision, consecutive numbers beginning with 1 are added to the letters in the order in which the wells are inventoried. For example, (C-28-10)29 add -1 indicates a well in the southeast quarter of the southeast quarter of the northeast quarter of sec. 29, T. 28 S., R.10 W., and shows that this is the first well inventoried in the quarter-quarter-quarter section. The capital letter C indicates that the township is south of the Salt Lake Base Line and that the range is west of the Salt Lake Meridian.

In addition to the Salt Lake Base Line and Salt Lake Meridian that apply to most of Utah, the Uintah Base Line and Meridian, are the basis for describing locations in a small, irregularly shaped area of northeastern Utah. The quadrants, townships, ranges, sections, and parts of sections are designated in the same way as for the Salt Lake Base Line and Meridian. For any location in the Uintah area, however, the letter “U” precedes the parenthesis.

## SPECIAL NETWORKS AND PROGRAMS

**Hydrologic Benchmark Network** is a network of 61 sites in small drainage basins in 39 States that was established in 1963 to provide consistent streamflow data representative of undeveloped watersheds nationwide, and from which data could be analyzed on a continuing basis for use in comparison and contrast with conditions observed in basins more obviously affected by human activities. At selected 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 may be accessed from <http://ny.cf.er.usgs/hbn/>.

**National Stream-Quality Accounting Network (NASQAN)** is a network of sites used to monitor 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 River Basins. For the period 2000 through 2004, sampling was reduced to a few index stations on the Colorado and Columbia Rivers so that a network of five 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 (NAWQA) Program; (3) to characterize processes unique to large-river systems such as storage and remobilization 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 may be accessed from <http://water.usgs.gov/nasqan/>.

**The National Atmospheric Deposition Program/National Trends Network (NADP/NTN)** is a network of monitoring sites that 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 this network of 250 precipitation-chemistry monitoring sites. The USGS supports 74 of these 250 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 data from the individual sites, may be accessed from <http://bqs.usgs.gov/acidrain/>.

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

Assessment activities are being conducted in 42 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 is 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 water-resources managers to use in making decisions 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 for collaboration among the agencies. Additional information about the NAWQA Program may be accessed from <http://water.usgs.gov/nawqa/>.

**The USGS National Streamflow Information Program (NSIP)** is a long-term program with goals to provide framework streamflow data across the Nation. Included in the program are creation of a permanent Federally funded streamflow network, research on the nature of streamflow, regional assessments of streamflow data and databases, and upgrades in the streamflow information delivery systems. Additional information about NSIP may be accessed from <http://water.usgs.gov/nsip/>.

## EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS

### Data Collection and Computation

The base data collected at gaging stations (figs. 4-7) consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and volume of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from a water-stage recorder that is either downloaded

electronically in the field to a laptop computer or similar device or is transmitted using telemetry such as GOES satellite, land-line or cellular-phone modems, or by radio transmission. Measurements of discharge are made with a current meter or acoustic Doppler current profiler, using the general methods adopted by the USGS. These methods are described in standard textbooks, USGS Water-Supply Paper 2175, and the Techniques of Water-Resources Investigations of the United States Geological Survey (TWRI), Book 3, Chapters A1 through A19 and Book 8, Chapters A2 and B2, which may be accessed from <http://water.usgs.gov/pubs/twri/>. The methods are consistent with the American Society for Testing and Materials (ASTM) standards and generally follow the standards of the International Organization for Standardization (ISO).

For stream-gaging stations, discharge-rating tables for any stage are prepared from stage-discharge curves. If extensions to the rating curves are necessary to express discharge greater than measured, the extensions are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, or computation of flow over dams and weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharges are computed from the daily values. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features of the stream channel, the daily mean discharge is computed by the shifting-control method in which correction factors that are based on individual discharge measurements and notes by hydrographers and observers are used when applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the controlling section, the daily mean discharge is computed by the shifting-control method.

The stage-discharge relation at some stream-gaging stations is affected by backwater from reservoirs, tributary streams, or other sources. Such an occurrence 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 at some distance from the base gage.

An index velocity is measured using ultrasonic or acoustic instruments at some stream-gaging stations, and this index velocity is used to calculate an average velocity for the flow in the stream. This average velocity along with a stage-area relation is then used to calculate average discharge.

At some stations, the stage-discharge relation is affected by changing stage. At these stations, the rate of change in stage is used as a factor in computing discharge.

At some stream-gaging stations in the northern United States, the stage-discharge relation is affected by ice in the winter; therefore, computation of the discharge in the usual manner is impossible. Discharge for periods of ice effect is computed on the basis of gage-height record and occasional winter-discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrographers, and comparable records of discharge from other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the volume or contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly changes are computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys, the computed contents may be increasingly less accurate due to the gradual accumulation of sediment.



For some stream-gaging stations, periods of time occur when no gage-height record is obtained or the recorded gage height is faulty and cannot be used to compute daily discharge or contents. Such a situation can happen when the recorder stops or otherwise fails to operate properly, the intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records from other stations in the same or nearby basins. Likewise, lake or reservoir volumes may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

## Data Presentation

The records published for each continuous-record surface-water discharge station (stream-gaging station) consist of five parts: (1) the station manuscript or description; (2) the data table of daily mean values of discharge for the current water year with summary data; (3) a tabular statistical summary of monthly mean flow data for a designated period, by water year; (4) a summary statistics table that includes statistical data of annual, daily, and instantaneous flows as well as data pertaining to annual runoff, 7-day low-flow minimums, and flow duration; and (5) a hydrograph of discharge.

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

**LOCATION.**—Location information is obtained from the most accurate maps available. The location of the gaging station with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages, given for only a few stations, were determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

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

**PERIOD OF RECORD.**—This term indicates the time 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 its flow reasonably can be considered equivalent to flow at the present station.

**REVISED RECORDS.**—If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

**GAGE.**—The type of gage in current use, the datum of the current gage referred to a standard datum, 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 either will be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily discharge table. (See section

titled Identifying Estimated Daily Discharge.) Information is presented 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, the outlet works and spillway, and the purpose and use of the reservoir.

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

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

REVISIONS.—Records are revised if errors in published records are discovered. Appropriate updates are made in the USGS distributed data system, NWIS, and subsequently to its Web-based National data system, NWISWeb (<http://water.usgs.gov/nwis/nwis>). Users are encouraged to obtain all required data from NWIS or NWISWeb to ensure that they have the most recent data updates. Updates to NWISWeb are made on an annual basis.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because no current or, possibly, future station manuscript would be published for these stations 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 USGS Kentucky Water Science Center (address given on the back of the title page of this report) to determine if the published records were revised after the station was discontinued. If, however, the data for a discontinued station were obtained by computer retrieval, the data would be current. 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 stage-capacity table when daily volumes are given.

### **Peak Discharge Greater than Base Discharge**

Tables of peak discharge above base discharge are included for some stations where secondary instantaneous peak discharge data are used in flood-frequency studies of highway and bridge design, flood-control structures, and other flood-related projects. The base discharge value is selected so an average of three peaks a year will be reported. This base discharge value has a recurrence interval of approximately 1.1 years or a 91-percent chance of exceedance in any 1 year.

### **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 arithmetic 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 is expressed in cubic feet per second per square mile (line headed CFSM); or in inches (line headed IN); or in acre-feet (line headed AC-FT). Values for cubic feet per second per square mile and runoff in inches or in acre-feet may be omitted if extensive regulation or diversion is in effect or if the drainage area includes large noncontributing areas. At some

stations, monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversion data or reservoir volumes are given. These values are identified by a symbol and a corresponding footnote.

### **Statistics of Monthly Mean Data**

A tabular summary of the mean (line headed MEAN), maximum (MAX), and minimum (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 values. 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. The designated period will consist of all of the station record within the specified water years, including complete months of record for partial water years, and may coincide with the period of record for the station. The water years for which the statistics are computed are 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 of the station records within the specified water years, including complete months of record for partial water years, and may coincide with the period of record for the station. The water years for which the statistics are computed are 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 the dates of occurrence do not fall within the selected water years listed in the heading, it will be noted in the REMARKS paragraph or in footnotes. Selected streamflow duration-curve statistics and runoff data also are given. Runoff data may be omitted if extensive regulation or diversion of flow is in effect in the drainage basin.

The following summary statistics data are provided with each continuous record of discharge. Comments that follow clarify information presented under the various line headings of the SUMMARY STATISTICS table.

**ANNUAL TOTAL.**—The sum of the daily mean values of discharge for the year.

**ANNUAL MEAN.**—The arithmetic mean for the individual daily mean discharges for the year noted or for the designated period.

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

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

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

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

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

**MAXIMUM PEAK FLOW.**—The maximum instantaneous peak discharge occurring for the water year or designated period. Occasionally the maximum flow for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak flow is given in the table and the maximum flow may be reported in a footnote or in the REMARKS paragraph in the manuscript.

**MAXIMUM PEAK STAGE.**—The maximum instantaneous peak stage occurring for the water year or designated period. Occasionally the maximum stage for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak stage is given in the table and the maximum stage may be reported in the REMARKS paragraph in the manuscript or in a footnote. If the dates of occurrence of the maximum peak stage and maximum peak flow are different, 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 square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming the runoff is distributed uniformly in time and area.

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

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

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

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

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first table lists annual maximum stage and discharge at crest-stage stations, and the second table lists 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 often made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for a 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. This identification is shown either by flagging individual daily values with the letter “e” and noting in a table footnote, “e—Estimated,” or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

### **Accuracy of Field Data and Computed Results**

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

The degree of accuracy of the records is stated in the REMARKS in the station description. “Excellent” indicates that about 95 percent of the daily discharges are within 5 percent of the true value; “good” within 10 percent; and “fair,” within 15 percent. “Poor” indicates that daily discharges have less than “fair” accuracy. Different accuracies may be attributed to different parts of a given record.

Values of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft<sup>3</sup>/s; to the nearest tenths between 1.0 and 10 ft<sup>3</sup>/s; to whole numbers between 10 and 1,000 ft<sup>3</sup>/s; and to three significant figures above 1,000 ft<sup>3</sup>/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharge values listed for partial-record stations.

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

### **Other Data Records Available**

Information of a more detailed nature than that published for most of the stream-gaging stations such as discharge measurements, gage-height records, and rating tables is available from the USGS Kentucky

Water Science Center. Also, most stream-gaging station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the USGS Kentucky Water Science Center (see address that is shown on the back of the title page of this report).

## **EXPLANATION OF PRECIPITATION RECORDS**

### **Data Collection and Computation**

Rainfall data generally are collected using electronic data loggers that measure the rainfall in 0.01-inch increments every 15 minutes using either a tipping-bucket rain gage or a collection well gage. Twenty-four hour rainfall totals are tabulated and presented. A 24-hour period extends from just past midnight of the previous day to midnight of the current day. Snowfall-affected data can result during cold weather when snow fills the rain-gage funnel and then melts as temperatures rise. Snowfall-affected data are subject to errors. Missing values are indicated by this symbol “---” in the table.

### **Data Presentation**

Precipitation records collected at surface-water gaging stations are identified with the same station number and name as the stream-gaging station. Where a surface-water daily-record station is not available, the precipitation record is published with its own name and latitude-longitude identification number.

Information pertinent to the history of a precipitation station is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, period of record, and general remarks.

The following information is provided with each precipitation station. Comments that follow clarify information presented under the various headings of the station description.

**LOCATION.**—See Data Presentation in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

**PERIOD OF RECORD.**—See Data Presentation in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

**INSTRUMENTATION.**—Information on the type of rainfall collection system is given.

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

## **EXPLANATION OF WATER-QUALITY RECORDS**

### **Collection and Examination of Data**

Surface-water samples for analysis usually are collected at or near stream-gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

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

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

### **Water Analysis**

Most of the methods used for collecting and analyzing water samples are described in the TWRI, which may be accessed from <http://water.usgs.gov/pubs/twri/>.

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 at several verticals to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum and minimum values (and sometimes mean or median values) for each constituent measured, and are based on 15-minute or 1-hour intervals of recorded data beginning at 0000 hours and ending at 2400 hours for the day of record.

## **SURFACE-WATER-QUALITY RECORDS**

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because discharge data are useful in the interpretation of surface-water quality. Records of surface-water quality in this report 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 *continuous-record station* is a site where data are collected on a regularly scheduled basis. Frequency may be one or more times daily, weekly, monthly, or quarterly. A *partial-record station* is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A *miscellaneous sampling site* is a location other than a continuous- or partial-record station, where 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 *continuous records* as used in this report and *continuous recordings* that refer to a continuous graph or a series of discrete values recorded at short intervals. 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 8-10.

### Accuracy of the Records

One of four accuracy classifications is applied for measured physical properties at continuous-record stations on a scale ranging from poor to excellent. The accuracy rating is based on data values recorded before any shifts or corrections are made. Additional consideration also is given to the amount of publishable record and to the amount of data that have been corrected or shifted.

Rating classifications for continuous water-quality records

[≤, less than or equal to; ±, plus or minus value shown; °C, degree Celsius; >, greater than; %, percent; mg/L, milligram per liter; pH unit, standard pH unit]

Measured field parameter	Ratings of accuracy (Based on combined fouling and calibration drift corrections applied to the record)			
	Excellent	Good	Fair	Poor
Water temperature	≤ ± 0.2 °C	> ± 0.2 – 0.5 °C	> ± 0.5 – 0.8 °C	> ± 0.8 °C
Specific conductance	≤ ± 3%	> ± 3 – 10%	> ± 10 – 15%	> ± 15%
Dissolved oxygen	≤ ± 0.3 mg/L	> ± 0.3 – 0.5 mg/L	> ± 0.5 – 0.8 mg/L	> ± 0.8 mg/L
pH	≤ ± 0.2 units	> ± 0.2 – 0.5 units	> ± 0.5 – 0.8 units	> ± 0.8 units
Turbidity	≤ ± 0.5 turbidity units	> ± 0.5 – 1.0 turbidity units	> ± 1.0 – 1.5 turbidity units	> ± 1.5 turbidity units

### 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 is assuring that the data obtained represent the naturally occurring quality of the water. To ensure this, certain measurements, such as water temperature, pH, and dissolved oxygen, must be made onsite when the samples are collected. To assure that measurements made in the laboratory also represent the naturally occurring water, carefully prescribed procedures must be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in TWRIs Book 1, Chapter D2; Book 3, Chapters A1, A3, and A4; and Book 9, Chapters A1-A9. Most of the methods used for collecting and analyzing water samples are described in the TWRIs, which may be accessed from



<http://water.usgs.gov/pubs/twri/>. Also, detailed information on collecting, treating, and shipping samples can be obtained from the USGS Kentucky Water Science Center (see address that is shown on the back of title page in this report).

## Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at the 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 USGS Kentucky Water Science Center.

## 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 section.

During periods of rapidly changing flow or rapidly changing concentration, samples may be collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration are 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 are collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observation, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

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

## Laboratory Measurements

Samples for biochemical oxygen demand (BOD) and indicator bacteria are analyzed locally. All other samples are analyzed in the USGS laboratory in Lakewood, Colorado, unless otherwise noted. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chapter C1. Methods used by the USGS laboratories are given in the TWRI, Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. The TWRI publications may be accessed from

<http://water.usgs.gov/pubs/twri/>. These methods are consistent with ASTM standards and generally follow ISO standards.

## 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 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 information in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

DRAINAGE AREA.—See Data Presentation information in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

PERIOD OF RECORD.—This indicates the time periods for which published water-quality records for the station are available. 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 USGS by a cooperating organization are identified here.

EXTREMES.—Maximums and minimums are given only for parameters measured daily or more frequently. For parameters measured weekly or less frequently, true maximums or minimums may not have been obtained. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.—Records are revised if errors in published water-quality records are discovered. Appropriate updates are made in the USGS distributed data system, NWIS, and subsequently to its Web-based national data system, NWISWeb (<http://waterdata.usgs.gov/nwis>). Users of USGS water-quality data are encouraged to obtain all required data from NWIS or NWISWeb to ensure that they have the most recent updates. Updates to the NWISWeb are made on an annual basis.

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.

### Remark Codes

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

Printed Output	Remark
E	Value is estimated.
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
M	Presence of material verified, but not quantified.
N	Presumptive evidence of presence of material.
U	Material specifically analyzed for, but not detected.
A	Value is an average.
V	Analyte was detected in both the environmental sample and the associated blanks.
S	Most probable value.

### Water-Quality Control Data

The USGS National Water Quality Laboratory collects quality-control data on a continuing basis to evaluate selected analytical methods to determine long-term method detection levels (LT-MDLs) and laboratory reporting levels (LRLs). These values are re-evaluated each year on the basis of the most recent quality-control data and, consequently, may change from year to year.

This reporting procedure limits the occurrence of false positive error. Falsely reporting a concentration greater than the LT-MDL for a sample in which the analyte is not present is 1 percent or less. Application of the LRL limits the occurrence of false negative error. The chance of falsely reporting a non detection for a sample in which the analyte is present at a concentration equal to or greater than the LRL is 1 percent or less.

Accordingly, concentrations are reported as less than LRL for samples in which the analyte either was not detected or did not pass identification. Analytes detected at concentrations between the LT-MDL and the LRL and that pass identification criteria are estimated. Estimated concentrations will be noted with a remark code of "E." These data should be used with the understanding that their uncertainty is greater than that of data reported without the E remark code.

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 the USGS Kentucky Water Science Center 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. These data are not presented in this report but are available from the USGS Kentucky Water Science Center.

## Blank Samples

Blank samples are collected and analyzed to ensure that environmental samples have not been contaminated in 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. Many types of blank samples are possible; each is designed to segregate a different part of the overall data-collection process. The types of blank samples collected in the USGS Kentucky Water Science Center are

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

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

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

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

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

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

**Preservation blank**—A blank solution that is treated with the sampler preservatives used for an environmental sample.

## Reference Samples

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

## Replicate Samples

Replicate samples are a set of environmental samples collected in a manner such that the samples are thought to be essentially identical 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. Many types of replicate samples are 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 the USGS Kentucky Water Science Center are

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

**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, each subsample contemporaneous in time and space.

### **Spike Samples**

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

## **EXPLANATION OF GROUND-WATER-LEVEL RECORDS**

Generally, only ground-water-level data from selected wells with continuous recorders from a basic network of observation wells are published in this report. This basic network contains observation wells located so that the most significant data are obtained from the fewest wells in the most important aquifers.

### **Site Identification Numbers**

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is produced for local needs. (See NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES in this report for a detailed explanation).

### **Data Collection and Computation**

Measurements are made in many types of wells, under varying conditions of access and at different temperatures; hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Most methods for collecting and analyzing water samples are described in the TWRI's referred to in the On site Measurements and Sample Collection and the Laboratory Measurements sections in this report. In addition, TWRI Book 1, Chapter D2, describes guidelines for the collection and field analysis of ground-water samples for selected unstable constituents. Procedures for on-site measurements and for collecting, treating, and shipping samples are given in TWRI's Book 1, Chapter D2; Book 3, Chapters A1, A3, and A4; and Book 9, Chapters A1 through A9. The TWRI publications may be accessed from <http://water.usgs.gov/pubs/twri/>. The values in this report represent water-quality conditions at the time of sampling, as much as possible, and that are consistent with available sampling techniques and methods of analysis. These methods are consistent with ASTM standards and generally follow ISO standards. Trained personnel collected all samples. The wells sampled were pumped long enough to ensure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

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 above sea level 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 in wells equipped with recording gages are reported at noon daily.

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 of water of several hundred feet, the error in determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

### **Data Presentation**

Water-level data are presented in alphabetical order by county. The primary identification number for a given well is the 15-digit site identification number that appears in the upper left corner of the table. The secondary identification number is the local or county well number. Well locations are shown and each well is identified by its local well or county well number on a map in this report. (fig. 12-14).

Each well record consists of three parts: the well description, the data table of water levels observed during the water year, and, for most wells, a hydrograph following the data table. Well descriptions are presented in the headings preceding the tabular data.

The following comments clarify information presented in these various headings.

**LOCATION.**—This paragraph follows the well-identification number and reports the hydrologic-unit number and a geographic point of reference. Latitudes and longitudes used in this report are reported as North American Datum of 1927 unless otherwise specified.

**AQUIFER.**—This entry designates by name and geologic age the aquifer that the well taps.

**WELL CHARACTERISTICS.**—This entry describes the well in terms of depth, casing diameter and depth or screened interval, method of construction, use, and 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 continuous, monthly, or some other frequency of measurement.

**DATUM.**—This entry describes both the measuring point and the land-surface elevation at the well. The altitude of the land-surface datum is described in feet above the altitude datum; it is reported with a precision depending on the method of determination. The measuring point is described physically (such as top of casing, top of instrument shelf, and so forth), 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 National Geodetic Vertical Datum of 1929 (NGVD 29); it is reported with a precision depending on the method of determination.

**REMARKS.**—This entry describes factors that may affect the water level in a well or the measurement of the water level, when various methods of measurement were begun, and the network (climatic, terrane, local, or areal effects) or the special project to which the well belongs.

**PERIOD OF RECORD.**—This entry indicates the time period for which records are published for the well, the month and year at the start of publication of water-level records by the USGS, and the words “to current year” if the records are to be continued into the following year. Time periods for which water-level records are available, but are not published by the USGS, may be noted.

**EXTREMES FOR PERIOD OF RECORD.**—This entry contains the highest and lowest instantaneously recorded or measured water levels of the period of published record, with respect to land-surface datum or sea level, and the dates of occurrence.

### **Water-Level Tables**

A table of water levels follows the well description for each well. Water-level measurements in this report are given in feet with reference to either sea level or land-surface datum (lsd). Missing records are indicated by dashes in place of the water-level value.

For wells not equipped with recorders, water-level measurements were obtained periodically by steel or electric tape. Tables of periodic water-level measurements in these wells show the date of measurement and the measured water-level value.

### **Hydrographs**

Hydrographs are a graphic display of water-level fluctuations over a period of time. In this report, current water year and, when appropriate, period-of-record hydrographs are shown. Hydrographs that display periodic water-level measurements show points that may be connected with a dashed line from one measurement to the next. Hydrographs that display recorder data show a solid line representing the noon water level recorded for each day. Missing data are indicated by a blank space or break in a hydrograph. Missing data may occur as a result of recorder malfunctions, battery failures, or mechanical problems related to the response of the recorder’s float mechanism to water-level fluctuations in a well.

## **GROUND-WATER-QUALITY DATA**

### **Data Collection and Computation**

The ground-water-quality data in this report were obtained as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some wells within a county but not for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality statewide.

Most methods for collecting and analyzing water samples are described in the TWRI, which may be accessed from <http://water.usgs.gov/pubs/twri/>. Procedures for on site measurements and for collecting, treating, and shipping samples are given in TWRI, Book 1, Chapter D2; Book 5, Chapters A1, A3, and A4; and Book 9, Chapters A1-A6. Also, detailed information on collecting, treating, and shipping samples may be obtained from the USGS Kentucky Water Science Center (see address shown on back of title page in this report).

## Laboratory Measurements

Analysis for sulfide and measurement of alkalinity, pH, water temperature, specific conductance, and dissolved oxygen are performed onsite. All other sample analyses are performed at the USGS laboratory in Lakewood, Colorado, unless otherwise noted. Methods used by the USGS laboratory are given in TWRI, Book 1, Chapter D2 and Book 5, Chapters A1, A3, and A4, which may be accessed from <http://water.usgs.gov/pubs/twri/>.

## ACCESS TO USGS WATER DATA

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

Water-quality data and ground-water data also are available through the WWW. In addition, data can be provided in various machine-readable formats on various media. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each USGS Water Science Center (see address that is shown on the back of the title page of this report).



## DEFINITION OF TERMS

Specialized technical terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. Terms such as algae, water level, and precipitation are used in their common everyday meanings, definitions of which are given in standard dictionaries. Not all terms defined in this alphabetical list apply to every State. See also table for converting English units to International System (SI) Units. Other glossaries that also define water-related terms are accessible from <http://water.usgs.gov/glossaries.html>.

**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.

**Adjusted discharge** is discharge data that have been mathematically adjusted (for example, to remove the effects of a daily tide cycle or reservoir storage).

**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 polychlorinated 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 purposely is 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 multi-plate 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 a 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 ( $\text{g}/\text{m}^3$ ), and periphyton and benthic organisms in grams per square meter ( $\text{g}/\text{m}^2$ ). (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.

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

**Bedload** is material in transport that primarily is supported by the streambed. In this report, bedload is considered to consist of particles in transit from the bed to the top of the bedload sampler nozzle (an elevation ranging from 0.25 to 0.5 foot). These particles 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”)

**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 also is called the Autotrophic Index.

**Blue-green algae** (*Cyanophyta*) are a group of phytoplankton and periphyton organisms with a blue pigment in addition to a green pigment called chlorophyll. Blue-green algae can cause nuisance water-quality conditions in lakes and slow-flowing rivers; however, they are found commonly in streams throughout the year. The abundance of blue-green algae in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter ( $\mu\text{m}^3/\text{mL}$ ). The abundance of blue-green algae in periphyton samples is given in cells per square centimeter (cells/cm<sup>2</sup>) or biovolume per square centimeter ( $\mu\text{m}^3/\text{cm}^2$ ). (See also “Phytoplankton” and “Periphyton”)

**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 the lithology and porosity of the rock.

**Canadian Geodetic Vertical Datum 1928** is a geodetic datum derived from a general adjustment of Canada’s first order level network in 1928.

**Cell volume** (biovolume) determination is one of several common methods used to estimate biomass of algae in aquatic systems. Cell members of algae are used frequently 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 ( $\mu\text{m}^3$ ) 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:

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

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

From cell volume, total algal biomass expressed as biovolume ( $\mu\text{m}^3/\text{mL}$ ) 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.

**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 generally are reported as cells or units per milliliter (mL) or liter (L).

**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 the 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<sup>3</sup>/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<sup>3</sup>/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 numerically are 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<sup>3</sup>/s)/mi<sup>2</sup>]** 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 mean 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 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 usually are 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 Universal Transverse Mercator (UTM) coordinates. (See also “Gage datum,” “Land-surface datum,” “National Geodetic Vertical Datum of 1929,” and “North American Vertical Datum of 1988”)

**Diatoms** (*Bacillariophyta*) are unicellular or colonial algae with a siliceous cell wall. The abundance of diatoms in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter ( $\mu\text{m}^3/\text{mL}$ ). The abundance of diatoms in periphyton samples is given in cells per square centimeter ( $\text{cells}/\text{cm}^2$ ) or biovolume per square centimeter ( $\mu\text{m}^3/\text{cm}^2$ ). (See also “Phytoplankton” and “Periphyton”)

**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, and so forth, 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 0.4917 to convert it to carbonate. Alternatively, alkalinity concentration (as  $\text{mg}/\text{L CaCO}_3$ ) 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:

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

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** commonly are 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 faecalis*, *Streptococcus faecium*, *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 generally are 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) value** of a concentration 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 identified qualitatively 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 (<). For bacteriological data, concentrations are reported as estimated when results are based on non-ideal colony counts.

**Euglenoids (*Euglenophyta*)** are a group of algae that usually are 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”)

**Filtered** pertains to constituents in a water sample passed through a filter of specified pore diameter, most commonly 0.45 micrometer or less for inorganic analytes and 0.7 micrometer for organic analytes.

**Filtered, recoverable** is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that has passed through a filter has been extracted. Complete recovery is not achieved by the extraction procedure and thus the analytical determination represents something less than 95 percent of the total constituent concentration in the sample. To achieve comparability of analytical data, equivalent extraction procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results.

**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 exceeded. For example, the 90th percentile of river flow is the streamflow exceeded 90 percent of the time in the period of interest.

**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 is not an actual physical object, the datum is usually 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** (*Chlorophyta*) are unicellular or colonial algae with chlorophyll pigments similar to those in terrestrial green plants. Some forms of green algae produce mats or floating “moss” in lakes. The abundance of green algae in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter ( $\mu\text{m}^3/\text{mL}$ ). The abundance of green algae in periphyton samples is given in cells per square centimeter (cells/cm<sup>2</sup>) or biovolume per square centimeter ( $\mu\text{m}^3/\text{cm}^2$ ). (See also “Phytoplankton” and “Periphyton”)

**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 typically are 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<sub>3</sub>).

**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.csc.noaa.gov/text/glossary.html> (see “High water”)

**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:

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

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.), in reference to streamflow, 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 distributed uniformly on it. (See also “Annual runoff”)

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

**International Boundary Commission Survey Datum** refers to a geodetic datum established at numerous monuments along the United States-Canada boundary by the International Boundary Commission.

**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)** generally is 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. The LRL replaces the term ‘non-detection value’ (NDV).

**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:

$$I = I_0 e^{-\lambda L},$$

where  $I_0$  is the source light intensity,  $I$  is the light intensity at length  $L$  (in meters) from the source,  $\lambda$  is the light-attenuation coefficient, and  $e$  is the base of the natural logarithm. The light-attenuation coefficient is defined as

$$\lambda = -\frac{1}{L} \log_e \frac{I}{I_0}.$$

**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 Website: <http://www.csc.noaa.gov/text/glossary.html> (see “Low water”)

**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 benchmarks. (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.

**Megahertz** is a unit of frequency. One megahertz equals one million cycles per second.

**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 code** is a one-character code that identifies the analytical or field method used to determine a value stored in the National Water Information System (NWIS).

**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.

**Method of Cubatures** is a method of computing discharge in tidal estuaries based on the conservation of mass equation.

**Methylene blue active substances (MBAS)** indicate the presence of detergents (anionic surfactants). 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,  $\mu\text{g/g}$ )** 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,  $\mu\text{g/kg}$ )** 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,  $\mu\text{g/L}$ )** 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,  $\mu\text{S/cm}$ )** 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 29)** is a fixed reference adopted as a standard geodetic datum for elevations determined by leveling. It formerly was 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.

**Nonfilterable** refers to the portion of the total residue retained by a filter.

**North American Datum of 1927** (NAD 27) is the horizontal control datum for the United States that was defined by a location and azimuth on the Clarke spheroid of 1866.

**North American Datum of 1983** (NAD 83) is the horizontal control datum for the United States, Canada, Mexico, and Central America that is based on the adjustment of 250,000 points including 600 satellite Doppler stations that constrain the system to a geocentric origin. NAD 83 has been officially adopted as the legal horizontal datum for the United States by the Federal government.

**North American Vertical Datum of 1988** (NAVD 88) 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<sup>2</sup>), 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 uses 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 usually are 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 ( $1 \times 10^{-12}$ ) of the amount of radioactive nuclide represented by a curie (Ci). A curie is the quantity of radioactive nuclide that yields  $3.7 \times 10^{10}$  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 photosynthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated (carbon method) by the plants.

**Primary productivity (carbon method)** is expressed as milligrams of carbon per area per unit time [ $\text{mg C}/(\text{m}^2/\text{time})$ ] for periphyton and macrophytes or per volume [ $\text{mg C}/(\text{m}^3/\text{time})$ ] 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 [ $\text{mg O}/(\text{m}^2/\text{time})$ ] for periphyton and macrophytes or per volume [ $\text{mg O}/(\text{m}^3/\text{time})$ ] 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** is the amount of a given constituent that is in solution after a representative water sample has been extracted or digested. Complete recovery is not achieved by the extraction or digestion and thus the determination represents something less than 95 percent of the constituent present in the sample. To achieve comparability of analytical data, equivalent extraction or digestion procedures are required of all laboratories performing such analyses because different 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 pre-

vious 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”)

**Salinity** is the total quantity of dissolved salts, measured by weight in parts per thousand. Values in this report are calculated from specific conductance and temperature. Seawater has an average salinity of about 35 parts per thousand (for additional information, refer to: Miller, R.L., Bradford, W.L., and Peters, N.E., 1988, Specific conductance: theoretical considerations and application to analytical quality control: U.S. Geological Survey Water-Supply Paper 2311, 16 p.)

**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 precipitation.

**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 (<2 mm, 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.

**Surrogate** is an analyte that behaves similarly to a target analyte, but that is highly unlikely to occur in a sample. A surrogate is added to a sample in known amounts before extraction and is measured with the same laboratory procedures used to measure the target analyte. Its purpose is to monitor method performance for an individual sample.

**Suspended** is the amount (concentration) of undissolved material in a water-sediment mixture. Most commonly refers to that material retained on a 0.45-micrometer filter.

**Suspended, recoverable** is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer filter has been extracted or digested. Complete recovery is not achieved by the extraction or digestion procedures and thus the determination represents less than 95 percent of the constituent present in the sample. To achieve comparability of analytical data, equivalent extraction or digestion procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results. (See also “Suspended”)

**Suspended sediment** is sediment carried in suspension by the turbulent components of the fluid or by the Brownian movement (a law of physics). (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<sup>3</sup>/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 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.

**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”)

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

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

**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 ton 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 an expression of the optical properties of a liquid that causes light rays to be scattered and absorbed rather than transmitted in straight lines through water. Turbidity, which can make water appear cloudy or muddy, is caused by the presence of suspended and dissolved matter, such as clay, silt, finely divided organic matter, plankton and other microscopic organisms, organic acids, and dyes (ASTM International, 2003, D1889–00 Standard test method for turbidity of water, *in* ASTM International, Annual Book of ASTM Standards, Water and Environmental Technology, v. 11.01: West Conshohocken, Pennsylvania, 6 p.). The color of water, whether resulting from dissolved compounds or suspended particles, can affect a turbidity measurement. To ensure that USGS turbidity data can be understood and interpreted properly within the context of the instrument used and site conditions encountered, data from each instrument type are stored and reported in the National Water Information System (NWIS) using parameter codes and measurement reporting units that are specific to the instrument type, with specific instruments designated by the method code. The respective measurement units, many of which also are in use internationally, fall into two categories: (1) the designations NTU, NTRU, BU, AU, and NTMU signify the use of a broad spectrum incident light in the wavelength range of 400–680 nanometers (nm), but having different light detection configurations; (2) The designations FNU, FNRU, FBU, FAU, and FNMU generally signify an incident light in the range between 780–900 nm, also with varying light detection configurations. These reporting units are equivalent when measuring a calibration solution (for example, formazin or polymer beads), but their respective instruments may not produce equivalent results for environmental samples. Specific reporting units are as follows:

**NTU** (Nephelometric Turbidity Units): white or broadband [400–680 nm] light source, 90 degree detection angle, one detector.

**NTRU** (Nephelometric Turbidity Ratio Units): white or broadband [400–680 nm] light source, 90 degree detection angle, multiple detectors with ratio compensation.

**BU** (Backscatter Units): white or broadband [400–680 nm] light source, 30 ± 15 degree detection angle (backscatter).

**AU** (Attenuation Units): white or broadband [400–680 nm] light source, 180 degree detection angle (attenuation).

**NTMU** (Nephelometric Turbidity Multibeam Units): white or broadband [400–680 nm] light source, multiple light sources, detectors at 90 degrees and possibly other angles to each beam.

**FNU** (Formazin Nephelometric Units): near infrared [780–900 nm] or monochrome light source, 90 degree detection angle, one detector.

**FNRU** (Formazin Nephelometric Ratio Units): near infrared [780–900 nm] or monochrome light source, 90 degree detection angle, multiple detectors, ratio compensation.

**FBU** (Formazin Backscatter Units): near infrared [780–900 nm] or monochrome light source, 30±15 degree detection angle.

**FAU** (Formazin Attenuation Units): near infrared [780–900 nm] light source, 180 degree detection angle.

**FNMU** (Formazin Nephelometric Multibeam Units): near infrared [780–900 nm] or monochrome light source, multiple light sources, detectors at 90 degrees and possibly other angles to each beam.

For more information please see [http://water.usgs.gov/owq/FieldManual/Chapter6/6.7\\_contents.html](http://water.usgs.gov/owq/FieldManual/Chapter6/6.7_contents.html).

**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 path length 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”)

**Unfiltered** pertains to the constituents in an unfiltered, representative water-suspended sediment sample.

**Unfiltered, recoverable** is the amount of a given constituent in a representative water-suspended sediment sample that has been extracted or digested. Complete recovery is not achieved by the extraction or digestion treatment and thus the determination represents less than 95 percent of the constituent present in the sample. To achieve comparability of analytical data, equivalent extraction or digestion procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results.

**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 often are 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.”

**Watershed** (See “Drainage basin”)

**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.

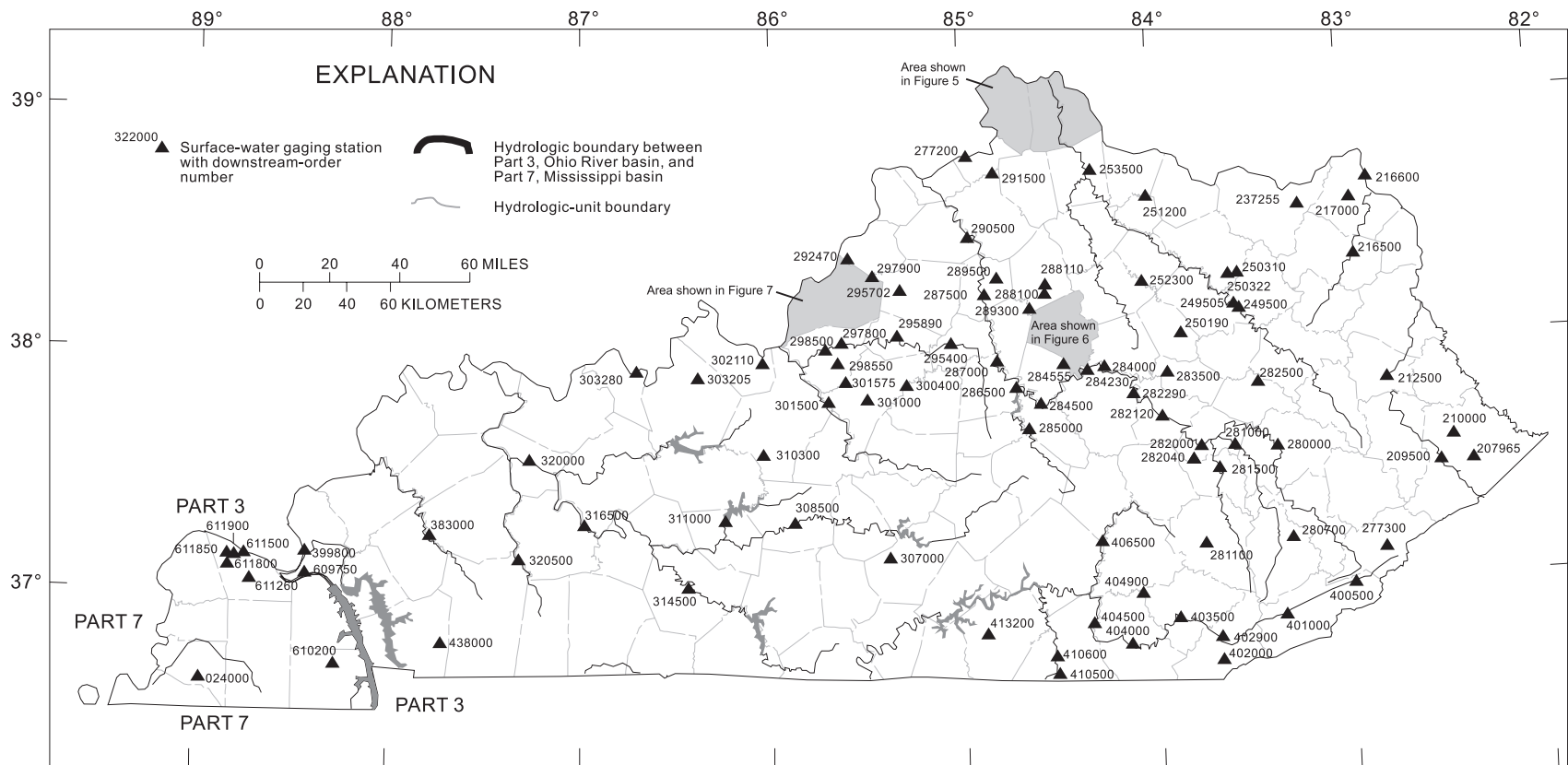
**Wet mass** is the mass of living matter plus contained water. (See also “Biomass” and “Dry mass”)

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

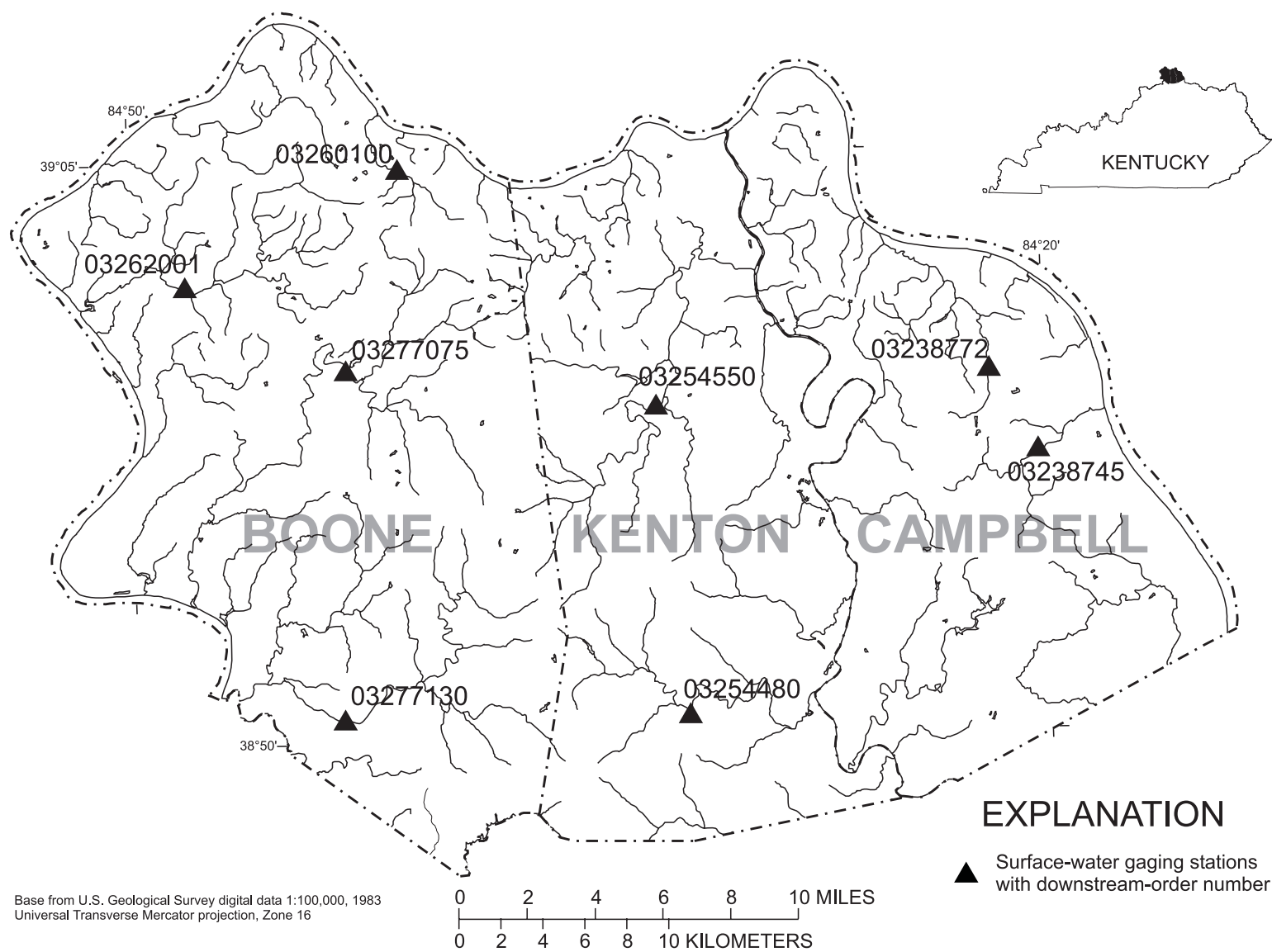
**WSP** is used as an acronym for “Water-Supply Paper” in reference to previously published reports.

**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”)

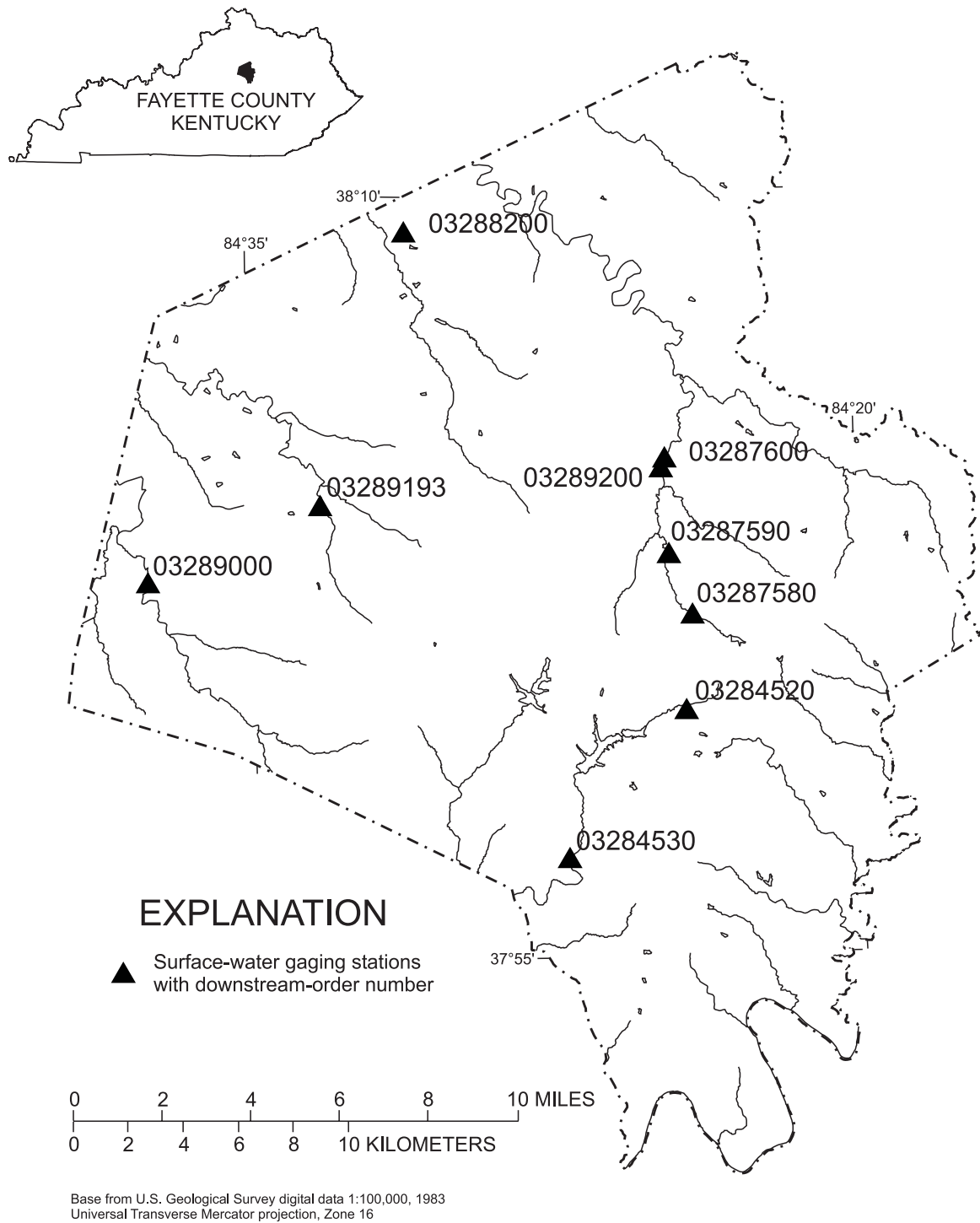




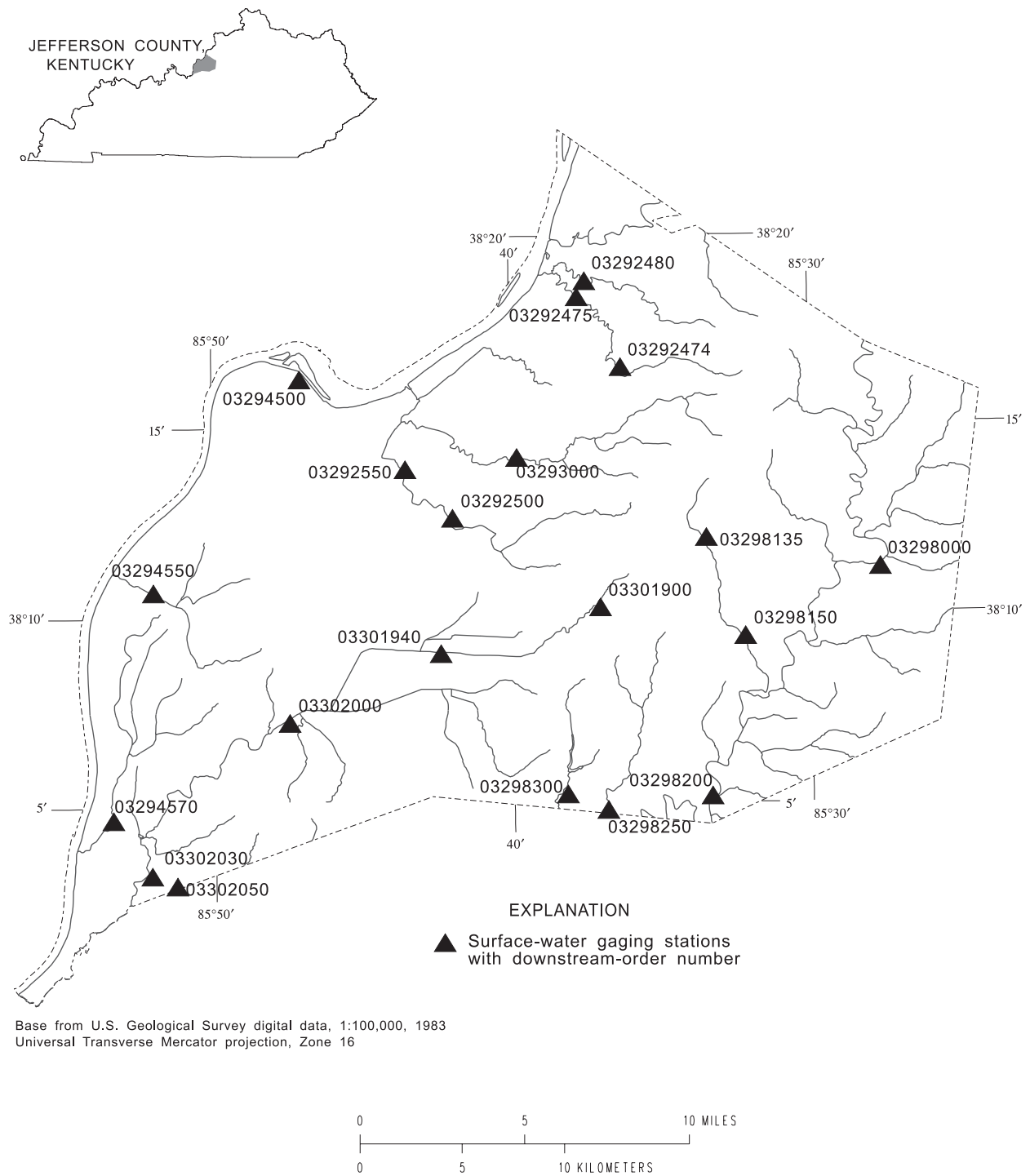
**Figure 4.** Location of gaging stations in Kentucky.



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



**Figure 6.** Location of surface-water gaging stations in Fayette County, Kentucky.



**Figure 7.** Location of gaging stations in Jefferson County, Kentucky.

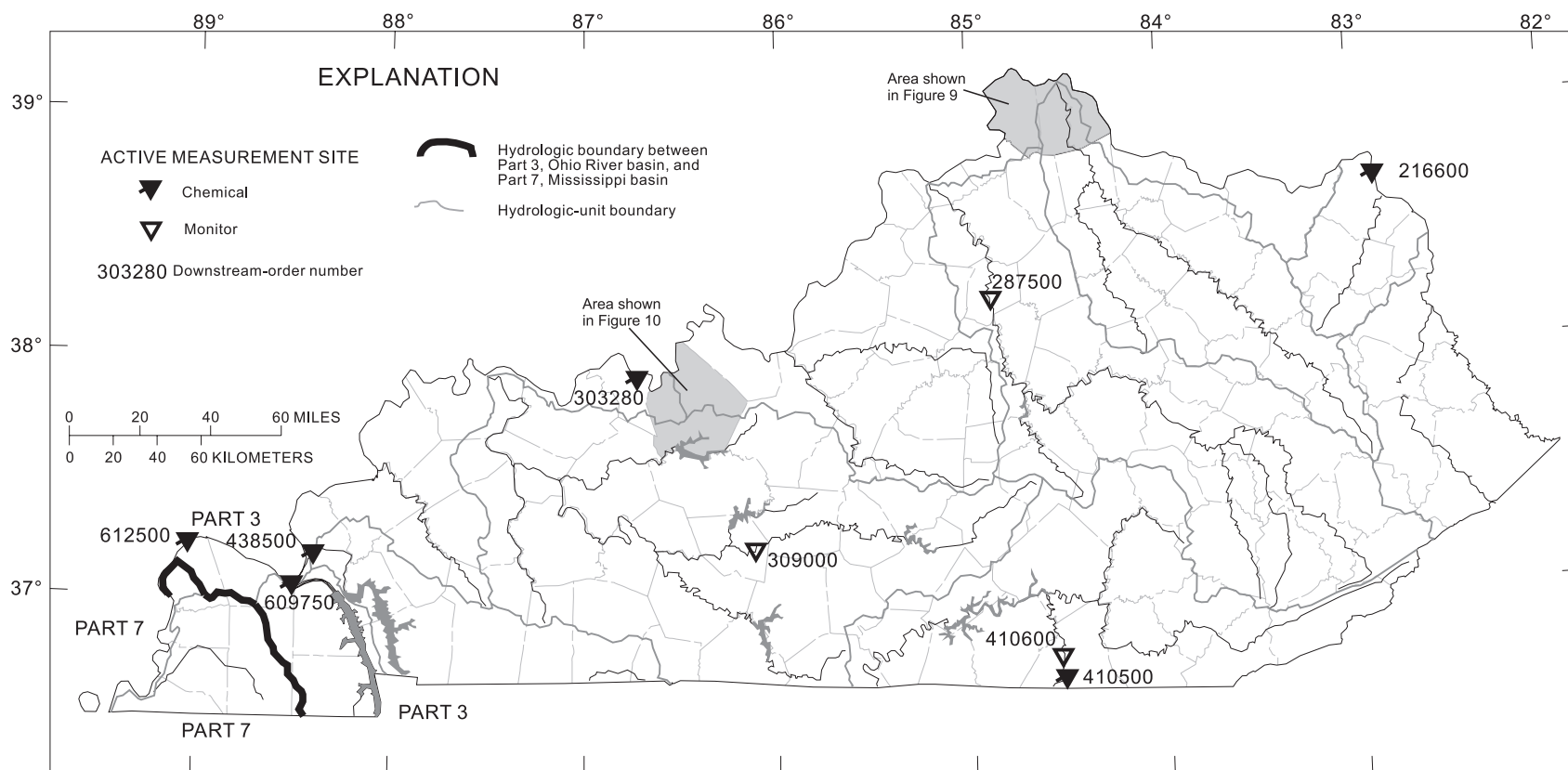
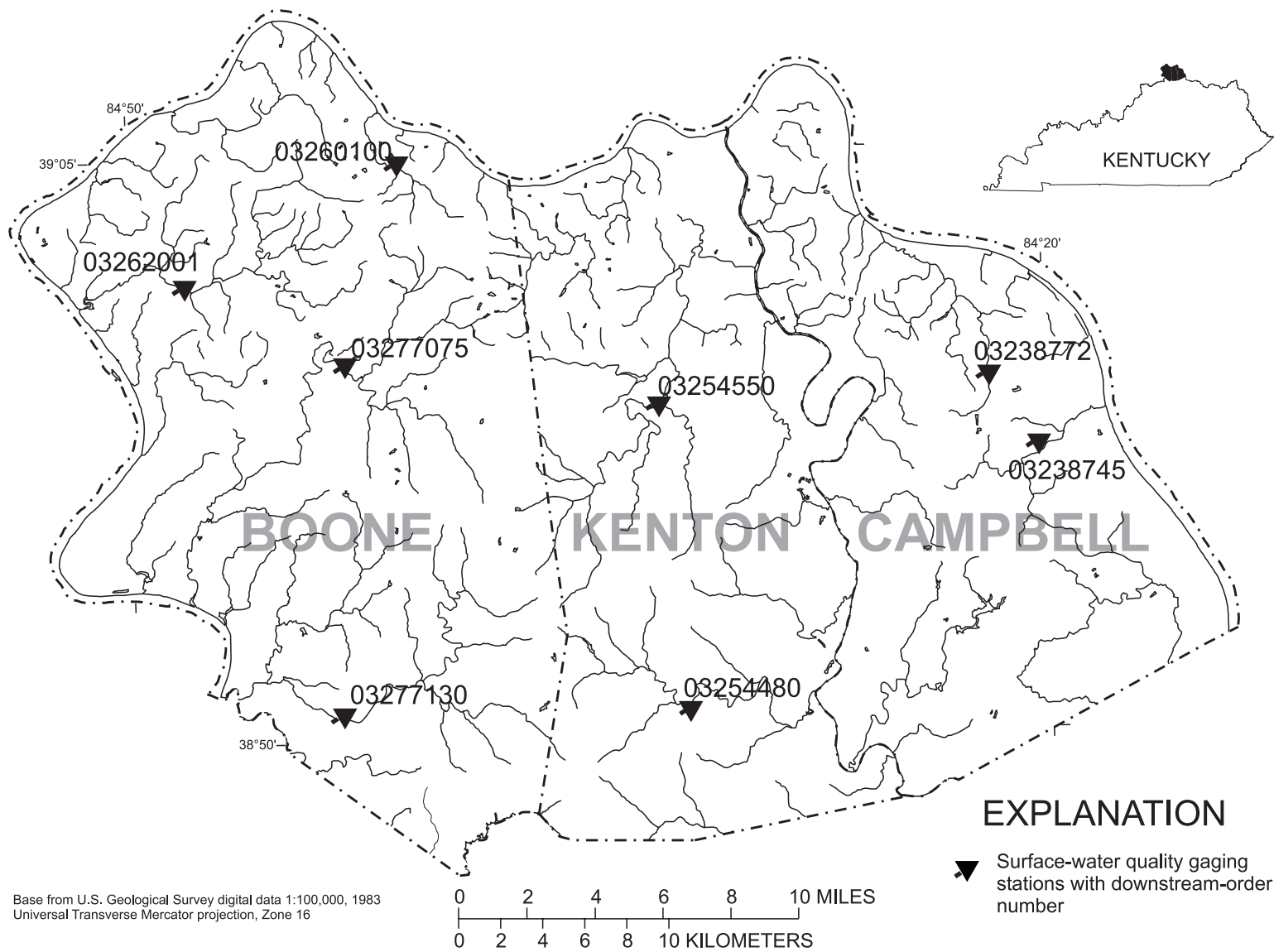


Figure 8. Location of surface-water-quality stations in Kentucky.



Base from U.S. Geological Survey digital data 1:100,000, 1983  
Universal Transverse Mercator projection, Zone 16

**Figure 9.** Location of water-quality stations in Boone, Kenton, and Campbell Counties, Kentucky.

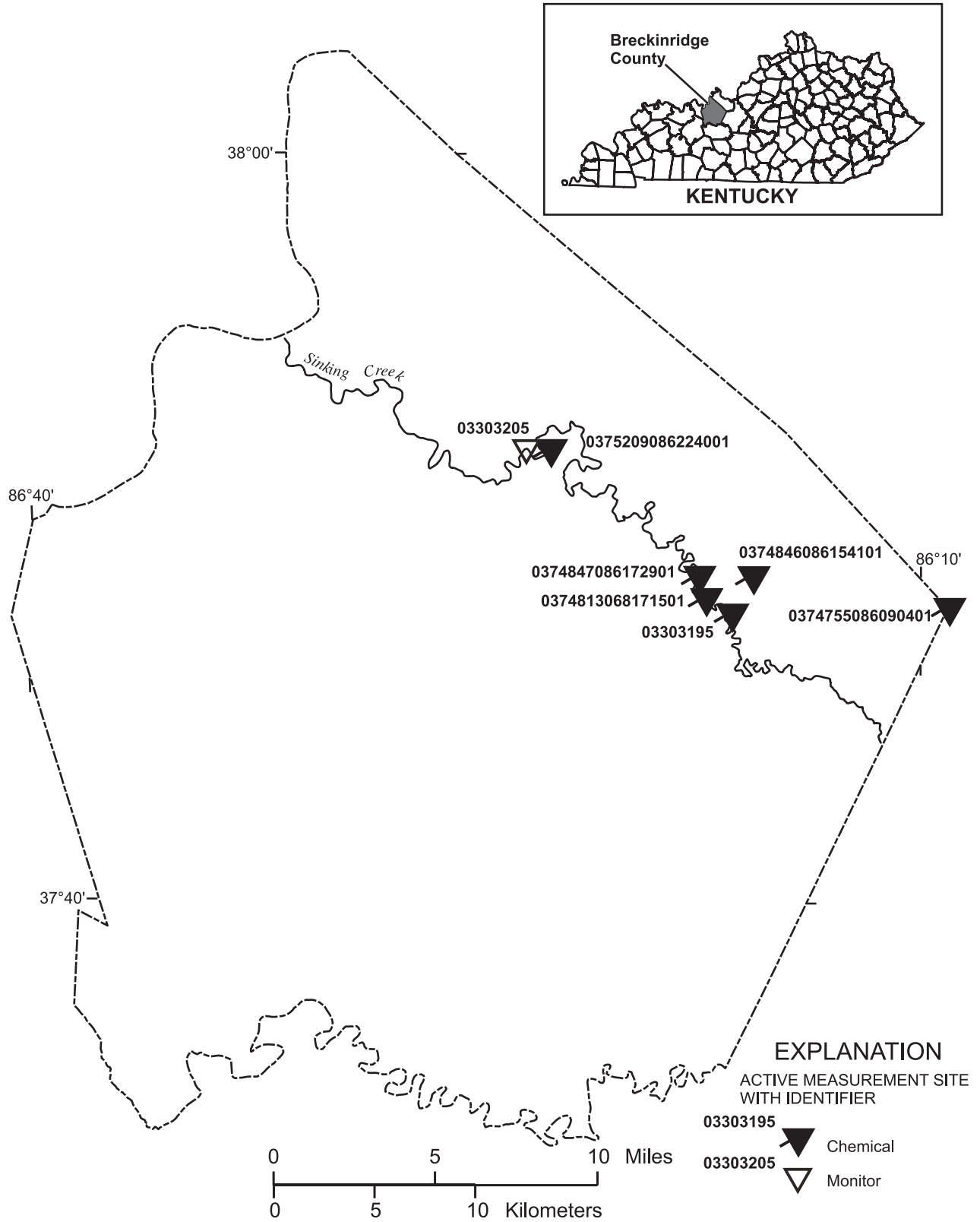


Figure 10. Location of miscellaneous water-quality stations in Breckenridge County, Kentucky.

## BIG SANDY RIVER BASIN

03207965 GRAPEVINE CREEK NEAR PHYLLIS, KY

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

DRAINAGE AREA.--6.20 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder with telemetry. 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 Environmental Protection Cabinet.

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Apr 3	unknown	216	1.35	Jun 30	unknown	272	1.53
Apr 30	unknown	*300	*1.60				

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	7.5	86	7.4	18	e48	13	47	1.9	3.1	0.42	3.3
2	6.1	6.5	22	6.5	15	e32	58	24	3.1	1.6	0.49	3.0
3	4.7	5.8	13	6.3	15	e23	74	16	2.6	1.1	0.54	2.7
4	3.6	27	9.7	11	14	e16	34	12	2.3	1.0	0.57	2.7
5	3.1	25	7.4	22	13	e15	24	9.2	2.0	1.1	0.91	2.8
6	2.9	16	10	21	12	e14	19	7.9	1.9	1.00	0.91	2.7
7	2.9	13	12	18	11	e13	16	7.1	1.9	10	0.78	2.4
8	2.8	10	12	23	11	e36	14	6.5	2.0	3.5	1.7	2.7
9	2.9	8.1	32	22	11	e32	12	5.8	1.9	1.3	1.8	2.6
10	2.9	7.3	55	18	13	24	11	5.5	1.8	0.77	2.2	2.0
11	2.8	6.8	37	16	12	23	9.1	5.0	1.8	0.62	2.0	2.1
12	3.8	13	28	14	12	22	9.9	4.7	1.9	0.54	1.8	1.7
13	7.5	11	22	16	13	23	9.6	5.0	2.0	0.86	1.8	1.8
14	5.7	10	17	47	20	20	8.3	4.3	2.5	0.67	1.9	1.9
15	4.9	9.8	14	e30	23	17	7.3	4.7	2.5	0.73	1.9	1.7
16	4.8	9.3	13	e19	26	16	6.7	3.7	2.1	0.92	5.0	1.9
17	4.1	8.8	11	e15	25	13	6.6	3.3	2.0	2.4	2.9	4.3
18	4.2	9.0	11	e13	21	12	6.3	3.3	2.1	1.8	2.3	2.4
19	26	9.4	10	11	18	11	6.2	3.3	2.0	2.6	2.5	2.1
20	11	9.3	9.4	10	17	10	6.2	6.9	2.7	1.7	2.4	2.2
21	7.1	9.6	7.8	9.5	26	9.2	8.0	4.3	2.4	1.4	2.1	2.2
22	5.3	9.4	7.6	10	30	8.5	9.6	3.5	2.1	1.1	2.1	2.3
23	4.9	9.8	13	10	26	11	10	3.2	2.1	0.81	2.0	2.2
24	8.3	12	12	11	24	11	13	3.2	2.0	0.67	2.0	2.2
25	7.0	12	11	9.6	20	11	14	2.9	1.9	0.62	2.0	2.2
26	6.3	11	9.8	11	18	11	13	2.6	1.7	0.49	2.6	3.2
27	22	12	8.3	12	16	10	12	2.5	1.5	1.0	2.9	2.9
28	23	12	7.8	11	e40	16	11	2.3	1.7	0.70	2.7	2.3
29	15	11	7.6	15	---	20	33	2.1	7.2	0.38	3.1	3.0
30	11	21	7.4	25	---	18	114	2.0	8.7	0.33	3.7	2.2
31	8.8	---	7.1	24	---	15	---	1.9	---	0.32	3.5	---
TOTAL	228.2	342.4	530.9	494.3	520	560.7	588.8	215.7	74.3	45.13	63.52	73.7
MEAN	7.36	11.4	17.1	15.9	18.6	18.1	19.6	6.96	2.48	1.46	2.05	2.46
MAX	26	27	86	47	40	48	114	47	8.7	10	5.0	4.3
MIN	2.8	5.8	7.1	6.3	11	8.5	6.2	1.9	1.5	0.32	0.42	1.7
CFSM	1.19	1.84	2.76	2.57	3.00	2.92	3.17	1.12	0.40	0.23	0.33	0.40
IN.	1.37	2.05	3.19	2.97	3.12	3.36	3.53	1.29	0.45	0.27	0.38	0.44

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2005, BY WATER YEAR (WY)

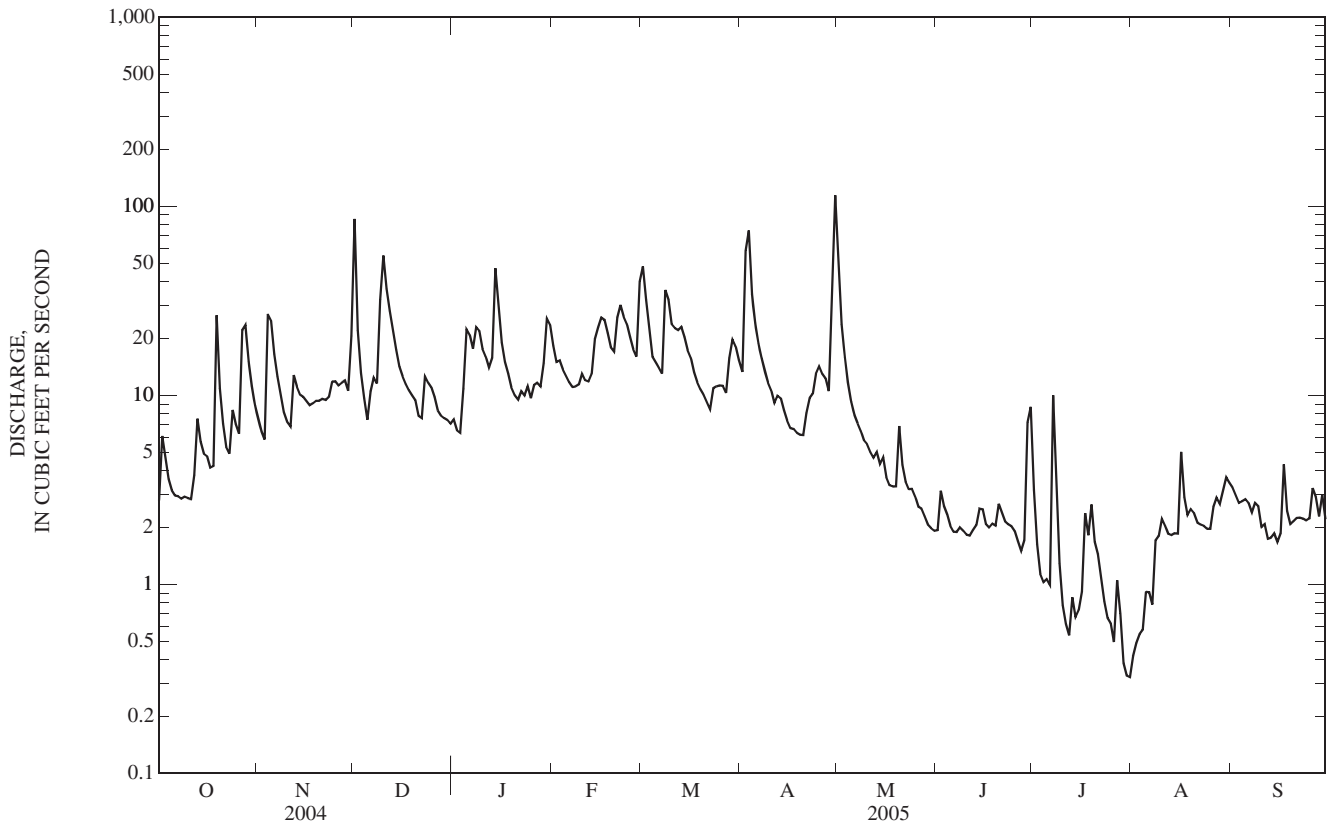
MEAN	3.68	6.43	8.23	13.8	14.1	17.2	14.3	11.0	8.47	3.78	3.51	2.61
MAX	28.0	31.0	18.8	42.6	36.9	53.6	30.7	47.7	25.8	23.2	14.0	13.2
(WY)	(1990)	(1974)	(1979)	(1974)	(2003)	(1975)	(1998)	(1989)	(2004)	(2000)	(2001)	(2004)
MIN	0.32	0.27	0.98	1.44	2.55	7.12	4.62	0.71	0.64	0.32	0.31	0.38
(WY)	(1992)	(1982)	(1982)	(1981)	(2002)	(1977)	(1982)	(1976)	(1980)	(1991)	(1981)	(1981)



03207965 GRAPEVINE CREEK NEAR PHYLLIS, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1974 - 2005	
ANNUAL TOTAL	5,422.3		3,737.65		8.69	
ANNUAL MEAN	14.8		10.2		5.30	
HIGHEST ANNUAL MEAN					17.2	1974
LOWEST ANNUAL MEAN					5.30	1992
HIGHEST DAILY MEAN	440	Jun 12	114	Apr 30	448	Apr 4, 1977
LOWEST DAILY MEAN	1.2	Jun 17	0.32	Jul 31	0.01	Aug 19, 1982
ANNUAL SEVEN-DAY MINIMUM	2.3	Sep 1	0.44	Jul 29	0.04	Sep 22, 1981
MAXIMUM PEAK FLOW			300	Apr 30	2,190	Jun 12, 2004
MAXIMUM PEAK STAGE			1.60	Apr 30	9.10	Apr 7, 1977
INSTANTANEOUS LOW FLOW					0.01	Aug 19, 1982
ANNUAL RUNOFF (CFSM)	2.39		1.65		1.40	
ANNUAL RUNOFF (INCHES)	32.53		22.43		19.05	
10 PERCENT EXCEEDS	27		23		18	
50 PERCENT EXCEEDS	6.9		7.4		3.5	
90 PERCENT EXCEEDS	3.0		1.7		0.64	

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<sup>2</sup>.

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. 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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	983	1,440	e9,520	896	5,600	4,790	3,120	9,120	602	425	758	254
2	847	1,080	8,540	869	3,700	4,560	5,850	7,340	641	387	1,150	238
3	1,160	747	5,970	1,050	3,210	3,620	12,000	4,320	640	677	542	216
4	1,310	1,650	2,660	1,340	2,360	2,650	9,020	3,100	824	470	398	208
5	1,240	3,700	2,310	1,440	1,990	2,470	5,620	2,500	744	427	370	202
6	1,060	2,750	2,570	1,690	1,900	2,520	2,660	2,110	599	418	346	198
7	942	2,360	6,060	1,880	1,940	2,920	2,300	2,000	553	1,010	362	194
8	920	2,120	5,700	1,250	1,860	4,380	1,550	1,860	494	4,950	386	195
9	863	1,520	5,590	1,540	1,650	5,420	1,340	1,500	443	2,520	640	195
10	819	990	8,990	1,380	1,780	4,530	1,160	1,290	543	1,050	579	195
11	884	852	8,250	2,760	1,830	3,570	1,040	1,230	635	696	431	194
12	717	1,040	6,970	5,560	1,600	3,510	958	1,050	465	638	332	192
13	824	1,620	5,150	3,250	1,600	3,100	1,160	977	502	492	315	192
14	1,260	1,600	3,460	5,460	2,060	3,130	2,210	3,490	425	386	302	213
15	1,170	1,680	2,840	5,640	2,930	3,210	2,240	3,790	456	391	309	292
16	1,080	1,740	2,410	4,280	3,320	2,950	1,700	2,940	435	389	305	312
17	967	1,670	2,250	3,730	3,360	2,850	1,410	1,440	408	428	389	312
18	679	1,450	1,820	3,020	2,750	2,650	1,390	1,080	347	411	496	297
19	873	1,560	1,760	2,060	2,240	2,550	1,850	891	318	755	406	292
20	1,050	e1,840	1,520	1,920	2,040	2,480	1,760	967	311	1,600	460	286
21	973	1,300	1,370	1,680	2,300	2,320	1,620	1,230	324	1,570	367	284
22	838	1,110	1,350	1,510	2,710	2,080	1,490	1,150	304	801	366	281
23	782	897	1,460	1,600	2,990	2,040	1,580	1,100	297	640	411	280
24	890	1,120	1,830	1,690	2,640	2,110	1,700	1,120	288	556	393	278
25	943	1,620	1,620	1,890	2,460	2,130	2,150	1,050	279	383	375	277
26	836	2,660	1,540	1,810	1,910	2,150	2,400	752	273	322	262	282
27	3,570	2,950	1,550	1,820	1,820	2,120	2,040	668	267	330	252	295
28	6,740	2,480	1,460	1,700	2,750	2,910	2,120	642	272	430	251	295
29	3,210	1,840	1,260	1,620	---	5,160	2,790	625	329	646	256	296
30	1,930	1,390	1,190	3,270	---	5,140	7,310	650	431	1,010	274	291
31	1,740	---	916	4,760	---	4,000	---	621	---	599	268	---
TOTAL	42,100	50,776	109,886	74,365	69,300	100,020	85,538	62,603	13,449	25,807	12,751	7,536
MEAN	1,358	1,693	3,545	2,399	2,475	3,226	2,851	2,019	448	832	411	251
MAX	6,740	3,700	9,520	5,640	5,600	5,420	12,000	9,120	824	4,950	1,150	312
MIN	679	747	916	869	1,600	2,040	958	621	267	322	251	192

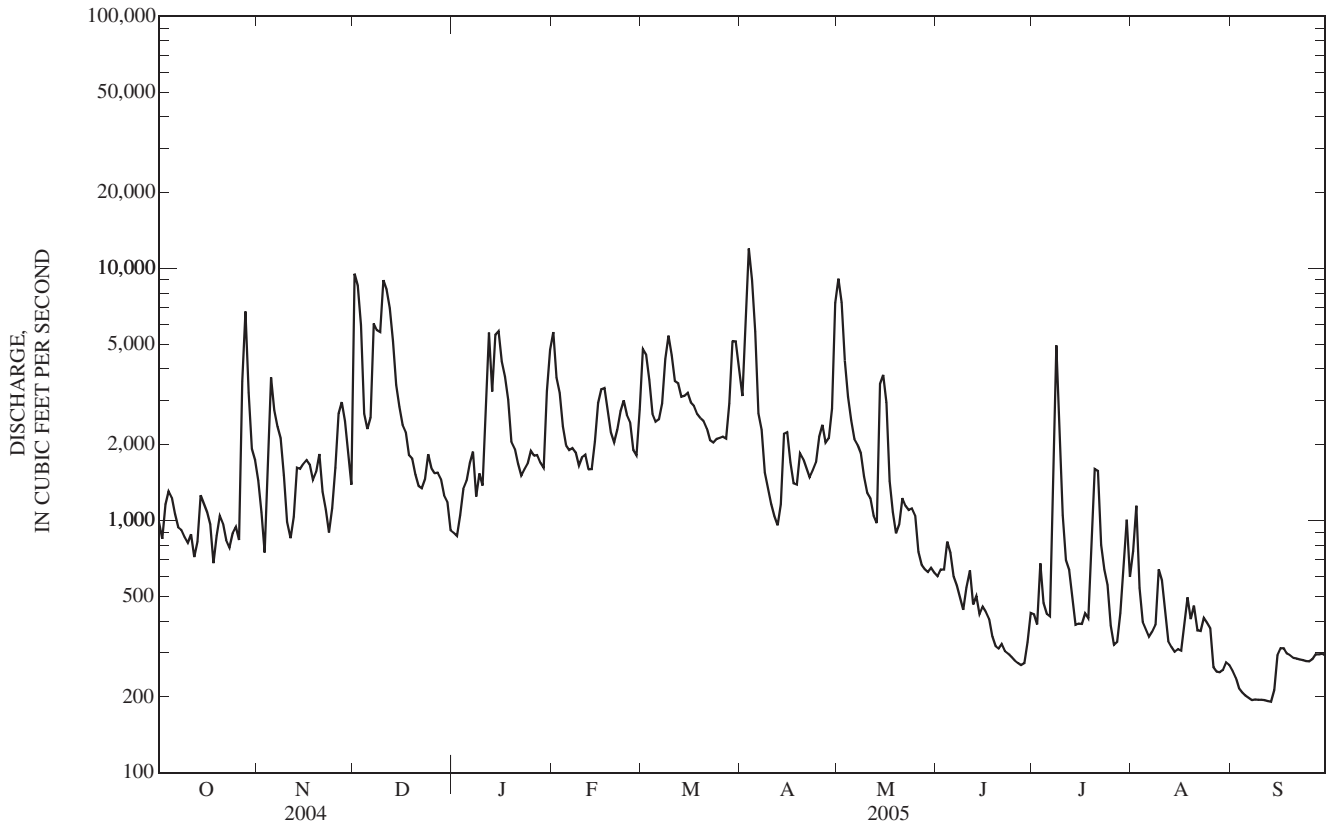
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2005, BY WATER YEAR (WY)

MEAN	785	1,133	1,574	2,282	2,814	2,914	2,357	2,006	1,121	653	506	478
MAX	3,939	3,991	5,385	6,861	6,804	8,081	7,646	6,067	3,523	2,028	1,150	1,606
(WY)	(1990)	(1978)	(1973)	(1974)	(2003)	(1975)	(1977)	(1984)	(2004)	(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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1969 - 2005	
ANNUAL TOTAL	819,549		654,131		1,545	
ANNUAL MEAN	2,239		1,792		522	
HIGHEST ANNUAL MEAN					2,459	1979
LOWEST ANNUAL MEAN					522	1988
HIGHEST DAILY MEAN	12,900	Apr 14	12,000	Apr 3	69,300	Apr 5, 1977
LOWEST DAILY MEAN	288	Sep 6	192	Sep 12	66	Dec 3, 1970
ANNUAL SEVEN-DAY MINIMUM	323	Aug 23	194	Sep 7	103	Oct 10, 1968
MAXIMUM PEAK FLOW			12,400	Apr 3	85,500	Jan 30, 1957
MAXIMUM PEAK STAGE			21.46	Apr 3	52.72	Jan 30, 1957
INSTANTANEOUS LOW FLOW					66	Dec 3, 1970
10 PERCENT EXCEEDS	5,620		3,710		3,510	
50 PERCENT EXCEEDS	1,460		1,340		778	
90 PERCENT EXCEEDS	528		295		237	

e Estimated



BIG SANDY RIVER BASIN

03210000 JOHNS CREEK NEAR META, KY

LOCATION.--Lat 37°34'01", long 82°27'29", Pike County, Hydrologic Unit 05070203, on 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<sup>2</sup>.

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 good except for 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<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Apr 30	1130	*1,610	*12.66	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	36	550	47	139	348	133	436	15	17	8.4	16
2	22	30	263	45	114	235	341	226	22	13	8.8	11
3	27	28	155	44	112	182	563	147	21	13	9.3	7.3
4	21	129	112	62	100	154	297	113	18	12	9.2	7.5
5	19	138	89	230	91	150	207	92	17	11	8.7	7.4
6	18	87	104	190	83	137	161	80	15	13	9.2	6.6
7	17	64	114	150	76	133	135	71	14	117	8.1	6.1
8	16	49	107	253	75	239	118	64	15	84	8.4	9.0
9	15	38	238	220	73	229	104	53	21	32	14	8.7
10	17	33	410	158	95	193	93	47	28	22	13	8.5
11	17	31	272	126	86	179	83	44	45	18	13	8.7
12	17	59	199	107	85	186	81	39	24	16	12	5.7
13	25	52	157	95	83	188	82	36	22	14	9.8	5.2
14	34	46	122	240	118	170	73	38	20	18	9.3	8.2
15	23	42	97	199	140	146	65	41	31	35	7.8	8.1
16	22	40	81	148	159	130	59	31	19	31	11	8.9
17	22	37	73	113	165	117	56	28	15	32	15	28
18	20	36	66	88	139	105	54	27	13	36	13	10
19	157	45	61	77	115	96	54	26	14	21	28	6.6
20	72	47	e58	72	102	89	51	56	14	18	23	5.6
21	52	49	e54	71	166	81	51	35	13	15	15	7.7
22	36	49	48	77	227	77	78	28	12	29	12	8.2
23	31	48	63	89	181	99	76	25	12	15	10	7.9
24	42	56	58	84	147	119	83	26	14	13	11	7.5
25	38	67	55	78	122	110	86	23	11	12	11	5.4
26	33	64	54	e82	104	109	81	21	11	10	14	5.5
27	71	61	49	e98	91	101	89	21	13	12	21	11
28	92	61	43	e82	240	163	74	21	9.8	16	14	12
29	70	50	44	110	---	227	148	19	11	13	8.5	14
30	54	79	44	174	---	192	1,040	19	16	11	19	13
31	44	---	41	170	---	162	---	17	---	7.6	15	---
TOTAL	1,166	1,651	3,881	3,779	3,428	4,846	4,616	1,950	525.8	726.6	389.5	275.3
MEAN	37.6	55.0	125	122	122	156	154	62.9	17.5	23.4	12.6	9.18
MAX	157	138	550	253	240	348	1,040	436	45	117	28	28
MIN	15	28	41	44	73	77	51	17	9.8	7.6	7.8	5.2
CFSM	0.67	0.98	2.22	2.17	2.17	2.78	2.73	1.12	0.31	0.42	0.22	0.16
IN.	0.77	1.09	2.56	2.50	2.27	3.20	3.05	1.29	0.35	0.48	0.26	0.18

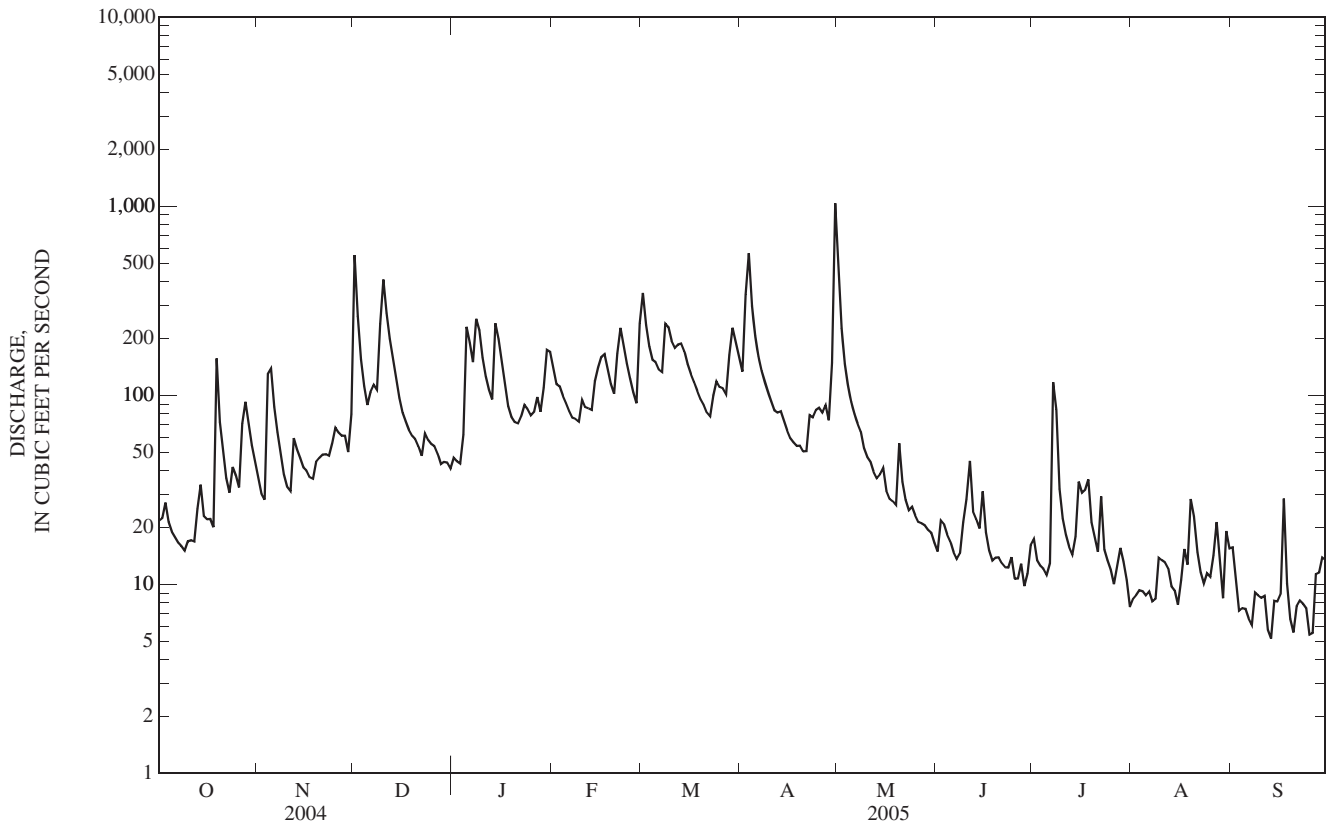
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2005, BY WATER YEAR (WY)

	17.7	37.6	73.1	106	137	159	119	73.3	41.5	27.7	18.5	16.9
MEAN	17.7	37.6	73.1	106	137	159	119	73.3	41.5	27.7	18.5	16.9
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	0.00	0.23	0.95	6.57	17.5	36.0	15.8	7.33	1.99	0.42	0.35	0.00
(WY)	(1954)	(1954)	(1966)	(1966)	(1954)	(1988)	(1963)	(1941)	(1969)	(1944)	(1943)	(1943)

03210000 JOHNS CREEK NEAR META, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1941 - 2005	
ANNUAL TOTAL	31,625		27,234.2		68.8	
ANNUAL MEAN	86.4		74.6		24.5	
HIGHEST ANNUAL MEAN					135	1974
LOWEST ANNUAL MEAN					24.5	1954
HIGHEST DAILY MEAN	1,580	May 31	1,040	Apr 30	3,340	May 7, 1984
LOWEST DAILY MEAN	11	Aug 28	5.2	Sep 13	0.00	Oct 1, 1941
ANNUAL SEVEN-DAY MINIMUM	14	Aug 22	6.8	Sep 20	0.00	Oct 1, 1941
MAXIMUM PEAK FLOW			1,610	Apr 30	7,380	Mar 12, 1963
MAXIMUM PEAK STAGE			12.66	Apr 30	19.62	May 7, 1984
INSTANTANEOUS LOW FLOW					0.00	Oct 1, 1941
ANNUAL RUNOFF (CFSM)	1.53		1.33		1.22	
ANNUAL RUNOFF (INCHES)	20.90		17.99		16.60	
10 PERCENT EXCEEDS	174		168		156	
50 PERCENT EXCEEDS	50		47		24	
90 PERCENT EXCEEDS	17		9.9		2.3	

e Estimated



## BIG SANDY RIVER BASIN

03212500 LEVISA FORK AT PAINTSVILLE, KY

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

DRAINAGE AREA.--2,144 mi<sup>2</sup>.

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. Flow regulated since May 1950 by Dewey Lake (station 03211000), since March 1965 by John 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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

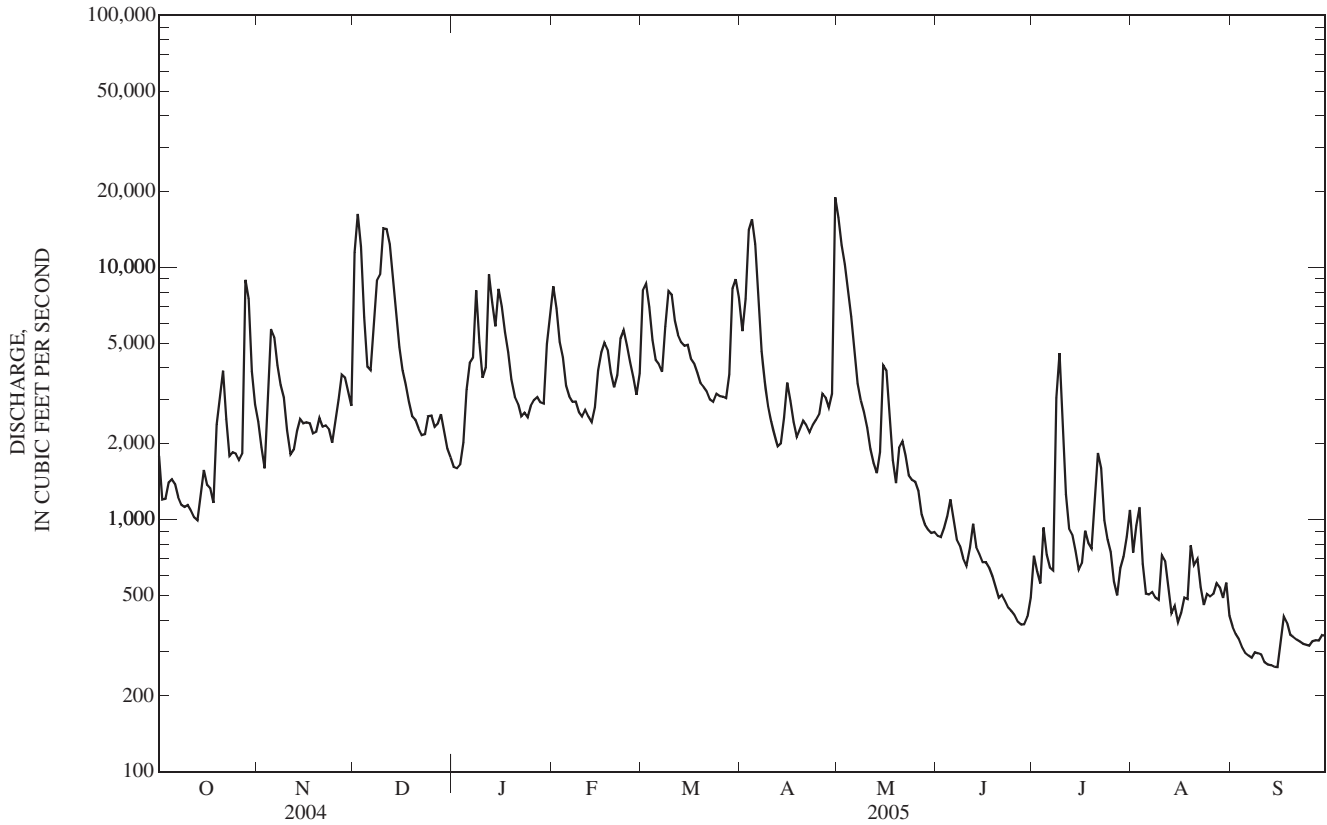
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,790	2,450	11,500	1,620	8,420	8,100	5,600	15,800	861	719	741	375
2	1,200	1,930	16,300	1,600	6,890	8,630	7,520	12,300	853	623	949	351
3	1,210	1,600	12,100	1,660	5,070	6,970	14,100	10,300	925	558	1,120	335
4	1,400	2,730	6,350	2,030	4,400	5,150	15,500	8,050	1,030	930	669	312
5	1,440	5,690	4,050	3,280	3,400	4,300	12,400	6,390	1,200	726	509	296
6	1,380	5,310	3,920	4,170	3,090	4,140	7,240	4,840	1,010	646	505	289
7	1,230	4,100	5,840	4,380	2,940	3,860	4,660	3,460	834	629	517	283
8	1,140	3,410	8,880	8,120	2,940	5,840	3,520	2,970	788	3,040	490	298
9	1,120	3,050	9,400	5,050	2,670	8,070	2,820	2,660	702	4,580	480	295
10	1,140	2,260	14,300	3,650	2,560	7,820	2,450	2,310	657	2,230	723	292
11	1,090	1,810	14,200	4,010	2,720	6,140	2,180	1,900	774	1,260	686	272
12	1,020	1,890	12,400	9,400	2,560	5,410	1,960	1,670	963	921	543	266
13	996	2,240	9,190	7,290	2,440	5,050	2,010	1,530	779	873	426	265
14	1,260	2,510	6,660	5,850	2,790	4,900	2,540	1,860	730	752	455	261
15	1,570	2,420	4,830	8,220	3,910	4,940	3,500	4,100	679	633	392	260
16	1,380	2,430	3,900	7,000	4,590	4,360	2,960	3,910	677	672	426	323
17	1,330	2,410	3,430	5,540	5,030	4,160	2,440	2,640	645	904	491	413
18	1,160	2,200	2,920	4,610	4,730	3,820	2,130	1,720	599	808	483	390
19	2,390	2,230	2,570	3,600	3,810	3,480	2,290	1,400	542	769	790	350
20	3,040	2,530	2,490	3,070	3,340	3,360	2,470	1,930	491	1,140	660	342
21	3,890	2,340	2,300	2,880	3,740	3,220	2,370	2,040	504	1,840	699	334
22	2,520	2,360	2,160	2,570	5,230	2,990	2,220	1,790	476	1,600	541	328
23	1,790	2,280	2,190	2,650	5,640	2,930	2,370	1,500	448	995	459	322
24	1,850	2,020	2,570	2,550	4,930	3,150	2,490	1,440	434	834	509	319
25	1,820	2,470	2,590	2,830	4,210	3,090	2,620	1,410	418	743	497	316
26	1,730	2,990	2,340	2,990	3,670	3,080	3,150	1,300	393	567	507	330
27	1,830	3,760	2,400	3,060	3,130	3,030	3,050	1,050	383	501	559	333
28	8,940	3,660	2,620	2,920	3,810	3,770	2,790	958	384	642	539	332
29	7,520	3,200	2,230	2,880	---	8,250	3,160	913	413	713	489	348
30	3,880	2,820	1,910	4,980	---	8,990	19,000	885	491	855	563	347
31	2,870	---	1,770	6,580	---	7,600	---	894	---	1,090	415	---
TOTAL	66,926	83,100	180,310	131,040	112,660	158,600	143,510	105,920	20,083	33,793	17,832	9,577
MEAN	2,159	2,770	5,816	4,227	4,024	5,116	4,784	3,417	669	1,090	575	319
MAX	8,940	5,690	16,300	9,400	8,420	8,990	19,000	15,800	1,200	4,580	1,120	413
MIN	996	1,600	1,770	1,600	2,440	2,930	1,960	885	383	501	392	260

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2005, BY WATER YEAR (WY)

MEAN	1,096	1,821	2,732	3,852	4,892	5,038	4,190	3,380	1,898	1,013	825	746
MAX	6,560	4,908	8,870	12,030	12,290	13,160	10,040	9,664	5,753	2,678	2,244	3,105
(WY)	(1990)	(1978)	(1973)	(1974)	(2003)	(1975)	(1987)	(1984)	(2004)	(2000)	(2001)	(2004)
MIN	181	447	570	435	1,336	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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1969 - 2005	
ANNUAL TOTAL	1,371,046		1,063,351		2,611	
ANNUAL MEAN	3,746		2,913		4,234	
HIGHEST ANNUAL MEAN					830	1975
LOWEST ANNUAL MEAN					42,000	1988
HIGHEST DAILY MEAN	31,900	May 31	19,000	Apr 30	42,000	Apr 6, 1977
LOWEST DAILY MEAN	428	Aug 28	260	Sep 15	98	Oct 1, 1968
ANNUAL SEVEN-DAY MINIMUM	493	Aug 22	273	Sep 9	122	Aug 27, 1969
MAXIMUM PEAK FLOW			21,000	Apr 30	69,700	Jan 31, 1957
MAXIMUM PEAK STAGE			23.90	Apr 30	45.92	Jan 31, 1957
INSTANTANEOUS LOW FLOW			256	Sep 15	98	Oct 1, 1968
10 PERCENT EXCEEDS	9,140		6,750		6,200	
50 PERCENT EXCEEDS	2,340		2,240		1,280	
90 PERCENT EXCEEDS	859		417		372	



## LITTLE SANDY RIVER BASIN

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<sup>2</sup>.

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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	320	358	3,170	317	1,190	1,690	734	3,240	73	52	35	121
2	314	438	2,770	316	852	1,520	3,000	2,550	73	50	34	79
3	287	430	2,650	362	616	1,150	2,710	2,010	76	48	34	66
4	222	2,950	1,600	524	612	903	2,020	1,020	86	46	34	58
5	228	3,630	890	1,790	506	751	1,430	467	81	45	63	57
6	162	3,040	864	2,160	473	750	1,060	353	72	43	50	54
7	93	2,860	1,750	2,090	415	740	736	333	66	42	43	53
8	96	2,510	2,220	4,110	380	2,880	1,040	310	63	44	40	50
9	133	1,980	1,700	2,450	437	2,510	939	253	78	44	38	49
10	133	489	1,790	963	506	2,210	741	150	81	41	37	47
11	133	218	1,600	1,140	482	1,640	582	150	158	40	42	46
12	131	1,320	1,390	3,150	421	1,150	439	142	116	39	47	45
13	156	1,460	1,120	3,030	413	1,090	380	112	98	39	41	44
14	158	981	797	2,270	669	1,050	379	123	133	41	38	41
15	159	878	606	1,380	1,370	868	344	207	140	41	38	40
16	160	808	491	1,050	1,140	703	314	262	138	41	38	39
17	159	662	406	1,050	876	638	180	206	116	41	38	40
18	165	635	343	961	618	561	185	123	59	41	38	42
19	1,860	853	328	861	494	466	220	103	56	41	38	43
20	2,990	1,630	309	642	521	457	154	1,200	54	41	43	41
21	2,510	1,370	216	578	569	439	167	1,230	52	45	54	39
22	2,540	980	304	471	1,350	417	301	515	50	51	50	39
23	2,180	674	582	413	1,330	413	281	315	48	49	45	40
24	1,630	687	657	382	1,190	674	409	239	46	44	42	40
25	919	809	461	383	864	787	397	166	46	41	40	42
26	437	693	416	400	633	593	316	118	44	39	42	43
27	497	649	465	430	520	569	564	106	43	38	44	42
28	475	760	593	377	770	1,260	533	111	42	37	68	42
29	449	788	428	384	---	2,960	484	112	71	37	284	41
30	349	849	326	906	---	2,030	2,320	80	55	36	732	42
31	337	---	317	1,480	---	1,380	---	76	---	36	672	---
TOTAL	20,382	36,389	31,559	36,820	20,217	35,249	23,359	16,382	2,314	1,313	2,882	1,465
MEAN	657	1,213	1,018	1,188	722	1,137	779	528	77.1	42.4	93.0	48.8
MAX	2,990	3,630	3,170	4,110	1,370	2,960	3,000	3,240	158	52	732	121
MIN	93	218	216	316	380	413	154	76	42	36	34	39

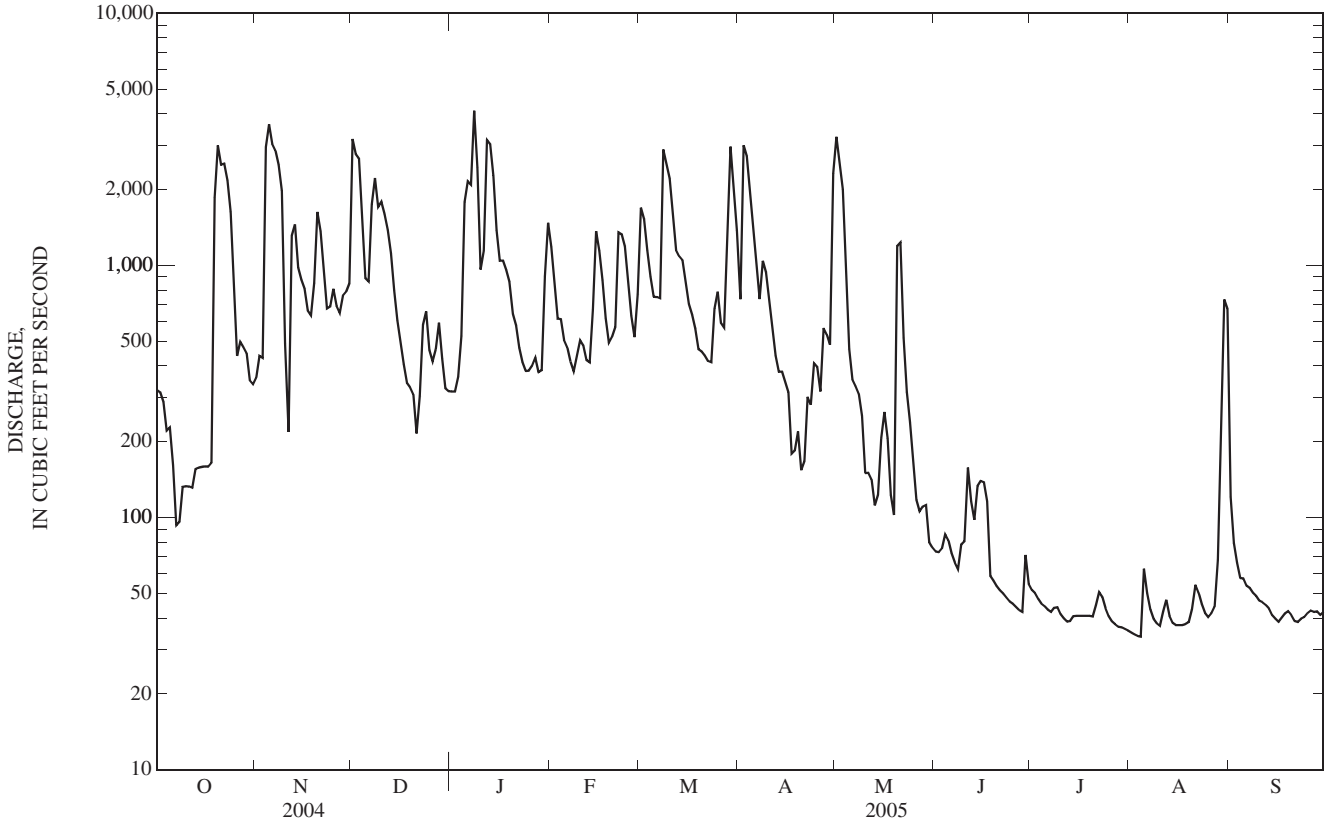
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2005, BY WATER YEAR (WY)

MEAN	176	384	610	726	936	1,012	684	665	326	173	114	154
MAX	733	1,415	2,630	1,954	2,886	3,226	2,291	2,116	1,410	841	399	1,776
(WY)	(1990)	(2004)	(1979)	(1974)	(1989)	(1997)	(1972)	(1996)	(2003)	(1971)	(2003)	(2004)
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1969 - 2005	
ANNUAL TOTAL	313,597		228,331			
ANNUAL MEAN	857		626		494	
HIGHEST ANNUAL MEAN					838	1979
LOWEST ANNUAL MEAN					116	1969
HIGHEST DAILY MEAN	8,460	Sep 18	4,110	Jan 8	14,600	Mar 2, 1997
LOWEST DAILY MEAN	52	Jul 22	34	Aug 2	5.8	Oct 1, 1968
ANNUAL SEVEN-DAY MINIMUM	56	Jul 16	35	Jul 29	18	Nov 1, 1968
MAXIMUM PEAK FLOW			5,000	Jan 8	24,500	Sep 22, 1950
MAXIMUM PEAK STAGE			18.78	Jan 8	30.57	Mar 2, 1997
INSTANTANEOUS LOW FLOW					1.5	Oct 12, 1953
10 PERCENT EXCEEDS	2,510		1,770		1,420	
50 PERCENT EXCEEDS	434		353		167	
90 PERCENT EXCEEDS	64		41		39	



## 03216600 OHIO RIVER AT GREENUP DAM

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<sup>2</sup>, approximately.

## WATER DISCHARGE RECORDS

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

GAGE.--Records of Greenup Dam gate operations and hydropower releases furnished by the U.S. Army Corps of Engineers are used to determine daily discharge. Water-stage recorder with telemetry 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<sup>3</sup>/s and those estimated, which are poor. Flow regulated by Ohio River system of locks, dams, and reservoirs upstream from station.

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

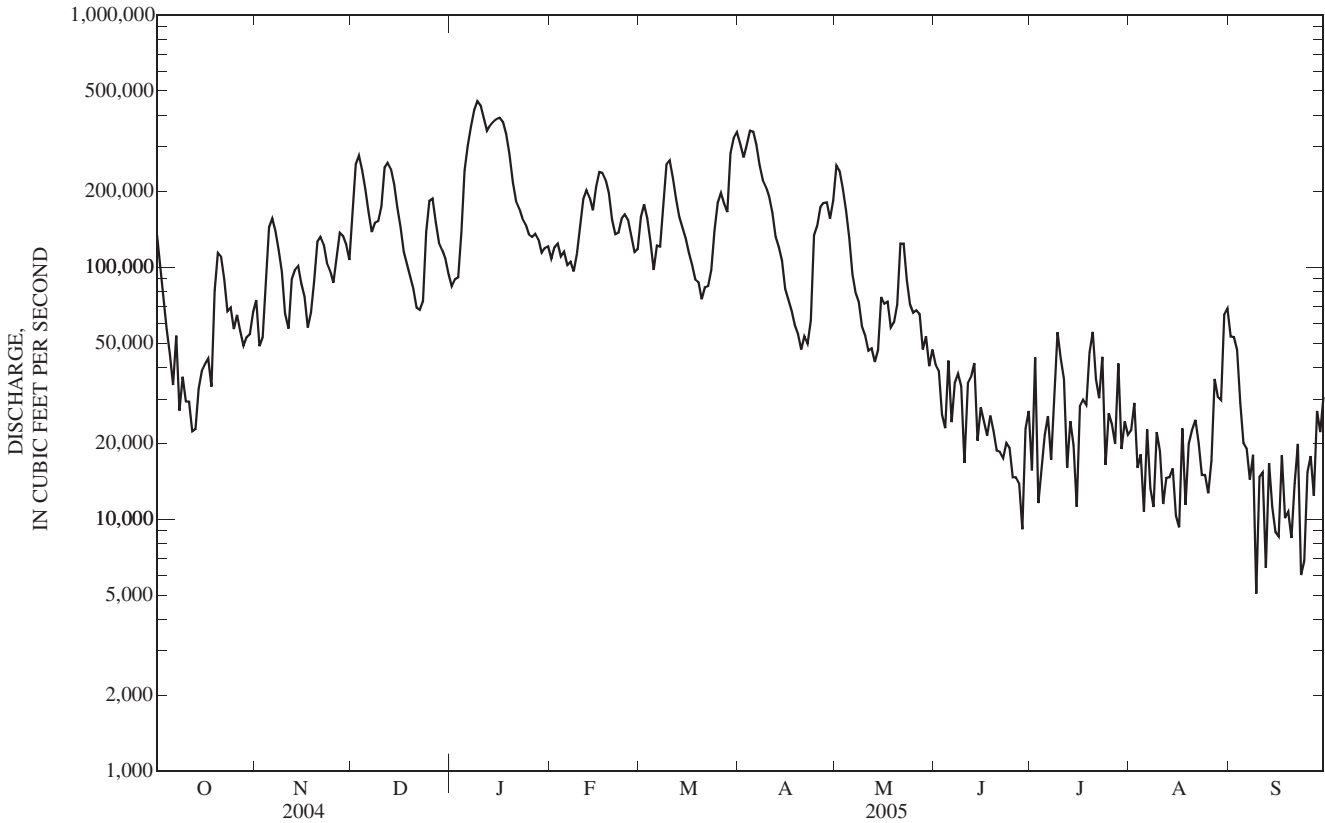
DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	134,000	73,900	158,000	83,900	108,000	158,000	306,000	253,000	41,100	15,600	22,500	53,200
2	102,000	48,500	256,000	89,400	120,000	177,000	272,000	241,000	38,900	43,800	28,900	52,800
3	75,000	52,700	277,000	90,900	124,000	156,000	306,000	205,000	26,000	11,600	16,000	47,000
4	56,800	93,000	242,000	137,000	110,000	126,000	348,000	168,000	23,000	16,100	18,100	29,000
5	45,200	144,000	203,000	242,000	115,000	97,700	345,000	131,000	42,600	21,600	10,700	20,100
6	34,100	156,000	165,000	304,000	102,000	122,000	305,000	94,100	24,300	25,700	22,700	19,100
7	53,500	139,000	138,000	362,000	105,000	121,000	254,000	79,100	34,800	17,200	13,300	14,400
8	27,000	117,000	150,000	420,000	96,200	181,000	222,000	72,600	37,800	29,300	11,200	18,000
9	36,800	95,900	152,000	456,000	113,000	256,000	208,000	58,000	33,700	55,200	22,200	5,070
10	29,400	65,500	174,000	438,000	146,000	265,000	190,000	53,500	16,700	43,500	18,600	14,700
11	29,300	57,000	248,000	389,000	186,000	226,000	164,000	46,600	34,700	36,000	11,500	15,300
12	22,300	89,800	259,000	347,000	202,000	186,000	132,000	47,600	36,800	16,000	14,600	6,400
13	22,800	97,500	245,000	365,000	189,000	158,000	120,000	42,100	41,600	24,500	14,700	16,700
14	33,000	101,000	213,000	378,000	168,000	143,000	106,000	46,900	20,500	19,700	15,900	11,200
15	38,800	85,800	172,000	387,000	208,000	130,000	81,800	76,100	27,800	11,200	10,300	8,900
16	41,200	76,200	144,000	391,000	239,000	114,000	74,400	71,600	24,400	28,100	9,270	8,550
17	43,300	57,700	115,000	377,000	237,000	102,000	67,200	72,900	21,500	29,800	22,900	17,900
18	33,600	66,200	103,000	337,000	222,000	89,500	58,800	57,500	25,800	28,400	11,400	10,100
19	80,800	88,300	91,900	282,000	196,000	87,300	54,300	60,500	22,400	45,900	19,900	10,700
20	114,000	126,000	81,800	217,000	154,000	74,600	47,200	71,200	18,700	55,300	22,500	8,430
21	110,000	132,000	69,200	183,000	135,000	83,200	53,300	124,000	18,500	36,000	24,800	13,900
22	89,300	123,000	67,700	171,000	137,000	84,200	49,800	124,000	17,500	30,200	20,100	19,900
23	66,700	104,000	73,400	156,000	156,000	97,700	61,600	88,800	20,100	44,100	15,000	6,000
24	69,100	96,900	138,000	148,000	162,000	140,000	134,000	71,100	19,200	16,400	15,000	6,820
25	56,800	86,800	183,000	135,000	154,000	180,000	146,000	66,000	14,700	26,300	12,700	15,400
26	64,600	109,000	187,000	132,000	133,000	197,000	173,000	67,300	14,700	23,800	17,100	17,800
27	55,700	137,000	151,000	136,000	115,000	179,000	180,000	65,300	13,900	19,900	36,000	12,400
28	48,800	133,000	125,000	129,000	118,000	165,000	181,000	47,200	9,110	41,400	30,600	26,900
29	52,800	123,000	117,000	114,000	---	284,000	156,000	53,100	22,900	19,000	29,700	22,200
30	54,300	107,000	108,000	119,000	---	325,000	184,000	40,500	26,900	24,400	64,800	30,600
31	66,100	---	93,600	121,000	---	343,000	---	47,200	---	21,600	68,500	---
TOTAL	1,787,100	2,982,700	4,900,600	7,637,200	4,250,200	5,048,200	4,980,400	2,742,800	770,610	877,600	671,470	559,470
MEAN	57,650	99,420	158,100	246,400	151,800	162,800	166,000	88,480	25,690	28,310	21,660	18,650
MAX	134,000	156,000	277,000	456,000	239,000	343,000	348,000	253,000	42,600	55,300	68,500	53,200
MIN	22,300	48,500	67,700	83,900	96,200	74,600	47,200	40,500	9,110	11,200	9,270	5,070

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2005, BY WATER YEAR (WY)

MEAN	38,680	70,740	109,500	119,700	143,400	161,700	143,500	107,700	69,020	45,180	37,190	37,400
MAX	111,300	208,600	252,700	246,400	259,100	268,600	258,400	276,700	174,000	100,700	113,600	184,300
(WY)	(1980)	(1986)	(1973)	(2005)	(1994)	(1994)	(1994)	(1996)	(1981)	(1972)	(1980)	(2004)
MIN	11,310	14,720	24,080	27,170	66,240	53,550	52,660	36,610	13,440	13,040	11,270	9,706
(WY)	(1992)	(1999)	(1999)	(1977)	(1978)	(1969)	(1986)	(1976)	(1988)	(1999)	(1988)	(1999)

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1969 - 2005	
ANNUAL TOTAL	47,540,100		37,208,350		90,010	
ANNUAL MEAN	129,900		101,900		136,300	
HIGHEST ANNUAL MEAN					49,760	2004
LOWEST ANNUAL MEAN					540,000	1988
HIGHEST DAILY MEAN	448,000	Apr 16	456,000	Jan 9	540,000	Jan 12, 1974
LOWEST DAILY MEAN	18,300	Aug 19	5,070	Sep 9	3,920	Jun 11, 1999
ANNUAL SEVEN-DAY MINIMUM	26,800	Aug 13	10,800	Sep 14	7,740	Sep 22, 1999
MAXIMUM PEAK FLOW			465,000		520,000	Mar 4, 1997
MAXIMUM PEAK STAGE			56.64		56.64	Jan 10, 2005
10 PERCENT EXCEEDS	263,000		238,000		202,000	
50 PERCENT EXCEEDS	104,000		73,900		63,300	
90 PERCENT EXCEEDS	38,200		16,000		17,100	



## 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 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)
NOV												
15...	1430	Environmental	94,400	0.077	0.057	759	10.8	7.2	321	11.5	110	29.9
DEC												
15...	1030	Environmental	166,000	.055	.041	749	9.4	7.6	251	7.0	94	24.7
15...	1038	Field Blank	--	--	--	--	--	--	--	--	--	E0.02
JAN												
11...	1600	Environmental	372,000	.078	.058	743	12.6	7.1	219	6.5	83	22.8
26...	1730	Environmental	132,000	.054	.039	745	14.6	7.8	298	1.5	110	29.0
MAR												
10...	1150	Environmental	258,000	.043	.032	741	14.4	7.0	322	5.0	110	28.4
10...	1158	Field Blank	--	--	--	--	--	--	--	--	--	--
31...	1230	Environmental	112,000	.056	.042	744	12.0	7.6	267	9.0	94	25.2
APR												
21...	1415	Environmental	83,900	.045	.034	--	--	7.7	313	16.0	110	29.6
MAY												
11...	1600	Environmental	52,200	.049	.037	745	12.9	7.6	340	15.5	120	30.1
11...	1608	Field Blank	--	.004	.005	--	--	--	--	--	--	--
24...	1500	Environmental	76,100	.067	.051	746	9.9	7.4	367	18.0	130	33.5
24...	1510	Replicate	--	.066	.050	--	--	--	--	--	130	33.2
JUN												
08...	1530	Environmental	38,500	.057	.042	748	10.4	7.9	400	23.0	140	34.1
22...	1410	Environmental	18,300	.046	.034	745	7.9	7.7	439	26.0	150	39.1
22...	1418	Field Blank	--	--	--	--	--	--	--	--	--	--
JUL												
14...	1420	Environmental	13,500	.053	.039	745	7.2	7.5	436	28.0	150	38.1
AUG												
05...	1000	Environmental	14,300	.061	.043	747	--	7.8	472	31.0	160	41.0
05...	1010	Replicate	--	.063	.045	--	--	--	--	--	160	39.6
SEP												
20...	1630	Environmental	7,840	.073	.052	755	7.3	7.6	510	26.0	160	42.7

## 03216600 OHIO RIVER AT GREENUP DAM, KY—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)
NOV 15...	9.12	2.58	15.8	58	71	16.2	0.1	6.05	65.7	199	0.19	.36	<0.04
DEC 15...	7.73	1.90	10.4	46	56	10.5	E.1	7.03	48.8	145	.14	.36	<.04
15...	<0.008	<0.010	<0.20	--	--	0.12	<.01	0.06	<0.01	--	--	--	<.010
JAN 11...	6.20	2.15	9.39	36	44	10.2	.1	6.86	42.5	135	.19	.56	<.04
26...	8.63	2.23	13.3	45	55	17.4	E.1	6.69	58.4	173	.24	.34	.05
MAR 10...	8.69	1.75	19.2	42	52	25.9	E.1	6.63	57.1	186	.18	.41	.04
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	7.54	1.65	14.0	38	47	17.5	.1	5.68	51.7	158	.15	.65	E.03
APR 21...	9.76	1.92	16.0	55	66	17.5	.1	5.21	62.1	191	.11	.25	<.04
MAY 11...	10.5	1.95	16.6	56	69	18.2	.1	5.06	68.8	205	E.10	.23	<.04
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	12.0	2.15	20.2	58	70	21.8	.1	3.30	73.7	214	.24	.41	<.04
24...	11.5	2.19	19.6	59	72	21.9	.1	3.29	73.8	213	.18	.40	E.02
JUN 08...	12.6	2.23	22.7	62	75	24.5	.1	.48	83.8	236	.20	.32	<.04
22...	13.8	2.44	26.5	65	80	26.0	.2	.74	93.0	256	.20	.42	<.04
22...	--	--	--	--	--	--	--	--	--	--	--	--	<.010
JUL 14...	13.7	2.55	27.1	65	80	29.3	.2	2.48	84.9	249	.30	.29	.04
AUG 05...	14.6	3.15	31.9	59	72	36.8	.2	.13	95.3	268	.30	.29	E.02
05...	14.1	3.13	31.1	58	71	36.8	.2	.13	95.4	263	.22	.27	E.02
SEP 20...	13.0	3.23	38.0	59	72	38.5	.2	1.86	110	312	.30	.33	<.04

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd total, mg/L (00688)	Organic carbon, suspnd total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)	Arsenic water, fltrd, ug/L (01000)
NOV 15...	.64	E0.005	0.15	0.009	0.017	0.08	1.3	<0.1	1.3	2.6	E1.9	E2.9	0.3
DEC 15...	.68	E.006	.19	.007	.013	.09	2.4	<.1	2.4	2.1	3.1	1.9	.3
15...	<.016	<.002	--	<.006	--	--	--	--	--	--	--	--	<.2
JAN 11...	.80	E.006	.27	E.004	.009	.09	3.0	<.1	3.0	2.7	2.4	1.0	.4
26...	.93	.011	.18	E.005	.011	.07	1.6	<.1	1.5	2.1	E1.0	E0.8	.2
MAR 10...	.81	.008	.16	E.004	.008	.10	2.2	.1	2.1	1.6	1.6	2.4	E.1
10...	--	--	--	--	--	--	--	--	--	--	<0.3	<.3	--
31...	.70	.008	.42	E.004	.009	.18	6.1	.2	5.9	1.8	3.4	2.1	.4
APR 21...	.72	E.005	.11	<.006	.006	E.03	.7	<.1	.7	1.7	3.0	7.7	.3
MAY 11...	.72	E.004	.14	<.006	.006	.03	.8	<.1	.8	1.6	4.5	5.7	.3
11...	--	--	.03	--	--	--	.1	<.1	.1	E.3	--	--	--
24...	.66	.008	.22	<.006	.008	E.06	1.5	<.1	1.4	2.5	9.3	10.4	.4
24...	.65	.008	.19	E.003	.010	.06	1.2	<.1	1.2	2.3	8.2	8.0	.4
JUN 08...	.56	.011	.15	<.006	.006	.03	1.3	<.1	1.3	2.2	5.3	6.6	.3
22...	.57	.013	.21	<.006	.007	.03	1.2	<.1	1.2	2.0	4.4	9.8	.6
22...	E.012	<.002	--	<.006	--	--	--	--	--	--	--	--	--
JUL 14...	.66	.018	.11	E.003	.012	.03	.6	<.1	.6	10.8	2.8	5.1	.6
AUG 05...	.54	.014	.08	<.006	.005	.01	.7	<.1	.7	3.9	3.3	5.8	.7
05...	.53	.013	.09	<.006	.007	.01	.7	<.1	.7	2.2	5.2	10.1	.6
SEP 20...	.87	.053	.11	<.006	.011	.03	.8	<.1	.8	4.8	3.5	11.0	.63

## 03216600 OHIO RIVER AT GREENUP DAM, KY—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Boron, water, fltrd, ug/L (01020)	Iron, water, fltrd, ug/L (01046)	Lithium water, fltrd, ug/L (01130)	Selen- ium, water, fltrd, ug/L (01145)	Stront- ium, water, fltrd, ug/L (01080)	Vanad- ium, water, fltrd, ug/L (01085)	2,6-Di- ethyl- aniline water fltrd 0.7u GF (82660)	CIAT, water, fltrd, ug/L (04040)	Aceto- chlor, water, fltrd, ug/L (49260)	Ala- chlor, water, fltrd, ug/L (46342)	alpha- HCH, water, fltrd, ug/L (34253)	Atra- zine, water, fltrd, ug/L (39632)	Azin- phos- methyl, water, fltrd 0.7u GF (82686)
NOV 15...	35	14	5.0	E0.3	190	0.2	<0.006	E0.004	<0.006	<0.005	<0.005	0.027	<0.050
DEC 15...	27	25	3.7	E.3	153	.1	<.006	<.006	<.006	<.005	<.005	.022	<.050
15...	<8	<6	<0.6	<.4	<0.40	<.1	--	--	--	--	--	--	--
JAN 11...	25	26	3.0	E.3	113	.2	<.006	<.006	<.006	<.005	<.005	.013	<.050
26...	28	17	4.8	<.4	147	.2	<.006	E.006	<.006	<.005	<.005	.019	<.050
MAR 10...	37	13	4.5	<.4	169	.2	<.006	E.004	<.006	<.005	<.005	.008	<.050
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	28	20	5.0	<.4	162	.5	<.006	<.006	<.006	<.005	<.005	E.006	<.050
APR 21...	23	10	5.6	.5	198	.4	<.006	<.006	<.007	<.005	<.005	.009	<.050
MAY 11...	32	10	6.8	.5	205	.3	<.006	E.007	.039	<.005	<.005	.189	<.050
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	57	7	5.9	.8	213	.4	<.006	E.027	.099	<.005	<.005	.409	<.050
24...	57	6	5.9	.9	212	.4	<.006	E.025	.092	<.005	<.005	.386	<.050
JUN 08...	42	7	8.4	E.2	241	.3	<.006	E.018	E.022	<.005	<.005	E.232	<.050
22...	47	E3	10.7	.5	259	.6	<.006	E.020	.014	<.005	<.005	.169	<.050
22...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	45	E5	9.6	.7	264	.6	<.006	E.011	<.010	<.005	<.005	.104	<.050
AUG 05...	65	<6	7.5	E.3	274	.4	<.006	E.013	<.006	<.005	<.005	.115	<.050
05...	67	E3	7.7	E.4	274	.4	<.006	E.013	<.006	<.005	<.005	.116	<.050
SEP 20...	58	E5	8.1	.50	310	.35	<.006	E.008	<.006	<.005	<.005	.048	<.050

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Ben- flur- alin, water, fltrd 0.7u GF (82673)	Butyl- ate, water, fltrd, ug/L (04028)	Car- baryl, water, fltrd 0.7u GF (82680)	Carbo- furan, water, fltrd 0.7u GF (82674)	Chlor- pyrifos water, fltrd, ug/L (38933)	cis- Per- methrin water fltrd 0.7u GF (82687)	Cyana- zine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF (82682)	Diazi- non, water, fltrd, ug/L (39572)	Diel- drin, water, fltrd, ug/L (39381)	Disul- foton, water, fltrd 0.7u GF (82677)	EPTC, water, fltrd 0.7u GF (82668)	Ethal- flur- alin, water, fltrd 0.7u GF (82663)
NOV 15...	<0.010	<0.004	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<0.02	<0.004	<0.009
DEC 15...	<0.010	<0.004	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.021	<0.009
15...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 11...	<0.010	<0.004	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009
26...	<0.010	<0.004	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009
MAR 10...	<0.010	<0.004	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	<0.010	<0.004	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009
APR 21...	<0.010	<0.004	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009
MAY 11...	<0.010	<0.004	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	<0.010	<0.004	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009
24...	<0.010	<0.004	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009
JUN 08...	<0.010	<0.004	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009
22...	<0.010	<0.004	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009
22...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	<0.010	<0.004	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009
AUG 05...	<0.010	<0.004	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009
05...	<0.010	<0.004	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009
SEP 20...	<0.010	<0.004	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009

## 03216600 OHIO RIVER AT GREENUP DAM, KY—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Etho- prop, water, fltrd 0.7u GF ug/L (82672)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl para- thion, water, fltrd 0.7u GF ug/L (82667)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)	Moli- nate, water, fltrd 0.7u GF ug/L (82671)	Naprop- amide, water, fltrd 0.7u GF ug/L (82684)	p,p'- DDE, water, fltrd, ug/L (34653)	Para- thion, water, fltrd, ug/L (39542)	Peb- ulate, water, fltrd 0.7u GF ug/L (82669)
NOV 15...	<0.005	<0.003	<0.004	<0.035	<0.027	<0.015	0.008	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004
DEC 15...	<0.005	<0.003	<0.004	<0.035	<0.027	<0.015	<0.006	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004
15...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 11...	<0.005	<0.003	<0.004	<0.035	<0.027	<0.015	.007	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004
26...	<0.005	<0.003	<0.004	<0.035	<0.027	<0.015	.010	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004
MAR 10...	<0.005	<0.003	<0.004	<0.035	<0.027	<0.015	<0.006	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	<0.005	<0.003	<0.004	<0.035	<0.027	<0.015	<0.006	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004
APR 21...	<0.005	<0.003	<0.004	<0.035	<0.027	<0.015	<0.006	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004
MAY 11...	<0.005	<0.003	<0.004	<0.035	<0.027	<0.015	.042	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	<0.005	<0.003	<0.004	<0.035	<0.027	<0.015	.094	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004
24...	<0.005	<0.003	<0.004	<0.035	<0.027	<0.015	.087	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004
JUN 08...	<0.005	<0.003	<0.004	<0.035	<0.027	<0.015	E.060	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004
22...	<0.005	<0.003	<0.004	<0.035	<0.027	<0.015	.033	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004
22...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	<0.005	<0.003	<0.004	<0.035	<0.027	<0.015	.021	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004
AUG 05...	<0.005	<0.003	<0.004	<0.035	<0.027	<0.015	.030	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004
05...	<0.005	<0.003	<0.004	<0.035	<0.027	<0.015	.025	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004
SEP 20...	<0.005	<0.003	<0.004	<0.035	<0.027	<0.015	.009	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Pendi- meth- alin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prome- ton, water, fltrd, ug/L (04037)	Propy- zamide, water, fltrd 0.7u GF ug/L (82676)	Propa- chlor, water, fltrd, ug/L (04024)	Pro- panil, water, fltrd 0.7u GF ug/L (82679)	Propar- gite, water, fltrd 0.7u GF ug/L (82685)	Simaz- ine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd 0.7u GF ug/L (82665)	Terbu- fos, water, fltrd 0.7u GF ug/L (82675)	Thio- bencarb water fltrd 0.7u GF ug/L (82681)	Tri- allate, water, fltrd 0.7u GF ug/L (82678)
NOV 15...	<0.022	<0.011	<0.01	<0.004	<0.025	<0.011	<0.02	<0.005	<0.02	<0.034	<0.02	<0.010	<0.006
DEC 15...	<0.022	<0.011	<.01	<0.004	<0.025	<0.011	<.02	<0.005	<.02	<0.034	<.02	<0.010	<0.006
15...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 11...	<0.022	<0.011	<.01	<0.004	<0.025	<0.011	<.02	<0.005	<.02	<0.034	<.02	<0.010	<0.006
26...	<0.022	<0.011	<.01	<0.004	<0.025	<0.011	<.02	.031	<.02	<0.034	<.02	<0.010	<0.006
MAR 10...	<0.022	<0.011	<.01	<0.004	<0.025	<0.011	<.02	<0.005	<.02	<0.034	<.02	<0.010	<0.006
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
31...	<0.022	<0.011	<.01	<0.004	<0.025	<0.011	<.02	<0.005	<.02	<0.034	<.02	<0.010	<0.006
APR 21...	<0.022	<0.011	<.01	<0.004	<0.025	<0.011	<.02	<0.005	<.02	<0.034	<.02	<0.010	<0.006
MAY 11...	<0.022	<0.011	<.01	<0.004	<0.025	<0.011	<.02	<0.024	<.02	<0.034	<.02	<0.010	<0.006
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	<0.022	<0.011	.01	<0.004	<0.025	<0.011	<.02	.067	.02	<0.034	<.02	<0.010	<0.006
24...	<0.022	<0.011	.01	<0.004	<0.025	<0.011	<.02	.063	.02	<0.034	<.02	<0.010	<0.006
JUN 08...	<.022	<.011	E.01	<.004	<.025	<.011	<.02	E.032	<.02	<.034	<.02	<.010	<.006
22...	<.022	<.011	.01	<.004	<.025	<.011	<.02	.038	<.02	<.034	<.02	<.010	<.006
22...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 14...	<.022	<.011	E.01	<.004	<.025	<.011	<.02	.017	<.02	<.034	<.02	<.010	<.006
AUG 05...	<.022	<.011	.02	<.004	<.025	<.011	<.02	.014	<.02	<.034	<.02	<.010	<.006
05...	<.022	<.011	.02	<.004	<.025	<.011	<.02	.015	<.02	<.034	<.02	<.010	<.006
SEP 20...	<.022	<.011	.02	<.004	<.025	<.011	<.02	<.011	<.02	<.034	<.02	<.010	<.006

## OHIO RIVER MAIN STEM

03216600 OHIO RIVER AT GREENUP DAM, KY—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concentra- tion mg/L (80154)
NOV			
15...	<0.009	97	38
DEC			
15...	<.009	91	62
15...	--	--	--
JAN			
11...	<.009	84	138
26...	<.009	91	39
MAR			
10...	<.009	72	125
10...	--	--	--
31...	<.009	79	261
APR			
21...	<.009	--	--
MAY			
11...	<.009	98	10
11...	--	--	--
24...	<.009	99	28
24...	<.009	99	32
JUN			
08...	<.009	97	12
22...	<.009	99	10
22...	--	--	--
JUL			
14...	<.009	98	5
AUG			
05...	<.009	98	4
05...	<.009	100	8
SEP			
20...	<.009	99	14

E--Laboratory estimated value.

M--Presence of material verified but not quantified.

&lt;--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<sup>2</sup>.

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 with telemetry. Datum of gage is 547.14 ft above NGVD of 1929.

REMARKS.--Records fair except for daily discharges below 10 ft<sup>3</sup>/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<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan 9	0030	3,550	13.74	Apr 2	2300	*3,910	*14.58

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	97	2,640	e133	536	905	551	1,660	32	182	4.8	127
2	51	101	1,880	199	444	686	3,180	693	28	76	4.6	78
3	50	131	768	331	397	519	2,850	472	28	44	4.4	42
4	49	1,290	575	1,040	369	437	1,210	e340	166	23	4.2	24
5	47	1,840	445	2,670	324	730	718	e261	101	16	4.1	15
6	43	634	455	2,290	285	811	539	e208	63	14	4.2	11
7	36	439	1,100	1,620	259	595	435	e188	46	12	4.5	9.0
8	31	319	1,600	2,760	258	2,210	689	e170	32	10	4.3	7.7
9	29	240	734	2,220	280	1,470	633	e153	26	9.2	3.9	7.0
10	29	192	959	883	314	728	467	e132	22	8.2	6.1	6.3
11	25	168	1,040	620	338	572	387	e120	19	7.4	6.6	5.8
12	23	2,330	748	506	307	499	334	107	90	6.7	6.2	5.3
13	24	1,890	612	427	282	502	300	e93	110	6.3	6.7	4.7
14	27	680	463	1,030	440	514	263	87	64	6.4	6.7	4.6
15	30	490	360	878	1,030	537	228	109	60	6.5	7.2	4.2
16	33	388	301	580	664	491	197	100	80	7.6	6.1	4.0
17	42	320	265	e443	511	425	173	82	60	13	5.1	3.8
18	50	267	235	e375	403	374	159	68	35	13	4.8	3.8
19	1,070	446	210	e328	339	331	145	61	25	14	4.8	3.6
20	1,560	1,210	e218	e293	293	338	135	240	19	15	4.9	3.3
21	534	677	e196	e268	327	332	123	409	15	14	5.0	3.1
22	340	508	150	e246	433	290	151	211	13	11	5.0	3.1
23	239	410	523	e237	404	346	204	140	11	9.8	4.7	3.2
24	235	406	808	e230	354	447	264	109	10	9.0	4.4	3.4
25	236	976	e533	e227	325	388	371	87	9.5	8.2	9.5	3.2
26	197	847	e373	e303	290	360	292	75	8.8	7.4	e14	3.4
27	158	581	e274	e398	261	330	534	65	8.5	6.5	29	3.3
28	138	693	e201	e433	e323	1,020	509	54	7.9	6.0	18	3.2
29	123	691	e162	e488	---	3,110	349	46	7.7	5.5	38	3.5
30	110	573	e143	578	---	1,250	1,760	41	9.4	5.2	394	3.5
31	102	---	e134	652	---	711	---	36	---	4.9	226	---
TOTAL	5,716	19,834	19,105	23,686	10,790	22,258	18,150	6,617	1,206.8	577.8	851.8	403.0
MEAN	184	661	616	764	385	718	605	213	40.2	18.6	27.5	13.4
MAX	1,560	2,330	2,640	2,760	1,030	3,110	3,180	1,660	166	182	394	127
MIN	23	97	134	133	258	290	123	36	7.7	4.9	3.9	3.1
CFSM	0.76	2.73	2.55	3.16	1.59	2.97	2.50	0.88	0.17	0.08	0.11	0.06
IN.	0.88	3.05	2.94	3.64	1.66	3.42	2.79	1.02	0.19	0.09	0.13	0.06

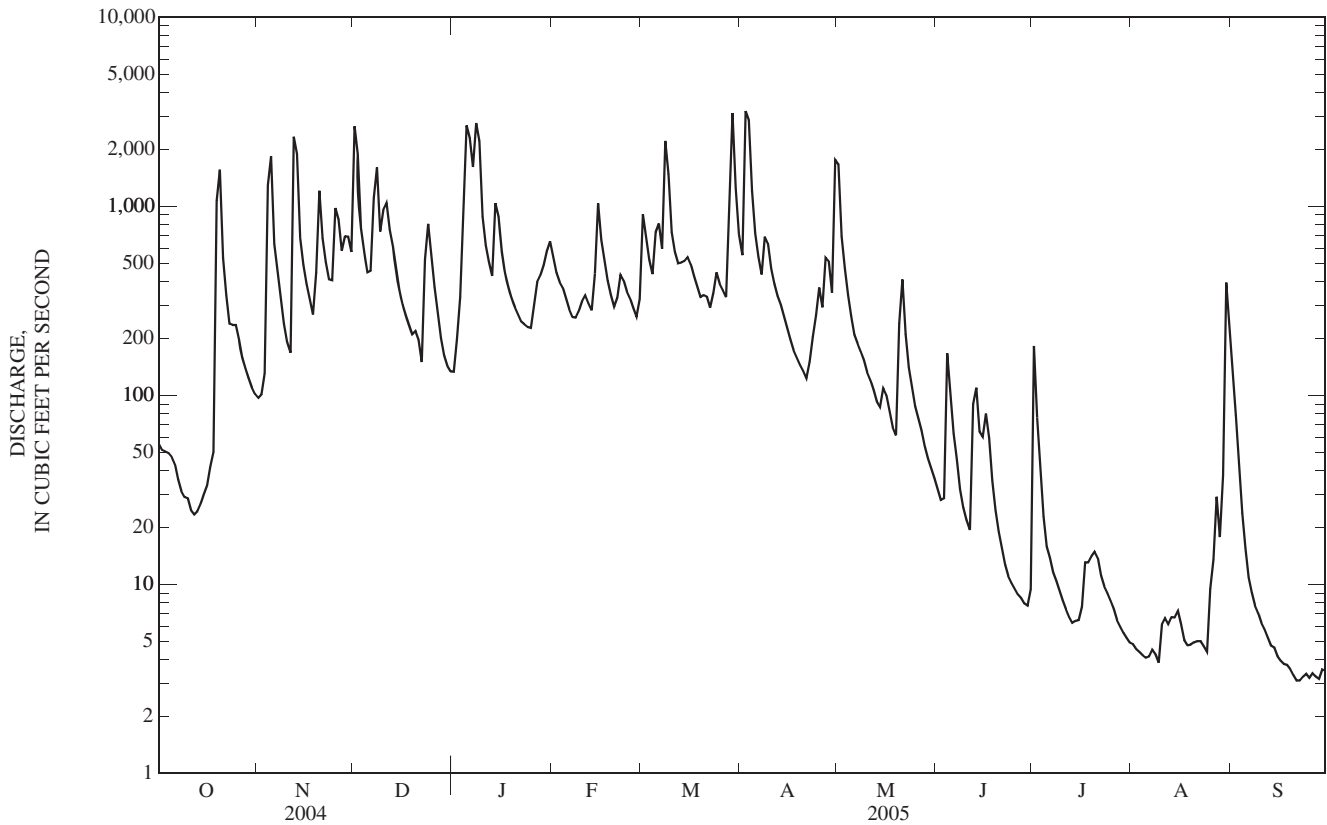
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2005, BY WATER YEAR (WY)

	57.4	167	376	475	606	689	508	400	184	112	81.7	78.3
MEAN	57.4	167	376	475	606	689	508	400	184	112	81.7	78.3
MAX	509	869	1,954	1,665	1,953	2,092	1,513	1,309	994	645	445	1,031
(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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1940 - 2005	
ANNUAL TOTAL	155,113		129,195.4		310	
ANNUAL MEAN	424		354		589	
HIGHEST ANNUAL MEAN					67.5	1979
LOWEST ANNUAL MEAN					0.00	1954
HIGHEST DAILY MEAN	10,700	Sep 18	3,180	Apr 2	25,800	Mar 2, 1997
LOWEST DAILY MEAN	11	Aug 20	3.1	Sep 21	0.00	Aug 24, 1952
ANNUAL SEVEN-DAY MINIMUM	19	Aug 14	3.2	Sep 20	0.00	Sep 17, 1955
MAXIMUM PEAK FLOW			3,910	Apr 2	34,400	Mar 2, 1997
MAXIMUM PEAK STAGE			14.58	Apr 2	23.65	Mar 2, 1997
INSTANTANEOUS LOW FLOW					0.00	Aug 24, 1952
ANNUAL RUNOFF (CFSM)	1.75		1.46		1.28	
ANNUAL RUNOFF (INCHES)	23.84		19.86		17.40	
10 PERCENT EXCEEDS	869		825		697	
50 PERCENT EXCEEDS	196		197		95	
90 PERCENT EXCEEDS	32		5.2		5.1	

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<sup>2</sup>.

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

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

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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	64	3,170	e106	469	698	679	1,360	e17	369	e2.3	e45
2	e19	73	1,290	168	e383	e567	4,400	688	e15	96	e2.0	e29
3	18	276	696	e544	350	e426	2,570	442	e15	e37	e1.7	18
4	17	1,760	459	2,620	321	e356	1,050	e314	18	20	e1.5	10
5	16	1,190	335	3,920	282	617	641	238	23	13	e1.1	6.8
6	14	546	e313	e3,010	251	787	460	194	19	9.6	0.96	5.0
7	13	350	937	1,620	230	586	368	160	14	e7.5	0.98	3.9
8	11	224	1,200	3,020	235	1,340	526	133	12	6.3	0.89	3.2
9	e10	141	735	1,390	258	943	522	109	19	e5.3	0.81	2.6
10	e9.2	103	1,180	765	315	613	413	91	30	4.5	0.78	2.1
11	8.8	112	1,080	517	350	458	337	76	38	3.9	0.82	1.8
12	9.5	4,040	792	405	327	374	288	64	78	3.2	e0.68	1.3
13	9.8	1,380	e589	336	294	343	255	54	41	2.8	e0.65	1.2
14	e9.5	619	406	1,000	520	324	222	49	27	3.1	e0.42	1.1
15	e9.6	400	300	767	1,120	360	177	56	27	3.3	e0.30	e0.95
16	12	293	235	531	707	352	149	64	21	4.5	0.32	e0.76
17	14	e225	198	e354	488	315	129	47	16	6.9	0.41	0.64
18	21	e180	165	e243	366	273	118	37	13	15	0.39	0.56
19	1,820	359	143	e196	290	239	109	39	e10	e35	0.37	0.47
20	997	1,070	105	e173	246	269	99	391	e8.5	19	e0.40	0.51
21	420	685	85	e158	261	264	91	281	7.2	13	e0.52	0.46
22	230	e465	94	e149	260	241	118	138	e6.3	22	0.40	0.41
23	144	359	363	e143	229	463	168	91	e5.3	e39	e0.35	0.35
24	149	349	695	e142	220	765	685	70	4.5	20	e0.29	0.29
25	176	966	e398	e138	212	534	808	54	4.1	e12	0.25	0.28
26	133	784	e258	e203	188	434	535	43	3.4	e8.5	1.5	0.32
27	100	536	e176	e295	176	360	1,300	33	3.3	e6.5	3.6	0.32
28	86	652	e138	e233	232	1,640	756	29	2.8	e4.8	3.3	0.30
29	72	622	e115	e241	---	3,290	509	e25	2.5	e3.8	12	0.43
30	66	558	e102	490	---	1,010	2,000	e21	4.7	e3.1	36	e0.39
31	63	---	e100	571	---	e603	---	e19	---	e2.5	63	---
TOTAL	4,697.4	19,381	16,852	24,448	9,580	19,844	20,482	5,410	505.6	800.1	138.99	138.44
MEAN	152	646	544	789	342	640	683	175	16.9	25.8	4.48	4.61
MAX	1,820	4,040	3,170	3,920	1,120	3,290	4,400	1,360	78	369	63	45
MIN	8.8	64	85	106	176	239	91	19	2.5	2.5	0.25	0.28
CFSM	0.71	3.02	2.54	3.69	1.60	2.99	3.19	0.82	0.08	0.12	0.02	0.02
IN.	0.82	3.37	2.93	4.25	1.67	3.45	3.56	0.94	0.09	0.14	0.02	0.02

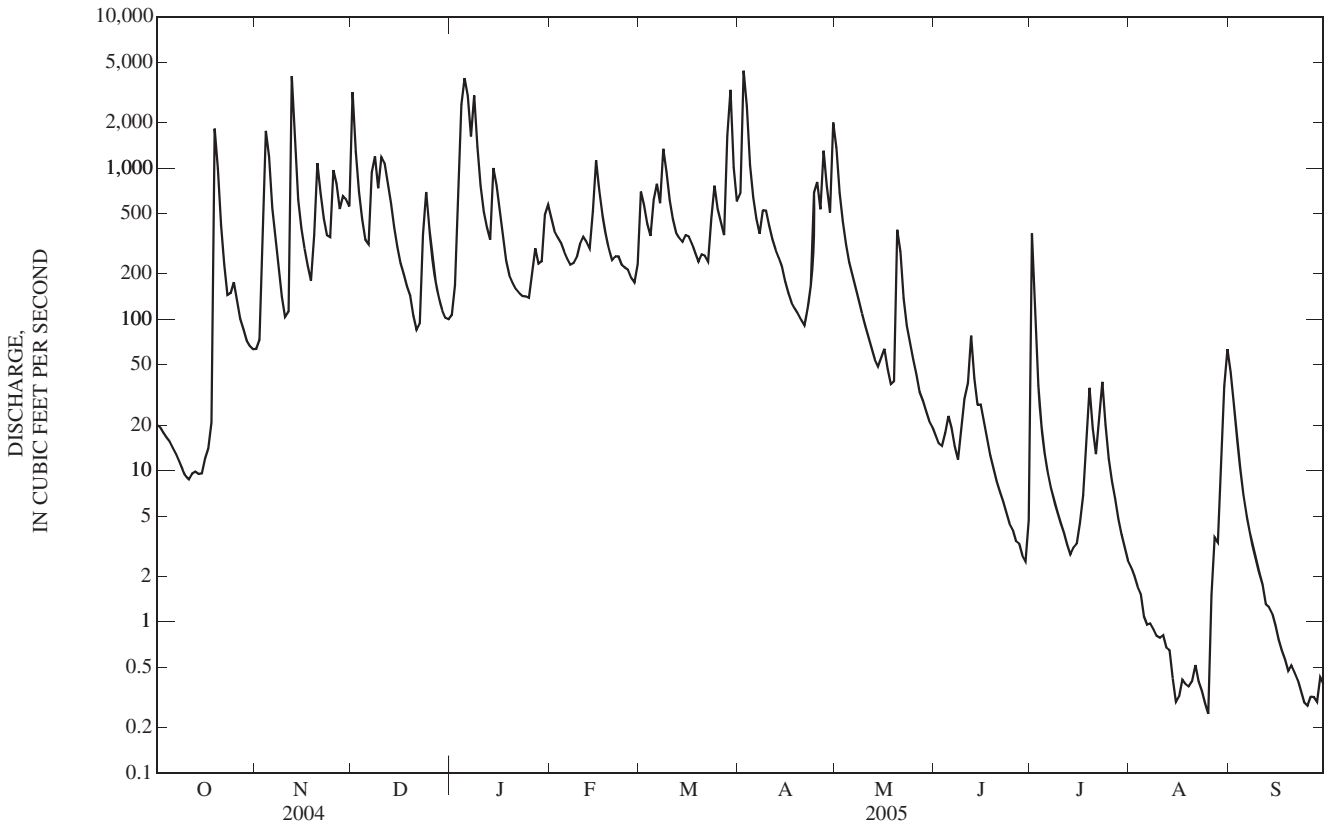
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2005, BY WATER YEAR (WY)

MEAN	84.4	485	448	436	486	654	499	547	239	112	69.4	143
MAX	152	744	544	789	1,013	1,079	683	1,235	685	454	175	521
(WY)	(2005)	(2004)	(2005)	(2005)	(2003)	(2002)	(2005)	(2003)	(2003)	(2001)	(2001)	(2004)
MIN	13.3	25.1	265	138	192	389	102	175	16.9	20.2	3.98	4.61
(WY)	(2002)	(2002)	(2002)	(2001)	(2002)	(2003)	(2001)	(2005)	(2005)	(2004)	(2002)	(2005)

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

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2001 - 2005	
ANNUAL TOTAL	132,740.1		122,277.53		360	
ANNUAL MEAN	363		335		290	
HIGHEST ANNUAL MEAN					458	2003
LOWEST ANNUAL MEAN					290	2002
HIGHEST DAILY MEAN	7,390	Sep 17	4,400	Apr 2	13,600	Mar 20, 2002
LOWEST DAILY MEAN	6.6	Sep 7	0.25	Aug 25	0.00	Aug 16, 2002
ANNUAL SEVEN-DAY MINIMUM	7.9	Sep 1	0.32	Sep 22	0.19	Aug 15, 2002
MAXIMUM PEAK FLOW			7,200	Apr 2	16,300	Mar 20, 2002
MAXIMUM PEAK STAGE			12.74	Apr 2	20.28	Mar 20, 2002
ANNUAL RUNOFF (CFSM)	1.69		1.57		1.68	
ANNUAL RUNOFF (INCHES)	23.07		21.26		22.86	
10 PERCENT EXCEEDS	946		785		815	
50 PERCENT EXCEEDS	136		133		131	
90 PERCENT EXCEEDS	14		1.1		5.4	

e Estimated



## TWELVEMILE CREEK BASIN

03238745 TWELVEMILE CREEK AT HIGHWAY 1997 NEAR ALEXANDRIA, KY

LOCATION.--Lat 38°57'05", 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<sup>2</sup>.

## WATER DISCHARGE RECORDS

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

REVISIONS.--WDR KY-01-1: Latitude.

GAGE.--Water-stage recorder with telemetry and crest-stage gage. 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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.73	7.2	331	138	59	42	33	28	4.6	e5.6	0.96	28
2	0.82	122	51	73	59	e60	163	23	4.1	5.6	0.65	9.3
3	0.87	83	32	1,490	56	e48	86	21	3.8	4.4	0.63	4.9
4	0.85	135	24	444	54	e31	43	19	3.7	3.0	0.59	3.1
5	0.76	42	20	1,640	57	27	35	18	3.4	2.4	0.63	2.3
6	0.74	21	32	1,050	61	25	30	17	3.1	1.8	0.68	1.8
7	0.73	15	205	105	62	52	30	17	2.8	1.5	0.71	1.5
8	0.77	11	57	244	184	150	27	15	2.4	1.2	0.75	1.4
9	0.90	8.4	160	80	78	155	22	14	2.3	1.0	0.64	2.5
10	1.0	7.1	135	56	64	32	21	13	7.8	0.91	0.62	1.7
11	1.1	180	82	369	43	30	20	12	7.2	0.88	0.66	1.3
12	1.1	627	45	179	38	29	19	12	5.1	0.89	0.66	1.3
13	1.9	47	32	416	63	28	23	10	18	2.1	0.67	1.1
14	1.7	24	24	257	186	24	20	14	14	2.8	0.75	0.96
15	5.1	17	20	64	84	22	16	14	8.1	4.0	0.85	0.90
16	3.7	14	18	49	53	21	14	11	4.4	2.1	0.77	0.87
17	3.4	13	e16	38	40	20	13	8.6	3.2	5.3	0.74	0.86
18	378	12	e15	36	33	19	13	7.5	2.6	4.1	0.76	0.90
19	357	792	e14	33	30	23	13	8.8	2.3	4.9	1.2	0.83
20	31	81	e13	e31	30	33	12	25	2.1	2.6	0.88	2.8
21	14	35	12	e30	34	23	11	14	1.9	2.7	0.96	1.5
22	7.8	25	41	e28	29	21	78	8.4	1.8	2.5	0.91	1.0
23	13	21	143	e26	26	96	675	7.0	1.7	2.0	0.76	3.6
24	40	182	72	25	26	76	126	5.8	1.6	1.5	0.68	4.5
25	17	111	57	27	27	37	61	5.0	1.7	1.3	0.68	2.8
26	9.1	37	33	39	27	32	72	4.7	1.8	1.0	7.5	5.4
27	30	27	21	39	26	46	91	4.4	1.8	0.93	2.1	3.4
28	16	44	16	27	29	1,780	39	5.4	1.5	0.84	1.8	2.2
29	9.3	28	29	34	---	133	32	5.6	1.8	0.79	1.6	2.5
30	16	63	591	86	---	56	32	6.0	3.5	1.0	398	1.8
31	11	---	673	73	---	41	---	5.6	---	1.1	190	---
TOTAL	975.37	2,831.7	3,014	7,226	1,558	3,212	1,870	379.8	124.1	72.74	619.79	97.02
MEAN	31.5	94.4	97.2	233	55.6	104	62.3	12.3	4.14	2.35	20.0	3.23
MAX	378	792	673	1,640	186	1,780	675	28	18	5.6	398	28
MIN	0.73	7.1	12	25	26	19	11	4.4	1.5	0.79	0.59	0.83
CFSM	0.81	2.42	2.49	5.98	1.43	2.66	1.60	0.31	0.11	0.06	0.51	0.08
IN.	0.93	2.70	2.87	6.89	1.49	3.06	1.78	0.36	0.12	0.07	0.59	0.09

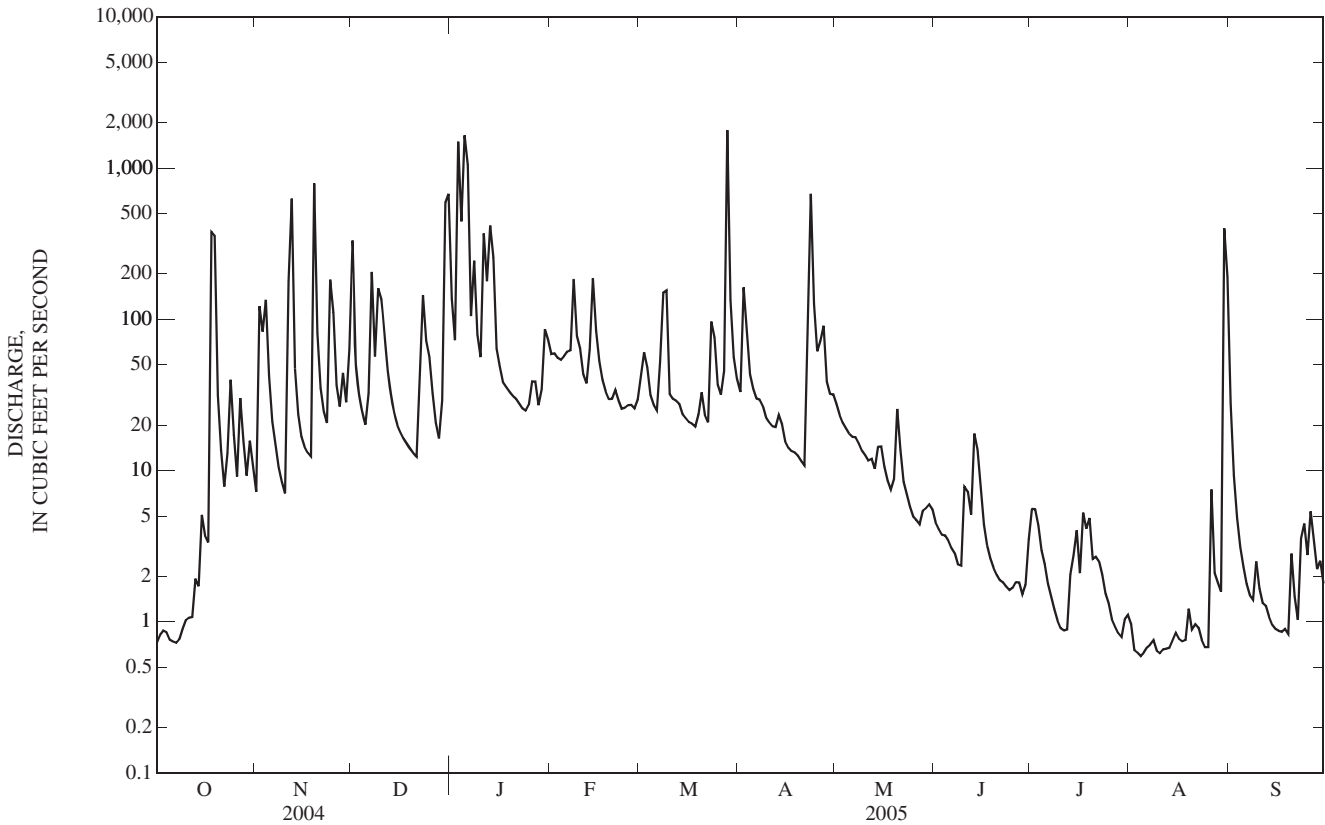
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2005, BY WATER YEAR (WY)

MEAN	27.7	68.1	82.4	121	64.9	69.0	55.5	88.5	22.2	26.9	20.5	21.5
MAX	46.1	94.4	99.0	233	120	104	106	160	37.5	55.3	42.4	55.0
(WY)	(2002)	(2005)	(2002)	(2005)	(2003)	(2005)	(2002)	(2002)	(2001)	(2001)	(2001)	(2003)
MIN	7.22	34.0	47.4	34.2	30.0	34.1	11.2	12.3	4.14	2.35	1.40	3.23
(WY)	(2004)	(2003)	(2004)	(2002)	(2002)	(2001)	(2001)	(2005)	(2005)	(2005)	(2002)	(2005)

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

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2001 - 2005	
ANNUAL TOTAL	22,560.37		21,980.52		58.5	
ANNUAL MEAN	61.6		60.2		60.7	
HIGHEST ANNUAL MEAN					53.6	
LOWEST ANNUAL MEAN					2003	
HIGHEST DAILY MEAN	2,450	Jan 4	1,780	Mar 28	2,450	Jan 4, 2004
LOWEST DAILY MEAN	0.72	Sep 28	0.59	Aug 4	0.59	Aug 4, 2005
ANNUAL SEVEN-DAY MINIMUM	0.78	Sep 28	0.66	Aug 4	0.66	Aug 4, 2005
MAXIMUM PEAK FLOW			4,700	Mar 28	6,920	May 10, 2003
MAXIMUM PEAK STAGE			7.86	Mar 28	9.18	May 10, 2003
ANNUAL RUNOFF (CFSM)	1.58		1.54		1.50	
ANNUAL RUNOFF (INCHES)	21.52		20.97		20.39	
10 PERCENT EXCEEDS	121		115		104	
50 PERCENT EXCEEDS	19		16		17	
90 PERCENT EXCEEDS	1.5		0.90		1.8	

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. New turbidity probe installed summer 2004, range 0-3000 FNU.

REMARKS.--

SPECIFIC CONDUCTANCE: Records rated excellent. Missing periods are Oct. 28, 2004, and Feb 3-4, and July 1, 2005.

pH: Records rated excellent. No missing periods.

WATER TEMPERATURES: Records rated excellent. Missing periods are Feb. 3-4, and July 1, 2005.

DISSOLVED OXYGEN: Records rated excellent. Missing periods are Oct. 27-28, 2004, Feb 3, 4, and July 1, 2005.

TURBIDITY: Records rated poor. Missing periods are Oct. 1-27, Nov. 5-8, 12-30, Dec. 1-8, 22-31, 2004, Jan. 1-19, Feb. 15-23, Apr. 12-20, June 16, and July 1, 2005.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 2620 microsiemens, Dec. 11, 2002; minimum recorded, 91 microsiemens, Sept. 2, 2003.

pH: Maximum recorded, 9.1 units, May 13, 2001 and Jul. 18, 2002, Mar. 25-27, Apr. 18, 2004; minimum recorded, 6.6 units, Dec. 25-26, 2000.

WATER TEMPERATURES: Maximum recorded, 34.4°C, July 25, 2005; minimum recorded, 0.0°C, several days in Dec., Jan., Feb., and Mar. of each year of record.

DISSOLVED OXYGEN: Maximum recorded, 21.2 mg/L, Feb. 27, 28, 2002; minimum recorded, 0.3 mg/L, May 16, 2001.

TURBIDITY: Maximum recorded, 2600 FNU, Jul. 10, 31, 2004; minimum recorded, 0.0 FNU, Apr. 3, 10-14, 2004.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1270 microsiemens, Jan. 29, 2005; minimum recorded, 97 microsiemens, Jan. 5, 2005.

pH: Maximum recorded, 9.0 units, Oct. 7-8, 10-12, 2004, Feb. 27, Mar. 2, 6-7, 15-18, and May 2-5, 26-27, 29, 31, 2005; minimum recorded, 7.0 units, June 12, 2005.

WATER TEMPERATURES: Maximum recorded, 34.4°C, July 25, 2005; minimum recorded, 0.0°C, Dec. 16, 18-30, 2004, Jan. 17-31, and Feb. 2, 2005.

DISSOLVED OXYGEN: Maximum recorded, 20.0 mg/L, Mar. 3-4, 6, 15-18, 21, 2005; minimum recorded, 1.9 mg/L, June 6, 2005.

TURBIDITY: Maximum recorded, 2560 FNU, Mar. 28, 2005; minimum recorded, 6.4 FNU, June 6, 2005.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	738	721	732	625	587	608	373	258	286	367	240	305
2	744	733	738	634	438	552	388	302	345	439	367	410
3	753	735	744	438	380	400	446	388	416	471	115	263
4	755	740	750	433	329	387	494	446	469	273	159	234
5	759	744	753	429	389	405	529	494	509	177	97	143
6	760	745	753	485	429	452	544	521	531	215	116	156
7	760	740	751	523	485	500	526	314	413	342	215	281
8	767	744	756	545	523	534	364	319	339	347	267	291
9	764	739	755	568	545	557	401	283	365	374	292	329
10	756	731	747	589	568	580	333	266	296	451	374	412
11	772	747	757	605	209	536	390	333	368	486	150	407
12	769	738	760	293	179	232	450	390	418	314	152	235
13	763	731	748	386	293	341	489	450	467	364	186	303
14	731	712	720	448	386	414	524	489	506	291	173	225
15	719	672	695	489	448	465	554	524	537	394	291	344
16	695	640	677	525	489	504	578	553	563	503	394	434
17	640	607	617	561	525	535	593	575	581	541	503	524
18	610	221	446	584	561	576	617	593	600	576	539	563
19	301	215	255	585	172	295	632	611	615	602	575	588
20	393	301	342	358	246	306	676	632	652	633	601	612
21	427	393	406	435	358	396	682	648	669	731	633	698
22	468	427	448	482	435	458	777	567	632	767	723	751
23	544	424	479	521	482	499	653	411	535	817	766	803
24	441	405	425	529	332	430	441	406	422	809	793	800
25	505	441	473	356	328	337	512	441	479	844	772	798
26	539	470	522	415	356	383	549	510	522	816	760	784
27	572	475	516	469	415	436	603	549	571	760	731	746
28	---	---	---	490	450	466	659	603	631	750	729	738
29	586	543	566	532	480	507	892	649	705	1,270	707	839
30	605	509	578	540	373	519	892	196	505	949	724	833
31	587	559	564	---	---	---	240	185	200	724	622	636
MONTH	772	215	616	634	172	454	892	185	489	1,270	97	500







## 03238745 TWELVEMILE CREEK AT HIGHWAY 1997 NEAR ALEXANDRIA, KY—Continued

TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20.6	13.8	16.5	15.5	13.7	14.6	8.8	6.8	8.2	6.3	5.0	5.7
2	18.1	14.8	16.7	16.7	15.2	15.7	7.2	5.5	6.2	7.7	6.0	6.7
3	19.0	11.9	14.6	15.5	13.4	14.3	6.3	4.1	5.2	10.0	7.7	9.0
4	19.2	11.4	14.1	13.5	12.2	13.1	5.8	2.7	4.1	9.9	8.7	9.5
5	17.9	10.5	13.0	12.8	10.0	11.4	5.9	3.0	4.4	8.7	7.3	8.2
6	17.7	9.4	12.3	12.6	8.5	10.3	7.3	5.1	6.4	7.3	5.8	6.6
7	17.9	9.6	12.6	13.3	9.0	10.9	11.0	7.3	9.5	5.8	5.1	5.4
8	17.3	10.9	13.6	10.8	8.1	9.5	10.7	8.6	9.8	5.6	5.3	5.4
9	18.8	13.1	15.4	9.2	5.9	7.7	8.6	7.9	8.2	6.7	5.3	5.8
10	19.4	12.7	14.9	9.9	5.5	7.8	9.4	8.4	9.0	6.4	5.4	5.9
11	17.6	11.0	13.4	9.6	7.4	8.3	9.1	7.6	8.6	9.9	6.3	7.5
12	15.1	10.8	12.8	10.3	8.8	9.7	7.6	6.7	7.1	11.0	9.9	10.4
13	14.2	13.2	13.7	9.3	6.9	8.1	6.9	3.9	5.6	11.9	10.2	11.1
14	16.8	13.6	14.6	8.4	5.2	6.6	3.9	2.4	3.4	10.2	5.8	8.0
15	14.2	11.3	12.7	8.1	4.4	6.2	3.1	0.8	1.8	5.8	4.2	4.9
16	12.0	9.8	11.1	8.8	6.3	7.5	2.3	0.0	1.2	4.2	1.4	2.9
17	13.0	7.6	9.7	9.7	8.2	8.9	3.1	0.4	1.6	1.4	0.0	0.4
18	11.6	8.4	9.5	12.1	9.6	10.7	3.4	0.0	1.6	0.2	0.0	0.0
19	13.1	11.4	12.4	12.6	11.1	12.0	2.6	0.0	1.3	0.3	0.0	0.0
20	14.1	13.1	13.5	13.1	12.3	12.7	0.1	0.0	0.0	0.4	0.0	0.2
21	14.5	13.7	14.1	12.3	11.5	11.9	0.4	0.0	0.0	0.9	0.0	0.1
22	14.1	12.7	13.4	11.7	11.1	11.4	1.1	0.0	0.2	0.7	0.0	0.1
23	14.8	11.8	13.0	11.8	10.7	11.3	0.0	0.0	0.0	0.1	0.0	0.0
24	16.5	13.3	14.5	12.4	11.5	11.9	0.0	0.0	0.0	0.1	0.0	0.0
25	16.1	11.6	13.7	11.9	8.2	10.4	0.0	0.0	0.0	0.3	0.0	0.0
26	15.1	11.1	13.2	8.4	7.0	7.7	0.0	0.0	0.0	0.1	0.0	0.0
27	14.7	13.9	14.2	8.5	7.1	7.8	0.0	0.0	0.0	0.3	0.0	0.0
28	17.3	13.8	16.2	8.2	6.3	7.4	0.0	0.0	0.0	0.0	0.0	0.0
29	18.3	15.6	16.8	7.0	5.9	6.4	0.1	0.0	0.0	0.1	0.0	0.0
30	19.3	16.5	17.7	8.3	6.5	7.1	2.7	0.0	0.4	0.3	0.0	0.1
31	16.5	13.9	15.2	---	---	---	5.0	2.7	3.9	0.9	0.0	0.3
MONTH	20.6	7.6	13.8	16.7	4.4	10.0	11.0	0.0	3.5	11.9	0.0	3.7
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	2.4	0.3	1.0	4.0	2.2	3.2	12.5	10.4	11.4	14.6	9.3	11.8
2	1.0	0.0	0.4	4.4	0.8	2.2	10.4	7.2	8.7	13.2	10.3	11.6
3	---	---	---	5.6	0.1	2.3	11.4	6.3	8.5	15.6	8.8	11.9
4	---	---	---	4.9	0.8	2.5	14.0	7.4	10.3	17.1	9.0	12.5
5	4.1	1.0	2.5	4.5	2.5	3.3	17.4	9.9	13.1	19.2	9.7	13.9
6	3.9	1.9	3.0	8.9	2.1	5.0	17.8	11.8	14.5	20.3	11.3	15.4
7	4.7	3.3	3.8	8.9	5.2	6.8	17.1	14.3	15.6	20.8	12.4	16.3
8	6.6	4.7	5.7	7.2	3.8	5.7	19.9	13.6	16.1	23.3	14.8	18.6
9	6.7	5.8	6.4	4.7	2.1	3.4	20.8	12.7	16.2	24.0	16.0	19.8
10	5.8	3.1	4.6	4.2	1.3	2.7	22.3	13.6	17.3	24.8	18.1	21.2
11	3.6	2.0	2.6	3.5	2.4	2.8	22.7	16.0	18.8	25.2	18.0	21.6
12	5.3	0.9	2.8	5.3	2.1	3.4	18.7	15.9	17.0	22.8	18.8	20.3
13	4.4	2.6	3.4	4.9	2.5	3.6	16.5	13.5	15.3	24.4	16.1	20.2
14	6.6	4.4	5.8	8.1	1.4	4.2	19.5	11.4	14.8	22.4	18.7	20.3
15	8.6	5.4	6.8	9.0	2.3	5.1	20.3	11.5	15.3	19.9	16.4	18.0
16	8.0	6.0	7.1	7.8	4.2	5.7	21.0	11.5	15.7	17.7	14.9	16.3
17	7.0	3.9	5.4	10.8	4.1	6.8	21.1	12.0	16.2	20.2	12.7	16.6
18	6.0	2.9	4.0	11.8	4.2	7.4	22.7	13.8	17.9	21.6	14.3	18.2
19	5.2	1.0	2.9	7.5	6.3	6.9	22.2	15.1	18.4	20.1	16.9	18.1
20	5.0	3.1	3.7	9.4	5.9	7.1	23.5	15.2	19.1	19.2	16.8	17.7
21	6.4	5.0	5.6	10.9	4.7	7.2	19.9	16.0	17.3	22.7	15.2	18.6
22	6.9	5.0	5.7	8.0	5.0	6.5	18.8	14.5	16.3	19.1	15.2	17.3
23	7.3	4.6	5.7	6.7	6.0	6.4	14.5	9.9	11.8	21.0	15.9	18.7
24	5.3	3.3	4.4	8.6	5.4	6.6	9.9	8.6	9.1	19.4	16.3	18.0
25	4.9	1.5	3.3	8.2	6.4	7.3	13.6	7.7	10.3	20.2	15.3	17.8
26	6.5	2.7	4.3	9.4	7.1	8.1	12.2	10.9	11.5	22.2	15.4	19.0
27	6.9	2.7	4.6	8.2	7.3	7.7	12.6	10.1	11.2	24.1	17.8	20.7
28	5.4	4.0	4.7	8.1	7.3	7.7	12.6	9.2	11.0	22.3	18.1	20.2
29	---	---	---	10.8	6.5	8.6	11.9	10.9	11.4	23.4	16.7	20.2
30	---	---	---	13.8	7.9	10.7	12.8	11.2	11.8	21.1	17.0	18.1
31	---	---	---	16.4	12.0	13.5	---	---	---	23.4	16.2	19.5
MONTH	8.6	0.0	4.2	16.4	0.1	5.8	23.5	6.3	14.1	25.2	8.8	17.7



## 03238745 TWELVEMILE CREEK AT HIGHWAY 1997 NEAR ALEXANDRIA, KY—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	16.1	7.8	10.4	11.5	7.6	8.8	11.4	10.5	10.9	12.4	11.4	11.8
2	12.8	7.2	9.3	8.6	7.3	7.7	12.0	10.9	11.4	11.8	10.8	11.4
3	16.2	7.8	10.3	8.4	7.7	8.1	12.6	11.3	11.9	11.5	10.6	10.9
4	17.0	8.4	11.0	8.3	7.9	8.1	13.3	11.9	12.4	11.8	10.8	11.1
5	17.3	8.7	11.3	9.1	8.2	8.6	13.4	11.7	12.4	11.9	11.2	11.6
6	17.3	9.3	11.7	9.8	8.3	8.9	12.1	11.0	11.5	12.2	11.3	11.9
7	18.4	9.4	12.3	9.9	8.1	8.8	11.1	9.6	10.5	12.2	11.4	11.9
8	19.6	8.8	12.0	10.8	8.2	9.3	10.6	9.8	10.2	12.5	11.5	12.1
9	17.0	7.5	10.9	11.5	9.0	10.0	11.8	10.2	10.6	12.2	11.4	11.8
10	17.5	7.3	10.3	11.9	8.9	10.3	10.7	10.1	10.3	11.9	11.2	11.7
11	18.2	7.6	11.3	10.7	8.8	9.6	10.8	10.1	10.4	11.6	10.8	11.3
12	18.2	7.8	11.3	10.7	10.0	10.2	12.0	10.6	11.1	10.9	9.5	10.2
13	10.6	6.5	8.1	11.2	10.2	10.7	12.8	10.9	11.8	11.0	9.4	10.1
14	14.3	6.1	8.6	12.2	10.9	11.4	13.6	12.0	12.7	11.5	10.6	11.0
15	9.0	6.7	7.8	12.6	11.0	11.7	14.4	12.7	13.5	12.3	11.2	11.9
16	13.1	7.9	10.0	12.2	10.5	11.2	14.7	12.9	13.8	13.0	11.8	12.5
17	15.2	9.3	11.2	11.4	10.0	10.6	14.6	12.9	13.6	13.6	13.0	13.3
18	11.8	9.4	10.4	12.2	9.5	10.6	14.7	12.5	13.6	13.9	13.4	13.6
19	11.7	9.4	10.1	10.7	9.3	9.8	14.8	12.5	13.6	13.8	13.1	13.3
20	9.7	9.1	9.5	9.9	9.5	9.7	15.8	13.9	14.7	13.6	13.1	13.3
21	10.0	9.0	9.4	10.3	9.6	9.9	15.5	13.3	14.2	13.8	13.4	13.6
22	10.7	9.0	9.7	10.5	9.7	10.0	14.1	13.0	13.5	13.8	13.3	13.5
23	10.9	9.1	9.9	10.8	9.5	10.0	13.9	13.5	13.7	14.0	13.8	13.9
24	9.8	8.7	9.2	10.1	9.3	9.6	14.6	13.6	14.0	14.1	13.7	13.9
25	10.8	8.7	9.6	10.2	9.3	9.7	15.0	13.5	14.0	13.9	13.4	13.7
26	11.6	8.4	9.8	11.3	10.2	10.7	15.3	13.5	14.1	13.8	13.4	13.6
27	---	---	---	11.3	10.1	10.6	15.9	13.6	14.4	14.4	13.8	14.1
28	---	---	---	11.1	10.0	10.6	16.4	13.7	14.6	14.7	14.1	14.4
29	10.2	7.3	9.0	12.1	10.8	11.4	15.8	13.5	14.2	14.2	13.9	14.0
30	9.1	6.9	7.7	11.5	10.5	11.0	14.2	13.2	13.9	14.2	13.8	14.1
31	11.5	7.3	8.9	---	---	---	13.3	12.3	13.0	14.2	13.9	14.0
MONTH				12.6	7.3	9.9	16.4	9.6	12.7	14.7	9.4	12.6
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	14.2	13.6	13.9	18.2	12.8	15.0	13.2	9.9	11.1	12.7	7.9	10.1
2	14.4	13.9	14.1	19.8	13.6	16.2	12.5	10.4	11.7	13.3	7.7	10.1
3	13.9	---	---	20.0	14.2	16.6	13.4	11.1	12.4	14.0	7.8	10.5
4	---	---	---	20.0	13.6	16.4	14.1	9.9	12.0	14.1	7.5	10.4
5	14.0	13.1	13.6	19.3	13.2	15.3	14.4	8.6	11.3	13.9	6.6	10
6	13.9	12.9	13.4	20.0	12.0	15.6	15.8	7.9	11.1	13.1	6.3	9.2
7	13.4	12.6	13.0	18.4	11.2	13.9	15.0	7.8	10.2	12.3	5.6	8.5
8	12.9	11.8	12.4	12.7	11.4	12.1	16.5	7.8	11.1	11.1	4.9	7.6
9	12.1	11.7	11.9	15.0	12.4	13.6	16.5	7.2	11.0	9.8	4.6	6.8
10	13.0	11.9	12.5	16.6	12.7	14.2	16.0	6.5	10.4	9.2	4.5	6.4
11	13.9	12.9	13.4	17.6	13.4	14.9	14.7	6.0	9.3	9.0	4.5	6.4
12	14.1	12.9	13.5	18.5	13.3	15.2	10.6	5.8	7.5	9.1	4.5	6.4
13	13.7	12.6	13.1	19.1	13.2	15.5	12.3	6.7	8.8	9.9	4.7	7.1
14	12.7	11.7	12.2	19.9	13.0	15.9	14.7	7.3	10.2	7.9	4.6	6.1
15	12.2	11.3	11.8	20.0	12.2	15.7	14.7	7.1	10.1	9.4	5.8	7.4
16	12.6	11.2	11.8	20.0	12.2	15.5	14.2	6.8	9.8	10.1	6.2	7.9
17	13.6	11.7	12.6	20.0	11.7	15.3	13.4	6.1	9.2	11.1	6.0	8.5
18	14.5	12.6	13.3	20.0	11.0	15.0	12.3	5.7	8.5	11.3	5.3	8.1
19	15.5	13.1	14.1	15.8	10.9	12.7	11.5	5.7	8.1	9.3	5.0	6.8
20	14.6	12.7	13.5	18.4	11.4	13.7	11.9	5.7	8.3	8.0	6.1	6.8
21	14.9	12.3	13.1	20.0	11.2	14.7	10.0	6.0	7.7	10.9	5.8	7.8
22	16.1	12.4	13.6	19.4	11.1	14.2	11.1	7.1	8.4	11.0	5.7	8.0
23	18.0	12.4	14.3	12.3	11.1	11.9	10.0	8.4	9.4	11.3	5.6	8.1
24	18.0	12.6	14.7	13.9	11.2	12.4	10.6	9.9	10.2	12.6	5.3	8.2
25	19.2	13.4	15.5	14.6	10.8	12.0	11.2	9.0	10.4	13.2	5.3	8.9
26	19.1	13.2	15.6	15.9	10.5	12.4	10.5	8.9	9.3	14.8	4.9	9.4
27	19.7	12.6	15.4	14.3	10.4	11.8	10.0	8.8	9.2	15.1	3.1	8.3
28	17.5	12.4	14.1	13.4	11.2	12.3	11.8	8.6	9.9	14.0	4.4	8.2
29	---	---	---	12.8	11.3	12.1	10.7	8.1	9.1	15.0	4.9	8.9
30	---	---	---	12.6	10.1	11.5	12.0	8.0	9.3	11.2	4.8	6.9
31	---	---	---	12.3	9.8	10.8	---	---	---	15.6	5.1	9.4
MONTH				20.0	9.8	14.0	16.5	5.7	9.8	15.6	3.1	8.2



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

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU  
 WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	140	89	110	---	---	---	---	---	---
2	---	---	---	460	110	220	---	---	---	---	---	---
3	---	---	---	280	220	240	---	---	---	---	---	---
4	---	---	---	860	230	340	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	190	150	180	480	130	300	---	---	---
10	---	---	---	230	190	210	540	160	280	---	---	---
11	---	---	---	1,960	210	440	190	96	140	---	---	---
12	---	---	---	---	---	---	120	65	86	---	---	---
13	---	---	---	---	---	---	85	58	66	---	---	---
14	---	---	---	---	---	---	74	49	59	---	---	---
15	---	---	---	---	---	---	62	45	53	---	---	---
16	---	---	---	---	---	---	69	42	50	---	---	---
17	---	---	---	---	---	---	64	39	51	---	---	---
18	---	---	---	---	---	---	54	41	46	---	---	---
19	---	---	---	---	---	---	63	41	48	---	---	---
20	---	---	---	---	---	---	82	50	58	30	16	19
21	---	---	---	---	---	---	82	51	61	19	14	16
22	---	---	---	---	---	---	---	---	---	17	13	14
23	---	---	---	---	---	---	---	---	---	19	12	14
24	---	---	---	---	---	---	---	---	---	16	12	13
25	---	---	---	---	---	---	---	---	---	25	11	14
26	---	---	---	---	---	---	---	---	---	23	17	19
27	---	---	---	---	---	---	---	---	---	26	20	22
28	---	---	---	---	---	---	---	---	---	24	19	21
29	---	---	---	---	---	---	---	---	---	39	16	22
30	---	---	---	---	---	---	---	---	---	80	33	50
31	---	---	---	---	---	---	---	---	---	89	51	66
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
1	94	44	59	47	21	27	76	34	47	40	15	21
2	79	34	50	23	13	17	230	51	170	21	11	14
3	47	36	41	29	15	18	210	130	170	21	8.9	12
4	64	35	46	32	15	19	140	74	100	17	9.0	11
5	68	38	50	49	13	16	86	41	60	21	9.1	11
6	60	40	48	53	12	16	57	25	37	18	10	13
7	84	41	51	610	12	84	37	18	25	14	10	11
8	570	75	240	900	280	520	30	17	22	20	10	11
9	160	85	110	310	140	200	29	16	21	22	11	12
10	100	50	74	140	70	100	51	16	30	45	11	14
11	63	41	52	73	30	48	46	19	29	22	12	14
12	50	34	41	35	17	24	---	---	---	21	12	18
13	160	34	80	27	13	17	---	---	---	22	14	17
14	410	100	210	26	10	14	---	---	---	40	14	24
15	---	---	---	39	10	17	---	---	---	50	16	28
16	---	---	---	72	10	26	---	---	---	90	15	27
17	---	---	---	37	10	16	---	---	---	45	16	22
18	---	---	---	18	9.0	11	---	---	---	25	15	18
19	---	---	---	92	10	29	---	---	---	220	15	41
20	---	---	---	45	20	29	---	---	---	93	34	49
21	---	---	---	25	10	15	12	8.0	9.3	58	22	34
22	---	---	---	120	10	16	2,190	10	190	31	17	21
23	---	---	---	280	54	180	1,680	200	590	30	14	18
24	27	13	17	220	130	150	200	110	150	22	14	16
25	35	12	15	150	64	99	120	60	86	22	14	16
26	24	12	14	75	40	53	970	44	140	18	12	15
27	23	12	15	380	28	63	320	90	140	22	11	14
28	29	13	16	2,560	380	1,190	110	54	78	24	15	18
29	---	---	---	390	160	250	66	30	45	19	11	14
30	---	---	---	160	78	120	39	22	29	23	11	13
31	---	---	---	89	50	66	---	---	---	22	11	13
MONTH	570	12	65	2,560	9.0	110	2,190	8.0	100	220	8.9	19





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## 03238772 FOURMILE CREEK AT POPLAR RIDGE ROAD NEAR ALEXANDRIA, KY

LOCATION.--Lat 38°59'12", long 84°21'55", Campbell County, Hydrologic Unit 05090203, on right bank at bridge on Poplar Ridge Road, 2.5 miles north of Alexandria, 3.0 mi upstream from Tug Creek, and 6.7 mi upstream from the mouth.

DRAINAGE AREA.--3.1 mi<sup>2</sup>.

## WATER DISCHARGE RECORDS

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

GAGE.--Water-stage recorder with telemetry and crest-stage gage. Datum of gage is 535.243 ft above NGVD of 1929. Gage operated from May 1999 to September 2000 downstream 2.0 mi at different datum. Old site station number is 03238780.

REMARKS.--Records fair except those below 3.0 ft<sup>3</sup>/s, which are poor.

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

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

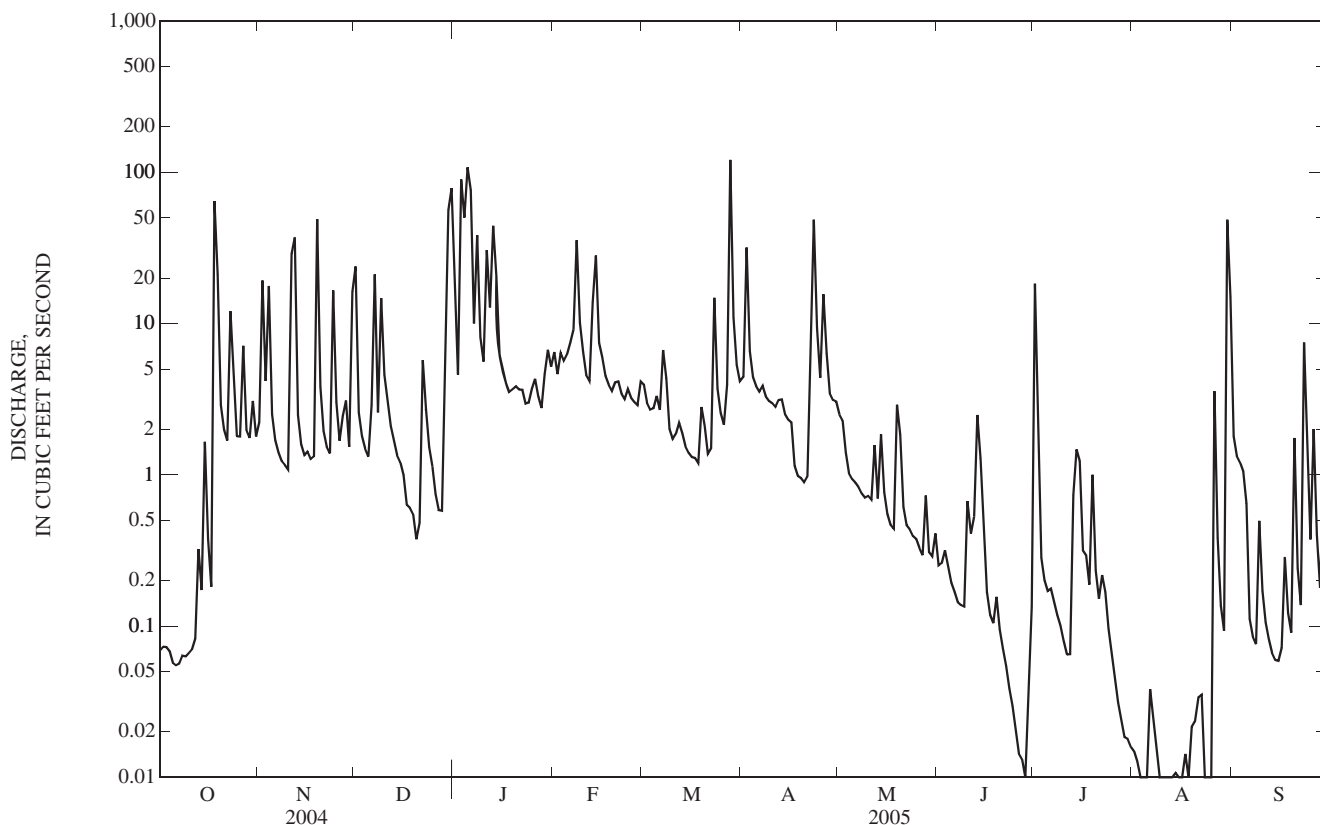
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.07	2.2	24	22	6.5	3.9	4.4	2.5	0.25	18	0.01	1.8
2	0.07	19	2.6	4.6	4.6	3.0	32	2.3	0.26	1.5	0.01	1.3
3	0.07	4.2	1.8	89	6.4	2.7	6.6	1.4	0.32	0.28	0.01	1.2
4	0.07	18	1.5	50	5.7	2.8	4.4	1.0	0.25	0.20	0.01	1.1
5	0.06	2.5	1.3	108	6.3	3.3	3.8	0.94	0.19	0.17	0.01	0.65
6	0.06	1.7	2.9	76	7.5	2.7	3.6	0.89	0.17	0.18	0.04	0.11
7	0.06	1.4	21	10	9.1	6.7	3.9	0.83	0.14	0.14	0.02	0.09
8	0.06	1.2	2.6	38	36	4.4	3.3	0.75	0.14	0.12	0.02	0.08
9	0.06	1.2	15	8.1	10	2.0	3.1	0.71	0.13	0.10	0.01	0.50
10	0.07	1.1	4.6	5.6	6.5	1.7	3.0	0.73	0.67	0.08	0.01	0.17
11	0.07	29	3.1	31	4.6	1.9	2.8	0.68	0.41	0.07	0.01	0.11
12	0.08	37	2.1	13	4.2	2.2	3.1	1.6	0.53	0.07	0.01	0.08
13	0.32	2.5	1.7	44	14	1.9	3.2	0.70	2.5	0.73	0.00	0.07
14	0.17	1.6	1.3	20	28	1.5	2.5	1.9	1.3	1.5	0.01	0.06
15	1.7	1.4	1.2	6.2	7.4	1.4	2.3	0.77	0.47	1.2	0.01	0.06
16	0.38	1.4	0.99	5.0	6.0	1.3	2.2	0.55	0.17	0.32	0.01	0.07
17	0.18	1.3	0.64	4.0	4.5	1.3	1.1	0.47	0.12	0.29	0.01	0.28
18	64	1.3	0.60	3.5	4.0	1.2	0.99	0.44	0.10	0.19	0.01	0.12
19	21	49	0.55	3.7	3.6	2.8	0.95	2.9	0.16	1.0	0.02	0.09
20	2.9	3.8	0.38	3.9	4.1	2.1	0.89	1.8	0.10	0.23	0.02	1.7
21	2.0	1.9	0.48	3.7	4.1	1.4	0.98	0.61	0.07	0.15	0.03	0.24
22	1.7	1.5	5.7	3.7	3.5	1.5	8.7	0.46	0.05	0.22	0.04	0.14
23	12	1.4	2.7	3.0	3.2	15	49	0.44	0.04	0.17	0.01	7.5
24	5.1	17	1.5	3.0	3.7	3.7	9.3	0.39	0.03	0.10	0.00	1.5
25	1.8	3.0	1.1	3.7	3.2	2.6	4.4	0.38	0.02	0.07	0.00	0.37
26	1.8	1.7	0.74	4.3	3.0	2.1	16	0.33	0.01	0.05	3.6	2.0
27	7.1	2.5	0.58	3.3	2.9	4.0	6.4	0.29	0.01	0.03	0.38	0.40
28	2.0	3.1	0.58	2.8	4.1	121	3.5	0.73	0.01	0.02	0.14	0.18
29	1.8	1.5	3.0	4.7	---	11	3.1	0.31	0.03	0.02	0.09	0.94
30	3.1	16	56	6.7	---	5.4	3.1	0.29	0.13	0.02	49	0.24
31	1.8	---	79	5.2	---	4.2	---	0.41	---	0.02	15	---
TOTAL	131.65	230.4	241.24	589.7	206.7	222.7	192.61	28.50	8.78	27.24	68.55	23.15
MEAN	4.25	7.68	7.78	19.0	7.38	7.18	6.42	0.92	0.29	0.88	2.21	0.77
MAX	64	49	79	108	36	121	49	2.9	2.5	18	49	7.5
MIN	0.06	1.1	0.38	2.8	2.9	1.2	0.89	0.29	0.01	0.02	0.00	0.06

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2005, BY WATER YEAR (WY)

MEAN	3.41	6.04	7.60	9.66	7.22	7.28	5.62	6.82	3.27	2.03	2.69	1.57
MAX	5.86	7.68	10.1	19.0	10.9	7.98	11.1	15.6	6.29	4.36	8.13	2.92
(WY)	(2002)	(2005)	(2003)	(2005)	(2003)	(2004)	(2002)	(2002)	(2002)	(2004)	(2001)	(2003)
MIN	0.52	3.62	5.00	3.57	2.58	6.72	1.17	0.92	0.29	0.88	0.05	0.45
(WY)	(2004)	(2003)	(2004)	(2002)	(2002)	(2002)	(2001)	(2005)	(2005)	(2005)	(2002)	(2004)

03238772 FOURMILE CREEK AT POPLAR RIDGE ROAD NEAR ALEXANDRIA, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2001 - 2005	
ANNUAL TOTAL	1,974.31		1,971.22			
ANNUAL MEAN	5.39		5.40		5.34	
HIGHEST ANNUAL MEAN					5.83	2002
LOWEST ANNUAL MEAN					4.79	2004
HIGHEST DAILY MEAN	144	Jan 4	121	Mar 28	170	Aug 12, 2001
LOWEST DAILY MEAN	0.01	Jul 21	0.00	Aug 13	0.00	Jun 26, 2001
ANNUAL SEVEN-DAY MINIMUM	0.05	Sep 22	0.01	Aug 9	0.00	Aug 8, 2002
MAXIMUM PEAK FLOW			456	Oct 18	520	Apr 21, 2002
MAXIMUM PEAK STAGE			6.61	Oct 18	7.18	Apr 21, 2002
10 PERCENT EXCEEDS	11		11		11	
50 PERCENT EXCEEDS	1.7		1.4		1.8	
90 PERCENT EXCEEDS	0.07		0.04		0.09	



## 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. New turbidity probe installed summer 2004, range 0-3000 FNU.

REMARKS.--

SPECIFIC CONDUCTANCE: Records rated excellent. No missing records.

pH: Records rated good. No missing records.

WATER TEMPERATURES: Records rated excellent. No missing record.

DISSOLVED OXYGEN: Records rated fair. Missing periods are Oct. 1-27, 2004, Apr. 11-20, May 20 to June 15, July 12-20, Aug 20-21, 28-29, 31, and Sept. 6-14, 2005.

TURBIDITY: Records rated good. Missing periods are Oct 1-14, Dec 28, 2004, Aug. 30-31, and Sept. 1-14, 23-30, 2005.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 3590 microsiemens, Jan. 29, 2005; minimum recorded, 82 microsiemens, Apr 21, 2002.

pH.--Maximum recorded, 8.5 units, Mar. 24, 30, Apr. 1-5, 2002, Mar. 14, 15, 2003 and Mar. 16-19, 21, 2004, Feb. 23, 25-27, Mar. 1-4, 6, and May 1-2, 2005; minimum recorded, 6.8 units, Jul. 18, 2004.

WATER TEMPERATURES: Maximum recorded, 26.9°C, July 5, 2002; minimum recorded, 0.0°C, several days in Dec., Jan., Feb., and Mar. of each year of record.

DISSOLVED OXYGEN: Maximum recorded, 18.0 mg/L, Feb. 24, 2002; minimum recorded 1.6 mg/L, July 27, 2005.

TURBIDITY: Maximum recorded, 2600 FNU, Jul. 30, 31, 2004, and Jan. 3, 2005; minimum recorded, <2.0 FNU, Jan. 21-23, and Dec. 9, 2003, and Aug. 5, 11-12, 16, 25-26, 2005.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 3590 microsiemens, Jan. 29, 2005; minimum recorded, 120 microsiemens, Jan. 3, 2005.

pH.--Maximum recorded, 8.5 units, Feb. 23, 25-27, Mar. 1-4, 6, and May 1-2, 2005; minimum recorded, 7.2 units, Oct 1-5, 17-18, 2004.

WATER TEMPERATURES: Maximum recorded, 26.5°C, July 25-26, 2005; minimum recorded, 0.0°C, Dec 22-24, 29-30, 2004, and Jan. 17-18, 23-25, 27, 28, 2005.

DISSOLVED OXYGEN: Maximum recorded, 15.2 mg/L, Feb. 25, 2005; minimum recorded 1.6 mg/L, July 27, 2005.

TURBIDITY: Maximum recorded, 2600 FNU, Jan. 3, 2005, minimum recorded, <2.0 FNU, Aug. 5, 11, 12, 16, 25-26, 2005.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	911	876	887	641	574	597	365	192	304	562	351	466
2	928	903	915	733	381	549	371	234	267	677	561	630
3	933	912	922	587	438	527	277	267	274	728	120	385
4	936	912	921	647	324	472	320	277	297	475	168	348
5	935	920	927	610	516	574	347	312	334	272	122	207
6	972	935	961	639	607	628	366	314	335	405	131	254
7	1,020	949	990	647	635	642	450	155	329	543	402	484
8	1,000	974	986	641	621	633	569	450	522	574	170	333
9	998	985	992	628	619	624	726	270	509	532	430	490
10	1,000	984	992	635	622	630	560	354	491	553	531	543
11	1,000	986	996	777	151	602	598	560	584	592	260	383
12	1,060	998	1,010	477	152	340	614	578	596	497	310	429
13	1,060	940	963	588	477	539	633	614	623	626	161	406
14	1,020	962	984	611	587	600	640	628	634	462	223	376
15	1,120	683	827	618	599	606	656	637	642	533	462	506
16	708	665	693	628	602	615	696	653	668	632	530	562
17	757	704	722	633	618	625	762	693	740	836	608	693
18	973	124	524	635	620	628	780	760	769	608	561	580
19	506	238	410	694	152	375	802	758	770	566	548	556
20	585	506	541	542	425	499	870	790	831	1,260	558	688
21	582	542	560	592	542	571	916	821	879	1,050	750	914
22	572	564	567	610	592	603	1,120	729	821	1,350	863	1,090
23	715	328	538	624	610	615	865	761	813	1,160	930	1,080
24	561	349	494	675	321	482	835	764	803	930	771	818
25	581	557	571	554	457	522	805	773	793	1,080	708	785
26	605	569	581	585	554	571	860	804	839	1,200	878	995
27	591	508	540	618	561	595	918	848	889	946	724	842
28	600	564	588	562	487	521	987	918	957	735	651	681
29	610	596	604	583	543	565	3,320	924	1,600	3,590	625	1,380
30	663	601	626	624	212	543	2,680	320	935	2,700	1,570	1,790
31	663	581	607	---	---	---	351	272	292	1,570	923	1,090
MONTH	1,120	124	756	777	151	563	3,320	155	650	3,590	120	670





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

TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	16.3	13.3	14.6	15.0	13.2	13.9	9.5	6.2	8.1	5.8	4.2	5.0
2	15.9	14.5	15.5	16.3	14.8	15.4	6.8	4.6	5.7	7.3	5.1	6.1
3	14.5	12.0	13.1	15.0	12.5	13.3	6.0	4.2	5.1	9.8	7.3	8.9
4	13.4	11.3	12.4	13.7	12.0	12.9	5.7	2.7	4.3	9.7	8.4	9.0
5	12.6	10.4	11.4	12.0	9.7	10.9	6.2	3.4	4.8	8.5	6.7	7.8
6	11.3	9.2	10.4	11.4	7.8	9.7	8.9	6.2	7.5	6.7	5.0	6.1
7	11.9	9.2	10.4	12.4	8.9	10.7	12.4	8.9	10.7	5.4	4.4	5.0
8	13.8	10.4	11.8	11.7	8.3	9.5	10.5	8.0	9.2	5.6	5.2	5.4
9	14.0	12.3	13.2	8.4	5.9	7.3	8.9	6.9	7.7	6.9	5.1	5.7
10	13.9	12.1	12.9	8.9	5.9	7.4	9.8	8.9	9.3	6.7	5.0	5.9
11	12.4	10.4	11.4	9.8	7.8	8.5	9.3	7.0	8.2	9.1	6.2	7.5
12	12.0	10.1	11.1	10.7	8.7	9.8	7.3	6.1	6.7	10.7	9.0	9.7
13	12.9	11.6	12.1	8.7	6.6	7.6	7.1	3.7	5.5	11.3	8.6	10.2
14	13.9	12.7	13.2	7.3	4.4	6.0	3.7	2.6	3.1	8.6	4.4	6.6
15	13.5	11.2	12.3	7.4	4.2	6.0	2.6	0.9	1.7	4.7	3.2	3.9
16	11.2	10.0	10.6	9.1	6.9	7.8	2.2	0.5	1.2	3.7	1.4	2.7
17	10.0	8.2	9.1	10.3	8.9	9.4	3.1	1.7	2.3	1.4	0.0	0.5
18	12.3	8.1	9.7	12.2	10.2	11.1	3.0	1.2	2.0	0.6	0.0	0.2
19	13.4	12.3	12.8	12.9	11.6	12.4	3.1	0.8	2.2	1.4	0.1	0.6
20	13.9	13.2	13.5	12.8	12.0	12.4	1.2	0.4	0.7	1.8	0.6	1.5
21	14.0	13.5	13.8	12.0	11.2	11.5	1.6	0.4	0.8	1.5	0.2	0.8
22	13.9	12.3	12.9	11.3	10.8	11.0	0.9	0.0	0.3	1.8	0.2	1.0
23	14.4	11.7	12.6	11.7	10.3	10.9	0.1	0.0	0.0	0.7	0.0	0.1
24	15.8	13.3	14.5	13.3	11.5	12.2	0.2	0.0	0.1	0.5	0.0	0.1
25	14.3	10.8	12.7	12.1	7.2	9.3	0.2	0.1	0.1	0.9	0.0	0.4
26	14.0	10.9	12.5	8.2	5.6	6.8	0.3	0.2	0.2	1.7	0.5	1.0
27	14.6	13.5	14.0	8.4	7.1	7.9	0.3	0.1	0.2	1.3	0.0	0.4
28	15.7	13.3	14.5	8.4	6.5	7.7	0.4	0.1	0.2	0.5	0.0	0.1
29	16.8	15.0	15.8	7.2	5.6	6.4	0.4	0.0	0.2	1.0	0.2	0.6
30	17.9	16.1	16.9	9.3	6.8	7.5	2.8	0.0	1.0	2.6	0.6	1.6
31	17.0	13.4	14.6	---	---	---	4.2	2.8	3.6	3.0	0.5	1.8
MONTH	17.9	8.1	12.8	16.3	4.2	9.8	12.4	0.0	3.6	11.3	0.0	3.7
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	4.6	1.9	2.8	4.0	2.3	3.0	11.8	8.1	9.4	13.0	8.4	10.6
2	2.7	0.7	1.7	3.9	0.5	2.1	8.8	6.9	7.7	12.2	9.2	10.5
3	4.7	1.9	2.8	3.9	0.3	2.1	13.1	5.6	8.7	11.9	8.0	9.9
4	4.8	0.7	2.4	4.8	0.7	2.6	15.0	6.7	10.4	12.7	8.6	10.6
5	5.6	1.1	2.9	4.9	2.9	3.9	16.9	8.7	12.4	15.2	9.4	11.8
6	5.4	1.7	3.3	8.4	2.4	5.2	16.3	9.9	13.1	16.2	11.0	13.3
7	4.9	3.1	4.0	9.0	6.0	7.5	15.7	12.0	13.7	17.3	11.9	14.4
8	7.1	4.8	5.9	7.3	3.2	4.8	17.1	11.4	14.1	19.7	14.1	16.5
9	6.5	4.9	6.0	3.9	0.9	2.5	17.5	9.6	13.4	20.5	15.4	17.7
10	4.9	2.2	3.6	3.3	1.0	2.2	18.6	10.8	14.6	21.3	17.1	18.9
11	3.6	1.0	2.1	3.0	2.1	2.5	19.4	13.3	16.3	22.3	17.1	19.4
12	6.1	1.0	3.3	4.8	1.8	3.3	18.2	14.1	14.9	20.5	17.2	18.3
13	5.5	3.0	4.1	4.1	2.5	3.4	14.6	13.0	13.7	20.7	14.9	17.4
14	7.2	5.5	6.5	6.1	1.5	3.6	16.8	9.6	12.9	18.9	17.5	18.1
15	9.6	4.4	6.6	7.1	2.5	4.7	17.2	10.2	13.7	17.5	14.8	15.6
16	7.6	5.5	6.9	6.7	4.3	5.5	17.7	10.6	14.1	15.0	13.5	14.1
17	5.7	3.3	4.4	8.9	4.0	6.1	17.7	11.6	14.7	16.4	11.6	13.6
18	5.3	2.2	3.4	9.7	4.2	6.8	19.7	13.6	16.3	18.3	12.8	14.9
19	4.7	0.5	2.6	7.8	6.3	6.8	19.6	14.8	17.1	16.6	14.8	15.6
20	5.5	3.3	4.0	8.0	5.2	6.4	20.5	15.0	17.5	16.9	15.6	16.2
21	7.3	5.5	6.5	8.6	3.9	6.1	18.6	14.9	16.4	18.5	14.5	16.1
22	6.6	5.0	5.8	7.0	4.7	5.9	16.2	13.8	14.7	16.8	14.2	15.5
23	6.5	4.3	5.4	6.5	5.4	6.0	13.9	9.2	11.3	17.6	14.6	15.9
24	5.4	3.3	4.0	9.0	4.6	6.5	9.6	7.5	8.5	17.0	15.1	15.7
25	4.6	0.9	2.8	8.4	6.2	7.4	14.6	7.6	10.5	16.4	14.2	15.1
26	6.3	2.6	4.3	9.0	7.2	8.1	13.0	10.4	11.2	17.4	13.9	15.3
27	6.6	2.2	4.4	8.5	6.8	7.5	12.1	8.4	10.3	18.1	15.2	16.4
28	5.9	4.0	4.8	8.5	7.2	7.9	12.3	8.4	10.4	17.9	15.5	16.7
29	---	---	---	13.2	5.6	8.9	11.6	10.6	11.1	18.0	15.2	16.3
30	---	---	---	15.1	7.7	11.0	12.2	10.9	11.5	17.4	15.2	15.6
31	---	---	---	15.4	10.7	12.5	---	---	---	18.5	14.7	16.0
MONTH	9.6	0.5	4.2	15.4	0.3	5.6	20.5	5.6	12.8	22.3	8.0	15.2





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

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	6.9	5.8	6.3	9.8	8.9	9.2	11.5	10.4	10.9
2	---	---	---	7.7	5.4	6.4	10.7	9.3	10.1	10.9	9.8	10.5
3	---	---	---	7.6	6.8	7.2	11.0	9.6	10.3	10.5	9.2	9.7
4	---	---	---	8.4	6.8	7.1	11.3	10.0	10.8	10.9	9.0	9.4
5	---	---	---	8.0	6.9	7.5	11.6	10.0	10.7	10.9	9.9	10.3
6	---	---	---	8.3	7.2	7.8	10.2	8.6	9.5	11.1	10.0	10.5
7	---	---	---	8.0	7.0	7.5	9.7	8.5	9.2	11.0	10.4	10.7
8	---	---	---	8.8	6.7	7.9	11.5	9.5	10.3	11.3	10.5	10.7
9	---	---	---	9.6	8.2	8.9	11.4	9.8	10.3	10.8	10.2	10.5
10	---	---	---	9.9	8.5	9.2	10.3	9.4	9.8	10.6	10.0	10.4
11	---	---	---	10.6	7.6	8.5	11.2	9.4	10.2	10.3	9.1	9.7
12	---	---	---	10.4	8.8	9.4	11.8	9.9	10.7	9.2	8.6	8.9
13	---	---	---	10.2	9.0	9.7	12.2	9.9	10.9	9.9	8.5	8.9
14	---	---	---	10.8	9.6	10.3	12.9	11.2	11.9	11.0	9.5	10.4
15	---	---	---	11.0	9.8	10.4	13.6	11.8	12.6	11.8	11.0	11.4
16	---	---	---	10.2	9.1	9.7	13.7	12.3	12.9	12.3	11.2	11.8
17	---	---	---	9.3	8.6	8.9	12.7	11.4	12.0	13.4	12.3	13.0
18	---	---	---	9.5	8.2	8.8	12.8	11.6	12.2	13.6	13.0	13.4
19	---	---	---	9.6	7.6	8.2	12.8	10.7	11.7	13.1	12.1	12.7
20	---	---	---	8.1	7.6	7.8	13.7	12.8	13.2	12.8	12.1	12.4
21	---	---	---	8.3	7.6	7.9	13.4	12.3	12.9	13.4	12.6	12.9
22	---	---	---	8.4	7.8	8.0	12.9	12.1	12.5	12.8	12.5	12.7
23	---	---	---	9.8	7.9	8.6	13.2	12.2	12.6	13.9	12.8	13.4
24	---	---	---	9.1	7.6	8.3	13.8	12.4	12.9	13.6	12.5	13.3
25	---	---	---	9.4	7.6	8.7	14.1	12.3	13.0	13.4	12.2	12.9
26	---	---	---	10.2	9.0	9.6	13.5	12.0	12.6	12.8	12.3	12.5
27	---	---	---	9.8	8.8	9.2	14.1	12.2	13.0	14.1	12.4	13.3
28	8.5	7.2	7.9	9.8	8.8	9.2	14.1	12.4	13.2	14.2	12.8	13.6
29	7.2	6.6	6.8	10.4	9.3	9.8	14.5	12.0	12.7	13.2	12.4	12.7
30	6.7	5.7	6.2	9.6	9.0	9.3	13.0	12.4	12.7	13.0	12.1	12.4
31	7.4	5.3	6.3	---	---	---	12.8	11.4	12.3	13.4	11.7	12.6
MONTH				11.0	5.4	8.5	14.5	8.5	11.6	14.2	8.5	11.6
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	13.0	11.6	12.0	14.8	9.9	12.0	11.1	7.6	9.3	12.9	8.0	10.1
2	13.1	11.5	12.3	15.1	11.0	12.6	9.8	8.8	9.4	13.2	7.9	10.1
3	13.0	11.3	11.8	15.1	10.8	12.6	11.7	8.4	10.2	13.5	8.4	10.5
4	13.3	11.1	12.0	14.8	10.6	12.3	12.1	8.0	9.9	12.8	8.5	10.6
5	13.2	10.9	11.9	13.8	10.0	11.4	12.1	7.7	9.5	11.4	8.3	9.8
6	13.2	10.8	11.8	14.2	9.6	11.5	12.2	7.4	9.4	10.5	7.6	8.9
7	12.2	10.5	11.2	11.9	8.2	9.5	11.2	7.4	8.8	9.8	7.3	8.3
8	11.2	9.7	10.4	12.8	8.4	10.5	11.8	7.5	9.2	8.8	6.3	7.5
9	11.0	9.7	10.1	14.1	10.2	11.9	11.5	7.8	9.4	8.3	5.7	6.8
10	12.6	10.2	11.3	14.3	10.1	12.0	11.1	7.6	9.1	7.6	5.1	6.3
11	13.4	11.0	12.1	13.1	10.0	11.5	---	---	---	7.2	4.8	5.9
12	13.0	10.0	11.6	13.8	10.2	11.8	---	---	---	6.1	4.9	5.5
13	11.7	9.9	10.5	14.2	9.5	11.6	---	---	---	7.5	4.9	6.0
14	9.9	9.3	9.5	13.6	10.2	11.9	---	---	---	6.4	5.0	5.7
15	11.3	8.5	10	13.1	9.5	11.3	---	---	---	7.2	5.1	5.9
16	11.6	8.5	9.8	12.4	8.9	10.8	---	---	---	7.7	5.8	6.6
17	12.9	9.5	11.0	11.7	9.3	10.7	---	---	---	8.7	6.3	7.4
18	13.4	10.4	11.5	10.8	9.0	10.0	---	---	---	8.1	6.1	7.1
19	14.2	10.2	12.0	10.0	8.2	9.0	---	---	---	7.5	5.4	6.3
20	11.9	9.5	10.6	10.6	8.5	9.5	---	---	---	---	---	---
21	12.0	9.0	10.0	11.0	8.9	10.0	9.0	6.7	7.6	---	---	---
22	13.6	9.1	10.7	10.6	8.7	9.9	9.2	7.2	8.0	---	---	---
23	14.4	9.4	11.3	10.0	8.9	9.2	9.8	8.2	9.2	---	---	---
24	13.9	9.5	11.2	10.9	8.8	9.8	10.7	8.9	9.8	---	---	---
25	15.2	10.3	12.3	10.3	8.1	9.0	11.3	8.0	9.6	---	---	---
26	14.9	10.1	12.0	10.8	7.8	9.1	10.0	7.7	8.5	---	---	---
27	14.6	9.9	11.8	10.0	7.8	8.6	11.0	8.5	9.5	---	---	---
28	12.4	9.3	10.4	10.4	8.1	9.2	13.1	8.3	10.1	---	---	---
29	---	---	---	9.8	7.8	8.9	11.0	8.0	9.1	---	---	---
30	---	---	---	10.0	7.5	8.7	12.5	7.9	9.5	---	---	---
31	---	---	---	10.3	7.5	8.6	---	---	---	---	---	---
MONTH	15.2	8.5	11.2	15.1	7.5	10.5						

## FOUR MILE CREEK BASIN

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

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER—CONTINUED  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	7.4	4.1	6.2	4.4	2.9	3.4	6.2	5.5	5.9			
2	---	---	---	6.2	5.0	5.5	4.3	2.9	3.4	6.3	5.5	5.8			
3	---	---	---	5.7	4.4	4.8	4.5	2.9	3.6	6.8	5.6	6.1			
4	---	---	---	4.8	3.6	4.1	4.2	3.0	3.6	7.0	5.9	6.3			
5	---	---	---	4.2	3.6	3.9	3.4	2.1	2.8	6.4	6.0	6.2			
6	---	---	---	4.0	3.3	3.7	4.7	2.4	3.4	---	---	---			
7	---	---	---	3.9	3.4	3.6	4.7	3.2	3.8	---	---	---			
8	---	---	---	3.9	3.1	3.5	4.7	2.4	3.5	---	---	---			
9	---	---	---	3.9	3.3	3.6	4.8	2.7	3.6	---	---	---			
10	---	---	---	4.4	3.3	3.9	4.9	3.0	3.8	---	---	---			
11	---	---	---	3.9	3.1	3.5	4.1	3.0	3.5	---	---	---			
12	---	---	---	---	---	---	4.7	2.8	3.5	---	---	---			
13	---	---	---	---	---	---	4.5	2.9	3.6	---	---	---			
14	---	---	---	---	---	---	4.6	2.6	3.6	---	---	---			
15	---	---	---	---	---	---	4.1	2.4	3.2	4.9	4.3	4.6			
16	4.2	3.1	3.4	---	---	---	3.1	2.4	2.7	5.8	4.0	4.5			
17	3.8	3.1	3.5	---	---	---	5.0	2.7	3.7	5.2	4.6	4.8			
18	3.9	3.3	3.5	---	---	---	4.3	2.9	3.8	5.0	4.5	4.7			
19	5.1	3.5	4.0	---	---	---	4.2	2.8	3.4	5.3	4.0	4.5			
20	5.0	3.8	4.1	---	---	---	---	---	---	7.2	5.0	6.3			
21	4.5	3.7	4.0	4.3	3.0	3.5	---	---	---	6.0	4.3	4.9			
22	4.1	3.0	3.5	5.2	3.3	3.9	5.7	3.9	4.5	5.2	4.2	4.5			
23	3.9	3.2	3.5	4.8	3.4	3.8	5.4	3.4	4.3	6.9	3.3	4.5			
24	3.7	2.7	3.2	4.1	2.9	3.5	5.4	3.7	4.5	6.7	5.5	6.0			
25	3.2	2.2	2.8	3.8	2.6	3.1	6.0	4.2	4.9	5.8	5.1	5.4			
26	3.2	2.2	2.7	3.5	1.9	2.6	6.4	3.8	5.3	6.3	4.8	5.8			
27	3.4	2.1	2.8	2.7	1.6	2.0	5.3	3.7	4.4	6.3	5.3	5.7			
28	3.4	2.2	2.7	3.5	1.9	2.5	---	---	---	5.8	4.9	5.3			
29	4.1	2.2	3.0	4.1	2.3	2.9	---	---	---	6.9	5.4	6.2			
30	4.4	3.6	4.0	4.4	2.7	3.3	6.3	2.1	4.4	7.0	5.9	6.3			
31	---	---	---	4.4	2.7	3.3	---	---	---	---	---	---			

MONTH

YEAR

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

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	69	8.0	14	410	53	130	140	58	89
2	---	---	---	320	11	96	69	23	37	84	34	49
3	---	---	---	110	28	52	36	14	22	2,600	37	480
4	---	---	---	580	26	130	23	11	16	820	100	190
5	---	---	---	93	20	33	47	11	16	1,300	160	290
6	---	---	---	60	12	18	120	14	55	390	92	190
7	---	---	---	19	8.0	13	710	28	170	110	45	70
8	---	---	---	17	5.0	9.0	100	35	56	890	56	160
9	---	---	---	48	4.0	6.9	650	20	140	73	38	53
10	---	---	---	13	3.0	5.7	140	39	68	60	32	44
11	---	---	---	940	4.0	130	52	32	42	890	37	250
12	---	---	---	560	64	130	47	17	31	140	56	82
13	---	---	---	88	28	47	37	15	21	1,100	54	280
14	---	---	---	39	17	27	28	10	14	230	61	110
15	120	18	71	77	14	26	32	7.5	12	67	35	48
16	100	34	52	27	15	19	26	5.5	9.1	55	30	39
17	46	24	35	23	11	16	19	3.6	8.2	53	29	38
18	2,300	24	270	28	10	17	14	3.7	6.0	63	26	36
19	330	87	130	1,760	12	260	16	2.8	6.6	49	21	29
20	130	72	94	110	41	66	7.8	3.8	4.9	33	20	26
21	130	52	77	220	30	48	6.9	3.9	5.0	33	18	23
22	90	38	53	41	21	30	210	5.9	86	38	18	24
23	790	30	110	51	21	24	120	21	35	52	19	23
24	180	42	76	400	23	130	27	10	16	52	19	25
25	51	26	35	92	33	61	15	5.2	9.1	150	17	42
26	41	21	28	46	22	30	10	3.2	5.8	54	17	28
27	270	34	92	120	15	24	8.3	2.3	4.3	40	16	24
28	40	16	26	120	31	63	---	---	---	59	14	20
29	22	10	16	59	18	26	110	3.4	24	62	14	30
30	79	13	29	470	12	88	480	54	190	73	21	40
31	48	12	25	---	---	---	200	130	170	59	27	39
MONTH				1,760	3.0	55	710	2.3	47	2,600	14	93
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	120	20	50	86	18	41	140	62	92	33	15	23
2	85	21	41	43	14	22	290	140	230	28	10	19
3	89	19	41	43	11	20	160	48	93	22	9.0	15
4	69	23	43	38	11	19	77	30	52	17	6.0	11
5	80	20	43	58	13	25	60	29	41	30	9.0	16
6	180	24	66	40	8.0	18	50	21	34	23	9.0	14
7	220	28	75	540	10	94	51	24	36	25	11	16
8	1,600	100	330	500	33	140	45	22	32	28	12	18
9	150	42	90	48	14	23	39	22	29	30	15	21
10	120	30	56	27	8.0	14	44	24	32	45	18	23
11	66	20	31	17	5.0	10	44	20	29	33	17	25
12	50	16	31	19	6.0	11	43	20	29	120	20	71
13	540	25	140	19	5.0	11	42	14	27	71	23	41
14	830	87	240	21	4.0	8.0	40	13	21	100	24	58
15	120	44	72	18	4.0	11	34	12	20	74	36	52
16	120	48	71	22	5.0	12	30	11	18	45	32	38
17	88	22	42	18	4.0	8.0	54	13	19	58	23	34
18	41	23	32	15	5.0	7.6	46	11	16	42	25	30
19	48	20	29	200	6.0	47	37	13	19	500	26	99
20	85	17	33	120	19	58	34	14	20	530	66	210
21	68	27	42	34	7.0	14	74	11	18	82	36	56
22	71	21	35	210	5.0	12	2,400	14	180	60	34	44
23	42	19	29	480	100	210	1,500	150	350	49	30	38
24	51	24	29	120	29	59	160	67	100	57	26	37
25	41	19	27	49	21	31	93	32	58	60	25	35
26	46	12	21	48	18	28	1,000	32	170	49	24	33
27	48	15	23	180	21	51	220	41	95	130	21	29
28	75	13	31	2,600	180	810	65	22	39	79	23	48
29	---	---	---	230	130	170	41	16	27	140	26	43
30	---	---	---	170	100	140	42	15	26	57	24	31
31	---	---	---	140	74	110	---	---	---	110	29	47
MONTH	1,600	12	64	2,600	4.0	72	2,400	11	65	530	6.0	41



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LICKING RIVER BASIN

03249500 LICKING RIVER AT FARMERS, KY

LOCATION.--Lat 38°06'55", long 83°32'36", Bath County, Hydrologic Unit 05100101, on left bank, 0.2 mi downstream from Hog Hollow, 0.8 mi downstream from Cave Run Dam, 1.9 mi south of Farmers, 4.5 mi upstream from Triplett Creek, and at mile 174.

DRAINAGE AREA.--827 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1915 to June 1920 (gage heights only), April 1928 to September 1931, December 1936 to February 1937 (in WSP 838), April 1938 to September 1994, October 2002 to current year. All figures of discharge above 2,000 ft<sup>3</sup>/s prior to April 1938 are unreliable and should not be used. Gage-height records collected at former site since 1915 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 1275: 1928-31, 1937. WSP 1505: 1950(P). WSP 1705; 1952, drainage area.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 646.55 ft above sea level. See WRD-KY-90-1 for history of changes prior to Oct. 20, 1965.

REMARKS.--Records good. Discharge values published are days with mean values, 1100 ft<sup>3</sup>/s and below: Flow regulated by Cave Run Dam beginning December 1973 (station 03249498). High Flow only regulated prior to December 1973 (Cave Run Dam under construction). Diversion above station from Cave Run Lake for Fish Hatchery; return flow of which enters Licking River below station.

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

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	931	1,000	---	---	---	---	190	147	54	159
2	---	---	---	1,000	---	---	---	---	194	193	55	200
3	---	---	---	1,000	---	---	---	---	187	183	55	181
4	---	---	---	1,010	---	---	---	---	186	182	54	176
5	---	---	---	879	---	---	---	---	186	179	54	198
6	---	---	---	585	---	---	---	---	141	141	54	191
7	---	---	---	583	---	---	---	---	97	94	57	187
8	---	---	---	760	---	---	---	---	98	75	55	181
9	---	---	---	596	---	---	---	---	99	63	56	200
10	---	---	---	597	---	---	---	---	149	63	56	205
11	---	---	---	596	---	---	---	---	206	62	55	189
12	---	---	---	599	---	---	---	---	192	63	55	132
13	---	---	---	608	---	---	---	---	191	66	55	93
14	---	---	---	615	---	---	---	---	192	64	55	91
15	1,030	---	---	611	---	---	---	1,030	190	64	55	91
16	1,020	---	---	612	---	---	---	779	198	63	58	90
17	1,000	---	---	---	---	761	568	394	202	64	59	89
18	837	---	---	---	---	561	571	212	187	65	59	88
19	---	1,040	---	---	---	560	566	202	132	66	57	90
20	---	1,030	---	---	---	563	566	559	96	83	55	159
21	---	---	---	---	1,020	562	568	---	97	96	54	200
22	---	---	---	---	---	562	567	---	95	108	54	184
23	---	---	1,030	---	---	306	570	708	94	114	56	178
24	---	---	---	---	---	125	571	317	82	113	56	174
25	---	---	---	---	---	121	---	213	72	115	53	178
26	---	---	---	---	---	121	---	200	73	117	52	181
27	---	---	---	---	978	122	---	194	70	84	55	206
28	---	---	---	---	990	157	---	192	63	56	53	194
29	---	---	1,000	---	---	681	---	191	62	56	65	207
30	---	---	1,000	---	---	---	---	188	67	55	78	208
31	---	---	1,000	---	---	---	---	186	---	54	105	---
TOTAL	---	---	---	---	---	---	---	---	4,088	2,948	1,794	4,900
MEAN	---	---	---	---	---	---	---	---	136	95.1	57.9	163
MAX	---	---	---	---	---	---	---	---	206	193	105	208
MIN	---	---	---	---	---	---	---	---	62	54	52	88

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2005, BY WATER YEAR (WY)

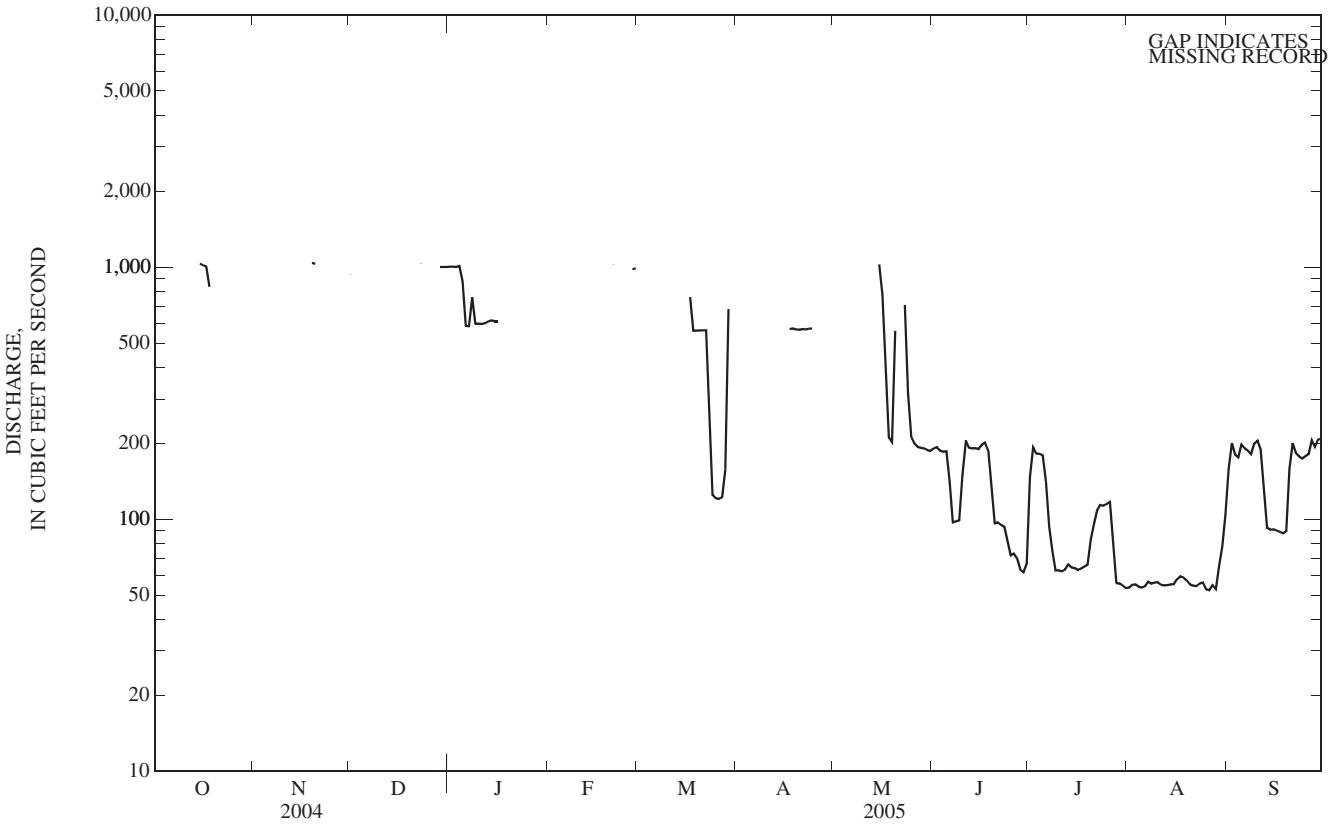
MEAN	525	807	1,429	1,652	1,875	2,089	1,617	1,106	778	321	290	399
MAX	2,336	1,988	3,096	3,692	3,717	3,670	4,061	3,350	2,521	1,620	836	2,360
(WY)	(1990)	(1990)	(1986)	(1991)	(1991)	(1989)	(1994)	(1984)	(1983)	(1981)	(1979)	(1974)
MIN	25.2	19.7	310	138	507	286	51.0	41.1	41.7	40.2	35.5	80.5
(WY)	(1979)	(1979)	(1982)	(1981)	(1984)	(1983)	(1986)	(1976)	(1988)	(1988)	(1988)	(2002)

03249500 LICKING RIVER AT FARMERS, KY—Continued

SUMMARY STATISTICS

WATER YEARS 1974 - 2005

ANNUAL MEAN	1,078	
HIGHEST ANNUAL MEAN	1,754	1994
LOWEST ANNUAL MEAN	496	1988
HIGHEST DAILY MEAN	7,820	Jan 15, 1974
LOWEST DAILY MEAN	6.1	Jul 21, 1983
ANNUAL SEVEN-DAY MINIMUM	14	Oct 4, 1978
MAXIMUM PEAK FLOW	24,000	Feb 28, 1962
MAXIMUM PEAK STAGE	31.10	Feb 9, 1918
INSTANTANEOUS LOW FLOW	0.70	Oct 14, 1930
10 PERCENT EXCEEDS	3,310	
50 PERCENT EXCEEDS	349	
90 PERCENT EXCEEDS	65	



## 03249505 LICKING RIVER AT HIGHWAY 60 AT FARMERS, KY

LOCATION.--Lat 38°08'24", long 83°33'26", Rowan County, Hydrologic Unit 05100101, on right bank on downstream side of bridge on U.S. Highway 60, 250 ft upstream from Chesapeake and Ohio Railway bridge, 0.75 mi west of Farmers, 1.1 mile upstream from Triplett Creek, and 3.45 miles downstream from Farmers base gage.

DRAINAGE AREA.--831 mi<sup>2</sup>

PERIOD OF RECORD.--Nonrecording gage July 2, 1938 to Sept. 30, 1944. Oct. 1, 1944 to Oct. 11, 1960, nonrecording gage 0.35 mi upstream and Oct. 12, 1960 to Oct. 20, 1965, nonrecording gage 0.65 mi upstream at datum 5.90 ft higher. Flows less than 5,000 ft<sup>3</sup>/s published Oct. 1, 2003 to current year.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 646.55 ft above NGVD of 1929.

REMARKS.--Records good.

