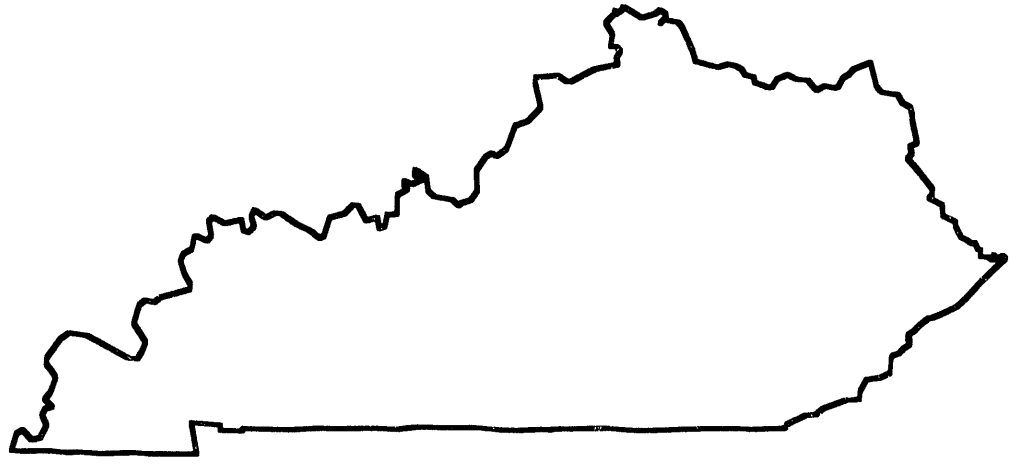
Water Resources Data
Kentucky
Water Year 1991

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



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT KY-91-1
Prepared in cooperation with the Commonwealth of Kentucky and with other agencies

MASTER

DISTRIBUTION OF THIS DOCUMENT IS UNLIMITED

U.S. DEPARTMENT OF THE INTERIOR

MANUEL LUJAN, JR., SECRETARY

U.S. GEOLOGICAL SURVEY

Dallas L. Peck, Director

DISCLAIMER

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

For additional information write to
District Chief, Water Resources Division
U.S. Geological Survey
2301 Bradley Avenue
Louisville, Kentucky 40217

1992

PREFACE

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

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. The authors had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Survey policy and established guidelines. Most of the data were collected, computed, and processed from the District and field offices.

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

P.J. Bruenderman	H.A. Hitchcock	K.J. Ruhl
S.J. Couts	G.L. Hubbard	C.J. Sholar
R.S. Darnell	E.J. Humbert	B.J. Stich
A.K. Dirrim	G.R. Martin	M.D. Unthank
D.W. Eichert	G.K. McCombs	J.H. Whitesides
R.D. Evaldi	B.L. Moore	F.L. Witherspoon
J.D. Filbeck	C.R. Moses	D.D. Zettwoch
Rene Garcia	P.L. Ottersbach	
M.S. Griffin	L.R. Peace	
A.C. Haliday	S.D. Pickard	
Zeke Hensley	R.E. Puckett	

This report was prepared in cooperation with the State of Kentucky and with other agencies under the general supervision of Harry C. Rollins, Assistant District Chief, and Alfred L. Knight, District Chief, Kentucky.

50272-101

REPORT DOCUMENTATION PAGE	1. REPORT NO. USGS/WRD/HD-92/240	2.	3. Recipient's Accession No. 2-04240-I-GS

4. Title and Subtitle

Water Resources Data - Kentucky

5. Report Date
March 1992

6.

7. Author(s)
D.L. McClain, F.D. Byrd, A.C. Brown

8. Performing Organization Rept. No.
USGS-WRD-KY-91-1

9. Performing Organization Name and Address

U.S. Geological Survey, Water Resources Division
2301 Bradley Avenue
Louisville, Kentucky 40217

10. Project/Task/Work Unit No.

11. Contract(C) or Grant(G) No.
(C)
(G)

12. Sponsoring Organization Name and Address

U.S. Geological Survey, Water Resources Division
2301 Bradley Avenue
Louisville, Kentucky 40217

13. Type of Report & Period Covered
Annual - Oct. 1, 1990 to Sept. 30, 1991

14.

15. Supplementary Notes

Prepared in cooperation with the State of Kentucky and with other agencies.

16. Abstract (Limit: 200 words)

Water-resources data for the 1991 water year for Kentucky consists of records of Stage, discharge, and water quality of streams; stage and water levels of wells. This report contains discharge records from 115 gaging stations; suspended-sediment data for 12 stations (5 daily); daily temperature records for 13 stations; daily specific conductance for 8 stations; ground-water levels for 23 continuous-record wells and 117 partial-record wells; water-quality data from 38 surface-water stations sampled at regular intervals; and miscellaneous temperature and specific conductance data from 85 gaging stations. Also included is 1 precipitation site. Data collected at various miscellaneous sites are also published. 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.

17. Document Analysis a. Descriptors

*Kentucky, *Hydrologic data, *Surface waters, *Water quality, *Ground waters, Gaging stations, Streamflow, Flow rates, Lakes, Wells, Chemical analyses, Suspended sediments, Water temperature, Water levels.

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group

18. Availability Statement
No restriction on distribution. This report may be purchased from: National Technical Information Services, U.S. Dept. of Commerce, Springfield, VA 22161.

19. Security Class (This Report)
UNCLASSIFIED

20. Security Class (This Page)
UNCLASSIFIED

21. No. of Pages
414

22. Price

(See ANSI-Z39.18) See Instructions on Reverse

OPTIONAL FORM 272 (4-77)
(Formerly NTIS-35)
Department of Commerce

CONTENTS

	Page
Preface	iii
List of gaging stations, in downstream order, for which records are published	vii
List of ground-water wells, by county, for which records are published	ix
List of precipitation-quality stations, by county, for which records are published	x
Introduction	1
Cooperation	1
Summary of hydrologic conditions	1
Surface water	1
Quality of Water	3
Ground-water levels	3
Special networks and programs	7
Explanation of records	7
Station identification numbers	7
Downstream order system	7
Latitude-Longitude system	8
Records of Stage and Water Discharge	9
Data Collection and Computation	9
Data Presentation	9
Station manuscript	10
Data table of daily mean values	10
Statistics of monthly mean data	11
Summary statistics	11
Identifying Estimated Daily Discharge	12
Accuracy of the records	12
Other records available	12
Record of Surface-Water Quality records	12
Classification of records	12
Arrangement of records	13
On-site Measurements and Sample Collection	13
Water Temperature	13
Sediment	13
Laboratory Measurements	14
Data Presentation	14
Remark codes	14
Records of Ground-water level	15
Data Collection and Computation	15
Data Presentation	15
Records of Precipitation-quality	16
On-site measurements and sample collection	16
Data presentation	16
Access to WATSTORE data	16
Definition of terms	18
Publications on techniques of water-resources investigations	25
Station records, surface records	31
Discharge at Partial record stations	280
Low-flow partial-record stations	280
Low-flow miscellaneous sites	289
Analyses of samples collected at water-quality partial-record stations and miscellaneous sites	291
Miscellaneous temperature measurement and field determinations	293
Station records, ground water	311
Ground-water levels listed by county	311
Quality of ground water	376
Quality of ground water listed by county	376
Station records, precipitation records	383
Chemical analyses listed by county	383
Discontinued gaging-station records	387
Discontinued water-quality records	392
Index	399

ILLUSTRATIONS

		Page
Figure 1.	Mean runoff during 1990 water year and period of record for three representative gaging stations	5
2.	Hydrograph of a well in downtown Louisville (381447085454001)	6
3.	Hydrograph of a well in south west Jefferson County (381240854706 01)	6
4.	Diagram showing system for numbering wells and miscellaneous sites (latitude and longitude)	8
5.	Map showing location of gaging stations in Kentucky	28
6.	Map showing location of surface water quality stations in Kentucky	29
7.	Map showing location of surface-water quality stations in Jefferson County for the MSD Sampling Network	30
8.	Map showing location of observation wells in Kentucky	308
9.	Map showing location of observation wells in Jefferson County	309
10.	Map showing location of observation wells in downtown Louisville	310

TABLES

Table 1.	Mean, maximum, minimum streamflow for water year 1991 and recurrence intervals at selected stations	2
2.	Summary for selected water-quality characteristics at selected sites, October 1980 to September 1990	4

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

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

	STATION NUMBER	Page
OHIO RIVER BASIN		
Ohio River:		
BIG SANDY RIVER BASIN		
Levisa Fork (head of Big Sandy River):		
Grapevine Creek:		
Grapevine Creek near Phyllis (d)	03207965	31
Levisa Fork below Fishtrap Dam, near Millard (d)	03208000	32
Russell Fork at Haysi, VA (d)	03208500	33
Russell Fork at Elkhorn City (d)	03209300	34
Levisa Fork at Pikeville (d)	03209500	35
Johns Creek near Meta (d)	03210000	36
Johns Creek near Van Lear (d)	03211500	37
Levisa Fork at Paintsville (d)	03212500	38
Big Sandy River at Louisa (c,b,s)	03215000	39
LITTLE SANDY RIVER BASIN		
Little Sandy River below Grayson Dam, near Leon (d)	03216350	41
Little Sandy River at Grayson (d)	03216500	42
East Fork Little Sandy River near Fallsburg (d)	03216540	43
Ohio River at Greenup Dam (d)	03216600	44
TYGARTS CREEK BASIN		
Tygarts Creek at Olive Hill (d)	03216800	45
Tygarts Creek near Greenup (d)	03217000	46
CABIN CREEK BASIN		
Cabin Creek near Tollesboro (d)	03237900	47
LICKING RIVER BASIN		
Licking River near Salyersville (d)	03248500	48
Licking River at Farmers (d,t)	03249500	49
Triplett Creek at Morehead (d)	03250000	52
North Fork Triplett Creek near Morehead (d)	03250100	53
North Fork Licking River near Lewisburg (d)	03251000	54
Licking River at McKinneysburg (d)	03251500	55
Stoner Creek (head of South Fork Licking River) at Paris (d)	03252000	56
South Fork Licking River at Cynthiana (d)	03252500	57
Licking River at Catawba (d)	03253500	58
Licking River at Butler (c,b,s)	03254000	59
Ohio River at Markland Dam (d)	03277200	61
KENTUCKY RIVER BASIN		
North Fork Kentucky River (head of Kentucky River):		
Carr Fork near Sassafras (d)	03277450	62
North Fork Kentucky River at Hazard (d)	03277500	63
North Fork Kentucky River at Jackson (d,c,s)	03280000	64
Middle Fork Kentucky River near Hyden (d)	03280600	68
Cutshin Creek at Wooton (d)	03280700	69
Middle Fork Kentucky River at Tallega (d,c,)	03281000	70
Kentucky River:		
Red Bird River (head of South Fork Kentucky River) near Big Creek (d)	03281040	71
Goose Creek at Manchester (d)	03281100	72
South Fork Kentucky River at Booneville (d,c,)	03281500	73
Kentucky River at lock 14, at Heidelberg (d)	03282000	74
Red River near Hazel Green (d)	03282500	75
Red River at Clay City (d)	03283500	76
Kentucky River at lock 10, near Winchester (d,c,b,s)	03284000	77
Dix River near Danville (d)	03285000	81
Kentucky River at lock 6, near Salvisa (d)	03287000	82
Kentucky River at lock 4, at Frankfort (d,c,s)	03287500	83
North Elkhorn Creek (head of Elkhorn Creek) near Georgetown (d)	03288000	84
South Elkhorn Creek at Fort Spring (d)	03289000	85
South Elkhorn Creek near Midway (d)	03289300	86
Elkhorn Creek near Frankfort (d,c,b,s)	03289500	87
Kentucky River at lock 2, at Lockport (d,c,b,t,s)	03290500	91
Eagle Creek at Glencoe (d)	03291500	97
HARRODS CREEK BASIN		
Harrods Creek near La Grange (d)	03292460	98
Harrods Creek near Prospect (c)	03292473	99
GOOSE CREEK BASIN		
Goose Creek at Old Westport Road near St. Matthews (c)	03292474	100
Goose Creek at U.S. Hwy 42 near Glenview Acres (c)	03292475	101
Little Goose Creek near Harrods Creek (c)	03292480	102
BEARGRASS CREEK BASIN		
South Fork Beargrass Creek at Louisville (d,c,t)	03292500	103
South Fork Beargrass Creek at Winter Avenue at Louisville (c)	03292550	111
Middle Fork Beargrass Creek, at Louisville (d,c,t)	03293000	112
Middle Fork Beargrass Creek at Beals Branch Road at Louisville (c)	03293200	120
Muddy Fork at Mockingbird Valley Road at Louisville (c)	03293530	121
Ohio River at Louisville (d)	03294500	122
MILL CREEK BASIN		
Mill Creek Cutoff near Louisville (d,c,t)	03294550	123
Mill Creek at Orell Road near Louisville (c)	03294570	131
SALT RIVER BASIN		
Salt River at Glensboro (d)	03295400	132
Brashears Creek at Taylorsville (d)	03295890	133
Floyds Fork:		
Floyds Fork near Crestwood (d)	03297845	134
Long Run near Fisherville (c)	03297980	135
Floyds Fork at Fisherville (d,c)	03298000	136
Pope Lick at Pope Lick Road near Middletown (c)	03298100	138
Chenoweth Run at Gelhaus Lane near Fern Creek (c)	03298150	139

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

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

	STATION NUMBER	Page
OHIO RIVER BASIN--Continued		
Ohio River--Continued		
SALT RIVER BASIN--Continued		
Floyds Fork near Mount Washington (c)	03298200	140
Cedar Creek at Thixton Road near Louisville (c)	03298250	141
Pennsylvania Run at Mt. Washington Road near Louisville (c)	03298300	142
Salt River at Shepherdsville (d,c,b,s)	03298500	143
Rolling Fork near Lebanon (d)	03299000	146
Beech Fork at Maud (d)	03300400	147
Rolling Fork near Boston (d)	03301500	148
Rolling Fork near Lebanon Junction (c,b,s)	03301630	149
Fishpool Creek at Bost Road at Okolona (c)	03301850	151
Southern Ditch at Minors Lane near Okolona (c)	03301880	152
Fern Creek at Old Bardstown Road at Louisville (c)	03301900	153
Northern Ditch at Okolona (c)	03301940	154
Spring Ditch at Private Drive near Okolona (c)	03301950	155
Pond Creek near Louisville (d,c,t)	03302000	156
Pond Creek at Pendleton Road near Louisville (c)	03302030	164
Ohio River at Cannelton Dam (d)	03303280	165
GREEN RIVER BASIN		
Green River near Campbellsville (d,t)	03306000	166
Russell Creek near Columbia (d)	03307000	169
Little Pitman Creek near Campbellsville.(d)	03307260	170
Green River at Munfordville (d,c,b,t,s)	03308500	171
Nolin River at White Mills (d)	03310300	178
Bacon Creek near Priceville (d)	03310400	179
Nolin River at Kyrock (d,t)	03311000	180
Green River at lock 6, at Brownsville (d)	03311500	183
Beaverdam Creek at Rhoda (d)	03311600	184
Barren River near Finney (d,t)	03313000	185
West Fork Drakes Creek near Franklin (d)	03313700	188
Barren River at Bowling Green (d)	03314500	189
Green River at lock 4, at Woodbury (d)	03315500	190
Rough River at Rough River Dam, near Falls of Rough (t)	03318010	191
Rough River at Falls of Rough (d)	03318500	193
Caney Creek near Horse Branch (d)	03318800	194
Rough River near Dundee (d)	03319000	195
Green River at lock 2, at Calhoun (d)	03320000	196
Pond River near Apex (d)	03320500	197
Cypress Creek near Calhoun (d)	03321210	198
Ohio River at Evansville, IN (d)	03322000	199
HIGHLAND CREEK BASIN		
Highland Creek:		
Beaverdam Creek near Corydon (d)	03322360	200
Ohio River at Uniontown (d)	03322420	201
TRADEWATER RIVER BASIN		
Tradewater River at Olney (d)	03383000	202
CUMBERLAND RIVER BASIN		
Poor Fork at Cumberland (d)	03400500	203
Martins Fork Lake at Martins Fork Dam near Smith (c,t)	03400798	204
Martins Fork near Smith (d,c,t)	03400800	227
Clover Fork at Harlan (d,s)	03400990	234
Cumberland River near Harlan (d)	03401000	238
Yellow Creek near Middlesboro (d,s)	03402000	239
Cumberland River near Pineville (d,s)	03403000	243
Cumberland River at Barbourville (d,s)	03403500	244
Cumberland River at Williamsburg (d,s)	03404000	248
Cumberland River at Cumberland Falls (d,s,c,t)	03404500	252
Laurel River at Municipal Dam near Corbin (d)	03404820	253
Lynn Camp Creek at Corbin (d)	03404900	254
Rockcastle River at Billows (d)	03406500	255
Buck Creek near Shopville (d)	03407500	256
South Fork Cumberland River near Stearns (d,c,s,t)	03410500	257
Beaver Creek near Monticello.(d)	03413200	260
Cumberland River near Rowena (d)	03414000	262
Red River:		
Whippoorwill Creek near Claymour (d)	03435140	263
Little River near Cadiz (d)	03438000	264
Barkley-Kentucky Canal near Grand Rivers (d)	03438190	265
Cumberland River near Grand Rivers (d)	03438220	266
TENNESSEE RIVER BASIN		
Clarks River at Almo (d)	03610200	267
West Fork Clarks River near Brewers (d)	03610545	268
MASSAC CREEK BASIN		
Massac Creek near Paducah (d)	03611260	269
Ohio River at Metropolis, IL (d)	03611500	270
Little Bayou Creek near Grahamville.(d)	03611600	271
Bayou Creek near Heath.(d)	03611800	273
Bayou Creek near Grahamville.(d)	03611850	275
Ohio River at lock and dam 53, near Grand Chain, IL (c,t,s)	03612500	277
LOWER MISSISSIPPI RIVER BASIN		
Bayou De Chien near Clinton (d)	07024000	279

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

Page

CALLOWAY COUNTY
Well 363634088191601 311
CHRISTIAN COUNTY
Well 365142087270401 311
DAVIESS COUNTY
Well 374638087054101 311
ELLIOTT COUNTY
Well 380425083091901 312
FAYETTE COUNTY
Well 375928084362001 312
FRANKLIN COUNTY
Well 382031084553901 312
GRAVES COUNTY
Well 365210088391301 313
GRAYSON COUNTY
Well 372822086165801 314
HARDIN COUNTY
Well 373847085541701 Local number OW-7 315
Well 373925085540301 Local number OW-6 316
Well 374020085530601 Local number OW-5 317
Well 374035085525401 Local number OW-1-82 318
Well 374037085524801 Local number TW-2-82 319
Well 374046085523501 Local number OW-1-81 320
Well 375958085575401 Local number 1 321
HENDERSON COUNTY
Well 374441087421001 321
JEFFERSON COUNTY
Well 380122085545001 Local number 80-1 322
Well 380252085530601 Local number 79-3 322
Well 380308085533501 Local number 79-4 322
Well 380341085534501 Local number 83-1 323
Well 380423085541501 Local number 2 323
Well 380434085525101 Local number E-1-d 323
Well 380458085523201 Local number 86-4 324
Well 380517085535201 Local number 77-1 324
Well 380532085515301 Local number 51-5-2, (76-1) 324
Well 380606085531301 Local number 53-6-1, (RR-46) 325
Well 380616085532801 Local number 53-6-4, (TW-3) 326
Well 380619085512301 Local number 86-3 326
Well 380637085521301 Local number D-1-d 326
Well 380709085531101 Local number C-5-m 327
Well 380716085521801 Local number 52-7-2, (RR-47) 327
Well 380718085515802 Local number C-3-s 327
Well 380718085524202 Local number C-4-m 328
Well 380816085520701 Local number 52-8-1, ... 328
Well 380827085503001 Local number 86-5 328
Well 380843085530701 Local number B-3-d 329
Well 380843085522801 Local number B-2-d 329
Well 380846085520101 Local number B-1-d 329
Well 380850085534701 Local number 78-2 330
Well 380852085515901 Local number 51-8-1, ... 330
Well 380940085514001 Local number 81-1 330
Well 380955085531801 Local number 83-2 331
Well 381011085491601 Local number 86-1 331
Well 381032085525601 Local number 78-3 331
Well 381034085502601 Local number 50-10-2, (RR-30) 332
Well 381050085511001 Local number 51-10-1, (RR-29) 333
Well 381102085512102 Local number 51-11-2, ... 333
Well 381102085485601 Local number 86-2 333
Well 381108085511301 Local number 51-11-4, (RR-31) 334
Well 381123085491401 Local number 49-11-1, (RR-32) 334
Well 381130085515001 Local number 51-11-1, ... 334
Well 381139085502301 Local number 81-2 335
Well 381142085475702 Local number 47-11-4, (RR-42) 335
Well 381143085465801 Local number 46-11-2, (RR-25) 335
Well 381155085483401 Local number 48-11-1, ... 336
Well 381157085510201 Local number 51-11-6, (RR-39) 336
Well 381204085455301 Local number CP-16 336
Well 381207085484601 Local number 48-12-15, (RR-41) 337
Well 381209085472101 Local number 47-12-3, (C-7) 337
Well 381212085473801 Local number 47-12-2, (C-6) 337
Well 381213085521701 Local number 52-12-2, (RR-22) 338
Well 381221085475001 Local number 47-12-1, (C-5) 338
Well 381222085505201 Local number 50-12-16, (RR-27) 339
Well 381224085474001 Local number 47-12-19, (Early Times #1) 340
Well 381229085510201 Local number Triangle Refinery #1 340
Well 381246085470601 Local number 47-12-4, (Seagrams TW #2) 341
Well 381246085463201 Local number CP-18A 342
Well 381247085463301 Local number CP-18 342
Well 381250085484901 Local number 48-12-1, (C-2) 342
Well 381251085483501 Local number 48-12-2, (C-3) 343
Well 381251085500501 Local number 50-12-18, (RR-35) 343
Well 381256085471501 Local number 47-12-14, (TW-2) 343
Well 381257085471801 Local number 47-12-15, (TW-4) 344
Well 381259085471502 Local number 47-12-16, (TW-1) 344
Well 381259085511002 Local number 51-13-1, (RR-21) 344
Well 381305085501302 Local number Reynolds Metals #1 345
Well 381309085505302 Local number 50-13-56, (RR-24) 345
Well 381313085495501 Local number 49-13-25, (TW-2) 345
Well 381315085501401 Local number 50-13-65, (TW-11) 346

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

Page

JEFFERSON COUNTY--Continued
Well 381315085502602 Local number 50-13-79, (NC-TW-D) 347
Well 381316085502101 Local number 50-13-77, (TW-12) 348
Well 381320085464101 Local number CP-15 348
Well 381324085460401 Local number 46-13-25, (Amer. Std.) 348
Well 381331085491601 Local number 49-13-40, (RR-26) 349
Well 381338085481601 Local number CP-8 349
Well 381346085453801 Local number 45-13-2, (St. Patrick's well) 349
Well 381346085454201 Local number CP-1 350
Well 381355085465901 Local number 46-13-34, (Lou. Cooperage) 350
Well 381400085445001 Local number CP-6 350
Well 381406085463001 Local number 78-1 351
Well 381417085500301 Local number 50-14-4, (RR-23) 351
Well 381424085454602 Local number CP-12A 351
Well 381428085485701 Local number 78-6 352
Well 381430085452602 Local number 45-14-69, (Conna #3) 352
Well 381430085472501 Local number CP-17 352
Well 381441085465301 Local number 46-14-13, (Bernheim #3) 353
Well 381441085452701 Local number 45-14-71, (A-2) 354
Well 381447085454001 Local number 45-14-66, (CJ&T #5) 355
Well 381453085474501 Local number 47-14-10, (Kroger) 356
Well 381500085445501 Local number 89-2 356
Well 381500085454701 Local number 78-5 356
Well 381501085464601 Local number CP-10 357
Well 381503085452601 Local number Stewart's #5 357
Well 381503085453301 Local number 45-15-36, (Ky. Towers) 357
Well 381504085443201 Local number CP-7A 358
Well 381505085475701 Local number CP-5 358
Well 381508085455701 Local number CP-4 358
Well 381514085453502 Local number CP-11A 359
Well 381517085455501 Local number 86-6 360
Well 381518085454401 Local number 86-10 361
Well 381518085453402 Local number 86-11 362
Well 381518085451801 Local number 87-1 363
Well 381524085452301 Local number 86-8 364
Well 381527085453001 Local number 86-7 365
Well 381528085454201 Local number 86-9 366
Well 381536085492801 Local number CP-2 367
Well 381538085434401 Local number 78-7 367
Well 381539085465201 Local number CP-9 367
Well 381543085480101 Local number CP-14 368
Well 381553085431602 Local number M-2 368
Well 381604085430501 Local number 43-16-8, (WC-1) 368
Well 381607085483601 Local number CP-3 369
Well 381613085421901 Local number 42-16-18, (WC-14) 369
Well 381628085473101 Local number CP-13 369
Well 381638085415801 Local number 41-16-3, (WC-4) 370
Well 381648085421201 Local number 42-16-15, (WC-5) 371
Well 381653085413302 Local number WC-9A 371
Well 381701085414002 Local number WC-8A 371
Well 381722085405801 Local number 40-17-3, (WC-11) 372
Well 381742085402001 Local number 40-17-5, (WC-13) 372
Well 381827085392401 Local number 39-18-1, (WC-26) 372
Well 381904085384801 Local number 38-19-2, (WC-27) 373
LARUE COUNTY
Well 374151085413201 373
LAUREL COUNTY
Well 370757084045001 373
LETCHER COUNTY
Well 371033082374301 374
LINCOLN COUNTY
Well 372739084402101 374
LOGAN COUNTY
Well 365046086444901 374
MCCRACKEN COUNTY
Well 370551088510401 375
METCALFE COUNTY
Well 370211085364301 375
WARREN COUNTY
Well 370342086080101 375

QUALITY OF GROUND WATER

CHRISTIAN COUNTY
Station 363917087225001 376
HARDIN COUNTY
Station 373929085540401 376
Station 374043085523001 376
HART COUNTY
Station 371929085461701 376
TRIGG COUNTY
Station 365141087501001 376

PRECIPITATION STATION, BY COUNTY, FOR WHICH RECORD IS PUBLISHED

ROWAN COUNTY
380706083324900 383

WATER RESOURCES DATA - KENTUCKY, 1991

INTRODUCTION

Water resources data for the 1991 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 115 stream-gaging stations. It also includes water-quality data for 38 stations sampled at regular intervals. Also published are 13 daily temperature and 8 specific conductance records, and 85 miscellaneous temperature and specific conductance determinations for the gaging stations. Suspended-sediment data for 12 stations (of which 5 are daily) are also published. Ground-water levels are published for 23 recording and 117 partial sites. Precipitation data at a regular interval is published for 1 site. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurement and analyses. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Kentucky.

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

Beginning with the 1961 water year and continuing through water year 1991, 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 91-1." These reports are for sale to the public for a nominal fee by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (502) 582-5241.

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 agreement with the Survey are:

University of Kentucky, Charles Withington President, through Kentucky Geological Survey,
D.C. Haney, Director and State Geologist.
Kentucky Natural Resources and Environmental Protection Cabinet, Phillip Shepherd and Greg Higdon, Secretary.
City of Campbellsville, Robert Miller, Mayor
City of Elizabethtown, Patricia Durbin, Mayor.
City of Louisville, J.E. Abramson, Mayor.
Jefferson County, David Armstrong, County Judge/Executive.
Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army.
The Kentucky Utilities Company and the Public Service Company of Indiana aided in collecting records.
Louisville and Jefferson County Metropolitan Sewer District, G.R. Garner, Executive Director.

Organizations that supplied data are acknowledged in station descriptions.

SUMMARY OF HYDROLOGIC CONDITIONS

SURFACE WATER

Monthly and annual mean streamflow for the 1991 water year and the period of record are shown in figure 1 for three representative streamflow-gaging stations on streams in Kentucky. Annual Mean streamflow for 1991 was above the long-term average throughout Kentucky with the exception of two stations: One of these stations is located on the eastern border of Kentucky and the other is in the western part of the State.

Annual peak flows during the 1991 water year had about a 5-year recurrence interval throughout Kentucky. Localized rains caused peak flows at two sites in eastern Kentucky to exceed the 50-year recurrence interval. Base flows in 1991 were similar to those in 1990 in the eastern part of Kentucky; however, base flows were lower in the central to west-central parts of Kentucky; one recurrence interval exceeded 20 years in the Salt River basin.

Table 1.--Mean, maximum, and minimum streamflow for water year 1991 and recurrence intervals at selected stations

Station number	Length of record (years)	Mean: Daily streamflow (ft^3/s)	Mean: Percent of average	Maximum: Peak streamflow (ft^3/s)	Maximum: Recurrence interval (years)	Minimum: Daily streamflow (ft^3/s)	Minimum: Recurrence interval (years)
			BIG SANDY RIVER BASIN				
03210000	50	68.7	91	2,780	>2	2.3	<2
			LITTLE SANDY RIVER BASIN				
03216540	19	18.6	119	1,640	>50	0	<10
			TYGARTS CREEK BASIN				
03216800	34	105	121	7,360	>5	0	<10
			CABIN CREEK BASIN				
03237900	19	39.0	126	4,690	>2	r	<2
			LICKING RIVER BASIN				
03248500	53	218	126	3,240	<2	5.7	<2
03250100	24	171	129	10,100	>50	.15	<10
03251000	45	195	132	6,610	>2	.19	<2
03252000	38	482	164	12,600	>5	2.6	<2
03252500	53	1,200	158	20,800	>2	10	<2
			KENTUCKY RIVER BASIN				
03280600	34	401	135	11,700	<2	8.1	<2
03280700	34	104	111	3,540	<2	3.6	<2
03281040	19	376	137	12,500	>2	7.3	<2
03281100	27	363	139	10,000	>2	5.0	<2
03281500	58	1,481	141	22,600	<2	36	<2
03282500	37	88.4	101	1,190	<2	.44	<2
03283500	54	703	144	12,100	>2	12	<2
03285000	49	639	137	21,000	>5	1.5	<2
03289000	41	44.6	137	1,620	>5	.19	<10
			HARRODS CREEK BASIN				
03292460	23	42.0	112	3,660	>2	0	<10
			BEARGRASS CREEK BASIN				
03293000	47	27.2	107	1,410	>2	.56	<10
			SALT RIVER BASIN				
03297845	12	76.7	135	5,300	---	0	---
03298000	47	247	139	11,500	>2	.04	<2
03299000	53	566	164	26,700	>5	1.0	<2
03300400	19	876	138	19,300	>2	.06	>20
03301500	53	2,329	130	32,400	>2	6.9	<10
03302000	47	97.3	109	2,770	>2	4.2	<2
			GREEN RIVER BASIN				
03307000	52	331	113	13,400	>2	1.2	=10
03310300	32	495	101	10,600	>2	43	<10
03310400	32	58.1	98	2,670	>2	7.1	<10
03311600	19	19.4	105	1,690	>2	.47	<10
03318800	35	267	140	7,070	>2	0	<2
03320500	51	369	132	8,160	>2	0	<2
			CUMBERLAND RIVER BASIN				
03400500	51	178	125	4,880	>2	14	<2
03404900	18	131	151	2,850	>2	.92	<10
03406500	55	1,307	140	28,700	>2	21	<2
03407500	39	401	145	13,000	>2	.06	<10
03410500	49	2,378	134	74,300	>10	45	<2
03435140	18	54.9	158	4,820	<2	0	<2
03438000	51	524	148	8,510	>2	34	<2
			MASSAC CREEK BASIN				
03611260	20	14.1	77	1,060	<2	.28	<2
			BAYOU DE CHIEN BASIN				
07024000	46	139	131	4,960	>5	12	<2

QUALITY OF WATER

Surface-water quality differs across the State from basin to basin and is affected by seasonal precipitation patterns. The median instantaneous discharge measured during water-quality sampling at National Stream Quality Accounting Network (NASQAN) sites for the year was 61 percent (mean percent difference) greater than the corresponding median for the 10-year period October 1980 through September 1990. The median suspended sediment discharge for the year at NASQAN stations ranged from 9 to 108,000 ton/d (tons per day). In general, these medians reflect the larger than normal streamflows for the year and were 109 percent (mean percent difference) greater than the medians for the 10-year period as summarized in table 1. The median suspended-sediment concentration was 43 mg/L (milligrams per liter) at Kentucky River at Lock 2 at Lockport, Kentucky (03290500). This concentration was 72 percent greater than the corresponding 10-year median (25 mg/L). The median suspended-sediment discharge (38 ton/d) at Licking River at Butler, Kentucky (03254000), was 56 percent less than the median (87 ton/d) for the 10-year period.

GROUND-WATER LEVELS

Most currently monitored observation wells tap the alluvial aquifer underlying Louisville and western Jefferson County (fig. 9). A few of the observation wells are in or near the well field of Elizabethtown, Kentucky, and are used to monitor water levels in the karst aquifer used for water supply by the city. A few observation wells are scattered throughout the State to monitor water-level trends in the various bedrock aquifers.

The general trend of water levels in Jefferson County is a rise of 1 to 4 ft during 1988-91. Ground-water levels in the alluvial aquifer underlying Louisville and western Jefferson County respond to rainfall, pumpage, river stage, and natural flow to the Ohio River. Hydrographs at wells in southwestern Jefferson County (well 380606085531301) show a seasonal water-level fluctuation and a water-level increase of 4 ft during 1988-91. Hydrographs from wells in more heavily pumped areas, such as downtown Louisville (well 381524085452301) show that water-level fluctuates because of pumpage and seasonal variations in recharge, and decreased by 1 to 2 ft over the 1988-91 period. The water level in wells near the Ohio River (well 381638085415801) fluctuate because of change in river stage.

Water-level measurements in most observation wells in bedrock aquifers throughout the State resumed in 1989 following a lapse of no measurements for several years. Water levels in the wells in the 1991 water year were very near the levels for the period of available record.

Table 2.--Summary for selected water-quality characteristics at National Stream Accounting Network sites, October 1980 to September 1991

[25P, 25 percent of the samples less than or equal to value shown; N, number of samples collected during the period shown]

Station number	Suspended Sediment, in milligrams per liter					Suspended Sediment Discharge, in tons per day				
	1991 Median	Water Years 1981-1990				1991 Median	Water Years 1981-1990			
		25P	50P	75P	N		25P	50P	75P	N
03215000	81	24	54	114	66	1,059	61	388	1,280	59
03254000	24	20	42	82	50	38	18	87	984	49
03290500	43	12	25	95	95	879	43	334	3,530	95
03298500	28	12	22	68	64	84	3	16	264	64
03301630	68	43	81	225	51	35	11	105	786	50
03308500	42	11	30	80	71	141	16	68	730	71
03410500	5	2	7	12	34	9	2	10	68	34
03612500	103	20	54	155	69	108,000	7,720	44,500	214,000	63

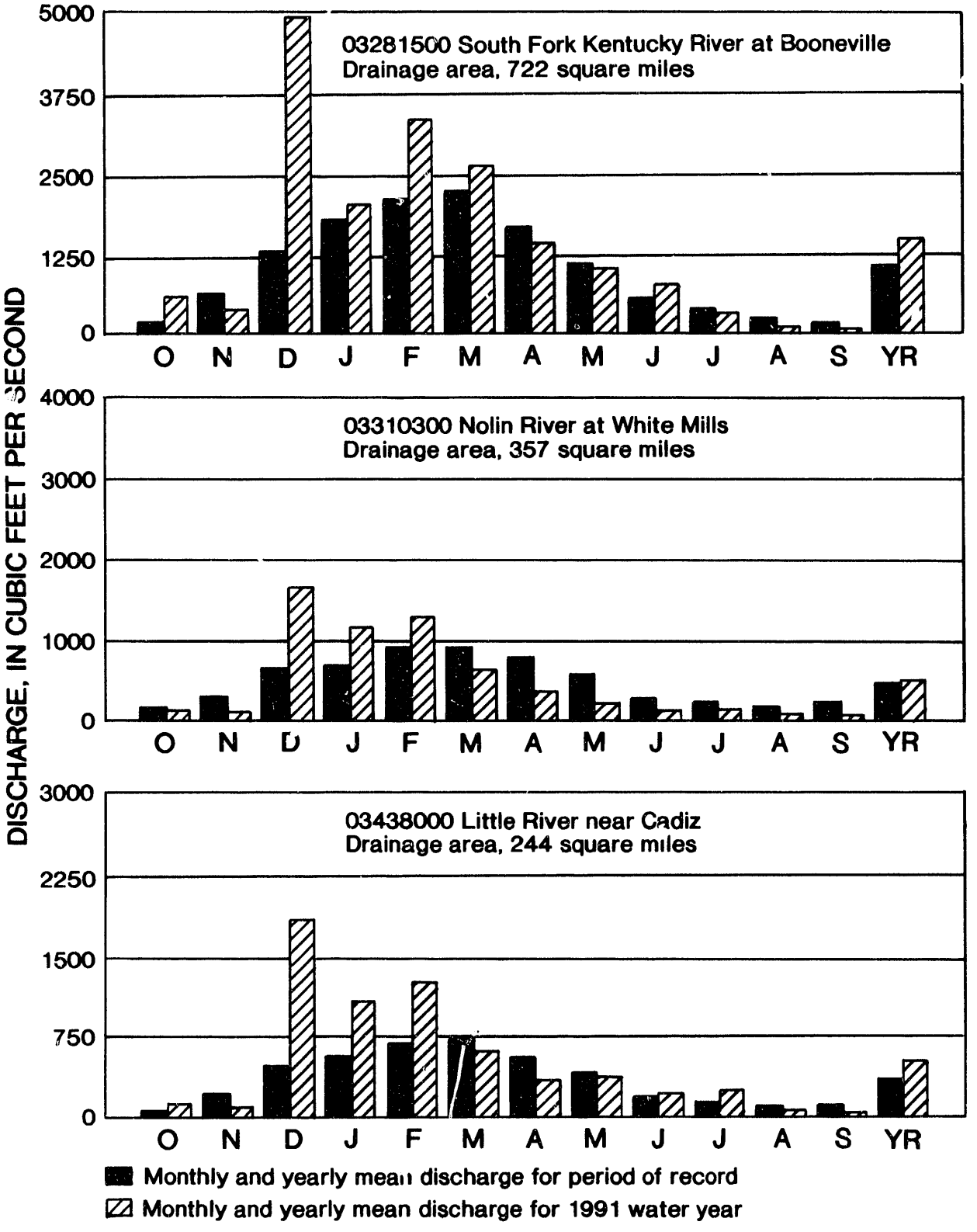


Figure 1.--Mean discharge during 1991 water year and period of record for three representative gaging stations.

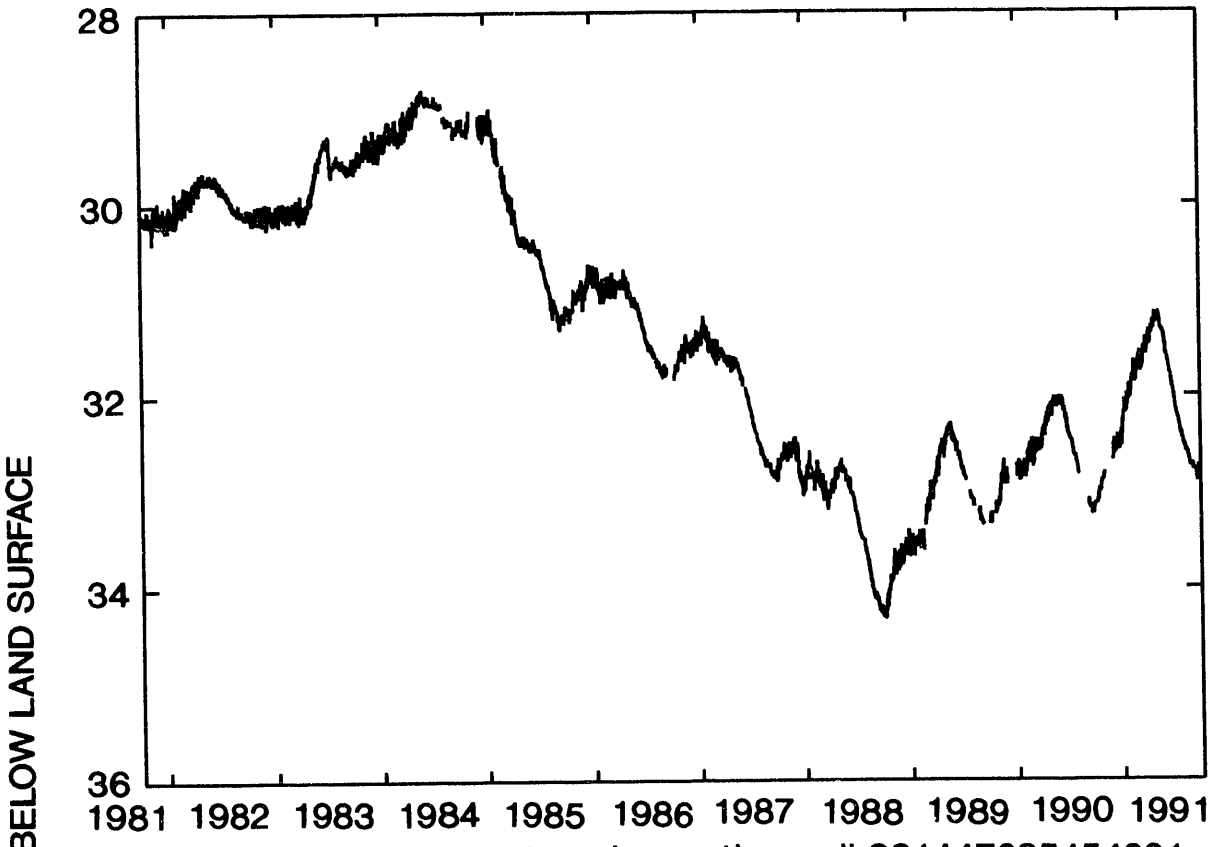


Figure 2.--Water level at observation well 381447085454001.

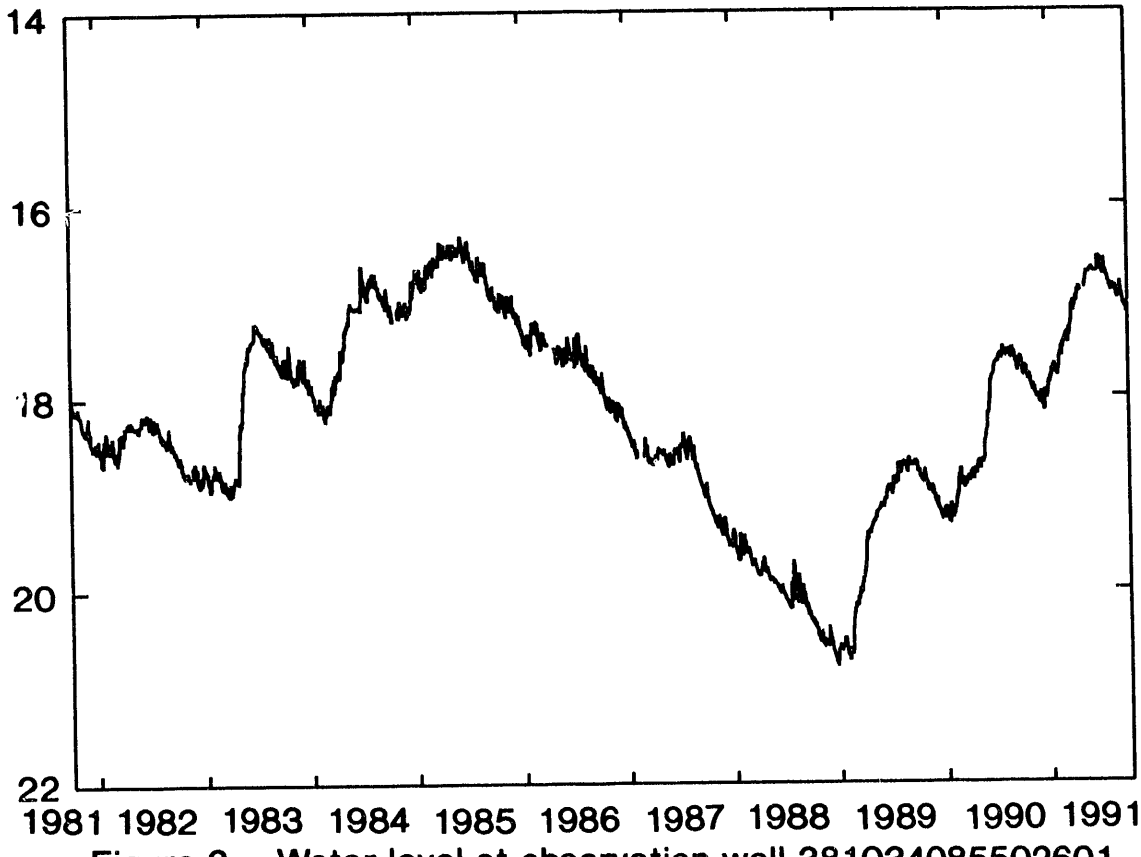


Figure 3.--Water level at observation well 381034085502601.

SPECIAL NETWORKS AND PROGRAMS

Louisville and Jefferson County Metropolitan Sewer District (MSD) Sampling Network is a network of 26 surface water-quality sites in Jefferson County, including a control site in Bernheim Forest in Bullitt County. The program is a cooperative effort between the U.S. Geological Survey and MSD to 1) determine the current status of water quality in the major streams in Jefferson County, 2) identify problem stream segments, and whether they are impacted by point or non-point sources of pollution, and 3) obtain streamflow information on these streams. The 26 sites are sampled monthly. At five of the sites continuous-record streamflow is determined, and at four of these sites continuous-record water temperature, specific conductance, pH, and dissolved oxygen data are collected.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

National Water-Quality Assessment (NAWQA) Network is a network of fixed-location and synoptic sampling stations. It is currently limited in Kentucky to the Kentucky River basin. The U.S. Geological Survey began the National Water-Quality Assessment Program in April 1986 to (1) provide a nationally consistent description of current water-quality status, (2) define recent trends in water quality, and (3) relate past and present water-quality conditions to relevant natural features, the history of land and water use, and land- and waste-management practices. The pilot study of the Kentucky River basin is one of four surface-water pilot studies and will be used to test, and modify as necessary, assessment concepts and approaches in preparation for future full-scale implementation of the National program.

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1991 water year that began October 1, 1990, and ended September 30, 1991. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, and water-quality data for surface water data. The locations of the stations and wells where the data were collected are shown in figures 5-10. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

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

Station Identification Numbers

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

Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indention in the "List of Stations" in the front of this report. Each indention represents one rank. This downstream order and system of indention shows which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station, such as 03208000, which appears just to the left of the station name, includes the two-digit Part number "03" plus the six-digit downstream-order number "208000." The Part number designates the major river basin; for example, Part "03" is the Ohio River basin.

Latitude-Longitude System

The identification numbers for wells and miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. This site-identification number, once assigned, is a pure number and has no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description (fig. 4).

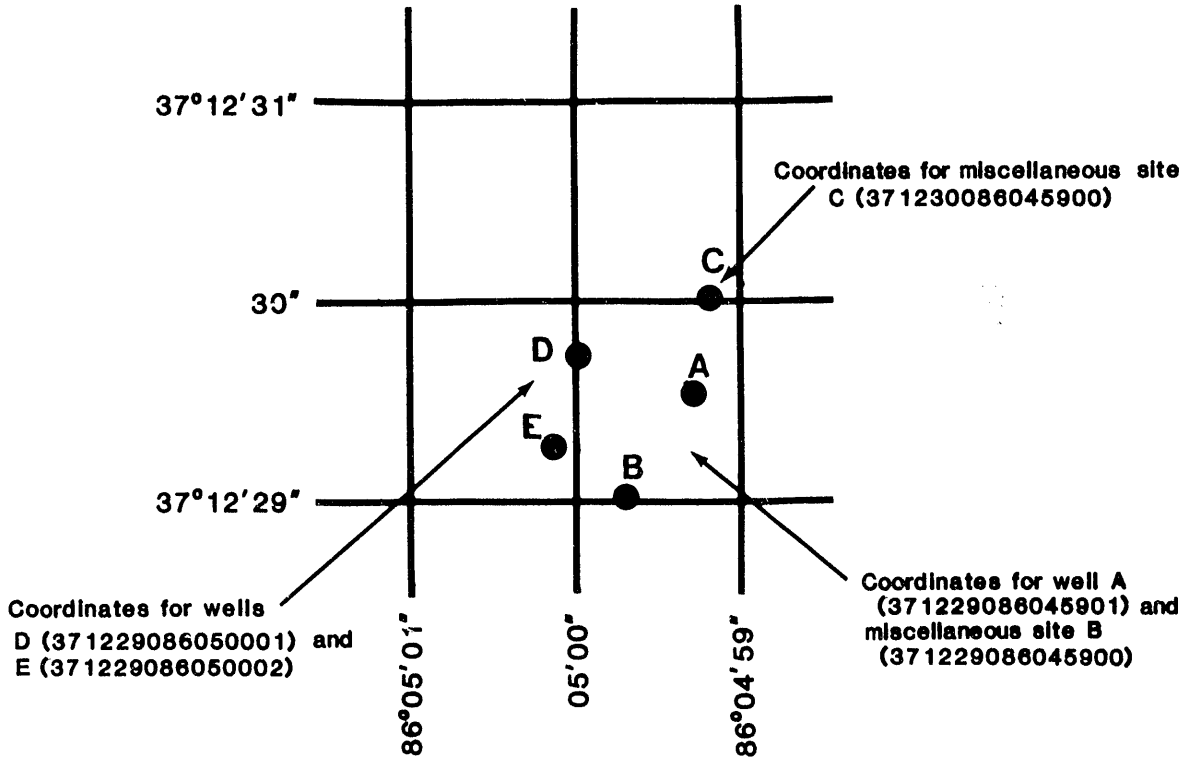


Figure 4.—System for numbering wells, springs, and miscellaneous sites (latitude and longitude)

Records of Stage and Water Discharge

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

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

Data Collection and Computation

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

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

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

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

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

For some gaging stations, there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

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

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

Station manuscript

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

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

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

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

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

GAGE.--The type of gage in current use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929 (see glossary), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

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

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

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

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

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

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

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

Data table of daily mean values

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

Statistics of monthly mean data

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

Summary statistics

A table titled "SUMMARY STATISTICS" follows the statistics of monthly mean data tabulation. This table consists of four columns, with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year but also for the previous calendar year and for a designated period as appropriate. The designated period selected, "WATER YEARS ____-____," will consist of all the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (see line headings below), except for the "ANNUAL 7-DAY MINIMUM" statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

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

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

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

ANNUAL MEAN.--The arithmetic mean of the individual daily mean discharges for the year noted or for the designated period. At some stations the yearly mean discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes. At least 5 complete years of record must be available before this statistic is published 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 climactic year (April 1-March 31). The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day 10-year low-flow statistic).

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

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

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

ANNUAL RUNOFF (AC-FT).--Indicates the depth, in acre-feet, to which the drainage area would be covered if all the runoff for the year were uniformly distributed on it.

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

ANNUAL RUNOFF (INCHES).--Indicates the depth to which the drainage area would be covered if all the runoff for the year were uniformly distributed on it.

10 PERCENT EXCEEDS.--The discharge that is exceeded by 10 percent of the flow for the designated period.

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

90 PERCENT EXCEEDS.--The discharge that is exceeded by 90 percent of the flow for the designated period.

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

Identifying Estimated Daily Discharge

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

Accuracy of the Records

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

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

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

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

Other Records Available

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

Records of Surface-Water Quality

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

Classification of records

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

A careful distinction needs to be made between "continuing records," as used in this report, and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. 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 6 and 7.

Arrangement of Records

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

On-site Measurements and Sample Collection

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

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals depends on flow conditions and other factors which must be evaluated by the collector.

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

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

Water Temperature

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

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the Kentucky District office.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

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

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

Laboratory Measurements

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

Data Presentation

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

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

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

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

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

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

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

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

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

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

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

Remark Codes

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

PRINTED OUTPUT	REMARK
E	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptance range (non-ideal colony count)
L	Value determined by laboratory

Records of Ground-Water Levels

Water-level data from selected observation wells are given in this report. These data are intended to provide a sampling and historical record of water-level changes. Locations of observation wells in Kentucky are shown in figures 8-10.

Data Collection and Computation

Measurements of water levels are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability.

Tables of water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is the 15-digit number that appears in the upper left corner of the table. The secondary identification number is the local well number.

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

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

Data Presentation

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

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

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

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

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

DATUM.--This entry describes both the measuring point and the land-surface elevation at the well. The measuring point is described physically (such as top of collar, notch in top of casing, plug in pump base and so on), and in relation to land surface (such as 1.3 ft above land-surface datum). The elevation of the land-surface datum is described in feet above (or below) National Geodetic Vertical Datum of 1929 (NGVD of 1929); it is reported with a precision depending on the method of determination.

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

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

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

A table of water levels follows the station description for each well. Water levels are reported in feet below land-surface datum and all taped measurements of water level are listed. The highest and lowest water levels of the water year and their dates of occurrence are shown on a line below the table. Because all values are not published for wells with recorders, the extremes may be values that are not listed in the table. Missing records are indicated by dashes in place of the water level.

Records of Precipitation Quality

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

On-Site Measurements and Sample Collection

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

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

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

After weighing the sample, a small portion is removed for measurement of pH, specific conductance, and, in some instances, titratable acidity. The pH and special conductance are both determined electrometrically according to methods described in the National Atmospheric Deposition Program "NADP Instruction Manual: Site Operation". The remainder of the sample is then used for laboratory chemical analyses. This portion of the sample is shipped to the laboratory raw and untreated. In the case of NTN operation, the original bucket is resealed and mailed to the Illinois State Water Survey Central Analytical Laboratory (CAL) for analysis. In all other instances, sample portions are preserved, treated, and analyzed according to specific project requirements.

Data presentation

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

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

PERIOD OF RECORD.--This indicates the periods for which there are published precipitation-quality records for the station. Periods of record are presented separately for each type of sample collected at the site (in this report, wet precipitation, dry precipitation, and fog).

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

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

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

ACCESS TO WATSTORE DATA

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

* Station Header File - Contains descriptive information on more than 440,000 sites throughout the United States and its territories where the U.S. Geological Survey collects or has collected data.

* Daily Values File - Contains more than 220 million daily values of stream flows, stages, reservoir contents, water temperatures, specific conductances, sediment concentrations, sediment discharges, and ground-water levels.

* Peak Flow File - Contains approximately 500,000 maximum (peak) streamflow and gage-height values at surface-water sites.

* Water Quality File - Contains approximately 2 million analyses of water samples that describe the chemical, physical, biological, and radio-chemical characteristics of both surface and ground water.

* Ground-Water Site Inventory Data Base - Contains inventory data for more than 900,000 wells, springs, and other sources of ground water. The data includes site location, geohydrologic characteristics, well-construction history, and one-time field measurements such as water temperature.

In 1976, the U.S. Geological Survey opened WATSTORE to the public for direct access. The signing of a Memorandum of Agreement with the the Survey is required to obtain direct access to WATSTORE. The system can be accessed either synchronously or asynchronously. The requester will be expected to pay all computer costs he/she incurs. Direct access may be obtained by contacting:

U.S. Geological Survey
National Water Data Exchange
421 USGS National Center
Reston, Virginia 22092

In addition to providing direct access to WATSTORE, data can be provided in various machine-readable formats on magnetic tape or 5-1/4 inch floppy disk; and, as noted in the introduction, on CD-ROM discs. Beginning with the 1990 water year, all water-data reports will also be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc. Information about the availability of specific types of data or products and users charges can be obtained locally from each of the Water Resources Division's District Offices. (See address on the back of the title page.) A limited number of CD-ROM discs will be available for sale by the Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, Colorado 80225.

DEFINITION OF TERMS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square mile (g/m^2).

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

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

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

Bottom material: See Bed material.

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

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

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

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

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

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

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

Cubic feet per second per square mile [$(ft^3/s)/mi^2$] is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

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

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

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

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

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

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

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

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

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

Hydrologic Bench-Mark Network is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

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

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

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

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

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

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

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

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L and is based on the mass of dry sediment per liter of water-sediment mixture.

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

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

National Water-Quality Assessment (NAWQA) Network is a network of fixed-location and synoptic sampling stations. It is currently limited in Kentucky to the Kentucky River basin. The U.S. Geological Survey began the National Water-Quality Assessment Program in April 1986 to (1) provide a nationally consistent description of current water-quality status, (2) define recent trends in water quality, and (3) relate past and present water-quality conditions to relevant natural features, the history of land and water use, and land- and waste-management practices. The pilot study of the Kentucky River basin is one of four surface-water pilot studies and will be used to test, and modify as necessary, assessment concepts and approaches in preparation for future full-scale implementation of the National program.

The National Trends Network (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

Organism is any living entity.

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

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

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

Parameter Code is a 5-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of a particle determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay.....	0.00024 - 0.004	Sedimentation
Silt.....	.004 - .062	Sedimentation
Sand.....	.062 - 2.0	Sedimentation or sieve
Gravel.....	2.0 - 64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic matter is removed, and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

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

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

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

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

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

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

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

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

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

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

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

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

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

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

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

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

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

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

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

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

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

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

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry mass or volume, that passes a section during a given time.

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

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

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

Solute is any substance that is dissolved in water.

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

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

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

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

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

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

Surficial bed material is the part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

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

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 um membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

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

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

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

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

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

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

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

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

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

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

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

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

Water year in Geological Survey 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, 1991, is called the "1991 water year."

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

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

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

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

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

The reports listed below are for sale by the U.S. Geological Survey, Books and Open-File Reports Section, Federal Center, Box 25425, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

1-D1. *Water temperature--influential factors, field measurement, and data presentation,* by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents,* by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.

2-D1. *Application of surface geophysics to ground-water investigations,* by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.

2-D2. *Application of seismic-refraction techniques to hydrologic studies,* by F. P. Haeni: USGS--TWRI Book 2, Chapter D2. 1988. 86 pages.

2-E1. *Application of borehole geophysics to water-resources investigations,* by W. S. Keys and L. M. McCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.

2-E2. *Borehole geophysics applied to ground-water investigations,* by W. Scott Keys: USGS--TWRI Book 2, Chapter E2. 1990. 150 pages.

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

3-A1. *General field and office procedures for indirect discharge measurements,* by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.

3-A2. *Measurement of peak discharge by the slope-area method,* by Tate Dalrymple and M. A. Benson: USGS-- TWRI Book 3, Chapter A2. 1967. 12 pages.

3-A3. *Measurement of peak discharge at culverts by indirect methods,* by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.

3-A4. *Measurement of peak discharge at width contractions by idirect methods,* by H. F. Matthai: USGS-TWRI Book 3, Chapter A4. 1967. 44 pages.

3-A5. *Measurement of peak discharge at dams by indirect methods,* by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.

3-A6. *General procedure for gaging streams,* by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.

3-A7. *Stage measurements at gaging stations,* by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3. Chapter A7. 1968. 28 pages.

3-A8. *Discharge measurements at gaging stations,* by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.

3-A9. *Measurement of time of travel in streams by dye tracing,* by F. A. Kilpatrick and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1989. 27 pages.

3-A10. *Discharge ratings at gaging stations,* by E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS--Continued

3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak. USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.

3-A12. *Fluorometric procedures for dye tracing*, by J. F. Wilson, Jr., E. D. Cobb, and F. A. Kilpatrick: USGS--TWRI Book 3, Chapter A12. 1986. 41 pages.

3-A13. *Computation of continuous records of streamflow*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.

3-A14. *Use of flumes in measuring discharge*, by F. A. Kilpatrick and V. R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.

3-A15. *Computation of water-surface profiles in open channels*, by Jacob Davidian. USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.

3-A16. *Measurement of discharge using tracers*, by F. A. Kilpatrick and E. D. Cobb: USGS--TWRI Book 3, Chapter A16. 1985. 52 pages.

3-A17. *Acoustic velocity meter systems*, by Antonius Laenen: USGS--TWRI Book 3, Chapter A17. 1985. 38 pages.

3-A18. *Determination of stream reaeration coefficients by use of tracers*, by F. A. Kilpatrick, R. E. Rathburn, N. Yotsukura, G. W. Parker, and L. L. DeLong: USGS--TWRI Book 3, Chapter A18. 1989. 52 pages.

3-A19. *Levels of streamflow gaging stations*, by E.J. Kennedy: USGS--TWRI Book 3, Chapter A19. 1990. 27 pages.

3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.

3-B2. *Introduction to ground-water hydraulics, a programmed text for self-instruction*, by G. D. Bennett: USGS-- TWRI Book 3, Chapter B2. 1976. 172 pages.

3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.

3-B4. *Regression modeling of ground-water flow*, by Richard L. Cooley and Richard L. Naff: USGS--TWRI Book 3, Chapter B4. 1990. 232 pages.

3-B5. *Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems--An introduction*, by O. L. Franke, T. E. Reilly, and G. D. Bennett: USGS--TWRI Book 3, Chapter B5. 1987. 15 pages.

3-B6. *The principle of superposition and its application in ground-water hydraulics*, by T. E. Reilly, O. L. Franke, and G. D. Bennett: USGS--TWRI Book 3, Chapter B6. 1987. 28 pages.

3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.

3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.

3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield. USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.

4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.

4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.

4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.

4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison. USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.

4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.

4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins. USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M. J. Fishman and L. C. Friedman: USGS--TWRI Book 5, Chapter A1. 1989. 545 pages.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS--Continued

5-A2. *Determination of minor elements in water by emission spectroscopy,* by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.

5-A3. *Methods for the determination of organic substances in water and fluvial sediments,* edited by R. L. Wershaw, M. J. Fishman, R. R. Grabbe, and L. E. Lowe: USGS--TWRI Book 5, Chapter A3. 1987. 80 pages.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples,* by L. J. Britton and P. E. Greeson, editors: USGS--TWRI Book 5, Chapter A4. 1989. 363 pages.

5-A5. *Methods for determination of radioactive substances in water and fluvial sediments,* by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.

5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments,* by L. C. Friedman and D. E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.

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

6-A1. *A modular three-dimensional finite-difference ground-water flow model,* by M. G. McDonald and A. W. Harbaugh: USGS--TWRI Book 6, Chapter A1. 1988. 586 pages.

7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments,* by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.

7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water,* by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.

7-C3. *A model for simulation of flow in singular and interconnected channels,* by R. W. Schaffrannek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.

8-A1. *Methods of measuring water levels in deep wells,* by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.

8-A2. *Installation and service manual for U.S. Geological Survey manometers,* by J. D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.

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

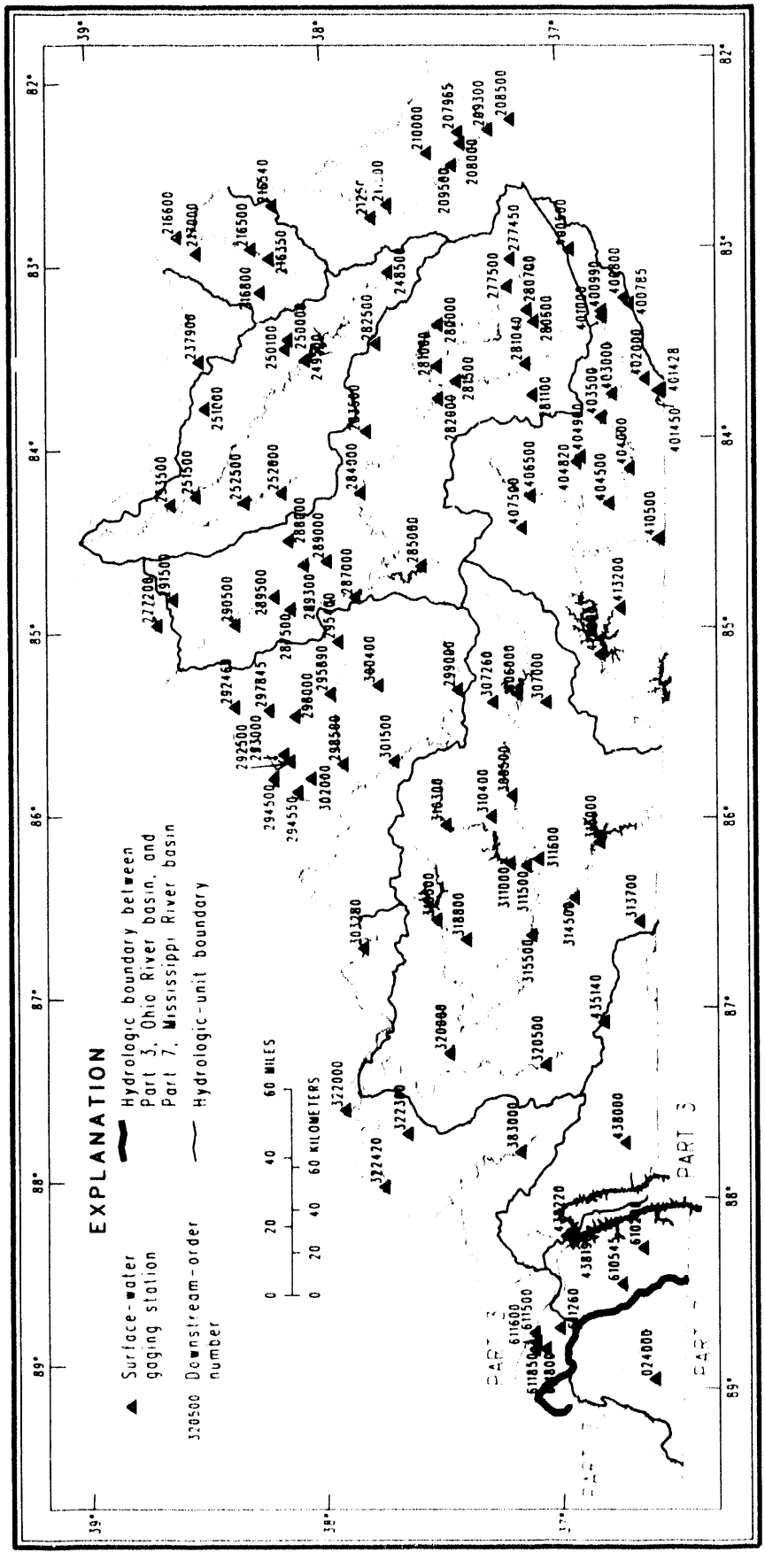


Figure 5.--Location of gaging stations in Kentucky.

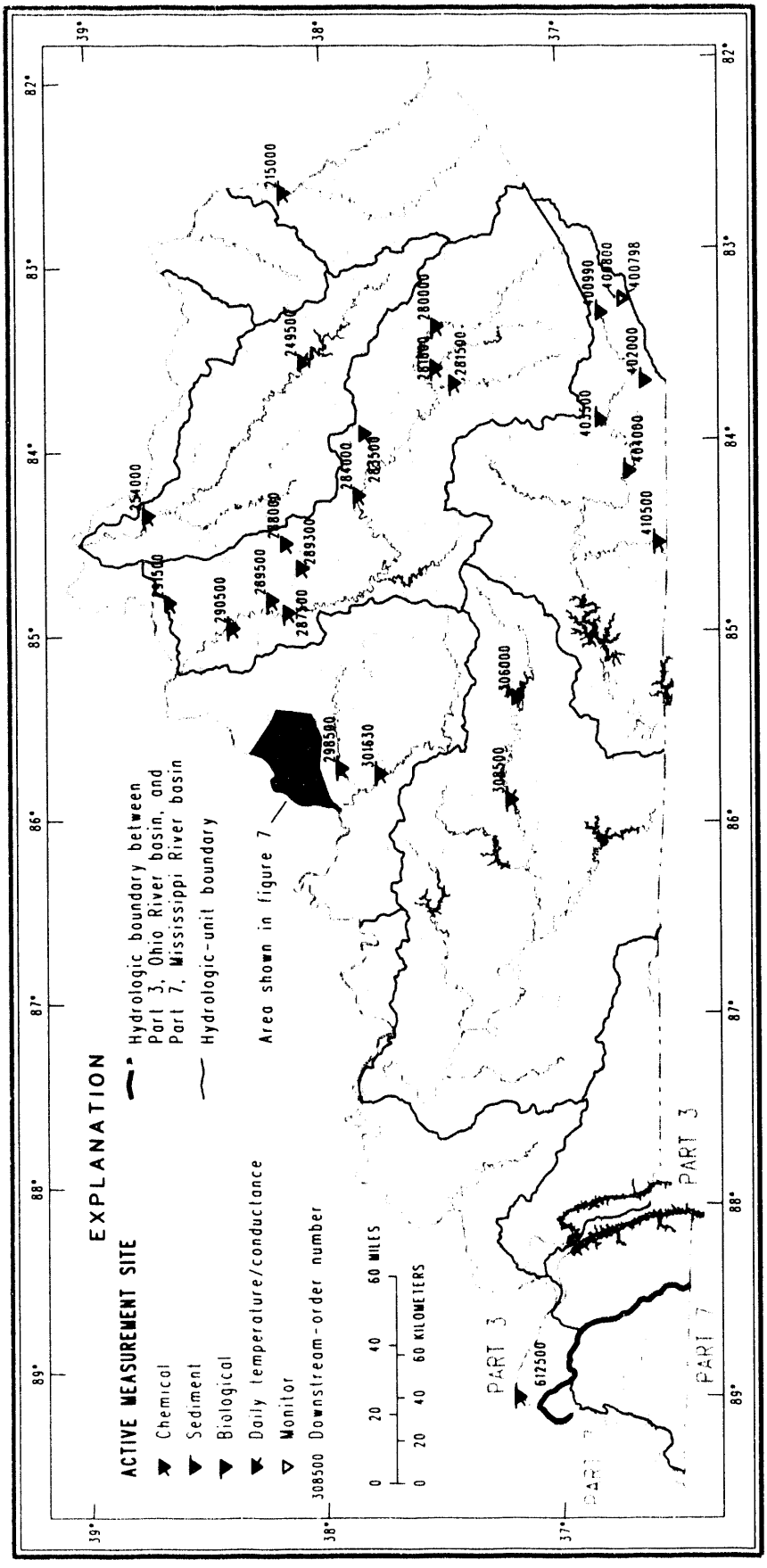


Figure 6.--Location of surface water quality stations in Kentucky.

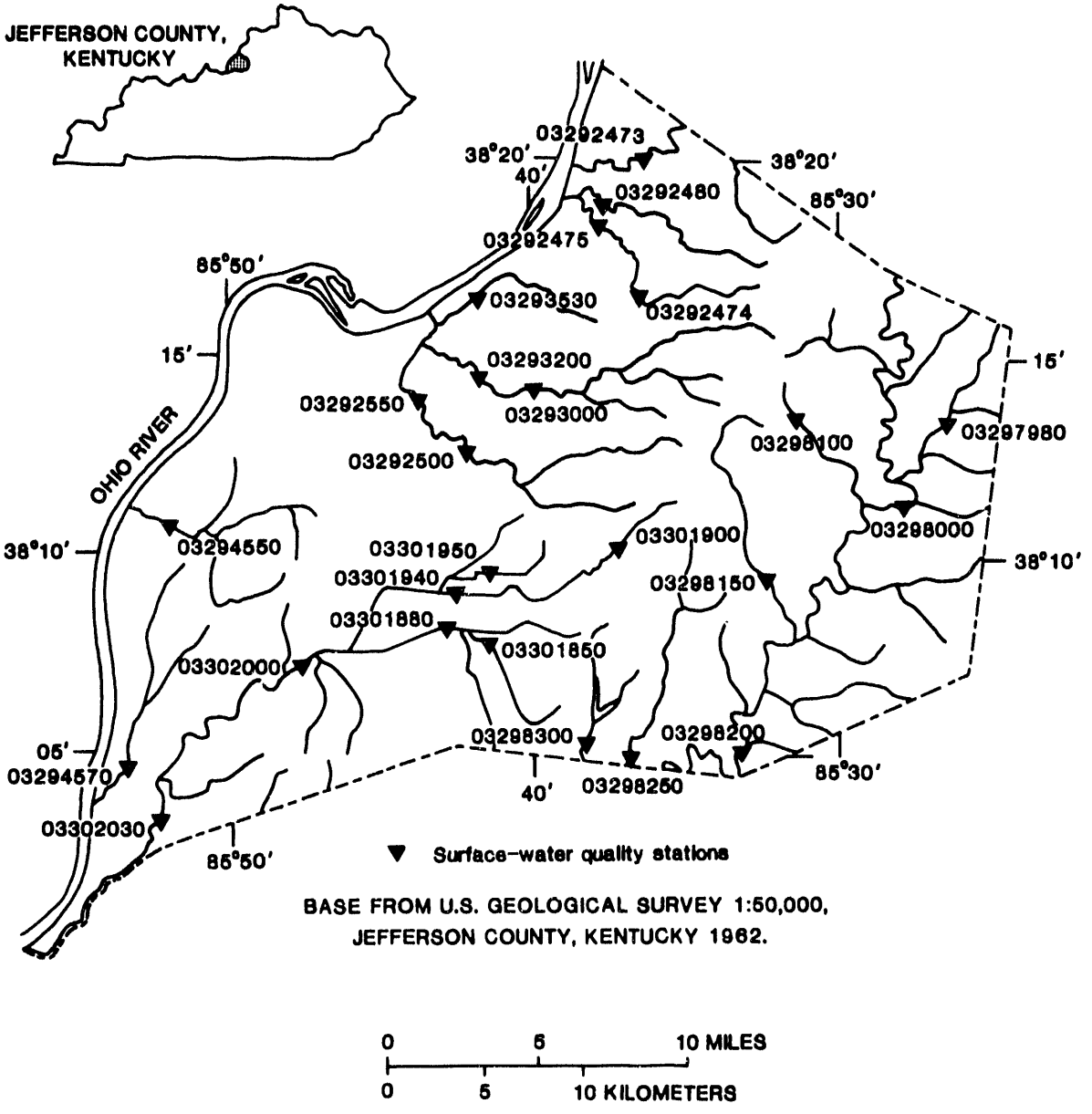


Figure 7.—Location of surface-water quality stations in Jefferson County, for the MSD Sampling Network.

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^2.

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

GAGE.--Water-stage recorder. Altitude of gage is 780 ft from topographic map.

REMARKS.--Estimated daily discharges: Dec. 5-15, Jan. 22-28, Apr. 4 to June 18, and June 24 to Aug. 27. Records poor. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	1.1	4.1	13	16	3.2	11	2.7	1.2	.55	.21	.33
2	1.0	2.3	4.1	6.8	9.2	3.4	7.3	2.5	1.7	.65	.22	.33
3	1.0	2.3	12	4.3	6.3	3.7	5.0	2.4	1.5	.45	.20	.53
4	3.6	.43	17	2.9	4.5	6.6	4.5	2.4	1.4	.53	.24	.61
5	2.4	.76	9.0	2.4	3.6	6.1	6.4	2.6	1.3	.74	.27	.70
6	1.4	1.6	6.4	2.6	6.5	6.2	5.2	2.2	1.1	.64	.21	.55
7	1.1	1.4	[illegible]	19	15	5.3	4.7	1.8	1.2	.52	.16	.64
8	2.2	1.2	4.5	22	14	4.3	4.3	2.8	1.2	.43	.35	.62
9	1.5	2.4	4.0	16	11	3.7	3.8	2.3	1.1	.36	1.6	.55
10	1.3	4.9	3.6	12	8.5	4.0	3.2	2.0	1.0	.28	1.1	.72
11	2.3	4.6	3.2	13	5.7	3.6	2.5	1.7	.89	.37	.70	.71
12	4.7	4.2	2.9	18	4.0	3.4	2.4	1.6	.95	.49	.48	.65
13	3.2	4.5	2.7	16	3.5	6.5	3.8	1.9	.88	.22	.80	.82
14	2.3	3.7	4.5	11	11	24	5.0	2.2	.82	.19	.65	.77
15	1.6	2.8	10	7.3	14	18	6.2	2.3	1.4	.16	.45	1.0
16	1.3	2.6	36	6.7	9.6	10	5.3	1.9	2.5	.15	.37	1.0
17	1.3	3.3	43	5.8	7.3	7.5	5.9	1.7	4.5	.13	.30	.90
18	13	3.2	39	5.5	24	12	6.4	1.6	.77	.12	.50	.90
19	11	3.0	19	5.5	32	11	5.7	1.8	1.7	.11	.90	.90
20	4.8	3.2	8.0	5.2	25	11	5.2	1.6	2.8	.10	.60	.85
21	2.8	3.0	11	5.5	18	9.8	4.9	1.5	.83	.11	.42	.77
22	4.3	3.6	11	5.2	12	10	4.6	1.4	1.1	.15	.30	.83
23	6.2	5.3	31	4.9	8.1	173	4.4	1.4	1.1	.23	.33	.90
24	4.3	4.1	20	4.5	6.0	29	4.2	1.3	.80	.40	.36	.82
25	3.2	3.9	3.9	4.1	5.5	13	4.0	1.2	.70	.35	.42	.77
26	3.0	4.0	1.8	3.9	4.4	6.7	3.7	1.7	.60	.28	.27	.77
27	1.7	3.9	9.6	3.7	3.7	4.1	3.5	2.1	.54	.22	.22	.77
28	1.3	3.8	55	3.5	3.3	3.0	3.2	1.7	.62	.21	.23	.67
29	1.4	3.9	12	3.4	---	21	3.0	1.4	.56	.32	.21	.66
30	.96	3.8	12	21	---	29	2.8	1.1	.48	.27	.20	.66
31	4.2	---	29	34	---	19	---	1.3	---	.24	.22	---
TOTAL	95.36	92.79	434.5	288.7	291.7	471.1	142.1	58.1	37.34	9.97	13.49	21.70
MEAN	3.08	3.09	14.0	9.31	10.4	15.2	4.74	1.87	1.24	.32	.44	.72
MAX	13	5.3	55	34	32	173	11	2.8	4.5	.74	1.6	1.0
MIN	.96	.43	1.8	2.4	3.3	3.0	2.4	1.1	.48	.10	.16	.33
CFSM	.50	.50	2.26	1.50	1.68	2.45	.76	.30	.20	.05	.07	.12
IN.	.57	.56	2.61	1.73	1.75	2.83	.85	.35	.22	.06	.08	.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1991, BY WATER YEAR (WY)

MEAN	4.72	8.23	9.33	17.2	15.0	19.7	13.5	10.4	8.29	2.33	2.92	2.25
MAX	28.0	31.0	18.8	42.6	34.0	53.6	22.3	47.7	23.2	10.4	10.6	5.75
(WY)	1990	1974	1979	1974	1990	1975	1977	1989	1974	1979	1989	1989
MIN	.48	.27	.98	1.44	4.11	7.12	4.62	.71	.64	.32	.31	.38
(WY)	1979	1982	1982	1981	1977	1977	1982	1976	1980	1991	1981	1981

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1974 - 1991	
ANNUAL TOTAL	3367.23		1956.85			
ANNUAL MEAN	9.23		5.36		9.00	
HIGHEST ANNUAL MEAN					17.2	1974
LOWEST ANNUAL MEAN					5.36	1991
HIGHEST DAILY MEAN	167	Feb 10	173	Mar 23	832	Oct 1 1982
LOWEST DAILY MEAN	.37	Sep 6	.10	Jul 20	.01	Aug 19 1982
ANNUAL SEVEN-DAY MINIMUM	.59	Aug 31	.12	Jul 16	.04	Sep 22 1981
INSTANTANEOUS PEAK FLOW			555	Mar 23	1650	Jun 1 1974
INSTANTANEOUS PEAK STAGE			2.18	Mar 23	9.10	Apr 7 1977*
ANNUAL RUNOFF (CFSM)	1.49		.86		1.45	
ANNUAL RUNOFF (INCHES)	20.20		11.74		19.72	
10 PERCENT EXCEEDS	18		12		20	
50 PERCENT EXCEEDS	4.4		2.7		3.0	
90 PERCENT EXCEEDS	1.3		.34		.30	

*backwater

BIG SANDY RIVER BASIN

03208000 LEVISA FORK BELOW FISHTRAP DAM, NEAR MILLARD, KY

LOCATION.--Lat 37°25'33", long 82°24'45", Pike County, Hydrologic Unit 05070202, on right bank, 0.4 mi downstream from Fishtrap Dam, 1.1 mi upstream from Lower Pompey Branch, 1.9 mi northeast of Millard, 2.4 mi upstream from confluence with Russell Fork, and at mile 129.6.

DRAINAGE AREA.--392 mi^2.

PERIOD OF RECORD.--February 1938 to current year. Prior to April 1968, published as "Levisa Fork at Fishtrap."

REVISED RECORDS.--WSP 953: Drainage area. WSP 1335: 1938(M), 1939, 1940(M), 1942-43, 1944-45(M), 1946, 1948.

GAGE.--Water-stage recorder. Datum of gage is 600.00 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Apr. 19, 1968, nonrecording gage at site 3.7 mi upstream at different datum. Apr. 19, 1968 to June 18, 1973, water-stage recorder at site 1.0 mi downstream at datum 59.96 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Fishtrap Lake beginning October 1968. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	175	262	46	78	466	254	2860	82	123	91	153	89
2	174	198	46	76	208	254	1980	83	172	91	113	89
3	174	158	136	572	208	1130	1140	83	174	91	113	89
4	203	158	92	1540	586	1400	961	83	174	91	113	89
5	212	250	140	1960	422	1290	857	84	174	130	110	89
6	199	318	130	1890	408	1130	676	86	120	148	105	89
7	197	263	115	2040	701	1070	679	84	94	117	105	89
8	196	178	96	2060	740	1040	268	84	94	91	104	89
9	281	145	96	1990	653	850	78	84	88	89	674	89
10	283	146	122	1930	660	850	77	84	85	94	1470	89
11	166	221	121	1450	823	722	78	84	84	99	625	89
12	442	381	80	945	589	620	78	83	84	105	282	89
13	581	414	58	947	473	545	80	83	84	1010	282	89
14	419	271	58	1240	629	2100	81	83	84	767	215	89
15	282	197	58	993	655	2030	82	83	85	241	123	89
16	243	207	200	721	521	1180	83	83	87	174	93	89
17	220	197	192	660	524	1380	84	83	89	121	91	90
18	354	195	655	440	535	1110	84	83	89	121	92	330
19	545	273	1490	363	1760	1120	84	81	89	114	92	356
20	433	286	1120	365	3060	1290	83	80	89	111	139	332
21	642	214	1030	372	3140	958	83	84	145	111	296	334
22	526	206	880	794	2030	902	82	90	971	110	136	345
23	350	172	881	501	1140	2440	84	205	893	110	90	360
24	350	142	1150	373	812	1850	85	305	464	110	90	379
25	406	142	1320	302	768	2440	87	321	236	110	90	393
26	355	262	1170	220	687	3570	88	302	187	207	90	374
27	273	223	627	220	381	2850	84	202	187	248	89	349
28	271	148	1310	591	254	1440	83	172	123	216	89	338
29	236	142	1520	347	---	1180	82	138	91	509	89	300
30	187	106	1680	345	---	2240	81	93	91	716	89	263
31	243	---	2040	797	---	2980	---	93	---	430	89	---
TOTAL	9618	6475	18659	27122	23833	44215	11232	3668	5550	6773	6331	5967
MEAN	310	216	602	875	851	1426	374	118	185	218	204	199
MAX	642	414	2040	2060	3140	3570	2860	321	971	1010	1470	393
MIN	166	106	46	76	208	254	77	80	84	89	89	89

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1991, BY WATER YEAR (WY)

MEAN	189	285	484	708	920	1051	705	567	300	208	183	146
MAX	1164	1330	1644	2182	1951	3103	2366	1855	1454	887	1168	592
(WY)	1990	1978	1973	1974	1957	1963	1987	1984	1979	1979	1958	1966
MIN	1.17	1.53	9.64	21.3	98.0	93.3	57.4	84.8	31.0	15.6	12.7	1.78
(WY)	1940	1940	1940	1940	1941	1970	1985	1941	1966	1944	1943	1955

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1938 - 1991	
ANNUAL TOTAL	178736		169443			
ANNUAL MEAN	490		464		475	
HIGHEST ANNUAL MEAN					829	1979
LOWEST ANNUAL MEAN					167	1941
HIGHEST DAILY MEAN	3960	Feb 12	3570	Mar 26	21600	Mar 12 1963
LOWEST DAILY MEAN	16	Feb 27	46	Dec 1	.00	Apr 5 1977
ANNUAL SEVEN-DAY MINIMUM	85	Dec 9	79	Apr 9	.15	Oct 28 1968
INSTANTANEOUS PEAK FLOW			4350	Mar 23	33000	Jan 29 1957
INSTANTANEOUS PEAK STAGE			78.97	Mar 23	107.55	Apr 5 1977*
10 PERCENT EXCEEDS	1130		1200		1130	
50 PERCENT EXCEEDS	282		206		205	
90 PERCENT EXCEEDS	94		84		25	

*backwater

BIG SANDY RIVER BASIN

03208500 RUSSELL FORK AT HAYSI, VA

LOCATION.--Lat 37'12'25", long 82'17'45", Dickenson County, Hydrologic Unit 05070202, on right bank 180 ft downstream from bridge on State Highway 63, at Haysi, and 700 ft downstream from McClure River.

DRAINAGE AREA.--286 mi2.

PERIOD OF RECORD.--July 1926 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 1003: 1926-43. WSP 1385: 1928(M), 1929, 1933(M), 1935(M), 1937-38(M).

GAGE.--Water-stage recorder. Datum of gage is 1,237.61 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 21, 1939, nonrecording gage at highway bridge 180 ft upstream at same datum.

REMARKS.--Records good except those for period with ice effect, Feb. 17, and period of doubtful gage-height record, Apr. 14-17, which are fair. Maximum discharge, 59,000 ft3/s, from rating curve extended above 32,000 ft3/s on basis of slope-area measurement of peak flow. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	56	39	1100	170	275	1040	162	119	128	151	73
2	28	52	38	658	162	935	764	152	115	118	114	58
3	26	49	45	463	161	1020	606	134	181	188	93	62
4	36	48	98	355	159	954	507	166	151	126	80	102
5	62	48	119	287	159	807	457	275	105	133	90	101
6	47	62	97	247	444	717	410	166	85	120	77	113
7	35	59	86	2750	834	860	367	144	74	93	66	79
8	63	50	76	2140	698	768	334	117	67	79	104	61
9	78	50	66	1060	581	624	312	144	64	76	612	51
10	58	108	61	739	482	524	299	159	60	90	929	50
11	59	112	57	773	397	427	248	192	56	121	421	50
12	217	90	53	906	328	389	226	432	67	139	224	45
13	325	79	51	725	302	480	303	473	86	512	153	61
14	160	70	50	551	407	3160	e290	280	61	508	128	84
15	103	64	54	448	407	1450	e280	201	68	250	128	54
16	76	59	88	461	335	864	e260	162	83	152	95	46
17	62	62	125	432	e320	662	e250	153	165	111	80	42
18	236	58	475	396	1350	815	243	153	180	94	73	58
19	361	53	1160	369	2160	865	289	621	436	89	89	384
20	172	51	527	364	1800	757	316	683	787	103	356	271
21	117	47	760	344	1400	632	298	976	629	90	164	144
22	101	46	505	283	938	722	283	500	1990	72	110	99
23	146	58	835	253	679	4610	258	322	691	66	87	79
24	151	53	1960	246	527	2560	238	231	386	121	74	72
25	131	47	830	221	445	1210	209	181	296	139	65	70
26	112	45	478	198	402	827	193	149	337	161	60	67
27	91	42	354	197	345	668	186	131	286	97	56	57
28	79	43	2130	202	298	560	201	122	217	384	54	50
29	70	47	1180	183	---	2400	179	111	169	2420	51	45
30	63	42	774	183	---	3600	175	104	155	479	59	42
31	60	---	2190	205	---	1660	---	96	---	244	51	---
TOTAL	3355	1750	15361	17739	16690	36802	10021	7892	8166	7503	4894	2570
MEAN	108	58.3	496	572	596	1187	334	255	272	242	158	85.7
MAX	361	112	2190	2750	2160	4610	1040	976	1990	2420	929	384
MIN	26	42	38	183	159	275	175	96	56	66	51	42
CFSM	.38	.20	1.73	2.00	2.08	4.15	1.17	.89	.95	.85	.55	.30
IN.	.44	.23	2.00	2.31	2.17	4.79	1.30	1.03	1.06	.98	.64	.33

e Estimated.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 1991, BY WATER YEAR (WY)

MEAN	89.4	168	321	510	637	745	579	415	181	150	121	65.9
MAX	838	961	1326	2083	1797	2331	1994	1429	715	566	561	608
(WY)	1990	1978	1927	1937	1939	1955	1977	1958	1989	1938	1966	1989
MIN	.98	2.46	11.1	19.6	57.7	168	64.0	63.4	21.6	3.03	8.81	2.07
(WY)	1954	1954	1954	1940	1941	1988	1942	1941	1966	1930	1953	1943

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1927 - 1991	
ANNUAL TOTAL	131224		132743			
ANNUAL MEAN	360		364		330	
HIGHEST ANNUAL MEAN					556	1979
LOWEST ANNUAL MEAN					100	1941
HIGHEST DAILY MEAN	6010	Feb 10	4610	Mar 23	30600	Apr 4 1977
LOWEST DAILY MEAN	22	Sep 6	26	Oct 3	.20	Jun 27 1936
ANNUAL SEVEN-DAY MINIMUM	25	Sep 1	38	Oct 1	.56	Jun 24 1936
INSTANTANEOUS PEAK FLOW	10600	Feb 10	8650	Mar 23	59000	Apr 4 1977
INSTANTANEOUS PEAK STAGE	10.51	Feb 10	9.34	Mar 23	28.24	Apr 4 1977
INSTANTANEOUS LOW FLOW	21	Sep 6	24	Oct 4	.20	Jun 27 1936
ANNUAL RUNOFF (CFSM)	1.26		1.27		1.15	
ANNUAL RUNOFF (INCHES)	17.07		17.27		15.67	
10 PERCENT EXCEEDS	881		832		728	
50 PERCENT EXCEEDS	197		162		128	
90 PERCENT EXCEEDS	39		52		14	

BIG SANDY RIVER BASIN

03209300 RUSSELL FORK AT ELKHORN CITY, KY

LOCATION.--Lat 37°18'14", long 82°20'35", Pike County, Hydrologic Unit 05070202, on left bank 10 ft downstream from steel highway bridge on abandoned section of State Highway 80, at Elkhorn City, 0.9 mi upstream from Elkhorn Creek, and at mile 13.2.

DRAINAGE AREA.--554 mi^2.

PERIOD OF RECORD.--Annual maximum, water years 1957-60 and occasional low-flow measurements, 1958-60. October 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 773.00 ft. Big Sandy River Survey datum (levels by U.S. Army Corps of Engineers). Mar. 12, 1957 to Jan. 4, 1961, nonrecording gage at site 10 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Sept. 25, 26. Records good. Flow regulated since August 1966 by North Fork Pound River Lake (station 03208680) and since March 1965 by John W. Flannagan Lake (station 03208990). Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

EXTREMES OUTSIDE PERIOD OF RECORD.--A discharge of 2.4 ft^3/s, was measured on Oct. 18, 1930 (exact location unknown).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	88	274	627	1360	453	466	1750	463	193	258	328	98
2	226	271	624	854	434	926	1250	408	208	238	228	105
3	224	426	632	965	427	1150	897	329	252	296	196	93
4	239	421	704	1330	421	1350	688	307	275	254	121	136
5	261	248	812	1250	416	1530	626	645	308	252	120	175
6	259	205	785	1220	661	1190	568	436	235	248	123	194
7	242	115	709	3830	1500	1430	519	392	157	201	109	177
8	274	166	384	3890	1470	1320	483	354	148	149	123	93
9	341	347	301	2830	1110	1040	459	370	144	140	1570	87
10	290	615	168	2360	1010	952	447	400	120	129	2960	86
11	178	633	156	2100	824	702	401	344	111	168	1010	93
12	443	608	146	1630	660	517	374	534	112	243	562	103
13	662	595	129	1330	580	604	432	795	134	738	445	113
14	488	633	107	913	760	3850	447	659	121	876	318	140
15	255	677	112	803	901	2680	442	414	129	626	255	96
16	286	593	134	795	760	1540	427	397	160	336	221	79
17	271	298	172	773	767	1040	403	346	228	170	197	75
18	348	297	517	703	2210	1310	388	260	315	147	191	79
19	595	474	1300	579	4160	1540	408	661	499	140	189	375
20	545	669	696	573	2590	1320	454	858	1100	145	375	448
21	444	662	1120	565	1440	1060	430	1370	1010	154	281	194
22	320	658	702	550	1640	1160	492	761	2490	128	216	135
23	372	671	774	584	1980	6000	509	520	1010	116	146	116
24	419	666	2140	525	1790	5950	461	432	686	347	134	108
25	399	654	1050	444	1690	4120	431	359	475	783	124	102
26	380	649	633	418	1200	2760	414	251	712	531	118	96
27	492	643	486	416	666	1620	406	222	565	316	115	91
28	405	642	2530	371	530	1280	418	210	444	154	96	84
29	295	643	2250	372	---	3580	402	198	341	3310	93	80
30	286	634	1540	376	---	4990	438	189	280	1230	96	76
31	278	---	3310	459	---	2480	---	181	---	574	93	---
TOTAL	10605	15087	25750	35168	33050	61457	16264	14065	12962	13397	11153	3927
MEAN	342	503	831	1134	1180	1982	542	454	432	432	360	131
MAX	662	677	3310	3890	4160	6000	1750	1370	2490	3310	2960	448
MIN	88	115	107	371	416	466	374	181	111	116	93	75

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1991, BY WATER YEAR (WY)

MEAN	393	564	741	1083	1248	1434	1037	858	457	285	236	213
MAX	2025	1906	2280	3001	2167	3999	3236	2484	1581	693	833	987
(WY)	1990	1978	1973	1972	1972	1963	1977	1984	1989	1979	1966	1989
MIN	14.2	45.1	32.9	59.7	309	308	191	150	42.3	93.2	50.2	28.2
(WY)	1964	1966	1966	1966	1968	1988	1986	1976	1966	1968	1965	1967

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1961 - 1991	
ANNUAL TOTAL	250157		252885			
ANNUAL MEAN	685		693		710	
HIGHEST ANNUAL MEAN					1127	1975
LOWEST ANNUAL MEAN					281	1988
HIGHEST DAILY MEAN	6470	Feb 10	6000	Mar 23	27400	Apr 4 1977
LOWEST DAILY MEAN	77	Sep 4	75	Sep 17	6.5	Sep 17 1964
ANNUAL SEVEN-DAY MINIMUM	83	Aug 30	91	Sep 24	7.4	Sep 13 1964
INSTANTANEOUS PEAK FLOW			10300	Mar 23	54200	Apr 4 1977
INSTANTANEOUS PEAK STAGE			12.19	Mar 23	24.80	Apr 4 1977
10 PERCENT EXCEEDS	1450		1510		1640	
50 PERCENT EXCEEDS	480		432		349	
90 PERCENT EXCEEDS	101		120		93	

BIG SANDY RIVER BASIN

03209500 LEVISA FORK AT PIKEVILLE, KY

LOCATION.--Lat 37°27'51", long 82°31'35", Pike County, Hydrologic Unit 05070203, on right bank 20 ft downstream from bridge on State Highway 1426, 0.75 mi downstream from Lanks Branch, 1.0 mi south of Pikeville, 1.5 mi upstream from Harolds Branch, and at mile 90.5.

DRAINAGE AREA.--1,232 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 631.98 ft above National Geodetic Vertical Datum 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.--No estimated daily discharges. Records good. Flow regulated since October, 1968 by Fishtrap Lake (station 03207995), since August 1966 by North Fork Pound River Lake (station 03208680) and since March 1965 by John W. Flannagan Lake (station 03208990). Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	271	591	733	6580	1910	1300	3880	568	302	328	659	189
2	318	541	730	3570	1300	1650	3440	488	412	303	397	199
3	403	497	876	1960	1190	2960	2900	445	415	326	352	203
4	453	632	904	3590	1450	4070	2300	445	405	335	298	241
5	500	656	1080	4050	1320	4150	2190	630	334	316	241	280
6	469	605	1040	3900	1600	3490	1850	543	296	386	235	300
7	443	483	1000	7480	3370	3750	1710	424	210	319	230	312
8	473	380	658	7630	3660	3620	1310	414	180	225	218	256
9	617	366	485	6390	2850	2840	911	424	167	195	1390	185
10	687	829	389	5650	2530	2630	827	522	159	188	5550	201
11	397	895	349	5110	2410	2190	671	485	146	236	2380	212
12	717	1070	285	3970	1860	1640	631	517	165	359	1010	203
13	1250	1070	226	3470	1590	1740	733	758	194	2170	865	217
14	1060	969	212	3120	2430	6170	790	809	182	2500	700	241
15	716	937	207	2650	2730	5910	823	617	175	1160	464	245
16	595	941	369	2180	2120	4000	734	509	204	777	368	184
17	536	618	514	2040	2070	3480	695	501	249	381	331	171
18	783	521	1660	1750	4280	3500	678	395	310	315	314	343
19	1280	588	3460	1450	8000	4020	689	505	491	288	328	611
20	1060	1030	2680	1450	8220	3900	631	474	1220	285	476	1100
21	1090	937	3050	1450	6480	3150	580	883	1150	287	674	752
22	1060	923	3500	1770	5110	3040	628	744	3540	263	446	626
23	824	942	3490	1620	4510	11700	618	698	2380	238	301	584
24	905	891	4360	1350	3790	9360	604	732	1310	341	256	565
25	881	873	3350	1170	3490	7340	540	688	850	916	241	568
26	859	948	2370	997	2890	7290	576	610	976	962	225	558
27	786	967	1540	982	1900	5720	589	489	852	754	215	538
28	726	859	6640	1320	1720	3830	626	414	607	476	207	524
29	731	848	5350	1100	---	3990	598	384	462	3300	196	494
30	522	834	4280	1660	---	4910	552	299	355	2640	201	388
31	544	---	6360	2900	---	4190	---	294	---	1360	196	---
TOTAL	21956	23241	62147	94309	86780	131530	34304	16708	18698	22929	19964	11490
MEAN	708	775	2005	3042	3099	4243	1143	539	623	740	644	383
MAX	1280	1070	6640	7630	8220	11700	3880	883	3540	3300	5550	1100
MIN	271	366	207	982	1190	1300	540	294	146	188	196	171

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1991, BY WATER YEAR (WY)

MEAN	550	865	1474	2218	2858	3229	2300	1706	846	629	529	343
MAX	3939	3991	5385	6861	6527	10200	7646	6067	3492	2702	2294	1606
(WY)	1990	1978	1973	1974	1957	1963	1977	1984	1979	1942	1958	1989
MIN	5.26	15.7	63.3	104	252	529	355	249	95.6	66.7	56.0	6.77
(WY)	1954	1940	1940	1940	1941	1988	1942	1941	1955	1944	1957	1955

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1938 - 1991	
ANNUAL TOTAL	547815		544056			
ANNUAL MEAN	1501		1491		1456	
HIGHEST ANNUAL MEAN					2459	1979
LOWEST ANNUAL MEAN					419	1941
HIGHEST DAILY MEAN	10600	Feb 10	11700	Mar 23	69300	Apr 5 1977
LOWEST DAILY MEAN	155	Sep 5	146	Jun 11	2.0	Oct 20 1953
ANNUAL SEVEN-DAY MINIMUM	180	Aug 28	170	Jun 9	2.4	Oct 19 1953
INSTANTANEOUS PEAK FLOW			14800	Mar 23	85500	Jan 30 1957
INSTANTANEOUS PEAK STAGE			26.08	Mar 23	52.72	Jan 30 1957
10 PERCENT EXCEEDS	3490		3890		3420	
50 PERCENT EXCEEDS	942		733		640	
90 PERCENT EXCEEDS	223		237		97	

BIG SANDY RIVER BASIN

03210000 JOHNS CREEK NEAR META, KY

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

DRAINAGE AREA.--56.3 mi^2.

PERIOD OF RECORD.--April 1941 to current year.

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

GAGE:--Water-stage recorder. Datum of gage is 715.66 ft above National Geodetic Vertical Datum of 1929. See WDR KY-90-1 for history of changes prior to Dec. 21, 1965.

REMARKS.--Estimated daily discharges: Jan. 18-28. Records good, except those for period of estimated record, which are fair. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1939 reached a stage of 15.6 ft, from floodmark, present datum, at site 600 ft upstream, discharge, 4,500 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.5	9.4	9.0	233	165	64	170	44	26	9.4	2.9	8.5
2	5.8	9.7	9.4	156	128	76	129	42	25	10	3.3	4.8
3	6.6	9.1	40	121	105	79	110	40	40	10	2.3	5.9
4	19	10	70	102	86	152	96	36	26	9.8	2.5	6.8
5	15	11	48	93	78	159	108	36	24	12	3.6	25
6	7.6	14	32	84	91	152	113	41	21	14	3.0	15
7	5.4	9.3	24	275	120	150	103	39	20	13	2.3	6.8
8	13	8.1	20	287	132	134	90	33	20	11	2.6	4.6
9	14	16	17	188	124	127	82	52	20	8.6	30	4.3
10	11	51	15	152	107	117	72	46	19	8.6	27	7.6
11	11	37	14	171	92	100	58	33	18	7.0	10	7.8
12	20	26	13	202	79	100	51	32	16	12	6.6	4.0
13	29	20	12	185	80	117	73	30	16	46	7.3	4.0
14	21	16	11	153	203	297	70	33	14	17	13	5.3
15	15	13	18	129	200	216	101	39	13	12	6.0	5.4
16	11	13	70	122	141	160	102	37	19	9.1	4.7	4.3
17	8.4	14	89	109	126	134	86	35	26	7.1	4.5	4.3
18	40	13	294	95	271	163	89	32	18	6.1	4.5	3.6
19	37	12	268	88	426	168	100	33	12	4.9	7.5	6.4
20	22	11	130	82	349	152	95	34	42	4.3	9.1	8.2
21	18	9.7	140	77	241	137	91	28	33	4.4	4.8	5.5
22	21	9.7	129	73	168	155	87	24	39	4.6	4.6	4.3
23	39	18	286	68	131	1430	79	23	32	4.6	4.1	3.8
24	33	15	282	65	111	427	72	23	19	10	3.2	4.7
25	27	14	154	62	98	208	66	22	17	8.0	3.9	9.8
26	21	12	106	60	90	146	61	21	16	6.1	4.2	9.3
27	17	10	130	58	79	120	56	39	14	4.2	3.2	9.3
28	15	10	1070	56	68	101	55	47	11	3.8	2.8	9.4
29	13	11	276	72	---	262	52	25	11	6.1	3.9	10
30	12	8.4	215	138	---	398	49	21	9.7	4.9	8.7	9.9
31	11	---	532	303	---	252	---	21	---	3.7	8.2	---
TOTAL	546.3	440.4	4523.4	4059	4089	6453	2566	1041	636.7	292.3	204.3	218.6
MEAN	17.6	14.7	146	131	146	208	85.5	33.6	21.2	9.43	6.59	7.29
MAX	40	51	1070	303	426	1430	170	52	42	46	30	25
MIN	5.4	8.1	9.0	56	68	64	49	21	9.7	3.7	2.3	3.6
CFSM	.31	.26	2.59	2.33	2.59	3.70	1.52	.60	.38	.17	.12	.13
IN.	.36	.29	2.99	2.68	2.70	4.26	1.70	.69	.42	.19	.13	.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1991, BY WATER YEAR (WY)

MEAN	18.1	39.6	76.1	110	143	163	119	69.0	37.3	24.6	17.0	16.1
MAX	175	213	319	413	338	489	356	270	193	136	155	153
(WY)	1990	1974	1973	1974	1972	1955	1948	1984	1979	1956	1942	1966
MIN	.000	.23	.95	6.57	17.5	36.0	15.8	7.33	1.99	.42	.35	.000
(WY)	1954	1954	1966	1966	1954	1988	1963	1941	1969	1944	1943	1943

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1941 - 1991	
ANNUAL TOTAL	26552.4		25070.0			
ANNUAL MEAN	72.7		68.7		69.3	
HIGHEST ANNUAL MEAN					135	1974
LOWEST ANNUAL MEAN					24.5	1954
HIGHEST DAILY MEAN	1590	Jan 1	1430	Mar 23	3340	May 7 1984
LOWEST DAILY MEAN	2.3	Sep 6	2.3	Aug 3	.00	Oct 1 1941
ANNUAL SEVEN-DAY MINIMUM	4.3	Sep 1	2.8	Aug 2	.00	Oct 1 1941
INSTANTANEOUS PEAK FLOW			2780	Mar 23	7380	Mar 12 1963
INSTANTANEOUS PEAK STAGE			14.94	Mar 23	19.62	May 7 1984
ANNUAL RUNOFF (CFSM)	1.29		1.22		1.23	
ANNUAL RUNOFF (INCHES)	17.54		16.56		16.73	
10 PERCENT EXCEEDS	139		159		158	
50 PERCENT EXCEEDS	38		26		22	
90 PERCENT EXCEEDS	8.2		4.8		1.8	

BIG SANDY RIVER BASIN

03211500 JOHNS CREEK NEAR VAN LEAR, KY

LOCATION.--Lat 37°44'37", long 82°43'27", Floyd County, Hydrologic Unit 05070203, on right bank 100 ft upstream from Long Branch, 0.3 mi upstream from Daniels Creek, 0.7 mi downstream from Dewey Dam, 2.5 mi southeast of Van Lear, and at mile 4.7.

DRAINAGE AREA.--206 mi^2.

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

REVISED RECORDS.--WSP 1705: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 597.28 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Aug. 14, 1940, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated since May 1950 by Dewey Lake (station 03211000). Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	73	60	59	753	244	355	61	30	23	15	15
2	20	116	60	55	659	249	27	30	30	23	15	15
3	20	117	61	54	329	219	25	30	30	23	15	15
4	20	117	145	592	199	421	24	45	30	23	15	15
5	20	117	227	1080	242	600	23	88	30	23	15	14
6	38	115	231	1060	277	654	23	105	29	23	15	14
7	47	163	144	1070	605	717	95	105	29	23	15	14
8	46	158	99	1110	790	736	241	74	29	23	15	14
9	45	172	58	1140	722	453	266	62	29	17	15	14
10	45	176	37	1130	581	332	265	108	24	11	15	14
11	45	186	39	903	417	356	262	128	18	11	15	14
12	46	132	40	705	293	298	197	127	18	12	15	14
13	45	132	40	700	271	275	158	94	15	15	15	14
14	45	132	40	499	555	955	195	79	12	48	15	14
15	46	132	41	436	938	1440	841	51	12	205	15	14
16	47	132	46	429	950	886	1170	33	12	27	15	14
17	47	133	56	303	521	650	614	32	11	26	15	14
18	47	132	596	194	488	615	358	32	11	26	15	14
19	28	132	1230	195	1480	614	353	32	11	26	15	14
20	19	132	939	224	2270	624	445	32	11	26	15	14
21	19	132	502	260	2100	561	346	32	56	26	15	14
22	63	132	430	257	1210	498	282	32	656	26	15	14
23	89	132	1010	166	541	1380	190	31	312	15	15	14
24	89	132	1270	120	462	2520	111	30	92	15	15	17
25	89	130	857	158	450	2010	133	30	29	15	15	18
26	60	130	293	176	358	639	196	29	12	15	15	18
27	28	100	211	174	268	290	212	29	12	15	15	18
28	28	44	1310	172	218	517	165	28	12	15	15	18
29	28	48	2010	172	---	568	121	70	12	15	15	18
30	28	60	1580	173	---	1220	109	90	17	15	15	18
31	28	---	1320	521	---	1320	---	49	---	15	15	---
TOTAL	1286	3739	14982	14287	18947	22861	7802	1798	1631	821	465	451
MEAN	41.5	125	483	461	677	737	260	58.0	54.4	26.5	15.0	15.0
MAX	89	186	2010	1140	2270	2520	1170	128	656	205	15	18
MIN	19	44	37	54	199	219	23	28	11	11	15	14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1991, BY WATER YEAR (WY)

MEAN	63.5	175	263	348	484	558	364	240	111	76.0	64.5	49.0
MAX	739	564	930	1078	1455	2057	1147	929	687	413	519	350
(WY)	1990	1976	1973	1974	1957	1955	1948	1984	1979	1942	1942	1966
MIN	1.07	2.63	8.71	17.2	34.0	78.1	11.9	10.9	10.0	5.85	1.84	.57
(WY)	1944	1940	1956	1940	1941	1988	1986	1963	1966	1944	1943	1943

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1940 - 1991	
ANNUAL TOTAL	87189		89070			
ANNUAL MEAN	239		244		232	
HIGHEST ANNUAL MEAN					405	1979
LOWEST ANNUAL MEAN					53.7	1954
HIGHEST DAILY MEAN	2050	Feb 12	2520	Mar 24	6990	Jan 9 1946
LOWEST DAILY MEAN	14	Mar 27	11	Jun 17	.00	Jan 30 1957
ANNUAL SEVEN-DAY MINIMUM	14	Mar 27	11	Jun 14	.17	Oct 1 1943
INSTANTANEOUS PEAK FLOW			2720	Mar 24	8350	Jan 9 1946
INSTANTANEOUS PEAK STAGE			13.37	Mar 24	27.88*	Jan 30 1957*
10 PERCENT EXCEEDS	621		719		584	
50 PERCENT EXCEEDS	129		60		68	
90 PERCENT EXCEEDS	20		15		11	

*backwater

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^2.

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

REVISED RECORDS.--WSP 953: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 566.84 ft above National Geodetic Vertical Datum of 1929. See WDR KY-90-1 for history of changes prior to Oct. 19, 1954.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since October 1968 by Fishtrap Lake (station 03207995), since August 1966 by North Fork Pound River Lake (station 03208680), since March 1965 by John W. Flannagan Lake (station 03208990), and since May 1950 by Dewey Lake (station 03211000). Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

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 1990 TO SEPTEMBER 1991--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	482	808	1180	9650	5250	2470	9600	1040	557	752	1470	424
2	448	928	1080	4340	3490	2200	7530	989	691	688	928	415
3	468	879	1340	2860	2550	2690	5230	926	1220	665	681	416
4	616	846	2450	3890	2080	5480	3740	832	1230	724	612	443
5	720	969	1990	6780	2300	6390	3250	810	1050	794	570	485
6	715	998	1710	6890	2410	6250	3190	1060	832	685	507	553
7	674	974	1520	8610	5450	6460	2790	997	725	707	490	548
8	693	912	1310	14100	6720	6480	2680	868	575	647	536	515
9	719	863	944	11900	5710	5130	2180	886	517	590	627	476
10	839	1120	719	9380	4540	4070	2000	1060	493	583	4060	390
11	882	1620	605	8910	3880	3840	2000	987	462	610	4560	425
12	688	1500	551	7580	3400	3240	1810	893	427	638	2130	414
13	984	1740	497	6200	2800	3250	1690	963	448	2400	1200	387
14	1470	1910	450	5100	5010	5820	1900	1240	444	3980	1160	386
15	1190	1440	440	4370	6830	10500	4740	1190	436	2930	992	398
16	881	1380	565	3690	5480	7810	6640	893	427	1660	738	410
17	766	1390	910	3290	4170	5730	4200	793	454	1200	605	360
18	773	1060	5210	2800	5700	6030	2830	741	986	819	542	337
19	1120	939	8650	2370	13400	6330	2330	741	648	673	569	434
20	1570	999	8060	2170	17900	6100	3360	1030	729	624	599	781
21	1350	1400	5230	2230	15800	5550	2920	1170	1640	593	674	1130
22	1550	1330	4840	2160	10600	5330	2350	1800	2790	591	814	876
23	1710	1390	7750	2480	7430	10500	1990	1230	5040	564	625	783
24	1420	1370	9430	2040	5970	19400	1710	1010	2680	715	488	734
25	1420	1300	9120	1830	5210	15000	1500	974	1730	716	426	722
26	1350	1270	5540	1620	4900	11000	1430	923	2050	1270	403	751
27	1190	1330	3350	1460	3650	9260	1360	835	1650	1280	389	727
28	1130	1280	5850	1480	2610	7250	1280	857	1310	999	381	696
29	1050	1180	7060	1830	---	5650	1210	727	1030	871	384	675
30	981	1200	8810	1680	---	12800	1110	691	901	3530	367	648
31	798	---	14000	4530	---	13900	---	591	---	2380	419	---
TOTAL	30647	36325	121161	148220	165240	221910	90550	29747	34172	35878	28946	16739
MEAN	989	1211	3908	4781	5901	7158	3018	960	1139	1157	934	558
MAX	1710	1910	14000	14100	17900	19400	9600	1800	5040	3980	4560	1130
MIN	448	808	440	1460	2080	2200	1110	591	427	564	367	337

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1991, BY WATER YEAR (WY)

MEAN	743	1383	2490	3861	4925	5784	4076	2752	1315	970	866	506
MAX	6560	5520	8870	13120	12490	18370	10040	9664	5338	4257	4102	2682
(WY)	1990	1930	1973	1937	1939	1955	1987	1984	1989	1942	1938	1950
MIN	11.0	36.3	93.3	205	406	963	594	439	127	26.5	101	29.9
(WY)	1931	1940	1940	1940	1941	1988	1986	1941	1936	1930	1957	1943

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1916 - 1991	
ANNUAL TOTAL	918279		959535			
ANNUAL MEAN	2516		2629		2461	
HIGHEST ANNUAL MEAN					4234	1975
LOWEST ANNUAL MEAN					720	1941
HIGHEST DAILY MEAN	18900	Feb 11	19400	Mar 24	64300	Jan 31 1957
LOWEST DAILY MEAN	258	Sep 7	337	Sep 18	8.4	Jul 25 1930
ANNUAL SEVEN-DAY MINIMUM	277	Sep 1	385	Sep 12	9.4	Oct 16 1930
INSTANTANEOUS PEAK FLOW			19700	Mar 24	69700	Jan 31 1957
INSTANTANEOUS PEAK STAGE			24.54	Mar 24	45.92	Jan 31 1957
10 PERCENT EXCEEDS	5870		6670		6010	
50 PERCENT EXCEEDS	1520		1240		1020	
90 PERCENT EXCEEDS	405		489		145	

BIG SANDY RIVER BASIN

03215000 BIG SANDY RIVER AT LOUISA, KY
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

LOCATION.--Lat 38°10'16", long 82°38'05", Lawrence County, Hydrologic Unit 05070204, at gaging station 1.7 mi upstream from Blaine Creek, 4.3 mi northwest of Louisa, and at mile 21.3.

DRAINAGE AREA.--3,897 mi^2.

PERIOD OF RECORD.--Water years 1950, 1966-72, 1974 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1974 to September 1981.
WATER TEMPERATURE: October 1974 to September 1981.

REMARKS.--Flow regulated by Fishtrap Lake, North Fork Pound River Lake, John W. Flannagan Lake and Dewey Lake.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)
OCT 1990											
10...	1100	1010	L669	8.3	21.0	7.5	8.6	99	260	K190	220
DEC											
18...	1330	3840	471	7.8	14.5	70	9.5	95	K7900	1300	150
FEB 1991											
20...	1330	27800	L231	7.8	3.5	100	10.7	100	3400	2100	79
APR											
03...	1230	13000	285	7.8	12.0	25	9.5	90	3600	K570	110
JUN											
05...	1530	2190	517	8.1	26.5	65	7.8	100	680	570	170
AUG											
20...	1045	920	L526	8.1	22.0	20	8.1	94	1100	290	180

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	ALKA-LINITY WAT DIS TOT FET FIELD MG/L AS CACO3	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SULFATE DIS-SOLVED (MG/L AS SO4)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT 1990											
10...	48	23	59	4.2	145	119	118	30	160	<0.1	4.1
DEC											
18...	35	16	34	2.9	--	--	84	21	110	0.1	4.9
FEB 1991											
20...	18	8.3	11	1.9	50	41	40	6.1	60	<0.1	6.8
APR											
03...	24	11	14	2.0	57	47	47	5.8	91	<0.1	8.3
JUN											
05...	41	17	41	3.7	130	107	106	14	130	0.1	5.8
AUG											
20...	42	19	40	3.8	135	111	111	22	150	0.2	6.2

03215000 BIG SANDY RIVER AT LOUISA, KY--Continued
(National stream-quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
OCT 1990											
10...	432	403	<0.01	0.60	0.02	0.02	0.3	0.02	0.04	<0.01	30
DEC											
18...	282	276	<0.01	0.70	0.08	--	0.7	0.15	<0.01	<0.01	60
FEB 1991											
20...	138	139	<0.01	0.44	0.02	<0.01	0.9	0.05	0.02	<0.01	--
APR											
03...	169	187	<0.01	0.47	0.02	0.02	0.3	0.07	<0.01	<0.01	30
JUN											
05...	322	320	0.01	0.69	0.04	0.01	0.4	0.12	0.02	<0.01	30
AUG											
20...	314	353	<0.01	0.67	0.02	0.03	0.5	0.06	0.02	<0.01	--

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT 1990											
10...	<1	71	<0.5	<1.0	<1	<3	5	2	1	22	29
DEC											
18...	<1	49	<0.5	2.0	1	<3	1	69	1	6	65
FEB 1991											
20...	--	--	--	--	--	--	--	--	--	--	--
APR											
03...	<1	34	<0.5	<1.0	<1	<3	1	26	1	10	12
JUN											
05...	1	55	<0.5	<1.0	<1	<3	1	17	<1	22	9
AUG											
20...	--	--	--	--	--	--	--	--	--	--	--

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. %FINER THAN .062 MM
OCT 1990											
10...	<0.1	<10	2	<1	<1.0	650	<6	25	16	44	85
DEC											
18...	<0.1	<10	3	<1	<1.0	380	<6	26	149	1540	88
FEB 1991											
20...	--	--	--	--	--	--	--	--	391	29300	78
APR											
03...	0.2	<10	<1	<1	<1.0	270	<6	10	64	2250	80
JUN											
05...	<0.1	<10	<1	<1	<1.0	520	<6	5	98	579	98
AUG											
20...	--	--	--	--	--	--	--	--	32	79	98

LITTLE SANDY RIVER BASIN

03216350 LITTLE SANDY RIVER BELOW GRAYSON DAM, NEAR LEON, KY

LOCATION.--Lat 38°15,14", long 82°59'28", Carter County, Hydrologic Unit 05090104, on right bank 0.3 mi downstream from Grayson Dam (new channel), 0.3 mi upstream from Big Sinking Creek, 2.4 mi southwest of Leon, and at mile 50.3.

DRAINAGE AREA.--196 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 500.00 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--No estimated daily discharges. Records good. Flow regulated since March 1968 by Grayson Lake (station 03216300). Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	83	50	135	119	127	887	98	33	31	31	25
2	29	94	46	59	120	127	71	97	33	31	31	25
3	29	103	47	135	119	169	16	61	33	31	31	25
4	30	102	216	1290	118	326	20	46	33	31	31	26
5	30	102	299	2620	119	621	24	46	33	31	31	26
6	29	102	250	2470	290	801	24	46	33	31	31	26
7	29	102	82	2410	737	1060	23	46	33	31	31	26
8	29	102	31	2300	1040	911	23	46	33	31	32	26
9	30	94	31	2340	1040	690	23	46	33	31	31	26
10	30	131	71	2320	760	549	26	47	33	31	30	26
11	30	153	75	1970	467	363	23	47	33	31	29	26
12	30	201	49	1630	359	276	23	47	29	31	29	27
13	30	283	36	1180	248	748	88	47	24	31	29	27
14	30	301	26	387	708	1030	65	47	24	31	29	27
15	30	236	24	296	1010	1040	271	47	24	31	29	27
16	30	104	24	276	1020	939	704	47	23	31	29	27
17	62	88	92	185	944	694	828	46	23	31	29	27
18	97	87	1010	128	1140	776	728	46	27	31	29	26
19	117	93	1030	126	1190	887	596	46	32	31	29	24
20	111	97	2030	125	1350	861	555	46	32	31	28	24
21	108	106	1930	125	1880	725	543	46	32	31	28	24
22	108	110	1480	123	1790	1300	537	46	32	31	28	23
23	147	131	1570	121	1300	680	357	46	32	31	28	23
24	191	139	1270	121	521	1320	174	46	32	31	27	24
25	200	135	2090	120	283	2000	171	46	31	31	26	25
26	174	132	1980	119	278	1890	138	37	31	31	27	25
27	128	120	2220	78	273	1760	99	33	31	31	26	25
28	97	94	1780	99	190	1930	103	32	31	31	26	25
29	85	89	1200	120	---	1830	101	32	31	31	26	25
30	84	66	1580	120	---	1780	99	32	31	31	26	25
31	84	---	1020	121	---	1680	---	33	---	31	25	---
TOTAL	2267	3780	23639	23649	19413	29890	7340	1474	915	961	892	763
MEAN	73.1	126	763	763	693	964	245	47.5	30.5	31.0	28.8	25.4
MAX	200	301	2220	2620	1880	2000	887	98	33	31	32	27
MIN	29	66	24	59	118	127	16	32	23	31	25	23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1991, BY WATER YEAR (WY)

MEAN	121	208	361	343	446	483	314	322	132	78.8	56.8	88.8
MAX	469	583	1207	1027	1457	1142	1177	1076	445	571	165	297
(WY)	1990	1987	1979	1974	1989	1989	1972	1983	1974	1971	1976	1979
MIN	5.88	20.4	25.3	21.6	61.8	56.4	21.3	29.0	21.5	12.3	7.01	3.77
(WY)	1968	1969	1982	1969	1969	1969	1971	1976	1980	1967	1967	1967

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1967 - 1991	
ANNUAL TOTAL	114562		114983			
ANNUAL MEAN	314		315		245	
HIGHEST ANNUAL MEAN					429	1989
LOWEST ANNUAL MEAN					38.7	1969
HIGHEST DAILY MEAN	2330	Jun 1	2620	Jan 5	5600	Mar 7 1967
LOWEST DAILY MEAN	20	Jul 27	16	Apr 3	.00	Jun 21 1967
ANNUAL SEVEN-DAY MINIMUM	23	Mar 27	22	Apr 3	1.4	Aug 17 1967
INSTANTANEOUS PEAK FLOW			3170	Dec 31		
INSTANTANEOUS PEAK STAGE			19.91	Dec 31		
10 PERCENT EXCEEDS	1000		1090		693	
50 PERCENT EXCEEDS	92		47		75	
90 PERCENT EXCEEDS	28		26		24	

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^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 557.95 ft above National Geodetic Vertical Datum 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.--No estimated daily discharges. Records good. Flow regulated since March 1968 by Grayson Lake (station 03216300). Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of February 1937 reached a stage of 25.0 ft, present datum, from floodmarks at site 1.6 mi downstream, discharge, 16,600 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	122	98	2850	274	312	1720	226	58	43	35	35
2	38	121	89	800	264	305	503	218	61	86	34	35
3	37	136	165	592	260	322	315	186	70	109	34	34
4	49	137	574	1080	255	742	261	142	77	52	33	33
5	74	138	526	3010	256	975	260	135	63	48	33	35
6	65	144	417	2970	628	1420	300	134	56	43	33	34
7	56	143	259	4480	1850	2290	244	129	53	40	33	35
8	51	140	137	3960	1730	1610	220	117	51	39	46	34
9	48	141	118	3280	1520	1110	207	119	50	39	77	33
10	46	400	113	3050	1230	912	237	142	49	47	45	33
11	46	463	158	2890	745	649	205	128	48	48	37	33
12	53	313	125	2360	577	505	177	113	46	58	36	33
13	66	339	100	1910	493	1290	613	109	39	124	35	33
14	66	356	89	859	1560	2490	742	106	36	89	35	33
15	61	334	93	607	2010	1780	1490	100	35	62	34	33
16	56	194	217	549	1530	1440	2210	93	35	52	35	32
17	56	150	207	476	1370	1110	1500	127	37	47	34	33
18	100	145	2960	353	2040	1380	1180	113	37	44	34	33
19	133	141	4970	327	2850	1530	973	98	51	42	35	33
20	132	145	3280	314	2720	1300	1020	91	74	41	35	31
21	124	146	2520	308	2980	1110	849	87	59	39	36	30
22	138	155	2160	286	2500	4610	780	84	113	38	37	31
23	407	176	5490	265	2010	5490	661	82	83	37	36	31
24	360	202	4630	264	1000	2550	385	79	60	38	35	34
25	294	193	3370	250	565	2760	346	80	52	37	34	39
26	259	183	2610	238	526	3130	317	77	48	37	34	37
27	199	175	2590	217	483	3470	257	60	45	36	33	36
28	160	155	3180	214	422	3200	296	60	42	36	33	34
29	133	137	2410	264	---	2620	265	60	42	36	33	34
30	127	130	3170	262	---	2490	245	59	41	36	33	33
31	124	---	7200	289	---	2360	---	60	---	35	34	---
TOTAL	3596	5854	54025	39574	34648	57262	18778	3414	1611	1558	1131	1007
MEAN	116	195	1743	1277	1237	1847	626	110	53.7	50.3	36.5	33.6
MAX	407	463	7200	4480	2980	5490	2210	226	113	124	77	39
MIN	37	121	89	214	255	305	177	59	35	35	33	30

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1991, BY WATER YEAR (WY)

MEAN	108	252	577	703	992	1057	789	538	263	211	122	128
MAX	733	1059	2630	2593	2994	2692	2291	1890	1730	1240	785	2195
(WY)	1990	1951	1979	1950	1956	1955	1972	1983	1961	1960	1942	1950
MIN	3.45	5.27	8.80	45.2	51.3	133	113	40.3	31.1	14.9	11.4	3.48
(WY)	1954	1954	1954	1981	1954	1969	1986	1941	1966	1944	1959	1953

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1938 - 1991	
ANNUAL TOTAL	228144		222458			
ANNUAL MEAN	625		609		475	
HIGHEST ANNUAL MEAN					959	1950
LOWEST ANNUAL MEAN					116	1969
HIGHEST DAILY MEAN	7200	Dec 31	7200	Dec 31	21200	Sep 22 1950
LOWEST DAILY MEAN	25	Aug 4	30	Sep 21	1.6	Oct 12 1953
ANNUAL SEVEN-DAY MINIMUM	30	Aug 3	32	Sep 17	2.2	Oct 1 1953
INSTANTANEOUS PEAK FLOW			8300	Dec 31	24500	Sep 22 1950
INSTANTANEOUS PEAK STAGE			22.59	Dec 31	27.53	Sep 22 1950
INSTANTANEOUS LOW FLOW					1.5	Oct 12 1953
10 PERCENT EXCEEDS	2100		2360		1200	
50 PERCENT EXCEEDS	225		135		144	
90 PERCENT EXCEEDS	48		34		18	

LITTLE SANDY RIVER BASIN

03216540 EAST FORK LITTLE SANDY RIVER NEAR FALLSBURG, KY

LOCATION.--Lat 38°14'01", long 82°42'32", Lawrence County, Hydrologic Unit 05090104, on left bank 15 ft upstream from bridge on State Highway 3, 300 ft upstream from Seedtick Branch, 0.5 mi downstream from Lambert Branch, 4.4 mi northwest of Fallsburg, and at mile 37.8.

DRAINAGE AREA.--12.2 mi^2.

PERIOD OF RECORD.--August 1972 to September 1991. (discontinued)

GAGE.--Water-stage recorder. Datum of gage is 661.40 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 2, 3, 17-19, Feb. 16. Records good except for periods of estimated record, which are fair. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.67	2.8	2.1	32	8.3	6.5	19	3.2	15	.14	.00	.00
2	1.2	2.6	2.8	23	7.2	6.7	14	2.9	8.5	.37	.00	.00
3	5.0	2.5	44	17	6.3	25	11	2.5	3.2	.61	.00	.00
4	13	2.5	46	13	5.8	56	9.5	2.5	2.4	.45	.00	.00
5	8.5	2.5	17	11	6.2	22	13	2.4	1.9	.30	.00	.00
6	3.5	3.5	8.8	28	87	79	13	2.4	1.7	.23	.00	.00
7	2.6	2.7	7.7	220	61	57	9.7	2.2	1.5	.20	.00	.00
8	2.3	2.5	6.8	43	26	20	8.8	1.9	1.3	.12	.00	.00
9	2.3	3.2	4.4	30	18	14	8.7	3.0	1.1	.12	.00	.00
10	2.2	109	4.2	22	14	12	10	2.2	1.1	.10	.00	.00
11	2.7	26	3.8	46	9.7	9.8	7.4	1.5	.93	.19	.00	.00
12	5.2	13	3.5	29	7.9	9.4	6.5	1.4	.91	.24	.00	.00
13	3.1	7.5	3.4	21	15	101	56	1.3	.91	.97	.00	.00
14	2.4	5.2	3.1	16	118	67	20	1.2	.91	.36	.00	.00
15	2.0	4.3	23	14	41	26	281	1.1	.89	.15	.00	.00
16	2.0	3.8	27	14	36	16	33	8.0	.78	.07	.00	.00
17	3.4	3.8	21	12	46	16	16	6.7	.73	.04	.00	.00
18	3.1	3.3	547	10	87	49	11	2.0	.73	.02	.00	.00
19	2.8	3.2	158	9.3	60	28	22	1.4	1.3	.01	.00	.00
20	2.3	3.1	29	9.3	119	19	14	1.2	3.9	.01	.00	.00
21	2.0	2.9	21	9.1	31	17	10	.99	1.1	.01	.00	.00
22	17	2.9	20	7.5	20	346	8.6	.86	3.2	.00	.00	.00
23	111	7.9	504	6.8	14	177	7.4	.81	1.4	.00	.00	.00
24	22	6.1	73	6.2	11	23	6.4	.81	.91	.00	.00	.00
25	12	4.4	27	5.4	9.9	18	5.5	.78	.76	.00	.00	.00
26	7.2	3.5	18	5.0	9.3	84	5.1	.74	.49	.00	.00	.00
27	4.9	3.3	15	5.2	8.2	71	4.8	.58	.46	.00	.00	.00
28	4.0	3.3	110	7.1	6.8	49	4.5	.61	.35	.00	.00	.00
29	3.4	3.2	43	6.5	---	24	4.3	.50	.26	.01	.00	.00
30	3.0	2.5	431	9.3	---	27	3.3	.51	.21	.01	.00	.00
31	2.9	---	193	13	---	22	---	.48	---	.00	.00	---
TOTAL	259.67	247.0	2417.6	700.7	889.6	1497.4	643.5	58.67	58.83	4.73	0.00	0.00
MEAN	8.38	8.23	78.0	22.6	31.8	48.3	21.4	1.89	1.96	.15	.000	.000
MAX	111	109	547	220	119	346	281	8.0	15	.97	.00	.00
MIN	.67	2.5	2.1	5.0	5.8	6.5	3.3	.48	.21	.00	.00	.00
CFSM	.69	.67	6.39	1.85	2.60	3.96	1.76	.16	.16	.01	.00	.00
IN.	.79	.75	7.37	2.14	2.71	4.57	1.96	.18	.18	.01	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1991, BY WATER YEAR (WY)

MEAN	4.95	13.6	25.6	26.2	28.1	27.7	23.6	21.1	6.80	4.71	2.53	3.12
MAX	20.7	40.3	78.0	96.8	94.7	81.2	54.6	57.7	24.9	28.7	11.0	22.0
(WY)	1990	1987	1991	1990	1989	1975	1975	1983	1974	1979	1979	1989
MIN	.000	.000	1.29	2.16	5.20	7.02	2.33	1.10	.12	.048	.000	.000
(WY)	1982	1982	1982	1977	1978	1983	1986	1976	1988	1988	1991	1976

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1972 - 1991	
ANNUAL TOTAL	10045.78		6777.70			
ANNUAL MEAN	27.5		18.6		15.6	
HIGHEST ANNUAL MEAN					26.0	1975
LOWEST ANNUAL MEAN					6.82	1986
HIGHEST DAILY MEAN	823	Jan 1	547	Dec 18	823	Jan 1 1990
LOWEST DAILY MEAN	.23	Aug 20	.00	Jul 22	.00	Sep 8 1972
ANNUAL SEVEN-DAY MINIMUM	.29	Aug 14	.00	Jul 22	.00	Sep 10 1972
INSTANTANEOUS PEAK FLOW			1640	Dec 30	1890	May 28 1990
INSTANTANEOUS PEAK STAGE			10.53	Dec 30	10.94	May 28 1990
ANNUAL RUNOFF (CFSM)	2.26		1.52		1.28	
ANNUAL RUNOFF (INCHES)	30.63		20.67		17.40	
10 PERCENT EXCEEDS	54		38		31	
50 PERCENT EXCEEDS	6.3		3.3		3.8	
90 PERCENT EXCEEDS	.49		.00		.02	

OHIO RIVER MAIN STEM

03216600 OHIO RIVER AT GREENUP DAM, KY

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

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

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

GAGE.--Water-stage recorder. Datum of gage is 472.43 ft above National Geodetic Vertical Datum of 1929 or 472.97 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. Auxiliary water-stage recorder is located at 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 National Geodetic Vertical Datum of 1929 or 470.99 Ohio River Datum. Since Oct. 1, 1983, discharge has been computed using the Branch Flow Model. Stage record for this model is obtained from the Greenup Dam Tailwater and Portsmouth, Ohio gages.

REMARKS.--Estimated daily discharges: Dec. 12-18, Mar. 12-19, Apr. 15-22. Records good except those for period of estimated record and those below 20,000 ft^3/s, which are poor. Flow regulated by Ohio River system of locks, dams, and reservoirs upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52900	65700	52100	479000	165000	96900	201000	82200	28500	22800	22000	16500
2	44200	54100	54100	481000	164000	82600	175000	74900	29100	16600	16600	17000
3	33900	50800	55000	446000	133000	90000	135000	68200	25100	19200	17900	13200
4	38000	50900	112000	379000	110000	128000	104000	58000	23100	18500	19300	14200
5	60100	40000	155000	315000	104000	185000	88500	41200	32300	20900	17800	24700
6	60300	47000	160000	276000	106000	242000	83200	39500	24700	21500	15500	17900
7	61700	55800	154000	279000	168000	305000	82400	74300	21300	16300	13000	12200
8	59100	44200	125000	299000	226000	326000	73900	72400	15000	24300	13500	10500
9	45200	46800	99600	300000	234000	316000	65400	55500	12200	32600	24000	15600
10	42100	60500	87800	264000	214000	260000	103000	57100	15000	23500	23100	15700
11	44200	101000	75000	247000	181000	226000	111000	51100	17200	19100	23200	21900
12	84100	105000	66400	263000	153000	205000	103000	38000	19100	15900	24600	15300
13	166000	89000	53700	304000	130000	200000	111000	48100	22000	19500	18400	11900
14	197000	82100	52000	301000	146000	237000	203000	38500	17000	18800	16600	15900
15	168000	74100	66000	255000	210000	230000	210000	44100	8930	21100	16500	17300
16	133000	64300	102000	208000	228000	225000	240000	44200	11000	18500	15900	16100
17	113000	59800	156000	194000	186000	220000	270000	38500	31100	12600	16600	19800
18	105000	54300	202000	221000	152000	208000	265000	30400	23700	14600	16500	18100
19	114000	54300	326000	236000	159000	204000	220000	28900	18500	18400	18500	21300
20	134000	56000	419000	220000	225000	197000	180000	30500	21500	14900	27900	22100
21	143000	50600	431000	191000	288000	195000	145000	24300	16500	12600	17700	18900
22	126000	55000	398000	173000	304000	202000	125000	28900	17700	16200	15300	17100
23	122000	66800	357000	159000	273000	289000	114000	37800	30500	16600	16100	17500
24	167000	83100	361000	149000	227000	335000	114000	35700	23400	24200	18800	19500
25	194000	81900	363000	126000	185000	346000	111000	16300	16200	18300	16500	37600
26	180000	77200	347000	107000	149000	295000	100000	24100	23700	14700	16900	18500
27	143000	66900	298000	99000	136000	253000	94600	22000	18300	15700	14700	16900
28	116000	61100	254000	87800	122000	249000	84300	19500	18600	17300	12700	14800
29	95100	63900	280000	95800	---	220000	78700	30500	17000	20600	12700	16800
30	75500	59600	298000	107000	---	188000	68100	34900	12800	17800	12900	18700
31	62900	---	393000	121000	---	211000	---	28800	---	17900	15000	---
TOTAL	3180300	1921800	6352700	7382600	5078000	6966500	4059100	1318400	611030	581500	546700	533500
MEAN	102600	64060	204900	238100	181400	224700	135300	42530	20370	18760	17640	17780
MAX	197000	105000	431000	481000	304000	346000	270000	82200	32300	32600	27900	37600
MIN	33900	40000	52000	87800	104000	82600	65400	16300	8930	12600	12700	10500

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1991, BY WATER YEAR (WY)

MEAN	44360	73980	119200	115600	147800	156900	143900	102600	68690	46590	36170	34740
MAX	111300	208600	252700	242700	245300	252500	246700	217400	174000	100700	113600	86310
(WY)	1980	1986	1973	1974	1990	1975	1987	1989	1981	1972	1980	1979
MIN	16100	25740	38500	27170	66240	53550	52660	36610	13440	13060	11270	12000
(WY)	1989	1988	1990	1977	1978	1969	1986	1976	1988	1988	1988	1985

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1969 - 1991	
ANNUAL TOTAL	41696900		38532130			
ANNUAL MEAN	114200		105600		90550	
HIGHEST ANNUAL MEAN					117600	1979
LOWEST ANNUAL MEAN					49760	1988
HIGHEST DAILY MEAN	431000	Dec 21	481000	Jan 2	540000	Jan 12 1974
LOWEST DAILY MEAN	20100	Aug 16	8930	Jun 15	4930	Sep 25 1978
ANNUAL SEVEN-DAY MINIMUM	27200	Aug 31	14300	Aug 28	9050	Jul 11 1988
INSTANTANEOUS PEAK STAGE			56.04	Jan 2	59.19	Feb 28 1979
10 PERCENT EXCEEDS	253000		263000		205000	
50 PERCENT EXCEEDS	86500		63900		64200	
90 PERCENT EXCEEDS	34800		16200		18400	

TYGARTS CREEK BASIN

03216800 TYGARTS CREEK AT OLIVE HILL, KY

LOCATION.--Lat 38°17'57", long 83°10'25", Carter County, Hydrologic Unit 05090103, on left bank 100 ft downstream from county road 986 at Olive Hill, 0.3 mi downstream from Henderson Branch, 0.6 mi upstream from Bens Run, and at mile 78.0.

DRAINAGE AREA.--59.6 mi^2.

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

REVISED RECORDS.--WRD KY-79: 1975(M).

GAGE.--Water-stage recorder. Datum of gage is 739.18 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Feb. 19-22. Records poor. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	13	27	255	61	50	114	35	9.0	.10	.07	.16
2	.21	13	24	171	59	52	94	26	55	.41	.05	.10
3	.26	10	285	125	55	79	81	21	23	.33	.03	.17
4	8.4	9.4	178	99	52	178	75	19	11	.38	.02	.20
5	21	10	96	87	54	158	85	19	6.0	.25	.02	.19
6	5.3	32	70	193	357	403	73	16	4.0	.15	.02	.17
7	2.1	37	54	711	319	368	63	13	2.7	.10	.04	.14
8	1.3	18	44	320	182	184	62	11	1.9	.28	.07	.15
9	1.4	19	36	229	134	128	306	20	1.5	.34	.16	.09
10	1.1	250	32	176	106	102	257	21	1.3	2.0	.15	.13
11	4.3	125	28	276	74	33	122	14	.56	66	.13	.12
12	55	75	25	257	61	79	95	19	.45	54	.10	.12
13	44	54	23	188	102	477	501	31	.36	53	.09	.12
14	23	43	20	150	819	256	241	14	.34	10	.06	.06
15	14	35	100	123	380	162	372	13	.24	4.1	.02	.05
16	10	31	190	119	247	121	218	11	.24	1.8	.00	.04
17	7.9	29	129	105	212	110	143	13	15	1.1	.03	.07
18	51	28	2720	92	771	376	104	9.2	15	5.2	.15	.06
19	41	24	596	84	470	219	111	7.6	4.0	12	.14	.08
20	22	21	215	79	298	149	100	5.7	7.8	2.7	.13	.08
21	16	18	163	77	218	122	86	4.5	3.2	1.2	.13	.08
22	94	17	289	66	169	2010	70	4.8	2.1	.45	.12	.10
23	250	100	2370	60	119	837	53	24	2.2	.26	.12	.13
24	97	64	477	63	99	258	50	38	1.6	.20	.09	1.5
25	56	47	215	63	85	162	41	11	.83	.18	.06	49
26	40	38	136	63	75	524	36	7.3	.39	.19	.09	9.5
27	27	32	129	62	63	368	33	5.7	.26	.17	.02	2.6
28	22	28	330	60	54	240	54	8.2	.21	.10	.00	1.2
29	17	28	325	55	---	207	49	5.1	.20	.09	.01	.55
30	14	28	2530	68	---	170	41	3.7	.13	.07	.00	.32
31	12	---	697	71	---	139	---	3.1	---	.07	.16	---
TOTAL	958.33	1266.4	12553	4547	5695	8771	3730	453.9	170.51	217.22	2.28	67.28
MEAN	30.9	42.2	405	147	203	283	124	14.6	5.68	7.01	.074	2.24
MAX	250	250	2720	711	819	2010	501	38	55	66	.16	49
MIN	.06	9.4	20	55	52	50	33	3.1	.13	.07	.00	.04
CFSM	.52	.71	6.79	2.46	3.41	4.75	2.09	.25	.10	.12	.00	.04
IN.	.60	.79	7.84	2.84	3.55	5.47	2.33	.28	.11	.14	.00	.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1991, BY WATER YEAR (WY)

MEAN	29.8	56.3	124	116	154	167	148	103	47.3	43.9	27.3	25.6
MAX	293	228	481	338	512	440	365	334	288	290	130	161
(WY)	1990	1987	1979	1978	1989	1963	1972	1983	1974	1971	1958	1989
MIN	.14	.51	2.22	7.35	31.4	30.4	18.8	12.1	.16	.34	.074	.078
(WY)	1988	1982	1964	1981	1968	1969	1986	1962	1988	1957	1991	1987

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1957 - 1991	
ANNUAL TOTAL	47808.39		38431.92			
ANNUAL MEAN	131		105		87.0	
HIGHEST ANNUAL MEAN					145	1979
LOWEST ANNUAL MEAN					42.7	1977
HIGHEST DAILY MEAN	2720	Dec 18	2720	Dec 18	4620	Dec 8 1978
LOWEST DAILY MEAN	.00	Aug 20	.00	Aug 16	.00	Jun 28 1957
ANNUAL SEVEN-DAY MINIMUM	.01	Sep 1	.04	Aug 1	.00	Jul 8 1957
INSTANTANEOUS PEAK FLOW			7360	Dec 30	9470	Apr 22 1972
INSTANTANEOUS PEAK STAGE			16.96	Dec 30	19.04	Mar 12 1975
ANNUAL RUNOFF (CFSM)	2.20		1.77		1.46	
ANNUAL RUNOFF (INCHES)	29.84		23.99		19.83	
10 PERCENT EXCEEDS	253		252		187	
50 PERCENT EXCEEDS	44		27		27	
90 PERCENT EXCEEDS	.14		.10		.61	

TYGARTS CREEK BASIN

03217000 TYGARTS CREEK NEAR GREENUP, KY

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

DRAINAGE AREA.--242 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 547.14 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 19 to Dec. 11, Jan. 18-26, Jan. 30 to Apr. 11. Records good except for periods of estimated record, which are poor. Occasional regulation at low flow caused by withdrawal of water for cooling purposes by gas transmission plant above station. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	40	82	3830	190	230	600	214	38	9.8	2.2	1.7
2	9.9	31	72	961	170	190	520	182	39	9.6	2.2	1.3
3	9.6	27	64	684	160	300	450	155	50	9.6	2.1	1.0
4	7.0	22	1000	552	150	500	390	135	89	9.7	2.4	.80
5	8.4	19	600	457	140	700	350	125	62	9.9	2.6	3.5
6	12	60	350	478	135	1000	320	117	44	9.8	2.0	1.9
7	14	140	250	2270	1300	1500	280	109	34	9.6	1.7	1.1
8	26	110	170	2050	1000	1000	260	94	27	9.5	1.6	1.9
9	22	78	140	1130	720	700	240	85	22	9.6	24	1.6
10	17	200	110	894	540	540	1200	92	18	10	31	1.0
11	15	900	87	948	400	420	800	99	15	18	25	1.8
12	2[illegible]	600	82	1130	300	340	492	91	14	40	12	2.2
13	74	430	73	916	240	280	1170	71	14	131	9.3	2.1
14	98	330	65	688	1000	1800	1570	71	13	145	6.0	1.4
15	66	250	78	563	3300	1200	1070	71	12	79	4.9	1.2
16	48	190	495	503	1700	700	1240	55	10	47	4.4	1.6
17	36	150	474	475	1200	500	752	48	10	32	3.0	1.5
18	2[illegible]	120	2790	370	800	390	527	46	10	23	2.3	1.0
19	170	100	8620	330	2800	1400	431	44	8.5	17	2.4	.88
20	100	88	2630	290	2200	960	644	42	9.3	14	3.8	.66
21	70	74	724	260	1500	620	470	36	14	12	3.8	.49
22	62	64	694	230	1100	480	382	32	19	10	4.4	.40
23	250	55	3570	210	900	7400	320	30	16	13	4.3	.64
24	840	370	6490	190	700	2900	275	28	20	16	4.1	1.5
25	430	300	1470	175	520	1300	240	30	17	10	3.4	8.3
26	250	220	751	160	400	650	213	59	13	9.7	2.7	15
27	150	170	557	142	320	2000	192	48	11	8.4	1.7	54
28	110	140	532	141	270	1500	346	44	6.5	6.2	1.6	31
29	86	110	1370	153	---	1100	326	39	9.6	5.9	1.6	16
30	62	96	1970	160	---	900	257	35	9.8	4.5	1.8	10
31	50	---	9020	180	---	720	---	36	---	2.5	1.9	---
TOTAL	3149.9	5484	45380	21520	24155	34220	16327	2363	674.7	741.3	176.2	167.47
MEAN	102	183	1464	694	863	1104	544	76.2	22.5	23.9	5.68	5.58
MAX	840	900	9020	3830	3300	7400	1570	214	89	145	31	54
MIN	7.0	19	64	141	135	190	192	28	6.5	2.5	1.6	.40
CFSM	.42	.76	6.05	2.87	3.56	4.56	2.25	.31	.09	.10	.02	.02
IN.	.48	.84	6.98	3.31	3.71	5.26	2.51	.36	.10	.11	.03	.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1991, BY WATER YEAR (WY)

MEAN	61.7	160	399	468	617	669	531	370	173	118	77.6	73.2
MAX	509	869	1954	1665	1953	1556	1513	1258	994	645	445	1031
(WY)	1976	1987	1979	1950	1989	1967	1972	1983	1961	1960	1979	1950
MIN	.35	.70	3.23	31.1	20.7	80.8	90.9	27.6	5.13	5.39	2.09	1.31
(WY)	1954	1954	1954	1977	1954	1941	1941	1941	1988	1964	1944	1953

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1940 - 1991	
ANNUAL TOTAL	155452.6		154358.57			
ANNUAL MEAN	426		423		308	
HIGHEST ANNUAL MEAN					589	1979
LOWEST ANNUAL MEAN					67.5	1954
HIGHEST DAILY MEAN	9020	Dec 31	9020	Dec 31	20900	Dec 9 1978
LOWEST DAILY MEAN	7.0	Oct 4	.40	Sep 22	.00	Aug 24 1952
ANNUAL SEVEN-DAY MINIMUM	8.9	Aug 15	.80	Sep 17	.00	Sep 17 1955
INSTANTANEOUS PEAK FLOW			10600	Dec 31	25400	Dec 9 1979
INSTANTANEOUS PEAK STAGE			18.92	Dec 31	22.75	Dec 9 1979
ANNUAL RUNOFF (CFSM)	1.76		1.75		1.27	
ANNUAL RUNOFF (INCHES)	23.90		23.73		17.32	
10 PERCENT EXCEEDS	844		1080		692	
50 PERCENT EXCEEDS	170		92		91	
90 PERCENT EXCEEDS	12		2.4		4.9	

CABIN CREEK BASIN

03237900 CABIN CREEK NEAR TOLLESBORO, KY

LOCATION.--Lat 38°34'04", long 83°32'14", Lewis County, Hydrologic Unit 05090201, on left bank 20 ft upstream of bridge on State Highway 10, 0.1 mi downstream from Bethel Creek, 2.0 mi east of Tollesboro, 2.2 mi upstream from Indian Creek, and at mile 11.3.

DRAINAGE AREA.--22.4 mi^2.

PERIOD OF RECORD.--April 1972 to September 1991. (discontinued)

GAGE.--Water-stage recorder. Datum of gage is 615.70 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 16-29. Records good except for periods of estimated record, which are poor. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.13	1.8	3.4	44	20	12	22	9.2	.69	.05	.07	.75
2	.11	1.7	3.5	30	17	18	19	8.0	1.9	.03	.05	.25
3	.08	1.5	283	23	15	61	16	6.8	1.5	.01	.03	.32
4	12	1.6	40	18	13	61	14	7.3	.70	.00	.05	19
5	4.1	1.9	18	21	39	31	43	8.7	.50	.00	.03	42
6	.93	4.4	12	249	295	365	21	6.7	.40	.00	01	.85
7	.60	2.4	8.8	316	193	79	16	4.5	.38	.00	.01	.38
8	.49	1.8	6.4	97	57	35	14	3.7	.32	11	10	.25
9	.39	2.8	5.3	82	35	26	42	6.3	.27	2.4	2.7	.21
10	.39	68	4.7	51	27	21	33	6.1	.24	52	.88	.20
11	.45	17	4.0	142	21	18	16	4.2	.23	5.7	.36	.19
12	12	7.2	3.6	62	17	25	12	5.1	.22	77	.23	.16
13	12	4.1	3.3	39	74	358	206	5.7	.23	74	.20	.12
14	3.4	2.6	2.7	29	296	61	49	4.0	.20	12	.27	.09
15	1.9	2.1	117	24	49	33	198	3.8	.16	1.6	.23	.05
16	1.2	2.0	30	21	31	25	43	3.0	.31	1.0	.16	.02
17	.96	3.2	75	19	25	79	27	4.1	.55	.78	.13	.00
18	17	2.2	1200	16	222	147	21	3.1	.50	.72	7.0	.00
19	9.4	1.9	109	14	77	42	70	3.1	.37	1.0	2.5	.00
20	2.9	1.8	39	13	93	28	32	2.4	.27	.82	1.7	.00
21	1.8	1.7	77	12	41	25	23	2.1	.20	.59	.83	.00
22	125	103	121	11	30	779	19	1.9	.17	.49	.52	.00
23	63	139	473	10	24	249	15	13	.38	.37	.38	.00
24	18	22	80	9.6	20	46	14	2.5	.24	.27	.27	38
25	9.2	12	35	8.4	18	29	10	1.1	.17	.23	.21	17
26	6.0	7.8	24	7.6	15	785	9.1	.97	.12	.21	.16	.25
27	5.3	6.2	21	7.4	13	480	9.3	1.3	.08	.18	.12	.14
28	4.0	6.7	133	7.2	12	146	38	1.3	.06	.16	.09	.17
29	2.8	6.1	102	18	---	47	45	.87	.04	.15	.06	.16
30	2.2	4.1	1170	104	---	33	15	.95	.05	.12	.03	.11
31	2.0	---	132	33	---	26	---	.85	---	.08	3.6	---
TOTAL	319.73	440.6	4336.7	1538.2	1789	4170	1111.4	132.64	11.45	242.96	32.88	120.67
MEAN	10.3	14.7	140	49.6	63.9	135	37.0	4.28	.38	7.84	1.06	4.02
MAX	125	139	1200	316	296	785	206	13	1.9	77	10	42
MIN	.08	1.5	2.7	7.2	12	12	9.1	.85	.04	.00	.01	.00
CFSM	.46	.66	6.25	2.22	2.85	6.01	1.65	.19	.02	.35	.05	.18
IN.	.53	.73	7.20	2.55	2.97	6.93	1.85	.22	.02	.40	.05	.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1991, BY WATER YEAR (WY)

MEAN	13.6	27.0	50.4	37.8	54.7	54.4	46.3	32.4	19.0	13.0	12.3	10.9
MAX	43.9	82.4	171	95.9	191	135	110	140	84.9	49.8	55.5	53.0
(WY)	1976	1986	1979	1978	1989	1991	1975	1983	1974	1989	1978	1975
MIN	.094	.33	2.06	.59	6.58	6.50	5.04	2.62	.13	.52	.083	.000
(WY)	1988	1982	1982	1981	1978	1983	1978	1976	1988	1982	1988	1983

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1972 - 1991	
ANNUAL TOTAL	14685.60		14246.23			
ANNUAL MEAN	40.2		39.0		31.0	
HIGHEST ANNUAL MEAN					51.1	1979
LOWEST ANNUAL MEAN					16.6	1977
HIGHEST DAILY MEAN	1200	Dec 18	1200	Dec 18	1850	Dec 8 1978
LOWEST DAILY MEAN	.08	Oct 3	.00	Jul 4	.00	Sep 11 1972
ANNUAL SEVEN-DAY MINIMUM	.14	Sep 27	.00	Sep 17	.00	Sep 11 1972
INSTANTANEOUS PEAK FLOW			4690	Mar 26	8370	Apr 22 1972
INSTANTANEOUS PEAK STAGE			10.97	Mar 26	14.42	Apr 22 1972
ANNUAL RUNOFF (CFSM)	1.80		1.74		1.39	
ANNUAL RUNOFF (INCHES)	24.39		23.66		18.82	
10 PERCENT EXCEEDS	86		79		60	
50 PERCENT EXCEEDS	7.8		6.1		5.2	
90 PERCENT EXCEEDS	.38		.12		.15	

LICKING RIVER BASIN

03248500 LICKING RIVER NEAR SALYERSVILLE, KY

LOCATION.--Lat 37°45'03", long 83°05'04", Magoffin County, Hydrologic Unit 05100101, on left bank on downstream side of bridge on State Highway 30, 0.8 mi upstream from Gardner Branch, 1.2 mi west of Salyersville, 2.9 mi downstream from State Road Fork, and at mile 266.9.

DRAINAGE AREA.--140 mi^2.

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for October to December 1938, published in WSP 1305.

REVISED RECORDS.--WSP 923: 1939-40, drainage area. WSP 1505: 1955(M), 1956(P).

GAGE.--Water-stage recorder. Datum of gage is 823.80 ft above National Geodetic Vertical Datum of 1929. Prior to Feb. 27, 1939, nonrecording gage at same site and datum. Feb. 27, 1939 to Sept. 27, 1965, water-stage recorder on upstream side of bridge at same datum.

REMARKS.--Estimated daily discharges: Jan. 19-25, July 5 to Aug. 6. Records good except those for periods of estimated record which are fair. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	33	33	1250	249	184	467	103	31	31	13	10
2	19	31	30	497	218	182	370	94	64	28	12	10
3	19	29	186	370	196	204	306	78	173	54	10	8.3
4	29	28	526	298	178	618	262	69	165	37	9.0	8.6
5	45	27	257	252	165	438	235	71	102	31	8.0	12
6	32	34	169	235	248	415	218	68	62	24	7.0	11
7	21	36	127	750	726	607	190	72	44	19	9.5	10
8	21	33	98	820	483	417	172	58	35	50	9.5	8.3
9	38	34	79	520	364	332	176	108	29	350	15	7.1
10	29	308	68	399	303	282	242	200	24	240	146	6.8
11	23	257	60	694	254	241	191	109	21	280	43	7.4
12	33	149	54	565	217	217	171	80	19	500	22	7.3
13	42	103	49	426	231	353	261	68	20	1400	17	7.4
14	38	80	46	348	886	546	293	68	18	800	16	6.7
15	29	67	65	296	729	476	824	69	16	400	14	6.3
16	25	59	194	281	411	364	980	52	15	200	12	6.1
17	22	57	219	251	352	311	470	54	16	100	10	5.7
18	35	50	1500	216	774	611	356	51	129	150	9.8	12
19	28	45	2320	185	1470	489	311	54	46	160	10	72
20	24	41	719	170	1930	375	562	47	38	96	15	22
21	22	38	421	157	1140	319	419	44	47	62	16	13
22	136	38	391	146	543	518	341	40	140	40	11	9.8
23	345	60	1670	138	403	1000	285	36	412	30	9.2	8.5
24	174	61	1310	129	333	741	243	40	118	66	8.4	8.1
25	108	50	498	120	287	440	204	37	116	47	7.9	9.0
26	80	44	349	118	264	359	182	27	188	37	7.5	10
27	65	41	328	117	228	353	163	42	94	30	7.1	9.7
28	53	39	1790	138	202	333	146	54	60	25	7.0	8.7
29	44	38	1380	135	---	341	132	46	44	21	6.8	7.8
30	40	35	957	167	---	675	117	87	36	18	6.9	6.9
31	36	---	2580	312	---	624	---	37	---	15	16	---
TOTAL	1675	1945	18473	10500	13784	13365	9289	2063	2322	5341	511.6	336.5
MEAN	54.0	64.8	596	339	492	431	310	66.5	77.4	172	16.5	11.2
MAX	345	308	2580	1250	1930	1000	980	200	412	1400	146	72
MIN	19	27	30	117	165	182	117	27	15	15	6.8	5.7
CFSM	.39	.46	4.26	2.42	3.52	3.08	2.21	.48	.55	1.23	.12	.08
IN.	.45	.52	4.91	2.79	3.66	3.55	2.47	.55	.62	1.42	.14	.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1991, BY WATER YEAR (WY)

MEAN	33.4	95.0	207	266	376	385	317	187	90.0	63.0	41.9	29.9
MAX	343	443	803	824	1015	1162	940	648	454	261	305	276
(WY)	1990	1974	1979	1950	1972	1955	1972	1984	1974	1939	1947	1950
MIN	.084	.63	1.96	25.4	27.3	89.3	40.6	25.4	6.06	3.01	1.07	.23
(WY)	1954	1956	1956	1940	1954	1983	1986	1941	1966	1944	1957	1955

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1939 - 1991	
ANNUAL TOTAL	70600.8		79605.1			
ANNUAL MEAN	193		218		173	
HIGHEST ANNUAL MEAN					300	1975
LOWEST ANNUAL MEAN					40.3	1954
HIGHEST DAILY MEAN	2580	Dec 31	2580	Dec 31	9010	Dec 9 1978
LOWEST DAILY MEAN	8.4	Aug 20	5.7	Sep 17	.00	Sep 15 1943
ANNUAL SEVEN-DAY MINIMUM	10	Aug 14	6.7	Sep 11	.00	Oct 1 1943
INSTANTANEOUS PEAK FLOW			3240	Dec 31	14300	Feb 3 1939
INSTANTANEOUS PEAK STAGE			20.03	Dec 31	25.40	Feb 3 1939
INSTANTANEOUS LOW FLOW			5.3	Sep 17		
ANNUAL RUNOFF (CFSM)	1.38		1.56		1.24	
ANNUAL RUNOFF (INCHES)	18.76		21.15		16.78	
10 PERCENT EXCEEDS	397		522		403	
50 PERCENT EXCEEDS	97		79		58	
90 PERCENT EXCEEDS	19		10		4.0	

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, 0.6 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^2.

WATER-DISCHARGE RECORDS

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 current year. All figures of discharge above 2,000 ft^3/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. Datum of gage is 646.55 ft above National Geodetic Vertical Datum of 1929. See WDR KY-90-1 for history of changes prior to Oct. 20, 1965.

REMARKS.--No estimated daily discharges. Water-discharge records good. 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--DAILY MEAN VALUSE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	235	703	194	310	4730	4320	3540	129	235	542	96	64
2	236	704	197	746	4810	3650	3520	134	235	540	65	64
3	233	703	220	1930	4780	3510	3510	133	237	538	64	64
4	216	699	630	2970	4750	3530	3490	133	421	543	65	64
5	191	703	1330	2970	4550	3570	3480	133	531	374	66	64
6	215	701	1620	2450	2700	3810	3470	101	530	234	66	63
7	232	698	1620	1160	2820	3670	3450	75	534	179	65	64
8	232	881	1390	2260	3030	3650	2650	74	540	170	64	64
9	228	1170	1100	3310	3600	3830	1950	75	400	239	70	65
10	225	1170	1100	2440	3570	3800	3010	76	237	249	67	69
11	232	1160	828	1660	3690	3770	2940	75	238	239	64	67
12	233	1160	516	3050	4360	3480	2920	76	136	251	64	61
13	233	1700	330	3830	4360	2940	2960	78	71	414	63	62
14	232	2140	218	4290	2380	2610	2970	79	71	1110	63	64
15	233	2130	222	4480	2970	2990	2960	80	70	1800	63	63
16	233	2130	221	4460	2780	3380	2980	78	71	2010	63	164
17	232	2120	224	4790	3500	3370	2940	77	76	2000	63	232
18	235	2110	492	4970	3520	3450	2930	75	105	1990	64	233
19	232	2090	280	4950	2030	3420	2930	76	128	1610	67	233
20	232	1770	468	4930	1610	3360	2940	77	186	952	68	230
21	235	1610	130	4910	3450	3340	2440	74	235	421	67	229
22	244	1330	135	4880	4060	1550	1830	72	234	226	67	229
23	243	1100	316	4850	4070	404	824	72	236	226	66	229
24	235	699	244	4820	4430	1360	534	69	388	227	64	234
25	235	507	1380	4790	4430	3090	532	66	539	227	64	239
26	238	507	3080	4760	4410	3560	532	65	536	227	63	229
27	237	340	3440	4730	4380	3440	545	65	532	226	67	230
28	237	213	3340	4720	4310	2750	546	96	535	228	68	228
29	237	213	2660	4700	---	3110	314	130	541	186	66	229
30	237	215	1370	4670	---	3570	128	186	540	120	65	232
31	500	---	1140	4670	---	3550	---	235	---	119	64	---
TOTAL	7448	33376	30435	114456	104080	99834	69765	2964	9368	18417	2051	4362
MEAN	240	1113	982	3692	3717	3220	2325	95.6	312	594	66.2	145
MAX	500	2140	3440	4970	4810	4320	3540	235	541	2010	96	239
MIN	191	213	130	310	1610	404	128	65	70	119	63	61

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1991, BY WATER YEAR (WY)

MEAN	253	530	1184	1624	2147	2256	1827	1161	658	512	327	283
MAX	2336	2442	3537	5136	6480	4837	4921	3350	2819	2740	1624	2360
(WY)	1990	1951	1973	1950	1939	1962	1948	1984	1950	1938	1938	1974
MIN	3.83	10.5	13.9	138	219	286	51.0	41.1	41.7	26.9	24.5	12.0
(WY)	1954	1954	1954	1981	1954	1983	1986	1976	1988	1944	1957	1949

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1938 - 1991	
ANNUAL TOTAL	406353		496556			
ANNUAL MEAN	1113		1360		1055	
HIGHEST ANNUAL MEAN					1847	1950
LOWEST ANNUAL MEAN					325	1954
HIGHEST DAILY MEAN	4440	Feb 27	4970	Jan 18	21500	Feb 28 1962
LOWEST DAILY MEAN	70	Jul 10	61	Sep 12	2.2	Sep 8 1957
ANNUAL SEVEN-DAY MINIMUM	81	Jul 7	63	Aug 11	2.9	Oct 9 1953
INSTANTANEOUS PEAK FLOW			4980	Jan 18	24000	Feb 28 1962
INSTANTANEOUS PEAK STAGE			21.79	Dec 31	31.10	Feb 9 1918
INSTANTANEOUS LOW FLOW					.70	Oct 14 1930
10 PERCENT EXCEEDS	3170		3800		3090	
50 PERCENT EXCEEDS	598		421		350	
90 PERCENT EXCEEDS	125		66		41	

03249500 LICKING RIVER AT FARMERS, KY--Continued

WATER-QUALITY RECORDS

LOCATION.--Temperature recorder 3.4 mi downstream from base gaging station and at auxiliary gage station.

PERIOD OF RECORD.--Water years 1949 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1949 to current year.
SUSPENDED SEDIMENT DISCHARGE: November 1960 to September 1967.

INSTRUMENTATION.--Temperature recorder since October 1953.

REMARKS.--Specific conductance measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section. Miscellaneous temperature measurements may differ slightly from recorded values due to differences in sampling locations.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE (water years 1949-60, 1963-79, 1981 to current year): Maximum, 33.5°C, July 19, 1951; minimum, 0.0°C, on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 26.7°C, Aug. 30-31; minimum, 4.1°C, Feb. 18.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	19.5	19.1	19.2	13.5	13.1	13.2	9.5	8.5	8.8	8.7	8.0	8.3
2	19.1	18.3	18.7	13.8	13.4	13.5	9.6	8.9	9.0	8.0	7.7	7.8
3	18.7	18.2	18.6	13.8	13.8	13.8	9.9	9.2	9.6	8.0	8.0	8.0
4	19.4	18.6	18.9	14.2	13.8	13.8	10.3	9.6	9.8	8.0	8.0	8.0
5	19.0	18.6	18.7	14.2	14.1	14.2	9.7	9.2	9.5	8.0	7.7	7.9
6	18.6	18.1	18.4	14.1	13.7	13.8	10.0	9.7	9.7	7.7	7.7	7.7
7	18.5	18.5	18.5	13.7	12.9	13.2	10.0	9.7	9.7	8.0	7.7	7.7
8	19.3	18.5	18.8	12.9	12.5	12.7	9.7	9.7	9.7	7.7	7.3	7.7
9	19.6	19.2	19.2	12.8	12.5	12.7	9.7	9.3	9.4	7.7	7.3	7.4
10	19.6	19.2	19.5	12.8	12.5	12.7	9.4	9.0	9.2	7.3	7.3	7.3
11	19.2	18.0	18.5	12.8	12.4	12.5	9.4	9.1	9.2	7.3	7.3	7.3
12	18.0	17.5	17.5	12.4	12.4	12.4	9.4	9.1	9.1	7.3	7.3	7.3
13	17.5	17.5	17.5	12.4	12.0	12.1	9.4	9.1	9.3	7.3	7.0	7.3
14	17.5	17.1	17.3	12.7	12.3	12.4	9.4	8.7	9.2	7.0	7.0	7.0
15	17.5	17.0	17.1	12.6	12.3	12.4	9.2	8.7	8.9	7.0	7.0	7.0
16	17.0	16.3	16.6	12.6	12.3	12.4	9.2	8.8	9.2	7.0	7.0	7.0
17	16.6	16.3	16.5	12.3	12.3	12.3	8.8	8.5	8.7	7.0	6.5	6.9
18	17.0	16.5	16.8	12.2	11.8	11.9	9.5	8.5	9.1	6.9	6.5	6.5
19	16.5	15.4	15.8	11.8	11.8	11.8	9.9	9.5	9.7	6.5	6.5	6.5
20	15.0	14.7	14.8	11.8	11.8	11.8	9.9	9.2	9.5	6.5	6.2	6.5
21	14.9	14.6	14.7	11.9	11.8	11.8	9.5	9.2	9.4	6.5	6.2	6.2
22	15.7	14.9	15.3	11.9	11.9	11.9	10.2	9.5	9.9	6.2	5.8	6.2
23	15.7	15.7	15.7	12.3	11.9	12.0	10.2	9.9	10.2	5.8	5.8	5.8
24	15.7	14.5	14.9	11.9	11.6	11.8	9.9	8.8	9.6	5.8	5.8	5.8
25	14.5	14.1	14.5	11.9	11.6	11.8	8.8	7.8	8.3	5.8	5.5	5.6
26	14.1	13.3	13.6	12.0	11.7	11.8	8.8	8.5	8.5	5.5	5.5	5.5
27	13.3	12.5	12.7	12.0	11.7	11.8	8.8	8.5	8.5	5.5	5.1	5.3
28	13.2	12.9	12.9	12.4	12.0	12.2	8.4	8.4	8.4	5.1	5.1	5.1
29	13.2	12.5	12.7	12.4	10.9	11.6	8.4	8.4	8.4	5.1	5.1	5.1
30	12.5	12.1	12.3	10.9	9.5	9.9	8.7	8.4	8.5	5.1	5.1	5.1
31	12.8	12.1	12.5	---	---	---	9.1	8.7	9.1	5.1	5.1	5.1
MONTH	19.6	12.1	16.4	14.2	9.5	12.4	10.3	7.8	9.2	8.7	5.1	6.7

LICKING RIVER BASIN

03249500 LICKING RIVER AT FARMERS, KY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.1	4.7	5.1	4.9	4.6	4.6	8.9	8.6	8.8	12.4	12.1	12.2
2	5.1	4.7	4.7	4.9	4.9	4.9	9.3	8.9	8.9	12.4	12.4	12.4
3	4.7	4.7	4.7	5.3	4.9	5.1	9.3	8.9	9.0	12.4	12.4	12.4
4	4.8	4.7	4.8	5.3	4.9	5.0	9.6	9.3	9.4	13.1	12.4	12.8
5	4.8	4.8	4.8	5.4	5.0	5.0	9.6	9.6	9.6	13.5	13.1	13.2
6	5.2	4.8	5.2	5.4	5.4	5.4	9.6	9.6	9.6	13.9	13.5	13.7
7	5.2	5.2	5.2	5.4	5.4	5.4	10.0	9.6	9.6	13.5	12.8	13.0
8	5.2	5.2	5.2	5.4	5.4	5.4	10.0	9.6	9.8	13.1	12.8	12.8
9	5.2	5.2	5.2	5.4	5.4	5.4	10.0	9.6	10.0	13.5	13.1	13.3
10	5.2	5.2	5.2	5.4	5.4	5.4	10.3	9.6	10.0	13.9	13.5	13.8
11	5.2	4.8	5.1	5.4	5.4	5.4	10.3	9.6	10.0	14.6	13.9	14.4
12	5.2	4.8	5.1	5.8	5.4	5.4	10.3	10.0	10.2	15.4	14.6	15.0
13	5.2	5.2	5.2	5.8	5.4	5.7	11.1	10.7	10.8	15.8	15.4	15.4
14	5.2	5.2	5.2	5.8	5.8	5.8	11.1	11.1	11.1	16.1	15.8	15.9
15	5.2	4.8	5.0	5.8	5.8	5.8	11.1	11.1	11.1	16.5	16.1	16.2
16	4.8	4.5	4.6	6.1	5.8	5.8	11.1	11.1	11.1	16.9	16.5	16.6
17	4.5	4.5	4.5	6.5	6.1	6.2	11.4	11.1	11.3	17.3	16.9	16.9
18	4.6	4.1	4.5	6.5	6.5	6.5	11.8	11.4	11.4	17.3	17.3	17.3
19	4.6	4.6	4.6	6.5	6.1	6.4	11.8	11.4	11.7	17.3	17.3	17.3
20	4.6	4.6	4.6	6.5	6.5	6.5	11.8	11.4	11.6	17.3	16.9	17.2
21	4.6	4.6	4.6	6.8	6.5	6.7	11.8	11.3	11.6	16.9	16.9	16.9
22	4.6	4.6	4.6	7.9	6.8	7.2	11.3	11.3	11.3	17.3	16.9	17.0
23	4.9	4.6	4.6	8.2	7.9	8.2	11.3	11.0	11.1	17.7	17.3	17.4
24	4.9	4.6	4.6	8.9	8.2	8.5	11.0	11.0	11.0	17.7	17.7	17.7
25	4.6	4.6	4.6	8.2	8.2	8.2	11.0	10.6	10.7	18.1	17.7	18.0
26	4.6	4.6	4.6	8.2	7.9	8.2	10.6	10.6	10.6	18.9	18.5	18.5
27	4.6	4.6	4.6	8.6	8.2	8.2	11.0	10.6	10.6	18.9	18.9	18.9
28	4.6	4.6	4.6	8.9	8.6	8.6	11.0	10.6	10.9	18.9	18.5	18.8
29	---	---	---	8.9	8.6	8.9	11.0	11.0	11.0	18.5	18.5	18.5
30	---	---	---	8.6	8.2	8.5	11.7	11.0	11.4	18.5	18.1	18.4
31	---	---	---	8.6	8.6	8.6	---	---	---	18.5	18.1	18.1
MONTH	5.2	4.1	4.8	8.9	4.6	6.5	11.8	8.6	10.5	18.9	12.1	15.8
		JUNE			JULY			AUGUST			SEPTEMBER	
1	18.1	18.1	18.1	16.5	16.1	16.2	23.2	22.7	22.9	26.6	26.5	26.5
2	18.1	17.7	17.8	16.1	16.1	16.1	23.7	23.2	23.3	26.5	26.0	26.2
3	17.7	17.7	17.7	16.5	16.1	16.2	24.3	23.7	24.0	26.3	25.9	26.0
4	17.7	16.9	17.5	16.1	16.1	16.1	24.8	24.3	24.7	26.3	25.8	25.9
5	16.9	16.1	16.5	16.1	16.1	16.1	25.0	24.6	24.9	25.8	25.3	25.4
6	16.1	15.8	15.9	17.3	16.5	16.7	25.0	24.3	24.5	25.3	24.8	24.9
7	15.8	15.4	15.4	18.5	17.3	17.7	24.9	24.3	24.8	24.8	24.3	24.5
8	15.4	15.0	15.3	19.7	18.5	19.1	25.4	24.9	25.3	24.3	23.8	24.0
9	15.4	15.0	15.0	20.1	19.7	19.9	26.0	25.4	25.7	24.1	23.7	23.9
10	15.8	15.0	15.3	20.5	20.1	20.4	26.0	25.6	25.8	24.4	24.0	24.2
11	16.1	15.8	15.9	20.9	20.5	20.8	25.8	25.0	25.3	24.7	24.3	24.4
12	16.9	16.1	16.5	21.3	20.9	21.0	25.1	24.8	24.9	24.7	24.2	24.5
13	17.7	16.9	17.2	21.7	20.9	21.5	25.4	24.8	25.3	24.9	24.5	24.6
14	18.5	17.7	18.0	20.9	16.5	19.0	25.4	25.0	25.2	24.9	24.8	24.8
15	19.3	18.5	18.8	16.1	15.4	15.7	25.3	24.8	25.1	25.2	24.8	25.1
16	20.1	19.3	19.6	15.4	15.0	15.2	25.4	25.0	25.3	25.4	25.0	25.2
17	20.1	20.1	20.1	15.0	15.0	15.0	26.0	25.4	25.5	25.4	25.3	25.4
18	20.5	20.1	20.1	15.2	15.0	15.1	26.1	26.0	26.1	25.3	24.8	24.9
19	20.1	19.7	20.1	15.3	14.9	15.2	26.6	26.1	26.3	24.8	23.1	24.0
20	19.7	19.7	19.7	15.1	14.9	15.0	26.1	25.6	25.9	23.1	21.4	22.1
21	19.7	19.7	19.7	16.0	14.8	15.1	25.6	25.1	25.3	21.4	20.1	20.7
22	20.1	19.7	20.1	18.1	16.0	17.1	25.1	25.1	25.1	20.5	20.0	20.2
23	20.5	20.1	20.3	19.4	18.1	18.7	25.4	25.0	25.3	21.1	20.4	20.8
24	20.5	19.7	20.4	20.4	19.4	20.1	25.7	25.3	25.7	21.1	20.6	20.8
25	19.7	18.1	18.6	21.3	20.4	20.9	26.4	26.0	26.0	20.6	19.7	20.1
26	18.1	17.3	17.6	21.9	21.3	21.5	26.4	26.3	26.3	19.7	19.2	19.4
27	17.3	16.9	17.1	22.0	21.9	21.9	26.3	26.2	26.2	19.2	18.3	18.6
28	16.9	16.5	16.7	22.6	22.0	22.2	26.2	26.1	26.1	18.3	17.8	18.0
29	16.5	16.5	16.5	22.7	22.6	22.7	26.4	26.1	26.4	18.2	18.1	18.2
30	16.5	16.1	16.3	23.3	22.8	23.2	26.7	26.3	26.6	18.8	18.1	18.5
31	---	---	---	23.3	22.6	22.9	26.7	26.6	26.6	---	---	---
MONTH	20.5	15.0	17.8	23.3	14.8	18.5	26.7	22.7	25.4	26.6	17.8	23.1

03250000 TRIPLETT CREEK AT MOREHEAD, KY

LOCATION.--Lat 38°11'04", long 83°25'48", Rowan County, Hydrologic Unit 05100101, in pumping plant on right bank at Morehead, 0.1 mi downstream from Evans Branch, 0.6 mi upstream from Oxley Branch, and at mile 13.8.

DRAINAGE AREA.--47.5 mi^2.

PERIOD OF RECORD.--June 1941 to September 1982, October 1988 to current year.

REVISED RECORDS.--WSP 1625: 1941, 1942-43(P), 1945(P), 1947(M), 1948, 1949(P), 1950, 1951(P), 1952, 1953(M), 1955-57, 1958(M), drainage area.

GAGE.--Water-stage recorder. Datum of gage is 708.26 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1970, water-stage recorder at site 0.4 mi downstream at same datum.

REMARKS.--Estimated daily discharges: Oct. 22-24, Nov. 7, May 29-Sept. 11-24. Records poor. Some regulation above station by reservoir on Evans Branch, approximate capacity, 185 ft^3/s days, and by pumpage at station to supply Morehead State College and city of Morehead. Sewage returns to stream below station. Specific conductance and temperature measurement made in conjunction with discharge measurement are published in the miscellaneous water-quality data section.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 5, 1939, reached a stage of 18.9, from floodmarks, discharge, 44,000 ft^3/s on basis of slope-conveyance studies.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	3.8	7.8	242	50	33	105	46	5.6	4.5	.52	.11
2	1.4	3.1	6.8	153	46	35	78	35	25	8.0	.40	.15
3	1.4	2.2	168	102	41	49	61	29	110	16	.32	2.5
4	25	2.2	121	68	37	152	55	25	45	11	.24	20
5	4.9	3.5	54	55	37	140	89	21	23	7.2	.21	4.1
6	2.8	5.2	34	122	382	288	87	18	15	4.7	.20	3.2
7	2.3	3.6	23	636	291	315	71	16	8.4	5.6	.20	2.9
8	2.3	102	16	293	173	169	68	14	5.6	12	.21	1.9
9	2.3	320	12	190	122	113	422	25	3.8	30	.50	.95
10	2.0	177	9.2	141	88	80	326	26	2.6	64	1.1	4.1
11	1.4	92	8.2	207	63	59	161	19	1.8	150	.86	1.8
12	175	72	7.2	236	49	52	108	17	1.3	350	.62	1.0
13	43	29	6.8	172	88	361	415	15	.96	600	.46	.80
14	8.7	28	5.9	129	766	255	235	12	.72	250	.34	.60
15	4.1	22	60	100	284	166	351	10	.54	94	.25	.52
16	2.1	17	141	89	157	119	231	9.4	.42	36	.18	.41
17	1.7	12	109	75	122	103	144	13	4.0	15	.14	.35
18	53	13	2110	61	691	352	99	11	30	17	.22	.28
19	17	14	499	54	387	216	119	9.7	23	14	.38	.26
20	5.7	7.9	190	51	318	148	132	9.0	28	11	.60	.23
21	2.4	5.9	133	50	215	115	98	8.9	10	8.4	.52	.20
22	70	9.2	257	41	152	1720	71	7.9	23	6.4	.45	.17
23	450	29	1990	35	104	805	62	42	15	5.0	.39	1.4
24	240	22	394	34	77	252	61	38	9.2	3.9	.34	5.9
25	98	15	194	28	62	154	48	13	5.4	3.0	.29	55
26	28	10	119	25	52	392	42	9.1	3.3	2.3	.26	15
27	28	7.7	85	23	43	346	43	10	2.0	1.8	.22	8.8
28	15	7.9	325	32	37	351	82	10	1.3	1.4	.20	6.3
29	8.0	11	316	32	---	204	70	3.5	20	1.1	.17	4.5
30	5.2	9.5	2420	45	---	157	55	2.2	12	.86	.15	3.6
31	4.2	---	681	57	---	130	---	1.4	---	.66	.13	---
TOTAL	1306.3	1056.7	10502.9	3578	4934	7831	3989	526.1	435.94	1734.82	11.07	147.03
MEAN	42.1	35.2	339	115	176	253	133	17.0	14.5	56.0	.36	4.90
MAX	450	320	2420	636	766	1720	422	46	110	600	1.1	55
MIN	1.4	2.2	5.9	23	37	33	42	1.4	.42	.66	.13	.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1991, BY WATER YEAR (WY)

MEAN	15.6	35.8	96.9	115	148	174	129	82.5	36.4	38.1	20.8	19.9
MAX	141	149	405	476	471	540	328	207	303	195	101	308
(WY)	1990	1943	1979	1950	1956	1967	1972	1967	1950	1960	1968	1950
MIN	.006	.023	.18	5.85	9.51	29.5	28.9	8.94	.59	.17	.12	.000
(WY)	1944	1944	1954	1977	1954	1969	1963	1942	1964	1944	1952	1943

SUMMARY STATISTICS	FOR 1991 WATER YEAR		WATER YEARS 1942 - 1991	
ANNUAL TOTAL	36052.86			
ANNUAL MEAN	98.8		75.7	
HIGHEST ANNUAL MEAN			147	1950
LOWEST ANNUAL MEAN			21.8	1954
HIGHEST DAILY MEAN	2420	Dec 30	6200	Mar 7 1967
LOWEST DAILY MEAN	.11	Sep 1	.00	Aug 26 1943
ANNUAL SEVEN-DAY MINIMUM	.16	Aug 27	.00	Aug 29 1943
INSTANTANEOUS PEAK FLOW	9640	Dec 30	18600	Jul 3 1960
INSTANTANEOUS PEAK STAGE	16.79	Dec 30	14.83	Jul 3 1960

LICKING RIVER BASIN

03250100 NORTH FORK TRIPLETT CREEK NEAR MOREHEAD, KY

LOCATION.--Lat 38°11'57", long 83°28'50", Rowan County, Hydrologic Unit 05100101, on right downstream wingwall of bridge on State Highway 32, 0.5 mi upstream from Pence Branch, 1.8 mi downstream from Big Brushy Creek, 2.8 mi northwest of Morehead, and at mile 6.1.

DRAINAGE AREA.--84.7 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 678.03 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 30 to Jan. 28. Records good except for periods of estimated record, which are fair. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.58	6.2	37	520	117	58	158	92	2.9	7.8	.96	.21
2	.50	4.9	33	250	102	60	127	73	30	8.2	.79	.15
3	.44	3.8	614	180	89	68	104	58	179	28	.66	17
4	5.5	3.4	326	140	79	169	89	48	50	20	.52	41
5	3.9	3.7	144	110	83	170	100	39	21	21	.42	7.8
6	2.4	4.7	94	400	935	434	88	35	11	12	.41	4.1
7	2.3	5.1	68	1400	752	636	80	31	7.0	7.0	.41	2.4
8	2.3	4.5	52	700	349	274	79	24	4.8	195	.39	1.5
9	2.1	20	41	370	217	179	166	33	3.4	234	1.5	1.2
10	1.6	198	34	230	157	134	245	40	2.6	280	1.9	6.8
11	1.8	137	29	300	118	106	155	54	2.4	272	.84	4.1
12	18	69	25	400	92	96	120	50	1.7	459	.76	2.0
13	28	45	22	260	116	638	712	29	1.4	1130	.55	1.4
14	18	31	19	190	1460	545	407	21	1.1	198	.43	1.1
15	10	24	124	155	512	274	507	16	.94	92	.33	.83
16	6.6	19	312	130	249	187	364	12	.80	48	.28	.72
17	4.4	20	216	110	186	157	219	13	26	28	.27	.65
18	5.4	17	5070	97	990	649	154	11	62	30	.43	.60
19	7.3	15	1150	86	674	384	226	11	39	19	.53	.47
20	8.7	12	303	79	452	235	315	8.5	47	15	1.0	.42
21	6.7	11	200	72	315	179	205	7.0	16	8.8	.91	.35
22	96	12	474	67	215	3290	155	5.3	44	6.0	.84	.30
23	262	221	3550	62	153	2060	120	4.3	26	4.3	.78	.29
24	96	123	629	58	121	394	115	7.0	10	3.5	.73	3.6
25	50	71	282	55	101	217	91	5.5	6.2	2.6	.65	67
26	31	49	166	52	91	766	80	3.9	4.0	2.5	.52	22
27	21	36	123	60	78	790	112	3.5	2.8	2.4	.45	8.9
28	15	41	322	88	66	800	262	4.2	2.4	1.9	.43	5.0
29	11	48	465	66	---	349	168	3.4	47	1.5	.33	3.3
30	9.2	45	3000	98	---	240	122	2.8	20	1.3	.26	2.5
31	7.4	---	1400	140	---	189	---	2.5	---	1.1	.23	---
TOTAL	735.12	1300.3	19324	6925	8869	14727	5845	747.9	672.44	3139.9	19.51	207.69
MEAN	23.7	43.3	623	223	317	475	195	24.1	22.4	101	.63	6.92
MAX	262	221	5070	1400	1460	3290	712	92	179	1130	1.9	67
MIN	.44	3.4	19	52	66	58	79	2.5	.80	1.1	.23	.15
CFSM	.28	.51	7.36	2.64	3.74	5.61	2.30	.28	.26	1.20	.01	.08
IN.	.32	.57	8.49	3.04	3.90	6.47	2.57	.33	.30	1.38	.01	.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1991, BY WATER YEAR (WY)

MEAN	39.6	98.6	213	181	251	230	218	164	69.2	54.1	44.5	39.2
MAX	243	311	667	440	1149	475	553	477	233	287	260	231
(WY)	1976	1986	1979	1974	1989	1991	1972	1983	1974	1979	1974	1979
MIN	.080	.72	22.7	11.2	34.6	57.6	37.0	24.1	.49	3.57	.14	.014
(WY)	1988	1982	1982	1977	1978	1969	1986	1991	1988	1984	1984	1984

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1968 - 1991	
ANNUAL TOTAL	62450.97		62512.86			
ANNUAL MEAN	171		171		133	
HIGHEST ANNUAL MEAN					255	1989
LOWEST ANNUAL MEAN					62.6	1977
HIGHEST DAILY MEAN	5070	Dec 18	5070	Dec 18	8630	Feb 14 1989
LOWEST DAILY MEAN	.17	Aug 28	.15	Sep 2	.00	Jul 21 1968
ANNUAL SEVEN-DAY MINIMUM	.25	Sep 2	.29	Aug 27	.00	Sep 30 1983
INSTANTANEOUS PEAK FLOW			10100	Dec 30	10600	Feb 15 198[illegible]
INSTANTANEOUS PEAK STAGE			20.15	Dec 30	20.62	Feb 15 1989
ANNUAL RUNOFF (CFSM)	2.02		2.02		1.57	
ANNUAL RUNOFF (INCHES)	27.43		27.46		21.31	
10 PERCENT EXCEEDS	313		396		297	
50 PERCENT EXCEEDS	65		40		43	
90 PERCENT EXCEEDS	.82		.79		.87	

LICKING RIVER BASIN

03251000 NORTH FORK LICKING RIVER NEAR LEWISBURG, KY

LOCATION.--Lat 38°32'57", long 83°47'37", Mason County, Hydrologic Unit 05100101, on left bank at downstream side of bridge on State Highway 419, 1.2 mi west of Lewisburg, 1.3 mi downstream from Mill Creek, and at mile 50.1.

DRAINAGE AREA.--119 mi^2.

PERIOD OF RECORD.--August 1946 to September 1991. (discontinued)

REVISED RECORDS.--WSP 1173: 1947-48. WSP 1705: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 680 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 2, 1950, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 15-27. Records good except for periods of estimated record, which are fair. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

EXTREME OUTSIDE PERIOD OF RECORD.--Flood of July 1938 reached a satge of 22.7 ft, discharge, 13,300 ft3/s, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	9.4	34	428	156	64	145	47	6.7	.21	.49	1.0
2	1.1	7.8	28	241	121	67	114	38	5.0	.19	.45	.56
3	1.1	4.7	956	180	102	73	95	33	3.8	.26	.40	.48
4	4.4	2.9	613	137	89	250	84	30	4.1	24	.53	.53
5	22	4.7	205	115	84	152	133	29	3.6	24	.50	71
6	14	7.3	123	567	1070	905	150	29	6.5	11	.46	59
7	7.3	7.1	88	1620	1100	950	96	27	5.3	5.8	.46	17
8	6.8	6.5	71	730	495	276	82	24	3.0	192	.49	6.7
9	6.8	6.7	58	581	267	176	100	23	1.9	229	.88	2.8
10	4.5	226	50	361	191	134	180	24	1.3	487	11	1.4
11	3.5	194	43	447	142	107	101	26	.83	614	7.4	.97
12	6.8	80	38	651	113	97	77	29	.77	166	2.9	.61
13	64	49	35	329	115	1290	696	23	.85	689	1.3	.52
14	34	35	30	238	1420	517	339	17	.68	203	.77	.46
15	22	26	249	165	558	254	958	15	.63	74	.62	.38
16	15	21	396	140	221	178	432	12	.60	40	.56	.35
17	8.7	19	188	122	182	187	208	11	.59	23	.51	.32
18	9.9	17	4760	106	1000	937	143	9.8	.64	15	.99	.26
19	42	15	2860	94	840	386	305	9.3	.63	10	.83	.24
20	27	14	422	84	470	229	321	8.6	.57	7.1	5.9	.21
21	24	12	254	76	313	175	158	7.0	.52	7.2	2.2	.20
22	239	16	802	70	208	2100	124	5.9	.48	6.9	13	.22
23	496	852	1730	65	158	2820	97	73	.45	4.5	8.0	.22
24	164	254	943	60	128	443	85	140	.39	3.3	3.4	.44
25	78	110	318	56	106	229	73	54	.35	2.3	1.7	6.0
26	49	74	200	53	92	1350	64	26	.32	1.5	1.1	13
27	33	57	149	80	81	1260	58	17	.27	1.0	.73	25
28	22	47	268	203	71	1350	53	13	.23	.72	.60	13
29	19	40	827	155	---	364	67	9.8	.23	.65	.50	6.4
30	15	37	2250	284	---	228	68	7.9	.23	.59	.44	2.7
31	12	---	2550	311	---	181	---	7.6	---	.53	.62	---
TOTAL	1453.2	2252.1	21538	8749	9893	17729	5606	825.9	51.46	2843.75	69.73	231.97
MEAN	46.9	75.1	695	282	353	572	187	26.6	1.72	91.7	2.25	7.73
MAX	496	852	4760	1620	1420	2820	958	140	6.7	689	13	71
MIN	1.1	2.9	28	53	71	64	53	5.9	.23	.19	.40	.20
CFSM	.39	.63	5.84	2.37	2.97	4.81	1.57	.22	.01	.77	.02	.06
IN.	.45	.70	6.73	2.73	3.09	5.54	1.75	.26	.02	.89	.02	.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1991, BY WATER YEAR (WY)

MEAN	32.6	92.1	214	262	299	297	213	138	69.8	61.1	50.5	57.6
MAX	227	358	783	1195	803	905	780	599	412	370	308	677
(WY)	1976	1986	1979	1950	1989	1964	1948	1983	1950	1979	1979	1950
MIN	.000	.000	.000	8.56	8.17	38.4	21.0	6.61	.25	.12	.063	.000
(WY)	1949	1954	1954	1981	1954	1983	1986	1976	1988	1964	1986	1953

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1947 - 1991	
ANNUAL TOTAL	68784.64		71243.11			
ANNUAL MEAN	188		195		148	
HIGHEST ANNUAL MEAN					303	1979
LOWEST ANNUAL MEAN					38.4	1954
HIGHEST DAILY MEAN	4760	Dec 18	4760	Dec 18	7640	Apr 13 1948
LOWEST DAILY MEAN	.37	Aug 20	.19	Jul 2	.00	Jul 5 1947
ANNUAL SEVEN-DAY MINIMUM	.41	Aug 14	.23	Jun 27	.00	Jul 24 1947
INSTANTANEOUS PEAK FLOW			6610	Dec 30	11300	Apr 13 1948
INSTANTANEOUS PEAK STAGE			14.53	Dec 30	20.70	Apr 13 1948
ANNUAL RUNOFF (CFSM)	1.58		1.64		1.25	
ANNUAL RUNOFF (INCHES)	21.50		22.27		16.92	
10 PERCENT EXCEEDS	471		504		327	
50 PERCENT EXCEEDS	43		35		32	
90 PERCENT EXCEEDS	1.4		.53		.32	

LICKING RIVER BASIN

03251500 LICKING RIVER AT MCKINNEYSBURG, KY

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

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

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

REVISED RECORDS.--WSP 1705: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 520.83 ft above National Geodetic Vertical Datum of 1929. July 23, 1924 to Aug. 9, 1926, nonrecording gage at same site, datum unknown. Nov. 18, 1938 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.--No estimated daily discharges. Records good. Flow regulated since December 1973 by Cave Run Lake (station 03249498). Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in January 1937 reached a stage of 47.8 ft from floodmarks.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	243	450	595	24900	7520	5960	6650	1680	496	691	287	105
2	263	474	576	20900	7140	5870	6190	1260	811	760	196	129
3	262	780	4400	11700	6960	5430	5770	1040	862	661	148	135
4	510	789	6630	4900	6820	5810	5460	912	634	919	141	127
5	393	791	6650	4850	6730	7140	5470	859	768	1300	118	2490
6	394	794	3820	6280	12400	8160	5520	877	705	975	87	1210
7	355	786	2870	13600	16000	11800	5420	721	787	770	74	422
8	320	791	2610	16200	15000	10200	5200	639	735	1380	72	279
9	340	802	2350	12900	9960	7890	5270	582	701	5900	76	181
10	347	1520	1930	8790	7260	6730	8160	603	685	4860	161	130
11	325	3960	1620	8570	6420	6140	6070	704	628	8180	244	105
12	672	4190	1550	8170	5900	5800	5650	735	482	5660	154	95
13	515	2630	1260	7760	6200	11400	7230	731	420	7340	182	168
14	416	1910	924	7600	12800	12500	7740	817	403	6380	190	199
15	414	2200	1800	7310	13500	9190	11900	826	349	4820	145	141
16	410	2520	2660	7210	11200	6850	10800	621	236	3100	121	101
17	381	2470	2960	7110	7350	6150	8160	552	166	2820	109	80
18	702	2410	20500	6970	9690	8630	6380	514	150	2700	108	72
19	589	2390	30200	7060	14200	9920	5450	488	143	2560	106	69
20	451	2360	27200	7080	13200	8760	6130	486	484	2490	163	229
21	418	2300	20500	7010	9420	7120	6240	531	532	1980	162	257
22	836	2130	11500	6890	8020	14800	5430	532	476	1400	136	253
23	1950	5260	11200	6780	7430	27500	4280	619	518	907	144	255
24	2760	4330	17400	6670	6900	26200	3250	1300	550	494	131	261
25	2640	3090	17900	6530	6680	19400	2260	579	516	406	118	347
26	1390	1850	12300	6430	6500	12500	1950	502	502	387	109	703
27	852	1310	6380	6360	6300	14800	1780	559	642	371	105	1000
28	610	1120	6200	7140	6120	15500	1670	570	652	357	104	618
29	539	900	10800	7080	---	13400	2360	445	630	358	102	485
30	500	636	17500	7850	---	8740	2750	761	624	342	100	414
31	470	---	27400	8020	---	7020	---	510	---	322	103	---
TOTAL	21267	57943	282185	276620	253620	327310	166590	22555	16287	71590	4196	11060
MEAN	686	1931	9103	8923	9058	10560	5553	728	543	2309	135	369
MAX	2760	5260	30200	24900	16000	27500	11900	1680	862	8180	287	2490
MIN	243	450	576	4850	5900	5430	1670	445	143	322	72	69

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 1991, BY WATER YEAR (WY)

MEAN	617	1596	3613	4750	6171	6725	4901	3208	1792	1298	806	787
MAX	4877	5751	13020	16890	18940	15930	15100	11130	9616	5783	3537	8088
(WY)	1976	1943	1979	1950	1939	1964	1948	1983	1950	1979	1979	1979
MIN	6.10	10.9	28.5	275	401	1006	465	279	100	76.9	58.2	15.8
(WY)	1954	1954	1954	1981	1954	1983	1986	1941	1988	1954	1957	1953

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1924 - 1991	
ANNUAL TOTAL	1371539		1511223			
ANNUAL MEAN	3758		4140		3016	
HIGHEST ANNUAL MEAN					5802	1979
LOWEST ANNUAL MEAN					820	1954
HIGHEST DAILY MEAN	30200	Dec 19	30200	Dec 19	57400	Mar 10 1964
LOWEST DAILY MEAN	148	Jul 12	69	Sep 19	3.8	Oct 18 1952
ANNUAL SEVEN-DAY MINIMUM	207	Sep 3	102	Aug 3	4.7	Oct 20 1953
INSTANTANEOUS PEAK FLOW			30600	Dec 19	59100	Mar 10 1964
INSTANTANEOUS PEAK STAGE			32.85	Dec 19	50.26	Mar 10 1964
10 PERCENT EXCEEDS	9540		11200		8160	
50 PERCENT EXCEEDS	1990		1400		1060	
90 PERCENT EXCEEDS	267		152		90	

LICKING RIVER BASIN

03252000 STONER CREEK AT PARIS, KY

LOCATION.--Lat 38°13'45", long 84°15'22", Bourbon County, Hydrologic Unit 05100102, on left bank 25 ft upstream from bridge on county road, 0.5 mi north of Paris, 1.5 mi downstream from Houston Creek, and at mile 79.2.

DRAINAGE AREA.--239 mi^2.

PERIOD OF RECORD.--April 1953 to September 1991. (discontinued) Monthly discharge only for April 1953, published in WSP 1725.

REVISED RECORDS.--WSP 1385: 1954. WSP 1705: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 770.43 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	82	132	2450	279	185	381	84	79	11	12	29
2	14	71	122	946	244	176	311	67	63	9.1	11	25
3	14	64	1290	610	227	177	258	53	95	7.0	9.0	16
4	51	58	2200	447	208	283	223	47	233	4.8	7.7	12
5	252	57	832	382	207	313	216	44	196	3.7	5.0	11
6	147	57	493	626	2050	263	197	44	93	3.4	3.7	10
7	88	53	356	3750	3150	416	172	41	56	3.3	3.0	8.5
8	60	52	272	2200	1350	356	156	41	38	1510	2.6	6.1
9	46	55	220	1100	784	286	570	61	27	5730	11	4.6
10	40	1320	186	735	530	250	1620	95	21	3010	8.7	11
11	38	1220	157	838	399	218	514	87	17	2160	15	86
12	378	480	143	1190	318	200	321	88	13	1040	16	107
13	845	303	135	871	290	715	831	84	15	1070	16	104
14	314	226	121	594	1260	880	706	82	33	1120	13	75
15	194	181	147	453	1420	530	2100	86	25	539	9.4	50
16	137	150	328	398	660	407	1690	90	33	286	7.7	29
17	102	140	380	345	488	354	677	65	62	187	5.8	19
18	104	124	8010	293	1650	991	412	64	178	133	5.0	18
19	137	108	8290	258	2390	948	326	235	127	108	4.9	14
20	127	96	1810	241	1390	557	291	157	61	93	6.8	10
21	104	82	939	223	1020	429	236	96	39	71	8.0	6.6
22	512	84	1860	207	657	4430	190	74	38	49	6.7	4.4
23	2180	497	4010	197	471	6370	158	59	38	38	5.0	3.8
24	862	517	3040	165	378	1770	149	68	24	32	4.2	13
25	434	319	1160	161	316	817	155	77	20	27	4.1	219
26	292	233	684	160	275	547	129	49	17	26	4.1	217
27	214	191	489	153	235	592	112	40	14	24	4.4	93
28	166	170	1050	161	207	2430	98	34	11	22	9.0	58
29	136	162	1790	180	---	1010	100	31	9.7	19	21	38
30	114	146	3280	213	---	572	95	86	11	16	24	25
31	97	---	8600	281	---	448	---	128	---	15	27	---
TOTAL	8218	7298	52526	20828	22853	27920	13394	2357	1686.7	17367.3	290.8	1323.0
MEAN	265	243	1694	672	816	901	446	76.0	56.2	560	9.38	44.1
MAX	2180	1320	8600	3750	3150	6370	2100	235	233	5730	27	219
MIN	14	52	121	153	207	176	95	31	9.7	3.3	2.6	3.8
CFSM	1.11	1.02	7.09	2.81	3.41	3.77	1.87	.32	.24	2.34	.04	.18
IN.	1.28	1.14	8.18	3.24	3.56	4.35	2.08	.37	.26	2.70	.05	.21

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1991, BY WATER YEAR (WY)

MEAN	68.3	175	452	445	628	630	433	283	136	104	92.5	87.2
MAX	741	617	1936	1213	2230	1780	1552	1538	669	560	798	1295
(WY)	1976	1980	1979	1974	1989	1964	1972	1983	1974	1991	1974	1979
MIN	1.02	.48	1.98	21.9	33.7	65.9	45.4	18.7	3.09	2.35	1.56	1.54
(WY)	1954	1954	1954	1981	1954	1983	1986	1976	1988	1964	1953	1953

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1953 - 1991	
ANNUAL TOTAL	163832.7		176061.8			
ANNUAL MEAN	449		482		293	
HIGHEST ANNUAL MEAN					574	1979
LOWEST ANNUAL MEAN					47.9	1954
HIGHEST DAILY MEAN	8600	Dec 31	8600	Dec 31	17200	Dec 9 1978
LOWEST DAILY MEAN	5.5	Aug 20	2.6	Aug 8	.20	Nov 14 1953
ANNUAL SEVEN-DAY MINIMUM	9.1	Aug 14	5.2	Aug 21	.21	Nov 14 1953
INSTANTANEOUS PEAK FLOW			12600	Dec 18	19400	Dec 9 1978
INSTANTANEOUS PEAK STAGE			17.43	Dec 18	20.55	Dec 9 1978
ANNUAL RUNOFF (CFSM)	1.88		2.02		1.23	
ANNUAL RUNOFF (INCHES)	25.50		27.40		16.69	
10 PERCENT EXCEEDS	1150		1200		667	
50 PERCENT EXCEEDS	132		149		71	
90 PERCENT EXCEEDS	25		11		3.0	

LICKING RIVER BASIN

03252500 SOUTH FORK LICKING RIVER AT CYNTHIANA, KY

LOCATION.--Lat 38°23'27", long 84°18'11", Harrison County, Hydrologic Unit 05100102, on left bank at downstream side of bridge on State Highway 356 and 36, at Cynthiana, 0.3 mi downstream from Grays Run, in pool formed by old mill dam 2.6 mi downstream, and at mile 49.1.

DRAINAGE AREA.--621 mi^2.