COOPERATION.--Morehead Water Board.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,640	1,860	3,480	1,170	3,680	1,600	2,420	1,600	257	185	49	213
2	3,620	1,650	1,650	1,170	3,580	2,300	3,690	2,430	262	280	48	285
3	3,600	1,420	2,590	1,170	3,550	2,510	2,360	3,500	253	264	52	260
4	3,570	2,970	3,140	1,240	3,520	2,490	2,460	3,750	249	263	53	251
5	3,550	3,150	3,080	2,150	3,470	2,330	3,550	3,700	247	260	52	275
6	3,530	3,250	2,530	1,270	3,430	1,960	3,640	3,660	195	217	51	262
7	3,510	3,120	2,130	949	3,400	1,660	3,190	3,630	117	126	54	253
8	3,480	3,040	2,710	3,180	3,420	3,690	3,420	3,600	121	97	54	249
9	3,460	3,000	2,680	1,240	3,110	1,980	3,670	3,570	124	69	55	273
10	3,440	2,960	2,380	722	2,180	2,640	3,620	3,540	185	71	55	283
11	3,420	2,940	3,410	725	1,630	2,580	3,350	3,520	287	76	53	264
12	3,050	2,840	3,340	726	1,620	2,560	2,580	3,110	264	77	50	192
13	2,130	1,400	3,440	733	1,620	2,570	2,580	2,410	261	89	53	123
14	1,480	2,330	3,630	827	1,710	2,540	2,580	1,830	262	81	54	124
15	1,210	2,510	3,570	738	2,020	2,100	2,130	1,220	262	73	53	124
16	1,210	2,480	3,520	739	2,120	1,430	1,290	976	269	74	59	120
17	1,210	2,090	3,480	1,280	2,050	951	705	531	283	73	61	119
18	1,060	1,390	3,460	2,070	1,830	699	712	277	260	78	61	120
19	---	1,210	3,420	2,910	1,620	702	710	264	192	73	62	123
20	2,360	1,240	3,390	3,350	1,460	708	712	637	124	98	55	213
21	2,030	1,420	2,860	3,630	1,220	708	719	1,610	125	125	55	292
22	3,150	1,850	1,590	3,620	1,630	712	721	1,830	124	142	53	267
23	3,080	2,040	1,200	3,640	2,080	442	729	916	119	153	57	254
24	3,120	2,050	1,620	3,560	2,050	166	729	417	104	152	58	252
25	3,090	2,370	2,290	3,560	2,040	159	1,170	284	82	153	53	252
26	3,040	2,180	2,490	3,570	1,700	156	1,730	262	87	154	54	259
27	2,620	1,840	2,460	3,570	1,160	163	1,880	251	82	114	69	288
28	2,090	1,690	1,950	3,500	1,180	751	1,750	252	71	53	57	277
29	2,080	1,650	1,170	3,630	---	2,800	1,740	252	69	52	94	293
30	2,070	1,560	1,170	4,120	---	1,840	2,990	251	85	49	104	291
31	2,060	---	1,170	3,850	---	2,690	---	251	---	50	149	---
TOTAL	---	65,500	81,000	68,609	64,080	50,587	63,527	54,331	5,422	3,821	1,887	6,851
MEAN	---	2,183	2,613	2,213	2,289	1,632	2,118	1,753	181	123	60.9	228
MAX	---	3,250	3,630	4,120	3,680	3,690	3,690	3,750	287	280	149	293
MIN	---	1,210	1,170	722	1,160	156	705	251	69	49	48	119

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2005, BY WATER YEAR (WY)

MEAN	244	2,183	2,669	2,213	2,289	1,632	2,052	1,753	181	624	267	228
MAX	244	2,183	2,726	2,213	2,289	1,632	2,118	1,753	181	1,125	474	228
(WY)	(2004)	(2005)	(2004)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2004)	(2004)	(2005)
MIN	244	2,183	2,613	2,213	2,289	1,632	1,987	1,753	181	123	60.9	228
(WY)	(2004)	(2005)	(2005)	(2005)	(2005)	(2005)	(2004)	(2005)	(2005)	(2005)	(2005)	(2005)

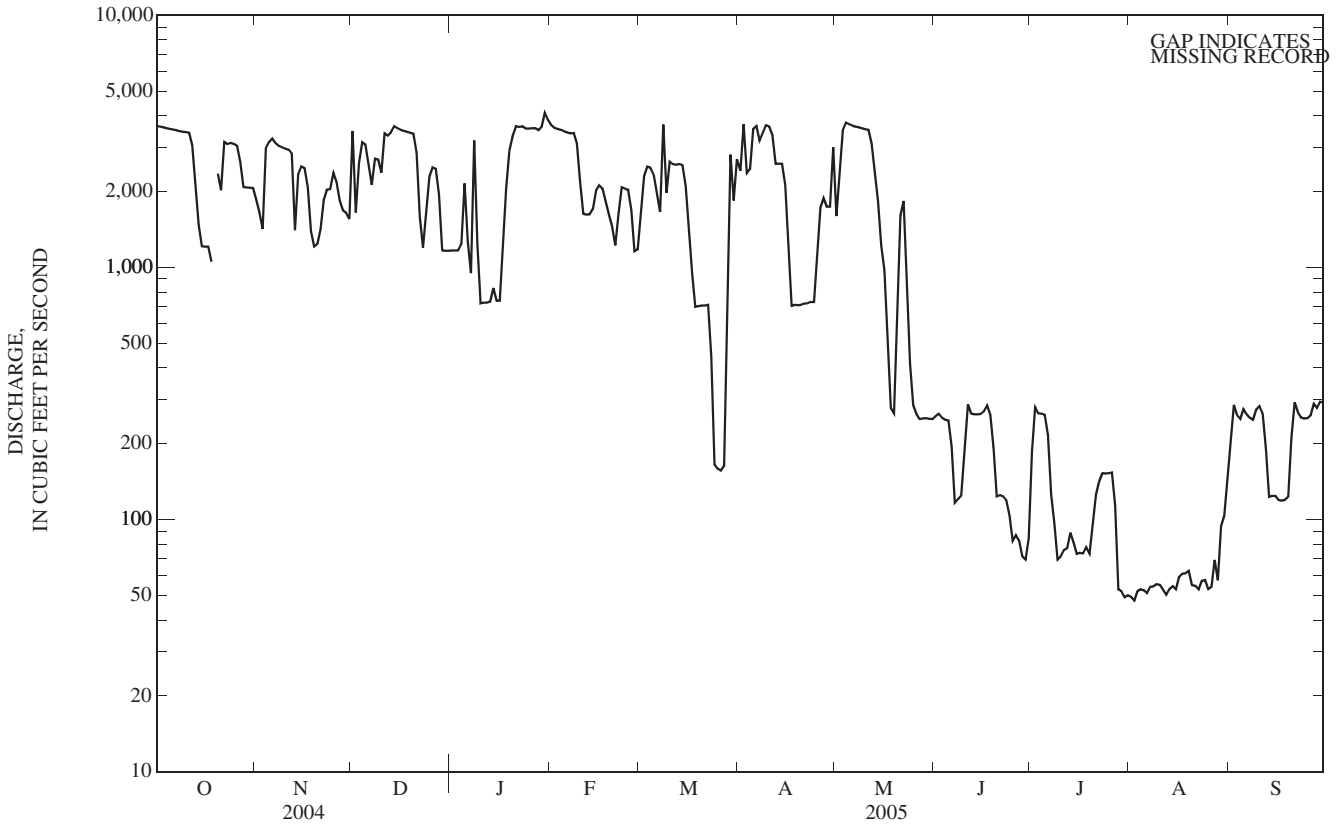


03249505 LICKING RIVER AT HIGHWAY 60 AT FARMERS, KY—Continued

SUMMARY STATISTICS

WATER YEARS 2000 - 2005

HIGHEST DAILY MEAN	4,690	Feb 14, 2004
LOWEST DAILY MEAN	3.7	Jan 13, 2003
ANNUAL SEVEN-DAY MINIMUM	50	Jul 28, 2005
MAXIMUM PEAK STAGE	21.99	Sep 17, 2004



## 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<sup>2</sup>

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

GAGE.--Water-stage recorder with telemetry and crest-stage gage. Datum of gage is 749.599 ft above NGVD of 1929.

REMARKS.--Records fair except for those estimated, which are poor. Discharge only published for discharges less than 1,000 ft<sup>3</sup>/s.

COOPERATION.--City of Mount Sterling.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	68	---	235	151	296	---	348	6.0	11	5.7	16
2	20	72	355	253	117	148	---	156	5.9	7.5	0.94	3.2
3	24	114	198	186	137	109	526	100	12	4.9	0.85	1.3
4	43	---	136	185	115	93	227	74	20	3.7	0.74	0.19
5	86	396	102	---	94	92	147	58	9.6	17	0.64	0.02
6	48	180	121	---	80	78	107	50	6.9	8.3	0.60	0.79
7	7.9	119	---	---	72	119	90	42	5.8	5.2	0.41	0.99
8	10	84	332	---	122	---	112	36	9.0	7.6	3.8	1.0
9	19	65	266	399	128	273	82	31	11	12	8.8	0.90
10	27	54	353	221	157	163	64	29	7.0	12	9.1	1.0
11	30	48	217	161	113	131	53	24	7.5	7.3	11	1.2
12	34	455	178	136	94	138	48	20	6.3	1.9	7.0	1.1
13	43	215	130	176	102	141	85	17	6.3	9.6	0.92	1.0
14	e60	116	91	---	481	103	119	17	6.1	30	1.2	1.0
15	e47	84	73	220	307	84	65	19	6.4	45	4.6	1.0
16	48	70	64	149	185	72	49	14	5.1	16	13	1.2
17	44	61	58	105	134	63	41	11	4.5	13	13	1.3
18	54	55	51	e84	97	55	36	10	4.4	32	13	1.3
19	---	164	48	71	80	50	32	11	3.6	75	8.4	1.2
20	328	175	37	67	74	61	29	286	4.8	56	1.4	1.1
21	137	106	39	69	---	50	25	63	12	31	0.61	2.3
22	86	83	45	110	---	44	24	33	12	14	0.09	7.2
23	67	74	403	121	180	123	46	25	9.3	7.1	4.1	7.5
24	124	162	172	89	136	101	75	18	2.2	4.8	9.7	7.8
25	93	---	95	76	108	71	50	14	1.8	4.0	9.4	7.9
26	67	198	77	92	85	61	45	11	1.6	3.9	6.7	8.0
27	219	138	59	77	75	60	288	10	5.1	3.6	1.1	7.8
28	221	379	50	56	261	---	85	8.9	12	4.6	11	7.7
29	129	186	54	---	---	---	136	7.9	13	9.2	66	7.7
30	101	---	59	494	---	211	---	7.3	14	8.9	80	7.6
31	80	---	56	225	---	168	---	6.7	---	9.0	42	---
TOTAL	---	---	---	---	---	---	---	1,557.8	231.2	475.1	335.80	108.29
MEAN	---	---	---	---	---	---	---	50.3	7.71	15.3	10.8	3.61
MAX	---	---	---	---	---	---	---	348	20	75	80	16
MIN	---	---	---	---	---	---	---	6.7	1.6	1.9	0.09	0.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2005, BY WATER YEAR (WY)

MEAN	70.8	89.3	131	96.2	286	239	135	155	77.9	55.5	48.4	24.0
MAX	189	229	223	131	619	512	169	343	295	215	123	78.2
(WY)	(2003)	(2003)	(2003)	(2002)	(2003)	(2002)	(2000)	(2003)	(2003)	(2001)	(2003)	(2003)
MIN	4.26	8.88	74.5	65.1	43.5	135	50.7	3.11	7.71	5.45	10.8	3.61
(WY)	(2001)	(2001)	(2001)	(2001)	(2002)	(2000)	(2001)	(2000)	(2005)	(2002)	(2005)	(2005)

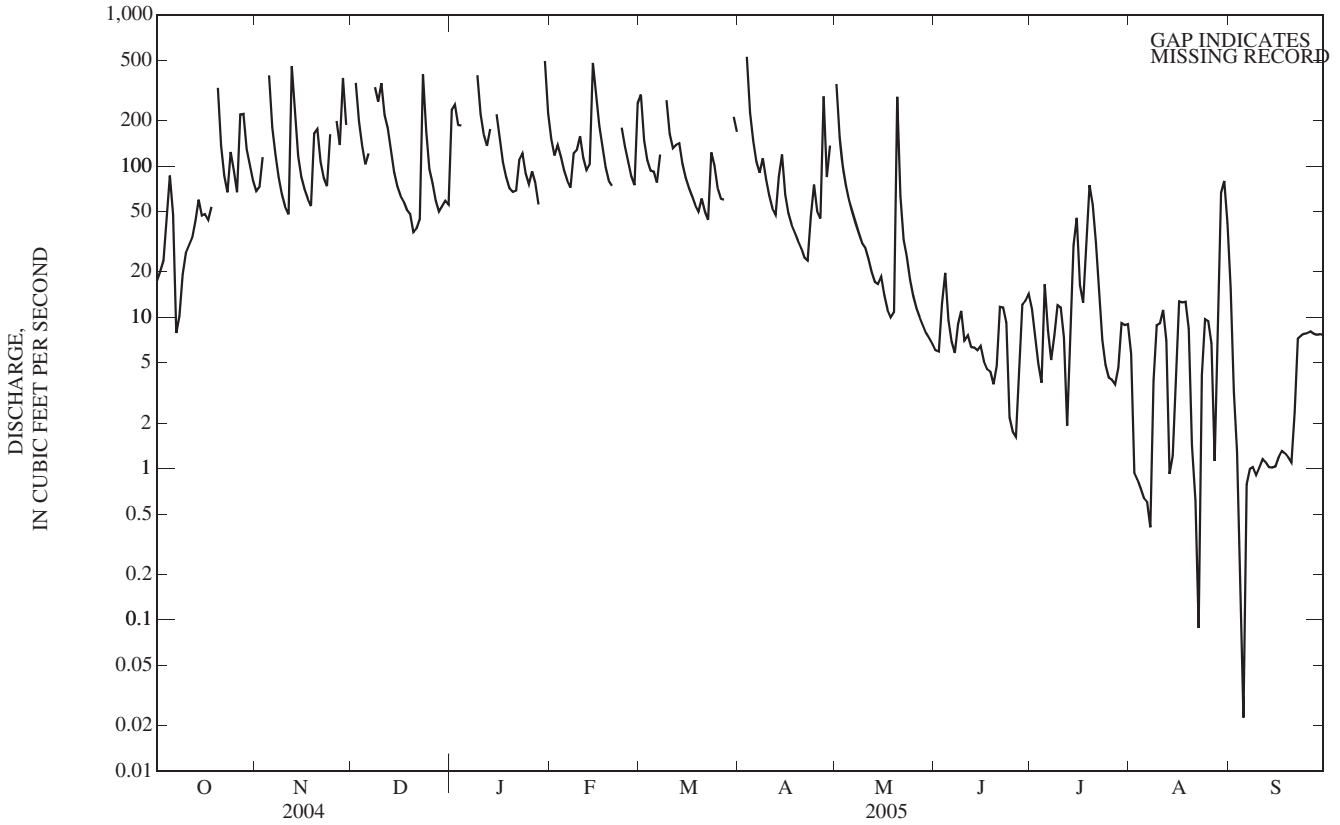
03250190 SLATE CREEK AT HIGHWAY 713 NEAR MOUNT STERLING, KY—Continued

SUMMARY STATISTICS

WATER YEARS 2000 - 2005

ANNUAL MEAN	134	
HIGHEST ANNUAL MEAN	207	2003
LOWEST ANNUAL MEAN	81.4	2001
HIGHEST DAILY MEAN	6,610	Mar 20, 2002
LOWEST DAILY MEAN	0.00	Sep 22, 2000
ANNUAL SEVEN-DAY MINIMUM	0.25	Sep 5, 2000
MAXIMUM PEAK FLOW	0.00	Mar 20, 2002
MAXIMUM PEAK STAGE	22.83	Nov 13, 2003
10 PERCENT EXCEEDS	315	
50 PERCENT EXCEEDS	37	
90 PERCENT EXCEEDS	2.2	

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<sup>2</sup>

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

GAGE.--Water-stage recorder with telemetry. Datum of gage is 694.94 ft above NGVD of 1929. Gage moved 50 ft downstream August 8, 2002.

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

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

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.12	0.39	20	5.8	2.5	3.9	19	5.2	0.09	0.04	0.01	0.20
2	0.14	0.44	4.6	4.1	2.0	2.2	22	2.6	0.10	0.02	0.01	0.11
3	0.13	1.1	2.7	8.8	2.6	1.7	8.1	1.8	0.11	0.02	0.00	0.06
4	0.12	20	1.9	12	2.0	1.5	3.9	1.3	0.11	0.02	0.00	0.04
5	0.13	3.7	1.5	17	1.6	1.9	2.6	1.1	0.08	0.02	0.00	0.03
6	0.12	2.0	3.6	16	1.4	1.8	2.0	0.94	0.07	0.02	0.00	0.02
7	0.12	1.4	17	10	1.3	14	1.7	0.79	0.06	0.02	0.00	0.01
8	0.11	1.1	4.7	25	3.0	17	1.9	0.67	0.05	0.02	0.00	0.01
9	0.12	0.85	8.9	5.6	3.6	4.5	1.5	0.54	0.05	0.01	0.00	0.01
10	0.12	0.72	7.3	3.3	4.0	2.8	1.2	0.45	0.04	0.01	0.00	0.01
11	0.08	0.72	4.8	2.5	2.3	2.3	1.1	0.37	0.04	0.01	0.00	0.02
12	0.10	17	3.4	2.0	1.9	2.8	0.98	0.30	0.04	0.01	0.00	0.01
13	0.20	3.5	2.3	6.2	4.1	2.7	3.4	0.26	0.03	0.08	0.01	0.01
14	0.16	2.0	1.7	9.0	9.2	2.8	2.6	0.31	0.03	1.1	0.00	0.01
15	0.15	1.5	1.4	3.2	4.7	2.7	1.6	0.36	0.03	1.5	0.01	0.01
16	0.16	1.2	1.2	2.2	3.0	2.0	1.2	0.25	0.03	0.45	0.01	0.01
17	0.16	1.0	1.1	1.6	2.2	1.6	1.1	0.20	0.03	0.19	0.02	0.00
18	0.21	0.96	0.98	1.4	1.7	1.3	0.97	0.17	0.02	0.13	0.02	0.00
19	38	15	0.85	1.2	1.4	1.3	0.88	1.7	0.02	0.09	0.02	0.00
20	3.8	4.9	0.79	1.1	3.6	2.1	0.77	5.5	0.02	0.07	0.04	0.00
21	1.7	2.6	0.72	1.1	5.7	1.6	0.76	1.1	0.01	0.06	0.06	0.00
22	1.2	1.9	0.85	2.0	3.6	1.3	0.78	0.63	0.78	0.04	0.03	0.01
23	0.96	1.5	9.5	e1.5	2.3	5.2	1.7	0.43	0.05	0.03	0.03	0.01
24	1.4	5.5	2.8	e0.66	2.0	3.1	2.4	0.30	0.06	0.02	0.02	0.01
25	0.98	8.8	1.8	1.8	1.7	2.4	1.7	0.23	0.03	0.02	0.02	0.01
26	0.66	3.0	1.4	3.6	1.5	2.1	2.4	0.20	0.02	0.02	0.02	0.01
27	0.62	2.9	1.1	2.0	1.3	3.5	4.1	0.17	0.01	0.01	0.03	0.01
28	0.58	5.8	0.98	1.4	4.4	30	1.7	0.15	0.05	0.02	0.02	0.01
29	0.51	2.5	1.0	6.9	---	9.4	6.1	0.13	0.13	0.02	0.08	0.01
30	0.46	14	1.2	6.4	---	4.2	24	0.11	0.03	0.01	0.10	0.01
31	0.43	---	1.1	3.5	---	3.4	---	0.10	---	0.01	0.35	---
TOTAL	53.75	127.98	113.17	168.86	80.6	139.1	124.14	28.36	2.22	4.09	0.91	0.66
MEAN	1.73	4.27	3.65	5.45	2.88	4.49	4.14	0.91	0.07	0.13	0.03	0.02
MAX	38	20	20	25	9.2	30	24	5.5	0.78	1.5	0.35	0.20
MIN	0.08	0.39	0.72	0.66	1.3	1.3	0.76	0.10	0.01	0.01	0.00	0.00
CFSM	1.04	2.57	2.20	3.28	1.73	2.70	2.49	0.55	0.04	0.08	0.02	0.01
IN.	1.20	2.87	2.54	3.78	1.81	3.12	2.78	0.64	0.05	0.09	0.02	0.01

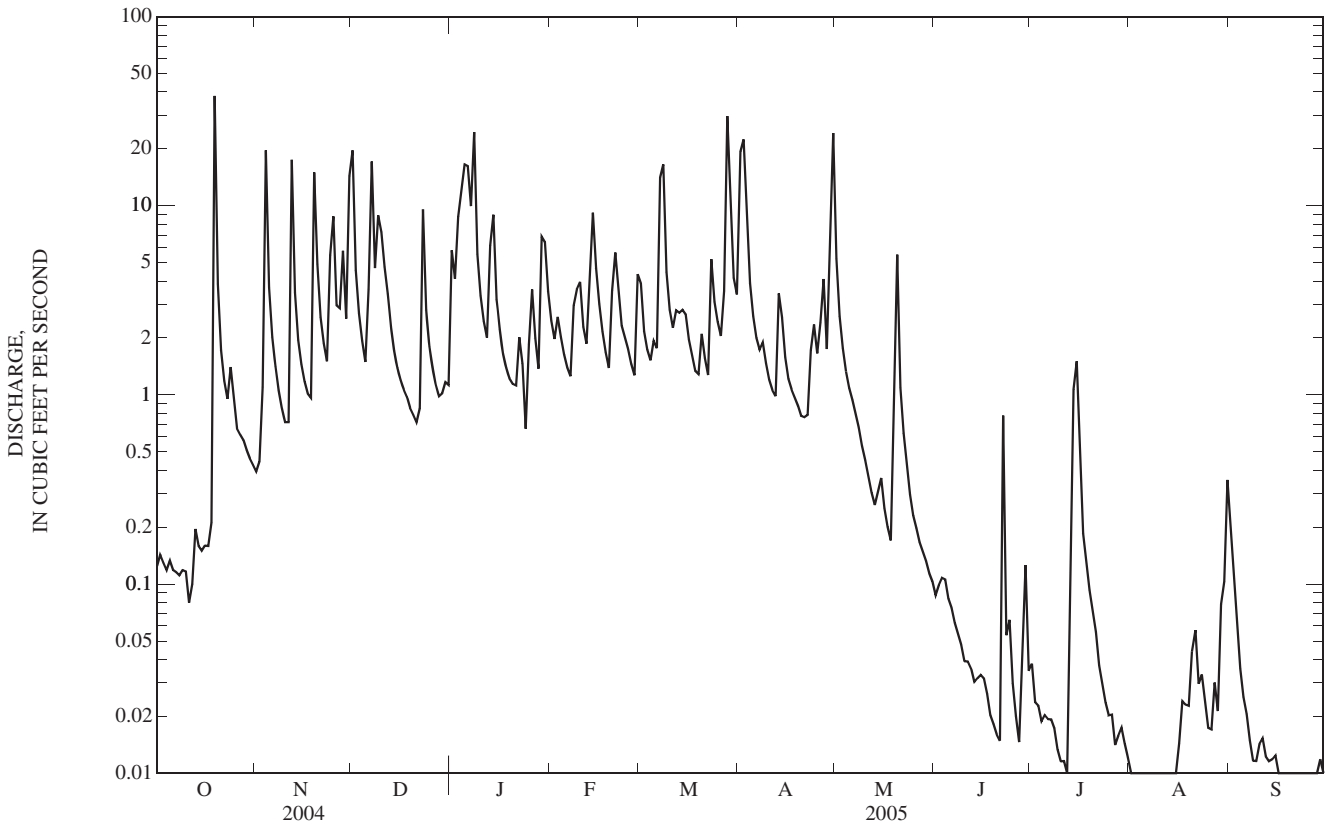
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2005, BY WATER YEAR (WY)

MEAN	0.39	1.59	1.89	2.57	4.12	3.56	2.37	2.30	1.57	1.48	0.59	0.73
MAX	1.73	5.49	3.90	5.45	11.4	8.93	4.14	9.09	4.94	10.4	1.57	4.20
(WY)	(2005)	(2004)	(2004)	(2005)	(2000)	(1997)	(2005)	(2003)	(2003)	(2001)	(2004)	(2004)
MIN	0.01	0.04	0.31	0.29	0.42	2.07	0.49	0.14	0.05	0.00	0.01	0.00
(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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1996 - 2005	
ANNUAL TOTAL	1,043.71		843.84		1.91	
ANNUAL MEAN	2.85		2.31		0.65	
HIGHEST ANNUAL MEAN					3.23	2003
LOWEST ANNUAL MEAN					0.65	1999
HIGHEST DAILY MEAN	69	Sep 17	38	Oct 19	227	Jul 9, 2001
LOWEST DAILY MEAN	0.05	Jul 5	0.00	Aug 3	0.00	Sep 15, 1997
ANNUAL SEVEN-DAY MINIMUM	0.06	Jun 29	0.00	Aug 3	0.00	Sep 15, 1997
MAXIMUM PEAK FLOW			184	Oct 19	916	Jul 8, 2001
MAXIMUM PEAK STAGE			2.62	Oct 19	6.51	Jul 8, 2001
ANNUAL RUNOFF (CFSM)	1.72		1.39		1.15	
ANNUAL RUNOFF (INCHES)	23.39		18.91		15.63	
10 PERCENT EXCEEDS	6.3		5.5		3.6	
50 PERCENT EXCEEDS	0.85		0.96		0.43	
90 PERCENT EXCEEDS	0.12		0.01		0.01	

e Estimated

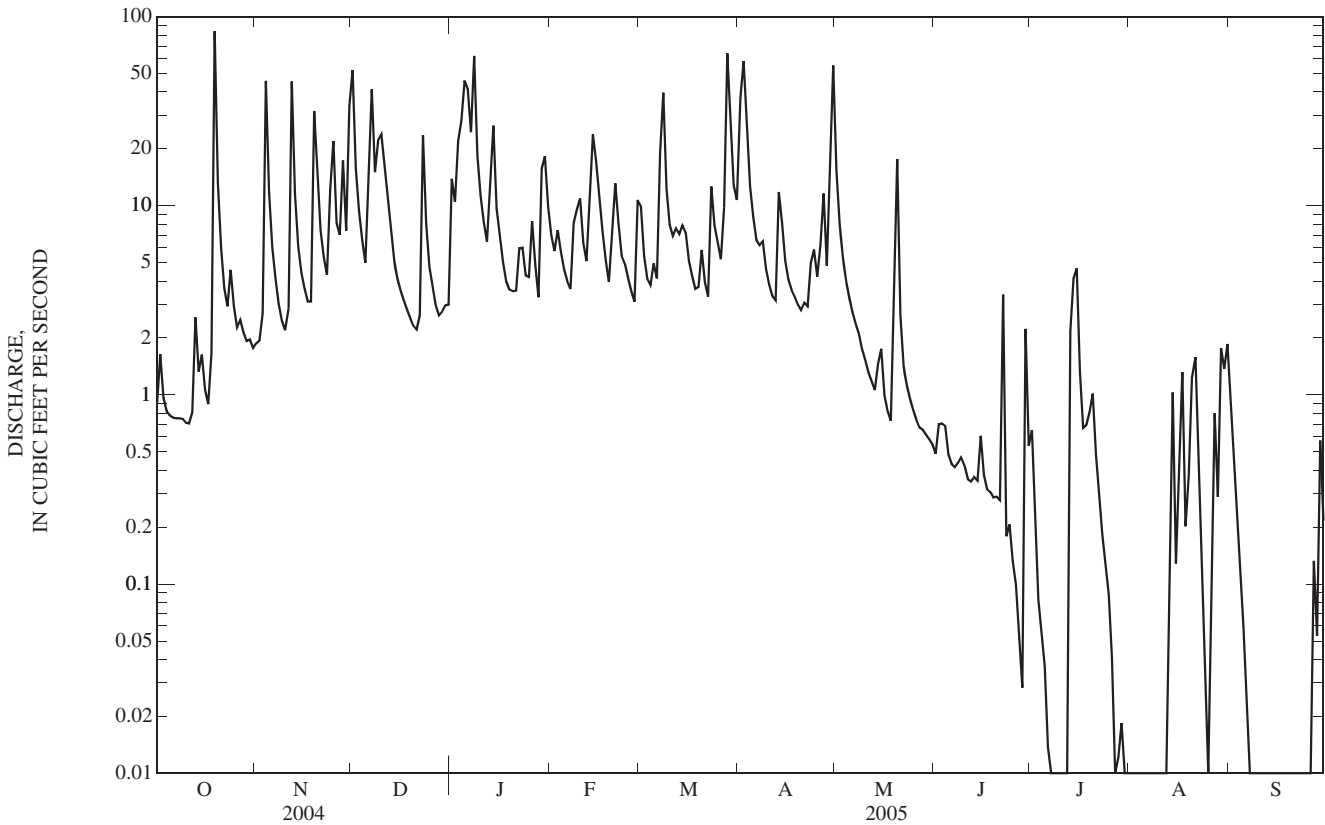




03250322 ROCK LICK CREEK AT HIGHWAY 158 NEAR SHARKEY, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1997 - 2005	
ANNUAL TOTAL	2,940.40		2,275.26		6.02	
ANNUAL MEAN	8.03		6.23		2.65	
HIGHEST ANNUAL MEAN					9.94	2003
LOWEST ANNUAL MEAN					2.65	1999
HIGHEST DAILY MEAN	125	Sep 17	84	Oct 19	561	May 6, 2003
LOWEST DAILY MEAN	0.37	Sep 7	0.00	Jul 7	0.00	Sep 21, 1997
ANNUAL SEVEN-DAY MINIMUM	0.44	Sep 1	0.00	Jul 30	0.00	Sep 21, 1997
MAXIMUM PEAK FLOW			205	Oct 19	3,190	Jul 8, 2001
MAXIMUM PEAK STAGE			6.64	Oct 19	10.71	Mar 2, 1997
ANNUAL RUNOFF (CFSM)	1.91		1.48		1.43	
ANNUAL RUNOFF (INCHES)	26.04		20.15		19.48	
10 PERCENT EXCEEDS	19		15		12	
50 PERCENT EXCEEDS	2.8		2.9		1.6	
90 PERCENT EXCEEDS	0.74		0.00		0.00	

e Estimated



## 03250500 LICKING RIVER AT BLUE LICK SPRINGS, KY

LOCATION.--Lat 38°25'13", long 83°59'50", Nicholas County, Hydrologic Unit 05100101, at bridge on Highway 68 at Blue Lick Springs, 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.--1,785 mi<sup>2</sup>

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 fair except for those estimated, which are poor. Flow regulated since December 1973 by Cave Run Lake (station 03249498). Peak discharge and gage height for the 2005 water year occurred on January 6, but the discharge and stage are unknown.

COOPERATION.--National Streamflow Information Program.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 35,900 ft<sup>3</sup>/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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,920	3,220	10,500	e2,250	6,500	3,320	5,060	9,590	389	167	54	608
2	3,890	3,160	11,300	e2,750	5,760	4,060	9,380	6,850	372	176	51	508
3	3,880	3,260	7,370	e8,800	5,530	4,200	11,500	4,620	374	209	50	481
4	3,870	6,130	5,180	e15,500	5,530	4,190	8,610	4,970	387	320	49	430
5	3,830	9,630	5,120	e16,300	5,330	4,350	5,700	5,070	394	336	48	334
6	3,810	8,250	4,990	e16,700	5,120	4,290	5,510	4,910	365	285	55	283
7	3,810	5,210	6,640	e15,700	4,960	3,710	5,430	4,750	358	268	57	272
8	3,820	4,370	7,810	e15,500	4,890	5,080	5,040	4,630	317	290	49	262
9	3,770	4,000	6,840	e13,900	5,080	8,290	5,070	4,540	218	330	46	239
10	3,710	3,780	7,060	e11,200	5,160	5,930	5,150	4,460	217	e200	45	229
11	3,690	4,220	6,330	e5,550	4,510	4,870	4,980	4,380	243	e125	46	235
12	3,680	10,200	6,250	e3,640	3,500	4,530	4,710	4,320	319	e90	48	248
13	3,540	8,770	5,840	2,630	3,220	4,390	4,090	4,040	421	97	51	235
14	2,770	5,700	5,430	4,670	4,410	4,390	4,510	3,270	370	124	54	198
15	2,010	4,450	5,300	5,360	5,360	4,310	4,190	2,750	347	165	57	119
16	1,580	4,290	5,100	3,920	5,380	3,930	3,590	1,770	326	349	61	95
17	1,520	4,050	4,960	2,770	4,620	2,970	2,480	1,480	310	326	64	94
18	1,680	3,660	4,840	2,520	4,040	2,240	1,480	1,010	306	285	58	91
19	9,030	3,130	4,740	3,240	3,510	1,700	1,310	778	317	243	73	87
20	13,400	3,990	4,630	4,110	2,950	1,730	1,240	1,800	290	235	120	96
21	10,200	4,190	e4,410	4,620	2,970	1,780	1,190	2,250	252	230	96	92
22	4,290	3,440	e4,510	4,910	3,580	1,660	1,220	2,590	165	431	84	113
23	4,110	3,410	e9,050	5,070	4,710	2,110	1,300	2,760	142	302	78	229
24	4,330	3,950	e6,920	5,120	4,140	2,970	1,470	1,730	135	229	77	232
25	4,270	4,720	e5,130	4,960	3,740	2,140	1,810	974	128	217	71	213
26	4,130	5,610	e4,020	4,980	3,510	1,710	2,170	705	123	190	62	215
27	3,900	5,020	e3,890	5,110	3,130	1,590	3,540	586	106	172	60	214
28	3,650	4,880	e3,660	5,000	2,350	5,180	4,430	520	91	158	59	212
29	3,170	4,690	e3,550	4,990	---	8,050	3,870	467	118	144	74	228
30	2,950	4,910	e2,740	6,650	---	8,270	6,930	431	112	97	169	245
31	2,840	---	e2,250	7,580	---	5,390	---	409	---	62	880	---
TOTAL	129,050	148,290	176,360	216,000	123,490	123,330	126,960	93,410	8,012	6,852	2,846	7,137
MEAN	4,163	4,943	5,689	6,968	4,410	3,978	4,232	3,013	267	221	91.8	238
MAX	13,400	10,200	11,300	16,700	6,500	8,290	11,500	9,590	421	431	880	608
MIN	1,520	3,130	2,250	2,250	2,350	1,590	1,190	409	91	62	45	87

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2005, BY WATER YEAR (WY)

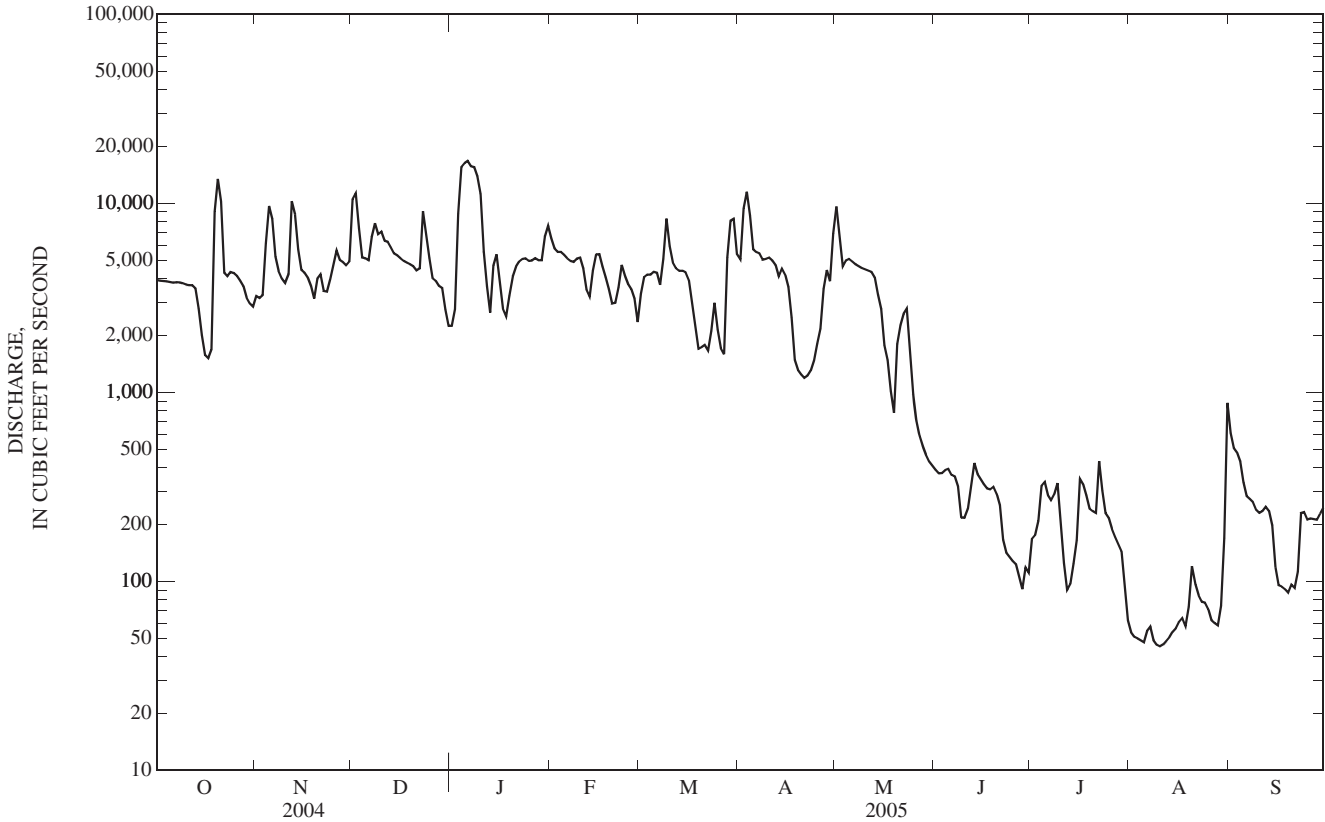
MEAN	1,702	3,752	4,041	4,109	4,229	5,183	4,425	4,826	3,161	744	673	1,393
MAX	4,163	5,325	5,689	6,968	6,896	6,337	5,806	7,516	5,515	1,545	1,298	4,418
(WY)	(2005)	(2004)	(2005)	(2005)	(2003)	(2002)	(2002)	(2003)	(2003)	(2004)	(2004)	(2004)
MIN	284	351	1,498	2,134	1,106	3,978	3,809	2,411	267	221	91.8	168
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2005)	(2003)	(2004)	(2005)	(2005)	(2005)	(2002)



03250500 LICKING RIVER AT BLUE LICK SPRINGS, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1974 - 2005	
ANNUAL TOTAL	1,440,409		1,161,737		3,179	
ANNUAL MEAN	3,936		3,183		2,196	
HIGHEST ANNUAL MEAN					3,751	2003
LOWEST ANNUAL MEAN					2,196	2002
HIGHEST DAILY MEAN	17,000	Sep 19	16,700	Jan 6	26,600	May 6, 2003
LOWEST DAILY MEAN	210	Aug 31	45	Aug 10	40	Aug 15, 2002
ANNUAL SEVEN-DAY MINIMUM	281	Aug 28	48	Aug 8	43	Aug 13, 2002
MAXIMUM PEAK FLOW					35,900	Apr 13, 1948
MAXIMUM PEAK STAGE					45.00	Apr 13, 1948
10 PERCENT EXCEEDS	7,020		6,400		6,790	
50 PERCENT EXCEEDS	3,890		3,220		2,320	
90 PERCENT EXCEEDS	602		96		219	

e Estimated



## 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<sup>2</sup>

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

GAGE.--Water-stage recorder with telemetry and crest-stage gage. Datum of gage is 622.46 ft above NGVD of 1929.

REMARKS.--Records fair.

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

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan 6	1200	*5,540	*20.32	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	393	2,530	199	492	284	470	1,320	16	1.5	0.82	6.3
2	7.4	606	2,260	213	417	354	1,680	532	14	1.3	0.69	2.9
3	6.9	635	798	1,990	419	252	2,110	307	13	1.6	0.58	1.6
4	6.5	1,650	458	4,090	494	219	1,040	221	14	1.3	0.43	1.1
5	6.0	2,230	334	4,690	417	334	552	175	12	1.1	0.40	0.90
6	4.4	973	286	5,080	340	658	395	143	9.3	1.2	0.46	0.78
7	4.5	394	1,010	3,580	298	446	317	119	8.3	1.1	0.55	0.70
8	3.0	263	1,490	2,730	312	441	276	101	7.3	0.92	1.2	0.69
9	2.7	188	825	2,380	322	530	312	85	6.5	0.79	0.93	0.76
10	2.3	145	1,250	941	389	367	236	74	9.0	0.71	0.79	0.75
11	2.3	565	1,330	595	407	298	188	64	20	0.70	0.60	0.64
12	2.0	3,180	858	545	334	258	161	56	15	0.60	0.39	0.57
13	3.3	3,430	551	527	352	230	208	49	10	0.96	0.33	0.59
14	3.0	1,240	382	1,440	756	211	163	46	7.9	1.2	0.28	0.68
15	6.0	425	288	1,090	1,070	197	145	76	6.6	1.1	0.23	0.59
16	11	303	e220	576	693	179	109	105	5.2	1.4	0.24	0.52
17	7.7	240	e150	412	451	165	93	70	4.2	3.7	0.28	0.41
18	247	205	e109	e288	341	150	83	50	3.5	2.4	0.21	0.35
19	1,810	623	e79	e210	272	150	75	74	2.7	1.6	0.73	0.35
20	2,480	1,060	e71	e156	234	200	69	664	1.9	3.6	0.76	0.60
21	1,440	765	e66	e109	222	243	63	534	1.7	8.4	0.69	0.57
22	366	452	e95	e85	210	194	73	184	1.6	8.0	0.59	0.53
23	323	337	1,610	e67	190	189	179	109	1.2	22	0.43	0.45
24	706	559	1,580	e61	170	555	244	76	1.1	13	0.32	0.34
25	501	896	574	e55	158	381	244	60	1.0	8.5	0.23	0.30
26	305	647	e286	e61	151	296	280	47	0.95	5.9	0.39	0.33
27	199	446	e180	e212	141	305	398	36	0.87	3.7	0.41	0.28
28	146	679	e155	e257	160	1,690	348	30	1.5	2.3	0.38	0.23
29	113	676	e143	296	---	2,000	216	25	1.8	1.4	0.48	0.21
30	95	814	201	584	---	1,150	1,250	22	1.4	1.2	1.1	0.11
31	90	---	210	686	---	591	---	19	---	0.97	11	---
TOTAL	8,908.0	25,019	20,379	34,205	10,212	13,517	11,977	5,473	199.52	104.15	26.92	25.13
MEAN	287	834	657	1,103	365	436	399	177	6.65	3.36	0.87	0.84
MAX	2,480	3,430	2,530	5,080	1,070	2,000	2,110	1,320	20	22	11	6.3
MIN	2.0	145	66	55	141	150	63	19	0.87	0.60	0.21	0.11
CFSM	1.27	3.69	2.91	4.88	1.61	1.93	1.77	0.78	0.03	0.01	0.00	0.00
IN.	1.47	4.12	3.35	5.63	1.68	2.22	1.97	0.90	0.03	0.02	0.00	0.00

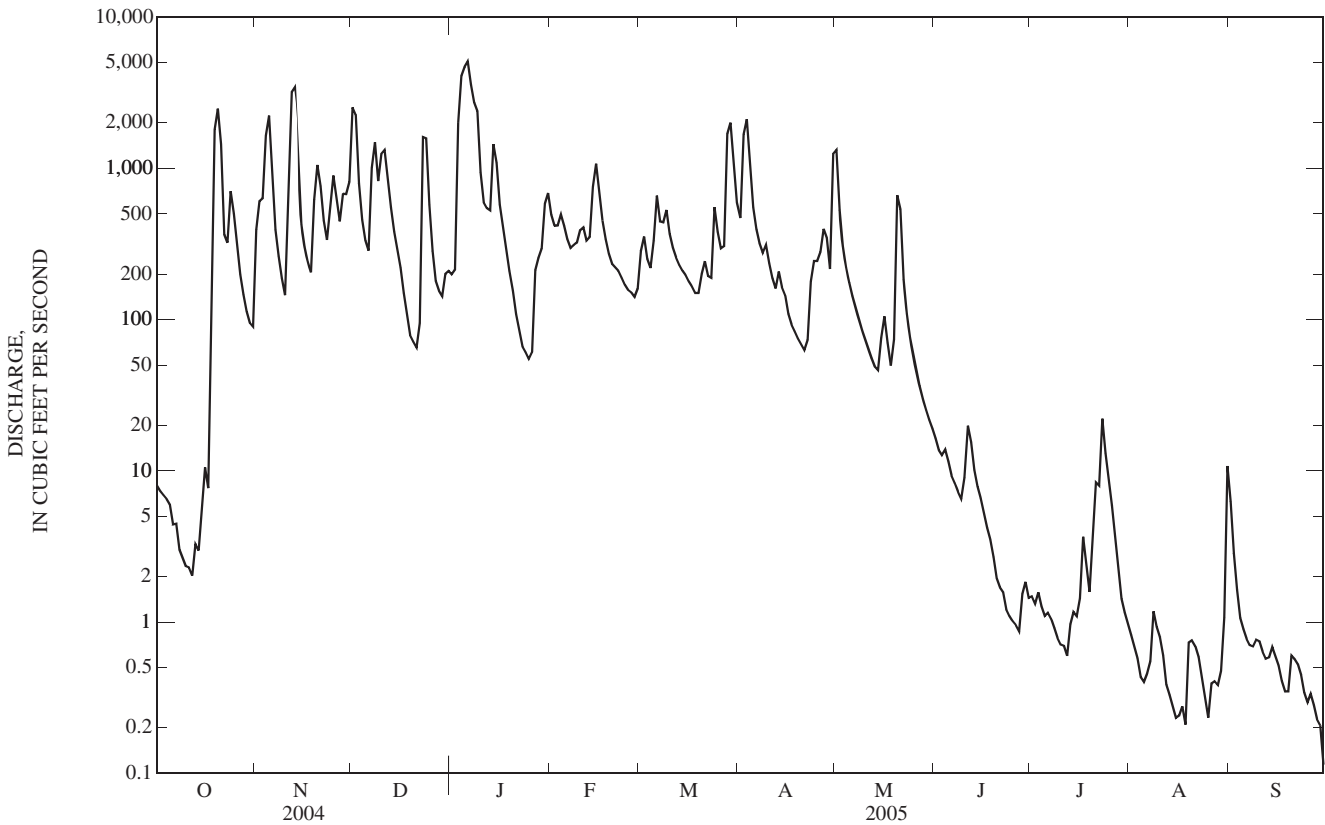
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2005, BY WATER YEAR (WY)

MEAN	43.9	218	380	616	549	674	368	463	248	109	68.6	68.0
MAX	287	834	857	1,165	1,183	1,796	676	1,524	779	296	257	358
(WY)	(2005)	(2005)	(1997)	(1994)	(2003)	(1997)	(1994)	(1996)	(1998)	(1992)	(2001)	(2003)
MIN	0.01	0.01	15.0	152	213	228	73.2	18.9	1.34	0.20	0.25	0.06
(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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1991 - 2005	
ANNUAL TOTAL	148,670.5		130,045.72		318	
ANNUAL MEAN	406		356		175	
HIGHEST ANNUAL MEAN					444 2003	
LOWEST ANNUAL MEAN					175 1999	
HIGHEST DAILY MEAN	3,830	Mar 7	5,080	Jan 6	12,400	Mar 2, 1997
LOWEST DAILY MEAN	1.5	Aug 22	0.11	Sep 30	0.00	Oct 10, 1997
ANNUAL SEVEN-DAY MINIMUM	2.0	Aug 17	0.26	Sep 24	0.00	Oct 17, 1997
MAXIMUM PEAK FLOW			5,540	Jan 6	13,500	Mar 2, 1997
MAXIMUM PEAK STAGE			20.32	Jan 6	34.71	Mar 2, 1997
INSTANTANEOUS LOW FLOW			0.06	Sep 30	0.06	Sep 30, 2005
ANNUAL RUNOFF (CFSM)	1.80		1.58		1.41	
ANNUAL RUNOFF (INCHES)	24.47		21.41		19.10	
10 PERCENT EXCEEDS	1,240		954		796	
50 PERCENT EXCEEDS	148		141		82	
90 PERCENT EXCEEDS	6.8		0.59		0.94	

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 upstream 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<sup>2</sup>.

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 and datum. Oct. 1, 1949 to Sept. 30, 1957, auxiliary water-stage recorder 4.0 mi downstream.

REMARKS.-- Records fair. Flow regulated 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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

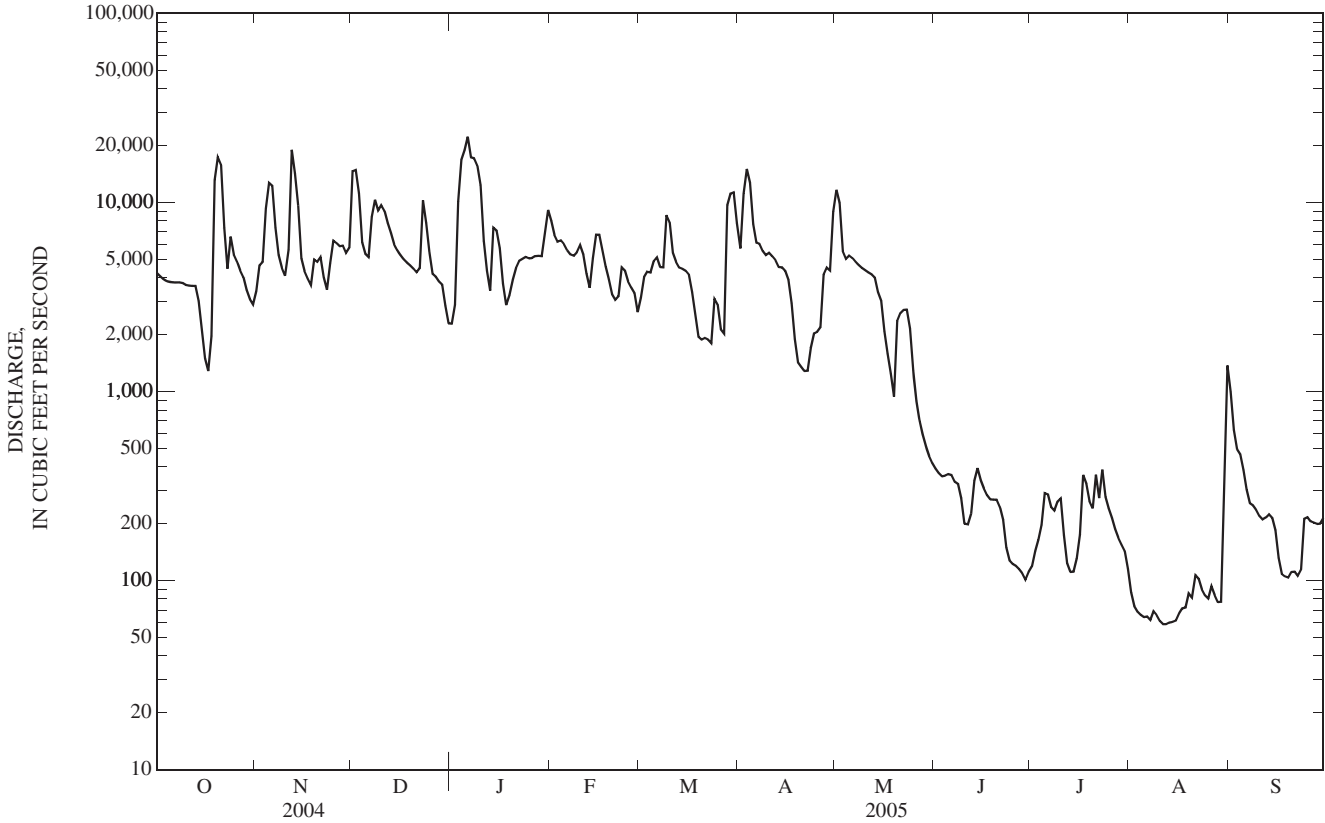
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,240	3,400	14,600	2,290	7,980	3,130	5,710	11,700	392	119	87	996
2	4,070	4,650	14,900	2,880	6,730	4,030	11,200	9,950	371	142	73	626
3	3,930	4,860	11,200	10,100	6,200	4,300	15,100	5,550	356	164	69	496
4	3,850	9,320	6,160	16,800	6,310	4,260	12,700	5,050	359	197	66	467
5	3,820	12,700	5,350	18,900	6,010	4,880	7,670	5,250	367	290	64	385
6	3,780	12,300	5,150	22,200	5,580	5,130	6,120	5,090	362	285	65	302
7	3,780	7,360	8,410	17,300	5,320	4,550	6,040	4,860	334	246	62	257
8	3,790	5,270	10,300	17,200	5,230	4,540	5,550	4,670	324	235	69	250
9	3,750	4,530	9,040	15,700	5,450	8,560	5,270	4,510	272	262	66	237
10	3,670	4,100	9,690	12,400	5,930	7,880	5,410	4,380	200	272	61	219
11	3,630	5,630	9,030	6,270	5,310	5,410	5,190	4,270	199	174	59	211
12	3,620	19,000	7,760	4,340	4,190	4,860	4,940	4,170	226	124	59	216
13	3,620	14,200	6,900	3,410	3,540	4,520	4,550	4,020	338	111	60	224
14	3,020	9,630	6,000	7,350	5,090	4,450	4,550	3,360	392	112	61	215
15	2,110	5,060	5,580	7,120	6,750	4,350	4,360	3,010	340	131	62	185
16	1,500	4,340	5,270	5,730	6,750	4,150	3,900	2,080	307	176	67	132
17	1,290	3,960	5,010	3,730	5,570	3,360	2,940	1,590	284	363	71	109
18	1,960	3,670	4,820	2,870	4,570	2,570	1,900	1,250	270	326	72	105
19	13,200	5,010	4,640	3,220	3,920	1,950	1,430	942	268	263	85	104
20	17,400	4,860	4,460	3,920	3,270	1,880	1,350	2,360	268	242	81	111
21	15,900	5,120	4,260	4,510	3,070	1,920	1,290	2,600	246	364	107	112
22	7,360	4,010	4,490	4,910	3,200	1,880	1,290	2,710	210	273	103	106
23	4,470	3,460	10,300	5,030	4,530	1,800	1,700	2,720	149	387	90	114
24	6,600	4,780	7,800	5,150	4,370	3,100	2,020	2,150	128	277	84	212
25	5,310	6,310	5,470	5,070	3,830	2,890	2,070	1,300	123	240	81	217
26	4,870	6,110	4,200	5,090	3,550	2,130	2,190	896	120	215	93	206
27	4,370	5,870	4,060	5,210	3,330	2,030	4,160	697	115	187	84	203
28	4,020	5,930	3,830	5,230	2,630	9,660	4,530	590	109	169	77	199
29	3,450	5,420	3,680	5,200	---	11,200	4,370	512	101	155	77	200
30	3,090	5,750	2,850	6,950	---	11,300	8,960	456	111	144	424	214
31	2,900	---	2,300	9,120	---	7,760	---	419	---	115	1,370	---
TOTAL	152,370	196,610	207,510	245,200	138,210	144,430	148,460	103,112	7,641	6,760	3,949	7,630
MEAN	4,915	6,554	6,694	7,910	4,936	4,659	4,949	3,326	255	218	127	254
MAX	17,400	19,000	14,900	22,200	7,980	11,300	15,100	11,700	392	387	1,370	996
MIN	1,290	3,400	2,300	2,290	2,630	1,800	1,290	419	101	111	59	104

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2005, BY WATER YEAR (WY)

MEAN	1,299	2,592	4,575	4,865	5,582	6,132	4,600	3,543	2,256	1,175	981	1,202
MAX	4,915	6,554	13,020	10,430	13,960	10,920	9,136	11,130	6,807	5,783	3,537	8,088
(WY)	(2005)	(2005)	(1979)	(1974)	(1989)	(1994)	(1975)	(1983)	(2004)	(1979)	(1979)	(1979)
MIN	121	228	859	275	1,382	1,006	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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1974 - 2005	
ANNUAL TOTAL	1,816,566		1,361,882		3,223	
ANNUAL MEAN	4,963		3,731		5,802	
HIGHEST ANNUAL MEAN					1,528	
LOWEST ANNUAL MEAN					43,100	
HIGHEST DAILY MEAN	19,500	Mar 7	22,200	Jan 6	59,100	Feb 16, 1989
LOWEST DAILY MEAN	200	Sep 1	59	Aug 11	44	Aug 17, 2002
ANNUAL SEVEN-DAY MINIMUM	273	Aug 27	61	Aug 9	48	Aug 15, 2002
MAXIMUM PEAK FLOW			23,400	Jan 6	59,100	Mar 10, 1964
MAXIMUM PEAK STAGE			26.13	Jan 6	50.26	Mar 10, 1964
INSTANTANEOUS LOW FLOW			62	Aug 11	62	Aug 11, 2005
10 PERCENT EXCEEDS	9,730		8,470		7,970	
50 PERCENT EXCEEDS	4,580		3,450		1,400	
90 PERCENT EXCEEDS	629		111		197	



## 03252300 HINKSTON CREEK NEAR CARLISLE, KY

LOCATION.--Lat 38°14'33", long 84°03'10", Bourbon County, Hydrologic Unit 05100102, at upstream side of 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<sup>2</sup>.

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.

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

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 19	1130	*3,750	*23.13	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	465	2,370	112	301	267	377	724	18	3.9	1.2	65
2	20	431	1,210	189	235	199	1,670	297	16	2.9	1.1	30
3	20	552	467	524	261	168	1,040	194	15	4.7	0.98	14
4	20	1,380	289	687	252	153	522	151	17	20	0.70	7.1
5	17	1,440	209	1,350	204	145	347	123	26	24	0.47	4.5
6	13	482	257	1,380	177	128	257	104	20	9.1	e0.41	2.8
7	12	273	1,140	1,070	157	117	212	91	15	5.2	e0.38	1.9
8	12	186	1,040	2,320	152	826	191	80	13	3.5	e0.37	1.1
9	11	136	507	1,280	172	605	159	70	11	2.3	e0.37	0.75
10	11	110	789	522	183	320	135	63	19	1.6	e0.36	0.51
11	11	138	480	333	176	242	119	56	15	1.2	e0.36	0.30
12	11	1,770	377	254	165	205	110	50	11	0.98	e0.36	0.13
13	14	733	282	245	170	192	133	46	9.4	2.3	0.35	0.15
14	33	311	205	e1,020	436	172	176	46	8.3	15	0.34	0.26
15	37	204	e169	e823	470	175	118	60	7.5	31	0.28	0.32
16	29	157	e134	e368	339	162	95	58	7.0	20	0.51	0.26
17	30	132	e106	e251	247	150	85	44	8.6	18	0.85	0.21
18	39	112	e87	e189	191	136	79	37	8.0	16	1.1	0.20
19	3,250	149	e74	e147	156	127	73	36	6.0	33	1.6	0.16
20	3,020	193	e64	e116	139	191	68	277	4.5	32	3.7	0.17
21	601	150	73	e73	216	156	65	166	4.0	45	4.4	0.18
22	207	124	79	e52	361	131	66	80	3.1	20	5.2	0.15
23	150	114	928	e36	286	385	73	57	2.2	11	6.0	0.09
24	325	267	541	e23	218	400	86	46	1.5	8.1	4.3	0.03
25	240	478	234	e17	180	259	74	40	1.1	6.2	3.1	0.00
26	156	320	e121	e22	151	227	65	35	1.1	4.7	3.8	0.00
27	169	234	e68	e62	132	411	125	31	0.91	3.0	4.7	0.00
28	187	493	e31	90	151	1,840	113	27	1.2	2.0	4.0	0.00
29	172	332	e23	212	---	1,200	153	24	5.7	1.3	8.6	0.03
30	146	785	e16	649	---	545	1,160	21	5.2	1.2	20	0.07
31	122	---	e16	446	---	360	---	19	---	1.2	46	---
TOTAL	9,106	12,651	12,386	14,862	6,278	10,594	7,946	3,153	281.31	350.38	125.89	130.37
MEAN	294	422	400	479	224	342	265	102	9.38	11.3	4.06	4.35
MAX	3,250	1,770	2,370	2,320	470	1,840	1,670	724	26	45	46	65
MIN	11	110	16	17	132	117	65	19	0.91	0.98	0.28	0.00
CFSM	1.91	2.74	2.59	3.11	1.46	2.22	1.72	0.66	0.06	0.07	0.03	0.03
IN.	2.20	3.06	2.99	3.59	1.52	2.56	1.92	0.76	0.07	0.08	0.03	0.03

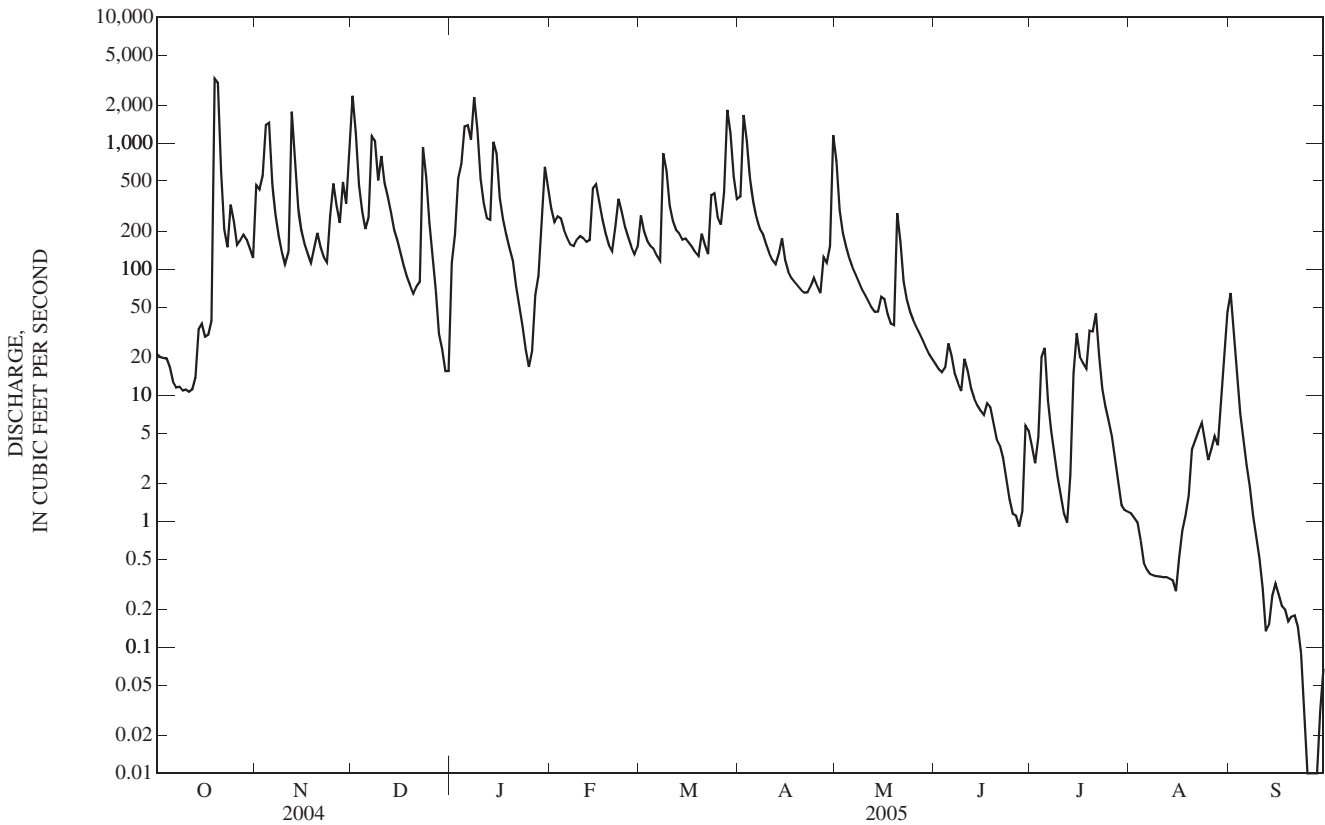
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2005, BY WATER YEAR (WY)

MEAN	47.7	158	228	373	348	462	199	310	172	68.1	68.1	33.1
MAX	294	470	453	675	898	1,210	436	875	652	315	277	248
(WY)	(2005)	(2004)	(1997)	(1994)	(2003)	(1997)	(1994)	(1996)	(1997)	(2001)	(2001)	(2004)
MIN	1.33	3.10	9.99	35.3	79.7	240	40.4	17.7	9.38	8.92	3.80	0.70
(WY)	(1998)	(2000)	(2000)	(2000)	(2002)	(1998)	(1999)	(1999)	(2005)	(1999)	(2002)	(1999)

03252300 HINKSTON CREEK NEAR CARLISLE, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1992 - 2005	
ANNUAL TOTAL	112,450		77,863.95		205	
ANNUAL MEAN	307		213		305	
HIGHEST ANNUAL MEAN					305	2003
LOWEST ANNUAL MEAN					77.1	2000
HIGHEST DAILY MEAN	4,640	May 31	3,250	Oct 19	7,520	Mar 2, 1997
LOWEST DAILY MEAN	11	Oct 9	0.00	Sep 25	0.00	Aug 11, 1999
ANNUAL SEVEN-DAY MINIMUM	12	Oct 6	0.02	Sep 24	0.00	Aug 11, 1999
MAXIMUM PEAK FLOW			3,750	Oct 19	7,800	Mar 2, 1997
MAXIMUM PEAK STAGE			23.13	Oct 19	37.00	Mar 2, 1997
INSTANTANEOUS LOW FLOW			0.00	Sep 25	0.00	Sep 25, 2005
ANNUAL RUNOFF (CFSM)	2.00		1.39		1.33	
ANNUAL RUNOFF (INCHES)	27.16		18.81		18.11	
10 PERCENT EXCEEDS	782		522		485	
50 PERCENT EXCEEDS	114		79		58	
90 PERCENT EXCEEDS	20		0.89		2.9	

e Estimated



## 03253500 LICKING RIVER AT CATAWBA, KY

LOCATION.--Lat 38°42'37", long 84°18'39", 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<sup>2</sup>.

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 May 2-Sept. 30, which are fair and those estimated and Nov. 5-9, 15-20, 27-30, Dec. 5-7, 29-31, Apr. 6-10, which are poor. 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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,090	4,140	20,500	3,370	10,200	3,550	8,010	14,200	451	191	123	1,530
2	4,030	7,850	22,300	4,490	8,470	4,630	12,400	13,200	423	156	98	886
3	3,980	9,630	16,000	14,200	7,650	5,150	18,500	7,620	395	170	74	759
4	3,960	15,000	9,220	25,400	7,760	4,980	16,300	5,950	404	167	65	666
5	3,920	19,000	7,410	26,100	7,570	5,620	10,700	5,910	397	242	60	558
6	3,870	16,800	6,790	31,800	7,030	6,380	8,070	5,600	413	286	58	444
7	3,830	10,600	11,500	24,500	6,500	5,520	7,580	5,240	402	253	58	373
8	3,850	7,310	15,400	23,000	6,340	5,280	6,930	4,950	387	231	56	327
9	3,810	5,920	13,400	23,200	6,520	9,380	6,250	4,730	374	237	63	306
10	3,730	5,120	12,900	17,500	7,370	10,700	6,240	4,560	322	284	61	280
11	3,670	6,370	12,700	10,400	6,620	7,260	5,880	4,430	276	231	54	264
12	3,650	27,800	10,500	7,540	5,330	6,140	5,450	4,290	309	161	53	251
13	3,680	21,200	9,130	5,530	4,410	5,550	5,170	4,210	370	133	54	260
14	3,220	13,900	7,960	10,600	6,400	5,260	5,110	3,580	500	128	55	260
15	2,420	7,890	7,120	10,900	8,660	5,080	5,040	3,100	496	129	56	247
16	1,800	6,170	6,520	9,160	9,030	4,830	4,460	2,330	460	171	63	205
17	1,560	5,410	6,080	6,000	7,740	4,030	3,350	1,770	417	310	73	157
18	1,860	4,860	5,730	4,240	6,180	3,130	2,270	1,470	366	397	78	e139
19	18,500	7,220	5,470	4,020	5,110	2,450	1,580	1,130	327	332	96	e136
20	27,600	7,430	5,130	4,560	4,170	2,210	1,440	3,260	335	324	134	e138
21	23,600	6,760	4,950	5,240	3,690	2,290	1,350	2,940	334	441	178	e138
22	11,600	5,450	5,380	5,550	3,750	2,330	1,320	3,650	304	364	165	e137
23	6,310	4,430	14,200	5,590	5,280	2,150	1,810	3,170	251	418	142	e134
24	8,100	6,250	12,800	5,590	5,870	3,200	2,470	2,610	186	406	128	e177
25	7,610	9,090	9,260	5,500	4,850	3,740	2,200	1,610	179	345	113	e267
26	7,090	8,540	6,390	5,490	4,350	3,010	2,270	1,030	183	308	144	e247
27	5,950	8,220	5,500	5,600	3,980	2,530	4,250	785	194	269	209	e233
28	5,250	7,700	4,950	5,580	3,300	16,800	4,760	672	196	235	148	e229
29	e6,680	7,650	4,840	5,570	---	18,800	4,810	613	233	218	129	e228
30	e5,700	7,660	5,730	7,610	---	15,800	10,400	549	176	184	1,510	e232
31	4,040	---	4,420	10,700	---	11,200	---	501	---	155	4,790	---
TOTAL	198,960	281,370	290,180	334,530	174,130	188,980	176,370	119,660	10,060	7,876	9,088	10,208
MEAN	6,418	9,379	9,361	10,790	6,219	6,096	5,879	3,860	335	254	293	340
MAX	27,600	27,800	22,300	31,800	10,200	18,800	18,500	14,200	500	441	4,790	1,530
MIN	1,560	4,140	4,420	3,370	3,300	2,150	1,320	501	176	128	53	134

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2005, BY WATER YEAR (WY)

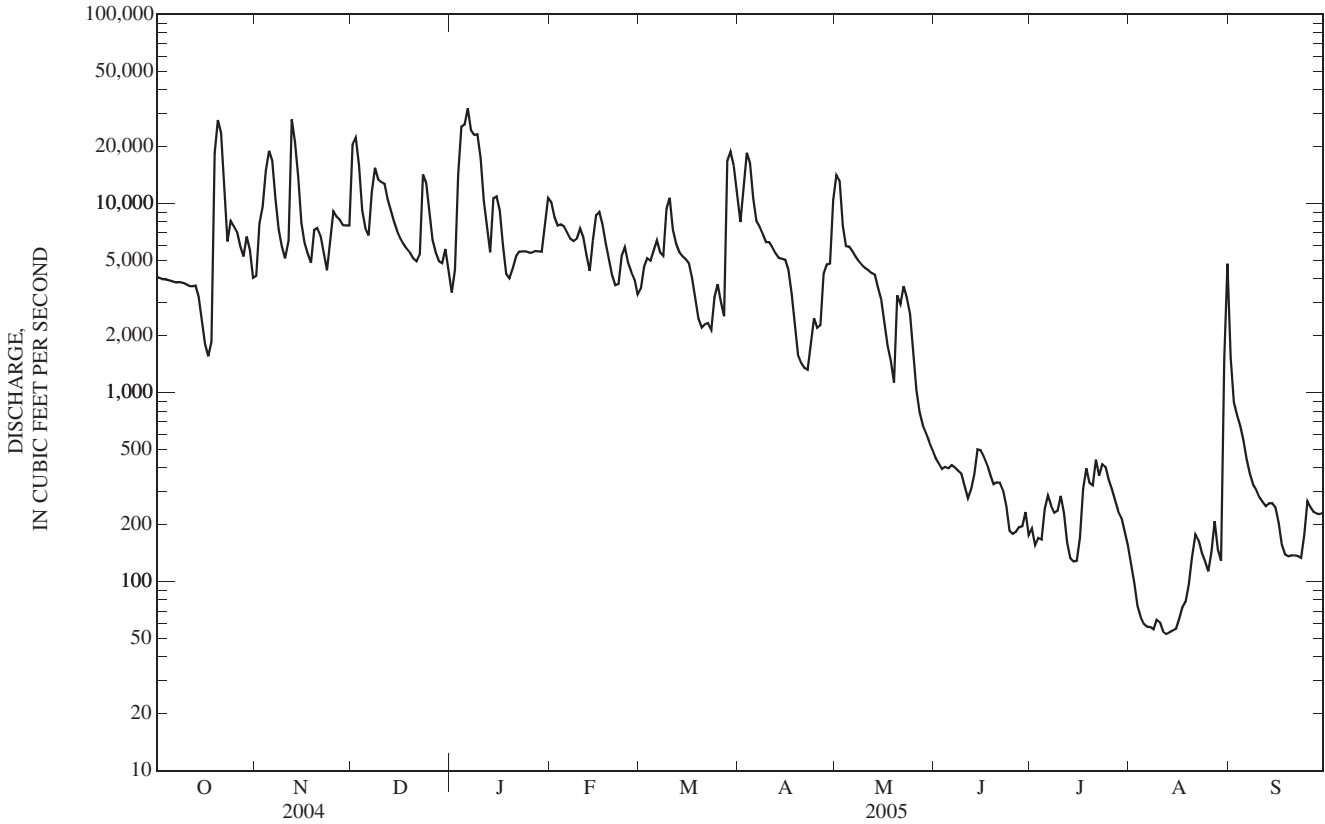
MEAN	1,442	3,088	5,704	6,657	7,656	8,312	5,724	5,173	3,304	1,664	1,264	1,433
MAX	7,178	9,379	18,500	15,110	21,140	21,310	11,920	16,660	11,230	6,962	4,630	12,860
(WY)	(1976)	(2005)	(1979)	(1974)	(1989)	(1997)	(1975)	(1983)	(1997)	(1979)	(1974)	(1979)
MIN	79.8	107	1,008	420	1,950	1,247	666	342	101	86.0	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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1974 - 2005	
ANNUAL TOTAL	2,397,243		1,801,412		4,270	
ANNUAL MEAN	6,550		4,935		7,730	
HIGHEST ANNUAL MEAN					1979	
LOWEST ANNUAL MEAN					2,006	
HIGHEST DAILY MEAN	33,800	Jun 1	31,800	Jan 6	104,000	Mar 3, 1997
LOWEST DAILY MEAN	416	Aug 21	53	Aug 12	25	Jul 8, 1988
ANNUAL SEVEN-DAY MINIMUM	518	Aug 28	57	Aug 8	38	Jul 3, 1988
MAXIMUM PEAK FLOW			34,100	Jan 6	110,000	Mar 3, 1997
MAXIMUM PEAK STAGE			26.19	Jan 6	57.57	Mar 21, 1997
INSTANTANEOUS LOW FLOW			51	Aug 12	2.5	Aug 5, 1930
10 PERCENT EXCEEDS	14,400		11,300		10,700	
50 PERCENT EXCEEDS	5,400		4,030		1,760	
90 PERCENT EXCEEDS	937		156		232	

e Estimated



## 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<sup>2</sup>.

## WATER DISCHARGE RECORDS

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

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

REMARKS.--Records fair.

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

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.13	15	142	148	e20	23	26	11	2.2	4.5	0.05	7.1
2	0.12	113	39	67	e25	16	46	9.7	1.9	4.4	0.04	3.4
3	0.10	69	28	1,050	37	20	34	8.4	2.2	0.77	0.03	2.6
4	0.10	75	22	311	e30	21	25	7.3	2.1	0.31	0.02	1.3
5	0.09	37	14	916	e27	20	22	6.8	1.9	0.18	0.01	0.65
6	0.09	20	20	580	e23	13	19	6.3	1.6	0.10	0.01	0.45
7	0.08	13	82	91	e25	39	18	8.0	1.5	0.07	0.00	0.32
8	0.08	15	34	158	130	51	15	6.1	1.3	0.05	0.00	0.19
9	0.07	13	75	52	59	26	17	4.4	1.2	0.03	0.00	0.14
10	0.07	12	59	35	46	22	12	4.1	0.92	0.02	0.00	0.11
11	0.06	229	44	149	32	21	10	3.7	2.2	0.01	0.00	0.09
12	0.06	282	38	81	27	19	9.9	3.8	2.3	0.01	0.00	0.06
13	0.12	45	21	246	40	15	16	3.6	16	0.05	0.00	0.05
14	0.14	37	16	134	106	13	10	6.0	3.1	2.3	0.00	0.04
15	1.4	30	13	50	57	13	8.1	4.8	2.0	4.2	0.00	0.03
16	5.5	19	12	e34	38	12	11	3.1	1.5	1.8	0.00	0.03
17	5.7	16	10	e18	32	11	7.8	2.7	1.0	0.98	0.00	0.02
18	123	14	9.1	e21	25	10	6.5	2.5	0.60	0.77	0.00	0.01
19	106	257	7.8	22	21	12	6.6	12	0.36	0.71	0.00	0.01
20	71	54	5.4	20	20	13	5.8	19	0.23	4.5	0.02	0.05
21	23	30	6.2	16	20	13	5.2	4.8	0.17	5.8	0.95	0.25
22	10	24	19	e11	15	12	8.1	3.1	0.12	2.2	0.78	0.54
23	13	18	22	e7.0	14	38	92	2.8	0.08	2.0	0.28	0.29
24	37	113	e8.7	e8.3	15	25	42	2.8	0.06	1.0	0.12	0.19
25	14	55	e7.4	13	13	20	28	2.8	0.04	0.60	0.07	0.13
26	9.2	28	e7.0	15	13	17	43	2.4	0.03	0.30	2.6	0.30
27	51	22	e6.6	e5.9	12	24	39	2.2	0.03	0.17	2.2	1.1
28	22	35	e6.2	e7.0	18	1,300	20	2.8	0.02	0.13	1.1	1.0
29	14	20	16	e10	---	90	22	3.1	0.02	0.09	0.54	0.79
30	17	40	236	e17	---	49	15	2.3	0.01	0.07	145	0.51
31	15	---	437	e17	---	30	---	2.3	---	0.05	48	---
TOTAL	539.11	1,750	1,463.4	4,310.2	940	2,008	640.0	164.7	46.69	38.17	201.82	21.75
MEAN	17.4	58.3	47.2	139	33.6	64.8	21.3	5.31	1.56	1.23	6.51	0.72
MAX	123	282	437	1,050	130	1,300	92	19	16	5.8	145	7.1
MIN	0.06	12	5.4	5.9	12	10	5.2	2.2	0.01	0.01	0.00	0.01

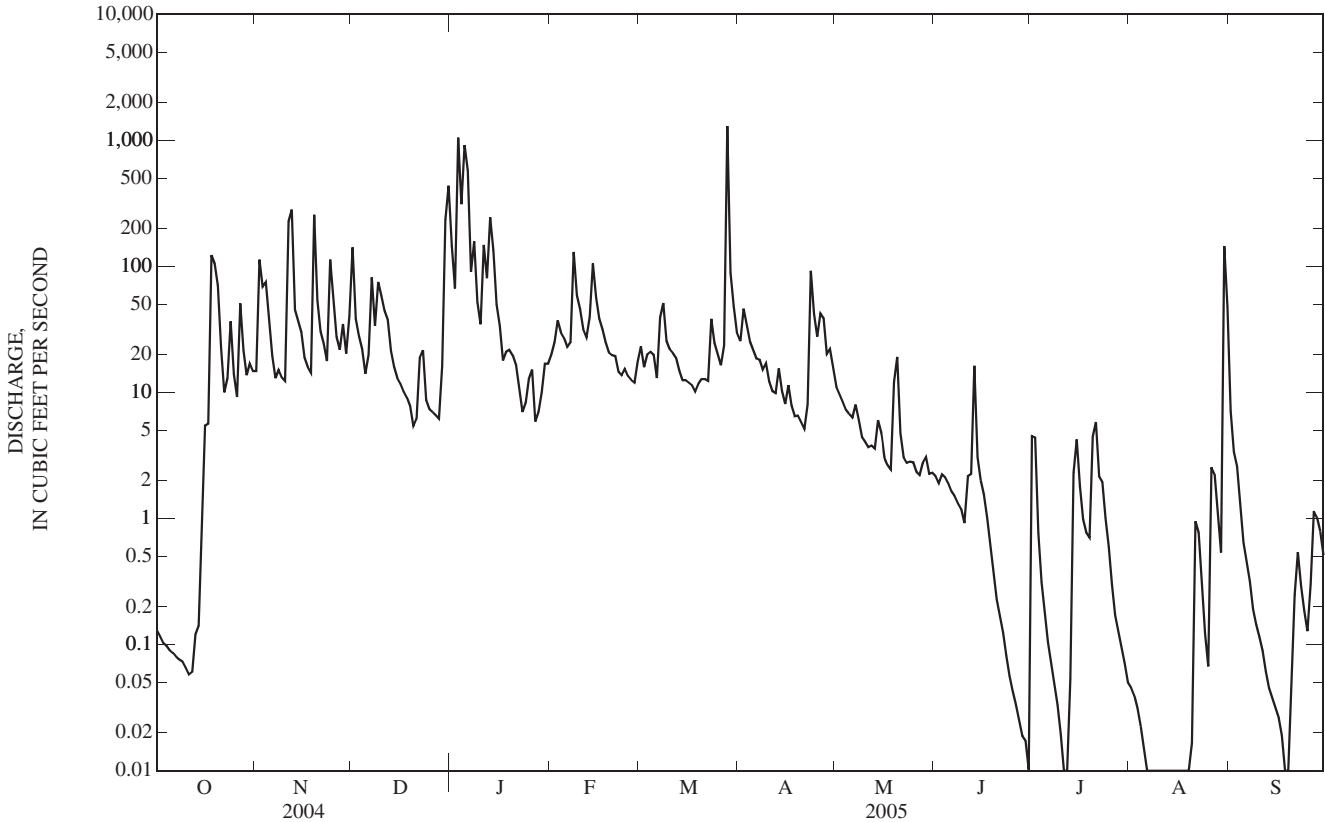
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2005, BY WATER YEAR (WY)

MEAN	19.0	40.7	45.8	60.6	37.4	39.9	28.4	53.1	9.81	17.4	11.0	11.7
MAX	41.1	58.3	62.6	139	64.2	64.8	60.2	95.1	20.4	44.9	35.1	46.4
(WY)	(2002)	(2005)	(2002)	(2005)	(2003)	(2005)	(2002)	(2003)	(2002)	(2004)	(2003)	(2003)
MIN	7.73	18.0	28.2	11.3	21.7	16.8	2.89	3.83	1.56	0.02	0.00	0.72
(WY)	(2004)	(2003)	(2004)	(2001)	(2002)	(2001)	(2001)	(2001)	(2005)	(2002)	(2002)	(2005)

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

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2001 - 2005	
ANNUAL TOTAL	13,743.10		12,123.84		34.9	
ANNUAL MEAN	37.5		33.2		33.2	
HIGHEST ANNUAL MEAN					36.6	2003
LOWEST ANNUAL MEAN					33.2	2005
HIGHEST DAILY MEAN	1,440	Jan 4	1,300	Mar 28	1,610	May 10, 2003
LOWEST DAILY MEAN	0.06	Oct 11	0.00	Aug 7	0.00	Jul 8, 2002
ANNUAL SEVEN-DAY MINIMUM	0.07	Oct 6	0.00	Aug 7	0.00	Jul 16, 2002
MAXIMUM PEAK FLOW			7,030	Jan 3	9,110	May 10, 2003
MAXIMUM PEAK STAGE			10.64	Jan 3	11.62	May 10, 2003
INSTANTANEOUS LOW FLOW					0.00	Jul 8, 2002
10 PERCENT EXCEEDS	70		56		62	
50 PERCENT EXCEEDS	12		9.1		9.8	
90 PERCENT EXCEEDS	0.48		0.05		0.12	

e Estimated



## 03254480 CRUISES CREEK AT HIGHWAY 17 NEAR PINER, KY

## 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. New turbidity probe installed summer 2004, range 0-3000 FNU.

REMARKS.--

SPECIFIC CONDUCTANCE: Records rated excellent. No missing record.

pH: Records rated excellent. No missing record.

WATER TEMPERATURES: Records rated excellent. No missing record.

DISSOLVED OXYGEN: Records rated fair. Missing periods are Dec. 5-10, 2004, Jan. 12-20, Apr. 17-19, May 5, June 14-21, and July 27 to Sept. 16, 2005.

TURBIDITY: Records rated poor. Missing periods are Mar. 18-22, 24-25, Apr. 10-19, Apr. 28 to May 6, May 19 to June 1, June 18-21, and July 16-20, 2005.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 916 microsiemens, Feb. 25, 2001; minimum recorded, 69 microsiemens, Jan. 5, 2005.

pH: Maximum recorded, 8.9 units, March 12, 2003, May 2, Sept. 9-10, 2005; minimum recorded, 6.6 Aug. 12, 2005.

WATER TEMPERATURES: Maximum recorded 29.2°C, Jul. 26, 2005; minimum recorded, 0.0°C, several days in Jan. and Feb. 2003, and several days in Dec. 2004, Jan. 2005, and on Mar. 3, 2005.

DISSOLVED OXYGEN: Maximum recorded, 20.0 mg/L, March 10, 2003; minimum recorded, 1.2 mg/L, July 24, 2001.

TURBIDITY: Maximum recorded, 2580 FNU, Jan. 3, 2005 ; minimum recorded, <2.0 FNU, Nov. 30, Dec. 2, 2002, Jan. 12-29, 31, Feb. 1, 2, 2003.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 730 microsiemens, Jan. 30, 2005; minimum recorded, 69 microsiemens, Jan. 5, 2005.

pH: Maximum recorded, 8.9 units, May 2, and Sept. 9-10, 2005; minimum recorded, 6.6 units, Aug. 12, 2005.

WATER TEMPERATURES: Maximum recorded, 29.2°C, July 26, 2005; minimum recorded, 0.0°C, several days in Dec. 2004, Jan., Feb., and Mar. 3, 2005.

DISSOLVED OXYGEN: Maximum recorded, 19.4 mg/L, Feb. 25, 2005; minimum recorded, 1.9 mg/L, Oct. 16, 2004.

TURBIDITY: Maximum recorded, 2580 FNU, Jan. 3, 2005; minimum recorded, 4.5 FNU, Oct. 1-2, 2004.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	567	561	564	514	501	508	419	257	338	387	270	337
2	569	564	567	513	323	435	470	419	451	437	386	415
3	575	565	569	438	352	395	486	469	481	447	80	267
4	578	569	574	445	389	411	486	471	477	279	94	254
5	579	574	576	452	419	440	511	485	501	226	69	181
6	580	574	577	501	450	472	512	495	504	288	134	205
7	578	572	576	521	501	513	506	316	398	343	288	323
8	579	572	576	530	459	501	472	387	440	356	236	290
9	581	548	577	460	445	452	493	304	434	418	296	392
10	583	579	581	450	439	444	449	306	402	433	291	352
11	583	580	581	446	165	386	458	442	452	453	173	303
12	584	558	580	373	165	287	476	443	453	403	190	331
13	595	572	585	430	373	408	496	475	489	429	165	347
14	613	591	604	429	407	412	502	492	496	373	195	310
15	611	563	595	420	405	409	511	497	503	418	371	397
16	566	530	544	462	418	445	527	508	517	443	418	433
17	537	523	529	472	460	467	521	510	516	489	395	465
18	533	212	450	470	460	465	530	515	522	499	484	490
19	354	212	301	462	186	320	525	515	521	493	470	482
20	399	227	330	437	352	406	565	525	552	498	462	469
21	420	314	379	460	437	452	588	550	572	497	461	470
22	456	418	439	473	457	466	564	449	495	624	484	568
23	475	455	466	506	471	486	547	476	510	583	550	569
24	461	421	434	509	311	394	541	497	512	595	561	578
25	475	435	455	441	375	406	589	541	573	572	527	554
26	491	475	484	481	441	464	581	541	563	530	496	511
27	480	410	429	501	481	494	561	544	551	544	498	520
28	468	427	448	490	442	455	584	555	569	568	543	561
29	499	468	484	505	454	486	567	499	551	605	529	565
30	506	499	504	514	339	488	547	243	404	730	515	609
31	507	498	502	---	---	---	270	198	221	696	605	645
MONTH	613	212	512	530	165	439	589	198	483	730	69	426





## 03254480 CRUISES CREEK AT HIGHWAY 17 NEAR PINER, KY—Continued

TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	16.7	13.6	15.2	14.5	13.4	14.0	9.8	6.8	8.5	6.8	5.9	6.3
2	16.6	14.7	16.0	16.0	14.3	15.1	6.8	4.8	5.6	8.9	5.9	7.1
3	15.3	11.9	13.7	14.9	12.2	13.2	5.7	4.3	4.9	9.5	8.9	9.2
4	15.6	11.3	13.3	13.4	12.1	12.7	4.6	2.6	3.8	9.5	8.7	9.1
5	14.0	10.9	12.6	12.1	9.7	10.6	5.1	3.0	4.1	8.7	7.5	8.2
6	12.7	9.6	11.3	10.4	7.9	9.3	8.9	5.1	7.0	7.5	5.7	6.9
7	12.4	9.4	11.0	11.5	8.5	10.0	12.3	8.9	10.9	5.9	5.1	5.5
8	13.6	10.6	12.1	10.7	7.8	9.2	10.9	7.9	9.1	6.4	5.8	6.2
9	15.0	12.7	13.8	7.8	6.0	6.9	9.4	6.8	7.7	7.1	5.7	6.2
10	15.4	12.9	14.2	8.4	5.5	7.0	10.1	9.4	9.7	7.1	6.0	6.5
11	13.7	11.0	12.5	10.3	7.5	8.4	9.5	7.0	8.1	9.8	6.9	8.2
12	13.1	10.9	12.0	11.0	9.4	10.4	7.0	6.1	6.6	11.7	9.8	10.8
13	13.5	12.6	12.9	9.4	7.0	7.7	6.8	3.4	5.3	11.7	9.0	11.1
14	14.8	13.2	13.8	7.4	5.2	6.4	3.4	1.7	2.5	9.0	5.2	7.1
15	13.9	11.1	12.3	7.7	4.8	6.4	1.7	0.2	0.8	5.2	3.4	4.1
16	11.1	10.3	10.7	8.8	7.1	7.9	0.6	0.0	0.2	4.0	1.1	2.7
17	10.3	8.0	9.2	10.4	8.8	9.6	1.3	0.0	0.6	1.1	0.0	0.0
18	12.2	8.3	9.2	12.2	10.4	11.3	2.0	0.0	0.8	0.1	0.0	0.0
19	13.7	12.2	13.0	12.9	11.9	12.4	1.9	0.0	1.0	0.0	0.0	0.0
20	14.1	13.6	13.8	12.7	12.0	12.4	0.4	0.0	0.0	0.1	0.0	0.0
21	14.3	13.8	14.1	12.2	11.0	11.5	0.5	0.0	0.1	0.1	0.0	0.0
22	14.0	12.9	13.5	11.0	10.6	10.8	0.2	0.0	0.0	0.0	0.0	0.0
23	13.5	11.9	12.6	11.0	10.2	10.6	0.0	0.0	0.0	0.0	0.0	0.0
24	15.5	13.4	14.3	13.1	11.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0
25	14.1	11.5	13.0	12.0	7.0	9.2	0.0	0.0	0.0	0.1	0.0	0.0
26	13.6	10.9	12.4	7.3	5.6	6.5	0.0	0.0	0.0	0.0	0.0	0.0
27	14.6	13.3	13.9	7.8	6.7	7.3	0.0	0.0	0.0	0.2	0.0	0.0
28	15.6	13.6	14.7	7.8	6.3	7.5	0.0	0.0	0.0	0.0	0.0	0.0
29	17.8	15.2	16.4	6.3	5.5	6.0	0.2	0.0	0.0	0.0	0.0	0.0
30	18.7	17.1	17.7	9.3	6.3	7.0	4.8	0.1	1.3	0.4	0.0	0.1
31	17.1	14.3	15.3	---	---	---	6.0	4.7	5.4	0.5	0.0	0.2
MONTH	18.7	8.0	13.2	16.0	4.8	9.6	12.3	0.0	3.4	11.7	0.0	3.7
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	1.1	0.0	0.4	3.7	1.5	2.6	13.0	9.1	10.4	12.9	8.5	10.8
2	0.5	0.0	0.2	3.0	0.1	1.5	9.1	7.1	7.9	11.6	9.6	10.8
3	3.0	0.5	1.6	2.8	0.0	1.2	11.5	5.6	8.4	12.7	8.5	10.7
4	3.2	0.7	2.0	4.2	0.7	2.2	13.8	7.9	10.8	14.3	8.6	11.5
5	4.0	1.3	2.7	4.5	3.4	3.8	16.4	10.3	13.2	15.9	9.9	12.9
6	4.5	2.2	3.4	7.4	2.5	5.0	16.6	12.0	14.4	17.2	11.5	14.5
7	5.1	3.7	4.3	8.7	5.5	7.0	17.3	14.3	15.6	18.9	12.7	15.8
8	7.9	5.1	6.8	7.1	3.0	4.8	18.2	13.7	15.9	20.6	15.3	17.9
9	7.7	5.6	6.7	4.1	0.8	2.6	18.2	12.2	15.3	21.3	16.9	19.3
10	5.6	2.7	4.0	2.9	0.8	2.0	19.2	13.0	16.1	21.3	18.4	20.0
11	2.7	1.0	1.9	3.0	1.7	2.3	20.9	15.9	18.2	22.7	18.4	20.6
12	4.6	1.0	2.7	4.7	1.8	3.1	19.6	15.7	17.1	22.2	18.9	20.2
13	5.7	3.5	4.2	4.2	2.5	3.4	15.7	12.9	14.4	21.6	16.8	19.1
14	7.6	5.7	6.8	5.7	1.0	3.4	16.3	10.1	13.1	21.0	19.0	20.0
15	8.3	4.5	6.5	6.5	1.9	4.3	17.2	11.0	14.1	19.0	16.3	17.4
16	8.2	6.0	7.4	6.4	3.9	5.2	18.0	11.4	14.7	16.5	14.9	15.5
17	6.0	3.3	4.4	8.6	3.9	6.1	18.5	11.8	15.2	17.0	12.8	14.9
18	3.8	2.0	2.8	9.2	4.0	6.7	20.2	14.4	17.3	18.7	14.1	16.3
19	3.2	0.2	1.8	7.7	6.2	6.7	20.5	15.7	18.2	17.9	15.9	17.1
20	4.7	2.6	3.2	8.5	5.3	6.7	20.9	15.9	18.6	17.8	15.3	16.4
21	7.1	4.7	6.1	8.4	4.3	6.4	20.0	15.7	17.5	19.0	15.1	17.1
22	6.8	5.6	6.2	6.9	4.5	5.9	17.2	14.3	15.4	18.3	15.8	16.9
23	6.2	4.6	5.4	6.3	5.5	6.0	15.0	9.1	11.6	19.2	15.8	17.6
24	5.1	3.0	3.9	8.3	4.7	6.3	9.1	7.1	7.9	18.3	16.4	17.2
25	3.5	0.7	2.3	8.6	6.6	7.6	13.1	6.9	9.8	17.3	15.1	16.3
26	5.2	1.6	3.3	9.4	7.4	8.3	12.4	10.6	11.8	18.7	14.7	16.8
27	5.8	2.3	4.1	8.5	7.1	7.5	11.2	8.3	10.1	20.1	16.9	18.5
28	5.2	3.7	4.5	8.2	7.1	7.6	11.5	8.5	10.2	19.3	17.3	18.4
29	---	---	---	12.0	5.4	8.5	11.3	10.5	10.9	19.6	16.4	18.1
30	---	---	---	13.5	7.5	10.7	12.0	10.8	11.4	18.9	16.6	17.4
31	---	---	---	15.4	12.1	13.5	---	---	---	19.0	15.5	17.1
MONTH	8.3	0.0	3.9	15.4	0.0	5.4	20.9	5.6	13.5	22.7	8.5	16.6







## LICKING RIVER BASIN

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

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER—CONTINUED  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.2	5.8	6.4	6.2	3.4	4.8	---	---	---	---	---	---
2	6.2	5.1	5.5	5.3	4.3	4.7	---	---	---	---	---	---
3	6.3	4.6	5.5	5.3	3.9	4.6	---	---	---	---	---	---
4	6.0	5.1	5.6	6.5	4.0	5.0	---	---	---	---	---	---
5	6.9	4.8	5.6	6.4	4.0	5.0	---	---	---	---	---	---
6	6.8	5.1	5.8	6.4	3.7	5.0	---	---	---	---	---	---
7	6.3	4.6	5.5	8.5	4.3	6.2	---	---	---	---	---	---
8	6.4	4.1	5.1	9.9	4.9	7.2	---	---	---	---	---	---
9	6.5	3.9	4.9	10.1	5.3	7.7	---	---	---	---	---	---
10	6.4	3.5	4.6	9.6	5.2	7.4	---	---	---	---	---	---
11	4.5	3.1	3.8	7.8	5.1	6.5	---	---	---	---	---	---
12	5.3	3.1	4.1	6.1	4.1	5.0	---	---	---	---	---	---
13	4.9	4.1	4.4	5.1	3.8	4.3	---	---	---	---	---	---
14	---	---	---	6.0	4.2	5.0	---	---	---	---	---	---
15	---	---	---	6.5	4.5	5.4	---	---	---	---	---	---
16	---	---	---	5.7	4.7	5.2	---	---	---	---	---	---
17	---	---	---	6.0	4.4	5.2	---	---	---	7.7	3.4	5.2
18	---	---	---	6.8	4.6	5.6	---	---	---	8.0	4.0	5.9
19	---	---	---	7.2	4.8	6.0	---	---	---	7.6	4.1	5.8
20	---	---	---	7.6	4.9	5.8	---	---	---	7.3	4.4	5.8
21	---	---	---	6.3	5.3	5.7	---	---	---	6.4	3.6	5.2
22	12.1	7.0	9.0	6.2	4.5	5.4	---	---	---	6.3	4.3	5.3
23	9.3	5.9	7.4	7.4	5.0	6.0	---	---	---	6.5	4.7	5.4
24	8.7	4.9	6.7	8.1	5.4	6.7	---	---	---	6.6	4.3	5.1
25	8.9	4.6	6.8	9.7	6.1	7.7	---	---	---	5.4	3.7	4.4
26	9.4	4.4	6.6	12.1	6.6	8.4	---	---	---	5.4	3.8	4.4
27	7.6	4.4	5.9	---	---	---	---	---	---	4.8	3.8	4.2
28	7.4	3.9	5.5	---	---	---	---	---	---	6.0	4.2	5.0
29	7.6	3.5	5.4	---	---	---	---	---	---	6.2	4.7	5.4
30	9.2	3.7	5.8	---	---	---	---	---	---	6.9	5.0	5.8
31	---	---	---	---	---	---	---	---	---	---	---	---

MONTH

YEAR





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## 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.--22.0 mi<sup>2</sup>.

## WATER DISCHARGE RECORDS

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

REVISIONS.--WDR KY-01-1: Drainage area.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	16	192	166	25	24	35	14	1.8	73	0.26	20
2	4.3	120	54	72	27	14	84	12	1.6	5.9	0.27	7.5
3	4.2	80	35	867	26	13	55	10	1.6	2.5	0.24	3.7
4	4.1	100	26	354	29	12	39	9.2	1.6	1.6	0.23	2.6
5	3.9	47	21	1,050	31	13	31	8.2	1.3	1.3	0.25	1.9
6	3.5	28	32	726	33	11	26	7.6	1.0	0.94	0.34	1.5
7	3.5	20	92	98	39	15	27	6.9	0.96	0.98	0.23	1.2
8	3.5	15	48	161	207	37	22	6.0	0.89	0.79	0.16	1.1
9	3.6	13	82	71	70	17	19	5.4	0.75	0.60	0.16	1.00
10	3.3	11	78	47	48	14	17	5.2	1.7	0.44	0.12	0.86
11	2.9	165	55	100	30	14	15	4.4	2.0	0.37	0.10	0.76
12	3.5	411	43	92	24	14	15	5.5	8.5	0.36	0.05	0.69
13	9.4	56	30	271	38	12	18	4.8	36	6.8	0.01	0.61
14	17	31	23	159	128	10	14	12	19	16	0.04	0.56
15	31	23	20	58	61	9.5	12	9.9	14	46	0.02	0.44
16	25	19	18	40	40	9.0	11	5.2	4.5	6.0	0.01	0.65
17	13	17	16	e24	27	8.7	10	3.9	2.5	3.5	0.00	1.8
18	668	15	15	e21	21	8.0	9.9	3.2	1.7	3.5	0.00	1.2
19	241	315	13	e17	17	10	9.3	9.8	1.3	3.1	0.27	0.79
20	45	76	11	e20	17	12	8.6	20	1.1	23	0.12	9.1
21	25	38	11	e12	20	8.8	8.1	6.6	0.86	13	0.11	3.0
22	16	28	28	e10	15	9.6	13	4.3	0.73	7.2	0.05	1.2
23	34	23	66	e8.6	13	43	178	3.3	0.62	4.2	0.05	0.75
24	63	100	34	e7.0	16	24	62	2.4	0.52	2.2	0.44	0.54
25	23	56	21	e7.0	13	26	31	2.1	0.46	1.4	0.37	0.49
26	16	33	19	e7.0	13	19	57	1.9	0.39	1.2	43	5.2
27	96	29	14	e7.0	11	20	61	1.7	0.33	0.93	7.9	3.4
28	32	47	14	e7.0	18	1,360	26	2.5	0.30	0.71	2.5	1.3
29	21	29	38	e10	---	123	20	4.2	0.51	0.55	1.5	4.2
30	22	44	398	e14	---	66	18	2.5	0.61	0.43	437	2.5
31	18	---	606	e17	---	45	---	2.1	---	0.34	137	---
TOTAL	1,460.2	2,005	2,153	4,520.6	1,057	2,021.6	951.9	196.8	109.13	228.84	632.80	80.54
MEAN	47.1	66.8	69.5	146	37.8	65.2	31.7	6.35	3.64	7.38	20.4	2.68
MAX	668	411	606	1,050	207	1,360	178	20	36	73	437	20
MIN	2.9	11	11	7.0	11	8.0	8.1	1.7	0.30	0.34	0.00	0.44

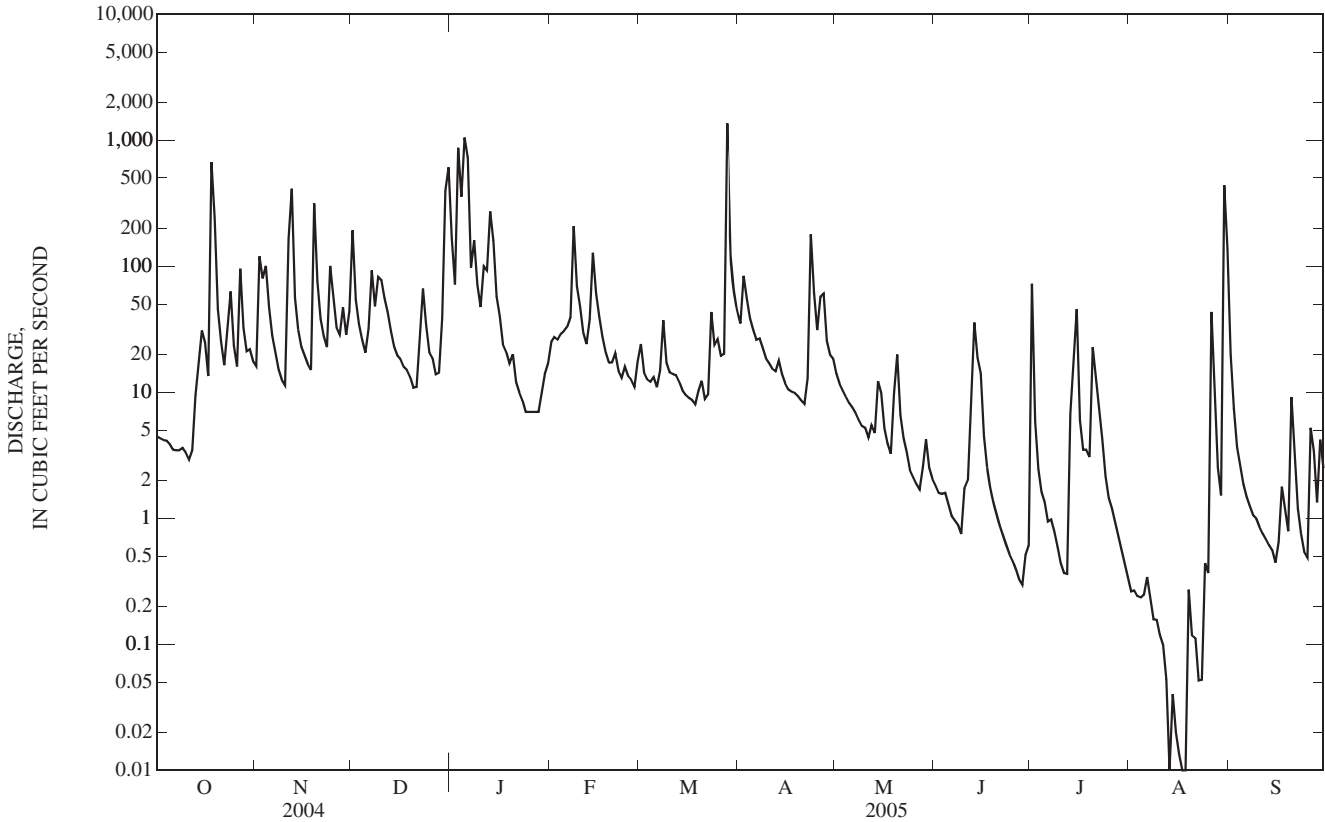
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2005, BY WATER YEAR (WY)

MEAN	24.0	34.7	59.9	72.1	67.2	49.6	43.4	46.8	16.8	16.0	17.3	14.5
MAX	66.4	66.8	92.6	146	143	74.3	110	150	41.1	40.8	48.4	50.1
(WY)	(2002)	(2005)	(2003)	(2005)	(2000)	(2002)	(2002)	(2002)	(2001)	(2004)	(2003)	(2003)
MIN	1.65	1.27	10.5	21.3	33.0	21.4	6.62	5.10	2.71	2.59	0.21	0.07
(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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1999 - 2005	
ANNUAL TOTAL	18,287.33		15,417.41			
ANNUAL MEAN	50.0		42.2		40.0	
HIGHEST ANNUAL MEAN					54.8	2002
LOWEST ANNUAL MEAN					22.1	2001
HIGHEST DAILY MEAN	1,830	Jan 4	1,360	Mar 28	2,130	Feb 18, 2000
LOWEST DAILY MEAN	0.47	Jul 1	0.00	Aug 17	0.00	Sep 21, 1999
ANNUAL SEVEN-DAY MINIMUM	0.56	Jun 26	0.02	Aug 12	0.00	Sep 21, 1999
MAXIMUM PEAK FLOW			5,360	Mar 28	9,570	Apr 21, 2002
MAXIMUM PEAK STAGE			9.35	Mar 28	10.65	Apr 21, 2002
10 PERCENT EXCEEDS	88		74		72	
50 PERCENT EXCEEDS	22		12		12	
90 PERCENT EXCEEDS	2.7		0.50		0.79	

e Estimated



## 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. New turbidity probe installed summer 2004, range 0-3000 FNU.

RECORDS.--

SPECIFIC CONDUCTANCE: Records rated excellent. Hydrolab pipe out of water due to low flow conditions May 25-27, May 31 to June 14, and June 18-21, 2005.

pH: Records rated excellent. Hydrolab pipe out of water due to low flow conditions May 25-27, May 31 to June 14, and June 18-21, 2005.

WATER TEMPERATURES: Records rated excellent. Hydrolab pipe out of water due to low flow conditions May 25-27, May 31 to June 14, and June 18-21, 2005.

DISSOLVED OXYGEN: Records rated fair. Hydrolab pipe out of water due to low flow conditions May 25-27, May 31 to June 14, and June 18-21, 2005.

TURBIDITY: Records rated fair. Hydrolab pipe out of water due to low flow conditions May 25-27, May 31 to June 14, and June 18-21, 2005.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1640 microsiemens, Jan. 30, 2005; minimum recorded, 124 microsiemens, Dec. 19, 2002.

pH: Maximum recorded, 8.9 units, Mar. 16, 2003; minimum recorded, 7.3 units, Jul. 2, 2003.

WATER TEMPERATURES: Maximum recorded, 33.6°C, July 25, 2005; minimum recorded, 0.0°C, several days in Dec., Jan., Feb., and Mar., of each year of record.

DISSOLVED OXYGEN: Maximum recorded, greater than 20 mg/L, Feb. 28, 2001; minimum recorded, 2.5 mg/L, Jun. 4, 2002.

TURBIDITY: Maximum recorded, 2700 FNU, Jul. 30-31, 2004; minimum recorded, <2.0 FNU, Jan. 22, 25-29, 2003, and Mar. 13, 2003.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1640 microsiemens, Jan. 30, 2005; minimum recorded, 168 microsiemens, Oct. 18, 2004, and Mar. 28, 2005.

pH: Maximum recorded, 8.8 units, Apr. 25, May 1, 3, and 28, 2005; minimum recorded, 7.4 units, June 29, 2005.

WATER TEMPERATURES: Maximum recorded, 33.6°C, July 25, 2005; minimum recorded, 0.0°C, several days in Dec. 2004, and Jan., Feb., and Mar., 2005.

DISSOLVED OXYGEN: Maximum recorded, 17.0 mg/L, Dec. 20, 2004; minimum recorded, 4.5 mg/L, June 30, and Aug. 13-14, 2005.

TURBIDITY: Maximum recorded, 2600 FNU, July 1, 20, 2005; minimum recorded, <2.0 FNU, May 3-4, 2005.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	774	736	757	607	582	595	440	322	371	424	327	385
2	760	743	750	599	386	510	518	426	474	475	405	447
3	758	732	753	498	396	448	547	518	529	496	187	345
4	770	712	750	518	426	462	563	542	551	397	253	354
5	796	749	780	521	440	485	572	549	563	283	191	242
6	807	782	799	558	520	538	576	535	557	368	186	268
7	820	760	811	574	553	563	555	400	469	468	368	422
8	825	809	816	585	561	576	506	414	466	469	334	383
9	817	804	812	595	571	585	530	378	488	481	412	453
10	821	767	812	602	571	589	485	378	433	514	478	497
11	827	820	824	608	248	541	506	485	499	517	389	469
12	830	791	822	407	229	319	524	501	509	470	357	417
13	851	721	795	478	407	446	539	520	529	498	245	432
14	729	657	665	520	478	496	553	531	542	442	255	372
15	657	568	612	541	517	526	563	542	551	489	442	470
16	571	535	552	553	534	544	574	543	562	545	489	510
17	614	565	597	577	552	562	575	551	565	660	533	617
18	619	168	422	593	557	577	577	546	563	654	589	621
19	403	205	326	580	251	378	580	547	565	590	563	577
20	481	307	450	466	372	425	636	571	608	629	556	578
21	525	480	504	507	466	487	647	597	622	940	593	737
22	558	523	541	529	507	518	725	602	644	1,030	861	944
23	570	421	543	544	527	534	710	630	660	1,080	1,000	1,040
24	487	411	447	548	386	466	649	632	641	1,070	886	998
25	558	486	526	486	397	441	665	633	649	886	808	850
26	604	556	576	524	486	504	641	615	631	856	803	828
27	613	400	443	535	522	528	647	627	638	857	774	821
28	544	463	506	524	481	494	667	647	657	866	760	804
29	584	532	563	529	503	513	1,580	662	963	1,280	723	923
30	609	578	589	539	440	527	1,360	327	693	1,640	1,180	1,450
31	602	555	580	---	---	---	327	286	300	1,500	1,020	1,310
MONTH	851	168	636	608	229	506	1,580	286	564	1,640	186	631















## 03254550 BANKLICK CREEK AT HIGHWAY 1829 NEAR ERLANGER, KY—Continued

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	79	27	50	65	17	21	---	---	---	170	74	110
2	87	27	45	1,200	18	230	---	---	---	110	47	64
3	59	26	39	210	42	93	---	---	---	2,300	46	690
4	58	26	40	640	38	180	---	---	---	1,260	140	280
5	71	29	40	120	32	60	---	---	---	1,530	220	490
6	50	22	37	46	16	23	---	---	---	1,330	140	310
7	61	24	35	26	11	16	---	---	---	140	71	97
8	55	21	37	22	8.0	11	---	---	---	520	84	180
9	68	22	36	12	5.0	7.2	1,100	16	190	90	56	66
10	100	24	52	9.0	4.0	4.8	460	51	130	65	46	53
11	79	34	50	1,500	3.0	230	160	34	48	1,030	46	320
12	79	34	50	1,400	87	310	130	24	39	500	73	180
13	160	44	93	100	40	67	32	13	18	1,300	61	350
14	99	41	63	50	23	32	18	12	14	550	88	180
15	390	50	180	40	13	18	18	10	13	91	53	69
16	300	94	160	33	10	13	13	9.3	11	57	41	46
17	110	51	72	51	7.0	12	11	7.5	9.1	89	34	40
18	2,500	42	820	28	8.0	10	13	7.8	9.4	---	---	---
19	1,300	130	300	2,200	9.9	410	---	---	---	---	---	---
20	140	71	100	180	48	84	---	---	---	---	---	---
21	91	40	63	73	26	44	---	---	---	---	---	---
22	68	26	37	62	16	24	58	8.7	28	---	---	---
23	2,500	16	230	48	14	19	52	17	26	---	---	---
24	1,300	94	320	820	16	240	---	---	---	---	---	---
25	---	---	---	150	42	85	---	---	---	---	---	---
26	---	---	---	54	28	39	---	---	---	---	---	---
27	1,600	48	390	140	20	39	---	---	---	---	---	---
28	89	39	58	260	57	110	---	---	---	---	---	---
29	67	24	33	96	30	43	---	---	---	---	---	---
30	91	23	36	500	24	70	1,190	68	420	---	---	---
31	47	21	30	---	---	---	450	160	290	---	---	---
MONTH				2,200	3.0	85						
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	53	16	24	11	3.0	5.5
2	---	---	---	---	---	---	120	47	78	23	2.0	7.8
3	---	---	---	---	---	---	78	26	47	39	<2.0	8.7
4	110	27	44	---	---	---	31	11	17	45	<2.0	14
5	130	25	45	---	---	---	29	9.1	12	30	5.0	13
6	63	30	38	---	---	---	53	12	24	19	4.0	6.3
7	190	27	46	---	---	---	29	7.8	10	17	5.0	7.4
8	1,310	98	380	260	63	92	21	7.7	9.7	13	6.0	8.1
9	110	51	72	63	15	28	26	8.5	12	120	8.0	16
10	76	31	46	---	---	---	22	5.5	8.6	85	9.0	27
11	---	---	---	---	---	---	16	5.3	7.5	88	9.0	24
12	---	---	---	---	---	---	14	5.1	6.5	74	11	24
13	150	18	48	---	---	---	53	5.0	7.8	2,100	9.0	250
14	1,490	86	310	---	---	---	32	2.9	6.0	140	10	47
15	170	46	77	---	---	---	32	2.8	6.2	57	22	37
16	65	31	42	---	---	---	25	3.7	5.8	620	11	77
17	---	---	---	---	---	---	22	3.5	5.7	36	8.0	15
18	---	---	---	---	---	---	15	3.4	6.6	27	8.0	12
19	---	---	---	---	---	---	72	5.3	9.4	710	10	160
20	---	---	---	---	---	---	20	5.1	8.5	970	260	400
21	---	---	---	12	7.0	7.5	25	3.2	10	660	42	140
22	---	---	---	91	5.9	9.5	300	3.1	22	96	21	35
23	---	---	---	410	56	150	2,010	180	630	81	18	27
24	---	---	---	56	14	25	200	49	94	47	19	28
25	---	---	---	58	11	17	160	20	38	---	---	---
26	---	---	---	64	14	23	980	10	150	---	---	---
27	---	---	---	120	8.3	30	630	35	160	---	---	---
28	---	---	---	2,570	120	1,020	35	7.0	17	---	---	---
29	---	---	---	240	78	150	9.0	3.0	5.2	36	13	22
30	---	---	---	120	44	67	7.0	3.0	4.8	70	13	19
31	---	---	---	55	28	37	---	---	---	---	---	---
MONTH							2,010	2.8	48			

## LICKING RIVER BASIN

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

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU—  
CONTINUED

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	2,600	53	1,300	---	---	---	180	83	120
2	---	---	---	900	200	410	---	---	---	140	64	89
3	---	---	---	260	95	170	---	---	---	93	46	66
4	---	---	---	200	55	110	---	---	---	70	36	49
5	---	---	---	220	48	85	91	---	---	69	25	38
6	---	---	---	190	39	68	97	67	76	---	---	---
7	---	---	---	200	32	66	---	---	---	89	23	44
8	---	---	---	130	31	61	---	---	---	---	---	---
9	---	---	---	88	26	50	---	---	---	---	---	---
10	---	---	---	73	29	46	93	56	70	60	18	31
11	---	---	---	100	18	38	97	48	64	81	19	33
12	---	---	---	86	21	32	110	56	71	52	16	31
13	---	---	---	200	24	83	88	53	69	44	17	28
14	---	---	---	660	120	310	94	58	73	94	20	34
15	---	---	---	2,400	14	970	87	59	72	74	11	26
16	400	180	260	750	140	310	93	60	70	100	14	37
17	210	84	150	360	72	140	94	57	71	110	24	48
18	---	---	---	110	36	69	130	71	96	29	14	19
19	---	---	---	88	20	48	300	78	160	40	16	22
20	---	---	---	2,600	32	560	---	---	---	1,200	22	270
21	---	---	---	2,500	470	1,400	---	---	---	160	62	99
22	130	55	79	660	160	270	120	60	76	100	42	61
23	140	42	78	180	73	120	220	64	110	72	27	45
24	96	32	53	510	49	120	110	57	75	50	27	36
25	71	30	49	1,100	57	270	99	50	66	58	26	39
26	73	30	50	300	87	160	---	47	---	130	32	73
27	68	27	46	220	92	140	2,500	510	1,100	84	32	49
28	68	28	44	---	---	---	560	160	300	53	25	33
29	120	26	55	---	---	---	220	110	160	480	34	140
30	60	26	38	---	---	---	2,500	110	1,100	120	35	55
31	---	---	---	---	---	---	520	140	250	---	---	---

MONTH

YEAR



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## ELIJAHS CREEK BASIN

03260100 ELIJAHS CREEK AT ELIJAHS CREEK ROAD NEAR HEBRON, KY

LOCATION.--Lat 39°04'47", long 84°41'07", Boone County, Hydrologic Unit 05090203, at bridge on Elijahs Creek Road, 0.6 mi downstream from Interstate 275, 1.3 mi northeast of Hebron, and 2.5 mi upstream from the mouth.

DRAINAGE AREA.--4.03 mi<sup>2</sup>.

## WATER DISCHARGE RECORDS

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

GAGE.--Water-stage recorder with telemetry and crest-stage gage. Datum of gage is 759.085 ft above NGVD of 1929.

REMARKS.--Records fair.

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

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.79	4.5	17	19	7.2	4.4	1.6	4.3	0.47	60	0.04	1.9
2	1.9	38	3.6	10	1.9	3.5	24	1.2	1.3	0.13	0.04	0.89
3	0.81	18	2.7	154	10	3.5	7.4	1.3	0.65	0.07	0.05	0.50
4	0.71	24	2.3	85	8.0	2.9	1.3	1.9	0.54	0.06	0.06	0.31
5	0.80	5.7	2.1	262	7.1	8.1	0.50	1.2	0.56	0.07	0.11	0.26
6	1.3	2.1	9.4	161	9.8	3.2	4.2	0.90	0.21	0.05	24	0.21
7	1.3	1.6	24	8.5	13	11	8.1	0.98	0.19	1.6	0.18	0.24
8	0.99	1.3	4.0	41	50	3.7	2.8	1.0	0.21	0.19	0.17	0.26
9	1.1	0.96	46	6.1	15	2.9	0.28	1.3	0.17	0.05	0.08	0.35
10	1.1	1.1	8.6	4.1	3.6	2.0	0.22	1.5	3.7	0.05	0.08	0.38
11	1.1	52	15	28	6.3	7.8	4.1	1.7	1.3	0.04	26	0.39
12	11	44	4.4	9.3	2.7	4.5	0.59	15	24	0.06	0.57	0.40
13	5.5	3.1	3.8	78	18	3.6	24	2.4	6.0	26	0.10	0.40
14	3.9	2.1	2.6	13	23	3.3	0.83	39	36	7.1	0.36	0.74
15	19	1.8	2.2	4.4	8.8	2.6	0.24	2.7	1.7	0.27	0.05	0.51
16	2.2	2.2	2.1	3.5	4.5	6.8	0.27	1.7	0.92	0.64	0.66	0.70
17	1.5	1.6	2.0	6.3	7.6	1.7	3.7	1.2	0.61	5.4	0.09	0.96
18	299	1.7	1.9	e1.9	2.9	1.7	0.15	1.0	0.31	0.13	0.07	0.53
19	27	89	1.9	e1.5	2.6	11	0.19	11	0.22	0.07	10	2.1
20	3.7	6.8	2.2	e1.0	2.7	3.1	0.17	1.8	0.21	4.2	0.10	20
21	5.0	3.1	2.2	e1.0	8.4	3.0	5.6	0.89	0.22	0.10	0.08	0.70
22	4.1	3.0	5.0	e0.96	2.8	6.7	56	0.64	0.21	2.2	0.06	0.32
23	21	2.5	16	e0.89	2.6	77	105	0.61	0.15	0.28	0.05	3.7
24	4.8	19	13	e0.87	3.3	5.1	7.8	0.61	0.15	0.06	0.04	0.72
25	2.0	4.9	19	e0.82	7.4	3.9	2.2	0.58	0.15	0.05	0.05	1.0
26	2.2	2.5	8.5	e0.78	2.0	3.4	68	0.56	0.17	0.05	8.1	22
27	11	8.2	6.1	e0.76	1.9	12	9.0	0.68	0.14	0.05	0.07	1.4
28	1.9	5.6	4.4	e0.76	14	283	5.3	7.0	0.16	0.05	0.06	0.69
29	1.6	2.5	46	11	---	9.2	0.90	0.50	0.17	0.03	0.09	12
30	7.5	20	145	8.8	---	6.5	0.78	3.8	1.5	0.04	183	0.73
31	1.6	---	125	2.2	---	5.1	---	0.98	---	0.04	36	---
TOTAL	447.40	372.86	548.0	926.44	247.1	506.2	345.22	109.93	82.29	109.13	290.41	75.29
MEAN	14.4	12.4	17.7	29.9	8.82	16.3	11.5	3.55	2.74	3.52	9.37	2.51
MAX	299	89	145	262	50	283	105	39	36	60	183	22
MIN	0.71	0.96	1.9	0.76	1.9	1.7	0.15	0.50	0.14	0.03	0.04	0.21

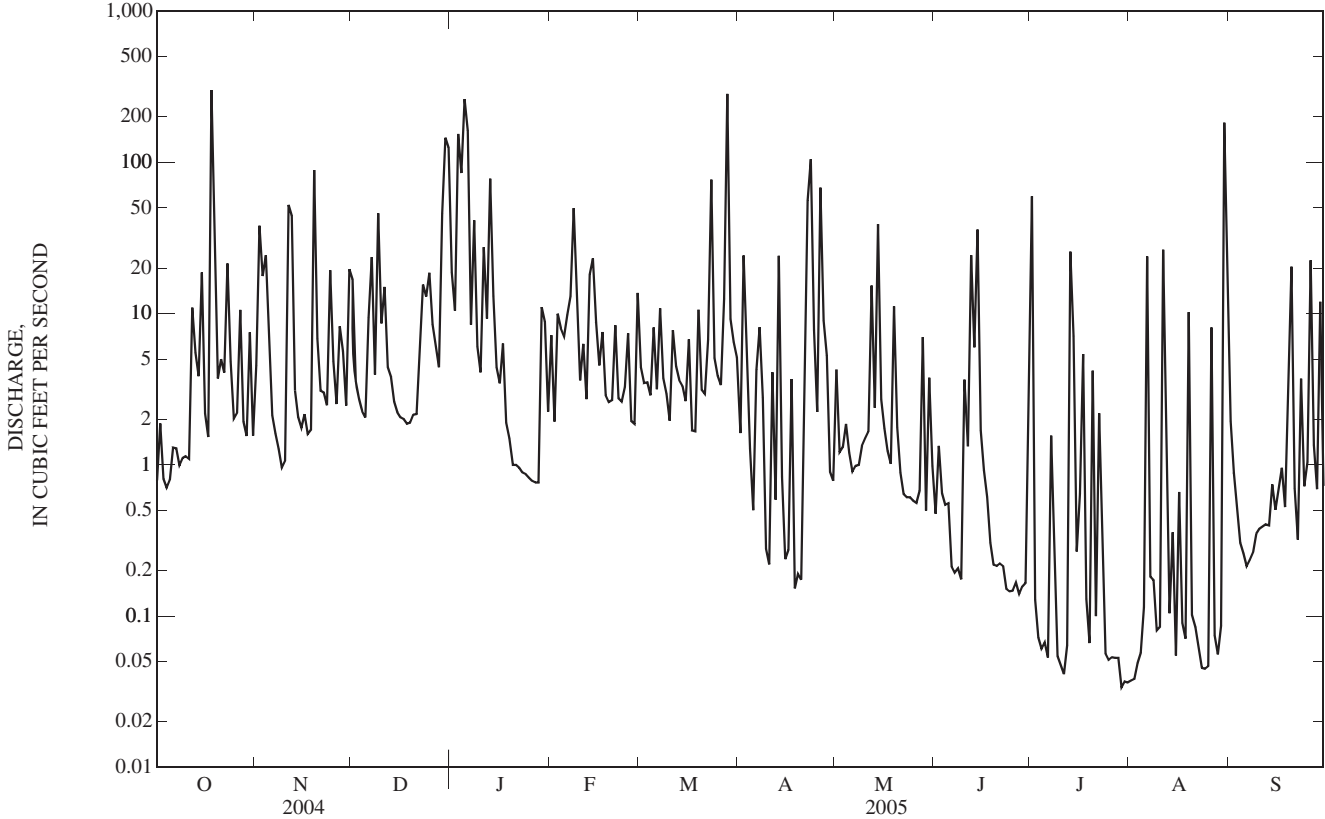
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2005, BY WATER YEAR (WY)

MEAN	7.41	6.54	7.99	12.5	8.74	9.02	8.82	11.8	5.05	4.27	3.84	4.95
MAX	14.6	12.4	17.7	29.9	18.6	16.3	16.5	21.9	7.59	8.49	9.37	12.2
(WY)	(2002)	(2005)	(2005)	(2005)	(2000)	(2005)	(2002)	(2002)	(2002)	(2003)	(2005)	(2003)
MIN	1.06	0.86	1.72	1.62	2.85	1.79	1.57	3.55	2.74	0.80	0.63	0.01
(WY)	(2001)	(2000)	(2003)	(2003)	(2003)	(2001)	(2001)	(2005)	(2005)	(2002)	(2002)	(2001)

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

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2000 - 2005	
ANNUAL TOTAL	3,859.89		4,060.27		7.58	
ANNUAL MEAN	10.5		11.1		11.1	
HIGHEST ANNUAL MEAN					2.22	2005
LOWEST ANNUAL MEAN					0.00	2001
HIGHEST DAILY MEAN	332	Jan 4	299	Oct 18	332	Jan 4, 2004
LOWEST DAILY MEAN	0.18	Jul 1	0.03	Jul 29	0.00	Oct 2, 1999
ANNUAL SEVEN-DAY MINIMUM	0.37	Sep 18	0.04	Jul 27	0.00	Oct 15, 1999
MAXIMUM PEAK FLOW			805	Oct 18	1,510	May 10, 2003
MAXIMUM PEAK STAGE			4.10	Oct 18	7.34	May 10, 2003
10 PERCENT EXCEEDS	26		23		15	
50 PERCENT EXCEEDS	2.1		2.1		1.5	
90 PERCENT EXCEEDS	0.56		0.10		0.18	

e Estimated



## 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 Sept. 2003.

INSTRUMENTATION.--Water-quality monitor with telemetry.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Records rated good. Missing data Jan. 5-10, Mar. 28 to Apr. 8, June 12-15, and July 29 to Aug 2, 2005.

pH: Records rated good. Missing data July 29 to Aug 2, 2005.

WATER TEMPERATURES: Records rated excellent. Missing data Feb. 24, May 3, July 29 to Aug. 1, and Sept. 7, 2005.

DISSOLVED OXYGEN: Records rated poor. Missing data Oct. 26-27, Dec. 9, 31, 2004, Jan. 1-10, Feb. 9-23, Mar. 1-14, 28-31, Apr. 1-7, 19-21, 29-30, May 1-2, 26-31, June 11-14, July 17-21, 29-31, Aug. 1-2, and Sept. 3-15, and 23-30, 2005.

TURBIDITY: No data collected.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 11,800 microsiemens, Dec. 14, 2003; minimum recorded, 21 microsiemens, July 18, 2001.

pH: Maximum recorded, 8.7 units, Aug. 1, 13, 17, 18, 2003, and May 14, Jun. 8-10, 12, 2005; minimum recorded, 5.9 units, Nov. 4, 2003.

WATER TEMPERATURES: Maximum recorded, 30.9°C, July 25, 2005; minimum recorded, 0.0°C, several days in Dec., Jan., Feb., and Mar. of each year of record.

DISSOLVED OXYGEN: Maximum recorded, 19.9 mg/L, May 6, 2001; minimum recorded, 0.4 mg/L, July 8, 2005.

TURBIDITY: Maximum recorded, greater than 1000 FNU, several days in 2001, 2002 and June 8, 14, 2003; minimum recorded, 0.3 FNU, Sept. 18, 2001.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 9,640 microsiemens, Jan. 21, 2005; minimum recorded, 136 microsiemens, Aug. 30, 2005.

pH: Maximum recorded, 8.7 units, May 14, June 8-10, 12, 2005; minimum recorded, 7.4 units, Jan. 14-15, Apr. 13, 17, 21-22, and Aug. 21, 2005.

WATER TEMPERATURES: Maximum recorded, 30.9°C, July 25, 2005; minimum recorded, 0.0°C, several days in Dec. 2004, Jan. and Mar. 2005.

DISSOLVED OXYGEN: Maximum recorded, 16.4 mg/L, Dec. 16, 2004; minimum recorded, 0.4 mg/L, July 8, 2005.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	1,020	959	985	1,210	826	953	794	393	647	709	557	651
2	1,200	961	1,110	912	368	568	1,000	794	868	804	709	762
3	1,190	1,190	1,190	826	365	506	1,010	853	907	804	255	506
4	1,190	1,180	1,190	949	386	524	979	902	933	485	272	419
5	1,190	1,180	1,180	930	463	703	965	924	945	---	---	---
6	1,260	1,190	1,220	1,010	930	982	975	431	635	---	---	---
7	1,240	1,110	1,170	1,040	965	1,020	771	378	640	---	---	---
8	1,210	1,170	1,200	1,030	964	980	905	716	778	---	---	---
9	1,280	1,200	1,240	1,080	1,030	1,050	900	186	630	---	---	---
10	1,280	1,270	1,280	1,130	1,060	1,090	708	411	592	---	---	---
11	1,270	1,230	1,250	1,200	262	847	678	408	529	997	509	619
12	1,240	226	1,100	748	322	568	728	589	679	837	591	752
13	610	281	494	982	748	852	1,080	718	791	879	251	636
14	688	545	616	1,120	982	1,050	1,090	868	952	797	424	672
15	637	295	459	1,120	976	1,080	1,010	795	899	920	797	864
16	704	559	650	1,210	1,070	1,110	976	836	893	2,120	920	1,320
17	806	704	750	1,270	1,140	1,200	959	779	832	4,060	1,760	3,080
18	844	164	474	1,140	804	1,080	833	793	815	2,840	1,850	2,360
19	857	242	631	1,070	257	537	1,490	815	994	1,850	1,390	1,470
20	1,210	857	961	901	498	817	1,030	961	990	6,300	1,380	2,640
21	1,310	1,140	1,180	977	885	941	1,020	955	980	9,640	3,160	5,350
22	1,220	965	1,130	1,020	851	955	3,040	1,010	2,070	6,320	4,570	5,220
23	1,200	259	963	1,250	985	1,110	2,200	1,880	2,000	6,720	5,290	5,710
24	893	516	769	1,300	378	774	2,520	1,930	2,100	5,600	4,030	4,960
25	1,080	893	990	889	704	805	2,460	1,580	1,850	8,810	3,370	4,510
26	1,030	651	988	954	889	928	1,940	1,400	1,690	5,380	3,180	4,160
27	888	357	565	989	388	888	2,180	1,650	1,780	4,590	3,120	4,070
28	953	718	825	813	418	658	2,360	2,150	2,260	3,120	2,350	2,580
29	1,150	953	1,070	1,100	566	893	3,090	1,700	2,420	7,240	2,060	4,010
30	1,100	440	730	1,100	376	837	2,170	473	1,170	6,890	2,880	5,100
31	826	639	743	---	---	---	557	385	451	5,280	2,330	2,870
MONTH	1,310	164	939	1,300	257	877	3,090	186	1,120	9,640	251	2,610











## 03260100 ELIJAHS CREEK AT ELIJAHS CREEK ROAD NEAR HEBRON, KY—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	9.1	7.0	7.9	9.6	6.3	7.7	9.3	7.6	8.3	---	---	---
2	7.8	6.4	7.0	7.2	6.2	6.5	11.6	8.3	9.5	---	---	---
3	9.7	7.1	8.2	7.4	6.2	6.7	12.8	8.3	10.1	---	---	---
4	9.8	7.8	8.4	8.5	6.8	7.3	13.6	8.8	10.7	---	---	---
5	9.5	7.7	8.5	8.4	6.8	7.6	14.0	8.1	10.5	---	---	---
6	10.0	7.9	8.7	9.6	7.8	8.7	8.6	5.6	7.0	---	---	---
7	9.6	7.5	8.3	9.8	7.6	8.4	7.3	5.4	6.3	---	---	---
8	9.1	7.2	7.9	11.2	7.7	9.2	11.8	7.3	9.5	---	---	---
9	8.8	6.8	7.4	12.3	8.8	10.1	---	---	---	---	---	---
10	8.8	6.9	7.7	12.5	8.2	10.1	10.8	9.7	10.2	---	---	---
11	10.1	7.5	8.6	10.9	7.1	8.6	11.2	9.7	10.4	10.0	8.5	9.2
12	10.3	7.7	8.8	9.6	8.1	8.8	13.8	10.3	11.5	8.5	6.8	7.6
13	8.7	6.8	7.9	10.3	8.6	9.3	14.2	10.4	12.1	9.3	6.7	7.6
14	6.8	4.3	5.7	11.6	9.1	10.1	15.1	11.3	12.8	9.9	9.0	9.3
15	7.2	4.6	6.4	11.6	8.7	9.9	15.8	11.3	13.3	12.1	9.7	11.0
16	8.1	6.4	7.3	10.8	7.8	8.9	16.4	10.9	13.5	13.4	11.7	12.7
17	9.2	7.3	8.1	12.5	7.0	9.4	14.8	10.5	12.1	13.4	8.8	12.1
18	10.4	7.6	8.8	14.7	7.2	9.7	14.6	9.0	11.6	12.1	9.1	11.1
19	9.7	8.9	9.4	8.3	6.4	7.5	14.8	9.0	11.5	12.0	10.4	11.3
20	8.9	8.3	8.7	9.0	7.1	7.7	16.0	9.2	11.9	12.0	11.1	11.6
21	9.3	8.4	8.9	9.9	7.2	8.0	15.2	9.5	11.6	12.3	11.2	11.9
22	9.7	8.9	9.4	8.6	7.0	7.6	10.9	7.9	9.8	12.0	10.8	11.4
23	9.8	8.1	9.2	9.9	6.5	7.6	7.9	5.5	6.8	10.8	9.6	10.2
24	9.8	8.8	9.2	7.0	5.8	6.4	9.7	6.5	7.5	10.8	9.0	9.9
25	10.6	8.8	9.5	9.8	6.4	8.1	8.7	5.6	7.0	12.0	10.5	10.7
26	---	---	---	11.4	8.0	9.2	8.6	5.6	6.9	11.1	10.5	10.8
27	---	---	---	11.5	6.9	8.9	8.7	6.5	7.3	11.2	9.8	10.5
28	10.2	7.8	9.0	10.3	7.1	8.1	8.0	5.8	6.8	10.1	8.9	9.5
29	9.6	7.0	8.1	12.6	8.1	9.6	9.8	5.7	7.4	11.4	7.3	9.7
30	7.6	5.9	6.7	10.6	6.8	8.3	11.5	7.6	9.5	11.1	9.0	10.3
31	10.4	6.3	8.0	---	---	---	---	---	---	10.1	9.0	9.6
				14.7	5.8	8.5						
	FEBRUARY			MARCH			APRIL			MAY		
1	10.4	8.2	9.4	---	---	---	---	---	---	---	---	---
2	10.0	8.8	9.3	---	---	---	---	---	---	---	---	---
3	9.1	7.8	8.5	---	---	---	---	---	---	10.3	7.3	9.0
4	8.9	6.3	8.1	---	---	---	---	---	---	8.7	6.9	7.7
5	8.0	5.2	6.3	---	---	---	---	---	---	9.1	7.1	8.1
6	6.1	3.3	4.7	---	---	---	---	---	---	9.3	6.4	7.9
7	6.1	2.7	3.5	---	---	---	---	---	---	9.0	5.6	7.3
8	5.1	2.9	4.0	---	---	---	12.7	8.9	10.7	9.6	5.4	7.0
9	---	---	---	---	---	---	13.2	8.3	10.5	10.4	4.5	6.9
10	---	---	---	---	---	---	13.6	7.5	10.1	8.6	4.4	6.1
11	---	---	---	---	---	---	10.1	6.3	8.1	9.3	4.9	6.4
12	---	---	---	---	---	---	9.4	6.2	7.6	6.8	4.1	5.7
13	---	---	---	---	---	---	7.9	5.9	7.1	8.8	4.8	6.4
14	---	---	---	---	---	---	10.3	6.6	8.4	6.6	4.1	5.3
15	---	---	---	8.4	7.0	7.3	12.0	6.6	9.1	7.6	4.6	6.4
16	---	---	---	9.0	6.4	7.4	13.8	7.3	10.0	8.3	6.4	7.3
17	---	---	---	8.3	6.4	7.2	13.4	6.6	9.3	8.9	6.6	7.7
18	---	---	---	9.1	6.7	7.7	12.3	7.1	9.0	9.0	6.0	7.4
19	---	---	---	9.0	5.0	7.1	---	---	---	7.2	4.7	5.9
20	---	---	---	5.6	4.2	5.0	---	---	---	5.9	4.5	5.3
21	---	---	---	6.2	2.8	4.7	---	---	---	8.1	5.8	6.7
22	---	---	---	7.9	3.4	5.5	9.1	2.9	6.8	8.8	6.0	7.2
23	---	---	---	9.3	5.3	7.9	10.6	8.3	9.7	8.7	6.1	7.1
24	10.0	9.6	9.7	9.3	5.9	7.9	11.2	9.2	10.2	9.5	6.1	7.6
25	10.4	6.5	8.3	6.1	4.8	5.6	11.1	7.6	9.3	10.3	6.5	8.1
26	7.9	6.2	7.2	4.9	3.3	4.4	9.4	7.6	8.6	---	---	---
27	9.1	6.5	7.9	4.4	2.5	2.9	9.4	7.9	8.4	---	---	---
28	8.3	5.0	7.4	---	---	---	9.7	6.9	8.7	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

MONTH

## ELIJAHS CREEK BASIN

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

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER—CONTINUED  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	10.9	5.8	7.7	7.8	5.5	6.5	---	---	---	4.4	3.4	3.9
2	8.6	3.7	5.9	8.0	5.6	6.6	---	---	---	6.2	3.6	4.7
3	6.3	2.6	4.1	9.0	5.6	6.8	10.7	5.5	6.9	---	---	---
4	7.3	2.6	4.8	9.4	5.0	6.6	8.4	4.3	5.8	---	---	---
5	8.2	3.8	5.1	9.0	4.5	6.3	5.7	3.9	4.7	---	---	---
6	7.8	3.6	5.0	8.9	5.0	6.5	6.6	3.8	5.2	---	---	---
7	8.8	3.5	5.4	8.9	3.7	6.0	7.7	4.6	5.7	---	---	---
8	8.7	3.7	5.5	3.7	0.4	1.8	8.6	4.4	6.0	---	---	---
9	9.1	3.6	5.4	6.3	2.3	4.5	8.7	4.1	5.8	---	---	---
10	8.8	3.6	5.2	7.4	4.3	5.5	9.0	4.0	5.7	---	---	---
11	---	---	---	8.1	4.4	5.7	7.5	3.6	5.2	---	---	---
12	---	---	---	7.2	4.5	5.6	7.4	4.6	5.6	---	---	---
13	---	---	---	7.6	5.0	6.7	7.7	4.5	5.8	---	---	---
14	---	---	---	8.1	6.0	7.0	8.4	4.2	6.0	---	---	---
15	8.3	6.9	7.6	9.1	6.0	7.2	8.7	3.9	5.8	---	---	---
16	9.3	6.9	8.0	8.8	5.5	6.8	7.5	3.5	5.2	13.5	10.2	11.2
17	9.9	7.2	8.3	---	---	---	6.0	2.2	3.9	13.6	10.1	11.3
18	11.1	7.3	8.8	---	---	---	6.8	3.5	5.0	13.5	10.1	11.3
19	11.4	7.2	8.9	---	---	---	6.3	2.5	4.0	13.0	9.9	10.9
20	11.1	6.8	8.7	---	---	---	3.5	0.9	2.0	12.2	10.2	11.2
21	11.6	6.9	8.8	---	---	---	3.8	0.8	2.2	13.2	10.1	11.1
22	11.4	6.6	8.3	7.5	5.3	6.2	7.0	2.6	4.0	13.5	9.7	11.0
23	11.1	6.4	8.0	9.0	5.3	6.5	8.7	2.9	5.4	---	---	---
24	12.1	6.3	8.6	10.1	5.2	6.9	7.0	3.8	4.8	---	---	---
25	11.3	6.3	8.1	9.7	4.9	6.4	7.0	3.5	4.7	---	---	---
26	8.5	4.9	6.5	9.3	4.7	6.3	5.9	1.1	3.5	---	---	---
27	8.7	4.5	5.8	8.3	4.7	6.1	8.3	4.8	6.0	---	---	---
28	7.8	4.3	5.6	10.8	5.8	7.3	9.4	4.7	6.2	---	---	---
29	8.0	4.1	5.6	---	---	---	7.7	4.1	5.5	---	---	---
30	8.6	4.2	6.0	---	---	---	6.2	1.3	4.5	---	---	---
31	---	---	---	---	---	---	5.7	3.4	4.7	---	---	---

MONTH

YEAR

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## 03262001 WOOLPER CREEK AT WOOLPER CREEK ROAD NEAR BURLINGTON, KY

LOCATION.--Lat 39°01'48", long 84°48'15", Boone County, Hydrologic Unit 05090203, at bridge on Woolper Road, 1.0 mi upstream from Ashby Fork, 1.1 mi downstream from Double Lick Creek, 4.3 mi west of Burlington, and at mile 4.8.

DRAINAGE AREA.--24.19 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder with telemetry and crest-stage gage. Datum of gage is 490.67 ft NGVD of 1929.

REMARKS.--Records fair.

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

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

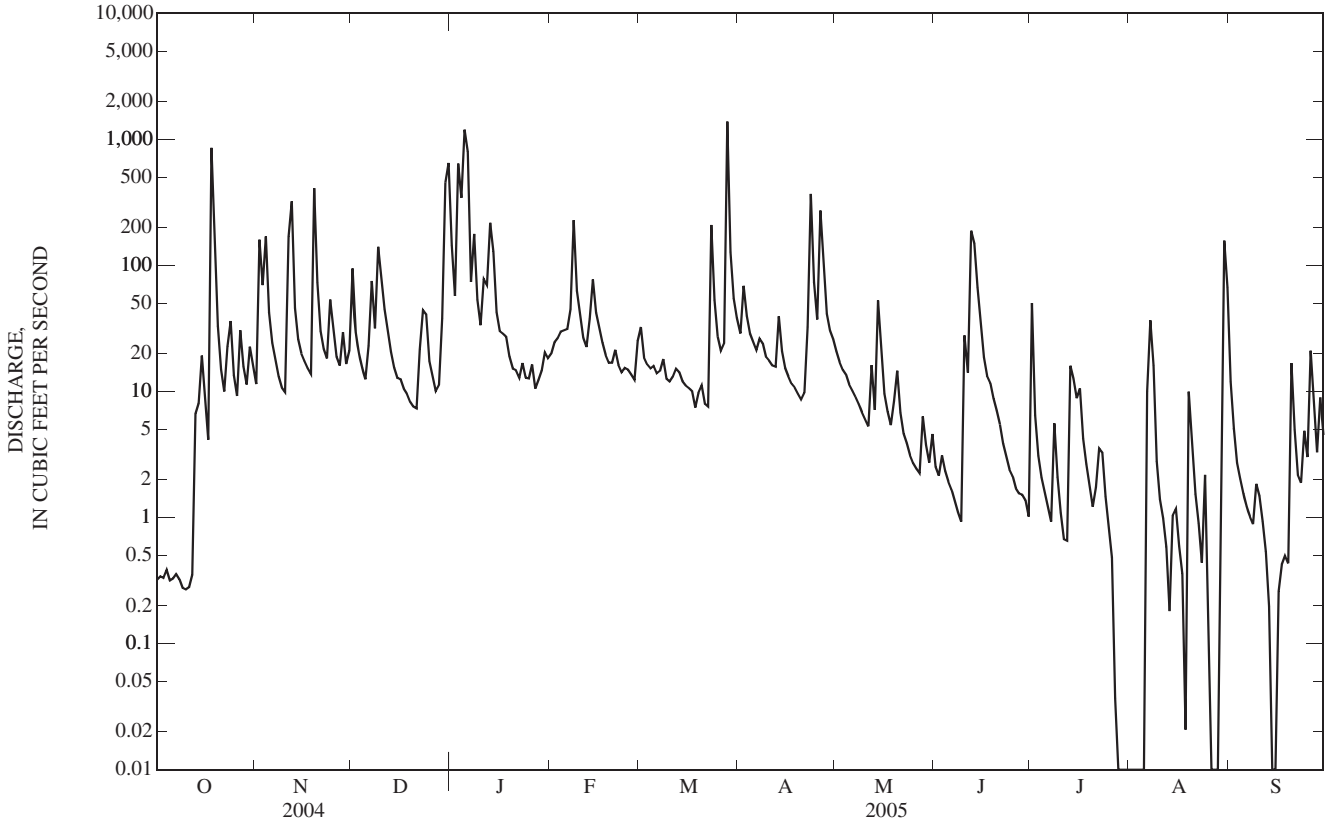
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.32	11	94	144	20	33	29	21	2.5	50	0.00	12
2	0.34	160	29	57	24	19	69	17	2.2	6.5	0.00	5.1
3	0.33	70	20	643	26	16	40	15	3.1	3.1	0.00	2.7
4	0.39	170	15	345	30	15	29	14	2.3	2.1	0.00	2.0
5	0.32	42	12	1,190	31	16	25	11	1.9	1.6	0.00	1.5
6	0.33	24	23	797	31	14	21	10	1.7	1.2	10	1.2
7	0.36	18	75	74	45	15	26	9.1	1.4	0.93	37	1.0
8	0.32	13	32	177	229	18	24	8.0	1.1	5.6	16	0.89
9	0.28	11	140	54	63	13	19	6.9	0.93	2.1	2.8	1.8
10	0.27	9.9	78	34	40	12	18	6.0	28	1.1	1.4	1.5
11	0.28	170	45	79	27	13	16	5.3	14	0.67	0.99	0.93
12	0.35	322	31	70	23	15	16	16	189	0.65	0.59	0.54
13	6.7	46	21	218	38	14	40	7.1	149	16	0.18	0.20
14	8.1	26	15	129	77	12	21	53	67	13	1.0	0.00
15	19	20	13	43	42	11	15	21	35	8.9	1.2	0.00
16	9.2	17	13	30	32	11	13	9.6	19	11	0.59	0.26
17	4.1	15	11	29	24	10	12	7.0	13	4.3	0.36	0.43
18	856	14	9.6	27	20	7.5	11	5.4	12	2.7	0.02	0.50
19	191	410	8.3	19	17	9.8	9.6	8.4	8.8	1.8	10	0.43
20	33	73	7.6	15	17	11	8.7	15	7.1	1.2	4.1	17
21	15	30	7.4	15	21	8.0	9.8	6.8	5.5	1.7	1.5	5.0
22	10	22	22	13	16	7.6	33	4.6	3.9	3.5	0.90	2.2
23	23	18	44	17	14	210	370	3.9	3.0	3.3	0.44	1.9
24	36	54	41	13	15	53	74	3.1	2.4	1.5	2.2	4.9
25	13	32	17	13	15	27	37	2.7	2.1	0.81	0.17	3.0
26	9.2	19	13	16	14	21	273	2.5	1.7	0.48	0.00	21
27	31	16	10	11	12	24	108	2.3	1.6	0.04	0.00	7.8
28	16	30	11	12	25	1,380	42	6.4	1.5	0.00	0.00	3.3
29	11	17	38	15	---	127	30	3.8	1.4	0.00	0.39	9.0
30	23	21	454	21	---	55	26	2.7	1.0	0.00	157	4.5
31	16	---	649	18	---	38	---	4.6	---	0.00	67	---
TOTAL	1,334.19	1,900.9	1,998.9	4,338	988	2,235.9	1,465.1	309.2	583.13	145.78	315.83	112.58
MEAN	43.0	63.4	64.5	140	35.3	72.1	48.8	9.97	19.4	4.70	10.2	3.75
MAX	856	410	649	1,190	229	1,380	370	53	189	50	157	21
MIN	0.27	9.9	7.4	11	12	7.5	8.7	2.3	0.93	0.00	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2005, BY WATER YEAR (WY)

MEAN	37.0	45.3	60.0	64.5	41.6	45.5	46.7	54.8	25.8	17.4	11.3	16.3
MAX	72.7	63.4	84.1	140	59.7	72.1	104	114	34.8	56.5	29.0	31.6
(WY)	(2002)	(2005)	(2002)	(2005)	(2003)	(2005)	(2002)	(2002)	(2003)	(2001)	(2001)	(2003)
MIN	6.83	30.7	33.6	14.0	28.0	11.0	6.34	9.97	12.5	0.33	0.13	3.75
(WY)	(2004)	(2003)	(2004)	(2001)	(2001)	(2001)	(2001)	(2005)	(2004)	(2002)	(2002)	(2005)

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

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2001 - 2005	
ANNUAL TOTAL	15,709.52		15,727.51			
ANNUAL MEAN	42.9		43.1		41.4	
HIGHEST ANNUAL MEAN					50.5	2002
LOWEST ANNUAL MEAN					35.5	2004
HIGHEST DAILY MEAN	1,550	Jan 4	1,380	Mar 28	1,550	Jan 4, 2004
LOWEST DAILY MEAN	0.27	Oct 10	0.00	Jul 28	0.00	Jul 27, 2002
ANNUAL SEVEN-DAY MINIMUM	0.31	Oct 5	0.00	Jul 28	0.00	Aug 5, 2002
MAXIMUM PEAK FLOW			4,240	Mar 28	6,640	Jul 18, 2001
MAXIMUM PEAK STAGE			9.37	Mar 28	12.17	Jul 18, 2001
INSTANTANEOUS LOW FLOW					0.00	Sep 14, 2002
10 PERCENT EXCEEDS	80		71		72	
50 PERCENT EXCEEDS	15		13		13	
90 PERCENT EXCEEDS	0.87		0.44		0.75	



## 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. New turbidity probe installed summer 2004, range 0-3000 FNU.

REMARKS.--

SPECIFIC CONDUCTANCE: Records rated fair. Missing record: Jan. 9-10, Mar. 28-29, Apr. 30, and May 1-3, 27-31, 2005.

pH: Records rated fair. No missing record.

WATER TEMPERATURES: Records rated excellent. No missing record.

DISSOLVED OXYGEN: Records rated fair. Missing record Nov 22-30, Dec. 1-9, 2004, Jan. 7-10, Mar. 12-24, 28, Apr. 24-30, May 1-2, and June 13, 2005.

TURBIDITY: Records poor. Missing record Dec. 21-29, 31, 2004, Jan. 1-9, 16-22, Mar. 28-31, Apr. 1-7, 27-30, May 1-2, and July 10-13, 2005.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 2720 microsiemens, Jan. 30, 2005; minimum recorded, 96 microsiemens, May 8, 2002.

pH: Maximum recorded, 9.0 units, Feb. 15, 23, 26, 2005; minimum recorded, 7.1 units, Jan. 7 and June 14, 2005.

WATER TEMPERATURES: Maximum recorded, 32.0°C, July 25, 2005; minimum recorded, 0.0°C, several days in Dec., Jan., Feb., and Mar. of each year of record.

DISSOLVED OXYGEN: Maximum recorded, 20.0 mg/L, Dec. 4, 6, 2000; minimum recorded, 0.9 mg/L, Jan. 3, 2005.

TURBIDITY: Maximum recorded, 2600 FNU, July 1, 2005; minimum recorded, <2.0 FNU, Nov. 2001, Jul. 7-9, 2002, and Nov. 8-11, Jun. 8, 21, 2004; and several days in Feb., Mar., Apr., and May 2005.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 2720 microsiemens, Jan. 30, 2005; minimum recorded, 116 microsiemens, June 12, 2005.

pH: Maximum recorded, 9.0 units, Feb. 15, 23, and 26, 2005; minimum recorded, 7.1 units, Jan. 7, and June 14, 2005.

WATER TEMPERATURES: Maximum recorded, 32.0°C, July 25, 2005; minimum recorded, 0.0°C, Several days in Dec. 2004 and Jan., Feb., and Mar. 2005.

DISSOLVED OXYGEN: Maximum recorded, 18.6 mg/L, Nov. 15, 2004; minimum recorded, 0.9 mg/L, Jan. 3, 2005.

TURBIDITY: Maximum recorded, 2600 FNU, July 1, 2005; minimum recorded, <2.0 FNU, Feb. 25-27, Mar. 4, 6, 9-19, 21-22, Apr. 10, 12-13, 15-18, and May 3-5, 2005.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	628	570	619	555	532	545	511	345	378	406	315	364
2	631	618	625	574	333	452	477	411	446	454	398	425
3	631	621	625	475	348	419	495	477	488	416	261	336
4	630	621	626	486	271	374	512	492	503	356	262	320
5	630	575	624	484	403	450	523	499	511	347	197	235
6	630	621	625	521	482	505	533	492	507	265	167	191
7	633	612	627	539	516	529	502	351	422	534	265	441
8	635	626	631	551	529	537	463	377	426	545	454	480
9	642	626	634	553	534	542	496	305	435	---	---	---
10	644	634	639	551	534	542	495	341	437	---	---	---
11	641	630	633	560	228	473	529	495	516	469	379	420
12	638	527	615	380	224	291	544	515	522	421	363	388
13	621	534	593	454	380	423	572	541	557	445	190	387
14	666	601	635	494	454	475	586	564	574	395	203	318
15	688	467	591	510	488	498	599	574	585	429	379	407
16	489	462	474	525	502	513	617	583	595	450	428	441
17	519	489	504	552	519	532	602	583	593	716	450	599
18	522	128	323	557	523	539	606	580	592	710	602	673
19	381	170	297	531	201	315	603	577	589	602	548	575
20	469	380	430	427	319	380	633	577	604	551	517	531
21	514	464	489	473	426	452	648	614	632	1,300	521	770
22	546	509	528	503	472	489	637	590	608	1,940	1,300	1,820
23	567	444	542	522	498	512	815	637	702	1,930	1,490	1,700
24	461	418	436	524	409	471	1,060	815	955	1,510	1,130	1,280
25	529	459	497	472	410	440	1,060	832	929	1,130	916	1,030
26	554	524	542	500	469	486	833	785	807	1,070	896	1,000
27	584	512	530	518	496	507	815	759	782	1,000	875	935
28	557	516	534	526	464	481	814	762	786	920	827	878
29	577	546	565	505	470	486	1,670	799	930	1,470	709	801
30	591	548	574	535	500	513	1,710	314	830	2,720	1,470	2,250
31	595	526	553	---	---	---	315	255	279	2,000	1,180	1,590
MONTH	688	128	554	574	201	472	1,710	255	597			



















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## 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<sup>2</sup>.

## WATER DISCHARGE RECORDS

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

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

REMARKS.--Records fair.

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

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.02	25	224	242	44	56	48	29	8.1	377	0.21	29
2	0.07	305	54	123	38	26	142	21	9.7	19	0.14	12
3	0.27	110	34	1,130	60	20	62	22	11	8.4	0.26	6.5
4	0.05	240	25	552	49	17	44	17	7.3	4.8	0.24	4.1
5	0.00	57	20	1,590	44	22	36	18	4.7	4.9	0.11	2.7
6	0.00	31	68	1,170	42	17	35	13	3.7	4.1	28	1.8
7	0.01	21	149	149	58	26	47	12	4.6	5.5	11	2.1
8	0.01	15	49	248	410	36	32	14	2.8	5.2	5.1	1.9
9	0.01	12	225	92	139	21	25	11	1.9	3.4	1.4	1.1
10	0.02	11	129	59	85	18	22	9.2	1.5	0.80	1.1	0.71
11	0.04	342	123	189	46	18	17	8.5	3.4	0.39	10	0.36
12	13	549	60	123	37	21	24	58	13	0.97	7.4	0.23
13	42	66	39	403	100	18	64	20	87	113	1.3	0.20
14	17	35	27	220	217	16	24	107	176	57	2.5	0.25
15	98	24	21	72	88	19	19	32	34	89	0.59	0.59
16	14	21	19	48	75	12	13	15	11	38	0.35	20
17	4.1	18	17	32	43	13	16	11	6.6	15	1.4	12
18	1,230	17	16	27	31	19	11	8.9	4.8	10	4.7	2.2
19	304	592	14	25	26	33	10	55	3.2	8.9	45	0.82
20	52	116	14	25	28	30	12	50	2.4	156	9.2	77
21	25	48	12	28	44	16	17	16	2.2	34	3.8	8.3
22	16	35	50	24	25	12	123	11	1.9	39	2.3	3.4
23	104	28	85	17	21	234	595	8.6	1.2	14	0.84	3.2
24	79	149	152	17	27	54	128	6.8	0.87	7.3	0.27	3.7
25	23	60	43	23	24	34	64	5.5	0.46	4.6	0.13	1.7
26	15	32	24	38	21	29	227	5.0	0.78	3.3	47	103
27	115	45	18	21	18	66	124	4.5	0.32	2.1	13	12
28	28	82	17	15	70	1,690	52	30	0.26	1.6	4.8	4.5
29	18	31	136	67	---	167	45	13	13	1.5	2.2	46
30	35	73	695	66	---	90	38	8.9	5.3	0.74	708	7.4
31	17	---	938	41	---	60	---	13	---	0.36	249	---
TOTAL	2,249.60	3,190	3,497	6,876	1,910	2,910	2,116	653.9	422.99	1,029.86	1,161.34	368.76
MEAN	72.6	106	113	222	68.2	93.9	70.5	21.1	14.1	33.2	37.5	12.3
MAX	1,230	592	938	1,590	410	1,690	595	107	176	377	708	103
MIN	0.00	11	12	15	18	12	10	4.5	0.26	0.36	0.11	0.20

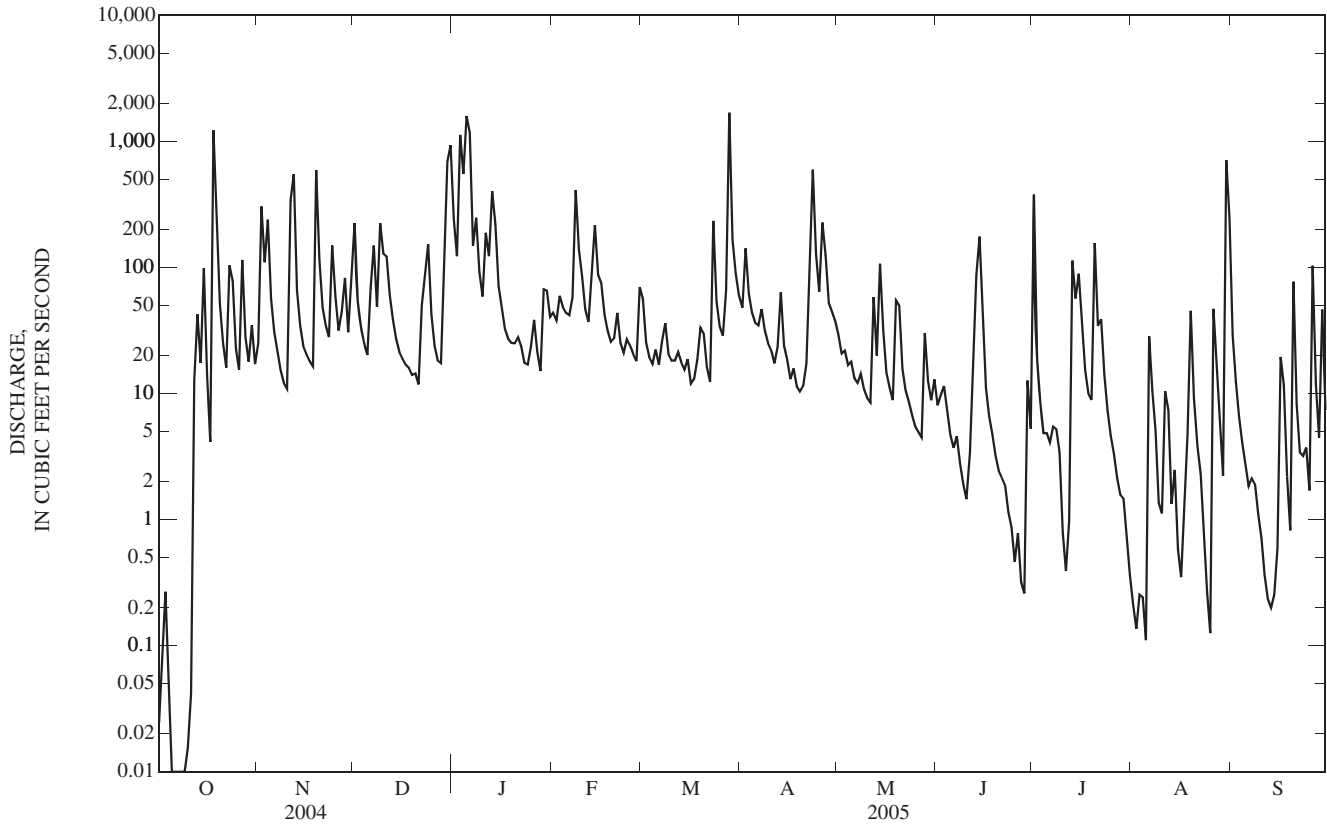
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2005, BY WATER YEAR (WY)

MEAN	41.4	49.0	77.9	94.3	86.5	68.2	60.2	62.9	29.5	33.3	28.1	26.7
MAX	99.1	106	113	222	151	102	118	149	55.0	76.6	71.1	63.9
(WY)	(2002)	(2005)	(2005)	(2005)	(2000)	(2002)	(2002)	(2002)	(2000)	(2001)	(2003)	(2003)
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1999 - 2005	
ANNUAL TOTAL	25,934.95		26,385.45		57.2	
ANNUAL MEAN	70.9		72.3		32.8	
HIGHEST ANNUAL MEAN					72.3	2005
LOWEST ANNUAL MEAN					32.8	2001
HIGHEST DAILY MEAN	2,140	Jan 4	1,690	Mar 28	2,140	Jan 4, 2004
LOWEST DAILY MEAN	0.00	Jul 1	0.00	Oct 5	0.00	Sep 10, 1999
ANNUAL SEVEN-DAY MINIMUM	0.01	Oct 5	0.01	Oct 5	0.00	Sep 10, 1999
MAXIMUM PEAK FLOW			4,630	Mar 28	6,590	May 8, 2002
MAXIMUM PEAK STAGE			7.48	Mar 28	8.22	May 8, 2002
INSTANTANEOUS LOW FLOW			0.00	Oct 5	0.00	Oct 5, 2004
10 PERCENT EXCEEDS	149		145		121	
50 PERCENT EXCEEDS	18		21		15	
90 PERCENT EXCEEDS	0.38		0.86		0.94	



## 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. New turbidity probe installed summer 2004, range 0-3000 FNU.

REMARKS.--

SPECIFIC CONDUCTANCE: Records rated excellent. No data for the period Mar. 28 to Apr. 3, 2005, due to vandalism. Also missing Oct. 29, 2004 and Apr. 4, 2005.

pH: Records rated excellent. No data for the period Mar. 28 to Apr. 3, 2005, due to vandalism.

WATER TEMPERATURES: Records rated excellent. No data for the period Mar. 28 to Apr. 3, 2005, due to vandalism.

DISSOLVED OXYGEN: Records rated good. No data for the period Mar. 28 to Apr. 3, 2005, due to vandalism. Also missing Oct. 26-28, 2004, Feb. 13-23, 2005.

TURBIDITY: Records rated fair. No data for the period Mar. 28 to Apr. 3, 2005, due to vandalism. Also missing Oct. 29 to Dec. 9, 2004, Jan. 7-10, 16-28, Feb. 16-22, Apr. 4-8, 15-21, 28-30, May 1-11, 13, 17-18, 22-25, 31, June 1-8, 17-30, July 4-12, 28-31, Aug. 1-5, 10, 12-18, 20-25, and Sept. 2-15, 2005.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 6310 microsiemens, Jan. 29, 2003; minimum recorded, 118 microsiemens, July 18, 2001.

pH: Maximum recorded, 10.4 units, Aug. 12, 2001; minimum recorded, 6.5 units, Aug. 23, 2003.

WATER TEMPERATURES: Maximum recorded, 32.9°C, Jul. 25, 2005; minimum recorded, 0.0°C, several days in Dec., Jan., Feb., and Mar., of each year of record.

DISSOLVED OXYGEN: Maximum recorded, 20.0 mg/L, Oct. 4, 7-8, 11, 16-17, 2004; minimum recorded, 0.7 mg/L, Aug. 14, 2003.

TURBIDITY: Maximum recorded, 2610 FNU, Jan. 5, 2005; minimum recorded, 0.0 FNU, several days in Nov. and Dec. 2002, Feb., July, Aug., Sept. 2003.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 6010 microsiemens, Jan. 29, 2005; minimum recorded, 166 microsiemens, Oct. 18, 2004.

pH: Maximum recorded, 9.2 units, Feb. 23, 2005; minimum recorded, 7.3 units, Aug. 12, 2005.

WATER TEMPERATURES: Maximum recorded, 32.9°C, Jul. 25, 2005; minimum recorded, 0.0°C, Dec. 16, 19-30, 2004, and Jan. 17-31, and Mar. 2-3, 2005.

DISSOLVED OXYGEN: Maximum recorded, 20.0 mg/L, Oct. 4, 7-8, 11, 16-17, 2004; minimum recorded, 1.3 mg/L, Feb. 10, 2005.

TURBIDITY: Maximum recorded, 2610 FNU, Jan. 5, 2005; minimum recorded, 2.0 FNU, May 19, 2005.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	683	665	676	575	513	533	470	323	396	685	550	636
2	689	670	677	572	272	415	530	470	504	809	666	730
3	739	689	721	489	346	431	551	527	539	791	298	510
4	762	739	752	503	277	387	563	538	552	505	297	432
5	779	739	768	520	425	477	578	550	561	321	244	281
6	780	745	773	562	520	544	586	439	504	397	203	292
7	787	773	779	565	526	546	531	350	434	481	397	445
8	783	745	775	562	542	554	523	459	490	510	362	426
9	777	753	769	574	557	567	557	275	459	515	450	487
10	781	750	769	589	567	578	514	338	448	547	508	525
11	786	748	778	599	212	490	532	458	495	567	416	484
12	786	557	760	415	208	311	539	465	504	535	436	481
13	575	331	385	532	415	490	559	535	548	592	268	481
14	541	485	519	543	520	532	588	555	574	488	296	415
15	585	342	451	566	527	547	593	575	582	514	480	493
16	524	424	480	577	537	563	608	581	590	951	509	616
17	565	520	541	585	555	567	602	578	591	1,280	951	1,150
18	588	166	363	592	552	574	596	577	586	1,270	903	1,080
19	460	207	367	647	204	360	620	579	596	906	732	788
20	550	453	507	477	373	436	680	619	651	1,180	665	763
21	619	545	586	517	475	497	759	680	717	4,220	1,180	2,540
22	618	583	602	556	514	533	2,030	679	1,300	4,450	4,000	4,190
23	642	322	576	566	535	552	1,560	1,070	1,320	4,120	2,950	3,550
24	530	321	433	569	345	458	1,830	1,490	1,620	3,220	2,340	2,910
25	598	527	561	523	426	485	1,900	1,760	1,870	2,350	1,810	2,090
26	605	561	596	552	521	538	1,760	1,590	1,690	2,470	2,020	2,210
27	626	363	450	572	520	551	1,840	1,580	1,730	2,080	1,580	1,810
28	540	485	520	524	411	442	1,980	1,790	1,910	1,770	1,510	1,630
29	---	---	---	546	489	522	4,270	1,820	2,630	6,010	1,320	2,660
30	607	542	571	581	432	551	3,340	588	1,560	4,790	3,790	4,240
31	545	493	514	---	---	---	588	436	488	4,110	1,780	2,660
MONTH				647	204	501	4,270	275	885	6,010	203	1,360





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

TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	17.2	13.5	15.5	15.3	13.9	14.5	9.1	6.3	7.8	6.9	5.5	6.1
2	16.8	15.2	16.4	17.5	15.3	16.4	6.3	4.6	5.6	8.7	6.1	7.2
3	15.2	11.6	13.6	15.8	12.6	13.6	5.8	4.3	5.1	10.4	8.7	9.7
4	14.7	11.4	13.2	13.5	11.9	12.8	5.3	2.7	4.1	10.4	8.6	9.6
5	13.6	11.0	12.4	11.9	9.8	10.9	6.1	3.5	4.9	8.6	6.4	7.7
6	12.4	9.6	11.2	11.8	8.5	10.2	9.7	6.1	7.9	6.4	5.1	5.9
7	12.9	9.7	11.4	13.2	9.7	11.4	12.6	9.7	11.3	5.4	4.5	5.0
8	15.3	11.9	13.5	11.4	8.4	9.7	11.1	8.0	9.4	5.4	4.9	5.2
9	15.8	13.9	14.8	8.4	6.0	7.4	9.1	7.1	8.0	6.7	5.1	5.7
10	15.8	13.8	14.9	9.4	5.8	7.6	10.1	9.1	9.6	6.8	5.8	6.3
11	13.8	11.7	12.9	10.2	7.8	8.8	9.4	6.6	7.9	10.2	6.7	8.0
12	14.0	11.5	12.6	10.7	8.8	9.8	6.9	5.7	6.4	12.1	10.2	11.2
13	14.4	13.9	14.2	8.8	6.6	7.6	6.7	2.9	5.0	12.1	9.2	11.3
14	15.4	13.8	14.5	7.8	5.3	6.6	2.9	1.8	2.4	9.2	4.9	7.0
15	14.6	11.0	12.5	8.0	4.9	6.6	1.9	0.1	1.0	4.9	3.1	4.1
16	11.1	9.9	10.7	9.3	7.3	8.2	1.9	0.0	0.9	3.9	1.1	2.6
17	10.8	7.7	9.3	10.9	9.2	10.0	2.6	0.6	1.7	1.1	0.0	0.2
18	12.2	8.5	9.8	12.9	10.9	11.9	3.3	0.3	1.8	0.2	0.0	0.0
19	13.3	12.2	12.7	13.2	12.6	12.9	3.1	0.0	1.6	0.5	0.0	0.1
20	14.2	13.3	13.7	13.2	12.4	12.8	0.0	0.0	0.0	0.9	0.0	0.4
21	14.4	13.7	14.1	12.7	11.3	12.0	0.6	0.0	0.2	0.4	0.0	0.1
22	14.1	13.1	13.6	11.4	10.9	11.2	0.5	0.0	0.0	0.6	0.0	0.1
23	15.2	12.5	13.5	11.8	10.5	11.2	0.0	0.0	0.0	0.1	0.0	0.0
24	16.3	14.0	15.1	13.3	11.8	12.4	0.0	0.0	0.0	0.3	0.0	0.0
25	15.1	11.7	13.6	12.2	6.6	9.1	0.0	0.0	0.0	0.4	0.0	0.1
26	14.7	11.7	13.5	7.7	5.5	6.7	0.0	0.0	0.0	0.0	0.0	0.0
27	15.4	14.3	14.8	8.4	7.0	7.7	0.0	0.0	0.0	0.3	0.0	0.0
28	15.5	13.9	14.5	8.2	6.3	7.5	0.0	0.0	0.0	0.2	0.0	0.1
29	18.7	17.6	18.4	7.0	5.7	6.3	0.0	0.0	0.0	0.3	0.0	0.0
30	19.3	17.1	18.1	8.9	6.6	7.2	2.6	0.0	0.6	0.2	0.0	0.0
31	17.1	14.3	15.5	---	---	---	5.5	2.5	4.1	0.6	0.0	0.2
MONTH	19.3	7.7	13.7	17.5	4.9	10.0	12.6	0.0	3.5	12.1	0.0	3.7
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	2.0	0.4	1.1	4.1	1.7	2.8	---	---	---	14.0	8.5	11.4
2	1.9	0.5	1.3	3.6	0.0	1.7	---	---	---	12.2	9.6	11.2
3	4.2	1.2	2.5	4.1	0.0	1.8	---	---	---	13.3	7.7	10.9
4	4.3	0.8	2.6	5.4	0.8	2.9	15.6	13.1	14.8	15.1	8.4	12.0
5	5.4	1.5	3.5	5.2	3.9	4.4	18.1	10.2	14.6	17.2	10.0	13.8
6	5.9	2.7	4.4	8.6	2.7	5.8	18.0	12.7	15.5	18.4	11.6	15.5
7	6.1	4.6	5.4	9.4	6.2	7.7	17.5	14.6	16.2	20.3	13.0	17.0
8	8.1	6.1	7.1	8.0	3.1	5.4	18.6	13.0	16.0	22.0	16.1	19.2
9	7.7	5.4	6.7	5.2	1.3	3.1	19.5	12.0	15.9	22.9	17.5	20.6
10	5.4	2.7	4.0	3.4	0.6	2.3	20.8	13.8	17.5	22.8	18.6	20.8
11	3.5	1.3	2.3	3.2	2.3	2.6	21.8	16.6	19.2	24.9	18.8	22.0
12	5.9	1.4	3.5	5.0	1.6	3.3	20.2	15.6	17.2	23.1	18.5	19.8
13	6.4	3.9	4.9	4.3	1.9	3.3	15.6	12.5	14.0	23.1	15.9	19.5
14	8.0	6.4	7.3	6.9	0.7	3.9	16.9	9.4	13.3	21.6	17.9	19.3
15	9.7	5.3	7.3	8.0	2.0	5.2	17.6	11.0	14.7	17.9	15.3	16.7
16	9.0	6.5	7.9	7.7	4.1	6.0	19.1	11.9	15.8	16.3	14.1	15.2
17	6.5	3.7	4.9	10.1	4.3	7.1	19.9	13.1	16.7	19.1	12.3	15.9
18	4.8	2.3	3.4	11.0	4.3	7.9	22.1	15.3	18.9	21.5	14.4	18.2
19	4.7	0.6	2.8	9.0	6.9	7.7	22.1	16.4	19.6	19.9	17.3	18.1
20	5.7	3.6	4.3	9.1	5.8	7.2	23.1	16.5	20.0	18.4	17.1	17.7
21	8.3	5.7	7.2	10.3	4.3	7.2	20.8	16.0	17.9	21.4	14.8	18.2
22	7.2	5.9	6.5	7.7	5.0	6.6	17.4	13.7	15.5	19.8	16.1	18.2
23	6.4	4.6	5.5	6.8	5.4	6.2	15.3	9.2	11.5	22.5	16.3	19.3
24	5.2	2.9	3.9	9.6	4.7	6.9	9.3	7.5	8.4	20.5	16.3	18.5
25	4.0	0.6	2.4	8.9	6.9	8.0	14.4	7.8	10.9	21.2	15.2	18.2
26	6.5	2.3	4.3	9.7	7.5	8.5	13.0	11.1	12.2	23.7	15.2	19.5
27	6.7	2.6	4.8	8.8	7.3	7.9	12.1	9.3	10.9	24.6	17.5	20.9
28	5.8	4.1	5.2	---	---	---	12.3	9.0	10.9	20.8	16.5	19.2
29	---	---	---	---	---	---	11.8	10.9	11.4	22.9	16.0	19.6
30	---	---	---	---	---	---	12.4	10.9	11.6	21.2	17.3	18.4
31	---	---	---	---	---	---	---	---	---	23.1	15.4	19.2
MONTH	9.7	0.4	4.5							24.9	7.7	17.5



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

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	19.9	11.9	16.7	11.0	8.1	9.0	12.8	10.5	11.7	14.0	12.4	13.4
2	17.4	11.3	14.8	8.5	7.8	8.1	14.0	11.6	12.6	12.6	9.2	11.5
3	19.8	12.8	17.2	9.6	8.1	8.9	14.8	11.7	12.9	11.2	8.6	9.9
4	20.0	13.6	17.6	9.5	8.7	9.0	15.5	12.3	13.5	10.6	7.9	9.8
5	19.9	13.7	17.5	10.8	9.2	9.8	15.3	11.6	13.2	11.8	10.1	11.0
6	19.9	15.0	18.3	10.9	9.0	9.9	11.9	9.6	11.0	12.6	11.2	12.2
7	20.0	15.2	19.3	10.9	8.7	9.6	9.9	9.1	9.4	12.4	11.4	12.0
8	20.0	14.4	18.8	11.7	8.8	10.1	13.1	9.2	10.9	12.5	11.1	12.0
9	19.9	14.6	18.0	12.7	9.7	11.0	11.7	10.4	10.9	11.5	10.3	11.1
10	19.6	13.6	17.4	13.1	9.7	11.2	11.4	10.0	10.5	11.6	10.7	11.1
11	20.0	13.9	17.9	11.6	9.5	10.2	12.1	10.0	11.2	11.0	9.4	10.4
12	19.0	13.0	16.2	11.1	9.8	10.5	13.6	11.0	11.9	9.4	8.3	9.1
13	15.6	11.6	13.8	11.9	10.3	11.0	14.5	11.0	12.6	9.8	8.3	8.7
14	14.9	11.2	13.4	12.8	10.9	11.6	15.8	12.9	14.0	10.5	9.6	10.0
15	16.0	11.0	14.0	13.2	10.8	11.8	16.2	13.4	14.6	11.8	10.4	11.0
16	20.0	10.8	15.7	12.8	10.1	11.1	16.7	13.6	14.9	12.3	10.6	11.6
17	20.0	13.5	16.9	11.6	9.4	10.3	16.3	13.5	14.5	13.7	12.3	12.7
18	18.1	13.4	16.5	12.7	8.9	10.2	16.4	12.9	14.5	14.2	12.6	13.4
19	16.3	13.4	14.8	10.5	8.8	9.9	16.4	12.7	14.4	13.2	12.0	12.7
20	15.6	11.9	13.6	10.8	9.4	9.9	19.3	14.4	16.3	12.5	11.9	12.2
21	14.3	11.3	13.2	11.2	9.5	10.1	18.5	15.0	16.3	13.0	11.9	12.3
22	16.2	11.0	13.8	11.5	9.8	10.3	16.4	14.9	15.5	12.3	11.3	11.8
23	17.3	11.5	14.7	11.7	9.6	10.4	16.7	14.3	15.5	13.4	11.5	12.2
24	19.1	10.2	12.5	9.9	9.0	9.4	17.2	14.8	16.0	13.1	11.3	12.0
25	18.5	9.5	13.0	11.9	9.2	10.8	18.1	14.8	16.3	13.4	11.7	12.5
26	---	---	---	13.8	11.2	12.3	17.3	14.5	15.8	12.6	11.4	11.9
27	---	---	---	13.5	10.6	11.8	18.1	14.8	16.2	13.0	10.1	11.3
28	---	---	---	12.8	10.7	11.6	18.6	14.7	16.3	13.4	9.9	11.4
29	10.6	8.1	9.3	14.3	11.4	12.4	17.9	14.6	15.8	13.3	10.8	11.8
30	9.8	7.7	8.3	12.8	10.5	11.5	16.0	14.9	15.4	10.9	8.9	10.1
31	11.3	7.8	9.1	---	---	---	15.0	13.8	14.4	10.3	8.8	9.5
MONTH				14.3	7.8	10.5	19.3	9.1	13.8	14.2	7.9	11.4
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	10.9	8.5	10	15.1	10.2	12.3	---	---	---	13.9	9.4	11.3
2	9.8	7.5	8.8	17.0	11.7	13.8	---	---	---	14.7	9.1	11.6
3	10.2	1.6	7.7	17.1	11.7	13.8	---	---	---	14.8	9.7	11.9
4	6.4	1.6	4.7	17.0	11.1	13.5	15.5	8.9	12.0	14.7	8.3	11.0
5	6.8	5.0	6.2	15.6	10.5	12.3	14.8	7.9	10.8	12.8	7.3	9.9
6	8.5	6.1	7.4	16.3	9.5	12.5	13.9	7.3	10.0	12.7	7.2	9.2
7	8.7	1.8	7.5	14.5	9.3	10.9	11.5	6.8	8.5	10.8	6.0	8.2
8	6.9	1.4	4.8	14.5	9.2	11.5	12.6	6.6	9.2	9.6	5.5	7.5
9	6.8	1.5	3.7	15.2	10.0	12.6	13.8	7.3	10.1	9.8	5.0	6.9
10	6.7	1.3	5.1	15.1	10.0	12.2	12.3	5.6	8.9	8.7	4.9	6.3
11	9.7	6.7	8.3	14.5	10.1	11.8	9.8	5.2	7.2	9.1	4.7	6.4
12	9.4	6.5	8.2	15.2	10.6	12.3	10.2	5.7	7.5	7.4	4.8	6.0
13	---	---	---	16.3	10.4	12.9	10.4	6.8	8.5	9.9	4.7	6.9
14	---	---	---	15.8	10.0	12.8	12.6	6.6	9.5	6.8	4.5	5.4
15	---	---	---	14.3	7.5	10.9	13.2	6.4	8.7	8.6	5.1	6.8
16	---	---	---	14.1	7.4	10.4	12.4	6.0	8.7	10.6	6.1	8.1
17	---	---	---	13.4	8.0	10.4	11.8	7.1	9.2	10.8	6.3	8.3
18	---	---	---	11.1	5.4	8.4	11.4	6.7	8.6	10.2	5.6	7.6
19	---	---	---	9.0	4.8	6.9	10.7	6.6	8.3	8.2	5.2	6.4
20	---	---	---	9.4	5.8	7.6	11.1	6.2	8.2	8.3	6.0	7.3
21	---	---	---	10.4	3.5	7.2	10.0	6.7	8.2	10.7	6.0	8.1
22	---	---	---	7.4	3.0	5.0	9.3	7.8	8.4	11.6	5.6	8.3
23	---	---	---	7.8	4.3	6.2	10.9	8.4	10.2	11.8	5.0	7.6
24	16.9	11.0	13.2	9.6	6.6	8.0	11.9	10.6	11.2	12.2	5.8	8.3
25	17.7	11.4	13.9	10.4	6.8	8.1	12.1	9.1	10.9	12.0	6.3	8.6
26	17.5	11.0	13.5	11.4	6.1	8.5	11.8	9.0	10.0	12.5	5.5	8.0
27	17.0	10.8	13.4	10.4	4.6	7.1	11.4	9.8	10.5	10.7	4.8	7.0
28	13.6	10.1	11.3	---	---	---	12.9	9.8	11.1	9.0	4.7	6.6
29	---	---	---	---	---	---	12.0	9.2	10.3	11.2	4.6	7.3
30	---	---	---	---	---	---	13.5	9.0	10.7	9.8	4.4	6.4
31	---	---	---	---	---	---	---	---	---	12.7	6.0	8.6
MONTH										14.8	4.4	8.0





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

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU  
 WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	6.0	2.0	3.1	---	---	---	---	---	---	76	28	44
2	16	3.0	3.5	---	---	---	---	---	---	37	20	25
3	13	2.0	3.0	---	---	---	---	---	---	2,230	19	450
4	5.0	2.0	2.7	---	---	---	---	---	---	560	72	180
5	15	2.0	2.5	---	---	---	---	---	---	2,610	190	850
6	9.0	2.0	3.9	---	---	---	---	---	---	2,590	1,750	2,430
7	5.0	2.0	3.3	---	---	---	---	---	---	---	---	---
8	13	3.0	3.8	---	---	---	---	---	---	---	---	---
9	6.0	3.0	3.3	---	---	---	---	---	---	---	---	---
10	6.0	2.0	3.3	---	---	---	45	12	21	---	---	---
11	10	2.0	3.2	---	---	---	120	27	36	300	20	140
12	350	2.0	37	---	---	---	34	12	20	140	29	55
13	300	47	130	---	---	---	14	9.0	11	650	26	160
14	54	14	28	---	---	---	10	7.0	8.8	290	45	98
15	300	12	170	---	---	---	9.0	7.0	7.5	53	21	34
16	140	34	70	---	---	---	9.0	7.0	7.4	---	---	---
17	35	13	23	---	---	---	16	6.0	7.1	---	---	---
18	2,500	10	700	---	---	---	9.0	6.0	7.0	---	---	---
19	380	44	110	---	---	---	12	5.0	6.7	---	---	---
20	81	28	45	---	---	---	7.0	5.0	6.0	---	---	---
21	160	25	60	---	---	---	7.0	5.0	5.8	---	---	---
22	82	18	29	---	---	---	45	6.0	26	---	---	---
23	1,390	17	160	---	---	---	28	10	18	---	---	---
24	310	24	77	---	---	---	17	6.0	7.9	---	---	---
25	29	14	20	---	---	---	19	5.0	6.1	---	---	---
26	690	13	32	---	---	---	27	4.0	5.1	---	---	---
27	290	28	99	---	---	---	12	4.0	4.4	---	---	---
28	31	20	25	---	---	---	13	4.0	4.3	---	---	---
29	---	---	---	---	---	---	81	4.0	22	79	4.8	35
30	---	---	---	---	---	---	780	50	220	64	15	30
31	---	---	---	---	---	---	270	72	170	130	14	41
MONTH	FEBRUARY			MARCH			APRIL			MAY		
1	69	13	27	83	14	40	---	---	---	---	---	---
2	200	21	35	16	7.0	10	---	---	---	---	---	---
3	1,190	18	130	13	6.0	7.6	---	---	---	---	---	---
4	130	25	39	41	5.0	8.2	---	---	---	---	---	---
5	130	24	39	28	6.0	8.1	---	---	---	---	---	---
6	48	26	35	22	5.0	6.8	---	---	---	---	---	---
7	350	34	65	230	5.0	17	---	---	---	---	---	---
8	1,100	54	280	51	16	32	---	---	---	---	---	---
9	89	31	56	16	6.0	9.2	9.0	3.0	5.5	---	---	---
10	64	18	32	8.0	5.0	6.2	11	3.0	4.1	---	---	---
11	45	15	19	6.0	5.0	5.3	6.0	3.0	3.9	---	---	---
12	28	14	17	12	5.0	7.2	7.0	3.0	4.4	180	8.9	63
13	170	14	59	6.0	5.0	5.5	120	4.0	29	---	---	---
14	440	56	150	5.0	4.0	4.6	23	7.5	13	600	3.0	100
15	76	24	41	5.0	4.0	4.8	---	---	---	66	13	31
16	---	---	---	6.0	4.0	4.9	---	---	---	19	6.0	9.9
17	---	---	---	5.0	4.0	4.7	---	---	---	---	---	---
18	---	---	---	7.0	5.0	5.7	---	---	---	---	---	---
19	---	---	---	91	5.0	23	---	---	---	400	2.0	93
20	---	---	---	68	14	35	---	---	---	270	29	110
21	---	---	---	14	6.0	9.2	---	---	---	37	7.0	17
22	---	---	---	130	5.0	12	2,340	15	310	---	---	---
23	23	7.0	9.6	1,140	68	280	1,100	86	380	---	---	---
24	35	7.0	11	160	28	69	93	28	54	---	---	---
25	19	6.0	8.0	39	20	26	72	17	28	---	---	---
26	9.0	6.0	7.2	34	16	19	1,560	13	160	15	3.6	5.4
27	18	5.0	8.0	700	16	73	200	27	81	13	2.4	4.7
28	250	5.0	44	---	---	---	---	---	---	85	3.2	22
29	---	---	---	---	---	---	---	---	---	14	2.6	10
30	---	---	---	---	---	---	---	---	---	8.3	2.6	4.7
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	FEBRUARY			MARCH			APRIL			MAY		

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

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU—  
CONTINUED

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	2,560	34	810	---	---	---	44	11	26
2	---	---	---	180	60	100	---	---	---	---	---	---
3	---	---	---	70	37	51	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	480	3.1	170	---	---	---
7	---	---	---	---	---	---	1,380	16	130	---	---	---
8	---	---	---	---	---	---	150	80	110	---	---	---
9	17	13	14	---	---	---	99	19	44	---	---	---
10	120	25	56	---	---	---	---	---	---	---	---	---
11	25	19	21	---	---	---	360	4.4	32	---	---	---
12	2,060	20	310	---	---	---	---	---	---	---	---	---
13	1,620	140	450	370	12	150	---	---	---	---	---	---
14	2,520	49	700	160	42	86	---	---	---	---	---	---
15	2,600	100	560	1,790	40	430	---	---	---	---	---	---
16	100	46	68	170	58	100	---	---	---	370	2.9	51
17	---	---	---	58	14	32	---	---	---	130	28	72
18	---	---	---	44	7.6	13	---	---	---	28	9.8	16
19	---	---	---	71	5.8	9.2	210	25	85	16	4.8	7.3
20	---	---	---	2,580	5.9	540	---	---	---	440	8.8	130
21	---	---	---	370	43	120	---	---	---	67	18	36
22	---	---	---	200	35	77	---	---	---	19	7.7	13
23	---	---	---	40	14	26	---	---	---	15	5.6	7.6
24	---	---	---	29	8.3	14	---	---	---	11	3.6	4.9
25	---	---	---	13	5.8	8.6	---	---	---	18	2.6	5.1
26	---	---	---	23	5.2	7.5	660	7.1	230	160	7.6	59
27	---	---	---	10	4.7	6.5	440	130	280	24	7.5	13
28	---	---	---	---	---	---	130	38	74	22	4.5	7.7
29	---	---	---	---	---	---	47	15	27	170	4.5	76
30	---	---	---	---	---	---	1,720	16	520	50	13	25
31	---	---	---	---	---	---	200	43	100	---	---	---

MONTH

YEAR

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## 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<sup>2</sup>.

## WATER DISCHARGE RECORDS

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

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

REMARKS.--Records fair except for those below 1.0 ft<sup>3</sup>/s cfs and those estimated which are poor.

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

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.93	23	244	259	e32	47	45	25	5.3	45	0.21	13
2	0.90	239	74	124	e33	28	72	24	5.2	6.4	0.17	4.8
3	0.84	121	49	1,630	e34	25	53	19	5.8	3.4	0.13	2.8
4	0.78	145	36	539	e35	24	41	15	4.4	2.4	0.24	1.8
5	0.74	66	27	1,540	e36	24	36	13	3.6	2.0	0.34	1.3
6	0.70	40	43	1,110	e37	22	30	12	3.1	1.7	0.29	1.0
7	0.69	29	127	156	e37	48	28	11	2.7	1.5	0.26	0.90
8	0.72	21	63	249	236	90	24	10	2.4	1.3	0.19	0.82
9	0.70	16	115	110	103	43	20	9.3	2.4	1.2	0.13	0.77
10	0.71	15	112	71	78	35	18	8.5	2.8	1.00	0.07	0.70
11	0.71	378	81	216	53	31	17	7.9	5.9	0.91	0.12	0.67
12	0.79	596	63	161	44	29	16	8.1	4.1	0.99	0.64	0.77
13	2.9	91	45	340	67	25	40	8.0	20	5.4	0.55	0.86
14	4.4	52	34	240	182	21	23	14	6.7	17	0.34	0.74
15	7.1	37	27	88	99	20	17	13	11	24	0.28	0.69
16	12	29	25	61	68	20	15	8.1	4.4	6.9	0.28	0.76
17	4.1	23	22	43	50	19	14	6.8	3.0	4.5	0.31	0.78
18	571	20	19	e39	39	17	13	6.1	2.4	3.3	0.29	0.77
19	271	381	18	37	33	18	12	57	2.1	2.8	1.6	0.70
20	78	107	14	30	31	21	11	50	2.0	24	1.6	2.1
21	35	54	e14	27	34	16	10	13	2.0	5.8	3.4	2.3
22	20	40	e17	23	27	15	65	9.2	2.1	3.4	1.1	0.96
23	24	33	e20	19	24	43	389	7.8	2.1	2.3	0.62	0.73
24	71	116	e20	20	26	28	100	6.7	2.0	1.1	0.42	0.69
25	28	73	e20	21	25	24	50	5.7	1.7	0.72	0.31	0.68
26	19	45	e20	23	23	23	109	5.2	1.4	0.53	2.2	2.4
27	124	35	e22	18	21	36	96	5.1	1.3	0.46	3.2	2.9
28	40	52	22	17	32	2,210	45	6.7	1.2	0.37	1.0	1.3
29	26	33	48	e17	---	181	35	8.1	1.3	0.30	0.65	1.8
30	28	53	630	e24	---	91	32	6.0	1.2	0.25	329	2.1
31	23	---	956	e29	---	61	---	5.5	---	0.22	139	---
TOTAL	1,397.71	2,963	3,027	7,281	1,539	3,335	1,476	404.8	115.6	171.15	488.94	52.59
MEAN	45.1	98.8	97.6	235	55.0	108	49.2	13.1	3.85	5.52	15.8	1.75
MAX	571	596	956	1,630	236	2,210	389	57	20	45	329	13
MIN	0.69	15	14	17	21	15	10	5.1	1.2	0.22	0.07	0.67

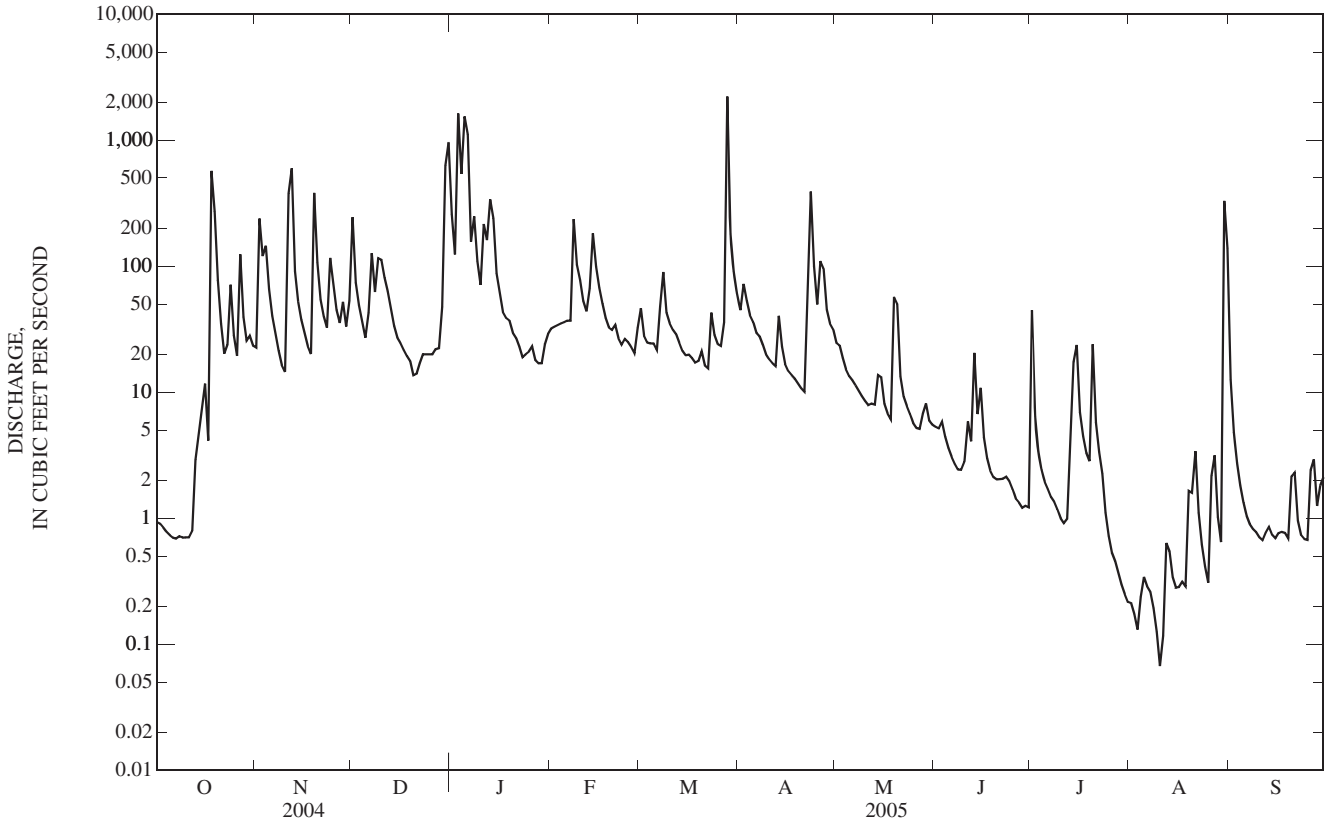
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2005, BY WATER YEAR (WY)

MEAN	29.6	63.6	84.6	108	70.6	67.9	63.8	91.5	20.2	31.5	20.7	22.1
MAX	52.5	98.8	114	235	121	108	165	180	41.2	69.6	57.3	80.2
(WY)	(2002)	(2005)	(2002)	(2005)	(2003)	(2005)	(2002)	(2002)	(2001)	(2001)	(2003)	(2003)
MIN	6.55	27.0	53.3	19.6	44.9	28.6	11.9	8.49	3.85	0.76	0.79	1.75
(WY)	(2004)	(2003)	(2001)	(2001)	(2002)	(2001)	(2001)	(2001)	(2005)	(2002)	(2002)	(2005)

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

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2001 - 2005	
ANNUAL TOTAL	24,407.86		22,251.79		62.0	
ANNUAL MEAN	66.7		61.0		58.9	
HIGHEST ANNUAL MEAN					67.8	2002
LOWEST ANNUAL MEAN					58.9	2004
HIGHEST DAILY MEAN	2,510	Jan 4	2,210	Mar 28	2,510	Jan 4, 2004
LOWEST DAILY MEAN	0.60	Jul 3	0.07	Aug 10	0.00	Jul 8, 2002
ANNUAL SEVEN-DAY MINIMUM	0.65	Jun 30	0.20	Aug 5	0.00	Aug 2, 2002
MAXIMUM PEAK FLOW			8,720	Mar 28	12,600	Apr 21, 2002
MAXIMUM PEAK STAGE			8.98	Mar 28	10.26	Apr 21, 2002
10 PERCENT EXCEEDS	113		109		109	
50 PERCENT EXCEEDS	22		19		18	
90 PERCENT EXCEEDS	1.3		0.70		0.97	

e Estimated



## 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. New turbidity probe installed summer 2004, range 0-3000 FNU.

REMARKS.--

SPECIFIC CONDUCTANCE: Records rated good. No missing record.

pH: Records rated excellent. No missing record.

WATER TEMPERATURES: Records rated excellent. No missing record.

DISSOLVED OXYGEN: Records rated poor. Missing periods are Oct. 13-28, 2004, Jan. 14-16, Mar. 30-31, Apr. 1-8, 28-30, May 1-3, June 15, July 10-11, 20-22, Aug. 20-31, and Sept. 1, 2005.

TURBIDITY: Records rated poor. Missing periods are Apr. 4-19, May 4-6, 15-19, 23-29, June 26-27, July 23-27, Aug. 3 to Sept. 19, and Sept. 24-26, 2005.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1790 microsiemens, Jan. 30, 2005; minimum recorded, 58 microsiemens, Mar. 28, 2005.

pH: Maximum recorded, 9.0 units, Dec. 2, 3, 5, 6, and 9, 2000; minimum recorded, 6.2 units, July 1, 2005.

WATER TEMPERATURES: Maximum recorded, 34.4°C, July 25, 2005; minimum recorded, 0.0°C, several days in Dec., Jan., Feb., and Mar., of each year of record.

DISSOLVED OXYGEN: Maximum recorded, 18.4 mg/L, Dec. 7, 2002; minimum recorded, 1.5 mg/L, Sept. 8, 2002.

TURBIDITY: Maximum recorded, 2600 FNU, Oct. 18, 2004; minimum recorded, <2.0 FNU, Feb. 25 and April 2, 6-8, Oct. 31, Nov. 1, 2, 4, 5, 14, 16, 20, 21, 2002; Mar. 30, Oct. 9-14, Dec. 20-30, 27-20, 2003; and Sept. 26, 27, 30, Oct. 1-15, and Dec. 28-29, 2004.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1790 microsiemens, Jan. 30, 2005; minimum recorded, 58 microsiemens, Mar. 28, 2005.

pH: Maximum recorded, 8.9 units, May 2, June 19, and Aug. 23, 2005; minimum recorded, 6.2 units, July 1, 2005.

WATER TEMPERATURES: Maximum recorded, 34.4°C, July 25, 2005; minimum recorded, 0.0°C, several days in Dec. 2004, Jan. and Mar 3, 2005.

DISSOLVED OXYGEN: Maximum recorded, 17.0 mg/L, Dec. 28, 2004; minimum recorded, 1.8 mg/L, June 9, 2005.

TURBIDITY: Maximum recorded, 2600 FNU, Oct. 18, 2004; minimum recorded, <2.0 FNU, Oct. 1-15, and Dec. 28-29, 2004.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	570	557	565	582	563	574	438	349	386	473	344	415
2	575	568	572	598	365	480	471	430	454	545	472	506
3	574	559	569	492	397	450	484	471	481	547	187	334
4	574	565	571	496	409	460	492	483	487	322	229	299
5	576	567	572	511	455	490	504	491	499	304	186	246
6	576	568	573	535	511	525	509	499	505	349	212	275
7	576	561	571	548	534	541	508	408	451	409	349	386
8	573	559	567	555	541	546	475	415	452	412	339	372
9	577	565	573	557	542	551	496	412	472	445	395	425
10	581	560	574	560	538	554	474	390	431	470	445	459
11	581	561	573	570	227	451	492	474	484	481	301	428
12	584	532	573	387	227	309	497	484	489	444	333	397
13	574	558	568	446	387	420	513	497	506	460	289	421
14	644	571	596	469	446	456	517	505	511	412	289	365
15	799	620	707	481	469	476	529	512	521	444	393	427
16	793	602	640	494	474	484	540	529	534	482	418	464
17	602	589	594	507	494	498	548	535	539	554	476	510
18	593	172	425	518	505	511	552	541	546	573	520	564
19	410	209	329	520	268	364	563	542	551	554	514	531
20	490	321	433	447	365	414	590	555	575	521	508	511
21	493	328	431	473	447	463	626	584	594	554	497	523
22	540	493	520	490	473	483	656	536	586	837	554	708
23	556	528	546	499	489	495	762	656	716	924	743	843
24	548	454	488	500	405	451	693	644	666	1,020	884	946
25	532	481	507	464	410	443	734	692	724	884	763	844
26	556	519	546	487	464	479	733	688	707	763	707	722
27	529	378	442	500	487	496	689	645	666	795	724	749
28	530	464	501	513	480	496	672	652	661	800	700	769
29	563	530	547	504	481	494	1,180	669	730	1,000	688	745
30	591	563	569	517	435	506	1,500	366	901	1,790	694	1,340
31	595	568	581	---	---	---	366	291	312	1,750	1,270	1,570
MONTH	799	172	543	598	227	479	1,500	291	553	1,790	186	584



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

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX		MIN		MAX		MIN		MAX		MIN		MAX		MIN	
	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH										
1	8.4	7.4	8.4	8.0	8.2	7.9	7.9	7.8	8.3	8.2	8.6	8.0				
2	7.9	7.4	8.2	7.9	8.4	8.0	8.0	7.9	8.3	8.2	8.6	8.1				
3	8.3	7.4	8.5	7.7	8.3	8.1	8.0	7.6	8.4	8.2	8.5	8.1				
4	8.3	7.4	8.2	8.1	8.3	8.0	7.9	7.7	8.4	8.2	8.5	8.0				
5	8.5	7.6	8.3	8.1	8.3	8.1	7.7	7.6	8.4	8.2	8.5	8.0				
6	8.3	7.5	8.3	8.2	8.3	8.0	7.8	7.6	8.5	8.2	8.6	8.1				
7	8.4	7.6	8.3	8.2	8.1	7.8	8.0	7.8	8.4	8.2	8.6	8.0				
8	8.4	7.4	8.4	8.2	8.3	7.9	8.0	7.8	8.3	8.0	8.3	7.8				
9	8.4	7.8	8.4	8.2	8.1	7.9	8.1	8.0	8.4	8.1	8.5	8.0				
10	8.4	7.5	8.5	8.2	8.1	7.9	8.1	8.1	8.6	8.2	8.4	8.0				
11	8.5	7.4	8.3	7.6	8.2	8.0	8.2	7.9	8.5	8.2	8.4	8.0				
12	8.4	7.5	8.1	7.6	8.3	8.0	8.1	7.8	8.4	8.1	8.5	8.1				
13	7.7	7.4	8.3	8.0	8.3	8.0	8.1	7.8	8.3	8.1	8.5	8.0				
14	7.9	7.4	8.3	8.1	8.3	8.0	8.1	7.8	8.1	8.0	8.5	8.1				
15	7.6	7.3	8.3	8.2	8.3	8.0	8.2	8.1	8.6	8.0	8.4	8.1				
16	7.8	7.4	8.3	8.2	8.3	8.1	8.2	8.1	8.6	8.1	8.5	8.0				
17	8.1	7.5	8.3	8.1	8.3	8.1	8.2	8.2	8.6	8.1	8.4	8.1				
18	7.6	7.3	8.4	8.1	8.3	8.1	8.3	8.2	8.6	8.1	8.4	8.1				
19	8.1	7.3	8.2	7.7	8.4	8.1	8.4	8.3	8.5	8.1	8.2	7.9				
20	8.1	7.4	8.1	7.9	8.5	8.1	8.4	8.3	8.4	8.1	8.3	7.9				
21	7.8	7.6	8.1	8.0	8.4	8.2	8.4	8.4	8.6	8.1	8.3	8.0				
22	8.2	7.3	8.2	8.0	8.3	8.1	8.4	8.4	8.7	8.1	8.3	7.9				
23	8.3	7.4	8.2	8.0	8.3	8.0	8.4	8.3	8.8	8.2	8.0	7.8				
24	7.8	7.7	8.1	7.9	8.3	8.0	8.4	8.3	8.7	8.2	8.3	7.8				
25	7.9	7.3	8.3	8.0	8.3	8.0	8.4	8.3	8.7	8.2	8.2	7.9				
26	8.3	7.3	8.3	8.1	8.3	8.0	8.4	8.3	8.7	8.2	8.3	7.9				
27	7.9	7.5	8.3	8.1	8.4	8.0	8.3	8.2	8.7	8.3	8.1	7.7				
28	8.2	7.7	8.3	8.1	8.4	8.1	8.3	8.2	8.4	8.1	7.7	7.5				
29	8.3	8.1	8.4	8.1	8.4	8.0	8.3	8.3	---	---	7.8	7.6				
30	8.3	8.1	8.3	8.1	8.0	7.8	8.3	8.2	---	---	8.0	7.7				
31	8.4	8.1	---	---	7.8	7.7	8.3	8.2	---	---	8.0	7.8				
MONTH	8.5	7.3	8.5	7.6	8.5	7.7	8.4	7.6	8.8	8.0	8.6	7.5				
	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER										
1	8.1	7.7	8.8	8.3	8.5	7.8	8.3	6.2	8.2	7.5	8.2	8.0				
2	8.1	7.8	8.9	8.3	8.4	7.8	7.9	7.5	8.2	7.5	8.2	7.9				
3	7.9	7.7	8.8	8.4	8.4	7.8	8.4	7.6	8.2	7.4	8.3	8.0				
4	7.8	7.6	8.8	8.4	8.4	7.8	8.4	7.6	8.3	7.4	8.4	8.0				
5	8.2	7.5	8.7	8.3	8.5	7.7	8.6	7.5	8.3	7.5	8.6	8.0				
6	8.2	7.7	8.7	8.3	8.5	7.8	8.6	7.7	8.3	7.4	8.7	8.0				
7	8.2	7.7	8.6	8.2	8.6	7.7	8.5	7.7	8.3	7.5	8.7	8.0				
8	8.4	7.7	8.6	8.1	8.6	7.5	8.4	7.7	8.4	7.4	8.6	8.0				
9	8.4	7.9	8.6	8.0	8.6	7.5	8.3	7.7	8.4	7.5	8.6	7.9				
10	8.3	7.8	8.6	8.0	8.5	7.5	8.3	7.6	8.4	7.5	8.6	7.8				
11	8.3	7.8	8.5	7.9	8.4	7.5	8.2	7.7	8.4	7.4	8.5	7.8				
12	8.3	7.9	8.5	7.9	8.5	7.7	8.0	7.6	8.2	7.3	8.4	7.8				
13	8.2	7.9	8.7	7.9	8.0	7.8	8.0	7.6	8.4	7.5	8.4	7.8				
14	8.5	7.9	8.5	7.9	8.1	7.7	8.1	7.9	8.5	7.4	8.3	7.8				
15	8.5	8.0	8.6	8.0	8.3	7.9	8.1	7.9	8.4	7.4	8.3	7.8				
16	8.5	8.1	8.7	8.1	8.6	7.9	8.2	7.9	8.1	7.4	8.2	7.8				
17	8.5	8.1	8.8	8.1	8.8	7.9	8.5	7.9	8.5	7.5	8.1	7.8				
18	8.4	8.0	8.8	8.0	8.8	7.9	8.8	7.9	8.5	7.5	8.3	7.8				
19	8.4	8.0	8.6	7.8	8.9	7.9	8.8	7.9	8.3	7.3	8.3	7.8				
20	8.4	8.0	8.0	7.8	8.8	7.9	8.6	7.9	8.4	7.7	8.2	7.8				
21	8.3	8.0	8.2	7.8	8.4	7.9	8.1	7.8	8.5	7.7	8.4	7.9				
22	8.4	7.8	8.3	7.9	8.3	7.5	8.2	7.8	8.8	7.7	8.7	7.9				
23	7.8	7.7	8.4	7.9	8.3	7.4	8.5	8.0	8.9	7.7	8.6	7.8				
24	8.2	7.7	8.4	8.0	8.4	7.4	8.7	7.9	8.8	7.7	8.8	7.8				
25	8.5	8.1	8.4	7.9	8.4	7.3	8.7	7.9	8.7	7.8	8.5	7.8				
26	8.5	8.1	8.4	7.9	8.3	7.4	8.7	7.8	8.6	7.6	8.3	7.8				
27	8.6	8.1	8.4	7.8	8.3	7.4	8.5	7.8	8.3	7.7	8.5	8.0				
28	8.7	8.2	8.3	7.8	8.3	7.4	8.6	7.8	8.7	7.6	8.7	8.0				
29	8.7	8.2	8.4	7.8	8.2	7.3	8.6	7.8	8.5	7.6	8.5	7.9				
30	8.8	8.3	8.3	7.8	8.3	7.3	8.5	7.8	7.9	7.6	8.6	8.0				
31	---	---	8.5	7.8	---	---	8.3	7.7	8.1	7.9	---	---				
MONTH	8.8	7.5	8.9	7.8	8.9	7.3	8.8	6.2	8.9	7.3	8.8	7.8				
YEAR	8.9	6.2														



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

TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	21.3	14.6	18.1	15.6	14.2	14.8	9.4	6.7	8.3	7.0	5.8	6.5
2	19.5	15.3	18.0	16.8	15.3	15.9	6.7	5.2	6.0	8.7	6.4	7.4
3	19.6	12.1	15.7	15.6	12.7	13.8	5.9	4.5	5.2	9.9	8.7	9.5
4	19.3	12.4	15.8	13.5	12.3	12.9	5.1	3.1	4.2	10.1	8.9	9.6
5	18.5	11.7	15.0	12.3	9.8	11.0	5.6	3.4	4.6	9.0	7.5	8.4
6	18.4	10.9	14.4	11.1	8.2	9.8	9.3	5.6	7.4	7.5	5.6	6.8
7	18.3	11.3	14.7	12.2	9.1	10.7	12.7	9.3	11.1	5.8	4.9	5.4
8	18.4	13.1	15.9	11.0	8.2	9.8	11.2	8.2	9.7	6.1	5.8	6.0
9	19.2	15.0	17.0	8.9	6.4	7.6	9.3	7.4	8.1	7.1	5.7	6.3
10	20.2	14.4	17.2	9.4	5.7	7.5	10.2	9.3	9.8	7.3	6.1	6.7
11	18.0	12.1	15.0	10.5	7.2	8.5	9.5	7.0	8.3	10.4	7.2	8.5
12	15.4	12.1	13.8	11.3	9.6	10.5	7.0	6.1	6.6	12.1	10.4	11.3
13	14.7	14.1	14.4	9.6	6.9	8.1	6.7	3.7	5.4	12.0	9.6	11.5
14	16.3	13.9	14.8	7.5	5.2	6.5	3.7	2.0	2.7	9.6	5.3	7.4
15	14.6	11.7	12.9	7.3	4.8	6.2	2.0	0.4	1.1	5.3	3.8	4.4
16	11.9	9.9	11.4	8.9	7.0	7.9	1.2	0.0	0.5	4.0	1.2	2.9
17	12.7	7.9	10.2	10.6	8.9	9.8	2.2	0.2	1.2	1.2	0.0	0.2
18	12.6	8.5	9.9	12.5	10.6	11.6	2.4	0.0	1.4	0.1	0.0	0.0
19	14.0	12.5	13.3	13.2	12.0	12.8	2.3	0.0	1.5	0.1	0.0	0.0
20	14.6	13.9	14.2	13.2	12.6	13.0	0.1	0.0	0.0	0.2	0.0	0.1
21	15.0	14.4	14.6	12.9	11.4	12.2	0.6	0.0	0.1	0.8	0.0	0.1
22	14.5	13.5	14.1	11.4	11.1	11.2	0.3	0.0	0.0	0.4	0.0	0.1
23	14.4	13.0	13.6	11.5	10.5	11.1	0.0	0.0	0.0	0.1	0.0	0.0
24	16.5	14.3	15.2	13.3	11.5	12.3	0.0	0.0	0.0	0.1	0.0	0.0
25	15.1	12.3	13.9	12.3	7.1	9.6	0.0	0.0	0.0	0.6	0.0	0.1
26	14.4	12.0	13.5	7.5	5.9	6.8	0.0	0.0	0.0	0.2	0.0	0.1
27	15.3	14.0	14.7	8.2	7.2	7.7	0.0	0.0	0.0	0.9	0.0	0.1
28	16.5	14.3	15.4	8.1	6.5	7.6	0.0	0.0	0.0	0.1	0.0	0.0
29	18.2	16.1	17.0	6.7	5.9	6.3	0.0	0.0	0.0	0.3	0.0	0.0
30	19.5	17.4	18.2	8.8	6.5	7.1	4.0	0.0	0.8	0.3	0.0	0.1
31	17.4	14.8	15.9	---	---	---	5.8	4.0	5.0	0.8	0.0	0.3
MONTH	21.3	7.9	14.8	16.8	4.8	10.0	12.7	0.0	3.5	12.1	0.0	3.9
	FEBRUARY			MARCH			APRIL			MAY		
1	1.9	0.1	0.8	3.8	1.7	2.8	13.4	9.8	11.0	13.2	9.2	11.4
2	1.4	0.1	0.9	3.4	0.3	1.9	9.8	7.5	8.5	12.0	10.2	11.3
3	3.6	1.2	2.2	4.2	0.0	2.0	12.2	6.0	8.9	12.6	8.7	10.9
4	3.9	0.9	2.4	4.9	0.9	2.8	14.7	8.3	11.4	15.2	8.8	11.9
5	4.8	1.4	3.1	5.0	3.5	4.1	17.3	11.0	14.0	17.6	10.6	14.0
6	5.1	2.4	3.9	8.4	2.9	5.7	17.0	12.8	15.2	19.0	12.1	15.5
7	5.4	4.2	4.7	8.8	6.2	7.3	17.6	14.8	16.2	20.2	13.4	16.9
8	8.0	5.2	6.9	7.5	3.5	5.5	19.2	14.4	16.6	23.1	16.0	19.4
9	7.8	5.7	7.0	4.2	1.4	2.9	19.3	13.0	16.2	23.4	17.5	20.5
10	5.7	2.7	4.1	2.9	0.8	2.1	20.9	14.2	17.5	23.5	18.6	20.8
11	3.4	1.4	2.3	3.1	2.1	2.5	20.7	16.8	18.9	25.3	18.5	21.9
12	5.0	1.1	3.1	4.7	2.0	3.4	19.1	16.1	17.4	22.7	19.4	20.9
13	5.9	3.6	4.4	4.4	2.7	3.7	16.1	12.6	14.4	23.9	17.0	20.5
14	7.8	5.9	7.0	6.5	1.4	4.0	16.6	10.1	13.3	21.6	19.0	20.4
15	9.1	5.2	7.1	7.5	2.5	5.1	18.0	11.5	14.7	19.0	16.3	17.8
16	8.5	6.4	7.8	7.4	4.6	5.9	19.2	12.2	15.6	17.9	15.0	16.4
17	6.4	3.5	4.9	9.7	4.4	6.9	20.1	13.0	16.5	20.2	13.2	16.7
18	4.9	2.1	3.3	10.6	4.8	7.7	21.7	14.9	18.2	22.1	14.5	18.4
19	3.5	0.6	2.3	8.0	6.5	7.3	21.8	16.2	18.9	20.0	16.2	18.1
20	5.0	2.9	3.6	9.6	5.7	7.4	22.7	16.2	19.5	18.9	16.1	17.4
21	7.4	5.0	6.3	9.9	5.0	7.3	19.9	16.1	18.0	21.4	15.9	18.5
22	6.8	5.8	6.3	7.5	5.4	6.6	18.2	13.4	15.7	20.1	16.3	18.3
23	6.7	4.8	5.7	6.5	5.7	6.3	13.8	9.5	11.6	21.9	16.4	19.1
24	5.1	3.1	4.2	9.6	5.0	7.0	9.5	7.7	8.4	20.7	16.4	18.5
25	4.2	1.2	2.8	9.0	7.1	8.1	13.8	7.2	10.3	20.7	15.6	18.2
26	6.1	2.1	4.0	9.8	7.8	8.6	13.0	10.8	12.0	23.4	15.3	19.2
27	5.9	3.0	4.6	8.5	7.1	7.9	11.6	9.0	10.5	24.3	17.6	20.6
28	5.4	3.8	4.8	8.3	7.1	7.8	11.7	8.9	10.6	23.0	17.7	20.0
29	---	---	---	11.8	5.8	8.8	11.7	10.9	11.3	23.4	16.7	20.1
30	---	---	---	14.1	9.2	11.7	12.6	11.3	11.8	20.4	17.6	18.4
31	---	---	---	16.2	12.4	13.9	---	---	---	24.3	16.1	19.8
MONTH	9.1	0.1	4.3	16.2	0.0	6.0	22.7	6.0	14.1	25.3	8.7	17.8







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

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU  
 WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.0	<2.0	2.1	57	10	14	660	35	170	130	46	71
2	14	<2.0	3.9	740	23	180	45	10	22	54	26	36
3	14	<2.0	3.4	1,160	32	170	15	6.0	8.8	2,590	29	710
4	9.0	<2.0	3.4	290	37	110	35	4.0	5.7	850	98	200
5	14	<2.0	5.7	76	16	38	26	2.0	3.6	1,520	170	410
6	11	<2.0	3.1	77	9.0	23	87	2.0	11	470	97	220
7	12	<2.0	0.4	26	7.0	11	230	8.0	100	110	44	66
8	10	<2.0	0.4	12	3.0	7.0	98	13	37	440	47	130
9	8.0	<2.0	0.6	18	3.0	6.1	310	8.0	76	58	29	40
10	3.0	<2.0	0.4	17	2.0	3.6	210	27	82	50	24	30
11	7.2	<2.0	1.2	1,090	2.0	230	33	17	23	1,480	22	270
12	81	<2.0	3.7	1,080	56	210	27	12	18	370	53	120
13	13	<2.0	2.3	60	22	37	16	7.0	10	790	43	180
14	11	<2.0	2.2	33	11	18	11	5.0	6.7	470	56	130
15	18	<2.0	4.4	600	8.0	110	7.0	4.0	5.5	64	24	41
16	34	6.0	11	370	9.0	49	7.0	4.0	5.0	31	22	26
17	14	3.0	8.1	58	7.0	9.8	6.0	3.0	4.4	25	17	21
18	2,600	2.0	880	14	7.0	7.8	9.0	3.0	3.8	28	13	18
19	1,470	74	270	650	9.0	230	5.0	3.0	3.4	17	13	14
20	1,030	59	280	140	28	52	4.0	2.0	3.3	17	11	13
21	340	39	93	32	15	21	4.0	2.0	3.2	15	10	11
22	56	26	37	44	9.0	14	26	4.0	17	12	8.0	9.8
23	170	26	53	13	8.0	10	27	10	16	12	8.0	10
24	440	55	200	180	8.0	99	31	5.0	8.7	12	7.0	9.0
25	650	40	230	100	20	45	8.0	3.0	5.0	11	6.0	7.8
26	1,270	65	560	23	9.0	14	11	2.0	3.5	10	7.0	7.9
27	1,060	56	270	16	5.0	8.2	6.0	2.0	2.8	8.0	6.0	7.0
28	62	22	35	34	9.0	18	6.0	<2.0	2.1	9.0	6.0	7.5
29	27	13	19	17	5.0	9.6	52	<2.0	8.3	17	6.0	8.8
30	120	15	26	180	3.0	17	1,000	45	280	30	14	18
31	76	13	23	---	---	---	450	110	240	26	14	18
MONTH	2,600	2.0	98	1,160	2.0	59	1,000	2.0	38	2,590	6.0	92
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	23	14	16	41	11	23	66	11	19	15	6.8	9.2
2	33	14	20	16	4.0	7.5	40	13	23	19	7.9	10
3	28	10	14	6.0	3.0	4.1	31	12	20	14	8.0	9.6
4	31	13	19	5.0	3.0	3.3	---	---	---	---	---	---
5	20	10	13	5.0	3.0	3.7	---	---	---	---	---	---
6	16	10	13	5.0	3.0	3.7	---	---	---	---	---	---
7	35	11	14	780	3.0	86	---	---	---	48	20	27
8	440	35	200	350	33	180	---	---	---	110	33	57
9	62	22	38	33	7.0	16	---	---	---	210	43	130
10	40	15	25	8.0	4.0	5.9	---	---	---	170	29	87
11	20	9.0	13	5.0	3.0	3.8	---	---	---	34	11	60
12	15	8.0	9.5	7.0	3.0	3.4	---	---	---	79	12	31
13	56	9.0	24	4.0	3.0	3.0	---	---	---	53	9.5	24
14	270	49	150	4.0	2.0	2.9	---	---	---	58	12	24
15	120	23	50	7.0	2.0	3.4	---	---	---	---	---	---
16	34	13	21	4.0	2.0	3.4	---	---	---	---	---	---
17	16	8.0	12	5.0	2.0	3.3	---	---	---	---	---	---
18	11	6.0	8.2	5.0	3.0	3.3	---	---	---	---	---	---
19	14	5.0	6.5	7.0	3.0	4.1	---	---	---	---	---	---
20	7.0	5.0	5.9	4.0	3.0	3.4	14	5.0	5.8	1,970	110	430
21	11	6.0	7.2	3.0	2.0	3.0	10	5.1	6.0	160	39	78
22	8.0	5.0	6.4	54	2.0	5.2	2,300	5.2	190	88	30	40
23	7.0	5.0	5.7	81	15	30	980	130	360	---	---	---
24	7.0	4.0	4.9	15	5.0	9.9	190	27	66	---	---	---
25	8.0	3.0	4.1	6.0	3.0	4.0	53	18	29	---	---	---
26	4.0	3.0	3.4	4.0	3.0	3.1	480	12	120	---	---	---
27	4.0	3.0	3.8	2,510	3.0	84	230	24	93	---	---	---
28	34	3.0	11	2,580	190	970	24	9.6	16	---	---	---
29	---	---	---	190	57	110	20	6.7	9.7	---	---	---
30	---	---	---	72	27	47	19	6.8	9.6	28	10	14
31	---	---	---	98	18	41	---	---	---	23	10	14
MONTH	440	3.0	26	2,580	2.0	54						

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

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU—  
CONTINUED

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	18	10	11	2,560	38	1,560	45	18	27	---	---	---
2	19	9.1	11	780	210	400	34	13	20	---	---	---
3	23	9.2	12	240	110	160	---	---	---	---	---	---
4	94	9.4	26	140	40	83	---	---	---	---	---	---
5	28	10	14	78	32	45	---	---	---	---	---	---
6	27	11	16	60	24	41	---	---	---	---	---	---
7	26	8.7	15	54	22	34	---	---	---	---	---	---
8	25	7.8	13	51	23	31	---	---	---	---	---	---
9	24	5.8	11	82	22	32	---	---	---	---	---	---
10	20	7.0	10	85	19	29	---	---	---	---	---	---
11	24	6.0	13	54	22	29	---	---	---	---	---	---
12	75	9.2	16	65	21	32	---	---	---	---	---	---
13	740	21	310	150	34	74	---	---	---	---	---	---
14	800	110	380	610	81	170	---	---	---	---	---	---
15	180	78	120	930	290	530	---	---	---	---	---	---
16	90	50	67	510	120	240	---	---	---	---	---	---
17	62	35	46	370	64	96	---	---	---	---	---	---
18	50	26	37	100	36	58	---	---	---	---	---	---
19	47	20	29	55	20	35	---	---	---	---	---	---
20	30	18	21	1,700	24	400	---	---	---	110	11	35
21	30	14	19	1,460	260	750	---	---	---	94	16	25
22	33	14	18	410	140	200	---	---	---	100	21	54
23	28	13	16	---	---	---	---	---	---	350	75	190
24	38	10	16	---	---	---	---	---	---	---	---	---
25	32	11	15	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	190	40	98
28	31	11	16	230	140	180	---	---	---	180	41	120
29	28	9.7	15	260	120	160	---	---	---	470	48	180
30	38	10	16	470	55	250	---	---	---	310	48	140
31	---	---	---	82	25	38	---	---	---	---	---	---
MONTH												
YEAR	2,600	2.0	76									

&lt; Actual value is known to be less than the value shown

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## 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<sup>2</sup>, 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<sup>3</sup>/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, Louisville District.

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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	135,000	80,600	174,000	179,000	155,000	134,000	360,000	223,000	52,700	40,700	24,000	84,600
2	132,000	80,400	232,000	153,000	139,000	178,000	357,000	265,000	39,800	41,600	24,000	58,800
3	101,000	73,100	287,000	203,000	150,000	196,000	353,000	265,000	32,800	41,200	24,700	62,300
4	76,200	89,600	298,000	271,000	152,000	176,000	356,000	223,000	29,900	16,200	21,800	55,300
5	50,300	151,000	276,000	351,000	139,000	141,000	361,000	184,000	25,800	25,800	14,100	27,000
6	46,300	176,000	230,000	471,000	136,000	128,000	361,000	146,000	40,100	28,000	13,100	28,300
7	39,800	180,000	190,000	502,000	130,000	142,000	349,000	111,000	31,700	31,300	16,600	19,500
8	44,600	155,000	183,000	509,000	149,000	155,000	315,000	91,300	35,500	17,500	13,100	22,200
9	35,700	124,000	188,000	525,000	158,000	197,000	253,000	81,900	41,200	44,200	15,000	11,800
10	36,700	101,000	196,000	542,000	171,000	250,000	220,000	69,900	31,100	55,500	17,100	6,020
11	34,100	80,800	215,000	549,000	202,000	271,000	200,000	62,800	27,600	49,100	23,200	20,000
12	34,100	125,000	255,000	550,000	228,000	246,000	178,000	66,300	32,900	24,500	13,100	15,300
13	35,700	150,000	275,000	539,000	239,000	201,000	154,000	55,300	66,200	16,100	15,000	15,000
14	35,800	138,000	267,000	530,000	235,000	173,000	139,000	54,200	51,800	22,000	15,700	15,600
15	30,200	119,000	232,000	524,000	222,000	158,000	121,000	81,600	28,100	13,000	14,000	15,600
16	40,400	100,000	191,000	515,000	232,000	144,000	99,400	92,100	27,000	17,000	12,300	10,100
17	46,500	85,100	161,000	509,000	253,000	124,000	88,500	94,300	27,000	33,700	12,700	16,900
18	69,600	74,300	131,000	501,000	256,000	118,000	78,500	80,600	22,800	36,500	17,200	21,800
19	98,000	97,900	115,000	450,000	239,000	102,000	72,000	67,700	27,700	35,400	17,800	16,100
20	146,000	141,000	106,000	345,000	212,000	99,400	69,400	81,000	26,200	52,400	21,600	16,400
21	166,000	165,000	88,100	291,000	181,000	92,200	55,400	111,000	24,200	51,500	30,300	18,000
22	146,000	163,000	84,600	220,000	157,000	101,000	61,200	139,000	22,300	33,900	27,100	17,500
23	100,000	146,000	93,800	190,000	156,000	109,000	92,600	138,000	19,800	28,800	22,600	19,600
24	85,200	128,000	128,000	179,000	172,000	131,000	138,000	101,000	19,200	32,200	12,900	10,900
25	79,600	126,000	172,000	175,000	181,000	163,000	186,000	81,100	15,100	20,100	17,100	10,600
26	74,800	130,000	191,000	164,000	169,000	187,000	207,000	75,300	14,600	25,600	13,600	25,100
27	71,500	146,000	188,000	164,000	146,000	200,000	222,000	74,900	13,600	26,900	32,500	30,300
28	73,900	162,000	163,000	172,000	128,000	303,000	230,000	65,900	12,100	27,500	38,700	29,100
29	54,100	165,000	141,000	166,000	---	302,000	221,000	55,000	12,000	31,300	29,000	44,800
30	48,000	151,000	141,000	156,000	---	316,000	202,000	54,800	37,000	21,900	63,800	43,000
31	65,000	---	187,000	158,000	---	348,000	---	44,900	---	18,900	93,400	---
TOTAL	2,232,100	3,803,800	5,779,500	10,753,000	5,087,000	5,585,600	6,100,000	3,336,900	887,800	970,400	728,200	787,520
MEAN	72,000	126,800	186,400	346,900	181,700	180,200	203,300	107,600	29,590	31,300	23,490	26,250
MAX	166,000	180,000	298,000	550,000	256,000	348,000	361,000	265,000	66,200	55,500	93,400	84,600
MIN	30,200	73,100	84,600	153,000	128,000	92,200	55,400	44,900	12,000	13,000	12,300	6,020

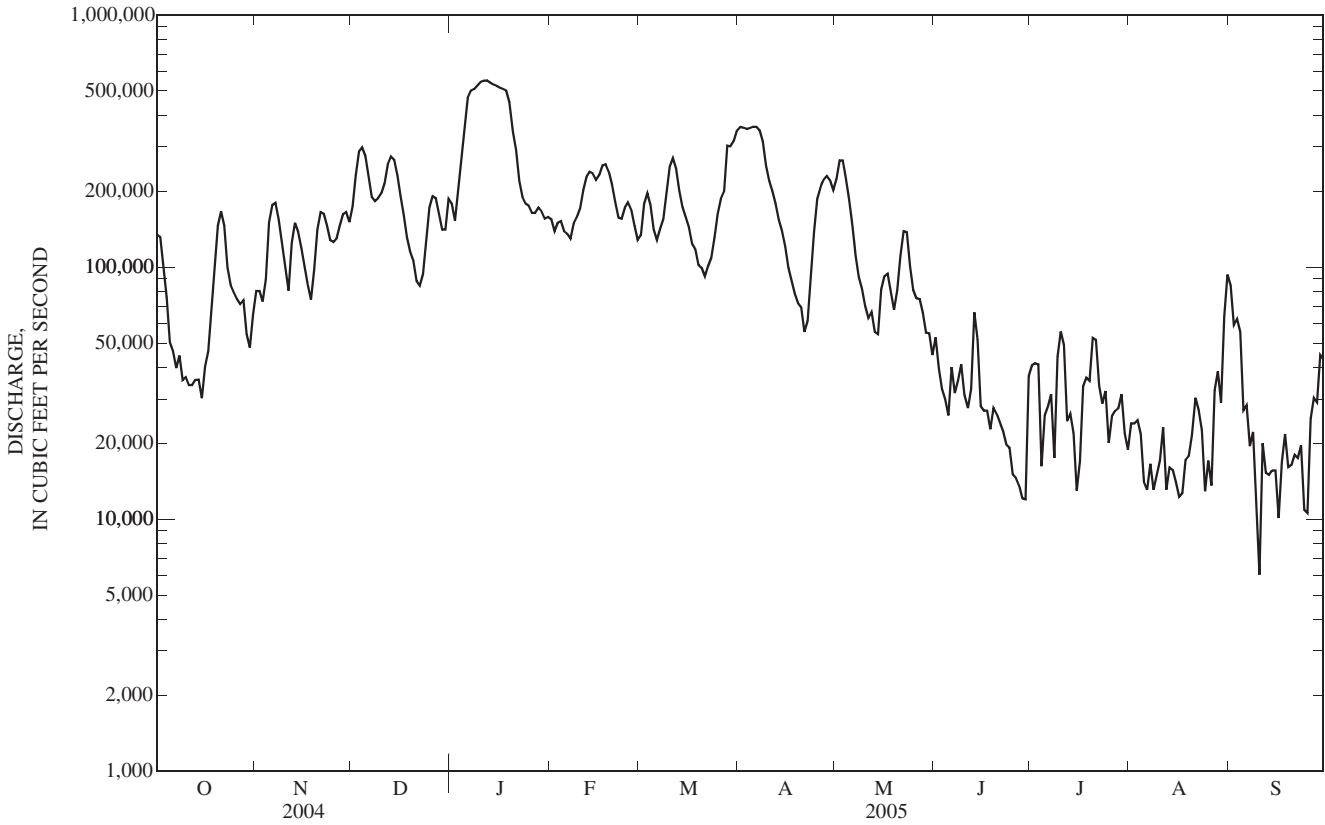
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2005, BY WATER YEAR (WY)

MEAN	47,830	86,650	139,600	152,000	176,100	206,100	180,700	141,800	93,870	58,190	45,030	44,300
MAX	144,100	230,600	288,700	346,900	291,200	338,500	292,200	370,100	219,100	109,500	146,200	193,500
(WY)	(1980)	(1986)	(1973)	(2005)	(1975)	(1997)	(1972)	(1996)	(1981)	(1972)	(1980)	(2004)
MIN	13,910	16,810	29,220	34,060	77,100	98,440	61,160	43,510	15,030	13,890	13,060	9,033
(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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1970 - 2005	
ANNUAL TOTAL	58,747,400		46,051,820		114,300	
ANNUAL MEAN	160,500		126,200		169,100	
HIGHEST ANNUAL MEAN					60,450	2004
LOWEST ANNUAL MEAN					7,310	1988
HIGHEST DAILY MEAN	509,000	Jan 8	550,000	Jan 12	579,000	Mar 6, 1997
LOWEST DAILY MEAN	19,800	Aug 19	6,020	Sep 10	3,210	Sep 3, 2002
ANNUAL SEVEN-DAY MINIMUM	24,200	Aug 14	13,900	Sep 10	7,310	Jul 1, 1988
MAXIMUM PEAK FLOW			551,000		582,000	Mar 6, 1997
MAXIMUM PEAK STAGE			51.43		60.72	Mar 6, 1997
10 PERCENT EXCEEDS	366,000		266,000		260,000	
50 PERCENT EXCEEDS	136,000		94,300		81,200	
90 PERCENT EXCEEDS	39,700		17,400		20,200	



## 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<sup>2</sup>.

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 good 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.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	46	e600	64	159	247	198	356	31	24	33	9.4
2	23	40	245	59	137	183	576	220	38	32	16	8.1
3	27	36	152	58	134	153	547	163	34	18	13	7.1
4	22	214	116	63	119	137	327	137	32	15	11	6.2
5	20	154	96	91	110	164	254	118	29	15	10	5.6
6	19	94	197	97	104	153	209	109	27	16	19	5.2
7	18	71	320	103	99	146	179	99	26	189	16	4.8
8	17	56	209	185	98	250	159	90	27	109	20	4.7
9	16	45	316	173	96	222	142	83	34	40	29	4.4
10	16	40	414	140	115	190	126	77	37	26	17	4.2
11	16	37	390	147	101	185	115	73	29	21	13	3.9
12	16	77	311	180	97	191	112	67	27	19	11	4.0
13	43	75	222	162	100	187	134	63	25	e18	10	4.3
14	39	64	167	297	140	172	212	59	25	e25	11	3.2
15	29	55	141	227	136	153	158	56	35	e39	9.6	3.2
16	27	50	124	177	144	168	135	47	24	e28	22	3.2
17	25	46	112	144	137	169	121	46	21	e22	35	17
18	22	44	102	123	125	165	111	45	20	e120	15	5.5
19	57	48	95	118	114	152	104	41	19	64	13	4.3
20	42	45	83	115	112	143	96	78	19	53	17	3.8
21	33	54	84	110	135	132	93	51	24	30	12	3.5
22	29	56	79	103	130	124	100	47	19	24	9.6	3.5
23	26	68	128	93	122	128	94	87	17	19	9.8	3.3
24	30	77	118	85	120	128	100	52	16	17	9.0	3.1
25	26	92	103	85	112	124	93	44	15	15	8.2	3.2
26	24	85	95	90	104	122	86	41	15	15	9.6	3.6
27	206	74	83	84	97	117	89	41	16	22	14	7.4
28	137	66	75	76	234	278	79	37	17	32	9.9	4.7
29	91	54	76	138	---	404	164	34	19	32	12	6.3
30	70	100	72	241	---	276	431	33	22	20	9.6	8.9
31	54	---	67	195	---	232	---	32	---	17	8.2	---
TOTAL	1,243	2,063	5,392	4,023	3,431	5,595	5,344	2,526	739	1,136	452.5	159.6
MEAN	40.1	68.8	174	130	123	180	178	81.5	24.6	36.6	14.6	5.32
MAX	206	214	600	297	234	404	576	356	38	189	35	17
MIN	16	36	67	58	96	117	79	32	15	15	8.2	3.1

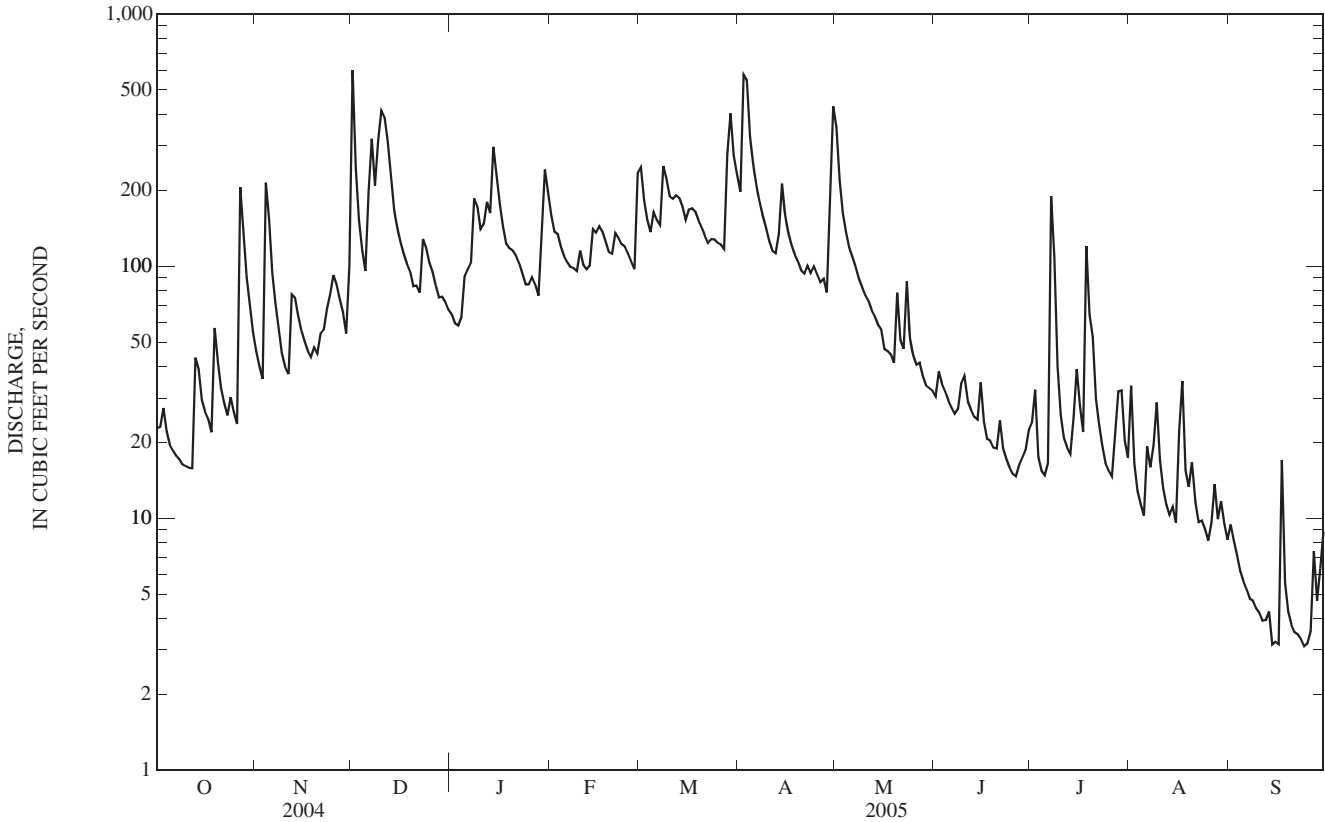
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2005, BY WATER YEAR (WY)

MEAN	16.6	36.3	63.9	102	117	122	142	92.6	66.6	54.0	26.5	24.4
MAX	40.1	94.0	174	201	275	180	270	134	174	126	61.4	62.2
(WY)	(2005)	(2004)	(2005)	(2004)	(2003)	(2005)	(2003)	(2003)	(2004)	(2000)	(2003)	(2004)
MIN	9.08	9.90	13.6	24.6	56.8	45.5	80.2	52.9	17.6	13.4	7.66	5.32
(WY)	(2000)	(2002)	(2000)	(2000)	(2000)	(2000)	(2001)	(1999)	(1999)	(1999)	(1999)	(2005)

03277300 NORTH FORK KENTUCKY RIVER AT WHITESBURG, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1999 - 2005	
ANNUAL TOTAL	39,097.7		32,104.1		71.6	
ANNUAL MEAN	107		88.0		45.8	
HIGHEST ANNUAL MEAN					101	2003
LOWEST ANNUAL MEAN					45.8	2000
HIGHEST DAILY MEAN	1,120	Jan 2	600	Dec 1	1,960	Feb 16, 2003
LOWEST DAILY MEAN	9.7	Sep 6	3.1	Sep 24	1.9	Oct 8, 1999
ANNUAL SEVEN-DAY MINIMUM	11	Sep 1	3.4	Sep 20	3.4	Sep 20, 2005
MAXIMUM PEAK FLOW			850	Dec 1	7,730	Jan 29, 1957
MAXIMUM PEAK STAGE			4.27	Dec 1	14.90	Jan 29, 1957
10 PERCENT EXCEEDS	220		189		146	
50 PERCENT EXCEEDS	76		64		40	
90 PERCENT EXCEEDS	22		9.7		8.7	

e Estimated



## 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 Highway 30 Bridge at Jackson, 3.1 mi downstream from Quicksand Creek, and at mile 306.0.

DRAINAGE AREA.--1,101 mi<sup>2</sup>.

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.--The maximum discharges for some water years have been revised as shown in the following table. They supersede figures published in WRD 1995 through 2004. WSP 853: 1929(M). WSP 1335: 1928(M), 1929, 1931(M). WSP 1435: 1954-55. WSP 1505: 1948. WSP 1555: Drainage area.

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

Date	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
May 19, 1995	21,700	26.20	Apr 5, 2000	14,800	19.07
Feb 9, 1996	13,800	19.94	Feb 17, 2001	16,200	20.66
Mar 4, 1997	23,500	27.65	Mar 19, 2002	19,600	24.10
Apr 20, 1989	30,700	33.28	Feb 17, 2003	35,900	37.29
Jan 24, 1999	12,000	15.67	May 31, 2004	29,200	32.04

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. 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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	534	1,190	12,600	955	2,870	4,440	3,470	13,000	e395	388	228	218
2	482	1,030	9,740	920	2,090	3,860	9,640	5,510	e370	750	208	168
3	576	865	4,540	884	1,950	3,030	10,500	3,660	414	486	200	137
4	496	3,040	3,380	944	1,750	2,550	6,860	2,590	687	394	207	114
5	485	4,790	2,420	1,850	1,600	2,360	4,220	1,990	617	314	169	105
6	468	2,980	2,220	2,080	1,440	2,450	3,270	1,710	435	320	191	101
7	377	2,040	3,470	2,450	1,320	2,260	2,680	1,490	390	342	212	92
8	363	1,560	4,430	8,560	1,320	2,810	2,300	1,310	425	570	204	88
9	357	1,260	6,170	5,260	1,290	3,520	1,930	1,140	369	1,160	218	83
10	365	1,060	12,000	3,660	1,340	3,150	1,600	1,020	400	569	187	78
11	365	935	7,780	2,830	1,440	2,730	1,430	941	611	427	161	73
12	364	1,070	6,140	2,730	1,370	2,560	1,330	878	894	331	166	73
13	423	1,450	4,530	2,900	1,310	2,450	1,470	784	507	320	148	70
14	532	1,460	3,430	3,570	1,850	2,240	2,040	750	401	589	146	64
15	518	1,240	2,590	3,960	2,410	1,990	2,680	742	393	483	191	61
16	524	1,090	2,130	3,160	2,300	1,750	2,130	710	394	436	146	60
17	485	966	1,820	2,510	2,380	1,760	1,750	651	357	598	260	60
18	467	953	1,580	1,960	2,090	1,790	1,510	607	304	682	238	64
19	1,560	937	1,460	1,660	1,810	1,670	1,350	575	275	924	276	69
20	1,450	1,060	1,300	1,570	1,630	1,550	1,220	946	270	1,050	286	68
21	1,020	1,120	1,150	1,500	2,800	1,430	1,120	1,290	550	936	225	88
22	798	1,140	1,130	1,400	3,240	1,300	1,060	919	428	576	197	77
23	657	1,140	1,280	1,400	2,730	1,240	1,190	844	305	446	163	64
24	759	1,320	1,660	1,150	2,100	1,510	1,270	827	269	353	143	59
25	770	2,230	1,530	1,120	1,880	1,490	1,230	767	234	298	124	55
26	702	2,180	1,400	1,180	1,550	1,360	1,140	655	216	263	118	55
27	3,130	1,840	1,280	1,180	1,480	1,310	1,140	562	202	252	139	67
28	5,020	1,640	1,110	1,030	2,070	3,340	1,100	513	208	333	149	81
29	2,970	1,430	1,100	1,250	---	6,440	1,330	477	228	350	148	90
30	2,140	1,740	1,030	3,160	---	5,210	16,900	452	418	287	313	100
31	1,610	---	999	3,560	---	3,900	---	422	---	255	258	---
TOTAL	30,767	46,756	107,399	72,343	53,410	79,450	90,860	48,732	11,966	15,482	6,019	2,582
MEAN	992	1,559	3,464	2,334	1,908	2,563	3,029	1,572	399	499	194	86.1
MAX	5,020	4,790	12,600	8,560	3,240	6,440	16,900	13,000	894	1,160	313	218
MIN	357	865	999	884	1,290	1,240	1,060	422	202	252	118	55
CFSM	0.90	1.42	3.15	2.12	1.73	2.33	2.75	1.43	0.36	0.45	0.18	0.08
IN.	1.04	1.58	3.63	2.44	1.80	2.68	3.07	1.65	0.40	0.52	0.20	0.09

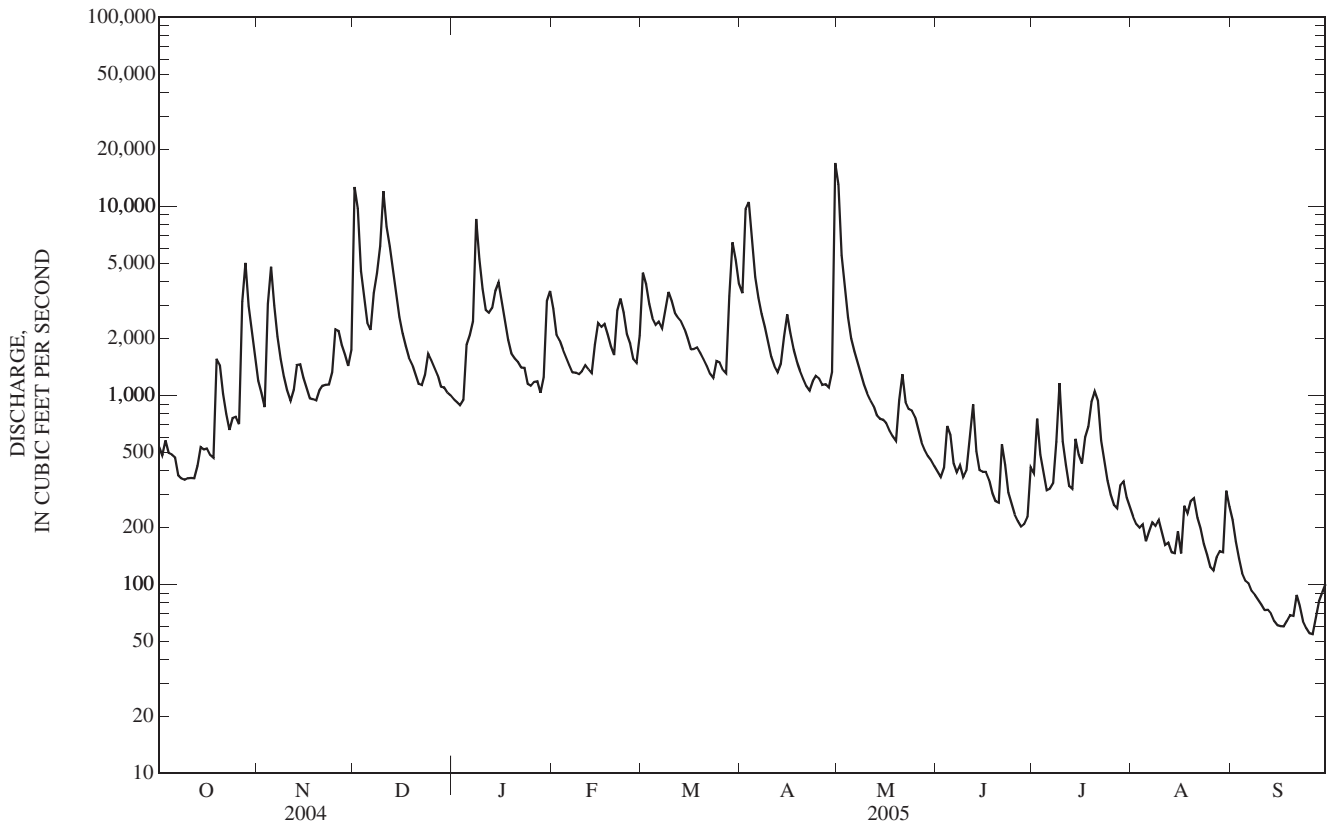
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2005, BY WATER YEAR (WY)

	484	899	1,600	1,971	2,605	2,599	2,390	1,875	1,111	545	430	367
MEAN	484	899	1,600	1,971	2,605	2,599	2,390	1,875	1,111	545	430	367
MAX	4,189	3,019	4,649	5,168	6,392	7,268	5,944	7,189	4,166	1,484	945	2,255
(WY)	(1990)	(1986)	(1992)	(1979)	(1994)	(1994)	(1998)	(1984)	(1989)	(2000)	(1977)	(2004)
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1977 - 2005	
ANNUAL TOTAL	795,576		565,766			
ANNUAL MEAN	2,174		1,550		1,400	
HIGHEST ANNUAL MEAN					2,570 1994	
LOWEST ANNUAL MEAN					477 1988	
HIGHEST DAILY MEAN	26,300	May 31	16,900	Apr 30	52,200	May 8, 1984
LOWEST DAILY MEAN	228	Sep 7	55	Sep 25	21	Sep 20, 1999
ANNUAL SEVEN-DAY MINIMUM	270	Sep 1	64	Sep 14	26	Sep 17, 1999
MAXIMUM PEAK FLOW			20,500	Apr 30	53,500	Jan 30, 1957
MAXIMUM PEAK STAGE			25.13	Apr 30	43.10	Feb 4, 1939
INSTANTANEOUS LOW FLOW			47	Sep 15	0.00	Oct 16, 1930
ANNUAL RUNOFF (CFSM)	1.97		1.41		1.27	
ANNUAL RUNOFF (INCHES)	26.88		19.12		17.27	
10 PERCENT EXCEEDS	4,660		3,300		3,130	
50 PERCENT EXCEEDS	1,200		1,070		667	
90 PERCENT EXCEEDS	462		149		131	

e Estimated



## 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<sup>2</sup>.

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 good 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<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec 1	1100	1,640	5.45	Apr 30	1000	*2,240	*6.47
Mar 28	0830	1,540	5.28	Jul 19	1830	1,640	5.45

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	34	e1,200	47	124	242	185	460	16	17	8.0	8.5
2	23	29	367	43	96	185	922	227	26	29	6.7	7.5
3	21	27	205	42	94	147	618	151	26	9.7	5.8	4.9
4	17	336	144	47	82	122	302	111	21	6.9	5.4	3.8
5	15	170	109	61	74	220	198	89	16	23	6.6	3.6
6	13	99	139	76	69	190	149	77	14	31	14	4.1
7	12	73	287	90	65	165	126	67	19	33	20	3.1
8	11	54	260	289	65	256	107	60	14	40	9.1	4.5
9	11	40	584	233	64	218	89	52	13	16	7.9	4.6
10	9.7	33	576	167	84	182	76	47	17	11	7.2	4.1
11	10	30	e350	e575	73	165	68	43	45	9.3	5.8	3.0
12	9.4	111	e225	e325	72	147	77	37	31	12	5.7	2.9
13	19	107	e196	224	85	126	271	33	18	33	6.2	3.5
14	18	84	148	346	151	112	687	31	17	48	4.8	2.6
15	18	71	116	242	150	97	261	35	17	102	4.2	2.8
16	18	62	98	181	153	112	167	28	12	36	7.3	3.9
17	16	53	86	131	131	116	126	25	11	24	42	2.8
18	14	47	76	103	110	121	103	23	9.7	53	15	5.7
19	65	55	72	92	94	115	87	22	9.2	302	12	3.8
20	32	52	57	84	90	106	75	113	9.4	182	6.9	6.2
21	21	52	59	74	113	94	68	49	9.4	60	8.7	7.5
22	16	50	53	67	123	84	68	33	7.8	35	5.7	5.3
23	17	67	90	57	114	96	68	41	8.4	23	4.1	3.2
24	20	203	77	48	110	95	74	31	8.9	16	3.6	2.5
25	18	228	72	50	95	90	66	26	6.3	13	3.2	2.2
26	15	153	70	49	83	85	57	24	5.0	11	4.1	4.7
27	83	118	61	42	75	83	65	21	5.0	12	6.9	6.3
28	81	99	56	35	202	739	54	18	5.4	25	9.7	5.7
29	63	76	55	95	---	504	120	17	7.4	14	95	5.4
30	52	e582	53	169	---	276	1,190	16	8.2	11	22	7.9
31	42	---	49	161	---	216	---	15	---	8.0	12	---
TOTAL	799.1	3,195	5,990	4,245	2,841	5,506	6,524	2,022	433.1	1,245.9	375.6	136.6
MEAN	25.8	106	193	137	101	178	217	65.2	14.4	40.2	12.1	4.55
MAX	83	582	1,200	575	202	739	1,190	460	45	302	95	8.5
MIN	9.4	27	49	35	64	83	54	15	5.0	6.9	3.2	2.2
CFSM	0.42	1.74	3.15	2.23	1.66	2.90	3.55	1.06	0.24	0.66	0.20	0.07
IN.	0.48	1.94	3.64	2.58	1.72	3.34	3.96	1.23	0.26	0.76	0.23	0.08

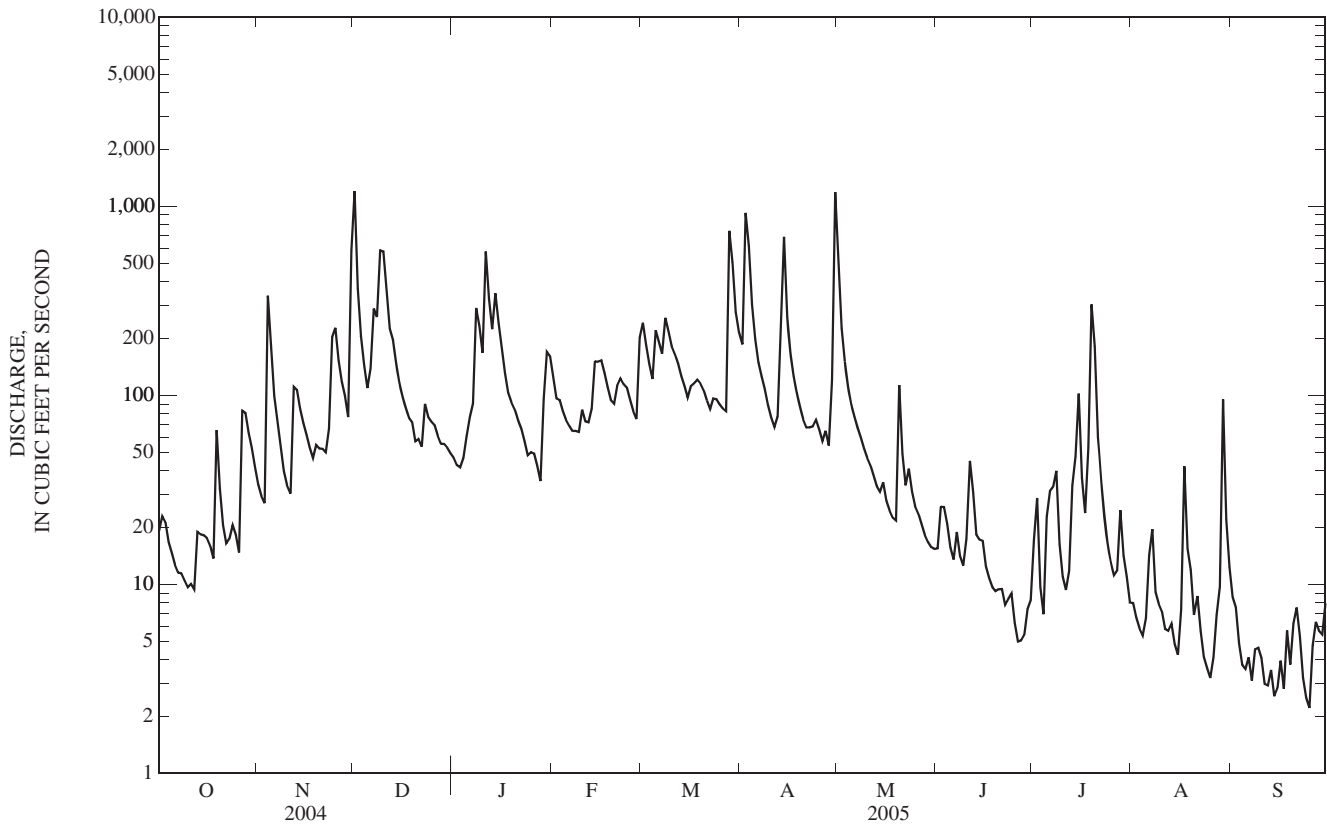
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2005, BY WATER YEAR (WY)

MEAN	25.0	60.8	107	145	169	195	167	115	58.5	32.7	23.8	21.5
MAX	287	309	359	597	425	620	471	449	423	144	107	229
(WY)	(1990)	(1978)	(1973)	(1974)	(2003)	(1975)	(1998)	(1983)	(1989)	(1958)	(1966)	(2004)
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1958 - 2005	
ANNUAL TOTAL	52,413.3		33,313.3		93.0	
ANNUAL MEAN	143		91.3		212	
HIGHEST ANNUAL MEAN					1974	
LOWEST ANNUAL MEAN					27.6	
HIGHEST DAILY MEAN	3,020	Sep 17	1,200	Dec 1	4,890	May 7, 1984
LOWEST DAILY MEAN	7.1	Aug 19	2.2	Sep 25	0.00	Sep 29, 1959
ANNUAL SEVEN-DAY MINIMUM	11	Oct 6	3.1	Sep 11	0.01	Sep 11, 1964
MAXIMUM PEAK FLOW			2,520	Dec 1	14,200	Mar 12, 1963
MAXIMUM PEAK STAGE			6.94	Dec 1	16.23	Mar 12, 1963
INSTANTANEOUS LOW FLOW					0.00	Sep 29, 1959
ANNUAL RUNOFF (CFSM)	2.34		1.49		1.52	
ANNUAL RUNOFF (INCHES)	31.81		20.22		20.62	
10 PERCENT EXCEEDS	292		209		201	
50 PERCENT EXCEEDS	56		52		33	
90 PERCENT EXCEEDS	18		5.8		3.0	

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<sup>2</sup>.

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 03280900).

COOPERATION.--U.S.Army Corps of Engineers, Louisville District, and Kentucky River Authority.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	243	917	4,590	510	1,390	1,590	2,760	4,150	133	119	91	40
2	245	639	3,290	438	1,310	2,330	5,410	3,220	135	278	63	38
3	255	627	2,960	422	1,150	1,880	3,210	3,530	144	259	57	36
4	236	1,460	3,710	474	910	1,420	3,060	3,420	147	237	56	35
5	230	1,390	3,730	787	718	1,150	3,750	2,910	200	232	54	35
6	225	1,880	3,050	946	579	1,470	3,620	2,270	228	178	47	35
7	223	1,780	3,270	1,160	594	1,300	3,450	1,590	197	91	58	35
8	182	1,190	3,340	4,260	584	1,490	3,010	714	192	92	54	35
9	142	733	3,380	1,980	575	1,820	2,780	618	237	156	52	35
10	140	490	4,460	2,840	596	1,890	2,440	447	191	221	59	36
11	149	601	4,080	3,360	595	1,670	2,060	405	327	197	63	36
12	172	669	4,200	2,220	661	1,340	1,240	392	384	164	62	36
13	185	787	4,020	2,270	647	1,180	653	342	345	157	66	36
14	212	1,020	3,740	1,370	1,090	1,070	1,180	298	220	166	74	37
15	234	1,030	3,480	2,660	1,660	880	3,440	302	185	400	70	38
16	232	1,010	2,220	2,690	2,120	775	2,890	288	132	432	74	38
17	227	993	1,930	2,510	1,950	876	1,260	281	115	407	68	41
18	226	943	1,630	2,050	1,380	855	1,120	234	110	319	52	40
19	540	633	778	970	1,060	789	821	141	105	370	50	42
20	403	730	593	745	831	845	673	234	87	854	110	41
21	395	727	520	813	1,270	838	568	953	65	1,250	105	43
22	392	709	487	698	1,430	691	397	728	134	258	82	43
23	297	578	690	521	1,430	667	298	459	228	310	41	43
24	311	623	706	517	1,320	614	299	371	149	251	33	44
25	308	904	840	473	1,080	755	249	315	81	115	33	44
26	289	1,770	775	444	963	619	178	256	62	107	34	44
27	1,410	1,820	718	535	735	601	189	189	57	112	37	45
28	1,770	1,380	582	417	896	2,060	179	131	57	129	36	44
29	1,270	1,440	581	512	---	2,390	256	152	57	109	35	47
30	1,110	1,510	542	1,040	---	2,900	5,450	160	79	104	40	53
31	1,020	---	516	1,310	---	2,840	---	133	---	99	45	---
TOTAL	13,273	30,983	69,408	41,942	29,524	41,595	56,890	29,633	4,783	8,173	1,801	1,195
MEAN	428	1,033	2,239	1,353	1,054	1,342	1,896	956	159	264	58.1	39.8
MAX	1,770	1,880	4,590	4,260	2,120	2,900	5,450	4,150	384	1,250	110	53
MIN	140	490	487	417	575	601	178	131	57	91	33	35
CFSM	0.80	1.92	4.17	2.52	1.96	2.50	3.53	1.78	0.30	0.49	0.11	0.07
IN.	0.92	2.15	4.81	2.91	2.05	2.88	3.94	2.05	0.33	0.57	0.12	0.08

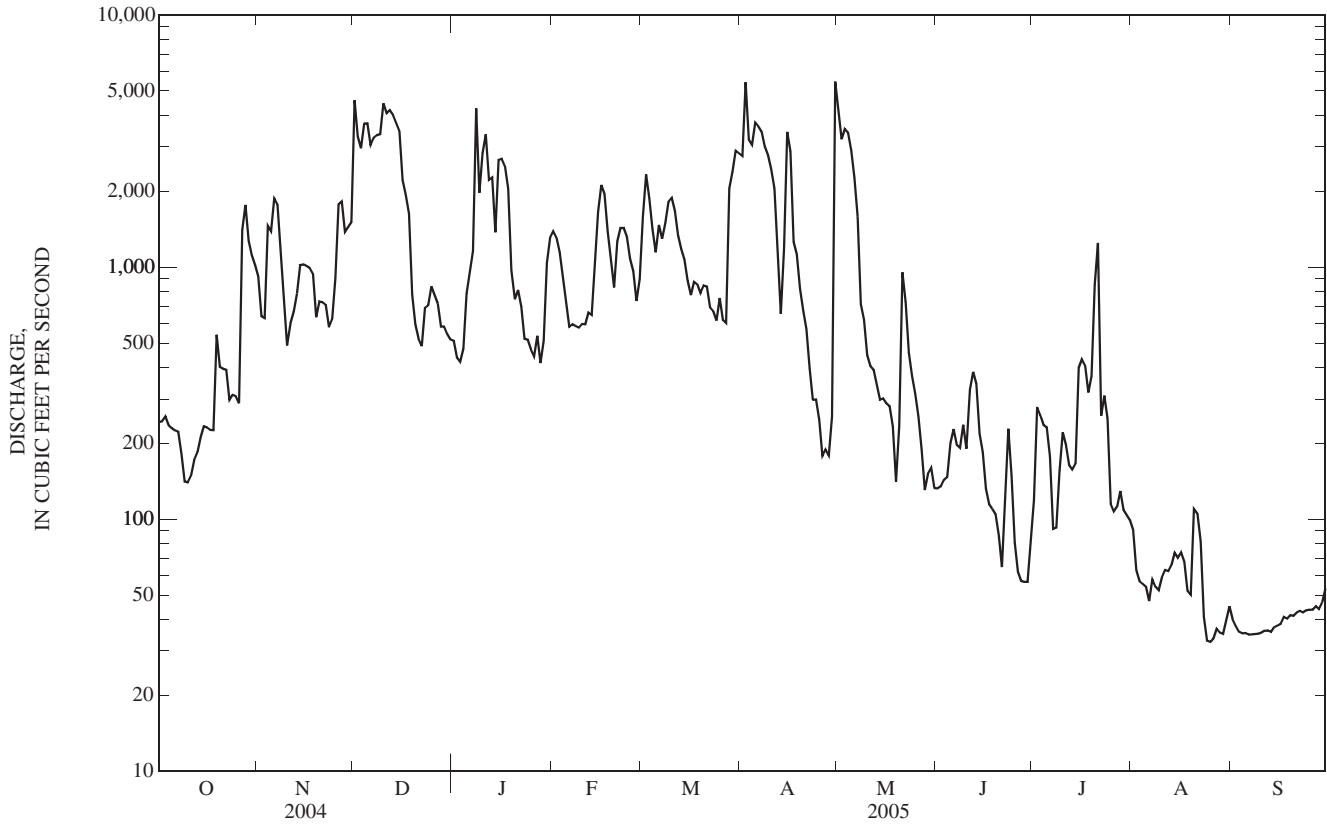
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2005, BY WATER YEAR (WY)

	306	590	951	1,291	1,474	1,661	1,215	945	530	233	179	213
MEAN	306	590	951	1,291	1,474	1,661	1,215	945	530	233	179	213
MAX	2,225	1,715	2,826	3,320	3,634	3,672	3,280	2,762	2,599	687	623	2,086
(WY)	(1990)	(1978)	(1973)	(1974)	(1994)	(1994)	(1994)	(1971)	(1989)	(1992)	(1992)	(2004)
MIN	47.5	23.8	45.5	56.8	270	241	98.7	57.9	49.1	43.6	33.9	39.8
(WY)	(1989)	(2002)	(1966)	(1981)	(1968)	(1988)	(1986)	(1986)	(1988)	(1988)	(2002)	(2005)



03281000 MIDDLE FORK KENTUCKY RIVER AT TALLEGA, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1961 - 2005	
ANNUAL TOTAL	499,962		329,200		796	
ANNUAL MEAN	1,366		902		1,492	
HIGHEST ANNUAL MEAN					1994	
LOWEST ANNUAL MEAN					267	
HIGHEST DAILY MEAN	9,250	May 31	5,450	Apr 30	10,300	Feb 27, 1962
LOWEST DAILY MEAN	47	Sep 6	33	Aug 24	3.7	Nov 15, 2001
ANNUAL SEVEN-DAY MINIMUM	78	Aug 17	35	Sep 3	4.4	Nov 10, 2001
MAXIMUM PEAK FLOW			6,950	Apr 30	52,700	Jan 30, 1957
MAXIMUM PEAK STAGE			21.02	Apr 30	43.33	Jan 30, 1957
INSTANTANEOUS LOW FLOW					0.10	Oct 12, 1953
ANNUAL RUNOFF (CFSM)	2.54		1.68		1.48	
ANNUAL RUNOFF (INCHES)	34.63		22.80		20.13	
10 PERCENT EXCEEDS	3,860		2,770		2,560	
50 PERCENT EXCEEDS	626		512		306	
90 PERCENT EXCEEDS	204		45		63	



## 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<sup>2</sup>.

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<sup>3</sup>/s, 37.3 ft, discharge, 29,800 ft<sup>3</sup>/s, and 33.5 ft, discharge, 21,500 ft<sup>3</sup>/s, respectively, present site.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec 1	1130	*5,660	*20.10	Apr 30	1215	5,300	19.37
Dec 9	2115	4,500	17.68				

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	104	4,790	140	342	711	883	1,560	26	39	11	6.3
2	38	89	1,300	131	274	545	3,610	602	29	107	8.9	5.5
3	42	80	581	130	249	412	1,920	372	33	46	7.6	4.8
4	e37	357	385	148	213	321	885	266	34	27	6.4	4.4
5	e31	425	284	440	185	383	540	207	33	58	5.4	3.9
6	27	252	333	547	169	322	384	173	27	49	4.9	3.6
7	23	184	988	662	157	294	306	146	24	45	5.1	3.3
8	21	143	1,020	2,230	161	512	267	126	28	45	4.0	3.1
9	19	111	1,960	1,130	152	546	217	109	30	43	4.0	3.1
10	18	95	2,800	613	177	455	184	96	32	24	3.6	3.1
11	17	84	1,420	535	168	382	162	84	33	20	3.2	3.0
12	17	245	886	950	165	319	158	77	26	19	3.1	2.9
13	34	368	582	772	206	262	287	70	25	65	2.9	3.1
14	47	266	394	1,980	876	218	1,390	65	26	126	2.6	e2.7
15	49	202	294	934	946	187	709	76	34	131	3.2	e2.8
16	49	167	240	570	621	195	439	62	23	114	8.7	e3.3
17	38	144	213	388	432	208	318	52	18	168	10	e2.8
18	35	125	184	282	322	198	253	46	15	153	34	e3.8
19	292	117	171	241	261	193	209	45	13	244	21	e3.1
20	169	126	142	222	241	186	177	334	12	112	9.6	e4.0
21	110	152	133	199	424	171	153	167	46	66	6.4	e5.0
22	84	142	128	173	705	160	138	107	27	72	4.7	e3.7
23	71	165	304	152	521	160	155	93	18	72	4.2	e2.5
24	77	576	376	119	400	153	145	77	14	41	3.5	e2.3
25	77	867	316	123	307	136	125	61	12	28	3.3	2.2
26	66	458	269	124	248	129	111	52	9.8	21	4.6	3.5
27	87	320	220	115	208	123	130	45	8.8	21	7.2	2.9
28	99	286	185	97	384	2,060	109	39	8.7	32	5.3	2.7
29	134	217	174	174	---	1,450	228	35	9.2	29	10	4.0
30	149	594	167	433	---	719	3,470	32	9.9	20	9.0	3.2
31	126	---	155	414	---	807	---	28	---	14	6.4	---
TOTAL	2,118	7,461	21,394	15,168	9,514	12,917	18,062	5,304	684.4	2,051	223.8	104.6
MEAN	68.3	249	690	489	340	417	602	171	22.8	66.2	7.22	3.49
MAX	292	867	4,790	2,230	946	2,060	3,610	1,560	46	244	34	6.3
MIN	17	80	128	97	152	123	109	28	8.7	14	2.6	2.2
CFSM	0.42	1.53	4.23	3.00	2.08	2.56	3.69	1.05	0.14	0.41	0.04	0.02
IN.	0.48	1.70	4.88	3.46	2.17	2.95	4.12	1.21	0.16	0.47	0.05	0.02

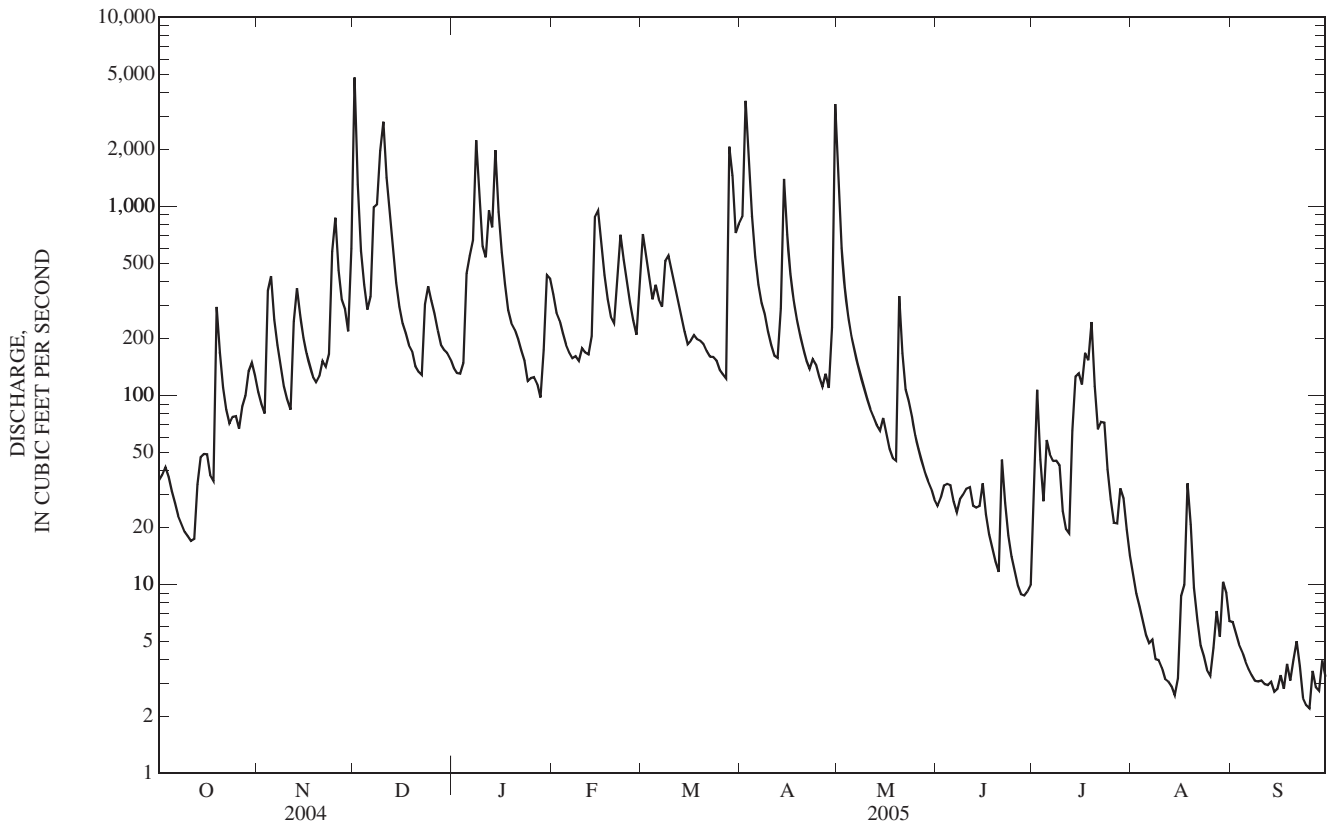
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2005, BY WATER YEAR (WY)

MEAN	76.6	189	362	439	489	512	437	295	161	91.8	52.1	50.8
MAX	600	646	1,229	1,205	1,196	1,665	1,308	1,158	975	381	178	334
(WY)	(1990)	(1978)	(1991)	(1974)	(1972)	(1975)	(1998)	(1984)	(1989)	(1965)	(1977)	(2004)
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1965 - 2005	
ANNUAL TOTAL	126,561		95,001.8		262	
ANNUAL MEAN	346		260		456	
HIGHEST ANNUAL MEAN					1994	
LOWEST ANNUAL MEAN					1988	
HIGHEST DAILY MEAN	8,110	Feb 6	4,790	Dec 1	13,700	May 7, 1984
LOWEST DAILY MEAN	13	Sep 3	2.2	Sep 25	0.00	Oct 8, 1980
ANNUAL SEVEN-DAY MINIMUM	20	Oct 6	2.8	Sep 22	0.16	Oct 4, 1980
MAXIMUM PEAK FLOW			5,660	Dec 1	19,200	May 7, 1984
MAXIMUM PEAK STAGE			20.10	Dec 1	32.85	May 7, 1984
INSTANTANEOUS LOW FLOW					0.00	Oct 8, 1980
ANNUAL RUNOFF (CFSM)	2.12		1.60		1.61	
ANNUAL RUNOFF (INCHES)	28.88		21.68		21.82	
10 PERCENT EXCEEDS	804		587		560	
50 PERCENT EXCEEDS	150		126		90	
90 PERCENT EXCEEDS	37		4.3		6.2	

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<sup>2</sup>.

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 good 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<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec 1	2300	18,200	27.59	May 1	0030	*20,600	*29.52
Dec 10	1045	14,100	23.72				

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	203	843	14,300	741	1,840	3,210	3,060	15,000	145	213	75	26
2	197	678	12,900	679	1,560	2,920	11,000	4,110	137	145	62	23
3	222	573	3,950	642	1,390	2,170	11,200	2,140	149	165	52	28
4	207	4,430	2,450	e680	1,250	1,790	5,250	1,460	157	158	44	26
5	184	4,920	1,780	e1,600	1,070	1,900	2,950	1,090	151	111	38	21
6	166	2,310	1,910	e1,800	949	2,090	1,980	857	144	88	33	17
7	152	1,560	4,270	e2,100	869	1,880	1,520	710	133	99	44	14
8	135	1,190	6,140	e5,800	852	2,360	1,340	599	117	108	47	11
9	123	883	5,650	e4,500	842	2,760	1,090	511	113	117	31	9.3
10	120	688	13,000	e3,000	887	2,390	883	442	144	108	23	7.8
11	113	585	7,640	e2,100	944	2,050	754	388	162	101	18	6.8
12	109	690	4,910	3,160	900	1,810	685	343	158	83	17	7.3
13	132	1,440	3,440	3,220	934	1,580	777	338	146	95	19	6.9
14	175	1,440	2,310	5,990	2,200	1,370	2,850	329	129	112	24	5.6
15	211	1,170	1,760	5,530	4,200	1,210	3,280	309	126	295	24	4.8
16	219	970	1,450	3,250	3,220	1,090	1,860	323	125	370	40	4.2
17	207	844	1,270	2,270	2,440	1,120	1,340	270	127	377	31	3.8
18	187	730	1,130	1,680	1,880	1,060	1,050	237	104	345	53	3.6
19	1,350	664	1,010	1,410	1,560	996	863	218	88	578	87	3.7
20	1,880	624	872	1,290	1,360	954	724	732	77	734	84	3.8
21	1,020	630	737	1,180	2,110	881	622	1,290	69	371	77	4.2
22	667	649	714	1,030	2,610	800	557	659	66	247	58	e3.8
23	499	633	988	899	2,490	766	554	491	92	193	44	e3.4
24	513	878	1,640	705	2,020	795	618	406	92	179	33	e3.3
25	498	2,870	1,500	632	1,680	715	567	325	72	148	26	e3.2
26	443	2,380	1,380	665	1,400	644	492	271	57	117	21	e3.1
27	2,780	1,680	1,220	637	1,190	620	523	240	47	99	18	e4.0
28	2,530	1,530	1,010	547	1,530	4,150	528	214	40	88	17	e4.5
29	1,590	1,340	929	725	---	8,130	790	189	35	77	17	e4.9
30	1,300	1,780	871	1,960	---	4,240	13,700	169	110	97	27	e5.1
31	1,080	---	779	2,180	---	2,620	---	156	---	91	28	---
TOTAL	19,212	41,602	103,910	62,602	46,177	61,071	73,407	34,816	3,312	6,109	1,212	273.1
MEAN	620	1,387	3,352	2,019	1,649	1,970	2,447	1,123	110	197	39.1	9.10
MAX	2,780	4,920	14,300	5,990	4,200	8,130	13,700	15,000	162	734	87	28
MIN	109	573	714	547	842	620	492	156	35	77	17	3.1
CFSM	0.86	1.92	4.64	2.80	2.28	2.73	3.39	1.56	0.15	0.27	0.05	0.01
IN.	0.99	2.14	5.35	3.23	2.38	3.15	3.78	1.79	0.17	0.31	0.06	0.01

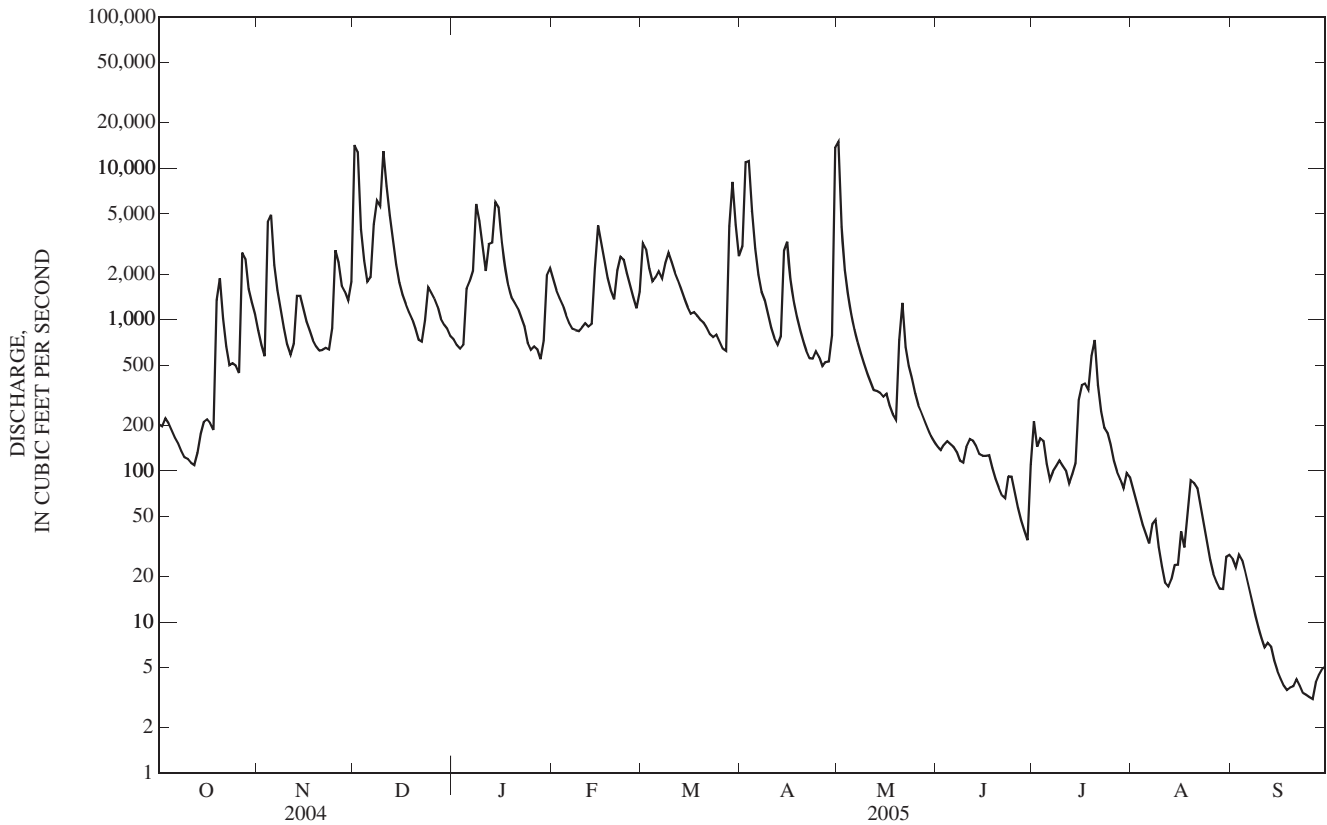
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2005, BY WATER YEAR (WY)

MEAN	215	669	1,360	1,815	2,128	2,266	1,732	1,129	627	401	263	175
MAX	2,843	2,380	4,935	5,461	5,905	7,400	4,703	5,130	2,950	2,666	1,700	1,844
(WY)	(1990)	(1974)	(1991)	(1974)	(1956)	(1975)	(1998)	(1984)	(2003)	(1941)	(1942)	(2004)
MIN	0.08	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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1925 - 2005	
ANNUAL TOTAL	668,407		453,703.1		1,064	
ANNUAL MEAN	1,826		1,243		413	
HIGHEST ANNUAL MEAN					1,808	1994
LOWEST ANNUAL MEAN					413	1988
HIGHEST DAILY MEAN	26,400	Feb 7	15,000	May 1	51,300	Jan 30, 1957
LOWEST DAILY MEAN	109	Oct 12	3.1	Sep 26	0.00	Oct 11, 1953
ANNUAL SEVEN-DAY MINIMUM	126	Oct 7	3.5	Sep 20	0.00	Oct 11, 1953
MAXIMUM PEAK FLOW			20,600	May 1	66,100	Jan 30, 1957
MAXIMUM PEAK STAGE			29.52	May 1	43.40	Jan 30, 1957
INSTANTANEOUS LOW FLOW					0.00	Oct 11, 1953
ANNUAL RUNOFF (CFSM)	2.53		1.72		1.47	
ANNUAL RUNOFF (INCHES)	34.44		23.38		20.02	
10 PERCENT EXCEEDS	4,060		2,890		2,420	
50 PERCENT EXCEEDS	830		644		363	
90 PERCENT EXCEEDS	225		24		27	

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<sup>2</sup>.

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 625.77 ft NGVD of 1929, 625.70 ft Ohio River Datum, 626.66 ft Kentucky River Datum. Prior to September 2, 1939, nonrecording gage at Lock 14 at same datum.

REMARKS.--Records fair except for those below 150 ft<sup>3</sup>/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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,150	3,600	25,300	2,450	7,570	8,370	10,400	41,200	751	814	480	328
2	1,110	2,760	32,200	2,330	6,300	10,600	24,900	20,500	721	850	392	271
3	1,120	2,500	16,400	2,260	5,390	8,630	29,500	11,800	737	1,200	322	223
4	1,150	6,390	10,900	2,350	4,640	6,960	20,100	9,030	815	1,010	291	194
5	1,040	12,900	9,170	4,480	3,980	6,100	14,000	7,230	1,070	832	284	172
6	974	9,040	7,880	6,270	3,510	6,490	10,600	5,850	1,070	687	259	157
7	917	6,570	11,000	7,510	3,170	6,180	8,890	4,690	876	560	243	148
8	821	4,840	15,400	23,800	3,060	7,080	8,010	3,470	747	548	253	143
9	704	3,560	13,600	21,000	3,020	8,740	6,990	2,790	1,070	918	260	137
10	671	2,690	28,500	12,500	3,040	8,600	6,050	2,380	924	1,370	240	132
11	653	2,400	25,100	10,000	3,140	7,580	5,220	2,070	1,120	974	237	127
12	679	2,650	17,700	8,570	3,260	6,660	4,170	1,900	1,530	753	219	123
13	733	3,540	14,100	8,800	3,180	6,050	3,420	1,750	1,530	735	233	120
14	822	4,220	11,100	10,900	5,000	5,490	5,220	1,630	1,060	678	270	119
15	1,020	3,890	8,910	13,400	8,850	4,840	9,440	1,530	858	1,270	238	117
16	1,030	3,460	6,840	10,800	8,560	4,280	8,190	1,510	747	1,440	298	114
17	1,020	3,140	5,640	8,450	7,570	4,060	5,610	1,400	e721	1,440	363	112
18	964	2,900	4,950	6,900	6,390	4,080	4,480	1,270	e631	1,460	317	110
19	2,440	2,670	3,850	5,010	5,240	3,880	3,770	1,110	e531	1,730	374	109
20	4,570	2,670	3,140	4,190	4,430	3,730	3,230	1,500	e476	2,640	470	109
21	3,020	2,760	2,750	3,880	5,580	3,500	2,840	3,420	417	2,890	550	112
22	2,230	2,770	2,540	3,560	7,920	3,170	2,540	3,070	674	1,940	409	113
23	1,760	2,650	3,030	3,180	7,840	2,930	2,310	2,250	781	1,210	291	123
24	1,640	2,820	4,100	2,790	6,760	2,960	2,550	1,890	640	1,100	225	121
25	1,740	5,120	4,320	2,510	5,640	3,210	2,520	1,680	464	782	193	113
26	1,630	6,770	4,000	2,480	4,840	3,020	2,290	1,460	360	623	179	112
27	5,410	6,030	3,590	2,590	4,040	2,780	2,290	1,250	297	546	186	110
28	11,000	5,340	3,080	2,410	4,150	7,580	2,280	1,040	275	584	203	105
29	8,120	4,750	2,830	2,480	---	19,000	2,690	933	269	587	213	109
30	5,690	5,000	2,720	6,050	---	15,200	31,300	890	296	626	202	118
31	4,540	---	2,530	8,130	---	11,500	---	808	---	547	311	---
TOTAL	70,368	130,400	307,170	212,030	146,070	203,250	245,800	143,301	22,458	33,344	9,005	4,201
MEAN	2,270	4,347	9,909	6,840	5,217	6,556	8,193	4,623	749	1,076	290	140
MAX	11,000	12,900	32,200	23,800	8,850	19,000	31,300	41,200	1,530	2,890	550	328
MIN	653	2,400	2,530	2,260	3,020	2,780	2,280	808	269	546	179	105

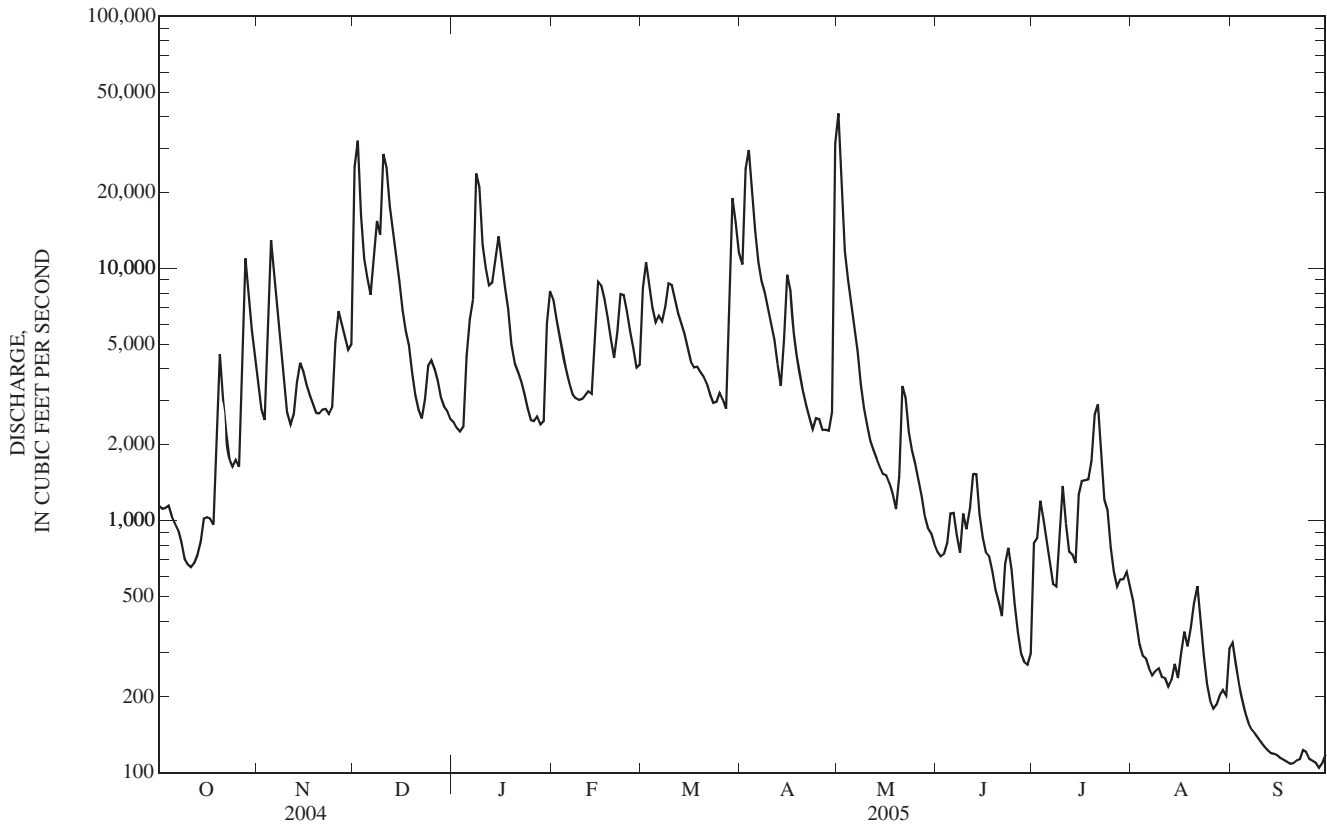
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2005, BY WATER YEAR (WY)

MEAN	1,291	2,683	4,840	5,832	7,343	7,410	6,347	4,999	2,933	1,295	1,010	966
MAX	10,380	7,006	14,850	14,010	17,660	18,260	15,260	16,010	10,630	3,320	3,006	6,864
(WY)	(1990)	(1978)	(1991)	(1994)	(2003)	(1994)	(1998)	(1984)	(2003)	(1992)	(1977)	(2004)
MIN	232	263	582	362	2,345	1,791	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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1977 - 2005	
ANNUAL TOTAL	2,165,603		1,527,397		3,894	
ANNUAL MEAN	5,917		4,185		6,973	
HIGHEST ANNUAL MEAN					1,461	
LOWEST ANNUAL MEAN					85,900	
HIGHEST DAILY MEAN	58,300	Feb 7	41,200	May 1	120,000	May 8, 1984
LOWEST DAILY MEAN	561	Aug 22	105	Sep 28	45	Jul 10, 1988
ANNUAL SEVEN-DAY MINIMUM	668	Aug 18	111	Sep 16	51	Sep 11, 1999
MAXIMUM PEAK FLOW			46,100	May 1	35.60	Feb 4, 1939
MAXIMUM PEAK STAGE			21.50	May 1	4.0	Oct 20, 1930
INSTANTANEOUS LOW FLOW					9,770	
10 PERCENT EXCEEDS	13,600		9,280		1,670	
50 PERCENT EXCEEDS	3,240		2,550		283	
90 PERCENT EXCEEDS	1,030		230			

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<sup>2</sup>.

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

GAGE.--Water-stage recorder with telemetry 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<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 27	0745	2,490	8.98	Mar 28	0815	2,290	8.67
Dec 7	1115	2,220	8.58	Apr 2	0215	3,090	9.80
Jan 8	0315	5,270	12.37	Apr 30	0645	*8,060	*14.73

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	101	2,120	71	180	237	356	567	6.8	21	1.9	0.92
2	23	85	487	75	146	197	1,710	283	6.6	7.0	1.4	0.78
3	30	74	287	79	136	165	661	191	7.7	4.0	0.99	0.57
4	23	603	205	90	112	143	340	142	8.5	2.8	0.77	0.48
5	19	353	157	214	98	188	231	108	7.7	2.5	0.59	0.45
6	16	217	265	288	89	161	171	92	6.4	2.7	0.48	0.37
7	14	158	1,080	474	81	151	142	76	60	2.2	0.36	0.30
8	14	116	519	2,440	83	343	132	65	47	1.9	0.33	0.27
9	13	90	706	511	77	276	103	55	21	2.2	0.29	0.25
10	12	75	965	302	80	218	86	47	14	2.3	0.29	0.21
11	12	68	507	231	71	186	75	42	12	1.4	0.42	0.18
12	13	122	322	193	67	162	77	35	12	1.1	0.46	0.16
13	33	101	239	188	78	136	95	36	9.9	32	0.39	0.14
14	25	86	178	679	405	113	160	32	8.5	34	0.38	0.12
15	22	79	142	346	381	101	130	30	7.0	53	0.32	0.10
16	22	74	118	250	265	94	111	26	5.8	36	0.45	0.09
17	19	69	106	184	194	86	98	22	5.0	26	2.2	0.08
18	17	64	93	140	152	76	87	19	e4.4	18	2.2	0.07
19	416	77	85	122	125	68	76	17	e4.0	20	1.2	0.06
20	163	73	67	112	115	65	67	75	e3.4	24	0.75	0.04
21	102	67	66	104	349	58	60	41	e2.7	15	0.61	0.03
22	73	64	65	91	267	53	70	27	2.3	11	0.41	0.02
23	60	65	210	76	206	65	74	33	2.0	10	0.34	0.01
24	94	141	184	72	170	88	76	26	1.8	6.9	0.28	0.01
25	83	193	150	64	139	70	74	19	1.6	4.9	0.28	0.00
26	69	160	132	66	112	65	66	16	1.3	3.7	0.57	0.01
27	1,150	142	108	59	99	65	98	13	1.1	3.1	0.89	0.01
28	440	175	93	47	167	1,080	81	11	0.93	4.3	0.65	0.00
29	252	146	92	131	---	538	194	9.7	0.83	4.4	0.68	0.04
30	178	589	86	280	---	298	3,800	8.6	1.1	3.3	0.78	0.02
31	132	---	77	226	---	224	---	7.7	---	2.5	0.95	---
TOTAL	3,560	4,427	9,911	8,205	4,444	5,770	9,501	2,172.0	273.36	363.2	22.61	5.79
MEAN	115	148	320	265	159	186	317	70.1	9.11	11.7	0.73	0.19
MAX	1,150	603	2,120	2,440	405	1,080	3,800	567	60	53	2.2	0.92
MIN	12	64	65	47	67	53	60	7.7	0.83	1.1	0.28	0.00
CFSM	1.49	1.91	4.14	3.42	2.05	2.41	4.10	0.91	0.12	0.15	0.01	0.00
IN.	1.71	2.13	4.77	3.95	2.14	2.78	4.57	1.05	0.13	0.17	0.01	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2005, BY WATER YEAR (WY)

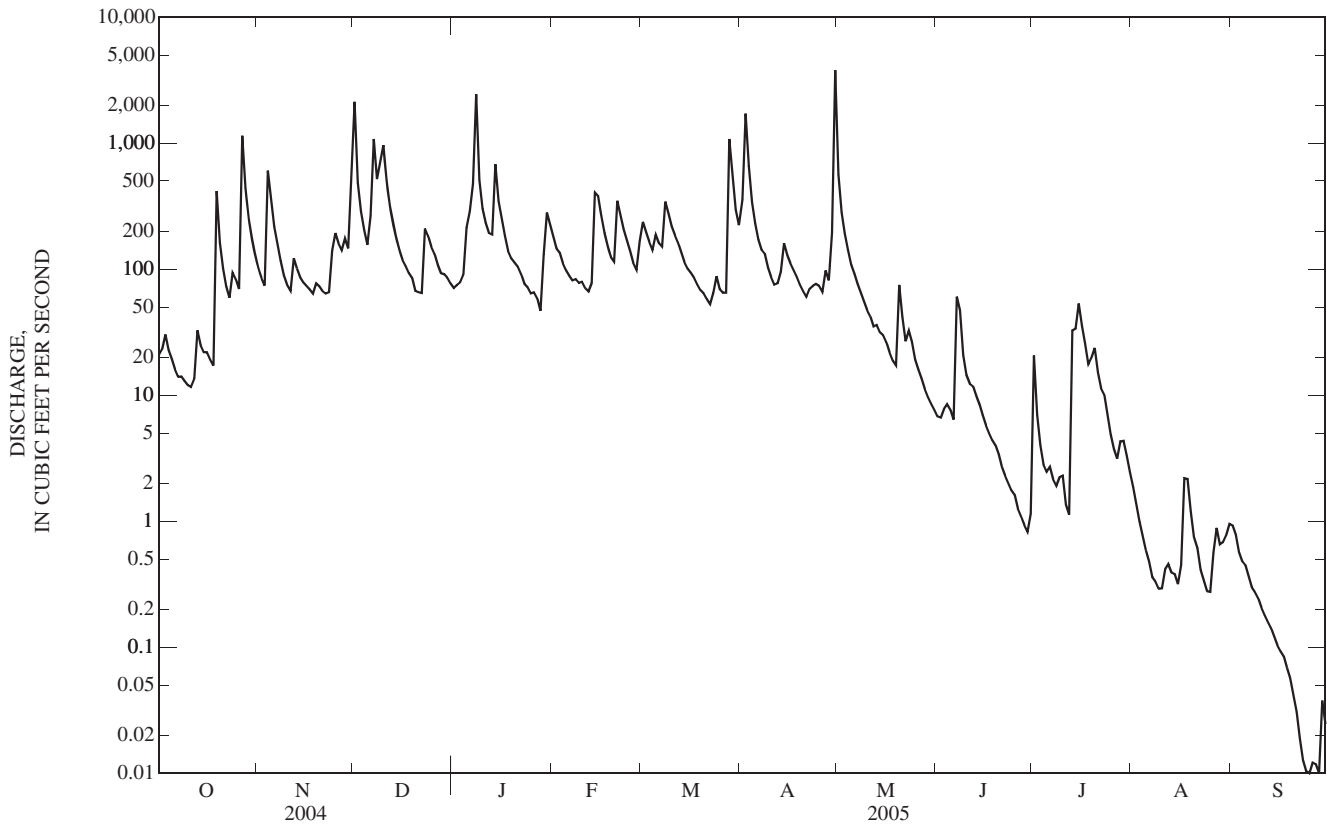
MEAN	36.0	79.8	135	209	222	236	201	146	108	35.2	30.1	38.1
MAX	115	246	320	403	544	540	441	345	304	157	219	323
(WY)	(2005)	(1997)	(2005)	(1994)	(2003)	(1994)	(1998)	(1995)	(1997)	(2004)	(2003)	(2004)
MIN	1.22	2.70	16.8	30.3	76.4	65.8	49.6	22.4	2.20	1.22	0.11	0.19
(WY)	(2001)	(2001)	(2000)	(2000)	(2002)	(2003)	(1997)	(2001)	(1999)	(1999)	(1999)	(2005)



03282040 STURGEON CREEK AT CRESSMONT, KY—Continued

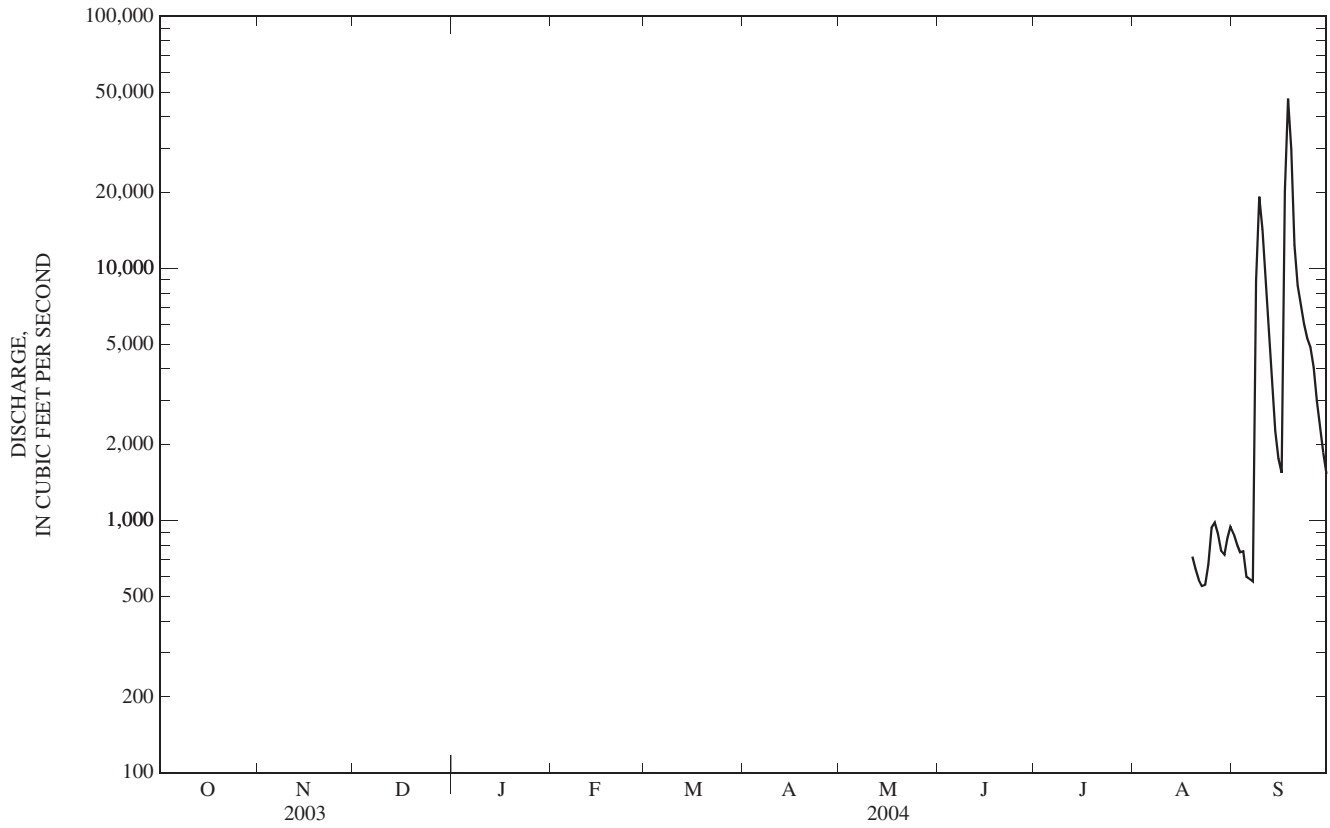
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1993 - 2005	
ANNUAL TOTAL	73,359.2		48,654.96		122	
ANNUAL MEAN	200		133		195	
HIGHEST ANNUAL MEAN					1994	
LOWEST ANNUAL MEAN					2000	
HIGHEST DAILY MEAN	5,530	Sep 17	3,800	Apr 30	5,530	Sep 17, 2004
LOWEST DAILY MEAN	4.0	Sep 2	0.00	Sep 25	0.00	Aug 18, 1999
ANNUAL SEVEN-DAY MINIMUM	7.1	Aug 28	0.01	Sep 22	0.00	Aug 18, 1999
MAXIMUM PEAK FLOW			8,120	Apr 30	11,800	Sep 17, 2004
MAXIMUM PEAK STAGE			14.73	Apr 30	17.30	Sep 17, 2004
INSTANTANEOUS LOW FLOW			0.00	Sep 23	0.00	Aug 18, 1999
ANNUAL RUNOFF (CFSM)	2.59		1.72		1.58	
ANNUAL RUNOFF (INCHES)	35.30		23.41		21.50	
10 PERCENT EXCEEDS	442		281		276	
50 PERCENT EXCEEDS	84		67		43	
90 PERCENT EXCEEDS	18		0.42		1.9	

e Estimated





03282060 KENTUCKY RIVER AT LOCK 13 NEAR WILLOW, KY—Continued





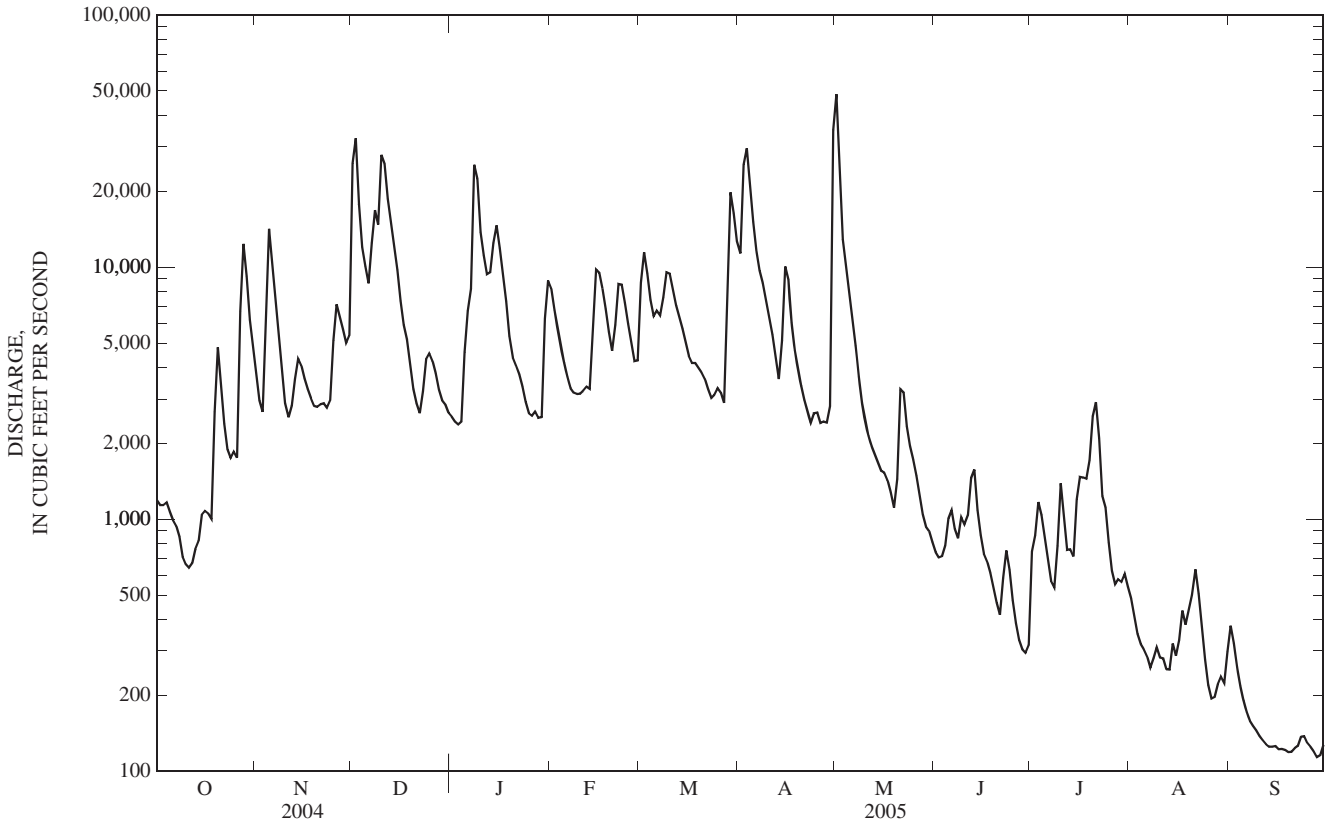
03282060 KENTUCKY RIVER AT LOCK 13 NEAR WILLOW, KY—Continued

SUMMARY STATISTICS

FOR 2005 WATER YEAR

WATER YEARS 2004 - 2005

ANNUAL TOTAL	1,624,929			
ANNUAL MEAN	4,452		4,452	
HIGHEST ANNUAL MEAN			4,452	2005
LOWEST ANNUAL MEAN			4,452	2005
HIGHEST DAILY MEAN	48,500	May 1	48,500	May 1, 2005
LOWEST DAILY MEAN	114	Sep 28	114	Sep 28, 2005
ANNUAL SEVEN-DAY MINIMUM	122	Sep 15	122	Sep 15, 2005
MAXIMUM PEAK FLOW	54,800	May 1	54,800	May 1, 2005
MAXIMUM PEAK STAGE	24.55	May 1	24.55	May 1, 2005
10 PERCENT EXCEEDS	10,100		10,100	
50 PERCENT EXCEEDS	2,670		2,670	
90 PERCENT EXCEEDS	259		259	



## 03282120 KENTUCKY RIVER AT LOCK 12 NEAR IRVINE, KY

LOCATION.--Lat 37°40'42", long 83°56'54", Estill County, Hydrologic Unit 05100205, on right upstream bank of Lock 12 at Irvine, 2.4 mi upstream from station Camp Creek, 4.7 mi downstream from Millers Creek, and at mile 220.9.

DRAINAGE AREA.--2,916 mi<sup>2</sup> of which 16.4 mi<sup>2</sup> is non-contributing.

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

GAGE.--Water-stage recorder with telemetry. Datum of gage is 593.53 ft above NGVD of 1929 or 593.00 ft above Kentucky River Datum.

REMARKS.--Records fair except for periods of estimated records 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.--Kentucky River Authority and U.S. Army Corps of Engineers, Louisville District.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,310	4,270	21,400	2,740	8,560	7,880	11,200	40,800	802	609	491	389
2	1,200	3,320	30,100	2,690	7,200	11,200	21,400	28,700	757	874	421	357
3	1,200	2,930	19,800	2,650	6,050	9,890	28,200	13,500	756	1,080	356	300
4	1,210	5,590	12,200	2,700	5,210	7,920	21,500	10,400	808	1,100	314	257
5	1,140	13,900	10,400	4,810	4,470	6,710	15,300	8,260	959	916	295	227
6	1,040	10,700	9,090	7,260	3,930	6,830	11,900	6,570	1,140	774	284	204
7	989	7,720	11,900	8,680	3,520	6,740	10,000	5,300	1,020	623	259	190
8	918	5,700	16,200	23,700	3,340	8,180	8,990	4,130	975	550	262	179
9	799	4,220	14,300	24,200	3,300	9,690	7,760	3,170	1,070	e815	284	174
10	729	3,170	23,100	14,200	3,330	9,760	6,710	2,730	1,080	e1,360	276	168
11	697	2,690	25,600	11,400	3,390	8,620	5,760	2,320	1,020	e1,080	272	162
12	722	3,070	18,500	9,660	3,510	7,510	4,790	2,080	1,380	e850	256	156
13	852	3,650	15,000	9,600	3,540	6,770	3,960	1,920	1,640	824	243	152
14	875	4,450	12,200	11,900	5,100	6,080	4,670	1,780	1,240	798	289	148
15	1,020	4,320	10,100	14,200	9,430	5,410	9,430	1,650	957	1,030	285	142
16	1,090	3,830	7,930	12,100	9,820	4,790	9,350	1,580	808	1,500	302	141
17	1,080	3,480	6,250	9,690	8,560	4,400	6,680	1,510	738	1,490	401	139
18	1,040	3,180	5,480	7,740	7,270	4,360	5,000	1,370	668	1,480	373	137
19	2,980	3,040	4,470	5,830	5,930	4,230	4,280	1,210	587	1,670	395	135
20	5,030	2,980	3,550	4,660	5,010	4,010	3,640	1,490	508	2,370	418	133
21	3,830	3,000	3,080	4,270	5,900	3,810	3,190	2,960	450	2,930	556	134
22	2,710	3,020	2,800	3,960	8,530	3,510	2,920	3,440	522	2,400	504	136
23	2,130	2,930	3,380	3,560	8,880	3,210	2,620	2,580	761	1,400	394	141
24	1,990	3,080	4,430	3,090	7,670	3,280	2,820	2,070	696	1,170	303	148
25	2,020	4,820	4,760	2,800	6,430	3,420	2,880	1,810	539	901	247	143
26	1,930	7,180	4,510	2,660	5,440	3,410	2,650	1,580	423	677	230	141
27	6,000	6,660	4,040	2,740	4,640	3,090	2,740	1,350	355	575	224	134
28	12,400	6,040	3,530	2,680	4,390	7,220	2,670	1,130	317	601	241	128
29	10,100	5,300	3,150	2,710	---	18,200	3,190	986	303	582	268	127
30	6,890	5,680	3,030	5,910	---	16,300	27,600	930	319	606	274	131
31	5,340	---	2,830	8,850	---	13,000	---	869	---	558	285	---
TOTAL	81,261	143,920	317,110	233,640	162,350	219,430	253,800	160,175	23,598	34,193	10,002	5,253
MEAN	2,621	4,797	10,230	7,537	5,798	7,078	8,460	5,167	787	1,103	323	175
MAX	12,400	13,900	30,100	24,200	9,820	18,200	28,200	40,800	1,640	2,930	556	389
MIN	697	2,690	2,800	2,650	3,300	3,090	2,620	869	303	550	224	127
MED	1,200	4,030	7,930	5,830	5,330	6,740	5,380	2,070	759	901	285	146
AC-FT	161,200	285,500	629,000	463,400	322,000	435,200	503,400	317,700	46,810	67,820	19,840	10,420
CFSM	0.90	1.65	3.51	2.58	1.99	2.43	2.90	1.77	0.27	0.38	0.11	0.06
IN.	1.04	1.84	4.05	2.98	2.07	2.80	3.24	2.04	0.30	0.44	0.13	0.07

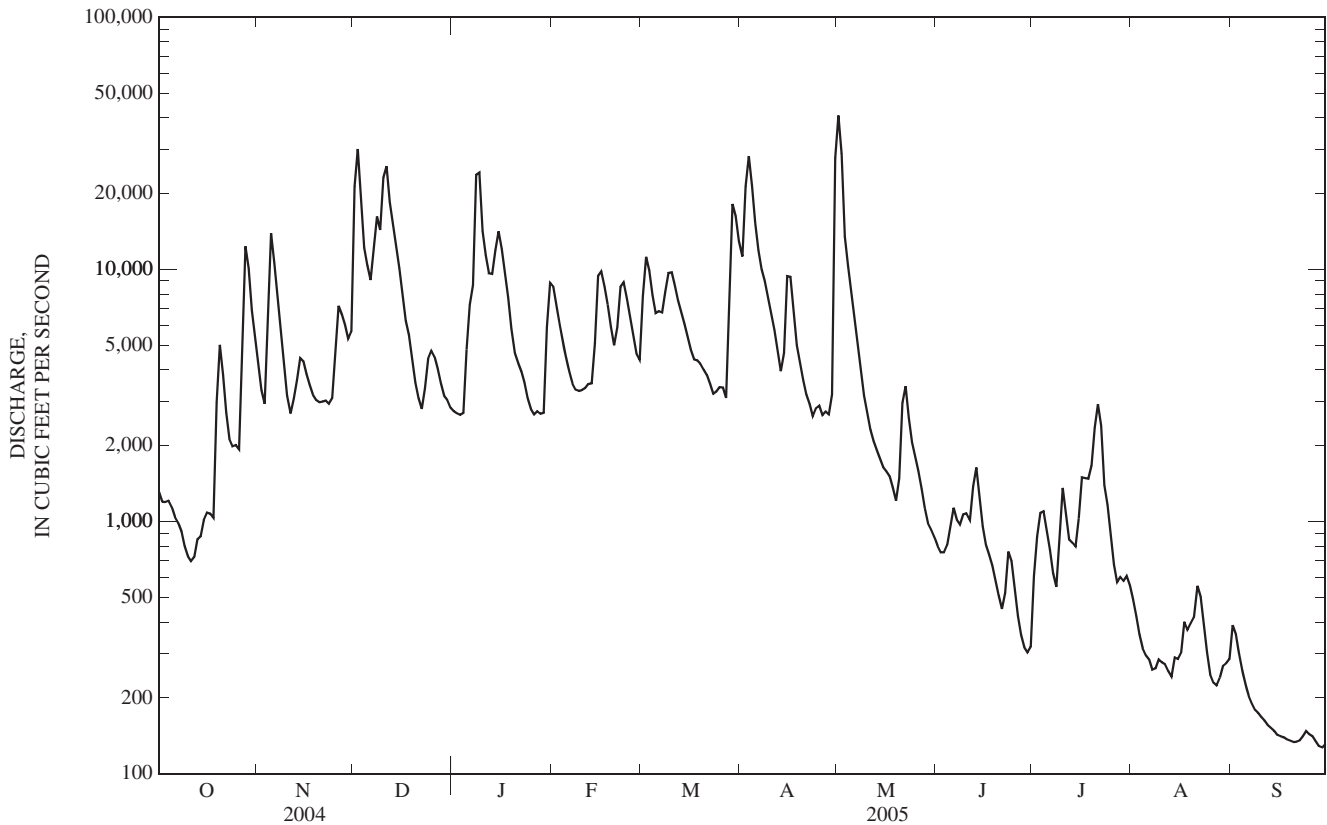
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2005, BY WATER YEAR (WY)

MEAN	1,211	3,090	5,516	5,727	8,641	6,358	7,144	5,484	4,320	1,933	1,384	2,199
MAX	2,621	6,608	10,230	9,677	16,440	9,091	11,430	8,365	9,066	3,023	2,525	7,487
(WY)	(2005)	(2004)	(2005)	(2004)	(2003)	(2002)	(2003)	(2002)	(2003)	(2004)	(2003)	(2004)
MIN	365	284	1,443	2,694	2,974	4,524	2,661	1,040	787	1,077	283	175
(WY)	(2001)	(2002)	(2002)	(2003)	(2002)	(2003)	(2001)	(2001)	(2005)	(2002)	(2002)	(2005)

03282120 KENTUCKY RIVER AT LOCK 12 NEAR IRVINE, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2000 - 2005	
ANNUAL TOTAL	2,309,594		1,644,732		4,387	
ANNUAL MEAN	6,310		4,506		2,575	
HIGHEST ANNUAL MEAN					6,018	2004
LOWEST ANNUAL MEAN					2,575	2001
HIGHEST DAILY MEAN	48,300	Feb 7	40,800	May 1	57,900	Feb 18, 2003
LOWEST DAILY MEAN	596	Aug 23	127	Sep 29	56	Sep 16, 2002
ANNUAL SEVEN-DAY MINIMUM	709	Aug 18	136	Sep 24	82	Sep 12, 2002
MAXIMUM PEAK FLOW			41,700	May 1	58,600	Feb 18, 2003
MAXIMUM PEAK STAGE			26.35	May 1	35.02	Feb 18, 2003
INSTANTANEOUS LOW FLOW			100	Sep 29	100	Sep 29, 2005
ANNUAL RUNOFF (AC-FT)	4,581,000		3,262,000		3,179,000	
ANNUAL RUNOFF (CFSM)	2.16		1.55		1.50	
ANNUAL RUNOFF (INCHES)	29.46		20.98		20.44	
10 PERCENT EXCEEDS	14,900		10,500		10,400	
50 PERCENT EXCEEDS	3,680		2,920		2,160	
90 PERCENT EXCEEDS	1,100		270		370	

e Estimated



## 03282290 KENTUCKY RIVER AT LOCK 11 NEAR COLLEGE HILL, KY

LOCATION.--Lat 37°47'02", long 84°06'12", Estill County, Hydrologic Unit 05100205, on upstream right bank of Lock 11, 0.6 mi downstream from Flint Creek, 1.0 mi east of College Hill, 1.0 mi upstream from Lick Run, and at mile 201.

DRAINAGE AREA.--3,219 mi<sup>2</sup> of which 26.1 mi<sup>2</sup> is non-contributing.

PERIOD OF RECORD.--June 2002 to current year.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 575.60 feet above NGVD of 1929.

REMARKS.--Records good. 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.--Kentucky River Authority.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,340	4,810	22,000	3,060	9,180	7,630	11,900	38,500	772	466	492	387
2	1,160	3,810	31,000	3,050	7,910	11,300	22,100	34,700	727	814	430	372
3	1,130	3,270	25,900	3,100	6,680	10,600	30,100	17,900	721	948	373	323
4	1,130	6,610	14,300	3,120	5,800	8,520	26,500	11,300	754	1,070	327	279
5	1,080	14,700	11,300	5,650	5,000	7,210	18,300	9,000	847	917	309	245
6	972	12,000	10,100	8,570	4,400	7,090	13,100	7,180	1,050	772	301	219
7	913	8,620	13,000	10,200	3,940	7,150	10,600	5,840	1,040	640	273	200
8	849	6,390	19,400	25,700	3,730	9,880	9,500	4,670	947	548	261	187
9	748	4,790	16,800	29,800	3,670	10,600	8,290	3,550	1,080	561	275	177
10	662	3,640	23,300	18,700	3,700	10,500	7,190	3,010	1,140	1,070	280	171
11	647	2,980	28,700	12,900	3,750	9,370	6,210	2,530	971	1,130	274	163
12	668	3,770	23,200	10,700	3,820	8,240	5,310	2,210	1,230	858	263	152
13	881	4,090	17,600	10,100	3,930	7,360	4,470	2,020	1,590	819	248	148
14	935	4,710	13,700	12,800	5,510	6,630	4,660	1,860	1,320	832	271	144
15	970	4,730	11,000	15,600	9,560	5,920	8,740	1,730	979	927	297	140
16	1,040	4,240	8,780	13,600	10,600	5,260	9,750	1,610	799	1,430	298	139
17	1,030	3,850	6,840	10,700	9,240	4,790	7,390	1,550	705	1,480	355	137
18	999	3,510	5,990	8,520	7,910	4,670	5,460	1,400	648	1,550	365	129
19	3,270	3,420	5,060	6,650	6,510	4,560	4,680	1,250	580	1,580	362	125
20	5,450	3,390	4,020	5,280	5,540	4,310	3,990	1,680	513	2,120	382	121
21	4,530	3,300	3,460	4,760	6,390	4,100	3,520	2,640	457	2,840	471	121
22	3,130	3,300	3,110	4,420	9,060	3,810	3,220	3,620	453	2,600	495	125
23	2,400	3,230	4,110	3,990	9,570	3,500	2,880	2,840	632	1,570	414	128
24	2,270	3,400	5,020	3,460	8,410	3,530	2,960	2,180	663	1,160	333	136
25	2,240	5,130	5,210	3,140	7,110	3,650	3,090	1,870	560	928	275	137
26	2,120	7,410	5,000	2,950	6,000	3,720	2,890	1,630	446	694	253	138
27	6,230	7,210	4,490	2,960	5,160	3,400	3,120	1,390	378	565	249	131
28	14,400	6,700	3,970	2,930	4,810	7,010	3,030	1,160	342	556	246	126
29	11,800	5,940	3,540	3,210	---	19,800	3,590	986	321	559	402	124
30	7,880	6,920	3,390	6,160	---	19,400	25,500	900	320	561	588	123
31	5,970	---	3,180	9,140	---	14,500	---	844	---	545	369	---
TOTAL	88,844	159,870	356,470	264,920	176,890	238,010	272,040	173,550	22,985	33,110	10,531	5,247
MEAN	2,866	5,329	11,500	8,546	6,318	7,678	9,068	5,598	766	1,068	340	175
MAX	14,400	14,700	31,000	29,800	10,600	19,800	30,100	38,500	1,590	2,840	588	387
MIN	647	2,980	3,110	2,930	3,670	3,400	2,880	844	320	466	246	121

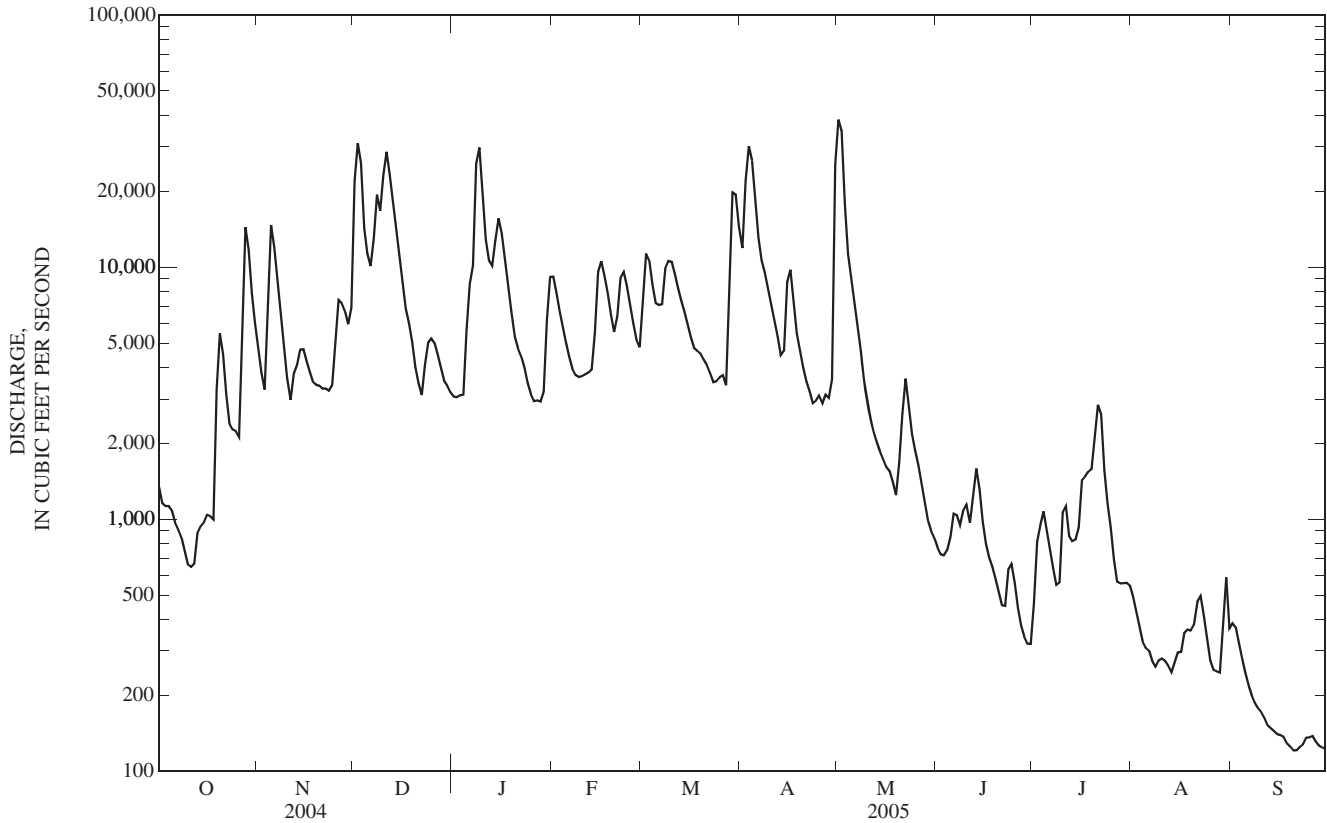
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2005, BY WATER YEAR (WY)

MEAN	1,890	5,478	8,753	7,448	11,250	6,357	9,378	6,517	7,069	1,840	1,238	2,849
MAX	2,866	7,340	11,500	10,880	17,400	7,678	11,810	7,664	10,310	3,210	2,738	8,121
(WY)	(2005)	(2004)	(2005)	(2004)	(2003)	(2005)	(2003)	(2003)	(2003)	(2004)	(2003)	(2004)
MIN	893	3,764	7,379	2,924	6,318	4,736	7,256	5,598	766	1,068	298	175
(WY)	(2004)	(2003)	(2003)	(2003)	(2005)	(2003)	(2004)	(2005)	(2005)	(2005)	(2002)	(2005)



03282290 KENTUCKY RIVER AT LOCK 11 NEAR COLLEGE HILL, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2002 - 2005	
ANNUAL TOTAL	2,549,435		1,802,467			
ANNUAL MEAN	6,966		4,938		5,908	
HIGHEST ANNUAL MEAN					6,615	2004
LOWEST ANNUAL MEAN					4,938	2005
HIGHEST DAILY MEAN	44,600	Feb 8	38,500	May 1	55,900	Feb 18, 2003
LOWEST DAILY MEAN	561	Aug 23	121	Sep 20	118	Sep 12, 2002
ANNUAL SEVEN-DAY MINIMUM	657	Aug 19	126	Sep 18	126	Sep 18, 2005
MAXIMUM PEAK FLOW			39,200	May 1	56,500	Feb 18, 2003
MAXIMUM PEAK STAGE			26.38	May 1	35.06	Feb 18, 2003
10 PERCENT EXCEEDS	17,000		11,500		13,200	
50 PERCENT EXCEEDS	4,180		3,180		3,540	
90 PERCENT EXCEEDS	1,090		275		635	



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<sup>2</sup>.

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

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

GAGE.--Water-stage recorder with telemetry, crest-stage gage, and concrete control. Datum of gage is 870.11 ft NGVD of 1929.

REMARKS.--Records good except for daily discharges below 2.0 ft<sup>3</sup>/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<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov 4	1345	1,310	5.65	Apr 2	1345	1,340	5.74
Dec 1	0845	1,450	6.06	Apr 30	1845	*3,390	*11.24
Jan 8	1445	1,720	6.82				

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

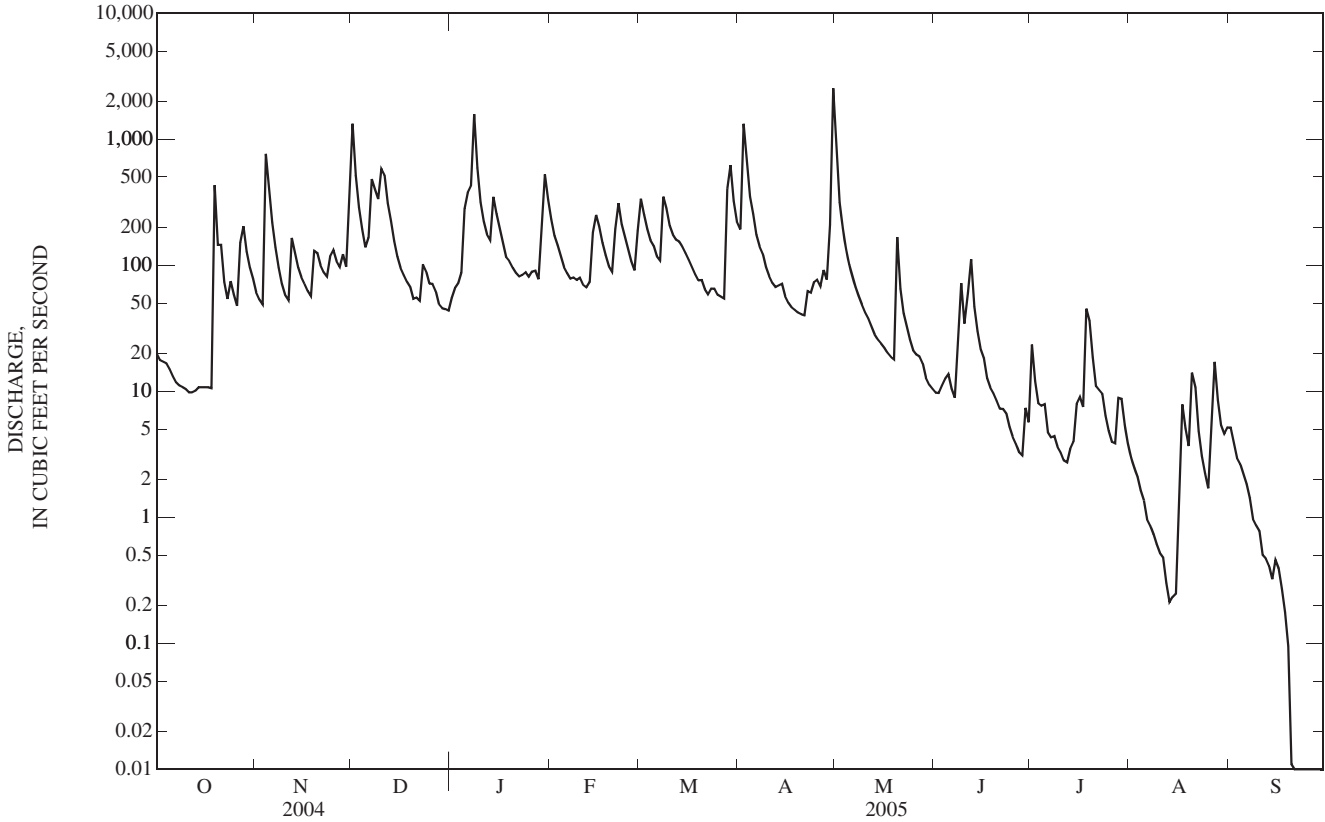
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	61	1,330	55	230	336	192	1,050	9.8	23	3.0	5.1
2	18	53	516	66	171	251	1,320	316	9.7	12	2.5	3.9
3	17	49	287	72	144	193	689	197	11	8.0	2.1	3.0
4	17	765	193	87	118	158	350	135	13	7.7	1.6	2.6
5	15	417	138	280	96	143	254	101	14	7.9	1.4	2.2
6	13	217	166	377	86	118	174	82	10	4.7	0.97	1.8
7	12	139	480	425	78	109	141	67	8.9	4.3	0.86	1.4
8	11	96	399	1,570	80	350	123	57	26	4.4	0.74	0.97
9	11	71	334	594	76	281	97	49	72	3.6	0.61	0.86
10	10	58	583	317	79	206	82	42	34	3.3	0.52	0.78
11	9.8	53	519	222	70	175	72	38	60	2.8	0.48	0.50
12	9.8	164	311	176	67	160	67	33	111	2.7	0.30	0.47
13	10	126	225	159	73	154	69	28	47	3.5	0.21	0.41
14	11	96	156	348	182	140	71	26	30	4.0	0.23	0.32
15	11	80	117	255	251	125	57	24	22	7.9	0.25	0.46
16	11	71	95	197	201	110	50	22	18	9.0	1.1	0.39
17	11	63	84	150	150	97	47	20	13	7.5	7.8	0.27
18	11	57	74	115	120	85	44	19	11	45	5.1	0.18
19	429	130	67	107	98	76	42	18	9.6	36	3.7	0.09
20	145	125	54	95	89	76	41	167	8.4	19	14	0.01
21	145	100	55	87	194	64	40	65	7.3	11	11	0.00
22	73	88	52	81	310	59	62	42	7.2	10	4.8	0.00
23	54	81	101	84	211	65	60	32	6.7	9.5	3.1	0.00
24	74	117	90	88	167	65	73	26	5.2	6.4	2.2	0.00
25	58	131	71	81	133	58	77	21	4.3	4.8	1.7	0.00
26	48	108	71	89	107	56	68	20	3.8	4.0	6.3	0.00
27	151	97	62	91	91	54	91	19	3.3	3.8	17	0.00
28	204	122	49	77	187	405	77	17	3.1	8.9	8.5	0.00
29	128	97	46	230	---	621	209	13	7.4	8.7	5.4	0.00
30	96	308	45	526	---	323	2,530	11	5.6	5.4	4.6	0.00
31	78	---	44	333	---	223	---	10	---	3.8	5.2	---
TOTAL	1,911.6	4,140	6,814	7,434	3,859	5,336	7,269	2,767	592.3	292.6	117.27	25.71
MEAN	61.7	138	220	240	138	172	242	89.3	19.7	9.44	3.78	0.86
MAX	429	765	1,330	1,570	310	621	2,530	1,050	111	45	17	5.1
MIN	9.8	49	44	55	67	54	40	10	3.1	2.7	0.21	0.00
CFSM	0.94	2.10	3.34	3.64	2.09	2.62	3.68	1.36	0.30	0.14	0.06	0.01
IN.	1.08	2.34	3.85	4.20	2.18	3.02	4.11	1.56	0.33	0.17	0.07	0.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 2005, BY WATER YEAR (WY)

MEAN	16.9	53.1	113	132	178	188	157	104	49.0	32.8	24.4	18.2
MAX	138	227	555	357	555	523	472	318	351	159	141	273
(WY)	(1990)	(1986)	(1979)	(1974)	(1989)	(1955)	(1972)	(1983)	(1997)	(2001)	(1974)	(2004)
MIN	0.22	0.54	2.76	17.5	27.6	49.1	16.6	13.9	1.19	0.99	0.27	0.05
(WY)	(1964)	(1956)	(1964)	(1981)	(1968)	(1969)	(1986)	(1986)	(1988)	(1999)	(1957)	(1999)

03282500 RED RIVER NEAR HAZEL GREEN, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1954 - 2005	
ANNUAL TOTAL	57,644.6		40,558.48			
ANNUAL MEAN	157		111		88.8	
HIGHEST ANNUAL MEAN					153	1994
LOWEST ANNUAL MEAN					39.6	1969
HIGHEST DAILY MEAN	3,510	May 31	2,530	Apr 30	6,170	Dec 9, 1978
LOWEST DAILY MEAN	3.6	Sep 2	0.00	Sep 21	0.00	Sep 14, 1954
ANNUAL SEVEN-DAY MINIMUM	5.6	Aug 17	0.00	Sep 21	0.00	Sep 12, 1955
MAXIMUM PEAK FLOW			3,390	Apr 30	9,080	Feb 27, 1962
MAXIMUM PEAK STAGE			11.24	Apr 30	22.12	Feb 27, 1962
INSTANTANEOUS LOW FLOW					0.00	Sep 14, 1954
ANNUAL RUNOFF (CFSM)	2.39		1.69		1.35	
ANNUAL RUNOFF (INCHES)	32.59		22.93		18.33	
10 PERCENT EXCEEDS	350		254		205	
50 PERCENT EXCEEDS	61		58		31	
90 PERCENT EXCEEDS	11		1.5		1.5	



KENTUCKY RIVER BASIN

03283500 RED RIVER AT CLAY CITY, KY

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

DRAINAGE AREA.--362 mi<sup>2</sup>.

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<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec 2	1500	5,140	14.74	May 1	1230	*9,630	*18.34
Jan 9	unknown	unknown	unknown				

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	141	500	3,730	486	1,060	1,010	931	8,020	83	73	35	201
2	135	465	4,490	516	815	960	e2,440	5,220	82	134	30	120
3	157	473	2,070	674	713	769	e3,890	1,180	95	89	e26	77
4	141	2,730	1,050	675	628	664	e2,500	790	120	67	22	54
5	121	3,800	779	1,360	543	614	1,230	595	116	63	20	41
6	105	1,440	723	e1,790	494	568	871	481	96	88	19	33
7	94	866	1,650	e1,920	462	607	705	410	87	100	17	28
8	87	651	2,520	e3,050	469	1,930	670	360	99	79	16	25
9	83	515	1,490	e7,250	473	1,560	610	321	147	48	16	22
10	79	447	1,710	e3,530	494	1,130	515	288	186	38	15	21
11	75	411	1,970	1,230	476	867	466	259	206	33	14	19
12	73	711	1,540	929	447	791	437	232	215	29	14	18
13	112	828	1,090	826	464	771	439	208	235	82	16	17
14	157	609	813	1,800	856	684	489	191	171	146	16	16
15	129	514	648	1,500	1,270	610	444	210	133	125	13	15
16	125	465	551	1,030	1,030	551	400	187	109	150	16	15
17	106	435	499	802	796	507	372	161	88	124	27	15
18	97	409	461	624	640	469	355	144	74	235	55	14
19	3,410	452	434	541	545	435	342	150	65	303	58	13
20	3,590	709	398	534	495	435	327	683	59	215	45	13
21	941	593	364	509	711	411	312	563	53	175	52	13
22	690	509	380	487	1,080	380	340	318	48	111	38	12
23	508	471	654	508	926	380	414	270	44	93	40	12
24	588	536	727	410	751	511	541	231	40	74	29	12
25	568	983	529	451	649	458	510	183	37	57	22	12
26	472	697	478	461	556	424	469	156	35	47	28	14
27	1,030	588	417	473	490	405	725	139	32	39	103	14
28	1,750	738	e410	422	574	1,380	578	124	30	35	153	17
29	1,030	691	401	713	---	2,990	685	112	30	37	251	24
30	732	1,120	399	1,350	---	1,990	3,480	100	40	54	542	22
31	597	---	389	1,280	---	1,130	---	90	---	46	241	---
TOTAL	17,923	24,356	33,764	38,131	18,907	26,391	26,487	22,376	2,855	2,989	1,989	929
MEAN	578	812	1,089	1,230	675	851	883	722	95.2	96.4	64.2	31.0
MAX	3,590	3,800	4,490	7,250	1,270	2,990	3,890	8,020	235	303	542	201
MIN	73	409	364	410	447	380	312	90	30	29	13	12

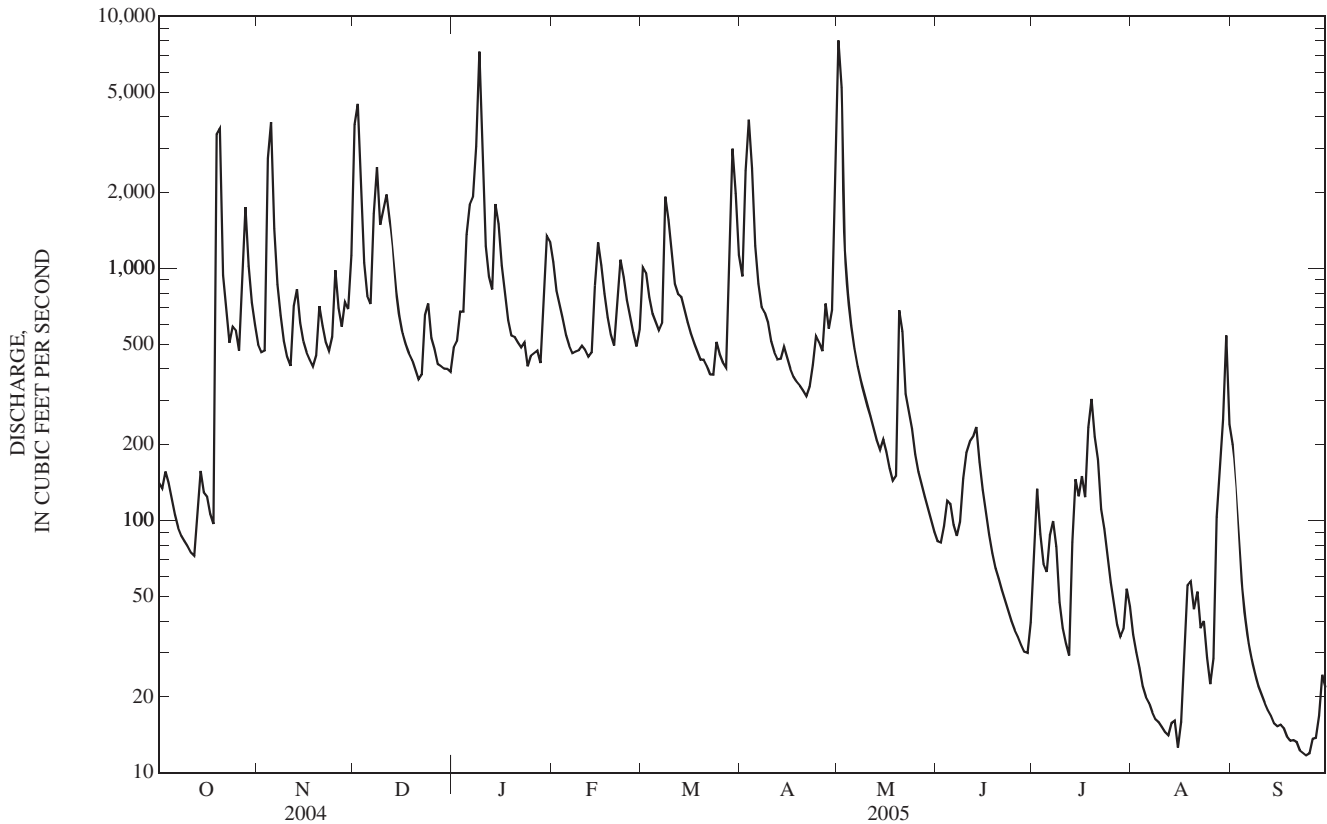
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2005, BY WATER YEAR (WY)

MEAN	96.3	285	604	776	1,009	1,062	823	562	321	267	179	125
MAX	928	1,220	3,036	2,634	3,564	3,048	2,406	1,943	2,246	1,845	1,179	1,602
(WY)	(1990)	(1987)	(1979)	(1950)	(1989)	(1955)	(1972)	(1995)	(1997)	(1938)	(1938)	(2004)
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1931 - 2005	
ANNUAL TOTAL	346,074		217,097		502	
ANNUAL MEAN	946		595		158	
HIGHEST ANNUAL MEAN					890	2004
LOWEST ANNUAL MEAN					158	1941
HIGHEST DAILY MEAN	16,200	Jun 1	8,020	May 1	26,100	Dec 9, 1978
LOWEST DAILY MEAN	65	Aug 28	12	Sep 22	1.2	Aug 10, 1944
ANNUAL SEVEN-DAY MINIMUM	85	Oct 6	12	Sep 19	2.0	Oct 2, 1930
MAXIMUM PEAK FLOW			9,630	May 1	28,800	Dec 9, 1978
MAXIMUM PEAK STAGE			18.34	May 1	26.75	Dec 9, 1978
INSTANTANEOUS LOW FLOW					1.2	Aug 10, 1944
10 PERCENT EXCEEDS	1,840		1,270		1,170	
50 PERCENT EXCEEDS	456		411		186	
90 PERCENT EXCEEDS	133		25		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<sup>2</sup>.

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) or 556.76 ft NGVD of 1929. 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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

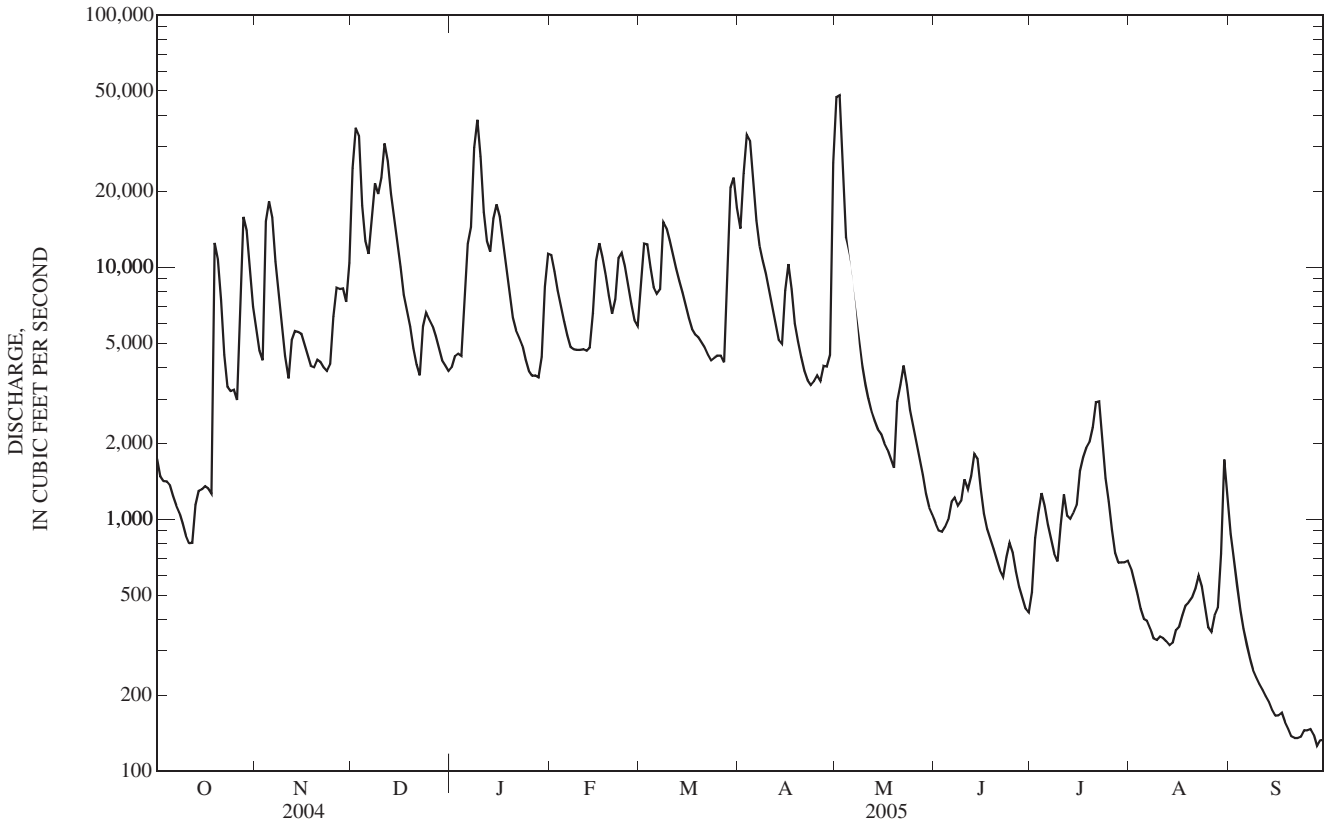
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,740	5,630	24,700	4,010	11,200	8,490	14,200	47,200	964	515	639	876
2	1,480	4,660	35,700	4,440	9,630	12,400	23,600	48,000	903	843	570	694
3	1,420	4,270	33,300	4,540	8,080	12,300	33,600	26,500	890	1,060	504	546
4	1,410	15,200	17,600	4,450	7,060	10,000	31,800	13,100	934	1,270	441	441
5	1,370	18,200	12,700	7,620	6,090	8,340	21,300	10,100	999	1,130	403	369
6	1,240	15,800	11,300	12,400	5,360	7,850	15,300	8,000	1,170	949	396	322
7	1,140	10,500	15,500	14,500	4,830	8,170	12,100	6,510	1,220	833	368	282
8	1,060	7,640	21,500	29,800	4,730	15,100	10,600	5,280	1,130	731	336	253
9	965	5,730	19,500	38,400	4,700	14,300	9,360	4,150	1,180	681	332	236
10	863	4,440	22,600	27,400	4,710	12,800	7,980	3,480	1,440	952	343	222
11	805	3,620	30,900	16,500	4,730	11,200	6,880	3,000	1,310	1,260	338	211
12	808	5,140	26,300	12,700	4,660	9,880	5,960	2,660	1,480	1,030	328	199
13	1,140	5,590	19,600	11,500	4,800	8,820	5,140	2,450	1,820	1,010	317	189
14	1,300	5,540	15,500	15,600	6,580	7,930	4,960	2,270	1,740	1,060	324	176
15	1,310	5,440	12,400	17,700	10,600	7,080	8,100	2,180	1,320	1,140	363	166
16	1,350	4,910	10,000	15,900	12,500	6,290	10,300	2,000	1,050	1,550	376	167
17	1,320	4,440	7,780	12,600	11,000	5,680	8,200	1,890	914	1,760	416	171
18	1,270	4,040	6,720	9,990	9,320	5,410	5,970	1,740	836	1,920	454	157
19	12,500	4,000	5,830	7,910	7,700	5,260	5,070	1,600	763	2,030	469	148
20	10,800	4,290	4,770	6,300	6,550	5,020	4,400	2,940	692	2,310	488	138
21	7,420	4,210	4,110	5,630	7,450	4,800	3,870	3,420	630	2,910	531	136
22	4,500	4,000	3,720	5,250	10,900	4,500	3,560	4,080	591	2,930	597	136
23	3,360	3,880	5,830	4,890	11,400	4,270	3,400	3,420	704	2,060	541	137
24	3,230	4,120	6,610	4,290	10,100	4,370	3,530	2,710	803	1,460	453	145
25	3,260	6,370	6,210	3,870	8,510	4,460	3,730	2,320	738	1,180	373	146
26	2,970	8,290	5,850	3,720	7,160	4,470	3,540	2,010	621	909	359	147
27	6,620	8,190	5,340	3,720	6,160	4,200	4,060	1,750	539	735	416	140
28	15,800	8,240	4,760	3,660	5,860	9,530	4,040	1,500	490	673	446	126
29	14,000	7,300	4,260	4,410	---	20,700	4,480	1,260	441	676	729	133
30	9,530	10,400	4,080	8,380	---	22,600	25,900	1,120	426	674	1,730	133
31	6,970	---	3,880	11,300	---	17,200	---	1,040	---	685	1,250	---
TOTAL	122,951	204,080	408,850	333,380	212,370	283,420	304,930	219,680	28,738	38,926	15,630	7,342
MEAN	3,966	6,803	13,190	10,750	7,585	9,143	10,160	7,086	958	1,256	504	245
MAX	15,800	18,200	35,700	38,400	12,500	22,600	33,600	48,000	1,820	2,930	1,730	876
MIN	805	3,620	3,720	3,660	4,660	4,200	3,400	1,040	426	515	317	126

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2005, BY WATER YEAR (WY)

MEAN	1,712	3,736	7,106	8,211	10,460	10,490	8,547	6,982	4,334	1,906	1,562	1,423
MAX	12,850	10,270	23,400	19,950	25,060	25,290	18,210	19,600	15,220	4,640	4,916	10,340
(WY)	(1990)	(1987)	(1979)	(1979)	(1989)	(1994)	(1994)	(1984)	(1997)	(1992)	(1992)	(2004)
MIN	219	359	897	446	3,546	3,125	1,177	1,206	265	386	258	102
(WY)	(1981)	(2002)	(1981)	(1981)	(2002)	(1988)	(1986)	(1986)	(1988)	(1999)	(1986)	(1999)

03284000 KENTUCKY RIVER AT LOCK 10 NEAR WINCHESTER, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1977 - 2005	
ANNUAL TOTAL	3,108,780		2,180,297			
ANNUAL MEAN	8,494		5,973		5,513	
HIGHEST ANNUAL MEAN					9,815	1994
LOWEST ANNUAL MEAN					2,228	1988
HIGHEST DAILY MEAN	60,800	Jun 2	48,000	May 2	99,100	Dec 10, 1978
LOWEST DAILY MEAN	738	Sep 7	126	Sep 28	22	Oct 1, 1999
ANNUAL SEVEN-DAY MINIMUM	905	Sep 1	139	Sep 24	72	Sep 7, 1999
MAXIMUM PEAK FLOW			49,700	May 2	101,000	Dec 10, 1978
MAXIMUM PEAK STAGE			21.77	May 2	40.15	Dec 10, 1978
10 PERCENT EXCEEDS	20,700		14,700		13,800	
50 PERCENT EXCEEDS	4,960		4,040		2,480	
90 PERCENT EXCEEDS	1,420		371		335	



## 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<sup>2</sup>.

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

REVISIONS.--WDR KY-02-01, peak.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 538.71 ft above NGVD of 1929.

REMARKS.--Records fair. 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.--Kentucky River Authority.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,870	6,330	27,500	4,050	11,500	8,070	14,800	48,000	917	355	510	1,090
2	1,570	5,250	38,700	4,550	10,000	12,000	25,000	50,800	853	579	449	738
3	1,440	4,770	38,500	4,700	8,430	12,600	36,600	33,100	843	877	386	540
4	1,440	17,000	20,600	4,610	7,310	10,400	36,600	14,400	884	1,180	331	422
5	1,400	19,600	13,500	7,580	6,300	8,640	24,600	10,700	921	1,100	301	341
6	1,280	17,700	11,800	12,900	5,490	7,930	16,500	8,540	1,060	887	297	282
7	1,170	11,500	16,500	15,400	4,900	8,220	12,700	6,900	1,170	747	272	238
8	1,090	8,330	23,600	32,600	4,740	16,000	10,900	5,620	1,110	625	243	197
9	995	6,190	21,800	42,600	4,750	15,100	9,750	4,420	1,090	557	222	170
10	882	4,750	23,900	32,700	4,710	13,200	8,360	3,700	1,290	681	224	140
11	789	3,890	34,000	18,700	4,740	11,600	7,170	3,210	1,260	1,110	224	123
12	782	5,410	30,400	13,400	4,660	10,200	6,210	2,810	1,310	1,030	220	106
13	1,090	6,090	21,900	11,800	4,770	9,090	5,350	2,510	1,690	960	214	100
14	1,350	5,780	16,600	16,300	6,450	8,140	4,940	2,310	1,800	1,020	224	89
15	1,370	5,690	12,900	18,700	10,300	7,230	7,470	2,260	1,380	1,080	246	82
16	1,410	5,130	10,600	17,000	12,700	6,390	10,400	2,060	1,050	1,390	267	76
17	1,380	4,600	8,240	13,300	11,400	5,720	8,750	1,910	858	1,740	300	80
18	1,320	4,200	6,960	10,500	9,730	5,370	6,330	1,760	757	1,960	329	67
19	15,300	4,070	6,070	8,390	8,040	5,220	5,230	1,600	678	2,080	351	54
20	11,900	4,320	4,940	6,610	6,770	4,980	4,520	2,920	599	2,240	371	49
21	8,720	4,300	4,210	5,770	7,330	4,740	3,990	3,500	527	2,900	392	49
22	5,110	4,100	3,850	5,320	10,900	4,450	3,680	4,140	464	3,110	452	44
23	3,830	3,970	6,070	4,930	11,700	4,210	3,540	3,740	517	2,290	447	45
24	3,710	4,220	7,100	4,370	10,500	4,270	3,600	2,990	646	1,480	370	47
25	3,760	6,330	6,520	3,940	8,930	4,340	3,790	2,460	637	1,150	294	63
26	3,380	8,440	6,090	3,770	7,450	4,360	3,660	2,100	533	869	276	91
27	6,200	8,590	5,520	3,730	6,380	4,160	4,040	1,800	435	660	345	96
28	16,200	8,700	4,880	3,690	5,830	9,050	4,160	1,520	389	552	362	87
29	15,300	7,780	4,370	4,120	---	20,900	4,400	1,270	344	541	636	99
30	10,500	11,400	4,160	8,110	---	25,300	25,100	1,100	336	531	1,810	96
31	7,670	---	3,980	11,200	---	18,800	---	992	---	544	1,800	---
TOTAL	134,208	218,430	445,760	355,340	216,710	290,680	322,140	235,142	26,348	36,825	13,165	5,701
MEAN	4,329	7,281	14,380	11,460	7,740	9,377	10,740	7,585	878	1,188	425	190
MAX	16,200	19,600	38,700	42,600	12,700	25,300	36,600	50,800	1,800	3,110	1,810	1,090
MIN	782	3,890	3,850	3,690	4,660	4,160	3,540	992	336	355	214	44

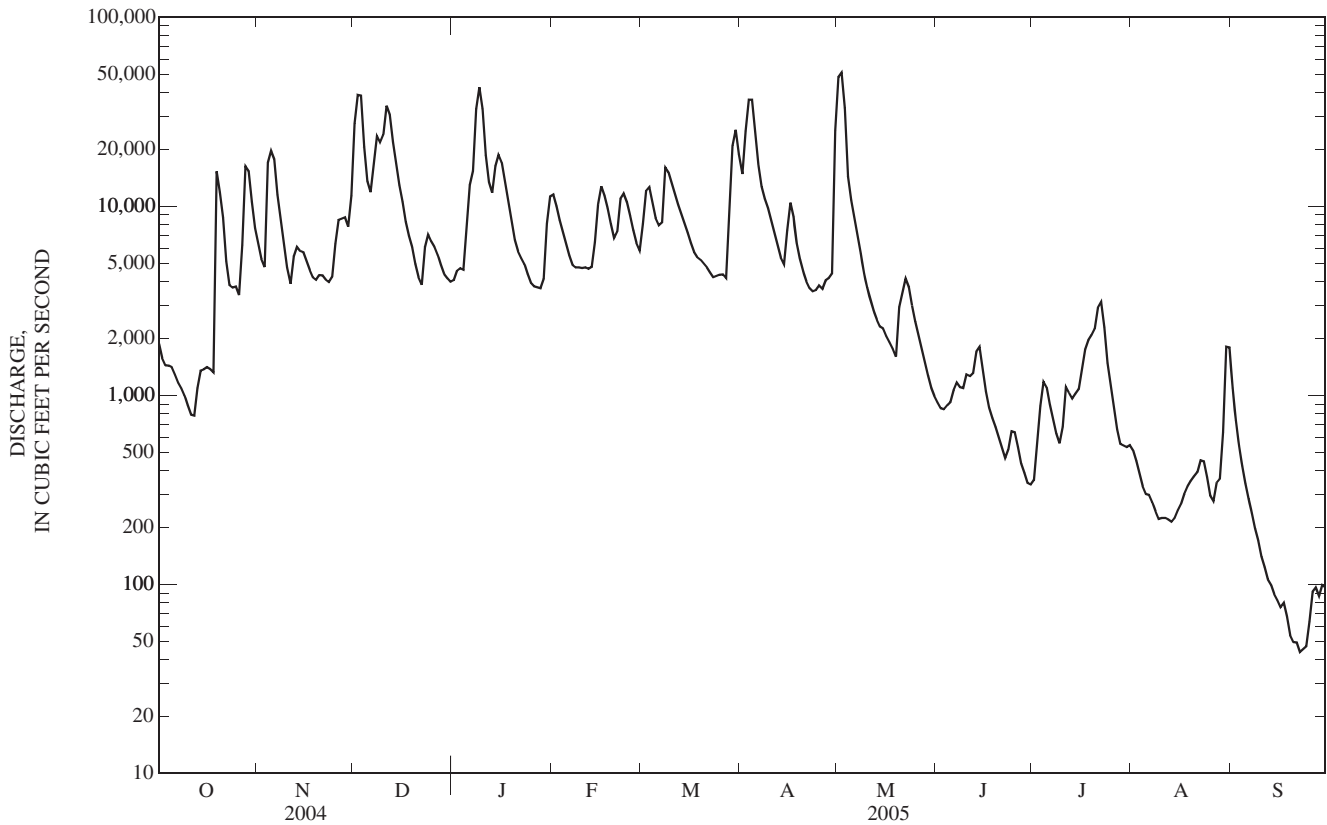
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2005, BY WATER YEAR (WY)

MEAN	1,582	4,117	6,709	6,852	10,970	8,463	9,334	7,195	5,579	2,667	2,022	2,693
MAX	4,329	10,160	14,380	13,880	23,030	13,990	13,090	12,320	13,660	4,145	3,933	11,320
(WY)	(2005)	(2004)	(2005)	(2004)	(2003)	(2002)	(2003)	(2002)	(2004)	(2001)	(2001)	(2004)
MIN	256	366	1,317	1,452	3,892	4,572	3,631	1,652	878	1,188	287	190
(WY)	(2000)	(2002)	(2000)	(2000)	(2002)	(2000)	(2001)	(2001)	(2005)	(2005)	(2002)	(2005)



03284230 KENTUCKY RIVER AT LOCK 9 AT VALLEY VIEW, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1999 - 2005	
ANNUAL TOTAL	3,412,432		2,300,449			
ANNUAL MEAN	9,324		6,303		5,646	
HIGHEST ANNUAL MEAN					8,883	2004
LOWEST ANNUAL MEAN					2,909	2000
HIGHEST DAILY MEAN	61,300	Jun 2	50,800	May 2	71,800	Feb 18, 2003
LOWEST DAILY MEAN	731	Sep 7	44	Sep 22	40	Oct 1, 1999
ANNUAL SEVEN-DAY MINIMUM	928	Sep 1	50	Sep 19	50	Sep 19, 2005
MAXIMUM PEAK FLOW			52,000	May 2	72,600	Feb 18, 2003
MAXIMUM PEAK STAGE			24.18	May 2	36.12	Feb 18, 2003
10 PERCENT EXCEEDS	23,700		15,600		13,400	
50 PERCENT EXCEEDS	5,520		4,100		2,660	
90 PERCENT EXCEEDS	1,490		289		362	



## 03284500 KENTUCKY RIVER AT LOCK 8 NEAR CAMP NELSON, KY

LOCATION.--Lat 37°44'43", long 84°35'12", Jessamine County, Hydrologic Unit 05100205, on right bank at Lock and Dam No. 8, 1.5 mi downstream from Davis Creek, 1.8 mi upstream from Canoe Creek, 2.4 mi Southeast of Camp Nelson, and at mile 139.9.

DRAINAGE AREA.--4414 mi<sup>2</sup> of which 45.1 mi<sup>2</sup> does not contribute directly to surface runoff..

PERIOD OF RECORD.--July 1939 to September 1971, July 2002 to current year.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 520.51 ft above NGVD of 1929.

REMARKS.--Records good except for those estimated and flows below 500 ft<sup>3</sup>/s, which are poor. Flow regulated by Buckhorn Lake beginning December 1960 (station 03280800), and by Carr Fork Lake beginning January 1976 (station 03277446). Small diversion by City of Lexington Waterworks.

COOPERATION.--Kentucky River Authority.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,910	6,710	32,600	4,010	11,900	7,940	15,400	e46,000	937	296	475	1,470
2	1,630	5,670	38,300	4,620	10,400	11,800	26,500	e48,900	873	430	422	909
3	1,490	5,210	39,000	5,040	8,730	13,100	36,400	e39,700	844	751	361	611
4	1,440	23,200	23,700	4,960	7,560	10,900	37,500	e18,800	895	1,080	307	456
5	1,400	21,100	14,300	8,180	6,530	8,920	26,900	e12,200	913	1,100	273	349
6	1,300	19,500	12,500	14,400	5,700	8,000	17,400	8,760	1,010	906	262	275
7	1,170	12,600	18,700	17,400	5,080	8,230	13,300	7,060	1,130	735	233	221
8	1,090	8,900	24,500	36,400	4,860	17,700	11,400	5,770	1,100	603	206	175
9	1,010	6,620	23,400	40,500	4,900	16,400	9,930	4,550	1,050	518	181	148
10	897	5,080	24,200	35,200	4,820	14,000	8,490	3,690	1,200	548	175	126
11	780	4,080	34,400	20,700	4,880	12,300	7,270	3,160	1,250	962	178	107
12	754	6,550	32,700	14,300	4,810	10,600	6,320	2,730	1,250	1,020	173	90
13	1,280	6,930	23,200	12,400	5,050	9,380	5,570	2,440	1,530	935	171	82
14	1,580	6,170	17,300	17,800	7,020	8,380	5,020	2,320	1,710	975	174	75
15	1,510	6,000	13,500	19,300	10,200	7,440	6,720	2,300	1,430	1,030	197	70
16	1,540	5,460	10,900	18,000	13,200	6,590	10,100	2,060	1,080	1,230	239	64
17	1,470	4,850	8,510	14,100	11,900	5,890	8,940	1,900	875	1,580	277	66
18	1,400	4,390	7,030	11,000	10,100	5,480	6,530	1,770	746	1,790	299	59
19	14,200	4,190	6,170	8,760	8,360	5,300	5,280	1,650	659	1,920	321	51
20	12,600	4,480	5,210	6,920	7,050	5,070	4,530	3,340	567	2,020	337	43
21	9,490	4,480	4,240	5,960	7,820	4,830	3,950	3,500	488	2,490	353	41
22	5,520	4,230	3,830	5,450	11,300	4,530	3,570	3,990	419	2,840	389	37
23	3,990	4,090	7,820	5,040	12,100	4,250	3,400	3,760	424	2,310	411	35
24	3,750	4,730	7,950	4,460	11,000	4,270	3,400	2,960	544	1,560	347	36
25	3,910	6,940	6,850	3,970	9,290	4,350	3,610	2,430	571	1,180	270	41
26	3,450	8,790	6,320	3,760	7,750	4,360	e3,950	2,090	486	914	245	60
27	8,450	9,060	5,720	3,670	6,610	4,200	e3,950	1,810	384	679	290	79
28	16,500	9,210	5,050	3,610	5,970	8,850	e4,530	1,570	333	529	322	75
29	16,500	8,400	4,480	4,170	---	19,900	e4,990	1,340	295	493	597	76
30	11,500	14,400	4,190	8,550	---	26,400	e22,400	1,150	286	482	2,420	75
31	8,120	---	4,010	11,400	---	19,800	---	1,030	---	492	2,160	---
TOTAL	141,631	242,020	470,580	374,030	224,890	299,160	327,250	244,730	25,279	34,398	13,065	6,002
MEAN	4,569	8,067	15,180	12,070	8,032	9,650	10,910	7,895	843	1,110	421	200
MAX	16,500	23,200	39,000	40,500	13,200	26,400	37,500	48,900	1,710	2,840	2,420	1,470
MIN	754	4,080	3,830	3,610	4,810	4,200	3,400	1,030	286	296	171	35

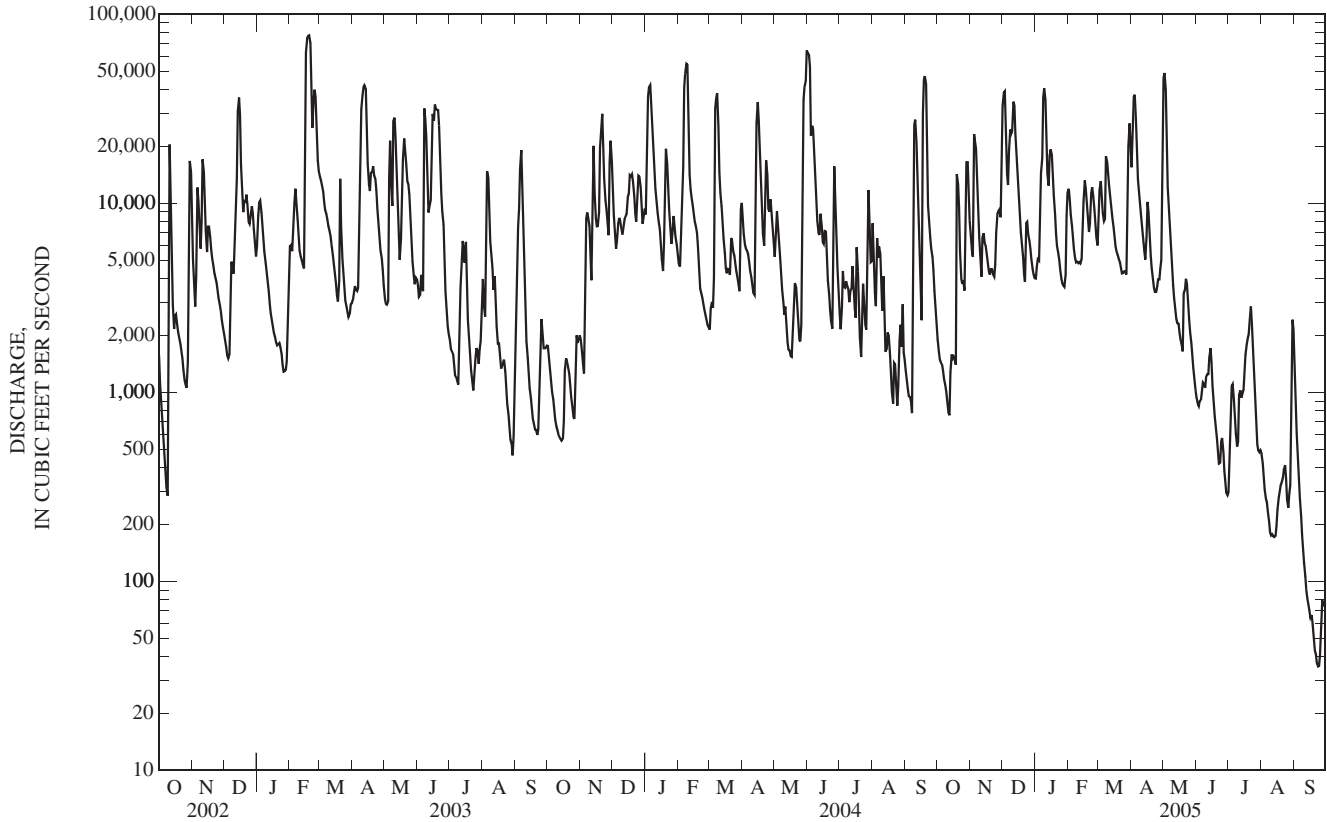
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2003 - 2005, BY WATER YEAR (WY)

MEAN	3,039	8,344	11,430	10,060	15,640	8,405	11,820	9,355	9,706	2,430	2,108	5,002
MAX	4,569	10,690	15,180	14,330	25,780	9,650	14,490	11,090	14,380	3,835	3,195	11,400
(WY)	(2005)	(2004)	(2005)	(2004)	(2003)	(2005)	(2003)	(2003)	(2003)	(2004)	(2003)	(2004)
MIN	1,099	6,270	9,379	3,792	8,032	6,325	10,080	7,895	843	1,110	421	200
(WY)	(2004)	(2003)	(2003)	(2003)	(2005)	(2003)	(2004)	(2005)	(2005)	(2005)	(2005)	(2005)

03284500 KENTUCKY RIVER AT LOCK 8 NEAR CAMP NELSON, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2003 - 2005	
ANNUAL TOTAL	3,513,084		2,403,035		8,051	
ANNUAL MEAN	9,599		6,584		9,059	
HIGHEST ANNUAL MEAN					9,059	2004
LOWEST ANNUAL MEAN					6,584	2005
HIGHEST DAILY MEAN	64,000	May 31	48,900	May 2	77,100	Feb 19, 2003
LOWEST DAILY MEAN	754	Oct 12	35	Sep 23	35	Sep 23, 2005
ANNUAL SEVEN-DAY MINIMUM	997	Oct 7	41	Sep 19	41	Sep 19, 2005
MAXIMUM PEAK FLOW			50,100	May 2	92,800	Mar 2, 1962
MAXIMUM PEAK STAGE			27.43	May 2	40.30	Mar 2, 1962
10 PERCENT EXCEEDS	24,800		17,300		19,200	
50 PERCENT EXCEEDS	5,560		4,170		4,630	
90 PERCENT EXCEEDS	1,620		267		750	

e Estimated



## 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-Chilesburg Road, and at mile 12.4.

DRAINAGE AREA.--1.58 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder with telemetry. Datum of gage is 972.71 ft above NGVD of 1929.

REMARKS.--Records fair except for December and January, which are poor.

COOPERATION.--Lexington-Fayette Urban County Government.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 65 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 18	2215	140	3.84	Dec 7	0715	79	3.17
Oct 19	0310	*209	*4.36	May 19	2200	78	3.16
Nov 30	1555	84	3.23	Jul 19	1700	72	3.07

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.41	9.5	15	4.9	2.0	2.4	7.0	4.7	0.34	0.22	0.04	1.5
2	0.40	10	6.1	3.7	1.9	1.8	7.9	3.1	0.35	0.16	0.03	0.35
3	0.34	7.4	3.7	4.1	2.4	1.6	4.8	2.2	0.50	0.12	0.04	0.16
4	0.28	21	2.6	6.0	1.8	1.5	3.6	1.6	0.46	0.14	0.03	0.09
5	0.24	6.7	2.0	7.7	1.5	1.6	2.9	1.2	0.39	0.16	0.03	0.06
6	0.19	4.0	4.3	11	1.3	1.3	2.3	0.94	0.39	0.11	0.03	0.04
7	0.17	2.8	18	13	1.2	4.8	2.1	0.78	0.39	0.09	0.02	0.04
8	0.14	2.1	6.5	18	1.7	7.0	1.9	0.65	0.33	0.10	0.02	0.03
9	0.14	1.7	7.3	6.6	1.6	4.0	1.5	0.57	0.30	0.10	0.02	0.03
10	0.19	1.4	5.7	4.6	1.5	3.1	1.4	0.51	0.33	0.10	0.01	0.02
11	0.26	5.9	4.4	3.7	1.2	2.8	1.3	0.47	0.30	0.11	0.01	0.03
12	0.94	12	3.4	3.2	1.1	3.3	1.8	0.43	0.21	0.13	0.01	0.03
13	0.70	4.6	2.8	7.2	3.1	2.6	2.5	0.41	0.20	2.2	0.02	0.03
14	0.27	3.0	2.2	7.3	4.1	2.2	1.8	4.7	0.54	2.1	0.02	0.02
15	0.81	2.3	1.9	4.4	3.3	1.9	1.3	1.8	0.29	0.65	0.02	0.02
16	0.25	1.9	1.7	3.4	2.7	1.7	1.1	0.77	0.16	0.40	0.37	0.03
17	1.3	1.6	1.6	2.6	2.1	1.5	1.0	0.52	0.15	5.6	0.04	0.06
18	15	1.4	1.4	2.1	1.6	1.3	0.95	0.42	0.16	3.4	0.01	0.02
19	52	2.4	1.2	1.8	1.4	1.9	0.89	6.0	0.15	7.5	0.04	0.01
20	9.0	1.7	1.1	e1.6	1.9	2.2	0.85	4.9	0.14	2.3	0.04	0.01
21	4.9	1.2	1.1	e1.4	7.1	1.4	0.80	1.4	0.14	0.62	0.02	0.02
22	3.5	1.0	3.6	1.5	4.8	1.3	1.0	0.94	0.15	0.35	0.35	0.01
23	5.9	1.8	11	1.2	3.4	1.6	2.2	1.8	0.17	0.22	0.12	0.01
24	14	6.7	4.3	0.98	2.8	1.3	1.3	0.78	0.19	0.15	0.01	0.02
25	6.4	5.8	3.1	e0.85	2.2	1.2	0.97	0.79	0.18	0.11	0.00	0.02
26	4.3	3.0	2.4	e0.76	1.8	1.1	2.7	0.63	0.20	0.08	0.71	0.04
27	12	3.5	1.8	e0.68	1.5	3.0	2.1	0.54	0.19	0.06	1.7	0.05
28	6.2	3.8	1.5	0.61	2.7	11	1.6	0.40	0.19	0.05	0.81	0.03
29	4.2	2.4	e1.4	3.2	---	4.8	7.6	0.36	0.24	0.05	12	0.26
30	4.1	20	e1.3	3.4	---	3.6	15	0.33	0.21	0.04	16	0.04
31	2.7	---	e1.2	2.4	---	2.8	---	0.33	---	0.03	11	---
TOTAL	151.23	152.6	125.6	133.88	65.7	83.6	84.16	44.97	7.94	27.45	43.57	3.08
MEAN	4.88	5.09	4.05	4.32	2.35	2.70	2.81	1.45	0.26	0.89	1.41	0.10
MAX	52	21	18	18	7.1	11	15	6.0	0.54	7.5	16	1.5
MIN	0.14	1.0	1.1	0.61	1.1	1.1	0.80	0.33	0.14	0.03	0.00	0.01

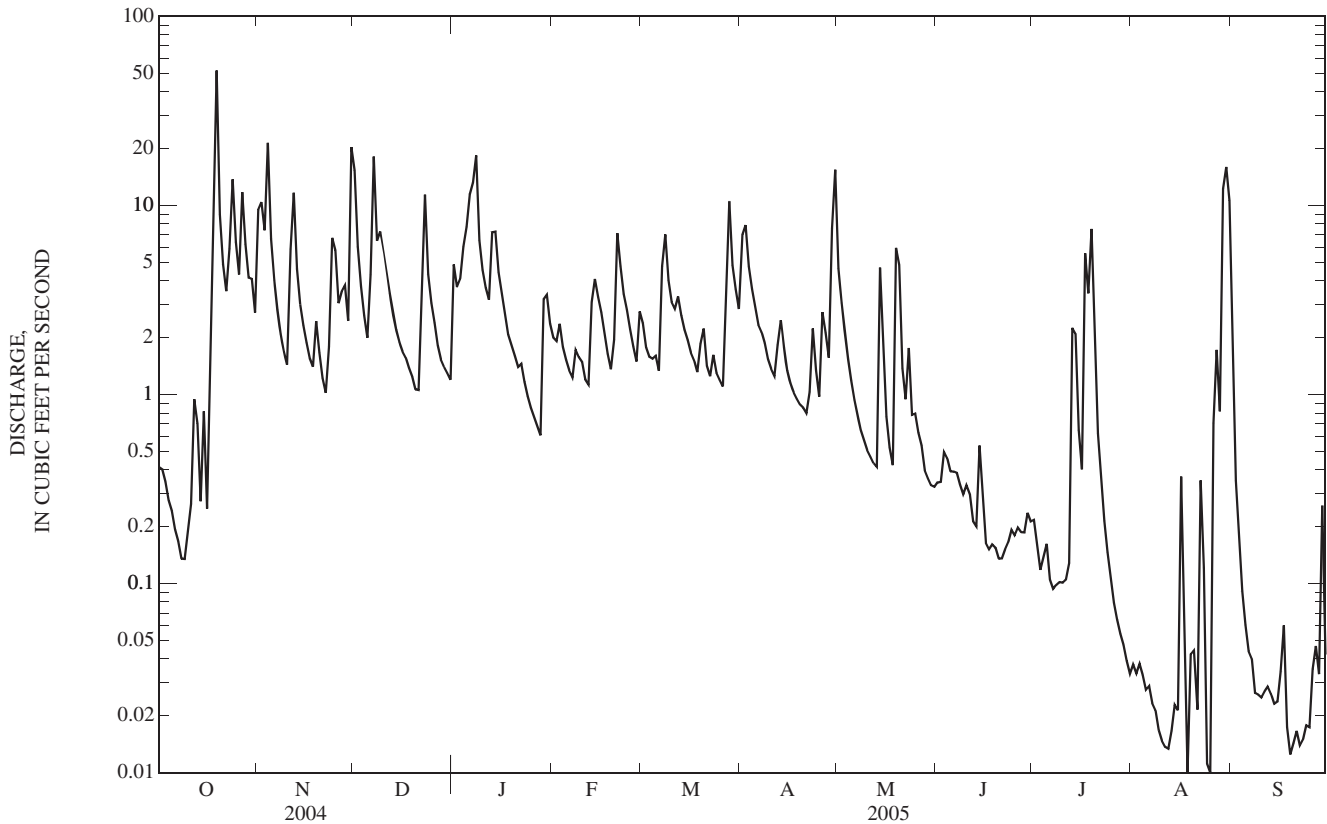
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2005, BY WATER YEAR (WY)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
MEAN	1.94	2.43	2.51	3.23	3.65	3.49	2.72	3.43	2.30	1.59	1.18	1.59
MAX	5.19	6.39	4.05	5.69	7.84	6.57	5.34	7.39	6.73	4.78	3.89	4.38
(WY)	(2003)	(2004)	(2005)	(1998)	(2003)	(2002)	(1998)	(2003)	(1998)	(1998)	(2004)	(2003)
MIN	0.19	0.37	1.02	1.18	1.00	2.00	0.82	0.31	0.26	0.20	0.05	0.01
(WY)	(2001)	(1999)	(2000)	(2001)	(2002)	(2003)	(2001)	(1999)	(2005)	(2002)	(1999)	(1999)

03284520 EAST HICKMAN CREEK AT ANDOVER VILLAGE NEAR CADENTOWN, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1998 - 2005	
ANNUAL TOTAL	1,449.02		923.78			
ANNUAL MEAN	3.96		2.53		2.50	
HIGHEST ANNUAL MEAN					3.94	2003
LOWEST ANNUAL MEAN					1.48	1999
HIGHEST DAILY MEAN	58	Sep 17	52	Oct 19	63	Mar 20, 2002
LOWEST DAILY MEAN	0.12	Aug 19	0.00	Aug 25	0.00	Sep 20, 1998
ANNUAL SEVEN-DAY MINIMUM	0.19	Oct 5	0.01	Sep 18	0.00	Aug 31, 1999
MAXIMUM PEAK FLOW			209	Oct 19	269	Aug 31, 2003
MAXIMUM PEAK STAGE			4.36	Oct 19	4.78	Aug 31, 2003
INSTANTANEOUS LOW FLOW					0.00	Oct 1, 1999
10 PERCENT EXCEEDS	9.1		6.4		6.2	
50 PERCENT EXCEEDS	1.7		1.3		0.85	
90 PERCENT EXCEEDS	0.44		0.04		0.06	

e Estimated

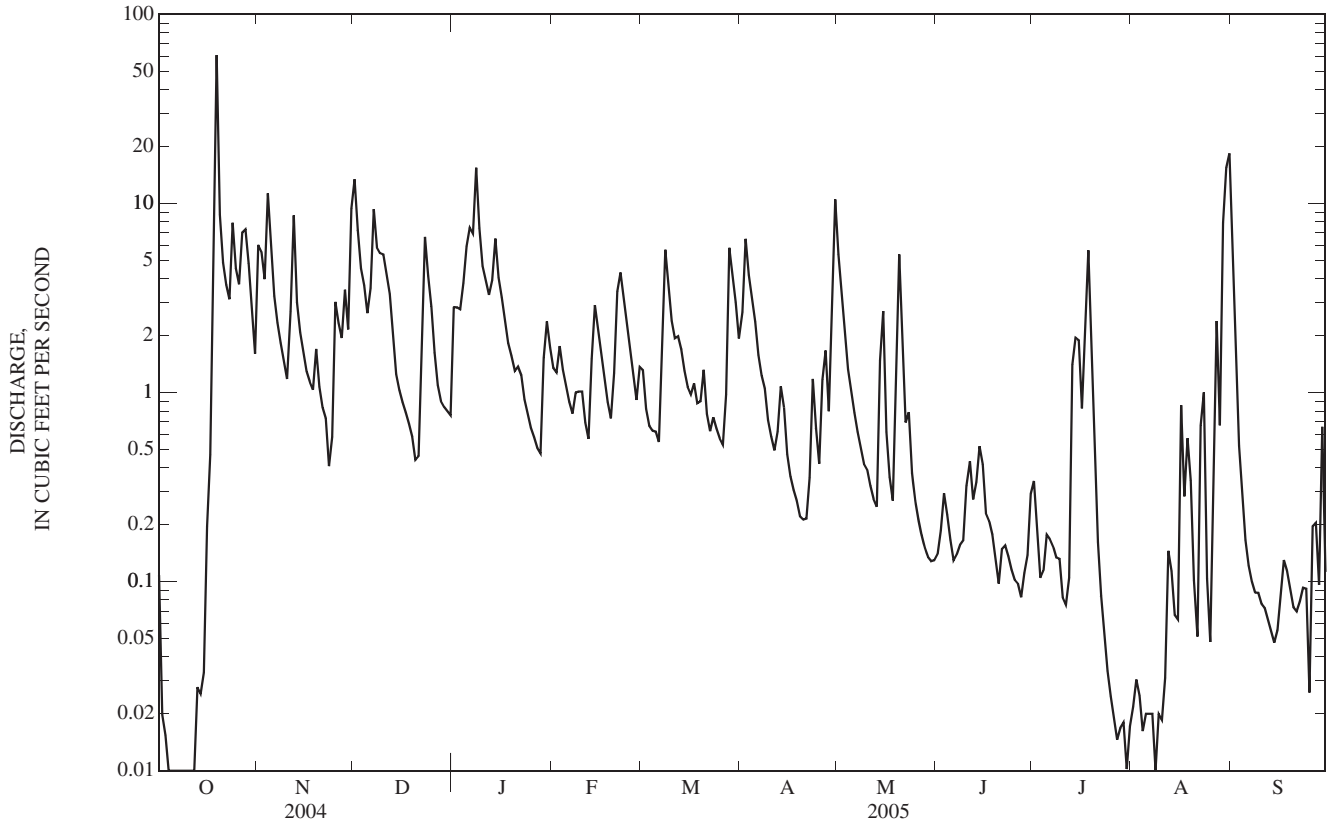




03284525 EAST HICKMAN CREEK TRIBUTARY AT CHILESBURG ROAD NEAR LEXINGTON, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1998 - 2005	
ANNUAL TOTAL	1,043.24		680.40			
ANNUAL MEAN	2.85		1.86		1.53	
HIGHEST ANNUAL MEAN					2.60	2004
LOWEST ANNUAL MEAN					0.54	1999
HIGHEST DAILY MEAN	63	May 31	61	Oct 19	75	Mar 20, 2002
LOWEST DAILY MEAN	0.00	Oct 5	0.00	Oct 5	0.00	Sep 17, 1998
ANNUAL SEVEN-DAY MINIMUM	0.00	Oct 5	0.00	Oct 5	0.00	Sep 27, 1998
MAXIMUM PEAK FLOW			300	Oct 19	300	Oct 19, 2004
MAXIMUM PEAK STAGE			4.40	Oct 19	4.40	Oct 19, 2004
INSTANTANEOUS LOW FLOW					0.00	Oct 1, 1998
10 PERCENT EXCEEDS	6.2		4.8		3.8	
50 PERCENT EXCEEDS	1.1		0.77		0.33	
90 PERCENT EXCEEDS	0.22		0.05		0.00	

e Estimated



## 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<sup>2</sup>.

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 those below 1.0 ft<sup>3</sup>/s, which are poor.

COOPERATION.--Lexington-Fayette Urban County Government.

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 19	0325	*1,400	*6.48	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	39	153	12	9.5	9.2	24	18	1.7	1.2	0.25	35
2	3.3	64	55	11	9.0	7.6	32	11	1.7	2.0	0.20	8.8
3	3.2	62	27	12	9.5	7.0	22	6.9	2.3	1.9	0.14	3.3
4	2.8	163	14	20	8.3	6.8	16	5.4	2.1	1.5	0.12	2.4
5	2.6	62	8.2	57	7.8	6.7	12	4.6	2.0	1.8	0.10	2.0
6	2.5	26	13	91	7.3	6.1	10	4.1	1.9	1.4	0.08	1.9
7	2.2	13	116	85	6.8	17	9.0	3.6	1.7	1.2	0.10	1.6
8	2.1	8.0	58	205	7.9	34	7.7	3.4	1.7	1.2	0.09	1.5
9	2.1	5.1	40	66	7.3	18	6.6	3.2	1.8	1.3	0.09	1.5
10	2.3	3.9	38	36	7.0	14	5.9	2.9	1.9	1.1	0.08	1.7
11	2.6	12	23	25	6.6	12	5.6	2.6	2.2	1.1	0.05	1.4
12	4.5	53	13	18	6.5	11	6.6	2.5	2.7	1.6	0.05	1.4
13	3.8	31	8.5	30	11	8.4	7.7	2.5	2.8	5.0	0.04	1.5
14	2.8	14	5.9	63	16	7.1	5.9	13	4.3	3.0	0.17	1.7
15	4.5	7.5	4.8	30	15	6.4	5.0	4.9	2.1	2.2	0.10	1.7
16	2.9	5.5	4.1	20	14	5.8	5.3	2.9	1.4	1.5	2.9	1.5
17	2.9	4.3	3.6	13	12	5.4	4.5	2.5	1.2	9.8	0.26	1.4
18	12	3.8	3.1	11	11	5.0	4.3	2.4	1.2	34	0.13	1.3
19	426	6.2	2.7	9.2	9.3	5.6	4.2	10	1.2	8.3	0.41	1.1
20	81	4.3	2.5	8.5	11	6.8	3.9	21	1.6	4.9	0.23	1.1
21	27	3.5	2.4	7.2	24	4.9	3.6	8.2	1.5	1.4	0.11	1.2
22	11	4.3	7.1	6.6	21	4.6	3.7	3.4	1.5	0.97	1.5	1.3
23	10	7.4	40	6.0	16	5.1	5.2	3.5	1.2	0.79	1.4	1.4
24	60	23	18	5.6	13	4.6	3.9	2.6	1.2	0.63	0.17	1.5
25	36	23	11	5.3	11	4.5	3.4	2.3	1.4	0.55	0.24	1.4
26	15	15	7.5	5.1	9.4	4.3	6.1	2.2	1.5	0.50	3.6	1.6
27	59	14	5.3	4.7	8.2	5.7	5.2	2.1	1.3	0.45	9.0	1.7
28	34	17	4.4	4.5	10	32	4.2	2.0	1.4	0.34	8.2	1.5
29	19	11	4.1	10	---	17	13	1.9	2.1	0.27	37	4.5
30	12	86	3.8	12	---	13	55	1.8	2.4	0.25	110	1.2
31	7.5	---	3.4	10	---	11	---	1.8	---	0.22	134	---
TOTAL	859.3	791.8	700.4	899.7	305.4	306.6	301.5	159.2	55.0	92.37	310.81	91.1
MEAN	27.7	26.4	22.6	29.0	10.9	9.89	10.1	5.14	1.83	2.98	10.0	3.04
MAX	426	163	153	205	24	34	55	21	4.3	34	134	35
MIN	2.1	3.5	2.4	4.5	6.5	4.3	3.4	1.8	1.2	0.22	0.04	1.1

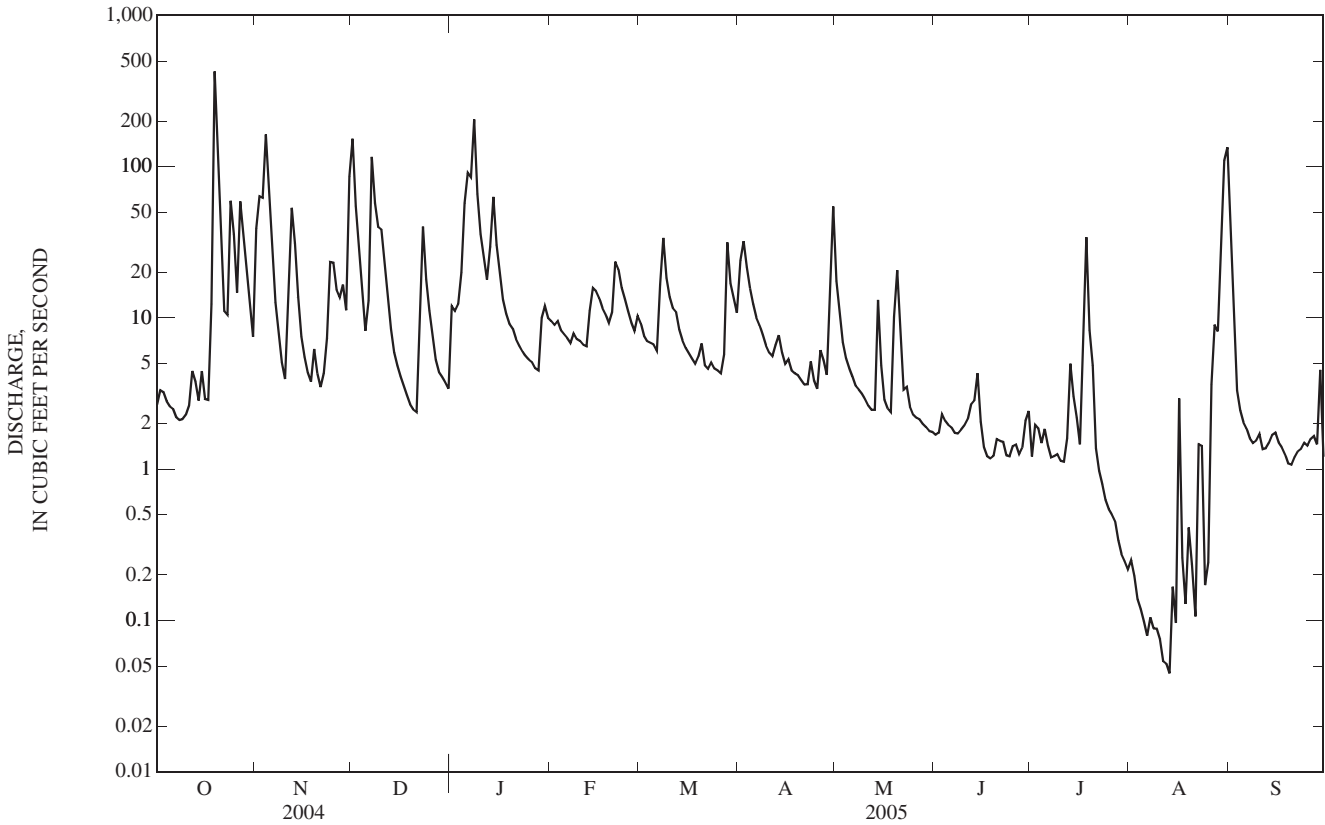
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2005, BY WATER YEAR (WY)

MEAN	9.47	18.3	20.9	21.4	35.2	27.9	19.2	31.3	19.0	9.95	9.50	12.8
MAX	34.3	60.3	38.8	40.8	83.2	54.7	34.3	69.1	48.3	28.7	29.9	43.3
(WY)	(2003)	(2004)	(2004)	(2004)	(2003)	(2002)	(2002)	(2004)	(2003)	(1998)	(2004)	(2003)
MIN	1.00	1.25	1.70	3.94	10.9	9.89	7.25	1.86	1.24	2.98	0.09	0.18
(WY)	(1998)	(1999)	(2000)	(2000)	(2005)	(2005)	(1999)	(2000)	(1999)	(2005)	(1999)	(1999)



03284530 EAST HICKMAN CREEK AT DELONG ROAD NEAR EAST HICKMAN, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1998 - 2005	
ANNUAL TOTAL	11,531.4		4,873.18			
ANNUAL MEAN	31.5		13.4		19.5	
HIGHEST ANNUAL MEAN					35.9	2003
LOWEST ANNUAL MEAN					9.86	1999
HIGHEST DAILY MEAN	821	May 31	426	Oct 19	821	May 31, 2004
LOWEST DAILY MEAN	1.1	Jul 16	0.04	Aug 13	0.00	Aug 1, 1999
ANNUAL SEVEN-DAY MINIMUM	1.8	Aug 13	0.07	Aug 7	0.00	Aug 17, 1999
MAXIMUM PEAK FLOW			1,400		1,940	Jun 25, 2004
MAXIMUM PEAK STAGE			6.48		7.24	Jun 25, 2004
INSTANTANEOUS LOW FLOW					0.00	Sep 13, 2002
10 PERCENT EXCEEDS	69		31		47	
50 PERCENT EXCEEDS	11		4.9		5.1	
90 PERCENT EXCEEDS	2.6		1.2		0.51	



## 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<sup>2</sup>.

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

GAGE.--Water-stage recorder with telemetry. Datum of gage is 868.402 ft above NGVD of 1929.

REMARKS.--Records fair.

COOPERATION.--Lexington-Fayette Urban County Government.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 19	0405	*3,200	*7.68	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

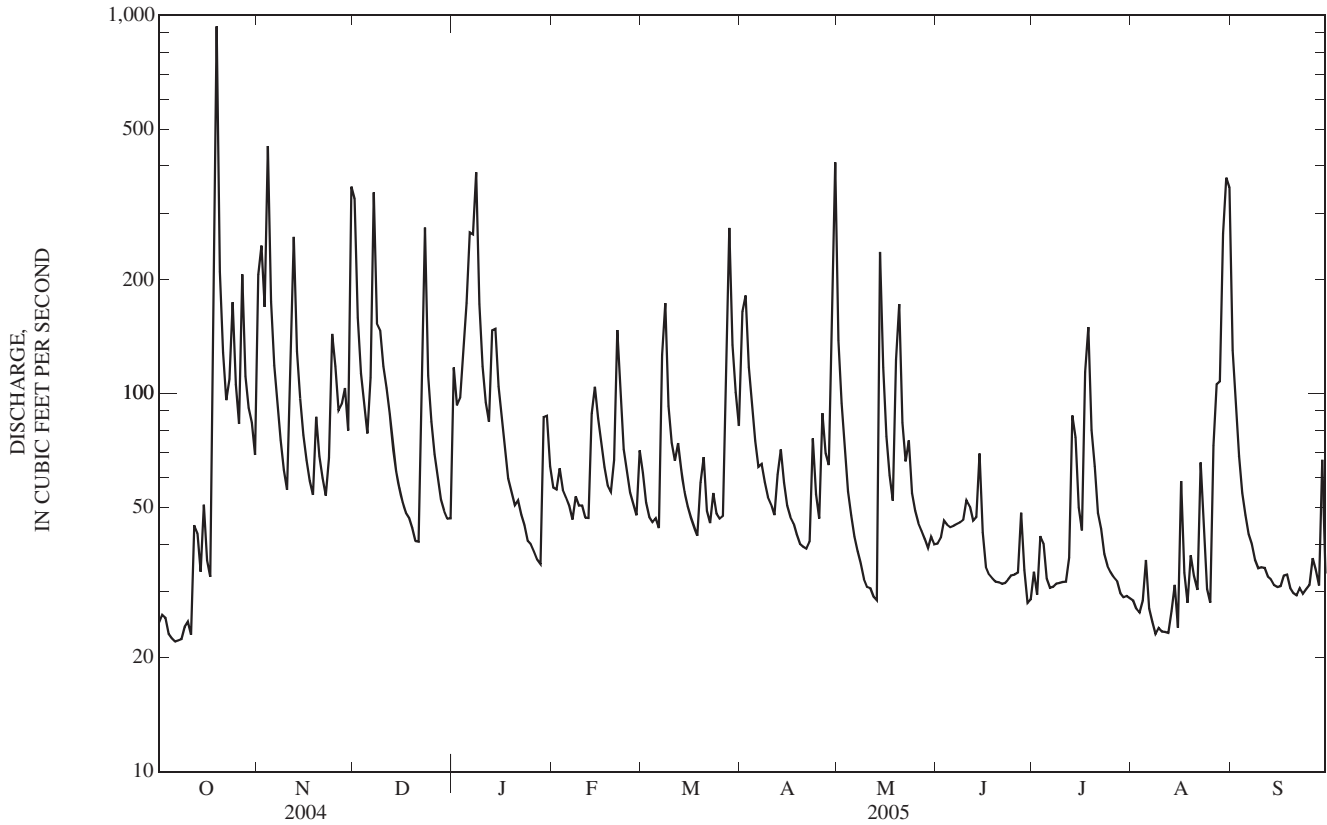
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	206	327	117	56	62	165	138	40	34	28	130
2	26	246	158	93	56	51	182	94	42	29	27	94
3	26	169	113	97	63	47	118	71	46	42	26	68
4	23	452	94	134	56	46	92	55	45	40	28	55
5	23	175	78	174	53	47	75	48	44	32	36	48
6	22	119	110	266	50	44	64	42	45	31	27	42
7	22	94	340	264	46	126	65	38	45	31	25	40
8	22	75	153	385	53	173	58	35	46	31	23	36
9	24	63	147	172	51	93	53	32	46	32	24	35
10	25	56	118	118	51	74	51	31	52	32	23	35
11	23	139	103	95	47	66	48	31	50	32	23	35
12	45	259	88	84	47	74	61	29	46	37	23	33
13	43	129	73	147	88	63	71	28	47	87	27	32
14	34	97	62	148	104	55	58	236	69	77	31	31
15	51	78	56	104	86	50	50	117	43	50	24	31
16	36	67	52	85	74	47	47	77	35	43	59	31
17	33	59	48	71	64	44	45	61	33	114	34	33
18	143	54	47	60	57	42	42	52	32	150	28	33
19	935	87	44	55	55	58	40	123	32	80	37	31
20	210	68	41	51	67	68	39	172	32	64	33	30
21	128	60	41	52	147	49	39	84	31	48	30	29
22	96	54	91	48	97	45	41	66	32	44	66	31
23	109	68	274	45	71	55	76	75	32	38	47	30
24	175	144	111	41	63	48	54	55	33	35	30	30
25	106	118	85	40	55	47	47	49	33	34	28	31
26	83	90	69	38	51	47	89	45	34	33	73	37
27	207	94	60	36	48	90	69	43	48	32	106	34
28	111	103	52	35	71	274	65	41	34	30	108	31
29	92	80	49	87	---	134	172	39	28	29	264	67
30	84	352	47	87	---	101	409	42	29	29	372	33
31	69	---	47	64	---	82	---	40	---	29	350	---
TOTAL	3,051	3,855	3,178	3,293	1,827	2,302	2,485	2,089	1,204	1,449	2,060	1,256
MEAN	98.4	128	103	106	65.2	74.3	82.8	67.4	40.1	46.7	66.5	41.9
MAX	935	452	340	385	147	274	409	236	69	150	372	130
MIN	22	54	41	35	46	42	39	28	28	29	23	29

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2005, BY WATER YEAR (WY)

MEAN	48.5	66.9	70.5	77.1	87.3	85.9	74.8	95.1	67.0	55.5	51.5	50.7
MAX	99.6	136	110	106	163	152	110	172	135	105	93.9	94.3
(WY)	(2003)	(2004)	(2004)	(2004)	(2003)	(2002)	(1998)	(2004)	(1998)	(1998)	(2004)	(2003)
MIN	26.3	23.6	33.4	42.6	37.5	49.1	39.6	31.0	26.7	25.6	20.6	18.9
(WY)	(2000)	(2000)	(2000)	(2001)	(2002)	(2003)	(2001)	(1999)	(1999)	(1999)	(1999)	(1999)

03284555 WEST HICKMAN CREEK AT ASH GROVE PIKE NEAR EAST HICKMAN, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1998 - 2005	
ANNUAL TOTAL	36,989		28,049		69.1	
ANNUAL MEAN	101		76.8		97.3	
HIGHEST ANNUAL MEAN					45.0	2004
LOWEST ANNUAL MEAN					12	1999
HIGHEST DAILY MEAN	1,270	May 31	935	Oct 19	1,270	May 31, 2004
LOWEST DAILY MEAN	22	Oct 6	22	Oct 6	17	Nov 5, 1998
ANNUAL SEVEN-DAY MINIMUM	23	Oct 4	23	Oct 4	17	Aug 16, 1999
MAXIMUM PEAK FLOW			3,200	Oct 19	3,200	Oct 19, 2004
MAXIMUM PEAK STAGE			7.68	Oct 19	7.68	Oct 19, 2004
INSTANTANEOUS LOW FLOW					1.4	Nov 5, 1998
10 PERCENT EXCEEDS	206		147		133	
50 PERCENT EXCEEDS	60		51		42	
90 PERCENT EXCEEDS	36		30		23	



## KENTUCKY RIVER BASIN

## 03285000 DIX RIVER NEAR DANVILLE, KY

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

DRAINAGE AREA.--318 mi<sup>2</sup>.

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 750.18 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. Auxillary: Water-stage recorder at site 2 miles downstream at datum 2.0 ft. lower.

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<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov 4	1200	*10,200	*10.34	Jan 8	0600	8,730	9.70
Dec 1	0000	8,750	9.71	Apr 30	1200	9,060	9.85

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	428	6,820	295	596	784	436	e3,030	31	3.8	18	293
2	54	416	2,460	323	479	537	2,980	1,160	28	3.6	13	162
3	53	601	1,270	654	e404	430	1,640	700	28	3.3	9.2	96
4	52	5,680	886	585	e354	378	955	482	36	13	7.0	63
5	50	2,350	655	1,530	e331	587	661	357	40	11	5.5	45
6	43	1,090	1,020	1,860	e309	620	494	279	35	9.9	4.0	34
7	38	732	3,610	2,020	e296	474	413	225	30	7.6	2.6	26
8	35	517	e2,200	e6,330	e290	2,620	511	185	25	6.8	2.1	21
9	31	381	1,510	e2,430	e284	1,420	382	153	26	7.1	2.3	16
10	29	301	2,010	1,350	e284	880	300	129	41	5.9	4.6	13
11	27	261	1,460	1,010	e287	675	255	111	37	5.2	4.6	10
12	26	1,650	1,180	933	e293	609	232	93	28	5.1	8.4	7.7
13	371	1,260	896	839	e408	525	488	85	25	7.5	7.3	6.3
14	499	725	661	2,360	1,550	422	564	82	28	12	4.3	5.2
15	243	520	510	1,320	1,530	353	449	77	38	11	2.2	4.0
16	265	416	426	932	973	302	326	74	63	12	1.5	3.4
17	178	345	367	695	711	273	261	59	39	34	1.3	2.9
18	127	294	316	510	536	242	221	50	29	35	1.2	2.7
19	1,160	276	285	e397	436	213	191	45	23	31	1.5	2.5
20	971	318	237	e312	380	201	163	512	18	63	2.2	2.1
21	448	278	203	e253	1,700	188	143	431	13	77	2.9	1.6
22	295	236	212	e223	1,640	164	126	229	11	80	2.9	1.3
23	222	218	2,770	e196	960	160	121	164	9.1	103	2.8	1.2
24	323	687	1,490	e176	697	173	125	128	8.0	48	2.6	1.1
25	423	1,540	834	e157	531	178	117	96	6.9	32	2.0	1.0
26	268	990	616	e155	416	162	102	73	6.0	23	2.0	e0.72
27	e2,720	691	482	e153	349	150	248	62	5.1	17	4.7	e0.60
28	e1,960	791	389	e151	350	871	326	53	4.4	12	5.7	e0.50
29	1,090	695	346	331	---	918	234	45	4.1	9.1	21	e0.44
30	759	2,550	339	1,280	---	508	e5,430	40	4.1	7.4	880	37
31	553	---	313	830	---	393	---	35	---	11	452	---
TOTAL	13,371	27,237	36,773	30,590	17,374	16,410	18,894	9,244	719.7	707.3	1,481.4	861.26
MEAN	431	908	1,186	987	620	529	630	298	24.0	22.8	47.8	28.7
MAX	2,720	5,680	6,820	6,330	1,700	2,620	5,430	3,030	63	103	880	293
MIN	26	218	203	151	284	150	102	35	4.1	3.3	1.2	0.44
CFSM	1.36	2.86	3.73	3.10	1.95	1.66	1.98	0.94	0.08	0.07	0.15	0.09
IN.	1.56	3.19	4.30	3.58	2.03	1.92	2.21	1.08	0.08	0.08	0.17	0.10

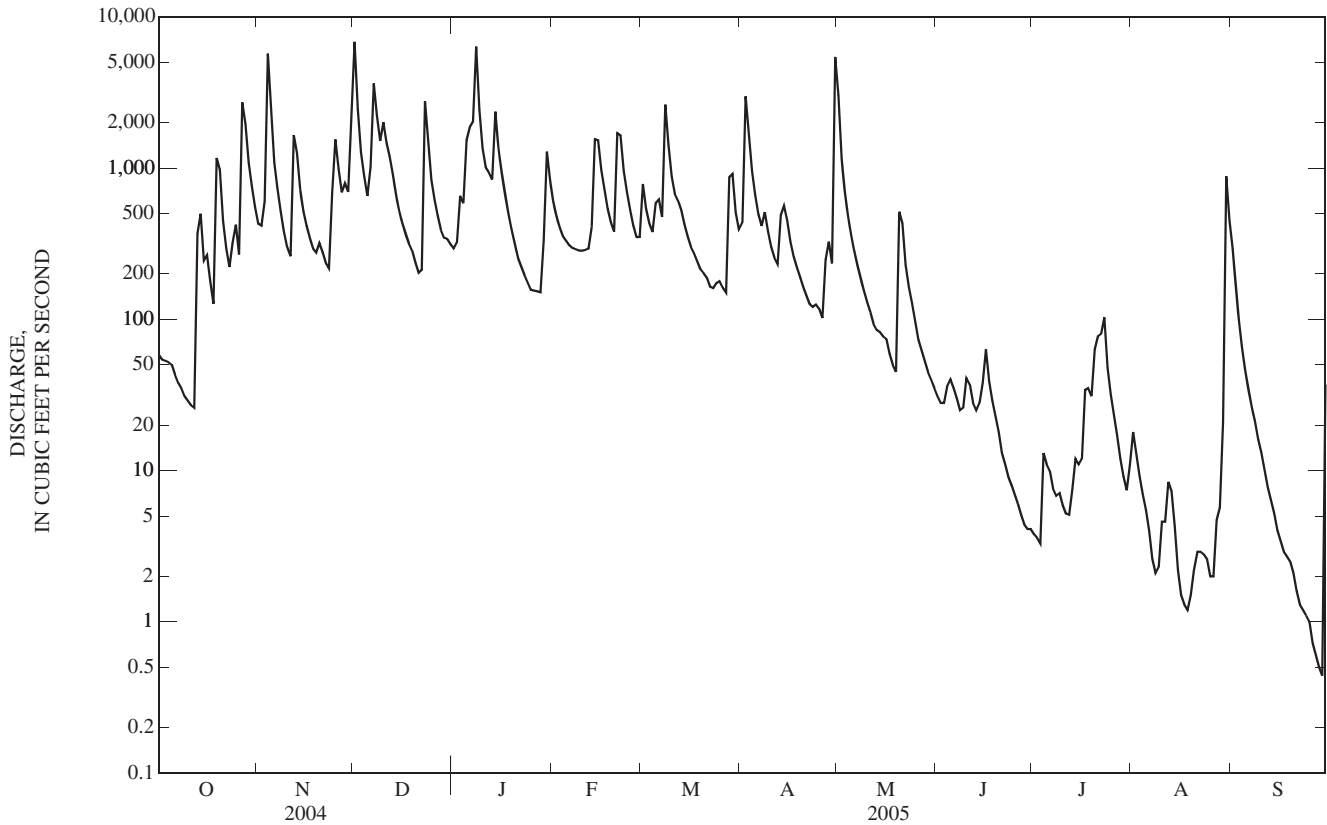
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2005, BY WATER YEAR (WY)

MEAN	107	316	661	795	979	991	672	477	286	172	94.3	154
MAX	1,323	1,471	3,656	3,140	4,129	3,059	2,736	2,618	1,732	1,692	527	3,430
(WY)	(1980)	(1987)	(1979)	(1950)	(1989)	(1997)	(1972)	(1983)	(1997)	(1996)	(1958)	(1979)
MIN	0.00	0.03	0.69	17.0	72.1	174	57.1	51.8	8.83	0.31	0.93	0.01
(WY)	(1953)	(1954)	(1954)	(1981)	(1954)	(1983)	(1986)	(1976)	(1988)	(1944)	(1952)	(1953)

03285000 DIX RIVER NEAR DANVILLE, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1943 - 2005	
ANNUAL TOTAL	250,596		173,662.66		473	
ANNUAL MEAN	685		476		1,184	
HIGHEST ANNUAL MEAN					1979	
LOWEST ANNUAL MEAN					119	
HIGHEST DAILY MEAN	10,300	Feb 6	6,820	Dec 1	35,100	Jul 20, 1996
LOWEST DAILY MEAN	26	Aug 20	0.44	Sep 29	0.00	Jul 21, 1944
ANNUAL SEVEN-DAY MINIMUM	33	Oct 6	0.79	Sep 23	0.00	Jul 29, 1944
MAXIMUM PEAK FLOW			10,200	Nov 4	52,400	Jul 20, 1996
MAXIMUM PEAK STAGE			10.34	Nov 4	21.81	Dec 9, 1978
ANNUAL RUNOFF (CFSM)	2.15		1.50		1.49	
ANNUAL RUNOFF (INCHES)	29.32		20.32		20.20	
10 PERCENT EXCEEDS	1,630		1,260		1,070	
50 PERCENT EXCEEDS	312		223		126	
90 PERCENT EXCEEDS	65		4.2		3.2	

e Estimated



## KENTUCKY RIVER BASIN

## 03286500 KENTUCKY RIVER AT LOCK 7 AT HIGH BRIDGE, KY

LOCATION.--Lat 37°49'45", 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<sup>2</sup>.

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.--Records fair above 1,000 ft<sup>3</sup>/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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,250	8,560	37,700	5,490	13,400	8,800	16,200	48,400	1,070	415	582	2,480
2	2,970	7,870	42,500	6,130	12,000	12,300	26,600	52,900	990	494	532	1,450
3	2,090	7,430	45,000	6,610	10,400	14,500	38,500	43,900	951	821	464	975
4	2,070	24,100	29,600	6,620	9,120	11,700	42,100	19,300	979	1,110	404	711
5	2,200	24,600	16,800	9,440	8,070	9,910	31,100	13,000	994	1,220	371	553
6	2,590	22,800	14,200	15,500	7,180	8,350	19,700	10,300	1,060	1,060	365	448
7	2,080	15,400	20,300	19,800	6,520	8,840	15,100	8,090	1,190	867	350	374
8	1,720	11,000	27,300	39,800	6,200	19,200	13,300	6,750	1,200	e800	319	316
9	1,320	8,480	26,600	46,600	6,240	19,100	11,600	5,560	1,140	e710	293	279
10	1,070	6,780	26,100	41,900	6,150	16,000	9,810	4,190	1,230	e700	279	256
11	1,320	5,690	36,800	25,200	6,200	14,100	8,590	3,570	1,330	e1,040	278	236
12	1,420	8,110	37,600	16,600	6,110	12,300	7,790	3,230	1,320	e1,190	275	218
13	1,960	9,100	27,000	14,000	6,230	11,000	6,930	2,890	1,540	1,120	271	209
14	2,400	7,940	20,000	19,400	8,160	9,880	6,110	2,670	1,820	1,190	274	200
15	2,280	7,630	15,700	21,200	11,000	8,840	6,380	2,890	1,650	1,230	305	195
16	1,970	7,100	12,800	20,500	14,400	7,600	9,980	2,530	1,270	1,340	330	193
17	1,630	6,420	10,400	16,400	13,700	6,760	9,560	2,290	1,020	1,720	387	188
18	2,090	5,910	8,720	12,900	11,700	6,320	7,210	2,550	861	2,100	416	187
19	14,900	5,640	7,790	10,600	9,970	6,570	5,740	2,480	769	2,220	432	180
20	15,200	5,900	6,750	8,650	8,550	5,480	5,210	3,830	684	2,310	448	173
21	11,500	5,940	5,830	7,500	8,900	5,650	4,700	3,950	607	2,700	463	168
22	6,970	5,710	5,390	6,910	12,400	5,810	3,970	4,180	530	3,070	491	163
23	4,620	5,530	9,600	6,490	13,600	5,250	3,770	4,180	502	2,770	562	161
24	4,120	6,350	10,400	5,910	12,700	4,950	3,740	3,450	605	1,930	543	161
25	4,840	8,540	8,790	5,400	10,900	4,540	4,070	2,850	714	1,420	439	161
26	4,570	10,400	8,080	5,140	9,350	4,540	3,920	2,470	682	1,140	404	171
27	8,560	10,900	7,430	5,030	8,130	4,450	4,130	2,140	568	871	495	185
28	17,000	10,900	6,710	4,950	7,340	7,930	4,790	1,800	486	694	e440	194
29	18,700	10,300	6,110	5,190	---	18,600	4,980	1,520	433	622	e745	196
30	13,700	14,100	5,740	9,260	---	28,100	24,100	1,300	410	599	2,910	219
31	9,950	---	5,550	12,300	---	21,900	---	1,170	---	587	3,520	---
TOTAL	171,060	295,130	549,290	437,420	264,620	329,270	359,680	270,330	28,605	40,060	18,387	11,600
MEAN	5,518	9,838	17,720	14,110	9,451	10,620	11,990	8,720	954	1,292	593	387
MAX	18,700	24,600	45,000	46,600	14,400	28,100	42,100	52,900	1,820	3,070	3,520	2,480
MIN	1,070	5,530	5,390	4,950	6,110	4,450	3,740	1,170	410	415	271	161

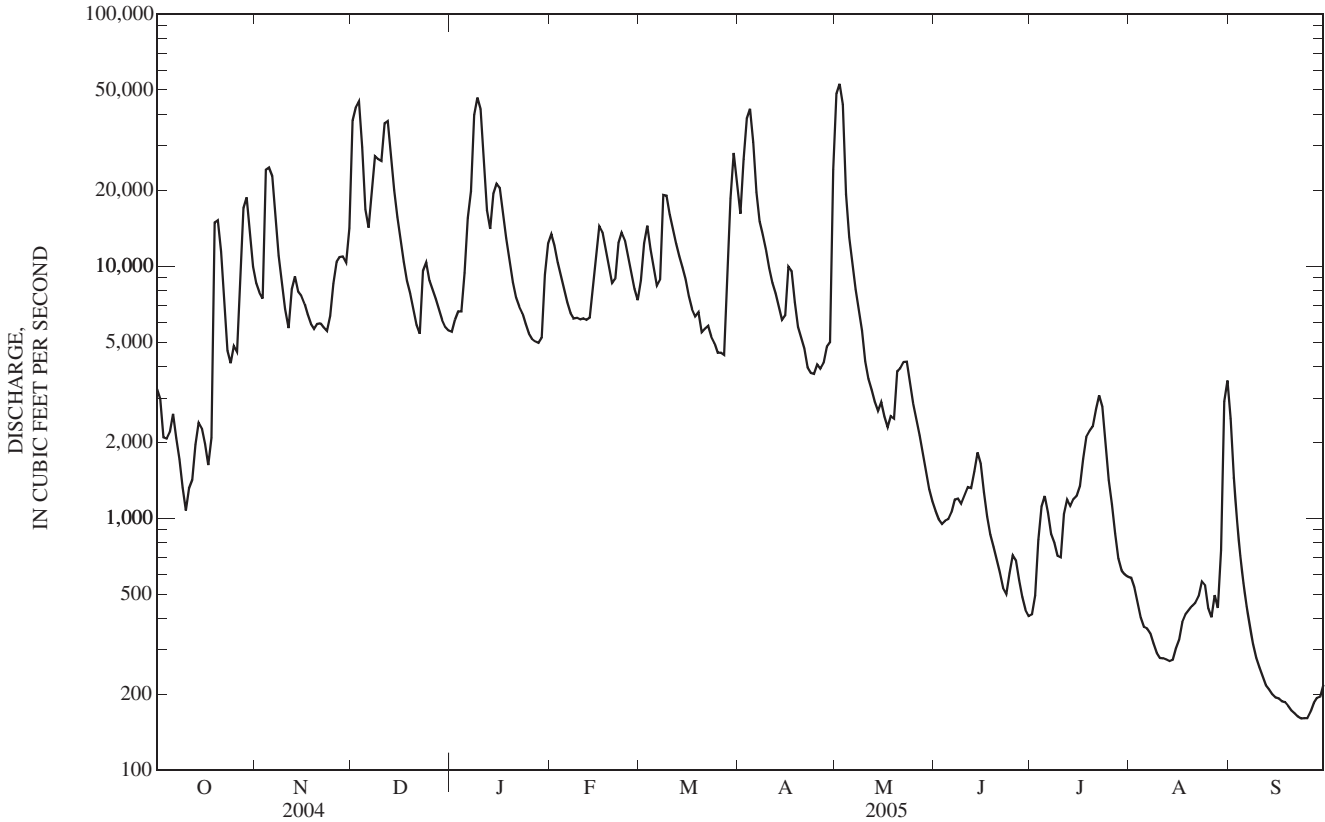
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2005, BY WATER YEAR (WY)

MEAN	1,713	4,286	7,219	10,990	12,600	14,610	11,150	9,381	6,597	2,531	1,864	1,931
MAX	5,518	11,810	17,720	22,370	27,360	29,500	21,390	22,020	18,360	4,867	4,660	12,960
(WY)	(2005)	(2004)	(2005)	(1994)	(2003)	(1997)	(1994)	(1995)	(1997)	(1998)	(2001)	(2004)
MIN	324	456	1,567	1,876	4,614	5,553	3,730	1,973	417	435	306	153
(WY)	(1998)	(2002)	(2000)	(2000)	(2002)	(2000)	(1999)	(2001)	(1999)	(1999)	(1999)	(1999)

03286500 KENTUCKY RIVER AT LOCK 7 AT HIGH BRIDGE, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1992 - 2005	
ANNUAL TOTAL	4,090,340		2,775,452		7,042	
ANNUAL MEAN	11,180		7,604		3,371	
HIGHEST ANNUAL MEAN					11,250	1994
LOWEST ANNUAL MEAN					3,371	2000
HIGHEST DAILY MEAN	71,500	May 31	52,900	May 2	87,900	Mar 2, 1997
LOWEST DAILY MEAN	1,060	Sep 7	161	Sep 23	79	Sep 13, 2002
ANNUAL SEVEN-DAY MINIMUM	1,320	Sep 1	165	Sep 20	109	Sep 9, 2002
MAXIMUM PEAK FLOW			53,500	May 2	92,800	Mar 10, 1994
MAXIMUM PEAK STAGE			22.99	May 2	37.90	Mar 10, 1994
10 PERCENT EXCEEDS	27,400		19,100		17,500	
50 PERCENT EXCEEDS	6,800		5,190		3,200	
90 PERCENT EXCEEDS	2,160		382		466	

e Estimated



## 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<sup>2</sup>, of which about 101 mi<sup>2</sup> 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 or 487.89 ft. above NGVD of 1929. Prior to November 1934, nonrecording gage at same site and datum. Auxiliary water-stage recorder with telemetry at Lock 5, 14 mi downstream. Prior to Sept. 30, 1981, nonrecording gage at same site and datum.

REMARKS.--Records good above 2,000 ft<sup>3</sup>/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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,440	9,340	35,300	5,690	13,800	8,990	16,800	46,500	1,210	452	602	2,770
2	3,080	8,890	40,000	6,310	12,700	12,300	24,500	52,300	1,140	493	570	1,610
3	2,300	8,340	43,500	6,890	11,000	14,800	35,700	44,800	1,110	753	534	1,110
4	1,950	21,600	30,600	6,950	9,760	12,500	40,500	21,100	1,120	1,110	489	831
5	2,180	25,200	17,600	9,390	8,680	10,500	31,300	13,800	1,130	1,270	449	660
6	2,580	23,000	14,700	15,100	7,740	9,020	20,500	11,100	1,170	1,170	431	545
7	2,110	16,300	19,400	20,100	7,020	9,150	15,700	8,810	1,290	1,040	429	454
8	1,830	11,800	26,500	36,400	6,600	18,100	13,900	7,370	1,330	955	389	370
9	1,430	9,170	26,100	44,800	6,630	19,600	12,200	6,080	1,280	850	338	320
10	1,190	7,350	25,100	41,100	6,540	16,600	10,400	4,590	1,330	769	305	290
11	1,280	6,150	33,600	26,100	6,580	14,700	9,070	3,780	1,450	966	315	261
12	1,480	8,240	35,800	17,400	6,500	12,900	8,330	3,300	1,450	1,230	314	252
13	1,850	9,720	27,000	14,600	6,610	11,600	7,450	2,980	1,580	1,210	322	232
14	2,360	8,440	20,500	18,800	8,480	10,500	6,620	2,710	1,860	1,230	309	220
15	2,300	8,030	16,300	21,000	11,100	9,470	6,400	2,920	1,770	1,260	323	212
16	2,110	7,530	13,400	20,700	14,600	8,130	10,000	2,560	1,420	1,310	349	213
17	1,670	6,820	11,100	17,100	14,300	7,350	10,200	2,270	1,160	1,610	403	210
18	1,950	6,240	9,260	13,700	12,400	6,640	7,910	2,400	1,000	1,970	449	203
19	13,400	5,940	8,280	11,300	10,700	6,970	6,170	2,570	908	2,280	477	198
20	16,900	6,140	7,220	9,320	9,200	5,960	5,480	3,950	818	2,340	481	181
21	12,700	6,210	6,170	8,040	9,280	5,860	5,020	4,230	731	2,550	490	163
22	8,060	5,970	5,720	7,360	12,500	6,160	4,170	4,330	646	3,070	534	163
23	5,310	5,740	10,000	6,910	14,000	5,580	3,890	4,460	596	2,870	581	140
24	4,410	6,490	11,300	6,320	13,300	5,270	3,830	3,700	648	2,040	583	129
25	5,090	8,690	9,400	5,750	11,600	4,770	4,140	2,960	733	1,500	511	129
26	4,970	10,600	8,590	5,420	10,000	4,730	4,090	2,510	716	1,180	470	140
27	8,260	11,200	7,900	5,270	8,750	4,710	4,190	2,180	620	901	516	151
28	16,600	11,200	7,140	5,190	7,900	7,940	4,900	1,880	536	711	611	163
29	19,300	10,800	6,460	5,340	---	17,400	5,200	1,640	484	673	820	169
30	14,800	13,000	6,010	9,150	---	26,800	20,400	1,430	454	632	2,560	178
31	10,800	---	5,800	12,400	---	22,500	---	1,290	---	611	3,900	---
TOTAL	177,690	304,140	545,750	439,900	278,270	337,500	358,960	276,500	31,690	41,006	19,854	12,667
MEAN	5,732	10,140	17,600	14,190	9,938	10,890	11,970	8,919	1,056	1,323	640	422
MAX	19,300	25,200	43,500	44,800	14,600	26,800	40,500	52,300	1,860	3,070	3,900	2,770
MIN	1,190	5,740	5,720	5,190	6,500	4,710	3,830	1,290	454	452	305	129

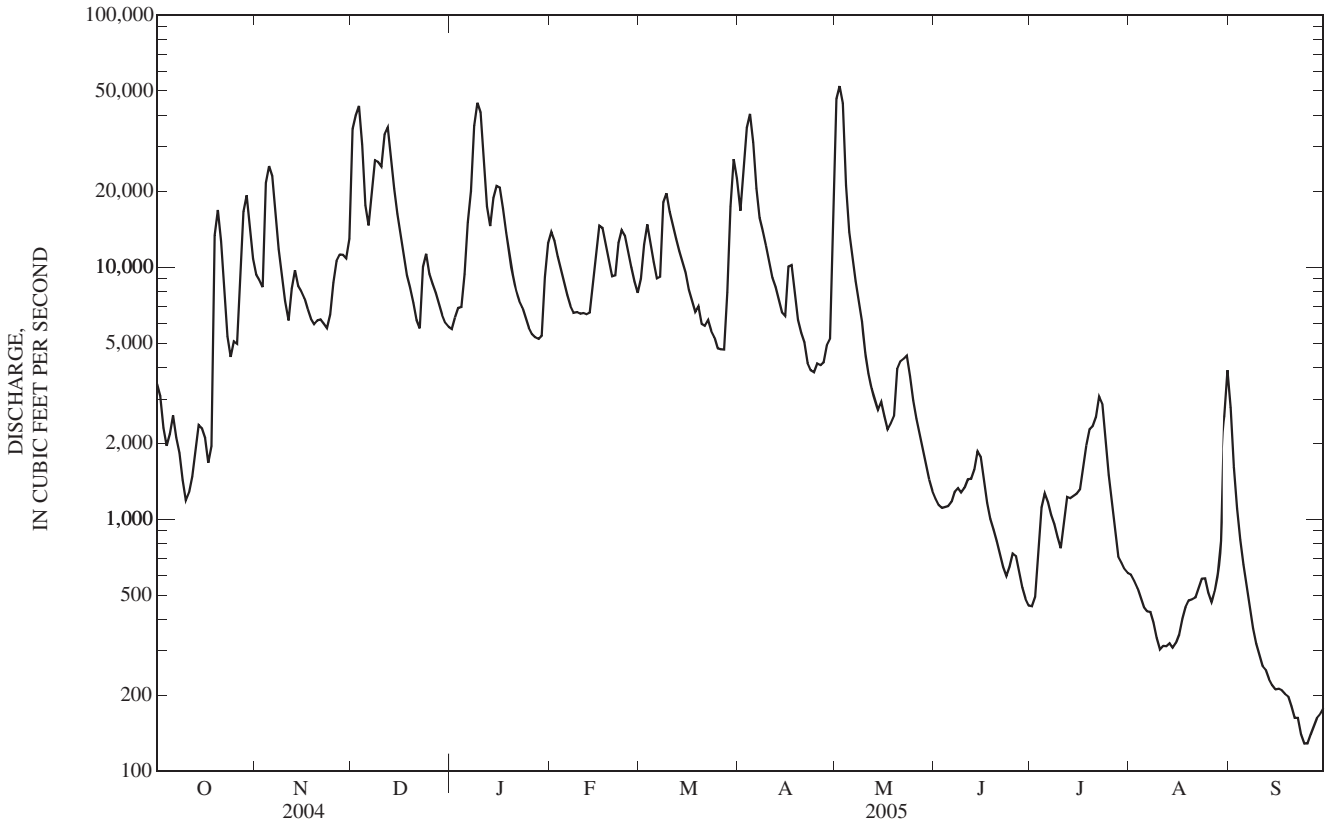
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2005, BY WATER YEAR (WY)

MEAN	2,171	4,692	9,065	10,350	12,940	12,990	10,220	8,696	5,583	2,361	1,953	1,971
MAX	13,680	12,450	31,030	25,970	34,850	30,240	21,550	26,910	18,890	5,441	6,238	13,020
(WY)	(1990)	(1987)	(1979)	(1979)	(1989)	(1997)	(1994)	(1983)	(1997)	(1998)	(1992)	(2004)
MIN	312	467	1,164	502	4,480	3,769	1,491	1,308	362	420	277	188
(WY)	(1981)	(2002)	(1981)	(1981)	(2002)	(1983)	(1986)	(1986)	(1988)	(1999)	(1986)	(1999)



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

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1977 - 2005	
ANNUAL TOTAL	4,176,700		2,823,927		6,885	
ANNUAL MEAN	11,410		7,737		11,050	
HIGHEST ANNUAL MEAN					1994	
LOWEST ANNUAL MEAN					1988	
HIGHEST DAILY MEAN	72,100	Jun 1	52,300	May 2	125,000	Dec 10, 1978
LOWEST DAILY MEAN	1,150	Sep 6	129	Sep 24	83	Sep 4, 1984
ANNUAL SEVEN-DAY MINIMUM	1,480	Sep 2	145	Sep 21	112	Nov 8, 1991
MAXIMUM PEAK FLOW			53,200	May 2	130,000	Dec 10, 1978
MAXIMUM PEAK STAGE			21.78	May 2	49.04	Dec 10, 1978
10 PERCENT EXCEEDS	26,900		19,000		17,200	
50 PERCENT EXCEEDS	7,200		5,420		3,150	
90 PERCENT EXCEEDS	2,230		449		446	



## KENTUCKY RIVER BASIN

## 03287500 KENTUCKY RIVER AT LOCK 4 AT FRANKFORT, KY

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

DRAINAGE AREA.--5,411 mi<sup>2</sup>, (includes that of Benson Creek), of which about 120 mi<sup>2</sup> does not contribute directly to surface runoff.

## WATER DISCHARGE RECORDS

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.--Records fair except those for estimated daily discharges and flow below 1000 ft<sup>3</sup>/s, 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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,540	10,400	34,700	6,970	14,300	8,550	18,900	41,000	1,350	576	645	3,490
2	3,160	11,100	38,600	7,010	13,500	11,300	22,700	49,800	1,270	580	630	2,000
3	2,650	10,600	42,600	9,190	11,700	15,000	32,900	47,100	1,240	715	585	1,240
4	1,880	19,100	35,000	8,700	10,200	13,700	38,900	26,400	1,200	1,100	540	869
5	2,190	29,300	20,700	10,600	8,920	10,800	33,700	15,300	1,210	1,390	477	691
6	2,500	25,100	16,000	17,100	7,890	9,420	23,400	11,800	1,250	1,370	445	594
7	2,270	19,300	22,700	22,500	7,120	8,640	17,300	9,060	1,370	1,170	448	513
8	2,000	13,200	28,300	33,800	6,840	16,200	14,900	7,460	1,460	1,010	419	451
9	1,580	9,830	28,400	43,900	6,720	21,500	12,700	6,220	1,420	908	378	399
10	1,260	7,710	26,700	43,200	6,660	18,100	10,900	4,890	1,430	831	351	365
11	1,120	7,570	31,500	30,900	6,570	15,800	9,120	3,960	1,610	894	338	341
12	1,490	13,200	36,100	20,000	6,510	13,700	8,340	3,390	1,630	1,250	332	310
13	1,740	11,000	30,000	16,500	6,820	12,100	7,500	3,120	1,710	1,340	330	284
14	2,310	9,130	22,800	19,600	8,940	10,800	6,830	2,790	1,970	1,320	336	260
15	2,440	8,290	18,200	22,200	11,000	9,690	5,920	3,270	2,030	1,330	336	240
16	2,310	7,760	14,600	22,400	14,800	8,230	8,830	2,810	1,720	1,350	387	234
17	1,830	7,010	11,800	19,200	15,400	7,500	10,400	2,420	1,350	1,670	412	227
18	2,240	6,360	9,560	15,100	13,300	6,550	8,260	2,310	1,110	2,050	450	212
19	17,600	6,610	8,380	12,100	11,200	6,850	6,290	2,860	996	2,370	492	205
20	20,800	6,470	7,380	9,840	9,480	6,330	5,420	6,360	910	2,540	496	202
21	14,400	6,400	6,290	8,230	9,080	5,690	5,090	4,640	824	2,580	500	190
22	9,290	6,150	6,370	7,420	12,000	6,110	4,340	4,340	752	2,980	518	178
23	6,090	5,870	13,100	6,930	14,500	5,800	4,250	4,600	687	3,000	548	164
24	5,680	7,110	13,200	6,380	14,100	5,480	3,970	4,030	700	2,300	576	e157
25	5,380	9,030	10,300	5,810	12,300	4,980	4,050	3,210	783	1,670	534	166
26	5,340	10,700	9,000	5,430	10,400	4,830	4,250	2,680	806	1,270	496	e193
27	7,820	11,600	8,150	5,240	8,960	6,580	4,340	2,340	749	974	505	e195
28	16,300	11,600	7,360	5,130	8,030	17,500	4,730	2,040	667	796	688	198
29	20,800	11,500	6,900	5,240	---	17,200	5,400	1,780	620	684	877	e205
30	17,000	12,300	7,160	8,320	---	26,800	15,900	1,530	586	650	2,610	e214
31	11,900	---	6,410	12,100	---	25,600	---	1,410	---	637	4,860	---
TOTAL	196,910	331,300	578,260	467,040	287,240	357,330	359,530	284,920	35,410	43,305	21,539	14,987
MEAN	6,352	11,040	18,650	15,070	10,260	11,530	11,980	9,191	1,180	1,397	695	500
MAX	20,800	29,300	42,600	43,900	15,400	26,800	38,900	49,800	2,030	3,000	4,860	3,490
MIN	1,120	5,870	6,290	5,130	6,510	4,830	3,970	1,410	586	576	330	157

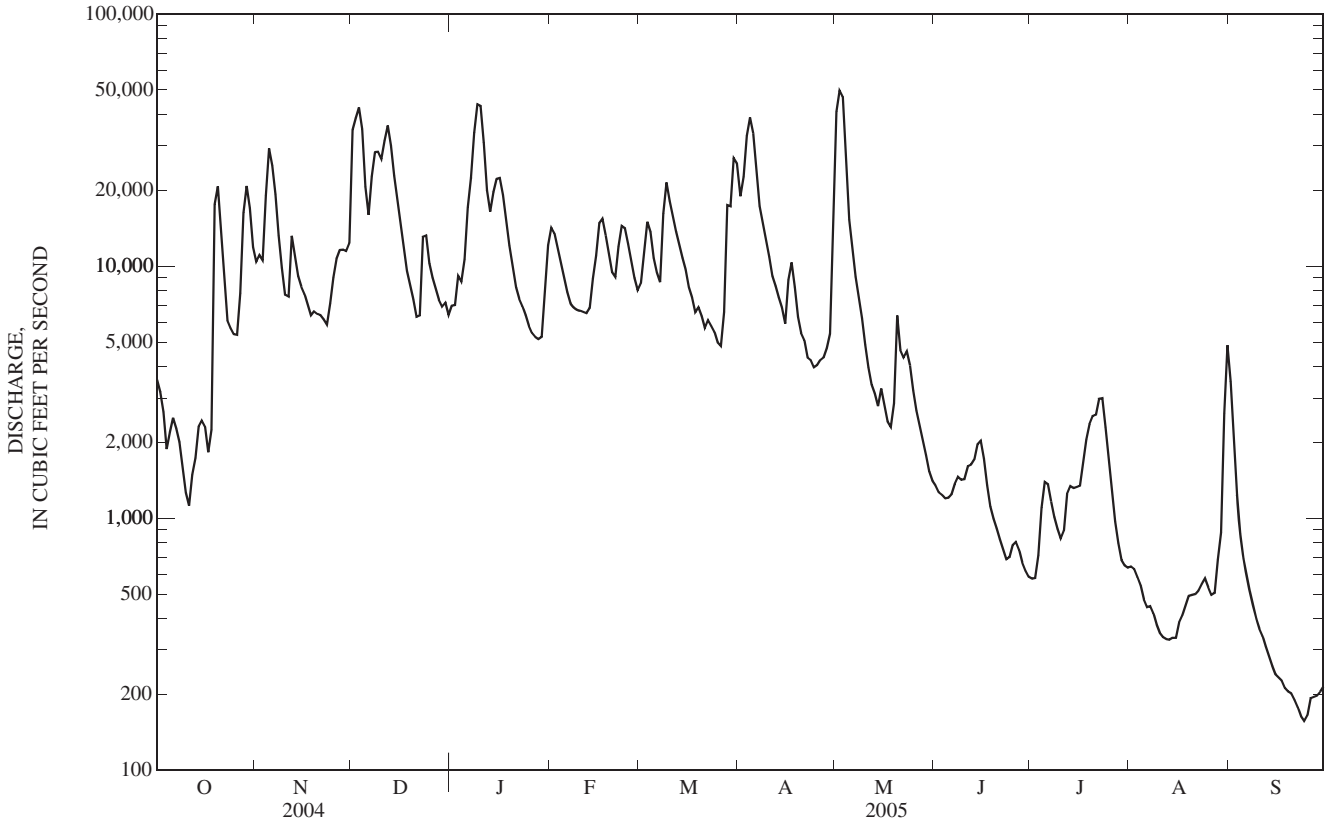
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2005, BY WATER YEAR (WY)

MEAN	2,294	5,101	9,700	11,010	13,690	13,910	10,620	9,102	5,858	2,530	2,106	2,117
MAX	13,240	13,700	33,220	27,590	35,680	34,190	22,400	28,200	20,840	6,446	6,433	12,750
(WY)	(1990)	(1987)	(1979)	(1979)	(1989)	(1997)	(1994)	(1983)	(1997)	(1998)	(1992)	(2004)
MIN	289	550	1,301	540	4,866	4,175	1,518	1,354	417	638	260	207
(WY)	(1981)	(2000)	(1981)	(1981)	(2002)	(1983)	(1986)	(1986)	(1988)	(1999)	(2002)	(1999)

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

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1977 - 2005	
ANNUAL TOTAL	4,336,770		2,977,771		7,304	
ANNUAL MEAN	11,850		8,158		3,182	
HIGHEST ANNUAL MEAN					11,860	1979
LOWEST ANNUAL MEAN					3,182	1988
HIGHEST DAILY MEAN	73,800	Jun 1	49,800	May 2	116,000	Dec 10, 1978
LOWEST DAILY MEAN	1,120	Oct 11	157	Sep 24	78	Sep 13, 2002
ANNUAL SEVEN-DAY MINIMUM	1,500	Sep 2	178	Sep 21	88	Sep 8, 2002
MAXIMUM PEAK FLOW			51,100	May 2	118,000	Dec 9, 1978
MAXIMUM PEAK STAGE			21.20	May 3	48.47	Dec 10, 1978
10 PERCENT EXCEEDS	28,800		20,300		17,900	
50 PERCENT EXCEEDS	7,500		5,800		3,440	
90 PERCENT EXCEEDS	2,340		467		501	

e Estimated



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

## WATER-QUALITY RECORDS

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

COOPERATION.--Kentucky River Authority

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 2001 to current year.

pH: June 2001 to current year.

WATER TEMPERATURES: June 2001 to current year.

DISSOLVED OXYGEN: June 2001 to current year.

INSTRUMENTATION.-- Water-quality monitor with telemetry.

REMARKS.--

SPECIFIC CONDUCTANCE: Records rated excellent.

pH: Records rated excellent.

WATER TEMPERATURES: Records rated excellent.

DISSOLVED OXYGEN: Records rated poor.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 663 microsiemens, Aug. 30, 2001; minimum recorded, 96 microsiemens, Feb. 20, 2003.

pH: Maximum recorded, 9.9 units, Aug. 19, 2003; 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, 2.5°C, Feb. 1, 2004.

DISSOLVED OXYGEN: Maximum recorded, 15.4 mg/L, Jan. 23, 2002; minimum recorded, 0.2 mg/L, Sept. 13, 2001.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 663 microsiemens, Aug. 30, 2005; minimum recorded, 149 microsiemens, May 3, 2005.

pH: Maximum recorded, 8.9 units, June 22, 2005; minimum recorded, 7.3 units, July 14-16 2005.

WATER TEMPERATURES: Maximum recorded, 30.4°C, Aug. 13, 2005; minimum recorded, 3.6°C, Feb. 1-5, 2005.

DISSOLVED OXYGEN: Maximum recorded, 14.5 mg/L, Feb. 2, 2005; minimum recorded, 3.7 mg/L, July 14-15, Aug. 29, 2005.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	271	265	267	380	335	347	373	304	346	354	340	345
2	274	270	272	354	338	348	307	283	295	361	353	356
3	280	274	277	346	337	339	293	215	270	378	361	370
4	284	280	282	337	315	327	215	177	185	393	377	385
5	286	284	285	331	267	302	211	185	199	394	385	391
6	291	286	289	307	267	292	231	211	221	390	377	381
7	295	291	293	292	276	284	241	230	233	399	378	392
8	298	295	296	299	276	291	253	239	246	378	349	362
9	301	298	299	323	292	306	266	253	259	349	300	312
10	302	301	301	331	323	329	265	251	260	300	208	259
11	303	302	302	326	281	306	251	234	243	208	188	193
12	303	301	302	281	262	266	241	223	235	201	189	194
13	306	301	303	292	265	281	223	196	203	218	201	208
14	308	306	306	293	283	288	214	205	208	240	218	230
15	310	306	308	311	283	296	224	214	220	272	239	249
16	311	309	310	315	310	313	232	224	227	293	272	283
17	311	309	310	318	308	311	243	232	237	293	271	283
18	311	296	309	324	318	321	251	242	247	273	265	268
19	302	259	286	320	317	319	254	251	253	276	265	272
20	320	258	307	318	315	315	257	254	255	265	245	253
21	332	293	310	316	315	316	262	257	260	254	245	248
22	331	292	307	323	316	320	280	261	267	262	254	258
23	316	293	308	331	323	326	285	279	282	277	262	270
24	335	313	326	346	331	338	295	284	290	---	---	---
25	334	323	327	358	346	353	304	294	299	---	---	---
26	327	324	326	359	352	356	305	302	303	283	282	283
27	362	324	344	369	352	363	321	305	314	283	282	283
28	428	360	385	368	356	364	339	321	331	284	283	283
29	463	382	421	356	350	352	343	335	337	295	283	289
30	472	375	431	350	344	347	344	338	342	298	295	296
31	407	376	396	---	---	---	341	338	339	298	295	297
MONTH	472	258	316	380	262	321	373	177	265			





## 03287500 KENTUCKY RIVER AT LOCK 4 AT FRANKFORT, KY—Continued

TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	19.2	18.7	19.0	16.9	16.6	16.7	11.1	10.7	11.0	5.8	5.4	5.6
2	19.2	19.0	19.1	17.0	16.9	16.9	10.7	9.9	10.4	6.1	5.8	6.0
3	19.0	18.4	18.8	16.9	16.4	16.7	9.9	9.2	9.4	6.6	6.1	6.3
4	19.1	18.1	18.5	16.4	16.0	16.3	9.8	9.3	9.6	6.7	6.6	6.6
5	18.6	18.0	18.2	16.3	15.3	15.8	9.7	9.4	9.5	7.1	6.6	6.9
6	18.4	17.6	18.0	15.5	14.9	15.3	9.4	9.3	9.4	7.1	7.0	7.1
7	18.6	17.8	18.1	15.1	14.8	14.9	10.1	9.4	9.7	7.7	7.0	7.4
8	18.5	17.9	18.2	15.0	14.5	14.8	10.1	9.5	9.8	8.3	7.6	8.0
9	18.5	18.0	18.2	14.5	14.2	14.3	10.1	9.5	9.8	8.7	8.3	8.6
10	19.1	18.0	18.3	14.2	14.0	14.1	9.9	9.6	9.7	9.2	8.7	8.9
11	18.6	17.8	18.2	14.1	13.6	13.8	10.4	9.9	10.1	8.9	8.7	8.8
12	18.2	17.9	18.1	13.6	13.1	13.3	10.5	10.1	10.3	9.3	8.9	9.1
13	17.9	17.5	17.8	13.2	12.8	12.9	10.1	9.8	10	9.5	9.3	9.4
14	17.9	17.4	17.7	12.9	12.2	12.5	9.8	9.2	9.5	9.5	9.2	9.3
15	17.7	17.0	17.4	12.2	11.8	12.0	9.2	8.7	8.9	9.3	9.1	9.2
16	17.1	16.7	16.9	12.0	11.8	11.9	8.7	8.3	8.4	9.1	8.4	8.7
17	16.8	16.2	16.5	12.0	11.9	12.0	8.3	7.9	8.1	8.4	7.8	8.1
18	16.5	16.2	16.4	12.2	12.0	12.1	7.9	7.5	7.7	7.8	7.3	7.5
19	16.5	16.1	16.3	12.4	12.1	12.3	7.5	6.8	7.3	7.3	7.0	7.1
20	16.9	16.2	16.6	12.6	12.4	12.5	6.8	6.3	6.4	7.0	6.8	6.9
21	16.9	16.6	16.8	12.5	12.5	12.5	6.3	6.2	6.2	6.8	6.3	6.6
22	16.9	16.4	16.6	12.5	12.4	12.4	6.4	6.1	6.3	6.3	5.6	6.1
23	16.4	16.4	16.4	12.4	12.3	12.3	6.1	5.9	5.9	5.6	5.0	5.2
24	16.7	16.4	16.5	12.5	12.3	12.4	5.9	5.5	5.7	---	---	---
25	16.7	16.3	16.5	12.5	11.7	12.1	5.5	4.8	5.0	---	---	---
26	16.7	16.5	16.6	11.7	11.4	11.5	4.9	4.6	4.7	5.0	4.9	5.0
27	16.7	16.5	16.6	11.5	11.3	11.4	4.6	4.3	4.5	4.9	4.5	4.7
28	16.9	16.5	16.7	11.4	10.9	11.2	4.3	4.1	4.2	4.5	4.4	4.4
29	16.9	16.6	16.8	11.0	10.9	10.9	4.4	4.3	4.3	4.5	4.4	4.5
30	16.9	16.6	16.8	11.0	10.9	10.9	4.9	4.4	4.7	4.4	4.3	4.4
31	16.6	16.5	16.6	---	---	---	5.4	4.9	5.2	4.6	4.1	4.5
MONTH	19.2	16.1	17.4	17.0	10.9	13.3	11.1	4.1	7.8			
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	4.1	3.6	3.8	6.8	6.5	6.6	11.6	11.4	11.5	14.5	13.8	14.1
2	3.7	3.6	3.6	6.7	6.3	6.5	11.5	11.2	11.3	13.8	12.5	12.9
3	3.7	3.6	3.6	7.0	6.6	6.8	11.4	10.9	11.2	12.6	12.3	12.5
4	3.8	3.6	3.7	7.1	6.7	6.9	11.6	10.9	11.2	12.8	12.4	12.6
5	4.1	3.6	3.9	7.1	6.6	6.8	11.3	10.4	10.6	13.0	12.4	12.7
6	4.4	4.0	4.2	6.6	6.4	6.5	10.9	10.4	10.6	13.4	12.8	13.0
7	4.7	4.3	4.4	6.7	6.3	6.5	11.3	10.9	11.1	13.7	13.2	13.4
8	5.2	4.7	5.0	6.6	6.1	6.3	11.9	11.2	11.5	14.4	13.5	13.9
9	5.6	5.2	5.5	6.6	6.0	6.3	12.2	11.5	11.8	15.0	14.3	14.6
10	5.6	5.5	5.5	6.5	6.1	6.3	13.0	12.2	12.6	15.3	15.0	15.2
11	5.5	5.3	5.4	6.2	6.1	6.1	13.6	12.9	13.2	16.3	15.3	15.8
12	5.6	5.3	5.4	6.2	6.0	6.1	14.2	13.6	13.9	16.6	15.9	16.2
13	5.8	5.5	5.6	6.3	6.1	6.2	14.2	13.8	14.1	17.4	16.3	16.8
14	6.3	5.8	6.0	6.7	6.1	6.4	14.2	13.5	13.8	17.5	17.3	17.4
15	6.7	6.3	6.5	6.9	6.5	6.7	14.4	13.9	14.1	17.9	17.5	17.7
16	7.0	6.7	6.8	7.1	6.8	6.9	14.7	14.3	14.5	18.1	17.3	17.7
17	7.0	6.5	6.8	7.1	6.6	6.9	15.9	14.6	15.4	18.0	17.5	17.8
18	6.7	6.4	6.5	7.2	6.8	7.0	16.5	15.7	16.1	18.8	17.8	18.3
19	6.6	6.5	6.6	7.3	7.1	7.2	17.0	16.4	16.7	18.8	18.1	18.5
20	6.6	6.3	6.5	7.3	7.1	7.2	17.3	16.8	17.1	19.1	17.9	18.6
21	6.4	6.3	6.4	7.7	7.2	7.5	17.7	17.3	17.5	19.2	18.8	19.0
22	6.9	6.4	6.6	7.7	7.6	7.7	18.1	17.5	17.8	19.7	18.8	19.2
23	7.3	6.8	7.0	7.7	7.7	7.7	17.8	17.0	17.4	19.6	18.6	19.0
24	7.4	7.3	7.3	8.0	7.7	7.8	17.0	16.2	16.6	19.4	18.5	18.9
25	7.3	7.1	7.2	8.2	7.8	8.0	16.2	15.8	15.9	20.1	19.2	19.6
26	7.2	6.9	7.1	8.9	8.2	8.6	16.4	15.8	16.1	20.3	19.7	20.1
27	7.2	7.0	7.1	8.8	8.6	8.7	16.1	15.8	16.0	21.3	20.1	20.6
28	7.1	6.8	7.0	9.2	8.7	9.0	15.9	15.4	15.7	21.5	20.6	21.0
29	---	---	---	10.2	9.2	9.7	15.6	15.1	15.3	22.1	20.7	21.4
30	---	---	---	10.7	10.0	10.3	15.2	14.3	15.0	22.0	21.2	21.4
31	---	---	---	11.5	10.7	11.1	---	---	---	23.0	21.2	22.0
MONTH	7.4	3.6	5.8	11.5	6.0	7.4	18.1	10.4	14.2	23.0	12.3	17.2





## 03287500 KENTUCKY RIVER AT LOCK 4 AT FRANKFORT, KY—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	9.3	9.0	9.2	9.1	8.9	9.0	11.2	10.8	11.0	11.8	11.7	11.8
2	9.2	9.1	9.1	8.9	8.8	8.9	11.3	10.9	11.1	11.7	11.5	11.6
3	9.2	9.0	9.1	9.1	8.8	8.9	11.5	10.8	11.2	11.6	11.4	11.5
4	9.3	9.0	9.2	9.4	9.0	9.1	10.8	10.4	10.6	11.5	11.3	11.4
5	9.4	9.1	9.2	9.5	9.3	9.4	11.0	10.8	10.9	11.4	11.2	11.3
6	9.3	9.0	9.2	9.7	9.3	9.6	11.0	10.9	11.0	11.4	11.1	11.2
7	9.4	9.1	9.2	9.8	9.6	9.7	11.0	10.7	10.8	11.6	11.4	11.5
8	9.5	9.2	9.3	9.7	9.6	9.7	11.3	10.7	11.1	11.6	11.3	11.5
9	9.4	9.2	9.3	9.9	9.7	9.8	11.2	10.9	11.1	11.5	11.0	11.2
10	9.6	9.1	9.3	9.9	9.8	9.8	11.2	10.9	11.0	11.2	10.8	11.0
11	10.0	9.2	9.5	9.9	9.7	9.8	11.0	10.9	10.9	11.2	10.9	11.1
12	9.4	9.1	9.2	9.9	9.8	9.9	11.0	10.9	10.9	11.3	10.9	11.1
13	9.2	9.0	9.1	10.1	9.9	10	11.0	10.8	10.9	11.0	10.7	10.9
14	9.1	8.8	9.0	10.3	10.1	10.2	11.2	11.0	11.1	11.1	10.7	10.9
15	9.0	8.8	8.9	10.4	10.3	10.3	11.3	11.1	11.3	11.3	11.1	11.2
16	9.2	8.9	9.1	10.4	10.3	10.3	11.4	11.2	11.3	11.5	11.2	11.4
17	9.3	9.0	9.2	10.4	10.3	10.3	11.4	11.2	11.3	11.6	11.4	11.5
18	9.5	9.1	9.2	10.4	10.3	10.3	11.3	11.2	11.3	11.7	11.5	11.6
19	9.5	9.2	9.3	10.3	10.2	10.2	11.2	11.1	11.2	11.7	11.4	11.6
20	10.0	9.4	9.8	10.2	10.1	10.1	11.4	11.2	11.3	11.6	11.4	11.5
21	9.8	9.6	9.7	10.1	10.0	10.1	11.4	11.3	11.4	11.5	11.3	11.4
22	9.7	9.4	9.6	10.2	10.1	10.1	11.4	11.3	11.3	11.6	11.4	11.5
23	9.5	9.3	9.4	10.2	10.1	10.1	11.5	11.3	11.4	11.8	11.5	11.6
24	9.3	9.1	9.2	10.2	10.1	10.2	11.9	11.4	11.6	---	---	---
25	9.2	9.0	9.1	10.3	10.1	10.2	12.1	11.8	12.0	---	---	---
26	9.1	9.0	9.0	10.6	10.3	10.5	12.1	11.9	12.0	13.2	13.1	13.1
27	9.2	8.9	9.1	10.6	10.6	10.6	12.2	12.0	12.1	13.3	13.1	13.2
28	9.3	9.1	9.2	10.8	10.5	10.6	12.3	12.2	12.3	13.4	13.3	13.4
29	9.4	9.1	9.3	11.0	10.7	10.8	12.3	12.1	12.2	13.5	13.4	13.5
30	9.4	9.2	9.3	10.9	10.8	10.8	12.2	12.0	12.1	13.5	13.4	13.4
31	9.2	9.1	9.2	---	---	---	12.1	11.8	11.9	13.9	13.4	13.5
MONTH	10.0	8.8	9.2	11.0	8.8	10.0	12.3	10.4	11.3	13.9	10.7	11.8
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	14.4	13.9	14.3	13.1	12.8	12.9	11.7	11.3	11.5	---	---	---
2	14.5	14.4	14.4	13.2	12.9	13.1	11.5	11.3	11.4	---	---	---
3	14.4	14.3	14.4	13.4	13.2	13.2	11.8	11.5	11.7	---	---	---
4	14.3	14.2	14.2	13.4	13.2	13.3	11.9	11.5	11.7	---	---	---
5	14.2	14.0	14.1	13.3	13.2	13.2	11.8	11.6	11.7	---	---	---
6	14.1	13.9	14.0	13.5	13.2	13.4	11.9	11.6	11.8	---	---	---
7	13.9	13.7	13.8	13.5	13.1	13.3	11.6	11.3	11.5	---	---	---
8	13.7	13.4	13.5	13.6	13.1	13.3	11.3	11.2	11.3	---	---	---
9	13.4	13.1	13.2	13.7	13.5	13.6	11.5	11.1	11.3	---	---	---
10	13.1	13.0	13.0	13.7	13.5	13.6	11.4	11.2	11.3	---	---	---
11	13.3	13.1	13.2	13.7	13.5	13.6	11.3	10.9	11.1	---	---	---
12	13.2	13.2	13.2	13.6	13.5	13.5	11.0	10.6	10.8	---	---	---
13	13.2	13.1	13.1	13.5	13.3	13.4	10.7	10.5	10.6	---	---	---
14	13.1	12.8	12.9	13.3	13.2	13.3	10.9	10.6	10.7	---	---	---
15	13.1	12.8	12.9	13.2	13.1	13.2	11.1	10.8	11.0	---	---	---
16	13.1	13.0	13.0	13.2	13.0	13.1	11.5	11.0	11.3	---	---	---
17	13.4	13.1	13.3	13.1	13.0	13.0	11.5	11.2	11.4	---	---	---
18	13.4	13.3	13.4	13.0	12.9	13.0	11.4	11.1	11.1	9.8	9.4	9.5
19	13.3	13.2	13.2	13.0	12.8	12.8	11.1	10.9	11.0	10.1	9.4	9.7
20	13.3	13.2	13.3	13.0	12.8	12.9	11.0	10.7	10.9	9.6	9.1	9.3
21	13.3	13.1	13.2	13.0	12.7	12.8	10.9	10.7	10.7	9.4	8.8	9.1
22	13.1	13.0	13.1	12.7	12.6	12.7	10.8	10.3	10.7	9.4	8.8	9.0
23	13.2	13.0	13.1	12.6	12.5	12.6	10.5	10.2	10.3	9.5	8.7	9.1
24	13.1	13.0	13.0	12.5	12.4	12.4	10.8	10.3	10.5	9.4	8.9	9.2
25	13.1	13.1	13.1	12.5	12.4	12.5	11.3	10.6	10.9	9.6	8.7	9.0
26	13.1	13.0	13.1	12.4	12.1	12.3	11.1	10.7	10.9	9.0	8.2	8.6
27	13.1	12.9	13.0	12.3	12.1	12.2	---	---	---	8.9	8.0	8.3
28	13.0	12.8	12.9	12.1	11.7	11.8	---	---	---	8.9	7.9	8.3
29	---	---	---	12.1	11.6	11.8	---	---	---	8.9	7.8	8.2
30	---	---	---	12.2	12.0	12.1	---	---	---	8.6	7.5	7.8
31	---	---	---	12.0	11.7	11.9	---	---	---	8.8	7.4	7.8
MONTH	14.5	12.8	13.4	13.7	11.6	12.9	---	---	---	---	---	---



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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<sup>2</sup>.