PERIOD OF RECORD.--April 1938 to current year. Gage-height records collected in this vicinity since 1917 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 1113: 1943(M). WSP 1505: 1945. WSP 1705: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 688.52 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 28, 1952, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 23-26, Feb. 6-8, 10-13, 16-18, and July 9-10. Records good except those for periods of estimated record, which are fair. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	187	319	10600	935	475	3620	235	222	18	32	10
2	35	160	288	3880	777	427	874	206	185	15	23	11
3	26	146	1310	1860	689	398	742	183	258	14	20	12
4	86	129	5020	1330	623	419	647	164	247	14	19	17
5	57	127	2670	1050	587	682	699	182	337	13	61	56
6	323	123	1440	1340	900	701	691	142	302	13	40	36
7	349	102	978	7200	2400	1320	616	124	173	12	16	99
8	218	100	743	7160	5600	1280	529	111	114	527	14	90
9	153	106	591	3500	1740	970	487	143	73	11000	14	44
10	122	331	493	2230	1500	824	3440	214	49	10500	13	20
11	97	3160	426	2010	1100	696	1840	271	30	8620	13	16
12	167	1480	376	2840	900	605	855	253	22	3120	13	14
13	1030	795	350	2510	800	2360	1510	203	19	2060	13	202
14	759	551	322	1800	1890	3490	2160	190	16	2460	13	198
15	467	422	437	1390	3480	1980	3780	136	15	1560	37	168
16	324	352	921	1170	1600	1360	4800	165	19	775	79	128
17	241	320	1010	1010	1400	1100	2060	226	36	503	90	118
18	261	296	10200	831	1700	1920	1190	171	35	360	119	82
19	309	266	16900	715	6100	2850	882	150	253	272	86	54
20	288	246	10200	660	5700	1830	829	298	233	229	65	76
21	255	215	3560	618	4480	1330	714	215	147	224	26	21
22	316	219	3180	558	3160	7780	542	158	96	168	16	14
23	2710	1140	3500	498	2230	16100	438	114	77	133	14	13
24	2320	1730	6400	462	1650	8770	393	147	85	109	14	13
25	1110	992	4400	435	1260	3330	371	159	63	96	13	14
26	676	661	3000	402	980	2140	379	143	46	83	13	204
27	484	505	1350	382	751	2660	370	127	31	67	13	393
28	368	426	1360	495	556	5190	314	113	26	55	12	266
29	299	383	4250	622	---	6300	246	193	24	46	12	178
30	250	344	5830	700	---	6280	254	288	21	45	11	125
31	213	---	15200	1150	---	6290	---	192	---	44	11	---
TOTAL	14369	16014	107024	61408	55488	91857	36272	5616	3254	43155	935	2692
MEAN	464	534	3452	1981	1982	2963	1209	181	108	1392	30.2	89.7
MAX	2710	3160	16900	10600	6100	16100	4800	298	337	11000	119	393
MIN	26	100	288	382	556	398	246	111	15	12	11	10
CFSM	.75	.86	5.56	3.19	3.19	4.77	1.95	.29	.17	2.24	.05	.14
IN.	.86	.96	6.41	3.68	3.32	5.50	2.17	.34	.19	2.59	.06	.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1991, BY WATER YEAR (WY)

MEAN	125	393	1025	1308	1669	1741	1166	662	404	319	187	181
MAX	1892	1996	4567	6038	5189	5219	4731	3677	2421	1768	1356	3480
(WY)	1976	1943	1979	1950	1989	1964	1948	1983	1950	1938	1974	1979
MIN	.65	.74	.89	17.0	80.9	198	115	15.7	6.21	5.94	2.73	1.34
(WY)	1954	1954	1944	1944	1954	1983	1941	1941	1988	1951	1983	1955

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1938 - 1991	
ANNUAL TOTAL	372135		438084			
ANNUAL MEAN	1020		1200		760	
HIGHEST ANNUAL MEAN					1505	1979
LOWEST ANNUAL MEAN					124	1954
HIGHEST DAILY MEAN	16900	Dec 19	16900	Dec 19	30700	Apr 13 1948
LOWEST DAILY MEAN	13	Jul 9	10	Sep 1	.30	Oct 23 1953
ANNUAL SEVEN-DAY MINIMUM	13	Jul 7	11	Aug 28	.30	Nov 10 1953
INSTANTANEOUS PEAK FLOW			20800	Dec 19	35300	Apr 13 1948
INSTANTANEOUS PEAK STAGE			19.85	Dec 19	23.32	Apr 13 1948
ANNUAL RUNOFF (CFSM)	1.64		1.93		1.22	
ANNUAL RUNOFF (INCHES)	22.29		26.24		16.63	
10 PERCENT EXCEEDS	2690		3370		1800	
50 PERCENT EXCEEDS	319		331		186	
90 PERCENT EXCEEDS	44		18		5.5	

LICKING RIVER BASIN

03253500 LICKING RIVER AT CATAWBA, KY

LOCATION.--Lat 38°42'31", long 84°18'38", Pendleton County, Hydrologic Unit 05100101, on right bank 1 mi southeast of Catawba, 1.5 mi upstream from Kincaid Creek, 2.3 mi north of Falmouth, and at mile 48.0.

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

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

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

GAGE.--Water-stage recorder. Datum of gage is 500.01 ft above National Geodetic Vertical Datum 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.--Estimated daily discharges: Nov. 10-14, Dec. 22 to Jan. 10. Records good, except for periods of estimated record which are fair. Flow regulated since December 1973 by Cave Run Lake (station 03249498). Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	464	665	1030	26000	8450	6530	7840	2090	727	712	365	160
2	426	618	978	14000	7710	6410	7240	1520	735	787	308	200
3	391	818	7070	8800	7330	6020	6700	1280	2060	740	261	212
4	5320	898	10600	6600	7090	6020	6300	1140	1160	742	273	215
5	1580	881	10700	9000	6940	7430	6200	1060	1070	1230	237	1780
6	755	873	6340	19000	15700	8300	6370	1140	935	996	203	1930
7	611	864	4310	20100	23700	13900	6200	1010	1030	867	178	629
8	735	863	3610	17000	21300	12000	5850	907	933	1680	168	416
9	655	861	3090	15000	13900	9460	5740	863	843	10100	206	312
10	718	2450	2590	13000	9490	7630	9080	836	791	14100	190	252
11	738	6250	2090	11500	7930	6880	9200	921	751	21900	276	219
12	1400	6500	1920	11400	7040	6470	7130	1030	606	12300	238	199
13	2190	3740	1710	10300	7160	15600	8870	1090	454	9440	211	202
14	1490	3100	1330	9490	17000	17800	9950	1140	415	8390	240	265
15	1260	2510	3110	8630	17800	12500	14700	1080	383	7340	222	268
16	1020	2820	4640	8130	14700	8810	16600	928	322	4590	195	323
17	832	2720	4250	7880	9670	7480	12000	771	263	3490	180	276
18	1020	2620	31300	7490	11500	11200	8280	704	230	3120	179	234
19	1570	2540	51700	7390	19500	12700	6730	645	353	2810	179	220
20	1020	2480	50400	7370	18200	11600	6900	589	355	2630	191	239
21	855	2390	53800	7280	13100	8950	7080	649	764	2140	252	327
22	1140	2310	25000	7130	10700	20700	6360	767	695	1490	229	324
23	3410	7000	13000	6900	9260	44600	5060	666	603	1080	209	316
24	5750	6380	17000	6750	8200	41100	3900	1380	679	736	206	310
25	4640	4920	24000	6610	7650	25700	2710	788	627	556	191	327
26	2460	2980	29000	6470	7320	16100	2240	690	584	500	174	497
27	1530	1960	14000	6350	7000	18400	2040	946	668	468	164	762
28	1160	1600	9100	7710	6750	17100	1850	1100	749	440	159	713
29	949	1380	15000	7590	---	18200	2220	651	725	430	158	747
30	826	1130	33000	9060	---	11900	3060	895	715	415	158	604
31	740	---	34000	9400	---	8620	---	919	---	385	159	---
TOTAL	47655	77121	469668	319330	322090	426110	204400	30195	21225	116604	6559	13478
MEAN	1537	2571	15150	10300	11500	13750	6813	974	707	3761	212	449
MAX	5750	7000	53800	26000	23700	44600	16600	2090	2060	21900	365	1930
MIN	391	618	978	6350	6750	6020	1850	589	230	385	158	160

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1991, BY WATER YEAR (WY)

MEAN	741	2041	4877	7256	8016	9310	6703	4257	2366	1793	1159	1068
MAX	7178	7668	18500	36630	23150	24720	21720	16660	12830	9225	5557	12860
(WY)	1976	1943	1979	1937	1956	1964	1948	1983	1950	1938	1935	1979
MIN	5.49	12.2	40.7	111	344	1247	666	371	94.1	17.0	13.7	11.6
(WY)	1931	1931	1931	1931	1934	1983	1986	1976	1930	1930	1930	1930

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1916 - 1991	
ANNUAL TOTAL	1942748		2054435			
ANNUAL MEAN	5323		5629		4116	
HIGHEST ANNUAL MEAN					7730	1979
LOWEST ANNUAL MEAN					994	1954
HIGHEST DAILY MEAN	53800	Dec 21	53800	Dec 21	93400	Mar 10 1964
LOWEST DAILY MEAN	250	Jul 13	158	Aug 29	2.9	Aug 5 1930
ANNUAL SEVEN-DAY MINIMUM	347	Aug 18	162	Aug 26	3.3	Oct 14 1930
INSTANTANEOUS PEAK FLOW			53800	Dec 21	95000	Mar 10 1964
INSTANTANEOUS PEAK STAGE			34.97	Dec 21	52.60	Mar 10 1964
INSTANTANEOUS LOW FLOW					2.5	Aug 5 1930
10 PERCENT EXCEEDS	13600		14700		11300	
50 PERCENT EXCEEDS	2460		2040		1320	
90 PERCENT EXCEEDS	430		247		111	

LICKING RIVER BASIN

03254000 LICKING RIVER AT BUTLER, KY
(National stream-quality accounting network)

WATER-QUALITY RECORDS

LOCATION.--Lat 38°47'22", long 84°21'05", Pendleton County, Hydrologic Unit 05100101, at bridge on U.S. Highway 27, 0.4 mi downstream from Flour Creek, 1.0 mi east of Butler, and at mile 36.7.

DRAINAGE AREA.--3,375 mi^2.

PERIOD OF RECORD.--Water years 1950, 1975 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1949 to September 1950, October 1974 to July 1981.
WATER TEMPERATURES: October 1949 to September 1951, October 1974 to July 1981.

REMARKS.--Flow regulated by Cave Run Lake. Records of daily discharge are published for gaging station at Catawba (station 03253500) 11.3 mi upstream, drainage area, [illegible],300 mi^2.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV 1990												
07...	1135	876	259	8.0	10.5	8.0	9.7	89	100	150	120	38
FEB 1991												
07...	1035	29300	243	7.8	7.0	160	10.8	91	3900	22000	120	41
MAY												
07...	1020	933	300	8.4	17.0	6.5	8.8	93	350	60	150	47
AUG												
21...	1115	208	255	8.1	23.0	16	[illegible] 4	76	K25	390	120	37

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	ALKA-LINITY WAT DIS TOT FET FIELD MG/L AS CACO3	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SULFATE DIS-SOLVED (MG/L AS SO4)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
NOV 1990											
07...	7.1	5.5	2.9	98	--	80	81	8.7	26	0.10	5.6
FEB 1991											
07...	4.8	3.1	2.1	--	--	--	90	5.1	23	0.10	5.9
MAY											
07...	8.7	5.1	2.2	136	--	111	112	5.7	39	0.10	3.5
AUG											
21...	6.5	5.9	2.8	52	35	102	102	8.6	33	0.20	1.8

LICKING RIVER BASIN

03254000 LICKING RIVER AT BUTLER, KY--Continued
(National stream-quality accounting network)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
NOV 1990											
07...	155	145	<0.010	0.500	0.020	0.020	0.30	0.060	0.050	0.050	10
FEB 1991											
07...	157	146	<0.010	0.800	0.050	0.030	1.7	0.360	0.090	0.070	20
MAY											
07...	180	179	<0.010	0.120	0.020	0.020	0.50	0.080	0.030	<0.010	20
AUG											
21...	149	157	<0.010	<0.050	<0.010	<0.010	0.70	0.120	0.020	<0.010	40

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV 1990											
07...	<1	22	<0.5	<1.0	<1	<3	4	98	1	<4	17
FEB 1991											
07...	<1	13	<0.5	<1.0	<1	<3	2	200	1	<4	8
MAY											
07...	<1	23	<0.5	<1.0	<1	<3	1	9	<1	5	2
AUG											
21...	<1	22	<0.5	<1.0	1	<3	2	27	<1	<4	5

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 1990											
07...	<0.1	<10	2	<1	<1.0	110	<6	5	19	45	58
FEB 1991											
07...	<0.1	<10	<1	<1	<1.0	96	<6	4	269	21300	94
MAY											
07...	<0.1	<10	2	<1	<1.0	130	<6	26	12	30	86
AUG											
21...	<0.1	<10	1	<1	<1.0	110	<6	4	29	16	86

OHIO RIVER MAIN STEM

03277200 OHIO RIVER AT MARKLAND DAM, KY

LOCATION.--Lat 38°46'29", long 84°57'52", Gallatin County, Hydrologic Unit 05090203, at left end of Markland Dam, 0.4 mi upstream from Stephens Creek, 3.4 mi west of Warsaw, and at mile 531.5.

DRAINAGE AREA.--83,170 mi^2, approximately.

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

REVISED RECORDS.--WDR KY-88-1: 1987.

GAGE.--Gate opening and water-stage recorders on left bank. Turbine recorders in powerplant on right bank. 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.

REMARKS.--Estimated daily discharges: June 12,21, Aug. 10-13,21. Records poor. Daily discharge computed from Corps of Engineer Dam books. Flow regulated by Ohio River system of locks and dams.

COOPERATION.--Flows for 1991 water year when the console malfunctioned, were determined using readings from the U.S. Army Corps of Engineers.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 26, 1937, reached a stage of 76.1 ft (tailwater gage).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44900	64800	62800	457000	143000	134000	219000	70200	40600	24100	18300	17700
2	37700	66700	56800	477000	164000	109000	212000	77800	34700	35800	16000	11600
3	26500	52800	89700	491000	164000	100000	189000	68500	41500	17900	17600	15300
4	45900	50200	139000	489000	148000	107000	150000	58000	37200	23300	17900	14100
5	78900	51400	174000	463000	122000	135000	114000	56100	34100	21900	16800	33100
6	69400	44000	196000	425000	154000	184000	99000	49000	33500	35800	17100	36800
7	71500	50200	195000	387000	231000	234000	87600	62600	21800	22200	11700	10200
8	72100	47500	182000	361000	260000	277000	86500	72400	19700	41600	8600	10700
9	64800	50200	152000	353000	266000	308000	78700	73500	19700	81900	14800	17200
10	80000	49500	124000	346000	265000	306000	99700	59100	14200	57400	25000	16000
11	69700	84000	105000	332000	249000	279000	115000	58000	14100	62600	24000	34200
12	86600	108000	92900	322000	218000	244000	115000	49000	19000	55700	25000	25100
13	123000	105000	82200	313000	186000	240000	148000	37000	23300	39700	22000	9910
14	174000	98500	77500	316000	184000	258000	207000	45000	16000	51500	17900	14600
15	191000	93000	85400	317000	209000	252000	239000	48500	11900	34500	11500	20800
16	178000	84500	106000	298000	230000	254000	293000	50000	8990	36300	9710	21000
17	147000	75500	136000	252000	237000	248000	334000	54200	18700	17000	14700	22500
18	136000	67400	260000	234000	224000	234000	330000	48400	24200	17300	19400	14000
19	133000	59200	390000	237000	219000	217000	274000	54000	20300	28200	15600	18900
20	134000	58000	398000	243000	222000	211000	224000	47600	20300	20900	19000	20800
21	140000	62800	419000	240000	250000	213000	195000	45000	20000	13900	28000	18600
22	148000	61900	438000	221000	293000	227000	159000	37300	25700	11800	13300	13500
23	145000	76700	446000	205000	322000	335000	141000	44100	26500	18700	15000	13400
24	148000	92300	445000	186000	304000	404000	127000	56100	26900	23600	17400	16300
25	183000	102000	438000	171000	264000	410000	123000	38100	19700	31200	17400	32300
26	195000	94100	427000	142000	214000	410000	116000	15500	13900	8500	16100	34600
27	186000	88500	409000	122000	178000	415000	105000	25600	19400	13800	14700	11700
28	154000	73500	374000	118000	152000	373000	96600	34200	29300	13800	10400	11800
29	120000	68000	340000	111000	---	318000	84600	32500	20900	24500	8460	11300
30	99100	65800	361000	120000	---	270000	81700	41600	10200	21900	7200	17000
31	80500	---	425000	130000	---	226000	---	49000	---	16600	7470	---
TOTAL	3562600	2146000	7626300	8879000	6072000	7932000	4843400	1557900	686290	923900	498040	565010
MEAN	114900	71530	246000	286400	216900	255900	161400	50250	22880	29800	16070	18830
MAX	195000	108000	446000	491000	322000	415000	334000	77800	41500	81900	28000	36800
MIN	26500	44000	56800	111000	122000	100000	78700	15500	8990	8500	7200	9910

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1991, BY WATER YEAR (WY)

MEAN	55600	91940	154600	147300	182400	206700	183300	135900	91450	60910	45290	43630
MAX	144100	230600	288700	289900	291200	335400	292200	286300	219100	109500	146200	143800
(WY)	1980	1986	1973	1974	1975	1975	1972	1983	1981	1972	1980	1979
MIN	17440	29040	42150	34060	91570	98440	61160	43510	16250	18530	13060	15500
(WY)	1989	1988	1990	1977	1980	1990	1986	1976	1988	1988	1988	1983

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1970 - 1991	
ANNUAL TOTAL	50071700		45292440			
ANNUAL MEAN	137200		124100		116600	
HIGHEST ANNUAL MEAN					157300	1979
LOWEST ANNUAL MEAN					60450	1988
HIGHEST DAILY MEAN	446000	Dec 23	491000	Jan 3	542000	Mar 17 1978
LOWEST DAILY MEAN	19700	Aug 6	7200	Aug 30	4320	Sep 23 1984
ANNUAL SEVEN-DAY MINIMUM	27100	Aug 13	11100	Aug 27	7310	Jul 1 1988
INSTANTANEOUS PEAK STAGE			52.89	Jan 3	55.25	Dec 13 1978
10 PERCENT EXCEEDS	287000		316000		260000	
50 PERCENT EXCEEDS	108000		77500		81800	
90 PERCENT EXCEEDS	40500		15200		22300	

KENTUCKY RIVER BASIN

03277450 CARR FORK NEAR SASSAFRAS, KY

LOCATION.--Lat 37°13'52", long 83°02'10", Knott County, Hydrologic Unit 05100201, on left bank 0.3 mi downstream from Sassafras Creek, 0.5 mi downstream from Carr Fork Dam, 0.6 mi upstream from Rowdy Hollow, 1.3 mi northeast of Sassafras, and at mile 8.3.

DRAINAGE AREA.--60.6 mi^2.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 940.00 ft above National Geodetic Vertical Datum of 1929. Prior to July 27, 1966, nonrecording gage at site 0.3 mi upstream at datum 6.39 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Carr Fork Lake beginning January 1976 (station 03277446). Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	34	16	458	326	119	453	38	18	9.3	12	7.8
2	40	34	16	451	221	87	380	19	18	9.2	8.2	7.7
3	38	35	19	272	219	89	125	7.6	83	9.5	8.2	12
4	41	35	95	161	217	195	27	11	110	9.3	8.2	13
5	40	36	126	160	160	285	9.5	13	64	9.5	8.2	16
6	40	46	50	160	117	198	8.9	13	10	9.0	8.2	18
7	40	56	24	185	157	185	8.5	13	9.3	8.9	8.3	18
8	43	51	7.3	215	156	215	8.3	13	9.4	8.8	8.4	18
9	41	47	7.3	293	154	180	8.6	40	9.1	7.9	101	18
10	53	48	7.2	223	154	112	8.9	55	8.9	8.7	84	18
11	63	47	7.0	184	126	117	8.5	22	8.4	8.2	18	18
12	63	47	7.0	300	77	82	8.4	10	8.8	49	8.3	17
13	62	46	7.0	297	89	63	9.3	18	11	96	5.9	19
14	62	46	8.4	180	130	64	9.1	31	13	105	5.7	19
15	62	46	13	115	149	56	23	37	10	65	11	19
16	62	46	13	116	147	50	12	36	7.9	16	15	40
17	62	46	80	62	148	51	10	36	8.2	7.0	10	45
18	64	46	158	61	178	55	13	20	51	7.0	7.7	65
19	63	46	299	70	158	98	16	20	32	6.9	9.1	65
20	62	45	356	80	128	145	16	109	12	6.9	9.1	62
21	62	45	102	80	317	118	16	164	26	6.7	8.1	61
22	63	45	106	65	462	101	62	107	35	6.7	7.7	61
23	95	46	132	32	459	144	102	24	35	6.9	7.7	61
24	116	46	283	31	454	111	64	18	17	12	7.7	61
25	70	46	452	31	451	209	36	17	9.1	15	7.7	63
26	46	45	284	32	445	296	36	17	55	108	7.7	61
27	46	45	189	38	441	294	36	17	31	157	7.7	61
28	46	45	353	46	280	329	36	17	9.1	96	7.7	61
29	46	45	325	46	---	310	31	19	9.3	95	8.3	61
30	40	29	329	117	---	391	37	18	9.3	61	9.3	61
31	34	---	408	320	---	459	---	17	---	17	8.1	---
TOTAL	1740	1320	4279.2	4881	6520	5208	1619.0	996.6	737.8	1038.4	442.2	1127.5
MEAN	56.1	44.0	138	157	233	168	54.0	32.1	24.6	33.5	14.3	37.6
MAX	116	56	452	458	462	459	453	164	110	157	101	65
MIN	34	29	7.0	31	77	50	8.3	7.6	7.9	6.7	5.7	7.7
CFSM	.93	.73	2.28	2.60	3.84	2.77	.89	.53	.41	.55	.24	.62
IN.	1.07	.81	2.63	3.00	4.00	3.20	.99	.61	.45	.64	.27	.69

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1991, BY WATER YEAR (WY)

MEAN	47.6	74.0	92.2	113	132	140	108	81.4	44.6	22.1	20.6	33.2
MAX	256	224	254	311	306	470	264	273	233	74.1	91.3	108
(WY)	1990	1974	1973	1974	1972	1975	1972	1971	1974	1971	1966	1982
MIN	.11	3.84	2.35	6.01	26.6	18.1	6.52	3.05	1.16	1.85	1.49	.88
(WY)	1964	1966	1966	1966	1968	1988	1986	1976	1966	1970	1969	1969

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1964 - 1991	
ANNUAL TOTAL	29342.2		29909.7			
ANNUAL MEAN	80.4		81.9		75.5	
HIGHEST ANNUAL MEAN					133	1975
LOWEST ANNUAL MEAN					24.3	1988
HIGHEST DAILY MEAN	584	Feb 12	462	Feb 22	2260	Dec 30 1969
LOWEST DAILY MEAN	6.7	Jul 10	5.7	Aug 14	.00	Aug 7 1969
ANNUAL SEVEN-DAY MINIMUM	7.3	Dec 8	6.9	Jul 17	.01	Oct 14 1969
INSTANTANEOUS PEAK FLOW			582	Dec 19	6390	Mar 7 1967
INSTANTANEOUS PEAK STAGE			9.53	Dec 19	19.24	Mar 7 1967
INSTANTANEOUS LOW FLOW			3.5	Aug 13	.00	Aug 7 1969
ANNUAL RUNOFF (CFSM)	1.33		1.35		1.25	
ANNUAL RUNOFF (INCHES)	18.01		18.36		16.92	
10 PERCENT EXCEEDS	195		220		172	
50 PERCENT EXCEEDS	46		45		28	
90 PERCENT EXCEEDS	8.7		8.2		3.4	

KENTUCKY RIVER BASIN

03277500 NORTH FORK KENTUCKY RIVER AT HAZARD, KY

LOCATION.--Lat 37°14'48", long 83°10'55", Perry County, Hydrologic Unit 05100201, on right bank 300 ft upstream from the Woodland Park bridge in intake tower of the Hazard Water Plant on State Highway 15 at eastern limits of Hazard, 450 ft upstream from city waterworks dam, 4.0 mi upstream from Lotts Creek, and at mile 361.0.

DRAINAGE AREA.--466 mi^2.

PERIOD OF RECORD.--January 1940 to current year. Gage-height records collected in the vicinity since 1925 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 953: 1940. WSP 1385: 1942-48, 1949(M), 1950-51, 1953, drainage area. WSP 1505: 1951.

GAGE.--Water-stage recorder. Datum of gage is 839.76 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 25, 1965, nonrecording gage at site 300 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Feb. 18-21. Records good except for periods of estimated record, which are poor. Small diversion by city of Hazard waterworks and electric plant above station. Flow regulated by Carr Fork Lake beginning January 1976 (station 03277446). Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	130	127	2550	1570	692	2230	335	399	167	73	67
2	98	124	120	1750	1100	702	1770	312	584	148	52	57
3	79	115	203	1260	929	790	1260	264	646	167	44	59
4	105	115	916	844	821	2040	957	249	818	157	38	112
5	148	114	756	713	717	1870	836	243	467	320	35	101
6	141	136	430	640	887	1500	761	237	250	422	35	83
7	106	160	325	3640	1360	1670	677	229	197	219	40	81
8	337	157	230	4070	1360	1510	627	218	168	158	34	74
9	503	137	192	2170	1230	1260	590	223	147	130	187	70
10	236	179	166	1560	1060	987	584	271	131	131	1010	67
11	188	210	149	1270	881	862	521	249	121	324	270	61
12	181	202	138	1350	689	759	477	297	153	275	136	60
13	195	181	132	1210	663	742	499	360	196	426	103	60
14	193	164	126	1010	1350	859	496	396	156	433	123	60
15	175	153	125	753	1470	926	1200	313	128	320	120	60
16	155	148	197	752	1120	842	1020	262	131	199	104	61
17	140	152	342	627	1080	789	750	232	302	136	90	70
18	174	152	1830	546	5000	1100	653	214	213	118	75	83
19	431	145	3000	500	9000	1400	609	689	498	105	70	101
20	263	140	1730	499	13000	1330	619	1840	385	99	75	97
21	207	136	1670	521	5000	1130	599	1080	297	93	79	97
22	190	133	1410	486	2310	1480	569	675	309	86	76	90
23	313	163	3870	384	1860	10200	587	399	612	77	66	89
24	481	190	3030	383	1560	5200	543	301	366	136	61	85
25	348	186	1980	356	1390	2200	433	250	288	206	58	103
26	250	171	1340	325	1290	1760	424	220	361	996	46	119
27	211	163	826	314	1160	1490	405	198	332	365	41	110
28	182	159	6110	354	980	1330	402	197	226	223	42	102
29	165	163	2810	351	---	2810	375	194	187	448	47	95
30	151	159	1800	1230	---	4840	349	468	163	280	56	93
31	134	---	4350	2440	---	2990	---	260	---	104	74	---
TOTAL	6617	4637	40430	34858	60837	58060	21822	11675	9231	7468	3360	2467
MEAN	213	155	1304	1124	2173	1873	727	377	308	241	108	82.2
MAX	503	210	6110	4070	13000	10200	2230	1840	818	996	1010	119
MIN	79	114	120	314	663	692	349	194	121	77	34	57
CFSM	.46	.33	2.80	2.41	4.66	4.02	1.56	.81	.66	.52	.23	.18
IN.	.53	.37	3.23	2.78	4.86	4.63	1.74	.93	.74	.60	.27	.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1991, BY WATER YEAR (WY)

MEAN	155	347	633	894	1141	1287	976	650	323	218	174	109
MAX	1639	1750	1910	2859	2391	4123	2654	2982	1865	1380	974	511
(WY)	1990	1974	1973	1974	1972	1963	1977	1984	1974	1942	1947	1982
MIN	3.48	12.5	27.2	28.4	58.6	165	130	69.3	40.6	26.0	10.8	5.90
(WY)	1954	1954	1966	1940	1941	1988	1942	1941	1941	1944	1957	1955

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1940 - 1991	
ANNUAL TOTAL	235553		261462			
ANNUAL MEAN	645		716		577	
HIGHEST ANNUAL MEAN					1099	1974
LOWEST ANNUAL MEAN					158	1941
HIGHEST DAILY MEAN	8390	Feb 10	13000	Feb 20	33900	Mar 12 1963
LOWEST DAILY MEAN	49	Aug 20	34	Aug 8	1.0	Oct 9 1941
ANNUAL SEVEN-DAY MINIMUM	57	Sep 7	40	Aug 2	1.0	Sep 13 1955
INSTANTANEOUS PEAK FLOW			18000	Feb 20	47800	Jan 29 1957
INSTANTANEOUS PEAK STAGE			19.30	Feb 20	37.54	Jan 29 1957
INSTANTANEOUS LOW FLOW			23	Aug 26		
ANNUAL RUNOFF (CFSM)	1.38		1.54		1.24	
ANNUAL RUNOFF (INCHES)	18.80		20.87		16.83	
10 PERCENT EXCEEDS	1430		1610		[illegible]	
50 PERCENT EXCEEDS	388		288		21[illegible]	
90 PERCENT EXCEEDS	72		79		28	

KENTUCKY RIVER BASIN

03280000 NORTH FORK KENTUCKY RIVER AT JACKSON, KY

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

DRAINAGE AREA.--1,101 mi^2.

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder. Datum of gage is 697.67 ft above National Geodetic Vertical Datum of 1929. See WDR KY-90-1 for history of changes prior to Aug. 22, 1980.

REMARKS.--Estimated daily discharges: Dec. 31 to Jan. 2. Water-discharge records fair. Small diversions by city of Jackson waterworks. Flow regulated by Carr Fork Lake (station 03277446) beginning January 1976.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	231	280	295	7000	3460	1630	4570	769	2480	475	407	247
2	226	258	273	3800	2490	1440	3520	710	3740	494	314	222
3	193	249	839	3010	1990	1630	2870	644	2490	475	261	166
4	200	236	3220	2260	1730	3900	2250	587	3260	480	222	167
5	324	229	2270	1770	1550	3900	1980	563	2070	517	193	221
6	328	255	1410	1580	1620	3270	1970	543	1360	563	174	276
7	284	266	967	3960	3370	3440	1680	570	950	634	354	223
8	261	263	758	9390	3400	3160	1520	514	752	421	327	198
9	609	276	591	5580	2920	2680	1460	560	625	353	377	170
10	691	711	489	3670	2500	2260	2080	789	541	402	1190	155
11	424	882	421	3770	2120	1890	1640	773	470	517	1090	148
12	342	677	380	3630	1760	1670	1430	902	435	804	552	143
13	315	540	345	3210	1570	1980	1640	929	444	1200	367	133
14	338	455	321	2710	3670	2570	1770	887	490	1640	417	124
15	328	389	360	2250	4690	2680	4100	791	411	1130	394	116
16	292	349	994	1990	3250	2370	5510	629	369	764	330	111
17	260	338	1240	1870	2610	2110	3140	564	382	527	267	110
18	248	328	8290	1570	5660	2930	2320	873	821	393	256	186
19	247	308	10500	1410	14800	3160	2220	2440	672	332	248	386
20	506	292	4680	1350	18400	2880	3180	3410	907	296	265	297
21	369	278	3630	1350	9990	2520	2490	3230	860	262	288	226
22	635	268	3690	1260	5230	2380	1990	1900	1060	264	240	187
23	1170	315	12400	1090	3740	6770	1670	1300	1570	239	220	168
24	980	409	9490	1040	3100	13000	1490	936	1230	444	177	158
25	896	401	4870	987	2660	5920	1280	730	1250	550	154	198
26	670	374	3190	904	2400	3490	1100	593	1900	687	145	258
27	503	340	2510	863	2140	3020	1000	572	1200	919	143	275
28	417	320	11700	904	1920	2710	959	1070	885	667	133	232
29	363	324	10800	966	---	4020	912	1060	627	1870	124	190
30	326	314	6020	967	---	8980	839	1850	504	922	156	164
31	300	---	13000	4010	---	7800	---	1190	---	625	219	---
TOTAL	13276	10924	119943	80121	114740	112160	64580	32878	34755	19866	10004	5855
MEAN	428	364	3869	2585	4098	3618	2153	1061	1158	641	323	195
MAX	1170	882	13000	9390	18400	13000	5510	3410	3740	1870	1190	386
MIN	193	229	273	863	1550	1440	839	514	369	239	124	110
CFSM	.39	.33	3.51	2.35	3.72	3.29	1.96	.96	1.05	.58	.29	.18
IN.	.45	.37	4.05	2.71	3.88	3.79	2.18	1.11	1.17	.67	.34	.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1991, BY WATER YEAR (WY)

MEAN	320	801	1459	2246	2823	3065	2312	1480	755	533	416	249
MAX	4189	3528	4826	7321	6879	10240	6029	7189	4584	3070	2281	1251
(WY)	1990	1974	1973	1937	1939	1955	1972	1984	1974	1942	1947	1950
MIN	1.08	16.5	61.4	155	200	541	422	195	72.4	15.5	18.5	3.58
(WY)	1931	1954	1966	1981	1941	1988	1963	1941	1966	1930	1930	1930

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1929 - 1991	
ANNUAL TOTAL	563568		619102			
ANNUAL MEAN	1544		1696		1355	
HIGHEST ANNUAL MEAN					2524	1974
LOWEST ANNUAL MEAN					435	1941
HIGHEST DAILY MEAN	14700	Feb 4	18400	Feb 20	52200	May 8 1984
LOWEST DAILY MEAN	128	Sep 9	110	Sep 17	.00	Oct 16 1930
ANNUAL SEVEN-DAY MINIMUM	152	Sep 3	126	Sep 11	.19	Oct 11 1930
INSTANTANEOUS PEAK FLOW			19300	Feb 20	53500	Jan 30 1957
INSTANTANEOUS PEAK STAGE			24.47	Feb 20	43.10	Feb 4 1939
ANNUAL RUNOFF (CFSM)	1.40		1.54		1.23	
ANNUAL RUNOFF (INCHES)	19.04		20.92		16.72	
10 PERCENT EXCEEDS	3260		3710		3190	
50 PERCENT EXCEEDS	895		839		532	
90 PERCENT EXCEEDS	240		225		65	

03280000 NORTH FORK KENTUCKY RIVER AT JACKSON, KY--Continued
(National water-quality assessment network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948-75, 1979 to August 1981 and April 1987 to August 1991 (discontinued).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1949 to September 1963, unpublished; October 1963 to September 1975.
SUSPENDED-SEDIMENT DISCHARGE: August 1979 to August 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	E.COLI METC,MF WATER WHOLE TOTAL (COL/ 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT												
17...	1030	268	658	8.1	21.0	16.5	9.1	97	490	--	290	64
DEC												
17...	1245	1090	445	7.1	14.5	7.5	10.8	93	2000	4800	200	42
FEB												
11...	1230	2080	343	7.4	22.0	6.0	11.5	96	820	640	150	32
APR												
22...	1245	1970	364	7.5	18.5	13.0	9.8	98	4900	2850	170	34
JUN												
17...	1245	401	690	8.0	33.5	26.5	7.2	94	1100	875	340	70
AUG												
26...	1210	139	835	8.2	30.0	25.0	8.0	99	410	513	390	83

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT												
17...	32	22	14	0.6	4.9	113	220	11	0.2	0.03	4.9	446
DEC												
17...	23	10	10	0.3	3.0	67	140	6.5	0.5	0.02	5.6	270
FEB												
11...	18	8.8	11	0.3	2.3	49	120	4.2	0.1	0.02	7.5	203
APR												
22...	20	9.3	11	0.3	2.2	56	120	3.5	0.1	0.02	7.1	239
JUN												
17...	39	19	11	0.5	2.3	107	270	8.1	0.2	0.01	3.7	509
AUG												
26...	45	22	11	0.5	5.5	126	320	11	0.2	0.03	2.1	591

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)
OCT												
17...	441	0.61	323	<0.01	<0.01	--	0.5	--	--	20	<1	<1
DEC												
17...	273	0.37	795	<0.01	0.05	0.40	<0.2	0.05	<0.01	50	<1	<1
FEB												
11...	225	0.28	1140	<0.01	0.02	0.40	0.4	0.02	<0.01	20	<1	<1
APR												
22...	231	0.33	1270	<0.01	<0.01	0.30	0.3	0.04	<0.01	20	<1	<1
JUN												
17...	479	0.69	551	<0.01	<0.01	0.41	<0.2	<0.01	<0.01	30	<1	<1
AUG												
26...	565	0.29	79.2	<0.01	<0.01	0.33	0.3	0.02	<0.01	20	<1	<1

03280000 NORTH FORK KENTUCKY RIVER AT JACKSON, KY--Continued
(National water-quality assessment network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
OCT												
17...	44	<0.5	30	0.5	1	<3	1.2	8	<0.5	13	36	--
DEC												
17...	31	<0.5	10	0.3	<0.5	<3	1.0	34	<0.5	6	73	0.1
FEB												
11...	25	<0.5	40	0.6	0.8	<3	3.0	17	<0.5	7	48	<0.1
APR												
22...	29	<0.5	20	0.2	0.7	<3	2.0	13	<0.5	8	27	<0.1
JUN												
17...	49	0.7	30	0.2	<0.5	<3	1.7	13	<0.5	15	38	<0.1
AUG												
26...	56	<0.5	--	<0.1	<0.5	<3	2.0	6	<0.5	14	57	<0.1

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)
OCT												
17...	<10	<10	<1	<1.0	630	<6	6	<0.6	<0.6	6.6	<0.6	5.0
DEC												
17...	<10	<10	<1	1.0	340	<6	8	<0.6	0.9	4.2	0.9	3.1
FEB												
11...	<10	<10	<1	<1.0	280	<6	6	0.7	<0.6	2.8	1.4	2.2
APR												
22...	<10	<10	<1	<1.0	310	<6	4	1.4	0.8	3.2	1.7	2.4
JUN												
17...	<10	<10	<1	<1.0	660	<6	6	2.0	<0.6	5.8	0.9	4.4
AUG												
26...	<10	<10	<1	<1.0	790	<6	<3	0.6	<0.6	5.2	<0.6	3.9

DATE	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	CYANIDE DIS-SOLVED (MG/L AS CN)	AME-TRYNE TOTAL	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)
OCT												
17...	<0.6	3.2	0.2	<0.01	<0.10	<0.10	<0.10	<0.01	<0.01	<0.1	<0.1	<0.10
DEC												
17...	0.8	3.1	0.8	0.02	<0.10	<0.10	<0.10	<0.01	<0.01	<0.1	<0.1	<0.10
FEB												
11...	1.3	8.2	0.5	<0.01	<0.10	<0.10	<0.20	<0.01	<0.01	<0.2	<0.1	<0.10
APR												
22...	1.6	3.3	0.4	<0.01	<0.10	<0.10	<0.20	<0.01	<0.01	<0.2	<0.1	<0.10
JUN												
17...	0.8	3.6	0.4	<0.01	<0.10	<0.10	<0.20	<0.01	<0.01	<0.2	<0.1	<0.10
AUG												
26...	<0.6	3.9	0.4	<0.01	<0.10	<0.10	<0.20	<0.01	<0.01	<0.2	<0.1	<0.10

KENTUCKY RIVER BASIN

03280000 NORTH FORK KENTUCKY RIVER AT JACKSON, KY--Continued
(National water-quality assessment network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	SILVEX, TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	ALA-CHLOR TOTAL RECOVER (UG/L)	TRI-FLURA-LIN TOTAL RECOVER (UG/L)	BROM-ACIL WATER WHLREC (UG/L)	BUTA-CHLOR WATER WHLREC (UG/L)	BUTYL-ATE WATER WHLREC (UG/L)
OCT											
17...	<0.01	<0.10	<0.1	<0.01	<0.01	<0.01	<0.10	<0.10	--	--	--
DEC											
17...	<0.01	<0.10	<0.1	<0.01	<0.01	<0.01	<0.10	<0.10	--	--	--
FEB											
11...	<0.01	<0.10	<0.1	<0.01	<0.01	<0.01	<0.20	<0.10	<0.2	<0.1	<0.1
APR											
22...	<0.01	<0.10	<0.1	<0.01	<0.01	<0.01	<0.20	<0.10	<0.2	<0.1	<0.1
JUN											
17...	<0.01	<0.10	<0.1	0.01	<0.01	<0.01	<0.20	<0.10	<0.2	<0.1	<0.1
AUG											
26...	<0.01	<0.10	<0.1	0.17	<0.01	<0.01	<0.10	<0.10	<0.2	<0.1	<0.1

DATE	CARBOX-IN WATER WHOLE RECOV-ERABLE (UG/L)	CYCLO-ATE WATER WHOLE RECOV-ERABLE (UG/L)	DE-ISO PROPYL ATRAZIN WATER, WHOLE, TOTAL (UG/L)	DEETHYL ATRA-ZINE, WATER, WHOLE, TOTAL (UG/L)	DIPHEN-AMID WATER WHOLE RECOV-ERABLE (UG/L)	HEXAZI-NONE WATER WHOLE RECOV-ERABLE (UG/L)	METRI-BUZIN WATER WHOLE TOT.REC (UG/L)	METOLA-CHLOR WATER WHOLE TOT.REC (UG/L)	PROPA-CHLOR WATER WHOLE RECOV. (UG/L)	TER-BACIL WATER WHOLE RECOV. (UG/L)	VER-NOLATE WATER WHOLE RECOV. (UG/L)
OCT											
17...	--	--	--	--	--	--	<0.1	<0.1	--	--	--
DEC											
17...	--	--	--	--	--	--	<0.1	<0.1	--	--	--
FEB											
11...	<0.2	<0.1	<0.2	<0.2	<0.1	<0.2	<0.1	<0.2	<0.1	<0.2	<0.1
APR											
22...	<0.2	<0.1	<0.2	<0.2	<0.1	<0.2	<0.1	<0.2	<0.1	<0.2	<0.1
JUN											
17...	<0.2	<0.1	<0.2	<0.2	<0.1	<0.2	<0.1	<0.2	<0.1	<0.2	<0.1
AUG											
26...	<0.2	<0.1	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	<0.1	<0.2	<0.1

03280600 MIDDLE FORK KENTUCKY RIVER NEAR HYDEN, KY

LOCATION.--Lat 37°08'13", long 83°22'17", Leslie County, Hydrologic Unit 05100202, on left bank on U.S. Highway 421, 0.2 mi upstream from unnamed tributary, 0.4 mi downstream from Munsey Creek, 1.7 mi south of Hyden, and at mile 76.1.

DRAINAGE AREA.--202 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 833.00 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 23, 1957, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Oct. 1-2. Records good except for periods of estimated record, which are poor. Small diversion by city of Hyden from reservoir for municipal water supply. Dam for the reservoir completed November 1968. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 29, 1957, reached a stage of 33.3 ft, discharge, about 60,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	67	59	1230	700	210	807	236	272	103	56	34
2	22	62	59	827	538	299	601	204	189	87	49	18
3	22	55	482	571	410	444	466	165	160	157	47	14
4	41	53	1560	419	322	1520	369	153	237	110	42	13
5	81	54	720	333	275	959	317	137	142	86	40	11
6	61	71	530	287	360	739	275	130	94	101	29	10
7	42	67	297	3060	463	721	238	119	69	82	18	12
8	387	55	226	1750	509	616	213	91	53	68	23	22
9	324	49	176	980	497	511	277	90	46	58	41	18
10	152	80	148	705	432	411	354	99	42	52	135	14
11	110	131	121	658	347	322	246	81	34	105	84	13
12	91	135	104	609	284	286	211	83	75	81	54	13
13	95	116	95	531	300	299	227	87	114	76	45	15
14	88	99	84	440	1450	330	217	80	57	142	38	17
15	73	85	86	376	1170	321	1570	72	43	101	39	25
16	63	78	203	369	739	313	1200	64	50	71	48	28
17	56	73	454	315	641	312	742	56	384	58	39	22
18	87	72	1920	277	4170	565	549	145	413	49	34	28
19	179	70	2440	259	5800	684	487	701	143	44	28	40
20	120	65	1030	258	3850	613	672	1540	94	43	25	36
21	89	60	1180	257	1510	494	568	871	139	61	15	22
22	88	57	1380	212	959	1370	460	386	667	46	13	20
23	620	63	6780	188	678	6100	358	219	435	39	9.9	11
24	426	69	2380	198	528	1910	300	154	220	98	8.1	12
25	262	62	1140	181	424	973	241	113	352	168	8.1	33
26	190	61	714	161	350	670	208	88	562	470	13	55
27	143	57	679	159	283	533	204	72	356	161	20	41
28	117	56	3900	183	236	456	421	76	224	98	34	25
29	94	66	1770	170	---	1700	328	106	159	102	25	14
30	80	63	1160	478	---	2350	289	194	125	75	61	13
31	73	---	3090	976	---	1220	---	125	---	66	49	---
TOTAL	4298	2151	34967	17417	28225	28251	13415	6737	5950	3058	1170.1	649
MEAN	139	71.7	1128	562	1008	911	447	217	198	98.6	37.7	21.6
MAX	620	135	6780	3060	5800	6100	1570	1540	667	470	135	55
MIN	22	49	59	159	236	210	204	56	34	39	8.1	10
CFSM	.69	.35	5.58	2.78	4.99	4.51	2.21	1.08	.98	.49	.19	.11
IN.	.79	.40	6.44	3.21	5.20	5.20	2.47	1.24	1.10	.56	.22	.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1991, BY WATER YEAR (WY)

MEAN	76.9	207	380	493	556	643	522	348	163	83.2	57.0	38.8
MAX	667	948	1128	1276	1064	1788	1189	1151	1136	358	202	197
(WY)	1990	1978	1991	1974	1972	1975	1972	1984	1989	1960	1958	1989
MIN	.62	11.4	7.17	15.9	115	86.6	58.7	54.0	6.74	7.54	3.26	2.70
(WY)	1964	1966	1966	1981	1968	1988	1963	1964	1988	1975	1988	1983

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1958 - 1991	
ANNUAL TOTAL	128673		146288.1			
ANNUAL MEAN	353		401		296	
HIGHEST ANNUAL MEAN					448	1974
LOWEST ANNUAL MEAN					114	1988
HIGHEST DAILY MEAN	6780	Dec 23	6780	Dec 23	17000	Mar 12 1963
LOWEST DAILY MEAN	15	Sep 19	8.1	Aug 24	.00	Aug 30 1975
ANNUAL SEVEN-DAY MINIMUM	23	Sep 15	12	Aug 21	.00	Aug 30 1975
INSTANTANEOUS PEAK FLOW			11700	Mar 23	37400	Mar 12 1963
INSTANTANEOUS PEAK STAGE			14.43	Mar 23	26.13	Mar 12 1963
INSTANTANEOUS LOW FLOW			8.1	Aug 23	.00	Aug 30 1975
ANNUAL RUNOFF (CFSM)	1.75		1.98		1.47	
ANNUAL RUNOFF (INCHES)	23.70		26.94		19.92	
10 PERCENT EXCEEDS	720		959		656	
50 PERCENT EXCEEDS	182		143		104	
90 PERCENT EXCEEDS	33		27		8.0	

KENTUCKY RIVER BASIN

03280700 CUTSHIN CREEK AT WOOTON, KY

LOCATION.--Lat 37°9'54", long 83°18'29", Leslie County, Hydrologic Unit 05100202, on right bank 15 ft downstream from bridge on State Highway 80, 400 ft upstream from Poundmill Branch, 600 ft upstream from Rockhouse Branch, 0.7 mi downstream from Saw Branch, 1.0 mi southwest of Wooton, and at mile 10.7.

DRAINAGE AREA.--61.3 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 869.84 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 26, 1957, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: May 19, 20. Records good. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.7	15	19	310	213	69	194	47	71	35	16	5.6
2	7.2	14	19	204	158	90	147	42	61	22	12	5.0
3	7.2	13	204	149	124	120	118	36	73	35	9.2	7.5
4	30	12	375	114	102	255	97	32	70	21	8.0	7.4
5	22	13	170	96	89	202	88	28	45	18	7.2	6.2
6	10	26	114	86	136	188	76	34	31	15	6.3	6.7
7	8.3	15	84	878	149	188	68	25	22	12	7.0	6.1
8	136	12	66	467	152	158	63	19	18	9.3	11	5.2
9	70	14	53	255	146	135	73	31	15	8.7	22	4.5
10	39	49	46	184	129	112	70	23	12	9.5	21	5.3
11	29	52	41	194	106	95	58	25	11	17	11	5.4
12	26	42	36	176	90	91	56	34	55	31	9.8	5.2
13	25	35	34	153	111	108	65	31	23	13	22	4.6
14	20	29	30	133	301	121	58	41	15	18	16	4.4
15	18	25	38	116	240	110	598	23	12	8.9	14	3.9
16	15	22	58	116	170	102	322	18	80	7.0	11	3.6
17	13	23	157	99	174	100	194	17	122	5.9	7.9	5.2
18	51	20	602	87	875	204	140	17	126	5.5	7.0	11
19	41	18	529	82	1400	206	130	75	115	4.8	6.9	20
20	29	17	244	81	879	173	157	252	73	6.2	8.0	7.1
21	24	15	268	79	408	144	130	139	104	4.4	6.6	5.2
22	28	17	391	66	258	231	109	80	117	3.9	5.6	4.2
23	136	39	1300	62	186	1540	92	53	152	4.7	5.1	3.9
24	98	28	487	60	147	420	79	39	72	63	5.0	5.3
25	63	26	267	53	123	235	66	28	76	64	4.7	17
26	46	23	177	49	105	172	59	22	83	54	5.3	12
27	34	21	316	49	87	137	66	20	64	22	8.1	6.6
28	28	25	1170	58	75	120	73	31	48	20	6.7	5.5
29	22	27	374	48	---	479	62	62	38	25	9.6	4.5
30	19	19	374	310	---	524	54	75	29	26	13	4.1
31	17	---	684	395	---	286	---	42	---	33	7.0	---
TOTAL	1119.4	706	8727	5209	7133	7115	3562	1441	1833	622.8	310.0	198.2
MEAN	36.1	23.5	282	168	255	230	119	46.5	61.1	20.1	10.0	6.61
MAX	136	52	1300	878	1400	1540	598	252	152	64	22	20
MIN	7.2	12	19	48	75	69	54	17	11	3.9	4.7	3.6
CFSM	.59	.38	4.59	2.74	4.16	3.74	1.94	.76	1.00	.33	.16	.11
IN.	.68	.43	5.30	3.16	4.33	4.32	2.16	.87	1.11	.38	.19	.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1991, BY WATER YEAR (WY)

MEAN	29.7	65.9	109	147	173	198	163	116	57.4	33.0	23.1	18.9
MAX	287	309	359	597	371	620	428	449	423	144	107	125
(WY)	1990	1978	1973	1974	1972	1975	1977	1983	1989	1958	1966	1974
MIN	.26	6.64	3.30	6.97	27.0	21.4	16.6	14.0	3.17	2.17	1.16	.73
(WY)	1964	1966	1966	1981	1968	1988	1963	1964	1988	1970	1988	1969

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1958 - 1991	
ANNUAL TOTAL	38864.6		37976.4			
ANNUAL MEAN	106		104		94.1	
HIGHEST ANNUAL MEAN					212	1974
LOWEST ANNUAL MEAN					27.6	1988
HIGHEST DAILY MEAN	1580	Feb 3	1540	Mar 23	4890	May 7 1984
LOWEST DAILY MEAN	4.6	Jul 11	3.6	Sep 16	.00	Sep 29 1959
ANNUAL SEVEN-DAY MINIMUM	6.5	Jul 6	4.6	Sep 11	.01	Sep 11 1964
INSTANTANEOUS PEAK FLOW			3540	Mar 23	14200	Mar 12 1963
INSTANTANEOUS PEAK STAGE			7.79	Mar 23	16.23	Mar 12 1963
INSTANTANEOUS LOW FLOW			3.5	Sep 16	.00	Sep 29 1959
ANNUAL RUNOFF (CFSM)	1.74		1.70		1.54	
ANNUAL RUNOFF (INCHES)	23.59		23.05		20.86	
10 PERCENT EXCEEDS	223		237		205	
50 PERCENT EXCEEDS	50		45		32	
90 PERCENT EXCEEDS	9.0		6.7		2.5	

KENTUCKY RIVER BASIN

03281000 MIDDLE FORK KENTUCKY RIVER AT TALLEGA, KY

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

DRAINAGE AREA.--537 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 642.13 ft above National Geodetic Vertical Datum of 1929. Prior to Feb. 6, 1940, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 30 to Feb. 4, 12-14, and Mar. 30 to Apr. 1. Records good except for the period Jan. 12 to Apr. 28, which is fair. Flow regulated by Buckhorn Lake beginning December 1960 (station 03280800).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	237	475	141	2370	3000	3670	4000	339	787	256	188	69
2	195	330	137	2640	2500	2550	3800	389	1120	540	105	70
3	162	305	722	4190	2000	1930	3210	452	1330	450	94	64
4	148	252	2290	4230	1500	2170	1550	465	1060	360	91	63
5	134	320	2870	4090	915	3090	872	461	694	328	87	66
6	119	332	2800	4010	597	2970	777	451	608	315	69	74
7	111	325	1820	4850	885	2950	595	240	393	307	165	67
8	147	320	862	5020	1740	2800	182	192	307	299	119	65
9	196	331	492	4630	1440	1590	122	228	290	200	88	64
10	573	653	421	4280	1260	1090	130	242	191	162	92	64
11	599	718	412	3450	915	942	111	285	117	157	85	62
12	369	629	346	3800	715	1160	106	325	112	248	86	54
13	224	681	302	4300	620	1100	130	311	114	363	181	63
14	184	575	294	4210	1600	1170	172	306	110	376	193	65
15	179	540	263	4040	2970	1300	889	255	106	250	204	65
16	271	418	576	4080	2580	308	2310	195	118	202	164	64
17	317	403	942	4000	2510	328	3230	176	192	154	79	64
18	327	388	4950	3790	3330	1380	1990	237	535	107	71	74
19	324	384	4860	3210	3960	1700	418	272	1520	101	76	150
20	395	361	2300	1870	4700	1880	1060	939	544	97	84	74
21	412	341	1300	1220	4630	1480	1200	3700	464	95	76	66
22	602	334	950	885	4590	1250	556	3850	685	91	67	63
23	1330	320	5200	620	4410	2460	574	1420	1050	76	63	62
24	1170	308	4110	552	4210	3660	504	777	1170	107	60	61
25	1020	305	4690	611	4190	4200	237	446	1180	102	60	65
26	954	296	4400	552	4030	4050	291	256	928	81	58	67
27	656	292	4300	526	4070	3950	270	185	775	730	57	68
28	462	285	5960	418	3890	3800	256	391	726	429	56	64
29	485	283	5510	440	---	3600	250	681	397	590	56	63
30	496	201	5600	580	---	4300	291	1070	186	402	77	63
31	486	---	6880	2000	---	4300	---	698	---	300	75	---
TOTAL	13284	11705	76700	85464	73757	73128	30083	20234	17809	8275	3026	2043
MEAN	429	390	2474	2757	2634	2359	1003	653	594	267	97.6	68.1
MAX	1330	718	6880	5020	4700	4300	4000	3850	1520	730	204	150
MIN	111	201	137	418	597	308	106	176	106	76	56	54
CFSM	.80	.73	4.61	5.13	4.91	4.39	1.87	1.22	1.11	.50	.18	.13
IN.	.92	.81	5.31	5.92	5.11	5.07	2.08	1.40	1.23	.57	.21	.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1991, BY WATER YEAR (WY)

MEAN	212	458	850	1253	1518	1589	1165	779	407	265	190	142
MAX	2225	1715	2826	3472	3912	4841	2721	2762	2599	1441	1299	784
(WY)	1990	1978	1973	1957	1956	1955	1958	1971	1989	1941	1942	1989
MIN	.21	.60	23.2	56.8	99.6	241	98.7	57.9	43.3	8.07	7.64	2.80
(WY)	1954	1954	1954	1981	1941	1988	1986	1986	1931	1944	1953	1953

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1931 - 1991	
ANNUAL TOTAL	334513		415508			
ANNUAL MEAN	916		1138		733	
HIGHEST ANNUAL MEAN					1171	1975
LOWEST ANNUAL MEAN					267	1988
HIGHEST DAILY MEAN	6880	Dec 31	6880	Dec 31	40600	Jan 30 1957
LOWEST DAILY MEAN	52	Sep 12	54	Sep 12	.10	Oct 12 1953
ANNUAL SEVEN-DAY MINIMUM	61	Sep 6	59	Aug 23	.10	Oct 12 1953
INSTANTANEOUS PEAK FLOW			8050	Dec 31	52700	Jan 30 1957
INSTANTANEOUS PEAK STAGE			23.31	Dec 31	43.33	Jan 30 1957
INSTANTANEOUS LOW FLOW			49	Sep 12	.10	Oct 12 1953
ANNUAL RUNOFF (CFSM)	1.71		2.12		1.36	
ANNUAL RUNOFF (INCHES)	23.17		28.78		18.54	
10 PERCENT EXCEEDS	2790		4000		2150	
50 PERCENT EXCEEDS	476		418		264	
90 PERCENT EXCEEDS	81		73		40	

KENTUCKY RIVER BASIN

03281040 RED BIRD RIVER NEAR BIG CREEK, KY

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

DRAINAGE AREA.--155 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 815.74 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Sept. 24-30. Records good except for periods of estimated record, which are poor. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.2	54	48	1030	711	149	625	114	49	59	31	17
2	9.2	48	48	599	456	168	442	103	63	111	25	14
3	9.2	46	1460	412	340	298	339	86	83	495	20	11
4	29	43	2040	304	271	1540	269	77	244	162	19	9.2
5	41	45	623	242	230	816	240	71	111	100	21	11
6	23	68	376	208	296	579	203	65	66	63	20	13
7	14	74	266	2460	549	606	169	68	45	45	19	9.1
8	429	58	200	1540	491	478	151	55	35	34	90	8.5
9	278	57	151	780	412	381	188	55	27	30	81	8.5
10	99	229	122	517	346	304	388	59	24	33	150	9.8
11	65	268	105	549	281	248	293	45	22	42	69	11
12	48	200	92	504	235	222	255	42	67	33	34	9.1
13	37	147	87	425	282	239	292	40	83	26	29	8.9
14	31	114	76	361	1600	264	282	39	40	40	33	13
15	25	93	129	306	1050	242	1900	37	30	37	22	17
16	21	80	417	297	590	223	1150	32	134	22	42	17
17	18	75	778	251	484	212	628	29	508	16	24	12
18	19	66	2760	214	3640	458	432	217	307	17	18	28
19	42	58	2110	193	6280	536	361	622	139	14	16	38
20	28	55	844	190	3710	440	344	4140	105	12	17	22
21	23	54	969	181	1360	352	287	1500	101	11	15	15
22	101	51	1570	145	785	762	250	530	94	9.1	14	12
23	928	67	8280	117	518	4460	219	292	317	8.7	10	10
24	431	71	1650	127	390	1410	184	201	196	642	8.5	9.20
25	256	64	807	107	313	686	147	137	296	368	7.3	103
26	175	60	506	96	257	461	129	100	393	250	11	190
27	126	56	734	95	210	361	117	79	227	109	14	155
28	101	55	4010	118	177	413	177	72	136	89	14	99
29	84	57	1220	111	---	3020	141	71	91	83	29	55
30	70	54	1300	1770	---	2080	132	95	68	54	37	21
31	60	---	2800	1690	---	1040	---	65	---	40	25	---
TOTAL	3629.6	2467	36578	15939	26264	23448	10734	9138	4101	3054.8	964.8	956.30
MEAN	117	82.2	1180	514	938	756	358	295	137	98.5	31.1	31.9
MAX	928	268	8280	2460	6280	4460	1900	4140	508	642	150	190
MIN	9.2	43	48	95	177	149	117	29	22	8.7	7.3	8.5
CFSM	.76	.53	7.61	3.32	6.05	4.88	2.31	1.90	.88	.64	.20	.21
IN.	.87	.59	8.78	3.83	6.30	5.63	2.58	2.19	.98	.73	.23	.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1991, BY WATER YEAR (WY)

MEAN	104	257	366	445	500	545	425	343	174	73.8	46.3	40.4
MAX	758	796	1180	1150	938	1678	954	1176	998	216	192	138
(WY)	1990	1978	1991	1974	1991	1975	1977	1984	1989	1979	1990	1979
MIN	3.93	7.84	37.5	19.0	164	99.6	60.8	41.2	10.3	5.28	2.51	1.81
(WY)	1979	1988	1981	1981	1988	1988	1986	1986	1988	1988	1988	1983

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1973 - 1991	
ANNUAL TOTAL	120186.2		137274.50			
ANNUAL MEAN	329		376		275	
HIGHEST ANNUAL MEAN					434	1975
LOWEST ANNUAL MEAN					92.2	1988
HIGHEST DAILY MEAN	8280	Dec 23	8280	Dec 23	16200	May 7 1984
LOWEST DAILY MEAN	5.6	Sep 19	7.3	Aug 25	.20	Oct 4 1983
ANNUAL SEVEN-DAY MINIMUM	7.4	Sep 15	9.3	Sep 7	.53	Sep 28 1983
INSTANTANEOUS PEAK FLOW			12500	Dec 23	28500	Oct 17 1989
INSTANTANEOUS PEAK STAGE			13.31	Dec 23	21.14	Oct 17 1989
INSTANTANEOUS LOW FLOW			7.3	Aug 25	.20	Oct 4 1983
ANNUAL RUNOFF (CFSM)	2.12		2.43		1.78	
ANNUAL RUNOFF (INCHES)	28.84		32.95		24.14	
10 PERCENT EXCEEDS	695		811		582	
50 PERCENT EXCEEDS	150		111		94	
90 PERCENT EXCEEDS	15		16		6.8	

KENTUCKY RIVER BASIN

03281100 GOOSE CREEK AT MANCHESTER, KY

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

DRAINAGE AREA.--163 mi^2.

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

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 819.37 ft above National Geodetic Vertical Datum of 1929. Prior to September 15, 1975, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Feb. 19 to Apr. 1. Records good except for periods of estimated record, which are poor. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 28, 1947, Jan. 29, 1957, and Mar. 12, 1963, reached a stage of 40.6 ft, discharge, 38,000 ft^3/s, 37.3 ft, discharge, 29,800 ft^3/s, and 33.5 ft, discharge, 21,500 ft^3/s, respectively, present site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	63	63	891	653	160	580	94	60	61	29	18
2	20	54	65	521	411	170	436	85	154	57	23	11
3	18	47	1630	360	320	215	340	71	221	118	17	8.6
4	43	42	3520	273	269	1100	282	63	550	71	14	8.4
5	92	42	712	227	234	700	252	57	197	81	13	11
6	47	67	382	206	282	540	222	56	115	63	11	11
7	33	58	266	1770	401	570	199	52	77	37	9.0	9.6
8	813	45	202	1400	402	450	186	42	55	25	13	7.9
9	668	47	164	678	352	360	181	56	41	22	15	6.0
10	250	263	140	466	308	270	207	58	31	20	28	6.2
11	173	361	126	532	263	240	180	40	25	28	26	8.1
12	129	248	113	495	225	220	171	39	96	25	14	8.3
13	103	183	104	404	267	230	205	96	95	19	18	9.3
14	86	146	94	332	1240	250	199	98	51	22	21	11
15	68	123	147	281	866	240	917	62	40	27	28	15
16	54	106	482	280	496	230	822	45	113	15	31	17
17	44	100	739	245	427	220	505	51	947	11	17	8.2
18	45	86	3110	215	2890	400	364	270	298	9.1	13	5.4
19	87	76	2390	200	4900	475	335	675	155	7.7	11	5.8
20	60	70	799	198	2300	400	382	4620	108	6.0	14	14
21	49	61	947	189	1100	350	309	5140	107	5.3	15	9.0
22	424	59	1640	161	650	500	264	728	151	5.0	13	6.2
23	1860	90	7730	144	450	3200	226	328	344	9.1	9.7	5.0
24	708	89	2350	145	350	900	196	197	270	122	7.1	5.5
25	324	84	703	130	280	500	167	137	635	316	5.8	23
26	207	78	439	120	240	375	150	102	292	258	20	35
27	153	74	505	117	190	320	137	81	171	123	29	23
28	125	75	3810	139	170	380	131	74	119	69	23	15
29	101	83	1130	129	---	2100	120	104	86	78	15	10
30	85	68	911	1140	---	1400	115	130	65	55	11	7.0
31	73	---	2700	2020	---	850	---	77	---	39	23	---
TOTAL	6965	2988	38113	14408	20936	18315	8780	13728	5669	1804.2	536.6	338.5
MEAN	225	99.6	1229	465	748	591	293	443	189	58.2	17.3	11.3
MAX	1860	361	7730	2020	4900	3200	917	5140	947	316	31	35
MIN	18	42	63	117	170	160	115	39	25	5.0	5.8	5.0
CFSM	1.38	.61	7.54	2.85	4.59	3.62	1.80	2.72	1.16	.36	.11	.07
IN.	1.59	.68	8.70	3.29	4.78	4.18	2.00	3.13	1.29	.41	.12	.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1991, BY WATER YEAR (WY)

MEAN	96.9	214	374	439	483	502	424	315	147	93.8	49.1	44.0
MAX	600	646	1229	1205	1196	1665	983	1158	975	381	178	185
(WY)	1990	1978	1991	1974	1972	1975	1972	1984	1989	1965	1977	1979
MIN	2.13	11.4	28.3	22.9	70.5	111	50.7	29.3	6.48	2.03	3.72	2.11
(WY)	1970	1988	1966	1981	1968	1969	1986	1965	1988	1966	1988	1965

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1965 - 1991	
ANNUAL TOTAL	118494.6		132581.3			
ANNUAL MEAN	325		363		264	
HIGHEST ANNUAL MEAN					393	1972
LOWEST ANNUAL MEAN					107	1988
HIGHEST DAILY MEAN	7730	Dec 23	7730	Dec 23	13700	May 7 1984
LOWEST DAILY MEAN	3.6	Aug 20	5.0	Jul 22	.00	Oct 8 1980
ANNUAL SEVEN-DAY MINIMUM	5.9	Jul 28	7.3	Sep 18	.16	Oct 4 1980
INSTANTANEOUS PEAK FLOW			10000	May 20	19200	May 7 1984
INSTANTANEOUS PEAK STAGE			24.80	May 20	32.85	May 7 1984
INSTANTANEOUS LOW FLOW			4.0	Jul 23	.00	Oct 8 1980
ANNUAL RUNOFF (CFSM)	1.99		2.23		1.62	
ANNUAL RUNOFF (INCHES)	27.04		30.26		22.01	
10 PERCENT EXCEEDS	679		805		565	
50 PERCENT EXCEEDS	153		125		88	
90 PERCENT EXCEEDS	17		12		5.8	

KENTUCKY RIVER BASIN

03281500 SOUTH FORK KENTUCKY RIVER AT BOONEVILLE, KY

LOCATION.--Lat 37°27'45", long 83°40'38", Owsley County, Hydrologic Unit 05100203, on right bank 600 ft downstream from Buck Creek, 0.2 mi downstream from bridge on State Highway 30 at Booneville, 0.5 mi downstream from Meadow Creek, and at mile 11.5.

DRAINAGE AREA.--722 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 642.49 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 5, 1925, nonrecording gage at site 0.1 mi upstream from Meadow Creek and Aug. 5, 1925, to Sept. 30, 1929, nonrecording gage on highway bridge 0.1 mi upstream from Meadow Creek, at datum 3.07 ft higher. Oct. 1 to Nov. 27, 1929, nonrecording gage at present site and datum.

REMARKS.--No estimated daily discharges. Records good.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	125	276	274	7300	3330	771	3050	436	548	390	179	103
2	108	248	251	3130	2020	766	2190	383	1230	512	139	93
3	97	224	1750	2180	1530	1030	1690	341	1090	718	113	92
4	117	205	10400	1630	1220	3690	1340	311	1620	829	95	79
5	136	194	5660	1280	1030	3790	1180	286	1310	505	80	64
6	216	212	2150	1120	1030	2560	1100	270	727	385	105	60
7	216	240	1440	3530	1690	2230	942	268	498	331	147	50
8	164	251	1040	7810	1950	1870	841	259	377	254	106	51
9	1420	228	809	4080	1750	1530	824	276	305	214	136	59
10	969	777	661	2600	1500	1250	1080	288	254	204	189	50
11	535	1060	566	2880	1260	1040	1100	280	217	263	288	42
12	419	1260	498	2910	1040	912	922	239	195	279	212	38
13	349	891	449	2440	992	1090	1120	206	342	248	148	36
14	291	676	411	1980	3640	1560	1300	196	420	197	141	45
15	250	545	423	1650	4830	1680	2950	236	300	164	138	51
16	215	459	2110	1460	2800	1400	5260	215	341	176	121	71
17	188	417	2480	1340	2050	1220	2910	181	1130	158	97	62
18	187	383	10100	1100	5520	2550	2020	171	1630	124	129	75
19	176	344	15200	971	13900	2980	1720	839	863	102	115	160
20	178	311	5830	924	18700	2360	1790	3370	557	96	138	73
21	218	286	3350	907	9740	1840	1440	10400	466	86	96	66
22	364	267	4360	806	3530	1740	1180	4820	963	76	80	64
23	3930	285	15400	683	2390	6270	996	1570	718	69	70	68
24	3790	332	19600	657	1830	8000	850	964	949	110	64	57
25	1670	351	5640	609	1470	3220	724	687	1510	1050	57	57
26	996	325	2630	547	1240	2130	627	515	2020	813	52	52
27	701	307	1980	511	1020	1710	563	429	1130	536	52	50
28	536	295	9550	551	872	1540	516	971	749	345	51	97
29	432	294	9270	606	---	3770	535	915	538	491	60	93
30	362	292	5210	640	---	10200	476	1190	412	373	121	73
31	311	---	13500	5260	---	5270	---	810	---	240	105	---
TOTAL	19666	12835	152992	64092	93874	81969	43236	32323	23409	10338	3624	2031
MEAN	634	428	4935	2067	3353	2644	1441	1043	780	333	117	67.7
MAX	3930	1660	19600	7810	18700	10200	5260	10400	2020	1050	288	160
MIN	97	194	251	511	872	766	476	171	195	69	51	36
CFSM	.88	.59	6.84	2.86	4.64	3.66	2.00	1.44	1.08	.46	.16	.09
IN.	1.01	.66	7.88	3.30	4.84	4.22	2.23	1.67	1.21	.53	.19	.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1991, BY WATER YEAR (WY)

MEAN	220	679	1348	1811	2149	2278	1696	1094	571	398	253	146
MAX	2843	2380	4935	5461	5905	7400	4633	5130	2710	2666	1700	827
(WY)	1990	1974	1991	1974	1956	1975	1972	1984	1989	1941	1942	1989
MIN	.084	.32	12.1	104	178	568	222	119	36.7	3.67	4.56	.68
(WY)	1954	1954	1954	1981	1941	1988	1963	1941	1966	1944	1930	1930

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1925 - 1991	
ANNUAL TOTAL	495624		540388			
ANNUAL MEAN	1358		1481		1053	
HIGHEST ANNUAL MEAN					1682	1975
LOWEST ANNUAL MEAN					413	1988
HIGHEST DAILY MEAN	19600	Dec 24	19600	Dec 24	51300	Jan 30 1957
LOWEST DAILY MEAN	34	Aug 2	36	Sep 13	.00	Oct 11 1953
ANNUAL SEVEN-DAY MINIMUM	49	Jul 28	46	Sep 8	.00	Oct 11 1953
INSTANTANEOUS PEAK FLOW			22600	Dec 24	66100	Jan 30 1957
INSTANTANEOUS PEAK STAGE			30.73	Dec 24	43.40	Jan 30 1957
INSTANTANEOUS LOW FLOW			36	Sep 13	.00	Oct 11 1953
ANNUAL RUNOFF (CFSM)	1.88		2.05		1.46	
ANNUAL RUNOFF (INCHES)	25.54		27.84		19.82	
10 PERCENT EXCEEDS	3020		3530		2400	
50 PERCENT EXCEEDS	674		551		345	
90 PERCENT EXCEEDS	104		90		24	

KENTUCKY RIVER BASIN

03282000 KENTUCKY RIVER AT LOCK 14, AT HEIDELBERG, KY

LOCATION.--Lat 37°33'19", long 83°46'06", Lee County, Hydrologic Unit 05100204, on right bank 200 ft upstream from lock 14 at Heidelberg, 0.3 mi upstream from Sturgeon Creek, and at mile 249.2.

DRAINAGE AREA.--2,657 mi^2.

PERIOD OF RECORD.--October 1925 to September 1931, December 1936 to February 1937, July 1938 to current year. Gage-height records collected in this vicinity since 1902 are published in reports of National Weather Service.

REVISED RECORDS.--WSP 1385: 1926-27, 1928(M), 1929, 1931(M), 1937, 1939(M), drainage area.

GAGE.--Water-stage recorder. Datum of gage is 626.66 ft Ohio River datum (U.S. Army Corps of Engineers bench mark). Prior to September 2, 1939, nonrecording gage at lock 14 at same datum.

REMARKS.--Estimated daily discharges: Oct. 9-15 and Dec. 5-11, 18, 19. Records good above 1,000 ft^3/s, fair between 1,000 ft^3/s and 150 ft^3/s, poor below 150 ft^3/s and for period of estimated record. Flow regulated by Buckhorn Lake beginning December 1960 (station 03280800), and by Carr Fork Lake beginning January 1976 (station 03277446). Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	610	1090	776	27700	12400	6840	17200	1700	2800	1160	1060	444
2	568	869	733	15000	8980	5730	12400	1620	6280	1610	711	442
3	501	725	3670	11500	6580	5110	9860	1550	6480	1640	533	496
4	533	642	30700	9660	5130	10500	7050	1490	6420	1790	459	405
5	545	689	24900	8110	4330	14400	5160	1410	5860	1430	402	390
6	645	713	14200	7480	4070	11500	4720	1350	3550	1270	375	466
7	658	788	8610	14100	6020	10800	4280	1190	2380	1290	574	460
8	597	820	5770	25100	8960	9920	3410	1070	1680	1250	646	379
9	1650	854	3700	23100	7970	7830	3100	1230	1380	1040	636	372
10	2740	2230	2330	22500	6790	6170	3680	1570	1150	1070	824	430
11	2120	3820	1690	19200	5670	5100	3930	1630	904	1410	1780	348
12	1780	3130	1440	13200	4620	4660	3180	1980	792	1390	1360	302
13	1500	2470	1250	12300	4100	5120	3400	1790	814	2470	938	350
14	1260	2040	1140	10700	9460	6450	4120	1710	1020	2240	902	318
15	837	1740	1090	9290	17400	7440	7930	1570	917	2300	846	279
16	781	1450	3290	8430	12500	5920	18300	1340	870	1570	781	271
17	802	1310	5180	7910	9210	5080	13500	1290	1410	1190	595	280
18	793	1240	24000	7100	15900	8190	8780	1340	2760	843	531	269
19	788	1170	37300	6330	31800	10700	5590	3080	3110	655	556	534
20	819	1090	21800	4630	40700	9450	6720	6710	2130	559	644	671
21	1200	998	11800	3840	35300	7750	6810	20200	2200	532	556	547
22	1370	956	13000	3420	21200	8260	5120	14500	3160	486	504	443
23	7030	1030	34600	2900	14200	17000	4280	5850	3470	459	432	401
24	7700	1110	38200	2590	11300	26900	3750	3320	3770	732	361	365
25	4170	1220	23000	2400	9640	22900	2970	2340	5330	1490	307	360
26	2980	1150	13400	2200	8680	13500	2460	1660	5800	1710	280	370
27	2200	1060	10500	2040	8080	10700	2200	1360	4140	1820	280	422
28	1590	993	26100	2050	7430	9650	2040	2030	2930	1820	270	454
29	1360	955	31800	2210	---	10900	1960	2690	2080	2000	263	442
30	1260	892	26200	2360	---	26000	1840	4390	1440	2580	355	392
31	1160	---	38200	8520	---	24300	---	3640	---	1540	400	---
TOTAL	52547	39244	460369	297870	338420	334770	179740	98600	87027	43346	19161	12102
MEAN	1695	1308	14850	9609	12090	10800	5991	3181	2901	1398	618	403
MAX	7700	3820	38200	27700	40700	26900	18300	20200	5480	2580	1780	671
MIN	501	642	733	2040	4070	4660	1840	1070	792	459	263	269
CFSM	.64	.49	5.59	3.62	4.55	4.06	2.25	1.20	1.09	.53	.23	.15
IN.	.74	.55	6.45	4.17	4.74	4.69	2.52	1.38	1.22	.61	.27	.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 1991, BY WATER YEAR (WY)

MEAN	863	2285	4295	6100	7590	8143	6259	4012	2014	1467	1035	646
MAX	10380	7006	17750	20000	18080	23840	15480	16010	10380	5798	5878	3680
(WY)	1990	1978	1927	1937	1939	1955	1972	1984	1989	1941	1942	1989
MIN	9.87	18.9	49.4	362	570	1791	855	490	178	42.4	47.2	9.00
(WY)	1931	1954	1954	1981	1941	1988	1986	1941	1930	1930	1930	1930

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1926 - 1991	
ANNUAL TOTAL	1740835		1963196			
ANNUAL MEAN	4769		5379		3691	
HIGHEST ANNUAL MEAN					6516	1927
LOWEST ANNUAL MEAN					1452	1954
HIGHEST DAILY MEAN	40000	Feb 4	40700	Feb 20	107000	Mar 24 1929
LOWEST DAILY MEAN	247	Sep 9	263	Aug 29	6.0	Oct 16 1930
ANNUAL SEVEN-DAY MINIMUM	311	Sep 5	296	Sep 12	6.0	Oct 16 1930
INSTANTANEOUS PEAK FLOW			41900	Feb 20	120000	Feb 4 1939
INSTANTANEOUS PEAK STAGE			19.92	Feb 20	35.60	Feb 4 1939
INSTANTANEOUS LOW FLOW			223	Sep 15	4.0	Oct 20 1930
ANNUAL RUNOFF (CFSM)	1.80		2.02		1.39	
ANNUAL RUNOFF (INCHES)	24.37		27.49		18.87	
10 PERCENT EXCEEDS	11700		14100		9400	
50 PERCENT EXCEEDS	2580		2080		1360	
90 PERCENT EXCEEDS	514		459		185	

KENTUCKY RIVER BASIN

03282500 RED RIVER NEAR HAZEL GREEN, KY

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

DRAINAGE AREA.--65.8 mi^2.

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

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 870.11 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Nov. 19 to Jan. 15, 20-27. Records fair except those for periods of estimated record, which are poor. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	3.3	10	600	59	62	205	30	10	12	2.8	.50
2	.92	3.3	11	300	53	57	153	27	61	11	2.4	.55
3	.60	3.3	60	190	45	77	122	24	52	17	1.9	.82
4	.84	2.7	350	110	38	247	99	27	43	8.8	1.1	.52
5	6.8	2.4	250	70	35	193	85	25	26	5.2	.92	.52
6	10	1.8	100	130	90	177	74	22	17	3.5	.78	1.1
7	7.3	4.1	50	240	247	210	64	22	12	2.2	.67	.92
8	7.8	1.8	33	460	212	170	58	18	9.4	.95	.67	.60
9	8.3	5.0	28	290	158	135	63	28	8.1	2.0	3.5	.79
10	8.3	165	26	160	126	114	81	62	6.3	11	5.5	.75
11	2.7	114	23	180	97	90	60	38	4.8	31	5.8	.51
12	.92	52	21	230	77	84	53	350	4.2	227	2.8	.51
13	5.1	33	19	190	94	270	90	117	3.8	515	1.1	.61
14	14	26	18	140	615	267	104	68	2.7	146	17	.49
15	8.3	17	40	110	372	197	450	47	2.0	68	10	.45
16	5.4	12	100	75	219	158	436	36	1.3	41	5.0	.47
17	17	11	200	59	170	140	229	49	1.6	29	2.2	.48
18	14	9.3	400	47	448	366	156	33	2.4	24	1.5	.49
19	19	8.0	740	40	722	295	145	26	6.0	19	2.7	.50
20	24	7.2	400	34	778	217	159	22	2.2	14	1.6	.55
21	24	7.0	200	29	377	175	131	21	9.7	12	1.8	1.4
22	52	10	110	25	247	642	113	19	16	9.8	.75	.50
23	247	13	300	23	167	1020	92	18	32	8.2	.66	.48
24	146	25	840	21	124	464	77	14	15	9.2	.63	.48
25	82	20	350	19	99	260	62	11	19	11	.57	.74
26	36	17	230	17	84	192	55	9.1	27	9.5	.49	.54
27	24	15	130	16	75	178	48	9.8	14	7.7	.48	.47
28	19	13	200	26	69	204	44	19	8.6	5.7	.47	.45
29	12	12	300	26	---	167	39	32	6.0	4.7	.47	.46
30	7.8	11	540	31	---	267	35	22	4.6	4.3	.45	.47
31	5.4	---	900	64	---	248	---	14	---	3.7	.44	---
TOTAL	818.58	625.2	6979	3952	5897	7343	3582	1259.9	427.7	1273.45	77.15	18.12
MEAN	26.4	20.8	225	127	211	237	119	40.6	14.3	41.1	2.49	.60
MAX	247	165	900	600	778	1020	450	350	61	515	17	1.4
MIN	.60	1.8	10	16	35	57	35	9.1	1.3	.95	.44	.45
CFSM	.40	.32	3.42	1.94	3.20	3.60	1.81	.62	.22	.62	.04	.01
IN.	.46	.35	3.95	2.23	3.33	4.15	2.03	.71	.24	.72	.04	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1991, BY WATER YEAR (WY)

MEAN	17.3	54.0	117	127	183	188	161	95.3	36.5	31.5	26.5	15.7
MAX	138	227	555	357	555	523	472	318	163	157	141	180
(WY)	1990	1986	1979	1974	1989	1955	1972	1983	1974	1981	1974	1974
MIN	.22	.54	2.76	17.5	27.6	49.1	16.6	13.9	1.19	1.52	.27	.17
(WY)	1964	1956	1964	1981	1968	1969	1986	1986	1988	1970	1957	1955

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1954 - 1991	
ANNUAL TOTAL	30853.30		32253.10			
ANNUAL MEAN	84.5		88.4		87.7	
HIGHEST ANNUAL MEAN					148	1979
LOWEST ANNUAL MEAN					39.6	1969
HIGHEST DAILY MEAN	900	Dec 31	1020	Mar 23	6170	Dec 9 1978
LOWEST DAILY MEAN	.31	Aug 20	.44	Aug 31	.00	Sep 14 1954
ANNUAL SEVEN-DAY MINIMUM	.49	Aug 15	.47	Aug 26	.00	Sep 12 1955
INSTANTANEOUS PEAK FLOW			1190	Mar 23	9080	Feb 27 1962
INSTANTANEOUS PEAK STAGE			5.36	Mar 23	22.12	Feb 27 1962
ANNUAL RUNOFF (CFSM)	1.28		1.34		1.33	
ANNUAL RUNOFF (INCHES)	17.44		18.23		18.11	
10 PERCENT EXCEEDS	220		247		197	
50 PERCENT EXCEEDS	40		24		30	
90 PERCENT EXCEEDS	.92		.75		1.4	

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^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 600.47 ft above National Geodetic Vertical Datum 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.--Estimated daily discharges: Dec. 3-6, Dec. 29 to Jan. 2, 20-26. 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. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	58	90	6800	387	400	1040	214	215	76	43	24
2	27	50	86	3500	369	401	822	194	191	112	38	24
3	26	46	900	1240	357	594	655	180	308	93	34	51
4	62	43	2750	871	333	1390	549	179	404	90	30	28
5	138	44	1500	675	317	1200	497	198	279	79	27	33
6	102	63	500	803	1250	996	447	195	188	68	20	34
7	60	69	364	3050	1970	1180	397	168	139	53	18	33
8	45	60	285	3400	1360	954	361	147	110	885	16	24
9	38	131	230	1840	985	749	359	179	90	1200	87	18
10	34	1040	194	1280	756	617	482	330	77	521	206	30
11	33	959	168	1400	605	525	490	281	66	581	101	59
12	39	456	150	1640	494	474	385	311	58	947	57	47
13	49	286	136	1360	559	883	497	601	54	4410	37	81
14	44	210	125	1040	2560	1550	644	460	49	4800	28	77
15	40	163	154	830	2990	1320	1070	295	44	1000	26	41
16	36	136	357	709	1440	954	2230	228	43	514	25	27
17	30	125	521	618	1020	815	1330	258	89	335	30	19
18	29	117	3710	514	2000	1760	852	394	202	266	41	14
19	28	102	8910	449	3640	1730	759	272	127	522	42	13
20	28	91	7480	400	3910	1210	1030	214	86	253	51	12
21	28	83	1860	360	3520	921	755	190	70	154	50	12
22	97	86	1920	330	1730	2840	614	172	135	113	41	12
23	545	194	6120	310	1190	4940	517	146	189	91	31	12
24	516	209	10500	290	876	4530	445	149	135	239	22	17
25	286	170	4990	270	699	1690	379	131	583	195	18	194
26	181	142	1410	260	596	1150	330	111	737	162	14	136
27	127	123	1100	255	508	1120	304	103	274	105	18	71
28	98	115	2920	268	445	1470	300	162	163	81	17	46
29	82	112	4200	301	---	1170	273	249	111	65	15	35
30	71	101	7000	298	---	1270	247	804	86	56	15	28
31	63	---	9900	359	---	1250	---	358	---	48	29	---
TOTAL	3011	5584	80530	35720	36866	42053	19060	7873	5302	18114	1227	1252
MEAN	97.1	186	2598	1152	1317	1357	635	254	177	584	39.6	41.7
MAX	545	1040	10500	6800	3910	4940	2230	804	737	4800	206	194
MIN	26	43	86	255	317	400	247	103	43	48	14	12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1991, BY WATER YEAR (WY)

MEAN	86.8	279	613	762	1017	1036	837	502	261	271	185	113
MAX	928	1220	3036	2634	3564	3048	2406	1914	1199	1845	1179	1185
(WY)	1990	1987	1979	1950	1989	1955	1972	1983	1950	1938	1938	1974
MIN	4.41	9.75	19.7	43.2	127	258	110	54.6	23.9	5.01	18.2	6.15
(WY)	1964	1954	1954	1931	1954	1969	1986	1941	1988	1944	1957	1984

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1931 - 1991	
ANNUAL TOTAL	254522		256592			
ANNUAL MEAN	697		703		489	
HIGHEST ANNUAL MEAN					884	1989
LOWEST ANNUAL MEAN					158	1941
HIGHEST DAILY MEAN	10500	Dec 24	10500	Dec 24	26100	Dec 9 1978
LOWEST DAILY MEAN	26	Sep 8	12	Sep 20	1.2	Aug 10 1944
ANNUAL SEVEN-DAY MINIMUM	31	Oct 15	13	Sep 18	2.0	Oct 2 1930
INSTANTANEOUS PEAK FLOW			12100	Dec 24	28800	Dec 9 1978
INSTANTANEOUS PEAK STAGE			19.42	Dec 24	26.75	Dec 9 1978
10 PERCENT EXCEEDS	1490		1590		1160	
50 PERCENT EXCEEDS	286		228		179	
90 PERCENT EXCEEDS	40		29		21	

KENTUCKY RIVER BASIN

03284000 KENTUCKY RIVER AT LOCK 10, NEAR WINCHESTER, KY

LOCATION.--Lat 37°53'41", long 84°15'44", Madison County, Hydrologic Unit 05100205, on left bank at lock 10, 0.9 mi downstream from Otter Creek, 8.0 mi southwest of Winchester, and at mile 176.4.

DRAINAGE AREA.--3,955 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1907 to current year.

REVISED RECORDS.--WSP 1275: 1908-52. 1955: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 557.37 ft Ohio River datum. Feb. 2, 1940 to Aug. 10, 1943, water-stage recorder 1.1 mi upstream at different datum. Aug. 11, 1943 to June 12, 1978, nonrecording gage at present site and datum. Auxiliary gage is upper nonrecording gage at lock 9, at Valley View, 18.9 mi downstream.

REMARKS.--Estimated daily discharges: June 19-25. Water discharge records good above 1,000 ft^3/s and fair below. Flow regulated since January 1976 by Carr Fork Lake (station 03277446), since December 1960 by Buckhorn Lake (station 03280800).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	833	1210	1080	54300	12500	8630	26600	2710	4670	1690	1490	856
2	774	1090	962	44900	12000	8140	18300	2490	6970	1620	948	747
3	716	852	6500	21200	9110	7270	13800	2280	9300	1980	591	775
4	1060	687	16800	13900	7060	13000	10800	2210	8070	2090	378	811
5	1300	602	22200	11300	6070	18600	8000	2080	7740	2110	294	754
6	1110	666	12800	11000	11300	17400	6660	1960	5820	1520	242	723
7	1030	709	8010	25600	12400	15800	6160	1840	4070	1300	296	742
8	998	742	5670	33500	12200	14300	5490	1520	2830	2710	480	702
9	952	2550	4220	34100	12100	11900	5190	1750	1990	6820	585	693
10	2380	7150	3290	23800	10100	9400	5550	2670	1530	5020	753	1350
11	3110	6640	2640	19700	8540	7680	5710	2750	1170	5060	1010	1310
12	2840	5630	2280	20300	7170	6680	5220	2780	923	4610	1740	836
13	2230	4280	1910	18400	6320	8380	5480	3880	758	7350	1320	738
14	1640	3490	1610	15900	14000	10100	6000	4710	827	7830	1060	899
15	1290	2740	1730	13200	24200	11100	9220	3190	974	6090	1000	762
16	1130	2240	3070	11400	21900	10200	20000	2400	942	3580	899	626
17	1100	1840	6610	10300	14900	8430	21600	2200	2530	2350	755	603
18	1570	1590	34300	9380	23100	13300	14400	2790	3380	1610	688	531
19	1410	1440	47600	8340	38300	16300	9720	3430	3700	1970	638	483
20	1230	1310	48200	7310	43400	14800	8580	5240	2400	1190	704	621
21	1260	1180	35000	5860	46500	12100	9230	12700	2600	736	870	822
22	3260	1100	22500	5240	43300	24700	8110	21000	3400	570	794	790
23	6310	1950	43300	4660	26000	33200	6470	11500	4300	459	673	679
24	10300	2040	50700	4200	16500	36600	5670	6520	5300	807	579	618
25	6960	1780	50500	3900	13200	36100	4950	4290	6600	1070	500	1690
26	4640	1650	34800	3640	11400	23900	4180	3000	8370	2240	462	1660
27	3620	1480	16400	3390	10200	16100	3720	2190	6560	1970	459	1110
28	2600	1370	28600	3270	9410	15700	3580	2090	4670	2280	468	926
29	1910	1360	39600	3360	---	13300	3310	5020	3550	1870	470	841
30	1550	1230	44500	3550	---	21600	3040	6350	2460	2740	579	802
31	1370	---	54300	4730	---	32400	---	5860	---	2510	576	---
TOTAL	72483	62598	651682	453630	483180	497110	264740	135400	118404	85752	22301	25500
MEAN	2338	2087	21020	14630	17260	16040	8825	4368	3947	2766	719	850
MAX	10300	7150	54300	54300	46500	36600	26600	21000	9300	7830	1740	1690
MIN	716	602	962	3270	6070	6680	3040	1520	758	459	242	483

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1908 - 1991, BY WATER YEAR (WY)

MEAN	1128	2786	6023	9389	10560	11790	8783	5622	2950	2192	1485	996
MAX	12850	10760	23400	32880	29780	34470	26100	19600	13380	10120	8881	6676
(WY)	1990	1920	1979	1937	1939	1955	1972	1984	1989	1938	1942	1974
MIN	17.3	46.7	83.1	446	997	3125	1177	714	140	68.4	54.8	37.8
(WY)	1931	1931	1954	1981	1941	1988	1986	1936	1936	1930	1930	1930

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1908 - 1991	
ANNUAL TOTAL	2669560		2872780			
ANNUAL MEAN	7314		7871		5285	
HIGHEST ANNUAL MEAN					9117	1927
LOWEST ANNUAL MEAN					1987	1941
HIGHEST DAILY MEAN	54300	Dec 31	54300	Dec 31	99100	Dec 10 1978
LOWEST DAILY MEAN	225	Aug 3	242	Aug 6	10	Oct 16 1930
ANNUAL SEVEN-DAY MINIMUM	288	Jul 29	409	Aug 3	10	Oct 16 1930
INSTANTANEOUS PEAK FLOW			54800	Jan 1	101000	Dec 10 1978
INSTANTANEOUS PEAK STAGE			23.14	Jan 1	40.15	Dec 10 1978
10 PERCENT EXCEEDS	18100		21600		13700	
50 PERCENT EXCEEDS	4380		3400		2080	
90 PERCENT EXCEEDS	704		731		232	

03284000 KENTUCKY RIVER AT LOCK 10, NEAR WINCHESTER, KY--Continued
(National water-quality assessment network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1987 to August 1991 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	E.COLI MTEC,MF WATER WHOLE TOTAL (COL / 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT												
16...	0930	1170	514	7.6	13.5	18.5	8.5	92	X160	--	230	52
DEC												
18...	1000	38700	251	7.2	14.5	9.5	11.0	100	9800	9600	130	35
FEB												
12...	0930	7190	268	7.3	0.0	5.5	12.4	101	510	567	120	29
APR												
23...	0930	6560	225	7.4	17.0	15.5	9.8	102	K120	K79	96	23
JUN												
18...	0930	3470	270	7.6	23.0	25.5	7.3	92	860	1225	120	28
AUG												
27...	0930	494	380	7.9	23.0	26.0	7.1	88	K7	K20	150	37

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT												
16...	24	18	14	0.5	4.2	102	150	13	0.2	0.04	4.6	335
DEC												
18...	9.1	4.7	7	0.2	3.0	88	34	4.7	0.3	0.04	7.7	249
FEB												
12...	11	6.6	11	0.3	1.8	57	62	5.7	<0.1	0.03	6.8	159
APR												
23...	9.2	5.3	11	0.2	1.7	48	56	4.2	<0.1	0.02	6.6	127
JUN												
18...	11	6.1	10	0.2	2.5	62	64	5.6	0.1	0.02	6.8	153
AUG												
27...	14	11	14	0.4	3.3	75	80	8.4	0.2	0.03	4.8	211

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)
OCT												
16...	330	0.46	1060	0.29	0.01	0.09	0.30	0.5	0.02	0.01	20	<1
DEC												
18...	157	0.34	26000	--	<0.01	0.06	0.60	1.1	1.00	0.11	1200	<1
FEB												
12...	159	0.22	3090	--	<0.01	0.02	0.40	0.5	0.05	<0.01	20	<1
APR												
23...	136	0.17	2250	--	<0.01	0.01	0.20	0.3	0.02	<0.01	20	<1
JUN												
18...	164	0.21	1430	0.35	0.04	<0.01	0.39	0.5	0.10	<0.01	<10	<1
AUG												
27...	204	0.80	788	0.43	0.02	<0.01	0.45	0.3	0.03	<0.01	<10	<1

03284000 KENTUCKY RIVER AT LOCK 10, NEAR WINCHESTER, KY--Continued
(National water-quality assessment network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT												
16...	<1	49	<0.5	20	8.7	3.3	<3	8.7	16	<0.5	9	8
DEC												
18...	1	37	<0.5	20	0.6	0.7	<3	3.5	1300	2.5	<4	270
FEB												
12...	<1	24	<0.5	20	0.7	<0.5	<3	1.5	40	<0.5	5	32
APR												
23...	<1	24	<0.5	20	0.2	<0.5	<3	1.5	22	<0.5	4	42
JUN												
18...	<1	31	<0.5	20	0.1	<0.5	<3	1.9	8	<0.5	4	79
AUG												
27...	<1	42	<0.5	30	<0.1	<0.5	<3	5.0	4	<0.5	5	22

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)
OCT												
16...	0.2	<10	<10	<1	<1.0	440	<6	8	1.3	1.1	5.9	<0.6
DEC												
18...	0.4	<10	<10	<1	<1.0	120	<6	11	0.7	31	3.1	16
FEB												
12...	<0.1	<10	<10	<1	1.0	170	<6	<3	<0.6	2.4	2.3	1.9
APR												
23...	<0.1	<10	<10	<1	<1.0	140	<6	<3	0.7	<0.6	2.1	<0.6
JUN												
18...	<0.1	<10	<10	<1	<1.0	180	<6	<3	<0.6	2.9	3.0	3.5
AUG												
27...	<0.1	<10	<10	<1	<1.0	290	<6	<3	2.2	1.4	7.6	1.9

DATE	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	CYANIDE DIS-SOLVED (MG/L AS CN)	AME-TRYNE TOTAL	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)
OCT												
16...	4.5	<0.6	2.7	0.3	<0.01	<0.10	<0.10	<0.10	<0.01	<0.01	<0.1	<0.1
DEC												
18...	2.4	15	4.9	>5.0	<0.01	<0.10	<0.10	<0.10	<0.01	<0.01	<0.1	<0.1
FEB												
12...	1.8	1.8	5.1	0.5	<0.01	<0.10	<0.10	<0.20	<0.01	<0.01	<0.2	<0.1
APR												
23...	1.7	<0.6	15	0.4	<0.01	<0.10	<0.10	<0.20	<0.01	<0.01	<0.2	<0.1
JUN												
18...	2.2	3.3	6.2	0.8	<0.01	<0.10	0.10	<0.20	<0.01	<0.01	<0.2	<0.1
AUG												
27...	5.7	1.8	3.5	0.2	<0.01	<0.10	<0.10	<0.20	<0.01	<0.01	<0.2	<0.1

KENTUCKY RIVER BASIN

03284000 KENTUCKY RIVER AT LOCK 10, NEAR WINCHESTER, KY--Continued
(National water-quality assessment network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	PRO-PAZINE TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	ALA-CHLOR TOTAL RECOVER (UG/L)	TRI-FLURA-LIN TOTAL RECOVER (UG/L)	BROM-ACIL WATER WHLREC (UG/L)	BUTA-CHLOR WATER WHLREC (UG/L)	BUTYL-ATE WATER WHLREC (UG/L)
OCT												
16...	<0.10	<0.01	<0.10	<0.1	0.02	<0.01	<0.01	<0.10	<0.10	--	--	--
DEC												
18...	<0.10	<0.01	<0.10	<0.1	0.01	<0.01	<0.01	<0.10	<0.10	--	--	--
FEB												
12...	<0.10	<0.01	<0.10	<0.1	<0.01	<0.01	<0.01	<0.20	<0.10	<0.2	<0.1	<0.1
APR												
23...	<0.10	<0.01	<0.10	<0.1	<0.01	<0.01	<0.01	<0.20	<0.10	<0.2	<0.1	<0.1
JUN												
18...	<0.10	<0.01	0.10	<0.1	<0.01	<0.01	<0.01	<0.20	<0.10	<0.2	<0.1	<0.1
AUG												
27...	<0.10	<0.01	<0.10	<0.1	0.10	<0.01	<0.01	<0.10	<0.10	<0.2	<0.1	<0.1

DATE	CARBOX-IN WATER WHOLE RECOV-ERABLE (UG/L)	CYCLO-ATE WATER WHOLE RECOV-ERABLE (UG/L)	DE-ISO PROPYL ATRAZIN WATER, WHOLE, TOTAL (UG/L)	DEETHYL ATRA-ZINE, WATER, WHOLE, TOTAL (UG/L)	DIPHEN-AMID WATER WHOLE RECOV-ERABLE (UG/L)	HEXAZI-NONE WATER WHOLE RECOV-ERABLE (UG/L)	METRI-BUZIN WATER WHOLE TOT.REC (UG/L)	METOLA-CHLOR WATER WHOLE TOT.REC (UG/L)	PROPA-CHLOR WATER WHOLE RECOV. (UG/L)	TER-BACIL WATER WHOLE RECOV. (UG/L)	VER-NOLATE WATER WHOLE RECOV. (UG/L)
OCT											
16...	--	--	--	--	--	--	<0.1	<0.1	--	--	--
DEC											
18...	--	--	--	--	--	--	<0.1	<0.1	--	--	--
FEB											
12...	<0.2	<0.1	<0.2	<0.2	<0.1	<0.2	<0.1	<0.2	<0.1	<0.2	<0.1
APR											
23...	<0.2	<0.1	<0.2	<0.2	<0.1	<0.2	<0.1	<0.2	<0.1	<0.2	<0.1
JUN											
18...	<0.2	<0.1	<0.2	<0.2	<0.1	<0.2	<0.1	<0.2	<0.1	<0.2	<0.1
AUG											
27...	<0.2	<0.1	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	<0.1	<0.2	<0.1

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^2.

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

REVISED RECORDS.--WSP 1555: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 750.10 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 16, 1942, nonrecording gage at same site and datum. May to August 1905, nonrecording gage at site 6 mi downstream at different datum. Auxiliary nonrecording gage at site 2 mi downstream from base gage read during periods of possible backwater.

REMARKS.--No estimated daily discharges. Records good.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	76	164	5830	281	280	752	119	117	32	5.9	18
2	8.6	65	149	1390	226	359	572	97	237	105	4.4	19
3	7.1	55	3240	864	208	423	459	81	623	100	3.3	35
4	33	50	2240	585	193	1180	383	70	787	61	2.8	109
5	184	47	869	489	194	755	336	65	344	56	2.1	51
6	90	49	582	800	2460	588	300	82	201	39	1.9	33
7	70	61	432	5300	2520	751	257	94	139	24	1.7	35
8	46	49	332	2510	1340	554	234	69	100	57	1.5	38
9	35	526	266	1380	886	445	759	67	75	1020	1.8	29
10	33	2870	226	955	670	373	1140	173	59	406	1.9	37
11	39	1070	199	2350	523	320	471	155	49	195	4.1	69
12	358	554	178	1870	422	289	335	99	41	271	6.0	39
13	533	365	163	1170	400	641	613	182	37	252	3.6	25
14	254	270	145	844	2650	791	599	124	36	140	2.7	18
15	165	216	220	661	1670	590	2460	82	42	85	5.8	13
16	112	181	1280	579	872	486	1500	67	47	56	11	9.1
17	79	170	1010	511	713	442	756	70	71	44	8.3	6.7
18	601	152	9830	422	4610	1830	524	91	86	31	172	6.0
19	345	134	8060	366	4410	1090	430	69	53	24	224	5.0
20	194	117	1740	340	3200	752	619	2370	43	19	313	3.4
21	136	101	992	317	1750	590	401	2560	196	20	190	2.8
22	707	96	3230	270	1060	7120	321	650	549	16	83	2.5
23	1480	490	8740	229	765	4980	264	448	511	15	46	2.2
24	648	440	5590	226	589	1780	225	298	219	21	28	2.2
25	391	302	1180	209	489	952	193	220	125	19	19	175
26	273	227	1510	182	438	693	169	169	206	16	13	259
27	204	190	1230	174	374	570	149	985	109	13	11	113
28	164	178	4100	183	320	1020	138	627	62	9.6	8.6	65
29	131	229	1770	217	---	700	142	321	45	7.5	6.8	41
30	108	188	5380	201	---	1120	152	212	34	6.4	41	27
31	90	---	14100	309	---	995	---	157	---	6.2	32	---
TOTAL	7528.7	9518	79147	31733	34233	33459	15653	10873	5243	3166.7	1256.2	1287.9
MEAN	243	317	2553	1024	1223	1079	522	351	175	102	40.5	42.9
MAX	1480	2870	14100	5830	4610	7120	2460	2560	787	1020	313	259
MIN	7.1	47	145	174	193	280	138	65	34	6.2	1.5	2.2
CFSM	.76	1.00	8.03	3.22	3.84	3.39	1.64	1.10	.55	.32	.13	.13
IN.	.88	1.11	9.26	3.71	4.00	3.91	1.83	1.27	.61	.37	.15	.15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1991, BY WATER YEAR (WY)

MEAN	103	310	680	781	1016	958	693	452	237	156	92.0	171
MAX	1323	1471	3656	3140	4129	2444	2736	2618	933	926	527	3430
(WY)	1980	1987	1979	1950	1989	1975	1972	1983	1981	1958	1958	1979
MIN	.000	.030	.69	17.0	72.1	174	57.1	51.8	8.83	.31	.93	.013
(WY)	1953	1954	1954	1981	1954	1983	1986	1976	1988	1944	1952	1953

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1943 - 1991	
ANNUAL TOTAL	222887.47		233098.5			
ANNUAL MEAN	611		639		468	
HIGHEST ANNUAL MEAN					1184	1979
LOWEST ANNUAL MEAN					119	1954
HIGHEST DAILY MEAN	14100	Dec 31	14100	Dec 31	27100	Dec 8 1978
LOWEST DAILY MEAN	.97	Jul 11	1.5	Aug 8	.00	Jul 21 1944
ANNUAL SEVEN-DAY MINIMUM	1.8	Jul 5	2.0	Aug 4	.00	Jul 29 1944
INSTANTANEOUS PEAK FLOW			21000	Dec 31	44400	Dec 9 1978
INSTANTANEOUS PEAK STAGE			13.26	Dec 31	21.81	Dec 9 1978
INSTANTANEOUS LOW FLOW			.36	Aug 7	1.5	Aug 7 0000
ANNUAL RUNOFF (CFSM)	1.92		2.01		1.47	
ANNUAL RUNOFF (INCHES)	26.07		27.27		19.99	
10 PERCENT EXCEEDS	1240		1430		1070	
50 PERCENT EXCEEDS	199		201		119	
90 PERCENT EXCEEDS	11		12		2.4	

KENTUCKY RIVER BASIN

03287000 KENTUCKY RIVER AT LOCK 6, NEAR SALVISA, KY

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

DRAINAGE AREA.--5,102 mi^2, of which about 101 mi^2 does not contribute directly to surface runoff.

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

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

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

REMARKS.--Estimated daily discharges: Dec. 19-26, Dec. 31 to Jan. 3, Feb. 16-20, Sept. 28-30. Records good above 1000 ft^3/s and fair below, except for periods of estimated record, which are poor. Flow regulated since January 1976 by Carr Fork Lake (station 03277446), since December 1960 by Buckhorn Lake (station 03280800), since November 1925 by Herrington Lake (station 03286000), and by hydroelectric plant at lock 7. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	607	1840	1890	70000	5700	11300	29600	3130	6350	3430	2410	734
2	850	1440	3020	60000	11800	10400	23400	2690	4900	2950	1710	924
3	801	1510	6820	40000	11700	9480	17600	2010	9250	2840	1360	719
4	1300	2250	15700	22700	9210	10000	14400	2120	10100	3080	970	880
5	1990	2430	21300	16200	7400	15600	12100	2030	8550	2880	592	836
6	1730	1290	18400	13500	9940	18700	9850	1900	7890	2230	599	865
7	1200	1110	11700	23800	22700	17600	8720	2250	5990	1680	537	760
8	1010	1060	7890	37200	17100	16400	8070	1710	4390	1710	661	779
9	1020	1450	7070	36300	15700	15000	6320	1700	3420	12000	874	739
10	1100	11100	5260	31300	14500	13000	10100	2000	2480	8920	1120	821
11	2060	10300	3410	23100	12600	11000	8040	3000	1900	8420	1150	1500
12	2740	8510	2840	21400	10800	9620	6910	2600	2170	6580	1480	1400
13	3840	6570	2510	21200	9480	9520	6460	2580	1480	7180	1810	997
14	2800	4560	2150	18600	11900	11700	6970	3870	889	8320	1470	852
15	1780	3640	2090	16000	18000	12800	9800	5230	1570	7970	1290	880
16	1400	2960	4940	14100	23000	13100	15400	3630	1320	5590	1180	787
17	1160	2610	6340	12800	20000	10800	22000	2500	1530	3520	1200	583
18	1820	3720	21000	11700	22000	11900	19800	2430	3950	2570	897	648
19	2050	3250	59000	10700	36000	16700	14400	2750	4360	2000	960	583
20	1720	1890	57000	10100	42000	17400	9850	3260	4290	2000	1010	548
21	2770	1930	49000	8870	47600	14500	9260	5670	3810	1600	827	554
22	3780	3210	36000	7210	49900	18900	9430	14100	3810	1180	933	778
23	8890	4780	40000	6580	40900	40600	8040	16700	5220	822	803	776
24	10100	5290	55000	5960	22300	35300	6610	10300	4620	856	618	722
25	10900	4760	56000	5300	16900	35200	5720	6470	4950	1050	707	1390
26	7770	3580	50000	4940	14800	31200	5040	4340	8020	1270	619	2180
27	5770	2200	33900	5040	12700	21300	4160	3600	8660	1930	554	1640
28	5200	2230	28000	5040	12000	18700	3420	2790	6810	2040	855	1480
29	4080	2140	37700	4400	---	17200	3460	2990	4970	2140	440	1330
30	2490	1960	43800	3860	---	15900	3590	5910	3760	1990	1280	1180
31	1760	---	68000	3690	---	25300	---	7020	---	2410	927	---
TOTAL	96488	105570	757730	571590	548630	536120	318520	133280	141409	113158	31843	28865
MEAN	3113	3519	24440	18440	19590	17290	10620	4299	4714	3650	1027	962
MAX	10900	11100	68000	70000	49900	40600	29600	16700	10100	12000	2410	2180
MIN	607	1060	1890	3690	5700	9480	3420	1700	889	822	440	548

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 1991, BY WATER YEAR (WY)

MEAN	1449	3723	7734	11390	13440	14750	11200	7002	3887	2961	2096	1487
MAX	13680	12450	31030	45840	37120	43790	35920	26910	16130	12910	10960	10850
(WY)	1990	1987	1979	1937	1939	1955	1972	1983	1935	1928	1942	1974
MIN	160	177	232	502	1196	3769	1491	994	228	115	141	89.3
(WY)	1954	1931	1931	1981	1954	1983	1986	1941	1930	1930	1930	1930

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1926 - 1991	
ANNUAL TOTAL	3120892		3383203			
ANNUAL MEAN	8550		9269		6727	
HIGHEST ANNUAL MEAN					11730	1927
LOWEST ANNUAL MEAN					2314	1941
HIGHEST DAILY MEAN	68000	Dec 31	70000	Jan 1	125000	Dec 10 1978
LOWEST DAILY MEAN	274	Aug 5	440	Aug 29	15	Aug 27 1930
ANNUAL SEVEN-DAY MINIMUM	459	Jul 30	639	Sep 17	40	Sep 11 1930
INSTANTANEOUS PEAK FLOW			82900	Jan 1	130000	Dec 10 1978
INSTANTANEOUS PEAK STAGE			28.58	Jan 1	49.04	Dec 10 1978
10 PERCENT EXCEEDS	21100		22500		17300	
50 PERCENT EXCEEDS	5550		4390		2770	
90 PERCENT EXCEEDS	890		878		395	

03287500 KENTUCKY RIVER AT LOCK 4, AT FRANKFORT, KY

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

DRAINAGE AREA.--5,411 mi^2, (includes that of Benson Creek), of which about 120 mi^2 does not contribute directly to surface runoff.

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

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

GAGE.--Water-stage recorder. Datum of gage is 462.10 ft above National Geodetic Vertical Datum of 1929. See WDR KY-90-1 for history of changes prior to Jan. 28, 1982.

REMARKS.--Estimated daily discharges: Feb. 15-21, July 22-26, Aug. 3-30. Records good above 1,000 ft^3/s and poor below. Flow regulated since January 1976 by Carr Fork Lake (station 03277446), since December 1960 by Buckhorn Lake (station 03280800), since November 1925 by Herrington Lake (station 03286000), and by hydroelectric plant at lock 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1000	2190	2320	71400	6290	11400	28300	3500	6860	3710	2350	894
2	682	1780	3010	66300	12100	10700	22500	3050	5510	3240	1830	952
3	1180	1870	9380	49800	11500	9730	17200	2440	10600	3050	1500	830
4	2250	2210	15600	25700	9430	10100	14300	2460	10800	3280	1200	938
5	2500	2850	19700	16900	7820	15100	12600	2490	8940	3190	800	882
6	2210	1830	19300	15700	15800	18100	10200	2380	8110	2480	650	893
7	1610	1440	13000	27900	24200	17200	3940	2620	6530	2030	620	840
8	1280	1340	8710	36200	17800	16000	8240	2200	4840	3490	730	814
9	1340	1470	7540	35200	16000	14800	6910	2770	3890	12400	860	775
10	1550	8980	6200	31400	14800	12900	9900	2710	2810	11100	1000	831
11	2280	11100	4050	23400	12800	11100	8350	3420	2470	9070	1200	1340
12	2730	9050	3320	21800	11300	9740	7230	3050	2370	7170	1400	1530
13	4160	7250	2950	21300	10300	11800	7490	2980	2200	7240	1600	1050
14	3380	5160	2590	19000	15100	12500	7470	4050	1620	8180	1500	888
15	2380	4110	3320	16400	21300	13100	10500	5700	1930	7810	1400	863
16	1880	3410	5060	14700	24700	13300	15600	4170	1710	5850	1200	836
17	1680	2980	7270	13300	20500	11300	20800	2950	1950	3570	1100	670
18	2050	3610	35700	12300	23600	13000	19000	2800	4220	2680	980	619
19	2580	3870	59800	11400	37500	16900	14400	3120	4820	2100	850	655
20	2270	2380	59000	10800	43600	17300	10200	3540	4570	2060	1100	557
21	2580	2130	54600	9670	47000	14700	9360	5630	4220	1770	920	605
22	3910	3360	37200	8030	49000	24600	9550	12800	3970	1350	900	737
23	9070	6260	39100	7320	42700	42000	8360	16300	5360	1200	800	797
24	10000	6040	55800	6650	22600	36600	7080	10700	4830	1100	700	731
25	11400	5390	58500	6060	16500	35300	6160	6950	5290	1200	640	1320
26	8770	4440	55700	5640	14400	31700	5400	4690	7810	1300	600	2030
27	6520	2800	36800	5640	12900	21000	4610	4180	8620	1870	530	1800
28	5460	2700	28200	6320	11900	18900	3790	3430	7110	2020	550	1390
29	4770	2620	37100	5380	---	17100	3750	4130	5380	2090	620	982
30	3010	2430	46200	5130	---	15800	3970	6410	3950	2000	720	855
31	2230	---	72500	4700	---	23600	---	7420	---	2260	1140	---
TOTAL	108712	117050	809520	611440	573440	547370	322160	145040	153290	121860	31990	28904
MEAN	3507	3902	26110	19720	20480	17660	10740	4679	5110	3931	1032	963
MAX	11400	11100	72500	71400	49000	42000	28300	16300	10800	12400	2350	2030
MIN	682	1340	2320	4700	6290	9730	3750	2200	1620	1100	530	557

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 1991, BY WATER YEAR (WY)

MEAN	1585	4102	8235	12140	14090	15650	11760	7400	4113	3099	2211	1617
MAX	13240	13700	33220	49430	40280	45490	36690	28200	16400	15870	11520	10980
(WY)	1990	1987	1979	1937	1939	1955	1972	1983	1935	1928	1942	1974
MIN	189	290	497	540	1302	4175	1518	1081	226	121	149	91.3
(WY)	1954	1954	1940	1981	1954	1983	1986	1941	1930	1930	1930	1930

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1926 - 1991	
ANNUAL TOTAL	3234033		3570776			
ANNUAL MEAN	8860		9783		7083	
HIGHEST ANNUAL MEAN					12370	1927
LOWEST ANNUAL MEAN					2445	1954
HIGHEST DAILY MEAN	72500	Dec 31	72500	Dec 31	116000	Dec 10 1978
LOWEST DAILY MEAN	463	Sep 8	530	Aug 27	15	Aug 28 1930
ANNUAL SEVEN-DAY MINIMUM	607	Jul 30	623	Aug 24	41	Aug 28 1930
INSTANTANEOUS PEAK FLOW			76400	Dec 31	118000	Dec 9 1978
INSTANTANEOUS PEAK STAGE			33.72	Dec 31	48.47	Dec 10 1978
10 PERCENT EXCEEDS	20400		23600		17900	
50 PERCENT EXCEEDS	5620		4840		3040	
90 PERCENT EXCEEDS	1030		912		460	

KENTUCKY RIVER BASIN

03288000 NORTH ELKHORN CREEK NEAR GEORGETOWN, KY

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

DRAINAGE AREA.--119 mi^2, of which about 8 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1949 to August 1984; October 1988 to current year. Monthly discharge only October 1949 to March 1950, published in WSP 1305.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 796.49 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 18, 1952, nonrecording gage and crest-stage gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.3	79	26	1080	191	102	207	54	103	9.0	12	6.5
2	6.8	64	23	620	178	103	173	47	92	8.6	10	6.5
3	6.3	54	640	451	162	92	147	41	227	8.9	9.6	6.3
4	52	48	907	343	143	129	122	36	241	10	9.1	6.1
5	302	50	469	290	138	118	161	39	163	8.5	8.7	6.2
6	133	56	274	460	1200	127	134	40	108	6.1	8.1	6.5
7	66	62	237	2060	1450	185	103	36	80	5.7	7.8	6.5
8	41	43	185	1190	687	145	92	30	63	1180	7.6	6.8
9	31	25	151	641	469	125	99	60	52	3100	7.6	6.8
10	32	267	123	461	339	111	501	105	42	2630	7.9	9.9
11	33	468	103	456	257	97	208	153	35	1290	15	33
12	252	234	89	487	206	92	240	122	29	623	14	61
13	694	138	81	411	199	503	408	84	25	677	12	27
14	396	66	72	334	761	456	366	67	21	495	13	17
15	221	32	168	278	664	317	997	70	18	324	11	18
16	134	26	265	246	415	250	437	63	17	228	8.7	11
17	91	25	291	211	316	215	305	63	57	174	7.7	8.2
18	283	23	4560	180	957	449	236	90	184	137	7.6	7.5
19	319	17	4680	162	1110	404	235	160	137	109	7.4	7.2
20	198	15	1110	152	680	306	183	101	68	90	7.9	7.0
21	134	13	656	136	496	251	155	73	46	70	8.2	6.8
22	329	18	881	115	375	2540	128	59	37	55	8.0	6.5
23	995	364	1490	101	280	3330	112	93	44	45	7.6	6.4
24	728	213	1100	95	227	967	130	334	28	39	7.6	6.1
25	544	115	601	92	192	566	99	170	21	33	7.4	41
26	402	74	435	78	167	420	84	105	18	30	7.2	84
27	275	54	337	72	140	364	74	87	24	26	7.2	40
28	203	46	477	138	117	746	73	81	18	24	7.0	23
29	152	46	841	126	---	451	73	213	11	23	6.8	13
30	117	32	1980	184	---	324	63	262	9.0	17	6.8	8.3
31	95	---	4370	216	---	252	---	150	---	12	6.5	---
TOTAL	7273.4	2767	27622	11866	12516	14537	6345	3088	2018.0	11487.8	273.0	500.1
MEAN	235	92.2	891	383	447	469	211	99.6	67.3	371	8.81	16.7
MAX	995	468	4680	2060	1450	3330	997	334	241	3100	15	84
MIN	6.3	13	23	72	117	92	63	30	9.0	5.7	6.5	6.1
CFSM	1.97	.78	7.49	3.22	3.76	3.94	1.78	.84	.57	3.11	.07	.14
IN.	2.27	.86	8.63	3.71	3.91	4.54	1.98	.97	.63	3.59	.09	.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1991, BY WATER YEAR (WY)

MEAN	35.4	84.2	257	277	352	377	242	172	86.6	54.5	43.4	45.8
MAX	312	347	1028	798	1169	995	746	881	502	371	375	702
(WY)	1976	1980	1979	1951	1989	1964	1972	1983	1974	1991	1974	1979
MIN	.000	.000	.28	11.5	24.8	39.8	45.6	14.3	4.41	1.59	.41	.000
(WY)	1954	1954	1954	1981	1954	1983	1955	1976	1954	1951	1983	1953

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1950 - 1991	
ANNUAL TOTAL	96217.0		100293.3			
ANNUAL MEAN	264		275		170	
HIGHEST ANNUAL MEAN					319	1979
LOWEST ANNUAL MEAN					28.0	1954
HIGHEST DAILY MEAN	4680	Dec 19	4680	Dec 19	7860	Dec 9 1978
LOWEST DAILY MEAN	2.8	Aug 21	5.7	Jul 7	.00	Sep 11 1951
ANNUAL SEVEN-DAY MINIMUM	5.1	Aug 15	6.4	Aug 31	.00	Sep 11 1951
INSTANTANEOUS PEAK FLOW			6290	Jul 8	8730	Dec 9 1978
INSTANTANEOUS PEAK STAGE			17.26	Jul 8	20.22	Dec 9 1978
ANNUAL RUNOFF (CFSM)	2.22		2.31		1.41	
ANNUAL RUNOFF (INCHES)	30.08		31.35		19.40	
10 PERCENT EXCEEDS	655		640		418	
50 PERCENT EXCEEDS	75		103		45	
90 PERCENT EXCEEDS	13		7.9		2.9	

KENTUCKY RIVER BASIN

03289000 SOUTH ELKHORN CREEK AT FORT SPRING, KY

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

DRAINAGE AREA.--24.0 mi^2, of which about 3 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--March 1950 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 834.25 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 12, 1952, and Feb. 18 to Nov. 16, 1965, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Feb. 8-11. Records good except for periods of estimated record, which are fair. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	11	14	187	21	24	40	10	9.8	7.0	2.6	17
2	4.2	9.8	15	115	21	25	34	9.3	16	6.0	2.4	7.2
3	3.1	9.0	197	84	19	22	29	9.1	140	3.9	2.2	6.1
4	74	8.4	121	66	18	24	26	16	45	3.4	1.7	4.9
5	30	14	76	61	32	19	29	11	29	4.8	1.6	26
6	17	13	55	98	233	24	22	10	20	3.4	2.2	9.8
7	12	8.9	42	317	164	24	20	8.9	16	3.0	3.1	5.9
8	9.8	7.7	34	175	104	20	19	7.7	13	132	3.3	4.4
9	13	22	28	113	69	19	25	40	11	179	16	3.9
10	12	62	24	83	55	17	23	23	9.7	132	6.4	5.6
11	11	36	21	83	44	16	17	14	8.6	64	3.7	10
12	44	27	18	75	39	17	15	13	8.1	95	3.0	5.4
13	34	21	18	65	53	55	69	13	7.2	45	2.6	6.8
14	23	17	15	57	172	36	39	26	6.6	29	2.5	3.9
15	17	14	53	52	113	33	123	15	6.3	20	2.6	2.4
16	13	13	46	44	78	30	80	12	5.4	15	2.1	1.9
17	11	16	74	39	64	37	57	20	50	12	1.4	1.5
18	50	11	1130	32	194	74	43	29	29	11	4.8	1.2
19	26	10	490	29	163	60	38	20	14	15	3.0	.97
20	18	9.0	219	27	120	52	30	15	10	9.7	6.1	1.2
21	14	8.2	152	24	92	45	25	13	8.4	8.4	2.8	.97
22	101	29	216	21	74	489	23	11	8.7	7.2	2.2	.49
23	92	88	311	18	58	353	19	9.9	7.0	6.1	1.2	.24
24	54	47	183	17	48	145	26	9.5	6.3	8.1	.82	25
25	42	34	119	15	39	93	17	7.8	21	5.4	.36	26
26	31	27	85	14	32	82	15	7.2	17	4.7	.19	11
27	25	22	84	15	28	129	14	20	9.1	4.1	16	7.0
28	20	27	164	24	26	125	13	14	7.4	3.2	8.6	5.6
29	16	19	146	18	---	78	15	17	6.4	4.0	4.3	4.4
30	15	16	575	25	---	62	11	17	5.5	3.5	15	3.4
31	13	---	404	23	---	49	---	12	---	3.0	19	---
TOTAL	851.2	657.0	5129	2016	2173	2278	956	460.4	551.5	847.9	143.77	210.17
MEAN	27.5	21.9	165	65.0	77.6	73.5	31.9	14.9	18.4	27.4	4.64	7.01
MAX	101	88	1130	317	233	489	123	40	140	179	19	26
MIN	3.1	7.7	14	14	18	16	11	7.2	5.4	3.0	.19	.24
CFSM	1.14	.91	6.89	2.71	3.23	3.06	1.33	.62	.77	1.14	.19	.29
IN.	1.32	1.02	7.95	3.12	3.37	3.53	1.48	.71	.85	1.31	.22	.33

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1991, BY WATER YEAR (WY)

MEAN	8.58	21.9	51.2	50.1	66.2	70.3	44.8	32.9	18.3	13.7	11.1	9.25
MAX	57.0	63.9	198	159	227	172	145	156	83.2	97.0	68.0	81.4
(WY)	1976	1980	1979	1951	1989	1964	1972	1983	1960	1958	1974	1979
MIN	.000	.087	.86	4.43	6.48	11.0	10.3	3.92	1.14	.66	.006	.020
(WY)	1954	1954	1954	1981	1954	1954	1971	1952	1954	1951	1965	1953

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1950 - 1991	
ANNUAL TOTAL	17112.4		16273.94			
ANNUAL MEAN	46.9		44.6		32.9	
HIGHEST ANNUAL MEAN					62.1	1989
LOWEST ANNUAL MEAN					6.75	1954
HIGHEST DAILY MEAN	1130	Dec 18	1130	Dec 18	1310	Feb 15 1989
LOWEST DAILY MEAN	3.0	Aug 20	.19	Aug 26	.00	Aug 6 1951
ANNUAL SEVEN-DAY MINIMUM	3.9	Aug 14	.94	Sep 17	.00	Aug 19 1951
INSTANTANEOUS PEAK FLOW			1620	Dec 18	2280	Feb 15 1989
INSTANTANEOUS PEAK STAGE			8.38	Dec 18	12.13	Sep 21 1979
INSTANTANEOUS LOW FLOW			.00	Aug 26	.00	Aug 6 1951
ANNUAL RUNOFF (CFSM)	1.95		1.86		1.37	
ANNUAL RUNOFF (INCHES)	26.52		25.22		18.65	
10 PERCENT EXCEEDS	95		108		81	
50 PERCENT EXCEEDS	20		18		12	
90 PERCENT EXCEEDS	6.3		3.4		1.3	

KENTUCKY RIVER BASIN

03289300 SOUTH ELKHORN CREEK NEAR MIDWAY, KY

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

DRAINAGE AREA.--105 mi^2, of which about 21 mi^2 does not contribute directly to surface runoff.

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

GAGE.--Water-stage recorder. Elevation of gage is 790 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. 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. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	102	99	995	130	130	221	62	98	52	39	124
2	44	95	94	661	125	133	189	60	183	53	32	59
3	42	86	573	483	118	115	167	58	798	42	33	61
4	231	83	598	369	112	136	148	64	412	28	31	51
5	217	78	390	309	114	108	167	73	266	47	31	80
6	165	62	293	451	791	106	136	83	198	28	35	79
7	132	42	232	1290	904	134	121	61	160	32	30	51
8	130	30	185	951	600	102	112	54	132	104	31	45
9	128	60	153	643	441	92	126	140	113	1040	64	54
10	134	244	141	472	343	84	153	135	99	634	57	50
11	124	171	120	440	273	82	105	85	89	537	38	106
12	166	137	107	401	226	82	95	71	81	372	32	73
13	185	118	105	343	224	246	269	92	75	274	42	66
14	178	107	91	300	674	219	182	146	70	189	51	37
15	171	95	170	259	609	189	385	91	62	147	51	43
16	149	87	225	239	437	166	345	71	60	119	49	58
17	136	92	230	203	351	154	258	122	100	101	23	46
18	192	81	3020	174	698	326	209	287	164	89	48	42
19	179	79	3220	154	790	279	195	243	155	103	61	36
20	162	74	1010	142	623	253	160	151	95	79	67	37
21	139	68	683	133	480	227	132	115	76	66	53	20
22	187	77	821	119	395	1450	118	113	71	61	43	34
23	251	335	954	108	311	1760	105	145	61	60	44	55
24	209	246	780	102	256	829	143	143	66	55	16	72
25	168	192	559	92	218	561	100	103	57	54	30	181
26	165	160	421	85	190	434	88	83	120	46	50	97
27	156	135	340	81	163	358	76	118	72	43	37	68
28	136	147	523	127	145	714	71	117	62	41	48	47
29	126	141	621	108	---	421	78	136	46	56	55	45
30	110	114	1190	123	---	336	72	186	46	38	96	58
31	107	---	2920	141	---	265	---	123	---	24	73	---
TOTAL	4681	3538	20868	10498	10741	10491	4726	3531	4087	4614	1390	1875
MEAN	151	118	673	339	384	338	158	114	136	149	44.8	62.5
MAX	251	335	3220	1290	904	1760	385	287	798	1040	96	181
MIN	42	30	91	81	112	82	71	54	46	24	16	20
CFSM	1.44	1.12	6.41	3.23	3.65	3.22	1.50	1.08	1.30	1.42	.43	.60
IN.	1.66	1.25	7.39	3.72	3.81	3.72	1.67	1.25	1.45	1.63	.49	.66

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1991, BY WATER YEAR (WY)

MEAN	74.3	147	256	202	344	219	190	203	114	79.9	51.1	54.9
MAX	151	287	673	339	1030	424	366	718	205	149	86.0	100
(WY)	1991	1987	1991	1991	1989	1989	1984	1983	1989	1991	1990	1989
MIN	34.5	57.1	86.5	50.4	158	60.1	60.9	58.9	39.5	35.8	32.5	27.7
(WY)	1983	1983	1990	1986	1987	1983	1986	1988	1988	1983	1983	1987

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1982 - 1991	
ANNUAL TOTAL	75037		81040			
ANNUAL MEAN	206		222		160	
HIGHEST ANNUAL MEAN					257	1989
LOWEST ANNUAL MEAN					103	1986
HIGHEST DAILY MEAN	3220	Dec 19	3220	Dec 19	7000	Feb 15 1989
LOWEST DAILY MEAN	19	Jul 4	16	Aug 24	15	Oct 2 1983
ANNUAL SEVEN-DAY MINIMUM	30	Jul 4	32	Aug 2	20	Aug 14 1983
INSTANTANEOUS PEAK FLOW			5320	Dec 18	7270	Feb 15 1989
INSTANTANEOUS PEAK STAGE			19.14	Dec 18	21.28	Feb 15 1989
ANNUAL RUNOFF (CFSM)	1.96		2.11		1.53	
ANNUAL RUNOFF (INCHES)	26.58		28.71		20.72	
10 PERCENT EXCEEDS	442		499		336	
50 PERCENT EXCEEDS	109		120		83	
90 PERCENT EXCEEDS	44		45		33	

KENTUCKY RIVER BASIN

03289500 ELKHORN CREEK NEAR FRANKFORT, KY

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

DRAINAGE AREA.--473 mi^2 of which about 70 mi^2 does not contribute directly to surface runoff.

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

REVISED RECORDS.--WSP 1555: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is approximately 540.20 ft above National Geodetic Vertical Datum of 1929. See WDR KY-90-1 for history of changes prior to Aug. 31, 1970.

REMARKS.--No estimated daily discharges. Water-discharge 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.

EXTREMES FOR 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	226	307	6170	818	498	847	237	636	136	88	95
2	93	204	278	3400	719	468	693	214	666	132	91	135
3	78	185	1570	2440	642	428	584	197	2800	119	85	90
4	124	172	3560	1860	569	393	508	187	2180	102	80	90
5	492	167	2220	1500	524	407	575	183	1320	89	73	90
6	393	166	1470	1880	2530	473	647	181	849	97	73	98
7	270	211	1070	5180	5320	871	484	189	588	78	71	114
8	196	182	780	5360	3380	577	417	169	445	1200	66	91
9	153	167	594	3380	2340	455	396	188	361	8790	66	84
10	219	200	484	2440	1750	405	466	365	301	5610	82	88
11	281	527	421	2150	1350	368	811	320	257	5990	95	89
12	253	522	365	2200	1050	354	450	422	230	2660	81	153
13	566	378	333	1920	949	1660	567	325	209	2400	78	135
14	649	313	303	1630	2890	2310	1090	1230	188	1760	86	125
15	412	273	444	1380	3140	1550	1360	451	169	1160	114	89
16	296	245	1050	1200	2150	1190	2370	293	160	746	102	77
17	242	230	1010	1030	1640	978	1460	248	620	523	100	82
18	261	227	9610	856	2480	1610	1040	285	1780	401	89	72
19	690	212	14200	732	4150	1750	791	552	2080	334	100	64
20	448	202	6800	662	3110	1420	693	448	877	300	142	58
21	333	189	3760	596	2350	1190	563	326	450	253	113	54
22	333	195	3990	534	1840	4960	465	320	327	217	100	54
23	1260	1470	4400	470	1470	8800	401	301	289	194	87	37
24	1420	1340	4650	438	1170	4610	368	457	268	177	81	59
25	881	854	3110	401	952	2750	390	633	237	159	64	83
26	622	607	2300	372	790	1970	335	375	231	149	48	158
27	465	487	1800	353	662	1630	292	379	231	134	69	169
28	367	412	1770	639	560	1990	263	519	183	125	63	132
29	306	407	3140	653	---	1900	251	852	164	119	64	95
30	273	359	5420	679	---	1360	255	1900	143	126	75	82
31	243	---	10600	954	---	1070	---	1070	---	102	103	---
TOTAL	12688	11329	91809	53459	51295	50395	19832	13816	19239	34382	2629	2842
MEAN	409	378	2962	1724	1832	1626	661	446	641	1109	84.8	94.7
MAX	1420	1470	14200	6170	5320	8800	2370	1900	2800	8790	142	169
MIN	69	166	278	353	524	354	251	169	143	78	48	37
CFSM	.87	.80	6.26	3.65	3.87	3.44	1.40	.94	1.36	2.34	.18	.20
IN.	1.00	.89	7.22	4.20	4.03	3.96	1.56	1.09	1.51	2.70	.21	.22

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1991, BY WATER YEAR (WY)

MEAN	129	313	870	1100	1315	1357	933	619	353	234	159	153
MAX	1012	1379	3138	4630	4438	4309	3332	3747	1472	1171	902	2101
(WY)	1976	1943	1979	1950	1989	1964	1948	1983	1974	1960	1974	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

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1916 - 1991	
ANNUAL TOTAL	338544		363715			
ANNUAL MEAN	928		996		625	
HIGHEST ANNUAL MEAN					1091	1979
LOWEST ANNUAL MEAN					126	1954
HIGHEST DAILY MEAN	14200	Dec 19	14200	Dec 19	25000	Feb 16 1989
LOWEST DAILY MEAN	29	Jul 5	37	Sep 23	.00	Jan 7 1940
ANNUAL SEVEN-DAY MINIMUM	45	Aug 8	57	Sep 18	.00	Jan 7 1940
INSTANTANEOUS PEAK FLOW			14900	Dec 19	28700	Feb 16 1989
INSTANTANEOUS PEAK STAGE			13.51	Dec 19	15.26	Feb 16 1989
ANNUAL RUNOFF (CFSM)	1.96		2.11		1.32	
ANNUAL RUNOFF (INCHES)	26.63		28.61		17.94	
10 PERCENT EXCEEDS	2400		2420		1560	
50 PERCENT EXCEEDS	333		407		195	
90 PERCENT EXCEEDS	67		89		30	

03289500 ELKHORN CREEK NEAR FRANKFORT, KY--Continued
(National water-quality assessment network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1987 to August 1991 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	E.COLI-MTEC,MF WATER WHOLE TOTAL (COL/ 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT												
16...	1515	293	454	8.3	25.0	17.0	10.5	112	K200	--	210	73
DEC												
19...	1000	14000	260	7.2	8.0	10.0	10.0	91	2300	4667	120	42
FEB												
12...	1500	1020	411	7.9	12.5	10.0	11.9	108	K13	K20	210	76
APR												
23...	1515	388	435	8.4	19.0	14.0	11.4	115	K84	K68	220	76
JUN												
18...	1600	1520	355	7.8	28.5	23.5	7.6	93	5600	2400	170	60
AUG												
27...	1545	94	560	8.6	31.0	27.0	8.8	112	150	276	220	72

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT												
16...	7.0	12	11	0.4	4.1	174	37	17	0.6	0.01	6.0	277
DEC												
19...	3.6	3.0	5	0.1	3.7	95	21	5.8	0.3	<0.01	5.2	144
FEB												
12...	5.6	6.3	6	0.2	1.4	164	30	11	0.3	0.02	5.4	253
APR												
23...	6.3	10	9	0.3	1.7	--	32	7.1	0.7	0.02	2.0	256
JUN												
18...	5.1	8.3	9	0.3	4.4	138	25	11	0.6	0.02	4.4	213
AUG												
27...	9.1	31	23	0.9	5.6	158	69	38	0.9	0.04	3.0	340

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)
OCT												
16...	263	0.38	219	--	<0.01	<0.01	--	0.5	--	--	20	<1
DEC												
19...	153	0.20	5440	--	<0.02	0.11	2.3	0.8	0.70	0.30	80	<1
FEB												
12...	254	0.34	697	--	<0.01	0.01	4.3	0.6	0.37	0.29	<10	<1
APR												
23...	251	0.35	268	--	<0.01	0.01	3.1	0.5	0.35	0.28	<10	<1
JUN												
18...	216	0.29	874	2.87	0.03	0.06	2.9	1.2	0.60	0.35	20	<1
AUG												
27...	337	0.46	86.3	2.39	0.01	0.03	2.4	0.6	0.78	0.72	<10	<1

03289500 ELKHORN CREEK NEAR FRANKFORT, KY--Continued
(National water-quality assessment network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT												
16...	<1	24	<0.5	40	0.4	<0.5	<3	2.5	18	<0.5	6	6
DEC												
19...	1	19	<0.5	20	0.3	<0.5	<3	1.2	98	<0.5	<4	29
FEB												
12...	<1	18	<0.5	20	0.3	<0.5	<3	1.6	11	12	6	4
APR												
23...	<1	21	<0.5	30	0.4	0.6	<3	2.2	6	<0.5	4	6
JUN												
18...	2	21	<0.5	30	0.3	<0.5	<3	3.0	18	<0.5	7	4
AUG												
27...	1	27	<0.5	90	0.2	<0.5	<3	4.2	13	<0.5	5	6

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)
OCT												
16...	--	<10	<10	<1	<1.0	150	<6	7	<0.6	<0.6	4.1	<0.6
DEC												
19...	0.4	<10	<10	<1	<1.0	67	<6	5	<0.6	18	4.5	10
FEB												
12...	<0.1	<10	<10	<1	<1.0	110	<6	<3	<0.6	<0.6	2.1	<0.6
APR												
23...	<0.1	<10	<10	<1	<1.0	130	<6	6	<0.6	<0.6	0.9	<0.6
JUN												
18...	--	<10	<10	<1	<1.0	100	<6	11	<0.6	5.7	4.9	3.7
AUG												
27...	<0.1	10	<10	<1	<1.0	170	<6	15	<0.6	<0.6	7.3	<0.6

DATE	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	CYANIDE DIS-SOLVED (MG/L AS CN)	AME-TRYNE TOTAL	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)
OCT												
16...	3.0	<0.6	8.1	0.3	<0.01	<0.10	0.10	<0.10	0.01	<0.01	<0.1	<0.1
DEC												
19...	3.6	9.1	4.6	>5.0	<0.01	<0.10	<0.10	<0.10	<0.01	<0.01	<0.1	<0.1
FEB												
12...	1.5	<0.6	44	0.3	<0.01	<0.10	<0.10	<0.20	<0.01	<0.01	<0.2	<0.1
APR												
23...	0.7	<0.6	2.3	0.2	<0.01	<0.10	<0.10	<0.20	--	--	<0.2	<0.1
JUN												
18...	3.6	3.4	5.5	--	<0.01	<0.10	0.40	<0.20	0.03	<0.01	<0.2	<0.1
AUG												
27...	5.3	<0.6	5.2	0.2	<0.01	<0.10	<0.10	<0.20	--	--	0.2	<0.1

03289500 ELKHORN CREEK NEAR FRANKFORT, KY--Continued
(National water-quality assessment network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	PRO-PAZINE TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	ALA-CHLOR TOTAL RECOVER (UG/L)	TRI-FLURA-LIN TOTAL RECOVER (UG/L)	BROM-ACIL WATER WHLREC (UG/L)	BUTA-CHLOR WATER WHLREC (UG/L)	BUTYL-ATE WATER WHLREC (UG/L)
OCT												
16...	<0.10	<0.01	<0.10	<0.1	0.16	<0.01	<0.01	<0.10	<0.10	--	--	--
DEC												
19...	<0.10	<0.01	<0.10	<0.1	0.03	<0.01	<0.01	<0.10	<0.10	--	--	--
FEB												
12...	<0.10	<0.01	<0.10	<0.1	<0.01	<0.01	<0.01	<0.20	<0.10	<0.2	<0.1	<0.1
APR												
23...	<0.10	--	<0.10	<0.1	--	--	--	<0.20	<0.10	<0.2	<0.1	<0.1
JUN												
18...	<0.10	<0.01	0.10	<0.1	0.04	<0.01	<0.01	<0.20	<0.10	<0.2	<0.1	<0.1
AUG												
27...	<0.10	--	<0.10	<0.1	--	--	--	<0.10	<0.10	<0.2	<0.1	<0.1

DATE	CARBOX-IN WATER WHOLE RECOV-ERABLE (UG/L)	CYCLO-ATE WATER WHOLE RECOV-ERABLE (UG/L)	DE-ISO PROPYL ATRAZIN WATER, WHOLE, TOTAL (UG/L)	DEETHYL ATRA-ZINE, WATER, WHOLE, TOTAL (UG/L)	DIPHEN-AMID WATER WHOLE RECOV-ERABLE (UG/L)	HEXAZI-NONE WATER WHOLE RECOV-ERABLE (UG/L)	METRI-BUZIN WATER WHOLE TOT.REC (UG/L)	METOLA-CHLOR WATER WHOLE TOT.REC (UG/L)	PROPA-CHLOR WATER WHOLE RECOV. (UG/L)	TER-BACIL WATER WHOLE RECOV. (UG/L)	VFR-NOLATE WATER WHOLE RECOV. (UG/L)
OCT											
16...	--	--	--	--	--	--	<0.1	<0.1	--	--	--
DEC											
19...	--	--	--	--	--	--	<0.1	<0.1	--	--	--
FEB											
12...	<0.2	<0.1	<0.2	<0.2	<0.1	<0.2	<0.1	<0.2	<0.1	<0.2	<0.1
APR											
23...	<0.2	<0.1	<0.2	<0.2	<0.1	<0.2	<0.1	<0.2	<0.1	<0.2	<0.1
JUN											
18...	<0.2	<0.1	<0.2	0.2	<0.1	<0.2	<0.1	<0.2	<0.1	<0.2	<0.1
AUG											
27...	<0.2	<0.1	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1	<0.1	<0.2	<0.1

KENTUCKY RIVER BASIN

03290500 KENTUCKY RIVER AT LOCK 2, AT LOCKPORT, KY

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

DRAINAGE AREA.--6,180 mi^2, of which about 196 mi^2 does not contribute directly to surface runoff.

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder. Datum of gage is 433.36 ft above National Geodetic Vertical Datum of 1929. Prior to August 29, 1975, nonrecording gage at same site and datum. Auxiliary nonrecording gage at lock 3, 11.0 mi upstream.

REMARKS.--No estimated daily discharges. Water-discharge records good. Flow regulated by Carr Fork Lake beginning January 1976 (station 03277446), Buckhorn Lake beginning December 1960 (station 03280800), Herrington Lake beginning November 1925 (station 03286000), and by hydroelectric plant at lock 7.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1250	2310	2660	83000	5900	12500	27400	3950	7720	4040	2650	878
2	760	2090	2860	77700	11400	11700	27500	3520	6150	3510	2170	871
3	1180	1900	11400	64400	12500	10100	21300	2960	12300	3200	1690	909
4	5240	1980	19400	34200	10100	10100	16900	2690	14400	3370	1310	880
5	3360	2820	22300	17500	8320	15000	14500	2860	10700	3470	867	908
6	2880	2190	23900	19000	18800	20200	11600	2870	9000	2850	747	877
7	2150	1560	17000	32400	31600	20800	9510	2910	7530	2420	633	843
8	1640	1450	10500	47500	24000	18000	8750	2710	5480	7620	648	795
9	1510	1450	8270	46500	21100	17100	7400	3270	4390	19800	814	760
10	2830	6540	7210	41400	18600	14900	9520	3750	3150	20600	1060	788
11	2740	12800	4930	29100	15500	12400	9500	4020	2860	17100	1120	998
12	2900	10100	3820	25600	12900	10600	7640	3840	2300	11600	1220	1490
13	4200	7970	3350	24200	11700	18600	9340	3750	2490	9520	1700	1200
14	4350	5860	3030	23400	21900	17000	8480	4700	1290	10300	1660	942
15	3140	4500	5160	19500	25600	16000	11700	6600	1890	9400	1510	871
16	2310	3700	5870	17100	28100	15800	18000	5180	1830	7680	1250	827
17	1930	3200	8990	15000	25600	13900	23500	3850	2140	4820	1210	720
18	2030	3340	45300	13400	30700	14900	23800	3330	5710	3630	1100	586
19	3160	4090	70000	12100	38600	19500	18100	3710	7620	2860	865	613
20	2890	2860	70900	11100	43600	20500	12600	4200	5670	2340	1230	504
21	2700	2240	64000	10300	48800	18100	10200	5510	4940	2350	973	515
22	4320	3270	53200	8240	52300	29300	10300	12000	4240	1870	918	588
23	9320	7920	42900	7280	48300	52600	9250	19200	5420	1420	865	697
24	11600	7520	58100	6530	28700	46000	7820	12800	5220	1210	781	634
25	12900	6460	64400	5990	22900	40000	6890	8280	5260	1260	719	972
26	10300	5440	62400	5510	17400	37100	6030	5440	7260	1540	613	1670
27	7350	3720	51600	5250	14600	28400	5310	4590	9000	1940	543	1890
28	5840	3100	33100	7060	13300	23600	4280	4250	7770	2320	600	1490
29	5330	3060	45300	5880	---	21600	4020	4110	6110	2340	650	1040
30	3660	2910	53200	6730	---	18700	4370	7250	4270	2320	783	861
31	2690	---	76200	5750	---	22200	---	8490	---	2380	1090	---
TOTAL	128460	128350	951250	728620	662820	647200	365510	166590	174110	171380	33989	27617
MEAN	4144	4278	30690	23500	23670	20880	12180	5374	5804	5528	1096	921
MAX	12900	12800	76200	83000	52300	52600	27500	19200	14400	20600	2650	1890
MIN	760	1450	2660	5250	5900	10100	4020	2690	1290	1210	543	504

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 1991, BY WATER YEAR (WY)

MEAN	1844	4751	9727	14500	15820	18160	13610	8836	4867	3410	2445	1942
MAX	14120	13980	39510	57660	43890	52260	41540	34340	19820	19530	13110	14740
(WY)	1990	1943	1979	1937	1956	1955	1972	1983	1935	1928	1942	1979
MIN	225	340	599	770	1524	4423	2074	1262	508	339	362	289
(WY)	1954	1954	1940	1981	1954	1983	1986	1941	1988	1944	1936	1943

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1926 - 1991	
ANNUAL TOTAL	3754000		4185896			
ANNUAL MEAN	10280		11470		8276	
HIGHEST ANNUAL MEAN					14600	1927
LOWEST ANNUAL MEAN					2597	1954
HIGHEST DAILY MEAN	76200	Dec 31	83000	Jan 1	122000	Jan 25 1937
LOWEST DAILY MEAN	550	Aug 5	504	Sep 20	80	Oct 29 1941
ANNUAL SEVEN-DAY MINIMUM	635	Jul 31	591	Sep 18	96	Oct 21 1941
INSTANTANEOUS PEAK FLOW			83900	Jan 1	123000	Jan 26 1937
INSTANTANEOUS PEAK STAGE			40.75	Jan 1	56.85	Jan 24 1937
10 PERCENT EXCEEDS	26900		28500		21600	
50 PERCENT EXCEEDS	6460		5510		3500	
90 PERCENT EXCEEDS	1210		914		540	

03290500 KENTUCKY RIVER AT LOCK 2, AT LOCKPORT, KY--Continued
(National stream-quality accounting network station)
(National water-quality assessment network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1973 to current year.
WATER TEMPERATURES: January 1973 to current year.

REMARKS.--Flow regulated by Buckhorn Lake, Herrington Lake, and hydroelectric plant at lock 7.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 660 microsiemens, Oct. 31, 1986; minimum daily, 100 microsiemens, Sept. 23, 1973.
WATER TEMPERATURES: Maximum daily, 33.0°C, Aug. 10, 11, 1980, July 29, 1988; minimum daily, 0.0°C, on several days during winters.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily observed, 486 microsiemens, Oct. 25, minimum daily observed, 166 microsiemens, Dec. 26.
WATER TEMPERATURES: Maximum daily observed, 31.0°C, July 23; minimum daily observed, 5.0°C on several days during winter.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	E.COLI MTEC,MF WATER WHOLE TOTAL (COL / 100 ML)
OCT												
15...	1200	3150	379	7.8	20.5	20.5	15	7.9	90	K120	K58	--
DEC												
20...	1000	75800	251	7.0	7.5	9.0	240	9.1	81	K19000	7400	3000
FEB												
13...	0915	11400	292	7.4	13.5	8.0	40	12.1	106	200	250	370
APR												
24...	0930	7730	255	7.9	14.0	13.5	31	9.8	96	490	K120	1600
JUN												
19...	0930	7570	330	7.9	32.5	28.0	28	5.9	77	530	520	480
AUG												
28...	0930	574	345	8.1	26.0	26.5	3.2	8.0	100	K23	K35	K37

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	BROMIDE DIS-SOLVED (MG/L AS BR)
OCT												
15...	170	53	10	8.5	9	0.3	3.5	137	53	6.7	<0.1	0.01
DEC												
20...	120	37	5.9	3.3	6	0.1	2.9	92	24	5.3	<0.1	0.01
FEB												
13...	140	42	8.6	5.0	7	0.2	1.7	98	39	5.7	0.1	0.02
APR												
24...	110	31	8.7	4.9	8	0.2	1.7	71	43	2.7	<0.1	0.01
JUN												
19...	150	45	10	6.9	9	0.2	2.7	101	60	9.1	0.2	0.02
AUG												
28...	150	43	11	9.8	12	0.3	3.3	95	64	12	0.3	0.03

KENTUCKY RIVER BASIN

03290500 KENTUCKY RIVER AT LOCK 2, AT LOCKPORT, KY--Continued
(National stream-quality accounting network station)
(National water-quality assessment network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
OCT												
15...	5.6	226	227	0.31	1920	0.87	0.03	0.03	0.05	--	0.90	0.90
DEC												
20...	5.6	143	145	0.19	29300	1.19	0.02	0.01	0.07	0.10	1.10	1.20
FEB												
13...	6.2	169	173	0.23	5200	--	0.02	<0.01	0.03	0.02	1.10	1.10
APR												
24...	5.8	151	143	0.21	3150	--	0.02	<0.01	0.03	0.02	0.57	0.55
JUN												
19...	5.2	190	206	0.26	3880	1.37	0.04	0.03	0.04	0.04	1.40	1.40
AUG												
28...	3.2	198	206	0.27	307	0.48	0.04	0.04	0.04	0.06	0.55	0.52

DATE	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)
OCT												
15...	0.6	0.21	0.12	0.14	0.13	10	<1	<1	30	<0.5	30	0.2
DEC												
20...	0.5	0.89	0.08	0.12	0.07	80	<1	1	22	<0.5	10	0.2
FEB												
13...	0.4	0.16	0.06	0.07	0.06	20	<1	<1	20	<0.5	20	0.3
APR												
24...	0.5	0.12	0.05	0.06	0.03	20	<1	<1	21	<0.5	10	0.1
JUN												
19...	0.5	0.24	0.18	0.15	0.11	20	<1	<1	26	<0.5	30	0.1
AUG												
28...	0.6	0.09	0.06	0.02	0.02	30	<1	<1	35	<0.5	30	0.5

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)
OCT												
15...	1.0	<3	4.3	8	<0.5	8	8	--	<10	1	<1	<1.0
DEC												
20...	<0.5	<3	5.1	93	<0.5	4	25	0.2	<10	3	<3	<1.0
FEB												
13...	<0.5	<3	0.9	27	<0.5	5	16	<0.1	<10	<10	<1	<1.0
APR												
24...	<0.5	<3	1.7	6	<0.5	4	7	<0.1	<10	<1	<1	<1.0
JUN												
19...	<0.5	<3	2.5	7	<0.5	5	<1	<0.1	<10	2	<1	<1.0
AUG												
28...	<0.5	<3	1.8	5	<0.5	5	<1	<0.1	<10	<10	<1	<1.0

KENTUCKY RIVER BASIN

03290500 KENTUCKY RIVER AT LOCK 2, AT LOCKPORT, KY--Continued
(National stream-quality accounting network station)
(National water-quality assessment network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	CYANIDE DISSOLVED (MG/L AS CN)
OCT												
15...	180	<6	17	1.3	<0.6	5.0	1.4	3.6	1.4	6.1	0.4	<0.01
DEC												
20...	94	<6	12	<0.6	24	3.9	20	3.0	19	4.2	3.4	<0.01
FEB												
13...	120	<6	10	0.8	2.8	3.0	3.1	2.3	2.5	7.0	0.6	<0.01
APR												
24...	140	<6	<3	<0.6	1.2	2.3	2.1	1.8	2.0	2.5	0.6	<0.01
JUN												
19...	170	<6	4	<0.6	0.7	4.0	2.0	2.9	1.8	4.0	0.7	<0.01
AUG												
28...	190	<6	<3	1.3	<0.6	4.7	<0.6	3.5	<0.6	10	0.8	<0.01

DATE	AMETRYNE TOTAL	ATRAZINE, TOTAL (UG/L)	CYANAZINE TOTAL (UG/L)	DICAMBA (MEDIBEN) (BANVEL D) TOTAL (UG/L)	PICLORAM (TORDON) (AMDON) TOTAL (UG/L)	PROMETONE TOTAL (UG/L)	PROMETRYNE TOTAL (UG/L)	PROPAZINE TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	SIMAZINE TOTAL (UG/L)	SIMETRYNE TOTAL (UG/L)
OCT											
15...	<0.1	<0.1	<0.1	<0.01	<0.01	<0.1	<0.1	<0.1	<0.01	<0.1	<0.1
DEC											
20...	<0.1	<0.1	<0.1	<0.01	<0.01	<0.1	<0.1	<0.1	<0.01	<0.1	<0.1
FEB											
13...	<0.1	<0.1	<0.2	<0.01	<0.01	<0.2	<0.1	<0.1	<0.01	<0.1	<0.1
APR											
24...	<0.1	<0.1	<0.2	--	--	<0.2	<0.1	<0.1	--	<0.1	<0.1
JUN											
19...	<0.1	0.2	<0.2	0.02	<0.01	<0.2	<0.1	<0.1	<0.01	0.1	<0.1
AUG											
28...	<0.1	<0.1	<0.2	<0.01	0.04	<0.2	<0.1	<0.1	<0.01	<0.1	<0.1

DATE	2,4-D, TOTAL (UG/L)	2,4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	ALACHLOR TOTAL RECOVER (UG/L)	TRIFLURALIN TOTAL RECOVER (UG/L)	BROMACIL WATER WHLREC (UG/L)	BUTACHLOR WATER WHLREC (UG/L)	BUTYLATE WATER WHLREC (UG/L)	CARBOXIN WATER WHOLE RECOVERABLE (UG/L)	CYCLOATE WATER WHOLE RECOVERABLE (UG/L)	DE-ISO PROPYL ATRAZIN WATER, WHOLE, TOTAL (UG/L)
OCT											
15...	0.02	<0.01	<0.01	<0.1	<0.1	--	--	--	--	--	--
DEC											
20...	0.02	<0.01	<0.01	<0.1	<0.1	--	--	--	--	--	--
FEB											
13...	<0.01	<0.01	<0.01	<0.2	<0.1	<0.2	<0.1	<0.1	<0.2	<0.1	<0.2
APR											
24...	--	--	--	<0.2	<0.1	<0.2	<0.1	<0.1	<0.2	<0.1	<0.2
JUN											
19...	0.06	<0.01	<0.01	<0.2	<0.1	<0.2	<0.1	<0.1	<0.2	<0.1	<0.2
AUG											
28...	<0.01	<0.01	<0.01	<0.1	<0.1	<0.2	<0.1	<0.1	<0.2	<0.1	<0.2

KENTUCKY RIVER BASIN

03290500 KENTUCKY RIVER AT LOCK 2, AT LOCKPORT, KY--Continued
(National stream-quality accounting network station)
(National water-quality assessment network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	DEETHYL ATRA-ZINE, WATER, WHOLE, TOTAL (UG/L)	DIPHEN-AMID WATER WHOLE RECOV-ERABLE (UG/L)	HEXAZI-NONE WATER WHOLE RECOV-ERABLE (UG/L)	METRI-BUZIN WATER WHOLE TOT.REC (UG/L)	METOLA-CHLOR WATER WHOLE TOT.REC (UG/L)	PROPA-CHLOR WATER WHOLE RECOV. (UG/L)	TER-BACIL WATER WHOLE RECOV. (UG/L)	VER-NOLATE WATER WHOLE RECOV. (UG/L)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT											
15...	--	--	--	<0.1	<0.1	--	--	--	31	264	83
DEC											
20...	--	--	--	<0.1	<0.1	--	--	--	512	105000	83
FEB											
13...	<0.2	<0.1	<0.2	<0.1	<0.2	<0.1	<0.2	<0.1	56	1720	91
APR											
24...	<0.2	<0.1	<0.2	<0.1	<0.2	<0.1	<0.2	<0.1	36	751	98
JUN											
19...	<0.2	<0.1	<0.2	<0.1	<0.2	<0.1	<0.2	<0.1	43	879	92
AUG											
28...	<0.2	<0.1	<0.2	<0.1	<0.1	<0.1	<0.2	<0.1	--	--	--

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	375	399	390	---	311	238	231	274	274	331	332	365
2	398	---	396	190	322	---	226	257	255	336	312	363
3	---	436	301	168	---	252	228	259	---	410	332	375
4	322	450	318	207	323	253	---	---	256	418	299	375
5	---	---	373	---	327	---	---	---	259	411	297	---
6	393	431	353	276	---	---	---	---	276	---	284	381
7	372	441	367	246	333	---	---	272	275	---	305	---
8	363	---	356	266	317	275	237	287	304	---	291	379
9	---	---	386	273	263	---	---	287	334	---	---	365
10	359	399	382	263	302	330	---	285	305	---	277	380
11	---	445	367	255	309	273	---	290	342	283	---	377
12	385	388	356	---	289	254	---	---	332	312	279	---
13	---	413	314	---	---	260	287	---	---	307	276	378
14	387	315	288	246	243	275	268	---	333	287	268	377
15	---	315	282	---	---	313	---	289	331	307	273	375
16	384	340	242	265	288	284	287	276	---	316	285	379
17	421	341	195	263	273	279	---	280	---	312	286	388
18	398	---	308	---	---	---	304	---	317	311	292	---
19	387	324	274	266	---	---	310	---	333	325	294	383
20	400	330	---	272	242	287	---	304	321	---	294	396
21	441	324	206	---	249	---	---	308	320	293	290	393
22	395	---	189	---	188	234	282	302	312	293	305	385
23	---	---	238	284	257	---	285	---	---	299	309	402
24	440	351	246	282	216	---	---	---	315	300	318	---
25	486	348	---	287	211	244	256	---	322	303	344	396
26	420	394	166	---	229	227	297	---	336	319	344	---
27	414	382	192	---	248	218	256	---	---	331	334	---
28	438	379	248	---	237	216	251	371	---	331	344	---
29	436	---	---	299	---	---	263	379	---	332	366	---
30	407	394	---	320	---	238	---	383	294	332	356	---
31	---	---	223	---	---	---	---	305	---	322	358	---

KENTUCKY RIVER BASIN

03290500 KENTUCKY RIVER AT LOCK 2, AT LOCKPORT, KY--Continued
(National stream-quality accounting network station)
(National water-quality assessment network station)

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY INSTANTANEOUS VALUES

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

03291500 EAGLE CREEK AT GLENCOE, KY

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

DRAINAGE AREA.--437 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 508.52 ft above 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.--Estimated daily discharges: Dec. 15-21; Dec. 23 to Jan. 11, Jan. 15-27, and Feb. 6 to Mar. 14. Records fair except for periods of estimated record, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	118	130	4500	833	250	441	109	225	20	4.8	72
2	22	105	119	2400	546	400	391	85	155	18	4.4	21
3	54	94	4200	1300	435	700	344	71	809	17	4.2	11
4	7610	130	409	680	377	980	316	66	1570	13	6.8	82
5	2960	136	424	450	359	620	315	66	417	11	7.4	2010
6	699	138	408	2000	2100	1400	373	90	193	12	7.5	316
7	383	148	333	6100	2200	3600	435	99	100	16	6.8	68
8	241	146	263	3800	1400	1300	318	71	58	17	7.7	41
9	198	137	212	2100	980	830	543	68	43	6990	14	34
10	4090	1020	181	1400	740	600	633	80	36	4380	24	25
11	2240	690	157	2200	580	460	383	118	29	6780	17	19
12	738	458	140	2750	470	400	277	400	25	901	15	16
13	735	253	130	1310	600	1650	3660	918	22	360	10	14
14	709	174	116	794	3500	1800	2080	1630	20	315	7.9	12
15	361	135	1700	620	3400	992	2820	852	18	136	6.8	9.6
16	245	109	840	540	1600	497	2740	309	19	86	5.7	7.6
17	185	94	2000	470	700	377	729	376	185	48	5.8	6.3
18	181	84	9000	425	3000	2580	474	297	47	37	5.3	5.5
19	677	73	1500	390	1900	1830	355	153	147	27	5.0	5.1
20	502	66	300	360	1400	682	309	135	35	22	4.9	4.6
21	260	63	1000	330	1050	462	254	109	147	19	4.6	4.1
22	802	626	2520	310	840	6890	214	76	155	15	4.4	3.8
23	2470	2510	2000	280	670	13200	180	446	359	12	3.9	3.6
24	1010	973	1300	265	550	2740	180	488	535	10	3.7	3.2
25	473	544	960	245	460	963	189	196	265	9.4	3.5	3.1
26	309	308	760	230	390	2870	140	130	118	7.9	3.3	2.6
27	236	216	600	220	330	3170	122	2060	57	6.3	3.1	2.3
28	202	174	1200	1220	290	1110	114	1320	40	5.4	2.7	2.1
29	180	148	3000	1570	---	779	109	602	29	5.5	3.4	2.0
30	155	141	6000	3420	---	615	122	299	24	6.0	4.8	1.9
31	133	---	8000	2200	---	496	---	191	---	5.3	26	---
TOTAL	29081	10011	49902	44879	31700	55243	19560	11910	5882	20307.8	234.4	2808.4
MEAN	938	334	1610	1448	1132	1782	652	384	196	655	7.56	93.6
MAX	7610	2510	9000	6100	3500	13200	3660	2060	1570	6990	26	2010
MIN	21	63	116	220	290	250	109	66	18	5.3	2.7	1.9
CFSM	2.15	.76	3.68	3.31	2.59	4.08	1.49	.88	.45	1.50	.02	.21
IN.	2.48	.85	4.25	3.82	2.70	4.70	1.67	1.01	.50	1.73	.02	.24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1991, BY WATER YEAR (WY)

MEAN	115	346	647	926	1129	1299	926	602	400	238	116	116
MAX	1005	1641	1874	3170	3295	5197	2909	2411	1428	1016	755	1355
(WY)	1976	1973	1952	1950	1956	1964	1948	1961	1928	1957	1977	1965
MIN	.000	.000	.000	2.85	44.6	120	131	25.5	1.56	.14	.000	.000
(WY)	1931	1931	1931	1931	1954	1941	1976	1930	1930	1930	1930	1930

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1916 - 1991	
ANNUAL TOTAL	314037.3		281518.6			
ANNUAL MEAN	860		771		567	
HIGHEST ANNUAL MEAN					1059	1973
LOWEST ANNUAL MEAN					117	1954
HIGHEST DAILY MEAN	19700	May 17	13200	Mar 23	39300	Mar 10 1964
LOWEST DAILY MEAN	2.9	Aug 15	1.9	Sep 30	.00	Jul 15 1930
ANNUAL SEVEN-DAY MINIMUM	3.1	Aug 11	2.5	Sep 24	.00	Jul 15 1930
INSTANTANEOUS PEAK FLOW			26300	Dec 18	58200	Mar 10 1964
INSTANTANEOUS PEAK STAGE			18.30	Dec 18	26.05	Mar 10 1964
ANNUAL RUNOFF (CFSM)	1.97		1.76		1.30	
ANNUAL RUNOFF (INCHES)	26.73		23.96		17.62	
10 PERCENT EXCEEDS	2000		2200		1270	
50 PERCENT EXCEEDS	246		254		93	
90 PERCENT EXCEEDS	18		6.3		.90	

HARRODS CREEK BASIN

03292460 HARRODS CREEK NEAR LA GRANGE, KY

LOCATION.--Lat 38°26'50", long 85°24'33", Oldham County, Hydrologic Unit 05140101, 40 ft upstream from bridge on State Highway 53, 0.5 mi upstream from Ash Run, 3.1 mi northwest of La Grange and at mile 22.4.

DRAINAGE AREA.--24.1 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 662.64 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 18-27, and June 5-6. Records good except for periods of estimated record, which are fair. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.33	2.4	9.1	65	36	13	20	8.5	15	.00	.00	.00
2	.29	2.2	7.4	46	28	21	18	5.8	61	.00	.00	.00
3	.20	1.9	381	35	23	14	16	4.0	44	.00	.00	.00
4	56	1.9	75	27	19	12	15	3.8	16	.00	.00	.00
5	19	1.7	36	27	22	10	16	8.7	9.6	.00	.00	.00
6	6.7	1.9	26	266	556	42	15	3.6	5.9	.00	.00	.00
7	3.4	2.4	19	405	229	41	14	1.8	4.2	.00	.00	.00
8	2.1	2.1	14	97	66	25	14	1.0	3.8	54	.00	.00
9	10	4.3	12	59	43	23	16	3.6	3.3	61	.00	.00
10	271	59	10	45	32	22	16	7.9	1.8	7.7	.00	.00
11	26	20	10	157	25	18	11	4.0	1.3	6.2	.00	.00
12	9.3	11	9.9	92	21	18	10	3.3	.74	2.3	.00	.00
13	4.9	7.1	9.5	54	132	316	79	9.3	.27	1.8	.00	.00
14	3.3	5.5	9.0	42	503	111	36	9.0	.23	1.8	.00	.00
15	2.3	4.1	178	35	76	50	44	4.9	.17	.90	.00	.00
16	1.9	3.6	55	52	49	36	27	3.1	.13	.48	.00	.00
17	1.5	3.4	186	42	35	68	19	2.7	.15	.27	.00	.00
18	1.4	3.1	1850	33	229	131	16	1.1	1.5	.22	.17	.00
19	1.4	2.6	184	27	87	57	15	.90	1.4	.12	.20	.00
20	1.4	2.5	68	22	56	40	14	1.0	.63	.06	.50	.00
21	1.3	2.3	87	20	40	62	12	.94	.36	.02	.68	.00
22	132	85	299	17	31	1010	11	.84	.25	.00	.29	.00
23	51	72	222	15	25	250	9.7	20	.12	.00	.13	.00
24	18	27	75	14	22	67	19	20	.08	.00	.06	.00
25	10	16	46	12	19	43	13	6.0	.03	.00	.00	.00
26	7.9	11	34	11	16	49	11	5.9	.00	.00	.00	.00
27	6.0	9.6	31	19	15	47	9.6	6.9	.00	.00	.00	.00
28	4.5	17	32	74	13	38	9.6	8.1	.00	.00	.00	.00
29	3.9	17	442	29	---	29	10	60	.00	.00	.00	.00
30	2.8	11	1110	379	---	24	9.7	32	.00	.00	.00	.00
31	2.6	---	164	66	---	21	---	32	---	.00	.00	---
TOTAL	662.42	410.6	5690.9	2284	2448	2708	545.6	280.68	171.96	136.87	2.03	0.00
MEAN	21.4	13.7	184	73.7	87.4	87.4	18.2	9.05	5.73	4.42	.065	.000
MAX	271	85	1850	405	556	1010	79	60	61	61	.68	.00
MIN	.20	1.7	7.4	11	13	10	9.6	.84	.00	.00	.00	.00
CFSM	.89	.57	7.62	3.06	3.63	3.62	.75	.38	.24	.18	.00	.00
IN.	1.02	.63	8.78	3.53	3.78	4.18	.84	.43	.27	.21	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1991, BY WATER YEAR (WY)

MEAN	10.8	31.9	57.7	48.4	64.5	63.4	63.4	46.2	27.5	13.2	14.3	9.09
MAX	75.1	99.3	184	108	175	179	174	152	154	59.6	73.2	136
(WY)	1978	1980	1991	1969	1989	1975	1972	1983	1973	1973	1978	1979
MIN	.000	.095	1.28	.69	11.6	8.46	5.95	1.01	.11	.53	.000	.000
(WY)	1988	1988	1977	1977	1978	1983	1976	1985	1988	1983	1983	1983

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1968 - 1991	
ANNUAL TOTAL	20862.45		15341.06			
ANNUAL MEAN	57.2		42.0		37.4	
HIGHEST ANNUAL MEAN					65.7	1979
LOWEST ANNUAL MEAN					16.7	1981
HIGHEST DAILY MEAN	1850	Dec 18	1850	Dec 18	1880	Sep 14 1979
LOWEST DAILY MEAN	.00	Jul 31	.00	Jun 26	.00	Aug 24 1976
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 31	.00	Jun 26	.00	Sep 16 1976
INSTANTANEOUS PEAK FLOW			3660	Dec 18	6100	Apr 4 1989
INSTANTANEOUS PEAK STAGE			7.89	Dec 18	9.93	Sep 4 1979
ANNUAL RUNOFF (CFSM)	2.37		1.74		1.55	
ANNUAL RUNOFF (INCHES)	32.20		23.68		21.09	
10 PERCENT EXCEEDS	148		73		73	
50 PERCENT EXCEEDS	11		9.3		6.8	
90 PERCENT EXCEEDS	.20		.00		.11	

HARRODS CREEK BASIN

03292473 HARRODS CREEK NEAR PROSPECT, KY

WATER-QUALITY RECORDS

LOCATION.--Lat 38°20'06", long 85°36'09", Jefferson County, Hydrologic Unit 05140101, at site off Hunting Creek Drive, 0.9 mi above Wolf Creek, and at mile 3.0.

DRAINAGE AREA.--92.1 mi^2.

PERIOD OF RECORD.--March 1988 to current year.

REMARKS.--Samples were collected monthly.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)
OCT					
11...	1030	385	7.8	14.0	8.9
NOV					
15...	1110	545	7.9	9.0	11.9
DEC					
12...	0955	564	7.4	5.5	12.1
JAN					
16...	1045	498	7.7	6.5	10.2
FEB					
13...	1035	509	7.8	6.5	10.0
MAR					
13...	1100	368	7.5	9.0	10.4
APR					
10...	1025	458	8.3	15.0	7.2
MAY					
15...	1040	513	7.9	22.0	6.4
JUN					
27...	1005	573	7.8	24.5	5.1
JUL					
11...	0930	432	7.3	24.5	5.6
AUG					
19...	0940	340	7.5	23.0	5.3
SEP					
11...	1025	514	7.4	23.5	4.0

GOOSE CREEK BASIN

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

WATER-QUALITY RECORDS

LOCATION.--Lat 38°16'33",long 85°36'22", Jefferson County, Hydrologic Unit 05140101, at bridge on Old Westport Road and at mile 5.5.

DRAINAGE AREA.--6.0 mi^2.

PERIOD OF RECORD.--February 1988 to current year.

REMARKS.--Samples were collected monthly.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
OCT						
22...	1230	56	332	7.6	14.5	8.0
NOV						
26...	1140	6.2	552	7.8	14.0	12.6
DEC						
18...	0950	226	240	7.6	12.0	8.9
JAN						
23...	1140	8.2	527	8.0	5.0	11.6
FEB						
22...	1120	17	449	7.5	10.0	10.9
MAR						
19...	1115	20	425	7.3	11.0	11.4
APR						
16...	1150	5.8	464	8.9	1[illegible].0	12.9
MAY						
21...	1135	3.1	545	8.0	20.5	9.4
JUN						
12...	1020	1.9	577	7.8	21.5	8.5
JUL						
11...	1150	8.9	407	7.5	23.5	7.4
AUG						
19...	1155	2.2	688	7.8	21.0	7.7
SEP						
11...	1130	3.0	801	7.5	22.0	7.5

GOOSE CREEK BASIN

03292475 GOOSE CREEK AT U.S. HWY 42 NEAR GLENVIEW ACRES, KY

WATER-QUALITY RECORDS

LOCATION.--Lat 38°18'12", long 85°37'41", Jefferson County, Hydrologic Unit 05140101, at culvert on U.S. Highway 42, 1.7 mi above Little Goose Creek, and at mile 2.1.

DRAINAGE AREA.--10.1 mi^2.

PERIOD OF RECORD.--February 1988 to current year.

REMARKS.--Samples were collected monthly.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
OCT						
22...	1100	36	328	7.7	14.0	9.4
NOV						
26...	1030	7.8	568	8.0	12.0	11.2
JAN						
23...	1040	10	550	7.9	2.0	13.0
FEB						
22...	1010	26	465	7.3	8.5	12.1
MAR						
19...	1010	30	450	7.4	9.5	12.3
APR						
16...	1025	9.4	488	8.5	15.0	10.3
MAY						
21...	1035	4.0	559	7.9	20.0	8.3
JUN						
12...	0910	1.7	547	8.1	21.5	8.2
JUL						
11...	1035	23	343	7.8	23.5	7.5
AUG						
26...	1025	1.8	714	8.2	22.5	7.8
SEP						
11...	0925	2.0	694	7.9	22.5	7.5

GOOSE CREEK BASIN

03292480 LITTLE GOOSE CREEK NEAR HARRODS CREEK, KY

WATER-QUALITY RECORDS

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

DRAINAGE AREA.--5.8 mi^2.

PERIOD OF RECORD.--February 1988 to current year.

REMARKS.--Samples were collected monthly.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
OCT						
22...	0955	21	329	8.1	14.0	9.2
NOV						
26...	0925	3.9	577	7.4	11.5	10.6
JAN						
02...	0950	25	452	7.6	6.0	11.7
23...	0920	7.5	541	7.6	2.0	13.1
FEB						
22...	0855	19	450	7.5	8.0	11.4
MAR						
19...	0900	17	456	7.3	9.0	11.0
APR						
16...	0915	9.2	514	8.3	13.0	10.2
MAY						
21...	0910	2.5	575	7.9	20.0	7.9
JUN						
27...	0900	1.0	615	8.1	22.0	7.3
JUL						
23...	1015	0.93	642	8.0	25.5	7.1
AUG						
19...	1030	1.6	518	8.0	21.0	7.5
SEP						
18...	1025	0.70	722	8.0	21.5	7.5

BEARGRASS CREEK BASIN

03292500 SOUTH FORK BEARGRASS CREEK AT LOUISVILLE, KY

LOCATION.--(revised)Lat 38°12'39", long 85°42'07", Jefferson County, Hydrologic Unit 05140101, on upstream side of Trevilian Way Bridge at Louisville, 4.9 mi upstream from confluence with Middle Fork, and at mile 6.5.

DRAINAGE AREA.--17.2 mi^2.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1705: Drainage area.

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

REMARKS.--Estimated daily discharges: Jan. 19-26, and July 17 to Aug. 7. Water-dicharge records fair.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	4.9	6.5	87	16	21	12	5.6	60	6.1	1.4	4.4
2	2.8	5.1	8.3	43	15	17	10	5.7	15	4.9	2.0	3.5
3	2.7	6.3	142	28	14	12	9.5	5.6	6.8	6.1	1.6	2.8
4	174	7.4	37	22	13	12	11	7.5	4.9	3.3	1.3	94
5	14	14	16	37	27	11	11	67	4.0	2.9	1.5	26
6	7.1	6.2	12	126	208	37	9.1	11	3.6	7.4	1.8	9.2
7	5.3	4.1	10	174	96	17	8.3	7.6	3.2	3.5	1.8	5.3
8	4.4	3.8	8.9	66	48	14	15	6.6	3.1	3.1	5.0	4.3
9	67	38	7.8	43	35	12	11	87	3.0	5.1	30	3.8
10	140	40	7.0	37	26	11	9.2	19	2.9	186	6.4	42
11	17	9.7	6.6	64	21	11	7.1	12	2.7	44	2.7	14
12	11	7.2	6.1	38	18	27	22	13	2.7	12	2.3	9.4
13	7.8	6.0	6.9	27	79	86	37	10	2.8	7.1	3.4	7.8
14	6.4	5.3	5.9	23	134	35	14	12	3.1	5.5	2.4	4.6
15	5.4	4.9	81	26	53	22	15	8.6	3.2	4.7	2.1	4.0
16	4.8	5.0	21	24	32	19	9.8	6.5	3.1	4.4	2.4	3.8
17	4.4	5.6	54	18	27	53	8.4	6.0	34	4.0	3.7	3.4
18	16	4.8	521	16	131	52	7.4	6.8	31	3.7	38	7.9
19	4.9	4.6	138	14	63	26	21	5.1	11	12	64	6.9
20	4.2	4.9	78	13	40	21	8.3	4.9	5.5	6.8	10	3.4
21	3.6	5.0	71	12	30	39	7.1	4.6	8.8	4.0	4.5	3.0
22	190	46	102	11	24	440	7.1	4.2	6.9	2.6	3.3	2.8
23	43	19	94	11	21	177	9.9	4.2	12	2.4	2.8	2.8
24	20	9.7	43	10	18	66	27	3.8	4.8	7.4	2.7	7.3
25	11	8.2	28	10	16	42	7.8	7.2	4.3	5.4	2.3	12
26	7.6	6.9	21	9.7	14	34	7.1	8.5	4.3	4.0	2.1	3.7
27	6.6	6.0	18	25	14	26	6.0	20	4.1	3.0	1.9	3.0
28	6.2	35	47	31	13	20	5.9	7.2	3.8	2.1	2.8	2.9
29	5.3	8.8	72	14	---	17	12	5.1	3.7	1.9	81	2.9
30	5.3	7.1	233	48	---	15	6.5	4.4	4.0	2.0	129	2.9
31	5.0	---	160	19	---	13	---	4.1	---	7.2	6.5	---
TOTAL	806.0	339.5	2063.0	1126.7	1246	1405	352.5	380.8	262.3	374.6	422.7	303.8
MEAN	26.0	11.3	66.5	36.3	44.5	45.3	11.7	12.3	8.74	12.1	13.6	10.1
MAX	190	46	521	174	208	440	37	87	60	186	129	94
MIN	2.7	3.8	5.9	9.7	13	11	5.9	3.8	2.7	1.9	1.3	2.8
CFSM	1.51	.66	3.87	2.11	2.59	2.64	.68	.71	.51	.70	.79	.59
IN.	1.74	.73	4.46	2.44	2.69	3.04	.76	.82	.57	.81	.91	.66

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1991, BY WATER YEAR (WY)

MEAN	6.83	13.5	23.5	31.4	42.8	42.3	33.6	26.7	17.8	14.6	8.96	7.07
MAX	46.7	53.9	73.6	125	107	126	95.2	103	78.3	126	54.7	86.3
(WY)	1978	1974	1979	1950	1989	1945	1948	1961	1950	1973	1974	1979
MIN	.30	.84	1.32	.71	8.52	6.41	3.13	5.51	1.11	.89	.23	.000
(WY)	1953	1953	1977	1940	1953	1983	1976	1962	1959	1956	1952	1953

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1940 - 1991	
ANNUAL TOTAL	13187.3		9082.9			
ANNUAL MEAN	36.1		24.9		22.3	
HIGHEST ANNUAL MEAN					41.0	1950
LOWEST ANNUAL MEAN					9.35	1959
HIGHEST DAILY MEAN	728	Feb 15	521	Dec 18	1760	Jul 22 1973
LOWEST DAILY MEAN	1.9	Aug 28	1.3	Aug 4	.00	Sep 4 1940
ANNUAL SEVEN-DAY MINIMUM	3.1	Sep 1	1.6	Aug 1	.00	Sep 4 1940
INSTANTANEOUS PEAK FLOW			1510	Mar 22	4940	Mar 9 1964
INSTANTANEOUS PEAK STAGE			12.94	Mar 22	17.17	Mar 9 1964
ANNUAL RUNOFF (CFSM)	2.10		1.45		1.30	
ANNUAL RUNOFF (INCHES)	28.52		19.64		17.81	
10 PERCENT EXCEEDS	76		63		48	
50 PERCENT EXCEEDS	13		8.8		7.0	
90 PERCENT EXCEEDS	4.1		3.0		.71	

BEARGRASS CREEK BASIN

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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1988 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1988 to current year.
pH: May 1988 to current year.
WATER TEMPERATURE: May 1988 to current year.
DISSOLVED OXYGEN: May 1988 to current year.

INSTRUMENTATION.--Water-quality monitor since May 1988.

REMARKS.--Water-quality samples were collected monthly. Records good for specific conductance, pH, water temperature, and dissolved oxygen.

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

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1010 microsiemens, Dec. 28-29, 1989; minimum, 122 microsiemens, May 16, 1990.
pH: Maximum, 9.5 units, Aug. 10, 1988; minimum, 4.9 units, Mar. 6-7, 1991.
WATER TEMPERATURE: Maximum, 33.6°C, Aug. 17, 1988; minimum, 0.0°C, Dec. 21, 29, 30, 1989.
DISSOLVED OXYGEN: Maximum, 16.2 mg/L, Mar. 1, 1989; minimum, 2.1 mg/L, Aug. 9, 1991.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 866 microsiemens, Jan 27; minimum, 141 microsiemens, May 5.
pH: Maximum, 9.1 units, Apr. 22; minimum, 4.9 units, Mar. 6-7.
WATER TEMPERATURE: Maximum, 31.9°C, July 2; minimum, 0.5°C, Jan. 22.
DISSOLVED OXYGEN: Maximum, 13.5 mg/L, Jan. 25; minimum, 2.1 mg/L, Aug. 9.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
OCT						
17...	1100	3.9	487	7.6	18.0	9.7
NOV						
06...	1030	5.3	434	7.6	11.0	7.9
DEC						
06...	1020	12	584	7.7	8.0	11.0
JAN						
08...	1105	67	540	7.6	9.0	9.3
FEB						
06...	1155	206	307	7.5	11.0	8.8
MAR						
06...	1025	66	521	5.2	11.0	8.7
APR						
04...	1015	8.1	473	8.0	13.5	8.4
MAY						
06...	1030	9.6	347	7.6	16.5	6.7
JUN						
10...	1010	2.9	439	7.7	24.0	6.9
JUL						
08...	1015	2.8	391	7.8	28.0	6.1
AUG						
07...	1055	2.8	451	7.8	25.5	6.1
SEP						
09...	1100	3.7	576	7.7	25.0	6.3

BEARGRASS CREEK BASIN

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

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	475	465	470	484	463	473	560	542	551	435	409	416
2	469	443	453	473	453	466	---	---	---	470	435	451
3	475	451	463	456	446	452	---	---	---	469	462	467
4	497	264	316	470	439	452	---	---	---	466	460	464
5	446	333	390	499	437	472	---	---	---	475	461	469
6	487	448	471	469	422	440	---	---	---	461	413	440
7	497	487	490	479	455	466	583	564	575	488	324	409
8	513	485	495	464	434	448	607	519	573	670	490	568
9	499	359	469	---	---	---	570	560	564	674	616	635
10	356	315	325	---	---	---	569	553	562	645	596	605
11	440	347	399	---	---	---	563	540	553	592	460	497
12	476	442	460	---	---	---	551	534	544	594	507	558
13	486	476	483	---	---	---	554	522	542	609	594	602
14	492	485	488	---	---	---	542	515	523	620	598	603
15	496	483	490	---	---	---	520	226	344	650	594	608
16	491	482	487	---	---	---	415	338	378	601	522	560
17	561	483	500	---	---	---	439	340	399	603	588	597
18	554	355	444	---	---	---	355	294	316	608	597	602
19	446	421	435	---	---	---	406	357	385	606	592	599
20	455	436	446	---	---	---	423	397	408	643	585	609
21	455	442	451	---	---	---	440	411	430	645	586	603
22	443	209	289	---	---	---	435	390	409	601	582	592
23	509	357	443	---	---	---	445	415	425	600	587	595
24	542	509	527	---	---	---	478	457	471	601	585	593
25	544	519	537	---	---	---	479	475	478	598	585	590
26	541	525	534	---	---	---	479	475	477	597	558	584
27	532	514	526	---	---	---	---	---	---	866	399	589
28	522	503	514	558	276	385	---	---	---	522	340	405
29	507	480	500	504	344	426	---	---	---	589	520	557
30	499	479	492	545	499	522	---	---	---	750	405	511
31	491	473	482	---	---	---	410	401	405	569	498	550
MONTH	561	209	460	---	---	---	---	---	---	866	324	546
		FEBRUARY			MARCH			APRIL			MAY	
1	588	556	568	529	502	519	466	459	463	425	400	418
2	577	551	562	519	500	510	468	462	465	408	388	398
3	561	537	551	516	508	511	474	467	470	405	374	394
4	552	533	543	519	509	514	538	456	477	373	347	360
5	586	404	530	521	517	519	489	456	472	375	141	278
6	401	253	322	552	396	485	488	443	465	431	286	361
7	485	385	440	573	408	494	475	454	464	499	433	474
8	507	486	498	584	546	562	495	311	444	518	498	507
9	522	507	513	580	552	569	486	424	445	523	208	326
10	521	515	519	582	554	567	467	430	444	492	337	435
11	516	503	510	560	516	542	454	442	448	513	486	502
12	520	502	510	549	336	513	466	291	435	514	480	503
13	518	338	455	441	276	353	391	271	326	501	445	465
14	435	320	380	504	442	473	463	394	438	494	359	458
15	485	437	461	539	505	524	471	439	459	524	381	455
16	530	485	502	554	533	543	473	463	468	514	478	500
17	706	507	554	559	431	521	478	465	474	496	462	486
18	595	440	479	505	434	467	487	460	472	507	449	477
19	508	461	483	527	507	518	493	307	407	516	473	491
20	530	507	519	528	519	524	438	399	411	507	460	493
21	542	522	534	552	287	486	466	439	457	528	462	501
22	548	529	538	336	261	295	471	448	462	515	484	498
23	544	525	533	458	339	401	457	284	443	509	475	492
24	540	525	531	518	459	488	372	286	327	482	465	473
25	533	523	528	536	501	519	434	374	403	478	439	454
26	524	516	521	532	506	515	467	436	452	456	386	404
27	520	512	515	516	501	506	476	465	471	397	302	351
28	522	508	513	501	486	491	481	465	475	383	318	350
29	---	---	---	486	462	472	481	378	446	421	384	408
30	---	---	---	462	452	458	416	394	408	445	401	426
31	---	---	---	460	453	457	---	---	---	441	400	420
MONTH	706	253	504	584	261	494	538	271	443	528	141	437

BEARGRASS CREEK BASIN

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

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	429	227	368	517	486	503	481	444	451	589	528	551
2	369	228	291	510	430	495	480	445	452	598	559	577
3	448	344	389	428	413	420	484	451	461	596	557	582
4	561	455	506	433	416	423	493	466	470	563	427	493
5	562	511	544	440	426	428	508	459	468	487	428	450
6	547	500	526	437	368	413	484	457	462	546	487	509
7	521	474	498	387	359	372	473	436	451	623	531	563
8	489	450	466	398	357	391	474	292	440	597	550	569
9	468	434	453	435	348	402	475	197	374	634	574	590
10	477	432	456	428	193	266	400	313	353	587	213	475
11	475	451	465	399	270	330	426	401	415	415	260	344
12	484	447	469	481	403	458	442	424	433	575	418	484
13	473	457	465	475	461	469	467	437	448	576	429	458
14	480	426	462	460	440	450	466	455	459	553	438	495
15	482	468	475	448	428	438	480	438	468	600	500	533
16	477	465	471	451	428	438	512	476	490	623	534	557
17	507	183	304	441	420	431	521	353	488	618	531	565
18	374	264	323	434	423	427	415	292	356	618	409	533
19	453	332	385	438	417	425	444	303	372	525	407	458
20	488	452	474	437	411	426	458	334	400	509	455	480
21	481	418	458	443	427	435	544	459	506	599	488	515
22	463	433	451	469	439	446	603	542	567	657	519	594
23	422	363	396	455	444	449	624	582	598	643	519	562
24	470	420	448	475	445	451	681	596	615	---	---	---
25	464	450	457	466	442	446	662	602	631	447	284	381
26	469	459	463	459	443	447	613	598	604	484	423	456
27	475	457	467	492	444	451	639	593	608	486	474	481
28	484	467	475	490	441	446	615	598	605	492	480	487
29	506	480	493	469	439	444	644	424	586	505	489	498
30	514	499	506	472	437	447	480	409	436	514	499	506
31	---	---	---	468	433	443	567	480	511	---	---	---
MONTH	562	183	447	517	193	429	681	197	483	---	---	---

PH (STANDARD UNITS), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.4	8.2	8.3	7.9	7.7	7.8	7.4	7.1	7.3	7.6	7.5	7.5
2	8.6	8.3	8.4	7.7	7.6	7.7	---	---	---	7.7	7.6	7.6
3	8.6	8.3	8.4	7.7	7.5	7.6	---	---	---	7.8	7.6	7.7
4	8.5	7.9	8.1	7.6	7.5	7.6	---	---	---	7.8	7.7	7.8
5	8.5	8.1	8.3	7.8	7.5	7.6	---	---	---	7.8	7.5	7.7
6	8.6	8.4	8.5	7.8	7.5	7.6	---	---	---	7.7	7.5	7.6
7	8.7	8.4	8.5	7.8	7.6	7.7	7.8	7.7	7.8	7.8	7.4	7.6
8	8.7	8.5	8.6	7.8	7.6	7.7	7.8	7.7	7.8	7.9	7.4	7.7
9	8.7	8.2	8.6	---	---	---	7.9	7.7	7.8	8.0	7.9	7.9
10	8.4	8.1	8.2	---	---	---	7.9	7.8	7.9	8.1	7.9	8.0
11	8.6	8.4	8.5	---	---	---	7.9	7.7	7.8	7.9	7.8	7.8
12	8.6	8.5	8.6	---	---	---	8.0	7.8	7.9	8.0	7.8	7.9
13	8.5	8.4	8.4	---	---	---	7.9	7.8	7.9	8.0	7.8	7.9
14	8.4	8.3	8.3	---	---	---	8.1	7.3	7.7	8.0	7.9	8.0
15	8.3	8.0	8.1	---	---	---	8.1	7.3	7.6	8.0	7.8	8.0
16	8.0	7.7	7.9	---	---	---	8.0	7.6	7.8	8.0	7.8	7.8
17	7.7	7.6	7.6	---	---	---	8.0	7.5	7.8	8.1	7.9	8.0
18	7.7	7.4	7.5	---	---	---	7.6	7.3	7.4	8.1	8.0	8.1
19	7.8	7.5	7.6	---	---	---	7.7	7.4	7.5	8.1	8.0	8.1
20	7.9	7.8	7.8	---	---	---	7.8	7.7	7.7	8.1	7.9	8.0
21	8.0	7.8	7.9	---	---	---	7.7	7.5	7.7	8.1	7.9	8.0
22	7.9	7.1	7.3	---	---	---	7.6	7.4	7.5	8.1	8.0	8.1
23	7.8	7.3	7.6	---	---	---	7.6	7.5	7.6	8.1	8.0	8.1
24	7.9	7.7	7.8	---	---	---	7.7	7.6	7.6	8.1	8.0	8.1
25	8.0	7.8	7.9	---	---	---	7.8	7.6	7.7	8.1	8.0	8.0
26	8.0	7.9	8.0	---	---	---	7.8	7.7	7.8	8.0	7.9	7.9
27	8.1	7.8	8.0	---	---	---	7.9	7.7	7.8	7.9	7.5	7.8
28	8.0	7.9	8.0	6.9	6.5	6.7	7.9	7.6	7.8	7.9	7.4	7.6
29	8.0	7.9	7.9	7.0	6.6	6.8	7.6	7.4	7.5	8.0	7.8	7.9
30	8.0	7.8	7.9	7.3	6.9	7.1	7.7	7.4	7.5	8.0	7.6	7.7
31	7.9	7.7	7.8	---	---	---	7.7	7.5	7.6	8.0	7.7	7.8
MONTH	8.7	7.1	8.1	---	---	---	---	---	---	8.1	7.4	7.9

BEARGRASS CREEK BASIN

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

PH (STANDARD UNITS), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.0	7.8	7.9	5.7	5.4	5.6	8.4	8.1	8.3	7.7	7.3	7.5
2	8.1	7.8	7.9	5.5	5.3	5.4	8.3	8.1	8.[illegible]	7.8	7.3	7.6
3	8.2	7.8	8.0	5.6	5.4	5.5	8.3	8.1	8.2	7.9	7.4	7.6
4	8.2	7.9	8.1	5.6	5.4	5.5	8.3	8.0	8.1	7.9	7.5	7.6
5	8.1	7.8	8.0	5.4	5.2	5.4	8.3	7.9	8.1	7.8	7.4	7.6
6	7.7	7.6	7.7	5.2	4.9	5.1	8.4	7.9	8.1	8.1	7.6	7.8
7	7.7	7.5	7.6	5.7	4.9	5.3	8.3	8.0	8.1	8.2	8.0	8.1
8	7.7	7.5	7.6	5.9	5.5	5.7	8.1	7.9	8.0	8.2	7.9	8.0
9	7.7	7.5	7.6	6.1	5.7	5.9	8.1	7.8	7.9	8.1	7.5	7.7
10	7.8	7.4	7.6	6.3	6.0	6.2	8.3	7.9	8.0	8.0	7.6	7.8
11	7.6	7.3	7.5	6.5	6.1	6.3	8.4	8.1	8.2	8.0	7.8	7.9
12	7.6	7.2	7.5	6.6	6.2	6.4	8.4	7.9	8.2	8.0	7.7	7.8
13	7.5	6.9	7.2	6.4	6.1	6.3	7.9	7.8	7.8	8.0	7.7	7.8
14	7.0	6.8	6.9	6.8	6.3	6.6	8.1	7.9	7.9	8.0	7.6	7.8
15	7.1	6.9	7.0	7.2	6.8	7.0	8.2	7.9	8.0	7.9	7.4	7.6
16	7.0	6.8	6.9	7.4	7.0	7.2	8.2	7.9	8.0	7.9	7.5	7.7
17	6.9	6.7	6.8	7.5	7.1	7.3	8.9	7.7	8.2	7.9	7.5	7.7
18	6.7	6.4	6.5	7.5	7.1	7.3	9.0	8.1	8.5	7.9	7.5	7.6
19	6.6	6.5	6.5	8.0	7.5	7.7	8.8	7.9	8.2	7.6	7.5	7.5
20	6.6	6.4	6.5	8.2	7.7	8.0	8.7	8.1	8.3	7.7	7.4	7.5
21	6.5	6.3	6.4	8.3	7.0	7.8	8.9	8.5	8.7	7.7	7.5	7.6
22	6.4	6.2	6.3	7.7	6.8	7.0	9.1	8.5	8.8	7.8	7.4	7.6
23	6.4	6.2	6.3	7.2	6.9	7.1	9.0	8.3	8.6	7.7	7.4	7.5
24	6.3	6.1	6.2	7.4	7.0	7.2	8.6	7.9	8.2	7.7	7.5	7.6
25	6.2	6.0	6.1	7.6	7.3	7.4	8.6	8.2	8.4	7.9	7.5	7.6
26	6.1	6.0	6.0	7.7	7.4	7.6	8.6	8.2	8.4	7.6	7.3	7.5
27	6.0	5.9	5.9	7.9	7.5	7.7	8.2	7.6	7.8	7.9	7.4	7.6
28	5.9	5.7	5.8	8.1	7.7	7.9	7.6	7.4	7.5	8.0	7.5	7.7
29	---	---	---	8.2	7.8	8.0	7.7	7.4	7.5	7.9	7.5	7.6
30	---	---	---	8.4	8.0	8.2	7.5	7.3	7.4	7.8	7.5	7.7
31	---	---	---	8.4	8.1	8.2	---	---	---	7.8	7.5	7.7
MONTH	8.2	5.7	7.0	8.4	4.9	6.8	9.1	7.3	8.1	8.2	7.3	7.7
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.9	7.3	7.6	8.3	7.7	8.0	7.9	7.7	7.8	7.7	7.5	7.5
2	7.8	7.3	7.5	8.3	7.8	8.0	8.2	7.6	7.8	7.6	7.5	7.6
3	7.7	7.5	7.6	8.0	7.6	7.7	8.1	7.7	7.8	7.6	7.5	7.6
4	7.7	7.5	7.6	8.0	7.7	7.8	8.1	7.7	7.8	7.8	7.2	7.4
5	7.8	7.6	7.7	8.2	7.9	8.0	8.6	7.7	8.0	7.6	7.2	7.4
6	7.8	7.7	7.8	8.1	7.7	7.9	8.0	7.7	7.8	7.7	7.5	7.6
7	7.8	7.7	7.7	8.1	7.6	7.8	8.1	7.6	7.8	7.7	7.5	7.6
8	7.7	7.6	7.7	8.0	7.7	7.9	7.8	7.5	7.6	7.8	7.5	7.7
9	7.8	7.6	7.7	8.0	7.4	7.7	7.8	7.1	7.4	7.8	7.6	7.7
10	7.8	7.5	7.7	7.7	6.8	7.3	7.5	7.4	7.4	7.7	7.3	7.6
11	7.6	7.4	7.6	7.7	6.8	7.3	7.6	7.4	7.5	7.6	7.4	7.5
12	7.6	7.4	7.5	7.9	7.6	7.7	7.6	7.4	7.5	7.8	7.4	7.5
13	7.6	7.4	7.5	8.0	7.7	7.9	7.8	7.5	7.6	7.7	7.5	7.6
14	8.2	7.4	7.6	8.3	7.8	8.0	7.8	7.5	7.6	7.7	7.5	7.6
15	7.5	7.4	7.5	8.1	7.8	7.9	7.8	7.5	7.7	7.7	7.6	7.6
16	7.6	7.4	7.5	8.0	7.9	7.9	8.4	7.5	7.7	7.7	7.5	7.6
17	8.0	7.4	7.5	7.9	7.8	7.8	7.8	7.4	7.6	7.7	7.5	7.6
18	7.7	7.3	7.5	7.9	7.7	7.8	7.5	7.4	7.4	7.7	7.4	7.5
19	7.8	7.4	7.6	7.9	7.7	7.8	8.0	7.3	7.4	7.6	7.3	7.4
20	7.8	7.6	7.7	8.3	7.7	7.8	7.5	7.3	7.4	7.6	7.4	7.5
21	7.9	7.6	7.7	7.8	7.6	7.7	7.4	7.4	7.4	7.7	7.4	7.5
22	7.9	7.5	7.6	7.8	7.5	7.6	7.5	7.2	7.4	7.7	7.5	7.6
23	7.9	7.4	7.7	7.9	7.5	7.7	8.0	7.4	7.5	7.9	7.4	7.6
24	8.2	7.7	7.9	8.0	7.7	7.8	7.5	7.3	7.4	8.1	7.6	7.8
25	8.2	7.8	8.0	8.2	7.8	7.9	7.6	7.3	7.4	7.7	7.5	7.6
26	8.1	7.8	7.9	8.1	7.7	7.9	7.7	7.4	7.5	7.7	7.5	7.6
27	8.0	7.8	7.9	8.2	7.8	7.9	7.7	7.5	7.6	7.6	7.3	7.5
28	8.0	7.8	7.9	8.1	7.8	7.9	7.6	7.3	7.5	7.6	7.2	7.3
29	8.2	7.8	8.0	8.2	7.8	7.9	7.8	7.2	7.4	7.6	7.0	7.3
30	8.1	7.8	7.9	8.2	7.7	7.9	7.3	7.0	7.2	7.1	6.7	7.0
31	---	---	---	8.0	7.7	7.8	7.5	7.3	7.4	---	---	---
MONTH	8.2	7.3	7.7	8.3	6.8	7.8	8.6	7.0	7.6	8.1	6.7	7.5

BEARGRASS CREEK BASIN

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

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	22.8	19.3	20.8	15.1	11.6	13.0	9.5	6.7	8.1	10.0	7.2	8.5
2	23.0	19.3	20.8	15.4	12.2	13.5	---	---	---	9.9	7.4	8.7
3	23.0	20.0	21.2	15.3	12.8	13.9	---	---	---	8.4	6.3	7.3
4	21.4	19.4	20.5	15.8	13.5	14.4	---	---	---	6.2	3.8	5.1
5	21.2	17.6	19.5	14.9	12.7	14.4	---	---	---	7.6	5.6	6.2
6	22.5	18.8	20.4	13.5	11.5	12.3	---	---	---	8.0	7.1	7.6
7	21.1	19.8	20.5	12.9	10.6	11.5	8.9	7.1	8.3	9.7	6.1	8.0
8	22.7	20.2	21.3	11.2	9.7	10.3	7.8	6.3	6.9	10.5	8.7	9.6
9	22.6	21.0	22.0	---	---	---	8.3	6.0	6.9	10.4	9.3	10.1
10	20.9	16.8	18.9	---	---	---	9.2	6.3	7.6	9.2	7.7	8.4
11	17.4	14.8	16.3	---	---	---	9.7	6.7	8.1	10.7	7.7	9.3
12	17.4	16.6	17.0	---	---	---	10.0	7.1	8.6	10.3	7.4	8.5
13	18.2	15.9	17.0	---	---	---	11.0	9.6	10.1	7.5	6.9	7.2
14	19.1	16.0	17.3	---	---	---	9.5	7.3	8.4	9.0	5.8	7.2
15	19.9	17.1	18.1	---	---	---	---	---	---	8.9	7.4	8.3
16	19.1	16.1	17.7	---	---	---	---	---	---	8.9	7.2	8.4
17	19.8	17.6	18.7	---	---	---	---	---	---	7.2	6.3	6.6
18	19.1	14.9	17.1	---	---	---	---	---	---	6.8	5.8	6.2
19	16.4	13.1	14.4	---	---	---	---	---	---	8.4	5.4	6.6
20	16.6	13.0	14.5	---	---	---	---	---	---	8.7	6.6	8.2
21	17.4	13.9	15.5	---	---	---	---	---	---	6.4	2.0	3.6
22	16.8	15.0	15.6	---	---	---	---	---	---	1.9	.5	1.3
23	15.6	13.8	14.8	---	---	---	---	---	8.6	3.5	1.2	2.4
24	15.1	13.3	14.5	---	---	---	8.3	5.7	6.9	4.1	2.7	3.5
25	14.7	12.5	13.9	---	---	---	7.2	4.5	5.8	3.3	1.8	2.4
26	13.3	10.8	11.9	---	---	---	6.1	4.7	5.4	3.5	2.0	2.9
27	13.5	9.9	11.7	---	---	---	5.4	2.6	3.9	3.7	1.4	2.1
28	13.9	11.1	12.2	17.5	12.3	15.6	7.0	3.7	5.6	5.0	3.3	4.1
29	13.2	10.2	11.6	12.2	8.7	10.3	12.9	6.6	10.0	7.3	4.4	5.6
30	13.6	10.2	11.7	9.7	7.5	8.4	13.4	8.0	10.7	7.8	5.1	6.1
31	14.6	10.6	12.5	---	---	---	9.6	8.2	8.8	5.4	3.0	4.4
MONTH	23.0	9.9	16.8	---	---	---	---	---	---	10.7	.5	6.3
		FEBRUARY			MARCH			APRIL			MAY	
1	6.5	3.3	5.0	12.0	9.5	10.4	14.6	10.8	12.6	20.8	18.1	19.4
2	7.5	5.1	6.6	14.1	11.5	12.6	14.8	11.2	13.0	21.4	16.0	18.5
3	8.0	5.6	7.2	12.5	6.7	9.6	14.3	12.0	13.2	20.4	17.1	18.9
4	9.3	7.0	8.3	9.1	5.9	7.4	13.8	13.2	13.5	21.1	18.5	19.6
5	11.3	9.3	10.3	10.9	7.5	9.2	17.8	13.3	15.3	20.2	18.0	19.2
6	11.6	10.4	11.0	12.2	10.4	11.2	20.3	15.4	17.8	19.0	15.4	17.0
7	10.7	9.5	10.0	10.4	7.3	9.1	21.3	17.2	19.2	20.0	13.5	16.6
8	9.6	8.6	9.2	10.3	6.8	8.8	21.0	18.0	19.5	20.9	17.1	19.1
9	10.8	7.4	8.9	9.9	7.6	8.7	20.7	18.3	19.4	20.3	17.1	18.0
10	11.0	8.0	9.5	9.4	6.2	7.9	18.1	14.5	16.2	21.0	16.5	18.4
11	9.4	5.9	7.3	11.0	8.0	9.3	17.6	13.0	15.3	22.0	19.6	20.8
12	9.1	5.7	7.3	10.1	8.3	9.2	15.9	13.9	15.0	23.0	21.3	22.1
13	9.7	8.1	8.9	10.0	8.4	9.3	16.6	14.3	15.5	22.7	20.4	21.5
14	9.8	7.0	8.7	8.9	7.4	7.9	18.3	16.3	17.2	25.4	20.8	22.6
15	6.9	3.5	5.2	11.7	5.9	8.7	21.6	17.0	19.2	26.1	21.3	23.7
16	7.6	1.9	4.6	12.7	7.7	10.4	21.4	16.6	19.0	27.2	22.6	24.8
17	7.0	5.3	6.0	12.7	9.7	10.6	22.9	17.2	19.9	27.3	23.6	25.4
18	10.8	5.6	8.4	10.3	9.0	9.8	20.9	18.2	19.7	26.2	23.7	24.6
19	11.8	10.5	11.1	13.0	7.9	10.1	18.8	15.4	16.6	23.7	22.0	22.7
20	11.6	8.7	10.2	12.4	8.8	10.7	15.3	13.3	14.3	23.7	21.8	22.6
21	11.6	7.5	9.6	16.6	10.5	13.2	13.3	12.4	12.9	24.9	22.0	23.3
22	11.8	8.3	10.3	14.5	13.2	13.9	17.2	11.2	14.0	25.3	23.3	24.3
23	10.1	6.3	8.5	15.5	12.3	13.7	16.8	13.9	15.4	25.5	23.3	24.3
24	9.7	6.9	8.6	16.0	10.5	13.0	18.1	12.3	15.3	27.6	23.2	25.1
25	9.6	7.1	8.1	17.3	10.4	13.7	16.6	14.7	15.7	27.0	24.4	25.7
26	7.5	4.9	6.5	15.3	12.3	13.9	19.1	14.0	16.4	26.7	24.2	24.9
27	7.9	5.4	6.9	16.4	14.3	15.2	19.5	17.3	18.4	24.9	22.4	23.8
28	9.9	6.2	8.2	15.8	11.3	14.0	18.8	17.4	18.1	27.5	23.5	25.4
29	---	---	---	15.4	9.7	12.2	19.2	17.1	18.4	27.6	24.7	26.2
30	---	---	---	11.1	6.8	9.3	22.6	16.8	19.3	28.9	25.3	26.9
31	---	---	---	11.9	8.6	10.6	---	---	---	30.3	26.1	27.9
MONTH	11.8	1.9	8.2	17.3	5.9	10.8	22.9	10.8	16.5	30.3	13.5	22.4

BEARGRASS CREEK BASIN

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

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	28.8	24.7	26.9	31.6	27.6	29.4	30.0	24.1	26.6	27.6	24.7	26.1
2	28.8	23.6	25.8	31.9	27.7	29.3	31.0	24.9	27.5	28.5	24.7	26.5
3	29.5	25.5	27.4	30.2	26.4	28.1	30.5	25.3	27.6	27.4	25.9	26.6
4	29.2	25.4	27.2	28.6	26.7	27.5	29.0	26.3	27.4	26.3	22.9	24.5
5	27.4	23.2	25.3	30.4	25.4	27.4	27.0	25.4	26.1	25.3	21.9	23.5
6	26.9	22.2	24.4	30.1	26.3	28.0	28.3	24.4	26.0	25.8	24.0	25.1
7	26.2	22.2	24.1	31.8	26.7	28.9	30.4	24.9	27.4	27.6	23.3	25.2
8	26.2	22.3	24.2	30.3	27.6	28.7	30.2	26.2	28.0	27.4	23.6	25.4
9	27.5	22.3	24.5	29.0	25.6	27.3	28.4	24.9	26.8	26.2	25.2	25.6
10	28.1	23.1	25.6	27.4	22.6	24.3	27.8	23.9	25.6	27.5	24.7	25.7
11	27.3	25.0	26.0	25.6	22.6	23.9	28.6	24.3	26.3	27.1	24.3	25.6
12	29.2	24.7	26.6	27.9	24.5	26.0	28.4	24.4	26.2	28.1	24.4	26.2
13	30.5	25.5	27.6	29.9	25.7	27.5	26.9	25.0	25.6	29.6	25.7	27.5
14	30.1	25.9	27.7	29.0	25.3	27.1	28.4	23.7	25.5	29.5	26.2	27.7
15	29.9	26.3	28.0	28.8	24.6	26.6	28.8	23.7	25.9	29.8	26.2	27.8
16	28.2	26.5	27.4	29.3	24.9	27.0	28.8	24.3	26.1	29.6	26.7	27.9
17	26.9	24.2	25.3	29.9	25.7	27.6	27.0	24.4	25.9	29.0	26.0	27.2
18	27.9	23.4	25.5	29.7	25.8	27.5	26.8	23.3	25.0	26.5	22.6	25.1
19	28.7	24.0	26.3	31.0	26.5	28.4	25.1	21.3	23.5	23.7	20.3	21.7
20	29.2	26.0	27.7	30.8	27.1	28.7	23.6	21.0	22.4	22.1	19.2	20.3
21	28.0	25.6	26.9	31.3	27.0	28.8	26.5	22.3	24.2	23.3	18.5	20.5
22	28.4	24.7	26.3	31.7	27.4	29.2	28.4	23.6	25.6	21.5	19.8	20.6
23	26.9	24.7	25.9	31.0	27.6	29.0	28.8	24.7	26.6	24.1	20.5	21.7
24	28.1	24.4	26.2	29.7	26.7	28.1	29.3	25.1	27.0	21.0	16.4	20.0
25	28.3	25.8	26.8	27.4	25.9	26.7	29.4	25.4	27.2	19.6	16.3	17.8
26	28.8	25.6	27.0	29.1	25.0	26.8	26.8	25.6	26.2	20.6	17.3	18.6
27	29.5	25.6	27.2	28.8	25.0	26.7	28.2	25.0	26.5	20.9	16.4	18.3
28	28.6	26.3	27.4	26.9	24.9	25.9	28.5	25.4	26.7	21.7	17.5	19.2
29	30.7	26.1	28.0	27.7	24.1	25.8	28.9	22.5	26.4	22.5	18.4	20.1
30	30.1	26.7	28.3	29.5	25.0	26.7	25.3	22.5	23.8	23.4	19.0	20.7
31	---	---	---	29.4	23.8	26.1	27.7	24.5	25.9	---	---	---
MONTH	30.7	22.2	26.4	31.9	22.6	27.4	31.0	21.0	26.0	29.8	16.3	23.6

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.4	7.0	7.8	12.5	9.8	10.7	11.2	10.0	10.6	10.0	8.9	9.5
2	9.4	7.3	8.2	12.9	9.6	10.8	---	---	---	9.8	8.6	9.1
3	10.3	7.4	8.5	12.7	9.5	10.7	---	---	---	10.2	8.4	9.4
4	8.0	6.8	7.3	12.1	9.5	10.6	---	---	---	11.1	9.6	10.4
5	8.8	7.3	7.9	10.1	6.8	8.5	---	---	---	10.6	9.5	10.1
6	8.7	7.1	7.9	8.0	7.0	7.4	---	---	---	10.1	9.3	9.6
7	8.8	7.2	8.0	10.1	7.5	8.7	10.7	10.1	10.4	10.4	8.7	9.6
8	8.9	7.2	8.2	10.5	8.5	9.2	11.1	10.6	10.9	9.6	8.5	9.1
9	8.9	6.7	8.0	---	---	---	11.1	10.7	11.0	9.5	8.3	8.9
10	8.3	6.9	7.6	---	---	---	11.0	10.7	10.9	10.2	8.6	9.4
11	9.9	8.3	9.0	---	---	---	10.9	10.6	10.8	9.7	8.3	9.2
12	9.7	8.3	9.0	---	---	---	10.8	10.4	10.7	9.8	8.2	9.1
13	9.8	8.4	9.0	---	---	---	10.7	9.6	10.2	10.5	9.0	9.9
14	10.2	8.4	9.3	---	---	---	11.9	10.1	10.9	10.8	9.7	10.2
15	10.4	8.5	9.4	---	---	---	11.7	9.0	9.7	10.4	9.3	9.9
16	10.8	8.8	9.7	---	---	---	10.6	9.2	10.0	10.0	9.2	9.5
17	10.5	9.1	9.8	---	---	---	10.5	9.2	10.1	10.9	10.0	10.5
18	9.3	6.5	7.8	---	---	---	9.2	8.6	9.0	11.3	10.6	10.9
19	10.2	7.6	8.7	---	---	---	9.2	8.7	9.0	11.4	10.6	11.0
20	11.2	9.4	10.0	---	---	---	9.7	8.6	9.2	10.5	9.4	10.0
21	11.8	9.4	10.2	---	---	---	9.2	8.1	8.6	12.6	10.5	11.6
22	10.0	7.2	7.9	---	---	---	8.7	7.9	8.3	13.1	12.3	12.7
23	9.7	7.5	8.5	---	---	---	10.1	8.0	9.1	12.8	12.2	12.5
24	10.6	8.1	9.2	---	---	---	10.2	8.4	9.1	12.7	11.5	12.1
25	10.5	8.1	9.3	---	---	---	10.6	8.8	9.6	13.5	12.1	12.8
26	11.3	8.8	9.9	---	---	---	10.7	9.5	10.2	13.3	12.1	12.7
27	11.7	9.0	10.2	---	---	---	11.1	10.1	10.7	13.3	11.3	12.5
28	11.8	9.1	10.3	8.4	6.9	7.7	10.8	9.9	10.3	12.0	11.3	11.6
29	12.2	9.6	10.6	10.0	8.4	9.2	11.4	8.2	9.3	12.9	11.0	11.9
30	12.4	9.6	10.5	11.0	9.5	10.3	10.2	8.1	9.0	11.4	10.2	10.8
31	12.3	9.7	10.6	---	---	---	9.7	9.0	9.3	13.1	10.8	11.9
MONTH	12.4	6.5	9.0	---	---	---	---	---	---	13.5	8.2	10.6

BEARGRASS CREEK BASIN

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

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	13.3	11.2	12.1	12.2	8.2	10.0	10.7	8.3	9.4	7.5	6.5	7.0
2	13.3	10.6	11.8	11.5	7.6	9.3	10.8	8.3	9.5	7.7	6.8	7.2
3	13.5	10.3	11.8	11.4	8.3	9.7	10.6	8.2	9.5	7.5	6.8	7.2
4	13.9	9.9	11.7	12.3	9.7	10.8	9.6	8.1	8.8	7.3	6.4	6.8
5	11.8	8.7	10.2	12.7	9.3	11.0	10.2	7.3	8.6	6.8	6.2	6.6
6	9.2	8.4	8.8	10.6	8.3	8.9	10.3	7.8	9.0	7.5	6.6	6.9
7	9.6	8.5	9.0	11.6	8.7	9.8	9.9	7.4	8.7	8.5	7.0	7.6
8	10.2	8.5	9.3	9.9	8.5	9.2	8.6	6.7	7.6	7.7	6.3	7.1
9	11.2	8.6	9.8	10.3	8.8	9.6	8.6	6.7	7.6	7.3	5.8	6.7
10	11.7	8.3	9.9	10.6	9.1	9.9	10.2	7.1	8.6	8.3	6.4	7.3
11	12.2	8.7	10.5	10.9	9.2	10.1	10.4	8.5	9.5	8.3	6.2	7.2
12	13.0	9.4	11.0	10.3	9.2	9.8	9.5	7.9	8.8	7.9	5.8	6.7
13	10.4	8.5	9.2	9.7	9.4	9.5	7.9	7.5	7.8	8.1	5.9	6.9
14	9.5	8.7	9.1	10.0	9.4	9.7	8.0	7.4	7.6	9.0	5.8	6.9
15	11.7	8.9	10.4	11.0	9.5	10.2	7.9	[illegible].3	7.5	8.1	4.9	6.4
16	12.2	9.7	10.9	11.1	9.4	10.2	8.1	7.2	7.7	8.5	5.2	6.8
17	11.0	9.2	10.0	10.8	9.4	10.0	8.1	7.5	7.8	8.4	5.0	6.7
18	10.5	8.2	9.4	10.5	9.7	10.0	8.5	7.2	7.8	7.6	5.1	6.2
19	8.9	8.0	8.6	11.9	9.9	10.9	8.8	7.5	8.0	7.3	4.9	6.1
20	10.8	7.9	9.4	10.7	9.6	10.2	8.4	7.7	8.0	7.6	5.6	6.7
21	10.9	7.9	9.5	10.8	6.6	9.2	8.9	8.1	8.4	8.2	6.0	7.3
22	11.3	7.8	9.6	7.7	6.5	7.1	8.6	8.1	8.3	8.5	6.2	7.2
23	12.1	8.9	10.4	7.5	6.6	7.3	8.3	7.7	8.0	8.3	5.5	6.6
24	12.5	8.8	10.6	6.9	6.4	6.7	8.0	7.3	7.7	7.8	5.8	7.0
25	12.9	8.9	10.8	7.2	6.2	6.7	8.2	7.5	7.8	8.5	5.4	6.9
26	13.3	10.1	11.6	7.0	6.1	6.6	8.2	7.8	8.0	7.0	4.3	5.7
27	13.5	10.1	11.6	7.7	5.9	6.8	7.8	7.1	7.3	8.2	4.9	6.6
28	13.7	9.7	11.5	9.3	6.8	8.0	7.2	6.6	6.9	8.9	5.5	7.1
29	---	---	---	9.5	7.2	8.3	7.2	6.6	6.9	8.2	5.5	6.9
30	---	---	---	10.2	8.6	9.2	7.8	6.6	7.1	8.3	5.4	7.0
31	---	---	---	10.4	8.4	9.3	---	---	---	8.2	5.7	7.1
MONTH	13.9	7.8	10.3	12.7	5.9	9.2	10.8	6.6	8.1	9.0	4.3	6.9
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.0	5.1	6.4	8.4	4.9	6.6	7.8	4.9	5.9	---	---	---
2	7.0	5.3	6.0	8.0	6.0	6.7	7.6	4.8	5.8	---	---	---
3	7.0	5.1	6.0	6.6	3.9	5.2	7.9	4.6	5.8	---	---	---
4	7.7	5.6	6.6	7.2	4.9	5.8	7.7	4.6	5.8	---	---	---
5	8.2	6.3	7.2	8.4	6.0	6.9	9.0	4.8	6.3	---	---	---
6	8.3	7.1	7.5	7.6	4.8	6.4	8.0	5.0	6.2	---	---	---
7	8.1	7.0	7.6	7.6	4.4	5.6	9.0	5.1	6.7	---	---	---
8	8.3	6.6	7.5	7.5	5.5	6.2	7.4	4.4	5.3	---	---	---
9	8.6	6.6	7.4	8.0	3.9	5.8	5.5	2.1	3.8	---	---	---
10	8.0	5.6	7.0	6.4	3.2	5.1	6.1	4.5	5.1	9.5	7.9	8.8
11	7.4	5.3	6.2	5.9	4.7	5.5	---	---	---	9.8	8.2	8.9
12	8.1	5.0	6.2	6.0	5.0	5.5	---	---	---	10.3	8.2	9.0
13	8.1	5.3	6.3	6.8	4.8	5.6	---	---	---	9.1	7.3	8.1
14	9.3	4.6	6.3	8.3	5.0	6.3	---	---	---	9.7	7.0	8.1
15	7.1	4.6	5.6	7.6	5.5	6.5	---	---	---	10.1	7.2	8.2
16	7.3	4.4	5.6	7.5	6.0	6.8	---	---	---	10.4	6.5	8.1
17	6.2	4.1	4.7	7.5	6.3	6.8	---	---	---	10.2	6.2	7.5
18	6.8	4.7	5.6	7.4	5.9	6.5	---	---	---	8.9	4.9	6.6
19	7.2	4.6	5.7	7.5	5.6	6.4	---	---	---	8.7	4.7	6.5
20	7.5	5.1	6.3	8.2	5.4	6.4	---	---	---	9.1	6.5	7.4
21	7.6	5.5	6.4	7.1	5.1	5.9	---	---	---	10.5	6.4	7.8
22	7.2	4.5	5.8	7.1	4.8	5.7	---	---	---	9.2	5.5	6.9
23	7.7	4.4	6.1	7.0	4.7	5.6	---	---	---	9.9	4.3	6.5
24	9.0	5.8	7.2	7.1	4.8	5.6	---	---	---	12.3	4.9	7.2
25	8.5	6.5	7.4	7.4	4.8	5.7	---	---	---	8.0	5.0	7.0
26	8.1	6.2	7.1	7.2	5.0	5.8	---	---	---	8.2	6.4	7.1
27	8.0	6.2	7.0	7.6	5.0	6.0	---	---	---	8.8	6.8	7.5
28	7.5	5.7	6.6	7.5	5.1	6.1	---	---	---	9.6	6.6	7.7
29	8.6	5.7	6.9	8.0	5.1	6.2	---	---	---	10.0	6.6	7.8
30	7.8	5.8	6.8	7.9	5.1	6.1	---	---	---	10.1	6.6	7.8
31	---	---	---	8.0	5.0	6.0	---	---	---	---	---	---
MONTH	9.3	4.1	6.5	8.4	3.2	6.0	---	---	---	---	---	---

BEARGRASS CREEK BASIN

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

WATER-QUALITY RECORDS

LOCATION.--(revised)Lat 38°16'35", long 85°41'37", Jefferson County, Hydrologic Unit 05140101, at bridge on Winter Avenue,
1.4 mi above Middle Fork Beargrass Creek, and at mile 3.3

DRAINAGE AREA.--22.6 mi^2.