PERIOD OF RECORD.--October 1997 to August 2005.

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<sup>3</sup>/s and those estimated, which are poor. Gage removed Aug. 9, 2005 for road construction.

COOPERATION.--Lexington-Fayette County Urban Government.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 19	0235	*137	*4.65	Dec 7	0825	75	3.14
Oct 24	0510	57	2.71	Jan 8	0110	70	3.01
Nov 4	0510	70	3.00	Jul 19	1735	89	3.49
Nov 30	1645	84	3.37				

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.69	11	27	6.4	3.0	3.0	7.2	2.3	0.45	0.21	0.21	---
2	0.70	15	9.2	4.9	2.9	2.7	12	1.2	0.44	0.16	0.26	---
3	0.68	12	5.8	5.2	3.3	2.5	6.7	0.88	0.52	0.07	0.11	---
4	0.63	31	4.4	7.3	2.7	2.5	4.8	0.78	0.52	e0.15	0.12	---
5	0.60	11	3.6	12	1.8	2.4	3.8	0.72	0.42	0.44	0.09	---
6	0.59	5.9	5.1	17	1.6	1.9	3.2	0.70	0.37	0.21	0.07	---
7	0.60	4.0	24	15	1.5	2.8	3.0	0.68	0.32	0.11	0.06	---
8	0.59	3.1	9.4	32	1.6	8.1	2.7	0.62	0.30	0.05	0.05	---
9	0.59	2.7	7.8	10	1.6	5.1	2.4	0.39	0.29	e0.00	0.04	---
10	0.63	2.5	7.4	6.2	1.6	4.1	2.3	0.35	0.31	e0.00	---	---
11	0.64	4.8	5.3	4.8	1.5	3.6	1.9	0.33	0.54	e0.00	---	---
12	0.84	17	4.4	4.3	1.7	3.6	1.3	e0.32	0.48	e0.00	---	---
13	1.6	6.6	3.7	8.5	3.0	3.3	1.4	0.34	0.43	0.92	---	---
14	1.3	4.3	3.2	11	5.7	3.0	1.4	2.0	0.48	1.7	---	---
15	2.3	3.3	2.9	6.5	5.1	2.9	1.1	0.84	0.63	1.1	---	---
16	1.7	2.8	2.7	4.9	4.0	2.7	1.0	0.50	0.38	0.72	---	---
17	1.5	2.6	2.6	3.9	2.8	2.3	0.94	0.40	0.29	4.1	---	---
18	6.6	2.5	2.5	3.1	2.2	3.0	0.95	0.36	0.35	1.9	---	---
19	56	3.0	2.4	3.0	2.1	1.4	0.92	2.6	0.25	15	---	---
20	9.7	2.7	2.4	2.8	2.6	1.7	0.90	7.5	0.17	3.8	---	---
21	5.1	2.5	2.3	2.7	5.6	1.6	0.87	2.8	0.13	1.6	---	---
22	3.5	2.3	3.2	2.6	6.0	2.4	0.87	1.7	0.09	0.98	---	---
23	4.1	2.7	13	2.5	4.2	2.4	1.3	1.8	0.05	0.76	---	---
24	21	7.3	5.3	2.3	3.5	2.3	1.3	1.3	e0.03	0.62	---	---
25	7.0	6.0	4.0	2.2	3.0	2.3	1.1	1.00	e0.01	0.51	---	---
26	4.3	4.4	3.4	2.2	2.7	2.3	1.6	0.82	e0.00	0.43	---	---
27	15	4.1	2.9	2.1	2.5	4.0	2.5	0.75	e0.00	0.37	---	---
28	8.4	5.3	2.7	2.0	2.9	14	2.1	0.67	e0.00	0.33	---	---
29	4.9	4.0	2.6	2.9	---	7.0	3.7	0.58	e0.00	0.27	---	---
30	4.0	25	2.7	3.9	---	4.9	15	0.51	e0.02	0.21	---	---
31	3.1	---	2.6	3.3	---	3.9	---	0.49	---	0.17	---	---
TOTAL	168.88	211.4	180.5	197.5	82.7	109.7	90.25	36.23	8.27	36.89	---	---
MEAN	5.45	7.05	5.82	6.37	2.95	3.54	3.01	1.17	0.28	1.19	---	---
MAX	56	31	27	32	6.0	14	15	7.5	0.63	15	---	---
MIN	0.59	2.3	2.3	2.0	1.5	1.4	0.87	0.32	0.00	0.00	---	---

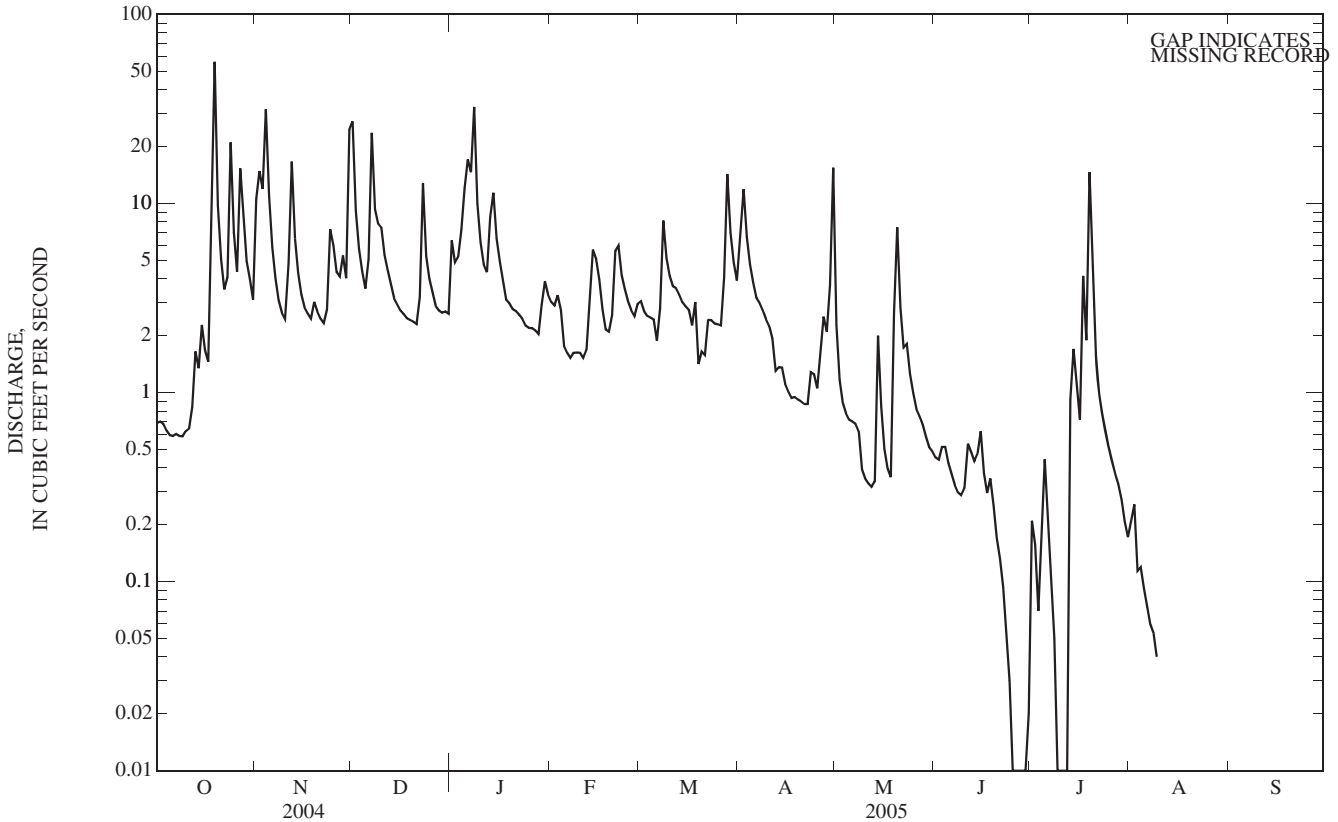
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2005, BY WATER YEAR (WY)

MEAN	1.16	2.71	3.02	3.82	4.86	4.26	2.86	4.02	2.28	1.42	1.09	1.39
MAX	5.45	7.06	6.31	6.37	12.7	7.99	6.19	12.3	7.61	6.20	5.58	4.55
(WY)	(2005)	(2004)	(2003)	(2005)	(2003)	(2002)	(1998)	(2003)	(1998)	(1998)	(2004)	(2003)
MIN	0.00	0.00	0.07	0.25	0.48	2.19	0.73	0.20	0.03	0.02	0.00	0.00
(WY)	(2000)	(2000)	(2000)	(2000)	(2002)	(2003)	(2001)	(1999)	(1999)	(1999)	(1999)	(1999)

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

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		WATER YEARS 1998 - 2005	
ANNUAL TOTAL	1,808.66			
ANNUAL MEAN	4.94		2.65	
HIGHEST ANNUAL MEAN			5.05	2003
LOWEST ANNUAL MEAN			0.83	2000
HIGHEST DAILY MEAN	66	May 31	98	Mar 20, 2002
LOWEST DAILY MEAN	0.51	May 14	0.00	Oct 1, 1997
ANNUAL SEVEN-DAY MINIMUM	0.60	Oct 4	0.00	Oct 1, 1997
MAXIMUM PEAK FLOW			281	Jun 29, 1998
MAXIMUM PEAK STAGE			5.11	Jun 29, 1998
INSTANTANEOUS LOW FLOW			0.00	Jul 1, 2001
10 PERCENT EXCEEDS	11		6.0	
50 PERCENT EXCEEDS	2.6		0.71	
90 PERCENT EXCEEDS	0.86		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<sup>2</sup>.

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

REVISIONS.--Maximum discharge for the water year 1998 has been revised to 720 ft<sup>3</sup>/s, July 20, 1998, gage height, 6.78 ft.

GAGE.--Water-stage recorder with telemetry. Elevation of gage is 921.258 ft above NGVD of 1929.

REMARKS.--Records good except for discharges below 3.0 cfs, above 250 cfs, and those estimated, which are poor.

COOPERATION.--Lexington-Fayette County Urban Government.

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 19	0255	*675	*6.64	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	38	68	20	5.4	5.5	20	13	0.82	1.1	0.12	4.6
2	1.3	46	20	12	5.3	4.5	29	6.6	0.83	0.36	0.16	2.0
3	1.1	29	12	13	6.6	4.1	14	4.6	1.6	0.53	0.11	1.1
4	0.88	97	8.4	20	5.4	4.1	9.4	3.7	0.91	1.00	0.10	0.73
5	0.82	23	6.6	32	3.9	4.1	7.2	3.2	0.73	0.72	0.09	0.54
6	0.76	12	13	51	3.5	3.5	5.6	2.8	0.61	0.37	0.11	0.44
7	0.74	8.7	72	46	3.2	9.9	5.4	2.4	0.56	0.26	0.10	0.40
8	0.72	6.2	19	100	4.1	20	4.8	2.2	0.51	0.22	0.08	0.34
9	0.75	5.1	19	24	3.8	9.9	4.2	1.2	0.50	0.19	0.06	0.33
10	0.80	4.6	15	12	3.6	7.2	3.8	0.89	0.89	0.15	0.05	0.32
11	0.81	20	11	9.2	3.1	6.4	3.4	0.78	0.84	0.14	0.03	0.31
12	4.0	48	8.5	7.5	3.1	7.0	3.6	0.74	0.87	0.61	0.01	0.35
13	3.6	15	6.9	28	9.9	5.6	4.5	0.78	0.82	8.5	0.67	0.28
14	2.0	9.2	5.4	32	16	4.8	3.2	20	2.6	5.7	0.23	0.35
15	3.9	6.7	4.8	13	12	4.3	2.4	6.1	1.2	2.4	0.08	0.34
16	1.7	5.4	4.5	8.7	7.8	4.0	2.1	2.7	0.57	1.2	2.6	1.1
17	1.3	4.7	4.2	e6.2	5.6	3.7	1.9	1.9	0.40	17	0.49	0.57
18	28	4.4	3.8	e5.4	4.2	4.4	1.7	1.5	0.35	5.8	0.21	0.41
19	e150	7.5	3.7	4.8	3.9	3.8	1.8	14	0.33	52	3.2	0.37
20	e22	5.4	3.6	4.6	5.7	3.8	1.7	21	0.27	8.5	0.80	0.40
21	13	4.6	3.5	4.7	14	2.8	1.7	5.8	0.22	2.5	0.25	0.42
22	9.6	4.4	8.8	4.5	12	3.5	2.3	3.4	0.19	1.2	0.37	0.34
23	14	6.6	44	e4.3	7.7	4.2	4.5	4.7	0.17	0.78	0.26	0.32
24	58	22	12	e4.0	6.3	3.6	2.8	2.3	0.17	0.56	0.10	0.34
25	16	15	e6.6	e3.8	5.1	3.5	2.2	1.8	0.16	0.42	0.06	0.34
26	9.5	9.7	e5.9	e3.5	4.5	3.2	6.6	1.5	0.16	0.40	2.9	1.4
27	47	10	e4.8	e3.2	4.1	13	5.2	1.3	0.15	0.31	3.4	0.53
28	20	12	e4.4	e3.0	6.5	44	4.6	1.1	0.16	0.25	2.0	0.39
29	11	8.2	e4.1	9.5	---	16	13	0.97	0.40	0.18	30	7.9
30	9.1	85	e3.8	8.8	---	9.7	47	0.88	0.33	0.16	44	1.0
31	6.6	---	4.7	6.5	---	7.1	---	0.82	---	0.14	27	---
TOTAL	439.98	573.4	412.0	505.2	176.3	231.2	219.6	134.66	18.32	113.65	119.64	28.26
MEAN	14.2	19.1	13.3	16.3	6.30	7.46	7.32	4.34	0.61	3.67	3.86	0.94
MAX	150	97	72	100	16	44	47	21	2.6	52	44	7.9
MIN	0.72	4.4	3.5	3.0	3.1	2.8	1.7	0.74	0.15	0.14	0.01	0.28

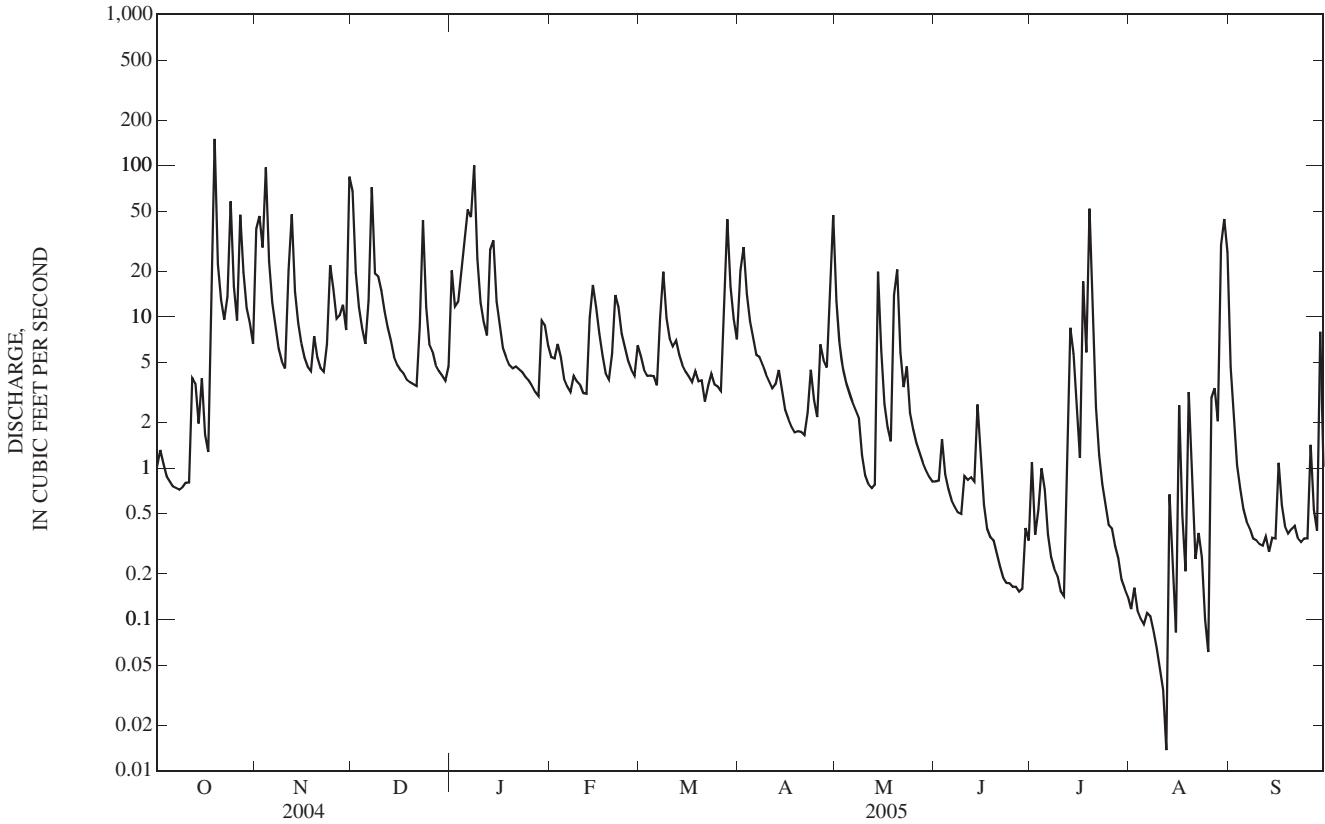
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2005, BY WATER YEAR (WY)

MEAN	3.39	6.76	7.17	9.37	11.4	10.3	6.99	10.4	4.90	4.82	3.43	3.60
MAX	14.2	19.1	13.3	16.3	24.4	21.5	12.3	26.3	15.3	18.6	15.0	11.5
(WY)	(2005)	(2005)	(2005)	(2005)	(2003)	(2002)	(1998)	(2003)	(1998)	(1998)	(2004)	(2004)
MIN	0.33	0.67	1.40	2.25	2.66	5.74	1.49	0.49	0.61	0.24	0.16	0.14
(WY)	(1998)	(2000)	(2000)	(2000)	(2002)	(2003)	(1999)	(1999)	(2005)	(2002)	(1999)	(1999)

03287590 NORTH ELKHORN CREEK AT WINCHESTER ROAD NEAR LEXINGTON, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1998 - 2005	
ANNUAL TOTAL	4,615.49		2,972.21		6.85	
ANNUAL MEAN	12.6		8.14		11.2	
HIGHEST ANNUAL MEAN					3.11	2004
LOWEST ANNUAL MEAN					0.00	2000
HIGHEST DAILY MEAN	212	May 31	150	Oct 19	357	Jul 20, 1998
LOWEST DAILY MEAN	0.58	Jul 16	0.01	Aug 12	0.00	Oct 5, 1997
ANNUAL SEVEN-DAY MINIMUM	0.77	Oct 5	0.06	Aug 6	0.00	Oct 5, 1997
MAXIMUM PEAK FLOW			675	Oct 19	779	May 30, 2004
MAXIMUM PEAK STAGE			6.64	Oct 19	6.95	May 30, 2004
INSTANTANEOUS LOW FLOW					0.00	Nov 8, 2000
10 PERCENT EXCEEDS	28		20		15	
50 PERCENT EXCEEDS	4.5		3.8		2.2	
90 PERCENT EXCEEDS	1.5		0.27		0.11	

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, and at mile 86.0.

DRAINAGE AREA.--21.5 mi<sup>2</sup>.

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

REVISIONS.--WDR KY-03-01, peak.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 892.042 ft above NGVD of 1929.

REMARKS.--Records good except for those below 10 ft<sup>3</sup>/s, and those estimated, which are poor.

COOPERATION.--Lexington-Fayette Urban County Government.

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 19	0440	*3,920	*10.26	Nov 30	1855	1,060	5.79
Nov 4	0705	1,100	5.89				

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	162	310	99	25	26	83	46	3.3	0.23	0.68	23
2	4.3	187	111	74	24	19	164	17	3.5	0.38	0.20	7.5
3	4.4	154	64	72	31	18	82	10	4.3	0.80	0.11	e4.3
4	4.3	427	43	96	27	18	54	7.9	3.9	3.5	0.12	e3.6
5	4.0	132	28	166	23	18	39	6.8	3.5	3.4	0.11	e3.0
6	3.4	74	55	240	20	16	30	6.4	3.2	3.3	0.10	e2.7
7	3.4	50	277	168	18	28	31	6.0	2.8	2.7	0.09	e2.3
8	3.8	31	106	388	21	104	27	5.8	3.2	1.9	0.06	e2.0
9	3.8	22	92	124	19	52	21	5.6	3.0	1.0	0.04	e1.8
10	4.0	18	83	72	18	36	19	5.3	2.8	0.48	0.02	e1.7
11	3.3	57	59	53	16	31	18	5.0	3.4	0.32	0.01	e1.6
12	6.9	313	44	44	16	32	21	4.6	3.7	1.4	0.00	e2.0
13	16	99	33	89	24	26	26	4.2	4.1	26	0.01	e1.7
14	7.1	58	24	147	58	22	19	e36	8.9	18	0.55	e1.6
15	15	40	20	72	53	19	15	e78	10	12	0.60	e1.4
16	6.1	29	19	50	40	18	14	e22	7.4	8.2	10	e4.4
17	4.8	22	18	35	30	18	14	e14	5.9	37	9.0	e3.2
18	76	19	17	e30	23	17	14	e10	5.2	34	7.0	e1.9
19	1,300	33	16	23	20	19	14	e16	4.4	86	21	e1.4
20	138	20	15	19	24	23	13	e100	3.5	41	11	e1.3
21	66	15	15	19	53	16	13	16	2.9	13	6.2	e1.7
22	40	14	30	18	55	16	13	8.5	2.4	9.3	4.6	e1.4
23	38	23	199	e16	37	20	23	15	1.8	7.5	5.2	e1.3
24	196	99	70	e15	31	17	15	6.5	1.3	6.4	3.9	e1.3
25	82	91	44	e14	25	16	13	5.4	0.90	5.6	3.1	e1.3
26	46	56	31	e13	21	16	27	5.0	0.68	4.9	10	e6.5
27	203	45	23	e12	19	53	23	4.5	0.49	4.1	16	e4.0
28	104	66	e18	e11	28	287	15	4.2	0.32	3.4	8.5	e1.7
29	62	41	e17	e45	---	112	38	3.9	0.22	3.1	58	17
30	49	289	e16	36	---	65	187	3.6	0.15	2.6	138	2.5
31	30	---	e15	29	---	44	---	3.5	---	1.6	112	---
TOTAL	2,528.9	2,686	1,912	2,289	799	1,222	1,085	482.7	101.16	343.11	426.20	111.1
MEAN	81.6	89.5	61.7	73.8	28.5	39.4	36.2	15.6	3.37	11.1	13.7	3.70
MAX	1,300	427	310	388	58	287	187	100	10	86	138	23
MIN	3.3	14	15	11	16	16	13	3.5	0.15	0.23	0.00	1.3

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2005, BY WATER YEAR (WY)

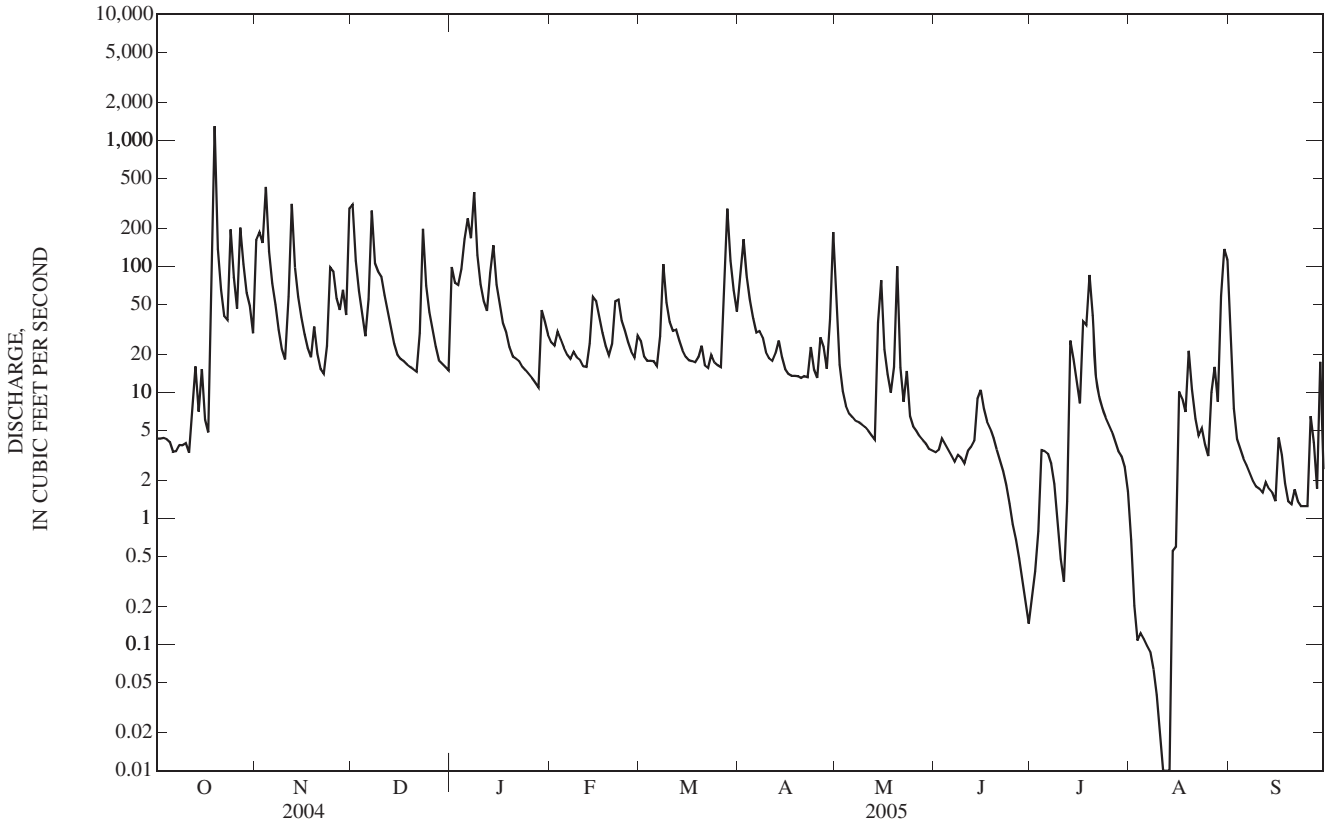
MEAN	16.3	31.6	32.4	41.8	51.4	50.8	33.8	46.4	31.6	18.6	11.8	13.3
MAX	81.6	89.5	62.5	73.8	114	126	57.0	117	118	84.5	57.7	45.0
(WY)	(2005)	(2005)	(2004)	(2005)	(2003)	(2002)	(1998)	(2004)	(1998)	(1998)	(2004)	(2004)
MIN	1.03	2.26	6.78	15.8	13.6	22.7	8.29	4.00	3.22	0.72	1.13	0.01
(WY)	(1998)	(2000)	(2000)	(2000)	(2002)	(2003)	(1999)	(1999)	(2001)	(2002)	(1998)	(1999)



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

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1998 - 2005	
ANNUAL TOTAL	22,898.5		13,986.17		34.0	
ANNUAL MEAN	62.6		38.3		16.2	
HIGHEST ANNUAL MEAN					55.6	2004
LOWEST ANNUAL MEAN					16.2	2000
HIGHEST DAILY MEAN	1,380	May 31	1,300	Oct 19	1,830	Jul 20, 1998
LOWEST DAILY MEAN	3.3	Oct 11	0.00	Aug 12	0.00	Oct 8, 1997
ANNUAL SEVEN-DAY MINIMUM	3.7	Oct 5	0.03	Aug 7	0.00	Sep 8, 1998
MAXIMUM PEAK FLOW			3,920	Oct 19	4,310	May 30, 2004
MAXIMUM PEAK STAGE			10.26	Oct 19	10.69	May 30, 2004
INSTANTANEOUS LOW FLOW					0.00	Aug 7, 1999
10 PERCENT EXCEEDS	146		91		74	
50 PERCENT EXCEEDS	20		16		10	
90 PERCENT EXCEEDS	7.3		1.5		0.45	

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, 400 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<sup>2</sup>, of which about 8 mi<sup>2</sup> does not contribute directly to surface runoff.

PERIOD OF RECORD.--December 1992 to September 30, 2005 (discontinued).

GAGE.--Water-stage recorder with telemetry. Datum of gage is 784.728 ft above NGVD of 1929. Prior to Oct. 1, 1994 at datum 3.40 ft. lower.

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

COOPERATION.--City of Georgetown.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,800 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 20	0500	*4,840	*9.37	Dec 1	0900	2,920	7.74
Nov 4	1000	2,820	7.67				

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	392	2,310	215	204	164	312	457	21	3.9	3.6	221
2	23	855	1,060	440	190	146	620	235	19	3.3	3.1	110
3	21	1,050	634	991	197	130	541	170	e17	3.1	3.0	63
4	18	2,000	401	969	204	126	364	136	e17	3.1	2.8	34
5	e16	1,280	292	1,270	191	127	273	116	e16	2.8	3.9	19
6	e14	691	260	1,400	176	124	210	103	e15	2.6	5.8	14
7	e13	429	996	1,160	164	117	174	95	13	2.0	5.8	11
8	e12	295	1,050	1,860	164	228	158	87	13	1.8	6.0	9.2
9	e11	215	648	1,120	164	278	135	79	12	1.6	5.4	7.3
10	e11	176	696	698	160	206	115	70	29	1.4	5.0	6.0
11	e10	294	516	462	150	180	103	61	59	1.5	4.1	6.3
12	e24	1,990	388	342	141	171	96	52	49	1.6	3.7	5.0
13	64	1,020	302	302	152	165	103	43	56	5.8	3.7	4.6
14	74	565	233	718	274	149	114	47	32	22	4.3	4.8
15	101	358	e193	561	341	136	95	168	23	45	4.5	4.9
16	78	267	e167	388	310	128	80	124	25	50	7.4	5.3
17	66	211	e145	291	251	122	74	82	26	31	11	5.1
18	151	177	e128	e224	205	116	68	64	16	33	12	4.8
19	3,350	259	e115	e173	175	119	63	66	13	57	28	4.2
20	2,690	266	e103	e164	160	132	56	319	11	108	30	8.0
21	631	202	e90	e145	175	130	51	227	10	108	32	9.0
22	383	174	e123	e134	211	113	52	127	8.6	55	20	7.5
23	288	163	1,180	e120	202	111	69	112	7.0	31	12	6.7
24	516	375	827	e110	179	113	73	97	6.1	18	6.9	6.3
25	592	631	454	e103	166	110	66	73	5.5	13	5.1	6.0
26	363	461	308	e94	148	110	60	56	3.9	9.7	16	4.6
27	401	339	227	e90	136	153	88	44	4.2	8.3	17	5.1
28	708	332	182	e84	136	1,610	86	35	7.2	7.2	11	4.6
29	464	289	168	108	---	1,090	100	29	5.5	5.8	26	4.1
30	343	562	165	e228	---	647	529	26	4.4	5.0	170	3.8
31	284	---	158	e236	---	420	---	23	---	4.2	347	---
TOTAL	11,746	16,318	14,519	15,200	5,326	7,671	4,928	3,423	544.4	645.7	816.1	605.2
MEAN	379	544	468	490	190	247	164	110	18.1	20.8	26.3	20.2
MAX	3,350	2,000	2,310	1,860	341	1,610	620	457	59	108	347	221
MIN	10	163	90	84	136	110	51	23	3.9	1.4	2.8	3.8
CFSM	2.58	3.70	3.19	3.34	1.29	1.68	1.12	0.75	0.12	0.14	0.18	0.14
IN.	2.97	4.13	3.67	3.85	1.35	1.94	1.25	0.87	0.14	0.16	0.21	0.15

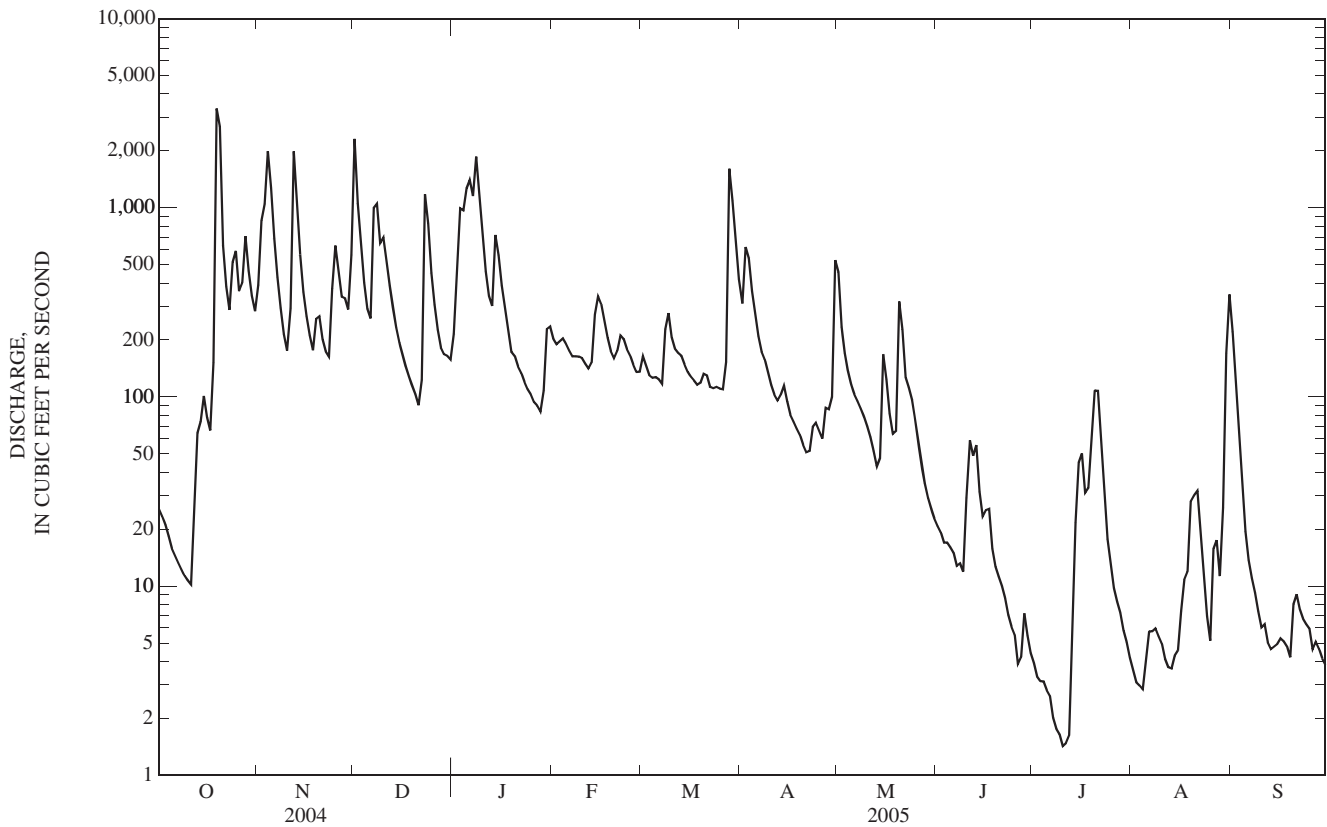
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2005, BY WATER YEAR (WY)

	83.3	194	261	365	387	493	220	333	237	104	62.9	50.3
MEAN	83.3	194	261	365	387	493	220	333	237	104	62.9	50.3
MAX	379	544	564	631	758	1,574	408	786	768	560	206	152
(WY)	(2005)	(2005)	(1997)	(1994)	(2003)	(1997)	(1994)	(1995)	(1997)	(1998)	(2004)	(2004)
MIN	6.82	9.49	29.7	55.1	136	224	62.7	25.0	18.1	12.8	4.39	2.63
(WY)	(2000)	(2000)	(2000)	(2000)	(2002)	(2003)	(1999)	(1999)	(2005)	(1999)	(2002)	(1999)

03288100 NORTH ELKHORN CREEK AT GEORGETOWN, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1993 - 2005	
ANNUAL TOTAL	122,703		81,742.4		234	
ANNUAL MEAN	335		224		371	
HIGHEST ANNUAL MEAN					114	
LOWEST ANNUAL MEAN					1997	
HIGHEST DAILY MEAN	6,860	May 31	3,350	Oct 19	11,000	Mar 3, 1997
LOWEST DAILY MEAN	10	Oct 11	1.4	Jul 10	1.3	Sep 18, 1999
ANNUAL SEVEN-DAY MINIMUM	12	Oct 5	1.8	Jul 6	1.6	Sep 14, 1999
MAXIMUM PEAK FLOW			4,840	Oct 20	19,300	Mar 2, 1997
MAXIMUM PEAK STAGE			9.37	Oct 20	19.01	Mar 2, 1997
ANNUAL RUNOFF (CFSM)	2.28		1.52		1.59	
ANNUAL RUNOFF (INCHES)	31.05		20.69		21.60	
10 PERCENT EXCEEDS	698		563		559	
50 PERCENT EXCEEDS	155		110		83	
90 PERCENT EXCEEDS	43		5.0		9.2	

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 dam at Georgetown, Ky., 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 except for those estimated, which are poor.

COOPERATION.--City of Georgetown.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	62	66	12	26	24	21	35	2.0	1.8	0.00	19
2	15	69	63	14	25	20	47	26	2.3	2.9	0.00	13
3	14	74	66	20	27	18	44	22	1.9	1.1	0.00	9.4
4	6.2	73	58	28	25	17	41	18	2.1	0.01	0.00	6.1
5	0.32	59	54	33	25	17	38	15	1.8	0.00	0.00	3.4
6	0.17	48	53	37	24	17	34	12	0.61	0.00	0.23	1.9
7	0.06	40	64	33	22	15	30	10	0.45	0.00	0.24	e1.6
8	0.04	26	64	44	24	28	27	9.0	0.18	0.00	0.00	1.4
9	0.30	17	61	34	22	23	24	5.2	0.00	0.01	0.00	0.27
10	0.02	11	59	27	21	22	21	5.6	0.00	0.00	0.00	1.1
11	0.01	26	58	24	19	22	17	5.9	0.01	0.00	0.00	0.83
12	4.7	67	56	21	19	23	16	2.9	0.00	0.00	0.00	0.00
13	26	58	53	20	21	22	19	3.7	0.00	1.8	0.00	0.00
14	18	52	48	23	30	19	19	9.2	0.00	8.7	2.1	0.00
15	40	44	41	22	33	18	16	23	1.8	6.4	0.07	0.00
16	29	36	e33	21	34	17	13	11	0.59	3.1	1.2	0.00
17	22	25	e29	18	31	16	11	7.5	0.25	5.1	4.0	0.06
18	47	19	e28	16	28	15	8.1	4.9	0.98	4.2	1.6	0.02
19	113	54	31	14	26	15	7.2	6.1	0.41	12	4.2	0.00
20	56	74	29	12	25	20	6.4	37	0.00	25	6.8	0.00
21	43	72	27	9.9	30	15	5.9	23	0.00	11	2.6	0.00
22	28	70	31	8.6	30	14	5.8	17	0.00	11	0.18	0.00
23	30	69	40	7.7	28	14	11	19	0.00	7.7	0.04	0.00
24	62	78	29	4.8	26	14	11	13	0.00	4.8	0.00	0.00
25	69	71	23	12	24	14	7.4	9.3	0.00	2.6	0.00	0.00
26	71	64	20	26	22	13	9.6	6.6	0.01	1.7	0.01	0.00
27	66	62	17	25	21	25	18	4.9	0.09	1.4	0.26	0.00
28	66	62	14	21	21	34	10	4.8	2.0	1.1	0.57	0.00
29	63	57	11	23	---	24	19	4.4	1.4	3.3	2.6	0.01
30	60	64	9.4	30	---	17	44	2.9	0.94	1.8	24	0.06
31	58	---	7.3	27	---	12	---	2.3	---	0.99	24	---
TOTAL	1,020.82	1,603	1,242.7	668.0	709	584	601.4	376.2	19.82	119.51	74.70	58.15
MEAN	32.9	53.4	40.1	21.5	25.3	18.8	20.0	12.1	0.66	3.86	2.41	1.94
MAX	113	78	66	44	34	34	47	37	2.3	25	24	19
MIN	0.01	11	7.3	4.8	19	12	5.8	2.3	0.00	0.00	0.00	0.00

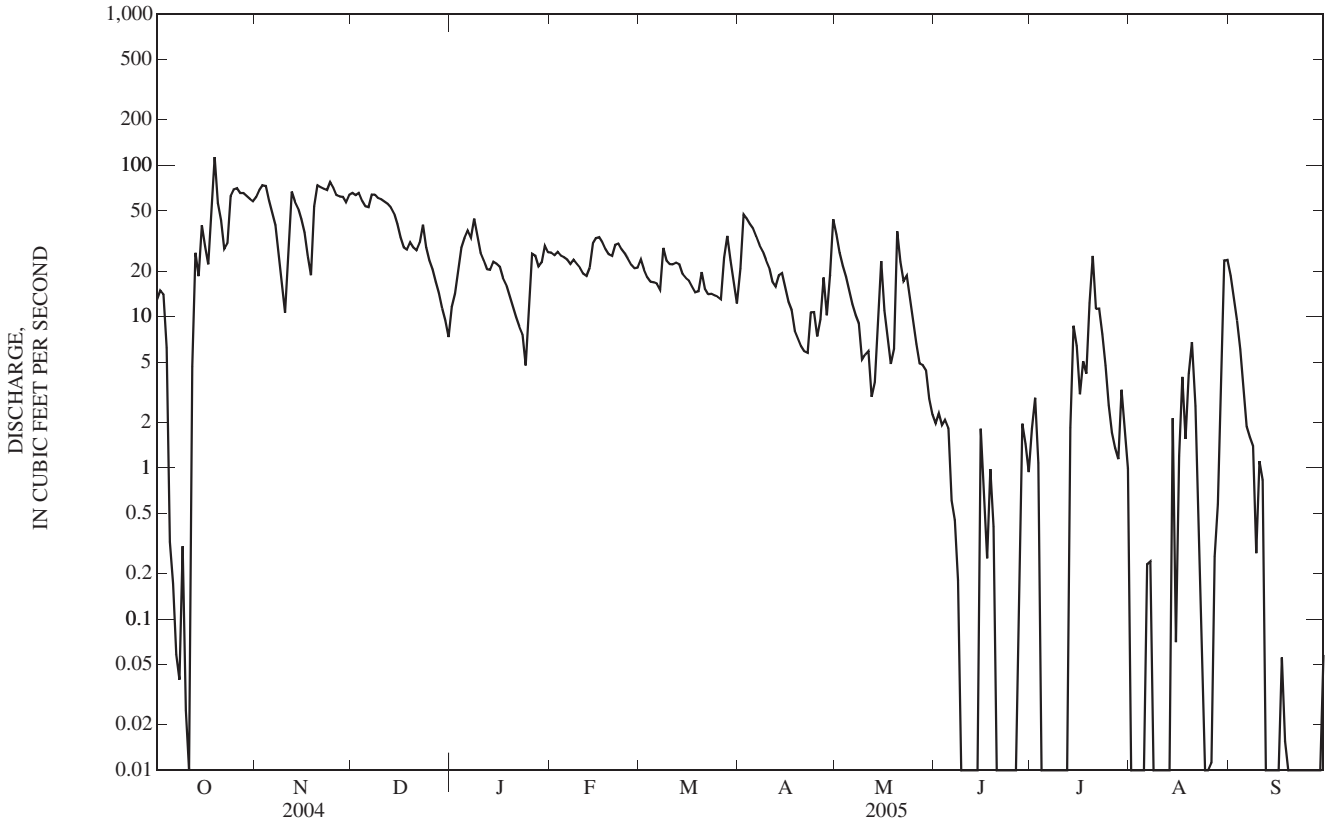
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2005, BY WATER YEAR (WY)

MEAN	8.32	16.8	26.1	31.4	31.0	36.5	25.8	25.6	22.7	10.1	8.14	6.12
MAX	32.9	53.4	48.3	49.0	52.5	77.5	47.5	55.9	65.1	44.1	23.5	18.6
(WY)	(2005)	(2005)	(1997)	(1996)	(1994)	(1997)	(1994)	(1996)	(1997)	(1998)	(2004)	(2004)
MIN	1.57	0.98	6.00	5.67	13.7	13.9	13.5	5.26	0.66	0.75	0.04	0.26
(WY)	(1999)	(2000)	(1999)	(2000)	(2000)	(2004)	(2001)	(1999)	(2005)	(2002)	(2002)	(1998)

03288110 ROYAL SPRINGS AT GEORGETOWN, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1993 - 2005	
ANNUAL TOTAL	9,979.92		7,077.30		20.5	
ANNUAL MEAN	27.3		19.4		9.07	
HIGHEST ANNUAL MEAN					30.5	1997
LOWEST ANNUAL MEAN					9.07	2000
HIGHEST DAILY MEAN	113	Oct 19	113	Oct 19	313	Mar 1, 1997
LOWEST DAILY MEAN	0.01	Oct 11	0.00	Jun 9	0.00	Oct 15, 1993
ANNUAL SEVEN-DAY MINIMUM	0.13	Oct 5	0.00	Sep 19	0.00	Oct 4, 1997
MAXIMUM PEAK FLOW			204	Oct 19	2,240	Mar 1, 1997
MAXIMUM PEAK STAGE			6.29	Oct 19	7.30	Mar 1, 1997
10 PERCENT EXCEEDS	58		56		49	
50 PERCENT EXCEEDS	23		15		14	
90 PERCENT EXCEEDS	6.7		0.00		0.79	

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<sup>2</sup>.

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

GAGE.--Water-stage recorder with telemetry. Datum of gage is 847.863 ft above NGVD of 1929.

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

COOPERATION.--Lexington-Fayette Urban County Government.

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 19	0710	*1,050	*6.61	Nov 30	1900	278	4.84
Nov 4	0755	381	5.17	Dec 1	0310	218	4.62
Nov 12	0155	336	5.02	Dec 7	1010	216	4.61

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	31	125	6.4	1.9	1.5	13	2.3	0.00	0.00	0.00	0.00
2	0.00	42	52	4.5	1.8	0.88	20	0.90	0.00	0.00	0.00	0.00
3	0.00	44	29	12	2.4	0.69	10	0.30	0.00	0.00	0.00	0.00
4	0.00	158	16	24	2.2	0.62	6.8	0.00	0.00	0.00	0.00	0.00
5	0.00	63	8.1	38	2.0	0.55	4.2	0.00	0.00	0.00	0.00	0.00
6	0.00	31	11	73	1.8	0.35	2.8	0.00	0.00	0.00	0.00	0.00
7	0.00	15	62	56	1.5	0.30	2.0	0.00	0.00	0.00	0.00	0.00
8	0.00	7.7	35	121	1.5	5.9	1.4	0.00	0.00	0.00	0.00	0.00
9	0.00	4.9	28	53	1.1	1.3	0.67	0.00	0.00	0.00	0.00	0.00
10	0.00	3.2	24	28	0.90	1.4	0.32	0.00	0.00	0.00	0.00	0.00
11	0.00	14	16	18	0.66	1.4	0.07	0.00	0.00	0.00	0.00	0.00
12	0.00	155	10	11	0.58	1.4	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	51	6.3	18	1.8	1.1	0.22	0.00	0.00	0.00	0.00	0.00
14	0.00	26	4.5	27	4.0	0.78	0.36	5.4	0.00	0.00	0.00	0.00
15	0.00	14	3.5	16	4.1	0.60	0.00	0.82	0.00	0.00	0.00	0.00
16	0.00	7.5	2.5	10	4.3	0.44	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	4.4	1.7	6.2	3.4	0.38	0.00	0.00	0.00	0.00	0.00	0.00
18	7.3	3.2	1.0	4.2	2.4	0.20	0.00	0.00	0.00	0.00	0.00	0.00
19	416	6.6	0.63	3.1	1.7	0.25	0.00	0.02	0.00	31	0.00	0.00
20	69	3.0	0.20	2.4	2.4	0.61	0.00	24	0.00	6.9	0.00	0.00
21	29	1.7	0.04	1.8	6.3	0.29	0.00	0.00	0.00	0.00	0.00	0.00
22	13	1.1	1.9	1.3	4.7	0.12	0.00	0.00	0.00	0.00	0.00	0.00
23	9.3	0.98	60	0.79	3.2	0.21	0.00	0.00	0.00	0.00	0.00	0.00
24	35	14	26	0.47	2.8	0.06	0.00	0.00	0.00	0.00	0.00	0.00
25	19	20	13	0.23	2.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	10	13	8.4	0.17	1.4	0.00	0.66	0.00	0.00	0.00	0.00	0.00
27	50	8.5	4.8	0.00	1.0	26	0.31	0.00	0.00	0.00	0.00	0.00
28	35	12	3.4	0.00	1.3	95	0.00	0.00	0.00	0.00	0.00	0.00
29	20	4.9	2.8	1.2	---	45	0.00	0.00	0.00	0.00	0.00	0.00
30	13	69	2.4	1.5	---	24	20	0.00	0.00	0.00	17	0.00
31	9.4	---	1.5	1.8	---	13	---	0.00	---	0.00	15	---
TOTAL	735.00	829.68	560.67	541.06	65.14	224.33	82.81	33.74	0.00	37.90	32.00	0.00
MEAN	23.7	27.7	18.1	17.5	2.33	7.24	2.76	1.09	0.00	1.22	1.03	0.00
MAX	416	158	125	121	6.3	95	20	24	0.00	31	17	0.00
MIN	0.00	0.98	0.04	0.00	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00

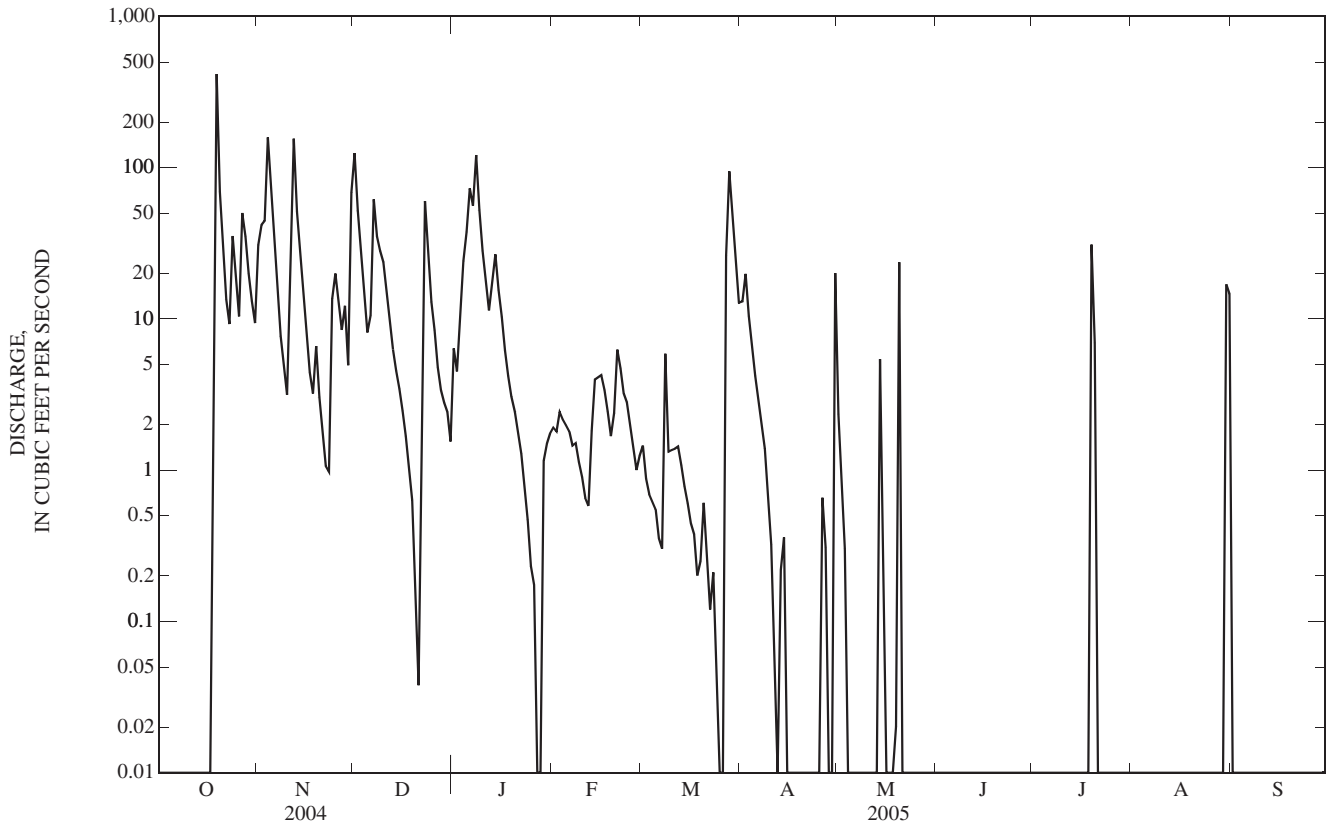
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2005, BY WATER YEAR (WY)

MEAN	5.28	10.6	8.27	6.98	10.6	12.6	2.73	15.3	3.94	3.30	2.31	1.52
MAX	23.7	27.7	18.1	17.5	35.0	50.3	11.3	70.8	16.2	18.9	14.2	3.71
(WY)	(2005)	(2005)	(2005)	(2005)	(2003)	(2002)	(2002)	(2004)	(2004)	(2004)	(2004)	(2004)
MIN	0.00	0.00	0.00	0.00	0.15	0.30	0.00	0.03	0.00	0.00	0.00	0.00
(WY)	(2000)	(2000)	(2000)	(2001)	(2002)	(2003)	(1999)	(2000)	(2005)	(1999)	(1999)	(1999)

03288200 CANE RUN AT BERE A ROAD NEAR DONERAIL, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1999 - 2005	
ANNUAL TOTAL	6,935.47		3,142.33		7.42	
ANNUAL MEAN	18.9		8.61		14.8	
HIGHEST ANNUAL MEAN					1.99	2004
LOWEST ANNUAL MEAN					0.00	2000
HIGHEST DAILY MEAN	1,180	May 31	416	Oct 19	1,180	May 31, 2004
LOWEST DAILY MEAN	0.00	Jan 13	0.00	Oct 1	0.00	Feb 17, 1999
ANNUAL SEVEN-DAY MINIMUM	0.00	Feb 14	0.00	Oct 1	0.00	Feb 17, 1999
MAXIMUM PEAK FLOW			1,050	Oct 19	3,420	May 30, 2004
MAXIMUM PEAK STAGE			6.61	Oct 19	9.63	May 30, 2004
INSTANTANEOUS LOW FLOW					0.00	Oct 1, 2001
10 PERCENT EXCEEDS	41		24		15	
50 PERCENT EXCEEDS	0.00		0.17		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<sup>2</sup>, of which about 3.0 mi<sup>2</sup> does not contribute directly to surface runoff.

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

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

GAGE.--Water-stage recorder 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.

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 19	0505	*2,610	*9.95	Nov 30	1830	1,170	7.44
Nov 4	0740	1,140	7.38	Dec 7	1005	1,050	7.15
Nov 12	0115	1,230	7.58	May 14	2155	1,330	7.79

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	151	549	170	31	39	96	96	7.9	1.8	1.2	117
2	9.8	180	180	121	29	30	142	54	7.8	1.6	1.2	48
3	9.8	176	86	120	37	27	94	36	8.9	4.3	0.94	27
4	8.3	561	57	165	32	25	73	28	8.2	21	0.89	20
5	7.2	211	40	296	29	24	56	24	6.1	6.9	1.4	16
6	6.4	92	57	407	27	22	45	21	4.8	2.9	4.6	12
7	6.0	59	420	329	25	37	38	18	3.9	2.1	1.7	10
8	6.1	40	269	604	28	168	35	16	3.6	1.4	1.3	8.8
9	5.6	30	196	302	26	81	29	14	3.2	1.4	1.3	7.5
10	5.1	25	156	187	26	61	26	13	21	1.0	1.2	6.4
11	4.6	72	115	125	23	49	24	11	20	0.88	1.1	5.3
12	7.5	529	89	94	22	49	27	9.5	11	1.3	1.3	4.5
13	25	138	70	121	46	40	31	8.5	24	28	2.6	4.0
14	17	74	53	166	81	33	26	238	25	32	9.2	3.6
15	26	50	41	107	74	29	22	189	22	18	2.5	3.1
16	18	37	34	83	61	27	19	52	11	11	13	3.1
17	14	29	29	62	47	25	17	30	7.6	19	10	7.6
18	37	24	25	46	37	23	15	23	6.1	54	4.9	3.6
19	1,020	40	23	38	31	26	14	33	4.5	50	6.6	2.8
20	200	31	20	32	34	54	13	231	3.6	32	5.8	2.9
21	81	25	19	28	81	29	12	50	3.0	17	2.1	3.0
22	45	22	55	25	78	26	12	31	2.5	16	4.0	2.7
23	41	25	470	22	53	28	26	41	2.0	10	33	2.0
24	125	79	222	20	43	25	19	24	1.7	7.0	8.2	1.9
25	64	75	123	19	35	23	15	20	1.5	5.2	5.1	1.7
26	43	52	83	18	29	22	33	17	1.4	3.7	12	6.9
27	219	44	59	15	26	138	33	14	4.2	2.9	36	9.8
28	93	56	43	14	41	511	21	12	14	2.6	164	5.3
29	63	38	35	43	---	219	43	11	3.4	2.3	159	21
30	50	344	29	49	---	125	298	9.8	2.2	1.9	340	8.7
31	35	---	26	36	---	83	---	8.8	---	1.00	357	---
TOTAL	2,302.4	3,309	3,673	3,864	1,132	2,098	1,354	1,383.6	246.1	360.18	1,193.13	376.2
MEAN	74.3	110	118	125	40.4	67.7	45.1	44.6	8.20	11.6	38.5	12.5
MAX	1,020	561	549	604	81	511	298	238	25	54	357	117
MIN	4.6	22	19	14	22	22	12	8.5	1.4	0.88	0.89	1.7
CFSM	3.50	5.20	5.59	5.88	1.91	3.19	2.13	2.11	0.39	0.55	1.82	0.59
IN.	4.04	5.81	6.45	6.78	1.99	3.68	2.38	2.43	0.43	0.63	2.09	0.66

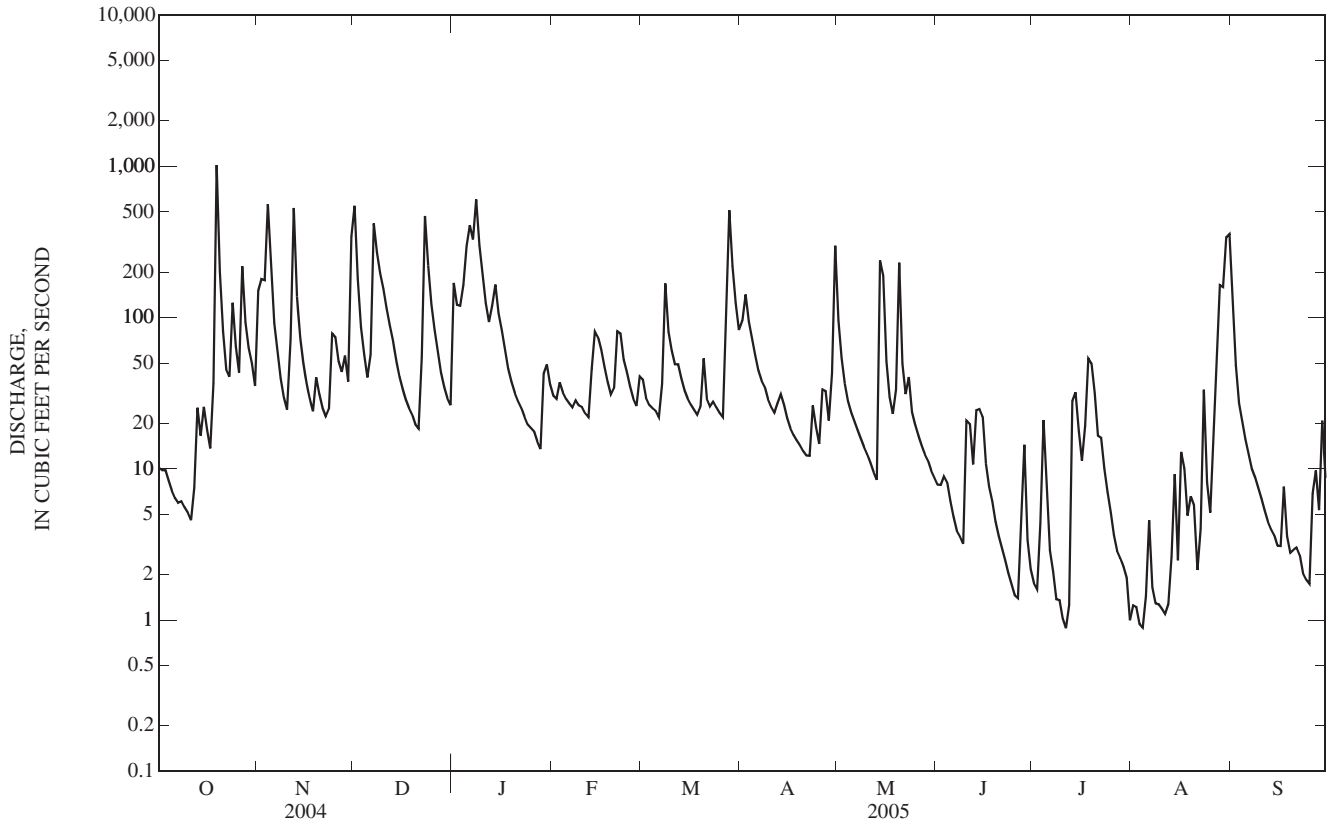
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2005, BY WATER YEAR (WY)

	11.0	25.9	52.4	51.2	65.3	68.6	43.8	36.6	21.1	16.0	12.4	10.5
MEAN	11.0	25.9	52.4	51.2	65.3	68.6	43.8	36.6	21.1	16.0	12.4	10.5
MAX	74.3	137	198	159	227	172	145	156	83.2	97.0	68.0	81.4
(WY)	(2005)	(2003)	(1979)	(1951)	(1989)	(1964)	(1972)	(1983)	(1960)	(1958)	(1974)	(1979)
MIN	0.00	0.09	0.86	4.43	6.48	11.0	10.3	3.92	1.14	0.66	0.01	0.02
(WY)	(1954)	(1954)	(1954)	(1981)	(1954)	(1954)	(1971)	(1952)	(1954)	(1951)	(1965)	(1953)



03289000 SOUTH ELKHORN CREEK AT FORT SPRING, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1950 - 2005	
ANNUAL TOTAL	22,870.7		21,291.61		34.4	
ANNUAL MEAN	62.5		58.3		74.6	
HIGHEST ANNUAL MEAN					2003	
LOWEST ANNUAL MEAN					1954	
HIGHEST DAILY MEAN	1,020	Oct 19	1,020	Oct 19	1,470	Feb 16, 2003
LOWEST DAILY MEAN	4.6	Oct 11	0.88	Jul 11	0.00	Aug 6, 1951
ANNUAL SEVEN-DAY MINIMUM	5.4	Feb 24	1.2	Jul 30	0.00	Aug 19, 1951
MAXIMUM PEAK FLOW			2,610	Oct 19	2,610	Oct 19, 2004
MAXIMUM PEAK STAGE			9.95	Oct 19	12.13	Sep 21, 1979
INSTANTANEOUS LOW FLOW					0.00	Aug 6, 1951
ANNUAL RUNOFF (CFSM)	2.95		2.75		1.62	
ANNUAL RUNOFF (INCHES)	40.13		37.36		22.04	
10 PERCENT EXCEEDS	138		157		84	
50 PERCENT EXCEEDS	26		26		13	
90 PERCENT EXCEEDS	8.2		2.8		1.5	



## 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<sup>2</sup>.

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

GAGE.--Water-stage recorder with telemetry. Datum of gage is 862.31 ft above NGVD of 1929.

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

COOPERATION.--Lexington-Fayette Urban County Government.

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 18	2300	1,260	5.61	Oct 19	0300	*2,230	*6.84

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	47	94	41	8.9	11	39	16	3.8	5.2	0.92	18
2	4.0	45	45	23	10	8.6	36	9.9	4.1	2.5	0.86	9.3
3	3.2	34	27	31	12	7.6	22	7.4	4.8	7.9	0.86	6.1
4	2.9	117	18	41	9.5	7.1	16	5.7	4.2	4.2	1.0	4.5
5	2.7	47	13	46	8.7	7.0	13	5.0	4.0	2.5	5.5	3.7
6	2.6	26	26	83	8.1	6.2	11	4.4	3.6	2.2	1.9	3.0
7	2.6	17	96	78	7.7	24	10	4.0	3.5	2.0	0.79	2.7
8	2.4	12	44	108	9.9	28	9.1	3.4	3.2	1.8	0.59	2.2
9	2.2	9.1	43	58	8.6	15	7.4	2.8	2.9	1.7	0.55	1.9
10	2.1	7.5	30	38	8.1	13	6.6	2.5	28	1.5	0.59	1.6
11	2.0	86	24	27	7.2	13	5.9	2.3	6.8	1.5	0.53	1.3
12	16	103	18	23	6.6	16	9.9	2.2	4.2	1.6	0.55	0.84
13	10	43	14	46	22	11	15	2.2	e7.0	30	5.0	0.70
14	5.2	25	12	36	20	9.8	7.9	71	e10	26	3.1	0.58
15	19	17	11	24	15	8.7	6.2	21	e6.2	7.5	1.4	0.56
16	5.7	12	9.5	20	13	8.2	5.1	5.8	3.7	5.4	12	2.1
17	4.5	9.7	8.6	15	11	7.6	4.5	4.3	3.0	20	3.0	1.8
18	117	8.3	7.8	13	9.7	7.0	4.0	3.6	2.7	27	1.8	0.61
19	487	21	7.1	11	8.6	16	3.7	63	2.4	16	7.0	0.45
20	58	10	6.8	9.9	17	13	3.5	e90	2.3	11	2.9	0.87
21	27	7.9	5.9	9.1	24	8.0	3.3	e25	2.2	6.4	1.8	0.54
22	16	7.1	29	8.1	14	7.3	5.1	e8.0	2.0	4.3	15	0.45
23	23	14	68	7.6	11	9.7	12	e14	1.8	3.5	8.9	0.44
24	58	41	38	7.1	10	7.5	5.0	6.8	1.7	2.7	2.2	0.40
25	23	25	23	6.2	9.2	7.3	4.0	5.8	1.6	2.4	1.5	0.36
26	15	17	17	5.8	8.1	6.5	24	5.2	1.4	2.1	3.5	3.1
27	71	22	13	5.1	7.3	66	8.6	4.6	32	1.9	18	1.7
28	27	20	10	4.5	19	105	8.0	4.2	11	1.8	37	0.89
29	18	12	9.3	25	---	48	31	3.9	4.6	1.5	28	9.8
30	17	92	8.4	14	---	31	53	3.8	2.8	1.4	93	1.4
31	11	---	7.9	10	---	22	---	3.7	---	1.2	63	---
TOTAL	1,058.5	954.6	784.3	874.4	324.2	556.1	389.8	411.5	171.5	206.7	322.74	81.89
MEAN	34.1	31.8	25.3	28.2	11.6	17.9	13.0	13.3	5.72	6.67	10.4	2.73
MAX	487	117	96	108	24	105	53	90	32	30	93	18
MIN	2.0	7.1	5.9	4.5	6.6	6.2	3.3	2.2	1.4	1.2	0.53	0.36
CFSM	3.57	3.32	2.64	2.95	1.21	1.87	1.36	1.39	0.60	0.70	1.09	0.29
IN.	4.11	3.71	3.05	3.40	1.26	2.16	1.52	1.60	0.67	0.80	1.25	0.32

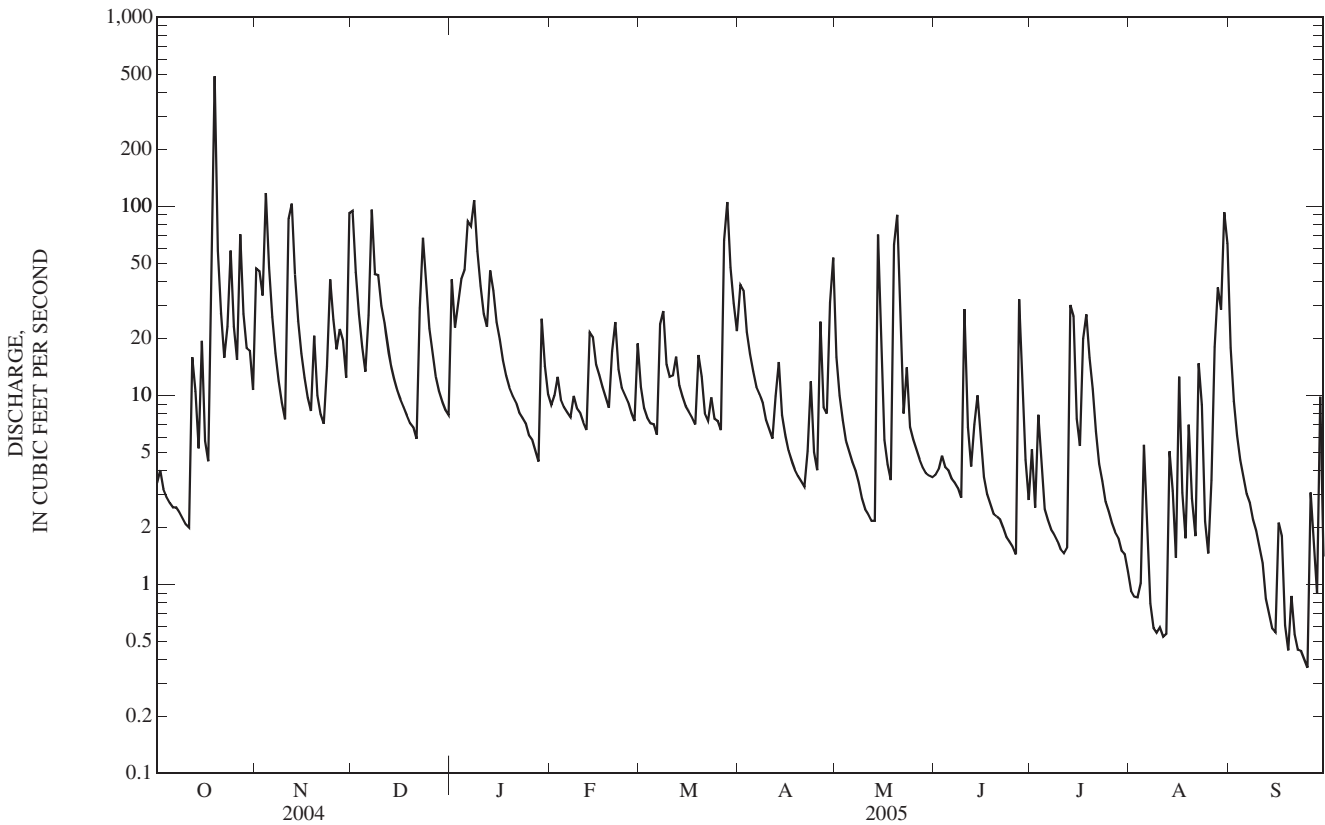
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2005, BY WATER YEAR (WY)

MEAN	10.5	15.4	16.6	19.7	21.6	21.9	16.4	28.8	20.7	17.2	9.66	9.22
MAX	34.1	33.3	25.8	37.7	51.3	47.3	30.5	77.7	61.8	44.6	24.1	24.8
(WY)	(2005)	(2003)	(2004)	(1999)	(2003)	(2002)	(2002)	(2004)	(1998)	(1998)	(2003)	(2003)
MIN	1.59	2.45	5.19	6.31	6.35	11.2	5.84	5.82	5.10	2.21	1.58	1.37
(WY)	(2001)	(2000)	(2000)	(2001)	(2002)	(2003)	(2001)	(1999)	(2002)	(2002)	(2002)	(1999)

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

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1998 - 2005	
ANNUAL TOTAL	10,871.7		6,136.23		17.3	
ANNUAL MEAN	29.7		16.8		27.2	
HIGHEST ANNUAL MEAN					9.93	2004
LOWEST ANNUAL MEAN					9.93	2000
HIGHEST DAILY MEAN	591	May 30	487	Oct 19	717	Jul 20, 1998
LOWEST DAILY MEAN	2.0	Oct 11	0.36	Sep 25	0.34	Oct 13, 1997
ANNUAL SEVEN-DAY MINIMUM	2.4	Oct 5	0.50	Sep 19	0.42	Oct 7, 1997
MAXIMUM PEAK FLOW			2,230	Oct 19	3,120	Jun 29, 1998
MAXIMUM PEAK STAGE			6.84	Oct 19	7.97	Jun 29, 1998
INSTANTANEOUS LOW FLOW					0.00	Dec 9, 1999
ANNUAL RUNOFF (CFSM)	3.10		1.76		1.81	
ANNUAL RUNOFF (INCHES)	42.26		23.85		24.56	
10 PERCENT EXCEEDS	57		41		36	
50 PERCENT EXCEEDS	12		8.1		7.2	
90 PERCENT EXCEEDS	4.7		1.7		1.2	

e Estimated



## 03289200 TOWN BRANCH AT YARNALLTON ROAD AT YARNALLTON, KY

LOCATION.--Lat 38°06'13", long 84°35'17", Fayette County, Hydrologic Unit 05100205, on the left bank, downstream side of bridge on Yarnallton Road (1977), 0.5 mile southwest of Leestown Road (HWY 421), 1.1 miles notheast of Old Frankfort Pike (HWY 1681), 0.2 mile Southwest of Yarnallton, KY.

DRAINAGE AREA.--30.0 mi<sup>2</sup>.

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

REVISED RECORDS.--KY-04-01, Peaks.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 822.365 ft above NGVD of 1929.

REMARKS.--Records good. Flow regulated by a Sewage Treatment Plant and Federal Correctional Institute upstream.

COOPERATION.--Lexington-Fayette Urban County Government.

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 19	0550	*4,210	*8.37	Nov 30	1820	980	4.46
Nov 4	0650	1,160	4.82	May 20	0050	1,030	4.56
Nov 12	0110	1,240	4.99				

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

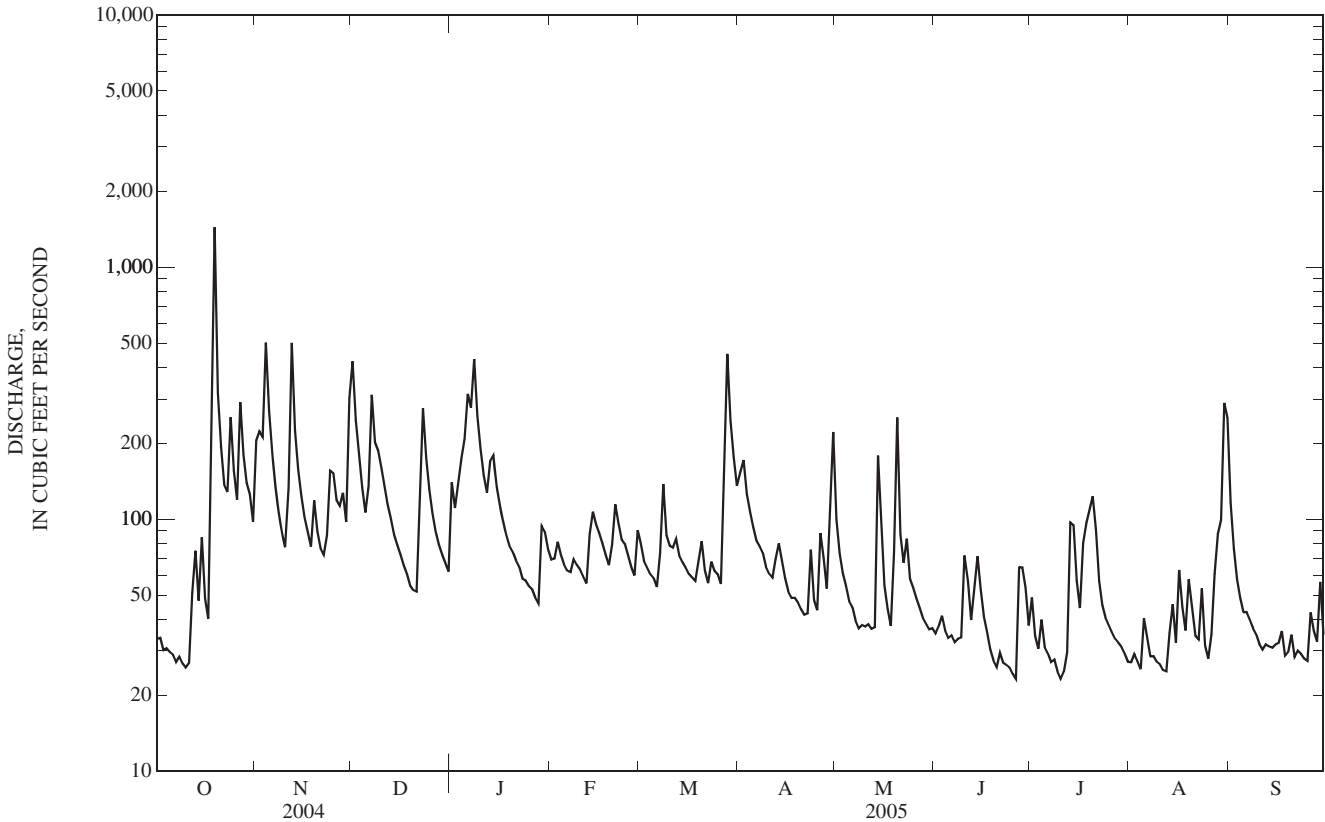
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	206	423	140	69	80	154	100	35	49	27	115
2	34	223	248	111	70	68	172	74	38	34	29	77
3	30	213	178	140	81	64	126	61	41	31	27	58
4	31	501	134	174	72	60	108	54	36	40	25	49
5	30	271	107	209	66	58	93	47	34	31	40	43
6	29	183	136	314	62	54	82	45	35	29	34	43
7	27	136	312	277	62	73	78	40	33	27	29	40
8	29	107	202	432	69	138	74	37	34	28	29	37
9	27	89	187	257	66	86	65	38	34	25	27	35
10	26	77	160	190	63	79	61	38	72	23	27	32
11	27	133	134	149	59	77	59	38	57	25	25	30
12	51	499	114	128	56	84	70	37	40	30	25	32
13	75	226	100	170	88	72	80	37	53	97	36	31
14	48	158	87	179	107	68	68	178	71	95	46	31
15	85	124	79	136	95	64	58	92	53	57	32	32
16	49	102	72	114	88	61	52	55	41	44	63	32
17	40	88	66	99	80	59	49	44	36	80	45	36
18	121	78	61	86	72	57	49	38	30	96	36	29
19	1,440	119	55	78	66	68	47	74	28	109	58	30
20	317	90	52	74	79	82	44	253	26	123	45	35
21	194	77	52	69	115	63	42	87	30	91	34	28
22	137	72	98	65	96	56	42	67	27	57	33	30
23	128	87	275	58	83	68	76	84	26	46	53	29
24	254	156	175	57	80	62	48	58	26	41	32	28
25	156	153	131	54	72	61	44	53	24	38	28	27
26	119	119	105	53	65	55	88	49	23	36	35	43
27	291	113	89	49	60	197	70	45	65	34	61	36
28	181	127	79	46	90	453	53	41	64	32	87	33
29	139	98	72	94	---	246	95	39	54	31	99	56
30	125	304	67	89	---	176	221	37	38	29	289	35
31	98	---	62	76	---	136	---	37	---	27	253	---
TOTAL	4,372	4,929	4,112	4,167	2,131	3,025	2,368	1,977	1,204	1,535	1,709	1,192
MEAN	141	164	133	134	76.1	97.6	78.9	63.8	40.1	49.5	55.1	39.7
MAX	1,440	501	423	432	115	453	221	253	72	123	289	115
MIN	26	72	52	46	56	54	42	37	23	23	25	27
CFSM	4.70	5.48	4.42	4.48	2.54	3.25	2.63	2.13	1.34	1.65	1.84	1.32
IN.	5.42	6.11	5.10	5.17	2.64	3.75	2.94	2.45	1.49	1.90	2.12	1.48

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2005, BY WATER YEAR (WY)

MEAN	60.1	80.9	85.1	91.2	109	107	85.8	128	104	80.9	56.4	56.0
MAX	141	164	133	134	193	190	127	269	284	199	115	89.0
(WY)	(2005)	(2005)	(2005)	(2005)	(2003)	(2002)	(1998)	(2004)	(1998)	(1998)	(2004)	(2003)
MIN	32.1	32.0	41.2	47.8	51.5	67.5	49.6	46.5	40.1	32.3	30.3	24.9
(WY)	(2000)	(2000)	(2000)	(2001)	(2002)	(2003)	(1999)	(2000)	(2005)	(2002)	(2002)	(1999)

03289200 TOWN BRANCH AT YARNALLTON ROAD AT YARNALLTON, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1998 - 2005	
ANNUAL TOTAL	48,495		32,721		86.9	
ANNUAL MEAN	132		89.6		122	
HIGHEST ANNUAL MEAN					2004	
LOWEST ANNUAL MEAN					2000	
HIGHEST DAILY MEAN	2,240	May 31	1,440	Oct 19	2,240	May 31, 2004
LOWEST DAILY MEAN	26	Oct 10	23	Jun 26	17	Nov 29, 1997
ANNUAL SEVEN-DAY MINIMUM	28	Oct 5	26	Jun 20	22	Sep 13, 1999
MAXIMUM PEAK FLOW			4,210	Oct 19	5,890	May 30, 2004
MAXIMUM PEAK STAGE			8.37	Oct 19	9.38	May 30, 2004
INSTANTANEOUS LOW FLOW					13	Jul 16, 2001
ANNUAL RUNOFF (CFSM)	4.42		2.99		2.90	
ANNUAL RUNOFF (INCHES)	60.13		40.57		39.35	
10 PERCENT EXCEEDS	237		178		169	
50 PERCENT EXCEEDS	80		63		55	
90 PERCENT EXCEEDS	43		29		28	



## KENTUCKY RIVER BASIN

## 03289300 SOUTH ELKHORN CREEK NEAR MIDWAY, KY

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

DRAINAGE AREA.--95.0 mi<sup>2</sup>, of which about 12 mi<sup>2</sup> does not contribute directly to surface runoff.

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

GAGE.--Water-stage recorder with telemetry and crest-stage gage. Datum of gage is 790 ft above NGVD of 1929 (from topographic map).

REMARKS.--Records good. 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.

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 19	1600	*4,070	*17.40	Dec 23	1230	1,200	9.50
Nov 4	1530	1,780	11.50	Jan 6	1600	1,030	8.89
Nov 12	0900	1,560	10.79	Jan 8	1000	1,450	10.39
Dec 1	0730	1,640	11.06	Mar 28	1200	1,800	11.56
Dec 7	1700	1,270	9.76				

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

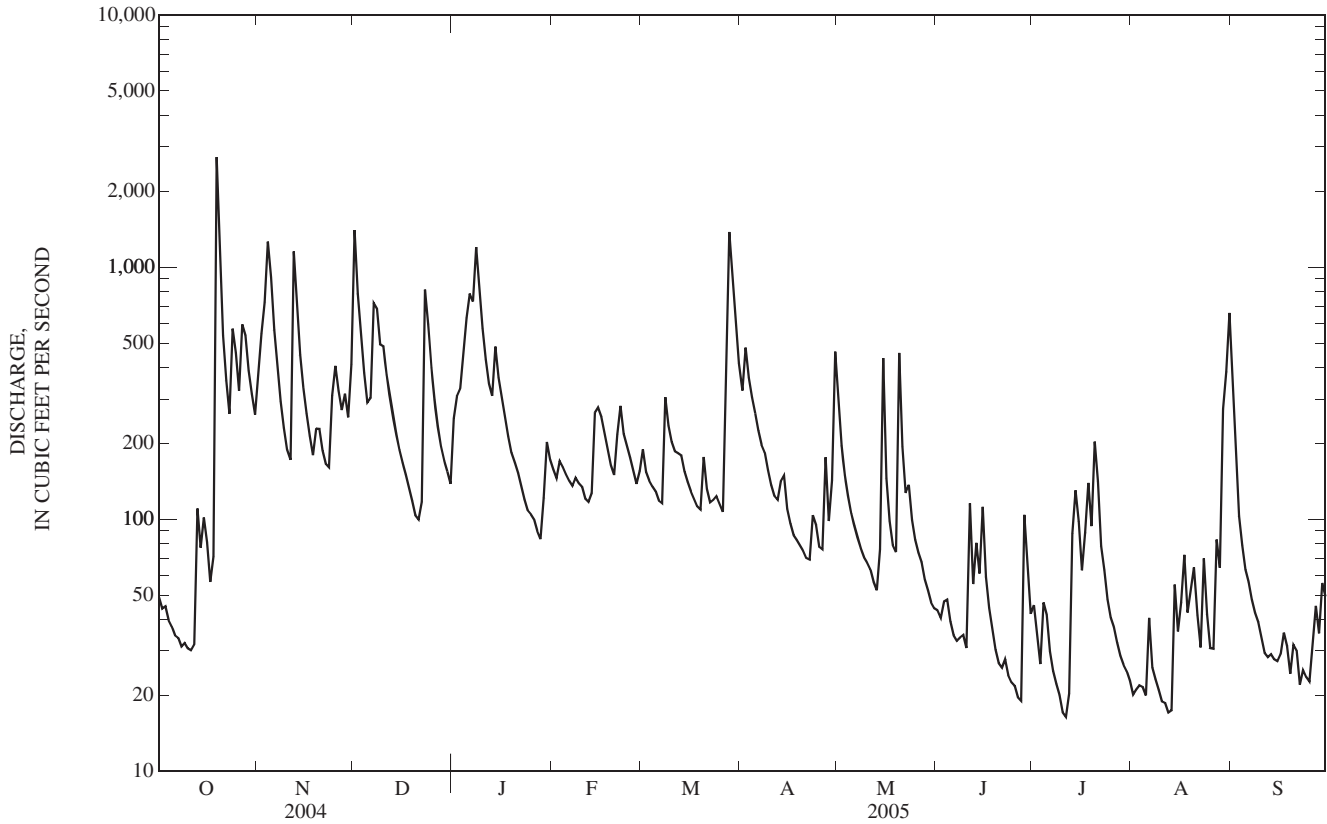
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	382	1,400	251	158	190	324	302	44	46	20	288
2	44	545	786	308	146	154	480	196	41	35	21	160
3	45	727	531	329	171	142	364	150	47	27	22	103
4	40	1,260	381	463	161	135	305	124	48	47	22	79
5	37	914	290	629	151	129	263	105	39	42	20	63
6	35	566	303	787	142	119	225	94	35	30	41	56
7	34	396	720	731	136	116	197	85	33	25	26	48
8	31	293	685	1,200	146	305	184	76	34	22	23	42
9	32	230	493	819	139	235	157	71	35	20	21	39
10	31	189	486	572	135	202	137	67	31	17	19	34
11	30	172	374	431	121	186	123	63	116	16	19	30
12	32	1,150	315	345	117	183	119	57	55	20	17	28
13	110	684	264	308	127	179	141	52	81	88	17	29
14	77	450	220	484	264	155	149	76	61	130	55	28
15	102	332	188	365	277	141	110	436	112	98	36	27
16	81	262	168	304	255	129	96	145	59	63	47	29
17	56	214	150	256	219	121	87	98	45	89	72	35
18	71	180	134	213	188	112	83	79	37	139	43	31
19	2,730	229	118	184	163	109	79	74	30	94	52	24
20	1,200	229	104	167	150	177	75	457	27	203	64	32
21	536	187	100	153	217	132	70	194	26	141	42	30
22	356	166	117	135	282	117	69	127	28	78	31	22
23	262	161	815	120	218	119	104	137	24	63	70	25
24	570	310	593	108	195	124	95	100	23	48	42	24
25	458	406	399	105	175	115	78	83	22	41	31	23
26	323	323	298	100	155	107	76	74	20	37	31	32
27	592	272	235	90	138	273	176	67	19	32	83	45
28	537	315	194	84	155	1,380	98	58	104	29	64	35
29	388	253	171	122	---	845	142	52	62	27	274	56
30	314	411	154	203	---	571	463	47	42	25	386	49
31	260	---	138	172	---	415	---	44	---	23	658	---
TOTAL	9,463	12,208	11,324	10,538	4,901	7,417	5,069	3,790	1,380	1,795	2,369	1,546
MEAN	305	407	365	340	175	239	169	122	46.0	57.9	76.4	51.5
MAX	2,730	1,260	1,400	1,200	282	1,380	480	457	116	203	658	288
MIN	30	161	100	84	117	107	69	44	19	16	17	22
CFSM	2.91	3.88	3.48	3.24	1.67	2.28	1.61	1.16	0.44	0.55	0.73	0.49
IN.	3.35	4.33	4.01	3.73	1.74	2.63	1.80	1.34	0.49	0.64	0.84	0.55

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2005, BY WATER YEAR (WY)

MEAN	76.9	147	233	234	282	297	182	228	175	99.2	75.1	64.2
MAX	305	407	673	405	1,030	1,165	366	718	606	443	259	158
(WY)	(2005)	(2005)	(1991)	(1996)	(1989)	(1997)	(1984)	(1983)	(1997)	(1998)	(2004)	(2003)
MIN	24.5	21.1	42.6	50.4	114	60.1	61.0	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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1982 - 2005	
ANNUAL TOTAL	106,820		71,800		174	
ANNUAL MEAN	292		197		276	
HIGHEST ANNUAL MEAN					99.6	1997
LOWEST ANNUAL MEAN					10,700	2000
HIGHEST DAILY MEAN	6,460	May 31	2,730	Oct 19	3.1	Mar 2, 1997
LOWEST DAILY MEAN	30	Oct 11	16	Jul 11	8.5	Oct 8, 1994
ANNUAL SEVEN-DAY MINIMUM	32	Oct 6	20	Aug 7	12,300	Nov 18, 2000
MAXIMUM PEAK FLOW			4,070	Oct 19	26.37	Mar 2, 1997
MAXIMUM PEAK STAGE			17.40	Oct 19	0.00	Oct 7, 1992
INSTANTANEOUS LOW FLOW					1.66	
ANNUAL RUNOFF (CFSM)	2.78		1.87		22.52	
ANNUAL RUNOFF (INCHES)	37.84		25.44		369	
10 PERCENT EXCEEDS	592		460		91	
50 PERCENT EXCEEDS	156		119		29	
90 PERCENT EXCEEDS	63		28			



## 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<sup>2</sup> of which about 70 mi<sup>2</sup> 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 and crest-stage gage. 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 good. 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<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 20	0715	*8,990	*10.06	Mar 28	1730	7,010	8.95

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	176	1,030	5,550	996	744	586	1,570	1,670	104	69	35	968
2	171	2,080	4,270	1,460	683	598	1,660	991	101	57	33	472
3	159	3,220	2,580	2,620	674	510	1,940	692	100	56	31	252
4	158	4,730	1,810	3,780	699	468	1,450	525	104	45	32	170
5	146	5,100	1,340	3,910	675	465	1,180	420	101	47	31	128
6	135	2,790	1,110	4,260	635	453	988	345	90	56	32	102
7	127	1,880	2,910	4,130	589	424	847	297	82	45	37	87
8	125	1,330	3,880	4,810	599	606	768	264	77	38	37	76
9	120	1,020	2,460	4,390	616	926	676	235	73	33	34	67
10	114	808	2,480	2,750	605	789	576	211	79	32	31	61
11	106	843	2,060	2,000	562	703	502	196	78	31	29	56
12	111	5,390	1,630	1,530	521	668	451	181	143	32	28	49
13	127	4,110	1,310	1,300	545	648	444	163	128	37	26	46
14	251	2,360	1,070	1,900	975	593	488	159	138	80	27	45
15	271	1,620	888	1,940	1,270	521	453	370	120	128	41	44
16	341	1,220	770	1,500	1,210	477	359	534	139	135	53	42
17	293	978	687	1,200	1,050	444	301	307	99	118	46	42
18	282	810	616	973	877	415	267	213	83	130	78	43
19	6,190	976	540	815	745	399	247	208	75	157	62	46
20	7,650	1,240	452	726	658	438	233	864	63	247	60	49
21	2,700	988	389	664	661	505	220	989	57	349	85	46
22	1,610	825	487	586	751	429	217	544	53	242	75	48
23	1,140	749	3,150	504	771	416	289	379	52	144	68	43
24	1,400	1,060	3,370	434	690	424	341	343	47	113	71	42
25	2,060	2,030	2,060	385	634	419	288	258	44	88	67	42
26	1,480	1,790	1,460	365	561	404	248	207	41	72	52	44
27	1,380	1,410	1,120	341	491	593	308	176	39	62	48	41
28	2,160	1,280	901	301	469	5,820	393	155	38	55	71	53
29	1,810	1,190	821	308	---	4,850	375	137	104	48	135	50
30	1,340	1,210	976	668	---	2,930	1,310	122	89	43	322	50
31	1,090	---	849	813	---	2,160	---	112	---	38	982	---
TOTAL	35,223	56,067	53,996	52,359	19,960	30,081	19,389	12,267	2,541	2,827	2,759	3,304
MEAN	1,136	1,869	1,742	1,689	713	970	646	396	84.7	91.2	89.0	110
MAX	7,650	5,390	5,550	4,810	1,270	5,820	1,940	1,670	143	349	982	968
MIN	106	749	389	301	469	399	217	112	38	31	26	41
CFSM	2.82	4.64	4.33	4.20	1.77	2.41	1.61	0.98	0.21	0.23	0.22	0.27
IN.	3.26	5.18	4.99	4.84	1.85	2.78	1.79	1.13	0.23	0.26	0.26	0.31

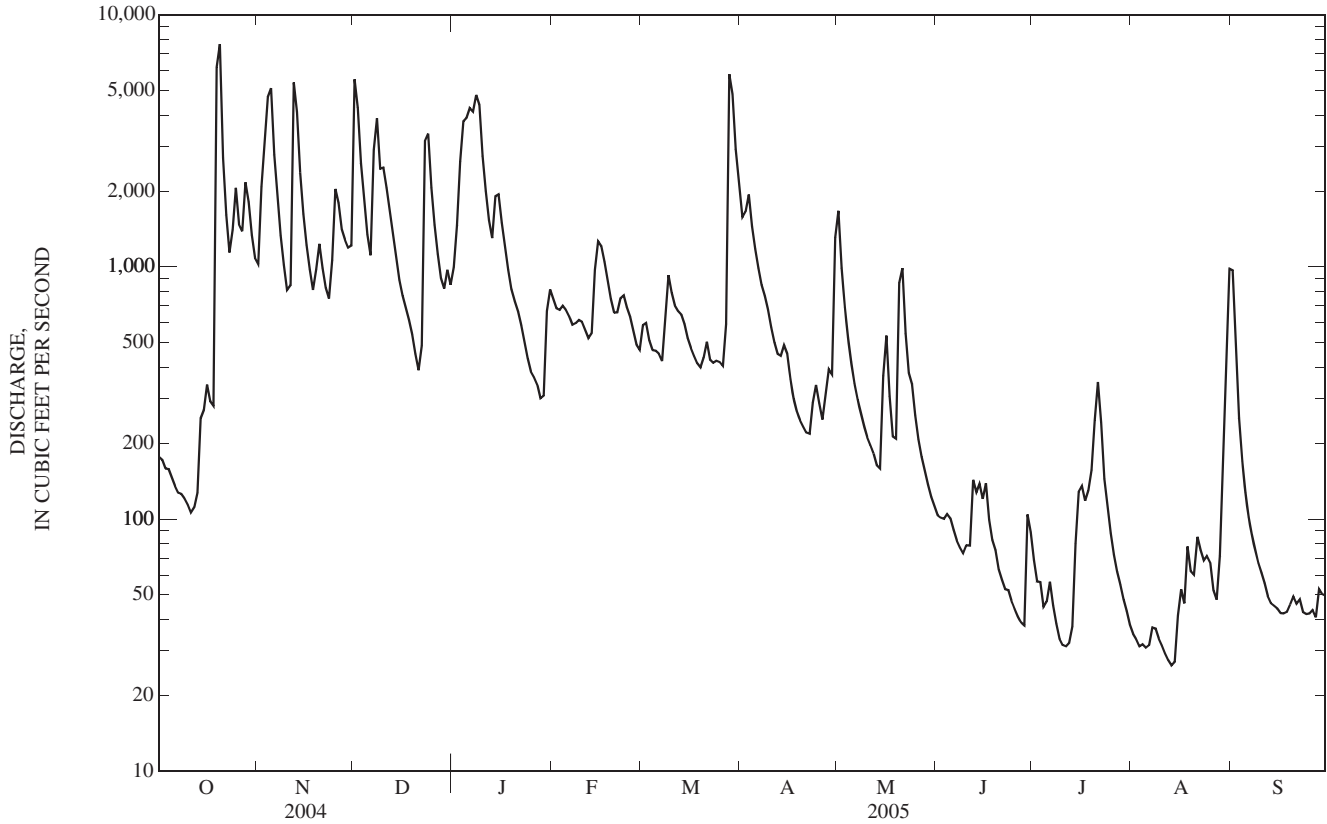
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 2005, BY WATER YEAR (WY)

MEAN	153	368	882	1,120	1,287	1,394	894	701	448	258	183	164
MAX	1,136	1,869	3,138	4,630	4,438	4,309	3,332	3,747	2,686	1,708	963	2,101
(WY)	(2005)	(2005)	(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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1916 - 2005	
ANNUAL TOTAL	421,137		290,773		652	
ANNUAL MEAN	1,151		797		126	
HIGHEST ANNUAL MEAN					1,103	1997
LOWEST ANNUAL MEAN					126	1954
HIGHEST DAILY MEAN	16,300	May 31	7,650	Oct 20	25,000	Feb 16, 1989
LOWEST DAILY MEAN	106	Oct 11	26	Aug 13	0.00	Jan 7, 1940
ANNUAL SEVEN-DAY MINIMUM	119	Oct 7	30	Aug 8	0.00	Jan 7, 1940
MAXIMUM PEAK FLOW			8,990	Oct 20	35,900	Mar 4, 1997
MAXIMUM PEAK STAGE			10.06	Oct 20	17.96	Mar 3, 1997
ANNUAL RUNOFF (CFSM)	2.86		1.98		1.62	
ANNUAL RUNOFF (INCHES)	38.93		26.88		22.01	
10 PERCENT EXCEEDS	2,550		2,040		1,630	
50 PERCENT EXCEEDS	608		416		215	
90 PERCENT EXCEEDS	229		45		35	



## 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<sup>2</sup>, of which about 196 mi<sup>2</sup> 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; water-stage recorder with telemetry located in the lower pool at Lock 3.

REMARKS.--Records good. 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.

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

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,950	12,300	35,700	10,600	15,200	9,570	e22,900	37,700	1,580	602	691	5,320
2	3,550	15,200	44,600	10,300	14,700	11,700	22,900	50,100	1,490	571	677	3,210
3	3,170	15,900	46,300	16,800	13,500	15,400	33,900	51,400	1,440	639	632	1,930
4	2,260	19,600	42,500	16,400	12,000	15,500	41,600	34,800	1,430	955	574	1,300
5	2,340	35,400	25,300	18,600	10,700	12,600	39,400	17,700	1,430	1,300	503	959
6	2,590	29,000	18,300	23,700	9,250	11,100	27,600	13,400	1,430	1,380	456	775
7	2,670	23,200	25,100	27,900	8,590	9,830	19,900	10,600	1,490	1,250	443	640
8	2,290	16,200	32,200	37,100	8,680	14,900	16,600	8,650	1,580	1,070	451	546
9	1,900	12,000	31,600	47,500	8,310	23,000	14,400	7,260	1,580	943	383	466
10	1,530	9,480	29,800	49,000	8,340	20,100	12,600	5,850	1,540	842	347	401
11	1,290	10,700	31,800	38,700	7,960	17,700	10,600	4,620	1,670	837	338	364
12	1,530	22,200	38,500	24,800	7,820	15,500	9,580	3,980	1,780	1,140	323	333
13	1,790	17,500	34,700	20,000	8,210	13,800	8,720	3,660	1,880	1,360	314	296
14	2,340	13,000	25,600	22,500	11,300	12,400	8,020	3,290	2,070	1,360	322	267
15	2,800	10,800	20,500	25,300	12,900	11,200	6,950	3,650	2,290	1,430	322	254
16	2,670	9,740	16,500	25,500	15,800	9,840	8,600	3,770	2,010	1,490	415	219
17	2,290	8,720	13,700	22,600	17,500	8,870	11,200	3,190	1,630	1,620	473	202
18	2,310	7,820	11,200	18,500	15,400	7,860	9,700	2,790	1,340	2,000	483	201
19	20,300	9,860	9,710	15,600	13,200	7,820	7,430	4,400	1,170	2,390	588	180
20	29,800	8,810	8,700	14,000	11,300	7,700	6,220	10,500	1,050	2,710	600	224
21	19,600	8,090	7,490	10,600	10,400	6,770	5,760	6,380	949	2,880	574	201
22	12,800	7,620	7,010	8,850	12,300	7,110	5,070	5,310	846	3,260	605	169
23	8,370	7,180	14,800	8,170	15,400	7,370	5,590	5,330	760	3,390	617	158
24	7,380	8,850	18,600	7,580	15,600	6,780	4,920	4,840	726	2,800	651	137
25	7,610	11,600	13,900	6,930	14,100	6,240	4,630	3,990	776	1,990	636	131
26	7,370	12,800	11,500	6,440	12,100	5,870	4,880	3,320	826	1,540	591	153
27	8,420	13,500	10,200	6,160	10,500	7,790	5,280	2,870	801	1,220	546	145
28	16,200	13,400	9,090	5,970	9,440	e11,900	5,280	2,530	702	971	579	139
29	22,800	13,300	8,610	6,020	---	e17,800	6,220	2,200	642	803	1,050	160
30	20,000	12,700	12,000	8,700	---	e29,700	15,000	1,950	653	717	2,690	166
31	14,200	---	11,000	12,900	---	e28,800	---	1,720	---	692	6,420	---
TOTAL	238,120	416,470	666,510	573,720	330,500	392,520	401,450	321,750	39,561	46,152	24,294	19,646
MEAN	7,681	13,880	21,500	18,510	11,800	12,660	13,380	10,380	1,319	1,489	784	655
MAX	29,800	35,400	46,300	49,000	17,500	29,700	41,600	51,400	2,290	3,390	6,420	5,320
MIN	1,290	7,180	7,010	5,970	7,820	5,870	4,630	1,720	642	571	314	131

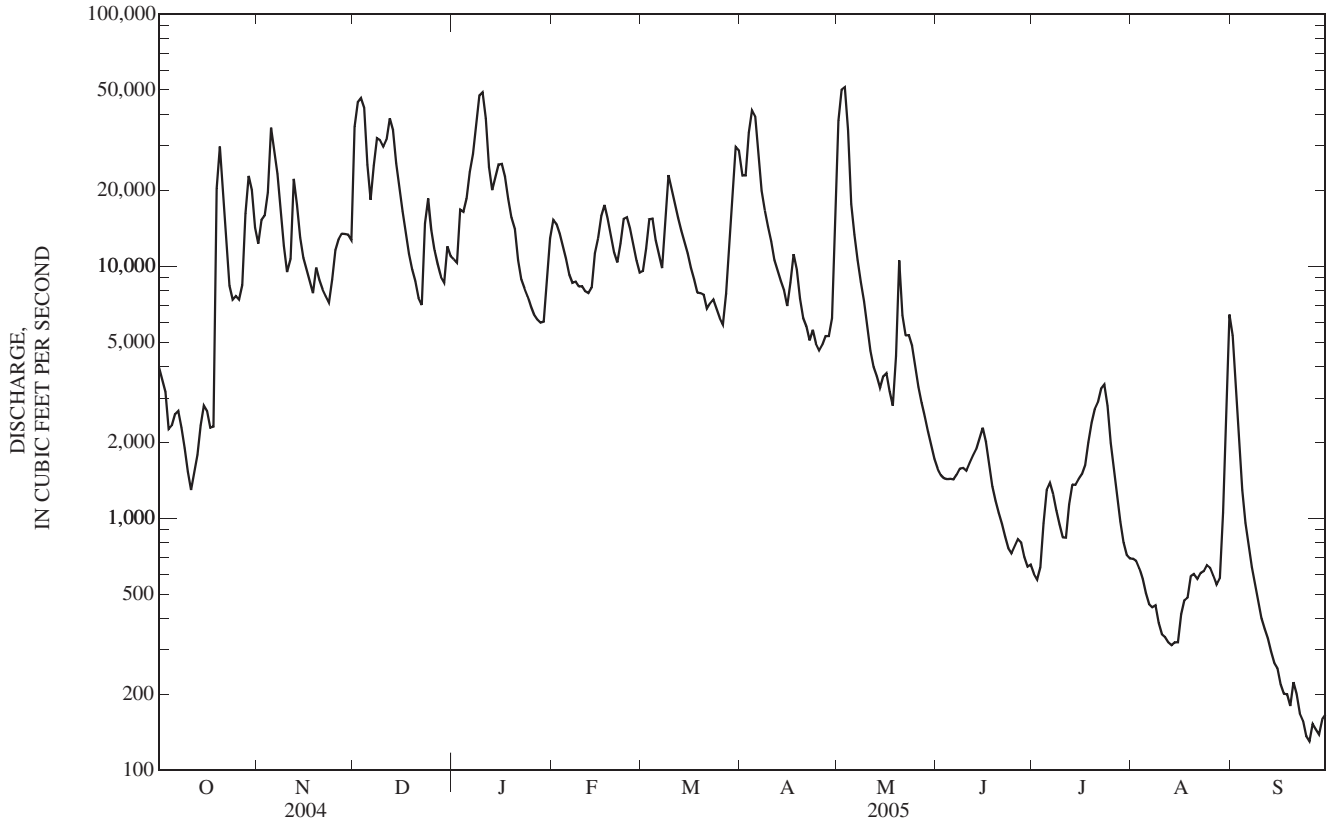
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2005, BY WATER YEAR (WY)

MEAN	2,663	5,849	11,290	12,860	15,480	16,210	12,270	10,710	6,956	2,970	2,452	2,541
MAX	14,120	13,960	39,510	32,950	40,180	37,680	26,630	34,340	23,380	8,458	8,589	14,740
(WY)	(1990)	(1987)	(1979)	(1979)	(1989)	(1997)	(1994)	(1983)	(1997)	(1998)	(1992)	(1979)
MIN	421	511	1,849	770	5,952	4,423	2,074	1,832	508	545	307	187
(WY)	(2000)	(2000)	(2000)	(1981)	(2002)	(1983)	(1986)	(1986)	(1988)	(1999)	(1999)	(1999)

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

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1977 - 2005	
ANNUAL TOTAL	5,003,980		3,470,693		8,486	
ANNUAL MEAN	13,670		9,509		3,891	
HIGHEST ANNUAL MEAN					14,030	1979
LOWEST ANNUAL MEAN					3,891	1988
HIGHEST DAILY MEAN	88,000	Jun 1	51,400	May 3	121,000	Dec 11, 1978
LOWEST DAILY MEAN	1,290	Oct 11	131	Sep 25	112	Sep 16, 1999
ANNUAL SEVEN-DAY MINIMUM	1,790	Sep 2	146	Sep 23	125	Sep 10, 1999
MAXIMUM PEAK FLOW			52,500	May 3	123,000	Jan 26, 1937
MAXIMUM PEAK STAGE			30.61	Jan 10	56.85	Jan 24, 1937
10 PERCENT EXCEEDS	33,000		23,100		21,300	
50 PERCENT EXCEEDS	8,840		7,110		4,070	
90 PERCENT EXCEEDS	2,900		529		617	

e Estimated



KENTUCKY RIVER BASIN

03291500 EAGLE CREEK AT GLENCOE, KY

LOCATION.--Lat 38°42'18", long 84°49'26", Gallatin County, Hydrologic Unit 05100205, on left bank, at 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<sup>2</sup>.

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 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 12,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov 12	0400	17,600	15.88	Mar 28	0900	*25,800	*19.34
Jan 3	1800	19,900	16.98	Aug 30	2300	14,500	14.32
Jan 6	1100	13,100	13.55				

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	69	4,740	2,350	689	424	724	2,030	42	9.0	6.1	1,010
2	3.0	3,220	2,090	2,520	471	456	797	515	39	11	5.7	328
3	2.3	3,790	692	10,100	391	344	1,580	314	36	13	5.4	170
4	2.3	2,460	455	9,850	435	301	694	241	35	12	4.9	98
5	2.2	3,130	353	10,000	404	389	456	199	36	12	4.5	63
6	2.5	694	330	10,100	356	587	365	171	39	12	4.0	45
7	3.2	398	2,480	3,750	335	383	319	153	51	10	3.5	35
8	4.3	296	4,030	3,940	839	1,330	286	139	108	9.1	3.4	28
9	5.5	233	1,280	2,460	820	762	251	126	37	8.0	3.3	23
10	6.2	194	2,730	1,020	829	452	220	114	26	6.9	3.1	20
11	7.2	2,340	1,880	1,940	597	371	204	104	22	6.5	3.4	17
12	9.4	13,400	971	2,280	428	344	192	98	27	6.3	4.5	15
13	15	3,280	610	1,560	456	319	279	88	38	7.3	4.1	13
14	19	774	435	4,820	1,980	291	375	105	59	9.3	4.4	12
15	25	445	345	1,530	1,970	265	246	200	42	9.9	3.9	9.5
16	61	340	297	712	858	247	204	132	49	15	4.9	9.2
17	73	288	277	513	537	238	166	102	32	46	5.4	8.6
18	e63	253	254	395	420	231	150	84	44	41	5.8	6.9
19	e1,810	2,910	238	371	356	223	141	122	36	26	524	6.2
20	e627	2,520	198	346	324	234	134	2,390	27	20	313	7.5
21	e260	766	194	325	332	231	129	597	21	28	96	7.6
22	e100	433	277	275	315	240	128	254	18	34	43	7.3
23	128	337	3,430	256	303	534	925	158	15	27	27	7.7
24	106	1,710	2,310	239	294	814	1,330	115	13	21	19	10
25	467	3,140	607	236	289	386	459	88	11	16	14	10
26	227	1,010	402	239	281	320	318	73	10	14	12	11
27	132	507	319	224	275	528	629	70	8.9	11	12	12
28	155	511	284	223	276	16,400	545	63	8.1	9.6	10	12
29	188	558	265	228	---	5,260	300	57	7.8	8.3	10	12
30	123	439	4,030	747	---	1,340	2,290	51	7.0	7.2	3,140	11
31	80	---	6,630	1,400	---	689	---	47	---	6.4	5,760	---
TOTAL	4,710.9	50,445	43,433	74,949	15,860	34,933	14,836	9,000	944.8	472.8	10,060.3	2,025.5
MEAN	152	1,682	1,401	2,418	566	1,127	495	290	31.5	15.3	325	67.5
MAX	1,810	13,400	6,630	10,100	1,980	16,400	2,290	2,390	108	46	5,760	1,010
MIN	2.2	69	194	223	275	223	128	47	7.0	6.3	3.1	6.2
CFSM	0.35	3.85	3.21	5.53	1.30	2.58	1.13	0.66	0.07	0.03	0.74	0.15
IN.	0.40	4.29	3.70	6.38	1.35	2.97	1.26	0.77	0.08	0.04	0.86	0.17

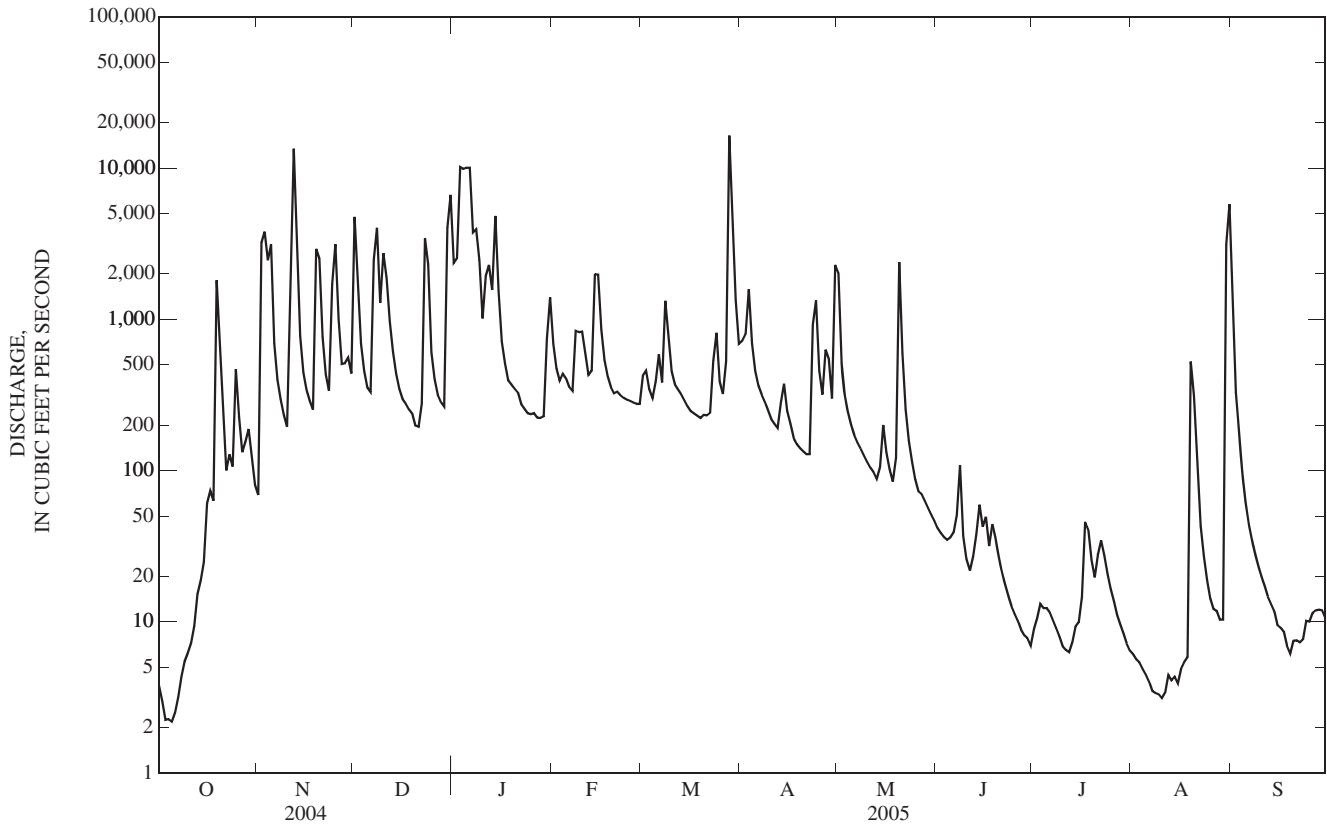
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 2005, BY WATER YEAR (WY)

MEAN	114	375	662	964	1,068	1,255	905	702	467	243	137	120
MAX	1,005	1,682	1,874	3,170	3,295	5,197	2,910	3,190	2,673	1,016	755	1,355
(WY)	(1976)	(2005)	(1952)	(1950)	(1956)	(1964)	(1948)	(1996)	(1997)	(1957)	(1977)	(1965)
MIN	0.00	0.00	0.00	2.85	44.6	120	131	25.5	1.56	0.14	0.00	0.00
(WY)	(1931)	(1931)	(1931)	(1931)	(1954)	(1941)	(1976)	(1930)	(1930)	(1930)	(1930)	(1930)

03291500 EAGLE CREEK AT GLENCOE, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1916 - 2005	
ANNUAL TOTAL	305,765.7		261,670.3		581	
ANNUAL MEAN	835		717		1,059	
HIGHEST ANNUAL MEAN					117	1973
LOWEST ANNUAL MEAN					39,300	1954
HIGHEST DAILY MEAN	13,400	Nov 12	16,400	Mar 28	58,300	Mar 10, 1964
LOWEST DAILY MEAN	2.2	Oct 5	2.2	Oct 5	0.00	Jul 15, 1930
ANNUAL SEVEN-DAY MINIMUM	2.8	Oct 1	2.8	Oct 1	0.00	Jul 15, 1930
MAXIMUM PEAK FLOW			25,800	Mar 28	58,300	Mar 2, 1997
MAXIMUM PEAK STAGE			19.34	Mar 28	29.08	Mar 2, 1997
ANNUAL RUNOFF (CFSM)	1.91		1.64		1.33	
ANNUAL RUNOFF (INCHES)	26.03		22.27		18.05	
10 PERCENT EXCEEDS	2,490		2,050		1,330	
50 PERCENT EXCEEDS	244		224		102	
90 PERCENT EXCEEDS	18		7.2		1.4	

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<sup>2</sup>.

PERIOD OF RECORD.--December 15, 1998 to current year.

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

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 4,500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov 11	2300	5,310	7.48	Jan 6	0815	5,990	7.88
Jan 3	1255	*10,100	*10.44	Mar 28	0520	7,720	8.90
Jan 5	1345	5,150	7.38	May 20	0140	7,420	8.73

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	21	328	1,270	76	121	138	148	9.2	2.5	1.5	53
2	1.1	925	150	646	66	82	127	95	9.7	2.6	1.4	17
3	1.4	406	93	4,780	65	69	109	71	10	2.4	1.3	6.9
4	1.6	151	63	1,190	64	64	88	56	10	2.7	1.2	4.5
5	1.6	89	44	3,020	57	82	76	46	7.7	2.6	1.2	3.3
6	1.5	51	43	3,010	52	81	66	40	6.8	2.3	1.2	2.6
7	1.6	34	446	628	56	76	63	34	6.1	2.1	1.3	2.1
8	1.6	21	202	1,030	295	435	64	30	5.9	2.1	1.3	1.9
9	1.7	15	286	398	194	140	52	26	6.0	1.9	1.2	1.7
10	1.8	11	387	252	156	104	46	23	5.0	1.7	1.2	1.4
11	1.7	1,420	179	483	117	89	43	20	4.8	1.8	1.1	1.2
12	2.0	2,050	139	464	100	84	45	17	5.5	3.6	1.0	0.99
13	3.2	276	91	566	215	78	80	16	6.4	6.4	1.00	0.84
14	4.9	124	57	733	530	66	66	41	6.5	6.8	1.4	0.70
15	5.6	75	41	257	281	58	48	94	7.5	5.8	1.4	0.74
16	5.1	51	34	188	172	52	39	38	4.8	5.8	2.5	0.72
17	4.6	37	29	e110	122	49	34	25	3.9	6.4	4.3	0.60
18	31	29	24	e80	96	46	30	19	3.5	6.0	4.1	0.49
19	212	934	e12	e65	81	44	27	270	3.2	19	3.5	0.56
20	32	351	e7.0	e55	75	47	25	2,350	3.0	11	3.4	1.2
21	10	141	e12	e45	87	42	23	187	2.8	5.4	2.9	1.5
22	6.8	88	e14	e38	75	38	25	94	2.7	8.2	2.5	1.2
23	6.8	64	e17	e32	63	51	154	65	2.4	6.6	2.5	0.86
24	23	142	e21	e26	64	61	113	46	2.3	5.0	2.4	0.83
25	30	164	e26	e22	65	52	62	33	2.2	4.0	2.2	0.87
26	14	90	e24	e18	60	49	91	26	2.2	3.3	2.0	1.8
27	213	68	e22	e15	55	110	213	21	2.0	2.7	1.9	2.2
28	75	121	e20	e13	70	3,740	90	19	2.0	2.4	8.7	2.0
29	31	79	e30	e11	---	642	89	16	2.2	2.1	12	2.1
30	20	67	1,250	67	---	253	262	13	2.1	1.9	251	2.1
31	19	---	2,630	80	---	185	---	11	---	1.7	244	---
TOTAL	765.6	8,095	6,721.0	19,592	3,409	7,090	2,388	3,990	148.4	138.8	568.60	117.90
MEAN	24.7	270	217	632	122	229	79.6	129	4.95	4.48	18.3	3.93
MAX	213	2,050	2,630	4,780	530	3,740	262	2,350	10	19	251	53
MIN	1.0	11	7.0	11	52	38	23	11	2.0	1.7	1.0	0.49

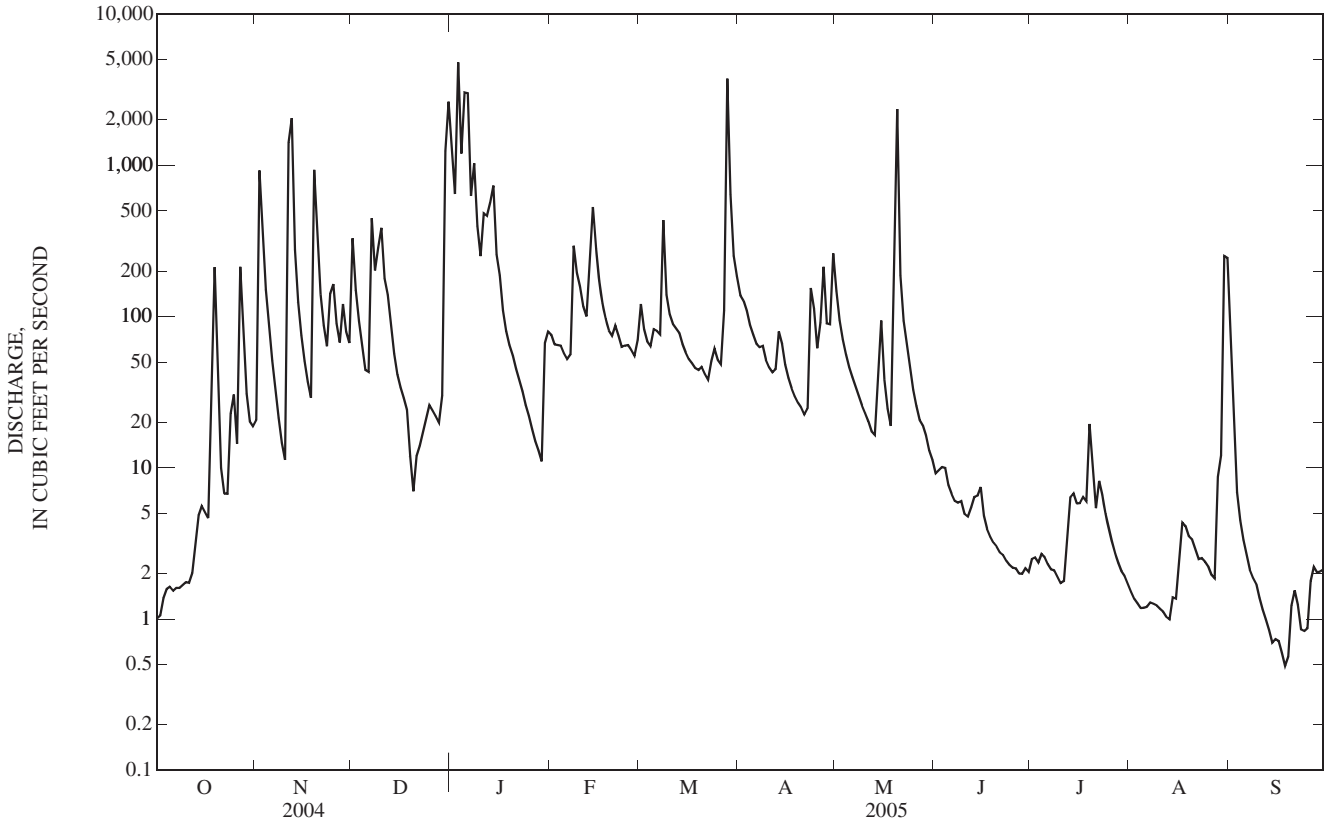
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2005, BY WATER YEAR (WY)

MEAN	61.7	158	232	258	245	181	125	294	73.3	43.5	27.1	66.5
MAX	233	270	359	632	526	417	242	917	192	210	127	245
(WY)	(2002)	(2005)	(2002)	(2005)	(2000)	(2002)	(2002)	(2004)	(2002)	(2004)	(2003)	(2003)
MIN	1.99	3.33	83.5	40.6	121	77.0	25.9	16.5	4.95	4.48	0.29	0.09
(WY)	(2000)	(2000)	(2000)	(2001)	(1999)	(2003)	(2001)	(1999)	(2005)	(2005)	(1999)	(1999)

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

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1999 - 2005	
ANNUAL TOTAL	77,531.91		53,024.30		158	
ANNUAL MEAN	212		145		75.2	
HIGHEST ANNUAL MEAN					226	2002
LOWEST ANNUAL MEAN					75.2	2001
HIGHEST DAILY MEAN	6,720	May 28	4,780	Jan 3	7,360	Feb 18, 2000
LOWEST DAILY MEAN	0.87	Sep 12	0.49	Sep 18	0.00	Sep 2, 1999
ANNUAL SEVEN-DAY MINIMUM	1.0	Sep 8	0.66	Sep 13	0.00	Sep 2, 1999
MAXIMUM PEAK FLOW			10,100	Jan 3	19,000	May 28, 2004
MAXIMUM PEAK STAGE			10.44	Jan 3	16.34	May 28, 2004
10 PERCENT EXCEEDS	373		255		283	
50 PERCENT EXCEEDS	41		29		32	
90 PERCENT EXCEEDS	1.7		1.6		2.2	

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<sup>2</sup>.

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

GAGE.--Water-stage recorder with telemetry and crest-stage gage. Datum of gage is 571.08 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 300 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
May 19	2200	*460	*4.20	Aug 28	1830	321	3.27

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.06	11	19	107	5.0	7.3	17	13	1.9	5.7	0.12	12
2	0.05	59	15	72	4.7	5.5	16	11	2.8	0.79	0.09	7.8
3	0.05	35	13	147	5.9	4.9	13	8.6	3.3	0.49	0.05	5.6
4	0.04	22	11	104	5.3	4.6	11	7.0	3.9	0.39	0.04	4.3
5	0.04	14	9.8	106	4.8	e4.9	10	5.6	2.4	0.35	0.04	2.3
6	0.02	11	11	142	4.6	4.4	8.9	5.0	1.8	0.31	0.03	1.5
7	0.01	9.6	36	80	7.0	5.2	9.2	4.6	1.5	0.21	0.02	1.2
8	0.01	7.7	16	76	15	6.6	8.8	3.9	1.2	0.15	0.01	0.97
9	0.01	6.6	28	48	12	5.0	6.9	3.4	1.2	0.11	0.01	6.1
10	0.01	5.5	24	33	12	4.6	5.7	3.2	1.5	0.08	0.01	1.3
11	0.01	36	18	25	11	4.5	5.0	2.7	1.3	0.14	0.01	1.0
12	2.5	45	15	20	10	5.4	6.2	2.4	2.5	1.2	0.01	0.85
13	1.9	25	12	29	17	5.2	8.2	2.3	2.2	2.5	0.00	0.72
14	1.0	17	10	24	21	4.7	5.5	13	1.5	1.4	0.03	0.63
15	2.5	13	8.6	18	17	4.1	4.5	8.0	1.3	1.4	0.06	0.60
16	1.6	11	8.0	16	15	3.9	3.5	4.3	0.88	4.8	7.7	0.53
17	1.4	9.3	7.4	14	13	3.9	3.3	3.3	0.75	2.0	1.7	0.52
18	47	8.2	6.9	12	11	3.7	3.0	2.8	0.63	1.3	0.80	0.52
19	35	32	6.2	12	10	4.1	2.8	47	0.53	1.4	1.1	0.48
20	11	21	5.2	11	9.6	4.0	2.6	64	0.49	0.98	0.83	3.8
21	5.6	17	4.9	9.6	9.7	3.3	2.6	24	0.44	0.79	0.54	1.3
22	5.1	14	11	8.7	7.8	3.6	3.6	15	0.39	5.3	0.36	0.90
23	5.9	13	e9.0	7.4	6.4	5.2	6.6	12	0.35	2.2	0.27	0.75
24	11	18	e8.0	6.8	6.4	4.6	4.7	9.2	0.35	1.3	0.17	0.64
25	6.0	15	e6.0	6.3	5.5	3.9	3.5	7.7	0.31	0.91	0.10	0.74
26	5.7	12	5.4	5.4	4.9	3.6	8.6	6.6	0.27	0.70	0.14	2.1
27	27	13	4.8	4.7	4.6	15	8.0	5.0	0.22	0.55	0.38	1.4
28	12	14	4.7	3.8	6.9	113	5.5	3.5	0.21	0.46	23	1.0
29	8.7	11	9.9	5.8	---	44	10	3.0	0.21	0.33	8.9	1.5
30	8.5	14	47	6.9	---	27	25	2.6	0.18	0.23	57	1.0
31	8.0	---	99	5.6	---	22	---	2.3	---	0.15	34	---
TOTAL	207.71	539.9	489.8	1,167.0	263.1	341.7	229.2	306.0	36.51	38.62	137.52	64.05
MEAN	6.70	18.0	15.8	37.6	9.40	11.0	7.64	9.87	1.22	1.25	4.44	2.13
MAX	47	59	99	147	21	113	25	64	3.9	5.7	57	12
MIN	0.01	5.5	4.7	3.8	4.6	3.3	2.6	2.3	0.18	0.08	0.00	0.48
CFSM	1.12	3.00	2.63	6.27	1.57	1.84	1.27	1.65	0.20	0.21	0.74	0.36
IN.	1.29	3.35	3.04	7.24	1.63	2.12	1.42	1.90	0.23	0.24	0.85	0.40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2005, BY WATER YEAR (WY)

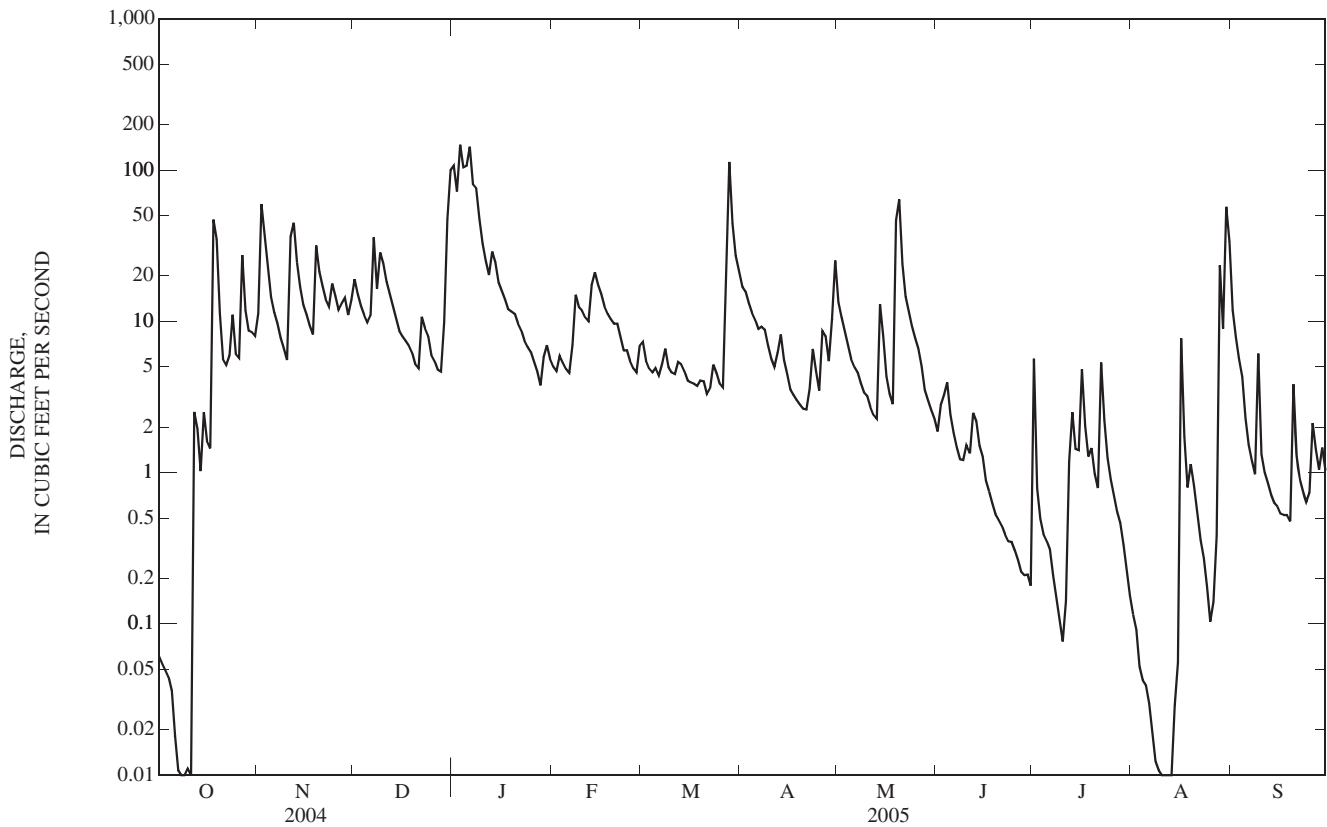
MEAN	4.33	6.78	12.3	15.2	13.1	18.3	8.52	12.4	10.5	5.52	3.46	3.59
MAX	13.4	18.0	21.8	37.6	27.5	77.1	16.5	27.6	26.4	18.0	9.88	15.5
(WY)	(2002)	(2005)	(1997)	(2005)	(2000)	(1997)	(2002)	(2003)	(2003)	(2004)	(2003)	(2003)
MIN	0.57	0.48	3.74	3.16	7.37	6.83	3.56	2.46	1.22	0.84	0.15	0.32
(WY)	(1998)	(2000)	(1999)	(2001)	(2002)	(2001)	(2001)	(1999)	(2005)	(2002)	(1999)	(1999)



03292474 GOOSE CREEK AT OLD WESTPORT ROAD NEAR ST. MATTHEWS, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1997 - 2005	
ANNUAL TOTAL	4,388.82		3,821.11		9.49	
ANNUAL MEAN	12.0		10.5		5.00	
HIGHEST ANNUAL MEAN					14.8	1997
LOWEST ANNUAL MEAN					5.00	2001
HIGHEST DAILY MEAN	163	Jul 17	147	Jan 3	800	Mar 2, 1997
LOWEST DAILY MEAN	0.01	Oct 7	0.00	Aug 13	0.00	Aug 13, 2005
ANNUAL SEVEN-DAY MINIMUM	0.02	Oct 5	0.01	Aug 7	0.01	Aug 7, 2005
MAXIMUM PEAK FLOW			460	May 19	4,050	Jun 14, 2003
MAXIMUM PEAK STAGE			4.20	May 19	6.03	Jun 14, 2003
ANNUAL RUNOFF (CFSM)	2.00		1.74		1.58	
ANNUAL RUNOFF (INCHES)	27.21		23.69		21.50	
10 PERCENT EXCEEDS	27		23		19	
50 PERCENT EXCEEDS	7.6		5.0		4.3	
90 PERCENT EXCEEDS	0.57		0.21		0.49	

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 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<sup>2</sup>.

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

GAGE.--Water-stage recorder with telemetry and crest-stage gage. Datum of gage is 430.06 ft above NGVD of 1929.

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

COOPERATION.--Louisville and Jefferson County Metropolitan Sewer District.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.66	12	20	74	7.2	11	17	15	3.8	7.0	1.3	12
2	0.61	56	16	49	7.0	9.5	16	12	4.5	2.7	1.3	8.5
3	0.57	31	14	117	8.1	8.7	14	10	4.9	2.2	1.3	9.0
4	0.55	24	12	72	8.0	8.4	13	8.7	5.4	1.9	1.2	5.8
5	0.49	16	11	78	7.2	8.7	12	7.7	4.3	1.7	1.2	4.8
6	0.48	13	12	108	6.9	8.2	11	7.1	3.8	1.6	1.3	3.9
7	0.47	12	29	77	9.0	8.7	11	6.8	3.3	1.4	1.4	3.4
8	0.46	10	18	101	17	10	11	6.3	5.1	1.4	1.4	3.0
9	0.47	9.2	23	e62	14	8.8	9.7	5.9	4.7	1.3	1.4	14
10	0.48	8.7	22	e42	13	8.2	8.9	5.8	3.8	1.3	1.3	4.6
11	0.45	39	18	e31	11	8.3	8.3	5.4	3.8	1.6	1.4	3.5
12	0.85	46	16	e26	11	9.4	10	5.0	5.2	3.8	1.6	3.1
13	1.7	24	14	e36	17	9.4	13	5.0	5.0	5.5	1.8	2.7
14	1.0	17	12	e29	21	8.8	9.3	16	3.9	4.5	2.4	2.6
15	1.5	14	11	e22	17	8.3	8.1	10	3.4	3.6	2.0	e2.4
16	1.1	12	e10	e19	15	8.0	7.4	7.5	2.9	4.6	7.9	e2.2
17	0.83	11	e9.3	e17	13	8.0	6.9	6.4	2.5	4.4	4.4	2.1
18	41	11	e8.6	e14	12	7.8	6.7	5.9	2.3	3.5	2.9	e1.9
19	41	29	e8.0	e12	12	8.1	6.3	7.7	2.1	9.2	3.4	e1.8
20	15	21	e7.5	11	12	8.2	6.1	6.2	1.9	3.7	2.9	5.8
21	9.8	17	e7.0	10	12	7.7	6.0	20	1.9	3.1	2.4	e2.7
22	8.6	14	e27	9.5	10	7.9	8.4	12	1.7	9.4	2.0	e1.9
23	9.1	13	e17	8.6	9.6	9.8	9.8	10	1.6	5.2	1.8	e1.6
24	13	18	e12	8.2	9.6	9.1	8.2	8.6	1.5	3.8	1.7	e1.4
25	9.8	15	e10.5	7.9	9.1	8.4	7.9	7.6	1.5	3.2	1.5	e2.0
26	10	13	9.5	7.3	8.4	8.2	12	6.8	1.4	2.8	1.7	e4.5
27	28	14	8.6	6.7	8.1	19	11	6.2	2.5	2.4	1.8	e2.6
28	13	16	8.3	6.2	9.9	100	9.1	5.5	2.4	2.1	13	e2.0
29	11	13	12	7.7	---	40	13	4.8	1.8	1.9	10	3.3
30	11	14	39	8.8	---	26	26	4.4	1.5	1.6	5.2	2.7
31	9.4	---	68	7.9	---	22	---	4.2	---	1.4	30	---
TOTAL	242.37	562.9	510.3	1,085.8	315.1	432.6	317.1	375.6	94.4	103.8	161.7	121.8
MEAN	7.82	18.8	16.5	35.0	11.3	14.0	10.6	12.1	3.15	3.35	5.22	4.06
MAX	41	56	68	117	21	100	26	77	5.4	9.4	52	14
MIN	0.45	8.7	7.0	6.2	6.9	7.7	6.0	4.2	1.4	1.3	1.2	1.4
CFSM	0.77	1.86	1.63	3.47	1.11	1.38	1.05	1.20	0.31	0.33	0.52	0.40
IN.	0.89	2.07	1.88	4.00	1.16	1.59	1.17	1.38	0.35	0.38	0.60	0.45

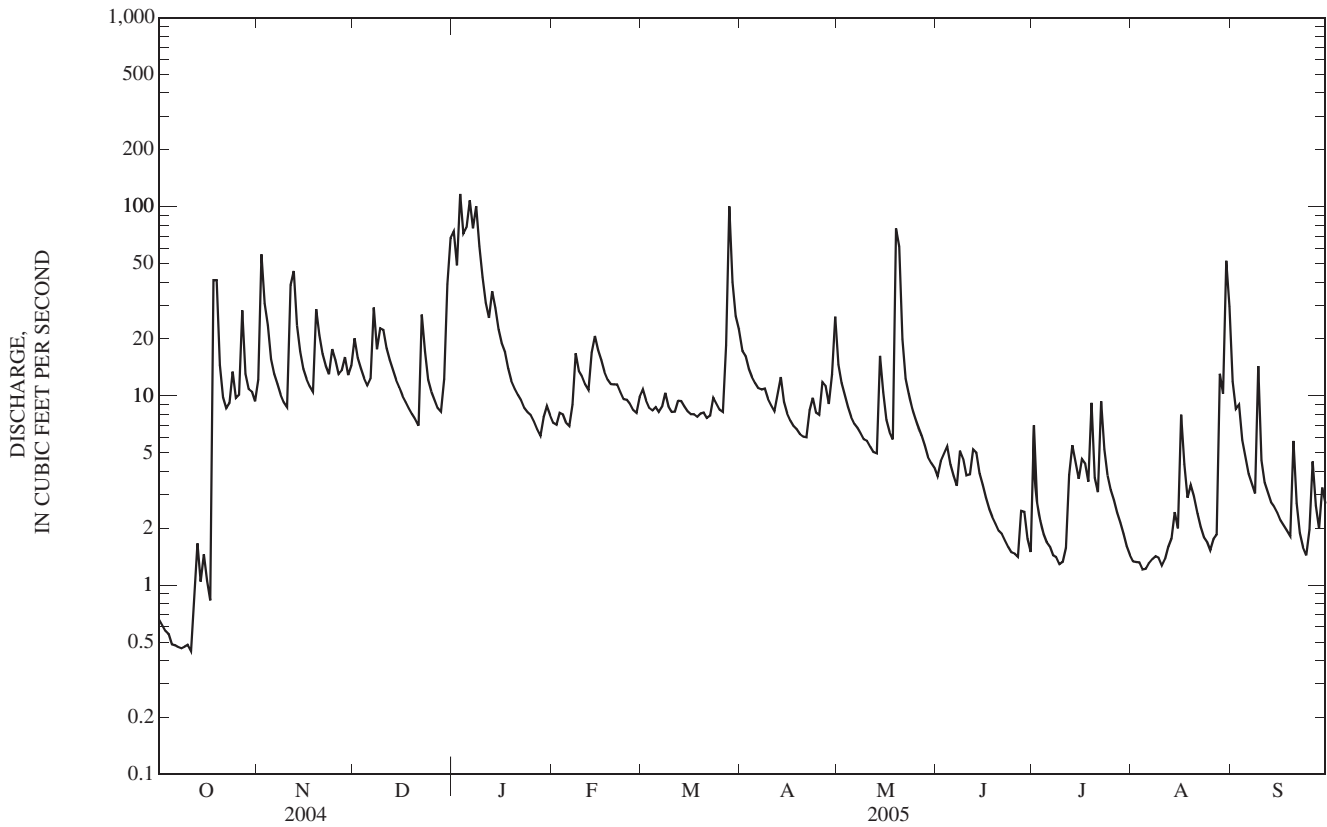
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2005, BY WATER YEAR (WY)

	10.2	13.8	20.3	19.9	23.6	18.3	16.5	25.1	9.94	6.31	4.62	9.81
MEAN	10.2	13.8	20.3	19.9	23.6	18.3	16.5	25.1	9.94	6.31	4.62	9.81
MAX	21.8	18.8	34.1	35.0	41.5	37.2	30.8	49.5	20.4	18.0	8.36	19.4
(WY)	(2002)	(2005)	(2003)	(2005)	(2000)	(2002)	(2002)	(2003)	(2003)	(2004)	(2003)	(2000)
MIN	2.17	4.19	12.7	1.99	11.3	10.3	6.85	5.09	3.15	1.64	0.71	0.86
(WY)	(2001)	(2001)	(2004)	(2001)	(2005)	(2001)	(2001)	(2000)	(2005)	(2002)	(2002)	(2004)

03292475 GOOSE CREEK AT HIGHWAY 42 AT GLENVIEW ACRES, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1999 - 2005	
ANNUAL TOTAL	4,826.72		4,323.47		15.0	
ANNUAL MEAN	13.2		11.8		21.8	
HIGHEST ANNUAL MEAN					8.28	2003
LOWEST ANNUAL MEAN					560	2001
HIGHEST DAILY MEAN	161	Jul 17	117	Jan 3	560	Feb 18, 2000
LOWEST DAILY MEAN	0.45	Oct 11	0.45	Oct 11	0.04	Sep 13, 2002
ANNUAL SEVEN-DAY MINIMUM	0.47	Oct 5	0.47	Oct 5	0.08	Aug 29, 2002
MAXIMUM PEAK FLOW			1,070	May 19	2,460	Jan 24, 2002
MAXIMUM PEAK STAGE			b 7.85	Jan 12	7.85	Jan 12, 2005
ANNUAL RUNOFF (CFSM)	1.31		1.17		1.49	
ANNUAL RUNOFF (INCHES)	17.78		15.92		20.22	
10 PERCENT EXCEEDS	28		23		36	
50 PERCENT EXCEEDS	9.7		8.2		7.9	
90 PERCENT EXCEEDS	1.0		1.5		1.3	

e Estimated  
b Backwater



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<sup>2</sup>.

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

GAGE.--Water-stage recorder with telemetry and crest-stage gage. Datum of gage is 459.93 ft above NGVD of 1988.

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 250 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 18	2205	321	5.76	Mar 28	0240	357	5.94
Oct 19	0140	347	5.89	May 19	2240	*704	*7.58
Nov 2	1240	307	5.69	Aug 28	1925	446	6.39
Jan 3	1015	385	6.08	Aug 30	1255	299	5.65
Jan 6	0625	317	5.74				

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

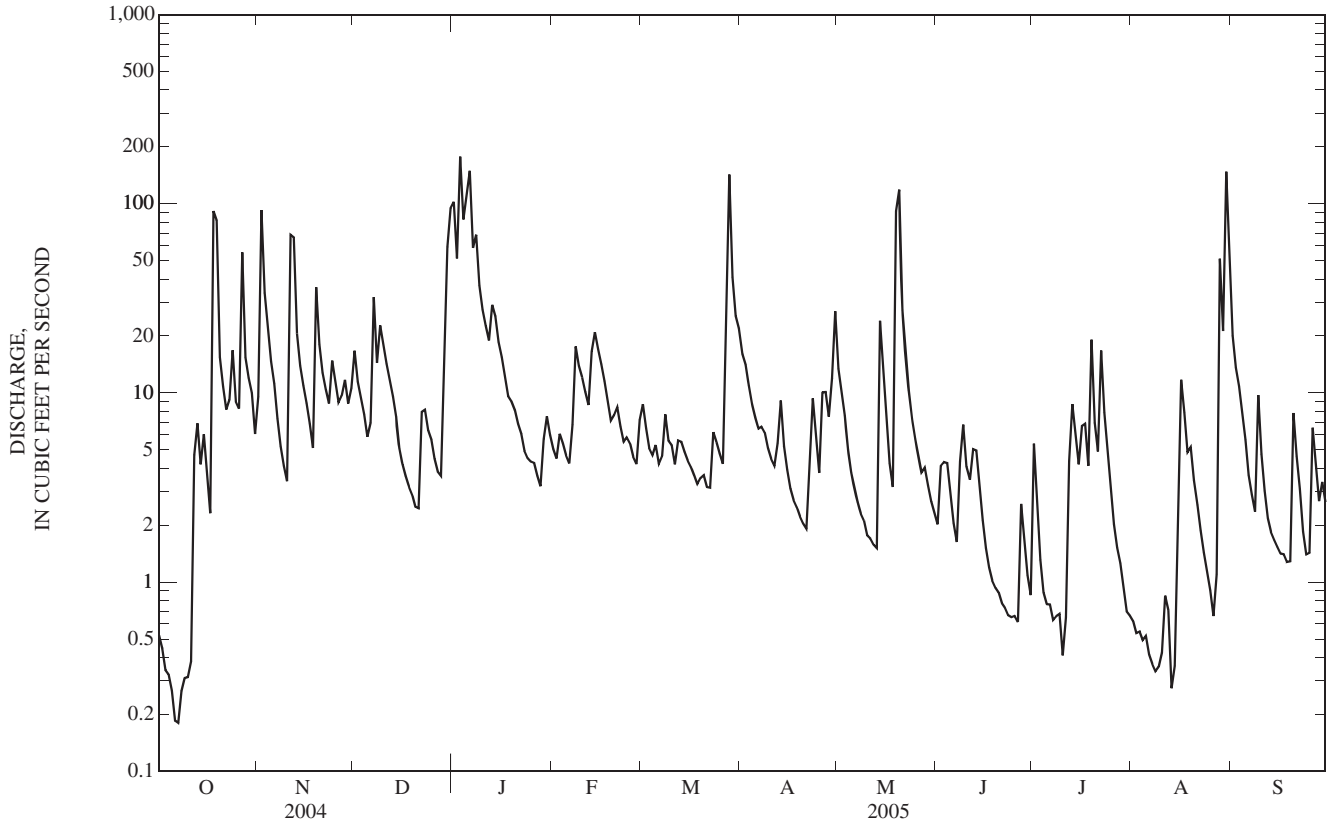
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.52	9.5	17	102	5.0	8.7	16	13	2.0	5.4	0.62	20
2	0.44	93	11	51	4.5	6.5	14	10	4.1	2.5	0.54	14
3	0.34	34	9.4	178	6.1	5.1	11	7.6	4.3	1.3	0.55	11
4	0.32	23	7.7	83	5.4	4.7	8.7	5.0	4.3	0.88	0.49	8.0
5	0.27	15	5.9	112	4.7	5.3	7.5	3.8	2.9	0.76	0.52	5.7
6	0.18	11	6.9	149	4.2	4.2	6.5	3.2	2.0	0.76	0.41	3.7
7	0.18	7.3	32	58	6.8	4.6	6.6	2.6	1.6	0.63	0.37	2.9
8	0.27	5.2	14	69	18	7.7	6.2	2.3	4.3	0.66	0.34	2.4
9	0.31	4.1	23	37	14	5.6	5.1	2.1	6.8	0.68	0.36	9.7
10	0.31	3.4	18	28	12	5.3	4.5	1.8	4.1	0.41	0.42	4.7
11	0.38	69	14	23	10	4.2	4.1	1.7	3.5	0.65	0.85	3.0
12	4.7	67	12	19	8.6	5.6	5.4	1.6	5.0	4.4	0.71	2.2
13	6.9	21	9.6	29	17	5.5	9.1	1.5	5.0	8.7	0.27	1.8
14	4.2	14	7.5	25	21	4.9	5.2	24	3.2	6.0	0.36	1.7
15	6.1	11	5.1	19	17	4.4	3.9	13	2.1	4.2	1.7	1.5
16	3.6	8.8	4.2	15	14	4.1	3.1	7.3	1.5	6.7	12	1.4
17	2.3	6.9	3.6	12	12	3.7	2.7	4.2	1.2	6.9	7.9	1.4
18	91	5.1	3.2	9.6	9.2	3.3	2.5	3.2	1.0	4.1	4.8	1.3
19	82	36	2.9	9.0	7.1	3.5	2.2	92	0.93	19	5.2	1.3
20	15	18	2.5	8.1	7.6	3.7	2.0	119	0.88	6.9	3.5	7.8
21	11	13	2.4	6.8	8.4	3.2	1.9	27	0.77	4.9	2.6	4.6
22	8.1	10	7.9	6.1	6.6	3.2	3.8	17	0.73	17	1.9	3.1
23	9.2	8.8	8.1	4.9	5.5	6.2	9.4	10	0.67	7.9	1.4	1.8
24	17	15	6.3	4.5	5.8	5.5	5.9	7.3	0.65	5.3	1.1	1.4
25	9.0	11	5.7	4.3	5.4	4.8	3.8	5.7	0.66	3.4	0.90	1.4
26	8.3	8.9	4.5	4.3	4.6	4.2	10	4.6	0.61	2.0	0.66	6.5
27	55	9.7	3.8	3.6	4.2	17	10	3.8	2.6	1.5	1.1	4.3
28	15	12	3.6	3.2	7.2	143	7.5	4.0	1.7	1.3	51	2.7
29	12	8.8	12	5.7	---	41	12	3.2	1.1	0.95	21	3.4
30	10	11	59	7.5	---	25	27	2.7	0.85	0.70	148	2.6
31	6.1	---	95	6.0	---	22	---	2.3	---	0.66	62	---
TOTAL	380.02	570.5	417.8	1,092.6	251.9	375.7	217.6	406.5	71.05	127.14	333.57	137.3
MEAN	12.3	19.0	13.5	35.2	9.00	12.1	7.25	13.1	2.37	4.10	10.8	4.58
MAX	91	93	95	178	21	143	27	119	6.8	19	148	20
MIN	0.18	3.4	2.4	3.2	4.2	3.2	1.9	1.5	0.61	0.41	0.27	1.3
CFSM	2.11	3.28	2.32	6.08	1.55	2.09	1.25	2.26	0.41	0.71	1.86	0.79
IN.	2.44	3.66	2.68	7.01	1.62	2.41	1.40	2.61	0.46	0.82	2.14	0.88

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2005, BY WATER YEAR (WY)

	8.60	12.1	17.9	19.0	15.7	13.9	10.6	16.5	8.32	7.63	5.22	6.82
MEAN												
MAX	17.6	19.6	27.4	35.2	26.6	31.1	23.6	29.3	14.9	23.4	10.9	15.0
(WY)	(2002)	(2004)	(2000)	(2005)	(2000)	(2002)	(2002)	(2004)	(2002)	(2001)	(2003)	(2002)
MIN	0.77	3.06	9.84	2.06	9.00	5.08	2.38	3.49	2.37	1.77	0.41	0.66
(WY)	(2001)	(2000)	(1999)	(2001)	(2005)	(2001)	(2001)	(2000)	(2005)	(1999)	(1999)	(2004)

03292480 LITTLE GOOSE CREEK NEAR HARRODS CREEK, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1999 - 2005	
ANNUAL TOTAL	4,753.67		4,381.68		12.2	
ANNUAL MEAN	13.0		12.0		7.96	
HIGHEST ANNUAL MEAN					16.2	2002
LOWEST ANNUAL MEAN					7.96	2001
HIGHEST DAILY MEAN	162	Jul 17	178	Jan 3	322	Feb 18, 2000
LOWEST DAILY MEAN	0.18	Oct 6	0.18	Oct 6	0.00	Aug 31, 1999
ANNUAL SEVEN-DAY MINIMUM	0.26	Oct 4	0.26	Oct 4	0.00	Aug 31, 1999
MAXIMUM PEAK FLOW			704	May 19	704	May 19, 2005
MAXIMUM PEAK STAGE			7.58	May 19	7.58	May 19, 2005
ANNUAL RUNOFF (CFSM)	2.24		2.07		2.10	
ANNUAL RUNOFF (INCHES)	30.49		28.10		28.49	
10 PERCENT EXCEEDS	31		23		27	
50 PERCENT EXCEEDS	6.9		5.2		4.9	
90 PERCENT EXCEEDS	0.83		0.72		0.88	



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 Creek, and at mile 6.5.

DRAINAGE AREA.--17.2 mi<sup>2</sup>.

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 with telemetry and crest-stage gage. 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 good except for those estimated which 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<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 19	0025	*1,680	*13.16	May 19	2300	1,110	10.65
Nov 2	1245	1,020	10.16				

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e2.2	64	45	272	8.9	13	18	19	7.4	13	1.6	24
2	e2.6	395	21	166	12	8.9	20	13	17	5.7	1.5	13
3	e2.9	120	18	e449	18	7.7	15	11	37	4.7	1.9	9.5
4	e2.8	58	15	e263	12	7.1	12	8.8	16	4.2	2.4	7.5
5	e2.8	26	13	e247	9.6	8.6	11	7.3	7.4	4.2	3.7	5.6
6	e2.9	17	24	e404	8.8	7.1	10	6.6	6.1	3.8	2.7	5.7
7	e2.6	12	130	161	31	13	12	5.7	6.4	3.7	2.2	4.6
8	e2.3	10	32	182	48	16	10	6.0	5.3	3.7	2.8	4.3
9	e2.6	7.5	101	67	24	e8.4	8.8	6.0	4.7	3.4	2.0	45
10	e2.5	6.7	47	43	19	7.3	8.1	11	59	3.6	2.0	8.0
11	e2.7	192	35	32	16	7.7	8.2	5.5	15	6.6	1.9	5.9
12	e28	188	24	24	14	15	21	4.0	36	30	2.8	e6.0
13	e33	46	18	71	63	10	24	3.8	17	26	2.6	e4.7
14	e5.4	28	14	39	37	11	8.1	121	12	11	9.5	e4.0
15	e16	20	12	23	24	8.1	7.0	17	11	8.4	8.2	e3.6
16	e4.1	16	9.9	20	19	7.2	6.2	8.7	7.4	13	80	e3.5
17	e2.0	14	8.5	17	16	6.8	5.9	6.6	6.4	7.1	11	e2.0
18	e439	14	7.7	15	14	6.4	6.2	5.4	6.1	5.4	6.1	e2.7
19	536	149	7.4	14	12	9.7	5.9	115	5.8	4.8	5.4	e3.8
20	31	42	6.1	13	17	8.5	5.9	293	5.9	4.3	4.5	52
21	13	26	6.5	12	15	6.6	5.9	30	6.3	3.4	3.7	8.1
22	9.0	20	52	11	12	11	60	16	6.3	62	3.3	4.5
23	21	17	24	8.9	10	18	27	12	e5.3	8.5	3.4	3.1
24	49	68	14	8.1	11	9.2	9.3	7.8	e4.8	5.4	3.4	5.0
25	11	30	12	8.3	9.0	7.8	7.6	6.9	e4.7	3.8	3.3	6.8
26	11	20	10	8.0	8.0	6.8	41	9.0	e4.3	3.8	3.0	17
27	166	27	8.8	e6.7	7.7	72	16	15	e4.0	2.8	6.2	5.5
28	23	27	8.9	e5.7	18	375	13	7.8	e5.7	2.2	189	3.7
29	19	17	50	21	---	80	37	6.9	26	2.2	58	13
30	28	35	177	17	---	36	107	6.1	7.0	1.9	406	3.9
31	13	---	259	11	---	27	---	5.9	---	1.7	104	---
TOTAL	1,486.4	1,712.2	1,210.8	2,639.7	514.0	836.9	547.1	797.8	363.3	264.3	938.1	286.0
MEAN	47.9	57.1	39.1	85.2	18.4	27.0	18.2	25.7	12.1	8.53	30.3	9.53
MAX	536	395	259	449	63	375	107	293	59	62	406	52
MIN	2.0	6.7	6.1	5.7	7.7	6.4	5.9	3.8	4.0	1.7	1.5	2.0
CFSM	2.79	3.32	2.27	4.95	1.07	1.57	1.06	1.50	0.70	0.50	1.76	0.55
IN.	3.21	3.70	2.62	5.71	1.11	1.81	1.18	1.73	0.79	0.57	2.03	0.62

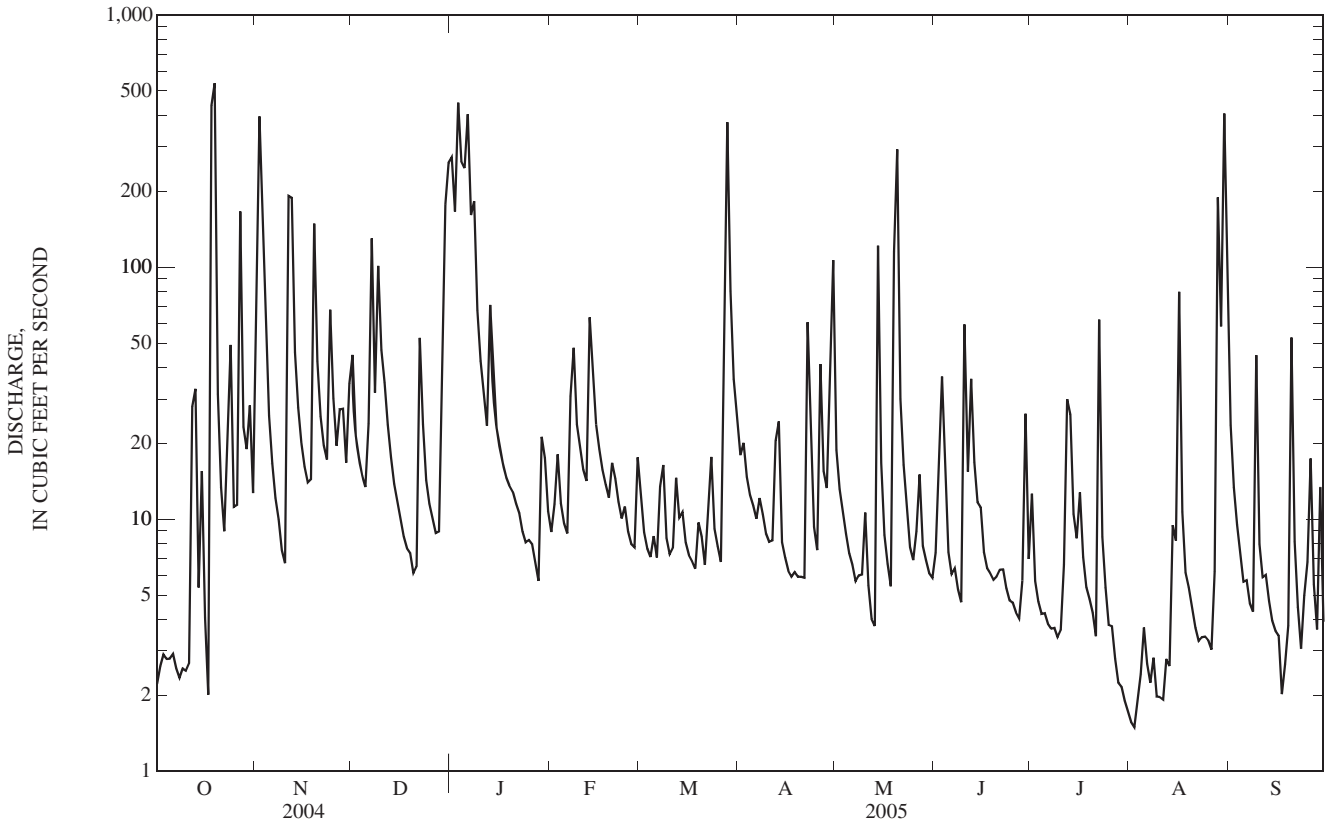
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2005, BY WATER YEAR (WY)

MEAN	9.37	15.3	24.7	33.0	38.7	43.0	31.8	30.1	19.9	15.9	10.8	9.02
MAX	47.9	57.1	73.6	125	107	201	95.2	103	78.3	126	54.7	86.3
(WY)	(2005)	(2005)	(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	0.00
(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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1940 - 2005	
ANNUAL TOTAL	12,959.7		11,596.6		23.6	
ANNUAL MEAN	35.4		31.8		41.6	
HIGHEST ANNUAL MEAN					1997	
LOWEST ANNUAL MEAN					1959	
HIGHEST DAILY MEAN	536	Oct 19	536	Oct 19	1,960	Mar 2, 1997
LOWEST DAILY MEAN	2.0	Oct 17	1.5	Aug 2	0.00	Sep 4, 1940
ANNUAL SEVEN-DAY MINIMUM	2.6	Sep 25	1.9	Jul 28	0.00	Sep 4, 1940
MAXIMUM PEAK FLOW			1,660	Oct 19	5,290	Mar 2, 1997
MAXIMUM PEAK STAGE			13.16	Oct 19	17.81	Mar 2, 1997
INSTANTANEOUS LOW FLOW					0.00	Sep 4, 1940
ANNUAL RUNOFF (CF5M)	2.06		1.85		1.37	
ANNUAL RUNOFF (INCHES)	28.03		25.08		18.63	
10 PERCENT EXCEEDS	88		62		50	
50 PERCENT EXCEEDS	13		10		8.0	
90 PERCENT EXCEEDS	4.2		3.4		1.2	

e Estimated



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

LOCATION.--Lat 38°14'04", long 85°43'50" (Revised), 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<sup>2</sup>.

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

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

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<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 18	1945	1,610	7.24	May 20	0000	1,530	7.15
Oct 19	0040	*2,650	*8.14				

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	59	54	305	10	17	30	35	13	17	3.9	36
2	3.3	419	27	137	12	11	33	25	30	5.8	3.1	22
3	3.3	118	22	471	23	9.2	24	21	51	4.6	2.9	15
4	3.3	65	18	256	14	8.4	20	19	33	4.1	3.2	11
5	3.1	36	15	225	11	10	18	16	16	4.1	11	8.0
6	3.2	24	30	467	9.7	8.0	17	15	14	4.1	3.5	7.7
7	2.7	19	130	171	33	14	19	14	15	4.0	3.2	6.4
8	2.7	15	40	205	57	24	16	14	13	4.1	3.3	5.7
9	2.7	11	94	85	31	11	13	14	12	4.0	3.1	52
10	2.7	9.0	55	54	25	9.1	12	23	70	3.8	2.9	11
11	2.9	192	42	41	20	9.5	11	16	27	8.0	2.8	6.5
12	30	206	29	33	18	18	28	12	50	48	2.8	6.9
13	36	54	23	78	68	13	40	11	e29	44	2.8	5.5
14	9.5	35	19	53	50	13	14	173	e19	16	13	4.7
15	24	24	16	32	33	9.9	11	33	18	12	9.7	4.3
16	4.5	20	14	27	25	8.6	9.7	18	9.3	22	95	4.1
17	2.3	17	11	22	20	8.2	9.0	14	8.0	11	16	2.4
18	524	18	9.7	19	18	7.7	8.7	11	7.3	6.8	6.1	3.2
19	755	150	8.8	18	16	11	7.8	135	6.7	6.0	5.3	4.5
20	44	53	7.1	17	23	10	7.6	446	6.5	5.2	4.9	68
21	20	34	7.3	15	20	7.3	7.4	51	7.1	4.7	4.2	11
22	12	25	54	13	15	14	99	32	6.6	85	3.9	5.5
23	31	22	28	10	12	31	49	25	5.6	13	3.6	3.4
24	55	69	26	9.2	14	15	18	19	5.2	7.3	3.8	3.4
25	16	39	15	9.3	11	12	14	16	5.0	5.7	3.6	6.8
26	16	24	13	8.8	9.8	11	52	14	4.7	5.4	3.1	27
27	160	31	11	7.1	9.0	78	29	22	4.6	4.7	4.5	6.8
28	30	36	11	6.0	23	515	22	13	6.5	4.1	212	4.5
29	23	20	48	26	---	111	53	11	48	3.9	86	18
30	31	36	171	23	---	54	147	10	9.2	3.6	518	5.2
31	16	---	283	13	---	46	---	10	---	3.6	129	---
TOTAL	1,872.1	1,880.0	1,331.9	2,856.4	630.5	1,124.9	839.2	1,288	550.3	375.6	1,170.2	376.5
MEAN	60.4	62.7	43.0	92.1	22.5	36.3	28.0	41.5	18.3	12.1	37.7	12.6
MAX	755	419	283	471	68	515	147	446	70	85	518	68
MIN	2.3	9.0	7.1	6.0	9.0	7.3	7.4	10	4.6	3.6	2.8	2.4

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2005, BY WATER YEAR (WY)

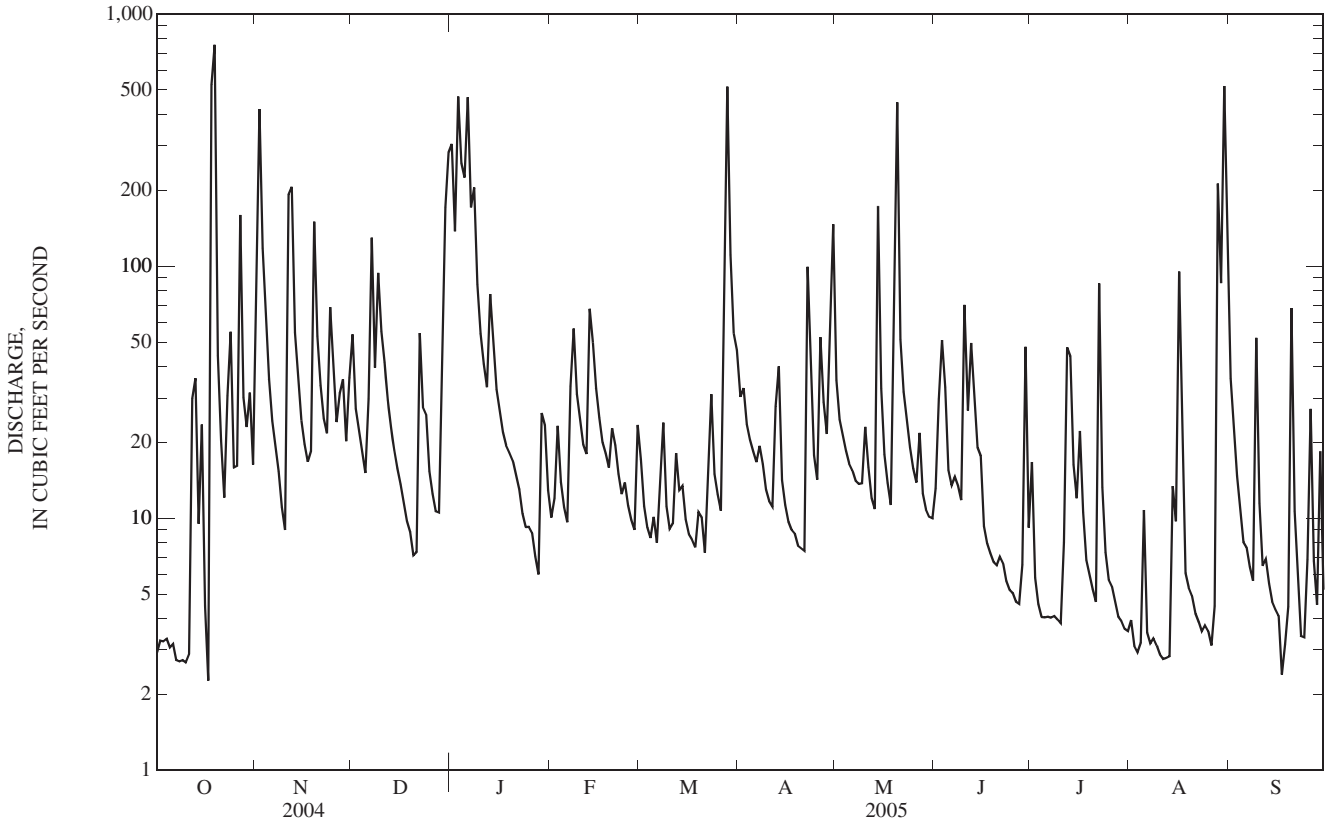
MEAN	25.5	27.6	41.5	52.8	45.1	38.7	36.9	53.5	26.0	18.9	17.8	24.2
MAX	60.4	62.7	79.1	92.1	125	103	83.0	101	41.6	45.6	37.7	65.4
(WY)	(2005)	(2005)	(2003)	(2005)	(2000)	(2002)	(2002)	(2002)	(1999)	(2004)	(2005)	(2002)
MIN	4.80	4.05	17.1	9.40	22.5	19.1	10.1	16.1	13.8	4.55	2.78	3.29
(WY)	(2001)	(2000)	(1999)	(2001)	(2005)	(2003)	(2001)	(1999)	(2001)	(1999)	(1999)	(1999)



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

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1998 - 2005	
ANNUAL TOTAL	15,000.3		14,295.6		34.0	
ANNUAL MEAN	41.0		39.2		20.2	
HIGHEST ANNUAL MEAN					52.5	2002
LOWEST ANNUAL MEAN					20.2	1999
HIGHEST DAILY MEAN	755	Oct 19	755	Oct 19	2,230	Feb 18, 2000
LOWEST DAILY MEAN	2.3	Oct 17	2.3	Oct 17	0.47	Jul 23, 2002
ANNUAL SEVEN-DAY MINIMUM	2.9	Sep 24	2.9	Oct 5	1.3	Nov 6, 1999
MAXIMUM PEAK FLOW			2,650		8,470	Feb 18, 2000
MAXIMUM PEAK STAGE			8.14		10.89	Feb 18, 2000
10 PERCENT EXCEEDS	94		73		70	
50 PERCENT EXCEEDS	16		15		11	
90 PERCENT EXCEEDS	3.9		3.9		2.9	

e Estimated



## BEARGRASS CREEK BASIN

## 03293000 MIDDLE FORK BEARGRASS CREEK AT LOUISVILLE, KY

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

DRAINAGE AREA.--18.9 mi<sup>2</sup>, of which about 0.5 mi<sup>2</sup> 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 with telemetry and crest-stage gage. 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.

COOPERATION.--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.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

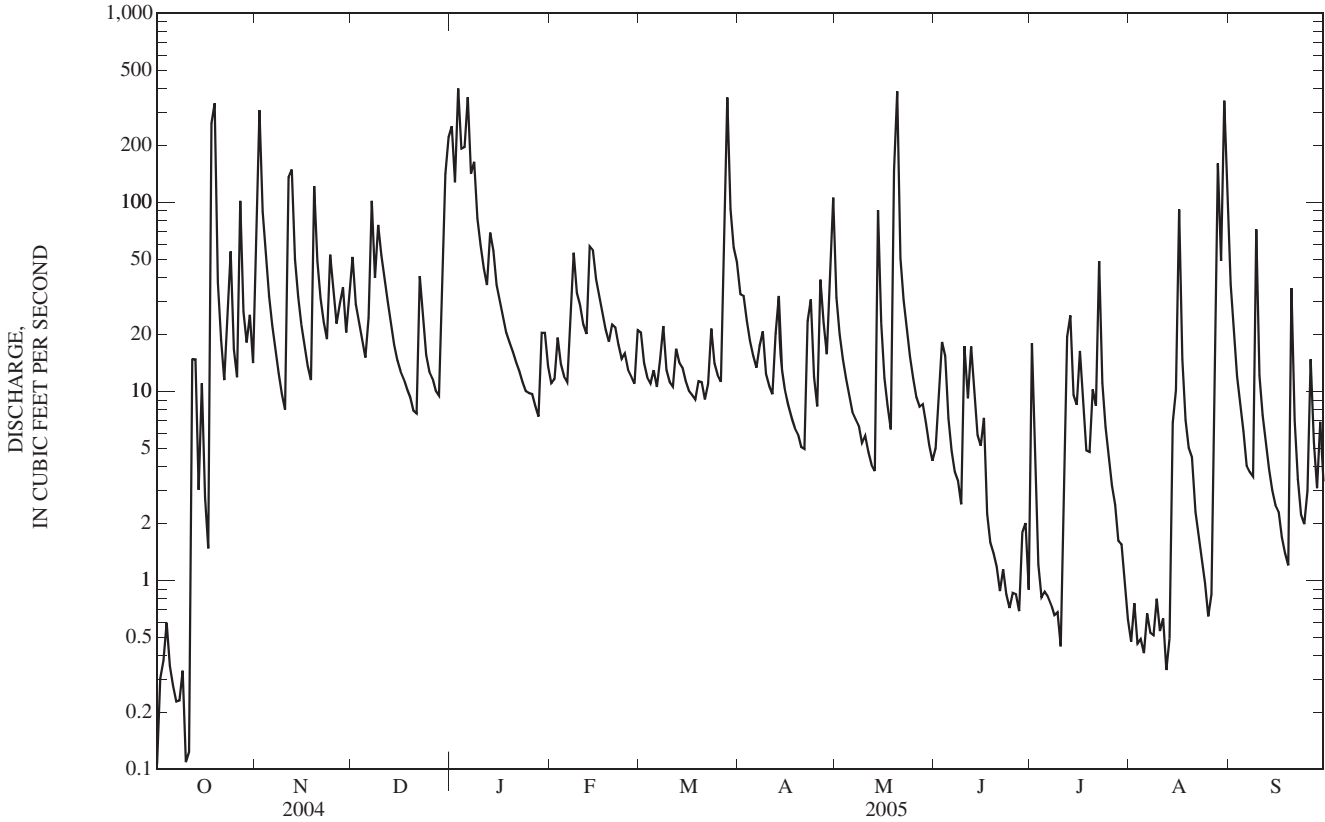
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.11	41	51	251	11	20	33	31	5.0	18	0.47	37
2	0.30	305	29	127	12	14	32	20	10	3.5	0.76	20
3	0.38	89	23	399	19	12	24	15	18	1.2	0.46	12
4	0.60	56	18	191	14	11	18	12	15	0.81	0.49	8.5
5	0.35	32	15	195	12	13	15	9.5	7.2	0.87	0.41	6.1
6	0.28	22	25	358	11	11	13	7.8	4.8	0.82	0.67	4.0
7	0.23	17	102	141	27	15	17	7.1	3.7	0.75	0.53	3.7
8	0.23	12	40	164	54	22	21	6.6	3.4	0.66	0.51	3.5
9	0.33	9.7	76	82	33	13	12	5.3	2.5	0.68	0.80	72
10	0.11	8.0	52	59	28	11	11	5.8	17	0.45	0.54	12
11	0.12	136	40	45	23	11	9.6	4.8	9.2	1.6	0.63	7.5
12	15	148	30	36	20	17	20	4.1	17	19	0.34	5.4
13	15	50	23	69	58	14	32	3.8	10	25	0.49	3.9
14	3.0	32	18	55	56	13	13	91	5.9	9.5	6.8	3.0
15	11	23	15	37	39	11	9.9	23	5.2	8.5	10	2.5
16	2.7	17	13	30	32	10	8.4	12	7.2	16	91	2.3
17	1.5	14	12	25	26	9.6	7.3	8.4	2.3	8.5	15	1.7
18	262	11	10	20	21	9.0	6.4	6.3	1.6	4.9	7.1	1.4
19	334	121	9.3	18	18	11	5.9	147	1.4	4.8	5.0	1.2
20	38	49	7.9	16	23	11	5.1	385	1.2	10	4.5	35
21	19	31	7.6	14	22	9.1	5.0	51	0.88	8.4	2.3	7.0
22	11	23	41	13	18	11	24	30	1.1	49	1.7	3.4
23	22	19	25	11	15	21	31	22	0.84	11	1.3	2.2
24	55	53	16	10	16	14	12	15	0.71	6.5	0.96	2.0
25	17	35	13	9.8	13	12	8.3	12	0.86	4.5	0.64	3.0
26	12	23	12	9.7	12	11	39	9.3	0.85	3.2	0.84	15
27	101	29	10	8.3	11	58	23	8.3	0.69	2.5	3.9	5.4
28	26	35	9.5	7.3	21	357	16	8.6	1.8	1.6	160	3.1
29	18	20	34	20	---	92	35	6.8	2.0	1.5	49	6.9
30	25	33	141	20	---	57	106	5.2	0.89	0.95	343	3.3
31	14	---	220	14	---	48	---	4.3	---	0.62	107	---
TOTAL	1,005.24	1,493.7	1,138.3	2,455.1	665	948.7	612.9	978.0	158.22	225.31	817.14	294.0
MEAN	32.4	49.8	36.7	79.2	23.8	30.6	20.4	31.5	5.27	7.27	26.4	9.80
MAX	334	305	220	399	58	357	106	385	18	49	343	72
MIN	0.11	8.0	7.6	7.3	11	9.0	5.0	3.8	0.69	0.45	0.34	1.2
CFSM	1.76	2.71	2.00	4.30	1.29	1.66	1.11	1.71	0.29	0.40	1.43	0.53
IN.	2.03	3.02	2.30	4.96	1.34	1.92	1.24	1.98	0.32	0.46	1.65	0.59

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2005, BY WATER YEAR (WY)

	9.54	17.3	28.0	34.8	42.2	49.1	37.3	31.9	20.4	18.0	11.4	10.3
MEAN	9.54	17.3	28.0	34.8	42.2	49.1	37.3	31.9	20.4	18.0	11.4	10.3
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	0.03
(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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1944 - 2005	
ANNUAL TOTAL	12,467.93		10,791.61		25.8	
ANNUAL MEAN	34.1		29.6		3.76	
HIGHEST ANNUAL MEAN					49.2	1979
LOWEST ANNUAL MEAN					3.76	1954
HIGHEST DAILY MEAN	507	Jul 17	399	Jan 3	2,000	Mar 9, 1964
LOWEST DAILY MEAN	0.10	Sep 30	0.11	Oct 1	0.00	Aug 27, 1952
ANNUAL SEVEN-DAY MINIMUM	0.24	Oct 5	0.24	Oct 5	0.00	Sep 28, 1952
MAXIMUM PEAK FLOW			1,610	May 20	5,900	Mar 2, 1997
MAXIMUM PEAK STAGE			6.51	May 20	8.70	Mar 2, 1997
INSTANTANEOUS LOW FLOW					0.00	Aug 27, 1952
ANNUAL RUNOFF (CFSM)	1.85		1.61		1.40	
ANNUAL RUNOFF (INCHES)	25.21		21.82		19.05	
10 PERCENT EXCEEDS	79		57		54	
50 PERCENT EXCEEDS	15		12		10	
90 PERCENT EXCEEDS	0.62		0.85		1.9	



## 03293500 MIDDLE FORK BEARGRASS CREEK AT LEXINGTON ROAD AT LOUISVILLE, KY

LOCATION.--Lat 38°15'01", long 85°43'00", Jefferson County, Hydrologic Unit 05140101, downstream side of bridge on Lexington Road at Louisville, 0.86 miles upstream from South Fork Beargrass Creek.

DRAINAGE AREA.--24.8 mi<sup>2</sup>.

PERIOD OF RECORD.--July 2003 to current year. Datum of gage is 431.00 ft. above NGVD of 1929.

GAGE.--Water-stage recorder with telemetry 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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	e45	e58	e275	14	23	38	37	5.1	13	1.7	38
2	4.6	e327	e35	e142	13	17	36	24	7.5	5.7	1.5	20
3	4.5	e95	e30	e410	21	15	28	19	12	3.5	1.8	13
4	4.5	e61	e24	228	17	14	23	16	19	2.6	1.9	9.7
5	4.2	e36	e20	239	14	15	19	14	9.0	1.6	4.3	7.8
6	4.5	e26	e31	431	13	13	17	12	7.0	1.7	2.1	6.6
7	4.2	e21	e109	165	23	13	19	11	6.1	1.5	1.3	5.4
8	4.5	e16	e45	203	56	25	25	10	5.9	1.5	1.3	5.6
9	4.5	e11	e81	94	34	15	16	9.3	5.0	1.5	1.3	66
10	4.2	e11	e58	67	31	14	14	9.7	15	1.3	1.4	13
11	4.0	e140	e45	53	24	13	13	8.8	9.7	2.6	1.5	8.6
12	25	e159	e39	43	22	17	20	8.3	13	15	1.5	6.9
13	60	e60	e29	66	53	17	35	7.7	12	28	2.6	5.7
14	12	e39	e22	66	59	16	17	91	6.2	10	8.3	5.2
15	50	e29	e18	42	44	14	13	28	5.4	6.6	9.8	4.8
16	9.3	e23	e14	35	35	13	12	16	6.6	15	92	4.5
17	5.6	e16	e12	29	28	12	11	12	4.0	9.7	17	4.2
18	e303	e16	e11	24	24	11	10	10	3.2	5.9	8.2	3.9
19	e377	e132	e12	22	21	12	9.7	77	2.8	4.7	6.2	3.6
20	e48	e57	e11	20	23	14	e9.0	470	2.7	6.3	5.5	34
21	e24	e35	e12	18	24	11	8.8	57	2.5	10	4.9	7.8
22	e15	e27	e46	16	20	12	31	31	2.1	48	3.7	3.8
23	e25	e22	e27	15	17	23	41	21	2.7	11	3.4	2.2
24	e59	e61	e20	13	18	17	17	14	2.6	7.0	3.0	1.7
25	e20	e40	e16	13	16	14	13	11	2.4	5.6	2.6	1.7
26	e16	e29	e15	13	15	14	35	7.9	2.5	4.6	2.1	7.0
27	e106	e35	e13	12	13	52	30	7.0	2.4	4.0	2.8	3.5
28	e30	e42	e12	11	20	411	18	7.0	4.3	3.6	149	2.4
29	e24	e28	e38	19	---	106	34	6.1	9.3	3.2	78	3.2
30	e30	e39	e147	23	---	64	110	5.2	3.6	2.8	356	2.6
31	e20	---	e232	16	---	59	---	4.7	---	2.1	121	---
TOTAL	1,307.4	1,678	1,282	2,823	712	1,086	722.5	1,062.7	191.6	239.6	897.7	302.4
MEAN	42.2	55.9	41.4	91.1	25.4	35.0	24.1	34.3	6.39	7.73	29.0	10.1
MAX	377	327	232	431	59	411	110	470	19	48	356	66
MIN	4.0	11	11	11	13	11	8.8	4.7	2.1	1.3	1.3	1.7

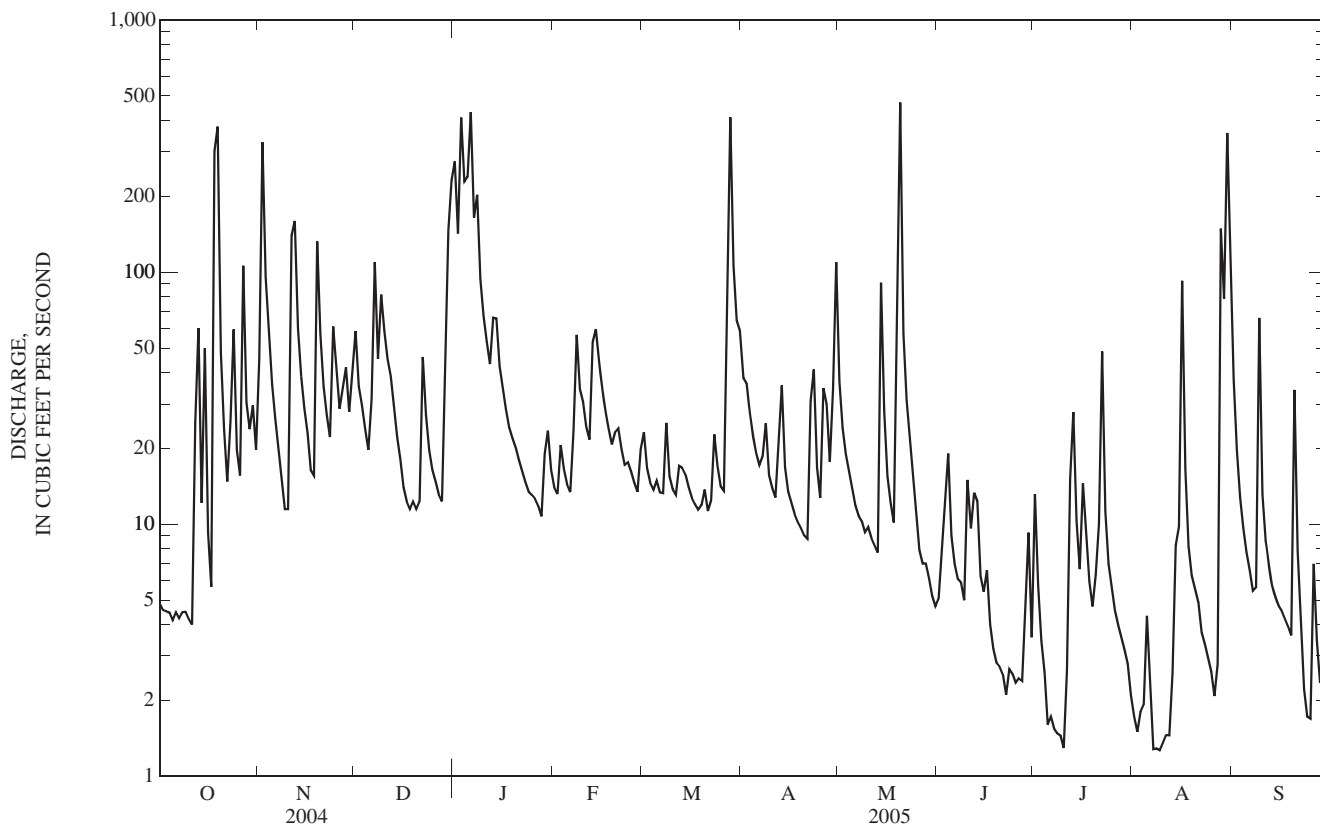
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2005, BY WATER YEAR (WY)

MEAN	36.7	57.8	41.0	82.5	37.2	39.1	29.0	61.2	14.8	30.9	29.3	47.6
MAX	42.2	59.7	41.4	91.1	48.6	43.2	33.8	88.1	23.2	68.8	70.5	129
(WY)	(2005)	(2004)	(2005)	(2005)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2003)	(2003)
MIN	31.1	55.9	40.6	73.9	25.4	35.0	24.1	34.3	6.39	7.73	4.27	4.02
(WY)	(2004)	(2005)	(2004)	(2004)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(1996)	(2004)

03293500 MIDDLE FORK BEARGRASS CREEK AT LEXINGTON ROAD AT LOUISVILLE, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1996 - 2005	
ANNUAL TOTAL	16,419.8		12,304.9		39.0	
ANNUAL MEAN	44.9		33.7		33.7	
HIGHEST ANNUAL MEAN					44.2	2004
LOWEST ANNUAL MEAN					33.7	2005
HIGHEST DAILY MEAN	551	Jul 17	470	May 20	890	Sep 2, 2003
LOWEST DAILY MEAN	3.0	Jun 29	1.3	Jul 10	0.36	Sep 3, 1996
ANNUAL SEVEN-DAY MINIMUM	3.3	Sep 15	1.5	Aug 6	0.76	Aug 30, 1996
MAXIMUM PEAK FLOW			1,080	May 20	1,120	Jul 11, 2004
MAXIMUM PEAK STAGE			10.78	May 20	10.96	Jul 11, 2004
10 PERCENT EXCEEDS	109		65		91	
50 PERCENT EXCEEDS	20		14		16	
90 PERCENT EXCEEDS	4.4		2.8		3.8	

e Estimated



## 03293530 MUDDY FORK AT MOCKINGBIRD VALLEY ROAD AT LOUISVILLE, KY

LOCATION.--Lat 38°16'35", long 85°41'37", Jefferson County, Hydrologic Unit 05140101, at culvert on Mockingbird Valley Road at Louisville, 0.5 mi east of Indian Hills subdivision, 1.0 mi north of St. Matthews, and at mile 1.5.

DRAINAGE AREA.--6.2 mi<sup>2</sup>.

PERIOD OF RECORD.--October 2002 to September 2003. October 2004 to current year

GAGE.--Water-stage recorder with telemetry and crest-stage gage. Datum of gage is 724.62 ft. above NGVD of 1929. Prior to Oct. 2004 at datum 0.79 ft. lower.

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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.21	22	25	63	8.8	4.8	e16	9.8	2.4	16	0.72	e17
2	0.37	e70	21	43	8.2	2.5	e15	6.4	4.3	5.1	0.55	e10
3	0.36	34	18	79	14	1.6	e12	5.0	4.3	3.7	0.50	e7.5
4	0.39	31	17	56	11	1.7	e11	4.3	4.4	2.4	0.69	e6.2
5	0.46	24	16	64	9.7	3.1	e9.3	3.4	2.1	2.7	0.47	e4.2
6	0.77	21	19	e75	9.2	2.0	e8.4	2.9	1.4	2.6	0.42	e2.8
7	1.1	19	34	e58	16	4.2	e7.6	2.3	1.0	2.5	0.37	e1.9
8	1.1	16	23	e55	22	8.1	e7.3	2.4	0.85	2.1	0.22	1.2
9	2.1	15	27	e39	15	2.9	5.6	2.1	0.62	3.0	0.40	16
10	2.3	14	26	e31	11	2.3	5.1	1.7	2.7	1.4	0.28	4.3
11	2.8	46	22	e23	9.0	3.3	4.7	1.5	1.2	3.4	0.11	2.4
12	11	52	19	e16	8.1	9.5	6.3	1.4	5.9	6.6	0.02	1.7
13	e21	30	17	e21	19	6.9	8.7	1.1	6.7	6.8	0.12	1.4
14	16	24	e15	e18	23	7.0	5.0	14	2.3	5.0	1.2	1.2
15	27	21	14	e14	18	5.1	3.8	4.8	0.92	6.4	1.4	1.4
16	20	19	13	e11	15	4.2	3.3	2.5	0.43	7.9	e11	0.84
17	19	18	11	e8.3	11	4.8	2.9	1.7	0.63	3.4	e4.5	0.72
18	62	17	11	e8.3	8.7	3.8	2.7	1.4	0.37	2.0	e2.2	0.88
19	49	37	10	e5.8	5.9	5.1	2.6	23	0.22	6.4	e2.5	0.65
20	21	28	9.9	e5.8	7.4	4.1	2.4	70	0.12	2.7	e2.2	8.3
21	16	22	9.9	e5.1	8.1	3.8	1.9	20	0.16	1.6	e2.2	2.2
22	14	19	e16	5.9	3.8	6.4	5.8	14	0.12	16	e1.5	1.3
23	17	18	17	4.7	2.4	18	7.6	10	0.12	5.8	e1.5	1.2
24	28	28	15	6.1	2.5	13	4.1	7.4	0.02	3.3	e1.2	0.80
25	18	21	13	7.9	1.6	8.7	4.0	7.2	0.05	2.2	e1.7	1.3
26	15	18	13	7.7	1.3	5.4	7.6	6.1	0.17	1.6	e1.3	5.9
27	42	20	12	5.7	0.86	16	5.4	5.1	0.02	1.5	e2.2	2.3
28	21	21	11	2.6	6.0	71	3.6	4.8	0.60	1.4	e32	1.5
29	18	18	20	11	---	30	8.9	3.4	2.6	1.0	e13	2.5
30	18	20	42	13	---	20	19	2.6	0.17	1.00	e66	1.4
31	15	---	61	9.5	---	e18	---	2.2	---	0.74	e37	---
TOTAL	479.96	763	597.8	773.4	276.56	297.3	207.6	244.5	46.89	128.24	189.47	110.99
MEAN	15.5	25.4	19.3	24.9	9.88	9.59	6.92	7.89	1.56	4.14	6.11	3.70
MAX	62	70	61	79	23	71	19	70	6.7	16	66	17
MIN	0.21	14	9.9	2.6	0.86	1.6	1.9	1.1	0.02	0.74	0.02	0.65
CFSM	2.51	4.12	3.12	4.04	1.60	1.55	1.12	1.28	0.25	0.67	0.99	0.60
IN.	2.89	4.59	3.60	4.66	1.66	1.79	1.25	1.47	0.28	0.77	1.14	0.67

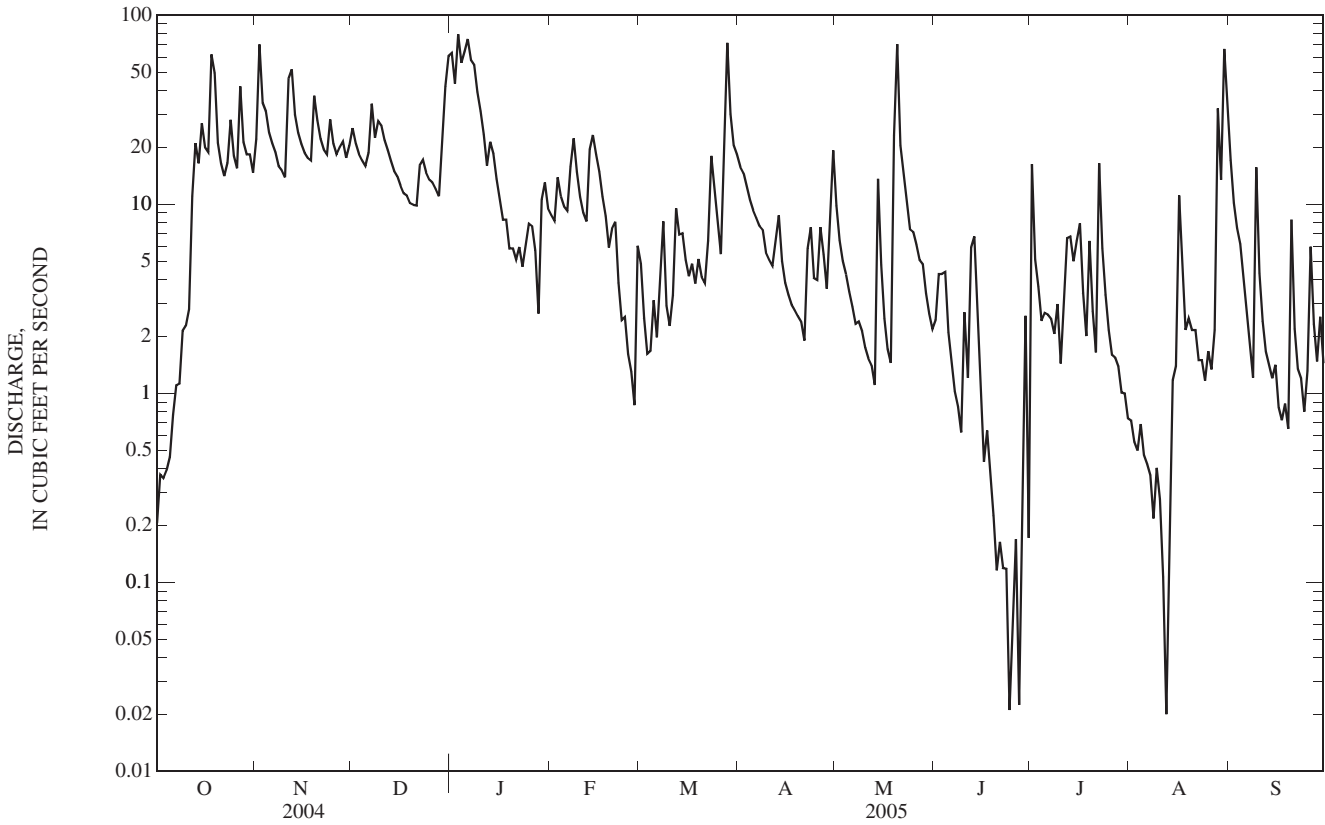
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2005, BY WATER YEAR (WY)

	6.99	10.7	16.1	15.2	22.9	9.54	13.6	17.7	7.06	5.29	5.78	7.53
MEAN	6.99	10.7	16.1	15.2	22.9	9.54	13.6	17.7	7.06	5.29	5.78	7.53
MAX	15.5	25.4	27.7	24.9	37.1	14.9	21.6	38.1	17.0	9.96	13.3	24.3
(WY)	(2005)	(2005)	(1991)	(2005)	(1989)	(1989)	(1989)	(2003)	(1990)	(1989)	(2003)	(2003)
MIN	1.29	4.42	2.39	11.0	9.88	6.89	6.92	3.53	1.38	2.70	2.61	1.27
(WY)	(1989)	(1990)	(1990)	(1990)	(2005)	(1990)	(2005)	(1988)	(1988)	(2003)	(1989)	(1988)

03293530 MUDDY FORK AT MOCKINGBIRD VALLEY ROAD AT LOUISVILLE, KY—Continued

SUMMARY STATISTICS	FOR 2005 WATER YEAR		WATER YEARS 1988 - 2005	
ANNUAL TOTAL	4,115.71			
ANNUAL MEAN	11.3		12.1	
HIGHEST ANNUAL MEAN			15.7	2003
LOWEST ANNUAL MEAN			10.3	1990
HIGHEST DAILY MEAN	79	Jan 3	251	May 11, 2003
LOWEST DAILY MEAN	0.02	Jun 24	0.02	Jun 24, 2005
ANNUAL SEVEN-DAY MINIMUM	0.09	Jun 21	0.09	Jun 21, 2005
MAXIMUM PEAK FLOW	210	May 20	730	May 11, 2003
MAXIMUM PEAK STAGE	b 11.64	Jan 12	11.64	Jan 12, 2005
ANNUAL RUNOFF (CF5M)	1.82		1.95	
ANNUAL RUNOFF (INCHES)	24.77		26.53	
10 PERCENT EXCEEDS	24		27	
50 PERCENT EXCEEDS	6.0		4.8	
90 PERCENT EXCEEDS	0.76		1.2	

e Estimated  
 b Backwater from Ohio River



## 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<sup>2</sup>, 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 Datum.

REMARKS.--Records good except for estimated periods and those below 20,000 ft<sup>3</sup>/s, which are poor. Flow regulated by Ohio River system of locks, dams, and reservoirs.

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

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e139,000	99,900	182,000	219,000	179,000	143,000	417,000	227,000	54,900	39,700	23,800	95,000
2	e136,000	107,000	260,000	187,000	173,000	172,000	419,000	275,000	49,000	43,700	26,600	72,400
3	e104,000	120,000	314,000	203,000	169,000	208,000	417,000	312,000	36,400	48,000	26,700	50,600
4	e78,500	104,000	361,000	290,000	178,000	213,000	429,000	296,000	33,400	22,200	25,600	58,100
5	e52,600	172,000	353,000	350,000	168,000	181,000	445,000	242,000	31,700	22,000	18,900	28,700
6	e48,900	221,000	302,000	459,000	158,000	152,000	446,000	204,000	39,900	32,700	9,630	21,100
7	e42,500	226,000	260,000	507,000	153,000	159,000	425,000	149,000	37,400	31,000	16,900	26,600
8	e46,900	208,000	240,000	527,000	159,000	172,000	383,000	118,000	35,700	28,500	19,000	17,500
9	e37,600	166,000	239,000	546,000	173,000	212,000	326,000	101,000	43,400	29,200	15,500	15,000
10	e38,200	136,000	246,000	568,000	175,000	238,000	282,000	90,400	42,100	56,200	15,100	11,500
11	e35,400	110,000	254,000	585,000	200,000	269,000	251,000	74,300	32,800	52,100	25,800	14,000
12	e35,600	185,000	288,000	590,000	220,000	276,000	222,000	74,200	32,200	34,500	17,500	24,000
13	e37,500	194,000	331,000	575,000	238,000	246,000	192,000	67,300	57,900	19,200	14,800	11,900
14	e38,100	184,000	333,000	558,000	248,000	208,000	166,000	65,400	62,400	34,700	21,200	14,600
15	41,800	156,000	304,000	547,000	244,000	193,000	148,000	76,700	36,200	6,070	14,100	21,000
16	44,300	131,000	261,000	534,000	238,000	175,000	120,000	101,000	30,700	3,720	17,000	15,800
17	56,200	110,000	211,000	526,000	253,000	156,000	108,000	103,000	33,300	31,200	11,900	10,400
18	69,300	92,800	170,000	517,000	268,000	140,000	95,400	98,400	31,100	40,500	18,200	23,700
19	140,000	108,000	140,000	495,000	264,000	125,000	80,100	83,500	26,400	39,700	24,100	16,900
20	167,000	160,000	125,000	456,000	246,000	114,000	80,900	119,000	34,200	46,500	22,300	16,800
21	192,000	181,000	114,000	392,000	219,000	110,000	70,100	120,000	27,500	59,900	32,600	19,500
22	191,000	191,000	97,300	312,000	195,000	107,000	71,500	143,000	21,900	47,300	24,700	15,200
23	142,000	177,000	108,000	259,000	183,000	120,000	77,500	155,000	19,200	32,900	27,100	19,300
24	107,000	155,000	146,000	232,000	197,000	136,000	129,000	136,000	23,000	35,800	9,690	15,800
25	95,900	150,000	181,000	214,000	214,000	166,000	181,000	97,800	19,600	27,100	18,800	9,340
26	94,300	155,000	215,000	209,000	209,000	196,000	209,000	85,900	19,500	25,500	18,600	23,000
27	90,100	164,000	221,000	193,000	186,000	220,000	227,000	81,000	17,800	31,100	27,100	30,400
28	89,900	186,000	202,000	190,000	157,000	317,000	233,000	78,200	16,000	28,400	38,100	24,200
29	92,400	193,000	173,000	192,000	---	353,000	233,000	61,800	13,500	30,600	36,000	44,800
30	77,000	186,000	165,000	181,000	---	362,000	223,000	65,400	29,900	27,800	49,600	45,000
31	86,800	---	232,000	177,000	---	360,000	---	53,000	---	19,200	114,000	---
TOTAL	2,647,800	4,728,700	7,028,300	11,790,000	5,664,000	6,199,000	7,106,500	3,954,300	989,000	1,026,990	780,920	812,140
MEAN	85,410	157,600	226,700	380,300	202,300	200,000	236,900	127,600	32,970	33,130	25,190	27,070
MAX	192,000	226,000	361,000	590,000	268,000	362,000	446,000	312,000	62,400	59,900	114,000	95,000
MIN	35,400	92,800	97,300	177,000	153,000	107,000	70,100	53,000	13,500	3,720	9,630	9,340

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2005, BY WATER YEAR (WY)

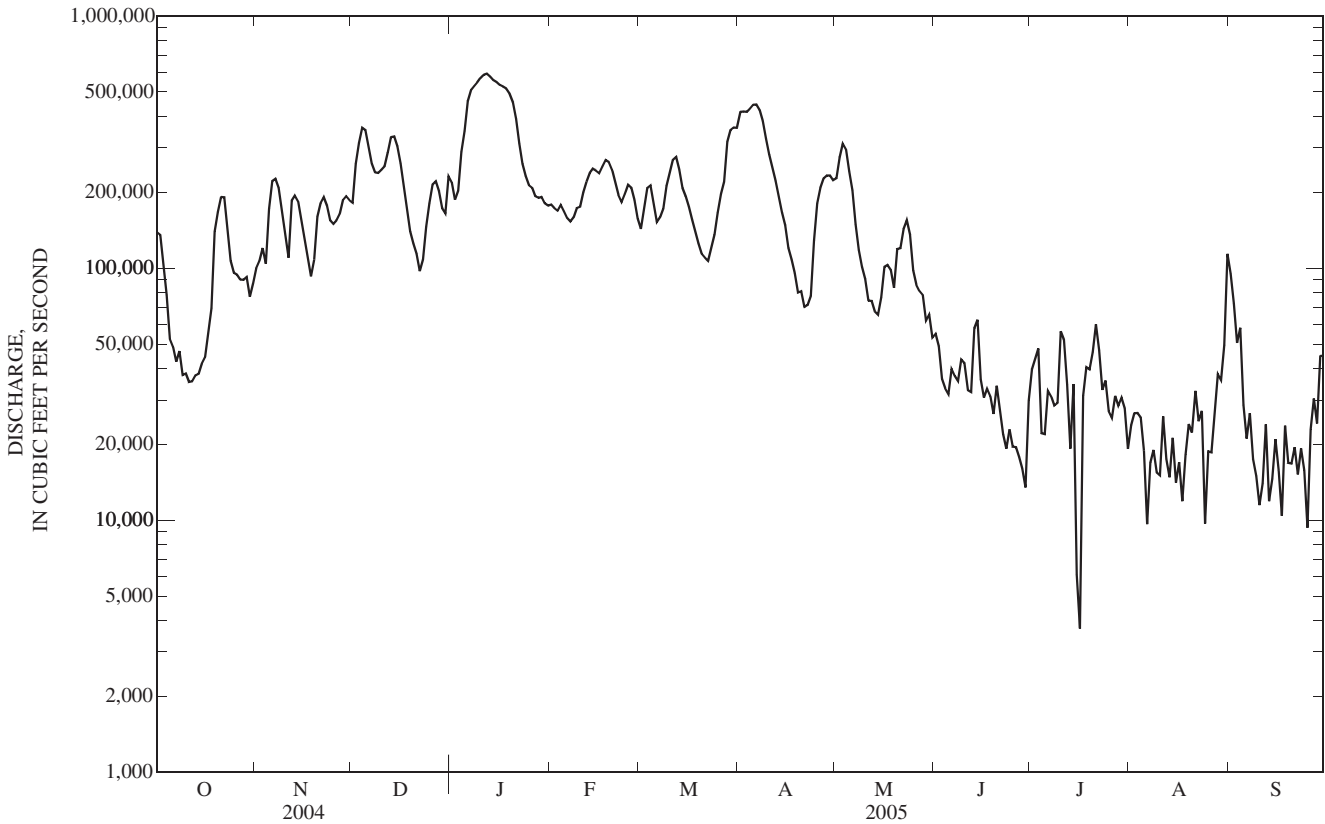
MEAN	38,500	71,660	124,200	167,600	194,000	240,500	204,800	146,900	88,610	56,120	44,490	36,370
MAX	153,500	245,900	321,300	595,800	430,400	524,300	403,300	392,900	234,400	163,400	151,300	207,000
(WY)	(1980)	(1986)	(1973)	(1937)	(1939)	(1945)	(1948)	(1996)	(1981)	(1958)	(1958)	(2004)
MIN	4,377	6,660	14,090	21,630	38,010	69,390	66,480	29,350	16,400	8,035	4,924	6,005
(WY)	(1931)	(1931)	(1931)	(1931)	(1934)	(1969)	(1986)	(1941)	(1988)	(1930)	(1930)	(1930)



03294500 OHIO RIVER AT LOUISVILLE, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1929 - 2005	
ANNUAL TOTAL	65,417,200		52,727,650		117,400	
ANNUAL MEAN	178,700		144,500		184,400	
HIGHEST ANNUAL MEAN					57,390	2004
LOWEST ANNUAL MEAN					1,110,000	1954
HIGHEST DAILY MEAN	524,000	Jan 6	590,000	Jan 12	1,110,000	Jan 27, 1937
LOWEST DAILY MEAN	22,700	Sep 8	3,720	Jul 16	2,100	Aug 12, 1930
ANNUAL SEVEN-DAY MINIMUM	27,200	Aug 14	15,500	Sep 8	3,530	Oct 15, 1930
MAXIMUM PEAK FLOW			593,000		1,110,000	
MAXIMUM PEAK STAGE			59.09		85.44	
10 PERCENT EXCEEDS	375,000		312,000		281,000	
50 PERCENT EXCEEDS	154,000		114,000		73,800	
90 PERCENT EXCEEDS	43,500		19,300		17,000	

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, and 6.0 mi southwest of Louisville.

DRAINAGE AREA.--24.4 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1988 to January 1995, August 1999 to current year.

GAGE.--Water-stage recorder with telemetry and crest-stage gage. Datum of gage is 414.276 ft above NGVD of 1929.

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<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 18	2105	2,020	10.72	Mar 28	0255	1,630	9.66
Oct 19	0120	1,550	9.44	May 19	2250	*2,570	*12.08

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.73	39	32	185	3.2	5.7	6.9	5.6	1.5	1.4	1.1	2.8
2	0.71	229	7.2	31	3.2	3.1	8.4	2.8	1.9	1.1	1.2	1.6
3	0.71	21	4.8	281	11	2.5	5.0	2.1	50	1.1	1.2	1.3
4	0.75	15	3.6	72	4.9	2.3	3.7	1.8	7.8	1.0	1.2	1.2
5	0.81	5.5	2.9	63	3.6	2.4	3.9	1.8	1.8	1.0	1.5	1.1
6	0.82	5.0	12	e100	3.3	2.1	11	1.8	1.4	1.1	1.3	1.1
7	0.73	3.6	117	e5.0	20	4.7	6.2	1.8	1.4	1.2	1.5	1.1
8	0.71	2.4	16	e4.2	40	8.0	3.6	1.8	1.7	1.2	1.1	1.1
9	0.67	1.6	37	e3.6	9.7	2.6	2.5	1.8	2.3	1.3	1.00	1.0
10	0.66	1.9	18	e3.0	7.4	2.3	2.2	2.1	2.2	1.3	0.92	1.0
11	0.63	262	11	e2.7	4.9	2.6	2.0	2.1	2.4	1.8	0.84	0.98
12	0.67	105	7.0	e2.3	4.1	9.4	7.3	1.8	13	20	0.88	0.99
13	2.3	9.1	4.3	e5.0	47	4.2	18	1.7	8.8	12	0.90	1.0
14	1.4	4.4	3.3	e3.3	30	3.8	3.2	39	2.8	1.8	0.91	0.96
15	4.5	3.0	2.5	e2.0	9.7	3.2	2.2	5.8	2.4	3.7	0.93	1.0
16	1.0	2.4	2.3	e2.0	5.8	2.5	1.9	1.9	1.8	9.5	14	0.99
17	0.77	2.1	2.2	e2.0	3.9	2.3	1.9	1.5	1.4	3.2	2.8	0.96
18	378	2.4	2.0	e2.0	3.2	2.2	1.8	1.4	1.4	1.4	1.0	0.96
19	251	111	1.9	e2.0	2.8	2.5	1.9	231	1.2	1.3	0.90	0.96
20	5.4	17	1.7	e2.0	7.4	3.0	2.0	291	1.2	1.6	0.85	9.7
21	1.9	6.5	1.8	e2.0	7.3	2.1	1.9	6.9	1.2	1.5	0.81	1.7
22	1.3	4.1	23	e2.0	3.9	18	2.2	2.9	1.1	15	1.0	1.1
23	2.3	3.3	12	e2.0	2.9	62	5.9	6.0	1.2	2.0	1.2	1.2
24	8.9	31	5.8	2.1	3.6	13	2.4	2.1	1.1	1.3	0.75	1.0
25	2.4	12	4.5	2.2	3.1	6.4	2.0	1.7	1.1	1.3	0.89	1.3
26	1.7	4.9	4.5	2.5	2.4	4.7	13	1.6	1.1	1.3	0.87	5.2
27	132	7.8	4.0	2.2	2.2	101	5.7	1.6	1.4	1.3	1.0	1.5
28	4.2	16	3.3	1.9	8.7	444	2.4	1.7	1.5	1.3	2.3	1.0
29	1.7	4.7	56	8.0	---	21	21	1.6	1.5	1.1	8.4	1.3
30	4.7	16	166	10	---	8.6	81	1.6	1.5	1.2	272	1.0
31	2.7	---	148	4.8	---	17	---	1.6	---	1.2	20	---
TOTAL	816.77	948.7	717.6	812.8	259.2	769.2	233.1	629.9	121.1	96.5	345.25	48.10
MEAN	26.3	31.6	23.1	26.2	9.26	24.8	7.77	20.3	4.04	3.11	11.1	1.60
MAX	378	262	166	281	47	444	81	291	50	20	272	9.7
MIN	0.63	1.6	1.7	1.9	2.2	2.1	1.8	1.4	1.1	1.0	0.75	0.96
CFSM	1.08	1.30	0.95	1.07	0.38	1.02	0.32	0.83	0.17	0.13	0.46	0.07
IN.	1.25	1.45	1.09	1.24	0.40	1.17	0.36	0.96	0.18	0.15	0.53	0.07

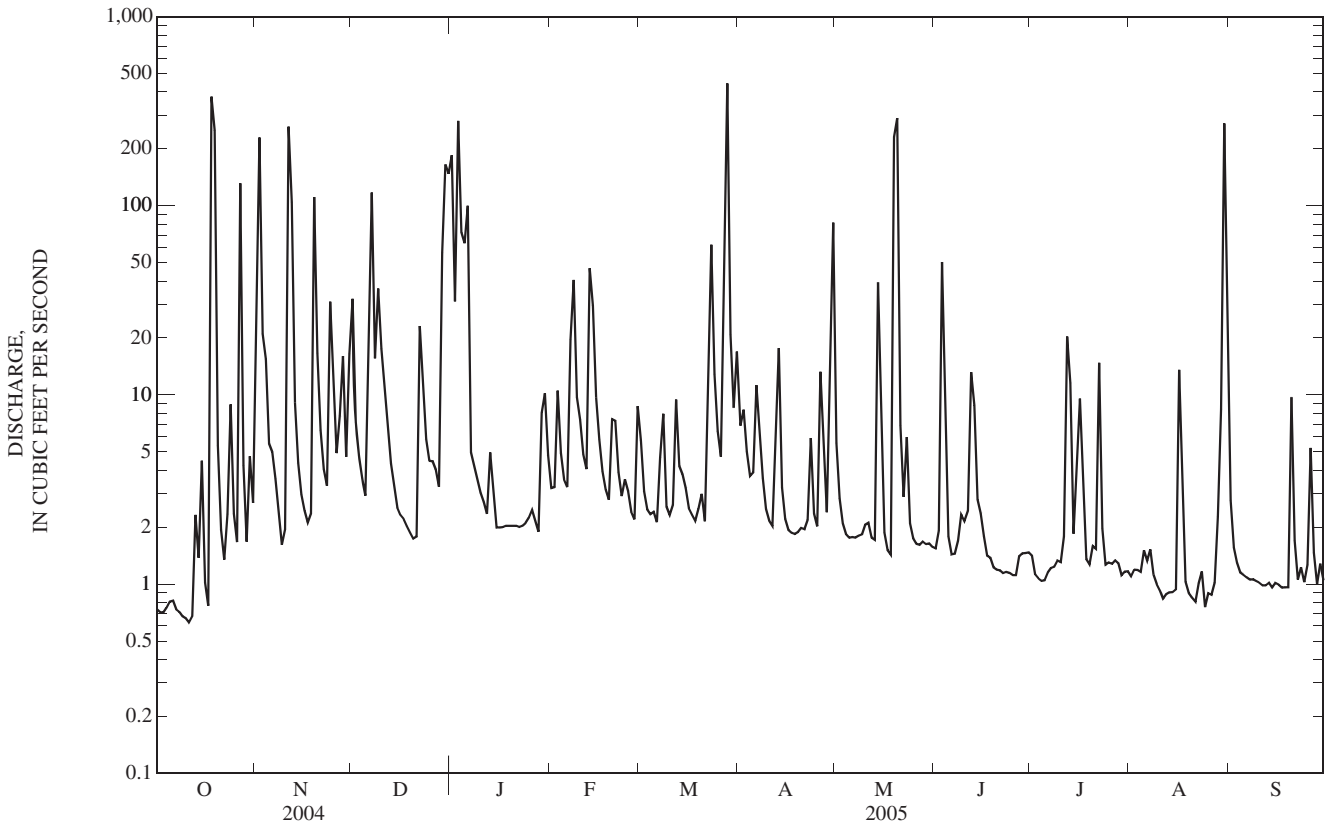
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2005, BY WATER YEAR (WY)

MEAN	7.89	11.8	19.6	23.6	30.1	28.6	13.0	21.9	9.99	7.24	7.92	7.92
MAX	26.3	31.6	73.0	72.3	87.0	89.2	31.6	69.8	49.1	23.5	33.4	28.6
(WY)	(2005)	(2005)	(1991)	(1991)	(1989)	(2002)	(2002)	(1990)	(1990)	(1989)	(1992)	(2002)
MIN	0.18	0.31	1.35	3.26	3.97	1.78	0.93	3.21	0.04	0.18	0.83	0.07
(WY)	(1989)	(2000)	(1990)	(2001)	(1992)	(2003)	(2001)	(2000)	(1988)	(2002)	(2001)	(1988)

03294550 MILL CREEK CUTOFF NEAR LOUISVILLE, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1988 - 2005	
ANNUAL TOTAL	8,118.88		5,798.22		16.0	
ANNUAL MEAN	22.2		15.9		25.5	
HIGHEST ANNUAL MEAN					7.41	
LOWEST ANNUAL MEAN					1,070	
HIGHEST DAILY MEAN	514	Jan 5	444	Mar 28		Feb 15, 1990
LOWEST DAILY MEAN	0.56	May 12	0.63	Oct 11	0.00	May 15, 1988
ANNUAL SEVEN-DAY MINIMUM	0.70	Oct 6	0.70	Oct 6	0.00	May 28, 1988
MAXIMUM PEAK FLOW			2,570	May 19	4,310	Aug 8, 1992
MAXIMUM PEAK STAGE			12.08	May 19	15.83	Aug 8, 1992
ANNUAL RUNOFF (CFSM)	0.909		0.651		0.654	
ANNUAL RUNOFF (INCHES)	12.38		8.84		8.89	
10 PERCENT EXCEEDS	53		21		29	
50 PERCENT EXCEEDS	2.8		2.3		1.7	
90 PERCENT EXCEEDS	1.1		1.0		0.01	

e Estimated



## 03294570 MILL CREEK AT ORELL ROAD NEAR LOUISVILLE, KY

LOCATION.--Lat 38°04'41", long 85°53'24", Jefferson County, Hydrologic Unit 05140101, on right bank at bridge on Orell Road, 5.0 mi southwest of Louisville, and at mile 1.5

DRAINAGE AREA.--13.5 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder with telemetry and crest-stage gage. Datum of gage is 405.63 ft above NGVD of 1929.

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

COOPERATION.--Louisville and Jefferson County Metropolitan Sewer District.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	48	38	173	5.1	8.4	e5.5	12	1.6	1.3	2.2	8.3
2	2.4	396	13	55	4.4	4.6	e6.1	4.6	2.1	1.2	2.3	3.0
3	2.3	66	7.4	386	11	3.4	e4.0	3.3	13	1.0	2.4	2.1
4	2.3	23	57	93	7.1	3.0	e3.0	3.0	17	0.94	2.4	1.7
5	2.4	10	124	e87	4.8	2.7	e2.8	1.4	4.0	0.76	3.1	1.5
6	2.9	6.3	10	e327	3.8	2.4	e8.1	1.3	2.0	0.67	2.7	1.4
7	3.9	5.3	116	e60	14	4.7	e4.7	1.6	1.6	0.71	2.4	2.0
8	3.8	3.8	30	e139	54	11	e3.0	1.1	1.5	0.79	2.2	2.3
9	5.0	3.6	29	e55	16	4.9	e2.1	1.2	1.5	0.99	1.6	2.5
10	4.7	3.2	28	e36	11	3.3	e1.8	1.8	1.4	0.84	1.4	2.8
11	5.2	233	13	e25	6.7	2.9	2.6	2.1	4.8	0.87	1.9	2.2
12	6.8	273	8.9	e22	5.1	8.5	4.6	1.9	31	15	2.7	1.9
13	13	23	6.1	e43	36	7.6	14	1.6	32	18	2.6	1.6
14	9.5	9.2	4.7	e34	44	4.8	5.7	36	6.6	6.4	2.2	1.6
15	5.7	5.9	3.9	e17	18	4.1	3.3	14	3.9	12	2.4	1.7
16	2.2	4.3	3.7	e10	8.7	3.2	2.5	3.9	2.4	28	7.3	1.8
17	0.70	3.6	2.6	e7.4	5.4	2.7	2.0	2.3	1.5	11	6.2	1.8
18	499	4.3	2.6	e5.7	4.2	2.5	2.9	1.7	1.3	5.0	3.0	1.7
19	1,200	128	3.1	e4.7	3.6	2.4	2.5	83	1.3	3.2	2.4	1.8
20	33	33	3.0	e4.2	7.1	3.2	4.5	557	1.3	2.8	2.1	12
21	8.4	12	3.3	e3.6	12	2.7	3.6	31	1.3	2.7	2.2	4.9
22	5.7	7.1	24	e3.1	6.7	6.3	2.0	10	1.3	18	2.0	2.1
23	6.4	5.9	18	e2.6	4.4	59	4.6	6.1	1.2	7.7	2.7	1.7
24	23	27	10	2.9	4.1	25	3.5	3.8	1.2	3.3	2.4	1.6
25	6.7	18	7.1	3.1	3.8	9.4	2.0	2.6	1.2	2.6	1.9	1.8
26	5.0	8.0	5.9	3.3	3.3	6.7	7.3	2.2	1.2	2.5	2.9	8.0
27	284	6.7	5.1	3.1	3.0	93	11	1.6	1.1	2.6	4.6	3.9
28	18	16	4.9	2.7	5.7	e407	3.9	1.4	1.2	2.6	9.8	1.8
29	7.6	7.6	39	6.8	---	e16	11	1.3	1.3	2.3	20	2.3
30	9.4	13	164	13	---	e6.8	72	1.4	1.6	2.3	341	2.2
31	7.5	---	220	7.5	---	e12	---	1.5	---	2.2	65	---
TOTAL	2,188.20	1,403.8	1,005.3	1,635.7	313.0	734.2	206.6	797.7	144.4	160.27	510.0	86.0
MEAN	70.6	46.8	32.4	52.8	11.2	23.7	6.89	25.7	4.81	5.17	16.5	2.87
MAX	1,200	396	220	386	54	407	72	557	32	28	341	12
MIN	0.70	3.2	2.6	2.6	3.0	2.4	1.8	1.1	1.1	0.67	1.4	1.4

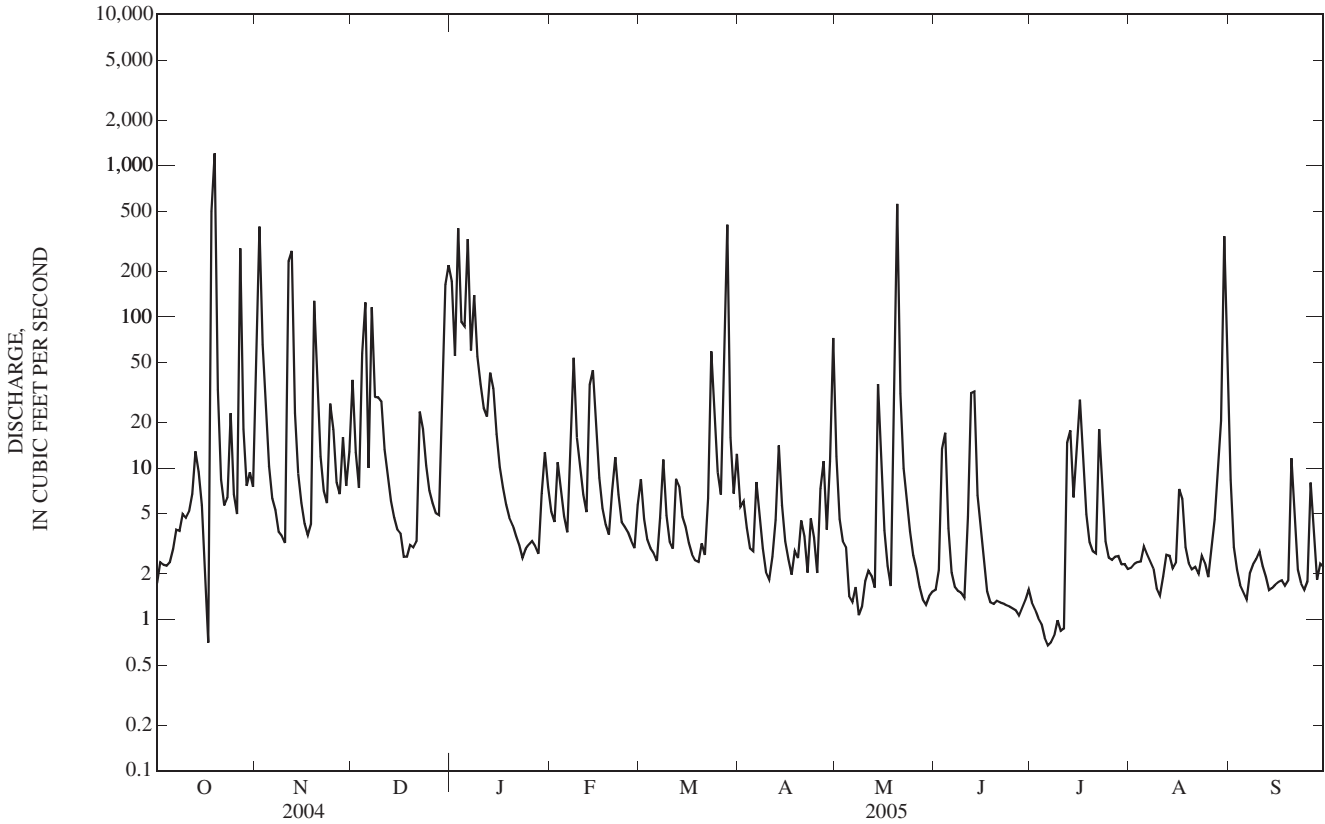
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2005, BY WATER YEAR (WY)

MEAN	20.3	22.2	28.0	35.4	34.5	31.7	36.7	46.9	8.98	5.15	8.42	14.6
MAX	70.6	46.8	41.4	71.3	75.2	111	121	106	14.8	11.2	19.2	51.8
(WY)	(2005)	(2005)	(2002)	(2000)	(2000)	(2002)	(2000)	(2004)	(2003)	(2004)	(2004)	(2002)
MIN	2.15	8.14	10.3	3.28	11.2	5.00	2.16	4.46	4.09	1.60	1.84	2.69
(WY)	(2001)	(2001)	(2004)	(2001)	(2005)	(2003)	(2001)	(2000)	(2001)	(2002)	(2002)	(2004)

03294570 MILL CREEK AT ORELL ROAD NEAR LOUISVILLE, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1999 - 2005	
ANNUAL TOTAL	11,613.29		9,185.17		24.6	
ANNUAL MEAN	31.7		25.2		13.8	
HIGHEST ANNUAL MEAN					42.1	2002
LOWEST ANNUAL MEAN					13.8	2001
HIGHEST DAILY MEAN	1,200	Oct 19	1,200	Oct 19	1,680	Apr 9, 2000
LOWEST DAILY MEAN	0.65	May 11	0.67	Jul 6	0.08	Jan 1, 2000
ANNUAL SEVEN-DAY MINIMUM	0.90	May 7	0.80	Jul 5	0.15	Dec 26, 1999
MAXIMUM PEAK FLOW			3,010	Oct 19	7,430	Mar 26, 2002
MAXIMUM PEAK STAGE			b 13.68	Jan 8	16.53	Feb 19, 2000
10 PERCENT EXCEEDS	59		37		36	
50 PERCENT EXCEEDS	4.0		4.1		3.0	
90 PERCENT EXCEEDS	1.2		1.5		0.85	

e Estimated  
 b Backwater from Ohio River



SALT RIVER BASIN

03295400 SALT RIVER AT GLENSBORO, KY

LOCATION.--Lat 38°00'07", long 85°03'38", Anderson County, Hydrologic Unit 05140102, on left bank 5 ft downstream from bridge on Highway 53 at Glensboro, 0.9 mi upstream from Timber Creek, 2.0 mi downstream from Indian Creek, and at mile 82.5.

DRAINAGE AREA.--172 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1989 to current year.

GAGE.--Water-stage recorder with telemetry and crest-stage gage. Datum of gage is 593.39 ft above NGVD of 1929.

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

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<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 19	0530	*9,710	*10.12	Mar 28	0400	6,960	9.20

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	459	3,300	677	192	348	192	746	21	3.5	2.0	154
2	9.8	1,330	1,020	406	161	222	676	269	20	2.9	1.5	38
3	9.1	1,070	383	632	178	177	546	169	21	2.2	1.6	15
4	8.7	1,850	219	621	185	159	304	126	22	2.1	1.6	8.0
5	8.2	1,250	154	1,030	157	146	220	102	20	1.4	1.6	4.6
6	7.8	339	177	1,440	140	127	176	85	29	1.1	1.3	2.8
7	7.3	184	2,310	1,190	129	126	153	73	22	0.66	1.4	1.8
8	7.5	124	1,320	2,550	154	1,030	197	63	16	0.67	1.5	1.2
9	7.1	91	541	1,150	169	607	131	55	13	0.46	2.3	0.79
10	6.9	75	637	536	177	298	110	49	12	0.72	1.7	0.56
11	6.9	318	490	334	168	223	95	44	11	1.3	1.6	0.47
12	7.5	1,950	387	257	154	202	94	39	12	4.3	1.4	0.45
13	10	509	274	423	349	196	123	35	12	6.5	1.0	0.54
14	12	217	204	783	897	163	146	37	18	7.4	0.89	0.59
15	24	147	166	422	557	140	97	69	21	7.2	0.55	0.58
16	32	115	143	281	338	125	78	111	18	9.4	0.60	0.91
17	20	96	128	214	243	115	67	67	16	15	0.74	1.2
18	30	84	114	174	193	103	60	45	12	15	1.2	1.1
19	3,340	175	e99	150	161	99	55	173	10	13	1.4	1.0
20	355	197	e84	134	146	186	49	1,610	8.8	54	1.3	1.6
21	132	133	e80	124	302	106	46	505	7.7	21	1.1	1.7
22	86	105	495	110	507	91	45	193	7.0	14	0.82	1.7
23	82	95	2,980	e95	260	131	85	121	6.1	10	0.67	1.5
24	199	438	1,250	e85	208	132	73	87	5.8	8.8	0.55	1.4
25	149	533	423	e80	180	114	58	76	4.8	7.0	0.56	1.4
26	99	298	260	e76	155	102	61	58	4.2	7.8	0.80	1.6
27	925	187	193	e66	134	1,120	139	46	4.1	6.3	0.90	1.5
28	753	208	158	59	216	3,700	79	38	3.8	4.7	1.1	1.7
29	252	180	249	123	---	975	177	32	3.6	3.6	7.9	1.8
30	155	761	305	485	---	387	1,530	27	3.4	3.0	455	1.4
31	115	---	204	282	---	248	---	24	---	2.3	514	---
TOTAL	6,866.8	13,518	18,747	14,989	6,810	11,898	5,862	5,174	385.3	237.31	1,010.58	250.89
MEAN	222	451	605	484	243	384	195	167	12.8	7.66	32.6	8.36
MAX	3,340	1,950	3,300	2,550	897	3,700	1,530	1,610	29	54	514	154
MIN	6.9	75	80	59	129	91	45	24	3.4	0.46	0.55	0.45
CFSM	1.29	2.62	3.52	2.81	1.41	2.23	1.14	0.97	0.07	0.04	0.19	0.05
IN.	1.49	2.92	4.05	3.24	1.47	2.57	1.27	1.12	0.08	0.05	0.22	0.05

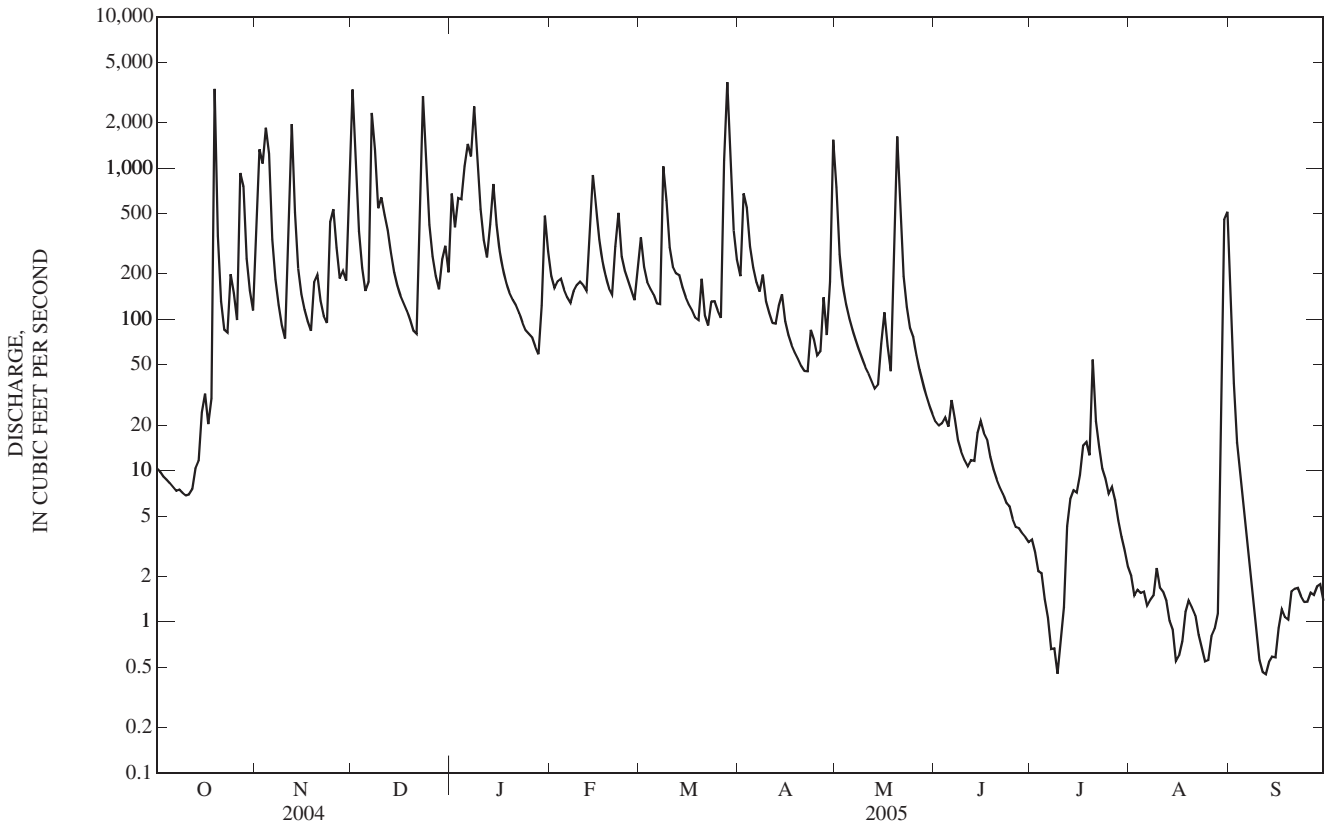
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2005, BY WATER YEAR (WY)

MEAN	80.8	208	378	419	439	535	225	348	260	126	58.6	67.4
MAX	351	558	1,360	675	1,041	1,845	480	925	926	528	145	383
(WY)	(2003)	(2004)	(1991)	(1994)	(2003)	(1997)	(1998)	(1995)	(1997)	(1998)	(2004)	(2003)
MIN	6.13	7.28	29.1	111	124	99.9	71.4	18.4	12.8	4.29	0.53	0.46
(WY)	(1995)	(2000)	(2000)	(2001)	(2002)	(1990)	(1997)	(2000)	(2005)	(2000)	(1999)	(1999)

03295400 SALT RIVER AT GLENSBORO, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1989 - 2005	
ANNUAL TOTAL	125,756.0		85,748.88		261	
ANNUAL MEAN	344		235		403	
HIGHEST ANNUAL MEAN					103	
LOWEST ANNUAL MEAN					1997	
HIGHEST DAILY MEAN	7,310	May 31	3,700	Mar 28	16,400	Mar 2, 1997
LOWEST DAILY MEAN	5.5	Sep 16	0.45	Sep 12	0.00	Aug 5, 1999
ANNUAL SEVEN-DAY MINIMUM	7.3	Oct 6	0.57	Sep 9	0.00	Sep 6, 1999
MAXIMUM PEAK FLOW			9,710	Oct 19	22,000	Mar 2, 1997
MAXIMUM PEAK STAGE			10.12	Oct 19	12.91	Mar 2, 1997
ANNUAL RUNOFF (CFSM)	2.00		1.37		1.52	
ANNUAL RUNOFF (INCHES)	27.20		18.55		20.59	
10 PERCENT EXCEEDS	944		550		588	
50 PERCENT EXCEEDS	112		94		77	
90 PERCENT EXCEEDS	13		1.4		5.1	

e Estimated



## 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<sup>2</sup>.

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

GAGE.--Water-stage recorder with telemetry. Datum of gage is 671.98 ft above NGVD of 1929.

REMARKS.--Records good except for those below 1.0 ft<sup>3</sup>/s and those estimated, which are poor.

COOPERATION.--City of Simpsonville.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	76	369	1,030	41	59	87	100	6.9	0.16	0.00	10
2	0.00	1,100	169	450	39	48	84	62	5.9	0.13	0.00	3.2
3	0.00	476	113	1,690	50	44	69	45	7.4	0.12	0.00	1.2
4	0.00	255	84	619	66	43	58	37	9.4	0.10	0.00	0.51
5	0.00	170	67	1,060	60	45	50	31	6.8	0.08	0.00	0.27
6	0.00	114	73	1,340	54	40	44	26	4.3	0.06	0.00	0.19
7	0.00	83	542	352	56	40	43	22	3.0	0.03	0.00	0.16
8	0.02	60	232	560	217	e176	42	18	2.3	0.00	0.00	0.13
9	0.10	47	254	239	152	54	35	16	1.9	0.00	0.00	0.10
10	0.12	40	273	155	132	48	32	13	1.5	0.00	0.00	0.08
11	0.14	443	161	118	98	47	29	11	1.3	0.00	0.00	0.03
12	0.33	1,190	126	95	81	49	29	9.2	1.3	0.00	0.00	0.00
13	0.45	256	94	155	176	51	37	8.7	1.6	0.06	0.00	0.00
14	0.52	140	72	303	328	46	32	13	1.9	0.14	0.00	0.00
15	0.79	98	60	145	197	44	26	37	1.6	0.21	0.00	0.01
16	0.77	76	e53	105	124	42	22	19	1.4	0.29	0.00	0.61
17	0.82	64	e41	e83	88	39	20	13	1.2	0.30	0.01	0.79
18	49	55	e29	e68	68	35	18	9.8	1.1	0.35	0.58	0.81
19	399	400	e19	55	56	35	17	319	1.00	0.59	0.63	0.80
20	67	241	e13	50	55	36	16	2,060	0.74	0.56	0.57	1.0
21	31	137	e12	e49	60	30	14	150	0.41	0.46	0.47	0.87
22	19	99	e180	e42	56	28	14	81	0.36	0.17	0.61	0.86
23	14	84	e274	e39	48	43	27	57	0.29	0.08	0.50	0.92
24	114	272	e195	e36	49	42	29	40	0.24	0.03	0.12	0.96
25	67	344	e414	e36	46	38	20	31	0.22	0.00	0.04	1.0
26	37	160	e307	e34	42	38	19	24	0.18	0.00	0.00	1.1
27	232	114	e161	e28	40	121	41	19	0.15	0.00	0.00	1.0
28	124	129	e102	e22	45	2,060	28	15	0.18	0.00	0.00	1.0
29	74	98	57	27	---	318	40	13	0.30	0.00	0.00	0.93
30	55	111	535	39	---	165	242	9.6	0.20	0.00	0.86	0.27
31	39	---	1,420	43	---	114	---	8.1	---	0.00	28	---
TOTAL	1,325.06	6,932	6,501	9,067	2,524	4,018	1,264	3,317.4	65.07	3.92	32.39	28.80
MEAN	42.7	231	210	292	90.1	130	42.1	107	2.17	0.13	1.04	0.96
MAX	399	1,190	1,420	1,690	328	2,060	242	2,060	9.4	0.59	28	10
MIN	0.00	40	12	22	39	28	14	8.1	0.15	0.00	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2005, BY WATER YEAR (WY)

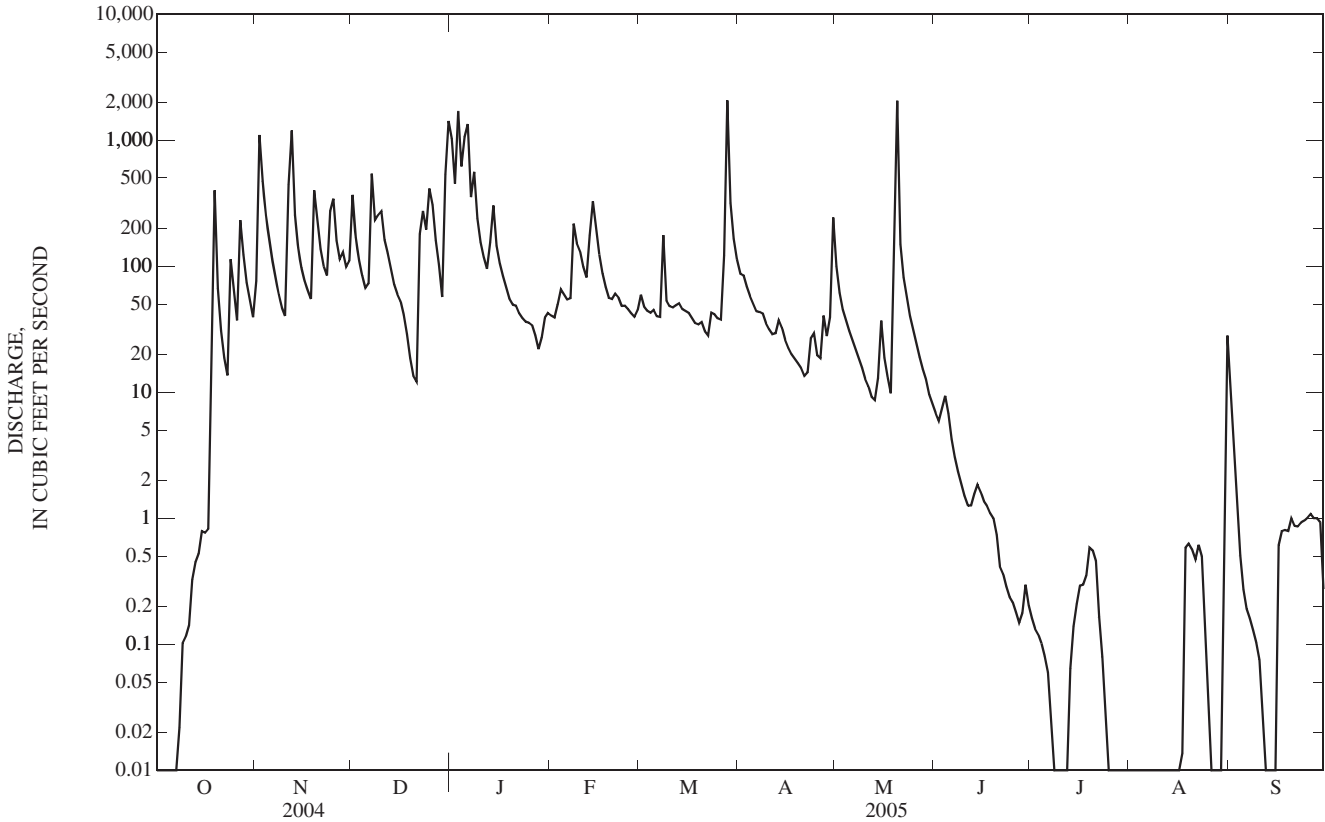
MEAN	34.2	90.9	126	161	159	132	79.1	134	68.8	25.6	16.5	28.0
MAX	152	231	210	292	316	296	142	385	293	122	87.9	142
(WY)	(2003)	(2005)	(2005)	(2005)	(2000)	(2002)	(2003)	(2004)	(1998)	(2004)	(2003)	(2003)
MIN	0.00	0.18	5.20	44.3	67.4	54.2	28.4	2.61	2.17	0.13	0.00	0.00
(WY)	(2000)	(2000)	(1999)	(2001)	(1999)	(2003)	(1999)	(1999)	(2005)	(2005)	(1999)	(1999)



03295702 BULLSKIN CREEK NEAR SIMPSONVILLE, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1998 - 2005	
ANNUAL TOTAL	49,149.68		35,078.64			
ANNUAL MEAN	134		96.1		85.2	
HIGHEST ANNUAL MEAN					133	2003
LOWEST ANNUAL MEAN					31.9	1999
HIGHEST DAILY MEAN	2,500	May 31	2,060	Mar 28	3,830	Feb 18, 2000
LOWEST DAILY MEAN	0.00	Sep 29	0.00	Oct 1	0.00	Aug 25, 1998
ANNUAL SEVEN-DAY MINIMUM	0.00	Oct 1	0.00	Oct 1	0.00	Sep 5, 1998
MAXIMUM PEAK FLOW			5,600	May 20	8,990	Feb 18, 2000
MAXIMUM PEAK STAGE			16.86	May 20	21.05	Feb 18, 2000
10 PERCENT EXCEEDS	308		235		170	
50 PERCENT EXCEEDS	41		30		19	
90 PERCENT EXCEEDS	0.72		0.00		0.01	

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<sup>2</sup>

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.

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 5,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 19	0900	8,540	17.22	Jan 6	1800	6,280	14.98
Nov 3	0200	6,380	15.08	Mar 28	1200	*9,980	*18.46
Nov 12	1000	6,580	15.29	May 20	1000	9,920	18.41
Jan 4	0300	7,890	16.60				

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

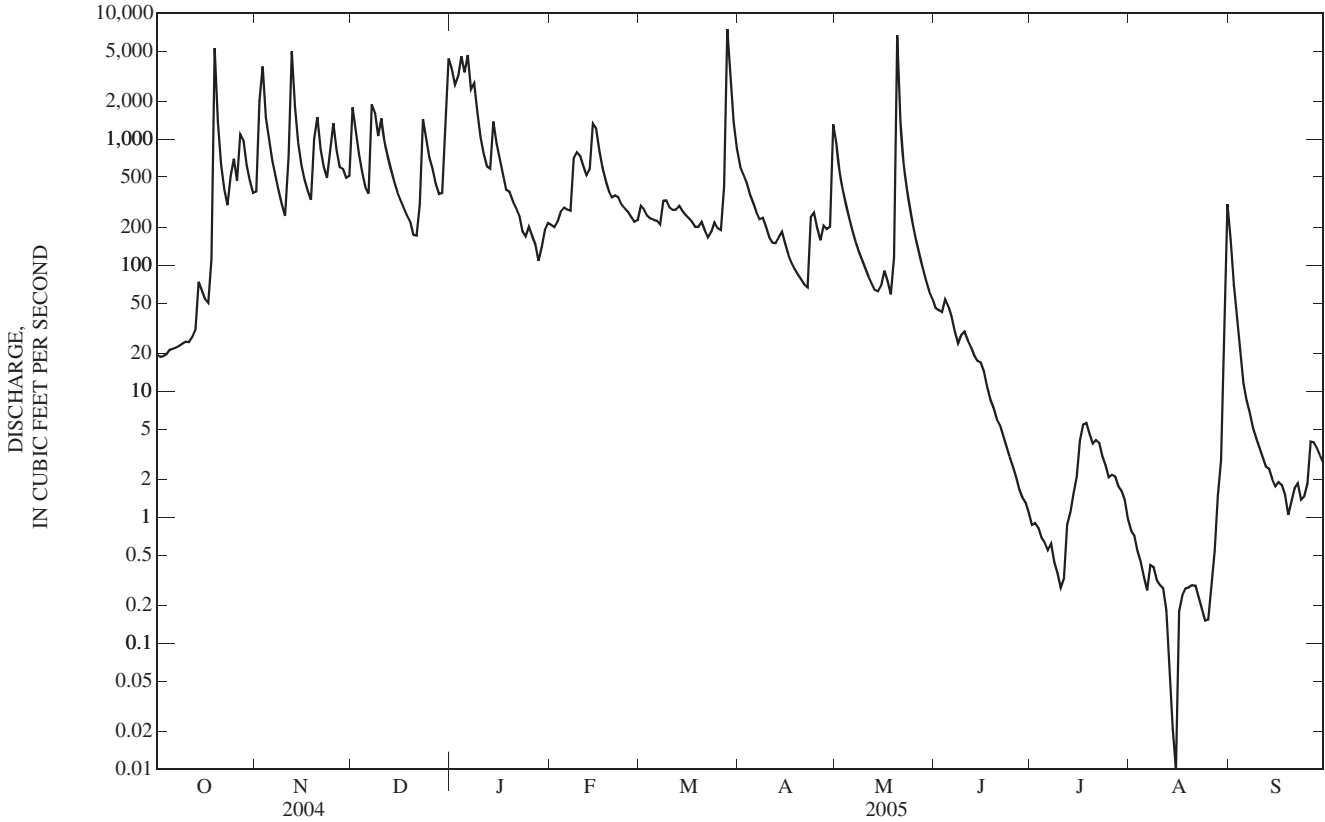
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	382	1,780	3,620	208	296	602	919	46	0.87	0.78	160
2	19	2,020	1,160	2,700	200	276	523	548	44	0.90	0.71	70
3	19	3,760	763	3,170	222	247	447	393	42	0.83	0.54	37
4	20	1,490	546	4,540	267	234	363	302	54	0.69	0.44	20
5	21	1,020	417	3,390	285	229	312	236	47	0.63	0.34	12
6	22	681	370	4,660	276	226	263	188	39	0.55	0.26	8.4
7	22	507	1,890	2,470	270	210	231	153	30	0.62	0.42	6.7
8	23	389	1,630	2,780	702	325	237	128	24	0.44	0.40	5.1
9	24	304	1,060	1,630	784	327	201	110	28	0.36	0.32	4.2
10	25	246	1,460	1,030	739	287	167	95	30	0.28	0.29	3.6
11	25	722	939	761	612	274	151	82	25	0.33	0.27	3.0
12	27	4,950	729	606	517	276	149	72	22	0.87	0.18	2.5
13	31	1,820	581	584	577	297	166	64	19	1.1	0.07	2.4
14	74	939	458	1,380	1,330	269	183	62	17	1.5	0.02	2.0
15	63	626	381	926	1,220	250	148	69	17	2.1	0.00	1.8
16	54	476	330	690	818	236	121	91	14	4.1	0.18	1.9
17	50	388	288	529	594	221	105	74	11	5.4	0.24	1.8
18	111	328	250	396	469	201	93	59	8.6	5.6	0.27	1.5
19	5,270	1,010	223	383	388	201	84	115	7.4	4.6	0.28	1.0
20	1,370	1,500	174	321	344	220	77	6,640	6.1	3.8	0.29	1.3
21	633	837	172	285	357	188	70	1,400	5.4	4.1	0.29	1.7
22	401	602	304	248	344	166	67	633	4.4	3.9	0.23	1.9
23	299	491	1,450	185	302	183	239	405	3.7	3.1	0.19	1.4
24	509	788	1,020	170	281	218	260	287	3.0	2.6	0.15	1.5
25	701	1,340	713	201	266	197	197	203	2.5	2.1	0.15	1.9
26	468	817	580	171	242	190	157	154	2.1	2.2	0.30	4.0
27	1,100	599	440	147	221	421	206	120	1.7	2.1	0.54	3.9
28	981	579	368	108	228	7,470	193	94	1.4	1.8	1.5	3.5
29	622	492	373	138	---	2,950	202	75	1.3	1.6	2.8	3.1
30	468	511	1,350	190	---	1,350	1,310	62	1.1	1.4	31	2.7
31	373	---	4,360	216	---	844	---	54	---	0.97	305	---
TOTAL	13,845	30,614	26,559	38,625	13,063	19,279	7,524	13,887	557.7	61.44	348.45	371.8
MEAN	447	1,020	857	1,246	467	622	251	448	18.6	1.98	11.2	12.4
MAX	5,270	4,950	4,360	4,660	1,330	7,470	1,310	6,640	54	5.6	305	160
MIN	19	246	172	108	200	166	67	54	1.1	0.28	0.00	1.0
CFSM	1.72	3.94	3.31	4.81	1.80	2.40	0.97	1.73	0.07	0.01	0.04	0.05
IN.	1.99	4.40	3.81	5.55	1.88	2.77	1.08	1.99	0.08	0.01	0.05	0.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2005, BY WATER YEAR (WY)

MEAN	72.9	238	482	581	750	694	433	510	291	106	59.1	50.2
MAX	447	1,020	1,806	1,246	1,984	3,025	841	1,912	1,318	584	291	659
(WY)	(2005)	(2005)	(1991)	(2005)	(1989)	(1997)	(1996)	(1983)	(1997)	(1998)	(1992)	(2003)
MIN	0.01	2.76	51.1	47.0	212	80.5	48.4	37.2	1.90	1.98	0.03	0.00
(WY)	(1989)	(2000)	(2000)	(1986)	(1992)	(1983)	(1986)	(2000)	(1988)	(2005)	(1983)	(1983)

03295890 BRASHEARS CREEK AT TAYLORSVILLE, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1981 - 2005	
ANNUAL TOTAL	206,653.7		164,735.39		354	
ANNUAL MEAN	565		451		184	
HIGHEST ANNUAL MEAN					642 1997	
LOWEST ANNUAL MEAN					184 2001	
HIGHEST DAILY MEAN	12,000	May 31	7,470	Mar 28	39,600	Mar 2, 1997
LOWEST DAILY MEAN	6.4	Sep 26	0.00	Aug 15	0.00	Aug 19, 1983
ANNUAL SEVEN-DAY MINIMUM	9.5	Sep 22	0.14	Aug 11	0.00	Aug 19, 1983
MAXIMUM PEAK FLOW			9,980	Mar 28	44,800	Mar 2, 1997
MAXIMUM PEAK STAGE					31.54	Mar 2, 1997
INSTANTANEOUS LOW FLOW					0.08	Oct 1, 1994
ANNUAL RUNOFF (CFSM)	2.18		1.74		1.37	
ANNUAL RUNOFF (INCHES)	29.68		23.66		18.58	
10 PERCENT EXCEEDS	1,450		1,080		863	
50 PERCENT EXCEEDS	221		188		100	
90 PERCENT EXCEEDS	21		0.85		2.2	



## 03297800 CEDAR CREEK AT HIGHWAY 1442 NEAR SHEPHERDSVILLE, KY

LOCATION.--Lat 37°59'28", long 85°38'28", Bullitt County, Hydrologic Unit 05140102, on upstream side of bridge on Highway 1442, 1.1 mi upstream from Licksillet Creek, 1.4 mi upstream from the mouth, and 4.2 mi east of Shepherdsville, Ky.

DRAINAGE AREA.--12.1 mi<sup>2</sup>.

PERIOD OF RECORD.--April 26, 2002 to current year.

REVISIONS.--WDR KY-04-1, peak stage.

GAGE.--Water-stage recorder with telemetry and crest-stage gage. Datum of gage is 422.73 ft above NGVD of 1929. Gage datum raised 1 ft. beginning in Oct. 1, 2003 based on 2004 level findings.

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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.02	12	61	90	12	21	22	26	0.40	0.00	0.00	4.3
2	0.02	e146	23	58	11	15	32	16	0.65	0.00	0.00	1.2
3	0.01	e34	15	85	15	12	23	11	0.93	0.00	0.00	0.52
4	0.01	17	11	109	12	12	17	8.8	0.76	0.00	0.00	0.24
5	0.01	9.2	8.2	80	11	10	14	6.9	0.38	0.00	0.00	0.12
6	0.01	5.9	13	e122	9.6	8.9	12	5.7	0.23	0.00	0.00	0.07
7	0.01	4.2	141	e67	16	14	12	4.7	0.15	0.00	0.00	0.04
8	0.01	2.5	37	e72	44	25	14	3.9	0.10	0.00	0.00	0.03
9	0.01	1.4	81	e55	27	13	9.8	3.3	0.07	0.00	0.00	0.03
10	0.01	1.2	52	e44	23	12	8.3	2.7	0.06	0.00	0.00	0.02
11	0.01	140	38	e36	19	12	7.4	2.2	0.09	0.00	0.00	0.02
12	0.01	e83	30	e29	16	18	9.7	1.7	0.25	0.00	0.00	0.01
13	0.01	21	21	e40	57	16	24	1.4	0.22	0.00	0.00	0.01
14	0.10	11	15	e37	55	12	17	4.5	0.15	0.00	0.00	0.01
15	0.16	7.6	13	e30	35	11	10	4.6	0.38	0.01	0.00	0.01
16	0.12	5.9	12	e25	25	9.5	8.0	1.7	0.07	0.01	0.00	0.01
17	0.08	4.8	10	e18	19	8.8	6.9	1.3	0.03	0.01	0.00	0.02
18	1.9	4.1	9.2	e18	16	7.7	5.9	1.1	0.02	0.01	0.00	0.01
19	37	87	e7.2	15	13	8.0	5.0	130	0.01	0.01	0.00	0.01
20	1.9	27	e7.7	14	17	8.2	4.4	e108	0.01	0.01	0.00	0.01
21	0.49	15	7.4	13	24	6.8	4.0	e21	0.01	0.00	e0.00	0.01
22	0.24	11	43	e11	20	6.7	4.5	9.7	0.01	0.02	e0.00	0.01
23	0.65	10	46	e10	16	14	14	8.1	0.01	0.01	0.00	0.01
24	22	48	e17	e9.0	15	13	6.0	4.2	0.00	0.01	0.00	0.01
25	3.2	23	e17	8.0	12	12	4.4	2.9	0.00	0.00	0.00	0.01
26	0.95	14	15	8.0	11	11	8.6	2.0	0.00	0.00	0.00	0.02
27	65	14	e11	e5.6	10	154	13	1.5	0.00	0.00	0.00	0.02
28	9.8	21	e11	e4.1	23	e62	7.0	1.0	0.00	0.00	0.00	0.01
29	4.4	12	57	13	---	e48	40	0.81	0.00	0.00	0.00	0.01
30	2.4	41	196	23	---	40	108	0.61	0.00	0.00	62	0.01
31	1.2	---	168	15	---	28	---	0.51	---	0.00	27	---
TOTAL	151.74	833.8	1,193.7	1,163.7	583.6	649.6	471.9	397.83	4.99	0.10	89.00	6.81
MEAN	4.89	27.8	38.5	37.5	20.8	21.0	15.7	12.8	0.17	0.00	2.87	0.23
MAX	65	146	196	122	57	154	108	130	0.93	0.02	62	4.3
MIN	0.01	1.2	7.2	4.1	9.6	6.7	4.0	0.51	0.00	0.00	0.00	0.01

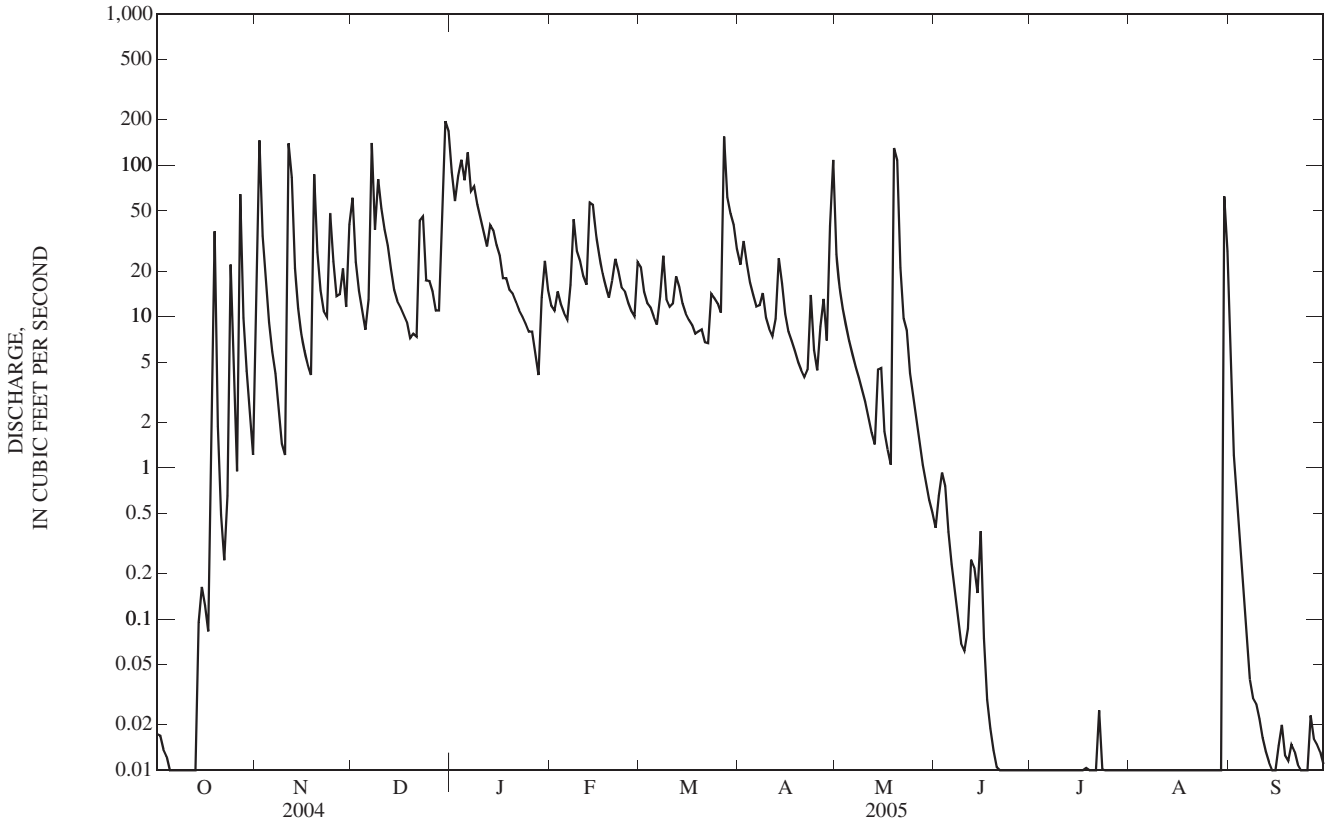
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2005, BY WATER YEAR (WY)

MEAN	7.44	22.7	33.8	31.3	42.3	15.9	22.6	38.7	10.9	5.81	5.52	11.4
MAX	15.3	27.8	38.5	37.5	83.5	21.0	29.7	70.4	21.7	17.5	11.4	27.0
(WY)	(2003)	(2005)	(2005)	(2005)	(2003)	(2005)	(2004)	(2004)	(2004)	(2004)	(2004)	(2003)
MIN	2.09	17.6	24.5	23.9	20.8	9.54	15.7	12.8	0.17	0.00	0.01	0.21
(WY)	(2004)	(2003)	(2004)	(2003)	(2005)	(2003)	(2005)	(2005)	(2005)	(2005)	(2002)	(2004)

03297800 CEDAR CREEK AT HIGHWAY 1442 NEAR SHEPHERDSVILLE, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2002 - 2005	
ANNUAL TOTAL	9,029.52		5,546.77			
ANNUAL MEAN	24.7		15.2		20.9	
HIGHEST ANNUAL MEAN					24.6	2003
LOWEST ANNUAL MEAN					15.2	2005
HIGHEST DAILY MEAN	640	May 28	196	Dec 30	758	Apr 28, 2002
LOWEST DAILY MEAN	0.01	Oct 3	0.00	Jun 24	0.00	Aug 13, 2002
ANNUAL SEVEN-DAY MINIMUM	0.01	Oct 3	0.00	Jun 24	0.00	Aug 13, 2002
MAXIMUM PEAK FLOW			2,340	May 20	2,340	May 20, 2005
MAXIMUM PEAK STAGE			12.23	May 20	12.26	Jun 1, 2004
10 PERCENT EXCEEDS	62		40		48	
50 PERCENT EXCEEDS	8.2		5.9		7.1	
90 PERCENT EXCEEDS	0.23		0.00		0.03	

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<sup>2</sup>.

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<sup>3</sup>/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<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan 3	1630	5,750	17.62	May 20	0415	*9,060	*21.58
Mar 28	0700	5,330	16.95				

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	44	538	1,520	e95	122	128	185	11	2.9	2.1	56
2	1.0	1,690	176	652	75	80	129	109	10	3.8	2.3	16
3	1.0	548	94	2,960	90	68	114	76	11	3.2	2.0	8.0
4	1.0	235	56	879	100	63	95	58	13	2.7	1.9	5.4
5	1.1	110	39	1,990	80	75	82	47	11	2.5	2.0	4.1
6	1.1	55	55	2,140	71	69	69	40	9.0	2.3	1.9	3.6
7	1.0	32	750	486	77	67	68	34	7.2	2.4	1.9	3.1
8	1.00	20	266	903	427	237	67	30	12	2.2	2.1	2.9
9	1.00	14	552	347	205	112	53	26	27	2.3	2.5	2.6
10	1.0	11	485	220	162	88	46	24	8.1	2.2	2.5	2.5
11	1.0	1,150	225	166	124	79	42	22	6.4	2.3	2.9	2.3
12	1.2	1,580	148	150	105	86	44	19	6.2	4.0	2.5	2.1
13	2.2	274	88	365	318	88	78	17	9.3	6.8	2.6	2.0
14	2.6	112	52	559	604	71	59	117	6.8	5.7	3.0	1.9
15	2.1	60	36	207	299	64	45	128	5.4	4.1	3.2	1.9
16	1.7	38	30	e148	167	58	38	45	4.9	5.6	6.0	1.9
17	1.8	27	26	e119	121	53	34	28	4.0	5.3	6.8	1.8
18	128	22	21	e89	96	48	31	23	3.4	5.3	3.5	1.7
19	594	1,080	19	e69	78	46	29	644	3.6	43	3.8	1.7
20	43	364	17	e66	76	51	27	4,140	3.3	47	5.1	2.5
21	12	149	15	e61	91	42	25	258	2.8	19	3.2	4.3
22	6.5	79	134	e50	79	39	25	109	2.6	9.4	2.4	2.8
23	5.5	55	e220	e43	67	54	67	60	2.5	7.3	2.1	2.2
24	132	266	e229	e38	73	63	67	39	2.5	4.7	2.0	1.9
25	35	305	e316	e42	67	52	39	28	2.4	3.8	1.9	1.8
26	14	116	e189	e42	60	51	90	23	2.4	3.0	1.8	2.6
27	510	81	e100	e34	55	165	188	19	2.4	2.5	1.9	4.4
28	123	191	e68	e37	72	2,630	78	17	2.6	2.3	7.8	3.1
29	40	88	e124	e54	---	498	123	16	2.9	2.0	7.2	2.6
30	27	93	996	e113	---	231	667	13	2.6	1.9	534	2.3
31	19	---	1,860	e128	---	168	---	12	---	2.0	384	---
TOTAL	1,711.80	8,889	7,924	14,677	3,934	5,618	2,647	6,406	198.3	213.5	1,008.9	152.0
MEAN	55.2	296	256	473	140	181	88.2	207	6.61	6.89	32.5	5.07
MAX	594	1,690	1,860	2,960	604	2,630	667	4,140	27	47	534	56
MIN	1.0	11	15	34	55	39	25	12	2.4	1.9	1.8	1.7
CFSM	0.69	3.71	3.20	5.93	1.76	2.27	1.10	2.59	0.08	0.09	0.41	0.06
IN.	0.80	4.14	3.69	6.83	1.83	2.62	1.23	2.98	0.09	0.10	0.47	0.07

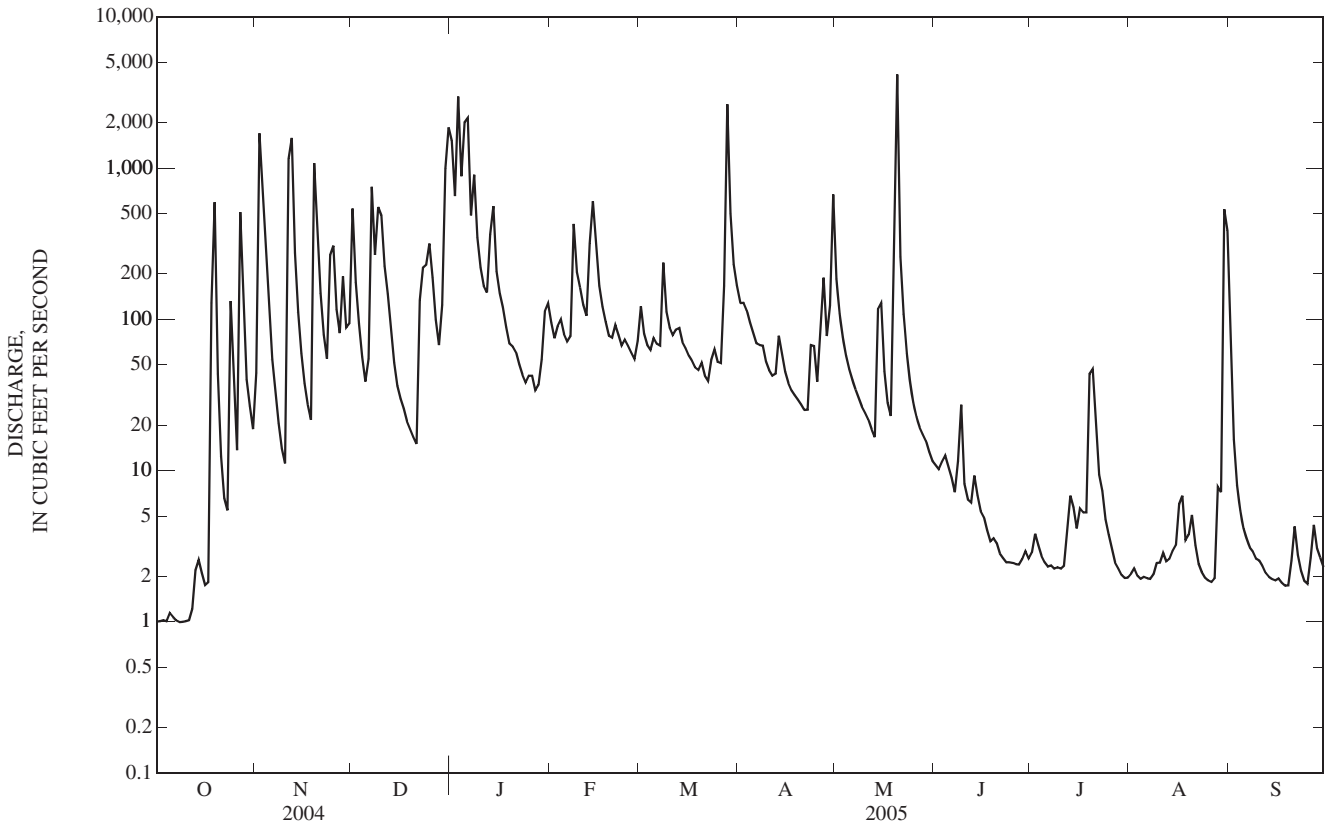
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2005, BY WATER YEAR (WY)

MEAN	31.4	95.4	153	225	189	237	134	195	116	36.9	33.6	33.2
MAX	132	296	331	473	448	958	306	560	381	186	149	215
(WY)	(2003)	(2005)	(1997)	(2005)	(2000)	(1997)	(1996)	(2004)	(1997)	(2004)	(2003)	(2003)
MIN	1.03	3.14	35.8	46.9	43.3	79.0	27.8	12.1	4.07	1.89	0.86	0.09
(WY)	(2000)	(1992)	(1999)	(2001)	(1992)	(2001)	(2001)	(1999)	(1991)	(1991)	(1999)	(1999)

03297900 FLOYDS FORK NEAR PEWEE VALLEY, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1991 - 2005	
ANNUAL TOTAL	66,447.50		53,379.50		122	
ANNUAL MEAN	182		146		198	
HIGHEST ANNUAL MEAN					198 1997	
LOWEST ANNUAL MEAN					57.5 2001	
HIGHEST DAILY MEAN	4,130	May 28	4,140	May 20	10,500	Mar 2, 1997
LOWEST DAILY MEAN	1.0	Sep 22	1.0	Oct 1	0.00	Sep 2, 1999
ANNUAL SEVEN-DAY MINIMUM	1.0	Sep 22	1.0	Oct 1	0.01	Sep 23, 1999
MAXIMUM PEAK FLOW			9,060	May 20	18,800	Mar 2, 1997
MAXIMUM PEAK STAGE			21.58	May 20	28.60	Mar 2, 1997
ANNUAL RUNOFF (CFSM)	2.27		1.83		1.53	
ANNUAL RUNOFF (INCHES)	30.94		24.85		20.81	
10 PERCENT EXCEEDS	456		309		238	
50 PERCENT EXCEEDS	41		39		31	
90 PERCENT EXCEEDS	1.4		2.1		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 Fishersville, 0.2 mi downstream from Brush Run, 1.4 mi upstream from Pope Lick, and at mile 32.7.

DRAINAGE AREA.--138 mi<sup>2</sup>.

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<sup>3</sup>/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<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
May 20	0145	*11,800	*12.99	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	167	846	2,090	141	205	236	417	27	11	2.2	241
2	2.1	2,230	426	1,050	123	148	220	224	27	15	2.0	105
3	7.5	1,140	263	3,480	166	128	198	151	31	9.7	1.8	61
4	3.5	519	183	1,520	188	117	153	114	39	9.0	2.2	40
5	3.1	319	141	2,250	145	126	130	91	31	8.4	3.8	29
6	2.6	195	152	2,920	124	129	111	76	25	7.5	4.2	22
7	2.3	136	1,090	855	160	109	104	62	20	6.8	3.2	16
8	2.0	99	591	1,280	709	312	126	52	18	6.0	2.7	15
9	2.2	74	727	644	446	189	91	44	59	6.0	2.1	11
10	3.1	58	913	445	361	141	77	43	33	6.0	1.8	8.3
11	4.3	897	479	324	252	128	69	39	21	6.0	2.0	5.0
12	13	2,650	366	276	203	139	76	26	19	17	2.7	4.2
13	31	593	252	432	444	158	185	22	23	49	6.2	4.1
14	25	313	175	919	910	128	126	165	29	40	17	3.9
15	21	196	e115	415	592	116	89	281	28	26	22	6.5
16	21	130	e76	285	358	114	70	103	18	27	80	14
17	13	114	e51	208	239	97	61	59	16	24	63	6.7
18	335	95	e34	e161	179	89	54	41	15	19	32	4.1
19	1,290	1,350	e26	e121	145	86	48	714	13	51	21	4.3
20	244	725	e21	e97	137	98	43	6,050	13	65	31	23
21	94	374	e20	e82	166	85	40	558	12	97	23	24
22	52	234	325	e69	151	75	38	291	11	68	15	17
23	38	180	e437	e59	124	105	92	180	11	49	10	12
24	233	495	e393	e55	128	124	122	119	10	32	7.9	6.5
25	172	652	e596	e51	119	104	74	87	10	e17	3.8	5.2
26	81	326	e400	e46	108	99	112	69	9.3	e10	3.5	11
27	750	229	e210	e41	99	290	343	55	9.0	e6.5	8.8	18
28	363	403	e141	e39	123	3,510	143	47	9.0	e4.5	12	15
29	171	254	175	e56	---	865	223	41	9.7	e3.3	88	15
30	114	255	1,240	139	---	468	1,050	34	9.2	2.7	681	13
31	92	---	2,570	164	---	330	---	30	---	2.8	834	---
TOTAL	4,187.5	15,402	13,434	20,573	7,040	8,812	4,504	10,285	605.2	702.2	1,989.9	760.8
MEAN	135	513	433	664	251	284	150	332	20.2	22.7	64.2	25.4
MAX	1,290	2,650	2,570	3,480	910	3,510	1,050	6,050	59	97	834	241
MIN	1.8	58	20	39	99	75	38	22	9.0	2.7	1.8	3.9
CFSM	0.98	3.72	3.14	4.81	1.82	2.06	1.09	2.40	0.15	0.16	0.47	0.18
IN.	1.13	4.15	3.62	5.55	1.90	2.38	1.21	2.77	0.16	0.19	0.54	0.21

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2005, BY WATER YEAR (WY)

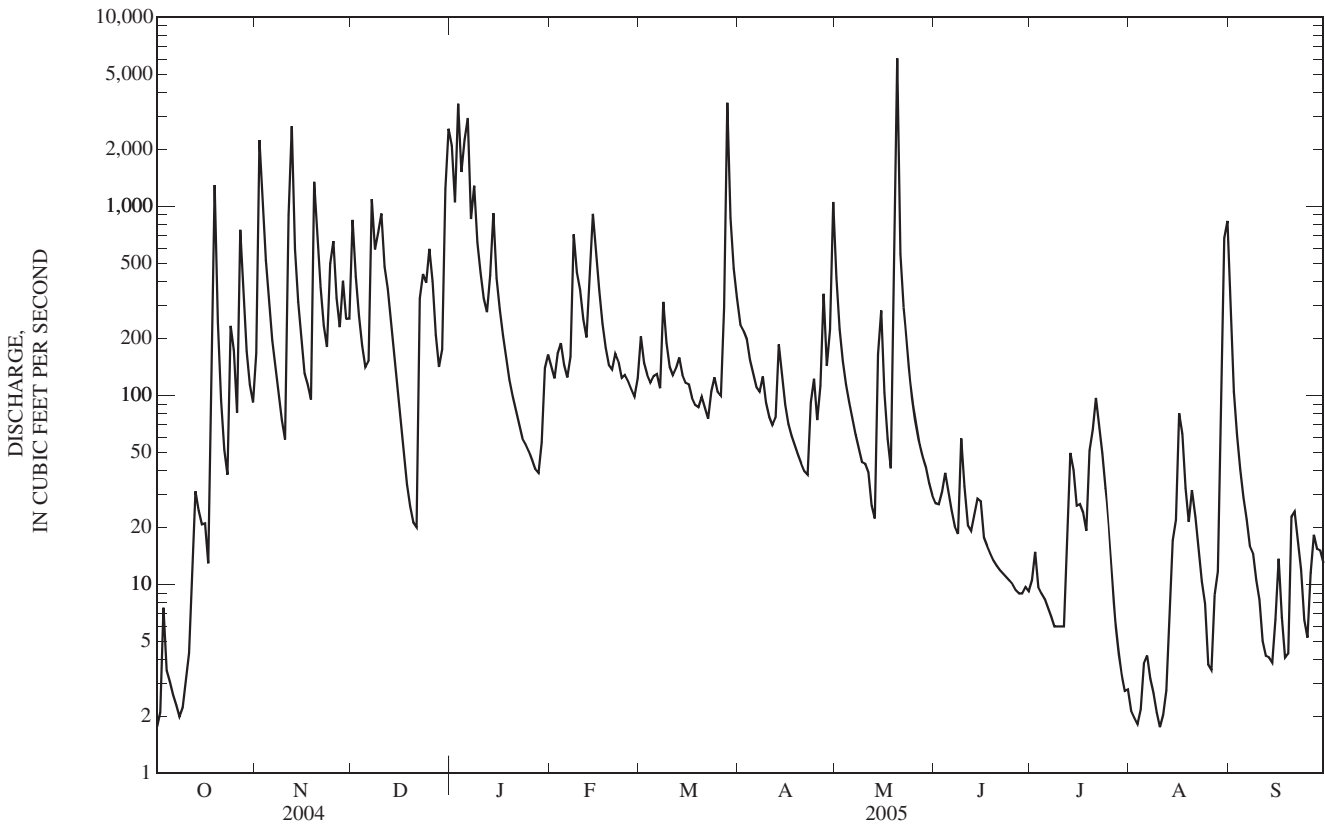
MEAN	39.1	118	240	303	364	393	274	227	129	66.8	46.1	44.5
MAX	423	513	1,025	1,252	990	1,639	1,021	971	622	331	290	1,020
(WY)	(1978)	(2005)	(1991)	(1950)	(1956)	(1997)	(1970)	(1983)	(1997)	(1973)	(1979)	(1979)
MIN	0.00	0.00	0.00	3.54	12.4	40.3	34.0	12.2	0.90	1.73	0.05	0.00
(WY)	(1949)	(1954)	(1954)	(1977)	(1954)	(1954)	(1959)	(1965)	(1988)	(1954)	(1962)	(1948)



03298000 FLOYDS FORK AT FISHERVILLE, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1944 - 2005	
ANNUAL TOTAL	105,450.00		88,295.6		186	
ANNUAL MEAN	288		242		382	
HIGHEST ANNUAL MEAN					29.0	1979
LOWEST ANNUAL MEAN					20,000	1954
HIGHEST DAILY MEAN	4,990	May 28	6,050	May 20		Mar 2, 1997
LOWEST DAILY MEAN	0.22	Sep 12	1.8	Oct 1	0.00	Sep 7, 1945
ANNUAL SEVEN-DAY MINIMUM	0.46	Sep 20	2.4	Jul 29	0.00	Sep 7, 1945
MAXIMUM PEAK FLOW			11,800	May 20	42,100	Mar 2, 1997
MAXIMUM PEAK STAGE			12.99	May 20	17.39	Mar 2, 1997
INSTANTANEOUS LOW FLOW			1.7	Aug 3	0.00	Sep 7, 1945
ANNUAL RUNOFF (CF5M)	2.09		1.75		1.35	
ANNUAL RUNOFF (INCHES)	28.43		23.80		18.33	
10 PERCENT EXCEEDS	726		592		386	
50 PERCENT EXCEEDS	100		86		38	
90 PERCENT EXCEEDS	1.5		6.0		0.58	

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<sup>2</sup>.

PERIOD OF RECORD.--May 5, 1993 to February 26, 1998; January 19, 1999 to current year.

GAGE.--Water-stage recorder with telemetry.

REMARKS.--Records good except for estimated records 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<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 18	2040	1,330	6.45	May 19	2220	*1,550	*6.88

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

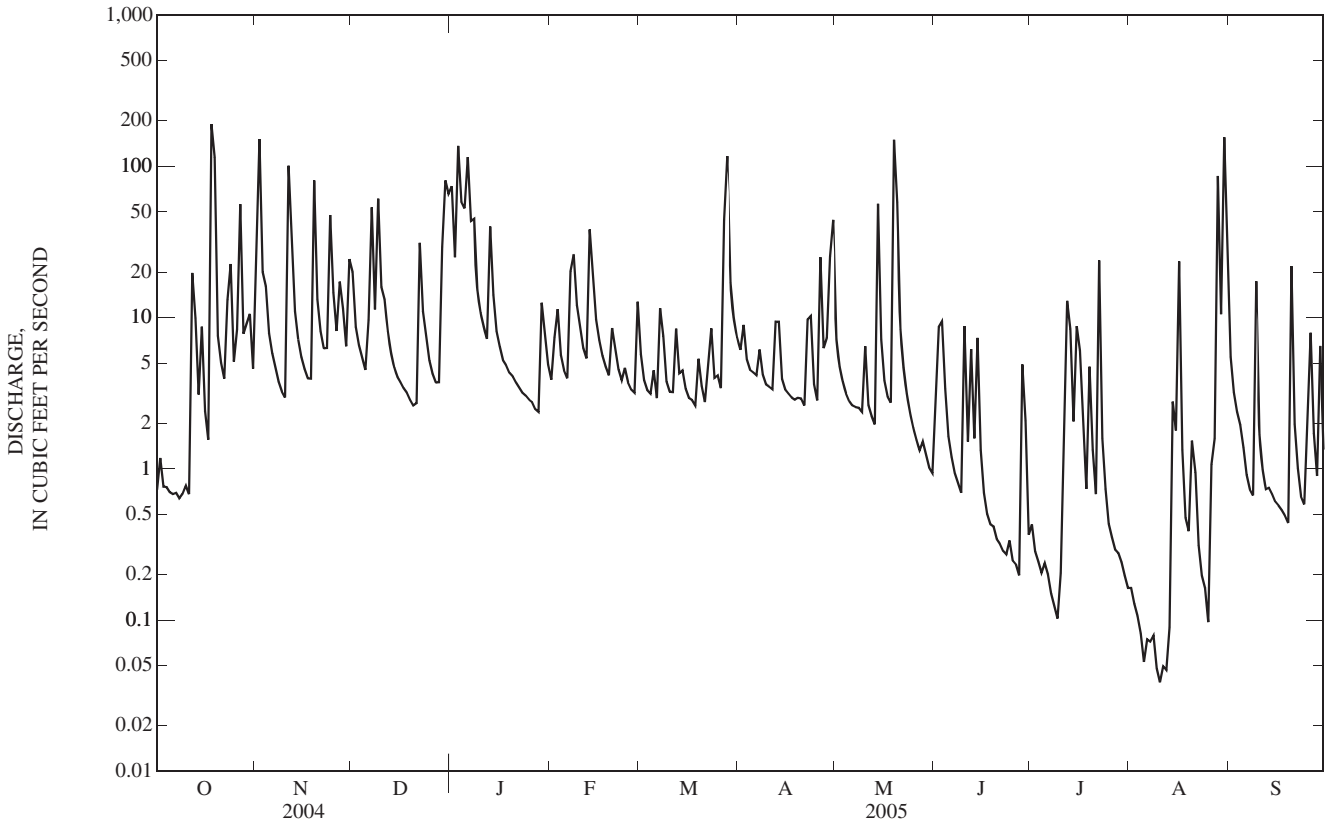
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.73	29	20	74	3.9	5.7	6.1	7.2	3.4	0.43	0.16	5.5
2	1.2	151	8.7	25	7.4	3.9	8.9	4.8	8.6	0.28	0.13	3.2
3	0.77	20	6.6	136	11	3.3	5.3	3.8	9.4	0.24	0.11	2.4
4	0.76	16	5.4	58	5.7	3.1	4.5	3.2	3.4	0.21	0.08	1.9
5	0.70	7.9	4.5	53	4.5	4.5	4.4	2.8	1.6	0.24	0.05	1.4
6	0.68	5.8	9.6	115	4.0	2.9	4.2	2.6	1.2	0.20	0.07	0.91
7	0.69	4.7	53	43	20	12	6.1	2.6	0.93	0.15	0.07	0.73
8	0.64	3.8	11	45	26	7.5	4.2	2.5	0.80	0.12	0.08	0.67
9	0.68	3.2	61	15	12	3.8	3.6	2.4	0.69	0.10	0.05	17
10	0.77	3.0	16	11	8.7	3.2	3.5	6.5	8.8	0.20	0.04	1.7
11	0.68	101	13	8.7	6.3	3.2	3.4	2.6	1.5	1.0	0.05	0.99
12	20	41	8.1	7.2	5.4	8.4	9.4	2.2	6.2	13	0.05	0.73
13	9.9	11	5.9	40	38	4.3	9.4	2.0	1.6	8.4	0.09	0.75
14	3.1	7.2	4.7	14	21	4.5	3.9	57	7.3	2.1	2.8	0.68
15	8.7	5.5	4.1	8.1	9.7	3.4	3.4	7.2	1.3	8.8	1.8	0.60
16	2.4	4.6	3.7	6.4	7.1	3.0	3.1	3.8	0.69	6.1	24	0.57
17	1.6	4.0	3.4	5.2	5.6	2.8	3.0	3.0	0.50	1.7	1.3	0.53
18	190	3.9	3.2	4.8	4.7	2.6	2.9	2.7	0.43	0.74	0.47	0.49
19	115	81	2.9	4.3	4.1	5.3	2.9	149	0.42	4.7	0.39	0.44
20	7.6	13	2.6	4.1	8.5	3.5	2.9	58	0.34	1.3	1.5	22
21	5.0	8.1	2.7	3.7	6.3	2.8	2.6	8.4	0.32	0.68	0.94	2.0
22	3.9	6.3	31	3.4	4.5	4.7	9.7	4.7	0.29	24	0.31	1.0
23	13	6.3	11	3.2	3.9	8.5	10	3.1	0.27	1.6	0.20	0.66
24	23	48	7.4	3.1	4.6	4.0	3.6	2.4	0.34	0.74	0.16	0.58
25	5.1	15	5.2	2.9	3.7	4.2	2.8	1.9	0.25	0.43	0.10	1.9
26	8.4	8.1	4.2	2.8	3.4	3.4	25	1.6	0.23	0.35	1.1	7.9
27	56	17	3.7	2.5	3.2	44	6.3	1.3	0.20	0.29	1.6	1.7
28	7.8	12	3.7	2.4	13	116	7.3	1.5	4.9	0.28	86	0.90
29	9.1	6.5	29	13	---	17	25	1.2	2.1	0.24	11	6.5
30	11	24	81	8.1	---	10	44	1.0	0.37	0.20	156	1.3
31	4.6	---	66	4.9	---	7.4	---	0.94	---	0.16	30	---
TOTAL	513.50	667.9	492.3	727.8	256.2	312.9	231.4	353.94	68.37	78.98	320.70	87.63
MEAN	16.6	22.3	15.9	23.5	9.15	10.1	7.71	11.4	2.28	2.55	10.3	2.92
MAX	190	151	81	136	38	116	44	149	9.4	24	156	22
MIN	0.64	3.0	2.6	2.4	3.2	2.6	2.6	0.94	0.20	0.10	0.04	0.44

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2005, BY WATER YEAR (WY)

MEAN	9.29	10.7	15.5	12.7	11.5	11.1	11.6	13.3	6.02	4.02	4.80	6.11
MAX	16.6	22.3	26.0	23.5	21.5	25.6	22.8	28.6	12.3	15.2	10.3	15.1
(WY)	(2005)	(2005)	(2002)	(2005)	(2000)	(2002)	(2002)	(2004)	(1999)	(2004)	(2005)	(2003)
MIN	2.36	1.80	8.57	2.94	5.39	4.56	2.45	3.40	1.44	0.80	0.47	0.31
(WY)	(2001)	(2000)	(2000)	(2001)	(2004)	(2001)	(2001)	(2000)	(2001)	(1999)	(1999)	(1999)

03298135 CHENOWETH RUN AT RUCKRIEGAL PARKWAY NEAR JEFFERSONTOWN, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1999 - 2005	
ANNUAL TOTAL	4,604.22		4,111.62		9.95	
ANNUAL MEAN	12.6		11.3		4.37	
HIGHEST ANNUAL MEAN					14.5	2002
LOWEST ANNUAL MEAN					4.37	2001
HIGHEST DAILY MEAN	190	Oct 18	190	Oct 18	402	Feb 18, 2000
LOWEST DAILY MEAN	0.36	Sep 24	0.04	Aug 10	0.02	Jul 17, 2000
ANNUAL SEVEN-DAY MINIMUM	0.38	Sep 19	0.06	Aug 5	0.03	Jul 21, 2000
MAXIMUM PEAK FLOW			1,550	May 19	4,680	Mar 1, 1997
MAXIMUM PEAK STAGE			6.88	May 19	9.33	Mar 1, 1997
10 PERCENT EXCEEDS	29		25		21	
50 PERCENT EXCEEDS	3.9		3.8		3.0	
90 PERCENT EXCEEDS	0.73		0.32		0.46	



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<sup>2</sup>.

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

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

REMARKS.--Records good except for periods of estimated records which are poor. 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<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 18	2335	1,760	9.14	May 19	2200	*2,060	*9.82

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	51	59	232	15	21	12	18	9.9	6.5	6.1	16
2	3.9	337	28	80	18	15	15	11	18	6.0	6.2	11
3	3.5	55	22	336	32	13	11	8.7	18	5.7	6.1	8.6
4	3.5	35	18	142	22	13	9.3	7.5	14	5.6	6.3	7.5
5	3.9	20	15	130	17	15	8.6	6.7	9.5	5.8	6.3	6.6
6	3.6	15	23	297	15	12	8.4	6.2	8.5	6.0	6.1	6.3
7	3.7	12	132	101	41	23	11	5.9	8.1	5.8	6.0	6.6
8	3.7	11	37	118	73	28	9.7	5.7	7.9	5.9	6.2	5.8
9	3.8	9.5	136	47	38	17	8.2	5.6	7.6	5.6	6.4	23
10	3.8	8.9	52	35	32	14	8.4	9.0	15	5.6	6.3	7.3
11	4.0	212	38	29	24	14	9.1	6.3	8.8	6.8	6.3	6.5
12	22	117	28	25	21	26	18	6.0	15	19	6.4	6.1
13	14	32	21	79	82	18	22	5.7	9.7	21	6.2	6.2
14	6.2	21	17	47	61	18	11	102	14	10	6.4	6.0
15	10	16	15	29	35	15	9.4	12	8.8	15	11	6.1
16	5.0	14	14	23	27	15	8.3	6.6	7.6	13	33	5.9
17	4.2	13	13	19	22	14	8.0	5.2	7.1	9.4	9.3	5.8
18	e226	12	12	16	18	14	8.2	4.5	6.8	7.7	7.6	5.7
19	e337	183	11	16	16	19	8.2	226	6.6	11	7.2	5.6
20	e23	40	11	15	23	18	8.4	179	6.6	8.3	8.0	30
21	e13	25	11	14	22	16	8.0	30	6.6	7.6	8.5	8.2
22	e11	20	70	13	17	17	14	19	6.4	33	6.9	7.0
23	20	18	37	12	15	32	21	15	6.3	9.5	6.6	6.5
24	41	91	23	11	16	23	9.3	12	6.6	7.7	6.3	6.1
25	14	43	e18	11	14	22	7.9	11	6.2	7.3	6.3	6.4
26	11	25	16	11	13	21	47	9.6	6.1	6.9	6.7	17
27	116	34	14	10	12	97	16	9.1	6.2	6.7	9.8	8.1
28	22	34	13	9.9	28	384	13	8.8	8.9	6.5	89	7.2
29	19	21	58	24	---	62	51	8.1	11	6.3	20	13
30	20	46	196	26	---	30	131	7.9	6.6	6.1	265	7.7
31	13	---	231	18	---	17	---	7.8	---	5.9	59	---
TOTAL	988.7	1,571.4	1,389	1,975.9	769	1,063	530.4	775.9	278.4	283.2	647.5	269.8
MEAN	31.9	52.4	44.8	63.7	27.5	34.3	17.7	25.0	9.28	9.14	20.9	8.99
MAX	337	337	231	336	82	384	131	226	18	33	265	30
MIN	3.5	8.9	11	9.9	12	12	7.9	4.5	6.1	5.6	6.0	5.6

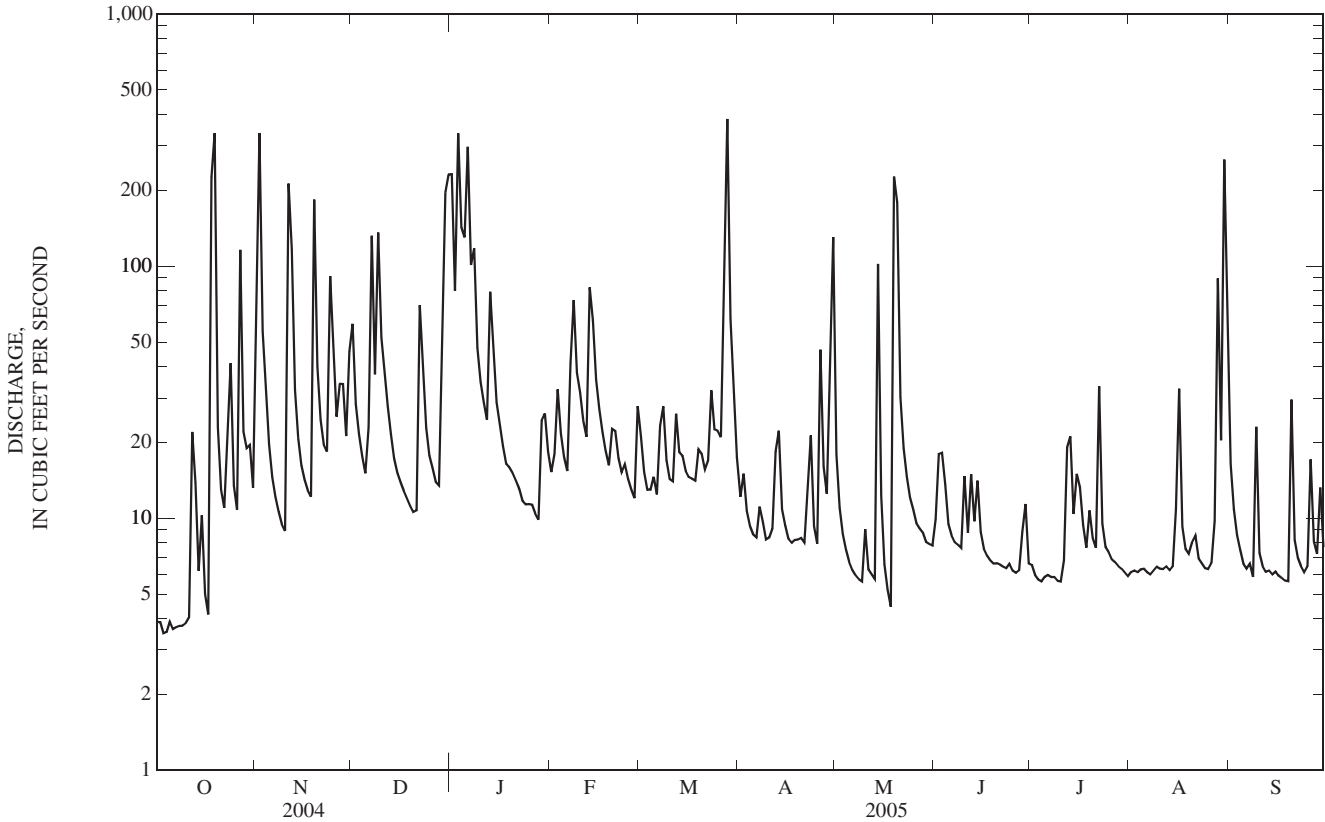
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2005, BY WATER YEAR (WY)

MEAN	14.7	21.2	31.8	36.8	32.7	42.7	32.2	32.6	24.7	10.8	11.6	13.8
MAX	31.9	52.4	47.5	63.7	54.3	119	57.7	68.2	73.4	20.8	20.9	30.2
(WY)	(2005)	(2005)	(2003)	(2005)	(2000)	(1997)	(2002)	(2004)	(1997)	(2004)	(2005)	(2003)
MIN	3.81	7.23	15.6	9.24	17.4	15.7	9.17	11.3	9.28	5.52	4.76	3.73
(WY)	(1998)	(2000)	(1999)	(2001)	(2002)	(2001)	(2001)	(1999)	(2005)	(2002)	(1999)	(1999)

03298150 CHENOWETH RUN AT GELHAUS LANE NEAR FERN CREEK, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1997 - 2005	
ANNUAL TOTAL	12,279.5		10,542.2		25.4	
ANNUAL MEAN	33.6		28.9		13.7	
HIGHEST ANNUAL MEAN					32.3	1997
LOWEST ANNUAL MEAN					13.7	2001
HIGHEST DAILY MEAN	352	Mar 4	384	Mar 28	1,590	Mar 1, 1997
LOWEST DAILY MEAN	1.7	Jul 4	3.5	Oct 3	1.7	Jul 4, 2004
ANNUAL SEVEN-DAY MINIMUM	2.5	Jun 28	3.7	Oct 3	2.3	Mar 4, 2000
MAXIMUM PEAK FLOW			2,060	May 19	4,810	Mar 2, 1997
MAXIMUM PEAK STAGE			9.82	May 19	14.72	Mar 2, 1997
10 PERCENT EXCEEDS	83		58		49	
50 PERCENT EXCEEDS	15		13		10	
90 PERCENT EXCEEDS	3.9		6.0		4.4	

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<sup>2</sup>.

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

GAGE.--Water-stage recorder with telemetry and crest-stage gage. Datum of gage is 457.23 ft above NGVD of 1929.

REMARKS.--Records fair except for period Oct. 1-18 and those estimated, which are poor.

COOPERATION.--Louisville and Jefferson County Metropolitan Sewer District.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	284	1,130	3,700	229	281	347	567	51	19	12	285
2	6.8	3,790	556	1,800	205	229	326	316	62	18	12	101
3	6.4	2,430	372	4,400	274	200	296	227	63	21	12	55
4	7.5	661	279	3,440	299	186	244	181	73	19	11	37
5	8.4	441	225	3,240	242	180	215	154	62	18	11	26
6	7.9	297	238	5,290	213	180	192	135	53	17	11	20
7	8.5	224	1,830	1,340	365	180	182	121	48	16	11	18
8	8.5	176	834	2,120	999	368	197	110	44	15	12	15
9	8.1	145	966	863	610	273	167	101	43	14	11	28
10	e12	126	1,380	589	511	211	149	98	87	14	11	16
11	e16	1,100	595	463	381	194	140	94	61	14	11	14
12	e25	4,920	471	397	312	215	147	83	52	23	10	12
13	e43	796	352	551	641	234	326	76	50	48	10	11
14	29	437	266	1,260	1,160	203	223	240	48	50	9.6	11
15	24	301	219	541	789	184	170	331	54	39	12	11
16	19	236	193	406	466	173	145	170	43	39	26	10
17	16	198	178	317	342	164	131	119	36	37	67	11
18	1,010	174	162	e260	270	155	121	98	34	32	31	11
19	3,620	2,100	150	243	230	150	112	565	31	26	21	10
20	425	1,070	129	223	223	165	104	9,710	29	116	18	28
21	192	492	124	208	274	151	99	777	28	54	23	22
22	125	340	450	186	249	140	97	372	27	78	18	16
23	105	278	e572	e159	212	175	145	240	25	54	16	14
24	280	653	e528	e168	206	199	168	168	24	36	13	12
25	268	859	e738	e159	195	176	136	128	24	27	12	11
26	148	444	e531	151	182	168	157	103	22	21	12	17
27	1,090	338	e345	141	170	542	387	86	20	18	13	15
28	496	507	272	120	201	6,540	210	73	20	16	67	14
29	263	363	320	152	---	1,390	324	65	26	15	87	17
30	187	374	1,780	258	---	623	1,660	59	19	14	844	14
31	154	---	4,870	259	---	444	---	55	---	13	1,350	---
TOTAL	8,616.7	24,554	21,055	33,404	10,450	14,673	7,317	15,622	1,259	941	2,784.6	882
MEAN	278	818	679	1,078	373	473	244	504	42.0	30.4	89.8	29.4
MAX	3,620	4,920	4,870	5,290	1,160	6,540	1,660	9,710	87	116	1,350	285
MIN	6.4	126	124	120	170	140	97	55	19	13	9.6	10

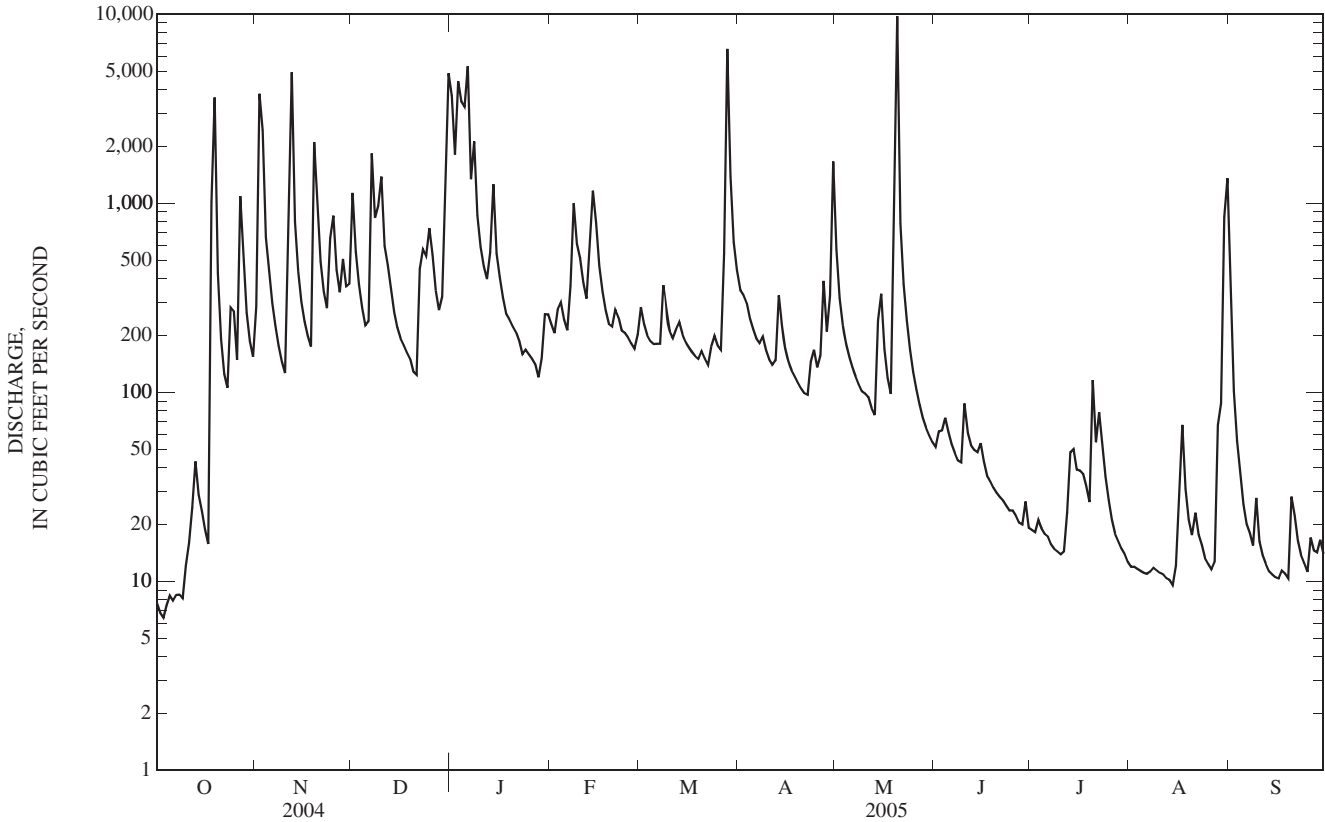
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2005, BY WATER YEAR (WY)

MEAN	239	459	584	547	482	490	420	714	213	147	111	193
MAX	367	818	800	1,078	900	1,018	676	1,302	349	513	331	579
(WY)	(2003)	(2005)	(2003)	(2005)	(2003)	(2002)	(2002)	(2004)	(2002)	(2004)	(2003)	(2003)
MIN	96.0	94.1	402	122	186	263	116	166	42.0	30.4	10.7	11.0
(WY)	(2004)	(2001)	(2001)	(2001)	(2002)	(2001)	(2001)	(2001)	(2005)	(2005)	(2002)	(2001)

03298200 FLOYDS FORK AT BARDSTOWN ROAD NEAR MOUNT WASHINGTON, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2001 - 2005	
ANNUAL TOTAL	176,998.9		141,558.3			
ANNUAL MEAN	484		388		434	
HIGHEST ANNUAL MEAN					493 2003	
LOWEST ANNUAL MEAN					388 2005	
HIGHEST DAILY MEAN	8,730	May 28	9,710	May 20	9,710	May 20, 2005
LOWEST DAILY MEAN	6.4	Oct 3	6.4	Oct 3	3.0	Sep 30, 2001
ANNUAL SEVEN-DAY MINIMUM	7.6	Oct 1	7.6	Oct 1	4.1	Sep 13, 2001
MAXIMUM PEAK FLOW			11,800		13,900	
MAXIMUM PEAK STAGE			18.36		19.65	
10 PERCENT EXCEEDS	1,050		792		917	
50 PERCENT EXCEEDS	189		155		153	
90 PERCENT EXCEEDS	24		12		19	

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<sup>2</sup>.

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

GAGE.--Water-stage recorder with telemetry and crest-stage gage. Datum of gage is 523.36 ft above NGVD of 1929.

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

COOPERATION.--Louisville and Jefferson County Metropolitan Sewer District.

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 18	2055	*1,060	*6.19	May 19	2305	830	5.64
Oct 19	0045	702	5.30	May 20	0430	656	5.17
Nov 2	1155	727	5.37				

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.30	20	33	111	6.4	8.2	12	12	0.77	0.22	0.25	8.0
2	0.25	204	18	49	6.3	5.6	12	6.3	1.1	0.26	0.23	3.3
3	0.24	41	14	130	12	4.7	9.6	4.4	2.2	0.23	0.28	1.9
4	0.21	21	11	64	9.5	4.4	7.7	3.4	2.6	0.25	0.28	1.3
5	0.18	14	8.6	60	7.5	4.4	6.6	2.8	1.4	0.30	0.27	1.0
6	0.14	9.6	11	112	6.6	3.8	5.6	2.3	1.0	0.25	0.30	0.77
7	0.14	7.7	72	44	14	5.6	5.8	2.1	0.75	0.27	0.30	0.66
8	0.14	5.5	25	56	31	9.2	5.4	2.1	0.55	0.31	0.33	0.55
9	0.13	4.4	45	27	20	5.5	4.4	1.8	0.42	0.33	0.32	1.9
10	0.13	3.8	34	20	18	4.5	3.8	1.5	0.36	0.31	0.38	1.8
11	0.15	80	23	17	14	4.4	3.7	1.3	0.56	0.74	0.34	1.0
12	0.66	83	19	14	12	5.9	5.4	1.1	1.4	1.3	0.35	0.74
13	0.34	22	14	30	25	5.9	7.4	0.98	1.2	1.1	0.36	0.50
14	0.08	14	11	e23	27	4.6	4.8	16	0.88	0.76	0.51	0.42
15	0.12	10	8.8	e17	19	4.0	3.6	6.9	0.55	0.58	0.63	0.42
16	0.06	8.5	7.8	e13	15	3.6	3.1	3.0	0.34	0.39	1.1	0.57
17	0.04	7.6	7.0	e10	11	3.5	2.8	2.0	0.22	0.43	0.81	0.73
18	145	6.9	6.3	e8.5	8.6	3.4	2.7	1.5	0.19	0.32	0.75	0.75
19	157	72	5.5	e7.0	7.3	3.5	2.5	83	0.17	0.27	1.2	0.81
20	13	27	4.3	e6.1	9.3	3.3	2.2	200	0.17	0.24	1.5	1.1
21	6.5	17	4.6	e5.4	12	3.0	2.1	20	0.17	0.23	0.43	0.66
22	4.9	13	28	e4.7	9.6	3.1	2.6	11	0.18	1.7	0.50	0.59
23	5.7	11	e18	e4.2	7.5	5.4	3.8	12	0.17	0.40	0.46	0.53
24	12	34	e12	e3.9	7.1	5.1	2.5	6.4	0.17	0.29	0.40	0.47
25	7.9	27	e8.6	e3.5	5.9	4.6	1.9	4.0	0.19	0.25	0.52	0.58
26	6.2	16	e6.9	e3.2	5.3	4.2	7.1	2.7	0.22	0.25	0.71	1.3
27	54	15	e5.7	e3.0	4.8	25	7.1	2.2	0.22	0.26	0.42	0.93
28	17	20	e4.7	3.1	7.3	144	3.1	1.8	1.0	0.27	7.1	0.57
29	9.6	13	20	7.4	---	36	9.2	1.3	0.22	0.24	1.3	0.56
30	7.8	18	105	12	---	21	37	1.1	0.21	0.22	60	0.34
31	5.2	---	140	8.4	---	15	---	0.93	---	0.21	34	---
TOTAL	455.11	846.0	731.8	877.4	339.0	364.4	187.5	417.91	19.58	13.18	116.33	34.75
MEAN	14.7	28.2	23.6	28.3	12.1	11.8	6.25	13.5	0.65	0.43	3.75	1.16
MAX	157	204	140	130	31	144	37	200	2.6	1.7	60	8.0
MIN	0.04	3.8	4.3	3.0	4.8	3.0	1.9	0.93	0.17	0.21	0.23	0.34

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2005, BY WATER YEAR (WY)

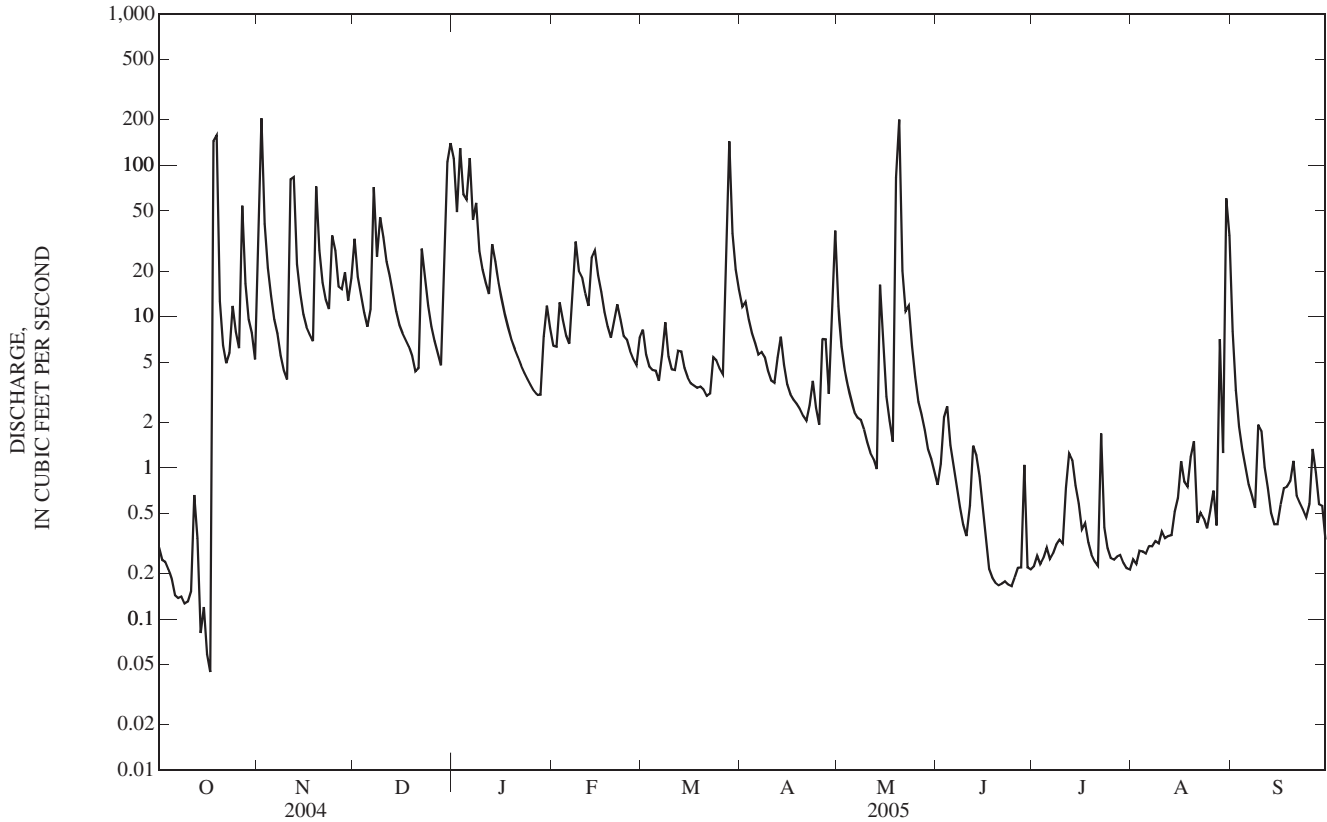
MEAN	5.21	9.71	13.1	15.8	14.2	13.1	13.1	14.9	5.65	1.61	2.80	3.64
MAX	14.7	28.2	23.6	28.3	24.7	30.6	35.9	28.9	14.9	5.22	8.60	14.1
(WY)	(2005)	(2005)	(2005)	(2005)	(2000)	(2002)	(2002)	(2002)	(1999)	(2004)	(2003)	(2003)
MIN	0.66	0.45	4.34	2.85	6.92	5.80	1.58	0.94	0.65	0.30	0.34	0.52
(WY)	(2000)	(2000)	(2000)	(2001)	(2002)	(2003)	(2001)	(2000)	(2005)	(2002)	(1999)	(2004)



03298300 PENNSYLVANIA RUN AT MOUNT WASHINGTON ROAD NEAR LOUISVILLE, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1999 - 2005	
ANNUAL TOTAL	5,281.22		4,402.96		9.39	
ANNUAL MEAN	14.4		12.1		13.7	
HIGHEST ANNUAL MEAN					2002	
LOWEST ANNUAL MEAN					2001	
HIGHEST DAILY MEAN	204	Nov 2	204	Nov 2	353	Feb 18, 2000
LOWEST DAILY MEAN	0.04	Oct 17	0.04	Oct 17	0.04	Oct 17, 2004
ANNUAL SEVEN-DAY MINIMUM	0.14	Oct 5	0.14	Oct 5	0.14	Oct 5, 2004
MAXIMUM PEAK FLOW			1,060	Oct 18	1,540	Jun 28, 1999
MAXIMUM PEAK STAGE			6.19	Oct 18	8.22	Jun 28, 1999
10 PERCENT EXCEEDS	34		27		21	
50 PERCENT EXCEEDS	5.5		4.0		2.5	
90 PERCENT EXCEEDS	0.52		0.25		0.42	

e Estimated



## 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<sup>2</sup>.

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 and crest-stage gage. 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 is a water-stage recorder with telemetry, 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 Shepherdsville 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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	1,030	5,980	12,000	2,120	1,690	4,160	3,760	228	75	45	1,230
2	65	e4,240	4,620	8,320	2,230	1,840	e4,720	2,420	229	69	43	553
3	65	e9,070	4,180	7,310	1,460	1,880	e5,520	3,450	255	66	41	325
4	64	e5,680	3,710	13,300	1,390	1,780	e4,090	3,250	272	66	38	221
5	65	e3,500	3,340	9,390	1,300	1,720	3,370	2,440	265	68	37	164
6	65	e2,410	3,070	13,500	1,210	1,630	3,290	1,540	230	65	36	134
7	67	e1,640	6,220	11,000	1,310	1,190	3,250	903	199	65	36	96
8	68	e1,100	6,380	9,980	4,130	1,710	3,470	724	173	63	38	93
9	68	e890	4,950	e9,100	3,230	1,620	3,190	650	153	62	45	90
10	67	e757	6,700	e7,100	2,880	2,060	1,830	594	167	61	39	106
11	68	e743	4,670	e6,100	2,580	2,150	1,330	561	283	62	38	89
12	79	e9,830	4,110	e5,860	2,310	2,170	1,240	499	244	78	36	65
13	103	e6,000	3,650	e6,940	2,660	2,140	1,460	411	220	106	36	50
14	126	e4,010	3,260	e12,300	4,520	1,740	1,340	474	184	150	37	58
15	142	e3,260	2,920	e7,190	4,280	1,140	1,480	912	180	118	37	65
16	146	e2,880	1,330	e5,800	3,740	940	1,390	658	185	127	43	66
17	129	e2,700	1,050	e5,180	3,140	862	815	474	149	122	69	59
18	189	e2,570	999	e4,810	2,770	809	665	372	124	124	125	66
19	e1,550	e3,030	910	e4,550	2,220	760	641	456	115	111	84	65
20	3,110	e3,490	770	e4,300	1,820	890	627	15,600	106	116	70	70
21	2,470	e3,590	704	e4,200	1,710	803	620	10,200	99	179	61	97
22	2,300	e2,940	1,050	e4,120	1,810	730	609	3,510	95	153	67	89
23	2,100	e2,320	5,030	3,140	2,160	858	857	3,220	95	181	63	70
24	2,440	e2,690	2,890	2,980	2,110	1,100	1,240	2,830	92	123	53	68
25	2,740	e4,260	3,440	3,050	1,740	1,010	1,060	2,070	89	91	47	69
26	2,380	e2,970	3,160	3,090	1,600	947	1,360	985	85	74	52	74
27	3,950	e2,300	2,840	3,870	1,370	2,280	1,980	600	80	64	58	82
28	3,820	e2,650	2,680	3,670	1,110	17,700	1,400	456	76	56	177	81
29	2,890	e2,300	3,030	3,320	---	14,500	1,360	372	76	53	345	77
30	2,430	e2,880	6,320	2,790	---	5,570	5,060	326	74	50	1,220	77
31	1,120	---	13,200	2,760	---	4,390	---	275	---	48	2,920	---
TOTAL	34,941	97,730	117,163	201,020	64,910	80,609	63,424	64,992	4,822	2,846	6,036	4,449
MEAN	1,127	3,258	3,779	6,485	2,318	2,600	2,114	2,097	161	91.8	195	148
MAX	3,950	9,830	13,200	13,500	4,520	17,700	5,520	15,600	283	181	2,920	1,230
MIN	64	743	704	2,760	1,110	730	609	275	74	48	36	50

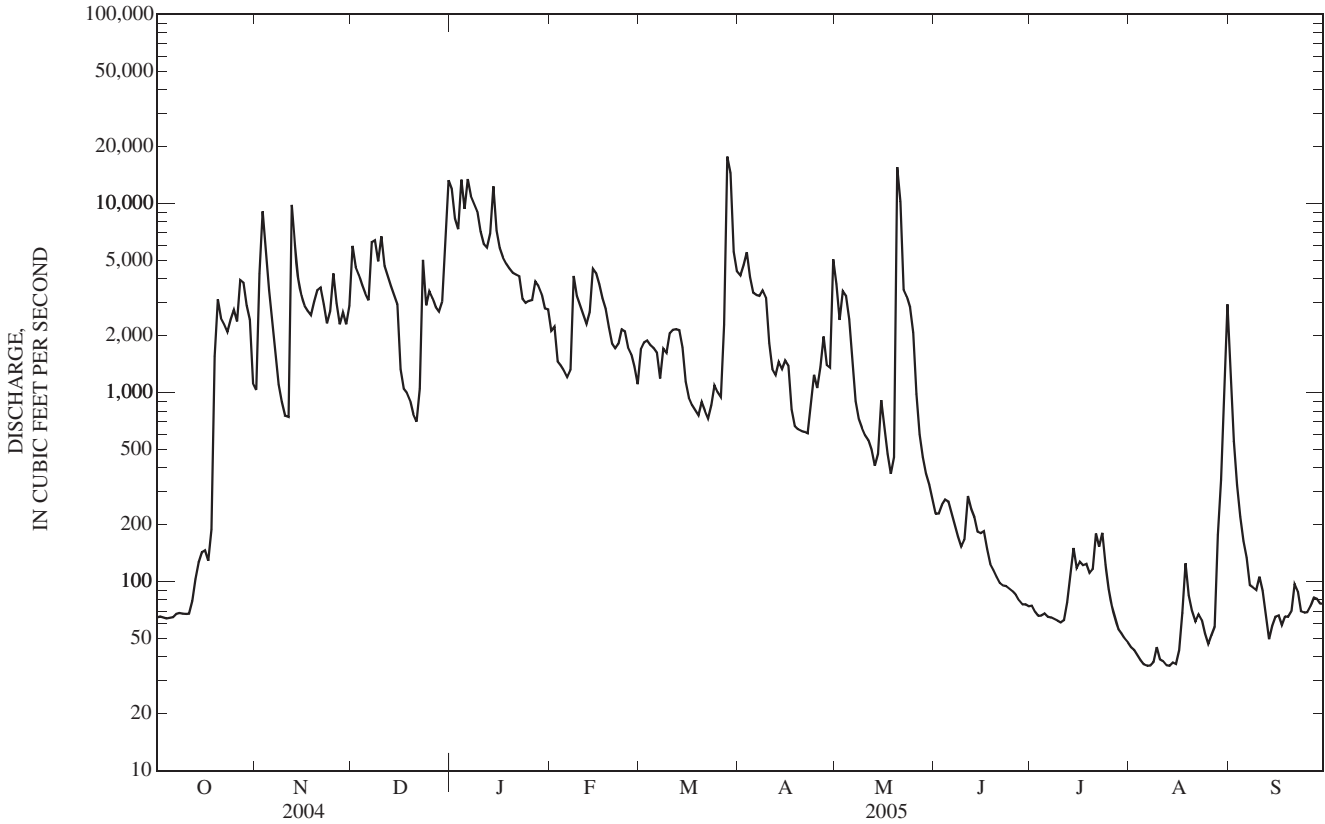
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2005, BY WATER YEAR (WY)

MEAN	365	1,163	2,172	2,718	3,560	3,190	2,118	2,078	1,462	550	312	342
MAX	1,698	3,258	6,329	6,485	12,370	11,410	3,683	5,768	5,192	1,976	1,052	2,949
(WY)	(2003)	(2005)	(1991)	(2005)	(1989)	(1997)	(2002)	(1995)	(1997)	(1998)	(2003)	(2003)
MIN	25.9	48.1	258	335	996	1,113	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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1984 - 2005	
ANNUAL TOTAL	879,720		742,942		1,659	
ANNUAL MEAN	2,404		2,035		772	
HIGHEST ANNUAL MEAN					2,809 1997	
LOWEST ANNUAL MEAN					772 2001	
HIGHEST DAILY MEAN	15,900	May 31	17,700	Mar 28	65,600	Mar 2, 1997
LOWEST DAILY MEAN	64	Oct 4	36	Aug 6	7.7	Jul 1, 1988
ANNUAL SEVEN-DAY MINIMUM	65	Oct 1	38	Aug 10	9.3	Jun 26, 1988
MAXIMUM PEAK FLOW			21,200	Mar 28	78,200	Mar 10, 1964
MAXIMUM PEAK STAGE			20.34	Jan 14	41.50	Mar 11, 1964
INSTANTANEOUS LOW FLOW					73	Sep 29, 2004
10 PERCENT EXCEEDS	5,130		4,870		4,140	
50 PERCENT EXCEEDS	1,820		1,050		562	
90 PERCENT EXCEEDS	139		65		47	

e Estimated



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<sup>2</sup>.

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 (from topographic map).

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<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar 28	0000	993	6.64	May 19	2300	*1,290	*7.58

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	6.1	54	95	6.1	21	12	21	0.67	0.40	0.02	1.8
2	0.87	52	13	43	4.9	9.9	31	10	1.3	0.44	0.08	0.34
3	0.93	13	8.7	58	7.3	7.4	22	5.6	1.5	0.44	0.25	0.20
4	0.65	3.6	4.2	73	6.4	6.4	12	4.0	1.3	0.44	0.06	0.16
5	0.26	1.8	3.3	60	5.0	5.5	9.6	3.1	0.63	0.28	0.03	0.19
6	0.17	1.2	7.0	120	5.2	5.3	9.3	3.5	0.43	0.47	0.06	0.22
7	0.27	0.82	115	62	3.9	4.5	9.4	3.1	0.35	1.2	0.05	0.27
8	0.33	0.58	24	98	35	14	19	2.4	0.31	1.6	0.03	0.31
9	0.39	0.31	54	32	16	8.2	9.9	1.4	0.30	1.3	0.02	0.33
10	0.40	0.37	37	18	11	6.6	8.7	1.3	0.30	0.17	0.02	0.29
11	0.34	83	22	13	8.7	6.1	8.6	1.3	0.37	0.73	0.02	0.19
12	0.51	55	17	11	7.7	8.2	9.4	1.0	0.37	1.2	0.02	0.19
13	0.88	8.7	11	39	60	10	37	0.96	0.37	1.3	0.02	0.21
14	1.3	4.1	7.4	36	51	7.0	22	2.0	0.37	1.2	0.03	0.31
15	1.7	2.2	3.2	15	26	5.5	13	1.6	0.36	1.4	0.03	0.31
16	1.1	2.0	3.7	12	14	4.9	7.4	1.2	0.33	1.9	0.11	0.33
17	0.62	2.1	3.7	7.8	9.4	4.4	5.2	0.96	0.24	1.5	0.22	0.33
18	1.8	0.54	3.2	6.1	7.5	3.1	4.3	1.1	0.27	1.4	0.17	0.34
19	4.1	60	2.7	5.2	5.6	4.0	3.6	67	0.26	0.92	0.15	0.37
20	1.7	14	2.6	5.1	7.7	6.2	4.7	104	0.26	0.22	0.56	0.27
21	2.1	6.5	3.4	4.4	28	4.7	3.7	11	0.26	0.18	0.29	0.24
22	0.79	3.7	10	3.8	22	4.3	5.4	6.7	0.27	0.41	0.24	0.13
23	1.8	3.7	e12	2.8	11	10	13	5.2	0.21	0.17	0.02	0.14
24	2.7	28	e15	2.5	9.5	11	6.1	2.9	0.15	0.16	0.03	0.13
25	2.8	15	13	1.9	7.9	9.4	2.9	3.4	0.27	0.16	0.09	0.15
26	1.7	7.5	8.7	1.7	6.0	6.9	8.6	2.5	0.28	0.18	0.04	0.22
27	21	6.2	6.0	0.89	5.4	152	16	1.9	0.30	0.18	0.05	0.19
28	2.7	14	2.8	0.45	24	251	6.2	1.1	0.41	0.20	5.7	0.20
29	0.45	7.6	41	5.4	---	49	45	0.66	0.29	0.16	1.5	0.21
30	0.94	33	159	20	---	24	112	0.47	0.25	0.03	110	0.19
31	2.1	---	139	9.8	---	14	---	0.46	---	0.02	35	---
TOTAL	59.00	436.62	806.6	862.84	412.2	684.5	477.0	272.81	12.98	20.36	154.91	8.76
MEAN	1.90	14.6	26.0	27.8	14.7	22.1	15.9	8.80	0.43	0.66	5.00	0.29
MAX	21	83	159	120	60	251	112	104	1.5	1.9	110	1.8
MIN	0.17	0.31	2.6	0.45	3.9	3.1	2.9	0.46	0.15	0.02	0.02	0.13

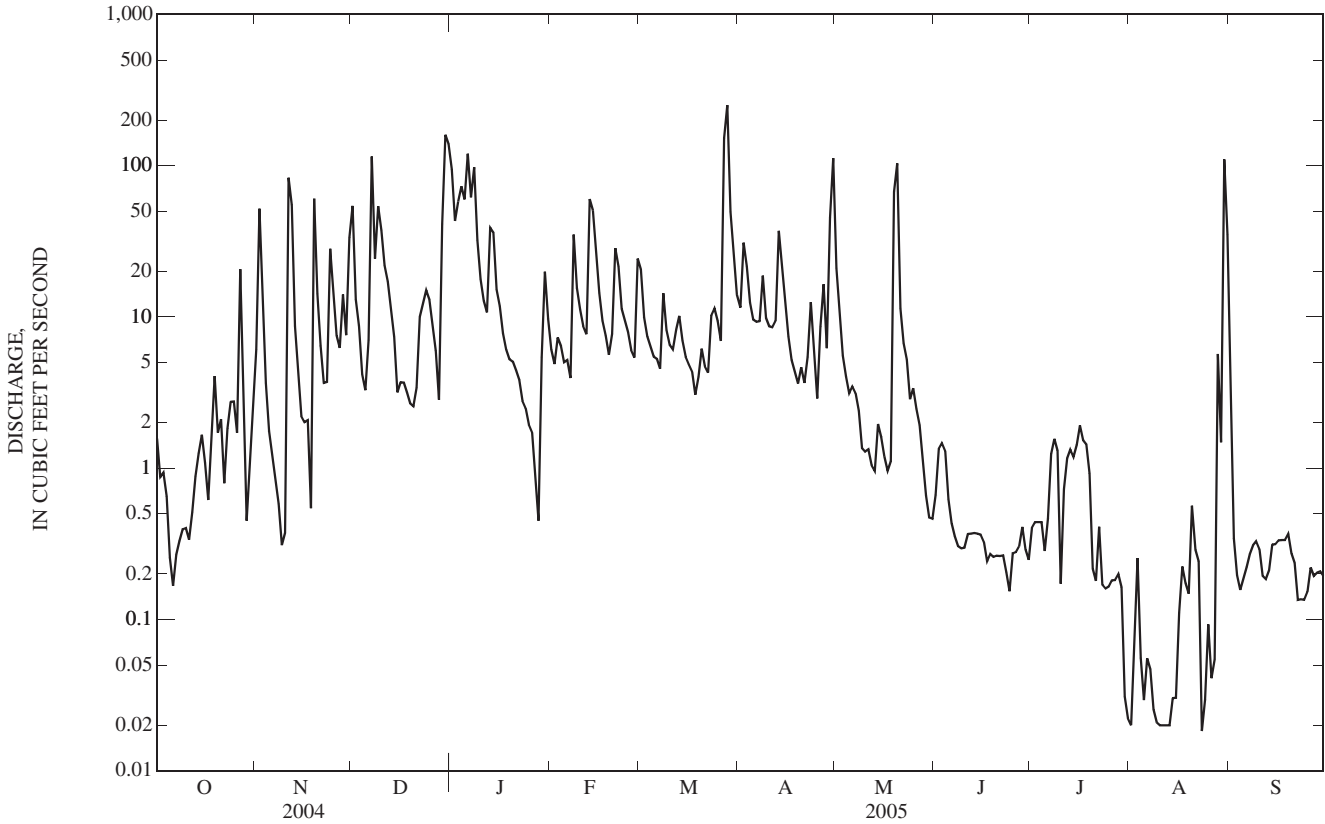
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2005, BY WATER YEAR (WY)

MEAN	2.12	5.38	10.1	17.1	18.1	27.2	19.1	17.7	8.40	1.32	1.78	1.90
MAX	7.37	14.6	26.0	29.2	37.1	101	42.2	47.2	35.0	4.59	9.21	11.9
(WY)	(2003)	(2005)	(2005)	(1996)	(2003)	(1997)	(1998)	(1995)	(1997)	(2004)	(1995)	(2003)
MIN	0.10	0.68	0.83	1.79	6.43	10.0	2.40	1.34	0.05	0.04	0.06	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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1992 - 2005	
ANNUAL TOTAL	4,723.78		4,208.58		11.0	
ANNUAL MEAN	12.9		11.5		19.1	
HIGHEST ANNUAL MEAN					3.59	
LOWEST ANNUAL MEAN					1997	
HIGHEST DAILY MEAN	173	May 31	251	Mar 28	680	Mar 1, 1997
LOWEST DAILY MEAN	0.17	Oct 6	0.02	Jul 31	0.00	Nov 13, 2001
ANNUAL SEVEN-DAY MINIMUM	0.31	Oct 5	0.02	Aug 8	0.01	Aug 20, 1999
MAXIMUM PEAK FLOW			1,290	May 19	2,820	May 6, 2002
MAXIMUM PEAK STAGE			7.58	May 19	11.44	May 6, 2002
INSTANTANEOUS LOW FLOW					0.01	Sep 26, 2003
10 PERCENT EXCEEDS	36		31		24	
50 PERCENT EXCEEDS	3.7		2.8		1.6	
90 PERCENT EXCEEDS	0.68		0.18		0.12	

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<sup>2</sup>.

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<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec 1	1245	10,600	17.53	Jan 8	1530	9080	16.75
Dec 7	2315	10,200	17.33	Mar 28	1715	*12,000	*18.20
Dec 23	1730	11,100	17.78				

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	1,230	9,090	890	551	1,040	574	2,930	71	18	e18	881
2	16	3,430	4,020	1,010	435	712	2,050	900	64	31	e15	349
3	15	3,630	1,190	1,060	411	505	2,160	549	63	38	e12	185
4	13	3,050	743	1,430	447	448	1,070	416	75	27	e8.9	107
5	11	3,880	551	2,350	414	421	716	342	71	26	e6.7	67
6	e10	1,110	774	3,940	374	390	563	295	65	22	e4.8	44
7	e9.4	611	5,900	3,650	351	364	545	260	58	20	e3.6	30
8	e8.0	439	5,390	7,270	394	2,880	684	233	52	19	e2.9	22
9	e5.9	336	1,410	3,710	503	2,160	603	207	55	19	e2.2	16
10	e3.9	273	1,460	1,330	497	856	458	187	41	18	e1.6	12
11	2.7	341	1,380	902	493	633	375	169	65	18	e1.3	8.8
12	4.4	3,970	1,230	726	469	551	348	151	368	18	e1.0	7.3
13	8.8	1,760	875	866	729	517	498	134	176	18	e0.71	6.5
14	36	726	635	2,870	2,480	447	579	130	120	18	e0.54	5.5
15	78	470	494	1,480	1,640	392	441	531	111	20	e0.41	4.2
16	101	371	420	875	997	360	356	398	89	20	e0.31	3.0
17	75	315	379	670	711	338	310	243	97	26	e0.19	2.8
18	62	280	338	525	560	318	280	168	69	28	0.28	2.4
19	2,350	337	307	467	472	301	259	155	47	31	0.31	1.9
20	e1,050	577	274	425	438	292	239	4,470	37	46	0.31	1.6
21	e450	415	241	388	858	279	221	1,590	32	37	0.33	1.5
22	e250	327	819	352	1,300	257	209	523	29	34	0.35	1.5
23	202	289	9,160	e285	793	256	222	371	26	43	0.35	1.4
24	e226	598	5,090	e239	600	293	224	319	25	38	0.41	1.2
25	e310	1,400	1,080	241	519	298	212	252	23	50	0.79	1.0
26	354	1,050	672	242	451	261	199	190	22	37	1.6	0.99
27	1,650	624	e517	238	398	1,080	322	154	21	32	2.7	0.93
28	2,560	571	e442	211	437	9,540	341	130	20	31	7.2	0.86
29	875	597	488	247	---	4,180	406	112	19	26	33	0.86
30	507	1,250	902	1,070	---	1,170	5,280	96	18	22	244	0.83
31	409	---	663	950	---	749	---	82	---	20	1,920	---
TOTAL	11,672.1	34,257	56,934	40,909	18,722	32,288	20,744	16,687	2,029	851	2,291.79	1,768.07
MEAN	377	1,142	1,837	1,320	669	1,042	691	538	67.6	27.5	73.9	58.9
MAX	2,560	3,970	9,160	7,270	2,480	9,540	5,280	4,470	368	50	1,920	881
MIN	2.7	273	241	211	351	256	199	82	18	18	0.19	0.83
CFSM	0.86	2.62	4.21	3.03	1.53	2.39	1.59	1.23	0.16	0.06	0.17	0.14
IN.	1.00	2.92	4.86	3.49	1.60	2.75	1.77	1.42	0.17	0.07	0.20	0.15

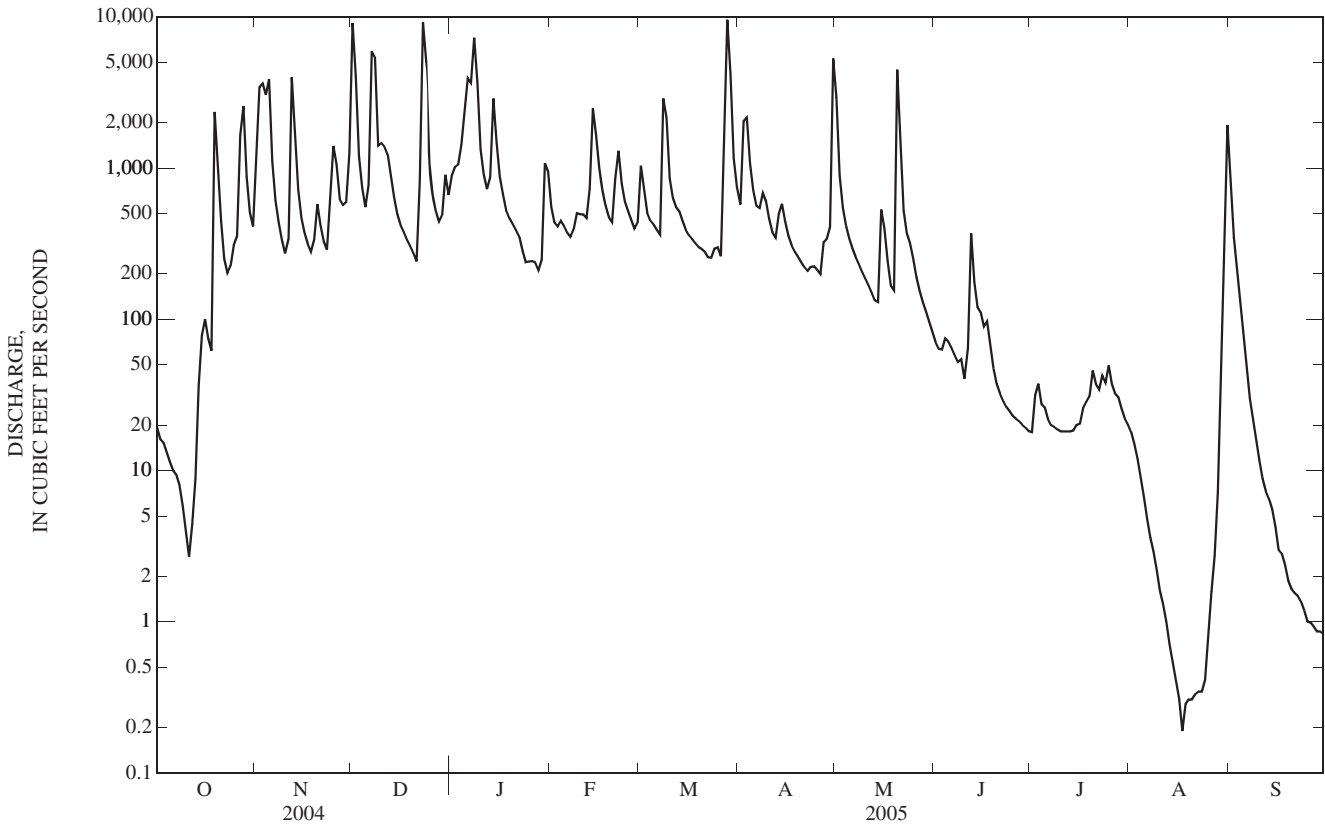
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 2005, BY WATER YEAR (WY)

MEAN	180	536	1,022	951	1,171	1,214	744	740	484	193	173	250
MAX	1,042	1,699	3,691	2,461	5,071	4,663	2,022	2,359	2,499	764	939	2,284
(WY)	(1976)	(1989)	(1979)	(1974)	(1989)	(1997)	(1979)	(1995)	(1997)	(1998)	(1978)	(1979)
MIN	0.01	0.06	37.2	16.2	203	134	103	43.6	3.32	2.45	0.87	0.02
(WY)	(1988)	(2000)	(2000)	(1981)	(1980)	(1983)	(1986)	(1976)	(1988)	(1975)	(1986)	(1999)

03300400 BEECH FORK AT MAUD, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1973 - 2005	
ANNUAL TOTAL	325,801.1		239,152.96		636	
ANNUAL MEAN	890		655		1,243	
HIGHEST ANNUAL MEAN					1979	
LOWEST ANNUAL MEAN					256	
HIGHEST DAILY MEAN	12,500	May 31	9,540	Mar 28	39,800	Mar 2, 1997
LOWEST DAILY MEAN	2.7	Oct 11	0.19	Aug 17	0.00	Oct 8, 1983
ANNUAL SEVEN-DAY MINIMUM	6.2	Oct 7	0.30	Aug 16	0.00	Oct 23, 1987
MAXIMUM PEAK FLOW			12,000	Mar 28	41,500	Mar 2, 1997
MAXIMUM PEAK STAGE			18.20	Mar 28	27.60	Mar 2, 1997
ANNUAL RUNOFF (CFSM)	2.04		1.50		1.46	
ANNUAL RUNOFF (INCHES)	27.80		20.40		19.80	
10 PERCENT EXCEEDS	2,490		1,440		1,380	
50 PERCENT EXCEEDS	315		292		172	
90 PERCENT EXCEEDS	37		3.4		4.2	

e Estimated



## 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<sup>2</sup>.

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 current year.

REVISIONS.--WSP 1705: Drainage area.

GAGE.--Water-stage recorder with telemetry and crest-stage gage. 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 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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e29	e1,880	10,200	1,230	901	1,370	1,040	4,640	91	12	14	1,510
2	e28	e5,250	5,970	1,910	665	1,220	2,640	1,810	80	12	11	587
3	e27	e5,550	2,590	1,890	625	837	3,640	896	74	14	8.4	314
4	e26	3,420	1,260	2,520	622	711	1,990	658	77	17	6.3	e178
5	e25	5,020	853	3,760	610	625	1,190	544	78	26	12	103
6	e22	2,290	1,440	6,200	556	567	894	462	72	26	9.9	73
7	e18	923	8,540	6,240	518	646	810	395	62	21	6.2	e56
8	e14	618	7,530	9,960	615	4,140	1,760	349	67	19	11	48
9	e11	476	3,190	6,070	744	3,750	959	312	118	16	10	45
10	e8.0	392	2,580	2,850	768	1,590	793	280	93	14	12	40
11	e4.1	559	2,480	1,680	742	1,030	576	251	73	13	6.8	35
12	e6.8	5,300	2,080	1,230	700	869	574	185	162	e12	3.9	29
13	e14	3,270	1,510	e1,330	1,310	772	751	190	296	15	1.6	26
14	e72	1,340	1,030	e4,400	3,600	683	854	227	180	31	1.3	19
15	e138	727	e758	3,020	3,010	600	697	e475	153	e37	4.1	15
16	110	543	e644	1,640	1,810	552	568	644	127	35	2.2	14
17	104	455	590	1,140	1,200	520	497	401	87	31	3.7	15
18	98	401	529	842	920	491	444	277	82	28	3.8	15
19	948	449	491	717	765	465	399	251	67	30	4.0	17
20	2,550	672	e420	660	725	454	367	4,030	52	32	4.2	15
21	691	608	e370	600	1,300	428	310	3,200	46	35	4.2	14
22	400	470	e1,260	538	1,910	400	318	847	47	36	4.3	11
23	290	426	e14,100	463	1,360	450	377	554	42	38	5.0	9.7
24	312	918	e7,810	379	975	450	344	449	28	35	2.8	9.1
25	444	1,980	e1,760	404	781	467	315	360	25	32	1.9	8.6
26	479	1,710	e1,030	410	711	422	299	287	22	31	2.0	11
27	1,330	1,000	e810	378	635	1,600	382	223	19	25	2.7	12
28	3,560	921	e694	328	756	13,500	489	173	17	23	47	8.6
29	e1,320	824	e749	445	---	6,980	656	137	14	20	43	8.1
30	e761	1,700	1,830	1,160	---	2,720	6,790	116	13	19	600	7.9
31	e614	---	1,410	1,650	---	1,380	---	102	---	16	2,190	---
TOTAL	14,453.9	50,092	86,508	66,044	29,834	50,689	31,723	23,725	2,364	751	3,039.3	3,254.0
MEAN	466	1,670	2,791	2,130	1,066	1,635	1,057	765	78.8	24.2	98.0	108
MAX	3,560	5,550	14,100	9,960	3,600	13,500	6,790	4,640	296	38	2,190	1,510
MIN	4.1	392	370	328	518	400	299	102	13	12	1.3	7.9

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2005, BY WATER YEAR (WY)

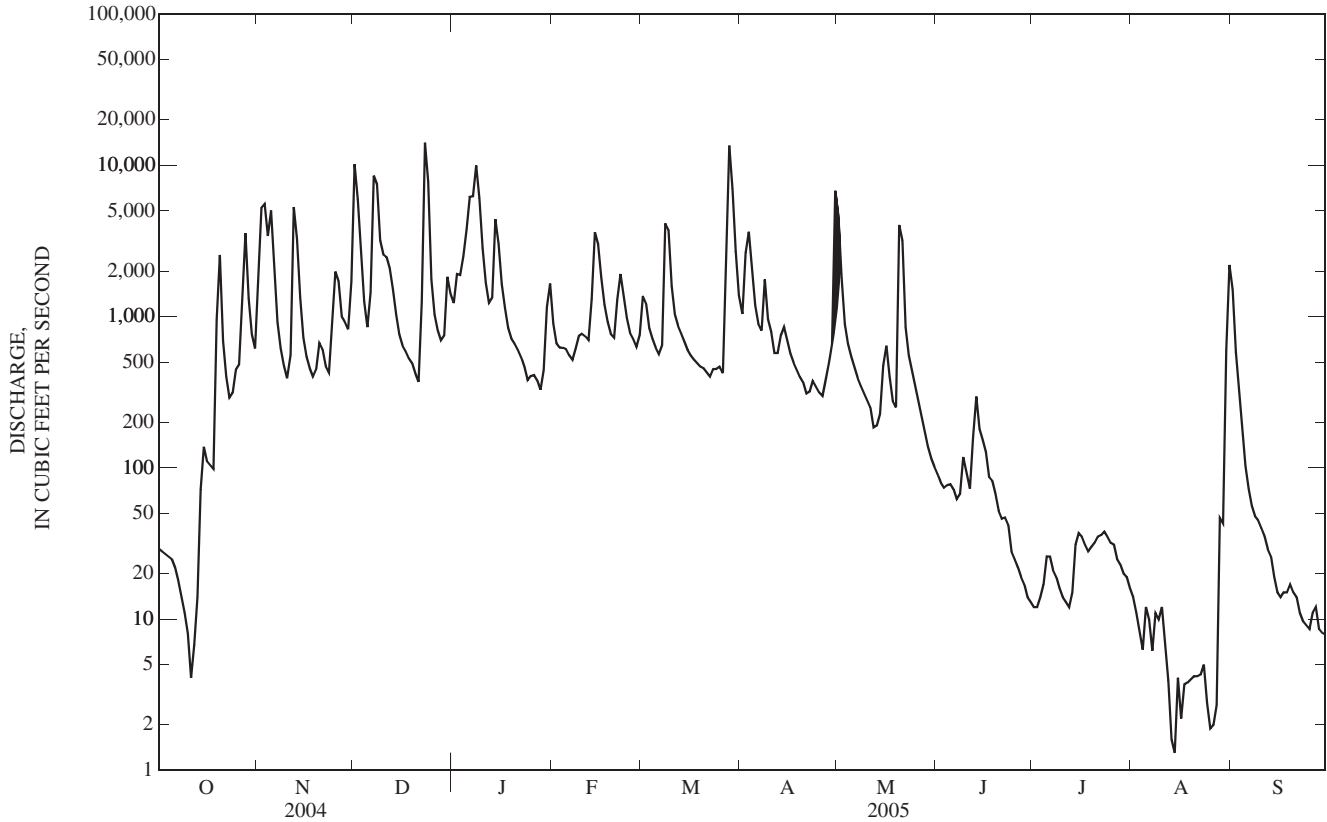
MEAN	144	604	1,166	1,622	1,821	1,949	1,360	972	581	449	216	217
MAX	1,973	2,682	3,631	7,384	5,269	6,277	6,321	3,372	2,565	2,946	1,115	2,206
(WY)	(1963)	(1958)	(1952)	(1950)	(1956)	(1964)	(1972)	(1967)	(1998)	(1958)	(1974)	(1974)
MIN	0.27	0.70	1.40	42.7	123	153	145	46.1	22.2	1.36	3.44	0.39
(WY)	(1954)	(1964)	(1944)	(1944)	(1954)	(1941)	(1963)	(1941)	(1948)	(1954)	(1999)	(1953)



03301000 BEECH FORK AT BARDSTOWN, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1940 - 2005	
ANNUAL TOTAL	487,734.9		362,477.2		933	
ANNUAL MEAN	1,333		993		1,733	
HIGHEST ANNUAL MEAN					245	1941
LOWEST ANNUAL MEAN					32,200	Mar 5, 1964
HIGHEST DAILY MEAN	17,000	May 31	14,100	Dec 23	0.00	Sep 29, 1948
LOWEST DAILY MEAN	4.1	Oct 11	1.3	Aug 14	0.03	Sep 28, 1948
ANNUAL SEVEN-DAY MINIMUM	11	Oct 7	2.9	Aug 12	0.03	Sep 28, 1948
MAXIMUM PEAK FLOW			15,000		33,900	Mar 5, 1964
MAXIMUM PEAK STAGE			27.34		43.50	Mar 5, 1964
10 PERCENT EXCEEDS	3,580		2,580		2,160	
50 PERCENT EXCEEDS	494		449		219	
90 PERCENT EXCEEDS	101		12		6.2	

e Estimated



## 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<sup>2</sup>.

PERIOD OF RECORD.--May 1938 to current year.

REVISED RECORDS.--WSP 1705: Drainage area.

GAGE.--Water-stage recorder with telemetry and crest-stage gage. 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 Auxiliary gage (Rolling Fork at Lebanon Junction) 385.06 ft above sea level.

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

COOPERATION.--U.S. Army Corps 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<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan 9	1845	16,500	35.79	Mar 29	1645	*16,800	*36.07

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	103	1,320	9,080	2,980	1,990	2,190	2,960	9,930	200	40	e50	2,950
2	94	4,340	13,700	2,960	1,520	2,450	4,320	7,550	188	33	e45	1,360
3	87	6,450	11,200	3,080	1,390	1,870	7,520	2,580	177	27	e40	688
4	80	4,880	4,020	3,650	1,370	1,570	6,040	1,750	173	24	e37	398
5	73	6,240	2,230	5,790	1,340	1,470	3,880	1,340	172	24	e33	254
6	66	5,690	2,250	8,470	1,240	1,440	3,260	1,060	173	33	e29	182
7	62	2,130	7,260	11,800	1,150	1,410	2,870	886	159	41	e27	136
8	58	1,450	14,500	14,000	1,240	4,050	3,110	765	139	42	e26	108
9	54	e1,090	13,200	16,100	1,490	7,920	2,590	667	173	35	e25	90
10	52	e938	6,720	14,900	1,590	4,830	1,910	595	267	29	e23	76
11	47	967	5,010	6,700	1,500	2,500	1,500	527	236	32	e22	64
12	44	5,370	3,860	1,280	1,420	2,070	1,310	443	240	44	e21	54
13	54	6,230	3,030	714	1,720	1,800	1,600	405	412	45	e21	45
14	77	2,940	2,380	7,310	4,450	1,560	1,830	503	309	e62	e22	39
15	125	1,670	1,880	8,770	5,660	1,340	1,700	774	275	e97	e22	32
16	e158	1,240	1,530	4,510	3,850	1,190	1,360	916	257	e96	e21	27
17	e189	1,010	1,310	1,840	2,600	1,100	1,150	694	214	e100	e24	25
18	e245	870	1,170	516	2,030	1,020	998	527	166	e132	e28	22
19	321	934	1,060	230	1,700	953	887	422	169	e166	e25	23
20	2,710	1,130	934	638	1,520	911	796	3,650	142	e240	23	23
21	1,480	1,220	832	1,700	2,090	856	714	5,280	114	e420	21	23
22	781	971	4,770	2,160	3,670	811	658	2,030	97	e420	20	23
23	532	851	10,600	1,270	3,640	978	758	1,070	84	e270	20	22
24	453	1,230	14,100	937	2,380	1,140	699	781	72	e224	19	19
25	570	2,470	12,400	872	1,910	1,020	632	621	63	e205	19	18
26	835	2,870	3,930	867	1,630	968	584	508	57	e160	19	18
27	980	2,150	2,080	836	1,420	2,430	665	405	50	e108	19	17
28	3,290	1,850	1,680	745	1,450	12,300	835	333	44	e98	31	16
29	3,210	1,720	1,950	771	---	16,300	1,040	284	42	e91	98	16
30	1,550	1,760	3,910	1,540	---	13,400	6,170	247	41	e58	1,350	15
31	1,080	---	4,330	2,520	---	5,390	---	220	---	e58	4,230	---
TOTAL	19,460	73,981	166,906	130,456	58,960	99,237	64,346	47,763	4,905	3,454	6,410	6,783
MEAN	628	2,466	5,384	4,208	2,106	3,201	2,145	1,541	164	111	207	226
MAX	3,290	6,450	14,500	16,100	5,660	16,300	7,520	9,930	412	420	4,230	2,950
MIN	44	851	832	230	1,150	811	584	220	41	24	19	15
CFSM	0.48	1.90	4.14	3.24	1.62	2.46	1.65	1.19	0.13	0.09	0.16	0.17
IN.	0.56	2.12	4.78	3.74	1.69	2.84	1.84	1.37	0.14	0.10	0.18	0.19

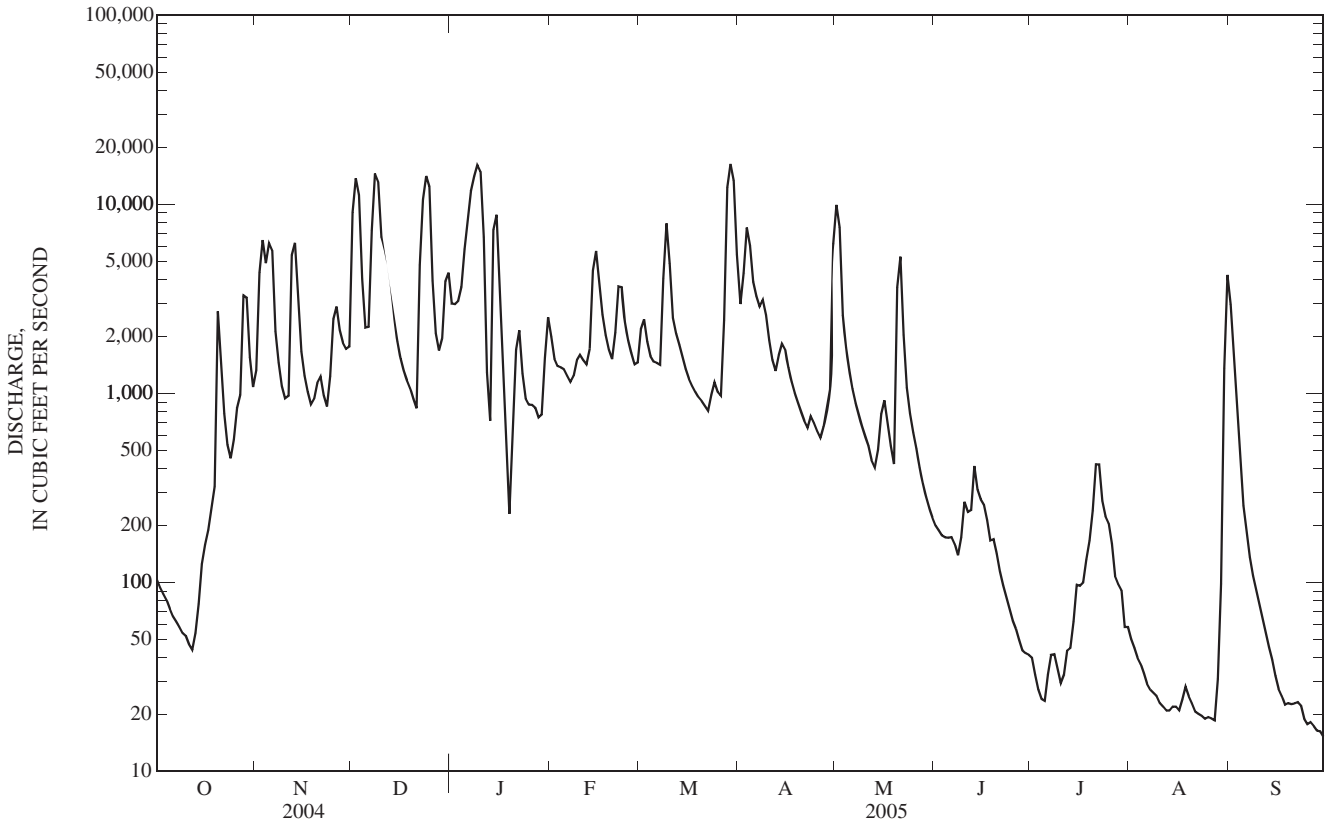
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2005, BY WATER YEAR (WY)

MEAN	330	1,086	2,407	2,977	3,741	3,817	2,750	1,991	1,159	719	422	486
MAX	2,778	5,310	11,050	13,420	16,320	13,540	11,350	11,810	6,865	5,339	2,806	8,265
(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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1939 - 2005	
ANNUAL TOTAL	920,098		682,661		1,814	
ANNUAL MEAN	2,514		1,870		473	
HIGHEST ANNUAL MEAN					4,268	1979
LOWEST ANNUAL MEAN					473	1941
HIGHEST DAILY MEAN	22,400	May 29	16,300	Mar 29	68,400	Mar 4, 1997
LOWEST DAILY MEAN	44	Oct 12	15	Sep 30	0.40	Oct 20, 1939
ANNUAL SEVEN-DAY MINIMUM	53	Oct 7	17	Sep 24	0.40	Oct 3, 1953
MAXIMUM PEAK FLOW			16,800	Mar 29	69,800	Mar 3, 1997
MAXIMUM PEAK STAGE			36.07	Mar 29	53.22	Mar 3, 1997
INSTANTANEOUS LOW FLOW					0.40	Oct 20, 1939
ANNUAL RUNOFF (CFSM)	1.94		1.44		1.40	
ANNUAL RUNOFF (INCHES)	26.35		19.55		18.98	
10 PERCENT EXCEEDS	6,570		5,120		4,820	
50 PERCENT EXCEEDS	1,080		870		514	
90 PERCENT EXCEEDS	184		27		27	

e Estimated



## 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<sup>2</sup>.

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

GAGE.--Water-stage recorder with telemetry. Elevation of gage is 433.67 ft above NGVD of 1929.

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

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

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	26	205	424	42	87	97	108	14	5.9	5.0	100
2	2.3	261	89	273	38	60	130	71	15	5.4	4.7	40
3	2.3	101	61	218	42	52	105	53	23	5.2	4.7	25
4	2.2	35	45	259	39	48	83	42	20	5.0	4.3	18
5	2.1	20	35	267	36	45	70	36	15	5.1	4.6	15
6	2.0	14	44	457	34	38	60	31	13	5.3	4.5	13
7	2.1	11	290	273	40	39	60	27	12	5.3	4.4	11
8	2.2	7.6	125	433	102	61	61	24	11	7.1	4.5	11
9	2.3	5.9	224	195	78	44	51	22	11	6.6	4.3	9.5
10	2.3	5.4	186	132	67	40	44	20	10	5.1	4.3	8.7
11	2.4	226	122	103	56	40	40	18	11	8.6	3.9	8.0
12	2.7	333	90	85	51	41	45	17	21	50	4.4	7.6
13	4.3	90	68	147	135	37	96	15	18	25	4.2	7.1
14	4.0	50	49	201	187	32	64	27	16	25	4.3	6.9
15	3.8	34	40	116	128	29	52	38	22	17	6.1	6.3
16	3.6	27	36	91	96	28	45	20	14	31	7.2	6.0
17	3.4	22	32	71	73	27	39	17	11	20	6.7	7.4
18	7.1	20	28	57	59	26	35	15	10	18	6.5	6.7
19	20	157	24	53	50	26	32	57	9.1	12	11	6.2
20	6.6	84	23	48	65	24	28	609	8.6	11	7.0	7.0
21	4.0	51	21	42	109	23	26	139	8.0	10	11	6.7
22	3.3	37	64	37	77	24	27	74	8.3	39	6.8	6.1
23	4.7	32	e85	30	63	53	29	51	8.1	21	5.1	6.0
24	17	113	e55	28	59	51	23	37	7.1	13	4.6	5.7
25	6.1	87	e40	26	50	42	21	29	6.9	11	4.4	6.2
26	4.1	53	e32	26	44	38	28	25	6.0	9.2	8.4	11
27	37	42	e28	22	40	434	40	21	6.1	8.4	11	9.6
28	12	54	e26	20	75	1,640	26	19	8.5	6.8	8.2	7.0
29	6.7	39	78	33	---	452	79	17	6.5	6.3	31	7.0
30	4.8	80	384	68	---	218	305	15	6.4	6.3	551	6.4
31	4.5	---	571	50	---	143	---	14	---	5.2	302	---
TOTAL	184.0	2,117.9	3,200	4,285	1,935	3,942	1,841	1,708	356.6	409.8	1,050.1	392.1
MEAN	5.94	70.6	103	138	69.1	127	61.4	55.1	11.9	13.2	33.9	13.1
MAX	37	333	571	457	187	1,640	305	609	23	50	551	100
MIN	2.0	5.4	21	20	34	23	21	14	6.0	5.0	3.9	5.7

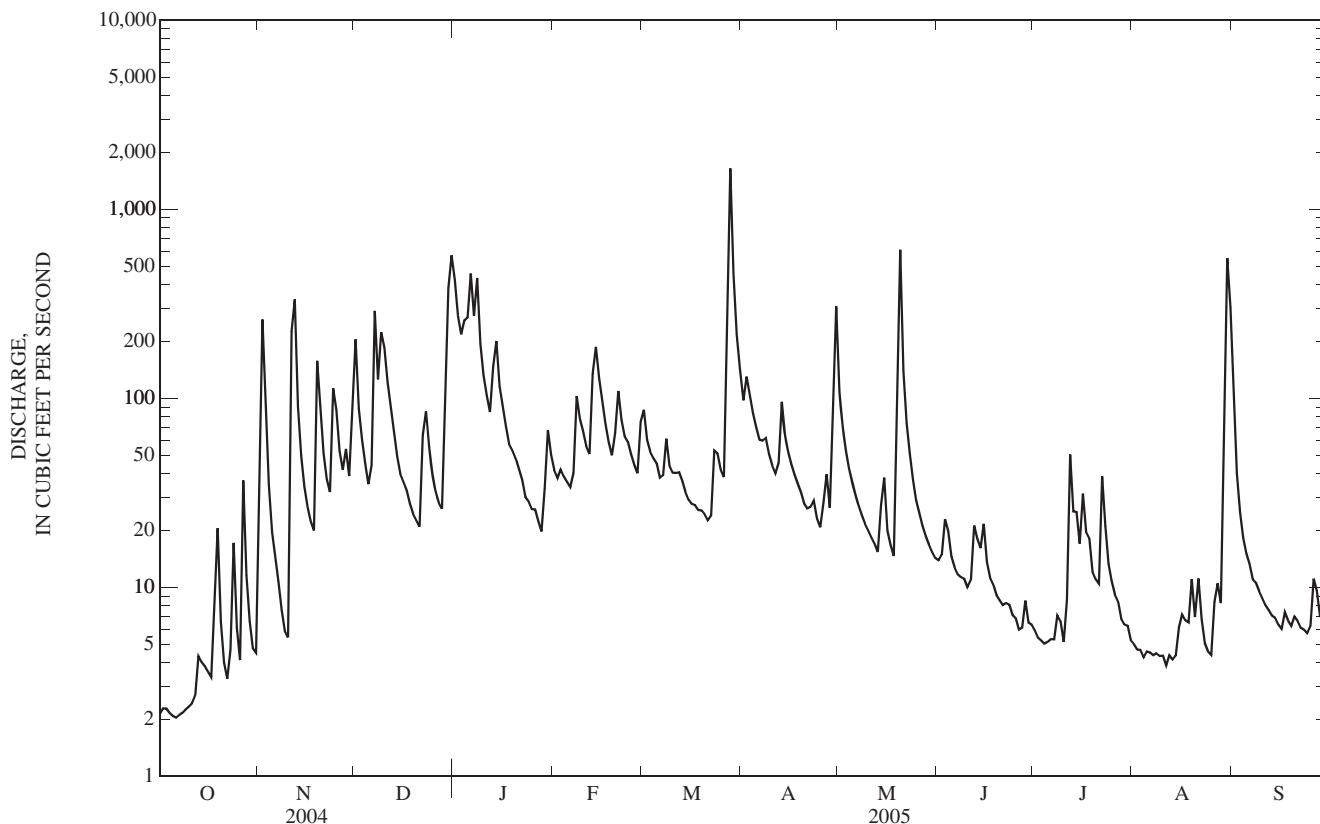
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2005, BY WATER YEAR (WY)

MEAN	22.9	48.6	80.6	88.4	99.5	106	94.9	111	26.3	16.1	15.5	25.2
MAX	65.5	90.6	136	138	189	280	207	226	62.0	28.7	33.9	66.7
(WY)	(2003)	(2002)	(2003)	(2005)	(2003)	(2002)	(2002)	(2002)	(2003)	(2004)	(2005)	(2003)
MIN	5.94	4.67	26.4	21.1	50.2	54.6	29.4	16.2	9.16	4.56	3.28	2.95
(WY)	(2005)	(2000)	(1999)	(2001)	(2002)	(2003)	(2001)	(2001)	(2001)	(1999)	(1999)	(2004)

03301700 MILL CREEK NEAR FORT KNOX, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1999 - 2005	
ANNUAL TOTAL	25,352.2		21,421.5		61.1	
ANNUAL MEAN	69.3		58.7		31.6	
HIGHEST ANNUAL MEAN					99.9	2002
LOWEST ANNUAL MEAN					31.6	2001
HIGHEST DAILY MEAN	1,100	May 27	1,640	Mar 28	2,730	Mar 26, 2002
LOWEST DAILY MEAN	2.0	Oct 6	2.0	Oct 6	2.0	Oct 6, 2004
ANNUAL SEVEN-DAY MINIMUM	2.2	Sep 30	2.2	Oct 1	2.2	Sep 30, 2004
MAXIMUM PEAK FLOW			4,720	Mar 28	9,220	Mar 26, 2002
MAXIMUM PEAK STAGE			9.90	Mar 28	10.29	Jan 4, 2000
10 PERCENT EXCEEDS	170		126		131	
50 PERCENT EXCEEDS	30		26		20	
90 PERCENT EXCEEDS	2.8		4.7		4.4	

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<sup>2</sup>.

PERIOD OF RECORD.--February 1991 to October 1995, (medium and high flows only), September 1997 to current year.

GAGE.--Water-stage recorder with telemetry and crest-stage gage. Datum of gage 550.74 ft. above NGVD of 1929.

REMARKS.--Records good. Flow partially regulated 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<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 18	2055	568	3.44	May 19	2225	*581	*3.47

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

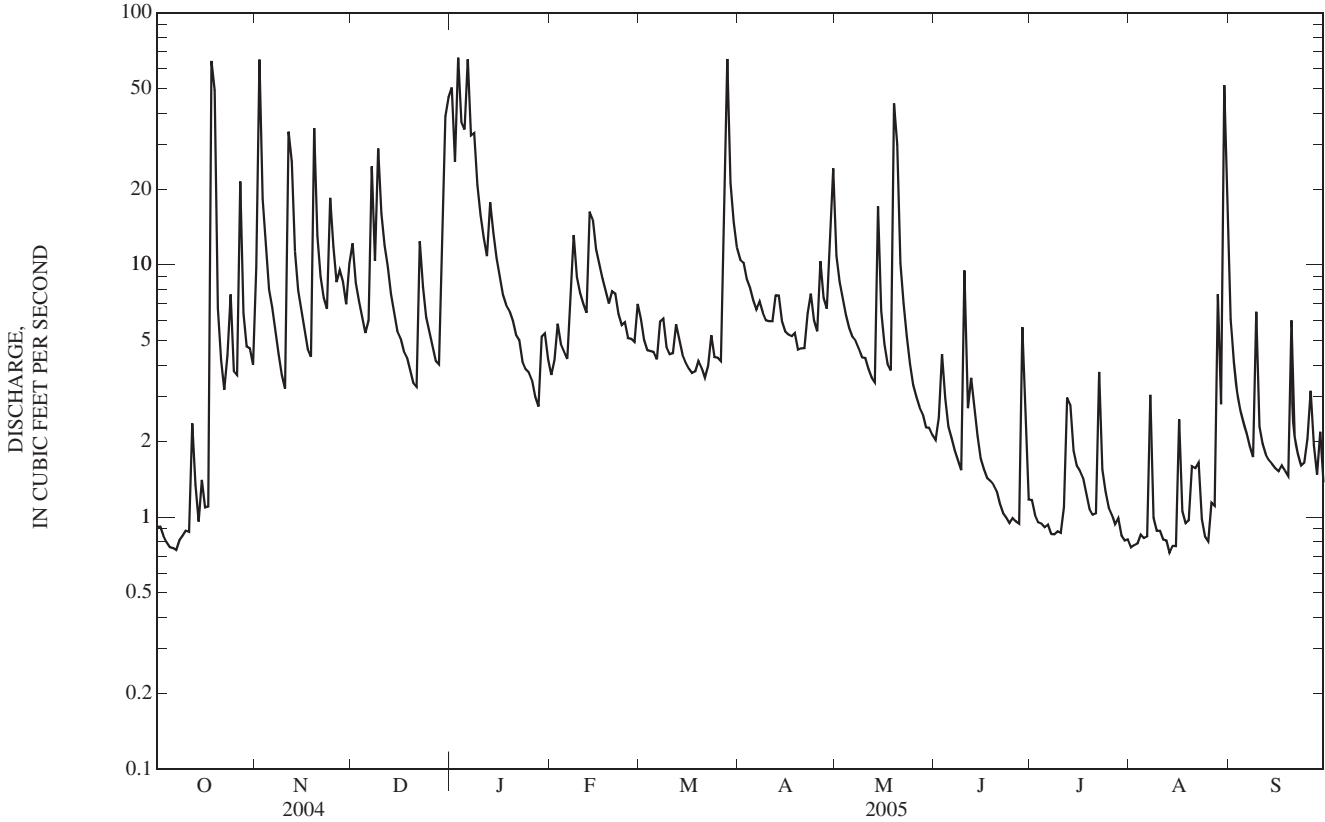
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.91	9.7	12	51	3.7	6.1	10	11	2.0	1.2	0.76	6.1
2	0.92	65	8.5	26	4.2	5.0	10	8.6	2.5	1.0	0.77	4.1
3	0.84	18	7.2	66	5.8	4.6	8.8	7.3	4.4	0.95	0.78	3.1
4	0.79	12	6.3	37	4.9	4.6	8.1	6.3	3.0	0.94	0.85	2.7
5	0.76	8.0	5.4	34	4.5	4.5	7.2	5.6	2.3	0.91	0.82	2.4
6	0.75	6.8	6.0	65	4.2	4.2	6.6	5.2	2.1	0.93	0.84	2.1
7	0.74	5.5	25	33	7.9	6.0	7.2	5.0	1.8	0.86	3.0	1.9
8	0.81	4.4	10	33	13	6.1	6.5	4.7	1.7	0.85	0.99	1.7
9	0.84	3.6	29	21	8.9	4.7	6.0	4.3	1.5	0.88	0.88	6.5
10	0.88	3.2	16	16	7.7	4.4	6.0	4.3	9.5	0.86	0.88	2.3
11	0.87	34	12	13	7.0	4.5	6.0	3.9	2.7	1.1	0.81	1.9
12	2.3	26	9.9	11	6.5	5.8	7.6	3.6	3.6	3.0	0.81	1.8
13	1.3	11	7.7	18	16	5.0	7.6	3.4	2.7	2.8	0.72	1.7
14	0.96	7.9	6.5	13	15	4.4	6.0	17	2.1	1.8	0.77	1.6
15	1.4	6.6	5.5	11	11	4.1	5.4	6.6	1.7	1.6	0.77	1.6
16	1.1	5.5	5.1	9.0	10	3.9	5.3	4.9	1.5	1.5	2.4	1.5
17	1.1	4.6	4.6	7.6	8.8	3.7	5.2	4.0	1.4	1.4	1.1	1.6
18	64	4.3	4.3	6.9	7.9	3.8	5.4	3.8	1.4	1.2	0.95	1.5
19	49	35	3.8	6.6	7.0	4.2	4.6	44	1.3	1.1	0.97	1.5
20	6.7	13	3.4	6.0	7.8	3.9	4.7	30	1.3	1.0	1.6	6.0
21	4.2	9.0	3.3	5.3	7.7	3.6	4.7	10	1.1	1.0	1.6	2.1
22	3.2	7.4	12	5.0	6.4	4.0	6.4	7.0	1.0	3.8	1.6	1.8
23	4.4	6.7	8.2	4.1	5.8	5.3	7.7	5.2	0.99	1.5	0.98	1.6
24	7.6	18	6.2	3.9	5.9	4.3	6.0	4.0	0.95	1.3	0.84	1.6
25	3.8	12	5.5	3.8	5.1	4.3	5.4	3.3	0.99	1.1	0.80	2.0
26	3.7	8.6	4.8	3.5	5.1	4.1	10	3.0	0.96	1.0	1.1	3.2
27	21	9.5	4.2	3.0	4.9	18	7.4	2.7	0.94	0.93	1.1	1.9
28	6.4	8.6	4.0	2.7	7.0	66	6.7	2.6	5.7	0.99	7.6	1.5
29	4.7	7.0	11	5.2	---	21	14	2.3	2.5	0.84	2.8	2.2
30	4.7	10	39	5.4	---	15	24	2.3	1.2	0.81	51	1.4
31	4.0	---	46	4.2	---	12	---	2.1	---	0.81	14	---
TOTAL	204.67	380.9	332.4	530.2	209.7	251.1	226.5	228.0	66.83	39.96	104.89	72.9
MEAN	6.60	12.7	10.7	17.1	7.49	8.10	7.55	7.35	2.23	1.29	3.38	2.43
MAX	64	65	46	66	16	66	24	44	9.5	3.8	51	6.5
MIN	0.74	3.2	3.3	2.7	3.7	3.6	4.6	2.1	0.94	0.81	0.72	1.4
CFSM	1.89	3.63	3.06	4.89	2.14	2.31	2.16	2.10	0.64	0.37	0.97	0.69
IN.	2.18	4.05	3.53	5.64	2.23	2.67	2.41	2.42	0.71	0.42	1.11	0.77

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2005, BY WATER YEAR (WY)

MEAN	3.83	5.54	8.50	10.0	9.09	9.05	8.82	9.58	5.32	2.85	2.46	3.16
MAX	7.34	12.7	17.4	17.1	16.1	20.6	16.2	19.5	8.64	6.04	4.55	8.65
(WY)	(2002)	(2005)	(2003)	(2005)	(2003)	(2002)	(2002)	(2002)	(2004)	(2004)	(2003)	(2003)
MIN	1.18	1.74	3.37	1.48	4.92	3.26	2.32	2.31	1.77	1.29	0.75	0.80
(WY)	(1998)	(2000)	(1999)	(2001)	(2001)	(2001)	(2001)	(2000)	(2001)	(2005)	(1999)	(1999)

03301900 FERN CREEK AT OLD BARDSTOWN ROAD AT LOUISVILLE, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1998 - 2005	
ANNUAL TOTAL	3,090.21		2,648.05		6.51	
ANNUAL MEAN	8.44		7.25		2.86	
HIGHEST ANNUAL MEAN					9.92	2002
LOWEST ANNUAL MEAN					2.86	2001
HIGHEST DAILY MEAN	71	May 27	66	Jan 3	163	Feb 18, 2000
LOWEST DAILY MEAN	0.74	Oct 7	0.72	Aug 13	0.40	Oct 6, 1997
ANNUAL SEVEN-DAY MINIMUM	0.79	Oct 3	0.79	Oct 3	0.61	Oct 3, 1997
MAXIMUM PEAK FLOW			581	May 19	933	Jun 28, 2000
MAXIMUM PEAK STAGE			3.47	May 19	4.16	Jun 28, 2000
ANNUAL RUNOFF (CFSM)	2.41		2.07		1.86	
ANNUAL RUNOFF (INCHES)	32.84		28.14		25.27	
10 PERCENT EXCEEDS	20		14		14	
50 PERCENT EXCEEDS	4.7		4.4		3.1	
90 PERCENT EXCEEDS	1.3		0.94		1.0	



## 03301940 NORTHERN DITCH AT OKOLONA, KY

LOCATION.--Lat 38°09'01", long 85°41'37", Jefferson County, Hydrologic Unit 05140102, at Okolona on bridge on Preston Highway, 0.1 mi above Spring Ditch, and at mile 5.1.

DRAINAGE AREA.--11.1 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1974 to Sept. 1976, Mar. 1988 to Feb. 1991, Oct. 1992 to Sept. 1993, Oct. 1994 to Sept. 1995, and Oct. 1997 to current year.

GAGE.--Water-stage recorder with telemetry and crest-stage gage. Datum of gage is 447.50 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<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 18	2105	1,030	10.27	May 19	2225	*1,080	*10.59

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	34	46	129	12	13	22	20	3.9	2.6	1.7	14
2	1.1	211	30	68	12	12	22	14	5.0	2.3	1.7	6.7
3	1.1	65	24	181	19	13	17	11	11	2.2	2.0	4.6
4	1.1	45	19	89	16	10	15	9.8	9.4	2.2	1.7	3.8
5	0.97	32	16	86	14	9.6	13	8.4	5.3	2.5	1.5	2.7
6	0.92	25	18	168	13	8.9	12	7.4	4.6	2.4	1.5	2.5
7	0.93	20	73	76	22	10	12	6.9	4.2	2.3	1.6	2.2
8	0.90	14	38	90	45	11	11	6.5	3.9	2.3	2.6	2.0
9	0.96	11	82	56	30	9.2	9.5	5.8	3.7	2.3	2.2	5.2
10	1.0	9.7	53	46	26	11	8.9	5.6	14	2.4	2.0	2.4
11	2.7	90	41	39	21	6.6	8.5	5.3	7.2	2.6	1.9	1.8
12	8.7	102	33	33	18	10	11	5.1	8.2	5.2	1.7	1.5
13	5.1	43	26	47	39	11	12	4.8	7.0	8.0	1.6	1.4
14	2.8	29	19	46	43	10	8.8	32	4.9	4.8	1.6	1.3
15	2.6	22	17	33	32	9.8	7.7	11	4.1	3.9	1.7	1.2
16	1.9	17	16	28	25	8.8	7.1	7.6	3.7	3.8	3.4	1.1
17	1.5	15	15	23	19	8.4	6.8	6.2	3.5	3.7	3.1	1.0
18	205	15	13	19	16	7.8	6.7	5.7	3.4	3.2	2.7	0.95
19	239	91	11	18	14	5.7	6.4	110	3.2	2.8	2.6	0.87
20	29	45	9.5	17	15	7.5	6.0	204	3.1	2.5	2.2	7.1
21	15	31	9.4	15	17	7.8	6.0	30	3.0	2.4	2.2	1.6
22	12	23	35	14	14	12	7.3	18	2.9	10	3.1	1.2
23	12	20	72	14	13	14	11	13	3.1	4.2	3.2	0.99
24	24	57	20	14	13	11	8.1	9.3	3.1	3.2	2.2	0.81
25	12	45	19	12	12	6.3	7.2	7.4	3.2	2.8	2.0	0.90
26	10	30	15	12	11	5.5	16	6.4	3.2	2.5	1.9	2.1
27	81	28	13	9.9	11	34	13	5.6	4.5	2.3	1.8	1.3
28	25	32	12	9.2	14	167	9.1	5.0	5.9	2.2	75	1.0
29	16	22	26	13	---	54	26	4.7	5.7	2.0	20	1.3
30	15	27	113	15	---	39	57	4.4	3.0	1.9	220	0.99
31	12	---	136	13	---	29	---	4.3	---	1.8	70	---
TOTAL	742.38	1,250.7	1,069.9	1,433.1	556	572.9	384.1	595.2	150.9	99.3	442.4	76.51
MEAN	23.9	41.7	34.5	46.2	19.9	18.5	12.8	19.2	5.03	3.20	14.3	2.55
MAX	239	211	136	181	45	167	57	204	14	10	220	14
MIN	0.90	9.7	9.4	9.2	11	5.5	6.0	4.3	2.9	1.8	1.5	0.81

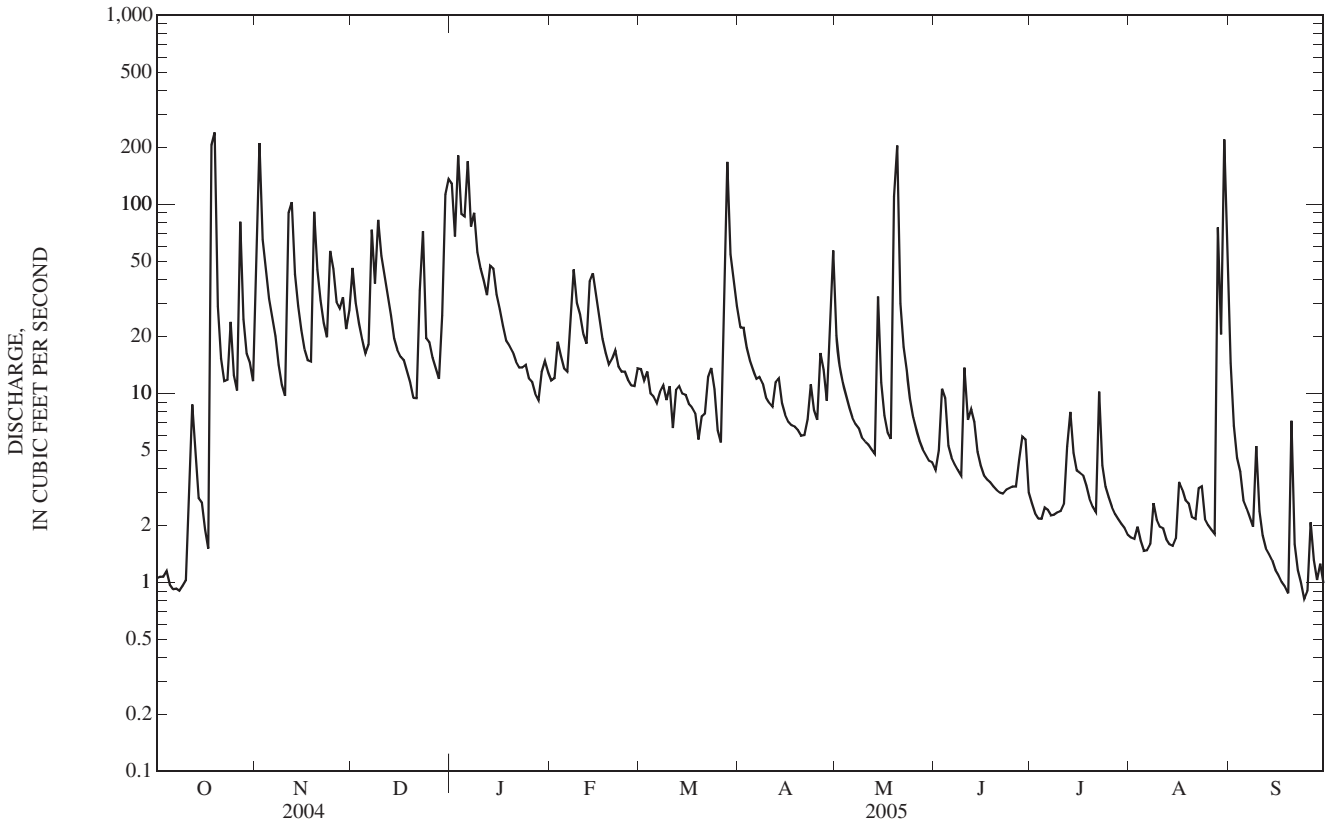
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2005, BY WATER YEAR (WY)

MEAN	9.94	14.4	22.7	29.0	33.3	25.3	25.6	26.7	16.7	9.44	8.65	8.16
MAX	23.9	41.7	58.7	46.2	75.1	84.5	62.7	59.7	36.9	20.7	25.3	25.9
(WY)	(2005)	(2005)	(1991)	(2005)	(1989)	(1975)	(1975)	(1990)	(1990)	(1989)	(1993)	(2003)
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1975 - 2005	
ANNUAL TOTAL	8,767.80		7,373.39		19.0	
ANNUAL MEAN	24.0		20.2		8.31	
HIGHEST ANNUAL MEAN					28.6	1975
LOWEST ANNUAL MEAN					8.31	2001
HIGHEST DAILY MEAN	270	May 28	239	Oct 19	608	May 18, 1995
LOWEST DAILY MEAN	0.90	Oct 8	0.81	Sep 24	0.18	Aug 16, 1999
ANNUAL SEVEN-DAY MINIMUM	0.97	Oct 4	0.97	Oct 4	0.24	Aug 12, 1999
MAXIMUM PEAK FLOW			1,080	May 19	1,590	Jun 28, 1999
MAXIMUM PEAK STAGE			10.59	May 19	13.19	Jun 28, 1999
10 PERCENT EXCEEDS	54		45		42	
50 PERCENT EXCEEDS	13		9.8		9.0	
90 PERCENT EXCEEDS	2.0		1.7		2.3	



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<sup>2</sup>.

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

REVISED RECORDS.--WSP 1705: Drainage area.

GAGE.--Water-stage recorder with telemetry 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<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct 19	0205	*3,630	*19.07	Jan 6	0840	1,840	13.88
Nov 2	1515	2,510	16.18	Mar 28	0340	3,060	17.65
Nov 12	0000	2,010	14.50	May 20	0450	2,900	17.26
Jan 3	1310	1,650	13.13	Aug 30	1610	1,670	13.20

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.2	212	256	751	54	70	100	100	23	25	6.3	121
2	8.6	1,160	118	346	e63	46	121	58	38	9.9	5.8	66
3	7.6	481	88	1,030	123	40	87	46	109	7.9	5.7	38
4	7.6	230	72	546	76	35	69	33	92	7.2	5.8	25
5	7.1	125	59	524	58	33	59	27	29	6.7	17	20
6	6.5	88	83	1,090	49	28	52	23	18	6.7	11	14
7	6.7	69	510	387	144	43	57	21	16	6.6	6.3	13
8	7.1	57	177	627	312	90	47	19	13	6.1	8.2	12
9	7.0	51	383	240	145	42	36	18	12	6.3	6.8	20
10	7.1	40	276	172	123	39	32	18	43	6.3	6.0	14
11	7.7	518	169	143	88	33	29	16	37	15	6.7	10
12	20	887	122	133	73	71	59	16	64	92	6.8	9.0
13	45	186	87	274	251	52	90	14	61	91	6.3	8.2
14	17	113	65	251	238	44	45	228	21	33	16	8.2
15	39	85	53	118	134	38	32	67	16	e31	9.2	7.6
16	11	69	e45	91	95	32	26	32	19	32	77	7.2
17	9.1	60	e38	70	69	31	23	23	20	24	23	6.7
18	693	57	e33	e60	55	29	21	19	19	15	12	6.6
19	1,910	550	e30	52	47	30	20	211	18	12	13	6.5
20	299	195	e28	51	72	30	20	1,850	17	9.7	11	85
21	128	113	29	48	94	25	19	345	16	7.9	14	23
22	80	88	216	42	70	46	43	145	16	124	8.8	12
23	78	81	e156	35	53	132	82	114	16	32	14	9.5
24	119	309	116	30	52	81	29	63	15	15	7.9	8.1
25	62	225	e77	32	44	58	23	48	16	12	6.4	11
26	50	113	60	34	42	47	91	40	16	10	6.1	48
27	593	114	49	27	35	283	68	35	15	9.2	15	16
28	131	149	45	23	76	1,780	38	32	43	8.9	149	13
29	90	90	261	75	---	399	122	28	58	7.7	206	20
30	84	136	786	110	---	191	424	25	23	7.2	840	11
31	55	---	965	73	---	140	---	24	---	6.6	470	---
TOTAL	4,595.3	6,651	5,452	7,485	2,735	4,038	1,964	3,738	919	683.9	1,997.1	669.6
MEAN	148	222	176	241	97.7	130	65.5	121	30.6	22.1	64.4	22.3
MAX	1,910	1,160	965	1,090	312	1,780	424	1,850	109	124	840	121
MIN	6.5	40	28	23	35	25	19	14	12	6.1	5.7	6.5
CFSM	2.32	3.46	2.75	3.77	1.53	2.04	1.02	1.88	0.48	0.34	1.01	0.35
IN.	2.67	3.87	3.17	4.35	1.59	2.35	1.14	2.17	0.53	0.40	1.16	0.39

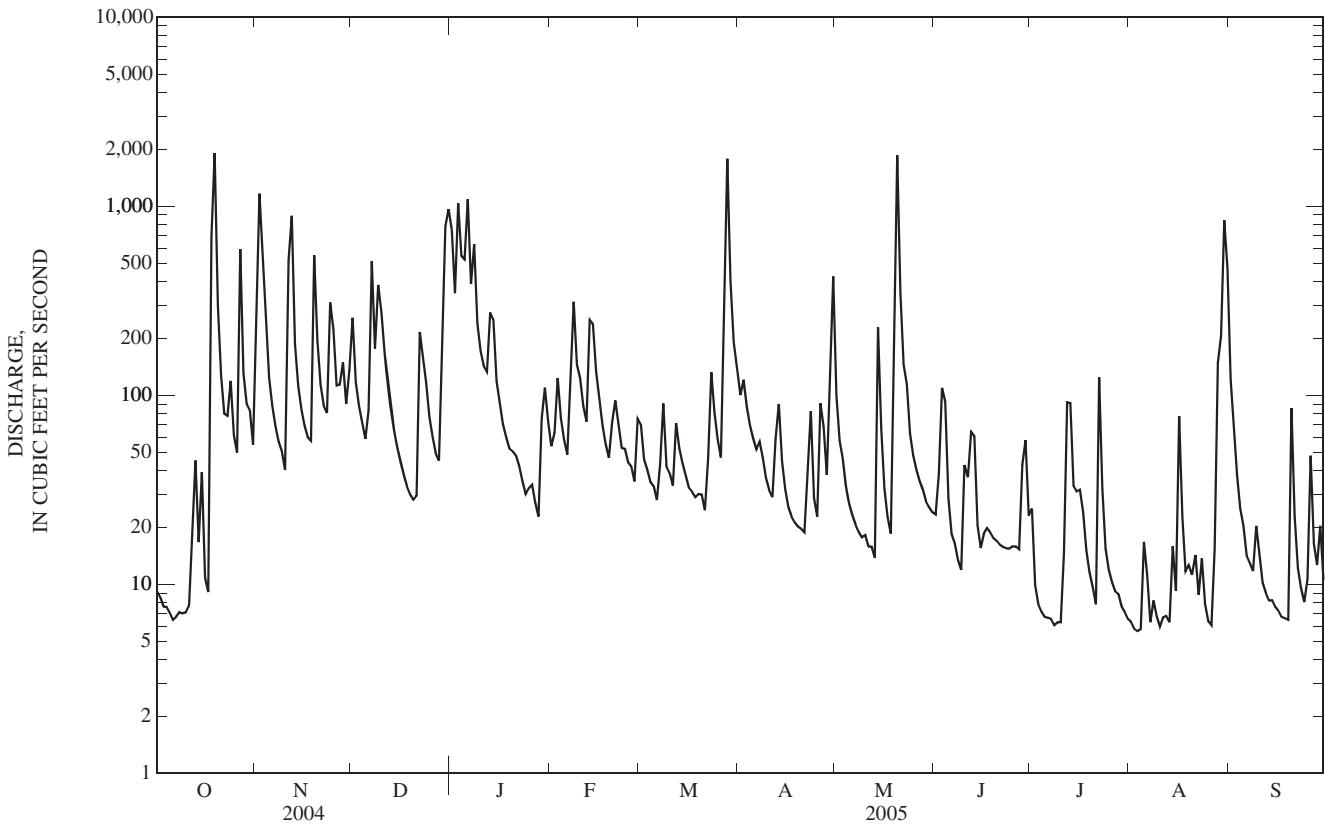
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2005, BY WATER YEAR (WY)

MEAN	31.2	61.6	101	134	154	183	131	115	68.5	45.8	35.5	34.4
MAX	148	256	310	614	454	814	551	505	328	282	186	399
(WY)	(2005)	(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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1944 - 2005	
ANNUAL TOTAL	45,042.8		40,927.9		91.0	
ANNUAL MEAN	123		112		11.4	
HIGHEST ANNUAL MEAN					159	1950
LOWEST ANNUAL MEAN					11.4	1954
HIGHEST DAILY MEAN	1,920	May 28	1,910	Oct 19	7,200	Mar 2, 1997
LOWEST DAILY MEAN	6.5	Oct 6	5.7	Aug 3	0.10	Sep 3, 1945
ANNUAL SEVEN-DAY MINIMUM	7.0	Oct 4	6.4	Jul 29	0.19	Sep 17, 1945
MAXIMUM PEAK FLOW			3,630	Oct 19	8,020	Mar 9, 1964
MAXIMUM PEAK STAGE			19.07	Oct 19	25.74	Mar 2, 1997
INSTANTANEOUS LOW FLOW			5.2	Aug 3	0.10	Sep 3, 1945
ANNUAL RUNOFF (CFSM)	1.92		1.75		1.42	
ANNUAL RUNOFF (INCHES)	26.18		23.79		19.32	
10 PERCENT EXCEEDS	312		251		191	
50 PERCENT EXCEEDS	51		43		27	
90 PERCENT EXCEEDS	9.2		7.8		6.0	

e Estimated



03302030 POND CREEK AT PENDLETON 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<sup>2</sup>.

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

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

REMARKS.--Records good 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<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Oct. 19	0645	*3,820	*18.29	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	307	430	1,290	65	109	e198	154	29	26	6.8	176
2	12	1,650	152	614	55	65	e212	79	38	16	6.4	84
3	12	1,100	105	1,660	149	55	e153	59	65	11	5.8	45
4	12	365	82	1,040	93	49	e121	43	194	9.9	5.6	29
5	12	171	68	1,030	69	46	e102	36	42	9.2	5.9	23
6	11	107	88	e1,990	57	40	e90	31	26	8.9	20	16
7	11	79	844	e583	137	42	e98	28	22	8.7	9.1	13
8	11	61	307	e1,040	618	127	e76	25	20	8.1	9.7	12
9	12	54	468	e378	222	60	e57	23	17	7.6	8.5	12
10	12	43	580	e248	183	51	46	22	18	8.2	7.2	22
11	11	552	229	e209	121	47	42	21	e62	9.1	6.2	10
12	14	1,810	162	e200	98	78	60	20	e49	87	7.4	8.8
13	71	295	105	e469	338	75	125	18	e77	107	7.0	7.7
14	43	142	75	e378	450	58	61	301	31	42	12	7.0
15	47	98	60	e189	210	e47	45	113	22	27	14	6.6
16	20	77	52	e131	134	e42	36	40	22	37	65	6.1
17	9.4	65	48	e102	95	42	32	30	22	37	41	5.7
18	784	59	43	e78	76	40	30	24	23	19	16	5.7
19	2,950	911	39	e71	65	37	28	110	21	15	12	5.5
20	546	348	31	e68	79	43	26	2,880	21	12	14	85
21	176	146	30	e65	137	35	24	662	20	11	16	31
22	94	102	288	e58	101	39	24	214	19	126	11	13
23	71	88	e227	e46	75	215	117	146	19	46	14	9.1
24	162	378	e175	e37	71	142	40	81	19	21	11	7.7
25	76	401	e118	e38	63	83	29	61	18	15	7.9	6.9
26	54	143	e91	41	58	70	71	50	18	13	7.3	42
27	1,140	105	e71	35	50	403	132	44	18	11	16	20
28	192	213	e76	28	78	3,080	43	41	22	11	31	13
29	115	105	384	62	---	1,010	124	36	56	10	446	16
30	98	122	1,310	144	---	439	770	32	44	8.6	e1,420	15
31	71	---	1,900	93	---	e237	---	30	---	7.6	1,030	---
TOTAL	6,860.4	10,097	8,638	12,415	3,947	6,906	3,012	5,454	1,074	785.9	3,289.8	753.8
MEAN	221	337	279	400	141	223	100	176	35.8	25.4	106	25.1
MAX	2,950	1,810	1,900	1,990	618	3,080	770	2,880	194	126	1,420	176
MIN	9.4	43	30	28	50	35	24	18	17	7.6	5.6	5.5

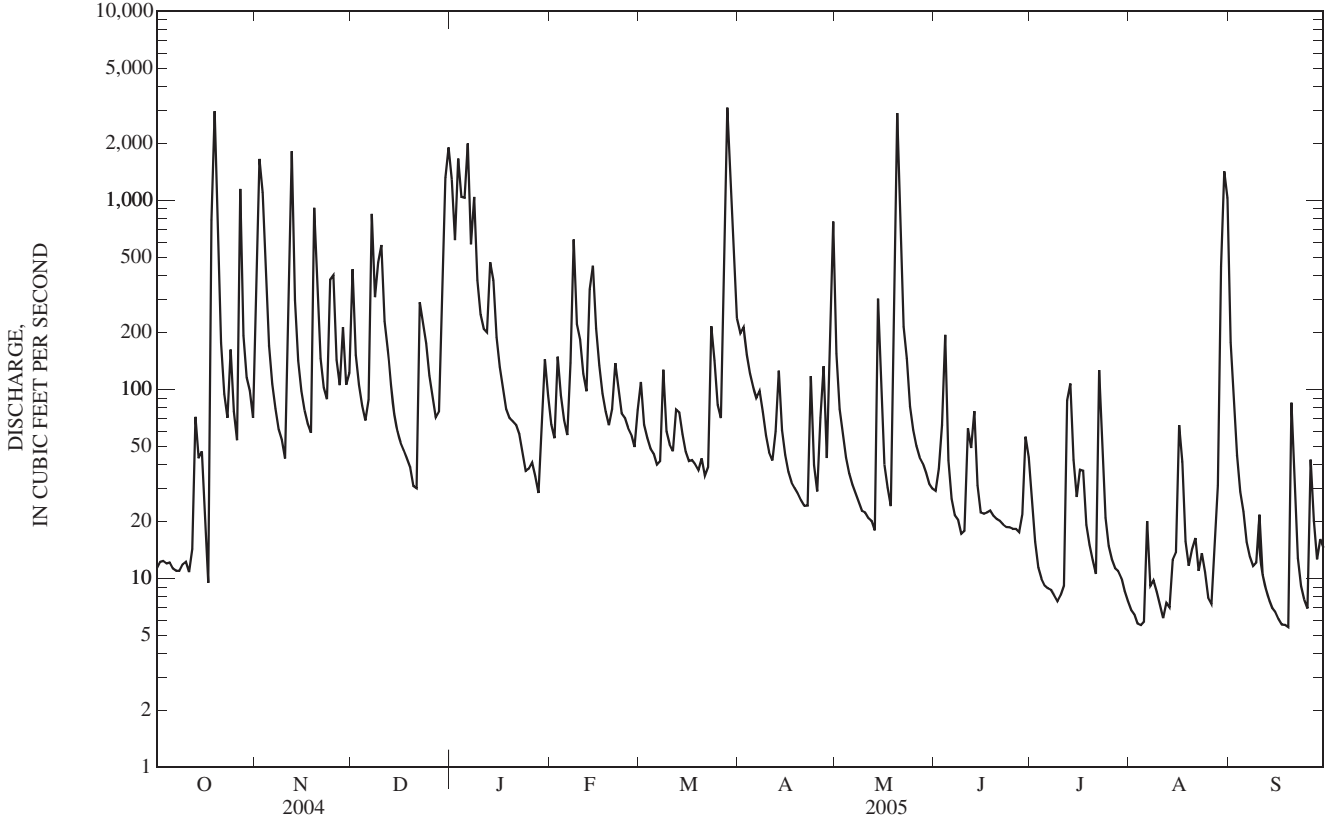
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2005, BY WATER YEAR (WY)

MEAN	92.8	143	196	270	186	207	148	193	91.2	40.2	50.3	71.0
MAX	221	337	302	440	315	451	287	399	214	103	106	169
(WY)	(2005)	(2005)	(2003)	(1999)	(2003)	(2002)	(2002)	(2004)	(2004)	(2004)	(2004)	(2003)
MIN	26.9	21.3	100	44.0	104	84.8	33.0	23.4	22.0	12.8	11.6	15.3
(WY)	(2001)	(2000)	(2000)	(2001)	(2002)	(2001)	(2001)	(2000)	(2001)	(2002)	(2002)	(2004)

03302030 POND CREEK AT PENDLETON ROAD NEAR LOUISVILLE, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1999 - 2005	
ANNUAL TOTAL	78,413.4		63,232.9		142	
ANNUAL MEAN	214		173		176	
HIGHEST ANNUAL MEAN					2002	
LOWEST ANNUAL MEAN					2001	
HIGHEST DAILY MEAN	3,180	May 28	3,080	Mar 28	6,220	Jan 4, 2000
LOWEST DAILY MEAN	9.4	Oct 17	5.5	Sep 19	1.7	Jul 17, 2001
ANNUAL SEVEN-DAY MINIMUM	11	Sep 18	6.3	Sep 13	4.1	Jul 11, 2001
MAXIMUM PEAK FLOW			3,820	Oct 19	10,500	Jan 4, 2000
MAXIMUM PEAK STAGE			18.29	Oct 19	19.82	Mar 26, 2002
10 PERCENT EXCEEDS	515		402		276	
50 PERCENT EXCEEDS	66		52		40	
90 PERCENT EXCEEDS	15		10		11	

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<sup>2</sup>.

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

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

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

COOPERATION.--Louisville and Jefferson County Metropolitan Sewer District.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 360 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov 2	1145	1,010	5.17	May 19	2255	420	3.97
Mar 28	0245	*1,940	*6.31				

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e0.02	16	18	52	4.6	5.4	7.4	6.5	0.18	0.05	0.02	0.76
2	0.02	164	12	28	4.8	4.7	7.7	4.6	0.26	0.03	0.01	0.41
3	0.01	25	8.8	86	7.1	4.4	6.3	3.7	1.6	0.02	0.01	0.27
4	0.01	14	7.0	44	6.2	4.4	5.6	3.1	0.86	0.02	0.01	0.20
5	0.01	9.1	5.9	40	5.7	4.1	5.1	2.7	0.50	0.02	0.01	0.16
6	0.01	7.0	6.6	94	5.3	3.8	4.6	2.4	0.38	0.01	0.01	0.13
7	0.01	5.9	34	32	12	4.8	5.2	2.1	0.33	0.01	0.02	0.10
8	0.01	4.8	16	46	28	6.8	4.7	1.9	0.29	0.01	0.01	0.09
9	0.01	4.2	29	19	15	5.3	4.1	1.7	0.30	0.01	0.01	0.08
10	0.01	3.9	24	13	11	4.9	3.9	1.5	0.29	0.01	0.01	0.06
11	0.01	64	16	9.8	8.5	4.8	3.6	1.3	0.51	0.03	0.01	0.05
12	0.01	45	12	8.1	7.3	5.8	4.1	1.3	0.88	0.06	0.01	0.04
13	0.02	13	9.0	17	17	5.2	4.3	1.0	0.66	0.15	0.00	0.03
14	0.02	8.0	7.0	16	18	4.8	3.7	2.9	0.51	0.16	0.00	0.03
15	0.02	6.1	5.9	10	13	4.5	3.3	2.2	0.42	0.12	0.00	0.03
16	0.01	5.1	5.3	8.5	9.5	4.3	3.1	1.7	0.35	0.14	0.01	0.02
17	0.01	4.5	4.7	6.7	e7.5	4.1	2.9	1.4	0.29	0.15	0.00	0.02
18	4.6	4.1	4.3	5.6	6.1	3.8	2.8	1.2	0.26	0.20	0.00	0.02
19	33	37	3.8	5.4	5.3	3.8	2.5	22	0.23	0.14	0.00	0.01
20	3.1	17	3.2	5.0	6.4	3.6	2.3	34	0.17	0.10	0.00	0.03
21	2.1	10	3.3	4.5	7.5	3.3	2.2	4.8	0.14	0.07	0.00	0.01
22	1.7	7.7	13	4.1	6.6	4.2	2.2	2.2	0.11	0.23	0.00	0.01
23	2.0	6.6	12	3.5	5.9	9.3	2.8	1.4	0.09	0.25	0.00	0.01
24	3.5	25	8.0	3.3	5.7	8.1	2.2	0.92	0.06	0.15	0.00	0.01
25	2.6	20	7.0	3.4	5.0	7.5	1.9	0.66	0.05	0.10	0.00	0.02
26	3.4	11	6.1	3.3	4.6	6.6	2.8	0.52	0.04	0.07	0.00	0.04
27	55	9.7	5.3	3.0	4.3	34	3.0	0.44	0.03	0.06	0.00	0.01
28	6.8	10	5.1	2.7	5.7	277	2.5	0.38	0.05	0.05	0.00	0.01
29	4.4	7.9	24	4.1	---	28	4.1	0.31	0.08	0.04	0.01	0.02
30	4.0	11	73	5.1	---	14	17	0.27	0.07	0.03	17	0.01
31	3.4	---	78	5.0	---	9.5	---	0.23	---	0.02	5.0	---
TOTAL	129.82	576.6	467.3	588.1	243.6	494.8	127.9	111.33	9.99	2.51	22.16	2.69
MEAN	4.19	19.2	15.1	19.0	8.70	16.0	4.26	3.59	0.33	0.08	0.71	0.09
MAX	55	164	78	94	28	277	17	34	1.6	0.25	17	0.76
MIN	0.01	3.9	3.2	2.7	4.3	3.3	1.9	0.23	0.03	0.01	0.00	0.01

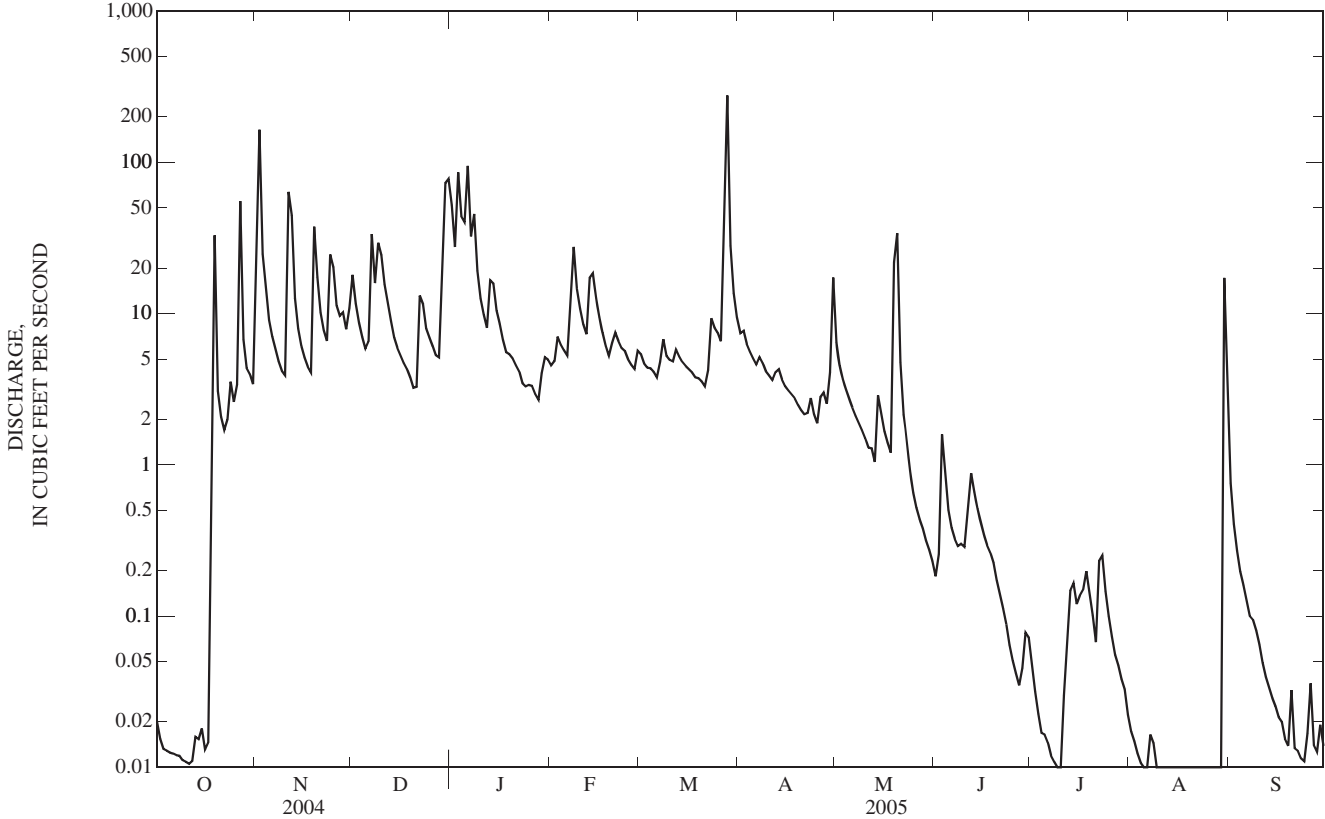
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2005, BY WATER YEAR (WY)

MEAN	1.53	6.41	8.47	12.4	11.9	11.6	8.72	9.16	2.05	0.49	0.46	1.09
MAX	4.19	19.2	15.1	23.2	30.7	25.0	17.2	33.4	5.61	1.76	1.59	5.52
(WY)	(2005)	(2005)	(2005)	(2000)	(2000)	(2002)	(2002)	(2004)	(2004)	(2004)	(2004)	(2003)
MIN	0.00	0.00	0.68	1.32	5.27	4.19	1.91	1.42	0.26	0.03	0.02	0.00
(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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1999 - 2005	
ANNUAL TOTAL	3,723.94		2,776.80		6.41	
ANNUAL MEAN	10.2		7.61		1.76	
HIGHEST ANNUAL MEAN					8.29	2004
LOWEST ANNUAL MEAN					1.76	2001
HIGHEST DAILY MEAN	540	May 28	277	Mar 28	685	Feb 18, 2000
LOWEST DAILY MEAN	0.01	Oct 3	0.00	Aug 13	0.00	Aug 21, 1999
ANNUAL SEVEN-DAY MINIMUM	0.01	Oct 3	0.00	Aug 17	0.00	Aug 21, 1999
MAXIMUM PEAK FLOW			1,940	Mar 28	3,330	May 28, 2004
MAXIMUM PEAK STAGE			6.31	Mar 28	7.61	Feb 18, 2000
10 PERCENT EXCEEDS	22		17		12	
50 PERCENT EXCEEDS	3.5		3.2		1.3	
90 PERCENT EXCEEDS	0.05		0.01		0.03	

e Estimated



03302110 OTTER CREEK AT OTTER CREEK PARK NEAR ROCK HAVEN, KY

LOCATION.--Lat 37°55'24", long 86°01'50", 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<sup>2</sup>.

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

GAGE.--Water-stage recorder with telemetry and crest-stage gage. Datum of gage is 440.037 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 3,900 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar 28	0400	*4,420	*7.45	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	68	345	926	89	173	287	195	49	24	18	172
2	19	571	190	683	87	132	284	137	50	23	18	101
3	18	259	146	621	102	125	234	110	58	22	18	72
4	17	119	118	643	91	115	194	94	52	21	17	57
5	18	79	100	722	85	e114	171	83	45	22	e18	47
6	17	63	101	1,170	83	99	151	76	e50	21	e18	39
7	16	51	541	777	212	101	148	70	e47	20	e17	35
8	17	42	310	1,060	363	128	149	66	38	20	e17	33
9	18	36	405	596	244	107	129	62	36	21	17	31
10	20	34	451	405	195	93	116	58	36	19	16	29
11	17	212	311	311	158	96	108	54	37	34	16	27
12	18	764	232	256	148	95	111	51	62	85	17	25
13	21	203	183	305	277	87	141	48	54	49	17	24
14	22	124	139	438	420	79	115	58	48	34	17	23
15	24	93	117	272	303	72	100	71	65	42	22	23
16	21	79	105	232	241	68	91	53	45	28	22	22
17	18	68	97	189	187	67	85	48	37	31	22	22
18	45	61	90	162	158	64	83	46	34	28	23	22
19	89	225	83	154	137	64	80	70	33	23	22	21
20	36	180	73	141	140	62	74	1,280	31	23	20	23
21	27	118	72	130	215	56	72	379	32	30	24	21
22	23	96	117	119	172	71	73	195	31	55	19	20
23	25	87	145	101	145	195	76	137	29	38	18	19
24	44	168	109	91	138	151	66	106	26	24	19	18
25	31	178	98	89	126	126	61	91	25	20	19	18
26	25	123	92	87	115	111	69	81	26	18	34	23
27	70	104	81	76	108	621	81	71	24	16	33	20
28	41	107	77	67	146	2,500	63	65	34	15	26	19
29	31	91	144	79	---	1,050	118	60	27	15	41	18
30	28	104	785	115	---	618	448	55	24	17	857	17
31	25	---	1,330	104	---	399	---	51	---	20	570	---
TOTAL	860	4,507	7,187	11,121	4,885	7,839	3,978	4,021	1,185	858	2,032	1,041
MEAN	27.7	150	232	359	174	253	133	130	39.5	27.7	65.5	34.7
MAX	89	764	1,330	1,170	420	2,500	448	1,280	65	85	857	172
MIN	16	34	72	67	83	56	61	46	24	15	16	17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2005, BY WATER YEAR (WY)

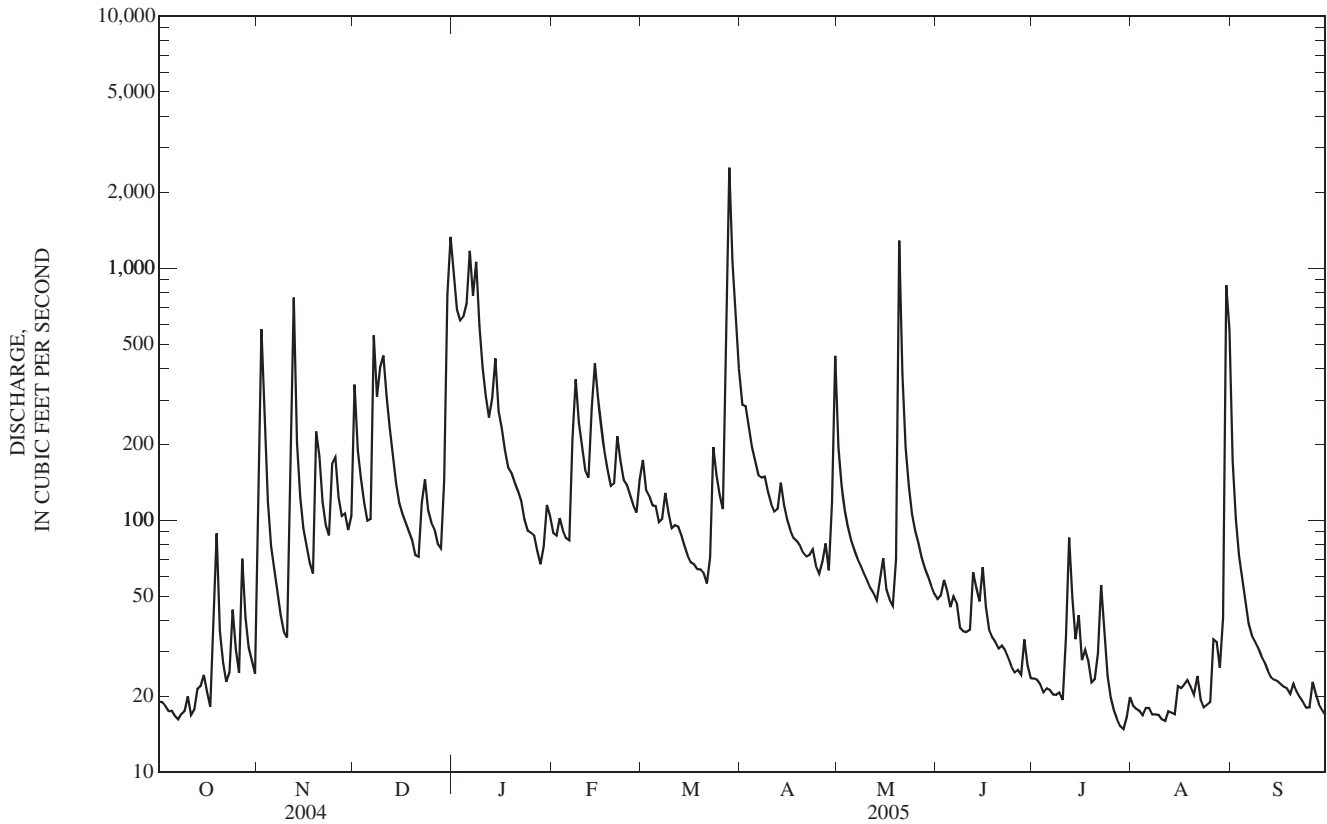
MEAN	49.4	116	213	221	230	217	191	261	85.9	39.9	35.5	51.9
MAX	111	183	351	359	447	509	391	552	214	81.1	65.5	169
(WY)	(2003)	(2002)	(2002)	(2005)	(2003)	(2002)	(2002)	(2002)	(2004)	(2004)	(2005)	(2003)
MIN	15.5	11.9	58.6	33.4	126	130	45.6	46.7	36.1	21.5	10.9	5.82
(WY)	(2001)	(2000)	(2000)	(2001)	(2002)	(2001)	(2001)	(2001)	(2001)	(1999)	(1999)	(1999)



03302110 OTTER CREEK AT OTTER CREEK PARK NEAR ROCK HAVEN, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1999 - 2005	
ANNUAL TOTAL	63,668		49,514		146	
ANNUAL MEAN	174		136		60.3	
HIGHEST ANNUAL MEAN					216	2002
LOWEST ANNUAL MEAN					60.3	2001
HIGHEST DAILY MEAN	2,310	May 27	2,500	Mar 28	3,590	Mar 26, 2002
LOWEST DAILY MEAN	16	Oct 7	15	Jul 28	4.9	Sep 6, 1999
ANNUAL SEVEN-DAY MINIMUM	17	Oct 3	17	Aug 7	5.4	Sep 10, 1999
MAXIMUM PEAK FLOW			4,420	Mar 28	8,810	Jan 4, 2000
MAXIMUM PEAK STAGE			7.45	Mar 28	8.63	Mar 26, 2002
10 PERCENT EXCEEDS	395		293		335	
50 PERCENT EXCEEDS	93		71		59	
90 PERCENT EXCEEDS	22		19		17	

e Estimated



## SINKING CREEK BASIN

03303205 SINKING CREEK NEAR LODIBURG, KY

LOCATION.--Lat 37°52'06", long 86°23'16", Breckinridge County, Hydrologic Unit 05140104, on bridge located 2.3 miles south of Lodiburg on County Road #86, 0.75 mile downstream from Boiling Spring.

DRAINAGE AREA.--125 mi<sup>2</sup>.

## WATER DISCHARGE RECORDS

PERIOD OF RECORD.--May 27, 2004 to current year.

GAGE.--Water-stage recorder and four parameter water-quality monitor with telemetry. Datum of gage is 410 ft above NGVD of 1929, (from topographic map).

REMARKS.--Records rated good.

COOPERATION.--Kentucky Department of Agriculture.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	160	506	1,700	153	304	507	432	58	21	16	399
2	13	863	473	1,180	138	245	436	253	53	20	16	147
3	13	886	318	1,320	159	210	414	185	51	19	16	90
4	12	300	239	1,310	168	196	359	154	47	18	16	61
5	12	151	188	1,470	152	186	314	132	42	17	15	37
6	12	103	159	2,560	146	171	275	120	38	17	15	30
7	12	71	670	1,760	201	164	247	109	35	17	15	26
8	12	50	748	2,050	769	238	233	101	33	16	15	23
9	12	37	427	1,220	566	229	212	93	32	16	14	21
10	12	30	700	829	441	185	188	85	30	16	14	20
11	12	364	504	652	369	174	170	78	29	16	14	19
12	12	1,600	424	572	320	164	166	70	31	253	14	18
13	14	549	341	637	425	153	391	63	52	170	13	17
14	14	259	260	1,050	878	137	304	79	52	47	14	16
15	14	170	212	678	641	126	211	136	128	21	14	16
16	14	129	184	533	484	119	173	85	69	16	14	15
17	13	101	158	431	388	115	155	64	38	19	15	15
18	21	84	139	348	325	110	141	54	32	16	18	15
19	108	352	126	296	272	105	129	114	29	15	17	14
20	53	524	111	259	243	100	118	1,810	27	11	15	15
21	16	298	103	227	345	93	109	789	25	9.3	14	14
22	13	197	171	200	345	90	102	371	24	22	13	14
23	12	156	315	175	283	110	95	239	23	33	13	13
24	14	219	242	154	250	156	86	178	22	26	12	13
25	15	440	199	145	223	133	79	145	21	22	12	13
26	14	298	180	138	197	125	78	123	21	20	66	14
27	15	216	159	125	177	466	80	107	20	19	48	14
28	16	209	142	112	196	3,910	70	94	136	18	20	13
29	15	189	205	112	---	2,200	97	84	53	18	394	13
30	16	187	1,250	158	---	980	622	76	24	17	790	12
31	17	---	2,990	178	---	692	---	67	---	17	1,490	---
MEAN	18.1	306	414	728	330	400	219	209	42.5	31.7	102	38.2
MAX	108	1,600	2,990	2,560	878	3,910	622	1,810	136	253	1,490	399
MIN	12	30	103	112	138	90	70	54	20	9.3	12	12

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2005, BY WATER YEAR (WY)

MEAN	18.1	306	414	728	330	400	219	209	195	56.6	85.7	27.1
MAX	18.1	306	414	728	330	400	219	209	348	81.4	102	38.2
(WY)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2004)	(2004)	(2005)	(2005)
MIN	18.1	306	414	728	330	400	219	209	42.5	31.7	69.2	16.0
(WY)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2004)	(2004)

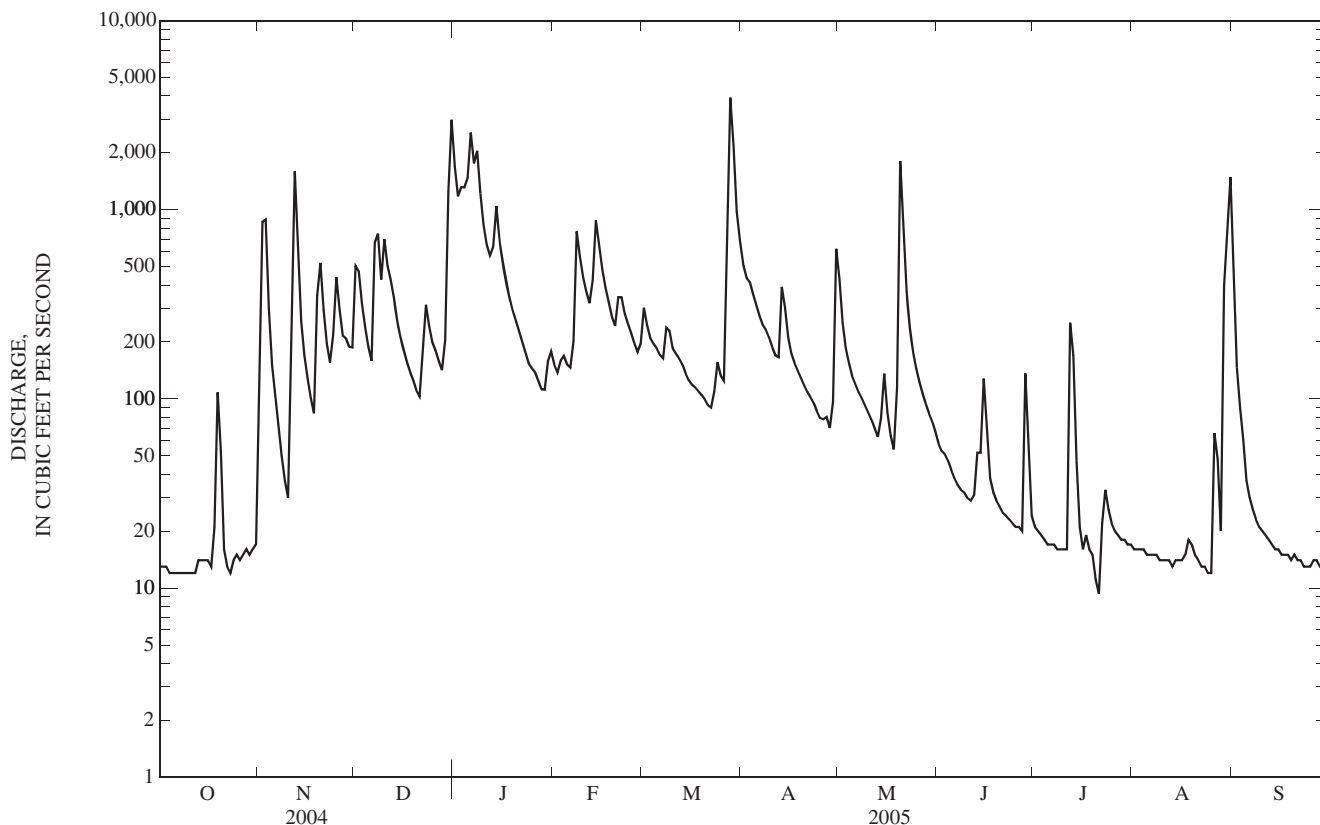
03303205 SINKING CREEK NEAR LODIBURG, KY—Continued

SUMMARY STATISTICS

FOR 2005 WATER YEAR

WATER YEARS 2004 - 2005

ANNUAL MEAN	237		237	
HIGHEST ANNUAL MEAN			237	2005
LOWEST ANNUAL MEAN			237	2005
HIGHEST DAILY MEAN	3,910	Mar 28	4,140	May 31, 2004
LOWEST DAILY MEAN	9.3	Jul 21	9.3	Jul 21, 2005
ANNUAL SEVEN-DAY MINIMUM	12	Oct 4	12	Oct 4, 2004
MAXIMUM PEAK FLOW	4,370	Mar 28	4,370	Mar 28, 2005
MAXIMUM PEAK STAGE	21.75	Mar 28	21.75	Mar 28, 2005
10 PERCENT EXCEEDS	556		556	
50 PERCENT EXCEEDS	110		110	
90 PERCENT EXCEEDS	14		14	



## WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 27, 2004 to current year.

COOPERATION.--Kentucky Department of Agriculture.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 2004 to current year.

pH: May 2004 to current year.

WATER TEMPERATURES: May 2004 to current year.

DISSOLVED OXYGEN: May 2004 to current year.

INSTRUMENTATION.--Four parameter water-quality monitor with telemetry.

REMARKS.--

SPECIFIC CONDUCTANCE.--Records rated good. Missing record Feb. 2, Mar. 17, Apr. 11, 14, 19, May 20, June 1-8, July 15, 25, and Sept. 7, 17, 2005.

PH.--Records rated excellent. Missing periods Feb. 2, Mar. 17, Apr. 14, 19, June 6-8, July 15, 25, and Sept. 7, 17, 2005.

WATER TEMPERATURE.--Records rated excellent. Missing record Dec. 22, 2004, Feb. 2, Mar. 17, Apr. 4, May 19-20, June 6-7, 27-28, 2005.

DISSOLVED OXYGEN.--Records rated poor. Missing periods Oct. 19-25, Nov 3-19, Dec. 7-10, 12-17, 2004, Jan. 12 to Feb. 15, Feb. 17 to Mar. 17, Mar. 28 to Apr. 5, Apr. 14-15, 17-24, 28-29, May 4-17, 19-31, June 1-8, July 14-15, 25-26, Aug. 26 to Sept. 15, and Sept 17, 26-27, 2005.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 705 microsiemens, Oct. 16, 2004; minimum recorded, 174 microsiemens, May 30, 2004.

pH: Maximum recorded, 8.3 units, July 9, 2004; minimum recorded, 6.7 units, July 31, 2004.

WATER TEMPERATURES: Maximum recorded, 25.1 C, July 19, 2004; minimum recorded, 8.7 C, Dec. 23, 2004.

DISSOLVED OXYGEN: Maximum recorded, 14.3 mg/L, Mar. 21, 2005; minimum recorded, 4.1 mg/L, Aug. 25, 2005.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE.--Maximum recorded, 705 microseimens, Oct. 16, 2004; minimum recorded, 176 microseimens, Dec. 31, 2005.

pH.--Maximum recorded, 8.0 units, Mar. 19-22, Apr. 20-29, 2005; minimum recorded, 6.8 units, May 8, 9, 15, and June 29, 2005.

WATER TEMPERATURE.--Maximum recorded, 20.6°C, Aug. 1, 20, 21, 2005; minimum recorded 8.7°C, Dec. 23, 2004.

DISSOLVED OXYGEN.--Maximum recorded, 14.3 mg/L, Mar. 21, 2005; minimum recorded, 4.1 mg/L, Aug. 25, 2005.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	667	655	661	621	487	577	496	417	464	345	185	255
2	672	660	667	511	326	417	417	403	407	377	345	362
3	675	665	671	360	331	347	441	409	424	384	367	373
4	679	668	675	362	340	349	468	441	456	380	359	367
5	682	670	678	397	362	378	486	468	478	385	350	362
6	685	674	681	476	397	430	499	481	492	364	269	315
7	688	676	683	484	435	464	500	339	437	350	271	311
8	689	677	685	458	440	450	364	308	327	349	296	320
9	691	681	688	479	457	467	376	342	367	377	304	341
10	692	683	689	506	471	485	364	310	330	412	377	397
11	695	685	690	489	321	450	351	330	342	429	412	421
12	696	687	693	363	244	278	395	351	373	439	429	434
13	695	686	691	308	266	286	427	395	411	443	416	437
14	698	689	694	359	308	334	453	427	441	416	348	376
15	699	688	694	399	359	383	469	453	461	379	350	362
16	705	694	699	427	399	413	482	469	477	414	376	393
17	703	688	693	455	427	444	488	482	486	429	408	420
18	699	654	676	474	454	465	494	488	491	448	429	439
19	685	604	656	478	429	458	499	494	496	460	448	456
20	605	578	592	460	388	413	503	499	501	462	458	461
21	593	575	583	415	389	400	506	502	504	465	462	464
22	607	586	597	449	415	432	504	490	497	467	465	466
23	637	601	619	477	449	464	494	444	466	471	467	469
24	673	633	658	489	476	482	444	436	438	475	470	472
25	673	633	652	491	412	439	441	437	438	481	474	477
26	633	617	626	447	412	430	450	441	446	483	475	481
27	625	609	614	467	447	457	461	450	456	485	482	483
28	611	601	606	485	467	476	472	461	467	489	484	486
29	610	600	605	494	481	486	478	461	473	488	484	486
30	611	602	607	499	488	495	461	198	376	488	482	487
31	605	600	602	---	---	---	198	176	183	482	460	471
MONTH	705	575	656	621	244	428	506	176	432	489	185	414













## SINKING CREEK BASIN

03303205 SINKING CREEK NEAR LODIBURG, KY—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER—CONTINUED  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	9.6	7.7	8.5	13.1	7.6	9.8	---	---	---
2	---	---	---	10.3	8.1	9.0	12.9	7.8	9.6	---	---	---
3	---	---	---	10.7	8.5	9.3	13.4	7.0	9.8	---	---	---
4	---	---	---	11.1	8.4	9.4	14.0	7.0	9.7	---	---	---
5	---	---	---	10.5	8.1	9.2	13.6	7.5	9.8	---	---	---
6	---	---	---	11.3	8.6	9.6	13.3	6.2	9.2	---	---	---
7	---	---	---	11.5	8.6	9.7	11.2	6.2	8.5	---	---	---
8	---	---	---	11.8	8.7	9.8	14.0	4.2	8.2	---	---	---
9	11.3	9.8	10.4	12.5	8.7	10.0	13.9	4.9	8.9	---	---	---
10	11.2	9.9	10.4	12.3	8.8	10.2	13.7	6.6	9.3	---	---	---
11	11.1	9.9	10.3	11.1	8.5	9.6	13.2	4.9	8.7	---	---	---
12	10.6	9.8	10.0	11.1	8.6	9.8	13.3	5.3	8.7	---	---	---
13	10.7	9.8	10.1	10.0	8.0	9.0	13.0	5.1	8.3	---	---	---
14	10.7	10.0	10.2	---	---	---	13.6	4.8	8.0	---	---	---
15	10.4	9.9	10.1	---	---	---	9.8	4.6	7.1	---	---	---
16	10.4	9.7	10.1	9.1	8.0	8.6	9.6	5.2	7.1	7.3	5.8	6.5
17	10.2	9.6	9.8	9.4	8.4	8.7	9.2	4.6	6.5	---	---	---
18	10.2	9.6	9.9	9.7	8.6	9.1	8.9	4.6	6.5	8.3	5.8	7.1
19	10.4	9.5	9.9	9.9	8.5	9.1	10.3	5.9	7.5	8.6	6.3	7.3
20	10.5	9.5	9.9	9.9	8.0	9.2	10.0	5.6	7.0	8.7	6.1	7.2
21	10.8	9.5	10.0	10.9	8.2	9.3	9.8	5.4	7.0	9.0	5.5	7.3
22	10.9	9.5	10.0	10.3	8.1	9.3	9.6	5.0	6.7	8.5	5.4	7.1
23	11.1	9.4	10.0	10.6	8.1	9.3	9.2	4.6	6.3	8.9	5.4	6.9
24	11.5	9.6	10.3	11.4	8.8	9.8	8.6	4.3	6.0	8.4	5.2	6.7
25	11.7	9.6	10.3	---	---	---	8.4	4.1	5.7	7.1	5.2	6.0
26	11.9	9.5	10.3	---	---	---	---	---	---	---	---	---
27	11.6	9.5	10.3	12.0	9.2	10.5	---	---	---	---	---	---
28	10.4	8.9	9.6	12.7	9.0	10.5	---	---	---	9.9	6.0	7.6
29	9.2	7.3	8.0	13.3	8.8	10.3	---	---	---	10.2	6.4	8.0
30	8.5	7.4	7.8	13.1	8.5	10.1	---	---	---	10.1	7.3	8.2
31	---	---	---	13.5	8.2	10.1	---	---	---	---	---	---

MONTH

YEAR

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## 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<sup>2</sup>, 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<sup>3</sup>/s, which are poor and extreme events, which can be affected by high flows on the Mississippi River. All extreme high flow periods should be scrutinized for this reason. Daily discharge computed from head, gate openings, and lockages furnished by U.S. Army Corps of Engineers, Louisville District. 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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	131,000	104,000	186,000	270,000	186,000	156,000	432,000	248,000	65,000	62,500	24,300	117,000
2	149,000	124,000	227,000	253,000	184,000	163,000	441,000	261,000	72,200	40,700	36,100	95,300
3	145,000	157,000	327,000	231,000	173,000	194,000	445,000	291,000	47,200	69,200	36,100	63,200
4	118,000	144,000	361,000	282,000	181,000	217,000	447,000	292,000	44,800	23,400	36,100	63,400
5	91,500	145,000	384,000	e350,000	178,000	205,000	453,000	277,000	44,700	21,700	26,900	44,800
6	64,200	200,000	379,000	451,000	169,000	174,000	461,000	239,000	45,100	41,500	14,100	21,400
7	57,100	218,000	272,000	508,000	162,000	160,000	464,000	179,000	53,000	47,800	15,400	32,800
8	59,600	211,000	255,000	540,000	169,000	165,000	456,000	139,000	45,500	35,500	24,200	23,600
9	62,100	186,000	247,000	555,000	184,000	186,000	e400,000	118,000	53,700	25,500	23,600	14,500
10	46,000	157,000	247,000	566,000	192,000	227,000	e320,000	108,000	55,000	76,200	18,200	14,300
11	53,100	136,000	247,000	577,000	195,000	258,000	263,000	91,800	45,000	64,900	25,700	14,800
12	45,700	181,000	326,000	584,000	223,000	278,000	234,000	87,600	45,900	54,200	28,100	31,900
13	49,700	211,000	345,000	588,000	244,000	274,000	213,000	87,200	67,900	13,000	11,000	12,200
14	52,400	198,000	364,000	588,000	264,000	248,000	184,000	79,600	88,800	49,400	26,700	13,800
15	52,600	178,000	366,000	582,000	270,000	209,000	165,000	80,000	50,700	36,600	20,300	24,100
16	50,900	154,000	270,000	576,000	264,000	184,000	145,000	117,000	36,500	3,870	16,000	18,700
17	65,900	134,000	238,000	567,000	260,000	167,000	124,000	114,000	39,800	42,500	20,300	9,940
18	76,000	117,000	191,000	558,000	271,000	152,000	116,000	113,000	47,600	47,600	19,200	28,100
19	139,000	115,000	157,000	549,000	275,000	140,000	99,900	102,000	39,000	55,100	27,800	27,000
20	169,000	153,000	140,000	536,000	270,000	127,000	92,900	144,000	38,300	59,500	30,400	16,500
21	189,000	172,000	132,000	514,000	252,000	125,000	86,000	157,000	42,600	64,900	43,200	27,400
22	193,000	185,000	121,000	477,000	221,000	122,000	94,100	153,000	23,200	70,200	34,800	18,300
23	171,000	185,000	117,000	423,000	187,000	127,000	89,200	162,000	26,600	47,400	35,200	20,900
24	132,000	172,000	146,000	e300,000	186,000	137,000	123,000	155,000	35,900	45,200	19,400	24,300
25	111,000	160,000	177,000	241,000	195,000	156,000	161,000	127,000	27,200	38,400	14,700	11,900
26	111,000	159,000	201,000	219,000	206,000	179,000	199,000	104,000	24,400	30,000	31,300	26,400
27	111,000	160,000	213,000	202,000	195,000	200,000	217,000	94,200	30,000	38,700	30,500	38,700
28	111,000	175,000	209,000	190,000	173,000	276,000	233,000	92,300	23,000	43,900	47,300	28,600
29	111,000	186,000	189,000	191,000	---	353,000	240,000	83,300	21,300	35,800	47,200	47,400
30	103,000	188,000	180,000	187,000	---	e390,000	246,000	77,300	27,500	42,700	57,700	60,200
31	93,400	---	226,000	181,000	---	e410,000	---	72,600	---	23,800	123,000	---
TOTAL	3,114,200	4,965,000	7,440,000	12,836,000	5,929,000	6,359,000	7,644,100	4,445,900	1,307,400	1,351,670	964,800	991,440
MEAN	100,500	165,500	240,000	414,100	211,800	205,100	254,800	143,400	43,580	43,600	31,120	33,050
MAX	193,000	218,000	384,000	588,000	275,000	410,000	464,000	292,000	88,800	76,200	123,000	117,000
MIN	45,700	104,000	117,000	181,000	162,000	122,000	86,000	72,600	21,300	3,870	11,000	9,940

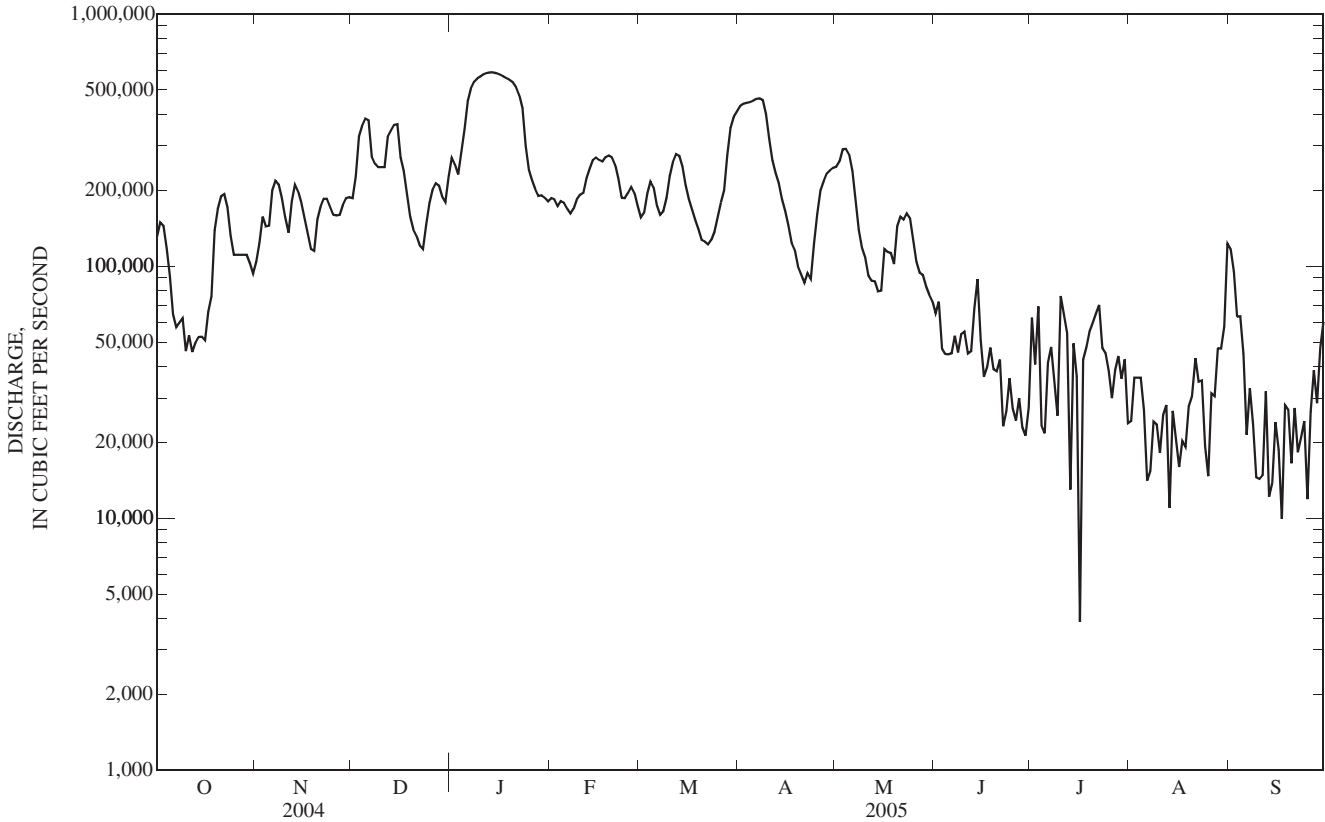
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 2005, BY WATER YEAR (WY)

MEAN	58,150	96,750	157,800	174,000	205,200	233,600	207,500	169,600	112,200	68,080	54,950	51,530
MAX	155,800	242,100	334,000	414,100	358,600	443,300	360,400	415,100	239,700	125,500	148,200	219,700
(WY)	(1980)	(2004)	(1979)	(2005)	(1994)	(1997)	(1994)	(1996)	(2003)	(1998)	(1980)	(2004)
MIN	13,980	24,350	47,120	36,500	94,740	125,500	72,990	46,020	16,490	18,760	13,130	11,630
(WY)	(1992)	(1999)	(1999)	(1977)	(1992)	(1983)	(1986)	(1976)	(1988)	(1988)	(1988)	(1999)

03303280 OHIO RIVER AT CANNELTON DAM, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1976 - 2005	
ANNUAL TOTAL	71,513,300		57,348,510		132,100	
ANNUAL MEAN	195,400		157,100		72,150	
HIGHEST ANNUAL MEAN					200,300	2004
LOWEST ANNUAL MEAN					72,150	1988
HIGHEST DAILY MEAN	548,000	Jan 9	588,000	Jan 13	735,000	Mar 8, 1997
LOWEST DAILY MEAN	28,800	Aug 20	3,870	Jul 16	3,180	Aug 28, 1995
ANNUAL SEVEN-DAY MINIMUM	37,900	Aug 14	17,900	Sep 8	7,650	Jul 12, 1988
MAXIMUM PEAK FLOW			590,000		736,000	Mar 8, 1997
MAXIMUM PEAK STAGE			46.05		52.42	Mar 8, 1997
10 PERCENT EXCEEDS	411,000		347,000		285,000	
50 PERCENT EXCEEDS	163,000		132,000		95,300	
90 PERCENT EXCEEDS	62,500		24,400		23,500	

e Estimated



## 03303280 OHIO RIVER AT CANNELTON DAM, KY—Continued

(National stream-quality accounting network station)

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to 1986 and 1996 to current water year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE.--October 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.