PERIOD OF RECORD.--February 1988 to current year.

REMARKS.--Samples were collected monthly.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
OCT						
17...	0910	5.2	576	7.6	16.0	8.4
NOV						
06...	0905	7.4	486	7.5	11.5	6.5
DEC						
06...	0910	14	607	7.8	7.0	11.4
JAN						
18...	0910	82	560	7.6	7.5	9.0
FEB						
06...	0900	375	226	7.8	11.5	9.3
MAR						
06...	0900	21	428	7.5	11.0	8.8
APR						
04...	0900	11	535	8.0	13.5	10.1
MAY						
06...	0910	14	267	7.1	17.0	6.4
JUN						
10...	0850	2.7	523	7.6	21.5	6.8
JUL						
08...	0900	3.7	454	7.0	26.5	3.9
AUG						
07...	0910	2.4	501	7.5	23.0	6.2
SEP						
09...	0925	5.2	601	7.6	23.5	6.5

BEARGRASS CREEK BASIN

03293000 MIDDLE FORK BEARGRASS CREEK AT LOUISVILLE, KY

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

DRAINAGE AREA.--18.9 mi^2, of which about 0.5 mi^2 does not contribute directly to surface runoff.

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--Estimated daily discharges: Jan. 14-17, 20, 21. Water-discharge records are good, except those for periods of estimated record, which are poor.

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 1990 TO SEPTEMBER 1991--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	7.0	8.3	76	24	26	15	5.5	8.3	9.4	.91	2.9
2	4.3	8.3	8.0	49	21	26	11	4.9	5.5	3.9	1.4	2.7
3	3.6	8.8	149	35	20	19	9.9	4.5	7.8	4.3	1.1	2.7
4	163	9.5	39	26	18	17	11	4.8	5.3	3.0	1.1	68
5	21	14	23	36	28	16	12	67	3.9	2.5	1.4	23
6	13	9.2	17	117	196	42	9.5	17	3.3	9.7	1.8	8.1
7	8.9	6.2	14	164	108	22	8.7	9.5	2.9	3.5	1.7	5.2
8	7.4	5.5	11	78	65	17	13	7.0	2.8	3.2	2.1	3.8
9	79	27	9.7	53	47	14	11	84	2.6	4.0	7.8	3.7
10	129	41	8.8	46	35	12	9.9	29	2.3	81	4.4	5.5
11	26	14	7.9	75	27	11	7.6	18	2.3	95	2.0	3.1
12	17	9.3	7.6	51	23	20	17	18	2.3	15	1.4	24
13	13	7.3	8.0	40	80	117	40	12	2.3	8.8	2.8	9.4
14	10	6.3	7.2	32	170	61	16	9.8	2.6	6.3	1.8	3.3
15	8.5	6.3	89	28	68	39	16	8.0	2.7	4.6	1.7	2.1
16	6.8	6.5	27	24	46	29	11	6.7	2.1	3.8	1.6	1.5
17	6.2	7.6	55	21	38	58	9.3	6.0	4.9	3.2	7.3	1.3
18	11	6.4	646	20	152	69	8.0	5.5	77	2.8	33	4.7
19	6.7	6.0	132	18	72	41	19	5.1	32	10	7.7	4.7
20	5.7	5.0	81	16	52	32	9.5	4.8	12	3.6	5.7	2.1
21	5.1	4.9	77	15	42	38	7.7	4.5	8.6	2.4	3.4	1.3
22	119	52	112	14	36	530	6.8	3.8	6.9	1.7	3.1	.96
23	34	35	103	13	31	163	8.1	11	6.2	1.7	2.9	.83
24	19	16	62	12	28	82	26	14	4.3	6.5	2.0	1.6
25	15	12	45	10	26	53	9.1	14	3.8	2.9	1.7	5.7
26	11	9.8	34	9.2	24	40	7.6	12	3.3	2.7	1.4	1.9
27	9.1	8.7	28	21	23	30	6.6	26	2.7	2.0	1.5	1.1
28	7.9	33	51	43	21	23	6.5	12	2.7	1.4	1.6	.78
29	7.1	13	101	19	---	19	11	11	2.6	1.3	15	.73
30	6.6	9.3	463	67	---	18	6.7	7.1	20	1.3	24	.56
31	6.4	---	132	32	---	18	---	5.8	---	1.3	4.4	---
TOTAL	785.9	404.9	2557.1	1260.2	1521	1702	360.5	448.3	246.0	302.8	149.71	197.26
MEAN	25.4	13.5	82.5	40.7	54.3	54.9	12.0	14.5	8.20	9.77	4.83	6.58
MAX	163	52	646	164	196	530	40	84	77	95	33	68
MIN	3.6	4.9	7.2	8.2	18	11	6.5	3.8	2.1	1.3	.91	.56
CFSM	1.34	.71	4.36	2.15	2.87	2.90	.64	.77	.43	.52	.26	.35
IN.	1.55	.80	5.03	2.48	2.99	3.35	.71	.88	.48	.60	.29	.39

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1991, BY WATER YEAR (WY)

MEAN	8.33	16.8	27.5	33.7	45.2	50.3	40.1	29.5	19.2	16.2	10.7	9.49
MAX	40.7	54.7	88.9	148	119	195	143	114	83.5	109	42.1	105
(WY)	1978	1974	1979	1950	1956	1964	1970	1961	1950	1973	1978	1979
MIN	.15	.71	1.90	3.31	3.44	4.20	5.27	3.04	.93	.37	.63	.033
(WY)	1954	1954	1954	1981	1954	1954	1954	1954	1954	1954	1953	1953

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1944 - 1991	
ANNUAL TOTAL	13330.99		9935.67			
ANNUAL MEAN	36.5		27.2		25.5	
HIGHEST ANNUAL MEAN					49.2	1979
LOWEST ANNUAL MEAN					3.76	1954
HIGHEST DAILY MEAN	646	Dec 18	646	Dec 18	2000	Mar 9 1964
LOWEST DAILY MEAN	.99	Aug 28	.56	Sep 30	.00	Aug 27 1952
ANNUAL SEVEN-DAY MINIMUM	2.5	Aug 22	1.2	Jul 29	.00	Sep 28 1952
INSTANTANEOUS PEAK FLOW			1410	Mar 22	5200	Apr 2 1970
INSTANTANEOUS PEAK STAGE			6.55	Mar 22	8.30	Apr 2 1970
INSTANTANEOUS LOW FLOW			.48	Sep 30		
ANNUAL RUNOFF (CFSM)	1.93		1.44		1.35	
ANNUAL RUNOFF (INCHES)	26.24		19.56		18.33	
10 PERCENT EXCEEDS	80		68		53	
50 PERCENT EXCEEDS	13		9.8		10	
90 PERCENT EXCEEDS	3.3		2.1		1.9	

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1988 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1988 to current year.
pH: April 1988 to current year.
WATER TEMPERATURE: April 1988 to current year.
DISSOLVED OXYGEN: April 1988 to current year.

INSTRUMENTATION.--Water-quality monitor since April 1988.

REMARKS.--Water-quality samples collected monthly. Record good for specific conductance, pH, and water temperature. Record fair for dissolved oxygen.

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

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1030 microsiemens, Dec. 29, 1990 and Feb. 3, 1991; minimum, 74 microsiemens, July 19, 1989.
pH: Maximum, 9.7 units, Apr. 19, 1989; minimum, 5.6 units, July 19, 1989.
WATER TEMPERATURE: Maximum, 35.4°C, August 16, 1988; minimum, 1.8°C, Dec. 10-13, 1988.
DISSOLVED OXYGEN: Maximum, 18.8 mg/L, Feb. 1, 1989; minimum, 1.5 mg/L, Aug. 3, 12, 1988.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1030 microsiemens, Dec. 29 and Feb. 3; minimum, 84 microsiemens, Oct. 4.
pH: Maximum, 9.4 units, Apr. 2; minimum, 6.4 units, Mar. 9, 10.
WATER TEMPERATURE: Maximum, 32.0°C, July 22; minimum, 2.5°C, Jan. 22.
DISSOLVED OXYGEN: Maximum, 17.0 mg/L, Mar. 5; minimum, 1.6 mg/L, Apr. 5.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
OCT						
10...	0920	96	306	7.5	16.5	7.9
NOV						
14...	1045	6.6	618	7.6	10.0	12.2
DEC						
11...	1050	8.2	621	7.4	9.0	11.6
JAN						
09...	1045	50	535	7.6	9.5	10.2
FEB						
14...	1040	126	363	7.2	7.5	10.2
MAR						
07...	1110	17	444	7.6	9.5	13.3
APR						
03...	1100	12	521	8.6	12.0	15.5
MAY						
07...	1035	9.1	514	8.1	14.0	10.2
JUN						
11...	1030	1.8	559	7.7	23.0	6.1
JUL						
10...	1010	23	283	7.4	23.5	5.8
AUG						
08...	1100	1.6	555	7.9	26.0	3.3
SEP						
10...	1100	6.4	639	7.7	23.5	5.4

BEARGRASS CREEK BASIN

03293000 MIDDLE FORK BEARGRASS CREEK AT LOUISVILLE, KY--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	469	375	431	598	589	594	621	602	609	588	556	571
2	526	470	506	605	596	600	627	591	622	618	588	603
3	542	517	532	606	598	603	579	245	368	629	618	624
4	534	84	270	617	604	613	551	419	498	631	628	629
5	463	329	404	626	500	592	591	551	573	632	609	625
6	505	464	484	556	511	542	607	590	597	608	564	581
7	518	506	512	580	556	570	610	606	608	569	547	557
8	528	516	521	589	580	585	613	607	609	584	570	577
9	532	266	479	598	304	519	616	610	613	596	584	590
10	384	241	306	439	306	363	623	613	616	601	591	597
11	508	386	452	560	442	510	623	608	616	766	575	587
12	573	510	547	590	561	579	621	611	617	602	579	596
13	580	568	574	607	590	601	616	587	603	607	595	601
14	589	579	583	625	606	614	625	611	617	625	599	611
15	594	579	587	630	611	622	627	180	385	631	617	624
16	597	581	588	629	602	619	550	382	488	636	618	625
17	600	575	588	623	587	605	570	317	484	619	616	617
18	708	479	543	613	563	593	400	213	317	618	612	615
19	607	503	555	615	569	591	519	403	468	616	605	610
20	558	541	552	619	574	601	682	520	591	614	600	610
21	567	552	561	721	590	621	967	551	648	599	589	593
22	564	131	267	631	252	433	558	514	537	632	584	591
23	514	343	451	508	290	405	562	518	542	586	579	583
24	558	525	544	581	511	553	585	569	575	580	572	577
25	565	559	563	601	581	589	582	577	578	632	575	603
26	576	564	570	614	599	606	580	577	578	634	625	630
27	592	575	584	627	601	616	636	580	592	645	406	616
28	593	585	589	626	311	447	835	642	717	495	358	413
29	595	587	590	560	417	492	1030	642	695	598	497	554
30	596	589	592	602	562	585	703	505	616	679	409	511
31	596	590	592	---	---	---	832	516	556	592	512	559
MONTH	708	84	513	721	252	562	1030	180	566	76b	358	590
		FEBRUARY			MARCH			APRIL			MAY	
1	619	589	605	709	703	707	488	449	471	---	---	---
2	637	613	621	708	699	704	489	435	464	---	---	---
3	1030	607	680	969	692	700	596	466	488	---	---	---
4	724	622	638	713	695	704	545	496	520	---	---	---
5	659	504	637	997	713	756	518	472	500	---	---	---
6	496	336	412	734	384	591	555	471	509	---	---	---
7	552	462	503	499	411	448	549	482	512	---	---	---
8	583	552	572	542	501	516	544	409	485	556	533	543
9	613	578	595	875	512	563	532	400	494	559	226	359
10	662	613	636	596	509	529	576	495	512	503	356	445
11	661	636	645	554	511	531	531	479	514	540	506	524
12	687	657	673	553	306	518	541	236	498	546	367	513
13	704	364	579	404	220	309	427	237	339	559	530	542
14	430	267	362	475	396	437	500	432	471	559	54/	553
15	462	426	442	557	477	505	509	469	484	574	54	562
16	511	462	487	570	509	517	537	509	517	579	552	566
17	548	511	527	530	292	468	536	515	526	585	557	569
18	566	247	367	451	311	382	556	524	539	587	563	578
19	475	344	406	487	453	476	540	364	443	589	568	579
20	531	467	503	499	486	491	508	438	477	577	569	574
21	582	532	557	505	303	480	894	509	668	586	567	578
22	605	576	583	362	145	270	707	519	556	607	571	588
23	619	583	602	433	284	389	561	446	537	614	314	596
24	657	619	636	628	429	452	418	283	361	426	313	382
25	673	654	662	807	452	475	506	421	461	526	333	461
26	681	667	674	473	455	468	541	490	515	460	339	424
27	695	679	688	478	472	475	549	512	536	481	354	410
28	712	694	701	540	467	481	561	547	554	514	387	454
29	---	---	---	744	469	485	557	418	488	544	344	486
30	---	---	---	493	457	477	539	487	520	557	343	483
31	---	---	---	974	460	620	---	---	---	583	558	569
MONTH	1030	247	571	997	145	514	894	236	499	---	---	---

BEARGRASS CREEK BASIN

03293000 MIDDLE FORK BEARGRASS CREEK AT LOUISVILLE, KY--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	579	284	542	430	294	377	529	513	527	537	499	522
2	554	382	468	499	423	466	737	504	515	593	535	570
3	588	557	571	525	486	501	854	511	564	586	553	573
4	558	461	496	533	519	526	527	509	521	584	245	439
5	528	493	511	559	506	534	555	504	534	497	358	429
6	554	529	539	543	228	430	546	524	529	585	499	543
7	558	536	549	464	388	418	524	513	517	625	586	604
8	566	532	553	505	440	488	551	517	537	638	621	627
9	565	514	547	496	388	445	614	327	526	647	638	641
10	566	531	547	471	148	313	491	338	422	---	---	---
11	583	534	561	423	144	303	537	494	520	---	---	---
12	598	564	580	513	427	477	545	526	531	---	---	---
13	605	553	585	540	511	528	608	546	575	---	---	---
14	594	543	577	551	534	540	621	593	613	---	---	---
15	600	550	585	550	502	543	591	555	566	---	---	---
16	562	463	534	560	542	549	897	555	618	---	---	---
17	575	435	522	566	534	548	837	376	551	---	---	---
18	525	236	417	566	526	547	377	216	305	---	---	---
19	455	295	378	595	355	451	457	374	412	---	---	---
20	536	450	495	419	355	384	476	428	458	607	492	517
21	552	525	541	486	422	458	534	458	494	645	577	604
22	568	509	551	518	470	500	542	532	538	---	---	---
23	584	465	520	520	504	513	576	537	551	---	---	---
24	593	547	561	599	450	536	706	560	576	---	---	---
25	570	525	558	460	421	437	584	546	567	---	---	---
26	565	529	553	477	454	466	586	552	567	---	---	---
27	558	535	546	508	479	496	586	560	575	---	---	---
28	554	515	543	508	487	499	576	563	568	---	---	---
29	561	527	549	501	486	497	586	223	532	---	---	---
30	573	212	476	517	494	507	437	263	373	---	---	---
31	---	---	---	522	503	514	498	424	454	---	---	---
MONTH	605	212	532	599	144	477	897	216	521	---	---	---

PH (STANDARD UNITS), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.8	7.3	7.5	8.3	8.0	8.1	8.0	7.5	7.7	7.7	7.6	7.7
2	7.8	7.4	7.6	8.3	8.0	8.1	7.7	7.5	7.6	7.8	7.6	7.7
3	8.0	7.6	7.8	8.3	7.9	8.1	7.5	7.1	7.3	7.8	7.7	7.7
4	7.8	6.9	7.4	8.3	7.9	8.1	7.5	7.3	7.4	7.8	7.7	7.7
5	8.0	7.5	7.7	8.0	7.6	7.8	7.5	7.4	7.4	7.8	7.6	7.7
6	8.1	7.9	8.0	7.8	7.5	7.6	7.5	7.4	7.4	7.6	7.4	7.5
7	8.1	7.8	8.0	7.8	7.5	7.7	7.5	7.4	7.4	7.4	7.3	7.4
8	8.2	7.9	8.0	7.7	7.4	7.5	7.5	7.3	7.4	7.6	7.5	7.6
9	8.1	7.5	7.9	7.5	7.1	7.3	7.5	7.3	7.4	7.7	7.6	7.7
10	7.6	7.4	7.5	7.3	7.1	7.2	7.4	7.3	7.4	7.7	7.6	7.7
11	7.6	7.3	7.5	7.5	7.2	7.3	8.0	7.3	7.6	7.6	7.2	7.4
12	7.5	7.0	7.3	7.5	7.2	7.4	8.1	7.7	7.8	7.6	7.4	7.6
13	7.1	6.9	7.0	7.7	7.4	7.5	8.1	7.6	7.8	7.6	7.5	7.5
14	7.3	7.0	7.1	7.8	7.1	7.5	8.1	7.7	7.8	7.5	7.5	7.5
15	7.3	7.0	7.2	7.7	6.9	7.3	7.8	7.2	7.5	7.5	7.4	7.5
16	7.3	7.0	7.1	7.8	7.0	7.3	7.8	7.5	7.6	7.4	7.4	7.4
17	7.5	7.1	7.3	7.8	7.0	7.3	7.7	7.4	7.6	7.4	7.4	7.4
18	7.2	6.9	7.1	7.9	7.1	7.5	7.5	6.7	7.0	7.4	7.4	7.4
19	7.5	7.0	7.2	7.8	7.3	7.5	7.4	6.8	7.0	7.4	7.4	7.4
20	7.5	7.1	7.2	8.2	7.3	7.7	7.6	7.4	7.5	7.4	7.3	7.4
21	7.5	7.0	7.2	8.3	7.5	7.9	7.8	7.4	7.6	7.4	7.3	7.3
22	7.2	6.7	6.9	7.7	7.3	7.4	7.7	7.5	7.6	7.3	7.3	7.3
23	7.5	6.9	7.3	7.7	7.3	7.5	7.7	7.6	7.6	7.3	7.3	7.3
24	7.6	7.3	7.5	8.0	7.5	7.7	7.9	7.7	7.8	7.3	7.3	7.3
25	7.9	7.5	7.7	8.1	7.6	7.8	8.0	7.9	7.9	8.4	7.3	7.8
26	8.0	7.7	7.9	8.0	7.5	7.7	8.0	7.9	7.9	8.4	8.1	8.2
27	8.1	7.8	7.9	8.0	7.5	7.7	8.0	7.8	7.9	8.3	8.1	8.2
28	8.1	7.8	7.9	7.6	7.2	7.4	7.9	7.6	7.8	8.2	7.9	8.1
29	8.2	7.9	8.1	7.8	7.3	7.5	7.6	7.5	7.6	8.5	8.0	8.2
30	8.2	7.9	8.0	7.8	7.5	7.6	7.7	7.4	7.6	8.2	8.0	8.1
31	8.2	7.9	8.0	---	---	---	7.7	7.6	7.7	8.3	8.0	8.1
MONTH	8.2	6.7	7.5	8.3	6.9	7.6	8.1	6.7	7.6	8.5	7.2	7.6

BEARGRASS CREEK BASIN

03293000 MIDDLE FORK BEARGRASS CREEK AT LOUISVILLE, KY--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.3	8.1	8.2	7.7	7.5	7.6	9.3	8.5	8.9	---	---	---
2	8.4	8.1	8.2	7.7	7.4	7.6	9.4	8.5	9.0	---	---	---
3	8.3	8.1	8.2	7.7	7.6	7.7	9.1	8.5	8.9	---	---	---
4	8.4	8.1	8.2	7.8	7.6	7.7	8.8	8.0	8.4	---	---	---
5	8.3	8.0	8.1	8.0	7.7	7.8	9.0	7.8	8.4	---	---	---
6	8.1	7.8	7.9	7.9	7.5	7.8	8.8	7.7	8.2	---	---	---
7	7.9	7.7	7.8	7.9	7.0	7.6	8.5	7.6	8.0	---	---	---
8	7.7	7.7	7.7	7.7	6.6	7.1	8.3	7.5	7.9	8.4	7.7	8.0
9	7.7	7.6	7.7	7.6	6.4	7.0	8.2	7.5	7.8	7.9	7.4	7.7
10	7.7	7.6	7.6	7.8	6.4	7.1	8.5	7.4	7.9	8.2	7.8	8.0
11	7.7	7.6	7.6	7.7	6.6	7.1	8.5	7.6	8.0	8.1	7.8	8.0
12	7.7	7.6	7.6	7.3	6.5	6.9	8.4	7.5	8.0	8.0	7.7	7.9
13	7.6	7.2	7.5	6.9	6.5	6.7	7.9	7.6	7.7	7.8	7.6	7.7
14	7.7	7.2	7.3	7.0	6.8	6.9	8.5	7.6	8.0	8.1	7.6	7.9
15	7.4	7.3	7.4	7.8	7.0	7.3	8.7	7.8	8.2	8.1	7.7	7.9
16	7.5	7.4	7.4	7.9	7.4	7.6	8.8	7.8	8.3	8.1	7.7	7.9
17	7.4	7.4	7.4	7.9	7.1	7.7	8.8	8.0	8.3	8.2	7.7	7.9
18	7.6	7.1	7.3	7.8	7.4	7.7	8.7	8.0	8.4	8.1	7.7	7.9
19	7.2	7.1	7.1	8.1	7.8	7.9	8.1	7.7	8.0	8.2	7.6	7.9
20	7.3	7.1	7.2	8.1	7.8	7.9	8.2	7.6	7.9	8.3	7.7	7.9
21	7.3	7.2	7.3	8.3	7.9	8.1	8.3	7.6	7.9	8.2	7.7	7.9
22	7.4	7.2	7.3	8.0	7.4	7.8	8.5	7.6	8.0	8.2	7.5	7.8
23	7.5	7.3	7.4	7.6	7.4	7.5	8.2	7.7	8.0	8.0	7.3	7.7
24	7.5	7.4	7.5	7.9	7.4	7.6	8.3	7.5	7.9	7.7	7.2	7.4
25	7.6	7.5	7.6	8.2	7.6	7.8	8.1	7.3	7.7	7.9	7.2	7.4
26	7.7	7.6	7.6	8.2	7.9	8.0	8.3	7.4	7.8	7.6	7.2	7.3
27	7.6	7.5	7.6	8.4	8.0	8.2	7.9	7.6	7.7	7.6	7.2	7.4
28	7.6	7.4	7.5	8.8	8.1	8.4	8.0	7.5	7.6	8.0	7.3	7.6
29	---	---	---	8.7	8.3	8.4	7.9	7.5	7.7	7.8	7.3	7.6
30	---	---	---	9.1	8.2	8.6	8.0	7.4	7.7	8.0	7.3	7.6
31	---	---	---	9.2	8.3	8.7	---	---	---	8.0	7.5	7.7
MONTH	8.4	7.1	7.6	9.2	6.4	7.7	9.4	7.3	8.1	---	---	---
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.9	7.5	7.7	7.5	7.2	7.3	7.4	7.2	7.3	7.7	7.5	7.6
2	7.7	7.1	7.4	7.7	7.3	7.5	7.4	7.2	7.3	7.7	7.5	7.6
3	7.9	7.4	7.7	7.8	7.5	7.6	7.6	7.3	7.4	7.7	7.4	7.5
4	8.0	7.4	7.6	7.8	7.5	7.6	7.5	7.4	7.5	7.7	7.3	7.5
5	7.9	7.4	7.7	7.8	7.5	7.7	7.5	7.4	7.4	7.5	7.3	7.4
6	8.0	7.4	7.7	7.7	7.2	7.4	7.4	7.3	7.3	7.6	7.4	7.5
7	8.0	7.5	7.7	7.5	7.2	7.3	7.5	7.3	7.4	7.6	7.5	7.5
8	8.2	7.5	7.8	7.5	7.2	7.4	7.6	7.3	7.4	7.6	7.4	7.5
9	8.2	7.5	7.8	7.8	7.3	7.5	7.5	7.2	7.3	7.7	7.5	7.6
10	8.0	7.5	7.8	7.5	7.4	7.4	7.5	7.0	7.2	7.8	7.2	7.6
11	7.7	7.2	7.6	7.5	7.2	7.4	7.5	7.1	7.2	8.3	6.8	7.2
12	7.5	7.0	7.2	7.7	7.5	7.6	7.7	7.2	7.3	8.5	6.8	7.7
13	7.4	6.9	7.1	7.8	7.6	7.7	7.8	7.2	7.5	8.4	8.1	8.3
14	7.3	6.9	7.1	7.9	7.6	7.7	7.5	7.1	7.3	8.2	8.0	8.1
15	7.5	7.1	7.2	8.1	7.7	8.0	7.3	7.0	7.2	8.3	8.0	8.1
16	7.2	6.9	7.1	8.1	7.8	8.0	7.5	7.0	7.1	8.4	8.1	8.3
17	7.4	6.9	7.1	8.1	7.8	7.9	7.5	7.0	7.2	8.6	7.6	8.3
18	7.3	6.9	7.1	8.1	7.7	7.9	7.9	7.1	7.5	8.6	7.3	8.2
19	7.0	6.8	6.9	8.1	7.6	7.9	8.3	7.5	7.8	8.7	7.2	7.9
20	7.6	6.9	7.3	8.2	7.5	7.8	8.0	7.6	7.8	8.8	7.4	8.1
21	7.6	7.3	7.4	8.0	7.6	7.8	7.9	7.7	7.8	8.8	7.4	8.3
22	7.8	7.2	7.5	7.9	7.6	7.7	7.9	7.6	7.7	8.6	7.2	7.9
23	7.6	7.3	7.4	8.0	7.6	7.7	7.8	7.5	7.6	8.7	7.4	8.4
24	7.6	7.3	7.4	8.2	7.6	7.9	7.9	7.5	7.6	8.6	7.2	8.3
25	7.6	7.3	7.4	8.2	7.6	7.8	7.7	7.4	7.5	8.7	7.2	8.4
26	7.8	7.3	7.5	8.2	7.5	7.8	7.6	7.4	7.5	8.7	7.2	8.5
27	7.7	7.3	7.5	8.1	7.6	7.7	7.7	7.4	7.5	8.7	7.1	8.0
28	7.6	7.3	7.4	7.7	7.4	7.5	8.0	7.4	7.6	8.5	7.0	8.2
29	7.7	7.2	7.4	7.7	7.3	7.4	7.7	7.3	7.5	8.4	8.1	8.2
30	7.7	7.2	7.4	7.7	7.3	7.5	7.6	7.4	7.5	8.3	8.2	8.2
31	---	---	---	7.5	7.2	7.4	7.6	7.4	7.5	---	---	---
MONTH	8.2	6.8	7.4	8.2	7.2	7.6	8.3	7.0	7.4	8.8	6.8	7.9

BEARGRASS CREEK BASIN

03293000 MIDDLE FORK BEARGRASS CREEK AT LOUISVILLE, KY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	19.0	15.6	17.6	14.1	10.2	12.1	10.9	7.8	9.4	9.7	7.4	8.5
2	19.7	15.4	17.5	14.4	10.8	12.7	11.6	10.9	11.2	9.9	7.9	8.8
3	20.3	16.5	18.3	14.6	11.1	13.0	14.2	11.2	12.9	8.5	6.7	7.9
4	19.7	17.4	18.7	15.3	12.1	13.8	11.6	8.6	10.0	7.4	5.1	6.3
5	19.3	15.8	17.6	14.9	11.9	13.9	10.1	7.8	8.9	8.0	6.5	7.1
6	19.4	15.6	17.6	11.8	9.5	10.9	10.9	8.4	9.7	8.3	6.6	7.3
7	18.4	16.6	17.6	10.9	8.0	9.4	10.7	8.9	9.8	8.6	5.3	7.2
8	20.6	17.1	18.6	8.8	6.4	7.8	9.8	7.1	8.6	9.3	8.4	8.8
9	19.8	19.1	19.5	9.6	7.2	8.1	10.2	7.4	8.9	9.7	8.8	9.3
10	19.2	15.0	17.0	11.7	9.2	10.3	11.1	8.2	9.6	8.8	8.0	8.6
11	16.6	14.0	15.3	12.1	9.1	10.7	11.2	8.5	9.9	10.2	7.9	9.3
12	16.8	15.1	15.9	12.0	9.4	10.7	11.7	8.8	10.3	9.7	7.6	8.5
13	17.1	15.5	16.2	10.9	8.3	9.7	12.2	10.1	11.5	8.4	7.5	7.9
14	17.7	14.4	16.0	12.9	8.1	10.3	9.9	7.4	8.8	9.9	7.0	8.4
15	18.0	15.3	16.7	14.8	10.5	12.5	12.9	8.9	11.5	10.1	8.5	9.4
16	17.0	13.7	15.5	15.4	11.9	13.5	10.7	9.6	10.1	10.0	8.5	9.4
17	19.5	15.6	17.4	13.4	11.1	12.3	11.8	9.5	10.0	8.4	7.9	8.2
18	18.6	12.8	15.9	12.3	9.4	11.1	13.3	12.0	12.5	9.1	7.5	8.2
19	13.8	10.6	12.2	12.7	11.0	11.8	12.9	12.1	12.5	10.3	7.0	8.6
20	14.8	10.5	12.5	14.4	10.6	12.5	13.2	11.5	12.4	10.2	7.8	9.7
21	16.9	12.2	14.5	14.6	12.0	13.3	14.0	13.1	13.5	7.6	4.5	5.5
22	16.3	15.0	15.3	15.1	13.7	14.5	13.1	10.5	12.3	5.1	2.5	4.0
23	16.2	14.4	15.1	14.9	13.1	14.0	10.4	6.6	8.1	7.1	3.7	5.3
24	15.9	13.1	14.5	14.6	11.7	13.3	7.8	6.1	6.8	7.0	5.2	6.1
25	14.7	12.5	13.6	15.8	12.5	14.2	7.2	5.4	6.3	6.0	3.5	4.9
26	13.1	10.2	11.8	17.1	14.1	15.4	6.9	5.7	6.3	5.8	4.3	5.0
27	12.9	9.6	11.4	19.7	17.1	18.1	5.6	3.8	4.9	6.0	2.8	4.1
28	12.8	10.4	11.6	18.3	12.0	15.7	8.1	5.0	6.6	6.8	4.4	5.5
29	11.9	8.5	10.2	11.8	9.7	10.9	11.8	6.3	8.9	9.5	6.3	7.7
30	12.8	8.7	10.7	10.5	8.0	9.4	12.5	7.3	9.8	9.5	6.0	7.4
31	13.6	9.6	11.5	---	---	---	8.9	7.9	8.3	8.3	5.4	6.8
MONTH	20.6	8.5	15.3	19.7	6.4	12.2	14.2	3.8	9.7	10.3	2.5	7.4
		FEBRUARY			MARCH			APRIL			MAY	
1	9.4	5.6	7.5	12.4	9.5	11.1	18.1	12.4	15.0	---	---	---
2	10.7	6.9	8.8	15.2	12.0	13.3	17.7	11.8	14.9	---	---	---
3	11.2	7.0	9.3	12.9	7.5	9.8	16.3	12.8	14.7	---	---	---
4	12.2	7.9	10.1	11.7	6.6	8.7	15.6	14.1	14.7	---	---	---
5	12.1	10.5	11.4	12.6	7.3	10.1	20.2	14.6	17.0	---	---	---
6	11.6	10.5	11.1	12.6	10.6	11.8	---	---	---	---	---	---
7	10.7	9.5	9.9	11.9	8.5	10.1	---	---	---	---	---	---
8	9.7	8.6	9.3	11.8	6.6	9.3	---	---	---	19.4	15.1	17.5
9	10.5	7.9	9.0	11.4	7.0	9.2	---	---	---	18.1	16.2	16.9
10	11.4	8.1	9.4	11.6	5.9	8.9	---	---	---	19.2	15.7	17.2
11	8.5	6.5	7.6	12.3	8.1	10.4	---	---	---	20.2	16.3	18.1
12	9.7	5.9	7.8	11.5	9.3	9.9	---	---	---	20.2	17.4	18.9
13	9.3	7.9	8.5	10.7	9.2	10.1	16.2	13.7	15.0	20.9	17.4	18.9
14	8.6	6.4	7.6	10.0	9.3	9.5	18.2	15.0	16.5	22.7	18.0	20.3
15	6.3	3.8	5.0	14.0	8.2	10.8	21.0	15.9	18.2	24.5	18.7	21.6
16	7.3	3.1	5.1	15.4	9.5	12.2	21.1	13.7	17.6	25.5	20.4	22.9
17	7.6	6.1	6.7	12.8	11.0	12.1	22.0	15.2	18.8	26.1	21.5	23.7
18	10.3	5.2	7.8	12.0	10.9	11.8	19.8	16.4	18.3	24.1	21.6	22.8
19	11.6	10.3	11.0	14.5	9.9	11.9	17.4	14.3	15.7	22.1	20.2	21.2
20	11.7	9.0	10.2	13.6	10.1	12.0	14.1	12.6	13.3	22.8	20.4	21.4
21	11.8	8.1	10.0	18.5	11.8	14.8	13.0	11.4	12.2	24.4	20.5	22.3
22	12.8	8.8	10.7	16.9	14.7	15.6	17.5	10.3	13.8	24.7	21.8	23.3
23	11.3	7.2	9.3	17.7	14.5	15.8	16.1	12.8	14.5	25.2	21.6	23.1
24	11.1	7.4	9.4	17.7	13.5	15.4	18.2	12.2	15.2	25.7	21.1	23.5
25	9.8	7.8	8.8	18.9	13.1	15.8	15.3	12.3	14.0	25.3	22.3	23.8
26	9.4	5.9	7.7	17.4	14.9	16.1	20.0	13.5	16.5	23.8	21.5	22.6
27	10.4	6.3	8.0	18.4	16.2	17.3	19.1	17.3	18.1	23.8	20.5	22.2
28	12.1	6.5	9.4	18.7	13.3	16.1	18.2	16.5	17.3	25.4	19.7	22.6
29	---	---	---	15.7	11.8	13.9	19.0	16.7	17.9	24.4	21.4	23.1
30	---	---	---	15.5	9.5	12.4	22.7	16.2	19.3	27.2	22.5	24.8
31	---	---	---	15.6	10.0	13.1	---	---	---	27.9	23.5	25.7
MONTH	12.8	3.1	8.8	18.9	5.9	12.2	---	---	---	---	---	---

BEARGRASS CREEK BASIN

03293000 MIDDLE FORK BEARGRASS CREEK AT LOUISVILLE, KY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	27.4	24.0	25.4	28.9	23.4	26.2	26.6	21.2	23.4	27.8	23.6	25.6
2	28.1	23.1	25.5	30.8	25.2	27.6	28.4	23.0	25.2	28.2	23.4	25.6
3	26.6	24.0	25.5	28.8	24.0	26.5	28.5	23.9	26.0	27.9	25.2	26.5
4	27.1	23.1	25.1	27.1	24.2	25.5	27.9	25.5	26.5	26.2	22.7	24.3
5	25.6	20.1	23.1	29.8	22.7	26.2	26.2	22.9	23.8	24.9	21.6	23.2
6	25.6	19.2	22.6	28.0	23.8	26.2	24.6	21.6	23.0	24.9	22.2	23.5
7	25.7	19.1	22.7	31.2	24.6	27.8	26.6	22.6	24.3	26.3	21.5	23.9
8	26.1	19.5	23.1	30.5	25.8	27.9	29.8	24.0	27.0	26.1	21.0	23.8
9	27.1	20.1	23.8	28.2	23.5	25.8	30.1	27.1	28.7	25.0	23.4	24.3
10	27.5	20.8	24.4	26.4	22.6	24.3	29.6	24.8	27.1	26.5	23.4	24.7
11	26.2	22.8	24.5	24.5	22.3	23.1	28.1	23.1	25.4	27.5	23.4	25.2
12	28.6	21.9	25.0	25.6	21.4	23.5	25.5	22.5	24.0	27.6	22.8	24.7
13	29.8	23.3	26.2	26.5	21.8	24.3	25.0	22.9	23.8	27.5	22.8	25.1
14	29.4	23.9	26.4	25.5	21.8	23.8	24.6	20.5	22.4	27.9	24.0	26.1
15	30.5	24.5	27.3	26.8	21.1	24.1	25.3	20.6	22.7	28.8	24.0	26.5
16	27.7	24.9	26.6	28.0	21.5	25.0	24.7	22.0	23.3	29.3	25.1	27.1
17	25.7	23.0	24.1	28.7	22.7	26.0	26.5	23.0	24.3	27.2	24.1	25.6
18	26.1	21.6	23.7	29.4	23.0	26.4	26.3	22.5	24.3	24.6	21.0	23.3
19	24.7	20.6	22.7	27.3	22.2	25.4	24.2	22.0	23.1	20.8	18.0	19.5
20	25.1	20.2	22.8	29.3	24.0	26.8	23.6	20.2	21.9	18.4	14.5	16.7
21	23.6	21.3	22.2	31.2	24.7	27.9	25.9	20.6	23.4	18.5	13.8	15.9
22	25.0	20.7	22.6	32.0	25.8	28.6	27.3	21.4	24.1	18.5	15.9	16.9
23	25.1	21.5	23.2	31.3	26.3	28.5	27.7	23.2	25.1	20.5	17.5	18.4
24	26.6	21.3	23.9	28.1	24.0	26.3	28.1	24.0	25.8	17.7	15.4	16.3
25	26.3	22.6	24.4	25.3	22.9	24.2	28.1	24.4	26.0	18.6	14.6	16.6
26	27.9	22.3	25.1	27.2	21.8	24.7	26.5	24.3	25.3	19.1	14.9	16.7
27	28.2	22.8	25.8	27.4	22.0	24.5	26.7	23.9	25.0	17.7	12.9	15.0
28	27.8	24.0	26.1	24.9	21.8	23.4	27.5	25.1	26.3	18.4	14.5	15.9
29	30.0	23.7	26.7	26.0	20.6	23.0	27.4	24.4	26.1	19.1	14.9	16.5
30	30.4	24.7	27.0	27.3	22.7	24.6	25.8	23.1	24.6	18.8	16.0	17.4
31	---	---	---	25.7	20.5	22.9	28.0	23.6	25.7	---	---	---
MONTH	30.5	19.1	24.6	32.0	20.5	25.5	30.1	20.2	24.8	29.3	12.9	21.7

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	10.7	6.1	8.0	12.7	8.1	9.8	14.0	7.9	10.0	10.7	9.6	10.1
2	11.3	6.4	8.4	13.1	8.0	10.1	11.3	7.0	8.7	10.9	9.7	10.1
3	11.4	5.9	8.1	13.5	7.9	10.1	9.0	8.0	8.6	11.3	9.8	10.4
4	7.9	6.2	7.4	13.4	7.7	10.0	10.5	9.1	9.7	11.8	10.1	10.7
5	9.3	7.3	8.1	9.4	7.0	8.0	11.2	9.4	10.1	10.7	9.9	10.3
6	10.1	7.2	8.3	11.9	7.6	9.2	11.8	9.2	10.2	10.6	9.8	10.3
7	10.0	6.9	8.1	12.6	8.3	10.0	12.3	9.1	10.3	11.1	10.0	10.6
8	11.3	6.6	8.3	13.0	8.6	10.5	12.7	9.4	10.6	10.7	9.7	10.1
9	9.1	6.0	7.2	10.3	8.8	9.6	12.8	9.3	10.6	10.8	9.7	10.0
10	8.2	7.3	7.8	12.0	9.5	10.3	13.0	9.2	10.5	10.9	9.7	10.1
11	10.0	8.1	8.9	13.2	9.4	10.7	13.1	8.2	10.3	10.1	9.5	9.8
12	9.7	7.3	8.6	13.7	9.2	10.9	12.5	7.1	8.9	10.4	9.5	9.9
13	9.6	7.0	7.9	15.1	9.3	11.3	12.4	5.8	8.5	11.4	9.9	10.4
14	10.0	7.0	8.1	15.2	9.2	11.7	13.4	7.7	9.7	12.0	9.6	10.5
15	10.7	6.7	8.1	15.6	8.6	11.5	8.4	7.1	8.0	11.5	9.4	10.1
16	12.1	7.1	8.8	15.2	7.9	10.4	10.3	8.2	8.9	9.9	9.4	9.7
17	12.1	6.9	8.6	15.1	7.5	10.4	9.0	8.2	8.5	11.4	9.8	10.4
18	9.4	6.2	7.6	15.8	8.8	11.4	8.5	8.1	8.3	12.1	10.0	10.6
19	11.9	7.2	9.4	12.9	8.2	10.3	9.0	8.1	8.6	12.5	9.4	10.7
20	12.8	7.7	9.7	13.2	7.0	9.8	9.4	8.2	8.7	11.1	9.2	9.9
21	13.2	7.2	9.4	14.7	7.0	10.8	8.7	7.9	8.2	13.0	9.9	11.2
22	8.8	6.9	8.2	6.8	5.0	6.2	8.7	8.3	8.5	13.3	10.6	11.6
23	10.6	7.9	8.6	9.7	6.8	7.7	9.8	8.7	9.4	13.3	10.4	11.4
24	10.1	8.0	8.9	11.1	6.8	8.3	10.7	9.3	9.8	13.6	10.1	11.3
25	10.5	7.7	9.1	11.9	6.8	8.4	10.8	9.5	10.0	14.1	10.3	11.7
26	11.3	8.5	9.5	11.8	6.2	8.2	10.8	9.5	10.1	13.6	10.1	11.4
27	11.7	8.3	9.7	12.7	5.4	7.8	10.6	9.7	10.1	12.9	10.3	11.2
28	11.8	7.7	9.7	7.8	4.9	6.8	10.6	9.5	9.9	12.2	10.3	11.0
29	11.8	8.7	9.9	12.2	7.5	9.2	10.1	8.9	9.6	13.7	9.6	11.1
30	12.0	8.5	9.9	13.0	8.0	9.8	10.1	8.6	9.4	10.6	9.4	10.1
31	12.1	8.2	9.7	---	---	---	10.3	9.6	9.9	13.0	10.1	11.2
MONTH	13.2	5.9	8.6	15.8	4.9	9.6	14.0	5.8	9.4	14.1	9.2	10.6

BEARGRASS CREEK BASIN

03293000 MIDDLE FORK BEARGRASS CREEK AT LOUISVILLE, KY--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	13.5	9.8	11.2	14.8	8.6	10.7	11.8	5.3	8.5	---	---	---
2	13.9	9.5	11.1	14.9	8.2	10.6	12.5	4.9	8.0	---	---	---
3	14.3	9.3	11.1	13.8	8.4	10.4	11.6	2.8	7.0	---	---	---
4	15.2	9.1	11.2	16.3	9.3	11.8	7.0	1.7	4.0	---	---	---
5	12.2	8.7	9.8	17.0	9.1	12.1	11.6	1.6	5.5	---	---	---
6	9.9	9.3	9.7	9.9	7.9	9.1	12.6	2.0	6.3	---	---	---
7	10.7	9.7	10.1	14.7	8.5	11.2	11.9	1.9	6.1	---	---	---
8	11.5	9.9	10.4	14.9	8.3	10.8	8.3	2.1	4.3	10.7	5.5	7.4
9	12.7	9.7	10.8	14.6	7.9	10.4	9.4	2.2	4.7	6.7	5.2	6.2
10	13.0	9.7	10.7	15.5	8.0	10.9	11.6	3.6	7.0	8.4	6.4	7.2
11	12.9	9.7	10.9	15.4	7.2	10.4	12.9	4.8	8.0	9.1	6.0	7.3
12	13.1	9.7	11.0	11.8	6.3	8.4	12.7	4.8	7.7	8.5	5.9	6.8
13	10.1	9.6	9.9	8.3	7.7	8.0	7.9	6.4	7.0	9.6	5.7	7.3
14	10.7	10.0	10.3	11.8	7.8	8.3	10.3	6.4	7.9	10.6	5.3	7.4
15	12.4	10.5	11.3	11.5	7.3	9.1	11.7	6.4	8.6	11.4	5.0	7.6
16	12.8	10.5	11.5	12.0	6.3	8.8	13.2	7.2	9.7	11.5	4.3	7.1
17	11.4	10.2	10.7	10.2	6.6	7.8	14.4	7.2	10.0	11.4	3.9	7.0
18	11.3	10.1	10.7	8.2	6.9	7.4	14.8	7.0	10.1	9.9	3.8	6.1
19	10.7	8.3	10.1	10.8	6.4	8.1	9.6	7.3	8.4	10.7	4.3	6.9
20	12.8	9.8	11.0	11.0	6.0	7.8	12.0	7.7	9.5	10.5	4.3	6.8
21	12.8	9.7	11.0	11.6	5.7	7.8	13.3	7.9	10.0	11.2	4.1	7.2
22	13.3	9.1	10.9	6.4	5.7	6.1	14.9	7.6	10.7	10.7	3.7	6.8
23	13.5	7.0	10.9	6.8	6.0	6.3	13.2	6.9	9.6	11.0	3.8	6.6
24	---	---	---	7.7	6.0	6.7	12.1	6.8	9.0	8.3	4.6	6.2
25	---	---	---	8.9	5.9	6.9	12.8	6.5	9.1	8.4	4.2	5.7
26	---	---	---	7.9	5.4	6.5	13.7	6.0	9.1	7.8	4.6	5.9
27	---	---	---	7.9	5.3	6.1	10.8	5.0	7.2	7.3	4.8	6.0
28	15.9	9.4	11.9	14.0	5.2	7.1	10.1	5.1	6.9	8.6	5.3	6.7
29	---	---	---	9.3	5.3	6.6	9.5	4.9	6.7	7.6	4.4	5.9
30	---	---	---	10.5	5.7	7.6	11.2	4.5	7.2	8.6	4.2	6.0
31	---	---	---	12.0	5.5	7.4	---	---	---	8.4	4.3	6.1
MONTH	---	---	---	17.0	5.2	8.6	14.9	1.6	7.8	---	---	---
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.8	4.2	5.9	7.4	4.8	5.9	5.0	2.7	3.7	9.6	3.5	6.3
2	8.3	3.1	5.4	7.3	4.4	5.6	5.0	2.4	3.6	9.8	3.5	6.4
3	8.3	3.6	5.8	8.1	4.5	6.0	5.1	2.3	3.6	9.4	3.4	6.0
4	9.4	4.3	6.4	8.2	4.3	6.0	4.2	2.1	3.0	7.3	3.8	5.9
5	9.8	4.4	6.8	8.4	4.4	6.3	4.2	2.2	3.0	8.3	6.4	7.3
6	10.4	5.0	7.3	6.6	4.3	5.5	4.8	2.5	3.6	9.1	6.1	7.2
7	10.4	5.0	7.4	7.4	4.2	5.4	4.9	2.2	3.3	9.4	6.2	7.3
8	10.6	5.0	7.5	7.2	4.0	5.4	9.1	2.0	5.0	9.9	5.8	7.4
9	10.8	4.8	7.5	7.4	4.4	5.7	9.5	7.0	8.1	8.1	4.8	6.3
10	10.8	4.4	7.3	6.2	4.8	5.7	9.5	6.5	7.7	7.6	4.2	5.9
11	10.0	4.0	6.7	6.6	5.6	6.0	9.3	5.7	6.9	8.6	2.6	5.7
12	10.2	3.9	6.8	7.0	5.5	6.2	9.5	4.1	6.6	9.0	3.7	5.5
13	7.6	3.5	5.2	7.4	5.4	6.1	11.3	2.8	6.4	7.9	4.6	6.2
14	7.8	3.2	5.0	7.7	5.0	6.2	10.5	4.6	6.8	8.7	4.2	6.0
15	8.5	3.3	5.6	8.0	5.2	6.3	9.2	4.2	6.1	9.5	3.7	6.2
16	7.1	2.6	4.7	8.3	4.5	5.9	7.1	2.9	4.5	10.0	3.7	6.3
17	7.9	2.8	4.9	7.3	4.2	5.4	8.1	2.2	4.6	9.4	3.3	6.1
18	8.1	4.5	6.0	6.9	4.0	5.2	9.3	6.1	7.8	8.5	3.5	6.0
19	7.3	5.8	6.5	6.1	3.7	5.0	9.3	5.4	7.0	10.7	6.6	8.2
20	8.3	5.4	6.6	5.8	3.6	4.6	10.9	6.5	8.1	12.4	7.2	9.4
21	8.1	5.6	6.7	5.8	3.2	4.3	11.7	5.0	8.2	11.8	7.6	9.3
22	9.5	5.2	7.0	5.3	3.0	3.9	12.0	4.2	7.7	11.7	6.0	8.6
23	9.5	5.2	6.9	5.6	2.9	3.9	11.5	3.5	7.0	11.4	6.0	8.1
24	9.9	5.0	7.3	6.1	3.3	4.7	10.9	3.7	6.8	10.3	6.0	8.1
25	9.7	4.9	7.0	5.6	3.3	4.2	10.6	3.0	6.2	11.2	8.1	9.3
26	10.2	5.0	7.4	6.3	3.5	4.9	8.5	2.5	5.6	11.9	7.0	9.1
27	9.7	4.7	7.0	6.6	3.3	4.8	8.4	3.3	5.8	12.2	7.2	9.1
28	9.4	4.7	6.7	6.4	3.1	4.7	8.5	3.0	5.5	11.9	6.3	8.8
29	9.7	4.7	6.9	6.3	3.2	4.6	8.0	2.5	4.6	10.2	7.0	8.0
30	9.5	3.9	6.0	5.3	2.9	4.0	7.8	5.5	6.6	8.3	5.8	6.9
31	---	---	---	5.4	3.0	4.0	8.7	4.1	6.3	---	---	---
MONTH	10.8	2.6	6.5	8.4	2.9	5.2	12.0	2.0	5.8	12.4	2.6	7.2

BEARGRASS CREEK BASIN

03293200 MIDDLE FORK BEARGRASS CREEK AT BEALS BRANCH ROAD AT LOUISVILLE, KY

WATER-QUALITY RECORDS

LOCATION.--Lat 38°14'32", long 85°41'57", Jefferson County, Hydrologic Unit 05140101, at bridge on Beals Branch Road and at mile 1.9.

DRAINAGE AREA.--22.7 mi^2.

PERIOD OF RECORD.--February 1988 to current year.

REMARKS.--Samples were collected monthly.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
OCT						
10...	1330	76	337	7.5	16.5	8.2
NOV						
14...	0920	7.1	610	7.7	8.0	8.9
DEC						
11...	0925	8.2	627	7.5	6.5	10.4
JAN						
09...	0920	65	538	7.6	9.0	10.4
FEB						
14...	0915	163	324	7.7	8.0	9.9
MAR						
07...	0935	26	398	7.5	7.5	10.5
APR						
03...	0925	12	511	8.3	12.0	10.1
MAY						
07...	0910	12	482	7.9	13.0	8.5
JUN						
11...	0910	3.1	540	7.6	23.0	4.8
JUL						
10...	0900	51	401	7.4	25.0	5.8
AUG						
08...	0920	0.14	529	7.4	24.5	2.6
SEP						
10...	0940	13	597	7.5	23.5	4.7

BEARGRASS CREEK BASIN

03293530 MUDDY FORK AT MOCKINGBIRD VALLEY ROAD AT LOUISVILLE, KY

WATER-QUALITY RECORDS

LOCATION.--Lat 38°16'35", long 85°41'37", Jefferson County, Hydrologic Unit 05140101, at culvert on Mockingbird Valley Road and at mile 1.5.

DRAINAGE AREA.--6.2 mi^2.

PERIOD OF RECORD.--February 1988 to current year.

REMARKS.--Samples were collected monthly.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
OCT						
11...	0920	6.8	708	7.6	12.5	9.1
NOV						
15...	0915	2.3	769	7.5	8.5	9.8
DEC						
12...	1120	3.3	791	7.5	8.5	12.0
JAN						
16...	0900	12	758	7.3	8.5	7.9
FEB						
13...	0915	11	674	7.6	9.0	10.1
MAR						
13...	0905	45	427	7.5	10.0	9.2
APR						
10...	0910	5.2	665	8.0	12.0	8.8
MAY						
15...	0910	4.7	722	7.7	18.0	7.8
JUN						
24...	0920	1.0	685	7.9	21.5	7.1
JUL						
23...	0905	1.4	656	7.8	25.5	5.9
AUG						
26...	0900	0.87	706	7.6	22.5	5.7
SEP						
18...	0925	1.2	828	7.6	21.5	6.9

OHIO RIVER MAIN STEM

03294500 OHIO RIVER AT LOUISVILLE, KY

LOCATION.--Lat 38°16'49", long 85°47'57", Jefferson County, Hydrologic Unit 05140101, on left bank at downstream end of lock guide wall in lower pool at McAlpine Locks, at Louisville, 5.3 mi downstream from Beargrass Creek and at mile 607.3.

DRAINAGE AREA.--91,170 mi^2, approximately.

PERIOD OF RECORD.--January 1928 to current year. Prior to October 1935 monthly discharge only, published in WSP 1305. Gage-height records collected in this vicinity since 1871 are published in reports of National Weather Service.

REVISED RECORDS.--WSP 893: 1939.

GAGE.--Water-stage recorder. Datum of gage is 373.18 ft above National Geodetic Vertical Datum 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 372.75ft above NGVD of 1929 or 373.67ft above Ohio River Dam.

REMARKS.--Estimated daily discharges: Dec. 4-16, Dec. 22 to Jan. 3, 7-8, Feb. 28 to Mar. 4, May 28, June 4-6, and Sept. 24-30. Records good except for periods of estimated record and those below 20,000 ft^3/s, which are poor. Flow regulated by Ohio River system of locks and dams.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45800	73900	63500	525000	192000	153000	257000	89500	43700	23800	18000	21800
2	52500	72700	56300	527000	217000	131000	252000	91000	36400	39100	16600	16800
3	36700	64100	79600	530000	234000	119000	234000	91000	46800	18500	17400	20300
4	58700	55400	145000	535000	217000	117000	195000	71000	65000	24900	18100	21400
5	94100	55000	190000	527000	185000	147000	154000	73400	60000	23900	17000	28800
6	78700	48700	210000	483000	203000	192000	124000	63100	45000	34000	17300	35600
7	73400	53200	220000	475000	298000	250000	112000	62600	38300	24300	16800	18000
8	77000	63600	200000	450000	350000	300000	105000	76500	26700	29900	15000	15900
9	62000	51000	150000	426000	367000	339000	106000	79400	25400	79700	24300	21300
10	85700	59000	120000	409000	373000	351000	116000	60600	10400	76100	27600	21600
11	84300	83900	105000	397000	350000	329000	141000	58200	16700	64600	27000	25500
12	81100	117000	100000	383000	265000	285000	146000	58300	21000	66400	27000	27200
13	116000	125000	95000	369000	228000	268000	172000	40600	26600	40900	26000	18400
14	163000	110000	92000	364000	218000	296000	222000	48000	31000	45400	18500	18800
15	195000	96200	87000	366000	243000	292000	253000	50000	19400	37300	17600	22500
16	195000	84300	97000	353000	262000	289000	301000	47700	18700	39700	17900	22700
17	163000	75800	134000	366000	282000	290000	345000	47100	23100	18000	18000	22300
18	149000	70300	237000	324000	276000	277000	357000	48200	37200	19100	23900	21000
19	143000	65100	383000	307000	268000	261000	336000	52400	33500	27100	17500	17900
20	138000	62700	428000	314000	270000	243000	287000	41100	25700	26800	30400	18900
21	147000	58500	445000	324000	290000	243000	245000	39000	22900	19100	30700	15400
22	159000	53900	450000	304000	328000	262000	198000	34500	24800	19200	19000	21500
23	163000	71400	465000	271000	357000	350000	174000	48000	31000	23300	18200	10900
24	163000	94000	480000	241000	352000	409000	158000	66900	31500	26000	20800	18000
25	186000	99300	475000	217000	311000	416000	142000	51200	25700	31900	20500	37000
26	210000	95100	455000	194000	266000	415000	139000	27700	22500	16600	20500	26000
27	207000	86000	445000	163000	219000	424000	127000	22900	26000	15300	20100	11000
28	180000	73700	430000	153000	177000	397000	117000	38000	30900	16400	17400	10000
29	142000	65000	450000	147000	---	357000	104000	30400	24100	17700	15800	13000
30	113000	67700	475000	157000	---	324000	98100	52300	19100	16300	17700	14000
31	89100	---	500000	180000	---	280000	---	50900	---	15800	17800	---
TOTAL	3851100	2251500	8262400	10781000	7598000	8806000	5717100	1711500	909100	977100	630400	613500
MEAN	124200	75050	266500	347800	271400	284100	190600	55210	30300	31520	20340	20450
MAX	210000	125000	500000	535000	373000	424000	357000	91000	65000	79700	30700	37000
MIN	36700	48700	56300	147000	177000	117000	98100	22900	10400	15300	15000	10000

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1991, BY WATER YEAR (WY)

MEAN	37980	68410	122600	165100	195000	240900	206000	141300	85130	57740	43790	33200
MAX	153500	245900	321300	595800	430400	524300	403300	330000	234400	184500	151300	166600
(WY)	1980	1986	1973	1937	1939	1945	1948	1983	1981	1928	1958	1979
MIN	4377	6660	14080	21630	38010	69390	66480	29350	16400	8035	4924	6005
(WY)	1931	1931	1931	1931	1934	1969	1986	1941	1988	1930	1930	1930

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1928 - 1991	
ANNUAL TOTAL	53764300		52108700			
ANNUAL MEAN	147300		142800		115900	
HIGHEST ANNUAL MEAN					176700	1979
LOWEST ANNUAL MEAN					57390	1954
HIGHEST DAILY MEAN	500000	Dec 31	535000	Jan 4	1110000	Jan 27 1937
LOWEST DAILY MEAN	20000	Aug 17	10000	Sep 28	2100	Aug 12 1930
ANNUAL SEVEN-DAY MINIMUM	30700	Aug 13	16600	Jul 26	3530	Oct 15 1930
INSTANTANEOUS PEAK STAGE			60.30	Jan 4	85.44	Jan 27 1937
10 PERCENT EXCEEDS	324000		360000		278000	
50 PERCENT EXCEEDS	116000		83900		72400	
90 PERCENT EXCEEDS	43700		18200		16500	

MILL CREEK BASIN

03294550 MILL CREEK CUTOFF NEAR LOUISVILLE, KY

LOCATION.--Lat 38°10'39", long 85°52'01", Jefferson County, Hydrologic Unit 05140102, on left bank at bridge on Highway 1230, 0.8 mi downstream from confluence with Big Run Creek, 1.5 mi upstream from Ohio River, and at mile 616.3.

DRAINAGE AREA.--24.4 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1988 to current year.

GAGE.--Water-stage recorder.

REMARKS.--Estimated daily discharges: Dec. 9-17,21-31, Jan. 2-8, 19-24, Mar. 19-21, June 5-7 and Sept. 29-30. Water-discharge records fair except for periods of estimated record, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.63	.83	2.2	313	4.3	5.7	2.4	3.9	2.4	2.7	.82	14
2	.53	.79	3.0	95	3.3	7.0	2.2	1.7	2.2	2.2	.75	8.8
3	.51	.76	139	25	2.8	2.6	2.1	1.7	2.1	1.8	.71	11
4	90	.78	6.8	20	2.6	2.3	2.8	2.1	2.1	1.6	.66	142
5	3.2	1.6	2.3	22	22	2.1	3.4	73	1.9	1.8	.63	12
6	1.3	1.8	2.0	35	273	20	2.3	7.8	1.8	1.9	.65	2.7
7	.99	1.1	1.5	50	50	6.0	2.2	3.8	1.8	1.6	.65	1.9
8	.82	1.1	1.3	250	11	2.8	11	3.2	1.8	1.5	.65	1.6
9	62	19	1.2	727	6.7	2.3	5.5	101	1.9	1.8	20	1.6
10	32	23	1.1	366	5.0	2.1	3.6	13	2.0	128	4.3	1.7
11	2.7	3.0	.93	130	3.5	2.1	2.3	6.0	2.0	2.9	1.9	1.6
12	1.5	2.1	.86	17	2.6	32	13	42	2.1	1.7	1.7	1.5
13	1.2	1.8	.78	7.5	55	114	31	14	2.1	1.3	1.8	1.5
14	1.0	1.6	170	5.6	107	28	7.8	146	2.1	1.0	1.8	1.4
15	.96	1.4	74	6.5	8.8	6.0	9.4	52	2.2	.91	1.6	1.5
16	.83	1.3	22	10	3.4	73	2.7	8.8	2.2	.89	1.5	1.3
17	.83	1.5	8.5	5.0	4.4	10	2.0	6.7	4.6	.90	1.9	1.2
18	1.5	1.5	227	3.6	155	5.2	1.9	5.2	37	.85	4.3	1.5
19	1.1	1.5	7.0	3.1	17	3.6	16	4.1	11	.91	2.1	2.9
20	.83	1.5	213	2.8	8.4	2.3	3.1	3.6	36	.91	2.0	1.2
21	.88	1.5	129	2.5	5.2	36	2.3	3.4	139	.92	1.5	4.3
22	61	24	44	2.2	4.2	500	2.3	5.4	9.2	.92	1.5	.75
23	5.9	9.4	23	2.0	2.9	61	2.2	4.6	3.0	.94	1.6	.53
24	1.8	2.9	6.1	1.8	2.6	70	9.3	2.8	2.7	.90	1.6	.49
25	1.2	2.3	5.1	1.9	2.8	268	2.4	7.1	2.5	.91	1.6	.41
26	.90	2.0	10	1.8	2.5	323	2.2	5.4	2.6	1.0	1.5	.45
27	.81	2.3	12	14	2.3	367	2.0	12	2.5	.86	2.4	.45
28	.80	24	44	22	2.2	162	2.0	4.3	2.5	.85	2.3	.49
29	.86	4.0	30	4.7	---	3.1	5.9	2.9	2.6	.82	18	.49
30	.91	2.8	15	87	---	2.3	5.1	2.5	2.5	.82	10	.49
31	.87	---	1060	8.3	---	2.2	---	2.5	---	.82	6.3	---
TOTAL	280.36	143.16	2262.67	2242.3	770.5	2123.7	162.4	552.5	290.4	166.93	98.72	221.75
MEAN	9.04	4.77	73.0	72.3	27.5	68.5	5.41	17.8	9.68	5.38	3.18	7.39
MAX	90	24	1060	727	273	500	31	146	139	128	20	142
MIN	.51	.76	.78	1.8	2.2	2.1	1.9	1.7	1.8	.82	.63	.41
CFSM	.37	.20	2.99	2.96	1.13	2.81	.22	.73	.40	.22	.13	.30
IN.	.43	.22	3.45	3.42	1.17	3.24	.25	.84	.44	.25	.15	.34

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1991, BY WATER YEAR (WY)

MEAN	3.83	8.00	29.1	36.2	65.7	34.0	14.9	32.6	17.1	9.80	4.10	3.01
MAX	9.04	13.7	73.0	72.3	87.0	68.5	25.0	69.8	49.1	23.5	4.98	7.39
(WY)	1991	1989	1991	1991	1989	1991	1989	1990	1990	1989	1988	1991
MIN	.18	4.77	1.35	17.2	27.5	7.11	5.41	10.1	.042	1.19	3.18	.067
(WY)	1989	1991	1990	1990	1991	1990	1991	1989	1988	1990	1991	1988

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1988 - 1991	
ANNUAL TOTAL	10075.26		9315.39			
ANNUAL MEAN	27.6		25.5		21.8	
HIGHEST ANNUAL MEAN					25.5	1991
LOWEST ANNUAL MEAN					19.0	1989
HIGHEST DAILY MEAN	1070	Feb 15	1060	Dec 31	1070	Feb 15 1990
LOWEST DAILY MEAN	.18	Jul 18	.41	Sep 25	.00	Oct 1 1987
ANNUAL SEVEN-DAY MINIMUM	.25	Jun 27	.47	Sep 24	.00	May 28 1988
INSTANTANEOUS PEAK FLOW			2200	Mar 22		
INSTANTANEOUS PEAK STAGE			11.17	Mar 22	13.07	Jun 7 1990
ANNUAL RUNOFF (CFSM)	1.13		1.05		.89	
ANNUAL RUNOFF (INCHES)	15.36		14.20		12.16	
10 PERCENT EXCEEDS	46		53		34	
50 PERCENT EXCEEDS	1.6		2.5		1.6	
90 PERCENT EXCEEDS	.37		.86		.00	

03294550 MILL CREEK CUTOFF NEAR LOUISVILLE, KY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1988 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1988 to current year.
pH: May 1988 to current year.
WATER TEMPERATURE: May 1988 to current year.
DISSOLVED OXYGEN: May 1988 to current year.

INSTRUMENTATION.--Water-quality monitor since May 1988.

REMARKS.--Water-quality samples collected monthly. Records good for specific conductance, pH, water temperature, and dissolved oxygen.

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

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,062 microsiemens, June 23, 1988; minimum, 77 microsiemens, Sept. 4, 1991.
pH: Maximum, 11.3 units, July 28, 29, 1989; minimum, 4.8 units, Sept. 12, 1988.
WATER TEMPERATURE: Maximum, 34.4°C, Sept. 21, 1989; minimum, 0.6°C, Dec. 28, 1990.
DISSOLVED OXYGEN: Maximum, 24.5 mg/L, Aug. 16, 1989; minimum, 0.3 mg/L, July 5, 23, 1991.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1010 microsiemens, Dec. 28, 29; minimum, 77 microsiemens, Sept. 4.
pH: Maximum, 9.7 units, Nov. 21, 22; minimum, 4.9 units, Dec. 24.
WATER TEMPERATURE: Maximum, 31.9°C, June 30; minimum, 0.6°C, Dec. 28.
DISSOLVED OXYGEN: Maximum, 23.3 mg/L, June 26; minimum, 0.3 mg/L, July 5, 23.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
OCT						
03...	1120	0.19	682	7.5	19.0	11.1
NOV						
05...	1120	1.1	539	7.7	15.0	8.7
DEC						
04...	1040	5.7	253	7.8	7.0	9.8
JAN						
07...	1405	42	222	6.2	4.5	12.0
FEB						
05...	1050	1.8	600	7.6	9.5	10.5
MAR						
05...	1025	1.5	576	7.7	8.0	13.0
APR						
02...	1030	2.2	580	--	11.5	11.6
MAY						
02...	1110	1.6	478	8.1	18.5	9.9
JUN						
04...	1000	1.6	680	7.8	24.0	9.3
JUL						
02...	1035	2.1	702	7.8	27.0	14.2
AUG						
01...	1030	0.85	719	7.7	22.5	10.7
SEP						
04...	1040	750	401	7.0	21.5	6.8

MILL CREEK BASIN

03294550 MILL CREEK CUTOFF NEAR LOUISVILLE, KY--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	683	641	662	645	615	629	486	375	421	356	286	323
2	677	641	659	647	617	631	553	438	513	396	357	379
3	683	649	666	658	621	642	442	142	236	430	396	415
4	657	109	208	659	633	645	306	229	259	445	430	437
5	297	156	231	664	527	621	431	309	369	493	317	426
6	429	297	353	629	511	558	518	434	475	321	201	250
7	478	406	454	549	527	539	557	519	537	260	156	206
8	542	466	509	558	535	545	567	542	556	359	276	308
9	568	134	444	572	196	468	603	569	595	388	304	348
10	254	130	186	225	167	189	618	603	611	443	389	415
11	313	255	286	336	227	278	634	618	629	451	264	294
12	424	312	363	430	338	389	643	620	637	366	278	323
13	515	427	468	510	432	476	645	627	638	434	368	401
14	566	504	533	568	512	540	647	629	643	476	435	452
15	586	556	567	596	569	577	652	119	281	944	453	531
16	610	588	603	608	574	595	278	194	231	529	471	496
17	631	609	618	624	601	612	341	172	261	528	493	513
18	639	397	575	615	602	609	181	91	128	555	529	548
19	598	488	520	625	611	618	242	164	210	579	547	565
20	578	523	555	646	627	638	246	242	244	588	548	574
21	626	580	613	639	612	624	358	244	305	597	586	591
22	618	190	267	629	209	399	349	198	229	628	597	619
23	307	207	249	280	228	246	271	186	216	648	619	635
24	398	310	363	405	283	344	290	225	256	673	644	659
25	493	399	446	460	406	437	352	291	322	693	658	674
26	539	494	511	537	462	496	416	353	383	708	683	691
27	578	540	552	588	537	556	454	417	439	750	510	684
28	598	581	588	604	211	342	1010	454	592	475	369	390
29	616	599	609	299	232	262	1010	334	476	610	427	535
30	629	610	619	375	300	342	404	107	247	763	314	414
31	637	614	624	---	---	---	285	181	226	431	371	402
MONTH	683	109	481	664	167	495	1010	91	392	944	156	468
		FEBRUARY			MARCH			APRIL			MAY	
1	488	431	460	538	465	521	576	558	569	484	463	470
2	524	487	504	489	462	477	582	569	577	559	463	492
3	555	525	539	533	490	510	593	573	583	586	453	561
4	588	556	572	562	534	549	604	477	577	578	509	529
5	600	287	552	585	563	574	524	460	497	614	144	369
6	280	177	205	596	316	469	578	524	565	366	203	280
7	295	212	253	444	341	386	539	556	572	464	368	425
8	356	297	327	534	447	493	600	350	426	548	458	513
9	404	358	382	575	532	551	494	359	406	549	198	311
10	440	404	420	594	574	582	491	386	446	385	252	323
11	467	441	452	612	596	605	538	493	517	471	387	429
12	955	468	597	623	258	566	577	317	535	534	221	446
13	953	174	515	295	203	243	365	248	296	370	235	309
14	258	150	202	342	288	308	421	353	384	446	217	380
15	339	259	300	404	343	376	449	393	415	328	228	279
16	422	341	385	456	404	431	475	399	431	399	329	360
17	586	419	445	472	220	403	569	477	537	441	350	379
18	459	95	197	335	230	286	615	566	599	507	358	470
19	223	154	186	404	337	376	614	293	390	520	439	461
20	264	225	246	453	405	431	491	388	433	563	526	550
21	306	264	285	536	244	468	590	493	549	596	515	582
22	337	306	321	259	155	205	625	592	610	658	255	593
23	369	338	354	298	209	256	616	442	593	418	225	332
24	399	370	384	351	299	327	623	388	450	597	422	540
25	424	399	412	392	352	373	543	459	510	622	272	555
26	453	424	438	415	394	404	569	485	538	396	261	320
27	518	453	465	434	411	425	596	543	581	502	357	394
28	618	532	558	473	433	449	623	596	610	458	367	408
29	---	---	---	514	474	499	627	408	515	574	462	531
30	---	---	---	537	514	529	483	447	460	648	576	617
31	---	---	---	556	533	547	---	---	---	656	631	644
MONTH	955	95	391	623	155	439	627	248	506	658	144	447

03294550 MILL CREEK CUTOFF NEAR LOUISVILLE, KY--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	665	622	648	690	646	670	719	671	699	300	176	253
2	655	596	630	---	---	---	719	668	702	517	302	425
3	682	623	659	---	---	---	726	675	708	656	520	590
4	686	592	650	712	651	687	726	698	716	625	77	320
5	677	620	646	704	631	666	729	711	722	298	165	234
6	698	641	670	717	654	687	734	690	720	400	301	358
7	709	650	689	704	663	681	725	673	706	540	403	497
8	697	644	669	727	432	694	721	684	709	642	517	581
9	722	666	699	709	621	675	734	232	607	654	551	597
10	731	673	701	644	153	279	334	243	277	630	586	605
11	717	669	695	381	231	306	550	337	481	651	635	642
12	738	687	716	511	384	451	656	517	594	671	642	657
13	713	672	698	624	484	544	628	534	576	672	630	652
14	742	702	722	620	563	590	594	530	562	660	596	636
15	763	723	744	638	549	599	654	533	625	656	610	641
16	773	734	758	649	570	609	727	654	691	661	627	643
17	765	416	731	665	586	625	759	586	719	671	632	650
18	600	238	416	655	599	629	824	441	619	681	457	625
19	430	309	369	673	634	652	592	432	480	647	408	448
20	583	274	471	674	628	653	628	542	587	586	447	519
21	390	205	295	681	645	661	684	616	658	657	590	635
22	372	269	325	688	657	674	706	677	693	676	652	663
23	483	374	437	705	682	693	694	667	681	662	613	631
24	575	487	552	702	669	689	675	640	660	662	403	628
25	622	560	595	698	670	689	673	619	646	664	293	383
26	639	583	610	697	652	679	699	646	672	571	318	428
27	653	585	613	705	668	687	697	354	648	648	570	620
28	656	606	636	717	689	707	641	604	627	651	614	634
29	667	620	645	719	674	701	664	167	489	656	627	637
30	677	618	651	733	676	711	310	138	229	658	618	638
31	---	---	---	716	673	701	556	224	407	---	---	---
MONTH	773	205	611	---	---	---	824	138	610	681	77	549

PH (STANDARD UNITS), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			MBER			JANUARY	
1	8.4	7.2	7.9	8.4	7.6	8.1	8.2	7.6	7.9	6.7	6.6	6.6
2	8.3	7.4	7.9	8.4	7.7	8.2	8.2	7.9	8.1	6.8	6.7	6.7
3	8.0	7.4	7.8	8.5	7.8	8.2	8.2	8.0	8.1	6.9	6.7	6.8
4	7.8	6.2	6.6	8.5	7.9	8.2	8.0	6.8	7.4	6.8	6.7	6.7
5	6.5	5.9	6.2	8.3	7.4	7.9	7.1	6.6	6.9	6.8	6.5	6.7
6	6.9	5.9	6.4	8.7	7.6	8.1	7.0	6.6	6.7	6.6	6.3	6.4
7	7.0	6.4	6.7	8.7	7.6	8.2	6.9	6.4	6.7	6.3	6.2	6.2
8	7.0	6.1	6.7	8.6	7.6	8.2	6.8	6.3	6.6	6.5	6.3	6.4
9	7.0	5.7	6.5	8.3	7.5	7.8	7.0	6.4	6.7	6.6	6.5	6.6
10	5.7	5.2	5.4	7.6	7.4	7.5	7.2	6.5	6.8	6.9	6.6	6.7
11	5.7	5.0	5.4	7.9	7.5	7.6	7.4	6.6	7.0	6.9	6.5	6.6
12	5.8	5.3	5.5	8.1	7.6	7.8	7.5	6.9	7.2	6.8	6.5	6.7
13	6.1	5.4	5.7	8.5	7.8	8.2	8.0	7.1	7.5	6.9	6.8	6.8
14	6.5	5.7	6.1	8.7	8.0	8.4	8.2	7.4	7.8	7.0	6.9	7.0
15	6.9	6.0	6.5	9.0	8.1	8.6	8.0	6.7	7.1	7.0	6.9	6.9
16	7.2	6.1	6.7	9.2	8.3	8.8	6.7	6.2	6.5	7.1	6.9	7.0
17	7.8	6.4	7.2	9.3	8.4	8.9	6.3	6.0	6.1	7.1	6.9	6.9
18	7.9	6.8	7.2	9.4	8.6	9.1	6.1	5.6	5.8	7.1	7.1	7.1
19	8.0	6.8	7.4	9.3	8.6	9.0	5.7	5.4	5.6	7.2	7.1	7.1
20	8.1	7.0	7.7	9.6	8.7	9.2	5.4	5.2	5.3	7.2	7.2	7.2
21	8.0	7.1	7.7	9.7	9.0	9.4	6.0	5.2	5.6	7.4	7.2	7.3
22	8.0	6.5	6.9	9.7	8.3	8.9	6.0	5.4	5.6	7.4	7.3	7.3
23	6.9	6.5	6.7	8.3	7.9	8.1	5.7	5.0	5.2	7.4	7.3	7.4
24	7.1	6.6	6.8	8.3	7.7	8.0	5.0	4.9	5.0	---	---	---
25	7.7	6.8	7.2	8.4	7.8	8.0	5.3	5.0	5.1	---	---	---
26	7.7	7.0	7.3	8.6	7.9	8.2	5.2	5.0	5.1	---	---	---
27	7.9	6.9	7.4	9.5	8.3	8.8	5.3	5.2	5.2	---	---	---
28	8.1	7.1	7.6	8.9	7.7	8.3	6.9	5.1	5.8	---	---	---
29	8.0	7.3	7.7	7.8	7.5	7.7	6.9	6.7	6.8	---	---	---
30	8.3	7.3	7.9	7.9	7.5	7.6	6.8	6.1	6.5	---	---	---
31	8.3	7.6	8.0	---	---	---	6.6	6.2	6.3	---	---	---
MONTH	8.4	5.0	6.9	9.7	7.4	8.3	8.2	4.9	6.5	---	---	---

MILL CREEK BASIN

03294550 MILL CREEK CUTOFF NEAR LOUISVILLE, KY--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	8.6	8.0	8.2	7.7	7.4	7.6	8.3	7.9	8.1
2	---	---	---	8.5	7.5	7.8	9.3	7.6	8.4	8.8	7.9	8.3
3	---	---	---	7.8	7.4	7.6	9.4	8.8	9.1	8.5	7.5	7.9
4	---	---	---	8.1	7.2	7.7	9.4	8.6	8.9	8.1	7.4	7.7
5	---	---	---	8.3	7.5	7.9	9.4	8.4	9.0	7.5	7.1	7.2
6	7.4	7.1	7.2	8.0	6.8	7.5	8.8	8.0	8.5	7.1	6.8	6.9
7	7.2	7.0	7.1	7.5	6.5	7.0	8.8	8.3	8.6	7.3	6.7	7.0
8	7.1	6.8	6.9	8.1	6.5	7.3	8.6	7.8	8.1	7.3	6.8	7.1
9	7.2	6.7	6.9	8.5	6.9	7.8	7.9	7.6	7.8	7.2	6.9	7.0
10	7.7	6.9	7.3	8.6	7.5	8.0	8.0	7.5	7.7	7.4	6.9	7.1
11	7.6	7.0	7.3	8.5	7.8	8.1	8.1	7.6	7.8	7.5	7.1	7.2
12	7.8	6.9	7.4	8.4	7.4	7.9	8.8	7.6	7.9	7.8	6.9	7.1
13	7.8	7.0	7.3	7.4	6.9	7.1	8.3	7.9	8.0	7.4	7.0	7.1
14	7.0	6.7	6.8	7.0	6.8	6.9	8.2	7.9	8.0	7.6	6.7	7.2
15	7.1	6.6	6.8	7.7	6.8	7.2	8.2	7.6	7.9	7.5	6.7	7.1
16	7.2	6.6	[illegible]	7.9	7.1	7.5	7.7	7.4	7.6	7.6	7.2	7.4
17	7.1	6.8	7.0	8.1	7.2	7.6	9.6	7.6	8.6	7.8	7.1	7.5
18	7.2	6.7	6.9	7.2	7.1	7.2	9.3	8.6	8.9	7.6	7.3	7.4
19	7.2	6.9	7.0	7.5	7.1	7.3	9.2	8.3	8.5	7.6	7.2	7.4
20	7.6	7.0	7.3	7.5	7.3	7.4	8.2	8.0	8.1	7.9	7.2	7.5
21	7.8	7.0	7.4	8.9	7.3	8.0	8.2	7.8	8.0	7.7	7.3	7.5
22	8.1	7.1	7.6	7.5	6.6	6.9	8.4	7.8	8.1	8.1	6.9	7.2
23	8.1	7.2	7.7	7.8	6.8	7.2	8.2	7.9	8.1	7.5	6.9	7.1
24	8.1	7.3	7.7	7.7	7.0	7.4	9.0	8.0	8.3	7.8	7.1	7.4
25	8.1	7.3	7.8	7.5	7.1	7.3	8.2	8.0	8.1	8.1	7.2	7.4
26	8.2	7.4	7.9	7.7	7.3	7.5	8.7	8.0	8.3	7.4	6.7	7.1
27	8.3	7.4	7.9	7.4	7.1	7.2	8.5	8.3	8.4	7.5	[illegible]	7.3
28	8.5	7.7	8.1	7.7	7.2	7.4	8.6	8.3	8.4	7.6	6.9	7.2
29	---	---	---	7.6	7.2	7.4	9.2	8.1	8.5	8.0	7.2	7.5
30	---	---	---	7.6	7.1	7.3	8.3	8.0	8.2	7.8	7.3	7.5
31	---	---	---	7.6	7.2	7.4	---	---	---	8.3	7.4	7.8
MONTH	---	---	---	8.9	6.5	7.5	9.6	7.4	8.2	8.8	6.7	7.4
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.7	7.6	8.0	8.5	7.6	8.0	8.4	7.5	7.9	7.6	6.7	7.1
2	8.8	7.6	8.1	---	---	---	8.3	7.1	7.7	8.0	7.2	7.5
3	8.5	7.6	8.0	---	---	---	8.2	7.1	7.6	8.0	7.2	7.6
4	8.4	7.6	7.9	7.5	6.9	7.1	7.8	7.1	7.4	7.6	6.3	7.0
5	8.3	7.4	7.8	7.0	6.6	6.8	7.5	7.0	7.2	7.6	6.9	7.1
6	8.1	7.3	7.7	6.9	6.5	6.7	7.7	7.0	7.3	7.5	7.0	7.2
7	7.9	7.2	7.6	7.4	6.8	7.1	7.8	7.1	7.4	7.7	7.0	7.3
8	7.9	7.3	7.6	7.5	7.0	7.2	7.7	7.2	7.4	7.7	7.0	7.4
9	8.0	7.3	7.6	7.7	7.0	7.3	7.8	7.0	7.3	7.7	7.2	7.4
10	7.9	7.3	7.6	8.3	6.7	7.0	7.0	6.7	6.9	8.0	7.2	7.5
11	7.8	7.3	7.5	7.1	6.9	6.9	7.1	6.9	6.9	8.2	7.2	7.6
12	7.9	7.3	7.5	7.4	6.9	7.1	7.3	6.9	7.1	8.2	7.2	7.8
13	8.1	7.4	7.6	8.0	7.0	7.4	7.2	7.0	7.1	8.2	7.3	7.8
14	7.8	7.4	7.6	8.5	7.1	7.8	7.5	7.0	7.2	8.3	7.2	7.8
15	8.2	7.3	7.7	8.4	7.2	7.8	7.9	7.1	7.5	8.0	7.1	7.6
16	7.7	7.4	7.5	8.4	7.3	7.9	8.1	7.2	7.6	8.2	7.3	7.7
17	7.7	7.3	7.4	8.3	7.3	7.8	7.9	7.2	7.5	8.0	7.3	7.7
18	7.9	7.2	7.5	8.3	7.3	7.8	8.2	7.1	7.5	7.6	6.9	7.4
19	7.6	7.1	7.3	8.3	7.3	7.8	7.7	6.9	7.2	8.5	6.9	7.7
20	7.8	7.2	7.5	8.3	7.3	7.8	7.8	7.0	7.3	8.2	6.8	7.5
21	7.3	7.1	7.2	8.2	7.3	7.7	8.1	7.1	7.6	7.9	6.6	7.3
22	7.4	7.1	7.2	8.2	7.4	7.8	7.9	7.1	7.5	7.2	6.6	6.9
23	7.5	7.2	7.3	8.1	7.4	7.7	7.9	7.1	7.5	7.7	6.5	7.0
24	7.8	7.2	7.5	8.1	7.4	7.7	7.8	7.1	7.4	7.1	6.5	6.8
25	8.4	7.3	7.8	7.7	7.1	7.4	7.9	7.1	7.5	7.3	6.2	6.7
26	8.6	7.5	8.0	8.1	6.9	7.4	7.6	7.2	7.4	7.8	6.2	6.8
27	8.5	7.6	8.1	8.0	7.0	7.4	7.5	7.1	7.3	7.5	6.1	6.8
28	8.3	7.6	8.0	7.7	7.0	7.3	7.8	7.1	7.4	7.5	6.1	6.8
29	8.5	7.5	8.0	8.1	7.0	7.5	8.2	6.8	7.4	7.4	6.1	6.8
30	8.7	7.5	8.1	8.3	7.2	7.7	7.1	6.6	6.9	7.5	6.1	6.8
31	---	---	---	8.3	7.4	7.8	7.3	7.0	7.1	---	---	---
MONTH	8.8	7.1	7.7	---	---	---	8.4	6.6	7.4	8.5	6.1	7.3

03294550 MILL CREEK CUTOFF NEAR LOUISVILLE, KY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	21.3	17.1	19.6	14.7	10.2	12.8	9.0	4.8	7.0	2.4	1.1	1.8
2	21.3	17.4	19.6	15.2	11.0	13.3	9.2	8.3	8.8	3.0	2.2	2.6
3	20.2	18.4	19.3	15.0	11.6	13.6	12.9	8.9	11.2	3.2	2.7	2.9
4	20.8	18.4	19.5	16.1	12.6	14.4	9.7	5.0	7.1	3.3	3.1	3.2
5	22.2	16.7	19.3	15.7	11.6	14.2	6.6	3.4	4.9	3.8	1.4	3.2
6	21.9	16.0	19.0	12.3	10.1	11.3	7.2	3.8	5.4	5.2	3.7	4.8
7	19.4	17.0	18.3	11.5	8.0	9.8	6.6	4.2	5.4	4.9	3.6	4.3
8	21.4	17.1	19.2	9.3	6.7	8.1	6.2	3.2	4.7	4.4	3.8	4.1
9	20.9	19.0	20.1	9.0	7.7	8.3	7.1	3.5	5.3	4.9	4.0	4.5
10	19.6	14.9	17.5	9.9	7.7	8.7	8.5	4.7	6.5	4.8	4.4	4.7
11	17.4	13.0	15.1	11.0	7.0	8.9	8.6	4.9	6.9	7.1	4.7	5.8
12	15.8	13.8	14.8	11.3	7.6	9.4	9.5	5.9	7.7	6.9	4.0	5.3
13	17.0	13.0	14.8	10.7	6.6	8.7	10.0	8.1	9.1	4.0	3.3	3.7
14	18.0	13.1	15.5	11.5	6.7	9.2	8.3	5.4	7.1	5.4	2.6	4.0
15	18.2	14.0	16.4	12.8	8.0	10.7	11.9	8.2	10.5	6.2	4.1	5.3
16	17.2	12.5	15.2	13.3	9.7	11.8	9.4	7.5	8.2	6.4	5.4	6.0
17	18.8	14.5	16.8	11.7	8.6	10.5	10.0	6.8	7.7	5.4	4.7	5.0
18	18.3	11.7	14.8	10.1	7.3	9.1	12.6	9.0	10.8	6.1	4.3	4.9
19	14.2	9.3	11.8	10.5	9.1	9.8	8.9	7.9	8.3	6.6	3.7	5.2
20	15.0	9.6	12.5	11.4	7.7	9.7	7.9	7.3	7.6	6.5	4.6	6.0
21	16.6	11.4	14.3	12.7	8.8	10.9	12.0	7.5	9.1	4.4	1.3	2.6
22	16.3	13.5	14.6	13.5	12.1	12.9	12.1	9.4	11.1	2.8	.7	1.6
23	15.5	12.1	13.5	12.7	10.5	11.6	9.2	3.4	5.0	4.4	1.2	2.7
24	16.1	11.5	13.6	12.6	8.8	10.7	3.3	1.7	2.3	4.3	2.1	3.0
25	13.9	11.1	12.6	13.6	9.7	11.5	2.5	2.1	2.3	4.2	1.3	2.7
26	13.2	8.5	11.0	14.8	10.8	12.6	2.8	2.1	2.5	3.6	2.5	3.0
27	13.3	8.4	11.2	17.9	14.7	16.2	3.0	2.2	2.6	3.9	1.0	2.3
28	13.0	9.4	11.6	16.4	10.8	14.2	2.2	.6	1.5	2.3	.9	1.6
29	12.7	7.9	10.6	10.6	7.2	9.2	9.3	.9	4.9	5.1	2.0	3.6
30	13.7	8.5	11.3	9.0	5.4	7.0	11.1	4.9	8.5	5.3	3.6	4.5
31	14.3	9.5	12.2	---	---	---	4.8	1.8	3.0	4.8	1.8	3.3
MONTH	22.2	7.9	15.3	17.9	5.4	11.0	12.9	.6	6.5	7.1	.7	3.8
		FEBRUARY			MARCH			APRIL			MAY	
1	6.6	2.6	4.4	11.5	8.9	10.1	16.1	10.4	12.6	20.7	16.9	19.0
2	8.7	3.9	6.1	14.9	11.5	12.9	14.5	10.2	12.0	23.5	14.7	18.8
3	10.1	4.9	7.3	12.9	7.9	10.4	14.1	9.3	11.5	21.7	16.0	18.9
4	11.4	6.3	8.6	11.5	6.4	8.4	11.7	10.5	11.2	21.7	17.8	19.5
5	10.6	9.4	9.9	12.1	6.7	9.2	17.9	11.4	14.1	20.6	17.8	19.0
6	10.6	9.7	10.1	12.0	9.7	10.6	20.9	12.5	16.5	19.8	15.1	17.4
7	9.7	7.5	8.4	11.0	7.2	9.0	20.9	15.0	18.0	21.8	13.1	17.3
8	7.5	6.0	6.8	12.2	6.3	8.9	19.2	16.6	18.1	21.5	16.0	18.8
9	7.7	5.3	6.3	12.0	6.7	8.8	20.5	16.9	18.3	19.3	16.6	17.5
10	10.1	6.3	7.7	12.3	5.8	8.8	18.2	14.1	15.9	21.5	16.8	18.8
11	8.3	5.6	6.8	12.3	7.9	9.9	18.2	11.9	14.9	23.6	19.7	21.4
12	9.8	5.0	7.2	10.3	8.6	9.7	15.9	13.1	14.6	23.9	20.1	21.4
13	8.8	7.1	8.0	9.3	8.4	8.9	17.2	13.4	15.2	22.9	19.4	20.9
14	8.8	4.6	6.9	8.3	6.5	7.2	18.5	16.2	17.2	26.9	20.5	22.7
15	4.4	1.4	2.3	10.5	5.2	7.9	21.8	17.2	19.2	26.1	19.0	22.2
16	3.9	1.4	2.6	13.8	8.7	11.1	23.3	16.9	19.8	27.2	22.6	24.8
17	3.4	2.5	3.0	12.0	10.4	11.3	24.4	16.3	20.3	28.8	23.5	26.0
18	8.5	2.2	5.7	10.4	9.5	10.2	21.8	17.4	19.7	25.7	23.1	24.3
19	9.4	8.5	8.9	13.0	8.5	10.5	18.8	15.2	16.6	23.3	21.6	22.5
20	9.9	7.4	8.6	13.0	10.7	12.0	15.1	13.2	14.3	24.5	20.8	22.3
21	9.9	7.0	8.5	18.4	11.9	14.9	14.1	12.3	13.1	25.2	20.6	22.9
22	11.9	7.6	9.4	16.0	14.1	15.1	18.4	10.8	14.3	25.6	21.3	23.3
23	10.9	6.4	8.5	18.0	13.8	15.8	17.0	13.1	14.9	26.7	22.5	24.2
24	9.9	6.1	8.1	16.1	12.2	14.4	18.5	12.5	15.5	28.6	21.5	24.8
25	8.9	6.7	7.9	16.4	13.8	15.0	16.9	13.5	15.2	26.7	21.9	24.3
26	9.2	4.9	6.8	16.2	14.8	15.6	22.6	14.3	18.1	25.8	23.6	24.7
27	9.8	5.2	7.2	17.2	16.2	16.7	19.7	17.3	18.5	27.0	21.1	24.5
28	12.0	5.7	8.5	17.3	14.2	15.8	19.6	16.9	18.1	29.6	23.9	26.5
29	---	---	---	15.1	10.2	13.0	20.0	17.3	18.6	29.3	23.2	26.1
30	---	---	---	14.1	7.8	10.6	22.9	17.1	19.8	30.1	23.1	26.4
31	---	---	---	14.0	8.1	10.9	---	---	---	30.3	23.1	26.8
MONTH	12.0	1.4	7.2	18.4	5.2	11.4	24.4	9.3	16.2	30.3	13.1	22.2

MILL CREEK BASIN

03294550 MILL CREEK CUTOFF NEAR LOUISVILLE, KY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	28.9	23.3	26.3	31.5	26.6	29.2	26.6	21.8	24.3	28.9	24.2	26.4
2	30.6	23.4	26.8	---	---	---	27.5	20.7	24.1	29.5	23.7	26.6
3	29.2	24.1	26.7	---	---	---	27.4	21.1	24.3	27.4	23.8	25.6
4	27.8	23.4	25.4	27.3	23.7	25.2	25.0	22.2	23.6	24.9	21.9	23.6
5	26.0	19.7	22.9	28.0	21.8	24.8	23.0	20.8	21.9	26.1	23.0	24.5
6	25.0	19.0	22.1	28.3	23.3	25.9	24.5	19.4	21.8	27.3	23.0	25.0
7	24.8	18.7	22.0	29.6	24.3	27.1	26.3	20.3	22.9	26.8	20.7	24.0
8	26.3	19.0	22.6	27.4	24.3	25.9	26.4	21.4	23.9	25.5	19.7	23.0
9	26.5	19.3	23.0	27.3	21.9	24.5	26.8	21.4	23.5	24.2	21.6	22.9
10	26.2	19.8	23.1	27.3	23.9	25.7	29.2	22.5	25.4	26.2	21.6	23.7
11	25.0	21.3	23.1	27.3	25.1	26.2	27.3	20.2	23.7	26.9	21.9	24.2
12	27.5	21.6	24.1	29.0	24.5	26.7	25.3	19.3	22.7	26.5	21.3	24.1
13	29.3	22.7	25.6	30.4	23.7	26.9	23.5	19.7	21.9	27.9	22.5	25.2
14	28.5	23.1	25.8	29.0	23.0	25.8	25.0	18.5	21.8	27.5	22.6	25.2
15	28.8	22.5	25.7	28.3	21.7	25.3	26.8	18.4	22.6	27.2	21.9	24.7
16	26.1	24.0	25.1	29.3	22.1	25.8	27.2	20.8	24.0	27.4	23.0	25.3
17	25.1	21.2	23.4	28.9	22.8	26.2	25.3	21.0	23.5	26.1	21.9	24.3
18	28.9	24.0	26.0	28.6	22.9	26.0	28.8	21.8	25.3	23.8	16.5	21.5
19	30.0	24.3	27.0	29.5	24.3	26.8	25.6	22.3	24.0	22.2	16.6	19.6
20	30.6	25.0	27.6	29.5	24.3	27.0	24.7	19.9	22.1	18.6	14.2	16.6
21	27.4	24.2	25.9	29.2	24.1	26.8	26.0	20.1	23.1	19.5	13.2	16.5
22	29.3	24.5	26.5	29.1	24.7	26.9	26.4	20.6	23.7	17.9	15.4	16.8
23	28.4	24.5	26.4	28.2	24.5	26.3	26.6	21.6	24.2	21.3	16.5	18.6
24	30.0	22.3	26.0	27.3	23.5	25.4	26.7	22.0	24.5	18.5	15.1	16.4
25	29.6	23.3	26.4	24.6	22.0	23.4	26.5	22.3	24.6	20.5	14.9	17.3
26	29.9	23.8	26.8	27.4	21.3	24.1	24.8	22.7	23.5	20.1	15.1	17.5
27	30.0	23.8	27.1	26.5	21.9	24.2	25.0	21.9	23.2	19.7	13.2	16.6
28	29.2	25.5	27.5	24.3	21.2	22.9	29.4	22.0	26.0	20.7	15.1	17.9
29	31.1	24.4	27.6	26.2	20.4	23.2	29.7	22.7	26.5	21.5	16.0	18.8
30	31.9	25.3	28.7	28.0	22.3	25.0	29.6	25.3	27.1	22.3	16.5	19.5
31	---	---	---	27.7	21.8	24.8	29.2	22.7	26.2	---	---	---
MONTH	31.9	18.7	25.4	---	---	---	29.7	18.4	23.9	29.5	13.2	21.7

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	19.3	8.0	14.4	18.1	8.5	14.3	12.6	8.8	10.7	12.3	12.1	12.2
2	18.7	9.6	14.6	19.8	9.2	15.2	11.0	8.6	9.7	12.3	11.9	12.0
3	16.0	9.4	13.0	19.9	9.9	15.9	9.7	8.7	9.0	12.1	11.5	11.9
4	11.7	2.8	4.2	18.6	10.3	15.4	10.0	9.1	9.7	12.0	11.6	11.8
5	5.4	2.4	3.7	15.7	5.7	9.7	10.8	9.5	10.0	12.4	11.2	12.0
6	7.6	2.5	4.9	14.2	5.3	9.4	11.0	9.4	10.1	11.9	11.6	11.7
7	8.4	2.6	5.7	15.8	7.0	11.5	11.0	9.5	10.2	12.1	11.6	11.9
8	11.3	2.7	7.1	15.6	6.4	11.8	11.0	9.5	10.2	11.5	10.4	11.3
9	8.7	2.8	5.5	13.0	6.7	8.5	11.4	9.3	10.4	11.2	10.3	10.8
10	4.0	3.4	3.7	8.3	6.8	7.6	11.7	9.2	10.6	10.7	10.1	10.3
11	6.3	3.8	4.9	10.0	6.2	7.8	12.1	9.2	10.8	10.5	9.1	9.9
12	7.0	4.1	5.4	11.6	6.0	8.8	12.6	9.1	10.9	9.5	9.0	9.2
13	8.4	3.9	6.1	13.2	7.0	10.2	13.8	8.7	11.4	9.5	9.1	9.3
14	10.5	4.6	7.5	14.6	7.4	11.2	15.0	9.7	12.4	9.1	8.5	8.9
15	12.7	4.6	9.0	15.7	7.0	11.8	13.0	9.2	9.8	8.5	7.5	8.0
16	14.2	5.2	10.2	16.6	7.1	12.0	10.1	9.3	9.7	8.2	6.8	7.3
17	16.4	5.7	11.4	16.3	6.3	12.0	10.7	9.5	10.0	7.1	6.7	6.9
18	12.2	5.1	8.6	17.0	7.7	13.5	9.8	9.1	9.6	7.0	6.5	6.7
19	14.5	6.8	10.6	14.6	7.8	12.0	10.4	9.9	10.2	6.7	5.9	6.3
20	15.9	7.5	12.5	17.2	7.3	13.0	9.9	9.3	9.6	6.2	5.5	5.7
21	16.3	7.1	12.7	17.5	8.5	14.2	10.4	9.5	10.0	6.8	5.6	6.3
22	13.5	6.1	7.2	15.0	6.6	8.8	9.6	9.3	9.4	6.4	5.6	6.0
23	8.4	6.1	7.0	9.2	6.6	7.6	11.5	9.5	11.0	6.1	4.9	5.5
24	10.4	4.9	7.4	11.6	6.2	8.7	12.0	11.4	11.6	6.5	4.5	5.5
25	12.2	6.4	9.1	12.1	7.1	9.6	12.2	11.8	12.0	7.5	5.8	6.5
26	13.1	7.2	10.3	12.5	6.9	9.6	12.5	11.7	12.2	8.2	5.9	6.9
27	14.5	7.0	11.2	13.9	6.5	10.2	12.5	12.0	12.2	8.7	6.6	7.4
28	15.3	7.4	12.1	7.9	6.5	7.3	12.4	11.9	12.2	8.7	7.9	8.4
29	16.0	8.0	12.7	9.6	7.1	8.2	12.1	10.4	11.5	9.4	8.2	8.6
30	17.0	8.1	13.3	10.6	7.6	8.8	11.1	9.5	10.4	9.0	8.1	8.7
31	17.6	8.4	13.9	---	---	---	12.3	11.1	11.7	10.3	9.0	9.6
MONTH	19.3	2.4	9.0	19.9	5.3	10.8	15.0	8.6	10.3	12.4	4.5	8.8

MILL CREEK BASIN

03294550 MILL CREEK CUTOFF NEAR LOUISVILLE, KY--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10.8	9.5	10	15.6	10.3	12.3	14.1	8.6	11.2	11.7	6.3	8.8
2	11.2	9.6	10	12.7	8.4	10.2	12.9	8.1	10.8	12.7	7.0	9.4
3	11.8	9.5	11	13.3	7.9	10.2	13.0	7.0	9.6	12.9	6.2	8.9
4	12.7	9.5	11	17.1	9.5	12.8	9.8	6.5	7.8	12.7	5.5	7.9
5	11.1	7.3	9.6	16.5	10.1	13.0	12.3	5.8	8.8	6.6	4.8	5.8
6	7.7	7.3	7.5	10.3	6.7	8.2	13.4	5.1	9.1	6.2	5.2	5.6
7	8.6	7.4	8.1	11.1	7.2	8.8	13.5	5.6	9.1	7.9	5.4	6.5
8	9.5	8.3	8.7	13.6	7.3	10.2	7.1	4.5	6.2	8.8	5.5	6.9
9	10.0	8.6	9.0	14.5	7.0	10.4	7.7	4.4	5.9	7.2	5.2	6.6
10	10.6	8.1	9.2	15.5	7.4	11.1	10.2	5.1	7.4	7.0	6.1	6.6
11	11.1	7.9	9.4	16.0	7.8	11.3	11.9	5.4	8.4	7.7	5.4	6.4
12	12.2	7.9	9.9	12.2	6.9	9.1	11.1	6.0	8.3	8.1	4.9	6.3
13	9.5	7.4	8.3	8.1	7.9	8.0	7.3	6.8	7.1	6.6	6.1	6.3
14	9.5	8.2	8.9	8.8	7.9	8.4	7.5	6.3	6.8	7.6	5.5	6.4
15	11.5	9.5	10.6	11.0	8.0	9.4	9.0	6.2	7.3	7.4	5.8	6.5
16	11.9	10.4	11.1	11.7	7.5	9.3	9.7	5.9	7.5	6.9	5.3	5.9
17	11.1	10.1	10.5	9.5	6.5	7.8	12.7	5.7	9.0	7.1	4.6	5.6
18	10.7	9.1	10.0	8.0	7.2	7.6	13.4	6.2	9.7	6.7	3.2	5.0
19	9.5	9.0	9.2	10.6	7.5	8.6	8.3	6.1	7.7	9.7	3.6	6.1
20	11.2	9.1	9.9	9.6	6.7	7.9	8.6	7.0	7.8	10.9	3.6	6.7
21	11.9	9.2	10.3	12.5	6.3	8.8	11.7	7.2	9.4	11.3	4.0	7.6
22	12.1	8.8	10.3	7.4	6.6	6.9	13.3	7.8	10.5	12.2	3.2	7.5
23	13.1	8.6	10.8	7.7	6.7	7.2	13.1	7.6	10.1	6.7	1.0	3.2
24	13.9	8.9	11.3	9.2	7.0	8.1	11.1	7.7	9.0	11.9	2.1	6.3
25	13.9	8.9	11.6	9.2	6.3	7.4	11.2	5.9	8.3	12.3	3.2	6.2
26	15.6	9.6	12.5	9.2	7.2	8.3	13.6	6.8	9.8	7.1	1.6	3.8
27	16.5	9.9	13.0	7.8	6.1	6.9	12.2	7.2	9.1	5.9	1.6	4.0
28	17.5	10.3	13.6	10.6	7.2	8.4	12.4	6.9	9.0	9.6	2.3	5.2
29	---	---	---	10.0	6.8	8.6	9.8	6.7	8.1	12.6	2.1	6.6
30	---	---	---	12.3	8.4	10.3	10.9	6.3	8.3	15.7	2.3	8.4
31	---	---	---	13.2	8.6	11.0	---	---	---	18.1	2.5	10.0
MONTH	17.5	7.3	10.2	17.1	6.1	9.2	14.1	4.4	8.6	18.1	1.0	6.5
		JUNE			JULY			AUGUST			SEPTEMBER	
1	19.3	2.5	10.4	10.1	7.8	9.0	---	---	---	---	---	---
2	19.5	2.3	11.3	---	---	---	11.1	2.9	5.9	---	---	---
3	19.5	1.5	10.8	---	---	---	16.5	2.6	7.5	---	---	---
4	18.4	1.3	10.2	---	---	---	8.0	2.3	5.6	---	---	---
5	18.3	1.1	10.2	14.6	.3	9.7	6.7	3.1	5.3	5.9	4.7	5.3
6	18.0	1.7	10.5	14.6	.9	9.5	---	---	---	8.3	3.9	5.7
7	17.8	1.4	10.3	14.5	.8	8.7	---	---	---	11.0	3.9	7.1
8	19.2	1.4	10.3	14.5	.9	7.3	---	---	---	12.9	4.2	8.3
9	18.3	1.1	10.0	14.5	.7	8.0	---	---	---	12.3	4.3	8.0
10	18.9	1.9	10.0	10.1	1.2	3.1	---	---	---	13.8	4.7	8.9
11	17.3	2.3	9.2	2.9	.4	1.4	---	---	---	16.2	4.8	10.3
12	18.4	2.4	9.6	7.5	.5	3.5	---	---	---	17.6	5.2	11.4
13	18.6	2.4	9.9	14.5	1.0	7.9	---	---	---	19.3	5.0	12.3
14	17.1	2.4	9.7	14.4	4.1	10.5	---	---	---	20.4	5.3	14.1
15	17.9	3.8	10.3	14.4	3.4	11.1	---	---	---	20.1	4.7	12.9
16	16.6	2.7	9.3	14.4	2.5	10.9	---	---	---	20.0	4.2	12.4
17	17.2	2.6	8.6	14.4	2.2	11.0	---	---	---	20.3	4.1	12.4
18	10.5	2.0	5.2	14.4	2.0	10.8	---	---	---	12.6	4.9	8.7
19	8.2	4.0	5.6	14.4	1.3	10.3	---	---	---	12.8	3.7	7.8
20	11.4	2.6	6.0	14.4	1.2	9.9	---	---	---	17.9	4.5	11.1
21	8.0	4.3	5.8	14.4	.7	9.8	---	---	---	19.1	5.8	12.5
22	7.9	6.1	6.8	14.3	.7	9.5	---	---	---	15.7	5.7	10.8
23	9.7	5.6	7.4	14.3	.3	9.0	---	---	---	18.9	4.6	11.8
24	13.9	5.7	9.8	14.3	.7	8.9	---	---	---	13.8	5.2	9.7
25	23.0	6.9	14.5	13.2	.4	6.5	---	---	---	11.0	4.9	7.9
26	23.3	8.5	16.2	16.5	1.6	8.4	---	---	---	16.2	4.7	9.9
27	19.9	9.7	14.9	10.9	.9	5.7	---	---	---	17.5	5.0	11.3
28	17.5	8.2	12.7	5.9	2.1	4.5	---	---	---	18.9	4.6	11.8
29	15.1	8.0	10.9	7.3	3.7	6.0	---	---	---	19.9	4.7	12.6
30	11.9	8.1	9.4	8.9	5.8	7.6	---	---	---	19.9	4.7	12.7
31	---	---	---	10.3	7.8	9.2	---	---	---	---	---	---
MONTH	23.3	1.1	9.9	---	---	---	---	---	---	---	---	---

MILL CREEK BASIN

03294570 MILL CREEK AT ORELL ROAD NEAR LOUISVILLE, KY

WATER-QUALITY RECORDS

LOCATION.--Lat 38°04'41", long 85°53'24", Jefferson County, Hydrologic Unit 05140101, at bridge on Orell Road, and at mile 1.5.

DRAINAGE AREA.-- 13.5 mi^2.

PERIOD OF RECORD.--February 1988 to current year.

REMARKS.--Samples were collected monthly.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
OCT						
03...	0955	0.99	667	7.5	17.5	7.8
NOV						
05...	0915	1.1	605	7.5	14.5	6.1
DEC						
04...	0920	17	172	7.7	8.0	8.8
JAN						
07...	1005	117	111	7.7	8.0	9.4
FEB						
05...	0910	2.9	407	7.5	8.0	11.2
MAR						
05...	0910	3.7	407	7.2	6.0	11.8
APR						
02...	0905	2.0	351	7.5	9.5	9.0
MAY						
02...	0910	1.7	515	7.9	15.5	6.6
JUN						
04...	0840	2.2	582	7.7	24.5	4.7
JUL						
02...	0910	0.31	585	7.8	27.0	5.2
AUG						
01...	0920	1.2	756	7.9	22.5	6.1
SEP						
04...	0940	2.3	373	7.5	23.0	5.8

SALT RIVER BASIN

03295400 SALT RIVER AT GLENSBORO, KY

LOCATION.--Lat 38°00'07", long 85°03'38", Anderson County, Hydrologic Unit 05140102, on downstream left side of stream at bridge on Highway 53 at Glensboro, 0.9 mi upstream from Timber Creek, 2.0 mi downstream from Indian Creek and at mile 82.5.

DRAINAGE AREA.--172 mi^2.

PERIOD OF RECORD.--May 1989 to current year.

GAGE.--Water-stage recorder. Datum of gage undetermined.

REMARKS.--No estimated daily discharges. Records good. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	63	151	1280	167	133	222	35	46	30	13	65
2	14	54	134	607	144	127	187	34	35	279	11	36
3	13	47	2170	444	124	122	163	30	29	68	10	16
4	743	41	1040	336	110	116	116	25	711	149	9.5	12
5	478	36	424	393	125	128	336	27	379	64	8.7	11
6	248	35	308	1060	3180	119	170	31	142	39	8.4	12
7	121	34	242	3430	1950	129	110	31	73	39	8.5	12
8	56	33	193	1360	715	140	79	24	50	299	8.6	11
9	88	34	157	665	418	122	90	185	34	1430	8.6	10
10	400	485	119	498	323	97	122	163	30	1430	8.6	12
11	259	512	94	548	261	79	81	100	21	703	11	17
12	195	296	79	656	217	82	88	71	18	429	11	13
13	321	216	71	500	371	786	447	45	17	625	17	11
14	294	155	64	411	1720	390	272	82	17	351	18	8.7
15	207	112	312	341	800	249	837	110	15	180	14	7.6
16	136	89	322	310	391	203	547	78	15	114	14	6.2
17	82	76	562	263	314	216	261	76	14	74	12	5.1
18	395	68	9220	208	2010	686	179	45	17	50	11	4.5
19	315	62	5840	174	1600	421	141	48	20	36	11	4.3
20	208	51	1110	154	834	295	116	52	27	29	29	3.8
21	135	48	662	131	499	265	92	494	24	34	15	3.6
22	487	152	1990	102	374	3190	81	237	17	27	12	3.4
23	1100	802	1750	94	301	2470	74	391	32	21	13	3.1
24	480	446	1300	84	253	816	73	238	40	19	14	2.9
25	333	295	652	80	228	449	62	98	27	18	14	3.2
26	273	223	452	72	202	351	54	56	564	17	12	6.2
27	224	174	372	69	181	317	45	52	324	16	11	15
28	182	160	1450	282	154	904	39	412	117	15	10	14
29	139	190	1330	168	---	384	41	183	61	15	9.2	10
30	99	189	3970	251	---	291	37	128	39	16	9.3	7.8
31	77	---	5630	220	---	254	---	82	---	15	91	---
TOTAL	8117	5178	42170	15191	17966	14331	5162	3663	2955	6631	453.4	347.4
MEAN	262	173	1360	490	642	462	172	118	98.5	214	14.6	11.6
MAX	1100	802	9220	3430	3180	3190	837	494	711	1430	91	65
MIN	13	33	64	69	110	79	37	24	14	15	8.4	2.9
CFSM	1.52	1.00	7.91	2.85	3.73	2.69	1.00	.69	.57	1.24	.09	.07
IN.	1.76	1.12	9.12	3.29	3.89	3.10	1.12	.79	.64	1.43	.10	.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1991, BY WATER YEAR (WY)

MEAN	199	184	741	505	595	281	165	238	182	136	51.2	59.7
MAX	262	196	1360	521	642	462	172	358	308	214	79.5	124
(WY)	1991	1990	1991	1990	1991	1991	1991	1990	1989	1991	1990	1989
MIN	137	173	123	490	548	99.9	158	118	98.5	43.6	14.6	11.6
(WY)	1990	1991	1990	1991	1990	1990	1990	1991	1991	1990	1991	1991

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1989 - 1991	
ANNUAL TOTAL	115153.9		122164.8			
ANNUAL MEAN	315		335		268	
HIGHEST ANNUAL MEAN					335	1991
LOWEST ANNUAL MEAN					202	1990
HIGHEST DAILY MEAN	9220	Dec 18	9220	Dec 18	9220	Dec 18 1990
LOWEST DAILY MEAN	2.8	Jul 11	2.9	Sep 24	2.8	Jul 11 1990
ANNUAL SEVEN-DAY MINIMUM	4.5	Aug 15	3.5	Sep 19	3.5	Sep 19 1991
INSTANTANEOUS PEAK FLOW			11600	Dec 18	11600	Dec 18 1990
INSTANTANEOUS PEAK STAGE			10.44	Dec 18	10.50	Feb 15 1989
ANNUAL RUNOFF (CFSM)	1.83		1.95		1.56	
ANNUAL RUNOFF (INCHES)	24.91		26.42		21.19	
10 PERCENT EXCEEDS	655		706		548	
50 PERCENT EXCEEDS	107		116		79	
90 PERCENT EXCEEDS	13		12		13	

SALT RIVER BASIN

03295890 BRASHEARS CREEK AT TAYLORSVILLE, KY

LOCATION.--Lat 38°02'13", long 85°20'27", Spencer County, Hydrologic Unit 05140102, on left bank at downstream side of bridge on State Highway 155, at the north edge of Taylorsville, 1.2 mi upstream from Salt River, and at mile 1.2.

DRAINAGE AREA.--259 mi^2.

PERIOD OF RECORD.--July 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 466.85 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 21-28 and Mar. 3-7. Records good except for periods of estimated record, which are fair. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.1	75	166	1660	644	193	189	77	143	147	1.8	2.4
2	22	67	153	998	494	202	168	67	103	103	1.5	1.5
3	12	60	2440	703	395	180	150	58	91	59	1.2	1.6
4	1540	53	2110	523	324	170	137	53	84	40	.81	14
5	910	49	979	444	295	160	149	52	67	31	.81	7.5
6	343	48	660	1150	3990	840	155	53	50	24	.84	5.2
7	202	49	477	3560	3940	560	137	53	40	19	1.2	3.7
8	138	52	357	1830	1630	363	126	49	33	15	1.3	2.6
9	105	58	285	1100	1020	291	121	57	44	64	1.3	2.2
10	624	99	226	785	736	248	118	150	62	699	1.5	3.1
11	444	246	174	800	554	214	110	160	35	762	1.4	3.6
12	246	174	152	1150	442	200	100	113	22	331	1.3	16
13	173	142	140	853	509	949	213	90	18	188	1.4	26
14	135	124	124	665	2620	1310	313	76	14	114	1.5	14
15	109	110	473	545	1550	818	251	88	11	77	1.3	7.3
16	87	100	1150	569	864	590	259	69	8.4	55	1.1	4.4
17	71	90	918	523	669	485	200	98	70	39	.97	3.4
18	67	85	11600	448	2120	923	167	88	426	29	1.3	2.4
19	68	80	6950	366	2060	821	153	68	246	31	2.4	1.8
20	76	74	1670	318	1180	608	145	69	116	69	6.4	1.5
21	67	70	1110	270	836	502	129	54	73	32	8.9	1.2
22	86	109	2170	230	645	1680	115	47	57	21	6.1	.97
23	442	1010	2170	200	504	5190	104	42	46	14	11	.78
24	396	745	1490	170	413	1480	104	43	38	10	8.5	.92
25	272	473	926	150	349	857	104	45	31	7.5	6.1	1.0
26	202	335	659	130	290	621	96	40	26	5.8	4.1	1.1
27	159	264	506	120	243	514	85	149	21	4.7	2.9	.90
28	132	231	559	527	213	401	78	301	18	3.7	11	.70
29	112	239	1490	444	---	313	77	171	15	3.0	12	.54
30	97	195	5750	768	---	260	78	291	13	2.7	3.6	.54
31	85	---	7960	983	---	214	---	212	---	1.9	3.3	---
TOTAL	7431.1	5506	55994	22982	29529	22157	4331	2983	2021.4	3002.3	108.83	132.85
MEAN	240	184	1806	741	1055	715	144	96.2	67.4	96.8	3.51	4.43
MAX	1540	1010	11600	3560	3990	5190	313	301	426	762	12	26
MIN	9.1	48	124	120	213	160	77	40	8.4	1.9	.81	.54
CFSM	.93	.71	6.97	2.86	4.07	2.76	.56	.37	.26	.37	.01	.02
IN.	1.07	.79	8.04	3.30	4.24	3.18	.62	.43	.29	.43	.02	.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1991, BY WATER YEAR (WY)

MEAN	42.1	211	542	453	913	520	438	460	157	76.2	25.6	10.0
MAX	240	586	1806	801	1984	782	801	1912	547	219	108	30.5
(WY)	1991	1986	1991	1990	1989	1989	1989	1983	1990	1989	1985	1990
MIN	.012	3.97	116	47.0	351	60.5	48.3	47.1	1.90	6.49	.030	.001
(WY)	1989	1988	1990	1986	1983	1983	1986	1986	1988	1983	1985	1983

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1981 - 1991	
ANNUAL TOTAL	221459.5		156178.48			
ANNUAL MEAN	607		428		318	
HIGHEST ANNUAL MEAN					454	1990
LOWEST ANNUAL MEAN					201	1988
HIGHEST DAILY MEAN	20700	Feb 16	11600	Dec 18	20700	Feb 16 1990
LOWEST DAILY MEAN	1.2	Aug 20	.54	Sep 29	.00	Aug 19 1983
ANNUAL SEVEN-DAY MINIMUM	1.9	Aug 15	.81	Sep 24	.00	Aug 19 1983
INSTANTANEOUS PEAK FLOW			16300	Dec 18	26200	Feb 16 1990
INSTANTANEOUS PEAK STAGE			22.71	Dec 18	27.55	Feb 16 1990
ANNUAL RUNOFF (CFSM)	2.34		1.65		1.23	
ANNUAL RUNOFF (INCHES)	31.81		22.43		16.67	
10 PERCENT EXCEEDS	1490		981		757	
50 PERCENT EXCEEDS	174		118		69	
90 PERCENT EXCEEDS	9.0		2.4		.70	

SALT RIVER BASIN

03297845 FLOYDS FORK NEAR CRESTWOOD, KY

LOCATION.--Lat 38°17'55", long 85°25'36", Shelby County, Hydrologic Unit 05140101, on left bank at upstream side of bridge on State Highway 1408, 3 mi southeast of Crestwood, 2.8 mi upstream from Curry's Fork, and at mile 50.7.

DRAINAGE AREA.--46.7 mi^2.

PERIOD OF RECORD.--October 1979 to September 1991. (discontiuned)

GAGE.--Water-stage recorder. Datum of gage is 616.80 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Mar. 13-25. Records good except for periods of estimated record, which are fair. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.93	1.6	8.0	119	67	31	30	13	2.7	7.5	.00	.00
2	.79	1.4	6.1	76	56	42	26	8.5	8.6	4.6	.00	.00
3	.89	1.8	886	58	49	33	23	6.6	14	1.5	.00	.00
4	286	2.0	170	45	43	28	23	6.0	5.2	.38	.00	.00
5	39.4	3.4	68	49	51	25	27	9.2	2.3	.09	.00	.00
6	4.2	4.9	49	475	968	181	24	16	1.4	.03	.00	.00
7	2.3	5.1	38	778	494	126	20	13	1.0	.08	.00	.00
8	1.5	3.8	30	184	144	61	20	7.1	.94	.14	.00	.00
9	73.3	4.9	25	96	93	49	27	56	.83	.33	.00	.00
10	677	134	21	70	71	40	31	54	.82	.78	.00	.00
11	53	30	19	268	55	36	20	27	.80	1.0	.00	.00
12	21	13	17	210	48	38	17	18	.74	1.5	.00	.00
13	8.4	6.2	16	99	235	946	163	12	.52	2.5	.00	.00
14	4.2	3.9	13	72	825	380	60	18	.44	1.8	.00	.00
15	2.9	2.8	440	56	142	170	57	36	.32	1.2	.00	.00
16	1.5	2.3	138	99	82	65	42	16	.31	.80	.00	.00
17	1.0	2.3	247	68	69	130	34	8.4	.28	.56	.00	.00
18	1.3	2.3	2590	56	623	250	29	5.8	.40	.38	.00	.00
19	1.6	1.9	385	49	214	125	30	4.7	.56	.12	.00	.00
20	1.8	1.6	120	43	130	76	29	4.0	.60	.00	.00	.00
21	1.8	1.3	126	36	86	300	23	3.6	.50	.00	.00	.00
22	230	127	565	32	69	1800	21	3.2	.16	.00	.00	.00
23	139	232	378	32	55	600	18	6.1	.10	.00	.00	.00
24	35	43	145	30	49	200	27	4.7	.08	.00	.00	.00
25	20	24	75	27	43	77	22	2.6	.06	.00	.00	.00
26	9.8	15	54	26	40	68	18	2.3	.00	.00	.00	.00
27	5.6	10	46	33	36	68	16	2.9	.00	.00	.00	.00
28	4.6	27	53	237	31	52	16	3.3	.00	.00	.00	.00
29	3.2	24	583	70	---	44	18	3.8	.00	.00	.00	.00
30	2.3	12	1590	320	---	36	18	3.7	.00	.00	.00	.00
31	1.8	---	431	117	---	31	---	2.8	---	.00	.00	---
TOTAL	1636.11	744.5	9333.1	3930	4868	6108	929	378.3	43.66	25.29	0.00	0.00
MEAN	52.8	24.8	301	127	174	197	31.0	12.2	1.46	.82	.000	.000
MAX	677	232	2590	778	968	1800	163	56	14	7.5	.00	.00
MIN	.79	1.3	6.1	26	31	25	16	2.3	.00	.00	.00	.00
CFSM	1.13	.53	6.45	2.71	3.72	4.22	.66	.26	.03	.02	.00	.00
IN.	1.30	.59	7.43	3.13	3.88	4.87	.74	.30	.03	.02	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1991, BY WATER YEAR (WY)

MEAN	12.9	53.6	103	68.6	123	104	84.5	74.5	33.1	18.3	7.31	2.04
MAX	55.8	165	301	147	295	197	148	272	159	77.8	28.2	12.3
(WY)	1984	1984	1991	1982	1989	1991	1989	1983	1990	1989	1989	1982
MIN	.000	.000	10.4	3.88	55.3	14.6	7.75	2.77	.13	.82	.000	.000
(WY)	1988	1988	1981	1981	1980	1983	1986	1985	1988	1991	1991	1987

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1980 - 1991	
ANNUAL TOTAL	37905.48		27995.96			
ANNUAL MEAN	104		76.7		56.7	
HIGHEST ANNUAL MEAN					82.5	1989
LOWEST ANNUAL MEAN					33.2	1987
HIGHEST DAILY MEAN	2590	Dec 18	2590	Dec 18	3030	Dec 24 1979
LOWEST DAILY MEAN	.00	Aug 9	.00	Jun 26	.00	Oct 7 1980
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 9	.00	Jul 20	.00	Oct 7 1980
INSTANTANEOUS PEAK FLOW			5300	Mar 23	5370	Apr 4 1989
INSTANTANEOUS PEAK STAGE			25.75	Mar 22	25.75	Mar 22 1991
ANNUAL RUNOFF (CFSM)	2.22		1.64		1.21	
ANNUAL RUNOFF (INCHES)	30.19		22.30		16.50	
10 PERCENT EXCEEDS	233		170		109	
50 PERCENT EXCEEDS	22		10		8.7	
90 PERCENT EXCEEDS	.93		.00		.00	

SALT RIVER BASIN

03297980 LONG RUN NEAR FISHERVILLE, KY

WATER-QUALITY RECORDS

LOCATION.--Lat 38°13'10", long 85°26'56", Jefferson County, Hydrologic Unit 05140102, at bridge on State Highway 1531, 0.7 mi below South Long Run and at mile 2.4.

DRAINAGE AREA.-- 22.5 mi^2.

PERIOD OF RECORD.--August 1988 to current year.

REMARKS.--Samples were collected monthly.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
OCT						
16...	1050	6.0	418	7.6	13.0	10.5
NOV						
19...	1100	4.4	579	7.7	8.5	13.0
DEC						
17.	1030	40	454	7.8	7.0	11.4
JAN						
22...	1105	28	540	8.0	2.0	13.5
FEB						
19...	1035	95	392	7.5	8.5	10.9
MAR						
18...	1015	150	335	7.3	9.5	10.3
APR						
15...	1200	30	456	8.4	18.0	10.1
MAY						
20...	1130	2.0	453	8.1	22.0	10.9
JUN						
18...	1145	0.20	334	8.4	29.0	10.4
JUL						
15...	1020	0.25	361	8.0	25.0	10.8

SALT RIVER BASIN

03298000 FLOYDS FORK AT FISHERVILLE, KY

LOCATION.--Lat 38°11'18", long 85°27'37", Jefferson County, Hydrologic Unit 05140102, on left bank on downstream side of bridge on former State Highway 155, at Fisherville, 0.2 mi downstream from Brush Run, 1.4 mi upstream from Pope Lick, and at mile 32.7.

DRAINAGE AREA.--138 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1944 to current year. Monthly discharge only for August 1944, published in WSP 1305.

REVISED RECORDS.--WSP 1275: 1946. WSP 1909: 1945(P), 1948(P), 1960(M).

GAGE.--Water-stage recorder. Datum of gage is 542.60 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Water-discharge records good.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of January 1937 reached a stage of 16.8 ft, from floodmark.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	25	76	496	252	94	91	48	23	4.0	2.2	47
2	2.1	22	68	326	196	122	83	39	46	3.0	2.7	7.9
3	3.1	20	2530	244	160	107	77	32	46	9.8	1.5	4.6
4	1010	17	720	194	138	90	74	29	35	10	.60	8.7
5	224	16	278	210	146	80	80	77	21	5.3	.19	38
6	85	21	190	1240	2640	286	77	108	13	3.8	.09	28
7	47	22	145	2210	1690	508	68	56	8.6	4.1	.07	10
8	30	22	113	645	553	202	69	40	5.1	5.4	.05	5.3
9	422	29	95	373	340	154	75	260	4.0	3.9	.04	3.3
10	1910	380	83	273	253	126	80	239	3.3	131	.05	3.9
11	284	183	75	639	196	110	69	100	2.8	234	2.9	3.8
12	136	96	70	673	162	120	57	72	1.8	54	10	7.7
13	87	71	70	337	296	1590	269	57	1.4	24	6.8	8.0
14	64	56	62	253	640	717	184	48	1.6	13	4.7	2.7
15	47	47	1080	214	724	366	173	52	1.6	10	2.7	2.7
16	35	40	509	291	313	246	146	48	.85	6.9	.87	1.9
17	28	37	541	234	244	283	101	33	.99	4.9	.37	.51
18	24	34	8940	193	1720	1070	85	25	123	5.5	.41	.50
19	22	31	1770	169	779	441	87	21	108	8.2	7.3	1.4
20	18	28	492	164	451	261	86	18	25	11	11	1.3
21	17	25	471	152	274	215	72	17	12	10	6.0	.78
22	522	173	1630	119	199	3890	65	16	8.2	7.5	3.4	.30
23	573	797	1230	120	164	2740	61	52	5.5	4.0	2.7	.22
24	180	221	531	112	143	532	81	34	4.1	2.3	2.5	.36
25	110	132	302	98	125	309	78	21	3.0	1.3	2.4	1.4
26	81	96	220	90	112	236	63	17	2.2	.78	1.7	1.3
27	64	81	184	85	107	224	56	19	2.1	.36	1.5	1.9
28	51	131	244	569	98	178	51	30	2.1	.15	1.0	1.8
29	41	142	1560	270	---	141	55	26	2.2	.09	.83	1.6
30	34	92	5130	747	---	116	56	77	3.2	.08	47	1.3
31	29	---	2370	537	---	98	---	42	---	.21	71	---
TOTAL	6182.7	3087	31779	12277	15115	15652	2669	1753	516.64	578.57	194.57	198.17
MEAN	199	103	1025	396	540	505	89.0	56.5	17.2	18.7	6.28	6.61
MAX	1910	797	8940	2210	2640	3890	269	260	123	234	71	47
MIN	2.1	16	62	85	98	80	51	16	.85	.08	.04	.22
CFSM	1.45	.75	7.43	2.87	3.91	3.66	.64	.41	.12	.14	.05	.05
IN.	1.67	.83	8.57	3.31	4.07	4.22	.72	.47	.14	.16	.05	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1991, BY WATER YEAR (WY)

MEAN	34.3	108	233	277	376	384	286	200	107	61.5	40.3	40.6
MAX	423	485	1025	1252	990	1517	1021	971	588	331	290	1020
(WY)	1978	1974	1991	1950	1956	1964	1970	1983	1973	1973	1979	1979
MIN	.000	.000	.000	3.54	12.4	40.3	34.0	12.2	.90	1.73	.048	.000
(WY)	1949	1954	1954	1977	1954	1954	1959	1965	1988	1954	1962	1948

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1944 - 1991	
ANNUAL TOTAL	126924.07		90002.65			
ANNUAL MEAN	348		247		178	
HIGHEST ANNUAL MEAN					382	1979
LOWEST ANNUAL MEAN					29.0	1954
HIGHEST DAILY MEAN	8940	Dec 18	8940	Dec 18	15400	Mar 9 1964
LOWEST DAILY MEAN	.40	Aug 4	.04	Aug 9	.00	Sep 7 1945
ANNUAL SEVEN-DAY MINIMUM	.83	Jul 31	.16	Aug 4	.00	Sep 7 1945
INSTANTANEOUS PEAK FLOW			11500	Dec 30	28500	Apr 2 1970
INSTANTANEOUS PEAK STAGE			12.87	Dec 30	16.15	Apr 2 1970
ANNUAL RUNOFF (CFSM)	2.52		1.79		1.29	
ANNUAL RUNOFF (INCHES)	34.21		24.26		17.52	
10 PERCENT EXCEEDS	735		531		350	
50 PERCENT EXCEEDS	81		64		31	
90 PERCENT EXCEEDS	2.9		1.6		.30	

03298000 FLOYDS FORK AT FISHERVILLE, KY--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--February 1988 to current year.

REMARKS.--Samples were collected monthly.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
OCT						
16...	1155	34	460	7.6	14.5	9.5
NOV						
19...	1145	30	552	7.9	9.0	11.6
DEC						
17...	1340	344	423	7.7	8.5	11.2
JAN						
22...	1430	124	553	6.7	3.0	7.5
FEB						
19...	1155	631	362	7.7	10.0	10.9
MAR						
18...	1315	1130	375	7.6	9.0	10.0
APR						
15...	1040	163	418	8.3	17.5	8.0
MAY						
20...	1220	19	511	8.1	22.5	6.2
JUN						
18...	1330	3.3	445	8.0	26.5	8.1
JUL						
15...	1125	9.7	450	7.7	25.5	6.2
AUG						
21...	1045	5.2	526	7.6	22.0	6.9
SEP						
16...	1045	2.4	434	7.3	26.5	6.0

SALT RIVER BASIN

03298100 POPE LICK AT POPE LICK ROAD NEAR MIDDLETOWN, KY

WATER-QUALITY RECORDS

LOCATION.--Lat 38°13'09", long 85°31'07", Jefferson County, Hydrologic Unit 05140102, at culvert on Pope Lick Road, and at mile 3.2.

DRAINAGE AREA.-- 2.9 mi^2.

PERIOD OF RECORD.--February 1988 and current year.

REMARKS.--Samples were collected monthly.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
OCT						
16...	0935	1.0	672	7.6	12.5	9.3
NOV						
19...	0930	1.2	694	7.7	9.5	10.2
DEC						
17...	0925	7.4	550	7.7	9.0	10.7
JAN						
22...	0925	2.9	640	7.9	0.5	12.2
FEB						
19...	0930	15	476	7.2	10.5	10.0
MAR						
18...	0915	17	412	7.6	10.5	9.8
APR						
15...	0920	8.2	481	8.0	15.0	8.0
MAY						
20...	0920	1.0	633	7.5	20.0	4.4
JUN						
18...	1010	1.5	547	7.6	22.5	5.7
JUL						
15...	0920	0.73	641	7.6	22.0	6.9
AUG						
21...	0910	0.45	695	7.5	20.0	6.6
SEP						
16...	0930	0.46	700	7.5	24.5	6.2

SALT RIVER BASIN

03298150 CHENOWETH RUN AT GELHAUS LANE NEAR FERN CREEK, KY

WATER-QUALITY RECORDS

LOCATION .--Lat 38°09'36", long 85°32'32", Jefferson County, Hydrologic Unit 05140102, at bridge on Gelhaus Lane, 100 feet above Razor Branch, and at mile 2.3.

DRAINAGE AREA.--11.6 mi^2.

PERIOD OF RECORD.--February 1988 to current year.

REMARKS.--Samples were collected monthly.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
OCT						
09...	0925	59	268	7.7	21.0	7.2
NOV						
13...	0920	7.6	629	7.7	6.5	14.2
DEC						
10...	0920	8.5	622	7.4	4.5	13.8
JAN						
15...	0915	21	558	7.6	5.5	11.8
FEB						
12...	0915	17	568	7.8	5.0	13.7
MAR						
12...	0910	10	573	7.3	7.5	11.7
APR						
09...	0910	7.0	512	8.2	18.5	8.4
MAY						
14...	0905	6.9	601	8.0	20.0	10.0
JUN						
26...	0920	2.7	675	8.4	23.0	10.9
JUL						
24...	1015	2.6	632	8.3	25.0	10.5
AUG						
27...	1030	2.1	710	7.3	24.0	9.6
SEP						
23...	1045	2.3	740	7.7	18.0	10.5

SALT RIVER BASIN

03298200 FLOYDS FORK NEAR MOUNT WASHINGTON, KY

WATER-QUALITY RECORDS

LOCATION.--Lat 38°05'07", long 85°33'18", Jefferson County, Hydrologic Unit 05140102, at bridge on U.S. Highway 31E, 0.2 mi below Old Mans Run, and at mile 18.7.

DRAINAGE AREA.--213 mi^2.

PERIOD OF RECORD.--February 1988 to current year.

REMARKS.--Samples were collected monthly.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
OCT						
15...	1200	75	462	7.5	15.5	8.9
NOV						
20...	1040	41	566	7.7	9.5	11.8
DEC						
13...	1050	99	563	7.4	7.5	11.2
JAN						
28...	1100	1020	476	7.9	0.5	13.3
FEB						
25...	1020	255	526	7.6	5.0	11.5
MAR						
25...	1040	572	442	7.1	12.5	9.7
APR						
23...	1105	76	508	8.6	13.5	8.9
MAY						
28...	1125	57	443	7.8	24.5	5.7
JUN						
17...	1135	9.7	527	7.8	24.5	5.2
JUL						
12...	1050	145	361	7.6	25.0	5.8
AUG						
20...	1020	55	321	7.5	21.0	5.7
SEP						
12...	1040	21	387	7.3	24.0	5.3

SALT RIVER BASIN

03298250 CEDAR CREEK AT THIXTON ROAD NEAR LOUISVILLE, KY

WATER-QUALITY RECORDS

LOCATION.-- Lat 38°04'45", long 85°36'58", Jefferson County, Hydrologic Unit 05140102, at culvert on Thixton Road, 4.2 mi above Pennsylvania Run, and at mile 7.4.

DRAINAGE AREA.--11.1 mi^2.

PERIOD OF RECORD.--February 1988 to current year.

REMARKS.--Samples were collected monthly.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
OCT						
15...	1030	4.7	646	7.6	14.5	10.2
NOV						
20...	0930	4.2	729	7.9	8.0	13.5
DEC						
13...	0920	7.6	679	7.5	8.5	10.9
JAN						
28...	0920	30	416	7.8	4.0	12.0
FEB						
25...	0905	16	573	7.7	7.0	11.2
MAR						
25...	0945	26	483	8.0	11.5	11.9
APR						
23...	0920	5.1	645	8.4	11.5	9.5
MAY						
28...	1015	6.6	452	6.7	2[illegible] 0	6.7
JUN						
17...	0925	1.6	1030	7.9	21.5	7.9
JUL						
12...	0930	12	555	7.4	24.5	6.9
AUG						
20...	0905	0.74	239	7.4	18.5	7.2
SEP						
12...	0920	2.7	531	7.6	22.0	6.4

SALT RIVER BASIN

03298300 PENNSYLVANIA RUN AT MT. WASHINGTON ROAD NEAR LOUISVILLE, KY

WATER-QUALITY RECORDS

LOCATION.--Lat 38°05'15", long 85°38'33", Jefferson County, Hydrologic Unit 05140102, at bridge on Mt. Washington Road, and at mile 1.9.

DRAINAGE AREA.--6.4 mi^2.

PERIOD OF RECORD.--February 1988 to current year.

REMARKS.--Samples were collected monthly.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
OCT						
15...	0930	2.5	462	7.5	15.0	7.1
NOV						
07...	0930	0.91	618	7.7	8.5	7.9
DEC						
05...	0920	13	402	7.6	8.0	10.7
JAN						
14...	0915	18	391	8.2	5.0	11.5
FEB						
11...	0910	14	256	8.0	6.0	11.4
MAR						
11...	0915	4.7	466	7.6	6.5	10.9
APR						
08...	0930	4.0	461	8.2	17.0	7.0
MAY						
28...	0905	7.2	462	7.5	23.0	4.2
JUN						
24...	1055	3.5	462	7.8	23.0	4.9
JUL						
23...	1200	0.63	699	7.4	26.5	3.6
AUG						
26...	1130	0.79	732	7.5	23.0	3.7
SEP						
18...	1140	0.76	769	7.2	22.0	4.1

SALT RIVER BASIN

03298500 SALT RIVER AT SHEPHERDSVILLE, KY

LOCATION.--Lat 37°59'06", long 85°43'03", Bullitt County, Hydrologic Unit 05140102, on downstream side of bridge on State Highway 61 at Shepherdsville, 500 ft downstream from Louisville and Nashville Railroad bridge, 2.6 mi downstream from Floyds Fork, and at mile 22.9.

DRAINAGE AREA.--1,197 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1938 to current year.

REVISED RECORDS.--WSP 893: 1937(M). WSP 1435: 1955: WSP 1705: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 406.58 ft above National Geodetic Vertical Datum of 1929. See WDR KY-90-1 for history of changes prior to Oct. 16, 1969.

REMARKS.--Estimated daily discharges: Dec. 23-28, Jan. 2, Feb. 15-19, Mar. 15-20. Water-discharge records good except for periods of estimated record, which are fair. Flow regulated since January 1983 by Taylorsville Lake (station 03295597).

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 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	263	692	8410	4860	2100	2250	394	471	280	29	862
2	74	242	620	5880	3890	1520	1610	338	380	390	25	214
3	71	208	7520	3510	2870	1220	1480	308	362	358	25	89
4	5200	168	7770	3320	1850	980	1450	272	673	248	24	65
5	3160	155	3330	3670	1530	723	1530	239	382	188	22	151
6	1670	159	3010	7140	10500	641	1350	372	288	160	21	166
7	1370	163	2550	13700	13600	1260	1310	356	244	150	21	117
8	1200	147	2250	9200	9760	1140	993	283	210	143	19	83
9	558	150	2080	6130	7980	965	833	491	194	528	19	64
10	4900	836	1960	5080	6420	912	552	1290	193	2940	23	57
11	2110	1020	980	4770	3730	830	444	883	205	4440	25	95
12	1240	666	632	6000	2660	734	408	702	179	3570	26	110
13	990	477	612	5480	3490	3170	956	587	153	2490	26	70
14	602	1110	578	5520	9740	3430	1180	511	132	2070	19	91
15	475	1250	1730	5820	8820	2590	1000	883	99	1930	15	91
16	440	543	3520	6110	5220	2100	1520	542	76	1840	18	73
17	395	341	2620	6090	4570	1860	1720	480	860	1790	19	64
18	386	322	21400	5420	11600	3690	1950	484	1720	1480	31	61
19	394	305	28500	5110	12200	3570	1850	459	1670	527	45	61
20	378	287	12800	4980	4460	2740	1270	440	776	268	117	58
21	375	270	2380	4930	4270	2050	698	428	2020	282	88	63
22	727	388	8090	4800	3870	8660	484	400	2390	230	52	188
23	2010	3470	12500	4660	3820	15700	425	582	697	165	44	111
24	1770	3140	8500	4670	3300	7120	433	623	468	129	37	73
25	1430	2120	6000	4540	3060	2460	459	616	355	112	34	61
26	1240	1750	5000	4480	2770	3390	419	382	513	68	33	60
27	1140	1560	3500	4440	2600	3540	390	389	357	50	31	65
28	591	987	3000	5560	2520	3130	364	592	603	46	30	71
29	439	1040	6380	5430	---	3200	364	604	679	41	31	71
30	397	829	12400	6170	---	3140	436	540	370	40	237	73
31	323	---	23300	6560	---	2540	---	612	---	35	457	---
TOTAL	36144	24366	196204	177580	155960	91105	30128	16082	17719	26988	1643	3478
MEAN	1166	812	6329	5728	5570	2939	1004	519	591	871	53.0	116
MAX	5200	3470	28500	13700	13600	15700	2250	1290	2390	4440	457	862
MIN	71	147	578	3320	1530	641	364	239	76	35	15	57

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1991, BY WATER YEAR (WY)

MEAN	242	911	1995	2570	3411	3502	2551	1554	896	538	361	393
MAX	1820	4286	8377	12120	12370	12690	9055	9215	5256	3164	2016	9310
(WY)	1978	1958	1979	1950	1989	1964	1972	1983	1950	1958	1942	1979
MIN	.000	.64	1.34	25.6	208	303	377	80.7	38.9	14.3	7.81	.077
(WY)	1954	1944	1944	1944	1954	1941	1986	1941	1988	1944	1943	1953

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1938 - 1991	
ANNUAL TOTAL	885131		777397			
ANNUAL MEAN	2425		2130		1568	
HIGHEST ANNUAL MEAN					3620	1979
LOWEST ANNUAL MEAN					345	1954
HIGHEST DAILY MEAN	39100	Feb 16	28500	Dec 19	73500	Mar 10 1964
LOWEST DAILY MEAN	42	Aug 19	15	Aug 15	.00	Oct 21 1939
ANNUAL SEVEN-DAY MINIMUM	51	Aug 14	21	Aug 11	.00	Oct 20 1940
INSTANTANEOUS PEAK FLOW			31800	Dec 19	78200	Mar 10 1964
INSTANTANEOUS PEAK STAGE			28.02	Dec 19	41.50	Mar 11 1964
10 PERCENT EXCEEDS	6060		5660		3850	
50 PERCENT EXCEEDS	836		679		370	
90 PERCENT EXCEEDS	127		61		37	

03298500 SALT RIVER AT SHEPHERDSVILLE, KY--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948-75, 1979 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1980 to September 1984.
WATER TEMPERATURES: 1949 to 1975, January 1980 to September 1984.
SUSPENDED-SEDIMENT DISCHARGE: 1952 to 1961.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)
OCT 1990											
11...	1045	2280	350	7.6	17.0	8.5	6.4	68	39000	48000	170
DEC											
11...	1100	885	413	7.8	6.5	31	10.3	85	40000	22000	210
FEB 1991											
05...	1050	2080	374	7.7	6.5	21	10.8	89	230	940	190
APR											
02...	1015	2280	344	8.1	10.5	17	8.9	81	190	88	190
MAY											
29...	0930	572	356	8.0	24.0	17	5.2	63	1200	820	170
AUG											
14...	1030	23	429	8.0	25.5	5.9	5.3	65	450	280	190

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	ALKA-LINITY WAT DIS TOT FET FIELD MG/L AS CACO3	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SULFATE DIS-SOLVED (MG/L AS SO4)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT 1990											
11...	54	9.5	5.2	4.9	--	--	141	7.5	27	0.10	6.1
DEC											
11...	67	11	5.6	3.7	--	--	180	8.9	29	0.20	4.3
FEB 1991											
05...	61	9.5	4.9	2.2	197	161	161	9.0	29	0.20	4.6
APR											
02...	61	8.8	4.2	2.7	186	152	151	6.5	34	0.20	3.9
MAY											
29...	53	10	6.5	3.2	178	146	140	7.0	31	0.20	3.2
AUG											
14...	55	12	13	4.4	186	152	153	18	45	0.30	2.5

SALT RIVER BASIN

03298500 SALT RIVER AT SHEPHERDSVILLE, KY--Continued
(National stream-quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
OCT 1990											
11...	206	202	0.010	0.900	0.040	0.030	1.1	0.360	0.260	0.040	80
DEC											
11...	252	239	0.020	1.00	0.220	0.220	0.90	0.250	0.120	0.090	20
FEB 1991											
05...	232	225	0.010	1.60	0.040	0.050	<0.20	0.190	0.140	0.130	--
APR											
02...	195	218	0.010	1.00	0.040	0.040	0.50	0.300	0.190	0.150	20
MAY											
29...	201	206	0.020	0.690	0.060	0.060	0.80	0.240	0.150	0.130	70
AUG											
14...	239	244	0.030	0.240	0.290	0.300	0.80	0.200	0.130	0.130	--

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT 1990											
11...	1	27	0.5	<1.0	<1	<3	<1	90	<1	<4	4
DEC											
11...	1	20	<0.5	<1.0	<1	<3	4	19	1	6	26
FEB 1991											
05...	--	--	--	--	--	--	--	--	--	--	--
APR											
02...	<1	16	<0.5	<1.0	<1	<3	1	50	1	4	20
MAY											
29...	1	25	<0.5	<1.0	<1	<3	16	67	2	<4	30
AUG											
14...	--	--	--	--	--	--	--	--	--	--	--

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 1990											
11...	0.1	<10	<1	<1	<1.0	110	<6	<3	162	997	94
DEC											
11...	0.1	<10	2	<1	<1.0	150	<6	7	24	57	77
FEB 1991											
05...	--	--	--	--	--	--	--	--	20	112	93
APR											
02...	0.9	<10	<1	<1	<1.0	130	<6	<3	38	234	96
MAY											
29...	<0.1	<10	<1	<1	<1.0	140	<6	4	31	48	95
AUG											
14...	--	--	--	--	--	--	--	--	10	0.63	88

SALT RIVER BASIN

03299000 ROLLING FORK NEAR LEBANON, KY

LOCATION.--Lat 37°29'50", long 85°19'26", Marion County, Hydrologic Unit 05140103, on left bank at downstream side of bridge on State Highway 289, 2.2 mi downstream from Buckhorn Creek, 5.4 mi southwest of city limits of Lebanon, 14.0 mi downstream from confluence of North and Big South Forks, and at mile 94.0.

DRAINAGE AREA.--239 mi^2.

PERIOD OF RECORD.--April 1938 to current year.

REVISED RECORDS.--WSP 1705: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 580.71 ft above National Geodetic Vertical Datum of 1929. Prior to May 28, 1953, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 31 to Jan. 25 and July 23 to Aug. 22. Records fair except those for periods of estimated record, which are poor. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	37	134	6000	143	187	489	107	21	5.8	2.4	18
2	3.6	31	120	1200	134	327	396	95	16	4.4	2.1	28
3	2.8	28	3280	780	126	372	336	81	63	4.3	1.8	19
4	110	28	1210	560	119	801	294	69	345	5.4	1.6	15
5	169	26	562	430	378	477	301	104	154	11	1.4	16
6	79	29	456	1600	7490	418	268	178	78	8.4	1.2	15
7	43	37	451	5000	2850	476	233	127	48	5.2	1.1	12
8	30	33	174	4500	1240	367	236	89	36	32	1.0	11
9	27	200	139	1500	676	307	669	152	28	662	1.4	12
10	47	2060	140	540	476	261	952	208	22	243	2.2	12
11	66	556	133	560	352	228	441	143	18	151	3.3	264
12	74	275	121	640	278	217	362	130	17	81	4.8	108
13	263	167	116	560	739	559	733	147	16	131	3.0	49
14	133	117	103	460	2720	479	563	107	14	86	1.7	35
15	84	89	215	390	1180	395	2410	84	14	47	3.5	23
16	60	72	620	330	568	333	1240	74	15	33	8.0	15
17	46	67	928	290	494	448	650	57	15	25	19	10
18	225	59	14800	250	5840	1590	455	58	12	20	45	7.8
19	242	49	5550	220	2880	773	423	50	14	18	110	7.4
20	135	43	1180	200	1720	527	341	135	12	13	90	5.5
21	95	41	899	180	981	425	281	269	127	7.9	60	3.4
22	695	65	3690	165	629	11900	244	122	271	4.9	37	2.5
23	998	961	3760	150	467	5290	211	164	86	4.3	24	1.8
24	381	422	3770	140	365	1410	186	103	44	6.4	17	1.2
25	205	230	3300	130	304	775	163	65	30	10	14	1.6
26	159	151	479	123	266	550	148	44	22	7.6	11	3.7
27	122	120	675	117	225	502	136	100	15	6.0	7.9	14
28	96	249	2880	144	196	651	131	84	12	4.8	5.6	13
29	94	348	1260	139	---	469	128	48	9.5	4.0	4.1	9.6
30	75	183	8250	152	---	624	129	35	7.5	3.3	3.3	7.1
31	43	---	20000	169	---	604	---	27	---	2.8	27	---
TOTAL	4807.2	6773	79395	27619	33836	32742	13549	3256	1582.0	1648.5	515.4	740.6
MEAN	155	226	2561	891	1208	1056	452	105	52.7	53.2	16.6	24.7
MAX	998	2060	20000	6000	7490	11900	2410	269	345	662	110	264
MIN	2.8	26	103	117	119	187	128	27	7.5	2.8	1.0	1.2
CFSM	.65	.94	10.7	3.73	5.06	4.42	1.89	.44	.22	.22	.07	.10
IN.	.75	1.05	12.36	4.30	5.27	5.10	2.11	.51	.25	.26	.08	.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1991, BY WATER YEAR (WY)

MEAN	51.6	211	500	573	742	725	566	350	182	135	71.7	88.4
MAX	462	943	2561	2398	3523	2029	2152	2375	776	819	592	1360
(WY)	1976	1989	1991	1950	1989	1975	1972	1983	1950	1967	1977	1979
MIN	.000	.013	.42	13.8	58.9	97.2	75.5	33.8	.29	2.02	.23	.000
(WY)	1942	1940	1954	1981	1941	1941	1986	1941	1988	1944	1952	1983

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1938 - 1991	
ANNUAL TOTAL	194639.68		206463.7			
ANNUAL MEAN	533		566		348	
HIGHEST ANNUAL MEAN					746	1979
LOWEST ANNUAL MEAN					88.5	1954
HIGHEST DAILY MEAN	20000	Dec 31	20000	Dec 31	26700	Dec 8 1978
LOWEST DAILY MEAN	.47	Jul 10	1.0	Aug 8	.00	Oct 17 1938
ANNUAL SEVEN-DAY MINIMUM	.90	Jul 5	1.4	Aug 3	.00	Sep 18 1939
INSTANTANEOUS PEAK FLOW			26700	Dec 31	54800	Apr 28 1970
INSTANTANEOUS PEAK STAGE			19.92	Dec 31	24.51	Apr 28 1970
ANNUAL RUNOFF (CFSM)	2.23		2.37		1.46	
ANNUAL RUNOFF (INCHES)	30.30		32.14		19.80	
10 PERCENT EXCEEDS	948		969		738	
50 PERCENT EXCEEDS	147		128		85	
90 PERCENT EXCEEDS	5.4		5.5		2.0	

SALT RIVER BASIN

03300400 BEECH FORK AT MAUD, KY

LOCATION.--Lat 37°49'58", long 85°17'46", Nelson County, Hydrologic Unit 05140103, on right bank on downstream side of bridge on State Highway 55, 100 ft upstream from Nealy Run, 0.8 mi north of Maud, 1.7 mi downstream from Chaplin River, and at mile 48.1.

DRAINAGE AREA.--436 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 530.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	126	339	5300	385	297	480	118	179	58	.78	44
2	30	108	278	1150	304	305	424	100	138	50	.66	30
3	26	91	4860	790	274	366	366	85	507	52	.58	22
4	204	78	4660	601	259	331	327	76	1020	164	.49	18
5	1450	70	1110	536	297	448	339	94	760	218	.45	26
6	659	65	584	1780	7720	356	342	109	345	132	.35	24
7	270	60	426	8880	8400	400	295	80	203	83	.12	20
8	155	60	326	4820	2510	462	259	85	140	904	.06	16
9	108	65	262	1350	1130	340	247	338	109	6970	.11	14
10	167	701	221	892	794	307	290	579	82	3260	.13	13
11	497	1660	194	931	612	266	393	347	68	1900	.13	134
12	413	632	168	1460	495	251	282	215	57	1330	.14	65
13	749	378	153	1120	681	1410	934	167	51	747	.73	52
14	674	271	138	790	5210	1280	923	151	47	797	.81	69
15	338	217	448	641	3190	631	1820	112	45	261	.67	47
16	220	184	1070	569	1030	464	1970	142	42	118	.62	35
17	154	159	1140	504	727	433	748	156	51	61	1.6	28
18	308	142	14600	432	5350	2050	482	123	291	48	1.9	23
19	1000	140	17400	382	6350	1500	394	139	271	42	180	19
20	460	131	5060	358	2640	764	333	3840	76	34	98	15
21	242	112	1170	336	1430	591	281	5020	991	27	85	11
22	272	125	5430	296	978	5500	241	2330	2390	31	89	8.1
23	3410	2200	4660	263	743	7750	215	1800	921	32	58	6.1
24	1530	1620	3340	241	586	2470	200	803	542	26	49	5.1
25	652	648	1300	229	499	964	174	411	827	22	45	6.5
26	435	421	805	204	438	673	150	274	861	19	36	6.0
27	335	317	662	200	383	792	133	225	335	15	31	4.0
28	273	276	3910	304	333	3250	126	1330	192	11	26	2.4
29	225	501	3440	404	---	1140	134	655	120	7.3	22	2.1
30	188	544	5660	347	---	642	153	342	79	4.0	22	2.1
31	153	---	16200	479	---	535	---	236	---	1.3	67	---
TOTAL	15631	12102	100014	36589	53748	36968	13455	20482	11740	17424.6	818.33	767.4
MEAN	504	403	3226	1180	1920	1193	448	661	391	562	26.4	25.6
MAX	3410	2200	17400	8880	8400	7750	1970	5020	2390	6970	180	134
MIN	26	60	138	200	259	251	126	76	42	1.3	.06	2.1
CFSM	1.16	.93	7.40	2.71	4.40	2.74	1.03	1.52	.90	1.29	.06	.06
IN.	1.33	1.03	8.53	3.12	4.59	3.15	1.15	1.75	1.00	1.49	.07	.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1991, BY WATER YEAR (WY)

MEAN	214	604	1163	916	1271	1072	781	615	330	213	197	279
MAX	1042	1699	3691	2461	5071	3292	2022	2205	851	685	939	2284
(WY)	1976	1989	1979	1974	1989	1975	1979	1983	1974	1979	1978	1979
MIN	.011	.24	111	16.2	203	134	103	43.6	3.32	2.45	.87	.43
(WY)	1988	1988	1981	1981	1980	1983	1986	1976	1988	1975	1986	1987

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1972 - 1991	
ANNUAL TOTAL	280345.35		319739.33			
ANNUAL MEAN	768		876		636	
HIGHEST ANNUAL MEAN					1243	1979
LOWEST ANNUAL MEAN					308	1977
HIGHEST DAILY MEAN	17400	Dec 19	17400	Dec 19	31400	Dec 9 1978
LOWEST DAILY MEAN	.95	Aug 21	.06	Aug 8	.00	Oct 8 1983
ANNUAL SEVEN-DAY MINIMUM	2.4	Aug 15	.15	Aug 6	.00	Oct 23 1987
INSTANTANEOUS PEAK FLOW			19300	Dec 18	33300	Dec 9 1978
INSTANTANEOUS PEAK STAGE			21.59	Dec 18	26.16	Dec 9 1978
ANNUAL RUNOFF (CFSM)	1.76		2.01		1.46	
ANNUAL RUNOFF (INCHES)	23.92		27.28		19.82	
10 PERCENT EXCEEDS	1570		2000		1360	
50 PERCENT EXCEEDS	233		276		167	
90 PERCENT EXCEEDS	18		16		6.0	

SALT RIVER BASIN

03301500 ROLLING FORK NEAR BOSTON, KY

LOCATION.--Lat 37°46'02", long 85°42'14", Nelson Cty, Hydrologic Unit 05140103, on downstream side of bridge on US Hwy 62 and State Hwy 61, 0.4 mi downstream from Beech Fork, 2.3 mi Southwest of Boston, and at mile 19.8.

DRAINAGE AREA.--1,299 mi^2.

PERIOD OF RECORD.--May 1938 to current year.

REVISED RECORDS.--WSP 1705: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 400.42 ft above National Geodetic Vertical Datum of 1929. See WDR KY-90-1 for history of changes prior to Sept. 30, 1971.

REMARKS.--Estimated daily discharges: July 25 to Aug. 16. Records good, except for periods of estimated record and Nov. 16 to Jan. 22, Mar. 24 to Apr. 9, which are poor. Specific conductance and temp. measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in January 1937 reached a stage of 55.2 ft, former site, from floodmarks (backwater from Ohio River).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	229	889	25600	1130	1110	1830	492	391	157	35	129
2	64	201	624	25500	987	1150	1610	410	306	131	31	96
3	55	178	3840	16100	864	1190	1370	354	272	114	28	83
4	396	160	8220	9900	799	1200	1200	315	1260	117	25	65
5	634	152	5810	7790	879	1470	1550	298	1190	139	23	70
6	1110	147	2120	7720	7730	1450	1350	433	946	211	20	82
7	615	136	1380	11900	14300	1250	1170	392	574	177	18	69
8	386	128	1040	16900	17400	1330	1070	377	380	166	17	62
9	279	128	812	16200	12000	1330	1050	933	280	4570	15	71
10	582	302	660	8590	4070	1240	1210	1500	222	5020	14	114
11	320	2070	558	4750	2430	1130	1770	1160	187	2860	13	113
12	464	2040	483	4560	1930	924	1410	814	164	1910	11	139
13	426	1050	438	4330	2030	1460	1860	605	147	1510	9.5	187
14	687	669	387	3350	6680	2670	2510	511	133	1150	8.7	221
15	636	490	603	2720	9430	2260	2480	497	124	923	8.0	153
16	455	390	1380	2520	5630	1640	4380	403	137	537	7.4	136
17	316	331	2260	2140	2760	1430	3520	367	450	359	6.9	111
18	268	290	12000	1730	6600	2690	2290	360	298	260	22	91
19	443	259	22200	1470	11900	4070	1910	336	399	207	648	75
20	895	238	30900	1330	14200	2830	1580	1030	416	190	613	63
21	607	222	28900	1240	8550	2080	1260	5240	262	154	393	53
22	518	255	20400	1100	4080	5290	1040	3980	2140	124	222	43
23	1390	942	17800	951	2890	11300	890	2420	1750	105	194	37
24	3210	2840	16800	871	2470	15500	786	1790	1010	95	163	33
25	1560	1890	13800	784	2060	10700	685	1040	696	82	124	31
26	879	1050	8450	723	1680	4920	602	699	853	72	100	33
27	610	715	5880	679	1420	3880	541	565	733	63	86	31
28	466	620	7780	982	1240	5250	498	653	400	55	73	34
29	380	677	10200	1030	---	4490	483	1460	268	48	65	35
30	308	968	11200	1140	---	2640	503	799	198	43	88	28
31	265	---	18300	1100	---	2080	---	529	---	39	223	---
TOTAL	19302	19767	256114	185700	148139	101954	44408	30762	16586	21588	3304.5	2488
MEAN	623	659	8262	5990	5291	3289	1480	992	553	696	107	82.9
MAX	3210	2840	30900	25600	17400	15500	4380	5240	2140	5020	648	221
MIN	55	128	387	679	799	924	483	298	124	39	6.9	28
CFSM	.48	.51	6.36	4.61	4.07	2.53	1.14	.76	.43	.54	.08	.06
IN.	.55	.57	7.33	5.32	4.24	2.92	1.27	.88	.47	.62	.09	.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1991, BY WATER YEAR (WY)

MEAN	321	1086	2446	2970	3873	3660	2836	1805	930	782	426	474
MAX	2778	5310	11050	13420	16320	10070	11350	11810	4183	5339	2806	8265
(WY)	1976	1958	1979	1950	1989	1964	1972	1983	1950	1958	1977	1979
MIN	.57	4.32	5.84	77.0	288	344	353	150	24.4	6.78	24.2	1.89
(WY)	1954	1944	1944	1981	1954	1941	1986	1941	1988	1954	1965	1953

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1939 - 1991	
ANNUAL TOTAL	723752		850112.5			
ANNUAL MEAN	1983		2329		1790	
HIGHEST ANNUAL MEAN					4268	1979
LOWEST ANNUAL MEAN					473	1941
HIGHEST DAILY MEAN	30900	Dec 20	30900	Dec 20	64600	Feb 17 1989
LOWEST DAILY MEAN	23	Jul 11	6.9	Aug 17	.40	Oct 20 1939
ANNUAL SEVEN-DAY MINIMUM	28	Jul 6	9.2	Aug 11	.40	Oct 3 1953
INSTANTANEOUS PEAK FLOW			32400	Dec 20	66500	Feb 17 1989
INSTANTANEOUS PEAK STAGE			44.16	Dec 20	52.62	Feb 17 1989
INSTANTANEOUS LOW FLOW					.40	Oct 20 1939
ANNUAL RUNOFF (CFSM)	1.53		1.79		1.38	
ANNUAL RUNOFF (INCHES)	20.73		24.35		18.73	
10 PERCENT EXCEEDS	5840		6630		4700	
50 PERCENT EXCEEDS	686		685		489	
90 PERCENT EXCEEDS	54		64		26	

SALT RIVER BASIN

03301630 ROLLING FORK NEAR LEBANON JUNCTION, KY
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

LOCATION.--Lat 37°49'22", long 85°44'52", Hardin County, Hydrologic Unit 05140103, at bridge on State Highway 434, 1.1 mi downstream from Wilson Creek, 1.2 mi southwest of Lebanon Junction, and at mile 12.3.

DRAINAGE AREA.--1,375 mi^2.

PERIOD OF RECORD.--Water year 1975 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1975 to September 1980.
WATER TEMPERATURES: June 1975 to September 1980.

REMARKS.--Records of daily discharge are published for gaging station near Boston (see station 03301500) 7.5 mi upstream.

WATER QUALITY DATA, WATER OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)
NOV 1990											
08...	1015	131	415	7.9	10.0	5.5	5.9	52	76	90	220
FEB 1991											
08...	1110	21700	204	7.8	7.0	220	9.3	78	5800	40000	100
MAY											
08...	0920	442	403	8.1	17.5	21	7.2	76	5700	940	210
AUG											
19...	1210	54	415	8.0	23.5	50	5.5	66	2300	9300	200

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	ALKA-LINITY WAT DIS TOT FET FIELD MG/L AS CACO3	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SULFATE DIS-SOLVED (MG/L AS SO4)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
NOV 1990											
08...	66	14	7.7	4.0	217	178	177	10	32	0.20	6.9
FEB 1991											
08...	32	5.6	2.0	2.5	100	82	81	3.1	18	<0.10	6.1
MAY											
08...	60	15	5.3	2.3	206	169	168	6.8	40	0.10	2.2
AUG											
19...	60	12	8.7	4.1	200	164	165	14	42	0.20	5.2

03301630 ROLLING FORK NEAR LEBANON JUNCTION, KY--Continued
(National stream-quality accounting network station)

WATER QUALITY DATA, WATER OCTOBER 1990 TO SEPTEMBER 1991

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
NOV 1990											
08...	266	251	<0.010	0.700	0.040	0.040	0.40	0.160	0.120	0.120	<10
FEB 1991											
08...	137	122	0.010	0.700	0.070	0.050	1.8	0.600	0.120	0.090	200
MAY											
08...	229	235	<0.010	0.270	0.030	0.030	0.40	0.160	0.050	0.030	10
AUG											
19...	246	247	<0.010	0.340	0.050	0.050	1.0	0.230	0.040	0.030	40

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
NOV 1990											
08...	<1	30	<0.5	<1.0	<1	<3	2	180	<1	4	60
FEB 1991											
08...	<1	12	<0.5	<1.0	<1	<3	2	230	1	<4	9
MAY											
08...	<1	31	<0.5	<1.0	<1	<3	1	14	<1	5	28
AUG											
19...	1	36	<0.5	<1.0	<1	<3	5	35	<1	<4	73

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 1990											
08...	<0.1	<10	2	<1	<1.0	150	<6	7	28	9.9	77
FEB 1991											
08...	<0.1	<10	1	<1	<1.0	62	<6	5	352	20600	95
MAY											
08...	<0.1	<10	2	<1	<1.0	140	<6	87	49	58	94
AUG											
19...	0.2	<10	2	<1	<1.0	190	<6	9	86	13	97

SALT RIVER BASIN

03301850 FISHPOOL CREEK AT BOST ROAD AT OKOLONA, KY

WATER-QUALITY RECORDS

LOCATION.--Lat 38°07'45", long 85°41'35", Jefferson County, Hydrologic Unit 05140102, at bridge on Bost Road and at mile 0.5.

DRAINAGE AREA.--5.3 mi^2.

PERIOD OF RECORD.--February 1988 to current year.

REMARKS.--Samples were collected monthly.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
OCT						
24...	0920	5.1	630	7.5	11.5	8.5
NOV						
28...	0925	23	544	7.5	14.5	7.2
DEC						
20...	0905	21	511	7.4	9.0	9.7
JAN						
30...	0920	39	351	8.0	5.5	11.0
FEB						
27...	0910	4.3	562	7.6	4.5	12.7
MAR						
27...	0900	8.3	500	7.8	14.0	9.3
APR						
25...	0910	2.3	555	8.0	11.5	7.5
MAY						
30...	0900	2.6	616	7.7	24.0	5.5
JUN						
05...	0900	1.0	667	7.7	20.0	5.6
JUL						
03...	1100	1.6	520	8.1	26.0	7.7
AUG						
06...	1040	0.34	677	8.8	24.5	8.2
SEP						
05...	1040	3.5	562	7.6	22.5	6.3

SALT RIVER BASIN

03301880 SOUTHERN DITCH AT MINORS LANE NEAR OKOLONA, KY

WATER-QUALITY RECORDS

LOCATION.-- Lat 38°08'04", long 85°42'34", Jefferson County, Hydrologic Unit 05140102, at bridge on Minors Lane, 0.2 mi below Mud Creek, and at mile 4.2.

DRAINAGE AREA.--12.8 mi^2.

PERIOD OF RECORD.--February 1988 to current year.

REMARKS.--Samples were collected monthly.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
OCT						
24...	1045	10	612	7.7	12.5	9.0
NOV						
28...	1030	47	394	7.6	13.5	6.4
DEC						
20...	1025	36	501	7.5	9.5	9.4
JAN						
30...	1040	85	322	8.0	4.0	11.5
FEB						
27...	1040	8.5	569	7.7	4.0	12.3
MAR						
27...	1040	19	498	7.8	15.0	7.4
APR						
25...	1030	5.4	533	8.3	14.5	8.1
MAY						
30...	1005	3.1	597	8.1	27.0	6.3
JUN						
05...	1015	1.4	598	8.6	22.5	8.1
JUL						
03...	1200	360	556	8.3	28.0	6.8
AUG						
06...	1145	0.68	710	7.9	25.5	5.2
SEP						
05...	1150	7.1	488	7.4	24.0	6.0

03301900 FERN CREEK AT OLD BARDSTOWN ROAD AT LOUISVILLE, KY

WATER-QUALITY RECORDS

LOCATION.-- Lat 38°10'32", long 85°36'55", Jefferson County, Hydrologic Unit 05140102, at bridge on Old Bardstown Road, and at mile 3.2.

DRAINAGE AREA.--3.5 mi^2.

PERIOD OF RECORD.--February 1988 to current year.

REMARKS.--Samples were collected monthly.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
OCT						
09...	1050	5.7	386	7.5	21.0	7.3
NOV						
13...	1105	2.9	693	7.8	9.5	11.5
DEC						
10...	1100	3.7	682	7.5	8.5	12.3
JAN						
15...	1030	9.6	632	7.6	8.0	10.9
FEB						
12...	1050	7.3	623	7.5	7.0	12.8
MAR						
12...	1050	3.9	616	7.6	8.0	12.2
APR						
09...	1015	3.8	604	8.3	18.5	10.0
MAY						
14...	1025	3.9	635	8.4	19.0	8.3
JUN						
26...	1030	1.6	697	8.0	22.0	7.6
JUL						
24...	1105	1.1	695	7.9	24.5	6.9
AUG						
27...	1135	1.4	740	7.9	23.0	7.1
SEP						
23...	1150	1.2	769	6.6	17.5	8.4

SALT RIVER BASIN

03301940 NORTHERN DITCH AT OKOLONA, KY

WATER-QUALITY RECORDS

LOCATION.--Lat 38°09'01", long 85°41'37", Jefferson County, Hydrologic Unit 05140102, at bridge on Preston Highway, 0.1 mi above Spring Ditch, and at mile 5.1.

DRAINAGE AREA.-- 11.1 mi^2.

PERIOD OF RECORD.--February 1988 to current year.

REMARKS.--Samples were collected monthly.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
OCT						
23...	1010	26	486	7.5	13.0	9.1
25...	1015	--	555	7.7	13.0	11.6
NOV						
27...	1040	8.7	596	8.4	18.5	16.3
DEC						
19...	1000	91	402	6.9	10.0	9.8
JAN						
29...	1020	18	543	7.8	6.5	13.1
FEB						
26...	1050	17	588	7.9	7.0	14.8
MAR						
26...	1015	45	482	7.6	14.0	9.7
APR						
24...	1020	16	527	8.7	13.5	14.2
MAY						
29...	1020	7.7	565	8.4	25.0	13.0
JUN						
25...	0925	6.0	585	8.1	23.5	10.8
JUL						
03...	0950	5.1	502	8.7	25.0	14.1
AUG						
06...	0930	2.4	649	8.5	23.5	11.7
SEP						
05...	0940	16	462	7.6	23.0	7.8

SALT RIVER BASIN

03301950 SPRING DITCH AT PRIVATE DRIVE NEAR OKOLONA, KY

WATER-QUALITY RECORDS

LOCATION.--Lat 38°09'27", long 85°40'57", Jefferson County, Hydrologic Unit 05140102, at bridge on Private Drive, and at mile 1.0.

DRAINAGE AREA.--1.6 mi^2.

PERIOD OF RECORD.--February 1988 to current year.

REMARKS.--Samples were collected monthly.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
OCT						
23...	0900	5.7	382	7.6	13.5	6.4
25...	0930	--	447	7.3	12.0	6.4
NOV						
27...	0910	1.1	623	7.3	17.5	5.8
DEC						
19...	0910	15	282	7.6	11.0	8.3
JAN						
29...	0900	4.6	483	7.6	6.0	9.9
FEB						
26...	0855	2.3	664	7.7	6.5	13.9
MAR						
26...	0900	12	354	7.4	14.5	7.4
APR						
24...	0910	4.0	469	8.2	13.0	10.1
MAY						
29...	0910	1.6	542	7.6	24.0	5.9
JUN						
25...	0837	2.1	595	7.4	22.5	5.3
JUL						
24...	0905	1.5	677	7.6	24.0	9.9
AUG						
27...	0905	0.53	672	7.2	22.5	4.7
SEP						
23...	0900	0.76	710	7.1	17.5	5.0

SALT RIVER BASIN

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 Road, right bank, 0.4 mi south of Third Street Road, 0.6 mi downstream from Bee Lick Creek, 1.5 mi downstream from confluence of Northern and Southern Ditches, 2.4 mi south of Louisville city limits, and at mile 15.4.

DRAINAGE AREA.--64.0 mi^2.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1705: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 430.38 ft above National Geodetic Vertical Datum of 1929. See WDR KY-90-1 for history of changes prior to Nov. 16, 1962.

REMARKS.--Estimated daily discharges: Oct. 30 to Nov. 1, Jan. 1-2, Feb. 17 to Mar. 3, Mar. 20-29, May 5-16, June 18 to July 1, July 10-25. Water-discharge records good. Records include small amount of inflow diverted by manufacturing plants from Louisville water supply, which is pumped from Ohio River.

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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.7	12	22	350	93	45	32	19	20	10	14	94
2	7.3	11	23	148	80	60	27	18	59	15	9.9	17
3	6.9	11	791	110	58	55	21	17	22	32	11	12
4	554	10	156	84	55	39	30	21	20	15	11	243
5	64	18	67	141	103	33	23	520	18	12	8.9	129
6	27	17	39	589	352	99	17	150	15	11	9.4	30
7	19	12	24	893	163	88	10	50	15	10	9.4	19
8	16	10	19	556	159	53	8.6	160	15	10	9.5	14
9	111	80	16	403	127	39	7.3	360	14	12	67	12
10	486	231	15	327	84	32	32	200	13	240	64	14
11	81	46	14	539	76	29	34	145	13	500	14	46
12	43	26	15	492	244	51	29	110	13	150	9.9	17
13	29	23	21	314	126	231	22	87	13	50	11	13
14	23	20	16	254	255	112	13	70	13	30	10	11
15	21	17	424	215	156	126	11	59	12	20	8.0	10
16	19	17	122	258	129	89	21	50	11	15	7.5	9.5
17	17	17	325	208	100	131	29	48	35	15	7.0	10
18	41	15	754	164	200	185	25	58	120	14	38	13
19	23	15	505	133	110	108	128	35	360	14	25	19
20	20	13	206	117	75	250	54	24	105	14	66	9.4
21	19	12	239	109	65	900	35	24	67	13	18	6.6
22	514	124	528	76	60	820	28	24	48	13	12	6.0
23	149	184	480	51	55	650	24	21	37	12	11	6.3
24	55	54	187	43	50	450	92	18	30	15	9.0	7.1
25	36	32	114	38	47	310	31	23	24	13	8.0	24
26	27	23	83	35	44	210	24	44	20	11	7.5	10
27	24	21	68	30	40	145	21	104	18	12	8.1	6.4
28	23	145	226	264	37	100	21	40	15	11	16	5.3
29	21	52	551	117	---	68	41	21	14	11	40	4.7
30	17	26	954	272	---	47	23	17	12	11	156	4.2
31	15	---	810	229	---	42	---	13	---	11	77	---
TOTAL	2516.9	1294	7814	7559	3143	5597	913.9	2550	1191	1322	773.1	822.5
MEAN	81.2	43.1	252	244	112	181	30.5	82.3	39.7	42.6	24.9	27.4
MAX	554	231	954	893	352	900	128	520	360	500	156	243
MIN	6.9	10	14	30	37	29	7.3	13	11	10	7.0	4.2
CFSM	1.27	.67	3.94	3.81	1.75	2.82	.48	1.29	.62	.67	.39	.43
IN.	1.46	.75	4.54	4.39	1.83	3.25	.53	1.48	.69	.77	.45	.48

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1991, BY WATER YEAR (WY)

MEAN	26.9	59.8	99.9	130	166	183	139	103	61.3	46.0	31.5	32.3
MAX	117	256	310	614	454	738	551	505	304	282	150	399
(WY)	1976	1974	1979	1950	1989	1964	1970	1983	1950	1973	1970	1979
MIN	1.76	2.60	4.48	8.52	10.1	11.4	22.0	10.6	4.54	2.96	.78	1.15
(WY)	1947	1945	1954	1977	1954	1954	1954	1954	1954	1952	1945	1945

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1944 - 1991	
ANNUAL TOTAL	46397.0		35496.4			
ANNUAL MEAN	127		97.3		89.5	
HIGHEST ANNUAL MEAN					159	1950
LOWEST ANNUAL MEAN					11.4	1954
HIGHEST DAILY MEAN	3090	May 17	954	Dec 30	6340	Mar 10 1964
LOWEST DAILY MEAN	3.3	Aug 3	4.2	Sep 30	.10	Sep 3 1945
ANNUAL SEVEN-DAY MINIMUM	5.0	Jul 29	6.8	Sep 24	.19	Sep 17 1945
INSTANTANEOUS PEAK FLOW			2770	Dec 31	8020	Mar 9 1964
INSTANTANEOUS PEAK STAGE			17.15	Dec 31	22.69	Mar 9 1964
ANNUAL RUNOFF (CFSM)	1.99		1.52		1.40	
ANNUAL RUNOFF (INCHES)	26.97		20.63		18.99	
10 PERCENT EXCEEDS	281		254		186	
50 PERCENT EXCEEDS	33		30		26	
90 PERCENT EXCEEDS	8.6		10		5.2	

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1988 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1988 to current year.
pH: May 1988 to current year.
WATER TEMPERATURE: May 1988 to current year.
DISSOLVED OXYGEN: June 1988 to current year.

INSTRUMENTATION.--Water-quality monitor since May 1988.

REMARKS.--Water-quality samples were collected monthly. Records good for specific conductance, pH, water temperature, and dissolved oxygen.