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; minimum daily recorded, 0.0°C, on several days during most winter months.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)
NOV												
17...	1230	Environmental	140,000	0.100	0.075	745	10.3	7.4	363	12.5	140	38.9
19...	1338	Equipment Blank	--	<.004	<.004	--	--	--	--	--	--	<0.02
DEC												
13...	1400	Environmental	292,000	.076	.057	742	12.6	7.8	319	8.5	130	36.4
JAN												
13...	1510	Environmental	608,000	.087	.065	745	9.6	7.4	256	7.5	110	30.1
13...	1518	Field Blank	--	<.004	<.004	--	--	--	--	--	--	--
25...	1310	Environmental	247,000	.071	.051	747	13.9	7.9	300	3.5	120	33.9
MAR												
08...	1340	Environmental	162,000	.045	.033	737	13.6	7.5	352	5.5	130	35.8
APR												
25...	1230	Environmental	164,000	.052	.039	--	--	--	--	--	140	36.9
25...	1240	Replicate	--	.053	.040	--	--	--	--	--	130	36.4
MAY												
09...	1330	Environmental	117,000	.080	.061	752	9.5	7.4	304	14.5	120	30.4
09...	1338	Field Blank	--	--	--	--	--	--	--	--	--	--
23...	1210	Environmental	163,000	.078	.060	746	8.2	7.4	346	18.5	130	32.9
23...	1218	Field Blank	--	--	--	--	--	--	--	--	--	.05
JUN												
07...	1320	Environmental	45,000	.063	.047	750	--	8.3	411	24.0	160	40.5
07...	1328	Field Blank	--	--	--	--	--	--	--	--	--	--
24...	1020	Environmental	36,300	.071	.052	745	9.3	8.2	393	27.0	150	38.7
24...	1030	Replicate	--	.070	.052	--	--	--	--	--	150	38.9
JUL												
13...	1100	Environmental	3,030	.058	.042	745	7.6	7.6	459	28.0	170	41.4
13...	1108	Field Blank	--	--	--	--	--	--	--	--	--	--
AUG												
09...	1240	Environmental	20,900	.064	.046	754	8.4	8.0	503	30.5	180	45.4
SEP												
22...	1120	Environmental	16,400	.069	.050	754	6.8	7.7	467	27.0	150	40.2

## 03303280 OHIO RIVER AT CANNELTON DAM, KY—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)
NOV 17...	10.3	3.04	15.5	79	96	17.3	0.1	6.37	59.5	217	0.23	0.49	E0.04
19...	<0.008	<0.010	<0.20	--	--	0.49	<.01	0.08	<0.01	--	--	--	<.010
DEC 13...	9.22	2.38	11.2	82	100	12.8	.1	7.01	47.9	193	.18	.63	<.04
JAN 13...	7.40	2.55	11.5	57	70	13.9	.1	6.38	39.8	158	.24	.92	E.02
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
25...	9.00	2.41	10.9	73	89	15.2	.1	6.83	41.6	172	.24	.56	E.03
MAR 08...	10.8	1.92	15.8	67	82	21.0	.1	6.50	57.7	206	.19	.32	E.04
APR 25...	10.5	2.19	15.8	71	86	20.0	.2	5.29	54.0	195	.17	.34	<.04
25...	10.4	2.09	15.6	76	93	20.1	.2	5.23	54.0	204	.18	.33	<.04
MAY 09...	9.48	2.11	12.0	64	78	14.6	.1	6.02	48.4	175	.17	.34	<.04
09...	--	--	--	--	--	--	--	--	--	--	--	--	<.010
23...	10.8	2.51	12.9	65	79	15.8	.2	3.71	45.4	189	.26	.58	E.04
23...	E.004	<.010	<.20	--	--	1.02	<.01	.05	<.01	--	--	--	--
JUN 07...	13.9	2.48	19.0	95	116	24.3	.2	.30	70.0	247	.29	.39	<.04
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	13.0	2.42	18.9	83	101	23.9	.2	.32	60.3	227	.43	.41	E.03
24...	13.0	2.44	18.9	89	109	23.9	.2	.33	60.3	211	.44	.44	E.03
JUL 13...	15.1	2.66	26.9	85	104	31.7	.2	.53	76.8	261	.52	.37	.08
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 09...	17.2	3.17	31.3	83	101	37.1	.2	.43	91.3	286	.36	.37	E.04
SEP 22...	13.2	3.28	28.3	71	87	34.6	.3	1.52	80.1	281	1.1	.31	<.04

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Phaeophytin a, phytoplankton, ug/L (62360)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)	Arsenic water, fltrd, ug/L (01000)
NOV 17...	0.84	0.016	0.10	0.043	0.061	0.15	1.5	<0.1	1.5	3.2	E2.8	E2.1	0.6
19...	<0.016	<0.002	<.02	<.006	--	--	<0.1	<.1	<0.1	E0.2	--	--	<.2
DEC 13...	.97	.014	.25	.033	.046	.22	2.8	<.1	2.7	2.6	2.9	1.1	.5
JAN 13...	1.06	.012	.48	.018	.028	.32	6.2	.1	6.0	2.8	3.3	1.8	.6
13...	--	--	.02	--	--	--	.3	<.1	.3	E.3	--	--	--
25...	1.07	.012	.30	.024	.031	.17	3.8	.4	3.4	2.7	E2.1	E0.6	.4
MAR 08...	1.04	.010	.12	.016	.019	.09	1.4	<.1	1.3	1.6	1.2	1.6	.2
APR 25...	.95	.008	.14	.013	.020	.07	1.0	<.1	1.0	1.9	5.7	7.8	.5
25...	.96	E.007	.15	.013	.018	.08	1.3	<.1	1.3	2.0	6.8	8.5	.4
MAY 09...	1.06	.018	.10	.016	.022	.09	.8	<.1	.7	2.4	E1.1	<.1	.3
09...	<.016	<.002	--	<.006	--	--	--	--	--	--	--	--	--
23...	1.10	.024	.20	.032	.041	.20	2.3	<.1	2.2	2.4	5.7	6.8	.5
23...	--	--	--	--	--	--	--	--	--	--	--	--	<.2
JUN 07...	.88	.014	.16	<.006	.009	.04	1.0	<.1	1.0	2.3	7.9	8.0	.4
07...	--	--	--	--	--	--	--	--	--	--	<0.3	<.3	--
24...	.87	.022	.20	<.006	.013	.04	1.1	<.1	1.1	2.5	7.5	10.5	.7
24...	.87	.021	.16	<.006	.013	.04	1.0	<.1	1.0	5.4	7.5	10.5	.7
JUL 13...	.85	.032	.06	.007	.019	.03	.6	<.1	.6	3.3	2.7	1.8	.8
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 09...	.56	.026	.12	<.006	.009	.02	.7	<.1	.7	3.1	5.3	7.3	1.0
SEP 22...	.93	.116	.10	.011	.045	.06	.5	<.1	.5	3.5	2.6	3.9	.92

## 03303280 OHIO RIVER AT CANNELTON DAM, KY—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Boron, water, fltrd, ug/L (01020)	Iron, water, fltrd, ug/L (01046)	Lithium, water, fltrd, ug/L (01130)	Selen- ium, water, fltrd, ug/L (01145)	Stront- ium, water, fltrd, ug/L (01080)	Vanad- ium, water, fltrd, ug/L (01085)	2,6-Di- ethyl- aniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Aceto- chlor, water, fltrd, ug/L (49260)	Ala- chlor, water, fltrd, ug/L (46342)	alpha- HCH, water, fltrd, ug/L (34253)	Atra- zine, water, fltrd, ug/L (39632)	Azin- phos- methyl, water, fltrd 0.7u GF ug/L (82686)
NOV													
17...	45	8	5.0	E0.3	210	0.4	<0.006	E0.010	0.031	<0.005	<0.005	0.053	<0.050
19...	<8	<6	<0.6	<.4	<0.40	<.1	--	--	--	--	--	--	--
DEC													
13...	31	12	3.6	E.3	197	.3	--	--	--	--	--	--	--
JAN													
13...	23	25	2.6	E.3	141	.5	<.006	E.008	<.010	<.005	<.005	.028	<.050
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
25...	28	19	2.8	E.2	171	.3	<.006	E.012	.013	<.005	<.005	.043	<.050
MAR													
08...	42	13	4.3	<.4	189	.4	<.006	E.007	<.006	<.005	<.005	.028	<.050
APR													
25...	49	E5	5.1	.5	217	.4	<.006	E.007	<.006	<.005	<.005	.031	<.050
25...	49	E6	5.0	.6	217	.4	<.006	E.008	.008	<.005	<.005	.032	<.050
MAY													
09...	30	13	4.7	E.4	193	.3	<.006	E.017	.154	<.005	<.005	.942	<.050
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	45	E4	5.8	E.3	184	1.0	<.006	E.134	.179	.016	<.005	2.12	<.050
23...	<8	<6	<.6	<.4	<.40	<.1	--	--	--	--	--	--	--
JUN													
07...	48	E3	6.4	E.2	271	.4	<.006	E.048	.086	<.005	<.005	.723	<.050
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	58	E4	5.5	.4	260	.9	<.006	E.062	.048	<.005	<.005	.497	<.050
24...	51	E3	5.4	.6	257	.6	<.006	E.041	.052	<.005	<.005	.522	<.050
JUL													
13...	63	<6	8.1	.6	310	.7	<.006	E.042	.034	<.005	<.005	.403	<.050
13...	--	--	--	--	--	--	<.006	<.006	<.006	<.005	<.005	<.007	<.050
AUG													
09...	46	<6	7.7	.5	399	.7	<.006	E.023	.009	<.005	<.005	.236	<.050
SEP													
22...	60	<6	7.0	.51	307	.71	<.006	E.020	E.005	<.005	<.005	.117	<.050

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Ben- flur- alin, water, fltrd 0.7u GF ug/L (82673)	Butyl- ate, water, fltrd, ug/L (04028)	Car- baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo- furan, water, fltrd 0.7u GF ug/L (82674)	Chlor- pyrifos water, fltrd, ug/L (38933)	cis- Per- methrin water fltrd 0.7u GF ug/L (82687)	Cyana- zine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)	Diazi- non, water, fltrd, ug/L (39572)	Diel- drin, water, fltrd, ug/L (39381)	Disul- foton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethal- flur- alin, water, fltrd 0.7u GF ug/L (82663)
NOV													
17...	<0.010	<0.004	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<0.02	<0.004	<0.009
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
13...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
25...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009
MAR													
08...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009
APR													
25...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009
25...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009
MAY													
09...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	<.010	<.004	E.191	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
07...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009
24...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009
JUL													
13...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009
13...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009
AUG													
09...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009
SEP													
22...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.008	<.009



## 03303280 OHIO RIVER AT CANNELTON DAM, KY—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Etho- prop, water, fltrd 0.7u GF (82672)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl para- thion, water, fltrd 0.7u GF (82667)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)	Moli- nate, water, fltrd 0.7u GF (82671)	Naprop- amide, water, fltrd 0.7u GF (82684)	p,p'- DDE, water, fltrd, ug/L (34653)	Para- thion, water, fltrd, ug/L (39542)	Peb- ulate, water, fltrd 0.7u GF (82669)
NOV 17...	<0.005	<0.003	<0.004	<0.035	<0.027	<0.015	0.016	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 13...	<.005	<.003	<.004	<.035	<.027	<.015	.019	<.006	<.003	<.007	<.003	<.010	<.004
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
25...	<.005	<.003	<.004	<.035	<.027	<.015	.022	<.006	<.003	<.007	<.003	<.010	<.004
MAR 08...	<.005	<.003	<.004	<.035	<.027	<.015	.028	<.006	<.003	<.007	<.003	<.010	<.004
APR 25...	<.005	<.003	<.004	<.035	<.027	<.015	.014	<.006	<.003	<.007	<.003	<.010	<.004
25...	<.005	<.003	<.004	<.035	<.027	<.015	.014	<.006	<.003	<.007	<.003	<.010	<.004
MAY 09...	<.005	<.003	<.004	<.035	<.027	<.015	.177	<.007	<.003	<.007	<.003	<.010	<.004
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	<.005	<.003	<.004	<.035	<.027	<.015	.438	.013	<.003	<.007	<.003	<.010	<.004
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 07...	<.005	<.003	<.004	<.035	<.027	<.015	.174	<.006	<.003	<.007	<.003	<.010	<.004
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	<.005	<.003	<.004	<.035	<.027	<.015	.097	<.006	<.003	<.007	<.003	<.010	<.004
24...	<.005	<.003	<.004	<.035	<.027	<.015	.100	<.006	<.003	<.007	<.003	<.010	<.004
JUL 13...	<.005	<.003	<.004	<.035	<.027	<.015	.096	<.006	<.003	<.007	<.003	<.010	<.004
13...	<.005	<.003	<.004	<.035	<.027	<.015	<.006	<.006	<.003	<.007	<.003	<.010	<.004
AUG 09...	<.005	<.003	<.004	<.035	<.027	<.015	.038	<.006	<.003	<.007	<.003	<.010	<.004
SEP 22...	<.005	<.003	<.004	<.035	<.027	<.015	.025	<.006	<.003	<.007	<.003	<.010	<.004

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Pendi- meth- alin, water, fltrd 0.7u GF (82683)	Phorate water fltrd 0.7u GF (82664)	Prome- ton, water, fltrd, ug/L (04037)	Propy- zamide, water, fltrd 0.7u GF (82676)	Propa- chlor, water, fltrd, ug/L (04024)	Pro- panil, water, fltrd 0.7u GF (82679)	Propar- gite, water, fltrd 0.7u GF (82685)	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd 0.7u GF (82670)	Terba- cil, water, fltrd 0.7u GF (82665)	Terbu- fos, water, fltrd 0.7u GF (82675)	Thio- bencarb water fltrd 0.7u GF (82681)	Tri- allate, water, fltrd 0.7u GF (82678)
NOV 17...	<0.022	<0.011	<0.01	<0.004	<0.025	<0.011	<0.02	<0.005	<0.02	<0.034	<0.02	<0.010	<0.006
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 13...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.037	<.02	<.034	<.02	<.010	<.006
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
25...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.049	<.02	<.034	<.02	<.010	<.006
MAR 08...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.010	<.02	<.034	<.02	<.010	<.006
APR 25...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.011	<.02	<.034	<.02	<.010	<.006
25...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.010	<.02	<.034	<.02	<.010	<.006
MAY 09...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.087	<.02	<.034	<.02	<.010	<.006
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	<.022	<.011	.01	<.004	<.025	<.011	<.02	.604	<.02	<.034	<.02	<.010	<.006
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 07...	<.022	<.011	.01	<.004	<.025	<.011	<.02	.095	<.02	<.034	<.02	<.010	<.006
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	<.022	<.011	.01	<.004	<.025	<.011	<.02	.100	<.02	<.034	<.02	<.010	<.006
24...	<.022	<.011	.01	<.004	<.025	<.011	<.02	.099	<.02	<.034	<.02	<.010	<.006
JUL 13...	<.022	<.011	E.01	<.004	<.025	<.011	<.02	.046	<.02	<.034	<.02	<.010	<.006
13...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.006
AUG 09...	<.022	<.011	E.01	<.004	<.025	<.011	<.02	.026	<.02	<.034	<.02	<.010	<.006
SEP 22...	<.022	<.011	.02	<.005	<.025	<.011	<.02	E.023	<.02	<.034	<.02	<.010	<.006

## OHIO RIVER MAIN STEM

03303280 OHIO RIVER AT CANNELTON DAM, KY—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)
NOV			
17...	<0.009	99	65
19...	--	--	--
DEC			
13...	--	81	154
JAN			
13...	<.009	88	277
13...	--	--	--
25...	<.009	98	114
MAR			
08...	<.009	98	43
APR			
25...	<.009	98	34
25...	<.009	99	33
MAY			
09...	<.009	100	65
09...	--	--	--
23...	<.009	100	87
23...	--	--	--
JUN			
07...	<.009	97	7
07...	--	--	--
24...	<.009	78	10
24...	<.009	--	--
JUL			
13...	<.009	100	11
13...	<.009	--	--
AUG			
09...	<.009	97	13
SEP			
22...	<.009	100	16

E--Laboratory estimated value.

M--Presence of material verified but not quantified.

&lt;--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.--682 mi<sup>2</sup>.

## WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--Water-temperature: Oct. 1964 to Sept. 1989, Oct. 1994 to current year.

GAGE.--Water Temperature recorder with telemetry.

REMARKS.--Records good.

COOPERATION.--Nature Conservancy and 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, 28.6°C, Aug. 15, 23, minimum recorded, 4.6°C, Feb. 4, 12, 13.

TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY			
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	
1	---	---	18.1	18.0	16.8	17.7	12.7	12.2	12.5	6.7	6.2	6.5	
2	21.4	18.4	19.5	17.8	17.4	17.6	12.5	12.1	12.3	6.5	6.1	6.3	
3	22.0	20.8	21.3	---	---	17.8	12.3	12.2	12.2	6.2	5.9	6.1	
4	---	---	21.2	17.7	17.3	17.5	12.2	12.0	12.1	6.5	5.8	6.1	
5	22.3	19.9	20.7	---	---	17.4	12.0	11.8	11.9	6.5	5.4	6.0	
6	22.2	19.7	20.5	17.4	17.2	17.3	11.8	11.5	11.6	6.4	5.4	5.8	
7	22.1	19.8	20.5	17.2	17.1	17.2	11.7	11.4	11.5	6.5	6.2	6.3	
8	21.5	19.8	20.3	17.2	16.8	17.0	11.7	11.4	11.5	6.4	6.0	6.2	
9	21.0	19.8	20.2	16.8	16.4	16.6	11.4	11.2	11.3	6.0	5.8	5.9	
10	21.7	19.8	20.4	16.8	16.0	16.4	11.4	11.1	11.3	6.2	5.8	6.0	
11	21.4	19.7	20.2	16.5	16.3	16.4	---	---	11.0	6.2	6.0	6.1	
12	20.7	19.8	20.0	16.3	15.7	16.1	10.9	10.6	10.7	6.3	6.0	6.2	
13	19.8	19.6	19.7	15.9	15.3	15.6	10.6	10.2	10.5	6.9	6.3	6.6	
14	20.0	18.9	19.6	15.7	15.1	15.3	10.2	9.9	10.1	6.8	6.5	6.7	
15	19.2	18.2	18.6	15.6	15.0	15.2	9.9	9.7	9.8	6.8	6.4	6.6	
16	19.2	17.5	18.2	15.2	15.0	15.1	9.7	9.6	9.6	6.7	6.2	6.4	
17	19.4	17.2	17.9	15.0	14.8	15.0	9.6	9.4	9.5	6.2	5.9	6.1	
18	18.1	17.4	17.8	15.1	14.8	14.9	9.4	9.2	9.3	6.0	5.7	5.9	
19	18.4	17.8	18.1	14.9	14.6	14.8	9.2	8.6	9.0	5.9	5.8	5.8	
20	18.3	17.0	17.8	14.6	14.4	14.5	8.6	8.2	8.4	5.9	5.8	5.8	
21	18.5	16.7	17.8	14.6	14.4	14.5	8.3	8.1	8.2	5.8	5.7	5.7	
22	18.7	18.2	18.4	14.5	14.3	14.4	8.3	8.1	8.2	5.8	5.7	5.7	
23	18.2	17.8	18.1	14.5	14.2	14.3	8.1	7.5	7.8	5.7	5.3	5.4	
24	18.6	17.9	18.2	14.4	13.4	13.9	7.5	7.2	7.4	5.3	5.1	5.2	
25	19.4	17.5	18.1	13.9	13.6	13.8	7.2	7.0	7.1	5.2	5.1	5.1	
26	18.9	17.4	18.0	13.6	13.4	13.5	7.0	6.8	7.0	5.3	5.1	5.2	
27	18.3	17.9	18.1	---	---	13.2	6.8	6.6	6.7	5.2	4.8	5.0	
28	18.5	18.1	18.3	13.2	12.9	13.0	6.6	6.3	6.5	5.1	4.7	4.9	
29	19.0	17.8	18.2	12.9	12.8	12.8	6.4	6.3	6.4	4.9	4.7	4.8	
30	18.9	17.4	18.0	12.8	12.5	12.7	6.4	6.2	6.3	4.9	4.7	4.8	
31	18.7	17.3	17.9	---	---	---	6.2	6.1	6.2	4.9	4.7	4.8	
MONTH			19.0			15.4			9.5		6.9	4.7	5.8



## 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<sup>2</sup>.

## WATER DISCHARGE RECORDS

PERIOD OF RECORD.--June 1939 to September 1975, October 2004 to current.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 531.81 ft above NGVD of 1929. Prior to June 20, 1941, nonrecording gage at same site and datum. Jan. 4, 1951 to September 1975, auxiliary nonrecording gage read twice daily, 1.8 miles upstream from base gage. November 1941 to Jan. 3, 1951, auxiliary nonrecording gage 1.5 miles downstream from base gage.

REMARKS.--Records fair.

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

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,570	265	4,750	1,040	844	2,000	323	1,640	113	83	84	100
2	1,030	2,700	966	1,280	829	1,950	540	2,810	118	83	82	76
3	572	2,730	1,600	1,230	1,030	1,940	402	4,280	128	81	83	106
4	399	3,050	4,460	1,240	1,650	1,920	1,250	6,290	119	90	82	149
5	214	3,360	6,020	1,370	1,650	1,910	2,030	7,740	114	92	83	152
6	121	5,520	5,120	1,530	1,660	1,890	2,010	5,980	110	85	82	151
7	118	5,450	e2,410	1,650	1,660	1,930	2,020	4,070	106	83	81	152
8	117	4,900	e1,580	3,640	1,690	2,100	2,140	2,740	104	83	79	151
9	116	2,500	1,760	1,930	1,730	2,160	2,520	1,360	106	82	80	114
10	114	1,340	1,930	1,310	e2,020	2,620	3,040	649	105	81	71	64
11	109	419	4,020	1,240	e1,410	2,460	3,030	377	110	89	61	58
12	163	457	4,220	1,180	e1,440	1,850	3,090	350	122	96	62	56
13	202	400	5,590	1,190	e1,470	1,400	3,280	333	113	98	61	55
14	238	374	8,210	853	e1,540	912	3,110	346	115	97	61	54
15	304	364	8,680	720	e1,640	505	3,070	332	128	92	66	55
16	138	358	8,350	755	2,840	222	3,040	336	111	88	67	58
17	115	1,270	8,510	1,160	2,960	160	2,800	334	107	93	66	63
18	135	620	8,380	e3,380	2,940	152	1,570	205	106	91	79	59
19	212	364	8,240	5,880	2,850	146	1,200	175	105	84	83	57
20	563	348	8,120	7,120	2,630	143	793	299	103	85	70	56
21	2,690	330	7,820	8,410	2,870	138	779	328	95	120	63	56
22	750	328	6,510	8,840	2,770	137	774	361	82	106	59	57
23	419	331	7,200	8,840	2,680	146	762	359	81	92	59	58
24	486	649	1,290	8,380	2,640	140	760	212	81	86	58	58
25	433	2,550	2,060	5,980	2,610	139	716	138	80	84	58	58
26	433	3,930	4,090	4,000	2,450	137	501	126	81	83	66	57
27	e209	4,810	5,610	2,300	1,930	187	503	125	92	82	63	60
28	394	3,970	5,580	1,200	2,020	1,430	482	120	96	85	61	60
29	307	2,660	5,340	843	---	433	680	116	90	83	92	59
30	149	3,100	4,180	879	---	279	3,360	116	85	84	308	58
31	133	---	2,320	879	---	227	---	115	---	83	192	---
TOTAL	13,953	59,447	154,916	90,249	56,453	31,763	50,575	42,762	3,106	2,744	2,562	2,367
MEAN	450	1,982	4,997	2,911	2,016	1,025	1,686	1,379	104	88.5	82.6	78.9
MAX	2,690	5,520	8,680	8,840	2,960	2,620	3,360	7,740	128	120	308	152
MIN	109	265	966	720	829	137	323	115	80	81	58	54

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1960, BY WATER YEAR (WY)

MEAN	73.2	663	1,231	1,726	3,312	2,358	1,746	757	711	566	261	121
MAX	134	2,849	3,313	3,334	6,790	5,439	2,680	1,918	1,561	1,418	908	338
(WY)	(1956)	(1958)	(1958)	(1957)	(1956)	(1955)	(1958)	(1958)	(1960)	(1958)	(1958)	(1958)
MIN	3.76	31.4	176	662	1,600	1,158	579	342	161	156	28.9	19.5
(WY)	(1957)	(1957)	(1956)	(1955)	(1958)	(1959)	(1955)	(1959)	(1959)	(1957)	(1957)	(1955)

03306500 GREEN RIVER AT GREENSBURG, KY—Continued

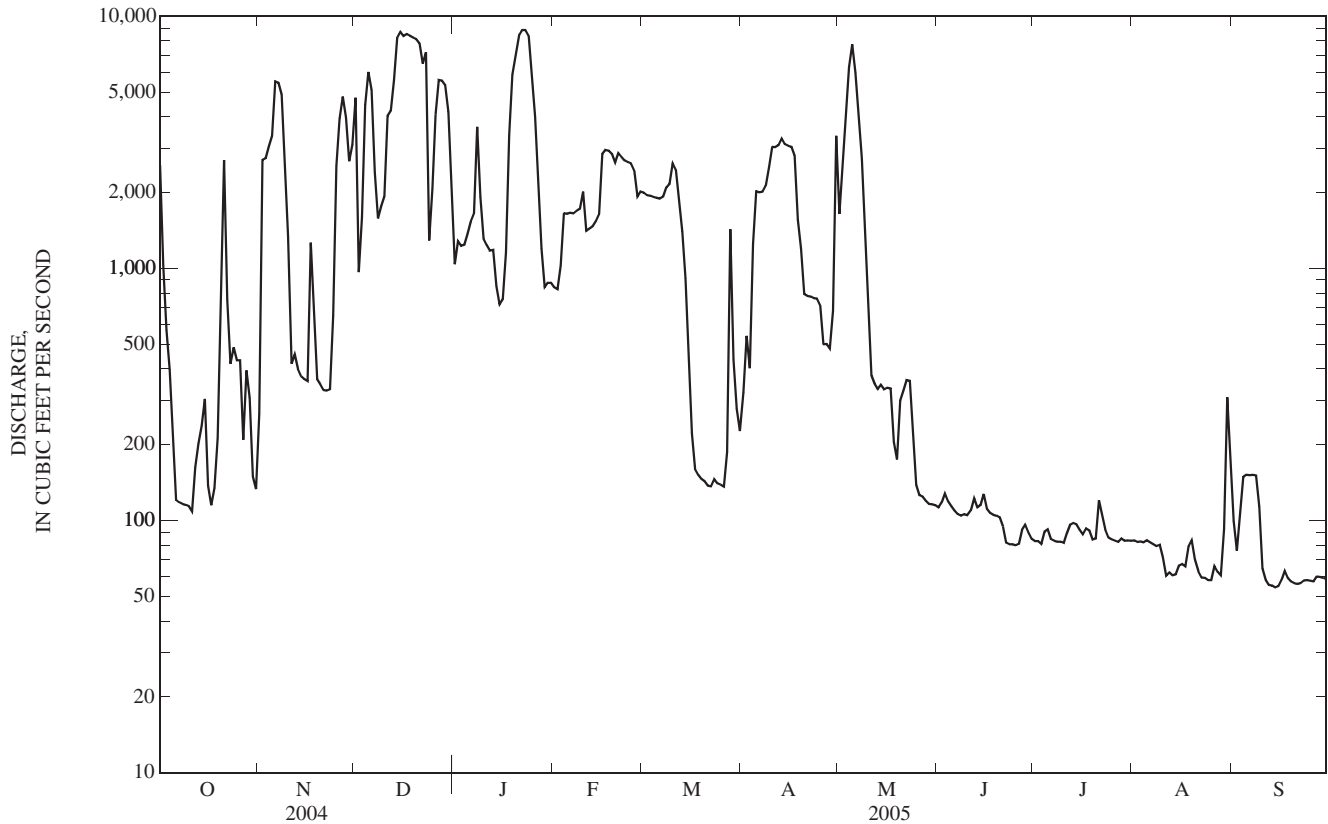
SUMMARY STATISTICS

FOR 2005 WATER YEAR

WATER YEARS 1955 - 1960

ANNUAL TOTAL	510,897			
ANNUAL MEAN	1,400		1,115	
HIGHEST ANNUAL MEAN			1,544	1958
LOWEST ANNUAL MEAN			718	1959
HIGHEST DAILY MEAN	8,840	Jan 22	25,200	Nov 20, 1957
LOWEST DAILY MEAN	54	Sep 14	2.0	Oct 3, 1956
ANNUAL SEVEN-DAY MINIMUM	57	Sep 11	3.0	Oct 2, 1956
MAXIMUM PEAK FLOW	9,310	Jan 23	60,600	Feb 28, 1962
MAXIMUM PEAK STAGE	14.11	Jan 23	37.17	Feb 28, 1962
INSTANTANEOUS LOW FLOW			0.40	Oct 26, 1953
10 PERCENT EXCEEDS	4,080		2,660	
50 PERCENT EXCEEDS	364		323	
90 PERCENT EXCEEDS	69		35	

e Estimated



GREEN RIVER BASIN

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<sup>2</sup>.

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--Water-temperature: December 22, 1999 to curent year.

GAGE.--Water-temperature recorder with telemetry.

REMARKS.--Records good.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--Maximum recorded, 31.2°C , July 25, 2001; minimum recorded, 4.4° C Jan. 17, 2005.

EXTREMES FOR CURRENT YEAR.--  
Maximum recorded, 28.8°C, July 21, minimum recorded, 4.4°C, Jan. 17.

TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY			
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	
1	20.3	19.1	19.6	18.9	17.6	18.2	12.9	12.0	12.6	---	---	---	
2	19.7	18.9	19.4	18.9	18.1	18.3	12.0	10.6	11.0	---	---	---	
3	18.9	18.1	18.6	18.2	17.5	17.7	11.6	10.3	10.7	---	---	---	
4	19.1	17.6	18.4	17.6	17.0	17.4	12.1	11.5	11.8	---	---	---	
5	19.0	18.0	18.5	17.0	16.4	16.7	12.2	11.8	12.0	---	---	---	
6	18.2	16.7	17.4	17.3	16.6	17.0	12.4	12.1	12.2	---	---	---	
7	17.8	16.3	17.1	17.5	16.8	17.2	13.0	12.4	12.8	---	---	---	
8	18.3	17.1	17.7	17.4	16.5	17.0	12.9	11.8	12.2	---	---	---	
9	18.4	17.6	18.0	16.5	15.6	15.9	---	---	11.5	---	---	---	
10	18.7	17.5	18.1	15.8	15.0	15.3	---	---	---	---	---	---	
11	18.3	17.4	17.9	15.2	14.8	14.9	---	---	---	---	---	---	
12	18.4	17.7	18.1	14.9	14.0	14.6	---	---	---	---	---	8.9	
13	18.3	17.6	17.9	14.0	12.9	13.3	---	---	---	8.9	8.7	8.8	
14	17.7	17.1	17.4	12.9	12.0	12.4	---	---	---	8.8	7.3	8.2	
15	17.4	16.1	16.7	12.3	11.6	12.0	---	---	---	7.3	6.4	6.7	
16	16.1	15.1	15.6	13.0	12.2	12.6	---	---	---	6.5	5.1	5.9	
17	15.1	13.8	14.4	14.6	13.0	13.8	---	---	---	5.1	4.4	4.6	
18	14.8	14.0	14.3	14.6	14.2	14.5	---	---	---	5.7	4.6	5.0	
19	16.2	14.8	15.4	14.7	14.4	14.6	---	---	---	---	---	6.0	
20	18.3	16.2	16.8	14.8	14.6	14.8	---	---	---	6.7	6.3	6.5	
21	18.4	17.6	17.9	14.6	14.3	14.4	---	---	---	6.7	6.5	6.6	
22	17.8	17.4	17.6	---	---	14.2	---	---	---	6.6	6.3	6.5	
23	17.6	17.1	17.3	14.6	14.1	14.3	---	---	---	6.3	6.2	6.3	
24	18.3	17.5	17.8	14.9	14.6	14.7	---	---	---	6.3	6.0	6.1	
25	18.1	17.3	17.7	14.8	13.2	13.6	---	---	---	6.5	6.0	6.2	
26	---	---	17.3	13.7	13.0	13.4	---	---	---	6.8	6.4	6.5	
27	---	---	---	13.6	13.3	13.4	---	---	---	6.4	5.5	5.8	
28	---	---	18.4	13.4	12.8	13.2	---	---	---	5.5	5.0	5.3	
29	19.6	18.6	19.1	12.8	12.5	12.7	---	---	---	6.0	5.4	5.7	
30	19.8	19.2	19.5	12.8	12.6	12.7	---	---	---	---	---	6.0	
31	19.5	18.0	18.6	---	---	---	---	---	---	---	---	6.2	
MONTH							14.8						





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<sup>2</sup> (includes Butlers Fork), of which about 15 mi<sup>2</sup> 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 with telemetry. 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 fair except for those estimated, which are poor.

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<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec 1	0330	*6,290	*15.51	Jan 8	1015	6,030	15.21
Dec 7	1900	6,160	15.36	Apr 30	1315	5,200	14.16

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	103	3,940	271	265	589	508	998	51	29	18	143
2	62	92	1,140	630	234	401	1,510	573	54	27	16	68
3	69	84	757	822	252	334	795	415	60	25	15	42
4	73	1,190	562	703	244	294	506	332	63	109	14	29
5	61	625	439	1,180	219	426	372	275	54	84	14	23
6	55	382	875	1,310	201	354	299	238	48	45	13	19
7	51	287	4,120	1,370	188	317	272	208	e47	31	12	17
8	49	225	1,420	4,180	229	783	471	181	e38	26	12	16
9	48	172	1,620	1,170	232	554	349	157	e39	23	12	15
10	47	145	1,410	728	220	423	276	140	e27	21	11	13
11	46	135	1,130	550	200	356	236	126	e36	22	10	13
12	45	355	824	574	185	311	237	113	e131	26	9.9	12
13	241	363	636	579	427	266	442	103	e62	43	9.5	12
14	145	256	500	1,120	1,030	227	306	112	e39	58	9.7	11
15	104	203	415	646	666	196	248	122	39	112	9.9	11
16	117	175	368	494	484	184	206	100	47	113	16	10
17	81	158	334	386	366	183	175	87	37	91	18	12
18	75	147	305	312	298	162	155	79	32	132	21	20
19	e612	143	288	284	256	148	138	75	30	210	23	20
20	e405	147	252	267	360	139	124	353	29	73	19	16
21	e206	136	237	247	988	126	110	278	28	102	17	13
22	e176	125	433	219	728	119	102	147	27	85	14	11
23	e144	128	2,510	189	493	136	102	111	26	65	12	9.9
24	e164	776	935	148	393	153	96	93	25	50	10	9.1
25	e194	938	629	163	323	133	85	80	24	e48	21	8.7
26	146	580	509	157	274	121	84	73	23	e36	15	8.8
27	125	441	419	141	242	118	189	69	23	e33	13	9.1
28	115	462	361	118	428	525	127	64	35	e28	41	9.6
29	120	387	339	215	---	326	196	59	49	28	181	14
30	126	2,240	316	454	---	235	3,680	57	40	23	676	12
31	108	---	293	328	---	224	---	55	---	20	366	---
TOTAL	4,072	11,600	28,316	19,955	10,425	8,863	12,396	5,873	1,263	1,818	1,649.0	627.2
MEAN	131	387	913	644	372	286	413	189	42.1	58.6	53.2	20.9
MAX	612	2,240	4,120	4,180	1,030	783	3,680	998	131	210	676	143
MIN	45	84	237	118	185	118	84	55	23	20	9.5	8.7
CFSM	0.76	2.24	5.28	3.72	2.15	1.65	2.39	1.10	0.24	0.34	0.31	0.12
IN.	0.88	2.49	6.09	4.29	2.24	1.91	2.67	1.26	0.27	0.39	0.35	0.13

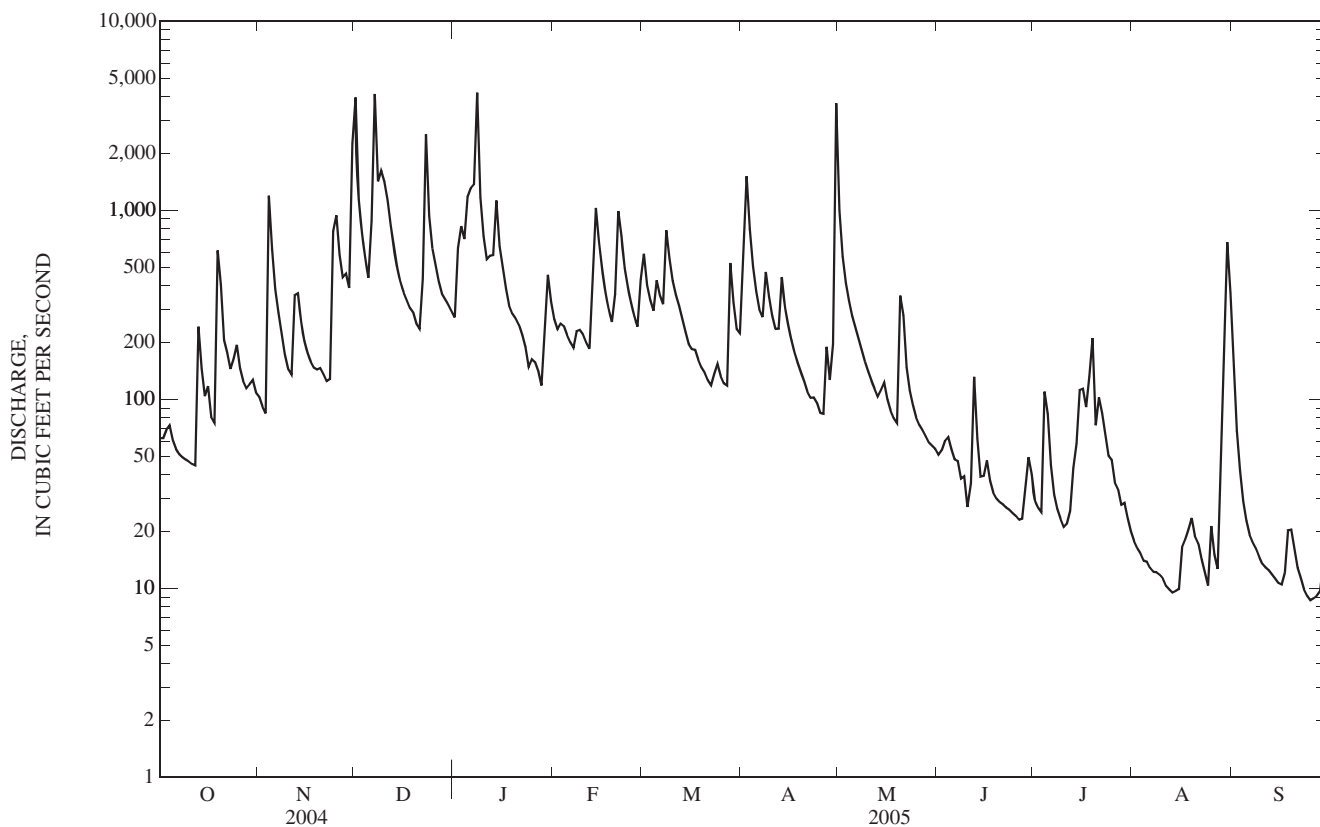
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2005, BY WATER YEAR (WY)

MEAN	74.3	208	409	473	578	569	390	274	203	122	86.3	110
MAX	636	1,047	2,540	1,779	1,588	1,787	856	1,464	800	751	502	1,114
(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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1940 - 2005	
ANNUAL TOTAL	139,675		106,857.2		290	
ANNUAL MEAN	382		293		651	
HIGHEST ANNUAL MEAN					118 1941	
LOWEST ANNUAL MEAN					25,000 Dec 9, 1978	
HIGHEST DAILY MEAN	7,830	Feb 6	4,180	Jan 8	0.40 Sep 25, 1952	
LOWEST DAILY MEAN	30	Jul 30	8.7	Sep 25	0.47 Oct 19, 1953	
ANNUAL SEVEN-DAY MINIMUM	37	Aug 27	9.5	Sep 22	40,600 Sep 1, 1982	
MAXIMUM PEAK FLOW			6,290	Dec 1	26.12 Sep 1, 1982	
MAXIMUM PEAK STAGE			15.51	Dec 1	5.7 Sep 2, 1993	
INSTANTANEOUS LOW FLOW					1.68	
ANNUAL RUNOFF (CFSM)	2.21		1.69		22.78	
ANNUAL RUNOFF (INCHES)	30.03		22.98		631	
10 PERCENT EXCEEDS	862		640		102	
50 PERCENT EXCEEDS	192		143		15	
90 PERCENT EXCEEDS	52		15			

e Estimated



## 03307000 RUSSELL CREEK NEAR COLUMBIA, KY—Continued

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<sup>2</sup> (includes Butlers Fork), of which about 15 mi<sup>2</sup> does not contribute directly to surface runoff.

## WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--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 CURRENT YEAR.--Maximum recorded, 31.1°C, July 25, minimum recorded, 1.4°C, Jan. 24.

EXTREMES FOR PERIOD OF DAILY RECORD.--Maximum recorded, 31.3°C, Sept. 10, 2003; minimum recorded 0.0°C, many days in Dec. and Jan.

TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	18.2	15.9	17.1	18.4	17.4	17.8	11.4	10.7	11.2	9.9	8.9	9.4
2	18.1	17.5	17.8	18.8	18.2	18.4	10.7	9.0	9.6	11.4	9.9	10.6
3	17.9	16.4	17.2	---	---	---	9.0	8.3	8.7	11.8	11.2	11.4
4	17.5	15.3	16.4	17.4	16.2	16.8	8.3	7.5	7.9	12.2	11.8	12.0
5	16.3	13.6	15.0	---	---	---	8.3	7.2	7.8	12.2	11.9	12.1
6	15.4	11.7	13.5	14.4	13.4	13.8	11.6	8.3	9.9	12.3	10.2	11.6
7	15.9	11.9	14.0	13.7	13.2	13.4	13.6	11.6	12.9	10.2	8.3	9.0
8	16.3	13.7	15.1	13.6	12.8	13.2	13.4	11.5	12.2	9.3	8.3	8.8
9	16.6	14.9	15.7	---	---	---	11.8	11.0	11.3	9.7	9.2	9.4
10	16.6	14.4	15.5	10.9	9.7	10.3	12.6	11.8	12.3	10.1	9.7	9.9
11	16.4	14.0	15.3	11.2	10.1	10.6	12.3	10.7	11.5	11.0	10.0	10.4
12	17.0	15.3	16.1	11.8	11.2	11.5	10.7	10.0	10.2	12.3	11.0	11.7
13	17.0	16.8	16.9	11.6	10.5	11.1	10.0	7.8	9.1	12.6	12.1	12.4
14	16.8	16.4	16.6	10.5	9.4	10.0	7.8	6.1	6.8	12.1	8.7	10.4
15	16.4	14.9	15.5	9.7	8.6	9.2	6.1	5.1	5.5	8.7	7.3	7.8
16	14.9	13.9	14.4	10.1	9.0	9.6	5.4	4.6	5.0	7.3	5.8	6.7
17	13.9	12.8	13.3	10.9	10.1	10.6	5.5	4.9	5.2	5.8	3.6	4.5
18	---	---	---	11.8	10.7	11.2	5.7	5.0	5.3	3.6	2.1	2.6
19	---	---	---	12.8	11.8	12.4	5.8	4.8	5.5	2.7	2.0	2.3
20	---	---	---	13.3	12.8	13.1	4.8	3.4	3.9	4.3	2.7	3.4
21	---	---	---	13.6	13.0	13.3	3.9	3.0	3.4	4.8	4.3	4.6
22	---	---	---	13.6	12.9	13.2	5.0	3.9	4.3	4.9	4.1	4.7
23	---	---	---	13.9	13.2	13.5	5.2	4.8	5.0	4.1	2.2	3.0
24	---	---	---	14.5	13.7	14.1	4.9	3.9	4.4	2.2	1.4	1.7
25	---	---	---	14.0	10.7	12.5	3.9	3.3	3.6	2.4	1.4	1.8
26	16.8	16.1	16.5	10.7	9.1	9.6	4.2	3.5	3.8	4.1	2.4	3.2
27	17.4	16.6	16.9	---	---	---	4.1	3.7	3.8	4.3	3.8	4.1
28	18.0	17.2	17.5	9.5	8.9	9.1	4.1	3.3	3.7	3.8	3.2	3.6
29	19.0	18.0	18.4	9.3	8.7	9.0	5.6	4.1	4.7	4.0	3.6	3.8
30	19.2	18.7	18.9	11.4	9.2	10.1	7.4	5.6	6.4	---	---	---
31	18.9	17.7	18.1	---	---	---	8.9	7.4	8.1	5.1	4.6	4.9
MONTH							13.6	3.0	7.2			



## 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 Munfordsville, and at mile 225.9.

DRAINAGE AREA.--1,673 mi<sup>2</sup>, of which about 180 mi<sup>2</sup> 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. Flow regulated 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/s.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

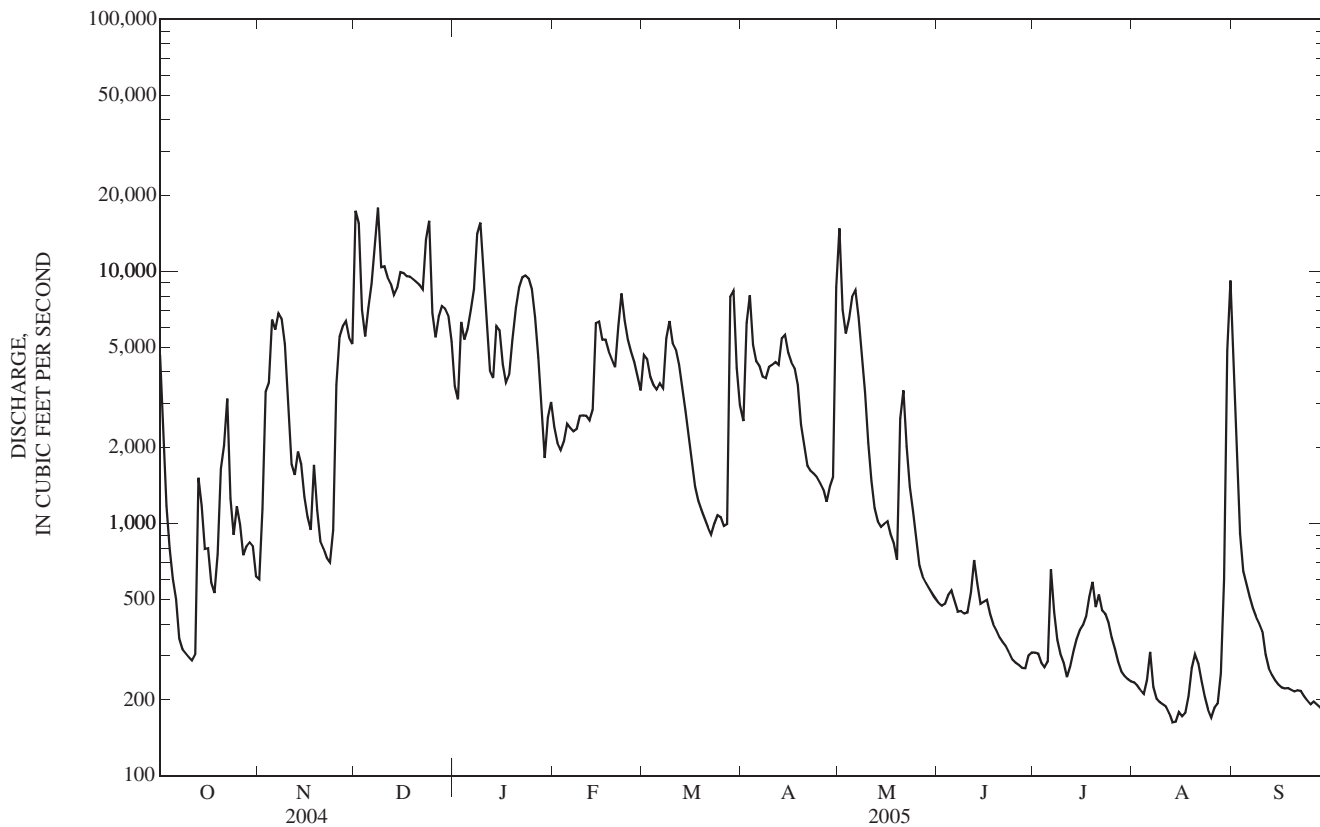
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,670	602	17,400	3,510	2,420	4,670	2,550	14,800	484	308	235	3,460
2	2,530	1,140	15,500	3,110	2,090	4,490	6,250	7,050	472	305	228	1,590
3	1,180	3,340	7,040	6,310	1,960	3,830	8,030	5,680	480	281	218	914
4	796	3,620	5,530	5,370	2,120	3,550	5,130	6,470	520	269	211	648
5	604	6,430	7,200	5,910	2,490	3,410	4,420	7,950	541	283	239	578
6	502	5,880	8,970	7,020	2,400	3,600	4,230	8,420	492	658	310	513
7	349	6,820	12,600	8,530	2,320	3,450	3,830	6,580	448	446	225	463
8	317	6,500	17,900	14,100	2,370	5,440	3,770	4,750	450	345	202	427
9	305	5,150	10,400	15,600	2,680	6,370	4,180	3,330	440	303	196	402
10	295	2,810	10,500	9,110	2,690	5,200	4,260	2,100	444	280	192	374
11	286	1,720	9,510	5,910	2,680	4,900	4,380	1,480	533	246	188	302
12	303	1,560	8,970	4,050	2,570	4,270	4,260	1,150	717	271	177	267
13	1,520	1,930	8,060	3,780	2,830	3,440	5,430	1,020	577	310	163	251
14	1,180	1,720	8,600	6,070	6,230	2,800	5,620	973	480	347	164	239
15	795	1,280	9,960	5,850	6,330	2,190	4,760	998	489	377	179	230
16	799	1,060	9,880	4,290	5,370	1,740	4,360	1,020	498	395	172	224
17	583	945	9,590	3,620	5,370	1,400	4,140	905	437	429	178	222
18	530	1,710	9,550	3,890	4,840	1,230	3,550	835	399	514	207	223
19	759	1,130	9,320	5,360	4,490	1,130	2,470	719	377	588	267	219
20	1,650	852	9,080	7,170	4,180	1,050	2,050	2,610	353	467	303	216
21	2,050	797	8,860	8,640	6,050	968	1,700	3,380	338	523	277	218
22	3,130	731	8,510	9,480	8,190	906	1,620	2,030	326	453	237	217
23	1,260	702	13,400	9,640	6,390	1,000	1,580	1,400	307	439	205	207
24	903	944	15,900	9,390	5,350	1,080	1,530	1,120	289	404	183	199
25	1,170	3,560	6,840	8,500	4,800	1,060	1,450	863	281	352	170	192
26	992	5,520	5,480	6,570	4,370	978	1,370	682	275	318	186	197
27	749	6,060	6,640	4,560	3,850	994	1,220	618	268	283	193	192
28	813	6,340	7,300	2,760	3,380	7,950	1,400	582	267	259	255	187
29	843	5,460	7,130	1,820	---	8,370	1,530	555	300	249	599	181
30	813	5,160	6,690	2,640	---	4,150	8,640	529	308	242	4,870	178
31	618	---	5,300	3,040	---	2,950	---	506	---	237	9,190	---
TOTAL	33,294	91,473	297,610	195,600	110,810	98,566	109,710	91,105	12,590	11,181	20,619	13,730
MEAN	1,074	3,049	9,600	6,310	3,958	3,180	3,657	2,939	420	361	665	458
MAX	4,670	6,820	17,900	15,600	8,190	8,370	8,640	14,800	717	658	9,190	3,460
MIN	286	602	5,300	1,820	1,960	906	1,220	506	267	237	163	178

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2005, BY WATER YEAR (WY)

MEAN	1,251	2,447	4,238	4,618	5,425	4,901	3,696	3,268	2,393	1,026	853	1,203
MAX	5,337	5,414	12,800	12,130	13,610	12,040	8,632	13,250	7,209	3,132	3,642	6,104
(WY)	(1976)	(2003)	(1979)	(1974)	(1989)	(1975)	(1994)	(1983)	(1997)	(1973)	(1977)	(1979)
MIN	193	210	545	255	1,952	1,066	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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1970 - 2005	
ANNUAL TOTAL	1,404,333		1,086,288			
ANNUAL MEAN	3,837		2,976		2,930	
HIGHEST ANNUAL MEAN					5,285	1979
LOWEST ANNUAL MEAN					1,233	2000
HIGHEST DAILY MEAN	21,800	Feb 7	17,900	Dec 8	62,800	May 8, 1984
LOWEST DAILY MEAN	286	Oct 11	163	Aug 13	136	Oct 4, 2001
ANNUAL SEVEN-DAY MINIMUM	337	Oct 6	174	Aug 11	142	Sep 9, 1999
MAXIMUM PEAK FLOW			20,300	Dec 1	76,800	Mar 1, 1962
MAXIMUM PEAK STAGE			25.27	Dec 1	57.72	Mar 1, 1962
INSTANTANEOUS LOW FLOW					157	Jul 8, 1988
10 PERCENT EXCEEDS	9,390		8,040		7,090	
50 PERCENT EXCEEDS	2,060		1,400		1,440	
90 PERCENT EXCEEDS	600		233		282	



## 03308500 GREEN RIVER AT MUNFORDVILLE, KY—Continued

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 Munfordsville, and at mile 225.9.

DRAINAGE AREA.--1,673 mi<sup>2</sup>, of which about 180 mi<sup>2</sup> does not contribute directly to surface runoff.

## WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--Water years 1950-77, 1980, 1983-90, August 1992 to September 1994, 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 daily, 29°C, July 13-17, 1980; minimum daily 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--Maximum recorded 26.3°C, Aug. 27, minimum recorded, 3.7°C, Jan. 18.

TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	18.9	17.3	18.4	17.3	16.3	16.9	12.0	11.7	11.8	9.5	8.7	9.1
2	18.8	17.9	18.5	17.2	16.8	17.0	11.9	10.9	11.4	11.0	9.5	10.4
3	18.0	17.0	17.5	17.2	16.3	16.8	10.9	9.8	10.4	11.8	11.0	11.5
4	17.7	16.3	17.0	16.4	15.9	16.2	10.2	9.3	9.6	12.3	11.8	12.1
5	17.0	15.6	16.4	16.1	14.9	15.6	11.2	10.2	10.7	12.5	12.2	12.3
6	16.3	14.6	15.5	15.1	14.2	14.6	11.9	11.2	11.6	12.6	11.8	12.3
7	16.0	14.3	15.3	15.8	14.9	15.4	13.1	11.8	12.5	11.8	10.2	10.9
8	16.0	15.0	15.6	15.7	15.3	15.5	13.2	12.9	13.1	10.3	9.4	9.7
9	16.3	15.2	15.7	15.3	14.1	14.8	12.9	11.9	12.4	9.9	9.5	9.7
10	17.2	15.2	16.0	14.1	13.3	13.5	12.2	11.8	12.0	---	---	---
11	17.0	15.1	15.9	13.3	13.0	13.0	12.2	11.7	12.1	---	---	---
12	16.0	15.4	15.7	13.0	12.4	12.9	11.7	10.9	11.2	---	---	---
13	15.9	15.7	15.8	12.4	11.3	11.9	10.9	10.1	10.5	---	---	---
14	15.8	15.3	15.6	11.3	10.5	10.9	10.1	9.3	9.5	12.2	10.7	11.6
15	15.3	14.4	14.7	10.6	10.0	10.3	9.3	8.9	9.1	10.7	8.9	9.8
16	14.4	13.4	14.0	10.9	10.0	10.5	8.9	8.6	8.8	8.9	7.1	8.1
17	13.7	12.4	13.1	11.6	10.8	11.2	9.2	8.7	8.9	7.1	5.2	6.2
18	13.2	12.6	12.8	12.8	11.4	11.9	9.2	8.8	9.0	5.2	3.7	4.3
19	14.0	13.2	13.5	14.0	12.8	13.6	9.1	8.4	8.9	5.2	3.8	4.4
20	15.2	14.0	14.6	13.9	13.8	13.8	8.4	7.4	7.9	6.1	5.2	5.7
21	15.9	15.1	15.5	14.0	13.7	13.8	8.0	7.3	7.7	6.3	6.1	6.2
22	16.8	15.9	16.5	14.0	13.6	13.8	8.3	8.0	8.2	6.1	5.6	5.9
23	16.5	16.1	16.2	14.2	13.7	13.9	8.1	5.9	7.1	5.6	4.9	5.3
24	17.0	16.0	16.4	14.7	14.1	14.3	5.9	5.7	5.8	5.1	4.8	4.9
25	16.5	15.6	16.1	14.2	13.1	13.7	5.7	4.9	5.2	5.4	4.8	5.1
26	16.0	15.4	15.8	13.1	11.9	12.2	5.8	4.8	5.1	6.0	5.3	5.7
27	16.3	15.7	16.0	12.3	11.8	12.0	6.2	5.7	5.9	6.1	5.7	5.9
28	16.8	16.2	16.5	12.3	11.9	12.2	6.3	5.9	6.1	5.7	5.1	5.3
29	17.7	16.7	17.1	11.9	11.5	11.7	7.1	6.3	6.7	5.7	5.3	5.5
30	18.5	17.4	17.9	12.2	11.5	11.8	7.7	7.0	7.3	6.0	5.7	5.8
31	17.9	16.8	17.2	---	---	---	8.7	7.7	8.2	6.2	6.0	6.1
MONTH	18.9	12.4	15.9	17.3	10.0	13.5	13.2	4.8	9.2			





## 03309000 GREEN RIVER AT MAMMOTH CAVE, KY

LOCATION.--Lat 37°10'48", long 86°06'45", Edmonson County, Hydrologic Unit 05110001, on right bank, upstream side of road (Echo River Road) at ferry landing, five hundred feet downstream from Echo River, 0.75 miles southwest of Mammoth Cave, and at mile 197.2.

DRAINAGE AREA.--2,020 mi<sup>2</sup>.

## WATER DISCHARGE RECORDS

PERIOD OF RECORD.--July 1938 to Sept. 1950. Oct. 1, 2003 to current year.

GAGE.--Water-stage recorder with telemetry and crest-stage gage. Datum of gage is 416.52 above NGVD of 1929.

REMARKS.--Records good.

COOPERATION.--Mammoth Cave National Park, Western Kentucky University, Barren River Area Development District.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 52.5 ft. Jan. 24, 1937, at former site (discharge, 75,000 second feet). Flood of 1913 reached a stage of 50.5 ft.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

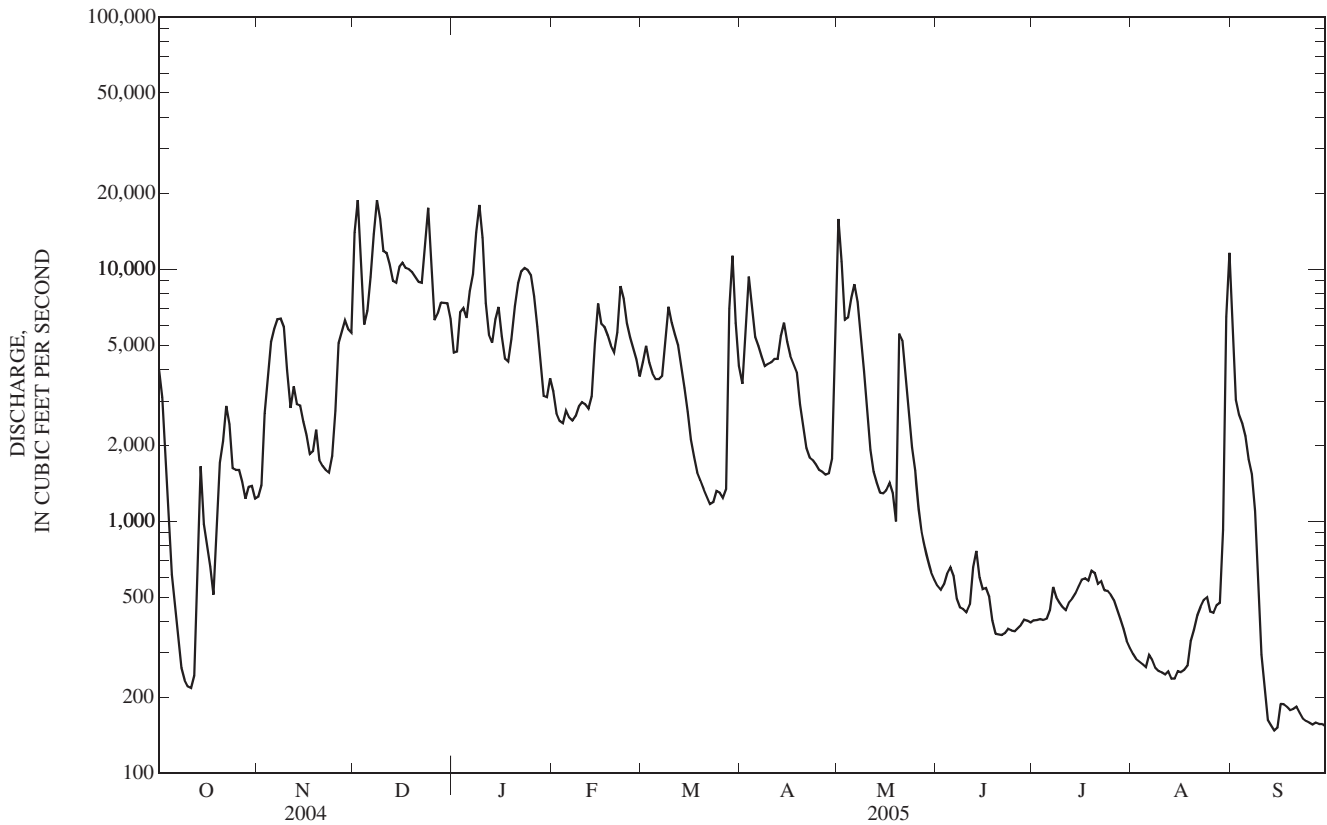
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3,990	1,250	14,000	4,680	3,270	4,280	3,510	15,800	554	405	298	6,430
2	3,100	1,390	18,800	4,720	2,680	4,970	5,740	10,700	534	406	284	3,030
3	1,680	2,680	11,500	6,740	2,500	4,250	9,350	6,300	562	410	278	2,640
4	1,020	3,610	6,030	7,000	2,450	3,860	6,990	6,430	620	406	271	2,440
5	615	5,140	6,830	6,400	2,750	3,670	5,380	7,650	656	411	264	2,170
6	475	5,800	9,310	8,200	2,580	3,670	4,950	8,700	605	445	295	1,760
7	351	6,340	13,800	9,570	2,510	3,780	4,500	7,420	493	548	282	1,540
8	262	6,370	18,800	14,000	2,610	5,310	4,120	5,350	455	500	262	1,100
9	234	5,910	15,800	18,000	2,850	7,100	4,210	3,940	449	475	254	585
10	221	3,980	11,800	13,300	2,960	6,130	4,270	2,710	436	456	251	296
11	218	2,820	11,600	7,350	2,910	5,510	4,410	1,920	468	444	247	215
12	244	3,430	10,400	5,510	2,800	4,990	4,410	1,570	658	477	254	163
13	660	2,910	8,990	5,120	3,130	4,080	5,430	1,420	764	494	238	155
14	1,650	2,880	8,840	6,310	5,090	3,380	6,130	1,300	599	517	238	148
15	977	2,480	10,200	7,070	7,300	2,720	5,150	1,290	538	552	254	152
16	798	2,190	10,600	5,420	6,080	2,110	4,530	1,330	543	586	252	189
17	662	1,850	10,100	4,420	5,900	1,800	4,210	1,420	503	593	257	188
18	512	1,900	9,990	4,310	5,470	1,560	3,910	1,290	404	582	267	184
19	920	2,310	9,720	5,280	4,980	1,450	2,910	1,000	358	637	335	178
20	1,710	1,750	9,310	7,130	4,690	1,340	2,380	5,560	356	623	371	180
21	2,080	1,660	8,920	8,780	5,620	1,250	1,950	5,230	354	565	425	184
22	2,870	1,600	8,830	9,810	8,570	1,170	1,790	3,620	360	579	459	174
23	2,430	1,560	12,100	10,100	7,640	1,190	1,750	2,680	374	532	488	165
24	1,620	1,820	17,500	9,930	6,100	1,320	1,680	1,970	369	529	500	161
25	1,600	2,740	11,100	9,470	5,360	1,300	1,600	1,590	367	511	438	159
26	1,600	5,090	6,270	7,810	4,860	1,240	1,570	1,150	377	487	433	156
27	1,430	5,630	6,670	5,920	4,370	1,340	1,530	902	388	446	465	159
28	1,230	6,260	7,370	4,210	3,750	6,970	1,550	787	407	409	474	157
29	1,370	5,790	7,360	3,140	---	11,300	1,770	700	403	374	922	157
30	1,380	5,600	7,330	3,100	---	6,130	6,920	628	397	336	6,460	154
31	1,230	---	6,350	3,690	---	4,130	---	586	---	315	11,600	---
TOTAL	39,139	104,740	326,220	226,490	121,780	113,300	118,600	112,943	14,351	15,050	28,116	25,369
MEAN	1,263	3,491	10,520	7,306	4,349	3,655	3,953	3,643	478	485	907	846
MAX	3,990	6,370	18,800	18,000	8,570	11,300	9,350	15,800	764	637	11,600	6,430
MIN	218	1,250	6,030	3,100	2,450	1,170	1,530	586	354	315	238	148

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2005, BY WATER YEAR (WY)

MEAN	388	1,196	3,301	6,086	6,868	6,001	4,783	2,512	2,060	1,265	1,038	754
MAX	1,263	3,491	10,520	19,220	16,080	12,010	9,467	5,354	7,008	3,276	3,103	3,758
(WY)	(2005)	(2005)	(2005)	(1950)	(1939)	(1943)	(1948)	(1947)	(1950)	(1947)	(1938)	(1950)
MIN	124	181	271	390	870	851	1,547	547	478	202	225	170
(WY)	(1941)	(1940)	(1940)	(1940)	(1941)	(1941)	(1946)	(1941)	(2005)	(1944)	(1945)	(1945)

03309000 GREEN RIVER AT MAMMOTH CAVE, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1938 - 2005	
ANNUAL TOTAL	1,557,020		1,246,098			
ANNUAL MEAN	4,254		3,414		2,989	
HIGHEST ANNUAL MEAN					5,680	1950
LOWEST ANNUAL MEAN					1,170	1941
HIGHEST DAILY MEAN	22,500	Feb 7	18,800	Dec 2	50,300	Feb 18, 1949
LOWEST DAILY MEAN	119	Sep 16	148	Sep 14	92	Nov 2, 1945
ANNUAL SEVEN-DAY MINIMUM	230	Sep 11	158	Sep 24	104	Oct 21, 1940
MAXIMUM PEAK FLOW			19,900	Dec 8	51,400	Feb 18, 1949
MAXIMUM PEAK STAGE			27.42	Dec 8	43.00	Feb 18, 1949
10 PERCENT EXCEEDS	10,200		8,800		7,600	
50 PERCENT EXCEEDS	2,550		1,850		1,150	
90 PERCENT EXCEEDS	572		266		206	



## 03309000 GREEN RIVER AT MAMMOTH CAVE, KY—Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 2003 to current year.

COOPERATION.--Western Kentucky University.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: August 2003 to current year.

pH: August 2003 to current year.

WATER TEMPERATURE: August 2003 to current year.

DISSOLVED OXYGEN: August 2003 to current year.

TURBIDITY: August 2003 to current year.

INSTRUMENTATION.--Five parameter water-quality monitor with telemetry.

REMARKS.--

SPECIFIC CONDUCTANCE: Records rated fair. Missing record Oct. 9, 30, Nov. 20, 23, 25, 27, Dec. 2, 6, 8-9, 15, 2004, Jan. 9-11, 13, 30, Feb. 1, 14-18, 20-22, 25-28, 2005.

pH: Records rated good. Missing record July 29 to Sept. 7, 2005.

WATER TEMPERATURE: Records rated excellent. Missing record Feb. 20, 25-28, Mar. 5-7, 11, 13, Apr. 18, May 3, 27-31, July 30 to Sept. 7, 2005.

DISSOLVED OXYGEN: Records rated poor. Missing record Oct. 7-26, Nov. 1-4, 9-23, 25, 27, Dec. 2, 6-21, 2004, Jan. 9-11, 13, 19-31, Feb. 1-10, 13-18, 21, 22, 25-28, Mar. 1-15, Mar. 18 to May 4, May 21-25, July 10 to Sept. 7, and Sept. 20-23, 25-30, 2005.

TURBIDITY: Records rated poor. Missing record Oct. 26 to Nov.3, Nov. 7-22, 25, Dec. 6, 2004, Jan. 9-10, 20, Feb. 14-17, 20-22, 26-28, Mar. 5, 10, 12, Apr. 5-6, May 27-31, June 11-16, 28-30, July 1, 17, 27-28, July 31 to Sept. 7, and Sept. 23, 2005.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 470 microsiemens, Oct. 25, 2004; minimum recorded, 162 microsiemens, Jan. 25, 2005.

pH: Maximum recorded, 8.3 units, Apr. 9-11, 2004; minimum recorded, 6.9 units, Dec. 7-8, 2004.

WATER TEMPERATURES: Maximum recorded, 28.8 C, July 26, 2005; minimum recorded, 3.8 C, Feb. 1, 2004.

DISSOLVED OXYGEN: Maximum recorded, 16.1 mg/L, Jan. 18, 2005; minimum recorded, 5.9 mg/L, July 29-30, 2004.

TURBIDITY: Maximum recorded, 480 FNU, May 27, 2004; minimum recorded, <2.0 FNU, July 30, Sept. 24, 27-28, 2005.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 470 microsiemens, Oct. 25, 2004; minimum recorded, 162 microsiemens, Jan. 25, 2005.

pH: Maximum recorded, 8.2 units, Sept. 11, 18-25, 27-30, 2005; minimum recorded, 6.9 units, Dec. 7-8, 2004.

WATER TEMPERATURES: Maximum recorded, 28.8°C, July 26, 2005; minimum recorded, 4.5°C, July 8, 9, 2005.

DISSOLVED OXYGEN: Maximum recorded, 16.1 mg/L, Jan. 18, 2005; minimum recorded, 6.2 mg/L, July 8, 9, 2005.

TURBIDITY: Maximum recorded, 460 FNU, Oct. 25, 2004; minimum recorded, <2.0 FNU, July 30, Sept. 24, 27-28, 2005.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	277	163	194	339	328	333	277	225	258	230	203	218
2	192	168	180	347	326	336	---	---	---	254	230	234
3	202	192	196	350	302	338	291	220	256	272	254	266
4	222	202	211	302	222	235	302	291	299	269	260	263
5	239	222	231	274	213	230	298	233	260	273	262	269
6	257	239	249	274	225	246	---	---	---	272	266	268
7	270	257	262	225	190	201	250	212	231	269	252	262
8	283	269	276	192	183	187	---	---	---	255	231	247
9	---	283	---	258	187	214	---	---	---	---	---	---
10	317	---	---	338	258	306	269	240	258	---	---	---
11	329	317	320	372	338	356	250	239	243	---	---	---
12	335	321	328	409	355	379	253	240	246	269	266	268
13	336	324	330	420	407	413	245	237	242	---	---	---
14	359	295	337	424	407	416	237	215	225	274	258	269
15	311	290	297	437	422	428	---	---	---	260	255	257
16	312	305	309	438	434	436	195	189	191	270	257	262
17	325	307	314	437	425	432	192	186	189	279	270	273
18	339	325	332	425	409	415	185	186	186	282	275	279
19	346	339	342	410	383	399	188	184	186	280	236	265
20	369	345	354	---	---	---	185	181	182	236	199	213
21	389	369	378	341	308	322	182	175	179	199	179	186
22	392	373	383	328	317	322	179	172	174	179	171	174
23	420	392	402	---	---	---	211	179	199	171	168	169
24	450	420	438	321	313	317	213	179	189	168	163	166
25	470	427	457	---	---	---	253	187	221	166	162	163
26	430	---	---	329	269	303	267	253	263	175	166	172
27	324	312	321	---	---	---	262	218	238	197	175	186
28	328	324	325	240	228	232	218	193	200	214	188	203
29	333	328	331	238	227	231	193	192	193	243	214	232
30	---	---	---	252	238	244	193	190	192	---	---	---
31	350	333	337	---	---	---	203	193	200	300	277	289

MONTH

## 03309000 GREEN RIVER AT MAMMOTH CAVE, KY—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	247	241	245	325	313	319	334	224	290
2	302	282	287	255	241	251	323	307	316	226	208	215
3	302	283	297	250	243	246	311	282	296	---	---	---
4	305	284	297	243	243	243	288	276	281	242	221	230
5	306	284	295	243	242	243	---	---	---	221	198	206
6	293	255	272	242	240	242	---	---	---	198	189	191
7	---	258	270	243	---	---	320	310	316	210	192	200
8	299	259	272	246	237	242	326	311	321	211	199	206
9	---	274	285	251	234	242	317	304	311	226	208	217
10	308	269	281	---	---	---	327	309	320	241	222	231
11	271	264	269	---	---	---	319	277	295	271	241	262
12	264	257	260	---	---	---	303	280	293	291	267	280
13	262	250	255	---	---	---	309	292	301	329	286	303
14	---	---	---	253	246	249	311	307	309	325	309	318
15	---	---	---	274	253	262	312	309	310	325	314	318
16	---	---	---	286	274	280	325	310	317	326	314	319
17	---	---	---	300	286	292	332	319	324	---	---	---
18	---	---	---	311	300	306	---	---	---	325	311	317
19	237	229	233	327	311	319	357	346	351	326	309	321
20	---	---	---	332	327	330	376	349	361	309	208	251
21	---	---	---	334	331	332	382	350	367	326	272	302
22	---	---	---	334	332	333	384	360	376	362	326	346
23	239	235	237	334	332	333	---	---	---	374	350	366
24	241	237	239	338	334	336	354	332	343	401	370	390
25	---	---	---	338	334	336	353	323	336	370	325	357
26	---	---	---	340	335	336	326	318	322	325	314	316
27	---	---	---	340	319	336	331	319	325	---	---	---
28	---	---	---	319	253	285	333	330	332	---	---	---
29	---	---	---	---	---	---	344	333	340	---	---	---
30	---	---	---	290	248	271	356	330	348	---	---	---
31	---	---	---	314	290	300	---	---	---	---	---	---
MONTH	JUNE			JULY			AUGUST			SEPTEMBER		
1	364	350	354	361	358	360	---	---	---	---	---	---
2	360	352	356	358	353	355	---	---	---	---	---	---
3	363	353	354	355	351	353	---	---	---	---	---	---
4	356	354	355	353	344	349	---	---	---	---	---	---
5	359	353	356	348	343	345	---	---	---	---	---	---
6	357	349	352	357	345	350	---	---	---	---	---	---
7	356	348	350	366	330	355	---	---	---	---	---	---
8	368	351	358	330	315	318	---	---	---	354	348	351
9	369	362	365	326	320	323	---	---	---	354	350	353
10	370	357	363	335	326	331	---	---	---	351	344	347
11	360	351	356	344	335	339	---	---	---	347	342	345
12	358	351	354	341	321	333	---	---	---	344	338	341
13	355	338	345	327	315	319	---	---	---	340	339	339
14	338	308	322	339	327	334	---	---	---	346	340	344
15	---	---	---	339	334	337	---	---	---	347	342	345
16	327	313	319	334	316	325	---	---	---	353	347	351
17	335	327	332	317	307	311	---	---	---	357	352	354
18	337	335	336	320	307	313	---	---	---	361	357	359
19	342	336	339	340	320	330	---	---	---	363	357	362
20	347	342	344	344	329	337	---	---	---	366	362	364
21	354	347	351	347	324	330	---	---	---	368	365	367
22	356	354	355	359	347	356	---	---	---	370	367	369
23	359	355	356	355	333	344	---	---	---	370	368	369
24	359	355	356	337	331	334	---	---	---	370	366	369
25	364	355	357	331	320	324	---	---	---	369	365	367
26	367	361	364	331	321	325	---	---	---	368	365	366
27	368	364	366	335	331	333	---	---	---	369	366	367
28	370	365	367	336	332	334	---	---	---	368	366	367
29	369	359	364	---	---	---	---	---	---	370	367	368
30	361	359	360	---	---	---	---	---	---	371	368	369
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH												
YEAR												

## 03309000 GREEN RIVER AT MAMMOTH CAVE, KY—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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

## 03309000 GREEN RIVER AT MAMMOTH CAVE, KY—Continued

TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	19.1	18.0	18.7	17.8	17.2	17.4	12.1	11.4	11.7	9.5	8.3	8.9
2	19.4	19.1	19.2	17.6	17.3	17.5	---	---	11.3	11.0	9.5	10.0
3	19.1	18.0	18.6	17.3	16.9	17.1	11.0	10.3	10.7	11.7	11.0	11.3
4	18.1	17.4	17.8	17.4	16.3	16.8	10.3	9.5	9.8	12.1	11.7	11.9
5	17.6	16.8	17.3	16.3	15.4	15.8	10.3	9.0	9.6	12.4	12.1	12.3
6	17.1	16.1	16.6	15.4	14.5	14.9	---	---	11.1	12.4	11.9	12.2
7	16.9	15.5	16.3	15.4	14.3	14.8	12.4	11.6	12.0	11.9	11.0	11.4
8	17.1	16.1	16.7	15.4	15.1	15.3	---	---	12.6	11.0	9.7	10.5
9	17.2	16.4	16.8	15.1	14.6	14.9	---	---	12.6	---	---	9.6
10	17.8	16.5	17.2	14.6	13.6	14.1	12.3	11.7	12.0	---	---	10.1
11	17.3	16.5	16.9	13.6	13.2	13.3	11.9	11.7	11.8	---	---	10.7
12	16.8	16.6	16.7	13.2	12.9	13.1	11.8	11.0	11.4	11.8	11.0	11.4
13	16.6	16.0	16.2	12.9	12.1	12.5	11.0	10.0	10.5	---	---	12.0
14	16.2	15.8	16.0	12.1	11.2	11.6	10.0	9.0	9.6	12.1	11.3	11.8
15	15.9	15.1	15.5	11.2	10.7	10.9	---	---	8.7	11.3	10.0	10.6
16	15.1	14.3	14.9	11.0	10.6	10.8	8.6	8.4	8.4	10.0	8.3	9.1
17	14.5	13.7	14.1	11.5	11.0	11.2	8.6	8.3	8.4	8.3	6.7	7.4
18	14.2	13.6	13.9	11.8	11.4	11.6	8.7	8.4	8.5	6.7	5.3	5.9
19	15.0	14.1	14.5	12.6	11.8	12.1	8.7	8.2	8.5	5.3	4.5	4.8
20	15.3	14.9	15.1	13.6	12.6	13.2	8.2	7.4	7.8	6.1	4.9	5.5
21	15.8	15.1	15.5	13.7	13.5	13.6	7.6	7.3	7.4	6.3	6.1	6.3
22	16.7	15.8	16.2	13.7	13.5	13.6	7.9	7.6	7.7	6.3	5.8	6.1
23	17.1	16.7	16.9	13.8	13.5	13.7	8.0	6.6	7.7	5.8	5.2	5.4
24	17.3	16.6	16.9	14.2	13.7	14.0	6.6	5.6	5.8	5.2	4.8	5.0
25	16.9	16.4	16.6	---	---	13.2	6.0	5.6	5.8	5.5	4.9	5.1
26	16.6	16.2	16.4	12.8	11.9	12.4	5.8	5.3	5.5	6.0	5.5	5.7
27	17.0	16.5	16.7	---	---	11.5	5.8	5.1	5.5	6.2	5.9	6.0
28	17.4	16.9	17.1	11.9	11.4	11.6	6.1	5.7	5.9	6.0	5.7	5.8
29	18.0	17.2	17.6	11.7	11.4	11.5	6.9	6.1	6.4	6.2	5.8	6.0
30	18.5	17.8	18.0	11.9	11.3	11.4	7.6	6.9	7.2	---	---	6.5
31	18.1	17.3	17.7	---	---	---	8.3	7.6	8.0	6.7	6.4	6.5
MONTH	19.4	13.6	16.6	17.8	10.6	13.5			9.0			8.4
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.1	6.6	6.8	8.2	7.6	7.8	13.8	13.1	13.5	13.4	13.1	13.2
2	7.1	7.0	7.0	7.6	6.9	7.2	13.1	12.0	12.7	13.3	12.9	13.1
3	7.6	7.1	7.3	7.0	6.3	6.7	12.0	11.0	11.3	---	---	---
4	7.6	7.1	7.3	7.6	6.5	7.0	12.3	10.8	11.4	13.4	12.5	13.0
5	7.4	6.9	7.2	---	---	---	13.4	12.1	12.6	13.9	13.0	13.3
6	7.1	6.8	7.0	---	---	---	13.9	13.4	13.6	14.6	13.9	14.2
7	7.4	7.1	7.2	---	---	---	14.1	13.6	13.8	14.8	14.3	14.6
8	8.2	7.4	7.8	9.3	8.9	9.2	14.1	13.7	14.0	15.7	14.8	15.2
9	8.5	8.2	8.4	9.0	8.3	8.6	14.6	13.4	14.0	16.6	15.4	16.0
10	8.4	7.9	8.2	---	---	7.8	15.5	14.2	14.8	17.3	16.0	16.6
11	7.9	7.3	7.6	---	---	---	15.6	15.1	15.3	18.6	17.3	17.9
12	7.3	6.6	6.9	---	---	7.6	15.4	14.7	15.0	19.7	18.2	18.9
13	8.1	7.0	7.2	---	---	---	14.7	14.0	14.3	20.5	19.1	19.8
14	---	---	8.6	9.0	8.2	8.7	14.4	13.4	13.9	20.3	19.8	20.0
15	---	---	9.2	9.0	8.6	8.9	14.4	13.4	14.0	20.1	19.3	19.8
16	---	---	9.9	9.1	8.8	8.9	14.7	13.6	14.2	19.4	18.6	19.0
17	---	---	9.3	10.0	8.8	9.3	14.9	13.6	14.3	19.1	18.0	18.5
18	---	---	8.2	10.2	9.2	9.8	---	---	---	19.6	18.1	18.9
19	7.8	7.1	7.3	10.5	9.8	10.1	16.0	14.4	15.2	19.7	18.7	19.2
20	---	---	---	10.8	9.8	10.4	17.1	16.0	16.5	19.1	15.6	16.4
21	---	---	8.0	11.3	10.2	10.8	17.8	16.6	17.2	17.7	15.8	16.6
22	---	---	8.8	11.0	10.8	10.8	18.1	17.4	17.7	18.2	17.4	17.8
23	9.4	9.1	9.3	10.9	10.7	10.8	17.6	15.6	16.8	19.2	18.1	18.6
24	9.1	8.4	8.7	10.9	10.7	10.8	15.6	14.6	15.0	19.2	18.5	18.9
25	---	---	---	12.0	10.6	11.3	14.8	14.0	14.5	19.1	18.2	18.7
26	---	---	---	12.8	11.7	12.2	14.4	13.4	13.9	19.4	18.0	18.8
27	---	---	---	12.4	12.0	12.2	13.4	12.8	13.2	---	---	---
28	---	---	---	12.3	11.4	12.0	13.1	12.6	12.7	---	---	---
29	---	---	---	11.7	11.1	11.5	13.0	12.4	12.7	---	---	---
30	---	---	---	12.9	11.4	12.0	13.2	12.8	13.0	---	---	---
31	---	---	---	13.8	12.8	13.3	---	---	---	---	---	---
MONTH							18.1	10.8	14.2			





03309000 GREEN RIVER AT MAMMOTH CAVE, KY—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.5	8.0	8.2	---	---	---	10.3	9.3	9.7	13.9	13.3	13.6
2	8.2	8.0	8.1	---	---	---	---	---	---	13.3	12.7	13.1
3	8.5	8.2	8.4	---	---	---	10.2	9.1	9.5	12.7	12.4	12.5
4	8.8	8.4	8.6	---	---	---	10.3	8.8	9.5	12.4	12.2	12.3
5	9.0	8.6	8.8	9.3	8.9	9.1	9.7	8.5	9.1	12.2	12.2	12.2
6	9.1	8.8	8.9	9.6	8.8	9.2	---	---	---	12.2	12.1	12.2
7	---	---	---	9.8	9.6	9.7	---	---	---	12.8	12.1	12.4
8	---	---	---	9.9	9.7	9.8	---	---	---	13.4	12.8	13.0
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	12.9	12.7	12.8
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	12.9	12.5	12.6
15	---	---	---	---	---	---	---	---	---	13.4	12.9	13.1
16	---	---	---	---	---	---	---	---	---	14.3	13.4	13.8
17	---	---	---	---	---	---	---	---	---	15.2	14.3	14.7
18	---	---	---	---	---	---	---	---	---	16.1	15.2	15.7
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	12.9	12.7	12.8	---	---	---
23	---	---	---	---	---	---	13.1	12.6	12.7	---	---	---
24	---	---	---	10.0	9.6	9.8	13.6	13.1	13.4	---	---	---
25	---	---	---	---	---	---	13.6	13.4	13.5	---	---	---
26	---	---	---	10.2	9.7	9.9	14.2	13.6	14.0	---	---	---
27	8.9	8.6	8.8	---	---	---	14.5	14.2	14.4	---	---	---
28	8.6	8.4	8.5	10.5	9.9	10.2	14.6	14.4	14.5	---	---	---
29	8.4	8.1	8.3	10.5	10.0	10.3	14.6	14.4	14.5	---	---	---
30	8.1	7.7	8.0	10.4	9.8	10.2	14.4	14.2	14.3	---	---	---
31	7.7	7.4	7.5	---	---	---	14.2	13.9	14.0	---	---	---
MONTH	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	10.0	9.8	9.9
6	---	---	---	---	---	---	---	---	---	9.9	9.8	9.8
7	---	---	---	---	---	---	---	---	---	9.9	9.8	9.8
8	---	---	---	---	---	---	---	---	---	9.9	9.7	9.8
9	---	---	---	---	---	---	---	---	---	9.8	9.4	9.6
10	---	---	---	---	---	---	---	---	---	9.5	9.2	9.4
11	12.2	12.0	12.1	---	---	---	---	---	---	9.4	9.0	9.2
12	12.3	12.2	12.3	---	---	---	---	---	---	9.3	8.8	9.1
13	---	---	---	---	---	---	---	---	---	9.7	8.8	9.2
14	---	---	---	---	---	---	---	---	---	9.6	8.6	9.0
15	---	---	---	---	---	---	---	---	---	11.0	8.6	10
16	---	---	---	13.5	12.8	13.3	---	---	---	10.9	8.8	9.9
17	---	---	---	12.8	8.1	11.1	---	---	---	10.4	8.9	9.6
18	---	---	---	---	---	---	---	---	---	10.3	8.7	9.6
19	10.5	10.3	10.4	---	---	---	---	---	---	10.1	9.2	9.7
20	10.3	9.9	10.1	---	---	---	---	---	---	9.8	9.1	9.4
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	8.6	8.3	8.5	---	---	---	---	---	---	---	---	---
24	8.4	8.1	8.2	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	9.3	8.6	8.9
27	---	---	---	---	---	---	---	---	---	9.2	8.8	9.0
28	---	---	---	---	---	---	---	---	---	9.5	8.7	9.1
29	---	---	---	---	---	---	---	---	---	9.7	8.8	9.2
30	---	---	---	---	---	---	---	---	---	10.2	9.0	9.6
31	---	---	---	---	---	---	---	---	---	10.8	9.2	9.9
MONTH	FEBRUARY			MARCH			APRIL			MAY		



03309000 GREEN RIVER AT MAMMOTH CAVE, KY—Continued

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	66	22	49	---	---	---	250	62	170	20	11	14
2	45	15	26	---	---	---	---	---	110	67	11	28
3	17	8.8	13	---	---	---	71	40	49	90	38	67
4	12	6.6	8.6	30	16	22	42	27	35	88	39	61
5	14	5.1	8.2	76	17	46	38	27	32	44	24	32
6	12	6.1	8.3	130	56	86	---	---	---	51	27	40
7	10	3.2	5.8	---	---	---	---	---	85	66	38	53
8	10	2.9	5.6	---	---	---	---	---	150	220	62	110
9	---	---	6.5	---	---	---	---	---	83	---	---	---
10	---	---	5.1	---	---	---	94	50	67	---	---	---
11	10	2.0	4.1	---	---	---	76	51	60	---	---	32
12	17	2.2	6.1	---	---	---	56	35	46	30	16	21
13	17	6.6	10	---	---	---	39	27	32	---	---	17
14	25	12	17	---	---	---	37	27	31	47	17	26
15	25	11	16	---	---	---	---	---	43	55	37	47
16	16	10	12	---	---	---	52	31	39	40	16	26
17	13	8.1	10	---	---	---	42	28	32	18	4.8	10
18	13	7.7	9.5	---	---	---	---	---	32	8.5	1.4	3.1
19	16	8.1	11	---	---	---	38	27	30	17	2.5	9.3
20	21	9.4	13	---	---	---	31	25	28	---	---	---
21	20	13	16	---	---	---	29	24	27	52	32	44
22	220	15	64	---	---	---	34	26	29	50	35	43
23	270	200	240	---	---	6.1	150	27	56	40	27	34
24	320	230	260	12	5.9	7.9	190	74	150	33	26	29
25	460	260	350	---	---	---	74	44	56	34	23	28
26	---	---	---	59	41	52	44	19	30	25	16	20
27	---	---	---	---	---	41	26	19	22	17	14	15
28	---	---	---	51	31	37	38	23	30	15	9.2	12
29	---	---	---	33	21	28	27	20	23	14	8.0	9.7
30	---	---	---	62	18	25	29	20	22	---	---	11
31	---	---	---	---	---	---	20	14	17	22	13	17
MONTH	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	14	19	11	14	27	21	25	270	100	190
2	12	7.8	9.9	23	18	20	110	27	48	100	52	76
3	8.3	6.3	7.2	20	12	16	160	93	130	---	---	40
4	7.9	5.4	6.0	13	9.7	11	96	40	64	36	24	29
5	8.3	5.8	6.5	---	---	---	---	---	---	41	28	36
6	8.2	6.2	7.0	---	---	10	---	---	---	47	32	40
7	---	---	7.0	---	---	14	24	16	19	35	23	29
8	9.7	6.5	7.6	57	18	36	19	14	16	34	19	22
9	---	---	8.8	78	57	70	25	15	19	25	17	20
10	13	8.6	11	---	---	---	24	17	20	22	13	17
11	13	10	11	---	---	18	32	18	23	21	9.7	13
12	12	8.9	10	---	---	---	32	16	22	19	9.6	12
13	---	---	12	---	---	11	71	20	35	14	9.3	11
14	---	---	---	11	8.2	9.1	88	52	67	21	8.5	13
15	---	---	---	13	6.3	8.9	65	27	41	21	10	12
16	---	---	---	13	6.0	7.7	33	20	25	13	10	11
17	---	---	---	10	5.7	7.1	30	19	23	---	---	11
18	---	---	20	9.4	4.9	6.4	---	---	21	15	8.4	9.4
19	20	16	18	11	4.4	5.5	31	16	20	30	8.6	10
20	---	---	---	5.8	3.6	4.6	31	15	20	420	28	200
21	---	---	---	7.9	3.7	4.7	29	15	20	220	72	140
22	---	---	---	6.1	3.7	4.3	36	15	21	75	31	48
23	79	40	61	7.0	3.3	4.5	---	---	23	35	22	27
24	44	22	28	13	4.3	5.7	30	15	22	27	19	23
25	---	---	19	12	5.2	6.1	22	15	18	27	16	19
26	---	---	---	8.2	4.2	5.5	26	15	18	34	16	25
27	---	---	---	25	4.4	7.2	41	18	30	---	---	---
28	---	---	---	380	16	170	48	14	28	---	---	---
29	---	---	---	360	150	270	30	10	18	---	---	---
30	---	---	---	150	49	88	240	16	94	---	---	---
31	---	---	---	54	26	36	---	---	---	---	---	---
MONTH	FEBRUARY			MARCH			APRIL			MAY		

## 03309000 GREEN RIVER AT MAMMOTH CAVE, KY—Continued

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU—  
CONTINUED

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	11	7.0	8.7	---	---	---	---	---	---	---	---	---
2	14	6.9	9.1	23	7.2	11	---	---	---	---	---	---
3	14	6.4	8.7	31	14	20	---	---	---	---	---	---
4	12	5.6	8.0	32	15	24	---	---	---	---	---	---
5	10	5.2	7.7	19	8.1	11	---	---	---	---	---	---
6	12	5.9	7.7	16	8.3	12	---	---	---	---	---	---
7	---	---	7.7	23	11	16	---	---	---	---	---	---
8	---	---	8.3	19	7.3	13	---	---	---	13	6.3	8.5
9	13	6.0	8.4	14	8.1	11	---	---	---	11	5.5	7.9
10	13	6.9	9.7	19	12	16	---	---	---	20	5.2	9.0
11	---	---	---	23	8.5	14	---	---	---	14	4.2	7.7
12	---	---	---	12	5.5	9.1	---	---	---	14	4.1	7.7
13	---	---	---	6.2	3.5	4.5	---	---	---	19	4.8	9.8
14	---	---	---	6.9	3.5	5.0	---	---	---	17	6.0	9.3
15	---	---	---	15	5.2	9.9	---	---	---	27	7.4	17
16	---	---	---	36	8.9	21	---	---	---	47	4.5	16
17	12	5.5	7.7	---	---	---	---	---	---	8.7	3.5	5.7
18	12	5.5	7.9	13	5.9	8.3	---	---	---	8.7	3.5	5.4
19	16	6.1	8.6	37	8.7	18	---	---	---	8.0	3.3	5.3
20	25	6.2	14	30	11	16	---	---	---	14	2.9	6.2
21	25	4.7	7.8	28	13	19	---	---	---	15	3.0	6.6
22	13	4.4	7.1	45	22	31	---	---	---	14	3.1	6.3
23	12	3.8	7.1	56	21	40	---	---	---	---	---	---
24	10	4.8	7.0	---	---	26	---	---	---	7.8	<2.0	3.3
25	9.9	4.9	7.5	---	---	46	---	---	---	5.9	2.2	3.5
26	9.7	4.7	7.3	---	---	77	---	---	---	7.6	2.3	3.7
27	12	6.0	8.3	---	---	---	---	---	---	5.6	<2.0	3.0
28	---	---	---	---	---	---	---	---	---	6.0	<2.0	3.9
29	---	---	---	14	4.5	9.6	---	---	---	6.0	2.6	4.0
30	---	---	---	6.9	<2.0	<2.0	---	---	---	7.0	2.6	4.2
31	---	---	---	---	---	---	---	---	---	---	---	---

MONTH

YEAR

THIS PAGE IS INTENTIONALLY BLANK.

## 03310300 NOLIN RIVER AT WHITE MILLS, KY

LOCATION.--Lat 37°33'43", long 86°02'12" (revised), 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.--360 mi<sup>2</sup> (revised), of which about 120 mi<sup>2</sup> does not contribute directly to surface runoff.

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

GAGE.--Water-stage recorder with telemetry. Datum of gage is 590.37 ft above NGVD of 1988. Prior to June 8, 2005, gage located 1.6 mi downstream at datum 7.29 ft lower. 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.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft<sup>3</sup>/s and maximum(\*).

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov 11	unknown	unknown	unknown	Mar 29	0100	*5,600	*18.38
Dec 6	1930	2,940	11.18	Aug 31	1115	3,350	9.15
Jan 8	1445	1,720	6.82				

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e78	e592	e1,480	1,820	473	702	1,220	1,010	207	90	73	854
2	e70	e1,150	e744	1,560	442	603	1,560	682	203	89	70	464
3	e67	e1,420	e439	1,620	439	537	1,530	553	201	84	70	325
4	e63	e506	e379	1,650	433	505	1,180	478	202	83	69	252
5	e69	e305	e506	2,220	406	494	1,010	425	191	83	65	208
6	e69	e230	e722	2,360	385	473	877	388	178	85	64	180
7	e63	e163	e1,260	2,390	378	465	790	358	169	81	62	161
8	e63	e141	e2,110	3,270	418	1,240	758	330	e149	102	74	149
9	e63	e103	e1,700	2,800	461	1,040	682	311	143	92	73	139
10	e64	e141	e1,500	1,830	457	801	613	292	156	84	66	129
11	e63	e469	e1,220	1,520	433	709	564	275	147	87	62	120
12	e64	e1,910	e908	1,320	416	651	536	260	169	137	57	113
13	e66	e804	e856	1,200	520	588	590	248	162	128	57	108
14	e67	e491	e782	1,920	1,300	522	527	255	150	141	57	105
15	e67	e327	e752	1,480	1,120	474	468	849	173	131	59	99
16	e67	e297	710	1,210	923	439	428	360	161	120	63	94
17	e67	e275	648	1,030	780	414	400	292	141	135	78	95
18	e93	e238	593	891	675	393	377	263	129	324	83	92
19	e182	e454	547	e831	598	374	356	246	123	192	77	90
20	e111	e938	491	e779	562	360	341	1,390	115	138	78	87
21	e72	e566	451	716	781	340	319	881	112	181	70	83
22	e62	e409	535	656	872	326	309	544	110	172	67	79
23	e75	e417	1,850	599	729	372	497	442	107	145	65	78
24	e91	e514	1,600	539	667	420	347	378	101	120	60	74
25	e89	e923	e1,160	513	613	369	305	334	98	106	57	74
26	e93	e566	858	496	557	341	288	304	95	97	62	78
27	e101	e514	727	465	516	887	314	281	93	94	78	84
28	e108	e461	638	423	516	4,340	290	260	109	90	79	79
29	e115	e439	671	428	---	4,310	302	245	96	86	142	78
30	e122	e469	1,390	553	---	1,950	1,410	231	92	82	1,160	76
31	e204	---	2,240	524	---	1,490	---	218	---	76	2,500	---
TOTAL	2,648	16,232	30,467	39,613	16,870	26,929	19,188	13,383	4,282	3,655	5,697	4,647
MEAN	85.4	541	983	1,278	602	869	640	432	143	118	184	155
MAX	204	1,910	2,240	3,270	1,300	4,340	1,560	1,390	207	324	2,500	854
MIN	62	103	379	423	378	326	288	218	92	76	57	74

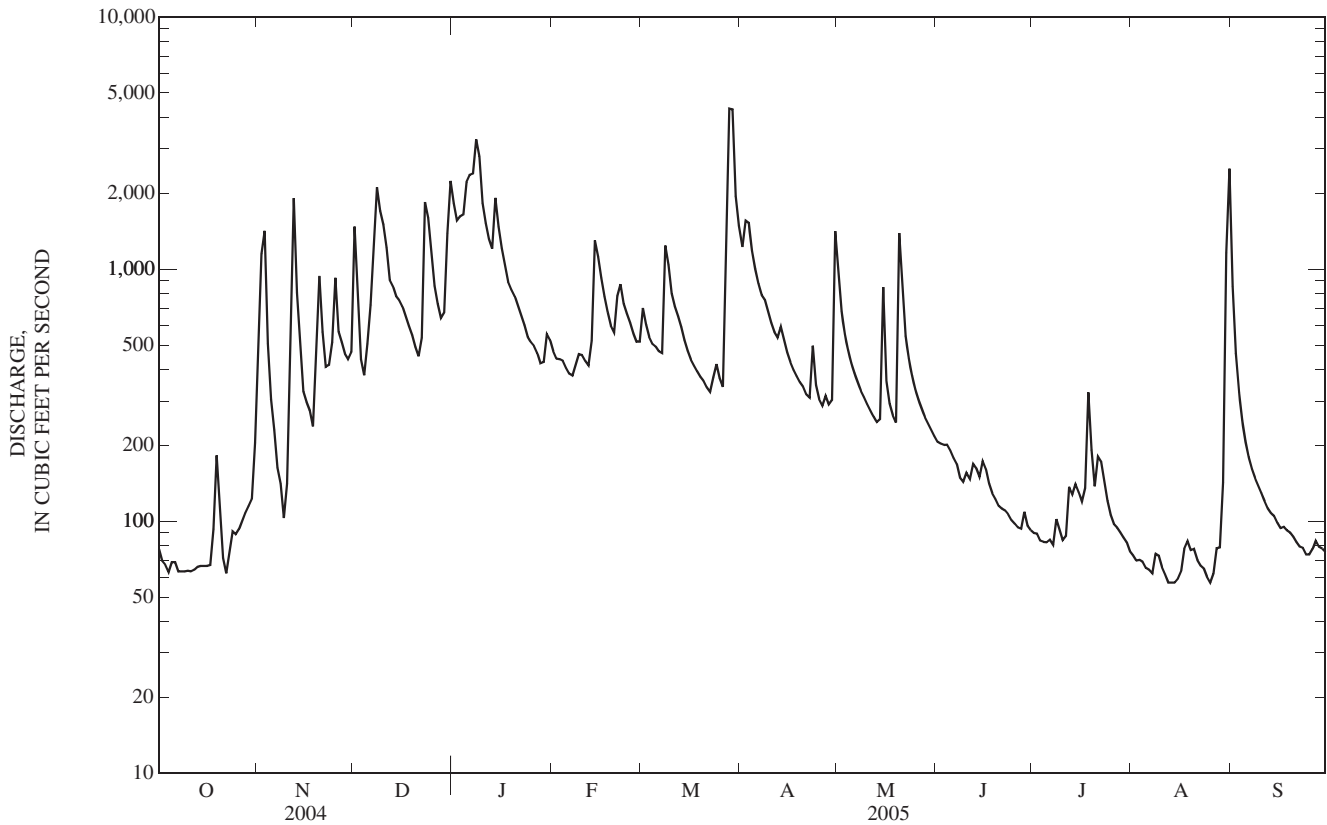
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2005, BY WATER YEAR (WY)

MEAN	158	300	623	685	871	966	751	605	369	244	180	207
MAX	692	1,206	2,356	1,603	3,807	3,353	2,447	2,715	1,630	972	966	2,258
(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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1960 - 2005	
ANNUAL TOTAL	241,333		183,611		495	
ANNUAL MEAN	659		503		217	
HIGHEST ANNUAL MEAN					1979	
LOWEST ANNUAL MEAN					1999	
HIGHEST DAILY MEAN	7,760	May 28	4,340	Mar 28	20,000	Mar 2, 1997
LOWEST DAILY MEAN	62	Oct 22	57	Aug 12	27	Oct 23, 1998
ANNUAL SEVEN-DAY MINIMUM	64	Oct 7	60	Aug 10	31	Oct 17, 1998
MAXIMUM PEAK FLOW			5,600	Mar 29	24,500	Mar 2, 1997
MAXIMUM PEAK STAGE			18.38	Mar 29	36.46	Mar 2, 1997
INSTANTANEOUS LOW FLOW			50	Aug 14	31	Oct 1, 1959
ANNUAL RUNOFF (CFSM)	2.78		2.12		2.09	
ANNUAL RUNOFF (INCHES)	37.88		28.82		28.36	
10 PERCENT EXCEEDS	1,450		1,230		1,080	
50 PERCENT EXCEEDS	439		330		248	
90 PERCENT EXCEEDS	121		71		61	

e Estimated



## 03311000 NOLIN RIVER AT KYROCK, KY

LOCATION.--Lat 37°16'27", long 86°15'03", Edmonson County, Hydrologic Unit 0511001, 0.35 mo below Nolin River, 0.1 mi downstream from Dismal Creek, 1.1 mi nirsteast of Kyrock, and at mile 7.8.

DRAINAGE AREA.--703 mi<sup>2</sup>, of which about 223 mi<sup>2</sup> does not contribute directly to surface runoff. Area at site used Oct. 1, 1969 to Sept. 30, 1973, 707 mi<sup>2</sup>.

## WATER-QUALITY RECORD

PERIOD OF DAILY RECORD.--Water years 1950, 1963-82, August 1989-95, October 2003 to current year.

INSTRUMENTATION.--Water-temperature recorder with telemetry since DCP was installed on Oct. 1989.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--Maximum recorded 31.0°C, Jul. 19-22, 1969, minimum recorded 0.0°C, many days during winter period.

EXTREMES FOR CURRENT YEAR.--Maximum recorded 21.0°C, Aug. 28; minimum recorded 7.0°C, Feb. 12.

REMARKS.--Water-temperature records rated excellent except for periods of no record.

TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20.9	20.4	20.6	18.2	18.1	18.1	13.6	13.4	13.5	7.9	7.7	7.8
2	21.0	20.9	21.0	18.2	18.1	18.1	13.4	13.2	13.3	7.7	7.6	7.7
3	21.0	20.6	20.7	18.1	18.0	18.0	13.2	13.0	13.1	7.7	7.5	7.6
4	20.6	19.7	20.1	18.1	18.0	18.0	13.1	13.0	13.0	7.6	7.6	7.6
5	19.8	18.8	19.2	18.0	18.0	18.0	13.0	12.8	12.9	7.6	7.6	7.6
6	19.0	17.9	18.3	18.0	17.9	17.9	12.9	12.8	12.8	7.6	7.5	7.6
7	18.2	17.6	17.9	17.9	17.8	17.8	12.8	12.8	12.8	7.7	7.5	7.6
8	18.3	18.0	18.1	17.8	17.7	17.7	12.8	12.6	12.7	7.8	7.6	7.7
9	18.4	18.1	18.2	17.7	17.6	17.6	12.6	12.5	12.6	7.8	7.8	7.8
10	18.4	18.1	18.2	17.6	17.4	17.5	12.5	12.4	12.5	7.9	7.8	7.8
11	18.3	18.0	18.2	17.4	17.3	17.4	12.4	12.3	12.3	8.0	7.9	8.0
12	18.1	17.5	17.7	17.3	17.0	17.1	12.3	12.1	12.2	8.1	8.0	8.0
13	17.6	17.4	17.4	17.0	16.9	16.9	12.1	12.0	12.0	8.1	8.0	8.1
14	17.9	17.4	17.6	16.9	16.7	16.8	12.0	11.7	11.8	8.2	8.1	8.1
15	17.9	17.4	17.7	16.7	16.5	16.6	11.7	11.4	11.5	8.1	8.1	8.1
16	17.4	16.7	17.0	16.5	16.3	16.4	11.4	11.1	11.2	8.1	8.1	8.1
17	16.7	15.8	16.2	16.3	16.1	16.2	11.1	10.9	11.0	8.1	8.0	8.0
18	16.0	15.2	15.7	16.1	16.0	16.0	10.9	10.8	10.8	---	---	---
19	17.3	15.8	16.6	16.0	15.7	15.8	10.8	10.7	10.7	---	---	---
20	17.9	17.3	17.6	15.7	15.4	15.5	10.7	10.5	10.6	8.5	8.4	8.4
21	18.1	17.9	18.0	15.4	15.1	15.2	10.5	10.3	10.4	8.5	8.4	8.5
22	18.3	18.1	18.3	15.1	14.9	15.0	10.3	10.1	10.2	8.5	8.4	8.5
23	18.4	18.3	18.4	14.9	14.7	14.8	---	---	---	8.5	8.3	8.4
24	18.4	18.4	18.4	14.7	14.5	14.6	9.6	9.4	9.5	8.3	8.2	8.3
25	18.4	18.3	18.4	14.5	14.2	14.4	9.4	9.1	9.3	8.2	8.1	8.1
26	18.4	18.4	18.4	14.3	14.1	14.2	9.1	8.9	9.0	8.1	8.1	8.1
27	18.4	18.4	18.4	14.1	14.0	14.1	8.9	8.5	8.7	8.1	8.1	8.1
28	18.4	18.4	18.4	14.0	13.8	13.9	8.5	8.3	8.4	8.1	8.1	8.1
29	18.4	18.3	18.4	13.8	13.7	13.7	8.3	8.1	8.2	8.1	8.0	8.0
30	18.4	18.3	18.3	13.7	13.6	13.7	8.1	7.9	8.0	8.0	7.9	7.9
31	18.3	18.2	18.2	---	---	---	8.0	7.8	7.9	7.9	7.7	7.8
MONTH	21.0	15.2	18.2	18.2	13.6	16.2	13.6	7.8	11.1	8.5	7.5	8.0





## 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<sup>2</sup>, of which about 600 mi<sup>2</sup> does not contribute directly to surface runoff.

## WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--December 1999 to current year.

INSTRUMENTATION.--Temperature recorder with telemetry.

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 2.0°C, Jan. 3, 4, 2001.

EXTREMES FOR CURRENT YEAR.--Maximum recorded 22.8°C, Aug. 30; minimum recorded 8.4°C, Jan. 25-26.

TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	19.6	19.3	19.4	17.6	17.5	17.6	12.6	12.1	12.4	9.6	9.3	9.5
2	19.3	19.2	19.3	17.7	17.6	17.6	12.4	12.3	12.3	9.5	9.4	9.5
3	19.4	19.2	19.3	17.7	17.6	17.7	12.8	12.3	12.6	9.7	9.3	9.5
4	19.3	19.0	19.1	17.6	17.3	17.5	12.8	12.6	12.7	10.3	9.7	10.0
5	19.0	18.7	18.9	17.3	16.8	17.1	12.7	12.2	12.5	10.8	10.3	10.6
6	18.8	18.2	18.4	16.8	16.6	16.6	12.2	11.9	12.0	11.1	10.8	10.9
7	18.2	17.9	18.1	16.6	16.3	16.4	12.1	11.8	12.0	11.2	11.1	11.2
8	18.3	18.1	18.2	16.3	16.1	16.2	12.3	12.1	12.2	11.3	11.2	11.2
9	18.4	18.3	18.3	16.1	15.9	16.0	12.7	12.3	12.5	11.2	11.1	11.2
10	18.5	18.3	18.4	16.0	15.9	16.0	12.9	12.7	12.9	11.2	11.0	11.1
11	18.5	18.2	18.3	16.1	15.9	16.0	12.8	12.8	12.8	11.3	11.2	11.3
12	18.3	17.9	18.1	15.9	15.7	15.8	12.8	12.7	12.8	11.4	11.3	11.3
13	18.0	17.9	18.0	15.7	15.3	15.6	12.8	12.6	12.7	11.6	11.4	11.5
14	17.9	17.5	17.7	15.3	15.1	15.2	12.7	12.2	12.5	11.7	11.6	11.6
15	17.5	17.2	17.4	15.1	15.0	15.1	12.2	11.7	11.9	11.7	11.7	11.7
16	17.2	16.8	17.0	15.0	14.9	15.0	11.7	11.4	11.5	11.7	11.5	11.6
17	16.8	16.3	16.5	15.0	14.9	14.9	11.4	11.1	11.2	11.5	10.9	11.3
18	16.4	16.1	16.3	14.9	14.6	14.7	11.1	11.0	11.0	10.9	10.3	10.6
19	16.4	16.2	16.3	14.6	14.4	14.5	11.0	10.8	10.9	10.3	9.6	10.0
20	16.7	16.3	16.6	14.4	14.3	14.4	10.9	10.7	10.8	9.6	9.2	9.4
21	16.8	16.7	16.8	14.3	14.2	14.3	10.9	10.5	10.7	9.2	9.0	9.0
22	17.0	16.8	16.9	14.3	14.2	14.2	10.5	10.3	10.4	9.0	8.8	8.9
23	17.1	16.9	17.0	14.3	14.2	14.2	---	---	---	8.8	8.6	8.7
24	17.2	17.0	17.1	14.2	14.2	14.2	9.7	9.4	9.6	8.6	8.5	8.6
25	17.3	17.2	17.2	14.2	13.9	14.1	9.9	9.3	9.6	8.5	8.4	8.4
26	17.2	17.1	17.2	13.9	13.6	13.7	10.0	9.6	9.8	8.5	8.4	8.4
27	17.3	17.1	17.2	13.6	13.3	13.5	9.6	9.3	9.4	8.6	8.4	8.5
28	17.4	17.2	17.3	13.3	13.0	13.1	---	---	---	8.7	8.5	8.6
29	17.6	17.4	17.5	13.0	12.9	12.9	---	---	---	8.8	8.6	8.7
30	17.7	17.5	17.6	12.9	12.6	12.8	9.2	9.0	9.1	8.8	8.6	8.7
31	17.7	17.6	17.7	---	---	---	9.5	9.2	9.3	8.7	8.5	8.6
MONTH	19.6	16.1	17.7	17.7	12.6	15.2				11.7	8.4	10.0



## 03313000 BARREN RIVER NEAR FINNEY, KY

LOCATION.--Lat 36°53'42", long 86°08'02", Allen County, Hydrologic Unit 05110002, on left bank 1,200 ft upstream from Lock and Dam 6, 0.8 mi downstream from Port Oliver Ford, 2,500 ft upstream from Difficult Creek, 0.5 mi downstream from Barren River Dam, 2.1 mile southwest of Finney, and at mile 78.7.

DRAINAGE AREA.--942 mi<sup>2</sup> revised, of which about 77 mi<sup>2</sup> does not contribute directly to surface runoff.

## WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--January 1990 to September 1994. October 2003 to current year.

INSTRUMENTATION.--Temperature recorder with telemetry since 1990.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--Maximum recorded 26.0°C, Jul. 20, 1992, minimum recorded 2.1°C, Jan. 20-22, 1994.

EXTREMES FOR CURRENT YEAR.--Maximum recorded 21.6°C, Oct. 2-4; minimum recorded 4.4°C, Feb. 2-5.

EXTREMES OUTSIDE PUBLISHED RECORD.--Maximum recorded 27.8°C, Aug. 19, 2000; minimum recorded 1.4°C, Feb. 6, 1996.

REMARKS.--Water-temperature records rated good.

TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20.7	20.2	20.5	18.9	18.3	18.6	12.4	11.9	12.1	5.5	5.3	5.4
2	21.6	20.3	20.8	---	---	18.7	11.9	11.4	11.7	5.6	5.2	5.4
3	21.6	21.0	21.3	---	---	18.2	11.5	11.0	11.2	5.6	5.3	5.4
4	21.6	20.8	21.1	18.4	17.8	18.1	11.0	10.8	10.9	5.5	5.1	5.3
5	21.3	20.6	20.9	17.9	17.4	17.7	11.0	10.8	10.9	5.9	5.2	5.6
6	21.2	20.9	21.0	17.5	17.4	17.5	11.2	10.8	10.9	5.8	5.1	5.4
7	21.4	20.9	21.1	17.6	17.2	17.5	11.2	11.0	11.1	5.4	5.1	5.2
8	21.2	21.0	21.1	17.2	16.8	17.0	11.4	10.7	11.0	5.3	5.0	5.2
9	21.1	20.8	21.0	16.8	16.4	16.6	11.4	10.7	11.0	5.5	5.2	5.4
10	21.1	20.5	20.8	16.4	16.1	16.3	11.6	10.9	11.2	5.7	5.4	5.5
11	20.8	20.2	20.4	16.5	16.0	16.3	10.9	10.4	10.7	6.1	5.4	5.7
12	20.6	20.2	20.5	16.5	16.0	16.3	10.7	10.2	10.6	6.6	6.0	6.3
13	20.7	20.3	20.5	16.0	15.2	15.6	10.6	10.2	10.4	6.9	6.0	6.6
14	20.3	20.0	20.2	15.2	14.9	15.1	10.2	9.7	9.9	6.1	5.8	6.0
15	20.0	19.5	19.7	15.1	14.8	14.9	9.7	9.4	9.5	6.3	5.9	6.1
16	19.5	19.0	19.3	15.0	14.8	14.9	9.4	9.2	9.3	6.1	5.8	6.0
17	19.0	18.9	19.0	15.0	14.7	14.9	9.3	9.1	9.2	5.9	5.6	5.7
18	19.3	19.0	19.1	14.7	14.4	14.5	9.1	9.0	9.0	5.7	5.5	5.6
19	19.3	19.1	19.1	14.5	14.3	14.4	9.1	8.4	8.8	5.5	5.4	5.5
20	19.1	18.9	19.0	14.3	13.9	14.1	8.4	7.8	8.1	5.5	5.4	5.4
21	18.9	18.8	18.8	14.1	13.9	14.0	7.8	7.7	7.7	5.5	5.3	5.4
22	18.9	18.8	18.8	---	---	13.9	---	---	7.7	5.3	5.1	5.3
23	18.9	18.7	18.8	14.0	13.7	13.9	---	---	---	5.1	4.8	4.9
24	18.8	18.4	18.7	14.5	13.2	14.1	7.2	6.9	7.1	4.8	4.7	4.8
25	18.5	18.3	18.4	13.2	12.9	13.1	6.9	6.7	6.8	4.8	4.7	4.7
26	18.7	18.3	18.5	13.1	12.9	13.0	6.7	6.6	6.6	4.9	4.8	4.8
27	18.7	18.5	18.6	---	---	12.7	6.6	6.3	6.4	4.9	4.7	4.8
28	18.8	18.5	18.6	12.5	12.3	12.4	6.3	5.9	6.1	4.7	4.5	4.6
29	18.9	18.6	18.7	12.4	12.3	12.3	5.9	5.6	5.8	4.6	4.5	4.5
30	18.9	18.1	18.6	12.5	12.3	12.4	5.7	5.5	5.6	---	---	4.5
31	18.4	17.9	18.1	---	---	---	---	---	5.6	4.5	4.5	4.5
MONTH	21.6	17.9	19.7			15.3						5.3



## 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<sup>2</sup>, of which about 490 mi<sup>2</sup> does not contribute directly to surface runoff.

PERIOD OF RECORD.--June 1938 to September 1994, March 2002 to current year. 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 recorder with telemetry. 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 fair except those estimated, which are poor. Flow regulated by Barren River Lake beginning March 1964.

COOPERATION.--U.S. Army Corps of Engineers, Louisville District and National Streamflow Information Program.

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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,170	3,510	11,100	4,700	e4,470	5,140	1,840	10,200	699	212	182	11,200
2	769	3,500	7,200	5,340	e4,670	4,990	5,950	4,180	698	206	180	4,610
3	502	3,460	5,400	5,990	4,700	4,770	5,040	4,080	702	203	175	5,060
4	346	3,370	5,240	5,850	4,700	4,660	3,370	4,260	696	199	172	4,700
5	235	3,310	4,910	4,600	4,660	4,580	2,500	4,060	682	205	166	4,390
6	249	3,270	4,980	4,310	4,610	4,490	1,960	3,840	658	205	162	4,200
7	328	3,240	7,270	5,480	4,580	4,470	1,630	3,690	671	213	161	4,050
8	425	3,200	11,700	10,200	4,630	5,020	1,630	3,580	635	211	159	3,940
9	566	3,170	5,300	8,660	4,730	5,110	1,820	3,480	623	202	159	3,850
10	571	3,140	7,440	4,840	4,710	4,840	1,390	3,410	626	194	158	3,780
11	572	3,260	4,580	3,690	4,610	4,940	e1,050	3,650	634	204	157	3,720
12	658	4,230	3,100	4,300	4,530	4,380	e760	3,730	702	214	157	3,660
13	722	4,130	3,470	3,860	4,790	3,890	e1,000	3,750	696	276	157	3,550
14	730	3,750	4,450	6,180	6,240	3,390	e1,100	3,990	685	379	156	2,100
15	1,420	3,490	4,950	4,900	6,250	3,190	e900	4,070	659	591	154	855
16	2,060	3,330	4,890	3,470	5,710	2,810	e800	4,020	628	692	155	1,060
17	2,060	3,240	4,750	2,690	5,310	2,450	e700	2,720	510	732	165	1,170
18	2,160	3,170	4,650	3,030	5,010	2,350	e650	1,520	422	738	322	1,160
19	3,330	3,130	4,560	4,230	4,800	2,040	e600	1,000	403	930	468	1,140
20	2,870	3,080	4,470	4,870	4,760	1,840	e550	3,270	393	1,050	699	1,120
21	3,150	3,020	4,380	4,850	7,320	1,790	e580	4,080	336	1,050	702	1,100
22	3,150	2,730	e3,200	4,720	8,310	1,480	647	3,270	255	1,200	641	1,090
23	3,080	2,650	e5,370	4,580	6,650	1,350	759	3,590	244	1,190	608	1,080
24	3,110	2,700	e6,260	4,480	5,810	1,290	745	3,810	229	1,090	590	1,070
25	3,090	3,310	e3,930	4,410	5,410	1,240	696	3,740	221	744	588	1,060
26	3,040	3,080	3,070	4,370	5,090	1,200	680	3,650	220	605	732	1,080
27	3,010	3,350	2,650	4,310	4,870	1,210	816	3,540	221	417	798	845
28	3,320	2,810	3,830	4,240	4,850	4,310	953	2,110	224	217	753	622
29	3,680	2,580	4,800	e4,170	---	4,360	1,090	963	219	192	1,610	626
30	3,630	3,390	5,080	e4,480	---	2,850	6,710	762	214	185	13,200	605
31	3,490	---	5,060	e4,600	---	2,110	---	724	---	183	20,300	---
TOTAL	57,493	97,600	162,040	150,400	146,780	102,540	48,916	106,739	14,805	14,929	44,786	78,493
MEAN	1,855	3,253	5,227	4,852	5,242	3,308	1,631	3,443	494	482	1,445	2,616
MAX	3,680	4,230	11,700	10,200	8,310	5,140	6,710	10,200	702	1,200	20,300	11,200
MIN	235	2,580	2,650	2,690	4,470	1,200	550	724	214	183	154	605

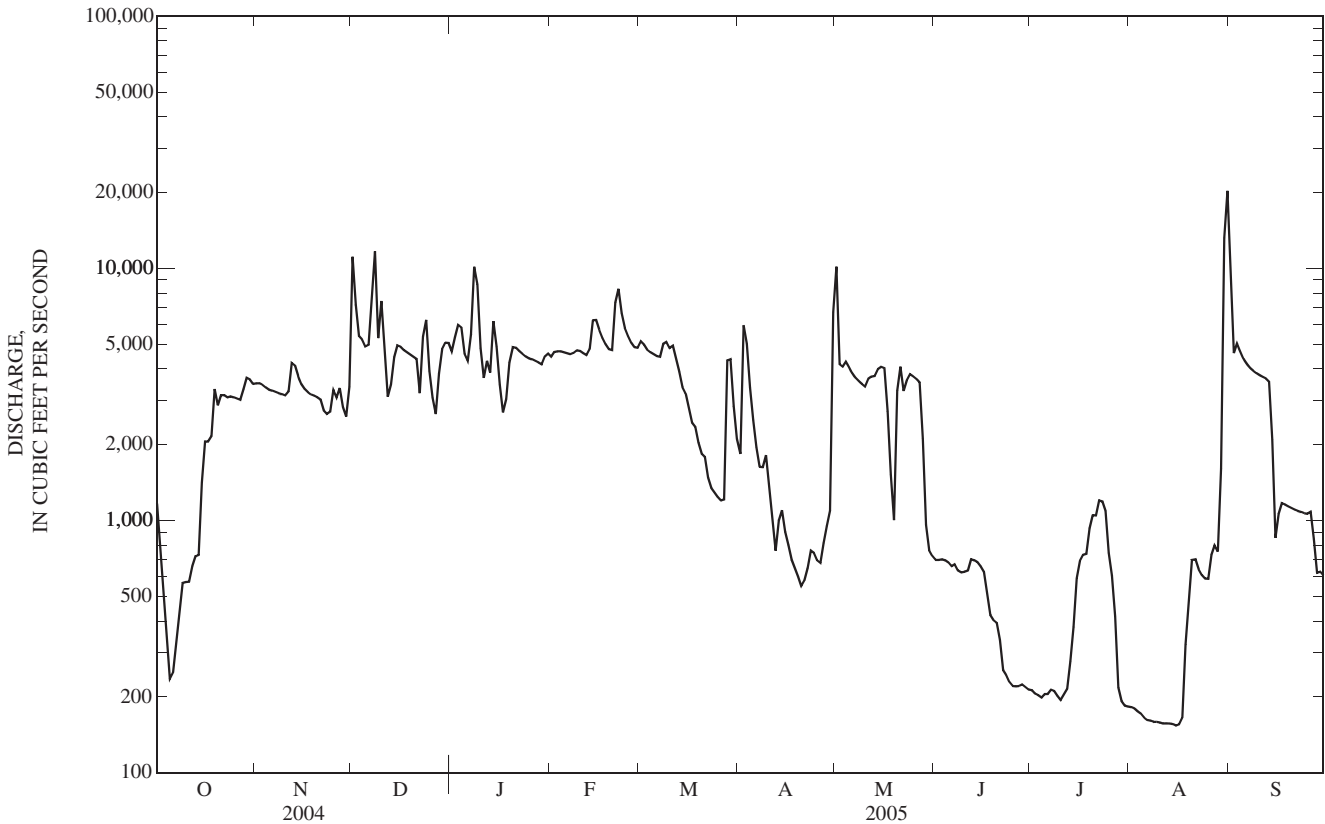
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2005, BY WATER YEAR (WY)

MEAN	1,862	3,150	3,984	4,317	4,848	4,052	3,000	2,861	2,082	1,490	902	1,282
MAX	4,027	6,097	9,210	9,141	9,830	10,450	8,368	9,408	5,825	5,059	3,468	5,358
(WY)	(1975)	(1980)	(1979)	(1979)	(1989)	(1975)	(1979)	(1983)	(1981)	(1989)	(1971)	(1979)
MIN	381	286	573	228	1,624	1,128	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	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1965 - 2005	
ANNUAL TOTAL	1,129,523		1,025,521			
ANNUAL MEAN	3,086		2,810		2,813	
HIGHEST ANNUAL MEAN					5,001 1979	
LOWEST ANNUAL MEAN					1,292 1988	
HIGHEST DAILY MEAN	16,100	Feb 6	20,300	Aug 31	57,500	Mar 13, 1975
LOWEST DAILY MEAN	235	Oct 5	154	Aug 15	75	Jul 9, 1988
ANNUAL SEVEN-DAY MINIMUM	379	Oct 3	156	Aug 10	76	Jul 6, 1988
MAXIMUM PEAK FLOW			21,400	Aug 31	85,000	Feb 28, 1962
MAXIMUM PEAK STAGE			27.42	Aug 31	49.55	Feb 28, 1962
INSTANTANEOUS LOW FLOW					44	Sep 19, 1954
10 PERCENT EXCEEDS	5,180		5,070		5,910	
50 PERCENT EXCEEDS	3,120		3,030		2,140	
90 PERCENT EXCEEDS	702		221		300	

e Estimated



## 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<sup>2</sup>, of which about 1,380 mi<sup>2</sup> 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<sup>3</sup>/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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,090	6,410	20,700	e28,000	13,800	12,900	16,500	e19,000	2,420	1,040	977	e39,700
2	4,480	8,710	29,300	e26,000	12,800	13,200	17,500	e27,000	2,290	1,020	e909	38,700
3	4,430	11,900	32,600	e29,000	12,100	13,400	21,700	25,200	2,260	958	e866	28,400
4	3,340	11,400	29,400	e28,900	11,800	12,600	22,500	18,800	2,240	934	824	19,600
5	2,420	11,000	22,000	e29,000	11,400	11,900	19,400	e15,500	2,250	983	789	15,400
6	1,870	11,500	21,500	28,100	11,000	11,300	15,700	e14,000	2,280	971	779	12,800
7	1,540	11,900	27,200	29,600	10,300	11,100	13,900	e12,300	2,210	942	740	10,000
8	1,370	11,900	34,600	32,700	10,300	16,200	e13,000	e10,500	2,050	941	735	8,590
9	1,320	11,800	37,800	35,800	10,800	19,000	e12,000	e9,500	1,960	1,000	725	7,210
10	1,340	11,300	39,900	37,200	11,300	19,200	e10,900	e8,600	1,870	997	719	5,940
11	1,390	10,300	39,400	35,200	11,200	18,000	e9,800	7,640	1,910	1,010	684	5,150
12	1,450	18,200	35,300	27,200	10,800	16,200	e9,100	6,690	2,370	992	646	4,650
13	1,780	21,400	27,900	21,800	11,900	14,100	e9,200	6,140	3,750	1,060	616	4,330
14	2,460	17,400	23,600	22,800	e17,800	11,900	9,850	6,170	4,040	1,120	657	4,100
15	2,820	14,800	22,300	23,000	e21,600	9,920	10,200	6,350	3,430	1,260	724	3,060
16	2,910	12,800	e21,500	21,200	e22,300	8,230	e10,000	6,290	2,820	1,550	746	2,490
17	3,150	11,000	e21,000	18,200	e20,700	6,830	e8,000	6,230	2,420	2,010	e770	2,160
18	3,470	9,010	e20,000	16,100	18,500	5,860	e7,200	5,670	2,220	2,390	e811	2,180
19	4,100	8,390	e18,900	15,400	16,800	5,250	e6,200	4,620	1,960	e2,420	e895	2,160
20	6,450	8,610	e17,800	16,900	15,300	4,820	e5,300	e4,750	1,730	e2,350	948	2,150
21	7,080	8,220	e16,900	19,300	15,600	4,370	e4,550	e8,600	1,570	2,490	1,070	2,120
22	7,020	7,740	e17,500	20,900	19,600	4,160	e4,100	e14,000	1,470	e2,540	1,180	2,050
23	7,250	7,430	e20,900	21,900	22,800	4,460	3,800	e13,800	1,340	e2,570	1,240	2,040
24	7,220	9,650	e24,500	22,000	21,700	5,110	3,680	e11,700	1,260	e2,540	1,290	2,010
25	6,600	12,600	e27,500	21,600	18,500	5,080	3,450	e10,100	1,190	e2,450	1,380	2,000
26	6,270	12,600	e23,500	21,000	15,900	4,660	e3,350	e8,700	1,140	e2,210	1,910	2,070
27	6,090	13,000	e17,900	19,200	14,100	5,900	e3,430	e7,700	1,130	e1,920	2,790	2,040
28	5,910	14,100	e16,300	16,700	12,900	20,300	e3,650	e6,600	1,100	e1,670	2,450	1,960
29	5,880	14,000	e16,800	14,700	---	29,700	e4,500	e6,200	1,080	1,340	3,390	1,970
30	6,130	13,600	e21,400	14,400	---	28,800	e8,200	e3,700	1,060	1,170	e13,200	1,770
31	6,200	---	e26,000	14,200	---	22,300	---	e2,900	---	1,030	e32,800	---
TOTAL	127,830	352,670	771,900	728,000	423,600	376,750	290,660	314,950	60,820	47,878	78,260	238,800
MEAN	4,124	11,760	24,900	23,480	15,130	12,150	9,689	10,160	2,027	1,544	2,525	7,960
MAX	7,250	21,400	39,900	37,200	22,800	29,700	22,500	27,000	4,040	2,570	32,800	39,700
MIN	1,320	6,410	16,300	14,200	10,300	4,160	3,350	2,900	1,060	934	616	1,770

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2005, BY WATER YEAR (WY)

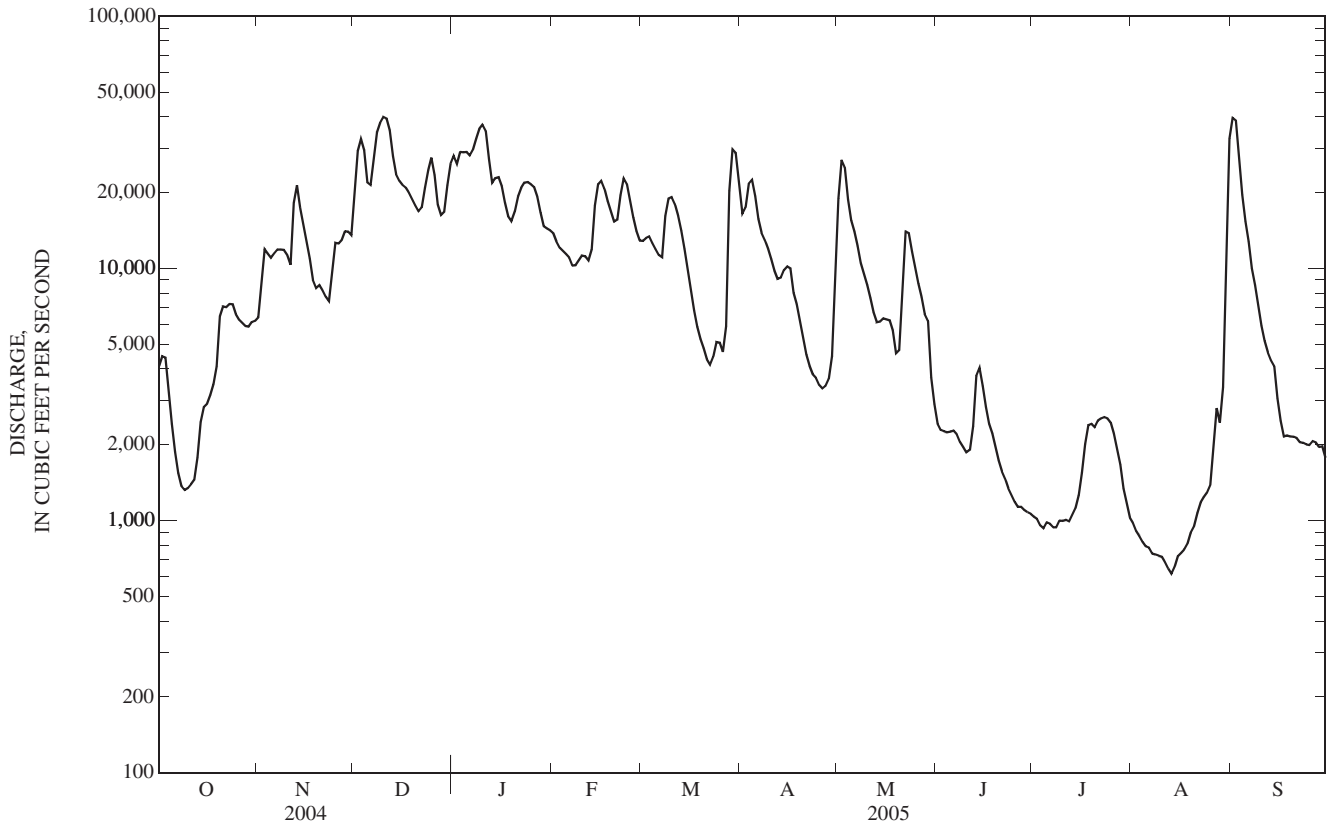
MEAN	5,037	8,266	13,650	15,790	15,870	16,690	13,130	10,550	7,768	3,722	2,711	3,906
MAX	16,950	19,310	42,250	36,020	26,410	41,520	34,210	25,950	20,190	8,811	8,743	22,540
(WY)	(1980)	(1980)	(1979)	(1974)	(1994)	(1997)	(1979)	(1995)	(1981)	(1973)	(1971)	(1979)
MIN	1,750	2,548	2,103	954	6,083	6,150	4,345	1,881	1,523	1,270	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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1970 - 2005	
ANNUAL TOTAL	4,296,650		3,812,118			
ANNUAL MEAN	11,740		10,440		9,771	
HIGHEST ANNUAL MEAN					18,460	1979
LOWEST ANNUAL MEAN					4,432	2001
HIGHEST DAILY MEAN	39,900	Dec 10	39,900	Dec 10	83,800	Mar 7, 1997
LOWEST DAILY MEAN	1,320	Oct 9	616	Aug 13	228	Oct 4, 2001
ANNUAL SEVEN-DAY MINIMUM	1,460	Oct 7	682	Aug 9	320	Sep 8, 1995
MAXIMUM PEAK FLOW			40,800	Sep 1	107,000	Mar 5, 1962
MAXIMUM PEAK STAGE			21.12	Sep 2	40.46	Mar 5, 1962
INSTANTANEOUS LOW FLOW					228	Oct 4, 2001
10 PERCENT EXCEEDS	24,500		22,900		22,700	
50 PERCENT EXCEEDS	8,630		7,700		6,060	
90 PERCENT EXCEEDS	2,380		1,080		1,340	

e Estimated



## 03318010 ROUGH RIVER AT ROUGH RIVER DAM NEAR FALLS OF ROUGH, KY

LOCATION.--Lat 37°37'19", long 86°30'15", Grayson County, Hydrologic Unit 05110004, on right bank 800 ft downstream from Rough River Dam, 1.5 mi upstream from Cane Run, 3.1 mi upstream from Rock Lick Creek, 3.5 mi northeast of Falls of Rough, and at mile 89.2.

DRAINAGE AREA.--454 mi<sup>2</sup>, of which about 107 mi<sup>2</sup> does not contribute directly to surface runoff.

## WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--July 1962 to current year.

INSTRUMENTATION.--Water-temperature recorder with telemetry.

COOPERATION.--U. S. Army Corps of Engineers, Louisville District and The Nature Conservancy.

EXTREMES FOR PERIOD OF DAILY RECORD.--Maximum recorded 29.0°C, July 7, 2002, minimum recorded 2.0°C, Jan. 3, 4, 2001.

EXTREMES FOR CURRENT YEAR.--Maximum recorded 21.5°C, Sept. 7; minimum recorded 3.6°C, Dec. 28,

REMARKS.--Water-temperature records rated good.

TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20.6	20.2	20.4	18.4	17.9	18.1	---	---	10.9	4.5	4.3	4.4
2	20.4	20.2	20.3	18.4	18.0	18.2	10.8	10.4	10.6	5.1	4.3	4.8
3	20.5	20.1	20.3	18.0	17.8	17.9	10.4	10.0	10.2	5.4	5.0	5.2
4	20.4	20.0	20.2	17.9	17.5	17.7	10.0	9.7	9.8	5.4	4.9	5.2
5	20.3	19.9	20.1	17.5	17.2	17.3	9.7	9.5	9.6	6.2	4.9	5.5
6	20.2	19.8	20.0	17.2	17.0	17.1	10.1	9.6	9.8	6.0	5.3	5.5
7	20.1	19.8	19.9	17.0	16.7	16.8	10.2	10.0	10.1	5.3	5.1	5.1
8	20.1	19.6	19.8	16.7	16.3	16.5	10.0	9.7	9.8	5.2	5.1	5.1
9	20.0	19.6	19.8	16.5	16.1	16.3	9.9	9.7	9.8	5.9	5.2	5.6
10	20.0	19.8	19.9	16.2	15.9	16.0	9.9	9.8	9.9	6.0	5.7	5.8
11	20.1	19.9	20.0	15.9	15.5	15.7	9.9	9.5	9.7	6.7	5.8	6.2
12	19.9	19.8	19.8	15.5	15.0	15.3	9.5	9.3	9.4	7.2	5.8	6.5
13	19.8	19.5	19.7	15.0	14.6	14.8	9.3	8.9	9.1	8.6	6.3	7.4
14	19.6	19.3	19.5	14.6	14.2	14.4	8.9	8.4	8.7	6.6	6.2	6.4
15	19.3	19.1	19.2	14.4	14.0	14.1	8.4	8.1	8.3	6.7	6.1	6.4
16	19.1	18.7	18.9	14.0	13.8	14.0	8.1	7.8	7.9	6.5	6.3	6.4
17	18.7	18.4	18.5	---	---	13.8	---	---	7.7	6.4	6.1	6.2
18	18.4	18.3	18.4	---	---	---	---	---	7.4	6.4	6.0	6.2
19	18.3	18.1	18.3	---	---	---	7.3	6.7	7.0	6.3	6.1	6.2
20	---	---	18.1	---	---	---	6.7	6.1	6.4	6.4	6.3	6.3
21	18.0	17.9	17.9	---	---	---	6.4	6.0	6.2	6.4	6.2	6.3
22	18.1	17.9	18.0	---	---	---	6.3	5.4	6.0	6.3	5.9	6.1
23	18.2	18.0	18.1	---	---	12.9	5.5	4.7	5.1	5.9	5.7	5.8
24	18.1	17.9	18.0	---	---	13.3	4.7	4.3	4.5	5.7	5.5	5.6
25	17.9	17.8	17.9	13.1	12.4	12.6	4.3	3.9	4.1	5.9	5.5	5.7
26	17.9	17.8	17.9	12.4	12.1	12.3	4.0	3.8	3.9	5.8	5.6	5.7
27	17.9	17.8	17.9	12.1	11.9	12.0	3.8	3.7	3.7	5.6	5.4	5.5
28	18.0	17.8	17.8	11.9	11.7	11.8	4.0	3.6	3.8	5.4	5.3	5.4
29	18.1	17.9	18.0	11.7	11.3	11.5	4.1	3.7	3.9	5.4	5.3	5.3
30	18.4	17.9	18.2	---	---	---	4.2	3.9	4.0	5.4	5.3	5.3
31	18.0	17.9	18.0	---	---	---	4.5	4.2	4.4	5.4	5.3	5.3
MONTH			19.0						7.5	8.6	4.3	5.8



## 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<sup>2</sup>, of which about 1,540 mi<sup>2</sup> 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 2,000 ft<sup>3</sup>/s, which are poor. Flow regulated by Rough River Lake, 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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,590	8,240	21,800	31,900	14,600	13,500	22,400	22,600	2,580	990	934	36,200
2	4,850	12,800	29,800	31,300	13,800	13,600	21,800	29,600	2,400	950	893	36,800
3	5,060	15,100	33,200	35,000	13,500	13,600	24,600	27,300	2,370	914	824	30,800
4	3,800	14,500	32,600	36,800	13,100	13,100	25,900	20,000	2,390	924	770	20,900
5	2,650	13,800	26,700	36,200	12,800	12,800	22,800	18,000	e2,400	953	739	17,000
6	2,040	13,800	23,400	34,600	12,700	12,400	18,200	e16,100	e2,420	942	721	15,200
7	1,700	14,300	28,700	35,300	12,200	12,300	15,700	e14,800	e2,300	892	684	12,600
8	1,510	14,300	35,500	36,300	12,400	15,900	15,400	e13,200	e2,150	899	674	10,900
9	1,430	14,300	38,500	37,700	12,800	18,700	14,000	e11,900	2,050	984	656	9,200
10	1,430	13,900	40,400	38,200	13,200	18,900	12,300	10,800	1,970	986	633	7,530
11	1,460	12,900	40,800	38,900	12,900	18,000	12,700	8,990	1,970	978	615	6,220
12	1,560	19,100	39,600	35,300	12,600	16,000	10,900	7,800	2,440	1,010	589	5,280
13	1,830	24,000	35,600	28,700	13,300	14,000	11,200	7,160	4,400	1,010	562	4,800
14	2,590	20,600	29,000	27,100	19,800	12,500	12,000	7,370	4,840	1,090	583	4,480
15	3,000	17,500	24,700	26,600	23,000	12,200	12,000	7,490	3,910	1,270	671	3,750
16	3,080	15,600	23,900	24,900	23,600	10,600	10,600	7,510	3,020	1,590	691	2,670
17	3,540	13,600	23,400	20,600	22,100	8,810	8,920	7,400	2,520	2,100	695	2,200
18	4,190	11,400	22,500	16,100	20,100	7,650	7,890	6,800	2,230	2,570	776	2,250
19	4,810	10,700	21,600	14,000	18,100	6,780	7,230	5,470	1,980	2,560	869	2,300
20	7,700	11,100	20,200	15,300	16,500	6,120	6,190	4,740	1,720	2,530	928	2,260
21	8,770	10,700	18,500	18,600	16,200	5,560	5,070	10,800	1,570	2,640	1,040	2,210
22	8,770	10,000	18,400	21,700	19,400	5,280	4,400	15,900	1,460	2,760	1,180	2,180
23	8,980	9,480	21,700	23,100	22,700	5,650	4,030	15,500	1,380	2,820	1,240	2,170
24	9,050	12,000	25,800	24,000	22,100	6,660	3,970	13,300	1,300	2,750	1,300	2,120
25	8,320	15,400	29,400	24,200	18,800	6,880	3,880	11,100	1,230	2,680	1,420	2,100
26	7,900	15,500	27,500	23,700	15,900	6,230	3,710	9,620	1,160	2,380	2,000	2,110
27	7,660	15,700	20,800	20,700	14,000	e7,900	3,740	8,470	1,140	1,890	3,060	2,110
28	7,510	16,400	17,400	17,200	13,500	e24,000	3,910	7,690	1,120	1,550	2,660	2,060
29	7,450	16,300	17,000	15,400	---	e35,000	4,760	6,440	1,100	1,330	3,160	2,000
30	7,660	16,300	21,100	15,200	---	33,500	11,900	4,500	1,060	1,140	13,200	1,820
31	7,760	---	30,100	14,900	---	28,700	---	3,180	---	1,010	30,300	---
TOTAL	152,650	429,320	839,600	819,500	455,700	422,820	342,100	361,530	64,580	49,092	75,067	254,220
MEAN	4,924	14,310	27,080	26,440	16,280	13,640	11,400	11,660	2,153	1,584	2,422	8,474
MAX	9,050	24,000	40,800	38,900	23,600	35,000	25,900	29,600	4,840	2,820	30,300	36,800
MIN	1,430	8,240	17,000	14,000	12,200	5,280	3,710	3,180	1,060	892	562	1,820

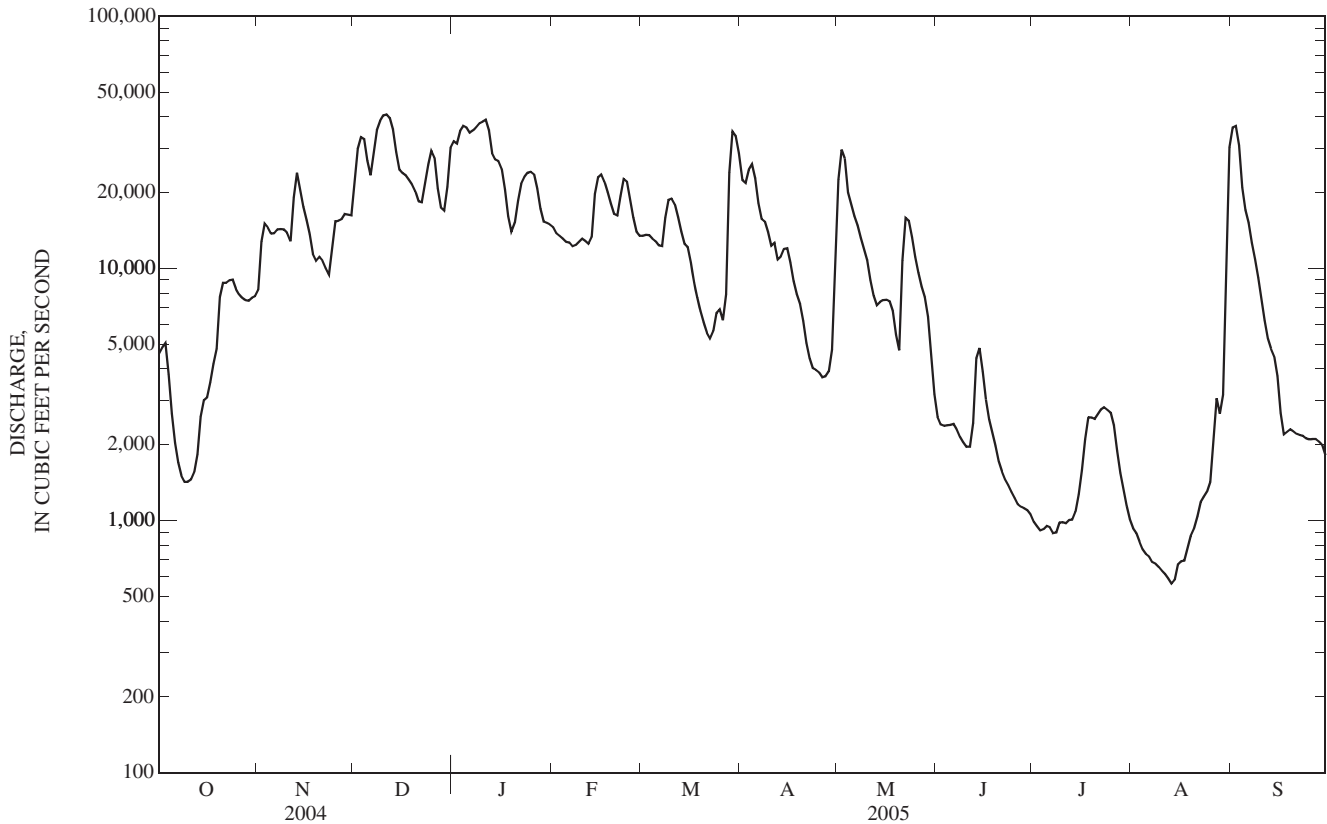
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2005, BY WATER YEAR (WY)

MEAN	5,594	10,440	16,750	18,590	21,600	19,550	15,350	13,450	8,873	4,465	2,875	4,352
MAX	19,100	22,770	46,530	41,100	52,100	53,330	42,430	50,460	23,850	12,260	8,763	27,360
(WY)	(1980)	(1980)	(1979)	(1974)	(1989)	(1997)	(1979)	(1983)	(1981)	(1989)	(1971)	(1979)
MIN	1,875	2,737	2,496	1,223	7,116	7,479	2,260	1,706	541	1,235	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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1970 - 2005	
ANNUAL TOTAL	4,990,730		4,266,179		11,770	
ANNUAL MEAN	13,640		11,690		5,345	
HIGHEST ANNUAL MEAN					22,070	1979
LOWEST ANNUAL MEAN					5,345	2000
HIGHEST DAILY MEAN	40,800	Dec 11	40,800	Dec 11	85,200	Mar 7, 1997
LOWEST DAILY MEAN	1,430	Oct 9	562	Aug 13	162	Sep 6, 1999
ANNUAL SEVEN-DAY MINIMUM	1,560	Oct 7	616	Aug 9	186	Sep 5, 1999
MAXIMUM PEAK FLOW			41,100	Dec 11	208,000	Jan 27, 1937
MAXIMUM PEAK STAGE			20.91	Dec 11	42.40	Jan 30, 1937
INSTANTANEOUS LOW FLOW					107	Sep 14, 1999
10 PERCENT EXCEEDS	29,400		27,200		29,500	
50 PERCENT EXCEEDS	10,700		9,200		7,260	
90 PERCENT EXCEEDS	2,610		1,080		1,410	

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<sup>2</sup>.

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, non-recording 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<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan 2	1100	3,510	17.30	Mar 28	0600	4,910	18.39
Jan 6	0900	2,840	16.67	Sep 1	0200	*6,360	*19.32

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.71	50	1,510	2,080	166	241	693	1,250	23	6.7	2.5	e5,290
2	0.72	133	1,170	e2,540	143	222	782	751	24	6.3	2.1	e2,030
3	0.61	297	761	e2,540	214	178	672	439	34	6.2	1.9	1,300
4	0.58	191	449	2,050	248	150	482	267	45	5.7	1.7	815
5	0.57	107	280	1,950	203	132	328	176	32	7.9	1.5	511
6	0.56	67	936	e2,200	164	118	239	128	26	11	1.7	337
7	0.52	44	1,660	e2,020	140	144	362	102	21	12	4.0	202
8	0.49	32	1,650	2,430	134	888	786	84	18	12	8.6	120
9	0.51	24	1,210	1,770	135	730	667	70	19	11	8.6	70
10	0.54	20	927	1,270	131	462	421	71	25	10	8.9	42
11	0.48	35	653	829	118	318	278	57	22	11	7.4	31
12	0.63	665	477	607	107	236	e213	47	39	13	5.5	25
13	1.0	546	332	661	322	184	e175	41	191	15	4.3	22
14	1.3	281	232	1,120	1,030	148	e150	62	133	17	3.6	19
15	1.7	183	170	842	916	122	e130	108	70	20	5.1	16
16	2.4	136	133	556	590	107	e120	85	41	21	21	13
17	3.1	100	113	377	388	98	e110	54	28	42	28	12
18	4.0	71	98	256	257	89	106	40	22	62	18	10
19	6.5	69	86	201	193	81	99	36	18	55	21	10
20	9.0	83	72	174	169	75	e88	536	14	53	21	9.5
21	12	78	64	153	380	70	e81	605	12	30	15	9.5
22	14	68	321	134	644	68	79	265	10	23	11	10
23	18	122	735	115	452	145	109	149	9.4	23	8.6	8.6
24	25	770	500	101	301	214	105	99	8.7	24	6.7	7.2
25	31	902	312	93	225	177	86	70	8.1	18	7.0	7.9
26	34	518	216	91	179	141	78	51	7.3	14	129	8.1
27	38	288	159	85	151	1,000	112	40	7.0	10	346	6.0
28	43	367	128	76	156	e4,480	119	33	7.8	7.2	208	4.0
29	45	329	191	85	---	e2,840	172	30	7.8	5.3	855	3.4
30	43	609	1,120	176	---	e1,680	1,320	27	7.4	3.9	3,870	2.9
31	43	---	2,190	200	---	1,110	---	25	---	3.0	5,670	---
TOTAL	381.92	7,185	18,855	27,782	8,256	16,648	9,162	5,798	930.5	559.2	11,302.7	10,952.1
MEAN	12.3	240	608	896	295	537	305	187	31.0	18.0	365	365
MAX	45	902	2,190	2,540	1,030	4,480	1,320	1,250	191	62	5,670	5,290
MIN	0.48	20	64	76	107	68	78	25	7.0	3.0	1.5	2.9
CFSM	0.06	1.23	3.14	4.62	1.52	2.77	1.57	0.96	0.16	0.09	1.88	1.88
IN.	0.07	1.38	3.62	5.33	1.58	3.19	1.76	1.11	0.18	0.11	2.17	2.10

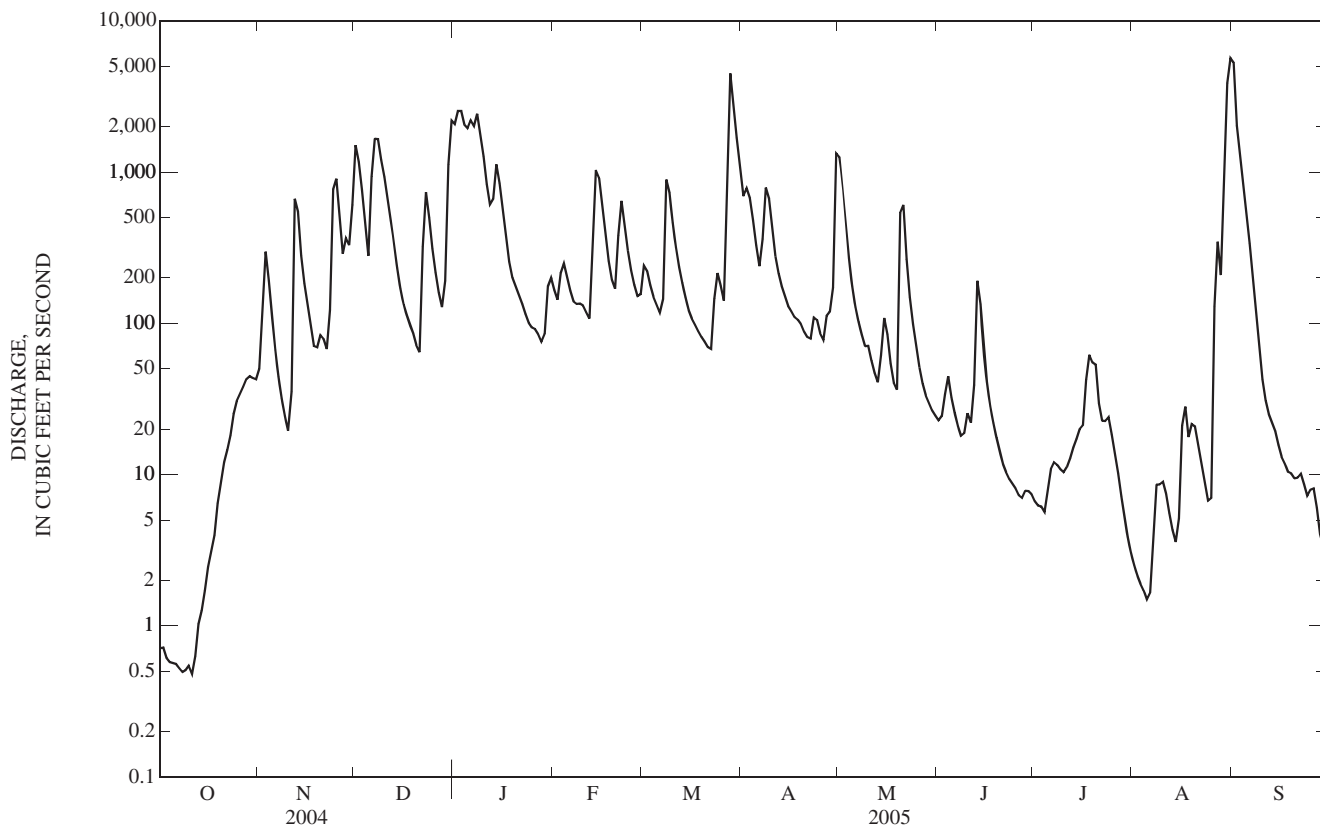
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2005, BY WATER YEAR (WY)

MEAN	30.1	174	407	455	608	595	436	332	119	58.3	36.8	66.3
MAX	485	1,430	2,167	2,024	3,988	2,519	1,822	2,607	900	440	365	988
(WY)	(2003)	(1958)	(1979)	(1950)	(1989)	(1997)	(1979)	(1984)	(1969)	(1989)	(2005)	(1979)
MIN	0.00	0.00	0.00	3.56	42.6	35.2	39.2	6.46	1.37	0.44	0.19	0.00
(WY)	(1954)	(1954)	(1964)	(1981)	(1941)	(1941)	(1986)	(1941)	(1964)	(1964)	(1993)	(1953)

03320500 POND RIVER NEAR APEX, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1941 - 2005	
ANNUAL TOTAL	105,080.87		117,812.42		275	
ANNUAL MEAN	287		323		643	
HIGHEST ANNUAL MEAN					1979	
LOWEST ANNUAL MEAN					1941	
HIGHEST DAILY MEAN	2,190	Dec 31	5,670	Aug 31	28,400	Feb 15, 1989
LOWEST DAILY MEAN	0.48	Oct 11	0.48	Oct 11	0.00	Oct 21, 1940
ANNUAL SEVEN-DAY MINIMUM	0.52	Oct 5	0.52	Oct 5	0.00	Oct 21, 1940
MAXIMUM PEAK FLOW			6,360	Sep 1	35,700	May 7, 1984
MAXIMUM PEAK STAGE			19.32	Sep 1	26.81	Nov 19, 1957
ANNUAL RUNOFF (CFSM)	1.48		1.66		1.42	
ANNUAL RUNOFF (INCHES)	20.15		22.59		19.25	
10 PERCENT EXCEEDS	851		868		736	
50 PERCENT EXCEEDS	113		89		49	
90 PERCENT EXCEEDS	4.5		5.9		0.80	

e Estimated



## WABASH RIVER BASIN

03378500 WABASH RIVER AT NEW HARMONY, IN

(National stream-quality accounting network station)

LOCATION.-- Lat 38°07'55", long 87°56'25", Posey County, Hydrologic Unit 05120113, at bridge on U.S. Highway 66 at New Harmony, and at mile 51.5.

DRAINAGE AREA.--29,234 mi<sup>2</sup>.

## 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 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)
NOV												
18...	1210	Environmental	25,800	.143	.108	768	10.7	7.7	476	11.0	210	56.0
DEC												
13...	1330	Environmental	61,000	.158	.121	772	10.2	7.7	447	8.0	210	55.3
JAN												
14...	1230	Environmental	263,000	.155	.119	782	10.8	7.6	235	6.5	130	35.4
FEB												
02...	1310	Environmental	58,800	.116	.087	773	12.6	7.6	458	3.0	220	58.1
02...	1318	Field Blank	--	--	--	--	--	--	--	--	--	.09
MAR												
22...	1210	Environmental	21,400	.070	.051	763	14.3	8.2	584	9.5	290	77.7
22...	1218	Field Blank	--	.004	.004	--	--	--	--	--	--	--
APR												
05...	1250	Environmental	37,900	.113	.085	768	10.9	8.0	455	14.0	210	54.4
05...	1300	Replicate	--	.110	.082	--	--	--	--	--	210	55.9
18...	1230	Environmental	26,500	.098	.073	772	11.5	8.0	496	18.0	220	58.6
18...	1238	Field Blank	--	--	--	--	--	--	--	--	--	--
MAY												
11...	1230	Environmental	20,600	--	--	770	13.5	8.2	560	21.0	260	64.9
11...	1238	Field Blank	--	--	--	--	--	--	--	--	--	--
24...	1150	Environmental	38,600	.114	.086	764	11.2	7.6	432	20.5	200	51.9
JUN												
07...	1240	Environmental	13,500	.074	.055	767	10.3	8.2	561	26.0	260	64.6
07...	1250	Replicate	--	.074	.055	--	--	--	--	--	260	63.8
16...	1210	Environmental	36,400	.129	.097	765	6.0	7.5	462	26.0	200	51.0
21...	1210	Environmental	23,700	.120	.089	772	8.1	7.7	483	25.5	220	57.1
21...	1218	Field Blank	--	--	--	--	--	--	--	--	--	--
AUG												
10...	1130	Environmental	6,340	.091	.067	771	8.2	8.2	492	30.5	200	39.3
SEP												
07...	1240	Environmental	10,100	.120	.089	775	8.6	7.8	430	26.0	180	46.8



03378500 WABASH RIVER AT NEW HARMONY, IN—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)
NOV 18...	17.2	4.56	14.4	147	179	22.7	.2	9.23	47.6	290	.39	.77	E.03
DEC 13...	16.6	3.99	10.2	136	166	20.5	.2	9.68	35.4	263	.42	.83	<.04
JAN 14...	10.1	3.92	6.19	88	107	12.4	.2	6.99	19.4	166	.41	.81	E.04
FEB 02...	17.4	3.40	11.8	151	184	20.3	.2	8.27	39.6	269	.35	.58	E.02
02...	E.006	E.007	<.20	--	--	.09	.02	.06	.02	--	--	--	--
MAR 22...	24.1	2.47	16.5	180	219	28.5	.2	3.33	53.7	348	.24	.86	<.04
22...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 05...	16.9	2.61	13.9	132	162	22.9	.2	4.45	43.8	266	.31	.89	<.04
05...	17.3	2.72	13.9	--	--	22.8	.2	4.55	43.9	259	.33	.86	<.04
18...	18.6	2.65	15.2	150	183	24.2	.2	1.98	51.8	283	.32	.98	<.04
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 11...	24.3	2.48	18.4	172	210	30.9	.2	.73	52.1	328	.35	1.5	<.04
11...	--	--	--	--	--	--	--	--	--	--	--	--	E.005
24...	17.1	3.07	12.8	139	170	19.7	.2	5.64	38.7	276	.39	1.3	<.04
JUN 07...	23.9	2.51	18.2	179	218	30.1	.2	1.44	55.3	317	.29	1.1	<.04
07...	23.8	2.52	18.0	179	218	30.1	.2	1.41	55.4	318	.31	1.1	<.04
16...	18.8	4.36	16.0	128	156	24.7	.2	6.42	50.2	277	.42	1.5	E.04
21...	18.8	3.74	14.2	145	177	25.2	.2	8.65	41.8	287	.43	1.1	<.04
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 10...	24.7	3.58	26.5	136	154	40.0	.3	.09	60.2	292	.40	1.1	<.04
SEP 07...	15.9	3.75	17.8	122	148	26.1	.2	5.33	46.9	247	.36	1.0	<.04
Date	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Phaeophytin a, phytoplankton, ug/L (62360)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)	Arsenic water, fltrd, ug/L (01000)
NOV 18...	2.37	E.006	.31	.096	.113	.23	2.9	<.1	2.9	4.8	E5.2	E8.0	1.1
DEC 13...	4.01	.013	.44	.101	.126	.26	4.2	<.1	4.2	5.1	--	--	1.0
JAN 14...	2.58	.014	.39	.114	.124	.25	3.2	<.1	3.2	4.6	--	--	.9
FEB 02...	2.86	.012	.34	.093	.108	.21	3.2	<.1	3.2	3.6	--	--	.8
02...	--	--	--	--	--	--	--	--	--	--	--	--	<.2
MAR 22...	2.27	E.006	.52	<.006	.007	.13	3.4	.2	3.3	2.3	9.8	42.1	.8
22...	--	--	<.02	--	--	--	<.1	<.1	<.1	.5	--	--	--
APR 05...	2.40	.008	.25	.030	.045	.19	2.3	<.1	2.2	3.4	5.2	20.5	.8
05...	2.40	E.007	.39	.032	.044	.20	3.0	<.1	3.0	3.4	4.2	17.3	.7
18...	1.95	.012	.70	.006	.018	E.18	5.4	<.1	5.3	3.4	33.0	46.8	.7
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 11...	2.59	.009	1.07	<.006	.018	.15	8.3	.7	7.6	2.9	--	--	.7
11...	E.008	<.002	--	<.006	--	--	--	--	--	--	--	--	--
24...	2.99	.033	.86	.037	.052	.29	7.5	.3	7.2	3.5	17.0	20.3	.9
JUN 07...	1.31	.010	.70	<.006	.010	.16	5.1	.2	5.0	2.7	45.6	31.1	.9
07...	1.32	.010	.76	<.006	.010	.16	5.3	<.1	5.2	2.8	51.1	35.0	.9
16...	4.07	.136	.75	.059	.077	.33	6.7	<.1	6.6	4.1	36.5	23.2	1.1
21...	4.87	.036	.59	.066	.082	.24	4.8	.1	4.7	4.0	19.9	18.9	1.4
21...	--	--	--	--	--	--	--	--	--	--	<.2	<.2	--
AUG 10...	<.06	<.008	.78	<.006	.013	.07	7.4	<.1	7.4	3.5	32.7	53.7	1.4
SEP 07...	.64	.012	.86	.024	.040	.19	7.2	<.1	7.2	3.7	37.2	72.2	1.2

## 03378500 WABASH RIVER AT NEW HARMONY, IN—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Boron, water, fltrd, ug/L (01020)	Iron, water, fltrd, ug/L (01046)	Lithium, water, fltrd, ug/L (01130)	Selen- ium, water, fltrd, ug/L (01145)	Stront- ium, water, fltrd, ug/L (01080)	Vanad- ium, water, fltrd, ug/L (01085)	2,6-Di- ethyl- aniline water fltrd 0.7u GF (82660)	CIAT, water, fltrd, ug/L (04040)	Aceto- chlor, water, fltrd, ug/L (49260)	Ala- chlor, water, fltrd, ug/L (46342)	alpha- HCH, water, fltrd, ug/L (34253)	Atra- zine, water, fltrd, ug/L (39632)	Azin- phos- methyl, water, fltrd 0.7u GF (82686)
NOV 18...	68	14	2.2	E.4	181	1.1	<.006	E.042	<.010	<.005	<.005	.141	<.050
DEC 13...	40	11	1.5	.7	135	.8	<.006	E.036	<.020	<.005	<.005	.136	<.050
JAN 14...	21	23	.8	E.4	81.5	.7	<.006	E.027	.022	.005	<.005	.075	<.050
FEB 02...	53	8	2.3	.5	156	1.7	<.006	E.021	.008	<.005	<.005	.072	<.050
02...	<8	<6	<.6	<.4	<.40	<.1	--	--	--	--	--	--	--
MAR 22...	86	E5	3.3	.8	233	.6	<.006	E.014	<.006	<.005	<.005	.053	<.050
22...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 05...	56	E5	2.3	.7	204	.6	<.006	E.019	.009	<.005	<.005	.181	<.050
05...	66	8	2.0	.5	202	1.0	<.006	E.022	<.010	<.005	<.005	.188	<.050
18...	75	8	2.7	.5	185	1.1	<.006	E.051	.089	<.005	<.005	1.82	<.050
18...	--	--	--	--	--	--	<.006	<.006	<.006	<.005	<.005	<.007	<.050
MAY 11...	91	<.6	2.7	.6	231	1.0	<.006	E.079	.261	<.007	<.005	2.90	<.050
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	51	8	2.1	.6	169	1.0	<.006	E.422	.872	.051	<.005	6.67	<.050
JUN 07...	98	<.6	3.4	.8	205	1.3	<.006	E.166	.166	<.005	<.005	2.38	<.050
07...	101	<.6	3.8	.7	206	1.2	<.006	E.165	.167	<.005	<.005	2.47	<.050
16...	82	<.6	2.8	.7	163	1.4	<.006	E.384	.472	.013	<.005	4.40	<.050
21...	74	E4	2.4	.7	182	1.5	<.006	E.405	.436	.022	<.005	4.36	<.050
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 10...	186	8	4.2	.7	201	1.0	<.006	E.089	.013	<.005	<.005	.592	<.050
SEP 07...	112	<.6	3.2	.48	151	1.3	<.006	E.021	.010	<.005	<.005	.231	<.050
Date	Ben- flur- alin, water, fltrd 0.7u GF (82673)	Butyl- ate, water, fltrd, ug/L (04028)	Car- baryl, water, fltrd 0.7u GF (82680)	Carbo- furan, water, fltrd 0.7u GF (82674)	Chlor- pyrifos water, fltrd, ug/L (38933)	cis- Per- methrin water fltrd 0.7u GF (82687)	Cyana- zine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF (82682)	Diazi- non, water, fltrd, ug/L (39572)	Diel- drin, water, fltrd, ug/L (39381)	Disul- foton, water, fltrd 0.7u GF (82677)	EPTC, water, fltrd 0.7u GF (82668)	Ethal- flur- alin, water, fltrd 0.7u GF (82663)
NOV 18...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009
DEC 13...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009
JAN 14...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009
FEB 02...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 22...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009
22...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 05...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009
05...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009
18...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009
18...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009
MAY 11...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	<.010	<.004	<.041	<.020	<.010	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009
JUN 07...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009
07...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009
16...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009
21...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 10...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009
SEP 07...	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009

## 03378500 WABASH RIVER AT NEW HARMONY, IN—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Etho- prop, water, fltrd 0.7u GF (82672)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl para- thion, water, fltrd 0.7u GF (82667)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)	Moli- nate, water, fltrd 0.7u GF (82671)	Naprop- amide, water, fltrd 0.7u GF (82684)	p,p'- DDE, water, fltrd, ug/L (34653)	Para- thion, water, fltrd, ug/L (39542)	Peb- ulate, water, fltrd 0.7u GF (82669)
NOV 18...	<.005	<.003	<.004	<.035	<.027	<.015	.036	<.006	<.003	<.007	<.003	<.010	<.004
DEC 13...	<.005	<.003	<.004	<.035	<.027	<.015	.066	<.008	<.003	<.007	<.003	<.010	<.004
JAN 14...	<.005	<.003	<.004	<.035	<.027	<.015	.064	.007	<.003	<.007	<.003	<.010	<.004
FEB 02...	<.005	<.003	<.004	<.035	<.027	<.015	.042	<.006	<.003	<.007	<.003	<.010	<.004
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 22...	<.005	<.003	<.004	<.035	<.027	<.015	.021	<.006	<.003	<.007	<.003	<.010	<.004
22...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 05...	<.005	<.003	<.004	<.035	<.027	<.015	.030	<.006	<.003	<.007	<.003	<.010	<.004
05...	<.005	<.003	<.004	<.035	<.027	<.015	.031	<.006	<.003	<.007	<.003	<.010	<.004
18...	<.005	<.003	<.004	<.035	<.027	<.015	.235	<.007	<.003	<.007	<.003	<.010	<.004
18...	<.005	<.003	<.004	<.035	<.027	<.015	<.006	<.006	<.003	<.007	<.003	<.010	<.004
MAY 11...	<.005	<.003	<.004	<.035	<.027	<.015	.499	<.006	<.003	<.007	<.003	<.010	<.004
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	<.005	<.003	<.004	E.023	<.027	<.015	1.68	.015	<.003	<.007	<.003	<.010	<.004
JUN 07...	<.005	<.003	<.004	<.035	<.027	<.015	.578	<.006	<.003	<.007	<.003	<.010	<.004
07...	<.005	<.003	<.004	<.035	<.027	<.015	.591	<.006	<.003	<.007	<.003	<.010	<.004
16...	<.005	<.003	<.004	<.035	<.027	<.015	1.10	<.010	<.003	<.007	<.003	<.010	<.004
21...	<.005	<.003	<.004	<.035	<.027	<.015	1.33	.016	<.003	<.007	<.003	<.010	<.004
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 10...	<.005	<.003	<.004	<.035	<.027	<.015	.114	<.006	<.003	<.007	<.003	<.010	<.004
SEP 07...	<.005	<.003	<.004	<.035	<.027	<.015	.065	<.006	<.003	<.007	<.003	<.010	<.004
Date	Pendi- meth- alin, water, fltrd 0.7u GF (82683)	Phorate water fltrd 0.7u GF (82664)	Prome- ton, water, fltrd, ug/L (04037)	Propy- zamide, water, fltrd 0.7u GF (82676)	Propa- chlor, water, fltrd, ug/L (04024)	Pro- panil, water, fltrd 0.7u GF (82679)	Propar- gite, water, fltrd 0.7u GF (82685)	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd 0.7u GF (82670)	Terba- cil, water, fltrd 0.7u GF (82665)	Terbu- fos, water, fltrd 0.7u GF (82675)	Thio- bencarb water fltrd 0.7u GF (82681)	Tri- allate, water, fltrd 0.7u GF (82678)
NOV 18...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.340	<.02	<.034	<.02	<.010	<.006
DEC 13...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	1.01	<.02	<.034	<.02	<.010	<.006
JAN 14...	<.022	<.011	E.01	<.004	<.025	<.011	<.02	.617	<.02	<.034	<.02	<.010	<.006
FEB 02...	<.022	<.011	M	<.004	<.025	<.011	<.02	.258	<.02	<.034	<.02	<.010	<.006
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 22...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.112	<.02	<.034	<.02	<.010	<.006
22...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 05...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.145	<.02	<.034	<.02	<.010	<.006
05...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.153	<.02	<.034	<.02	<.010	<.006
18...	<.022	<.011	E.01	<.004	<.025	<.011	<.02	.635	<.02	<.034	<.02	<.010	<.006
18...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.006
MAY 11...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.220	<.02	<.034	<.02	<.010	<.006
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	<.022	<.011	.03	<.004	<.025	<.011	<.02	.807	<.02	<.034	<.02	<.010	<.006
JUN 07...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.254	<.02	<.034	<.02	<.010	<.006
07...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.262	<.02	<.034	<.02	<.010	<.006
16...	<.022	<.011	.03	<.004	<.025	<.011	<.02	.413	<.02	<.034	<.02	<.010	<.006
21...	<.022	<.011	.04	<.004	<.025	<.011	<.02	.385	<.02	<.034	<.02	<.010	<.006
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 10...	<.022	<.011	.03	<.004	<.025	<.011	<.02	.071	<.02	<.034	<.02	<.010	<.006
SEP 07...	<.022	<.011	.03	<.004	<.025	<.011	<.02	.023	<.02	<.034	<.02	<.010	<.006

## WABASH RIVER BASIN

03378500 WABASH RIVER AT NEW HARMONY, IN—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concent- ration mg/L (80154)
NOV			
18...	<.009	95	114
DEC			
13...	<.009	87	140
JAN			
14...	<.009	72	98
FEB			
02...	<.009	76	86
02...	--	--	--
MAR			
22...	<.009	96	37
22...	--	--	--
APR			
05...	<.009	96	110
05...	<.009	96	108
18...	<.009	97	100
18...	<.009	--	--
MAY			
11...	<.009	98	104
11...	--	--	--
24...	<.009	98	257
JUN			
07...	<.009	98	72
07...	<.009	99	73
16...	<.009	98	293
21...	<.009	98	152
21...	--	--	--
AUG			
10...	<.009	98	35
SEP			
07...	<.009	98	95

E--Laboratory estimated value.

M--Presence of material verified but not quantified.

&lt;--Numeric result is less than the value shown.

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## TRADEWATER RIVER BASIN

## 03383000 TRADEWATER RIVER AT OLNEY, KY

LOCATION.--Lat 37°13'26", long 87°46'53", Caldwell County, Hydrologic Unit 05140205, on left bank at downstream side of bridge on State Highway 1220 at Olney, 0.9 mi upstream from Cave Creek, 5.4 mi downstream from Flynn Creek, 9.5 mi northeast of Princeton, and at mile 72.7.

DRAINAGE AREA.--255 mi<sup>2</sup>, of which about 9 mi<sup>2</sup> 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<sup>3</sup>/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<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan 4	0200	2,350	13.80	Mar 29	0600	2,600	13.83
Jan 5	1500	2,500	14.12	Apr 1	0000	2,570	13.78
Jan 8	1700	*2,930	*14.69				

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	49	1,500	1,920	198	200	2,440	1,160	27	4.1	2.8	1,280
2	1.7	785	1,560	2,040	180	210	1,990	881	32	4.0	2.6	1,180
3	1.6	1,760	1,390	2,290	202	193	1,360	395	36	2.8	2.4	485
4	1.5	1,830	737	2,370	273	174	741	230	40	2.3	2.1	143
5	1.3	1,650	352	2,470	266	160	446	181	40	2.4	1.8	95
6	1.0	838	506	2,710	218	146	307	149	38	1.9	1.7	68
7	0.62	220	1,280	2,870	199	145	424	127	32	1.7	1.6	51
8	0.70	136	1,680	2,890	263	389	1,060	109	27	1.5	1.6	39
9	0.80	108	1,660	2,760	263	696	907	95	38	1.4	1.6	30
10	0.82	88	1,470	2,490	224	496	561	84	67	1.3	1.7	24
11	0.86	76	813	2,200	195	307	360	73	109	1.9	1.8	18
12	1.3	365	428	1,720	176	234	289	64	221	3.5	1.8	14
13	1.9	678	284	1,130	258	202	253	56	475	7.0	1.7	11
14	2.2	444	218	1,440	873	176	224	55	354	10	1.8	9.4
15	2.3	226	182	1,380	1,000	159	198	70	175	12	2.5	8.1
16	2.5	162	159	977	699	143	175	118	108	12	3.3	7.4
17	2.7	130	145	545	423	132	154	100	73	26	3.3	6.4
18	6.0	111	132	345	283	123	140	67	52	36	4.0	5.7
19	13	117	122	263	221	115	126	e63	39	33	7.1	5.2
20	58	154	111	237	200	108	114	e340	29	30	15	5.3
21	82	148	103	223	234	103	103	e450	22	34	14	5.6
22	51	129	409	203	539	97	97	e350	17	38	14	6.0
23	31	119	1,020	179	599	101	113	e180	13	29	13	5.9
24	24	373	1,020	158	380	109	120	130	10	21	10	6.0
25	18	1,010	850	147	272	120	110	100	7.7	15	7.6	8.8
26	28	863	700	141	223	123	98	78	5.8	12	9.7	21
27	40	443	471	134	193	255	98	61	5.0	8.9	411	32
28	45	627	308	124	183	1,970	107	51	4.4	6.7	149	26
29	51	683	472	123	---	2,570	144	43	4.0	4.9	99	18
30	46	753	1,380	154	---	2,530	776	36	3.9	3.8	293	13
31	42	---	1,800	194	---	2,590	---	30	---	3.3	1,300	---
TOTAL	560.70	15,075	23,262	36,827	9,237	15,076	14,035	5,926	2,104.8	371.4	2,382.5	3,627.8
MEAN	18.1	502	750	1,188	330	486	468	191	70.2	12.0	76.9	121
MAX	82	1,830	1,800	2,890	1,000	2,590	2,440	1,160	475	38	1,300	1,280
MIN	0.62	49	103	123	176	97	97	30	3.9	1.3	1.6	5.2
CFSM	0.07	2.04	3.05	4.83	1.34	1.98	1.90	0.78	0.29	0.05	0.31	0.49
IN.	0.08	2.28	3.52	5.57	1.40	2.28	2.12	0.90	0.32	0.06	0.36	0.55

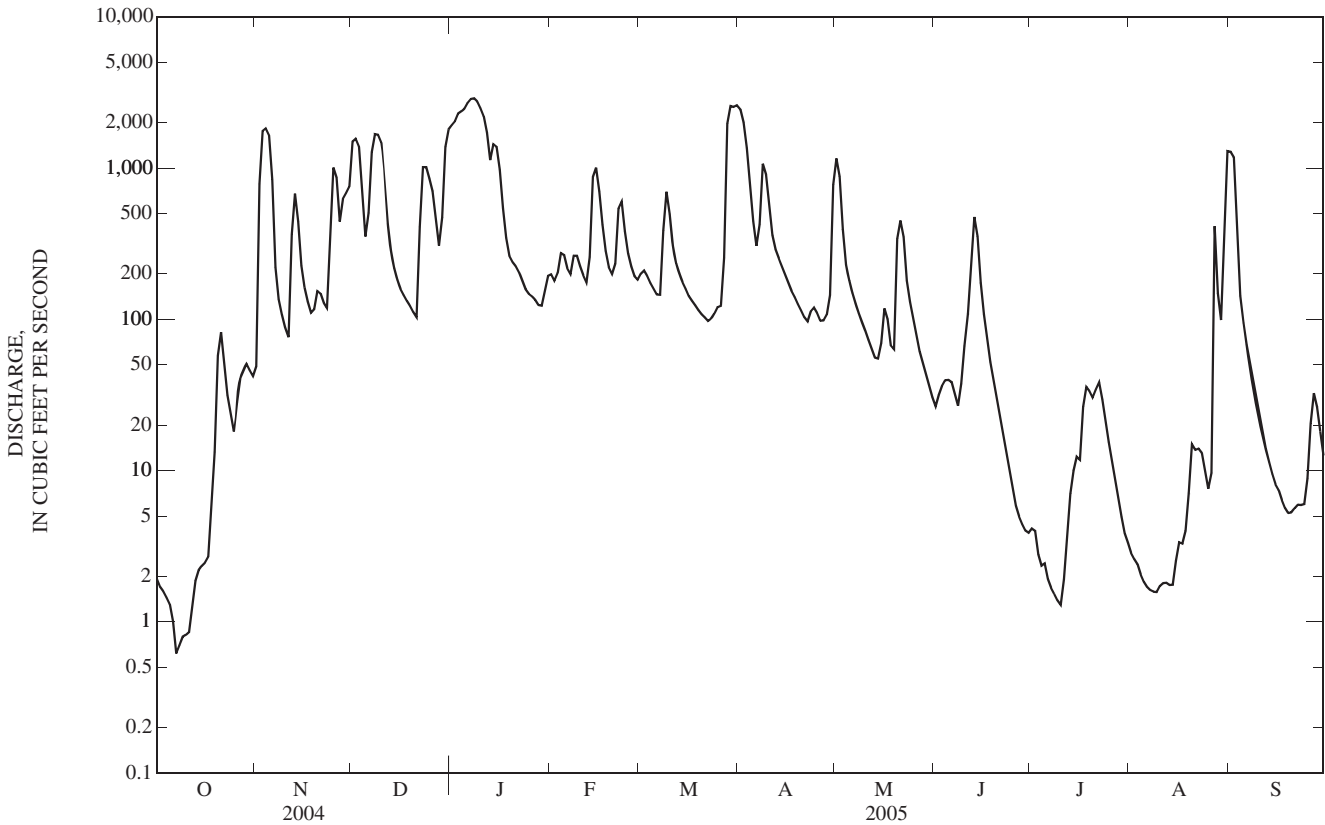
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2005, BY WATER YEAR (WY)

MEAN	36.2	207	463	566	720	750	589	399	154	85.5	35.8	49.3
MAX	324	2,178	1,963	2,268	3,529	2,360	1,851	1,878	949	946	275	798
(WY)	(1997)	(1958)	(1979)	(1950)	(1989)	(1997)	(1979)	(1983)	(1969)	(1989)	(1985)	(1950)
MIN	0.00	0.00	0.96	4.85	19.2	61.9	53.7	7.09	1.18	0.00	0.00	0.00
(WY)	(1941)	(1954)	(1964)	(1964)	(1964)	(1941)	(1986)	(1941)	(1944)	(1952)	(1952)	(1953)

03383000 TRADEWATER RIVER AT OLNEY, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1941 - 2005	
ANNUAL TOTAL	126,053.30		128,485.20			
ANNUAL MEAN	344		352		332	
HIGHEST ANNUAL MEAN					701	1989
LOWEST ANNUAL MEAN					61.6	1941
HIGHEST DAILY MEAN	1,940	Jun 1	2,890	Jan 8	14,000	Feb 16, 1989
LOWEST DAILY MEAN	0.62	Oct 7	0.62	Oct 7	0.00	Oct 1, 1940
ANNUAL SEVEN-DAY MINIMUM	0.87	Oct 5	0.87	Oct 5	0.00	Oct 1, 1940
MAXIMUM PEAK FLOW			2,930	Jan 8	14,600	Feb 16, 1989
MAXIMUM PEAK STAGE			14.69	Jan 8	18.85	Feb 16, 1989
ANNUAL RUNOFF (CFSM)	1.40		1.43		1.35	
ANNUAL RUNOFF (INCHES)	19.06		19.43		18.35	
10 PERCENT EXCEEDS	1,200		1,170		1,120	
50 PERCENT EXCEEDS	140		119		62	
90 PERCENT EXCEEDS	4.4		2.5		1.2	

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<sup>2</sup>, approximately.

PERIOD OF RECORD.--October 1993 to current year.

GAGE.--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 good. 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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	115,000	128,000	334,000	298,000	322,000	333,000	e452,000	300,000	89,000	50,000	26,800	170,000
2	126,000	129,000	374,000	334,000	301,000	310,000	e467,000	307,000	71,800	54,000	30,900	174,000
3	141,000	191,000	401,000	351,000	290,000	241,000	e465,000	316,000	82,600	54,100	40,800	145,000
4	140,000	226,000	428,000	355,000	272,000	261,000	e469,000	333,000	58,500	60,900	46,500	113,000
5	129,000	231,000	449,000	362,000	263,000	276,000	e472,000	352,000	57,300	16,300	37,100	105,000
6	89,300	218,000	465,000	387,000	255,000	277,000	e478,000	356,000	56,400	46,800	21,100	65,800
7	59,700	248,000	483,000	439,000	250,000	253,000	e482,000	342,000	57,000	49,800	15,400	45,200
8	38,500	270,000	504,000	483,000	252,000	227,000	e476,000	290,000	64,500	40,700	26,800	57,400
9	51,400	270,000	526,000	523,000	257,000	221,000	e476,000	213,000	59,900	34,800	24,900	40,600
10	63,600	253,000	541,000	552,000	266,000	238,000	e467,000	160,000	58,100	43,800	28,800	30,100
11	47,300	220,000	537,000	574,000	274,000	269,000	453,000	135,000	64,200	86,900	19,800	28,500
12	47,300	209,000	531,000	600,000	281,000	297,000	439,000	112,000	53,800	70,300	26,000	31,200
13	53,300	246,000	525,000	632,000	303,000	319,000	412,000	107,000	88,700	34,800	19,600	37,900
14	53,200	278,000	530,000	663,000	319,000	328,000	362,000	114,000	105,000	38,000	27,600	21,500
15	56,000	277,000	536,000	690,000	330,000	321,000	310,000	125,000	112,000	48,600	28,700	26,000
16	54,500	259,000	528,000	708,000	340,000	288,000	262,000	119,000	78,000	19,900	20,000	30,300
17	53,800	223,000	522,000	699,000	348,000	244,000	233,000	138,000	68,400	29,100	22,300	15,500
18	53,800	190,000	512,000	696,000	353,000	211,000	205,000	150,000	81,300	60,000	22,600	20,200
19	97,500	161,000	492,000	694,000	359,000	190,000	182,000	148,000	78,600	70,000	27,400	39,100
20	170,000	164,000	446,000	692,000	364,000	168,000	158,000	140,000	65,700	75,000	38,600	26,400
21	193,000	192,000	232,000	691,000	369,000	158,000	144,000	175,000	62,900	65,100	34,000	23,800
22	214,000	211,000	195,000	693,000	361,000	151,000	112,000	198,000	59,500	66,900	48,600	27,300
23	226,000	224,000	171,000	692,000	366,000	144,000	120,000	200,000	40,100	69,300	33,500	21,100
24	212,000	221,000	172,000	681,000	373,000	157,000	112,000	209,000	43,600	53,200	43,900	29,400
25	166,000	217,000	192,000	668,000	373,000	168,000	144,000	210,000	44,600	54,800	15,100	20,900
26	134,000	215,000	222,000	641,000	369,000	181,000	180,000	180,000	32,000	40,000	30,900	29,100
27	134,000	250,000	244,000	608,000	361,000	207,000	214,000	147,000	35,100	39,000	67,200	41,000
28	139,000	260,000	257,000	563,000	352,000	280,000	246,000	127,000	39,300	51,200	64,400	41,100
29	152,000	275,000	257,000	501,000	---	330,000	269,000	119,000	31,600	59,100	62,500	37,900
30	148,000	300,000	256,000	445,000	---	375,000	288,000	107,000	24,700	52,100	81,100	59,900
31	137,000	---	267,000	381,000	---	e416,000	---	94,200	---	45,200	145,000	---
TOTAL	3,495,200	6,756,000	12,129,000	17,296,000	8,923,000	7,839,000	9,549,000	6,023,200	1,864,200	1,579,700	1,177,900	1,554,200
MEAN	112,700	225,200	391,300	557,900	318,700	252,900	318,300	194,300	62,140	50,960	38,000	51,810
MAX	226,000	300,000	541,000	708,000	373,000	416,000	482,000	356,000	112,000	86,900	145,000	174,000
MIN	38,500	128,000	171,000	298,000	250,000	144,000	112,000	94,200	24,700	16,300	15,100	15,500

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2005, BY WATER YEAR (WY)

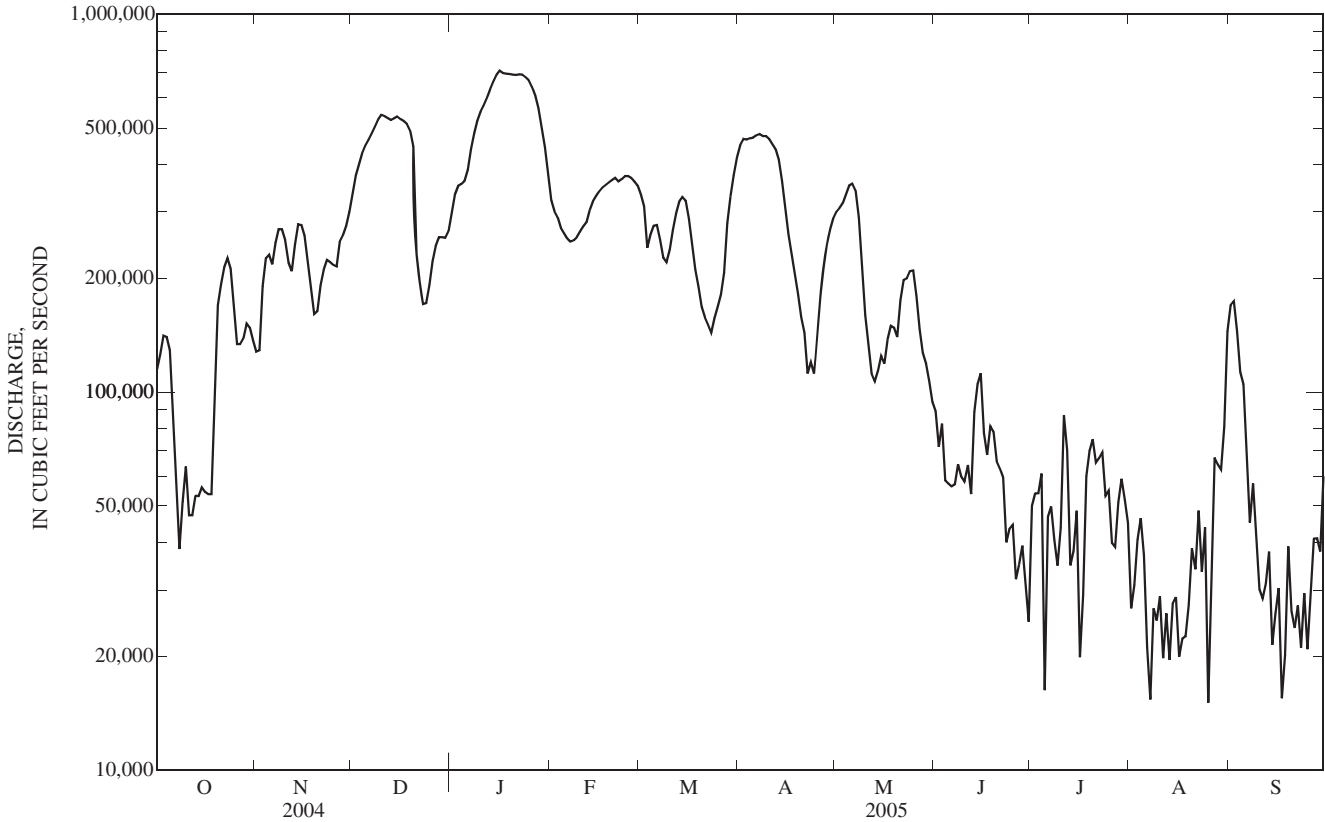
MEAN	68,780	125,500	205,200	247,100	312,500	340,600	292,000	297,200	203,900	94,580	72,430	66,420
MAX	114,500	246,000	391,300	557,900	536,200	700,900	594,100	562,200	376,000	203,600	132,400	215,700
(WY)	(2004)	(2004)	(2005)	(2005)	(1994)	(1997)	(1994)	(1996)	(1997)	(1998)	(2003)	(2004)
MIN	24,530	34,800	59,450	89,880	213,000	216,300	150,000	112,600	60,070	43,110	19,190	12,490
(WY)	(2000)	(1999)	(1999)	(2001)	(1995)	(2000)	(1995)	(2000)	(1999)	(1999)	(1999)	(1999)



03399800 OHIO RIVER AT SMITHLAND DAM, SMITHLAND, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1994 - 2005	
ANNUAL TOTAL	90,013,300		78,186,400		193,200	
ANNUAL MEAN	245,900		214,200		120,900	
HIGHEST ANNUAL MEAN					247,000	1994
LOWEST ANNUAL MEAN					120,900	2000
HIGHEST DAILY MEAN	541,000	Dec 10	708,000	Jan 16	831,000	Mar 12, 1997
LOWEST DAILY MEAN	37,200	Aug 16	15,100	Aug 25	3,090	Aug 5, 1999
ANNUAL SEVEN-DAY MINIMUM	45,200	Aug 15	23,000	Aug 7	10,200	Sep 1, 1999
MAXIMUM PEAK FLOW					832,000	Mar 12, 1997
MAXIMUM PEAK STAGE					51.44	Mar 12, 1997
10 PERCENT EXCEEDS	464,000		480,000		449,000	
50 PERCENT EXCEEDS	222,000		174,000		143,000	
90 PERCENT EXCEEDS	86,500		31,100		31,600	

e Estimated



## CUMBERLAND RIVER BASIN

## 03401000 CUMBERLAND RIVER NEAR HARLAN, KY

LOCATION.--Lat 36°50'48", long 83°21'21", Harlan County, Hydrologic Unit 05130101, on right downstream side of bridge on State Highway 840 at Loyall, 1.6 mi upstream from Fourmile Branch, 1.8 mi west of Harlan, 2.3 mi downstream from confluence of Poor and Clover Forks, and at mile 691.9.

DRAINAGE AREA.--374 mi<sup>2</sup>.

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 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.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	223	318	7,360	490	1,030	1,360	1,240	2,940	218	143	226	104
2	214	317	2,900	460	921	1,120	3,600	1,850	254	160	178	85
3	211	292	1,760	443	909	1,000	4,090	1,640	237	140	163	79
4	189	2,480	1,370	508	826	908	2,280	1,330	212	129	155	74
5	178	2,120	1,160	512	703	995	1,820	962	191	139	151	71
6	166	1,270	1,440	548	667	1,080	1,500	867	182	174	183	68
7	219	998	2,990	510	633	1,040	1,320	691	205	753	176	65
8	222	843	2,500	1,190	638	1,350	1,160	632	218	1,170	170	69
9	216	703	2,880	1,360	682	1,370	905	577	391	458	160	68
10	235	508	4,090	1,040	730	1,250	820	538	304	283	144	69
11	221	472	3,390	1,150	675	1,120	763	546	340	214	123	69
12	211	1,130	2,740	1,700	571	922	765	517	251	181	113	66
13	231	1,200	2,010	1,640	656	872	1,280	478	208	199	131	64
14	240	943	1,600	2,080	1,320	863	2,160	455	192	341	155	64
15	206	786	1,260	1,790	1,600	889	1,360	448	244	653	123	66
16	205	744	1,130	1,410	1,380	902	1,180	407	184	492	119	64
17	190	806	1,150	1,160	1,170	896	1,020	322	163	435	153	77
18	186	746	1,060	985	1,030	874	929	301	155	707	189	83
19	327	711	1,010	910	934	824	847	292	150	881	165	69
20	299	538	910	863	895	809	712	692	149	981	143	75
21	220	508	835	786	946	765	663	635	149	1,120	131	63
22	259	468	703	622	912	723	587	535	142	844	112	60
23	258	517	1,130	586	856	835	610	513	138	305	158	61
24	302	1,070	1,140	e530	767	824	671	424	132	231	155	60
25	292	1,530	942	e520	721	796	658	368	127	194	147	56
26	264	1,250	808	e488	672	713	662	333	124	173	151	73
27	208	1,120	715	e465	639	697	877	305	123	164	151	98
28	386	1,040	779	e434	960	1,840	815	283	134	176	153	76
29	420	883	743	629	---	2,320	1,110	264	157	257	155	83
30	430	1,070	706	1,170	---	1,840	3,060	248	167	164	110	92
31	371	---	534	1,110	---	1,460	---	230	---	160	106	---
TOTAL	7,799	27,381	53,745	28,089	24,443	33,257	39,464	20,623	5,841	12,421	4,649	2,171
MEAN	252	913	1,734	906	873	1,073	1,315	665	195	401	150	72.4
MAX	430	2,480	7,360	2,080	1,600	2,320	4,090	2,940	391	1,170	226	104
MIN	166	292	534	434	571	697	587	230	123	129	106	56
CFSM	0.67	2.44	4.64	2.42	2.33	2.87	3.52	1.78	0.52	1.07	0.40	0.19
IN.	0.78	2.72	5.35	2.79	2.43	3.31	3.93	2.05	0.58	1.24	0.46	0.22

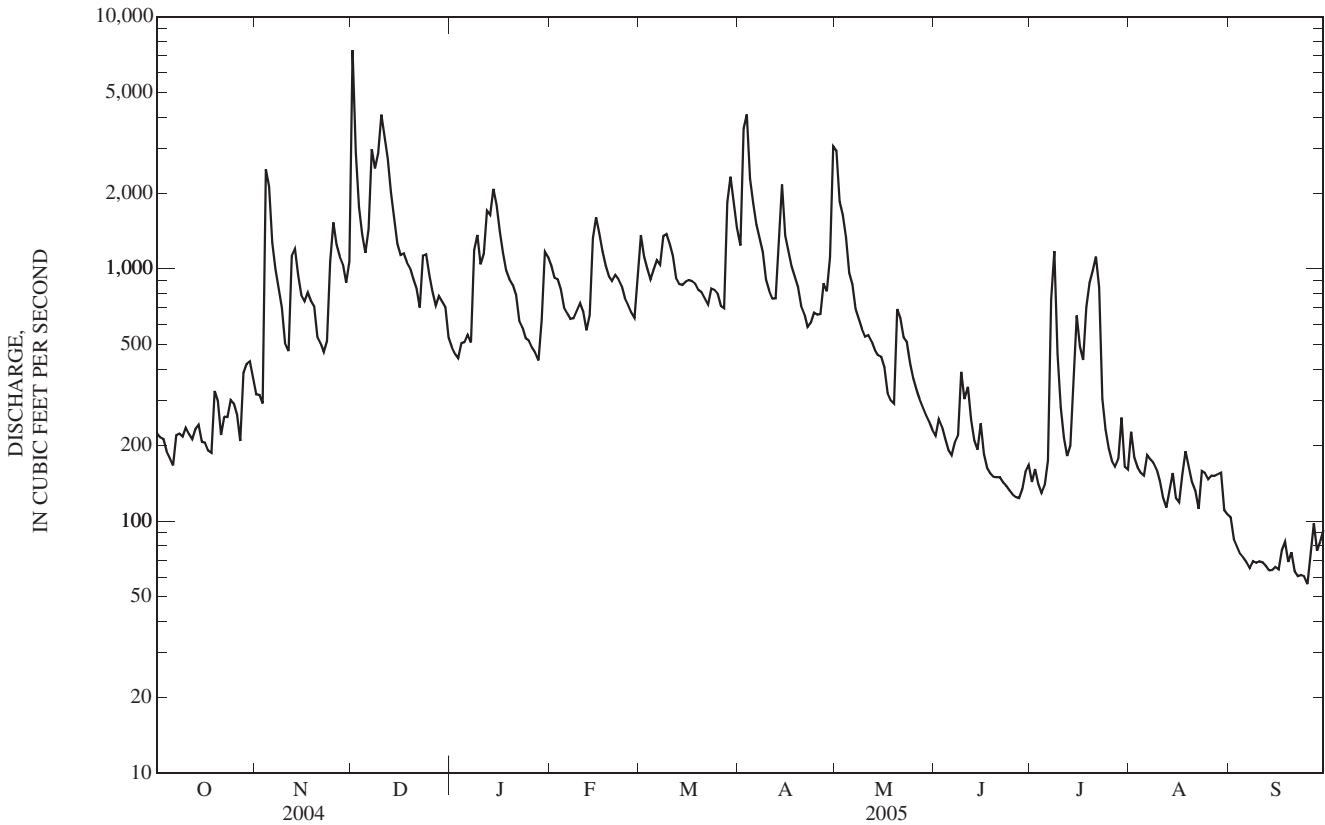
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2005, BY WATER YEAR (WY)

MEAN	187	499	864	996	1,281	1,278	1,067	833	491	250	212	191
MAX	1,129	1,532	2,704	1,783	3,259	2,684	2,986	2,003	1,789	453	534	1,018
(WY)	(1990)	(1997)	(1992)	(1994)	(1994)	(1994)	(1998)	(1984)	(1989)	(1991)	(1996)	(2004)
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1980 - 2005	
ANNUAL TOTAL	333,558		259,883		676	
ANNUAL MEAN	911		712		333	
HIGHEST ANNUAL MEAN					1,130	1994
LOWEST ANNUAL MEAN					333	1988
HIGHEST DAILY MEAN	9,380	Mar 6	7,360	Dec 1	21,300	Mar 18, 2002
LOWEST DAILY MEAN	80	Sep 6	56	Sep 25	16	Oct 9, 1997
ANNUAL SEVEN-DAY MINIMUM	93	Sep 1	63	Sep 19	17	Oct 4, 1997
MAXIMUM PEAK FLOW			11,000	Dec 1	64,500	Apr 5, 1977
MAXIMUM PEAK STAGE			11.76	Dec 1	30.20	Apr 5, 1977
ANNUAL RUNOFF (CFSM)	2.44		1.90		1.81	
ANNUAL RUNOFF (INCHES)	33.18		25.85		24.55	
10 PERCENT EXCEEDS	1,880		1,370		1,490	
50 PERCENT EXCEEDS	606		535		373	
90 PERCENT EXCEEDS	174		123		70	

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<sup>2</sup>. 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.--Records good except for those estimated, which are fair. Occasional regulation from Fern Lake.

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 3,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 1	0600	*2,870	*12.28	No other peak above base discharge.			

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	56	1,830	65	113	251	222	408	32	30	28	15
2	39	53	512	69	107	193	1,110	234	41	23	18	12
3	38	48	280	66	265	160	657	162	35	16	17	11
4	36	367	197	62	210	138	348	121	31	16	15	9.9
5	34	229	149	61	169	191	239	e96	29	24	17	9.6
6	33	132	187	79	136	150	181	e90	28	17	14	9.0
7	32	94	787	75	114	140	154	78	29	36	15	9.2
8	32	74	494	240	107	212	189	70	28	26	21	8.9
9	31	62	984	203	95	165	137	63	29	17	22	8.5
10	31	57	896	162	104	147	116	59	26	15	17	8.1
11	31	54	804	390	87	137	101	55	25	16	16	7.8
12	36	836	502	577	82	124	145	51	25	17	16	7.9
13	80	384	318	366	193	106	248	47	27	57	14	7.4
14	48	211	226	615	570	97	483	46	24	288	15	8.7
15	46	144	175	334	435	86	277	50	24	115	27	8.3
16	40	109	145	e248	277	99	193	42	22	48	20	9.0
17	37	92	123	e170	194	101	149	40	20	40	26	10
18	57	80	109	e140	149	92	122	39	19	98	56	9.1
19	141	72	99	117	125	91	104	43	19	88	33	8.4
20	70	73	84	107	177	88	89	237	18	73	20	6.9
21	55	66	81	97	273	85	79	90	18	46	17	8.2
22	47	58	76	88	257	82	77	62	18	e125	15	8.6
23	44	71	196	77	205	87	91	56	17	46	14	8.7
24	53	909	129	68	173	79	80	48	16	33	14	8.5
25	44	711	109	69	140	80	68	43	16	28	13	8.6
26	42	300	101	71	118	72	64	40	16	24	13	32
27	52	207	88	63	105	86	77	37	25	22	13	20
28	52	173	80	57	232	1,370	63	36	28	21	13	11
29	111	124	77	129	---	515	425	33	17	21	21	20
30	86	366	74	152	---	284	610	33	17	19	19	15
31	66	---	71	126	---	219	---	32	---	31	27	---
TOTAL	1,583	6,212	9,983	5,143	5,212	5,727	6,898	2,541	719	1,476	606	325.3
MEAN	51.1	207	322	166	186	185	230	82.0	24.0	47.6	19.5	10.8
MAX	141	909	1,830	615	570	1,370	1,110	408	41	288	56	32
MIN	31	48	71	57	82	72	63	32	16	15	13	6.9
CFSM	0.84	3.42	5.31	2.74	3.07	3.05	3.79	1.35	0.40	0.79	0.32	0.18
IN.	0.97	3.81	6.13	3.16	3.20	3.52	4.23	1.56	0.44	0.91	0.37	0.20

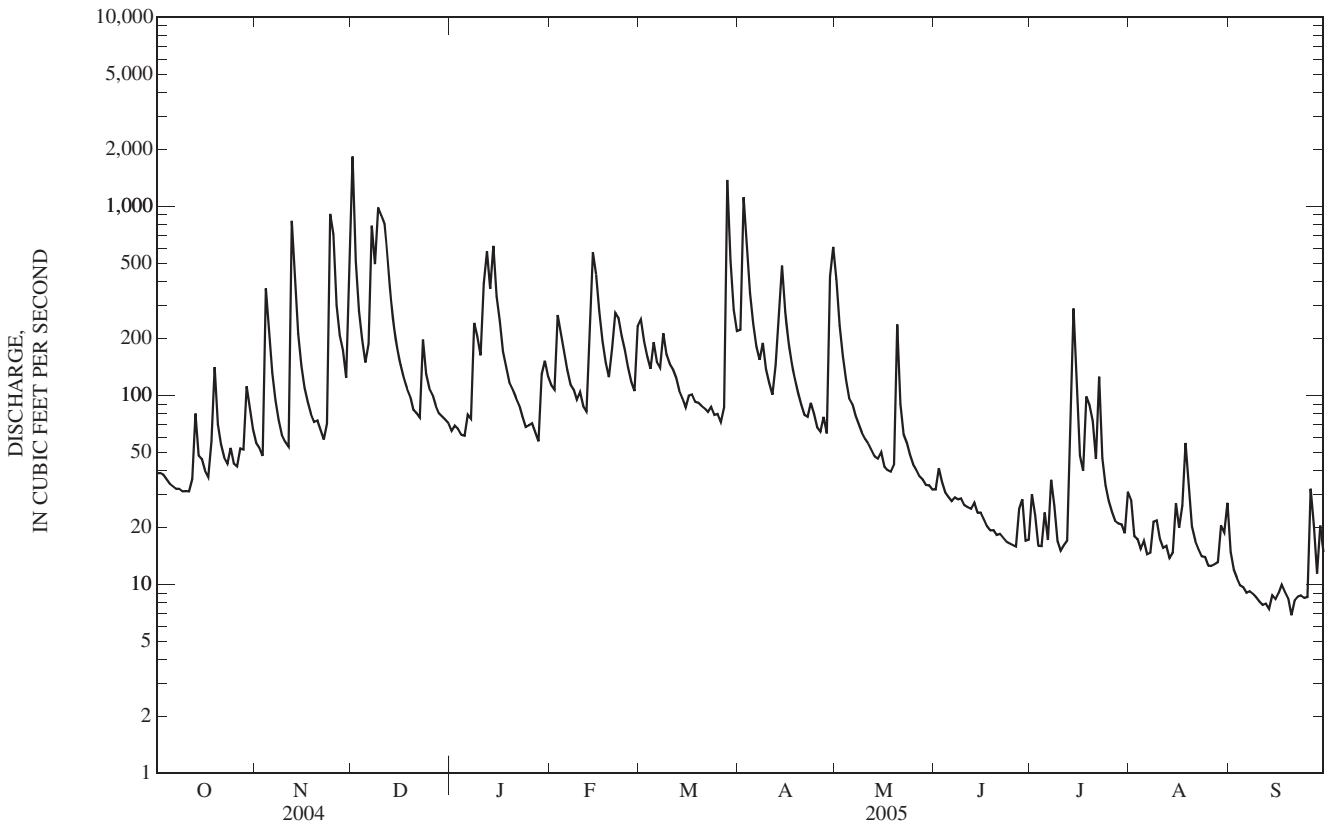
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2005, BY WATER YEAR (WY)

MEAN	24.5	79.3	162	205	232	249	183	115	65.7	51.2	35.9	24.4
MAX	155	416	609	551	677	610	569	539	298	345	197	324
(WY)	(1978)	(1974)	(1991)	(1974)	(1991)	(1975)	(1998)	(1984)	(1989)	(1967)	(1942)	(2004)
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1941 - 2005	
ANNUAL TOTAL	57,849		46,425.3		118	
ANNUAL MEAN	158		127		219	
HIGHEST ANNUAL MEAN					1991	
LOWEST ANNUAL MEAN					1941	
HIGHEST DAILY MEAN	3,400	Sep 8	1,830	Dec 1	7,000	Apr 4, 1977
LOWEST DAILY MEAN	19	Jul 24	6.9	Sep 20	1.2	Oct 7, 1952
ANNUAL SEVEN-DAY MINIMUM	23	Jul 19	8.1	Sep 9	1.6	Sep 17, 1955
MAXIMUM PEAK FLOW			2,870	Dec 1	11,700	Apr 4, 1977
MAXIMUM PEAK STAGE			12.28	Dec 1	23.35	Apr 4, 1977
INSTANTANEOUS LOW FLOW					0.00	Sep 26, 1952
ANNUAL RUNOFF (CFSM)	2.61		2.10		1.95	
ANNUAL RUNOFF (INCHES)	35.51		28.50		26.54	
10 PERCENT EXCEEDS	277		277		250	
50 PERCENT EXCEEDS	73		69		46	
90 PERCENT EXCEEDS	30		15		7.8	

e Estimated



## 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<sup>2</sup>.

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

GAGE.--Water-stage recorder with telemetry. Datum of gage is 970.00 ft above sea level, Sandy Hook 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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

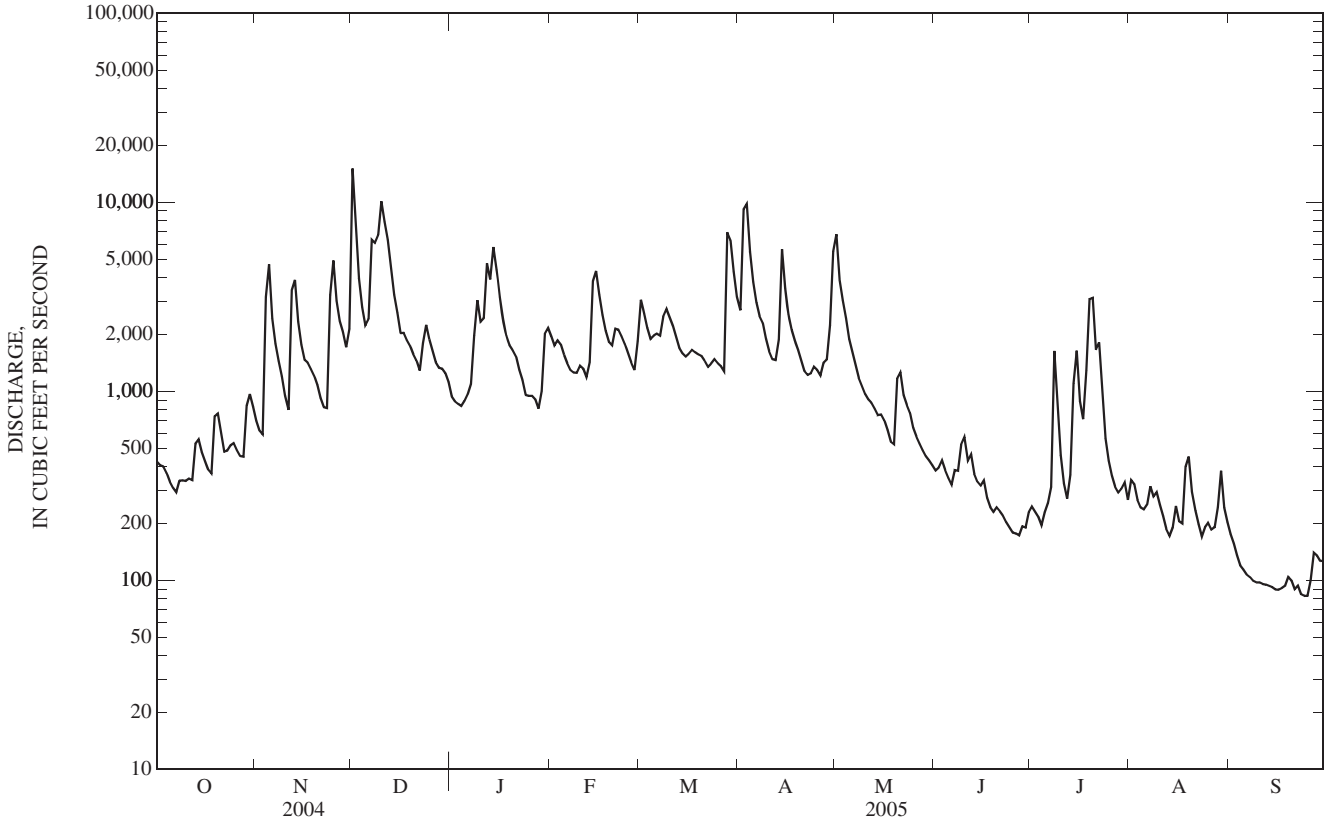
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	424	698	15,000	937	1,950	3,040	2,680	6,760	382	245	339	175
2	407	617	8,260	885	1,740	2,580	9,150	3,880	395	230	323	156
3	399	590	3,960	857	1,860	2,160	9,780	3,020	430	217	267	135
4	370	3,150	2,780	836	1,760	1,900	5,480	2,440	383	196	242	120
5	333	4,690	2,230	889	1,560	1,960	3,780	1,880	348	229	237	114
6	309	2,430	2,410	964	1,400	2,010	2,950	1,620	321	256	251	107
7	292	1,780	6,330	1,090	1,300	1,970	2,490	1,380	383	311	314	104
8	336	1,450	6,090	1,980	1,260	2,480	2,300	1,180	379	1,630	277	99
9	338	1,200	6,690	3,030	1,250	2,720	1,890	1,070	524	817	292	97
10	335	947	10,100	2,340	1,360	2,460	1,620	968	572	460	251	97
11	345	796	7,870	2,440	1,320	2,220	1,480	905	429	325	218	96
12	338	3,430	6,340	4,740	1,190	1,940	1,460	869	463	270	187	95
13	526	3,870	4,420	3,910	1,420	1,700	1,880	810	366	361	172	94
14	555	2,340	3,230	5,780	3,810	1,590	5,630	749	332	1,100	190	92
15	474	1,760	2,600	4,380	4,320	1,530	3,500	755	317	1,640	248	90
16	426	1,470	2,030	3,150	3,240	1,580	2,560	702	336	887	205	89
17	384	1,420	2,040	2,430	2,540	1,650	2,120	622	273	712	200	91
18	367	1,310	1,860	1,970	2,090	1,600	1,850	543	243	1,290	398	93
19	737	1,210	1,740	1,750	1,830	1,560	1,660	526	229	3,070	451	104
20	764	1,080	1,570	1,640	1,750	1,530	1,450	1,170	243	3,120	294	100
21	603	922	1,450	1,530	2,140	1,440	1,270	1,260	232	1,660	233	90
22	480	825	1,290	1,290	2,120	1,350	1,220	952	220	1,810	198	94
23	486	815	1,800	1,150	1,950	1,400	1,240	848	203	995	170	84
24	516	3,230	2,250	957	1,780	1,480	1,350	768	191	562	191	83
25	532	4,920	1,880	944	1,590	1,410	1,290	640	179	429	201	83
26	488	3,010	1,640	945	1,420	1,360	1,210	577	177	358	185	100
27	455	2,340	1,420	906	1,300	1,280	1,420	529	173	313	190	140
28	450	2,060	1,330	810	1,840	6,930	1,470	487	193	292	243	135
29	838	1,710	1,320	1,000	---	6,300	2,240	453	190	305	380	126
30	965	2,140	1,250	2,010	---	4,290	5,510	430	229	329	241	127
31	827	---	1,120	2,160	---	3,150	---	406	---	267	203	---
TOTAL	15,099	58,210	114,300	59,700	53,090	70,570	83,930	39,199	9,335	24,686	7,791	3,210
MEAN	487	1,940	3,687	1,926	1,896	2,276	2,798	1,264	311	796	251	107
MAX	965	4,920	15,000	5,780	4,320	6,930	9,780	6,760	572	3,120	451	175
MIN	292	590	1,120	810	1,190	1,280	1,210	406	173	196	170	83
CFSM	0.63	2.52	4.79	2.50	2.46	2.96	3.63	1.64	0.40	1.03	0.33	0.14
IN.	0.73	2.81	5.52	2.88	2.56	3.41	4.05	1.89	0.45	1.19	0.38	0.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2005, BY WATER YEAR (WY)

MEAN	237	885	1,910	2,177	2,543	2,931	2,454	1,500	913	441	426	363
MAX	670	3,009	5,204	4,201	6,720	5,367	5,977	3,091	2,369	796	923	2,189
(WY)	(1997)	(1997)	(1992)	(1994)	(1994)	(1994)	(1998)	(1995)	(2003)	(2005)	(1996)	(2004)
MIN	87.4	104	342	640	964	1,285	817	796	245	176	107	59.7
(WY)	(1999)	(1999)	(2000)	(2000)	(2002)	(2003)	(1995)	(1993)	(2002)	(1993)	(1995)	(1999)

03402900 CUMBERLAND RIVER AT PINE STREET BRIDGE AT PINEVILLE, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1992 - 2005	
ANNUAL TOTAL	661,314		539,120		1,393	
ANNUAL MEAN	1,807		1,477		792	
HIGHEST ANNUAL MEAN					2,241	1994
LOWEST ANNUAL MEAN					792	2000
HIGHEST DAILY MEAN	19,700	Mar 6	15,000	Dec 1	41,500	Mar 18, 2002
LOWEST DAILY MEAN	172	Sep 5	83	Sep 24	48	Sep 20, 1999
ANNUAL SEVEN-DAY MINIMUM	187	Sep 1	91	Sep 20	49	Sep 16, 1999
MAXIMUM PEAK FLOW			18,500	Dec 1	46,700	Mar 18, 2002
MAXIMUM PEAK STAGE			27.00	Dec 1	47.32	Mar 18, 2002
INSTANTANEOUS LOW FLOW			82	Sep 23	47	Sep 20, 1999
ANNUAL RUNOFF (CFSM)	2.35		1.92		1.81	
ANNUAL RUNOFF (INCHES)	31.95		26.05		24.57	
10 PERCENT EXCEEDS	3,900		3,150		3,000	
50 PERCENT EXCEEDS	1,120		968		698	
90 PERCENT EXCEEDS	326		186		124	



## 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<sup>2</sup>.

PERIOD OF RECORD.--October 1922 to September 1931, April 1948 to July 2, 1993, October 1995 to current year. (discontinued). 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 good. 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.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	501	894	13,500	1,220	2,520	3,630	4,010	10,200	430	373	346	225
2	468	742	17,300	1,130	2,300	3,570	10,500	6,340	412	338	372	201
3	466	700	9,410	1,090	2,280	2,910	14,700	3,780	451	288	327	184
4	440	2,320	4,360	1,010	2,270	2,540	10,500	3,060	446	265	297	161
5	399	6,350	2,970	1,110	2,040	2,500	5,650	2,510	398	293	273	149
6	373	3,570	2,920	1,200	1,810	2,530	3,800	2,100	365	334	291	143
7	356	2,410	6,080	1,560	1,660	2,480	3,130	1,850	399	348	311	135
8	354	1,950	9,170	2,850	1,600	3,020	2,980	1,520	417	1,380	308	129
9	372	1,590	8,250	4,740	1,560	3,580	2,540	1,340	526	1,220	312	125
10	373	1,290	14,800	3,600	1,690	3,260	2,150	1,210	725	615	303	121
11	379	993	12,800	2,990	1,710	2,890	1,930	1,090	557	426	265	119
12	381	2,940	10,400	5,960	1,570	2,610	1,840	1,040	517	345	233	119
13	490	5,580	6,820	5,400	1,650	2,260	2,270	956	476	437	211	119
14	717	3,470	4,390	7,670	4,140	2,080	6,530	886	406	1,150	217	116
15	606	2,480	3,390	7,350	5,780	1,960	5,970	867	377	2,300	268	116
16	541	2,040	2,720	4,610	4,540	2,010	3,590	838	375	1,370	295	113
17	483	1,830	2,570	3,350	3,450	2,170	2,840	744	358	907	268	113
18	432	1,730	2,390	2,680	2,780	2,110	2,440	636	320	1,220	327	113
19	711	1,560	2,240	2,340	2,420	2,070	2,170	585	299	3,240	527	113
20	961	1,460	2,070	2,190	2,240	2,000	1,930	1,170	281	4,220	394	118
21	782	1,230	1,850	2,040	2,710	1,900	1,640	1,710	311	2,080	310	118
22	610	1,110	1,710	1,800	2,950	1,750	1,550	1,230	284	2,230	255	113
23	546	1,150	2,040	1,560	2,720	1,690	1,530	1,050	269	1,550	223	113
24	546	2,980	2,920	1,270	2,450	1,880	1,700	942	247	764	199	110
25	603	7,010	2,530	1,180	2,210	1,730	1,630	780	229	554	240	108
26	560	4,750	2,230	1,190	1,960	1,710	1,500	683	217	453	227	109
27	517	3,180	1,970	1,160	1,750	1,540	1,630	613	213	389	222	126
28	501	2,730	1,720	1,040	2,080	6,390	1,820	561	217	359	227	159
29	906	2,330	1,730	1,110	---	10,500	2,210	520	246	340	424	148
30	1,320	2,380	1,630	2,280	---	6,670	5,470	488	246	394	317	135
31	1,100	---	1,510	2,770	---	4,560	---	464	---	332	269	---
TOTAL	17,794	74,749	160,390	81,450	68,840	92,500	112,150	51,763	11,014	30,514	9,058	3,971
MEAN	574	2,492	5,174	2,627	2,459	2,984	3,738	1,670	367	984	292	132
MAX	1,320	7,010	17,300	7,670	5,780	10,500	14,700	10,200	725	4,220	527	225
MIN	354	700	1,510	1,010	1,560	1,540	1,500	464	213	265	199	108
CFSM	0.60	2.60	5.39	2.74	2.56	3.11	3.89	1.74	0.38	1.03	0.30	0.14
IN.	0.69	2.90	6.22	3.16	2.67	3.58	4.35	2.01	0.43	1.18	0.35	0.15

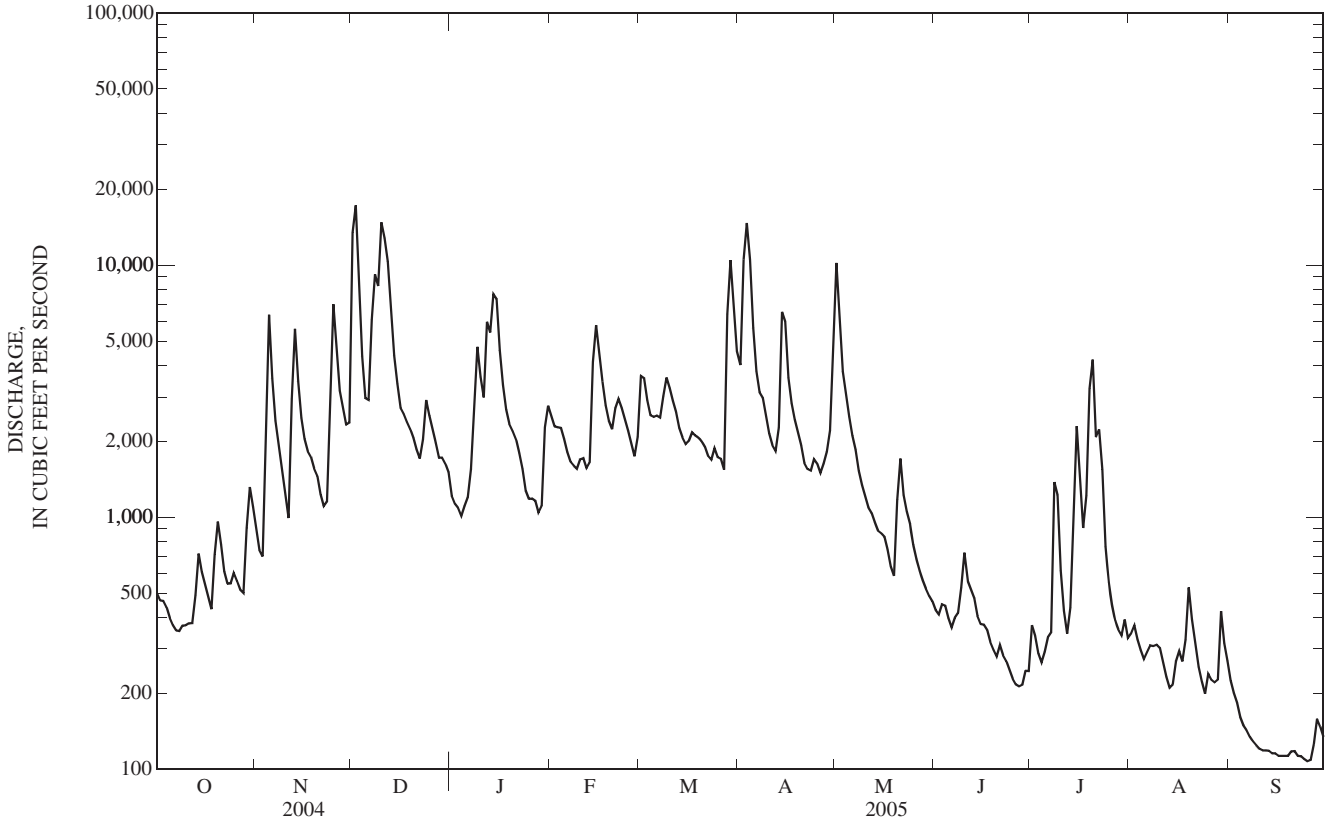
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2005, BY WATER YEAR (WY)

MEAN	432	1,277	2,236	2,557	3,180	3,265	2,812	1,996	1,248	566	462	501
MAX	3,058	3,816	5,837	5,582	7,612	6,208	8,578	6,782	5,524	1,071	1,089	2,884
(WY)	(1990)	(1997)	(1992)	(1982)	(2003)	(1997)	(1998)	(1984)	(1989)	(1989)	(2003)	(2004)
MIN	87.9	117	193	135	1,220	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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1980 - 2005	
ANNUAL TOTAL	882,096		714,193		1,703	
ANNUAL MEAN	2,410		1,957		824	
HIGHEST ANNUAL MEAN					2,417 1989	
LOWEST ANNUAL MEAN					824 1988	
HIGHEST DAILY MEAN	23,400	Feb 7	17,300	Dec 2	41,600	May 8, 1984
LOWEST DAILY MEAN	213	Sep 7	108	Sep 25	50	Sep 19, 1999
ANNUAL SEVEN-DAY MINIMUM	244	Sep 1	113	Sep 20	53	Sep 16, 1999
MAXIMUM PEAK FLOW			19,700	Dec 2	56,100	Apr 6, 1977
MAXIMUM PEAK STAGE			26.46	Dec 2	45.91	Apr 6, 1977
INSTANTANEOUS LOW FLOW			108	Sep 24	0.20	Oct 5, 1930
ANNUAL RUNOFF (CFSM)	2.51		2.04		1.77	
ANNUAL RUNOFF (INCHES)	34.18		27.67		24.10	
10 PERCENT EXCEEDS	5,160		4,370		3,700	
50 PERCENT EXCEEDS	1,480		1,230		855	
90 PERCENT EXCEEDS	380		223		130	



## 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<sup>2</sup>.

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 fair. 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.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	856	1,490	15,000	1,920	3,550	4,290	6,880	12,600	602	299	437	366
2	754	1,260	21,200	1,700	3,260	5,370	14,700	11,600	579	405	415	313
3	712	1,090	17,800	1,660	3,480	4,660	18,500	7,000	595	428	444	271
4	697	1,930	11,500	1,590	3,780	3,900	17,000	4,810	615	371	401	239
5	658	6,910	5,410	1,560	3,290	3,640	12,600	3,820	595	357	358	211
6	609	6,720	4,430	1,800	2,860	3,580	6,970	3,070	539	407	330	190
7	563	4,000	7,260	2,210	2,540	3,410	5,080	2,610	552	445	339	176
8	533	2,860	12,100	4,160	2,380	3,990	5,080	2,260	591	467	367	165
9	515	2,260	14,600	6,580	2,280	5,200	4,440	1,930	592	1,350	395	159
10	538	1,840	20,800	6,460	2,290	5,060	3,570	1,730	1,220	1,070	409	152
11	536	1,550	19,900	5,330	2,380	4,460	3,050	1,570	1,260	639	371	146
12	535	3,900	17,200	8,900	2,250	3,970	2,780	1,440	999	480	320	143
13	578	9,350	12,900	9,550	2,280	3,440	3,490	1,350	848	499	338	142
14	819	7,010	8,120	11,800	4,610	2,970	9,330	1,250	751	918	264	136
15	956	4,400	5,620	12,200	8,370	2,680	10,900	1,200	614	2,930	252	133
16	855	3,220	4,460	8,970	7,900	2,620	7,260	1,170	539	2,500	275	133
17	753	2,630	3,640	6,050	5,960	2,920	4,930	1,070	499	1,470	367	136
18	668	2,370	3,400	4,490	4,550	2,930	3,920	956	464	1,190	402	135
19	904	2,160	3,110	3,620	3,690	2,820	3,340	849	409	2,420	e600	134
20	1,590	2,000	2,860	3,250	3,310	2,730	2,920	1,920	372	4,210	e760	128
21	1,500	1,900	2,550	2,990	3,890	2,620	2,530	3,290	350	3,820	e500	132
22	1,190	1,650	2,370	2,730	5,080	2,450	2,230	2,390	363	3,580	e400	137
23	943	1,560	2,560	2,390	4,820	2,300	2,190	1,720	345	3,920	340	126
24	853	3,300	3,540	2,030	4,130	2,310	2,170	1,450	329	1,780	301	119
25	851	9,470	3,670	1,790	3,590	2,330	2,170	1,230	307	1,030	269	116
26	858	8,790	3,200	1,750	3,070	2,230	2,020	1,030	286	762	290	115
27	809	5,750	2,830	1,720	2,710	2,120	1,990	899	287	631	305	116
28	1,010	4,400	2,460	1,600	2,700	6,350	2,120	809	276	573	280	136
29	1,190	3,660	2,260	1,610	---	14,100	3,260	735	285	521	328	185
30	1,670	3,660	2,220	2,360	---	12,000	8,220	680	297	473	540	187
31	1,770	---	2,100	3,430	---	8,270	---	644	---	486	433	---
TOTAL	27,273	113,090	241,070	128,200	105,000	131,720	175,640	79,082	16,360	40,431	11,830	4,977
MEAN	880	3,770	7,776	4,135	3,750	4,249	5,855	2,551	545	1,304	382	166
MAX	1,770	9,470	21,200	12,200	8,370	14,100	18,500	12,600	1,260	4,210	760	366
MIN	515	1,090	2,100	1,560	2,250	2,120	1,990	644	276	299	252	115

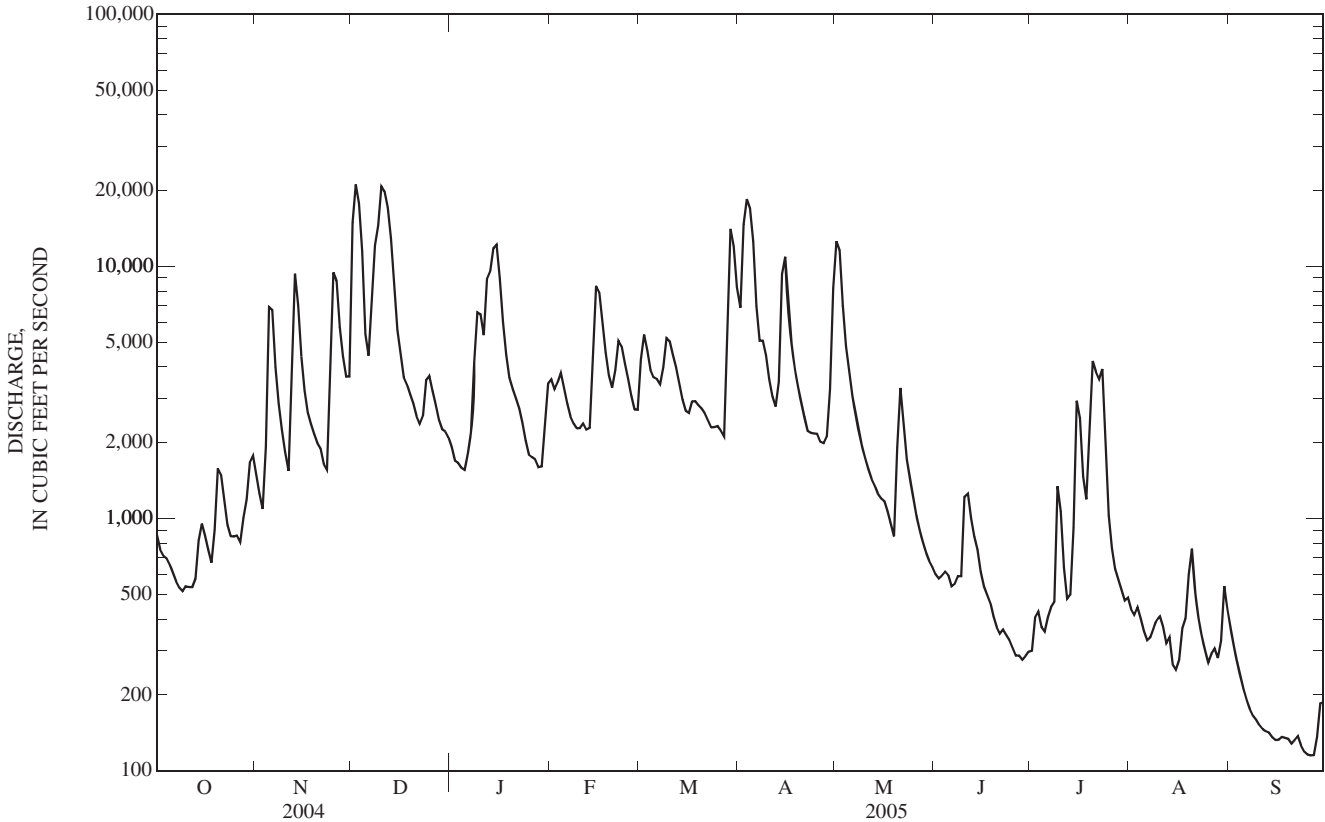
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2005, BY WATER YEAR (WY)

MEAN	605	1,756	3,397	4,028	5,060	5,117	4,190	3,009	1,869	820	730	757
MAX	4,413	4,923	9,751	8,015	12,920	10,400	11,520	9,572	8,305	1,684	1,882	4,544
(WY)	(1990)	(1997)	(1992)	(1994)	(1994)	(1994)	(1998)	(1984)	(1989)	(1989)	(2003)	(2004)
MIN	107	141	300	203	1,803	1,193	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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1980 - 2005	
ANNUAL TOTAL	1,301,888		1,074,673			
ANNUAL MEAN	3,557		2,944		2,598	
HIGHEST ANNUAL MEAN					4,390 1994	
LOWEST ANNUAL MEAN					1,159 1988	
HIGHEST DAILY MEAN	26,600	Feb 7	21,200	Dec 2	38,500	Feb 13, 1994
LOWEST DAILY MEAN	326	Sep 7	115	Sep 26	62	Oct 18, 1980
ANNUAL SEVEN-DAY MINIMUM	384	Sep 1	123	Sep 21	63	Oct 17, 1980
MAXIMUM PEAK FLOW			22,100	Dec 2	49,700	Jan 31, 1957
MAXIMUM PEAK STAGE			21.63	Dec 2	35.03	Apr 7, 1977
INSTANTANEOUS LOW FLOW					6.1	Oct 23, 1953
10 PERCENT EXCEEDS	8,870		7,000		5,910	
50 PERCENT EXCEEDS	2,140		1,900		1,270	
90 PERCENT EXCEEDS	629		287		198	

e Estimated



## 03404500 CUMBERLAND RIVER AT CUMBERLAND FALLS, KY

LOCATION.--Lat 36°50'14", long 84°26'36", McCreary County, Hydrologic Unit 05130101, on left bank 0.1 mi downstream from bridge on State Highway 90, 0.2 upstream from Cumberland Falls, and at mile 562.4.

DRAINAGE AREA.--1,977 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1907 to December 1911, October 1914 to September 1994, October 2002 to current year. Monthly discharges only for October 1914 to March 1915 and October 1931 to July 1932, published in WSP 1306. Discontinued operation by USGS Sept. 30, 2005.

REVISED RECORDS.--WSP 1436: 1919. WSP 1436: Drainage area.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 825.28 ft above NGVD of 1929. Aug. 15, 1907 to Dec. 10, 1911, nonrecording gage at site 300 ft downstream at different datum. Apr. 3, 1915 to Sept. 1, 1933, nonrecording gage at site 500 ft downstream at same 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.--Peak discharges greater than base discharge of 20,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec 12	1800	24,500	9.23	Apr 4	0600	22,800	8.82
Dec 9	1900	27,700	9.34				

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	981	1,720	22,400	2,010	3,910	4,720	9,360	15,100	774	353	506	383
2	911	1,460	23,300	1,810	3,620	6,260	19,000	13,900	752	404	429	326
3	836	1,280	19,600	1,770	3,430	5,760	21,900	9,850	745	557	440	274
4	803	2,290	14,000	1,710	4,090	4,670	19,500	6,200	768	497	448	235
5	758	6,680	6,970	1,680	3,570	4,270	15,600	4,760	772	453	385	209
6	701	8,100	5,330	1,910	3,110	4,110	9,400	3,740	715	439	348	186
7	635	5,160	9,320	2,380	2,730	3,900	6,660	3,090	669	513	329	165
8	589	3,230	13,900	8,140	2,570	4,530	6,180	2,700	728	530	353	154
9	558	2,480	20,000	8,550	2,470	6,280	5,710	2,310	751	821	386	146
10	559	1,990	25,600	8,130	2,380	6,350	4,450	2,060	961	1,580	406	139
11	569	1,700	22,800	6,680	2,460	5,560	3,620	1,880	1,570	962	412	133
12	572	4,350	19,300	11,200	2,400	4,800	3,250	1,710	1,390	676	370	128
13	599	10,600	14,900	11,400	2,400	4,090	3,670	1,590	1,100	636	352	125
14	807	8,780	9,880	14,000	5,070	e3,750	10,800	1,480	1,040	823	581	123
15	1,080	5,510	6,740	14,300	9,360	e3,300	13,200	1,410	844	2,350	282	121
16	1,040	3,740	5,140	11,000	9,490	e3,100	9,670	1,370	718	2,900	274	118
17	922	2,920	4,020	7,560	7,630	e3,350	6,500	1,280	628	1,970	353	126
18	794	2,490	3,540	5,470	5,600	e3,350	4,970	1,160	584	1,350	441	122
19	806	2,280	3,230	4,150	4,310	e3,200	4,040	1,050	516	1,880	597	117
20	1,570	2,090	2,920	3,550	3,710	e3,100	3,450	1,610	448	4,000	789	118
21	1,780	2,020	2,610	3,230	4,970	3,000	3,020	4,070	443	4,980	711	118
22	1,490	1,800	2,390	2,930	6,700	2,870	2,650	3,110	395	4,920	508	121
23	1,200	1,720	2,550	2,590	6,360	2,730	2,550	2,230	422	5,600	386	126
24	1,020	3,260	3,300	2,180	5,270	2,630	2,480	1,810	e400	2,460	318	121
25	981	10,200	3,800	1,920	4,340	2,700	2,470	1,550	e385	1,420	284	114
26	958	10,400	3,330	1,830	3,600	2,600	2,340	1,330	e370	980	250	119
27	927	7,170	2,930	1,800	3,120	2,530	2,280	1,150	e360	776	274	115
28	925	5,300	2,560	1,680	3,250	6,000	2,330	1,040	382	684	282	111
29	1,530	4,290	2,270	1,680	---	15,700	3,120	940	340	610	252	125
30	1,660	5,930	2,240	2,490	---	14,500	12,600	869	331	539	e600	166
31	1,980	---	2,130	3,460	---	11,700	---	813	---	489	e550	---
TOTAL	30,541	130,940	283,000	153,190	121,920	155,410	216,770	97,162	20,301	47,152	12,896	4,684
MEAN	985	4,365	9,129	4,942	4,354	5,013	7,226	3,134	677	1,521	416	156
MAX	1,980	10,600	25,600	14,300	9,490	15,700	21,900	15,100	1,570	5,600	789	383
MIN	558	1,280	2,130	1,680	2,380	2,530	2,280	813	331	353	250	111

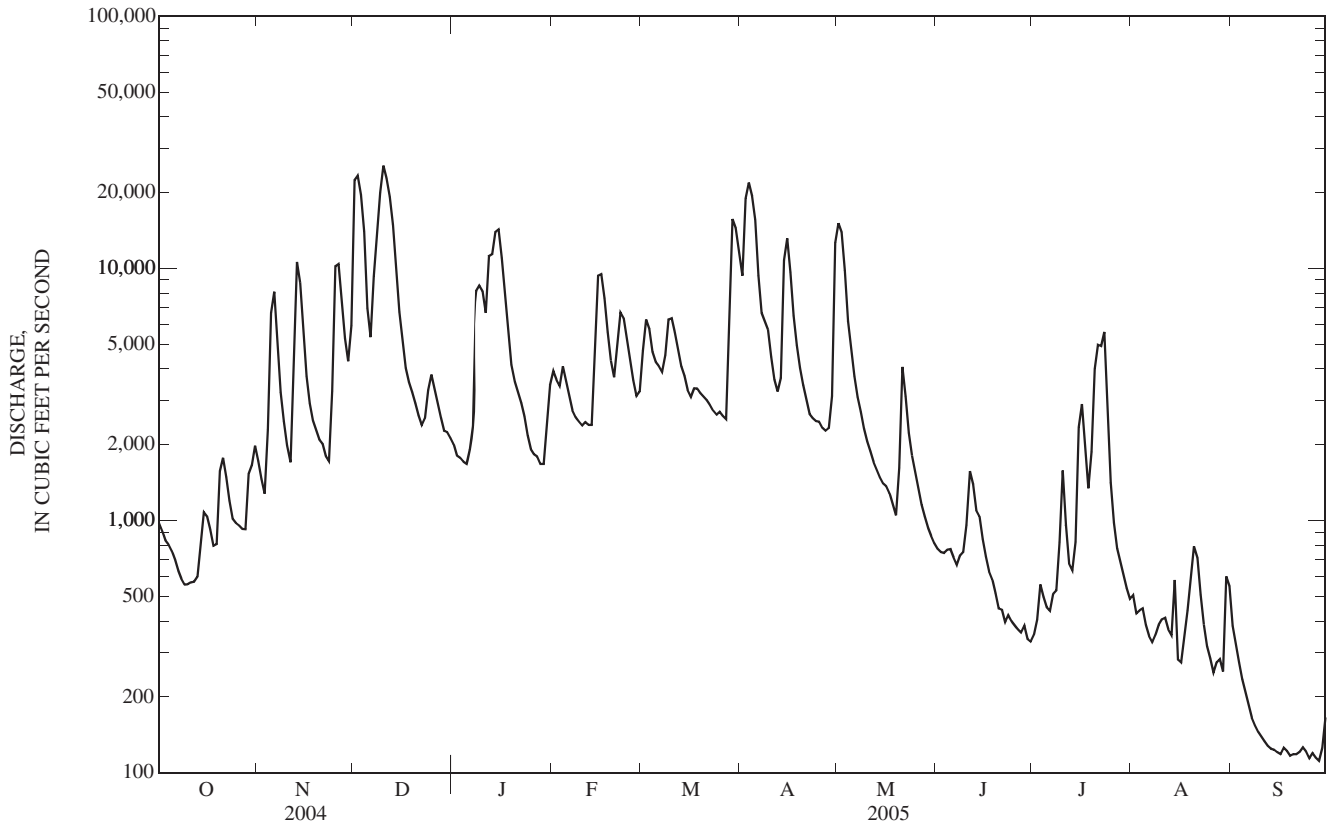
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1908 - 2005, BY WATER YEAR (WY)

MEAN	688	1,906	3,946	5,763	6,387	6,984	5,117	3,272	1,796	1,346	940	626
MAX	5,330	7,963	17,620	17,570	15,740	18,510	11,390	11,230	8,954	6,379	4,171	5,625
(WY)	(1990)	(1978)	(1927)	(1937)	(1939)	(1917)	(1977)	(1984)	(1989)	(1941)	(1942)	(2004)
MIN	10.5	44.2	141	227	462	1,572	987	417	103	47.5	37.3	23.0
(WY)	(1954)	(1940)	(1940)	(1981)	(1941)	(1988)	(1963)	(1936)	(1936)	(1944)	(1925)	(1925)

03404500 CUMBERLAND RIVER AT CUMBERLAND FALLS, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1908 - 2005	
ANNUAL TOTAL	1,593,694		1,273,966		3,217	
ANNUAL MEAN	4,354		3,490		5,196	
HIGHEST ANNUAL MEAN					1,324	
LOWEST ANNUAL MEAN					1927	
HIGHEST DAILY MEAN	31,700	Feb 6	25,600	Dec 10	57,500	Jan 28, 1918
LOWEST DAILY MEAN	406	Sep 7	111	Sep 28	4.0	Sep 19, 1954
ANNUAL SEVEN-DAY MINIMUM	498	Sep 1	118	Sep 22	7.1	Oct 23, 1953
MAXIMUM PEAK FLOW			27,900	Dec 9	59,600	Jan 28, 1918
MAXIMUM PEAK STAGE			9.84	Dec 9	15.50	Jan 28, 1918
INSTANTANEOUS LOW FLOW					4.0	Sep 19, 1954
10 PERCENT EXCEEDS	9,980		9,360		7,960	
50 PERCENT EXCEEDS	2,680		2,020		1,450	
90 PERCENT EXCEEDS	791		323		161	

e Estimated



CUMBERLAND RIVER BASIN

03404900 LYNN CAMP CREEK AT CORBIN, KY

LOCATION.--Lat 36°57'05", long 84°05'37", Whitley County, Hydrologic Unit 05130101, on left bank 40 ft downstream from bridge on State Highway 312, (East Masters Street) at Corbin, 0.8 mi downstream from East Fork Lynn Camp Creek, and at mile 3.9.

DRAINAGE AREA.--53.8 mi<sup>2</sup>.

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<sup>3</sup>/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<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec 1	0730	*1,890	8.07	Dec 9	2330	1,890	*8.08

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	39	1,600	e35	88	208	286	363	7.6	21	8.0	4.2
2	22	34	366	46	73	138	1,070	140	7.9	15	6.9	2.9
3	23	30	173	48	73	108	432	90	9.2	12	4.7	2.0
4	17	237	118	84	63	91	219	66	10	8.5	4.8	1.5
5	15	119	89	182	54	121	155	54	9.3	36	3.9	1.2
6	13	67	204	198	49	86	120	47	9.0	31	7.0	0.90
7	12	51	556	192	46	79	114	41	8.2	20	20	0.65
8	11	41	295	772	55	222	465	36	11	14	7.5	0.64
9	9.7	33	1,090	270	50	140	189	32	13	8.7	3.4	0.55
10	9.2	29	1,060	160	57	111	135	29	24	4.8	2.3	0.54
11	9.3	27	404	288	50	96	108	26	28	2.5	2.2	0.61
12	11	228	234	406	45	89	118	23	14	2.0	1.4	0.52
13	33	115	162	333	156	70	188	19	24	17	1.2	0.47
14	30	73	117	665	377	60	361	18	13	16	1.1	0.40
15	38	57	93	250	216	54	180	18	9.8	18	24	0.35
16	24	48	80	169	152	86	131	17	8.2	9.2	23	0.80
17	16	42	e68	125	111	91	103	15	8.4	7.7	8.6	0.85
18	24	e40	e60	95	85	65	85	13	7.3	241	27	0.65
19	82	e41	e52	e80	73	61	72	14	6.6	282	9.2	0.45
20	43	e50	46	e68	110	58	63	97	7.4	46	5.5	0.35
21	30	e45	e40	e60	298	53	55	34	12	23	3.9	0.40
22	26	e40	e37	e54	235	50	51	22	6.9	19	2.4	0.59
23	22	e91	142	e51	138	53	61	34	5.6	14	1.8	0.58
24	26	368	80	e48	108	54	56	19	4.7	11	1.4	0.28
25	22	225	60	e46	88	52	45	14	4.3	11	7.8	0.26
26	18	114	e50	e42	75	47	49	13	3.8	11	3.6	1.3
27	17	86	e45	e40	67	44	78	11	3.2	16	1.8	1.1
28	41	110	42	37	244	685	53	10	3.0	18	33	0.62
29	167	70	e39	148	---	276	172	9.3	2.6	11	81	0.98
30	76	398	e37	176	---	152	1,040	9.2	8.3	8.1	11	0.49
31	50	---	e36	111	---	349	---	11	---	7.9	5.7	---
TOTAL	953.2	2,948	7,475	5,279	3,236	3,849	6,254	1,344.5	290.3	962.4	325.1	27.13
MEAN	30.7	98.3	241	170	116	124	208	43.4	9.68	31.0	10.5	0.90
MAX	167	398	1,600	772	377	685	1,070	363	28	282	81	4.2
MIN	9.2	27	36	35	45	44	45	9.2	2.6	2.0	1.1	0.26
CFSM	0.57	1.83	4.48	3.17	2.15	2.31	3.87	0.81	0.18	0.58	0.19	0.02
IN.	0.66	2.04	5.17	3.65	2.24	2.66	4.32	0.93	0.20	0.67	0.22	0.02

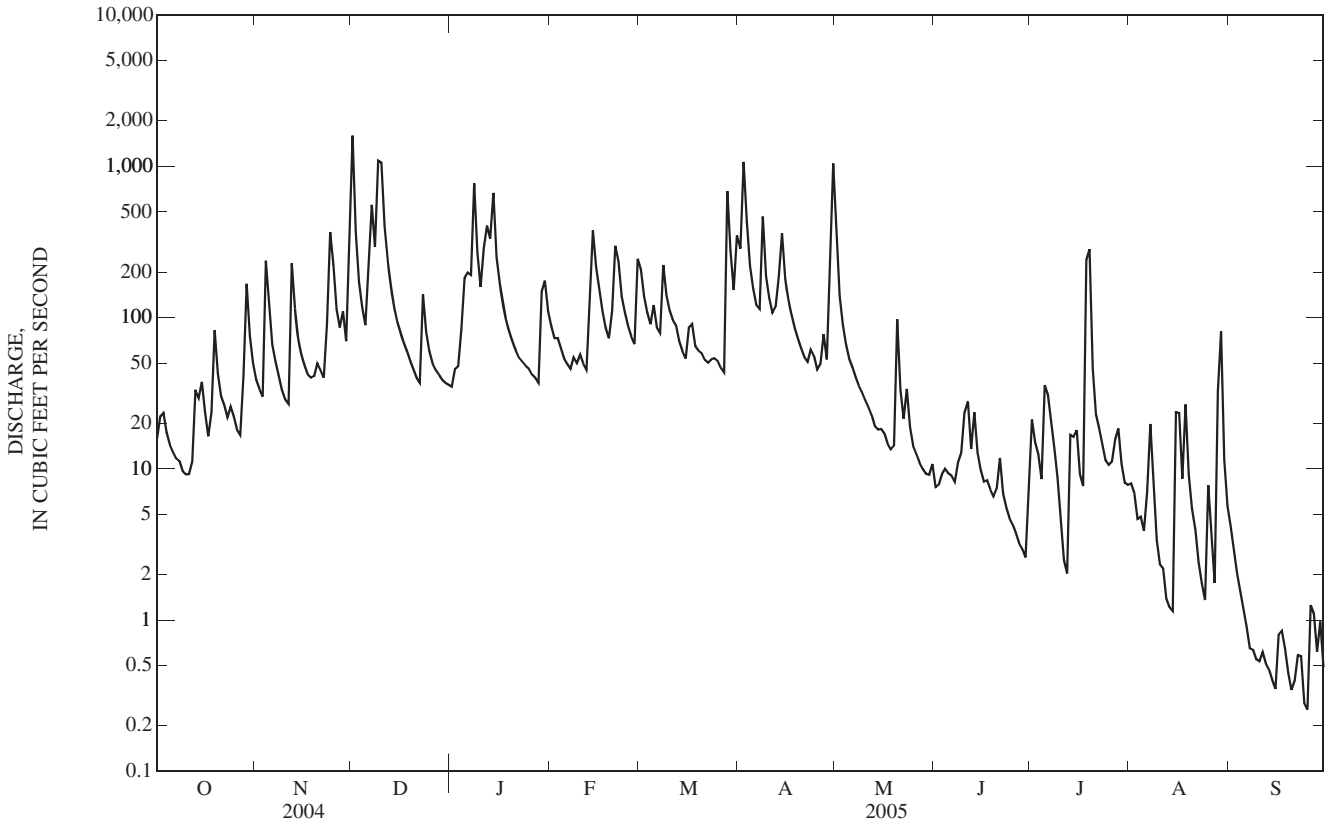
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2005, BY WATER YEAR (WY)

MEAN	28.1	79.2	119	150	157	155	117	85.9	56.0	38.9	28.9	32.5
MAX	133	267	378	372	365	458	413	387	203	110	90.9	186
(WY)	(1990)	(1974)	(1991)	(1974)	(2003)	(1975)	(1998)	(1983)	(1997)	(1978)	(2003)	(2004)
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1974 - 2005	
ANNUAL TOTAL	41,831.8		32,943.63		87.0	
ANNUAL MEAN	114		90.3		141	
HIGHEST ANNUAL MEAN					1994	
LOWEST ANNUAL MEAN					1988	
HIGHEST DAILY MEAN	2,620	Sep 17	1,600	Dec 1	4,530	Apr 17, 1998
LOWEST DAILY MEAN	5.6	Sep 2	0.26	Sep 25	0.02	Jun 24, 1988
ANNUAL SEVEN-DAY MINIMUM	8.8	Aug 27	0.42	Sep 19	0.02	Jun 24, 1988
MAXIMUM PEAK FLOW			1,890	Dec 9	9,000	Jan 29, 1957
MAXIMUM PEAK STAGE			8.08	Dec 9	22.50	Jan 29, 1957
INSTANTANEOUS LOW FLOW					0.02	Jun 24, 1988
ANNUAL RUNOFF (CFSM)	2.12		1.68		1.62	
ANNUAL RUNOFF (INCHES)	28.92		22.78		21.97	
10 PERCENT EXCEEDS	226		223		193	
50 PERCENT EXCEEDS	47		41		36	
90 PERCENT EXCEEDS	13		2.3		3.2	

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 of London, and at mile 24.4.

DRAINAGE AREA.--604 mi<sup>2</sup>.

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 fair 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<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec 1	unknown	unknown	unknown	Jan 8	unknown	unknown	unknown
Dec 7	2330	11,500	20.06	Apr 30	unknown	24,400	31.04

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	210	1,000	e14,600	570	1,270	1,750	1,410	e16,100	108	90	59	77
2	204	836	8,310	547	1,110	1,520	6,040	3,320	100	81	47	64
3	233	714	3,200	669	1,010	1,320	5,800	1,830	97	65	39	52
4	247	1,160	2,080	706	923	1,180	3,220	1,350	123	59	35	37
5	208	3,920	1,530	1,960	803	1,340	2,130	1,120	121	59	32	31
6	180	1,520	2,150	2,550	722	1,660	1,580	935	110	56	e30	e26
7	162	1,130	6,490	3,490	664	1,400	1,270	783	96	57	e28	e23
8	148	898	7,790	e14,000	641	2,040	1,110	663	229	45	e26	e21
9	140	709	4,200	9,320	643	2,500	941	566	201	40	e24	e19
10	132	586	7,260	3,450	634	1,790	773	484	168	37	34	e18
11	127	519	5,290	2,270	672	1,510	694	418	138	e32	e31	e17
12	119	802	3,520	2,040	623	1,350	628	365	113	e28	e24	e16
13	191	1,160	2,540	1,740	640	1,180	700	335	102	96	e25	e15
14	419	876	1,830	3,820	2,710	991	1,930	350	96	269	e23	e13
15	310	765	1,430	3,360	4,600	847	1,550	330	160	245	e22	e12
16	299	694	1,150	2,280	2,880	752	1,200	308	120	245	e33	e12
17	272	637	991	1,730	2,110	701	985	271	108	302	68	e14
18	235	579	876	1,330	1,590	635	839	235	83	303	57	e13
19	3,420	556	756	1,100	1,270	560	731	209	70	289	60	e12
20	3,020	605	645	1,000	1,080	505	637	430	60	483	51	e11
21	1,400	563	547	906	1,970	462	560	813	53	336	41	e12
22	950	506	528	791	2,660	414	507	449	48	221	35	e14
23	721	489	821	696	2,090	390	543	335	44	187	e32	e12
24	806	652	1,550	567	1,680	445	556	285	40	152	e30	e10
25	964	1,430	1,050	515	1,400	479	500	247	39	113	e29	e9.5
26	757	1,340	941	511	1,150	422	451	208	e37	87	e28	e9.4
27	2,450	1,160	840	495	977	403	621	181	e35	70	44	e9.2
28	4,680	1,420	725	431	933	1,890	722	162	e32	67	37	e10
29	2,210	1,450	676	419	---	3,900	986	144	e28	79	e30	e14
30	1,650	2,000	652	1,260	---	2,260	e13,800	132	e24	97	e28	e12
31	1,290	---	610	1,450	---	1,670	---	118	---	79	66	---
TOTAL	28,154	30,676	85,578	65,973	39,455	38,266	53,414	33,476	2,783	4,369	1,148	615.1
MEAN	908	1,023	2,761	2,128	1,409	1,234	1,780	1,080	92.8	141	37.0	20.5
MAX	4,680	3,920	14,600	14,000	4,600	3,900	13,800	16,100	229	483	68	77
MIN	119	489	528	419	623	390	451	118	24	28	22	9.2
CFSM	1.50	1.69	4.57	3.52	2.33	2.04	2.95	1.79	0.15	0.23	0.06	0.03
IN.	1.73	1.89	5.27	4.06	2.43	2.36	3.29	2.06	0.17	0.27	0.07	0.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 2005, BY WATER YEAR (WY)

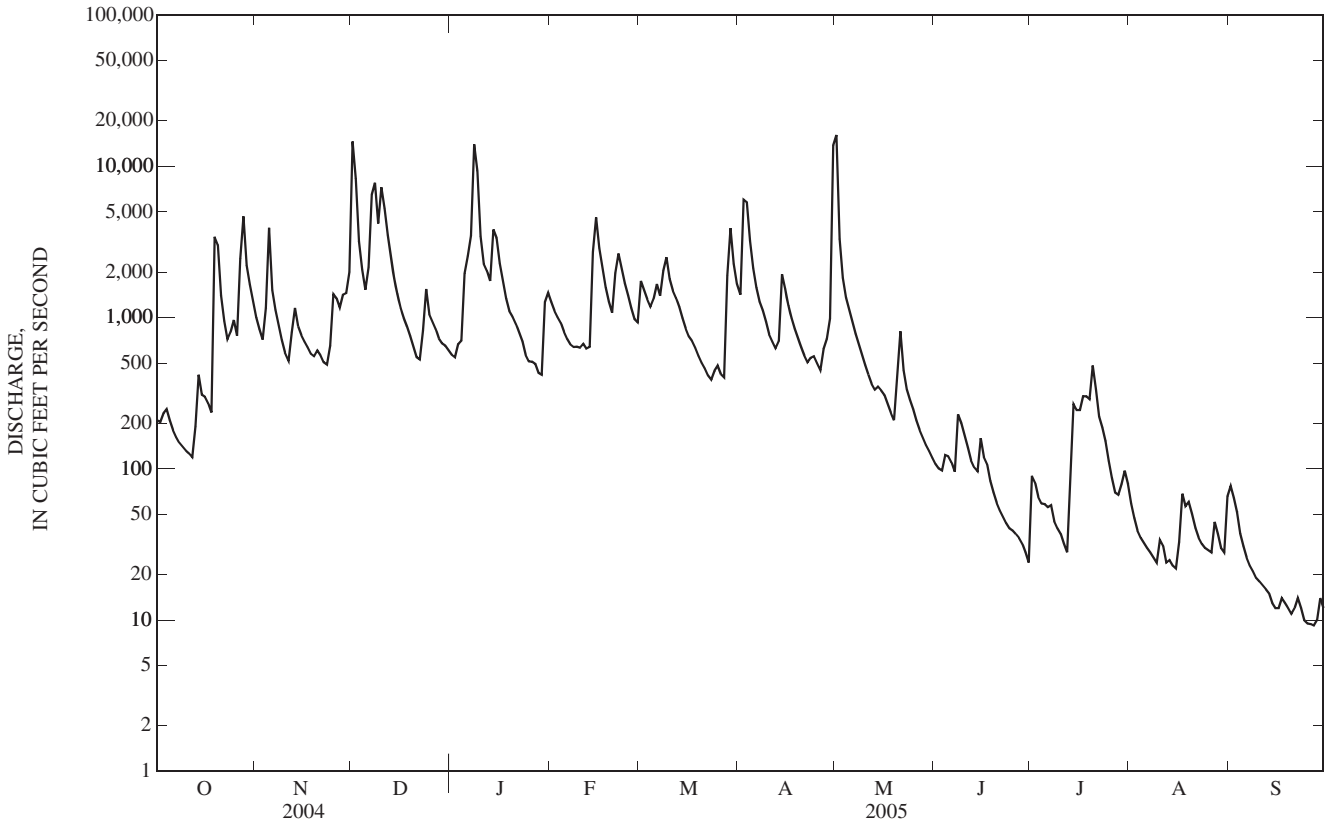
MEAN	208	584	1,265	1,672	1,916	1,952	1,480	992	586	358	209	178
MAX	2,887	2,374	5,279	5,990	5,236	5,860	4,051	4,207	2,862	1,830	1,263	1,769
(WY)	(1990)	(1987)	(1991)	(1937)	(1956)	(1975)	(1972)	(1983)	(1947)	(1941)	(1977)	(2004)
MIN	3.18	11.5	16.5	56.9	208	507	188	115	37.9	10.8	10.1	4.95
(WY)	(1954)	(1954)	(1954)	(1981)	(1941)	(1983)	(1986)	(1941)	(1988)	(1944)	(1957)	(1936)



03406500 ROCKCASTLE RIVER AT BILLOWS, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1936 - 2005	
ANNUAL TOTAL	585,996		383,907.1		946	
ANNUAL MEAN	1,601		1,052		1,575	
HIGHEST ANNUAL MEAN					1979	
LOWEST ANNUAL MEAN					345	
HIGHEST DAILY MEAN	26,100	Feb 6	16,100	May 1	46,200	Dec 9, 1978
LOWEST DAILY MEAN	86	Sep 1	9.2	Sep 27	0.90	Sep 9, 1957
ANNUAL SEVEN-DAY MINIMUM	122	Aug 27	11	Sep 22	1.4	Sep 11, 1964
MAXIMUM PEAK FLOW			24,400	Apr 30	50,000	Dec 9, 1978
MAXIMUM PEAK STAGE			31.04	Apr 30	47.17	Dec 9, 1978
INSTANTANEOUS LOW FLOW					0.80	Sep 9, 1957
ANNUAL RUNOFF (CFSM)	2.65		1.74		1.57	
ANNUAL RUNOFF (INCHES)	36.09		23.64		21.28	
10 PERCENT EXCEEDS	3,290		2,260		2,150	
50 PERCENT EXCEEDS	764		547		338	
90 PERCENT EXCEEDS	237		28		25	

e Estimated



03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY

LOCATION.--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<sup>2</sup>.

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--September 1942 to September 30, 2005. Gage discontinued September 30, 2005

REVISED RECORDS.--WSP 1113: 1946(M). WSP 1436: Drainage area, WDR KY-96-1 latitude and longitude.

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 fair 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.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 22,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec 1	1400	*44,300	*30.34	Dec 10	0400	36,700	27.41

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	345	1,400	35,700	1,000	1,900	2,300	3,230	9,840	329	146	186	637
2	327	1,140	12,100	987	1,680	2,130	11,900	5,010	314	160	171	435
3	309	980	5,530	1,140	2,720	1,890	11,100	3,240	296	211	156	305
4	278	3,850	3,650	1,160	3,490	1,740	6,030	2,390	314	201	145	235
5	254	7,780	2,730	1,100	2,640	1,630	3,880	1,870	336	218	148	190
6	232	3,700	2,540	1,200	2,180	1,450	2,840	1,570	294	233	160	160
7	212	2,530	6,840	1,690	1,840	1,290	2,370	1,360	740	177	148	136
8	198	1,930	10,400	6,320	1,710	1,460	2,730	1,160	e800	156	160	124
9	186	1,470	15,600	7,450	1,640	1,800	2,830	1,010	e600	134	196	108
10	181	1,190	25,200	4,350	1,500	1,630	2,320	915	669	130	415	99
11	179	1,030	17,300	3,550	1,400	1,540	1,970	863	810	131	304	91
12	180	7,230	9,620	11,300	1,250	1,460	1,740	785	614	142	223	85
13	217	9,740	5,510	7,120	1,290	1,330	1,750	689	494	182	181	79
14	327	4,570	3,710	10,700	3,080	1,180	3,050	657	415	414	161	74
15	590	2,960	2,780	7,080	5,500	1,060	3,550	654	449	4,300	215	71
16	439	2,270	2,280	4,400	4,000	1,010	2,600	681	348	1,760	311	70
17	370	1,850	1,940	3,150	2,980	1,120	2,070	555	288	1,120	268	70
18	318	1,560	1,700	2,400	2,330	1,170	1,720	467	241	986	385	86
19	1,730	1,370	1,520	1,980	1,920	1,150	1,480	414	204	1,340	1,150	152
20	6,250	1,290	1,350	1,790	1,830	1,120	1,280	1,640	180	1,450	968	147
21	2,900	1,290	1,170	1,620	4,860	1,080	1,110	5,860	167	1,090	563	124
22	1,870	1,150	1,110	1,450	9,340	1,030	1,010	2,660	154	2,360	382	102
23	1,350	1,080	1,280	1,260	5,160	1,020	1,190	1,700	141	1,850	288	87
24	1,130	2,850	2,040	1,040	3,520	1,010	1,330	1,230	145	839	232	77
25	1,080	9,730	1,710	959	2,700	941	1,090	940	130	551	194	69
26	913	4,810	1,540	977	2,160	952	965	766	117	413	168	68
27	776	3,210	1,410	940	1,820	898	1,070	646	118	331	152	74
28	772	2,840	1,240	835	1,780	3,740	1,300	544	151	279	142	70
29	2,480	2,610	1,150	949	---	5,790	5,440	463	129	245	136	126
30	2,530	4,150	1,120	1,860	---	3,510	14,400	409	115	233	604	155
31	1,810	---	1,070	2,230	---	3,180	---	365	---	206	407	---
TOTAL	30,733	93,560	182,840	93,987	78,220	52,611	99,345	51,353	10,102	21,988	9,319	4,306
MEAN	991	3,119	5,898	3,032	2,794	1,697	3,312	1,657	337	709	301	144
MAX	6,250	9,740	35,700	11,300	9,340	5,790	14,400	9,840	810	4,300	1,150	637
MIN	179	980	1,070	835	1,250	898	965	365	115	130	136	68
CFSM	1.04	3.27	6.18	3.18	2.93	1.78	3.47	1.74	0.35	0.74	0.32	0.15
IN.	1.20	3.65	7.13	3.66	3.05	2.05	3.87	2.00	0.39	0.86	0.36	0.17

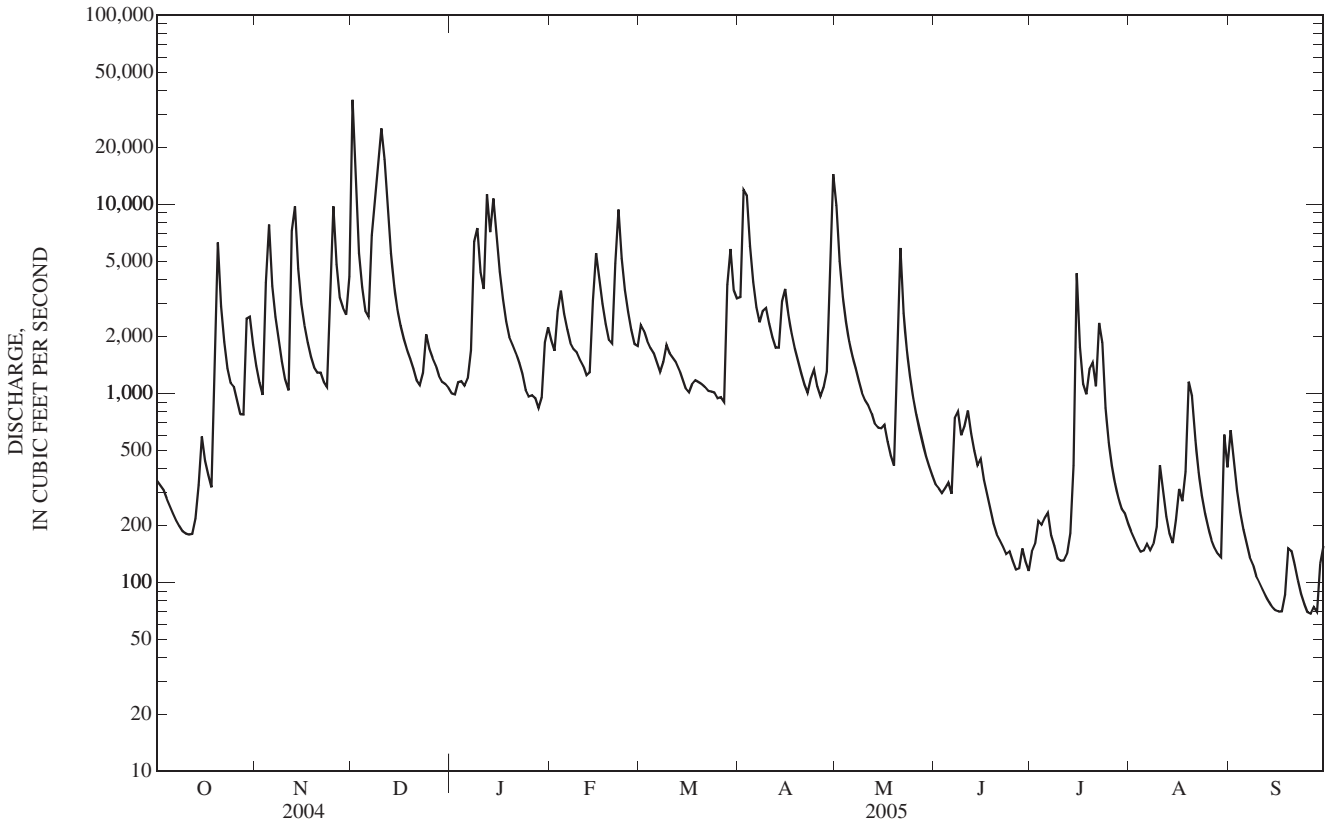
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2005, BY WATER YEAR (WY)

MEAN	383	1,255	2,630	3,272	3,533	3,578	2,598	1,737	991	608	407	424
MAX	2,553	4,556	7,388	9,615	8,747	10,580	6,038	6,555	5,152	3,772	2,997	3,486
(WY)	(1990)	(1958)	(1991)	(1950)	(1956)	(1975)	(1977)	(1984)	(1989)	(1967)	(1971)	(2004)
MIN	20.8	30.6	150	145	725	1,200	568	224	72.8	34.5	65.4	29.6
(WY)	(1954)	(1954)	(1964)	(1981)	(1968)	(2003)	(1986)	(1948)	(1988)	(1944)	(1951)	(1953)

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1943 - 2005	
ANNUAL TOTAL	932,949		728,364		1,777	
ANNUAL MEAN	2,549		1,996		810	
HIGHEST ANNUAL MEAN					3,023	1973
LOWEST ANNUAL MEAN					810	1988
HIGHEST DAILY MEAN	38,200	Feb 6	35,700	Dec 1	80,200	Mar 13, 1975
LOWEST DAILY MEAN	148	Aug 20	68	Sep 26	11	Sep 18, 1954
ANNUAL SEVEN-DAY MINIMUM	192	Aug 17	76	Sep 12	12	Sep 13, 1954
MAXIMUM PEAK FLOW			44,300	Dec 1	93,200	May 28, 1973
MAXIMUM PEAK STAGE			30.34	Dec 1	46.29	May 28, 1973
INSTANTANEOUS LOW FLOW			66	Sep 25	11	Oct 4, 1948
ANNUAL RUNOFF (CFSM)	2.67		2.09		1.86	
ANNUAL RUNOFF (INCHES)	36.38		28.40		25.30	
10 PERCENT EXCEEDS	4,450		4,470		4,030	
50 PERCENT EXCEEDS	1,380		1,120		725	
90 PERCENT EXCEEDS	295		147		82	

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 current year. (Discontinued)

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

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE.--May 1980 to Sept. 1990, July 1999 to Aug. 22, 2000, Oct. 10, 2001 to current year.

pH.--May 1980 to Sept. 1990, July 1999 to Aug. 22, 2000, Oct. 10, 2001 to current year.

WATER TEMPERATURES.--May 1980 to Sept. 1990, July 1999 to Aug. 22, 2000. Oct. 10, 2001 to current year.

DISSOLVED OXYGEN.--May 1980 to Sept. 1990, Oct. 10, 2001 to current year.

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 with telemetry 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.

SPECIFIC CONDUCTANCE.--Records rated poor.

pH.--Records rated poor.

WATER TEMPERATURES.--Records rated poor.

DISSOLVED OXYGEN.--Records rated poor.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE.--Maximum recorded, 434 microsiemens, July 17, 1985; minimum recorded, 37 microsiemens, Sept. 17, 2004.

pH.--Maximum recorded, 8.6 units, Aug. 10, 1989; minimum recorded, 5.2 units, May 19, 1980 and Nov. 24, 1980.

WATER TEMPERATURES.--Maximum recorded, 34.6°C, Aug. 31, Sept. 1, 1989; minimum recorded, 0.0 °C, Jan. 29, 2002 and Jan. 24-27, 2003.

DISSOLVED OXYGEN.--Maximum recorded, 15.6 mg/L, Jan. 31 and Feb. 1, 2003; minimum recorded, 4.5 mg/L, May 22, 1980.

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, 239 microsiemens, Aug. 19, 2005; minimum recorded 81 microsiemens, June 14, 2005.

pH.--Maximum recorded, 8.1 units, Aug. 1-3, 2005; minimum recorded, 7.1 units, May 23, and June 10-11, 2005.

WATER TEMPERATURES.--Maximum recorded, 30.1°C, Aug. 3, 2005; minimum recorded, 15.0°C, Oct. 18, 2004.

DISSOLVED OXYGEN.--Maximum recorded, 10.6 mg/L, May 21, 2005; minimum recorded, 6.1 mg/L, Aug. 14, 2005.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	123	120	121	112	109	110	---	---	---	---	---	---
2	124	123	123	110	109	110	---	---	---	---	---	---
3	128	124	126	110	109	109	---	---	---	105	103	104
4	130	128	129	110	77	98	---	---	---	107	106	106
5	132	130	131	129	74	102	---	---	---	106	104	105
6	134	132	132	89	87	87	---	---	---	104	102	103
7	136	134	135	89	87	88	93	74	80	103	100	102
8	137	136	137	91	89	90	106	78	89	100	79	85
9	137	137	137	94	91	93	---	---	---	95	80	90
10	138	137	137	96	94	95	---	---	---	80	75	76
11	140	138	138	99	96	98	---	---	---	77	72	76
12	141	140	140	99	71	89	---	---	---	83	70	77
13	141	140	141	88	72	76	---	---	---	80	75	77
14	141	140	141	77	73	75	---	---	---	77	74	75
15	142	140	140	80	77	78	---	---	---	---	---	---
16	150	142	147	83	80	81	---	---	---	---	---	---
17	150	145	147	86	83	84	---	---	---	---	---	---
18	160	146	153	89	85	86	---	---	---	---	---	---
19	169	156	164	91	89	89	---	---	---	---	---	---
20	166	112	135	91	90	91	---	---	---	---	---	---
21	112	95	98	93	91	92	---	---	---	---	---	---
22	99	95	96	95	93	94	---	---	---	---	---	---
23	103	99	101	96	95	96	---	---	---	---	---	---
24	105	103	104	96	88	93	---	---	---	---	---	---
25	106	105	105	123	81	98	---	---	---	---	---	---
26	106	105	106	---	---	---	---	---	---	---	---	---
27	111	106	108	---	---	---	---	---	---	---	---	---
28	112	111	111	80	78	79	---	---	---	---	---	---
29	156	112	121	---	---	---	---	---	---	---	---	---
30	162	108	130	86	78	85	---	---	---	---	---	---
31	112	107	110	---	---	---	---	---	---	---	---	---
MONTH	169	95	127	129	71	91	106	74	84	107	70	90















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## 03410600 SOUTH FORK CUMBERLAND RIVER AT YAMACRAW, KY

LOCATION.--Lat 36°43'32", long 84°32'38", McCreary County, Hydrologic Unit 05130104, on left bank 200 ft upstream of bridge on State Highway 92 at Yamacraw, 700 feet upstream from Wolf Creek, 0.6 mile downstream from Rock Creek, and at mile 40.3.

DRAINAGE AREA.--1,083 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1999 to September 30, 2000, October 1, 2002 to current year.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 711.166 ft above NGVD of 1929.

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

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

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	395	1,530	36,600	e1,100	e2,200	e2,800	e3,700	e11,000	e380	e170	263	601
2	376	1,270	16,700	e1,050	e1,900	e2,500	e12,000	e6,000	e350	e190	245	473
3	362	1,070	7,620	e1,300	e3,200	e2,100	e14,000	e4,000	e340	e240	230	324
4	333	3,890	4,810	e1,350	e4,100	e1,900	e7,200	e2,800	e360	e230	212	251
5	309	9,570	3,490	e1,250	e3,100	e1,800	e4,500	e2,200	e400	e260	206	205
6	283	4,450	3,170	e1,350	e2,500	e1,650	e3,400	e1,800	e350	e300	232	171
7	260	2,900	9,300	e2,000	e2,100	e1,500	e2,700	e1,500	e820	e230	218	150
8	245	2,130	14,500	e7,400	e1,900	e1,700	e3,200	e1,300	e950	e180	212	138
9	233	1,620	18,200	e9,200	e1,800	e2,200	e3,400	e1,150	e700	e160	259	128
10	226	1,310	29,000	e5,600	e1,700	e1,900	e2,700	e1,050	e780	e150	431	119
11	223	1,140	e16,000	e4,000	e1,550	e1,800	e2,200	e950	e960	e160	394	109
12	225	6,840	e9,000	e13,000	e1,400	e1,700	e2,000	e880	e700	e180	302	104
13	254	13,200	e6,000	e8,200	e1,500	e1,500	e2,050	e820	e550	e210	252	99
14	314	5,660	e4,000	e12,500	e3,700	e1,350	e3,500	e740	e480	e420	229	95
15	594	3,530	e3,000	e8,000	e6,600	e1,250	e4,100	e780	e520	4,680	232	93
16	474	2,580	e2,500	e5,000	e4,400	e1,150	e2,900	e800	e400	2,230	403	90
17	404	2,060	e2,100	e3,600	e3,200	e1,250	e2,300	e640	e330	1,380	370	90
18	359	1,730	e1,900	e2,700	e2,500	e1,350	e2,000	e540	e270	1,230	380	96
19	1,130	1,520	e1,700	e2,200	e2,200	e1,300	e1,700	e490	e230	1,400	1,170	138
20	7,550	1,420	e1,500	e1,900	e2,100	e1,250	e1,500	e2,300	e210	1,740	1,120	153
21	3,370	1,430	e1,300	e1,650	e5,800	e1,200	e1,300	e6,800	e190	1,370	593	141
22	2,070	1,310	e1,200	e1,450	e11,000	e1,180	e1,200	e3,100	e180	2,330	378	122
23	1,480	1,210	e1,500	e1,300	e6,200	e1,170	e1,400	e1,900	e160	2,740	285	108
24	1,230	2,880	e2,400	e1,150	e3,800	e1,160	e1,450	e1,400	e170	1,120	232	100
25	1,170	11,900	e1,900	e1,050	e3,100	e1,050	e1,200	e1,100	e150	731	202	93
26	1,020	6,160	e1,700	e1,000	e2,600	e1,100	e1,150	e880	e135	542	180	91
27	864	3,880	e1,500	e950	e2,100	e1,000	e1,300	e720	e140	444	166	93
28	831	3,420	e1,400	e920	e1,900	4,590	e1,500	e620	e170	382	158	96
29	2,470	3,140	e1,300	e1,100	---	8,320	e6,000	e520	e150	331	154	108
30	2,890	5,020	e1,200	e2,200	---	e4,000	e17,000	e460	e135	314	523	171
31	1,990	---	e1,150	e2,700	---	e3,600	---	e410	---	288	415	---
TOTAL	33,934	109,770	207,640	108,170	90,150	62,320	114,550	59,650	11,660	26,332	10,646	4,750
MEAN	1,095	3,659	6,698	3,489	3,220	2,010	3,818	1,924	389	849	343	158
MAX	7,550	13,200	36,600	13,000	11,000	8,320	17,000	11,000	960	4,680	1,170	601
MIN	223	1,070	1,150	920	1,400	1,000	1,150	410	135	150	154	90
CFSM	1.01	3.38	6.18	3.22	2.97	1.86	3.53	1.78	0.36	0.78	0.32	0.15
IN.	1.17	3.77	7.13	3.72	3.10	2.14	3.93	2.05	0.40	0.90	0.37	0.16

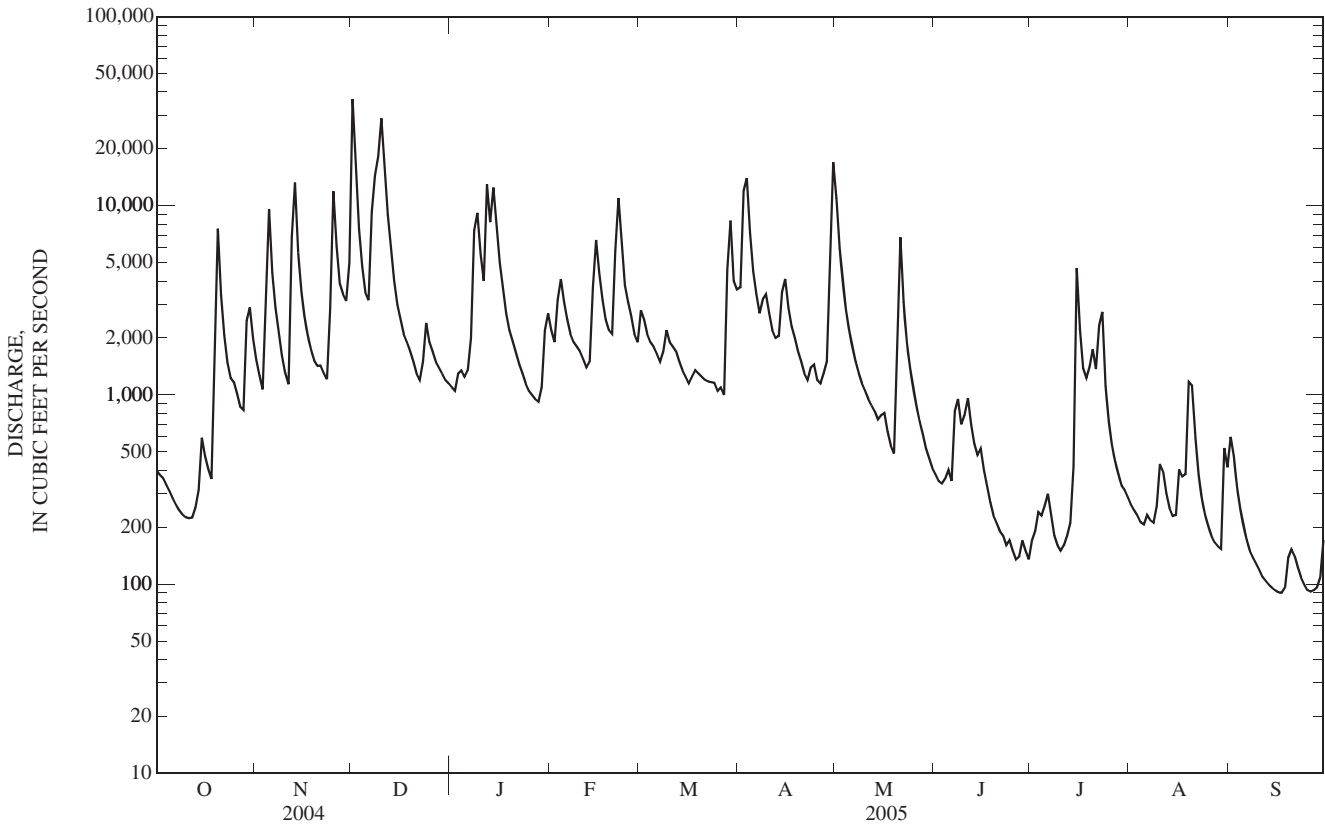
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2005, BY WATER YEAR (WY)

MEAN	507	2,055	3,684	2,125	4,507	2,612	4,547	2,492	1,575	988	477	1,517
MAX	1,095	3,659	6,698	3,489	7,876	4,539	6,502	4,448	2,696	2,092	843	3,996
(WY)	(2005)	(2005)	(2005)	(2005)	(2003)	(2004)	(2003)	(2003)	(2003)	(1999)	(2004)	(2004)
MIN	75.6	137	305	959	2,131	1,394	3,344	1,720	389	255	180	40.3
(WY)	(2000)	(2000)	(2000)	(2003)	(2000)	(2003)	(2004)	(2004)	(2005)	(2000)	(1999)	(1999)

03410600 SOUTH FORK CUMBERLAND RIVER AT YAMACRAW, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1999 - 2005	
ANNUAL TOTAL	1,127,717		839,572		2,247	
ANNUAL MEAN	3,081		2,300		1,143	
HIGHEST ANNUAL MEAN					2,930 2003	
LOWEST ANNUAL MEAN					1,143 2000	
HIGHEST DAILY MEAN	43,800	Feb 6	36,600	Dec 1	43,800	Feb 6, 2004
LOWEST DAILY MEAN	222	Aug 20	90	Sep 16	25	Sep 27, 1999
ANNUAL SEVEN-DAY MINIMUM	238	Oct 7	95	Sep 12	25	Sep 26, 1999
MAXIMUM PEAK FLOW			45,100	Dec 1	74,800	Sep 17, 2004
MAXIMUM PEAK STAGE			27.28	Dec 1	33.46	Sep 17, 2004
ANNUAL RUNOFF (CFSM)	2.85		2.12		2.07	
ANNUAL RUNOFF (INCHES)	38.74		28.84		28.19	
10 PERCENT EXCEEDS	5,790		5,620		4,700	
50 PERCENT EXCEEDS	1,680		1,250		1,100	
90 PERCENT EXCEEDS	363		170		159	

e Estimated











## 03410600 SOUTH FORK CUMBERLAND RIVER AT YAMACRAW, KY—Continued

TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20.0	18.8	19.4	18.4	17.6	18.0	11.5	10.8	11.3	4.8	3.8	4.1
2	19.8	19.3	19.5	18.4	17.8	18.1	11.2	9.3	10.1	5.9	4.8	5.1
3	20.1	19.2	19.6	18.4	17.7	18.0	9.3	8.2	8.7	7.1	5.9	6.4
4	20.0	18.8	19.4	17.7	16.9	17.4	8.2	7.4	7.7	8.2	7.1	7.6
5	19.9	18.6	19.2	16.9	15.4	16.2	7.4	7.0	7.2	9.2	8.2	8.6
6	19.4	17.9	18.6	15.4	13.7	14.4	8.2	7.2	7.7	9.5	9.2	9.3
7	19.2	17.7	18.5	13.7	12.8	13.1	10.9	8.2	9.8	9.3	9.3	9.3
8	19.2	18.0	18.6	12.8	11.9	12.4	11.8	10.9	11.5	9.5	9.2	9.4
9	18.6	18.0	18.3	11.9	11.2	11.5	11.6	10.9	11.2	9.4	9.2	9.3
10	19.2	18.0	18.5	11.5	10.6	11.0	11.4	11.0	11.2	9.4	9.2	9.3
11	19.0	18.0	18.5	11.0	10.6	10.8	11.3	10.3	10.8	9.8	9.2	9.3
12	19.0	18.2	18.7	12.1	11.0	11.3	10.3	9.5	9.9	11.1	9.8	10.3
13	18.8	18.2	18.5	12.9	12.1	12.7	9.5	8.6	9.1	11.7	11.1	11.5
14	18.2	17.7	18.0	12.6	11.6	12.1	8.6	7.3	7.9	11.7	10.2	11.1
15	17.7	16.5	17.1	11.6	10.8	11.1	7.3	6.0	6.5	10.2	8.3	9.1
16	16.6	15.7	16.2	10.8	10.3	10.5	6.0	5.1	5.4	8.3	6.8	7.6
17	16.0	14.9	15.5	10.6	10.2	10.4	5.1	4.7	4.9	6.8	5.0	5.8
18	15.3	15.0	15.1	11.0	10.3	10.6	4.8	4.1	4.4	5.0	3.4	4.0
19	15.9	15.3	15.6	11.6	11.0	11.2	4.5	4.0	4.3	3.4	2.8	2.9
20	15.8	14.8	15.4	12.2	11.6	11.9	4.0	2.8	3.2	3.0	2.6	2.7
21	16.7	15.8	16.2	12.6	12.2	12.4	3.0	2.5	2.7	3.4	3.0	3.1
22	17.0	16.5	16.7	13.0	12.5	12.6	3.5	3.0	3.2	3.5	3.3	3.4
23	17.0	16.6	16.8	13.2	12.9	13.1	3.6	3.3	3.5	3.4	2.7	3.0
24	17.3	16.6	17.0	13.5	13.2	13.4	3.3	2.9	3.0	2.7	1.9	2.1
25	17.3	16.7	17.1	13.5	12.5	13.2	2.9	2.4	2.6	2.3	1.8	2.0
26	17.2	16.4	16.9	12.5	10.5	11.5	2.4	2.1	2.3	2.8	2.2	2.4
27	17.5	17.0	17.2	10.5	9.3	9.6	2.4	1.9	2.1	3.0	2.8	2.9
28	17.8	17.4	17.6	9.3	8.8	9.0	2.0	1.4	1.6	2.9	2.5	2.6
29	17.8	17.4	17.6	8.9	8.6	8.8	2.0	1.6	1.7	3.0	2.6	2.8
30	18.3	17.8	18.0	10.8	8.9	9.3	2.8	2.0	2.3	3.6	3.0	3.3
31	18.1	17.8	17.9	---	---	---	3.8	2.7	3.1	4.2	3.6	3.8
MONTH	20.1	14.8	17.7	18.4	8.6	12.5	11.8	1.4	6.2	11.7	1.8	5.9
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	4.8	4.2	4.5	7.0	6.0	6.4	12.3	11.5	12.0	12.6	12.0	12.3
2	5.0	4.7	4.8	6.0	5.4	5.7	11.5	9.8	10.7	12.6	12.0	12.3
3	5.4	5.0	5.2	5.6	4.9	5.3	9.8	9.2	9.5	12.4	11.5	12.0
4	5.9	5.3	5.5	5.4	4.6	5.0	10.4	9.3	9.7	12.6	11.7	12.1
5	6.0	5.6	5.8	5.8	5.1	5.3	11.8	10.2	10.7	12.6	12.2	12.4
6	6.0	5.6	5.8	6.6	5.4	5.9	12.7	11.5	11.9	13.7	12.2	12.8
7	6.1	5.6	5.8	7.0	6.2	6.5	13.3	12.7	12.9	14.2	13.0	13.5
8	6.8	6.0	6.3	7.0	6.7	6.9	14.4	13.3	13.6	15.3	14.0	14.4
9	7.3	6.8	7.0	6.7	6.1	6.5	15.4	14.3	14.7	16.4	15.2	15.7
10	7.3	6.8	7.1	6.6	6.0	6.3	15.8	14.9	15.3	17.2	16.4	16.7
11	6.8	6.3	6.5	6.5	6.0	6.1	16.3	15.5	15.8	18.6	17.0	17.7
12	6.5	5.9	6.2	6.8	5.6	6.1	16.2	15.9	16.0	19.7	18.4	18.9
13	6.4	5.8	5.9	7.2	6.5	6.9	16.0	15.4	15.6	20.2	19.4	19.8
14	6.3	5.8	6.0	7.5	6.7	7.1	15.6	14.8	15.2	20.1	19.4	19.8
15	7.7	6.2	6.7	7.5	6.8	7.2	15.2	14.1	14.6	20.3	19.7	20.0
16	8.3	7.7	8.1	7.3	6.7	6.9	14.6	13.5	14.1	20.1	19.2	19.6
17	8.2	7.8	8.0	7.2	6.4	6.8	15.1	13.7	14.5	19.8	19.0	19.5
18	7.9	7.1	7.4	7.4	6.5	7.0	15.6	14.4	14.9	20.2	19.4	19.7
19	7.1	6.5	6.7	7.3	6.7	7.0	16.2	14.7	15.4	20.6	20.0	20.3
20	6.5	6.2	6.2	8.1	7.0	7.5	16.9	15.5	16.2	20.6	18.5	19.6
21	6.9	6.2	6.4	8.6	7.4	8.1	17.7	16.4	16.9	18.8	17.1	17.9
22	9.1	6.9	8.0	8.8	8.1	8.4	17.6	17.2	17.4	17.9	16.7	17.3
23	9.4	9.1	9.2	9.5	8.8	9.1	17.6	16.1	16.8	18.6	17.6	18.0
24	9.3	9.0	9.1	9.5	9.3	9.4	16.1	15.0	15.3	18.6	17.9	18.2
25	9.0	8.2	8.6	10.6	9.2	9.9	15.0	14.2	14.7	18.6	18.1	18.3
26	8.2	7.5	7.8	11.6	10.3	10.9	14.9	13.7	14.2	18.9	17.8	18.3
27	7.9	7.3	7.5	12.0	11.2	11.6	13.7	13.1	13.3	19.7	18.8	19.2
28	7.4	7.0	7.1	12.0	11.5	11.7	13.3	12.5	12.7	20.4	19.4	19.8
29	---	---	---	11.8	11.3	11.6	12.5	11.4	12.1	20.2	19.7	19.9
30	---	---	---	11.9	10.7	11.3	12.2	11.4	11.9	20.1	19.4	19.7
31	---	---	---	12.4	11.7	12.0	---	---	---	21.0	19.8	20.3
MONTH	9.4	4.2	6.8	12.4	4.6	7.8	17.7	9.2	14.0	21.0	11.5	17.3



03410600 SOUTH FORK CUMBERLAND RIVER AT YAMACRAW, KY—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	6.5	4.2	5.5	---	---	---	10.9	9.5	10.5	---	---	---
2	6.4	3.9	5.2	---	---	---	10.9	8.8	9.9	---	---	---
3	6.4	4.1	5.1	---	---	---	9.6	8.7	9.2	---	---	---
4	6.6	4.5	5.7	---	---	---	9.6	8.9	9.3	---	---	---
5	6.7	4.5	5.7	---	---	---	9.8	8.8	9.3	---	---	---
6	7.0	4.6	6.0	---	---	---	9.4	8.6	9.1	---	---	---
7	7.0	5.1	6.3	---	---	---	---	---	---	---	---	---
8	7.0	4.7	5.9	---	---	---	---	---	---	---	---	---
9	6.6	4.8	5.8	---	---	---	---	---	---	---	---	---
10	6.8	4.7	5.7	---	---	---	---	---	---	---	---	---
11	6.8	4.9	6.1	---	---	---	---	---	---	---	---	---
12	6.7	4.7	5.8	---	---	---	---	---	---	---	---	---
13	6.1	4.6	5.4	---	---	---	---	---	---	---	---	---
14	6.5	4.4	5.8	---	---	---	---	---	---	---	---	---
15	6.5	5.4	6.0	---	---	---	---	---	---	---	---	---
16	7.8	5.7	6.6	---	---	---	---	---	---	---	---	---
17	7.5	5.4	6.7	11.1	10.9	11.0	---	---	---	---	---	---
18	8.7	5.9	7.0	11.0	10.7	10.9	---	---	---	---	---	---
19	---	---	---	10.8	10.4	10.6	---	---	---	---	---	---
20	---	---	---	10.4	10.2	10.3	---	---	---	---	---	---
21	---	---	---	10.2	10.1	10.2	---	---	---	---	---	---
22	---	---	---	10.2	10.0	10.1	---	---	---	---	---	---
23	---	---	---	10.0	9.7	9.8	---	---	---	---	---	---
24	---	---	---	9.8	9.6	9.7	---	---	---	---	---	---
25	---	---	---	9.9	9.6	9.8	---	---	---	---	---	---
26	---	---	---	9.8	9.4	9.6	---	---	---	---	---	---
27	---	---	---	9.9	9.6	9.8	---	---	---	---	---	---
28	---	---	---	10.0	9.8	9.9	---	---	---	---	---	---
29	---	---	---	10.1	9.7	9.9	---	---	---	---	---	---
30	---	---	---	10.4	9.0	9.6	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH												
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	10.6	10.3	10.4
2	---	---	---	---	---	---	---	---	---	10.5	10.2	10.4
3	---	---	---	---	---	---	---	---	---	10.5	10.2	10.4
4	---	---	---	---	---	---	---	---	---	10.4	10.1	10.3
5	---	---	---	---	---	---	---	---	---	10.2	10.0	10.2
6	---	---	---	---	---	---	---	---	---	10.2	9.8	10.1
7	---	---	---	---	---	---	---	---	---	9.8	9.6	9.7
8	---	---	---	---	---	---	---	---	---	9.7	9.4	9.5
9	---	---	---	---	---	---	---	---	---	9.5	9.1	9.2
10	---	---	---	---	---	---	---	---	---	9.1	8.8	8.9
11	---	---	---	---	---	---	---	---	---	8.9	8.6	8.8
12	---	---	---	---	---	---	---	---	---	8.7	8.0	8.4
13	---	---	---	---	---	---	---	---	---	8.4	6.8	7.7
14	---	---	---	---	---	---	---	---	---	7.3	6.2	6.8
15	---	---	---	---	---	---	10.6	8.9	10.1	7.3	6.4	6.8
16	---	---	---	---	---	---	10.7	10.4	10.5	8.0	6.8	7.2
17	---	---	---	---	---	---	10.5	10.3	10.4	8.5	6.7	7.8
18	---	---	---	---	---	---	10.3	9.5	10.0	7.5	6.6	7.1
19	---	---	---	---	---	---	9.8	9.4	9.6	7.3	6.2	6.9
20	---	---	---	---	---	---	9.6	9.1	9.3	8.9	6.2	8.0
21	---	---	---	---	---	---	9.3	8.9	9.1	9.2	8.8	9.0
22	---	---	---	---	---	---	8.9	8.4	8.7	9.2	8.7	9.0
23	---	---	---	---	---	---	8.9	8.4	8.6	8.8	8.4	8.6
24	---	---	---	---	---	---	9.3	8.8	9.1	8.5	8.4	8.4
25	---	---	---	---	---	---	9.5	9.2	9.3	8.6	8.3	8.5
26	---	---	---	---	---	---	9.4	9.0	9.2	8.8	8.3	8.5
27	---	---	---	---	---	---	9.8	9.1	9.4	8.8	8.1	8.4
28	---	---	---	---	---	---	10.0	9.5	9.7	8.6	7.7	8.2
29	---	---	---	---	---	---	10.8	9.6	10.2	8.4	7.0	7.9
30	---	---	---	---	---	---	10.8	10.4	10.5	8.3	7.2	7.9
31	---	---	---	---	---	---	---	---	---	8.3	7.6	8.0
MONTH										10.6	6.2	8.6



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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<sup>2</sup>.

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.

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

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<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov 30	2330	2,010	6.67	Apr 30	0700	*2,290	*7.21

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

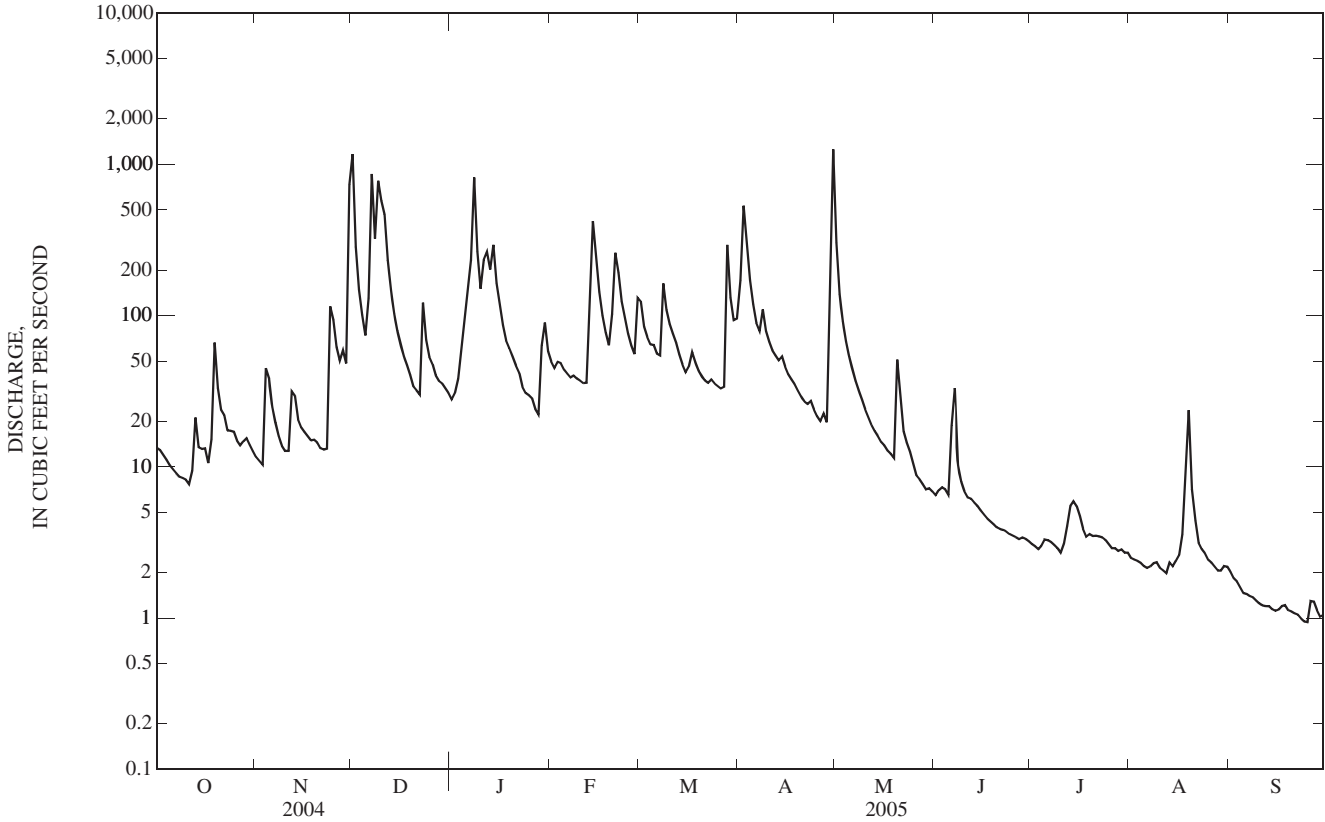
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	12	1,170	28	50	124	171	302	6.5	3.1	2.5	2.0
2	13	11	286	31	45	84	533	139	7.0	3.0	2.4	1.8
3	12	10	149	38	49	72	313	92	7.3	2.9	2.4	1.7
4	11	45	101	58	49	64	172	67	7.1	3.0	2.3	1.6
5	10	38	74	92	44	64	119	53	6.5	3.3	2.2	1.5
6	9.6	25	130	141	41	56	90	44	19	3.3	2.1	1.4
7	9.1	20	864	233	39	55	79	37	33	3.2	2.2	1.4
8	8.6	16	322	818	40	163	110	32	10	3.0	2.3	1.4
9	8.4	14	780	266	38	109	79	28	8.0	2.9	2.3	1.3
10	8.2	13	574	151	37	88	67	24	6.9	2.7	2.2	1.2
11	7.7	13	465	234	36	76	59	21	6.3	3.1	2.1	1.2
12	9.4	32	233	264	36	66	54	19	6.1	4.1	2.0	1.2
13	21	29	148	201	151	55	51	17	5.8	5.5	2.3	1.2
14	13	21	103	294	421	47	54	16	5.5	5.9	2.2	1.1
15	13	18	79	163	236	42	46	15	5.2	5.5	2.4	1.1
16	13	17	65	118	144	46	41	14	4.8	4.7	2.6	1.1
17	11	16	54	87	100	57	38	13	4.6	3.9	3.6	1.2
18	15	15	47	69	77	49	35	12	4.4	3.5	9.3	1.2
19	66	15	41	61	64	43	32	11	4.2	3.6	24	1.1
20	33	14	34	53	103	40	29	51	4.0	3.5	7.1	1.1
21	24	13	32	47	260	37	27	29	3.9	3.5	4.4	1.1
22	22	13	30	42	192	36	26	17	3.8	3.5	3.2	1.1
23	17	13	122	34	124	38	27	14	3.7	3.4	2.9	1.00
24	17	115	69	31	97	36	24	13	3.6	3.3	2.7	0.95
25	17	93	53	30	76	34	22	10	3.5	3.1	2.4	0.94
26	15	62	48	28	63	33	20	8.8	3.4	2.9	2.3	1.3
27	14	50	40	24	56	34	22	8.3	3.3	2.9	2.2	1.3
28	15	59	37	22	131	292	20	7.7	3.4	2.8	2.1	1.1
29	15	48	36	63	---	132	89	7.1	3.3	2.8	2.1	1.0
30	14	736	33	90	---	93	1,260	7.2	3.2	2.7	2.2	1.0
31	13	---	31	58	---	95	---	6.9	---	2.7	2.2	---
TOTAL	488.0	1,596	6,250	3,869	2,799	2,260	3,709	1,136.0	197.3	107.3	109.2	37.59
MEAN	15.7	53.2	202	125	100	72.9	124	36.6	6.58	3.46	3.52	1.25
MAX	66	736	1,170	818	421	292	1,260	302	33	5.9	24	2.0
MIN	7.7	10	30	22	36	33	20	6.9	3.2	2.7	2.0	0.94
CFSM	0.36	1.23	4.65	2.88	2.30	1.68	2.85	0.84	0.15	0.08	0.08	0.03
IN.	0.42	1.37	5.36	3.32	2.40	1.94	3.18	0.97	0.17	0.09	0.09	0.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2005, BY WATER YEAR (WY)

MEAN	16.6	30.2	85.4	94.7	120	118	87.7	44.3	36.2	13.3	13.6	18.1
MAX	164	99.3	306	155	281	299	242	114	151	37.5	82.2	117
(WY)	(1990)	(2004)	(1991)	(1994)	(2003)	(1997)	(1998)	(1995)	(1998)	(2001)	(2003)	(2004)
MIN	1.49	2.08	8.31	26.7	42.4	35.0	21.4	11.0	6.58	3.46	1.91	1.25
(WY)	(2000)	(2001)	(1998)	(2000)	(2002)	(2003)	(1995)	(2001)	(2005)	(2005)	(1990)	(2005)

03413200 BEAVER CREEK NEAR MONTICELLO, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1990 - 2005	
ANNUAL TOTAL	32,465.8		22,558.39		56.2	
ANNUAL MEAN	88.7		61.8		24.7	
HIGHEST ANNUAL MEAN					82.7	2004
LOWEST ANNUAL MEAN					24.7	2000
HIGHEST DAILY MEAN	2,140	Feb 6	1,260	Apr 30	2,200	Feb 16, 2003
LOWEST DAILY MEAN	5.3	Jul 30	0.94	Sep 25	0.94	Sep 25, 2005
ANNUAL SEVEN-DAY MINIMUM	6.0	Jul 19	1.0	Sep 19	1.0	Sep 19, 2005
MAXIMUM PEAK FLOW			2,290	Apr 30	3,880	Sep 17, 2004
MAXIMUM PEAK STAGE			7.21	Apr 30	10.05	Sep 17, 2004
INSTANTANEOUS LOW FLOW					0.50	Oct 2, 1968
ANNUAL RUNOFF (CFSM)	2.04		1.42		1.30	
ANNUAL RUNOFF (INCHES)	27.83		19.34		17.61	
10 PERCENT EXCEEDS	174		135		122	
50 PERCENT EXCEEDS	32		20		18	
90 PERCENT EXCEEDS	9.6		2.2		2.4	



CUMBERLAND RIVER BASIN

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<sup>2</sup>, of which about 94 mi<sup>2</sup> does not contribute directly to surface runoff.

WATER DISCHARGE RECORDS

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, non-recording 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.

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan 3	0030	3,880	11.36	Aug 7	0700	6,060	14.57
Mar 28	1130	4,220	11.88	Aug 30	2030	*11,600	*19.70

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	78	1,690	1,950	361	423	719	1,220	121	63	61	2,410
2	42	174	968	2,300	342	387	705	791	127	60	62	1,580
3	40	381	746	2,630	365	349	644	623	140	57	61	1,280
4	41	285	641	1,830	399	330	566	526	123	71	57	1,030
5	40	224	568	2,110	369	313	512	461	113	93	53	854
6	39	192	1,210	2,450	352	281	472	419	106	103	49	712
7	35	171	1,850	2,130	341	291	578	376	100	74	47	552
8	35	153	1,490	2,460	342	630	983	344	96	63	50	488
9	35	135	1,000	1,630	342	595	846	317	114	56	51	434
10	34	124	1,030	1,260	332	474	674	295	113	53	49	385
11	33	139	827	1,070	314	423	583	278	95	57	43	340
12	43	814	705	988	301	390	533	259	130	60	41	305
13	42	549	624	982	381	357	503	241	270	93	37	275
14	57	384	552	1,390	919	324	465	242	202	143	34	250
15	49	320	495	1,000	745	296	428	262	151	119	37	231
16	45	280	463	837	606	277	391	228	129	475	45	220
17	45	251	435	723	526	264	361	207	115	240	79	205
18	48	227	408	642	466	251	339	192	104	200	117	189
19	108	214	384	596	424	238	320	181	97	166	289	177
20	105	207	356	560	401	225	301	534	91	129	111	167
21	84	189	342	526	467	215	284	424	86	110	74	157
22	66	173	469	487	695	212	284	276	82	103	60	149
23	63	196	771	447	539	222	322	231	78	94	54	143
24	85	786	574	416	475	253	279	206	75	86	50	134
25	124	916	492	400	432	241	256	182	72	75	45	150
26	92	566	450	382	397	222	247	168	74	71	208	203
27	105	477	411	358	371	757	248	157	69	67	1,270	210
28	108	560	381	337	367	3,600	250	144	67	63	407	161
29	91	514	410	338	---	1,760	300	134	67	72	4,420	145
30	83	918	853	383	---	1,140	2,010	127	66	69	9,890	130
31	74	---	1,910	392	---	870	---	121	---	65	9,230	---
TOTAL	1,938	10,597	23,505	34,004	12,371	16,610	15,403	10,166	3,273	3,250	27,081	13,666
MEAN	62.5	353	758	1,097	442	536	513	328	109	105	874	456
MAX	124	918	1,910	2,630	919	3,600	2,010	1,220	270	475	9,890	2,410
MIN	33	78	342	337	301	212	247	121	66	53	34	130
CFSM	0.26	1.45	3.11	4.50	1.81	2.20	2.10	1.34	0.45	0.43	3.58	1.87
IN.	0.30	1.62	3.58	5.18	1.89	2.53	2.35	1.55	0.50	0.50	4.13	2.08

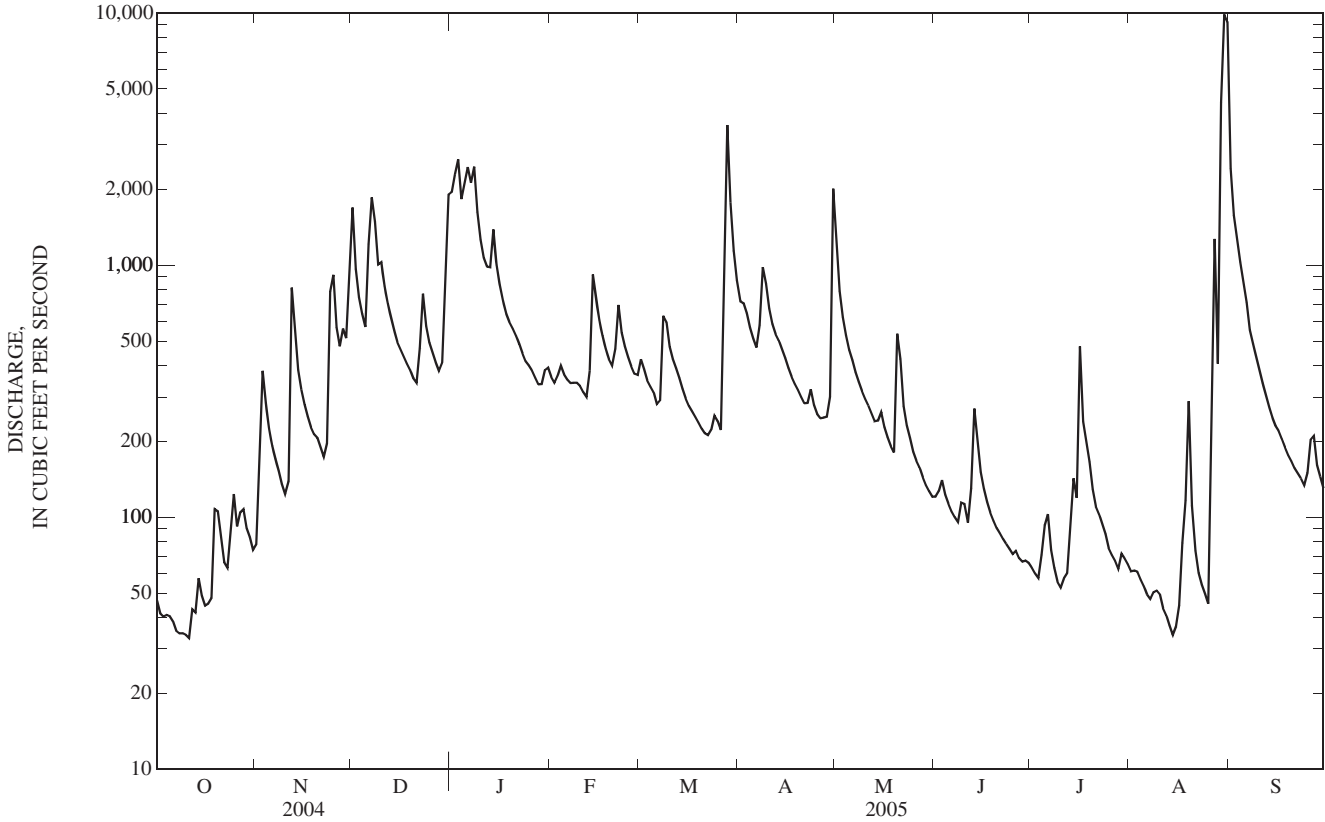
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2005, BY WATER YEAR (WY)

MEAN	75.6	216	471	559	683	748	550	441	226	145	109	108
MAX	609	1,677	1,985	2,168	2,130	3,653	1,924	1,875	1,498	790	874	925
(WY)	(2003)	(1958)	(1979)	(1950)	(1989)	(1997)	(1979)	(1984)	(1998)	(1989)	(2005)	(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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1940 - 2005	
ANNUAL TOTAL	127,067		171,864		360	
ANNUAL MEAN	347		471		757	
HIGHEST ANNUAL MEAN					1997	
LOWEST ANNUAL MEAN					1941	
HIGHEST DAILY MEAN	2,670	Apr 24	9,890	Aug 30	24,300	Mar 2, 1997
LOWEST DAILY MEAN	33	Oct 11	33	Oct 11	3.6	Oct 3, 1941
ANNUAL SEVEN-DAY MINIMUM	36	Oct 5	36	Oct 5	7.0	Oct 24, 1940
MAXIMUM PEAK FLOW			11,600	Aug 30	37,600	Mar 1, 1997
MAXIMUM PEAK STAGE			19.54	Aug 30	26.44	Mar 1, 1997
INSTANTANEOUS LOW FLOW					1.0	Oct 3, 1941
ANNUAL RUNOFF (CFSM)	1.42		1.93		1.47	
ANNUAL RUNOFF (INCHES)	19.37		26.20		20.03	
10 PERCENT EXCEEDS	756		974		836	
50 PERCENT EXCEEDS	226		277		145	
90 PERCENT EXCEEDS	67		57		28	









## 03438500 CUMBERLAND RIVER AT SMITHLAND, KY—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Tri- allate, water, fltrd 0.7u GF ug/L (82678)	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)	Uranium natural water, fltrd, ug/L (22703)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concent- ration mg/L (80154)
DEC 15...	<0.006	<0.009	0.19	96	25
MAR 08...	<.006	<.009	.12	99	27
APR 20...	<.006	<.009	--	94	20
20...	<.006	<.009	--	94	20
JUN 13...	<.006	<.009	.19	96	62
13...	--	--	<.04	--	--
AUG 11...	<.006	<.009	.16	97	18
11...	--	--	--	--	--

E--Laboratory estimated value.

M--Presence of material verified but not quantified.

&lt;--Numeric result is less than the value shown.



03609750 TENNESSEE RIVER AT HIGHWAY 60 NEAR PADUCAH, KY—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)	Arsenic water, fltrd, ug/L (01000)
NOV 19...	0.46	0.013	0.04	0.058	0.070	0.09	0.2	<0.1	0.2	2.2	E1.5	E1.1	0.7
FEB 03...	.53	E.007	.07	.032	.041	.06	.5	<.1	.5	1.9	--	--	.4
03...	.020	<.002	--	<.006	--	--	--	--	--	--	--	--	--
APR 07...	.34	E.004	.14	.006	.012	.04	.7	<.1	.7	1.5	3.1	8.8	.5
07...	--	--	<.02	--	--	--	<.1	<.1	<.1	E0.3	--	--	--
MAY 26...	.09	.014	.17	<.006	.009	.05	.8	<.1	.8	2.6	4.6	7.3	.5
26...	.09	.014	.17	<.006	.009	.05	.9	<.1	.8	2.2	6.4	7.2	.5
JUL 06...	.10	<.008	.15	.007	.021	.04	.9	<.1	.9	2.5	E3.6	E5.7	.9
06...	--	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Boron, water, fltrd, ug/L (01020)	Iron, water, fltrd, ug/L (01046)	Lithium water, fltrd, ug/L (01130)	Selenium, water, fltrd, ug/L (01145)	Strontium, water, fltrd, ug/L (01080)	Vanadium, water, fltrd, ug/L (01085)	2,6-Diethyl-aniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Aceto-chlor, water, fltrd, ug/L (49260)	Ala-chlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl, water, fltrd 0.7u GF ug/L (82686)
NOV 19...	17	9	0.8	<0.4	58.2	0.8	<0.006	E0.006	<0.006	<0.005	<0.005	0.028	<0.050
FEB 03...	17	17	1.2	<.4	58.3	1.1	<.006	E.006	<.006	<.005	<.005	.015	<.050
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 07...	16	10	.9	E.2	75.3	.4	<.006	<.006	<.006	<.005	<.005	.013	<.050
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 26...	18	7	1.0	E.3	43.7	.5	<.006	E.019	<.006	<.005	<.005	.280	<.050
26...	16	E6	.9	E.2	42.9	.5	<.006	E.020	<.006	<.005	<.005	.268	<.050
JUL 06...	21	6	.6	E.2	63.4	.8	<.006	E.026	<.006	<.005	<.005	.286	<.050
06...	--	--	--	--	--	--	<.006	<.006	<.006	<.005	<.005	<.007	<.050

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Ben-flur-alin, water, fltrd 0.7u GF ug/L (82673)	Butyl-ate, water, fltrd, ug/L (04028)	Car-baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo-furan, water, fltrd 0.7u GF ug/L (82674)	Chlor-pyrifos water, fltrd, ug/L (38933)	cis-Per-methrin water fltrd 0.7u GF ug/L (82687)	Cyana-zine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)	Diazi-non, water, fltrd, ug/L (39572)	Diel-drin, water, fltrd, ug/L (39381)	Disul-foton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethal-flur-alin, water, fltrd 0.7u GF ug/L (82663)
NOV 19...	<0.010	<0.004	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<0.02	<0.004	<0.009
FEB 03...	<0.010	<0.004	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<0.02	<0.004	<0.009
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 07...	<0.010	<0.004	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<0.02	<0.004	<0.009
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 26...	<0.010	<0.004	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<0.02	<0.004	<0.009
26...	<0.010	<0.004	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<0.02	<0.004	<0.009
JUL 06...	<0.010	<0.004	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<0.02	<0.004	<0.009
06...	<0.010	<0.004	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<0.02	<0.004	<0.009

## 03609750 TENNESSEE RIVER AT HIGHWAY 60 NEAR PADUCAH, KY—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Etho- prop, water, fltrd 0.7u GF (82672)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl para- thion, water, fltrd 0.7u GF (82667)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)	Moli- nate, water, fltrd 0.7u GF (82671)	Naprop- amide, water, fltrd 0.7u GF (82684)	p,p'- DDE, water, fltrd, ug/L (34653)	Para- thion, water, fltrd, ug/L (39542)	Peb- ulate, water, fltrd 0.7u GF (82669)
NOV 19...	<0.005	<0.003	<0.004	<0.035	<0.027	<0.015	0.008	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004
FEB 03...	<.005	<.003	<.004	<.035	<.027	<.015	E.003	<.006	<.003	<.007	<.003	<.010	<.004
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 07...	<.005	<.003	<.004	<.035	<.027	<.015	<.006	<.006	<.003	<.007	<.003	<.010	<.004
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 26...	<.005	<.003	<.004	<.035	<.027	<.015	.038	<.006	<.003	<.007	<.003	<.010	<.004
26...	<.005	<.003	<.004	<.035	<.027	<.015	.037	<.006	<.003	<.007	<.003	<.010	<.004
JUL 06...	<.005	<.003	<.004	<.035	<.027	<.015	.058	<.006	<.003	<.007	<.003	<.010	<.004
06...	<.005	<.003	<.004	<.035	<.027	<.015	<.006	<.006	<.003	<.007	<.003	<.010	<.004

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Pendi- meth- alin, water, fltrd 0.7u GF (82683)	Phorate water fltrd 0.7u GF (82664)	Prome- ton, water, fltrd, ug/L (04037)	Propy- zamide, water, fltrd 0.7u GF (82676)	Propa- chlor, water, fltrd, ug/L (04024)	Pro- panil, water, fltrd 0.7u GF (82679)	Propar- gite, water, fltrd 0.7u GF (82685)	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd 0.7u GF (82670)	Terba- cil, water, fltrd 0.7u GF (82665)	Terbu- fos, water, fltrd 0.7u GF (82675)	Thio- bencarb water fltrd 0.7u GF (82681)	Tri- allate, water, fltrd 0.7u GF (82678)
NOV 19...	<0.022	<0.011	<0.01	<0.004	<0.025	<0.011	<0.02	0.020	<0.02	<0.034	<0.02	<0.010	<0.006
FEB 03...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.012	<.02	<.034	<.02	<.010	<.006
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 07...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.022	<.02	<.034	<.02	<.010	<.006
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 26...	<.022	<.011	M	<.004	<.025	<.011	<.02	.048	E.01	<.034	<.02	<.010	<.006
26...	<.022	<.011	M	<.004	<.025	<.011	<.02	.046	E.01	<.034	<.02	<.010	<.006
JUL 06...	<.022	<.011	M	<.004	<.025	<.011	<.02	.025	.02	<.034	<.02	<.010	<.006
06...	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.006

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Tri- flur- alin, water, fltrd 0.7u GF (82661)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)
NOV 19...	<0.009	99	5
FEB 03...	<.009	100	5
03...	--	--	--
APR 07...	<.009	99	17
07...	--	--	--
MAY 26...	<.009	98	7
26...	<.009	99	8
JUL 06...	<.009	96	5
06...	<.009	--	--

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



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## 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<sup>2</sup>.

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

GAGE.--Water-stage recorder with telemetry and crest-stage gage. Datum of gage is 413.46 ft above NGVD of 1929.

REMARKS.--Records fair 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 4,000 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov 2	1715	6,780	14.99	Jun 12	2030	5,870	14.58
Dec 7	1200	4,180	13.64	Aug 30	2300	*8,620	*15.64
Mar 28	0615	5,850	14.57				

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	291	739	377	58	60	109	209	28	31	24	149
2	7.0	5,040	201	1,160	70	54	104	113	70	30	23	96
3	6.6	887	137	402	128	52	81	78	38	29	23	67
4	e7.6	156	112	502	87	51	69	62	30	28	23	52
5	e6.4	94	145	351	70	50	61	53	26	31	23	43
6	e6.2	67	1,540	1,850	62	46	102	48	24	28	87	38
7	e6.1	52	2,420	739	66	62	802	43	23	28	37	34
8	8.2	42	329	1,010	94	192	269	39	23	27	17	30
9	e8.8	34	192	248	81	90	142	35	30	28	14	27
10	8.7	30	161	172	68	67	102	37	23	27	14	24
11	13	70	126	143	59	60	87	33	22	55	12	22
12	39	182	106	128	55	55	127	31	3,210	74	11	20
13	15	60	90	772	353	53	126	30	833	79	9.9	19
14	e13	38	76	332	309	50	180	300	133	76	13	18
15	e14	31	69	149	147	46	84	110	94	186	32	23
16	e14	28	65	116	103	46	63	46	74	166	22	22
17	e15	26	61	93	79	45	54	37	64	407	63	17
18	42	25	59	80	68	43	50	33	57	108	36	15
19	354	47	56	76	62	41	45	32	51	56	19	15
20	e37	40	53	74	67	40	42	46	47	49	13	15
21	e17	31	52	71	199	39	47	34	44	41	11	14
22	e16	27	759	66	164	55	224	29	42	37	11	13
23	197	291	274	58	94	107	107	28	40	33	10	13
24	175	882	142	55	77	67	52	28	37	31	10	12
25	30	184	104	56	67	53	43	26	35	29	10	20
26	27	73	86	57	61	48	52	25	35	28	41	28
27	35	135	75	53	57	1,140	48	24	40	27	114	15
28	32	361	74	51	62	3,220	49	23	35	26	95	13
29	25	97	486	67	---	298	201	22	34	25	1,130	13
30	21	1,690	1,770	75	---	167	1,980	22	32	24	4,960	11
31	18	---	1,230	63	---	131	---	22	---	23	1,890	---
TOTAL	1,221.4	11,011	11,789	9,446	2,867	6,528	5,502	1,698	5,274	1,867	8,797.9	898
MEAN	39.4	367	380	305	102	211	183	54.8	176	60.2	284	29.9
MAX	354	5,040	2,420	1,850	353	3,220	1,980	300	3,210	407	4,960	149
MIN	6.1	25	52	51	55	39	42	22	22	23	9.9	11
CFSM	0.29	2.74	2.84	2.27	0.76	1.57	1.37	0.41	1.31	0.45	2.12	0.22
IN.	0.34	3.06	3.27	2.62	0.80	1.81	1.53	0.47	1.46	0.52	2.44	0.25

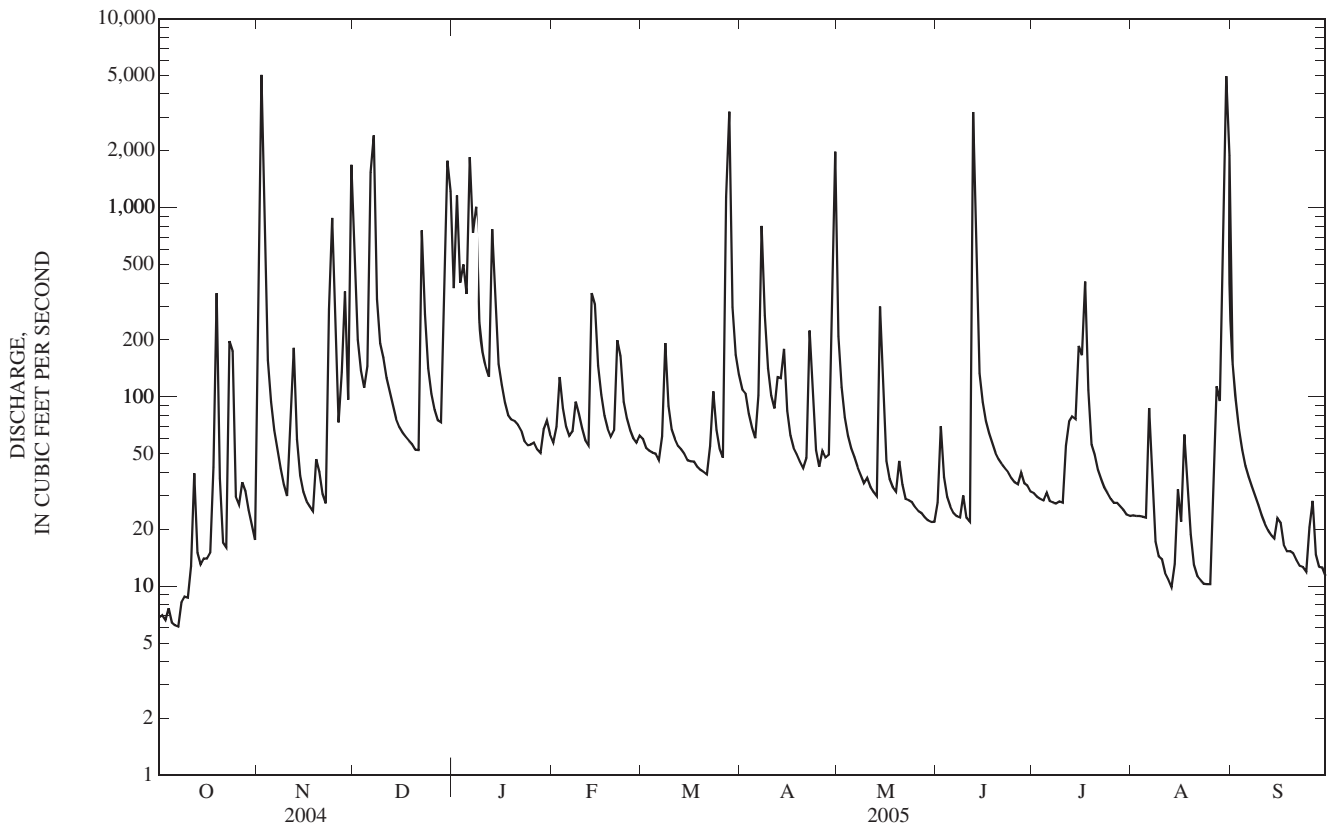
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2005, BY WATER YEAR (WY)

	MEAN	MAX	MIN	CFSM	IN.
(WY)	57.2	258	2.96	0.29	0.34
(1983)	190	1,039	7.43	2.74	3.06
(1984)	338	1,097	24.4	2.84	3.27
(1985)	220	583	27.1	2.27	2.62
(1986)	391	1,693	65.5	0.76	0.80
(1987)	267	1,336	61.7	1.57	1.81
(1988)	232	623	21.6	1.37	1.53
(1989)	245	925	12.4	0.41	0.47
(1990)	130	667	3.88	1.31	1.46
(1991)	65.8	264	4.95	0.45	0.52
(1992)	53.2	377	2.40	2.12	2.44
(1993)	40.9	357	2.36	0.22	0.25

03610200 CLARKS RIVER AT ALMO, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1983 - 2005	
ANNUAL TOTAL	58,338.3		66,899.3			
ANNUAL MEAN	159		183		185	
HIGHEST ANNUAL MEAN					405	2002
LOWEST ANNUAL MEAN					69.8	1987
HIGHEST DAILY MEAN	5,040	Nov 2	5,040	Nov 2	14,000	Mar 2, 1997
LOWEST DAILY MEAN	5.9	Aug 17	6.1	Oct 7	1.6	Aug 29, 1983
ANNUAL SEVEN-DAY MINIMUM	6.3	Aug 12	6.7	Oct 1	1.7	Aug 31, 1983
MAXIMUM PEAK FLOW			8,620	Aug 30	23,300	Mar 2, 1997
MAXIMUM PEAK STAGE			15.64	Aug 30	18.35	Mar 2, 1997
ANNUAL RUNOFF (CFSM)	1.19		1.37		1.38	
ANNUAL RUNOFF (INCHES)	16.20		18.57		18.72	
10 PERCENT EXCEEDS	279		304		307	
50 PERCENT EXCEEDS	46		52		34	
90 PERCENT EXCEEDS	8.9		15		6.0	

e Estimated



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<sup>2</sup>.

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 good.

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

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Aug. 30	0915	*1,270	*9.95				

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.52	15	30	25	0.32	1.1	11	15	0.99	e1.3	0.67	6.0
2	0.60	190	13	183	0.39	0.56	11	7.9	0.99	e1.1	0.66	2.7
3	0.61	11	8.3	139	0.98	0.42	7.6	5.0	0.99	e1.0	0.68	1.5
4	0.56	5.8	5.6	168	0.39	0.35	5.9	3.7	0.92	e1.3	0.65	1.2
5	0.56	3.6	33	127	0.35	0.33	4.6	3.2	0.88	e1.5	0.60	1.0
6	0.55	3.0	43	228	0.34	0.29	11	2.9	0.84	e1.3	0.61	0.86
7	0.50	2.6	222	66	116	4.3	24	2.5	0.78	e1.2	10	0.73
8	0.53	2.2	28	49	20	5.8	23	2.1	4.0	1.2	5.3	0.66
9	0.53	2.0	20	18	8.4	0.95	11	2.1	23	1.1	0.71	0.62
10	0.53	1.9	17	12	3.2	0.56	7.3	2.0	41	1.1	0.59	0.94
11	3.1	31	14	9.5	1.2	0.43	11	2.0	21	19	0.56	0.44
12	13	34	13	7.9	0.78	0.35	23	1.9	222	51	0.55	0.19
13	2.3	6.7	12	242	37	0.32	125	1.8	40	25	0.54	0.15
14	1.7	3.8	10	24	14	0.28	25	3.5	e6.4	6.9	0.86	0.15
15	2.5	2.8	9.5	11	5.1	0.26	14	2.3	e2.0	33	2.0	0.40
16	2.3	2.6	9.2	6.4	2.0	0.24	10	2.0	e1.1	9.0	19	0.19
17	1.8	2.3	8.7	2.8	0.97	0.23	8.3	2.0	e1.0	3.8	1.7	0.16
18	15	2.7	8.2	1.8	0.46	0.22	6.5	1.7	e0.90	2.6	5.5	0.17
19	5.5	13	7.6	2.0	0.39	0.21	5.1	1.5	e0.90	3.3	3.6	0.14
20	1.9	4.9	6.9	1.5	0.38	0.20	4.4	2.3	e0.87	1.5	0.78	1.0
21	1.6	3.1	7.5	1.1	121	0.18	4.1	2.1	e0.87	2.0	0.65	0.20
22	1.5	2.6	51	0.72	16	11	115	1.8	e0.85	1.4	1.2	0.16
23	2.1	13	e8.6	0.42	7.7	13	14	1.7	e0.85	4.0	1.0	0.12
24	2.8	19	e3.9	0.40	4.2	1.6	8.1	1.5	e0.85	1.1	0.62	0.12
25	2.1	7.1	e2.8	0.42	1.9	1.3	5.3	1.5	e0.85	0.95	0.60	14
26	1.9	4.0	e2.6	0.37	1.2	0.83	5.9	1.3	e0.85	0.91	0.65	4.6
27	2.3	44	e3.4	0.28	0.81	229	3.7	1.2	e0.85	0.88	0.71	0.25
28	1.2	19	e17	0.25	1.7	273	3.9	1.1	e0.89	0.82	0.71	0.19
29	1.2	36	146	0.74	---	33	71	1.1	e1.1	0.73	2.1	4.7
30	1.4	135	74	0.52	---	18	77	1.0	e1.3	0.71	379	0.23
31	1.6	---	27	0.36	---	13	---	0.99	---	0.68	19	---
TOTAL	74.29	623.7	862.8	1,329.48	367.16	611.31	656.7	82.69	379.82	181.38	461.80	43.77
MEAN	2.40	20.8	27.8	42.9	13.1	19.7	21.9	2.67	12.7	5.85	14.9	1.46
MAX	15	190	222	242	121	273	125	15	222	51	379	14
MIN	0.50	1.9	2.6	0.25	0.32	0.18	3.7	0.99	0.78	0.68	0.54	0.12

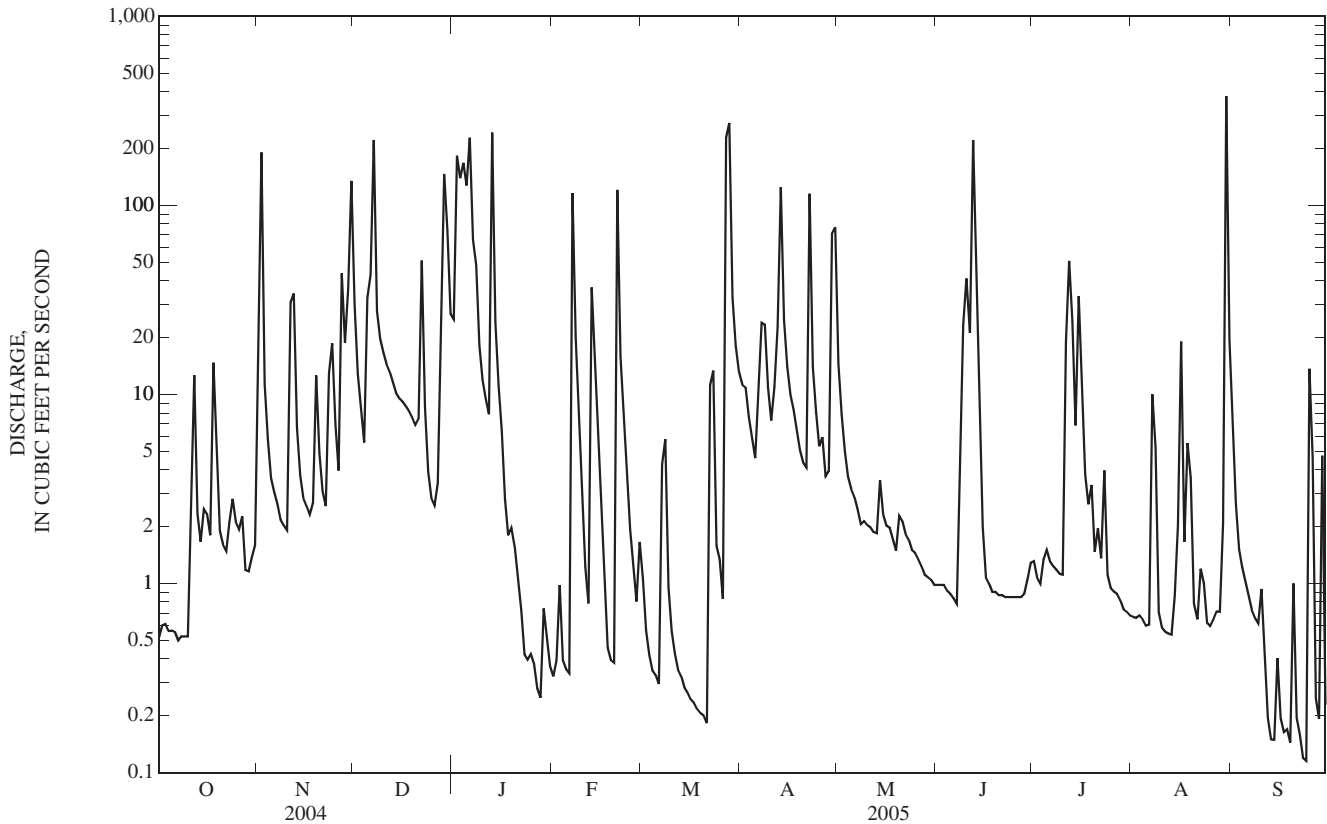
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2005, BY WATER YEAR (WY)

MEAN	3.47	15.3	28.1	23.8	34.8	30.0	29.6	19.9	10.5	8.00	3.14	4.05
MAX	19.4	70.8	105	65.8	160	109	121	102	53.8	37.3	14.9	50.1
(WY)	(1986)	(1997)	(1983)	(2000)	(1989)	(1997)	(1973)	(2002)	(1998)	(1983)	(2005)	(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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1972 - 2005	
ANNUAL TOTAL	4,642.21		5,674.90		17.5	
ANNUAL MEAN	12.7		15.5		37.9	
HIGHEST ANNUAL MEAN					1979	
LOWEST ANNUAL MEAN					6.54	
HIGHEST DAILY MEAN	352	Jun 16	379	Aug 30	1,910	Jan 3, 2000
LOWEST DAILY MEAN	0.38	Jul 29	0.12	Sep 23	0.09	Nov 13, 1971
ANNUAL SEVEN-DAY MINIMUM	0.43	Aug 13	0.19	Sep 13	0.10	Nov 10, 1971
MAXIMUM PEAK FLOW			1,270	Aug 30	5,990	Sep 5, 1985
MAXIMUM PEAK STAGE			9.95	Aug 30	15.86	Sep 5, 1985
INSTANTANEOUS LOW FLOW			0.50	Oct 7	0.06	Nov 14, 1971
10 PERCENT EXCEEDS	30		30		28	
50 PERCENT EXCEEDS	2.6		2.0		2.2	
90 PERCENT EXCEEDS	0.53		0.39		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<sup>2</sup>, 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 with telemetry. 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 those below 100,000 ft<sup>3</sup>/s and those estimated, 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 and National Stream Quality Accounting Network.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	132,000	e179,000	546,000	457,000	495,000	553,000	567,000	419,000	92,200	e83,600	e75,000	e276,000
2	208,000	e194,000	606,000	507,000	e447,000	518,000	e569,000	445,000	67,700	e103,000	e90,000	296,000
3	223,000	e219,000	645,000	529,000	412,000	e499,000	572,000	e457,000	109,000	e58,900	e110,000	e250,000
4	217,000	e261,000	687,000	e537,000	393,000	481,000	592,000	470,000	e116,000	e110,000	115,000	e190,000
5	212,000	e312,000	711,000	547,000	349,000	442,000	605,000	462,000	e70,000	e49,200	e95,000	e155,000
6	173,000	e388,000	734,000	598,000	335,000	441,000	e617,000	459,000	e112,000	e85,000	e75,000	e139,000
7	e130,000	e403,000	768,000	652,000	352,000	405,000	629,000	e410,000	e119,000	e105,000	e52,000	e115,000
8	e109,000	e428,000	817,000	711,000	371,000	337,000	667,000	362,000	e113,000	e90,000	e65,000	127,000
9	e116,000	e440,000	855,000	776,000	380,000	e323,000	710,000	263,000	e127,000	e130,000	e86,100	e103,000
10	e130,000	e415,000	879,000	822,000	399,000	358,000	721,000	e196,000	e131,000	e150,000	e89,900	e85,000
11	e140,000	e312,000	862,000	850,000	408,000	397,000	715,000	e174,000	e170,000	e230,000	e75,000	e73,000
12	e141,000	e267,000	846,000	890,000	386,000	416,000	694,000	154,000	e137,000	e249,000	e75,000	e90,000
13	e140,000	317,000	842,000	946,000	382,000	438,000	656,000	139,000	e181,000	e160,000	e85,000	e120,000
14	e145,000	399,000	862,000	990,000	438,000	457,000	578,000	134,000	e208,000	e89,400	e70,000	e90,000
15	e148,000	408,000	872,000	1,020,000	463,000	446,000	491,000	155,000	e212,000	e115,000	e77,500	e95,000
16	e149,000	378,000	858,000	1,030,000	484,000	406,000	370,000	187,000	e198,000	e86,000	e69,500	e95,000
17	e141,000	326,000	850,000	1,000,000	509,000	336,000	288,000	206,000	e170,000	e75,000	e77,400	e80,000
18	e140,000	261,000	833,000	1,000,000	520,000	294,000	224,000	229,000	e150,000	e120,000	e65,100	e75,000
19	e170,000	230,000	800,000	1,000,000	527,000	230,000	183,000	241,000	e120,000	e135,000	e62,500	e102,000
20	e210,000	227,000	714,000	1,010,000	533,000	197,000	168,000	229,000	e99,000	e140,000	e71,200	e96,000
21	e363,000	280,000	573,000	1,020,000	544,000	241,000	143,000	213,000	e90,000	e150,000	e82,300	e79,000
22	390,000	331,000	499,000	1,030,000	538,000	243,000	137,000	232,000	e110,000	e145,000	e89,700	e102,000
23	414,000	349,000	415,000	1,030,000	568,000	221,000	159,000	263,000	e95,800	e150,000	e89,800	e95,000
24	403,000	358,000	395,000	1,020,000	593,000	219,000	163,000	287,000	e83,100	e140,000	e84,300	e95,000
25	340,000	379,000	425,000	1,010,000	601,000	216,000	184,000	e289,000	e70,000	e128,000	e75,100	e96,000
26	277,000	384,000	465,000	969,000	598,000	218,000	221,000	253,000	e60,000	e116,000	e76,400	101,000
27	e245,000	437,000	488,000	920,000	590,000	e242,000	255,000	175,000	e48,000	e105,000	e116,000	e118,000
28	e210,000	457,000	499,000	849,000	580,000	334,000	282,000	135,000	e75,400	e121,000	e140,000	e140,000
29	e202,000	471,000	477,000	740,000	---	421,000	e321,000	e100,000	e60,300	e117,000	e150,000	e116,000
30	e192,000	504,000	418,000	657,000	---	520,000	362,000	e99,000	e50,600	e85,000	e200,000	e121,000
31	e183,000	---	417,000	574,000	---	551,000	---	100,000	---	e80,000	e250,000	---
TOTAL	6,393,000	10,314,000	20,658,000	25,691,000	13,195,000	11,400,000	12,843,000	7,937,000	3,445,100	3,701,100	2,934,800	3,715,000
MEAN	206,200	343,800	666,400	828,700	471,200	367,700	428,100	256,000	114,800	119,400	94,670	123,800
MAX	414,000	504,000	879,000	1,030,000	601,000	553,000	721,000	470,000	212,000	249,000	250,000	296,000
MIN	109,000	179,000	395,000	457,000	335,000	197,000	137,000	99,000	48,000	49,200	52,000	73,000

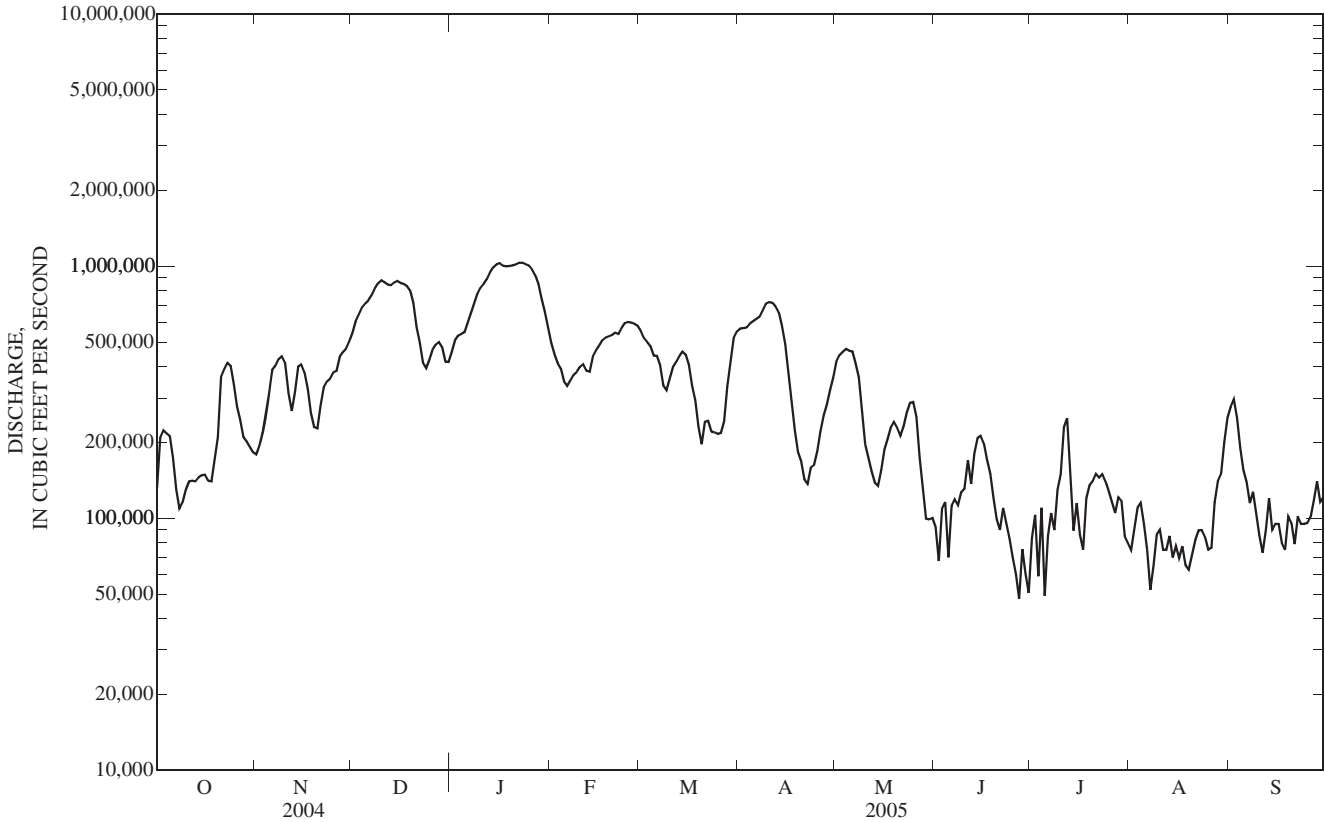
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2005, BY WATER YEAR (WY)

MEAN	106,900	169,600	298,000	399,800	469,100	519,300	453,100	342,500	223,300	154,500	123,600	105,300
MAX	335,600	450,300	717,500	1,022,000	1,217,000	1,039,000	896,400	917,800	596,400	441,200	331,100	383,500
(WY)	(1980)	(1986)	(1973)	(1937)	(1937)	(1997)	(1994)	(1983)	(1997)	(1928)	(1958)	(1979)
MIN	22,710	33,400	48,610	71,650	77,380	154,700	129,900	75,180	53,840	23,350	25,390	29,330
(WY)	(1931)	(1931)	(1931)	(1940)	(1934)	(1941)	(1986)	(1941)	(1936)	(1930)	(1930)	(1930)

03611500 OHIO RIVER AT METROPOLIS, IL—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1928 - 2005	
ANNUAL TOTAL	137,390,800		122,227,000			
ANNUAL MEAN	375,400		334,900		278,800	
HIGHEST ANNUAL MEAN					436,600	1979
LOWEST ANNUAL MEAN					120,300	1931
HIGHEST DAILY MEAN	879,000	Dec 10	1,030,000	Jan 16	1,850,000	Feb 1, 1937
LOWEST DAILY MEAN	82,000	Aug 20	48,000	Jun 27	15,000	Jul 20, 1930
ANNUAL SEVEN-DAY MINIMUM	93,900	Aug 15	63,900	Jun 24	16,600	Jul 20, 1930
MAXIMUM PEAK FLOW			1,050,000	Jan 16	1,850,000	Feb 1, 1937
MAXIMUM PEAK STAGE			55.02	Jan 16	66.60	Feb 2, 1937
10 PERCENT EXCEEDS	709,000		717,000		639,000	
50 PERCENT EXCEEDS	334,000		245,000		193,000	
90 PERCENT EXCEEDS	143,000		85,000		69,300	

e Estimated



## BAYOU CREEK BASIN

03611800 BAYOU CREEK NEAR HEATH, KY

LOCATION.--Lat 37°05'58", long 88°49'27", McCracken County, Hydrologic Unit 05140206, on left downstream wingwall of bridge on Dyke Road, 1.0 mi southwest of Paducah Gaseous Diffusion Plant, 2.0 mi northwest of Heath, 3.0 mi upstream from Brushy Creek, and at mile 7.3.

DRAINAGE AREA.--6.55 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1990 to November 1991, June 1993 to current year.

GAGE.--Water-stage recorder with telemetry. 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.

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.16	18	4.8	4.0	2.1	2.2	4.4	1.8	0.12	e0.43	0.16	0.55
2	0.18	63	0.88	58	2.3	1.8	4.5	0.92	0.13	e0.43	0.18	0.41
3	0.18	0.35	0.35	20	2.9	1.8	3.4	0.63	0.05	e0.36	0.18	0.33
4	0.18	0.05	0.17	37	2.5	1.7	3.1	0.47	0.05	e0.45	0.15	0.33
5	0.15	0.02	17	64	2.3	1.6	2.9	0.38	0.03	e0.23	0.14	0.37
6	0.16	0.02	8.8	66	2.2	1.6	6.6	0.32	0.02	0.11	0.15	0.39
7	0.16	0.02	71	14	23	2.7	29	0.30	0.02	0.08	0.57	0.39
8	0.17	0.02	1.8	13	9.2	3.5	16	0.27	0.14	0.07	0.36	0.37
9	0.20	0.02	0.68	4.3	4.3	2.3	5.8	0.34	0.23	0.06	0.22	0.35
10	0.26	0.02	0.31	3.1	2.9	2.0	3.6	0.34	0.65	0.06	0.21	0.34
11	0.55	3.0	0.14	2.6	2.3	1.8	4.2	0.26	0.60	5.3	0.22	0.32
12	2.5	2.3	0.08	2.3	2.1	1.7	41	0.21	21	49	0.26	0.30
13	0.43	0.10	0.04	91	20	1.6	80	0.33	2.0	7.8	0.24	0.30
14	0.64	0.03	0.02	8.0	10	1.5	9.7	3.0	0.61	1.3	0.36	0.32
15	1.2	0.02	0.02	3.8	4.1	1.4	4.8	0.54	0.40	0.65	0.37	0.46
16	0.48	0.02	0.03	e3.2	2.8	1.4	3.5	e0.31	0.29	0.69	0.47	0.24
17	0.44	0.02	0.04	e2.3	2.3	1.4	2.7	0.21	0.19	0.43	0.29	0.30
18	2.9	0.04	0.05	e2.1	2.0	1.4	2.4	0.17	e0.32	0.33	0.38	0.31
19	1.4	0.74	0.04	e2.2	1.8	1.4	2.0	0.17	e0.32	1.4	0.25	0.30
20	0.53	0.11	0.03	1.9	1.9	1.3	e1.8	0.32	e0.32	0.42	0.27	0.45
21	0.47	0.03	0.06	1.8	56	1.3	1.6	0.26	e0.32	0.22	0.24	0.34
22	0.47	0.03	e0.22	1.7	6.8	3.9	56	0.24	e0.32	0.15	0.31	0.32
23	2.0	1.1	e0.57	1.6	4.0	3.2	2.6	0.21	e0.32	0.12	0.18	0.32
24	1.4	0.88	e0.56	1.5	3.2	2.2	1.4	0.18	e0.33	0.12	0.21	0.30
25	0.79	0.25	e0.59	1.6	2.7	2.6	0.89	0.14	e0.34	0.12	0.22	4.1
26	3.7	0.08	e0.52	1.6	2.3	2.2	1.1	0.13	e0.34	0.11	0.33	1.5
27	1.7	11	e0.56	1.4	2.1	124	0.75	0.09	e0.34	0.13	0.28	0.27
28	1.2	1.7	e0.51	1.3	2.4	153	0.65	0.10	e0.36	0.14	0.19	0.59
29	1.2	6.2	e4.1	1.7	---	8.0	4.4	0.08	e0.39	0.13	0.29	5.3
30	1.5	33	e19	1.8	---	4.3	11	0.05	e0.44	0.13	e180	0.32
31	1.6	---	4.6	1.9	---	4.0	---	0.03	---	0.14	e8.3	---
TOTAL	28.90	142.17	137.57	420.7	182.5	344.8	311.79	12.80	30.99	71.11	195.98	20.49
MEAN	0.93	4.74	4.44	13.6	6.52	11.1	10.4	0.41	1.03	2.29	6.32	0.68
MAX	3.7	63	71	91	56	153	80	3.0	21	49	180	5.3
MIN	0.15	0.02	0.02	1.3	1.8	1.3	0.65	0.03	0.02	0.06	0.14	0.24
CFSM	0.14	0.72	0.68	2.07	1.00	1.70	1.59	0.06	0.16	0.35	0.97	0.10
IN.	0.16	0.81	0.78	2.39	1.04	1.96	1.77	0.07	0.18	0.40	1.11	0.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2005, BY WATER YEAR (WY)

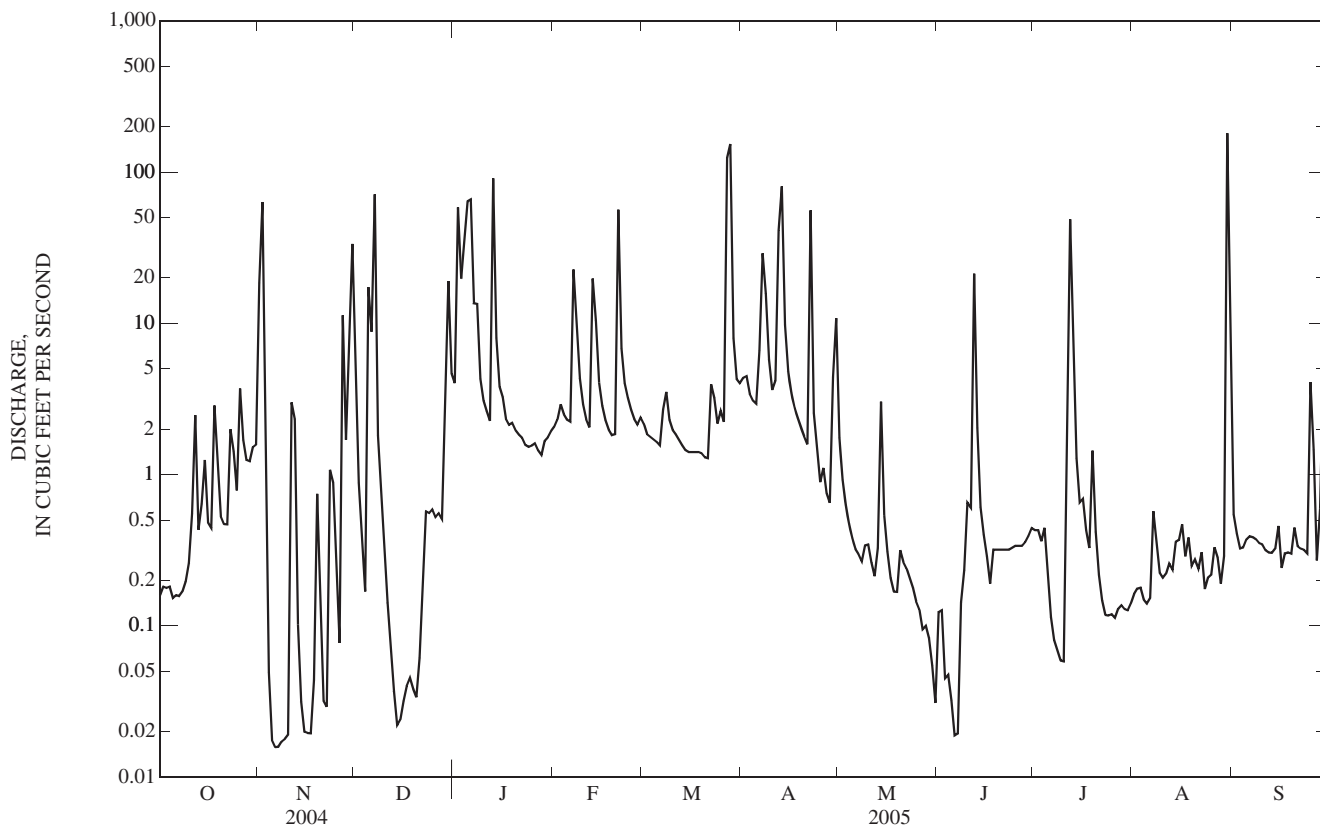
MEAN	1.66	5.26	10.4	9.88	10.9	10.1	8.44	8.58	4.00	2.44	1.70	0.84
MAX	9.97	22.8	37.2	24.4	29.2	34.9	16.6	31.2	16.6	7.59	8.31	2.73
(WY)	(2002)	(1997)	(1991)	(1999)	(2003)	(1997)	(1994)	(2002)	(1998)	(1998)	(1998)	(2002)
MIN	0.21	0.21	0.50	0.89	0.60	3.26	2.40	0.41	0.17	0.09	0.12	0.15
(WY)	(1998)	(2000)	(1998)	(2001)	(1996)	(1995)	(2004)	(2005)	(1994)	(1993)	(1993)	(1998)



03611800 BAYOU CREEK NEAR HEATH, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1991 - 2005	
ANNUAL TOTAL	958.13		1,899.80		6.21	
ANNUAL MEAN	2.62		5.20		2.23	
HIGHEST ANNUAL MEAN					13.2	2002
LOWEST ANNUAL MEAN					2.23	2004
HIGHEST DAILY MEAN	109	May 30	180	Aug 30	710	Mar 1, 1997
LOWEST DAILY MEAN	0.02	Nov 5	0.02	Nov 5	0.02	Oct 13, 2002
ANNUAL SEVEN-DAY MINIMUM	0.02	Nov 4	0.02	Nov 4	0.02	Nov 4, 2004
MAXIMUM PEAK FLOW			761	Mar 27	1,870	Mar 1, 1997
MAXIMUM PEAK STAGE			5.26	Mar 27	9.90	Mar 1, 1997
ANNUAL RUNOFF (CFSM)	0.400		0.795		0.949	
ANNUAL RUNOFF (INCHES)	5.44		10.79		12.89	
10 PERCENT EXCEEDS	4.6		7.9		6.4	
50 PERCENT EXCEEDS	0.62		0.55		0.50	
90 PERCENT EXCEEDS	0.15		0.08		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<sup>2</sup>.

PERIOD OF RECORD.--October 1990 to November 1991, June 1993 to current year.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 330 ft above NGVD of 1929 ( from topographic map).

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

COOPERATION.--Kentucky Cabinet for Health Services.

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

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov 2	0145	1,050	9.71	Mar 28	0515	1,040	9.67
Mar 27	2230	*1,200	*10.39				

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	33	106	76	12	11	19	e14	7.8	8.1	9.3	12
2	6.4	302	26	273	14	10	18	e18	8.6	7.7	9.2	11
3	6.4	25	13	178	16	9.6	16	e16	7.7	7.5	9.5	10
4	6.3	16	9.8	210	13	9.3	15	e14	7.2	14	9.5	10
5	6.3	9.9	69	234	12	9.4	14	e14	6.8	10	9.5	9.8
6	6.3	9.7	164	314	11	9.3	19	e14	6.6	7.8	9.5	11
7	6.2	9.5	307	99	121	15	71	e12	6.6	8.5	15	11
8	6.5	9.3	81	e64	62	16	50	e12	18	9.2	11	9.3
9	6.9	9.4	58	48	28	10	20	e12	16	9.1	9.9	9.1
10	6.7	10	47	36	18	9.5	15	e11	20	9.2	9.8	9.1
11	17	50	39	31	15	9.3	17	e12	18	54	9.8	8.7
12	31	50	36	24	13	9.1	94	e11	89	179	9.9	8.6
13	8.1	10	39	269	89	9.2	230	e11	13	40	9.6	8.5
14	12	8.3	34	61	50	9.0	36	e65	8.8	15	10	8.1
15	12	8.8	23	33	22	8.9	e20	e12	8.7	13	11	14
16	7.1	8.9	22	e21	18	9.2	e18	e11	7.5	11	17	8.2
17	6.7	9.2	23	e18	15	9.2	e16	11	7.3	10	11	7.8
18	16	13	21	e16	13	8.8	e15	9.8	7.2	9.8	15	7.9
19	21	28	19	16	12	8.8	e14	9.3	6.9	13	11	8.0
20	8.3	12	18	17	12	8.8	e13	13	6.8	10	11	13
21	8.0	10	17	17	150	8.7	e31	9.7	6.8	9.6	10	8.1
22	6.8	14	99	16	36	25	179	9.1	6.8	9.5	13	7.7
23	18	33	e40	14	18	15	e20	9.7	6.8	9.5	12	7.5
24	7.8	28	e28	14	14	10	e18	9.6	6.8	9.6	17	7.6
25	6.9	14	e21	17	12	14	e15	9.5	7.0	9.5	12	34
26	12	9.8	e19	17	11	11	e17	8.9	7.5	9.8	14	15
27	7.8	113	e18	13	10	265	e14	7.9	7.5	9.8	12	8.3
28	6.6	41	e17	12	11	425	e14	7.4	7.5	9.6	11	11
29	6.3	44	208	15	---	50	e61	7.2	7.5	9.7	12	43
30	8.3	272	173	13	---	28	70	7.1	8.7	9.7	285	8.2
31	6.8	---	85	13	---	33	---	7.1	---	9.4	16	---
TOTAL	299.0	1,210.8	1,879.8	2,199	828	1,084.1	1,169	395.3	351.4	551.6	631.5	345.5
MEAN	9.65	40.4	60.6	70.9	29.6	35.0	39.0	12.8	11.7	17.8	20.4	11.5
MAX	31	302	307	314	150	425	230	65	89	179	285	43
MIN	6.2	8.3	9.8	12	10	8.7	13	7.1	6.6	7.5	9.2	7.5
CFSM	0.65	2.71	4.07	4.76	1.98	2.35	2.62	0.86	0.79	1.19	1.37	0.77
IN.	0.75	3.02	4.69	5.49	2.07	2.71	2.92	0.99	0.88	1.38	1.58	0.86

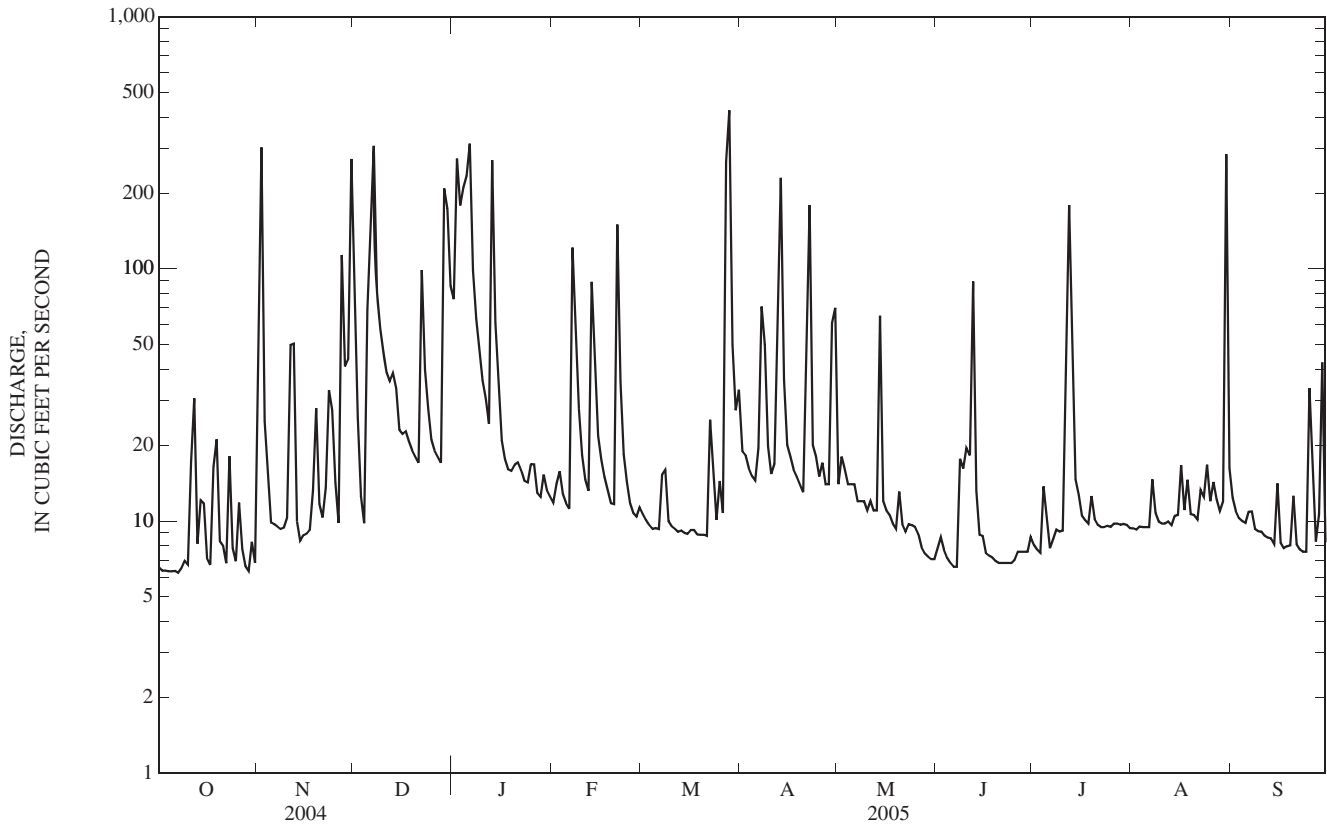
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2005, BY WATER YEAR (WY)

	10.4	21.1	33.0	31.7	33.3	30.2	29.1	27.0	17.4	13.4	12.1	9.60
MEAN	10.4	21.1	33.0	31.7	33.3	30.2	29.1	27.0	17.4	13.4	12.1	9.60
MAX	29.0	56.7	85.9	70.9	79.4	77.5	50.7	69.6	32.4	27.4	21.4	16.4
(WY)	(2002)	(1997)	(2002)	(2005)	(2003)	(1997)	(2003)	(2002)	(1998)	(2001)	(1998)	(2002)
MIN	4.87	4.32	6.66	7.02	6.13	15.0	11.9	8.86	7.56	6.37	5.64	5.11
(WY)	(2001)	(2000)	(1996)	(2001)	(1996)	(1995)	(2004)	(2001)	(1991)	(1994)	(2004)	(1997)

03611850 BAYOU CREEK NEAR GRAHAMVILLE, KY—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1991 - 2005	
ANNUAL TOTAL	8,072.5		10,945.0		22.5	
ANNUAL MEAN	22.1		30.0		14.7	
HIGHEST ANNUAL MEAN					36.8	2002
LOWEST ANNUAL MEAN					14.7	2001
HIGHEST DAILY MEAN	307	Dec 7	425	Mar 28	923	Mar 1, 1997
LOWEST DAILY MEAN	4.2	Aug 8	6.2	Oct 7	1.9	Oct 9, 1996
ANNUAL SEVEN-DAY MINIMUM	4.4	Aug 6	6.3	Oct 1	2.7	Oct 2, 1997
MAXIMUM PEAK FLOW			1,200	Mar 27	1,750	Mar 1, 1997
MAXIMUM PEAK STAGE			10.39	Mar 27	12.60	Mar 1, 1997
ANNUAL RUNOFF (CFSM)	1.48		2.01		1.51	
ANNUAL RUNOFF (INCHES)	20.15		27.33		20.49	
10 PERCENT EXCEEDS	52		61		31	
50 PERCENT EXCEEDS	6.8		12		9.0	
90 PERCENT EXCEEDS	4.8		7.5		5.1	

e Estimated



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<sup>2</sup>.

PERIOD OF RECORD.--October 1990 to November 1991, June 1993 to current year.

GAGE.--Water-stage recorder with telemetry. 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<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Mar 27	2200	472	6.77	Mar 28	0500	*479	*6.82

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	9.3	14	11	1.3	1.7	2.7	4.3	1.1	1.0	1.2	1.1
2	1.9	50	3.9	64	1.9	1.4	2.6	2.2	1.9	0.92	1.2	0.95
3	1.4	2.7	2.1	29	3.2	1.3	1.9	2.2	1.0	0.79	1.2	0.85
4	1.2	1.3	1.4	44	1.4	1.3	1.6	2.9	0.84	2.2	1.2	0.85
5	1.1	1.0	7.7	55	1.4	1.1	1.4	2.4	0.82	2.8	1.1	0.82
6	1.0	1.00	20	90	1.2	1.2	2.7	1.2	0.85	1.1	1.1	0.80
7	0.83	0.98	63	15	25	2.8	12	1.2	0.93	1.1	1.2	0.77
8	0.79	1.1	7.7	18	14	3.9	12	1.2	1.6	1.2	1.2	0.74
9	0.99	1.3	3.6	6.9	6.0	1.9	4.0	2.2	4.6	1.1	1.1	0.73
10	1.0	1.1	2.3	4.2	3.2	1.6	2.2	1.7	1.5	1.0	1.1	0.74
11	2.6	6.2	1.6	3.1	2.2	1.4	2.7	1.1	3.4	10	1.1	0.68
12	6.3	6.2	1.3	2.8	1.8	1.4	35	1.1	20	32	1.1	0.68
13	1.5	1.4	2.3	78	18	1.3	105	1.6	e4.1	7.6	1.2	0.67
14	2.3	0.95	2.8	e11	13	1.2	10	5.1	0.87	1.9	1.3	0.75
15	3.9	0.80	2.8	e5.1	5.4	1.2	4.3	1.4	0.81	1.4	1.9	3.1
16	1.6	0.73	2.1	e3.8	3.0	1.2	2.5	1.2	0.76	1.3	3.7	0.74
17	1.6	0.91	1.0	e2.5	2.0	1.2	1.9	1.1	0.68	1.3	1.2	0.58
18	3.9	1.4	1.0	e2.0	1.6	1.1	1.7	1.1	0.67	1.4	2.6	0.59
19	5.2	3.3	1.0	e2.2	1.4	1.1	1.6	1.0	0.66	2.3	1.1	0.53
20	1.8	1.3	1.1	e1.9	1.6	1.1	1.5	2.7	0.67	1.4	1.2	1.3
21	1.4	1.3	1.2	e2.0	32	1.0	1.4	1.1	0.68	1.2	1.3	0.54
22	1.6	1.3	11	e1.7	9.5	5.0	41	1.0	0.65	1.3	1.3	0.46
23	5.2	2.8	e2.7	e1.7	4.1	3.9	5.5	0.99	0.67	1.2	1.1	0.47
24	1.9	3.2	e1.5	e1.5	2.8	2.1	2.8	0.92	0.69	1.2	1.1	0.45
25	1.5	2.0	e1.1	e1.5	2.1	3.8	1.9	0.93	0.66	1.2	1.1	5.6
26	1.8	1.3	e1.0	e1.6	1.6	2.6	2.7	1.2	0.66	1.3	2.0	2.0
27	e1.6	9.7	e1.1	e1.6	1.4	93	1.9	1.1	0.66	1.3	1.7	0.45
28	1.5	6.1	e1.9	1.2	1.9	169	2.1	1.0	0.71	1.2	1.1	0.35
29	1.7	4.9	45	1.9	---	11	9.1	1.0	0.80	1.2	1.5	7.3
30	2.9	37	29	1.5	---	5.1	22	0.98	1.0	1.2	49	0.35
31	1.7	---	12	1.4	---	3.8	---	0.92	---	1.2	2.4	---
TOTAL	65.51	162.57	250.2	467.1	164.0	330.7	299.7	50.04	54.94	87.31	91.6	35.94
MEAN	2.11	5.42	8.07	15.1	5.86	10.7	9.99	1.61	1.83	2.82	2.95	1.20
MAX	6.3	50	63	90	32	169	105	5.1	20	32	49	7.3
MIN	0.79	0.73	1.0	1.2	1.2	1.0	1.4	0.92	0.65	0.79	1.1	0.35
CFSM	0.37	0.94	1.40	2.61	1.01	1.85	1.73	0.28	0.32	0.49	0.51	0.21
IN.	0.42	1.05	1.61	3.01	1.06	2.13	1.93	0.32	0.35	0.56	0.59	0.23

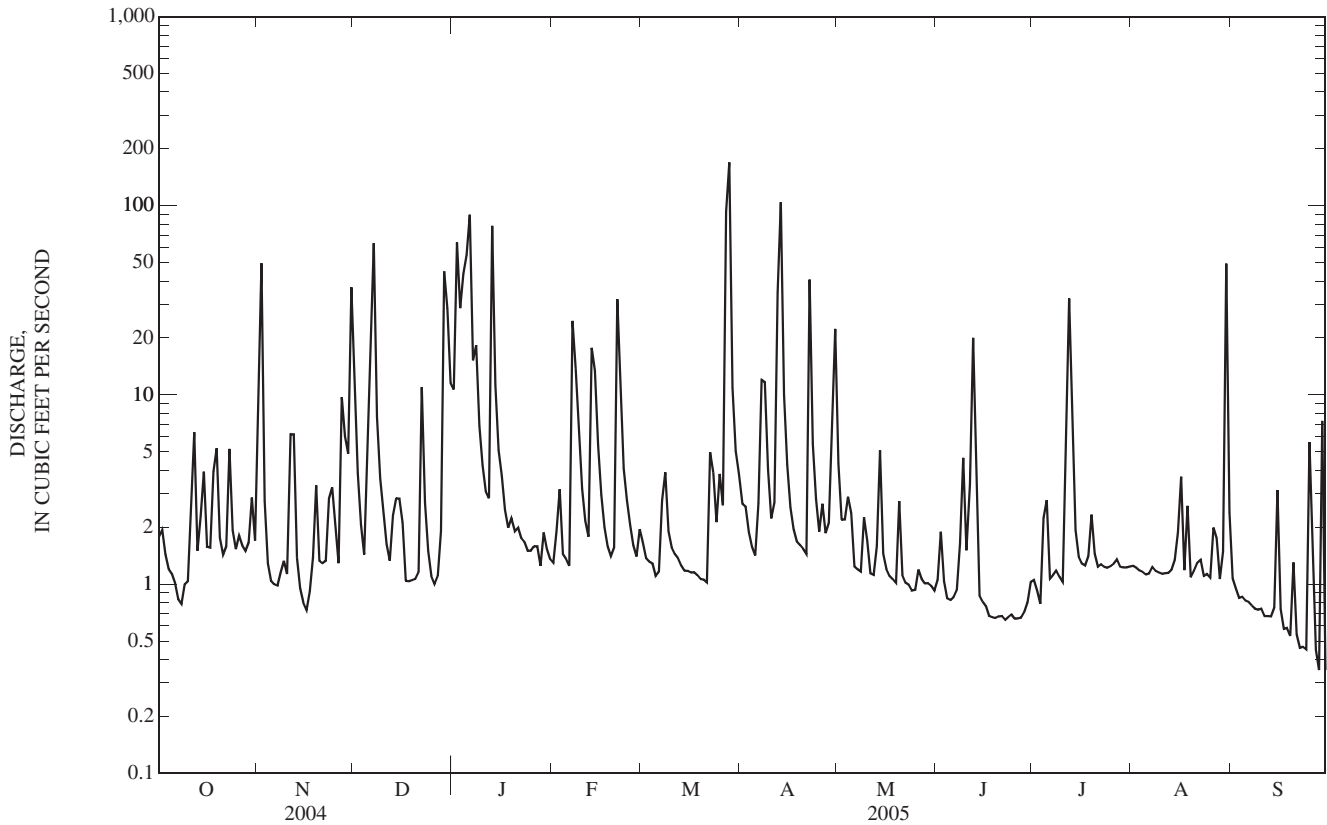
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2005, BY WATER YEAR (WY)

MEAN	2.51	5.84	9.76	9.95	9.87	10.6	9.13	9.06	3.93	2.80	2.02	1.58
MAX	7.45	18.3	33.5	20.4	20.2	32.5	19.2	31.3	12.4	8.74	8.11	3.13
(WY)	(2002)	(1997)	(1991)	(1999)	(2003)	(1997)	(1994)	(2002)	(1998)	(2001)	(1998)	(2003)
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1991 - 2005	
ANNUAL TOTAL	1,587.32		2,059.61			
ANNUAL MEAN	4.34		5.64		6.45	
HIGHEST ANNUAL MEAN					12.4	2002
LOWEST ANNUAL MEAN					3.75	2001
HIGHEST DAILY MEAN	63	Dec 7	169	Mar 28	506	Mar 1, 1997
LOWEST DAILY MEAN	0.46	May 25	0.35	Sep 28	0.02	May 25, 1995
ANNUAL SEVEN-DAY MINIMUM	0.52	May 19	0.62	Sep 18	0.35	Aug 2, 2001
MAXIMUM PEAK FLOW			479	Mar 28	1,300	Mar 1, 1997
MAXIMUM PEAK STAGE			6.82	Mar 28	11.26	Mar 1, 1997
ANNUAL RUNOFF (CFSM)	0.750		0.976		1.12	
ANNUAL RUNOFF (INCHES)	10.22		13.26		15.16	
10 PERCENT EXCEEDS	9.4		10		9.5	
50 PERCENT EXCEEDS	1.6		1.5		1.3	
90 PERCENT EXCEEDS	0.77		0.80		0.70	

e Estimated



## 03612500 OHIO RIVER AT LOCK AND DAM 53, NEAR GRAND CHAIN, IL

(National stream-quality accounting network station)

## WATER-QUALITY RECORDS

LOCATION.--Lat 37°12'11, long 89°02'30, Pulaski County, Hydrologic Unit 05140206, at 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<sup>2</sup>, approximately

PERIOD OF RECORD.--Water years 1955 to current water 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 gaging 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 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfiltered, uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium, water, fltrd, mg/L (00915)
NOV												
16...	1330	Environmental	374,000	.104	.078	772	9.7	7.5	306	13.5	130	34.9
DEC												
14...	1420	Environmental	792,000	.090	.068	783	12.4	7.6	233	9.0	100	29.2
14...	1428	Field Blank	--	<.004	<.004	--	--	--	--	--	--	--
JAN												
19...	1310	Environmental	957,000	.102	.077	773	11.5	7.6	262	4.5	83	23.8
25...	1130	Environmental	958,000	.098	.074	767	13.0	7.4	237	4.5	110	30.9
MAR												
23...	1400	Environmental	217,000	.051	.037	767	12.7	7.9	338	8.5	140	39.7
23...	1410	Replicate	--	.052	.039	--	--	--	--	--	140	38.9
APR												
06...	1400	Environmental	570,000	.072	.056	765	11.0	7.4	338	12.0	120	34.6
06...	1408	Field Blank	--	--	--	--	--	--	--	--	--	--
12...	1340	Environmental	649,000	.067	.050	759	10.6	7.5	263	14.0	110	30.0
19...	1350	Environmental	239,000	.068	.050	771	10.6	7.6	301	17.0	130	35.3
19...	1358	Field Blank	--	--	--	--	--	--	--	--	--	--
MAY												
12...	1450	Environmental	175,000	.107	.079	771	10.6	7.7	291	19.0	130	35.3
12...	1458	Field Blank	--	--	--	--	--	--	--	--	--	E.02
25...	1300	Environmental	274,000	.070	.053	769	13.1	7.5	312	21.5	140	35.6
JUN												
08...	1230	Environmental	110,000	.063	.047	767	9.1	8.0	300	25.0	120	34.6
08...	1238	Field Blank	--	--	--	--	--	--	--	--	--	--
22...	1250	Environmental	125,000	.081	.060	773	9.0	7.8	343	27.0	140	37.9
22...	1300	Replicate	--	.080	.058	--	--	--	--	--	140	37.3
AUG												
12...	1300	Environmental	67,900	.060	.044	770	8.1	7.7	258	31.0	96	25.5
SEP												
08...	1300	Environmental	122,000	.070	.052	784	8.1	7.4	272	27.5	--	--

## 03612500 OHIO RIVER AT LOCK AND DAM 53, NEAR GRAND CHAIN, IL—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)
NOV 16...	9.41	3.43	12.4	78	95	14.2	.1	6.57	46.3	190	.24	.64	E.03
DEC 14...	6.72	2.45	6.50	70	85	7.93	.1	6.67	27.6	135	.21	.48	<.04
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 19...	5.70	2.26	6.04	69	84	10.7	.1	5.13	29.6	151	.27	.60	E.02
25...	7.24	2.59	7.21	71	87	9.87	.1	6.88	29.3	145	.26	.48	<.04
MAR 23...	10.9	1.87	14.5	83	101	20.1	.1	4.59	42.9	205	.17	.42	<.04
23...	10.7	1.88	14.3	83	101	19.5	.1	4.59	41.7	200	.16	.42	<.04
APR 06...	9.05	2.03	13.8	72	87	18.1	.1	4.76	47.1	185	.23	.61	<.04
06...	--	--	--	--	--	--	--	--	--	--	--	--	E.005
12...	7.64	1.79	9.45	64	79	11.6	.1	4.88	34.4	149	.18	.52	<.04
19...	9.18	2.03	10.9	77	94	13.8	.1	4.36	37.8	177	.24	.45	<.04
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 12...	9.24	1.97	9.87	89	109	11.7	.1	4.33	39.0	182	.22	.46	<.04
12...	.019	--	E.11	--	--	--	--	.06	--	--	--	--	--
25...	11.6	2.45	13.4	83	101	16.5	.1	3.81	47.0	220	.30	.56	<.04
JUN 08...	8.85	1.97	11.4	86	97	14.7	.1	1.41	35.7	166	.23	.43	<.04
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
22...	11.8	2.84	13.0	92	112	16.5	.2	2.86	43.5	207	.27	.52	<.04
22...	11.8	2.87	12.8	87	106	16.4	.2	2.83	42.7	198	.28	.51	<.04
AUG 12...	7.90	2.25	13.0	67	80	14.7	.1	2.50	29.7	144	.39	.48	<.04
SEP 08...	--	--	--	60	73	--	--	--	--	--	.23	.37	<.04

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)	Aluminum, water, fltrd, ug/L (01106)
NOV 16...	.94	E.005	.24	.063	.078	.24	2.0	<.1	2.0	3.5	E5.5	E3.9	5
DEC 14...	.98	.008	.29	.044	.062	.22	3.0	<.1	2.9	2.7	--	--	--
14...	--	--	<.02	--	--	--	<.1	<.1	<.1	.3	--	--	--
JAN 19...	1.29	.012	.25	.044	.053	.23	2.9	<.1	2.9	3.3	--	--	--
25...	1.19	.008	.38	.046	.057	.20	3.9	<.1	3.9	2.4	--	--	--
MAR 23...	.93	E.007	.25	.007	.013	.09	1.7	<.1	1.7	1.7	4.2	14.3	--
23...	.91	E.007	.21	.006	.013	.09	1.6	.2	1.4	1.7	3.1	9.0	--
APR 06...	1.00	.009	.34	.020	.026	.20	3.4	<.1	3.4	2.1	3.9	5.4	--
06...	E.008	<.002	--	<.006	--	--	--	--	--	--	--	--	--
12...	.87	.011	.28	.017	.044	.16	3.0	<.1	2.9	2.3	2.3	3.9	--
19...	.94	.013	.24	.011	.024	E.11	1.7	<.1	1.7	2.6	9.5	11.9	--
19...	--	--	--	--	--	--	--	--	--	--	<.3	<.3	--
MAY 12...	1.07	.010	.23	.013	.023	.09	1.7	<.1	1.6	2.4	15.1	1.4	--
12...	--	--	--	--	--	--	--	--	--	--	--	--	<2
25...	1.32	.016	.30	.013	.026	.14	2.2	<.1	2.2	2.7	13.1	15.8	6
JUN 08...	.59	.008	.19	<.006	.010	.05	1.2	<.1	1.2	2.4	11.7	8.0	--
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
22...	1.70	.061	.25	.018	.030	.07	1.4	<.1	1.4	2.9	13.3	12.1	6
22...	1.66	.059	.23	.017	.030	.08	1.4	<.1	1.4	3.0	11.7	10.9	6
AUG 12...	.18	.017	.27	<.006	.011	.06	1.6	<.1	1.6	3.0	--	--	7
SEP 08...	.34	.010	.21	.022	.036	.08	1.3	<.1	1.3	2.4	10.2	15.4	--

## 03612500 OHIO RIVER AT LOCK AND DAM 53, NEAR GRAND CHAIN, IL—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Anti- mony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryll- ium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Chrom- ium, water, fltrd, ug/L (01030)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Lithium water, fltrd, ug/L (01130)	Mangan- ese, water, fltrd, ug/L (01056)
NOV 16...	<.20	.7	33	<.06	41	<.04	<.8	.147	1.7	10	E.06	3.2	.8
DEC 14...	--	.9	--	--	41	--	--	--	--	14	--	5.1	--
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 19...	--	.5	--	--	15	--	--	--	--	23	--	1.2	--
25...	--	.5	--	--	27	--	--	--	--	16	--	2.3	--
MAR 23...	--	.4	--	--	39	--	--	--	--	8	--	3.6	--
23...	--	.4	--	--	38	--	--	--	--	8	--	3.9	--
APR 06...	--	.5	--	--	30	--	--	--	--	7	--	3.8	--
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
12...	--	.4	--	--	24	--	--	--	--	9	--	2.2	--
19...	--	.5	--	--	25	--	--	--	--	E6	--	2.5	--
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 12...	--	.5	--	--	33	--	--	--	--	13	--	2.7	--
12...	<.20	<.2	M	<.06	<.8	<.04	<.8	.030	<.4	<.6	<.08	<.6	<.2
25...	E.12	.6	31	<.06	39	E.02	<.8	.133	1.4	E4	<.08	3.5	.3
JUN 08...	--	.6	--	--	38	--	--	--	--	E5	--	3.1	--
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
22...	E.15	.9	37	<.06	53	E.02	<.8	.138	1.7	<.6	<.08	2.9	1.1
22...	E.15	.9	37	<.06	52	E.02	<.8	.139	1.6	<.6	<.08	2.9	.9
AUG 12...	.21	1.2	27	<.06	55	<.04	<.8	.085	1.4	<.6	<.08	2.5	.3
SEP 08...	--	--	--	--	--	--	--	--	--	--	--	--	--

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Molyb- denum, water, fltrd, ug/L (01060)	Nickel, water, fltrd, ug/L (01065)	Selen- ium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Stront- ium, water, fltrd, ug/L (01080)	Vanad- ium, water, fltrd, ug/L (01085)	Zinc, water, fltrd, ug/L (01090)	2,6-Di- ethyl- aniline water fltrd 0.7u GF (82660)	CIAT, water, fltrd, ug/L (04040)	Aceto- chlor, water, fltrd, ug/L (49260)	Ala- chlor, water, fltrd, ug/L (46342)	alpha- HCH, water, fltrd, ug/L (34253)	Atra- zine, water, fltrd, ug/L (39632)
NOV 16...	1.6	1.01	E.2	<.2	165	.8	.8	<.006	E.014	<.010	<.005	<.005	.077
DEC 14...	--	--	.5	--	112	.7	--	<.006	E.011	<.006	<.005	<.005	.035
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 19...	--	--	E.3	--	92.6	.4	--	<.006	E.014	.008	<.005	<.005	.039
25...	--	--	E.2	--	117	1.1	--	<.006	E.012	.020	<.005	<.005	.046
MAR 23...	--	--	E.4	--	175	.3	--	<.006	E.006	.031	<.005	<.005	.038
23...	--	--	E.4	--	177	.4	--	<.006	E.005	.035	<.005	<.005	.040
APR 06...	--	--	.5	--	195	.3	--	<.006	E.008	<.006	<.005	<.005	.168
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	E.3	--	151	.4	--	<.006	E.012	.007	<.005	<.005	.134
19...	--	--	E.2	--	156	.7	--	<.006	E.020	.025	<.005	<.005	.688
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 12...	--	--	E.3	--	170	.7	--	<.006	E.045	.127	<.005	<.005	1.40
12...	<.4	E.03	<.4	<.2	<.40	E.1	.7	--	--	--	--	--	--
25...	1.6	2.35	.5	<.2	183	.6	.7	<.006	E.196	.517	E.014	<.005	3.32
JUN 08...	--	--	.4	--	156	.9	--	<.006	E.073	.067	<.005	<.005	1.08
08...	--	--	--	--	--	--	--	<.006	<.006	<.006	<.005	<.005	<.007
22...	2.2	2.68	.5	<.2	160	1.0	1.4	<.006	E.126	.169	<.005	<.005	1.54
22...	2.1	2.57	.5	<.2	158	1.0	.9	<.006	E.154	.170	E.004	<.005	1.56
AUG 12...	2.4	1.64	E.4	<.2	132	1.0	.6	<.006	E.034	.012	<.005	<.005	.273
SEP 08...	--	--	--	--	--	--	--	<.006	E.007	<.006	<.005	<.005	.086



## 03612500 OHIO RIVER AT LOCK AND DAM 53, NEAR GRAND CHAIN, IL—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Azin-phos-methyl, water, fltrd 0.7u GF ug/L (82686)	Ben-flur-alin, water, fltrd 0.7u GF ug/L (82673)	Butyl-ate, water, fltrd, ug/L (04028)	Car-baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo-furan, water, fltrd 0.7u GF ug/L (82674)	Chlor-pyri-fos, water, fltrd, ug/L (38933)	cis-Per-methrin, water, fltrd 0.7u GF ug/L (82687)	Cyana-zine, water, fltrd, ug/L (04041)	DCPA, water, fltrd 0.7u GF ug/L (82682)	Diazi-non, water, fltrd, ug/L (39572)	Diel-drin, water, fltrd, ug/L (39381)	Disul-foton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)
NOV 16...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004
DEC 14...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 19...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004
25...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	.005
MAR 23...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004
23...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004
APR 06...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
12...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004
19...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 12...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
25...	<.050	<.010	<.004	<.041	<.020	<.010	<.006	<.018	<.003	<.005	<.009	<.02	<.004
JUN 08...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004
08...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004
22...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004
22...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004
AUG 12...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004
SEP 08...	<.050	<.010	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Ethal-flur-alin, water, fltrd 0.7u GF ug/L (82663)	Etho-prop, water, fltrd 0.7u GF ug/L (82672)	Fonofos, water, fltrd, ug/L (04095)	Lindane, water, fltrd, ug/L (39341)	Linuron, water, fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl para-thion, water, fltrd 0.7u GF ug/L (82667)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Moli-nate, water, fltrd 0.7u GF ug/L (82671)	Naprop-amide, water, fltrd 0.7u GF ug/L (82684)	p,p'-DDE, water, fltrd, ug/L (34653)	Para-thion, water, fltrd, ug/L (39542)
NOV 16...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.016	<.006	<.003	<.007	<.003	<.010
DEC 14...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.011	<.006	<.003	<.007	<.003	<.010
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 19...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.027	E.004	<.003	<.007	<.003	<.010
25...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.029	<.006	<.003	<.007	<.003	<.010
MAR 23...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.006	<.006	<.003	<.007	<.003	<.010
23...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.008	<.006	<.003	<.007	<.003	<.010
APR 06...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.012	<.006	<.003	<.007	<.003	<.010
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
12...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.017	<.006	<.003	<.007	<.003	<.010
19...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.065	<.006	<.003	<.007	<.003	<.010
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 12...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.203	<.006	<.003	<.007	<.003	<.010
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
25...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.963	.007	<.003	<.007	<.003	<.010
JUN 08...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.226	<.006	<.003	<.007	<.003	<.010
08...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	<.006	<.006	<.003	<.007	<.003	<.010
22...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.458	<.006	<.003	<.007	<.003	<.010
22...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.461	<.006	<.003	<.007	<.003	<.010
AUG 12...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.055	<.006	<.003	<.007	<.003	<.010
SEP 08...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.021	<.006	<.003	<.007	<.003	<.010

## 03612500 OHIO RIVER AT LOCK AND DAM 53, NEAR GRAND CHAIN, IL—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Peb- ulate, water, fltrd 0.7u GF ug/L (82669)	Pendi- meth- alin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prome- ton, water, fltrd, ug/L (04037)	Propy- zamide, water, fltrd 0.7u GF ug/L (82676)	Propa- chlor, water, fltrd, ug/L (04024)	Pro- panil, water, fltrd 0.7u GF ug/L (82679)	Propar- gite, water, fltrd 0.7u GF ug/L (82685)	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd 0.7u GF ug/L (82665)	Terbu- fos, water, fltrd 0.7u GF ug/L (82675)	Thio- bencarb water fltrd 0.7u GF ug/L (82681)
NOV 16...	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.225	<.02	<.034	<.02	<.010
DEC 14...	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.136	<.02	<.034	<.02	<.010
14...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 19...	<.004	<.022	<.011	M	<.004	<.025	<.011	<.02	.209	<.02	<.034	<.02	<.010
25...	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.196	<.02	<.034	<.02	<.010
MAR 23...	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.020	<.02	<.034	<.02	<.010
23...	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.022	<.02	<.034	<.02	<.010
APR 06...	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.075	<.02	<.034	<.02	<.010
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
12...	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.066	<.02	<.034	<.02	<.010
19...	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.265	<.02	<.034	<.02	<.010
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 12...	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.154	<.02	<.034	<.02	<.010
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
25...	<.004	<.022	<.011	.01	<.004	<.025	<.020	<.02	.422	<.02	<.034	<.02	<.010
JUN 08...	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.146	<.02	<.034	<.02	<.010
08...	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010
22...	<.004	<.022	<.011	.02	<.004	<.025	<.011	<.02	.166	<.02	<.034	<.02	<.010
22...	<.004	<.022	<.011	.02	<.004	<.025	<.011	<.02	.178	<.02	<.034	<.02	<.010
AUG 12...	<.004	<.022	<.011	.02	<.004	<.025	<.011	<.02	.025	<.02	<.034	<.02	<.010
SEP 08...	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	.011	<.02	<.034	<.02	<.010

03612500 OHIO RIVER AT LOCK AND DAM 53, NEAR GRAND CHAIN, IL—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Tri- allate, water, fltrd 0.7u GF ug/L (82678)	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)	Uranium natural water, fltrd, ug/L (22703)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concentra- tion mg/L (80154)
NOV					
16...	<.006	<.009	.34	93	133
DEC					
14...	<.006	<.009	--	85	116
14...	--	--	--	--	--
JAN					
19...	<.006	<.009	--	92	336
25...	<.006	<.009	--	74	103
MAR					
23...	<.006	<.009	--	98	41
23...	<.006	<.009	--	98	41
APR					
06...	<.006	<.009	--	88	147
06...	--	--	--	--	--
12...	<.006	<.009	--	88	102
19...	<.006	<.009	--	99	47
19...	--	--	--	--	--
MAY					
12...	<.006	<.009	--	97	39
12...	--	--	<.04	--	--
25...	<.006	<.009	.33	98	84
JUN					
08...	<.006	<.009	--	98	12
08...	<.006	<.009	--	--	--
22...	<.006	<.009	.38	--	--
22...	<.006	<.009	.37	--	--
AUG					
12...	<.006	<.009	.24	--	--
SEP					
08...	<.006	<.009	--	--	--

E--Laboratory estimated value.

M--Presence of material verified but not quantified.

&lt;--Numeric result is less than the value shown.

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<sup>2</sup>.

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 de 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<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Nov. 3	0945	*1,820	*15.12				

DISCHARGE, CUBIC FEET PER SECOND  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	740	508	287	64	e58	96	126	19	22	20	60
2	21	1,260	107	619	69	e55	92	85	27	21	23	41
3	21	1,500	70	397	80	e56	79	73	23	21	21	35
4	20	277	55	618	68	e54	75	68	19	20	19	31
5	19	67	89	364	64	e51	73	66	19	24	19	27
6	19	48	452	1,050	63	e51	121	66	18	19	20	26
7	20	43	995	501	155	271	591	59	17	19	58	26
8	20	38	350	590	120	272	249	58	32	18	45	28
9	20	36	101	179	81	e78	113	61	86	18	e23	30
10	21	36	74	127	70	e66	86	60	33	19	e22	32
11	38	51	64	113	e63	e60	111	57	111	38	e21	32
12	110	59	56	102	e60	e57	257	55	462	63	e22	31
13	28	41	49	853	337	e55	121	54	216	70	e20	31
14	25	38	44	398	169	e54	88	398	52	42	e21	29
15	25	38	43	128	100	e53	74	78	40	170	e20	41
16	22	37	43	99	e86	54	65	40	36	47	20	28
17	21	40	42	83	e75	54	60	34	34	77	20	22
18	26	41	42	81	e72	55	57	30	33	36	33	22
19	313	74	40	83	e62	54	53	27	30	32	27	23
20	33	49	38	80	e64	52	51	28	30	29	20	23
21	26	44	47	77	e85	51	54	23	28	28	19	24
22	25	42	837	73	e71	154	556	22	26	25	30	23
23	26	69	217	66	e69	555	111	22	26	23	24	21
24	26	189	130	67	e66	107	74	21	25	22	20	20
25	25	69	193	68	e68	82	65	20	25	21	20	181
26	26	52	e66	69	e62	73	68	19	28	21	29	186
27	167	206	e55	63	e61	794	62	19	31	21	64	36
28	57	155	67	61	e62	1,510	69	19	25	21	29	27
29	37	120	427	78	---	926	388	18	24	20	51	32
30	33	760	782	76	---	144	578	18	23	20	927	24
31	31	---	315	67	---	124	---	18	---	20	374	---
TOTAL	1,321	6,219	6,398	7,517	2,466	6,080	4,537	1,742	1,598	1,047	2,081	1,192
MEAN	42.6	207	206	242	88.1	196	151	56.2	53.3	33.8	67.1	39.7
MAX	313	1,500	995	1,050	337	1,510	591	398	462	170	927	186
MIN	19	36	38	61	60	51	51	18	17	18	19	20
CFSM	0.62	3.02	3.00	3.53	1.28	2.85	2.20	0.82	0.78	0.49	0.98	0.58
IN.	0.72	3.37	3.46	4.07	1.34	3.29	2.46	0.94	0.87	0.57	1.13	0.65

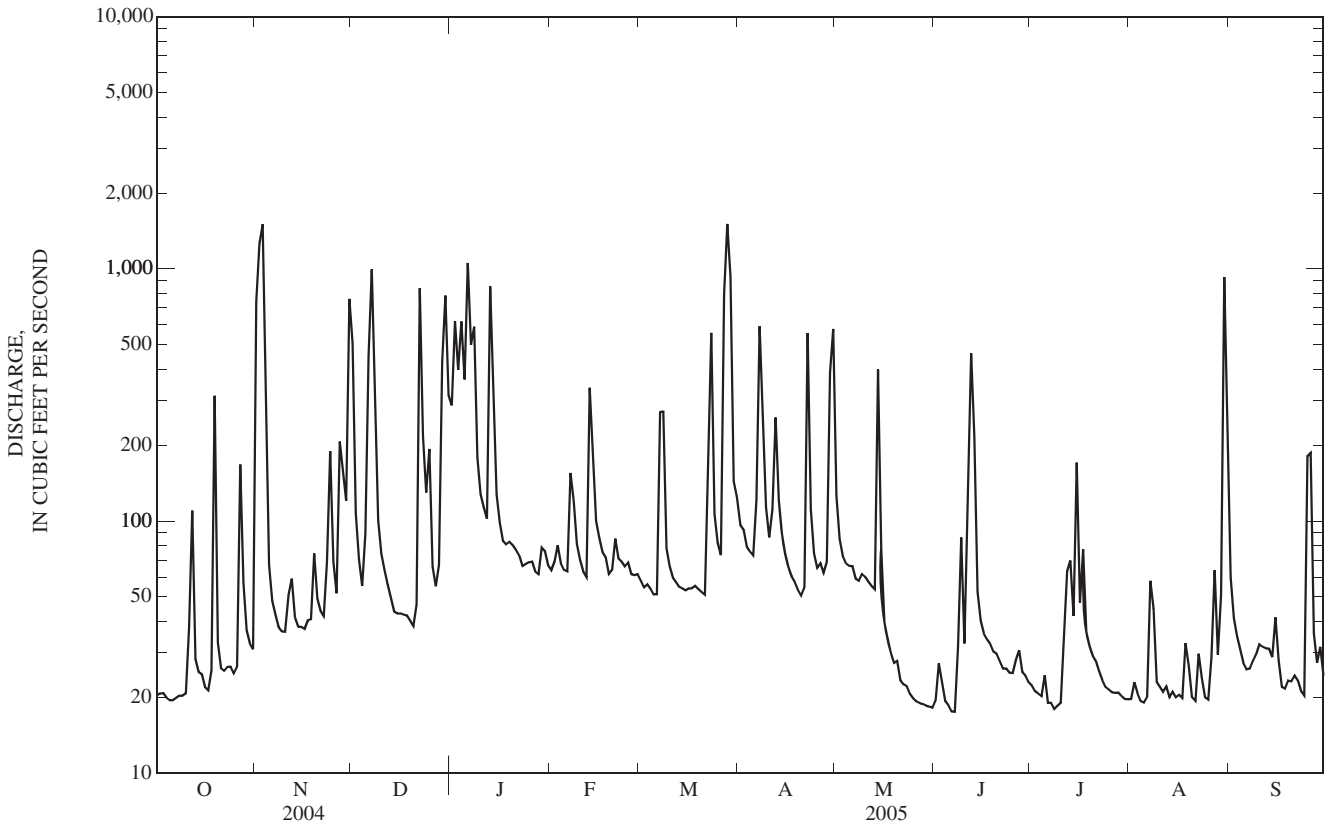
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2005, BY WATER YEAR (WY)

MEAN	33.9	83.8	132	150	184	204	135	108	76.4	56.1	39.8	35.0
MAX	165	520	557	586	672	1,138	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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1940 - 2005	
ANNUAL TOTAL	32,871		42,198		103	
ANNUAL MEAN	89.8		116		18.7	
HIGHEST ANNUAL MEAN					268	1976
LOWEST ANNUAL MEAN					18.7	1941
HIGHEST DAILY MEAN	1,500	Nov 3	1,510	Mar 28	7,150	Jan 2, 1966
LOWEST DAILY MEAN	17	Jan 15	17	Jun 7	4.0	May 29, 1943
ANNUAL SEVEN-DAY MINIMUM	19	Jan 11	19	May 26	4.7	Jun 20, 1942
MAXIMUM PEAK FLOW			1,820	Nov 3	9,460	Jan 2, 1966
MAXIMUM PEAK STAGE			15.12	Nov 3	16.79	May 17, 2003
ANNUAL RUNOFF (CFSM)	1.31		1.68		1.50	
ANNUAL RUNOFF (INCHES)	17.80		22.85		20.34	
10 PERCENT EXCEEDS	178		281		187	
50 PERCENT EXCEEDS	30		54		25	
90 PERCENT EXCEEDS	21		20		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 2005.

Station number	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)
<b><u>BEARGRASS CREEK BASIN</u></b>							
03293200	Middle Fork Beargrass Creek at Beals Branch Road at Louisville, Ky.	Lat 38°14'32", long 85°41'57", Jefferson County, Hydrologic Unit 05140101, at bridge on Beals Branch Road at Louisville, Ky., and at mile 1.5	22.7	†2005	05-20-05	9.85	2,230
<b><u>SALT RIVER BASIN</u></b>							
03297980	Long Run near Fisherville, Ky.	Lat 38°13'10", long 85°26'56", Jefferson County, Hydrologic Unit 05140101, at bridge on State Highway 1531 near Fisherville, Ky., 0.7 mi below South Long Run and at mile 2.4.	22.5	†2005	05-20-05	11.16	6,400
03298100	Pope Lick at Pope Lick Road near Middletown, Ky.	Lat 38°13'09", long 85°31'07", Jefferson County, Hydrologic Unit 05140102, at culvert on Pope Lick Road near Middletown, Ky., and at mile 3.2.	2.9	†2005	01-13-05	8.07	378

Annual maximum discharge at crest-stage partial-record stations during water year 2005.--*Continued*

Station number	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)
03301880	Southern Ditch at Minors Lane near Okolona, Ky.	Lat 38°08'04", long 85°42'34", Jefferson County, Hydrologic Unit 05140102, at bridge on Minors Lane nr Okolona, Ky., 0.2 mi below Mud Creek, and at mile 4.2.	12.8	†2004-05	05-20-05	6.47	2,540
03301950	Spring Ditch at Private Drive near Okolona, Ky.	Lat 38°09'27", long 85°40'57", Jefferson County, Hydrologic Unit 05140102, at culvert on Private Drive nr Okolona, Ky., and at mile 4.2.	1.6	†2004-05	05-20-05	7.44	507

Discharge measurements made at miscellaneous sites during water year 2005.

Station no.	Station name	Location	Period of record	Date	Discharge (ft <sup>3</sup> /s)
<b><u>GREEN RIVER BASIN</u></b>					
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.	2001-05	10-05-04	10.7
				10-05-04	11.0
				08-03-05	6.95
<b><u>ROUGH RIVER BASIN</u></b>					
03319000	Rough River near Dundee, Ky.	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.	1939-92, 2002-05	10-06-04	112
				12-01-04	3,610
				08-16-05	45.7

## WATER-QUALITY RECORDS

LOCATION.--Lat 37°47'47", long 86°16'25", Breckinridge County, Hydrologic Unit 05140104.

DRAINAGE AREA.--36 mi<sup>2</sup>.

PERIOD OF RECORD.--April 2004 to current water year.

COOPERATION.--Kentucky Department of Agriculture.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Turbidity, IR LED light, det ang 90 deg, FNU (63680)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat fltr inc tit field, mg/L as CaCO <sub>3</sub> (39086)	Bicarbonate, wat fltr inc titr., mg/L (00453)	Chloride, water, fltrd, mg/L (00940)
OCT 25...	1040	Environmental	--	3.7	758	--	7.3	702	15.0	210	255	6.94
NOV 22...	1100	Environmental	--	11	744	10.1	7.4	379	12.0	136	165	5.24
MAR 16...	1155	Environmental	29	2.4	753	12.3	8.1	402	9.0	138	169	4.38
MAR 28...	1800	Environmental	1,000	150	728	10.6	7.4	173	10.0	67	81	2.05
APR 12...	1240	Environmental	35	1.8	743	13.8	8.1	340	13.0	144	176	4.00
APR 29...	1120	Environmental	17	1.9	740	9.5	7.4	461	11.5	157	192	4.31
MAY 17...	1020	Environmental	15	--	746	8.8	7.3	434	12.5	137	167	4.05
MAY 20...	1300	Environmental	428	--	738	9.8	7.0	249	13.0	85	104	3.96
JUN 14...	0950	Environmental	8.7	--	747	8.3	7.7	565	19.5	157	192	5.42
JUL 13...	1100	Environmental	14	2.4	743	8.4	7.7	480	15.5	142	172	5.51
AUG 18...	0950	Environmental	3.9	--	748	6.8	7.6	664	22.0	129	158	6.88
AUG 30...	1100	Environmental	1,250	420	733	8.0	7.6	187	17.5	44	63	1.56
SEP 15...	0945	Environmental	6.1	2.6	750	7.6	7.8	534	19.5	148	180	5.74

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	2,6-Di-ethyl-aniline water, fltrd 0.7u GF (82660)	CIAT, water, fltrd, ug/L (04040)	Aceto-chlor, water, fltrd, ug/L (49260)	Ala-chlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl, water, fltrd 0.7u GF (82686)	Ben-flur-alin, water, fltrd 0.7u GF (82673)	Butyl-ate, water, fltrd, ug/L (04028)
OCT 25...	<0.04	0.32	<0.006	0.02	<0.006	E0.015	<0.006	<0.005	<0.005	0.027	<0.050	<0.010	<0.004
NOV 22...	<.04	1.21	.101	.15	<.006	E.024	<.010	<.005	<.005	.024	<.050	<.010	<.004
MAR 16...	<.04	.72	<.006	.02	<.006	E.013	E.005	<.005	<.005	.009	<.050	<.010	<.004
MAR 28...	.05	.69	.034	.22	<.006	E.005	.007	<.005	<.005	<.007	<.050	<.010	<.004
APR 12...	<.04	.73	<.006	E.003	<.006	E.016	<.006	<.005	<.005	.013	<.050	<.010	<.004
APR 29...	<.04	.85	<.006	.009	<.006	E.023	E.004	<.005	<.005	.025	<.050	<.010	<.004
MAY 17...	E.03	.98	.010	.05	<.006	E.283	.031	<.005	<.005	E24.6	<.050	<.010	<.004
MAY 20...	.08	1.49	.047	.26	<.006	E.382	.827	<.005	<.005	9.12	<.050	<.010	<.004
JUN 14...	E.03	1.16	<.006	.03	<.006	E.042	.008	<.005	<.005	.550	<.050	<.010	<.004
JUL 13...	E.02	1.53	.010	.04	<.006	E.084	.017	<.005	<.005	.273	<.050	<.010	<.004
AUG 18...	<.04	.85	E.005	.02	<.006	E.033	<.006	<.005	<.005	.076	<.050	<.010	<.004
AUG 30...	.04	.57	.091	.35	<.006	E.034	.011	<.005	<.005	.074	<.050	<.010	<.004
SEP 15...	<.04	.88	E.010	.03	<.006	E.037	<.006	<.005	<.005	.034	<.050	<.010	<.004



## 03303195 SINKING CREEK AT ROSETTA, KY—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Carbaryl, water, fltrd 0.7u GF (82680)	Carbofuran, water, fltrd 0.7u GF (82674)	Chlorpyrifos, water, fltrd, ug/L (38933)	cis-Permethrin, water, fltrd 0.7u GF (82687)	Cyanazine, water, fltrd, ug/L (04041)	DCPA, water, fltrd 0.7u GF (82682)	Diazinon, water, fltrd, ug/L (39572)	Dieldrin, water, fltrd, ug/L (39381)	Disulfoton, water, fltrd 0.7u GF (82677)	EPTC, water, fltrd 0.7u GF (82668)	Ethalfuralin, water, fltrd 0.7u GF (82663)	Ethoprop, water, fltrd 0.7u GF (82672)	Fonofos, water, fltrd, ug/L (04095)
OCT 25...	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<0.02	<0.004	<0.009	<0.005	<0.003
NOV 22...	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009	<.005	<.003
MAR 16...	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009	<.005	<.003
MAR 28...	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009	<.005	<.003
APR 12...	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009	<.005	<.003
APR 29...	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009	<.005	<.003
MAY 17...	E.003	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009	<.005	<.003
MAY 20...	E.079	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009	<.005	<.003
JUN 14...	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009	<.005	<.003
JUL 13...	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009	<.005	<.003
AUG 18...	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009	<.005	<.003
AUG 30...	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.076	<.009	<.005	<.003
SEP 15...	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009	<.005	<.003

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Lindane, water, fltrd, ug/L (39341)	Linuron, water, fltrd 0.7u GF (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl parathion, water, fltrd 0.7u GF (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Molinate, water, fltrd 0.7u GF (82671)	Napropamide, water, fltrd 0.7u GF (82684)	p,p'-DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF (82669)	Pendimethalin, water, fltrd 0.7u GF (82683)	Phorate, water, fltrd 0.7u GF (82664)
OCT 25...	<0.004	<0.035	<0.027	<0.015	<0.006	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011
NOV 22...	<.004	<.035	<.027	<.015	<.006	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011
MAR 16...	<.004	<.035	<.027	<.015	<.006	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011
MAR 28...	<.004	<.035	<.027	<.015	E.004	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011
APR 12...	<.004	<.035	<.027	<.015	<.006	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011
APR 29...	<.004	<.035	<.027	<.015	E.005	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011
MAY 17...	<.004	<.035	<.027	<.015	.202	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011
MAY 20...	<.004	<.035	<.027	<.015	.146	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011
JUN 14...	<.004	<.035	<.027	<.015	.008	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011
JUL 13...	<.004	<.035	<.027	<.015	.006	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011
AUG 18...	<.004	<.035	<.027	<.015	<.006	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011
AUG 30...	<.004	<.035	<.027	<.015	<.006	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011
SEP 15...	<.004	<.035	<.027	<.015	<.006	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Prometon, water, fltrd, ug/L (04037)	Propy- zamide, water, fltrd 0.7u GF (82676)	Propa- chlor, water, fltrd, ug/L (04024)	Pro- panil, water, fltrd 0.7u GF (82679)	Propar- gite, water, fltrd 0.7u GF (82685)	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd 0.7u GF (82670)	Terba- cil, water, fltrd 0.7u GF (82665)	Terbu- fos, water, fltrd 0.7u GF (82675)	Thio- bencarb water fltrd 0.7u GF (82681)	Tri- allate, water, fltrd 0.7u GF (82678)	Tri- flur- alin, water, fltrd 0.7u GF (82661)	Sus- pended sedi- ment concent- ration mg/L (80154)
OCT 25...	<0.01	<0.004	E0.006	<0.011	<0.02	<0.005	<0.02	<0.034	<0.02	<0.010	<0.006	<0.009	3
NOV 22...	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.006	<.009	11
MAR 16...	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.006	<.009	2
MAR 28...	<.01	<.004	.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.006	<.009	251
APR 12...	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.006	<.009	--
APR 29...	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.006	<.009	8
MAY 17...	<.01	<.004	<.025	<.011	<.02	.093	<.02	<.034	<.02	<.010	<.006	<.009	15
MAY 20...	.01	<.004	E.006	<.011	<.02	.789	<.02	<.034	<.02	<.010	<.006	<.009	274
JUN 14...	<.01	<.004	<.025	<.011	<.02	.045	<.02	<.034	<.02	<.010	<.006	<.009	--
JUL 13...	<.01	<.004	<.010	<.011	<.02	.123	<.02	<.034	<.02	<.010	<.006	<.009	12
AUG 18...	<.01	<.004	<.025	<.011	<.02	.014	<.02	<.034	<.02	<.010	<.006	<.009	51
AUG 30...	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.006	<.009	1,160
SEP 15...	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.006	<.009	4

E--Laboratory estimated value.

M--Presence of material verified but not quantified.

&lt;--Numeric result is less than the value shown.

3747550860904 F15CS004--BIG SPRING AT BIG SPRING, KY

## WATER-QUALITY RECORDS

LOCATION.--Lat 37°47'55", long 86°09'04", Breckinridge County, Hydrologic Unit 05140104.

PERIOD OF RECORD.--April 2004 to current water year.

COOPERATION.--Kentucky Department of Agriculture.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Turbidity, IR LED light, det ang 90 deg, FNU (63680)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)
OCT 25...	0940	Environmental	1.1	53	748	9.7	7.8	386	13.5	173	210	5.37
NOV 22...	1030	Environmental	7.5	7.7	746	9.8	7.3	411	14.0	180	219	7.31
MAR 28...	1200	Environmental	--	130	733	10.1	6.0	179	10.0	72	88	2.44
APR 29...	1430	Environmental	6.8	--	743	10.7	8.1	376	12.5	166	203	4.97
29...	1440	Replicate	--	--	--	--	--	--	--	--	--	4.94
MAY 20...	1040	Environmental	--	--	738	8.7	7.1	231	14.0	77	94	5.49
JUL 13...	1055	Environmental	2.5	4.8	743	9.9	7.5	268	13.0	180	219	6.12
13...	1105	Replicate	--	--	--	--	--	--	--	176	214	5.76
AUG 30...	1130	Environmental	--	150	729	8.5	7.9	259	15.5	91	111	4.21
SEP 15...	0830	Environmental	1.5	2.4	744	10.1	7.5	345	14.9	167	--	5.21

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	2,6-Diethyl-aniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	Atrazine, water, fltrd, ug/L (39632)	Azinphosmethyl, water, fltrd 0.7u GF ug/L (82686)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Butylate, water, fltrd, ug/L (04028)
OCT 25...	<.04	1.87	0.031	0.04	<0.006	E0.042	0.010	<0.005	<0.005	0.034	<0.050	<0.010	<0.004
NOV 22...	<.04	3.95	.037	.05	<0.006	E.289	<0.006	<0.005	<0.005	.118	<0.050	<0.010	<0.004
MAR 28...	.04	1.25	.122	.34	<0.006	E.038	<0.006	<0.005	<0.005	.030	<0.050	<0.010	<0.004
APR 29...	<.04	2.30	.017	.03	<0.006	E.121	E.006	<0.005	<0.005	.212	<0.050	<0.010	<0.004
29...	<.04	2.30	.016	.03	<0.006	E.130	E.004	<0.005	<0.005	.211	<0.050	<0.010	<0.004
MAY 20...	.61	4.95	.459	.83	<0.006	E1.11	2.85	<0.005	<0.005	11.5	<0.050	<0.010	<0.004
JUL 13...	<.04	2.87	.024	.07	<0.006	E.135	.044	<0.005	<0.005	.106	<0.050	<0.010	<0.004
13...	<.04	2.79	.027	.07	<0.006	E.122	.042	<0.005	<0.005	.104	<0.050	<0.010	<0.004
AUG 30...	E.03	2.11	.219	.36	<0.006	E.082	<0.020	<0.005	<0.005	.090	<0.050	<0.010	<0.004
SEP 15...	<.04	2.32	.033	.05	<0.006	E.142	E.003	<0.005	<0.005	.058	<0.050	<0.010	<0.004

3747550860904 F15CS004--BIG SPRING AT BIG SPRING, KY—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Carbaryl, water, fltrd 0.7u GF (82680)	Carbofuran, water, fltrd 0.7u GF (82674)	Chlorpyrifos, water, fltrd, ug/L (38933)	cis-Permethrin, water, fltrd 0.7u GF (82687)	Cyanazine, water, fltrd, ug/L (04041)	DCPA, water, fltrd 0.7u GF (82682)	Diazinon, water, fltrd, ug/L (39572)	Dieldrin, water, fltrd, ug/L (39381)	Disulfoton, water, fltrd 0.7u GF (82677)	EPTC, water, fltrd 0.7u GF (82668)	Ethalfuralin, water, fltrd 0.7u GF (82663)	Ethoprop, water, fltrd 0.7u GF (82672)	Fonofos, water, fltrd, ug/L (04095)
OCT 25...	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<0.02	<0.004	<0.009	<0.005	<0.003
NOV 22...	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009	<0.005	<0.003
MAR 28...	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009	<0.005	<0.003
APR 29...	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009	<0.005	<0.003
APR 29...	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009	<0.005	<0.003
MAY 20...	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009	<0.005	<0.003
JUL 13...	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009	<0.005	<0.003
JUL 13...	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009	<0.005	<0.003
AUG 30...	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.011	<0.009	<0.005	<0.003
SEP 15...	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.024	<0.009	<0.005	<0.003

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Lindane, water, fltrd, ug/L (39341)	Linuron, water, fltrd 0.7u GF (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl parathion, water, fltrd 0.7u GF (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Molinate, water, fltrd 0.7u GF (82671)	Napropamide, water, fltrd 0.7u GF (82684)	p,p'-DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF (82669)	Pendimethalin, water, fltrd 0.7u GF (82683)	Phorate, water, fltrd 0.7u GF (82664)
OCT 25...	<0.004	<0.035	<0.027	<0.015	<0.006	0.035	<0.003	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011
NOV 22...	<0.004	<0.035	<0.027	<0.015	<0.006	.018	<0.003	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011
MAR 28...	<0.004	<0.035	<0.027	<0.015	E.003	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011
APR 29...	<0.004	<0.035	<0.027	<0.015	.017	.009	<0.003	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011
APR 29...	<0.004	<0.035	<0.027	<0.015	.015	.008	<0.003	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011
MAY 20...	.005	<0.035	<0.027	<0.015	1.55	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011
JUL 13...	<0.004	<0.035	<0.027	<0.015	.035	.023	<0.003	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011
JUL 13...	<0.004	<0.035	<0.027	<0.015	.033	.021	<0.003	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011
AUG 30...	<0.004	<0.035	<0.027	<0.015	.193	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011
SEP 15...	<0.004	<0.035	<0.027	<0.015	<0.006	.008	<0.003	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011

3747550860904 F15CS004--BIG SPRING AT BIG SPRING, KY--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005--CONTINUED

Date	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd, 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd, 0.7u GF ug/L (82679)	Propargite, water, fltrd, 0.7u GF ug/L (82685)	Simazine, water, fltrd, ug/L (04035)	Tebu-thiuron water fltrd, 0.7u GF ug/L (82670)	Terbacil, water, fltrd, 0.7u GF ug/L (82665)	Terbufos, water, fltrd, 0.7u GF ug/L (82675)	Thio-bencarb water fltrd, 0.7u GF ug/L (82681)	Tri-allate, water, fltrd, 0.7u GF ug/L (82678)	Tri-fluralin, water, fltrd, 0.7u GF ug/L (82661)	Suspended sediment concentration mg/L (80154)
OCT 25...	<0.01	<0.004	E0.004	<0.011	<0.02	0.010	<0.02	<0.034	<0.02	<0.010	<0.006	<0.009	1
NOV 22...	<.01	<.004	<.025	<.011	<.02	<.010	<.02	<.034	<.02	<.010	<.006	<.009	7
MAR 28...	<.01	<.004	E.016	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.006	<.009	194
APR 29...	<.01	<.004	E.004	<.011	<.02	.100	<.02	<.034	<.02	<.010	<.006	<.009	7
29...	<.01	<.004	<.025	<.011	<.02	.093	<.02	<.034	<.02	<.010	<.006	<.009	8
MAY 20...	<.01	<.004	E.006	<.011	<.02	2.68	<.02	<.034	<.02	<.010	<.006	<.009	440
JUL 13...	<.01	<.004	<.016	<.011	<.02	.031	<.02	<.034	<.02	<.010	<.006	<.009	6
13...	<.01	<.004	<.025	<.011	<.02	.029	<.02	<.034	<.02	<.010	<.006	<.009	--
AUG 30...	<.01	<.004	<.025	<.011	<.02	.013	<.02	<.034	<.02	<.010	<.006	<.009	239
SEP 15...	<.01	<.004	<.025	<.011	<.02	.029	<.02	<.034	<.02	<.010	<.006	<.009	2

E--Laboratory estimated value.

M--Presence of material verified but not quantified.

&lt;--Numeric result is less than the value shown.

374813086171501 F14DS005--FLAT ROCK SPRING NEAR ROSETTA, KY

## WATER-QUALITY RECORDS

LOCATION.--Lat 37°48'13", long 86°17'15", Breckinridge County, Hydrologic Unit 05140104.

PERIOD OF RECORD.--April 2004 to current water year.

COOPERATION.--Kentucky Department of Agriculture.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Turbidity, IR LED light, det ang 90 deg, FNU (63680)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit mg/L as CaCO3 (39086)	Bicarbonate, wat flt inc titr., field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)
OCT 25...	1150	Environmental	3.1	55	748	9.9	7.7	476	13.5	222	269	5.27
25...	1158	Field Blank	--	--	--	--	--	--	--	--	--	<0.20
NOV 22...	1215	Environmental	23	16	748	10.1	7.4	407	13.5	184	223	5.27
MAR 28...	1320	Environmental	--	340	733	10.6	7.2	175	10.5	71	86	2.08
APR 29...	1200	Environmental	16	--	742	10.7	8.1	452	13.0	207	253	4.86
MAY 20...	1200	Environmental	--	--	738	9.1	7.2	205	14.0	85	104	2.96
JUL 13...	1330	Environmental	16	98	745	8.5	7.3	174	15.5	99	120	3.70
AUG 18...	1100	Environmental	3.7	--	748	10.4	7.5	465	13.5	176	215	5.72
30...	1315	Environmental	--	140	727	7.3	7.6	353	14.5	120	146	5.25
SEP 15...	0940	Environmental	4.5	2.9	749	9.8	7.6	433	14.0	195	238	5.70

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	2,6-Diethyl-aniline water fltrd 0.7u GF (82660)	CIAT, water, fltrd, ug/L (04040)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	Atrazine, water, fltrd, ug/L (39632)	Azinphosmethyl, water, fltrd 0.7u GF (82686)	Benfluralin, water, fltrd 0.7u GF (82673)	Butylate, water, fltrd, ug/L (04028)
OCT 25...	<0.04	1.57	0.045	0.06	<0.006	E0.044	<0.006	<0.005	<0.005	0.046	<0.050	<0.010	<0.004
25...	<.04	<0.06	<.006	<.004	--	--	--	--	--	--	--	--	--
NOV 22...	<.04	2.54	.050	.09	<.006	E.106	<.006	<.005	<.005	.059	<.050	<.010	<.004
MAR 28...	.07	.84	.057	.45	<.006	E.009	<.006	<.005	<.005	.010	<.050	<.010	<.004
APR 29...	<.04	1.99	.022	.04	<.006	E.072	E.005	<.005	<.005	.069	<.050	<.010	<.004
MAY 20...	.11	1.38	.134	.61	<.006	E.244	.577	<.005	<.005	2.67	<.050	<.010	<.004
JUL 13...	<.04	2.19	.181	.35	<.006	E.042	<.006	<.005	<.005	.121	<.050	<.010	<.004
AUG 18...	<.04	2.31	.043	.06	<.006	E.074	<.006	<.005	<.005	.050	<.050	<.010	<.004
30...	<.04	1.73	.164	.30	<.006	E.043	<.006	<.005	<.005	.052	<.050	<.010	<.004
SEP 15...	<.04	2.35	.050	.08	<.006	E.107	<.006	<.005	<.005	.056	<.050	<.010	<.004

## 374813086171501 F14DS005--FLAT ROCK SPRING NEAR ROSETTA, KY--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005--CONTINUED

Date	Carbaryl, water, fltrd 0.7u GF (82680)	Carbofuran, water, fltrd 0.7u GF (82674)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF (82687)	Cyanazine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF (82682)	Diazinon, water, fltrd, ug/L (39572)	Dieldrin, water, fltrd, ug/L (39381)	Disulfoton, water, fltrd 0.7u GF (82677)	EPTC, water, fltrd 0.7u GF (82668)	Ethalfuralin, water, fltrd 0.7u GF (82663)	Ethoprop, water, fltrd 0.7u GF (82672)	Fonofos water, fltrd, ug/L (04095)
OCT 25...	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<0.02	<0.004	<0.009	<0.005	<0.003
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV 22...	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009	<.005	<.003
MAR 28...	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009	<.005	<.003
APR 29...	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009	<.005	<.003
MAY 20...	E.031	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009	<.005	<.003
JUL 13...	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009	<.005	<.003
AUG 18...	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.004	<.009	<.005	<.003
30...	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.113	<.009	<.005	<.003
SEP 15...	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.009	<.02	<.029	<.009	<.005	<.003

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005--CONTINUED

Date	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl parathion, water, fltrd 0.7u GF (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Molinate, water, fltrd 0.7u GF (82671)	Napropamide, water, fltrd 0.7u GF (82684)	p,p'-DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF (82669)	Pendimethalin, water, fltrd 0.7u GF (82683)	Phorate water fltrd 0.7u GF (82664)
OCT 25...	<0.004	<0.035	<0.027	<0.015	<0.006	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV 22...	<.004	<.035	<.027	<.015	<.006	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011
MAR 28...	<.004	<.035	<.027	<.015	<.006	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011
APR 29...	<.004	<.035	<.027	<.015	E.002	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011
MAY 20...	<.004	<.035	<.027	<.015	.068	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011
JUL 13...	<.004	<.035	<.027	<.015	.021	<.006	<.003	<.007	<.003	<.010	<.004	.024	<.011
AUG 18...	<.004	<.035	<.027	<.015	<.006	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011
30...	<.004	<.035	<.027	<.015	.038	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011
SEP 15...	<.004	<.035	<.027	<.015	<.008	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011

374813086171501 F14DS005--FLAT ROCK SPRING NEAR ROSETTA, KY—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd, 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd, 0.7u GF ug/L (82679)	Propargite, water, fltrd, 0.7u GF ug/L (82685)	Simazine, water, fltrd, ug/L (04035)	Tebu-thiuron water fltrd, 0.7u GF ug/L (82670)	Terbacil, water, fltrd, 0.7u GF ug/L (82665)	Terbufos, water, fltrd, 0.7u GF ug/L (82675)	Thio-bencarb water fltrd, 0.7u GF ug/L (82681)	Tri-allate, water, fltrd, 0.7u GF ug/L (82678)	Tri-fluralin, water, fltrd, 0.7u GF ug/L (82661)	Suspended sediment concentration mg/L (80154)
OCT 25...	<0.01	<0.004	<0.025	<0.011	<0.02	<0.010	<0.02	<0.034	<0.02	<0.010	<0.006	<0.009	3
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV 22...	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.006	<.009	15
MAR 28...	<.01	<.004	E.006	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.006	<.009	547
APR 29...	<.01	<.004	E.013	<.011	<.02	.020	<.02	<.034	<.02	<.010	<.006	<.009	6
MAY 20...	<.01	<.004	<.025	<.011	<.02	.665	<.02	<.034	<.02	<.010	<.006	<.009	788
JUL 13...	<.01	<.004	<.020	<.011	<.02	.128	<.02	<.034	<.02	<.010	<.006	<.009	81
AUG 18...	<.01	<.004	<.025	<.011	<.02	.015	<.02	<.034	<.02	<.010	<.006	<.009	25
30...	<.01	<.004	<.025	<.011	<.02	.014	<.02	<.034	<.02	<.010	<.006	<.009	246
SEP 15...	<.01	<.004	<.025	<.011	<.02	.029	<.02	<.034	<.02	<.010	<.006	<.009	4

E--Laboratory estimated value.

M--Presence of material verified but not quantified.

&lt;--Numeric result is less than the value shown.



374846086154101 F14DS003--ROSS KARST WINDOW NEAR BIG SPRING, KY

WATER-QUALITY RECORDS

LOCATION.--Lat 37°48'46", long 86°15'41", Breckinridge County, Hydrologic Unit 05140104.

PERIOD OF RECORD.--May 2004 to current water year.

COOPERATION.--Kentucky Department of Agriculture.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Turbidity, IR LED light, det ang 90 deg, FNU (63680)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)	Ammonia water, fltrd, mg/L as N (00608)
OCT 25...	1130	Environmental	58	748	9.3	7.4	468	13.5	217	264	5.87	<0.04
NOV 22...	1130	Environmental	14	748	9.7	7.3	422	13.5	186	227	5.41	<.04
MAR 28...	1240	Environmental	240	733	10.8	7.0	159	10.0	63	77	1.73	.07
APR 29...	1135	Environmental	--	741	10.5	8.0	448	13.0	207	253	4.78	<.04
MAY 20...	1125	Environmental	--	738	9.5	7.3	213	14.0	87	106	3.38	.10
JUL 13...	1140	Environmental	91	743	8.0	7.2	272	15.5	116	141	3.82	<.04
JUL 13...	1148	Field Blank	--	--	--	--	--	--	--	--	--	--
AUG 30...	1215	Environmental	180	728	8.5	7.7	306	14.5	124	150	4.20	E.03
SEP 15...	0915	Environmental	3.3	746	9.8	7.4	450	14.0	205	250	5.77	<.04
SEP 15...	0925	Replicate	--	--	--	--	--	--	--	--	5.73	<.04

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Nitrite + nitrate water fltrd, mg/L as N (00631)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	2,6-Diethyl-aniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	Atrazine, water, fltrd, ug/L (39632)	Azinphosmethyl, water, fltrd 0.7u GF ug/L (82686)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	Butylate, water, fltrd, ug/L (04028)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)
OCT 25...	1.47	0.041	0.06	<0.006	E0.042	<0.006	<0.005	<0.005	0.041	<0.050	<0.010	<0.004	<0.041
NOV 22...	2.40	.045	.08	<.006	E.107	<.006	<.005	<.005	.057	<.050	<.010	<.004	<.041
MAR 28...	0.76	.054	.33	<.006	E.008	<.006	<.005	<.005	.011	<.050	<.010	<.004	<.041
APR 29...	1.96	.019	.03	<.006	E.072	E.005	<.005	<.005	.069	<.050	<.010	<.004	<.041
MAY 20...	1.54	.185	.53	<.006	E.198	.806	<.005	<.005	2.18	<.050	<.010	<.004	E.039
JUL 13...	1.83	.171	.32	<.006	E.048	.007	<.005	<.005	.111	<.050	<.010	<.004	<.041
JUL 13...	--	--	--	<.006	<.006	<.006	<.005	<.005	<.007	<.050	<.010	<.004	<.041
AUG 30...	1.67	.214	.89	<.006	E.033	<.006	<.005	<.005	.030	<.050	<.010	<.004	<.041
SEP 15...	2.45	.044	.08	<.006	E.094	<.006	<.005	<.005	.052	<.050	<.010	<.004	<.041
SEP 15...	2.44	.031	.08	<.006	E.096	<.006	<.005	<.005	.053	<.050	<.010	<.004	<.041

374846086154101 F14DS003--ROSS KARST WINDOW NEAR BIG SPRING, KY—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Carbo- furan, water, fltrd 0.7u GF (82674)	Chlor- pyrifos water, fltrd, ug/L (38933)	cis- Per- methrin water fltrd 0.7u GF (82687)	Cyana- zine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF (82682)	Diazi- non, water, fltrd, ug/L (39572)	Diel- drin, water, fltrd, ug/L (39381)	Disul- foton, water, fltrd 0.7u GF (82677)	EPTC, water, fltrd 0.7u GF (82668)	Ethal- flur- alin, water, fltrd 0.7u GF (82663)	Etho- prop, water, fltrd 0.7u GF (82672)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)
OCT 25...	<0.070	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<0.02	<0.004	<0.009	<0.005	<0.003	<0.004
NOV 22...	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009	<0.005	<0.003	<0.004
MAR 28...	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009	<0.005	<0.003	<0.004
APR 29...	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009	<0.005	<0.003	<0.004
MAY 20...	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009	<0.005	<0.003	<0.004
JUL 13...	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009	<0.005	<0.003	<0.004
JUL 13...	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009	<0.005	<0.003	<0.004
AUG 30...	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.064	<0.009	<0.005	<0.003	<0.004
SEP 15...	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009	<0.005	<0.003	<0.004
SEP 15...	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009	<0.005	<0.003	<0.004

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Linuron water fltrd 0.7u GF (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl para- thion, water, fltrd 0.7u GF (82667)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)	Moli- nate, water, fltrd 0.7u GF (82671)	Naprop- amide, water, fltrd 0.7u GF (82684)	p,p'- DDE, water, fltrd, ug/L (34653)	Para- thion, water, fltrd, ug/L (39542)	Peb- ulate, water, fltrd 0.7u GF (82669)	Pendi- meth- alin, water, fltrd 0.7u GF (82683)	Phorate water fltrd 0.7u GF (82664)	Prome- ton, water, fltrd, ug/L (04037)
OCT 25...	<0.035	<0.027	<0.015	<0.010	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011	<0.01
NOV 22...	<0.035	<0.027	<0.015	<0.006	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011	<0.01
MAR 28...	<0.035	<0.027	<0.015	<0.006	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011	<0.01
APR 29...	<0.035	<0.027	<0.015	E.002	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011	<0.01
MAY 20...	<0.035	<0.027	<0.015	.288	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011	<0.01
JUL 13...	<0.035	<0.027	<0.015	.032	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011	<0.01
JUL 13...	<0.035	<0.027	<0.015	<0.006	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011	<0.01
AUG 30...	<0.035	<0.027	<0.015	.021	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011	<0.01
SEP 15...	<0.035	<0.027	<0.015	.006	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011	<0.01
SEP 15...	<0.035	<0.027	<0.015	.006	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011	<0.01

374846086154101 F14DS003--ROSS KARST WINDOW NEAR BIG SPRING, KY—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Propy- zamide, water, fltrd 0.7u GF (82676)	Propa- chlor, water, fltrd, ug/L (04024)	Pro- panil, water, fltrd 0.7u GF (82679)	Propar- gite, water, fltrd 0.7u GF (82685)	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd 0.7u GF (82670)	Terba- cil, water, fltrd 0.7u GF (82665)	Terbu- fos, water, fltrd 0.7u GF (82675)	Thio- bencarb water fltrd 0.7u GF (82681)	Tri- allate, water, fltrd 0.7u GF (82678)	Tri- flur- alin, water, fltrd 0.7u GF (82661)	Sus- pended sedi- ment concen- tration mg/L (80154)
OCT 25...	<0.004	E.011	<0.011	<0.02	0.015	<0.02	<0.034	<0.02	<0.010	<0.006	<0.009	6
NOV 22...	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.006	<.009	14
MAR 28...	<.004	E.007	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.006	<.009	489
APR 29...	<.004	.029	<.011	<.02	.016	<.02	<.034	<.02	<.010	<.006	<.009	12
MAY 20...	<.004	<.025	<.011	<.02	.448	<.02	<.034	<.02	<.010	<.006	<.009	489
JUL 13...	<.004	<.020	<.011	<.02	.127	<.02	<.034	<.02	<.010	<.006	<.009	--
JUL 13...	<.004	<.006	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.006	<.009	--
AUG 30...	<.004	<.025	<.011	<.02	.008	<.02	<.034	<.02	<.010	<.006	<.009	238
SEP 15...	<.004	<.025	<.011	<.02	.021	<.02	<.034	<.02	<.010	<.006	<.009	17
SEP 15...	<.004	<.025	<.011	<.02	.022	<.02	<.034	<.02	<.010	<.006	<.009	6

E--Laboratory estimated value.

M--Presence of material verified but not quantified.

&lt;--Numeric result is less than the value shown.





375209086224001 F14CS002--BOILING SPRING NEAR LODIBURG, KY

## WATER-QUALITY RECORDS

LOCATION.--Lat 37°52'09", long 86°22'40", Breckinridge County, Hydrologic Unit 05140104.

PERIOD OF RECORD.--April 2004 to current water year.

COOPERATION.--Kentucky Department of Agriculture.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Turbidity, IR LED light, det ang, 90 deg, FNU (63680)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unfltrd, uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat fltr inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat fltr incrm. titr., field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)
OCT 25...	1200	Environmental	16	3.7	748	--	7.2	640	15.0	220	268	6.40
NOV 22...	1300	Environmental	153	27	744	9.7	7.3	439	13.5	192	232	5.25
APR 29...	1500	Environmental	78	6.4	740	9.8	7.5	493	13.0	207	253	5.12
MAY 20...	0900	Environmental	--	400	738	9.1	7.1	265	14.5	100	--	3.18
JUL 13...	1255	Environmental	--	120	743	7.6	7.2	372	16.5	138	169	4.57

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005--CONTINUED

Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	2,6-Diethyl-aniline water fltrd 0.7u GF (82660)	CIAT, water, fltrd, ug/L (04040)	Aceto-chlor, water, fltrd, ug/L (49260)	Ala-chlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl, water, fltrd 0.7u GF (82686)	Ben-flur-alin, water, fltrd 0.7u GF (82673)	Butyl-ate, water, fltrd, ug/L (04028)
OCT 25...	<0.04	1.26	0.041	0.07	<0.006	E0.035	<0.010	<0.005	<0.005	0.040	<0.050	<0.010	<0.004
NOV 22...	<.04	2.24	.066	.14	<.006	E.074	<.006	<.005	<.005	.042	<.050	<.010	<.004
APR 29...	<.04	1.67	.022	.04	<.006	E.063	.014	<.005	<.005	.105	<.050	<.010	<.004
MAY 20...	.07	1.39	.093	.58	<.006	E.398	.652	<.005	<.005	4.35	<.050	<.010	<.004
JUL 13...	<.04	1.81	.086	.23	<.006	E.073	.076	<.005	<.005	.269	<.050	<.010	<.004

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005--CONTINUED

Date	Carbaryl, water, fltrd 0.7u GF (82680)	Carbo-furan, water, fltrd 0.7u GF (82674)	Chlor-pyrifos water, fltrd, ug/L (38933)	cis-Per-methrin water fltrd 0.7u GF (82687)	Cyana-zine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF (82682)	Diazi-non, water, fltrd, ug/L (39572)	Diel-drin, water, fltrd, ug/L (39381)	Disul-foton, water, fltrd 0.7u GF (82677)	EPTC, water, fltrd 0.7u GF (82668)	Ethal-flur-alin, water, fltrd 0.7u GF (82663)	Etho-prop, water, fltrd 0.7u GF (82672)	Fonofos water, fltrd, ug/L (04095)
OCT 25...	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<0.02	<0.004	<0.009	<0.005	<0.003
NOV 22...	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009	<0.005	<0.003
APR 29...	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009	<0.005	<0.003
MAY 20...	E.021	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009	<0.005	<0.003
JUL 13...	E.045	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.009	<.02	<0.004	<0.009	<0.005	<0.003

375209086224001 F14CS002--BOILING SPRING NEAR LODIBURG, KY—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Mala- thion, water, fltrd, ug/L (39532)	Methyl para- thion, water, fltrd 0.7u GF ug/L (82667)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)	Moli- nate, water, fltrd 0.7u GF ug/L (82671)	Naprop- amide, water, fltrd 0.7u GF ug/L (82684)	p,p'- DDE, water, fltrd, ug/L (34653)	Para- thion, water, fltrd, ug/L (39542)	Peb- ulate, water, fltrd 0.7u GF ug/L (82669)	Pendi- meth- alin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)
OCT 25...	<0.004	<0.035	<0.027	<0.015	0.011	<0.006	<0.003	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011
NOV 22...	<.004	<.035	<.027	<.015	.008	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011
APR 29...	<.004	<.035	<.027	<.015	.007	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011
MAY 20...	<.004	<.035	<.027	<.015	.365	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011
JUL 13...	<.004	<.035	<.027	<.015	.033	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Prome- ton, water, fltrd, ug/L (04037)	Propy- zamide, water, fltrd 0.7u GF ug/L (82676)	Pro- chlor, water, fltrd, ug/L (04024)	Pro- panil, water, fltrd 0.7u GF ug/L (82679)	Propar- gite, water, fltrd 0.7u GF ug/L (82685)	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd 0.7u GF ug/L (82665)	Terbu- fos, water, fltrd 0.7u GF ug/L (82675)	Thio- bencarb water fltrd 0.7u GF ug/L (82681)	Tri- allate, water, fltrd 0.7u GF ug/L (82678)	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)	Sus- pended sedi- ment con- centra- tion mg/L (80154)
OCT 25...	<0.01	<0.004	E0.021	<0.011	<0.02	<0.010	<0.02	<0.034	<0.02	<0.010	<0.006	<0.009	7
NOV 22...	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034	<.02	<.010	<.006	<.009	31
APR 29...	<.01	<.004	E.007	<.011	<.02	.010	<.02	<.034	<.02	<.010	<.006	<.009	8
MAY 20...	<.01	<.004	<.025	<.011	<.02	.076	<.02	<.034	<.02	<.010	<.006	<.009	1,040
JUL 13...	E.01	<.004	<.031	<.011	<.02	.030	<.02	<.034	<.02	<.010	<.006	<.009	81

E--Laboratory estimated value.

M--Presence of material verified but not quantified.

&lt;--Numeric result is less than the value shown.



**Figure 11.** Location of observation wells at Maxey Flats Project in Fleming County, Kentucky.



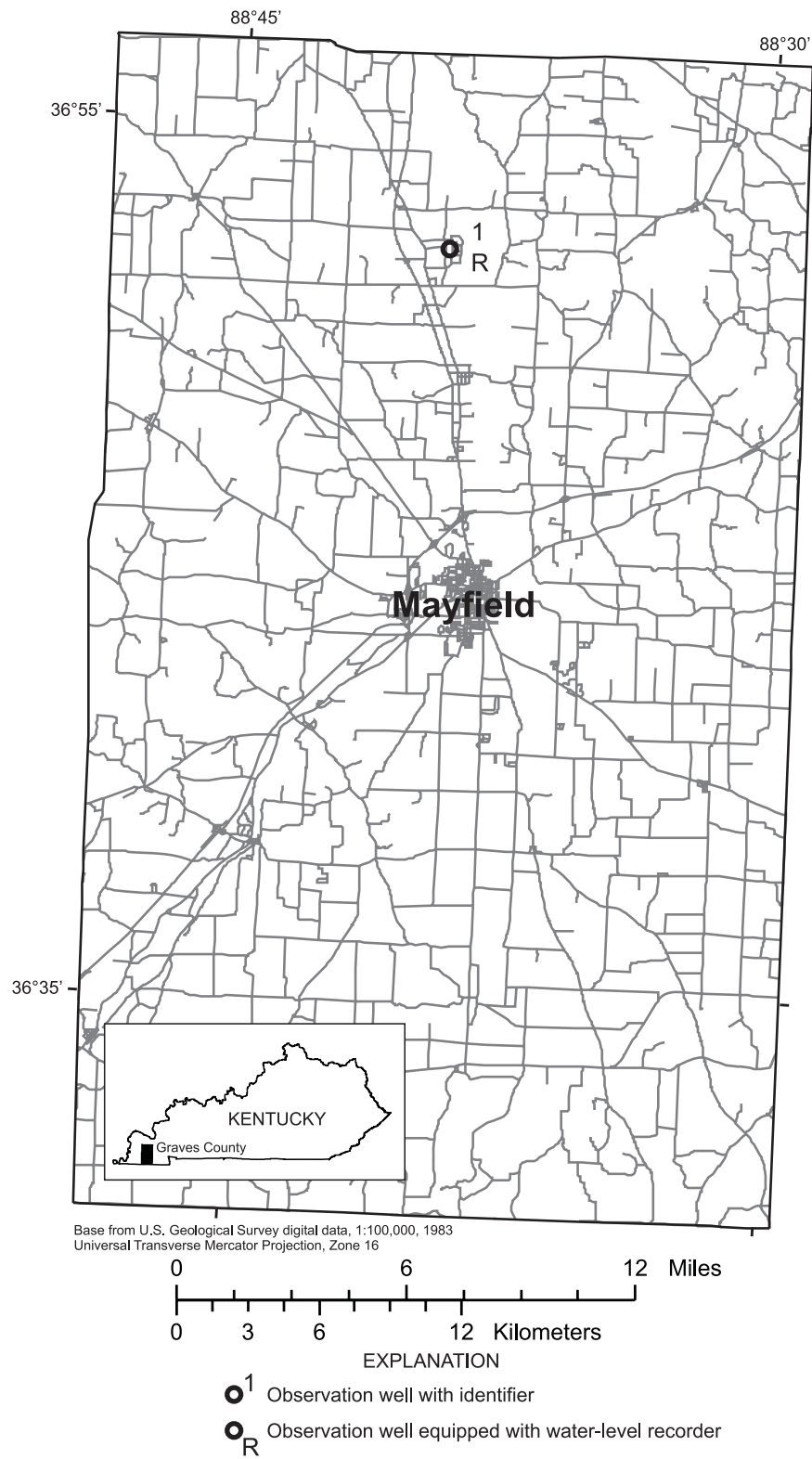


Figure 12. Location of observation wells in Graves County, Kentucky.

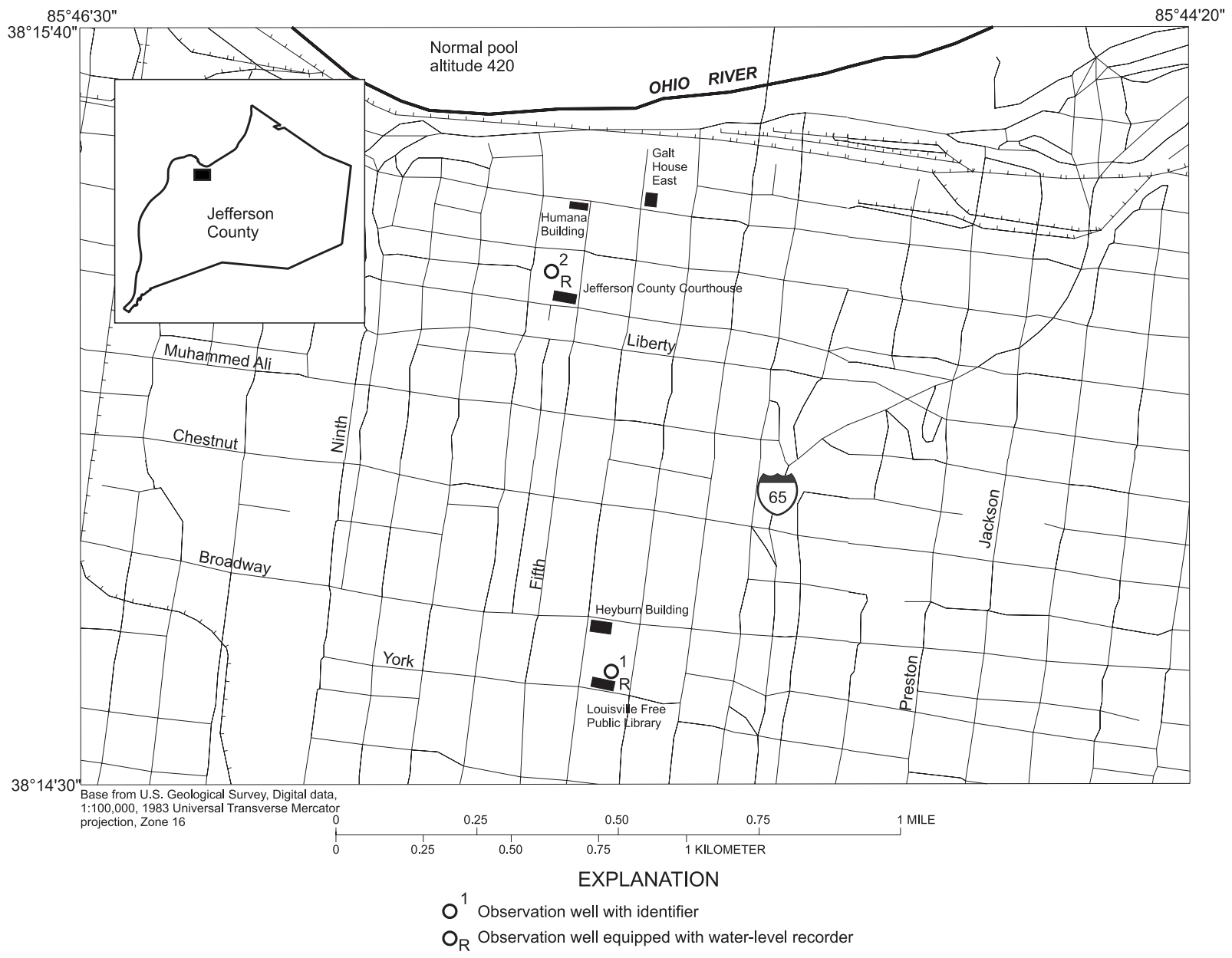
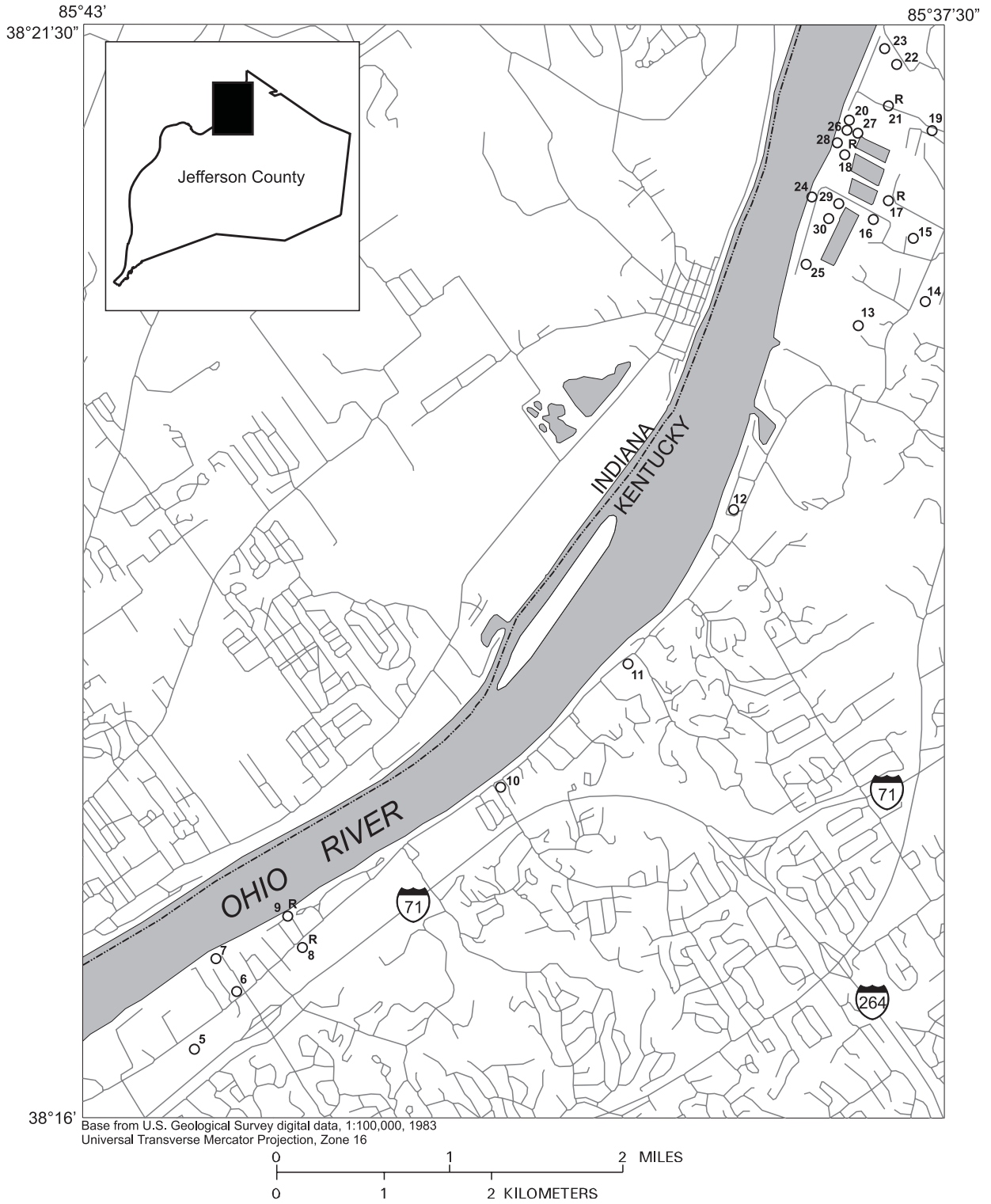


Figure 13. Location of observation wells in downtown Louisville, Kentucky.



**Figure 14.** Location of observation wells in northeastern Jefferson County, Kentucky.

GROUND-WATER LEVELS

GRAVES COUNTY

365210088391301. (Viola well), map number 1.

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 telemetry, 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.