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

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1200 microsiemens, Nov. 4, 1988; minimum, 129 microsiemens, Mar. 6, 1989.
pH: Maximum, 10.1 units, Apr. 16, 17, 18, 1991; minimum, 4.5 units, Oct. 18, 1990.
WATER TEMPERATURE: Maximum, 34.0°C, July 15-17 and Aug. 2, 4, and 16, 1988; minimum, 0.0°C, Jan. 22, 23, 1991.
DISSOLVED OXYGEN: Maximum, 20.1 mg/L, June 30, 1991; minimum, 0.7 mg/L, July 3, 1991.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1010 microsiemens, Jan. 27; minimum, 164 microsiemens, Sept. 4.
pH: Maximum, 10.7 units, Apr. 16, 17, 18; minimum, 4.5 units, Oct. 18.
WATER TEMPERATURE: Maximum, 33.6°C, July 22; minimum, 0.0°C, Jan. 22, 23.
DISSOLVED OXYGEN: Maximum, 20.1 mg/L, June 30; minimum, 0.7 mg/L, Jul. 3.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
OCT						
02...	1040	7.6	642	7.7	19.5	8.0
NOV						
01...	1110	11	642	8.1	15.0	10.6
DEC						
03...	1520	850	270	8.9	13.0	8.1
JAN						
03...	0938	102	516	7.8	4.0	10.6
FEB						
04...	1020	51	594	8.0	7.5	11.2
MAR						
04...	1025	40	585	7.7	5.0	11.4
APR						
01...	1020	36	558	8.5	12.0	9.6
MAY						
01...	1125	19	572	8.3	20.0	6.3
JUN						
03...	1010	22	476	7.5	27.5	2.8
JUL						
01...	1030	9.6	632	8.5	30.5	6.2
AUG						
05...	1030	11	607	8.3	26.5	6.1
SEP						
03...	1105	11	521	7.6	26.5	4.6

SALT RIVER BASIN

03302000 POND CREEK NEAR LOUISVILLE, KY--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	653	631	641	---	---	---	624	607	616	469	417	446
2	653	640	645	656	628	640	633	625	630	504	470	488
3	651	635	644	656	630	641	629	436	494	526	505	516
4	650	257	363	677	646	657	485	438	461	544	527	536
5	455	371	416	701	566	647	520	485	504	559	500	548
6	499	454	475	668	572	618	558	521	536	495	377	447
7	520	498	507	617	594	603	575	550	563	377	337	358
8	548	521	534	627	601	609	596	576	587	423	374	399
9	577	360	523	627	393	570	614	596	606	467	424	445
10	394	294	336	465	373	415	630	614	622	507	468	489
11	450	396	426	539	467	506	647	630	639	509	465	478
12	489	452	470	572	540	558	658	647	653	490	465	477
13	522	488	515	589	574	582	670	658	665	518	490	504
14	549	519	534	588	574	579	676	658	670	551	518	534
15	567	545	555	607	588	600	660	361	480	584	552	568
16	575	555	565	620	571	603	520	438	487	597	585	591
17	595	511	563	628	604	618	530	421	498	604	590	596
18	721	512	566	623	613	621	420	302	331	614	604	609
19	547	514	526	619	603	611	464	321	402	623	614	619
20	---	---	---	634	611	620	514	467	491	631	623	627
21	---	---	---	647	624	631	533	510	526	647	631	639
22	---	---	---	647	464	570	506	418	447	653	647	650
23	---	---	---	509	462	482	478	435	451	656	652	654
24	---	---	---	556	511	535	501	456	481	661	647	655
25	---	---	---	591	557	573	527	502	515	656	647	651
26	---	---	---	614	591	601	553	528	541	654	644	648
27	---	---	---	675	614	647	575	554	566	1010	644	730
28	---	---	---	680	542	599	649	575	599	737	525	588
29	---	---	---	587	563	575	647	498	537	565	527	548
30	---	---	---	607	587	598	521	319	460	573	488	538
31	---	---	---	---	---	---	415	316	364	539	488	511
MONTH	---	---	---	---	---	---	676	302	530	1010	337	551
		FEBRUARY			MARCH			APRIL			MAY	
1	565	540	555	615	578	607	563	551	558	580	565	573
2	583	559	571	575	540	548	573	562	568	604	572	585
3	591	583	588	578	552	566	574	562	568	612	582	598
4	604	582	593	592	578	586	571	559	565	616	594	610
5	615	592	610	604	592	596	579	570	574	612	331	475
6	587	398	456	603	487	572	579	568	573	524	433	486
7	466	418	438	528	486	511	583	572	577	615	526	571
8	508	466	487	547	530	540	577	527	547	664	615	639
9	529	508	518	562	546	555	536	525	530	668	589	619
10	549	529	541	571	560	566	543	530	537	631	592	610
11	560	549	554	577	567	573	550	529	539	626	536	584
12	573	561	567	588	540	582	562	526	554	547	479	526
13	577	462	553	533	403	436	513	434	456	537	489	512
14	462	401	423	430	404	414	497	454	479	581	414	534
15	472	429	451	473	431	454	514	494	503	474	405	436
16	524	474	504	503	475	492	514	507	510	525	474	503
17	571	526	544	521	462	508	537	513	526	565	526	546
18	599	374	446	455	426	436	543	534	538	593	536	568
19	479	415	448	473	449	461	540	445	482	551	515	529
20	501	479	492	493	474	485	494	451	476	583	543	567
21	529	501	514	512	459	502	517	495	507	616	580	600
22	550	529	541	452	326	392	544	518	532	632	586	601
23	564	550	558	420	344	376	565	540	552	617	575	596
24	577	565	571	459	421	442	563	483	513	621	591	604
25	593	577	585	492	460	482	545	489	517	624	572	615
26	599	594	596	502	478	493	568	546	558	577	505	536
27	604	597	601	503	477	490	585	566	577	507	411	473
28	610	604	607	525	503	517	598	583	591	537	471	497
29	---	---	---	532	523	527	598	564	584	582	530	556
30	---	---	---	543	532	538	593	565	580	673	569	622
31	---	---	---	551	543	548	---	---	---	623	562	608
MONTH	615	374	533	615	326	510	598	434	539	673	331	561

SALT RIVER BASIN

03302000 POND CREEK NEAR LOUISVILLE, KY--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	614	591	604	698	589	640	649	583	631	467	363	412
2	509	390	436	659	596	631	626	552	583	516	468	492
3	524	472	493	583	441	538	626	615	618	530	515	521
4	540	522	533	624	566	590	619	610	615	529	164	377
5	560	490	535	632	591	613	632	606	612	480	335	413
6	602	491	555	613	566	597	645	622	634	533	479	501
7	627	568	593	629	577	608	655	637	645	575	508	530
8	597	574	585	643	587	622	659	643	650	622	564	584
9	624	542	580	656	599	632	660	363	596	661	624	636
10	582	515	552	632	213	327	486	434	469	688	661	674
11	671	609	641	452	331	388	501	472	482	672	526	562
12	762	643	692	488	455	464	549	501	523	568	530	553
13	786	678	732	497	465	479	563	551	557	609	565	584
14	762	690	731	499	480	489	577	559	569	623	599	611
15	806	644	710	527	493	506	614	576	597	626	617	623
16	706	641	677	581	522	543	620	602	610	655	626	644
17	702	430	599	617	581	600	625	618	621	665	656	660
18	526	234	420	617	604	609	621	520	575	656	630	642
19	464	336	402	621	613	616	533	502	513	635	522	581
20	563	460	530	627	619	623	506	427	466	590	547	569
21	566	168	409	639	624	632	529	506	513	601	544	564
22	486	310	401	655	635	643	556	526	536	594	546	572
23	561	487	525	642	629	634	562	543	553	640	585	612
24	585	553	570	646	621	632	579	560	569	650	602	634
25	646	582	607	645	624	634	606	573	589	629	377	476
26	643	609	623	671	629	647	851	599	685	575	465	545
27	703	603	630	670	644	658	844	602	722	619	552	592
28	781	707	748	697	660	679	876	444	608	648	619	636
29	786	717	753	695	673	685	546	380	431	671	630	646
30	762	699	731	683	660	668	624	387	469	688	656	671
31	---	---	---	662	639	650	586	351	423	---	---	---
MONTH	806	168	587	698	213	590	876	351	570	688	164	571

PH (STANDARD UNITS), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.3	7.4	7.8	---	---	---	7.3	7.1	7.2	7.8	7.6	7.7
2	7.8	7.2	7.6	8.3	8.1	8.2	7.3	7.3	7.3	7.8	7.7	7.8
3	7.3	7.1	7.2	8.2	8.0	8.1	7.3	7.3	7.3	7.9	7.8	7.8
4	7.3	5.3	5.9	8.0	8.0	8.0	7.3	7.3	7.3	7.9	7.8	7.9
5	6.1	5.2	5.6	8.0	7.8	7.9	7.6	7.3	7.6	7.9	7.6	7.8
6	6.6	5.8	6.1	7.9	7.8	7.8	7.6	7.5	7.6	7.7	7.6	7.7
7	6.6	6.4	6.5	7.8	7.8	7.8	7.6	7.5	7.5	7.8	7.6	7.7
8	6.8	6.4	6.6	7.8	7.7	7.8	7.6	7.5	7.5	7.9	7.8	7.8
9	6.8	6.2	6.5	7.7	7.6	7.7	7.5	7.5	7.5	7.9	7.9	7.9
10	6.2	5.9	6.1	7.6	7.5	7.6	7.6	7.5	7.5	8.0	7.9	8.0
11	6.1	5.7	5.9	7.6	7.5	7.5	7.6	7.5	7.5	7.9	7.7	7.8
12	6.0	5.7	5.8	7.5	7.4	7.5	7.5	7.5	7.5	7.8	7.8	7.8
13	6.1	5.7	5.9	7.5	7.4	7.5	7.5	7.5	7.5	7.8	7.7	7.8
14	6.4	5.8	6.1	7.7	7.4	7.5	8.1	7.5	7.7	7.8	7.6	7.7
15	6.6	6.1	6.3	7.7	7.5	7.6	8.1	7.1	7.5	7.8	7.7	7.7
16	6.7	6.2	6.5	7.7	7.6	7.6	7.5	7.2	7.4	7.8	7.6	7.7
17	7.0	6.2	6.6	7.7	7.6	7.6	7.5	7.2	7.4	7.8	7.8	7.8
18	6.3	4.5	5.4	7.6	7.5	7.5	7.2	6.9	7.0	7.8	7.7	7.8
19	5.6	5.1	5.2	7.6	7.5	7.5	7.3	7.0	7.2	7.8	7.7	7.7
20	---	---	---	7.5	7.4	7.5	7.4	7.3	7.4	7.7	7.6	7.7
21	---	---	---	7.5	7.3	7.4	7.4	7.3	7.4	7.7	7.6	7.7
22	---	---	---	7.4	7.3	7.4	7.4	7.2	7.3	7.7	7.7	7.7
23	---	---	---	7.4	7.3	7.4	7.5	7.4	7.4	7.7	7.6	7.6
24	---	---	---	7.4	7.3	7.3	7.6	7.5	7.6	7.6	7.5	7.6
25	---	---	---	7.3	7.3	7.3	7.7	7.5	7.6	7.7	7.5	7.6
26	---	---	---	7.3	7.3	7.3	7.8	7.6	7.7	7.7	7.6	7.6
27	---	---	---	7.4	7.3	7.3	7.8	7.8	7.8	7.8	7.7	7.7
28	---	---	---	7.3	7.2	7.3	7.8	7.5	7.7	7.8	7.7	7.8
29	---	---	---	7.2	7.2	7.2	7.5	7.4	7.5	7.8	7.7	7.8
30	---	---	---	7.2	7.1	7.1	7.5	7.3	7.4	8.0	7.8	7.9
31	---	---	---	---	---	---	7.6	7.3	7.4	8.0	7.8	7.9
MONTH	---	---	---	---	---	---	8.1	6.9	7.5	8.0	7.5	7.8

SALT RIVER BASIN

03302000 POND CREEK NEAR LOUISVILLE, KY--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.0	7.9	8.0	8.5	8.0	8.3	8.7	8.5	8.6	8.5	8.3	8.4
2	8.1	7.9	8.0	8.0	7.6	7.8	8.8	8.6	8.7	9.1	8.5	8.8
3	8.0	7.9	8.0	7.7	7.5	7.6	8.8	8.4	8.5	9.2	8.6	8.9
4	8.0	7.9	8.0	7.8	7.6	7.7	8.9	8.6	8.7	9.2	8.6	8.8
5	7.9	7.8	7.9	7.6	7.5	7.6	9.1	8.7	8.8	8.9	8.2	8.5
6	8.1	7.6	7.9	7.5	7.3	7.4	9.5	8.8	9.0	8.5	8.2	8.4
7	8.0	7.9	8.0	7.3	7.2	7.2	9.5	9.0	9.2	8.5	8.3	8.4
8	8.1	7.9	8.0	7.3	7.1	7.2	9.4	8.8	9.0	8.9	8.4	8.7
9	7.9	7.9	7.9	7.1	7.0	7.1	9.4	9.0	9.2	8.8	8.2	8.4
10	7.9	7.8	7.9	7.3	7.1	7.2	10.0	9.3	9.5	8.7	7.9	8.2
11	7.9	7.8	7.9	7.4	6.9	7.2	10.3	9.5	9.9	8.9	8.6	8.7
12	7.9	7.8	7.8	7.3	6.8	7.0	10.3	9.4	10.0	9.1	8.1	8.8
13	8.0	7.7	7.8	7.4	7.2	7.3	9.6	9.3	9.5	8.2	7.7	7.9
14	8.1	7.7	7.9	7.4	7.2	7.3	10.0	9.6	9.7	7.7	7.3	7.5
15	7.9	7.9	7.9	7.2	6.9	7.1	10.3	9.6	9.9	7.4	7.2	7.3
16	8.0	7.9	8.0	7.0	6.7	6.8	10.7	9.9	10.1	7.3	7.2	7.3
17	8.0	7.9	7.9	7.3	6.7	6.9	10.7	10.0	10.4	7.3	7.2	7.2
18	8.1	7.6	7.9	7.2	6.8	7.0	10.7	9.9	10.3	7.3	7.2	7.3
19	7.7	7.6	7.7	7.0	6.8	6.9	10.5	9.4	9.7	7.4	7.3	7.3
20	7.8	7.6	7.6	7.3	7.0	7.1	9.8	9.5	9.6	7.5	7.4	7.4
21	8.2	7.8	8.0	7.3	7.0	7.1	10.0	9.5	9.7	7.5	7.5	7.5
22	8.3	8.1	8.2	7.5	7.0	7.3	10.1	9.5	9.8	8.8	7.5	7.7
23	8.2	8.0	8.1	7.8	7.3	7.5	10.1	9.5	9.8	8.2	7.8	7.9
24	8.1	8.0	8.1	7.9	7.7	7.7	10.0	8.8	9.2	8.0	7.7	7.8
25	8.2	8.1	8.1	8.1	7.7	7.9	9.6	9.0	9.3	8.1	7.7	7.9
26	8.3	8.1	8.2	8.0	7.8	7.9	9.5	8.9	9.2	7.8	7.5	7.7
27	8.4	8.0	8.2	8.1	7.8	7.9	9.6	8.7	9.1	7.6	7.1	7.4
28	8.4	8.2	8.3	8.3	8.1	8.1	9.0	8.4	8.7	7.5	7.0	7.2
29	---	---	---	8.4	8.1	8.2	8.5	8.1	8.3	7.2	6.7	7.0
30	---	---	---	8.7	8.4	8.4	8.3	8.0	8.1	8.4	7.5	8.1
31	---	---	---	8.7	8.4	8.5	---	---	---	9.0	8.1	8.4
MONTH	8.4	7.6	8.0	8.7	6.7	7.5	10.7	8.0	9.3	9.2	6.7	8.0
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.8	7.9	8.3	9.3	8.5	8.8	8.9	8.1	8.5	7.3	6.9	7.0
2	8.6	7.6	8.1	9.0	8.5	8.8	8.7	8.2	8.5	7.6	7.2	7.4
3	8.3	7.5	7.8	8.8	7.6	8.2	8.9	8.3	8.6	7.7	7.5	7.6
4	8.3	6.5	7.3	8.6	7.8	8.1	8.7	8.4	8.5	7.9	7.2	7.5
5	6.4	4.9	5.5	8.8	8.0	8.4	8.5	8.2	8.3	7.5	7.2	7.3
6	5.2	4.6	4.8	8.9	8.3	8.6	8.2	7.6	7.9	7.5	7.0	7.2
7	5.1	4.6	4.8	9.2	8.7	8.9	7.9	7.5	7.8	7.1	6.6	6.9
8	5.5	4.6	4.9	9.1	8.7	8.9	8.0	7.7	7.8	7.6	7.1	7.3
9	5.2	4.6	5.0	8.9	8.3	8.6	8.1	7.2	7.7	7.9	7.6	7.7
10	8.3	5.2	6.7	8.5	6.9	7.6	7.3	7.0	7.2	8.3	7.5	7.6
11	8.0	5.6	6.6	7.0	6.6	6.8	7.5	7.3	7.4	8.3	7.0	7.3
12	5.9	5.2	5.5	7.0	6.6	6.8	7.9	7.4	7.6	7.9	7.2	7.5
13	6.0	5.7	5.9	7.5	7.0	7.3	8.0	7.8	7.9	8.3	7.5	7.8
14	6.0	5.6	5.8	7.7	7.3	7.5	7.9	7.4	7.7	8.7	7.9	8.2
15	6.8	5.8	5.8	7.9	7.5	7.6	8.0	7.7	7.8	8.4	8.0	8.2
16	7.0	6.2	6.6	8.0	7.0	7.4	8.0	7.8	7.9	8.3	8.0	8.2
17	7.2	6.1	6.3	7.1	6.8	7.0	8.1	7.8	8.0	8.3	7.9	8.1
18	7.9	5.9	7.0	7.5	7.1	7.2	8.1	7.1	7.4	8.3	7.9	8.1
19	7.8	7.1	7.7	8.5	7.5	7.8	7.6	7.0	7.1	7.9	7.2	7.5
20	8.0	6.6	7.4	8.5	8.2	8.4	7.4	6.9	7.1	8.3	7.9	8.1
21	7.9	7.0	7.5	8.6	8.2	8.5	7.5	7.1	7.3	8.6	8.3	8.5
22	7.7	7.3	7.5	8.6	8.2	8.4	7.7	7.4	7.5	8.7	8.5	8.6
23	8.2	7.3	7.6	8.7	8.3	8.5	8.2	7.7	7.9	8.5	8.1	8.3
24	8.3	8.0	8.1	8.7	8.3	8.4	8.4	8.0	8.2	8.4	8.1	8.3
25	8.7	8.2	8.5	8.8	8.3	8.6	8.4	8.2	8.3	8.5	7.3	7.8
26	8.9	8.6	8.7	8.7	8.4	8.6	8.5	8.0	8.2	8.5	7.7	8.1
27	8.8	8.5	8.7	8.9	8.4	8.6	8.3	8.2	8.3	8.6	8.2	8.4
28	8.9	8.5	8.7	8.9	8.3	8.7	8.7	7.3	8.2	8.6	8.3	8.5
29	8.6	8.3	8.5	8.8	8.3	8.6	7.5	6.9	7.1	8.7	8.3	8.5
30	8.9	8.4	8.6	8.7	8.4	8.5	7.7	6.9	7.1	8.5	8.2	8.3
31	---	---	---	9.0	8.6	8.7	7.5	7.0	7.1	---	---	---
MONTH	8.9	4.6	7.0	9.3	6.6	8.2	8.9	6.9	7.8	8.7	6.6	7.9

SALT RIVER BASIN

03302000 POND CREEK NEAR LOUISVILLE, KY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	22.1	19.1	20.5	---	---	---	7.1	4.0	5.5	5.6	3.3	4.4
2	21.5	19.3	20.5	13.6	11.3	12.6	7.9	6.9	7.4	5.8	4.0	5.0
3	21.6	20.5	21.0	13.7	11.7	12.9	11.5	7.9	10.2	5.4	3.8	4.6
4	21.6	19.4	20.4	15.2	12.5	13.9	9.3	4.7	6.6	3.7	1.7	2.8
5	22.0	17.6	19.8	15.4	11.1	13.9	5.3	2.9	4.2	4.6	3.3	3.7
6	22.7	18.1	20.3	11.0	9.5	10.1	5.7	3.4	4.6	5.4	4.7	5.1
7	21.2	19.0	20.1	9.6	7.2	8.4	6.1	4.2	5.2	5.7	4.4	5.0
8	23.4	19.1	20.8	8.7	6.2	6.9	5.1	2.6	4.0	6.1	5.1	5.5
9	23.3	20.6	22.2	7.7	6.3	6.8	5.6	2.5	4.1	6.7	6.1	6.4
10	20.5	15.5	18.2	9.1	7.0	8.0	6.9	3.8	5.3	6.0	5.1	5.4
11	17.1	13.5	15.3	9.3	6.7	8.1	7.1	4.2	5.7	7.5	5.2	6.2
12	16.2	14.9	15.6	9.8	6.9	8.4	8.2	5.6	6.7	7.4	4.6	5.9
13	16.9	13.9	15.3	8.9	6.2	7.8	9.1	8.0	8.5	4.7	4.3	4.5
14	18.4	13.9	16.0	10.0	5.9	7.9	7.8	5.4	6.8	6.2	3.5	4.8
15	18.4	15.5	17.1	11.4	7.6	9.3	11.3	7.5	9.8	6.8	5.3	6.1
16	17.7	14.1	15.9	12.2	9.9	11.0	9.3	7.3	7.9	6.8	5.6	6.5
17	19.4	12.8	17.0	11.5	8.7	9.8	9.8	7.1	7.7	5.6	4.7	5.0
18	13.3	9.9	11.6	9.5	7.0	7.9	12.0	9.8	11.1	5.7	4.3	4.9
19	13.9	10.4	12.1	8.5	7.9	8.2	9.7	8.8	9.2	6.6	3.8	5.1
20	---	---	---	9.5	7.2	8.3	10.2	7.7	8.7	6.9	5.4	6.7
21	---	---	---	11.5	8.3	9.7	12.8	10.2	11.4	5.2	.9	2.4
22	---	---	---	12.4	11.5	11.9	12.0	9.2	11.1	.8	.0	.4
23	---	---	---	11.8	9.9	10.7	9.1	5.2	6.4	3.0	.0	1.2
24	---	---	---	10.5	8.1	9.4	5.1	2.4	3.3	3.0	1.6	2.2
25	---	---	---	11.9	8.8	10.2	3.3	1.5	2.5	2.8	.3	1.6
26	---	---	---	13.7	10.5	11.8	3.1	1.9	2.6	2.7	1.3	2.1
27	---	---	---	16.9	13.6	15.3	2.5	1.1	1.8	2.3	.5	1.2
28	---	---	---	16.3	10.1	13.7	4.2	1.5	3.1	3.5	1.9	2.6
29	---	---	---	10.0	6.8	8.0	10.2	3.7	6.6	6.0	3.2	4.3
30	---	---	---	6.7	4.2	5.6	11.3	6.3	9.1	6.0	4.3	5.2
31	---	---	---	---	---	---	6.2	4.1	4.8	5.2	2.4	3.9
MONTH	---	---	---	---	---	---	12.8	1.1	6.5	7.5	.0	4.2
		FEBRUARY			MARCH			APRIL			MAY	
1	6.0	2.7	4.4	10.7	8.0	9.3	16.4	11.4	13.4	22.9	19.0	20.5
2	8.0	4.8	6.3	13.6	10.7	11.9	16.7	11.4	14.0	21.2	16.0	18.8
3	9.2	5.7	7.3	12.4	6.2	9.2	16.1	12.2	14.3	21.2	17.3	19.5
4	10.5	7.1	8.5	8.7	4.7	6.4	15.1	13.2	14.0	21.5	18.8	20.2
5	10.9	9.7	10.2	10.7	5.3	7.9	19.9	13.8	16.2	21.1	17.3	19.4
6	11.0	10.2	10.6	11.0	9.5	10.2	22.6	15.8	19.0	19.0	14.6	16.4
7	10.7	8.4	9.4	10.2	6.6	8.5	22.7	18.2	20.6	20.7	12.5	16.0
8	8.4	7.3	7.8	10.2	5.9	8.0	21.9	18.5	20.4	21.0	16.4	18.6
9	8.9	6.1	7.4	10.1	5.6	7.6	21.9	18.2	20.3	20.9	13.0	16.5
10	10.2	7.1	8.6	9.9	4.5	7.1	18.8	15.3	17.1	21.0	15.4	17.8
11	8.7	5.8	7.2	10.9	6.7	8.8	18.1	13.2	15.7	23.2	18.9	20.9
12	8.7	5.5	7.2	10.1	8.0	8.8	16.9	14.4	15.5	23.8	20.6	21.8
13	9.0	7.8	8.3	9.0	7.4	8.5	17.6	14.4	15.9	24.2	20.2	21.9
14	8.9	5.5	7.5	7.5	6.5	6.9	19.4	16.7	17.8	27.7	20.7	22.6
15	5.4	1.7	3.1	10.6	4.9	7.4	21.8	16.0	19.3	25.1	19.4	22.0
16	3.5	1.1	2.1	12.5	7.2	9.6	22.3	16.5	19.3	25.9	21.4	23.8
17	4.3	3.2	3.6	11.6	9.0	10.1	24.0	14.4	20.1	28.2	23.1	25.4
18	8.7	3.6	5.8	9.9	7.7	9.2	22.0	18.5	20.3	26.9	23.7	24.9
19	9.7	8.6	9.1	12.4	6.6	9.2	19.9	15.7	17.2	23.6	21.9	22.8
20	9.8	6.0	8.6	11.8	7.9	10.4	15.6	13.4	14.3	24.6	22.2	23.1
21	9.4	6.3	8.0	17.4	11.1	13.7	13.4	12.2	12.9	26.9	22.4	24.0
22	10.4	7.2	8.9	15.5	13.4	14.5	17.5	10.9	13.9	26.1	23.7	25.1
23	9.1	5.7	7.5	16.4	13.4	14.9	17.5	13.7	15.6	26.5	23.6	24.9
24	8.5	6.0	7.4	16.0	11.6	13.9	19.2	12.6	16.1	29.5	23.9	26.5
25	7.9	5.0	7.0	17.3	11.7	14.6	17.2	14.4	15.8	29.1	25.6	27.1
26	7.1	4.2	5.5	16.8	13.8	15.4	20.9	13.9	17.0	26.4	25.1	25.8
27	7.9	4.1	5.7	17.7	15.9	16.7	20.7	18.4	19.5	25.7	22.8	24.6
28	10.1	4.0	7.1	16.9	12.8	15.2	20.2	18.6	19.4	29.5	23.8	26.3
29	---	---	---	15.9	10.6	13.6	20.6	18.5	19.6	30.6	25.7	28.0
30	---	---	---	12.9	7.7	10.2	23.9	17.7	20.6	31.2	26.9	29.1
31	---	---	---	13.9	9.3	11.5	---	---	---	32.1	27.1	29.8
MONTH	11.0	1.1	7.1	17.7	4.5	10.6	24.0	10.9	17.2	32.1	12.5	22.7

03302000 POND CREEK NEAR LOUISVILLE, KY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	31.8	27.7	29.6	32.7	30.2	31.6	29.5	25.1	27.1	---	---	---
2	31.5	25.0	27.9	32.7	29.4	31.3	30.9	25.7	28.6	---	---	---
3	32.5	27.2	29.7	32.1	25.8	28.7	30.2	28.2	29.2	29.9	26.4	27.7
4	30.8	26.6	28.7	31.2	27.1	28.4	29.4	27.7	28.6	27.0	22.8	24.4
5	28.6	23.3	25.6	30.7	26.2	28.4	27.6	25.3	26.4	24.7	22.7	23.4
6	26.4	22.3	24.6	31.6	28.3	30.1	27.2	23.2	25.6	25.0	23.6	24.3
7	26.7	22.3	24.8	32.4	29.7	31.0	30.3	22.6	26.8	25.1	23.1	24.1
8	26.7	23.3	25.3	31.5	29.4	30.5	29.7	27.0	28.3	25.2	23.0	24.0
9	27.9	23.9	26.0	29.3	26.1	28.0	28.9	25.4	27.8	24.6	23.6	24.1
10	27.9	25.4	26.8	28.8	23.3	25.2	---	---	---	24.3	22.9	23.5
11	27.9	25.9	26.8	27.3	24.4	25.7	---	---	---	24.6	23.1	23.8
12	29.3	25.1	26.9	29.7	25.5	27.6	---	---	---	24.6	22.8	23.6
13	30.9	27.8	29.3	31.6	26.3	28.7	---	---	---	25.1	23.8	24.4
14	30.5	28.3	29.6	30.2	25.9	28.1	---	---	---	25.4	24.3	24.9
15	31.0	28.5	29.9	30.8	25.2	28.0	---	---	---	25.0	23.9	24.5
16	30.4	28.4	29.3	30.8	26.0	28.6	---	---	---	24.9	24.3	24.7
17	28.7	25.3	26.5	31.8	27.9	30.1	---	---	---	24.6	23.4	24.0
18	27.1	23.6	25.1	32.3	25.4	30.0	---	---	---	23.6	21.1	22.6
19	29.1	23.9	26.4	33.0	29.8	31.6	---	---	---	21.7	18.7	20.3
20	31.6	26.0	28.6	32.9	30.6	31.9	---	---	---	20.5	16.2	17.7
21	30.9	23.2	26.4	33.4	30.7	32.1	---	---	---	18.7	15.3	17.2
22	27.9	23.3	25.3	33.6	31.5	32.7	27.9	24.5	26.3	18.7	17.5	18.3
23	27.7	24.7	26.3	33.3	31.3	32.5	---	---	---	22.1	18.7	20.2
24	30.3	24.6	27.0	32.5	30.5	31.5	29.9	25.3	28.3	21.4	17.4	18.9
25	29.9	26.4	28.0	30.7	22.3	27.5	30.0	23.8	28.7	20.9	16.0	18.2
26	30.3	26.4	28.5	30.4	24.4	27.7	---	---	---	20.3	16.9	18.8
27	31.1	26.8	29.3	29.3	25.6	27.9	28.4	25.3	27.2	19.5	15.7	17.9
28	30.9	28.3	29.7	27.3	22.5	26.4	---	---	---	20.6	17.9	19.3
29	31.7	27.6	29.7	28.2	22.0	25.9	---	---	---	21.7	19.4	20.5
30	32.6	29.2	31.0	30.2	23.0	27.0	---	---	---	23.0	20.5	21.5
31	---	---	---	29.2	25.7	27.5	---	---	---	---	---	---
MONTH	32.6	22.3	27.6	33.6	22.0	29.1	---	---	---	---	---	---

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.7	7.2	8.4	---	---	---	11.5	9.6	10.5	10.9	10.3	10.7
2	9.9	7.9	9.1	11.5	8.9	10.4	11.3	9.2	10.1	10.8	10.3	10.5
3	9.9	7.4	8.7	11.5	8.7	10.1	9.2	7.2	7.7	11.0	10.4	10.7
4	9.2	4.8	6.1	11.4	8.7	10.1	9.0	7.6	8.4	11.1	10.5	10.8
5	6.2	5.1	5.6	10.9	5.9	8.0	9.8	8.7	9.2	10.8	10.1	10.4
6	6.2	4.9	5.6	9.6	4.9	6.6	9.9	8.7	9.2	10.1	9.8	10.0
7	6.2	5.1	5.6	10.8	8.0	9.1	10.0	8.8	9.3	10.2	9.6	9.9
8	6.8	5.2	5.8	11.3	9.4	10.2	10.3	9.1	9.6	9.6	9.1	9.4
9	6.6	4.6	5.4	11.3	7.3	9.4	10.5	9.5	10.0	9.0	8.6	8.8
10	5.4	4.6	4.9	8.0	7.0	7.4	10.7	9.5	10.1	8.9	8.4	8.7
11	6.2	5.4	5.7	8.9	6.9	7.7	10.9	9.4	10.1	8.7	7.9	8.4
12	6.0	5.1	5.6	9.8	7.5	8.4	10.8	9.4	10.2	8.4	7.9	8.2
13	6.1	5.3	5.6	10.3	7.8	8.8	11.3	7.9	9.5	8.5	8.1	8.3
14	6.4	5.5	5.9	10.6	7.8	9.4	12.9	9.1	10.7	8.3	7.6	8.0
15	6.9	5.5	6.1	11.3	8.1	9.7	12.8	7.8	9.1	7.5	6.7	7.1
16	7.4	5.9	6.6	10.5	8.0	9.1	9.6	8.1	8.7	7.1	6.5	6.8
17	7.6	5.2	6.7	10.8	6.9	8.4	9.3	8.6	8.9	7.7	6.7	7.1
18	8.3	5.8	6.6	11.9	8.9	9.8	8.5	8.0	8.2	7.4	6.7	7.1
19	8.4	7.1	7.8	12.0	9.1	10.3	8.8	8.1	8.5	7.1	6.4	6.8
20	---	---	---	12.1	9.0	10.2	9.1	8.5	8.8	6.8	5.3	5.9
21	---	---	---	12.4	9.9	10.9	8.5	8.0	8.2	7.0	5.6	6.1
22	---	---	---	11.8	6.0	8.2	8.7	8.1	8.4	7.0	6.2	6.7
23	---	---	---	8.5	6.0	7.1	9.8	8.7	9.5	6.8	6.1	6.4
24	---	---	---	10.0	6.9	8.1	10.7	9.7	10.2	6.6	5.4	5.9
25	---	---	---	10.7	7.5	8.8	11.0	10.3	10.6	7.8	6.2	6.7
26	---	---	---	10.1	7.5	8.6	11.1	10.4	10.7	8.4	6.5	7.3
27	---	---	---	9.7	6.8	8.2	11.1	10.6	10.8	8.6	7.6	8.0
28	---	---	---	8.7	5.8	6.7	11.1	10.6	10.8	9.2	7.9	8.4
29	---	---	---	10.4	7.0	8.3	10.7	9.2	10.2	9.7	8.2	8.8
30	---	---	---	11.1	8.9	9.9	10.4	8.6	9.6	9.3	8.4	8.8
31	---	---	---	---	---	---	10.7	9.9	10.3	11.3	9.2	10.0
MONTH	---	---	---	---	---	---	12.9	7.2	9.6	11.3	5.3	8.3

SALT RIVER BASIN

03302000 POND CREEK NEAR LOUISVILLE, KY--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.6	10.0	10.7	12.9	10.8	11.9	10.4	8.5	9.4	7.0	6.0	6.4
2	12.3	10.4	11.1	12.1	9.5	10.6	12.2	8.1	9.5	7.5	5.8	6.7
3	12.8	10.7	11.7	11.9	10.0	10.9	11.1	8.1	9.7	7.3	6.0	6.7
4	13.2	11.0	11.9	12.8	11.1	11.8	10.8	7.8	8.9	6.5	4.8	5.7
5	13.0	9.8	11.3	13.2	10.6	12.0	11.1	6.9	8.7	6.5	4.8	5.5
6	10.4	9.9	10.1	11.9	8.7	9.7	11.4	7.2	9.4	6.4	4.7	5.3
7	10.9	10.0	10.4	11.2	8.7	9.7	11.1	7.0	9.0	6.8	6.1	6.5
8	11.5	10.4	10.8	11.6	9.5	10.6	9.4	6.2	7.2	6.5	4.7	5.9
9	12.1	10.7	11.3	11.2	9.5	10.4	8.0	6.0	6.8	6.3	4.7	5.9
10	12.4	10.5	11.3	12.0	9.2	10.5	9.4	6.3	7.7	7.0	5.8	6.2
11	12.7	10.7	11.6	12.3	9.3	10.8	10.5	7.5	8.8	6.9	5.1	5.7
12	13.1	10.9	11.9	11.0	8.1	9.4	9.5	7.1	8.4	6.5	4.7	5.5
13	13.1	10.2	11.0	8.2	7.7	7.9	7.7	7.0	7.3	6.0	4.7	5.3
14	11.2	10.4	10.7	8.2	7.7	7.9	9.3	6.7	7.3	7.0	4.3	5.5
15	12.5	11.2	11.7	9.5	7.8	8.5	8.7	6.6	7.6	6.1	4.7	5.4
16	12.8	11.8	12.2	9.0	6.9	7.9	8.9	6.4	7.7	6.1	5.2	5.6
17	12.5	11.3	11.7	8.6	6.5	7.2	9.0	6.9	8.0	6.1	4.6	5.2
18	11.9	10.8	11.4	7.3	6.6	6.9	8.6	6.8	7.8	5.6	4.8	5.2
19	10.9	10.6	10.7	8.4	6.6	7.3	8.3	6.3	7.0	5.7	4.2	4.7
20	11.9	10.5	11.0	8.3	6.3	7.3	8.3	7.0	7.5	5.9	5.0	5.4
21	12.0	10.6	11.3	8.7	5.8	7.0	9.2	7.6	8.3	6.3	5.2	5.6
22	12.2	10.6	11.3	6.3	5.6	6.0	9.4	8.2	8.9	6.6	4.9	5.7
23	12.8	10.9	11.7	6.8	6.0	6.4	9.3	7.6	8.4	6.2	4.8	5.5
24	13.0	11.0	11.9	7.9	6.5	7.1	9.1	6.2	7.4	6.0	5.1	5.5
25	13.3	10.9	11.9	8.5	6.5	7.3	9.6	6.9	8.0	6.0	4.7	5.3
26	14.3	11.7	12.5	7.7	6.3	6.9	9.3	7.0	8.2	5.5	3.0	3.9
27	13.8	11.7	12.6	7.5	6.3	6.9	8.8	6.5	7.3	5.2	3.7	4.6
28	13.7	11.7	12.7	8.8	6.7	7.4	7.3	5.9	6.4	5.4	3.7	4.4
29	---	---	---	8.8	6.8	7.7	6.6	5.2	5.8	5.3	3.5	4.3
30	---	---	---	10.4	8.2	8.9	7.5	5.4	6.0	5.5	3.8	4.5
31	---	---	---	10.9	8.6	9.6	---	---	---	6.5	3.6	5.0
MONTH	14.3	9.8	11.4	13.2	5.6	8.7	12.2	5.2	7.9	7.5	3.0	5.4
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.2	1.8	5.3	18.5	6.0	12.6	10.0	4.9	8.3	5.2	3.9	4.3
2	7.1	1.1	4.1	12.5	2.9	7.3	11.2	6.9	8.7	5.6	4.4	4.9
3	9.9	2.5	5.6	10.0	.7	4.5	15.1	6.3	9.8	6.0	4.4	5.0
4	12.7	2.7	7.3	10.3	2.3	5.5	12.1	6.2	8.6	6.1	4.2	5.2
5	13.7	5.0	9.2	15.0	3.8	9.0	9.3	6.1	7.6	5.6	3.9	4.6
6	13.9	6.1	9.5	14.3	4.6	9.6	9.1	5.7	7.5	5.6	4.1	4.7
7	14.2	6.1	10.2	13.9	5.2	10.2	8.7	5.5	7.2	6.0	4.5	5.2
8	13.2	5.7	9.5	12.8	4.5	8.7	8.7	5.7	7.3	6.9	5.1	5.7
9	14.3	5.0	9.7	10.4	2.9	7.0	8.7	4.2	5.9	7.0	5.0	5.9
10	14.0	4.5	9.7	8.9	2.3	4.6	5.3	3.3	4.3	8.8	4.9	6.1
11	12.6	4.0	8.3	4.1	3.5	3.9	6.3	4.1	5.1	8.8	3.7	5.9
12	14.5	4.9	9.6	4.2	3.3	3.8	7.6	4.8	6.1	9.5	4.5	6.5
13	15.1	3.7	9.8	5.4	3.8	4.6	8.3	5.8	7.0	9.5	5.0	7.2
14	13.9	3.7	9.5	6.4	4.5	5.3	8.3	5.2	6.9	9.6	5.0	7.3
15	14.2	3.4	9.0	8.0	4.7	6.1	8.8	5.6	7.3	8.5	5.4	7.2
16	13.5	3.3	8.3	8.0	1.3	4.0	8.7	6.0	7.6	8.0	5.1	6.7
17	10.8	3.1	5.5	3.3	1.4	1.8	8.3	5.6	6.9	7.5	5.2	6.4
18	6.3	3.4	4.5	5.1	1.4	2.2	7.3	3.3	5.1	7.1	5.6	6.1
19	5.6	4.2	4.8	9.9	3.9	6.2	6.8	4.1	5.0	7.8	3.3	5.2
20	6.0	4.4	5.1	10.6	5.6	8.4	6.6	3.7	5.1	10.0	6.2	7.8
21	7.1	4.4	5.5	10.2	5.7	8.4	7.4	4.6	5.9	10.7	8.1	9.2
22	6.7	5.5	6.0	10.0	5.9	8.3	7.7	5.1	6.3	10.1	7.3	8.6
23	7.1	5.6	6.2	9.5	5.8	8.2	8.1	5.2	6.6	9.3	6.8	8.3
24	8.1	6.3	6.9	9.2	6.3	8.0	8.2	5.3	7.1	9.3	6.8	7.9
25	9.2	6.4	7.4	9.1	6.4	7.8	8.3	5.3	7.0	9.5	5.2	7.2
26	10.4	6.7	8.3	10.5	6.8	8.5	8.1	4.7	6.6	9.6	6.5	8.0
27	11.4	6.7	9.2	10.4	7.2	8.8	7.7	5.3	6.5	10.3	7.3	8.7
28	11.3	7.0	9.4	8.9	7.1	8.0	7.8	3.3	6.4	9.9	7.7	8.9
29	12.7	7.1	10.0	9.4	7.5	8.4	5.3	2.2	3.2	9.4	7.7	8.7
30	20.1	7.6	12.5	10.0	7.6	9.0	5.6	2.4	3.8	8.9	7.5	8.3
31	---	---	---	9.4	8.2	8.9	5.6	3.4	4.1	---	---	---
MONTH	20.1	1.1	7.9	18.5	.7	7.0	15.1	2.2	6.5	10.7	3.3	6.7

SALT RIVER BASIN

03302030 POND CREEK AT PENDLETON ROAD NEAR LOUISVILLE, KY

WATER-QUALITY RECORDS

LOCATION.--Lat 38°03'15", long 85°52'18", Jefferson County, Hydrologic Unit 05140102, at bridge on Pendleton Road, 1.3 mi above Brier Creek and at mile 7.1.

DRAINAGE AREA.--80.3 mi^2.

PERIOD OF RECORD.--February 1988 to current year.

REMARKS.--Samples were collected monthly.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
OCT						
02...	0920	6.6	485	7.6	17.5	8.0
NOV						
01...	0940	14	643	7.5	11.0	10.0
DEC						
03...	0920	1170	338	7.7	13.0	8.9
FEB						
04...	0915	67	540	7.9	6.5	11.4
MAR						
04...	0910	52	531	7.9	7.0	10.1
APR						
01...	0910	45	520	8.5	10.5	9.9
MAY						
01...	0925	24	532	7.8	18.0	5.9
JUN						
03...	0910	28	369	7.4	26.5	4.4
JUL						
01...	0900	7.8	591	8.8	27.5	7.3
AUG						
05...	0910	15	709	7.8	24.0	4.7
SEP						
03...	0940	13	354	7.1	25.0	5.3

OHIO RIVER MAIN STEM

03303280 OHIO RIVER AT CANNELTON DAM, KY

LOCATION.--Lat 37°53'58", long 86°42'20", Hancock County, Hydrologic Unit 05140201, at Cannelton Dam, 0.7 mi upstream from Indian Creek, 3.3 mi upstream from Lead Creek, and at mile 720.8.

DRAINAGE AREA.--97,000 mi^2, approximately.

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Gate opening and water-stage recorders. Datum of headwater gage 0.4 mi upstream is 374.0 ft Ohio River datum. Datum of tailwater gage 0.4 mi downstream is 26.0 ft lower.

REMARKS.--Estimated daily discharge Apr. 16,17. Records good except those below 20,000 ft^3/s, which are fair. Daily discharge computed from head, gate openings, and lockages. Flow regulated by Ohio River system of locks, dams, and reservoirs upstream from station.

AVERAGE DISCHARGE.--15 years, 127,000 ft^3/s, 17.78 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 617,000 ft^3/s, Dec. 15, 1978, maximum headwater gage height, 23.84 ft, Dec. 15, 1978; maximum tailwater gage height, 49.08 ft, Dec. 15, 1978; minimum daily discharge, 3,540 ft^3/s, Sept. 16, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 504,000 ft^3/s, Feb. 17, maximum headwater gage height, 18.25 ft, Feb. 17, maximum tailwater gage height, 43.63 ft, Feb. 17; minimum daily discharge, 17,600 ft^3/s, Dec. 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47800	84300	84300	509000	206000	194000	284000	121000	65600	23400	18800	17900
2	66600	75400	79300	534000	211000	182000	278000	113000	58500	40500	22600	11500
3	48600	76000	96200	553000	219000	148000	254000	112000	62200	19700	15100	12000
4	65900	63700	170000	567000	191000	130000	234000	97300	67500	25400	23000	17300
5	100000	60800	196000	572000	172000	134000	195000	92100	67000	26100	24400	27100
6	102000	57400	216000	568000	183000	160000	158000	93500	57800	32600	12700	34300
7	87800	53900	222000	555000	241000	194000	136000	84000	56100	34200	14700	15900
8	91000	65900	215000	529000	261000	240000	121000	96000	45800	23300	7420	5520
9	89300	60400	194000	498000	296000	276000	121000	104000	42700	61600	11800	8740
10	92900	65900	167000	471000	310000	297000	130000	91300	31800	78800	37600	19500
11	108000	81100	140000	454000	307000	314000	146000	78700	25800	79400	26700	20200
12	95000	115000	118000	438000	285000	299000	164000	85200	36200	82300	28600	27100
13	112000	129000	105000	417000	261000	276000	172000	65100	53800	55000	28500	10400
14	145000	124000	96500	396000	267000	288000	208000	74600	35500	48100	22200	7920
15	174000	112000	99200	384000	260000	286000	238000	88000	16800	49200	10600	20300
16	189000	98200	130000	378000	248000	283000	260000	65700	18300	51900	13100	20200
17	177000	88800	149000	363000	257000	289000	300000	69100	37000	35500	10800	19400
18	158000	79100	253000	325000	277000	281000	322000	69700	46300	19700	33600	19400
19	149000	77100	319000	276000	287000	283000	342000	75600	45100	26000	17100	15100
20	142000	73100	410000	260000	281000	272000	316000	71000	32100	26100	22800	19600
21	140000	68400	459000	259000	277000	261000	265000	61800	32600	14000	31500	21700
22	152000	71100	498000	258000	293000	261000	224000	65500	34200	11100	11600	13000
23	160000	81700	518000	243000	326000	294000	197000	66400	37000	18100	6420	10500
24	161000	110000	535000	217000	352000	360000	181000	80500	39800	23600	16900	21500
25	169000	119000	536000	225000	352000	419000	156000	81200	37200	26400	17100	23800
26	187000	119000	532000	213000	314000	434000	149000	52400	25100	15700	14700	40200
27	197000	110000	523000	199000	262000	439000	145000	41600	39700	8020	14700	10700
28	186000	102000	510000	191000	238000	442000	138000	62300	35500	11100	11500	11600
29	156000	88000	488000	188000	---	426000	131000	59200	24700	24800	5530	14700
30	130000	83900	469000	188000	---	395000	122000	62600	14400	23700	5810	15000
31	105000	---	483000	201000	---	349000	---	66400	---	13900	7530	---
TOTAL	3983900	2594200	9010500	11429000	7434000	8926000	6087000	2446800	1222100	1029220	545410	532080
MEAN	128500	86470	290700	368700	265500	287900	202900	78930	40740	33200	17590	17740
MAX	197000	129000	536000	572000	352000	442000	342000	121000	67500	82300	37600	40200
MIN	47800	53900	79300	188000	172000	130000	121000	41600	14400	8020	5530	5520

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1991, BY WATER YEAR (WY)

MEAN	68130	99060	169900	160200	206700	223100	203000	151200	100200	67360	51700	46500
MAX	155800	222400	334000	368700	358100	347400	319600	374700	235400	105000	148200	186500
(WY)	1980	1986	1979	1991	1990	1979	1984	1983	1981	1990	1980	1979
MIN	19460	33890	54160	36500	104000	125500	72990	46020	16490	18760	13130	14920
(WY)	1989	1988	1990	1977	1980	1983	1986	1976	1988	1988	1988	1983

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1976 - 1991	
ANNUAL TOTAL	60165300		55240210			
ANNUAL MEAN	164800		151300		128500	
HIGHEST ANNUAL MEAN					188900	1979
LOWEST ANNUAL MEAN					72150	1988
HIGHEST DAILY MEAN	536000	Dec 25	572000	Jan 5	617000	Dec 15 1978
LOWEST DAILY MEAN	18000	Aug 17	5520	Sep 8	3540	Sep 16 1985
ANNUAL SEVEN-DAY MINIMUM	32400	Aug 13	10300	Aug 28	7650	Jul 12 1988
INSTANTANEOUS PEAK STAGE			46.85	Jan 5	49.08	Dec 15 1978
10 PERCENT EXCEEDS	339000		356000		283000	
50 PERCENT EXCEEDS	134000		98200		91300	
90 PERCENT EXCEEDS	48100		15800		23400	

GREEN RIVER BASIN

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^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1930 to March 1932, October 1963 to current year. Monthly discharge only for October 1930, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 500.00 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Apr. 1, 1932, nonrecording gage at site 1.1 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Water-discharge records good. Flow regulated by Green River Lake beginning February 1969 (station 03305990).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 28, 1962, reached a stage of 122.6 ft, from floodmarks, discharge, 60,700 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	1600	1500	427	6610	2920	1580	415	220	84	79	77
2	72	1410	1500	427	6700	2910	1580	365	218	84	79	77
3	73	1240	1530	1060	6630	2900	1420	259	222	84	79	77
4	170	1240	2230	2280	6560	2910	1120	236	221	84	80	76
5	280	1230	2950	2610	6500	3650	588	237	221	84	80	75
6	278	1030	2930	2630	5810	4190	418	233	222	84	80	74
7	278	812	2910	2650	5060	3540	418	232	222	83	80	73
8	278	810	2890	2640	5470	2180	393	231	186	84	80	73
9	280	829	2870	2640	5720	1480	418	230	155	84	80	73
10	281	1040	2840	1600	5670	1140	418	229	111	84	80	73
11	278	1420	2210	942	5600	782	421	227	81	84	80	73
12	277	1570	1450	2880	5530	783	421	227	81	85	79	72
13	277	1570	777	4840	5260	787	421	250	80	84	80	72
14	280	1560	343	5170	4820	1470	425	323	79	83	80	72
15	667	1550	349	5140	4820	1840	854	388	80	83	79	72
16	889	1550	755	5640	4800	1480	1700	385	80	69	79	71
17	885	1540	1660	6500	4770	1490	2000	385	80	73	79	70
18	1170	1540	1120	6800	3570	1810	2000	384	80	77	81	71
19	1310	1530	280	6730	1230	2170	1990	382	83	77	79	71
20	1310	1530	279	6660	414	2050	1990	381	86	77	79	71
21	1300	1520	280	6600	1680	1660	1970	378	88	77	79	72
22	1310	1520	302	6750	3890	1910	1720	379	88	25	79	72
23	1540	1520	295	6970	4850	2970	872	379	86	28	79	72
24	1660	1510	286	6910	5100	4050	425	379	86	72	79	73
25	1650	1510	1060	6840	5060	4400	425	379	85	72	79	73
26	1650	1130	2600	6770	5020	4130	422	286	86	72	79	70
27	1640	781	3830	6700	3840	3070	422	218	86	79	77	75
28	1630	784	4150	6640	2030	1970	420	219	85	79	77	76
29	1620	781	4140	6560	---	1570	417	219	85	79	78	76
30	1610	1180	4220	6480	---	1580	417	219	84	79	77	76
31	1600	---	2540	6420	---	1580	---	220	---	79	77	---
TOTAL	26615	38837	57076	143906	133014	71372	28085	9274	3667	2372	2452	2198
MEAN	859	1295	1841	4642	4750	2302	936	299	122	76.5	79.1	73.3
MAX	1660	1600	4220	6970	6700	4400	2000	415	222	85	81	77
MIN	72	781	279	427	414	78[illegible]	393	218	79	25	77	70

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1991, BY WATER YEAR (WY)

MEAN	665	1074	1612	1905	2045	1772	1278	1200	734	417	297	515
MAX	3075	2732	4516	4993	5630	4585	4357	4632	4374	3229	1386	2902
(WY)	1980	1987	1980	1932	1982	1964	1975	1984	1983	1967	1977	1982
MIN	2.36	13.1	2.88	74.0	419	42.9	45.4	44.2	57.9	51.5	14.9	18.9
(WY)	1964	1964	1982	1981	1977	1969	1969	1986	1969	1966	1965	1964

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1931 - 1991	
ANNUAL TOTAL	413519		518868			
ANNUAL MEAN	1133		1422		1112	
HIGHEST ANNUAL MEAN					2077	1979
LOWEST ANNUAL MEAN					274	1969
HIGHEST DAILY MEAN	4590	Feb 19	6970	Jan 23	29000	Jan 30 1932
LOWEST DAILY MEAN	49	Sep 5	25	Jul 22	.00	May 15 1982
ANNUAL SEVEN-DAY MINIMUM	65	Aug 31	60	Jul 20	.58	May 11 1982
INSTANTANEOUS PEAK FLOW			7040	Jan 22	29200	Jan 30 1932
INSTANTANEOUS PEAK STAGE			14.02	Jan 22	21.32	Jan 30 1932
INSTANTANEOUS LOW FLOW			.00	Jul 22		
10 PERCENT EXCEEDS	3080		4830		3520	
50 PERCENT EXCEEDS	572		418		345	
90 PERCENT EXCEEDS	69		76		60	

03306000 GREEN RIVER NEAR CAMPBELLSVILLE, KY--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1963 to current year.

INSTRUMENTATION.--Temperature recorded from Data Collection Platform and A-35 Chart Recorder.

REMARKS.--Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 31.0°C, Aug. 3-5, 1964; minimum, 0.0°C, on many days during 1963-66.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 30.3°C, July 22; minimum, 5.8°C, Jan 23.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	22.0	19.3	15.3	14.9	12.4	12.0	8.7	8.4	6.7	6.3	6.9	6.5
2	22.0	19.6	14.9	14.9	12.5	12.1	8.7	8.4	6.7	6.3	7.2	6.9
3	21.1	19.9	14.9	14.9	12.1	12.1	8.4	8.4	6.7	6.3	7.2	7.2
4	21.1	19.9	14.9	14.8	12.1	11.8	8.4	8.0	6.7	6.3	7.2	7.2
5	21.5	20.3	14.8	14.1	11.9	11.5	8.3	8.3	6.7	6.7	7.2	7.2
6	21.5	20.3	14.4	14.4	11.5	11.5	8.3	7.9	6.7	6.7	7.6	7.2
7	21.0	20.6	14.4	14.1	11.6	11.1	7.9	7.9	6.7	6.7	7.6	7.6
8	21.4	20.6	14.2	13.8	11.2	10.9	7.9	7.9	6.7	6.7	8.3	7.6
9	21.0	20.6	13.8	13.0	11.2	10.9	7.8	7.8	6.7	6.7	7.9	7.6
10	21.0	20.2	13.5	13.1	11.0	11.0	7.8	7.8	6.7	6.7	7.9	7.6
11	20.2	19.7	13.5	13.1	11.0	10.6	7.8	7.8	6.7	6.7	8.0	7.6
12	19.7	19.3	13.5	13.1	10.6	10.6	7.8	7.5	6.7	6.7	8.4	7.7
13	19.7	19.3	13.6	13.1	10.6	10.5	7.5	7.4	6.7	6.6	8.0	8.0
14	19.7	18.9	13.2	13.2	10.5	10.2	7.4	7.4	6.6	6.6	8.0	8.0
15	18.9	15.7	13.2	12.9	10.5	10.2	7.4	7.0	6.6	6.2	9.1	8.0
16	16.1	15.3	13.0	12.6	10.5	10.2	7.4	7.0	6.2	5.9	9.1	8.4
17	16.1	15.3	13.0	12.6	10.2	10.1	7.0	6.9	5.9	5.9	8.7	8.4
18	16.4	15.7	12.7	12.6	10.8	10.1	6.9	6.9	6.2	5.9	8.7	8.4
19	16.7	16.3	12.7	12.4	10.4	10.1	6.9	6.9	6.6	6.2	9.1	8.7
20	16.3	16.3	12.7	12.4	10.4	10.1	6.9	6.6	6.6	6.2	9.2	8.7
21	16.7	16.3	12.8	12.4	10.4	10.1	6.6	6.6	6.6	6.2	9.2	8.8
22	16.7	16.3	12.5	12.5	11.1	10.0	6.6	6.1	6.6	6.2	10.6	9.2
23	16.6	16.2	12.5	12.1	10.3	9.3	6.1	5.8	7.0	6.6	9.9	9.2
24	16.6	16.2	12.6	12.2	9.3	9.3	6.2	6.1	6.6	6.6	10.2	9.9
25	16.6	15.9	12.6	12.2	9.3	8.9	6.4	5.9	6.6	6.6	11.3	10.2
26	16.2	15.9	12.6	12.2	8.9	8.8	6.4	6.1	6.6	6.6	11.3	10.6
27	15.9	15.8	12.7	12.3	8.8	8.8	6.4	6.0	6.6	6.5	11.3	10.2
28	15.8	15.4	12.7	12.7	8.8	8.8	6.8	6.2	7.2	6.5	12.0	11.3
29	15.8	15.4	12.8	12.3	8.8	8.8	6.9	6.4	---	---	13.1	12.0
30	15.4	15.4	12.4	12.0	9.2	8.8	6.7	6.6	---	---	12.5	12.0
31	15.4	14.9	---	---	8.8	8.4	6.7	6.7	---	---	12.1	11.7
MONTH	22.0	14.9	15.3	12.0	12.5	8.4	8.7	5.8	7.2	5.9	13.1	6.5

03306000 GREEN RIVER NEAR CAMPBELLSVILLE, KY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.5	11.7	13.9	13.5	22.7	21.5	27.3	25.5	26.2	23.2	26.7	25.0
2	13.2	12.1	17.2	13.1	23.1	21.5	27.7	24.6	26.2	23.6	26.8	25.1
3	---	---	18.7	16.8	23.1	21.9	26.8	24.2	25.7	24.0	25.9	25.1
4	---	---	18.3	17.6	23.9	22.3	26.8	25.5	25.7	24.0	25.5	25.1
5	---	---	18.3	17.2	24.3	23.1	27.3	25.5	25.3	23.6	25.5	25.1
6	12.5	11.7	17.9	17.2	24.3	22.7	27.7	25.5	26.2	24.4	26.9	25.1
7	12.5	12.1	18.7	17.2	23.0	22.2	27.6	25.8	26.2	24.4	27.4	25.2
8	12.8	11.7	19.2	17.7	23.8	22.2	27.2	25.0	26.2	24.0	26.9	25.2
9	12.9	11.8	19.2	18.4	23.8	22.6	28.1	25.0	25.3	24.4	25.6	25.2
10	12.9	12.2	19.6	18.8	24.2	22.2	26.7	25.0	26.6	24.3	25.6	25.2
11	13.3	12.2	19.2	18.8	23.4	22.6	27.6	25.8	26.5	23.9	26.6	25.3
12	12.9	12.2	19.2	18.8	24.6	22.6	27.6	25.4	26.5	24.3	27.0	25.3
13	12.9	12.6	18.8	18.4	---	22.9	27.6	25.8	26.1	23.9	27.5	25.3
14	13.3	12.6	19.2	14.0	24.9	22.9	28.1	25.8	26.5	24.3	27.0	25.3
15	14.0	12.9	14.3	13.6	24.5	22.9	28.5	26.3	26.1	23.5	27.1	25.3
16	14.0	13.7	14.7	14.0	24.9	22.9	29.0	26.7	26.1	23.9	27.1	25.8
17	---	13.7	14.7	14.0	24.1	22.9	28.5	22.9	25.2	23.5	27.6	25.8
18	14.5	---	14.4	13.7	24.9	---	24.5	22.9	26.5	23.1	26.7	25.4
19	14.8	14.1	14.4	14.1	26.1	---	25.4	22.9	24.8	23.5	25.8	24.6
20	14.5	13.8	14.4	14.1	26.6	24.4	25.0	22.9	24.8	23.9	25.5	24.2
21	14.5	14.1	14.4	14.1	26.6	24.4	25.3	23.2	26.1	23.5	25.5	23.4
22	14.5	13.8	14.4	14.1	---	---	30.3	22.8	26.1	23.9	24.6	23.4
23	14.1	13.4	14.4	14.1	26.1	24.8	29.8	23.6	26.1	24.3	24.2	23.4
24	13.8	13.0	14.8	14.1	26.6	---	24.9	23.2	26.6	24.4	23.9	23.1
25	13.4	13.0	14.8	14.0	25.3	24.7	24.4	23.2	26.2	24.4	24.3	22.7
26	13.8	13.4	22.0	14.0	26.9	---	24.9	23.2	25.7	24.9	23.9	22.3
27	13.8	13.4	22.4	21.6	26.9	24.7	25.3	23.2	26.2	24.9	23.5	21.5
28	13.9	13.1	22.0	21.2	26.0	25.2	24.9	23.6	26.3	24.9	23.9	21.9
29	13.9	13.1	22.0	21.6	26.5	25.2	24.9	22.8	26.7	24.5	23.6	22.0
30	14.2	13.1	22.4	21.6	26.9	25.2	25.7	23.6	26.3	25.0	24.0	21.6
31	---	---	22.8	21.6	---	---	25.7	23.2	26.7	25.0	---	---
MONTH	---	---	22.8	13.1	---	---	30.3	22.8	26.7	23.1	27.6	21.5

GREEN RIVER BASIN

03307000 RUSSELL CREEK NEAR COLUMBIA, KY

LOCATION.--Lat 37°07'09", long 85°23'38", Adair County, Hydrologic Unit 05110001, on left bank at downstream side of bridge on State Highway 61, 0.3 mi upstream from Butlers Fork, 5.0 mi west of Columbia, and at mile 26.9. Records include flow of Butlers Fork.

DRAINAGE AREA.--188 mi^2 (includes Butlers Fork), of which about 15 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1939 to current year. Prior to December 1939, monthly discharge only, published in WSP 1305.

REVISED RECORDS.--WSP 1275: 1940. WSP 1335: 1953. WSP 1555: Drainage area. WRD KY-75-1: 1949(M), 1952(M), 1955(M), 1962(M), 1967(M), 1974(M).

GAGE.--Water-stage recorder. Datum of gage is 610.96 ft above National Geodetic Vertical Datum of 1929. Prior to June 25, 1953, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in Jan. 1937 reached a stage of about 23 ft, from info. by local residents.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	22	87	973	234	254	475	92	51	32	4.3	16
2	12	22	86	622	196	477	373	93	68	46	3.5	8.9
3	14	21	1710	458	174	753	316	84	59	31	3.0	9.2
4	41	19	789	365	162	1190	277	80	82	35	2.5	8.3
5	83	20	382	317	172	620	263	84	56	28	2.1	13
6	50	24	270	596	896	480	242	104	40	26	1.8	48
7	29	30	201	3610	823	432	211	81	31	23	1.6	33
8	20	30	154	1190	557	350	200	69	28	21	1.3	33
9	19	185	125	701	419	306	208	85	26	29	1.2	42
10	26	781	106	636	346	272	347	121	25	34	1.3	44
11	33	315	95	2140	291	245	236	94	24	37	2.4	44
12	32	167	86	1030	248	238	199	86	24	43	2.6	22
13	82	111	81	656	530	514	332	96	28	52	2.2	14
14	65	84	76	492	2050	468	311	94	32	53	2.4	11
15	41	69	220	400	904	389	1090	74	70	33	2.6	12
16	30	60	614	364	513	333	586	64	45	24	2.6	17
17	25	57	856	311	658	343	385	63	40	19	3.3	11
18	44	57	7540	267	6360	807	306	61	37	16	4.5	8.1
19	37	52	4350	239	3200	569	274	60	31	14	4.7	5.9
20	34	47	843	226	2090	438	233	56	27	12	4.6	5.3
21	30	45	768	203	995	376	193	76	24	12	3.9	4.9
22	72	47	3800	17[illegible]	677	693	173	61	95	10	4.1	4.9
23	194	156	3820	160	515	1480	155	54	59	9.0	3.8	5.2
24	102	164	1240	155	419	704	139	48	35	7.9	3.8	6.4
25	61	107	674	141	362	472	123	46	29	7.7	4.0	17
26	47	81	477	131	325	376	115	43	46	6.8	3.7	32
27	39	69	769	127	288	335	112	43	34	6.9	3.4	24
28	33	87	2490	137	258	471	110	42	26	7.0	4.0	13
29	28	150	902	136	---	529	117	42	23	6.6	5.6	8.2
30	26	112	3610	195	---	1260	140	42	21	5.5	13	6.4
31	24	---	7200	328	---	657	---	40	---	5.0	28	---
TOTAL	1385	3191	44421	17488	24662	16841	8241	2178	1216	692.4	131.8	527.7
MEAN	44.7	106	1433	564	881	543	275	70.3	40.5	22.3	4.25	17.6
MAX	194	781	7540	3610	6360	1480	1090	121	95	53	28	48
MIN	12	19	76	127	162	238	110	40	21	5.0	1.2	4.9
CFSM	.24	.57	7.62	3.00	4.69	2.89	1.46	.37	.22	.12	.02	.09
IN.	.27	.63	8.79	3.46	4.88	3.33	1.63	.43	.24	.14	.03	.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1991, BY WATER YEAR (WY)

MEAN	73.2	213	422	478	597	561	401	264	176	130	89.9	115
MAX	636	1047	2540	1779	1588	1787	855	1464	800	751	502	1114
(WY)	1976	1952	1979	1950	1989	1975	1972	1983	1950	1967	1967	1979
MIN	1.38	8.92	18.6	26.5	61.1	91.0	70.1	39.8	14.6	10.0	4.25	2.09
(WY)	1954	1954	1954	1981	1941	1941	1986	1941	1988	1944	1991	1953

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1940 - 1991	
ANNUAL TOTAL	124938.7		120974.9			
ANNUAL MEAN	342		331		292	
HIGHEST ANNUAL MEAN					651	1979
LOWEST ANNUAL MEAN					118	1941
HIGHEST DAILY MEAN	7540	Dec 18	7540	Dec 18	25000	Dec 9 1978
LOWEST DAILY MEAN	9.8	Sep 19	1.2	Aug 9	.40	Sep 25 1952
ANNUAL SEVEN-DAY MINIMUM	14	Aug 18	1.7	Aug 5	.47	Oct 19 1953
INSTANTANEOUS PEAK FLOW			13400	Dec 31	40600	Sep 1 1982
INSTANTANEOUS PEAK STAGE			19.39	Dec 31	26.12	Sep 1 1982
ANNUAL RUNOFF (CFSM)	1.82		1.76		1.55	
ANNUAL RUNOFF (INCHES)	24.72		23.94		21.09	
10 PERCENT EXCEEDS	615		702		628	
50 PERCENT EXCEEDS	107		76		98	
90 PERCENT EXCEEDS	18		6.2		15	

03307260 LITTLE PITMAN CREEK NEAR CAMPBELLSVILLE, KY

LOCATION.--Lat 37°20'50", long 85°23'25", Taylor County, Hydrologic Unit 05110001, on right bank at bridge on county road 323, 0.6 mi downstream from Buck Creek, 2.4 mi wset of Campbellsville, and at mile 9.1.

DRAINAGE AREA.--19.3 mi^2.

PERIOD OF RECORD.--August 1990 to current year.

GAGE.--Water-stage recorder.

REMARKS.--No estimated daily discharges. Records good. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section. Flow partially regulated by City of Campbellsville.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,480 ft^3/s, Sept. 2, 1991, gage-height, 8.30 ft; minimum daily, 2.2 ft^3/s, Sept. 3, 1990.

DISCHARGE, CUBIC FEET PER SECOND, FOR THE PERIOD AUGUST TO SEPTEMBER 1990
DAILY MEAN VALUES

AUGUST	1	---	AUGUST	12	8.4	AUGUST	23	14	SEPTEMBER	1	4.2	SEPTEMBER	12	11	SEPTEMBER 23 5.8
	2	---		13	19		24	8.9		2	2.5		13	9.5	24 7.2
	3	---		14	15		25	6.3		3	2.2		14	7.4	25 7.1
	4	---		15	10		26	4.2		4	2.2		15	5.5	26 6.6
	5	---		16	9.0		27	7.4		5	3.1		16	4.3	27 6.4
	6	---		17	8.8		28	6.7		6	5.9		17	7.2	28 5.8
	7	---		18	6.9		29	13		7	17		18	7.4	29 4.7
	8	---		19	7.8		30	7.8		8	8.5		19	11	30 3.7
	9	---		20	9.4		31	6.7		9	11		20	8.2	
	10	9.5		21	21					10	8.6		21	8.4	
	11	7.3		22	12		TOTAL	---		11	7.9		22	13	TOTAL 213.3
							MEAN	---							MEAN 7.11
							MAX	---							MAX 17
							MIN	---							MIN 2.2

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	6.5	16	141	20	29	32	7.3	5.7	5.4	6.4	3.2
2	7.2	5.2	25	109	19	31	26	6.9	4.3	13	5.8	268
3	6.7	4.2	204	81	19	80	21	6.5	62	11	4.1	100
4	50	5.6	90	65	20	76	19	5.0	29	8.2	3.2	23
5	7.1	13	55	56	90	47	20	25	16	6.3	5.1	16
6	3.6	10	40	196	461	50	14	15	12	4.5	11	12
7	2.6	7.5	32	332	205	40	16	13	10	3.6	7.8	8.5
8	4.1	6.6	24	159	138	31	19	11	7.2	28	6.5	7.7
9	8.3	63	21	117	107	27	124	24	5.7	18	6.8	9.7
10	15	55	19	112	87	24	74	14	7.9	9.7	4.2	8.9
11	7.8	24	17	156	66	24	35	12	7.9	6.3	2.7	8.4
12	8.6	19	17	126	54	33	33	8.7	10	21	5.2	8.0
13	5.3	14	16	101	170	68	37	10	9.2	17	5.8	6.6
14	3.5	11	13	82	214	40	30	22	7.9	11	6.1	5.9
15	5.6	10	52	69	129	34	159	14	6.4	11	4.9	5.4
16	5.2	8.6	41	63	93	27	82	12	4.9	8.7	5.6	7.7
17	5.1	10	136	47	104	80	44	10	7.9	7.5	47	7.6
18	15	7.9	761	40	516	129	34	7.5	7.3	7.3	31	7.1
19	7.3	8.2	226	39	303	85	40	5.7	7.7	7.0	10	7.7
20	5.3	7.3	140	40	192	60	24	9.3	7.3	4.9	8.5	7.0
21	3.5	5.8	151	15	137	47	19	9.0	14	3.8	7.1	5.7
22	78	38	434	38	109	613	16	8.1	6.7	6.9	6.9	4.8
23	36	57	320	26	83	269	14	7.9	5.0	6.7	6.6	6.6
24	18	26	164	24	62	132	12	8.1	7.5	6.4	4.6	7.3
25	14	18	120	22	52	101	9.9	5.6	7.3	6.8	3.6	17
26	11	15	99	22	42	69	9.4	4.4	7.0	6.2	6.1	8.7
27	9.3	12	165	24	34	59	7.2	23	6.7	5.4	6.6	6.7
28	8.5	49	213	28	29	52	6.4	12	6.5	3.9	5.9	5.4
29	9.1	28	132	23	---	47	9.4	10	4.1	6.6	8.1	4.9
30	8.0	19	681	28	---	58	8.3	8.7	3.2	6.3	8.1	6.4
31	7.3	---	236	24	---	36	---	7.8	---	5.7	4.1	---
TOTAL	383.2	564.4	4660	2415	3555	2498	994.6	343.5	303.4	274.1	255.4	601.9
MEAN	12.4	18.8	150	77.9	127	80.6	33.2	11.1	10.1	8.84	8.24	20.1
MAX	78	63	761	332	516	613	159	25	62	28	47	268
MIN	2.6	4.2	13	22	19	24	6.4	4.4	3.2	3.6	2.7	3.2

GREEN RIVER BASIN

03308500 GREEN RIVER AT MUNFORDVILLE, KY

LOCATION.--Lat 37°16'05", long 85°53'10", Hart County, Hydrologic Unit 05110001, on right bank at downstream side of pier of bridge on U.S. Highway 31W at Munfordville, and at mile 225.9.

DRAINAGE AREA.--1,673 mi^2, of which about 180 mi^2 does not contribute directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1915 to December 1922, October 1927 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. Datum of gage is 451.70 ft above National Geodetic Vertical Datum of 1929. See WDR KY-90-1 for history of changes prior to Nov. 29, 1940.

REMARKS.--No estimated daily discharges. Water-discharge records good. Flow regulated by Green River Lake beginning February 1969 (station 03305990).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of January 1913 reached a stage of 54.0 ft at former site, discharge, 67,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	231	1700	1530	26600	7260	3780	4840	1100	581	271	198	254
2	183	1690	1930	11600	7140	4670	4070	1040	840	258	196	219
3	174	1620	4390	4800	7170	5120	3600	973	883	536	194	259
4	240	1350	8970	3810	7060	7150	3190	883	1670	726	192	528
5	719	1330	5260	4430	7110	6880	2740	786	1120	423	187	312
6	634	1330	4500	4940	13900	6140	2230	894	794	340	185	347
7	539	1280	4020	14100	19300	6370	1800	940	643	307	184	391
8	483	960	3720	17500	13200	5630	1700	800	577	282	216	355
9	448	945	3520	9750	9780	4160	1980	761	536	689	216	309
10	448	3260	3370	6930	8650	3080	2650	846	485	814	194	301
11	448	3450	3270	7720	7870	2700	2330	865	428	593	181	322
12	436	2370	2870	8720	7320	2130	1940	852	410	583	176	301
13	444	2170	1970	7720	7380	2400	1930	1080	502	614	174	283
14	456	2000	1950	8060	13900	3300	2190	1050	411	591	173	262
15	443	1900	1960	7740	14300	3470	3590	954	536	448	173	229
16	455	1830	2290	7350	9540	3850	6180	985	572	384	174	212
17	379	1790	2630	7320	7960	3260	4750	911	474	346	182	214
18	639	1770	14400	7620	16600	5310	4190	864	415	314	386	249
19	912	1750	26000	7800	25800	6400	3820	830	373	290	646	214
20	1020	1730	25900	7710	24900	5470	3590	807	349	279	378	199
21	1460	1710	15700	7570	12800	4770	3290	803	327	279	281	189
22	1880	1720	13800	7380	7660	10600	3120	802	317	266	239	185
23	2150	1950	18600	7290	7840	17100	2830	796	341	250	218	180
24	2200	2370	13700	7430	7840	12800	2020	768	348	235	204	177
25	2090	2220	7340	7360	7600	8860	1340	747	727	214	194	197
26	1910	2010	4720	7240	7200	7490	1230	735	370	185	189	238
27	1830	1770	5080	7170	6880	6680	1170	880	321	192	188	233
28	1790	1210	11700	7140	5870	6080	1140	1160	293	211	188	214
29	1760	1500	12800	7100	---	5020	1140	868	297	209	210	217
30	1740	1620	12100	7030	---	5600	1140	703	281	205	261	206
31	1720	---	24200	7180	---	6210	---	627	---	200	258	---
TOTAL	30261	54305	264190	262110	299830	182480	81730	27110	16227	11534	7035	7796
MEAN	976	1810	8522	8455	10710	5886	2724	875	541	372	227	260
MAX	2200	3450	26000	26600	25800	17100	6180	1160	1670	814	646	528
MIN	174	945	1530	3810	5870	2130	1140	627	281	185	173	177

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915 - 1991, BY WATER YEAR (WY)

MEAN	803	1891	3364	4951	5402	5420	3746	2720	1758	1170	846	820
MAX	5337	7555	12800	25000	16700	12950	8863	13250	9180	7180	4470	6104
(WY)	1976	1952	1979	1937	1956	1955	1968	1983	1928	1967	1967	1979
MIN	69.7	110	143	255	691	815	552	441	214	152	108	78.3
(WY)	1954	1954	1954	1981	1941	1941	1986	1941	1988	1944	1930	1953

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1915 - 1991	
ANNUAL TOTAL	1078336		1244608			
ANNUAL MEAN	2954		3410		2713	
HIGHEST ANNUAL MEAN					5285	1979
LOWEST ANNUAL MEAN					872	1931
HIGHEST DAILY MEAN	26000	Dec 19	26600	Jan 1	73600	Mar 1 1962
LOWEST DAILY MEAN	174	Oct 3	173	Aug 14	42	Sep 22 1919
ANNUAL SEVEN-DAY MINIMUM	182	Sep 3	176	Aug 11	53	Sep 16 1919
INSTANTANEOUS PEAK FLOW			27500	Dec 19	76800	Mar 1 1962
INSTANTANEOUS PEAK STAGE			31.01	Dec 19	57.72	Mar 1 1962
INSTANTANEOUS LOW FLOW					39	Sep 2 1921
10 PERCENT EXCEEDS	6350		7910		6800	
50 PERCENT EXCEEDS	1690		1330		1110	
90 PERCENT EXCEEDS	247		212		193	

03308500 GREEN RIVER AT MUNFORDVILLE, KY--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1949 to September 1973, October 1978 to September 1980, October 1983 to current year.
WATER TEMPERATURES: October 1950 to September 1980, October 1982 to current year.
SUSPENDED-SEDIMENT DISCHARGE: April 1951 to current year.

REMARKS.--Sediment samples collected daily by a local observer. Water temperature recorded when sample is collected and conductance is determined when samples are analyzed.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water years 1949-73, 1984-90): Maximum daily, 9,420 microsiemens, Oct. 10, 1959; minimum daily, 59 microsiemens, Mar. 25, 1952.
WATER TEMPERATURE (water years 1950-77, 1980, 1983-90): Maximum daily, 29.0°C, July 13-17, 1980; minimum daily, 0.0°C, on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 3,180 mg/L, June 14, 1952; minimum daily mean, <0.5 mg/L, on several days during winter periods.
SEDIMENT LOADS: Maximum daily, 157,000 tons, Mar. 1, 1962; minimum daily, 0 ton, on several days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 537 microsiemens, Aug. 22; minimum daily, 134 microsiemens, Feb. 5.
WATER TEMPERATURE: Maximum daily, 25.5°C, several days; minimum daily, 3.5°C, Feb. 11.
SEDIMENT CONCENTRATION: Maximum daily mean, 631 mg/L, Mar. 22; minimum daily mean, 9 mg/L, May 5.
SEDIMENT LOADS: Maximum daily, 36,500 tons, Dec. 31; minimum daily, 10 tons, Oct. 3.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)
OCT 1990											
10...	1115	452	278	7.2	18.0	17	6.6	72	740	610	120
DEC											
12...	1050	2980	198	7.4	9.0	10	10.1	89	520	260	91
FEB 1991											
06...	1100	12400	189	7.4	6.5	70	11.4	95	3400	34000	88
APR											
03...	1030	3680	217	8.0	13.0	15	9.6	93	310	K51	110
MAY											
30...	1030	736	359	7.9	21.0	12	7.1	82	920	780	150
AUG											
15...	1000	186	345	8.1	21.5	13	8.6	99	96	230	140

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	ALKA-LINITY WAT DIS TOT FET FIELD MG/L AS CACO3	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SULFATE DIS-SOLVED (MG/L AS SO4)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT 1990											
10...	38	6.5	10	3.2	--	--	98	15	21	0.20	5.4
DEC											
12...	27	5.7	4.0	2.0	94	77	77	6.3	16	0.20	3.3
FEB 1991											
06...	28	4.4	3.6	1.6	87	71	71	6.9	14	<0.10	5.0
APR											
03...	34	5.3	3.5	1.4	105	86	87	6.1	16	<0.10	5.1
MAY											
30...	48	6.9	18	2.4	--	--	131	25	14	0.10	6.7
AUG											
15...	45	7.2	16	2.1	145	119	117	28	19	0.10	5.2

03308500 GREEN RIVER AT MUNFORDVILLE, KY--Continued
(National stream-quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
OCT 1990										
10...	160	159	<0.010	0.500	0.020	0.020	0.40	<0.010	<0.010	0.020
DEC										
12...	115	113	<0.010	0.500	0.020	0.020	0.50	0.040	<0.010	<0.010
FEB 1991										
06...	106	110	<0.010	0.900	0.030	0.040	0.30	0.080	0.030	0.020
APR										
03...	122	127	<0.010	0.810	<0.010	0.020	0.20	0.030	0.020	<0.010
MAY										
30...	207	201	0.010	1.10	0.030	0.030	0.70	0.050	0.030	0.030
AUG										
15...	192	196	<0.010	0.430	0.020	0.020	0.90	0.080	0.010	<0.010

DATE	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
OCT 1990										
10...	30	<1	28	<0.5	<1.0	<1	<3	2	35	<1
DEC										
12...	10	1	22	<0.5	<1.0	<1	<3	2	13	<1
FEB 1991										
06...	--	--	--	--	--	--	--	--	--	--
APR										
03...	20	<1	20	<0.5	<1.0	<1	<3	1	41	<1
MAY										
30...	40	<1	32	<0.5	<1.0	<1	<3	3	20	1
AUG										
15...	--	--	--	--	--	--	--	--	--	--

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 1990										
10...	<4	10	0.2	<10	1	<1	<1.0	170	<6	5
DEC										
12...	<4	3	<0.1	<10	1	<1	<1.0	89	<6	<3
FEB 1991										
06...	--	--	--	--	--	--	--	--	--	--
APR										
03...	<4	8	<0.1	<10	<1	<1	<1.0	100	<6	6
MAY										
30...	5	13	<0.1	<10	<1	<1	<1.0	180	<6	17
AUG										
15...	--	--	--	--	--	--	--	--	--	--

03308500 GREEN RIVER AT MUNFORDVILLE, KY--Continued
(National stream-quality accounting network station)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT							
10...	1115	452	278	18.0	34	41	87
DEC							
12...	1050	2980	198	9.0	42	338	70
FEB							
06...	1100	12400	189	6.5	160	5360	78
APR							
03...	1030	3680	217	13.0	32	318	96
MAY							
30...	1030	736	359	21.0	23	46	86
JUL							
11...	0948	613	--	24.0	85	141	86
AUG							
15...	1000	186	345	21.5	42	21	87

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	294	181	277	150	147	200	194	246	302	332	341	300
2	296	180	228	228	136	183	198	243	291	324	338	306
3	295	180	252	260	137	194	202	246	295	328	332	297
4	325	188	233	264	135	207	194	247	302	287	331	340
5	319	188	237	224	134	183	205	250	229	295	328	406
6	329	189	217	207	190	180	220	262	277	307	329	411
7	490	189	216	215	179	170	237	273	304	323	330	317
8	328	209	210	184	193	170	243	275	300	341	330	346
9	280	212	208	215	186	180	244	271	305	343	325	304
10	274	274	198	216	177	206	237	257	295	285	331	351
11	269	305	196	219	170	203	235	264	298	268	331	317
12	269	251	197	208	163	223	244	285	299	348	321	311
13	275	221	220	221	161	232	241	279	303	316	306	304
14	286	215	221	186	198	251	250	294	270	317	328	302
15	289	208	242	173	183	241	245	257	302	308	348	301
16	296	203	285	176	188	192	200	256	335	311	322	312
17	268	200	279	172	184	204	205	257	311	315	320	313
18	203	198	239	156	193	209	191	245	317	318	338	314
19	198	196	153	156	150	211	189	235	341	314	314	319
20	205	199	162	154	174	202	187	238	352	317	317	311
21	208	201	252	150	210	202	183	243	350	314	428	305
22	201	193	236	148	239	203	181	239	348	308	537	286
23	203	207	196	142	202	183	179	238	340	304	383	297
24	289	272	216	138	184	201	194	270	344	304	321	304
25	232	244	250	142	175	175	211	260	289	318	311	300
26	210	226	263	141	173	167	234	264	321	322	310	303
27	197	216	236	146	169	164	244	254	309	327	307	302
28	190	231	210	137	167	173	234	287	338	326	309	305
29	188	247	192	138	---	192	238	286	345	326	304	299
30	186	295	209	139	---	201	244	339	340	323	286	310
31	184	---	157	144	---	186	---	319	---	332	281	---
MAX	490	305	285	264	239	251	250	339	352	348	537	411
MIN	184	180	153	137	134	164	179	235	229	268	281	286

GREEN RIVER BASIN

03308500 GREEN RIVER AT MUNFORDVILLE, KY--Continued
(National stream-quality accounting network station)

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	15.0	10.0	10.0	5.0	5.5	10.5	20.0	25.0	25.5	25.0	25.0
2	20.0	15.0	10.0	10.0	5.0	10.0	10.5	15.5	25.0	25.5	25.0	25.0
3	20.0	15.0	10.0	10.0	5.5	10.0	15.0	20.0	25.5	25.5	25.0	25.0
4	20.0	15.0	10.0	5.5	5.0	7.0	10.5	20.0	25.5	25.0	25.0	25.0
5	20.0	15.0	10.0	10.0	5.0	5.5	15.0	15.5	20.5	25.0	25.5	25.0
6	20.0	15.0	10.0	10.0	8.0	10.0	15.0	15.5	20.5	25.5	25.5	25.0
7	20.0	15.0	10.0	10.0	10.0	5.5	15.5	15.5	20.5	25.5	25.0	25.0
8	20.0	10.5	10.0	10.0	10.0	5.5	15.5	15.5	20.5	25.5	25.5	20.5
9	20.0	10.0	10.0	10.0	5.5	10.0	20.0	15.5	25.0	25.0	25.0	20.5
10	17.0	10.0	10.0	10.0	5.5	10.0	15.5	20.0	20.5	25.0	25.0	20.5
11	15.5	10.0	10.0	10.0	3.5	10.0	15.0	20.0	20.5	25.0	25.0	20.0
12	15.5	10.0	9.5	10.0	5.5	10.0	15.5	20.0	20.5	25.0	25.0	25.0
13	15.5	10.5	10.0	10.0	5.5	10.0	15.0	20.5	25.0	25.5	20.5	25.5
14	15.5	10.5	10.0	10.0	10.0	10.0	15.0	20.5	20.5	25.0	25.5	25.0
15	15.5	10.5	10.0	5.5	5.5	10.0	15.5	20.5	25.0	25.0	23.5	25.5
16	15.5	10.5	10.0	5.5	6.0	10.0	15.5	20.5	25.0	25.0	25.5	25.5
17	15.5	10.5	10.0	5.5	6.0	10.0	15.5	25.0	25.0	25.5	20.5	25.5
18	15.5	10.5	10.0	5.5	5.5	10.0	15.5	25.0	25.0	25.5	20.5	25.5
19	15.5	10.0	10.5	5.5	8.0	10.0	15.5	25.0	25.0	25.5	21.5	20.5
20	15.0	10.5	10.0	5.5	10.0	10.0	15.0	21.0	25.0	25.5	20.5	20.0
21	15.0	10.5	10.5	5.5	10.0	10.5	15.0	25.0	25.0	25.5	20.5	20.0
22	15.0	10.5	10.5	5.0	10.0	10.5	15.0	25.0	25.0	25.5	20.5	20.0
23	15.5	10.5	10.0	5.0	10.0	10.5	15.0	25.0	25.0	25.5	25.0	20.0
24	15.0	10.5	10.0	5.0	5.5	15.0	15.0	25.0	25.0	25.5	25.0	20.0
25	15.0	10.5	5.0	5.0	5.5	15.0	15.0	25.0	20.5	25.0	25.0	20.0
26	15.0	10.5	5.0	5.0	5.5	10.5	15.0	25.0	25.0	25.0	20.5	20.0
27	15.0	10.5	5.0	5.0	5.5	10.5	25.0	20.0	25.0	25.0	25.0	20.0
28	15.0	15.0	5.0	5.0	5.5	10.5	20.0	20.5	25.0	25.0	25.0	20.0
29	15.0	10.5	10.0	5.5	---	10.5	20.0	20.5	25.0	25.0	25.0	20.0
30	15.0	10.0	10.0	5.5	---	10.5	20.0	25.0	25.0	25.0	25.0	20.0
31	15.0	---	10.0	5.0	---	10.0	---	25.0	---	25.0	25.0	---
MAX	20.0	15.0	10.5	10.0	10.0	15.0	25.0	25.0	25.5	25.5	25.5	25.5
MIN	15.0	10.0	5.0	5.0	3.5	5.5	10.5	15.5	20.5	25.0	20.5	20.0

03308500 GREEN RIVER AT MUNFORDVILLE, KY--Continued
(National stream-quality accounting network station)

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	231	20	12	1700	60	277	1530	21	86
2	183	23	11	1690	56	254	1930	34	178
3	174	22	10	1620	51	222	4390	219	4080
4	240	27	19	1350	45	163	8970	337	8160
5	719	73	146	1330	41	146	5260	135	1950
6	634	41	70	1330	36	131	4500	84	1020
7	539	45	66	1280	30	104	4020	66	715
8	483	39	50	960	25	65	3720	58	582
9	448	32	39	945	22	56	3520	46	438
10	448	32	38	3260	283	2960	3370	45	408
11	448	30	38	3450	161	1530	3270	47	418
12	436	30	35	2370	84	535	2870	42	327
13	444	30	36	2170	64	373	1970	36	193
14	456	27	33	2000	47	255	1950	30	156
15	443	27	32	1900	38	194	1960	18	94
16	455	32	40	1830	41	203	2290	54	357
17	379	56	58	1790	45	219	2630	65	472
18	639	65	114	1770	39	185	14400	503	19600
19	912	50	123	1750	32	151	26000	481	33800
20	1020	43	121	1730	35	165	25900	106	7400
21	1460	63	253	1710	39	179	15700	80	3370
22	1880	86	440	1720	41	193	13800	298	11100
23	2150	121	716	1950	49	262	18600	132	6660
24	2200	118	702	2370	71	454	13700	93	3460
25	2090	92	522	2220	50	300	7340	56	1100
26	1910	80	411	2010	49	264	4720	35	446
27	1830	74	365	1770	39	186	5080	46	669
28	1790	76	369	1210	31	100	11700	255	8060
29	1760	70	331	1500	39	157	12800	112	3880
30	1740	58	274	1620	27	119	12100	273	8930
31	1720	55	254	---	---	---	24200	558	36500
TOTAL	30261	---	5728	54305	---	10402	264190	---	164609
		JANUARY			FEBRUARY			MARCH	
1	26600	177	12800	7260	53	1040	3780	33	333
2	11600	55	1710	7140	60	1150	4670	39	489
3	4800	57	722	7170	52	1000	5120	38	525
4	3810	46	476	7060	50	948	7150	121	2390
5	4430	49	588	7110	59	1150	6880	72	1350
6	4940	61	838	13900	231	8650	6140	45	757
7	14100	245	9330	19300	204	10700	6370	41	705
8	17500	112	5360	13200	79	2810	5630	28	428
9	9750	56	1460	9780	48	1270	4160	20	230
10	6930	54	1010	8650	40	924	3080	17	139
11	7720	82	1700	7870	41	861	2700	16	115
12	8720	101	2400	7320	32	625	2130	20	115
13	7720	52	1090	7380	51	1060	2400	29	188
14	8060	61	1330	13900	225	8430	3300	32	287
15	7740	55	1150	14300	91	3520	3470	26	250
16	7350	52	1030	9540	45	1170	3850	34	355
17	7320	52	1020	7960	33	702	3260	21	189
18	7620	62	1280	16600	406	18200	5310	71	1070
19	7800	65	1370	25800	299	20200	6400	62	1070
20	7710	66	1380	24900	71	4800	5470	45	664
21	7570	67	1380	12800	68	2350	4770	31	401
22	7380	53	1060	7660	87	1800	10600	631	18000
23	7290	51	1010	7840	66	1390	17100	424	19500
24	7430	58	1150	7840	42	882	12800	154	5330
25	7360	56	1100	7600	38	777	8860	122	2890
26	7240	64	1240	7200	37	713	7490	92	1850
27	7170	51	994	6880	31	574	6680	80	1430
28	7140	42	812	5870	29	458	6080	72	1180
29	7100	44	850	---	---	---	5020	59	799
30	7030	44	835	---	---	---	5600	86	1370
31	7180	47	910	---	---	---	6210	93	1580
TOTAL	262110	---	59385	299830	---	98154	182480	---	65979

03308500 GREEN RIVER AT MUNFORDVILLE, KY--Continued
(National stream-quality accounting network station)

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	4840	49	642	1100	13	40	581	22	34
2	4070	43	473	1040	12	35	840	41	106
3	3600	41	396	973	11	29	883	49	117
4	3190	36	312	883	10	24	1670	190	1060
5	2740	34	249	786	9	20	1120	151	464
6	2230	31	185	894	14	34	794	79	171
7	1800	30	145	940	13	34	643	51	89
8	1700	29	135	800	10	22	577	40	63
9	1980	48	274	761	15	31	536	34	50
10	2650	119	848	846	19	43	485	31	41
11	2330	67	425	865	19	44	428	30	35
12	1940	36	189	852	19	43	410	28	31
13	1930	28	144	1080	25	76	502	33	46
14	2190	28	165	1050	22	63	411	26	29
15	3590	116	1590	954	23	59	536	43	69
16	6180	224	3780	985	27	70	572	49	76
17	4750	101	1300	911	25	62	474	52	66
18	4190	74	834	864	24	56	415	48	54
19	3820	65	671	830	24	54	373	36	36
20	3590	55	530	807	26	56	349	31	29
21	3290	44	387	803	25	55	327	29	25
22	3120	39	327	802	22	49	317	26	23
23	2830	36	276	796	22	47	341	27	25
24	2020	31	170	768	22	45	348	32	35
25	1340	21	76	747	21	43	727	109	221
26	1230	19	62	735	21	42	376	67	68
27	1170	18	58	880	34	92	321	60	52
28	1140	18	54	1160	60	188	293	56	45
29	1140	16	48	868	35	82	297	53	43
30	1140	15	45	703	25	47	281	53	40
31	---	---	---	627	24	40	---	---	---
TOTAL	81730	---	14790	27110	---	1625	16227	---	3243
		JULY			AUGUST			SEPTEMBER	
1	271	56	41	198	48	26	254	33	22
2	258	56	39	196	46	24	219	29	17
3	536	101	194	194	43	23	259	30	22
4	726	101	205	192	40	21	528	45	65
5	423	56	64	187	38	19	312	40	33
6	340	46	42	185	35	18	347	48	47
7	307	39	32	184	33	16	391	55	58
8	282	34	26	216	38	22	355	51	49
9	689	95	215	216	39	23	309	44	37
10	814	123	269	194	36	19	301	37	30
11	593	86	137	181	34	16	322	38	34
12	583	63	100	176	33	16	301	38	31
13	614	64	107	174	33	16	283	36	28
14	591	58	92	173	34	16	262	35	25
15	448	44	53	173	35	17	229	34	21
16	384	40	42	174	34	16	212	32	18
17	346	41	38	182	32	16	214	32	19
18	314	41	34	386	49	55	249	33	22
19	290	41	32	646	80	141	214	32	18
20	279	42	32	378	51	53	199	31	17
21	279	49	37	281	38	28	189	31	16
22	266	50	36	239	35	23	185	31	16
23	250	49	33	218	36	21	180	31	15
24	235	49	31	204	34	19	177	31	15
25	214	50	29	194	33	17	197	32	17
26	185	46	23	189	33	17	238	35	23
27	192	47	24	188	33	17	233	27	17
28	211	46	26	188	33	17	214	24	14
29	209	44	25	210	38	22	217	23	14
30	205	46	25	261	40	29	206	22	12
31	200	49	26	258	40	28	---	---	---
TOTAL	11534	---	2109	7035	---	811	7796	---	772
YEAR	1244608		427607						

GREEN RIVER BASIN

03310300 NOLIN RIVER AT WHITE MILLS, KY

LOCATION.--Lat 37°33'03", long 86°02'43", Hardin County, Hydrologic Unit 05110001, on right bank, 0.8 mi southwest of White Mills, 1.6 mi downstream from bridge on State Highway 84, and at mile 78.7.

DRAINAGE AREA.--357 mi^2, of which about 120 mi^2 does not contribute directly to surface runoff.

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

GAGE.--Water-stage recorder. Datum of gage is 583.08 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 8, 1960, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	78	143	4080	413	595	504	209	186	87	68	72
2	47	76	138	1750	390	630	457	195	181	84	65	64
3	48	72	948	1330	374	595	419	186	193	77	64	64
4	432	71	1050	1100	360	537	393	179	203	80	60	62
5	323	70	534	970	359	497	428	177	176	79	58	63
6	148	72	408	1460	2220	471	432	192	156	78	56	62
7	104	76	341	3600	3280	458	378	181	146	77	56	104
8	87	73	297	3240	1750	425	360	168	138	87	56	70
9	84	75	265	1680	1270	397	395	261	134	930	56	68
10	266	155	238	1310	1050	370	468	371	128	336	59	108
11	207	168	220	1470	882	354	399	271	125	297	60	108
12	139	135	205	1550	769	345	350	247	126	207	57	87
13	114	116	192	1230	804	450	481	257	123	189	55	71
14	102	105	178	1050	2540	459	502	224	126	170	53	64
15	93	98	197	925	1760	397	455	294	119	144	53	58
16	87	94	294	931	1150	365	447	232	113	130	54	55
17	80	90	368	831	972	355	395	204	126	121	55	53
18	82	89	4710	727	2760	539	365	191	134	114	110	52
19	98	86	9980	667	3810	586	353	183	129	108	127	51
20	89	85	4030	637	1980	517	366	175	119	124	81	50
21	83	83	1810	596	1420	483	327	177	135	104	71	51
22	87	89	4070	538	1180	1200	303	171	330	96	64	48
23	156	175	3210	510	996	2000	288	164	138	91	58	48
24	145	192	1990	495	865	1230	271	156	114	89	55	49
25	118	165	1380	464	787	893	254	150	106	87	51	50
26	103	143	1120	438	740	740	243	160	101	83	50	50
27	95	130	981	422	684	662	234	370	99	80	50	49
28	90	139	1620	493	633	1070	225	328	96	76	48	48
29	86	174	1660	475	---	797	221	251	92	73	48	46
30	81	155	2120	462	---	658	220	218	91	71	84	43
31	79	---	7040	464	---	571	---	203	---	69	109	---
TOTAL	3800	3329	51737	35895	36198	19646	10933	6745	4183	4438	1991	1868
MEAN	123	111	1669	1158	1293	634	364	218	139	143	64.2	62.3
MAX	432	192	9980	4080	3810	2000	504	371	330	930	127	108
MIN	47	70	138	422	359	345	220	150	91	69	48	43
CFSM	.34	.31	4.67	3.24	3.62	1.78	1.02	.61	.39	.40	.18	.17
IN.	.40	.35	5.39	3.74	3.77	2.05	1.14	.70	.44	.46	.21	.19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1991, BY WATER YEAR (WY)

MEAN	151	304	665	679	920	921	788	571	276	238	170	215
MAX	692	1206	2356	1603	3807	2571	2447	2715	717	972	966	2258
(WY)	1978	1989	1979	1974	1989	1964	1972	1983	1981	1967	1967	1979
MIN	37.0	48.6	44.7	55.5	156	228	200	131	71.9	90.3	55.5	46.3
(WY)	1970	1964	1964	1981	1964	1983	1986	1976	1988	1962	1962	1983

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1960 - 1991	
ANNUAL TOTAL	178752		180763			
ANNUAL MEAN	490		495		489	
HIGHEST ANNUAL MEAN					971	1979
LOWEST ANNUAL MEAN					283	1977
HIGHEST DAILY MEAN	9980	Dec 19	9980	Dec 19	17500	Feb 16 1989
LOWEST DAILY MEAN	47	Oct 1	43	Sep 30	32	Sep 11 1964
ANNUAL SEVEN-DAY MINIMUM	49	Sep 27	48	Sep 24	33	Sep 9 1964
INSTANTANEOUS PEAK FLOW			10600	Dec 19	19400	Apr 29 1970
INSTANTANEOUS PEAK STAGE			23.91	Dec 19	34.86	Apr 29 1970
INSTANTANEOUS LOW FLOW			41	Sep 30	31	Oct 1 1959
ANNUAL RUNOFF (CFSM)	1.37		1.39		1.37	
ANNUAL RUNOFF (INCHES)	18.63		18.84		18.62	
10 PERCENT EXCEEDS	1100		1190		1060	
50 PERCENT EXCEEDS	237		181		234	
90 PERCENT EXCEEDS	71		58		60	

GREEN RIVER BASIN

03310400 BACON CREEK NEAR PRICEVILLE, KY

LOCATION.--Lat 37°21'31", long 85°59'53", Hart County, Hydrologic Unit 05110001, on right bank, 1.2 mi southwest of Priceville, 1.3 mi downstream from small unnamed tributary, 2.1 mi upstream from unnamed tributary, and at mile 7.2.

DRAINAGE AREA.--85.4 mi^2, of which about 31 mi^2 does not contribute directly to surface runoff.

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

GAGE.--Water-stage recorder. Datum of gage is 568.13 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of November 1957 reached a stage of 21.8 ft, from floodmark.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.7	9.8	14	245	45	75	71	36	28	16	11	10
2	8.4	9.4	14	173	43	83	66	34	51	16	11	11
3	7.9	9.7	89	138	42	74	61	33	34	15	11	20
4	13	9.8	78	117	41	66	59	32	33	15	11	11
5	29	11	38	107	56	61	62	33	32	15	11	11
6	11	10	30	142	358	59	59	33	26	15	11	11
7	7.8	9.9	27	563	330	56	54	31	25	14	11	10
8	7.1	11	24	287	165	52	51	29	24	15	11	9.5
9	8.4	13	22	175	130	50	57	34	23	38	11	9.4
10	15	20	20	142	113	48	91	39	22	30	11	11
11	13	21	19	171	101	46	61	32	22	27	11	17
12	10	17	19	165	91	46	57	38	22	21	10	12
13	8.8	14	18	132	105	55	90	47	38	19	11	10
14	8.4	13	17	116	247	54	73	39	28	18	12	9.3
15	7.6	12	17	106	157	48	69	50	24	16	11	8.6
16	7.3	12	18	106	117	45	65	40	24	15	11	8.3
17	7.2	12	26	95	109	45	60	34	29	15	11	8.2
18	9.2	11	493	87	444	70	57	31	25	14	12	8.3
19	9.7	11	480	81	440	62	57	29	23	20	12	8.5
20	11	11	131	78	245	55	57	29	21	15	11	8.2
21	9.4	11	111	71	174	52	51	28	26	14	10	8.0
22	13	12	364	65	145	209	48	27	24	13	10	8.0
23	18	20	243	61	124	268	45	26	20	13	9.7	8.0
24	16	21	170	59	110	141	44	25	21	13	9.1	8.4
25	11	16	121	54	101	109	42	24	21	13	8.9	9.5
26	9.8	14	102	52	94	96	41	25	18	13	8.6	9.1
27	9.5	13	97	50	87	93	40	39	18	12	8.9	8.5
28	9.5	15	195	52	80	136	39	46	17	12	9.0	7.8
29	9.9	16	145	51	---	95	39	34	17	12	11	7.6
30	9.7	16	468	49	---	89	37	30	16	12	20	7.4
31	9.7	---	1560	49	---	79	---	28	---	12	15	---
TOTAL	334.0	401.6	5170	3839	4294	2517	1703	1035	752	508	342.2	294.6
MEAN	10.8	13.4	167	124	153	81.2	56.8	33.4	25.1	16.4	11.0	9.82
MAX	29	21	1560	563	444	268	91	50	51	38	20	20
MIN	7.1	9.4	14	49	41	45	37	24	16	12	8.6	7.4
CFSM	.13	.16	1.95	1.45	1.80	.95	.66	.39	.29	.19	.13	.11
IN.	.15	.17	2.25	1.67	1.87	1.10	.74	.45	.33	.22	.15	.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1991, BY WATER YEAR (WY)

MEAN	19.6	36.0	78.6	78.9	110	107	92.7	77.4	35.6	29.4	22.0	23.9
MAX	82.5	121	394	233	579	310	276	413	76.9	115	104	177
(WY)	1978	1973	1979	1974	1989	1975	1979	1983	1973	1967	1982	1979
MIN	5.11	7.03	6.07	9.98	14.3	32.0	26.8	19.3	9.27	8.16	7.99	6.26
(WY)	1988	1964	1964	1981	1964	1983	1986	1988	1988	1964	1986	1985

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1960 - 1991	
ANNUAL TOTAL	20762.0		21190.4			
ANNUAL MEAN	56.9		58.1		59.0	
HIGHEST ANNUAL MEAN					127	1979
LOWEST ANNUAL MEAN					28.2	1986
HIGHEST DAILY MEAN	1560	Dec 31	1560	Dec 31	4700	May 7 1984
LOWEST DAILY MEAN	6.9	Sep 7	7.1	Oct 8	4.1	Oct 14 1987
ANNUAL SEVEN-DAY MINIMUM	7.3	Sep 2	8.2	Sep 17	4.5	Oct 13 1987
INSTANTANEOUS PEAK FLOW			2670	Dec 31	6800	May 7 1984
INSTANTANEOUS PEAK STAGE			13.58	Dec 31	20.11	May 7 1984
INSTANTANEOUS LOW FLOW			7.1	Oct 7	3.7	Oct 22 1987
ANNUAL RUNOFF (CFSM)	.67		.68		.69	
ANNUAL RUNOFF (INCHES)	9.04		9.23		9.39	
10 PERCENT EXCEEDS	121		126		114	
50 PERCENT EXCEEDS	31		25		30	
90 PERCENT EXCEEDS	8.7		9.5		9.9	

GREEN RIVER BASIN

03311000 NOLIN RIVER AT KYROCK, KY

LOCATION.--Lat 37°16'42", long 86°14'51", Edmonson County, Hydrologic Unit 05110001, in intake structure of Nolin River Dam on Nolin River, 0.3 mi upstream from Dismal Creek, 1.1 mi northeast of Kyrock, and at mile 7.8.

DRAINAGE AREA.--703 mi^2, of which about 223 mi^2 does not contribute directly to surface runoff. Area at site used Oct. 1, 1960, to Sept. 30, 1973, 707 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1930 to March 1932, July 1939 to September 1950, October 1960 to current year.

GAGE.--Water-stage recorder and outflow gate dials. Datum of gage 400 ft above National Geodetic Vertical Datum of 1929. See WDR KY-90-1 for history of changes prior to Sept. 30, 1973.

REMARKS.--No estimated daily discharge. Water-discharge records not rated, see COOPERATION. Maximum gage height affected by backwater from the Green River. Flow regulated since March 1963 by Nolin Lake (station 03310900). Discharge records computed using gate openings.

COOPERATION.--Record of discharge furnished by U.S. Army Corps of Engineers.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since 1854, 26.35 ft, in January 1937, from floodmarks, at site and datum used in 1939-50.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	264	867	930	351	5820	5120	474	276	535	180	52	168
2	193	516	926	355	3800	2840	263	299	536	180	52	296
3	151	515	929	356	2860	1960	264	398	536	180	52	881
4	264	515	936	916	2820	1430	264	458	536	180	52	1120
5	264	514	941	1940	2800	986	265	458	535	180	52	1110
6	264	1330	941	2360	1780	986	265	458	535	180	52	1110
7	264	2760	940	1620	295	700	266	458	534	180	52	590
8	264	2110	937	643	300	495	266	458	534	180	52	308
9	264	506	935	304	656	495	267	506	533	299	52	296
10	453	506	932	305	2310	496	268	536	467	536	52	111
11	546	506	929	845	3310	496	268	537	336	536	52	.00
12	546	505	926	2340	3280	496	269	537	336	537	52	.00
13	546	1110	709	3040	3260	497	270	538	336	536	52	.00
14	545	1490	282	4210	3280	497	271	538	336	536	52	.00
15	1400	1480	283	4820	3290	332	271	747	336	536	52	.00
16	2170	1480	283	5890	3290	249	272	815	336	535	52	.00
17	1640	1470	284	7150	3280	250	272	815	336	535	52	.00
18	1090	1460	294	7100	1860	250	273	814	255	534	52	.00
19	1090	1460	304	7060	307	251	273	813	180	533	52	.00
20	1090	1450	311	7010	312	252	274	812	180	533	52	.00
21	1090	1440	317	6950	315	252	274	811	180	275	52	.00
22	1080	1430	323	6890	738	254	274	810	180	180	75	.00
23	1080	1430	328	7180	2930	257	274	645	180	159	90	.00
24	1080	1420	332	7310	4070	259	275	533	180	180	90	.00
25	1390	1100	335	7560	4220	260	275	418	180	180	90	.00
26	1580	479	2030	7660	4180	261	275	336	180	133	90	.00
27	1570	572	4080	7540	4900	262	275	403	180	52	118	.00
28	1560	940	4470	7420	6080	914	275	535	180	52	168	243
29	1560	937	1950	7300	---	2160	276	536	180	52	168	529
30	1550	934	338	7160	---	1980	276	536	180	52	168	528
31	1540	---	346	7010	---	1190	---	536	---	52	168	---
TOTAL	28388	33232	28801	138595	76343	27127	8324	17370	10048	8993	2317	7290.00
MEAN	916	1108	929	4471	2727	875	277	560	335	290	74.7	243
MAX	2170	2760	4470	7660	6080	5120	474	815	536	537	168	1120
MIN	151	479	282	304	295	249	263	276	180	52	52	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1991, BY WATER YEAR (WY)

MEAN	644	965	1158	1655	1659	1467	1021	1001	635	463	314	451
MAX	4959	3393	4491	6689	4541	5533	4777	4161	4437	2009	1335	2266
(WY)	1980	1973	1978	1950	1985	1989	1975	1984	1983	1967	1967	1982
MIN	.000	65.1	1.50	121	204	195	.63	.39	.000	.000	.000	.000
(WY)	1976	1931	1985	1940	1977	1941	1966	1964	1964	1964	1964	1975

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1931 - 1991	
ANNUAL TOTAL	296474		386828.00			
ANNUAL MEAN	812		1060		941	
HIGHEST ANNUAL MEAN					1880	1989
LOWEST ANNUAL MEAN					285	1941
HIGHEST DAILY MEAN	8710	Feb 27	7660	Jan 26	22300	Jan 30 1932
LOWEST DAILY MEAN	49	May 27	.00	Sep 11	.00	May 2 1964
ANNUAL SEVEN-DAY MINIMUM	51	Apr 30	.00	Sep 11	.00	May 2 1964
INSTANTANEOUS PEAK FLOW					22700	Jan 30 1932
INSTANTANEOUS PEAK STAGE			37.23	Jan 26	59.27	Mar 2 1962
10 PERCENT EXCEEDS	2060		2970		2300	
50 PERCENT EXCEEDS	268		474		400	
90 PERCENT EXCEEDS	54		52		69	

03311000 NOLIN RIVER AT KYROCK, KY--Continued

WATER-QUALITY RECORDS

LOCATION.--Water tempertaure collected 0.4 mi downstream from Nolin River Dam, and at mile 7.4.

DRAINAGE AREA.--707 mi, including that of Dismal Creek, of which about 223 mi does not contribute directly to surface runoff.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Water years 1950, 1963-82, August 1989 to current year.

INSTRUMENTATION.--Temperature recorder, since August 1989.

REMARKS.--Specific conductance and temperature measurements made in conjuction with discharge measurements published in the miscellaneous water-quality section. Many days of missing records due to instrument malfuction. U.S. Army Corps of Engineers provided field values for some days during June 16 through August 17, 1991.

COOPERATION.--Daily temperatue records were furnished by U.S. Army Corps of Engineers, water years 1950, 1963-1982.

EXTREMES FOR PERIOD OF DAILY RECORD.--Maximum daily, 31.0°C July 19-22, 1969; minimum daily, 0.0°C on many days during winter period 1978, and December 17, 18, 27, 1989.

EXTREMES FOR CURRENT PERIOD.-- Maximum, 26.0°C Sept. 16., minimum, 5.3°C, Feb. 1.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20.1	19.3	19.8	16.9	16.5	16.7	12.4	12.1	12.3	8.5	8.1	8.5
2	20.1	18.9	19.5	16.5	16.5	16.5	12.4	11.7	12.3	8.5	8.1	8.5
3	19.7	18.5	19.3	16.5	16.1	16.5	12.1	11.7	12.0	8.5	8.1	8.3
4	19.7	18.9	19.3	16.5	16.5	16.5	12.1	11.7	12.0	8.1	8.1	8.1
5	19.7	18.9	19.3	16.5	16.1	16.4	11.7	11.7	11.7	8.1	8.1	8.1
6	19.7	19.3	19.5	16.1	16.1	16.1	11.7	11.3	11.4	8.1	7.8	8.1
7	19.7	19.3	19.5	16.1	15.4	15.9	11.3	11.3	11.3	8.1	7.8	7.8
8	20.1	19.7	19.9	15.8	15.4	15.5	11.3	11.0	11.1	8.1	7.8	7.9
9	20.1	19.7	20.1	15.4	13.9	15.0	11.0	11.0	11.0	8.1	8.1	8.1
10	19.7	14.3	16.4	15.0	14.6	14.6	11.0	10.6	10.7	8.1	7.8	7.8
11	14.3	13.9	14.2	14.6	14.6	14.6	10.6	10.6	10.6	---	---	---
12	14.3	14.3	14.3	14.6	14.6	14.6	10.6	10.6	10.6	---	---	---
13	14.3	13.9	14.3	14.6	14.3	14.4	10.6	10.2	10.3	---	---	---
14	14.3	14.3	14.3	14.6	14.3	14.3	10.2	9.9	10.2	7.4	7.4	7.4
15	15.8	14.3	15.1	14.3	14.3	14.3	10.2	10.2	10.2	7.4	7.4	7.4
16	16.5	16.1	16.2	14.3	13.9	14.3	10.2	9.9	10.0	7.4	7.1	7.3
17	16.5	15.8	16.2	13.9	13.9	13.9	10.2	9.5	9.9	7.1	7.1	7.1
18	15.8	15.8	15.8	13.9	13.9	13.9	11.3	9.9	10.5	7.1	7.1	7.1
19	16.1	15.8	16.0	13.9	13.5	13.8	9.9	9.9	9.9	7.1	6.7	6.8
20	16.5	16.1	16.1	13.5	13.5	13.5	9.9	9.5	9.8	6.7	6.7	6.7
21	16.5	16.5	16.5	13.5	13.5	13.5	10.2	9.9	9.9	6.7	6.4	6.6
22	16.9	16.5	16.8	13.5	13.1	13.3	10.2	9.2	9.8	6.4	6.4	6.4
23	16.9	16.9	16.9	13.1	13.1	13.1	9.2	9.2	9.2	6.4	6.0	6.1
24	17.3	16.9	17.1	13.1	12.8	12.9	9.2	9.2	9.2	6.0	6.0	6.0
25	17.3	17.3	17.3	12.8	12.8	12.8	9.2	8.5	8.9	6.0	6.0	6.0
26	17.3	17.3	17.3	12.8	12.4	12.7	8.8	8.1	8.6	6.0	6.0	6.0
27	17.3	17.3	17.3	12.8	12.4	12.5	8.5	8.1	8.4	6.0	5.7	5.8
28	17.3	17.3	17.3	13.1	12.4	12.6	8.1	8.1	8.1	5.7	5.7	5.7
29	17.3	16.9	17.0	12.8	12.4	12.5	8.8	8.1	8.3	5.7	5.7	5.7
30	16.9	16.9	16.9	12.4	12.4	12.4	8.8	8.8	8.8	5.7	5.7	5.7
31	16.9	16.9	16.9	---	---	---	8.5	8.5	8.5	5.7	5.7	5.7
MONTH	20.1	13.9	17.2	16.9	12.4	14.3	12.4	8.1	10.2	---	---	---

GREEN RIVER BASIN

03311000 NOLIN RIVER AT KYROCK, KY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.7	5.3	5.7	7.4	7.4	7.4	9.9	9.5	9.8	11.3	11.0	11.1
2	5.7	5.7	5.7	7.8	7.4	7.6	9.5	9.2	9.4	12.8	11.0	11.5
3	5.7	5.7	5.7	7.8	7.8	7.8	9.5	9.2	9.4	13.9	13.1	13.5
4	6.0	5.7	5.7	7.8	7.8	7.8	9.5	9.2	9.5	14.3	13.9	14.1
5	6.4	5.7	5.9	7.8	7.4	7.7	9.9	9.5	9.5	14.3	14.3	14.3
6	7.1	6.4	6.6	7.8	7.8	7.8	9.5	9.5	9.5	14.3	13.9	14.3
7	6.4	6.0	6.4	8.1	7.8	7.9	9.9	9.5	9.7	14.3	13.9	14.3
8	6.4	6.4	6.4	8.1	7.8	7.9	10.2	9.5	9.9	14.6	14.3	14.5
9	6.0	6.0	6.0	8.1	7.8	7.9	9.9	9.9	9.9	15.0	14.6	14.9
10	6.0	6.0	6.0	8.1	7.8	7.9	10.2	9.5	9.9	15.4	15.0	15.1
11	6.4	6.0	6.1	8.1	8.1	8.1	9.9	9.5	9.7	15.4	15.0	15.1
12	6.4	6.0	6.4	8.1	8.1	8.1	10.2	9.9	9.9	15.0	15.0	15.0
13	6.7	6.4	6.6	8.1	8.1	8.1	10.2	9.9	9.9	15.0	15.0	15.0
14	7.1	6.7	7.0	8.1	8.1	8.1	10.2	9.9	10.0	15.4	15.0	15.1
15	7.1	6.7	6.9	8.5	8.1	8.1	10.6	10.2	10.3	15.4	14.3	14.7
16	6.7	6.7	6.7	8.5	8.1	8.3	10.2	10.2	10.2	14.3	13.9	14.0
17	6.7	6.7	6.7	8.5	8.1	8.2	10.2	9.9	10.2	14.3	13.9	14.0
18	7.1	6.7	6.9	8.5	8.1	8.4	10.2	10.2	10.2	14.3	13.9	14.0
19	7.1	7.1	7.1	8.5	8.1	8.2	10.6	10.2	10.4	14.3	13.9	14.2
20	7.1	7.1	7.1	8.5	8.1	8.3	10.6	10.2	10.3	14.3	14.3	14.3
21	7.1	7.1	7.1	8.5	8.5	8.5	10.6	10.2	10.3	14.3	14.3	14.3
22	7.4	7.1	7.1	9.5	8.5	9.0	10.6	10.2	10.4	14.3	14.3	14.3
23	7.4	7.1	7.3	9.2	8.8	8.9	10.6	10.2	10.4	15.8	14.3	14.9
24	7.4	7.1	7.4	8.8	8.5	8.7	11.0	10.2	10.5	16.1	15.8	15.9
25	7.4	7.1	7.4	8.8	8.5	8.7	10.6	10.6	10.6	16.1	15.8	16.1
26	7.4	7.1	7.1	8.8	8.5	8.8	11.0	10.6	10.7	16.1	15.8	16.0
27	7.4	7.1	7.1	9.2	8.8	8.8	11.0	10.6	10.8	18.3	16.1	17.9
28	7.4	7.1	7.1	9.2	8.8	9.0	11.0	11.0	11.0	16.5	16.5	16.5
29	---	---	---	10.2	9.2	9.8	11.0	11.0	11.0	16.5	16.5	16.5
30	---	---	---	10.6	10.2	10.2	11.3	11.0	11.1	16.5	16.5	16.5
31	---	---	---	10.2	9.9	10.1	---	---	---	16.9	16.5	16.6
MONTH	7.4	5.3	6.6	10.6	7.4	8.4	11.3	9.2	10.1	19.3	11.0	14.8
		JUNE			JULY			AUGUST			SEPTEMBER	
1	20.1	16.5	17.2	---	---	18.0	---	---	---	17.3	16.5	16.8
2	16.9	16.5	16.7	---	---	---	---	---	---	16.9	14.6	16.4
3	18.1	16.9	17.1	---	---	---	---	---	---	14.6	14.3	14.3
4	17.7	16.9	17.2	---	---	---	---	---	---	14.3	14.3	14.3
5	17.7	17.3	17.5	---	---	---	---	---	16.5	14.3	14.3	14.3
6	18.1	17.3	17.7	---	---	---	---	---	---	14.6	14.3	14.4
7	17.7	17.3	17.6	---	---	---	---	---	---	14.6	13.9	14.3
8	17.3	17.3	17.3	---	---	19.5	---	---	---	20.5	13.9	16.7
9	17.3	17.3	17.3	---	---	18.9	---	---	---	21.3	20.5	21.0
10	17.3	17.3	17.3	---	---	---	---	---	---	23.3	21.3	22.1
11	17.3	16.9	17.1	---	---	---	---	---	---	23.8	22.5	22.9
12	18.9	16.9	17.3	---	---	---	---	---	16.0	25.1	22.9	23.6
13	17.7	17.3	17.5	---	---	---	---	---	---	25.5	23.8	24.5
14	17.7	17.7	17.7	---	---	---	---	---	---	25.5	23.8	24.6
15	17.7	17.3	17.5	---	---	19.5	---	---	---	25.5	23.8	24.6
16	---	---	---	---	---	---	---	---	---	26.0	24.2	24.9
17	---	---	18.0	---	---	---	---	---	---	25.1	23.3	24.3
18	---	---	---	---	---	---	18.5	16.9	17.5	23.8	22.1	23.2
19	---	---	---	---	---	---	18.1	15.8	16.4	22.1	19.7	20.9
20	---	---	---	---	---	---	15.8	15.4	15.7	19.7	18.1	18.7
21	---	---	---	---	---	---	16.9	15.4	15.8	18.9	16.9	17.8
22	---	---	---	---	---	19.0	16.5	15.8	16.1	19.3	17.7	18.4
23	---	---	---	---	---	---	16.9	15.8	16.2	19.3	18.5	19.0
24	---	---	18.0	---	---	---	16.9	15.8	16.3	18.5	17.7	18.0
25	---	---	---	---	---	---	16.9	15.8	16.4	18.1	17.3	17.6
26	---	---	---	---	---	---	16.9	16.1	16.4	17.7	16.5	16.9
27	---	---	---	---	---	---	17.3	16.1	16.5	18.9	15.4	17.1
28	---	---	---	---	---	---	16.9	16.1	16.4	20.1	16.9	18.2
29	---	---	---	---	---	15.0	16.9	16.5	16.7	21.3	20.1	20.7
30	---	---	---	---	---	---	16.9	16.5	16.7	21.3	20.9	21.1
31	---	---	---	---	---	---	17.3	16.5	16.7	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	26.0	13.9	19.4

GREEN RIVER BASIN

03311500 GREEN RIVER AT LOCK 6, AT BROWNSVILLE, KY

LOCATION.--Lat 37°12'25", long 86°15'40", Edmonson County, Hydrologic Unit 05110001, on right bank 200 ft upstream from lock and dam 6, 0.8 mi downstream from Indian Creek, 1.0 mi northeast of Brownsville, 1.8 mi downstream from Nolin River, and at mile 181.7.

DRAINAGE AREA.--2,762 mi^2, of which about 690 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1924 to September 1931, December 1936 to February 1937 (in WSP 838), July 1938 to current year.

REVISED RECORDS.--WSP 1385: 1925-29, 1939, 1945. WSP 1555: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 413.03 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 26, 1940, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: July 28 to Aug. 10. Records good, except for period of estimated record, which is fair. Flow regulated by Green River Lake (station 03305990) beginning February 1969 and Nolin Lake (station 03310900) beginning March 1963. Maximum discharge from floodmarks. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	604	2720	2570	28700	13800	10500	6900	1690	1490	574	280	531
2	482	2180	2720	28000	11600	7570	5390	1640	1750	558	280	557
3	311	2150	4700	11900	10400	7090	4710	1640	1790	547	280	1030
4	560	2010	9950	5970	10200	7330	4300	1640	1710	825	270	1530
5	775	1850	8840	6570	10400	8750	3870	1540	2390	980	270	1690
6	1160	2290	6160	8350	16900	7430	3420	1510	1760	728	270	1590
7	966	4080	5470	14300	21700	7190	2890	1630	1490	630	270	1270
8	850	3540	5020	20600	21500	6770	2610	1600	1340	602	260	820
9	798	1610	4730	17700	14300	5590	3020	1600	1260	760	260	704
10	974	1960	4520	10300	12800	4170	4780	1650	1190	1390	300	577
11	1100	4360	4390	9000	12800	3600	3850	1720	973	1420	389	486
12	1070	3410	4280	12400	11900	3110	3210	1800	897	1410	334	478
13	1080	3230	3410	12500	12200	3030	3080	1850	906	1420	304	432
14	1050	3600	2360	13100	16500	3590	3100	2030	933	1260	312	396
15	1610	3450	1840	13800	20600	3830	3250	1990	840	1120	349	364
16	2640	3360	1510	14000	17900	4120	5980	2060	960	952	354	333
17	2330	3300	3200	15200	13800	3990	6250	2050	985	898	359	308
18	2010	3250	12600	15200	18900	4850	5210	1950	863	902	432	313
19	2020	3220	24300	15400	25600	7120	4720	1900	741	873	733	348
20	2230	3190	29500	15400	30500	6610	4380	1860	691	815	786	317
21	2420	3170	25600	15100	28500	5760	4080	1840	662	676	535	288
22	2490	3200	17500	14800	15400	11200	3820	1830	636	536	438	271
23	2700	3410	21900	14800	11700	19600	3650	1710	627	500	429	260
24	3220	3700	22800	15100	12900	20200	3160	1520	633	468	405	264
25	3400	3610	14400	15200	12800	13700	2370	1420	721	447	388	320
26	3530	2670	8550	15300	12300	9700	1920	1280	970	421	385	348
27	3390	2510	9720	15100	12200	8460	1820	1800	732	321	386	380
28	3320	2640	13700	14900	13100	8410	1760	2770	631	300	434	451
29	3270	2430	18200	14700	---	8610	1730	2210	595	300	458	784
30	3240	2690	18200	14600	---	8010	1720	1750	583	290	527	802
31	3220	---	24700	14400	---	8530	---	1550	---	290	554	---
TOTAL	58820	88790	337340	452390	443200	238420	110950	55030	31749	23213	12031	18242
MEAN	1897	2960	10880	14590	15830	7691	3698	1775	1058	749	388	608
MAX	3530	4360	29500	28700	30500	20200	6900	2770	2390	1420	786	1690
MIN	311	1610	1510	5970	10200	3030	1720	1280	583	290	260	260

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1991, BY WATER YEAR (WY)

MEAN	1534	3176	5475	7798	8662	8373	6036	4557	2882	1911	1409	1426
MAX	10530	13460	21550	40490	25090	19860	15200	22610	15600	10730	6608	9700
(WY)	1980	1958	1979	1937	1956	1955	1979	1983	1928	1967	1967	1982
MIN	184	271	338	386	1272	1137	817	763	400	348	230	208
(WY)	1931	1931	1954	1981	1941	1941	1986	1988	1988	1944	1930	1953

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1925 - 1991	
ANNUAL TOTAL	1597745		1870175			
ANNUAL MEAN	4377		5124		4372	
HIGHEST ANNUAL MEAN					8757	1979
LOWEST ANNUAL MEAN					1350	1931
HIGHEST DAILY MEAN	29500	Dec 20	30500	Feb 20	117000	Jan 24 1937
LOWEST DAILY MEAN	311	Oct 3	260	Aug 8	120	Sep 18 1954
ANNUAL SEVEN-DAY MINIMUM	379	Sep 4	269	Aug 3	137	Sep 13 1954
INSTANTANEOUS PEAK FLOW			31100	Feb 20	120000	Jan 24 1937
INSTANTANEOUS PEAK STAGE			21.96	Feb 20	44.94	Jan 24 1937
10 PERCENT EXCEEDS	11700		14800		11700	
50 PERCENT EXCEEDS	2560		2290		1970	
90 PERCENT EXCEEDS	528		386		413	

GREEN RIVER BASIN

03311600 BEAVERDAM CREEK AT RHODA, KY

LOCATION.--Lat 37°09'18", long 86°13'35", Edmonson County, Hydrologic Unit 05110001, on right bank, 50 ft upstream from bridge on State Highway 101, 0.1 mi south of Rhoda, 3.4 mi upstream from Shingle Machine Branch, and at mile 7.1.

DRAINAGE AREA.--10.9 mi^2.

PERIOD OF RECORD.--October 1972 to current year. Occasional low-flow measurements, water years 1961-72.

REVISED RECORDS.--WRD KY-84-1: 1975 (M).

GAGE.--Water-stage recorder. Datum of gage is 513.81 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Maximum discharge for period of record is from indirect discharge measurement. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 1, 1962, reached a stage of about 16 ft from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.63	1.7	2.3	43	7.5	9.4	15	3.9	4.4	1.5	.58	.71
2	.73	1.7	2.4	28	6.8	13	13	3.7	6.4	1.2	.58	.68
3	.72	1.7	110	20	6.3	9.9	11	3.7	3.6	1.3	.58	.59
4	30	1.8	21	15	6.1	8.5	11	3.5	2.9	1.2	.58	.64
5	2.3	2.4	11	13	45	7.2	15	8.1	2.4	1.1	.58	4.1
6	1.2	2.3	8.1	131	388	7.2	11	4.3	2.2	1.1	.59	3.9
7	.98	2.2	6.3	209	74	6.3	9.3	3.6	1.9	1.1	.61	1.1
8	.98	2.2	5.1	54	37	5.7	8.7	3.6	1.9	1.4	.77	.67
9	1.5	4.2	4.5	32	26	5.3	155	5.0	1.8	1.6	.68	.77
10	2.1	11	4.1	33	20	5.0	54	4.0	1.7	27	.73	1.2
11	1.6	3.8	3.8	83	15	4.9	23	4.5	1.7	4.0	.68	1.3
12	1.5	2.3	3.6	46	13	6.5	33	10	1.9	1.9	.63	.90
13	1.4	1.8	3.5	25	133	24	36	5.8	1.8	1.3	.67	.71
14	1.4	1.6	3.2	19	110	12	22	4.2	1.8	1.1	.78	.65
15	1.5	1.4	6.3	17	42	11	30	3.7	1.6	1.0	.79	.58
16	1.5	1.4	6.6	21	24	8.4	15	3.4	1.6	.95	.67	.58
17	1.7	1.6	76	14	110	59	12	3.4	1.6	.84	1.9	.59
18	5.7	1.5	431	12	350	57	9.8	3.1	1.6	.84	1.7	.58
19	2.3	1.5	77	11	170	23	15	2.9	1.5	1.8	.99	.58
20	1.7	1.5	33	12	72	16	9.6	2.9	1.4	1.1	.74	.58
21	1.6	1.4	165	10	40	14	7.8	2.9	1.3	.91	.71	.58
22	6.5	3.1	302	8.4	28	356	6.7	2.7	1.3	.84	.67	.58
23	4.5	5.4	80	7.8	20	130	5.9	2.6	1.3	.84	.58	.58
24	2.0	2.8	37	7.3	16	41	5.2	2.5	1.3	.84	.58	.92
25	1.8	2.0	23	6.4	14	25	4.7	2.5	1.3	.84	.58	2.9
26	1.8	1.8	16	6.2	12	19	4.7	2.4	1.3	.82	.62	1.0
27	1.8	1.7	29	6.2	10	28	4.5	30	1.2	.71	.58	.66
28	1.8	8.6	88	7.9	9.1	29	4.5	11	1.1	.71	.74	.58
29	1.7	5.2	49	6.9	---	29	4.5	5.3	1.1	.71	1.6	.57
30	1.8	3.1	524	16	---	39	4.2	4.0	1.1	.71	.88	.47
31	1.7	---	121	11	---	20	---	3.4	---	.68	.71	---
TOTAL	88.44	84.7	2252.8	932.1	1804.8	1029.3	561.1	156.6	58.0	61.94	24.08	30.25
MEAN	2.85	2.82	72.7	30.1	64.5	33.2	18.7	5.05	1.93	2.00	.78	1.01
MAX	30	11	524	209	388	356	155	30	6.4	27	1.9	4.1
MIN	.63	1.4	2.3	6.2	6.1	4.9	4.2	2.4	1.1	.68	.58	.47
CFSM	.26	.26	6.67	2.76	5.91	3.05	1.72	.46	.18	.18	.07	.09
IN.	.30	.29	7.69	3.18	6.16	3.51	1.91	.53	.20	.21	.08	.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1991, BY WATER YEAR (WY)

MEAN	3.78	15.3	33.6	27.0	36.5	33.0	23.0	21.0	9.40	9.00	3.50	6.64
MAX	19.4	41.3	98.4	76.2	129	98.0	71.5	114	37.7	37.9	22.1	43.4
(WY)	1976	1980	1979	1974	1989	1975	1979	1984	1981	1989	1985	1979
MIN	.72	1.38	1.19	.76	9.59	9.45	2.99	1.72	.67	.88	.39	.52
(WY)	1988	1988	1981	1981	1974	1985	1986	1990	1990	1990	1975	1983

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1973 - 1991	
ANNUAL TOTAL	5555.33		7084.11			
ANNUAL MEAN	15.2		19.4		18.4	
HIGHEST ANNUAL MEAN					33.7	1979
LOWEST ANNUAL MEAN					8.47	1986
HIGHEST DAILY MEAN	524	Dec 30	524	Dec 30	1780	May 7 1984
LOWEST DAILY MEAN	.28	Jul 8	.47	Sep 30	.09	Aug 17 1988
ANNUAL SEVEN-DAY MINIMUM	.34	Jul 3	.58	Sep 15	.12	Aug 12 1988
INSTANTANEOUS PEAK FLOW			1690	Dec 30	4850	May 7 1984
INSTANTANEOUS PEAK STAGE			7.59	Dec 30	11.38	May 7 1984
INSTANTANEOUS LOW FLOW			.47	Sep 30	.09	Aug 17 1988
ANNUAL RUNOFF (CFSM)	1.40		1.78		1.69	
ANNUAL RUNOFF (INCHES)	18.96		24.18		22.92	
10 PERCENT EXCEEDS	27		38		33	
50 PERCENT EXCEEDS	2.0		3.5		4.7	
90 PERCENT EXCEEDS	.59		.68		.87	

GREEN RIVER BASIN

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 Port Oliver Ford, 2,500 ft upstream from Difficult Creek, 0.5 mi downstream from Barren River Dam, 2.1 mi southwest of Finney, and at mile 78.7.

DRAINAGE AREA.--942 mi^2, of which 77 mi^2 does not contribute directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1941 to September 1950, October 1960 to current year. Prior to October 1950 published as "at Port Oliver Ford." Monthly discharge only for October to December 1941, published in WSP 1305.

REVISED RECORDS.--WSP 1113: 1945-46(M). WRD KY-80-1: Drainage area. WRD KY-89-1:.

GAGE.--Water-stage recorder. Datum of gage is 400.00 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Oct. 11, 1943, nonrecording gage, and Oct. 11, 1943 to Sept. 30, 1950, water-stage recorder at same site at datum 73.52 ft higher.

REMARKS.--No estimated daily discharges. Water-discharge records fair. Flow regulated by Barren River Lake (station 03312900) beginning March 1964. Maximum gage height from graph based on gage readings. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	672	1850	1600	270	4700	4920	5080	504	497	103	44	53
2	674	1850	1600	270	4690	4910	5040	500	494	104	44	56
3	682	1840	1930	1300	4670	4900	5020	500	496	103	46	121
4	1280	1840	2110	2400	4200	4900	4990	499	495	102	46	159
5	1220	1840	2480	2600	3800	4890	4960	502	474	101	46	215
6	1020	1830	2750	2670	3920	4890	4940	498	424	101	34	281
7	871	1820	2550	2400	3810	3900	4910	459	419	102	38	282
8	592	1800	2680	1810	3760	3060	4890	494	446	103	39	280
9	480	1840	2680	1750	3720	3050	4880	496	326	105	39	281
10	480	2090	2650	1310	3700	3050	4140	496	256	105	39	397
11	478	2230	2380	1310	3670	3620	2550	496	254	361	40	502
12	478	2220	1940	3060	3660	4800	1930	679	253	620	40	501
13	473	2340	1490	4370	3780	4790	1930	705	252	609	40	504
14	477	2580	1070	4540	3850	4770	1930	713	253	517	39	505
15	1340	2570	849	4540	3800	4740	1680	722	252	501	37	505
16	1920	2550	1300	4520	3760	4710	1510	764	252	344	39	504
17	920	2540	2050	4640	3890	4730	1510	748	249	264	40	504
18	1940	2510	1100	4750	2680	4770	1510	580	248	265	39	502
19	1910	2490	460	4730	1030	4970	1510	493	249	266	39	352
20	1910	2470	470	4720	1510	5170	1500	491	250	210	39	279
21	1920	2450	470	4710	3310	5160	1480	492	248	107	43	294
22	1920	2440	320	4680	4390	4550	1200	494	248	95	40	341
23	2180	2430	250	4660	4520	4320	1000	495	248	97	40	371
24	2330	2410	250	4790	4500	5200	733	495	260	97	40	369
25	2310	2400	1150	4850	4480	5150	512	496	260	72	41	328
26	2300	2380	2600	4820	4180	5130	508	495	248	42	41	301
27	2290	2350	3300	4800	3980	5120	510	496	198	41	41	269
28	2290	2350	3300	4790	4580	5090	506	495	160	42	37	303
29	2270	1910	3300	4770	---	5090	506	496	160	43	49	332
30	2060	1610	2600	4770	---	5150	504	496	142	43	49	347
31	1850	---	690	4730	---	5100	---	496	---	44	50	---
TOTAL	43537	65830	54369	110330	106540	144600	73869	16785	9011	5709	1278	10038
MEAN	1404	2194	1754	3559	3805	4665	2462	541	300	184	41.2	335
MAX	2330	2580	3300	4850	4700	5200	5080	764	497	620	50	505
MIN	473	1610	250	270	1030	3050	504	459	142	41	34	53

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1991, BY WATER YEAR (WY)

MEAN	1052	1706	1824	2610	2732	2299	1464	1189	1029	850	555	698
MAX	3175	3402	3821	8404	6541	5183	5187	3437	3421	3235	2201	2705
(WY)	1975	1976	1943	1950	1962	1963	1962	1973	1949	1969	1971	1974
MIN	6.46	3.44	147	191	588	345	53.2	32.2	34.8	34.6	41.2	95.1
(WY)	1977	1977	1964	1981	1977	1988	1969	1966	1966	1966	1991	1988

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1942 - 1991	
ANNUAL TOTAL	466581		641896			
ANNUAL MEAN	1278		1759		1494	
HIGHEST ANNUAL MEAN					2766	1979
LOWEST ANNUAL MEAN					750	1988
HIGHEST DAILY MEAN	4460	Mar 1	5200	Mar 24	62500	Feb 28 1962
LOWEST DAILY MEAN	47	Apr 24	34	Aug 6	.00	Oct 5 1976
ANNUAL SEVEN-DAY MINIMUM	49	Apr 18	38	Aug 6	.00	Oct 5 1976
INSTANTANEOUS PEAK FLOW			5340	Mar 22	78000	Feb 27 1962
INSTANTANEOUS PEAK STAGE			87.83	Mar 22	110.60	Feb 27 1962
10 PERCENT EXCEEDS	2930		4770		3570	
50 PERCENT EXCEEDS	690		1000		726	
90 PERCENT EXCEEDS	73		50		86	

03313000 BARREN RIVER AT FINNEY, KY--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: January 1990 to current year.

INSTRUMENTATION.--Temperature recorder since January 1990.

REMARKS.--Specific conductance and temperature measurements made in conjuction with discharge measurments are published in the miscellaneous water-quality data section.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum recorded 24.2°C Sept. 7, 8, 11, 12, 14, 1990; minimum recorded 3.2°C Jan. 9-11, 1990.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 20.9°C Aug. 6; minimum, 5.6°C Feb. 16, 17.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	18.5	17.7	18.0	17.9	17.5	17.8	12.7	11.9	12.5	9.3	8.6	9.0
2	18.5	17.7	18.2	17.9	17.1	17.6	12.7	11.9	12.5	9.3	8.6	8.9
3	18.9	17.7	18.4	17.9	17.0	17.3	12.7	12.3	12.5	9.0	8.6	8.8
4	18.9	17.3	18.3	17.8	17.0	17.2	12.3	11.6	12.0	9.0	8.3	8.8
5	18.5	17.3	18.0	17.4	16.7	17.0	11.9	11.2	11.4	9.0	8.3	8.7
6	18.5	17.7	17.9	17.0	16.3	16.6	11.6	10.8	11.2	9.0	8.3	8.7
7	18.5	17.3	17.9	16.7	15.9	16.4	11.2	10.5	10.7	8.6	8.3	8.5
8	18.1	17.3	17.8	16.3	15.5	16.0	10.8	10.1	10.4	8.6	8.3	8.5
9	18.1	17.3	17.8	15.9	15.2	15.5	10.5	9.7	10.1	8.6	8.3	8.4
10	18.1	17.3	17.7	15.5	14.8	15.1	10.0	9.3	9.8	8.6	7.9	8.2
11	18.5	17.3	17.9	15.2	14.8	15.0	10.0	9.3	9.6	8.6	7.9	8.2
12	18.5	17.7	18.0	15.2	14.3	14.8	10.0	9.3	9.6	8.3	7.9	8.1
13	18.5	17.7	18.0	14.7	14.3	14.5	9.7	9.0	9.5	8.3	7.9	8.0
14	18.5	17.7	18.1	14.7	13.9	14.4	9.7	9.0	9.3	8.3	7.6	7.8
15	19.7	17.7	18.9	14.7	13.9	14.3	9.7	9.0	9.5	7.9	7.6	7.8
16	20.1	19.3	19.6	14.3	13.6	13.9	9.7	9.0	9.3	7.9	7.6	7.7
17	20.1	19.3	19.9	13.9	13.2	13.5	9.7	9.0	9.3	7.9	7.6	7.7
18	20.1	19.3	19.6	13.9	13.2	13.5	9.7	9.0	9.5	7.9	7.2	7.6
19	19.7	19.3	19.5	13.6	13.2	13.4	9.7	9.0	9.5	7.6	7.2	7.5
20	19.7	18.9	19.5	13.6	13.2	13.4	10.4	9.3	9.9	7.6	7.2	7.5
21	19.7	18.9	19.3	13.8	13.1	13.5	11.1	10.0	10.6	7.6	6.9	7.3
22	19.3	18.9	19.1	13.8	13.1	13.4	10.4	9.3	9.9	7.2	6.9	7.0
23	18.9	18.5	18.8	13.5	12.8	13.0	10.0	9.3	9.6	7.2	6.5	6.8
24	18.9	18.5	18.7	13.5	12.8	13.2	9.7	9.3	9.5	6.9	6.5	6.7
25	18.9	18.1	18.4	13.5	12.8	13.1	9.7	9.3	9.5	6.9	6.5	6.7
26	18.1	17.7	17.9	13.5	13.1	13.3	9.7	9.3	9.4	6.9	6.2	6.5
27	18.1	17.3	17.8	13.8	13.1	13.4	9.7	9.0	9.2	6.5	6.2	6.3
28	17.7	16.9	17.5	13.8	13.1	13.6	9.3	9.0	9.2	6.5	6.2	6.4
29	17.9	16.9	17.4	13.5	12.8	13.2	9.7	9.0	9.2	6.5	6.2	6.3
30	18.3	17.3	18.0	13.1	12.3	12.7	10.0	9.3	9.6	6.5	6.2	6.3
31	18.3	17.5	17.9	---	---	---	9.7	9.0	9.3	6.5	5.8	6.3
MONTH	20.1	16.9	18.4	17.9	12.3	14.7	12.7	9.0	10.1	9.3	5.8	7.6

GREEN RIVER BASIN

03313000 BARREN RIVER NEAR FINNEY, KY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.5	5.8	6.2	7.3	6.9	7.2	11.3	10.6	10.9	13.5	12.4	12.9
2	6.5	5.8	6.2	7.6	6.9	7.4	11.7	10.6	11.1	13.5	12.4	13.1
3	6.5	5.8	6.3	7.7	7.3	7.5	12.1	11.3	11.7	13.5	12.8	13.1
4	6.5	6.2	6.3	7.7	7.4	7.5	12.1	11.3	11.6	13.5	12.8	13.1
5	6.5	6.2	6.4	8.1	7.4	7.7	12.1	11.3	11.7	13.5	12.8	13.2
6	6.9	5.8	6.4	8.1	7.7	7.9	12.1	11.3	11.7	13.9	12.8	13.2
7	6.5	5.8	6.1	7.1	6.7	6.9	12.1	11.3	11.8	14.3	12.8	13.5
8	6.6	5.8	6.4	7.4	6.7	7.0	12.4	11.3	11.8	13.9	13.1	13.4
9	6.6	6.3	6.4	7.4	6.7	7.0	12.4	11.3	11.9	13.9	13.1	13.5
10	6.6	6.3	6.5	7.1	6.7	6.9	12.8	11.7	12.2	13.9	13.1	13.6
11	6.6	6.3	6.5	7.8	6.7	7.1	13.1	12.1	12.5	13.9	13.5	13.6
12	7.0	6.3	6.5	7.8	7.4	7.5	12.8	12.1	12.5	14.3	13.5	14.0
13	7.0	6.3	6.8	7.8	7.4	7.7	12.8	11.7	12.3	14.6	13.9	14.3
14	7.1	6.4	6.7	7.4	7.1	7.3	13.1	11.7	12.4	15.0	14.3	14.7
15	6.7	6.0	6.4	7.8	7.1	7.5	13.1	11.7	12.4	15.4	14.3	14.9
16	6.4	5.6	6.2	8.1	7.4	7.8	12.8	12.1	12.5	15.4	14.6	14.9
17	6.4	5.6	5.9	8.8	7.8	8.3	12.8	12.4	12.5	15.0	14.3	14.8
18	6.7	6.0	6.3	8.5	7.4	8.0	13.1	12.1	12.5	15.0	13.9	14.5
19	6.8	6.4	6.6	8.5	7.4	8.0	13.1	11.7	12.6	14.6	13.9	14.3
20	6.8	6.1	6.4	8.8	7.8	8.3	13.5	12.4	13.0	14.6	13.9	14.4
21	6.8	6.1	6.6	9.2	8.1	8.7	13.5	12.4	12.9	14.6	13.9	14.4
22	6.8	6.5	6.6	9.2	8.8	9.0	13.5	12.4	12.8	15.0	14.3	14.5
23	6.8	6.1	6.6	9.5	8.1	8.9	13.1	12.4	12.7	15.0	14.3	14.6
24	6.8	6.5	6.7	9.2	8.1	8.7	13.1	12.1	12.6	15.0	14.3	14.5
25	6.9	6.5	6.7	9.9	8.8	9.4	12.8	12.1	12.4	15.0	14.3	14.6
26	6.9	6.6	6.7	11.0	9.5	10.1	12.8	12.1	12.5	15.0	14.3	14.7
27	6.9	6.6	6.8	11.3	9.9	10.7	12.8	12.1	12.5	15.4	14.3	14.8
28	7.3	6.6	6.9	10.6	9.5	10.1	12.8	12.4	12.6	15.4	14.3	14.9
29	---	---	---	11.0	10.2	10.5	13.1	12.1	12.8	15.4	14.6	15.0
30	---	---	---	11.3	10.2	10.8	13.5	12.1	12.9	15.4	14.6	15.0
31	---	---	---	11.3	10.6	11.0	---	---	---	15.4	14.6	15.0
MONTH	7.3	5.6	6.5	11.3	6.7	8.3	13.5	10.6	12.3	15.4	12.4	14.2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	15.4	14.6	15.0	16.9	15.0	15.9	18.5	15.0	16.6	18.1	15.8	16.6
2	15.8	14.6	15.1	17.3	15.0	15.8	18.5	15.4	16.6	18.1	15.8	16.7
3	15.8	14.6	15.2	17.3	15.0	15.9	19.7	15.4	16.9	16.9	15.8	16.2
4	15.8	15.0	15.3	16.5	15.0	15.7	17.3	15.4	16.3	16.9	15.8	16.3
5	15.8	15.0	15.3	17.7	15.0	15.9	18.1	15.4	16.7	16.9	15.8	16.4
6	16.1	15.0	15.3	16.9	15.0	15.8	20.9	15.4	17.3	17.3	16.1	16.7
7	15.8	15.0	15.4	16.9	15.0	15.8	19.7	15.8	16.9	17.7	16.1	16.8
8	15.8	15.0	15.5	16.9	15.0	15.7	19.3	15.8	17.1	17.3	16.5	16.9
9	16.1	15.0	15.5	16.9	15.4	16.0	18.9	15.8	16.9	16.9	16.5	16.7
10	15.8	14.6	15.3	16.5	15.0	15.8	18.1	15.4	16.7	17.7	16.5	17.1
11	15.8	15.0	15.3	16.9	15.4	16.1	18.5	15.4	16.7	18.1	16.9	17.5
12	15.8	15.0	15.2	17.3	16.1	16.5	18.5	15.0	16.7	18.1	17.3	17.5
13	16.1	15.0	15.5	17.3	16.5	16.8	16.9	15.4	16.2	18.1	17.3	17.6
14	16.1	15.0	15.5	17.3	16.5	17.1	19.3	15.4	16.8	18.1	17.3	17.7
15	15.8	15.0	15.4	17.3	16.5	17.1	18.9	15.4	16.8	18.1	17.7	17.9
16	16.1	15.0	15.6	17.3	15.8	16.8	18.9	15.4	16.7	18.1	17.3	17.8
17	15.8	15.0	15.5	17.3	16.1	16.5	18.1	15.8	16.6	18.5	17.7	18.0
18	16.1	15.0	15.6	16.9	16.1	16.5	18.9	15.8	16.9	18.5	17.7	18.1
19	16.1	15.0	15.6	17.3	16.1	16.5	17.7	15.4	16.3	18.1	17.3	17.9
20	16.5	15.0	15.7	17.3	15.8	16.5	17.3	15.4	16.2	18.5	17.3	17.9
21	16.1	15.4	15.6	17.3	15.8	16.4	18.1	15.4	16.6	18.5	17.7	18.0
22	16.5	15.4	15.7	17.7	15.8	16.4	19.3	15.4	16.7	18.5	17.7	18.0
23	16.1	15.4	15.7	17.3	15.8	16.4	18.9	15.4	16.8	18.5	17.7	18.3
24	16.1	15.4	15.8	16.9	15.8	16.3	18.9	15.4	16.8	18.5	17.7	18.1
25	16.1	15.4	15.7	17.7	15.4	16.5	18.5	15.8	16.7	18.9	17.7	18.3
26	16.5	15.4	15.9	17.7	15.4	16.4	17.7	15.8	16.6	18.9	17.7	18.3
27	16.5	15.4	15.9	18.1	15.4	16.5	18.1	15.8	16.8	18.9	18.1	18.4
28	16.1	15.4	15.7	17.3	15.4	16.3	18.9	15.8	17.0	18.9	18.1	18.4
29	16.5	15.4	15.8	17.7	15.4	16.5	17.7	15.8	16.4	18.9	18.1	18.4
30	16.5	15.4	15.7	18.5	15.4	16.6	17.7	15.8	16.5	18.9	18.1	18.6
31	---	---	---	18.5	15.4	16.6	18.5	15.8	16.7	---	---	---
MONTH	16.5	14.6	15.5	18.5	15.0	16.3	20.9	15.0	16.7	18.9	15.8	17.6

03313700 WEST FORK DRAKES CREEK NEAR FRANKLIN, KY

LOCATION.--Lat 36°43'24", long 86°33'08", Simpson County, Hydrologic Unit 05110002, near left bank at upstream side of city of Franklin pumping plant intake, 20 ft upstream from dam, 0.8 mi downstream from bridge on State Highway 73 and 100, 1.5 mi east of Franklin, 3.3 mi downstream from Sharps Branch, and at mile 46.7.

DRAINAGE AREA.--110 mi^2, of which about 19 mi^2 does not contribute directly to surface runoff.

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

GAGE.--Water-stage recorder. Weir was raised and widened November 1989. Datum of gage is 581.54 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1981, at site 0.8 mi upstream at datum 8.05 ft lower.

REMARKS.--Estimated daily discharges: Oct. 1 to Dec. 19, Dec. 21 to Jan 30, Feb. 8 to Mar. 13, and Aug. 11-26. Records fair except for estimated daily discharges, which are poor. Subsequent to Apr. 24, 1976, records of daily discharge less than about 300 ft^3/s does not include approximately 3 ft^3/s which is diverted by city of Franklin for municipal supply. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	19	65	1000	85	150	466	66	47	15	9.2	16
2	11	19	52	600	77	200	338	55	44	17	7.5	13
3	11	18	300	350	77	240	283	49	39	22	7.7	10
4	138	18	600	300	83	300	231	49	32	18	6.6	7.5
5	84	18	350	240	144	270	220	57	25	18	6.6	10
6	60	20	250	260	538	250	194	89	22	17	7.2	22
7	34	22	200	1300	443	220	173	64	20	16	6.2	18
8	26	22	150	750	310	190	159	54	19	19	4.2	13
9	22	30	120	500	250	180	152	58	19	434	5.7	15
10	26	300	95	300	200	170	158	67	19	193	6.5	18
11	24	220	80	550	170	160	138	70	19	158	5.6	121
12	20	170	76	900	150	160	122	573	20	103	5.2	73
13	18	110	66	500	220	190	148	432	22	79	5.0	36
14	18	80	60	370	700	165	157	277	22	82	4.8	24
15	17	60	120	300	500	145	289	206	22	61	5.2	16
16	16	45	320	260	350	127	280	153	20	49	4.8	13
17	16	35	540	240	300	128	222	120	18	41	4.6	11
18	20	30	6500	200	2000	431	183	103	17	37	4.4	8.8
19	20	28	1500	180	1800	318	185	105	17	33	3.8	7.9
20	20	26	857	170	1600	257	164	139	17	30	4.2	7.5
21	22	24	960	160	700	225	134	87	16	28	4.0	7.5
22	27	35	5700	160	500	297	123	72	17	22	3.6	7.5
23	120	40	3000	150	400	498	108	64	21	18	3.8	7.5
24	60	34	1000	140	300	363	98	57	27	15	3.6	7.2
25	36	26	450	130	250	280	85	58	28	13	3.4	9.5
26	30	22	300	130	200	230	83	59	23	13	3.2	9.1
27	24	20	250	120	170	227	76	93	19	13	3.5	8.3
28	20	70	1000	120	160	434	72	105	17	11	3.9	7.5
29	18	100	800	110	---	792	74	72	16	11	8.0	6.6
30	18	80	660	100	---	1100	75	59	16	10	80	5.8
31	20	---	2000	101	---	671	---	51	---	10	32	---
TOTAL	1008	1741	28421	10691	12677	9368	5190	3563	680	1606	264.0	537.2
MEAN	32.5	58.0	917	345	453	302	173	115	22.7	51.8	8.52	17.9
MAX	138	300	6500	1300	2000	1100	466	573	47	434	80	121
MIN	11	18	52	100	77	127	72	49	16	10	3.2	5.8
CFSM	.30	.53	8.33	3.14	4.12	2.75	1.57	1.04	.21	.47	.08	.16
IN.	.34	.59	9.61	3.62	4.29	3.17	1.76	1.20	.23	.54	.09	.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1991, BY WATER YEAR (WY)

MEAN	44.7	139	313	301	385	381	259	217	151	64.7	33.8	67.2
MAX	219	474	971	867	1356	1412	568	982	637	251	142	677
(WY)	1976	1980	1979	1974	1989	1975	1979	1983	1974	1989	1971	1979
MIN	1.87	14.5	11.8	10.4	138	118	38.3	22.8	18.7	5.47	2.80	2.28
(WY)	1988	1988	1981	1981	1980	1981	1986	1988	1985	1985	1986	1986

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1968 - 1991	
ANNUAL TOTAL	70810.8		75746.2			
ANNUAL MEAN	194		208		196	
HIGHEST ANNUAL MEAN					351	1989
LOWEST ANNUAL MEAN					87.8	1986
HIGHEST DAILY MEAN	6500	Dec 18	6500	Dec 18	12800	Mar 12 1975
LOWEST DAILY MEAN	6.4	Sep 5	3.2	Aug 26	.00	Sep 19 1985
ANNUAL SEVEN-DAY MINIMUM	7.7	Aug 31	3.6	Aug 22	.00	Aug 13 1988
INSTANTANEOUS PEAK FLOW					27300	Mar 12 1975
INSTANTANEOUS PEAK STAGE					23.20	Mar 12 1975
ANNUAL RUNOFF (CFSM)	1.76		1.89		1.78	
ANNUAL RUNOFF (INCHES)	23.95		25.62		24.17	
10 PERCENT EXCEEDS	396		446		436	
50 PERCENT EXCEEDS	50		70		68	
90 PERCENT EXCEEDS	9.6		7.8		8.1	

03314500 BARREN RIVER AT BOWLING GREEN, KY

LOCATION.--Lat 37°00'04", long 86°25'51", Warren County, Hydrologic Unit 05110002, near center of downstream side of abandoned College Street bridge, 700 ft upstream from bridge on U.S. Highways 31W and 68 at Bowling Green, 6.0 mi downstream from Drakes Creek, 8.9 mi upstream from Jennings Creek, and at mile 37.6.

DRAINAGE AREA.--1,849 mi^2, of which about 490 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--June 1938 to 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. Datum of gage is 409.83 ft above NGVD of 1929. Prior to June 21, 1944, nonrecording gage at same site and datum. Auxiliary water-stage recorder at old TVA powerplant, 7.7 mi downstream. Aug. 10, 1939 to Dec. 31, 1942, auxiliary water-stage recorder or nonrecording gage at site 8.0 mi downstream from base gage.

REMARKS.--Estimated daily discharges: Dec. 23 to Jan. 24, Feb. 15 to Mar. 6, and July 25 to Aug. 31. Records good, except for periods of estimated discharge, which are fair. Flow regulated by Barren River Lake (station 03312900) beginning March 1964. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

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 1990 TO SEPTEMBER 1991--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	771	1960	2180	7000	5290	6200	7440	1020	1040	324	130	161
2	768	1940	2090	4000	5220	6400	6830	967	1100	282	130	237
3	757	1930	4900	3800	5180	6600	6450	934	995	318	130	207
4	978	1920	9560	4200	5140	6800	6210	916	938	284	130	155
5	2110	1920	5190	4200	4640	6600	6050	948	898	277	120	186
6	1610	1920	4290	4600	7670	6400	5920	977	856	262	120	219
7	1290	1900	4000	9000	8880	5830	5800	1000	834	252	120	320
8	1040	1900	3640	7200	7010	4370	5640	935	818	246	120	344
9	747	1990	3540	5000	6170	3970	5620	945	811	288	120	390
10	623	3270	3380	4000	5690	3870	5770	958	664	1110	120	555
11	587	3800	3340	5000	5320	3780	4450	968	535	1120	120	761
12	574	3150	2680	6200	5040	4940	3240	1240	533	1050	120	1160
13	565	2860	2100	6800	5110	5510	3110	3080	571	1430	110	952
14	548	2960	1500	6600	9250	5580	3100	2540	589	1470	100	769
15	540	3050	1280	6400	7600	5480	3180	2500	541	1450	100	693
16	1600	3000	3000	6200	6400	5410	3190	2400	519	1400	100	652
17	2030	2960	3520	6200	6200	5440	3100	2230	509	804	100	624
18	2090	2920	10500	6000	15000	6410	2830	1710	490	518	100	610
19	2060	2890	19800	5900	13000	6710	2720	1160	466	498	98	604
20	2050	2850	9950	5800	11000	6550	2610	1710	459	470	96	516
21	2040	2820	4630	5700	7600	6360	2470	1340	454	416	94	426
22	2120	2830	16000	5500	7400	6730	2350	1110	523	276	92	420
23	2400	2860	20000	5400	7000	7350	1900	1020	511	222	92	417
24	2840	2850	10000	5500	6600	7570	1730	967	467	211	90	421
25	2770	2800	5000	5500	6200	7050	1280	930	823	190	90	453
26	2680	2770	5000	5450	5800	6590	1080	912	601	160	90	434
27	2580	2730	5400	5430	5400	6380	1050	1190	507	150	90	431
28	2530	2810	8000	5390	5800	6910	1030	1600	440	150	100	426
29	2480	3000	7200	5350	---	7010	1030	1360	351	140	120	418
30	2460	2500	6600	5350	---	9520	1040	1180	327	140	130	411
31	2100	---	15000	5350	---	8680	---	1070	---	140	140	---
TOTAL	50338	79060	203270	174020	196610	193000	108220	41817	19170	16048	3412	14372
MEAN	1624	2635	6557	5614	7022	6226	3607	1349	639	518	110	479
MAX	2840	3800	20000	9000	15000	9520	7440	3080	1100	1470	140	1160
MIN	540	1900	1280	3800	4640	3780	1030	912	327	140	90	155

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1991, BY WATER YEAR (WY)

MEAN	1058	2131	3184	4401	5308	4867	3348	2389	1711	1216	815	917
MAX	4027	6097	11140	16060	13320	11950	8789	9408	5825	5059	3987	5358
(WY)	1975	1980	1952	1950	1939	1955	1962	1983	1981	1989	1938	1979
MIN	69.5	129	199	228	718	808	379	247	102	118	110	68.1
(WY)	1954	1954	1954	1981	1941	1941	1986	1988	1988	1988	1991	1953

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1938 - 1991	
ANNUAL TOTAL	887850		1099337			
ANNUAL MEAN	2432		3012		2594	
HIGHEST ANNUAL MEAN					5001	1979
LOWEST ANNUAL MEAN					832	1941
HIGHEST DAILY MEAN	24400	Feb 4	20000	Dec 23	79600	Feb 28 1962
LOWEST DAILY MEAN	137	Sep 5	90	Aug 24	45	Sep 18 1954
ANNUAL SEVEN-DAY MINIMUM	139	Aug 30	91	Aug 21	47	Sep 13 1954
INSTANTANEOUS PEAK FLOW			23900	Dec 23	85000	Feb 28 1962
INSTANTANEOUS PEAK STAGE			30.86	Dec 23	49.55	Feb 28 1962
INSTANTANEOUS LOW FLOW					44	Sep 19 1954
10 PERCENT EXCEEDS	5350		6720		5960	
50 PERCENT EXCEEDS	1420		2030		1280	
90 PERCENT EXCEEDS	230		153		201	

03315500 GREEN RIVER AT LOCK 4, AT WOODBURY, KY

LOCATION.--Lat 37°10'56", long 86°37'48", Butler County, Hydrologic Unit 05110003, on left bank 0.1 mi upstream from destroyed lock 4, at Woodbury, 0.3 mi downstream from Barren River, and at mile 149.2.

DRAINAGE AREA.--5,404 mi^2, of which about 1,360 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--December 1936 to February 1937 (in WSP 838), October 1937 to current year. Gage-height records collected at same site since 1917 are published in reports of National Weather Service.

REVISED RECORDS.--WSP 1385: 1944-45. WRD KY-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 379.60 ft above National Geodetic Vertical Datum of 1929. Prior to September 1940, nonrecording gage at site 0.1 mi downstream at lock 4, at same datum. Prior to October 1, 1990, at datum 10.00 ft higher. Auxiliary water-stage recorder 7.8 mi downstream at datum 373.62 ft NGVD; prior to Oct. 1, 1955, nonrecording gages 6.0 mi and 7.8 mi downstream.

REMARKS.--Estimated daily discharge: Jan. 21-22, Feb. 3-5, 16-17, and 21-28. Records good except those for periods of estimated record, which are fair. Flow regulated by Green River Lake (station 03305990) beginning February 1969, Nolin Lake (station 03310900) beginning March 1963, and Barren River Lake (station 03312900) beginning March 1964. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in tne miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1690	5780	6000	49300	21500	19800	18700	2930	3540	1100	554	746
2	1650	4910	5530	45700	20600	17100	15500	2780	3920	1070	535	923
3	1520	4590	9850	38100	18500	15400	13600	2660	3710	1150	516	1100
4	1900	4480	22800	24600	18000	15200	12500	2610	3380	1220	503	1560
5	2840	4340	22800	17700	18400	16700	11900	2680	3430	1450	491	1850
6	3350	4500	15700	18400	29100	16000	11300	3020	3300	1260	481	1850
7	2870	5820	12500	32500	35900	14900	10400	2810	2670	1050	456	1800
8	2420	6700	10800	38200	35200	13500	10200	2820	2370	996	447	1400
9	2160	5530	9750	36300	30000	11300	12600	3050	2210	2580	443	1200
10	2180	4790	9190	28200	23000	9490	15100	3640	2.00	2930	398	1330
11	2170	7680	8810	21500	21200	8430	12700	3530	1850	3140	377	2060
12	2070	8490	8470	22400	19900	8310	9410	5000	1690	2730	400	1960
13	2010	7130	7640	24000	19700	9260	8800	6550	1690	2790	370	1720
14	1970	7130	5900	23300	27600	9910	8360	6690	2270	2820	359	1410
15	1970	7260	4810	23900	32200	10500	8260	6010	1900	2630	377	1200
16	3300	7130	4870	23500	31000	10300	9650	5650	1700	2410	405	1080
17	4650	7000	7960	24200	33300	10800	11300	5380	1720	2130	417	1010
18	4560	6880	30600	24000	36000	13900	9690	4880	1640	1710	492	966
19	4460	6800	47200	24000	43900	16400	9470	4070	1500	1660	586	819
20	4470	6670	51200	23800	47100	16200	8850	3660	1370	1530	919	812
21	4790	6530	47100	22800	44000	14800	8100	3930	1330	1410	843	715
22	5070	6560	48900	21900	31500	26700	7630	3430	1300	1150	631	645
23	5540	6900	51000	22100	21800	35700	7140	3080	1370	946	553	640
24	6200	7230	51200	22100	22500	35300	6490	2700	1350	846	528	642
25	6730	7470	42400	22200	22000	30600	5380	2500	1890	798	492	714
26	6890	6700	33300	22400	21800	23300	4010	2300	2080	761	470	739
27	6710	5950	25200	22200	21000	19500	3460	8010	1670	716	467	721
28	6520	6290	28000	22100	20000	19700	3230	12000	1400	645	485	738
29	6410	6810	34000	22100	---	19100	3140	7440	1230	600	539	924
30	6330	6590	37100	21900	---	20000	3040	5480	1140	577	622	1140
31	6220	---	46200	22000	---	21000	---	4130	---	563	686	---
TOTAL	121620	190640	746780	807400	766700	529100	279910	135420	62720	47368	15842	34414
MEAN	3923	6355	24090	26050	27380	17070	9330	4368	2091	1528	511	1147
MAX	6890	8490	51200	49300	47100	35700	18700	12000	3920	3140	919	2060
MIN	1520	4340	4810	17700	18000	8310	3040	2300	1140	563	359	640

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1991, BY WATER YEAR (WY)

MEAN	2748	6043	10600	15230	17210	16780	11800	8449	5249	3654	2580	2840
MAX	15480	23550	41430	75440	44050	37680	30270	41120	19830	18570	11720	21030
(WY)	1980	1958	1979	1937	1989	1962	1979	1983	1981	1967	1967	1979
MIN	280	510	584	911	2187	1984	1748	1130	679	542	511	330
(WY)	1954	1954	1954	1981	1941	1941	1986	1941	1988	1944	1991	1953

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1937 - 1991	
ANNUAL TOTAL	3270154		3737914			
ANNUAL MEAN	8959		10240		8475	
HIGHEST ANNUAL MEAN					17480	1979
LOWEST ANNUAL MEAN					2777	1941
HIGHEST DAILY MEAN	51300	Feb 5	51200	Dec 20	202000	Jan 24 1937
LOWEST DAILY MEAN	531	Sep 4	359	Aug 14	200	Sep 14 1954
ANNUAL SEVEN-DAY MINIMUM	601	Aug 31	384	Aug 10	207	Sep 11 1954
INSTANTANEOUS PEAK FLOW			51900	Dec 20	205000	Jan 25 1937
INSTANTANEOUS PEAK STAGE			34.66	Dec 24	43.10*	Jan 25 1937
10 PERCENT EXCEEDS	25800		27100		22200	
50 PERCENT EXCEEDS	4810		5530		4130	
90 PERCENT EXCEEDS	955		703		783	

*original datum

GREEN RIVER BASIN

03318010 ROUGH RIVER AT ROUGH RIVER DAM, NEAR FALLS OF ROUGH, KY

WATER-QUALITY RECORDS

LOCATION.--Lat 37°37'19", long 86°30'15", Grayson County, Hydrologic Unit 051110004, at stage station on left bank, 800 ft downstream from from Rough River, 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 of which about 107 mi does not contribute directly to surface runoff.

PERIOD OF DAILY RECORD.--
WATER TEMPERATUPE: July 1962 to September 1982, continuous record March 1989 to current year.

INSTRUMENTATION.--Temperature recorder.

REMARKS.--Flow regulated by Rough River Lake. Several days of missing record due to instrument malfuction. U.S. Army Corps of Engineers provided field values for some days during Oct. 5-15, 1990.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: (water years 1962-78, 1980, 1989-91): Maximum recorded, 25.5°C Sept. 23-25, 1980; minimum, 0.5°C Jan. 6, 7, 1967, several days in January 1976.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum recorded, 19.7°C Oct. 16-18, but may have been higher during instrument malfunction Oct. 5-15; minimum, 3.9°C Jan. 31 to Feb. 2.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	15.9	15.5	15.7	16.1	15.8	15.8	11.3	11.3	11.3	7.4	7.1	7.2
2	16.3	15.5	15.8	16.1	15.8	15.8	11.3	11.3	11.3	7.1	7.1	7.1
3	16.3	15.5	16.0	15.8	15.4	15.7	11.7	11.3	11.4	7.1	6.7	7.0
4	18.3	15.9	17.5	16.1	15.4	15.7	11.3	10.6	10.9	6.7	6.7	6.7
5	---	---	---	15.8	15.4	15.6	10.6	10.2	10.4	6.7	6.4	6.6
6	---	---	---	15.4	15.0	15.0	10.2	9.9	10.1	6.7	6.4	6.7
7	---	---	---	14.6	14.6	14.6	9.9	9.5	9.6	6.7	6.4	6.5
8	---	---	---	14.3	14.3	14.3	9.5	9.2	9.3	6.4	6.4	6.4
9	---	---	18.5	13.9	13.9	13.9	9.2	8.8	8.9	6.4	6.4	6.4
10	---	---	---	13.9	13.1	13.4	8.8	8.5	8.7	6.4	6.4	6.4
11	---	---	20.0	13.5	13.1	13.3	8.8	8.5	8.6	6.4	6.4	6.4
12	---	---	---	13.1	12.8	13.0	8.5	8.5	8.5	6.4	6.0	6.3
13	---	---	---	13.1	12.8	12.8	8.5	8.5	8.5	6.0	6.0	6.0
14	---	---	---	12.8	12.4	12.7	8.5	8.1	8.4	6.0	6.0	6.0
15	---	---	19.5	13.1	12.4	12.8	8.8	8.5	8.6	6.0	5.7	6.0
16	19.7	19.3	19.4	12.8	12.4	12.5	8.5	8.5	8.5	6.0	5.7	5.9
17	19.7	19.3	19.7	12.4	12.1	12.3	8.8	8.1	8.5	5.7	5.7	5.7
18	19.7	18.9	19.2	12.4	12.1	12.2	8.8	8.5	8.7	5.7	5.7	5.7
19	18.9	18.5	18.9	12.1	12.1	12.1	8.5	8.5	8.5	5.7	5.7	5.7
20	18.9	18.5	18.6	12.1	11.7	12.1	8.5	8.5	8.5	5.7	5.7	5.7
21	18.5	18.5	18.5	12.4	11.7	12.2	8.8	8.5	8.7	5.3	4.9	5.3
22	18.5	18.1	18.2	12.4	12.1	12.2	8.8	8.5	8.6	5.3	4.9	4.9
23	18.1	17.7	17.9	12.1	12.1	12.1	---	---	---	4.9	4.6	4.8
24	17.7	17.7	17.7	12.1	11.7	12.0	---	---	---	4.9	4.6	4.7
25	17.7	17.3	17.4	12.1	11.7	11.9	7.8	7.4	7.5	4.6	4.6	4.6
26	17.3	16.9	16.9	12.4	11.7	12.1	7.4	7.4	7.4	4.6	4.2	4.6
27	16.9	16.5	16.8	13.1	12.4	12.8	7.4	7.4	7.4	4.2	4.2	4.2
28	16.5	16.1	16.5	---	---	---	7.4	7.1	7.4	4.2	4.2	4.2
29	16.5	16.1	16.1	12.4	12.1	12.1	8.1	7.4	7.6	4.2	4.2	4.2
30	16.1	15.8	16.1	12.1	11.3	11.8	8.1	7.8	7.9	4.2	4.2	4.2
31	16.1	15.8	15.9	---	---	---	7.8	7.4	7.4	4.2	3.9	4.0
MONTH	---	---	---	---	---	---	---	---	---	7.4	3.9	5.7

GREEN RIVER BASIN

03318010 ROUGH RIVER AT ROUGH RIVER DAM, NEAR FALLS OF ROUGH, KY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.2	3.9	4.0	6.4	6.0	6.1	11.0	10.2	10.7	13.1	11.7	12.1
2	4.2	3.9	4.1	6.7	6.4	6.5	11.0	10.6	10.8	13.5	11.7	12.2
3	4.2	4.2	4.2	6.7	6.4	6.5	11.7	11.0	11.3	13.1	11.3	12.0
4	4.6	4.2	4.3	6.7	6.4	6.5	11.3	11.0	11.1	12.4	11.7	12.0
5	4.6	4.2	4.6	6.7	6.4	6.6	11.7	10.6	11.0	13.1	11.7	12.1
6	4.9	4.6	4.7	7.1	6.7	6.7	11.3	10.6	10.9	12.4	11.7	11.9
7	4.9	4.6	4.8	7.1	6.7	6.8	11.7	10.6	11.1	13.9	11.7	12.3
8	4.9	4.9	4.9	7.1	6.7	6.9	11.7	10.6	11.2	13.5	11.7	12.1
9	4.9	4.9	4.9	7.4	6.7	7.0	11.7	10.6	11.2	12.4	11.7	12.0
10	5.3	4.9	4.9	7.4	7.1	7.2	12.[illegible]	11.0	11.3	12.4	11.7	12.1
11	5.3	4.9	5.0	7.8	7.1	7.3	11.7	11.0	11.3	12.4	12.1	12.2
12	5.3	4.9	5.2	7.8	7.1	7.4	11.3	11.0	11.2	12.4	12.1	12.3
13	5.7	5.3	5.3	8.1	7.8	7.8	11.3	11.0	11.3	12.4	12.1	12.3
14	5.3	5.3	5.3	7.8	7.4	7.6	11.7	11.0	11.4	13.1	12.4	12.8
15	5.3	4.6	4.9	7.4	7.4	7.4	12.1	11.3	11.5	13.5	13.1	13.1
16	4.9	4.6	4.6	7.8	7.4	7.5	12.1	11.3	11.5	13.5	13.1	13.3
17	4.6	4.6	4.6	8.5	7.4	8.2	12.1	11.3	11.5	13.5	12.8	13.2
18	4.9	4.6	4.8	8.5	7.8	8.1	11.7	11.3	11.5	13.1	12.8	12.9
19	5.3	4.9	4.9	8.5	7.8	8.0	11.7	11.3	11.4	13.1	12.8	12.9
20	5.3	4.9	5.0	8.8	7.8	8.2	11.7	11.3	11.4	13.1	12.4	12.7
21	5.3	4.9	5.1	9.2	8.5	8.9	11.7	11.3	11.4	13.1	12.4	12.7
22	5.3	4.9	5.2	9.5	8.8	9.1	11.7	11.3	11.5	12.8	12.4	12.7
23	5.7	5.3	5.5	9.9	9.5	9.7	12.1	11.3	11.5	13.1	12.4	12.7
24	6.0	5.7	5.7	9.5	9.2	9.3	12.1	11.3	11.6	13.5	12.4	13.0
25	6.0	5.7	5.7	9.9	9.2	9.6	12.1	11.3	11.6	13.1	12.4	12.9
26	6.0	5.7	5.7	11.7	9.9	10.6	12.1	11.3	11.7	13.1	12.8	12.9
27	6.0	5.7	5.8	12.1	10.2	11.5	12.1	11.3	11.7	13.5	12.8	13.0
28	6.0	5.7	5.9	11.3	10.6	10.8	12.1	11.7	11.7	13.5	12.8	13.0
29	---	---	---	11.3	10.6	11.0	12.1	11.7	11.8	13.5	12.8	13.1
30	---	---	---	11.3	10.2	10.8	13.5	11.3	12.2	13.5	12.8	13.1
31	---	---	---	11.3	10.2	10.8	---	---	---	13.5	12.8	13.2
MONTH	6.0	3.9	5.0	12.1	6.0	8.3	13.5	10.2	11.4	13.9	11.3	12.6
		JUNE			JULY			AUGUST			SEPTEMBER	
1	13.1	12.8	13.0	15.4	13.9	14.5	16.1	14.6	15.4	16.9	15.4	16.0
2	13.5	12.8	13.2	15.8	13.9	14.5	16.9	15.0	15.6	16.9	15.4	16.0
3	13.9	13.1	13.3	15.4	13.9	14.4	16.9	15.0	15.6	16.5	15.8	16.0
4	13.5	12.8	13.2	15.4	13.9	14.3	16.1	15.0	15.4	16.1	15.8	15.8
5	13.9	12.8	13.2	15.8	13.9	14.6	16.1	15.0	15.4	16.1	15.8	15.8
6	14.3	12.8	13.3	15.8	13.9	14.7	16.5	15.0	15.4	16.5	15.8	16.0
7	14.6	12.8	13.4	15.8	13.9	14.8	16.5	15.0	15.5	16.5	15.8	16.0
8	14.3	12.8	13.3	15.8	13.9	14.7	16.9	15.0	15.6	16.9	15.4	16.1
9	14.6	12.8	13.4	15.8	13.9	15.0	16.9	15.0	15.7	16.5	15.8	16.0
10	14.6	12.8	13.5	15.8	15.8	15.8	16.5	15.0	15.6	16.9	15.8	16.1
11	13.9	13.1	13.3	16.1	15.0	15.6	16.5	15.0	15.5	16.1	15.8	16.0
12	14.3	12.8	13.4	15.4	15.4	15.4	16.1	15.0	15.5	16.5	16.1	16.2
13	15.0	13.1	13.5	17.3	15.0	15.9	16.1	15.0	15.5	16.5	16.1	16.2
14	14.6	12.8	13.6	16.1	14.6	15.2	16.5	15.0	15.5	16.5	16.1	16.2
15	14.6	12.8	13.7	15.8	14.6	15.1	16.5	15.0	15.7	16.5	16.1	16.2
16	14.6	13.1	13.6	16.1	14.6	15.2	16.5	15.0	15.7	16.5	16.1	16.3
17	14.6	13.1	13.4	16.1	14.6	15.2	16.5	15.4	15.8	16.5	16.1	16.4
18	13.9	13.1	13.3	16.1	14.6	15.1	16.9	15.4	15.8	16.5	16.1	16.4
19	15.0	13.1	13.5	16.1	14.6	15.3	17.3	15.4	15.8	19.3	16.5	17.5
20	14.6	13.1	13.6	16.5	14.6	15.4	16.1	15.4	15.6	16.9	16.1	16.6
21	14.6	13.1	13.4	16.1	14.6	15.3	16.9	15.4	15.8	16.9	16.1	16.5
22	14.3	13.1	13.6	16.1	14.6	15.3	16.9	15.4	15.8	16.5	16.1	16.4
23	14.3	13.9	14.0	16.5	14.6	15.5	16.5	15.4	15.7	16.9	16.1	16.5
24	15.0	13.9	14.7	16.5	15.0	15.3	16.9	15.4	15.8	16.9	16.1	16.4
25	15.4	14.3	14.7	16.1	15.0	15.2	16.5	15.4	15.8	16.9	16.1	16.5
26	14.6	14.3	14.4	16.1	14.6	15.3	16.5	15.4	15.8	16.9	16.5	16.7
27	15.0	13.9	14.3	16.1	14.6	15.3	16.9	15.4	15.9	16.9	16.5	16.7
28	15.0	13.9	14.3	15.8	14.6	15.2	16.5	15.4	15.9	17.3	16.5	16.9
29	15.4	13.9	14.4	16.1	15.0	15.4	16.5	15.4	15.8	17.3	16.9	17.0
30	15.4	13.9	14.5	16.1	15.0	15.4	16.5	15.8	15.9	17.3	16.9	17.1
31	---	---	---	16.5	14.6	15.4	16.9	15.4	16.1	---	---	---
MONTH	15.4	12.8	13.7	17.3	13.9	15.1	17.3	14.6	15.7	19.3	15.4	16.3

GREEN RIVER BASIN

03318500 ROUGH RIVER AT FALLS OF ROUGH, KY

LOCATION.--Lat 37°35'20", long 86°33'05", Grayson County, Hydrologic Unit 05110004, on left bank 150 ft downstream from bridge on State Hwy 110 at Falls of Rough, 3.2 mi downstream from Rock Lick Creek, 6.4 mi downstream from Rough River Dam, and at mile 82.9.

DRAINAGE AREA.--504 mi^2, of which about 110 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1939 to current year (low-water periods only prior to October 1948, published as "near Falls of Rough"). Prior to January 1940 monthly discharge only, published in WSP 1305.

REVISED RECORDS.--WSP 1555: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 420.94 ft above NGVD of 1929. See WDR KY-90-1 for history of changes prior to Oct. 21, 1948.

REMARKS.--No estimated daily discharges. Records good. Flow reg. by Rough River Lake beginning Oct. 1959. Spec. conductance and temp. meas. made in conjunction with discharge meas. are publish in the misc. WQ data section.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 25, 1937 reached a stage of 34.06 ft; discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	143	1040	418	533	3340	2990	236	73	114	53	55	58
2	143	1050	192	395	3260	2350	232	70	113	56	55	57
3	144	1040	1370	633	3220	2250	231	68	106	58	55	57
4	983	1030	538	1160	3190	2610	233	68	92	58	56	61
5	1530	1040	718	1580	3190	3020	187	131	91	58	56	59
6	1150	1030	1500	2370	3790	3020	138	107	75	58	56	62
7	364	1020	1730	2350	2020	2730	142	80	57	58	57	61
8	209	1010	1710	630	1270	1790	617	73	56	77	57	58
9	242	1030	1680	1000	1430	1220	324	541	56	521	58	58
10	536	1210	1660	1220	2290	905	298	287	56	1020	57	59
11	746	1050	1640	928	2990	637	201	313	56	884	57	78
12	576	1010	1110	1870	3180	445	190	861	57	520	57	112
13	242	994	345	2540	3010	303	298	514	56	275	57	109
14	240	985	209	3130	2460	369	216	913	56	55	57	109
15	685	1120	736	3130	1280	562	220	1080	56	54	57	164
16	1040	1360	691	3050	1450	532	197	1070	65	54	57	245
17	1040	1350	1360	3310	2090	602	170	881	58	55	60	246
18	1030	1350	4360	3330	3200	1070	159	544	57	54	58	247
19	974	1320	2770	3310	1810	1330	369	536	53	54	58	110
20	967	1140	608	3310	1330	1390	223	387	56	55	57	135
21	966	908	430	3460	2280	1100	185	246	56	55	57	201
22	1080	1040	1350	3490	3010	1960	166	310	242	55	57	145
23	1290	1120	594	3460	3240	1520	156	252	524	55	57	145
24	1530	818	269	3430	3250	1020	148	172	805	55	57	145
25	1210	609	422	3390	3230	1290	143	115	731	59	57	145
26	989	702	1070	3350	3210	1270	142	119	455	55	57	145
27	988	349	1820	3330	3180	1260	139	134	248	55	57	145
28	1000	433	2300	3530	3150	1240	137	129	77	56	58	145
29	1040	660	1770	3430	---	1060	125	120	53	56	60	146
30	1050	717	2010	3590	---	476	80	117	53	56	59	146
31	1040	---	2190	3510	---	238	---	115	---	56	58	---
TOTAL	25167	29535	39570	77749	74350	42559	6302	10426	4630	4690	1771	3653
MEAN	812	984	1276	2508	2655	1373	210	336	154	151	57.1	122
MAX	1530	1360	4360	3590	3790	3020	617	1080	805	1020	60	247
MIN	143	349	192	395	1270	238	80	68	53	53	55	57
CFSM	1.61	1.95	2.53	4.98	5.27	2.72	.42	.67	.31	.30	.11	.24
IN.	1.86	2.18	2.92	5.74	5.49	3.14	.47	.77	.34	.35	.13	.27

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1991, BY WATER YEAR (WY)

MEAN	545	852	1024	1348	1498	1194	758	780	550	296	179	283
MAX	1681	2435	3425	5640	3781	2980	2462	2409	1913	873	738	1190
(WY)	1980	1958	1952	1950	1956	1989	1989	1984	1983	1981	1979	1979
MIN	10.2	18.4	31.3	75.4	217	259	65.9	63.2	49.1	35.0	29.3	13.9
(WY)	1954	1954	1954	1977	1964	1981	1986	1988	1988	1952	1953	1953

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1949 - 1991	
ANNUAL TOTAL	282467		320402			
ANNUAL MEAN	774		878		772	
HIGHEST ANNUAL MEAN					1577	1950
LOWEST ANNUAL MEAN					175	1954
HIGHEST DAILY MEAN	5730	Feb 16	4360	Dec 18	12100	Jan 14 1950
LOWEST DAILY MEAN	56	Jul 31	53	Jun 19	6.0	Dec 22 1980
ANNUAL SEVEN-DAY MINIMUM	57	Aug 7	54	Jul 14	7.3	Dec 17 1980
INSTANTANEOUS PEAK FLOW			5030	Dec 18	12400	Jan 14 1950
INSTANTANEOUS PEAK STAGE			21.47	Dec 18	28.87	Jan 14 1950
ANNUAL RUNOFF (CFSM)	1.54		1.74		1.53	
ANNUAL RUNOFF (INCHES)	20.85		23.65		20.81	
10 PERCENT EXCEEDS	1950		3010		1990	
50 PERCENT EXCEEDS	290		418		310	
90 PERCENT EXCEEDS	59		56		51	

03318800 CANEY CREEK NEAR HORSE BRANCH, KY

LOCATION.--Lat 37°27'50", long 86°39'20", Ohio County, Hydrologic Unit 05110004, on right bank 9 ft downstream from bridge on U.S. Highway 62, 0.7 mi upstream from Horse Branch, 1.5 mi northeast of village of Horse Branch, and at mile 12.1.

DRAINAGE AREA.--124 mi^2, includes that of Horse Branch at U.S. Highway 62.

PERIOD OF RECORD.--October 1956 to current year.

REVISED RECORDS.--WRD KY 82-1: 1981.

GAGE.--Water-stage recorder. Datum of gage is 416.30 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1977, at datum 1.00 ft higher. Prior to Nov. 20, 1956, nonrecording gage at same site and higher datum.

REMARKS.--Estimated daily discharges: Feb. 2 to Mar. 6, Mar. 23-28. Records fair except those for periods of estimated daily discharges, which are poor. Maximum stage for period of record affected by backwater from Rough River or debris. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.27	6.2	76	1290	130	130	70	44	55	.77	.00	.00
2	.02	4.8	59	582	90	170	61	35	78	2.9	.00	.00
3	.00	4.7	1420	256	80	140	53	29	33	3.1	.00	.00
4	312	4.7	926	178	76	110	54	27	75	1.3	.00	.00
5	108	6.9	283	217	660	90	81	43	53	1.2	.00	.00
6	38	8.2	147	1160	6000	80	83	75	28	1.0	.00	.00
7	17	8.2	103	2120	4000	69	94	51	16	.76	.00	.00
8	9.7	5.3	77	1100	1300	56	934	37	12	94	.00	.00
9	54	20	60	490	360	51	979	233	8.2	488	.00	.00
10	89	148	50	296	260	41	826	221	6.2	115	.00	.00
11	47	104	42	663	180	37	368	128	4.2	46	.00	13
12	30	67	37	621	160	43	266	480	3.3	36	.00	4.3
13	18	44	36	341	1900	122	420	235	4.5	35	.00	1.3
14	11	33	32	233	1600	143	325	147	4.2	21	.00	.80
15	8.7	25	288	182	560	140	264	102	4.3	12	.00	.43
16	4.5	19	346	177	340	115	198	77	3.2	10	.00	.36
17	2.1	18	974	147	1700	166	149	59	2.5	6.0	.00	.21
18	6.1	16	6490	119	5000	536	118	46	2.4	3.5	.00	.35
19	4.7	14	5230	105	4100	330	403	41	2.7	2.4	.00	.10
20	2.5	13	3120	100	1600	212	264	42	2.3	2.0	.00	.01
21	1.6	11	1960	94	580	162	176	33	2.3	1.7	.00	.00
22	46	35	2550	79	370	2240	135	31	1.9	1.1	.00	.00
23	91	100	1650	70	270	150	108	25	1.8	1.0	.00	.01
24	57	85	1050	67	210	70	91	20	1.5	.96	.00	.06
25	36	61	565	58	180	44	75	18	1.5	.87	.00	.02
26	23	45	343	53	160	34	66	21	1.3	.60	.00	.01
27	16	35	240	58	140	60	59	31	1.4	.43	.00	.00
28	13	210	719	220	130	130	54	28	1.1	.32	.00	.00
29	10	188	602	189	---	103	57	22	.99	.12	.00	.00
30	8.1	101	2530	206	---	92	52	20	.95	.05	.00	.00
31	6.2	---	2510	179	---	77	---	17	---	.00	.00	---
TOTAL	1070.49	1441.0	34515	11650	32136	5943	6883	2418	412.74	889.08	0.00	20.96
MEAN	34.5	48.0	1113	376	1148	192	229	78.0	13.8	28.7	.000	.70
MAX	312	210	6490	2120	6000	2240	979	480	78	488	.00	13
MIN	.00	4	32	53	76	34	52	17	.95	.00	.00	.00
CFSM	.28	.39	8.98	3.03	9.26	1.55	1.85	.63	.11	.23	.00	.01
IN.	.32	.43	10.35	3.49	9.64	1.78	2.06	.73	.12	.27	.00	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1991, BY WATER YEAR (WY)

MEAN	22.9	149	312	283	426	356	320	233	62.8	54.6	22.7	63.2
MAX	225	697	1113	657	1696	1023	920	1147	286	438	210	1325
(WY)	1978	1974	1991	1969	1989	1964	1979	1984	1974	1967	1977	1979
MIN	.000	.000	.000	7.15	69.5	92.8	13.5	17.9	.083	.94	.000	.000
(WY)	1964	1964	1964	1981	1964	1966	1986	1965	1988	1970	1991	1957

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1957 - 1991	
ANNUAL TOTAL	87936.52		97379.27			
ANNUAL MEAN	241		267		191	
HIGHEST ANNUAL MEAN					454	1979
LOWEST ANNUAL MEAN					86.8	1963
HIGHEST DAILY MEAN	6490	Dec 18	6490	Dec 18	10500	May 7 1984
LOWEST DAILY MEAN	.00	Jul 7	.00	Oct 3	.00	Oct 1 1956
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 8	.00	Jul 31	.00	Oct 7 1956
INSTANTANEOUS PEAK FLOW			7070	Dec 18	13600	May 7 1984
INSTANTANEOUS PEAK STAGE			12.27	Dec 18	15.43	Nov 18 1957
ANNUAL RUNOFF (CFSM)	1.94		2.15		1.54	
ANNUAL RUNOFF (INCHES)	26.38		29.21		20.89	
10 PERCENT EXCEEDS	482		571		459	
50 PERCENT EXCEEDS	47		44		34	
90 PERCENT EXCEEDS	.19		.00		.15	

03319000 ROUGH RIVER NEAR DUNDEE, KY

LOCATION.--Lat 37°32'51", long 86°43'18", Ohio county, Hydrologic Unit 05110004, on right bank, 150 ft downstream from bridge on State Highway 919, 1.5 mi downstream fron Caney Creek, 3 mi southeast of Dundee, and at mile 62.5.

DRAINAGE AREA.--757 mi^2, of which about 120 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1939 to current year. October 1939-January 1940 monthly discharge only, published in WSP 1305.

REVISED RECORDS.--WSP 1555: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 393.18 ft above National Geodetic Vertical Datum of 1929. See WDR KY-90-1 for history of changes prior to Aug. 14, 1979.

REMARKS.--Estimated daily discharges: Dec. 13-17, Jan. 2-8 and Sept. 18-30. Records fair except for periods of estimated record, which are poor. Flow regulated by Rough River Lake (Station 03318005) beginning October 1959. Specific conductance and temperature measurements in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1937 reached a stage of 31.8 ft, from floodmarks.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	963	816	6640	4060	3260	424	148	146	61	63	61
2	138	962	429	1600	3770	3010	398	125	225	73	63	61
3	136	965	2820	1200	3560	2480	381	114	154	80	62	60
4	715	959	3250	1700	3420	2380	380	107	206	65	62	61
5	1480	963	1220	2200	3490	2790	426	232	156	64	62	65
6	1410	964	1330	4400	6540	3030	344	368	118	63	63	62
7	783	955	1600	6000	7900	3020	317	203	90	62	62	64
8	306	945	1630	3400	5500	2380	1910	139	74	333	62	62
9	277	969	1580	2210	2630	1570	1950	800	71	2000	63	60
10	672	1390	1540	1900	2270	1100	1780	1170	69	1140	62	62
11	717	1260	1510	1830	2780	921	1070	679	67	1020	62	64
12	801	1070	1400	2520	3330	625	750	1590	67	734	61	98
13	417	1010	380	2730	4130	741	1060	1210	69	568	62	107
14	276	978	260	3170	6580	594	969	978	67	179	62	102
15	331	969	1100	3440	5220	848	843	1180	68	78	61	101
16	867	1190	1200	3380	2510	828	714	1150	73	71	60	193
17	957	1250	4000	3450	2520	861	559	1090	87	70	62	244
18	968	1250	9210	3570	6100	1830	458	764	69	67	66	240
19	921	1240	12900	3570	7380	1840	1140	688	74	64	62	120
20	897	1210	9820	3540	4660	1790	1020	658	72	65	63	140
21	893	961	6630	3540	2670	1570	676	405	66	64	61	200
22	993	986	6690	3600	3080	4790	533	368	65	63	61	160
23	1240	1370	5490	3610	3380	6480	441	370	406	63	60	150
24	1360	1160	3060	3580	3580	3680	376	308	575	63	60	150
25	1370	786	1460	3530	3530	1970	320	175	879	63	59	150
26	1010	765	1260	3480	3450	1640	289	163	548	66	58	150
27	938	729	1800	3470	3370	1560	265	200	459	63	59	150
28	930	691	3120	3940	3320	1450	255	204	155	62	66	150
29	949	1040	3600	4070	---	1340	259	169	77	62	63	150
30	971	910	4670	4220	---	988	215	155	62	63	86	150
31	967	---	8210	4350	---	522	---	149	---	62	70	---
TOTAL	24827	30859	103985	103840	114730	61888	20522	16059	5314	7551	1948	3587
MEAN	801	1029	3354	3350	4097	1996	684	518	177	244	62.8	120
MAX	1480	1390	12900	6640	7900	6480	1950	1590	879	2000	86	244
MIN	136	691	260	1200	2270	522	215	107	62	61	58	60

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1991, BY WATER YEAR (WY)

MEAN	501	994	1450	1855	2292	1997	1424	1201	662	376	230	358
MAX	1718	3190	4622	7770	5717	4754	4602	4658	2028	1670	1050	3832
(WY)	1980	1958	1952	1950	1989	1945	1979	1983	1950	1967	1979	1979
MIN	13.9	20.4	37.7	143	331	333	134	111	50.2	34.3	28.2	15.2
(WY)	1954	1955	1954	1944	1964	1947	1986	1988	1988	1944	1953	1953

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1942 - 1991	
ANNUAL TOTAL	464017		495110			
ANNUAL MEAN	1271		1356		1106	
HIGHEST ANNUAL MEAN					2287	1950
LOWEST ANNUAL MEAN					271	1954
HIGHEST DAILY MEAN	13800	Feb 16	12900	Dec 19	19400	Jan 14 1950
LOWEST DAILY MEAN	59	Sep 11	58	Aug 26	9.4	Oct 30 1941
ANNUAL SEVEN-DAY MINIMUM	63	Sep 11	60	Aug 21	11	Oct 8 1953
INSTANTANEOUS PEAK FLOW			13500	Dec 19	22200	Sep 22 1979
INSTANTANEOUS PEAK STAGE			28.54	Dec 19	29.05	Sep 22 1979
10 PERCENT EXCEEDS	3460		3570		2780	
50 PERCENT EXCEEDS	679		765		468	
90 PERCENT EXCEEDS	111		63		55	

GREEN RIVER BASIN

03320000 GREEN RIVER AT LOCK 2, AT CALHOUN, KY

LOCATION.--Lat 37°32'02", long 87°15'50", McLean County, Hydrologic Unit 05110005, 870 ft upstream from lock and dam 2, on right bank 0.2 mi downstream from bridge on State Highway 81 at Calhoun, 0.2 mi upstream from Long Falls Creek, and at mile 63.3.

DRAINAGE AREA.--7,566 mi^2, of which about 1,540 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--March 1930 to current year. Prior to October 1958, published as "at Livermore."

REVISED RECORDS.--WSP 1385: 1939. WDR KY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 353.95 ft above National Geodetic Vertical Datum of 1929. Auxiliary water-stage recorder at Livermore, 8.0 mi upstream at datum 360.11 ft National Geodetic Vertical Datum of 1929. See WDR KY-88-1 for history of changes prior to Sept. 30, 1958.

REMARKS.--No estimated daily discharges. Records good, except for discharges below 1000 ft3/s, which are fair. Flow regulated by upstream lakes on Green, Barren, Nolin, and Rough River beginning October 1959. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1740	7030	8110	47500	25700	32300	24400	4190	5750	1400	587	791
2	1680	6540	7250	48200	25000	29800	22200	4020	5730	1290	588	799
3	1640	5850	10100	48400	23300	24100	18300	3750	5470	1280	558	922
4	2450	5580	17900	48300	21600	21000	16100	3610	4800	1370	549	1180
5	3160	5370	22600	46900	21300	20100	14800	3660	4290	1400	533	1650
6	4180	5240	20800	43600	32600	20200	14100	4280	4360	1480	539	1980
7	4790	5330	16300	41300	39200	19300	13200	4630	3930	1390	516	2100
8	4190	6630	14300	41100	41500	18300	13800	4400	3380	1330	521	1980
9	3380	7160	13000	41700	41800	17200	16700	4930	3050	5290	555	1640
10	3430	6760	12000	42400	40800	15300	18400	6290	2810	7510	537	1360
11	3530	7410	11200	42400	38400	12600	18800	7290	2650	6100	496	1650
12	3290	9790	10700	40500	35100	11000	16600	11700	2420	5160	487	2280
13	3080	9470	10100	38200	32500	10700	14900	14400	2240	4370	477	2530
14	2810	8320	8660	36500	35500	11700	13900	13500	2300	3960	447	2440
15	2410	8160	7040	35000	38100	12800	13100	11700	2580	3670	444	1980
16	2490	8050	7120	33700	39200	13100	12200	10300	2400	3170	434	1570
17	3850	8060	9560	33000	39600	13300	13000	9610	2340	2840	458	1370
18	5790	8050	30000	32200	39700	16100	13400	8710	2210	2470	441	1320
19	5610	8040	41800	31800	41500	18100	14500	8940	2150	2040	488	1320
20	5420	7930	43800	31900	43200	19400	15300	8650	1980	1840	519	1300
21	5420	7850	44200	31600	44700	18900	14100	7270	1780	1680	667	1240
22	5970	7850	44600	30400	45800	25000	12100	6100	1690	1510	742	1080
23	6830	8220	46500	29200	46300	35700	10700	5050	1650	1270	689	975
24	7290	8720	48900	28400	45700	38600	9370	4480	1740	1100	626	979
25	7990	8850	50100	26400	44000	39100	8040	3990	2100	993	592	987
26	8320	8530	50600	25400	41300	38000	6610	3850	2830	879	528	945
27	8120	7490	50000	25200	38200	34500	5330	4580	3040	825	510	976
28	7690	7750	48400	25600	34900	30100	4690	11400	2530	762	502	970
29	7470	8770	46200	25600	---	27500	4540	12600	2030	693	585	982
30	7300	8760	45300	26100	---	25500	4420	9310	1620	661	694	1120
31	7200	---	46100	26200	---	24800	---	7010	---	622	742	---
TOTAL	148520	227560	843240	1104700	1036500	694100	397600	224200	87850	70355	17051	42416
MEAN	4791	7585	27200	35640	37020	22390	13250	7232	2928	2270	550	1414
MAX	8320	9790	50600	48400	46300	39100	24400	14400	5750	7510	742	2530
MIN	1640	5240	7040	25200	21300	10700	4420	3610	1620	622	434	791

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1991, BY WATER YEAR (WY)

MEAN	3149	6882	13130	19280	22970	22830	17740	11360	6736	4512	3138	3320
MAX	19100	27710	49890	80220	59540	54440	46360	50460	26790	21830	15810	27360
(WY)	1980	1958	1952	1937	1939	1962	1935	1983	1935	1967	1938	1979
MIN	318	520	607	1223	3156	2534	2260	1478	541	603	482	383
(WY)	1931	1954	1931	1981	1941	1941	1986	1941	1988	1944	1930	1953

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1930 - 1991	
ANNUAL TOTAL	4064459		4894092			
ANNUAL MEAN	11140		13410		11240	
HIGHEST ANNUAL MEAN					22070	1979
LOWEST ANNUAL MEAN					3394	1931
HIGHEST DAILY MEAN	50600	Dec 26	50600	Dec 26	204000	Jan 28 1937
LOWEST DAILY MEAN	626	Sep 6	434	Aug 16	280	Oct 6 1930
ANNUAL SEVEN-DAY MINIMUM	695	Sep 2	455	Aug 12	291	Oct 21 1930
INSTANTANEOUS PEAK FLOW			50900	Dec 26	208000	Jan 27 1937
INSTANTANEOUS PEAK STAGE			29.84	Jan 5	42.40	Jan 30 1937
INSTANTANEOUS LOW FLOW					280	Oct 5 1930
10 PERCENT EXCEEDS	34600		40000		33000	
50 PERCENT EXCEEDS	7040		7290		4990	
90 PERCENT EXCEEDS	1020		796		923	

GREEN RIVER BASIN

03320500 POND RIVER NEAR APEX, KY

LOCATION.--Lat 37°07'20", long 87°19'10", Muhlenberg County, Hydrologic Unit 05110006, on downstream side of right pier of bridge on State Highway 189, 1.1 mi downstream from Coal Creek, 2.1 mi northeast of Apex, 5.7 mi upstream from West Fork, and at mile 62.8.

DRAINAGE AREA.--194 mi^2.

PERIOD OF RECORD.--August 1940 to current year. October 1953 to September 1971, published as "East Fork Pond River near Apex."

REVISED RECORDS.--WSP 1083: 1942-46. WSP 1555: 1945-46(P), drainage area.

GAGE.--Water-stage recorder. Datum of gage is 384.53 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 21, 1942, nonrecording gage at same site. Prior to Oct. 1, 1974, at datum 6.11 ft higher.

REMARKS.--Estimated daily discharges: Oct. 1-3, July 25 to Sept. 30. Records fair except for periods of estimated daily discharges which are poor. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	7.5	127	2220	254	190	242	89	81	9.5	.80	.06
2	1.6	6.6	82	1630	194	509	193	71	350	7.6	.60	.08
3	1.4	6.0	1050	1220	161	480	155	59	305	39	.50	.10
4	196	5.6	1180	892	141	317	134	52	138	39	.45	.05
5	229	7.2	896	697	267	228	132	70	78	23	.42	.07
6	101	9.8	629	1070	3290	189	130	120	54	17	.70	.08
7	40	10	365	2400	2440	157	120	102	37	13	.40	.05
8	20	10	200	1940	1720	130	135	68	28	13	.30	.03
9	23	13	119	1480	1340	113	214	147	23	193	.50	.02
10	66	130	83	1150	1010	97	510	227	20	187	.40	.04
11	93	175	63	1210	749	87	393	519	18	74	.20	.03
12	60	107	53	1190	561	83	273	1170	16	36	.10	.02
13	33	62	48	1010	800	92	245	1350	16	23	.07	.01
14	20	40	39	795	1520	101	220	864	16	16	.10	.00
15	14	27	70	628	1280	108	193	612	23	18	.20	.00
16	9.9	21	192	602	1030	108	164	428	18	15	.08	.00
17	7.3	18	649	531	848	128	134	276	16	11	.12	.00
18	7.9	16	6840	369	2360	500	116	181	14	8.2	.16	.20
19	9.5	14	7860	262	2120	480	648	125	12	6.6	.10	.30
20	11	13	3860	220	1740	314	718	101	11	5.5	.06	.20
21	9.8	12	2260	190	1350	229	453	76	151	4.7	.04	.15
22	23	12	3750	154	1040	1410	281	60	248	4.0	.03	.10
23	151	28	2430	131	787	2140	200	52	143	3.4	.02	.09
24	112	53	1790	121	608	1710	152	44	82	3.0	.01	.06
25	66	51	1430	109	436	1290	127	39	49	2.3	.00	.05
26	38	38	1030	99	299	919	110	67	30	2.0	.00	.04
27	23	28	824	93	222	664	94	192	21	1.8	.01	.03
28	17	194	1190	140	177	524	86	244	16	1.6	.02	.02
29	14	384	1240	181	---	383	91	148	13	1.4	.04	.02
30	11	228	3000	299	---	324	101	94	11	1.2	.07	.01
31	9.0	---	4310	381	---	291	---	66	---	1.0	.10	---
TOTAL	1419.2	1726.7	47659	23414	28744	14295	6764	7713	2038	780.8	6.60	1.91
MEAN	45.8	57.6	1537	755	1027	461	225	249	67.9	25.2	.21	.064
MAX	229	384	7860	2400	3290	2140	718	1350	350	193	.80	.30
MIN	1.4	5.6	39	93	141	83	86	39	11	1.0	.00	.00
CFSM	.24	.30	7.92	3.89	5.29	2.38	1.16	1.28	.35	.13	.00	.00
IN.	.27	.33	9.14	4.49	5.51	2.74	1.30	1.48	.39	.15	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1991, BY WATER YEAR (WY)

MEAN	22.0	188	423	471	648	591	441	317	109	66.0	33.7	63.6
MAX	208	1430	2167	2024	3988	1631	1822	2607	900	440	239	988
(WY)	1986	1958	1979	1950	1989	1975	1979	1984	1969	1989	1984	1979
MIN	.000	.000	.000	3.56	42.6	35.2	39.2	6.46	1.37	.44	.21	.000
(WY)	1954	1954	1964	1981	1941	1941	1986	1941	1964	1964	1991	1953

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1941 - 1991	
ANNUAL TOTAL	152146.20		134562.21			
ANNUAL MEAN	417		369		279	
HIGHEST ANNUAL MEAN					643	1979
LOWEST ANNUAL MEAN					59.8	1941
HIGHEST DAILY MEAN	8000	Feb 15	7860	Dec 19	28400	Feb 15 1989
LOWEST DAILY MEAN	.40	Sep 5	.00	Aug 25	.00	Oct 21 1940
ANNUAL SEVEN-DAY MINIMUM	.53	Aug 31	.01	Sep 11	.00	Oct 21 1940
INSTANTANEOUS PEAK FLOW			8160	Dec 19	35700	May 7 1984
INSTANTANEOUS PEAK STAGE			20.32	Dec 19	26.81	Nov 19 1957
ANNUAL RUNOFF (CFSM)	2.15		1.90		1.44	
ANNUAL RUNOFF (INCHES)	29.17		25.80		19.55	
10 PERCENT EXCEEDS	1120		1170		733	
50 PERCENT EXCEEDS	71		83		47	
90 PERCENT EXCEEDS	1.9		.09		.60	

GREEN RIVER BASIN

03321210 CYPRESS CREEK NEAR CALHOUN, KY

LOCATION.--Lat 37°29'20", long 87°17'11", McLean County, Hydrologic Unit 05110006, on left bank at downstream side of bridge on State Highway 1155, 0.2 mi downstream from Pond Drain, 3.4 mi southwest of Calhoun, and at mile 5.7.

DRAINAGE AREA --142 mi^2.

PERIOD OF RECORD.--August 1979 to September 1981, March 1990 to current year.

GAGE.--Water-stage recorder. Datum of gage is 364.72 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 6-9, 12-17, Oct. 28 to Nov. 5, Nov. 8,9,12-26,27, Dec. 2, 6-10,20-31, Jan. 1-29, Feb. 8-13,15-17,19-28, Mar. 1,2,21,24-31, Apr. 1-3,21-30, May 19-25,29-31, June 4-10, July 10-24,25-31, Aug. 1-7,20-27 and Sept. 6-18,23-30. Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,100 ft^3/s, Nov. 26, 1979; maximum gage height 15.70 ft, Sept.28, 1979 (backwater from Pond River); minimum daily discharge, 3.1 ft^3/s, Sept. 12, 13, 1990.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	6.8	57	1000	209	320	180	47	130	13	1.4	4.3
2	6.6	5.8	46	900	177	500	170	39	226	12	1.2	4.3
3	6.4	5.2	297	740	155	284	150	35	101	10	1.1	6.4
4	147	4.8	329	640	132	176	126	32	70	14	1.0	16
5	68	10	201	560	187	158	100	34	58	12	1.1	16
6	18	17	160	540	1230	143	87	43	48	10	1.5	14
7	15	16	120	200	1090	117	78	37	40	8.5	1.3	12
8	11	10	94	900	860	94	89	31	34	7.3	1.3	9.0
9	9.0	8.5	84	800	720	78	106	179	28	14	1.9	7.0
10	51	42	72	700	620	65	109	176	26	70	1.6	5.0
11	48	36	59	1000	520	56	91	194	24	36	1.7	3.6
12	34	26	50	1000	460	57	86	499	24	20	1.3	2.6
13	22	20	47	900	800	78	105	296	21	11	.94	2.0
14	15	17	37	800	1300	78	102	147	26	8.0	.87	1.6
15	10	15	73	900	1100	119	97	113	18	13	.70	1.4
16	8.0	12	93	1200	900	91	92	83	14	10	.66	1.2
17	7.0	10	298	800	720	132	83	60	26	7.0	.69	1.6
18	314	9.0	1500	540	1440	414	74	44	20	5.0	.88	3.0
19	77	8.0	1570	420	1300	241	304	38	16	4.0	1.4	5.7
20	34	7.0	1300	320	1100	151	213	34	15	3.2	1.7	7.0
21	29	6.5	1100	240	920	130	150	30	88	2.7	1.1	5.3
22	35	25	1500	200	800	654	120	26	90	2.4	.74	4.2
23	70	66	1100	170	700	1180	90	24	47	2.2	.60	3.4
24	41	45	840	140	600	960	78	22	35	2.0	.54	3.0
25	39	36	700	110	500	800	68	80	26	1.9	.65	2.6
26	34	27	600	90	400	660	60	342	23	1.8	1.3	2.4
27	20	23	560	80	300	520	54	288	20	1.7	2.0	2.3
28	16	177	1000	200	220	420	50	218	17	1.7	3.6	2.2
29	13	131	840	160	---	340	54	120	16	1.6	5.3	2.1
30	9.6	66	720	384	---	280	57	70	14	1.6	6.8	2.0
31	8.0	---	1200	305	---	240	---	50	---	1.5	6.5	---
TOTAL	1221.4	888.6	16647	18039	19460	9536	3223	3431	1341	315.1	53.37	153.2
MEAN	39.4	29.6	537	582	695	308	107	111	44.7	10.2	1.72	5.11
MAX	314	177	1570	1200	1440	1180	304	499	226	70	6.8	16
MIN	5.8	4.8	37	80	132	56	50	22	14	1.5	.54	1.2
CFSM	.28	.21	3.78	4.10	4.89	2.17	.76	.78	.31	.07	.01	.04
IN.	.32	.23	4.36	4.73	5.10	2.50	.84	.90	.35	.08	.01	.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1991, BY WATER YEAR (WY)

MEAN	97.4	193	476	270	308	230	242	180	89.6	80.5	10.5	7.75
MAX	242	523	863	582	695	350	344	343	239	172	16.7	14.5
(WY)	1980	1980	1980	1991	1991	1980	1981	1981	1981	1980	1981	1981
MIN	11.1	25.7	27.5	13.2	98.4	69.7	107	77.9	26.0	10.2	1.72	4.58
(WY)	1981	1981	1981	1981	1981	1981	1991	1980	1980	1991	1991	1990

SUMMARY STATISTICS	FOR 1991 WATER YEAR		WATER YEARS 1980 - 1991	
ANNUAL TOTAL	74308.67			
ANNUAL MEAN	204		185	
HIGHEST ANNUAL MEAN			247	1980
LOWEST ANNUAL MEAN			104	1981
HIGHEST DAILY MEAN	1570	Dec 19	2070	Nov 26 1979
LOWEST DAILY MEAN	.54	Aug 24	.54	Aug 24 1991
ANNUAL SEVEN-DAY MINIMUM	.86	Aug 12	.86	Aug 12 1991
INSTANTANEOUS PEAK FLOW	1700	Dec 18	2100	Nov 26 1979
INSTANTANEOUS PEAK STAGE	18.24	Jan 7	18.24	Jan 7 1991
ANNUAL RUNOFF (CFSM)	1.43		1.30	
ANNUAL RUNOFF (INCHES)	19.47		17.71	
10 PERCENT EXCEEDS	800		560	
50 PERCENT EXCEEDS	48		54	
90 PERCENT EXCEEDS	1.9		5.6	

OHIO RIVER MAIN STEM

03322000 OHIO RIVER AT EVANSVILLE, IN

LOCATION.--Lat 37°58'20", long 87°34'35", Vanderburgh County, Hydrologic Unit 05140202, on right bank at Riverside Drive and Court Street, at Evansville, 0.6 mi upstream from Pigeon Creek, and at mile 792.3.

DRAINAGE AREA.--107,000 mi^2, approximately.

PERIOD OF RECORD.--December 1936 to current year (fragmentary prior to October 1940 and after September 1974). Gage-height records collected at same site since 1873 are contained in reports of National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 328.64 ft above National Geodetic Vertical Datum of 1929 or 329.18 ft, Ohio River datum. Prior to Feb. 20, 1963, and after Sept. 23, 1963, water-stage recorder at same site and datum. Feb. 20, 1963 to Sept. 23, 1963, nonrecording gage 0.6 mi downstream at same datum. Prior to February 1975 auxiliary nonrecording gage at lock and dam 48, 17.3 mi downstream. From February 1975 to May 23, 1985, auxiliary nonrecording gage at Newburgh lock and dam, 16.3 mi upstream. Since May 23, 1985 water-stage recorder at same site.

REMARKS.--No estimated daily discharges. Records good. Discharge values published are days with mean values 100,000 ft^3/s and above. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section. Flow regulated by Ohio River system at Locks and Dams.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	587000	181000	242000	367000	110000	---	---	---	---
2	---	---	---	613000	185000	209000	319000	---	---	---	---	---
3	---	---	---	636000	198000	173000	293000	103000	---	---	---	---
4	---	---	139000	654000	210000	148000	267000	101000	---	---	---	---
5	---	---	186000	665000	200000	136000	227000	---	---	---	---	---
6	106000	---	209000	670000	196000	160000	180000	---	---	---	---	---
7	---	---	223000	665000	241000	195000	145000	---	---	---	---	---
8	---	---	226000	644000	301000	236000	130000	---	---	---	---	---
9	---	---	213000	613000	340000	281000	127000	---	---	---	---	---
10	---	---	183000	580000	361000	323000	136000	102000	---	---	---	---
11	107000	---	152000	557000	366000	347000	143000	---	---	---	---	---
12	---	106000	125000	539000	354000	348000	156000	---	---	---	---	---
13	101000	127000	108000	516000	328000	327000	164000	---	---	---	---	---
14	127000	131000	---	492000	309000	311000	187000	---	---	---	---	---
15	160000	121000	---	473000	300000	316000	225000	---	---	---	---	---
16	186000	108000	111000	463000	302000	318000	254000	---	---	---	---	---
17	189000	---	131000	450000	309000	314000	299000	---	---	---	---	---
18	176000	---	195000	416000	329000	318000	345000	---	---	---	---	---
19	161000	---	326000	363000	349000	316000	375000	---	---	---	---	---
20	150000	---	431000	327000	348000	302000	371000	---	---	---	---	---
21	144000	---	497000	317000	342000	283000	329000	---	---	---	---	---
22	149000	---	553000	314000	350000	283000	280000	---	---	---	---	---
23	164000	---	590000	302000	373000	350000	227000	---	---	---	---	---
24	168000	105000	616000	275000	400000	411000	185000	---	---	---	---	---
25	171000	120000	627000	244000	412000	459000	163000	---	---	---	---	---
26	187000	123000	628000	217000	393000	491000	148000	---	---	---	---	---
27	203000	117000	623000	190000	346000	507000	142000	---	---	---	---	---
28	204000	110000	612000	165000	292000	514000	134000	---	---	---	---	---
29	183000	104000	595000	155000	---	507000	124000	---	---	---	---	---
30	149000	---	575000	157000	---	480000	113000	---	---	---	---	---
31	120000	---	571000	169000	---	435000	---	---	---	---	---	---
TOTAL	---	---	---	13428000	8615000	10040000	6555000	---	---	---	---	---
MEAN	---	---	---	433200	307700	323900	218500	---	---	---	---	---
MAX	---	---	---	670000	412000	514000	375000	---	---	---	---	---
MIN	---	---	---	155000	181000	136000	113000	---	---	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1974, BY WATER YEAR (WY)

MEAN	33050	67340	133200	190500	230600	295800	243400	168300	99760	62350	46830	33900
MAX	87490	214900	394300	475800	518000	633300	493400	353200	208200	178700	174300	130200
(WY)	1955	1973	1973	1950	1950	1945	1948	1958	1946	1958	1958	1950
MIN	7523	9633	22730	32350	66180	81630	90120	32320	26330	18970	14390	10830
(WY)	1954	1954	1944	1956	1954	1969	1971	1941	1966	1944	1965	1953

SUMMARY STATISTICS	WATER YEARS 1941 - 1974	
ANNUAL MEAN	133300	
HIGHEST ANNUAL MEAN	193800	1950
LOWEST ANNUAL MEAN	63210	1954
HIGHEST DAILY MEAN	909000	Mar 15 1964
LOWEST DAILY MEAN	6700	Nov 6 1953
ANNUAL SEVEN-DAY MINIMUM	6760	Nov 4 1953
INSTANTANEOUS PEAK FLOW	1410000	Jan 29 1937
INSTANTANEOUS PEAK STAGE	53.75	Jan 31 1937

HIGHLAND CREEK BASIN

03322360 BEAVERDAM CREEK NEAR CORYDON, KY

LOCATION.--Lat 37°42'14", long 87°41'52", Henderson County, Hydrologic Unit 05140202, on left bank 20 ft. upstream from bridge on State Highway 145, 2.8 mi southeast of Corydon, and at mile 3.3.