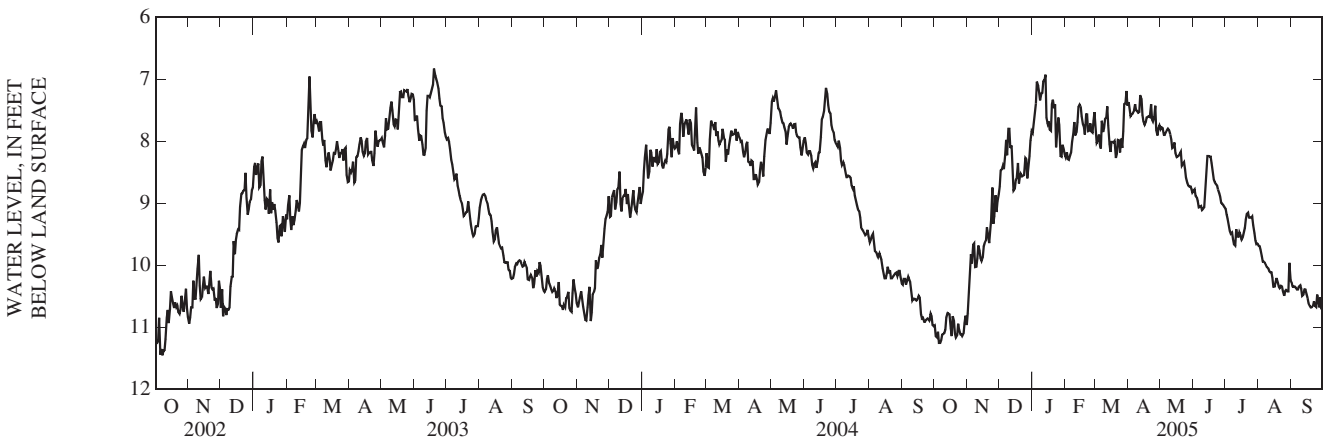
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.79 ft below land-surface datum, June 19, 2003; lowest measured, 19.24 ft below land-surface datum, Jan. 10, 1975.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.97	10.77	8.73	7.86	8.26	7.84	7.37	7.81	8.80	9.09	e9.68	10.27
2	11.14	10.51	8.47	7.71	8.18	8.03	7.48	7.78	8.78	9.18	9.69	10.34
3	11.16	10.10	8.45	7.52	8.29	8.00	7.60	7.79	8.88	e9.25	e9.75	10.35
4	11.07	9.82	8.40	7.39	8.30	7.89	7.57	7.90	8.91	9.36	e9.85	10.34
5	11.25	9.97	e8.45	7.04	8.23	8.06	7.55	7.90	8.97	9.45	e9.94	10.36
6	11.25	9.67	e8.22	7.11	8.18	8.12	7.52	7.86	9.07	9.49	9.94	10.39
7	11.21	9.65	7.98	7.21	8.01	7.67	7.40	7.82	9.06	9.47	9.96	10.39
8	11.12	10.03	8.23	7.34	7.87	7.85	7.50	7.80	9.05	e9.58	9.99	10.34
9	11.11	10.02	7.80	7.23	7.69	7.79	7.51	7.82	9.11	e9.66	e10.03	10.32
10	11.09	9.89	7.80	7.22	7.91	7.65	7.54	7.89	9.09	9.68	e10.05	10.38
11	11.04	9.68	8.11	7.04	7.86	7.62	7.53	7.97	9.07	9.42	e10.09	10.49
12	10.84	9.77	8.07	7.01	7.69	7.44	7.26	8.11	8.84	9.53	10.11	10.47
13	10.77	9.89	8.43	6.93	7.45	7.75	7.31	8.09	8.49	9.54	10.11	10.39
14	10.78	9.93	8.80	7.62	7.41	8.04	7.58	8.02	8.24	9.47	10.20	10.39
15	10.79	9.87	8.77	7.72	7.44	8.17	7.68	8.19	8.24	9.51	10.34	10.47
16	11.02	9.70	8.63	7.68	7.60	8.01	7.74	8.26	8.25	9.59	10.34	10.53
17	11.14	9.64	8.60	7.81	7.73	8.01	7.70	8.25	8.25	9.56	10.27	10.61
18	10.82	9.60	8.35	7.83	7.77	8.02	7.62	8.24	8.35	9.49	10.21	10.65
19	10.90	9.39	8.68	7.40	7.89	8.00	7.61	8.20	8.51	e9.40	10.28	10.68
20	11.10	9.49	8.57	7.33	7.57	8.27	7.60	8.17	8.62	9.26	10.34	10.68
21	11.17	9.64	8.52	7.47	7.57	8.20	7.61	8.40	8.66	e9.17	e10.37	10.65
22	11.13	9.47	8.57	7.41	7.84	7.98	7.40	8.37	e8.69	9.15	10.33	10.58
23	10.94	9.27	8.56	8.10	7.83	7.99	7.65	8.34	8.71	e9.23	10.34	10.65
24	11.04	8.75	8.55	7.84	7.71	8.18	7.68	8.45	8.78	e9.23	10.42	10.67
25	11.11	9.33	8.27	7.62	7.84	7.96	7.61	8.59	e8.84	e9.24	10.49	10.47
26	11.11	9.21	8.29	7.74	7.86	8.11	7.43	8.67	8.90	9.22	10.42	10.56
27	11.14	8.87	8.60	8.24	7.67	7.84	7.82	8.71	8.99	9.35	10.40	10.68
28	11.10	9.14	8.38	8.25	7.53	7.40	7.91	8.73	9.01	9.48	10.42	10.51
29	10.93	8.97	8.24	8.06	---	7.38	7.79	8.73	9.03	9.60	10.42	10.71
30	10.81	e8.85	7.99	8.13	---	7.19	7.75	8.77	e9.06	9.66	9.96	10.62
31	10.96	---	7.83	8.21	---	7.43	---	8.83	---	e9.65	10.24	---
MAX	11.25	10.77	8.80	8.25	8.30	8.27	7.91	8.83	9.11	9.68	10.49	10.71
MIN	10.77	8.75	7.80	6.93	7.41	7.19	7.26	7.78	8.24	9.09	9.68	10.27

e Estimated

WTR YR 2005 HIGH 6.93 LOW 11.25



FLEMING COUNTY

381524083341601 (UF37), map number 1.

LOCATION.--Lat 38°15'24", long 83°34'16", Hydrologic Unit 05100101, County Code 069, Plummers Landing quadrangle, near the southeast corner of the Maxey Flats Site, 10 ft. north of perimeter road. Owner: State of Kentucky.

AQUIFER.--Shale and sandstone beds of the Nancy formation. Aquifer code: 337NNCY.

WELL CHARACTERISTICS.--Augered observation well, diameter 2.5 in., depth 19.9 ft., screened interval: 17.9-19.9 ft.

INSTRUMENTATION.--Continuous recorder 60 minute interval.

DATUM.--Elevation of land-surface datum is 1045.72 ft. above NGVD of 1929. Measuring point: Top of casing, 2.86 ft. above land surface-datum.

REMARKS.--Maxey Flats Project monitoring well.

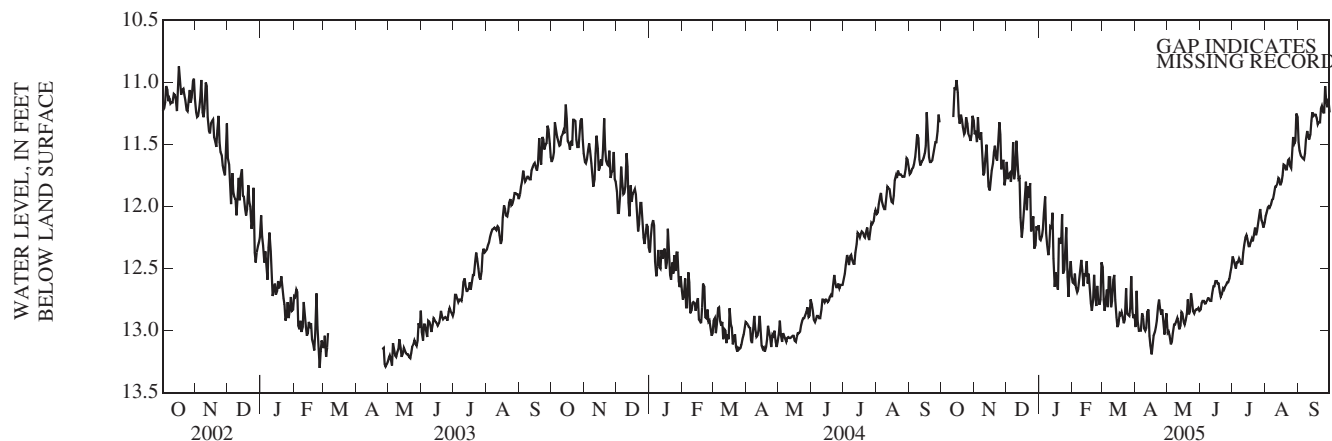
PERIOD OF RECORD.--1985 to present.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.00 ft. below land-surface datum, Nov. 03, 1998; lowest measured, 19.11 ft. below land-surface datum, Apr. 22, 2000.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	11.42	11.64	12.26	12.61	12.49	12.97	13.02	12.83	12.40	12.08	11.48
2	---	11.39	11.78	12.27	12.62	12.75	12.68	13.01	12.78	12.43	12.05	11.55
3	---	11.48	11.74	12.24	12.54	12.84	12.92	13.04	12.76	12.46	12.01	11.59
4	---	11.28	11.73	12.18	12.65	12.74	13.00	13.11	12.76	12.50	12.00	11.60
5	---	11.43	11.80	12.05	12.69	12.67	13.00	13.09	12.78	12.45	12.01	11.61
6	---	11.46	11.70	11.92	12.67	12.81	13.00	13.02	12.78	12.45	11.99	11.62
7	---	11.40	11.48	12.21	12.59	12.57	12.86	12.95	12.76	12.42	11.95	11.57
8	---	11.57	11.78	12.30	12.50	12.57	12.89	12.95	12.74	12.44	11.94	11.46
9	---	11.75	11.70	12.39	12.43	12.81	12.98	12.93	12.74	12.46	11.90	11.39
10	---	11.73	11.47	12.32	12.51	12.76	13.00	12.90	12.76	12.46	11.84	11.43
11	---	11.61	11.60	12.16	12.64	12.59	12.98	12.93	12.76	12.37	11.84	11.46
12	11.28	11.50	11.78	12.17	12.54	12.55	12.85	12.99	12.70	12.31	11.82	11.42
13	11.04	11.67	11.77	12.05	12.56	12.75	12.83	12.96	12.64	12.25	11.77	11.31
14	11.06	11.84	12.09	12.42	12.44	12.89	13.04	12.85	12.64	12.23	11.78	11.24
15	10.98	11.87	12.25	12.65	12.62	12.97	13.12	12.86	12.60	12.26	11.83	11.27
16	11.08	11.79	12.17	12.53	12.54	12.95	13.19	12.93	12.60	12.32	11.80	11.26
17	11.27	11.71	12.06	12.61	12.68	12.86	13.11	12.95	12.62	12.32	11.75	11.26
18	11.33	11.65	11.91	12.67	12.78	12.87	13.04	12.92	12.62	12.29	11.66	11.29
19	11.26	11.56	11.80	12.26	12.84	12.85	13.01	12.86	12.69	12.26	11.67	11.34
20	11.30	11.51	12.03	12.26	12.75	12.90	12.97	12.75	12.73	12.28	11.70	11.32
21	11.36	11.61	11.84	12.30	12.55	12.94	12.92	12.87	12.71	12.23	11.70	11.32
22	11.42	11.63	11.93	12.06	12.70	12.91	12.80	12.85	12.66	12.17	11.63	11.21
23	11.40	11.50	11.81	12.54	12.80	12.66	12.75	12.70	12.67	12.23	11.62	11.19
24	11.28	11.32	12.20	12.51	12.64	12.86	12.82	12.76	12.65	12.20	11.67	11.24
25	11.33	11.42	12.13	12.32	12.75	12.87	12.87	12.84	12.63	12.13	11.69	11.24
26	11.41	11.70	12.08	12.17	12.79	12.88	12.83	12.86	12.61	12.07	11.57	11.03
27	11.43	11.63	12.34	12.57	12.75	12.81	12.91	12.84	12.61	12.02	11.44	11.17
28	11.47	11.63	12.31	12.73	12.45	12.56	13.03	12.83	12.58	12.11	11.49	11.20
29	11.42	11.83	12.16	12.54	---	12.85	12.93	12.83	12.53	12.13	11.47	11.13
30	11.27	11.76	12.19	12.44	---	12.90	12.86	12.82	12.49	12.17	11.25	11.24
31	11.31	---	12.15	12.56	---	12.87	---	12.84	---	12.13	11.28	---
MAX	---	11.87	12.34	12.73	12.84	12.97	13.19	13.11	12.83	12.50	12.08	11.62
MIN	---	11.28	11.47	11.92	12.43	12.49	12.68	12.70	12.49	12.02	11.25	11.03

WTR YR 2005 HIGH 10.98 LOW 13.19



GROUND-WATER LEVELS

FLEMING COUNTY

381532083342501 (UF45), map number 2.

LOCATION.--Lat 38°15'32" , long 83°34'25" , Hydrologic Unit 05100101, County Code 069, Plummers Landing quadrangle, near the southwest corner of the Maxey Flats Site, 2 ft. west of perimeter road . Owner: State of Kentucky.

AQUIFER.--Shale and sandstone beds of the Nancy formation. Aquifer code: 337NNCY.

WELL CHARACTERISTICS.--Augered observation well, diameter 2.5 in., depth 18.9 ft., screened interval: 16.9-18.9 ft.

INSTRUMENTATION.--Continuous recorder 60 minute interval.

DATUM.--Elevation of land-surface datum is 1052.81 ft. above NGVD of 1929. Measuring point: Top of casing, 3.20 ft. above land-surface datum..

REMARKS.--Maxey Flats Project monitoring well.

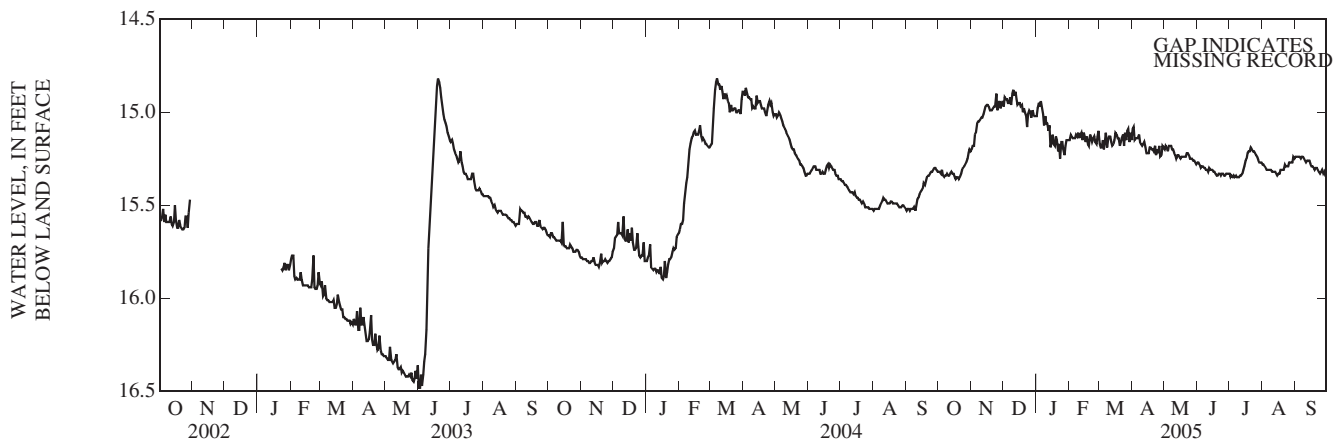
PERIOD OF RECORD.--1985 to present.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.15 ft. below land-surface datum, Apr. 08, 2000; lowest measured, 18.70 ft. below land-surface datum, Apr. 12, 1988.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.32	15.20	14.97	15.02	15.15	15.17	15.09	15.20	15.27	15.33	15.28	15.24
2	15.32	15.18	14.92	14.98	15.12	15.19	15.08	15.18	15.27	15.35	15.28	15.24
3	15.33	15.18	14.93	14.95	15.13	15.19	15.15	15.19	15.28	15.34	15.29	15.24
4	15.31	15.12	14.93	14.97	15.14	15.15	15.14	15.21	15.30	15.35	15.30	15.24
5	15.34	15.11	14.95	14.94	15.14	15.20	15.14	15.18	15.29	15.34	15.31	15.24
6	15.35	15.06	14.95	14.98	15.14	15.16	15.14	15.18	15.29	15.35	15.31	15.25
7	15.34	15.05	14.92	15.01	15.12	15.11	15.12	15.18	15.30	15.34	15.31	15.24
8	15.34	15.05	14.96	15.07	15.13	15.19	15.16	15.20	15.30	15.35	15.31	15.24
9	15.33	15.04	14.90	15.02	15.11	15.15	15.17	15.20	15.31	15.35	15.31	15.25
10	15.34	15.03	14.88	15.06	15.14	15.13	15.18	15.22	15.31	15.35	15.32	15.26
11	15.34	15.03	14.91	15.06	15.12	15.13	15.17	15.23	15.32	15.34	15.32	15.27
12	15.33	15.01	14.89	15.10	15.11	15.16	15.16	15.25	15.30	15.34	15.32	15.26
13	15.32	14.99	14.93	15.07	15.15	15.18	15.19	15.23	15.31	15.33	15.32	15.26
14	15.33	14.97	14.96	15.19	15.11	15.17	15.22	15.23	15.31	15.31	15.33	15.26
15	15.33	14.96	14.95	15.16	15.13	15.15	15.22	15.24	15.31	15.29	15.34	15.28
16	15.35	14.96	14.95	15.12	15.16	15.11	15.22	15.25	15.32	15.26	15.33	15.29
17	15.36	14.97	14.97	15.17	15.13	15.12	15.19	15.24	15.32	15.25	15.33	15.29
18	15.35	14.99	14.96	15.18	15.17	15.14	15.19	15.24	15.33	15.22	15.31	15.30
19	15.35	14.99	15.00	15.13	15.18	15.14	15.20	15.24	15.34	15.21	15.31	15.31
20	15.36	14.99	14.98	15.15	15.12	15.18	15.20	15.24	15.34	15.21	15.31	15.30
21	15.35	14.98	15.00	15.21	15.14	15.16	15.21	15.24	15.33	15.19	15.31	15.30
22	15.33	14.97	15.02	15.17	15.16	15.14	15.18	15.22	15.33	15.20	15.28	15.31
23	15.31	14.97	15.08	15.25	15.14	15.12	15.23	15.22	15.34	15.21	15.29	15.32
24	15.30	14.90	15.01	15.16	15.13	15.18	15.20	15.23	15.33	15.21	15.29	15.33
25	15.29	14.99	14.99	15.16	15.16	15.11	15.22	15.25	15.33	15.22	15.29	15.32
26	15.28	14.96	15.00	15.20	15.17	15.15	15.18	15.25	15.34	15.23	15.27	15.31
27	15.27	14.94	15.03	15.23	15.13	15.10	15.24	15.25	15.34	15.24	15.27	15.33
28	15.25	14.98	14.99	15.18	15.10	15.09	15.23	15.26	15.33	15.26	15.27	15.32
29	15.22	14.96	15.01	15.15	---	15.16	15.18	15.26	15.33	15.27	15.27	15.34
30	15.20	14.94	15.02	15.15	---	15.11	15.19	15.27	15.33	15.27	15.24	15.34
31	15.21	---	15.02	15.15	---	15.15	---	15.28	---	15.27	15.25	---
MAX	15.36	15.20	15.08	15.25	15.18	15.20	15.24	15.28	15.34	15.35	15.34	15.34
MIN	15.20	14.90	14.88	14.94	15.10	15.09	15.08	15.18	15.27	15.19	15.24	15.24

WTR YR 2005 HIGH 14.88 LOW 15.36



FLEMING COUNTY

381537083342201. (ESI01), map number 3.

LOCATION.--Lat 38°15'37", long 83°34'22", Hydrologic Unit 05100101, County Code 069, Plummers Landing quadrangle, on the west side of the Maxey Flats Site, 5 ft. west of perimeter road . Owner: State of Kentucky.

AQUIFER.--Shale and sandstone beds of the Nancy formation. Aquifer code: 337NNCY.

WELL CHARACTERISTICS.--Augered observation well, diameter 2 in., depth 22.1ft., screened interval: 11.7-16.7 ft.

INSTRUMENTATION.--Continuous recorder 60 minute interval.

DATUM.--Elevation of land-surface datum is 1050.46 ft. above NGVD of 1929. Measuring point: Top of casing, 2.27 ft. above land-surface datum.

REMARKS.--Maxey Flats Project monitoring well.

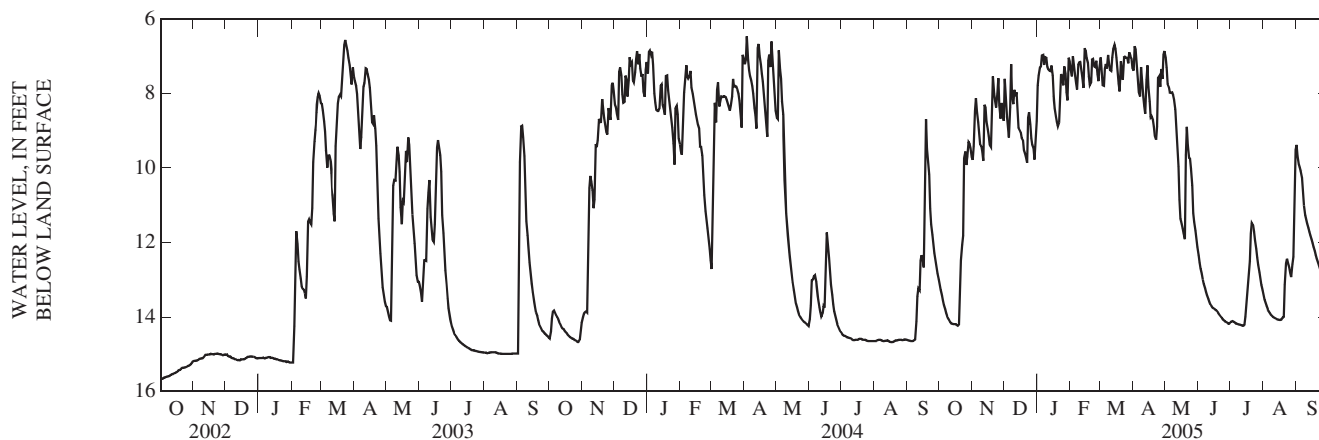
PERIOD OF RECORD.--2001 to present.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.46 ft. below land-surface datum, Apr. 03, 2004; lowest measured, 15.83 ft. below land-surface datum, Sep.14-17, 2002.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.14	9.78	7.61	7.78	7.36	7.03	7.38	7.03	12.34	14.14	13.42	9.38
2	13.28	9.42	8.07	7.51	7.54	7.39	6.73	7.31	12.54	14.12	13.54	9.68
3	13.43	8.47	8.61	7.30	7.00	7.78	6.82	7.74	12.70	14.11	13.64	9.90
4	13.56	8.12	8.92	7.27	7.21	7.80	7.32	7.82	12.85	14.13	13.72	9.99
5	13.68	8.47	9.18	6.98	7.52	7.32	7.67	7.97	13.00	14.15	13.79	10.09
6	13.80	8.77	8.38	6.96	7.72	7.20	7.97	7.98	13.12	14.17	13.85	10.26
7	13.90	9.06	7.21	7.23	7.89	7.33	8.08	7.97	13.23	14.18	13.90	10.61
8	13.98	9.35	8.14	7.02	7.22	6.96	7.29	8.04	13.33	14.19	13.94	11.00
9	14.04	9.41	8.29	7.04	7.16	7.20	7.68	8.16	13.42	14.20	13.97	11.27
10	14.09	9.57	7.90	7.28	7.15	7.37	8.09	8.42	13.51	14.21	14.00	11.38
11	14.14	9.81	8.07	7.35	7.42	7.39	8.34	8.86	13.59	14.22	14.02	11.49
12	14.17	8.30	7.97	7.38	7.60	7.03	8.54	9.34	13.66	14.23	14.04	11.61
13	14.18	8.38	8.49	7.39	7.85	6.81	7.62	9.96	13.70	14.23	14.05	11.72
14	14.19	8.75	8.91	7.25	6.78	6.70	7.25	10.86	13.74	14.21	14.06	11.81
15	14.19	8.96	8.98	7.51	6.83	6.80	7.82	11.36	13.77	13.99	14.07	11.92
16	14.19	9.14	9.03	8.06	7.05	7.03	8.21	11.50	13.79	13.57	14.08	12.02
17	14.22	9.37	9.19	8.39	7.18	7.44	8.65	11.62	13.81	13.21	14.08	12.12
18	14.23	9.43	9.25	8.62	7.54	7.74	8.61	11.76	13.83	12.91	14.07	12.23
19	14.20	8.48	9.52	8.76	7.78	7.94	8.71	11.91	13.87	12.50	14.02	12.34
20	13.12	7.54	9.60	8.88	7.71	7.13	8.89	9.65	13.92	11.76	14.00	12.44
21	12.48	8.00	9.70	8.78	7.09	7.40	9.14	8.90	13.96	11.47	13.13	12.54
22	12.06	8.21	9.86	8.13	7.07	7.63	9.24	9.37	14.00	11.53	12.56	12.62
23	11.82	8.37	8.65	7.48	7.27	7.03	8.89	9.72	14.03	11.70	12.44	12.70
24	9.73	7.99	8.50	7.58	7.29	7.01	7.59	9.75	14.07	11.93	12.55	12.79
25	9.56	7.59	8.83	7.78	7.12	7.04	7.54	10.01	14.10	12.17	12.67	12.86
26	9.92	8.31	9.20	7.27	7.49	7.04	7.82	10.47	14.12	12.40	12.82	12.91
27	9.70	8.67	9.38	7.46	7.67	7.19	7.34	11.21	14.14	12.60	12.93	12.98
28	9.30	8.25	9.47	7.96	7.30	6.89	7.61	11.45	14.16	12.80	12.58	13.04
29	9.34	8.49	9.77	8.18	---	6.99	6.96	11.68	14.18	12.98	12.39	13.10
30	9.46	8.73	9.32	7.04	---	7.05	6.86	11.90	14.18	13.14	10.83	13.16
31	9.71	---	8.74	7.14	---	7.31	---	12.12	---	13.29	9.51	---
MAX	14.23	9.81	9.86	8.88	7.89	7.94	9.24	12.12	14.18	14.23	14.08	13.16
MIN	9.30	7.54	7.21	6.96	6.78	6.70	6.73	7.03	12.34	11.47	9.51	9.38

WTR 2005 HIGH 6.70 LOW 14.53



GROUND-WATER LEVELS

FLEMING COUNTY

381538083342002. (UE2) , map number 4.

LOCATION.--Lat 38°15'38", long 83°34'20", Hydrologic Unit 05100101, County Code 069, Plummers Landing quadrangle, on the west side of the Maxey Flats Site, 5 ft. west of perimeter road . Owner: State of Kentucky.

AQUIFER.--Shale and sandstone beds of the Nancy formation. Aquifer code: 337NNCY.

WELL CHARACTERISTICS.--Augered observation well, diameter 2.5 in., depth 15.7 ft., screened interval: 13.7-15.7 ft.

INSTRUMENTATION.--Continuous recorder 60 minute interval.

DATUM.--Elevation of land-surface datum is 1049.86 ft. above NGVD of 1929. Measuring point: Top of casing, 2.81 ft. above land-surface datum.

REMARKS.--Maxey Flats Project monitoring well.

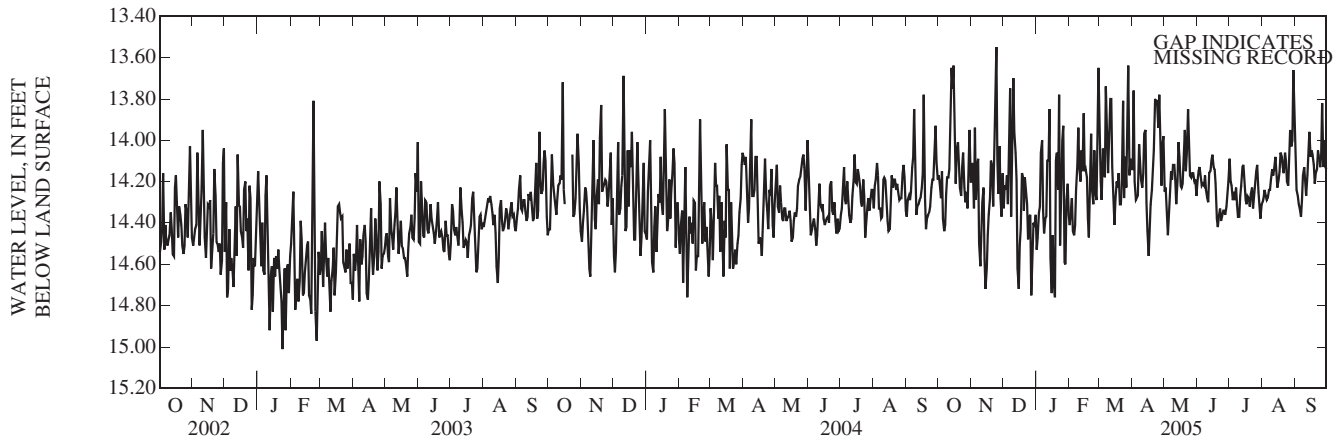
PERIOD OF RECORD.--1984 to present.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.48 ft. below land-surface datum, Aug. 08, 1984; lowest measured, 15.37 ft. below land-surface datum, Apr. 12, 2000.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.17	14.20	14.33	14.53	14.41	13.89	14.14	14.25	14.19	14.09	14.30	14.13
2	14.21	14.11	14.22	14.47	14.34	14.20	13.76	14.23	14.15	14.20	14.28	14.24
3	14.28	14.33	14.24	14.35	14.28	14.29	14.20	14.31	14.13	14.22	14.24	14.27
4	14.15	13.94	14.17	14.32	14.44	14.04	14.29	14.46	14.18	14.29	14.27	14.31
5	14.38	14.29	14.31	14.06	14.46	14.10	14.28	14.38	14.22	14.25	14.29	14.33
6	14.44	14.12	14.10	14.00	14.41	14.18	14.27	14.28	14.21	14.29	14.28	14.37
7	14.41	14.09	13.75	14.34	14.24	13.74	14.02	14.15	14.22	14.23	14.24	14.29
8	14.26	14.50	14.37	14.45	14.12	13.98	14.10	14.19	14.17	14.31	14.24	14.17
9	14.18	14.61	13.95	14.38	13.94	14.16	14.19	14.12	14.24	14.37	14.19	14.13
10	14.18	14.46	13.70	14.37	14.13	14.01	14.23	14.12	14.28	14.37	14.14	14.20
11	14.14	14.30	13.96	14.10	14.20	13.80	14.16	14.19	14.30	14.27	14.17	14.27
12	13.92	14.23	14.06	14.10	14.05	13.80	13.97	14.31	14.16	14.22	14.14	14.17
13	13.65	14.58	14.19	13.85	14.15	14.13	13.95	14.20	14.15	14.13	14.08	14.06
14	13.75	14.72	14.62	14.57	13.87	14.31	14.30	14.01	14.10	14.12	14.15	13.96
15	13.64	14.62	14.72	14.74	14.15	14.41	14.44	14.08	14.07	14.20	14.23	14.08
16	13.87	14.46	14.51	14.46	14.14	14.29	14.56	14.22	14.13	14.29	14.19	14.05
17	14.21	14.36	14.43	14.67	14.18	14.20	14.42	14.23	14.14	14.31	14.15	14.07
18	14.05	14.28	14.16	14.76	14.38	14.23	14.31	14.21	14.21	14.27	14.06	14.12
19	14.01	14.10	14.18	14.10	14.47	14.16	14.24	14.07	14.38	14.28	14.08	14.21
20	14.13	14.12	14.34	14.06	14.18	14.31	14.15	13.95	14.42	14.32	14.13	14.16
21	14.23	14.32	14.18	14.24	13.97	14.31	14.05	14.15	14.37	14.26	14.16	14.14
22	14.27	14.16	14.26	13.78	14.24	14.20	13.80	14.07	14.33	14.23	14.06	14.05
23	14.13	13.95	14.31	14.51	14.31	13.81	13.81	13.85	14.39	14.33	14.10	14.08
24	14.06	13.55	14.48	14.19	14.05	14.28	13.81	14.01	14.37	14.28	14.20	14.13
25	14.23	14.09	14.37	14.00	14.25	14.08	13.94	14.17	14.34	14.21	14.22	14.07
26	14.30	14.26	14.36	13.93	14.29	14.23	13.78	14.18	14.34	14.15	14.07	13.82
27	14.25	14.03	14.75	14.59	14.11	14.00	14.04	14.16	14.36	14.12	13.95	14.13
28	14.33	14.28	14.52	14.60	13.65	13.64	14.22	14.16	14.32	14.25	14.03	14.00
29	14.14	14.37	14.40	14.29	---	14.17	14.02	14.20	14.26	14.31	14.00	14.13
30	13.95	14.16	14.42	14.21	---	14.09	13.98	14.19	14.20	14.38	13.66	14.14
31	14.20	---	14.36	14.36	---	14.14	---	14.27	---	14.31	13.96	---
MAX	14.44	14.72	14.75	14.76	14.47	14.41	14.56	14.46	14.42	14.38	14.30	14.37
MIN	13.64	13.55	13.70	13.78	13.65	13.64	13.76	13.85	14.07	14.09	13.66	13.82

WTR YR 2005 HIGH 13.55 LOW 14.76





FLEMING COUNTY

381538083342004 (ESI12), map number 5.

LOCATION.--Lat 38°15'38", long 83°34'20", Hydrologic Unit 05100101, County Code 069, Plummers Landing quadrangle, on the west side of the Maxey Flats Site, 5 ft. west of perimeter road . Owner: State of Kentucky.

AQUIFER.--Shale and sandstone beds of the Nancy formation. Aquifer code: 337NNCY.

WELL CHARACTERISTICS.--Augered observation well, diameter 2 in., depth 38.9ft., screened interval: 25.5-34.3 ft.

INSTRUMENTATION.--Continous recorder 60 minute interval.

DATUM.--Elevation of land-surface datum is 1049.42 ft. above NGVD of 1929. Measuring point: Top of casing, 2.68 ft. above land-surface datum.

REMARKS.--Maxey Flats Project monitoring well.

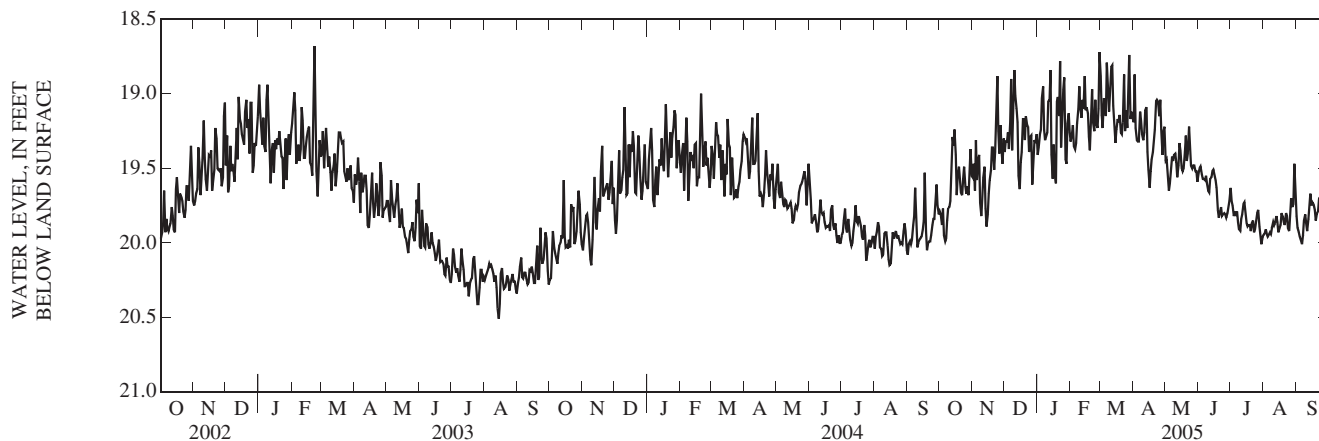
PERIOD OF RECORD.--2001 to present.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.68 ft. below land-surface datum, Feb. 22, 2003; lowest measured, 22.57 ft. below land-surface datum, Aug. 01, 2001.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.79	19.56	19.39	19.41	19.32	18.88	19.19	19.45	19.53	19.63	19.95	19.82
2	19.81	19.47	19.32	19.36	19.27	19.14	18.87	19.44	19.50	19.72	19.94	19.90
3	19.88	19.65	19.32	19.27	19.21	19.23	19.23	19.52	19.49	19.75	19.91	19.93
4	19.77	19.31	19.26	19.24	19.35	19.03	19.31	19.65	19.54	19.82	19.94	19.96
5	19.95	19.58	19.37	19.03	19.37	19.06	19.32	19.60	19.57	19.79	19.96	19.98
6	19.99	19.44	19.19	18.95	19.33	19.15	19.32	19.52	19.57	19.82	19.95	20.01
7	19.97	19.41	18.90	19.24	19.20	18.79	19.12	19.42	19.58	19.79	19.93	19.95
8	19.85	19.73	19.38	19.31	19.10	18.95	19.18	19.45	19.55	19.86	19.94	19.85
9	19.77	19.82	19.06	19.28	18.95	19.12	19.27	19.41	19.60	19.91	19.90	19.81
10	19.76	19.70	18.84	19.26	19.09	19.00	19.31	19.40	19.65	19.92	19.86	19.87
11	19.72	19.56	19.01	19.05	19.16	18.82	19.26	19.46	19.66	19.84	19.88	19.92
12	19.53	19.49	19.10	19.04	19.04	18.81	19.11	19.56	19.57	19.81	19.86	19.84
13	19.29	19.77	19.19	18.84	19.10	19.08	19.09	19.48	19.56	19.74	19.82	19.75
14	19.35	19.89	19.55	19.41	18.88	19.24	19.39	19.33	19.52	19.73	19.86	19.67
15	19.24	19.81	19.64	19.57	19.11	19.33	19.51	19.38	19.51	19.79	19.93	19.75
16	19.41	19.67	19.46	19.34	19.09	19.24	19.63	19.50	19.55	19.87	19.90	19.73
17	19.68	19.58	19.39	19.53	19.13	19.17	19.52	19.52	19.58	19.89	19.88	19.74
18	19.55	19.51	19.17	19.60	19.29	19.19	19.44	19.50	19.63	19.88	19.80	19.78
19	19.49	19.36	19.17	19.05	19.38	19.14	19.39	19.39	19.78	19.88	19.82	19.85
20	19.58	19.36	19.31	19.02	19.15	19.26	19.32	19.28	19.83	19.92	19.86	19.81
21	19.66	19.51	19.15	19.15	18.97	19.27	19.24	19.45	19.80	19.87	19.88	19.79
22	19.68	19.39	19.21	18.78	19.19	19.19	19.05	19.40	19.76	19.85	19.80	19.71
23	19.57	19.21	19.22	19.36	19.25	18.87	19.04	19.22	19.82	19.93	19.82	19.72
24	19.49	18.88	19.39	19.13	19.04	19.25	19.05	19.34	19.81	19.91	19.90	19.76
25	19.62	19.25	19.29	18.97	19.20	19.11	19.15	19.48	19.80	19.85	19.92	19.71
26	19.67	19.40	19.28	18.89	19.23	19.23	19.04	19.50	19.81	19.80	19.80	19.50
27	19.62	19.21	19.61	19.44	19.10	19.05	19.24	19.48	19.83	19.78	19.70	19.74
28	19.68	19.38	19.42	19.47	18.72	18.74	19.41	19.48	19.80	19.89	19.76	19.64
29	19.53	19.47	19.31	19.20	---	19.17	19.25	19.52	19.76	19.95	19.74	19.72
30	19.37	19.30	19.33	19.13	---	19.12	19.22	19.52	19.72	20.01	19.47	19.74
31	19.55	---	19.27	19.26	---	19.15	---	19.59	---	19.96	19.67	---
MAX	19.99	19.89	19.64	19.60	19.38	19.33	19.63	19.65	19.83	20.01	19.96	20.01
MIN	19.24	18.88	18.84	18.78	18.72	18.74	18.87	19.22	19.49	19.63	19.47	19.50

WTR YR 2005 HIGH 18.72 LOW 20.01



GROUND-WATER LEVELS

FLEMING COUNTY

381538083342005 (ESI19), map number 6.

LOCATION.--Lat 38°15'38", long 83°34'20", Hydrologic Unit 05100101, County Code 069, Plummers Landing quadrangle, on the west side of the Maxey Flats Site, 5 ft. west of perimeter road . Owner: State of Kentucky.

AQUIFER.--Shale and sandstone beds of the Nancy formation. Aquifer code: 337NNCY.

WELL CHARACTERISTICS.--Augered observation well, diameter 2 in., depth 19.5 ft., screened interval: 13.5-18.9 ft.

INSTRUMENTATION.--Continuous recorder 60 minute interval.

DATUM.--Elevation of land-surface datum is 1049.73 ft. above NGVD of 1929. Measuring point: Top of casing, 2.38 ft. above land-surface datum.

REMARKS.--Maxey Flats Project monitoring well.

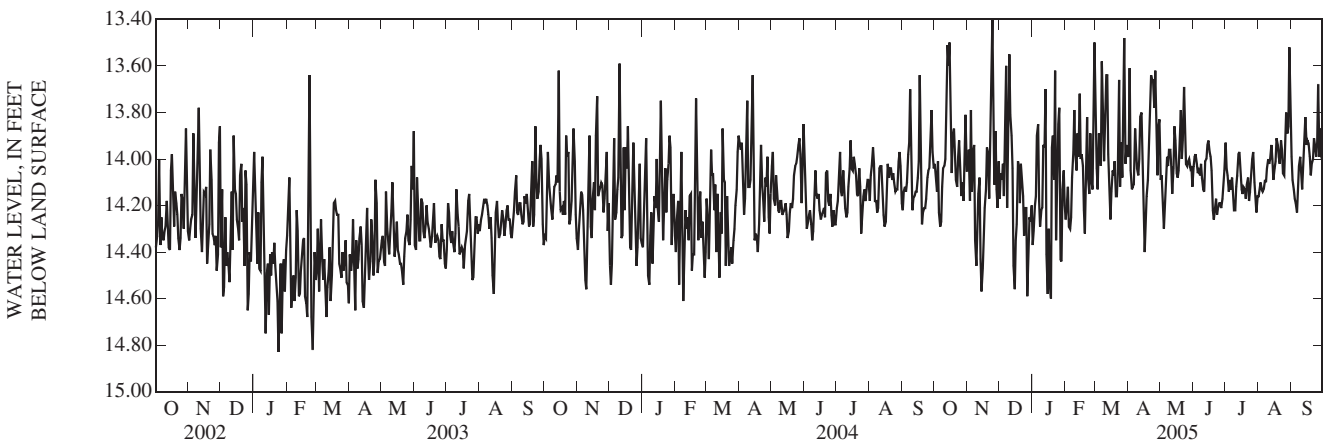
PERIOD OF RECORD.--2001 to present.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.40 ft. below land-surface datum, Nov. 24, 2004; lowest measured, 15.45 ft. below land-surface, Mar. 18, 2001.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.02	14.05	14.17	14.37	14.26	13.73	13.99	14.09	14.03	13.93	14.16	13.99
2	14.07	13.96	14.06	14.31	14.19	14.04	13.61	14.07	13.99	14.04	14.13	14.09
3	14.14	14.18	14.09	14.20	14.12	14.13	14.05	14.16	13.98	14.07	14.10	14.13
4	14.01	13.79	14.02	14.16	14.29	13.89	14.13	14.30	14.02	14.14	14.13	14.17
5	14.23	14.14	14.16	13.90	14.30	13.94	14.12	14.22	14.06	14.09	14.14	14.19
6	14.29	13.97	13.95	13.85	14.25	14.03	14.11	14.12	14.05	14.13	14.13	14.23
7	14.27	13.94	13.60	14.18	14.08	13.58	13.87	13.99	14.07	14.08	14.09	14.15
8	14.12	14.35	14.21	14.29	13.97	13.83	13.95	14.03	14.02	14.16	14.10	14.03
9	14.04	14.46	13.79	14.22	13.79	14.01	14.04	13.96	14.08	14.22	14.04	13.99
10	14.03	14.31	13.55	14.21	13.97	13.86	14.07	13.96	14.13	14.22	14.00	14.06
11	14.00	14.15	13.81	13.94	14.05	13.64	14.00	14.03	14.14	14.12	14.02	14.13
12	13.77	14.08	13.90	13.95	13.89	13.64	13.82	14.15	14.01	14.07	14.00	14.03
13	13.51	14.43	14.04	13.70	13.99	13.98	13.80	14.04	14.00	13.98	13.94	13.92
14	13.60	14.57	14.46	14.41	13.72	14.16	14.14	13.86	13.94	13.97	14.00	13.82
15	13.50	14.47	14.56	14.58	14.00	14.26	14.28	13.92	13.92	14.05	14.09	13.94
16	13.72	14.31	14.35	14.30	13.98	14.14	14.40	14.06	13.97	14.13	14.04	13.92
17	14.06	14.21	14.28	14.52	14.03	14.05	14.26	14.08	13.99	14.15	14.01	13.93
18	13.90	14.13	14.01	14.60	14.22	14.07	14.16	14.05	14.05	14.12	13.91	13.99
19	13.87	13.95	14.03	13.95	14.32	14.01	14.09	13.91	14.22	14.13	13.94	14.07
20	13.98	13.97	14.19	13.90	14.03	14.16	14.00	13.79	14.26	14.17	13.99	14.02
21	14.09	14.17	14.02	14.09	13.82	14.16	13.89	14.00	14.22	14.11	14.02	14.00
22	14.12	14.01	14.10	13.62	14.08	14.05	13.64	13.92	14.17	14.08	13.92	13.91
23	13.99	13.80	14.16	14.35	14.15	13.66	13.66	13.69	14.24	14.18	13.96	13.94
24	13.92	13.40	14.33	14.04	13.89	14.12	13.66	13.85	14.21	14.14	14.06	13.99
25	14.08	13.94	14.21	13.85	14.09	13.93	13.78	14.02	14.19	14.06	14.07	13.93
26	14.16	14.11	14.21	13.78	14.13	14.08	13.62	14.03	14.19	14.00	13.93	13.68
27	14.10	13.88	14.59	14.43	13.96	13.85	13.88	14.01	14.21	13.97	13.80	13.99
28	14.18	14.13	14.36	14.44	13.50	13.48	14.07	14.00	14.17	14.10	13.89	13.87
29	13.99	14.21	14.25	14.13	---	14.02	13.86	14.04	14.11	14.16	13.86	13.99
30	13.81	14.01	14.27	14.05	---	13.94	13.83	14.03	14.05	14.23	13.52	14.01
31	14.05	---	14.20	14.20	---	13.98	---	14.12	---	14.16	13.82	---
MAX	14.29	14.57	14.59	14.60	14.32	14.26	14.40	14.30	14.26	14.23	14.16	14.23
MIN	13.50	13.40	13.55	13.62	13.50	13.48	13.61	13.69	13.92	13.93	13.52	13.68

WTR YR 2005 HIGH 13.40 LOW 14.60



FLEMING COUNTY

381539083341901 (UE11), map number 7.

LOCATION.--Lat 38°15'39", long 83°34'19", Hydrologic Unit 05100101, County Code 069, Plummers Landing quadrangle, on the west side of the Maxey Flats Site, 5 ft. west of perimeter road . Owner: State of Kentucky.

AQUIFER.--Shale and sandstone beds of the Nancy formation. Aquifer code: 337NNCY.

WELL CHARACTERISTICS.--Augered observation well, diameter 1.5 in., depth 17.3 ft., screened interval: 15.3-17.3 ft.

INSTRUMENTATION.--Continuous recorder 60 minute interval.

DATUM.--Elevation of land-surface datum is 1050.36 ft. above NGVD of 1929. Measuring point: Top of casing, 3.10 ft. above land-surface datum.

REMARKS.--Maxey Flats Project monitoring well.

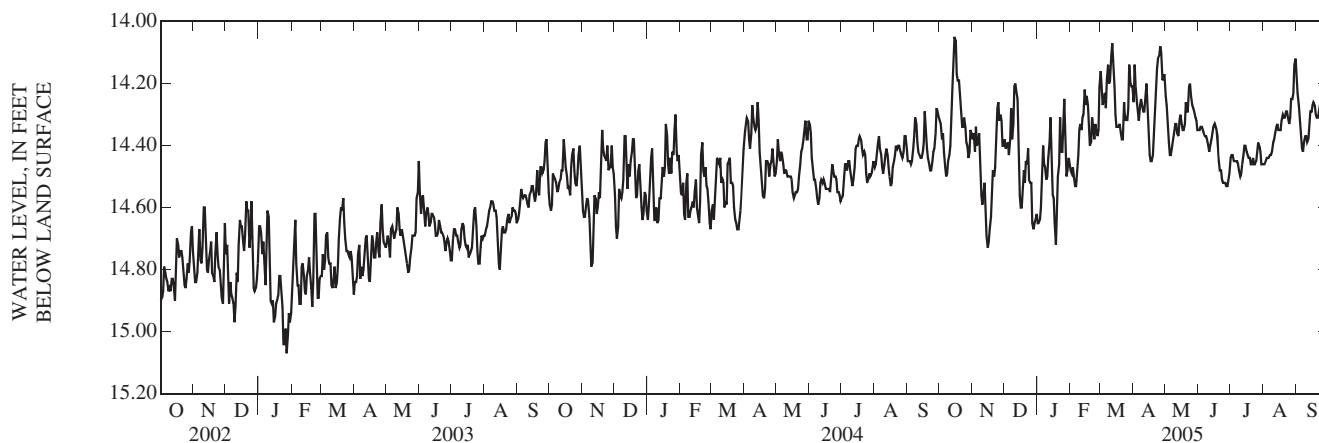
PERIOD OF RECORD.--1984 to present.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.96 ft. below land-surface datum, Dec. 18, 1990; lowest measured, 16.37 ft. below land-surface datum, Aug. 23, 2000.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.32	14.38	14.38	14.65	14.48	14.16	14.26	14.24	14.35	14.44	14.46	14.18
2	14.33	14.36	14.41	14.65	14.49	14.22	14.14	14.27	14.35	14.43	14.46	14.23
3	14.38	14.42	14.40	14.64	14.47	14.27	14.21	14.32	14.34	14.43	14.45	14.27
4	14.36	14.34	14.39	14.60	14.50	14.25	14.26	14.39	14.34	14.45	14.44	14.32
5	14.42	14.40	14.43	14.51	14.53	14.23	14.29	14.43	14.35	14.45	14.44	14.36
6	14.47	14.39	14.38	14.40	14.53	14.28	14.32	14.43	14.36	14.45	14.44	14.41
7	14.50	14.36	14.28	14.46	14.49	14.19	14.27	14.40	14.37	14.45	14.43	14.42
8	14.49	14.46	14.38	14.47	14.43	14.14	14.25	14.38	14.37	14.46	14.43	14.39
9	14.45	14.56	14.33	14.51	14.35	14.20	14.27	14.36	14.38	14.48	14.42	14.37
10	14.43	14.59	14.21	14.50	14.33	14.19	14.29	14.33	14.40	14.50	14.39	14.37
11	14.40	14.56	14.20	14.44	14.35	14.11	14.29	14.33	14.42	14.49	14.38	14.39
12	14.33	14.52	14.23	14.39	14.31	14.07	14.25	14.36	14.40	14.46	14.36	14.38
13	14.20	14.59	14.25	14.31	14.30	14.13	14.20	14.37	14.38	14.43	14.34	14.34
14	14.14	14.69	14.42	14.42	14.22	14.21	14.26	14.32	14.36	14.40	14.33	14.29
15	14.05	14.73	14.56	14.56	14.27	14.30	14.34	14.30	14.34	14.40	14.35	14.29
16	14.06	14.71	14.60	14.57	14.24	14.34	14.43	14.33	14.33	14.42	14.35	14.27
17	14.17	14.67	14.60	14.65	14.27	14.34	14.45	14.35	14.34	14.43	14.35	14.26
18	14.19	14.63	14.54	14.72	14.33	14.34	14.45	14.35	14.35	14.44	14.32	14.27
19	14.19	14.55	14.48	14.58	14.40	14.33	14.43	14.33	14.40	14.44	14.30	14.30
20	14.23	14.48	14.52	14.50	14.39	14.36	14.39	14.26	14.45	14.46	14.31	14.31
21	14.28	14.50	14.45	14.46	14.31	14.38	14.34	14.29	14.48	14.46	14.31	14.31
22	14.34	14.47	14.46	14.31	14.34	14.38	14.25	14.29	14.48	14.44	14.29	14.29
23	14.34	14.39	14.41	14.42	14.38	14.26	14.15	14.21	14.51	14.46	14.29	14.27
24	14.31	14.28	14.51	14.42	14.33	14.32	14.12	14.20	14.52	14.46	14.31	14.28
25	14.34	14.26	14.52	14.35	14.35	14.31	14.11	14.24	14.52	14.45	14.33	14.28
26	14.39	14.32	14.52	14.25	14.37	14.32	14.08	14.27	14.52	14.42	14.31	14.20
27	14.40	14.30	14.65	14.39	14.35	14.28	14.10	14.28	14.53	14.39	14.25	14.24
28	14.44	14.32	14.67	14.50	14.21	14.14	14.19	14.29	14.53	14.40	14.25	14.23
29	14.42	14.40	14.65	14.48	---	14.20	14.18	14.31	14.51	14.42	14.23	14.23
30	14.35	14.40	14.64	14.44	---	14.21	14.17	14.32	14.49	14.46	14.14	14.25
31	14.36	---	14.62	14.46	---	14.21	---	14.35	---	14.46	14.12	---
MAX	14.50	14.73	14.67	14.72	14.53	14.38	14.45	14.43	14.53	14.50	14.46	14.42
MIN	14.05	14.26	14.20	14.25	14.21	14.07	14.08	14.20	14.33	14.39	14.12	14.18

WTR YR 2005 HIGH 14.05 LOW 14.73



GROUND-WATER LEVELS

FLEMING COUNTY

381539083341902 (UK1), map number 8.

LOCATION.--Lat 38°15'39", long 83°34'19", Hydrologic Unit 05100101, County Code 069, Plummers Landing quadrangle, on the west side of the Maxey Flats Site, 50 ft. west of perimeter road . Owner: State of Kentucky.

AQUIFER.--Shale and sandstone beds of the Nancy formation. Aquifer code: 337NNCY.

WELL CHARACTERISTICS.--Augered observation well, diameter 2.5 in., depth 12.7 ft., screened interval: 10.7-12.7 ft.

INSTRUMENTATION.--Continuous recorder 60 minute interval.

DATUM.--Elevation of land-surface datum is 1046.15 ft. above NGVD of 1929. Measuring point: Top of casing, 2.98 ft. above land-surface datum.

REMARKS.--Maxey Flats Project monitoring well.

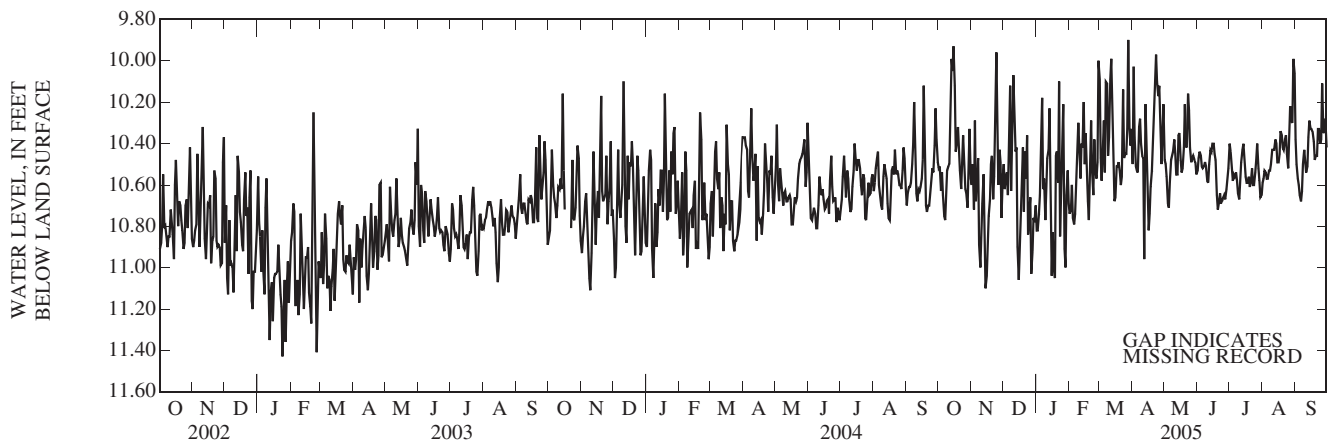
PERIOD OF RECORD.--1986 to present.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.30 ft. below land-surface datum, Oct. 05, 1995; lowest measured, 12.52 ft. below land-surface datum, Jul. 07, 1988.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.52	10.60	10.50	10.82	10.74	10.09	10.50	10.48	10.53	10.40	10.59	10.38
2	10.51	10.50	10.62	10.82	10.72	10.47	10.03	10.50	10.47	10.44	10.57	10.50
3	10.63	10.72	10.56	10.74	10.60	10.58	10.37	10.56	10.44	10.50	10.53	10.57
4	10.54	10.29	10.54	10.65	10.76	10.41	10.51	10.69	10.46	10.58	10.54	10.60
5	10.65	10.68	10.65	10.44	10.79	10.29	10.53	10.71	10.51	10.55	10.57	10.65
6	10.75	10.52	10.44	10.18	10.74	10.54	10.54	10.59	10.52	10.56	10.57	10.68
7	10.77	10.47	10.12	10.62	10.60	10.10	10.32	10.48	10.51	10.54	10.53	10.63
8	10.65	10.89	10.63	10.57	10.44	10.11	10.28	10.46	10.49	10.58	10.53	10.50
9	10.53	11.00	10.34	10.77	10.30	10.46	10.40	10.44	10.51	10.64	10.50	10.43
10	10.51	10.87	10.07	10.64	10.40	10.37	10.46	10.38	10.58	10.67	10.43	10.48
11	10.50	10.69	10.20	10.47	10.57	10.09	10.47	10.45	10.59	10.57	10.43	10.54
12	10.30	10.55	10.44	10.43	10.40	9.99	10.96	10.55	10.50	10.49	10.43	10.51
13	9.99	10.91	10.42	10.23	10.42	10.34	10.21	10.55	10.43	10.43	10.38	10.37
14	10.05	11.10	10.90	10.73	10.20	10.55	10.50	10.36	10.44	10.40	10.40	10.29
15	9.93	11.04	11.06	11.04	10.50	10.68	10.66	10.35	10.40	10.46	10.49	10.33
16	10.12	10.86	10.92	10.83	10.35	10.66	10.82	10.48	10.40	10.56	10.49	10.33
17	10.44	10.75	10.81	10.99	10.52	10.51	10.74	10.54	10.45	10.59	10.45	10.34
18	10.40	10.67	10.56	11.05	10.68	10.51	10.61	10.52	10.48	10.59	10.34	10.39
19	10.32	10.50	10.42	10.46	10.77	10.49	10.53	10.42	10.65	10.56	10.36	10.48
20	10.42	10.46	10.73	10.44	10.58	10.54	10.45	10.21	10.72	10.61	10.42	10.46
21	10.53	10.67	10.44	10.59	10.29	10.60	10.34	10.41	10.69	10.59	10.43	10.46
22	10.62	10.56	10.57	10.10	10.53	10.56	10.14	10.42	10.64	10.52	10.38	10.33
23	10.51	10.34	10.36	10.85	10.65	10.14	9.97	10.16	10.69	10.60	10.36	10.33
24	10.36	9.96	10.84	10.59	10.38	10.47	10.10	10.24	10.68	10.60	10.45	10.40
25	10.51	10.25	10.74	10.38	10.53	10.45	10.17	10.42	10.66	10.54	10.52	10.38
26	10.62	10.60	10.66	10.21	10.57	10.45	10.12	10.49	10.65	10.48	10.39	10.11
27	10.64	10.43	11.03	10.91	10.49	10.33	10.24	10.47	10.67	10.40	10.22	10.35
28	10.71	10.49	10.92	11.00	10.00	9.90	10.50	10.46	10.62	10.52	10.29	10.34
29	10.53	10.76	10.76	10.65	---	10.33	10.35	10.48	10.57	10.58	10.30	10.28
30	10.33	10.56	10.78	10.53	---	10.41	10.21	10.49	10.52	10.66	9.99	10.42
31	10.57	---	10.70	10.69	---	10.33	---	10.55	---	10.65	10.06	---
MAX	10.77	11.10	11.06	11.05	10.79	10.68	10.96	10.71	10.72	10.67	10.59	10.68
MIN	9.93	9.96	10.07	10.10	10.00	9.90	9.97	10.16	10.40	10.40	9.99	10.11

WTR YR 2005 HIGH 9.90 LOW 11.10



FLEMING COUNTY

381539083342001 (ESI02), map number 9.

LOCATION.--Lat 38°15'39", long 83°34'20", Hydrologic Unit 05100101, County Code 069, Plummers Landing quadrangle, on the west side of the Maxey Flats Site, 25 ft. west of perimeter road . Owner: State of Kentucky.

AQUIFER.--Shale and sandstone beds of the Nancy formation. Aquifer code: 337NNCY.

WELL CHARACTERISTICS.--Augered observation well, diameter 2 in., depth 14.7 ft., screened interval: 9.0-14.3 ft.

INSTRUMENTATION.--Continuous recorder 60 minute interval.

DATUM.--Elevation of land-surface datum is 1047.36 ft. above NGVD of 1929. Measuring point: Top of casing, 3.08 ft. above land-surface datum

REMARKS.--Maxey Flats Project monitoring well.

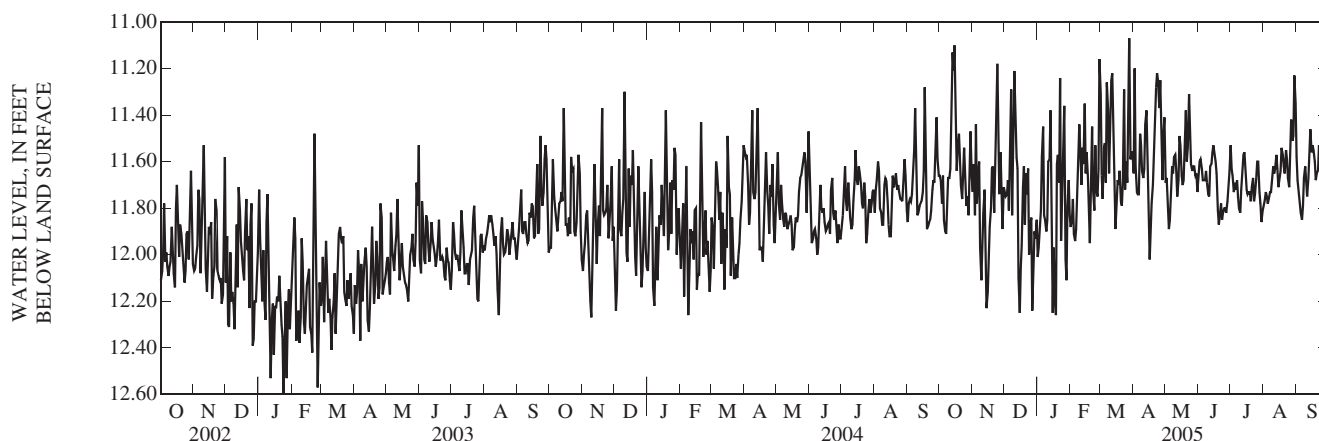
PERIOD OF RECORD.--2001 to present.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.07 ft. below land-surface datum, Mar. 28, 2005; lowest measured, 13.12 ft. below land-surface datum, Mar. 18, 2001.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.66	11.73	11.73	12.01	11.88	11.31	11.65	11.69	11.66	11.53	11.79	11.58
2	11.68	11.61	11.75	11.97	11.85	11.66	11.20	11.67	11.60	11.63	11.77	11.68
3	11.78	11.83	11.74	11.87	11.76	11.76	11.62	11.75	11.59	11.66	11.73	11.74
4	11.66	11.44	11.68	11.81	11.91	11.54	11.73	11.89	11.63	11.73	11.75	11.78
5	11.85	11.78	11.81	11.58	11.94	11.52	11.74	11.85	11.68	11.69	11.78	11.82
6	11.90	11.65	11.60	11.45	11.89	11.69	11.74	11.74	11.68	11.72	11.76	11.85
7	11.91	11.60	11.29	11.83	11.74	11.26	11.48	11.62	11.68	11.68	11.73	11.79
8	11.77	11.97	11.83	11.85	11.60	11.38	11.53	11.65	11.64	11.75	11.73	11.67
9	11.67	12.11	11.52	11.90	11.44	11.65	11.64	11.58	11.69	11.80	11.68	11.62
10	11.67	11.99	11.21	11.85	11.58	11.52	11.67	11.57	11.74	11.82	11.62	11.69
11	11.63	11.82	11.41	11.60	11.70	11.25	11.63	11.64	11.75	11.72	11.65	11.75
12	11.44	11.72	11.58	11.59	11.54	11.22	11.44	11.75	11.62	11.66	11.63	11.67
13	11.13	12.05	11.63	11.38	11.61	11.57	11.38	11.68	11.61	11.57	11.57	11.56
14	11.21	12.23	12.10	12.00	11.35	11.77	11.72	11.49	11.56	11.56	11.63	11.46
15	11.10	12.16	12.25	12.25	11.65	11.89	11.87	11.53	11.53	11.64	11.71	11.56
16	11.31	11.99	12.06	11.97	11.56	11.80	12.02	11.66	11.57	11.72	11.67	11.53
17	11.64	11.88	11.96	12.18	11.67	11.68	11.89	11.70	11.60	11.74	11.64	11.55
18	11.54	11.80	11.71	12.26	11.84	11.70	11.78	11.68	11.65	11.73	11.54	11.60
19	11.48	11.63	11.62	11.61	11.95	11.64	11.70	11.54	11.81	11.73	11.57	11.68
20	11.60	11.62	11.87	11.57	11.73	11.77	11.61	11.38	11.87	11.77	11.62	11.65
21	11.70	11.82	11.65	11.69	11.45	11.79	11.50	11.60	11.83	11.71	11.65	11.64
22	11.76	11.69	11.74	11.24	11.72	11.69	11.28	11.54	11.78	11.67	11.55	11.53
23	11.64	11.48	11.63	11.94	11.81	11.29	11.22	11.31	11.85	11.77	11.59	11.56
24	11.54	11.18	12.00	11.76	11.53	11.72	11.25	11.45	11.82	11.74	11.67	11.61
25	11.70	11.46	11.87	11.52	11.72	11.60	11.37	11.61	11.80	11.67	11.71	11.57
26	11.79	11.74	11.84	11.36	11.75	11.69	11.25	11.64	11.80	11.60	11.56	11.31
27	11.75	11.56	12.24	12.02	11.63	11.48	11.45	11.62	11.82	11.60	11.42	11.58
28	11.83	11.70	12.06	12.11	11.16	11.07	11.68	11.62	11.77	11.73	11.51	11.51
29	11.65	11.89	11.90	11.79	---	11.59	11.48	11.66	11.71	11.78	11.49	11.56
30	11.47	11.71	11.93	11.68	---	11.56	11.41	11.65	11.65	11.86	11.23	11.62
31	11.67	---	11.85	11.83	---	11.56	---	11.73	---	11.81	11.35	---
MAX	11.91	12.23	12.25	12.26	11.95	11.89	12.02	11.89	11.87	11.86	11.79	11.85
MIN	11.10	11.18	11.21	11.24	11.16	11.07	11.20	11.31	11.53	11.53	11.23	11.31

WTR YR 2005 HIGH 11.07 LOW 12.26



GROUND-WATER LEVELS

FLEMING COUNTY

381540083341801 (UF1), map number 10.

LOCATION.--Lat 38°15'40", long 83°34'18", Hydrologic Unit 05100101, County Code 069, Plummers Landing quadrangle, on the west side of the Maxey Flats Site, 5 ft. west of perimeter road . Owner: State of Kentucky.

AQUIFER.--Shale and sandstone beds of the Nancy formation. Aquifer code: 337NNCY.

WELL CHARACTERISTICS.--Augered observation well, diameter 2.5 in., depth 18.5 ft., screened interval: 16.5-18.5 ft.

INSTRUMENTATION.--Continuous recorder 60 minute interval.

DATUM.--Elevation of land-surface datum is 1050.24 ft. above NGVD of 1929. Measuring point: Top of casing, 3.01 ft. above land-surface datum.

REMARKS.--Maxey Flats Project monitoring well.

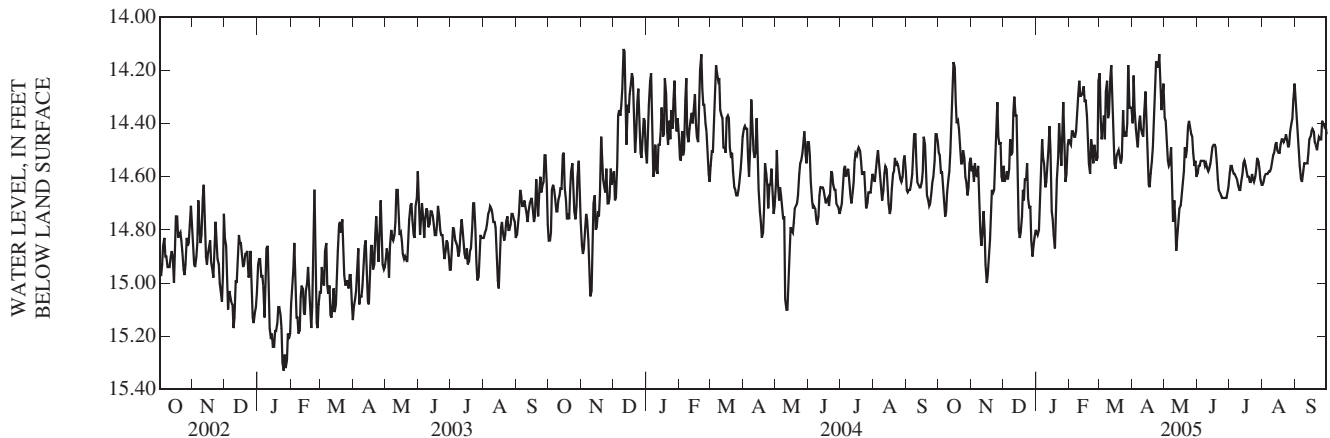
PERIOD OF RECORD.--1985 to present.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.78 ft. below land-surface datum, Dec. 04, 1986; lowest measured, 16.93 ft. below land-surface datum, Apr. 19, 2000.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.51	14.58	14.56	14.81	14.47	14.21	14.40	14.38	14.59	14.59	14.63	14.31
2	14.52	14.56	14.62	14.82	14.48	14.38	14.22	14.39	14.56	14.56	14.62	14.38
3	14.59	14.62	14.60	14.80	14.43	14.46	14.35	14.45	14.56	14.56	14.60	14.45
4	14.58	14.55	14.58	14.73	14.43	14.42	14.42	14.54	14.54	14.58	14.59	14.51
5	14.63	14.59	14.61	14.63	14.45	14.37	14.46	14.56	14.54	14.59	14.59	14.56
6	14.70	14.60	14.57	14.46	14.45	14.46	14.49	14.55	14.54	14.59	14.59	14.61
7	14.75	14.56	14.46	14.53	14.43	14.28	14.40	14.49	14.54	14.60	14.58	14.62
8	14.73	14.66	14.52	14.55	14.36	14.24	14.37	14.63	14.56	14.61	14.58	14.59
9	14.66	14.81	14.51	14.64	14.29	14.38	14.42	14.77	14.55	14.63	14.57	14.55
10	14.61	14.86	14.36	14.62	14.24	14.36	14.44	14.69	14.57	14.65	14.54	14.55
11	14.58	14.82	14.30	14.56	14.30	14.23	14.45	14.76	14.58	14.65	14.52	14.55
12	14.51	14.73	14.37	14.49	14.29	14.18	14.36	14.88	14.57	14.62	14.51	14.55
13	14.35	14.80	14.37	14.41	14.29	14.31	14.28	14.81	14.55	14.59	14.48	14.51
14	14.26	14.93	14.61	14.50	14.26	14.44	14.43	14.76	14.52	14.55	14.47	14.46
15	14.17	15.00	14.80	14.73	14.32	14.55	14.52	14.72	14.49	14.54	14.50	14.45
16	14.19	14.97	14.83	14.76	14.31	14.57	14.63	14.71	14.48	14.56	14.51	14.43
17	14.32	14.91	14.81	14.82	14.37	14.52	14.64	14.67	14.48	14.58	14.51	14.42
18	14.40	14.84	14.75	14.87	14.46	14.51	14.59	14.63	14.49	14.60	14.48	14.43
19	14.39	14.74	14.65	14.74	14.55	14.50	14.54	14.58	14.55	14.60	14.46	14.47
20	14.42	14.65	14.69	14.61	14.59	14.53	14.49	14.49	14.61	14.62	14.46	14.48
21	14.48	14.66	14.61	14.53	14.46	14.55	14.41	14.53	14.65	14.62	14.47	14.50
22	14.55	14.65	14.61	14.40	14.49	14.53	14.27	14.50	14.66	14.59	14.46	14.47
23	14.55	14.56	14.55	14.48	14.55	14.35	14.17	14.41	14.67	14.61	14.44	14.45
24	14.50	14.41	14.68	14.56	14.48	14.45	14.17	14.39	14.68	14.62	14.46	14.46
25	14.53	14.32	14.72	14.46	14.51	14.43	14.19	14.41	14.68	14.60	14.49	14.46
26	14.60	14.45	14.71	14.32	14.54	14.45	14.14	14.44	14.68	14.57	14.48	14.39
27	14.62	14.48	14.84	14.46	14.53	14.40	14.22	14.45	14.68	14.53	14.43	14.40
28	14.67	14.47	14.90	14.62	14.24	14.18	14.35	14.51	14.68	14.54	14.40	14.41
29	14.64	14.60	14.86	14.59	---	14.34	14.30	14.56	14.66	14.57	14.38	14.40
30	14.55	14.62	14.83	14.48	---	14.34	14.25	14.54	14.64	14.61	14.31	14.44
31	14.53	---	14.80	14.46	---	14.34	---	14.60	---	14.63	14.25	---
MAX	14.75	15.00	14.90	14.87	14.59	14.57	14.64	14.88	14.68	14.65	14.63	14.62
MIN	14.17	14.32	14.30	14.32	14.24	14.18	14.14	14.38	14.48	14.53	14.25	14.31

WTR YR 2005 HIGH 14.14 LOW 15.00



FLEMING COUNTY

381540083342001. (N2B) , map number 11.

LOCATION.--Lat 38°15'40", long 83°34'20", Hydrologic Unit 05100101, County Code 069, Plummers Landing quadrangle, on the west side of the Maxey Flats Site, 100 ft. west of perimeter road . Owner: State of Kentucky.

AQUIFER.--Shale and sandstone beds of the Nancy formation. Aquifer code: 337NNCY.

WELL CHARACTERISTICS.--Augered observation well, diameter 2 in., depth 9.4 ft., screened interval: unknown.

INSTRUMENTATION.--Continuous recorder 60 minute interval.

DATUM.--Elevation of land-surface datum is 1044.29 ft. above NGVD of 1929. Measuring point: Top of casing, 2.98 ft. above land-surface datum.

REMARKS.--Maxey Flats Project monitoring well. Water levels below 8.95 ft. not recorded.

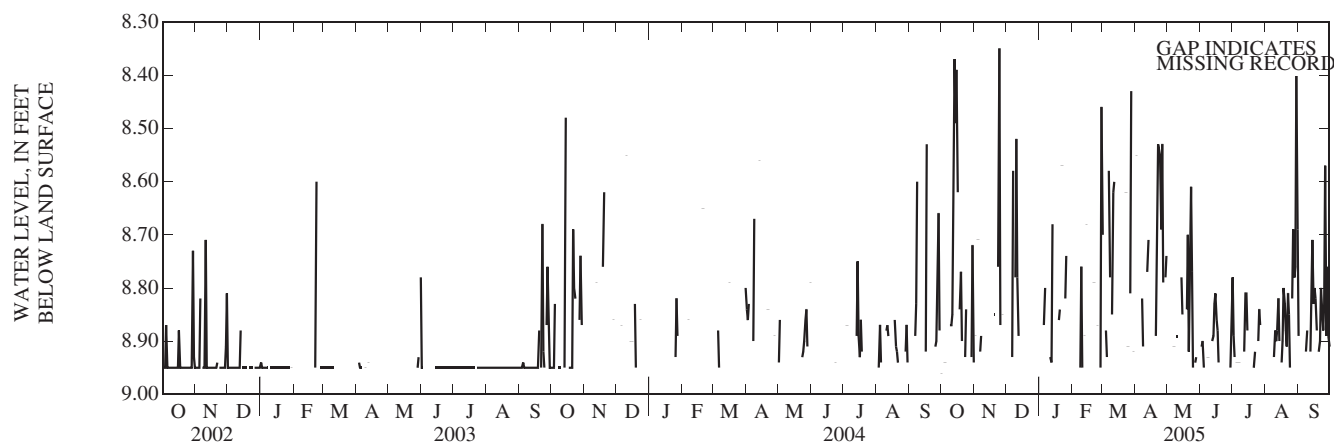
PERIOD OF RECORD.--1984 to present.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.85 ft. below land-surface datum, Aug. 16, 1984; lowest measured, dry several times in recent years.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.96	---	---	---	---	8.70	---	---	---	8.78	---	8.89
2	---	8.89	---	---	---	---	8.55	---	8.91	8.89	---	---
3	---	---	---	---	---	---	---	---	8.90	8.93	---	---
4	8.94	8.71	---	---	---	8.88	---	---	8.95	---	---	---
5	---	---	---	8.87	---	8.93	---	---	---	8.94	---	---
6	---	8.92	8.93	8.80	---	---	---	---	---	---	---	---
7	---	8.89	8.58	---	---	8.58	8.82	8.91	---	8.94	---	---
8	---	---	---	---	8.95	8.78	8.91	---	8.93	---	---	8.92
9	8.87	---	8.78	---	8.76	---	---	8.89	---	---	8.93	8.88
10	8.87	---	8.52	---	8.95	8.85	---	8.89	---	---	8.88	---
11	8.85	---	8.78	8.93	---	8.62	---	---	---	---	8.90	---
12	8.64	---	8.89	8.94	8.89	8.60	8.77	---	8.90	8.92	8.88	8.92
13	8.37	---	---	8.68	---	---	8.71	---	8.89	8.81	8.82	8.81
14	8.49	---	---	---	8.68	---	---	8.78	8.83	8.81	8.90	8.71
15	8.39	---	---	---	---	---	---	8.85	8.81	8.88	---	8.83
16	8.62	---	---	---	---	---	---	---	8.86	---	8.94	8.80
17	---	---	---	---	---	---	---	---	8.88	---	8.90	8.82
18	8.84	---	---	---	---	---	---	---	8.94	---	8.80	8.88
19	8.77	8.85	---	8.86	---	---	---	8.84	---	---	8.83	---
20	8.90	8.85	---	8.84	---	---	8.89	8.70	---	---	8.88	8.92
21	---	---	---	---	8.79	---	8.79	8.92	---	8.95	8.91	8.90
22	---	---	---	8.57	---	---	8.53	8.84	---	8.92	8.81	8.80
23	8.93	8.76	---	---	---	8.62	8.54	8.61	---	---	8.85	8.83
24	8.84	8.35	---	---	8.87	---	8.55	8.77	---	---	8.95	8.88
25	---	8.87	---	8.82	---	8.91	8.69	8.95	---	8.90	---	8.83
26	---	---	---	8.74	---	---	8.53	---	---	8.84	8.82	8.57
27	---	8.85	---	---	8.95	8.81	8.79	8.94	---	8.87	8.69	8.89
28	---	---	---	---	8.46	8.43	---	8.93	---	---	8.78	8.76
29	8.93	---	---	---	---	---	8.78	---	8.95	---	8.76	8.89
30	8.72	---	---	---	---	8.92	8.74	---	8.90	---	8.40	8.91
31	8.94	---	---	---	---	---	---	---	---	---	8.69	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---

WTR YR 2005 HIGH 8.35 LOW 8.96



GROUND-WATER LEVELS

FLEMING COUNTY

381540083342002. (ESI04) , map number 12.

LOCATION.--Lat 38°15'40", long 83°34'20", Hydrologic Unit 05100101, County Code 069, Plummers Landing quadrangle, on the west side of the Maxey Flats Site, 100 ft. west of perimeter road . Owner: State of Kentucky.

AQUIFER.--Shale and sandstone beds of the Nancy formation. Aquifer code: 337NNCY.

WELL CHARACTERISTICS.--Augered observation well, diameter 2 in., depth 24.5 ft., screened interval: 13.6-18.6 ft.

INSTRUMENTATION.--Continuous recorder 60 minute interval.

DATUM.--Elevation of land-surface datum is 1047.97 ft. above NGVD of 1929. Measuring point: Top of casing, 2.07 ft. above land-surface datum.

REMARKS.--Maxey Flats Project monitoring well.

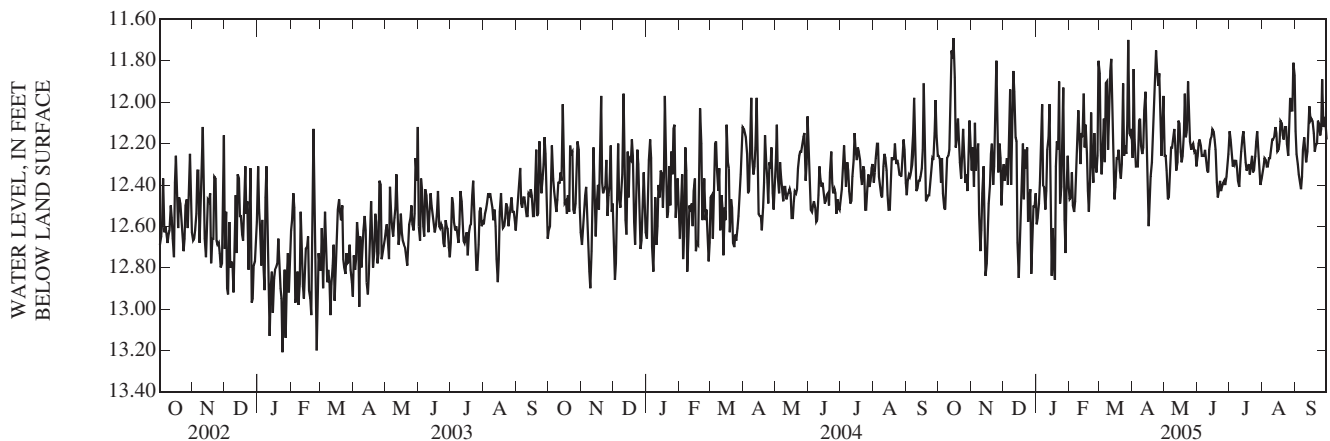
PERIOD OF RECORD.--2001 to present.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.69 ft. below land-surface datum, Oct. 15, 2004; lowest measured, 13.71 ft. below land-surface datum, Mar. 18, 2001.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.26	12.33	12.30	12.59	12.47	11.86	12.27	12.26	12.26	12.14	12.34	12.14
2	12.27	12.22	12.38	12.56	12.46	12.23	11.84	12.26	12.20	12.18	12.31	12.25
3	12.39	12.41	12.32	12.49	12.34	12.35	12.18	12.33	12.18	12.24	12.27	12.30
4	12.27	12.10	12.27	12.39	12.50	12.17	12.31	12.47	12.21	12.31	12.28	12.35
5	12.44	12.33	12.40	12.19	12.53	12.08	12.31	12.46	12.26	12.28	12.31	12.38
6	12.51	12.27	12.21	12.01	12.48	12.29	12.31	12.34	12.26	12.30	12.31	12.42
7	12.52	12.20	11.94	12.40	12.35	11.91	12.09	12.22	12.26	12.28	12.27	12.36
8	12.39	12.54	12.40	12.41	12.19	11.90	12.08	12.22	12.23	12.32	12.27	12.23
9	12.27	12.72	12.17	12.52	12.04	12.23	12.21	12.18	12.27	12.38	12.23	12.17
10	12.26	12.62	11.85	12.43	12.14	12.11	12.25	12.13	12.33	12.41	12.18	12.23
11	12.23	12.44	11.95	12.23	12.30	11.85	12.22	12.21	12.34	12.31	12.18	12.29
12	12.06	12.31	12.17	12.17	12.15	11.79	12.04	12.33	12.23	12.24	12.17	12.24
13	11.75	12.64	12.19	12.01	12.17	12.12	11.95	12.29	12.18	12.17	12.12	12.12
14	11.79	12.84	12.68	12.53	11.96	12.34	12.28	12.09	12.17	12.14	12.15	12.02
15	11.69	12.78	12.85	12.84	12.22	12.47	12.45	12.10	12.13	12.20	12.24	12.09
16	11.88	12.61	12.67	12.61	12.11	12.41	12.60	12.24	12.14	12.29	12.23	12.08
17	12.22	12.49	12.55	12.77	12.25	12.27	12.49	12.29	12.18	12.33	12.19	12.09
18	12.18	12.40	12.32	12.86	12.43	12.27	12.36	12.26	12.23	12.32	12.09	12.15
19	12.08	12.25	12.20	12.31	12.53	12.23	12.29	12.15	12.39	12.30	12.10	12.24
20	12.18	12.20	12.47	12.19	12.37	12.33	12.20	11.96	12.46	12.35	12.16	12.21
21	12.29	12.40	12.23	12.23	12.05	12.37	12.09	12.17	12.43	12.31	12.18	12.20
22	12.37	12.31	12.32	11.90	12.27	12.30	11.90	12.14	12.38	12.26	12.12	12.09
23	12.26	12.10	12.22	12.49	12.39	11.91	11.75	11.90	12.43	12.34	12.12	12.10
24	12.13	11.80	12.58	12.41	12.15	12.26	11.84	12.01	12.41	12.33	12.20	12.16
25	12.29	12.00	12.47	12.15	12.29	12.21	11.92	12.19	12.39	12.26	12.26	12.13
26	12.39	12.34	12.42	11.93	12.34	12.25	11.86	12.23	12.38	12.19	12.14	11.89
27	12.35	12.20	12.83	12.57	12.26	12.10	12.01	12.21	12.40	12.14	11.98	12.12
28	12.43	12.27	12.68	12.73	11.80	11.70	12.26	12.20	12.36	12.26	12.04	12.08
29	12.28	12.50	12.50	12.43	---	12.15	12.09	12.24	12.30	12.33	12.04	12.09
30	12.09	12.34	12.51	12.26	---	12.16	11.97	12.23	12.25	12.40	11.81	12.18
31	12.23	---	12.44	12.41	---	12.13	---	12.31	---	12.37	11.87	---
MAX	12.52	12.84	12.85	12.86	12.53	12.47	12.60	12.47	12.46	12.41	12.34	12.42
MIN	11.69	11.80	11.85	11.90	11.80	11.70	11.75	11.90	12.13	12.14	11.81	11.89

WTR YR 2005 HIGH 11.69 LOW 12.86





## FLEMING COUNTY

381541083340901 (UF10A) , map number 17.

LOCATION.--Lat 38°15' 41" , long 83°34' 09" , Hydrologic Unit 05100101, County Code 069, Plummers Landing quadrangle, inside restricted area of the Maxey Flats Site, 200 ft. south of site access gate. Owner: State of Kentucky.

AQUIFER.--Shale and sandstone beds of the Nancy formation. Aquifer code: 337NNCY.

WELL CHARACTERISTICS.--Augered observation well, diameter 2 in., depth 30.6 ft., screened interval: 25.6-30.6 ft.

INSTRUMENTATION.--Quarterly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 1057.74 ft. above NGVD of 1929. Measuring point: Top of casing, 2.13 ft. above land surface-datum.

REMARKS.--Maxey Flats Project monitoring well.

PERIOD OF RECORD.--2003 to present.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.86 ft. below land-surface datum, Jul. 24, 2003; lowest measured, 28.36 ft. below land-surface datum, Jan. 19, 2005.

## WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water Level	Date	Water Level
Oct. 27, 2004	28.10	Apr. 12, 2005	28.20
Jan. 19, 2005	28.36	Jul. 27, 2005	28.26

GROUND-WATER LEVELS

FLEMING COUNTY

381541083341701 (UF2), map number 13.

LOCATION.--Lat 38°15'41", long 83°34'17". Hydrologic Unit 05100101, County Code 069, Plummers Landing quadrangle, on the west side of the Maxey Flats Site, 5 ft. west of perimeter road . Owner: State of Kentucky.

AQUIFER.--Shale and sandstone beds of the Nancy formation. Aquifer code: 337NNCY

WELL CHARACTERISTICS.--Augered observation well, diameter 2.5 in., depth 14.2 ft., screened interval: 12.2-14.2 ft.

INSTRUMENTATION.--Continuous recorder 60 minute interval.

DATUM.--Elevation of land-surface datum is 1045.73 ft. above NGVD of 1929. Measuring point: Top of casing, 3.08 ft. above land-surface datum.

REMARKS.--Maxey Flats Project monitoring well.

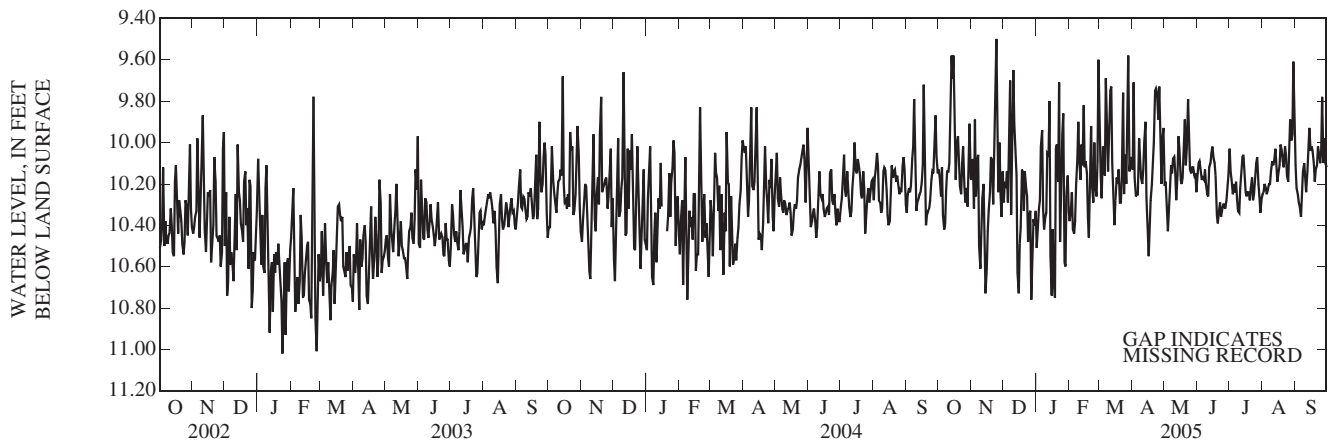
PERIOD OF RECORD.--1985 to present.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.20 ft. below land-surface datum, Aug. 08, 1985; lowest measured, 11.69 ft. below land-surface datum, Mar. 18, 2001.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.13	10.18	10.29	10.51	10.38	9.82	10.13	10.21	10.15	10.03	10.25	10.11
2	10.17	10.08	10.20	10.44	10.32	10.16	9.71	10.19	10.10	10.14	10.24	10.22
3	10.26	10.32	10.21	10.32	10.24	10.27	10.17	10.28	10.09	10.18	10.20	10.25
4	10.12	9.89	10.14	10.28	10.42	10.02	10.26	10.43	10.14	10.25	10.22	10.29
5	10.35	10.26	10.29	10.02	10.44	10.05	10.25	10.35	10.18	10.20	10.25	10.31
6	10.42	10.09	10.06	9.94	10.38	10.16	10.25	10.24	10.17	10.24	10.23	10.36
7	10.39	10.06	9.70	10.32	10.21	9.69	9.98	10.11	10.18	10.19	10.20	10.27
8	10.23	10.50	10.35	10.42	10.08	9.92	10.06	10.15	10.13	10.27	10.20	10.14
9	10.14	10.61	9.92	10.36	9.90	10.14	10.17	10.08	10.20	10.33	10.14	10.10
10	10.14	10.44	9.65	10.34	10.09	9.98	10.20	10.07	10.25	10.34	10.09	10.17
11	10.10	10.27	9.91	10.05	10.18	9.75	10.13	10.15	10.26	10.22	10.11	10.24
12	9.87	10.20	10.03	10.06	10.01	9.73	10.00	10.28	10.12	10.16	10.09	10.14
13	9.58	10.57	10.16	9.80	10.11	10.10	9.90	10.16	10.10	10.07	10.03	10.03
14	9.69	10.73	10.63	10.55	9.82	10.29	10.27	9.97	10.05	10.06	10.11	9.93
15	9.58	10.61	10.73	10.74	10.12	10.40	10.42	10.03	10.02	10.15	10.19	10.04
16	9.82	10.43	10.49	10.42	10.09	10.28	10.55	10.18	10.08	10.24	10.14	10.02
17	10.18	10.33	10.41	10.66	10.15	10.17	10.39	10.20	10.10	10.26	10.11	10.04
18	10.01	10.24	10.13	10.75	10.36	10.20	10.28	10.17	10.16	10.24	10.01	10.10
19	9.97	10.07	10.14	10.03	10.46	10.13	10.20	10.03	10.35	10.24	10.04	10.19
20	10.09	10.08	10.33	10.01	10.16	10.29	10.11	9.89	10.39	10.28	10.09	10.13
21	10.21	10.30	10.14	10.19	9.92	10.29	10.00	10.11	10.34	10.22	10.12	10.11
22	10.25	10.13	10.22	9.71	10.21	10.17	9.75	10.03	10.29	10.17	10.02	10.02
23	10.10	9.91	10.26	10.48	10.29	9.76	9.74	9.79	10.36	10.28	10.06	10.05
24	10.02	9.50	10.48	10.17	10.00	10.25	9.76	9.96	10.33	10.25	10.16	10.10
25	10.21	10.03	10.35	9.96	10.21	10.06	9.89	10.13	10.30	10.17	10.19	10.04
26	10.29	10.24	10.33	9.86	10.26	10.20	9.73	10.15	10.30	10.10	10.03	9.78
27	10.22	10.00	10.76	10.58	10.09	9.97	9.99	10.12	10.32	10.07	9.89	10.10
28	10.31	10.25	10.50	10.60	9.60	9.58	10.20	10.12	10.28	10.20	9.99	9.98
29	10.11	10.36	10.37	10.25	---	10.14	9.98	10.16	10.22	10.26	9.96	10.10
30	9.91	10.14	10.40	10.16	---	10.07	9.93	10.15	10.16	10.34	9.61	10.12
31	10.17	---	10.33	10.33	---	10.09	---	10.24	---	10.27	9.91	---
MAX	10.42	10.73	10.76	10.75	10.46	10.40	10.55	10.43	10.39	10.34	10.25	10.36
MIN	9.58	9.50	9.65	9.71	9.60	9.58	9.71	9.79	10.02	10.03	9.61	9.78

WTR YR 2005 HIGH 9.50 LOW 10.76



## FLEMING COUNTY

381542083341401 (ESI20) , map number 16.

LOCATION.--Lat 38°15' 42" , long 83°34' 14" , Hydrologic Unit 05100101, County Code 069, Plummers Landing quadrangle, on the west side of the Maxey Flats Site, 30 ft. west of perimeter road . Owner: State of Kentucky.

AQUIFER.--Shale of the Sunbury formation. Aquifer code: 330SNBR.

WELL CHARACTERISTICS.--Drilled observation well, diameter 2 in., depth 109.7 ft., screened interval: 99.7-109.7 ft.

INSTRUMENTATION.--Quarterly measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 1045.43 ft. above NGVD of 1929. Measuring point: Top of casing, 2.90 ft. above land surface datum.

REMARKS.--Maxey Flats Project monitoring well.

PERIOD OF RECORD.--2003 to present.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 102.24 ft. below land- surface datum, Apr. 12, 2005; lowest measured, 103.75 ft. below land-surface datum, Jul. 23, 2003.

## WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water Level	Date	Water Level
Oct. 26, 2004	102.75	Apr. 12, 2005	102.24
Jan. 18, 2005	102.51	Jul. 26, 2005	103.06

GROUND-WATER LEVELS

FLEMING COUNTY

381543083341501. (UF5), map number 14.

LOCATION.--Lat 38°15'43", long 83°34'15", Hydrologic Unit 05100101, County Code 069, Plummers Landing quadrangle, on the west side of the Maxey Flats Site, 5 ft. west of perimeter road . Owner: State of Kentucky.

AQUIFER.--Shale and sandstone beds of the Nancy formation. Aquifer code: 337NNCY.

WELL CHARACTERISTICS.--Augered observation well, diameter 2.5 in., depth 18.1 ft., screened interval: 16.1-18.1 ft.

INSTRUMENTATION.--Continuous recorder 60 minute interval.

DATUM.--Elevation of land-surface datum is 1048.25 ft. above NGVD of 1929. Measuring point: Top of casing, 3.25 ft. above land-surface datum.

REMARKS.--Maxey Flats Project monitoring well.

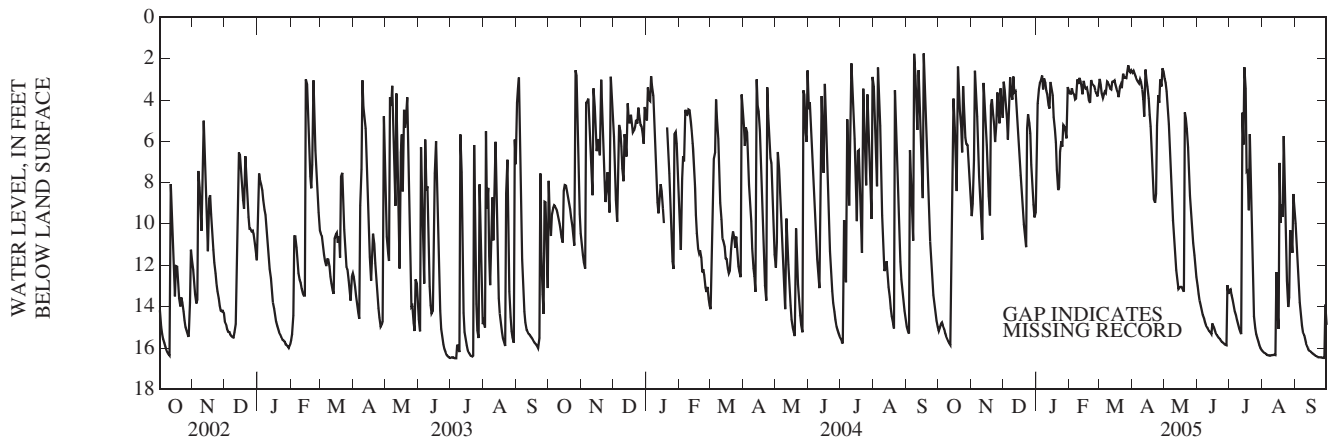
PERIOD OF RECORD.--1985 to present.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.77 ft. below land-surface datum, Sep. 17, 2004; lowest measured, 17.37 ft. below land-surface datum, Mar. 16, 1989.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.18	9.63	3.12	6.96	3.68	2.99	2.69	2.98	13.00	13.19	16.15	9.96
2	15.04	9.02	3.53	4.18	3.69	3.27	2.61	3.19	13.38	13.17	16.20	10.91
3	14.83	6.91	4.26	3.48	3.44	3.68	2.74	3.59	13.70	13.45	16.24	11.97
4	14.78	2.60	4.90	3.18	3.65	3.91	2.91	4.43	13.97	13.73	16.27	12.91
5	14.91	3.73	5.92	3.08	3.75	3.75	3.01	5.18	14.19	13.99	16.32	13.78
6	15.07	4.81	4.57	2.83	3.97	3.60	3.11	6.30	14.40	14.23	16.34	14.44
7	15.28	6.00	2.93	3.49	3.93	3.67	3.20	7.55	14.58	14.44	16.36	14.92
8	15.43	7.71	3.67	2.97	3.02	3.11	3.01	8.78	14.76	14.65	16.37	15.22
9	15.53	8.99	3.99	3.19	3.24	3.15	3.16	9.83	14.90	14.84	16.35	15.37
10	15.67	9.96	2.88	3.56	2.94	3.27	3.49	10.68	15.01	15.07	16.34	15.58
11	15.76	10.77	3.63	3.74	3.11	3.47	3.98	11.50	15.09	15.21	16.34	15.78
12	15.84	3.19	3.57	4.25	3.34	3.50	4.81	12.22	15.17	15.33	16.33	15.94
13	10.78	4.13	4.20	4.42	3.73	3.12	2.53	12.77	15.24	4.62	16.34	16.07
14	7.45	5.09	5.01	3.14	3.08	3.11	3.02	13.15	15.32	6.17	12.33	16.14
15	3.94	6.19	5.88	3.50	3.34	3.06	3.35	13.09	14.81	2.43	14.12	16.17
16	5.36	7.54	6.73	3.78	3.46	3.26	3.93	13.05	14.95	3.47	15.08	16.21
17	7.11	8.67	7.65	4.83	3.42	3.50	4.70	13.05	15.11	7.47	7.06	16.26
18	8.42	9.59	8.45	5.45	3.67	3.60	5.28	13.13	15.26	7.42	9.95	16.31
19	2.40	4.27	9.14	6.06	4.00	3.86	6.46	13.27	15.36	9.35	9.05	16.34
20	3.42	3.98	10.02	7.40	4.15	3.39	7.72	4.61	15.44	5.66	9.66	16.39
21	4.53	4.73	10.47	8.37	3.05	3.27	8.81	4.89	15.51	8.99	5.75	16.42
22	5.30	5.20	11.13	8.25	3.21	3.44	8.98	5.38	15.57	11.64	8.49	16.43
23	6.55	6.04	5.38	6.49	3.30	2.74	8.54	6.29	15.64	13.40	10.90	16.44
24	3.34	5.17	4.71	6.01	3.34	2.93	5.24	7.53	15.71	14.47	12.76	16.45
25	4.62	3.65	5.12	6.26	3.55	2.93	3.78	8.65	15.75	15.04	14.01	16.45
26	5.81	4.46	5.61	5.22	3.69	2.96	4.14	9.57	15.80	15.33	13.56	16.46
27	6.12	5.13	7.15	5.30	3.83	2.64	3.01	10.31	15.84	15.51	10.31	16.47
28	6.19	3.45	8.21	5.52	3.50	2.34	3.36	10.93	15.88	15.71	10.62	16.48
29	6.86	4.22	9.05	5.86	---	2.61	2.47	11.51	12.97	15.87	11.40	13.91
30	7.68	4.87	9.68	3.39	---	2.67	2.58	12.05	13.38	16.00	8.56	14.89
31	8.80	---	9.44	3.55	---	2.57	---	12.56	---	16.09	9.34	---
MAX	15.84	10.77	11.13	8.37	4.15	3.91	8.98	13.27	15.88	16.09	16.37	16.48
MIN	2.40	2.60	2.88	2.83	2.94	2.34	2.47	2.98	12.97	2.43	5.75	9.96

WTR YR 2005 HIGH 2.34 LOW 16.48



FLEMING COUNTY

381543083341602. (ESI05) , map number 15.

LOCATION.--Lat 38°15'43" , long 83°34'16" , Hydrologic Unit 05100101, County Code 069, Plummers Landing quadrangle, on the west side of the Maxey Flats Site, 5 ft. west of perimeter road . Owner: State of Kentucky.

AQUIFER.--Shale and sandstone beds of the Nancy formation. Aquifer code: 337NNCY.

WELL CHARACTERISTICS.--Augered observation well, diameter 2.5 in., depth 22.9 ft., screened interval: 12.0-17.0 ft.

INSTRUMENTATION.--Continuous recorder 60 minute interval.

DATUM.--Elevation of land-surface datum is 1044.82 ft. above NGVD of 1929. Measuring point: Top of casing, 1.88 ft. above land-surface datum.

REMARKS.--Maxey Flats Project monitoring well.

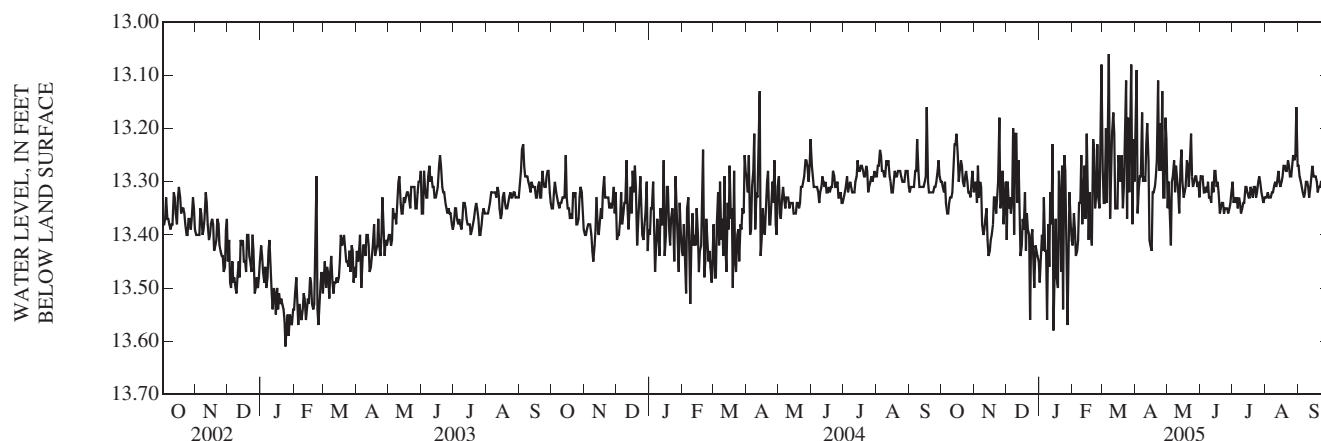
PERIOD OF RECORD.--2001 to present.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.06 ft. below land-surface datum, Mar. 07, 2005; lowest measured, 16.59 ft. below land-surface datum, Mar. 09, 2001.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.30	13.31	13.41	13.49	13.42	13.28	13.21	13.35	13.29	13.30	13.33	13.27
2	13.31	13.30	13.30	13.45	13.36	13.34	13.09	13.30	13.29	13.34	13.33	13.29
3	13.32	13.34	13.35	13.40	13.39	13.34	13.36	13.35	13.29	13.33	13.32	13.30
4	13.30	13.27	13.33	13.43	13.44	13.20	13.31	13.42	13.32	13.34	13.33	13.31
5	13.34	13.33	13.36	13.33	13.43	13.34	13.29	13.30	13.32	13.33	13.33	13.32
6	13.36	13.30	13.33	13.43	13.41	13.27	13.29	13.29	13.31	13.35	13.33	13.33
7	13.36	13.31	13.20	13.43	13.34	13.06	13.17	13.26	13.32	13.33	13.32	13.32
8	13.34	13.38	13.40	13.56	13.34	13.37	13.30	13.32	13.30	13.34	13.32	13.30
9	13.33	13.40	13.21	13.38	13.25	13.30	13.29	13.27	13.33	13.36	13.31	13.30
10	13.33	13.39	13.21	13.46	13.38	13.21	13.30	13.30	13.33	13.35	13.30	13.31
11	13.32	13.37	13.34	13.32	13.32	13.17	13.23	13.32	13.34	13.34	13.31	13.33
12	13.28	13.35	13.26	13.38	13.27	13.21	13.19	13.36	13.30	13.34	13.30	13.31
13	13.23	13.41	13.38	13.23	13.37	13.35	13.26	13.27	13.32	13.31	13.28	13.29
14	13.23	13.44	13.44	13.58	13.21	13.35	13.41	13.24	13.28	13.31	13.30	13.27
15	13.21	13.43	13.42	13.49	13.32	13.35	13.42	13.30	13.28	13.32	13.31	13.29
16	13.25	13.41	13.37	13.37	13.41	13.25	13.43	13.33	13.31	13.33	13.30	13.29
17	13.30	13.40	13.39	13.48	13.32	13.28	13.32	13.32	13.30	13.33	13.29	13.29
18	13.28	13.38	13.32	13.50	13.40	13.30	13.32	13.31	13.32	13.31	13.27	13.30
19	13.26	13.33	13.43	13.28	13.42	13.25	13.31	13.26	13.36	13.32	13.27	13.32
20	13.27	13.33	13.36	13.32	13.22	13.35	13.29	13.27	13.35	13.33	13.28	13.31
21	13.30	13.36	13.39	13.47	13.24	13.31	13.26	13.31	13.34	13.31	13.28	13.31
22	13.31	13.33	13.40	13.27	13.35	13.23	13.11	13.26	13.34	13.31	13.26	13.30
23	13.29	13.30	13.56	13.54	13.32	13.11	13.28	13.21	13.36	13.33	13.27	13.30
24	13.28	13.18	13.41	13.25	13.23	13.37	13.19	13.29	13.35	13.32	13.29	13.31
25	13.30	13.35	13.39	13.28	13.33	13.18	13.28	13.31	13.35	13.30	13.29	13.30
26	13.32	13.34	13.44	13.36	13.35	13.32	13.13	13.30	13.35	13.29	13.27	13.26
27	13.32	13.28	13.50	13.57	13.22	13.16	13.33	13.29	13.36	13.30	13.25	13.31
28	13.33	13.38	13.42	13.42	13.08	13.08	13.33	13.29	13.35	13.32	13.26	13.29
29	13.30	13.34	13.43	13.32	---	13.38	13.18	13.31	13.34	13.33	13.25	13.31
30	13.28	13.30	13.44	13.38	---	13.22	13.22	13.30	13.32	13.34	13.16	13.31
31	13.32	---	13.45	13.41	---	13.30	---	13.33	---	13.33	13.27	---
MAX	13.36	13.44	13.56	13.58	13.44	13.38	13.43	13.42	13.36	13.36	13.33	13.33
MIN	13.21	13.18	13.20	13.23	13.08	13.06	13.09	13.21	13.28	13.29	13.16	13.26

WTR YR 2005 HIGH 13.06 LOW 13.58



GROUND-WATER LEVELS

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 200 ft west of 3rd st. in grass courtyard. 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 NGVD of 1929. Measuring point: Top of casing, 1.00 ft above land-surface datum.

REMARKS.--Water-quality sample collected May 8, 1956.

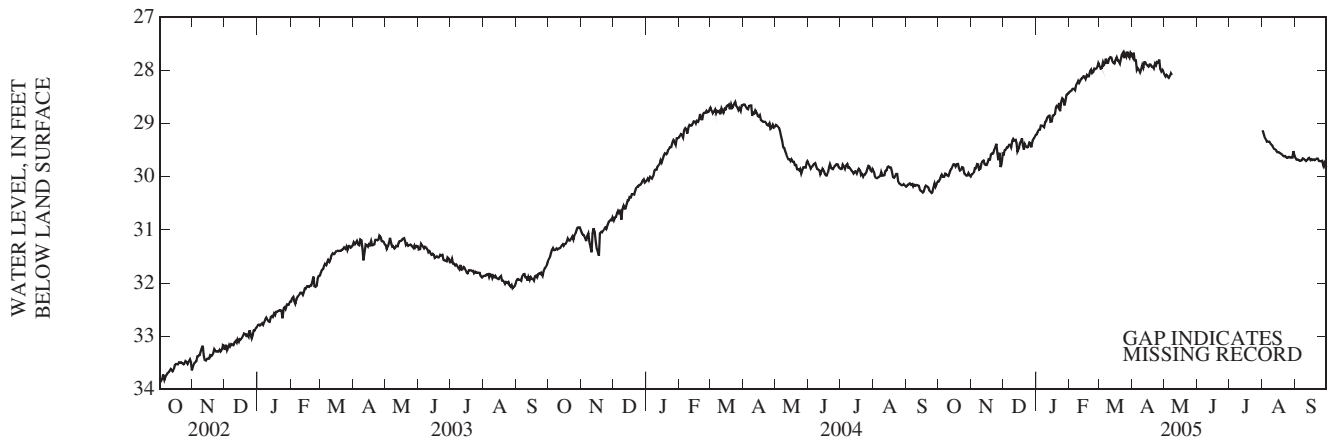
PERIOD OF RECORD.--February 1937 to current year. February 1937 to September 1976 published in hydrograph form and on file at district office.

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 TO WATER LEVEL, FEET BELOW LAND SURFACE  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30.09	29.96	29.58	29.21	28.41	27.92	27.75	28.08	---	---	29.13	29.65
2	30.06	29.95	29.50	29.16	28.39	27.97	27.67	28.12	---	---	29.19	29.68
3	29.99	29.92	29.49	29.12	28.37	27.96	27.81	28.09	---	---	29.25	29.68
4	29.96	29.84	29.45	29.12	28.35	27.85	27.81	28.12	---	---	29.29	29.69
5	30.00	29.84	29.45	29.04	28.35	27.90	28.00	28.14	---	---	29.34	29.70
6	30.00	29.76	29.40	29.04	28.37	27.87	27.96	28.11	---	---	29.34	29.70
7	29.94	29.77	29.40	29.05	28.28	27.78	27.99	28.05	---	---	29.34	29.69
8	29.95	29.87	29.45	29.07	28.24	27.86	28.04	28.09	---	---	29.35	29.66
9	29.98	29.85	29.32	28.97	28.20	27.86	27.99	---	---	---	29.39	29.67
10	29.99	29.76	29.29	28.95	28.24	27.78	27.90	---	---	---	29.41	29.69
11	29.94	29.72	29.32	28.89	28.19	27.75	27.95	---	---	---	29.44	29.71
12	29.89	29.70	29.31	28.86	28.16	27.76	27.85	---	---	---	29.48	29.69
13	29.85	29.76	29.37	28.85	28.15	27.82	27.85	---	---	---	29.49	29.66
14	29.81	29.78	29.53	28.97	28.11	27.86	27.89	---	---	---	29.51	29.65
15	29.77	29.78	29.48	28.96	28.12	27.87	27.91	---	---	---	29.54	29.69
16	29.77	29.73	29.38	28.85	28.16	27.81	27.93	---	---	---	29.54	29.67
17	29.81	29.67	29.35	28.85	28.09	27.76	27.89	---	---	---	29.55	29.69
18	29.77	29.68	29.28	28.82	28.11	27.81	27.89	---	---	---	29.56	29.68
19	29.76	29.58	29.42	28.70	28.11	27.82	27.93	---	---	---	29.58	29.69
20	29.84	29.56	29.49	28.67	28.02	27.87	27.93	---	---	---	29.60	29.67
21	29.89	29.56	29.38	28.70	27.99	27.79	27.96	---	---	---	29.62	29.66
22	29.87	29.50	29.43	28.61	28.05	27.71	27.87	---	---	---	29.61	29.66
23	29.82	29.46	29.45	28.77	28.03	27.67	27.90	---	---	---	29.63	29.70
24	29.83	29.38	29.44	28.58	27.97	27.77	27.84	---	---	---	29.65	29.71
25	29.94	29.55	29.36	28.53	27.98	27.68	27.85	---	---	---	29.64	29.71
26	29.96	29.69	29.37	28.55	27.97	27.74	27.80	---	---	---	29.63	29.70
27	29.98	29.55	29.45	28.66	27.93	27.65	27.97	---	---	---	29.64	29.80
28	29.98	29.82	29.33	28.57	27.86	27.71	28.02	---	---	---	29.64	29.75
29	29.93	29.77	29.30	28.46	---	27.76	27.99	---	---	---	29.64	29.82
30	29.97	29.57	29.27	28.44	---	27.67	28.02	---	---	---	29.52	29.79
31	30.00	---	29.22	28.43	---	27.70	---	---	---	---	29.62	---
MAX	30.09	29.96	29.58	29.21	28.41	27.97	28.04	---	---	---	29.65	29.82
MIN	29.76	29.38	29.22	28.43	27.86	27.65	27.67	---	---	---	29.13	29.65

WTR YR 2005 HIGH 27.65 LOW 30.09



JEFFERSON COUNTY

381518085453402. (Courthouse Annex), map number 2.

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.

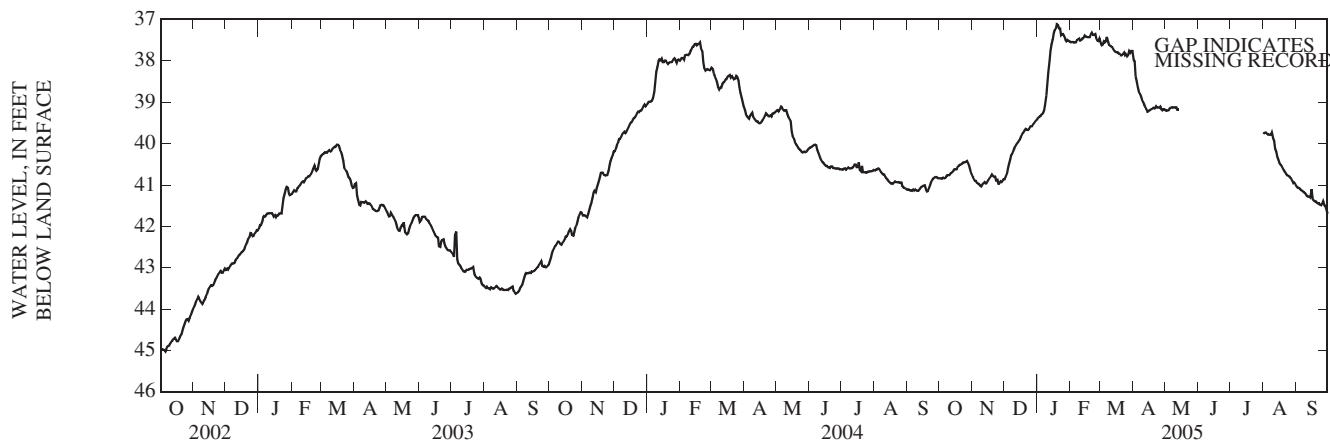
PERIOD OF RECORD.--November 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 37.12 ft below land-surface datum, Jan. 19, 2005; lowest, 46.82 ft below land-surface datum, July 27, 1991.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40.84	40.80	40.86	39.40	37.55	37.57	37.98	39.20	---	---	39.77	41.03
2	40.84	40.84	40.81	39.37	37.54	37.63	38.01	39.21	---	---	39.74	41.06
3	40.85	40.90	40.73	39.34	37.54	37.61	38.38	39.20	---	---	39.73	41.07
4	40.82	40.90	40.61	39.33	37.56	37.53	38.52	39.19	---	---	39.76	41.09
5	40.84	40.95	40.51	39.29	37.55	37.55	38.64	39.15	---	---	39.78	41.12
6	40.83	40.97	40.39	39.26	37.55	37.53	38.74	39.14	---	---	39.78	41.14
7	40.81	40.98	40.29	39.20	37.50	37.43	38.80	39.12	---	---	39.79	41.16
8	40.77	41.02	40.26	39.06	37.48	37.54	38.87	39.13	---	---	39.79	41.18
9	40.76	41.04	40.18	38.84	37.46	37.61	38.94	39.13	---	---	39.73	41.20
10	40.76	41.00	40.11	38.58	37.51	37.64	39.00	39.12	---	---	39.88	41.23
11	40.74	40.96	40.07	38.29	37.50	37.65	39.07	39.12	---	---	39.94	41.27
12	40.71	40.93	40.02	38.01	37.46	37.67	39.11	39.18	---	---	40.13	41.28
13	40.69	40.96	39.98	37.75	37.45	37.71	39.17	39.18	---	---	40.21	41.28
14	40.66	40.96	39.96	37.61	37.39	37.76	39.23	---	---	---	40.33	41.30
15	40.62	40.91	39.91	37.48	37.41	37.78	39.22	---	---	---	40.39	41.10
16	40.62	40.87	39.85	37.34	37.42	37.79	39.20	---	---	---	40.48	41.32
17	40.62	40.83	39.80	37.26	37.43	37.79	39.18	---	---	---	40.51	41.37
18	40.57	40.79	39.74	37.22	37.43	37.82	39.17	---	---	---	40.53	41.40
19	40.53	40.75	39.72	37.12	37.43	37.83	39.15	---	---	---	40.59	41.40
20	40.52	40.78	39.68	37.13	37.35	37.87	39.14	---	---	---	40.64	41.43
21	40.51	40.81	39.65	37.22	37.32	37.87	39.15	---	---	---	40.68	41.45
22	40.49	40.80	39.67	37.22	37.37	37.84	39.10	---	---	---	40.72	41.44
23	40.46	40.89	39.67	37.38	37.37	37.80	39.13	---	---	---	40.76	41.48
24	40.45	40.88	39.65	37.35	37.36	37.87	39.13	---	---	---	40.78	41.50
25	40.45	40.97	39.59	37.35	37.45	37.84	39.13	---	---	---	40.79	41.46
26	40.44	40.97	39.58	37.40	37.51	37.89	39.11	---	---	---	40.82	41.40
27	40.42	40.92	39.58	37.50	37.52	37.86	39.17	---	---	---	40.84	41.50
28	40.49	40.93	39.52	37.53	37.47	37.76	39.20	---	---	---	40.90	41.51
29	40.58	40.91	39.49	37.50	---	37.81	39.17	---	---	---	40.96	41.60
30	40.66	40.86	39.46	37.52	---	37.76	39.17	---	---	---	40.95	41.70
31	40.74	---	39.42	37.53	---	37.76	---	---	---	---	40.99	---
MAX	40.85	41.04	40.86	39.40	37.56	37.89	39.23	---	---	---	40.99	41.70
MIN	40.42	40.75	39.42	37.12	37.32	37.43	37.98	---	---	---	39.73	41.03

WTR YR 2005 HIGH 37.12 LOW 41.70



## GROUND-WATER LEVELS

## JEFFERSON COUNTY

381613085422801 (Edith Lane Landfill), map number 3.

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.--Periodic 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, 0.68 ft above 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 2004 TO SEPTEMBER 2005

Date	Water Level	Date	Water Level
Jan. 25, 2005	9.22	Aug. 01, 2005	13.48

381638085415801 (WC-4), map number 4.

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.--Periodic 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 and nearby pumpage. Water-quality sample collected July 10, 1979.

PERIOD OF RECORD.--October 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level observed, 3.71 ft above land-surface datum, Mar. 13, 1967; lowest, 19.61 ft below land-surface datum, Feb. 13, 1948.

## WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water Level	Date	Water Level
Jan. 25, 2005	9.38	Aug. 01, 2005	14.99

381648085421201 (WC-5), map number 5.

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.--Periodic 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 2004 TO SEPTEMBER 2005

Date	Water Level	Date	Water Level
Jan. 25, 2005	9.64	Aug. 01, 2005	13.52



JEFFERSON COUNTY

381653085413302 (WC-9A), map number 6.

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 NGVD of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.

REMARKS.--Replaces Well 381653085413301 (WC-9) which was 10 ft. north. Water levels affected by Ohio River.

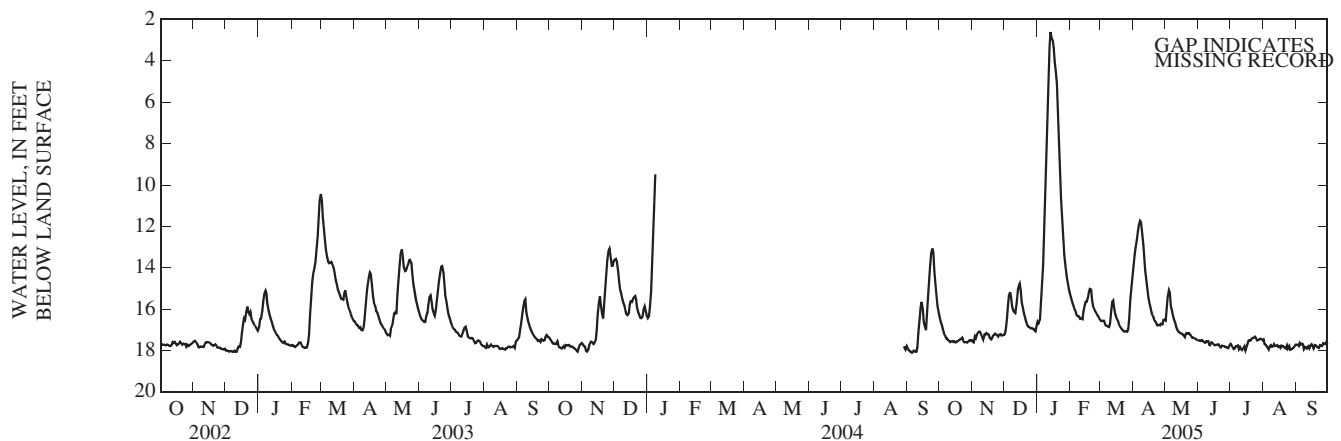
PERIOD OF RECORD.--December 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.61 ft below land-surface datum, Jan. 13, 2005; lowest measured, 19.04 ft below land-surface datum, July 21, 1980.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.41	17.58	17.22	16.61	15.40	16.56	13.83	16.56	17.50	17.70	17.48	17.73
2	16.62	17.61	17.03	16.68	15.62	16.59	13.37	16.00	17.53	17.74	17.69	17.72
3	16.81	17.31	16.45	16.54	15.77	16.57	13.02	15.44	17.55	17.84	17.74	17.80
4	17.00	17.40	15.83	15.89	15.90	16.57	12.64	15.09	17.51	17.94	17.80	17.65
5	17.16	17.25	15.35	15.06	16.06	16.71	12.27	15.21	17.54	17.91	17.88	17.73
6	17.29	17.13	15.18	13.87	16.21	16.79	11.95	15.86	17.58	17.80	17.95	17.67
7	17.41	17.09	15.45	12.29	16.31	16.83	11.74	16.12	17.63	17.80	17.78	17.71
8	17.41	17.09	15.89	10.62	16.37	16.86	11.82	16.34	17.59	17.77	17.74	17.95
9	17.50	17.24	16.09	8.94	16.36	16.87	12.27	16.52	17.55	17.96	17.82	17.83
10	17.55	17.37	16.15	7.08	16.47	16.70	12.86	16.69	17.55	17.83	17.80	17.85
11	17.60	17.48	16.19	5.02	16.46	16.06	13.55	16.88	17.72	17.94	17.69	17.91
12	17.57	17.23	15.74	3.34	16.48	15.67	14.15	16.99	17.75	17.98	17.79	17.80
13	17.56	17.24	15.25	2.61	16.12	15.61	14.69	17.09	17.62	17.89	17.78	17.90
14	17.60	17.16	14.92	2.85	15.82	16.05	15.08	17.14	17.65	17.82	17.76	17.77
15	17.57	17.21	14.78	2.99	15.65	16.29	15.45	17.16	17.69	18.00	17.83	17.69
16	17.61	17.25	15.09	3.37	15.65	16.43	15.78	17.18	17.75	17.81	17.80	17.79
17	17.57	17.40	15.67	4.01	15.45	16.53	15.96	17.23	17.74	17.68	17.88	17.91
18	17.56	17.48	15.96	4.57	15.18	16.68	16.18	17.26	17.72	17.53	17.77	17.74
19	17.53	17.43	16.21	5.12	15.03	16.80	16.33	17.36	17.73	17.51	17.79	17.76
20	17.48	17.31	16.39	6.30	15.07	16.90	16.47	17.20	17.71	17.53	17.85	17.81
21	17.44	17.26	16.56	7.95	15.57	16.97	16.56	17.17	17.81	17.43	17.85	17.87
22	17.39	17.20	16.76	9.35	15.85	17.03	16.66	17.20	17.86	17.40	17.91	17.88
23	17.50	17.23	16.84	10.70	15.99	17.09	16.78	17.17	17.77	17.39	17.77	17.76
24	17.60	17.27	16.86	11.75	16.11	17.07	16.80	17.24	17.79	17.33	17.92	17.78
25	17.60	17.33	16.92	12.66	16.18	17.08	16.77	17.27	17.82	17.41	17.80	17.78
26	17.60	17.25	16.94	13.37	16.30	17.09	16.79	17.38	17.82	17.53	17.97	17.66
27	17.61	17.22	16.93	13.97	16.37	16.97	16.72	17.39	17.85	17.49	17.96	17.69
28	17.55	17.27	16.95	14.33	16.46	16.44	16.74	17.41	17.86	17.48	17.92	17.69
29	17.50	17.26	17.03	14.66	---	15.42	16.53	17.44	17.90	17.43	17.90	17.61
30	17.53	17.26	17.07	14.99	---	14.94	16.51	17.48	17.78	17.45	17.84	17.71
31	17.51	---	16.78	15.22	---	14.42	---	17.49	---	17.52	17.73	---
MAX	17.61	17.61	17.22	16.68	16.48	17.09	16.80	17.49	17.90	18.00	17.97	17.95
MIN	16.41	17.09	14.78	2.61	15.03	14.42	11.74	15.09	17.50	17.33	17.48	17.61

WTR YR 2005 HIGH 2.61 LOW 18.00



GROUND-WATER LEVELS

JEFFERSON COUNTY

381701085414002 (WC-8A), map number 7.

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 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.

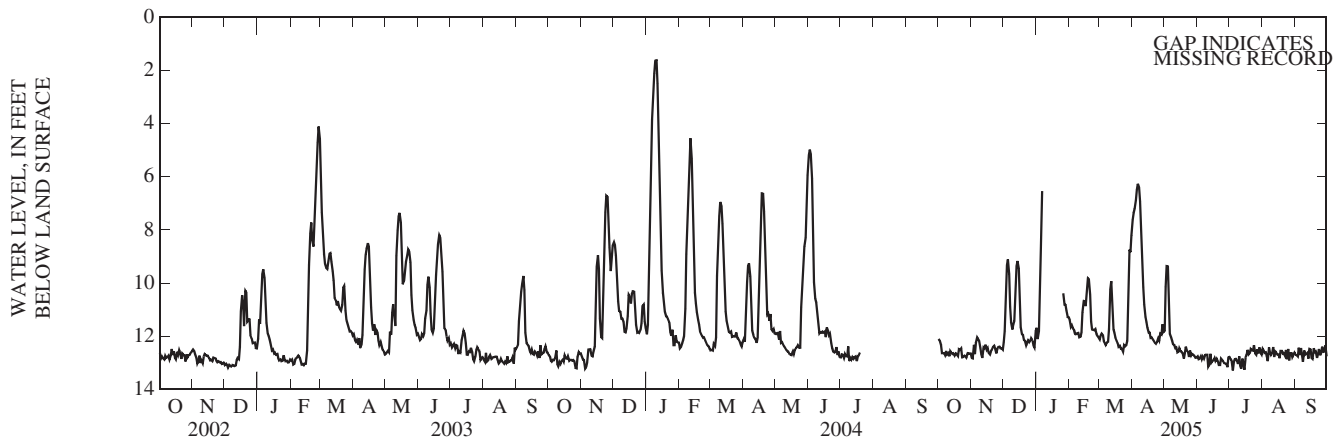
PERIOD OF RECORD.--August 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.63 ft below land-surface datum, Jan. 10, 2004; lowest measured, 14.35 ft below land-surface datum, Oct. 18, 1991.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.10	12.82	12.23	11.68	11.38	12.12	7.62	11.79	12.76	12.78	12.47	12.69
2	12.16	12.83	11.80	12.11	11.66	11.97	7.36	10.15	12.86	12.85	12.53	12.71
3	12.34	12.32	10.22	11.80	11.60	11.90	7.21	9.36	12.85	12.91	12.64	12.77
4	12.63	12.67	9.33	9.79	11.70	11.96	6.88	9.37	12.75	13.28	12.61	12.43
5	12.64	12.25	9.11	8.73	11.77	12.19	6.49	10.63	12.86	12.99	12.76	12.71
6	12.63	12.04	9.66	6.55	11.91	12.25	6.27	11.91	12.75	12.86	12.94	12.44
7	12.71	12.11	10.90	---	11.93	12.34	6.41	12.05	12.84	12.85	12.42	12.69
8	12.56	12.17	11.48	---	11.89	12.24	6.93	12.16	12.72	12.92	12.61	12.96
9	12.70	12.44	11.75	---	11.88	12.21	7.89	12.30	12.70	13.05	12.71	12.54
10	12.64	12.68	11.55	---	12.04	11.72	9.01	12.34	12.69	12.76	12.62	12.70
11	12.76	12.82	11.43	---	12.02	10.23	10.16	12.46	13.15	13.12	12.41	12.67
12	12.55	12.42	10.41	---	11.85	9.93	10.80	12.43	13.08	13.23	12.78	12.62
13	12.64	12.45	9.36	---	11.09	10.66	11.27	12.61	12.66	12.84	12.57	12.84
14	12.67	12.32	9.17	---	10.67	11.75	11.47	12.59	13.00	13.05	12.61	12.48
15	12.65	12.51	9.45	---	10.69	11.88	11.68	12.44	12.93	13.26	12.68	12.50
16	12.73	12.46	10.58	---	10.87	12.05	11.86	12.56	12.91	12.79	12.68	12.81
17	12.65	12.64	11.66	---	10.25	12.16	11.86	12.59	12.83	12.69	12.83	12.85
18	12.67	12.70	11.92	---	9.82	12.25	12.07	12.64	12.94	12.52	12.55	12.46
19	12.74	12.57	11.95	---	9.86	12.41	12.05	12.84	12.84	12.68	12.55	12.60
20	12.49	12.51	12.13	---	10.43	12.37	12.12	12.64	12.92	12.64	12.66	12.57
21	12.52	12.39	12.17	---	11.44	12.47	12.16	12.40	13.08	12.48	12.64	12.81
22	12.46	12.36	12.35	---	11.74	12.47	12.25	12.54	13.08	12.53	12.73	12.68
23	12.79	12.47	12.25	---	11.76	12.58	12.29	12.60	12.84	12.54	12.52	12.48
24	12.78	12.65	12.15	---	11.77	12.33	12.22	12.78	12.89	12.34	12.86	12.72
25	12.73	12.48	12.23	---	11.73	12.38	12.07	12.54	12.94	12.65	12.48	12.61
26	12.75	12.41	12.16	10.39	11.93	12.34	12.15	12.73	13.01	12.70	12.91	12.40
27	12.80	12.40	12.07	10.81	11.99	12.18	11.90	12.67	13.02	12.49	12.64	12.59
28	12.65	12.45	12.17	10.82	12.03	10.49	11.94	12.70	13.04	12.65	12.63	12.57
29	12.67	12.46	12.35	11.03	---	8.75	11.55	12.73	13.17	12.42	12.79	12.34
30	12.65	12.52	12.42	11.28	---	8.84	11.84	12.80	12.79	12.60	12.71	12.75
31	12.65	---	11.81	11.29	---	8.21	---	12.80	---	12.68	12.61	---
MAX	12.80	12.83	12.42	---	12.04	12.58	12.29	12.84	13.17	13.28	12.94	12.96
MIN	12.10	12.04	9.11	---	9.82	8.21	6.27	9.36	12.66	12.34	12.41	12.34

WTR YR 2005 HIGH 6.27 LOW 13.28



## JEFFERSON COUNTY

381742085402001 WC-13), map number 8.

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.--Periodic 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 2004 TO SEPTEMBER 2005

Date	Water Level	Date	Water Level
Jan. 25, 2005	14.48	Aug. 01, 2005	16.34

381827085392401 (WC-26), map number 9.

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.--Periodic 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 2004 TO SEPTEMBER 2005

Date	Water Level	Date	Water Level
Jan. 25, 2005	28.16	Aug. 01, 2005	34.16

381904085384801 (WC-27), map number 10.

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.--Periodic 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 2004 TO SEPTEMBER 2005

Date	Water Level	Date	Water Level
Jan. 25, 2005	16.46	Aug. 01, 2005	17.91

## GROUND-WATER LEVELS

## JEFFERSON COUNTY

381958085380201 (Thompson well), map number 11.

LOCATION.--Lat 38° 19'58", long 85° 38'02", 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.--Periodic 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, 31.46 ft below land-surface datum, Jan. 25, 2005; lowest measured, 42.05 ft below land-surface datum, Sept. 28, 2001.

## WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water Level	Date	Water Level
Jan. 25, 2005	31.46	Aug. 01, 2005	40.38

382007085373801 (Bird Man), map number 12.

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.--Periodic 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, 23.91 ft below land-surface datum, Jan. 25, 2005; lowest measured, 33.99 ft below land-surface datum, Sept. 28, 2001.

## WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water Level	Date	Water Level
Jan. 25, 2005	23.91	Aug. 01, 2005	31.86

382016085382601 (LWC-P-4), map number 13.

LOCATION.--Lat 38° 20'16", long 85° 38'26", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, across from 6002 Transylvania Beach Road, 150 ft east of road, in yellow 4 in. square protective casing. 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 90.6 ft., screen: unknown.

INSTRUMENTATION.--Periodic measurement with chalk tape by USGS personnel

DATUM.--Elevation of land-surface datum is 431.80 above NGVD of 1929. Measuring point: Top of 2 in. PVC, 3.17 ft above land-surface datum.

REMARKS.--Water levels affected by pumping.

PERIOD OF RECORD.--August 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.14 ft below land-surface datum, Jan. 25, 2005; lowest measured, 12.41 ft below land-surface datum, Nov. 5, 2003.

## WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water Level	Date	Water Level
Jan. 25, 2005	8.14	Aug. 01, 2005	10.87

## JEFFERSON COUNTY

382026085374301 (Little Dean), map number 14.

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.--Periodic 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, 1.28 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, 31.12 ft below land-surface datum, Jul. 28, 2004; lowest measured, 34.84 ft below land-surface datum, Sept. 28, 2001.

## WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water Level	Date	Water Level
Jan. 25, 2005	31.13	Aug. 01, 2005	33.48

382032085375601 (Staples), map number 15.

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.--Periodic 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 well 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, 30.33 ft below land-surface datum, Jan. 25, 2005; lowest measured, 42.30 ft below land-surface datum, Jan. 04, 2002.

## WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water Level	Date	Water Level
Jan. 25, 2005	30.33	Aug. 01, 2005	36.94

382034085381201 (LWC-P-1), map number 16.

LOCATION.--Lat 38°20'34", long 85°38'12", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, 500 ft. west of lagoon 4, 400 ft. south of Louisville Water Company gate on Mayfair Ave., in yellow 4 in. square protective casing. 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 101.8 ft., screen: unknown.

INSTRUMENTATION.--Periodic measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 437.86 ft above NGVD of 1929. Measuring point: Top of 2 in. PVC, 3.00 ft above land-surface datum.

REMARKS.--Water levels affected by pumping.

PERIOD OF RECORD.--November 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water-level measured, 12.85 ft. below land-surface datum, May 11, 2004; lowest measured, 19.94 ft below land-surface datum, Nov. 05, 2003.

## WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water Level	Date	Water Level
Jan. 26, 2005	13.25	Aug. 01, 2005	15.43

GROUND-WATER LEVELS

JEFFERSON COUNTY

382037085381101. (LWC-P-2), map number 17.

LOCATION.--Lat 382037", long 853811", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, 500 ft. west of lagoon 4, 200 ft. south of Louisville Water Company gate on Mayfair Avenue, in yellow 4 in. square protective casing. 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 102 ft, screen: unknown.

INSTRUMENTATION.--Continuous recorder, 30 minute interval.

DATUM.--Elevation of land-surface datum is 435.90 ft above NGVD of 1929. Measuring point: Top of 2 in. PVC, 3.01 ft. above land-surface datum.

REMARKS.--Water levels affected by pumping.

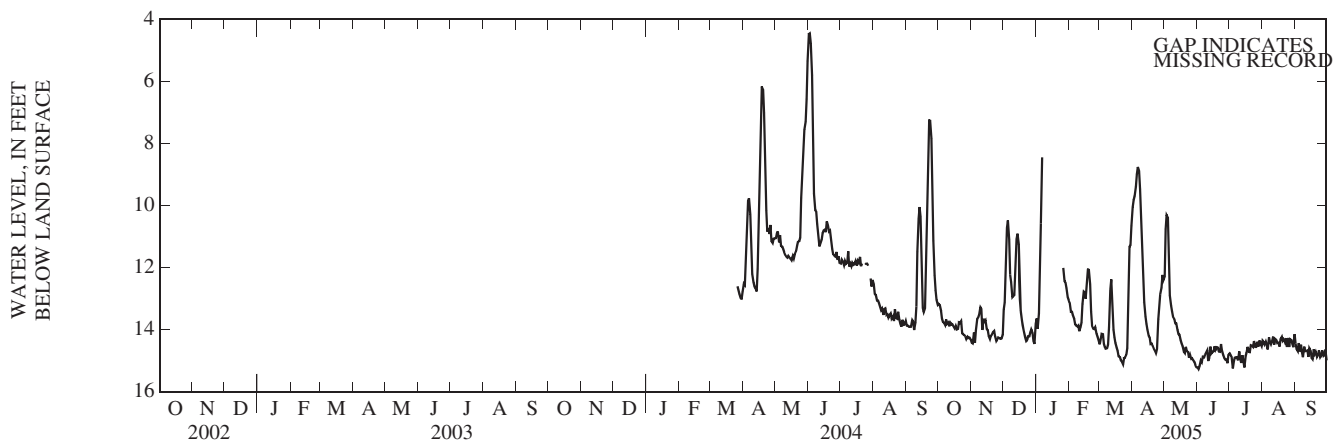
PERIOD OF RECORD.--November 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.46 ft below land-surface datum, Jun. 2, 2004; lowest measured, 18.59 ft below land-surface datum, Nov. 5, 2003.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.17	14.42	13.35	13.64	13.12	14.47	10.05	12.29	15.21	14.76	14.35	14.45
2	13.20	14.44	13.12	13.97	13.42	14.31	9.82	10.76	15.27	14.80	14.39	14.62
3	13.39	14.09	11.70	13.47	13.42	14.13	9.70	10.30	15.17	14.86	14.48	14.69
4	13.65	14.42	10.72	11.75	13.53	14.14	9.39	10.38	14.99	15.25	14.39	14.43
5	13.75	14.02	10.48	10.58	13.65	14.46	8.99	11.67	15.04	15.03	14.51	14.70
6	13.78	13.67	11.09	8.45	13.81	14.57	8.76	12.89	14.87	14.91	14.64	14.48
7	13.84	13.62	12.22	---	13.86	14.61	8.89	13.22	14.90	14.89	14.25	14.73
8	13.67	13.52	12.46	---	13.89	14.60	9.47	13.41	14.81	14.90	14.39	14.89
9	13.81	13.28	12.96	---	13.86	14.48	10.40	13.58	14.75	14.99	14.47	14.54
10	13.77	13.33	12.91	---	14.05	13.93	11.44	13.65	14.67	14.70	14.36	14.69
11	13.89	14.01	12.88	---	13.92	12.72	12.46	13.79	15.01	14.94	14.22	14.69
12	13.77	13.65	11.96	---	13.77	12.38	13.11	13.79	14.93	15.07	14.48	14.67
13	13.83	13.74	11.08	---	13.17	13.02	13.58	14.01	14.54	14.82	14.31	14.87
14	13.82	13.70	10.90	---	12.77	14.00	13.81	14.14	14.77	15.02	14.34	14.59
15	13.88	13.98	11.24	---	12.80	14.25	14.00	14.16	14.73	15.22	14.43	14.67
16	13.96	14.01	12.34	---	13.00	14.43	14.19	14.35	14.69	14.85	14.42	14.91
17	13.88	14.19	13.38	---	12.48	14.59	14.25	14.45	14.53	14.73	14.54	14.95
18	14.00	14.30	13.71	---	12.06	14.69	14.46	14.53	14.66	14.56	14.31	14.63
19	13.98	14.19	13.89	---	12.07	14.86	14.45	14.71	14.57	14.71	14.24	14.79
20	13.77	14.16	14.07	---	12.53	14.89	14.52	14.75	14.58	14.72	14.36	14.72
21	13.79	14.07	14.19	---	13.42	14.99	14.61	14.55	14.70	14.50	14.31	14.89
22	13.73	14.04	14.37	---	13.86	15.02	14.68	14.69	14.71	14.52	14.40	14.82
23	14.10	14.21	14.34	---	13.97	15.11	14.75	14.72	14.46	14.56	14.28	14.67
24	14.15	14.37	14.21	---	13.98	14.92	14.62	14.91	14.68	14.37	14.55	14.90
25	14.17	14.32	14.21	---	13.93	14.91	13.66	14.81	14.82	14.56	14.27	14.84
26	14.21	14.26	14.09	12.01	14.13	14.81	13.28	14.95	14.91	14.56	14.55	14.67
27	14.31	14.28	14.00	12.43	14.22	14.60	12.85	14.93	14.96	14.39	14.31	14.84
28	14.22	14.30	14.11	12.48	14.33	13.15	12.65	14.98	14.96	14.54	14.34	14.81
29	14.27	14.29	14.37	12.66	---	11.34	12.23	15.04	15.08	14.35	14.46	14.64
30	14.26	14.16	14.46	12.96	---	11.29	12.40	15.14	14.81	14.43	14.57	14.99
31	14.32	---	13.80	13.05	---	10.66	---	15.20	---	14.52	14.14	---
MAX	14.32	14.44	14.46	---	14.33	15.11	14.75	15.20	15.27	15.25	14.64	14.99
MIN	13.17	13.28	10.48	---	12.06	10.66	8.76	10.30	14.46	14.35	14.14	14.43

WTR YR 2005 HIGH 8.45 LOW 15.27



## JEFFERSON COUNTY

382038085382001 (Scott), map number 18.

LOCATION.--Lat 38°20'38", long 85°38'20", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, at 6410 Transylvania Beach Road in side yard 20 ft south 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 50 ft, screen: unknown.

INSTRUMENTATION.--Periodic measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 437.23 ft above NGVD of 1929. Measuring point: Top of 6 in. steel casing, 1.17 ft above land-surface datum.

REMARKS.--Water levels affected by pumping.

PERIOD OF RECORD.--September 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.97ft below land-surface datum, Jan. 25, 2005; lowest measured, 18.79 ft below land-surface datum, Nov. 5, 2003.

## WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water Level	Date	Water Level
Jan. 25, 2005	14.97	Aug. 01, 2005	16.70

GROUND-WATER LEVELS

JEFFERSON COUNTY

382039085375201. (WP-7), map number 19.

LOCATION.--Lat 38°20'39", long 85°37'52", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, at Louisville Water Company B.E. Payne treatment plant. Owner: Louisville Water Company.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 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 NGVD of 1929. Measuring point: Top of casing, 3.80 ft above land-surface datum.

REMARKS.--Water levels affected by pumping.

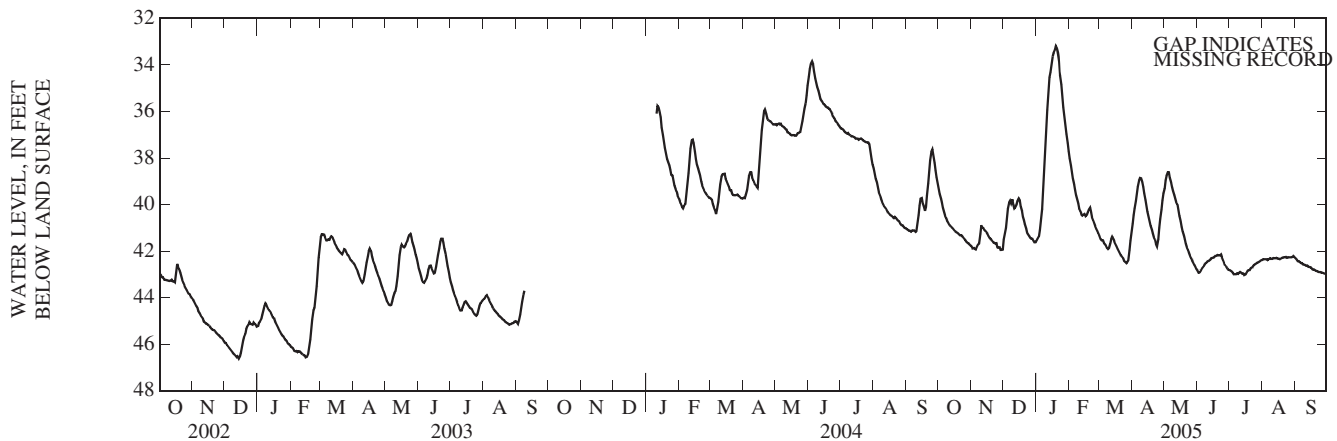
PERIOD OF RECORD.--December 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.18 ft below land-surface datum, Jan. 19, 2005; lowest measured, 48.10 ft below land-surface datum, Jan. 15, 2002.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39.32	41.80	41.49	41.55	38.02	41.39	40.82	39.30	42.84	42.82	42.38	42.30
2	39.55	41.88	41.27	41.47	38.31	41.48	40.45	38.95	42.92	42.84	42.35	42.35
3	39.75	41.86	41.00	41.37	38.61	41.53	40.16	38.76	42.93	42.87	42.35	42.43
4	39.93	41.91	40.56	41.10	38.88	41.53	39.85	38.60	42.85	42.92	42.34	42.43
5	40.15	41.93	40.18	40.69	39.13	41.65	39.53	38.60	42.76	42.99	42.35	42.47
6	40.34	41.80	39.91	40.19	39.38	41.70	39.22	38.85	42.70	42.99	42.39	42.51
7	40.49	41.72	39.84	39.40	39.59	41.74	38.96	39.05	42.64	42.99	42.34	42.51
8	40.57	41.67	39.95	38.59	39.80	41.87	38.85	39.25	42.57	42.95	42.31	42.57
9	40.69	41.26	39.78	37.65	39.95	41.90	38.86	39.41	42.51	42.98	42.33	42.58
10	40.78	40.89	40.01	36.82	40.18	41.86	39.03	39.59	42.45	42.92	42.33	42.60
11	40.86	40.98	40.18	35.94	40.29	41.67	39.24	39.75	42.43	42.90	42.29	42.64
12	40.92	41.01	40.10	35.16	40.43	41.48	39.51	39.90	42.41	42.93	42.30	42.62
13	40.97	41.10	40.00	34.52	40.48	41.37	39.80	40.00	42.37	42.98	42.30	42.67
14	41.01	41.14	39.84	34.31	40.44	41.46	40.07	40.24	42.31	42.97	42.29	42.68
15	41.07	41.20	39.73	33.94	40.41	41.61	40.31	40.49	42.29	43.03	42.32	42.69
16	41.14	41.27	39.80	33.64	40.49	41.69	40.54	40.73	42.28	43.01	42.32	42.73
17	41.17	41.36	40.08	33.48	40.43	41.79	40.72	40.96	42.23	42.94	42.35	42.79
18	41.20	41.45	40.27	33.35	40.32	41.89	40.91	41.15	42.21	42.85	42.33	42.79
19	41.23	41.48	40.53	33.18	40.23	41.98	41.08	41.33	42.20	42.82	42.30	42.82
20	41.28	41.55	40.67	33.26	40.14	42.09	41.24	41.50	42.17	42.81	42.28	42.84
21	41.31	41.62	40.85	33.57	40.32	42.17	41.40	41.68	42.18	42.75	42.27	42.85
22	41.32	41.63	41.03	33.85	40.54	42.24	41.51	41.83	42.18	42.70	42.27	42.88
23	41.34	41.67	41.20	34.45	40.68	42.31	41.70	41.95	42.14	42.66	42.25	42.89
24	41.41	41.66	41.27	34.84	40.81	42.41	41.79	42.08	42.26	42.61	42.29	42.90
25	41.48	41.84	41.35	35.31	40.93	42.45	41.50	42.20	42.40	42.57	42.27	42.93
26	41.52	41.85	41.42	35.81	41.05	42.52	41.00	42.31	42.51	42.54	42.26	42.93
27	41.59	41.84	41.47	36.30	41.13	42.49	40.62	42.41	42.61	42.50	42.27	42.95
28	41.64	41.95	41.47	36.64	41.23	42.41	40.22	42.49	42.68	42.48	42.26	42.96
29	41.66	41.95	41.55	36.97	---	41.96	39.81	42.59	42.75	42.45	42.25	42.97
30	41.71	41.93	41.62	37.36	---	41.55	39.53	42.66	42.80	42.41	42.21	42.98
31	41.77	---	41.62	37.71	---	41.23	---	42.76	---	42.39	42.26	---
MAX	41.77	41.95	41.62	41.55	41.23	42.52	41.79	42.76	42.93	43.03	42.39	42.98
MIN	39.32	40.89	39.73	33.18	38.02	41.23	38.85	38.60	42.14	42.39	42.21	42.30

WTR YR 2005 HIGH 33.18 LOW 43.03





JEFFERSON COUNTY

382051085380801. (LWC-1), map number 20.

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, 1000 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: 66-67 ft.

INSTRUMENTATION.--Continuous recorder, 30 minute interval.

DATUM.--Elevation of land-surface datum is 434.26 ft NGVD of 1929. Measuring point: Top of casing, 3.40 ft above land-surface datum.

REMARKS.--Water levels affected by pumping.

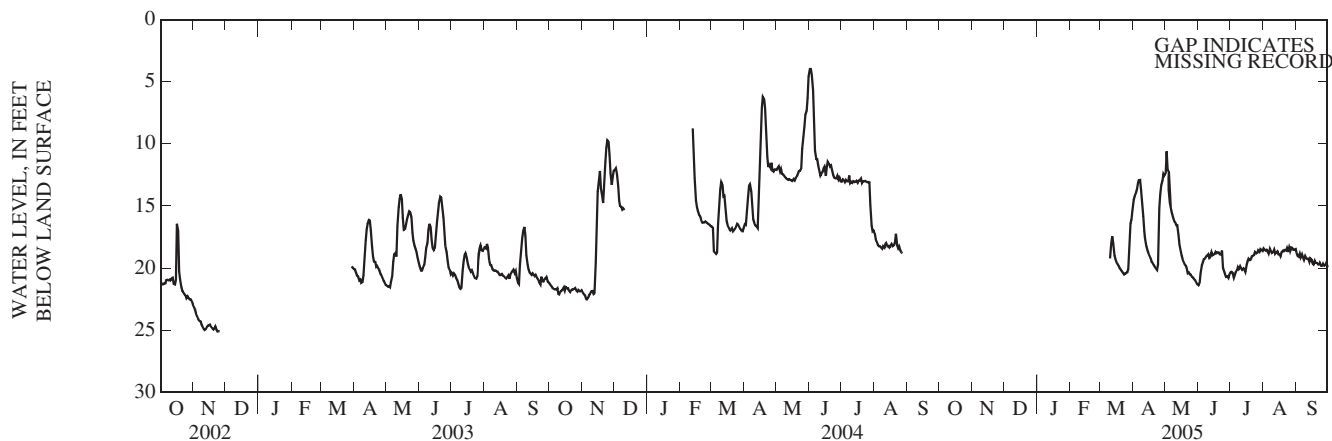
PERIOD OF RECORD.--March 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.95 ft below land-surface datum, Jun. 2, 2004; lowest measured, 25.19 ft below land-surface datum, Nov. 26, 2002.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	14.54	12.38	21.39	20.34	18.44	18.80
2	---	---	---	---	---	---	14.23	10.61	21.22	20.30	18.53	19.01
3	---	---	---	---	---	---	14.05	12.05	20.42	20.40	18.61	19.11
4	---	---	---	---	---	---	13.69	12.25	19.79	20.81	18.53	18.86
5	---	---	---	---	---	---	13.22	13.74	19.57	20.56	18.69	19.17
6	---	---	---	---	---	---	12.94	15.21	19.30	20.31	18.85	18.92
7	---	---	---	---	---	---	12.90	15.64	19.26	20.18	18.44	19.16
8	---	---	---	---	---	---	13.71	15.93	19.13	19.93	18.62	19.36
9	---	---	---	---	---	---	14.72	16.19	18.99	20.07	18.79	19.01
10	---	---	---	---	---	19.22	15.85	16.35	18.88	19.84	18.71	19.21
11	---	---	---	---	---	17.97	17.01	16.54	19.19	20.02	18.54	19.27
12	---	---	---	---	---	17.45	17.74	16.55	19.12	20.16	18.86	19.25
13	---	---	---	---	---	18.00	18.30	17.35	18.73	20.03	18.74	19.50
14	---	---	---	---	---	19.00	18.57	18.12	18.99	20.12	18.66	19.24
15	---	---	---	---	---	19.31	18.79	18.51	18.94	20.30	18.88	19.32
16	---	---	---	---	---	19.52	19.01	19.01	18.88	19.74	18.88	19.63
17	---	---	---	---	---	19.69	19.19	19.30	18.70	19.47	19.04	19.73
18	---	---	---	---	---	19.83	19.51	19.48	18.81	19.26	18.74	19.41
19	---	---	---	---	---	20.02	19.61	19.73	18.74	19.39	18.60	19.60
20	---	---	---	---	---	20.12	19.76	19.81	18.73	19.34	18.67	19.58
21	---	---	---	---	---	20.26	19.89	20.06	18.90	19.07	18.55	19.73
22	---	---	---	---	---	20.37	20.05	20.44	18.91	19.02	18.58	19.71
23	---	---	---	---	---	20.51	20.15	20.37	18.60	18.97	18.39	19.57
24	---	---	---	---	---	20.44	19.72	20.51	20.01	18.70	18.70	19.82
25	---	---	---	---	---	20.45	15.18	20.54	20.32	18.84	18.36	19.81
26	---	---	---	---	---	20.36	14.05	20.72	20.54	18.80	18.63	19.65
27	---	---	---	---	---	20.11	13.35	20.77	20.71	18.58	18.35	19.81
28	---	---	---	---	---	18.76	12.97	20.91	20.67	18.71	18.38	19.76
29	---	---	---	---	---	16.41	12.39	21.01	20.81	18.47	18.52	19.59
30	---	---	---	---	---	16.10	12.55	21.17	20.53	18.55	18.52	19.94
31	---	---	---	---	---	15.37	---	21.31	---	18.63	18.49	---
MAX	---	---	---	---	---	---	20.15	21.31	21.39	20.81	19.04	19.94
MIN	---	---	---	---	---	---	12.39	10.61	18.60	18.47	18.35	18.80

WTR YR 2005 HIGH 10.61 LOW 21.39



## GROUND-WATER LEVELS

## JEFFERSON COUNTY

382053085381301 (LWC-3B), map number 21.

LOCATION.--Lat 38°20'53", long 85°38'13", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, 800 ft south of collector well, 30 ft west of gravel road, in 6 in protective casing. Owner: Louisville Water Company.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.25 in., depth 85.8 ft., screen: unknown.

INSTRUMENTATION.--Periodic measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 436.29 ft. above NGVD of 1929. Measuring point: Top of PVC casing 1.90 ft. above land-surface.

REMARKS.--Water levels affected by pumping.

PERIOD OF RECORD.--July 2004 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.67 ft below land-surface datum, Jul. 28, 2004; lowest measured, 22.22 ft below land-surface datum, Aug. 27, 2004.

## WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water Level	Date	Water Level
Jan. 26, 2005	20.96	Aug. 02, 2005	21.76

JEFFERSON COUNTY

382054085380602. (LWC-7A), map number 22.

LOCATION.--Lat 38°20'54", long 85°38'06", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, at Louisville Water Company B.E. Payne treatment plant, in field 1000 ft. southeast of collector well, inside 6 in. steel protective casing. Owner: Louisville Water Company.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.25 in., depth 82.7 ft, screen: unknown.

INSTRUMENTATION.--Periodic measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 431.99 ft above NGVD of 1929. Measuring point: Top of PVC casing 2.01 ft. above land-surface datum.

REMARKS.--Water levels affected by pumping.

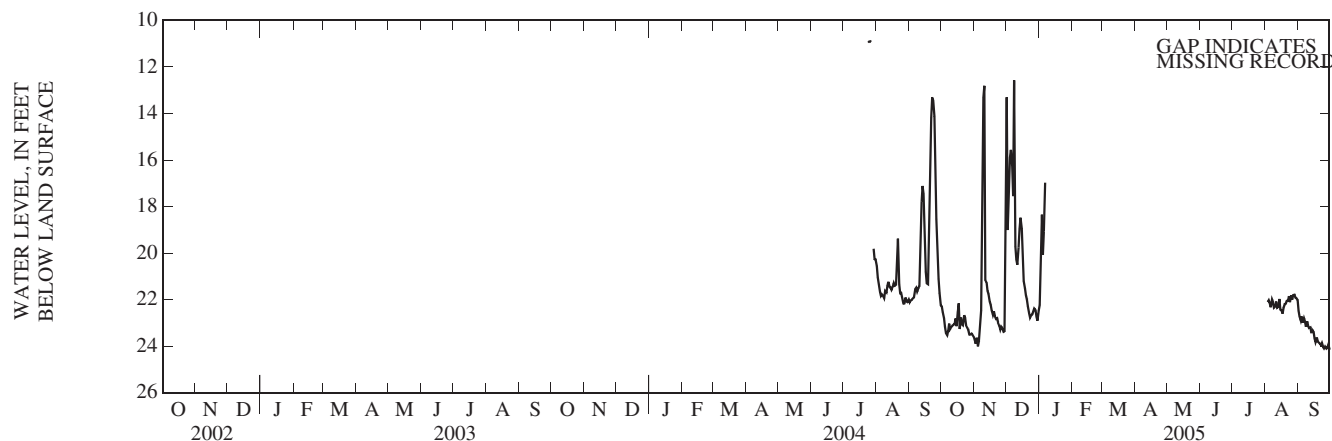
PERIOD OF RECORD.--July 2004 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.83 ft below land-surface datum, Jul. 28, 2004; lowest measured, 22.20 ft below land-surface datum, Aug. 27, 2004.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.28	23.73	13.30	22.23	---	---	---	---	---	---	---	22.48
2	22.53	23.90	19.01	20.99	---	---	---	---	---	---	---	22.72
3	22.80	23.63	17.43	18.35	---	---	---	---	---	---	22.10	22.91
4	23.16	24.00	15.89	20.07	---	---	---	---	---	---	22.04	22.72
5	23.43	23.78	15.56	19.07	---	---	---	---	---	---	22.16	22.98
6	23.52	22.96	16.25	16.98	---	---	---	---	---	---	22.32	22.81
7	23.35	22.46	17.56	---	---	---	---	---	---	---	21.99	22.94
8	23.03	17.94	12.57	---	---	---	---	---	---	---	22.11	23.16
9	23.27	13.32	19.72	---	---	---	---	---	---	---	22.34	22.93
10	23.17	12.81	20.28	---	---	---	---	---	---	---	22.28	23.12
11	23.12	21.15	20.50	---	---	---	---	---	---	---	22.08	23.22
12	23.09	21.25	19.76	---	---	---	---	---	---	---	22.35	23.19
13	23.06	21.62	18.96	---	---	---	---	---	---	---	22.31	23.44
14	22.81	21.76	18.48	---	---	---	---	---	---	---	21.97	23.30
15	23.14	22.09	18.94	---	---	---	---	---	---	---	22.42	23.39
16	22.53	22.23	20.08	---	---	---	---	---	---	---	22.46	23.67
17	22.16	22.47	21.20	---	---	---	---	---	---	---	22.60	23.83
18	23.26	22.65	21.51	---	---	---	---	---	---	---	22.36	23.63
19	22.76	22.51	21.82	---	---	---	---	---	---	---	22.19	23.80
20	23.05	22.70	22.00	---	---	---	---	---	---	---	22.18	23.84
21	23.10	22.83	22.28	---	---	---	---	---	---	---	22.05	23.90
22	22.67	22.81	22.59	---	---	---	---	---	---	---	22.04	23.95
23	22.80	22.98	22.78	---	---	---	---	---	---	---	21.84	23.87
24	23.09	23.12	22.69	---	---	---	---	---	---	---	22.11	24.05
25	23.21	23.29	22.63	---	---	---	---	---	---	---	21.80	24.10
26	23.31	23.16	22.50	---	---	---	---	---	---	---	22.00	24.02
27	23.50	23.25	22.38	---	---	---	---	---	---	---	21.80	24.10
28	23.49	23.38	22.45	---	---	---	---	---	---	---	21.79	24.06
29	23.46	23.36	22.74	---	---	---	---	---	---	---	21.92	23.94
30	23.50	19.49	22.90	---	---	---	---	---	---	---	21.93	24.16
31	23.59	---	22.46	---	---	---	---	---	---	---	22.01	---
MAX	23.59	24.00	22.90	---	---	---	---	---	---	---	---	24.16
MIN	22.16	12.81	12.57	---	---	---	---	---	---	---	---	22.48

WTR YR 2005 HIGH 12.57 LOW 24.16



## GROUND-WATER LEVELS

## JEFFERSON COUNTY

382057085380801 (LWC-2B), map number 23.

LOCATION.--Lat 38°20'57", long 85°38'08", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, at Louisville Water Company B.E. Payne treatment plant, in field 300 ft. southeast of collector well, inside 6 in. steel protective casing. Owner: Louisville Water Company.

AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.25 in., depth 82.1 ft, screen: unknown.

INSTRUMENTATION.--Periodic measurement with chalked tape by USGS personnel.

DATUM.--Elevation of land-surface datum is 432.59 ft above NGVD of 1929. Measuring point: Top of PVC casing 2.13 ft. above land-surface datum.

REMARKS.--Water levels affected by pumping.

PERIOD OF RECORD.--November 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.92 ft below land-surface datum, May 11, 2004; lowest measured, 29.95 ft below land-surface datum, Jan. 26, 2005.

## WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water Level	Date	Water Level
Jan. 26, 2005	29.95	Aug. 02, 2005	28.40

382058085373501 (Shirley Avenue), map number 24.

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.--Periodic 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, 37.36 ft below land-surface datum, Jul. 28, 2004; lowest measured, 44.03 ft below land-surface datum, Mar. 26, 2001.

## WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water Level	Date	Water Level
Jan. 26, 2005	38.53	Aug. 02, 2005	41.34

382102085380701 (WP-19), map number 25.

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.--Periodic 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 2004 TO SEPTEMBER 2005

Date	Water Level	Date	Water Level
Jan. 26, 2005	40.99	Mar. 09, 2005	44.62
Mar. 02, 2005	44.47	Aug. 02, 2005	37.35

JEFFERSON COUNTY

382105085375101. (Hays-Kennedy), map number 26.

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: 1120TSH.

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.

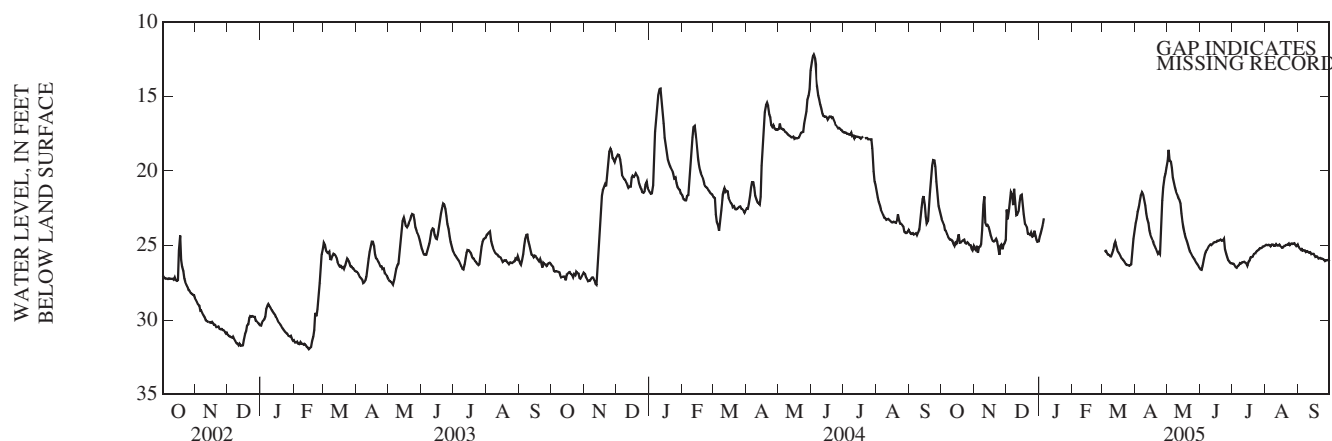
PERIOD OF RECORD.--March 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.20 ft below land-surface datum, Jun. 6, 2004; lowest measured, 32.04 ft below land-surface datum, Feb. 14, 2003.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY OBSERVATION AT 1200 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.24	25.21	22.60	24.41	---	---	23.49	19.31	26.60	26.20	25.00	25.10
2	23.39	25.30	23.23	24.20	---	---	23.20	18.58	26.64	26.22	24.96	25.19
3	23.61	25.03	22.61	23.87	---	25.42	22.76	19.31	26.37	26.30	24.97	25.30
4	23.97	25.50	21.96	23.55	---	25.36	22.40	19.37	25.92	26.45	24.95	25.23
5	24.02	25.12	21.39	23.18	---	25.47	21.98	19.77	25.63	26.50	24.99	25.34
6	24.22	25.08	21.59	---	---	25.59	21.65	20.45	25.43	26.40	25.06	25.32
7	24.41	24.92	22.30	---	---	25.62	21.41	20.84	25.29	26.33	24.94	25.33
8	24.52	24.02	21.19	---	---	25.73	21.54	21.14	25.16	26.17	24.94	25.45
9	24.62	22.27	22.25	---	---	25.73	21.86	21.36	25.04	26.21	25.03	25.38
10	24.62	21.70	22.97	---	---	25.55	22.32	21.59	24.94	26.12	25.02	25.43
11	24.68	23.46	22.93	---	---	25.29	22.85	21.79	24.97	26.11	24.92	25.49
12	24.88	23.66	22.73	---	---	24.93	23.22	21.91	24.92	26.10	25.00	25.46
13	25.01	23.62	22.11	---	---	24.77	23.51	22.18	24.82	26.15	25.00	25.58
14	24.81	23.72	21.67	---	---	25.11	24.02	22.86	24.79	26.20	24.94	25.55
15	24.86	24.05	21.60	---	---	25.33	24.27	23.40	24.76	26.35	25.05	25.56
16	24.56	24.34	22.27	---	---	25.46	24.48	23.87	24.76	26.07	25.14	25.67
17	24.25	24.53	22.89	---	---	25.57	24.65	24.22	24.68	26.01	25.15	25.77
18	24.80	24.69	23.54	---	---	25.70	24.87	24.48	24.67	25.80	25.08	25.72
19	24.80	24.74	23.62	---	---	25.86	25.04	24.72	24.66	25.77	25.01	25.79
20	24.72	24.70	23.76	---	---	25.94	25.20	24.93	24.62	25.74	24.99	25.89
21	24.65	24.56	24.21	---	---	26.02	25.37	25.16	24.67	25.61	24.96	25.84
22	24.61	24.75	24.23	---	---	26.12	25.56	25.39	24.68	25.54	24.95	25.88
23	24.82	25.08	24.29	---	---	26.27	25.45	25.52	24.57	25.48	24.88	25.87
24	24.86	25.63	24.13	---	---	26.29	25.56	25.64	25.25	25.38	24.98	25.92
25	24.79	25.05	24.41	---	---	26.33	23.45	25.78	25.58	25.32	24.87	25.96
26	24.84	24.96	24.38	---	---	26.37	21.97	25.90	25.80	25.28	24.92	26.06
27	24.96	25.25	24.00	---	---	26.33	21.08	26.01	25.98	25.18	24.88	25.99
28	24.97	24.94	24.36	---	---	26.26	20.44	26.13	26.07	25.17	24.85	25.99
29	25.21	24.88	24.63	---	---	25.37	20.19	26.26	26.18	25.10	24.95	25.97
30	25.33	24.63	24.74	---	---	24.54	19.77	26.36	26.20	25.06	25.04	26.05
31	25.04	---	24.71	---	---	24.11	---	26.49	---	25.05	24.94	---
MAX	25.33	25.63	24.74	---	---	---	25.56	26.49	26.64	26.50	25.15	26.06
MIN	23.24	21.70	21.19	---	---	---	19.77	18.58	24.57	25.05	24.85	25.10

WTR YR 2005 HIGH 18.58 LOW 26.64



## GROUND-WATER LEVELS

## JEFFERSON COUNTY

382120085374701. (River Fields), map number 27.

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.--Periodic 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, 16.99 ft below land-surface datum, Jan. 26, 2005; lowest measured, 23.76 ft below land-surface datum, Jan. 04, 2002.

## WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water Level	Date	Water Level
Jan. 26, 2005	16.99	Aug. 01, 2005	21.14

382124085375401. (Abell), map number 28.

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.--Periodic 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 2004 TO SEPTEMBER 2005

Date	Water Level	Date	Water Level
Jan. 26, 2005	16.58	Aug. 01, 2005	19.26

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## CHEMICAL QUALITY OF PRECIPITATION

381353085401801 - SENECA PARK NEAR ST MATTHEWS, JEFFERSON COUNTY, KY

(National Atmospheric Deposition Program network station)

LOCATION.--Lat 38°13'53", Long 85°40'18", Jefferson County, Hydrologic Unit 05140101, at Seneca Park Golf Course, 0.5 mi northwest of Bowman Field Airport.

PERIOD OF RECORD.--October 2003 to current year.

INSTRUMENTATION.--Wet/dry precipitation collector, weighing bucket type recording rain gage.

REMARKS.--Samples collected on weekly basis by observer.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Atm dep wet, liters (83177)	Precip- itation total for defined period, inches (00193)	pH, wet atm dep unfltrd field, std units (83106)	Specif. conduc- tance, wet dep unfltrd field, uS/cm (83154)	Calcium wet atm dep fltrd, mg/L (82932)	Magnes- ium, wet atm dep fltrd, mg/L (83002)	Potas- sium, wet atm dep fltrd, mg/L (83120)	Sodium, wet atm dep fltrd, mg/L (83138)	Chlor- ide, wet atm dep fltrd, mg/L (82944)	Sulfate wet atm dep fltrd, mg/L (83160)	Ammonia wet atm dep fltrd, mg/L as NH4 (83047)	Nitrate wet atm dep fltrd, mg/L (83071)	Ortho- phos- phate, wet atm dep fltrd, mg/L (83111)
OCT 12-19	9.139	4.59	4.83	11.8	0.09	0.01	0.02	0.04	0.07	1.15	0.200	0.75	<0.009
OCT 19-26	1.170	0.67	4.73	15.7	.08	.01	.01	.03	.07	1.76	.330	.77	<0.009
OCT 26-NOV 02	2.595	1.48	4.73	16.5	.06	.01	.02	.06	.10	1.51	.180	.82	<0.009
NOV 02-09	3.134	1.79	4.81	12.1	.03	M	M	.02	.07	1.15	.110	.42	<0.009
NOV 09-16	3.313	1.91	4.72	16.1	.03	.01	.01	.08	.16	1.32	.140	.69	<0.009
NOV 16-23	1.562	.89	4.64	32.8	.16	.03	.01	.06	.13	2.94	.290	1.70	<0.009
NOV 23-30	1.575	.94	4.60	14.8	.08	.01	.01	.02	.08	1.33	.220	.97	<0.009
NOV 30-DEC 07	2.118	1.21	4.70	14.2	.09	.01	.01	.01	.04	1.18	.180	.81	.025
DEC 07-14	0.909	.52	4.47	20.3	.18	.02	.01	.01	.13	2.07	.310	1.12	<0.009
DEC 14-21	3.812	2.45	4.56	14.9	.07	.01	.01	.11	.20	1.07	.120	.94	<0.009
DEC 21-28													
DEC 28 2004-													
JAN 04 2005	3.649	2.11	--	--	.07	.03	.02	.24	.38	1.66	.250	.94	<0.009
JAN 04-11	3.746	2.15	--	--	.07	.03	.02	.26	.40	1.75	.310	1.20	<0.009
JAN 11-18	.916	.53	--	--	.10	.02	.01	.07	.12	1.01	.100	.49	<0.009
JAN 18-25	.050	.03	--	--	1.18	.15	.45	.82	2.01	4.42	1.99	7.79	<0.009
JAN 25-FEB 01	.903	.51	--	--	.04	M	.01	.10	.19	0.84	.160	.93	<0.009
FEB 01-08	1.597	.91	--	--	.11	.02	.01	.12	.23	1.92	.200	1.26	<0.009
FEB 08-15	1.287	.75	--	--	.06	.01	.01	.02	.07	1.29	.210	1.00	<0.009
FEB 15-22	.483	.28	--	--	.30	.02	.03	.04	.16	2.78	.590	2.00	<0.009
FEB 22-MAR 01	.695	.39	--	--	.15	.02	.01	.04	.29	3.23	.560	2.93	<0.009
MAR 01-08	.616	.35	--	--	.65	.07	.04	.16	.21	3.11	1.18	2.67	<0.009
MAR 08-15	.493	.28	--	--	.48	.05	.01	.07	.17	2.01	.720	1.38	<0.009
MAR 15-22	.199	.11	--	--	.65	.07	.08	.23	.38	4.63	1.23	4.89	<0.009
MAR 22-29	4.452	2.58	--	--	.13	.01	.01	.02	.10	2.52	.300	1.53	<0.009
MAR 29-APR 05	.595	.34	--	--	.52	.06	.04	.24	.31	2.42	.480	1.69	<0.009
APR 05-12	.273	--	--	--	.29	.05	.05	.04	.11	2.05	.450	2.22	<0.009
APR 12-19	.980	.57	--	--	.13	.01	.03	.03	.11	2.01	.280	1.10	<0.009
APR 19-26	1.901	1.10	--	--	.82	.15	.18	.04	.08	2.27	.690	1.29	<0.009



381353085401801 - SENECA PARK NEAR ST MATTHEWS, JEFFERSON COUNTY, KY—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Atm dep wet, liters (83177)	Precip- itation total for defined period, inches (00193)	Calcium wet atm dep fltrd, mg/L (82932)	Magnes- ium, wet atm dep fltrd, mg/L (83002)	Potas- sium, wet atm dep fltrd, mg/L (83120)	Sodium, wet atm dep fltrd, mg/L (83138)	Chlor- ide, wet atm dep fltrd, mg/L (82944)	Sulfate wet atm dep fltrd, mg/L (83160)	Ammonia wet atm dep fltrd, mg/L as NH4 (83047)	Nitrate wet atm dep fltrd, mg/L (83071)	Ortho- phos- phate, wet atm dep fltrd, mg/L (83111)
APR 26- MAY 03	2.803	1.62	0.16	0.02	0.01	0.02	0.07	1.74	0.290	1.19	<0.009
MAY 03-10	0.296	0.50	.28	.06	.04	.04	.07	1.02	.380	0.92	<.009
MAY 10-17	2.485	1.45	.13	.01	.02	.03	.13	2.97	.520	1.36	<.009
MAY 24-31	.167	.10	.94	.12	.05	.02	.13	5.00	1.98	3.73	<.009
MAY 31- JUN 07	1.376	.84	.15	.02	.02	.01	.05	2.27	.440	1.14	<.009
JUN 07-14	2.046	1.16	.09	.02	.02	.04	.08	1.06	.270	.73	<.009
JUN 14-21	.044	.03	1.22	.21	.10	.28	.38	3.83	.720	3.17	<.009
JUN 21-28	.445	.27	.27	.04	.02	.02	.08	2.74	.550	1.49	<.009
JUN 28- JUL 05	.948	.54	1.19	.18	.29	.03	.62	9.96	1.16	3.90	.022
JUL 05-12	.923	.54	.20	.04	.05	.10	.18	1.40	.430	.85	<.009
JUL 12-19	2.069	1.19	.17	.03	.03	.01	.08	4.27	.650	1.71	<.009
JUL 19-26	1.635	.95	.27	.04	.02	.04	.07	3.06	.300	1.39	<.009
AUG 02-09	.118	.07	3.01	.33	.04	.04	.34	10.6	1.32	4.49	<.009
AUG 09-16	1.038	.63	.46	.06	.05	.09	.24	4.45	.590	1.87	<.009
AUG 16-23	1.454	.82	.15	.02	.02	.03	.18	3.98	.380	1.38	<.009
AUG 23-30	4.874	2.78	.04	.01	.01	.01	.04	2.25	.250	.72	<.009
AUG 30- SEP 06	4.683	2.72	.02	M	.01	.01	.03	0.58	.100	.25	<.009
SEP 06-13	1.252	.73	.94	.09	.04	.02	.17	8.86	1.25	3.16	<.009
SEP 13-20	1.201	.70	.15	.02	.02	.05	.11	2.79	.400	1.27	<.009
SEP 20-27	.724	.43	.24	.04	.04	.12	.24	1.18	.260	.98	<.009
SEP 27- OCT 04	.272	.16	.13	.02	.01	.01	.03	1.23	.160	.86	<.009

M--Presence of material verified but not quantified.

&lt;--Numeric result is less than the value shown.



CHEMICAL QUALITY OF PRECIPITATION

380706083324900 - CLARK STATE FISH HATCHERY, ROWAN COUNTY, KY—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Atm dep wet, liters (83177)	Precip- itation total for defined period, inches (00193)	Calcium wet atm dep fltred, mg/L (82932)	Magnes- ium, wet atm dep fltred, mg/L (83002)	Potas- sium, wet atm dep fltred, mg/L (83120)	Sodium, wet atm dep fltred, mg/L (83138)	Chlor- ide, wet atm dep fltred, mg/L (82944)	Sulfate wet atm dep fltred, mg/L (83160)	Ammonia wet atm dep fltred, mg/L as NH4 (83047)	Nitrate wet atm dep fltred, mg/L (83071)	Ortho- phos- phate, wet atm dep fltred, mg/L (83111)
JUN 28- JUL 05	4.055	2.40	0.27	0.02	0.02	0.01	0.10	5.79	0.930	1.96	<0.009
JUL 12-19	2.722	1.60	.07	.01	.01	.01	.06	1.59	.230	0.67	<.009
JUL 19-26	0.024	0.01	.72	.07	.07	.08	.21	3.07	<.020	2.51	<.009
AUG 02-09	.071	.05	1.40	.12	.03	.05	.27	4.71	.540	3.52	<.009
AUG 09-16	.482	.30	.85	.08	.07	.10	.20	4.77	.540	2.31	<.009
AUG 16-23	2.067	1.15	.16	.02	.02	.06	.12	2.34	.350	1.38	<.009
AUG 23-30	5.790	3.30	.04	.01	.05	.02	.05	1.58	.270	.59	.026
AUG 30- SEP 06	.457	.30	.09	.05	.14	.06	.13	1.19	.380	1.06	.178
SEP 13-20	.289	.20	.81	.07	.03	.05	.10	2.37	.480	1.36	<.009
SEP 20-27	.513	.32	.26	.03	.02	.06	.14	2.71	.340	1.23	<.009
SEP 27- OCT 04	.952	.60	.86	.14	.49	.05	.09	2.11	.090	.30	.080

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		PERIOD OF RECORD	COMPLETE FLOW	COM- PLETE STAGE	PEAK FLOW	LOW FLOW	MISC FLOW MEAS
		AREA (MI <sup>2</sup> )							
CARD CR AT MOUTH CARD, KY	03207845	4.18		1973-75	E	E			
FEDS CR AT FEDS CR, KY	03207875	11.60		1973-75	E	E			
BIG CR AT DUNLAP, KY	03207905	9.55		1974-76	E	E			
ELKFOOT BRANCH NR NIGH, KY	03207915	.70		1980-84	E	E			
ISLAND CR NR PHYLLIS, KY	03207925	2.42		1974	E	E			
LICK CR AT LICK CR, KY	03207935	6.70		1973-76	E	E			
MILLERS CR NR PHYLLIS, KY	03207940	1.68		1973-75	E	E			
DICKS FK AT PHYLLIS, KY	03207962	.82		1975-84	E	E			
GRAPEVINE CR NR PHYLLIS, KY	03207965	6.20		1974-82 1989-92	E		E	E	
LEVISA FK BELOW FISHTRAP DAM, NR MILLARD, KY	03208000	392		1938-92*	E		C	E	
RUSSELL FORK AT ELKHORN CITY, KY	03209300	554.00		1960-92	E	E		E	
ELKHORN CR NR ELKHORN CITY, KY	03209400	48.80		1967-72	E		E	E	
SHELBY CR AT DORTON, KY	03209440	12.60		1971-76*	E	E	E	E	
SHELBY CR AT SHELBIANA, KY	03209460	112.00		1965 1972-81				E	
MUD CR AT HAROLD, KY	03209545	51.90		1975-81				E	
BILL D BR NR KITE, KY	03209575	3.17		1976-86			E		
RIGHT FK BEAVER CR AT WAYLAND, KY	03209600	73.90		1959-75				E	
BEAVER CR AT MARTIN, KY	03209700	228.00		1953-72				E	
LEVISA FK AT PRESTONSBURG, KY	03209800	1702.00		1964-81		E			
MIDDLE CR NR PRESTONSBURG, KY	03209890	62.10		1975-81				E	
RACCOON CR NR ZEBULON, KY	03210040	14.80		1974-75*	E	E			
CANEY FK NR GULNARE, KY	03210160	3.74		1974-75*	E	E	E		
BRUSHY FK AT HEENON, KY	03210310	20.40		1974-76	E	E			
BUFFALO CR NR ENDICOTT, KY	03210420	6.21		1974-75*	E	E			
JOHNS CR NR PRESTONSBURG, KY	03210500	197.00		1938-40		E			
JOHNS CR NR VAN LEAR, KY	03211500	206		1939-92*	E		C	E	
OPEN FK PAINT CR NR RELIEF, KY	03211945	25.50		1975-81				E	
PAINT CR NR STAFFORDSVILLE, KY	03212000	103.00		1950-75*	E	E	E	E	
KERSHAW BR NR HURLEY, VA	03213577	.60		1981-82		E			
CAMP CR NR ARGO, KY	03213594	1.60		1981-82		E			
KNOX CR AT ARGO, KY	03213600	95.90		1958-72				E	
R FK HURRICANE CR NR STOPOVER, KY	03213630	.82		1980-83		E			
BIG CR NR HATFIELD, KY	03213790	59.10		1975-81				E	
WOLF CR AT PILGRIM, KY	03214400	62.80		1975-81				E	
ROCKCASTLE CR AT CLIFFORD, KY	03214730	121.00		1965-65 1972-81					E
BIG SANDY R AUXILIARY AT LOUISA, KY	03214980	3885.00		1938-76		E			
BIG SANDY R AT LOUISA, KY	03215000	3897.00		1939-77		E			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 1972-81					E
BECKWITH BR TRIBUTARY NR GRAYSON, KY	03216505	.51		1977-86			E		
E FK LITTLE SANDY R NR FALLSBURG, KY	03216540	12.20		1972-91	E	E	E	E	
E FK LITTLE SANDY R NR CANNONSBURG, KY	03216550	38.20		1980-81		E		E	
MILE BRANCH NR RUSH, KY	03216563	.94		1976-90			E		
MILE BR NR COALTON, KY	03216564	1.61		1977-86			E		
E FK LITTLE SANDY R NR ARGILLITE, KY	03216570	138.00		1968-76				E	
TYGARTS CREEK AT OLIVE HILL, KY	03216800	59.6		1957-94	E	E	E	E	
TROUGH CAMP CR TRIB NR OLIVE HILL, KY	03216901	1.11		1976-86			E		
TYGARTS CR NR KEHOE, KY	03216935	124.00		1963-74		E			E
BUFFALO CR BELOW GRASSY CR AT KEHOE, KY	03216965	54.60		1975-81				E	
KINNICONICK CR NR KINNICONICK, KY	03237225	60.10		1975-81				E	
KINNICONICK CR NR RUGLESS, KY	03237230	109.00		1954-72				E	
LAUREL FK NR CAMP DIX, KY	03237246	57.00		1975-81				E	
INDIAN RUN TRIB NR TOLLESBORO, KY	03237895	.23		1975-86					
CABIN CR NR TOLLESBORO, KY	03237900	22.40		1972-91	E	E	E	E	
CABIN CR NR PLUMVILLE, KY	03237985	57.60		1975-78 1980-81				E	
OHIO R AT MAYSVILLE, KY	03238000	70130.00		1939-80		E	E		
LAWRENCE CR NR MAYSVILLE, KY	03238030	1.90		1975-86			E		
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 <sup>2</sup> )	PERIOD OF RECORD	COMPLETE FLOW	COM- PLETE STAGE	PEAK FLOW	LOW FLOW	MISC FLOW MEAS
LOCUST CR NR AUGUSTA, KY	03238660	41.70	1980-81 1975-78				E	
TWELVEMILE CR AT HWY 1997 NR ALEXANDRIA, KY	03238745	39.0	1980-81 2001	E	E	E	E	
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 RIVER BELOW MASON FORK NR SALYERSVILLE	03248300	107	2001-04	E	E	E	E	
LICKING R NR SALYERSVILLE, KY	03248500	140	1939-92, 1994-97	E	E	E	E	
ELK FK NR LENOX, KY	03248685	59.40	1958-73				E	
CANEY CR NR W LIBERTY, KY	03248730	41.40	1973-75				E	
GRASSY CR NR W LIBERTY, KY	03248765	46.10	1974-79				E	
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 JEFFERSVILLE, KY	03250185	56.70	1973-81				E	
SLATE CR NR OWINGSVILLE, KY	03250240	185.00	1954-72				E	
ROSE RUN TRIB NR OLYMPIA, KY	03250243	.70	1975-86			E		
ROCK LICK CR NR SHARKEY, KY	03250320	4.01	1973-82		E			
FOX CR NR HILLSBORO, KY	03250330	110.00	1953-72					E
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		

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

STATION NAME AND LOCATION	STATION NUMBER	DRAINAGE AREA (MI <sup>2</sup> )	PERIOD OF RECORD	COMPLETE FLOW	COM- PLETE STAGE	PEAK FLOW	LOW FLOW	MISC FLOW MEAS
N FK KENTUCKY R AT BLACKKEY, KY	03277340	131.00	1965-65 1972-81				E	
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			
LULBGRUD CR TRIB AT WESTBEND, KY	03283610	.33	1975-86					
LULBGRUD 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 BEREAL, 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	

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

STATION NAME AND LOCATION	STATION NUMBER	DRAINAGE AREA (MI <sup>2</sup> )	PERIOD OF RECORD	COMPLETE FLOW	COM- PLETE STAGE	PEAK FLOW	LOW FLOW	MISC FLOW MEAS
HANGING FK CR NR STANFORD, KY	03284935	46.90	1973-74				E	
HANGING FK CR NR HUBBLE, KY	03284995	91.10	1973-74				E	
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 TAYLORSVILLE, KY	03295580	53.20	1974-76				E	
SALT R AT TAYLORSVILLE, KY	03295610	359.00	1937-75				E	
			1972-76					
BULLSKIN CR AT FINCHVILLE, KY	03295705		1974-75		E		E	
BRASHEARS CR NR FINCHVILLE, KY	03295800	147.00	1953-72				E	
BRADSHAW CR NR SHELBYVILLE, KY	03295845	1.36	1976-86			E		
SIMPSON CR NR TAYLORSVILLE, KY	03295985	57.30	1974-76			E		
PLUM CR SUBWATER SHED NO 4 NR SIMPSONVILLE, KY	03296000	1.55	1955-64*		E			
PLUM CR NR WILSONVILLE, KY	03296500	19.10	1954-61*	E	E	E	E	
PLUM CR SWS N 15 NR WILSONVILLE, KY	03296700	1.03	1957-61*		E			
PLUM CR SWS N 17 NR WATERFORD, KY	03296800	.52	1957-61*		E			
LITTLE PLUM CR NR WATERFORD, KY	03297000	5.15	1954-61*	E	E	E		
PLUM CR AT WATERFORD, KY	03297500	31.80	1954-74*	E	E	E		
COX CR NR HIGHGROVE, KY	03297700	95.80	1968-72				E	
FLOYDS FK NR CRESTWOOD, KY	03297845	46.70	1979-91	E	E	E	E	
LONG RUN NR EASTWOOD, KY	03297970	15.20	1974-77*	E	E	E		
FLOYDS FK NR GAP IN KNOB, KY	03298390	259.00	1972-76				E	
ELM LICK CR NR CLERMONT, KY	03298535	.68	1976-86			E		
N ROLLING FK NR GRAVEL SWITCH, KY	03298710	66.20	1974-81				E	
N ROLLING FK AT BRADSFORDVILLE, KY	03298760	95.70	1972-77				E	
BIG S FK AT BRADSFORDVILLE, KY	03298865	59.60	1974-81				E	
ROLLING FK NR LEBANON, KY	03299000	239	1938-92	E		E	E	
POTTINGER CR NR NEW HOPE, KY	03299445	43.50	1974-78				E	
			1980-81					
BEECH FK NR SPRINGFIELD, KY	03300000	85.90	1953-72		E	E		

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

STATION NAME AND LOCATION	STATION NUMBER	DRAINAGE		PERIOD OF RECORD	COMPLETE FLOW	COM- PLETE STAGE	PEAK FLOW	LOW FLOW	MISC FLOW MEAS
		AREA (MI <sup>2</sup> )							
N PRONG NR WILLISBURG, KY	03300065	1.71		1975-89			E		
CHAPLIN R AT SHARPSVILLE, KY	03300300	140.00		1954-72				E	
CHAPLIN R NR CHAPLIN, KY	03300390	262.00		1972-77				E	
CARTWRIGHT CR AT FREDRICKTOWN, KY	03300498	82.30		1972-77				E	
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 MONTEPELIER, KY	03306640	.50		1976-86	E		E		
RUSSELL CR NR JOPPA, KY	03306690	62.90		1974-81				E	
RUSSELL CR AT COLUMBIA, KY	03306850			1972-74				E	
RUSSELL CR NR GRESHAM, KY	03307100	265.00		1965-75*	E	E	E	E	
BIG PITMAN CR NR BENGAL, KY	03307215	47.70		1974-78				E	
				1980-81					
LITTLE PITTMAN CR NR CAMPBELLSVILLE, KY	03307260	19.3		1990-95	E	E	E	E	
BIG PITMAN CR NR SUMMERSVILLE, KY	03307295	126.00		1953-72				E	
BIG BRUSH CR NR SUMMERSVILLE, KY	03307400	45.70		1974-78				E	
				1980-81					
S FK LITTLE BARREN R AT EDMONTON, KY	03307500	18.30		1941-72*	E	E	E		
S FK LITTLE BARREN R AT SULPHUR WELL, KY	03307600	79.60		1975-81				E	
PRICES CR NR GRADYVILLE, KY	03307670	2.53		1976-86			E		
E FK LITTLE BARREN R NR SULPHUR WELL, KY	03307730	87.40		1975-81				E	
LITTLE BARREN R NR MONROE, KY	03307800	244.00		1960-76				E	
ECHO R OUTLET AT MAMMOTH CAVE, KY	03308950			1953-74				E	
GREEN R AT MAMMOTH CAVE, KY	03309000	1983.00		1938-50	E	E	E		
WET PRONG BUFFALO CR NR MAMMOTH CAVE, KY	03309100	2.26		1962-74				E	
MCDUGAL CR NR HODGENVILLE, KY	03309500	5.34		1953-71*	E	E	E	E	
N FK NOLIN R AT HODGENVILLE, KY	03310000	36.40		1941-73*	E	E	E		
S FK NOLIN R AT MATHERS MILL, KY	03310078	49.60		1974-78				E	
NOLIN R NR GLENDALE, KY	03310160	185.00		1972-73				E	
VALLEY CR NR GLENDALE, KY	03310270	90.10		1973-81				E	
BACON CR AT HIGHWAY 31W AT BONNIEVILLE, KY	03310380	53.50		1974-81				E	
BACON CR TRIB NR UPTON, KY	03310385	.56		1975-90			E		
BACON CR NR PRICEVILLE, KY	03310400	85.4		1959-94	E	E	E	E	
NOLIN R AT WAX, KY	03310500	600.00		1935-62*	E	E	E		
DOG CR NR MAMMOTH CAVE, KY	03310600	8.12		1961-74				E	



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

STATION NAME AND LOCATION	STATION NUMBER	DRAINAGE AREA (MI <sup>2</sup> )	PERIOD OF RECORD	COMPLETE FLOW	COM- PLETE STAGE	PEAK FLOW	LOW FLOW	MISC FLOW MEAS
BRIER CR TRIB NR OLLIE, KY	03310880	.31	1976-86			E		
BYLEW CR NR MAMMOTH CAVE, KY	03311100	5.16	1961-74				E	
GREEN R AT LOCK 6 AT BROWNSVILLE, KY	03311500	2762	1925-31 1936-92	E		E	E	
BEAVERDAM CR NR RHODA, KY	03311600	10.9	1961-72 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		
BEAVER CR AT HWY 31 NR GLASGOW, KY	03312765	49.6	1992-2002	E	E	E	E	E
LITTLE BEAVER CR NR GLASGOW, KY	03312795	.89	1976-86			E		
BARREN R NR FINNEY, KY	03313000	942	1941-50 1960-94	E	E	E	E	
SOLOMON CR TRIB NR SCOTTSVILLE, KY	03313020	.24	1976-90			E		
W BAYS FK AT SCOTTSVILLE, KY	03313500	7.47	1951-72		E	E		
WEST FORK DRAKES CREEK NR FRANKLIN	03313700	110	1969-2004	E	E	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 1961-81		E			
MUD R NR HUNTSVILLE, KY	03316275	268	1974-80 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 2002-04	E	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 2002-04	E	E	E	E	
POND R NR WHITE PLAINS, KY	03321000	343.00	1927-40	E	E	E		
POND RIVER NR MADISONVILLE	03321060	469	1991-96 1996-2004	E	E	E	E	
CYPRESS CR NR CALHOUN, KY	03321210	142	1979-81 1990-94	E	E	E	E	
CYPRESS CR NR RUMSEY, KY	03321215	149.00	1972-76				E	
E FK DEER CR TRIB NR ONTON, KY	03321275	.95	1976-86			E		
S FK PANTHER CR NR WHITESVILLE, KY	03321350	58.20	1968-83		E			
S FK PANTHER CR NR MASONVILLE, KY	03321370	109.00	1954-72				E	
N FK PANTHER CR NR MASONVILLE, KY	03321410	88.30	1954-72				E	
RHODES CR TRIB NR OWENSBORO, KY	03321465	.29	1975-86			E		
GREEN R AT LOCK AND DAM 1 AT SPOTTSVILLE, KY	03321500	9181.00	1928-31		E			
OHIO R AT MOUNT VERNON, KY	03322250		1977-80		E			
HIGHLAND CR NR WAVERLY, KY	03322350	62.30	1975-77				E	
BEAVERDAM CREEK NR CORYDON, KY	03322360	14.3	1972-94	E	E	E	E	
HIGHLAND CR NR UNIONTOWN, KY	03322400	166.00	1953-77				E	
OHIO R UNIONTOWN DAM	03322420	108000.00	1985-93	E	E	E	E	
WARD CR AT LEWISTOWN, KY	03382975	.91	1975-86			E		

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

STATION NAME AND LOCATION	STATION NUMBER	DRAINAGE		PERIOD OF RECORD	COMPLETE FLOW	COM- PLETE STAGE	PEAK FLOW	LOW FLOW	MISC FLOW MEAS
		AREA (MI <sup>2</sup> )							
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			
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 FORK NR SMITH	03400800	55.8		1971-2004	E	E	E	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					

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

STATION NAME AND LOCATION	STATION NUMBER	DRAINAGE		PERIOD OF RECORD	COMPLETE FLOW	COM- PLETE STAGE	PEAK FLOW	LOW FLOW	MISC FLOW MEAS
		AREA (MI <sup>2</sup> )							
PITMAN CR NR SOMERSET, KY	03412000	26.30		1949-53		E			
PITMAN CR AT SOMERSET, KY	03412500	31.30		1953-72*	E	E	E		
FISHING CR NR HOGUE, KY	03412700	59.80		1968-77				E	
CUMBERLAND R NR JAMESTOWN, KY	03413000	5331.00		1937-40		E			
BEAVER CR NR MONTICELLO, KY	03413200	43.40		1968-83		E			
ELK SPRING CR NR SPANN, KY	03413202	0.57		1976-87, 90			E		
OTTER CR NR SUSIE, KY	03413345	67.10		1953-66				E	
WILLIAMS CR TRIB NR CARTWRIGHT, KY	03413425	.76		1976-86			E		
CUMBERLAND R NR ROWENA, KY	03414000	5790		1939-92	E	E	E	E	
CROCUS CR NR BAKERTON, KY	03414080	108.00		1972-76				E	
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 <sup>2</sup> )	PERIOD OF RECORD	BIO.	PHY.	SED.	CHEM-
				AC- TIVE STA- TUS	AC- TIVE STA- TUS	AC- TIVE STA- TUS	ICAL AC- TIVE STA- TUS
BRUSHY FK AT THOMAS, KY	03201400		1980-82		N	N	N
CARD CR AT MOUTHCARD, KY	03207845	4.18	1974-80		N	N	N
FEDS CR AT FEDS CREEK, KY	03207875	11.60	1972-75		N	N	N
BIG CR AT DUNLAP, KY	03207905	9.55	1974-76		N	N	N
ELKFOOT BRANCH NR NIGH, KY	03207915	.70	1980-84			N	
ISLAND CR NR PHYLLIS, KY	03207925	2.42	1974-80		N	N	N
LICK CR AT LICK CREEK, KY	03207935	6.70	1972-76		N	N	N
MILLERS CR NR PHYLLIS, KY	03207940	1.68	1973-81		N	N	N
DICKS FK AT PHYLLIS, KY	03207962	.82	1975-79 1982-84			N N	
LEVISA FK BELOW FISHTRAP DAM, KY	03208000	392.00	1965-79		N	N	N
RUSSELL FK AT ELKHORN CITY, KY	03209300	554.00	1961-83		N	N	N
ELKHORN CR NR ELKHORN CITY, KY	03209402		1980-82		N	N	N
MARROWBONE CR AT WOLFPIT, KY	03209420		1980-82		N	N	N
GREASY CR NR SUTTON, KY	03209430		1980-82		N	N	N
DORTON CR NR DORTON, KY	03209438		1980-82		N	N	N
LONG FK NR VIRGIE, KY	03209453		1980-82		N	N	N
ROBINSON CR AT ROBINSON CREEK, KY	03209457		1980-82		N	N	N
SHELBY CR AT SHELBIANA, KY	03209460	112.00	1965-79		N	N	N
MUD CR NR GRETHEL, KY	03209530		1980-82		N	N	N
TOLLAR CR NR HAROLD, KY	03209540		1980-82		N	N	N
MUD CR AT HAROLD, KY	03209545	51.90	1978-80		N	N	N
RIGHT FK BEAVER CR AT TOPMOST, KY	03209585		1980-82		N	N	N
CANEY FK BEAVER CR NR RAVEN, KY	03209590		1980-82		N	N	N
RIGHT FK BEAVER CR AT WAYLAND, KY	03209600	73.90	1978-80		N	N	N
JONES FK AT BETTY, KY	03209603		1980-82		N	N	N
SALTICK CR NR BOSCO, KY	03209607		1980-82		N	N	N
LEFT FK BEAVER CR AT DRIFT, KY	03209650	58.50	1978-80		N		N
LEFT FK BEAVER CR AT PRINTER, KY	03209680		1980-82		N	N	N
BEAVER CR AT MARTIN, KY	03209700	228.00	1961-71		N		N
LEVISA FK AT PRESTONSBURG, KY	03209800	1702.00	1976-79		N	N	N
MIDDLE CR NR PRESTONSBURG, KY	03209850		1980-82		N	N	N
LEFT FK MIDDLE CR NR GOODLOE, KY	03209870		1980-82		N	N	N
MIDDLE CR NR PRESTONSBURG, KY	03209890	62.10	1978-80		N	N	N
ABBOTT CR NR PRESTONSBURG, KY	03209910		1980-82		N	N	N
RACCOON CR NR ZEBULON, KY	03210040	14.80	1973-80		N	N	N
RACKOON CR NR ZEBULLON, KY	03210060		1980-82		N	N	N
CANEY FK NR GULNARE, KY	03210160	3.74	1973-80		N	N	N
BRUSHY FK AT HEENON, KY	03210310	20.40	1973-76		N	N	N
BUFFALO CR NR ENDICOTT, KY	03210420	6.21	1973-80		N	N	N
BUFFALO CR NR GERMAN, KY	03210450		1980-82		N	N	N
DANIELS CR NR ODDS, KY	03211690		1980-82		N	N	N
DANIELS CR AT MOUTH NR VAN LEAR, KY	03211700	12.00	1978-80		N		N
LEVISA FK ABOVE PAINT CR AT PAINTSVILLE, KY	03211800	1975.00	1974-79		N		N
PAINT CR NR ELNA, KY	03211970	79.30	1967		N		N
PAINT CR ABOVE BARNETTS CR NR STAFFORDSVILLE, KY	03211997		1971-72		N		N
GREASY CR NR OFFUTT, KY	03212510		1980-82		N	N	N
TOMS CR NR TUTOR KEY, KY	03212520		1980-82		N	N	N
GEORGES CR NR ULYSSES, KY	03212530		1980-82		N	N	N
RIGHT FK CR NR CHARLEY, KY	03212535		1980-82		N	N	N
RIGHT FK HURRICANE CR NR STOPOVER, KY	03213630	.82	1980-84			N	
LEFT FK PETER CR AT JAMBOREE, KY	03213670		1980-82		N	N	N
RIGHT FK PETER CR NR PHELPS, KY	03213680		1980-82		N	N	N
BLACKBERRY CR AT RANSOM, KY	03213690		1980-82		N	N	N
POND CR NR TOLER, KY	03213698		1980-82		N	N	N
BIG CR NR HATFIELD, KY	03213750		1980-82		N	N	N
WOLF CR NR MCCLURE, KY	03214300		1980-82		N	N	N
MIDDLE FK ROCKCASTLE CR AT INEZ, KY	03214600	33.34	1980-82		N	N	N
COLDWATER FK NR INEZ, KY	03214650	17.85	1980-82		N	N	N
ROCKCASTLE CR AT INEZ, KY	03214700	63.10	1970-72	N	N	N	N
ROCKHOUSE FK NR MILO, KY	03214720		1980-82		N	N	N
ROCKCASTLE CR AT CLIFFORD, KY	03214730	121.00	1965-75		N		N

## DISCONTINUED SURFACE-WATER-QUALITY STATIONS

STATION NAME AND NUMBER	STATION NUMBER	DRAINAGE AREA (MI <sup>2</sup> )	PERIOD OF RECORD	BIO.	PHY.	SED.	CHEM-
				AC-STA-TUS	AC-STA-TUS	AC-STA-TUS	ICAL AC-STA-TUS
BIG SANDY R AT LOUISA, KY	03215000	3897	1950, 1966-72, 1974-92	N	N	N	N
LEFT FK BLAINE CR NR MARTHA, KY	03215250		1980-82		N	N	N
LOWER LAUREL CR NR FLATGAP, KY	03215320		1967		N		N
CAINES CR NR BLAINE, KY	03215367		1980-82		N	N	N
BLAINE CR AT HWY 32 BR AT BLAINE, KY	03215370	73.80	1978-80		N		N
HOOD CR AT BLAINE, KY	03215380		1980-82		N	N	N
BRUSHY CR NR CORDELL, KY	03215420		1980-82		N	N	N
BLAINE CR BELOW BRUSHY CR NR BLAINE, KY	03215430	151.00	1971-80		N		N
RICH CR NR ADAMS, KY	03215440		1971-72		N		N
LITTLE BLAINE CR NR EVERGREEN, KY	03215470		1980-82		N	N	N
LITTLE BLAINE CR AT EVERGREEN, KY	03215480	23.00	1971-80		N		N
BLAINE CR NR YATESVILLE, KY	03215490	206.00	1971-72		N		N
BLAINE CR AT YATESVILLE, KY	03215500	217.00	1965-79		Y		N
CAT FK CR AT FALLSBURG, KY	03215550		1980-82		N	N	N
BIG SANDY R AT CATLETTSBURG, KY	03215700	4281.00	1955-75		N		N
LITTLE SANDY R AT SANDY HOOK, KY	03216180		1980-82		N	N	N
BIG CANEY CR NR STARK, KY	03216230		1980-82		N	N	N
LITTLE SANDY R BELOW GRAYSON DAM NR LEON, KY	03216350	196.00	1966-79		N		N
BIG SINKING CR NR ADEN, KY	03216370		1980-82		N	N	N
LITTLE SANDY R AT LEON, KY	03216400	255.00	1978-80		N		N
LITTLE SANDY R AT DOBBINS, KY	03216430		1980-82		N	N	N
DRY FK AT WILLARD, KY	03216450		1980-82		N	N	N
LITTLE FK LITTLE SANDY R NR GRAYSON, KY	03216480	132.00	1973-75		N		N
BERET CR NR GRAYSON, KY	03216520		1980-82		N	N	N
E FK LITTLE SANDY R NR FALLSBURG, KY	03216540	12.20	1978-83		N		N
E FK LITTLE SANDY R NR CANNONSBURG, KY	03216558		1980-82		N	N	N
WILLIAMS CR AT PRINCESS, KY	03216567		1980-82		N	N	N
E FK LITTLE SANDY R NR ARGILLITE, KY	03216570	138.00	1970-72		N		N
OHIO R AT GREENUP DAM, KY	03216600	62000.00	1974-86	N	N	N	N
SOLDIER FK AT LAWTON, KY	03216770		1971-72		N		N
TYGARTS CR AT IRON HILL, KY	03216930		1971-72		N		N
BUFFALO CR NR GESLING, KY	03216960		1980-82		N	N	N
KINNICONICK CR NR RUGLESS, KY	03237230	109.00	1970-72		N		N
OHIO R AT MELDAHL DAM NR CHILO, OH	03238680	70800.00	1967-70		N		N
TWELVEMILE CR AT HWY 1997 NR ALEXANDRIA, KY	03238745	39.0	2001		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

## DISCONTINUED SURFACE-WATER-QUALITY STATIONS

STATION NAME AND NUMBER	STATION NUMBER	DRAINAGE AREA (MI <sup>2</sup> )	PERIOD OF RECORD	BIO.	PHY.	SED.	CHEM-
				AC- TIVE STA- TUS	AC- TIVE STA- TUS	AC- TIVE STA- TUS	ICAL AC- TIVE STA- TUS
OHIO R AT MARKLAND DAM, KY	03277200	83170.00	1960-70 1974-86	N N	N N	N N	N N
OHIO R AT LOCK AND DAM 39 NR FLORENCE, KY	03277205	82910.00	1953-75		N		
YONTS CR NR NEON, KY	03277260		1980-82		N	N	N
N FK KENTUCKY R AT WHITESBURG, KY	03277300	66.40	1970-75		N		N
KINGS CR NR ROXANA, KY	03277320		1980-82		N	N	N
N FK KENTUCKY R AT BLACKKEY, KY	03277340	131.00	1971-75		N		N
ROCKHOUSE CR NR FLETCHER, KY	03277361		1980-82		N	N	N
ROCKHOUSE CR AT LETCHER, KY	03277362		1971		N		N
LINE FK AT DEFEATED CREEK, KY	03277370	40.80	1980-82		N	N	N
LINE FK AT ULVAH, KY	03277380		1971		N		N
N FK KENTUCKY R AT CORNETTSTVILLE, 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 1979-81 1987-91	N	N	N	N
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 1988	N	N	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 1978-83 1987-90	N	N	N	N
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

## DISCONTINUED SURFACE-WATER-QUALITY STATIONS

STATION NAME AND NUMBER	STATION NUMBER	DRAINAGE AREA (MI <sup>2</sup> )	PERIOD OF RECORD	BIO.	PHY.	SED.	CHEM-
				AC-TIVE STA-TUS	AC-TIVE STA-TUS	AC-TIVE STA-TUS	ICAL AC-TIVE STA-TUS
S FK KENTUCKY R AT BOONEVILLE, KY	03281500	722.00	1950-75 1979-83 1987-90	N	N	N	N
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 2001		N		N
DIX R AT DIX DAM NR BURGIN, KY	03286200	439.00	1961-79		N		N
KENTUCKY R AT LOCK 4 AT FRANKFORT, KY	03287500	5411.00	1949-73 1987-90	N	N	N	N
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, 95-98		N		N
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, 96-98		N		N
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

## DISCONTINUED SURFACE-WATER-QUALITY STATIONS

STATION NAME AND NUMBER	STATION NUMBER	DRAINAGE AREA (MI <sup>2</sup> )	PERIOD OF RECORD	BIO.	PHY.	SED.	CHEM-
				AC-STA-TUS	AC-STA-TUS	AC-STA-TUS	ICAL-STA-TUS
MUDDY FK. MOCKINGBIRD VALLEY RD AT LOUISVILLE, KY	03293550	6.2	1988-98		N		N
OHIO R AT LOUISVILLE, KY	03294500	91170.00	1968-83		N	N	N
MILL CR CUTOFF NR LOUISVILLE, KY	03294550	24.4	1988-92, 98		N		N
MILL CR AT ORELL RD NR LOUUVILLE, 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



## DISCONTINUED SURFACE-WATER-QUALITY STATIONS

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				AC-TIVE STA-TUS	AC-TIVE STA-TUS	AC-TIVE STA-TUS	ICAL AC-TIVE STA-TUS
GREEN R AT GREENSBURG, KY	03306500	736.00	1948-59		N		
BIG PITMAN CR NR GREENSBURG, KY	03307300		1966		N		N
LITTLE BARREN R NR MONROE, KY	03307800	244.00	1960-72		N		N
GREEN RIVER AT MUNFORDVILLE, KY	03308500	1673.00	1950-94	N	N	N	N
ECHO R OUTLET AT MAMMOTH CAVE, KY	03308950		1974		N		N
GREEN R AT MAMMOTH CAVE, KY	03309000	1983.00	1958-74		N		N
WET PRONG BUFFALO CR NR MAMMOTH CAVE, KY	03309100	2.26	1962-74		N	N	N
MCDUGAL CR AT HODGENVILLE, KY	03309600		1970		N		N
N FK NOLIN R AT HODGENVILLE, KY	03310000	36.40	1970-72		N		N
N FK NOLIN R NR EAGLE MILLS, KY	03310030		1970-79		N		N
NOLIN R AT EAGLE MILLS, KY	03310100		1970-72		N		N
MIDDLE CR AT NEELY BRANCH, KY	03310117		1971		N		N
MIDDLE CR NR TONIEVILLE, KY	03310120		1970-72		N		N
MIDDLE CR AT EAGLE MILLS, KY	03310130		1971-72		N		N
NOLIN R NR GLENDALE, KY	03310160	185.00	1971-75		N		N
VALLEY CR AT ELIZABETHTOWN, KY	03310210		1970-73		N		N
VALLEY CR AT GAITHERS, KY	03310225		1971-73		N		N
W RHUDES CR NR CECILIA, KY	03310250		1970-72		N		N
VALLEY CR NR GLENDALE, KY	03310270	90.10	1960-75		N		N
NOLIN R NR STAR MILLS, KY	03310273		1971-72		N		N
NOLIN R AT WAX, KY	03310500	600.00	1949-61		N	N	N
ROCK CR NR CLARKSON, KY	03310550		1980-82		N	N	N
DOG CR NR MAMMOTH CAVE, KY	03310600	8.12	1961-74		N		N
BYLEW CR NR MAMMOTH CAVE, KY	03311100	5.16	1965-74		N		N
GREEN R AT LOCK 6 AT BROWNSVILLE, KY	03311500	2762.00	1978-82		N		N
BEAVERDAM CR AT RHODA, KY	03311600	10.90	1965-79		N		N
BEAR CR NR BEE SPRING, KY	03312040		1980-82		N	N	N
SUNFISH CR NR BEE SPRING, KY	03312070		1980-82		N	N	N
BEAR CR NR ROUNDHILL, KY	03312100	137.00	1960-72		N		N
BIG REEDY CR NR ROUNDHILL, KY	03312120		1980-82		N	N	N
LITTLE REEDY CR NR ROUNDHILL, KY	03312130		1980-82		N	N	N
BARREN R AT ACKERSVILLE, KY	03312400	298.00	1970-72		N		N
SKAGGS CR NR GLASGOW, KY	03312680	141.00	1970-72		N		N
BAYS FK AT CLAYPOOL, KY	03313570	80.90	1960-68		N		N
UNNAMED NON-CONTRIB STREAM AT GREENHILL, KY	03313590		1968		N		N
TRAMMEL CR NR SCOTTSVILLE, KY	03313900	93.40	1970-72		N		N
DRAKES CR NR ALVATON, KY	03314000	478.00	1968-72		N	N	N
UNNAMED NON-CONTRIB STREAM AT THREE SPRINGS, KY	03314595		1968		N		N
JENNINGS CR NR LOST RIVER, KY	03314610		1968		N		N
JENNINGS CR AT US 231 AT BOWLING GREEN, KY	03314650		1968		N		N
JENNINGS CR BELOW LOST R OUTLET AT BOWLING GREEN, KY	03314680		1968		N		N
JENNINGS CR AT BARREN R RD NR BOWLING GREEN, KY	03314700		1968		N		N
GASPER R AT HADLEY, KY	03315300	190.00	1960-72		N		N
WELCH CR NR ABERDEEN, KY	03315510		1980-82		N	N	N
INDIAN CAMP CR NR MORGANTOWN, KY	03315590		1980-82		N	N	N
E PRONG INDIAN CAMP CR NR MORGANTOWN, KY	03315600		1980-82		N	N	N
MUDDY CR AT DUNBAR, KY	03315810	94.30	1960-82		N	N	N
PANTHER CR NR ROCHESTER, KY	03315830		1980-82		N	N	N
MUD R NR LEWISBURG, KY	03316000	90.50	1960-72		N		N
WOLFLICK CR NR LEWISBURG, KY	03316200	116.00	1970-72		N		N
ROCKY CR NR PENROD, KY	03316300		1980-82		N	N	N
GREEN R AT PARADISE, KY	03316500	6183.00	1978-82		N		N
POND CR NR MARTWICK, KY	03316640	125.00	1972-82		N	N	N
LEWIS CR AT ROCKPORT, KY	03316660		1980-82		N	N	N
MEETING CR NR BIG CLIFTY, KY	03316885		1980-82		N	N	N
N FK ROUGH R NR WESTVIEW, KY	03317500	42.00	1970-72		N		N
ROUGH R AT ROUGH R DAM NR FALLS OF ROUGH, KY	03318010	454.00	1962-83		N		N
ROCK LICK CR NR FALLS OF ROUGH, KY	03318300		1980-82		N	N	N
SHORT CR NR FALLS OF ROUGH, KY	03318600		1980-82		N	N	N
S FK CANEY CR AT CANEYVILLE, KY	03318700		1980-82		N	N	N
ADAMS FK NR FORDSVILLE, KY	03319510		1980-82		N	N	N
W FK ADAMS FK NR FORDSVILLE, KY	03319530		1980-82		N	N	N
HALLS CR NR DUNDEE, KY	03319570		1980-82		N	N	N

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				AC- TIVE STA- TUS	AC- TIVE STA- TUS	AC- TIVE STA- TUS	ICAL AC- TIVE STA- TUS
ROUGH R AT HARTFORD, KY	03319600		1966-72		N		N
MUDDY CR NR BEAVER DAM, KY	03319615		1980-82		N	N	N
THREELICK CR NR BEAVER DAM, KY	03319620		1980-82		N	N	N
BARNETT CR NR HARTFORD, KY	03319700		1980-82		N	N	N
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

## DISCONTINUED SURFACE-WATER-QUALITY STATIONS

STATION NAME AND NUMBER	STATION NUMBER	DRAINAGE AREA (MI <sup>2</sup> )	PERIOD OF RECORD	BIO.	PHY.	SED.	CHEM.
				AC-TIVE STA-TUS	AC-TIVE STA-TUS	AC-TIVE STA-TUS	ICAL AC-TIVE STA-TUS
UNNAMED TRIB TO SLOVER CR NR CLAY, KY	03384138		1969		N		N
UNNAMED TRIB TO SLOVER CR NR CLAY, KY	03384140		1969-79		N		N
FREDRICKS DITCH NR CLAY, KY	03384145		1969		N		N
CRABORCHARD CR NR CLAY, KY	03384150		1965-82		N	N	N
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		
MARTIN FORK LAKE AT MARTINS FORK DAM NR SMITH	03400798		1979-2004		N		N
MARTINS FORK NR SMITH	03400800	55.8	1971-2004		N		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
JELICO 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		

## DISCONTINUED SURFACE-WATER-QUALITY STATIONS

STATION NAME AND NUMBER	STATION NUMBER	DRAINAGE AREA (MI <sup>2</sup> )	PERIOD OF RECORD	BIO.	PHY.	SED.	CHEM-
				AC- TIVE STA- TUS	AC- TIVE STA- TUS	AC- TIVE STA- TUS	ICAL- AC- TIVE STA- TUS
WHIPPOORWILL CR AT DOT, KY	03435265	115.00	1973-75		N		N
ELK FK NR HADENSVILLE, KY	03435380	88.50	1973-75		N		N
W FK RED R NR SAINT ELMO, KY	03436190	162.00	1973-75		N		N
S FK LITTLE R AT HOPKINSVILLE, KY	03437500	46.50	1949-75		N		
LITTLE R NR CADIZ, KY	03438000	244.00	1958-73		N	N	N
MUDDY FK LITTLE R NR CERULEAN, KY	03438070	30.50	1978-82		N		
EDDY CR NR LAMASCO, KY	03438170	71.70	1970-74		N		N
BARKLEY-KENTUCKY CANAL NR GRAND RIVERS, KY	03438190		1978-82		N		
CUMBERLAND R NR GRAND RIVERS, KY	03438220	17598.00	1969-86	N	N	N	N
LIVINGSTON CR NR DYCUSBURG, KY	03438470	112.00	1970-72		N		N
TENNESSEE R NR PADUCAH, KY	03609500	40200.00	1951-73		N		N
TENNESSEE R AT HWY 60 NR PADUCAH, KY	03609750	40330.00	1950		N		
			1952		N		
			1967-72		N		
			1974-86	N	N	N	N
CLARKS R AT MURRAY, KY	03610000	89.10	1970-72		N		N
CLARKS R AT ALMO, KY	03610200	134.00	1982-83	N	N	N	N
CLARKS R NR BENTON, KY	03610500	227.00	1948-61		N		N
W FK CLARKS R NR BREWERS, KY	03610545	68.70	1970-81		N	N	N
W FK CLARKS R AT KALER, KY	03610585	150.00	1973-75		N		N
HUMPHREY CR AT LACENTER, KY	03613000	44.20	1970-72		N		N
MAYFIELD CR AT LOVELACEVILLE, KY	07023000	212.00	1960-72		N		N
BAYOU DE CHIEN NR CLINTON, KY	07024000	68.70	1954-83	N	N	N	N
OBION CR NR ARLINGTON, KY	07023700	203.00	1970-72		N		N
MISSISSIPPI R AT HICKMAN, KY	07024070	922500.00	1969-70	N	N		N

N Eliminated activity

## DISCONTINUED GROUND-WATER STATIONS

Station Number	County	Station Name	Period of Record
363634088191601	Calloway	Joe Parks	1948-83, 1988-97
365142087270401	Christian	Western State Hospital	1950-83, 1988-97
374638087054101	Daviess	OMU	1951-83, 1990-97
380425083091901	Elliott	Roy Adkins	1952-84, 1998-97
375928084362001	Fayette	M.A. Kehrt	1952-84, 1988-97
382031084553901	Franklin	Harp Road	1973-83, 1988-97
373925085540301	Hardin	OW-6	1989-95
374020085530601	Hardin	OW-5	1989-90, 1994,95
374035085525401	Hardin	OW-1-82	1982-98
374046085523501	Hardin	OW-1-81	1982-98 1994,95
375958085575401	Hardin	Hart #1	1980-92
374441087421001	Henderson	Town of Corydon	1952-83, 1988-97
380122085545001	Jefferson	80-1	1980-97
380252085530601	Jefferson	79-3	1979-97
380308085533501	Jefferson	79-4	1979-92
380341085534501	Jefferson	83-1	1983-97
380423085541501	Jefferson	Genewein	1976-97
380434085525101	Jefferson	E-1-d	1980-92
380458085523201	Jefferson	86-4	1986-97
380517085535201	Jefferson	77-1	1977-97
380532085515301	Jefferson	76-1	1976-97
380616085532801	Jefferson	Lou. Ext. Water District	1962-92
380619085512301	Jefferson	86-3	1986-97
380637085521301	Jefferson	D-1-d	1980-92
380709085531101	Jefferson	C-5-m	1980-97
380716085521801	Jefferson	RR-47	1945-97
380718085515802	Jefferson	C-3-s	1984-92
380718085524202	Jefferson	C-4-m	1983-92
380816085520701	Jefferson	Dohn	1943-97
380827085503001	Jefferson	86-5	1986-97
380843085530701	Jefferson	B-3-d	1980-97
380843085522801	Jefferson	B-2-d	1980-92
380846085520101	Jefferson	B-1-d	1980-92
380850085534701	Jefferson	78-2	1978-97
380852085515901	Jefferson	Waller	1943-92
380940085514001	Jefferson	81-1	1981-97
380955085531801	Jefferson	83-2	1983-97
381011085491601*	Jefferson	86-1	1986-93
381034085502601	Jefferson	RR-30	1945-97
381050085511001	Jefferson	RR-29	1945-97
381102085485601	Jefferson	86-2	1986-97
381102085512102	Jefferson	Kaufman	1944-92
381108085511301	Jefferson	Baugh	1945-92
381123085491401	Jefferson	RR-32	1945-87
381130085515001	Jefferson	Thienemen	1944-97
381139085502301	Jefferson	81-2	1991-97

## DISCONTINUED GROUND-WATER STATIONS

Station Number	County	Station Name	Period of Record
381142085475702	Jefferson	RR-42	1945-97
381143085465801	Jefferson	RR-25	1945-97
381155085483401	Jefferson	Mathis	1944-92
381157085510201	Jefferson	RR-39	1945-92
381204085455301	Jefferson	CP-16	1979-97
381207085484601	Jefferson	RR-41	1945-97
381209085472101	Jefferson	C-7	1935-97
381212085473801	Jefferson	C-6	1935-92
381213085521701	Jefferson	RR-22	1945-97
381221085475001	Jefferson	C-5	1935-92
381222085505201	Jefferson	RR-27	1945-97
381224085474001	Jefferson	Early Times	1947-92
381229085510201	Jefferson	Triangle Refinery	1978-92
381246085470601	Jefferson	Seagrams TW #2	1943-97
381246085463201	Jefferson	CP-18A	1984-97
381250085484901	Jefferson	C-2	1935-92
381251085500501	Jefferson	RR-35	1945-97
381256085471501	Jefferson	National Distillery TW-2	1941-92
381257085471801	Jefferson	TW-4	1942-97
381259085471502	Jefferson	National Distillery TW-1	1941-92
381259085511002	Jefferson	RR-21	1945-97
381305085501302	Jefferson	Reynolds Metals	1980-92
381309085505302	Jefferson	RR-24	1945-92
381313085495501	Jefferson	B.F. Goodrich TW-2	1947-92
381315085501401	Jefferson	Airco TW-11	1956-92
381315085502602	Jefferson	NC-TW-D	1956-97
381316085502101	Jefferson	Airco TW-12	1956-92
381320085464101	Jefferson	CP-15	1978-97
381324085460401*	Jefferson	American Standard	1978-93
381331085491601	Jefferson	RR-26	1945-97
381338085481601	Jefferson	CP-8	1977-92
381346085453801	Jefferson	St. Patricks' s well	1981-97
381346085454201	Jefferson	CP-1	1977-97
381355085465901	Jefferson	Louisville Cooperage	1948-92
381400085445001	Jefferson	CP-6	1977-97
381406085463001	Jefferson	United Catalyst	1978-92
381417085500301	Jefferson	RR-23	1945-97
381424085454602	Jefferson	CP12A	1980-92
381428085485701	Jefferson	78-6	1978-97
381430085452602	Jefferson	Conna	1943-92
381430085472501	Jefferson	CP-17	1982-97
381442085444801	Jefferson	Metro United Way	1991-2002
381445085460201	Jefferson	QW Well 9th & Broadway	1996-2002
381447085454001	Jefferson	Courier Journal	1953-2002
381500085445501	Jefferson	89-2	1989-92
381500085454701	Jefferson	78-5	1978-92
381501085445601	Jefferson	U of L Medical School	1996-2002
381501085464601	Jefferson	CP-10	1977-97
381503085452601	Jefferson	Stewarts	1981-92
381503085453301	Jefferson	Kentucky Towers	1948-2002
381504085443202*	Jefferson	CP-7A	1980-2004
381505085475701	Jefferson	CP-5	1977-92
381508085455701	Jefferson	CP-4	1977-97
381514085453502	Jefferson	CP11A	1984-92
381517085455501	Jefferson	Roy Wilkins Blvd.	1986-2002

## DISCONTINUED GROUND-WATER STATIONS

Station Number	County	Station Name	Period of Record
381518085451801	Jefferson	87-1	1986-96
381518085454401	Jefferson	86-10	1986-97
381522085445201	Jefferson	Louisville Scrap Metal	1991-2003
381524085452301	Jefferson	86-8	1986-92
381527085453001	Jefferson	Belevedre Well	1986-2002
381528085454201	Jefferson	86-9	1986-92
381536085492801	Jefferson	CP-2	1977-92
381538085434401*	Jefferson	78-7	1978-92
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

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## Conversion Factors

Multiply	By	To obtain
Length		
inch (in.)	$2.54 \times 10^1$	millimeter (mm)
	$2.54 \times 10^{-2}$	meter (m)
foot (ft)	$3.048 \times 10^{-1}$	meter (m)
mile (mi)	$1.609 \times 10^0$	kilometer (km)
Area		
acre	$4.047 \times 10^3$	square meter (m <sup>2</sup> )
	$4.047 \times 10^{-1}$	square hectometer (hm <sup>2</sup> )
	$4.047 \times 10^{-3}$	square kilometer (km <sup>2</sup> )
square mile (mi <sup>2</sup> )	$2.590 \times 10^0$	square kilometer (km <sup>2</sup> )
Volume		
gallon (gal)	$3.785 \times 10^0$	liter (L)
	$3.785 \times 10^{-3}$	cubic meter (m <sup>3</sup> )
	$3.785 \times 10^0$	cubic decimeter (dm <sup>3</sup> )
million gallons (Mgal)	$3.785 \times 10^3$	cubic meter (m <sup>3</sup> )
	$3.785 \times 10^{-3}$	cubic hectometer (hm <sup>3</sup> )
cubic foot (ft <sup>3</sup> )	$2.832 \times 10^{-2}$	cubic meter (m <sup>3</sup> )
	$2.832 \times 10^1$	cubic decimeter (dm <sup>3</sup> )
cubic foot per second per day [(ft <sup>3</sup> /s)/d]	$2.447 \times 10^3$	cubic meter (m <sup>3</sup> )
	$2.447 \times 10^{-3}$	cubic hectometer (hm <sup>3</sup> )
acre-foot (acre-ft)	$1.233 \times 10^3$	cubic meter (m <sup>3</sup> )
	$1.233 \times 10^{-3}$	cubic hectometer (hm <sup>3</sup> )
	$1.233 \times 10^{-6}$	cubic kilometer (km <sup>3</sup> )
Flow		
cubic foot per second (ft <sup>3</sup> /s)	$2.832 \times 10^1$	liter per second (L/s)
	$2.832 \times 10^{-2}$	cubic meter per second (m <sup>3</sup> /s)
	$2.832 \times 10^1$	cubic decimeter per second (dm <sup>3</sup> /s)
gallon per minute (gal/min)	$6.309 \times 10^{-2}$	liter per second (L/s)
	$6.309 \times 10^{-5}$	cubic meter per second (m <sup>3</sup> /s)
	$6.309 \times 10^{-2}$	cubic decimeter per second (dm <sup>3</sup> /s)
million gallons per day (Mgal/d)	$4.381 \times 10^{-2}$	cubic meter per second (m <sup>3</sup> /s)
	$4.381 \times 10^1$	cubic decimeter per second (dm <sup>3</sup> /s)
Mass		
ton (short)	$9.072 \times 10^{-1}$	megagram (Mg) or metric ton

Temperature in degrees Celsius (°C) may be converted to degrees Fahrenheit (°F) as follows:

$$^{\circ}\text{F} = (1.8 \times ^{\circ}\text{C}) + 32$$