DRAINAGE AREA.--14.3 mi^2.

PERIOD OF RECORD.--July 1972 to September 1982, October 1983 to February 1987, February 1988 to current year.

GAGE.--Water-stage recorder. Elevation is 360 ft from topographic map.

REMARKS.--Estimated daily discharges: Mar. 17 to Apr. 9 Records fair. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.02	.23	8.9	6.7	64	20	1.9	3.9	.47	.04	.17
2	.00	.00	.19	7.4	6.3	24	18	1.7	4.5	259	.03	.05
3	.01	.13	30	6.0	5.7	11	16	1.6	4.7	49	.02	.04
4	20	.00	2.0	4.2	5.6	7.9	21	1.8	3.7	104	.01	59
5	.03	.00	.84	39	62	7.2	15	3.2	2.9	1.9	.01	.86
6	.01	.03	.67	239	189	6.8	12	1.8	2.2	.58	.00	.08
7	.01	.01	.42	88	31	4.5	8.6	1.5	1.5	.28	.00	.05
8	.01	.01	.33	25	16	4.1	18	1.3	1.7	.26	.00	4.7
9	23	.01	.42	15	11	3.9	13	2.3	1.9	.21	.00	1.4
10	18	.63	.08	40	8.4	3.3	6.4	2.1	1.1	.16	.00	.06
11	.28	.08	.12	96	5.3	3.8	3.9	168	.89	4.9	.00	.05
12	.03	.02	.28	24	5.1	5.1	7.7	16	.96	.34	.00	.05
13	.01	.01	.07	13	150	43	11	6.4	.85	.13	.00	.04
14	.01	.01	.08	11	46	38	15	4.1	1.3	.09	.00	.04
15	.02	.01	15	14	9.1	22	16	2.9	.97	.08	.00	.03
16	.01	.01	2.0	19	5.7	12	5.6	9.8	.48	.07	.00	.02
17	.00	.01	54	9.2	46	74	3.9	3.9	.29	.07	.00	.01
18	.20	.01	399	7.6	222	260	9.9	2.5	.23	.07	.00	.02
19	.01	.01	20	7.8	29	64	118	33	.23	.07	.00	.04
20	.01	.01	8.7	8.2	17	32	11	32	.25	.06	.00	.03
21	.01	.01	142	5.0	13	26	7.8	12	1.7	.06	.00	.02
22	1.8	1.3	64	3.9	11	640	6.0	5.0	4.7	.05	.00	.02
23	.40	.46	19	4.3	8.0	100	4.8	3.7	8.2	.05	.00	.02
24	.03	.10	7.7	3.6	7.6	52	3.5	3.0	7.5	.05	.00	.02
25	.01	.05	5.3	2.5	7.0	39	3.2	14	6.4	.05	.00	.02
26	.01	.04	4.1	3.1	6.3	33	3.1	16	3.3	.05	.00	.01
27	.01	32	9.1	9.6	5.9	35	2.8	5.2	4.9	.05	.00	.01
28	.01	5.9	80	16	5.6	27	2.8	2.9	1.3	.04	.00	.00
29	.01	1.1	197	11	---	25	3.9	2.3	.33	.04	.39	.00
30	.01	.57	139	44	---	24	2.5	1.9	.41	.05	.27	.00
31	.01	---	17	8.8	---	22	---	2.1	---	.05	.82	---
TOTAL	63.96	42.55	1218.63	794.1	941.3	1713.6	390.4	365.9	73.29	422.28	1.59	66.86
MEAN	2.06	1.42	39.3	25.6	33.6	55.3	13.0	11.8	2.44	13.6	.051	2.23
MAX	23	32	399	239	222	640	118	168	8.2	259	.82	59
MIN	.00	.00	.07	2.5	5.1	3.3	2.5	1.3	.23	.04	.00	.00
CFSM	.14	.10	2.75	1.79	2.35	3.87	.91	.83	.17	.95	.00	.16
IN.	.17	.11	3.17	2.07	2.45	4.46	1.02	.95	.19	1.10	.00	.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1991, BY WATER YEAR (WY)

MEAN	1.54	17.8	19.8	16.6	31.7	34.6	20.7	19.6	7.40	7.56	3.04	5.16
MAX	10.2	73.6	65.5	39.1	107	82.6	75.3	59.0	41.6	33.0	17.6	31.7
(WY)	1986	1986	1985	1974	1988	1975	1979	1981	1985	1979	1977	1984
MIN	.000	.029	.008	.005	.34	.22	2.01	.34	.000	.15	.009	.003
(WY)	1989	1977	1977	1981	1981	1981	1981	1988	1988	1973	1973	1990

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1972 - 1991	
ANNUAL TOTAL	6348.78		6094.46			
ANNUAL MEAN	17.4		16.7		15.7	
HIGHEST ANNUAL MEAN					34.1	1979
LOWEST ANNUAL MEAN					5.51	1977
HIGHEST DAILY MEAN	787	Feb 15	640	Mar 22	981	Dec 21 1984
LOWEST DAILY MEAN	.00	Jul 16	.00	Oct 1	.00	Aug 16 1972
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 1	.00	Aug 6	.00	Aug 30 1972
INSTANTANEOUS PEAK FLOW			2500	Jul 2	3360	Apr 29 1983
INSTANTANEOUS PEAK STAGE			14.97	Jul 2	16.40	Apr 29 1983
ANNUAL RUNOFF (CFSM)	1.22		1.17		1.10	
ANNUAL RUNOFF (INCHES)	16.52		15.85		14.94	
10 PERCENT EXCEEDS	27		34		25	
50 PERCENT EXCEEDS	1.3		2.1		.95	
90 PERCENT EXCEEDS	.00		.01		.00	

OHIO RIVER MAIN STEM

03322420 OHIO RIVER NEAR UNIONTOWN, KY

LOCATION.--Lat 37°47'30", long 87°59'10", Union County, Hydrologic Unit 05140202, 1200 ft upstream from Uniontown Dam, 2.1 mi upstream from Wabash River, 3.0 mi downstream from Lost Creek, 3.3 mi northwest of Uniontown, and at mile 845.8.

DRAINAGE AREA.--108,000 mi^2.

PERIOD OF RECORD.--October 1984 to current year.

GAGE.--Gate opening and water-stage recorders. Datum of headwater gage is 330.05 ft Ohio River datum. Datum of tailwater gage 0.6 mi downstream is 311.97.

REMARKS.--Estimated daily discharges: Jan. 7-29. Records fair. Flow regulated by Ohio River system of locks, dams, and reservoirs.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48700	102000	91100	631000	176000	333000	470000	108000	68400	20700	22500	18900
2	61000	88300	92100	638000	177000	291000	442000	103000	60200	42000	27200	15800
3	55600	85700	85600	657000	185000	243000	411000	102000	60900	33300	15800	13200
4	56200	75300	128000	676000	189000	160000	380000	102000	70300	22600	25300	23000
5	90200	66600	174000	697000	186000	148000	342000	87400	61100	28800	26400	39300
6	108000	68400	187000	720000	186000	162000	293000	86400	61600	24300	17000	42400
7	90600	62800	197000	700000	229000	187000	230000	82100	49200	47100	15000	14500
8	89100	64000	223000	680000	265000	200000	142000	79800	48300	17400	9430	8890
9	94100	76500	221000	640000	299000	237000	133000	97600	32100	60500	14100	15400
10	85100	69000	178000	600000	321000	249000	143000	103000	30200	96400	41800	23500
11	109000	77600	162000	580000	339000	270000	150000	92200	25900	95500	27200	25700
12	97700	106000	136000	540000	349000	283000	160000	90800	21200	89600	31100	34300
13	99300	127000	115000	520000	352000	286000	167000	93100	36700	72500	30600	12800
14	126000	136000	101000	490000	348000	281000	178000	74300	35900	45100	23700	11600
15	154000	125000	93000	480000	339000	279000	194000	81700	20100	46200	13800	24600
16	177000	111000	110000	470000	331000	285000	222000	79900	13200	53100	15000	22500
17	184000	101000	133000	450000	328000	291000	245000	78600	32100	46200	12400	20300
18	180000	93400	179000	430000	331000	297000	267000	73400	38100	12400	21900	21800
19	164000	86300	245000	380000	340000	304000	296000	77900	55000	37200	16900	15300
20	153000	78300	307000	360000	346000	307000	316000	83700	35700	24600	24500	19200
21	147000	80800	353000	340000	349000	306000	322000	70400	38000	21300	38900	23200
22	147000	75700	395000	330000	350000	307000	312000	68400	43500	11600	18600	12500
23	160000	85000	436000	320000	355000	329000	284000	70600	49600	18800	8850	10800
24	166000	105000	485000	280000	364000	361000	240000	70800	47600	23500	17000	22400
25	167000	120000	514000	270000	376000	387000	198000	90800	40900	32200	20500	25300
26	177000	125000	557000	260000	385000	410000	154000	68300	19500	20300	17500	47300
27	190000	122000	588000	250000	385000	430000	146000	42000	37000	8760	17400	13900
28	193000	113000	608000	226000	370000	450000	140000	66500	35300	11700	14500	9670
29	184000	108000	622000	160000	---	467000	130000	70900	36400	26900	6290	11600
30	160000	94300	625000	163000	---	478000	116000	61400	20500	29300	5810	16200
31	128000	---	629000	170000	---	486000	---	75500	---	15900	6750	---
TOTAL	4041600	2829000	8969800	14108000	8550000	9504000	7223000	2532500	1224500	1132760	603730	615860
MEAN	130400	94300	289300	455100	305400	306600	240800	81690	40820	36540	19480	20530
MAX	193000	136000	629000	720000	385000	486000	470000	108000	70300	96400	41800	47300
MIN	48700	62800	85600	160000	176000	148000	116000	42000	13200	8760	5810	8890

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1991, BY WATER YEAR (WY)

MEAN	63670	129700	182900	195900	271700	227500	205500	136100	100200	69820	35470	43220
MAX	130400	258500	295200	455100	441000	306600	313300	290400	207800	112000	66660	82370
(WY)	1991	1986	1986	1991	1990	1991	1987	1989	1989	1989	1989	1989
MIN	22700	39940	60350	95120	128500	142600	76230	69810	19680	22890	17120	20530
(WY)	1989	1988	1990	1986	1987	1988	1986	1986	1988	1988	1988	1991

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1985 - 1991	
ANNUAL TOTAL	64913600		61334750			
ANNUAL MEAN	177800		168000		137600	
HIGHEST ANNUAL MEAN					171700	1989
LOWEST ANNUAL MEAN					80730	1988
HIGHEST DAILY MEAN	629000	Dec 31	720000	Jan 6	720000	Jan 6 1991
LOWEST DAILY MEAN	16500	Sep 5	5810	Aug 30	4780	Jun 26 1988
ANNUAL SEVEN-DAY MINIMUM	35800	Sep 2	11600	Aug 28	8840	Jul 6 1988
INSTANTANEOUS PEAK STAGE			51.54	Jan 9	51.54	Jan 9 1991
10 PERCENT EXCEEDS	384000		401000		320000	
50 PERCENT EXCEEDS	139000		102000		95000	
90 PERCENT EXCEEDS	49700		17400		22900	

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^2, of which about 9 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--August 1940 to May 1984, March 1985 to current year.

GAGE.--Water-stage recorder. Datum of gage is 362.80 ft above National Geodetic Vertical Datum of 1929. Prior to July 31, 1942, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Mar. 17-22, May 6-9 and June 4-6. Records fair, except for estimated daily discharges, which are poor. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of January 1937 reached a stage of 19.27 ft, from floodmarks, discharge, 17,000 ft^3/s, by slope-area measurement from U.S. Army Corp of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	7.3	139	2560	369	222	271	110	80	4.1	2.1	.26
2	.28	5.4	83	2480	278	589	254	100	103	4.5	2.1	.21
3	.10	4.3	93	2420	222	762	211	85	149	5.9	2.1	.20
4	6.4	3.5	390	2000	193	556	182	73	140	5.5	2.3	.84
5	68	3.8	583	1360	196	375	163	65	98	4.9	2.2	1.9
6	104	3.9	325	998	1330	291	155	90	74	5.0	4.8	2.3
7	69	4.7	143	1430	2290	243	147	80	45	5.2	3.6	1.5
8	27	6.7	94	1640	2290	214	188	50	33	6.2	2.5	1.0
9	14	16	80	1620	2330	174	495	80	24	12	3.5	.88
10	34	17	66	1640	2240	147	1030	134	19	25	2.5	.74
11	84	30	55	1560	1740	134	944	275	15	92	1.6	.59
12	43	91	46	1430	1060	129	573	741	11	50	.99	.58
13	32	95	39	1270	730	136	402	817	11	25	.60	.59
14	25	66	35	956	1370	163	372	476	100	15	.33	.57
15	15	51	35	608	1540	181	348	267	60	9.2	.28	.56
16	10	37	45	515	1470	182	292	185	28	6.4	.52	.56
17	7.4	25	111	563	1280	210	235	143	17	4.5	1.7	.48
18	12	19	1500	479	1240	720	193	120	11	3.5	2.4	1.8
19	39	18	3760	376	1490	430	250	99	8.0	2.9	1.6	2.3
20	35	17	4150	304	1560	300	615	83	6.7	2.5	.99	1.9
21	20	14	4740	268	1600	240	570	73	5.5	2.4	.64	1.7
22	17	15	6190	232	1590	780	342	73	4.8	2.9	.46	1.4
23	26	19	5780	194	1300	1920	235	80	5.4	3.0	.30	1.4
24	46	31	4730	172	741	2470	186	74	4.4	3.0	.20	1.1
25	50	40	3850	155	422	2710	157	69	4.0	2.8	.19	.93
26	49	52	2860	145	304	2650	141	325	3.8	2.6	.27	.74
27	34	57	1980	138	258	2100	133	311	3.9	2.7	.35	.66
28	22	142	1450	162	225	1340	115	238	3.9	2.7	.38	.55
29	16	297	1430	240	---	656	109	168	4.0	2.6	.52	.46
30	13	212	1630	302	---	330	110	125	4.1	2.3	.71	.42
31	8.8	---	2420	364	---	264	---	98	---	2.1	.50	---
TOTAL	927.98	1400.6	48832	28581	31658	21618	9418	5707	1076.5	318.4	43.23	29.12
MEAN	29.9	46.7	1575	922	1131	697	314	184	35.9	10.3	1.39	.97
MAX	104	297	6190	2560	2330	2710	1030	817	149	92	4.8	2.3
MIN	.10	3.5	35	138	193	129	109	50	3.8	2.1	.19	.20
CFSM	.12	.18	6.18	3.62	4.43	2.73	1.23	.72	.14	.04	.01	.00
IN.	.14	.20	7.12	4.17	4.62	3.15	1.37	.83	.16	.05	.01	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1991, BY WATER YEAR (WY)

MEAN	25.9	219	462	577	767	770	608	398	140	90.4	38.5	55.0
MAX	266	2178	1963	2268	3529	2259	1851	1878	949	946	275	798
(WY)	1986	1958	1979	1950	1989	1964	1979	1983	1969	1989	1985	1950
MIN	.000	.000	.96	4.85	19.2	61.9	53.6	7.09	1.18	.003	.000	.000
(WY)	1941	1954	1964	1964	1964	1941	1986	1941	1944	1952	1952	1953

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1941 - 1991	
ANNUAL TOTAL	177967.11		149609.83			
ANNUAL MEAN	488		410		339	
HIGHEST ANNUAL MEAN					701	1989
LOWEST ANNUAL MEAN					61.6	1941
HIGHEST DAILY MEAN	7560	Feb 16	6190	Dec 22	14000	Feb 16 1989
LOWEST DAILY MEAN	.10	Oct 3	.10	Oct 3	.00	Oct 1 1940
ANNUAL SEVEN-DAY MINIMUM	.97	Sep 27	.31	Aug 22	.00	Oct 1 1940
INSTANTANEOUS PEAK FLOW			6420	Dec 22	14600	Feb 16 1989
INSTANTANEOUS PEAK STAGE			16.66	Dec 22	18.85	Feb 16 1989
ANNUAL RUNOFF (CFSM)	1.91		1.61		1.33	
ANNUAL RUNOFF (INCHES)	25.96		21.83		18.07	
10 PERCENT EXCEEDS	1390		1460		1150	
50 PERCENT EXCEEDS	83		74		60	
90 PERCENT EXCEEDS	1.9		.97		.95	

CUMBERLAND RIVER BASIN

03400500 POOR FORK AT CUMBERLAND, KY

LOCATION.--Lat 36°58'26", long 82°59'38", Harlan County, Hydrologic Unit 05130101, at left end upstream side of New York Avenue bridge at Cumberland, 250 ft upstream from Cloverlick Creek, 0.6 mi downstream from Looney Creek, and at mile 718.8.

DRAINAGE AREA.--82.3 mi^2.

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

REVISED RECORDS.--WSP 923: 1940(M). WSP 1336: 1949-51, 1953(P). WSP 1506: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,410.15 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1968, at same site and datum 5.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	19	28	649	190	139	401	90	84	84	103	30
2	14	18	28	386	173	271	312	84	74	115	80	28
3	14	18	161	263	149	290	256	80	106	140	65	49
4	35	17	343	205	132	566	215	76	113	89	57	38
5	30	23	187	174	121	407	192	72	80	145	52	33
6	19	31	125	151	164	330	168	74	64	128	48	36
7	15	24	85	1110	195	342	147	70	57	90	81	34
8	29	19	60	884	233	506	134	66	49	70	58	31
9	36	23	49	480	237	261	131	71	46	59	129	27
10	23	45	44	328	203	222	127	69	45	65	371	25
11	24	46	41	345	168	186	113	71	43	70	142	26
12	26	41	39	346	146	158	105	105	88	86	89	26
13	32	38	38	300	200	176	115	106	64	106	72	25
14	29	33	36	248	538	421	112	89	48	78	65	24
15	23	30	46	211	385	398	115	74	44	60	60	24
16	19	28	85	199	256	288	105	65	41	53	50	24
17	18	30	140	172	248	240	97	62	40	48	45	22
18	62	27	613	155	1660	326	93	125	58	44	44	25
19	48	25	887	146	1620	343	120	166	212	46	42	54
20	35	24	389	145	1380	295	134	236	189	46	39	36
21	25	24	792	146	747	239	130	195	213	41	38	28
22	24	24	449	137	463	376	129	143	268	37	38	26
23	56	24	1730	131	315	2910	123	111	174	49	37	24
24	50	24	1050	130	247	992	114	89	119	198	33	26
25	43	23	531	116	209	474	103	77	94	198	32	36
26	43	22	310	105	181	325	99	66	88	286	26	33
27	37	21	284	101	156	259	101	60	80	137	26	28
28	34	27	1350	121	139	225	116	57	68	97	28	25
29	27	37	676	112	---	721	104	160	63	733	28	25
30	23	31	618	131	---	1080	99	200	138	243	29	23
31	21	---	1540	190	---	579	---	108	---	147	29	---
TOTAL	929	816	12754	8317	10855	14345	4310	3117	2850	3788	2036	891
MEAN	30.0	27.2	411	268	388	463	144	101	95.0	122	65.7	29.7
MAX	62	46	1730	1110	1660	2910	401	236	268	733	371	54
MIN	14	17	28	101	121	139	93	57	40	37	26	22
CFSM	.36	.33	5.00	3.26	4.71	5.62	1.75	1.22	1.15	1.48	.80	.36
IN.	.42	.37	5.76	3.76	4.91	6.48	1.95	1.41	1.29	1.71	.92	.40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1991, BY WATER YEAR (WY)

MEAN	40.7	91.8	170	227	273	293	221	159	84.5	70.5	52.3	33.2
MAX	287	332	428	553	613	827	536	448	402	391	282	235
(WY)	1990	1974	1973	1950	1956	1963	1977	1984	1989	1942	1942	1989
MIN	3.58	5.54	11.2	18.5	26.7	76.3	43.6	26.7	19.8	8.71	10.6	6.62
(WY)	1954	1954	1966	1981	1941	1988	1963	1941	1941	1944	1988	1953

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1940 - 1991	
ANNUAL TOTAL	59507		65008			
ANNUAL MEAN	163		178		142	
HIGHEST ANNUAL MEAN					231	1974
LOWEST ANNUAL MEAN					59.4	1941
HIGHEST DAILY MEAN	2170	Feb 10	2910	Mar 23	6750	Jan 29 1957
LOWEST DAILY MEAN	14	Oct 2	14	Oct 2	2.5	Sep 28 1948
ANNUAL SEVEN-DAY MINIMUM	16	Sep 27	20	Oct 30	2.9	Nov 7 1953
INSTANTANEOUS PEAK FLOW			4880	Mar 23	11800	Jan 29 1957
INSTANTANEOUS PEAK STAGE			10.05	Mar 23	16.50	Jan 29 1957
INSTANTANEOUS LOW FLOW			13	Oct 2	.00	Oct 28 1952
ANNUAL RUNOFF (CFSM)	1.98		2.16		1.73	
ANNUAL RUNOFF (INCHES)	26.90		29.38		23.46	
10 PERCENT EXCEEDS	346		385		317	
50 PERCENT EXCEEDS	87		89		71	
90 PERCENT EXCEEDS	23		25		13	

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1979 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1979 to current year.
pH: October 1979 to current year.
WATER TEMPERATURES: October 1979 to current year.
DISSOLVED OXYGEN: October 1979 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1979.

REMARKS.--Four submersible pumps are located on Martins Fork Dam, at four different elevations referenced to National Geodetic Vertical Datum. Pump 1 is located near the bottom of the lake, at an elevation of 1,272 ft; pump 2 is at an elevation of 1,285 ft; pump 3 at an elevation of 1,298 ft; and pump 4 at an elevation of 1,308 occasionally. Each lake level is sampled once every four hours, or six times per day. A maximum and minimum value for each parameter is determined for each level. The monitor was shut down from Nov. 30 to Mar. 19.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
PUMP NUMBER 1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	196	165	183	---	---	---	---	---	---	---	---	---
2	196	180	189	---	---	---	---	---	---	---	---	---
3	184	180	183	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	188	184	187	---	---	---	---	---	---
10	---	---	---	192	184	188	---	---	---	---	---	---
11	---	---	---	192	184	188	---	---	---	---	---	---
12	---	---	---	192	188	192	---	---	---	---	---	---
13	---	---	---	192	188	190	---	---	---	---	---	---
14	---	---	---	196	188	191	---	---	---	---	---	---
15	---	---	---	192	188	192	---	---	---	---	---	---
16	---	---	---	188	180	186	---	---	---	---	---	---
17	---	---	---	180	176	179	---	---	---	---	---	---
18	---	---	---	192	180	187	---	---	---	---	---	---
19	---	---	---	192	188	191	---	---	---	---	---	---
20	---	---	---	192	192	192	---	---	---	---	---	---
21	---	---	---	196	184	192	---	---	---	---	---	---
22	---	---	---	192	180	186	---	---	---	---	---	---
23	169	157	165	192	188	190	---	---	---	---	---	---
24	176	165	171	192	188	191	---	---	---	---	---	---
25	176	153	163	196	188	192	---	---	---	---	---	---
26	180	161	173	196	188	193	---	---	---	---	---	---
27	188	176	182	200	192	196	---	---	---	---	---	---
28	188	176	182	196	192	194	---	---	---	---	---	---
29	180	173	177	196	192	194	---	---	---	---	---	---
30	176	169	173	---	---	---	---	---	---	---	---	---
31	173	165	168	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
PUMP NUMBER 1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	118	106	109	125	122	122
2	---	---	---	---	---	---	110	102	106	133	122	124
3	---	---	---	---	---	---	114	94	103	129	122	126
4	---	---	---	---	---	---	114	98	106	133	125	129
5	---	---	---	---	---	---	114	106	110	129	125	127
6	---	---	---	---	---	---	114	106	110	129	125	126
7	---	---	---	---	---	---	118	110	111	129	125	127
8	---	---	---	---	---	---	114	114	114	133	125	129
9	---	---	---	---	---	---	118	110	114	133	129	131
10	---	---	---	---	---	---	114	114	114	141	133	135
11	---	---	---	---	---	---	118	114	116	133	133	133
12	---	---	---	---	---	---	118	114	116	133	129	132
13	---	---	---	---	---	---	118	114	116	133	129	133
14	---	---	---	---	---	---	122	114	118	133	125	129
15	---	---	---	---	---	---	118	118	118	137	129	131
16	---	---	---	---	---	---	---	---	---	133	125	130
17	---	---	---	---	---	---	---	---	---	133	129	131
18	---	---	---	---	---	---	---	---	---	129	125	129
19	---	---	---	122	110	115	---	---	---	129	125	129
20	---	---	---	129	118	124	---	---	---	133	125	131
21	---	---	---	129	110	118	---	---	---	153	129	139
22	---	---	---	125	118	121	---	---	---	161	145	152
23	---	---	---	---	---	---	---	---	---	157	143	151
24	---	---	---	---	---	---	---	---	---	161	145	154
25	---	---	---	---	---	---	118	110	114	153	149	152
26	---	---	---	173	145	158	118	106	112	157	153	155
27	---	---	---	153	122	136	114	110	112	161	157	159
28	---	---	---	137	129	133	118	114	115	173	161	166
29	---	---	---	137	129	135	129	118	125	173	165	170
30	---	---	---	149	125	136	137	122	127	176	161	169
31	---	---	---	133	110	122	---	---	---	176	169	173
MONTH	---	---	---	---	---	---	---	---	---	176	122	139

PUMP NUMBER 1

		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
PUMP NUMBER 2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	184	173	178	---	---	---	---	---	---	---	---	---
2	196	179	186	---	---	---	---	---	---	---	---	---
3	184	184	184	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	188	184	187	---	---	---	---	---	---
10	---	---	---	188	184	187	---	---	---	---	---	---
11	---	---	---	192	188	192	---	---	---	---	---	---
12	---	---	---	192	192	192	---	---	---	---	---	---
13	---	---	---	192	188	190	---	---	---	---	---	---
14	---	---	---	192	188	190	---	---	---	---	---	---
15	---	---	---	196	192	193	---	---	---	---	---	---
16	---	---	---	196	188	193	---	---	---	---	---	---
17	---	---	---	192	188	190	---	---	---	---	---	---
18	---	---	---	192	188	190	---	---	---	---	---	---
19	---	---	---	192	188	192	---	---	---	---	---	---
20	---	---	---	196	192	194	---	---	---	---	---	---
21	---	---	---	192	188	190	---	---	---	---	---	---
22	---	---	---	196	188	190	---	---	---	---	---	---
23	188	184	187	196	188	192	---	---	---	---	---	---
24	196	188	193	196	192	193	---	---	---	---	---	---
25	192	184	190	196	188	193	---	---	---	---	---	---
26	192	180	186	196	192	193	---	---	---	---	---	---
27	192	180	188	196	192	194	---	---	---	---	---	---
28	192	188	190	196	192	193	---	---	---	---	---	---
29	192	188	190	196	188	192	---	---	---	---	---	---
30	192	188	190	192	188	190	---	---	---	---	---	---
31	192	184	189	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
PUMP NUMBER 2

		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	133	122	125
2	---	---	---	---	---	---	---	---	---	133	122	126
3	---	---	---	---	---	---	---	---	---	133	125	128
4	---	---	---	---	---	---	---	---	---	133	129	131
5	---	---	---	---	---	---	---	---	---	129	125	129
6	---	---	---	---	---	---	---	---	---	129	129	129
7	---	---	---	---	---	---	---	---	---	133	125	131
8	---	---	---	---	---	---	---	---	---	133	129	131
9	---	---	---	---	---	---	---	---	---	137	125	133
10	---	---	---	---	---	---	---	---	---	137	129	133
11	---	---	---	---	---	---	---	---	---	133	129	132
12	---	---	---	---	---	---	---	---	---	133	129	131
13	---	---	---	---	---	---	---	---	---	133	129	130
14	---	---	---	---	---	---	---	---	---	137	125	131
15	---	---	---	---	---	---	---	---	---	141	125	133
16	---	---	---	---	---	---	---	---	---	129	125	127
17	---	---	---	---	---	---	---	---	---	137	125	130
18	---	---	---	---	---	---	---	---	---	129	125	127
19	---	---	---	---	---	---	---	---	---	129	129	129
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	137	133	135
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	122	114	119	---	---	---
26	---	---	---	---	---	---	12[illegible]	114	119	---	---	---
27	---	---	---	---	---	---	122	118	120	---	---	---
28	---	---	---	---	---	---	125	122	124	---	---	---
29	---	---	---	---	---	---	137	118	127	---	---	---
30	---	---	---	---	---	---	133	125	130	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
PUMP NUMBER 2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	161	157	158	188	176	182	216	200	207
2	---	---	---	165	157	161	192	180	188	212	208	210
3	---	---	---	165	157	160	196	180	188	212	200	204
4	---	---	---	165	157	160	196	180	188	200	196	199
5	---	---	---	---	---	---	192	184	187	200	192	197
6	---	---	---	---	---	---	188	184	186	200	196	198
7	---	---	---	---	---	---	192	184	188	200	192	195
8	---	---	---	---	---	---	192	188	190	196	188	193
9	---	---	---	173	169	171	200	188	192	196	192	194
10	---	---	---	169	169	169	192	192	192	196	192	194
11	---	---	---	173	161	165	196	192	193	200	188	195
12	---	---	---	165	161	163	196	192	195	196	192	193
13	---	---	---	173	161	165	196	188	192	196	188	192
14	---	---	---	165	165	165	196	192	195	196	188	193
15	---	---	---	169	169	169	200	192	196	200	188	193
16	---	---	---	176	165	170	196	192	193	200	196	199
17	---	---	---	173	169	170	212	196	199	204	196	201
18	---	---	---	173	169	171	212	192	203	200	196	199
19	---	---	---	180	173	175	196	192	193	204	196	200
20	---	---	---	180	176	177	192	188	191	200	196	198
21	---	---	---	184	176	180	192	188	190	200	192	194
22	---	---	---	184	173	177	188	184	186	196	188	192
23	---	---	---	180	169	174	192	188	190	192	180	190
24	---	---	---	188	173	177	192	188	190	188	180	184
25	---	---	---	176	173	175	212	188	197	184	176	180
26	---	---	---	180	173	176	192	188	190	180	176	178
27	---	---	---	180	173	176	196	188	191	180	176	177
28	---	---	---	188	173	180	196	188	192	180	173	176
29	---	---	---	188	173	180	200	192	195	176	173	173
30	---	---	---	188	176	180	204	196	200	176	165	171
31	---	---	---	184	180	182	204	200	201	---	---	---
MONTH	---	---	---	---	---	---	212	176	192	216	165	192

PUMP NUMBER 3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	184	173	180	---	---	---	---	---	---	---	---	---
2	188	180	182	---	---	---	---	---	---	---	---	---
3	184	177	180	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	188	184	186	---	---	---	---	---	---
10	---	---	---	188	184	187	---	---	---	---	---	---
11	---	---	---	192	188	192	---	---	---	---	---	---
12	---	---	---	192	192	192	---	---	---	---	---	---
13	---	---	---	196	192	193	---	---	---	---	---	---
14	---	---	---	192	188	192	---	---	---	---	---	---
15	---	---	---	192	188	190	---	---	---	---	---	---
16	---	---	---	196	188	193	---	---	---	---	---	---
17	---	---	---	192	188	191	---	---	---	---	---	---
18	---	---	---	192	188	190	---	---	---	---	---	---
19	---	---	---	192	188	191	---	---	---	---	---	---
20	---	---	---	192	188	192	---	---	---	---	---	---
21	---	---	---	196	188	192	---	---	---	---	---	---
22	---	---	---	196	188	192	---	---	---	---	---	---
23	196	192	193	192	188	190	---	---	---	---	---	---
24	192	192	192	196	188	192	---	---	---	---	---	---
25	196	188	192	196	188	193	---	---	---	---	---	---
26	196	184	190	196	192	193	---	---	---	---	---	---
27	192	188	191	196	192	193	---	---	---	---	---	---
28	192	188	189	196	188	192	---	---	---	---	---	---
29	196	188	192	196	192	194	---	---	---	---	---	---
30	192	188	191	196	192	193	---	---	---	---	---	---
31	192	188	192	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
PUMP NUMBER 3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	114	102	109	133	122	128
2	---	---	---	---	---	---	114	106	110	133	118	125
3	---	---	---	---	---	---	114	114	114	133	122	128
4	---	---	---	---	---	---	114	110	112	133	122	126
5	---	---	---	---	---	---	118	110	114	145	125	133
6	---	---	---	---	---	---	122	110	115	133	122	129
7	---	---	---	---	---	---	122	106	115	141	129	134
8	---	---	---	---	---	---	129	118	125	141	133	138
9	---	---	---	---	---	---	129	118	125	157	133	142
10	---	---	---	---	---	---	129	118	125	149	145	148
11	---	---	---	---	---	---	137	125	131	145	137	143
12	---	---	---	---	---	---	133	125	129	149	141	145
13	---	---	---	---	---	---	129	125	127	145	133	141
14	---	---	---	---	---	---	133	129	130	161	149	152
15	---	---	---	---	---	---	133	129	132	153	145	150
16	---	---	---	---	---	---	137	137	137	149	137	146
17	---	---	---	---	---	---	141	137	139	149	141	146
18	---	---	---	---	---	---	141	137	139	145	145	145
19	---	---	---	122	114	118	137	133	137	149	145	147
20	---	---	---	122	106	115	141	137	139	153	145	148
21	---	---	---	114	110	113	145	125	137	153	137	148
22	---	---	---	125	110	117	141	129	133	161	149	154
23	---	---	---	---	---	---	137	125	130	161	153	158
24	---	---	---	---	---	---	122	118	119	165	153	159
25	---	---	---	---	---	---	125	122	123	165	161	161
26	---	---	---	133	118	124	118	118	118	165	161	163
27	---	---	---	125	114	118	125	118	122	173	161	165
28	---	---	---	114	110	113	129	122	123	169	161	165
29	---	---	---	118	114	115	133	114	124	173	165	169
30	---	---	---	118	110	114	133	122	128	173	165	168
31	---	---	---	114	106	110	---	---	---	180	173	178
MONTH	---	---	---	---	---	---	145	102	125	180	118	148

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
PUMP NUMBER 3

		JUNE			JULY			AUGUST			SEPTEMBER	
1	180	176	178	176	172	173	192	180	184	200	188	190
2	---	---	---	176	169	173	192	180	188	200	196	199
3	---	---	---	173	169	171	188	184	187	196	184	189
4	---	---	---	173	169	171	192	184	186	188	180	184
5	---	---	---	---	---	---	188	184	186	192	180	184
6	---	---	---	---	---	---	192	184	186	188	184	188
7	---	---	---	---	---	---	192	184	189	188	180	184
8	---	---	---	---	---	---	192	188	191	184	180	183
9	---	---	---	180	176	179	192	188	190	192	180	186
10	---	---	---	184	176	178	192	188	190	184	180	182
11	---	---	---	180	169	174	196	188	192	200	184	188
12	---	---	---	180	173	176	192	188	191	184	176	179
13	---	---	---	180	173	176	192	188	190	180	176	179
14	---	---	---	180	169	175	188	184	188	180	176	179
15	---	---	---	184	172	178	196	188	191	192	176	182
16	---	---	---	180	173	176	192	184	188	188	184	186
17	---	---	---	180	173	176	203	184	189	188	184	186
18	---	---	---	184	176	181	200	180	187	200	184	188
19	---	---	---	180	170	176	184	180	182	204	184	190
20	---	---	---	184	173	177	184	180	182	204	188	193
21	---	---	---	188	176	184	192	180	184	192	188	190
22	---	---	---	184	169	180	184	180	183	188	184	187
23	---	---	---	188	176	179	184	180	182	188	184	185
24	---	---	---	184	176	181	184	180	182	188	180	183
25	---	---	---	180	169	176	196	180	185	184	176	180
26	---	---	---	184	172	178	184	180	181	180	176	180
27	---	---	---	180	173	176	192	180	183	180	176	178
28	---	---	---	188	176	180	188	180	185	180	176	178
29	---	---	---	188	169	182	200	184	188	176	173	174
30	---	---	---	184	173	180	196	188	192	180	176	177
31	---	---	---	184	176	181	200	184	192	---	---	---
MONTH	---	---	---	---	---	---	203	180	187	204	173	184

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
PUMP NUMBER 4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	184	173	180	---	---	---	---	---	---	---	---	---
2	192	184	187	---	---	---	---	---	---	---	---	---
3	184	180	182	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	192	188	190	---	---	---	---	---	---
10	---	---	---	188	184	188	---	---	---	---	---	---
11	---	---	---	192	184	188	---	---	---	---	---	---
12	---	---	---	196	188	193	---	---	---	---	---	---
13	---	---	---	192	188	190	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	196	192	194	---	---	---	---	---	---	---	---	---
24	196	192	195	---	---	---	---	---	---	---	---	---
25	196	192	195	---	---	---	---	---	---	---	---	---
26	192	184	190	---	---	---	---	---	---	---	---	---
27	192	188	190	---	---	---	---	---	---	---	---	---
28	192	188	191	---	---	---	---	---	---	---	---	---
29	192	188	191	---	---	---	---	---	---	---	---	---
30	192	188	191	---	---	---	---	---	---	---	---	---
31	192	188	191	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
PUMP NUMBER 4

		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	149	137	142
2	---	---	---	---	---	---	---	---	---	141	137	140
3	---	---	---	---	---	---	---	---	---	145	133	139
4	---	---	---	---	---	---	---	---	---	153	141	148
5	---	---	---	---	---	---	---	---	---	149	145	147
6	---	---	---	---	---	---	---	---	---	149	141	146
7	---	---	---	---	---	---	---	---	---	149	141	147
8	---	---	---	---	---	---	---	---	---	149	145	147
9	---	---	---	---	---	---	---	---	---	153	149	150
10	---	---	---	---	---	---	---	---	---	161	149	154
11	---	---	---	---	---	---	---	---	---	161	149	154
12	---	---	---	---	---	---	---	---	---	157	149	154
13	---	---	---	---	---	---	---	---	---	157	149	154
14	---	---	---	---	---	---	---	---	---	157	153	156
15	---	---	---	---	---	---	---	---	---	169	161	164
16	---	---	---	---	---	---	---	---	---	161	161	161
17	---	---	---	---	---	---	---	---	---	169	157	162
18	---	---	---	---	---	---	---	---	---	165	161	163
19	---	---	---	---	---	---	---	---	---	165	161	163
20	---	---	---	---	---	---	---	---	---	161	157	159
21	---	---	---	---	---	---	---	---	---	161	153	156
22	---	---	---	---	---	---	---	---	---	169	153	159
23	---	---	---	---	---	---	---	---	---	169	157	164
24	---	---	---	---	---	---	---	---	---	176	165	168
25	---	---	---	---	---	---	133	125	130	176	165	172
26	---	---	---	---	---	---	137	125	130	176	173	175
27	---	---	---	---	---	---	133	133	133	176	173	175
28	---	---	---	---	---	---	137	133	134	180	169	175
29	---	---	---	---	---	---	149	141	144	180	169	175
30	---	---	---	---	---	---	149	137	144	180	173	176
31	---	---	---	---	---	---	---	---	---	176	173	176
MONTH	---	---	---	---	---	---	---	---	---	180	133	159

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
PUMP NUMBER 4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	196	188	192	204	192	196
2	---	---	---	---	---	---	200	192	198	200	200	200
3	---	---	---	---	---	---	200	192	195	200	188	192
4	---	---	---	---	---	---	196	192	195	192	188	190
5	---	---	---	---	---	---	192	184	191	188	184	187
6	---	---	---	---	---	---	200	188	194	192	184	188
7	---	---	---	---	---	---	200	192	195	192	184	187
8	---	---	---	---	---	---	200	192	196	192	184	189
9	---	---	---	---	---	---	196	192	195	196	188	192
10	---	---	---	---	---	---	196	192	193	192	184	188
11	---	---	---	---	---	---	200	192	195	192	184	188
12	---	---	---	---	---	---	196	192	194	184	180	183
13	---	---	---	---	---	---	192	192	192	192	180	186
14	---	---	---	---	---	---	196	192	193	188	184	185
15	---	---	---	---	---	---	200	192	194	200	184	192
16	---	---	---	---	---	---	192	188	192	196	188	193
17	---	---	---	---	---	---	192	192	192	196	192	193
18	---	---	---	---	---	---	204	192	198	192	188	192
19	---	---	---	192	184	188	188	184	185	188	184	187
20	---	---	---	192	188	190	188	184	186	192	188	191
21	---	---	---	196	188	191	188	184	188	192	192	192
22	---	---	---	192	188	189	188	184	188	192	184	187
23	---	---	---	188	184	187	192	188	189	188	184	186
24	---	---	---	196	180	188	188	184	188	188	184	186
25	---	---	---	188	180	185	204	184	189	188	184	186
26	---	---	---	188	180	184	188	184	185	---	---	---
27	---	---	---	188	180	182	192	180	187	---	---	---
28	---	---	---	192	184	187	192	188	192	---	---	---
29	---	---	---	192	184	188	200	192	194	---	---	---
30	---	---	---	192	184	189	200	192	197	---	---	---
31	---	---	---	192	188	192	200	192	197	---	---	---
MONTH	---	---	---	---	---	---	204	180	192	---	---	---

PH (STANDARD UNITS), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
PUMP NUMBER 1

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6.9	6.8	---	---	---	---	---	---	---	---	---	---
2	6.8	6.8	---	---	---	---	---	---	---	---	---	---
3	6.8	6.8	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	6.9	6.9	---	---	---	---	---	---	---	---	---	---
6	6.9	6.9	---	---	---	---	---	---	---	---	---	---
7	6.9	6.9	---	---	---	---	---	---	---	---	---	---
8	6.9	6.9	---	---	---	---	---	---	---	---	---	---
9	6.9	6.9	7.0	6.9	---	---	---	---	---	---	---	---
10	6.9	6.9	7.0	6.9	---	---	---	---	---	---	---	---
11	6.9	6.9	7.0	6.9	---	---	---	---	---	---	---	---
12	6.9	6.9	7.0	6.9	---	---	---	---	---	---	---	---
13	6.9	6.9	7.0	6.9	---	---	---	---	---	---	---	---
14	6.9	6.9	7.0	6.9	---	---	---	---	---	---	---	---
15	6.9	6.8	6.9	6.9	---	---	---	---	---	---	---	---
16	6.9	6.8	6.9	6.9	---	---	---	---	---	---	---	---
17	6.8	6.7	6.9	6.8	---	---	---	---	---	---	---	---
18	6.8	6.7	7.0	6.8	---	---	---	---	---	---	---	---
19	6.9	6.7	7.0	6.9	---	---	---	---	---	---	7.0	6.9
20	6.9	6.9	7.0	6.9	---	---	---	---	---	---	7.1	6.9
21	6.9	6.9	6.9	6.9	---	---	---	---	---	---	7.1	7.0
22	6.9	6.9	6.9	6.9	---	---	---	---	---	---	7.0	6.9
23	6.9	6.9	7.0	6.9	---	---	---	---	---	---	---	---
24	6.9	6.9	7.0	7.0	---	---	---	---	---	---	---	---
25	6.9	6.8	7.0	7.0	---	---	---	---	---	---	---	---
26	7.0	6.9	7.0	6.9	---	---	---	---	---	---	6.9	6.9
27	7.1	7.0	7.0	6.9	---	---	---	---	---	---	6.9	6.9
28	7.0	7.0	6.9	6.8	---	---	---	---	---	---	6.9	6.8
29	7.0	6.9	6.9	6.8	---	---	---	---	---	---	6.9	6.8
30	7.0	6.9	6.9	6.8	---	---	---	---	---	---	6.9	6.8
31	6.9	6.9	---	---	---	---	---	---	---	---	7.0	6.9
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY

PH (STANDARD UNITS), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
PUMP NUMBER 1

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.9	6.9	6.8	6.7	---	---	---	---	---	---	---	---
2	7.0	6.9	6.7	6.7	---	---	---	---	---	---	---	---
3	6.9	6.9	6.7	6.7	---	---	---	---	---	---	---	---
4	7.0	6.9	6.7	6.6	---	---	---	---	---	---	---	---
5	7.0	6.9	6.7	6.6	---	---	---	---	---	---	---	---
6	7.0	6.9	6.7	6.6	---	---	---	---	---	---	---	---
7	6.9	6.9	6.6	6.6	---	---	---	---	---	---	---	---
8	6.9	6.9	6.6	6.6	---	---	---	---	---	---	---	---
9	6.9	6.8	6.6	6.5	---	---	---	---	---	---	---	---
10	6.9	6.8	6.7	6.5	---	---	---	---	---	---	---	---
11	6.9	6.8	6.6	6.6	---	---	---	---	---	---	---	---
12	6.9	6.8	6.6	6.6	---	---	---	---	---	---	---	---
13	6.9	6.8	6.7	6.6	---	---	---	---	---	---	---	---
14	6.8	6.8	6.7	6.6	---	---	---	---	---	---	---	---
15	6.8	6.8	6.7	6.5	---	---	---	---	---	---	---	---
16	---	---	6.6	6.5	---	---	---	---	---	---	---	---
17	---	---	6.6	6.5	---	---	---	---	---	---	---	---
18	---	---	6.6	6.5	---	---	---	---	---	---	---	---
19	---	---	6.5	6.5	---	---	---	---	---	---	---	---
20	---	---	6.5	6.5	---	---	---	---	---	---	---	---
21	---	---	6.7	6.5	---	---	---	---	---	---	---	---
22	---	---	6.7	6.6	---	---	---	---	---	---	---	---
23	---	---	6.8	6.7	---	---	---	---	---	---	---	---
24	---	---	6.7	6.7	---	---	---	---	---	---	---	---
25	6.8	6.8	6.7	6.7	---	---	---	---	---	---	---	---
26	6.8	6.8	6.7	6.7	---	---	---	---	---	---	---	---
27	6.8	6.7	6.7	6.7	---	---	---	---	---	---	---	---
28	6.8	6.8	6.7	6.6	---	---	---	---	---	---	---	---
29	6.8	6.7	6.6	6.6	---	---	---	---	---	---	---	---
30	6.8	6.7	6.6	6.6	---	---	---	---	---	---	---	---
31	---	---	6.6	6.5	---	---	---	---	---	---	---	---
MONTH	---	---	6.8	6.5	---	---	---	---	---	---	---	---

PH (STANDARD UNITS), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
PUMP NUMBER 2

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6.8	6.7	---	---	---	---	---	---	---	---	---	---
2	6.8	6.7	---	---	---	---	---	---	---	---	---	---
3	6.8	6.8	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	6.8	6.8	---	---	---	---	---	---	---	---	---	---
6	6.9	6.8	---	---	---	---	---	---	---	---	---	---
7	6.8	6.7	---	---	---	---	---	---	---	---	---	---
8	6.9	6.8	---	---	---	---	---	---	---	---	---	---
9	6.9	6.7	7.0	6.9	---	---	---	---	---	---	---	---
10	6.9	6.8	7.0	6.9	---	---	---	---	---	---	---	---
11	6.9	6.8	7.0	6.9	---	---	---	---	---	---	---	---
12	7.0	6.9	7.0	7.0	---	---	---	---	---	---	---	---
13	7.1	6.9	7.0	6.9	---	---	---	---	---	---	---	---
14	7.0	6.9	7.0	6.9	---	---	---	---	---	---	---	---
15	6.9	6.9	7.0	6.9	---	---	---	---	---	---	---	---
16	7.0	6.9	7.0	7.0	---	---	---	---	---	---	---	---
17	7.0	6.8	6.9	6.9	---	---	---	---	---	---	---	---
18	7.1	6.8	6.9	6.9	---	---	---	---	---	---	---	---
19	7.0	6.8	7.0	6.9	---	---	---	---	---	---	---	---
20	7.1	7.0	7.0	6.9	---	---	---	---	---	---	---	---
21	7.0	7.0	7.0	6.9	---	---	---	---	---	---	---	---
22	7.1	7.0	7.1	6.9	---	---	---	---	---	---	---	---
23	7.1	7.0	7.1	7.0	---	---	---	---	---	---	---	---
24	7.1	7.0	7.1	7.0	---	---	---	---	---	---	---	---
25	7.1	6.9	7.0	7.0	---	---	---	---	---	---	---	---
26	7.1	7.0	7.1	7.0	---	---	---	---	---	---	---	---
27	7.1	7.1	7.1	6.9	---	---	---	---	---	---	---	---
28	7.1	7.0	7.0	6.9	---	---	---	---	---	---	---	---
29	7.1	7.0	7.0	6.8	---	---	---	---	---	---	---	---
30	7.1	7.0	6.9	6.9	---	---	---	---	---	---	---	---
31	7.1	7.0	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY

PH (STANDARD UNITS), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
PUMP NUMBER 2

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	6.8	6.8	---	---	6.6	6.5	6.5	6.4	6.5	6.4
2	---	---	6.9	6.7	---	---	6.6	6.5	6.5	6.4	6.4	6.4
3	---	---	6.8	6.7	---	---	6.6	6.4	6.7	6.4	6.8	6.4
4	---	---	6.8	6.7	---	---	6.5	6.5	6.5	6.4	6.9	6.7
5	---	---	6.8	6.7	---	---	---	---	6.5	6.4	6.7	6.7
6	---	---	6.8	6.7	---	---	---	---	6.5	6.4	6.7	6.7
7	---	---	6.7	6.7	---	---	---	---	6.5	6.4	6.7	6.7
8	---	---	6.7	6.7	---	---	---	---	6.4	6.4	6.9	6.7
9	---	---	6.7	6.7	---	---	6.5	6.5	6.5	6.4	6.8	6.7
10	---	---	6.7	6.7	---	---	6.7	6.5	6.5	6.4	6.8	6.8
11	---	---	6.8	6.7	---	---	6.5	6.4	6.4	6.4	6.8	6.7
12	---	---	6.8	6.7	---	---	6.5	6.5	6.4	6.4	6.9	6.8
13	---	---	6.9	6.7	---	---	6.7	6.5	6.5	6.4	6.9	6.8
14	---	---	6.9	6.8	---	---	6.5	6.5	6.5	6.4	6.9	6.8
15	---	---	6.9	6.8	---	---	6.5	6.4	6.4	6.4	6.9	6.8
16	---	---	6.8	6.7	---	---	6.5	6.4	6.8	6.4	6.8	6.8
17	---	---	6.7	6.5	---	---	6.5	6.4	6.6	6.4	6.9	6.8
18	---	---	6.8	6.7	---	---	6.5	6.5	6.7	6.4	6.8	6.8
19	---	---	6.8	6.7	---	---	6.6	6.4	6.5	6.5	6.9	6.7
20	---	---	---	---	---	---	6.6	6.4	6.5	6.4	6.8	6.7
21	---	---	6.7	6.7	---	---	6.5	6.4	6.5	6.4	6.8	6.7
22	---	---	---	---	---	---	6.5	6.4	6.8	6.5	6.8	6.7
23	---	---	---	---	---	---	6.5	6.4	6.5	6.3	6.9	6.7
24	---	---	---	---	---	---	6.5	6.4	6.4	6.3	6.9	6.7
25	---	---	---	---	---	---	6.5	6.4	6.5	6.3	6.8	6.7
26	6.8	6.8	---	---	---	---	6.5	6.3	6.5	6.3	6.9	6.8
27	6.9	6.8	---	---	---	---	6.5	6.3	6.5	6.4	6.9	6.8
28	6.8	6.8	---	---	---	---	6.5	6.4	6.5	6.4	6.9	6.8
29	6.8	6.7	---	---	---	---	6.5	6.4	6.5	6.4	6.8	6.7
30	6.8	6.7	---	---	---	---	6.5	6.4	6.5	6.4	6.9	6.7
31	---	---	---	---	---	---	6.4	6.4	6.4	6.4	---	---
MONTH	---	---	---	---	---	---	---	---	6.8	6.3	6.9	6.4

PH (STANDARD UNITS), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
PUMP NUMBER 3

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.0	6.9	---	---	---	---	---	---	---	---	---	---
2	6.9	6.9	---	---	---	---	---	---	---	---	---	---
3	7.1	6.9	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	7.1	7.0	---	---	---	---	---	---	---	---	---	---
6	7.2	7.0	---	---	---	---	---	---	---	---	---	---
7	7.1	7.1	---	---	---	---	---	---	---	---	---	---
8	7.2	6.9	---	---	---	---	---	---	---	---	---	---
9	7.2	6.9	7.2	6.9	---	---	---	---	---	---	---	---
10	7.2	7.1	6.9	6.9	---	---	---	---	---	---	---	---
11	7.1	7.0	7.0	6.9	---	---	---	---	---	---	---	---
12	7.1	7.0	7.0	6.9	---	---	---	---	---	---	---	---
13	7.1	7.0	7.0	6.9	---	---	---	---	---	---	---	---
14	7.1	7.0	7.0	6.9	---	---	---	---	---	---	---	---
15	7.1	6.9	7.0	6.9	---	---	---	---	---	---	---	---
16	7.1	6.9	7.0	7.0	---	---	---	---	---	---	---	---
17	7.1	7.0	7.0	6.9	---	---	---	---	---	---	---	---
18	7.2	6.9	7.0	6.9	---	---	---	---	---	---	---	---
19	7.1	7.0	7.0	6.9	---	---	---	---	---	---	---	---
20	7.1	7.0	7.0	6.9	---	---	---	---	---	---	7.1	7.0
21	7.2	7.0	7.0	6.9	---	---	---	---	---	---	7.1	7.0
22	7.1	7.1	7.0	6.9	---	---	---	---	---	---	7.1	7.1
23	7.1	7.1	7.1	7.0	---	---	---	---	---	---	7.1	7.0
24	7.1	7.1	7.1	7.0	---	---	---	---	---	---	---	---
25	7.1	7.1	7.1	7.0	---	---	---	---	---	---	---	---
26	7.1	7.0	7.1	7.0	---	---	---	---	---	---	---	---
27	7.1	7.1	7.1	7.0	---	---	---	---	---	---	7.0	7.0
28	7.1	7.1	7.1	7.0	---	---	---	---	---	---	7.0	6.9
29	7.1	7.1	7.1	7.0	---	---	---	---	---	---	7.0	6.9
30	7.2	7.1	7.0	6.9	---	---	---	---	---	---	7.0	6.9
31	7.1	7.1	---	---	---	---	---	---	---	---	7.0	6.9
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY

PH (STANDARD UNITS), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
PUMP NUMBER 3

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.0	6.9	7.0	6.8	6.9	6.9	7.2	7.1	7.1	6.5	6.9	6.7
2	7.0	6.9	6.9	6.8	---	---	7.2	7.0	7.2	7.1	7.0	6.8
3	7.1	6.9	6.9	6.9	---	---	7.2	6.9	7.3	7.0	7.2	6.5
4	7.1	7.0	7.0	6.8	---	---	7.0	6.9	7.2	7.0	7.3	7.2
5	7.1	6.9	6.9	6.8	---	---	---	---	7.2	7.0	7.2	6.8
6	7.1	6.9	6.9	6.8	---	---	---	---	7.2	6.9	7.1	7.0
7	7.1	6.9	6.9	6.9	---	---	---	---	7.2	7.0	7.1	6.8
8	7.1	6.9	7.0	6.8	---	---	---	---	7.1	7.0	7.2	6.9
9	7.1	6.9	6.9	6.9	---	---	7.4	7.1	7.1	6.9	7.2	6.8
10	7.2	6.9	7.0	6.9	---	---	7.3	7.0	7.0	6.9	7.3	7.0
11	7.1	6.9	6.9	6.8	---	---	7.2	6.7	6.9	6.9	7.3	6.9
12	7.1	6.9	7.0	6.9	---	---	7.2	7.0	7.0	6.6	7.4	7.1
13	7.2	7.0	7.0	6.8	---	---	7.2	7.0	6.9	6.7	7.5	7.4
14	7.2	7.0	7.0	6.9	---	---	7.3	6.9	6.9	6.7	7.4	7.4
15	7.2	7.0	7.0	6.9	---	---	7.3	7.1	6.8	6.5	7.4	7.0
16	7.0	6.9	6.9	6.8	---	---	7.3	7.1	6.8	6.6	7.4	7.2
17	7.0	6.9	6.9	6.8	---	---	7.4	7.1	6.9	6.7	7.4	7.1
18	7.0	6.9	6.9	6.8	---	---	7.2	7.1	6.9	6.7	7.5	6.9
19	7.3	6.9	6.9	6.8	---	---	7.2	6.7	7.0	6.9	7.4	6.9
20	6.9	6.9	6.8	6.7	---	---	7.2	6.5	6.9	6.7	7.2	6.9
21	6.9	6.9	6.9	6.7	---	---	7.2	6.6	6.8	6.5	7.1	6.9
22	7.0	6.8	6.9	6.8	---	---	7.2	6.9	6.8	6.7	7.0	7.0
23	7.0	6.8	6.9	6.8	---	---	7.2	7.0	6.7	6.6	7.1	6.9
24	6.8	6.8	6.9	6.8	---	---	7.3	7.1	6.7	6.5	7.0	6.8
25	7.1	6.8	6.9	6.9	---	---	7.2	6.6	6.8	6.5	6.8	6.7
26	6.8	6.8	6.9	6.8	---	---	7.1	6.8	6.8	6.7	6.9	6.8
27	6.9	6.8	6.9	6.8	---	---	7.2	6.7	6.8	6.5	6.9	6.8
28	6.9	6.8	6.9	6.8	---	---	7.2	6.5	6.9	6.5	6.9	6.9
29	6.9	6.8	6.9	6.7	---	---	7.1	6.7	6.9	6.5	6.9	6.9
30	6.9	6.8	6.9	6.8	---	---	7.1	6.6	6.8	6.7	6.9	6.9
31	---	---	6.9	6.7	---	---	7.0	6.5	6.9	6.4	---	---
MONTH	7.3	6.8	7.0	6.7	---	---	---	---	7.3	6.4	7.5	6.5

PUMP NUMBER 4
PH (STANDARD UNITS), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.0	6.9	---	---	---	---	---	---	---	---	---	---
2	7.0	6.9	---	---	---	---	---	---	---	---	---	---
3	7.0	7.0	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	7.1	7.1	---	---	---	---	---	---	---	---	---	---
6	7.2	7.1	---	---	---	---	---	---	---	---	---	---
7	7.2	7.1	---	---	---	---	---	---	---	---	---	---
8	7.2	7.1	---	---	---	---	---	---	---	---	---	---
9	7.2	7.1	6.9	6.9	---	---	---	---	---	---	---	---
10	7.2	7.2	6.9	6.9	---	---	---	---	---	---	---	---
11	7.1	7.1	7.0	6.9	---	---	---	---	---	---	---	---
12	7.1	7.0	7.0	6.9	---	---	---	---	---	---	---	---
13	7.1	7.0	7.0	6.9	---	---	---	---	---	---	---	---
14	7.1	7.0	---	---	---	---	---	---	---	---	---	---
15	7.1	6.9	---	---	---	---	---	---	---	---	---	---
16	7.1	6.9	---	---	---	---	---	---	---	---	---	---
17	7.1	7.0	---	---	---	---	---	---	---	---	---	---
18	7.1	7.0	---	---	---	---	---	---	---	---	---	---
19	7.1	7.0	---	---	---	---	---	---	---	---	---	---
20	7.1	7.0	---	---	---	---	---	---	---	---	---	---
21	7.1	7.0	---	---	---	---	---	---	---	---	---	---
22	7.1	7.1	---	---	---	---	---	---	---	---	---	---
23	7.1	7.1	---	---	---	---	---	---	---	---	---	---
24	7.1	7.1	---	---	---	---	---	---	---	---	---	---
25	7.1	7.0	---	---	---	---	---	---	---	---	---	---
26	7.1	7.0	---	---	---	---	---	---	---	---	---	---
27	7.1	7.1	---	---	---	---	---	---	---	---	---	---
28	7.1	7.1	---	---	---	---	---	---	---	---	---	---
29	7.1	7.1	---	---	---	---	---	---	---	---	---	---
30	7.1	7.1	---	---	---	---	---	---	---	---	---	---
31	7.1	7.1	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY

PH (STANDARD UNITS), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
PUMP NUMBER 4

DAY	APRIL MAX	APRIL MIN	MAY MAX	MAY MIN	JUNE MAX	JUNE MIN	JULY MAX	JULY MIN	AUGUST MAX	AUGUST MIN	SEPTEMBER MAX	SEPTEMBER MIN
1	---	---	7.1	7.1	---	---	---	---	7.6	7.4	7.3	7.1
2	---	---	7.1	7.1	---	---	---	---	7.6	7.5	7.4	7.2
3	---	---	7.1	7.1	---	---	---	---	7.7	7.5	7.4	7.1
4	---	---	7.1	7.1	---	---	---	---	7.7	7.5	7.4	7.4
5	---	---	7.1	7.0	---	---	---	---	7.7	7.6	7.5	7.2
6	---	---	7.2	7.1	---	---	---	---	7.6	7.4	7.4	7.1
7	---	---	7.1	7.1	---	---	---	---	7.7	7.5	7.4	7.1
8	---	---	7.1	7.1	---	---	---	---	7.7	7.6	7.6	7.3
9	---	---	7.1	7.1	---	---	---	---	7.7	7.4	7.6	7.5
10	---	---	7.3	7.1	---	---	---	---	7.2	7.1	7.7	7.5
11	---	---	7.1	7.1	---	---	---	---	7.1	7.0	7.7	7.5
12	---	---	7.2	7.1	---	---	---	---	7.1	7.0	7.9	7.5
13	---	---	7.2	7.1	---	---	---	---	7.1	6.9	8.0	7.6
14	---	---	7.2	7.1	---	---	---	---	7.0	6.9	8.0	7.8
15	---	---	7.1	7.1	---	---	---	---	6.9	6.8	7.9	7.8
16	---	---	7.1	7.1	---	---	---	---	7.0	6.8	8.0	7.8
17	---	---	7.1	7.1	---	---	---	---	7.1	6.9	8.0	7.8
18	---	---	7.1	7.0	---	---	---	---	7.3	6.9	8.2	7.8
19	---	---	7.1	7.0	---	---	7.7	7.2	7.2	7.1	8.0	7.4
20	---	---	7.1	6.9	---	---	7.9	7.4	7.1	6.9	7.4	7.1
21	---	---	7.1	6.9	---	---	7.9	7.4	6.9	6.8	7.2	7.1
22	---	---	7.1	7.0	---	---	7.8	7.6	7.1	6.8	7.2	7.1
23	---	---	7.2	7.0	---	---	7.8	7.6	7.0	6.8	7.1	7.1
24	---	---	7.1	7.0	---	---	7.9	7.7	7.1	6.9	7.1	6.7
25	7.1	7.0	7.2	7.0	---	---	7.8	7.5	7.1	7.0	6.8	6.8
26	7.1	7.1	7.2	7.1	---	---	7.7	7.5	7.0	6.9	---	---
27	7.1	7.0	7.2	7.1	---	---	7.6	7.4	7.1	6.8	---	---
28	7.1	7.0	7.2	7.1	---	---	7.6	7.5	7.2	7.0	---	---
29	7.1	7.0	7.2	7.1	---	---	7.6	7.5	7.2	7.1	---	---
30	7.1	7.1	7.2	7.1	---	---	7.6	7.4	7.2	7.1	---	---
31	---	---	7.3	7.1	---	---	7.4	7.3	7.2	7.1	---	---
MONTH	---	---	7.3	6.9	---	---	---	---	7.7	6.8	---	---

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
PUMP NUMBER 1

DAY	OCTOBER MAX	OCTOBER MIN	OCTOBER MEAN	NOVEMBER MAX	NOVEMBER MIN	NOVEMBER MEAN	DECEMBER MAX	DECEMBER MIN	DECEMBER MEAN	JANUARY MAX	JANUARY MIN	JANUARY MEAN
1	18.8	18.7	18.8	---	---	---	---	---	---	---	---	---
2	18.7	18.6	18.7	---	---	---	---	---	---	---	---	---
3	18.8	18.7	18.7	---	---	---	---	---	---	---	---	---
4	19.0	18.7	18.8	---	---	---	---	---	---	---	---	---
5	18.8	18.6	18.7	---	---	---	---	---	---	---	---	---
6	18.7	18.6	18.7	---	---	---	---	---	---	---	---	---
7	18.8	18.7	18.7	---	---	---	---	---	---	---	---	---
8	18.7	18.6	18.6	---	---	---	---	---	---	---	---	---
9	18.7	18.6	18.6	13.9	13.8	13.9	---	---	---	---	---	---
10	18.7	18.6	18.6	13.8	13.4	13.6	---	---	---	---	---	---
11	18.6	18.5	18.6	13.3	13.1	13.2	---	---	---	---	---	---
12	18.6	18.5	18.6	13.0	12.5	12.8	---	---	---	---	---	---
13	18.6	18.6	18.6	12.5	12.4	12.4	---	---	---	---	---	---
14	---	---	---	12.2	12.1	12.2	---	---	---	---	---	---
15	---	---	---	12.1	12.0	12.1	---	---	---	---	---	---
16	---	---	---	12.1	11.8	11.9	---	---	---	---	---	---
17	---	---	---	11.8	11.5	11.6	---	---	---	---	---	---
18	---	---	---	11.8	11.7	11.7	---	---	---	---	---	---
19	---	---	---	11.7	11.6	11.6	---	---	---	---	---	---
20	---	---	---	11.5	11.5	11.5	---	---	---	---	---	---
21	17.7	17.1	17.3	11.5	11.1	11.4	---	---	---	---	---	---
22	17.1	16.9	17.0	11.5	11.1	11.3	---	---	---	---	---	---
23	17.1	16.9	17.0	11.8	11.6	11.7	---	---	---	---	---	---
24	17.2	17.0	17.1	12.0	11.8	11.9	---	---	---	---	---	---
25	17.4	16.8	17.0	11.9	11.7	11.8	---	---	---	---	---	---
26	17.4	16.7	17.0	11.9	11.7	11.8	---	---	---	---	---	---
27	16.7	16.1	16.5	11.9	11.6	11.8	---	---	---	---	---	---
28	16.1	15.5	15.8	12.0	11.7	11.8	---	---	---	---	---	---
29	15.6	14.9	15.3	12.0	11.8	11.9	---	---	---	---	---	---
30	14.9	14.7	14.8	11.9	11.7	11.7	---	---	---	---	---	---
31	14.6	14.4	14.5	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
PUMP NUMBER 1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	13.8	13.3	13.6
2	---	---	---	---	---	---	---	---	---	13.8	13.6	13.6
3	---	---	---	---	---	---	---	---	---	13.9	13.5	13.7
4	---	---	---	---	---	---	---	---	---	13.9	13.6	13.8
5	---	---	---	---	---	---	---	---	---	14.0	13.6	13.7
6	---	---	---	---	---	---	---	---	---	14.0	13.7	13.8
7	---	---	---	---	---	---	---	---	---	14.0	13.8	13.9
8	---	---	---	---	---	---	10.9	10.8	10.8	14.0	13.9	14.0
9	---	---	---	---	---	---	11.1	10.8	10.9	14.2	14.0	14.1
10	---	---	---	---	---	---	11.3	10.8	11.0	14.4	14.0	14.3
11	---	---	---	---	---	---	11.2	10.9	11.0	14.7	14.4	14.6
12	---	---	---	---	---	---	11.3	11.1	11.2	14.6	14.4	14.6
13	---	---	---	---	---	---	11.4	11.1	11.2	15.6	14.6	15.2
14	---	---	---	---	---	---	11.6	11.3	11.4	15.7	15.3	15.6
15	---	---	---	---	---	---	11.8	11.8	11.8	16.1	15.2	15.6
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	9.5	8.4	9.0	---	---	---	---	---	---
20	---	---	---	9.2	8.4	8.7	---	---	---	---	---	---
21	---	---	---	9.6	8.7	9.1	---	---	---	17.5	17.0	17.3
22	---	---	---	9.6	9.0	9.2	---	---	---	18.0	17.6	17.8
23	---	---	---	---	---	---	---	---	---	18.4	18.0	18.2
24	---	---	---	---	---	---	---	---	---	18.6	17.6	18.1
25	---	---	---	10.7	10.5	10.6	13.1	13.0	13.1	18.0	17.7	17.9
26	---	---	---	10.7	10.3	10.5	13.4	12.8	13.0	18.3	17.7	18.0
27	---	---	---	10.8	10.5	10.6	13.0	12.8	12.9	18.2	17.9	18.0
28	---	---	---	---	---	---	13.2	12.9	13.0	18.6	18.1	18.3
29	---	---	---	---	---	---	13.4	13.1	13.2	18.7	18.2	18.5
30	---	---	---	---	---	---	13.6	13.3	13.4	19.0	18.6	18.8
31	---	---	---	---	---	---	---	---	---	19.3	18.8	19.0
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

PUMP NUMBER 1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	20.1	20.0	20.0	---	---	---	---	---	---	---	---	---
9	20.0	19.9	20.0	---	---	---	---	---	---	---	---	---
10	20.6	20.0	20.2	---	---	---	---	---	---	---	---	---
11	20.7	20.3	20.5	---	---	---	---	---	---	---	---	---
12	20.7	20.5	20.6	---	---	---	---	---	---	---	---	---
13	20.8	20.4	20.6	---	---	---	---	---	---	---	---	---
14	20.4	20.2	20.4	---	---	---	---	---	---	---	---	---
15	20.3	20.2	20.3	---	---	---	---	---	---	---	---	---
16	20.4	20.2	20.3	---	---	---	---	---	---	---	---	---
17	20.3	20.2	20.3	---	---	---	---	---	---	---	---	---
18	20.5	20.3	20.4	---	---	---	---	---	---	---	---	---
19	20.5	20.4	20.5	---	---	---	---	---	---	---	---	---
20	20.5	20.4	20.5	---	---	---	---	---	---	---	---	---
21	20.6	20.4	20.5	---	---	---	---	---	---	---	---	---
22	20.6	20.5	20.6	---	---	---	---	---	---	---	---	---
23	20.7	20.6	20.6	---	---	---	---	---	---	---	---	---
24	20.7	20.7	20.7	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
PUMP NUMBER 2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	21.7	21.4	21.6	---	---	---	---	---	---	---	---	---
2	21.8	21.4	21.6	---	---	---	---	---	---	---	---	---
3	21.8	21.7	21.7	---	---	---	---	---	---	---	---	---
4	22.0	21.7	21.8	---	---	---	---	---	---	---	---	---
5	21.7	21.5	21.6	---	---	---	---	---	---	---	---	---
6	21.6	21.4	21.5	---	---	---	---	---	---	---	---	---
7	21.5	21.1	21.3	---	---	---	---	---	---	---	---	---
8	21.4	21.0	21.2	---	---	---	---	---	---	---	---	---
9	21.4	21.0	21.2	14.0	13.9	13.9	---	---	---	---	---	---
10	21.3	21.1	21.2	13.9	13.5	13.7	---	---	---	---	---	---
11	21.2	20.9	21.1	13.7	13.2	13.4	---	---	---	---	---	---
12	21.2	21.0	21.1	13.3	12.7	13.2	---	---	---	---	---	---
13	21.1	20.8	20.9	12.7	12.6	12.6	---	---	---	---	---	---
14	20.8	20.4	20.6	12.7	12.3	12.5	---	---	---	---	---	---
15	20.6	20.4	20.5	12.4	12.3	12.3	---	---	---	---	---	---
16	20.6	20.5	20.6	13.0	12.3	12.5	---	---	---	---	---	---
17	20.5	20.0	20.4	12.4	12.0	12.2	---	---	---	---	---	---
18	20.8	20.1	20.4	12.0	11.9	11.9	---	---	---	---	---	---
19	20.1	19.9	20.0	11.8	11.6	11.7	---	---	---	---	---	---
20	19.7	19.3	19.5	11.7	11.6	11.6	---	---	---	---	---	---
21	19.2	19.0	19.0	11.7	11.5	11.6	---	---	---	---	---	---
22	18.9	18.6	18.7	12.2	11.5	11.9	---	---	---	---	---	---
23	18.8	18.2	18.5	12.4	11.9	12.2	---	---	---	---	---	---
24	18.5	18.3	18.4	12.2	12.0	12.1	---	---	---	---	---	---
25	18.3	18.0	18.1	12.0	11.9	11.9	---	---	---	---	---	---
26	17.8	17.1	17.4	12.4	11.8	12.1	---	---	---	---	---	---
27	17.0	16.7	16.9	12.7	11.7	12.2	---	---	---	---	---	---
28	16.7	15.5	16.0	12.7	11.8	12.4	---	---	---	---	---	---
29	15.6	14.8	15.2	12.6	12.0	12.3	---	---	---	---	---	---
30	14.9	14.7	14.8	12.0	11.9	12.0	---	---	---	---	---	---
31	14.6	14.4	14.5	---	---	---	---	---	---	---	---	---
MONTH	22.0	14.4	19.6	---	---	---	---	---	---	---	---	---

PUMP NUMBER 2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	13.5	12.5	12.9	14.7	14.1	14.4
2	---	---	---	---	---	---	13.3	12.2	12.8	15.0	14.3	14.6
3	---	---	---	---	---	---	---	---	---	14.6	14.4	14.5
4	---	---	---	---	---	---	14.5	12.4	13.0	14.7	14.4	14.5
5	---	---	---	---	---	---	---	---	---	14.7	14.3	14.5
6	---	---	---	---	---	---	---	---	---	15.1	14.4	14.7
7	---	---	---	---	---	---	---	---	---	15.0	14.5	14.8
8	---	---	---	---	---	---	---	---	---	15.0	14.8	14.8
9	---	---	---	---	---	---	---	---	---	15.1	14.8	15.0
10	---	---	---	---	---	---	---	---	---	15.7	14.8	15.2
11	---	---	---	---	---	---	---	---	---	15.8	15.3	15.5
12	---	---	---	---	---	---	---	---	---	16.2	15.6	15.8
13	---	---	---	---	---	---	---	---	---	17.0	15.6	16.3
14	---	---	---	---	---	---	---	---	---	17.3	16.5	17.0
15	---	---	---	---	---	---	---	---	---	17.8	17.1	17.5
16	---	---	---	---	---	---	---	---	---	17.5	16.6	17.1
17	---	---	---	---	---	---	---	---	---	17.4	16.5	17.0
18	---	---	---	---	---	---	---	---	---	17.7	17.1	17.5
19	---	---	---	---	---	---	---	---	---	17.9	17.3	17.6
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	15.2	13.4	14.2	---	---	---
27	---	---	---	14.7	13.8	14.3	14.1	13.5	13.8	---	---	---
28	---	---	---	---	---	---	14.0	13.8	13.9	---	---	---
29	---	---	---	---	---	---	14.3	13.9	14.1	---	---	---
30	---	---	---	---	---	---	14.5	14.0	14.2	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
PUMP NUMBER 2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	22.6	22.4	22.5	---	---	---	---	---	---
2	---	---	---	22.8	22.4	22.6	---	---	---	---	---	---
3	---	---	---	23.0	22.5	22.7	---	---	---	25.0	24.8	24.9
4	---	---	---	23 2	22.7	22.8	---	---	---	25.0	24.5	24.9
5	---	---	---	23.0	22.9	23.0	---	---	---	25.1	24.6	24.8
6	---	---	---	---	---	---	---	---	---	24.8	24.5	24.7
7	21.7	21.2	21.5	---	---	---	---	---	---	24.6	24.0	24.4
8	21.7	21.4	21.6	23.4	23.2	23.3	---	---	---	24.4	24.0	24.2
9	21.6	21.4	21.5	23.4	22.5	23.1	---	---	---	24.4	24.0	24.2
10	22.1	21.4	21.7	23.3	23.1	23.2	---	---	---	24.4	24.0	24.2
11	22.1	21.8	22.0	23.7	23.6	23.6	---	---	---	24.4	23.9	24.2
12	22.2	22.0	22.1	23.8	23.4	23.6	---	---	---	24.5	24.0	24.2
13	22.4	21.9	22.2	23.9	23.7	23.8	---	---	---	24.4	23.9	24.2
14	22.0	21.8	21.9	23.9	23.7	23.8	---	---	---	24.5	23.9	24.2
15	22.0	21.6	21.8	24.0	23.9	23.9	---	---	---	24.3	24.1	24.2
16	21.9	21.7	21.8	24.4	23.9	24.0	---	---	---	24.4	24.1	24.2
17	22.2	21.8	22.0	24.4	24.0	24.2	---	---	---	24.6	24.1	24.3
18	22.3	21.9	22.0	24.3	24.1	24.2	---	---	---	24.5	24.2	24.3
19	22.1	21.9	22.0	24.3	24.1	24.2	---	---	---	24.6	24.1	24.3
20	22.1	21.9	22.0	---	---	---	---	---	---	24.4	24.1	24.2
21	22.4	21.8	22.1	---	---	---	---	---	---	24.3	23.7	24.0
22	22.3	22.1	22.2	---	---	---	---	---	---	24.0	23.2	23.6
23	22.4	22.1	22.2	---	---	---	---	---	---	23.5	22.9	23.2
24	22.4	22.0	22.2	---	---	---	---	---	---	23.4	22.9	23.1
25	22.8	22.2	22.6	---	---	---	---	---	---	22.7	22.2	22.5
26	23.0	22.7	22.9	---	---	---	---	---	---	22.6	21.9	22.3
27	23.1	22.7	22.9	---	---	---	---	---	---	22.0	21.7	21.8
28	23.1	22.3	22.6	---	---	---	---	---	---	21.5	21.3	21.4
29	22.5	22.1	22.4	---	---	---	---	---	---	21.2	20.9	21.0
30	22.7	22.2	22.5	---	---	---	---	---	---	21.1	20.6	20.9
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

PUMP NUMBER 3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	23.0	22.6	22.7	---	---	---	---	---	---	---	---	---
2	22.6	22.5	22.5	---	---	---	---	---	---	---	---	---
3	22.6	22.5	22.6	---	---	---	---	---	---	---	---	---
4	22.2	22.1	22.2	---	---	---	---	---	---	---	---	---
5	22.3	22.3	22.3	---	---	---	---	---	---	---	---	---
6	22.3	22.2	22.2	---	---	---	---	---	---	---	---	---
7	22.4	22.2	22.3	---	---	---	---	---	---	---	---	---
8	22.3	22.1	22.2	---	---	---	---	---	---	---	---	---
9	22.7	22.1	22.3	15.4	15.1	15.3	---	---	---	---	---	---
10	22.3	22.2	22.3	15.3	14.7	15.0	---	---	---	---	---	---
11	22.2	21.8	21.9	15.0	14.4	14.8	---	---	---	---	---	---
12	21.7	21.5	21.6	14.9	14.3	14.6	---	---	---	---	---	---
13	21.6	21.5	21.6	14.6	13.5	14.2	---	---	---	---	---	---
14	21.7	21.4	21.5	15.2	13.8	14.3	---	---	---	---	---	---
15	21.6	21.4	21.6	15.1	13.8	14.3	---	---	---	---	---	---
16	21.3	21.1	21.2	14.6	13.8	14.3	---	---	---	---	---	---
17	21.9	21.1	21.3	14.3	13.7	14.1	---	---	---	---	---	---
18	21.5	21.1	21.3	13.9	13.2	13.5	---	---	---	---	---	---
19	20.9	20.4	20.6	13.2	11.9	12.5	---	---	---	---	---	---
20	20.9	20.3	20.5	13.2	12.0	12.4	---	---	---	---	---	---
21	21.0	19.8	20.1	12.6	11.9	12.2	---	---	---	---	---	---
22	20.0	19.7	19.8	12.6	12.0	12.3	---	---	---	---	---	---
23	19.8	19.5	19.6	12.9	12.4	12.6	---	---	---	---	---	---
24	19.5	19.2	19.3	13.0	12.3	12.6	---	---	---	---	---	---
25	19.1	18.6	18.8	12.9	12.3	12.5	---	---	---	---	---	---
26	18.4	17.9	18.2	13.1	12.1	12.6	---	---	---	---	---	---
27	18.1	17.5	17.7	12.5	13.5	12.9	---	---	---	---	---	---
28	17.8	17.4	17.6	13.7	13.0	13.2	---	---	---	---	---	---
29	17.8	16.6	17.1	13.1	12.7	12.8	---	---	---	---	---	---
30	18.0	16.6	16.9	12.4	12.1	12.2	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
PUMP NUMBER 3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	17.0	15.4	16.3
2	---	---	---	---	---	---	---	---	---	17.5	15.3	16.4
3	---	---	---	---	---	---	---	---	---	17.9	16.1	17.0
4	---	---	---	---	---	---	---	---	---	18.0	16.1	16.8
5	---	---	---	---	---	---	---	---	---	17.8	16.1	16.9
6	---	---	---	---	---	---	---	---	---	17.6	16.6	17.2
7	---	---	---	---	---	---	---	---	---	18.6	17.3	18.0
8	---	---	---	---	---	---	---	---	---	19.0	17.5	18.6
9	---	---	---	---	---	---	---	---	---	18.7	17.6	18.2
10	---	---	---	---	---	---	---	---	---	19.2	18.5	18.8
11	---	---	---	---	---	---	16.5	15.5	16.2	19.3	18.5	19.0
12	---	---	---	---	---	---	16.6	15.3	16.3	20.3	19.1	19.6
13	---	---	---	---	---	---	---	---	---	20.2	19.6	19.8
14	---	---	---	---	---	---	---	---	---	20.2	19.6	19.8
15	---	---	---	---	---	---	---	---	---	20.5	19.6	20.1
16	---	---	---	---	---	---	16.3	16.0	16.2	20.6	20.0	20.3
17	---	---	---	---	---	---	16.2	15.9	16.0	21.4	20.2	20.5
18	---	---	---	---	---	---	17.0	15.6	16.6	20.9	20.4	20.8
19	---	---	---	11.1	10.8	11.0	---	---	---	21.1	20.6	21.0
20	---	---	---	---	---	---	16.7	15.7	16.2	21.2	20.2	20.7
21	---	---	---	---	---	---	16.7	15.1	16.0	20.8	20.0	20.4
22	---	---	---	---	---	---	16.0	14.9	15.5	20.5	20.0	20.2
23	---	---	---	---	---	---	15.9	14.9	15.2	20.8	20.3	20.6
24	---	---	---	---	---	---	15.1	14.6	14.8	21.0	20.5	20.6
25	---	---	---	11.7	11.3	11.5	15.9	15.0	15.6	21.4	20.6	21.0
26	---	---	---	11.6	11.2	11.4	15.8	14.5	15.5	21.8	21.0	21.3
27	---	---	---	11.7	11.3	11.4	15.6	14.7	15.0	22.2	21.4	21.8
28	---	---	---	---	---	---	15.8	14.7	15.0	22.3	21.6	21.9
29	---	---	---	---	---	---	16.0	15.0	15.2	22.3	19.1	21.6
30	---	---	---	---	---	---	16.2	14.9	15.6	22.6	21.7	22.3
31	---	---	---	---	---	---	---	---	---	23.1	22.5	22.8
MONTH	---	---	---	---	---	---	---	---	---	23.1	15.3	19.7

PUMP NUMBER 3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	23.0	22.9	23.0	---	---	---	---	---	---	26.9	25.3	26.5
2	---	---	---	---	---	---	---	---	---	26.3	25.5	25.9
3	---	---	---	---	---	---	---	---	---	25.9	23.5	24.6
4	---	---	---	---	---	---	---	---	---	25.8	23.5	25.1
5	---	---	---	---	---	---	---	---	---	25.2	23.8	24.8
6	24.3	23.6	23.9	26.7	26.5	26.6	---	---	---	25.2	24.7	24.9
7	24.3	23.3	23.8	26.8	26.6	26.7	---	---	---	24.9	23.6	24.5
8	---	---	---	26.9	26.7	26.8	---	---	---	25.0	23.2	24.6
9	---	---	---	27.0	25.7	26.4	---	---	---	25.0	23.0	24.5
10	---	---	---	27.0	26.2	26.6	---	---	---	25.4	23.4	24.9
11	---	---	---	26.7	26.0	26.4	---	---	---	25.5	24.1	24.8
12	---	---	---	26.9	26.0	26.6	26.7	26.6	26.7	25.2	23.7	24.8
13	---	---	---	27.1	26.1	26.6	26.5	24.6	26.0	25.4	25.1	25.2
14	---	---	---	27.0	24.4	26.4	26.2	23.6	25.6	25.6	25.2	25.4
15	---	---	---	27.1	25.1	26.4	26.6	24.7	25.8	25.6	23.5	24.8
16	---	---	---	27.1	26.4	26.8	25.8	23.7	24.8	25.6	23.9	25.2
17	---	---	---	27.3	26.6	27.1	26.1	25.7	25.8	25.8	23.3	24.7
18	25.1	24.0	24.4	27.1	26.4	26.8	---	---	---	26.3	24.4	25.4
19	24.9	23.9	24.4	27.1	22.6	25.6	---	---	---	25.7	25.0	25.3
20	24.8	24.0	24.4	---	---	---	---	---	---	24.9	24.5	24.7
21	25.5	24.3	24.9	---	---	---	---	---	---	24.2	23.9	24.0
22	25.9	24.5	25.2	---	---	---	---	---	---	24.7	23.7	24.3
23	---	---	---	---	---	---	---	---	---	24.5	23.4	23.7
24	---	---	---	---	---	---	---	---	---	23.3	22.5	23.0
25	---	---	---	---	---	---	---	---	---	23.1	22.7	22.9
26	25.0	23.9	24.6	---	---	---	26.8	25.7	26.2	22.8	22.1	22.6
27	---	---	---	---	---	---	26.8	25.7	26.1	22.3	21.7	22.0
28	---	---	---	---	---	---	26.9	24.9	26.2	21.7	21.5	21.6
29	---	---	---	---	---	---	26.9	25.3	26.9	21.5	21.5	21.5
30	---	---	---	---	---	---	27.2	25.7	26.7	21.6	21.4	21.5
31	---	---	---	---	---	---	27.3	24.9	26.6	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	26.9	21.4	24.3

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
PUMP NUMBER 4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	23.1	22.5	22.8	---	---	---	---	---	---	---	---	---
2	23.7	22.2	22.9	---	---	---	---	---	---	---	---	---
3	23.3	22.7	23.0	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	23.3	23.0	23.2	---	---	---	---	---	---	---	---	---
6	23.3	22.3	22.8	---	---	---	---	---	---	---	---	---
7	23.3	22.2	22.7	---	---	---	---	---	---	---	---	---
8	22.7	22.3	22.4	---	---	---	---	---	---	---	---	---
9	23.3	22.2	22.7	14.6	14.5	14.5	---	---	---	---	---	---
10	22.7	22.2	22.5	14.4	13.4	14.3	---	---	---	---	---	---
11	22.0	21.6	21.7	14.3	13.8	14.0	---	---	---	---	---	---
12	22.1	21.4	21.7	14.2	13.7	13.9	---	---	---	---	---	---
13	21.8	21.4	21.6	13.3	13.2	13.2	---	---	---	---	---	---
14	22.3	21.3	21.6	---	---	---	---	---	---	---	---	---
15	21.5	21.1	21.3	---	---	---	---	---	---	---	---	---
16	22.0	20.9	21.2	---	---	---	---	---	---	---	---	---
17	21.6	20.9	21.2	---	---	---	---	---	---	---	---	---
18	21.3	20.9	21.1	---	---	---	---	---	---	---	---	---
19	20.7	20.2	20.4	---	---	---	---	---	---	---	---	---
20	20.8	19.8	20.1	---	---	---	---	---	---	---	---	---
21	20.6	19.6	19.8	---	---	---	---	---	---	---	---	---
22	19.6	19.4	19.5	---	---	---	---	---	---	---	---	---
23	19.5	19.2	19.4	---	---	---	---	---	---	---	---	---
24	19.2	18.9	19.0	---	---	---	---	---	---	---	---	---
25	18.8	18.3	18.6	---	---	---	---	---	---	---	---	---
26	18.0	17.5	17.8	---	---	---	---	---	---	---	---	---
27	17.7	17.0	17.4	---	---	---	---	---	---	---	---	---
28	17.4	16.9	17.1	---	---	---	---	---	---	---	---	---
29	17.1	16.2	16.6	---	---	---	---	---	---	---	---	---
30	16.5	16.0	16.4	---	---	---	---	---	---	---	---	---
31	16.4	16.0	16.2	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

PUMP NUMBER 4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	20.3	19.3	19.7
2	---	---	---	---	---	---	---	---	---	20.7	19.7	20.2
3	---	---	---	---	---	---	---	---	---	21.3	19.3	20.3
4	---	---	---	---	---	---	---	---	---	22.0	20.1	20.9
5	---	---	---	---	---	---	---	---	---	21.7	20.8	21.2
6	---	---	---	---	---	---	---	---	---	21.2	20.6	20.9
7	---	---	---	---	---	---	---	---	---	21.3	19.7	20.2
8	---	---	---	---	---	---	---	---	---	20.8	19.4	20.0
9	---	---	---	---	---	---	---	---	---	21.0	20.4	20.7
10	---	---	---	---	---	---	---	---	---	23.0	20.4	21.5
11	---	---	---	---	---	---	---	---	---	23.6	21.8	22.6
12	---	---	---	---	---	---	---	---	---	23.4	22.2	22.6
13	---	---	---	---	---	---	---	---	---	23.5	21.9	22.6
14	---	---	---	---	---	---	---	---	---	24.0	22.6	23.1
15	---	---	---	---	---	---	---	---	---	25.1	22.3	23.6
16	---	---	---	---	---	---	---	---	---	24.7	23.7	24.0
17	---	---	---	---	---	---	---	---	---	25.6	23.8	24.6
18	---	---	---	---	---	---	---	---	---	25.0	23.7	24.4
19	---	---	---	---	---	---	---	---	---	24.0	23.4	23.7
20	---	---	---	---	---	---	---	---	---	23.2	22.5	22.8
21	---	---	---	---	---	---	---	---	---	22.6	22.2	22.4
22	---	---	---	---	---	---	---	---	---	24.8	22.4	23.4
23	---	---	---	---	---	---	---	---	---	23.6	23.0	23.5
24	---	---	---	---	---	---	---	---	---	26.2	23.6	24.4
25	---	---	---	---	---	---	---	---	---	26.3	23.8	25.0
26	---	---	---	---	---	---	---	---	---	26.1	25.2	25.6
27	---	---	---	---	---	---	20.0	18.2	19.0	25.7	25.2	25.5
28	---	---	---	---	---	---	19.9	18.5	19.2	26.2	25.4	25.7
29	---	---	---	---	---	---	20.5	19.3	19.8	27.2	25.4	26.0
30	---	---	---	---	---	---	20.1	19.2	19.7	27.6	25.1	26.1
31	---	---	---	---	---	---	---	---	---	27.0	26.4	26.6
MONTH	---	---	---	---	---	---	---	---	---	27.6	19.3	23.0

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
PUMP NUMBER 4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	26.0	25.8	25.9
4	---	---	---	---	---	---	---	---	---	26.2	25.6	25.9
5	---	---	---	---	---	---	---	---	---	25.9	25.6	25.7
6	26.1	25.6	25.9	---	---	---	---	---	---	26.4	25.4	25.9
7	26.8	25.2	25.8	---	---	---	---	---	---	27.0	25.4	26.1
8	26.1	25.1	25.4	---	---	---	---	---	---	27.6	25.4	26.5
9	27.4	24.6	26.0	---	---	---	---	---	---	27.5	26.3	26.9
10	26.8	25.1	26.0	---	---	---	---	---	---	26.6	25.9	26.2
11	25.6	25.2	25.4	---	---	---	---	---	---	26.8	25.6	26.1
12	25.3	25.0	25.1	---	---	---	27.6	27.4	27.5	27.2	25.5	26.2
13	27.4	25.0	26.0	---	---	---	27.5	27.0	27.2	27.6	25.9	26.7
14	28.2	25.4	26.8	---	---	---	27.2	26.9	27.0	27.7	26.5	26.9
15	26.6	26.1	26.4	---	---	---	27.7	26.8	27.0	28.7	26.5	27.4
16	27.2	25.8	26.4	---	---	---	28.2	26.2	26.9	28.3	27.1	27.7
17	27.0	25.7	26.4	---	---	---	28.0	26.6	27.2	28.1	27.0	27.5
18	28.0	25.7	26.9	---	---	---	---	---	---	27.7	26.6	27.2
19	27.0	26.5	26.7	---	---	---	---	---	---	27.0	25.6	26.2
20	26.8	26.2	26.5	---	---	---	---	---	---	25.7	24.9	25.2
21	27.5	26.1	26.8	---	---	---	---	---	---	26.0	24.5	25.0
22	27.3	26.3	26.8	---	---	---	---	---	---	25.2	24.1	24.6
23	27.3	26.4	26.6	---	---	---	---	---	---	24.1	23.8	23.9
24	27.2	25.8	26.4	---	---	---	---	---	---	23.7	23.4	23.5
25	---	---	---	---	---	---	---	---	---	23.3	23.3	23.3
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
PUMP NUMBER 1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	8.4	8.3	8.4	---	---	---	---	---	---
10	---	---	---	8.6	8.4	8.5	---	---	---	---	---	---
11	---	---	---	8.6	8.4	8.5	---	---	---	---	---	---
12	---	---	---	8.9	8.5	8.7	---	---	---	---	---	---
13	---	---	---	8.9	8.8	8.8	---	---	---	---	---	---
14	---	---	---	8.9	8.8	8.9	---	---	---	---	---	---
15	---	---	---	8.9	8.7	8.8	---	---	---	---	---	---
16	---	---	---	8.8	8.6	8.7	---	---	---	---	---	---
17	---	---	---	8.8	8.6	8.7	---	---	---	---	---	---
18	---	---	---	9.1	8.8	9.0	---	---	---	---	---	---
19	---	---	---	9.3	9.1	9.2	---	---	---	---	---	---
20	---	---	---	9.3	9.0	9.1	---	---	---	---	---	---
21	7.5	7.1	7.4	9.2	9.1	9.2	---	---	---	---	---	---
22	7.6	7.5	7.5	9.2	8.9	9.0	---	---	---	---	---	---
23	7.5	7.1	7.3	9.6	9.1	9.5	---	---	---	---	---	---
24	7.1	7.0	7.0	9.7	9.6	9.6	---	---	---	---	---	---
25	7.1	6.8	6.9	9.7	9.6	9.7	---	---	---	---	---	---
26	7.7	7.4	7.5	9.8	9.4	9.6	---	---	---	---	---	---
27	7.7	7.6	7.7	9.6	9.4	9.5	---	---	---	---	---	---
28	7.9	7.6	7.7	9.5	9.1	9.4	---	---	---	---	---	---
29	7.9	7.8	7.9	9.4	9.1	9.2	---	---	---	---	---	---
30	7.8	7.8	7.8	9.7	9.1	9.4	---	---	---	---	---	---
31	7.9	7.6	7.7	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY
PUMP NUMBER 1

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	8.5	8.0	8.2
2	---	---	---	---	---	---	---	---	---	8.2	7.7	7.9
3	---	---	---	---	---	---	---	---	---	7.9	7.5	7.7
4	---	---	---	---	---	---	---	---	---	7.8	7.5	7.6
5	---	---	---	---	---	---	---	---	---	7.6	7.1	7.3
6	---	---	---	---	---	---	---	---	---	7.1	6.6	6.9
7	---	---	---	---	---	---	---	---	---	7.5	6.8	7.2
8	---	---	---	---	---	---	10.2	10.2	10.2	7.3	7.1	7.2
9	---	---	---	---	---	---	10.3	10.0	10.2	7.1	6.8	7.0
10	---	---	---	---	---	---	10.3	10.0	10.1	7.4	6.7	7.1
11	---	---	---	---	---	---	10.4	9.9	10.1	7.3	6.8	7.2
12	---	---	---	---	---	---	10.3	9.9	10.1	7.0	6.4	6.8
13	---	---	---	---	---	---	10.0	9.9	9.9	7.7	6.6	7.4
14	---	---	---	---	---	---	9.9	9.4	9.6	7.5	7.1	7.3
15	---	---	---	---	---	---	9.6	9.5	9.6	7.4	6.1	6.8
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	7.6	6.8	7.1
22	---	---	---	---	---	---	---	---	---	7.2	6.8	7.0
23	---	---	---	---	---	---	---	---	---	7.4	7.0	7.3
24	---	---	---	---	---	---	---	---	---	7.6	6.7	7.2
25	---	---	---	10.8	10.3	10.6	9.2	8.9	9.0	7.1	6.6	6.9
26	---	---	---	11.3	10.5	10.7	9.0	8.8	8.9	7.2	6.4	6.8
27	---	---	---	10.6	10.5	10.6	9.0	8.6	8.8	6.7	6.3	6.6
28	---	---	---	---	---	---	8.9	8.5	8.7	7.0	6.4	6.6
29	---	---	---	---	---	---	8.7	8.4	8.6	6.6	6.1	6.4
30	---	---	---	---	---	---	8.4	8.1	8.2	6.4	5.8	6.2
31	---	---	---	---	---	---	---	---	---	6.3	5.9	6.1
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

PUMP NUMBER 1

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

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY
PUMP NUMBER 2

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	8.3	8.3	8.3	---	---	---	---	---	---
10	---	---	---	8.5	8.3	8.4	---	---	---	---	---	---
11	---	---	---	8.6	8.3	8.5	---	---	---	---	---	---
12	7.1	5.3	6.6	8.8	8.5	8.7	---	---	---	---	---	---
13	7.3	5.8	6.8	8.8	8.7	8.8	---	---	---	---	---	---
14	6.3	5.2	5.9	8.9	8.7	8.9	---	---	---	---	---	---
15	6.1	5.6	5.9	8.9	8.8	8.9	---	---	---	---	---	---
16	6.8	5.9	6.4	9.0	8.8	8.9	---	---	---	---	---	---
17	7.0	5.0	6.3	8.9	8.8	8.8	---	---	---	---	---	---
18	7.3	5.7	6.3	9.1	9.0	9.0	---	---	---	---	---	---
19	7.3	5.8	6.6	9.4	9.1	9.2	---	---	---	---	---	---
20	7.3	7.1	7.2	9.4	9.3	9.3	---	---	---	---	---	---
21	7.3	6.8	7.1	9.3	9.2	9.2	---	---	---	---	---	---
22	7.6	7.2	7.3	9.5	9.2	9.3	---	---	---	---	---	---
23	8.0	6.9	7.3	9.7	9.6	9.6	---	---	---	---	---	---
24	7.2	6.9	7.1	9.8	9.7	9.7	---	---	---	---	---	---
25	8.2	6.7	7.3	9.8	9.6	9.7	---	---	---	---	---	---
26	7.7	7.4	7.5	9.8	9.7	9.8	---	---	---	---	---	---
27	7.7	7.6	7.6	9.8	9.5	9.7	---	---	---	---	---	---
28	7.7	7.5	7.7	10.0	9.4	9.7	---	---	---	---	---	---
29	7.9	7.8	7.8	10.0	9.3	9.7	---	---	---	---	---	---
30	7.8	7.6	7.7	9.7	9.5	9.6	---	---	---	---	---	---
31	7.8	7.7	7.7	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

PUMP NUMBER 2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	10.7	10.0	10.5	8.6	8.3	8.4
2	---	---	---	---	---	---	10.9	10.3	10.6	8.4	8.2	8.4
3	---	---	---	---	---	---	10.4	10.3	10.4	8.3	8.2	8.2
4	---	---	---	---	---	---	10.8	9.9	10.3	8.2	8.0	8.1
5	---	---	---	---	---	---	---	---	---	8.1	7.9	8.0
6	---	---	---	---	---	---	---	---	---	8.0	7.6	7.8
7	---	---	---	---	---	---	---	---	---	8.5	7.5	8.0
8	---	---	---	---	---	---	10.7	9.6	10.2	8.4	8.2	8.3
9	---	---	---	---	---	---	10.6	9.3	10.0	8.3	8.0	8.2
10	---	---	---	---	---	---	11.2	9.9	10.3	8.4	7.8	8.1
11	---	---	---	---	---	---	---	---	---	8.5	8.3	8.4
12	---	---	---	---	---	---	---	---	---	8.6	8.0	8.4
13	---	---	---	---	---	---	---	---	---	8.8	8.1	8.5
14	---	---	---	---	---	---	---	---	---	9.0	8.4	8.8
15	---	---	---	---	---	---	9.2	8.8	9.0	8.9	8.1	8.6
16	---	---	---	---	---	---	9.4	8.8	9.1	9.0	7.9	8.4
17	---	---	---	---	---	---	9.9	8.7	9.2	8.6	8.2	8.4
18	---	---	---	---	---	---	9.8	8.8	9.2	8.5	8.4	8.5
19	---	---	---	---	---	---	---	---	---	8.5	8.4	8.4
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	8.6	7.8	8.2
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	11.3	10.5	10.8	---	---	---
25	---	---	---	---	---	---	10.5	9.0	9.5	---	---	---
26	---	---	---	---	---	---	9.2	8.7	8.9	---	---	---
27	---	---	---	10.2	9.4	9.8	9.0	8.8	8.9	---	---	---
28	---	---	---	10.2	10.0	10.1	9.0	8.8	8.9	---	---	---
29	---	---	---	---	---	---	8.7	8.5	8.6	---	---	---
30	---	---	---	---	---	---	8.7	8.2	8.5	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY
PUMP NUMBER 2

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	4.8	4.5	4.6	---	---	---	---	---	---
2	---	---	---	4.7	4.5	4.6	---	---	---	---	---	---
3	---	---	---	4.6	4.5	4.5	---	---	---	---	---	---
4	---	---	---	4.8	4.4	4.6	---	---	---	---	---	---
5	---	---	---	4.6	4.6	4.6	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	7.1	6.5	6.9	---	---	---	---	---	---	---	---	---
8	7.1	6.8	7.0	4.6	4.5	4.6	---	---	---	---	---	---
9	6.9	6.7	6.8	4.7	4.3	4.4	---	---	---	---	---	---
10	7.3	6.7	6.9	4.5	4.2	4.4	---	---	---	---	---	---
11	7.1	6.9	7.0	4.6	4.3	4.4	---	---	---	---	---	---
12	7.1	6.9	7.0	4.7	4.0	4.4	---	---	---	---	---	---
13	7.2	6.7	7.0	4.8	4.3	4.6	---	---	---	---	---	---
14	6.7	6.5	6.6	4.8	4.4	4.6	---	---	---	---	---	---
15	6.6	6.2	6.4	4.8	4.5	4.6	---	---	---	---	---	---
16	6.4	6.1	6.3	5.2	4.5	4.7	---	---	---	---	---	---
17	6.5	6.1	6.3	5.2	4.4	4.8	---	---	---	---	---	---
18	6.3	5.4	5.9	---	---	---	---	---	---	---	---	---
19	5.6	5.2	5.4	---	---	---	---	---	---	---	---	---
20	5.8	5.4	5.6	---	---	---	---	---	---	---	---	---
21	5.9	5.4	5.7	---	---	---	---	---	---	---	---	---
22	5.9	5.8	5.8	---	---	---	---	---	---	---	---	---
23	6.1	5.7	5.9	---	---	---	---	---	---	---	---	---
24	6.2	5.9	6.0	---	---	---	---	---	---	---	---	---
25	6.8	6.1	6.4	---	---	---	---	---	---	5.7	5.3	5.5
26	6.9	5.1	5.9	---	---	---	---	---	---	6.1	5.5	5.8
27	5.3	5.0	5.2	---	---	---	---	---	---	6.5	5.8	6.2
28	5.6	4.9	5.1	---	---	---	---	---	---	6.1	5.0	5.6
29	4.9	4.7	4.8	---	---	---	---	---	---	---	---	---
30	4.8	4.6	4.7	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

PUMP NUMBER 3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	7.4	7.1	7.2	---	---	---	---	---	---	---	---	---
6	7.7	6.8	7.2	---	---	---	---	---	---	---	---	---
7	7.5	7.1	7.4	---	---	---	---	---	---	---	---	---
8	7.9	6.2	7.0	---	---	---	---	---	---	---	---	---
9	7.9	6.7	7.2	8.3	8.2	8.2	---	---	---	---	---	---
10	8.1	7.6	7.9	8.4	8.2	8.3	---	---	---	---	---	---
11	7.6	7.3	7.4	8.6	8.1	8.4	---	---	---	---	---	---
12	7.3	7.1	7.2	8.8	8.5	8.6	---	---	---	---	---	---
13	7.4	7.3	7.3	8.9	8.6	8.8	---	---	---	---	---	---
14	7.6	7.3	7.4	8.8	8.6	8.8	---	---	---	---	---	---
15	7.7	6.8	7.3	8.9	8.7	8.8	---	---	---	---	---	---
16	7.5	6.8	7.0	9.0	8.8	8.9	---	---	---	---	---	---
17	7.6	6.8	7.1	9.3	8.8	9.0	---	---	---	---	---	---
18	7.7	6.7	7.3	9.3	8.8	9.0	---	---	---	---	---	---
19	7.6	7.1	7.3	9.4	8.9	9.2	---	---	---	---	---	---
20	7.6	7.3	7.4	9.4	9.1	9.3	---	---	---	---	---	---
21	7.6	7.2	7.4	9.4	9.3	9.4	---	---	---	---	---	---
22	7.8	7.5	7.6	9.6	9.3	9.4	---	---	---	---	---	---
23	7.6	7.4	7.5	9.7	9.5	9.6	---	---	---	---	---	---
24	7.6	7.3	7.4	9.8	9.7	9.7	---	---	---	---	---	---
25	7.5	7.3	7.4	9.9	9.8	9.8	---	---	---	---	---	---
26	7.6	7.4	7.5	9.9	9.8	9.8	---	---	---	---	---	---
27	7.8	7.6	7.7	9.8	9.8	9.8	---	---	---	---	---	---
28	7.9	7.7	7.8	9.9	9.8	9.8	---	---	---	---	---	---
29	8.0	7.8	7.8	10.0	9.9	9.9	---	---	---	---	---	---
30	8.0	7.7	7.8	9.8	9.6	9.7	---	---	---	---	---	---
31	8.0	7.7	7.9	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY
PUMP NUMBER 3

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	10.7	10.0	10.4	8.2	7.0	7.8
2	---	---	---	---	---	---	10.9	10.1	10.5	8.4	7.6	8.1
3	---	---	---	---	---	---	10.8	10.1	10.4	8.2	7.6	7.9
4	---	---	---	---	---	---	10.8	9.7	10.3	8.1	7.8	8.0
5	---	---	---	---	---	---	10.7	9.7	10.2	8.1	7.5	7.9
6	---	---	---	---	---	---	10.8	9.6	10.3	8.1	6.9	7.6
7	---	---	---	---	---	---	10.9	9.6	10.2	8.9	7.7	8.3
8	---	---	---	---	---	---	9.8	9.4	9.6	8.5	7.9	8.4
9	---	---	---	---	---	---	10.1	9.2	9.5	8.7	8.2	8.5
10	---	---	---	---	---	---	10.1	9.5	9.8	8.7	8.3	8.5
11	---	---	---	---	---	---	9.8	9.3	9.5	8.5	7.4	8.2
12	---	---	---	---	---	---	9.8	9.5	9.6	8.4	8.0	8.3
13	---	---	---	---	---	---	9.7	9.4	9.6	8.6	6.9	7.8
14	---	---	---	---	---	---	9.8	9.4	9.6	8.4	8.0	8.2
15	---	---	---	---	---	---	9.7	9.2	9.4	8.3	8.0	8.1
16	---	---	---	---	---	---	9.3	8.8	9.0	8.1	7.0	7.9
17	---	---	---	---	---	---	8.9	8.7	8.8	8.2	7.5	7.9
18	---	---	---	---	---	---	9.0	9.0	9.0	8.1	7.7	7.9
19	---	---	---	---	---	---	9.0	8.7	8.9	7.9	7.8	7.8
20	---	---	---	---	---	---	8.9	8.7	8.8	8.5	7.4	8.1
21	---	---	---	---	---	---	8.8	8.6	8.7	8.7	7.3	8.2
22	---	---	---	---	---	---	9.4	8.4	8.9	8.7	8.3	8.5
23	---	---	---	---	---	---	9.3	8.6	9.0	8.6	8.2	8.4
24	---	---	---	---	---	---	9.0	8.7	8.8	8.5	7.8	8.3
25	---	---	---	10.6	10.4	10.5	9.7	8.0	9.1	8.8	8.0	8.5
26	---	---	---	10.7	9.6	10.1	9.6	7.5	9.0	8.8	8.2	8.4
27	---	---	---	10.2	10.0	10.1	7.4	7.1	7.2	8.7	8.1	8.5
28	---	---	---	10.5	9.7	10.0	7.4	6.4	7.0	8.7	7.9	8.4
29	---	---	---	10.4	9.4	9.8	7.5	7.2	7.4	8.9	8.3	8.5
30	---	---	---	10.5	9.4	10.1	8.2	7.1	7.7	8.9	8.1	8.5
31	---	---	---	10.5	9.9	10.2	---	---	---	8.9	8.6	8.7
MONTH	---	---	---	---	---	---	10.9	6.4	9.2	8.9	6.9	8.2

PUMP NUMBER 3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.8	8.6	8.7	8.5	8.1	8.4	---	---	---	7.2	6.0	6.7
2	---	---	---	8.6	7.5	8.1	---	---	---	7.2	5.9	6.7
3	---	---	---	8.9	7.7	8.4	---	---	---	7.4	6.3	6.8
4	---	---	---	8.3	7.8	8.1	---	---	---	7.5	6.2	6.9
5	---	---	---	8.6	8.4	8.5	---	---	---	7.6	6.7	7.0
6	9.0	8.9	9.0	---	---	---	---	---	---	6.8	5.9	6.4
7	9.2	8.4	8.8	---	---	---	---	---	---	7.2	6.3	6.6
8	8.9	7.8	8.4	---	---	---	---	---	---	7.8	5.7	7.1
9	8.7	7.2	8.2	8.7	8.0	8.3	---	---	---	7.9	6.2	7.3
10	9.0	7.7	8.4	8.7	7.9	8.3	---	---	---	8.0	5.8	7.2
11	8.6	7.2	8.1	8.4	7.8	8.1	---	---	---	8.1	5.7	6.8
12	8.7	7.2	8.2	8.4	7.8	8.1	7.1	6.9	7.0	8.3	6.7	7.6
13	8.6	7.2	8.1	8.5	8.1	8.3	6.9	5.7	6.5	8.5	8.0	8.3
14	8.1	7.2	7.5	8.6	7.1	8.2	6.8	6.4	6.6	8.3	5.3	7.3
15	---	---	---	8.7	8.1	8.4	6.2	6.0	6.1	8.1	6.0	7.5
16	---	---	---	8.3	8.1	8.2	6.6	5.6	6.0	8.5	7.1	8.0
17	---	---	---	8.5	7.9	8.2	7.2	6.5	6.8	8.4	6.6	7.5
18	---	---	---	8.8	7.7	8.2	---	---	---	8.5	7.8	8.2
19	---	---	---	7.9	7.5	7.7	---	---	---	8.4	6.8	7.6
20	---	---	---	---	---	---	---	---	---	6.9	6.2	6.5
21	---	---	---	---	---	---	---	---	---	5.9	5.1	5.4
22	---	---	---	---	---	---	---	---	---	5.4	4.6	5.2
23	---	---	---	---	---	---	---	---	---	5.8	4.1	5.2
24	---	---	---	---	---	---	---	---	---	5.4	4.5	5.0
25	---	---	---	---	---	---	---	---	---	5.7	5.2	5.4
26	---	---	---	---	---	---	7.6	6.3	7.1	6.3	5.5	5.8
27	8.3	8.0	8.2	---	---	---	7.4	6.2	7.0	6.5	5.0	6.0
28	8.3	7.4	7.9	---	---	---	7.3	6.1	6.9	6.3	6.0	6.1
29	8.3	7.0	7.9	---	---	---	7.3	6.1	6.8	6.3	6.0	6.2
30	8.5	8.0	8.2	---	---	---	7.3	5.8	6.7	6.8	6.3	6.5
31	---	---	---	---	---	---	7.2	6.0	6.7	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	8.5	4.1	6.7

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY
PUMP NUMBER 4

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

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

PUMP NUMBER 4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	8.8	8.7	8.8
2	---	---	---	---	---	---	---	---	---	8.8	8.7	8.8
3	---	---	---	---	---	---	---	---	---	8.8	8.6	8.8
4	---	---	---	---	---	---	---	---	---	8.7	8.6	8.7
5	---	---	---	---	---	---	---	---	---	8.6	8.4	8.5
6	---	---	---	---	---	---	---	---	---	8.9	8.2	8.4
7	---	---	---	---	---	---	---	---	---	9.1	8.2	8.6
8	---	---	---	---	---	---	---	---	---	9.1	8.8	9.0
9	---	---	---	---	---	---	---	---	---	9.1	8.7	8.9
10	---	---	---	---	---	---	---	---	---	9.4	8.8	9.0
11	---	---	---	---	---	---	10.6	9.3	9.9	8.9	8.6	8.7
12	---	---	---	---	---	---	10.3	9.3	9.9	8.8	8.6	8.7
13	---	---	---	---	---	---	10.3	9.3	9.8	8.6	8.4	8.5
14	---	---	---	---	---	---	10.7	9.1	9.7	8.5	8.4	8.5
15	---	---	---	---	---	---	10.3	8.7	9.3	8.5	8.2	8.4
16	---	---	---	---	---	---	10.1	8.5	9.2	8.4	8.1	8.2
17	---	---	---	---	---	---	9.9	8.7	9.1	8.1	8.0	8.0
18	---	---	---	---	---	---	9.8	8.8	9.0	8.1	7.9	8.0
19	---	---	---	---	---	---	9.0	8.2	8.7	8.4	7.9	8.2
20	---	---	---	---	---	---	9.1	8.3	8.8	8.9	8.3	8.6
21	---	---	---	---	---	---	9.5	8.4	8.8	9.0	8.5	8.8
22	---	---	---	---	---	---	10.6	8.4	9.3	8.8	8.5	8.6
23	---	---	---	---	---	---	10.5	8.3	9.2	8.8	8.4	8.6
24	---	---	---	---	---	---	---	---	---	8.7	8.3	8.5
25	---	---	---	---	---	---	9.2	9.1	9.2	8.8	8.2	8.4
26	---	---	---	---	---	---	9.3	9.2	9.2	8.6	8.2	8.4
27	---	---	---	---	---	---	9.1	8.8	9.0	8.3	8.2	8.3
28	---	---	---	---	---	---	9.2	8.9	9.0	8.4	8.1	8.2
29	---	---	---	---	---	---	9.1	8.6	8.9	8.2	7.9	8.1
30	---	---	---	---	---	---	8.9	8.8	8.9	8.8	8.0	8.4
31	---	---	---	---	---	---	---	---	---	8.8	8.1	8.4
MONTH	---	---	---	---	---	---	---	---	---	9.4	7.9	8.5

CUMBERLAND RIVER BASIN

03400798 MARTINS FORK LAKE AT MARTINS FORK DAM NEAR SMITH, KY
PUMP NUMBER 4

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	7.2	6.0	6.7
2	---	---	---	---	---	---	---	---	---	7.2	5.9	6.7
3	---	---	---	---	---	---	---	---	---	7.9	7.6	7.8
4	---	---	---	---	---	---	---	---	---	8.0	7.4	7.7
5	---	---	---	---	---	---	---	---	---	8.1	7.5	7.8
6	---	---	---	---	---	---	---	---	---	7.9	6.7	7.3
7	---	---	---	---	---	---	---	---	---	8.1	6.9	7.6
8	---	---	---	---	---	---	---	---	---	8.3	7.8	8.0
9	---	---	---	---	---	---	---	---	---	8.5	8.1	8.3
10	---	---	---	---	---	---	---	---	---	8.8	8.2	8.5
11	---	---	---	---	---	---	---	---	---	8.7	8.3	8.5
12	---	---	---	---	---	---	7.7	7.1	7.6	8.9	8.0	8.5
13	---	---	---	---	---	---	7.5	7.1	7.3	8.7	8.5	8.6
14	---	---	---	---	---	---	7.4	6.6	7.2	9.0	8.4	8.6
15	---	---	---	---	---	---	7.4	6.4	7.0	8.8	8.5	8.6
16	---	---	---	---	---	---	7.6	7.4	7.0	8.6	8.4	8.5
17	---	---	---	---	---	---	7.8	7.4	7.5	8.6	8.4	8.5
18	---	---	---	---	---	---	---	---	---	8.9	8.4	8.7
19	---	---	---	---	---	---	---	---	---	8.7	8.3	8.4
20	---	---	---	---	---	---	---	---	---	7.6	6.3	7.0
21	---	---	---	---	---	---	---	---	---	6.8	5.4	6.2
22	---	---	---	---	---	---	---	---	---	7.1	5.9	6.5
23	---	---	---	---	---	---	---	---	---	6.2	5.6	6.0
24	---	---	---	---	---	---	---	---	---	5.8	5.7	5.8
25	---	---	---	---	---	---	---	---	---	5.7	5.6	5.6
26	---	---	---	---	---	---	7.6	6.3	7.1	---	---	---
27	---	---	---	---	---	---	7.4	6.2	7.0	---	---	---
28	---	---	---	---	---	---	7.3	6.1	6.9	---	---	---
29	---	---	---	---	---	---	7.3	6.1	6.8	---	---	---
30	---	---	---	---	---	---	7.3	5.8	6.7	---	---	---
31	---	---	---	---	---	---	7.2	6.0	6.7	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

CUMBERLAND RIVER BASIN

03400800 MARTINS FORK NEAR SMITH, KY

LOCATION.--Lat 36°45'08", long 83°15'27", Harlan County, Hydrologic Unit 05130101, on left bank 150 ft downstream from State Highway 987 bridge, 0.3 mi downstream from Martins Fork Dam, 0.7 mi downstream from Crane Creek, 1.0 mi north of Smith, and at mile 15.3.

DRAINAGE AREA.--55.8 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1968-71, and annual maximums, water years 1968-70. April 1971 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,259.00 ft above National Geodetic Vertical Datum of 1929. July 25, 1967 to Apr. 9, 1971, crest-stage gage at site 30 ft downstream at same datum, and Apr. 10, 1971 to Sept. 30, 1977, water-stage recorder at site 0.8 mi downstream at same datum.

REMARKS.--No estimated daily discharges. Water-discharge records good. Flow regulated by Martins Fork Dam (station 03400798) beginning January 1979.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	19	18	606	92	252	360	101	111	25	14	12
2	38	30	18	598	92	251	406	87	112	26	14	11
3	54	40	48	578	93	248	399	56	112	28	15	11
4	56	40	192	559	106	250	389	39	117	28	14	11
5	51	40	256	511	118	253	277	39	129	28	15	11
6	42	40	254	465	118	299	164	39	143	28	14	10
7	42	40	218	440	118	346	164	39	73	28	14	9.0
8	42	40	162	394	134	326	138	39	32	27	15	10
9	52	48	160	398	156	291	109	39	32	27	15	11
10	71	66	116	394	156	287	79	63	50	27	14	12
11	71	65	76	391	155	282	80	80	68	27	13	12
12	71	64	58	391	104	276	96	81	69	29	12	12
13	71	64	42	388	39	237	95	153	52	28	12	12
14	70	64	42	382	143	172	95	191	30	28	12	12
15	50	64	43	376	290	172	72	119	23	28	12	12
16	31	39	43	369	343	170	39	37	24	28	11	12
17	31	17	43	360	340	170	39	37	24	27	12	13
18	38	17	119	320	368	171	68	37	24	25	13	13
19	83	28	260	279	507	206	88	37	24	21	14	14
20	117	53	324	274	967	264	86	48	25	21	14	13
21	116	40	335	266	1230	259	71	132	26	21	14	13
22	115	25	357	230	880	213	123	205	25	21	15	13
23	90	25	464	162	535	209	200	204	25	22	17	13
24	54	25	531	107	522	334	181	142	24	23	13	13
25	72	25	536	91	509	473	159	64	58	23	12	13
26	106	74	535	72	439	503	109	64	89	23	14	13
27	111	114	525	72	333	492	65	64	98	22	14	13
28	111	61	564	72	256	481	65	77	60	22	13	13
29	64	18	608	72	---	387	85	87	25	22	13	13
30	19	18	607	61	---	328	101	87	25	20	13	27
31	19	---	608	71	---	332	---	95	---	14	13	---
TOTAL	1972	1303	8162	9749	9143	8934	4402	2582	1729	767	420	377.0
MEAN	63.6	43.4	263	314	327	288	147	83.3	57.6	24.7	13.5	12.6
MAX	117	114	608	606	1230	503	406	205	143	29	17	27
MIN	14	17	18	61	39	170	39	37	23	14	11	9.0
CFSM	1.14	.78	4.72	5.64	5.85	5.16	2.63	1.49	1.03	.44	.24	.23
IN.	1.31	.87	5.44	6.50	6.10	5.96	2.93	1.72	1.15	.51	.28	.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1991, BY WATER YEAR (WY)

MEAN	56.3	121	156	219	207	228	152	141	68.0	33.6	30.2	26.6
MAX	181	362	436	541	402	698	447	322	267	75.5	89.0	117
(WY)	1990	1974	1973	1974	1990	1975	1977	1983	1989	1979	1977	1989
MIN	1.85	2.28	16.4	10.1	59.5	33.5	12.4	36.2	12.5	9.34	4.52	2.21
(WY)	1979	1979	1981	1981	1978	1988	1986	1977	1988	1988	1976	1978

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1967 - 1991	
ANNUAL TOTAL	45608.2		49540.0			
ANNUAL MEAN	125		136		119	
HIGHEST ANNUAL MEAN					200	1974
LOWEST ANNUAL MEAN					58.0	1988
HIGHEST DAILY MEAN	608	Dec 29	1230	Feb 21	5100	Apr 4 1977
LOWEST DAILY MEAN	9.7	Jul 28	9.0	Sep 7	.10	Oct 30 1978
ANNUAL SEVEN-DAY MINIMUM	9.9	Jul 28	10	Sep 2	.13	Oct 29 1978
INSTANTANEOUS PEAK FLOW			1270	Feb 20	9000	Apr 4 1977
INSTANTANEOUS PEAK STAGE			13.79	Feb 20	24.24	Apr 4 1977
INSTANTANEOUS LOW FLOW			9.0	Sep 7	.10	Oct 30 1978
ANNUAL RUNOFF (CFSM)	2.24		2.43		2.14	
ANNUAL RUNOFF (INCHES)	30.41		33.03		29.01	
10 PERCENT EXCEEDS	334		388		300	
50 PERCENT EXCEEDS	64		64		54	
90 PERCENT EXCEEDS	11		13		10	

03400800 MARTINS FORK NEAR SMITH, KY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1971 to current year.
pH: December 1979 to current year.
WATER TEMPERATURE: October 1971 to current year.
DISSOLVED OXYGEN: December 1979 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1971.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water years 1972-77, 1980 to current year): Maximum, 561 microsiemens, Feb. 12, 1972; minimum, 49 microsiemens, Feb. 26, 1985.
pH: Maximum, 8.2 units, July 2, 1980; minimum, 6.2 units, Jan. 12, 1980, May 17, 1984, July 6, 1989.
WATER TEMPERATURE: Maximum, 32.5°C, Aug. 6, 1982; minimum, 0.0°C, on many days during winter months.
DISSOLVED OXYGEN: Maximum, 15.6 mg/L, Jan. 20, 21, 1985; minimum, 4.8 mg/L, Aug. 23, 1982.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 214 microsiemens, Sept. 17; minimum, 92 microsiemens, Feb. 20.
pH: Maximum, 7.7 units, Feb. 14; minimum, 6.6 units many days.
WATER TEMPERATURE: Maximum, 28.0°C, Aug. 2,6,8; minimum, 4.9°C, Jan. 27.
DISSOLVED OXYGEN: Maximum, 14.0 mg/L, Jan. 31; minimum, 5.5 mg/L, Aug. 3.

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	198	196	197	178	174	176	199	196	198	126	123	124
2	198	196	197	186	175	180	199	191	198	130	124	127
3	199	197	197	191	182	187	190	119	176	132	124	129
4	200	136	196	192	183	187	193	190	192	129	119	123
5	201	199	200	196	183	190	193	188	190	119	113	115
6	204	200	201	196	185	187	189	179	186	117	114	115
7	204	201	202	192	186	190	186	177	180	123	109	119
8	202	198	200	193	188	191	187	168	176	122	116	119
9	199	197	198	194	192	193	179	171	175	115	94	106
10	202	198	199	194	193	193	181	173	177	127	106	121
11	202	199	201	195	193	194	186	172	181	124	101	117
12	201	196	199	197	194	195	187	175	183	115	102	110
13	201	197	199	198	196	197	175	170	172	119	105	111
14	200	196	198	197	195	196	170	168	169	122	117	203
15	201	197	199	198	195	196	173	169	171	119	115	117
16	200	197	198	196	194	195	170	168	169	121	114	117
17	197	193	195	193	189	191	169	147	165	114	113	114
18	197	190	193	197	190	194	168	164	167	115	113	114
19	196	188	190	197	196	197	163	150	158	117	113	116
20	197	189	195	198	196	197	168	154	163	114	112	113
21	191	184	188	198	196	197	173	127	157	117	112	115
22	189	182	187	195	193	194	183	111	154	120	117	119
23	190	183	187	198	196	197	187	123	156	121	119	120
24	188	185	187	198	196	197	154	121	133	121	120	121
25	192	182	186	198	197	198	150	137	141	121	120	120
26	194	184	190	199	198	198	168	146	155	121	119	120
27	192	186	189	200	198	199	152	139	143	121	120	121
28	192	187	190	200	196	199	138	124	129	126	120	121
29	193	184	191	200	199	199	126	122	124	122	120	121
30	185	182	184	200	196	198	123	107	114	171	122	126
31	182	176	179	---	---	---	131	114	125	125	122	123
MONTH	204	136	194	200	174	193	199	107	164	171	94	121

CUMBERLAND RIVER BASIN

03400800 MARTINS FORK NEAR SMITH, KY--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	131	126	128	120	102	111	133	108	115	135	133	134
2	131	127	129	118	106	110	118	111	115	135	133	134
3	129	127	127	116	109	113	117	113	115	136	135	135
4	133	125	128	115	112	114	122	112	117	136	135	136
5	133	129	130	118	113	116	123	119	121	136	135	136
6	134	127	131	122	110	115	123	119	121	137	134	136
7	151	134	143	114	110	112	124	120	122	137	136	137
8	138	129	133	116	110	113	125	122	124	138	136	137
9	135	129	131	112	108	109	127	125	126	141	136	137
10	149	130	138	118	112	115	128	126	127	138	136	137
11	147	129	137	121	112	114	128	126	127	137	135	136
12	139	129	135	118	111	114	128	127	128	137	135	136
13	152	121	140	118	110	114	138	128	130	136	132	134
14	135	125	131	121	116	119	133	129	131	134	130	132
15	141	131	135	127	118	123	139	132	134	133	129	131
16	131	121	126	138	118	123	134	133	133	135	133	133
17	130	123	127	136	124	129	135	133	134	134	132	133
18	127	123	125	132	124	129	137	134	135	136	131	133
19	135	101	126	135	125	128	161	114	138	151	131	133
20	109	92	101	135	125	130	151	138	140	148	128	138
21	114	98	106	138	123	129	141	138	139	159	134	142
22	128	112	116	137	131	134	138	118	133	161	157	160
23	140	112	129	146	131	138	122	110	118	169	162	165
24	130	99	116	139	114	123	120	107	114	170	152	164
25	135	119	125	137	111	124	129	117	122	161	152	157
26	122	105	112	146	124	135	128	122	125	166	156	160
27	110	101	105	139	110	122	129	125	127	167	163	164
28	113	101	105	140	119	129	132	129	130	177	163	168
29	---	---	---	133	121	130	133	130	132	171	164	168
30	---	---	---	137	122	129	134	131	133	171	167	170
31	---	---	---	137	114	123	---	---	---	173	170	171
MONTH	152	92	126	146	102	122	161	107	127	177	128	145

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	175	172	173	162	161	161	195	193	194	209	207	208
2	183	173	174	163	160	162	196	194	195	209	207	208
3	178	169	175	164	162	163	195	194	195	207	199	206
4	175	172	174	164	161	163	195	194	195	206	204	205
5	173	167	170	164	162	163	196	195	195	205	204	204
6	168	160	164	164	162	163	196	196	196	204	156	199
7	161	154	157	164	162	163	197	196	197	201	198	199
8	154	150	153	166	163	164	198	197	198	203	199	201
9	151	149	150	167	164	166	199	195	198	204	201	203
10	151	149	149	169	166	167	202	197	200	202	197	200
11	154	150	151	169	167	168	203	201	202	201	200	200
12	154	151	153	171	121	166	204	202	203	205	201	203
13	155	152	154	173	170	171	204	202	203	206	205	205
14	157	154	156	175	173	174	205	202	204	207	206	206
15	161	157	159	175	172	174	205	204	205	208	207	208
16	162	160	161	174	171	173	207	204	205	213	208	209
17	163	162	163	175	174	174	209	206	207	214	211	213
18	166	163	164	181	175	178	209	205	207	212	205	211
19	167	165	166	183	179	181	207	206	207	213	209	211
20	167	166	167	184	182	183	207	206	206	211	210	211
21	169	167	168	184	182	183	206	205	206	211	207	209
22	169	167	168	185	183	184	206	204	205	207	200	203
23	172	168	169	185	183	185	206	205	205	200	197	198
24	172	170	170	187	180	186	205	204	204	202	171	196
25	182	168	172	188	187	187	204	203	204	203	197	200
26	172	169	170	189	187	188	204	202	203	202	200	200
27	173	171	173	189	188	189	204	203	203	200	195	199
28	172	164	169	190	189	190	205	203	204	195	190	192
29	163	161	162	192	190	191	205	189	203	190	187	188
30	161	160	161	193	191	191	206	205	205	192	188	189
31	---	---	---	194	193	193	208	205	207	---	---	---
MONTH	183	149	164	194	121	176	209	189	202	214	156	203

CUMBERLAND RIVER BASIN

03400800 MARTINS FORK NEAR SMITH, KY--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.0	6.9	7.0	7.0	7.2	7.1	6.8	6.7	7.0	7.0	6.9	6.8
2	7.0	6.9	7.0	7.0	7.2	7.1	6.8	6.7	7.0	7.0	6.9	6.8
3	7.0	7.0	7.1	7.0	7.6	7.1	6.8	6.7	7.0	7.0	6.9	6.8
4	7.2	7.0	7.1	7.0	7.2	7.1	6.7	6.7	7.0	7.0	6.8	6.8
5	7.1	7.0	7.1	7.0	7.2	7.1	6.7	6.7	7.0	7.0	6.9	6.8
6	7.0	7.0	7.1	7.0	7.1	7.1	6.8	6.7	7.0	7.0	7.0	6.8
7	7.0	7.0	7.1	7.0	7.1	7.0	7.0	6.7	7.0	7.0	6.9	6.8
8	7.0	7.0	7.1	7.1	7.0	7.0	6.8	6.7	7.0	6.9	6.9	6.8
9	7.1	7.0	7.1	7.1	7.0	7.0	6.8	6.8	7.0	7.0	6.9	6.9
10	7.0	7.0	7.1	7.1	7.0	6.9	6.8	6.8	7.0	7.0	6.9	6.8
11	7.0	7.0	7.1	7.1	7.0	6.9	6.8	6.7	7.0	7.0	6.9	6.9
12	7.0	7.0	7.1	7.1	7.0	6.9	6.8	6.8	7.0	7.0	7.0	6.9
13	7.0	7.0	7.1	7.1	7.0	6.9	6.8	6.8	7.5	7.0	7.1	6.9
14	7.0	7.0	7.1	7.1	7.0	6.9	6.9	6.8	7.7	7.0	7.0	6.9
15	7.0	7.0	7.1	7.1	7.3	6.9	6.8	6.8	7.0	7.0	7.0	6.9
16	7.0	7.0	7.2	7.1	7.0	6.9	6.8	6.8	7.0	7.0	7.0	6.9
17	7.1	7.0	7.2	7.1	7.4	6.9	6.8	6.8	7.0	7.0	7.0	7.0
18	7.2	6.9	7.2	7.1	7.0	6.9	6.8	6.8	7.0	7.0	7.0	6.9
19	7.0	6.9	7.2	7.1	7.0	6.9	6.8	6.8	7.1	6.9	7.1	6.9
20	7.0	7.0	7.1	7.1	7.0	6.9	6.8	6.8	6.9	6.9	7.1	7.0
21	7.0	7.0	7.2	7.1	6.9	6.9	6.9	6.8	6.9	6.8	7.1	7.0
22	7.0	7.0	7.2	7.1	6.9	6.8	6.9	6.9	6.8	6.8	7.1	6.9
23	7.1	7.0	7.2	7.1	6.9	6.8	6.9	6.9	6.8	6.8	7.1	7.0
24	7.1	7.0	7.2	7.2	6.9	6.8	6.9	6.9	6.8	6.8	7.1	7.0
25	7.1	7.0	7.2	7.1	6.8	6.8	6.9	6.9	6.8	6.7	7.0	6.9
26	7.1	7.1	7.2	7.1	6.9	6.7	7.0	6.9	6.8	6.6	6.9	6.8
27	7.1	7.1	7.1	7.1	6.8	6.7	7.0	6.9	6.8	6.8	7.0	6.8
28	7.1	7.1	7.2	7.1	6.8	6.7	7.0	7.0	6.8	6.8	7.0	6.8
29	7.1	7.0	7.1	7.1	6.7	6.7	7.0	7.0	---	---	7.1	6.9
30	7.1	7.0	7.2	7.1	6.9	6.7	7.1	7.0	---	---	6.9	6.9
31	7.0	7.0	---	---	6.8	6.7	7.0	7.0	---	---	7.0	6.9
MONTH	7.2	6.9	7.2	7.0	7.6	6.7	7.1	6.7	7.7	6.6	7.1	6.8

PH (STANDARD UNITS), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.0	6.9	6.8	6.7	6.8	6.7	6.8	6.8	7.0	6.8	6.8	6.8
2	6.9	6.9	6.8	6.7	6.8	6.7	6.8	6.7	6.9	6.9	6.9	6.8
3	7.0	6.9	6.8	6.7	7.0	6.7	6.8	6.7	6.9	6.9	6.9	6.8
4	7.0	6.9	6.8	6.7	6.8	6.7	6.8	6.7	6.9	6.8	6.9	6.8
5	6.9	6.9	6.8	6.7	6.8	6.7	7.1	6.7	6.9	6.8	6.8	6.8
6	6.9	6.9	6.7	6.7	7.0	6.8	6.7	6.7	6.9	6.8	7.1	6.8
7	6.9	6.9	6.9	6.7	7.0	6.9	6.7	6.6	6.8	6.8	6.8	6.8
8	7.0	6.9	6.8	6.7	7.0	6.9	6.7	6.6	6.8	6.8	6.8	6.7
9	6.9	6.8	6.8	6.7	6.9	6.9	6.7	6.6	7.0	6.8	7.1	6.8
10	6.9	6.8	6.7	6.7	6.9	6.8	6.6	6.6	6.9	6.9	7.1	7.1
11	6.9	6.8	6.8	6.7	6.9	6.8	6.6	6.6	6.9	6.8	7.1	7.0
12	6.9	6.8	7.1	6.7	6.8	6.8	7.0	6.6	7.2	6.8	7.0	7.0
13	7.0	6.8	6.8	6.7	6.8	6.8	6.6	6.6	7.1	7.0	7.0	7.0
14	6.9	6.8	6.8	6.7	6.8	6.8	6.6	6.6	7.1	7.0	7.0	6.9
15	6.9	6.8	6.8	6.7	6.8	6.7	6.6	6.6	7.1	7.0	6.9	6.9
16	6.8	6.8	6.7	6.6	6.8	6.7	6.6	6.6	7.1	7.0	6.9	6.8
17	6.8	6.7	6.7	6.6	6.8	6.7	6.6	6.6	7.1	7.0	6.9	6.8
18	6.8	6.7	6.8	6.6	6.9	6.7	6.7	6.6	7.1	7.0	6.8	6.8
19	7.2	6.8	6.9	6.6	6.9	6.8	6.7	6.6	7.1	7.1	7.0	6.8
20	7.1	6.8	7.2	6.7	7.1	6.8	6.7	6.7	7.1	7.0	6.9	6.8
21	6.8	6.8	6.8	6.7	6.9	6.8	6.7	6.6	7.0	6.9	6.8	6.8
22	6.9	6.7	6.8	6.7	6.8	6.7	6.7	6.6	7.0	6.9	6.9	6.8
23	6.8	6.8	6.8	6.8	6.8	6.7	6.7	6.6	7.0	6.9	6.9	6.8
24	6.8	6.8	6.8	6.8	6.8	6.7	6.8	6.6	7.0	6.9	7.5	6.9
25	6.9	6.8	6.8	6.8	7.0	6.6	6.9	6.6	7.0	6.9	7.5	7.5
26	6.9	6.8	6.8	6.7	6.7	6.7	6.9	6.9	6.9	6.9	7.5	7.4
27	6.9	6.8	6.9	6.7	6.7	6.7	6.9	6.8	6.9	6.9	7.5	7.3
28	6.8	6.8	7.1	6.7	6.9	6.8	6.8	6.8	6.9	6.8	7.4	7.3
29	6.8	6.8	6.9	6.7	6.9	6.8	6.8	6.8	6.9	6.8	7.4	7.3
30	6.8	6.8	6.7	6.6	6.9	6.8	6.8	6.8	6.8	6.8	7.4	7.3
31	---	---	6.8	6.7	---	---	6.8	6.8	6.8	6.7	---	---
MONTH	7.2	6.7	7.2	6.6	7.1	6.6	7.1	6.6	7.2	6.7	7.5	6.7

CUMBERLAND RIVER BASIN

03400800 MARTINS FORK NEAR SMITH, KY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	22.9	20.9	21.6	16.8	14.5	15.3	12.1	10.5	11.1	9.4	9.1	9.3
2	22.4	20.6	21.4	16.2	14.4	15.2	11.7	11.3	11.5	9.5	9.2	9.3
3	22.5	21.5	21.9	16.5	14.8	15.5	12.9	11.3	11.8	9.4	9.1	9.3
4	22.7	20.3	22.1	16.4	14.9	15.6	11.8	10.6	11.3	9.1	8.8	9.0
5	22.9	21.7	22.1	15.5	14.7	15.0	10.7	10.3	10.5	9.3	8.8	9.1
6	22.8	21.6	22.0	15.0	14.1	14.5	10.5	9.9	10.2	9.4	9.3	9.3
7	22.7	21.5	22.0	15.0	14.0	14.3	10.2	9.8	9.9	9.5	9.0	9.2
8	22.3	21.8	22.0	14.4	13.6	14.0	9.8	9.3	9.5	9.2	8.9	9.0
9	22.8	21.8	22.1	14.1	13.8	14.0	9.4	8.9	9.2	9.5	9.2	9.3
10	22.2	21.6	21.9	14.1	13.2	13.7	9.9	9.0	9.4	9.4	9.1	9.2
11	21.9	21.4	21.6	13.7	13.1	13.3	9.8	9.1	9.4	9.7	9.2	9.3
12	22.2	21.4	21.7	13.6	12.5	13.1	10.2	9.1	9.6	9.7	9.2	9.4
13	22.0	21.3	21.7	13.0	12.2	12.5	10.0	9.6	9.9	9.2	8.7	8.9
14	21.8	21.0	21.3	12.9	12.1	12.4	10.2	9.3	9.7	8.7	8.0	8.4
15	22.0	20.4	21.1	13.0	12.1	12.4	11.0	9.7	10.2	8.2	7.9	8.1
16	21.7	20.1	20.8	13.6	12.1	12.6	10.5	9.8	10.1	8.4	8.1	8.3
17	21.7	20.3	20.9	12.6	11.1	12.0	10.4	9.2	10.0	8.3	8.0	8.1
18	21.3	18.7	20.6	12.7	10.9	11.6	11.5	10.1	10.6	8.0	7.8	7.9
19	20.3	19.3	19.8	12.3	11.0	11.6	10.7	10.0	10.2	7.8	7.6	7.7
20	20.2	19.4	19.7	12.3	11.6	11.9	10.5	9.9	10.1	7.8	7.7	7.8
21	19.7	19.0	19.3	12.7	11.5	11.9	11.4	10.2	10.6	7.6	6.8	7.1
22	19.2	18.9	19.1	13.1	11.6	12.3	11.6	10.7	11.1	6.8	6.3	6.6
23	19.0	18.1	18.6	13.5	12.4	12.8	12.0	10.9	11.5	6.4	5.9	6.1
24	18.7	17.6	18.1	13.3	12.1	12.6	11.8	10.9	11.3	6.2	5.8	6.1
25	17.6	17.4	17.5	13.3	12.0	12.6	10.9	10.5	10.7	5.9	5.3	5.6
26	17.6	16.6	17.3	12.9	11.9	12.4	10.5	9.4	9.8	5.8	5.1	5.5
27	17.1	16.4	16.7	13.2	12.5	12.8	9.4	9.0	9.3	5.6	4.9	5.2
28	16.7	15.7	16.3	14.4	12.7	13.2	9.4	8.9	9.2	5.8	5.2	5.4
29	16.9	14.8	15.8	13.2	11.7	12.5	9.3	8.9	9.0	6.2	5.5	5.8
30	16.7	14.4	15.3	12.5	10.7	11.5	10.6	9.2	10.0	7.0	6.0	6.4
31	16.6	14.4	15.2	---	---	---	10.1	9.0	9.3	7.0	6.3	6.6
MONTH	22.9	14.4	19.9	16.8	10.7	13.2	12.9	8.9	10.2	9.7	4.9	7.8

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

		FEBRUARY			MARCH			APRIL			MAY	
1	6.8	6.0	6.4	9.7	8.6	9.2	11.9	10.5	11.0	14.7	13.9	14.2
2	7.1	6.4	6.7	10.7	9.3	10.1	11.4	10.8	11.0	15.1	13.9	14.5
3	7.2	6.4	6.8	10.4	9.1	9.8	11.4	10.8	11.1	16.0	13.9	14.6
4	7.6	6.6	7.2	9.5	9.1	9.3	12.1	10.9	11.3	15.6	14.1	14.7
5	7.7	7.3	7.5	10.0	8.9	9.4	12.0	11.2	11.5	15.8	14.3	14.7
6	8.0	7.4	7.5	10.3	9.4	9.8	12.0	11.1	11.5	15.2	14.2	14.7
7	8.1	7.1	7.7	10.0	9.4	9.8	12.2	11.3	11.7	16.0	13.9	14.7
8	7.7	7.0	7.3	9.6	9.1	9.4	12.1	11.6	11.8	16.1	14.2	14.9
9	8.1	7.5	7.8	10.4	8.8	9.5	12.5	11.6	12.0	15.7	14.4	14.9
10	8.7	7.6	8.1	10.1	9.0	9.3	12.8	11.4	11.9	16.0	14.5	15.1
11	8.5	7.7	8.1	9.3	8.7	9.1	12.4	11.2	11.8	16.1	15.0	15.4
12	8.8	7.8	8.1	9.2	8.9	9.1	12.1	11.6	11.8	17.0	15.2	15.7
13	9.0	8.0	8.3	10.1	9.0	9.5	12.3	11.7	12.0	16.8	15.6	16.1
14	9.2	7.6	8.5	9.6	9.3	9.5	12.8	12.1	12.4	17.1	16.3	16.7
15	7.6	6.0	7.1	10.1	8.8	9.4	13.8	12.2	12.8	18.7	16.5	17.3
16	6.8	5.9	6.3	11.2	9.0	9.9	13.9	12.0	12.8	17.6	16.2	16.7
17	6.6	6.1	6.4	10.5	9.4	10.0	14.1	11.9	12.8	18.0	16.4	16.9
18	6.4	5.7	6.1	11.2	9.8	10.4	13.7	12.0	12.9	17.9	16.6	17.0
19	7.4	6.1	6.4	10.3	9.0	9.8	17.5	13.1	14.3	18.0	16.7	17.1
20	7.9	7.2	7.6	10.2	8.7	9.5	15.5	14.3	14.7	18.7	16.8	17.5
21	7.9	7.2	7.7	12.2	9.1	10.7	14.7	14.0	14.3	18.6	17.3	17.9
22	7.9	7.6	7.7	11.2	9.7	10.2	14.6	13.3	13.8	19.4	18.6	19.0
23	8.4	7.7	8.0	11.1	10.3	10.8	14.0	13.3	13.6	19.5	19.0	19.2
24	9.3	8.2	8.6	11.8	10.8	11.3	13.9	13.3	13.7	20.1	18.9	19.5
25	8.2	8.0	8.2	11.6	11.0	11.4	14.1	13.0	13.6	20.2	18.8	19.3
26	8.9	8.1	8.4	12.1	10.8	11.2	14.8	13.5	13.9	20.2	19.0	19.5
27	9.1	8.2	8.7	13.8	11.1	12.6	14.3	13.5	13.8	20.1	19.1	19.4
28	9.5	8.4	9.0	13.2	11.6	12.2	14.2	13.5	13.8	20.1	19.3	19.7
29	---	---	---	12.4	11.4	11.9	14.2	13.7	13.9	20.7	19.6	19.9
30	---	---	---	11.7	11.1	11.4	14.4	13.8	14.1	20.6	19.7	20.1
31	---	---	---	12.3	10.4	11.0	---	---	---	20.3	19.9	20.4
MONTH	9.5	5.7	7.6	13.8	8.6	10.2	17.5	10.5	12.7	20.7	13.9	17.0

03400800 MARTINS FORK NEAR SMITH, KY--Continued
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	21.0	20.2	20.6	23.9	22.1	22.8	27.6	24.1	25.5	27.5	24.9	25.9
2	21.3	20.3	20.8	24.1	22.3	22.8	28.0	24.4	25.8	26.1	24.7	25.3
3	21.6	20.5	21.0	24.1	22.1	22.8	27.9	24.5	25.9	25.0	23.9	24.7
4	21.8	20.8	21.3	24.5	22.3	23.0	27.9	24.6	25.8	26.4	24.4	25.3
5	22.0	20.9	21.4	23.9	22.5	23.0	27.5	24.6	25.7	25.8	24.8	25.2
6	22.1	21.2	21.6	24.7	22.5	23.2	28.0	24.4	25.7	26.5	22.6	25.0
7	23.0	20.6	21.8	24.9	22.7	23.4	27.6	24.9	25.9	27.3	24.4	25.5
8	22.6	20.5	21.3	24.9	22.7	23.4	28.0	24.7	25.7	27.0	23.9	25.2
9	22.9	20.5	21.3	24.8	22.6	23.4	26.9	24.9	25.6	27.0	24.3	25.3
10	22.3	20.6	21.4	24.6	22.8	23.2	26.9	24.9	25.5	25.3	24.4	24.8
11	22.1	21.3	21.6	24.4	22.9	23.5	27.7	24.5	25.7	26.8	24.4	25.2
12	22.2	21.5	21.7	25.5	23.0	23.8	26.0	24.4	25.1	27.0	24.5	25.4
13	23.4	21.4	22.2	25.5	23.1	24.0	26.5	24.5	25.1	26.7	24.5	25.3
14	23.6	21.3	22.0	25.2	23.2	23.9	26.0	24.5	25.0	27.2	24.7	25.5
15	23.1	21.3	21.7	25.7	23.2	24.1	27.3	24.1	25.5	27.3	24.7	25.7
16	23.2	21.3	21.8	25.7	23.3	24.2	27.5	24.3	25.5	27.4	24.8	25.7
17	23.2	21.3	21.9	25.2	23.3	24.1	27.5	24.5	25.6	27.4	24.8	25.7
18	23.9	21.2	22.2	24.7	23.5	24.1	27.2	24.8	25.7	27.4	24.7	25.6
19	22.7	21.4	21.9	26.4	23.9	24.7	27.5	24.7	25.6	25.0	21.6	24.0
20	23.6	21.4	22.1	26.2	23.9	24.8	26.1	24.3	25.1	25.3	22.9	23.8
21	23.5	21.4	22.1	26.5	24.1	25.0	27.0	24.3	25.4	25.7	22.6	23.8
22	23.5	21.5	22.2	26.5	24.2	25.0	27.5	24.3	25.6	25.5	22.8	23.8
23	23.5	21.6	22.3	26.8	24.3	25.1	27.6	24.5	25.8	23.9	23.0	23.4
24	23.6	21.5	22.2	26.5	24.3	24.9	27.8	24.7	25.9	23.3	22.1	22.7
25	22.8	21.5	22.1	26.4	24.1	24.9	27.3	24.8	25.8	22.5	21.4	22.0
26	22.8	22.3	22.5	26.4	24.4	25.1	25.8	24.9	25.2	23.5	20.8	21.9
27	23.3	22.5	22.8	25.9	24.4	25.0	27.4	24.8	25.8	23.0	20.2	21.3
28	23.7	22.1	22.9	26.0	24.4	25.0	27.4	25.1	26.0	22.9	19.8	21.0
29	24.3	22.0	22.8	26.7	24.6	25.4	27.9	25.2	25.9	22.9	20.0	21.1
30	24.4	22.1	22.9	26.8	24.4	25.3	27.6	25.1	26.0	22.9	20.2	21.0
31	---	---	---	27.5	24.1	25.5	27.9	25.1	26.1	---	---	---
MONTH	24.4	20.2	21.9	27.5	22.1	24.1	28.0	24.1	25.6	27.5	19.8	24.2

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.6	7.9	8.2	---	---	---	10.7	10.3	10.5	11.7	11.5	11.6
2	8.8	8.2	8.5	---	---	---	10.7	10.4	10.5	11.8	11.4	11.7
3	8.8	8.5	8.6	---	---	---	10.5	9.7	10.3	11.9	11.7	11.8
4	9.1	7.3	8.6	---	---	---	10.7	10.4	10.6	12.6	11.8	11.9
5	9.1	8.7	8.9	---	---	---	10.9	10.7	10.8	11.2	11.0	11.2
6	8.9	8.5	8.7	10.4	9.2	9.5	10.8	10.6	10.7	12.2	11.0	11.4
7	8.9	8.6	8.7	10.3	9.9	10.0	10.9	10.7	10.8	11.8	10.9	11.4
8	8.8	8.5	8.6	10.3	9.9	10.0	11.1	10.9	11.0	12.3	11.2	11.6
9	8.8	8.5	8.6	10.1	9.6	10.0	11.1	10.9	11.0	11.7	11.3	11.5
10	8.6	8.5	8.5	10.3	10.0	10.1	11.1	11.1	11.1	---	---	---
11	8.6	8.4	8.5	10.4	10.1	10.2	11.2	11.1	11.1	---	---	---
12	8.5	8.3	8.5	10.5	10.2	10.3	11.2	11.1	11.1	---	---	---
13	8.5	8.3	8.4	10.7	10.4	10.5	11.2	11.1	11.1	---	---	---
14	8.7	8.3	8.6	10.7	10.5	10.6	11.3	11.2	11.2	12.0	11.1	11.4
15	8.7	8.3	8.5	10.8	10.6	10.7	11.3	10.8	11.2	11.4	11.1	11.3
16	8.5	8.3	8.4	10.7	10.1	10.5	11.3	11.1	11.2	11.3	11.2	11.2
17	8.6	8.2	8.4	10.6	10.2	10.4	11.4	11.1	11.3	11.6	11.4	11.5
18	8.3	7.8	8.1	10.6	10.3	10.4	11.3	11.1	11.2	12.1	11.5	11.8
19	8.5	8.1	8.3	10.8	10.3	10.6	11.5	11.3	11.3	12.3	11.6	11.9
20	8.6	8.4	8.5	11.2	10.8	11.0	11.5	11.5	11.5	12.1	11.6	11.9
21	8.7	8.5	8.6	11.1	10.7	10.9	11.7	11.4	11.5	12.2	11.4	11.8
22	8.8	8.6	8.7	10.9	10.4	10.7	11.8	11.3	11.5	11.6	11.5	11.5
23	---	---	---	10.7	10.3	10.5	11.8	11.1	11.5	11.8	11.6	11.7
24	---	---	---	10.8	10.4	10.6	---	---	---	12.1	11.8	11.9
25	---	---	---	11.0	10.5	10.7	---	---	---	13.1	12.3	12.6
26	---	---	---	11.0	10.5	10.7	11.4	11.3	11.3	12.8	12.4	12.6
27	---	---	---	11.0	10.3	10.8	12.6	11.2	11.9	12.8	11.8	12.2
28	---	---	---	10.6	9.9	10.4	11.5	10.9	11.2	13.8	11.9	12.9
29	---	---	---	10.6	10.1	10.4	11.5	11.3	11.4	12.1	12.0	12.0
30	---	---	---	10.8	10.4	10.5	11.6	11.2	11.4	13.5	12.0	12.3
31	---	---	---	---	---	---	11.7	11.3	11.6	14.0	13.4	13.7
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

CUMBERLAND RIVER BASIN

03400800 MARTINS FORK NEAR SMITH, KY--Continued
OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	13.9	12.9	13.4	11.3	11.1	11.2	11.4	10.8	11.2	10.2	10.1	10.2
2	13.9	12.7	13.3	11.1	10.9	11.0	11.3	11.1	11.1	10.2	10.0	10.1
3	13.3	13.0	13.1	11.1	11.0	11.0	11.3	11.1	11.2	10.2	10.0	10.1
4	13.5	11.8	12.4	11.9	11.1	11.3	11.3	10.9	11.1	10.2	9.9	10.0
5	11.9	11.8	11.9	11.3	11.0	11.1	11.2	10.9	11.1	10.2	9.9	10.1
6	12.3	11.9	12.1	11.2	11.0	11.1	11.2	11.0	11.1	10.2	10.0	10.1
7	12.1	11.8	11.9	11.2	11.1	11.1	11.1	10.9	11.0	10.3	10.1	10.2
8	12.3	12.0	12.1	11.2	11.1	11.2	11.0	10.8	10.9	10.3	10.0	10.2
9	12.1	11.9	12.0	11.5	11.1	11.3	10.8	10.7	10.8	10.3	10.0	10.1
10	12.1	11.9	12.0	11.3	11.2	11.3	10.9	10.8	10.8	10.3	10.0	10.2
11	12.1	11.9	12.0	---	---	---	11.0	10.8	10.9	10.2	10.0	10.1
12	12.2	11.9	12.0	---	---	---	10.9	10.7	10.8	10.0	9.0	9.9
13	11.9	11.3	11.7	---	---	---	10.8	10.5	10.7	9.9	9.4	9.6
14	12.0	11.3	11.7	---	---	---	10.7	10.5	10.6	9.5	9.4	9.4
15	12.0	11.2	11.5	---	---	---	10.6	10.2	10.4	9.6	9.3	9.4
16	12.4	11.5	11.7	---	---	---	10.8	10.6	10.6	9.8	9.5	9.7
17	13.1	12.0	12.4	---	---	---	10.7	10.5	10.6	9.7	9.5	9.6
18	13.3	13.1	13.2	---	---	---	10.6	10.2	10.4	9.7	9.4	9.5
19	13.3	13.1	13.3	---	---	---	10.2	9.8	9.9	9.6	9.2	9.4
20	13.7	13.1	13.3	11.1	10.8	10.9	9.8	9.3	9.7	9.7	9.0	9.4
21	13.6	13.2	13.4	---	---	---	9.5	9.1	9.4	9.8	9.2	9.5
22	13.6	13.0	13.3	---	---	---	9.9	9.1	9.5	9.3	9.2	9.3
23	13.2	12.9	13.1	---	---	---	9.9	9.8	9.9	9.3	9.2	9.3
24	13.4	12.5	13.0	---	---	---	10.1	9.8	10.0	9.4	9.3	9.3
25	12.8	11.1	11.6	---	---	---	10.3	10.0	10.1	9.5	9.3	9.4
26	11.3	11.0	11.1	11.0	10.8	10.9	10.3	10.0	10.1	9.6	9.4	9.5
27	11.4	11.0	11.2	10.8	10.3	10.5	10.3	10.2	10.2	9.6	9.4	9.5
28	11.3	11.2	11.3	10.9	10.1	10.4	10.3	10.2	10.3	9.6	9.1	9.4
29	---	---	---	10.3	10.1	10.2	10.3	10.1	10.2	9.5	9.2	9.4
30	---	---	---	10.9	10.4	10.6	10.3	10.1	10.2	9.4	9.2	9.3
31	---	---	---	11.1	10.7	10.9	---	---	---	9.4	9.2	9.3
MONTH	13.9	11.0	12.3	---	---	---	11.4	9.1	10.5	10.3	9.0	9.7

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.3	9.1	9.2	8.1	7.7	7.8	6.8	5.7	6.2	6.8	5.7	6.2
2	9.2	9.0	9.1	8.1	7.7	7.8	6.7	5.6	6.0	6.9	5.8	6.4
3	9.1	8.7	9.0	8.1	7.7	7.8	6.8	5.5	6.0	6.5	5.9	6.1
4	9.0	8.8	8.9	8.1	7.7	7.8	7.0	5.6	6.1	6.3	5.7	6.0
5	9.0	8.8	8.9	8.1	7.1	7.8	7.0	5.8	6.4	7.0	5.9	6.3
6	8.9	8.8	8.9	8.1	7.7	7.9	6.7	5.7	6.0	6.9	5.9	6.2
7	8.9	8.7	8.8	8.1	7.6	7.8	6.8	5.7	6.1	6.4	5.9	6.1
8	8.8	8.7	8.8	8.1	7.6	7.8	6.9	5.6	6.1	6.6	6.2	6.4
9	8.8	8.6	8.7	8.1	7.6	7.8	6.7	5.7	6.1	6.9	6.3	6.6
10	8.9	8.6	8.7	7.9	7.6	7.7	6.7	5.8	6.1	7.1	6.4	6.7
11	8.8	8.6	8.7	8.0	7.6	7.8	6.8	5.9	6.2	7.4	6.7	7.0
12	8.9	8.5	8.6	7.9	7.5	7.7	6.6	5.7	6.1	7.5	6.8	7.1
13	8.6	8.3	8.5	7.9	7.4	7.6	6.6	5.7	6.0	7.6	7.0	7.3
14	8.5	8.0	8.3	7.8	7.4	7.6	6.8	5.8	6.1	7.8	7.1	7.3
15	8.4	8.0	8.2	7.9	7.3	7.5	6.7	5.7	6.2	7.9	7.2	7.4
16	8.3	8.0	8.1	7.7	7.1	7.4	6.8	6.1	6.4	7.9	7.1	7.4
17	8.3	7.9	8.0	7.6	7.0	7.3	7.1	6.2	6.6	7.6	6.9	7.3
18	8.1	7.6	7.9	7.5	6.4	7.0	7.2	6.4	6.7	7.4	6.7	7.0
19	8.0	7.6	7.8	7.1	6.3	6.6	7.3	6.4	6.7	7.6	6.5	6.8
20	8.0	7.6	7.8	7.0	6.3	6.6	7.3	6.4	6.8	7.0	6.4	6.7
21	8.0	7.6	7.7	7.1	6.3	6.7	7.4	6.4	6.9	6.6	6.1	6.4
22	7.9	7.5	7.7	7.1	6.3	6.7	7.5	6.5	7.0	6.3	6.0	6.1
23	8.0	7.5	7.7	7.1	6.3	6.7	7.7	6.8	7.2	6.3	6.0	6.1
24	8.0	7.5	7.7	7.1	6.3	6.6	7.9	7.0	7.4	7.2	6.3	6.7
25	7.9	7.2	7.6	7.2	6.3	6.6	7.9	7.1	7.4	7.1	6.9	7.0
26	8.5	7.6	7.8	7.2	6.2	6.6	7.9	7.1	7.4	7.3	6.9	7.0
27	8.0	7.6	7.7	7.2	6.3	6.7	7.7	6.7	7.2	7.5	7.0	7.2
28	7.9	7.6	7.8	7.2	6.2	6.6	7.3	6.5	6.9	7.7	7.1	7.4
29	8.2	7.6	7.8	7.1	6.2	6.6	7.6	6.3	6.9	7.8	7.3	7.5
30	8.0	7.7	7.8	7.1	6.0	6.5	7.0	6.4	6.7	8.0	7.2	7.6
31	---	---	---	6.9	6.0	6.4	7.6	6.4	6.9	---	---	---
MONTH	9.3	7.2	8.3	8.1	6.0	7.2	7.9	5.5	6.5	8.0	5.7	6.8

CUMBERLAND RIVER BASIN

03400990 CLOVER FORK AT HARLAN, KY

LOCATION.--Lat 36°50'51", long 83°19'32", Harlan County, Hydrologic Unit 05130101, on right bank on U.S. Highway 421, 60 ft upstream from bridge on Central Street, 800 ft downstream from Martins Fork, 1.4 mi upstream from Poor Fork, and at mile 1.4.

DRAINAGE AREA.--222 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,155.70 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 24 to Jan. 1, Jan. 22-27, and Feb. 15, 16. Water-discharge records good except for periods of estimated record, which are poor. Flow regulated by Martins Fork Dam (station 03400798) beginning January 1979.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 4, 1977, reached a stage of 29.4 ft present datum, from floodmarks, discharge, 44,000 ft^3/s from contracted opening study.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	69	85	1920	463	564	1220	336	418	111	159	55
2	50	67	81	1450	408	840	1100	307	331	133	134	54
3	87	79	699	1160	364	880	945	259	484	191	117	77
4	201	81	1240	1030	337	1160	863	215	520	124	109	85
5	139	89	681	952	337	932	761	205	350	226	102	63
6	94	114	514	857	460	865	529	203	322	131	93	126
7	86	93	434	2790	515	944	480	196	262	132	92	88
8	155	86	320	2010	508	862	446	179	155	118	94	67
9	138	87	287	1320	500	738	395	202	142	116	144	61
10	132	147	257	1100	459	672	367	191	135	182	255	68
11	145	149	178	1210	415	611	306	211	159	174	127	74
12	173	139	165	1280	371	578	326	586	328	297	104	65
13	164	131	132	1110	417	634	410	559	245	239	91	68
14	138	126	128	977	2120	802	417	460	195	393	96	72
15	123	120	162	889	1260	748	594	373	213	218	98	64
16	86	112	411	861	942	639	456	209	142	167	83	62
17	79	79	613	779	883	578	393	184	129	147	77	59
18	288	72	1850	705	4920	1020	375	169	113	135	81	85
19	202	67	1980	617	4510	922	484	211	247	251	111	154
20	204	87	1130	617	4510	835	591	751	194	396	83	122
21	178	94	1690	608	2940	720	531	505	259	175	75	84
22	177	74	1810	533	2100	968	475	474	173	137	69	71
23	281	77	6290	464	1280	7750	528	404	261	141	66	65
24	202	74	2830	359	1110	2350	498	348	179	730	62	95
25	166	71	1780	330	1010	1580	425	203	208	613	60	127
26	190	75	1310	275	896	1330	390	180	281	677	63	99
27	183	139	1830	267	729	1150	318	172	250	339	66	78
28	171	143	4010	284	572	1110	376	223	207	240	61	69
29	154	115	2210	254	---	2360	336	249	126	734	74	64
30	80	92	2260	314	---	2740	360	353	117	337	69	60
31	73	---	3380	478	---	1600	---	253	---	216	58	---
TOTAL	4584	2948	40747	27800	35336	39482	15695	9370	7145	8250	2973	2381
MEAN	148	98.3	1314	897	1262	1274	523	302	238	266	95.9	79.4
MAX	288	149	6290	2790	4920	7750	1220	751	520	734	255	154
MIN	45	67	81	254	337	564	306	169	113	111	58	54
CFSM	.67	.44	5.92	4.04	5.68	5.74	2.36	1.36	1.07	1.20	.43	.36
IN.	.77	.49	6.83	4.66	5.92	6.62	2.63	1.57	1.20	1.38	.50	.40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1991, BY WATER YEAR (WY)

MEAN	181	385	519	658	789	694	526	537	278	154	96.6	114
MAX	667	1410	1314	1403	1373	1274	886	1262	1020	288	240	474
(WY)	1978	1978	1991	1979	1990	1991	1987	1983	1989	1990	1989	1989
MIN	24.3	58.3	54.3	44.5	291	205	110	187	63.3	42.9	34.9	27.4
(WY)	1979	1988	1981	1981	1978	1988	1986	1986	1988	1988	1988	1983

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1978 - 1991	
ANNUAL TOTAL	183394		196711			
ANNUAL MEAN	502		539		409	
HIGHEST ANNUAL MEAN					550	1978
LOWEST ANNUAL MEAN					219	1981
HIGHEST DAILY MEAN	6290	Dec 23	7750	Mar 23	11300	May 7 1984
LOWEST DAILY MEAN	45	Sep 29	45	Oct 1	13	Oct 23 1978
ANNUAL SEVEN-DAY MINIMUM	47	Sep 26	62	Aug 27	15	Oct 20 1978
INSTANTANEOUS PEAK FLOW			16300	Mar 23	21700	May 7 1984
INSTANTANEOUS PEAK STAGE			16.74	Mar 23	20.09	May 7 1984
INSTANTANEOUS LOW FLOW			45	Oct 1	13	Oct 23 1978
ANNUAL RUNOFF (CFSM)	2.26		2.43		1.84	
ANNUAL RUNOFF (INCHES)	30.73		32.96		25.02	
10 PERCENT EXCEEDS	1220		1210		945	
50 PERCENT EXCEEDS	284		250		225	
90 PERCENT EXCEEDS	68		74		43	

CUMBERLAND RIVER BASIN

03400990 CLOVER FORK AT HARLAN, KY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 1980 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: January 1980 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 4,330 mg/L, May 7, 1984; minimum daily mean, <0.5 mg/L, Feb. 28, July 2, 16, 1988 and Oct. 20, 1988.
SEDIMENT LOADS: Maximum daily, 175,000 tons, May 7, 1984; minimum daily, 0.01 ton, July 2, 1988.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,590 mg/L, Mar. 23; minimum daily mean, 1.0 mg/L, during several days in November.
SEDIMENT LOADS: Maximum daily, 82,500 tons, Mar. 23; minimum daily, 0.14 ton, Nov. 23.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 1990							
05...	1505	134	465	20.0	54	20	91
NOV							
05...	0930	78	471	13.0	8	1.7	96
JAN 1991							
02...	1345	1370	--	--	64	237	72
MAR							
05...	1640	904	245	8.5	136	332	97
APR							
09...	1230	384	405	17.0	7	7.3	100
MAY							
21...	1235	467	350	18.5	80	101	70
JUN							
27...	1425	244	385	21.5	42	28	73
AUG							
13...	1335	86	500	23.0	8	1.8	100

CUMBERLAND RIVER BASIN

03400990 CLOVER FORK AT HARLAN, KY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	45	2	.26	69	2	.34	85	6	1.4
2	50	4	.68	67	2	.28	81	7	1.6
3	87	38	8.9	79	2	.52	699	1530	5070
4	201	348	242	81	3	.64	1240	320	1250
5	139	143	54	89	12	3.4	681	61	115
6	94	17	4.4	114	26	8.0	514	31	43
7	86	10	2.4	93	10	2.6	434	24	29
8	155	105	50	86	3	.62	320	10	9.1
9	138	44	17	87	2	.55	287	8	6.0
10	132	19	7.0	147	12	4.8	257	8	4.2
11	145	21	8.4	149	9	3.8	178	4	1.9
12	173	39	19	139	3	1.0	165	2	.82
13	164	14	6.3	131	1	.35	132	5	1.8
14	138	7	2.7	126	2	.80	128	3	1.2
15	123	6	2.1	120	2	.73	162	20	14
16	86	6	1.4	112	2	.46	411	91	101
17	79	5	1.0	79	2	.42	613	290	660
18	288	476	488	72	1	.21	1850	539	2790
19	202	116	66	67	1	.26	1980	252	1560
20	204	40	22	87	2	.46	1130	155	515
21	178	13	6.5	94	3	.88	1690	161	778
22	177	13	6.6	74	1	.18	1810	319	2280
23	281	71	57	77	1	.14	6290	1660	32300
24	202	34	19	74	2	.39	2830	347	2580
25	166	16	7.3	71	1	.16	1780	152	700
26	190	19	9.7	75	3	.90	1310	104	352
27	183	33	16	139	8	3.1	1830	118	564
28	171	10	4.7	143	14	5.4	4010	415	4410
29	154	5	2.1	115	14	4.4	2210	125	721
30	80	2	.33	92	6	1.6	2260	125	738
31	73	2	.32	---	---	---	3380	224	1990
TOTAL	4584	---	1133.09	2948	---	47.39	40747	---	59588.02
		JANUARY			FEBRUARY			MARCH	
1	1920	86	428	463	19	24	564	27	45
2	1450	68	250	408	5	5.4	840	64	147
3	1160	57	177	364	5	4.7	880	76	219
4	1030	53	148	337	5	4.6	1160	250	796
5	952	52	134	337	6	5.7	932	60	154
6	857	38	88	460	50	67	865	40	95
7	2790	434	3850	515	29	41	944	45	116
8	2010	87	482	508	10	14	862	22	50
9	1320	39	140	500	6	7.9	738	24	49
10	1100	32	94	459	3	3.5	672	15	28
11	1210	58	190	415	3	3.4	611	14	23
12	1280	46	158	371	3	2.6	578	16	25
13	1110	25	75	417	91	222	634	69	121
14	977	29	76	2120	398	2440	802	106	230
15	889	21	52	1260	57	194	748	29	59
16	861	28	66	942	37	93	639	12	21
17	779	26	54	883	74	192	578	12	20
18	705	17	33	4920	1390	20700	1020	253	708
19	617	13	22	4510	967	12600	922	46	116
20	617	22	36	4510	446	5750	835	20	46
21	608	52	85	2940	276	2170	720	14	28
22	533	15	21	2100	213	1230	968	182	529
23	464	11	14	1280	76	263	7750	2590	82500
24	359	6	6.2	1110	69	206	2350	306	2010
25	330	5	4.5	1010	67	183	1580	185	790
26	275	3	2.3	896	49	118	1330	143	513
27	267	3	2.0	729	43	84	1150	136	423
28	284	6	4.7	572	24	37	1110	119	357
29	254	3	2.1	---	---	---	2360	462	3420
30	314	37	40	---	---	---	2740	288	2370
31	478	113	146	---	---	---	1600	67	292
TOTAL	27800	---	6880.8	35336	---	46665.8	39482	---	96300

CUMBERLAND RIVER BASIN

03400990 CLOVER FORK AT HARLAN, KY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	1220	39	129	336	9	8.1	418	497	798
2	1100	47	142	307	6	4.6	331	91	86
3	945	52	132	259	3	2.4	484	443	1190
4	863	70	163	215	4	2.1	520	263	421
5	761	35	72	205	4	2.1	350	51	48
6	529	26	37	203	7	3.7	322	35	31
7	480	14	19	196	6	3.1	262	38	28
8	446	10	12	179	5	2.3	155	16	6.5
9	395	17	19	202	7	4.1	142	9	3.4
10	367	37	37	191	6	3.0	135	10	3.8
11	306	22	18	211	5	2.8	159	27	11
12	326	12	10	586	165	477	328	161	174
13	410	18	20	559	172	266	245	70	48
14	417	10	12	460	46	59	195	34	31
15	594	117	205	373	17	18	213	73	45
16	456	41	51	209	9	5.0	142	18	6.8
17	393	12	13	184	9	4.5	129	13	4.5
18	375	8	8.4	169	7	3.4	113	9	2.7
19	484	46	64	211	16	9.5	247	493	408
20	591	93	150	751	864	2110	194	101	58
21	531	34	48	505	88	122	259	219	255
22	475	56	73	474	46	59	173	104	51
23	528	36	51	404	56	60	261	182	135
24	498	23	31	348	47	45	179	45	22
25	425	15	17	203	14	7.6	208	170	121
26	390	11	12	180	8	3.7	281	122	95
27	318	11	9.8	172	19	9.0	250	46	31
28	376	21	21	223	226	157	207	25	14
29	336	11	10	249	93	77	126	10	3.5
30	360	15	15	353	224	237	117	10	3.2
31	---	---	---	253	41	29	---	---	---
TOTAL	15695	---	1601.2	9370	---	3797.0	7145	---	4135.4
		JULY			AUGUST			SEPTEMBER	
1	111	10	2.9	159	19	8.4	55	20	3.0
2	133	55	34	134	11	4.0	54	32	4.7
3	191	156	89	117	6	2.0	77	49	14
4	124	28	9.5	109	4	1.3	85	48	12
5	226	842	605	102	3	.89	63	21	3.6
6	161	34	15	93	4	.94	126	535	234
7	132	21	7.3	92	4	.98	88	61	16
8	118	14	4.6	94	4	1.1	67	20	3.7
9	116	11	3.5	144	313	154	61	17	2.9
10	182	570	435	255	396	323	68	58	11
11	174	194	96	127	37	13	74	25	5.1
12	297	830	937	104	13	3.7	65	18	3.1
13	239	269	198	91	9	2.3	68	35	7.9
14	393	584	774	96	11	3.1	72	25	5.0
15	218	137	80	98	16	4.3	64	13	2.3
16	167	103	46	83	8	1.9	62	12	2.1
17	147	78	31	77	6	1.2	59	12	2.0
18	135	64	23	81	9	2.2	85	39	9.5
19	251	118	203	111	43	14	154	264	123
20	396	232	271	83	15	3.3	122	124	43
21	175	56	27	75	13	2.5	84	30	7.0
22	137	22	8.1	69	10	1.9	71	14	2.8
23	141	32	17	66	10	1.7	65	14	2.4
24	730	1350	3320	62	12	2.1	95	77	25
25	613	871	1790	60	11	1.8	127	77	27
26	677	601	1430	63	14	2.4	99	35	9.4
27	339	76	71	66	15	2.6	78	30	6.3
28	240	20	13	61	10	1.7	69	12	2.2
29	734	873	2450	74	61	17	64	7	1.2
30	337	107	101	69	67	13	60	15	2.4
31	216	37	22	58	36	5.6	---	---	---
TOTAL	8250	---	13113.9	2973	---	597.91	2381	---	593.6
YEAR	196711		234454.11						

03401000 CUMBERLAND RIVER NEAR HARLAN, KY

LOCATION.--Lat 36°50'48", long 83°21'21", Harlan County, Hydrologic Unit 05130101, on left bank 10 ft downstream from bridge on State Highway 840 at Loyall, 1.6 mi upstream from Fourmile Branch, 1.8 mi west of Harlan, 2.3 mi downstream from confluence of Poor and Clover Forks, and at mile 691.9.

DRAINAGE AREA.--374 mi^2.

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

REVISED RECORDS.--WSP 953: 1940(M). WSP 1173: 1947(M).

GAGE.--Water-stage recorder. Datum of gage is 1,140.10 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 4, 1941, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Flow slightly regulated by Martins Fork Dam (station 03400798) beginning January 1979. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	106	129	3030	909	828	1940	513	725	260	360	79
2	46	99	124	2090	801	1270	1650	482	596	209	284	76
3	82	105	649	1660	705	1350	1410	421	687	443	235	74
4	214	108	2100	1390	637	2070	1250	370	814	272	203	95
5	224	115	1170	1230	611	1700	1120	357	567	334	182	99
6	134	182	822	1090	778	1450	859	342	488	384	160	122
7	103	150	670	3820	925	1550	776	345	416	268	151	134
8	235	127	508	3780	964	1410	713	311	272	207	184	95
9	247	122	444	2220	980	1200	646	315	239	176	170	82
10	193	217	403	1710	884	1080	634	336	216	192	568	87
11	1[illegible]	251	307	1780	779	958	536	335	238	316	444	92
12	23[illegible]	232	288	1860	694	905	540	672	303	395	285	88
13	236	215	244	1650	703	946	631	803	399	422	217	80
14	205	199	236	1410	3190	1360	659	675	288	695	201	94
15	175	183	253	1240	2180	1410	831	572	343	338	205	76
16	1[illegible]0	170	619	1190	1520	1200	745	388	234	247	167	75
17	101	132	843	1060	1390	1050	633	355	217	196	145	74
18	352	115	2690	965	6910	1590	582	338	189	172	137	91
19	385	104	3810	862	7280	1610	698	507	439	196	160	174
20	311	119	1920	860	6730	1430	865	846	590	608	138	197
21	260	134	2980	868	4190	1210	794	926	761	244	122	120
22	243	110	2590	795	2950	1730	704	806	698	177	113	97
23	398	114	8710	715	1920	12200	717	679	722	165	101	85
24	378	110	4600	620	1600	4210	721	595	434	1020	94	87
25	299	102	2610	571	1410	2410	632	413	327	1170	90	160
26	304	95	1830	505	1250	1870	582	369	414	1150	90	153
27	283	180	1550	492	1050	1590	499	344	425	706	93	115
28	260	194	5380	544	863	1450	564	372	351	431	89	98
29	238	177	3250	515	---	3020	517	409	233	1200	95	87
30	139	149	2500	584	---	4530	547	818	260	915	104	80
31	116	---	5310	929	---	2670	---	558	---	537	87	---
TOTAL	6756	4416	59539	42035	54803	63257	23995	15572	12885	14045	5674	3066
MEAN	218	147	1921	1356	1957	2041	800	502	429	453	183	102
MAX	398	251	8710	3820	7280	12200	1940	926	814	1200	568	197
MIN	46	95	124	492	611	828	499	311	189	165	87	74
CFSM	.58	.39	5.14	3.63	5.23	5.46	2.14	1.34	1.15	1.21	.49	.27
IN.	.67	.44	5.92	4.18	5.45	6.29	2.39	1.55	1.28	1.40	.56	.30

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1991, BY WATER YEAR (WY)

MEAN	184	460	872	1177	1327	1423	1027	724	380	318	213	129
MAX	1129	2004	2408	2767	3003	4148	2771	2003	1789	1414	1202	864
(WY)	1990	1978	1973	1974	1956	1963	1977	1984	1989	1941	1942	1989
MIN	9.00	25.8	43.6	63.5	105	334	211	119	76.0	21.4	40.0	14.3
(WY)	1954	1954	1966	1981	1941	1988	1986	1941	1948	1944	1951	1953

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1940 - 1991	
ANNUAL TOTAL	284407		306043			
ANNUAL MEAN	779		838		683	
HIGHEST ANNUAL MEAN					1090	1974
LOWEST ANNUAL MEAN					293	1941
HIGHEST DAILY MEAN	8710	Dec 23	12200	Mar 23	33900	Apr 4 1977
LOWEST DAILY MEAN	46	Oct 1	46	Oct 1	5.0	Oct 9 1953
ANNUAL SEVEN-DAY MINIMUM	53	Sep 26	83	Sep 12	6.7	Oct 7 1953
INSTANTANEOUS PEAK FLOW			22500	Mar 23	64500	Apr 5 1977
INSTANTANEOUS PEAK STAGE			18.01	Mar 23	30.20	Apr 5 1977
INSTANTANEOUS LOW FLOW			43	Oct 2	3.0	Oct 9 1953
ANNUAL RUNOFF (CFSM)	2.08		2.24		1.83	
ANNUAL RUNOFF (INCHES)	28.29		30.44		24.80	
10 PERCENT EXCEEDS	1810		1840		1540	
50 PERCENT EXCEEDS	468		425		324	
90 PERCENT EXCEEDS	96		102		51	

CUMBERLAND RIVER BASIN

03402000 YELLOW CREEK NEAR MIDDLESBORO, KY

LOCATION.--Lat 36°40'05", long 83°41'19", Bell County, Hydrologic Unit 05130101, on left bank 35 ft downstream from bridge on U.S. Highway 25E, 1.2 mi downstream from Browne Branch, 4.6 mi north of Middlesboro, and at mile 11.4.

DRAINAGE AREA.--60.6 mi^2. Area at site used prior to Oct. 1970, 58.2 mi^2 and at site used Oct. 1, 1970 to Sept. 30, 1973, 62.8 mi^2.

WATER-DISCHARGE RECORDS

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. Datum of gage is 1,097.99 ft above National Geodetic Vertical Datum of 1929. See WDR KY-90-1 for history of changes prior to Sept. 30, 1973.

REMARKS.--No estimated daily discharges. Water-discharge records good. Occasional regulation from Fern Lake.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.6	14	24	468	103	110	299	63	53	37	13	9.2
2	8.5	13	26	279	96	279	215	55	45	34	12	8.9
3	7.8	14	983	193	88	780	169	50	44	43	11	8.8
4	113	14	841	143	81	1200	139	46	42	32	11	8.5
5	33	19	232	116	75	448	138	46	30	40	11	8.3
6	17	34	129	98	157	420	112	54	26	29	9.9	10
7	14	19	88	1390	174	642	99	45	24	25	36	11
8	80	17	65	759	161	320	100	38	21	24	67	8.8
9	42	18	50	367	142	218	95	42	21	22	31	8.1
10	24	52	41	247	122	162	88	38	20	21	20	15
11	24	35	35	387	101	129	75	39	19	21	14	12
12	19	28	31	393	87	112	72	44	60	70	12	9.3
13	17	24	29	287	367	160	111	61	41	72	12	8.7
14	15	21	29	211	2760	140	94	61	115	30	18	8.2
15	14	20	33	165	661	114	769	44	104	24	21	7.9
16	13	19	49	176	325	101	401	37	93	21	14	9.0
17	12	19	173	135	374	101	236	46	113	19	11	8.9
18	165	17	710	114	3960	564	172	659	94	20	12	16
19	50	16	929	106	4150	305	411	1070	53	21	17	29
20	28	15	392	117	2820	207	825	2670	50	29	25	13
21	20	15	527	120	775	157	349	420	627	19	14	9.1
22	57	14	1640	100	417	221	235	193	199	17	11	8.4
23	155	43	5490	95	270	4650	176	123	115	20	10	8.3
24	65	37	1110	90	200	947	138	94	75	71	9.5	56
25	41	26	421	80	160	402	110	73	97	25	9.3	61
26	31	22	250	71	132	268	96	61	96	20	13	21
27	24	20	312	68	109	205	89	62	72	18	15	14
28	21	35	1900	77	95	165	83	63	58	21	10	11
29	19	38	691	63	---	1060	88	66	49	25	11	9.9
30	17	26	577	105	---	1110	74	58	42	16	11	9.2
31	16	---	1060	132	---	484	---	44	---	14	9.6	---
TOTAL	1170.9	704	18867	7152	18962	16181	6058	6465	2498	900	501.3	426.5
MEAN	37.8	23.5	609	231	677	522	202	209	83.3	29.0	16.2	14.2
MAX	165	52	5490	1390	4150	4650	825	2670	627	72	67	61
MIN	7.8	13	24	63	75	101	72	37	19	14	9.3	7.9
CFSM	.62	.39	10.0	3.81	11.2	8.61	3.33	3.44	1.37	.48	.27	.23
IN.	.72	.43	11.58	4.39	11.64	9.93	3.72	3.97	1.53	.55	.31	.26

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1991, BY WATER YEAR (WY)

MEAN	25.6	79.2	159	210	235	249	173	119	65.4	54.6	36.0	20.1
MAX	155	416	609	551	677	610	551	539	298	345	197	109
(WY)	1978	1974	1991	1974	1991	1975	1977	1984	1989	1967	1942	1982
MIN	3.05	5.35	7.34	14.4	14.9	47.6	34.9	17.2	13.8	4.26	6.00	3.02
(WY)	1954	1941	1966	1981	1941	1988	1986	1941	1988	1944	1951	1954

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1941 - 1991	
ANNUAL TOTAL	60455.4		79885.7			
ANNUAL MEAN	166		219		118	
HIGHEST ANNUAL MEAN					219	1991
LOWEST ANNUAL MEAN					49.5	1941
HIGHEST DAILY MEAN	5490	Dec 23	5490	Dec 23	7000	Apr 4 1977
LOWEST DAILY MEAN	7.7	Sep 7	7.8	Oct 3	1.2	Oct 7 1952
ANNUAL SEVEN-DAY MINIMUM	8.7	Sep 1	9.0	Aug 31	1.6	Sep 17 1955
INSTANTANEOUS PEAK FLOW			7890	Mar 23	11700	Apr 4 1977
INSTANTANEOUS PEAK STAGE			19.11	Mar 23	23.35	Apr 4 1977
INSTANTANEOUS LOW FLOW			7.5	Oct 3	.00	Sep 26 1952
ANNUAL RUNOFF (CFSM)	2.73		3.61		1.95	
ANNUAL RUNOFF (INCHES)	37.11		49.04		26.54	
10 PERCENT EXCEEDS	316		456		254	
50 PERCENT EXCEEDS	65		56		44	
90 PERCENT EXCEEDS	13		11		7.3	

03402000 YELLOW CREEK NEAR MIDDLESBORO, KY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: October 1979 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 4,360 mg/L, Sept. 1, 1982; minimum daily mean, <0.5 mg/L, Jan. 11, 1988.
SEDIMENT LOADS: Maximum daily, 38,100 tons, May 20, 1991; minimum daily, 0.02 ton, Jan. 11, 1988.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 3,810 mg/L, May 20; minimum daily mean, 2 mg/L, Jan. 26-27, Feb. 11.
SEDIMENT LOADS: Maximum daily, 38,100 tons, May 20; minimum daily, 0.19 ton, Sept. 15.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 1990							
09...	1325	39	403	18.0	65	6.8	94
NOV							
13...	1125	24	488	9.0	8	0.52	100
JAN 1991							
07...	1035	136	348	7.0	19	7.0	70
MAR							
06...	1035	293	255	8.0	22	17	90
APR							
10...	1020	89	392	15.5	8	1.9	100
MAY							
22...	1035	200	270	16.5	30	16	100
JUN							
28...	1105	58	395	22.0	20	3.1	78
AUG							
14...	1010	18	625	21.5	45	2.2	91

CUMBERLAND RIVER BASIN

03402000 YELLOW CREEK NEAR MIDDLESBORO, KY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	8.6	29	.68	14	13	.50	24	7	.43
2	8.5	25	.56	13	14	.51	26	5	.36
3	7.8	21	.45	14	15	.55	983	1210	5580
4	113	140	73	14	10	.37	841	219	671
5	33	83	7.8	19	12	.92	232	39	26
6	17	42	1.9	34	29	3.0	129	19	6.6
7	14	33	1.2	19	11	.55	88	13	3.2
8	80	85	25	17	8	.38	65	7	1.2
9	42	61	7.0	18	8	.44	50	6	.83
10	24	41	2.6	52	25	3.5	41	8	.85
11	24	35	2.2	35	12	1.1	35	9	.80
12	19	22	1.1	28	10	.78	31	10	.86
13	17	22	1.0	24	7	.48	29	13	1.0
14	15	24	.97	21	5	.28	29	16	1.3
15	14	23	.88	20	5	.24	33	13	1.2
16	13	21	.71	19	5	.23	49	15	2.0
17	12	17	.55	19	7	.34	173	137	109
18	165	213	135	17	9	.41	710	515	1720
19	50	67	10	16	9	.38	929	226	730
20	28	22	1.7	15	7	.29	392	126	189
21	20	14	.76	15	6	.22	527	165	251
22	57	37	11	14	7	.29	1640	989	9770
23	155	154	77	43	39	6.2	5490	1810	30200
24	65	16	2.8	37	36	3.6	1110	183	583
25	41	8	.93	26	16	1.1	421	59	70
26	31	8	.68	22	10	.57	250	31	21
27	24	9	.59	20	9	.48	312	87	194
28	21	12	.71	35	33	4.7	1900	396	2390
29	19	10	.53	38	26	2.8	691	154	285
30	17	11	.48	26	11	.77	577	185	400
31	16	11	.46	---	---	---	1060	189	643
TOTAL	1170.9	---	370.24	704	---	35.98	18867	---	53852.63
		JANUARY			FEBRUARY			MARCH	
1	468	48	60	103	8	2.1	110	32	27
2	279	49	37	96	5	1.2	279	62	62
3	193	28	15	88	3	.80	780	301	1080
4	143	23	8.8	81	6	1.3	1200	180	732
5	116	20	6.3	75	7	1.4	448	42	51
6	98	18	4.7	157	122	59	420	224	573
7	1390	960	4910	174	53	25	642	228	502
8	759	116	259	161	7	3.0	320	34	30
9	367	55	54	142	5	2.0	218	21	13
10	247	47	32	122	4	1.2	162	10	4.6
11	387	100	105	101	2	.52	129	7	2.6
12	393	56	60	87	3	.63	112	10	3.1
13	287	26	20	367	325	1310	160	83	37
14	211	15	8.8	2760	802	7690	140	46	18
15	165	15	6.5	661	64	119	114	11	3.5
16	176	41	20	325	27	24	101	8	2.2
17	135	19	7.1	374	83	146	101	10	3.1
18	114	7	2.3	3960	1240	14700	564	222	408
19	106	4	1.2	4150	938	11500	305	31	27
20	117	15	4.8	2820	390	3150	207	13	7.0
21	120	13	4.3	775	189	412	157	10	4.2
22	100	5	1.2	417	69	80	221	41	31
23	95	3	.84	270	39	29	4650	1960	32700
24	90	3	.62	200	31	17	947	173	474
25	80	3	.71	160	22	9.4	402	73	80
26	71	2	.39	132	14	4.8	268	45	33
27	68	2	.33	109	9	2.7	205	30	17
28	77	10	2.1	95	6	1.6	165	22	9.9
29	63	8	1.3	---	---	---	1060	560	1970
30	105	23	11	---	---	---	1110	267	929
31	132	18	6.8	---	---	---	484	60	81
TOTAL	7152	---	5652.09	18962	---	39293.65	16181	---	39915.2

CUMBERLAND RIVER BASIN

03402000 YELLOW CREEK NEAR MIDDLESBORO, KY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	299	27	22	63	8	1.4	53	29	4.6
2	215	14	8.5	55	6	.95	45	24	2.9
3	169	11	4.8	50	11	1.4	44	26	4.0
4	139	13	5.0	46	11	1.4	42	30	3.7
5	138	18	6.7	46	12	1.5	30	16	1.3
6	112	6	1.9	54	15	2.3	26	20	1.4
7	99	6	1.6	45	11	1.4	24	17	1.1
8	100	10	2.9	38	10	1.0	21	13	.72
9	95	11	2.8	42	11	1.3	21	8	.48
10	88	9	2.2	38	11	1.1	20	10	.52
11	75	7	1.3	39	26	3.1	19	9	.46
12	72	6	1.1	44	26	3.1	60	161	35
13	111	26	8.5	61	20	3.5	41	65	8.3
14	94	12	3.0	61	12	2.0	115	331	372
15	769	669	2040	44	11	1.2	104	305	112
16	401	92	108	37	8	.84	93	108	39
17	236	22	15	46	11	1.4	113	139	47
18	172	11	5.0	659	520	2360	94	87	25
19	411	170	541	1070	2930	29100	53	47	6.6
20	825	306	963	2670	3810	38100	50	46	13
21	349	40	39	420	137	158	627	690	1870
22	235	27	17	193	56	30	199	95	56
23	176	17	8.1	123	27	8.9	115	21	6.6
24	138	10	3.9	94	16	4.1	75	17	3.5
25	110	12	3.4	73	16	3.1	97	36	12
26	96	9	2.3	61	13	2.1	96	35	9.0
27	89	9	2.3	62	18	3.1	72	21	4.1
28	83	8	1.7	63	14	2.3	58	16	2.6
29	88	12	3.1	66	43	9.3	49	20	2.6
30	74	11	2.2	58	54	8.7	42	19	2.2
31	---	---	---	44	21	2.5	---	---	---
TOTAL	6058	---	3827.3	6465	---	69820.99	2498	---	2647.68
		JULY			AUGUST			SEPTEMBER	
1	37	23	2.4	13	29	1.0	9.2	18	.46
2	34	42	3.9	12	24	.79	8.9	21	.50
3	43	33	4.0	11	20	.62	8.8	18	.43
4	32	14	1.2	11	17	.52	8.5	16	.36
5	40	26	3.0	11	21	.60	8.3	16	.35
6	29	16	1.2	9.9	15	.41	10	17	.51
7	25	21	1.5	36	56	30	11	14	.41
8	24	20	1.3	67	194	58	8.8	12	.29
9	22	15	.89	31	69	6.3	8.1	11	.23
10	21	14	.79	20	47	2.6	15	27	1.4
11	21	13	.72	14	34	1.3	12	16	.50
12	70	103	32	12	38	1.2	9.3	14	.35
13	72	196	53	12	29	.93	8.7	13	.30
14	30	43	3.5	18	39	2.0	8.2	10	.22
15	24	16	1.0	21	40	2.2	7.9	9	.19
16	21	16	.87	14	31	1.2	9.0	11	.27
17	19	18	.90	11	22	.67	8.9	11	.27
18	20	19	1.1	12	16	.51	16	37	3.6
19	21	19	1.1	17	22	1.1	29	53	5.2
20	29	29	2.4	25	35	2.5	13	15	.53
21	19	28	1.5	14	21	.80	9.1	11	.27
22	17	14	.65	11	14	.45	8.4	12	.28
23	20	12	1.1	10	16	.44	8.3	12	.26
24	71	123	34	9.5	14	.35	56	115	37
25	25	36	2.5	9.3	12	.30	61	101	19
26	20	28	1.5	13	16	.70	21	26	1.5
27	18	25	1.2	15	15	.60	14	17	.61
28	21	46	2.8	10	11	.29	11	14	.42
29	25	42	2.9	11	14	.43	9.9	12	.31
30	16	29	1.3	11	21	.61	9.2	17	.42
31	14	29	1.1	9.6	21	.54	---	---	---
TOTAL	900	---	167.32	501.3	---	119.96	426.5	---	76.44
YEAR	79885.7		215779.48						

03403000 CUMBERLAND RIVER NEAR PINEVILLE, KY

LOCATION.--Lat 36°48'48", long 83°45'58", Knox County, Hydrologic Unit 05130101, on downstream side of bridge on U.S. Highway 25E, 0.5 mi south of Flat Lick, 2.4 mi downstream from Greasy Creek, 4.8 mi upstream from Stinking Creek, 5.0 mi northwest of Pineville, and at mile 647.2.

DRAINAGE AREA.--809 mi^2.

PERIOD OF RECORD.--August 1938 to September 1975, October 1979 to September 1991 (discontinued).

REVISED RECORDS.--WSP 1053: 1939. WSP 1436: Drainage area. WSP 1910: 1957. WRD KY 1968: 1967.

GAGE.--Water-stage recorder. Datum of gage is 955.45 ft above Sandy Hook datum. See WDR KY-90-1 for history of changes prior to Sept. 30, 1975.

REMARKS.--No estimated daily discharges. Records good. Flow slightly regulated by Martins Fork Dam (station 03400798) beginning January 1979. Low flow regulated by power plant 1.9 mi upstream. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123	269	313	6860	1890	1530	4310	1020	983	435	514	150
2	122	252	297	4330	1680	2290	3290	912	1790	437	389	136
3	117	238	1260	3210	1490	3250	2790	806	1210	546	325	126
4	230	234	5050	2630	1320	7370	2400	720	2370	614	282	134
5	563	248	3000	2240	1200	4970	2120	645	1350	451	257	198
6	361	332	1770	1950	1400	3510	1800	637	905	563	238	192
7	257	354	1320	6120	1870	3920	1520	634	742	490	218	317
8	547	307	1040	10100	1980	3300	1400	554	608	387	358	236
9	746	280	820	4760	1950	2780	1340	526	465	334	324	169
10	452	354	711	3520	1800	2340	1310	570	414	326	413	155
11	375	498	631	3270	1580	1980	1120	524	375	515	790	184
12	361	496	523	3390	1380	1770	1010	543	435	715	430	173
13	386	449	491	3120	1330	1840	1120	1230	770	826	334	160
14	376	416	449	2690	7790	2070	1240	1160	577	774	316	138
15	333	385	436	2330	5830	2400	3490	913	729	722	299	144
16	296	362	734	2210	3640	2100	3670	724	569	468	307	229
17	249	352	1440	2030	2990	1860	2300	565	882	374	244	146
18	482	318	4650	1780	15200	3040	1740	830	1300	320	225	139
19	925	287	8590	1620	26300	3420	1840	1980	604	302	233	183
20	613	272	4990	1590	25600	2950	4220	6730	717	438	283	232
21	497	264	4860	1620	11500	2500	2670	4580	1090	538	229	264
22	454	283	5530	1490	6400	2740	2050	2140	1240	339	195	187
23	812	292	24500	1370	4410	20300	1740	1490	1480	284	174	155
24	866	310	19600	1270	3190	19100	1570	1190	999	711	163	165
25	672	287	7320	1130	2740	6270	1350	952	734	1160	154	382
26	545	265	4150	1020	2410	3950	1200	717	932	1190	148	377
27	507	250	3080	952	2010	3130	1070	633	836	1090	160	271
28	461	301	10800	972	1710	2830	1460	644	694	676	169	208
29	419	375	8700	983	---	5180	1260	712	572	665	149	173
30	385	343	5360	1020	---	10600	1140	1070	444	1430	155	154
31	310	---	9220	1820	---	6280	---	1260	---	758	181	---
TOTAL	13842	9673	141635	83397	142590	141570	59540	37611	26816	18878	8656	5877
MEAN	447	322	4569	2690	5092	4567	1985	1213	894	609	279	196
MAX	925	498	24500	10100	26300	20300	4310	6730	2370	1430	790	382
MIN	117	234	297	952	1200	1530	1010	524	375	284	148	126
CFSM	.55	.40	5.65	3.33	6.29	5.64	2.45	1.50	1.10	.75	.35	.24
IN.	.64	.44	6.51	3.83	6.56	6.51	2.74	1.73	1.23	.87	.40	.27

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1991, BY WATER YEAR (WY)

MEAN	285	851	1748	2373	2882	3089	2142	1431	779	633	394	235
MAX	2209	4717	5258	6904	6429	8461	4710	4947	4692	3076	2098	1546
(WY)	1990	1974	1973	1974	1956	1975	1972	1984	1989	1941	1942	1989
MIN	9.05	31.5	86.7	120	205	640	461	242	141	32.1	58.4	21.0
(WY)	1954	1940	1966	1940	1941	1988	1986	1941	1944	1944	1951	1955

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1939 - 1991	
ANNUAL TOTAL	599062		690085			
ANNUAL MEAN	1641		1891		1397	
HIGHEST ANNUAL MEAN					2539	1974
LOWEST ANNUAL MEAN					654	1941
HIGHEST DAILY MEAN	24500	Dec 23	26300	Feb 19	52500	Jan 8 1946
LOWEST DAILY MEAN	117	Oct 3	117	Oct 3	6.2	Oct 10 1953
ANNUAL SEVEN-DAY MINIMUM	132	Sep 27	147	Aug 29	6.3	Oct 9 1953
INSTANTANEOUS PEAK FLOW			33400	Mar 24	57900	Jan 8 1946
INSTANTANEOUS PEAK STAGE			40.06	Feb 20	49.77	Dec 31 1969
INSTANTANEOUS LOW FLOW			116	Oct 3	5.6	Aug 14 1957
ANNUAL RUNOFF (CFSM)	2.03		2.34		1.74	
ANNUAL RUNOFF (INCHES)	27.55		31.73		23.46	
10 PERCENT EXCEEDS	3820		4320		3080	
50 PERCENT EXCEEDS	944		770		598	
90 PERCENT EXCEEDS	213		222		84	

CUMBERLAND RIVER BASIN

03403500 CUMBERLAND RIVER AT BARBOURVILLE, KY

LOCATION.--Lat 36°51'45", long 83°53'13", Knox County, Hydrologic Unit 05130101, on right bank 100 ft upstream from bridge on State Highway 11, at Barbourville, 0.4 mi upstream from Richland Creek, and at mile 635.2.

DRAINAGE AREA.--960 mi^2

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1922 to September 1931, April 1948 to current year. Monthly discharge only April to June 1948, published in WSP 1306.

REVISED RECORD.--WSP 603: 1923-24. WSP 1336: 1923(M), 1927, 1929, 1950-51. WSP 1436: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 942.97 ft above National Geodetic Vertical Datum of 1929. See WDR KY-90-1 for history of changes prior to Oct. 17, 1975.

REMARKS.--No estimated daily discharges. Water-discharge records good. Flow slightly regulated by Martins Fork Dam (station 03400798) beginning January 1979. Diversion above station by city of Barbourville for municipal water supply.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	132	320	360	8680	2910	1790	5970	1230	1020	463	622	174
2	128	299	337	6070	2200	2380	3910	1110	1960	485	469	157
3	123	278	1030	3890	1900	3150	3200	975	1350	549	384	147
4	180	271	7830	3050	1680	8180	2720	863	2610	699	328	139
5	623	280	5990	2560	1520	6700	2380	772	1720	517	287	181
6	428	349	2380	2250	1700	4510	2130	736	1130	587	268	200
7	284	418	1660	6320	2280	4460	1780	750	892	569	240	284
8	851	368	1310	10700	2450	3900	1620	664	737	450	335	284
9	1330	331	1020	7260	2390	3290	1570	619	558	375	415	200
10	719	421	880	4580	2200	2760	1610	667	488	345	341	170
11	491	664	790	3750	1950	2340	1400	641	440	509	844	179
12	441	687	648	3830	1710	2110	1240	647	449	719	516	190
13	431	587	597	3580	1620	2120	1320	1220	793	986	367	177
14	438	516	544	3120	7440	2270	1450	1400	699	787	343	161
15	380	467	540	2720	7850	2580	3390	1100	745	899	315	150
16	334	431	903	2560	5060	2350	5250	880	690	572	323	237
17	293	412	1790	2410	3520	2120	3120	673	762	447	277	179
18	366	382	5890	2100	11500	3160	2230	670	1580	372	238	155
19	1060	334	10800	1930	22600	4000	2020	1940	758	339	227	160
20	752	316	7940	1870	26500	3480	4200	7080	732	361	270	221
21	572	303	7070	1900	17700	2960	3100	6920	1160	678	248	272
22	561	311	8000	1780	10700	3420	2350	3860	1310	414	207	220
23	1200	329	22000	1630	7120	13500	2010	1870	1740	321	187	180
24	1320	346	21700	1530	4690	20900	1820	1440	1290	580	174	166
25	966	335	11200	1380	3220	10100	1550	1180	889	1230	168	337
26	735	305	7100	1260	2850	6560	1380	875	1010	1340	162	435
27	625	295	4570	1170	2400	3910	1270	742	989	1290	162	324
28	560	316	10600	1180	2060	3260	1600	733	812	804	173	246
29	500	404	10300	1200	---	6070	1490	798	665	674	166	202
30	455	405	7220	1330	---	11100	1370	990	527	1510	165	180
31	385	---	9640	2990	---	8470	---	1540	---	913	185	---
TOTAL	17663	11480	172639	100580	161720	157900	70450	45585	30505	20784	9406	6307
MEAN	570	383	5569	3245	5776	5094	2348	1470	1017	670	303	210
MAX	1330	687	22000	10700	26500	20900	5970	7080	2610	1510	844	435
MIN	123	271	337	1170	1520	1790	1240	619	440	321	162	139
CFSM	.59	.40	5.80	3.38	6.02	5.31	2.45	1.53	1.06	.70	.32	.22
IN.	.68	.44	6.69	3.90	6.27	6.12	2.73	1.77	1.18	.81	.36	.24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 1991, BY WATER YEAR (WY)

MEAN	403	1256	2340	3039	3436	3673	2683	2009	981	624	410	295
MAX	3058	5231	9398	8182	7919	10470	6320	6782	5524	2346	1432	1894
(WY)	1990	1974	1927	1974	1956	1963	1977	1984	1989	1967	1971	1989
MIN	9.86	43.7	102	135	567	791	549	459	121	62.8	27.0	15.8
(WY)	1954	1923	1966	1981	1954	1988	1986	1962	1930	1930	1925	1930

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1923 - 1991	
ANNUAL TOTAL	744941		805019			
ANNUAL MEAN	2041		2206		1761	
HIGHEST ANNUAL MEAN					3018	1974
LOWEST ANNUAL MEAN					824	1988
HIGHEST DAILY MEAN	22000	Dec 23	26500	Feb 20	47200	Apr 5 1977
LOWEST DAILY MEAN	123	Oct 3	123	Oct 3	.50	Oct 5 1930
ANNUAL SEVEN-DAY MINIMUM	147	Sep 28	162	Aug 29	5.4	Oct 2 1930
INSTANTANEOUS PEAK FLOW			27700	Feb 20	56100	Apr 6 1977
INSTANTANEOUS PEAK STAGE			33.68	Feb 20	45.91	Apr 6 1977
INSTANTANEOUS LOW FLOW			120	Oct 3	.20	Oct 5 1930
ANNUAL RUNOFF (CFSM)	2.13		2.30		1.83	
ANNUAL RUNOFF (INCHES)	28.87		31.19		24.91	
10 PERCENT EXCEEDS	5070		6070		4150	
50 PERCENT EXCEEDS	1180		899		759	
90 PERCENT EXCEEDS	240		225		98	

03403500 CUMBERLAND RIVER AT BARBOURVILLE, KY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1979 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: October 1979 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,420 mg/L, Mar. 23, 1991, May 20, 1991; minimum daily mean, <0.5 mg/L on July 31, 1988.
SEDIMENT LOADS: Maximum daily, 182,000 tons, May 8, 1984; minimum daily, 0.14 ton, July 31, 1988.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,420 mg/L, Mar. 23, May 20; minimum daily mean, 2 mg/L, Nov. 4, 27.
SEDIMENT LOADS: Maximum daily, 88,300 tons, Mar. 23; minimum daily, 1.7 tons, Nov. 4.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 1990							
02...	1130	129	555	19.0	15	5.2	100
NOV							
13...	1245	583	387	8.0	10	16	65
JAN 1991							
11...	1235	3700	235	9.0	72	719	54
FEB							
22...	1420	17800	203	8.5	113	5430	92
APR							
01...	1250	6030	195	9.0	104	1690	64
MAY							
14...	1205	1380	365	20.0	59	220	87
JUN							
24...	1210	1300	270	22.0	192	674	95
AUG							
12...	1150	520	494	25.0	47	66	97

CUMBERLAND RIVER BASIN

03403500 CUMBERLAND RIVER AT BARBOURVILLE, KY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	132	16	5.7	320	7	6.5	360	8	7.8
2	128	15	5.3	299	7	5.3	337	6	5.2
3	123	13	4.3	278	7	5.0	1030	84	552
4	180	17	9.6	271	2	1.7	7830	700	14800
5	623	52	90	280	3	2.4	5990	280	4800
6	428	29	34	349	9	9.0	2380	126	813
7	284	18	14	418	7	8.3	1660	50	225
8	851	188	585	368	4	3.7	1310	23	82
9	1330	165	625	331	4	3.7	1020	12	32
10	719	45	88	421	7	8.7	880	10	25
11	491	34	45	664	14	25	790	7	15
12	441	24	28	687	10	18	648	5	8.2
13	431	21	25	587	7	12	597	5	7.5
14	438	25	29	516	5	7.3	544	6	8.5
15	380	20	21	467	4	5.5	540	9	13
16	334	18	17	431	6	6.6	903	36	93
17	293	16	13	412	7	8.2	1790	78	444
18	366	24	34	382	6	5.9	5890	242	4230
19	1060	108	311	334	5	4.9	10800	532	15500
20	752	50	103	316	7	6.0	7940	237	5080
21	572	29	44	303	5	4.4	7070	213	4070
22	561	26	41	311	6	5.1	8000	198	4290
23	1200	71	242	329	6	5.5	22000	826	49000
24	1320	65	233	346	5	4.5	21700	350	20500
25	966	34	90	335	3	3.0	11200	141	4260
26	735	16	33	305	4	3.1	7100	101	1930
27	625	8	13	295	2	2.0	4570	218	2860
28	560	13	19	316	5	4.4	10600	484	13800
29	500	11	15	404	10	10	10300	210	5840
30	455	9	11	405	10	11	7220	109	2130
31	385	9	9.0	---	---	---	9640	377	9800
TOTAL	17663	---	2836.9	11480	---	206.7	172639	---	165221.2
		JANUARY			FEBRUARY			MARCH	
1	8680	184	4310	2910	61	479	1790	23	109
2	6070	174	2850	2200	43	256	2380	73	500
3	3890	141	1480	1900	14	74	3150	118	1080
4	3050	90	748	1680	11	48	8180	448	9890
5	2560	58	404	1520	11	44	6700	135	2450
6	2250	55	332	1700	21	104	4510	85	1040
7	6320	347	5930	2280	45	281	4460	131	1600
8	10700	337	9720	2450	52	347	3900	79	830
9	7260	128	2510	2390	28	182	3290	49	437
10	4580	123	1540	2200	9	52	2760	35	264
11	3750	91	919	1950	3	18	2340	21	135
12	3830	76	790	1710	3	13	2110	19	110
13	3580	61	593	1620	18	84	2120	22	126
14	3120	53	444	7440	663	13300	2270	28	176
15	2720	33	245	7850	243	5140	2580	57	399
16	2560	31	212	5060	79	1080	2350	41	260
17	2410	39	252	3520	84	796	2120	21	119
18	2100	35	199	11500	807	25000	3160	125	1120
19	1930	30	154	22600	815	49800	4000	131	1410
20	1870	22	109	26500	486	34800	3480	64	602
21	1900	33	172	17700	186	8890	2960	40	318
22	1780	22	108	10700	112	3250	3420	117	1170
23	1630	20	86	7120	109	2090	13500	2420	88300
24	1530	8	34	4690	195	2310	20900	1270	71700
25	1380	6	21	3220	259	2260	10100	279	7610
26	1260	7	22	2850	93	728	6560	221	3910
27	1170	4	13	2400	42	269	3910	224	2350
28	1180	4	14	2060	28	155	3260	183	1610
29	1200	6	19	---	---	---	6070	314	5150
30	1330	45	192	---	---	---	11100	442	13200
31	2990	106	851	---	---	---	8470	155	3550
TOTAL	100580	---	35273	161720	---	151850	157900	---	221525

CUMBERLAND RIVER BASIN

03403500 CUMBERLAND RIVER AT BARBOURVILLE, KY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	5970	91	1470	1230	14	47	1020	59	164
2	3910	82	869	1110	11	32	1960	200	1090
3	3200	75	649	975	9	23	1350	113	415
4	2720	59	434	863	7	17	2610	439	3300
5	2380	54	349	772	7	15	1720	307	1430
6	2130	44	254	736	8	17	1130	157	491
7	1780	43	206	750	19	38	892	66	159
8	1620	33	147	664	8	15	737	45	90
9	1570	45	193	619	6	9.2	558	34	51
10	1610	95	414	667	8	15	488	28	36
11	1400	41	155	641	8	13	440	25	30
12	1240	22	73	647	9	16	449	27	33
13	1320	24	86	1220	140	594	793	49	111
14	1450	28	108	1400	99	391	699	36	69
15	3390	753	9590	1100	37	109	745	51	114
16	5250	263	4030	880	28	67	690	46	87
17	3120	116	965	673	14	26	762	47	104
18	2230	61	370	670	29	92	1580	502	2260
19	2020	35	201	1940	776	4690	758	112	245
20	4200	698	8340	7080	2420	46200	732	51	105
21	3100	161	1420	6920	505	9440	1160	91	302
22	2350	62	397	3860	164	1790	1310	191	745
23	2010	23	125	1870	81	414	1740	641	3170
24	1820	18	89	1440	48	186	1290	271	1000
25	1550	13	53	1180	41	131	889	101	241
26	1380	10	38	875	30	72	1010	103	283
27	1270	12	40	742	24	48	989	79	211
28	1600	26	117	733	25	50	812	58	127
29	1490	18	72	798	32	70	665	56	100
30	1370	20	73	990	47	168	527	39	55
31	---	---	---	1540	102	447	---	---	---
TOTAL	70450	---	31327	45585	---	65242.2	30505	---	16618
		JULY			AUGUST			SEPTEMBER	
1	463	28	36	622	122	206	174	21	9.8
2	485	29	39	469	80	101	157	19	7.9
3	549	26	39	384	54	56	147	17	6.9
4	699	39	74	328	44	39	139	18	6.7
5	517	25	35	287	41	32	181	21	11
6	587	36	58	268	38	28	200	24	13
7	569	33	51	240	31	20	284	21	16
8	450	24	29	335	44	50	284	22	17
9	375	21	21	415	65	73	200	21	11
10	345	21	19	341	51	48	170	21	9.8
11	509	39	60	844	129	309	179	24	12
12	719	57	114	516	49	69	190	27	14
13	986	109	293	367	47	46	177	23	11
14	787	94	204	343	62	57	161	22	9.6
15	899	140	346	315	47	40	150	20	8.3
16	572	62	96	323	42	36	237	34	22
17	447	61	72	277	33	25	179	24	12
18	372	54	54	238	25	16	155	21	8.9
19	339	37	34	227	28	17	160	22	9.9
20	361	28	30	270	31	23	221	34	20
21	678	91	179	248	33	22	272	34	26
22	414	32	35	207	28	15	220	26	15
23	321	25	21	187	21	11	180	26	13
24	580	88	165	174	22	10	166	23	10
25	1230	183	638	168	23	11	337	33	32
26	1340	229	829	162	24	10	435	40	47
27	1290	295	1060	162	18	7.7	324	26	23
28	804	145	315	173	24	11	246	36	24
29	674	119	218	166	24	11	202	23	12
30	1510	302	1310	165	22	9.7	180	20	9.8
31	913	181	446	185	23	11	---	---	---
TOTAL	20784	---	6920	9406	---	1420.4	6307	---	448.6
YEAR	805019		698889.0						

CUMBERLAND RIVER BASIN

03404000 CUMBERLAND RIVER AT WILLIAMSBURG, KY

LOCATION.--Lat 36°44'36", long 84°09'22", Whitley County, Hydrologic Unit 05130101, on right bank 100 ft upstream from bridge on State Highway 296E at Williamsburg, 2.0 mi downstream from Clear Fork, and at mile 590.4.

DRAINAGE AREA.--1,607 mi^2.

WATER-DISCHARGE RECORDS

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. Datum of gage is 891.57 ft above National Geodetic Vertical Datum of 1929. See WDR KY-90-1 for history of changes prior to June 26, 1990.

REMARKS.--No estimated daily discharges. Water-discharge records good. Flow slightly regulated by Martins Fork Dam (station 03400798) beginning January 1979.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	208	587	665	14900	4780	2920	13500	1850	1810	762	971	278
2	188	505	608	12700	3980	3290	7860	1650	1660	747	699	254
3	177	462	1680	7710	3250	4810	5520	1470	2330	1190	546	211
4	213	431	8970	5280	2810	12500	4540	1310	2230	996	455	191
5	404	419	9890	4260	2500	13300	3920	1200	3010	981	426	181
6	793	441	5770	3670	2610	9450	3560	1120	1900	764	409	201
7	588	550	3220	7170	3540	7840	3050	1140	1330	783	353	261
8	1030	601	2360	16200	3990	7020	2740	1070	1090	729	354	338
9	2300	549	1880	15400	3920	5680	2630	959	910	874	512	374
10	2000	640	1530	10400	3640	4690	2870	922	721	731	634	275
11	1110	1060	1330	6920	3250	3940	2560	958	632	582	516	228
12	820	1260	1190	6400	2810	3450	2200	1530	602	791	874	216
13	721	1130	1010	6080	2580	3330	2180	1920	841	1230	613	236
14	670	940	935	5280	9820	3460	2410	2380	1130	1300	502	220
15	642	813	868	4530	16100	3580	4160	1990	1470	1050	500	203
16	558	730	959	4140	10800	3640	8400	1570	1590	1020	470	183
17	491	685	1680	3990	6760	3270	6710	1360	1790	710	449	242
18	465	650	4730	3520	15100	4210	4460	1130	2570	570	400	275
19	758	605	11200	3140	28000	6110	3550	2490	2130	501	350	243
20	1280	546	12800	2970	35700	5810	4240	10200	1220	498	338	273
21	939	511	11400	2930	36800	4870	5490	12100	1460	559	414	293
22	961	489	12100	2830	30800	4650	4070	8930	3120	758	366	329
23	2640	504	24500	2580	24000	14900	3310	4450	2580	536	297	291
24	3340	675	32100	2410	15200	26300	2860	2720	2500	509	258	240
25	2520	652	29400	2230	6460	23200	2520	2080	1740	1130	235	400
26	1570	596	22500	2010	4700	19300	2170	1680	1560	1650	216	560
27	1150	541	15300	1860	4050	11100	1950	1310	1630	1640	209	609
28	967	518	14400	1800	3440	5770	1880	1180	1410	1350	216	456
29	834	563	18400	1800	---	9320	2200	1190	1150	919	228	349
30	733	674	16200	1950	---	18400	2090	1380	949	923	276	280
31	669	---	14900	3630	---	17700	---	1700	---	1500	280	---
TOTAL	31739	19327	284475	170690	291390	267810	119600	76939	49065	28283	13366	8690
MEAN	1024	644	9177	5506	10410	8639	3987	2482	1635	912	431	290
MAX	3340	1260	32100	16200	36800	26300	13500	12100	3120	1650	971	609
MIN	177	419	608	1800	2500	2920	1880	922	602	498	209	181
CFSM	.64	.40	5.71	3.43	6.48	5.38	2.48	1.54	1.02	.57	.27	.18
IN.	.73	.45	6.59	3.95	6.75	6.20	2.77	1.78	1.14	.65	.31	.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1991, BY WATER YEAR (WY)

MEAN	659	1805	3569	4528	5250	5885	4259	2900	1481	972	667	476
MAX	4413	6552	9607	11860	13550	14670	9717	9572	8305	4906	2142	3280
(WY)	1990	1978	1973	1974	1956	1963	1977	1984	1989	1967	1971	1989
MIN	10.2	50.6	150	203	1190	1193	730	705	277	122	109	33.3
(WY)	1954	1954	1966	1981	1968	1988	1986	1962	1988	1952	1954	1953

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1951 - 1991	
ANNUAL TOTAL	1104802		1361374			
ANNUAL MEAN	3027		3730		2701	
HIGHEST ANNUAL MEAN					4274	1974
LOWEST ANNUAL MEAN					1159	1988
HIGHEST DAILY MEAN	32100	Dec 24	36800	Feb 21	47600	Feb 1 1957
LOWEST DAILY MEAN	177	Oct 3	177	Oct 3	6.1	Oct 26 1953
ANNUAL SEVEN-DAY MINIMUM	229	Sep 28	218	Sep 11	6.9	Oct 22 1953
INSTANTANEOUS PEAK FLOW			37400	Feb 21	49700	Jan 31 1957
INSTANTANEOUS PEAK STAGE			30.38	Feb 21	35.03	Apr 7 1977
INSTANTANEOUS LOW FLOW			174	Oct 4	6.1	Oct 23 1953
ANNUAL RUNOFF (CFSM)	1.88		2.32		1.68	
ANNUAL RUNOFF (INCHES)	25.57		31.51		22.84	
10 PERCENT EXCEEDS	7050		10900		6540	
50 PERCENT EXCEEDS	1740		1530		1190	
90 PERCENT EXCEEDS	350		334		154	

03404000 CUMBERLAND RIVER AT WILLIAMSBURG, KY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948-72, 1978 to August 1981, October 1983 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1951 to September 1962.
WATER TEMPERATURES: October 1951 to September 1962, May to September 1980.
SUSPENDED-SEDIMENT DISCHARGE: October 1953 to September 1962, November 1979 to August 1981, October 1983 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 754 microsiemens, Dec. 11, 1953; minimum daily, 60 microsiemens, Mar. 24, 25, 1952.
WATER TEMPERATURES: Maximum daily, 33.0°C, on several days during June and July 1952; minimum daily, 0.0°C, Jan. 9, 1958, Mar. 13, 1960.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,500 mg/L, May 20, 1991; minimum daily mean, <0.5 mg/L, Nov. 28, 1987.
SEDIMENT LOADS: Maximum daily, 131,000 tons, May 7, 1984; minimum daily, 0.21 ton, Nov. 28, 1987.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,500 mg/L, May 20; minimum daily mean, 2 mg/L, Nov 4, 5.
SEDIMENT LOADS: Maximum daily, 91,300 tons, Mar. 24; minimum daily, 2.5 tons, Nov. 4.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 1990							
11...	1540	1030	300	17.5	48	133	82
NOV							
14...	1545	914	365	8.5	18	44	70
DEC							
20...	1130	13000	160	12.5	340	11900	84
JAN 1991							
02...	1430	12400	200	9.0	93	3110	80
FEB							
25...	1155	6150	295	7.0	96	1590	82
APR							
03...	1220	5500	245	11.5	51	757	82
MAY							
15...	1210	2040	370	21.5	34	187	94
JUN							
25...	1520	1650	270	22.5	170	757	96
AUG							
05...	1100	403	135	26.5	44	48	96

CUMBERLAND RIVER BASIN

03404000 CUMBERLAND RIVER AT WILLIAMSBURG, KY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	208	13	7.3	587	4	7.1	665	8	15
2	188	11	5.8	505	3	4.7	608	6	11
3	177	9	4.5	462	3	3.4	1680	108	1010
4	213	21	13	431	2	2.5	8970	617	14900
5	404	51	65	419	2	2.8	9890	400	10800
6	793	103	222	441	3	3.8	5770	170	2730
7	588	59	95	550	4	6.7	3220	74	656
8	1030	74	231	601	6	9.7	2360	42	268
9	2300	225	1430	549	4	5.3	1830	26	131
10	2000	119	673	640	5	8.9	1530	15	63
11	1110	46	140	1060	17	51	1330	11	41
12	820	31	69	1260	21	70	1190	10	32
13	721	25	49	1130	12	37	1010	9	26
14	670	24	43	940	5	13	935	9	23
15	642	20	35	813	4	8.0	868	9	20
16	558	17	25	730	4	6.9	959	9	24
17	491	13	18	685	4	6.8	1680	28	143
18	465	15	18	650	4	7.3	4730	116	1690
19	758	31	74	605	4	5.9	11200	279	8730
20	1280	46	160	546	4	5.3	12800	320	11100
21	939	18	47	511	3	4.6	11400	169	5240
22	961	25	70	489	3	4.0	12100	204	7260
23	2640	145	1170	504	5	6.3	24500	549	35800
24	3340	147	1320	675	11	21	32100	450	39000
25	2520	75	521	652	10	18	29400	258	20600
26	1570	26	112	596	7	12	22500	133	8170
27	1150	15	46	541	5	7.5	15300	69	2880
28	967	12	31	518	4	6.1	14400	375	16100
29	834	9	19	563	6	10	18400	299	15000
30	733	7	13	674	10	19	16200	104	4530
31	669	6	11	---	---	---	14900	197	7890
TOTAL	31739	---	6737.6	19327	---	374.6	284475	---	214883
		JANUARY			FEBRUARY			MARCH	
1	14900	275	11100	4780	117	1510	2920	19	148
2	12700	108	3780	3980	69	741	3290	38	351
3	7710	63	1310	3250	34	304	4810	110	1670
4	5280	45	645	2810	17	127	12500	294	9850
5	4260	36	419	2500	9	63	13300	201	7300
6	3670	31	309	2610	13	93	9450	80	2050
7	7170	135	3280	3540	33	323	7840	115	2440
8	16200	259	11400	3990	40	426	7020	95	1800
9	15400	157	6600	3920	24	255	5680	60	921
10	10400	62	1780	3640	17	164	4690	34	432
11	6920	50	932	3250	13	118	3940	18	194
12	6400	48	830	2810	12	90	3450	12	113
13	6080	45	745	2580	36	253	3330	23	213
14	5280	36	520	9820	609	16200	3460	30	282
15	4530	27	325	16100	496	21700	3580	28	268
16	4140	21	229	10800	298	8850	3640	24	235
17	3990	18	194	6760	174	3200	3270	17	154
18	3520	16	150	15100	442	21200	4210	42	520
19	3140	15	127	28000	766	57600	6110	84	1400
20	2970	14	114	35700	397	38000	5810	70	1100
21	2930	17	132	36800	215	21400	4870	49	648
22	2830	13	100	30800	136	11300	4650	60	792
23	2580	9	65	24000	93	6020	14900	786	36600
24	2410	8	54	15200	66	2710	26300	1270	91300
25	2230	8	45	6460	69	1200	23200	629	40000
26	2010	7	37	4700	48	613	19300	282	14800
27	1860	6	31	4050	35	386	11100	151	4660
28	1800	6	27	3440	24	226	5770	112	1730
29	1800	5	25	---	---	---	9320	327	9430
30	1950	8	46	---	---	---	18400	352	17400
31	3630	86	919	---	---	---	17700	213	10200
TOTAL	170690	---	46270	291390	---	215072	267810	---	259001

CUMBERLAND RIVER BASIN

03404000 CUMBERLAND RIVER AT WILLIAMSBURG, KY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	13500	86	3200	1850	15	75	1810	44	217
2	7860	56	1180	1650	14	63	1660	38	184
3	5520	46	685	1470	12	47	2330	82	522
4	4540	41	502	1310	10	34	2230	93	607
5	3920	38	403	1200	8	27	3010	259	2140
6	3560	39	372	1120	7	22	1900	134	690
7	3050	35	286	1140	7	22	1330	89	321
8	2740	31	232	1070	7	19	1090	65	190
9	2630	33	237	959	6	16	910	43	105
10	2870	99	771	922	8	21	721	32	62
11	2560	55	384	958	9	23	632	26	45
12	2200	43	254	1530	49	215	602	35	57
13	2180	42	250	1920	62	329	841	44	102
14	2410	48	312	2380	45	295	1130	45	137
15	4160	126	1680	1990	40	214	1470	66	276
16	8400	252	5820	1570	36	151	1590	71	312
17	6710	122	2260	1360	47	172	1790	165	824
18	4460	56	681	1130	35	106	2570	296	2210
19	3550	34	325	2490	524	4330	2130	202	1250
20	4240	108	1430	10200	2500	66700	1220	85	283
21	5490	197	2960	12100	1120	37400	1460	119	546
22	4070	91	1020	8930	253	6250	3120	335	2910
23	3310	32	284	4450	128	1580	2580	147	1020
24	2860	20	157	2720	64	469	2500	144	973
25	2520	17	116	2080	44	247	1740	146	675
26	2170	16	91	1680	33	148	1560	146	616
27	1950	14	74	1310	25	87	1630	93	410
28	1880	14	70	1180	26	84	1410	74	278
29	2200	23	136	1190	27	86	1150	57	176
30	2090	18	100	1380	27	101	949	42	109
31	---	---	---	1700	46	234	---	---	---
TOTAL	119600	---	26272	76939	---	119567	49065	---	18247
		JULY			AUGUST			SEPTEMBER	
1	762	36	75	971	86	224	278	30	22
2	747	29	59	699	73	137	254	24	16
3	1190	103	333	546	63	92	211	17	9.4
4	996	123	331	455	52	64	191	13	6.8
5	981	40	105	426	45	52	181	10	4.7
6	764	26	53	409	33	37	201	10	5.5
7	783	24	51	353	19	19	261	15	11
8	729	26	51	354	23	23	338	20	19
9	874	34	80	512	49	77	374	19	20
10	731	33	66	634	57	100	275	12	8.9
11	582	15	23	516	27	38	228	9	5.5
12	791	22	55	874	47	111	216	10	5.9
13	1230	101	346	613	37	61	236	17	11
14	1300	114	413	502	33	45	220	13	7.7
15	1050	53	153	500	29	39	203	9	5.0
16	1020	68	189	470	23	29	183	7	3.5
17	710	46	89	449	22	26	242	21	15
18	570	33	50	400	19	21	275	24	18
19	501	24	32	350	18	17	243	17	11
20	498	20	27	338	17	15	273	17	13
21	559	22	34	414	37	41	293	17	14
22	758	28	60	366	30	30	329	24	22
23	536	13	19	297	23	18	291	24	19
24	509	16	23	258	21	14	240	18	12
25	1130	48	160	235	18	11	400	40	51
26	1650	137	645	216	15	8.9	560	51	81
27	1640	191	850	209	14	7.9	609	35	59
28	1350	147	538	216	13	7.7	456	24	29
29	919	114	282	228	13	8.2	349	22	21
30	923	99	258	276	20	16	280	20	15
31	1500	132	543	280	27	20	---	---	---
TOTAL	28283	---	5993	13366	---	1409.7	8690	---	541.9
YEAR	1361374		914368.8						

03404500 CUMBERLAND RIVER AT CUMBERLAND FALLS, KY

LOCATION.--Lat 36°50'14", long 84°20'36", McCreary County, Hydrologic Unit 05130101, on left bank 0.1 mi downstream from bridge on State Highway 90, 0.2 mi upstream from Cumberland Falls, and at mile 562.4.

DRAINAGE AREA.--1,977 mi^2.

PERIOD OF RECORD.--August 1907 to December 1911, October 1914 to current year. Monthly discharge only for October 1914 to March 1915 and October 1931 to July 1932, published in WSP 1306.

REVISED RECORDS.--WSP 1386: 1919. WSP 1436: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 825.49 ft above Sandy Hook datum; 825.28 ft above National Geodetic Vertical Datum 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.--Estimated daily discharges: Apr. 4-11. Records good except for period of estimated record, which is poor. Flow slightly regulated by Martins Fork Dam (station 03400798) beginning January 1979. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	298	795	823	16300	5200	3400	15800	2130	2060	922	1240	305
2	283	686	770	14200	4730	3540	9760	1910	1830	771	873	297
3	263	588	2740	9400	3810	4900	6340	1720	2350	1020	663	323
4	267	546	10800	6330	3270	14000	5000	1570	2250	1150	532	253
5	334	516	10900	4990	2910	15200	4330	1440	2970	1030	444	235
6	515	540	7160	4260	2960	11400	3820	1350	2410	939	430	236
7	841	591	4000	10600	4020	9230	3450	1300	1620	787	405	238
8	1830	691	2870	17900	4600	8170	3330	1290	1240	828	399	281
9	2350	708	2270	16900	4540	6730	3220	1200	1050	1080	490	362
10	2630	1320	1840	12600	4200	5530	3100	1110	878	1020	639	378
11	1830	1700	1570	8790	3770	4610	2990	1120	732	788	618	294
12	1190	1700	1410	7800	3280	3990	2620	2140	678	765	662	257
13	1000	1560	1250	7260	2970	3770	2490	3820	715	1150	834	238
14	887	1290	1110	6350	10300	3940	2720	2960	1090	1510	622	244
15	820	1100	1050	5400	17300	3900	4180	2720	1420	1190	543	241
16	754	969	1160	4840	12700	4020	8870	2060	1590	1120	519	224
17	658	910	2040	4660	8280	3720	8350	1700	1790	915	491	206
18	588	837	6670	4160	21900	4400	5660	1540	2200	685	476	252
19	585	799	12800	3650	34600	6610	4310	2490	2680	568	428	290
20	1050	740	13900	3440	41400	6690	4040	8990	1600	504	388	260
21	1310	673	13700	3310	36900	5700	5890	13900	1220	501	380	276
22	1550	629	16300	3180	32200	5890	4770	10600	3620	648	436	292
23	4270	623	35100	2920	25400	16900	3790	6040	3780	694	393	324
24	3960	685	33300	2710	17600	26500	3200	3430	3160	539	330	297
25	3310	861	30500	2550	8410	24800	2850	2550	2770	783	294	281
26	2300	782	23600	2310	5390	20500	2510	2060	1880	1850	282	475
27	1640	703	17600	2150	4560	14200	2250	1670	1770	1900	268	616
28	1300	642	19300	2050	3910	7390	2100	1490	1650	1600	270	577
29	1120	653	20100	2050	---	13900	2260	1400	1340	1180	257	430
30	970	755	18000	2120	---	22500	2340	1420	1110	914	277	340
31	874	---	19100	3630	---	20000	---	1530	---	1280	307	---
TOTAL	41577	25592	333733	198810	331110	306030	136340	90650	55453	30631	15190	9322
MEAN	1341	853	10770	6413	11830	9872	4545	2924	1848	988	490	311
MAX	4270	1700	35100	17900	41400	26500	15800	13900	3780	1900	1240	816
MIN	263	516	770	2050	2910	3400	2100	1110	678	501	257	206
CFSM	.68	.43	5.45	3.24	5.98	4.99	2.30	1.48	.93	.50	.25	.16
IN.	.78	.48	6.28	3.74	6.23	5.76	2.57	1.71	1.04	.58	.29	.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1908 - 1991, BY WATER YEAR (WY)

MEAN	695	1862	3720	5817	6298	7003	4979	3318	1738	1351	923	551
MAX	5330	7963	17620	17570	15740	18510	11390	11230	8954	6379	4171	4410
(WY)	1990	1978	1927	1937	1939	1917	1977	1984	1989	1941	1942	1989
MIN	10.5	44.2	141	227	462	1572	987	417	103	47.5	37.3	23.0
(WY)	1954	1940	1940	1981	1941	1988	1963	1936	1936	1944	1925	1925

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1908 - 1991	
ANNUAL TOTAL	1336162		1574438			
ANNUAL MEAN	3661		4314		3174	
HIGHEST ANNUAL MEAN					5196	1927
LOWEST ANNUAL MEAN					1324	1988
HIGHEST DAILY MEAN	35100	Dec 23	41400	Feb 20	57500	Jan 28 1918
LOWEST DAILY MEAN	252	Sep 8	206	Sep 17	4.0	Sep 19 1954
ANNUAL SEVEN-DAY MINIMUM	288	Sep 5	237	Sep 12	7.1	Oct 23 1953
INSTANTANEOUS PEAK FLOW			44400	Feb 20	59600	Jan 28 1918
INSTANTANEOUS PEAK STAGE			12.68	Feb 20	15.50	Jan 28 1918
INSTANTANEOUS LOW FLOW			203	Sep 17	4.0	Sep 19 1954
ANNUAL RUNOFF (CFSM)	1.85		2.18		1.61	
ANNUAL RUNOFF (INCHES)	25.14		29.63		21.81	
10 PERCENT EXCEEDS	9020		13200		7880	
50 PERCENT EXCEEDS	2280		1770		1380	
90 PERCENT EXCEEDS	377		338		153	

CUMBERLAND RIVER BASIN

03404820 LAUREL RIVER AT MUNICIPAL DAM NEAR CORBIN, KY

LOCATION.--Lat 36°58'13", long 84°07'11", Laurel County, Hydrologic Unit 05130101, on left bank adjacent to State Highway 709, 200 ft upstream from Corbin Municipal Dam, 0.1 mi upstream from Lynn Camp Creek, 2.0 mi northwest of Corbin, and at mile 21.4.

DRAINAGE AREA.--140 mi^2.

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder and concrete dam control. Datum of gage is 1,000.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Diversion from gage pool at station for municipal supply of Corbin.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	62	69	1560	764	169	600	53	180	313	21	18
2	21	59	67	650	408	226	422	49	653	649	19	22
3	19	55	1110	434	310	348	325	44	285	1440	18	15
4	26	53	2480	331	253	988	267	41	387	397	16	12
5	42	55	1560	273	221	701	234	39	189	220	12	12
6	43	80	516	253	345	480	212	40	107	145	10	35
7	36	83	317	1460	559	431	186	42	73	98	9.1	30
8	315	66	237	1540	411	325	174	39	58	88	10	25
9	373	67	186	865	333	260	177	41	48	144	54	18
10	142	438	151	550	281	224	183	55	43	103	44	17
11	87	458	131	770	245	196	144	55	36	110	25	16
12	76	267	108	709	213	185	123	106	53	103	18	18
13	72	184	99	549	262	267	177	155	103	109	17	18
14	61	141	91	422	1220	528	194	143	74	120	37	19
15	53	115	96	346	1040	417	509	85	146	80	54	15
16	46	99	419	328	554	319	623	55	62	57	63	13
17	42	101	553	296	464	276	353	65	175	47	42	11
18	42	97	2200	234	2200	914	252	396	258	40	49	13
19	50	89	2350	206	3680	833	236	726	119	38	45	87
20	46	78	1310	200	3840	511	257	2630	75	33	44	43
21	42	74	1200	201	1800	380	192	4640	114	30	35	26
22	318	74	2220	169	717	540	165	1770	394	26	30	22
23	1600	119	5220	140	479	1490	144	439	219	23	26	21
24	1340	134	3370	147	367	1200	120	250	134	36	24	21
25	526	98	1080	133	305	590	101	168	2760	171	27	33
26	250	81	501	119	267	387	85	116	1950	111	33	56
27	170	73	492	115	224	330	79	197	509	55	23	40
28	125	76	2230	147	186	334	72	836	234	38	19	35
29	97	93	1720	161	---	1520	68	376	162	33	20	29
30	79	84	1450	376	---	2190	61	188	115	27	17	25
31	70	---	2710	1060	---	1210	---	124	---	26	14	---
TOTAL	6228	3553	36243	14744	21948	18769	6735	13963	9715	4910	875.1	765
MEAN	201	118	1169	476	784	605	224	450	324	158	28.2	25.5
MAX	1600	458	5220	1560	3840	2190	623	4640	2760	1440	63	87
MIN	19	53	67	115	186	169	61	39	36	23	9.1	11
CFSM	1.44	.85	8.35	3.40	5.60	4.32	1.60	3.22	2.31	1.13	.20	.18
IN.	1.65	.94	9.63	3.92	5.83	4.99	1.79	3.71	2.58	1.30	.23	.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1991, BY WATER YEAR (WY)

MEAN	122	253	342	409	446	429	309	266	150	76.5	42.6	46.9
MAX	713	628	1169	1004	784	1439	643	1191	527	283	240	180
(WY)	1990	1987	1991	1979	1991	1975	1977	1984	1989	1979	1977	1989
MIN	.000	.000	27.1	19.5	124	128	45.2	35.0	4.22	5.69	.000	.000
(WY)	1979	1988	1981	1981	1988	1988	1986	1976	1988	1980	1980	1980

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1974 - 1991	
ANNUAL TOTAL	103793.0		138448.1			
ANNUAL MEAN	284		379		240	
HIGHEST ANNUAL MEAN					379	1991
LOWEST ANNUAL MEAN					76.8	1988
HIGHEST DAILY MEAN	5220	Dec 23	5220	Dec 23	16000	May 7 1984
LOWEST DAILY MEAN	4.2	Jul 9	9.1	Aug 7	.00	Jul 19 1974
ANNUAL SEVEN-DAY MINIMUM	7.3	Jul 29	13	Aug 2	.00	Jul 24 1975
INSTANTANEOUS PEAK FLOW			5400	Dec 23	18300	May 7 1984
INSTANTANEOUS PEAK STAGE			23.90	Dec 23	27.46	May 7 1984
INSTANTANEOUS LOW FLOW			5.9	Aug 6	.00	Jul 19 1974
ANNUAL RUNOFF (CFSM)	2.03		2.71		1.71	
ANNUAL RUNOFF (INCHES)	27.58		36.79		23.30	
10 PERCENT EXCEEDS	659		1070		565	
50 PERCENT EXCEEDS	108		141		87	
90 PERCENT EXCEEDS	19		23		.68	

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^2.

PERIOD OF RECORD.--Annual maximums, water years 1957-73, October 1973 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,049.00 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Oct. 1, 1958 to Feb. 3, 1964, crest-stage gage at site 1,500 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	24	20	290	152	65	183	21	196	18	10	4.0
2	4.5	21	20	184	109	99	132	21	219	550	8.9	3.8
3	3.8	17	814	131	86	251	103	18	239	892	8.9	3.8
4	35	16	1040	99	73	497	83	18	91	127	8.9	2.7
5	29	23	201	86	67	228	75	19	55	72	8.9	4.4
6	14	38	115	87	140	184	66	21	38	41	12	4.3
7	10	24	80	838	118	195	60	21	31	30	8.7	4.0
8	588	18	62	470	94	133	59	18	27	37	6.4	2.8
9	207	29	50	223	81	105	55	23	24	82	7.0	2.7
10	62	218	42	174	73	90	52	24	18	69	6.5	2.7
11	50	122	36	245	63	77	45	80	15	68	5.6	2.5
12	45	71	33	198	56	71	40	146	27	186	5.5	1.8
13	38	53	31	155	116	110	66	130	25	170	5.5	1.6
14	31	43	27	123	307	140	56	76	18	82	5.7	1.6
15	24	37	34	101	189	96	225	37	28	44	25	1.5
16	19	33	64	112	115	79	122	29	25	30	10	1.2
17	16	32	216	96	174	80	75	26	29	21	5.3	.92
18	29	31	752	79	1160	266	59	65	20	17	7.6	23
19	26	28	557	73	1420	163	59	459	14	16	7.3	20
20	18	25	246	73	1180	120	57	1440	11	14	7.1	6.8
21	16	22	466	70	399	96	47	1010	178	14	6.2	4.0
22	601	23	976	57	233	231	43	208	174	12	4.3	2.6
23	1140	39	1780	48	169	735	37	116	54	9.7	3.6	1.8
24	246	31	647	45	132	307	33	82	38	22	2.9	3.5
25	109	26	241	44	109	164	28	62	255	60	7.7	27
26	69	23	157	42	96	121	26	51	76	231	10	14
27	52	21	260	42	79	114	24	63	44	49	9.2	6.2
28	43	22	1020	53	69	231	24	91	33	29	5.4	4.1
29	34	26	359	48	---	1270	24	51	27	23	16	3.2
30	29	22	466	250	---	799	24	52	22	18	13	2.6
31	26	---	916	345	---	288	---	42	---	13	8.2	---
TOTAL	3618.9	1158	11728	4881	7059	7405	1982	4520	2051	3046.7	257.3	165.12
MEAN	117	38.6	378	157	252	239	66.1	146	68.4	98.3	8.30	5.50
MAX	1140	218	1780	838	1420	1270	225	1440	255	892	25	27
MIN	3.8	16	20	42	56	65	24	18	11	9.7	2.9	.92
CFSM	2.17	.72	7.03	2.93	4.69	4.44	1.23	2.71	1.27	1.83	.15	.10
IN.	2.50	.80	8.11	3.37	4.88	5.12	1.37	3.13	1.42	2.11	.18	.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1991, BY WATER YEAR (WY)

MEAN	36.8	94.1	119	150	162	146	101	95.4	49.8	38.6	22.2	28.7
MAX	133	267	378	372	282	458	215	387	171	110	78.4	100
(WY)	1990	1974	1991	1974	1990	1975	1977	1983	1989	1978	1979	1982
MIN	1.35	10.8	10.4	5.13	56.9	41.9	16.5	9.47	2.38	2.11	2.50	1.89
(WY)	1981	1979	1981	1981	1977	1988	1986	1986	1988	1975	1976	1983

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1967 - 1991	
ANNUAL TOTAL	37762.5		47872.02			
ANNUAL MEAN	103		131		86.6	
HIGHEST ANNUAL MEAN					131	1991
LOWEST ANNUAL MEAN					36.5	1988
HIGHEST DAILY MEAN	1780	Dec 23	1780	Dec 23	4150	May 7 1984
LOWEST DAILY MEAN	1.2	Jul 4	.92	Sep 17	.02	Jun 24 1988
ANNUAL SEVEN-DAY MINIMUM	1.4	Jul 3	1.6	Sep 11	.02	Jun 24 1988
INSTANTANEOUS PEAK FLOW			2850	Jul 2	9000	Jan 29 1957
INSTANTANEOUS PEAK STAGE			9.59	Jul 2	22.50	Jan 29 1957
INSTANTANEOUS LOW FLOW			.74	Sep 16	.02	Jun 24 1988
ANNUAL RUNOFF (CFSM)	1.92		2.44		1.61	
ANNUAL RUNOFF (INCHES)	26.11		33.10		21.88	
10 PERCENT EXCEEDS	209		262		194	
50 PERCENT EXCEEDS	43		45		36	
90 PERCENT EXCEEDS	5.1		6.0		3.1	

CUMBERLAND RIVER BASIN

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^2.

PERIOD OF RECORD.--July 1936 to current year.

REVISED RECORDS.--WSP 1436: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 802.90 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 19, 1940, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	104	192	8960	865	726	2490	379	279	2610	32	45
2	36	97	177	3080	775	1020	1890	334	635	1010	29	64
3	32	87	2030	2100	723	1200	1480	302	354	527	28	60
4	38	78	6520	1550	664	3720	1200	272	400	533	26	56
5	56	75	2400	1220	620	3170	1030	254	370	438	24	49
6	99	83	1340	1080	816	2280	946	242	278	306	23	44
7	107	92	935	5590	1940	2030	780	235	209	225	21	48
8	78	121	694	6920	1820	1650	688	227	170	358	63	54
9	61	107	538	3620	1550	1340	672	218	143	4830	76	48
10	52	809	444	2550	1310	1110	743	313	122	1400	40	44
11	46	1510	381	4970	1100	934	673	348	106	791	32	40
12	56	752	334	4420	906	826	575	280	116	591	40	35
13	58	501	300	3040	866	1050	735	300	146	407	39	32
14	63	371	271	2230	3560	1450	1010	273	211	311	40	30
15	63	295	295	1740	4680	1510	2310	268	161	247	51	28
16	56	247	1780	1500	2660	1320	4020	224	149	198	45	27
17	48	222	2020	1290	1980	1190	2280	215	164	153	36	29
18	55	209	12400	1040	7190	3340	1640	233	190	124	39	35
19	66	191	22100	902	14000	3650	1370	325	198	104	58	67
20	62	169	6180	846	12400	2420	1760	4790	157	90	95	60
21	59	154	3480	809	5740	1850	1340	7060	126	78	93	66
22	84	144	7000	703	3220	2030	1110	2410	260	68	106	63
23	839	187	24300	605	2250	6550	925	1380	341	59	73	48
24	1220	331	19400	565	1690	4900	771	927	245	56	54	39
25	528	315	4070	525	1370	2640	635	660	1240	53	43	41
26	338	270	2430	471	1160	1900	549	494	1640	49	36	43
27	246	237	1830	448	970	1570	497	423	649	46	32	62
28	197	220	8200	462	824	1560	474	681	419	43	31	58
29	162	223	5810	500	---	1670	467	695	302	50	30	48
30	137	219	5110	492	---	3650	430	429	231	43	34	44
31	118	---	20700	817	---	3300	---	336	---	36	33	---
TOTAL	5101	8420	163661	65045	77649	67556	35490	25527	10011	15834	1402	1407
MEAN	165	281	5279	2098	2773	2179	1183	823	334	511	45.2	46.9
MAX	1220	1510	24300	8960	14000	6550	4020	7060	1640	4830	106	67
MIN	32	75	177	448	620	726	430	215	106	36	21	27
CFSM	.27	.46	8.74	3.47	4.59	3.61	1.96	1.36	.55	.85	.07	.08
IN.	.31	.52	10.08	4.01	4.78	4.16	2.19	1.57	.62	.98	.09	.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 1991, BY WATER YEAR (WY)

MEAN	202	581	1271	1656	1950	1950	1466	939	518	367	197	157
MAX	2887	2374	5279	5990	5236	5860	4051	4207	2861	1830	1263	1052
(WY)	1990	1987	1991	1937	1956	1975	1972	1983	1947	1941	1977	1974
MIN	3.18	11.5	16.5	56.9	208	507	188	115	37.9	10.8	10.1	4.95
(WY)	1954	1954	1954	1981	1941	1983	1986	1941	1988	1944	1957	1936

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1936 - 1991	
ANNUAL TOTAL	429109		477103			
ANNUAL MEAN	1176		1307		934	
HIGHEST ANNUAL MEAN					1575	1979
LOWEST ANNUAL MEAN					345	1954
HIGHEST DAILY MEAN	24300	Dec 23	24300	Dec 23	46200	Dec 9 1978
LOWEST DAILY MEAN	23	Aug 4	21	Aug 7	.90	Sep 9 1957
ANNUAL SEVEN-DAY MINIMUM	26	Jul 29	26	Aug 1	1.4	Sep 11 1964
INSTANTANEOUS PEAK FLOW			28700	Dec 23	50000	Dec 9 1978
INSTANTANEOUS PEAK STAGE			34.14	Dec 23	47.17	Dec 9 1978
INSTANTANEOUS LOW FLOW			21	Aug 7	.80	Sep 9 1957
ANNUAL RUNOFF (CFSM)	1.95		2.16		1.55	
ANNUAL RUNOFF (INCHES)	26.43		29.38		21.00	
10 PERCENT EXCEEDS	2210		3250		2120	
50 PERCENT EXCEEDS	429		358		319	
90 PERCENT EXCEEDS	44		43		23	

03407500 BUCK CREEK NEAR SHOPVILLE, KY

LOCATION.--Lat 37°12'38", long 84°27'52", Pulaski County, Hydrologic Unit 05130103, on right bank on downstream side of bridge on State Highway 461, 0.2 mi downstream from Brush Creek, 3.7 mi north of Shopville, 11.5 mi northeast of Somerset, and at mile 31.8.

DRAINAGE AREA.--165 mi^2.

PERIOD OF RECORD.--October 1952 to September 1991. (discontinued)

REVISED RECORDS.--WSP 1436: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 831.594 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 1, 1953, nonrecording gage and crest-stage gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.1	37	80	1180	204	196	496	81	54	190	2.3	2.8
2	7.8	34	76	862	179	347	383	72	50	71	1.9	2.2
3	6.7	30	1980	667	163	415	306	64	138	49	1.5	1.7
4	53	28	1070	460	151	794	259	59	133	48	1.2	1.3
5	86	27	516	347	149	514	245	56	78	47	.82	1.2
6	44	27	355	447	685	425	219	55	52	37	.72	1.2
7	30	30	258	3260	908	403	183	56	40	31	.62	1.0
8	23	30	193	1400	604	320	167	49	33	76	.53	.91
9	20	80	156	843	461	262	153	64	29	494	.51	.81
10	18	865	132	711	375	219	190	96	25	105	.47	.79
11	15	448	117	2020	298	190	149	69	22	125	.40	.66
12	82	238	105	1260	243	178	129	59	22	83	.34	.47
13	244	155	100	839	384	576	317	110	25	72	.30	.36
14	101	119	91	578	1360	442	274	76	97	58	.26	.27
15	67	97	548	449	889	341	1290	58	160	43	.24	.27
16	50	83	1080	416	556	277	709	48	62	34	.24	.24
17	39	80	1140	352	485	295	427	42	152	27	.22	.21
18	36	81	7550	279	3940	1290	303	40	199	24	.42	.21
19	34	73	7520	238	3800	721	522	38	78	21	8.9	.24
20	30	66	5530	227	2570	511	442	1300	56	18	5.5	.24
21	27	60	1840	208	1260	414	304	936	44	16	8.0	.24
22	36	58	3260	173	791	1200	247	481	44	14	12	.19
23	380	249	10100	153	544	2680	197	227	63	11	8.2	.06
24	218	193	2100	148	428	976	162	146	94	9.0	5.1	.06
25	127	137	957	136	363	579	134	111	1300	8.4	3.3	.09
26	90	108	708	124	314	433	120	88	289	7.4	2.4	.14
27	72	93	922	120	261	373	110	75	136	6.3	1.9	.13
28	59	89	2840	143	217	573	106	127	91	5.6	1.6	.10
29	51	109	1050	148	---	564	99	92	69	4.6	6.9	.40
30	45	92	3670	170	---	1100	95	72	56	3.9	5.0	1.3
31	41	---	5800	295	---	655	---	62	---	3.0	3.7	---
TOTAL	2141.6	3816	61844	18653	22582	18263	8737	4909	3691	1742.2	85.49	19.79
MEAN	69.1	127	1995	602	806	589	291	158	123	56.2	2.76	.66
MAX	380	865	10100	3260	3940	2680	1290	1300	1300	494	12	2.8
MIN	6.7	27	76	120	149	178	95	38	22	3.0	.22	.06
CFSM	.42	.77	12.1	3.65	4.89	3.57	1.77	.96	.75	.34	.02	.00
IN.	.48	.86	13.94	4.21	5.09	4.12	1.97	1.11	.83	.39	.02	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1991, BY WATER YEAR (WY)

MEAN	81.4	202	449	442	559	527	396	267	162	104	54.1	92.5
MAX	731	926	2476	1457	1570	1545	1019	1292	786	618	308	1051
(WY)	1978	1987	1979	1979	1956	1975	1972	1983	1960	1967	1977	1979
MIN	.000	.000	.38	14.6	75.4	124	51.5	38.7	3.31	2.69	.35	.12
(WY)	1954	1954	1954	1991	1954	1983	1986	1965	1987	1966	1965	1987

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1953 - 1991	
ANNUAL TOTAL	134980.54		146484.08			
ANNUAL MEAN	370		401		277	
HIGHEST ANNUAL MEAN					638	1979
LOWEST ANNUAL MEAN					77.7	1954
HIGHEST DAILY MEAN	10100	Dec 23	10100	Dec 23	16000	Dec 9 1978
LOWEST DAILY MEAN	.84	Aug 3	.06	Sep 23	.00	Sep 13 1953
ANNUAL SEVEN-DAY MINIMUM	1.6	Jul 6	.11	Sep 22	.00	Sep 13 1953
INSTANTANEOUS PEAK FLOW			13000	Dec 31	19900	Feb 27 1962
INSTANTANEOUS PEAK STAGE			17.68	Dec 31	23.21	Feb 27 1962
INSTANTANEOUS LOW FLOW			.06	Sep 23		
ANNUAL RUNOFF (CFSM)	2.24		2.43		1.67	
ANNUAL RUNOFF (INCHES)	30.43		33.03		22.78	
10 PERCENT EXCEEDS	692		914		605	
50 PERCENT EXCEEDS	107		97		88	
90 PERCENT EXCEEDS	6.8		.96		1.2	

CUMBERLAND RIVER BASIN

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY

LOCATION.--Lat 36°37'37", long 84°32'00", McCreary County, Hydrologic Unit 05130104, 400 ft upstream from Salt Branch, on right bank 1,000 ft below confluence of Bear Creek, 5.5 mi southwest of Stearns, and at mile 49.6.

DRAINAGE AREA.--954 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1942 to current year.

REVISED RECORDS.--WSP 1113: 1946(M). WSP 1436: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 763.83 ft above National Geodetic Vertical Datum of 1929; prior to Oct. 1, 1980 at site 1,000 ft upstream at datum 0.98 ft higher.

REMARKS.--No estimated daily discharges. Water-discharge records good.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1929, reached a stage of 52.9 ft from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	162	597	7180	1990	1330	5000	808	733	594	156	157
2	49	147	499	4490	1690	2100	3540	676	691	463	133	121
3	45	135	2440	3190	1500	4120	2670	594	610	452	115	156
4	76	131	14700	2400	1340	13800	2120	531	475	658	104	125
5	137	127	4620	1930	1220	6790	1800	504	474	691	138	121
6	132	140	2360	1670	1400	4460	1610	559	390	603	286	110
7	191	154	1600	7780	2210	3910	1420	671	304	476	193	108
8	277	185	1190	12100	2260	3180	1700	567	250	398	169	123
9	186	204	928	5890	2000	2530	1620	494	221	990	171	108
10	140	546	760	4010	1750	2040	1890	460	192	811	170	94
11	140	1210	646	4290	1530	1710	1990	470	173	603	212	89
12	169	965	573	4600	1310	1500	1550	722	199	472	182	90
13	184	653	513	3900	1430	1700	1530	1580	1820	431	142	84
14	143	490	491	3010	14200	2540	2070	1580	1370	328	129	76
15	125	395	512	2470	8250	2330	5020	1040	1060	281	127	70
16	118	337	729	2190	4490	1980	7310	776	807	227	118	66
17	109	291	989	2160	3370	1740	4220	660	668	183	115	65
18	110	260	3890	1810	29900	2940	2950	833	1910	164	172	65
19	151	241	9050	1630	41200	4460	2310	2520	1340	151	180	73
20	315	228	5170	1640	39200	3240	3240	5930	789	155	149	70
21	254	211	9470	1670	11000	2480	2550	4650	840	171	116	64
22	426	198	15500	1550	5930	2340	2020	2600	1100	186	106	65
23	1240	215	65900	1380	4150	25300	1680	1630	2300	173	103	63
24	1260	255	29400	1310	3070	16000	1410	1190	2860	160	96	79
25	685	271	6750	1220	2450	5600	1180	908	1560	324	83	159
26	464	287	4140	1100	2040	3710	1030	710	2040	771	74	289
27	349	261	3120	1020	1720	2770	910	567	1500	700	73	349
28	277	255	14000	1030	1480	2600	841	874	1060	431	114	252
29	227	348	10800	1040	---	14700	829	2240	903	321	108	182
30	198	655	6580	1050	---	23200	829	1250	787	242	113	140
31	179	---	11100	1640	---	8610	---	782	---	190	198	---
TOTAL	8409	9957	229017	92350	194080	175710	68839	39376	29426	12800	4345	3613
MEAN	271	332	7388	2979	6931	5668	2295	1270	981	413	140	120
MAX	1260	1210	65900	12100	41200	25300	7310	5930	2860	990	286	349
MIN	45	127	491	1020	1220	1330	829	460	173	151	73	63
CFSM	.28	.35	7.74	3.12	7.27	5.94	2.41	1.33	1.03	.43	.15	.13
IN.	.33	.39	8.93	3.60	7.57	6.85	2.68	1.54	1.15	.50	.17	.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1991, BY WATER YEAR (WY)

MEAN	421	1300	2607	3309	3611	3621	2523	1734	852	601	397	376
MAX	2553	4556	7388	9615	8747	10580	6038	6555	5152	3772	2997	2983
(WY)	1990	1958	1991	1950	1956	1975	1977	1984	1989	1967	1971	1982
MIN	20.8	30.6	150	145	725	1248	568	224	72.8	34.5	65.4	29.6
(WY)	1954	1954	1964	1981	1968	1985	1986	1948	1988	1944	1951	1953

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1943 - 1991	
ANNUAL TOTAL	659612		867922			
ANNUAL MEAN	1807		2378		1771	
HIGHEST ANNUAL MEAN					3023	1973
LOWEST ANNUAL MEAN					810	1988
HIGHEST DAILY MEAN	65900	Dec 23	65900	Dec 23	80200	Mar 13 1975
LOWEST DAILY MEAN	36	Sep 10	45	Oct 3	11	Sep 18 1954
ANNUAL SEVEN-DAY MINIMUM	43	Sep 5	66	Sep 17	12	Sep 13 1954
INSTANTANEOUS PEAK FLOW			74300	Dec 23	93200	May 28 1973
INSTANTANEOUS PEAK STAGE			40.12	Dec 23	46.29	May 28 1973
INSTANTANEOUS LOW FLOW			45	Oct 3	11	Oct 4 1948
ANNUAL RUNOFF (CFSM)	1.89		2.49		1.86	
ANNUAL RUNOFF (INCHES)	25.72		33.84		25.23	
10 PERCENT EXCEEDS	3990		4630		4050	
50 PERCENT EXCEEDS	685		771		702	
90 PERCENT EXCEEDS	84		116		82	

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-72, 1979 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1980 to September 1990.
pH: May 1980 to September 1990.
WATER TEMPERATURE: May 1980 to September 1990.
DISSOLVED OXYGEN: May 1980 to September 1990.
TURBIDITY: May 1980 to September 1987.
SUSPENDED SEDIMENT DISCHARGE: May 1980 to September 1990.

INSTRUMENTATION.--Five parameter water-quality monitor and sediment pumping sampler since May 1980.

REMARKS.--Miscellaneous samples prior to 1979. Miscellaneous measurement values may fall outside the range observed for that day by the water quality monitor due to minor differences in sampling location.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 434 microsiemens, July 17, 1985; minimum recorded, 40 microsiemens, May 7, 1984.
pH: Maximum recorded, 8.6 units, Aug. 10, 1989; minimum recorded, 5.2 units, May 19, Nov. 24, 1980.
WATER TEMPERATURE: Maximum recorded, 34.6°C, Aug. 31, Sept. 1, 1989; minimum recorded, 0.0°C, Dec. 25-27, 1983.
DISSOLVED OXYGEN: Maximum recorded, 14.3 mg/L, Dec. 21, 1981, Jan. 1, 2, 1984; minimum recorded, 4.5 mg/L, May 22, 1980.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,980 mg/L, Aug. 9, 1981; minimum daily mean, 0 mg/L, on several days in 1983-84, 1987-88.
SEDIMENT LOADS: Maximum daily, 200,000 tons, Sept. 2, 1982; minimum daily, 0.04 ton, Nov. 25, 1987.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)
OCT 1990											
10...	1055	134	205	7.2	20.0	1.4	8.1	92	K8	31	59
DEC											
05...	1240	4540	99	6.4	8.0	64	11.2	96	870	5800	36
FEB 1991											
05...	1210	1180	125	5.2	5.0	2.0	12.2	97	<1	6	47
APR											
02...	1115	3720	81	7.0	9.0	7.8	10.8	95	30	22	32
JUN											
04...	1235	484	139	7.0	25.0	6.0	7.4	93	25	110	55
AUG											
06...	1155	304	140	7.5	27.5	1.6	7.0	91	K15	85	49

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	ALKA-LINITY WAT DIS TOT FET FIELD MG/L AS CACO3	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SULFATE DIS-SOLVED (MG/L AS SO4)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT 1990											
10...	14	5.9	14	3.1	37	30	32	7.1	52	0.10	2.0
DEC											
05...	8.6	3.4	1.9	1.7	15	13	13	2.4	25	<0.10	4.6
FEB 1991											
05...	11	4.7	3.3	1.1	--	--	17	2.3	36	<0.10	4.8
APR											
02...	7.3	3.3	1.8	0.90	15	13	14	1.5	25	<0.10	5.1
JUN											
04...	14	4.8	4.1	1.7	32	26	27	1.9	32	<0.10	4.8
AUG											
06...	12	4.7	5.7	2.0	33	27	28	3.4	32	0.10	3.3

03410500 SOUTH FORK CUMBERLAND RIVER NEAR STEARNS, KY--Continued
(National stream-quality accounting network station)

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
OCT 1990											
10...	115	117	<0.010	<0.100	0.010	0.010	0.30	<0.010	<0.010	<0.010	50
DEC											
05...	62	57	<0.010	0.300	0.020	0.030	0.50	0.100	<0.010	<0.010	30
FEB 1991											
05...	76	74	<0.010	0.220	0.010	0.040	<0.20	<0.010	0.010	<0.010	--
APR											
02...	49	53	0.010	0.150	0.010	<0.010	<0.20	0.020	<0.010	<0.010	90
JUN											
04...	79	80	<0.010	0.220	0.050	0.020	1.3	0.020	<0.010	<0.010	<10
AUG											
06...	78	80	<0.010	0.200	0.040	--	0.50	<0.010	0.020	<0.010	--

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT 1990											
10...	<1	31	<0.5	2.0	<1	<3	2	46	<1	7	82
DEC											
05...	<1	20	<0.5	<1.0	1	<3	1	57	<1	<4	76
FEB 1991											
05...	--	--	--	--	--	--	--	--	--	--	--
APR											
02...	<1	20	<0.5	<1.0	<1	<3	2	64	1	<4	48
JUN											
04...	<1	27	<0.5	2.0	<1	<3	5	110	2	<4	58
AUG											
06...	--	--	--	--	--	--	--	--	--	--	--

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 1990											
10...	0.2	<10	2	<1	<1.0	56	<6	18	5	1.8	55
DEC											
05...	<0.1	<10	2	<1	<1.0	28	<6	31	--	--	--
FEB 1991											
05...	--	--	--	--	--	--	--	--	3	9.6	98
APR											
02...	<0.1	<10	2	<1	<1.0	25	<6	14	12	121	88
JUN											
04...	0.2	<10	3	<1	<1.0	41	<6	19	7	9.1	97
AUG											
06...	--	--	--	--	--	--	--	--	3	2.5	100

CUMBERLAND RIVER BASIN

03413200 BEAVER CREEK NEAR MONTICELLO, KY

LOCATION.--Lat 36°47'51", long 84°53'46", Wayne County, Hydrologic Unit 05130103, on left bank upstream of bridge on State Highway 200, 0.6 mi downstream from unnamed tributary, 0.8 mi northeast of Bethesda, 0.9 mi upstream from unnamed tributary, 3.8 mi southwest of Monticello, and at mile 24.0.

DRAINAGE AREA.--43.4 mi^2.

PERIOD OF RECORD.--October 1968 to September 1983, October 1989 to current year.

GAGE.--Water-stage recorder. Datum of gage is 804.72 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 9-28,1989. Records fair except for period of estimated daily discharges, which is poor. No estimated daily discharges. Records fair for water year 1991. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality section.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1946 reached a stage of 10.8 ft from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1740	18	34	415	120	26	45	27	26	4.5	1.8	1.8
2	288	17	33	179	87	34	45	26	24	4.0	1.8	1.8
3	128	16	31	117	597	58	38	24	22	3.6	1.8	1.6
4	75	15	28	149	786	41	35	25	21	3.4	1.7	1.4
5	53	15	28	135	299	35	34	69	18	3.4	2.6	1.3
6	39	20	27	96	176	33	99	40	16	3.4	3.7	1.5
7	32	51	25	72	125	30	128	35	15	3.4	2.5	1.9
8	26	112	24	59	89	29	77	30	15	2.9	2.0	2.6
9	22	193	24	49	75	29	66	27	12	2.9	1.8	2.8
10	19	105	25	42	1490	206	62	26	15	2.4	1.8	2.3
11	16	67	33	39	388	162	60	24	13	2.3	1.8	2.1
12	15	53	32	35	183	81	51	23	11	2.2	2.1	2.3
13	13	44	31	31	123	62	46	22	9.4	3.1	1.9	2.1
14	12	41	29	29	86	54	44	21	9.5	3.8	1.8	2.5
15	12	41	28	28	69	50	44	20	8.8	3.9	1.8	3.7
16	652	119	27	26	675	133	41	20	8.0	3.6	1.8	2.9
17	4280	81	26	25	240	332	40	44	7.5	3.3	1.6	2.1
18	554	62	25	28	142	189	50	31	7.5	2.9	1.7	1.9
19	208	51	24	27	101	122	44	22	6.5	9.5	1.6	2.0
20	134	47	23	27	72	92	42	20	6.5	7.2	1.6	2.1
21	93	42	21	59	57	72	42	35	6.5	6.2	1.6	2.5
22	64	38	20	44	54	62	48	27	6.5	6.0	2.3	7.1
23	48	54	19	38	49	54	46	25	6.3	5.4	2.3	5.4
24	38	45	18	36	41	48	42	23	5.3	4.5	1.8	3.5
25	32	41	17	34	35	63	38	21	5.4	3.6	1.7	2.9
26	27	40	16	33	33	56	36	21	5.2	3.4	1.7	2.9
27	23	38	15	29	31	50	34	41	5.2	3.4	1.8	2.5
28	21	40	14	28	29	47	32	176	4.9	3.4	1.8	2.5
29	20	40	23	663	---	44	31	57	4.7	3.4	1.6	2.5
30	18	36	104	444	---	44	30	37	4.7	3.1	1.7	2.5
31	17	---	1220	185	---	44	---	30	---	2.5	1.8	---
TOTAL	8719	1582	2044	3201	6252	2382	1470	1069	326.4	120.6	59.3	77.0
MEAN	281	52.7	65.9	103	223	76.8	49.0	34.5	10.9	3.89	1.91	2.57
MAX	4280	193	1220	663	1490	332	128	176	26	9.5	3.7	7.1
MIN	12	15	14	25	29	26	30	20	4.7	2.2	1.6	1.3
CFSM	6.48	1.22	1.52	2.38	5.14	1.77	1.13	.79	.25	.09	.04	.06
IN.	7.47	1.36	1.75	2.74	5.36	2.04	1.26	.92	.28	.10	.05	.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1990, BY WATER YEAR (WY)

MEAN	30.6	38.7	93.4	124	116	127	127	63.1	46.0	20.5	21.6	20.0
MAX	281	109	294	265	223	479	234	215	193	101	124	106
(WY)	1990	1980	1979	1974	1990	1975	1977	1983	1981	1971	1971	1982
MIN	1.72	3.47	2.41	2.36	28.1	24.0	28.4	16.6	4.83	3.13	1.89	1.17
(WY)	1981	1972	1981	1981	1981	1983	1978	1982	1980	1980	1980	1980

SUMMARY STATISTICS	FOR 1990 WATER YEAR		WATER YEARS 1969 - 1990	
ANNUAL TOTAL	27302.3			
ANNUAL MEAN	74.8		68.9	
HIGHEST ANNUAL MEAN			103	1979
LOWEST ANNUAL MEAN			32.5	1969
HIGHEST DAILY MEAN	4280	Oct 17	4280	Oct 17 1989
LOWEST DAILY MEAN	1.3	Sep 5	.50	Oct 2 1968
ANNUAL SEVEN-DAY MINIMUM	1.6	Aug 31	.95	Sep 4 1980
INSTANTANEOUS PEAK FLOW	9300	Oct 17	9300	Oct 17 1989
INSTANTANEOUS PEAK STAGE	8.37	Oct 17	8.37	Oct 17 1989
INSTANTANEOUS LOW FLOW	1.1	Sep 5	.50	Oct 2 1968
ANNUAL RUNOFF (CFSM)	1.72		1.59	
ANNUAL RUNOFF (INCHES)	23.40		21.57	

CUMBERLAND RIVER BASIN

03413200 BEAVER CREEK NEAR MONTICELLO, KY--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	4.1	10	298	72	41	160	17	16	4.6	2.2	11
2	2.5	3.6	9.8	164	59	67	110	16	14	31	2.1	41
3	2.3	3.8	607	106	51	201	83	15	13	11	1.9	36
4	5.6	3.0	203	76	45	324	67	14	12	7.0	1.8	7.8
5	6.6	3.0	63	61	41	155	57	14	11	6.0	1.7	5.1
6	3.5	3.9	40	52	77	136	49	14	10	5.2	1.8	4.0
7	2.8	4.5	29	387	93	131	44	13	9.4	4.6	1.7	3.3
8	3.7	4.5	22	239	75	84	46	12	8.6	4.7	1.9	2.9
9	5.7	12	17	137	66	68	46	11	7.9	7.9	2.1	2.9
10	5.7	190	15	157	59	57	46	11	7.5	7.1	2.1	3.4
11	4.5	54	13	481	50	50	44	11	7.1	5.4	2.1	3.0
12	21	25	12	248	44	47	39	13	8.8	6.7	2.2	2.9
13	20	16	12	157	90	62	64	22	8.6	8.3	2.1	2.6
14	8.8	12	10	111	394	105	58	15	7.6	6.9	2.5	1.9
15	5.8	9.3	51	83	183	76	400	12	7.0	5.2	2.5	1.8
16	3.4	7.6	159	69	109	67	186	11	7.0	4.0	2.5	1.9
17	3.0	7.4	203	56	162	61	112	13	7.2	3.7	2.3	1.8
18	6.0	6.6	923	47	1780	151	81	12	6.9	3.4	3.1	1.8
19	6.8	6.5	515	43	1200	105	66	113	6.5	3.4	3.5	1.8
20	4.7	6.0	230	42	678	83	52	93	6.2	3.4	3.4	1.8
21	3.5	5.3	775	37	321	73	44	61	6.2	2.9	3.4	1.8
22	13	5.3	2100	33	191	699	40	36	6.0	2.9	2.6	1.8
23	53	6.2	3910	31	129	674	36	27	6.0	2.9	2.6	1.8
24	18	6.7	475	30	95	267	32	23	5.8	2.9	2.5	2.4
25	11	7.0	200	26	73	147	28	19	6.5	3.3	2.1	8.5
26	7.7	6.6	122	25	60	103	27	17	6.4	3.2	2.1	7.7
27	7.1	6.5	237	25	51	80	25	18	5.4	3.0	2.3	3.9
28	6.6	11	876	25	44	70	23	57	5.2	2.6	2.7	2.6
29	5.5	20	293	24	---	830	21	29	5.2	2.5	3.0	2.2
30	4.7	13	933	109	---	590	19	23	4.5	2.4	4.2	1.9
31	4.3	---	1170	128	---	267	---	19	---	2.0	4.2	---
TOTAL	259.3	470.4	14234.8	3507	6292	5871	2105	781	239.5	170.1	77.2	173.3
MEAN	8.36	15.7	459	113	225	189	70.2	25.2	7.98	5.49	2.49	5.78
MAX	53	190	3910	481	1780	830	400	113	16	31	4.2	41
MIN	2.3	3.0	9.8	24	41	41	19	11	4.5	2.0	1.7	1.8
CFSM	.19	.36	10.6	2.61	5.18	4.36	1.62	.58	.18	.13	.06	.13
IN.	.22	.40	12.20	3.01	5.39	5.03	1.80	.67	.21	.15	.07	.15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1991, BY WATER YEAR (WY)

MEAN	29.3	37.4	115	123	123	130	124	60.8	43.8	19.6	20.5	19.1
MAX	281	109	459	265	225	479	234	215	193	101	124	106
(WY)	1990	1980	1991	1974	1991	1975	1977	1983	1981	1971	1971	1982
MIN	1.72	3.47	2.41	2.36	28.1	24.0	28.4	16.6	4.83	3.13	1.89	1.17
(WY)	1981	1972	1981	1981	1981	1983	1978	1982	1980	1980	1980	1980

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1969 - 1991	
ANNUAL TOTAL	29921.8		34180.6			
ANNUAL MEAN	82.0		93.6		70.4	
HIGHEST ANNUAL MEAN					103	1979
LOWEST ANNUAL MEAN					32.5	1969
HIGHEST DAILY MEAN	3910	Dec 23	3910	Dec 23	4280	Oct 17 1989
LOWEST DAILY MEAN	1.3	Sep 5	1.7	Aug 5	.50	Oct 2 1968
ANNUAL SEVEN-DAY MINIMUM	1.6	Aug 31	1.8	Sep 17	.95	Sep 4 1980
INSTANTANEOUS PEAK FLOW			7810	Dec 23	9300	Oct 17 1989
INSTANTANEOUS PEAK STAGE			7.89	Dec 23	8.37	Oct 17 1989
INSTANTANEOUS LOW FLOW			1.6	Aug 4	.50	Oct 2 1968
ANNUAL RUNOFF (CFSM)	1.89		2.16		1.62	
ANNUAL RUNOFF (INCHES)	25.65		29.30		22.03	
10 PERCENT EXCEEDS	160		190		140	
50 PERCENT EXCEEDS	20		13		22	
90 PERCENT EXCEEDS	2.1		2.5		2.7	

CUMBERLAND RIVER BASIN

03414000 CUMBERLAND RIVER NEAR ROWENA, KY

LOCATION.--Lat 36°53'02", long 85°08'22", Russell County, Hydrologic Unit 05130103, on right bank 1.5 mi downstream from Wolf Creek Dam, 1.9 mi west of Rowena, 2.0 mi upstream from Blackfish Creek, and at mile 459.4.

DRAINAGE AREA.--5,790 mi^2.

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

REVISED RECORDS.--WSP 953: Drainage area. WSP 1336: 1940.

GAGE.--Water-stage recorder. Datum of gage is 540.81 ft Sandy Hook datum. Prior to Oct. 24, 1940, nonrecording gage at same site and datum. Oct. 1, 1943 to Sept. 30, 1948, auxiliary nonrecording gage at Rowena Ferry, 2.9 mi upstream.

REMARKS.--Estimated daily discharges: Jan. 13-17. Records good above 2,000 ft^3/s, and poor below. Flow regulated by Lake Cumberland beginning March 1950 (station 03413500).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1826 reached a stage of 69.5 ft, from profile of Cumberland River.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3750	4670	3200	27200	21200	33000	26700	4690	10700	10800	3890	7060
2	3470	4700	2530	26600	13100	33500	26700	4460	8380	12500	3440	5470
3	4170	2620	5070	26500	6250	33300	26200	5380	13500	12300	3500	5290
4	3580	2660	10300	26500	14800	33800	26900	2850	15600	11700	4120	5550
5	4270	4500	9920	26600	16700	33300	26900	1750	5660	6400	6590	5510
6	2600	5610	4940	26900	17400	33100	26200	3290	3590	3570	11500	5410
7	2870	6680	4440	28100	17300	33000	26900	2930	3440	4230	14200	5530
8	4140	7480	2590	27200	17900	32900	26500	3340	3340	11000	3890	4550
9	4050	7220	4910	26800	13500	32900	25800	3110	3500	5330	6950	4550
10	4310	3220	12400	26700	3030	32900	26000	3300	5400	4250	4080	4410
11	4210	2650	13800	27200	8090	32600	27300	1550	5300	4150	4200	4420
12	4200	4260	14200	26800	9150	32300	27800	1200	5510	10100	6680	4470
13	2960	4400	6230	26800	9050	32200	28100	5080	6750	5150	7030	4530
14	2940	4390	5730	26800	7730	32100	28500	4760	5650	6880	6840	4710
15	7370	4550	5380	26700	18900	29800	21000	7040	3300	10500	6810	5550
16	8320	4830	4440	26600	20700	26500	23400	6860	3350	11400	6730	5660
17	7650	2700	5890	26500	19600	26200	23200	5100	3290	11000	7360	5660
18	8370	2740	6240	26600	21300	26600	23000	4680	8410	11300	6740	5810
19	7830	10200	5210	26800	28100	26300	23300	1540	13000	11300	7030	5460
20	3090	4990	5380	26800	27600	26700	18100	6210	16700	8040	7090	4950
21	2600	4700	5460	27000	28700	26600	12200	10200	16800	6840	7230	5190
22	4700	2760	3950	27000	33100	27200	12000	15400	10500	8270	7040	5090
23	4610	2690	4160	27200	33600	27700	11200	15500	3630	13000	6920	5430
24	7260	4770	12100	27200	33500	26100	11600	14400	6860	11300	7470	5140
25	8140	2850	23600	27500	33400	25700	11100	15200	8360	4290	7020	5430
26	7700	4820	24300	27600	33400	25500	11800	13200	14200	3300	6940	5230
27	3470	3980	26600	27800	33300	25600	7360	8700	16700	2130	7230	5150
28	2570	4750	28700	27800	33200	25600	2830	10700	16900	2130	7290	5190
29	4400	4490	28200	28100	---	26000	4620	15100	11200	3260	7430	4030
30	5280	4260	28200	28500	---	25800	4860	15400	3970	3470	7270	6310
31	4540	---	29200	28600	---	26300	---	15000	---	3410	6910	---
TOTAL	149420	135140	347270	841000	573600	911100	598070	227920	253490	233300	212420	156740
MEAN	4820	4505	11200	27130	20490	29390	19940	7352	8450	7526	6852	5225
MAX	8370	10200	29200	28600	33600	33800	28500	15500	16900	13000	14200	7060
MIN	2570	2620	2530	26500	3030	25500	2830	1200	3290	2130	3440	4030
CFSM	.83	.78	1.93	4.69	3.54	5.08	3.44	1.27	1.46	1.30	1.18	.90
IN.	.96	.87	2.23	5.40	3.69	5.85	3.84	1.46	1.63	1.50	1.36	1.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1991, BY WATER YEAR (WY)

MEAN	3716	5283	9240	14140	13600	15210	14150	9523	7637	6541	5586	4043
MAX	12890	15890	27770	41210	40860	32560	38500	36270	21660	17720	12010	11330
(WY)	1990	1990	1952	1950	1950	1944	1975	1968	1983	1973	1971	1982
MIN	169	208	394	599	1669	1989	2098	1516	956	182	587	258
(WY)	1949	1940	1969	1956	1981	1981	1981	1976	1948	1944	1944	1948

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1940 - 1991	
ANNUAL TOTAL	3042810		4639470			
ANNUAL MEAN	8336		12710		9093	
HIGHEST ANNUAL MEAN					13910	1952
LOWEST ANNUAL MEAN					4099	1969
HIGHEST DAILY MEAN	29200	Dec 31	33800	Mar 4	156000	Jan 9 1946
LOWEST DAILY MEAN	1380	Jun 2	1200	May 12	.00	Oct 1 1950
ANNUAL SEVEN-DAY MINIMUM	2380	May 27	2670	May 6	.00	Oct 1 1950
INSTANTANEOUS PEAK FLOW			34400	Mar 4	162000	Jan 9 1946
INSTANTANEOUS PEAK STAGE			25.26	Mar 4	64.82	Jan 9 1946
INSTANTANEOUS LOW FLOW			1150	May 5	.00	Oct 1 1950
ANNUAL RUNOFF (CFSM)	1.44		2.20		1.57	
ANNUAL RUNOFF (INCHES)	19.55		29.81		21.32	
10 PERCENT EXCEEDS	16300		27800		21700	
50 PERCENT EXCEEDS	6400		7360		6150	
90 PERCENT EXCEEDS	3320		3320		757	

CUMBERLAND RIVER BASIN

03435140 WHIPPOORWILL CREEK NEAR CLAYMOUR, KY

LOCATION.--Lat 36°52'29", long 87°05'20", Todd County, Hydrologic Unit 05130206, on left bank at downstream side of bridge on country road, 0.4 mi downstream from North Fork, 1.5 mi southeast of Claymour, and at mile 37.6.

DRAINAGE AREA.--20.8 mi^2.

PERIOD OF RECORD.--May 1973 to September 1991. (discontinued)

REVISED RECORD.--WRD KY 75-1: 1974(M). WRD KY 86-1: 1984(M).

GAGE.--Water-stage recorder. Datum of gage is 607.86 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 4,16,17 and July 9-10. Records fair except for period of estimated record, which are poor. Maximum discharge for period of record from rating curve extened above 870 ft3/s, on basis of slope-area measurement of peak flow. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	7.3	9.6	76	15	50	22	7.7	3.8	1.3	.31	.42
2	1.3	8.5	8.1	51	13	46	18	6.8	5.0	1.2	.20	.31
3	1.2	11	530	38	11	22	15	6.0	3.4	1.1	.13	.21
4	77	12	49	32	11	17	15	5.7	2.6	1.2	.08	.16
5	6.1	13	22	25	406	14	18	62	2.5	1.2	.00	.16
6	3.4	16	16	504	675	13	14	18	2.3	1.2	.00	.16
7	3.2	16	11	607	127	11	13	10	2.2	1.0	.00	.14
8	4.4	15	9.1	103	59	10	18	8.0	2.1	.99	.02	.08
9	17	20	8.0	55	37	9.4	316	30	1.9	2.6	.13	.08
10	35	45	7.1	93	28	8.7	105	47	1.8	1.1	.07	.19
11	9.4	9.5	6.6	227	22	8.5	38	368	1.7	.78	.00	.62
12	5.7	6.5	6.1	95	19	10	29	427	1.7	.72	.00	.37
13	4.3	5.2	5.9	44	374	19	42	82	1.7	11	.03	.25
14	4.2	4.6	5.3	31	154	12	28	36	1.7	8.9	.08	.16
15	4.5	4.2	57	27	49	12	27	21	1.6	1.1	.03	.14
16	4.9	4.3	21	34	30	10	18	15	1.5	.73	.00	.08
17	5.4	4.5	605	21	403	156	14	12	1.5	.66	.03	.08
18	15	4.3	2120	17	925	91	21	10	1.6	.72	.13	.09
19	4.7	4.1	158	16	248	32	297	9.7	3.6	.72	.09	.09
20	3.1	4.0	59	18	109	23	42	9.1	2.3	.72	.08	.02
21	3.0	3.8	1030	15	58	37	26	8.0	4.9	.69	.01	.00
22	116	21	768	12	38	862	20	6.8	3.4	.61	.00	.00
23	22	22	138	11	27	279	15	6.1	3.4	.65	.00	.00
24	9.7	9.2	50	11	23	65	13	5.5	2.4	.72	.00	.02
25	6.7	6.9	32	10	20	36	11	5.2	2.0	.72	.00	.08
26	5.5	5.4	24	9.9	17	26	9.7	7.1	1.7	.71	.00	.00
27	5.0	4.9	184	10	15	107	8.8	84	1.5	.61	.00	.00
28	4.7	158	300	17	13	69	9.5	15	1.3	.61	.00	.00
29	5.4	24	132	13	---	41	11	8.1	1.3	.51	2.7	.00
30	6.7	12	1470	71	---	47	9.6	5.9	1.3	.47	1.5	.00
31	6.9	---	178	22	---	29	---	4.5	---	.41	.56	---
TOTAL	402.7	482.2	8019.8	2315.9	3926	2172.6	1243.6	1347.2	69.7	45.65	6.18	3.91
MEAN	13.0	16.1	259	74.7	140	70.1	41.5	43.5	2.32	1.47	.20	.13
MAX	116	158	2120	607	925	862	316	427	5.0	11	2.7	.62
MIN	1.2	3.8	5.3	9.9	11	8.5	8.8	4.5	1.3	.41	.00	.00
CFSM	.62	.77	12.4	3.59	6.74	3.37	1.99	2.09	.11	.07	.01	.01
IN.	.72	.86	14.34	4.14	7.02	3.89	2.22	2.41	.12	.08	.01	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1991, BY WATER YEAR (WY)

MEAN	6.17	32.5	64.0	54.2	71.9	60.6	47.6	38.2	13.0	10.2	6.28	13.3
MAX	20.4	89.6	259	185	177	238	162	172	63.2	81.5	25.2	161
(WY)	1986	1985	1991	1974	1989	1975	1983	1983	1981	1989	1984	1979
MIN	.000	.74	2.60	1.60	16.9	15.1	2.13	5.64	.53	.23	.000	.000
(WY)	1979	1988	1977	1977	1980	1988	1986	1990	1988	1980	1980	1983

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1973 - 1991	
ANNUAL TOTAL	17262.67		20035.44			
ANNUAL MEAN	47.3		54.9		34.7	
HIGHEST ANNUAL MEAN					65.9	1979
LOWEST ANNUAL MEAN					12.9	1977
HIGHEST DAILY MEAN	2120	Dec 18	2120	Dec 18	3260	Mar 12 1975
LOWEST DAILY MEAN	.00	Sep 12	.00	Aug 5	.00	Sep 26 1973
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 12	.00	Aug 22	.00	Aug 28 1977
INSTANTANEOUS PEAK FLOW			4820	Dec 30	8380	Mar 12 1975
INSTANTANEOUS PEAK STAGE			15.12	Dec 30	17.75	Mar 12 1975
ANNUAL RUNOFF (CFSM)	2.27		2.64		1.67	
ANNUAL RUNOFF (INCHES)	30.87		35.83		22.66	
10 PERCENT EXCEEDS	86		98		60	
50 PERCENT EXCEEDS	6.3		8.9		6.0	
90 PERCENT EXCEEDS	.30		.08		.09	

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^2, of which about 94 mi^2 does not contribute directly to surface runoff.

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

REVISED RECORDS.--WSP 1173: 1942-43, 1946(M), 1949. WSP 1306: 1940(M) WSP 1626: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 391.45 ft above National Geodetic Vertical Datum of 1929. Prior to July 31, 1945, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Feb. 18, 19 and Mar. 18-20. Records good except for periods of estimated record, which are fair. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	62	175	2530	428	573	465	203	379	96	76	46
2	34	58	152	1840	391	724	425	184	684	95	73	43
3	34	55	1220	1420	369	658	390	173	530	99	70	40
4	518	55	1180	1140	351	576	361	164	389	112	73	39
5	446	54	520	992	721	524	349	171	316	111	73	40
6	180	53	395	1470	3740	499	333	195	267	104	80	39
7	121	59	325	4190	2590	453	317	187	234	94	69	38
8	97	56	272	2370	1600	415	308	167	210	96	64	39
9	93	56	235	1590	1190	389	335	246	193	1720	127	43
10	164	103	209	1290	989	365	489	313	178	1000	185	38
11	184	182	188	1470	840	346	427	514	168	475	109	36
12	134	135	172	1480	732	338	360	753	162	374	91	96
13	106	110	156	1170	981	336	336	1040	155	307	80	101
14	89	99	142	1010	1940	324	330	536	158	329	77	60
15	77	90	145	903	1160	306	321	424	166	299	84	49
16	69	82	189	893	869	293	303	362	141	223	72	44
17	64	74	811	814	1310	293	274	316	131	192	64	44
18	67	71	7770	723	3800	550	271	280	126	170	59	45
19	82	68	6940	670	2600	500	586	259	135	156	55	43
20	73	66	2530	638	1930	400	497	369	153	144	52	38
21	69	66	3530	589	1440	360	389	301	157	131	50	42
22	96	66	6440	543	1190	1370	339	239	156	122	47	39
23	165	73	3160	513	1010	2480	306	214	152	116	47	37
24	180	117	2000	483	884	1270	277	196	136	111	44	35
25	128	101	1580	452	781	894	255	650	126	105	43	35
26	105	87	1330	429	701	738	237	803	120	99	44	34
27	91	83	1170	407	638	647	225	713	114	95	42	34
28	82	125	1780	400	586	616	214	646	108	91	41	34
29	76	383	1720	391	---	546	210	483	104	85	46	34
30	70	223	4660	409	---	542	212	406	100	81	48	34
31	67	---	6170	482	---	515	---	351	---	78	46	---
TOTAL	3800	2912	57266	33701	35761	18840	10141	11858	6148	7310	2131	1319
MEAN	123	97.1	1847	1087	1277	608	338	383	205	236	68.7	44.0
MAX	518	383	7770	4190	3800	2480	586	1040	684	1720	185	101
MIN	34	53	142	391	351	293	210	164	100	78	41	34
CFSM	.50	.40	7.57	4.46	5.23	2.49	1.39	1.57	.84	.97	.28	.18
IN.	.58	.44	8.73	5.14	5.45	2.87	1.55	1.81	.94	1.11	.32	.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1991, BY WATER YEAR (WY)

MEAN	58.0	215	465	570	705	739	564	412	197	149	91.8	98.5
MAX	200	1677	1985	2168	2130	2432	1924	1875	583	790	381	925
(WY)	1985	1958	1979	1950	1989	1975	1979	1984	1981	1989	1950	1950
MIN	12.3	14.1	14.2	27.3	39.6	28.1	37.5	21.4	34.0	29.6	23.9	15.7
(WY)	1944	1941	1964	1963	1963	1941	1941	1941	1963	1988	1952	1941

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1940 - 1991	
ANNUAL TOTAL	165575		191187			
ANNUAL MEAN	454		524		354	
HIGHEST ANNUAL MEAN					738	1979
LOWEST ANNUAL MEAN					58.9	1941
HIGHEST DAILY MEAN	7770	Dec 18	7770	Dec 18	12100	May 7 1984
LOWEST DAILY MEAN	22	Sep 18	34	Oct 2	3.6	Oct 3 1941
ANNUAL SEVEN-DAY MINIMUM	23	Sep 12	34	Sep 24	7.0	Oct 24 1940
INSTANTANEOUS PEAK FLOW			8510	Dec 18	20200	May 7 1984
INSTANTANEOUS PEAK STAGE			17.24	Dec 18	22.45	May 7 1984
INSTANTANEOUS LOW FLOW					1.0	Oct 3 1941
ANNUAL RUNOFF (CFSM)	1.86		2.15		1.45	
ANNUAL RUNOFF (INCHES)	25.24		29.15		19.70	
10 PERCENT EXCEEDS	1020		1240		838	
50 PERCENT EXCEEDS	155		210		135	
90 PERCENT EXCEEDS	36		47		26	

03438190 BARKLEY-KENTUCKY CANAL NEAR GRAND RIVERS, KY

LOCATION.--Deflection-meter Gage: Lat 36°59'23", long 88°13'17", Lyon County, Hydrologic Unit 05130205, on north pier of bridge on State Highway 453, 1.1 mi southeast of Grand Rivers. Kentucky Lake Gage: Lat 36°59'15", long 88°13'34", Lyon County, Hydrologic Unit 06040005, on north bank of Barkley-Kentucky Canal, at Kentucky Lake end of canal (Tennessee River basin), 1.1 mi southeast of Grand Rivers, and 2.9 mi upstream from Kentucky Dam.

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

GAGE.--Deflection-meter recorder and water-stage recorder. Prior to Apr. 8, 1967, water-stage recorders. Datum of stage gages is 299.69 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 20, 1990 datum of gages was considered to be 300.00 ft above National Geodetic Vertical Datum of 1929 (levels by U. S. Army Corps of Engineers).

REMARKS.--No estimated daily discharges. Records fair. Figures of discharge represent net flow between Lake Barkley in Cumberland River basin and Kentucky Lake in Tennessee River basin. Canal initially opened on June 13, 1966. Canal is 1.8 mi long with a bottom width of 400 ft. Under normal operating conditions at Barkley Dam and Kentucky Dam, elevation at full pool is 359 ft and ordinary minimum pool is 354 ft. Minimum pool in advance of floods is at elevation 346 ft, canal depth 11 ft at this elevation. Maximum pool is at elevation 375 ft. Canal used for navigation and transfer of water between Kentucky and Barkley lakes. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-7100	-7100	-17800	36300	-9030	-25200	2830	-37100	-18300	-18300	-13900	-11100
2	-6830	-946	-14200	38300	-5910	-17700	-7420	-40000	-20900	-19000	-12000	-13300
3	-11200	1810	-11500	35400	-212	-5620	-19700	-40900	-27000	-14000	-5270	-11900
4	5620	-534	-2380	31400	6670	8370	-19500	-37800	-30100	-13900	-12900	-9350
5	7670	-6310	-13600	30800	-5100	16200	-14400	-41000	-25400	-12100	-13200	-10200
6	1900	-11700	-19800	35000	9460	23100	-9310	-37800	-9510	-16600	-9390	-12000
7	-1570	-11200	-24100	36100	10600	19100	-6110	-36300	-15200	-24300	-5510	-11500
8	-362	-11500	-23900	40000	1930	10600	-2100	-34800	-17700	-20400	-2250	-9950
9	-1090	-7870	-17600	48900	-2990	6990	4340	-38100	-23600	-12500	4450	-10500
10	-20400	-1030	-16300	44300	6400	7880	597	-35200	-14000	-8530	-4290	-14500
11	-18700	-9130	-17900	41100	10300	4970	-468	-36700	-12000	-14800	-7740	-12700
12	-18100	-16900	-14100	41600	-6270	-2290	-8570	-27800	-18200	-13400	-14000	-9490
13	-6350	-24400	-7030	41900	-16700	2670	-9740	-1840	-9730	-17800	-13800	-9820
14	915	-26300	-9600	31200	772	-880	-8770	-14400	-15700	-18700	-13500	-11500
15	3070	-25100	-6700	16600	14100	-58	-8450	-27400	-17600	-9150	-16300	-12100
16	-6040	-20700	-4560	9180	6570	7450	-1660	-26900	-17700	-13400	-15800	-9650
17	-8280	-23900	877	10300	9860	8610	-505	-24200	-24100	-11100	-9270	-8370
18	-3120	-25200	17300	9400	10700	10700	-1860	-29300	-26200	-8690	-9450	-10500
19	1490	-20200	33800	16400	30500	8570	-2720	-15300	-29300	-8560	-8160	-9770
20	-1440	-12500	38400	17300	35300	1850	2590	-19300	-19500	-7490	-12900	-9250
21	1800	-9730	6970	13200	33500	220	-7110	-34000	-4800	-8340	-13900	-7350
22	-6850	-1950	20200	7940	24200	4080	-16000	-37200	4410	-4870	-12600	-3580
23	-8510	-6150	38500	-221	3760	9030	-23200	-32600	-8680	-6110	-12800	-1430
24	-7720	-9000	40500	-3310	-9510	15800	-20100	-27300	-14200	-6580	-11400	-3770
25	-12900	-7340	33300	-6570	-23000	17100	-26900	-10400	-27300	-8330	-10700	-5010
26	-14900	-8880	-3500	-10200	-30500	7460	-17900	-8920	-32100	-11500	-13300	1270
27	-3140	-9400	-31600	-9320	-29500	-6960	-11700	-9560	-33800	-10600	-15500	-395
28	4510	4970	-32200	-4020	-27100	-7010	-8810	17000	-32800	-13200	-11900	-995
29	-6440	917	-8880	-3860	---	-6060	-33300	7370	-24200	-14200	-16000	-4560
30	-15200	-15400	14100	1110	---	-7540	-35400	642	-11400	-12700	-14800	-9460
31	-11400	---	31200	407	---	1270	---	-11300	---	-15400	-14500	---
TOTAL	-170667	-322673	-22103	596636	48800	112702	-311346	-748408	-576610	-394550	-342580	-252730
MEAN	-5505	-10760	-713	19250	1743	3636	-10380	-24140	-19220	-12730	-11050	-8424
MAX	7670	4970	40500	48900	35300	23100	4340	17000	4410	-4870	4450	1270
MIN	-20400	-26300	-32200	-10200	-30500	-25200	-35400	-41000	-33800	-24300	-16300	-14500

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1991, BY WATER YEAR (WY)

MEAN	-7840	-9796	-9194	-7219	-8594	-6503	-1281	-6351	-5041	-7465	-7425	-6166
MAX	4584	3266	6337	19250	3980	8049	9814	11120	6507	4620	5562	1523
(WY)	1982	1982	1979	1991	1989	1989	1972	1984	1981	1966	1966	1966
MIN	-24200	-23860	-25820	-23210	-24390	-21560	-10380	-24140	-19220	-18440	-16570	-22440
(WY)	1976	1973	1972	1984	1987	1990	1991	1991	1991	1975	1979	1989

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1966 - 1991	
ANNUAL TOTAL	-3791754		-2383529			
ANNUAL MEAN	-10390		-6530		-7042	
HIGHEST ANNUAL MEAN					-849	1988
LOWEST ANNUAL MEAN					-13190	1990
HIGHEST DAILY MEAN	40500	Dec 24	48900	Jan 9	68300	Feb 23 1989
LOWEST DAILY MEAN	-33000	May 4	-41000	May 5	-48000	May 28 1974
ANNUAL SEVEN-DAY MINIMUM	-29000	Jan 8	-38700	May 1	-39200	Oct 10 1975
10 PERCENT EXCEEDS	5150		14100		6390	
50 PERCENT EXCEEDS	-11400		-8920		-6760	
90 PERCENT EXCEEDS	-25500		-25700		-22000	

Note.--Discharges shown as minus are flow from Kentucky Lake to Lake Barkley.

03438220 CUMBERLAND RIVER NEAR GRAND RIVERS, KY

LOCATION.--Lat 37°01'18", long 88°13'16", Lyon County, Hydrologic Unit 05130205, on right bank in powerhouse at Barkley Dam, 0.7 mi upstream from bridge on U.S. Highway 62 and 641, 1.5 mi northeast of Grand Rivers, and at mile 30.6.

DRAINAGE AREA.--17,598 mi^2.

PERIOD OF RECORD.--February 1939 to current year (fragmentary prior to April 1940). Monthly discharge only for some periods, published in WSP 1306. Prior to October 1964, published as "at Smithland."

REVISED RECORD.--WSP 1173: 1974(M). WSP 1336: 1940-43.

GAGE.--Water-stage recorder. Datum of gage is 300.00 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Auxillary water-stage recorder at Dycysburg at mile 19.6. See WDR KY-88-1 for history of changes prior to Dec. 28, 1965.

REMARKS.--No estimated daily discharges. Records fair except those below 10,000 ft^3/s, which are poor. Regulation of navigation dams on Cumberland River, and by Lake Cumberland, Dale Hollow Reservoir, Great Falls Lake, Center Hill Reservoir, Old Hickory Lake, J. Percy Priest Reservoir, and Lake Barkley. Barkley-Kentucky Canal (station 03438190) diverts water from or to Kentucky Lake in Tennessee River basin and is included in this record since October 1965.

COOPERATION.--Discharges for days of negative fall or excessive fall were provided by the U.S. Army Corps of Engineers.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of January to February 1937 reached a stage of 51.1 ft, former site and datum, 60.3 ft, present site and datum (from U.S. Army Corps of Engineers river profile).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9360	6330	29100	116000	50600	159000	83100	60100	56300	34100	19700	23900
2	7650	9170	28000	117000	51400	139000	82900	56000	56900	40200	20200	23600
3	7010	6200	30200	118000	42400	111000	84900	56300	57300	25800	8020	20200
4	9010	6200	55200	117000	22900	84400	86100	55700	57100	31300	19000	18600
5	9020	13900	55400	112000	25600	79800	84900	56400	34000	31700	19500	19600
6	9350	18300	54900	96800	34700	77500	83600	56800	28300	41400	19900	21000
7	9400	20300	54300	82500	45400	76200	81000	57000	33300	42400	19900	20600
8	9300	20700	49600	73600	47800	75700	72600	57100	32300	28800	21100	20700
9	9120	21300	40500	71100	48500	76000	66600	56600	33100	23600	20400	21700
10	37100	21400	39600	75100	44700	75400	60500	56300	22700	25200	18500	21700
11	33300	26200	32800	70800	30500	75900	55000	56600	13600	34000	18900	22200
12	31300	39600	25000	69400	40600	76300	56500	56600	11500	33500	19100	22100
13	6350	41100	24200	70300	42000	70100	56000	55700	11900	34700	20400	22200
14	6270	38600	25100	76900	49400	65100	55700	56400	32400	35200	20000	22100
15	8800	38900	25300	84800	52500	58900	54600	53500	32000	28100	20500	22400
16	12200	38800	24500	85100	53000	53300	53900	56000	31600	27900	21800	19600
17	11900	39800	14600	81900	47900	53000	53300	56700	30400	27500	20000	19100
18	12100	38700	51700	71700	75900	52200	52800	57300	44400	26700	19900	18800
19	15900	27200	79200	52700	115000	52500	53000	34700	45000	27600	23100	19400
20	11800	16100	89500	53000	145000	52600	54700	35300	28400	17600	24400	18900
21	12000	14100	109000	54400	150000	52200	54600	53500	18200	11700	26100	15400
22	17500	14300	123000	55100	148000	51900	53900	53700	21800	17400	27200	15900
23	17800	14000	140000	53500	153000	52500	53800	53300	20500	17800	26800	12700
24	27000	13800	135000	52400	151000	58400	54500	53200	26700	17700	26200	10700
25	28300	14300	132000	54200	152000	72800	53700	34300	46300	16700	26100	10300
26	27100	14100	128000	54500	155000	79000	34700	39000	53600	21000	26000	9100
27	17500	10600	121000	51800	161000	78500	35300	56900	57300	20000	27400	9640
28	6890	9480	121000	54400	162000	81200	24400	54800	58200	19800	26800	13200
29	25900	11700	119000	54600	---	82800	55800	52500	46700	18800	29200	16900
30	21000	26000	118000	40000	---	85700	55900	53600	27100	18900	28000	17200
31	19100	---	118000	38900	---	84800	---	54800	---	19400	24400	---
TOTAL	486330	631180	2192700	2259500	2297800	2343700	1808300	1646700	1068900	816500	688520	549440
MEAN	15690	21040	70730	72890	82060	75600	60280	53120	35630	26340	22210	18310
MAX	37100	41100	140000	118000	162000	159000	86100	60100	58200	42400	29200	23900
MIN	6270	6200	14600	38900	22900	51900	24400	34300	11500	11700	8020	9100

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1991, BY WATER YEAR (WY)

MEAN	21750	30870	48640	55610	56410	52120	39420	39950	28870	25790	24590	20810
MAX	55260	62960	97370	114400	102600	118300	99870	99410	63640	57470	39380	53030
(WY)	1990	1980	1973	1974	1974	1975	1975	1984	1973	1989	1979	1979
MIN	6085	7718	8592	6245	23010	14450	4744	4065	6139	5759	7780	6398
(WY)	1966	1966	1981	1981	1977	1981	1986	1968	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1966 - 1991	
ANNUAL TOTAL	12862000		16789570			
ANNUAL MEAN	35240		46000		37000	
HIGHEST ANNUAL MEAN					56740	1973
LOWEST ANNUAL MEAN					14900	1988
HIGHEST DAILY MEAN	140000	Dec 23	162000	Feb 28	202000	Mar 16 1975
LOWEST DAILY MEAN	5940	Sep 29	6200	Nov 3	50	Oct 30 1965
ANNUAL SEVEN-DAY MINIMUM	6350	Apr 7	8680	Oct 2	3090	Apr 23 1986
INSTANTANEOUS PEAK FLOW			168000	Feb 22	209000	Mar 16 1975
INSTANTANEOUS PEAK STAGE			42.19	Jan 2	49.04	Mar 30 1975
10 PERCENT EXCEEDS	73000		84800		67800	
50 PERCENT EXCEEDS	27000		38600		31200	
90 PERCENT EXCEEDS	8580		13700		7800	

TENNESSEE RIVER BASIN

03610200 CLARKS RIVER AT ALMO, KY

LOCATION.--Lat 36°41'30", long 88°16'25", Calloway County, Hydrologic Unit 06040006, on left bank at downstream side of bridge on State Highway 464, 0.3 mi southeast of Almo, 5.1 mi upstream from Rockhouse Creek, and at mile 53.5.

DRAINAGE AREA.--134 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 413.46 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharge. Dec. 15 to Jan. 28, Feb. 26 to Mar. 11, Apr. 10-12,18-29, May 10-12,24-29 and Sept. 13-30. Records fair except for estimated daily discharges which are poor. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.7	19	63	360	81	260	70	45	25	12	3.6	4.2
2	8.9	21	50	220	57	1600	60	35	806	11	3.4	3.4
3	11	19	1010	160	48	200	56	30	78	10	3.2	3.6
4	2480	17	355	120	46	120	52	28	66	11	3.0	4.5
5	260	41	123	90	814	78	49	129	732	11	2.8	4.4
6	62	33	79	1400	5560	72	45	68	70	10	2.9	4.9
7	59	25	60	1700	800	66	45	34	34	9.0	2.7	5.0
8	73	23	48	500	339	56	103	28	25	8.7	2.7	4.4
9	1780	53	41	260	209	52	1280	137	21	9.1	5.1	5.1
10	572	375	37	200	158	48	680	160	18	9.4	17	5.7
11	174	99	34	900	128	42	70	220	17	9.5	4.7	5.5
12	78	50	32	600	112	43	92	84	129	8.9	3.9	7.8
13	52	39	29	180	1680	46	359	510	836	41	3.8	4.6
14	40	33	27	120	1830	41	677	140	163	31	3.9	4.0
15	32	29	72	100	318	38	795	71	44	6.7	4.0	3.8
16	27	26	86	140	156	36	207	48	27	5.6	4.2	3.6
17	25	24	500	120	1230	58	107	41	20	5.2	4.2	3.6
18	40	22	9600	100	5290	226	78	502	17	5.1	4.5	7.0
19	25	22	2400	96	2010	89	72	73	16	5.4	4.3	18
20	22	22	760	110	1170	65	66	43	18	5.3	4.8	7.6
21	20	21	2800	120	389	57	60	35	315	4.9	4.6	5.2
22	91	40	4200	100	222	3260	55	29	370	5.1	5.1	4.8
23	87	49	920	94	138	2790	50	25	795	5.5	4.6	4.6
24	45	38	600	88	101	354	46	23	73	5.0	4.5	9.4
25	33	30	360	80	81	172	44	21	71	4.6	4.3	14
26	27	26	220	64	70	115	42	20	28	4.4	4.6	8.8
27	25	25	260	56	66	93	40	19	20	4.2	4.9	5.8
28	22	984	1200	54	64	82	40	18	17	3.8	5.1	5.0
29	20	256	660	46	---	78	110	17	15	3.9	5.5	4.4
30	21	96	2400	212	---	126	84	17	13	4.4	5.0	4.2
31	20	---	2000	166	---	89	---	16	---	3.9	5.5	---
TOTAL	6238.6	2557	31026	8556	23167	10452	5534	2666	4879	274.6	142.4	176.9
MEAN	201	85.2	1001	276	827	337	184	86.0	163	8.86	4.59	5.90
MAX	2480	984	9600	1700	5560	3260	1280	510	836	41	17	18
MIN	6.7	17	27	46	46	36	40	16	13	3.8	2.7	3.4
CFSM	1.50	.64	7.47	2.06	6.17	2.52	1.38	.64	1.21	.07	.03	.04
IN.	1.73	.71	8.61	2.38	6.43	2.90	1.54	.74	1.35	.08	.04	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1991, BY WATER YEAR (WY)

MEAN	65.0	234	479	221	608	219	219	248	77.9	69.9	20.8	13.7
MAX	205	684	1065	550	1693	576	623	925	243	264	135	36.0
(WY)	1986	1989	1983	1988	1989	1984	1983	1983	1989	1989	1985	1990
MIN	2.96	23.1	65.3	27.4	109	62.7	21.6	12.4	3.88	4.95	2.40	2.36
(WY)	1988	1988	1990	1987	1983	1988	1986	1988	1988	1986	1983	1983

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1982 - 1991	
ANNUAL TOTAL	100338.1		95669.5			
ANNUAL MEAN	275		262		204	
HIGHEST ANNUAL MEAN					367	1989
LOWEST ANNUAL MEAN					69.8	1987
HIGHEST DAILY MEAN	9600	Dec 18	9600	Dec 18	11200	Feb 14 1989
LOWEST DAILY MEAN	2.9	Sep 4	2.7	Aug 7	1.6	Aug 29 1983
ANNUAL SEVEN-DAY MINIMUM	2.9	Sep 3	3.0	Aug 2	1.7	Aug 31 1983
INSTANTANEOUS PEAK FLOW			.00	Dec 18	16000	Dec 25 1982
INSTANTANEOUS PEAK STAGE			.00	Dec 18	17.40	Dec 25 1982
ANNUAL RUNOFF (CFSM)	2.05		1.96		1.52	
ANNUAL RUNOFF (INCHES)	27.86		26.56		20.69	
10 PERCENT EXCEEDS	537		667		361	
50 PERCENT EXCEEDS	57		45		28	
90 PERCENT EXCEEDS	8.6		4.6		4.3	

TENNESSEE RIVER BASIN

03610545 WEST FORK CLARKS RIVER NEAR BREWERS, KY

LOCATION.--Lat 36°46'48", long 88°28'03", Marshall County, Hydrologic Unit 06040006, on left bank at downstream side of bridge on State Highways 58 and 80, 400 ft upstream from Moss Branch, 1.3 mi upstream from Soldier Creek, 1.7 mi northwest of Brewers, and at mile 20.8.

DRAINAGE AREA.--68.7 mi^2.

PERIOD OF RECORD.--October 1968 to September 1983, December 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is 370.05 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair. Maximum discharge for period of record from rating curve extended above 3,800 ft^3/s. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section. Gage heights published in Kentucky WDR Reports 1983-89 are incorrect. Correct figures may be obtained by subtracting 0.48 feet.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	16	35	216	38	406	38	28	17	11	3.1	4.7
2	13	16	31	125	34	227	37	26	20	13	3.2	9.5
3	13	16	515	84	32	81	35	24	17	11	3.5	19
4	367	16	137	60	33	54	35	24	37	11	3.4	9.7
5	45	22	64	58	665	46	34	29	56	9.9	6.4	8.3
6	27	22	48	923	2410	43	33	25	22	8.6	3.6	7.4
7	40	19	39	869	422	37	34	22	19	7.9	3.4	5.7
8	43	18	34	266	249	34	47	22	17	7.6	3.5	5.2
9	555	24	31	135	156	32	65	28	16	7.7	5.6	5.9
10	222	36	28	147	106	30	52	56	15	7.2	3.8	5.8
11	67	26	27	331	78	29	40	49	16	7.1	3.6	8.4
12	42	23	26	151	64	30	40	260	41	6.8	3.3	21
13	32	22	25	78	737	30	302	176	27	6.4	3.2	7.6
14	27	21	24	58	485	28	225	54	18	6.3	3.4	5.2
15	24	20	104	56	158	27	169	40	16	5.3	3.2	4.9
16	21	20	48	63	92	26	61	34	14	5.7	3.0	4.6
17	20	20	680	47	556	30	48	31	13	5.8	3.4	4.5
18	24	19	5370	43	990	31	43	30	12	5.9	3.7	10
19	21	19	877	41	572	27	41	35	12	5.6	4.0	12
20	19	19	443	41	295	26	37	30	11	5.2	3.4	6.8
21	19	18	2640	38	137	26	34	26	190	5.3	3.3	5.9
22	47	28	2240	34	91	1060	33	23	114	4.9	3.0	5.8
23	36	30	537	33	66	394	32	22	49	4.6	3.1	6.5
24	27	24	341	33	55	121	30	21	35	4.4	2.8	9.1
25	24	22	205	31	49	73	28	21	25	4.0	2.7	10
26	21	22	124	29	46	57	28	22	19	4.3	2.6	8.3
27	21	21	387	31	44	50	27	21	16	4.2	3.0	6.5
28	20	288	669	38	42	45	29	19	13	4.2	3.1	6.0
29	19	63	445	33	---	43	40	19	12	4.4	4.1	5.8
30	18	43	1400	101	---	45	32	24	11	4.2	7.0	5.3
31	17	---	511	47	---	41	---	18	---	3.7	5.7	---
TOTAL	1908	973	18085	4240	8702	3229	1729	1259	900	203.2	114.1	235.4
MEAN	61.5	32.4	583	137	311	104	57.6	40.6	30.0	6.55	3.68	7.85
MAX	555	288	5370	923	2410	1060	302	260	190	13	7.0	21
MIN	13	16	24	29	32	26	27	18	11	3.7	2.6	4.5
CFSM	.90	.47	8.49	1.99	4.52	1.52	.84	.59	.44	.10	.05	.11
IN.	1.03	.53	9.79	2.30	4.71	1.75	.94	.68	.49	.11	.06	.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1991, BY WATER YEAR (WY)

MEAN	17.2	67.2	183	144	222	165	167	99.9	53.1	45.9	22.3	28.1
MAX	61.5	306	583	302	974	804	482	470	300	144	99.0	172
(WY)	1991	1974	1991	1974	1989	1975	1979	1983	1981	1989	1982	1979
MIN	5.99	8.93	10.8	7.03	15.1	40.5	20.3	15.5	6.74	5.33	2.79	2.37
(WY)	1969	1972	1977	1977	1977	1983	1971	1989	1972	1970	1983	1983

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1969 - 1991	
ANNUAL TOTAL	51685.0		41577.7			
ANNUAL MEAN	142		114		96.2	
HIGHEST ANNUAL MEAN					190	1979
LOWEST ANNUAL MEAN					25.6	1977
HIGHEST DAILY MEAN	5370	Dec 18	5370	Dec 18	7000	Feb 14 1989
LOWEST DAILY MEAN	4.7	Jul 10	2.6	Aug 26	1.1	Aug 23 1982
ANNUAL SEVEN-DAY MINIMUM	5.7	Sep 1	2.9	Aug 22	1.2	Sep 7 1983
INSTANTANEOUS PEAK FLOW			7480	Dec 18	9370	Mar 12 1975
INSTANTANEOUS PEAK STAGE			16.11	Dec 18	17.61	Mar 12 1975
ANNUAL RUNOFF (CFSM)	2.06		1.66		1.40	
ANNUAL RUNOFF (INCHES)	27.99		22.51		19.04	
10 PERCENT EXCEEDS	301		236		195	
50 PERCENT EXCEEDS	31		27		24	
90 PERCENT EXCEEDS	6.8		4.6		5.8	

MASSAC CREEK BASIN

03611260 MASSAC CREEK NEAR PADUCAH, KY

LOCATION.--Lat 37°02'29", long 88°42'39", McCracken County, Hyrologic Unit 05140206, on left upstream wingwall of bridge on U.S. Highway 62, 1.2 mi upstream from Middle Fork, 6.9 mi west of post office in Paducah, and at mile 8.3.

DRAINAGE AREA.--14.6 mi^2.

PERIOD OF RECORD.--October 1971 to current year.

REVISED RECORDS.--1983 (M), 1984 (M).

GAGE.--Water-stage recorder. Datum of gage is 345.53 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 24-26, Nov. 7, Dec. 24-27. Records fair except for periods of estimated record, which are poor. Specific conductance and water temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.74	.64	1.4	15	7.1	51	3.1	2.4	4.0	.80	.41	.40
2	.72	.62	1.4	10	6.3	27	2.8	2.3	2.6	.97	.42	.41
3	.75	.74	47	7.8	5.6	12	2.9	2.2	1.9	.88	.41	.44
4	31	1.0	3.3	5.9	5.8	8.7	3.3	2.2	1.8	.82	.57	.58
5	1.6	1.6	2.3	8.8	107	7.5	3.1	2.4	1.7	.78	.44	8.8
6	1.3	.95	2.1	228	211	6.0	2.9	2.2	1.5	.76	.41	.43
7	3.2	.80	1.9	82	31	5.0	2.9	2.1	1.4	.74	.41	.34
8	2.2	.99	1.8	22	18	4.8	26	2.0	1.4	.90	.41	.33
9	71	1.2	1.7	12	12	4.6	23	2.3	1.3	10	2.1	.34
10	3.3	1.1	1.6	43	9.7	4.4	9.4	16	1.3	1.6	.40	.35
11	1.1	.98	1.5	92	7.4	4.0	5.7	26	1.2	.72	.38	.35
12	.91	.94	1.4	26	6.7	3.6	11	83	1.4	.69	.37	.31
13	.78	.92	1.3	12	161	3.2	76	28	1.2	.69	.37	.31
14	.66	.90	1.5	8.4	48	3.3	93	10	1.1	.65	.37	.33
15	.64	.88	3.5	18	16	3.2	36	5.9	1.0	.64	.37	.33
16	.67	.86	2.2	22	9.7	4.0	13	23	.94	.61	.38	.62
17	.67	.84	146	8.6	36	14	7.7	6.8	.88	.59	.43	.53
18	.68	.82	529	6.3	109	14	8.2	4.6	.84	.60	.41	.94
19	.69	.80	41	5.8	32	6.8	12	4.0	.80	.57	.51	.43
20	.67	.80	14	5.4	21	4.6	6.0	3.4	.78	.54	.35	.32
21	.65	.96	448	5.0	14	4.0	5.2	2.8	.96	.54	.34	.32
22	1.0	2.3	181	3.8	11	253	4.7	2.6	.90	.52	.33	.34
23	.86	1.5	31	3.4	8.5	41	4.7	2.4	.86	.52	.32	.35
24	.80	1.2	17	3.1	7.5	15	4.0	2.2	.82	.51	.32	.34
25	.74	1.1	13	2.7	6.5	9.4	3.2	24	.78	.52	.32	.31
26	.73	.97	11	2.8	6.0	7.3	2.8	19	.76	.51	.34	.30
27	.72	1.0	46	6.3	5.6	9.0	3.2	6.4	.74	.48	.35	.28
28	.70	23	108	20	5.2	6.7	3.8	3.0	.74	.47	.35	.29
29	.68	2.0	121	9.1	---	5.5	3.4	2.2	.72	.47	.39	.32
30	.66	1.5	159	30	---	4.4	2.5	2.4	.72	.43	.38	.29
31	.64	---	29	9.9	---	3.9	---	2.1	---	.42	.41	---
TOTAL	131.46	53.91	1969.9	735.1	924.6	550.9	385.5	299.9	37.04	29.94	13.77	20.03
MEAN	4.24	1.80	63.5	23.7	33.0	17.8	12.8	9.67	1.23	.97	.44	.67
MAX	71	23	529	228	211	253	93	83	4.0	10	2.1	8.8
MIN	.64	.62	1.3	2.7	5.2	3.2	2.5	2.0	.72	.42	.32	.28
CFSM	.29	.12	4.35	1.62	2.26	1.22	.88	.66	.08	.07	.03	.05
IN.	.33	.14	5.02	1.87	2.36	1.40	.98	.76	.09	.08	.04	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1991, BY WATER YEAR (WY)

MEAN	3.34	15.0	32.1	20.9	41.8	31.9	34.0	18.4	8.00	9.63	2.70	4.75
MAX	19.4	41.6	105	48.1	160	103	121	58.8	33.9	37.3	13.9	50.1
(WY)	1986	1989	1983	1974	1989	1975	1973	1983	1975	1983	1982	1985
MIN	.25	.37	.71	.58	4.19	8.36	2.14	1.20	.32	.37	.30	.23
(WY)	1982	1972	1977	1977	1977	1987	1986	1982	1972	1974	1980	1976

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1972 - 1991	
ANNUAL TOTAL	8054.07		5152.05			
ANNUAL MEAN	22.1		14.1		18.4	
HIGHEST ANNUAL MEAN					37.9	1979
LOWEST ANNUAL MEAN					6.53	1987
HIGHEST DAILY MEAN	1710	Feb 15	529	Dec 18	1780	Feb 13 1989
LOWEST DAILY MEAN	.62	Nov 2	.28	Sep 27	.09	Nov 13 1971
ANNUAL SEVEN-DAY MINIMUM	.67	Oct 27	.30	Sep 24	.10	Nov 10 1971
INSTANTANEOUS PEAK FLOW			1060	Dec 17	5990	Sep 5 1985
INSTANTANEOUS PEAK STAGE			9.53	Dec 17	15.86	Sep 5 1985
INSTANTANEOUS LOW FLOW					.06	Nov 14 1971
ANNUAL RUNOFF (CFSM)	1.51		.97		1.26	
ANNUAL RUNOFF (INCHES)	20.52		13.13		17.13	
10 PERCENT EXCEEDS	34		26		30	
50 PERCENT EXCEEDS	1.7		2.1		2.2	
90 PERCENT EXCEEDS	.73		.39		.38	

OHIO RIVER MAIN STEM

03611500 OHIO RIVER AT METROPOLIS, IL

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

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

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

GAGE.--Water-stage recorder. Datum of gage is 276.27 ft above National Geodetic Vertical Datum 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.--No estimated daily discharges. Records good except those below 100,000 ft^3/s. Flow regulated by many dams and reservoirs. Maximum daily discharge includes overflow through Bay Creek and Cache River Valleys. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105000	196000	194000	1190000	367000	967000	863000	360000	316000	106000	77800	73000
2	96800	153000	205000	1190000	380000	930000	856000	348000	245000	116000	87600	82300
3	95000	136000	218000	1180000	371000	851000	830000	325000	212000	121000	77100	81700
4	97400	141000	262000	1170000	358000	745000	798000	280000	210000	104000	71200	76300
5	136000	140000	323000	1170000	353000	655000	772000	268000	182000	118000	82600	93000
6	161000	139000	366000	1180000	388000	581000	728000	266000	157000	120000	81100	114000
7	166000	145000	387000	1190000	419000	552000	663000	292000	163000	128000	77900	104000
8	157000	144000	396000	1190000	459000	561000	549000	286000	151000	114000	73500	74100
9	160000	145000	398000	1180000	494000	584000	453000	294000	136000	117000	72800	74700
10	196000	156000	380000	1180000	523000	612000	403000	305000	131000	160000	92600	86100
11	192000	162000	349000	1180000	540000	633000	364000	296000	105000	195000	97100	89200
12	195000	196000	298000	1170000	559000	633000	358000	298000	79600	180000	97700	104000
13	183000	212000	257000	1140000	584000	632000	368000	338000	75700	165000	96000	106000
14	184000	230000	223000	1120000	606000	603000	394000	348000	109000	119000	95900	75100
15	211000	235000	203000	1100000	605000	578000	454000	340000	130000	116000	86900	75000
16	249000	220000	196000	1080000	613000	565000	529000	331000	118000	127000	77600	90400
17	277000	213000	213000	1040000	611000	568000	565000	308000	104000	127000	74600	87200
18	288000	201000	292000	983000	632000	581000	598000	268000	133000	92400	80600	84300
19	282000	176000	464000	921000	725000	582000	626000	243000	142000	93400	85900	81800
20	263000	151000	587000	872000	865000	569000	630000	245000	133000	97800	84200	72300
21	245000	152000	676000	825000	941000	565000	610000	238000	107000	83000	97800	70400
22	250000	158000	772000	776000	975000	586000	592000	220000	119000	70000	106000	70300
23	256000	158000	884000	724000	990000	609000	564000	214000	129000	72900	86700	67800
24	277000	167000	955000	687000	1000000	625000	529000	215000	130000	76100	83900	61200
25	288000	202000	1010000	644000	1000000	671000	441000	210000	136000	87700	85800	65100
26	289000	195000	1060000	582000	994000	711000	361000	218000	135000	89500	90300	78700
27	290000	195000	1070000	524000	995000	735000	323000	286000	139000	73400	90100	87200
28	282000	190000	1090000	475000	987000	767000	286000	386000	145000	71200	88500	63300
29	294000	188000	1130000	425000	---	791000	309000	506000	140000	77400	84800	63400
30	284000	189000	1140000	372000	---	831000	343000	518000	126000	88500	76900	62000
31	242000	---	1160000	359000	---	845000	---	437000	---	87700	74200	---
TOTAL	6691200	5283000	17158000	28819000	18334000	20718000	16159000	9487000	4338300	3394000	2635700	2413900
MEAN	215800	176100	553500	929600	654800	668300	538600	306000	144600	109500	85020	80460
MAX	294000	235000	1160000	1190000	1000000	967000	863000	518000	316000	195000	106000	114000
MIN	95000	136000	194000	359000	353000	552000	286000	210000	75700	70000	71200	61200

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1991, BY WATER YEAR (WY)

MEAN	101700	161000	285000	397800	470900	519500	461600	331000	209700	151300	118700	98530
MAX	335600	450300	717500	1022000	1217000	967300	850500	917800	492800	441200	331100	383500
(WY)	1980	1986	1973	1937	1937	1945	1936	1983	1928	1928	1958	1979
MIN	22710	33400	48610	71650	77370	154700	129900	75180	53840	23350	25390	29330
(WY)	1931	1931	1931	1940	1934	1941	1986	1941	1936	1930	1930	1930

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1928 - 1991	
ANNUAL TOTAL	131380800		135431100			
ANNUAL MEAN	359900		371000		273700	
HIGHEST ANNUAL MEAN					436600	1979
LOWEST ANNUAL MEAN					120300	1931
HIGHEST DAILY MEAN	1160000	Dec 31	1190000	Jan 1	1850000	Feb 1 1937
LOWEST DAILY MEAN	59000	Jun 30	61200	Sep 24	15000	Jul 20 1930
ANNUAL SEVEN-DAY MINIMUM	99400	Aug 30	68700	Sep 24	16600	Jul 20 1930
INSTANTANEOUS PEAK FLOW			1200000	Jan 7		
INSTANTANEOUS PEAK STAGE			56.89	Jan 7	66.60	Feb 2 1937
10 PERCENT EXCEEDS	737000		925000		634000	
50 PERCENT EXCEEDS	277000		245000		187000	
90 PERCENT EXCEEDS	120000		81500		65700	

03611600 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, 2.0 mi upstream of confluence with Bayou Creek, 2.3 mi north of Grahamville, and at mile 2.2

DRAINAGE AREA.--5.78 mi^2.

PERIOD OF RECORD.--October 1990 to November 1991 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 324.80 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Department of Energy).

REMARKS.--Estimated daily discharges: Oct. 1 to Nov. 8, Nov. 14-28, Dec. 25 to Jan. 18, and Mar. 22-27. Records fair except for periods of estimated record, which are poor. Some regulation from Paducah Gaseous Diffusion Plant, 0.4 mi upstream. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.70	.72	.75	8.6	1.5	34	1.1	.77	7.1	.56	.79	.63
2	.68	.96	.79	6.0	1.0	20	1.1	.67	1.9	.70	.79	7.7
3	.62	.76	9.3	4.4	.80	4.7	1.1	.70	1.1	.75	.82	1.6
4	2.0	.82	1.1	3.4	.72	2.3	1.3	.72	1.0	.56	.85	13
5	.54	2.8	.68	10	54	1.7	1.1	1.0	.93	.55	.86	1.3
6	.70	1.6	.61	200	134	1.6	1.1	.71	.86	.57	.92	.85
7	3.0	1.2	.61	60	15	1.3	1.1	.62	.82	.63	1.0	.76
8	1.2	2.0	.62	11	5.5	1.2	13	.59	.83	.67	1.1	.73
9	60	3.3	.59	6.8	3.0	1.1	4.4	1.0	.84	.95	5.0	.83
10	6.0	2.1	.57	60	2.2	1.0	1.5	1.4	.78	3.5	.74	.97
11	2.0	1.1	.55	80	1.6	1.1	1.2	9.1	1.1	.68	.67	.65
12	1.2	1.2	.54	14	1.4	1.1	3.8	27	.86	.61	.69	.68
13	.84	.95	.54	7.0	115	1.1	44	13	.87	.59	.74	.78
14	.78	.92	.51	5.0	37	1.1	44	3.3	.84	.54	.85	.83
15	.72	.98	4.4	16	6.4	1.0	27	1.2	.82	.51	.86	.74
16	.68	.96	.45	12	5.1	.96	4.6	1.0	.81	.64	.85	.73
17	.78	.98	23	6.0	10	3.0	1.7	.93	.81	.68	2.0	.86
18	.86	1.6	180	2.2	45	1.9	1.3	.87	.82	.70	.82	1.3
19	.90	1.4	13	2.6	14	1.3	1.5	.84	.71	.74	1.6	.70
20	.98	1.0	1.6	1.9	8.3	1.2	1.1	15	.56	.73	.74	.44
21	1.0	.92	292	1.4	3.6	1.1	1.0	10	5.0	.73	.54	.45
22	2.8	2.8	74	1.3	2.3	180	.96	1.4	1.3	.77	.52	.48
23	1.2	1.4	5.2	1.1	1.7	10	.91	1.1	.78	.84	.46	.42
24	.74	1.0	5.2	.88	1.4	2.8	.94	.93	.62	.88	.59	.54
25	.80	.92	4.8	.79	1.4	2.0	.85	78	.60	1.9	.66	.45
26	.88	.90	4.8	.76	1.3	1.5	.85	74	.59	.74	.75	.43
27	.90	.88	11	2.0	1.3	4.0	.78	10	.57	.69	.72	.43
28	.64	7.0	70	6.2	1.2	5.1	.75	2.0	.56	.73	.72	.41
29	.70	1.0	200	4.7	---	2.1	3.7	1.3	.55	.75	.83	.42
30	.96	.78	120	14	---	1.4	.87	1.2	.55	.76	.74	.41
31	.74	---	12	3.8	---	1.2	---	1.1	---	.73	.69	---
TOTAL	96.54	44.95	1039.21	553.83	475.72	293.86	168.61	261.45	35.48	25.38	29.91	40.52
MEAN	3.11	1.50	33.5	17.9	17.0	9.48	5.62	8.43	1.18	.82	.96	1.35
MAX	60	7.0	292	200	134	180	44	78	7.1	3.5	5.0	13
MIN	.54	.72	.45	.76	.72	.96	.75	.59	.55	.51	.46	.41
CFSM	.54	.26	5.80	3.09	2.94	1.64	.97	1.46	.20	.14	.17	.23
IN.	.62	.29	6.69	3.56	3.06	1.89	1.09	1.68	.23	.16	.19	.26

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

MEAN	3.11	1.50	33.5	17.9	17.0	9.48	5.62	8.43	1.18	.82	.96	1.35
MAX	3.11	1.50	33.5	17.9	17.0	9.48	5.62	8.43	1.18	.82	.96	1.35
(WY)	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991
MIN	3.11	1.50	33.5	17.9	17.0	9.48	5.62	8.43	1.18	.82	.96	1.35
(WY)	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991

SUMMARY STATISTICS	FOR 1991 WATER YEAR	
ANNUAL TOTAL	3065.46	
ANNUAL MEAN	8.40	
HIGHEST DAILY MEAN	292	Dec 21
LOWEST DAILY MEAN	.41	Sep 28
ANNUAL SEVEN-DAY MINIMUM	.44	Sep 24
ANNUAL RUNOFF (CFSM)	1.45	
ANNUAL RUNOFF (INCHES)	19.73	

BAYOU CREEK BASIN

03611600 LITTLE BAYOU CREEK NEAR GRAHAMVILLE, KY--Continued

DISCHARGE, CUBIC FEET PER SECOND, FOR THE PERIOD OCTOBER TO NOVEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.43	2.4	---	---	---	---	---	---	---	---	---	---
2	.49	.84	---	---	---	---	---	---	---	---	---	---
3	.60	.52	---	---	---	---	---	---	---	---	---	---
4	.74	.54	---	---	---	---	---	---	---	---	---	---
5	1.3	.49	---	---	---	---	---	---	---	---	---	---
6	.70	.48	---	---	---	---	---	---	---	---	---	---
7	.76	.48	---	---	---	---	---	---	---	---	---	---
8	.80	.49	---	---	---	---	---	---	---	---	---	---
9	.86	.53	---	---	---	---	---	---	---	---	---	---
10	.88	.60	---	---	---	---	---	---	---	---	---	---
11	.97	.75	---	---	---	---	---	---	---	---	---	---
12	1.0	.58	---	---	---	---	---	---	---	---	---	---
13	1.1	.52	---	---	---	---	---	---	---	---	---	---
14	1.2	.55	---	---	---	---	---	---	---	---	---	---
15	1.1	.57	---	---	---	---	---	---	---	---	---	---
16	1.1	.63	---	---	---	---	---	---	---	---	---	---
17	1.1	.68	---	---	---	---	---	---	---	---	---	---
18	1.1	.65	---	---	---	---	---	---	---	---	---	---
19	1.3	.94	---	---	---	---	---	---	---	---	---	---
20	1.0	19	---	---	---	---	---	---	---	---	---	---
21	1.1	1.5	---	---	---	---	---	---	---	---	---	---
22	1.1	.73	---	---	---	---	---	---	---	---	---	---
23	1.1	.66	---	---	---	---	---	---	---	---	---	---
24	1.1	.64	---	---	---	---	---	---	---	---	---	---
25	1.3	.65	---	---	---	---	---	---	---	---	---	---
26	2.1	.64	---	---	---	---	---	---	---	---	---	---
27	5.2	.65	---	---	---	---	---	---	---	---	---	---
28	2.4	.62	---	---	---	---	---	---	---	---	---	---
29	.72	.66	---	---	---	---	---	---	---	---	---	---
30	6.3	1.0	---	---	---	---	---	---	---	---	---	---
31	1.6	---	---	---	---	---	---	---	---	---	---	---
TOTAL	42.55	39.99	---	---	---	---	---	---	---	---	---	---
MEAN	1.37	1.33	---	---	---	---	---	---	---	---	---	---
MAX	6.3	19	---	---	---	---	---	---	---	---	---	---
MIN	.43	.48	---	---	---	---	---	---	---	---	---	---
CFSM	.24	.23	---	---	---	---	---	---	---	---	---	---
IN.	.27	.26	---	---	---	---	---	---	---	---	---	---

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^2.

PERIOD OF RECORD.--October 1990 to November 1991 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 370 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.20	.12	.35	3.3	1.3	64	.87	.45	1.8	.23	.18	.36
2	.21	.16	.31	2.2	1.0	12	.78	.33	1.1	.35	.20	.37
3	.17	.13	5.1	1.3	.90	3.7	.68	.34	.40	.58	.20	.52
4	.26	.16	1.6	.95	.72	2.4	.96	.35	.29	.61	.30	3.1
5	.13	.55	1.3	5.9	89	2.0	.84	.83	.24	.60	.30	.32
6	.15	.22	1.2	187	109	1.8	.71	.44	.16	.62	.26	.07
7	.98	.18	1.2	37	5.9	1.4	.64	.24	.14	.63	.25	.05
8	.32	.24	1.1	4.5	2.7	1.2	3.8	.25	.12	.67	.28	.07
9	46	.27	1.2	2.5	1.9	1.1	1.8	.46	.11	2.1	.75	.11
10	1.4	.25	1.1	51	1.5	1.0	1.1	1.1	.10	2.0	.35	.09
11	.31	.22	1.1	58	1.1	.96	.82	6.4	.18	.21	.31	.12
12	.19	.21	1.5	6.3	.95	1.1	3.2	286	.15	.13	.28	.12
13	.15	.20	1.3	2.7	142	1.1	60	19	.15	.15	.30	.14
14	.13	.22	1.1	1.9	17	1.0	36	4.5	.12	.15	.32	.20
15	.13	.29	5.2	11	3.2	.89	18	2.3	.10	.16	.26	.21
16	.12	.28	1.7	7.1	2.9	.80	3.1	1.9	.10	.17	.25	.31
17	.14	.30	26	2.3	7.5	2.2	1.9	1.5	.10	.15	1.8	.48
18	.15	.41	240	1.6	29	2.2	1.4	1.2	.08	.18	.39	.65
19	.16	.36	6.7	1.4	6.8	1.5	1.5	1.1	.09	.24	.85	.21
20	.16	.31	2.3	1.2	3.7	1.3	1.1	2.4	.10	.31	.23	.22
21	.16	.27	478	.86	2.1	1.2	.93	1.8	2.8	.24	.20	.25
22	.36	.98	58	.74	1.6	219	.80	1.1	.70	.12	.18	.25
23	.21	.48	4.2	.65	1.2	11	.69	1.0	.30	.12	.13	.26
24	.13	.42	3.8	.58	.95	2.9	.65	.93	.24	.14	.07	.30
25	.15	.44	3.8	.41	.80	1.9	.51	21	.23	.30	.07	.29
26	.16	.43	3.7	.45	.64	1.5	.45	48	.18	.12	.12	.21
27	.18	.42	8.6	.89	.56	4.3	.42	4.6	.16	.12	.13	.19
28	.12	4.2	51	2.1	.45	2.3	.43	1.5	.17	.15	.16	.19
29	.13	.55	135	3.6	---	1.6	2.1	.91	.19	.16	.41	.18
30	.17	.35	100	11	---	1.2	.74	.72	.20	.18	.33	.18
31	.12	---	5.2	2.1	---	1.0	---	.44	---	.18	.37	---
TOTAL	53.35	13.62	1152.66	412.53	436.37	351.55	146.92	413.09	10.80	12.07	10.23	10.02
MEAN	1.72	.45	37.2	13.3	15.6	11.3	4.90	13.3	.36	.39	.33	.33
MAX	46	4.2	478	187	142	219	60	286	2.8	2.1	1.8	3.1
MIN	.12	.12	.31	.41	.45	.80	.42	.24	.08	.12	.07	.05
CFSM	.26	.07	5.68	2.03	2.38	1.73	.75	2.03	.05	.06	.05	.05
IN.	.30	.08	6.55	2.34	2.48	2.00	.83	2.35	.06	.07	.06	.06

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

MEAN	1.72	.45	37.2	13.3	15.6	11.3	4.90	13.3	.36	.39	.33	.33
MAX	1.72	.45	37.2	13.3	15.6	11.3	4.90	13.3	.36	.39	.33	.33
(WY)	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991
MIN	1.72	.45	37.2	13.3	15.6	11.3	4.90	13.3	.36	.39	.33	.33
(WY)	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991

SUMMARY STATISTICS	FOR 1991 WATER YEAR	
ANNUAL TOTAL	3023.21	
ANNUAL MEAN	8.28	
HIGHEST DAILY MEAN	478	Dec 21
LOWEST DAILY MEAN	.05	Sep 7
ANNUAL SEVEN-DAY MINIMUM	.09	Sep 6
ANNUAL RUNOFF (CFSM)	1.26	
ANNUAL RUNOFF (INCHES)	17.17	
10 PERCENT EXCEEDS	6.3	
50 PERCENT EXCEEDS	.60	
90 PERCENT EXCEEDS	.13	

BAYOU CREEK BASIN

03611800 BAYOU CREEK NEAR HEATH, KY--Continued

DISCHARGE, CUBIC FEET PER SECOND, FOR THE PERIOD OCTOBER TO NOVEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.15	1.2	---	---	---	---	---	---	---	---	---	---
2	.15	.73	---	---	---	---	---	---	---	---	---	---
3	.16	.50	---	---	---	---	---	---	---	---	---	---
4	.17	.46	---	---	---	---	---	---	---	---	---	---
5	.53	.46	---	---	---	---	---	---	---	---	---	---
6	.47	.48	---	---	---	---	---	---	---	---	---	---
7	.48	.47	---	---	---	---	---	---	---	---	---	---
8	.43	.42	---	---	---	---	---	---	---	---	---	---
9	.43	.48	---	---	---	---	---	---	---	---	---	---
10	.41	.51	---	---	---	---	---	---	---	---	---	---
11	.38	.45	---	---	---	---	---	---	---	---	---	---
12	.37	.46	---	---	---	---	---	---	---	---	---	---
13	.40	.44	---	---	---	---	---	---	---	---	---	---
14	.46	.44	---	---	---	---	---	---	---	---	---	---
15	.39	.42	---	---	---	---	---	---	---	---	---	---
16	.37	.43	---	---	---	---	---	---	---	---	---	---
17	.36	.42	---	---	---	---	---	---	---	---	---	---
18	.35	.41	---	---	---	---	---	---	---	---	---	---
19	.34	.70	---	---	---	---	---	---	---	---	---	---
20	.39	12	---	---	---	---	---	---	---	---	---	---
21	.41	1.1	---	---	---	---	---	---	---	---	---	---
22	.42	.34	---	---	---	---	---	---	---	---	---	---
23	.40	.27	---	---	---	---	---	---	---	---	---	---
24	.43	.31	---	---	---	---	---	---	---	---	---	---
25	.53	.33	---	---	---	---	---	---	---	---	---	---
26	.61	.34	---	---	---	---	---	---	---	---	---	---
27	1.1	.33	---	---	---	---	---	---	---	---	---	---
28	1.0	.36	---	---	---	---	---	---	---	---	---	---
29	.63	.39	---	---	---	---	---	---	---	---	---	---
30	2.4	.50	---	---	---	---	---	---	---	---	---	---
31	.84	---	---	---	---	---	---	---	---	---	---	---
TOTAL	15.96	26.15	---	---	---	---	---	---	---	---	---	---
MEAN	.51	.87	---	---	---	---	---	---	---	---	---	---
MAX	2.4	12	---	---	---	---	---	---	---	---	---	---
MIN	.15	.27	---	---	---	---	---	---	---	---	---	---
CFSM	.08	.13	---	---	---	---	---	---	---	---	---	---
IN.	.09	.15	---	---	---	---	---	---	---	---	---	---

BAYOU CREEK BASIN

03611850 BAYOU CREEK NEAR GRAHAMVILLE, KY

LOCATION.--Lat 37°08'41", long 88°49'38", McCracken County, Hydrologic Unit 05140206, near right bank on downstream side of bridge on State Highway 358, 750 ft downstream of Brushy Creek, 1.4 mi north of Paducah Gaseous Diffusion Plant, 3.6 mi northwest of Grahamville, and at mile 4.1.

DRAINAGE AREA.--14.9 mi^2.

PERIOD OF RECORD.--October 1990 to November 1991 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 330 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1-16, 1990, Oct. 7-12, 22-26, and Nov. 7-10, 25-27, 1991. Records fair except for periods of estimated record, which are poor. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	8.3	3.8	20	11	112	8.4	9.4	11	7.3	6.4	4.4
2	3.8	5.3	3.9	14	9.6	28	8.3	9.1	9.2	7.9	6.3	8.2
3	3.2	4.4	20	12	9.0	14	8.3	8.9	7.7	7.1	6.2	6.3
4	6.0	4.0	7.4	11	8.7	12	9.4	8.2	9.1	6.3	6.4	16
5	2.8	9.8	5.4	17	134	12	9.0	9.6	9.0	6.0	6.6	6.7
6	4.0	4.5	4.7	333	225	12	8.3	10	8.4	6.0	6.5	5.3
7	8.0	4.1	4.6	75	22	12	7.6	9.3	6.6	5.8	6.6	4.8
8	4.8	4.0	4.1	19	15	11	14	9.0	6.4	6.1	6.9	4.3
9	90	5.3	4.2	15	12	10	9.4	11	6.3	11	15	5.2
10	9.0	4.2	4.6	87	11	9.6	9.0	11	6.3	11	8.3	6.9
11	5.2	3.9	6.4	105	9.5	9.2	8.8	30	7.3	7.6	7.5	7.0
12	4.6	3.8	6.7	25	8.6	9.1	11	282	6.2	7.7	5.8	6.7
13	4.2	4.5	7.7	16	259	9.5	105	50	6.5	6.3	5.4	4.7
14	4.0	6.9	7.2	14	48	10	73	22	8.4	6.0	5.2	4.2
15	3.8	7.7	17	26	17	9.0	46	14	7.7	6.0	4.9	4.1
16	3.7	7.2	6.8	26	14	8.5	17	12	6.5	5.2	5.4	4.6
17	4.4	4.6	60	16	22	12	13	11	6.0	5.1	8.2	5.0
18	5.6	4.2	383	13	76	11	13	11	5.9	5.2	6.0	6.9
19	4.2	4.3	25	11	24	11	13	11	5.8	6.0	8.4	5.1
20	5.9	4.0	11	11	20	11	12	19	5.6	6.0	7.9	4.4
21	7.4	3.4	592	10	17	11	11	12	16	5.9	8.0	4.2
22	9.5	10	111	9.5	16	385	11	9.7	8.5	6.1	8.2	4.0
23	5.6	3.8	18	9.2	13	35	11	8.7	6.7	6.6	6.3	4.4
24	5.4	2.8	13	9.0	12	14	11	8.5	6.3	7.2	5.6	5.4
25	5.6	2.4	11	8.9	12	11	11	31	6.2	11	5.3	7.0
26	5.8	2.5	10	8.8	12	9.6	11	124	6.9	8.6	5.2	7.0
27	5.7	3.9	16	10	12	17	11	18	9.0	6.6	4.9	6.6
28	6.3	26	69	13	11	11	11	12	9.0	6.4	4.9	4.1
29	6.6	7.9	254	13	---	9.5	15	10	6.5	6.4	5.2	4.2
30	8.7	5.0	168	32	---	8.9	11	9.6	5.9	6.3	4.9	3.4
31	9.7	---	26	14	---	8.7	---	8.4	---	6.5	4.8	---
TOTAL	257.5	172.7	1881.5	1003.4	1060.4	853.6	517.5	809.4	226.9	213.2	203.2	171.1
MEAN	8.31	5.76	60.7	32.4	37.9	27.5	17.2	26.1	7.56	6.88	6.55	5.70
MAX	90	26	592	333	259	385	105	282	16	11	15	16
MIN	2.8	2.4	3.8	8.8	8.6	8.5	7.6	8.2	5.6	5.1	4.8	3.4
CFSM	.56	.39	4.07	2.17	2.54	1.85	1.16	1.75	.51	.46	.44	.38
IN.	.64	.43	4.70	2.51	2.65	2.13	1.29	2.02	.57	.53	.51	.43

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

MEAN	8.31	5.76	60.7	32.4	37.9	27.5	17.2	26.1	7.56	6.88	6.55	5.70
MAX	8.31	5.76	60.7	32.4	37.9	27.5	17.2	26.1	7.56	6.88	6.55	5.70
(WY)	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991
MIN	8.31	5.76	60.7	32.4	37.9	27.5	17.2	26.1	7.56	6.88	6.55	5.70
(WY)	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991

SUMMARY STATISTICS FOR 1991 WATER YEAR

ANNUAL TOTAL	7370.4	
ANNUAL MEAN	20.2	
HIGHEST DAILY MEAN	592	Dec 21
LOWEST DAILY MEAN	2.4	Nov 25
ANNUAL SEVEN-DAY MINIMUM	4.1	Nov 21
ANNUAL RUNOFF (CFSM)	1.36	
ANNUAL RUNOFF (INCHES)	18.40	

BAYOU CREEK BASIN

03611850 BAYOU CREEK NEAR GRAHAMVILLE, KY--Continued

DISCHARGE, CUBIC FEET PER SECOND, FOR THE PERIOD OCTOBER TO NOVEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	9.1	---	---	---	---	---	---	---	---	---	---
2	4.6	6.7	---	---	---	---	---	---	---	---	---	---
3	4.6	6.4	---	---	---	---	---	---	---	---	---	---
4	4.2	6.5	---	---	---	---	---	---	---	---	---	---
5	5.8	6.5	---	---	---	---	---	---	---	---	---	---
6	4.3	6.4	---	---	---	---	---	---	---	---	---	---
7	4.4	6.4	---	---	---	---	---	---	---	---	---	---
8	4.5	6.6	---	---	---	---	---	---	---	---	---	---
9	4.6	7.0	---	---	---	---	---	---	---	---	---	---
10	4.7	7.4	---	---	---	---	---	---	---	---	---	---
11	4.8	8.4	---	---	---	---	---	---	---	---	---	---
12	4.9	6.8	---	---	---	---	---	---	---	---	---	---
13	4.9	6.3	---	---	---	---	---	---	---	---	---	---
14	5.7	6.3	---	---	---	---	---	---	---	---	---	---
15	5.1	6.4	---	---	---	---	---	---	---	---	---	---
16	5.0	6.4	---	---	---	---	---	---	---	---	---	---
17	5.1	6.3	---	---	---	---	---	---	---	---	---	---
18	5.0	6.4	---	---	---	---	---	---	---	---	---	---
19	5.1	8.2	---	---	---	---	---	---	---	---	---	---
20	5.0	33	---	---	---	---	---	---	---	---	---	---
21	5.0	8.7	---	---	---	---	---	---	---	---	---	---
22	5.2	6.9	---	---	---	---	---	---	---	---	---	---
23	5.6	6.3	---	---	---	---	---	---	---	---	---	---
24	6.0	6.3	---	---	---	---	---	---	---	---	---	---
25	6.6	6.4	---	---	---	---	---	---	---	---	---	---
26	7.8	6.6	---	---	---	---	---	---	---	---	---	---
27	11	6.6	---	---	---	---	---	---	---	---	---	---
28	7.9	6.5	---	---	---	---	---	---	---	---	---	---
29	6.1	6.0	---	---	---	---	---	---	---	---	---	---
30	14	7.0	---	---	---	---	---	---	---	---	---	---
31	8.0	---	---	---	---	---	---	---	---	---	---	---
TOTAL	179.6	230.8	---	---	---	---	---	---	---	---	---	---
MEAN	5.79	7.69	---	---	---	---	---	---	---	---	---	---
MAX	14	33	---	---	---	---	---	---	---	---	---	---
MIN	4.1	6.0	---	---	---	---	---	---	---	---	---	---
CFSM	.39	.52	---	---	---	---	---	---	---	---	---	---
IN.	.45	.58	---	---	---	---	---	---	---	---	---	---

OHIO RIVER MAIN STEM

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

WATER-QUALITY RECORDS

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

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

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1954 to September 1970, January 1973 to current year.
WATER TEMPERATURES: October 1954 to September 1970, January 1973 to current year.

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

COOPERATION.--Records of daily specific conductance and water temperature collected by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 693 microsiemens, Nov. 25, 1968; minimum daily, 170 microsiemens, Feb. 9, 1957, Jan. 21, 1973
WATER TEMPERATURES: Maximum daily, 31.0°C, July 15, 1964, July 17-21, 25, 1977; minimum daily, 0.0°C, on several days during most winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT^3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)
OCT 1990											
03...	1100	93700	355	8.1	22.5	8.4	8.5	99	K19	120	130
DEC											
06...	1040	365000	L334	7.6	10.0	5.5	11.4	100	79	120	140
FEB 1991											
06...	0900	376000	298	8.3	5.5	40	12.9	102	64	190	120
APR											
02...	1000	--	L234	7.8	12.5	67	13.0	120	80	K45	100
JUN											
04...	1130	214000	L277	7.6	26.5	22	6.6	82	39	220	110
AUG											
05...	1100	754000	L265	7.6	29.0	5.7	--	--	70	220	--

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	ALKA-LINITY WAT DIS TOT FET FIELD MG/L AS CACO3	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SULFATE DIS-SOLVED (MG/L AS SO4)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT 1990											
03...	37	10	16	3.0	105	86	87	22	56	0.20	4.7
DEC											
06...	38	10	12	3.0	106	87	87	17	47	0.10	5.3
FEB 1991											
06...	35	8.6	9.1	1.8	91	75	74	10	39	0.10	6.1
APR											
02...	30	7.0	6.3	2.0	81	66	66	8.6	39	0.10	5.5
JUN											
04...	33	7.8	8.8	2.1	95	78	78	10	36	<0.10	3.8
AUG											
05...	--	--	--	--	102	84	83	11	31	<0.10	3.80

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
OCT 1990											
03...	196	204	<0.010	0.700	0.020	<0.010	0.30	0.110	0.050	0.020	10
DEC											
06...	191	190	0.020	1.10	0.080	0.080	0.70	0.170	0.080	0.050	40
FEB 1991											
06...	172	160	0.030	1.20	0.060	0.070	0.40	0.060	0.040	0.030	50
APR											
02...	126	144	0.040	1.10	0.030	0.010	0.50	0.170	0.040	0.020	80
JUN											
04...	150	154	0.030	1.10	0.030	0.040	0.60	0.140	0.080	0.060	80
AUG											
05...	138	--	0.070	0.250	0.030	0.020	0.50	0.320	0.040	<0.010	--

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
OCT 1990											
03...	1	46	<0.5	<1.0	2	<3	4	8	2	7	1
DEC											
06...	<1	45	<0.5	<1.0	2	<3	3	30	1	7	2
FEB 1991											
06...	<1	43	<0.5	<1.0	3	<3	3	51	2	4	18
APR											
02...	<1	36	<0.5	1.0	<1	3	2	65	1	4	4
JUN											
04...	<1	46	<0.5	<1.0	4	<3	5	64	1	<4	4
AUG											
05...	--	--	--	--	--	--	--	--	--	--	--

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 1990											
03...	<0.1	<10	1	<1	<1.0	180	<6	3	25	6320	80
DEC											
06...	<0.1	<10	1	<1	<1.0	160	<6	<3	128	126000	89
FEB 1991											
06...	<0.1	<10	1	<1	<1.0	140	<6	10	106	108000	89
APR											
02...	<0.1	<10	<1	<1	<1.0	110	<6	4	103	238000	97
JUN											
04...	<0.1	<10	3	<1	<1.0	130	<6	13	23	13300	94
AUG											
05...	--	--	--	--	--	--	--	--	--	--	--

BAYOU DE CHIEN BASIN

07024000 BAYOU DE CHIEN NEAR CLINTON, KY

LOCATION.--Lat 36°37'43", long 88°57'50", Hickman County, Hydrologic Unit 08010201, on right bank at downstream side of bridge on U.S. highway 51, 1.1 mi upstream from Cane Creek, 3.2 mi southeast of Clinton, and at mile 15.1.

DRAINAGE AREA.--68.7 mi^2.

PERIOD OF RECORD.--October 1939 to September 1950 (monthly discharge only for some periods, published in WSP 1311), October 1950 to September 1978, September 1984 to current year. Published as "Bayou du Chien near Clinton," October 1954 to September 1968.

REVISED RECORDS.--WSP 1311: 1940 (M), 1942-44 (M). WSP 1711: Drainage area. WDR-KY-89: 1985-89 (m).

GAGE.--Water-Stage recorder. Datum of gage is 307.71 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 2, 1951, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 3, 16-19 and 29. Records fair except for periods of estimated record which are poor. Maximum gage height affected by backwater from the Mississippi River. Specific conductance and temperature measurements made in conjunction with discharge measurements are published in the miscellaneous water-quality data section.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	24	39	132	45	294	70	42	292	18	14	15
2	12	23	37	85	43	252	63	39	894	18	14	15
3	13	21	350	70	42	79	59	38	111	18	14	16
4	315	24	69	57	41	59	61	39	252	20	14	16
5	26	35	38	62	272	52	61	52	187	18	13	17
6	15	27	33	677	1720	51	58	42	54	17	14	16
7	48	21	31	1200	1380	46	56	37	42	16	13	16
8	54	19	29	261	102	44	205	37	39	16	14	17
9	947	23	27	103	63	43	148	62	37	16	16	19
10	1130	26	28	223	55	41	88	46	36	16	15	17
11	119	20	27	486	48	41	53	59	36	16	14	16
12	42	18	26	179	46	42	86	487	134	17	14	18
13	34	21	25	95	607	45	548	1110	102	19	13	19
14	30	22	24	76	679	42	1200	197	40	16	14	18
15	33	22	95	93	89	40	735	82	35	16	14	18
16	30	24	40	112	55	39	128	160	39	17	14	24
17	28	21	140	64	352	46	80	122	32	16	15	28
18	35	21	3700	53	940	51	67	67	30	16	16	40
19	31	20	2700	52	476	44	62	180	29	16	15	27
20	29	18	301	54	299	41	62	91	29	16	15	19
21	30	18	1120	48	116	42	55	57	29	15	14	18
22	46	34	3930	42	80	863	56	53	70	15	14	17
23	37	31	1280	41	62	1010	51	53	79	15	14	17
24	27	24	91	41	54	128	49	49	24	15	14	19
25	25	22	56	40	50	80	48	334	22	15	14	19
26	25	21	47	39	46	70	51	190	20	15	14	17
27	22	22	288	42	45	67	50	70	19	15	15	16
28	21	293	710	58	43	62	50	47	19	14	17	16
29	23	61	450	49	---	64	102	40	19	14	16	17
30	26	44	723	100	---	107	56	49	18	15	26	17
31	23	---	814	56	---	93	---	38	---	14	22	---
TOTAL	3288	1020	17268	4690	7850	3978	4458	3969	2769	500	465	564
MEAN	106	34.0	557	151	280	128	149	128	92.3	16.1	15.0	18.8
MAX	1130	293	3930	1200	1720	1010	1200	1110	894	20	26	40
MIN	12	18	24	39	41	39	48	37	18	14	13	15
CFSM	1.54	.49	8.11	2.20	4.08	1.87	2.16	1.86	1.34	.23	.22	.27
IN.	1.78	.55	9.35	2.54	4.25	2.15	2.41	2.15	1.50	.27	.25	.31

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1991, BY WATER YEAR (WY)

MEAN	33.3	83.8	134	160	195	222	140	104	69.8	59.3	40.5	35.1
MAX	165	520	557	586	672	1138	335	470	419	397	206	268
(WY)	1985	1958	1991	1950	1989	1975	1970	1978	1976	1976	1977	1977
MIN	7.27	9.41	12.1	12.7	16.2	14.2	18.6	12.1	11.7	10.7	9.43	8.74
(WY)	1944	1944	1944	1944	1941	1941	1986	1969	1952	1943	1953	1941

SUMMARY STATISTICS	FOR 1990 CALENDAR YEAR		FOR 1991 WATER YEAR		WATER YEARS 1940 - 1991	
ANNUAL TOTAL	50440		50819			
ANNUAL MEAN	138		139		106	
HIGHEST ANNUAL MEAN					268	1976
LOWEST ANNUAL MEAN					18.7	1941
HIGHEST DAILY MEAN	3930	Dec 22	3930	Dec 22	7150	Jan 2 1966
LOWEST DAILY MEAN	11	Sep 27	12	Oct 1	4.0	May 29 1943
ANNUAL SEVEN-DAY MINIMUM	13	Sep 23	14	Aug 1	4.7	Jun 20 1942
INSTANTANEOUS PEAK FLOW			4960	Dec 18	9460	Jan 2 1966
INSTANTANEOUS PEAK STAGE			16.39	Dec 18	16.22	Mar 12 1965
ANNUAL RUNOFF (CFSM)	2.01		2.03		1.54	
ANNUAL RUNOFF (INCHES)	27.31		27.52		20.97	
10 PERCENT EXCEEDS	222		292		200	
50 PERCENT EXCEEDS	33		40		22	
90 PERCENT EXCEEDS	15		15		11	

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 Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at low-flow partial-record stations are presented in the following table. Discharge measurements made at miscellaneous sites are given in separate tables.

Low-flow partial-record station

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or pratically the same site.

Discharge measurements made at low-flow partial-record stations during water year 1991

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
		BIG SANDY RIVER BASIN				
03209420	Marrowbone Creek at Wolfpit, KY	Lat 37°21'01", long 82°25'24", Pike County, at bridge on State Highway 195, 1.2 mi above mouth at Wolfpit.	23.6	1988, 1991	6-14-91 7-23-91	3.49 3.64
03209455	Robinson Creek near Robinson Creek, KY	Lat 37°23'29", long 82°43'03", Pike County, adjacent to Federal Highway 23 and 119, 0.5 mi above mouth, 1.4 mi northwest of Robinson Creek, and 6.5 mi southwest of Pikeville.	9.7	1988, 1991	6-14-91 7-23-91	2.22 1.60
03209456	Sugar Camp Creek near Robinson Creek, KY	Lat 37°23'21", long 82°33'54", Pike County, at culvert on Federal Highway 23 and 119, 200 ft above Robinson Creek, 1.3 mi northwest of Robinson Creek, and 6.4 mi southwest of Pikeville.	1.9	1988, 1991	6-14-91 7-23-91	.06 .06
03209530	Mud Creek near Grethel, KY	Lat 37°27'42", long 82°34'21", Floyd County, at bridge on State Highway 979, 7.8 mi above mouth, 1.5 mi south of Grethel, and 4.2 mi east of McDonnell.	16.5	1988, 1991	6-14-91 7-22-91	1.29 2.65
03209600	Right Fork Beaver Creek at Wayland, KY	Lat 37°26'35", long 82°48'28", Floyd County, at Chesapeake Ohio R.R. bridge at Wayland, 100 ft downstream from Steele Creek.	73.9	1959-64, 1967-75, 1987-88, 1991	6-13-91 7-23-91	10.7 10.4
03209603	Jones Fork at Betty, KY	Lat 37°27'01", long 82°50'32", Knott County, Hydrologic Unit 05070203, at bridge on State Highway 80 at Betty.	21.6	1981, 1987	10-20-87 6-30-88	a.15 a.03
03209650	Left Fork Beaver Creek at Drift, KY	Lat 37°28'56", long 82°45'09", Floyd County at bridge on State Highway 1101 at Drift, and 0.2 mi above Hampton Branch.	58.5	1987-88, 1991	10-20-87 6-13-91 7-23-91	a2.97 15.0 11.4
03209910	Abbot Creek near Prestonsburg, KY	Lat 37°40'52", long 82°47'41", Floyd County, at bridge on unmarked road off State Highway 1427, 1.0 mi above mouth, and 1.5 mi northwest of Prestonburg.	15.2	1988, 1991	6-12-91 7-22-91	1.09 .41
03210450	Buffalo Creek near German, KY	Lat 37°40'04", long 82°38'17", Floyd County, adjacent to secondary road off State Highway 194, 2.5 mi above mouth, 1.2 mi south of German, and 6.0 mi east of Prestonburg.	14.3	1988, 1991	6- 8-88 6-12-91 7-23-91	b.23 .50 .48

See footnotes at end of table.

Discharge measurements made at low-flow partial-record stations during water year 1991

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
		BIG SANDY RIVER BASIN--Continued				
03212530	Georges Creek near Ulysses, KY	Lat 37°56'56", long 82°40'13", Lawrence County, at bridge on Federal Highway 23, 2.1 mi above mouth, 0.4 mi north of Ulysses, and 1.5 mi west of Richardson.	17.6	1988, 1990-91	6-12-91 7-23-91	0.71 .50
03213730	Long Fork near South Williamson, KY	Lat 37°41'20", long 82°21'42", Pike County, at bridge on State Highway 468, at mouth, and 4.0 mi west of South Williamson, KY.	5.24	1987-88, 1991	10-26-87 6-30-88 6-14-91 7-23-91	a.37 a.09 .32 .23
03214600	Middle Fork Rockcastle River at Inez, KY	Lat 37°51'14", long 82°32'43", Martin County, on road up Saltwell Branch off State Highway 40, and 0.9 mi south of Inez.	33.3	1987-88, 1991	10-26-87 6-27-88 6-12-91 7-23-91	a2.08 a1.51 7.01 3.73
		LITTLE SANDY RIVER BASIN				
03216370	Big Sinking Creek near Aden, KY	Lat 38°16"03", long 83°02'27", Carter County, at bridge on unmarked road, 4.2 mi above mouth, 2.3 mi southeast of Grahm, and 6.7 mi southwest of Grayson.	29.7	1988, 1991	6-13-91 7-23-91	1.37 .73
		LICKING RIVER BASIN				
03248380	Burning Fork near Salyersville, KY	Lat 37°44'28", long 83°03'22", Magoffin County, at bridge on Mountain Parkway 0.3 mi east of Salyersville, and 1.0 mi above mouth.	17.5	1987-88, 1991	10-20-87 6-28-87 6-13-91 7-23-91	a.25 a.06 1.77 1.16
03248540	Middle Fork near Salyersville, KY	Lat 37°44'24", long 83°07'48", Magoffin County, at bridge on Mountain Parkway, 0.2 mi above Patton Branch, 0.7 mi below Right Fork, and 3.3 mi west of Salyersville.	45.7	1973-81, 1987-88	9-15-88	a1.09
03248620	Licking River near West Liberty, KY	Lat 37°56'52", long 83°12'58", Morgan County, at bridge on unmarked read off Federal Highway 460, 6.6 mi below Jones Creek and 2.6 mi south of West Liberty.	327	1987-88, 1991	6-12-91 7-23-91	54.8 70.3
03248855	North Fork Licking River near Wrigley, KY	Lat 38°02'39", long 83°18'13", Morgan County just below Devils Fork, below bridge on State Highway 711, 0.5 mi northwest of Wrigley, and 4.3 mi above Craney Creek.	33.7	1974-81, 1987-88	6-27-88	a.18
03250115	Salt Lick Creek at Salt Lick, KY	Lat 38°06'45", long 83°37'15", Bath County, at bridge on State Highway 211, 2.5 mi above mouth and 0.5 mi south of Salt Lick.	38.6	1988, 1990-91	6-12-91 7-22-91	1.04 2.37
03250195	Spencer Creek near Howards Mill, KY	Lat 38°01'45", long 83°50'24", Montgomery County, at bridge on Ridge Road, 0.7 mi above mouth, 2.5 mi south of Howards Mill, and 3.8 mi west of Hope.	11.5	1988, 1990-91	6-12-91 7-22-91	.01 1.45
03250220	Mill Creek near Preston, KY	Lat 38°05'53", long 83°44'55", Bath County, at bridge on State Highway 965, 1.3 mi above mouth, or 4 mi north of Preston, and 2.8 mi west of Olympia.	21.1	1988, 1990-91	6-12-91 7-22-91	.26 2.25
03250350	Locust Creek near Hillsboro, KY	Lat 38°18'20", long 83°44'04", Fleming County, at bridge on State Highway 1336, 2.7 mi above mouth, 4.9 mi southwest of Poplar Plains, and 4.2 mi northwest of Hillsboro.	28.8	1988, 1991	6-13-91	0

See footnotes at end of table.

Discharge measurements made at low-flow partial-record stations during water year 1991

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
		LICKING RIVER BASIN--Continued				
03250390	Flat Creek near Sherburne, KY	Lat 38°16"19", long 83°48'01" Bath County, at bridge on State Highway 1325, 0.7 mi south of Sherburne, and 2.5 mi west of Pebble.	49.9	1988, 1991	6-13-91 7-22-91	0.28 7.60
03252190	Hinkston Creek near Sharpsburg, KY	Lat 38°10'03", long 83°58'32" Bath County at road bridge on county road, 0.8 mi below Grassy Lick Creek, 2.9 mi above Paytons Lick Branch, 3.4 mi southwest of Sharpsburg, 43.7 mi upstream from Stoner Creek, and at mile 113.4	79.8	1973-77, 1979-82, 1987-88, 1991	6-13-91 7-22-91	1.55 15.9
03252220	Hinkston Creek near Little Rock, KY	Lat 38°15'50", long 84°01'37", Bourbon County, 0.1 mi below Boone Creek, and 1.9 mi north of Little Rock.	136	1987, 1991	6-13-91 7-22-91	2.23 26.7
03252300	Hinkston Creek near Carlisle, KY	Lat 38°14'33", long 84°03'09", Bourbon County, at bridge on State Highway 13, 0.4 mi upstream from Taylors Creek, 5.0 mi south of Carlisle, 24.6 mi upstream from Stoner Creek, and at mile 24.6.	154	1968-76, 1988, 1991	6-13-91 7-22-91	2.41 37.5
03252600	Mill Creek near Cynthiana, KY	Lat 38°26'27", long 84°20'15", Harrison County at bridge on unmarked road off State Highway 36, 2.8 mi above Licking River, 1.8 mi west of Poindexter, and 3.9 mi northwest of Cynthiana.	31.8	1988, 1990-91	6-12-91 7-23-91	1.57 1.85
03252940	Fork Lick Creek at Morgan, KY	Lat 38°36'27", long 84°24'31", Pendleton County, at bridge on State Highways 318 and 1054, 0.3 mi above mouth, 0.6 mi northwest of Morgan, and 2.3 mi below Little Fork Lick Creek.	50.2	1973-81, 1988	6- 6-88	a.37
		GUNPOWDER CREEK BASIN				
03277050	Gunpowder Creek near Florence, KY	Lat 38°59'46", long 84°41'57", Boone County, at bridge on Pleasant Valley Road, 0.6 mi above South Fork of Gunpowder Creek, 3.6 mi west of Florence.	12.6	1987-88, 1991	10-20-87 6-27-88 6-12-91 7-22-91	a.40 a.20 3.94 0.36
		KENTUCKY RIVER BASIN				
03277250	Wright Fork at Neon, KY	Lat 37°11'28", long 82°42'18", Letcher County, at bridge on State Highway 343, at Neon, and 1.2 mi above mouth.	6.67	1987-88, 1991	9-28-87 10-19-87 7-23-91 8-28-91	a.34 a.40 .96 .22
03277303	Cowen Creek near Whitesburg, KY	Lat 37°06'18", long 82°51'35", Letcher County, at bridge on road up Brown Branch off State Highway 931, 0.1 mi above mouth, just below Brown Branch, and 2.1 mi southwest of Whitesburg.	11.2	1987-88, 1990-91	7-23-91 8-28-91	1.22 .64
03277355	Camp Branch near Polly, KY	Lat 37°12'45", long 82°51'07", Letcher County, at bridge on State Highway 7, 0.2 mi above mouth, and 7.0 mi north of Whitesburg.	6.30	1987-88, 1991	10-19-87 7-23-91 8-28-91	a.96 1.93 1.41
03277368	Wilson Branch near Defeated Creek, KY	Lat 37°01'57", long 83°01'33", Letcher County, at culvert on road connecting State Highways 160 and 463, 3.1 mi north of Gordon, and 3.4 mi above mouth.	0.52	1988, 1991	10-19-87 7-22-91 8-27-91	a.14 .08 .01
03277510	Lotts Creek near Bulan, KY	Lat 37°17'17", long 83°10'44", Perry County, at bridge on State Highway 80 and 476, 1.0 mi above mouth, just above Trace Fork, and 2.7 mi northeast of Hazard.	20.1	1987-88, 1991	6- 6-88 6-29-88 7-11-88 7-22-91 8-27-91	a3.12 a.74 a.30 4.70 3.82

See footnotes at end of table.

Discharge measurements made at low-flow partial-record stations during water year 1991

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
		KENTUCKY RIVER BASIN--Continued				
03277820	Right Fork of Troublesome Creek near Hindman, KY	Lat 37°18'55", long 82°56'51", Knott County, at bridge on State Highway 160, above Trace Fork, and 2.3 mi southeast of Hindman.	4.40	1987, 1991	6-13-91 7-22-91	0.48 .41
03278500	Troublesome Creek at Noble, KY	Lat 37°26'36", long 83°13'06", Breathitt County, on left bank adjacent to State Highway 476, 0.3 mi downstream from Buckhorn Creek, 1.5 mi west of Noble, and at mile 13.9.	177	1950-81†, 1988, 1991	6- 6-88 6-29-88 7-22-91 8-27-91	a20.7 a5.58 60.6 27.0
03279150	Lost Creek near Lost Creek, KY	Lat 37°27'56", long 83°19'14", Breathitt County, at bridge on State Highway 15, 1.0 mi above mouth, 2.1 mi southeast of Haddix, and 0.6 mi below Mill Branch.	42.2	1979-81, 1987-88, 1991	7-22-91 8-27-91	14.6 10.0
03280550	Beech Fork at Asher, KY	Lat 37°02'38", long 83°24'09", Leslie County, at bridge on State Highway 1780, 150 ft above mouth, 0.3 mi east of Asher, and 2.3 mi south of Hoskinston.	33.9	1988, 1991	7-23-91 8-29-91	4.37 1.91
03280578	Greasy Creek near Chappel, KY	Lat 36°58'56", long 83°19'55", Leslie County, at bridge on State Highway 2009, 0.1 mi below Laurel Fork and 2.7 mi southeast of Chappel.	72.0	1987-88, 1991	9-28-87 8-28-91	b2.03 5.17
03280680	Wolf Creek at Cinda, KY	Lat 37°06'28", long 83°17'40", Leslie County, at bridge on unmarked road off State Highway 699, at mouth and 5.5 mi southeast of Hyden.	9.87	1987-88, 1991	8-29-91	.57
03281075	Collins Fork near Bluehole, KY	Lat 37°05'03", long 83°46'05", Clay County, at bridge on State Highway 11, 3.5 mi above Goose Creek, and 2.5 mi south of Hima.	51.9	1979-81, 1988, 1991	7-23-91 8-29-91	1.66 1.47
03281195	Bullskin Creek at Oneida, KY	Lat 37°16'25", long 83°38'48", Clay County, at bridge on State Highway 66, 200 ft above mouth, and 0.3 mi northeast of Oneida.	29.4	1988, 1991	7-23-91 8-29-91	.59 1.67
03282040	Sturgeon Creek at Cressmont, KY	Lat 37°30'02", long 83°48'37", Lee County, at bridge on State Highway 587, 0.1 mi southeast of Cressmont, and at mile 9.5.	96.4	1990-91*	6-17-91 7- 3-91 7-24-91 8-23-91	c44.0 17.0 11.3 4.34
03282048	Sturgeon Creek at Heidelberg, KY	Lat 37°32'15", long 83°46'58", Lee County, at bridge on unmarked road off State Highway 587, 0.9 mi above mouth, and 1.0 mi south of Heidelberg.	110	1987-88	8-26-87	a.79
03282150	Station Camp Creek at Alumbaugh, KY	Lat 37°35'43", long 83°55'53", Estill County, at ford off State Highway 89 at Alumbaugh, 7 mi below South Fork, 4 mi above Middle Fork, 2.4 mi northeast of Drip Rock and 2.5 mi southeast of Wagersville.	98.8	1987-88, 1990-91	7-24-91 8-28-91	17.8 8.76
03282190	Redlick Creek near Station Camp, KY	Lat 37°38'01", long 83°59'01", Estill County, at low-water bridge on county road, 1.1 mi south of Station Camp, and 4.6 mi south of Irvine.	69.5	1959-64, 1967, 1973-74, 1976, 1987	8-26-87	a.03
03282275	Drowning Creek near Winston, KY	Lat 37°43'05", long 84°05'57, Estill County, at bridge on State Highway 52, 2.8 mi above mouth, 1.3 mi northwest of Winston, and 5.1 mi west of West Irvine.	31.5	1988, 1991	7-24-91 8-28-91	8.35 .09

See footnotes at end of table.

Discharge measurements made at low-flow partial-record stations during water year 1991

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
		KENTUCKY RIVER BASIN--Continued				
03283240	Indian Creek near Nada, KY	Lat 37°50'58", long 83°41'12", Powell County, at bridge on State Highway 1067, 0.2 mi above mouth, 3 mi northeast of Nada, and 3.6 mi north of Slade.	27.7	1988, 1990-91	6-12-91 7-23-91	3.98 6.19
03284625	Jessamine Creek at Nicholasville, KY	Lat 37°51'52", long 84°36'30", Jessamine County, at bridge on unmarked road, 1.5 mi southwest of Nicholasville and 1.9 mi above Town Fork.	13.5	1988, 1991	6-13-91 7-23-91	1.92 1.51
03284700	Negro Creek at Brodhead, KY	Lat 37°33'42", long 84°24'55", Rockcastle County, at ford 0.2 mi above Little Negro Creek, 0.6 mi above Boone Fork, and at Broadhead.	20.6	1988, 1990-91	7-22-91 8-28-91	2.40 .74
03284710	Dix River at Brodhead, KY	Lat 37°24'32", long 84°25'05", Rockcastle County, at bridge on unmarked road, 200 ft above Grassy Creek, 0.4 mi below Boone Fork, at Brodhead.	54.2	1988, 1990-91	7-22-91 8-28-91	3.23 .93
03287130	Clear Creek near Mortonsville, KY	Lat 37°56'37", long 84°45'53", Woodford County, at bridge on Hifner Road, 0.4 mi below Tanners Creek, and 2.0 mi south of Mortonsville.	61.6	1973-76, 1987	8-28-87	a.04
03290200	Cedar Creek at Monterey, KY	Lat 83°25'04", long 84°51'19", Owen County, just below confluence with Sandridge Creek and 0.8 mi east of Monterey.	66.4	1988, 1990-91	6-13-91 7-23-91	1.03 1.37
03291000	Eagle Creek at Sadieville, KY	Lat 38°23'22", long 84°32'36", Scott County, at private bridge 5.8 mi upstream of Little Eagle Creek, and 0.2 mi west of Sadieville.	42.9	1941-74†, 1988, 1990-91	6- 6-88 6-28-88 6-12-91 7-22-91	a.07 a0 2.10 1.30
03291500	Eagle Creek at Glencoe, KY	Lat 38°42'18", long 84°49'26", Owen County, 600 ft upstream from bridge on U.S. Highway 127, 0.6 mi south of Glencoe, and 5.8 mi downstream from Tenmile Creek.	437	1915-18†, 1918-20†, 1928-31†, 1938-77†, 1978, 1980-81, 1987-88	9-23-87 6-27-88	b.01 a.11
		SALT RIVER BASIN				
03295700	Bullskin Creek near Simpsonville, KY	Lat 38°14'31", long 85°17'25", Shelby County, 0.1 mi above Fox Run and bridge on Antioch Pike, 3.8 mi northwest of Simpsonville.	27.5	1988, 1990-91	6-13-91 7-23-91	.16 0
03297880	Curry's Fork near Crestwood, KY	Lat 38°18'26", long 85°27'02", Oldham County, at bridge on State Highway 1408, 0.4 mi above mouth and 1.5 mi southeast of Crestwood.	28.5	1987-88, 1991	10-20-87 6-28-88 6-13-91 7-22-91	a.40 a.09 1.55 0.42
03300100	Beech Fork near Maud, KY	Lat 37°49'57", long 85°17'46", Washington County, at bridge on State Highway 458, 3.8 mi above Chaplin River and 2.3 mi east of Maud.	159	1988, 1990-91	6-12-91 7-22-91	19.1 13.6
03300350	Beaver Creek near Johnsonville, KY	Lat 37°55'01", long 85°07'37", Washington County, at bridge on unmarked road off Federal Highway 62, 4.9 mi above mouth and 5.0 mi east of Chaplin.	20.6	1988, 1990-91	6-12-91 7-22-91	.19 2.14
03300980	Beech Fork near Bardstown, KY	Lat 37°45'38", long 85°27'37", Nelson County, at bridge on State Highway 49, 0.3 mi above Glickey Run and 3.0 mi south of Bardstown.	645	1988, 1990-91	6-12-91 7-22-91	88.4 73.1

See footnotes at end of table.

Discharge measurements made at low-flow partial-record stations during water year 1991

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
		GREEN RIVER BASIN				
03305715	Trace Fork near Phil, KY	Lat 37°12'28", long 84°57'07", Casey County, 200 ft below bridge on State Highway 910, 2.3 mi above mouth, and 0.5 mi south of Phil.	32.8	1988, 1990-91	6-13-91 7-23-91	5.75 1.30
03306840	Sulphur Creek near Columbia, KY	Lat 37°06'75", long 85°17'13", Adair County, at mouth of Sulphur Creek below unmarked road off State Highway 206, 0.2 mi east of Columbia.	36.4	1988, 1990-91	6-13-91 7-23-91	11.3 2.92
03307100	Russell Creek near Gresham, KY	Lat 37°0'05", long 85°28'11", Green County, 0.2 mi upstream from Snake Branch, and 2.2 mi southwest of Gresham.	265	1965-75†, 1988, 1990-91	6- 7-88 6-28-88 6-13-91 7-23-91	a14.7 a5.19 33.9 13.7
03307440	Little Brush Creek near Gabe, KY	Lat 37°20'03", long 85°35'29", Green County, at bridge on unmarked road off State Highway 61, 0.8 mi above Dixie Creek, and 2.8 mi north of Gabe.	23.5	1988, 1990-91	6-13-91 7-22-91	7.06 2.32
03307790	Little Barren River near Crailhope, KY	Lat 37°10'12", long 85°38'51", Green County, at bridge on State Highway 218, 1.2 mi northwest of Crailhope, and 1.6 mi below Greasy Creek.	225	1987-88, 1990-91	6-29-88 6-13-91 7-23-91	a8.54 84.8 20.2
03307900	Lynn Camp Creek near Linwood, KY	Lat 37°21'08", long 85°42'37", Hart County, at bridge on State Highway 569, 4.2 mi above mouth, and 2.5 mi east of Linwood.	22.7	1988, 1990-91	7-22-91	15.7
03312123	Big Reedy Creek near Reedyville, KY	Lat 37°12'16", long 86°26'41", Butler County, at ford off State Highway 185, 4.0 mi above mouth, and 1.1 mi northwest of Reedyville.	34.3	1988, 1990-91	6-13-91 7-23-91 8- 7-91	1.22 1.52 0
03312155	East Fork of Barren River near Gamaliel, KY	Lat 36°40'27", long 85°47'03", Monroe County, at ford on unmarked road off State Highway 100, 4.9 mi above Line Creek, 0.8 mi above Mill Creek, and 2.2 mi north of Gamaliel.	41.6	1988, 1990-91	7-24-91 8- 7-91	1.86 2.39
03312810	Beaver Creek at State Highway 1297 near Glasgow, KY	Lat 36°59'23", long 85°58'31", Barren County, at bridge on State Highway 1297, 1.1 mi above South Fork, and 3.6 mi west-southwest of Glasgow.	70.8	1987-88, 1990-91	10-23-87 6-28-88 6-13-91 7-24-91 8- 7-91	b-- a3.15 21.2 5.74 3.13
03313470	Bays Fork near Scottsville, KY	Lat 36°48'43", long 86°13'18", Allen County, at bridge on unmarked road, 1.0 mi above west Bays Fork and 4.3 mi northwest of Scottsville.	20.5	1988, 1990-91	6-14-91 7-24-91 8- 8-91	4.05 1.02 .66
03313500	West Bays Fork at Scottsville, KY	Lat 36°44'53", long 86°11'47", Allen County, at bridge on U.S. Highway 31E, 0.5 mi southwest of Scottsville, and at mile 6.4.	7.5	1951-72†, 1988, 1990-91	6- 7-88 6-28-88 7-12-88 6-14-91 7-24-91 8- 8-91	a.74 a.29 a.31 2.02 .54 .28
03313888	Buck Creek near Scottsville, KY	Lat 36°42'40", long 86°16'51", Allen County, at bridge on unmarked road connecting State Highway 100 and Federal Highway 31E, 1.4 mi above mouth, 0.4 mi below Wolf Branch, and 55 mi southwest of Scottsville.	7.90	1987-88, 1990-91	6-14-91 7-24-91 8- 8-91	.86 .12 0
03314000	Drakes Creek near Alvaton, KY	Lat 36°53'4?", long 86°22'50", Warren County, at bridge on U.S. Highway 231, 2.1 mi northwest of Alvaton, and 5.3 mi downstream of Trammel Fork.	478	1940-71†, 1977, 1984, 1987-88, 1990-91	9-28-87 6- 7-88 6-28-88 7-12-88 7-23-91 8- 8-91	a36.5 a56.7 a26.7 a30.2 85.8 48.2

See footnotes at end of table.

Discharge measurements made at low-flow partial-record stations during water year 1991

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
		GREEN RIVER BASIN--Continued				
03315450	Little Muddy Creek near Woodbury, KY	Lat 37°09'28", long 86°38'50", Butler County, at ford on gravel road off State Highway 1435, 0.6 mi below Hocker Branch, and 1.8 mi south of Woodburg.	44.2	1988, 1990-91	6-13-91 7-23-91 8- 7-91	7.23 .06 0
03315915	Mud River near Homer, KY	Lat 36°57'26", long 86°52'27", Logan County, at bridge on county road, 0.2 mi above Molts Lick Creek, 1.9 mi west of Homer.	45.0	1975, 1977, 1979, 1980, 1991	6-14-91 7-23-91 8- 7-91	28.1 5.37 3.27
03316610	Pond Creek near Drakesboro, KY	Lat 37°12'00", long 87°06'21", Muhlenburg County, at bridge on State Highway 176, 0.6 mi above Caney Creek and 3.2 mi west of Drakesboro.	57.8	1988, 1990-91	6-29-88 6-13-91 7-22-91 8- 7-91	b1.31 8.69 2.66 .98
03316660	Lewis Creek near Rockport KY	Lat 37°20'51", long 86°59'02", Muhlenburg County, at bridge on unmarked road off Federal Highway 62, 0.3 mi above mouth, 1.5 mi northeast of Martwick, and 1.0 mi west of Rockport.	36.9	1988, 1991	6-13-91 7-22-91 8- 7-91	4.33 1.66 .38
03319570	Halls Creek near Dundee, KY	Lat 37°31'58", long 86°49'21", Ohio County, at bridge on unmarked road off State Highway 69, 3.0 mi above mouth and 3.2 mi southwest of Dundee.	14.5	1988, 1990-91	6-13-91 7-22-91 8- 7-91	.32 0 0
03320075	Long Falls Creek near Rumsey, KY	Lat 37°34'53", long 87°16'39", McLean County, at bridge on unmarked roadd off State Highway 136, 4.0 mi above mouth and 4.0 mi north of Calhoun.	138	1988, 1990-91	6-13-91 7-22-91 8- 7-91	1.01 .12 .01
		TRADEWATER RIVER BASIN				
03383700	Donaldson Creek on Highway 293 near Dalton, KY	Lat 37°17'03", long 48'37", Caldwell County, at beidge on State Highway 293, 1.1 mi above mouth, and 2.0 mi north of Fryer.	72.4	1988, 1990-91	6-14-91 7-23-91 8- 7-91	1.27 .06 0
		CUMBERLAND RIVER BASIN				
03401290	Brownies Creek near Oaks, KY	Lat 36°43'19", long 83°33'34", Bell County, at bridge on State Highway 987, 100 ft above Elk Branch, and 3.4 mi southeast of Calvin.	28.9	1979-81, 1988, 1990-91	7-22-91 8-27-91	4.26 3.76
03401510	Yellow Creek Bypass at Highway 441 at Middlesboro, KY	Lat 36°37'42", long 83°42'59", Bell County, at bridge on State Highway 441, at Middlesboro and 0.5 mi above confluence with Yellow Creek.	37.8	1987-88, 1990-91	7-22-91 8-27-91	2.29 2.54
03402930	Fourmile Creek at Fourmile, KY	Lat 36°47'27", long 83°43'59", Bell County, at bridge on gravel road off State Highway 2014, 0.2 mi above mouth, 0.1 mi above Levi Branch, 2.5 mi northwest of Pineville and 0.3 mi east of Fourmile.	6.23	1987-88, 1990-91	7-22-91 8-27-91	.62 .73
03403540	Richland Creek at Barbourville, KY	Lat 36°52'34", long 83 54'08", Knox County, at bridge on State Highway 6, 0.5 mi above Smokey Creek and 1.0 mi northwest of Barbourville.	70.7	1988, 1990-91	7-22-81 8-27-91	3.54 1.99
03403910	Clear Fork at Saxton, KY	Lat 36°38'02", long 84°06'42", Whitley County, at bridge on State Highway 1804, at Saxton, 7.2 mi southeast of Williamsburg, and at mile 17.2.	331	1968-90†, 1991	7-24-91	99.5

See footnotes at end of table.

Discharge measurements made at low-flow partial-record stations during water year 1991

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
		CUMBERLAND RIVER BASIN--Continued				
03404100	Watts Creek near Wofford, KY	Lat 36°47'08", long 84°08'07", Whitley County, at bridge on State Highway 26 at Wofford, 2.7 mi above mouth, and 0.4 mi below Idiot Branch.	23.8	1979-81, 1988, 1990-91	7-22-91 7-27-91	1.58 .08
03404685	Laurel River near Fariston, KY	Lat 37°03'16", long 84°01'39", Laurel County, at bridge on State Highway 229, 0.4 mi below Calloway Creek, 0.1 mi below Lick Creek, and 3.4 mi northeast of Lily.	48.8	1988, 1990-91	7-23-91 8-28-91	2.18 1.40
03404805	Little Laurel River near London, KY	Lat 37°08'19", long 84°02'43", Laurel County, at bridge on State Highway 472, 1.0 mi northeast of London.	8.67	1988, 1991	7-23-91 8-28-91	0 0
03405770	Laurel Fork at Tyner, KY	Lat 37°20'44", long 83°54'16", Jackson County at bridge on Federal Highway 421 and State Highway 30, at Tyner, and 1.4 mi above Grasy Creek.	1.26	1988, 1990-91	6- 7-88 6-28-88 7-23-91 8-28-91	a0 a0 .02 0
03405845	Rockcastle River at Lamero, KY	Lat 37°18'03", long 84°09'36", Laurel County, at bridge on State Highway 490 at Lamero, 7.0 mi below Roundstone Creek, 3.1 mi below Horse Lick Creek, and 3.0 mi east of Livingston.	292	1987-88, 1990-91	10-20-87 7-23-91 8-28-91	a1.52 15.5 7.98
03405880	Crooked Creek near Mullins, KY	Lat 37°21'06", long 84°12'46", Rockcastle County, at ford 0.6 mi above mouth, 0.8 mi east of Mullins, and 6.5 mi east of Mount Vernon.	22.2	1988, 1990-91	7-23-91 8-28-91	1.30 .93
03407420	Caney Creek near Eubank, KY	Lat 37°17'39", long 84°35'40", Pulaski County, at bridge on State Highway 1012, 1.7 mi above mouth 0.2 mi above Clear Fork Branch, and 3.8 mi northeast of Eubank.	13.1	1987-88, 1990-91	7-22-91 8-28-91	.36 1.45
03410535	Roaring Paunch Creek near Smith Town, KY	Lat 36°40'47", long 84°32'26", McCreary County, at KY and TN railroad bridge, 0.1 mi above mouth, and 2.3 mi southwest of Smith Town.	49.7	1979-81, 1988, 1990-91	8-27-91	2.87
03410900	Little South Fork Cumberland River near Oil Valley, KY	Lat 36°45'30", long 84°40'20", McCreary County, at bridge on State Highway 92, and 7.0 mi east of Oil Valley.	98.2	1953-55, 1960-71, 1988	6- 7-88 6-28-88	b-- b.56
03412500	Pitman Creek near Somerset, KY	Lat 37°07'01", long 84°35'31", Pulaski County, 0.5 mi upstream Caney Fork, and 1.9 mi northeast of Somerset.	31.3	1953-72†, 1990-91	6- 6-88 6-28-88 7-11-88 7-22-91 8-29-91	a1.87 a.24 a.02 .57 2.24
03414104	Bear Creek at Highway 449 near Burkesville, KY	Lat 36°45'31", long 85°19'21", Cumberland County, at bridge on State Highway 449, 2.8 mi above mouth, 0.2 mi above Oil Fork, and 3.6 mi southeast of Burkesville.	18.0	1987-88, 1990-91	7-24-91 8-27-91	1.07 .45
03436150	West Fork Red River near Trenton, KY	Lat 36°44'48", long 87°18'10", Todd County, at bridge on Federal Highway 41, 5.3 mi above Montgomery Creek, and 2.6 mi northwest of Trenton.	58.2	1988, 1990-91	6-14-91 7-23-91 8- 8-91	20.1 9.62 4.25
03436260	Unnamed Tributary to Spring Creek near Guthrie, KY	Lat 36°30'05", long 87°22'39", Christian County, at road bridge, 1.8 mi above KY-TN state line and 3.6 mi south of St. Elmo.	162	1988, 1990-91	6- 6-88 6-14-91 7-23-91 8- 8-91	a.07 3.91 .06 .03

See footnotes at end of table.

Discharge measurements made at low-flow partial-record stations during water year 1991

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
		CUMBERLAND RIVER BASIN--Continued				
03438040	Sinking Fork near Cadiz, KY	Lat 36°50'26", long 87°44'27", Trigg County, at bridge on unmarked road off Federal Highway 88, 3.6 mi above mouth and 4.5 mi east of Cadiz.	94.2	1988, 1990-91	7-23-91 8- 8-91	58.2 24.6
03438490	Claylick Creek near Dycusburg, KY	Lat 37°12'35", long 88°12'01", Crittenden County, at bridge on State Highway 133, 3.2 mi above mouth, and 3.4 mi north of Dycusburg.	44.9	1988, 1990-91	6-14-91 7-23-91 8- 8-91	20.0 2.70 1.30
		TENNESSEE RIVER BASIN				
03610500	Clarks River near Benton, KY	Lat 36°52'24", long 88°20'48", Marshall County, at U.S. Highway 641, 1.0 mi north of Benton, and 6.8 mi upstream of Middle Fork Creek.	227	1975-86†, 1988, 1990-91	7-23-91 8- 7-91	11.1 8.13
03610520	Clarks River near Shady Grove, KY	Lat 36°51'18", long 88°30'54", McCracken County, Hydrologic Unit 06040006, at bridge on State Highway 131, 1.6 mi upstream of West Fork Clarks River, and 9.6 mi southeast of Paducah.	313	1987-88, 1990-91	10-22-87 8- 8-91	a6.08 11.2
03610550	Soldier Creek near Harvey, KY	Lat 36°47'39", long 88°26'02", Marshall County, at bridge on unmarked road off State Highway 80, 2.3 mi above mouth, and 2.1 mi north of Brewers.	13.5	1988, 1991	6-13-91 7-23-91	1.06 0
03610600	West Fork Clarks River near Symsonia, KY	Lat 36°55'58", long 88°32'37", Graves County, Hydrologic Unit 06040006, at bridge on State Highway 450, 1.5 mi northwest of Symsonia, and at mile 8.0.	187	1987-88, 1990-91	10-22-87 6-13-91 7-23-91 8- 7-91	a10.1 85.3 12.4 11.5
		OBION RIVER BASIN				
07025440	Harris Fork near Fulton, KY	Lat 36°30'52", long 88°52'16", Fulton County, Hydrologic Unit 08010202, 0.2 mi upstream of bridge on Federal Highway 45, and 0.3 mi north of Fulton.	4.0	1987-88, 1991	10-22-87 6-13-91 7-24-91 8- 8-91	a.09 .56 .15 d.12

† Operated as a continuous-record gaging station.
* Discontinued as a low-flow partial-record station; established as a continuous-record station 7-1-91.
a Not previously published.
b Revised.
c Not base flow.
d Estimated.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Low-flow miscellaneous sites

Discharge measurements in the following table were made at low-flow miscellaneous sites. All measurements, unless noted otherwise, were made at base flow.

Discharge measurements made at miscellaneous sites during water year 1991

Stream	Tributary to	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
		BIG SANDY RIVER BASIN				
Marshall Branch	Long Fork	Lat 37°17'45", long 82°39'52", Pike County, Hydrologic Unit 05070202, at bridge on State Highway 1469, at mouth, and 4.0 mi southeast of Wheelwright.	1.7	1987	6-29-88	a0.03
Middle Creek	Levisa Fork	Lat 37°41'59", long 82°57'01", Magoffin County, Hydrologic Unit 05070203, at bridge on State Highway 114, and 1.7 mi southeast of Ivyton.	5.2	1987-88	10-20-87 6-29-88	a1.87 a0
Long Fork	Johns Creek	Lat 37°29'06", long 82°17'26", Hydrologic Unit 05070203, Pike County, at junction of State Highways 1758 and 632, at mouth, and 3.6 mi east of Kimper.	5.2	1987-88	10-27-87 6-30-88	a.35 a.05
		GUNPOWDER CREEK BASIN				
03277070 Fowlers Fork	South Fork Gunpowder Creek	Lat 38°56'43", long 84°40'54", Boone County, Hydrologic Unit 05090203, at culvert on State Highway 536, at Union.	1.5	1987-88	10-20-87	a.03
South Fork Gunpowder Creek	Gunpowder Creek	Lat 38°58'21", long 84°39'47", Boone County, Hydrologic Unit 05090203, at bridge on Federal Highway 42, and 2.3 mi southwest of Florence.	8.4	1987-88	10-20-87 6-27-88	a.29 a.02
		KENTUCKY RIVER BASIN				
Dry Run	North Elkhorn Creek	Lat 38°15'05", long 84°33'12", Scott County, Hydrologic Unit 05100205, at ford, and 3.0 mi north of Georgetown.	11.6	1987-88	10-20-87 6-28-88	a.61 a0
McConnell Run	North Elkhorn Creek	Lat 38°14'54", long 84°39'30", Scott County, Hydrologic Unit 05100205, at bridge on State Highway 227, and 5.0 mi northwest of Georgetown.	17.8	1987-88	10- 9-87 10-20-87	a0 a0
Stevens Creek	Eagle Creek	Lat 38°37'16", long 84°44'00", Grant County, Hydrologic Unit 05100205, at bridge on Golds Valley Road, and 2.3 mi north of Holbrook.	26.4	1987-88	10-19-87	a0
		HARRODS CREEK BASIN				
Brush Creek	Harrods Creek	Lat 38°25'33", long 85°24'31", Oldham County, Hydrologic Unit 05140101, at bridge on Findley Mills Road, and 1.7 mi northwest of LaGrange.	3.0	1987-88	10-20-87 6-29-88	a.16 a.06
Harrods Creek	Ohio River	Lat 38°25'17", long 85°28'04", Oldham County, Hydrologic Unit 05140101, at bridge on State Highway 393, 0.1 mi below Cedar Creek, and 4.4 mi northwest of LaGrange.	43.4	1987-88	10-20-87	a.82
Cedar Creek	Harrods Creek	Lat 38°25'18", long 85°28'01", Oldham County, Hydrologic Unit 05140101, at mouth, and 4.4 mi northwest of LaGrange.	6.2	1987-88	10-20-87 6-29-88	a.81 a.57

a Not previously published.

Discharge measurements made at miscellaneous sites during water year 1991

Stream	Tributary to	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
Darby Creek	Harrods Creek	Lat 38°23'26", long 85°29'57", Oldham County, Hydrologic Unit 05140101, at bridge on Halls Hill Road, 0.1 mi above South Fork Darby Creek, and 3.4 mi west of Buckner.	3.7	1987-88	6-29-87 10-20-87 7-11-88	a0 a.04 a0
South Fork Harrods Creek	Harrods Creek	Lat 38°20'57", long 85°33'26", Oldham County, Hydrologic Unit 05140101, at bridge on State highway 1694, and 4.5 mi north of Anchorage.	21.4	1987-88	10-20-87	a3.74
		SALT RIVER BASIN				
Floyds Fork	Salt River	Lat 38°11'58", long 85°28'33", Jefferson County, Hydrologic Unit 05140102, at bridge on Echo Trail, 0.3 mi above Long Run, and 1.1 mi northwest of Fisherville.	104	1987-88	10-21-87	a.73
Chenoweth Run	Floyds Fork	Lat 38°07'57", long 85°31'29", Jefferson County, Hydrologic Unit 05140102, at bridge on State Highway 1819 at Seatonville.	16.8	1987-88	10-21-87	a1.55
03298200 Floyds Fork	Salt River	Lat 38°05'05", long 85°33'18", Jefferson County, Hydrologic Unit 05140102, at bridge on Federal Highway 31E, 2.8 mi below Broad Run, and 2.8 mi north of Mount Washington.	213	1987-88	10-21-87	a5.58
Cedar Creek	Floyds Fork	Lat 38°02'06", long 85°39'33", Bullitt County, Hydrologic Unit 05140102, at mouth, and 3.8 mi northeast of Shepherdsville.	27.4	1987-88	6-27-87 10-21-87	a.90 a1.79
		GREEN RIVER BASIN				
Sharps Branch	Drakes Creek	Lat 36°41'05", long 85°34'25", Simpson County, Hydrologic Unit 05110002, at bridge on State Highway 1522, and 2.6 mi south of Franklin.	2.6	1987-88	10-22-87	a0
03316000 Mud River	Green River	Lat 37°00'15", long 86°54'26", Logan County, at bridge on State Highway 106, 2.5 mi northwest of Lewisburg, and 7.5 mi downstream from Motts Lick Creek.	90.5	1940-72†, 1978, 1980, 1988, 1990-91	10-25-90 12-12-90 1- 3-91 3- 5-91 6-14-91 7-23-91 8- 7-91	b49.6 b45.1 b134 b120 35.7 10.2 4.36
Upper Three Lick Creek	Caney Creek	Lat 37°31'02", long 86°41'24", Ohio County, Hydrologic Unit 05110004, at bridge on unmarked road, 0.6 mi south of Olaton.	0.9	1987-88	10-22-87	a0
		TRADEWATER RIVER BASIN				
03382980 Flynn Fork	Tradewater River	Lat 37°11'23", long 87°48'25", Caldwell County, Hydrologic Unit 05140205, at Creekmur Bridge, and 3.8 mi northwest of Dawson Springs.	45.8	1987-88	10-22-87	a.01

† Operated as a continuous-record gaging station.
a Not previously published.
b Not base flow.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Water-quality partial-record stations are particular sites where chemical-quality, biological and/or sediment data are collected systematically over a period of years for use in hydrologic analyses. These date are collected usually less than quarterly. Samples collected at sites other than gaging stations and partial-record stations to give better areal coverage in a river basin are referred to as miscellaneous sites.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	TIME	ENDING TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	CARBON, ORGANIC TOTAL (MG/L AS C)	DI-AZINON, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	TOTAL TRI-THION (UG/L)
KENTUCKY RIVER BASIN												
03284315 SILVER CREEK AT SILVER CREEK, KY (LAT 37 39 33N LONG 084 21 46W)												
OCT 1990 04...	1110	1000	43	7.6	97	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
03285000 DIX RIVER NEAR DANVILLE, KY (LAT 37 38 31N LONG 084 39 39W)												
OCT 1990 04...	1245	1130	38	7.7	39	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

DATE	CHLOR-DYRIFOS TOTAL RECOVER (UG/L)	DI-SYSTON TOTAL (UG/L)	PHORATE TOTAL (UG/L)	DEF TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4-DP TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)
03284315 SILVER CREEK AT SILVER CREEK, KY (LAT 37 39 33N LONG 084 21 46W)											
OCT 1990 04...	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1
03285000 DIX RIVER NEAR DANVILLE, KY (LAT 37 38 31N LONG 084 39 39W)											
OCT 1990 04...	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1

DATE	ATRA-ZINE, TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	AME-TRYNE TOTAL	ALA-CHLOR TOTAL RECOVER (UG/L)	TRI-FLURA-LIN TOTAL RECOVER (UG/L)	METRI-BUZIN WATER WHOLE TOT.REC (UG/L)	METOLA-CHLOR WATER WHOLE TOT.REC (UG/L)
03284315 SILVER CREEK AT SILVER CREEK, KY (LAT 37 39 33N LONG 084 21 46W)											
OCT 1990 04...	<0.10	<0.1	<0.10	<0.1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1
03285000 DIX RIVER NEAR DANVILLE, KY (LAT 37 38 31N LONG 084 39 39W)											
OCT 1990 04...	0.10	<0.1	<0.10	<0.1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

DATE	SEVIN, TOTAL (UG/L)	PROPHAM TOTAL (UG/L)	METHO-MYL TOTAL (UG/L)	OXYAMYL WATER WHOLE TOT.REC (UG/L)	FONOFOS (DY-FONATE) WATER WHOLE TOT.REC (UG/L)	CARBO-FURAN WATER WHOLE TOT.REC (UG/L)	ALDI-CARB WATER WHOLE TOT.REC (UG/L)	ALDICAR SULF-OXIDE WATER WHOLE TOT.REC (UG/L)	ALDI-CARB SULFONE WATER WHOLE TOT.REC (UG/L)	1-NAPH-THOL WATER WHOLE REC (MG/L)	3-HYDRX CARBO-FURAN WATER WHOLE TOT.REC (UG/L)
KENTUCKY RIVER BASIN--Continued											
03284315 SILVER CREEK AT SILVER CREEK, KY (LAT 37 39 33N LONG 084 21 46W)											
OCT 1990 04...	<0.50	<0.5	<0.5	<0.5	<0.01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
03285000 DIX RIVER NEAR DANVILLE, KY (LAT 37 38 31N LONG 084 39 39W)											
OCT 1990 04...	<0.50	<0.5	<0.5	<0.5	<0.01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

BIG SANDY RIVER BASIN

03207965 GRAPEVINE CREEK NEAR PHYLLIS, KY (LAT 37 25 57N LONG 082 21 14W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					JUL 1991				
29...	1105	1.1	650	18.0	14...	1540	0.19	890	27.0
JAN 1991					AUG				
18...	1335	5.6	510	4.0	27...	1250	0.23	1100	29.0
MAR									
18...	1330	12	316	10.5					

03208000 LEVISA FORK BELOW FISHTRAP DAM, KY (LAT 37 25 33N LONG 082 24 45W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					MAY 1991				
16...	1415	208	680	18.0	14...	1325	79	450	17.0
JAN 1991					JUL				
02...	1215	80	333	8.5	10...	1410	100	607	23.0
MAR									
08...	1530	788	475	4.5					

03209300 RUSSELL FORK AT ELKHORN CITY, KY (LAT 37 18 14N LONG 082 20 35W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					MAY 1991				
16...	1200	289	350	20.0	14...	1130	722	320	17.0
JAN 1991					JUL				
18...	1100	700	425	2.0	10...	1220	130	500	12.0
MAR									
08...	1230	1340	410	4.0					

03209500 LEVISA FORK AT PIKEVILLE, KY (LAT 37 27 51N LONG 082 31 35W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					MAR 1991				
26...	1140	963	450	2.0	14...	1205	6410	450	5.5
DEC					JUL				
07...	1120	943	607	7.5	08...	1130	208	450	26.0
FEB 1991									
27...	1100	1680	450	--					

03210000 JOHNS CREEK NEAR META, KY (LAT 37 34 01N LONG 082 27 29W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					MAR 1991				
29...	1230	13	590	10.5	18...	1055	160	368	9.5
JAN 1991					JUL				
14...	1105	159	570	4.0	08...	1325	5.9	850	24.5
FEB					AUG				
27...	1425	77	615	4.5	27...	1020	3.0	1010	28.0

03211500 JOHNS CREEK NEAR VAN LEAR, KY (LAT 37 44 37N LONG 082 43 27W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					MAY 1991				
15...	1135	47	450	21.0	06...	0950	100	275	17.0
DEC					JUL				
04...	1250	148	509	10.5	29...	1115	15	392	26.0
MAR 1991									
15...	1340	1700	325	6.0					

03212500 LEVISA FORK AT PAINTSVILLE, KY (LAT 37 48 55N LONG 082 47 30W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					MAR 1991				
17...	1125	822	520	20.0	20...	1235	5880	--	9.5
DEC					MAY				
05...	1415	1790	524	8.0	08...	1530	819	475	19.0
FEB 1991					AUG				
21...	1345	16600	440	4.0	01...	0950	1600	--	22.5

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

LITTLE SANDY RIVER BASIN

03216350 LITTLE SANDY RIVER BELOW GRAYSON DAM NEAR LEON, KY (LAT 38 15 14N LONG 082 59 28W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					MAY 1991				
31...	1140	88	300	18.0	16...	0940	44	300	17.0
DEC					JUN				
12...	1215	42	250	8.5	04...	1200	35	163	22.0
JAN 1991					AUG				
25...	1120	117	290	6.0	02...	1435	31	181	22.5
APR									
10...	1335	23	310	17.0					

03216500 LITTLE SANDY RIVER AT GRAYSON, KY (LAT 38 19 48N LONG 082 56 22W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
NOV 1990					MAY 1991				
08...	1530	136	375	19.0	16...	0720	93	365	21.0
DEC					JUN				
12...	1040	125	251	5.0	04...	0930	75	280	22.0
JAN 1991					AUG				
24...	1515	266	275	2.5	02...	1215	34	293	22.0

03216540 EAST FORK LITTLE SANDY RIVER NEAR FALLSBURG, KY (LAT 38 14 01N LONG 082 42 32W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					MAR 1991				
19...	1130	3.1	260	20.0	21...	1525	17	160	12.0
DEC					MAY				
10...	1450	4.3	216	3.5	15...	1410	0.94	225	22.0
JAN 1991									
23...	1605	6.4	150	0.5					

03216800 TYGARTS CREEK AT OLIVE HILL, KY (LAT 38 17 57N LONG 083 10 25W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
DEC 1990					JUN 1991				
19...	1030	507	138	8.[illegible]	03...	1450	17	220	27.5
JAN 1991					AUG				
28...	1135	61	275	0.5	07...	1350	0.03	390	27.5
APR									
11...	1245	123	300	--					

03217000 TYGARTS CREEK NEAR GREENUP, KY (LAT 38 33 51N LONG 082 57 08W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
NOV 1990					MAY 1991				
02...	1225	31	325	19.0	17...	1400	46	250	20.0
DEC					JUN				
11...	1340	87	246	3.5	03...	1800	58	264	25.0
JAN 1991					AUG				
24...	1325	184	275	1.5	07...	1705	1.6	204	24.0

CABIN CREEK BASIN

03237900 CABIN CREEK NEAR TOLLESBORO, KY (LAT 38 34 04N LONG 083 32 14W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					APR 1991				
02...	1240	0.10	491	18.5	23...	1320	16	319	12.0
NOV					JUN				
20...	1530	1.8	460	9.5	05...	1605	0.50	403	22.5
DEC					JUL				
18...	1105	927	152	10.0	18...	1625	0.61	471	26.0
JAN 1991					AUG				
29...	1450	18	421	2.5	20...	1500	1.2	485	20.5
MAR									
12...	1410	17	362	4.0					

LICKING RIVER BASIN

03248500 LICKING RIVER NEAR SALYERSVILLE, KY (LAT 37 45 03N LONG 083 05 04W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					MAY 1991				
11...	1225	23	800	20.0	09...	1050	66	750	19.5
DEC					JUN				
14...	1140	44	455	5.0	13...	1110	21	670	21.5
FEB 1991					AUG				
26...	1230	278	520	4.5	07...	1040	10	535	22.5

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

LICKING RIVER BASIN--Continued

03249500 LICKING RIVER AT FARMERS, KY (LAT 38 06 55N LONG 083 32 36W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990				
01...	1100	234	145	18.5
NOV				
19...	1215	2040	158	12.5
DEC				
19...	1235	225	169	8.5
JAN 1991				
28...	1335	4850	126	5.0
MAR 1991				
11...	1340	3950	139	5.5
JUN				
04...	1545	518	130	16.5
JUL				
17...	1900	1990	140	15.0
AUG				
19...	1300	63	154	24.5

03250000 TRIPLETT CREEK AT MOREHEAD, KY (LAT 38 11 04N LONG 083 25 48W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990				
01...	1345	1.4	307	20.0
NOV				
19...	1455	8.5	238	7.0
DEC				
17...	1500	103	153	7.0
JAN 1991				
28...	1600	34	180	2.0
MAR				
11...	1515	57	136	6.5
APR				
22...	1330	69	122	11.0

03250100 NORTH FORK TRIPLETT CREEK NEAR MOREHEAD, KY (LAT 38 11 57N LONG 083 28 50W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990				
01...	1515	0.57	197	17.5
NOV				
19...	1605	17	160	7.0
DEC				
17...	1535	214	134	6.5
JAN 1991				
29...	1010	63	110	1.0
MAR				
11...	1630	100	101	6.5
APR 1991				
22...	1440	151	77	12.0
JUN				
05...	1130	20	86	22.0
JUL				
18...	0830	20	107	23.0
AUG				
19...	1600	0.77	223	22.0

03251000 NORTH FORK LICKING RIVER NEAR LEWISBURG, KY (LAT 38 32 57N LONG 083 47 37W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990				
02...	1025	0.92	421	15.5
NOV				
20...	1215	14	460	8.0
DEC				
18...	0955	5940	177	11.0
18...	1335	5820	384	10.5
JAN 1991				
29...	1240	143	384	2.0
MAR				
12...	1155	92	380	5.0
APR 1991				
23...	1105	98	373	10.5
JUN				
05...	1405	3.6	350	23.0
JUL				
18...	1435	14	287	25.5
AUG				
20...	1700	6.2	342	21.5

03251500 LICKING RIVER AT MCKINNEYSBURG, KY (LAT 38 35 52N LONG 084 16 00W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990				
03...	1130	259	206	20.0
DEC				
19...	1430	31800	180	10.0
JAN 1991				
30...	1045	8250	214	4.0
APR				
13...	1025	12800	222	5.5
24...	1025	3100	218	12.5
JUN 1991				
06...	1115	634	251	24.0
JUL				
19...	1000	2480	174	20.5
AUG				
22...	1200	131	244	23.0

03252000 STONER CREEK AT PARIS, KY (LAT 38 13 45N LONG 084 15 22W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990				
02...	1500	15	499	20.5
NOV				
06...	1330	57	522	11.0
DEC				
21...	0800	882	375	10.5
JAN 1991				
17...	1350	327	458	6.0
FEB				
28...	0905	199	443	5.5
APR 1991				
11...	1025	462	332	14.0
MAY				
22...	1110	76	455	22.5
JUL				
10...	1140	3760	251	20.5
AUG				
15...	1030	8.3	467	23.0

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

LICKING RIVER BASIN--Continued

03252500 SOUTH FORK LICKING RIVER AT CYNTHIANA, KY (LAT 38 23 27N LONG 084 18 11W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					APR 1991				
02...	1200	34	395	19.5	11...	1310	1580	242	14.5
NOV					MAY				
06...	1620	124	470	11.5	22...	1335	153	389	24.0
DEC					JUL				
21...	1020	3160	327	10.0	15...	1215	1510	330	23.5
JAN 1991					AUG				
18...	0825	866	447	5.0	15...	1355	29	373	25.0
FEB									
28...	1355	557	425	6.5					

03253500 LICKING RIVER AT CATAWBA, KY (LAT 38 42 31N LONG 084 18 38W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
NOV 1990					JUN 1991				
13...	1235	3740	325	8.0	06...	1240	861	279	24.0
DEC					JUL				
20...	1215	48600	194	9.5	19...	1310	2730	210	22.5
JAN 1991					AUG				
13...	1100	9130	246	3.5	21...	1110	251	256	21.5
APR									
14...	0940	18800	250	6.0					
25...	0845	2640	264	13.0					

KENTUCKY RIVER BASIN

03277450 CARR FORK NEAR SASSAFRAS, KY (LAT 37 13 52N LONG 083 02 10W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					APR 1991				
03...	1010	37	428	21.0	02...	1135	440	321	11.0
NOV					MAY				
15...	1510	44	428	13.0	14...	1140	41	339	15.0
JAN 1991					JUN				
16...	0935	137	333	7.0	25...	1250	9.7	385	20.5
FEB					AUG				
27...	1240	440	213	6.5	05...	1115	8.1	206	22.0

03280600 MIDDLE FORK KENTUCKY RIVER NEAR HYDEN, KY (LAT 37 08 13N LONG 083 22 17W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					MAR 1991				
01...	1450	21	405	21.5	28...	1310	451	228	15.0
NOV					MAY				
19...	1345	69	309	8.0	13...	1000	89	353	23.0
JAN 1991					JUN				
17...	1500	304	275	7.0	26...	1025	590	194	19.5
FEB					AUG				
25...	1200	422	266	7.0	07...	1010	19	441	27.5

03280700 CUTSHIN CREEK AT WOOTON, KY (LAT 37 09 54N LONG 083 18 29W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					APR 1991				
01...	1130	7.4	516	20.0	15...	1215	1140	183	15.0
NOV					MAY				
16...	1140	22	352	8.5	02...	1115	43	325	17.0
JAN 1991					JUN				
17...	1155	96	228	6.5	26...	1220	81	312	20.5
FEB					AUG				
25...	1040	121	257	7.5	07...	1120	7.1	410	26.0
MAR					29...	1020	5.2	584	24.0
28...	1115	115	265	14.0					

03281000 MIDDLE FORK KENTUCKY RIVER AT TALLEGA, KY (LAT 37 33 18N LONG 083 35 38W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					APR 1991				
16...	1055	288	325	16.5	02...	1720	3600	136	9.5
NOV					29...	1320	241	175	18.0
15...	0945	548	296	9.5	JUL				
FEB 1991					01...	1050	152	258	24.5
27...	1540	3910	121	8.5	AUG				
					14...	1035	183	0	22.5

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

KENTUCKY RIVER BASIN--Continued

03281040 RED BIRD RIVER NEAR BIG CREEK, KY (LAT 37 10 43N LONG 083 35 35W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					APR 1991				
04...	1020	27	299	18.5	01...	0920	633	132	9.0
NOV					30...	1350	132	224	18.5
20...	0950	54	207	8.5	JUN				
JAN 1991					24...	0930	194	170	21.0
10...	1135	496	150	8.0	AUG				
FEB					06...	0950	18	309	24.5
13...	0935	207	166	5.5	29...	0950	13	356	24.5

03281100 GOOSE CREEK AT MANCHESTER, KY (LAT 37 09 07N LONG 083 45 37W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					APR 1991				
04...	1305	53	468	18.5	01...	1200	598	134	9.0
NOV					MAY				
20...	1155	69	220	8.5	13...	1205	62	329	20.0
JAN 1991					JUN				
10...	1445	429	151	8.0	24...	1110	181	170	21.0
FEB					AUG				
13...	1100	211	180	6.0	06...	1110	11	438	24.0

03281500 SOUTH FORK KENTUCKY RIVER AT BOONEVILLE, KY (LAT 37 26 45N LONG 083 40 38W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					APR 1991				
16...	1345	221	210	16.5	03...	0720	1710	144	10.0
NOV					MAY				
14...	1445	617	165	7.5	15...	1030	255	285	23.0
JAN 1991					JUL				
14...	1420	1820	154	6.5	01...	1300	341	205	25.5
FEB					AUG				
28...	0810	858	207	5.0	14...	1205	143	299	24.0

03282500 RED RIVER NEAR HAZEL GREEN, KY (LAT 37 48 44N LONG 083 27 50W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
NOV 1990					JUN 1991				
07...	1240	5.7	250	18.5	04...	1110	42	115	23.5
JAN 1991					AUG				
16...	1320	74	255	--	06...	1430	0.70	167	28.0
MAR									
07...	1310	203	275	7.0					

03283500 RED RIVER AT CLAY CITY, KY (LAT 37 51 53N LONG 083 56 01W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
NOV 1990					JUN 1991				
07...	1510	67	375	19.5	03...	1115	261	181	25.0
DEC					AUG				
06...	1040	507	153	4.5	06...	1145	19	220	24.5
MAR 1991									
13...	1250	812	360	5.5					

03285000 DIX RIVER NEAR DANVILLE, KY (LAT 37 38 31N LONG 084 39 39W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					APR 1991				
05...	1020	175	317	17.0	08...	1155	229	275	18.0
NOV					MAY				
07...	1305	64	419	10.0	21...	1105	3200	141	19.5
DEC					JUL				
19...	1005	11700	136	10.0	08...	1540	17	320	29.0
JAN 1991					AUG				
16...	0950	592	308	6.0	14...	1125	2.8	322	24.0
FEB									
27...	1010	372	306	4.0					

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

KENTUCKY RIVER BASIN--Continued

03287000 KENTUCKY RIVER AT LOCK 6 NEAR SALVISA, KY (LAT 37 55 32N LONG 084 49 17W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					APR 1991				
11...	0945	2020	368	19.5	10...	0810	10800	237	12.5
NOV					MAY				
09...	0810	1230	345	10.0	20...	1900	3420	332	22.5
DEC					JUL				
18...	1010	38500	304	8.5	11...	0910	8900	210	22.0
JAN 1991					AUG				
15...	0915	16200	231	6.5	12...	1400	1740	346	27.5
MAR									
01...	0805	11300	239	7.0					

03287500 KENTUCKY RIVER AT LOCK 4 AT FRANKFORT, KY (LAT 38 12 06N LONG 084 52 54W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					APR 1991				
03...	1120	1280	350	21.5	09...	0840	6700	231	12.0
NOV					MAY				
08...	1050	1360	395	12.0	21...	1650	5810	323	21.5
DEC					JUL				
20...	1440	69800	253	9.5	12...	0840	7330	241	23.0
JAN 1991					AUG				
17...	1020	14500	246	7.0	12...	0925	1170	284	26.5
FEB									
26...	0920	16900	230	6.5					

03288000 NORTH ELKHORN CREEK NEAR GEORGETOWN, KY (LAT 38 12 20N LONG 084 30 49W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					APR 1991				
02...	0925	6.8	--	17.0	11...	0810	222	251	14.0
NOV					MAY				
06...	0955	53	495	11.5	22...	0910	58	404	21.0
DEC					JUN				
17...	1505	230	473	8.0	13...	1235	25	442	22.5
JAN 1991					JUL				
14...	1535	311	405	6.5	10...	0930	3440	208	20.5
FEB					AUG				
25...	1515	185	413	7.5	15...	0715	11	382	21.5

03289000 SOUTH ELKHORN CREEK AT FORT SPRING, KY (LAT 38 02 35N LONG 084 37 35W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					APR 1991				
03...	1325	3.1	470	18.5	08...	1625	19	399	18.0
NOV					MAY				
08...	1610	7.5	529	7.0	22...	1230	12	480	20.5
DEC					JUL				
17...	0935	61	480	8.5	08...	1120	2.8	463	25.0
JAN 1991					AUG				
14...	0920	59	414	6.5	13...	1210	2.4	446	21.0
FEB									
25...	1200	43	411	7.5					

03289300 SOUTH ELKHORN CREEK NEAR MIDWAY, KY (LAT 38 08 27N LONG 084 38 43W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					APR 1991				
03...	1525	82	620	19.5	09...	1350	121	486	20.0
NOV					MAY				
08...	1510	33	574	10.5	22...	1555	88	581	20.5
DEC					23...	1150	126	613	21.0
17...	1315	194	503	9.0	JUL				
JAN 1991					11...	1535	445	432	20.5
14...	1420	291	468	8.0	AUG				
FEB					13...	1605	80	441	22.5
26...	1320	200	476	7.5					

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

KENTUCKY RIVER BASIN--Continued

03291[illegible] EAGLE CREEK AT GLENCOE, KY (LAT 38 42 18N LONG 084 49 26W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
NOV 1990					APR 1991				
16...	1150	98	462	8.0	25...	1230	185	507	15.0
DEC					JUN				
21...	1140	1300	293	9.0	06...	1600	157	324	24.0
FEB 1991					JUL				
01...	0915	832	366	1.0	15...	0930	136	244	23.5
MAR					AUG				
14...	1420	3030	248	6.5	23...	0845	3.8	301	23.0

HARRODS CREEK BASIN

03292460 HARRODS CREEK NEAR LA GRANGE, KY (LAT 38 26 50N LONG 085 24 33W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					APR 1991				
02...	1320	0.36	368	18.5	17...	1435	19	486	19.0
NOV					JUN				
07...	1105	2.4	596	7.5	06...	1400	5.8	523	23.0
DEC					JUL				
10...	1100	11	604	2.5	12...	1035	2.2	414	24.5
JAN 1991					AUG				
24...	1210	14	588	4.0	23...	0910	0.15	249	22.0
MAR									
08...	1545	23	488	8.0					

BEARGRASS CREEK BASIN

03292700 UNNAMED TRIB. TO M FK BEARGRASS CR NR MIDDLETOWN, KY (LAT 38 15 05N LONG 085 33 36W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
JAN 1991					MAY 1991				
11...	1315	9.7	402	10.0	15...	1430	0.57	556	20.5
MAR					AUG				
22...	0855	19	264	13.0	20...	1540	0.28	501	20.5

SALT RIVER BASIN

03295400 SALT RIVER AT GLENSBORO, KY (LAT 38 00 07N LONG 085 03 38W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					MAR 1991				
02...	1155	13	546	16.5	07...	1100	132	535	7.0
NOV					APR				
09...	1550	31	558	7.5	17...	1010	1180	288	16.5
DEC					MAY				
13...	1355	72	550	8.5	31...	1225	79	398	26.5
JAN 1991					JUL				
07...	1100	4440	258	6.0	10...	0935	2340	188	22.0
23...	1435	100	572	2.0	AUG				
25...	1200	81	585	1.0	20...	1440	28	493	23.0

03295890 BRASHEARS CREEK AT TAYLORSVILLE, KY (LAT 38 02 13N LONG 085 20 27W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					APR 1991				
02...	0950	23	466	16.5	15...	1545	245	405	20.0
NOV					MAY				
09...	1230	52	513	7.5	28...	1235	300	338	24.5
DEC					JUL				
13...	1030	140	485	6.0	10...	1540	559	198	23.5
JAN 1991					AUG				
23...	0955	181	479	0.0	20...	0955	5.6	354	21.0
MAR									
07...	1320	560	432	8.0					

03297845 FLOYDS FORK NEAR CRESTWOOD, KY (LAT 38 17 55N LONG 085 25 36W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					MAR 1991				
02...	1115	0.71	279	19.0	08...	1035	62	451	6.0
NOV					APR				
07...	1445	4.6	588	9.5	17...	0935	32	493	16.5
DEC					JUN				
10...	1355	21	590	4.0	06...	1345	1.9	452	23.5
JAN 1991					JUL				
24...	1510	29	614	1.0	11...	1225	0.93	391	24.0

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

SALT RIVER BASIN--Continued

03299000 ROLLING FORK NEAR LEBANON, KY (LAT 37 29 50N LONG 085 19 26W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					APR 1991				
01...	1550	4.6	375	22.0	18 ..	1610	448	270	18.5
NOV					MAY				
06...	1005	32	295	11.0	23...	1415	182	283	24.0
DEC					JUL				
10...	1320	130	220	6.0	12...	0950	73	255	25.0
MAR 1991					AUG				
07...	1350	480	262	9.5	22...	1515	34	289	26.0

03300400 BEECH FORK AT MAUD, KY (LAT 37 49 58N LONG 085 17 46W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					APR 1991				
01...	1210	33	325	18.0	18...	1145	469	416	18.5
NOV					MAY				
06...	1230	65	324	11.0	23...	1100	2150	302	20.5
DEC					JUN				
10...	0855	225	234	3.5	12...	1440	55	391	25.0
JAN 1991					JUL				
28...	1415	288	546	1.5	12...	1355	841	231	23.5
MAR					AUG				
07...	1110	364	508	7.5	22...	1105	90	326	22.5

03301500 ROLLING FORK NEAR BOSTON, KY (LAT 37 46 02N LONG 085 42 14W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					APR 1991				
01...	1140	81	365	18.5	16...	1335	6130	310	18.5
NOV					JUN				
05...	1145	148	407	13.0	03...	1400	288	364	27.5
DEC					JUL				
14...	1425	436	435	6.0	08...	1205	137	399	28.0
JAN 1991					AUG				
22...	1045	1100	442	3.0	22...	0945	245	267	22.0
MAR									
06...	0915	1550	392	8.5					

03301580 WILSON CREEK NEAR DEATSVILLE, KY (LAT 37 51 49N LONG 085 36 41W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
MAY 1991					JUL 1991				
13...	1105	5.0	472	19.0	22...	1500	0.01	480	26.0
29...	1310	--	440	25.0	SEP				
JUN					17...	1450	0.06	489	24.0
20...	1400	1.4	478	24.5					

03301585 HARTS RUN AT MOUTH NEAR DEATSVILLE, KY (LAT 37 51 49N LONG 085 36 44W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
MAY 1991					JUN 1991				
13...	1355	0.66	560	19.5	20...	1540	0.12	303	22.5

GREEN RIVER BASIN

03306000 GREEN RIVER NEAR CAMPBELLSVILLE, KY (LAT 37 14 25N LONG 085 20 50W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					APR 1991				
01...	0930	74	172	20.0	17...	1130	2100	105	13.5
NOV					MAY				
06...	1530	822	145	15.0	22...	1415	403	112	13.0
DEC					JUL				
11...	0800	2730	156	9.5	10...	1135	80	131	25.5
JAN 1991					AUG				
24...	1530	7200	321	6.0	21...	1430	78	129	25.5
MAR									
06...	1145	4400	104	7.0					

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

GREEN RIVER BASIN--Continued

03307000 RUSSELL CREEK NEAR COLUMBIA, KY (LAT 37 07 09N LONG 085 23 38W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					APR 1991				
02...	1230	11	391	21.0	17...	1550	406	189	18.5
NOV					MAY				
07...	1155	24	298	9.0	22...	1045	62	255	23.5
DEC					JUL				
10...	1410	112	267	5.5	10...	1400	35	253	26.0
JAN 1991					AUG				
24...	1040	166	221	2.5	21...	1140	4.1	270	21.5
MAR					28...	1440	3.3	273	25.5
06...	1445	523	188	10.0					

03307260 LITTLE PITMAN CREEK NEAR CAMPBELLSVILLE, KY (LAT 37 20 50N LONG 085 23 25W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					APR 1991				
04...	0945	115	742	20.5	19...	1010	47	565	17.5
NOV					MAY				
06...	1225	13	1680	14.0	20...	1545	12	1670	23.0
DEC					JUL				
10...	1645	20	895	11.5	10...	1630	21	496	24.0
JAN 1991					AUG				
22...	1515	32	1110	6.5	19...	1525	11	1900	26.0
MAR									
07...	1530	39	735	12.5					

03310300 NOLIN RIVER AT WHITE MILLS, KY (LAT 37 33 03N LONG 086 02 43W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					APR 1991				
02...	1315	49	650	18.0	16...	1135	424	327	16.5
NOV					MAY				
07...	1025	67	452	10.5	21...	1200	182	475	19.0
DEC					JUL				
11...	1235	224	295	8.0	08...	1350	74	515	25.0
JAN 1991					AUG				
23...	1145	475	344	6.5	20...	1055	86	459	21.0
MAR									
05...	1230	518	345	9.5					

03310400 BACON CREEK NEAR PRICEVILLE, KY (LAT 37 21 31N LONG 085 59 53W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					APR 1991				
02...	1055	8.1	350	15.0	16...	1510	67	313	17.5
NOV					MAY				
07...	1250	8.9	248	34.0	21...	1445	26	373	19.0
DEC					JUL				
11...	0900	19	230	4.0	08...	1115	15	366	23.5
JAN 1991					AUG				
23...	1535	66	366	5.0	20...	1310	11	348	19.5
MAR									
05...	1530	65	335	10.0					

03311000 NOLIN RIVER AT KYROCK, KY (LAT 37 16 42N LONG 086 14 51W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
JAN 1991					JUL 1991				
15...	1435	5060	142	7.5	09...	0913	165	275	19.0
APR									
16...	0915	234	178	16.5					

03311500 GREEN RIVER AT LOCK 6 AT BROWNSVILLE, KY (LAT 37 12 25N LONG 086 15 40W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					APR 1991				
23...	1100	2740	206	16.0	16...	1240	7080	232	16.0
DEC					MAY				
04...	1100	10100	111	9.5	29...	1010	2290	260	20.0
JAN 1991					JUL				
15...	1137	14400	138	7.5	09...	1126	738	329	25.0
FEB					AUG				
27...	1210	12100	139	7.0	20...	1015	798	366	22.0

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

GREEN RIVER BASIN--Continued

03311600 BEAVERDAM CREEK AT RHODA, KY (LAT 37 09 18N LONG 086 13 35W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					APR 1991				
23...	0832	4.8	178	13.0	16...	1443	15	122	18.0
DEC					MAY				
04...	0845	21	108	9.0	29...	1258	5.4	164	20.5
JAN 1991					JUL				
15...	0927	15	97	6.5	09...	1435	1.7	234	25.0
FEB					SEP				
27...	1345	9.5	107	9.0	20...	1300	0.67	232	20.0

03313000 BARREN RIVER NEAR FINNEY, KY (LAT 36 53 42N LONG 086 08 02W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					MAY 1991				
23...	0750	2160	204	19.0	21...	1600	478	182	16.0
DEC					JUL				
13...	1007	1130	--	9.5	10...	1700	89	--	16.5
JAN 1991					11...	1225	510	--	16.5
24...	0915	5390	110	7.5	AUG				
MAR					12...	1245	9.9	247	18.5
06...	0900	5010	120	7.5	28...	1030	10	258	18.0
APR									
23...	0930	1030	165	13.5					

03313700 WEST FORK DRAKES CREEK NEAR FRANKLIN, KY (LAT 36 43 24N LONG 086 33 08W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					MAR 1991				
22...	1455	23	244	16.0	05...	1630	267	138	9.0
DEC					APR				
12...	1554	77	--	9.0	23...	1600	106	205	17.5
19...	1245	1470	131	12.5	AUG				
JAN 1991					28...	1230	4.0	312	26.5
30...	1115	99	168	7.0					

03314500 BARREN RIVER AT BOWLING GREEN, KY (LAT 37 00 04N LONG 086 25 51W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					MAY 1991				
23...	1130	2110	211	18.0	22...	1040	1070	235	20.5
JAN 1991					AUG				
24...	1345	5640	120	8.0	27...	1500	82	380	27.5
APR									
23...	1305	1750	155	14.0					

03315500 GREEN RIVER AT LOCK 4 AT WOODBURY, KY (LAT 37 10 56N LONG 086 37 48W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					APR 1991				
22...	1308	4850	283	16.5	17...	0945	11400	220	16.0
DEC					MAY				
03...	1505	10100	201	11.5	30...	1035	5120	274	21.5
JAN 1991					JUL				
14...	1415	21900	155	8.5	10...	0932	2730	262	25.5
FEB					AUG				
28...	1150	20500	146	7.5	21...	1052	862	353	24.5

03316000 MUD RIVER NEAR LEWISBURG, KY (LAT 37 00 15N LONG 086 54 26W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990					MAR 1991				
25...	0930	50	316	12.0	05...	1330	120	270	9.0
DEC					JUL				
12...	1242	45	300	7.0	23...	0955	10	446	27.0
JAN 1991									
30...	1430	134	218	5.5					

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

GREEN RIVER BASIN--Continued

03318500 ROUGH RIVER AT FALLS OF ROUGH, KY (LAT 37 35 20N LONG 086 33 05W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990				
24...	0813	1480	202	18.0
DEC				
04...	0923	351	130	11.0
JAN 1991				
23...	0857	3520	96	5.0
MAR				
07...	0835	3140	129	6.5
APR 1991				
11...	0741	196	200	12.5
MAY				
21...	1555	253	225	15.0
JUL				
09...	1505	847	244	19.0
AUG				
27...	1335	61	274	19.5

03318800 CANEY CREEK NEAR HORSE BRANCH, KY (LAT 37 27 50N LONG 086 39 20W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990				
23...	1258	87	139	15.0
DEC				
04...	1418	869	88	8.5
JAN 1991				
22...	1421	82	83	2.0
MAR				
06...	1515	79	103	9.5
APR 1991				
10...	1455	721	148	16.5
MAY				
21...	1125	32	194	23.0
JUL				
09...	1235	482	154	24.0
22...	1435	0.48	216	32.5

03319000 ROUGH RIVER NEAR DUNDEE, KY (LAT 37 32 51N LONG 086 43 18W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990				
23...	0840	1270	198	17.0
DEC				
03...	1255	4510	181	12.5
JAN 1991				
22...	1025	3700	97	5.0
MAR				
06...	0840	3000	133	7.0
APR 1991				
10...	0955	1870	159	5.5
MAY				
21...	0815	419	223	16.5
JUL				
09...	0850	2320	132	23.5
AUG				
27...	0840	58	276	23.5

03320000 GREEN RIVER AT LOCK 2 AT CALHOUN, KY (LAT 37 32 02N LONG 087 15 50W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990				
26...	0907	7720	295	17.0
DEC				
05...	1200	25300	216	11.0
FEB 1991				
26...	1310	44700	162	7.5
APR 1991				
15...	1215	12700	226	16.0
MAY				
28...	1153	11100	371	24.5
AUG				
19...	1151	773	477	28.0

03320500 POND RIVER NEAR APEX, KY (LAT 37 07 20N LONG 087 19 10W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990				
25...	1220	66	215	12.5
DEC				
11...	1550	64	193	7.0
JAN 1991				
31...	1220	324	167	3.5
MAR 1991				
12...	1020	80	220	10.0
JUL				
23...	1142	3.5	--	29.5
AUG				
07...	1653	0.41	412	31.0

03321210 CYPRESS CREEK NEAR CALHOUN, KY (LAT 37 29 20N LONG 087 17 10W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990				
24...	0848	41	754	12.5
DEC				
05...	0950	200	652	6.0
JAN 1991				
16...	0945	1320	165	4.0
FEB				
26...	0930	420	389	6.0
APR				
15...	0918	102	1160	18.0
MAY 1991				
28...	0925	230	718	24.5
JUL				
08...	0948	6.7	0	29.5
AUG				
07...	1006	1.2	1230	28.0
19...	1014	1.5	2020	26.0

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

HIGHLAND CREEK BASIN

03322360 BEAVERDAM CREEK NEAR CORYDON, KY (LAT 37 42 14N LONG 087 41 52W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990				
22...	1000	5.8	336	12.5
DEC				
05...	1158	0.91	342	4.5
JAN 1991				
24...	0925	3.5	287	1.0
MAR				
05...	0840	7.2	285	4.0
APR 1991				
09...	1010	6.6	455	18.0
MAY				
20...	0910	9.1	386	19.5
JUL				
08...	1135	0.22	452	28.0

TRADEWATER RIVER BASIN

03383000 TRADEWATER RIVER AT OLNEY, KY (LAT 37 13 26N LONG 087 46 53W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990				
24...	1505	46	386	12.0
DEC				
06...	0821	355	283	7.5
JAN 1991				
24...	1530	170	192	3.0
25...	0745	151	183	2.0
MAR				
08...	0820	221	198	7.0
APR				
11...	1323	975	217	15.5
MAY 1991				
22...	1110	66	308	22.5
JUN				
14...	0822	123	304	24.0
JUL				
12...	0810	57	514	27.0
AUG				
28...	1503	0.40	282	27.5

CUMBERLAND RIVER BASIN

03400500 POOR FORK AT CUMBERLAND, KY (LAT 36 58 26N LONG 082 59 38W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990				
04...	0830	25	553	18.0
NOV				
06...	0920	32	539	10.5
JAN 1991				
10...	1115	319	257	8.5
MAR				
05...	1200	398	230	7.0
APR				
09...	0900	128	405	14.5
MAY 1991				
21...	0900	211	235	15.5
JUN				
27...	0925	84	365	21.5
JUL				
23...	1520	31	607	26.5
AUG				
13...	0925	72	410	18.5
28...	1320	28	671	22.0

03400800 MARTINS FORK NEAR SMITH, KY (LAT 36 45 08N LONG 083 15 27W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990				
02...	1345	58	196	22.5
NOV				
05...	1055	39	189	15.0
JAN 1991				
14...	1230	361	121	9.0
MAR				
11...	1115	285	113	7.5
APR				
08...	1500	110	120	11.0
MAY 1991				
20...	1545	56	133	17.0
JUN				
26...	1330	104	171	23.0
AUG				
12...	1455	11	197	26.5
SEP				
03...	1325	12	202	19.5
23...	1035	12	195	--

03401000 CUMBERLAND RIVER NEAR HARLAN, KY (LAT 36 50 48N LONG 083 21 21W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990				
09...	1100	235	--	13.5
NOV				
06...	1100	183	432	11.5
JAN 1991				
10...	1300	1710	238	8.5
FEB				
26...	1110	1440	293	5.5
APR 1991				
09...	1630	649	371	17.0
MAY				
21...	1425	838	275	18.0
JUN				
28...	1325	350	325	22.0
AUG				
13...	1520	203	375	22.0

03403910 CLEAR FORK AT SAXTON, KY (LAT 36 38 02N LONG 084 06 42W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
JUL 1991				
24...	0915	100	410	26.0

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

CUMBERLAND RIVER BASIN--Continued

03404900 LYNN CAMP CREEK AT CORBIN, KY (LAT 36 57 05N LONG 084 05 37W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990				
02...	1445	4.8	980	23.0
NOV				
14...	1050	42	340	7.5
JAN 1991				
09...	1330	210	321	8.5
FEB				
28...	1410	67	525	8.0
APR				
09...	1035	56	500	17.0
MAY 1991				
14...	1440	64	380	21.5
JUN				
25...	0935	365	200	21.5
JUL				
23...	0900	9.6	925	25.0
AUG				
29...	1345	3.0	910	28.0

03406500 ROCKCASTLE RIVER AT BILLOWS, KY (LAT 37 10 16N LONG 084 17 46W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990				
01...	1315	43	210	18.5
NOV				
16...	1345	236	195	8.0
JAN 1991				
23...	1355	567	187	3.5
FEB				
26...	1115	1160	148	6.5
APR				
05...	1500	1020	140	13.0
MAY 1991				
16...	1240	211	220	21.0
JUN				
26...	1255	1280	135	22.0
JUL				
23...	1110	62	257	26.0
AUG				
07...	1340	22	270	27.0
29...	0950	29	267	24.5

03435140 WHIPPOORWILL CREEK NEAR CLAYMOUR, KY (LAT 36 52 29N LONG 087 05 20W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990				
22...	1210	288	121	14.5
DEC				
12...	1113	6.1	208	7.0
JAN 1991				
25...	1155	10	180	3.0
MAR 1991				
05...	1145	15	171	7.0
APR				
24...	0910	12	228	14.5
MAY				
21...	1145	7.9	285	19.0

03438000 LITTLE RIVER NEAR CADIZ, KY (LAT 36 46 40N LONG 087 43 18W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990				
24...	1000	188	335	12.5
DEC				
11...	1026	194	--	8.5
18...	1120	6850	97	13.5
FEB 1991				
01...	1220	396	240	8.0
06...	1125	3610	212	12.0
07...	1250	2520	136	10.5
MAR 1991				
07...	1030	447	254	12.0
MAY				
20...	1020	243	350	19.0
AUG				
26...	1110	46	600	22.5

03438190 BARKLEY-KENTUCKY CANAL NEAR GRAND RIVERS, KY (LAT 36 59 23N LONG 088 13 17W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
NOV 1990				
01...	1045	15600	143	16.5
DEC				
24...	1020	44800	128	9.0
JAN 1991				
11...	1230	47100	194	10.0

03438220 CUMBERLAND RIVER NEAR GRAND RIVERS, KY (LAT 37 01 18N LONG 088 13 16W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
FEB 1991				
25...	1120	154000	125	7.5
MAR				
04...	1050	74800	136	8.5
AUG 1991				
15...	0800	10000	217	30.5

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

TENNESSEE RIVER BASIN

03610200 CLARKS RIVER AT ALMO, KY (LAT 36 41 30N LONG 088 16 25W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990				
26...	1106	27	123	11.5
DEC				
06...	1433	74	97	8.0
JAN 1991				
28...	1200	50	101	5.0
FEB				
04...	1055	44	100	7.5
MAR				
11...	1400	41	104	10.0
APR				
12...	1100	93	134	14.5
MAY 1991				
23...	1145	28	196	23.0
JUN				
14...	1351	90	97	24.5
JUL				
11...	1500	9.4	227	27.5
23...	1317	5.6	--	30.5
AUG				
07...	1308	2.8	262	31.0
29...	1305	6.8	279	26.5

03610545 WEST FORK CLARKS RIVER NEAR BREWERS, KY (LAT 36 46 48N LONG 088 28 03W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990				
26...	0810	21	68	9.0
DEC				
06...	1218	48	61	7.5
JAN 1991				
25...	1130	30	58	3.0
MAR				
11...	1045	28	62	8.5
APR				
12...	0740	37	111	13.5
MAY 1991				
23...	0620	24	126	21.0
JUN				
13...	1145	26	89	25.0
JUL				
11...	1145	6.7	120	28.0
23...	1446	4.2	--	32.0
AUG				
07...	1424	3.5	97	29.5
29...	1028	4.5	76	25.0

MASSAC CREEK BASIN

03611260 MASSAC CREEK NEAR PADUCAH, KY (LAT 37 02 29N LONG 088 42 39W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990				
25...	1415	0.78	93	11.5
DEC				
07...	1025	1.9	87	5.5
JAN 1991				
23...	1523	15	79	4.5
MAR				
04...	1450	8.5	79	8.0
15...	1040	3.1	87	8.0
APR				
05...	1020	3.4	130	13.5
12...	1245	5.5	115	14.0
26...	1046	2.7	139	17.0
JUN 1991				
03...	1235	2.0	156	27.0
13...	1600	1.2	145	25.5
JUL				
11...	1220	0.76	139	26.0
AUG				
08...	1345	0.42	135	28.5
22...	1253	0.33	130	23.5

BAYOU DE CHIEN BASIN

03611600 LITTLE BAYOU CREEK NEAR GRAHAMVILLE, KY (LAT 37 08 22N LONG 088 47 26W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990				
02...	1305	0.69	245	19.0
04...	1121	2.8	242	20.0
09...	0849	95	87	17.0
NOV				
13...	0852	0.79	171	7.5
DEC				
10...	1405	0.53	152	6.5
18...	1230	237	41	10.0
JAN 1991				
18...	1313	2.1	95	5.0
MAR				
04...	1312	2.3	99	7.0
APR 1991				
12...	0915	1.1	162	13.0
JUN				
04...	0808	0.89	254	25.0
JUL				
12...	0913	0.54	388	26.0
AUG				
23...	1018	0.33	296	23.5
OCT				
03...	0854	0.54	247	18.0
DEC				
02...	0842	8.6	230	6.5

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

BAYOU DE CHIEN BASIN--Continued

03611800 BAYOU CREEK NEAR HEATH, KY (LAT 37 05 58N LONG 088 49 27W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990				
02...	1003	0.12	219	17.0
04...	0748	0.28	209	18.5
09...	1054	42	59	16.5
NOV				
13...	1152	0.14	178	9.0
DEC				
07...	1415	1.1	132	5.5
18...	1530	140	46	9.5
JAN 1991				
18...	0924	1.6	82	3.5
MAR				
04...	1016	2.4	86	5.5
APR 1991				
11...	1345	0.79	137	13.0
JUN				
04...	1051	0.26	193	24.5
JUL				
12...	0803	0.16	171	25.0
AUG				
23...	1344	0.12	202	22.5
OCT				
03...	1128	0.13	225	18.0
DEC				
02...	1118	2.0	210	6.5

03611850 BAYOU CREEK NEAR GRAHAMVILLE, KY (LAT 37 08 41N LONG 088 49 38W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 1990				
02...	1136	3.8	334	21.5
04...	0916	7.5	238	21.0
09...	1136	122	142	17.0
NOV				
13...	1028	3.6	270	12.5
DEC				
07...	1258	4.5	255	9.0
18...	0950	665	53	9.5
JAN 1991				
18...	1124	14	456	7.0
MAR				
04...	1137	11	124	8.5
APR 1991				
12...	1025	7.7	356	15.0
JUN				
04...	1000	9.4	613	27.5
JUL				
12...	1110	8.2	675	29.5
AUG				
23...	1230	6.3	607	28.0
OCT				
03...	0958	4.8	685	21.5
DEC				
02...	0952	20	322	7.5

07024000 BAYOU DE CHIEN NEAR CLINTON, KY (LAT 36 37 43N LONG 088 57 50W)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (FT3/S)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
NOV 1990				
13...	1430	21	--	11.0
DEC				
07...	0930	32	59	5.0
19...	1008	1970	42	10.5
JAN 1991				
17...	1221	65	66	6.0
MAR				
01...	1034	48	65	9.5
APR				
11...	1055	53	84	14.0
JUN 1991				
03...	1023	113	110	24.5
13...	0850	74	77	22.0
JUL				
11...	1005	16	78	21.5
AUG				
08...	1036	14	74	26.0
22...	0900	14	69	19.5

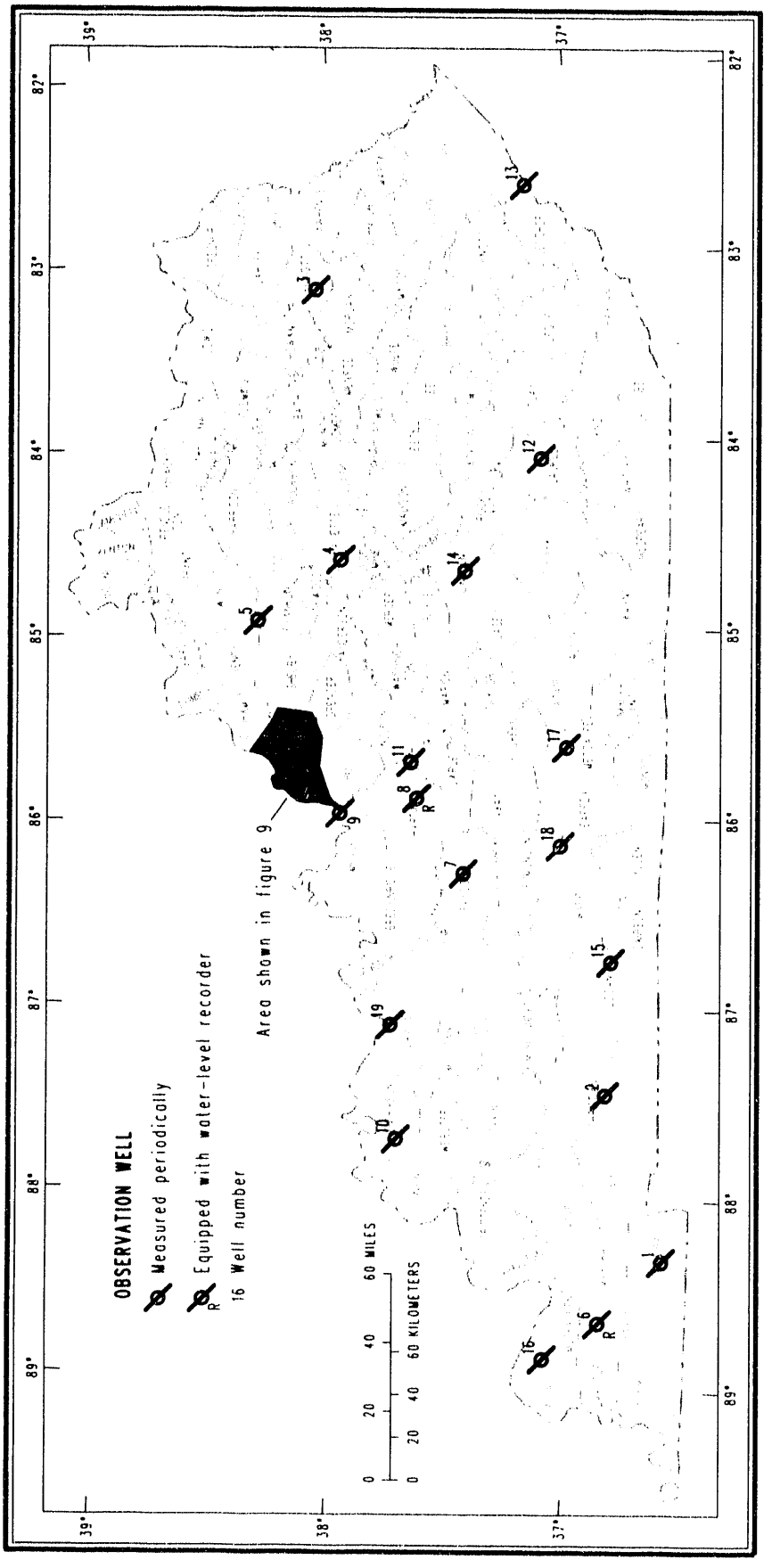
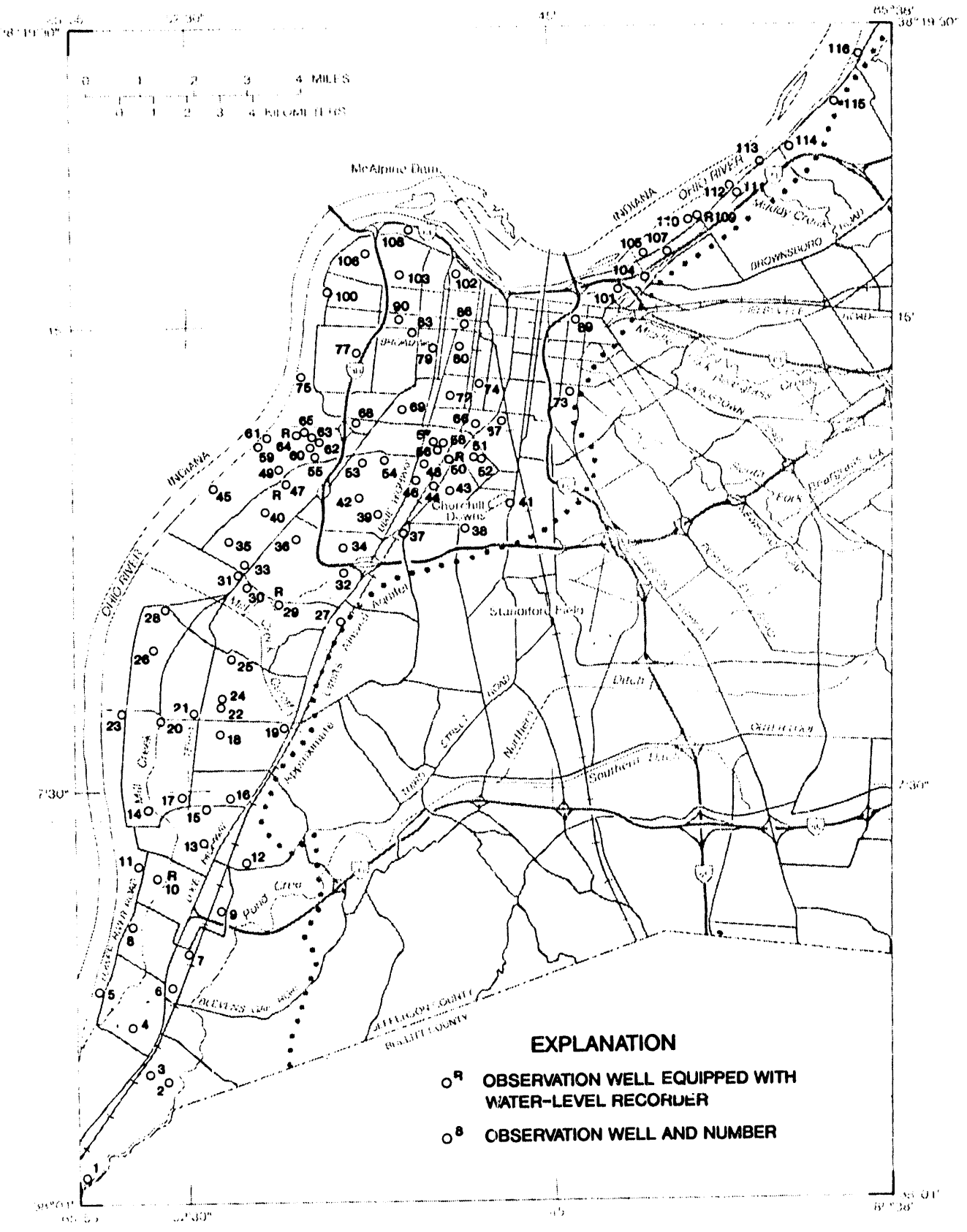


Figure 8.--Location of observation wells in Kentucky.



Base from U.S. Geological Survey

Figure 9.--Location of observation wells in Jefferson County.

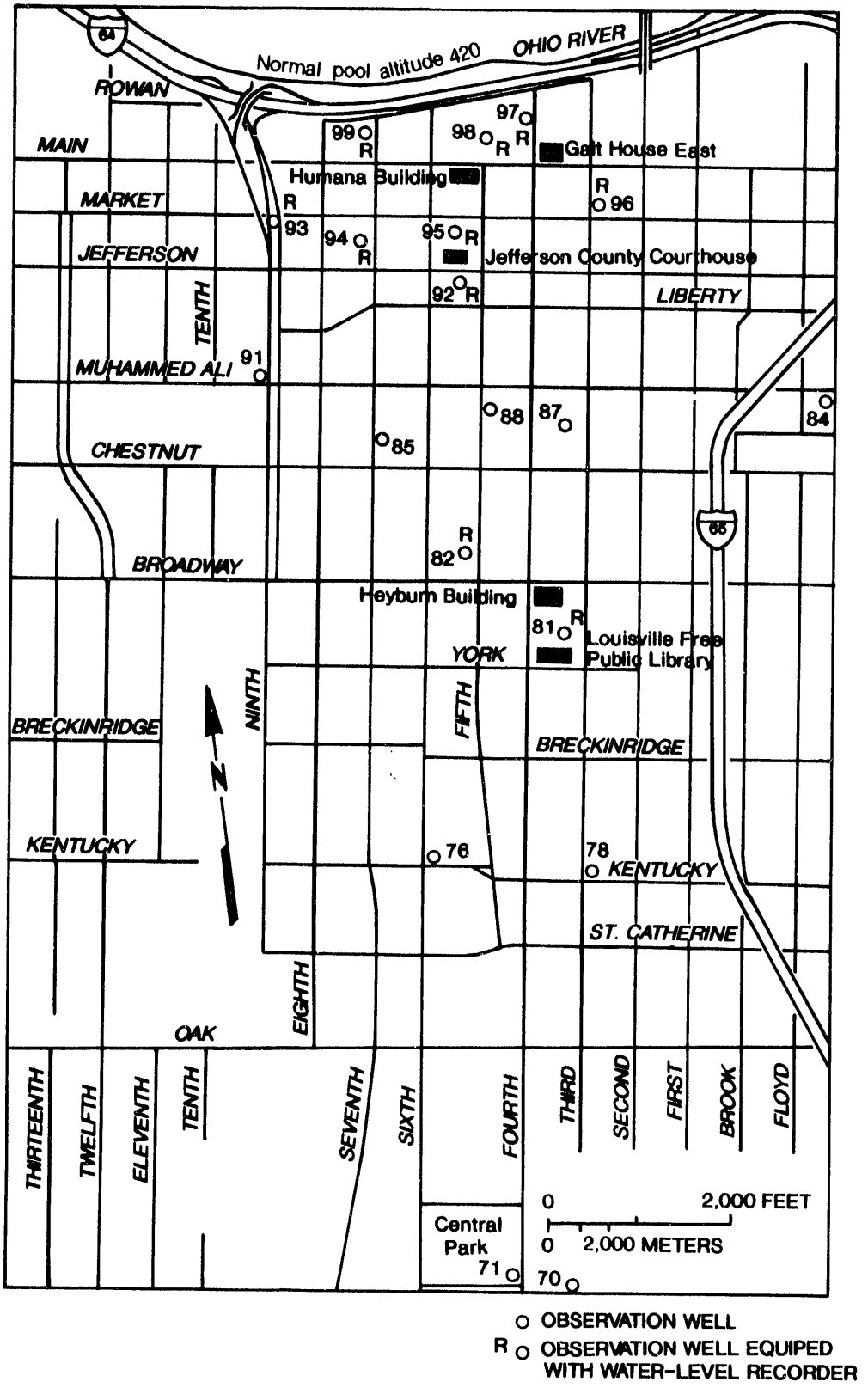


Figure 10.--Location of observation wells in downtown Louisville.

GROUND-WATER LEVELS

CALLOWAY COUNTY

363634088191601. Map number 1.
LOCATION.--Lat 36°36'34", long 88°19'16", Hydrologic Unit 06040006, County Code 035, Murray quadrangle, 200 ft southeast of the intersection of 15th and Main Streets, in Murray. Owner: Joe Parks.
AQUIFER.--Sand of McNairy Formation of Late Cretaceous age. Aquifer code: 211MCNR.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in, depth 345 ft, screened 290-328, 330-334 ft.
INSTRUMENTATION.--Six-week interval measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 549.14 ft, National Geodetic Vertical Datum. Measuring point: Floor of recorder shelter 4.75 ft above land-surface datum.
REMARKS.--Reported that well was used for several years to dispose of waste motor oil from a gasoline service station.
PERIOD OF RECORD.--March 1948 to September 1983 and October 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 123.23 ft below land-surface datum, Mar. 3, 1953; lowest measured, 130.09 ft below land-surface datum, Aug. 8, 1969.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water Level	Date	Water Level	Date	Water Level
Oct. 26, 1990	125.91	Mar. 11	124.92	July 11	126.10
Dec. 6	125.50	Apr. 12	125.16	Aug. 29	126.64
Jan. 28, 1991	124.24	May 23	125.23		

CHRISTIAN COUNTY

365142087270401. Map number 2.
LOCATION.--Lat 36°51'42", long 87°27'04", Hydrologic Unit 05130205, County Code 047, Hopkinsville quadrangle, at Western State Hospital, 75 ft west of gravel road, 500 ft south of U.S. Highway 68, 2.0 mi east of Hopkinsville. Owner: State of Kentucky.
AQUIFER.--Ste. Genevieve Limestone of Late Mississippian age. Aquifer code: 333SGVV.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 8 in, depth 85 ft, cased to 10 ft.
INSTRUMENTATION.--Six-week interval measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum (from topographic map) is about 550 ft. Measuring point: Floor of shelter 3.06 ft above land-surface datum.
PERIOD OF RECORD.--February 1950 to September 1983 and October 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.26 ft below land-surface datum, Feb. 22, 1961, lowest measured, 25.01 ft below land-surface datum, Sept. 25, 1970.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water Level	Date	Water Level	Date	Water Level
Oct. 23, 1990	12.91	Mar. 5	12.99	Aug. 27	16.49
Dec. 11	12.91	Apr. 24	14.09		
Jan. 25, 1991	13.24	May 21	14.44		

DAVIESS COUNTY

374638087054101. Map number 19.
LOCATION.--Lat 37°46'38", long 87°05'41", Hydrologic Unit 05140201, County Code 059, Owensboro East quadrangle, at Owensboro Municipal Utilities water treatment plant, 100 ft south of south bank of Ohio River, 0.1 mi northeast of Daviess County High School, 0.3 mi north of U.S. Highway 60, in Owensboro. Owner: Owensboro Municipal Utilities.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 1120TSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 12 in, depth 104 ft, screened 74 to 104 ft.
INSTRUMENTATION.--Six-week interval measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum (from topographic map) is about 405 ft. Measuring point: Floor of recorder shelter 4.33 ft above land-surface datum.
REMARKS.--Water level affected by pumping from nearby wells.
PERIOD OF RECORD.--February 1951 to September 1983 and March to September 1990.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 18.16 ft below land-surface datum, May 5, 1983; lowest, 63.21 ft below land-surface datum, Sept. 17, 1970.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water Level	Date	Water Level	Date	Water Level
Oct. 22, 1990	47.23	Mar. 5	53.21	July 8	58.33
Dec. 5	51.69	Apr. 9	53.89	Aug. 26	56.23
Jan. 23, 1991	47.06	May 20	50.20		

ELLIOTT COUNTY

380425083091901. Map number 3.
LOCATION.--Lat 38°04'25", long 83°09'19", Hydrologic Unit 05090104, County Code 063, Sandy Hook quadrangle, in a hay field, 100 ft south of a tobacco barn, 250 ft north of State Highway 7, 1.9 mi southwest of Sandy Hook. Owner: Roy Adkins.
AQUIFER.--Lee Formation of Early Pennsylvanian age. Aquifer code: 327LEE.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 5 in, depth 70 ft, length of casing unknown, open hole below casing.
INSTRUMENTATION.--Six-week interval measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum (from topographic map) is about 780 ft. Measuring point: Floor of recorder shelter 3.55 ft above land-surface datum.
REMARKS.--Pump test run Oct. 10, 1965. Estimated yield based on recovery, 0.4 gal/min.
PERIOD OF RECORD.--September 1952 to September 1984 and July 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.50 ft below land-surface datum, July 18, 1971; lowest measured, 46.35 ft below land-surface datum, Dec. 17, 1953.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, OCTOBER 1990 TO SEPTEMBER 1991

Date	Water Level	Date	Water Level	Date	Water Level
Nov. 8, 1990	26.08	Mar. 10, 1991	23.89		
Dec. 12	23.85	June 4	23.74		

FAYETTE COUNTY

375928084362001. Map number 4.
LOCATION.--Lat 38°59'28", long 84°36'20", Hydrologic Unit 05100205, County Code 067, Nicholasville quadrangle, 50 ft west of a farmhouse, 15 ft east of an old chicken house, 600 ft north of where Keene Road crossed the Fayette-Jessamine County line, 1.2 mi southwest of South Elkhorn: Owner: Donald Todd formerly M.A. Kehrt.
AQUIFER.--Grier Limestone Member of Lexington Limestone of Middle Ordovician age. Aquifer code: 364GRIR.
WELL CHARACTERISTICS.--Drilled unused artesian and water-table well, diameter 6 in, depth 132 ft, cased to 15 ft, open hole 15 to 132 ft.
INSTRUMENTATION.--Six-week interval measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum (from topographic map) is about 940 ft. Measuring point: Floor of recorder shelter 2.75 ft above land-surface datum.
REMARKS.--Lowest water level is a pumping level.
PERIOD OF RECORD.--November 1952 to September 1984 and June 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.67 ft below land-surface datum, Jan. 11, 1974; lowest measured, 48.56 ft below land-surface datum, Mar. 12, 1954.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, OCTOBER 1990 TO SEPTEMBER 1991

Date	Water Level	Date	Water Level	Date	Water Level
Oct. 4, 1990	12.52	Jan. 14, 1991	8.15	May 20	12.47
Nov. 7	12.48	Feb. 25	8.99	July 8	12.70
Dec. 17	11.31	Apr. 8	12.30	Aug. 13	12.71

FRANKLIN COUNTY

382031084553901. Harp Road Test Well. Map number 5.
LOCATION.--Lat 38°20'31", long 84°55'39", Hydrologic Unit 05100205, County Code 073, Polsgrove quadrangle, in a pasture at an old farmhouse site, 50 ft north of Harp Road, 2.3 mi northeast of junction of Harp Road and U.S. Highway 421, 2.3 mi southwest of Polsgrove. Owner: Franklin County.
AQUIFER.--Kope and Clays Ferry Formations of Late Ordovician age (previously published as Lexington Limestone of Middle Ordovician age). Aquifer code: 361KOCL (previously published as 364LXNG).
WELL CHARACTERISTICS.--Drilled unused artesian and water-table test well, diameter 6 in, depth 450 ft, cased to 15 ft.
INSTRUMENTATION.--Six-week interval measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum (from topographic map) is about 890 ft. Measuring point: Top of pipe plug .50 ft above land-surface datum.
PERIOD OF RECORD.--August 1973 to January 1983 and October 1988 to current year. August 1973 to September 1976 published in hydrograph form and on file at district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.87 ft below land-surface datum, Sept. 14, 1979; lowest measured, 119.82 ft below land-surface datum, Sept. 12, 1973.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water Level	Date	Water Level	Date	Water Level
Oct. 5, 1990	35.39	Jan. 25, 1991	35.75	May 31	40.60
Nov. 8	41.93	Mar. 7	34.75	July 11	33.50
Dec. 3	39.50	Apr. 19	35.56	Aug. 23	42.61

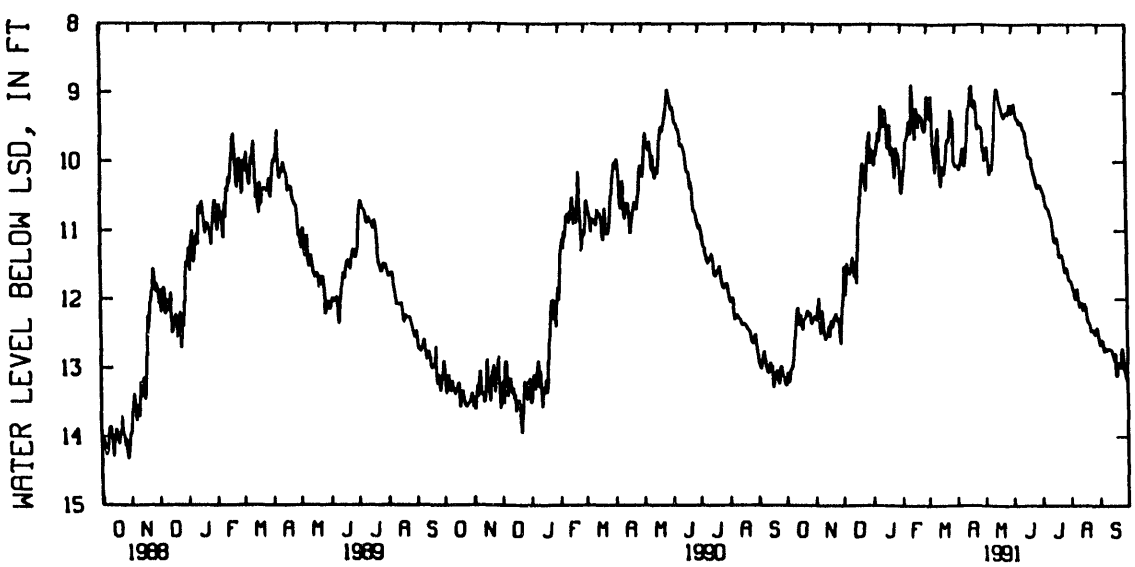
GRAVES COUNTY

365210088391301. Map number 6.
LOCATION.--Lat 36°52'10", long 88°39'13", Hydrologic Unit 08010201, County Code 083, Hickory quadrangle, in a cultivated field, 200 ft east of a private road, 1.2 mi northwest of Viola. Owner: J. Whittemore.
AQUIFER.--Sand of Claiborne Group of Eocene age. Aquifer Code: 124CLBR.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 10 in, depth 106 ft, cased to 85 ft, screened 85-105 ft.
INSTRUMENTATION.--ADR recorder -- 60-minute punch.
DATUM.--Altitude of land-surface datum is 405.65 ft, National Geodetic Vertical Datum. 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, 8.88 ft below land-surface datum, Feb. 13, 1991; lowest measured, 19.24 ft below land-surface datum, Jan. 10, 1975.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY OBSERVATION AT 12:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.26	12.25	12.10	9.82	10.46	9.21	10.07	9.83	9.31	10.35	11.74	12.58
2	13.22	12.29	11.91	9.84	10.37	9.05	10.06	9.99	9.25	10.38	11.73	12.65
3	13.07	12.32	11.52	10.04	10.24	9.28	10.06	9.79	9.16	10.43	11.77	12.68
4	13.22	12.14	11.95	10.05	10.11	9.39	10.05	9.83	9.16	10.46	11.82	12.60
5	13.18	11.99	11.78	9.84	10.03	9.33	10.12	9.78	9.28	10.51	11.88	12.60
6	13.04	12.39	11.48	9.91	9.68	9.04	10.06	10.05	9.35	10.57	11.94	12.74
7	13.02	12.51	11.57	9.74	9.68	9.70	9.99	10.19	9.38	10.64	12.04	12.77
8	13.00	12.47	11.57	9.58	9.61	9.86	9.88	10.16	9.37	10.67	11.94	12.71
9	12.82	12.16	11.65	9.72	9.47	9.91	9.80	10.04	9.44	10.68	11.85	12.75
10	12.63	12.36	11.58	9.55	9.41	10.16	10.06	10.13	9.46	10.71	11.95	12.75
11	12.51	12.51	11.51	9.19	9.61	9.89	10.06	10.01	9.43	10.78	12.10	12.72
12	12.28	12.59	11.39	9.36	9.47	9.59	9.95	9.71	9.43	10.81	12.12	12.73
13	12.19	12.57	11.60	9.51	8.88	9.51	9.76	9.30	9.50	10.86	12.06	12.74
14	12.13	12.53	11.68	9.42	8.97	9.89	9.41	9.05	9.54	11.02	12.05	12.74
15	12.39	12.55	11.47	9.24	9.47	10.29	9.23	8.98	9.55	11.15	12.12	12.81
16	12.34	12.39	11.77	9.35	9.68	10.36	9.21	8.94	9.62	11.18	12.17	12.85
17	12.23	12.56	11.35	9.69	9.38	10.06	9.11	8.99	9.73	11.13	12.06	12.91
18	12.40	12.38	10.81	9.82	9.22	10.15	8.90	9.10	9.79	11.10	12.12	12.79
19	12.45	12.31	10.79	9.52	9.29	10.20	8.91	9.17	9.91	11.16	12.12	13.11
20	12.31	12.42	10.55	9.46	9.51	10.15	9.22	9.20	9.95	11.32	12.25	13.12
21	12.29	12.38	10.31	9.91	9.38	10.03	9.21	9.26	9.94	11.38	12.34	12.97
22	12.28	12.27	10.13	9.89	9.31	9.92	9.13	9.32	9.95	11.39	12.34	12.92
23	12.23	12.27	10.02	9.79	9.39	9.68	9.16	9.34	10.08	11.35	12.38	12.99
24	12.17	12.21	10.29	10.04	9.34	9.73	9.53	9.37	10.16	11.37	12.48	12.79
25	12.22	12.33	10.26	10.24	9.50	9.68	9.52	9.31	10.21	11.45	12.48	12.72
26	12.26	12.29	10.43	10.12	9.55	9.47	9.49	9.29	10.27	11.57	12.44	12.82
27	12.20	12.28	10.17	9.80	9.57	9.25	9.48	9.28	10.35	11.62	12.46	13.01
28	12.36	12.50	9.96	9.98	9.51	9.60	9.52	9.33	10.39	11.57	12.53	13.08
29	12.36	12.65	9.69	9.87	---	9.35	9.51	9.25	10.36	11.54	12.50	13.16
30	12.30	12.35	9.58	9.99	---	9.99	9.85	9.17	10.33	11.65	12.42	13.11
31	12.28	---	10.03	10.42	---	10.04	---	9.23	---	11.72	12.43	---
MAX	13.26	12.65	12.10	10.42	10.46	10.36	10.12	10.19	10.39	11.72	12.53	13.16
MIN	12.13	11.99	9.58	9.19	8.88	9.04	8.90	8.94	9.16	10.35	11.73	12.58

WTR YR 1991 HIGH 8.88 LOW 13.26



GRAYSON COUNTY

372822086165801. Map number 7.
LOCATION.--Lat 37°28'22", long 86°16'58", Hydrologic Unit 05110004, County Code 085, Leitchfield quadrangle, at the end of a city park road, 500 ft north of a dam and lake, 1,000 ft northeast of the old city water treatment plant, 0.8 mi southeast of Grayson County Courthouse, in Leitchfield. Owner: City of Leitchfield.
AQUIFER.--Hardinsburg Sandstone of Late Mississippian age. Aquifer code: 332HDBG.
WELL CHARACTERISTICS.--Drilled unused artesian and water-table well, diameter 7 in, depth 384 ft, length casing unknown.
INSTRUMENTATION.--Six-week interval measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum (from topographic map) is 660 ft. Measuring point: Top of pipe flange 5.12 ft above land-surface datum.
PERIOD OF RECORD.--December 1979 to September 1983 and October 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 74.48 ft below land-surface datum, Jan. 23, 1991; lowest measured, 84.65 ft below land-surface datum, June 6, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water Level	Date	Water Level	Date	Water Level
Oct. 24, 1990	76.19	Mar. 7	75.39	July 10	75.90
Dec. 4	76.21	Apr. 11	75.46	Aug. 28	76.29
Jan. 23, 1991	74.48	May 21	75.56		

GROUND-WATER LEVELS

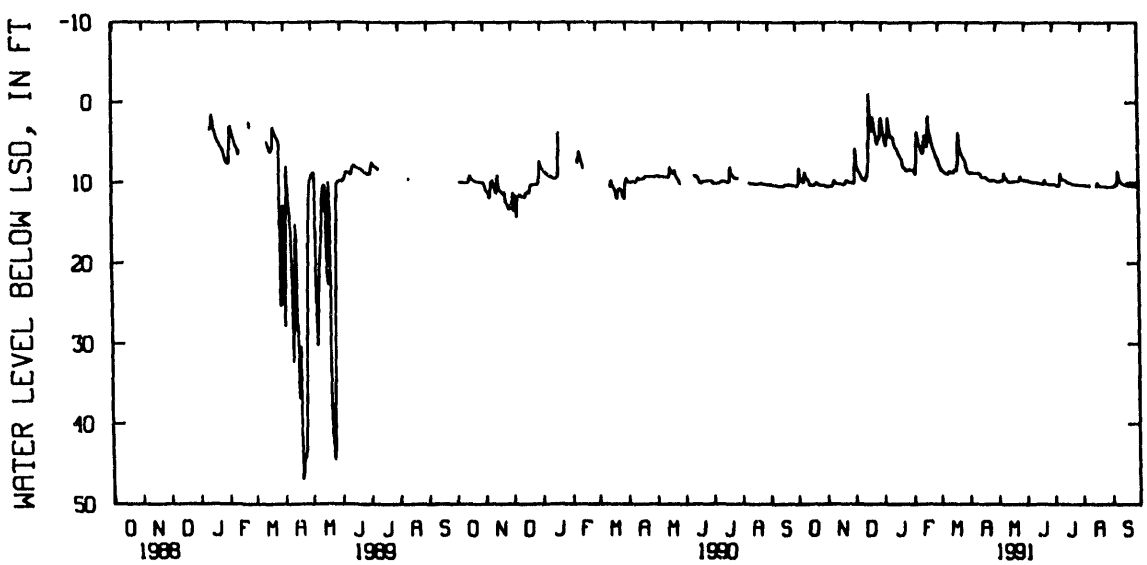
HARDIN COUNTY

373847085541701. Local number OW-7, map number 8.
LOCATION.--Lat 37°38'47", long 85°54'17", Hydrologic Unit 05110001, County Code 093, Cecilia quadrangle, from road U.S 62, 2.5 miles south on Gaither Station Road, 250 ft west on paved road, 170 ft west of paved road, 650 ft east of Valley Creek. Owner: City of Elizabethtown.
AQUIFER.--St. Genevieve Limestone of Late Mississippian age. Aquifer Code: 333SGVV.
WELL CHARACTERISTICS.--Drilled unused artesian and water table well, diameter 12 in, depth 155 ft, with 46 ft of 12 in surface casing.
INSTRUMENTATION.--Digital recorder -- 30-minute punch.
DATUM.--Elevation of land-surface datum is 664.37 ft above National Geodetic Vertical Datum. Measuring point: Floor of shelter, 3.2 ft above land-surface datum.
REMARKS.--Water levels affected by stage of Valley Creek and pumpage of nearby production well.
PERIOD OF RECORD.--January 1989 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level observed, 1.17 ft above land surface datum, Dec. 18, 1990; lowest, 46.91 ft below land-surface datum, Apr. 20, 1989.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY OBSERVATION AT 12:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.40	10.38	10.07	2.90	8.40	7.68	8.67	9.84	9.76	10.22	10.29	10.53
2	10.41	10.45	10.09	3.89	8.41	7.87	8.80	9.88	9.77	10.22	10.30	10.52
3	10.42	10.50	5.77	4.60	8.47	8.10	8.84	9.93	9.66	10.22	10.31	10.53
4	8.17	10.52	7.66	5.07	8.72	8.45	8.85	9.93	9.67	10.33	10.31	10.53
5	9.33	10.51	8.18	5.47	8.98	8.55	8.72	9.79	9.78	10.41	10.34	10.52
6	9.64	10.44	8.47	3.97	3.62	8.60	8.79	9.80	9.82	10.41	10.36	10.25
7	9.82	10.46	8.68	1.92	4.54	8.70	8.85	9.81	9.85	10.41	10.38	10.30
8	9.93	10.47	8.86	3.22	4.89	8.83	8.86	9.81	9.86	10.40	10.39	10.35
9	10.03	10.47	9.11	3.97	5.28	8.88	8.86	8.82	9.89	8.83	10.39	8.56
10	8.72	9.73	9.47	4.48	5.64	8.95	8.84	9.31	9.92	9.53	10.40	9.65
11	9.20	9.97	9.57	4.20	6.03	8.96	8.89	9.44	9.95	9.54	10.39	9.70
12	9.41	10.08	9.66	4.36	6.34	8.96	8.91	9.54	9.96	9.71	---	9.93
13	9.57	10.13	9.72	4.78	6.23	8.60	8.76	9.83	9.98	9.64	---	10.04
14	9.73	10.16	9.74	5.31	4.05	8.68	8.93	9.90	10.00	9.71	---	10.15
15	10.05	10.17	9.15	5.70	4.76	8.74	9.26	9.90	10.01	9.83	---	10.22
16	10.29	10.18	9.33	5.74	5.25	8.79	9.35	9.89	10.08	9.91	10.43	10.26
17	10.36	10.19	7.74	6.04	5.59	8.90	9.35	9.88	10.09	9.98	10.43	10.32
18	10.26	10.20	-1.17	6.45	1.68	8.42	9.35	9.86	10.10	10.04	9.99	10.35
19	10.34	10.21	2.21	6.64	3.49	8.53	9.34	9.88	10.11	10.08	10.28	10.37
20	10.37	10.24	3.07	6.82	4.19	8.53	9.34	9.88	10.20	10.10	10.36	10.39
21	10.39	10.25	3.75	7.09	4.69	8.51	9.52	9.86	10.29	10.12	10.40	10.41
22	10.07	10.17	1.77	7.67	5.12	3.74	9.66	9.86	9.66	10.16	10.44	10.43
23	9.99	9.74	2.22	8.01	5.57	5.32	9.73	9.85	10.05	10.18	10.47	10.45
24	10.15	9.81	3.48	8.21	5.90	5.86	9.77	9.85	10.17	10.20	10.49	10.47
25	10.20	9.90	4.21	8.29	6.28	6.31	9.75	9.85	10.21	10.22	10.49	10.47
26	10.26	9.96	4.83	8.33	6.69	6.64	9.75	9.85	10.22	10.23	10.50	10.49
27	10.29	10.01	5.27	8.59	6.91	6.89	9.77	9.21	10.22	10.24	10.51	10.50
28	10.31	9.89	4.62	8.42	7.16	7.10	9.74	9.57	10.22	10.26	10.52	10.52
29	10.32	9.99	4.72	8.50	---	7.29	9.78	9.67	10.22	10.27	10.52	10.53
30	10.32	10.06	2.24	8.35	---	7.78	9.82	9.69	10.22	10.28	10.52	10.53
31	10.32	---	1.92	8.38	---	8.28	---	9.74	---	10.29	10.52	---
MAX	10.42	10.52	10.09	8.59	8.98	8.96	9.82	9.93	10.29	10.41	---	10.53
MIN	8.17	9.73	-1.17	1.92	1.68	3.74	8.67	8.82	9.66	8.83	---	8.56

WTR YR 1991 HIGH -1.17 LOW 10.53



GROUND-WATER LEVELS

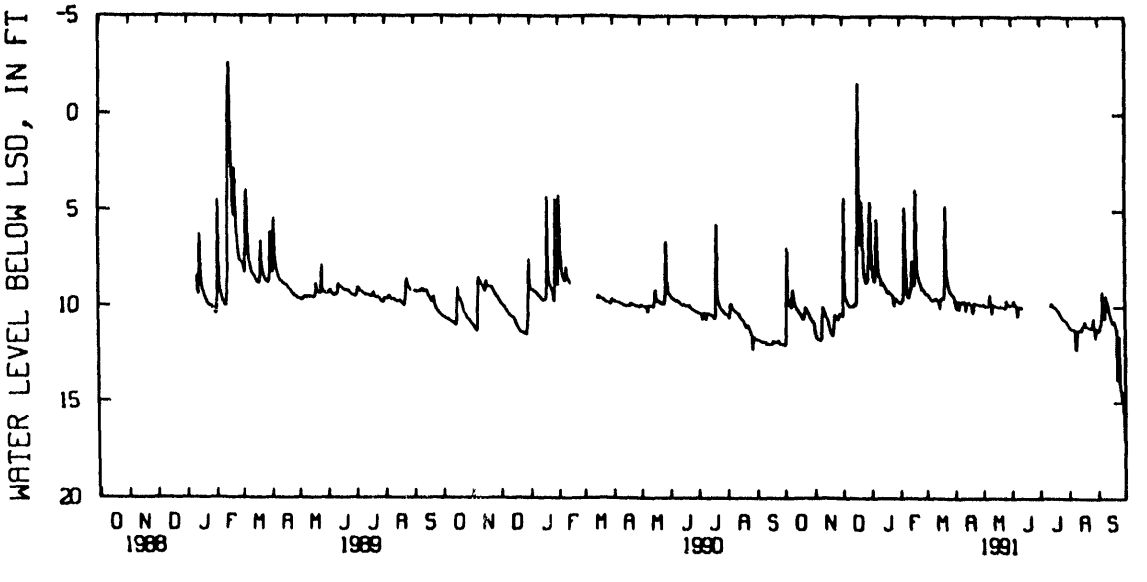
HARDIN COUNTY

373925085540301. Local number OW-6, map number 8.
LOCATION.--Lat 37°39'25", long 85°54'03", Hydrologic Unit 05110001, County Code 093, Cecilia quadrangle, from road U.S 62, 1.8 miles south on Gaither Station Road, 100 ft south on gravel road, 70 ft west of railroad tracks, 150 ft east of Gaither Spring. Owner: City of Elizabethtown.
AQUIFER.--St. Genevieve Limestone of Late Mississippian age. Aquifer Code: 333SGVV.
WELL CHARACTERISTICS.--Drilled unused artesian and water table well, diameter 12 in, depth 100 ft, with 17 ft of 12 in surface casing.
INSTRUMENTATION.--Digital recorder -- 30-minute punch.
DATUM.--Elevation of land-surface datum is 669.99 ft above National Geodetic Vertical Datum. Measuring point: Floor of shelter, 2.8 ft above land-surface datum.
REMARKS.--Water levels affected by stage of nearby Gaither Spring.
PERIOD OF RECORD.--January 1989 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level observed, 2.61 ft above land surface datum, Feb. 15, 1989; lowest, 17.06 ft below land-surface datum, Sept. 30, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY OBSERVATION AT 12:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.00	10.82	10.45	6.38	9.78	9.35	9.53	9.90	9.89	---	11.01	11.25
2	12.02	11.19	10.54	7.81	9.81	9.32	10.04	9.89	9.90	---	11.05	11.24
3	12.03	11.57	4.35	8.34	9.79	9.35	10.08	9.92	9.90	---	11.11	11.19
4	6.96	11.71	9.38	8.59	9.70	9.41	10.10	10.00	9.69	---	11.15	10.89
5	9.54	11.69	9.56	8.73	9.70	9.48	9.68	9.96	9.92	---	11.17	10.96
6	9.77	11.74	9.62	8.39	4.82	9.53	10.14	9.97	9.98	---	11.16	9.23
7	9.96	11.75	9.77	5.46	7.31	9.60	9.72	9.99	9.95	---	11.21	10.07
8	9.99	11.76	9.87	7.25	8.37	9.65	9.76	9.99	10.53	---	12.14	10.57
9	10.10	11.73	9.94	8.06	9.33	9.67	9.87	9.41	10.04	---	12.25	10.63
10	9.16	10.03	9.98	8.43	9.47	9.66	9.78	9.88	10.05	---	11.24	9.42
11	9.52	10.20	9.99	8.47	9.56	9.69	9.73	10.38	10.02	---	11.24	9.70
12	9.80	10.29	9.98	8.90	9.23	9.57	9.76	9.88	10.05	10.00	11.18	9.91
13	9.98	10.46	10.00	8.74	9.25	9.60	10.23	9.93	10.11	9.83	11.24	10.14
14	10.11	10.59	10.00	8.82	7.62	9.66	9.80	9.94	---	9.94	11.26	10.33
15	10.20	10.66	9.85	8.92	8.54	9.70	9.85	9.97	---	9.97	11.10	10.51
16	10.26	10.78	9.95	8.97	8.81	10.10	9.77	9.99	---	10.01	10.99	10.67
17	10.36	11.04	9.83	9.07	8.94	9.71	9.80	10.00	---	10.03	11.00	10.78
18	10.38	11.24	-1.57	9.16	3.91	9.55	9.92	10.04	---	10.09	10.76	10.86
19	10.52	11.37	3.51	9.33	7.24	9.57	9.92	10.02	---	10.13	10.98	10.71
20	10.62	11.50	5.58	9.21	8.07	9.59	10.31	9.98	---	10.19	11.01	10.98
21	10.70	11.53	6.81	9.24	8.47	9.57	10.32	10.00	---	10.28	11.03	10.96
22	10.58	11.28	4.51	9.32	8.68	4.76	9.80	10.02	---	10.38	11.05	13.84
23	10.05	10.44	5.87	9.35	8.81	7.91	9.83	10.04	---	10.47	11.09	11.56
24	10.15	10.51	7.58	9.41	8.94	8.62	9.86	10.02	---	10.54	11.11	11.49
25	10.22	10.59	8.28	9.44	9.15	8.87	9.87	10.04	---	10.61	11.11	14.26
26	10.33	10.65	8.59	9.98	9.10	9.07	9.88	10.08	---	10.64	11.01	14.43
27	10.44	10.71	8.80	9.59	9.14	9.21	9.90	9.67	---	10.68	10.60	14.95
28	10.60	10.46	8.62	9.59	9.24	9.30	9.91	9.90	---	10.71	11.13	14.78
29	10.66	10.37	8.71	9.66	---	9.34	9.92	9.91	---	10.75	11.62	16.10
30	10.73	10.45	6.67	9.71	---	9.41	9.94	9.92	---	10.84	11.08	17.06
31	10.86	---	4.55	9.75	---	9.45	---	9.93	---	10.92	11.18	---
MAX	12.03	11.76	10.54	9.98	9.81	10.10	10.32	10.38	---	---	12.25	17.06
MIN	6.96	10.03	-1.57	5.46	3.91	4.76	9.53	9.41	---	---	10.60	9.23

WTR YR 1991 HIGH -1.57 LOW 17.06



GROUND-WATER LEVELS

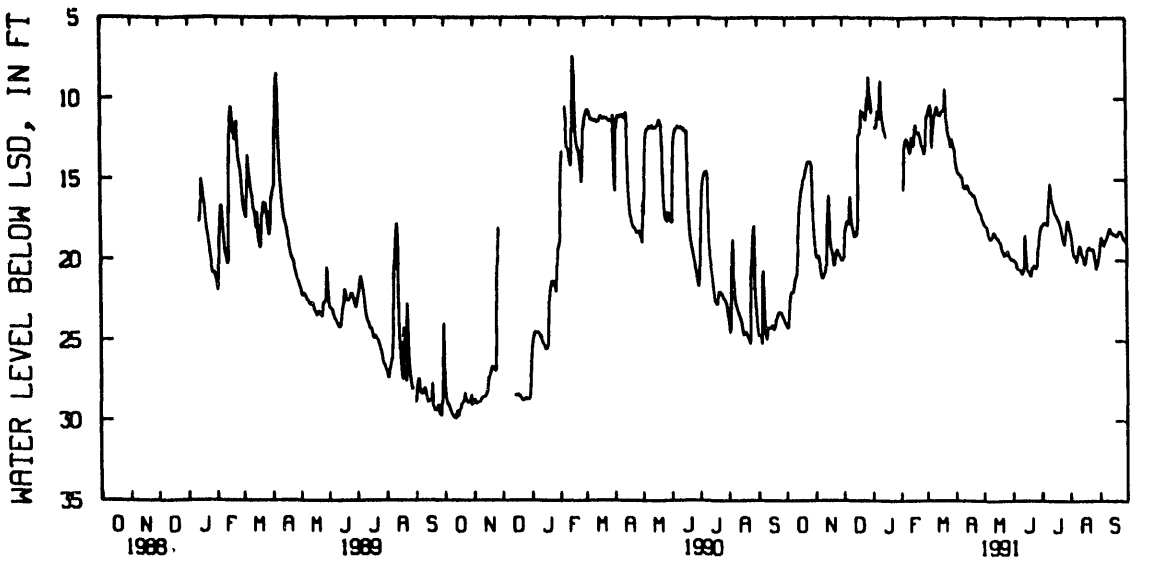
HARDIN COUNTY

374020085530601. Local number OW-5, map number 8.
LOCATION.--Lat 37°40'35", long 85°52'54", Hydrologic Unit 05110001, County Code 093, Cecilia quadrangle, 0.30 mi west of Elizabethtown Water Plant, 0.30 mi west on gravel road to sewage lagoon parallel to RR tracks, 850 ft south of RR tracks, 100 ft northwest of Valley Creek, 50 ft southeast of abandoned sewage lagoon. Owner: City of Elizabethtown.
AQUIFER.--St. Genevieve Limestone of Late Mississippian age. Aquifer Code: 333SGVV.
WELL CHARACTERISTICS.--Drilled unused artesian and water table well, diameter 6 in, depth 140 ft, with 36 ft of 6 in surface casing.
INSTRUMENTATION.--Digital recorder -- 30-minute punch.
DATUM.--Elevation of land-surface datum is 685.53 ft above National Geodetic Vertical Datum. Measuring point: Floor of shelter, 3.0 ft above land-surface datum.
REMARKS.--Water levels affected by stage of nearby Valley Creek.
PERIOD OF RECORD.--January 1989 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level observed, 7.41 ft below land surface datum, Feb. 16, 1990; lowest, 29.91 ft below land-surface datum, Oct. 13, 1989.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY OBSERVATION AT 12:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.99	19.16	19.89	10.88	---	12.93	13.14	17.59	19.94	17.93	18.11	19.61
2	24.10	19.75	19.86	---	---	11.04	13.95	17.83	19.93	17.86	18.30	19.02
3	24.21	19.86	18.22	---	---	11.11	14.31	17.84	20.05	17.77	18.69	18.57
4	23.58	19.81	18.10	11.71	---	10.78	14.55	17.95	20.06	17.68	19.29	18.72
5	22.67	19.70	17.70	11.83	15.66	10.62	14.66	17.91	20.24	17.71	19.67	18.92
6	22.16	20.25	17.68	11.71	13.14	10.40	14.66	18.22	20.44	17.74	19.76	19.10
7	21.96	20.46	17.82	10.76	12.68	10.73	14.77	18.51	20.53	17.73	19.69	18.94
8	21.99	20.99	17.10	10.91	12.53	13.01	14.84	18.64	20.53	17.85	20.09	18.78
9	21.99	21.13	16.09	11.30	12.51	12.04	14.94	18.72	20.55	16.55	19.83	18.69
10	21.54	21.03	17.35	9.34	12.60	11.20	15.53	18.63	20.67	15.89	19.41	18.52
11	21.24	20.83	17.96	8.93	13.04	10.98	15.54	18.56	20.81	15.27	19.14	18.30
12	21.02	20.77	18.15	10.92	13.32	10.80	15.59	18.30	20.83	16.01	19.12	18.09
13	20.92	20.16	18.54	11.50	13.35	10.49	15.42	18.32	20.55	16.35	19.49	18.03
14	18.45	17.81	18.56	11.78	12.37	10.79	15.37	18.39	18.46	16.57	19.74	18.31
15	17.35	16.82	18.47	11.98	12.56	11.03	15.44	18.54	19.86	16.89	19.81	18.30
16	16.68	16.03	18.36	12.12	12.90	10.98	15.66	18.66	20.46	17.09	20.19	18.41
17	16.12	18.61	17.45	12.41	12.92	11.05	15.82	18.62	20.66	17.15	20.22	18.40
18	15.68	19.33	12.36	---	11.61	10.81	15.83	18.80	20.69	17.30	19.84	18.38
19	15.48	19.41	12.22	---	12.03	10.77	15.87	18.86	20.79	17.43	19.39	18.51
20	15.03	19.81	12.16	---	12.12	10.76	16.03	18.97	20.99	17.53	19.28	18.50
21	14.96	20.36	10.73	---	12.01	10.66	15.98	19.33	20.52	17.66	19.17	18.40
22	14.76	20.16	10.94	---	12.09	9.43	16.02	19.47	20.42	17.87	19.23	18.26
23	14.38	19.64	10.85	---	12.31	11.23	16.20	19.63	20.30	18.11	19.30	18.23
24	14.19	19.36	10.89	---	12.47	11.70	16.57	19.72	20.35	18.52	19.36	18.26
25	14.04	19.42	11.28	---	12.90	12.06	16.70	19.58	20.49	18.80	19.28	18.29
26	14.00	19.74	11.33	---	12.94	12.30	16.89	19.51	20.50	19.03	19.37	18.50
27	13.90	19.62	9.95	---	13.20	12.55	17.00	19.40	19.37	18.90	19.85	18.68
28	13.99	19.80	10.68	---	13.43	13.01	17.07	19.66	19.11	18.22	20.23	18.78
29	14.05	20.00	8.68	---	---	12.48	17.20	19.76	18.46	17.70	20.54	18.80
30	17.23	20.01	9.79	---	---	12.72	17.53	19.87	18.15	17.54	20.35	18.84
31	18.33	---	10.07	---	---	12.89	---	19.97	---	17.82	19.95	---
MAX	24.21	21.13	19.89	---	---	13.01	17.53	19.97	20.99	19.03	20.54	19.61
MIN	13.90	16.03	8.68	---	---	9.43	13.14	17.59	18.15	15.27	18.11	18.03

WTR YR 1991 HIGH 8.68 LOW 24.21



GROUND-WATER LEVELS

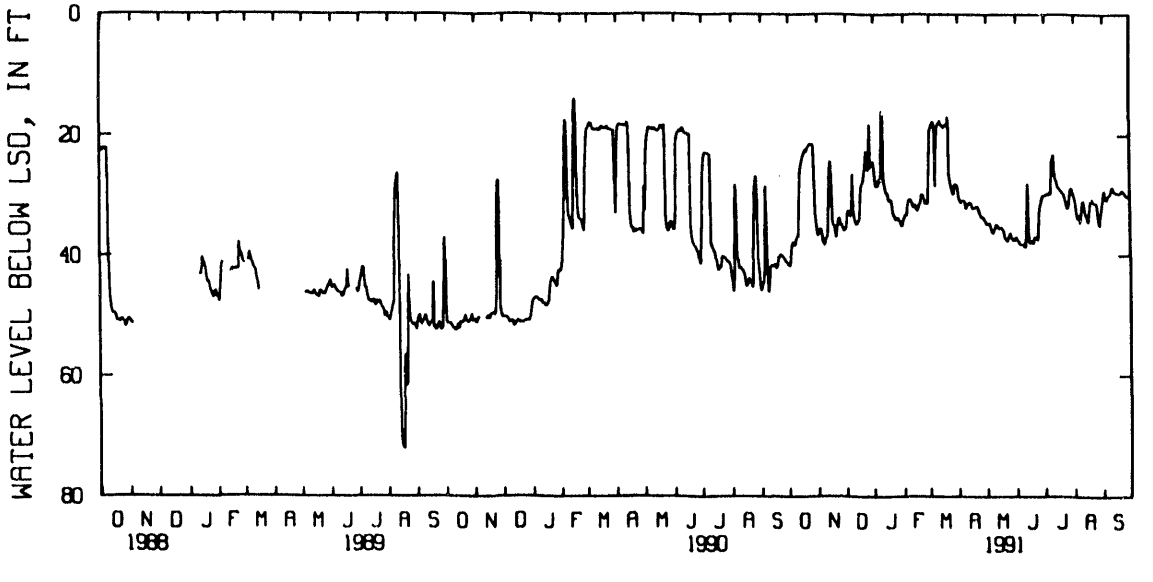
HARDIN COUNTY

374035085525401. Local number OW-1-82, map number 8.
LOCATION.--Lat 37°40'35", long 85°52'54", Hydrologic Unit 05110001, County Code 093, Cecilia quadrangle, 0.30 mi west of Elizabethtown Water Plant, 0.20 mi west on gravel road to sewage lagoon parallel to RR tracks, 100 ft south of RR tracks, 75 ft east of electric power tower, 10 ft north of gravel road. Owner: City of Elizabethtown.
AQUIFER.--St. Louis Limestone of Late Mississippian age. Aquifer Code: 333STLS.
WELL CHARACTERISTICS.--Drilled unused artesian and water table well, diameter 6 in, depth 120 ft, with 14 ft of 8 in surface casing.
INSTRUMENTATION.--Digital recorder -- 30-minute punch.
DATUM.--Elevation of land-surface datum is 692.25 ft above National Geodetic Vertical Datum. Measuring point: Floor of shelter, 1.4 ft above land-surface datum.
REMARKS.-- Water levels affected by pumping from nearby wells and proximity to RR tracks.
PERIOD OF RECORD.--September 1982 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level observed, 8.99 ft below land surface datum, May 3, 1983; lowest, 78.77 ft below land-surface datum, July 14, 1988.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY OBSERVATION AT 12:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41.49	35.97	35.57	24.26	34.51	25.83	28.57	34.35	37.08	29.88	30.16	31.38
2	41.61	36.75	35.52	25.60	33.87	18.68	30.15	34.82	36.93	30.14	30.48	30.06
3	41.71	36.06	33.01	27.30	33.37	18.92	30.71	34.76	37.46	29.83	31.67	29.20
4	40.33	35.58	32.63	28.35	33.11	18.25	31.11	34.83	37.43	29.63	33.13	30.08
5	38.64	35.59	32.48	28.43	33.42	17.91	31.06	34.50	37.70	29.79	33.91	30.66
6	37.78	36.22	33.19	28.39	31.77	17.77	30.75	35.05	38.07	29.95	33.71	30.84
7	37.85	37.73	33.54	27.51	30.77	19.60	30.87	35.66	38.14	29.43	33.10	30.21
8	38.21	37.96	30.93	27.17	30.68	28.47	30.87	36.02	38.14	29.87	34.60	30.01
9	38.30	38.25	26.41	27.72	30.70	20.59	31.05	36.28	38.10	24.39	33.30	29.96
10	37.21	37.44	32.12	17.63	30.95	18.37	32.19	35.77	38.28	23.93	31.48	29.60
11	37.03	36.92	33.90	15.93	31.54	18.18	31.70	35.43	38.55	23.18	30.89	29.11
12	36.87	36.96	34.30	26.81	31.91	18.03	31.65	34.73	38.49	26.60	31.52	28.57
13	30.85	30.00	34.72	28.27	31.99	17.58	31.22	34.94	34.20	27.35	32.81	28.85
14	26.17	25.52	34.77	29.03	31.45	18.13	31.16	35.17	27.89	27.51	33.50	29.49
15	24.89	24.35	34.43	29.66	32.13	18.43	31.23	35.42	36.43	28.48	33.07	29.25
16	24.19	27.52	34.23	29.57	32.40	18.21	31.63	35.52	37.93	28.62	34.46	29.62
17	23.62	34.18	33.92	30.58	32.46	18.74	32.19	35.17	37.69	28.87	34.26	29.56
18	23.09	35.02	30.12	30.99	31.76	18.24	32.07	35.51	37.49	29.07	32.25	29.63
19	22.89	34.97	28.25	30.83	31.35	18.40	32.04	35.67	37.53	29.39	31.14	29.71
20	22.31	35.79	28.10	30.71	30.98	18.43	32.00	35.96	38.06	29.57	30.86	29.66
21	22.71	36.97	27.74	32.10	29.82	18.20	31.83	37.06	37.14	29.55	30.65	29.57
22	22.09	35.50	26.39	33.21	29.91	16.92	31.69	37.12	36.83	30.17	31.25	29.17
23	21.86	34.33	25.34	33.40	30.12	26.43	32.25	37.39	37.17	30.78	31.25	29.16
24	21.56	33.73	22.57	33.84	30.60	27.64	32.88	37.61	37.12	31.45	31.35	29.46
25	21.50	34.06	24.79	34.05	31.40	28.31	33.11	36.97	37.41	31.92	31.19	29.55
26	21.49	35.06	25.71	33.72	31.08	28.99	33.57	36.68	33.05	32.08	31.62	29.90
27	21.43	34.69	25.67	33.63	31.19	29.51	33.62	36.19	31.81	31.51	33.46	30.14
28	21.66	35.28	18.21	33.99	31.40	29.82	33.49	36.92	31.24	29.51	34.46	30.25
29	25.87	35.73	25.13	34.34	---	28.11	33.77	37.22	30.34	28.77	35.05	30.23
30	32.79	35.86	25.37	34.59	---	28.12	34.18	37.44	30.01	28.78	33.64	30.41
31	34.51	---	24.52	35.13	---	28.15	---	37.53	---	29.54	32.52	---
MAX	41.71	38.25	35.57	35.13	34.51	29.82	34.18	37.61	38.55	32.08	35.05	31.38
MIN	21.43	24.35	18.21	15.93	29.82	16.92	28.57	34.35	27.89	23.18	30.16	28.57

WTR YR 1991 HIGH 15.93 LOW 41.71



GROUND-WATER LEVELS

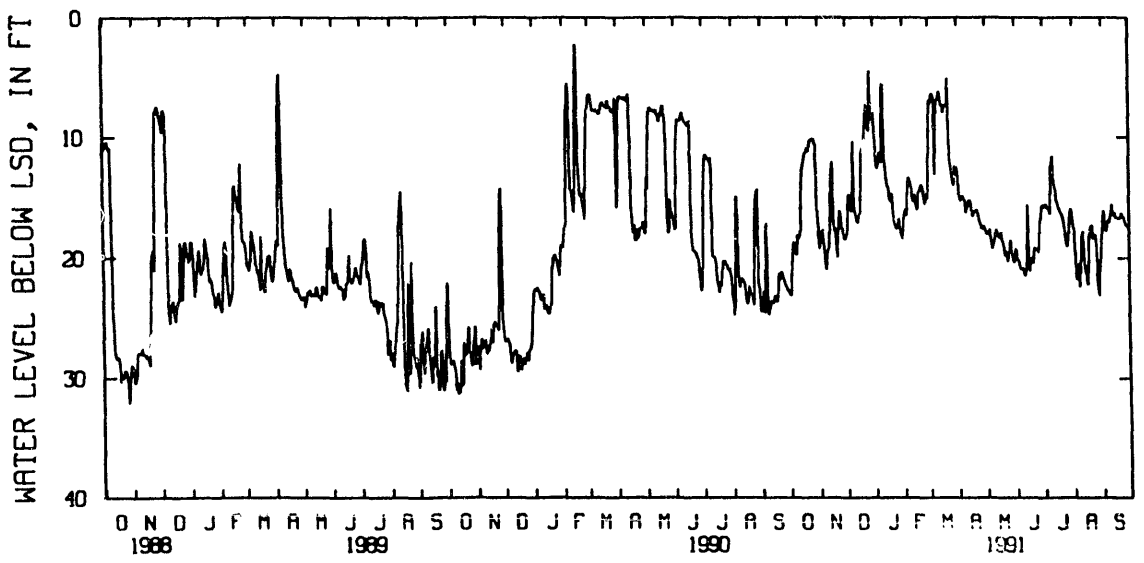
HARDIN COUNTY

374037085524801. Local number TW-2-82, map number 8.
LOCATION.--Lat 37°40'37", long 85°52'48", Hydrologic Unit 05110001, County Code 093, Cecilia quadrangle, 0.20 mi west of Elizabethtown Water Plant, 0.10 mi west on gravel road to sewage lagoon parallel to RR tracks, 400 ft south of RR tracks, 300 ft south of gravel road, 20 ft north of Valley Creek. Owner: City of Elizabethtown.
AQUIFER.--St. Louis Limestone of Late Mississippian age. Aquifer Code: 333STLS.
WELL CHARACTERISTICS.--Drilled unused artesian and water table well, diameter 6 in, depth 118 ft, with 14 ft of 8 in surface casing.
INSTRUMENTATION.--Digital recorder -- 30-minute punch.
DATUM.--Elevation of land-surface datum is 680.84 ft above National Geodetic Vertical Datum. Measuring point: Floor of shelter, 2.2 ft above land-surface datum.
REMARKS.--Water levels affected by pumping from nearby wells and stage of Valley Creek.
PERIOD OF RECORD.--September 1982 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level observed, 0.74 ft below land surface datum, Mar. 1, 1987; lowest, 41.96 ft below land-surface datum, Oct. 20, 1987.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY OBSERVATION AT 12:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.85	18.60	18.19	7.96	16.88	11.34	13.08	17.69	19.29	15.66	17.35	17.99
2	23.00	19.19	17.97	9.96	16.41	6.92	14.44	18.02	19.22	15.82	17.62	16.54
3	23.13	18.08	15.43	11.50	16.07	7.27	14.93	17.94	20.17	15.61	19.22	16.06
4	20.35	17.[illegible]	14.78	12.42	15.98	6.83	15.24	17.91	20.06	15.50	21.20	17.35
5	19.19	17.63	14.75	12.56	16.47	6.38	15.07	17.57	20.38	15.80	21.79	17.74
6	18.64	18.60	15.94	11.95	13.96	6.47	14.82	18.08	20.81	15.90	21.10	17.61
7	19.27	19.21	16.15	11.25	13.35	6.71	14.92	18.50	20.89	15.92	20.32	16.92
8	19.58	20.66	15.95	11.32	13.55	13.06	15.10	18.18	20.89	16.32	22.36	16.77
9	19.73	20.93	10.35	12.10	13.77	8.51	15.20	18.86	20.75	12.32	20.37	17.07
10	18.06	19.59	15.54	6.14	14.10	6.88	16.22	18.56	21.15	12.45	18.33	16.57
11	18.36	19.23	16.23	5.54	14.80	6.85	15.75	18.17	21.44	11.57	17.76	16.10
12	18.30	19.17	16.54	11.66	15.20	6.72	15.75	17.63	21.29	13.68	19.08	15.54
13	17.96	17.34	17.03	12.33	15.29	6.18	15.22	17.89	20.04	14.11	20.73	16.07
14	13.70	13.59	17.02	13.47	14.69	6.81	15.26	18.09	15.59	14.37	21.22	16.51
15	12.63	12.69	16.52	14.05	15.50	7.39	15.30	18.31	20.13	15.17	20.57	16.19
16	12.23	12.06	16.30	14.08	15.79	7.23	16.11	18.11	21.04	15.44	22.01	16.68
17	11.87	17.23	16.30	14.86	15.97	7.97	16.52	17.84	20.11	15.74	22.19	16.57
18	11.34	17.73	11.70	15.28	14.50	7.26	16.21	18.41	19.91	15.95	18.29	16.67
19	11.33	17.45	10.95	14.71	14.49	7.46	16.12	18.63	19.94	16.24	17.48	16.68
20	10.88	18.73	11.05	14.64	14.18	7.50	16.08	18.97	20.41	16.34	17.36	16.70
21	11.24	19.91	10.74	16.35	13.93	7.41	15.99	19.79	19.17	16.51	17.28	16.61
22	10.83	17.97	9.38	17.05	14.11	5.09	16.09	19.35	19.13	17.10	18.38	16.30
23	10.33	16.67	8.30	17.22	14.45	10.49	16.45	19.80	19.24	17.63	18.06	16.34
24	10.26	16.09	7.30	17.54	14.88	11.83	16.92	20.25	19.20	18.36	18.04	16.62
25	10.19	16.47	8.33	17.53	15.47	12.48	17.12	19.54	19.46	18.82	18.02	16.63
26	10.22	17.65	9.47	17.18	15.42	13.23	17.51	19.29	19.30	19.01	18.98	16.97
27	10.12	17.50	9.42	16.74	14.65	13.71	17.51	18.48	16.91	18.38	21.76	17.21
28	10.45	17.96	4.47	17.53	15.09	13.98	17.41	19.44	16.76	16.74	22.61	17.31
29	10.67	18.31	8.79	17.81	---	12.42	17.32	19.89	15.94	16.06	23.10	17.29
30	15.65	18.44	8.40	17.96	---	12.50	17.66	20.26	15.62	15.91	20.53	17.56
31	16.80	---	8.37	18.37	---	12.51	---	20.31	---	16.66	19.68	---
MAX	23.13	20.93	18.19	18.37	16.88	13.98	17.66	20.31	21.44	19.01	23.10	17.99
MIN	10.12	12.06	4.47	5.54	13.35	5.09	13.08	17.57	15.59	11.57	17.28	15.54

WTR YR 1991 HIGH 4.47 LOW 23.13



GROUND-WATER LEVELS

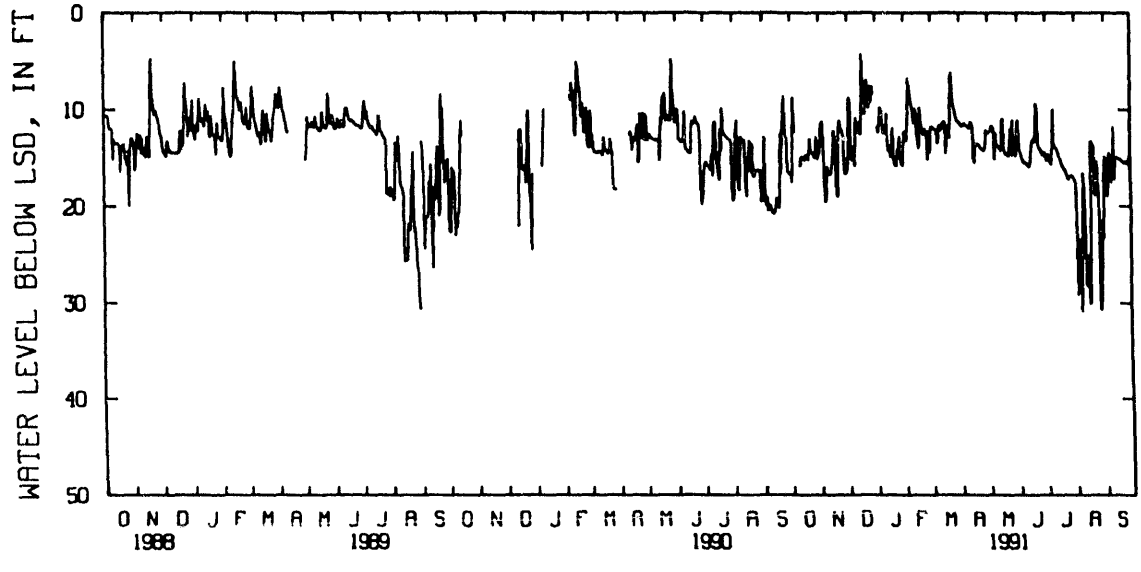
HARDIN COUNTY

374046085523501. Local number OW-1-81, map number 8.
LOCATION.--Lat 37°40'46", long 85°52'35", Hydrologic Unit 05110001, County Code 093, Cecilia quadrangle, at Elizabethtown Water Plant, 300 ft south of blue water tank, 25 ft east of engineer's office, next to gravel driveway. Owner: City of Elizabethtown.
AQUIFER.--St. Louis Limestone of Late Mississippian age. Aquifer Code: 333STLS.
WELL CHARACTERISTICS.--Drilled unused artesian and water table well, diameter 6 in, depth 100 ft, with 6 ft of 6 in surface casing.
INSTRUMENTATION.--Digital recorder -- 30-minute punch.
DATUM.--Elevation of land-surface datum is 685.89 ft above National Geodetic Vertical Datum. Measuring point: Floor of shelter, 1.9 ft above land-surface datum.
REMARKS.--Water levels affected by pumping from nearby wells.
PERIOD OF RECORD.--September 1982 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level observed, 4.25 ft below land surface datum, Dec. 17, 1990; lowest, 49.47 ft below land-surface datum, Oct. 8, 1987.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY OBSERVATION AT 12:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.80	14.49	16.38	---	12.48	12.16	11.39	12.34	11.19	14 85	17.31	15.57
2	16.54	14.63	14.93	---	12.30	11.75	11.53	12.46	11.20	15.32	17.41	14.86
3	17.55	11.58	8.77	11.80	12.40	11.90	11.63	12.34	14.07	14.84	24.60	15.24
4	8.71	11.39	9.29	12.40	13.31	11.97	11.73	12.21	14.35	14.61	29.19	18.99
5	10.93	11.25	15.21	11.39	11.72	12.04	11.48	11.71	14.60	15.25	24.93	18.65
6	12.48	13.36	15.25	9.79	6.72	12.09	11.49	11.88	15.12	15.38	23.30	16.21
7	---	18.00	13.84	10.00	7.74	12.07	11.60	11.90	15.34	15.72	24.70	14.49
8	---	19.56	13.93	11.17	8.58	13.51	11.72	15.18	15.55	14.14	30.86	14.81
9	---	19.25	15.86	12.05	9.27	12.22	11.67	12.38	15.45	9.97	21.05	17.59
10	---	15.86	10.88	12.50	9.72	11.62	11.83	13.92	15.65	13.98	16.54	16.31
11	15.67	16.59	12.01	12.33	10.82	12.21	11.92	13.72	15.63	13.76	19.15	15.99
12	15.87	16.72	12.31	12.43	11.43	12.23	12.00	13.81	15.55	13.96	24.15	11.80
13	14.97	16.70	12.52	10.42	9.87	11.40	11.29	13.98	15.94	14.04	28.21	17.27
14	14.91	16.72	11.25	13.59	10.39	12.00	11.68	14.21	15.81	14.34	28.28	15.12
15	14.99	15.58	12.11	14.31	12.70	11.25	11.61	14.28	15.40	14.64	25.00	14.87
16	15.13	15.44	12.62	13.77	13.39	11.44	15.42	11.05	14.07	14.97	28.90	15.02
17	15.27	12.17	4.25	14.50	14.02	14.56	15.50	10.98	13.13	15.24	30.11	15.02
18	14.67	13.11	7.74	14.95	9.77	11.65	13.66	13.95	13.16	15.56	13.30	15.18
19	14.84	16.03	10.05	12.68	11.35	12.32	13.56	14.45	13.02	15.85	13.47	15.02
20	14.89	18.75	10.52	11.93	11.88	12.76	13.54	14.60	13.44	15.98	13.68	15.25
21	15.22	19.06	9.25	15.40	12.45	12.98	13.64	14.69	9.34	16.15	13.85	15.34
22	12.99	12.72	6.93	15.67	12.65	6.83	13.69	14.56	10.02	16.34	18.96	15.32
23	14.17	11.19	7.26	15.82	12.00	6.19	13.92	14.82	13.56	16.56	16.93	15.51
24	14.34	11.87	9.80	15.75	12.52	8.61	14.06	13.16	13.89	16.82	15.32	15.53
25	14.52	12.05	9.72	14.05	13.05	9.37	14.07	11.98	14.12	17.13	16.60	15.29
26	14.67	12.23	7.52	15.00	15.19	9.98	14.24	14.84	14.14	17.24	21.05	15.45
27	14.90	12.74	9.31	12.79	12.21	10.54	14.16	11.06	14.42	16.90	28.94	15.61
28	15.06	16.04	7.58	14.95	14.47	10.87	14.07	14.03	14.75	16.85	30.73	15.63
29	12.87	16.68	8.50	15.69	---	11.15	12.14	12.87	14.57	16.87	30.36	14.91
30	13.72	16.61	---	15.44	---	11.22	12.24	14.72	14.41	16.85	21.32	16.30
31	15.19	---	---	15.83	---	11.29	---	14.82	---	17.12	23.33	---
MAX	---	19.56	---	---	15.19	14.56	15.50	15.18	15.94	17.24	30.86	18.99
MIN	---	11.19	---	---	6.72	6.19	11.29	10.98	9.34	9.97	13.30	11.80

WTR YR 1991 HIGH 4.25 LOW 30.86



HARDIN COUNTY

375958085575401. Local number, Hart number 1, map number 9.
LOCATION.--Lat 37°59'58", long 85°57'54", Hydrologic Unit 05140104, County Code 093, Ft. Knox quadrangle, 1.4 mi north of junction of U.S. Highway 31W and Kentucky State Highway 835, 1.1 mi downstream (west) of mouth of Salt River, on south bank of Ohio River, at West Point. Owner: Mr. Hart.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 100 ft, screened 97.3-100.3 ft.
INSTRUMENTATION.--Bi-Annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 429.61 ft, above National Geodetic Vertical Datum. Measuring point: Top of casing 3.27 ft above land-surface datum.
REMARKS.--Water levels affected by Ohio River.
PERIOD OF RECORD.--November 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.99 ft below land-surface datum, May 2, 1983; lowest measured, 46.39 ft below land-surface datum, Oct. 19, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	39.06	May 8, 1991	40.95

HENDERSON COUNTY

374441087421001. Map number 10.
LOCATION.--Lat 37°44'41", long 87°42'10", Hydrologic Unit 05140202, County Code 101, Poole quadrangle, in a vacant lot, 30 ft north of a gravel street, 100 ft south of U.S. Highway 60, near the center of Corydon. Owner: Town of Corydon.
AQUIFER.--Sturgis Formation of Late Pennsylvanian and early Permian age. Aquifer code: 321STRG. (Previously published as Lisman Formation of Late Pennsylvanian age. Aquifer Code: 321LSMN).
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in, depth 157 ft.
INSTRUMENTATION.--Six-week interval measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum (from topographic map) is about 435 ft. Measuring point: Floor of recorder shelter, 2.00 ft above land-surface datum.
PERIOD OF RECORD.--March 1952 to August 1983 and June 1988 to current year. March 1952 to September 1976 published in hydrograph form and on file at district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 61.82 ft below land-surface datum, July 29, 1976; lowest measured, 119.83 ft below land-surface datum, Nov. 24, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, OCTOBER 1990 TO SEPTEMBER 1991

Date	Water Level	Date	Water Level	Date	Water Level
Oct. 22, 1990	64.01	Mar. 5	63.15	July 8	62.48
Dec. 5	64.02	Apr. 9	62.64	Aug. 26	62.99
Jan. 24, 1991	63.11	May 20	62.77		

JEFFERSON COUNTY

380122085545001. Local number 80-1, map number 1.
LOCATION.--Lat 38°01'22", long 85°54'50", Hydrologic Unit 05140101, County Code 111, Kosmosdale quadrangle, 12 ft west of an old private driveway, 40 ft north of Kentucky Highway 44, 0.25 mi southeast of junction of U.S. Highway 31W and Kentucky Highway 44, 0.9 mi southwest of Kosmosdale. Owner: Jefferson County.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 100 ft, screened 93.0-95.0 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 431.64 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 2.00 ft above land-surface datum.
PERIOD OF RECORD.--May 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.74 ft below land-surface datum, Apr. 30, 1984; lowest measured, 42.66 ft below land-surface datum, Oct. 19, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	38.52	May 8, 1991	31.65

380252085530601. Local number 79-3, map number 2.
LOCATION.--Lat 38°02'52", long 85°53'06", Hydrologic Unit 05140101, County Code 111, Kosmosdale quadrangle, on the south side of the first building inside the gate at Old Boone Distillery, at the south end of Bohannon Avenue, 0.9 mi south of Pendleton Road, 1.5 mi northeast of Kosmosdale. Owner: Ronald Clark.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled used water-table well, diameter 12 in, depth 90 ft cased and screened.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 440.75 ft above National Geodetic Vertical Datum. Measuring point: Top of metal well cover, 0.70 ft above land-surface datum.
REMARKS.--Water levels affected by pumping.
PERIOD OF RECORD.--March 1979 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.08 ft below land-surface datum, May 8, 1991; lowest measured, 40.75 ft below land-surface datum, Oct. 18, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	34.67	May 8, 1991	32.08

380308085533501. Local number 79-4, map number 3.
LOCATION.--Lat 38°03'08", long 85°53'35", Hydrologic Unit 05140101, County Code 111, Kosmosdale quadrangle, at 14045 Richie Lane, between farmhouse and fishing lake, 400 ft east of Dixie Highway, and 1.4 mi northeast of Kosmosdale. Owner: Nugent Fishing Lake.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled used water-table well, diameter 6 in, depth 83 ft, screened 73-83 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 440.74 ft above National Geodetic Vertical Datum. Measuring point: Top of metal well cover, 2.00 ft above land-surface datum.
REMARKS.--Water levels affected by pumping.
PERIOD OF RECORD.--March 1979 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.49 ft below land-surface datum, May 8, 1991; lowest measured, 43.15 ft below land-surface datum, June 15, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	37.97	May 8, 1991	33.49

JEFFERSON COUNTY

380341085534501. Local number 83-1, map number 4.
LOCATION.--Lat 38°03'41", long 85°53'45", Hydrologic Unit 05140101, County Code 111, Kosmosdale quadrangle, across street from 135111 Wilken Way, at east edge of Watson Lane Elementary School playground, 8 ft west of blacktop pavement, 9 ft east of a powerline pole, 2 mi north of Kosmosdale, in Meadow Lawn subdivision. Owner: Jefferson County.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 64 ft, screened 62-64 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 441.25 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--March 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.13 ft below land-surface datum, May 8, 1991; lowest measured, 44.68 ft below land-surface datum, Oct. 18, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	40.68	May 8, 1991	35.13

380423085541501. Local number, Genewien number 2, map number 5.
LOCATION.--Lat 38°04'23", long 85°54'15", Hydrologic Unit 05140101, County Code 111, Kosmosdale quadrangle, 31 ft south of Louisville Gas & Electric power line pole number 47, 33 ft west of center line of Cane Run Road, 0.7 mi south of Orell Road, 1.5 mi north of Louisville Gas & Electric Mill Creek Generating Plant, 2.5 mi north of Kosmosdale. Owner: Jefferson County.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 65 ft, screened 63-65 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 431.49 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 2.00 ft above land-surface datum.
PERIOD OF RECORD.--April 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.42 ft below land-surface datum, Apr. 30, 1984; lowest measured, 44.32 ft below land-surface datum, Oct. 19, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	36.61	May 8, 1991	35.56

380434085525101. Local number E-1-d, map number 6.
LOCATION.--Lat 38°04'34", long 85°52'51", Hydrologic Unit 05140101, County Code 111, Kosmosdale quadrangle, 7 ft east of the east bank of a drainage ditch, 18 ft west of a fence, 39 ft south of a cable gate, 200 ft west of Old Orell Road, 400 ft south of Old Dixie Highway in Valley Station. Owner: Metropolitan Sewer District.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2 in, depth 74.5 ft, screened 71-74 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 430.39 ft above National Geodetic Vertical Datum. Measuring point: Top edge of metal well cover, at land-surface datum.
REMARKS.--EPA, Mill Creek EIS test well.
PERIOD OF RECORD.--October 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.33 ft below land-surface datum, May 8, 1991; lowest measured, 27.13 ft below land-surface datum, Oct. 18, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	23.33	May 8, 1991	20.33

JEFFERSON COUNTY

380458085523201. Local number 86-4, map number 7.
LOCATION.--Lat 38°04'58", long 85°52'32", Hydrologic Unit 05140101, County Code 111, Kosmosdale quadrangle, southeast of the first 90° curve on Deering Road off of Dixie Highway, 26' north of ash tree, and 10' east along ditch. Owner: Metropolitan Sewer District.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 1.5 in, depth 45.4 ft, screened 43-45 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 437.71 ft above National Geodetic Vertical Datum. Measuring point: Top of casing at ground level.
PERIOD OF RECORD.--October 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.80 ft below land-surface datum, May 8, 1991; lowest measured, 31.60 ft below land-surface datum, Oct. 18, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	27.98	May 8, 1991	25.80

380517085535201. Local number 77-1, map number 8.
LOCATION.--Lat 38°05'17", long 85°53'52", Hydrologic Unit 05140101, County Code 111, Kosmosdale quadrangle, the north edge of gravel entrance road to southwest Jefferson County sewage pumping station, 125 ft east of the center line of Lower River Road, 0.4 mi north of Orell Road, 0.2 mi east of Ohio River, and 1.5 mi southwest of Valley Station. Owner: Metropolitan Sewer District.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.25 in, depth 83.2 ft, screened 80.2-83.2 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 444.96 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 1.00 ft above land-surface datum.
PERIOD OF RECORD.--October 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.81 ft below land-surface datum, Apr. 30, 1984; lowest measured, 57.75 ft below land-surface datum, Nov. 10, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	48.57	May 8, 1991	47.17

380532085515301. Local number 51-5-2, (76-1), map number 9.
LOCATION.--Lat 38°05'32", long 85°51'53", Hydrologic Unit 05140102, County Code 111, Valley Station quadrangle, in back yard at 11212 Deering Road in Valley Station. Owner: Jim Robinson.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 88 ft, screened 85-88 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 458.24 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 0.30 ft above land-surface datum.
REMARKS.--Water-level elevations previously published referenced to National Geodetic Vertical Datum.
PERIOD OF RECORD.--May 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.03 ft below land-surface datum, June 24, 1980; lowest measured, 46.73 ft above land-surface datum, Oct. 31, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	42.64	May 8, 1991	41.55

GROUND-WATER LEVELS

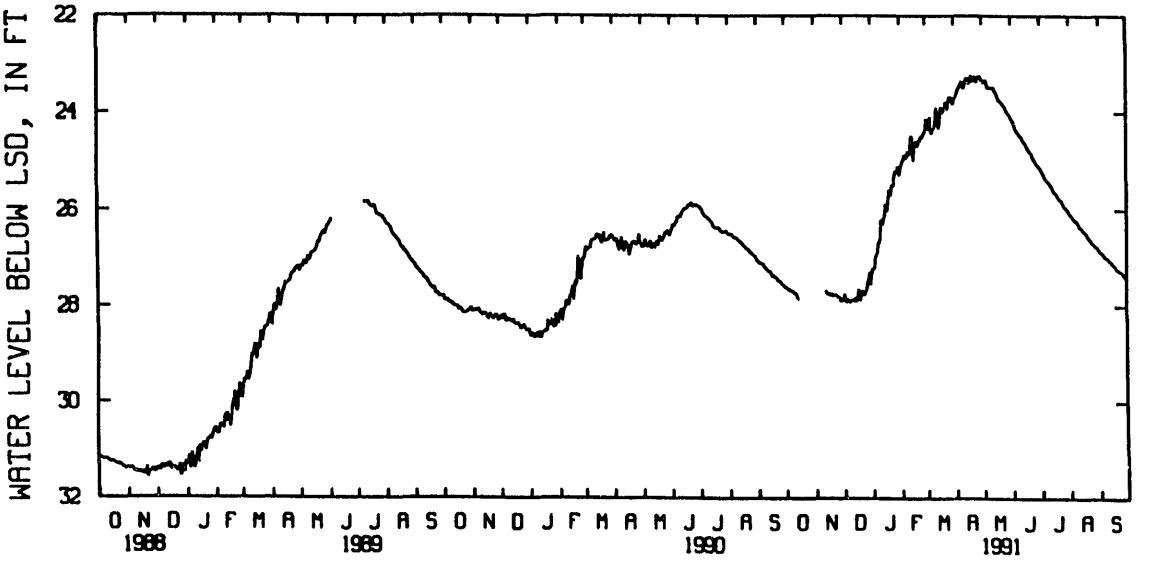
JEFFERSON COUNTY

380606085531301. Local number 53-6-1, (RR-46), map number 10.
LOCATION.--Lat 38°06'06", long 85°53'13", Hydrologic Unit 05140101, County Code 111, Kosmosdale quadrangle, at entrance to Sun Valley Park, 20 ft south of Bethany Lane, 0.2 mi east of Lower River Road, in Valley Station. Owner: Jefferson County.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 92 ft, screened 88-90 ft.
INSTRUMENTATION.--Digital recorder -- 60-minute punch.
DATUM.--Elevation of land-surface datum is 433.89 ft above National Geodetic Vertical Datum. Measuring point: Floor of recorder shelter, 2.93 ft above land-surface datum.
PERIOD OF RECORD.--July 1945 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.14 ft below land-surface datum, May 19, 1975; lowest, 40.87 ft below land-surface datum, Feb. 19, 1961.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY OBSERVATION AT 12:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.60	---	27.86	27.33	25.28	24.34	23.69	23.32	24.12	25.14	26.07	26.83
2	27.61	---	27.87	27.22	25.13	24.13	23.69	23.39	24.15	25.17	26.09	26.86
3	27.62	---	27.76	27.23	25.07	24.31	23.64	23.36	24.18	25.21	26.11	26.88
4	27.63	---	27.89	27.20	25.01	24.32	23.59	23.33	24.23	25.25	26.14	26.89
5	27.66	---	27.92	26.98	24.96	24.35	23.52	23.34	24.30	25.29	26.17	26.90
6	27.66	---	27.85	26.94	24.87	24.09	23.49	23.40	24.35	25.33	26.19	26.94
7	27.67	---	27.88	26.89	24.91	24.38	23.44	23.48	24.38	25.36	26.22	26.96
8	27.69	---	27.90	26.70	24.95	24.43	23.40	23.50	24.40	25.39	26.22	26.98
9	27.69	---	27.92	26.66	24.89	24.33	23.35	23.47	24.43	25.42	26.23	26.99
10	27.70	---	27.89	26.62	24.79	24.34	23.44	23.48	24.46	25.43	26.28	27.01
11	27.74	---	27.88	26.21	24.87	24.28	23.50	23.50	24.48	25.47	26.32	27.03
12	27.73	---	27.86	26.22	24.87	24.14	23.46	23.48	24.51	25.49	26.35	27.05
13	27.74	27.68	27.87	26.30	24.54	23.90	23.33	23.47	24.56	25.52	26.36	27.06
14	27.82	27.73	27.91	26.18	24.48	24.09	23.29	23.51	24.59	25.57	26.38	27.08
15	27.84	27.75	27.82	26.11	24.78	24.31	23.28	23.56	24.61	25.61	26.41	27.11
16	27.85	27.73	27.90	25.88	24.99	24.31	23.40	23.58	24.64	25.64	26.44	27.13
17	---	27.76	27.83	26.02	24.71	24.06	23.37	23.62	24.68	25.65	26.45	27.15
18	---	27.76	27.65	26.00	24.61	23.88	23.32	23.68	24.72	25.67	26.47	27.16
19	---	27.74	27.88	25.76	24.60	23.99	23.23	23.73	24.76	25.70	26.49	27.20
20	---	27.77	27.87	25.59	24.70	24.00	23.36	23.75	24.80	25.74	26.53	27.23
21	---	27.78	27.72	25.71	24.66	23.89	23.33	23.77	24.82	25.77	26.56	27.24
22	---	27.76	27.68	25.68	24.56	23.90	23.26	23.79	24.82	25.79	26.59	27.25
23	---	27.76	27.69	25.48	24.59	23.78	23.25	23.81	24.89	25.80	26.62	27.27
24	---	27.77	27.78	25.51	24.49	23.86	23.34	23.84	24.94	25.83	26.65	27.28
25	---	27.79	27.73	25.51	24.51	23.93	23.37	23.86	24.97	25.87	26.68	27.28
26	---	27.81	27.71	25.32	24.50	23.77	23.28	23.90	25.00	25.91	26.70	27.30
27	---	27.81	27.62	25.23	24.44	23.67	23.24	23.94	25.04	25.94	26.72	27.34
28	---	27.82	27.49	25.20	24.41	23.75	23.26	24.00	25.07	25.96	26.74	27.37
29	---	27.89	27.42	25.22	---	23.67	23.24	24.02	25.09	25.97	26.76	27.39
30	---	27.90	27.30	25.11	---	23.81	23.33	24.03	25.11	26.00	26.77	27.41
31	---	---	27.55	25.28	---	23.81	---	24.07	---	26.04	26.79	---
MAX	---	---	27.92	27.33	25.28	24.43	23.69	24.07	25.11	26.04	26.79	27.41
MIN	---	---	27.30	25.11	24.41	23.67	23.23	23.32	24.12	25.14	26.07	26.83

WTR YR 1991 HIGH 23.23 LOW 27.92



JEFFERSON COUNTY

380616085532801. Local number 53-6-4, (TW-3), map number 11.
LOCATION.--Lat 38°06'16", long 85°53'28", Hydrologic Unit 05140101, County Code 111, Kosmosdale quadrangle, at the old Louisville Extension Water District Treatment Plant, 500 ft northwest of the junction of Lower River Road and Bethany Lane, in Louisville. Owner: Louisville Water Company.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Driven unused water-table well, diameter 2 in, depth 120 ft, screened 118-120 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 448.21 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 1.00 ft above land-surface datum.
PERIOD OF RECORD.--March 1962 to current year. March 1962 to September 1976 published in hydrograph form and on file at district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 36.97 ft below land-surface datum, May 22, 1975; lowest measured, 71.21 ft below land-surface datum, Nov. 10, 1965.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	43.56	May 8, 1991	39.06

380619085512301. Local number 86-3, map number 12.
LOCATION.--Lat 38°06'19", long 85°51'23", Hydrologic Unit 05140101, County Code 111, Valley Station quadrangle, northwest side of Valley Station and Grafton Hall Roads, 21.0 ft northwest of north corner of drain, and 17.4 ft northeast of telephone pole. Owner: Metropolitan Sewer District.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 1.5 in, depth 55 ft, screened 52-55 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 455.03 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 0.20 ft above land-surface datum.
PERIOD OF RECORD.--October 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.74 ft below land-surface datum, May 8, 1991; lowest measured, 38.90 ft below land-surface datum, Oct. 18, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	35.62	May 8, 1991	34.74

380637085521301. Local number D-1-d, map number 13.
LOCATION.--Lat 38°06'37", long 85°52'13", Hydrologic Unit 05140101, County Code 111, Valley Station quadrangle, 6 ft east of the east bank of 600 Tributary Creek, 14 ft west of a chain link fence, 30 ft south of a locked cable gate, 190 ft south of Alanadale Drive at a concrete bridge in Louisville. Owner: Metropolitan Sewer District.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 89.7 ft, screened 86.7-89.7.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 441.1 ft above National Geodetic Vertical Datum. Measuring point: Top of edge of metal well cover, at land-surface datum.
REMARKS.--EPA, Mill Creek EIS test well.
PERIOD OF RECORD.--October 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.39 ft below land-surface datum, Oct. 29, 1980; lowest measured, 27.32 ft below land-surface datum, Oct. 27, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	24.19	May 8, 1991	22.88

JEFFERSON COUNTY

380709085531101. Local number C-5-m, map number 14.
LOCATION.--Lat 38°07'09", long 85°53'11", Hydrologic Unit 05140101, County Code 111, Kosmosdale quadrangle, 3 ft west of a gravel field road, 20 ft west of west bank of Mill Creek, 550 ft northwest of Johnsontown Road, in Louisville. Owner: Metropolitan Sewer District.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 51.5 ft, screened 48.5-51.5 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 427.1 ft above National Geodetic Vertical Datum. Measuring point: Top edge of metal well cover, at land-surface datum.
REMARKS.--EPA, Mill Creek EIS test well.
PERIOD OF RECORD.--October 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.55 ft below land-surface datum, May 7, 1991; lowest measured, 19.95 ft below land-surface datum, Oct. 19, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 31, 1990	16.84	May 7, 1991	13.55

380716085521801. Local number 52-7-2, (RR-47), map number 15.
LOCATION.--Lat 38°07'16", long 85°52'18", Hydrologic Unit 05140101, County Code 111, Valley Station quadrangle, at 5510 Johnsontown Road, 0.9 mi west of junction of Dixie Highway and Johnsontown Road, on the south shoulder of Johnsontown Road, in Valley Station. Owner: Jefferson County.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 103 ft, screened 101.5-103.0 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 449.91 ft above National Geodetic Vertical Datum. Measuring point: Top of plug, 2.50 ft above land-surface datum.
PERIOD OF RECORD.--July 1945 to current year. July 1945 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.56 ft below land-surface datum, Apr. 16, 1980; lowest measured, 42.20 ft below land-surface datum, Mar. 27, 1961.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	32.56	May 7, 1991	31.13

380718085515802. Local number C-3-s, map number 16.
LOCATION.--Lat 38°07'18", long 85°51'58", Hydrologic Unit 05140101, County Code 111, Valley Station quadrangle, 6 ft west of west bank of 600 Tributary Creek, 30 ft of the southeast corner of a chain link fence dog pen, 160 ft north of Johnsontown Road at a concrete bridge, in Louisville. Owner: Metropolitan Sewer District.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 39.0 ft, screened 36-39 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 443.2 ft above National Geodetic Vertical Datum. Measuring point: Top edge of metal well cover, at land-surface datum.
REMARKS.--EPA, Mill Creek EIS test well. Replaces well 380718085515801 (C-3-d).
PERIOD OF RECORD.--April 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.38 ft. below land-surface datum, Apr. 23, 1985; lowest measured, 27.39 below land-surface datum, Apr. 26, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	24.64	May 7, 1991	23.91

JEFFERSON COUNTY

380718085524202. Local number C-4-m, map number 17.
LOCATION.--Lat 38°07'18", long 85°52'42", Hydrologic Unit 05140101, County Code 111, Kosmosdale quadrangle, 10 ft west of a gravel field road, 65 ft north of a metal gate, 72 ft south of a concrete culvert, 115 ft east of east bank of Black Pond Creek, 126 ft north of Johnsontown Road, in Louisville. Owner: Metropolitan Sewer District.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 49.2 ft, screened 46.2-49.2 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 432.1 ft above National Geodetic Vertical Datum. Measuring point: Top edge of metal well cover, at land-surface datum.
REMARKS.--EPA, Mill Creek EIS test well. Replaces destroyed well 380718085524201 (C-4-d).
PERIOD OF RECORD.--November 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.24 ft below land-surface datum, Oct. 29, 1980; lowest measured, 20.61 ft below land-surface datum, Oct. 19, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	17.63	May 7, 1991	15.65

380816085520701. Local number 52-8-1, map number 18.
LOCATION.--Lat 38°08'16", long 85°52'07", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, between the house and a tool shed at a vegetable farm, 0.5 mi south of Greenwood Road, 0.1 mi west of Canna Road, in Louisville. Owner: Anna Dohn.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Dug unused water-table well, diameter 30 in, depth 70 ft, shored.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 457.47 ft above National Geodetic Vertical Datum. Measuring point: Top of wooden well cover, 0.62 ft above land-surface datum.
REMARKS.--Water level affected by pumping from nearby well.
PERIOD OF RECORD.--November 1943 to current year. November 1943 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.13 ft below land-surface datum, Oct. 27, 1980; lowest measured, 51.20 ft below land-surface datum, Feb. 10, 1945.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 31, 1990	38.38	May 7, 1991	37.29

380827085503001. Local number 86-5, map number 19.
LOCATION.--Lat 38°08'27", long 85°50'30", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, South of Dixie Highway and Greenwood Road, west on Seibel Court, 17.9 ft east of south corner of culvert wall behind Little Reds Mister Fix It. Owner: Metropolitan Sewer District.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 1.5 in, depth 44 ft, screened 42-44 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 453.75 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--October 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.44 ft below land-surface datum, May 8, 1991; lowest measured, 31.70 ft below land-surface datum, Oct. 18, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 31, 1990	29.18	May 8, 1991	28.44

JEFFERSON COUNTY

380843085530701. Local number B-3-d, map number 20.
LOCATION.--Lat 38°08'43", long 85°53'07", Hydrologic Unit 05140101, County Code 111, Lanesville quadrangle, in a field 60 ft east of southeast corner of church yard fence, 200 ft southeast of Greenwood Road, 300 ft west of Mill Creek, in Louisville. Owner: Metropolitan Sewer District.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2 in, depth unknown, screened interval unknown.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 424.9 ft above National Geodetic Vertical Datum. Measuring point: Top edge of metal well cover, at land-surface datum.
REMARKS.--EPA, Mill Creek EIS test well.
PERIOD OF RECORD.--October 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.78 ft below land-surface datum, Oct. 29, 1980; lowest measured, 18.69 ft below land-surface datum, Oct. 19, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	15.07	May 7, 1991	12.04

380843085522801. Local number B-2-d, map number 21.
LOCATION.--Lat 38°08'43", long 85°52'28", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 6 ft west of west bank of Pond Creek, 75 ft north of Greenwood Road at bridge over Black Pond Creek, in Louisville. Owner: Metropolitan Sewer District.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2 in, depth 95.3 ft, screened 94-97.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 443.4 ft above National Geodetic Vertical Datum. Measuring point: Top edge of metal well cover, at land-surface datum.
REMARKS.--EPA, Mill Creek EIS test well.
PERIOD OF RECORD.--October 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.01 ft below land-surface datum, Oct. 29, 1980; lowest measured, 29.40 ft below land-surface datum, Oct. 19, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 31, 1990	26.19	May 7, 1991	25.28

380846085520101. Local number B-1-d, map number 22.
LOCATION.--Lat 38°08'46", long 85°52'01", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 10 ft south of south bank of a drainage ditch, 75 ft west of Waller Lane, 650 ft north of junction of Waller Lane and Greenwood Road, in Louisville. Owner: Metropolitan Sewer District.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 83.7 ft, screened 81-84 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 451.3 ft above National Geodetic Vertical Datum. Measuring point: Top edge of metal well cover, at land-surface datum.
REMARKS.--EPA, Mill Creek EIS test well.
PERIOD OF RECORD.--October 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.98 ft below land-surface datum, Oct. 29, 1980; lowest measured, 34.78 ft below land-surface datum, Oct. 19, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 31, 1990	32.10	May 7, 1991	30.96

JEFFERSON COUNTY

380850085534701. Local number 78-2, map number 23.
LOCATION.--Lat 38°08'50", long 85°53'47", Hydrologic Unit 05140101, County Code 111, Lanesville quadrangle, at the southwest corner of Cane Run Road and Greenwood Road, 25 ft west of Cane Run Road, 44 ft south of Greenwood Road, and 0.4 mi east of Ohio River, in Louisville. Owner: Jefferson County.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 86.6 ft, screened 84.6-86.6 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 450.07 ft above National Geodetic Vertical Datum. Measuring point: Top of casing at land-surface datum.
PERIOD OF RECORD.--May 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.68 ft below land-surface datum, May 2, 1979; lowest measured, 50.62 ft below land-surface datum, Oct. 19, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	47.16	May 7, 1991	42.05

380852085515901. Local number 51-8-1, map number 24.
LOCATION.--Lat 38°08'52", long 85°51'59", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at the rear of a house, 100 ft west of Waller Lane, 0.2 mi north of Greenwood Road, 1.5 mi east of lower River Road, in Louisville. Owner: Mrs. Ethel Waller.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Dug unused water-table well, diameter 36 in, depth 50 ft, shored.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 456.75 ft above National Geodetic Vertical Datum. Measuring point: Top of concrete well cover, 0.30 ft above land-surface datum.
REMARKS.--Water-quality samples Apr. 4, 1944 and July 25, 1945.
PERIOD OF RECORD.--November 1943 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.76 ft below land-surface datum, June 24, 1980; lowest measured, 47.48 ft below land-surface datum, Jan. 24, 1956.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 31, 1990	38.33	May 7, 1991	36.14

380940085514001. Local number 81-1, map number 25.
LOCATION.--Lat 38°09'40", long 85°51'40", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 7 ft west of a fence corner, 10 ft east of center of a gravel road, 20 ft north of the west bank of Black Pond Creek, 40 ft north of northeast corner of concrete bridge, 400 ft south of Lower Hunters Trace, 1.5 mi west of Dixie Highway, in Louisville. Owner: Metropolitan Sewer District.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 70.0 ft, screened 63.0-65.0 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS annual personnel.
DATUM.--Elevation of land-surface datum is 444.58 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--April 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.57 ft below land-surface datum, Apr. 26, 1985, May 7, 1991; lowest measured, 26.40 ft below land-surface datum, Oct. 19, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 31, 1990	23.74	May 7, 1991	22.57

JEFFERSON COUNTY

380955085531801. Local number 83-2, map number 26.
LOCATION.--Lat 38°09'55", long 85°53'18", Hydrologic Unit 05140101, County Code 111, Lanesville quadrangle, 19 ft northwest of a fire plug, 22 ft south of concrete curb on Riverport Drive, 100 ft southeast of a concrete bridge and drainage ditch, 3 mi northwest of Pleasure Ridge Park. Owner: Jefferson County.
AQUIFER.--Glacial and and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 97 ft, screened 95-97 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 441.8 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--July 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.92 ft below land-surface datum, May 7, 1991; lowest measured, 40.04 ft below land-surface datum, Oct. 27, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	36.71	May 7, 1991	31.92

381011085491601. Local number 86-1, map number 27.
LOCATION.--Lat 38°10'11", long 85°49'16", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, southwest of intersection of Dixie Highway and Rockford Lane, in rear of house at 1601 Brick Brick Kiln Lane, in Louisville. Owner: Jefferson County Tow Service.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 2.5 in, depth 58 ft, screened 56-58 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 459.29 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 1.0 ft above land-surface datum.
PERIOD OF RECORD.--October 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.63 ft below land-surface datum, May 8, 1991; lowest measured, 34.29 ft below land-surface datum, Oct. 18, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 31, 1990	31.76	May 8, 1991	30.63

381032085525601. Local number 78-3, map number 28.
LOCATION.--Lat 38°10'32", long 85°52'56", Hydrologic Unit 05140101, County Code 111, Lanesville quadrangle, at the southwest corner of Cane Run Road and Lower Hunters Trace, 20 ft south of Cane Run Road, 100 ft west of Lower Hunters Trace, and 0.8 mi east of Ohio River, in Louisville. Owner: Jefferson County.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 86.7 ft, screened 84.7-86.7 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 448.90 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--May 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.75 ft below land-surface datum, May 23, 1978; lowest measured, 45.86 ft below land-surface datum, Oct. 19, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	42.84	May 6, 1991	well destroyed

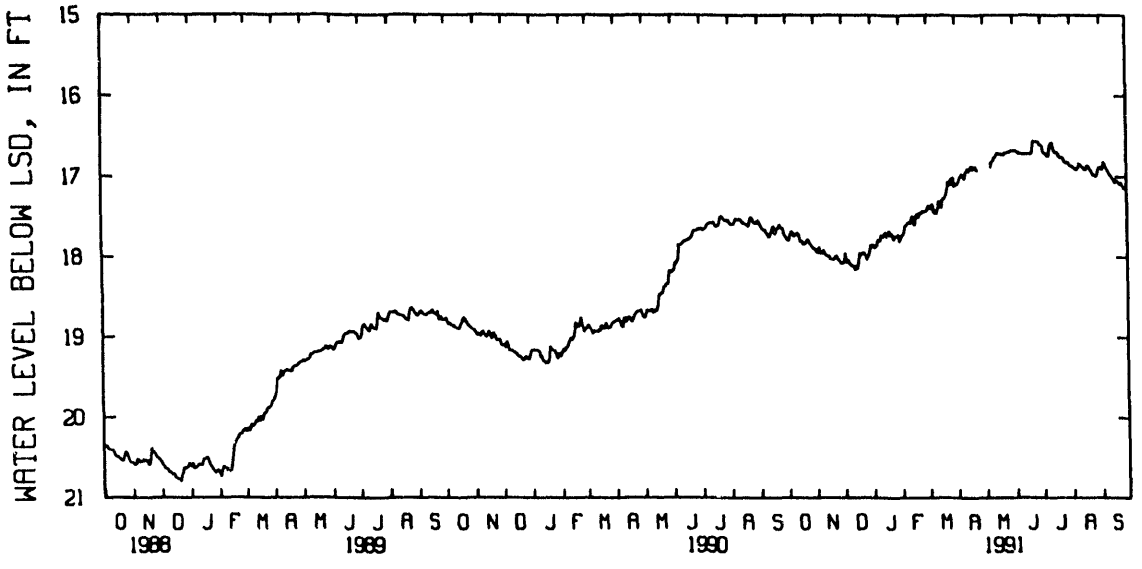
JEFFERSON COUNTY

381034085502601. Local number 50-10-2 (RR-30), map number 29.
LOCATION.--Lat 38°10'34", long 85°50'26", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, on south edge of Rockford Lane near west bank of Mill Creek, in Shively. Owner: Jefferson County.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 94 ft, screened 90-92 ft.
INSTRUMENTATION.--Digital recorder -- 60-minute punch.
DATUM.--Elevation of land-surface datum is 442.96 ft above National Geodetic Vertical Datum. Measuring point: Floor of recorder shelter, 4.31 ft above land-surface datum.
REMARKS.--Water-quality sample May 6, 1945.
PERIOD OF RECORD.--April 1945 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level observed, 15.38 ft below land-surface datum, Apr. 14, 1980; lowest 31.55 ft below land-surface datum, Apr. 2, 1957.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY OBSERVATION AT 12:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.78	17.90	18.06	17.85	17.78	17.39	17.10	---	16.68	16.61	16.87	16.89
2	17.79	17.93	18.07	17.84	17.75	17.36	17.10	---	16.68	16.63	16.87	16.90
3	17.79	17.94	17.95	17.88	17.73	17.39	17.08	---	16.68	16.69	16.88	16.92
4	17.72	17.93	18.06	17.88	17.71	17.40	17.06	---	16.69	16.71	16.89	16.87
5	17.69	17.87	18.07	17.85	17.69	17.40	17.02	---	16.69	16.71	16.90	16.82
6	17.68	17.95	18.03	17.86	17.61	17.34	17.00	---	16.71	16.72	16.91	16.87
7	17.71	17.94	18.06	17.80	17.60	17.45	16.99	---	16.71	16.74	16.92	16.89
8	17.74	17.96	18.08	17.78	17.59	17.45	16.97	16.89	16.72	16.74	16.90	16.90
9	17.74	17.93	18.10	17.80	17.57	17.41	17.00	16.82	16.72	16.75	16.89	16.93
10	17.70	17.91	18.10	17.79	17.56	17.46	17.03	16.83	16.72	16.62	16.84	16.94
11	17.73	17.95	18.11	17.72	17.58	17.42	17.02	16.81	16.72	16.61	16.86	16.97
12	17.70	17.97	18.11	17.73	17.57	17.36	16.95	16.77	16.72	16.58	16.87	16.98
13	17.70	17.98	18.14	17.75	17.49	17.30	16.93	16.76	16.73	16.59	16.88	16.99
14	17.73	17.98	18.16	17.72	17.49	17.34	16.90	16.75	16.72	16.65	16.89	17.01
15	17.79	17.99	18.10	17.70	17.57	17.39	16.94	16.72	16.72	16.69	16.91	17.03
16	17.81	17.98	18.15	17.69	17.60	17.37	16.91	16.71	16.72	16.70	16.92	17.04
17	17.79	18.02	18.08	17.74	17.53	17.28	16.90	16.72	16.72	16.70	16.91	17.07
18	17.82	18.02	17.94	17.75	17.47	17.28	16.87	16.73	16.72	16.70	16.88	17.07
19	17.84	18.02	17.99	17.69	17.46	17.27	16.92	16.72	16.72	16.72	16.86	17.05
20	17.83	18.03	17.97	17.67	17.51	17.25	16.90	16.72	16.72	16.75	16.89	17.06
21	17.83	18.02	17.95	17.73	17.45	17.23	16.88	16.73	16.72	16.76	16.91	17.06
22	17.82	18.01	17.95	17.73	17.45	17.17	16.88	16.74	16.56	16.77	16.92	17.08
23	17.78	17.99	17.94	17.70	17.46	17.06	16.92	16.71	16.57	16.76	16.95	17.10
24	17.78	17.98	17.98	17.75	17.42	17.11	16.92	16.71	16.57	16.77	16.97	17.07
25	17.79	18.02	17.98	17.78	17.44	17.11	16.92	16.71	16.57	16.79	16.98	17.09
26	17.83	18.03	18.03	17.75	17.43	17.04	---	16.70	16.57	16.82	16.98	17.12
27	17.84	18.04	17.99	17.73	17.43	17.02	---	16.70	16.57	16.83	16.99	17.14
28	17.87	18.06	17.98	17.74	17.42	17.11	---	16.70	16.57	16.83	17.00	17.15
29	17.88	18.08	17.93	17.73	---	17.01	---	16.69	16.61	16.82	16.96	17.13
30	17.89	18.08	17.85	17.71	---	17.13	---	16.68	16.61	16.84	16.90	17.14
31	17.89	---	17.88	17.80	---	17.08	---	16.68	---	16.87	16.89	---
MAX	17.89	18.08	18.16	17.88	17.78	17.46	---	---	16.73	16.87	17.00	17.15
MIN	17.68	17.87	17.85	17.67	17.42	17.01	---	---	16.56	16.58	16.84	16.82

WTR YR 1991 HIGH 16.56 LOW 18.16



JEFFERSON COUNTY

381050085511001. Local number 51-10-1, (RR-29), map number 30.
LOCATION.--Lat 38°10'50", long 85°51'10", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 50 ft south of Rockford Lane, at the edge of an apartment house parking area, 0.3 mi southeast of the junction of Cane Run Road and Rockford Lane. Owner: Jefferson County.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 64 ft, screened 62.5-64.0 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 444.18 ft above National Geodetic Vertical Datum. Measuring point: Top of plug, 3.60 ft above land-surface datum.
REMARKS.--Water-quality sample Apr. 3, 1945.
PERIOD OF RECORD.--April 1945 to current year. April 1945 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.80 ft below land-surface datum, Apr. 16, 1980; lowest measured, 37.61 ft below land-surface datum, Mar. 21, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	25.14	May 7, 1991	24.08

381102085512102. Local number 51-11-2, map number 31.
LOCATION.--Lat 38°11'02", long 85°51'21", Hydrologic Unit 05140101, County Code 111, at the east edge of a barn, behind a farmhouse at 4816 Cane Run Road, 650 ft southwest of the junction of Cane Run Road and Lees Lane, in Louisville. Owner: Kaufman Brothers.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Driven unused water-table well, diameter 2.5 in, depth 53 ft, case and screened.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 452.26 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 0.35 ft above land-surface datum.
REMARKS.--Water-quality samples Apr. 4, 1944 to July 15, 1981.
PERIOD OF RECORD.--January 1944 to current year. January 1944 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 36.65 ft below land-surface datum, May 6, 1991; lowest measured, 50.10 ft below land-surface datum, Feb. 9, 1945.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	38.30	May 6, 1991	36.65

381102085485601. Local number 86-2, map number 32.
LOCATION.--Lat 38°11'02", long 85°48'56", Hydrologic Unit 05140101, County Code 111, Louisville West quad quadrangle, enter through Louisville Memorial Park Cemetery, on south bank of Mill Creek behind Korfhage Florist, 18.2 ft southwest of MSD access gate, in Louisville. Owner: Metropolitan Sewer District.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 1.5 in, depth 50 ft, screened 48-50 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 450.32 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--October 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.35 ft below land-surface datum, May 7, 1991; lowest measured, 24.76 ft below land-surface datum, Oct. 18, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 31, 1990	22.36	May 7, 1991	21.35

JEFFERSON COUNTY

381108085511301. Local number 51-11-4, (RR-31), map number 33.
LOCATION.--Lat 38°11'08", long 85°51'13", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 1 ft west of a steel pipe fence post, 0.1 mi northeast of the junction of Cane Run Road and Rockford Lane, at a former homesite in Louisville. Owner: Jefferson County.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 61 ft, screened 59.5-61.0 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 445.66 ft above National Geodetic Vertical Datum. Measuring point: Top of plug, 0.10 ft above land-surface datum.
PERIOD OF RECORD.--May 1945 to current year. May 1945 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.16 ft below land-surface datum, May 7, 1991; lowest measured, 46.18 ft below land-surface datum, Mar. 27, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	32.66	May 7, 1991	29.16

381123085491401. Local number 49-11-1, (RR-32), map number 34.
LOCATION.--Lat 38°11'23", long 85°49'14", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, on the east edge of a private driveway, at 2134 Garrs Lane, 150 ft south of Garrs Lane, 400 ft southeast of the junction of Garrs and Eden Lanes, in Shively. Owner: Joseph A. Winkle.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 108 ft, screened 106.5-108.0 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 455.55 ft above National Geodetic Vertical Datum. Measuring point: Top of plug, 2.60 ft above land-surface datum.
PERIOD OF RECORD.--May 1945 to current year. May 1945 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.86 ft below land-surface datum, Apr. 25, 1985; lowest measured, 45.76 ft below land-surface datum, Mar. 21, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 31, 1990	29.46	May 8, 1991	28.38

381130085515001. Local number 51-11-1, map number 35.
LOCATION.--Lat 38°11'30", long 85°51'50", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, in a concrete well pit on the west side of a tool shed at the Thieneman Brothers vegetable farm, 0.3 mi northeast of the junction of Camp Ground Road and Lees Lane, in Louisville. Owner: Thieneman Brothers.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Driven observation water-table well, diameter 1.25 in, depth 70 ft, cased and screened.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 453.64 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 1.00 ft above land-surface datum.
REMARKS.--Water level affected by pumping from nearby well.
PERIOD OF RECORD.--February 1944 to current year. February 1944 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.11 ft below land-surface datum, May 6, 1991; lowest measured, 59.80 ft below land-surface datum, Jan. 24, 1956.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	45.20	May 6, 1991	42.11

JEFFERSON COUNTY

381139085502301. Local number 81-2, map number 36.
LOCATION.--Lat 38°11'39", long 85°50'23", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 12 ft west of west bank of a drainage ditch, 21 ft northeast of west end of guardrail, 30 ft north of north edge of blacktop on Crums Lane, 40 ft northwest of northwest corner of concrete bridge, 1,000 ft east of junction of Cane Run Road and Crums Lane, in Louisville. Owner: Metropolitan Sewer District.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 54 ft, screened 41.5-43.5 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 444.91 ft above National Geodetic Vertical Datum. Measuring point: Top of casing at land-surface datum.
PERIOD OF RECORD.--May 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.52 ft below land-surface datum, May 6, 1991; lowest measured, 30.21 ft below land-surface datum, Oct. 27, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	26.66	May 6, 1991	25.52

381142085475702. Local number, 47-11-4, (RR-42), map number 37.
LOCATION.--Lat 38°11'42", long 85°47'57", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at the concrete curb on the west side of Manslick Road, 0.1 mi south of junction of Manslick Road and Berry Boulevard, in Louisville. Owner: Jefferson County.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 103 ft, screened 101.5-103.0 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 453.91 ft above National Geodetic Vertical Datum. Measuring point: Top of plug, 2.00 ft above land-surface datum.
PERIOD OF RECORD.--July 1945 to current year. July 1945 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.02 ft below land-surface datum, Apr. 25, 1985; lowest measured, 49.27 ft below land-surface datum, Apr. 5, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	24.01	May 6, 1991	23.00

381143085465801. Local number 46-11-2, (RR-25), map number 38.
LOCATION.--Lat 38°11'43", long 85°46'58", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, in the center of the concrete sidewalk at the driveway to a Catholic Church, 100 ft northeast of the junction of Taylor Boulevard and Hathaway Street, in Louisville. Owner: Jefferson County.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 60 ft, screened 59-60 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 458.66 ft above National Geodetic Vertical Datum. Measuring point: Top of plug, 0.97 ft below land-surface datum.
REMARKS.--Water quality sample Mar. 1, 1945.
PERIOD OF RECORD.--March 1945 to current year. March 1945 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.42 ft below land-surface datum, Oct. 31, 1985; lowest measured, 52.63 ft below land-surface datum, Apr. 25, 1955.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	26.55	May 6, 1991	25.49

JEFFERSON COUNTY

381155085483401. Local number 48-11-1, map number 39.
LOCATION.--Lat 38°11'55", long 85°48'34", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, under a pine tree behind house at 1910 Mathis Lane, 0.3 mi west of Dixie Highway, in Louisville. Owner: Charles Mathis.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Driven observation water-table well, diameter 1.5 in, depth 64 ft, screened 62-64 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 461.04 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 0.80 ft above land-surface datum.
PERIOD OF RECORD.--February 1944 to current year. February 1944 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.91 ft below land-surface datum, Apr. 25, 1985; lowest measured, 55.20 ft below land-surface datum, Mar. 22, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	32.69	May 6, 1991	31.69

381157085510201. Local number 51-11-6 (RR-39), map number 40.
LOCATION.--Lat 38°11'57", long 85°51'02", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at a farm gate, 20 ft north of Shanks Lane, 0.5 mi west of Cane Run Road, in Louisville. Owner: Jefferson County.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 112 ft, screened 110-112 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 446.27 ft above National Geodetic Vertical Datum. Measuring point: Floor of recorder shelter, 5.17 ft above land-surface datum.
PERIOD OF RECORD.--June 1945 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.41 ft below land-surface datum, May 6, 1991; lowest measured, 57.62 ft below land-surface datum, Feb. 25, 1956.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	36.35	May 6, 1991	33.41

381204085455301. Local number CP-16, map number 41.
LOCATION.--Lat 38°12'04", long 85°45'53", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, near the south end of Wayside Park, 32 ft west of South Third Street curb, 52 ft east of Oakdale Avenue curb, 160 ft north of intersection with Southern Parkway, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered well, diameter 1.5 in, depth 23 ft, screened 21-23 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 456.82 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--May 1979 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.46 ft below land-surface datum, Apr. 24, 1984; lowest measured, 13.84 ft below land-surface datum, Oct. 18, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	13.09	May 6, 1991	12.28

JEFFERSON COUNTY

381207085484601. Local number 48-12-15, (RR-41), map number 42.
LOCATION.--Lat 38°12'07", long 85°48'46", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, on the east edge of a private driveway at the south end of a hedge, 3 ft west of a chain link fence, 100 ft northeast of junction of Farnsley and Janell Roads, in Shively. Owner: Jefferson County.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 91 ft, screened 89.5-91.0 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 457.25 ft above National Geodetic Vertical Datum. Measuring point: Top of plug, 0.12 ft below land-surface datum.
REMARKS.--Water-quality sample June 29, 1945.
PERIOD OF RECORD.--June 1945 to current year. June 1945 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.68 ft below land-surface datum, Apr. 25, 1985; lowest measured, 52.81 ft below land-surface datum, Mar. 22, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	30.47	May 6, 1991	29.43

381209085472101. Local number 47-12-3, (C-7), map number 43.
LOCATION.--Lat 38°12'09", long 85°47'21", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, in an open field near a sewer manhole, 200 ft west of the west end of Weyler Avenue, 0.2 mi east of 7th Street Road and Yellowstone Distillery, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 4 in, depth 97 ft, screened 95-97 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 448.60 ft above National Geodetic Vertical Datum. Measuring point: Top of plug, 2.75 ft above land-surface datum.
PERIOD OF RECORD.--October 1935 to current year. October 1935 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.95 ft below land-surface datum, Apr. 25, Oct. 31, 1985; lowest measured, 52.19 ft below land-surface datum, Feb. 19, 1945.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	18.21	May 6, 1991	16.98

381212085473801. Local number 47-12-2, (C-6), map number 44.
LOCATION.--Lat 38°12'12", long 85°47'38", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 100 ft north of the north entrance gate to the Yellowstone Distillery, 0.1 mi west of 7th Street Road, in Shively. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 4 in, depth 102 ft, screened 100-102 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 453.59 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 3.00 ft above land-surface datum.
PERIOD OF RECORD.--October 1935 to current year. October 1935 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.98 ft below land-surface datum, Apr. 25, 1985; lowest measured, 59.63 ft below land-surface datum, Feb. 19, 1945.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	23.28	May 6, 1991	22.03

JEFFERSON COUNTY

381213085521701. Local number 52-12-2, (RR-22), map number 45.
LOCATION.--Lat 38°12'13", long 85°52'17", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 50 ft south of Ohio River at the Stauffer Chemical Company Plant, 0.9 mi north of junction of Camp Ground Road and Lees Lane, in Louisville. Owner: Stauffer Chemical Company.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 101 ft, screened 99-101 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 434.30 ft above National Geodetic Vertical Datum. Measuring point: Floor of recorder shelter, 4.16 ft above land-surface datum.
REMARKS.--Water levels affected by Ohio River. Water-quality sample collected Feb. 12, 1945.
PERIOD OF RECORD.--August 1945 to current year. August 1945 to September 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.50 ft below land-surface datum, Apr. 20, 1948; lowest measured, 51.79 ft below land-surface datum, June 18, 1962.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	37.60	May 6, 1991	38.92

381221085475001. Local number 47-12-1, (C-5), map number 46.
LOCATION.--Lat 38°12'21", long 85°47'50", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at the old Frankfort Four Roses Distillery, 60 ft north of a whiskey storage warehouse, 600 ft east of junction of Dixie Highway and Ralph Avenue, in Shively. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 4 in, depth 96 ft, screened 94-96 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 462.93 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 4.10 ft above land-surface datum.
PERIOD OF RECORD.--October 1935 to current year. October 1935 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.74 ft below land-surface datum, Nov. 01, 1985; lowest measured, 71.06 ft below land-surface datum, Feb. 2, 1945.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	33.97	May 6, 1991	32.78

GROUND-WATER LEVELS

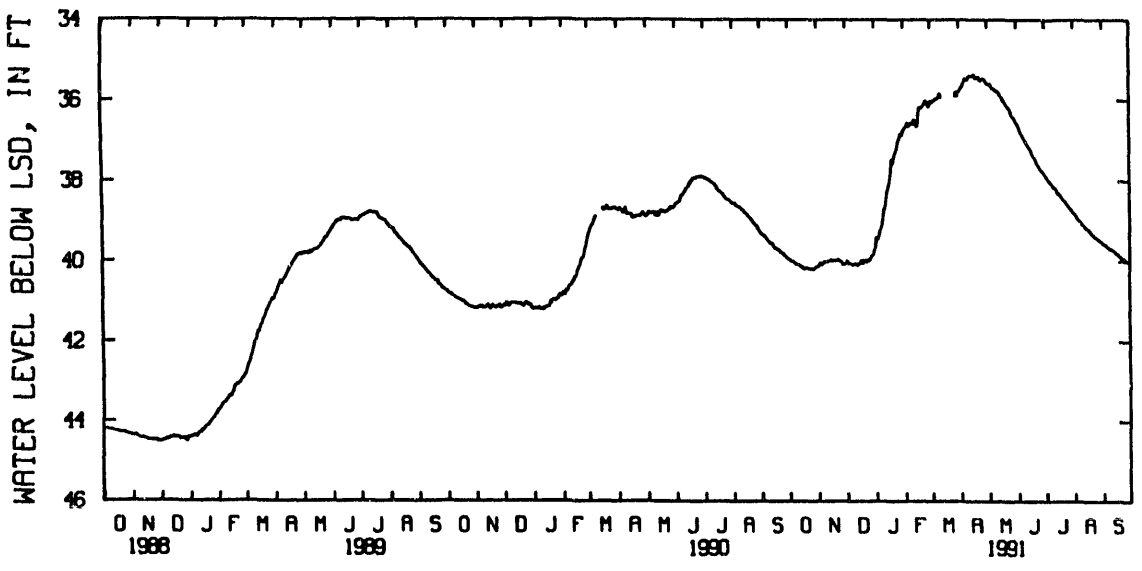
JEFFERSON COUNTY

381222085505201. Local number 50-12-16 (RR-27), map number 47.
LOCATION.--Lat 38°12'22", long 85°50'52", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, on the south edge of Kramers Lane, at the east side of the entrance driveway to Marathon Oil Company storage terminal, 300 ft southwest of the junction of Camp Ground Road and Kramers Lane, in Louisville. Owner: Jefferson County.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 112 ft, screened 110.5-112.0 ft.
INSTRUMENTATION.--Digital recorder -- 60-minute punch.
DATUM.--Elevation of land-surface datum is 445.58 ft above National Geodetic Vertical Datum. Measuring point: Floor of recorder shelter, 3.40 ft above land-surface datum.
REMARKS.--Water level affected by pumping from nearby wells. Water-quality sample collected Mar. 23, 1945.
PERIOD OF RECORD.--March 1945 to current year. March 1945 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.36 ft below land-surface datum, Apr. 18, 1991; lowest measured, 68.37 ft below land-surface datum, Oct. 7, 1963.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY OBSERVATION AT 12:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39.93	40.13	40.06	39.70	36.78	36.11	35.80	35.55	36.55	37.84	38.80	39.54
2	39.95	40.12	40.05	39.66	36.74	36.01	35.77	35.61	36.59	37.88	38.82	39.55
3	39.96	40.11	39.98	39.40	36.70	36.07	35.72	35.60	36.63	37.91	38.85	39.57
4	40.00	40.06	40.06	39.50	36.68	36.06	35.68	35.61	36.70	37.95	38.89	39.57
5	39.99	40.02	40.05	39.43	36.65	36.02	35.65	35.58	36.77	37.98	38.93	39.60
6	40.00	40.09	40.04	39.36	36.56	35.99	35.58	35.66	36.82	38.01	38.96	39.63
7	40.02	40.06	40.06	39.25	36.67	36.01	35.54	35.70	36.86	38.05	38.98	39.64
8	40.04	40.04	40.07	39.16	36.62	35.95	35.48	35.71	36.90	38.07	39.00	39.65
9	40.07	40.00	40.09	39.09	36.58	35.97	35.47	35.72	36.95	38.10	39.03	39.68
10	40.08	40.01	40.08	38.95	36.58	35.96	35.51	35.75	36.99	38.14	39.07	39.69
11	40.08	40.01	40.07	38.73	36.62	35.88	35.47	35.77	37.02	38.17	39.10	39.70
12	40.08	40.01	40.05	38.71	36.58	35.83	35.43	35.77	37.07	38.18	39.12	39.72
13	40.10	40.00	40.09	38.59	36.48	35.95	35.40	35.79	37.12	38.22	39.14	39.73
14	40.10	39.99	40.10	38.44	36.52	---	35.39	35.82	37.15	38.26	39.16	39.75
15	40.15	39.99	40.05	38.28	36.63	---	35.42	35.87	37.19	38.30	39.19	39.78
16	40.15	39.95	40.08	38.15	36.67	---	35.41	35.89	37.23	38.32	39.20	39.80
17	40.15	40.00	40.01	38.08	36.56	---	35.39	35.93	37.29	38.34	39.21	39.81
18	40.19	39.98	39.97	37.94	36.19	---	35.36	35.99	37.32	38.37	39.25	39.83
19	40.18	39.97	40.06	37.77	36.18	---	35.43	36.03	37.38	38.41	39.26	39.87
20	40.18	39.99	40.02	37.46	36.20	---	35.47	36.06	37.42	38.44	39.30	39.88
21	40.17	39.98	39.96	37.60	36.17	---	35.43	36.10	37.44	38.47	39.32	39.90
22	40.17	39.97	39.97	37.49	36.15	---	35.42	36.14	37.49	38.49	39.34	39.91
23	40.18	39.95	40.01	37.37	36.12	---	35.44	36.17	37.56	38.52	39.36	39.93
24	40.18	39.96	40.02	37.32	36.06	---	35.52	36.20	37.60	38.56	39.39	39.91
25	40.19	40.00	39.95	37.24	36.02	---	35.50	36.24	37.64	38.59	39.40	39.94
26	40.19	40.00	39.99	37.09	36.03	---	35.48	36.29	37.67	38.62	39.42	39.97
27	40.17	40.01	39.95	37.00	36.13	---	35.47	36.35	37.72	38.65	39.43	40.00
28	40.20	40.07	39.91	36.97	36.17	35.92	35.47	36.39	37.75	38.68	39.46	40.02
29	40.19	40.09	39.85	36.88	---	35.79	35.48	36.42	37.77	38.70	39.48	40.03
30	40.16	40.07	39.85	36.83	---	35.91	35.54	36.45	37.80	38.74	39.49	40.04
31	40.14	---	39.79	36.89	---	35.80	---	36.50	---	38.77	39.51	---
MAX	40.20	40.13	40.10	39.70	36.78	---	35.80	36.50	37.80	38.77	39.51	40.04
MIN	39.93	39.95	39.79	36.83	36.02	---	35.36	35.55	36.55	37.84	38.80	39.54

WTR YR 1991 HIGH 35.36 LOW 40.20



JEFFERSON COUNTY

381224085474001. Local number 47-12-19, (owner's no. 1), map number 48.
LOCATION.--Lat 38°12'24", long 85°47'40", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, behind the fermentation building, at the Early Times Distillery, 1,500 ft northeast of the junction of Dixie Highway and Ralph Avenue, in Louisville. Owner: Brown and Forman Distillers, Inc.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 10 in, depth 104 ft, cased and screened.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 456.81 ft above National Geodetic Vertical Datum. Measuring point: Floor of recorder shelter, 2.43 ft above land-surface datum.
REMARKS.--Water levels affected by pumping from nearby wells.
PERIOD OF RECORD.--March 1947 to current year. March 1947 to September 1976 published in hydrograph form and on file at district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.97 ft below land-surface datum, Apr. 25, 1985; lowest measured, 62.91 ft below land-surface datum, Nov. 15, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	27.37	May 6, 1991	26.16

381229085510201. Local number Triangle Refinery #1, map number 49.
LOCATION.--Lat 38°12'29", long 85°51'02", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at the north end of oil storage tank field at the Triangle Refinery, 750 ft northwest of intersection of Camp Ground Road and Kramers Lane, in Louisville. Owner: Triangle Refinery.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 68.8 ft, screened 66.8-68.8 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 450.57 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 3.00 ft above land-surface datum.
PERIOD OF RECORD.--September 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 43.00 ft below land-surface datum, May 6, 1991; lowest measured, 56.59 ft below land-surface datum, Nov. 28, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	48.66	May 6, 1991	43.00

GROUND-WATER LEVELS

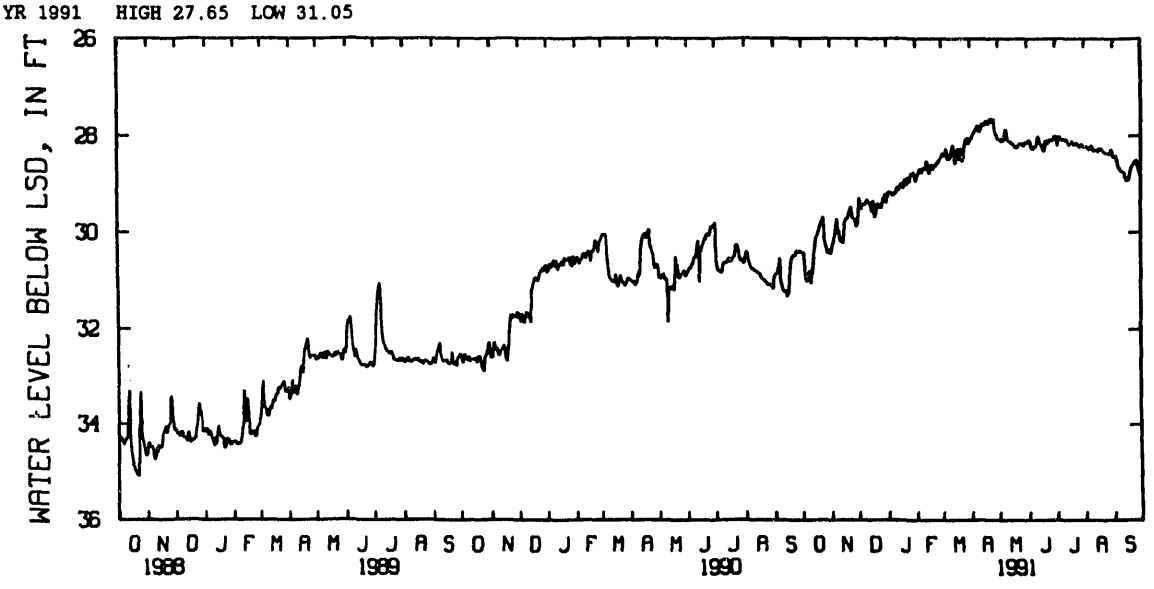
JEFFERSON COUNTY

381246085470601. Local number 47-12-4, (owner's number TW-2), map number 50.
LOCATION.--Lat 38°12'46", long 85°47'06", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at the southeast corner of Seagrams employees' parking lot, Seventh Street Road at Wathen Lane, 100 ft southeast of a Ranney collector well, in Louisville. Owner: Joseph E. Seagram and Sons Distillery.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 103 ft, cased and screened.
INSTRUMENTATION.--Digital recorder -- 60-minute punch.
DATUM.--Elevation of land-surface datum is 458.64 ft above National Geodetic Vertical Datum. Measuring point: Floor of recorder shelter, 4.39 ft above land-surface datum.
REMARKS.--Water levels affected by pumping from nearby collector well.
PERIOD OF RECORD.--October 1943 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 26.44 ft below land-surface datum, Jan. 11, 1985; lowest, 88.37 ft below land-surface datum, Mar. 9, 1944.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY OBSERVATION AT 12:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30.42	30.44	29.81	29.29	28.93	28.42	28.07	28.07	28.15	28.02	28.23	28.43
2	30.41	30.40	29.49	29.16	28.85	28.36	28.07	28.07	28.10	28.01	28.22	28.44
3	30.42	30.26	29.29	29.19	28.81	28.41	28.00	28.08	28.10	28.20	28.21	28.45
4	30.80	30.22	29.45	29.18	28.76	28.43	27.97	28.12	28.11	28.06	28.24	28.40
5	30.94	30.11	29.53	29.19	28.72	28.39	27.94	28.12	28.22	28.01	28.27	28.50
6	30.99	29.99	29.41	29.24	28.68	28.27	27.90	28.05	28.27	28.06	28.27	28.54
7	31.01	29.81	29.43	29.23	28.77	28.47	27.87	28.12	28.27	28.09	28.29	28.65
8	30.89	29.72	29.41	29.18	28.75	28.48	27.82	27.97	28.22	28.08	28.23	28.66
9	30.79	30.04	29.44	29.21	28.69	28.41	27.79	27.88	28.24	28.11	28.20	28.71
10	30.89	29.96	29.38	29.17	28.66	28.49	27.90	27.88	28.24	28.07	28.27	28.73
11	31.05	30.12	29.36	29.06	28.71	28.40	27.92	28.08	28.19	28.11	28.31	28.74
12	30.86	30.17	29.32	29.11	28.67	28.28	27.87	28.11	28.02	28.08	28.31	28.75
13	30.67	30.19	29.38	29.13	28.52	28.20	27.78	28.11	28.04	28.09	28.29	28.76
14	30.40	30.18	29.41	29.05	28.57	28.32	27.75	28.13	28.14	28.15	28.29	28.85
15	30.30	30.22	29.38	29.01	28.73	28.48	27.76	28.15	28.18	28.18	28.31	28.90
16	30.12	29.81	29.57	28.98	28.78	28.58	27.80	28.16	28.19	28.19	28.33	28.93
17	30.07	29.77	29.45	29.08	28.66	28.35	27.74	28.17	28.26	28.14	28.26	28.92
18	30.01	29.72	29.34	29.08	28.60	28.27	27.71	28.20	28.29	28.11	28.28	28.90
19	29.95	29.70	29.68	28.94	28.61	28.30	27.69	28.23	28.32	28.13	28.26	28.79
20	29.88	29.72	29.64	28.90	28.70	28.50	27.78	28.24	28.13	28.18	28.30	28.69
21	29.82	29.62	29.56	29.02	28.64	28.29	27.71	28.24	28.10	28.19	28.32	28.65
22	29.77	29.55	29.41	29.00	28.60	28.26	27.65	28.22	28.16	28.18	28.32	28.61
23	29.72	29.49	29.40	28.86	28.63	28.53	27.66	28.19	28.17	28.15	28.35	28.60
24	29.68	29.48	29.49	28.93	28.55	28.50	27.74	28.17	28.11	28.17	28.36	28.54
25	30.12	29.69	29.47	28.96	28.57	28.32	27.73	28.16	28.08	28.18	28.36	28.50
26	30.21	29.71	29.50	28.83	28.53	28.15	27.65	28.17	28.09	28.22	28.36	28.53
27	30.28	29.71	29.39	28.78	28.50	28.07	27.90	28.18	28.11	28.23	28.36	28.62
28	30.38	29.76	29.32	28.82	28.47	28.17	27.97	28.22	28.09	28.20	28.38	28.69
29	30.43	29.87	29.25	28.78	---	28.03	27.98	28.18	28.05	28.17	28.38	28.76
30	30.35	29.86	29.20	28.76	---	28.17	28.07	28.14	28.01	28.21	28.28	28.80
31	30.40	---	29.39	28.93	---	28.11	---	28.15	---	28.23	28.31	---
MAX	31.05	30.44	29.81	29.29	28.93	28.58	28.07	28.24	28.32	28.23	28.38	28.93
MIN	29.68	29.48	29.20	28.76	28.47	28.03	27.65	27.88	28.01	28.01	28.20	28.40

WTR YR 1991 HIGH 27.65 LOW 31.05



JEFFERSON COUNTY

381246085463201. Local number CP 18A, map number 51.
LOCATION.--Lat 38°12'46", long 85°46'32", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at Colorado and Tennessee Avenue in the northeast corner of South Central Park, 10 ft east of CP18. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 1.5 in, depth 44.3 ft. screened 42-44 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 460.11 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 0.35 ft. below land-surface datum.
PERIOD OF RECORD.--October 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.51 ft below land-surface datum, Apr. 23, 1985; lowest measured, 33.18 ft below land-surface datum, Oct. 19, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	30.50	May 7, 1991	29.06

381247085463301. Local number CP 18, map number 52.
LOCATION.--Lat 38°12'47", long 85°46'33", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at Colorado and Tennessee Avenue in the northeast corner of South Central Park, 69 ft east of tree at end of dead-end alley, and 8 ft south of cable posts. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 1.5 in, depth 94 ft, screened 92-94 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 459.89 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 0.25 ft. below land-surface datum.
PERIOD OF RECORD.--October 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.30 ft below land-surface datum, Apr. 23, 1985; lowest measured, 32.87 ft below land-surface datum, Oct. 19, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	30.18	May 7, 1991	well plugged

381250085484901. Local number 48-12-1, (C-2), map number 53.
LOCATION.--Lat 38°12'50", long 85°48'49", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, in an open field at a sewer manhole, 0.2 mi east of the junction of Cane Run Road and Camp Ground Road, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 4 in, depth 117 ft, screened 115-117 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 453.61 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 3.00 ft above land-surface datum.
PERIOD OF RECORD.--October 1935 to current year. October 1935 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.44 ft below land-surface datum, Apr. 26, 1984 and Apr. 25, 1985; lowest measured, 67.95 ft below land-surface datum, July 12, 1960.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	32.87	May 6, 1991	31.89

JEFFERSON COUNTY

381251085483501. Local number 48-12-2, (C-3), map number 54.
LOCATION.--Lat 38°12'51", long 85°48'35", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, in an open field, 200 ft east of Tucker Avenue, 300 ft north of the Stitzel-Weller Distillery, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 4 in, depth 117 ft, screened 115-117 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 465.95 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, .60 ft above land-surface datum.
REMARKS.--Water level affected by pumping from nearby wells.
PERIOD OF RECORD.--October 1935 to current year. October 1935 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 41.72 ft below land-surface datum, Apr. 25, 1985; lowest measured, 78.99 ft below land-surface datum, Nov. 1, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	43.35	May 6, 1991	42.39

381251085500501. Local number 50-12-18, (RR-35), map number 55.
LOCATION.--Lat 38°12'51", long 85°50'05", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 60 ft north of Camp Ground Road, 1,500 ft northeast of junction of Camp Ground Road and Ralph Avenue, in Louisville. Owner: Air Reduction Company, Inc.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 120 ft, screened 118-120 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 455.54 ft above National Geodetic Vertical Datum. Measuring point: Floor of recorder shelter, 5.02 ft above land-surface datum.
REMARKS.--Water levels affected by pumping from nearby wells. Water-quality sample collected May 24, 1945.
PERIOD OF RECORD.--May 1945 to current year. May 1945 to September 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 46.53 ft below land-surface datum, May 6, 1991; lowest measured, 78.35 ft below land-surface datum, Mar. 20, 1961.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	49.83	May 6, 1991	46.53

381256085471501. Local number 47-12-14, (TW-2), map number 56.
LOCATION.--Lat 38°12'56", long 85°47'15", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, in a brick pump house (building number 54) at the National Distillers Products Company Plant, 50 ft north of Wathen Lane, 0.4 mi east of Dixie Highway, in Louisville. Owner: National Distillers Products Company.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 8 in, depth 97 ft, cased and screened.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 454.37 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 7.72 ft above land-surface datum.
REMARKS.--Water level affected by pumping from nearby wells.
PERIOD OF RECORD.--October 1941 to current year. October 1941 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.57 ft below land-surface datum, Apr. 24, 1985; lowest measured, 75.98 ft below land-surface datum, Mar. 31, Apr. 10, May 6, 1943.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	25.58	May 7, 1991	23.93

JEFFERSON COUNTY

381257085471801. Local number 47-12-15, (TW-4), map number 57.
LOCATION.--Lat 38°12'57", long 85°47'18", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, in the truck parking lot at the National Distillers Products Company Plant, 50 ft north of Wathen Lane, 0.3 mi east of Dixie Highway, in Louisville. Owner: National Distillers Products Company
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 8 in, depth 84 ft, cased and screened.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 455.07 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 4.70 ft above land-surface datum.
REMARKS.--Water level affected by pumping from nearby wells.
PERIOD OF RECORD.--July 1942 to current year. July 1942 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.71 ft below land-surface datum, Apr. 24, 1985; lowest measured, 72.47 ft below land-surface datum, Feb. 19, 1945.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 31, 1990	26.43	May 7, 1991	24.39

381259085471502. Local number 47-12-16. (TW-1), map number 58.
LOCATION.--Lat 38°12'59", long 85°47'15", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, between two whiskey storage warehouses at the National Distillers Products Company Plant, 300 ft north of Wathen Lane, 0.4 mi east of Dixie Highway, in Shively. Owner: National Distillers Products Company.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in, depth 99 ft, cased and screened.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 454.43 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 6.25 ft above land-surface datum.
REMARKS.--Water level affected by pumping from nearby wells.
PERIOD OF RECORD.--October 1941 to current year. October 1941 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.89 ft below land-surface datum, Apr. 24, 1985; lowest measured, 72.70 ft below land-surface datum, Feb. 6, 1945.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	25.72	May 7, 1991	23.92

381259085511002. Local number 51-13-1, (RR-21), map number 59.
LOCATION.--Lat 38°12'59", long 85°51'10", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, on south bank of Ohio River directly behind the Du Pont Chemical Company Plant, 200 ft northeast of a large brick pump house, 0.8 mi southwest of junction of Ralph Avenue and Camp Ground Road, in Louisville. Owner: Du Pont Chemical Company.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 107 ft, screened 105.5-107.0 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 440.20 ft above National Geodetic Vertical Datum. Measuring point: Top of plug, 1.90 ft above land-surface datum.
PERIOD OF RECORD.--February 1945 to current year. February 1945 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.87 ft below land-surface datum, Apr. 9, 1975; lowest measured, 64.39 ft below land-surface datum, Nov. 12, 1969.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 31, 1990	46.91	May 6, 1991	48.51

JEFFERSON COUNTY

381305085501302. Local number Reynolds Metals #1, map number 60.
LOCATION.--Lat 38°13'05", long 85°50'13", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at Reynolds Metals Plant Number 5, near southeast corner of a metal garage, 0.4 mi north of the junction of Camp Ground Road and Ralph Avenue, in Louisville. Owner: Reynolds Metals Company.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 12 in, depth 111 ft, screened 95-111 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 450.25 ft above National Geodetic Vertical Datum. Measuring point: Top of 2 in pipe in pump base, 1.50 ft above land-surface datum.
PERIOD OF RECORD.--October 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 47.13 ft below land-surface datum, Apr. 26, 1984; lowest measured, 54.73 ft below land-surface datum, Oct. 17, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	51.70	May 6, 1991	47.33

381309085505302. Local number 50-13-56 (RR-24), map number 61.
LOCATION.--Lat 38°13'09", long 85°50'53", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, on what was once south bank of Paddy Run (now covered), between the Ohio River flood wall and south bank of the Ohio River, directly behind the Du Pont Chemical Company.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 92 ft, screened 90.5-92.0 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 425.78 ft above National Geodetic Vertical Datum. Measuring point: Top of plug, 2.38 ft below land-surface datum.
PERIOD OF RECORD.--February 1945 to current year. February 1945 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.00 ft below land-surface datum, Apr. 15, 1970; lowest measured, 49.71 ft below land-surface datum, Jan. 25, 1956.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 31, 1990	30.76	May 6, 1991	30.66

381313085495501. Local number 49-13-25, (TW-2), map number 62.
LOCATION.--Lat 38°13'13", long 85°49'55", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 10 ft east of pump well number 4, at the B.F. Goodrich Company Plant, 50 ft west of an electric power substation, 0.25 mi south of Bells Lane, in Louisville. Owner: B.F. Goodrich Company.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Driven observation water-table well, diameter 2 in, depth 100 ft, cased and screened.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 452.26 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 0.40 ft above land-surface datum.
REMARKS.--Water level affected by pumping from nearby well.
PERIOD OF RECORD.--August 1947 to current year. August 1947 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 49.57 ft below land-surface datum, Apr. 27, 1982; lowest measured, 97.09 ft below land-surface datum, Mar. 29, 1961.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	54.53	May 6, 1991	51.93

JEFFERSON COUNTY

381315085501401. Local number 50-13-65, (TW-11), map number 63.
LOCATION.--Lat 38°13'15", long 85°50'14", Hydrologic Unit 05140101, County Code 111, at the old National Carbide Plant, 500 ft southeast of the liquid nitrogen unit, 1,000 ft south of Bells Lane, in Louisville. Owner: Air Reduction Company, Inc.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 107 ft, cased and screened.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 449.69 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 1.60 ft above land-surface datum.
REMARKS.--Water levels affected by pumping from nearby wells.
PERIOD OF RECORD.--June 1956 to current year. June 1956 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 46.48 ft below land-surface datum, Apr. 26, 1984; lowest measured, 92.02 ft below land-surface datum, Dec. 21, 1959.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	51.59	May 6, 1991	47.60

GROUND-WATER LEVELS

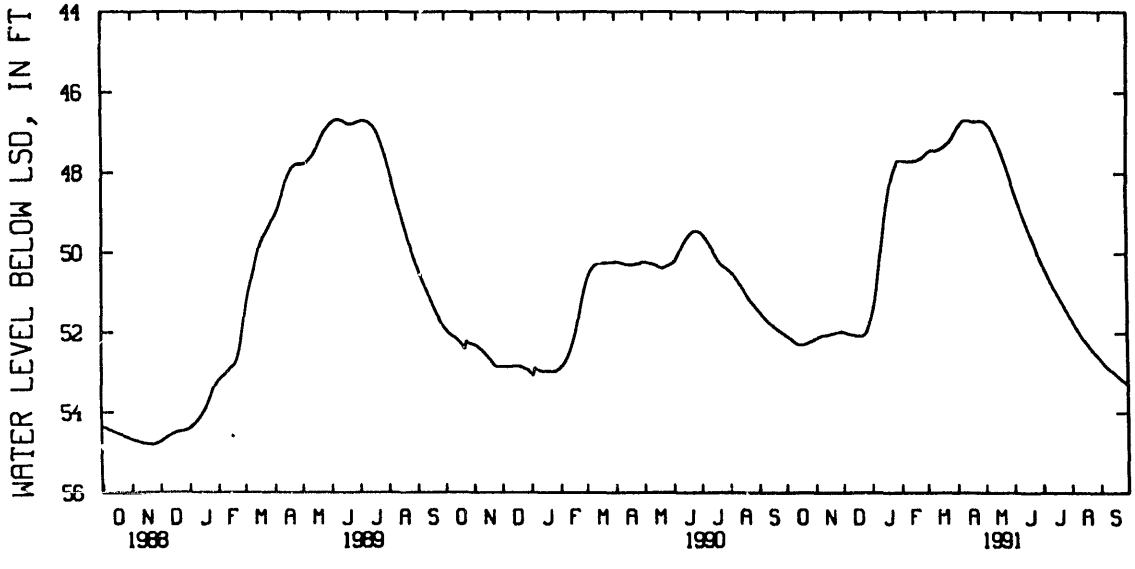
JEFFERSON COUNTY

381315085502602. Local number 50-13-79, (NC-TW-D), map number 64.
LOCATION.--Lat 38°13'15", long 85°50'26", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 800 ft south of Bells Lane, 0.3 mi east of the Ohio River, at the National Carbide Plant in Louisville. Owner: Air Reduction Company, Inc.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 108 ft, cased and screened.
INSTRUMENTATION.--Digital recorder -- 60-minute punch.
DATUM.--Elevation of land-surface datum is 448.68 ft above National Geodetic Vertical Datum. Measuring point: Floor of recorder shelter, 4.72 ft above land-surface datum.
REMARKS.--Water levels affected by pumping from nearby wells.
PERIOD OF RECORD.--January 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level 44.34 ft below land-surface datum, May 23, 1984; lowest, 87.29 ft below land-surface datum, Nov. 13, 1964

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY OBSERVATION AT 12:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52.06	52.15	51.97	51.53	47.69	47.52	46.94	46.73	48.38	50.25	51.65	52.65
2	52.08	52.14	51.98	51.43	47.69	47.49	46.90	46.75	48.45	50.30	51.69	52.68
3	52.09	52.12	51.98	51.32	47.70	47.48	46.86	46.77	48.52	50.35	51.73	52.71
4	52.11	52.11	51.99	51.19	47.70	47.46	46.83	46.79	48.59	50.41	51.77	52.74
5	52.13	52.10	52.00	51.03	47.70	47.45	46.79	46.81	48.66	50.46	51.81	52.77
6	52.14	52.09	52.01	50.85	47.71	47.44	46.76	46.84	48.73	50.52	51.85	52.80
7	52.16	52.08	52.02	50.65	47.70	47.44	46.73	46.87	48.80	50.57	51.88	52.82
8	52.18	52.07	52.02	50.43	47.71	47.44	46.71	46.91	48.86	50.62	51.92	52.85
9	52.20	52.07	52.03	50.22	47.71	47.44	46.69	46.95	48.92	50.67	51.96	52.87
10	52.22	52.06	52.04	50.00	47.71	47.45	46.69	47.00	48.99	50.72	51.99	52.88
11	52.24	52.06	52.04	49.79	47.71	47.45	46.69	47.05	49.05	50.77	52.03	52.90
12	52.26	52.06	52.04	49.58	47.72	47.44	46.69	47.10	49.11	50.82	52.07	52.92
13	52.27	52.05	52.05	49.39	47.71	47.43	46.69	47.15	49.17	50.87	52.10	52.93
14	52.28	52.05	52.05	49.20	47.70	47.42	46.69	47.21	49.24	50.91	52.14	52.95
15	52.29	52.05	52.06	49.03	47.70	47.41	46.70	47.26	49.30	50.95	52.17	52.97
16	52.29	52.04	52.07	48.87	47.70	47.40	46.71	47.31	49.36	51.00	52.20	52.99
17	52.29	52.03	52.07	48.72	47.69	47.39	46.71	47.36	49.42	51.04	52.23	53.01
18	52.29	52.03	52.07	48.59	47.69	47.38	46.72	47.42	49.48	51.08	52.26	53.03
19	52.29	52.02	52.07	48.46	47.68	47.36	46.72	47.48	49.54	51.13	52.29	53.05
20	52.28	52.01	52.07	48.34	47.67	47.34	46.72	47.55	49.60	51.17	52.32	53.08
21	52.27	52.01	52.07	48.23	47.66	47.32	46.72	47.62	49.66	51.21	52.35	53.10
22	52.26	52.00	52.07	48.14	47.65	47.31	46.72	47.68	49.72	51.25	52.38	53.12
23	52.26	52.00	52.06	48.05	47.64	47.28	46.71	47.75	49.78	51.29	52.41	53.14
24	52.25	51.99	52.05	47.98	47.62	47.26	46.71	47.81	49.84	51.33	52.44	53.16
25	52.24	51.99	52.03	47.91	47.60	47.24	46.71	47.88	49.90	51.38	52.46	53.18
26	52.23	51.98	52.00	47.85	47.59	47.21	46.70	47.95	49.96	51.42	52.49	53.20
27	52.22	51.98	51.96	47.80	47.57	47.17	46.70	48.02	50.02	51.46	52.52	53.22
28	52.21	51.97	51.89	47.70	47.54	47.13	46.71	48.09	50.08	51.50	52.54	53.24
29	52.20	51.97	51.82	47.69	---	47.08	46.71	48.16	50.13	51.54	52.57	53.26
30	52.18	51.97	51.72	47.69	---	47.03	46.72	48.24	50.19	51.58	52.60	53.28
31	52.17	---	51.63	47.70	---	46.99	---	48.31	---	51.62	52.62	---
MAX	52.29	52.15	52.07	51.53	47.72	47.52	46.94	48.31	50.19	51.62	52.62	53.28
MIN	52.06	51.97	51.63	47.69	47.54	46.99	46.69	46.73	48.38	50.25	51.65	52.65

WTR YR 1991 HIGH 46.69 LOW 53.28



JEFFERSON COUNTY

381316085502101. Local number 50-13-77, (TW-12), map number 65.
LOCATION.--Lat 38°13'16", long 85°50'21", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 200 ft south of the liquid nitrogen unit at the old National Carbide Plant, 900 ft southeast of Bells Lane, in Louisville. Owner: Air Reduction Company, Inc.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 107 ft, cased and screened.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 447.69 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 1.70 ft above land-surface datum.
REMARKS.--Water levels affected by pumping from nearby wells.
PERIOD OF RECORD.--January 1956 to current year. January 1956 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 44.43 ft below land-surface datum, Apr. 26, 1984; lowest measured, 90.90 ft below land-surface datum, Oct. 13, 1964.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	49.86	May 6, 1991	45.84

381320085464101. Local number CP-15, map number 66.
LOCATION.--Lat 38°13'20", long 85°45'41", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at the northeast corner of Samuel Jones Park, Patton Court and South 13th Street, 14 ft south of chain link fence, 22 ft south of curb on south side of Patton Court, 45 ft west of curb on west side of south 13th Street. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 100 ft, screened 96.5-100.0 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface surface datum is 453.68 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--December 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.84 ft below land-surface datum, Apr. 23, 1985; lowest measured, 30.03 ft below land-surface datum, Dec. 14, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	25.02	May 7, 1991	23.96

381324085460401. Local number 46-13-25, map number 67.
LOCATION.--Lat 38°13'24", long 85°46'04", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, in an old pumping house across the alley from the northwest corner of the boiler house, at the American-Standard Company Plant, 1541 South 7th Street, in Louisville. Owner: American-Standard Company.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 12 in, depth 105 ft, screened 91-105 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 461.49 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 1.00 ft above land-surface datum.
PERIOD OF RECORD.--March 1950 to current year. March 1950 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.10 ft below land-surface datum, Apr. 23, 1985; lowest measured, 70.05 ft below land-surface datum, Mar. 3, 1950.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	32.26	May 7, 1991	31.48

JEFFERSON COUNTY

381331085491601. Local number 49-13-40, (RR-26), map number 68.
LOCATION.--Lat 38°13'31", long 85°49'40", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at the southeast corner of Algonquin Parkway and 39th Street, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 115 ft, screened 113.5-115.0 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 450.43 ft above National Geodetic Vertical Datum. Measuring point: Top of plug, 1.40 ft above land-surface datum.
REMARKS.--Water-quality samples Mar. 13, 1945 to June 28, 1966.
PERIOD OF RECORD.--March 1945 to current year. March to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 37.01 ft below land-surface datum, Apr. 25, 1985; lowest measured, 76.25 ft below land-surface datum, Nov. 29, 1963.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	38.31	May 7, 1991	37.77

381338085481601. Local number, CP 8, map number 69.
LOCATION.--Lat 38°13'38", long 85°48'16", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at the southwest corner of Algonquin Park, 20 ft east of Beech Street, 60 ft north of an alley, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 109.0 ft, screened 106-109 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 457.60 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--August 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.89 ft below land-surface datum, Apr. 23, 1985; lowest measured, 45.64 ft below land-surface datum, Aug. 4, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	36.29	May 7, 1991	35.36

381346085453801. Local number 45-13-2 (St. Patrick's well), map number 70.
LOCATION.--Lat 38°13'46", long 85°45'38", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at the rear of Van Brook Manor Nursing Home, 1382 South Third Street, in Louisville. Owner: Van Brook Manor, Inc.
AQUIFER.--Knox Dolomite of Early Ordovician age. Aquifer code: 367KNOX.
WELL CHARACTERISTICS.--Drilled artesian (flowing) gas test, diameter 1-3/4 in, depth 1952 ft, length of wooden casing unknown.
INSTRUMENTATION.--Bi-annual volumetric measurement by USGS personnel.
DATUM.--Elevation of land-surface datum is 458.15 ft above National Geodetic Vertical Datum. Measuring point: Valve at pressure gage, 0.30 ft below land-surface datum.
REMARKS.--Water-quality samples Feb. 9, 1938 to July 7, 1981.
PERIOD OF RECORD.--February 1971 to current year. February 1971 to September 1977 unpublished, on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Maximum water flow measured, 0.50 gal/min Mar. 6, 1978; minimum measured, zero flow (frozen) Jan. 31, 1977.

WATER FLOW, IN GALLONS PER MINUTE (GAL/MIN), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water flow	Date	Water flow
Oct. 29, 1990	.33 gal/min	May 6, 1991	.21 gal/min

JEFFERSON COUNTY

381346085454201. Local number CP 1, map number 71.
LOCATION.--Lat 38°13'46", long 85°45'42", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at the southeast corner of Central Park, 100 ft north of a concrete retaining wall on Magnolia Street, 20 ft west of concrete retaining wall on South Fourth Street, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 106.2 ft, screened 103.2-106.2 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 459.86 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
REMARKS.--Water-quality sample collected June 16, 1978 to Sept. 17, 1981.
PERIOD OF RECORD.--June 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.98 ft below land-surface datum, Apr. 23, 1985; lowest measured, 41.23 ft below land-surface datum, June 16, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	32.09	May 6, 1991	31.02

381355085465901. Local number 46-13-34, map number 72.
LOCATION.--Lat 38°13'55", long 85°46'59", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 50 ft southwest of a smokestack, at the Louisville Cooperage Company Plant (formerly Tobacco By-Products and Chemical Company), 1350 South 17th Street, in Louisville. Owner: Louisville Cooperage Company.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in, depth 85 ft, cased and screened.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 458.76 ft above National Geodetic Vertical Datum. Measuring point: Top of steel plate well cover at plug, 1.13 ft above land-surface datum.
PERIOD OF RECORD.--April 1948 to current year. April 1948 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.09 ft below land-surface datum, Apr. 24, 1985; lowest measured, 79.88 ft below land-surface datum, Nov. 1, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	35.57	May 7, 1991	34.90

381400085445001. Local number CP 6, map number 73.
LOCATION.--Lat 38°14'00", long 85°44'45", Hydrologic Unit 05140101, County Code 111, Louisville East quadrangle, at the northwest corner of Shelby Park, 70 ft south of an alley, 80 ft east of South Jackson Street, 300 ft southeast of the junction of East Oak and South Jackson Streets, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 79.2 ft, screened 52.2-55.2 ft, 76.2-79.2 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 459.26 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--July 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.86 ft below land-surface datum, Oct. 30, 1984; lowest measured, 39.95 ft below land-surface datum, July 5, Aug. 4, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	32.70	May 6, 1991	31.49

GROUND-WATER LEVELS

JEFFERSON COUNTY

381406085463001. Local number 1 (south well), 78-1, map number 74.
LOCATION.--Lat 38°14'06", long 85°46'30", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at the west edge of United Catalysts, Inc., west plant building, 100 ft southeast of Intersection of 13th and Dumesnil Streets, in Louisville. Owner: United Catalysts, Inc.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused industrial water-table well, diameter 12 in, depth 114 ft, cased and screened.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 455.14 ft, National Geodetic Vertical Datum. Measuring point: Lower edge of 2 in pipe in concrete pump base, 0.40 ft above land-surface datum.
PERIOD OF RECORD.--May 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.45 ft below land-surface datum, Apr. 23, 1985; lowest measured, 35.63 ft below land-surface datum, May 5, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	29.32	May 7, 1991	28.54

381417085500301. Local number 50-14-4 (RR-23), map number 75.
LOCATION.--Lat 38°14'17", long 85°50'03", Hydrologic Unit 05140101, County Code 111, at the Louisville Refining Company Plant, 1300 South Western Parkway, on top of Ohio River flood wall, 200 ft southeast of a river barge loading dock, in Louisville. Owner: Ashland Oil Company.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 101 ft, screened 99.5-101.0 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 453.83 ft, National Geodetic Vertical Datum. Measuring point: Top of plug, 5.60 ft above land-surface datum.
REMARKS.--Water-quality sample collected Feb. 15, 1945.
PERIOD OF RECORD.--February 1945 to current year. February 1945 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 46.22 ft below land-surface datum, Apr. 26, 1984; lowest measured, 77.08 ft below land-surface datum, Dec. 17, 1954.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	53.00	May 7, 1991	51.71

381424085454602. Local number CP 12A, map number 76.
LOCATION.--Lat 38°14'24", long 85°45'46", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at the southwest corner of Ben F. Washer Park, 23.0 ft north of curb on west Kentucky Street, 38.0 ft east of curb on south Sixth Street, 45.5 ft northwest of a fire plug, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 91.0 ft, screened 74.5-76.5 ft, 87.0-91.0 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 455.72 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
REMARKS.--Replaces destroyed well 381424085454601 (CP-12), which was 20 ft north.
PERIOD OF RECORD.--October 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.36 ft below land-surface datum, Oct. 30, 1984; lowest measured, 32.56 ft below land-surface datum, Oct. 17, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	31.12	May 6, 1991	29.79

JEFFERSON COUNTY

381428085485701. Local number 78-6, map number 77.
LOCATION.--Lat 38°14'28", long 85°48'57", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at Virginia Avenue, I-264 South Exit, 19 ft east of curb on east side of exit road, 24 ft southeast of south end of a metal guardrail, 100 ft north of curb on north edge of Virginia Avenue, in Louisville. Owner: Kentucky Highway Department.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 98 ft, screened 96-98 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 440.28 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--February 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.96 ft below land-surface datum, May 6, 1991; lowest measured, 29.75 ft below land-surface datum, Dec. 13, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	25.72	May 6, 1991	23.96

381430085452602. Local number 45-14-69 (owner's number 3), map number 78.
LOCATION.--Lat 38°14'30", long 85°45'26", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, in subbasement of the Cosmopolitan Building, 100 ft east of the junction of 3rd and West Kentucky Streets, in Louisville. Owner: Conna Corporation.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 12 in, depth 88 ft, cased and screened.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 455.45 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 11.50 ft below land-surface datum.
PERIOD OF RECORD.--December 1943 to current year. December 1943 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.89 ft below land-surface datum, Oct. 30, 1984; lowest measured, 73.89 ft below land-surface datum, Nov. 4, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	29.56	May 6, 1991	28.16

381430085472501. Local number CP-17, map number 79.
LOCATION.--Lat 38°14'30", long 85°47'25", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 21 ft west of the west curb on 22nd Street, 45 ft north of north curb on Greenwood Street, at the southeast corner of Victory Park, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 86.0 ft, screened 84.0-86.0 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 451.78 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--March 1982 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.20 ft below land-surface datum, Apr. 23, 1985; lowest measured, 29.96 ft below land-surface datum, Oct. 25, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	27.80	May 6, 1991	27.22

JEFFERSON COUNTY

381441085465301. Local number 46-14-13, (owner's number 3), map number 80.
LOCATION.--Lat 38°14'41", long 85°46'53", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, in a brick pump house at the Bernheim Distillery, 400 ft northwest of the junction of 17th and West Breckinridge Streets, in Louisville. Owner: Bernheim Distilling Company.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 16 in, depth 111 ft, cased and screened.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 451.59 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 0.72 ft above land-surface datum.
REMARKS.--Water levels affected by pumping from nearby wells.
PERIOD OF RECORD.--October 1949 to current year. October 1949 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.00 ft below land-surface datum, Apr. 24, 1985; lowest measured, 79.96 ft below land-surface datum, Oct. 5, 1965.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	27.14	May 2, 1991	well destroyed

GROUND-WATER LEVELS

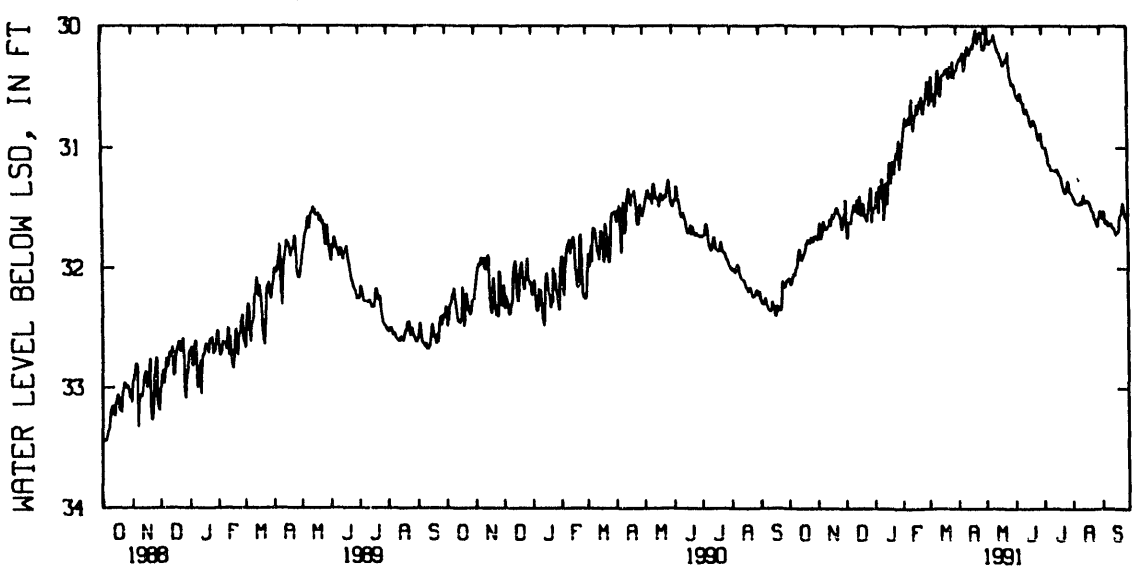
JEFFERSON COUNTY

381441085452701. Local number 45-14-71, (owner's number A-2), map number 81.
LOCATION.--Lat 38°14'41", long 85°45'27", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at the Louisville Free Public Library, 301 West York Street, on east side of building at base of the TV-radio tower, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 8 in, depth 105 ft, cased and screened.
INSTRUMENTATION.--Digital recorder -- 60-minute punch.
DATUM.--Elevation of land-surface datum is 454.23 ft above National Geodetic Vertical Datum. 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, 28.09 ft below land-surface datum, May 20, 1984; lowest, 77.82 ft below land-surface datum, Sept. 18, 1955.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY OBSERVATION AT 12:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32.11	31.73	31.58	31.50	31.10	30.53	30.36	30.17	30.47	30.96	31.38	31.53
2	32.08	31.76	31.55	31.50	31.01	30.45	30.37	30.20	30.48	31.00	31.39	31.54
3	32.09	31.76	31.43	31.51	30.95	30.53	30.31	30.16	30.52	31.00	31.41	31.59
4	32.14	31.69	31.69	31.45	30.87	30.65	30.30	30.08	30.56	31.00	31.43	31.52
5	32.13	31.62	31.75	31.37	30.81	30.56	30.27	30.02	30.58	31.00	31.45	31.57
6	32.09	31.76	31.61	31.37	30.75	30.41	30.28	30.14	30.59	31.05	31.46	31.63
7	32.05	31.73	31.62	31.54	30.82	30.59	30.25	30.15	30.61	31.09	31.46	31.62
8	32.05	31.71	31.62	31.32	30.80	30.62	30.25	30.15	30.55	31.13	31.47	31.60
9	32.06	31.61	31.63	31.33	30.78	30.55	30.22	30.11	30.57	31.15	31.47	31.65
10	32.00	31.63	31.54	31.42	30.75	30.66	30.37	30.12	30.62	31.15	31.47	31.64
11	31.99	31.67	31.51	31.26	30.81	30.55	30.34	30.12	30.63	31.19	31.44	31.63
12	31.91	31.68	31.47	31.45	30.75	30.45	30.30	30.07	30.63	31.19	31.47	31.62
13	31.87	31.67	31.51	31.60	30.60	30.36	30.20	30.11	30.69	31.19	31.43	31.66
14	31.84	31.65	31.53	31.48	30.70	30.47	30.17	30.14	30.72	31.19	31.39	31.66
15	31.93	31.65	31.43	31.30	30.86	30.58	30.21	30.18	30.68	31.19	31.44	31.66
16	31.93	31.59	31.55	31.29	30.79	30.55	30.24	30.19	30.69	31.20	31.46	31.69
17	31.91	31.65	31.48	31.47	30.73	30.41	30.21	30.23	30.73	31.18	31.43	31.72
18	31.89	31.60	31.40	31.29	30.73	30.40	30.18	30.23	30.73	31.19	31.44	31.69
19	31.87	31.55	31.55	31.19	30.64	30.41	30.15	30.25	30.79	31.22	31.44	31.70
20	31.85	31.59	31.56	31.12	30.72	30.38	30.19	30.27	30.82	31.23	31.45	31.70
21	31.80	31.56	31.46	31.30	30.68	30.36	30.10	30.30	30.82	31.24	31.47	31.60
22	31.79	31.53	31.47	31.21	30.61	30.39	30.08	30.33	30.77	31.29	31.50	31.55
23	31.76	31.50	31.57	31.11	30.65	30.35	30.03	30.31	30.78	31.32	31.53	31.55
24	31.78	31.50	31.57	31.21	30.58	30.43	30.14	30.30	30.80	31.36	31.53	31.48
25	31.79	31.55	31.58	31.22	30.68	30.43	30.14	30.27	30.82	31.37	31.56	31.46
26	31.78	31.55	31.61	31.12	30.72	30.33	30.09	30.28	30.86	31.38	31.59	31.51
27	31.74	31.55	31.51	31.04	30.64	30.37	30.05	30.23	30.91	31.34	31.59	31.57
28	31.77	31.60	31.45	31.09	30.60	30.42	30.05	30.34	30.94	31.28	31.63	31.57
29	31.78	31.68	31.39	31.01	---	30.29	30.09	30.42	30.91	31.28	31.65	31.59
30	31.73	31.65	31.33	30.94	---	30.43	30.19	30.44	30.88	31.36	31.57	31.60
31	31.73	---	31.62	31.18	---	30.37	---	30.49	---	31.37	31.52	---
MAX	32.14	31.76	31.75	31.60	31.10	30.66	30.37	30.49	30.94	31.38	31.65	31.72
MIN	31.73	31.50	31.33	30.94	30.58	30.29	30.03	30.02	30.47	30.96	31.38	31.46

WTR YR 1991 HIGH 30.02 LOW 32.14



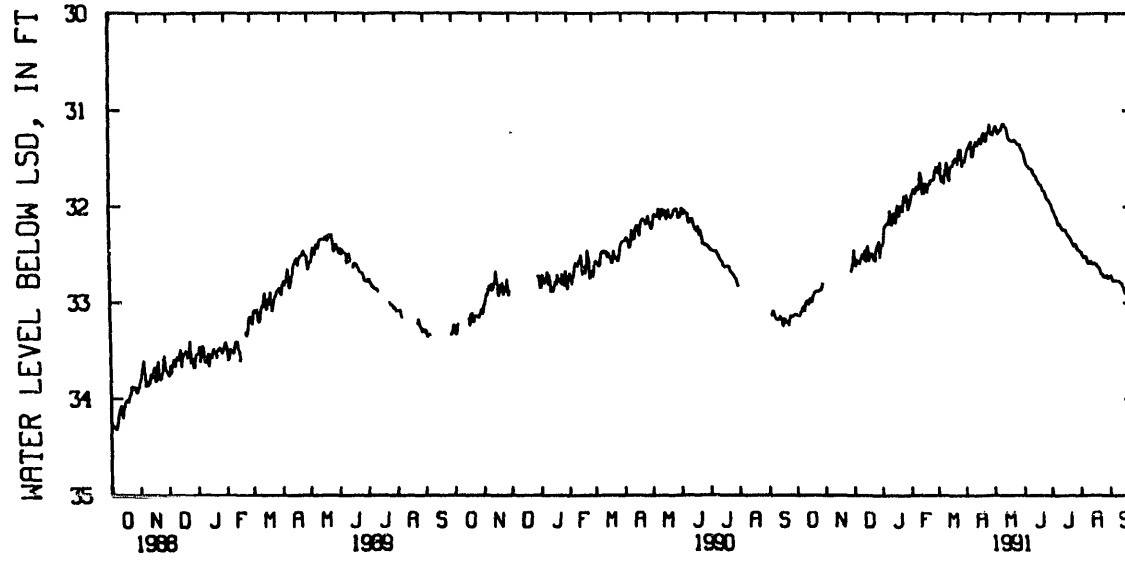
JEFFERSON COUNTY

381447085454001. Local number 45-14-66, (owner's number 5), map number 82.
LOCATION.--Lat 38°14'47", long 85°45'40", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, at Courier Journal-Louisville Times, Sixth and Broadway Streets in subbasement below building entrance walkway from Armory Street, in Louisville. Owner: Gannett.
AQUIFER.--Louisville Limestone and Laurel Dolomite of Middle Silurian age. Aquifer code: 354LVLL.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 12 in, depth 190 ft, cased to 121 ft, open-hole 121-190 ft.
INSTRUMENTATION.--Continuous strip-chart recorder.
DATUM.--Elevation of land-surface datum is 455.83 ft above National Geodetic Vertical Datum. Measuring point: Top of metal well cover, 15.87 ft below land-surface datum.
REMARKS.--Earthquake monitor well. Water-quality samples collected Aug. 29, 1949 and Aug. 18, 1950.
PERIOD OF RECORD.--October 1953 to current year. October 1953 to September 1976 published in hydrograph form and on file at district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level observed, 28.80 ft below land-surface datum, June 2, 1984; lowest, 86.85 ft below land-surface datum, Sept. 20, 1955.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY OBSERVATION AT 12:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33.12	---	32.61	32.45	32.00	31.62	31.53	31.22	31.40	31.95	32.45	32.75
2	33.14	---	32.58	32.40	31.97	31.58	31.54	31.26	31.42	31.96	32.45	32.74
3	33.12	---	32.45	32.41	31.94	31.63	31.49	31.22	31.43	31.99	32.46	32.74
4	33.12	---	32.62	32.34	31.87	31.65	31.45	31.20	31.47	32.03	32.47	32.71
5	33.14	---	32.62	32.22	31.84	31.65	31.42	31.16	31.53	32.04	32.50	32.73
6	33.12	---	32.55	32.20	31.81	31.54	31.39	31.19	31.56	32.06	32.51	32.77
7	33.10	---	32.57	32.20	31.87	31.72	31.38	31.24	31.58	32.09	32.53	32.78
8	33.09	---	32.57	32.17	31.84	31.74	31.34	31.24	31.58	32.11	32.52	32.76
9	33.05	---	32.60	32.19	31.79	31.68	31.32	31.21	31.60	32.14	32.51	32.78
10	33.04	---	32.55	32.16	31.79	31.76	31.47	31.21	31.60	32.16	32.57	32.77
11	33.09	---	32.53	32.04	31.83	31.68	31.48	31.20	31.60	32.19	32.59	32.77
12	33.02	---	32.49	32.10	31.79	31.60	31.45	31.16	31.62	32.17	32.59	32.77
13	32.99	---	32.53	32.19	31.64	31.54	31.37	31.14	31.64	32.19	32.58	32.77
14	32.98	---	32.56	32.17	31.68	31.63	31.32	31.14	31.66	32.21	32.56	32.78
15	33.02	---	32.45	32.08	31.85	31.72	31.34	31.17	31.67	32.23	32.59	32.80
16	33.02	---	32.58	32.06	31.87	31.73	31.37	31.17	31.68	32.24	32.60	32.79
17	32.96	---	32.45	32.17	31.79	31.59	31.34	31.21	31.71	32.24	32.58	32.83
18	32.96	---	32.41	32.16	31.75	31.57	31.31	31.27	31.73	32.23	32.60	32.84
19	33.00	---	32.57	32.01	31.77	31.59	31.28	31.30	31.75	32.25	32.59	32.89
20	32.96	---	32.53	31.98	31.85	31.56	31.35	31.30	31.77	32.28	32.62	32.90
21	32.92	---	32.48	32.10	31.79	31.51	31.29	31.32	31.77	32.30	32.63	32.88
22	32.89	---	32.51	32.06	31.76	31.52	31.24	31.32	31.79	32.30	32.63	32.84
23	32.89	---	32.48	31.98	31.77	31.49	31.23	31.32	31.83	32.32	32.66	32.83
24	32.88	---	32.56	32.03	31.72	31.54	31.32	31.31	31.83	32.34	32.69	32.75
25	32.88	---	32.51	32.05	31.73	31.56	31.32	31.31	31.83	32.36	32.70	32.73
26	32.89	---	32.57	31.96	31.72	31.46	31.24	31.33	31.87	32.39	32.70	32.74
27	32.87	---	32.44	31.88	31.72	31.40	31.22	31.34	31.89	32.41	32.73	32.79
28	32.87	---	32.43	31.95	31.70	31.52	31.23	31.35	31.92	32.40	32.73	32.81
29	32.87	---	32.40	31.88	---	31.40	31.14	31.35	31.92	32.38	32.74	32.82
30	32.84	32.68	32.36	31.88	---	31.58	31.25	31.35	31.93	32.41	32.72	32.79
31	32.80	---	32.53	32.03	---	31.53	---	31.37	---	32.44	32.71	---
MAX	33.14	---	32.62	32.45	32.00	31.76	31.54	31.37	31.93	32.44	32.74	32.90
MIN	32.80	---	32.36	31.88	31.64	31.40	31.14	31.14	31.40	31.95	32.45	32.71

WTR YR 1991 HIGH 31.14 LOW 33.14



JEFFERSON COUNTY

381453085474501. Local number 47-14-10, (east well), map number 83.
LOCATION.--Lat 38°14'53", long 85°47'45", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 150 ft east of Kroger store, 10 ft south of parking lot curb, on fence line, 900 ft southeast of the junction of West Broadway and 28th Street, in Louisville. Owner: Kroger Corporation.
AQUIFER.--Louisville Limestone of Middle Silurian age. Aquifer code: 354LVLG.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in, depth 204 ft, cased to 65 ft, open hole 65-204 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 452.89 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 2.00 ft above land-surface datum.
PERIOD OF RECORD.--January 1944 to current year. January 1944 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.27 ft below land-surface datum, Oct. 30, 1985; lowest measured, 76.66 ft below land-surface datum, June 15, 1961.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	28.30	May 6, 1991	27.49

381500085445501. Local number 89-2, map number 84.
LOCATION.--Lat 38°15'00", long 85°44'55", Hydrologic Unit 05140101, County Code 111, Jefferson quadrangle, southeast of the intersection of Muhammad Ali Blvd. and Floyd Street, 8.0 ft south of curb on Muhammad Ali Blvd., 200 ft east of curb on Floyd Street, next to sidewalk under well protector. Owner: University of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112 OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 2.0 in, depth 46.7 ft, screened 36.7-46.7 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 459.98 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, .35 ft above land-surface datum.
PERIOD OF RECORD.--September 1989 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 36.84 ft below land-surface datum, May 6, 1991; lowest measured, 38.93 ft below land-surface datum, Oct. 29, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	38.93	May 6, 1991	36.84

381500085454701. Local number 78-5, map number 85.
LOCATION.--Lat 38°15'00", long 85°45'47", Hydrologic Unit 05140101, County Code 111, Louisville West quadrangle, 1 ft south of concrete walkway curb, 50 ft northwest of northwest corner of Bell Telephone Company office building, 50 ft east of South Seventh Street, 200 ft north of West Chestnut Street, in Louisville. Owner: South Central Bell Telephone Company.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 87 ft, screened 85-87 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 459.11 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--October 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.44 ft below land-surface datum, Apr. 24, 1984; lowest measured, 39.39 ft below land-surface datum, Oct. 24, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	37.92	May 6, 1991	36.15

JEFFERSON COUNTY

381501085464601. Local number CP 10, map number 86.
LOCATION.--Lat 38°15'01", long 85°46'46", Hydrologic Unit 05140101, County Code 111, New Albany quadrangle, at the center of the west side of Sheppard Park, 10 ft south of a concrete walkway, 17 ft east of South 17th Street, 150 ft north of the junction of Magazine and South 17th Street, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 59.0 ft, screened 56.0-59.0 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 460.73 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--August 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.65 ft below land-surface datum, Oct. 31, 1984; lowest measured, 45.14 ft below land-surface datum, Aug. 4, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	37.03	May 6, 1991	35.98

381503085452601. Local number 5, map number 87.
LOCATION.--Lat 38°15'03", long 85°45'26", Hydrologic Unit 05140101, County Code 111, New Albany quadrangle, in basement under truck loading dock at Stewart's Dry Goods Company, 501 Fourth Avenue in Louisville. Owner: Stewart's Dry Goods Company.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 20 in, depth 124 ft, cased to 103 ft, screened 103-124 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 461.54 ft above National Geodetic Vertical Datum. Measuring point: Bottom edge of a slanted 2 in access pipe in concrete pump base, 12.00 ft below land-surface datum.
REMARKS.--Water-quality samples collected Aug. 8, 1978 to Aug. 21, 1980.
PERIOD OF RECORD.--March 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.83 ft below land-surface datum, Apr. 24, 1984; lowest measured, 40.59 ft below land-surface datum, Oct. 17, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	39.69	May 6, 1991	37.84

381503085453301. Local number 45-15-36, map number 88.
LOCATION.--Lat 38°15'03", long 85°45'33", Hydrologic Unit 05140101, County Code 111, New Albany quadrangle, in subbasement of Kentucky Towers Apartments, on east side of South Fifth Street, at Fifth and Walnut Streets, in Louisville. Owner: Kentucky Towers (formerly Kentucky Hotel).
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 10 in, depth 104 ft, screened 84-104 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 460.00 ft above National Geodetic Vertical Datum. Measuring point: Floor of recorder shelter 22.81 ft below land-surface datum.
PERIOD OF RECORD.--September 1948 to current year. November 1973 to September 1976 published in hydrograph form and on file at district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.53 ft below land-surface datum, Apr. 24, 1984; lowest measured, 87.74 ft below land-surface datum, Sept. 23, 1955.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	38.36	May 6, 1991	36.55

JEFFERSON COUNTY

381504085443202. Local number CP 7A, map number 89.
LOCATION.--Lat 38°15'04", long 85°44'32", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, at the southwest corner of east Louisville Park, 13.7 ft west of a tennis court fence, 16.5 ft east of curb on south Hancock Street, 58.2 ft north of curb on east Liberty Street, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 84.6 ft, screened 71.1-74.1 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 467.19 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
REMARKS.--Replaces destroyed well 381504085443201 (CP 7), which was 10 ft north.
PERIOD OF RECORD.--July 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 43.42 ft below land-surface datum, Apr. 24, 1984; lowest measured, 47.02 ft below land-surface datum, Oct. 17, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	46.80	May 6, 1991	44.66

381505085475701. Local number CP 5, map number 90.
LOCATION.--Lat 38°15'05", long 85°47'57", Hydrologic Unit 05140101, County Code 111, New Albany quadrangle, at the southwest corner of Elliott Square Park, 35 ft east of South 29th Street, 100 ft north of Elliott Street, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 81.5 ft, screened 65.0-68.0, 78.5-81.5 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 452.86 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--July 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.91 ft below land-surface datum, Apr. 24, 1985; lowest measured, 39.93 ft below land-surface datum, July 5, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	31.48	May 6, 1991	30.60

381508085455701. Local number CP 4, map number 91.
LOCATION.--Lat 38°15'08", long 85°45'57", Hydrologic Unit 05140101, County Code 111, New Albany quadrangle, at the southwest corner of Beecher Park, 15 ft west of the South 9th Street sidewalk, 20 ft north of the Walnut Street sidewalk, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 109.8 ft, screened 106.8-109.8 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 459.47 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--July 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.43 ft below land-surface datum, Apr. 24, 1984; lowest measured, 43.31 ft below land-surface datum, Aug. 4, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	37.75	May 6, 1991	36.10

GROUND-WATER LEVELS

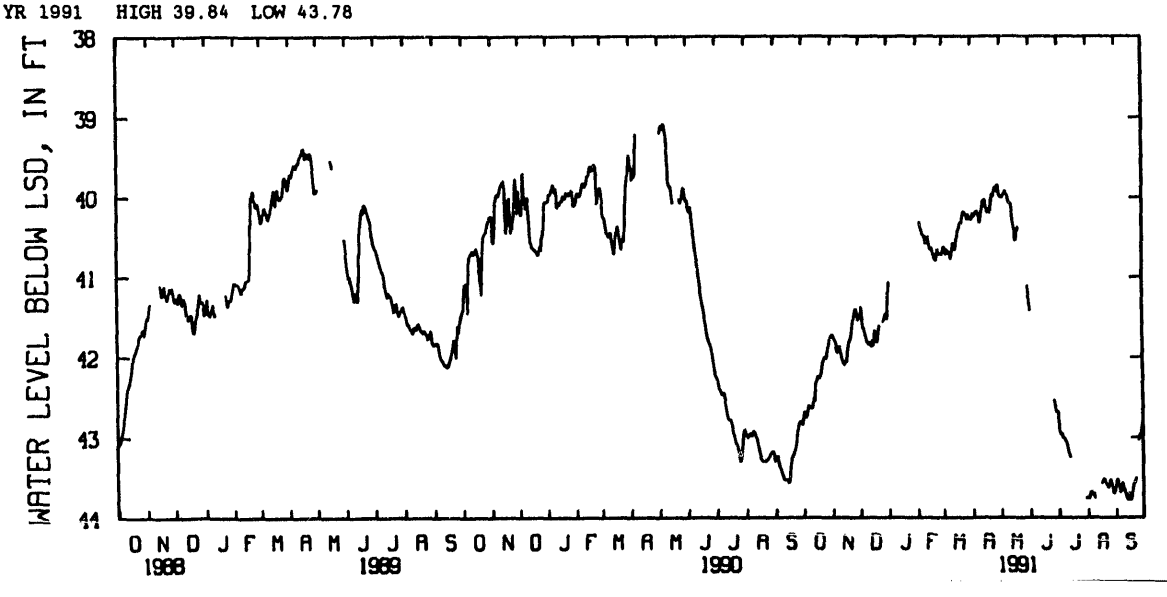
JEFFERSON COUNTY

381514085453502. Local number, CP 11A, map number 92.
LOCATION.--Lat 38°15'14", long 85°45'35", Hydrologic Unit 05140101, County Code 111, New Albany quadrangle, at the northwest corner of Jefferson Square Park at Sixth and Jefferson Streets, 52 ft south of the Jefferson Street curb, 16.5 ft west of driveway retaining wall, 2 ft east of sidewalk, across the street from the Jefferson County Courthouse, in Louisville. Owner: Jefferson County.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 108.0 ft, screened 106.0-108.0 ft.
INSTRUMENTATION.--Continuous strip-chart recorder.
DATUM.--Elevation of land-surface datum is 461.52 ft above National Geodetic Vertical Datum. Measuring point: Floor of recorder shelter, 3.10 ft above land-surface datum.
REMARKS.--Recorder shelter has two plexi-glass panels for public exhibit of water level recording equipment.
PERIOD OF RECORD.--May 1984 to current year. Replaced destroyed well 381514085453501 (CP 11), which was 25 ft west.
EXTREMES FOR PERIOD OF RECORD.--Highest water level observed, 35.62 ft below land-surface datum, May 20, 1984; lowest, 43.78 ft below land-surface datum, Sept. 14, 17, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY OBSERVATION AT 12:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42.78	41.72	41.51	41.20	---	40.70	40.28	39.99	41.34	42.71	43.75	43.61
2	42.71	41.73	41.48	41.06	---	40.64	40.26	40.00	41.42	42.92	43.76	43.53
3	42.69	41.78	41.37	---	---	40.62	40.20	40.00	---	42.95	43.76	43.52
4	42.76	41.80	41.54	---	40.31	40.65	40.25	40.00	---	42.96	43.70	43.59
5	42.72	41.81	41.64	---	40.40	40.72	40.21	39.96	---	42.95	43.67	43.66
6	42.66	41.94	41.65	---	40.41	40.65	40.20	39.97	---	43.01	43.72	43.68
7	42.60	41.94	41.71	---	40.47	40.68	40.17	39.92	---	43.00	43.71	43.68
8	42.62	41.94	41.75	---	40.48	40.71	40.21	39.97	---	43.03	43.69	43.56
9	42.63	41.86	41.80	---	40.48	40.68	40.24	39.97	---	43.05	43.76	43.62
10	42.64	41.91	41.82	---	40.51	40.77	40.32	40.03	---	43.07	---	43.65
11	42.64	41.97	41.84	---	40.58	40.73	40.24	40.08	---	43.14	---	43.69
12	42.51	42.03	41.84	---	40.57	40.66	40.16	40.07	---	43.20	---	43.72
13	42.55	42.06	41.81	---	40.49	40.57	40.06	40.09	---	43.23	---	43.76
14	42.35	42.09	41.87	---	40.56	40.62	40.05	40.18	---	43.25	---	43.78
15	42.31	42.09	41.79	---	40.62	40.67	40.03	40.31	---	---	---	43.68
16	42.28	42.04	41.86	---	40.66	40.61	40.13	40.38	---	---	43.57	43.77
17	42.24	42.07	41.76	---	40.63	40.50	40.16	40.52	---	---	43.56	43.78
18	42.27	41.94	41.66	---	40.66	40.41	40.20	40.54	---	---	43.53	43.76
19	42.25	41.82	41.79	---	40.72	40.40	40.16	40.44	---	---	43.51	43.65
20	42.20	41.80	41.82	---	40.77	40.35	40.20	40.40	---	---	43.54	43.58
21	42.11	41.78	41.77	---	40.77	40.32	40.12	40.37	---	---	43.57	43.57
22	42.07	41.72	41.68	---	40.79	40.33	40.00	---	---	---	43.59	43.54
23	42.03	41.64	41.60	---	40.71	40.25	39.96	---	---	---	43.62	43.50
24	42.00	41.55	---	---	40.65	40.18	40.00	---	---	---	43.62	---
25	42.02	41.47	---	---	40.71	40.18	39.92	---	---	---	43.57	---
26	42.00	41.42	---	---	40.72	40.21	39.87	---	42.53	---	43.52	43.04
27	41.93	41.40	41.56	---	40.70	40.21	39.89	---	42.57	---	43.56	42.96
28	41.86	41.45	41.51	---	40.72	40.28	39.94	---	42.63	---	43.62	42.97
29	41.78	41.53	41.48	---	---	40.21	39.84	---	42.69	---	43.67	42.88
30	41.76	41.53	41.45	---	---	40.27	39.96	41.10	42.67	43.76	43.70	42.81
31	41.74	---	41.53	---	---	40.27	---	41.23	---	43.75	43.68	---
MAX	42.78	42.09	---	---	---	40.77	40.32	---	---	---	---	---
MIN	41.74	41.40	---	---	---	40.18	39.84	---	---	---	---	---

WTR YR 1991 HIGH 39.84 LOW 43.78



GROUND-WATER LEVELS

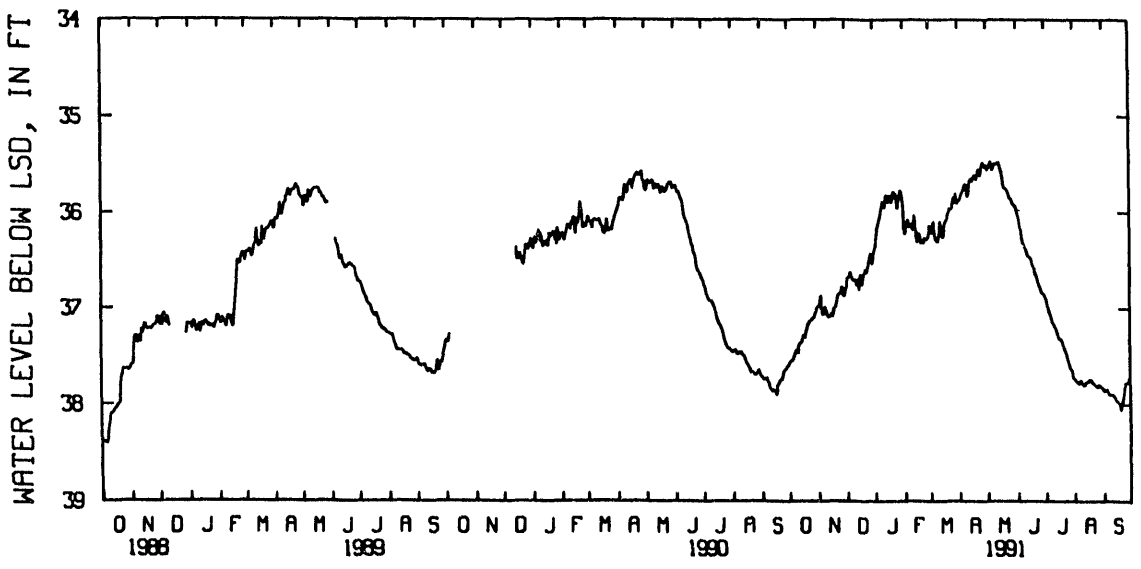
JEFFERSON COUNTY

381517085455501. Local number 86-6 (Roy Wilkins Blvd.), map number 93.
LOCATION.--Lat 38°15'17", long 85°45'55", Hydrologic Unit 05140101, County Code 111, New Albany quadrangle, at the southwest corner of Roy Wilkins Blvd. and Market Street, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 2.5 in, depth 86.4 ft, screened 82.4-86.4 ft.
INSTRUMENTATION.--Digital recorder installed June 6, 1989 -- 60-minute punch.
DATUM.--Elevation of land-surface datum is 457.59 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 3.0 ft above land-surface datum.
REMARKS.--Water levels affected by Ohio River stage and pumping from nearby wells.
PERIOD OF RECORD.--October 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 34.77 ft below land-surface datum, Nov. 18, 1986; lowest, 38.41 ft below land-surface datum, Sept. 26, 27, 29, 30, and Oct. 5, 1988.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY OBSERVATION AT 12:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37.60	37.00	36.81	36.43	35.95	36.20	35.87	35.50	36.00	36.89	37.73	37.85
2	37.57	36.98	36.79	36.38	36.22	36.13	35.88	35.56	36.03	36.90	37.73	37.86
3	37.55	36.98	36.68	36.34	36.21	36.19	35.84	35.53	36.06	36.94	37.75	37.86
4	37.55	36.96	36.68	36.21	36.16	36.21	35.81	35.50	36.13	36.99	37.76	37.84
5	37.55	36.87	36.68	36.16	36.12	36.22	35.79	35.47	36.18	37.04	37.77	37.86
6	37.53	37.05	36.62	36.13	36.07	36.09	35.77	35.51	36.25	37.06	37.78	37.88
7	37.50	37.06	36.63	36.08	36.15	36.26	35.75	35.56	36.31	37.09	37.78	37.90
8	37.47	37.07	36.68	36.05	36.15	36.29	35.72	35.54	36.33	37.12	37.75	37.90
9	37.44	37.00	36.71	35.98	36.14	36.26	35.70	35.49	36.35	37.16	37.75	37.90
10	37.44	36.99	36.71	35.93	36.11	36.31	35.82	35.50	36.37	37.16	37.79	37.89
11	37.47	37.06	36.70	35.88	36.18	36.27	35.83	35.50	36.39	37.19	37.80	37.91
12	37.40	37.08	36.70	35.95	36.18	36.19	35.79	35.49	36.42	37.20	37.80	37.91
13	37.38	37.09	36.76	35.94	36.03	36.09	35.70	35.48	36.45	37.23	37.78	37.92
14	37.36	37.09	36.76	35.82	36.08	36.17	35.66	35.49	36.46	37.26	37.76	37.94
15	37.36	37.09	36.69	35.82	36.24	36.26	35.65	35.54	36.47	37.29	37.77	37.96
16	37.34	37.05	36.81	35.90	36.31	36.26	35.68	35.57	36.48	37.32	37.77	37.96
17	37.29	37.09	36.65	35.86	36.24	36.16	35.64	35.62	36.53	37.32	37.74	37.98
18	37.28	37.06	36.65	35.82	36.21	36.10	35.62	35.71	36.55	37.32	37.74	37.98
19	37.31	37.00	36.76	35.88	36.24	36.09	35.61	35.74	36.57	37.34	37.74	38.01
20	37.25	37.00	36.71	35.90	36.32	36.07	35.66	35.75	36.63	37.37	37.76	38.06
21	37.22	36.98	36.65	35.84	36.30	36.01	35.62	35.76	36.65	37.42	37.78	38.01
22	37.17	36.93	36.62	35.78	36.28	35.99	35.57	35.77	36.68	37.43	37.78	37.96
23	37.16	36.87	36.60	35.86	36.32	35.95	35.55	35.80	36.72	37.46	37.80	37.93
24	37.14	36.86	36.63	35.80	36.26	35.96	35.62	35.84	36.75	37.48	37.80	37.84
25	37.13	36.85	36.58	35.87	36.28	35.96	35.59	35.85	36.77	37.53	37.82	37.79
26	37.13	36.83	36.58	35.96	36.28	35.88	35.51	35.86	36.79	37.56	37.81	37.77
27	37.10	36.78	36.50	35.88	36.27	35.84	35.48	35.89	36.82	37.59	37.79	37.78
28	37.10	36.78	36.46	35.83	36.26	35.90	35.50	35.92	36.84	37.63	37.80	37.77
29	37.09	36.87	36.42	35.77	---	35.80	35.52	35.91	36.85	37.63	37.82	37.76
30	37.05	36.87	36.53	35.79	---	35.91	35.54	35.94	36.86	37.65	37.82	37.72
31	37.03	---	36.53	35.87	---	35.89	---	35.95	---	37.72	37.83	---
MAX	37.60	37.09	36.81	36.43	36.32	36.31	35.88	35.95	36.86	37.72	37.83	38.06
MIN	37.03	36.78	36.42	35.77	35.95	35.80	35.48	35.47	36.00	36.89	37.73	37.72

WTR YR 1991 HIGH 35.47 LOW 38.06



GROUND-WATER LEVELS

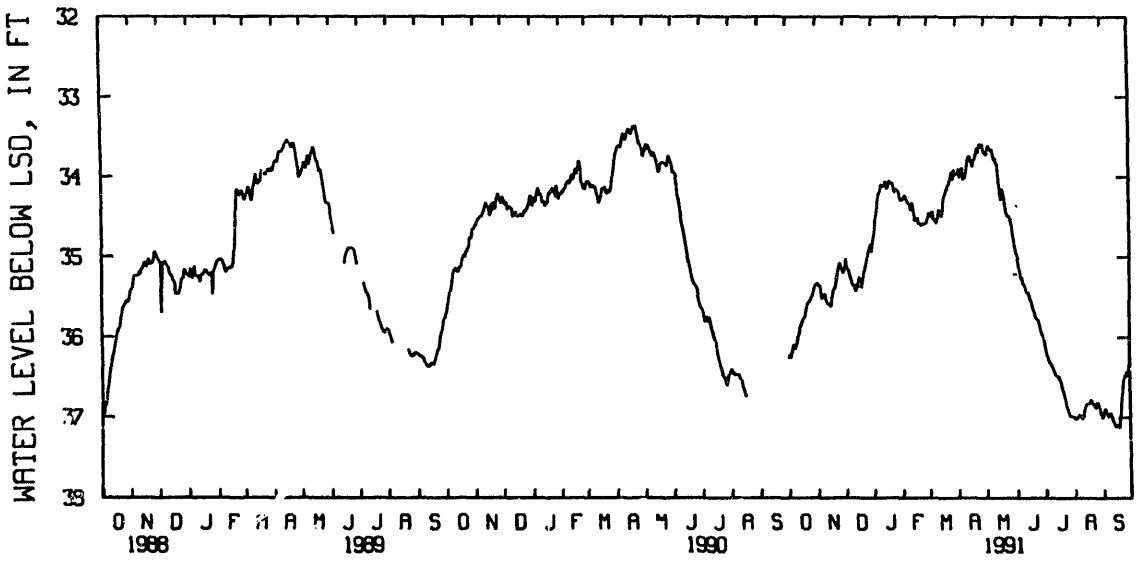
JEFFERSON COUNTY

381518085454401. Local number 86-10 (Mazzoni), map number 94.
LOCATION.--Lat 38°15'18", long 85°45'44", Hydrologic Unit 05140101, County Code 111, New Albany quadrangle, southwest side of Congress Alley and 7th Street, 3 ft south of alley, west of entrance 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 98 ft, screened 41-43 ft, 61-63 ft, 96-98 ft.
INSTRUMENTATION.--Digital recorder installed Aug. 10, 1989 -- 60-minute punch.
DATUM.--Elevation of land-surface datum is 455.13 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 3.0 ft above land-surface datum.
REMARKS.--Water levels affected by Ohio River stage and pumping from nearby wells.
PERIOD OF RECORD.--October 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 32.73 ft below land-surface datum, Nov. 18, 1986; lowest, 37.14 ft below land-surface datum, Aug. 24, 1988.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY OBSERVATION AT 12:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	35.33	35.18	34.86	34.29	34.53	33.97	33.70	34.89	36.01	36.99	37.01
2	36.26	35.33	35.13	34.79	34.29	34.45	33.96	33.71	34.95	36.09	37.02	36.97
3	36.22	35.35	35.02	34.73	34.29	34.46	33.90	33.73	34.97	36.17	37.02	36.91
4	36.26	35.37	35.11	34.63	34.26	34.48	34.01	33.68	35.06	36.23	37.02	36.89
5	36.22	35.35	35.16	34.48	34.24	34.51	33.98	33.61	35.15	36.25	36.99	36.94
6	36.18	35.48	35.16	34.41	34.24	34.43	33.93	33.67	35.17	36.29	36.98	36.97
7	36.11	35.50	35.23	34.30	34.29	34.51	33.89	33.64	35.27	36.32	36.96	36.99
8	36.09	35.52	35.26	34.23	34.31	34.54	34.04	33.68	35.24	36.32	36.99	36.99
9	36.15	35.48	35.31	34.20	34.33	34.54	34.00	33.65	35.33	36.36	36.99	36.94
10	36.10	35.46	35.35	34.18	34.34	34.57	34.02	33.74	35.34	36.37	37.02	36.98
11	36.08	35.51	35.35	34.11	34.39	34.57	33.95	33.79	35.37	36.41	37.00	36.99
12	36.00	35.55	35.36	34.10	34.42	34.48	33.87	33.76	35.41	36.44	36.92	37.03
13	35.95	35.58	35.41	34.13	34.32	34.41	33.79	33.84	35.45	36.47	36.87	37.06
14	35.87	35.58	35.43	34.10	34.36	34.43	33.76	33.83	35.43	36.48	36.85	37.09
15	35.85	35.59	35.34	34.10	34.47	34.49	33.74	33.99	35.47	36.48	36.83	37.12
16	35.82	35.58	35.39	34.06	34.55	34.49	33.78	34.07	35.52	36.49	36.83	37.10
17	35.79	35.62	35.29	34.14	34.52	34.41	33.82	34.17	35.53	36.52	36.83	37.09
18	35.76	35.52	35.25	34.15	34.51	34.28	33.88	34.29	35.56	36.53	36.83	37.11
19	35.76	35.42	35.34	34.10	34.53	34.24	33.80	34.15	35.63	36.59	36.78	37.13
20	35.71	35.40	35.38	34.05	34.58	34.22	33.80	34.18	35.66	36.65	36.79	37.01
21	35.65	35.39	35.32	34.08	34.58	34.17	33.75	34.24	35.69	36.71	36.82	36.85
22	35.60	35.35	35.26	34.09	34.58	34.15	33.70	34.34	35.75	36.74	36.84	36.74
23	35.57	35.27	35.18	34.07	34.61	34.10	33.64	34.44	35.76	36.79	36.85	36.66
24	35.57	35.20	35.16	34.12	34.58	34.10	33.71	34.47	35.78	36.87	36.88	36.54
25	35.54	35.14	35.10	34.19	34.59	34.04	33.63	34.49	35.78	36.89	36.88	36.47
26	35.53	35.08	35.05	34.19	34.59	33.97	33.59	34.49	35.83	36.94	36.81	36.50
27	35.49	35.08	34.97	34.15	34.58	33.94	33.61	34.53	35.89	36.97	36.62	36.43
28	35.45	35.14	34.92	34.17	34.58	34.04	33.64	34.54	35.94	36.99	36.86	36.49
29	35.41	35.17	34.89	34.18	---	33.91	33.59	34.62	35.97	36.98	36.89	36.40
30	35.37	35.20	34.84	34.19	---	33.97	33.69	34.72	35.99	36.99	36.96	36.31
31	35.35	---	34.94	34.28	---	33.97	---	34.79	---	36.99	36.98	---
MAX	---	35.62	35.43	34.86	34.61	34.57	34.04	34.79	35.99	36.99	37.02	37.13
MIN	---	35.08	34.84	34.05	34.24	33.91	33.59	33.61	34.89	36.01	36.78	36.31

WTR YR 1991 HIGH 33.59 LOW 37.13



GROUND-WATER LEVELS

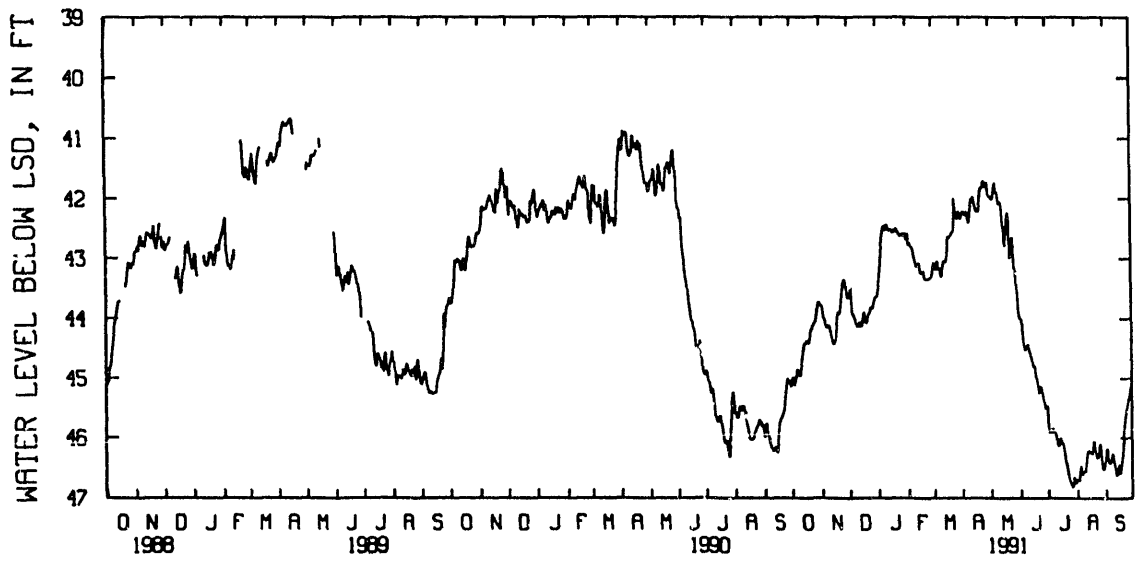
JEFFERSON COUNTY

381518085453402. Local number 86-11 (Courthouse Annex), map number 95.
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.--Digital recorder installed July 17, 1989 -- 60-minute punch.
DATUM.--Elevation of land-surface datum is 461.63 ft above National Geodetic Vertical Datum. 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, 40.24 ft below land-surface datum, Nov. 18, 1986; lowest, 46.82 ft below land-surface datum, July 27, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY OBSERVATION AT 12:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45.04	43.78	43.66	43.60	42.69	43.17	42.34	41.97	43.97	45.47	46.69	46.36
2	44.99	43.81	43.64	43.47	42.58	43.07	42.26	41.96	44.01	45.76	46.72	46.20
3	45.00	43.92	43.48	43.31	42.79	43.14	42.21	41.96	44.02	45.91	46.70	46.18
4	45.13	44.01	43.65	43.14	42.73	43.15	42.24	42.02	44.24	45.90	46.56	46.33
5	45.03	44.02	43.91	42.84	42.79	43.19	42.26	41.98	44.41	45.86	46.47	46.42
6	44.97	44.14	43.93	42.63	42.81	43.04	42.28	41.84	44.47	45.92	46.61	46.41
7	44.85	44.15	43.97	42.52	42.84	43.13	42.21	41.74	44.53	45.84	46.60	46.41
8	44.93	44.15	44.01	42.46	42.93	43.19	42.27	41.87	44.48	45.90	46.55	46.30
9	44.92	44.11	44.08	42.47	43.01	43.15	42.36	41.89	44.47	45.90	46.57	46.26
10	44.97	44.16	44.13	42.53	43.06	43.29	42.40	41.96	44.43	45.92	46.54	46.35
11	44.84	44.24	44.15	42.43	43.12	43.30	42.22	42.09	44.52	45.99	46.39	46.44
12	44.70	44.30	44.11	42.47	43.13	43.12	42.10	42.07	44.56	46.12	46.24	46.49
13	44.60	44.37	44.06	42.51	43.09	43.04	42.00	42.05	44.63	46.13	46.21	46.61
14	44.47	44.43	44.14	42.53	43.07	43.04	42.00	42.27	44.65	46.08	46.23	46.62
15	44.41	44.41	44.12	42.52	43.17	43.07	41.97	42.45	44.76	46.00	46.25	46.52
16	44.41	44.38	44.08	42.50	43.25	43.02	42.09	42.52	44.82	46.10	46.25	46.44
17	44.37	44.33	43.94	42.55	43.24	42.83	42.17	42.79	44.79	46.08	46.28	46.59
18	44.42	44.10	43.90	42.56	43.23	42.63	42.22	42.58	44.97	46.14	46.16	46.59
19	44.41	43.91	44.05	42.56	43.21	42.66	42.19	42.33	44.99	46.24	46.06	46.45
20	44.34	43.90	44.08	42.51	43.31	42.63	42.22	42.23	45.07	46.38	46.18	46.32
21	44.19	43.93	44.07	42.50	43.34	42.62	42.04	42.36	45.15	46.42	46.24	46.10
22	44.19	43.87	43.96	42.55	43.34	42.57	41.86	42.99	45.25	46.52	46.31	45.87
23	44.12	43.67	43.92	42.56	43.34	42.56	41.81	42.92	45.17	46.63	46.33	45.70
24	44.12	43.52	43.90	42.59	43.34	42.55	41.84	42.69	45.13	46.72	46.32	45.60
25	44.07	43.42	43.81	42.62	43.34	42.00	41.72	42.64	45.21	46.76	46.16	45.50
26	44.08	43.35	43.84	42.62	43.33	42.24	41.71	42.97	45.26	46.78	46.10	45.42
27	43.95	43.37	43.83	42.60	43.31	42.25	41.81	43.17	45.35	46.82	46.23	45.34
28	43.83	43.46	43.74	42.58	43.31	42.3	41.80	43.17	45.44	46.76	46.40	45.32
29	43.73	43.59	43.67	42.63	---	42.21	41.73	43.46	45.51	46.65	46.52	45.20
30	43.74	43.66	43.65	42.57	---	42.23	41.92	43.58	45.46	46.76	46.52	45.12
31	43.79	---	43.65	42.64	---	42.29	---	43.85	---	46.72	46.49	---
MAX	45.13	44.43	44.15	43.60	43.34	43.30	42.40	43.85	45.51	46.82	46.72	46.62
MIN	43.73	43.35	43.48	42.43	42.58	42.00	41.71	41.74	43.97	45.47	46.06	45.12

WTR YR 1991 HIGH 41.71 LOW 46.82



GROUND-WATER LEVELS

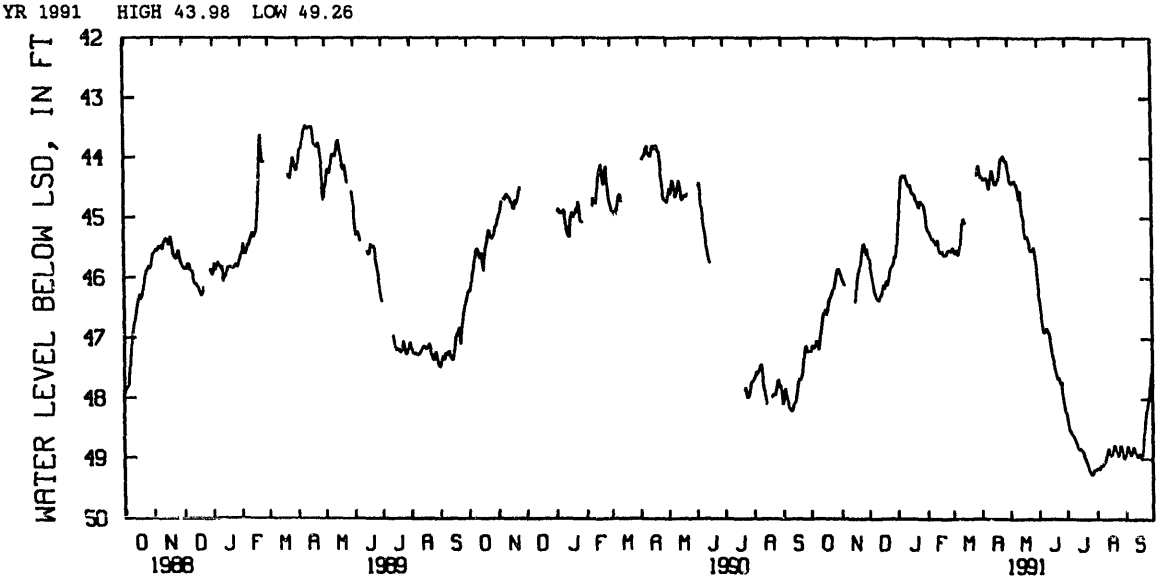
JEFFERSON COUNTY

381518085451801. Local number 87-1 (Levy's), map number 96.
LOCATION.--Lat 38°15'18", long 85°45'18", Hydrologic Unit 05140101, County Code 111, New Albany quadrangle, at 3rd and Market Streets, in west corner of basement in old Levy's building, under east sidewalk on 3rd Street. Owner: Metts Co., Inc.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 8 in, depth 99 ft.
INSTRUMENTATION.--Continuous strip-chart recorder.
DATUM.--Elevation of land-surface datum is 464.72 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 11.5 ft below land-surface datum.
REMARKS.--Water levels affected by Ohio River stage and pumping from nearby wells.
PERIOD OF RECORD.--January 1987 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 43.46 ft below land-surface datum, Apr. 10, 1989; lowest, 49.26 ft below land-surface datum, July 27, 28, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY OBSERVATION AT 12:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47.23	45.91	45.63	45.55	45.03	45.53	44.31	44.29	46.09	48.23	49.16	48.93
2	47.20	45.96	45.68	45.38	45.15	45.49	44.34	44.40	46.29	48.32	49.16	48.84
3	47.12	46.03	45.68	45.17	45.22	45.52	44.32	44.43	46.39	48.44	49.17	48.78
4	47.15	46.06	45.84	44.93	45.22	45.57	44.38	44.44	46.54	48.54	49.18	48.82
5	47.17	46.11	45.95	44.62	45.27	45.59	44.38	44.39	46.68	48.53	49.12	48.89
6	47.14	46.11	46.05	44.41	45.31	45.52	44.36	44.42	46.81	48.57	49.12	48.93
7	47.08	---	46.14	44.32	45.36	45.60	44.35	44.38	46.90	48.59	49.12	48.94
8	47.04	---	46.21	44.29	45.37	45.61	44.35	44.44	46.90	48.61	49.08	48.89
9	47.11	---	46.26	44.33	45.38	45.54	44.44	44.46	46.89	48.64	49.06	48.80
10	47.19	---	46.31	44.30	45.39	45.46	44.53	44.53	46.83	48.68	49.04	48.83
11	47.07	---	46.35	44.30	45.43	45.31	44.44	44.70	46.87	48.72	48.97	48.88
12	46.91	---	46.36	44.36	45.44	45.16	44.33	44.65	46.90	48.77	48.87	48.91
13	46.80	---	46.38	44.41	45.36	45.02	44.21	44.55	46.94	48.82	48.83	48.93
14	46.69	---	46.33	44.46	45.44	45.03	44.29	44.78	47.03	48.85	48.88	48.96
15	46.61	---	46.28	44.49	45.53	45.09	44.33	44.95	47.14	48.82	48.93	48.97
16	46.58	46.40	46.30	44.45	45.58	45.07	44.43	45.00	47.25	48.85	48.95	48.90
17	46.53	46.38	46.17	44.54	45.56	---	44.45	45.17	47.33	48.85	48.92	48.96
18	46.62	46.20	46.11	44.61	45.54	---	44.44	45.31	47.41	48.88	48.85	48.98
19	46.54	46.03	46.18	44.61	45.56	---	44.39	45.34	47.49	48.92	48.78	48.97
20	46.44	45.94	46.11	44.61	45.62	---	44.38	45.30	47.56	48.97	48.79	48.87
21	46.35	45.88	46.04	44.67	45.61	---	44.23	45.34	47.63	49.01	48.85	48.68
22	46.33	45.83	46.12	44.72	45.61	---	44.08	45.41	47.68	49.05	48.89	48.50
23	46.29	45.75	46.07	44.73	45.61	---	44.01	45.50	47.64	49.10	48.93	48.34
24	46.23	45.63	45.98	44.79	45.55	---	44.02	45.54	47.70	49.15	48.96	48.23
25	46.19	45.53	45.88	44.84	45.54	---	43.98	45.55	47.77	49.20	48.85	48.12
26	46.13	45.45	45.83	44.77	45.53	---	43.98	45.54	47.72	49.23	48.78	48.06
27	46.05	45.43	45.80	44.72	45.54	---	44.07	45.50	47.90	49.26	48.81	47.96
28	45.96	45.52	45.77	44.77	45.56	44.30	44.05	45.49	48.05	49.26	48.89	47.78
29	45.87	45.61	45.73	44.78	---	44.18	44.07	45.62	48.15	49.19	48.96	47.62
30	45.86	45.51	45.63	44.79	---	44.13	44.21	45.75	48.21	49.18	49.00	47.55
31	45.85	---	45.66	44.89	---	44.25	---	45.89	---	49.19	48.98	---
MAX	47.23	---	46.38	45.55	45.62	---	44.53	45.89	48.21	49.26	49.18	48.98
MIN	45.85	---	45.63	44.29	45.03	---	43.98	44.29	46.09	48.23	48.78	47.55

WTR YR 1991 HIGH 43.98 LOW 49.26



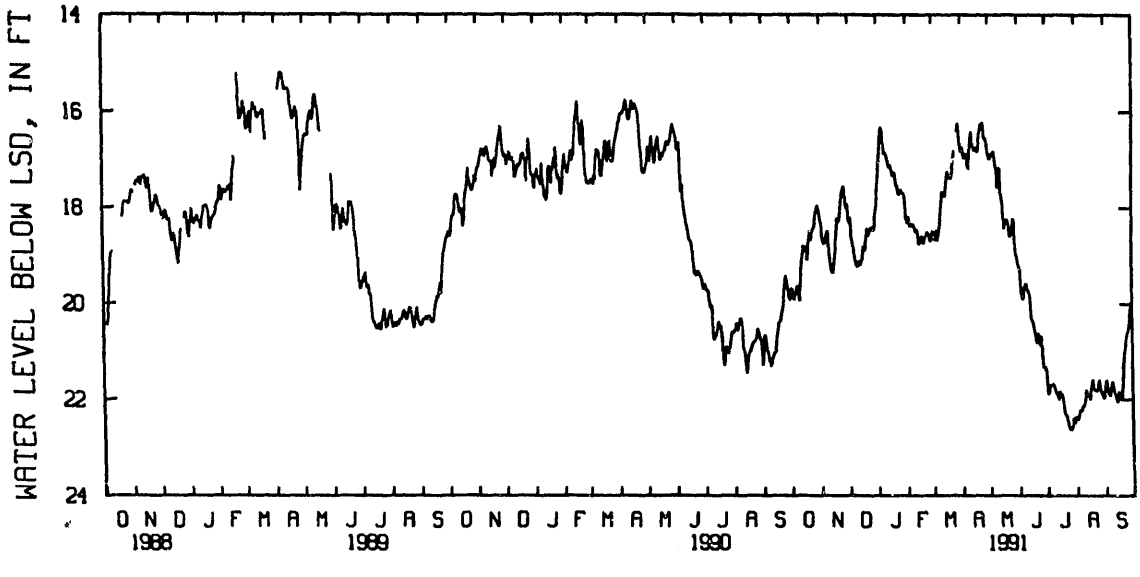
JEFFERSON COUNTY

381524085452301. Local number 86-8 (Galt House), map number 97.
LOCATION.--Lat 38°15'24", long 85°45'23", Hydrologic Unit 05140101, County Code 111, New Albany quadrangle, at southwest corner of River Road and Fourth Street, 3 ft west of sidewalk, in Louisville.
Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 2.5 in, depth 77.5 ft, screened 33.5-35.5 ft, 44.5-46.5 ft, 75.5-77.5 ft.
INSTRUMENTATION.--Digital recorder installed June 2, 1989 -- 60-minute punch.
DATUM.--Elevation of land-surface datum is 436.36 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 3.2 ft above land-surface datum.
REMARKS.--Water levels affected by Ohio River stage and pumping from nearby wells.
PERIOD OF RECORD.--October 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.02 ft below land-surface datum, Nov. 12, 1986; lowest, 22.63 ft below land-surface datum, July 26, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY OBSERVATION AT 12:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.70	18.25	18.24	17.67	18.21	18.53	16.84	16.87	19.14	21.36	22.35	21.86
2	19.69	18.36	18.32	17.37	18.31	18.49	16.74	16.94	19.20	21.68	22.40	21.69
3	19.78	18.64	18.20	17.08	18.32	18.57	16.78	16.99	19.25	21.89	22.43	21.60
4	19.92	18.68	18.61	16.76	18.18	18.67	16.91	16.93	19.56	21.83	22.37	21.76
5	19.84	18.75	18.70	16.38	18.39	18.67	16.97	16.86	19.80	21.69	22.22	21.88
6	19.81	18.75	18.81	16.34	18.33	18.47	16.91	16.89	19.90	21.72	22.25	21.92
7	19.64	18.60	18.99	16.43	18.40	18.69	16.88	16.82	19.89	21.69	22.22	21.90
8	19.64	18.51	19.08	16.67	18.34	18.58	16.90	16.96	19.70	21.68	22.14	21.76
9	19.71	18.49	19.17	16.88	18.37	18.46	17.10	17.08	19.62	21.72	22.15	21.63
10	19.95	18.93	19.20	16.87	18.40	18.24	17.19	17.23	19.58	21.79	22.07	21.72
11	19.45	19.07	19.23	16.87	18.49	17.97	16.76	17.58	19.69	21.86	21.96	21.83
12	19.14	19.22	19.11	16.97	18.50	17.70	16.54	17.20	19.73	21.89	21.80	21.90
13	18.99	19.32	19.14	17.03	18.45	17.68	16.42	17.16	19.76	22.01	21.90	21.97
14	18.80	19.36	19.20	17.12	18.60	17.73	16.70	17.66	19.91	21.97	21.93	22.05
15	18.91	19.31	19.13	17.16	18.75	17.77	16.74	17.80	20.18	21.83	21.92	22.00
16	18.87	19.08	19.06	17.11	18.75	17.66	16.81	17.92	20.36	21.92	22.00	21.83
17	18.81	18.87	18.81	17.23	18.65	17.37	16.77	18.24	20.38	21.88	21.85	21.99
18	19.09	18.50	18.90	17.33	18.59	17.24	16.74	18.44	20.47	22.00	21.71	21.98
19	18.81	18.22	18.87	17.32	18.64	17.39	16.82	18.27	20.58	22.13	21.58	21.96
20	18.65	18.29	18.66	17.26	18.74	17.33	16.83	18.25	20.66	22.29	21.75	21.79
21	18.47	18.29	18.42	17.40	18.68	17.35	16.50	18.27	20.78	22.32	21.80	21.32
22	18.69	18.14	18.60	17.52	18.60	17.40	16.41	18.32	20.82	22.33	21.85	21.03
23	18.52	17.86	18.54	17.54	18.58	17.24	16.26	18.49	20.61	22.49	21.85	20.87
24	18.45	17.71	18.50	17.67	18.51	17.03	16.37	18.60	20.79	22.58	21.82	20.75
25	18.44	17.64	18.41	17.72	18.55	16.82	16.23	18.58	20.87	22.62	21.69	20.61
26	18.34	17.55	18.46	17.65	18.56	---	16.32	18.42	20.67	22.63	21.59	20.59
27	18.14	17.63	18.40	17.62	18.68	---	16.57	18.23	21.07	22.62	21.75	20.45
28	18.05	17.94	18.48	17.70	18.69	16.42	16.54	18.29	21.26	22.54	21.82	20.22
29	17.95	18.01	18.44	17.68	---	16.25	16.61	18.78	21.38	22.38	21.88	20.06
30	18.01	17.91	18.13	17.72	---	16.37	16.81	19.00	21.31	22.50	21.94	20.05
31	18.12	---	18.03	17.90	---	16.66	---	18.99	---	22.44	21.98	---
MAX	19.95	19.36	19.23	17.90	18.75	---	17.19	19.00	21.38	22.63	22.43	22.05
MIN	17.95	17.55	18.03	16.34	18.18	---	16.23	16.82	19.14	21.36	21.58	20.05

WTR YR 1991 HIGH 16.23 LOW 22.63



GROUND-WATER LEVELS

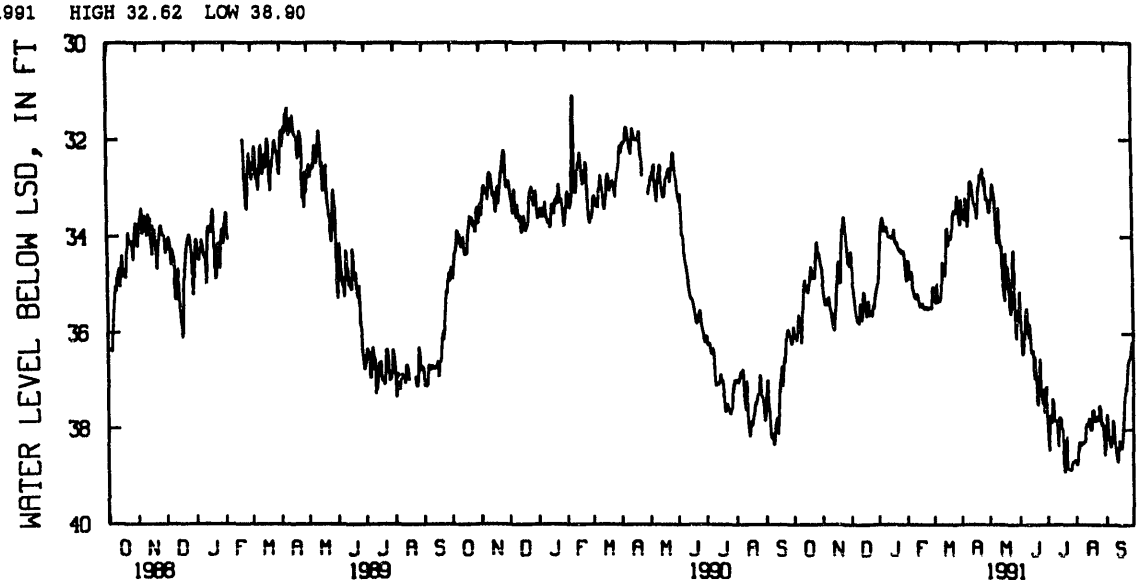
JEFFERSON COUNTY

381527085453001. Local number 86-7 (Belvedere Well), map number 98.
LOCATION.--Lat 38°15'27", long 85°45'30", Hydrologic Unit 05140101, County Code 111, New Albany quadrangle, at Place Montpelier and Main Street, 3 ft east of east sidewalk. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 2.5 in, depth 89.9 ft, screened 85.1-87.1 ft.
INSTRUMENTATION.--Continuous strip-chart recorder.
DATUM.--Elevation of land-surface datum is 452.43 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 3.0 ft above land-surface datum.
REMARKS.-- Water levels affected by Ohio River stage and pumping from nearby wells.
PERIOD OF RECORD.--October 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 30.99 ft below land-surface datum, Nov. 11 1986; lowest, 39.30 ft below land-surface datum, Aug. 19, 1988.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY OBSERVATION AT 12:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35.88	34.61	34.63	35.02	34.87	35.09	33.76	33.28	35.73	37.78	38.65	37.98
2	36.02	34.71	34.32	34.84	34.93	35.05	33.24	33.51	35.15	38.25	38.75	37.68
3	36.10	35.13	34.42	34.52	34.52	35.21	33.44	33.48	35.86	38.45	38.70	37.91
4	36.07	35.27	35.04	34.18	34.51	35.36	33.52	33.26	36.15	37.69	38.31	38.22
5	36.17	35.40	35.10	33.78	34.89	35.39	33.63	33.20	36.45	37.86	38.27	38.34
6	35.90	35.43	35.34	33.65	34.76	34.99	33.66	32.93	36.39	37.86	38.35	38.37
7	35.63	35.34	35.55	33.62	34.73	35.33	33.21	33.05	36.04	37.37	38.26	38.25
8	35.77	35.30	35.67	33.78	35.03	35.36	33.56	33.18	35.66	37.46	38.31	37.85
9	35.93	35.26	35.77	33.90	35.13	35.33	33.80	33.62	35.50	37.85	38.26	37.86
10	36.21	35.48	35.79	33.84	35.22	35.32	33.52	33.92	35.85	37.84	38.28	38.16
11	35.64	35.55	35.81	33.80	35.29	35.12	33.23	34.14	36.11	37.80	37.95	38.39
12	35.49	35.74	35.44	33.88	35.29	34.54	32.88	33.41	35.81	37.97	37.88	38.48
13	35.12	35.86	35.39	33.93	35.19	34.68	32.89	33.94	36.10	38.36	37.95	38.62
14	34.91	35.95	35.75	34.02	35.29	34.75	32.92	34.21	36.42	37.75	37.78	38.68
15	35.11	35.64	35.65	33.99	35.42	34.83	33.11	34.18	36.41	37.78	37.78	38.22
16	35.01	35.48	35.18	34.00	35.47	34.48	33.29	34.89	36.36	37.78	38.03	38.30
17	35.14	35.09	35.16	34.02	35.43	33.87	33.35	35.12	36.95	38.00	38.00	38.41
18	35.17	34.66	35.33	34.05	35.39	33.84	33.39	35.34	36.49	38.01	37.62	38.37
19	35.02	34.52	35.63	33.99	35.44	34.20	33.63	34.35	36.90	38.64	37.60	38.14
20	34.80	34.90	35.67	33.87	35.51	33.99	33.51	35.05	37.38	38.90	37.82	37.84
21	34.63	34.98	35.42	34.10	35.50	34.04	33.00	34.62	37.50	38.71	37.84	37.45
22	34.88	34.31	35.34	34.17	35.45	34.07	32.97	34.88	36.98	38.16	37.76	37.12
23	34.85	34.00	35.63	34.12	35.50	33.94	32.72	35.44	36.54	38.83	37.72	37.19
24	34.68	33.76	35.64	34.23	35.52	33.57	32.78	35.62	37.29	38.83	37.83	36.88
25	34.88	33.61	35.54	34.28	35.48	33.50	32.62	35.37	37.30	38.84	37.50	36.63
26	34.61	33.81	35.66	34.30	35.47	33.47	32.74	34.55	37.47	38.85	37.58	36.55
27	34.30	33.94	35.42	34.26	35.49	33.53	32.96	34.30	37.14	38.86	37.92	36.50
28	34.12	34.23	35.50	34.36	35.49	33.42	32.80	35.37	37.65	38.70	37.84	36.38
29	34.35	34.57	35.29	34.31	---	33.17	33.25	36.13	37.49	38.69	38.00	36.19
30	34.33	34.57	35.17	34.32	---	33.47	33.19	35.81	37.11	38.67	38.41	36.30
31	34.49	---	35.10	34.49	---	33.65	---	35.52	---	38.65	38.54	---
MAX	36.21	35.95	35.81	35.02	35.52	35.39	33.80	36.13	37.65	38.90	38.75	38.68
MIN	34.12	33.61	34.32	33.62	34.51	33.17	32.62	32.93	35.15	37.37	37.50	36.19

WTR YR 1991 HIGH 32.62 LOW 38.90



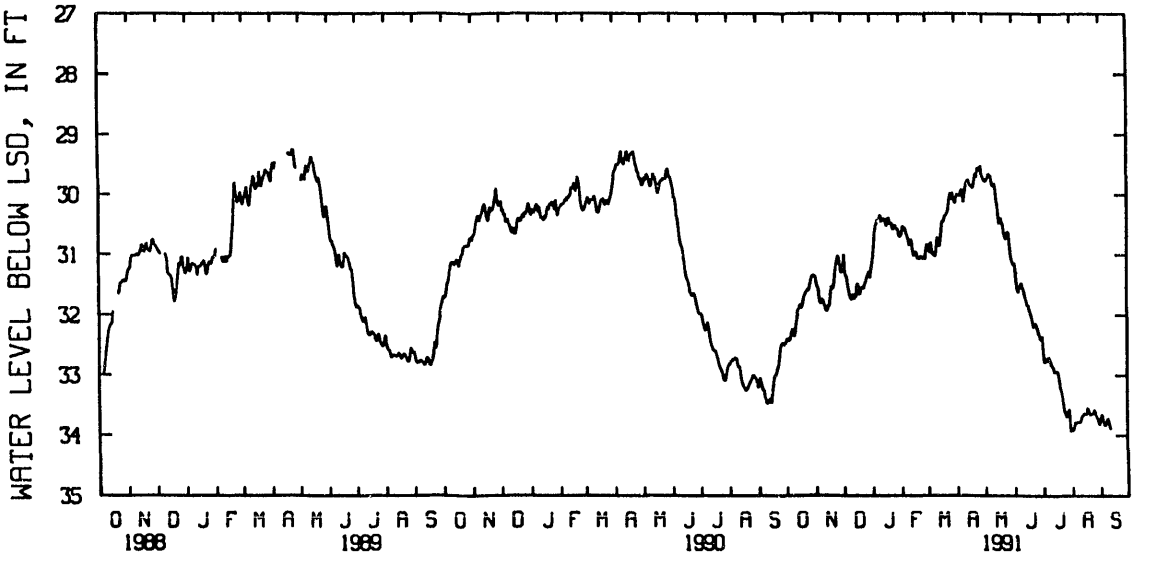
JEFFERSON COUNTY

381528085454201. Local number 86-9 (Ft. Nelson Park), map number 99.
LOCATION.--Lat 38°15'28", long 85°45'42", Hydrologic Unit 05140101, County Code 111, New Albany quadrangle, at Seventh and Main Streets, at north end of Fort Nelson Park, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 2.5 in, depth 88 ft, screened 48-50 ft, 58-60 ft, 86-88 ft.
INSTRUMENTATION.--Digital recorder installed May 15, 1989 -- 60-minute punch.
DATUM.--Elevation of land-surface datum is 450.56 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 3.10 ft above land-surface datum.
REMARKS.--Water levels affected by Ohio River stage and pumping from nearby wells.
PERIOD OF RECORD.--October 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 28.26 ft below land-surface datum, Nov. 9, 16, 1986; lowest, 33.93 ft below land-surface datum, July 31, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY OBSERVATION AT 12:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32.46	31.36	31.28	31.26	30.70	30.92	30.14	29.72	31.15	32.35	33.88	33.82
2	32.42	31.37	31.23	31.16	30.68	30.82	30.05	29.77	31.16	32.55	33.89	33.72
3	32.39	31.48	31.00	31.06	30.66	30.86	29.99	29.77	31.13	32.74	33.92	33.65
4	32.43	31.55	31.29	30.87	30.52	30.93	30.01	29.78	31.31	32.79	33.88	33.69
5	32.43	31.54	31.35	30.63	30.56	30.97	30.01	29.73	31.49	32.72	33.78	33.78
6	32.38	31.77	31.38	30.53	30.54	30.79	30.03	29.72	31.59	32.77	33.79	33.82
7	32.29	31.79	31.51	30.48	30.58	30.95	29.95	29.66	31.63	32.76	33.80	33.83
8	32.25	31.82	31.59	30.42	30.65	31.00	29.91	29.67	31.55	32.70	33.77	33.80
9	32.24	31.74	31.67	30.45	30.69	30.97	29.99	29.68	31.52	32.74	33.78	33.72
10	32.36	31.76	31.71	30.44	30.73	31.03	30.12	29.78	31.47	32.78	33.78	33.73
11	32.30	31.82	31.75	30.34	30.83	31.00	30.00	29.85	31.54	32.84	33.77	33.79
12	32.15	31.85	31.68	30.39	30.84	30.83	29.88	29.85	31.58	32.86	33.70	33.87
13	32.07	31.91	31.66	30.45	30.74	30.71	29.80	29.81	31.64	32.88	33.68	33.89
14	31.95	31.94	31.74	30.41	30.80	30.79	29.78	29.89	31.72	32.96	33.66	---
15	31.90	31.92	31.68	30.41	30.96	30.86	29.75	30.07	31.77	32.92	33.64	---
16	31.90	31.84	31.70	30.39	31.02	30.80	29.82	30.16	31.85	32.95	33.64	---
17	31.83	31.87	31.50	30.48	30.97	30.60	29.84	30.33	31.83	32.93	33.65	---
18	31.89	31.69	31.48	30.52	30.95	30.44	29.86	30.48	31.89	32.96	33.63	---
19	31.86	31.53	31.64	30.44	30.98	30.45	29.86	30.45	31.98	33.06	33.54	---
20	31.79	31.56	31.66	30.38	31.06	30.42	29.89	30.38	32.04	33.19	33.59	---
21	31.69	31.57	31.60	30.47	31.05	30.37	29.81	30.45	32.12	33.25	33.64	---
22	31.67	31.50	31.54	30.49	31.03	30.35	29.70	30.50	32.21	33.30	33.66	---
23	31.62	31.34	31.54	30.46	31.07	30.30	29.65	30.63	32.18	33.42	33.64	---
24	31.61	31.21	31.57	30.54	31.02	30.29	29.71	30.69	32.14	33.53	33.64	---
25	31.58	31.12	31.50	30.58	31.06	30.16	29.60	30.74	32.17	33.61	33.63	---
26	31.60	31.03	31.47	30.53	31.06	30.04	29.55	30.69	32.23	33.66	33.57	---
27	31.52	31.03	31.42	30.50	31.07	29.97	29.57	30.61	32.30	33.69	33.61	---
28	31.45	31.11	31.36	30.57	31.07	30.09	29.60	30.63	32.33	33.69	33.67	---
29	31.38	31.25	31.33	30.56	---	29.96	29.52	30.85	32.41	33.57	33.70	---
30	31.35	31.30	31.28	30.58	---	30.09	29.71	31.01	32.40	33.58	33.74	---
31	31.35	---	31.39	30.67	---	30.10	---	31.10	---	33.93	33.79	---
MAX	32.46	31.94	31.75	31.26	31.07	31.03	30.14	31.10	32.41	33.93	33.92	---
MIN	31.35	31.03	31.00	30.34	30.52	29.96	29.52	29.66	31.13	32.35	33.54	---

WTR YR 1991 HIGH 29.52 LOW 33.93



JEFFERSON COUNTY

381536085492801. Local number CP 2, map number 100.
LOCATION.--Lat 38°15'36", long 85°49'28", Hydrologic Unit 05140101, County Code 111, New Albany quadrangle, at the northeast corner of Shawnee Park, 62 ft south of Southwestern Parkway, 200 ft west of Southwestern Parkway, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 90.6 ft, screened 53.1-56.1, 87.6-90.6 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 455.05 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--June 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 40.96 ft below land-surface datum, May 6, 1991; lowest measured, 48.84 ft below land-surface datum, Sept. 22, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	44.06	May 6, 1991	40.96

381538085434401. Local number 78-7, map number 101.
LOCATION.--Lat 38°15'38", long 85°43'44", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, on the north side of Adams Street, near the center of a long curve from south to northwest, 5 ft north of curb on north side of Adams Street, 9 ft west of a power line brace pole, 150 ft south of I-64, 400 ft north of Koch Beef Company building, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 77 ft, screened 75-77 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.-Elevation of land-surface datum is 435.75 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--July 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.75 ft below land-surface datum, Dec. 15, 1978; lowest measured, 17.91 ft below land-surface datum, Oct. 17, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	17.39	May 7, 1991	15.35

381539085465201. Local number CP 9, map number 102.
LOCATION.--Lat 38°15'39", long 85°46'52", Hydrologic Unit 05140101, County Code 111, New Albany quadrangle, at the southeast corner of Boone Square Park, 20 ft north of Rowan Street, 150 ft west of South 19th Street, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 42.7 ft, screened 39.7-42.7 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 456.99 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--July 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.38 ft below land-surface datum, Apr. 24, 1985; lowest measured, 40.51 ft below land-surface datum, July 12, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	33.60	May 6, 1991	32.43

JEFFERSON COUNTY

381543085480101. Local number CP 14, map number 103.
LOCATION.--Lat 38°15'43", long 85°48'01", Hydrologic Unit 05140101, County Code 111, New Albany quadrangle, at the southwest corner of Westonia Park, South 30th Street at an unnamed alley south of Rowan Street, 5 ft north of curb on north side of alley, 8 ft east of a telephone pole at the curb on east side of South 30th Street, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 45 ft, screened 43-45 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 455.71 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--July 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.35 ft below land-surface datum, Aug. 25, 1980; lowest measured, 36.13 ft below land-surface datum, Dec. 13, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	33.73	May 6, 1991	32.71

381553085431602. Local number M-2, map number 104.
LOCATION.--Lat 38°15'53", long 85°43'16", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, 15 ft west of the northwest corner of Metropolitan Sewer District, Beargrass Creek Pump Station Building, 100 ft west of end of Letterle Avenue, 150 ft south of I-71, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 98 ft, screened 96-98 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 446.77 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--December 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.93 ft below land-surface datum, Dec. 15, 1978; lowest measured, 28.28 ft below land-surface datum, Nov. 20, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	27.35	May 6, 1991	26.28

381604085430501. Local number 43-16-8, (WC-1), map number 105.
LOCATION.--Lat 38°16'04", long 85°43'05", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, 100 ft northeast of junction of River Road and entrance road to Bandman Park, 0.2 mi east of Beargrass 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 101 ft, screened 99-101 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 438.88 ft above National Geodetic Vertical Datum. Measuring point: Floor of recorder shelter, 4.83 ft above land-surface datum.
REMARKS.--Water levels affected by Ohio River. Water-quality samples collected Apr. 2, 1944 and July 10, 1979.
PERIOD OF RECORD.--May 1946 to current year. May 1946 to September 1976 published in hydrograph form and on file at district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured 0.09 ft below land-surface datum, Sept. 14, 1979; lowest measured, 27.90 ft below land-surface datum, Feb. 10, 1948.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	19.23	May 6, 1991	16.95

JEFFERSON COUNTY

381607085483601. Local number CP 3, map number 106.
LOCATION.--Lat 38°16'07", long 85°48'36", Hydrologic Unit 05140101, County Code 111, New Albany quadrangle, at the northwest corner of Taylor Park, 150 ft east of North 38th Street, 200 ft north of Jewell Street, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 55.7 ft, screened 52.7-55.7 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 445.33 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--June 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.97 ft below land-surface datum, May 6, 1991; lowest measured, 46.67 ft below land-surface datum, June 29, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 31, 1990	32.08	May 6, 1991	28.97

381613085421901. Local number 42-16-18, (WC-14), map number 107.
LOCATION.--Lat 38°16'13", long 85°42'19", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, at the southwest corner of the River Road Country Club golf course, 0.1 mi south of WFIA Radio Tower, 0.6 mi southwest 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 observation water-table well, diameter 4 in, depth 86 ft, screened 84-86 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 434.59 ft above National Geodetic Vertical Datum. Measuring point: Top of plug, 0.83 ft above land-surface datum.
REMARKS.--Water-quality sample collected Jan. 8, 1946.
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, 0.58 ft below land-surface datum, May 5, 1972; lowest measured, 20.63 ft below land-surface datum, Feb. 3, 1948.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	10.51	May 6, 1991	4.91

381628085473101. Local number CP 13, map number 108.
LOCATION.--Lat 38°16'28", long 85°47'31", Hydrologic Unit 05140101, County Code 111, New Albany quadrangle, at the northwest corner of Portland Park, 28th Street and Northwestern Parkway, 12 ft south of chain link fence, 24 ft south of curb on south side of Northwestern Parkway, 31 ft east of curb on east side of 28th Street, in Louisville. Owner: City of Louisville.
AQUIFER.--Glacial sand and gravel of Quaternary age. Aquifer code: 112OTSH.
WELL CHARACTERISTICS.--Augered observation water-table well, diameter 1.5 in, depth 46 ft, screened 44-46 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 458.68 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--December 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.80 ft below land-surface datum, May 6, 1991; lowest measured, 42.34 ft below land-surface datum, Oct. 19, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 30, 1990	41.42	May 6, 1991	38.80

GROUND-WATER LEVELS

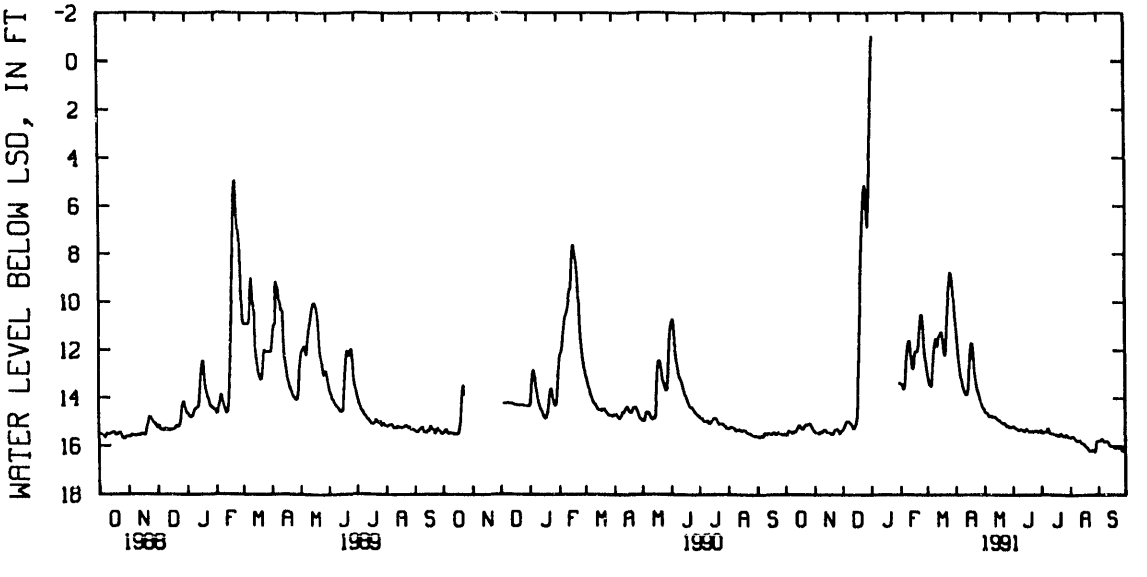
JEFFERSON COUNTY

381638085415801. Local number 41-16-3, (WC-4), map number 109.
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 observation water-table well, diameter 4 in, depth 104 ft, screened 98-100 ft.
INSTRUMENTATION.--Digital recorder -- 60-minute punch.
DATUM.--Elevation of land-surface datum is 435.79 ft above National Geodetic Vertical Datum. Measuring point: Floor of recorder shelter, 4.41 ft above land-surface datum.
REMARKS.--Water levels affected by Ohio River, which causes level to rise above land surface. Water-quality sample collected July 10, 1979.
PERIOD OF RECORD.--April 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.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY OBSERVATION AT 12:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.50	15.36	15.37	4.09	13.37	12.55	10.70	14.43	15.21	15.34	15.61	15.79
2	15.53	15.41	15.33	2.57	13.39	12.82	11.09	14.52	15.15	15.36	15.63	15.79
3	15.56	15.44	15.27	.86	13.39	13.11	11.62	14.61	15.17	15.47	15.63	15.78
4	15.49	15.43	15.19	-.61	13.48	13.32	12.15	14.61	15.21	15.43	15.57	15.77
5	15.35	15.43	15.10	-1.05	13.62	13.42	12.52	14.61	15.24	15.45	15.62	15.71
6	15.42	15.49	15.00	---	13.60	13.47	12.85	14.72	15.27	15.40	15.66	15.70
7	15.42	15.49	14.98	---	13.32	13.50	13.14	14.78	15.29	15.43	15.68	15.79
8	15.40	15.39	14.97	---	12.49	12.80	13.23	14.75	15.33	15.41	15.75	15.82
9	15.50	15.45	14.98	---	12.07	12.17	13.49	14.71	15.31	15.25	15.76	15.80
10	15.42	15.43	15.02	---	11.74	11.81	13.63	14.77	15.32	15.35	15.76	15.79
11	15.39	15.35	15.09	---	11.61	11.52	13.74	14.79	15.29	15.48	15.73	15.79
12	15.44	15.33	15.11	---	11.67	11.60	13.83	14.76	15.30	15.44	15.77	15.83
13	15.37	15.33	15.20	---	12.19	11.87	13.85	14.80	15.36	15.49	15.83	15.90
14	15.31	15.35	15.28	---	12.59	11.52	13.83	14.80	15.36	15.47	15.86	15.98
15	15.22	15.44	15.21	---	12.79	11.44	13.47	14.83	15.40	15.49	15.86	15.99
16	15.15	15.43	15.14	---	12.69	11.36	12.65	14.88	15.29	15.51	15.88	15.99
17	15.16	15.43	15.03	---	12.21	11.24	12.09	14.92	15.29	15.54	15.96	15.99
18	15.21	15.45	14.76	---	12.04	11.34	11.70	14.90	15.34	15.49	15.97	15.99
19	15.28	15.45	13.43	---	12.08	11.62	11.73	14.96	15.36	15.55	16.05	16.07
20	15.31	15.49	12.21	---	12.08	12.03	12.17	14.99	15.42	15.57	16.05	16.07
21	15.25	15.51	10.90	---	11.85	12.22	12.82	15.00	15.37	15.56	16.10	16.07
22	15.20	15.46	9.50	---	11.32	12.14	13.12	15.06	15.35	15.50	16.16	16.07
23	15.12	15.36	8.06	---	10.86	11.10	13.40	15.04	15.40	15.47	16.19	16.07
24	15.12	15.32	6.88	---	10.53	10.31	13.64	15.02	15.41	15.52	16.19	16.07
25	15.12	15.33	5.92	---	10.56	9.68	13.73	15.09	15.36	15.57	16.18	16.07
26	15.10	15.27	5.42	---	11.00	9.24	13.92	15.16	15.37	15.58	16.15	16.07
27	15.06	15.35	5.13	---	11.91	8.76	14.05	15.16	15.35	15.60	16.18	16.20
28	15.10	15.44	5.45	---	12.33	8.84	14.15	15.13	15.38	15.50	16.22	16.18
29	15.16	15.49	6.48	---	---	9.03	14.29	15.22	15.43	15.53	16.23	16.19
30	15.24	15.35	6.88	---	---	9.58	14.41	15.17	15.36	15.61	15.84	16.19
31	15.33	---	5.77	13.33	---	10.13	---	15.20	---	15.61	15.79	---
MAX	15.56	15.51	15.37	---	13.62	13.50	14.41	15.22	15.43	15.61	16.23	16.20
MIN	15.06	15.27	5.13	---	10.53	8.76	10.70	14.43	15.15	15.25	15.57	15.70

WTY YR 1991 HIGH -1.05 LOW 16.23



JEFFERSON COUNTY

381648085421201. Local number 42-16-15, (WC-5), map number 110.
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.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 435.11 ft above National Geodetic Vertical Datum. 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 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	14.70	May 6, 1991	13.46

381653085413302. Local number (WC-9A), map number 111.
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 observation water-table well, diameter 1.5 in, depth 90 ft, screened 76-78 ft, 88-90 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 437.65 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, 3.00 ft above land-surface datum.
PERIOD OF RECORD.--December 1979 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.04 ft below land-surface datum, Apr. 21, 1987; lowest measured, 19.04 ft below land-surface datum, July 21, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	17.64	May 6, 1991	17.26

381701085414002. Local number (WC-8A), map number 112.
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 observation water-table well, diameter 1.5 in, depth 86.8 ft, screened 86.8-90.8 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 432.62 ft above National Geodetic Vertical Datum. Measuring point: Top of casing, at 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 measured, 5.38 ft below land-surface datum, Mar. 21, 1982; lowest measured, 14.35 ft below land-surface datum, Oct. 18, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	12.72	May 6, 1991	12.68

JEFFERSON COUNTY

381722085405801. Local number 40-17-3, (WC-11), map number 113.
LOCATION.--Lat 38°17'22", long 85°40'58", Hydrologic Unit 05140101, County Code 111, Jeffersonville quadrangle, near a mulberry tree on south bank of Ohio River, 50 ft north of the intersection of River Road and Indian Hills Trail, 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 103 ft, screened 101-103 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 433.50 ft above National Geodetic Vertical Datum. Measuring point: Top of pipe flange, 2.84 ft above land-surface datum.
REMARKS.--Water levels affected by Ohio River, which causes level to rise above land surface.
PERIOD OF RECORD.--May 1946 to current year. May 1946 to November 1976 published in hydrograph form and on file at the district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.93 ft above land-surface datum, Dec. 13, 1978; lowest measured, 16.46 ft, below land-surface datum, Feb. 3, 1948.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	13.06	May 6, 1991	13.22

381742085402001. Local number 40-17-5, (WC-13), map number 114.
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 observation water-table well, diameter 4 in, depth 106 ft, screened 104-106 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 438.87 ft above National Geodetic Vertical Datum. 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 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	18.57	May 6, 1991	18.67

381827085392401. Local number 39-18-1, (WC-26), map number 115.
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.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 455.94 ft above National Geodetic Vertical Datum. 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 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	33.90	May 6, 1991	34.20

JEFFERSON COUNTY

381904085384801. Local number 38-19-2, (WC-27), map number 116.
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 observation water-table well, diameter 4 in, depth 96 ft, screened 94-96 ft.
INSTRUMENTATION.--Bi-annual measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 438.46 ft above National Geodetic Vertical Datum. 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 below land-surface datum, Jan. 14, 1950; lowest measured, 20.97 ft below land-surface datum, Feb. 3, 1948.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water level	Date	Water level
Oct. 29, 1990	18.02	May 6, 1991	18.13

LARUE COUNTY

374151085413201. Map number 11.
LOCATION.--Lat 37°41'51", long 85°41'32", Hydrologic Unit 05110001, County Code 123, Nelsonville quadrangle, 150 ft west of blacktop road, 1.6 mi northeast of Roanoke, 2.8 mi south of the junction of State Highway 583 and the Blue Grass Parkway. Owner: Charles Wagner.
AQUIFER.--Warsaw Limestone of Late Mississippian age. Aquifer code: 333WRSW.
WELL CHARACTERISTICS.--Drilled unused artesian oil test well, diameter 10 in, depth 605 ft, plugged at 363 ft, cased to 65 ft.
INSTRUMENTATION.--Six-week interval measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum is 905.34 ft, National Geodetic Vertical Datum. Measuring point: Top of casing 1.00 ft above land-surface datum.
REMARKS.--Quality water sample collected and pump test run Apr. 10, 1971. Pumped for 3 hours at 9 gal/min with 4.1 ft of drawdown.
PERIOD OF RECORD.--October 1971 to April 1983 and October 1988 to current year. October 1971 to September 1976 published in hydrograph form and on file at district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 101.81 ft below land-surface datum, Apr. 14, 1980; lowest measured, 107.52 ft below land-surface datum, Dec. 22, 1971.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water Level	Date	Water Level	Date	Water Level
Oct. 1, 1990	105.31	Jan. 22	103.32	June 6	103.31
Nov. 11	104.74	Mar. 6	102.18	July 8	103.94
Jan. 2, 1991	103.94	Apr. 16	102.68	Aug. 22	104.56

LAUREL COUNTY

370757084045001. Map number 12.
LOCATION.--Lat 37°07'57", long 84°04'50", Hydrologic Unit 05130101, County Code 125, London quadrangle, in back yard at 116 Boering Drive, 0.1 mi northeast of Marymount Hospital, in London. Owner: J.R. Hale.
AQUIFER.--Lee Formation of Early Pennsylvanian age. Aquifer Code: 327LEE.
WELL CHARACTERISTICS.--Drilled unused artesian and water-table well in sandstone, diameter 12 in, depth 370 ft, length of casing unknown, open hole below casing.
INSTRUMENTATION.--Six-week interval measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum (from topographic map) is about 1,190 ft, National Geodetic Vertical Datum. Measuring point: Floor of recorder shelter, 4.13 ft above land-surface datum.
REMARKS.--Lowest water level is a pumping level. Water-quality sample collected and pump test ran Oct. 14, 1965. Pumped 1.2 hours at 11 gal/min with 47.30 ft of drawdown.
PERIOD OF RECORD.--October 1947, May 1951 to September 1962, June 1965 to September 1984 and October 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.69 ft below land-surface datum, May 9, 1990, lowest measured, 225.00 ft below land-surface datum, Oct. 25, 1947.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water Level	Date	Water Level	Date	Water Level
Oct. 15, 1990	41.07	Feb. 28	40.99	June 24	40.68
Nov. 26	41.16	Apr. 3	40.89	Aug. 6	41.10
Jan. 22, 1991	41.16	May 15	42.42		

LETCHER COUNTY

371033082374301. Map number 13.
LOCATION.--Lat 37°10'33", long 82°37'43", Hydrologic Unit 05100201, County Code 133, Jenkins West quadrangle, in a concrete well house, 30 ft south of railroad tracks, 20 ft north of a gravel street, 0.5 mi northeast of the junction of U.S. Highways 23 & 119, in Jenkins. Owner: Chesapeake & Ohio Railroad Company.
AQUIFER.--Sandstone and shale of Breathitt Formation of Early and Middle Pennsylvanian age. Aquifer code: 324BRRT.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 10 in, depth 146 ft, length of casing unknown, open hole below casing.
INSTRUMENTATION.--Six-week interval measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum (from topographic map) is about 1,512 ft, National Geodetic Vertical Datum. Measuring point: Bottom edge of slot in casing, 4.00 ft below land-surface datum.
REMARKS.--Well test pump, Oct. 9, 1962. Pumped 1 hour at 15 gal/min with 9.74 ft of drawdown.
PERIOD OF RECORD.--April 1962 to September 1984 and October 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.05 ft below land-surface datum, May 7, 1984; lowest measured, 24.07 ft below land-surface datum, Nov. 20, 1963.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water Level	Date	Water Level	Date	Water Level
Oct. 2, 1990	23.08	Feb. 27	21.14	June 25	22.35
Nov. 15	22.81	Apr. 2	20.66	Aug. 6	22.84
Jan. 11, 1991	21.01	May 14	22.38		

LINCOLN COUNTY

372739084402101. Map number 14.
LOCATION.--Lat 37°27'39", long 84°40'21", Hydrologic Unit 05110001, County Code 137, Halls Gap quadrangle, in a pasture, 100 ft north of gravel road, 0.8 mi northeast of Green River Church, 2.1 mi southwest of Halls Gap. Owner: Sarah Peck.
AQUIFER.--Sandstone and shale of Borden Formation of Early Mississippian age. Aquifer code: 338BRDN.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in, depth 33 ft, cased to 10 ft, open hole 10 to 33 ft.
INSTRUMENTATION.--Six-week interval measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum (from topographic map) is 1,060 ft, National Geodetic Vertical Datum. Measuring point: Floor of recorder shelter, 2.25 above land-surface datum.
REMARKS.--Water levels affected by atmospheric pressure.
PERIOD OF RECORD.--April 1953 to September 1984 and October 1988 to current year. Well test pump, Oct. 14, 1965. Estimated yield base on recovery, 0.1 gal/min.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.30 ft below land-surface datum, Nov. 6, 1981; lowest measured, 10.73 ft below land-surface datum, Sept. 7, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water Level	Date	Water Level	Date	Water Level
Oct. 5, 1990	10.51	Jan. 16, 1991	7.83	May 21	7.81
Nov. 7	10.70	Feb. 27	8.53	July 8	10.16
Dec. 19	7.06	Mar. 8	9.12	Aug. 14	10.64

LOGAN COUNTY

365046086444901. Map number 15.
LOCATION.--Lat 36°50'46", long 86°44'49", Hydrologic Unit 05130206, County Code 141, Auburn quadrangle, at the southeast corner of an abandoned farmhouse, 90 ft east of Kentucky Highway 980, 0.6 mi south of U.S. Highway 68, 2.4 mi southwest of Auburn. Owner: W.D. Appling.
AQUIFER.--Girkin Formation of Late Mississippian age. Aquifer code: 332GRKN.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in, depth 70 ft, length of casing unknown.
INSTRUMENTATION.--Six-week interval measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum (from topographic map) is 685 ft. Measuring point: Top of casing 0.70 ft above land-surface datum.
REMARKS.--8 in surface casing, lined with 6 in casing.
PERIOD OF RECORD.--May to November 1982 and October 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.10 ft below land-surface datum, Feb. 1, 1990; lowest measured, 48.61 ft below land-surface datum, Sept. 12, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water Level	Date	Water Level	Date	Water Level
Oct. 23, 1990	43.23	Mar. 5	33.65	May 21	34.53
Dec. 12	38.94	Apr. 24	32.00	Aug. 27	43.10
Jan. 25, 1991	38.82				

MCCRACKEN COUNTY

370551088510401. Map number 16.
LOCATION.--Lat 37°05'51", long 88°51'04", Hydrologic Unit 05140206, County Code 145, Heath quadrangle, 35 ft south of a gravel road in field of brush, at former Kentucky Ordnance Works, (now managed by Kentucky Department of Fish & Wildlife Resources), 3.4 mi northwest of Heath. Owner: State of Kentucky.
AQUIFER.--Sand of McNairy Formation of Late Cretaceous age. Aquifer code: 211MCNR.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 10 in, depth 192 ft, cased to 192 ft.
INSTRUMENTATION.--Six-week interval measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum (from topographic map) is about 435 ft. Measuring point: Floor of recorder shelter, 4.76 ft above land-surface datum.
PERIOD OF RECORD.--October 1969 to September 1983 and October 1988 to current year. August 1969 to September 1976 published in hydrograph form and on file at Paducah subdistrict office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 105.99 ft below land-surface datum, June 4, 1991; lowest measured, 111.50 ft below land-surface datum, Jan. 25, 1972 and Nov. 9, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water Level	Date	Water Level	Date	Water Level
Oct. 2, 1990	108.43	Mar. 4	107.49	July 12	107.04
Dec. 6	108.09	Apr. 11	106.85	Aug. 23	106.62
Jan. 17, 1991	108.04	June 4	105.99		

METCALFE COUNTY

370211085364301. Map number 17.
LOCATION.--Lat 37°02'11", long 85°36'43", Hydrologic Unit 05110001, County Code 169, East Fork quadrangle, at an old homesite 150 ft south of a blacktop road, 0.5 mi southwest of Metcalfe County Lake, 0.9 mi northwest of junction of U.S. Highway 68 and State Highway 544, 6 mi southeast of Sulphur well. Owner: Larry Froedge.
AQUIFER.--Salem and Warsaw Limestones of Late Mississippian age. Aquifer code: 333SMWR
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in, depth 106 ft, length of casing unknown.
INSTRUMENTATION.--Six-week interval measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum (from topographic map) is about 885 ft. Measuring point: Top of casing, 0.58 ft above land-surface datum.
PERIOD OF RECORD.--October 1979 to April 1983 and October 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 73.52 ft below land-surface datum, Feb. 23, 1989; lowest measured, 77.88 ft below land-surface datum, Jan. 30, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water Level	Date	Water Level	Date	Water Level
Oct. 2, 1990	76.30	Jan. 22, 1991	74.07	May 20	75.18
Nov. 7	76.85	Mar. 4	73.82	July 11	75.52
Dec. 10, 1991	76.47	Apr. 15	74.36	Aug. 19	75.94

WARREN COUNTY

370342086080101. Map number 18.
LOCATION.--Lat 37°03'42", long 86°08'01", Hydrologic Unit 05110002, County Code 227, Smiths grove quadrangle, in a pasture 50 ft southwest of a stone farm house, 200 ft south of State Highway 65, 0.6 mi southeast of Rocky Hill. Owner: Earl Estes.
AQUIFER.--St. Louis Limestone of Late Mississippian age. Aquifer code: 333STLS.
WELL CHARACTERISTICS.--Drilled unused artesian and water-table well, diameter 6 in, depth 95 ft, length of casing unknown.
INSTRUMENTATION.--Six-week interval measurement with chalked tape by USGS personnel.
DATUM.--Altitude of land-surface datum (from topographic map) is about 645 ft. Measuring point: Floor of recorder shelter, 2.10 ft above land-surface datum.
PERIOD OF RECORD.--November 1961 to January 1983 and October 1988 to current year. November 1961 to September 1976 published in hydrograph form and on file at district office.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.19 ft below land-surface datum, Mar. 15, 1975; lowest measured, 76.95 ft below land-surface datum, Dec. 31, 1962.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Water Level	Date	Water Level	Date	Water Level
Oct. 23, 1990	70.90	Feb. 27	67.80	Jul. 9	69.67
Dec. 4	69.40	Apr. 16	68.77	Aug. 20	69.97
Jan. 15, 1991	67.83	May 29	68.90		

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

STATION NUMBER	DATE	TIME	ELEV. OF LAND SURFACE DATUM (FEET ABOVE NGVD)	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE AIR (DEG C)	TEMPER-ATURE WATER (DEG C)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)
				CHRISTIAN COUNTY							
363917087225001	09-06-90	1500	430	0.24	457	6.9	34.0	14.5	440	58	250
	02-28-91	1230	430	21	327	7.5	19.0	14.0	K3	43	180
	04-29-91	1930	430	3.9	316	7.6	16.0	14.0	290	200	160
				HARDIN COUNTY							
373929085540401	08-22-91	1500	670	--	380	7.4	32.5	14.0	K13	50	220
374043085523001	08-22-91	1145	675	1.9	451	7.3	22.0	12.0	120	150	210
				HART COUNTY							
371929085461701	09-07-90	1000	545	4.4	275	7.1	27.5	12.5	20	<4	150
	03-01-91	0900	545	7.1	301	7.5	11.0	13.0	<1	21	170
	04-30-91	0930	545	6.0	282	7.7	26.5	14.0	K2	<2	150
				TRIGG COUNTY							
365141087501001	09-06-90	1145	375	0.62	540	6.7	29.5	14.5	63	29	280
	02-28-91	1000	375	5.5	405	7.0	17.0	14.0	K15	26	240
	04-29-91	1500	375	2.6	473	7.0	21.5	14.5	74	130	240

STATION NUMBER	DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	ALKA-LINITY WAT DIS TOT FET FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
				CHRISTIAN COUNTY							
363917087225001	09-06-90	86	7.7	5.4	0.1	--	--	--	4.2	9.1	<0.10
	02-28-91	65	4.3	3.1	0.1	166	202	166	11	6.7	0.10
	04-29-91	57	4.3	2.7	0.1	135	165	134	4.4	6.5	<0.10
				HARDIN COUNTY							
373929085540401	08-22-91	75	7.7	2.4	0.1	210	256	203	3.3	5.5	0.10
374043085523001	08-22-91	71	7.3	15	0.5	177	216	173	17	26	0.20
				HART COUNTY							
371929085461701	09-07-90	52	4.3	1.3	0.0	--	--	--	1.4	2.6	0.10
	03-01-91	62	4.1	1.4	0.0	154	188	153	11	0.50	0.10
	04-30-91	55	4.0	1.2	0.0	167	204	163	2.6	1.1	<0.10
				TRIGG COUNTY							
365141087501001	09-06-90	97	10	6.1	0.2	--	--	--	12	9.9	<0.10
	02-28-91	81	8.0	6.5	0.2	207	253	206	15	10	0.10
	04-29-91	82	8.6	5.9	0.2	236	288	234	11	9.9	0.10

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

STATION NUMBER	DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS NO2)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)
CHRISTIAN COUNTY--Continued											
363917087225001	09-06-90	11	--	--	<0.01	--	3.8	<1	52	<0.5	<1.0
	02-28-91	9.9	--	--	<0.01	--	4.3	<1	43	0.7	2.0
	04-29-91	9.4	--	--	<0.01	--	3.7	<1	46	<0.5	<1.0
HARDIN COUNTY											
373929085540401	08-22-91	10	--	--	<0.01	--	1.1	<1	23	<0.5	<1.0
374043085523001	08-22-91	10	--	--	<0.01	--	1.2	<1	35	<0.5	<1.0
HART COUNTY											
371929085461701	09-07-90	8.2	--	--	<0.01	--	0.8	<1	35	<0.5	<1.0
	03-01-91	8.2	--	--	<0.01	--	1.1	<1	41	<0.5	<1.0
	04-30-91	8.0	--	--	<0.01	--	0.73	<1	39	<0.5	<1.0
TRIGG COUNTY											
365141087501001	09-06-90	11	--	--	<0.01	--	2.4	<1	58	<0.5	<1.0
	02-28-91	10	2.79	12	0.01	0.03	2.8	<1	57	0.6	1.0
	04-29-91	10	--	--	<0.01	--	2.6	<1	53	<0.5	<1.0

STATION NUMBER	DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)
CHRISTIAN COUNTY											
363917087225001	09-06-90	<5	<3	<10	7	<10	5	12	<0.1	<10	<10
	02-28-91	<5	<3	<10	8	<10	<4	5	0.1	<10	<10
	04-29-91	<5	<3	<10	<3	<10	4	3	0.2	<10	<10
HARDIN COUNTY											
373929085540401	08-22-91	<5	<3	<10	39	<10	<4	18	<0.1	<10	<10
374043085523001	08-22-91	<5	<3	<10	8	<10	<4	7	<0.1	<10	<10
HART COUNTY											
371929085461701	09-07-90	<5	<3	<10	7	<10	<4	1	<0.1	<10	<10
	03-01-91	<5	<3	<10	4	<10	<4	1	0.1	<10	<10
	04-30-91	<5	<3	<10	<3	<10	<4	1	<0.1	<10	<10
TRIGG COUNTY											
365141087501001	09-06-90	<5	<3	<10	6	<10	5	6	<0.1	<10	<10
	02-28-91	<5	<3	<10	34	<10	<4	140	0.1	<10	<10
	04-29-91	<5	<3	<10	3	<10	4	46	<0.1	<10	<10

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

STATION NUMBER	DATE	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	BENZENE TOTAL (UG/L)	BROMO-FORM TOTAL (UG/L)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)
					CHRISTIAN COUNTY--Continued						
363917087225001	09-06-90	<1.0	410	<6	<3	<1	<3.0	<3.0	<3.0	<3.0	<3.0
	02-28-91	<1.0	180	<6	8	<1	<3.0	<3.0	<3.0	<3.0	<3.0
	04-29-91	<1.0	190	<6	4	<1	<3.0	<3.0	<3.0	<3.0	<3.0
					HARDIN COUNTY						
373929085540401	08-22-91	1.0	120	<6	6	<1	<3.0	<3.0	<3.0	<3.0	<3.0
374043085523001	08-22-91	<1.0	330	<6	7	<1	<3.0	<3.0	<3.0	<3.0	<3.0
					HART COUNTY						
371929085461701	09-07-90	<1.0	100	<6	14	<1	<3.0	<3.0	<3.0	<3.0	<3.0
	03-01-91	<1.0	110	<6	3	<1	<3.0	<3.0	<3.0	<3.0	<3.0
	04-30-91	<1.0	99	<6	4	<1	<3.0	<3.0	<3.0	<3.0	<3.0
					TRIGG COUNTY						
365141087501001	09-06-90	<1.0	520	<6	6	<1	<3.0	<3.0	<3.0	<3.0	<3.0
	02-28-91	<1.0	240	<6	5	<1	<3.0	<3.0	<3.0	<3.0	<3.0
	04-29-91	<1.0	290	<6	5	<1	<3.0	<3.0	<3.0	<3.0	<3.0

STATION NUMBER	DATE	CHLORO-ETHANE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	CHLORO-FORM TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)
					CHRISTIAN COUNTY						
363917087225001	09-06-90	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
	02-28-91	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
	04-29-91	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
					HARDIN COUNTY						
373929085540401	08-22-91	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
374043085523001	08-22-91	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
					HART COUNTY						
371929085461701	09-07-90	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
	03-01-91	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
	04-30-91	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
					TRIGG COUNTY						
365141087501001	09-06-90	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
	02-28-91	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
	04-29-91	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

STATION NUMBER	DATE	1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	ETHYL-BENZENE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)
				CHRISTIAN COUNTY--Continued						
363917087225001	09-06-90	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
	02-28-91	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
	04-29-91	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
				HARDIN COUNTY						
373929085540401	08-22-91	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
374043085523001	08-22-91	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	3.9	<3.0
				HART COUNTY						
371929085461701	09-07-90	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
	03-01-91	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
	04-30-91	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
				TRIGG COUNTY						
365141087501001	09-06-90	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
	02-28-91	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
	04-29-91	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0

STATION NUMBER	DATE	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	1,2-DIBROMO ETHANE WATER WHOLE TOTAL (UG/L)	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)
				CHRISTIAN COUNTY						
363917087225001	09-06-90	<3.0	<3.0	<1.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
	02-28-91	<3.0	<3.0	<1.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
	04-29-91	<3.0	<3.0	<1.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
				HARDIN COUNTY						
373929085540401	08-22-91	<3.0	<3.0	<1.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
374043085523001	08-22-91	<3.0	<3.0	<1.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
				HART COUNTY						
371929085461701	09-07-90	<3.0	<3.0	<1.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
	03-01-91	<3.0	<3.0	<1.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
	04-30-91	<3.0	<3.0	<1.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
				TRIGG COUNTY						
365141087501001	09-06-90	<3.0	<3.0	<1.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
	02-28-91	<3.0	<3.0	<1.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
	04-29-91	<3.0	<3.0	<1.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

STATION NUMBER	DATE	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	STYRENE TOTAL (UG/L)	XYLENE TOTAL WATER WHOLE TOT REC (UG/L)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4-DP TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
				CHRISTIAN COUNTY--Continued						
363917087225001	09-06-90	<3.0	<3.0	<3.0	<0.01	0.28	<0.01	<0.01	<0.01	<0.01
	02-28-91	<3.0	<3.0	<3.0	--	--	--	--	--	--
	04-29-91	<3.0	<3.0	<3.0	--	--	--	--	--	--
				HARDIN COUNTY						
373929085540401	08-22-91	<3.0	<3.0	<3.0	--	--	--	--	--	--
374043085523001	08-22-91	<3.0	<3.0	<3.0	--	--	--	--	--	--
				HART COUNTY						
371929085461701	09-07-90	<3.0	<3.0	<3.0	<0.01	0.08	<0.01	<0.01	<0.01	<0.01
	03-01-91	<3.0	<3.0	<3.0	--	--	--	--	--	--
	04-30-91	<3.0	<3.0	<3.0	--	--	--	--	--	--
				TRIGG COUNTY						
365141087501001	09-06-90	<3.0	<3.0	<3.0	<0.01	0.01	<0.01	<0.01	<0.01	<0.01
	02-28-91	<3.0	<3.0	<3.0	--	--	--	--	--	--
	04-29-91	<3.0	<3.0	<3.0	--	--	--	--	--	--

STATION NUMBER	DATE	ALA-CHLOR TOTAL RECOVER (UG/L)	AME-TRYNE TOTAL	ATRA-ZINE, TOTAL (UG/L)	BROM-ACIL WATER WHLREC (UG/L)	BUTA-CHLOR WATER WHLREC (UG/L)	BUTYL-ATE WATER WHLREC (UG/L)	CARBOX-IN WATER WHOLE RECOV-ERABLE (UG/L)	CYCLO-ATE WATER WHOLE RECOV-ERABLE (UG/L)	CYAN-AZINE TOTAL (UG/L)
				CHRISTIAN COUNTY						
363917087225001	09-06-90	<0.1	<0.1	<0.1	--	--	--	--	--	<0.1
				HARDIN COUNTY						
373929085540401	08-22-91	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.2	<0.1	<0.2
374043085523001	08-22-91	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.2	<0.1	<0.2
				HART COUNTY						
371929085461701	09-07-90	<0.1	<0.1	<0.1	--	--	--	--	--	<0.1
	03-01-91	--	--	--	--	--	--	--	--	--
	04-30-91	<0.2	<0.1	<0.1	<0.2	<0.1	<0.1	<0.2	<0.1	<0.2
				TRIGG COUNTY						
365141087501001	09-06-90	<0.1	<0.1	0.1	--	--	--	--	--	<0.1
	02-28-91	--	--	--	--	--	--	--	--	--
	04-29-91	<0.2	<0.1	0.2	<0.2	<0.1	<0.1	<0.2	<0.1	<0.2

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

STATION NUMBER	DATE	DEETHYL ATRA-ZINE, WATER, WHOLE, TOTAL (UG/L)	DE-ISO PROPYL ATRAZIN WATER, WHOLE, TOTAL (UG/L)	DIPhEN-AMID WATER WHOLE RECOV-ERABLE (UG/L)	HEXAZI-NONE WATER WHOLE RECOV-ERABLE (UG/L)	METOLA-CHLOR WATER WHOLE TOT.REC (UG/L)	METRI-BUZIN WATER WHOLE TOT.REC (UG/L)	PROME-TONE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)	PROPA-CHLOR WATER WHOLE RECOV. (UG/L)
				CHRISTIAN COUNTY--Continued						
363917087225001	09-06-90	--	--	--	--	<0.1	<0.1	<0.1	<0.1	--
				HARDIN COUNTY						
373929085540401	08-22-91	<0	<0	<0.1	<0.2	<0.1	<0.1	<0.2	<0.1	<0.1
374043085523001	08-22-91	<0	<0	<0.1	<0.2	<0.1	<0.1	<0.2	<0.1	<0.1
				HART COUNTY						
371929085461701	09-07-90	--	--	--	--	<0.1	<0.1	<0.1	<0.1	--
	03-01-91	--	--	--	--	--	--	--	--	--
	04-30-91	<0	<0	<0.1	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1
				TRIGG COUNTY						
365141087501001	09-06-90	--	--	--	--	<0.1	<0.1	<0.1	<0.1	--
	02-28-91	--	--	--	--	--	--	--	--	--
	04-29-91	<0	<0	<0.1	<0.2	<0.2	<0.1	<0.2	<0.1	<0.1

STATION NUMBER	DATE	PRO-PAZINE TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)	TER-BACIL WATER WHOLE RECOV. (UG/L)	TRI-FLURA-LIN TOTAL RECOVER (UG/L)	VER-NOLATE WATER WHOLE RECOV. (UG/L)	ALDI-CARB WATER WHOLE TOT.REC (UG/L)	ALDICAR SULF-OXIDE WATER WHOLE TOT.REC (UG/L)	ALDI-CARB SULFONE WATER WHOLE TOT.REC (UG/L)
				CHRISTIAN COUNTY						
363917087225001	09-06-90	<0.1	<0.1	<0.1	--	<0.1	--	--	--	--
				HARDIN COUNTY						
373929085540401	08-22-91	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.5	<0.5	<0.5
374043085523001	08-22-91	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	--	--	--
				HART COUNTY						
371929085461701	09-07-90	<0.1	<0.1	<0.1	--	<0.1	--	--	--	--
	03-01-91	--	--	--	--	--	--	--	--	--
	04-30-91	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	--	--	--
				TRIGG COUNTY						
365141087501001	09-06-90	<0.1	<0.1	<0.1	--	<0.1	--	--	--	--
	02-28-91	--	--	--	--	--	--	--	--	--
	04-29-91	<0.1	<0.1	<0.1	<0.2	0.1	<0.1	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

STATION NUMBER	DATE	CARBO-FURAN WATER WHOLE TOT.REC (UG/L)	SEVIN, TOTAL (UG/L)	3-HYDRX CARBO-FURAN WATER WHOLE TOT.REC (UG/L)	METHIO-CARB WATER WHOLE RECOV. (UG/L)	METHO-MYL TOTAL (UG/L)	1-NAPH-THOL WATER WHOLE REC (MG/L)	OXYAMYL WATER WHOLE TOT.REC (UG/L)	PROPHAM TOTAL (UG/L)	PROPO-XUR WATER WHOLE RECOV. (UG/L)
HARDIN COUNTY--Continued										
373929085540401	08-22-91	<0.5	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
HART COUNTY										
371929085461701	09-07-90	--	<0.50	--	--	<0.5	--	--	<0.5	--
TRIGG COUNTY										
365141087501001	09-06-90	--	<0.50	--	--	<0.5	--	--	<0.5	--

CHEMICAL QUALITY OF PRECIPITATION

ROWAN COUNTY

380706083324900 - CLARK STATE FISH HATCHERY, NEAR MOREHEAD, KY

(National Atmospheric Deposition Program network station)

LOCATION.--Lat 38°06'58", Long 83°33'18", Rowan County, Hydrologic Unit 05100101 at Clark State Fish Hatchery, 0.9 mi southwest of Clark State Fish Hatchery office, 1.2 mi west of Cave Run Reservoir Dam.
PERIOD OF RECORD.--September 1983 to current year.
INSTRUMENTATION.--Wet/dry precipitation collector, weighing bucket type recording rain gage.
REMARKS.--Samples collected on weekly basis by observer.
COOPERATION.--Chemical quality data were provided by the National Atmospheric Deposition Program.

CHEMICAL ANALYSES, OCTOBER 1990 TO SEPTEMBER 1991

DATE	TOTAL PRECIP-ITATION FOR DEFINED PERIOD (IN)	VOLUME ATM DEP WET (L)	PH FIELD ATM DEP WET T (UNITS)	SPEC. CONDUC-TANCE FIELD ATM DEP WET TOT (US/CM)	CALCIUM ATM DEP WET DIS (MG/L)	MAG-NESIUM ATM DEP WET DIS (MG/L)	SODIUM ATM DEP WET DIS (MG/L)
SEP 25-OCT 02	0.09	0.159	4.00	80.3	0.63	0.059	0.055
OCT 02-09	0.82	1.462	5.02	7.8	0.24	0.027	0.030
OCT 09-16	0.53	0.915	4.10	34.6	0.10	0.036	0.155
OCT 16-23	2.30	3.960	4.85	9.3	0.29	0.061	0.040
OCT 23-30	0.03	0.054	--	--	1.08	0.154	0.269
OCT 30-NOV 06	0.40	0.680	4.80	16.4	0.64	0.080	0.204
NOV 06-13	1.45	2.490	4.54	19.1	0.09	0.008	0.019
NOV 13-20	0.21	0.379	4.40	24.0	0.16	0.022	0.057
NOV 20-27	0.38	0.619	4.43	23.7	0.12	0.012	0.035
NOV 27-DEC 04	1.38	2.397	4.35	18.9	0.11	0.041	0.278
DEC 11-19	3.67	6.063	4.64	12.8	0.08	0.013	0.056
DEC 19-25	2.48	4.285	4.87	9.4	0.08	0.011	0.038
DEC 25 1990-JAN 01 1991	3.42	5.490	5.07	6.5	0.067	0.025	0.041
JAN 01-08	1.29	2.071	4.44	17.8	0.03	0.007	0.007
JAN 08-15	0.46	0.714	4.27	26.2	0.08	0.009	0.026
JAN 15-22	0.20	0.358	4.30	38.2	0.15	0.016	0.119
JAN 22-29	0.19	0.332	4.37	30.9	0.06	0.005	0.016
JAN 29-FEB 05	0.21	0.375	4.18	32.2	0.05	0.008	0.042
FEB 05-12	1.10	1.917	4.56	18.7	0.02	0.009	0.246
FEB 12-19	1.94	3.229	4.61	13.3	0.02	0.004	0.018
FEB 19-26	0.27	0.361	4.33	25.5	0.11	0.013	0.047
FEB 26-MAR 05	0.70	1.143	4.31	18.4	0.18	0.018	0.027
MAR 05-12	0.39	0.698	7.10	53.9	6.52	0.436	0.703
MAR 12-19	1.39	2.509	4.48	18.8	0.25	0.023	0.053
MAR 19-26	2.82	4.935	4.90	13.2	0.23	0.038	0.130
MAR 26-APR 02	1.22	2.094	4.30	28.5	0.55	0.074	0.271

CHEMICAL QUALITY OF PRECIPITATION

ROWAN COUNTY

380706083324900 - CLARK STATE FISH HATCHERY, NEAR MOREHEAD, KY--Continued

(National Atmospheric Deposition Program network station)

CHEMICAL ANALYSES, OCTOBER 1990 TO SEPTEMBER 1991

DATE	TOTAL PRECIP-ITATION FOR DEFINED PERIOD (IN)	VOLUME ATM DEP WET (L)	PH FIELD ATM DEP WET T (UNITS)	SPEC. CONDUC-TANCE FIELD ATM DEP WET TOT (US/CM)	CALCIUM ATM DEP WET DIS (MG/L)	MAG-NESIUM ATM DEP WET DIS (MG/L)	SODIUM ATM DEP WET DIS (MG/L)
APR 1991 02-09	0.76	1.319	4.38	29.1	0.35	0.087	0.343
APR 09-16	1.69	2.922	4.63	14.9	0.327	0.064	0.207
APR 16-23	0.44	0.759	4.49	25.0	0.244	0.091	0.136
APR 23-30	1.09	1.930	6.39	18.0	0.311	0.080	0.089
APR 30-MAY 07	0.39	0.667	4.42	24.8	0.693	0.073	0.076
MAY 07-14	1.07	1.870	6.40	9.8	1.76	0.099	0.029
MAY 14-21	0.53	0.921	4.67	39.0	0.701	0.288	0.278
MAY 21-28	0.83	1.433	4.50	31.0	0.223	0.028	0.058
MAY 28-JUN 04	0.97	1.634	4.14	49.7	0.204	0.028	0.119
JUN 11-18	0.25	0.440	5.09	26.8	0.565	0.631	0.307
JUN 18-25	1.03	1.709	4.19	48.9	0.194	0.030	0.007
JUN 25-JUL 02	1.10	1.898	4.65	22.1	0.055	0.012	0.051
JUL 02-09	2.08	3.511	4.39	35.9	0.203	0.018	0.030
JUL 07-16	3.24	5.678	4.42	24.4	0.110	0.014	0.056
JUL 16-23	0.13	0.215	6.93	69.9	10.3	0.801	0.311
JUL 23-30	0.51	0.777	4.05	60.2	0.921	0.114	0.093
JUL 30-AUG 06	<0.01	0.006	--	--	7.78	0.791	0.547
AUG 06-13	2.15	3.687	4.56	26.1	0.180	0.052	0.029
AUG 13-20	--	1.535	4.08	48.3	0.178	0.021	0.010
AUG 27-SEP 03	0.04	0.079	3.70	115.9	0.506	0.053	0.065
SEP 03-10	0.78	1.368	4.02	62.1	0.151	0.032	0.110
SEP 10-17	0.97	1.671	4.27	30.9	0.117	0.019	0.107
SEP 17-24	0.18	0.309	4.02	50.1	0.197	0.027	0.046
SEP 24-OCT 01	2.40	4.171	4.35	22.5	0.014	<0.003	0.022

CHEMICAL QUALITY OF PRECIPITATION

ROWAN COUNTY

380706083324900 - CLARK STATE FISH HATCHERY, NEAR MOREHEAD, KY--Continued

(National Atmospheric Deposition Program network station)

CHEMICAL ANALYSES, OCTOBER 1990 TO SEPTEMBER 1991

DATE	POTASSIUM ATM DEP WET DIS (MG/L)	SULFATE ATM DEP WET DIS AS SO4 (MG/L)	CHLORIDE ATM DEP WET DIS (MG/L)	NITROGEN NITRATE ATM DEP WET DIS AS NO3 (MG/L)	NITROGEN AMMON. ATM DEP WET DIS AS NH4 (MG/L)	PHOSPHORUS ORTHO ATM DEP WET DIS AS PO4 (MG/L)
SEP 25-OCT 02	0.052	7.72	0.23	5.76	1.55	<0.02
OCT 02-09	0.012	0.96	0.12	0.41	0.09	<0.02
OCT 09-16	0.015	2.85	0.32	2.03	0.09	<0.02
OCT 16-23	0.122	1.02	0.07	0.51	<0.02	<0.02
OCT 23-30	0.064	6.12	0.62	13.5	2.90	<0.02
OCT 30-NOV 06	0.036	2.16	0.35	0.96	0.21	<0.02
NOV 06-13	0.007	1.80	0.10	0.94	0.16	<0.02
NOV 13-20	0.040	2.00	0.07	1.89	0.52	<0.02
NOV 20-27	0.008	2.05	0.09	1.15	0.09	<0.02
NOV 27-DEC 04	0.009	1.60	0.53	1.02	0.15	<0.02
DEC 11-19	0.011	1.29	0.13	0.62	0.09	<0.02
DEC 19-25	0.023	0.92	0.08	0.38	<0.02	<0.02
DEC 25 1990-JAN 01 1991	0.139	0.65	0.08	0.29	<0.02	<0.02
JAN 01-08	0.003	2.63	0.06	0.77	0.09	<0.02
JAN 08-15	0.006	2.41	0.11	1.81	0.13	<0.02
JAN 15-22	0.021	2.76	0.18	2.71	0.31	<0.02
JAN 22-29	<0.003	2.23	0.12	2.17	0.24	<0.02
JAN 29-FEB 05	0.005	2.94	0.18	2.01	0.28	<0.02
FEB 05-12	0.070	1.23	0.15	0.74	0.04	<0.02
FEB 12-19	0.003	0.99	0.05	0.93	0.14	<0.02
FEB 19-26	0.012	1.63	0.15	2.18	0.15	<0.02
FEB 26-MAR 05	0.026	2.61	0.14	1.33	0.18	<0.02
MAR 05-12	0.599	5.01	0.84	3.83	0.59	<0.02
MAR 12-19	0.021	1.79	0.10	1.42	0.18	<0.02
MAR 19-26	0.143	1.80	0.21	0.90	0.28	<0.02
MAR 26-APR 02	0.103	3.49	0.49	2.47	0.78	<0.02
APR 02-09	0.063	3.14	0.51	2.02	0.45	<0.02
APR 09-16	0.198	2.13	0.28	1.64	0.30	<0.02
APR 16-23	1.16	4.55	0.66	2.42	3.44	0.50

CHEMICAL QUALITY OF PRECIPITATION

ROWAN COUNTY

380706083324900 - CLARK STATE FISH HATCHERY, NEAR MOREHEAD, KY--Continued

(National Atmospheric Deposition Program network station)

CHEMICAL ANALYSES, OCTOBER 1990 TO SEPTEMBER 1991

DATE	POTASSIUM ATM DEP WET DIS (MG/L)	SULFATE ATM DEP WET DIS AS SO4 (MG/L)	CHLORIDE ATM DEP WET DIS (MG/L)	NITROGEN NITRATE ATM DEP WET DIS AS NO3 (MG/L)	NITROGEN AMMON. ATM DEP WET DIS AS NH4 (MG/L)	PHOSPHORUS ORTHO ATM DEP WET DIS AS PO4 (MG/L)
APR 1991						
23-30	0.524	2.71	0.19	1.39	2.36	0.60
APR 30-MAY 07	0.100	3.13	0.16	1.90	0.31	<0.02
MAY 07-14	0.043	1.65	0.08	0.81	0.24	<0.02
MAY 14-21	0.529	6.96	0.54	3.24	3.36	0.68
MAY 21-28	0.048	2.96	0.17	1.50	0.24	<0.02
MAY 28-JUN 04	0.032	5.17	0.20	2.29	0.44	<0.02
JUN 11-18	1.11	4.45	0.28	2.29	17.0	2.48
JUN 18-25	0.019	4.59	0.14	2.66	0.24	<0.02
JUN 25-JUL 02	0.007	1.99	0.09	0.91	0.06	<0.02
JUL 02-09	0.022	3.36	0.11	2.23	0.38	<0.02
JUL 07-16	0.009	2.34	0.10	1.28	0.23	<0.02
JUL 16-23	0.120	14.8	0.64	8.92	0.62	<0.02
JUL 23-30	0.055	6.76	0.15	3.70	0.60	<0.02
JUL 30-AUG 06	0.274	24.6	1.22	4.26	<0.61	<0.608
AUG 06-13	0.444	3.59	0.10	1.60	0.84	0.28
AUG 13-20	0.024	5.25	0.06	1.71	0.50	<0.02
AUG 27-SEP 03	0.038	10.6	0.33	6.40	0.47	0.03
SEP 03-10	0.231	6.33	0.25	2.89	0.43	<0.02
SEP 10-17	0.019	3.22	0.17	1.19	0.30	<0.02
SEP 17-24	0.032	4.79	0.17	3.00	0.49	<0.02
SEP 24-OCT 01	0.003	2.26	0.04	0.92	0.15	<0.02

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS

STATION NAME AND LOCATION	STATION NUMBER	DRAINAGE AREA (MI^2)	PERIOD OF RECORD	COMPLETE FLOW	COM-PLETE STAGE	PEAK FLOW	LOW FLOW	MISC FLOW MEAS
CARD CR AT MOUTHCARD, KY	03207845	4.18	1973-75	E	E			
FEDS CR AT FEDS CR, KY	03207875	11.60	1973-75	E	E			
BIG CR AT DUNLAP, KY	03207905	9.55	1974-76	E	E			
ELKFOOT BRANCH NR NIGH, KY	03207915	0.70	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	0.82	1975-84	E	E			
ELKHORN CR NR ELKHORN CITY, KY	03209400	48.80	1967-72	E		E	E	
SHELBY CR AT DORTON, KY	03209440	12.60	1971-76*	E	E	E	E	
SHELBY CR AT SHELBIANA, KY	03209460	112.00	1965				E	
			1972-81					
MUD CR AT HAROLD, KY	03209545	51.90	1975-81				E	
BILL D BR NR KITE, KY	03209575	3.17	1976-86			E		
RIGHT FK BEAVER CR AT WAYLAND, KY	03209600	73.90	1959-75				E	
BEAVER CR AT MARTIN, KY	03209700	228.00	1953-72				E	
LEVISA FK AT PRESTONSBURG, KY	03209800	1702.00	1964-81		E			
MIDDLE CR NR PRESTONSBURG, KY	03209890	62.10	1975-81				E	
RACCOON CR NR ZEBULON, KY	03210040	14.80	1974-75*	E	E			
CANEY FK NR GULNARE, KY	03210160	3.74	1974-75*	E	E	E		
BRUSHY FK AT HEENON, KY	03210310	20.40	1974-76	E	E			
BUFFALO CR NR ENDICOTT, KY	03210420	6.21	1974-75*	E	E			
JOHNS CR NR PRESTONSBURG KY	03210500	197.00	1938-40		E			
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	0.82	1980-83		E			
BIG CR NR HATFIELD, KY	03213790	59.10	1975-81				E	
WOLF CR AT PILGRIM, KY	03214400	62.80	1975-81				E	
ROCKCASTLE CR AT CLIFFORD, KY	03214730	121.00	1965-65					E
			1972-81					
BIG SANDY R AUXILIARY AT LOUISA, KY	03214980	3885.00	1938-76		E			
BIG SANDY R AT LOUISA, KY	03215000	3897.00	1939-77		E			C
BLAINE CR ABOVE CAINS CR NR BLAINE, KY	03215362	64.70	1975-81				E	
BLAINE CR NR BLAINE, KY	03215410	119.00	1972-76				E	
BLAINE CR AT YATESVILLE, KY	03215500	217.00	1915-75*	E	E	E	E	
OHIO R AT ASHLAND, KY	03216000	60750.00	1939-75		E			
LITTLE SANDY R AT SANDY HOOK, KY	03216190	35.70	1970-74				E	
LITTLE SANDY R NR SANDY HOOK, KY	03216200	60.40	1954-69				E	
LITTLE SANDY R AT LEON, KY	03216400	255.00	1962-80		C			
LITTLE FK LITTLE SANDY R NR WILLARD, KY	03216438	58.10	1975-81				E	
LITTLE FK LITTLE SANDY R NR GRAYSON, KY	03216480	132.00	1965-65					E
			1972-81					
BECKWITH BR TRIBUTARY NR GRAYSON, KY	03216505	.51	1977-86			E		
E FK LITTLE SANDY R NR CANNNONSBURG, KY	03216550	38.20	1980-81		E		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	
TROUGH CAMP CR TRIB NR OLIVE HILL, KY	03216901	1.11	1976-86			E		
TYGARTS CR NR KEHOE, KY	03216935	124.00	1963-74		E			E
BUFFALO CR BELOW GRASSY CR AT KEHOE, KY	03216965	54.60	1975-81				E	
KINNICONICK CR NR KINNICONICK, KY	03237225	60.10	1975-81				E	
KINNICONICK CR NR RUGLESS, KY	03237230	109.00	1954-72				E	
LAUREL FK NR CAMP DIX, KY	03237246	57.00	1975-81				E	
SALT LICK CR NR VANCEBURG, KY	03237285	47.50	1954-62					
INDIAN RUN TRIB NR TOLLESBORO, KY	03237895	.23	1975-86					
CABIN CR NR PLUMVILLE, KY	03237985	57.60	1975-78				E	
			1980-81					
OHIO R AT MAYSVILLE, KY	03238000	70130.00	1939-80		E	E		
LAWRENCE CR NR MAYSVILLE, KY	03238030	1.90	1975-86			E		
BRACKEN CR NR AUGUSTA, KY	03238620	28.80	1975-78				E	
			1980-81					
LOCUST CR NR AUGUSTA, KY	03238660	41.70	1975-78				E	
			1980-81					
TWELVEMILE CR NR CALIFORNIA, KY	03238750	44.30	1975-81				E	
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	
ELK FK NR LENOX, KY	03248685	59.40	1958-73				E	
CANEY CR NR W LIBERTY, KY	03248730	41.40	1973-75				E	
GRASSY CR NR W LIBERTY, KY	03248765	46.10	1974-79				E	
			1981					
BLACKWATER CR NR EZEL, KY	03248815	38.30	1974-81					
N FK LICKING R NR WRIGLEY, KY	03248855	33.70	1974-81			E		
LICKING R AT YALE, KY	03249000	714.00	1937-42		E			
JACKS BRANCH NR MOREHEAD, KY	03250080	.19	1976-86			E		
SLATE CR NR JEFFERSNVILLE, KY	03250185	56.70	1973-81				E	
SLATE CR NR OWINGSVILLE, KY	03250240	185.00	1954-72				E	
ROSE RUN TRIB NR OLYMPIA, KY	03250243	.70	1975-86			E		
ROCK LICK CR NR SHARKEY, KY	03250320	4.01	1973-82		E			
FOX CR NR HILLSBORO, KY	03250330	110.00	1953-72			E	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	

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS

STATION NAME AND LOCATION	STATION NUMBER	DRAINAGE AREA (MI^2)	PERIOD OF RECORD	COMPLETE FLOW	COM-PLETE STAGE	PEAK FLOW	LOW FLOW	MISC FLOW MEAS
WELLS CR TRIB NR WASHINGTON, KY	03251008	.96	1977-86		E			
LEES CREEK TRIB AT MAYS LICK, KY	03251015	.45	1975-86		E			
N FK LICKING R NR MILFORD, KY	03251400	286.00	1954-72		E	E		
STONER CR NR N MIDDLETOWN, KY	03251665	51.60	1974-81			E		
STRODES CR NR N MIDDLETOWN, KY	03251790	53.60	1973-81			E		
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		
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		C
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		
PLEASANT RUN CR AT CRESENT SPRINGS, KY	03260010	.68	1973-86			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 FORK NR MAYKING, KY	03277290	3.03	1976-87			E		
N FK KENTUCKY R AT WHITESBURG, KY	03277300	66.40	1953-75		E	E		
N FK KENTUCKY R AT BLACKEY, KY	03277340	131.00	1965-65				E	
			1972-81					
ROCKHOUSE CR NR FLETCHER, KY	03277360	51.60	1958-67				E	
LINE FK AT DEFEATED CR, KY	03277370	40.80	1958-76				E	
N FK KENTUCKY R AT CORNETTSVILLE, KY	03277411	322.00	1958-72				E	
BREEDING CR NR ISOM, KY	03277437	0.69	1977-85			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	
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 FORK AT CANOE, KY	03280935	1.57	1975-87			E		
RED BIRD R NR SPRING CR, KY	03281016	52.70	1976-81				E	
RED BIRD R AT BIG CR, KY	03281030	125.00	1954-72			E	E	
GOOSE CR AT GOOSEROCK, KY	03281065	49.60	1976-81				E	
COLLINS FK AT BLUEHOLE, KY	03281080	67.40	1958-76				E	
PACES CR NR GARRARD, KY	03281090	.47	1976-85			E		
S FK KENTUCKY R AT ONEIDA, KY	03281200	486.00	1958-82			E		
SEXTON CR AT TAFT, KY	03281350	71.00	1959-64				E	
			1967					
			1975-77					
			1979-81					
STURGEON CR NR HEIDELBERG, KY	03282045	96.40	1942-72				E	
BIG SINKING CR NR CRYSTAL, KY	03282075	23.4	1988-89*	E	E			
FURNACE FK NR CRYSTAL, KY	03282100	9.94	1988-89*	E	E			
S FK STATION CAMP CR NR DRIP ROCK, KY	03282135	41.40	1959-76				E	
STATION CAMP CR AT WAGERSVILLE, KY	03282170	115.00	1954-72				E	
REDLICK CR NR STATION CAMP, KY	03282190	69.50	1959-76				E	
CLEAR CR TRIB NR WEST IRVINE, KY	03282198	.59	1975-86			E		
STILLWATER CR AT STILLWATER, KY	03283000	24.00	1954-73*	E	E	E		
RED R NR PINE RIDGE, KY	03283100	142.00	1969-76					
M FK RED RIVER AT ZACHARIAH, KY	03283305	.58	1975-86			E		
CAT CR NR STANTON, KY	03283370	8.30	1987-89*	E	E			
LULBEGRUD CK TRIB AT WESTBEND, KY	03283610	.33	1975-86					
LULBEGRUD CR AT LOG LICK, KY	03283630	49.30	1973-81				E	
MUDDY CR AT DOYLESVILLE, KY	03283830	63.80	1973-77				E	
			1979-81					
OTTER CR NR FORD, KY	03283995	63.50	1973-77				E	
BOONE CR AT GRIMES MILL RD NR LOCUST GROVE	03284100	41.80	1967-74				E	
SILVER CR NR KINGSTON, KY	03284300	28.60	1967-83		E			
SILVER CR NR BEREA, KY	03284310	53.40	1975-83			E	E	
OLD TOWN BR TR NR RICHMOND, KY	03284340	1.83	1976-85			E		
SILVER CR NR RICHMOND, KY	03284350	98.50	1972-77				E	
			1979-81					
PAINT LICK CR AT PAINT LICK, KY	03284415	54.40	1973-74				E	
PAINT LICK CR NR MCCREARY, KY	03284450	97.60	1954-74				E	
SUGAR CR NR BUCKEYE, KY	03284495	41.50	1975-77				E	
KENTUCKY R AT LOCK 8 NR CAMP NELSON, KY	03284500	4414.00	1910-71*	E	E	E		
W HICKMAN CR AT JONESTOWN, KY	03284550	11.00	1975-84		E			
KENTUCKY R AT CAMP NELSON, KY	03284600	4528.00	1940-71		E	E		
DIX R AB COPPER CR NR CRAB ORCHARD, KY	03284720	44.40	1973-76				E	
DIX R BL COPPER CR NR CRAB ORCHARD, KY	03284750	70.60	1973-76				E	
DIX R NR STANFORD, KY	03284800	160.00	1973-76				E	
HANGING FK CR NR STANFORD, KY	03284935	46.90	1973-74				E	
HANGING FK CR NR HUBBLE, KY	03284995	91.10	1973-74				E	

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS

STATION NAME AND LOCATION	STATION NUMBER	DRAINAGE AREA (MI^2)	PERIOD OF RECORD	COMPLETE FLOW	COM-PLETE STAGE	PEAK FLOW	LOW FLOW	MISC FLOW MEAS
BALLS BR TRIB NR DANVILLE, KY	03285100	.13	1976-86			E		
DIX R NR BURGIN, KY	03285500	395.00	1909-22		E			
KENTUCKY R AT L7 AT HIGHBRIDGE, KY	03286500	5036.00	1901-27		E			
CLEAR CR NR MORTONSVILLE, KY	03287130	61.60	1973-77				E	
GILBERT CR TR NR SALVISA, KY	03287160	.81	1975-78			E		
SOUTH BENSON CK NR FRANKFORT, KY	03287534	4.47	1976-86			E		
BENSON CR NR FRANKFORT, KY	03287550	107.00	1943-72				E	
CANE RUN NR GEORGETOWN, KY	03288260	45.40	1973-74				E	
N ELKHORN CR AT SWITZER, KY	03288450	265.00	1972-77				E	
CAVE CR NR FORT SPRING, KY	03288500	2.53	1953-72*	E	E	E	E	
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 CK NR LOCKPORT, KY	03290490	76.50	1973-74				E	
TOWN CREEK AT NEW CASTLE, KY	03290580	5.62	1976-86			E		
DRENNON CK 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 SKYLIGHT, KY	03292467	60.30	1972-74				E	
SOUTH FORK HARRODS CR NR CRESTWOOD, KY	03292472	.97	1975-88			E		
SALT R NR HARRODSBURG, KY	03295000	41.40	1953-73*	E	E	E		
SALT R AT FOX CR, KY	03295290	131.00	1972-76					
SALT R NR VAN BUREN, KY	03295500	196.00	1938-82		E			
BEECH CR NR TAYOLORSVILLE, KY	03295580	53.20	1974-76				E	
SALT R AT TAYLORSVILLE, KY	03295610	359.00	1937-75				E	
			1972-76					
BULLSKIN CR AT FINCHVILLE, KY	03295705		1974-75		E		E	
BRASHEARS CR NR FINCHVILLE, KY	03295800	147.00	1953-72				E	
BRADSHAW CK 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	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	
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	
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		
NORTH 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	663.00	1939-74	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	

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS

STATION NAME AND LOCATION	STATION NUMBER	DRAINAGE AREA (MI^2)	PERIOD OF RECORD	COMPLETE FLOW	COM-PLETE STAGE	PEAK FLOW	LOW FLOW	MISC FLOW MEAS
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 GREENSBURG, KY	03306500	736.00	1939-75*	E	E	E		
WHITE OAK CR TR NR MONTPELIER, KY	03306640	.50	1976-86	E		E		
RUSSELL CR NR JOPPA, KY	03306690	62.90	1974-81				E	
RUSSELL CR AT COLUMBIA, KY	03306850		1972-74				E	
RUSSELL CR NR GRESHAM, KY	03307100	265.00	1965-75*	E	E	E	E	
BIG PITMAN CR NR BENGAL, KY	03307215	47.70	1974-78				E	
			1980-81					
BIG PITMAN CR NR SUMMERSVILLE, KY	03307295	126.00	1953-72				E	
BIG BRUSH CR NR SUMMERSVILLE, KY	03307400	45.70	1974-78				E	
			1980-81					
S FK LITTLE BARREN R AT EDMONTON, KY	03307500	18.30	1941-72*	E	E	E		
S FK LITTLE BARREN R AT SULPHUR WELL, KY	03307600	79.60	1975-81				E	
PRICES CR NR GRADYVILLE, KY	03307670	2.53	1976-86			E		
E FK LITTLE BARREN R NR SULPHUR WELL, KY	03307730	87.40	1975-81				E	
LITTLE BARREN R NR MONROE, KY	03307800	244.00	1960-76				E	
ECHO R OUTLET AT MAMMOTH CAVE, KY	03308950		1953-74				E	
GREEN R AT MAMMOTH CAVE, KY	03309000	1983.00	1938-50	E	E	E		
WET PRONG BUFFALO CR NR MAMMOTH CAVE, KY	03309100	2.26	1962-74				E	
MCDOUGAL CR NR HODGENVILLE, KY	03309500	5.34	1953-71*	E	E	E	E	
N FK NOLIN R AT HODGENVILLE, KY	03310000	36.40	1941-73*	E	E	E		
S FK NOLIN R AT MATHERS MILL, KY	03310078	49.60	1974-78				E	
NOLIN R NR GLENDALE, KY	03310160	185.00	1972-73				E	
VALLEY CR NR GLENDALE, KY	03310270	90.10	1973-81				E	
BACON CR AT HIGHWAY 31W AT BONNIEVILLE, KY	03310380	53.50	1974-81				E	
NOLIN R AT WAX, KY	03310500	600.00	1935-62*	E	E	E		
DOG CR NR MAMMOTH CAVE, KY	03310600	8.12	1961-74				E	
BRIER CR TRIB NR OLLIE, KY	03310880	.31	1976-86			E		
BYLEW CR NR MAMMOTH CAVE, KY	03311100	5.16	1961-74			E	E	
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	533.00	1939-63	E	E	E		
LITTLE BEAVER CR NR GLASGOW, KY	03312795	.89	1976-86			E		
W BAYS FK AT SCOTTSVILLE, KY	03313500	7.47	1951-72		E	E		
LICK CR NR FRANKLIN, KY	03313800	21.60	1959-83			E		
TRAMMEL CR NR SCOTTSVILLE, KY	03313900	93.40	1953-72				E	
DRAKES CR NR ALVATON, KY	03314000	478.00	1940-71	E	C	E	E	
BARREN R A L 1 A GREENCASTLE, KY	03315000	1968.00	1923-37	E	E	E		
GASPER R NR RICHELIEU, KY	03315265		1972-77				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	
GREEN R NR PARADISE, KY	03316500	6182.00	1940-81		E			
			1961-81					
ROUGH R NR MADRID, KY	03317000	225.00	1936-59	E	E	E		
N FK ROUGH T NR WESTVIEW, KY	03317500	42.00	1954-73*	E	E	E		
LONG LICK CR TRIB NR AXTEL, KY	03317965	.38	1975-86			E		
ROUGH R NR FALLS OF ROUGH, KY	03318000	454.00	1940-56		E			
ROCK LICK CR NR GLEN DEAN, KY	03318200	20.10	1955-71*	E	E		E	
WEST FORK ADAMS FK NR FORDSVILLE, KY	03319520	.26	1976-86			E		
POND R NR WHITE PLAINS, KY	03321000	343.00	1927-40	E	E	E		
CYPRESS CR NR RUMSEY, KY	03321215	149.00	1972-76				E	
EAST FORK 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	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	
HIGHLAND CR NR UNIONTOWN, KY	03322400	166.00	1953-77				E	
WARD CR AT LEWISTOWN, KY	03382975	.91	1975-86			E		
TRADEWATER R NR DALTON, KY	03383500	283.00	1927-40		E	E		
W FK DONALDSON CR NR FREDONIA, KY	03383605	2.52	1975-86			E		
ROSE CR AT NEBO, KY	03384000	2.10	1952-70*	E	E	E		
OHIO R AT DAM 51 AT GOLCONDA, IL	03384500	143900.00	1941-52		C			
POOR FK A HARLAN LETCHER CO LIN, KY	03400000	51.70	1940-43		E			
POOR FK AT ROSSPOINT, KY	03400585	142.00	1972-77				E	
WOOD CR NEAR LONDON, KY	03400600	3.89	1953-71			E		
			1972-87			E		
CLOVER FK AT EVARTS, KY	03400700	82.40	1959-83			E		
MARTINS FK ABOVE SMITH	03400785	23.80	1985-90*	E	E	E	E	
CRANE CR NR SMITH, KY	03400796	1.63	1976-77		E			
MARTINS FK AT HARLAN, KY	03400985	116.00	1960					E
PEARL BR AT WALLINS CR, KY	03401040	1.40	1976-85			E		
L YELLOW CR AT MIDDLESBORO, KY	03401400	10.80	1959-66		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	

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS

STATION NAME AND LOCATION	STATION NUMBER	DRAINAGE AREA (MI^2)	PERIOD OF RECORD	COMPLETE FLOW	COM-PLETE STAGE	PEAK FLOW	LOW FLOW	MISC FLOW MEAS
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	
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					
LAUREL R NR LILY, KY	03404688	52.30	1974-81				E	
LITTLE LAUREL R NR LILY, KY	03404810	42.40	1975-81				E	
GOZEY HOLLOW NR CORBIN, KY	03404867	.31	1976-85			E		
LAUREL R AT CORBIN, KY	03405000	201.00	1910-73	E	E	E		
LAUREL R NR VOX, KY	03405500	245.00	1929-31		E			
S FK ROCKCASTLE R NR PEOPLES, KY	03405700	95.10	1961-72				E	
MIDDLE FK ROCKCASTLE R NR PARROT, KY	03405818	79.00	1975-81				E	
HORSE LICK CR NR LAMERO, KY	03405842	61.70	1975-81				E	
BIG HURRICANE BR AT CONWAY, KY	03405854	1.91	1976-85			E		
ROUNDSTONE CR AT HOMMEL, KY	03405868	52.90	1975-81				E	
ROUNDSTONE CR AT LIVINGSTON, KY	03405900	144.00	1953-76					
WOOD CR NR LONDON, KY	03406000	3.89	1954-71*	E	E	E	E	
SKEGG CR NR BILLOWS, KY	03406330	55.90	1975-81				E	
ROCKCASTLE R AT ROCKCASTLE SPRINGS, KY	03407000	745.00	1921-31	E	E	E		
CANE BR NR PARKERS LAKE, KY	03407100	.67	1956-87		E	E		
WFK CANE BR NR PARKERS LAKE, KY	03407200	0.26	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 AT DYKES, KY	03407640	253.00	1972-81				E	
ROCK CR NR YAMACRAW, KY	03410590	58.90	1965				E	
			1975-81					
LITTLE S FK CUMBERLAND R NR GRIFFIN, KY	03410825	56.40	1975-81				E	
LITTLE S FK CUMBERLAND R NR OIL VALLEY, KY	03410900	98.20	1953-72				E	
S FK CUMBERLAND R AT NEVELSVILLE, KY	03411000	1271.00	1915-50		E	E		
CUMBERLAND R AT BURNSIDE, KY	03411500	4865.00	1925-50		E	E		
LAKE CUMBERLAND AT BURNSIDE, KY	03411700	4869.00	1951-70					
PITMAN CR NR SOMERSET, KY	03412000	26.30	1949-53		E			
PITMAN CR AT SOMERSET, KY	03412500	31.30	1953-72*	E	E	E		
FISHING CR NR HOGUE, KY	03412700	59.80	1968-77				E	
CUMBERLAND R NR JAMESTOWN, KY	03413000	5331.00	1937-40		E			
BEAVER CR NR MONTICELLO, KY	03413200	43.40	1968-83		E			
ELK SPRING CR NEAR SPANN, KY	03413202	.57	1976-87			E		
OTTER CR NR SUSIE, KY	03413345	67.10	1953-66				E	
WILLIAMS CR TRIB NR CARTWRIGHT, KY	03413425	0.76	1976-86			E		
CROCUS CR NR BAKERTON, KY	03414080	108.00	1972-76				E	
BEAR CR NEAR BURKESVILLE, KY	03414102	352.00	1976-87			E		
MARROWBONE CR AT GRIDER, KY	03414175	80.70	1975-81				E	
RED R NR ADAIRVILLE, KY	03435100	229.00	1957-72				E	
ELBOW CR TRIB NR CANTON, KY	03437380	.83	1975-86			E		
LICK CREEK NR CANTON, KY	03437390	.39	1977-86			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			
DRY CR NR LAMASCO, KY	03438167	34.60	1968-72			E	E	
EDDY CR NR LAMASCO, KY	03438170	71.70	1968-74				E	
KENTUCKY-BARKLEY CANAL NR GRAND RS, KY	03438191		1971-74		E			
CUMBERLAND R AT EUREKA, KY	03438200	17594.00	1939-64		E			
LIVINGSTON CR NR DYCUSBURG, KY	03438470	112.00	1954-74				E	
TENNESSEE R AT SHANNON DAM SITE NR MURRAY	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		
CLARKS R AT MURRAY, KY	03610000	89.70	1952-71*	E	E	E		
CLARKS R NR BENTON, KY	03610500	227.00	1938-73*	E	E	E		
CHESTNUT CR NR BENTON, KY	03610503	.82	1975-86			E		
CLARKS R TRIB NR REIDLAND, KY	03610820	.13	1975-86			E		
OHIO R AT PADUCAH, KY	03611000	202800.00	1873-75		C			
HUMPHREY CR AT LACENTER, KY	03613000	44.20	1953-72				E	
PERRY CR NR MAYFIELD, KY	07022500	1.72	1953-65*	E	E	E	E	
			1968-72					
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	
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 LOCATION	STATION NUMBER	DRAINAGE AREA (MI^2)	PERIOD OF RECORD	BIO. ACTIVE STATUS	PHY. ACTIVE STATUS	SED. ACTIVE STATUS	CHEMICAL ACTIVE STATUS
BRUSHY FORK AT THOMAS, KY	03201400		1980-82		N	N	N
CARD CREEK 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 CREEK AT DUNLAP, KY	03207905	9.55	1974-76		N	N	N
ELKFOOT BRANCH NEAR NIGH, KY	03207915	0.70	1980-84			N	
ISLAND CREEK NEAR 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 CREEK NR PHYLLIS, KY	03207940	1.68	1973-81		N	N	N
DICKS FORK AT PHYLLIS, KY	03207962	0.82	1975-79			N	
			1982-84			N	
LEVISA FORK BELOW FISHTRAP DAM, KY	03208000	392.00	1965-79		N	N	N
RUSSELL FORK AT ELKHORN CITY, KY	03209300	554.00	1961-83		N	N	N
ELKHORN CREEK NEAR ELKHORN CITY, KY	03209402		1980-82		N	N	N
MARROWBONE CREEK AT WOLFPIT, KY	03209420		1980-82		N	N	N
GREASY CREEK NEAR SUTTON, KY	03209430		1980-82		N	N	N
DORTON CREEK NEAR DORTON, KY	03209438		1980-82		N	N	N
LONG FORK NEAR VIRGIE, KY	03209453		1980-82		N	N	N
ROBINSON CREEK AT ROBINSON CREEK, KY	03209457		1980-82		N	N	N
SHELBY CREEK AT SHELBIANA, KY	03209460	112.00	1965-79		N	N	N
MUD CREEK NEAR GRETHEL, KY	03209530		1980-82		N	N	N
TOLLAR CR NR HAROLD, KY	03209540		1980-82		N	N	N
MUD CREEK AT HAROLD, KY	03209545	51.90	1978-80		N	N	N
RIGHT FORK BEAVER CREEK AT TOPMOST, KY	03209585		1980-82		N	N	N
CANEY FORK BEAVER CREEK NEAR RAVEN, KY	03209590		1980-82		N	N	N
RIGHT F BEAVER C AT WAYLAND, KY	03209600	73.90	1978-80		N		N
JONES FORK AT BETTY, KY	03209603		1980-82		N	N	N
SALTLICK CREEK NEAR BOSCO, KY	03209607		1980-82		N	N	N
LEFT FK BEAVER CR AT DRIFT, KY	03209650	58.50	1978-80		N		N
LEFT FORK BEAVER CR AT PRINTER, KY	03209680		1980-82		N	N	N
BEAVER CR AT MARTIN, KY	03209700	228.00	1961-71		N		N
LEVISA FORK AT PRESTONSBURG, KY	03209800	1702.00	1976-79		N	N	N
MIDDLE CREEK NEAR PRESTONSBURG, KY	03209850		1980-82		N	N	N
LEFT FORK MIDDLE CR NR GOODLOE, KY	03209870		1980-82		N	N	N
MIDDLE CR NR PRESTONBURG, KY	03209890	62.10	1978-80		N	N	N
ABBOTT CREEK NEAR 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 FORK NEAR GULNARE, KY	03210160	3.74	1973-80		N	N	N
BRUSHY FK AT HEENON, KY	03210310	20.40	1973-76		N	N	N
BUFFALO CREEK NEAR ENDICOTT, KY	03210420	6.21	1973-80		N	N	N
BUFFALO CREEK NEAR GERMAN, KY	03210450		1980-82		N	N	N
DANIELS CREEK NEAR 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 ABV PAINT CR AT PAINTSVILLE, KY	03211800	1975.00	1974-79		N		N
PAINT C NR ELNA, KY	03211970	79.30	1967		N		N
PAINT C AB BARNETTS C NR STAFFORDSVILLE, KY	03211997		1971-72		N		N
GREASY CREEK NEAR OFFUTT, KY	03212510		1980-82		N	N	N
TOMS CREEK NEAR TUTOR KEY, KY	03212520		1980-82		N	N	N
GEORGES CREEK NEAR ULYSSES, KY	03212530		1980-82		N	N	N
RIGHT FORK CREEK NEAR CHARLEY, KY	03212535		1980-82		N	N	N
RIGHT FORK HURRICANE CR NR STOPOVER, KY	03213630	0.82	1980-84			N	
LEFT FORK PETER CREEK AT JAMBOREE, KY	03213670		1980-82		N	N	N
RIGHT FORK PETER CREEK NEAR PHELPS, KY	03213680		1980-82		N	N	N
BLACKBERRY CREEK AT RANSOM, KY	03213690		1980-82		N	N	N
POND CREEK NEAR TOLER, KY	03213698		1980-82		N	N	N
BIG CREEK NEAR HATFIELD, KY	03213750		1980-82		N	N	N
WOLF CREEK NEAR MCCLURE, KY	03214300		1980-82		N	N	N
MIDDLE FORK ROCKCASTLE CREEK AT INEZ, KY	03214600	33.34	1980-82		N	N	N
COLDWATER FORK NEAR INEZ, KY	03214650	17.85	1980-82		N	N	N
ROCKCASTLE CREEK AT INEZ, KY	03214700	63.10	1970-72	N	N	N	N
ROCKHOUSE FORK NEAR MILO, KY	03214720		1980-82		N	N	N
ROCKCASTLE CR AT CLIFFORD, KY	03214730	121.00	1965-75		N		N
LEFT FORK BLAINE CREEK NEAR MARTHA, KY	03215250		1980-82		N	N	N
LOWER LAUREL C NR FLATGAP, KY	03215320		1967		N		N
CAINES CREEK NEAR 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 CREEK AT BLAINE, KY	03215380		1980-82		N	N	N
BRUSHY CREEK NEAR CORDELL, KY	03215420		1980-82		N	N	N
BLAINE CREEK BL BRUSHY CREEK NR BLAINE, KY	03215430	151.00	1971-80		N		N
RICH CREEK NR ADAMS, KY	03215440		1971-72		N		N
LITTLE BLAINE CREEK NEAR EVERGREEN, KY	03215470		1980-82		N	N	N
LITTLE BLAINE CREEK AT EVERGREEN, KY	03215480	23.00	1971-80		N		N
BLAINE CREEK NR YATESVILLE, KY	03215490	206.00	1971-72		N		N
BLAINE CREEK AT YATESVILLE, KY	03215500	217.00	1965-79		Y		N
CAT FORK CREEK AT FALLSBURG, KY	03215550		1980-82		N	N	N
BIG SANDY R AT CATLETTSBURG, KY	03215700	4281.00	1955-75		N		N
LITTLE SANDY RIVER AT SANDY HOOK, KY	03216180		1980-82		N	N	N
BIG CANEY CREEK NEAR STARK, KY	03216230		1980-82		N	N	N
LITTLE SANDY R BL GRAYSON DAM NR LEON, KY	03216350	196.00	1966-79		N		N

DISCONTINUED SURFACE WATER-QUALITY-STATIONS

STATION NAME AND LOCATION	STATION NUMBER	DRAINAGE AREA (MI^2)	PERIOD OF RECORD	BIO. ACTIVE STATUS	PHY. ACTIVE STATUS	SED. ACTIVE STATUS	CHEMICAL ACTIVE STATUS
BIG SINKING CREEK NEAR ADEN, KY	03216370		1980-82		N	N	N
LITTLE SANDY RIVER AT LEON, KY	03216400	255.00	1978-80		N		
LITTLE SANDY RIVER AT DOBBINS, KY	03216430		1980-82		N	N	N
DRY FORK AT WILLARD, KY	03216450		1980-82		N	N	N
LITTLE F LITTLE SANDY R NR GRAYSON, KY	03216480	132.00	1973-75		N		N
BERET CREEK NEAR GRAYSON, KY	03216520		1980-82		N	N	N
EAST FORK LITTLE SANDY RVR NR FALLSBURG, KY	03216540	12.20	1978-83		N		
EF LITTLE SANDY RIVER NEAR CANNONSBURG, KY	03216558		1980-82		N	N	N
WILLIAMS CREEK AT PRINCESS, KY	03216567		1980-82		N	N	N
E F LITTLE SANDY R NR ARGILLITE, KY	03216570	138.00	1970-72		N		N
OHIO RIVER AT GREENUP DAM, KY	03216600	62000.00	1974-86	N	N	N	N
SOLDIER FORK AT LAWTON, KY	03216770		1971-72		N		N
TYGARTS CR AT IRON HILL, KY	03216930		1971-72		N		N
BUFFALO CREEK NEAR GESLING, KY	03216960		1980-82		N	N	N
KINNICONICK CR NR RUGLESS, KY	03237230	109.00	1970-72		N		N
OHIO RIVER AT MELDAHL DAM NR CHILO, OHIO	03238680	70800.00	1967-70		N		N
OHIO RVR AT RAW WATER INTAKE, CINCINATTI	03238800		1970				N
LICKING RIVER NEAR FREDVILLE, KY	03248165		1980-82		N	N	N
BURNING FORK AT SAYLERSVILLE, KY	03248380		1980-82		N	N	N
LEFT FORK NEAR HENDRICKS, KY	03248520		1980-82		N	N	N
RIGHT FORK AT FRITZ, KY	03248530		1980-82		N	N	N
JOHNSON CREEK AT KERNIE, KY	03248560		1980-82		N	N	N
LICK CREEK NEAR BLOOMINGTON, KY	03248580		1980-82		N	N	N
WHITE OAK CREEK AT WHITE OAK, KY	03248610		1980-82		N	N	N
WILLIAMS CREEK NEAR ELAMTON, KY	03248670		1980-82		N	N	N
ELK FORK NEAR LENOX, KY	03248685	59.40	1980-82		N	N	N
CANEY CREEK NEAR CANEY, KY	03248710		1980-82		N	N	N
GRASSY CREEK AT GRASSY CREEK, KY	03248750		1980-82		N	N	N
LICKING R AT FARMERS, KY	03249500	827.00	1948-79		N	N	N
TRIPLETT CREEK AT MOREHEAD, KY	03250000	47.50	1978-80		N		
SLATE C NR OWINGSVILLE, KY	03250240	185.00	1970-71		N		N
ROCK LICK CREEK NR SHARKEY, KY	03250320	4.01	1978-83		N		
LICKING RIVER AT SHERBURNE, KY	03250400		1981-83	N	N	N	N
N F LICKING R NR MILFORD, KY	03251400	286.00	1970-72		N		N
LICKING RIVER 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
SOUTH FK LICKING RIVER AT CYNTHIANA, KY	03252500	621.00	1949-83	N	N	N	N
LICKING RIVER AT CATAWBA, KY	03253500	3300.00	1962-79		N		N
OHIO RIVER AT MARKLAND DAM, KY	03277200	83170.00	1960-70	N	N	N	N
			1974-86	N	N	N	N
OHIO RIVER AT L & DAM 39 NEAR FLORENCE, KY	03277205	82910.00	1953-75		N		
YONTS CREEK NEAR NEON, KY	03277260		1980-82		N	N	N
NORTH FORK KENTUCKY R AT WHITESBURG, KY	03277300	66.40	1970-75		N		N
KINGS CREEK NEAR ROXANA, KY	03277320		1980-82		N	N	N
N F KENTUCKY R AT BLACKEY, KY	03277340	131.00	1971-75		N		N
ROCKHOUSE CREEK NEAR FLETCHER, KY	03277361		1980-82		N	N	N
ROCKHOUSE CREEK AT LETCHER, KY	03277362		1971		N		N
LINE FORK AT DEFEATED CREEK, KY	03277370	40.80	1980-82		N	N	N
LINE FORK AT ULVAH, KY	03277380		1971		N		N
N FK KENTUCKY R AT CORNETTSVILLE, KY	03277411	322.00	1970-72		N		N
RIGHT FORK MACYS CREEK NEAR FARLAR, KY	03277415		1980-82		N	N	N
YELLOW C AT SASSAFRAS, KY	03277455		1965-75		N		N
CARR FORK NEAR HAZARD, KY	03277480		1971		N		N
LOTTS CREEK NEAR DARFORK, KY	03277515		1980-82		N	N	N
BIG CREEK NEAR AVAWAN, KY	03277580		1980-82		N	N	N
GRAPEVINE CREEK NEAR LAMONT, KY	03277700		1980-82		N	N	N
TROUBLESOME CREEK NEAR ARY, KY	03277800		1980-82		N	N	N
BALLS FORK NEAR TALCUM, KY	03277900		1980-82		N	N	N
BUCKHORN CREEK NEAR NOBLE, KY	03278100		1980-82		N	N	N
LOST CREEK NEAR LOST CREEK, KY	03279150		1980-82		N	N	N
LAUREL FORK NEAR ELMROCK, KY	03279250		1980-82		N	N	N
MIDDLE FORK QUICKSAND CREEK NEAR DECOY, KY	03279300		1980-82		N	N	N
HAWLS FORK NEAR TIPTOP, KY	03279370		1980-82		N	N	N
QUICKSAND CR AT LUNAH, KY	03279400	101.00	1970-72		N		N
CANEY CREEK NEAR CAMP LEWIS, KY	03279430		1980-82		N	N	N
HUNTING CREEK NEAR ROUSSEAU, KY	03279460		1980-82		N	N	N
SOUTH FORK QUICKSAND CREEK AT PORTSMOUTH, KY	03279650		1980-82		N	N	N
QUICKSAND CR AT QUICKSAND, KY	03279700	203.00	1965-75		N		N
CANE CREEK NEAR JACKSON, KY	03280100		1980-82		N	N	N
ROCKHOUSE CREEK NEAR HYDEN, KY	03280360		1980-82		N	N	N
FROZEN CREEK NEAR TAULBEE, KY	03280400		1980-82		N	N	N
BOONE FORK NEAR VANCLEAVE, KY	03280450		1980-82		N	N	N
MIDDLE FORK KENTUCKY RIVER NR WARBRANCH, KY	03280520		1980-82		N	N	N
M F KENTUCKY RIVER AT ASHER, KY	03280530		1971		N		N
BEECH FORK NEAR HELTON, KY	03280540		1980-82		N	N	N
BEECH FK AT ASHER, KY	03280550	33.90	1971		N		N
GREASY CREEK NEAR NAPIER, KY	03280560		1980-82		N	N	N
LAUREL FORK NEAR LEWIS CREEK, KY	03280575		1980-82		N	N	N

DISCONTINUED SURFACE WATER-QUALITY-STATIONS

STATION NAME AND LOCATION	STATION NUMBER	DRAINAGE AREA (MI^2)	PERIOD OF RECORD	BIO. ACTIVE STATUS	PHY. ACTIVE STATUS	SED. ACTIVE STATUS	CHEMICAL ACTIVE STATUS
GREASY CR AT HOSKINSTON, KY	03280590	95.00	1971		N		N
MIDDLE FORK KY RIVER NR HAYDEN KY	03280600	202.00	1975-82	N	N	N	N
			1988		N		N
CUTSHIN CREEK NEAR CINDA, KY	03280670		1980-82		N	N	N
HELL FOR CERTAIN CREEK NEAR KALIOPI, KY	03280750		1980-82		N	N	N
TURKEY CREEK NEAR TURKEY, KY	03280950		1980-82		N	N	N
RED BIRD RIVER AT BIG CREEK, KY	03281030	125.00	1970-72		N		N
BIG CREEK NEAR BIG CREEK, KY	03281035		1980-82		N	N	N
HECTOR BRANCH NEAR ERILINE, KY	03281045		1980-82		N	N	N
GOOSE CR NR GOOSEROCK, KY	03281065	49.60	1979-82		N	N	N
COLLINS FORK NEAR BLUEHOLE, KY	03281075		1980-82		N	N	N
HORSE CREEK NEAR HIMA, KY	03281097		1980-82		N	N	N
LITTLE GOOSE CREEK NEAR MANCHESTER, KY	03281133		1980-82		N	N	N
BULLSKIN CREEK NEAR BRUTUS, KY	03281175		1980-82		N	N	N
SOUTH FORK KENTUCKY RIVER AT ONEIDA, KY	03281200	486.00	1970-72		N		N
SEXTON CREEK NEAR CHESTNUTBURG, KY	03281340		1980-82		N	N	N
LOWER ALLEN CREEK NEAR CONKLING, KY	03281360		1980-82		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 C AT WAGERSVILLE, KY	03282170	115.00	1970-72		N		N
KENTUCKY RIVER NEAR TRAPP, KY	03282300		1982-83		N	N	N
RED RIVER AT DAYSBORO, KY	03282400		1980-82		N	N	N
RED RIVER NEAR PINE RIDGE, KY	03283100	142.00	1968-76		N		N
CAT CR NR STANTON, KY	03283370	8.30	1987-89		N	N	N
BAUGHMAN FORK AT GENTRY ROAD NR ATHENS, KY	03284090	7.18	1967-68		N		N
BOONE C AT GRIMES MILL RD NR LOCUST GROVE KY	03284100	41.80	1967-68		N		N
KENTUCKY R NR LEXINGTON, KY	03284105		1970				N
SILVER CREEK NEAR 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 RIVER NEAR DANVILLE, KY	03285000	318.00	1988		N		N
DIX R AT DIX DAM NR BURGIN, KY	03286200	439.00	1961-79		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 C AT BRYAN STATION RD AT MONTROSE	03287600	21.50	1967-68		N		N
N ELKHORN C UNNAMED TR AT MUIR STA RD NR MUI	03287620	15.80	1967-68		N		N
N ELKHORN C AT HUFFMAN MILL RD NR MATTOXTOWN	03287700	62.70	1967-68		N		N
GOOSE CREEK AT MT HOREB RD NR NEWTOWN, KY	03287800	14.20	1967-68		N		N
GOOSE C 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 NEAR DONERAIL, KY	03288200	19.90	1967-68		N		N
CANE RUN NR GEORGETOWN, KY	03288260	45.40	1973		N		N
CAVE CREEK NEAR FORT SPRING, KY	03288500	2.53	1968		N		N
STEELES RUN AT OLD FRANKFORT RD AT FAYWOOD	03289100	6.67	1967-68		N		N
TOWN BRANCH AT YARNALLTON RD AT YARNALLTON	03289200		1967-68		N		N
SIX MILE NR DEFOE, KY	03290420	42.60	1973		N		N
SIX MILE CK NR LOCKPORT, KY	03290490	76.50	1973-74		N		N
DRENNON CK AT DRENNON SP, KY	03290675	82.50	1973-74		N		N
EAGLE CREEK 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
OHIO R AT WATER SUPPLY INTAKE AT LOUISVILLE	03292494		1970				N
OHIO RIVER AT LOUISVILLE, KY	03924500	91170.00	1968-83		N	N	N
OHIO RIVER AT KOSMOSDALE, KY	03294600	91200.00	1970				N
SALT RIVER NR HARRODSBURG, KY	03295000	41.40	1970-72		N		N
SALT RIVER NEAR VAN BUREN, KY	03295500	196.00	1970-79		N		N
SALT RIVER 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 CRK SUBWATER SHED NO 4 NR SIMPSONVILLE	03296000	1.55	1953-64			N	
PLUM CREEK AT WATERFORD, KY	03297500	31.80	1953-61		N	N	N
COX CR NR HIGHGROVE, KY	03297700	95.80	1970-72		N		N
FLOYDS FORK NEAR CRESTWOOD, KY	03297845	46.70	1979-83	N	N	N	N
FLOYDS FORK NR GAP IN KNOB, KY	03298390	259.00	1973-75		N		N
NORTH ROLLING FORK AT BRADSFORDVILLE, KY	03298760	95.70	1973-75		N		N
ROLLING FORK NEAR LEBANON, KY	03299000	239.00	1970-80		N		N
BEECH FORK NEAR SPRINGFIELD, KY	03300000	85.90	1970-72		N		N
CHAPLIN R AT SHARPSVILLE, KY	03300300	140.00	1970-72		N		N
BEECH FORK 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 FORK AT BARDSTOWN, KY	03301000	669.00	1962-72		N		N
ROLLING FORK NR BOSTON, KY	03301500	1299.00	1948-79		N		N
SALT R AT MOUTH NR LOUISVILLE, KY	03302060		1970				N
OTTER CREEK NR VINE GROVE, KY	03302080		1970-71		N		N
OTTER CR AT GRAHAMTON, KY	03302100	88.40	1970-72		N		N
DOE RUN NR BRANDENBURG STATION, KY	03302150	52.70	1970-72		N		N
SINKING CREEK NR LODIBURG, KY	03303205	125.00	1971		N		N
SINKING CREEK AT SAMPLE, KY	03303210	222.00	1970		N		N
BEECH FORK NR CLOVERPORT, KY	03303220		1980-82		N	N	N
TAR FORK NEAR CLOVERPORT, KY	03303230		1980-82		N	N	N

DISCONTINUED SURFACE WATER-QUALITY-STATIONS

STATION NAME AND LOCATION	STATION NUMBER	DRAINAGE AREA (MI^2)	PERIOD OF RECORD	BIO. ACTIVE STATUS	PHY. ACTIVE STATUS	SED. ACTIVE STATUS	CHEMICAL ACTIVE STATUS
OHIO RIVER AT CANNELTON DAM, KY	03303280	97000.00	1975-86	N	N	N	N
BLACKFORD CREEK NEAR MACEO, KY	03303447		1980-82		N	N	N
BLACKFORD CR NR MACEO, KY	03303450	111.00	1973-75		N		N
PUP CREEK NEAR MACEO, KY	03303490		1980-82		N	N	N
OHIO RIVER AT OWENSBORO, KY	03303500	97200.00	1970				N
GREEN RIVER NEAR MCKINNEY, KY	03305000	22.40	1970-72		N		N
GREEN RIVER NR DUNNVILLE, KY	03305660	221.00	1973-75		N		N
GREEN RIVER AT NEATSVILLE, KY	03305800	399.00	1959-72		N	N	N
CASEY CR AT CASEY CR, KY	03305865	74.70	1973-75		N		N
GREEN RIVER AT GREENSBURG, KY	03306500	736.00	1948-59		N		
BIG PITMAN C NR GREENSBURG, KY	03307300		1966		N		N
LITTLE BARREN RIVER NEAR MONROE, KY	03307800	244.00	1960-72		N		N
ECHO R OUTLET AT MAMMOTH CAVE, KY	03308950		1974		N		N
GREEN RIVER AT MAMMOTH CAVE, KY	03309000	1983.00	1958-74		N		N
WET PRONG BUFFALO CREEK NR MAMMOTH CAVE, KY	03309100	2.26	1962-74		N	N	N
MCDOUGAL CREEK AT HODGENVILLE, KY	03309600		1970		N		N
NORTH FORK NOLIN RIVER AT HODGENVILLE, KY	03310000	36.40	1970-72		N		N
NORTH FORK NOLIN RIVER NEAR EAGLE MILLS, KY	03310030		1970-79		N		N
NOLIN R AT EAGLE MILLS, KY	03310100		1970-72		N		N
MIDDLE CR AB NEELY BR, KY	03310117		1971		N		N
MIDDLE CREEK NEAR TONIEVILLE, KY	03310120		1970-72		N		N
MIDDLE CREEK AT EAGLE MILLS, KY	03310130		1971-72		N		N
NOLIN R NR GLENDALE, KY	03310160	185.00	1971-75		N		N
VALLEY CREEK AT ELIZABETHTOWN, KY	03310210		1970-73		N		N
VALLEY CREEK AT GAITHERS, KY	03310225		1971-73		N		N
W RHUDES CREEK NR CECILIA, KY	03310250		1970-72		N		N
VALLEY CR NR GLENDALE, KY	03310270	90.10	1960-75		N		N
NOLIN RIVER NEAR STAR MILLS, KY	03310273		1971-72		N		N
NOLIN RIVER AT WAX, KY	03310500	600.00	1949-61		N	N	N
ROCK CREEK NEAR CLARKSON, KY	03310550		1980-82		N	N	N
DOG CREEK NEAR MAMMOTH CAVE, KY	03310600	8.12	1961-74		N		N
BYLEW CREEK NEAR MAMMOTH CAVE, KY	03311100	5.16	1965-74		N		N
GREEN RIVER AT LOCK 6, AT BROWNSVILLE, KY	03311500	2762.00	1978-82		N		
BEAVERDAM CR AT RHODA, KY	03311600	10.90	1965-79		N		N
BEAR CREEK NEAR BEE SPRING, KY	03312040		1980-82		N	N	N
SUNFISH CREEK NEAR 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 FORK 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 CREEK NR ALVATON, KY	03314000	478.00	1968-72		N	N	N
UNNAMED NON-CONTRIB STREAM AT THREE SPRINGS	03314595		1968		N		N
JENNINGS CREEK NEAR LOST RIVER, KY	03314610		1968		N		N
JENNINGS C AT US 231 AT BOWLING GREEN, KY	03314650		1968		N		N
JENNINGS C BL LOST R OUTLET AT BOWLING GREEN	03314680		1968		N		N
JENNINGS C AT BARREN R RD NR BOWLING GREEN	03314700		1968		N		N
GASPER R AT HADLEY, KY	03315300	190.00	1960-72		N		N
WELCH CFEEK NEAR ABERDEEN, KY	03315510		1980-82		N	N	N
INDIAN CAMP CREEK NEAR MORGANTOWN, KY	03315590		1980-82		N	N	N
EAST PRONG INDIAN CAMP CREEK NEAR MORGANTOWN	03315600		1980-82		N	N	N
MUDDY CR AT DUNBAR, KY	03315810	94.30	1960-82		N	N	N
PANTHER CREEK NEAR ROCHESTER, KY	03315830		1980-82		N	N	N
MUD RIVER NEAR LEWISBURG, KY	03316000	90.50	1960-72		N		N
WOLFLICK CR NR LEWISBURG, KY	03316200	116.00	1970-72		N		N
ROCKY CREEK NEAR PENROD, KY	03316300		1980-82		N	N	N
GREEN RIVER AT PARADISE, KY	03316500	6183.00	1978-82		N		
POND CR NR MARTWICK, KY	03316640	125.00	1972-82		N	N	N
LEWIS CREEK AT ROCKPORT, KY	03316660		1980-82		N	N	N
MEETING CR NR BIG CLIFTY, KY	03316885		1980-82		N	N	N
NORTH FORK ROUGH RIVER NEAR WESTVIEW, KY	03317500	42.00	1970-72		N		N
ROUGH R AT ROUGH R DAM NR FALLS OF ROUGH, KY	03318010	454.00	1962-83		N		
ROCK LICK CREEK NEAR FALLS OF ROUGH, KY	03318300		1980-82		N	N	N
SHORT CREEK NEAR FALLS OF ROUGH, KY	03318600		1980-82		N	N	N
SOUTH FORK CANEY CREEK AT CANEYVILLE, KY	03318700		1980-82		N	N	N
ADAMS FORK NEAR FORDSVILLE, KY	03319510		1980-82		N	N	N
WEST FORK ADAMS FORK NEAR FORDSVILLE, KY	03319530		1980-82		N	N	N
HALLS CREEK NEAR DUNDEE, KY	03319570		1980-82		N	N	N
ROUGH RIVER AT HARTFORD, KY	03319600		1966-72		N		N
MUDDY CREEK NEAR BEAVER DAM, KY	03319615		1980-82		N	N	N
THREELICK CREEK NEAR BEAVER DAM, KY	03319620		1980-82		N	N	N
BARNETT CREEK NEAR HARTFORD, KY	03319700		1980-82		N	N	N
NORTH FORK BARNETT CREEK NEAR HARTFORD, KY	03319750		1980-82		N	N	N
GREEN RIVER AT LIVERMORE, KY	03319885	7512.00	1948-75		N		
BUCK CREEK NEAR LIVERMORE, KY	03319925		1980-82		N	N	N
LONG FALLS CREEK NEAR RUMSEY, KY	03320075		1980-82		N	N	N

DISCONTINUED SURFACE WATER-QUALITY-STATIONS

STATION NAME AND LOCATION	STATION NUMBER	DRAINAGE AREA (MI^2)	PERIOD OF RECORD	BIO. ACTIVE STATUS	PHY. ACTIVE STATUS	SED. ACTIVE STATUS	CHEMICAL ACTIVE STATUS
LONG CREEK NEAR KIRKMANSVILLE, KY	03320400		1980-82		N	N	N
WEST FORK POND RIVER NEAR APEX, KY	03320700		1980-82		N	N	N
MCFARLAN CR NR WHITE PLAINS, KY	03320740		1980-82		N	N	N
DRAKES CREEK NEAR WHITE PLAINS, KY	03321035	52.50	1979-82		N	N	N
FLAT CREEK NEAR MADISONVILLE, KY	03321050		1980-82		N	N	N
POND RIVER NEAR SACRAMENTO, KY	03321100	523.00	1959-73		N		N
POND RIVER NEAR VANDETTA, KY	03321120		1980-82		N	N	N
OTTER CREEK NEAR HANSON, KY	03321150		1980-82		N	N	N
CYPRESS CREEK NEAR MIDLAND, KY	03321160		1980-82		N	N	N
CYPRESS CREEK NEAR CENTRAL CITY, KY	03321170		1980-82		N	N	N
LITTLE CYPRESS CREEK AT CENTRAL CITY, KY	03321180		1980-82		N	N	N
CYPRESS CR NR RUMSEY, KY	03321215	149.00	1973-75		N		N
GREEN RIVER 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
NORTH FORK PANTHER CR NR MASONVILLE, KY	03321400		1980-82		N	N	N
N FK PANTHER CREEK NR MASONVILLE, KY	03321410	88.30	1970-71		N		N
PANTHER CR NR CURDSVILLE, KY	03321450	344.00	1973-80		N		N
LICK CREEK NEAR BLUFF CITY, KY	03321455		1980-82		N	N	N
KNOBLICK CREEK NEAR CURDSVILLE, KY	03321455		1980-82		N	N	N
GREEN RIVER AT LOCK AND DAM 1 AT SPOTTSVILLE	03321500	9181.00	1955-62		N		N
CANOE CREEK NEAR HENDERSON, KY	03322180	56.00	1979-82		N	N	N
CASEY CREEK NEAR WAVERLY, KY	03322370		1980-82		N	N	N
HIGHLAND CR NR UNIONTOWN, KY	03322400	166.00	1970-72		N		N
OHIO RIVER NEAR UNIONTOWN DAM, KY	03322420		1975		N		N
EAGLE CREEK NEAR MORGANFIELD, KY	03382570		1980-82		N	N	N
TRADEWATER R AT POOLS MILL BR NR DAWSON SPRI	03382600	60.40	1966-82		N	N	N
CASTLEBERRY CREEK NEAR DAWSON SPRINGS, KY	03382650		1980-82		N	N	N
TRADEWATER R AT COLLINS BRDG, NR DAWSON SPRI	03382680		1965-67		N		N
TRADEWATER R AT MURPHY F NR DAWSON SP, KY	03382685	94.10	1966-75		N		N
BUFFALO CK AT ST HWY 1338 NR DAWSON SPG, KY	03382700		1965-69		N		
BUFFALO C NR DAWSON SPRINGS, KY	03382720	12.70	1965-67		N		N
COPPERAS C AT HIGHWAY BRIDGE NR ILSLEY, KY	03382835		1966-67		N		N
CANY C AT MOUTH NR DAWSON SPRINGS, KY	03382855		1965-67		N		N
TRADEWATER R AT ST HWY 109 AT DAWSON SPRINGS	03382870	143.00	1966-67		N		N
PINY C BL LK BESHEAR D NR DAWSON SPRINGS, KY	03382890		1966-67		N		N
TRADEWATER RIVER 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 CREEK NEAR FRYER, KY	03383650		1980-82		N	N	N
DONALDSON C 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 C AT HWY 70 BR NR RICHLAND, KY	03383755	17.00	1966-82		N	N	N
RICHLAND C ABOVE TRIBUTARY NO 1 NR ILSLEY	03383770		1966-67		N		N
UNNAMED TRIB NO 1 TO RICHLAND C NR ILSLEY	03383775		1966-67		N		N
UNNAMED TRIB NO 2 TO RICHLAND C NR ILSLEY	03383780		1966-67		N		N
RICHLAND CK AT RICHLAND, KY	03383800		1966		N		
UNNAMED TRIB TO CLEAR C NR BEULAH, KY	03383901		1966		N		N
LICK CREEK NEAR RABBIT RIDGE, KY	03384035		1980-82		N	N	N
CLEAR C AT BRIDGE ON ST HWY 293 NR PROVIDENCE	03384050	197.00	1966-67		N		N
TRADEWATER R AT DAM NR PROVIDENCE, KY	03384060		1965-66		N		N
TRADEWATER R AT BRIDGE BL DAM NR PROVIDENCE	03384072		1966-67		N		N
TRADEWATER R NR PROVIDENCE, KY	03384100	605.00	1965-72		N		N
TRADEWATER RIVER NEAR BLACKFORD, KY	03384103		1980		N	N	N
PINEY CREEK NEAR SHADY GROVE, KY	03384106		1980-82		N	N	N
UNNAMED TRIB TO SLOVER C NR PROVIDENCE, KY	03384133		1968				N
SLOVER CREEK NR CLAY, KY	03384136		1969		N		N
UNNAMED TRIB TO SLOVER C NR CLAY, KY	03384138		1969		N		N
UNNAMED TRIB TO SLOVER C NR CLAY, KY	03384140		1969-79		N		N
FREDRICKS DITCH NR CLAY, KY	03384145		1969		N		N
CRABORCHARD CK NR CLAY, KY	03384150		1965-82		N	N	N
CRABORCHARD CREEK NR CLAY, KY	03384151		1969		N		N
CRABORCHARD C AT CLAY, KY	03384152		1966		N		N
CRABORCHARD CR AT CLAY, KY	03384154	86.60	1969-72		N	N	N
CANEY FORK NEAR CLAY, KY	03384158		1980-82		N	N	N
TRADEWATER RIVER NEAR SULLIVAN, KY	03384180	861.19	1975-77		N	N	N
SMITH DITCH NEAR STURGIS, KY	03384200		1980-82		N	N	N
LOONEY CREEK NEAR CLUTTS, KY	03400480		1980-82		N	N	N
CLOVER FORK NEAR SHIELDS, KY	03400650		1980-82		N	N	N
CLOVER FORK AT EVARTS, KY	03400700	82.40	1960-72		N		N
MARTINS FK ABOVE SMITH, KY	03400785	23.80	1986-88			N	
CRANE CREEK NR SMITH, KY	03400796	1.63	1978-80		N		
BROWNICE CREEK NEAR OAKS, KY	03401290		1980-82		N	N	N
CLEAR CREEK NEAR PINEVILLE, KY	03402400		1980-82		N	N	N
LITTLE CLEAR CREEK NEAR PINEVILLE, KY	03402450		1980-82		N	N	N
STRAIGHT CREEK NEAR KETTLE ISLAND, KY	03402800		1980-82		N	N	N
LEFT FORK STRAIGHT CREEK NEAR CARY, KY	03402830		1980-82		N	N	N
MIDDLE FORK STINKING CREEK NEAR WALKER, KY	03403100		1980-82		N	N	N

DISCONTINUED SURFACE WATER-QUALITY-STATIONS

STATION NAME AND LOCATION	STATION NUMBER	DRAINAGE AREA (MI^2)	PERIOD OF RECORD	BIO. ACTIVE STATUS	PHY. ACTIVE STATUS	SED. ACTIVE STATUS	CHEMICAL ACTIVE STATUS
ROAD FORK CREEK NEAR BARNYARD, KY	03403150		1980-82		N	N	N
LITTLE INDIAN CREEK NEAR PERMON, KY	03403550		1980-82		N	N	N
FOURMILE BRANCH NEAR BRYANTS STORE, KY	03403590		1980-82		N	N	N
WATTS CREEK NEAR WOFFORD, KY	03404100		1980-82		N	N	N
JELLICO C NR WILLIAMSBURG, KY	03404200	103.00	1979-82		N	N	N
MARSH CREEK NEAR DUCKRUN, KY	03404350		1980-82		N	N	N
TRIBUTARY TO LAUREL RIVER NEAR LESBAS, KY	03404650		1980-82		N	N	N
TRIBUTARY TO LAUREL RIVER NR PINE GROVE, KY	03404800		1980-82		N	N	N
LAUREL R AT MUNICIPAL DAM NEAR CORBIN, KY	03404820	140.00	1977-83		N		
LYNN CAMP CREEK 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
SOUTH FORK TO ROCKCASTLE RIVER NEAR CRAWFORD	03405600		1980-82		N	N	N
SOUTH FORK ROCKCASTLE RIVER NR PEOPLES, KY	03405700	95.10	1961-72		N		N
POND CREEK NEAR PEOPLES, KY	03405730		1980-82		N	N	N
LAUREL FORK NEAR MCKEE, KY	03405780		1980-82		N	N	N
INDIAN CREEK NEAR HURLEY, KY	03405800		1980-82		N	N	N
ROUNDSTONE CR AT LIVINGSTON, KY	03405900	144.00	1960-72		N		N
WOOD CREEK NEAR LONDON, KY	03406000	3.89	1976-80	N	N		
CANE BRANCH NEAR PARKERS LAKE, KY	03407100	.67	1955-74		N	N	N
WEST FORK CANE BR NEAR PARKERS LAKE, KY	03407200	.26	1957-73		N	Y	N
HELTON BRANCH AT GREENWOOD, KY	03407300	.85	1955-73		N	N	N
BUCK CREEK AT DYKES, KY	03407640	253.00	1973-75		N		N
ROARING PAUNCH CREEK NEAR BARTHELL, KY	03410530		1980-82		N	N	N
ROCK CREEK AT WHITE OAK JUNCTION, KY	03410560		1980-82		N	N	N
SOUTH FK CUMBERLAND R NR YAMACRAW, KY	03410600	1083.00	1948-76		N		
WOLF CREEK AT WOLF CREEK, KY	03410700		1980-82		N	N	N
LITTLE S F CUMBERLAND R NR OIL VALLEY, KY	03410900	98.20	1970-72		N		N
SOUTH FORK CUMBERLAND RIVER AT NEVELSVILLE	03411000	1271.00	1960-75		N		
SINKING CREEK NEAR GREGORY, KY	03411100		1980-82		N	N	N
PUCKETT CREEK NEAR PATHFORK, KY	03411250		1980-82		N	N	N
PITMAN CREEK AT SOMERSET, KY	03412500	31.30	1970-72		N		N
FISHING CREEK NR HOGUE, KY	03412700	59.80	1970-72		N		N
CUMBERLAND RIVER NEAR ROWENA, KY	03414000	5790.00	1965-79		N		N
CROCUS CR NR BAKERTON, KY	03414080	108.00	1973-75		N		N
CUMBERLAND RIVER NEAR BURKESVILLE, KY	03414110	6050.00	1948-79		N		N
RED R NR ADAIRVILLE, KY	03435100	229.00	1970-72		N		N
WHIPPOORWILL CREEK NR CLAYMOUR, KY	03435140	20.80	1978-82		N		
WHIPPOORWILLCR AT DOT, KY	03435265	115.00	1973-75		N		N
ELK F NR HADENSVILLE, KY	03435380	88.50	1973-75		N		N
W F RED R NR SAINT ELMO, KY	03436190	162.00	1973-75		N		N
SOUTH FORK LITTLE RIVER AT HOPKINSVILLE, KY	03437500	46.50	1949-75		N		
LITTLE R NR CADIZ, KY	03438000	244.00	1958-73		N	N	N
MUDDY FORK LITTLE RIVER NEAR CERULEAN, KY	03438070	30.50	1978-82		N		
EDDY CR NR LAMASCO, KY	03438170	71.70	1970-74		N		N
BARKLEY-KENTUCKY CANAL NEAR GRAND RIVERS, KY	03438190		1978-82		N		
CUMBERLAND RIVER 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 RIVER AT MURRAY, KY	03610000	89.10	1970-72		N		N
CLARKS RIVER AT ALMO, KY	03610200	134.00	1982-83	N	N	N	N
CLARKS RIVER NEAR BENTON, KY	03610500	227.00	1948-61		N		N
WEST FORK CLARKS RIVER NEAR BREWERS, KY	03610545	68.70	1970-81		N	N	N
W F 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 CREEK AT LOVELACEVILLE, KY	07023000	212.00	1960-72		N		N
BAYOU DE CHIEN NEAR CLINTON, KY	07024000	68.70	1954-83	N	N	N	N
OBION CR NR ARLINGTON, KY	07023700	203.00	1970-72		N		N
MISSISSIPPI RIVER AT HICKMAN, KY	07024070	922500.00	1969-70	N	N		N

N-Eliminated activity

INDEX

	Page
Abbot Creek near Prestonsburg	280
Access to WATSTORE Data	16
Acre-foot, definition of	18
Aden, Big Sinking Creek near	281
Adenosine triphosphate, definition of	18
Algae, definition of	18
Algal growth potential, definition of	18
Almo, Clarks River at	267,306
Alumbaugh, Station Camp Creek at	283
Alvaton, Drakes Creek near	285
Anchorage, South Fork Harrods Creek near	290
Annual seven-day minimum	18
Apex, Pond River near	197,303
Aquifer, definition of	18
Artesian, definition of	18
Ash mass, definition of	18
Asher, Beech Fork at	283
Bacon Creek, near Priceville	179,301
Bacteria, definition of	18
Barbourville, Cumberland River, at	244-247
Richland Creek	286
Bardstown, Beech Fork near	284
Barkley-Kentucky Canal near Grand Rivers	265,305
Barren River, at Bowling Green	189,302
East Fork, near Gameliel	285
near Finney	185-187,302
Bayou Creek basin,	
gaging-station records in	271-276
Bayou Creek, near Grahamville	275,276,307
near Heath	273,274,307
Bayou de Chien basin,	
gaging-station records in	279
miscellaneous temperatures and field determinations	306,307
Bayou de Chien near Clinton	279,307
Bays Fork near Scottsville	285
Bear Creek near Burkesville	287
Beargrass Creek basin	
gaging-station records in	103-121
miscellaneous temperatures and field determinations	299
Beargrass Creek, Middle Fork, at Beals Branch Road at Louisville	120
Middle Fork, at Louisville	112-119
South Fork, at Louisville	103-110
South Fork, at Winter Avenue at Louisville	111
Beaver Creek (tributary to Green River) near Glasgow	285
Beaver Creek (tributary to Salt River) near Johnsonville	284
Beaver Creek near Monticello	260,261
Beaverdam Creek (tributary to Highland Creek) near Corydon	200,304
Beaverdam Creek (tributary to Green River), at Rhoda	184,302
Bed load, definition of	22
Bed load discharge, definition of	22
Bed material, definition of	18
Beech Fork (tributary to Kentucky River) at Asher	283
Beech Fork (tributary to Salt River)	
at Maud	147,300
near Bardstown	284
near Maud	284
Benton, Clarks River at	288
Betty, Jones Fork at	280
Big Creek, Red Bird River near	71,297
Big Reedy Creek near Reedyville	285
Big Sandy River, at Louisa	39,40
Big Sandy River basin,	
gaging-station records in	31-40
low-flow partial-records in	280,281,289
miscellaneous temperatures and field determinations	293
Big Sinking Creek near Aden	281
Billows, Rockcastle River at	255,305
Biochemical Oxygen, definition of	18
Biomass, definition of	18
Blue-green Algae, definition of	21
Bluehole, Collins Fork near	283
Booneville, South Fork Kentucky River at	73,297
Boston, Rolling Fork near	148,300
Bottom material, definition of	18
Bowling Green, Barren River at	189,302
Brashears Creek at Taylorsville	133,299
Brewers, West Fork Clarks River near	268,306
Broadhead, Dix River at	284
Negro Creek at	284
Brownies Creek near Oaks	286
Brownsville, Green River at lock 6, at	183,301
Brush Creek near LaGrange	289
Buck Creek (tributary to Cumberland River) near Shopville	256
(tributary to Trammel Fork) near Scottsville	285
Buckner, Darby Creek near	290
Buffalo Creek near German	280
Bulan, Lotts Creek near	282
Bullskin Creek (tributary to Brashears Creek) near Simpsonville	284
(tributary to Kentucky River) at Oneida	283
Burkesville, Bear Creek near	287
Burning Fork near Salyersville	281
Butler, Licking River at	59,60
Cabin Creek basin,	
gaging-station records in	47
miscellaneous temperatures and field determinations	294
Cabin Creek near Tollesboro	47,294
Cadiz, Little River near	264,305
Sinking Fork near	288
Calhoun, Cypress Creek near	198,303
Green River at lock 2, at	196,303
Calloway County, ground-water levels	311
Camp Branch near Polly	282
Campbellsville, Green River near	166-168,300
Little Pitman Creek near	170,301
Caney Creek (tributary to Buck Creek) near Eubank	287
Caney Creek (tributary to Rough River) near Horse Branch	194,303
Cannelton Dam, Ohio River at	165
Carlisle, Hinkston Creek near	282
Carr Fork near Sassafras	62,296
Catawba, Licking River at	58,296
Cedar Creek (tributary to Floyds Fork)	
at Thixton Road near Louisville	141
near LaGrange	289
near Shepherdsville	290
(tributary to Kentucky River) at Monterey	284
Cells/volume, definition of	18
Chappel, Greasy Creek near	283
Chemical Oxygen Demand, definition of	19
Chenoweth Run, at Gelhaus Lane	
near Fern Creek	139
at Seatonville	290
Chlorophyll, definition of	19
Christian County, ground-water levels	311
Cinda, Wolf Creek at	283
Clarks River, at Almo	267,306
at Benton	288
near Shady Grove	288
West Fork, near Brewers	268,306
near Symsonia	288
Clay City, Red River at	76,297
Claylick Creek near Dycusburg	288
Claymour, Whippoorwill Creek near	263,305
Clear Creek near Mortonsville	284
Clear Fork at Saxton	286,304
Clinton, Bayou de Chien near	279,307
Clover Fork at Harlan	234-237
Collins Fork near Bluehole	283
Color Unit, definition of	19
Columbia, Russell Creek near	169,301
Sulphur Creek near	285
Contents, definition of	19
Control, definition of	19
Control Structure, definition of	19
Cooperation	1
Corbin, Laurel River at Municipal Dam near	253
Lynn Camp Creek at	254,305
Corydon, Beaverdam Creek near	200,304
Cowen Creek near Whitesburg	282
Crailhope, Little Barren River near	285
Cressmont, Sturgeon Creek at	283
Crestwood, Curry's Fork near	284
Floyds Fork near	134,299
Crooked Creek near Mullins	287
Cubic feet per second, definition of	19
Cubic feet per second per square mile, definition of	19

Page

Cumberland Falls, Cumberland River at..... 252
Cumberland, Poor Fork at..... 203,304
Cumberland River, at Barbourville..... 244-247
at Cumberland Falls..... 252
at Williamsburg..... 248-251
near Grand Rivers..... 266,305
near Harlan..... 238,304
near Pineville..... 243
near Rowena..... 262
South Fork, near Stearns..... 257-259
Cumberland River basin,
gaging-station records in..... 203-266
low-flow partial record in..... 286-288
miscellaneous temperatures and
field determinations..... 304,305
Curry's Fork near Crestwood..... 284
Cutshin Creek at Wooton..... 69,296
Cynthiana, Mill Creek (tributary to South
Fork Licking River) near..... 282
South Fork Licking River at..... 57,296
Cypress Creek near Calhoun..... 198,303

Dalton, Donaldson Creek near..... 286
Danville, Dix River near.....81,291,292,297
Darby Creek near Buckner..... 290
Davies County, groundwater levels..... 311
Dawson Springs, Flynn Fork near..... 290
Deatsville, Harts Run at mouth..... 300
Wilson Creek near..... 300
Defeated Creek, Wilson Branch near..... 282
Definition of terms..... 18
Diatoms, definition of..... 21
Discharge, definition of..... 19
7-day 10-year low flow..... 22
Discontinued records, gaging station..... 387-391
water-quality..... 392-397
Dissolved, definition of..... 19
Dissolved-solids concentration,
definition of..... 19
Dix River, at Broadhead..... 284
near Danville.....81,291,292,297
Donaldson Creek near Dalton..... 286
Downstream order system..... 7
Drainage area, definition of..... 19
Drainage basin, definition of..... 19
Drakes Creek, near Alvaton..... 285
West Fork, near Franklin..... 188,302
Drakesboro, Pond Creek near..... 286
Drift, Left Fork Beaver Creek at..... 280
Drowning Creek near Winston..... 283
Dry mass, definition of..... 18
Dry Run near Georgetown..... 289
Dundee, Halls Creek near..... 286
Rough River near..... 195,303
Dycusburg, Claylick Creek near..... 288

Eagle Creek, at Glencoe..... 97,284,299
at Sadieville..... 284
Elkhorn City, Russell Fork at..... 34,293
Elkhorn Creek near Frankfort..... 87-90
Elliott County, ground-water levels..... 312
Eubank, Caney Creek near..... 287
Evansville, IN, Ohio River at..... 199
Explanation, of ground-water level records. 15
of precipitation quality records..... 16
of stage and water discharge records..... 9
of surface water-quality records..... 12-14
Explanation of the records..... 7-16

Falls of Rough, Rough River at..... 193,303
Rough River at Rough River Dam..... 191,192
Fallsburg, East Fork, Little Sandy
River near..... 43,294
Fariston, Laurel River near..... 287
Farmers, Licking River at..... 49-51,295
Fayette County, ground-water levels..... 312
Fecal coliform bacteria, definition of..... 18
Fecal streptococcal bacteria,definition of. 18
Fern Creek, at Old Bardstown Road
at Louisville..... 153
Chenoweth Run at Gelhaus Lane near..... 139
Finney, Barren River near..... 185-187,302
Fisherville, Floyds Fork at..... 136,137
Floyds Fork near..... 290
Long Run near..... 135
Fishpool Creek at Bost Road at Okolona..... 151
Flat Creek (tributary to Licking River)
near Sherburne..... 282

Page

Florence, Gunpowder Creek near..... 282
South Fork Gunpowder Creek near..... 289
Floyds Fork, at Fisherville..... 136,137
near Crestwood..... 134,299
near Fisherville..... 290
near Mount Washington..... 140,290
Flynn Fork near Dawson Springs..... 290
Fork Lick Creek at Morgan..... 282
Fort Spring, South Elkhorn Creek at..... 85,298
Four Mile Creek at Four Mile..... 286
Fowlers Fork at Union..... 289
Frankfort, Elkhorn Creek near..... 87-90
Kentucky River at lock 4, at..... 83,298
Franklin County, ground-water levels..... 312
Franklin, Sharps Branch near..... 290
West Fork Drakes Creek near..... 188,302
Fulton, Harris Fork near..... 288

Gabe, Little Brush Creek..... 285
Gage height, definition of..... 19
Gaging station, definition of..... 19
Gaging-station records, surface-water
stations..... 31-279
discontinued..... 387-391
Gamaliel, East Fork Barren River near..... 285
Georges Creek near Ulysses..... 281
Georgetown, Dry Run near..... 289
McConnell Run near..... 289
North Elkhorn Creek near..... 84,298
German, Buffalo Creek near..... 280
Glasglow, Beaver Creek (tributary to
Green River) near..... 285
Glencoe, Eagle Creek at..... 97,284,299
Glensboro, Salt River at..... 132,299
Glenview Acres, Goose Creek at
U.S. Hwy 42 near..... 101
Goose Creek Basin, (tributary to the
Ohio River) gaging-station records in.... 100-102
Goose Creek,
(tributary to Ohio River) at
Westport Road near St. Matthews..... 100
near Glenview Acres..... 101
Goose Creek (tributary to South Fork
Kentucky River) at Manchester..... 72,297
Grahamville, Bayou Creek near. 275,276,307
Little Bayou Creek near..... 271,272,306
Grand Chain, IL, Ohio River at lock
and dam 53, near..... 277,278
Grand Rivers, Barkley-Kentucky Canal near.. 265,305
Cumberland River near..... 266,305
Grapevine Creek near Phyllis..... 31,293
Graves County, ground-water levels..... 313
Grayson County, ground-water levels..... 314
Grayson, Little Sandy River at..... 42,294
Greasy Creek near Chappel..... 283
Green algae, definition of..... 21
Green River, at lock 2, at Calhoun..... 196,303
at lock 4, at Woodbury..... 190,302
at lock 6, at Brownsville..... 183,301
at Munfordville..... 171-177
near Campbellsville..... 166-168,300
Green River basin,
gaging-station records in..... 166-198
low-flow partial-records in..... 285,286,290
miscellaneous temperatures and
field determinations..... 300-303
Greenup Dam, Ohio River at..... 44
Greenup, Tygarts Creek near..... 46,294
Gresham, Russell Creek near..... 285
Grethel, Mud Creek near..... 280
Groundwater, Quality of by county..... 376-382
Ground-water levels by county..... 311-375
explanation of..... 15
Ground-water, summary of hydrologic
conditions..... 3
Gunpowder Creek basin,
low-flow partial-records in..... 282,289
Gunpowder Creek near Florence..... 282
South Fork, near Florence..... 289
Guthrie, Unnamed Tributary to Spring
Creek near.. 287

Halls Creek near Dundee..... 286
Hardin County, ground-water levels..... 315-321
Hardness of water, definition of..... 19
Harlan, Clover Fork at..... 234-237
Cumberland River near..... 238,304
Harris Fork near Fulton..... 288

INDEX

Page

Harrods Creek basin,
gaging-station records in..... 98,99
low-flow partial-records in..... 289,290
miscellaneous temperatures and field determinations..... 299
Harrods Creek, near LaGrange..... 98,289,299
near Prospect..... 99
South Fork near Anchorage..... 290
Harrods, Little Goose Creek near..... 102
Harts Run at Mouth near Deatsville..... 300
Harvey, Soldier Creek near..... 288
Haysi, VA, Russell Fork at..... 33
Hazard, North Fork Kentucky River at..... 63
Hazel Green, Red River near..... 75,297
Heath, Bayou Creek near..... 273,274,307
Heidelberg, Kentucky River at
lock 14, at..... 74
Sturgeon Creek at..... 283
Henderson County, ground-water levels..... 321
Highland Creek basin, gaging-station records in..... 200
miscellaneous temperatures and field determinations..... 304
Hillsboro, Locust Creek near..... 281
Hindman, Right Fork of Troublesome Creek nr 283
Hinkston Creek, near Carlisle..... 282
near Little Rock..... 282
near Sharpsburg..... 282
Holbrook, Stevens Creek near..... 289
Homer, Mud River near..... 286
Horse Branch, Caney Creek near..... 194,303
Howards Mill, Spencer Creek near..... 281
Hyden, Middle Fork Kentucky River near..... 68,296
Hydrologic benchmark network, definition of..... 19
Hydrologic conditions, summary of..... 1
Hydrologic unit, definition of..... 19

Indian Creek (tributary to Red River) near Nada..... 284
Inez, Middle Fork Rockcastle River at..... 281
Instantaneous discharge, definition of..... 19
Introduction..... 1
Ivyton, Middle Creek near..... 289

Jackson, North Fork Kentucky River at..... 64-67
Jefferson County, ground-water level..... 322-373
Jessamine Creek at Nicholasville..... 284
Johns Creek, near Meta..... 36,293
near Van Lear..... 37,293
Johnsonville, Beaver Creek near..... 284
Jones Fork at Betty..... 280

Kentucky River, at lock 2, at Lockport..... 91-96
at lock 4, at Frankfort..... 83,298
at lock 6, near Salvisa..... 82,298
at lock 10, near Winchester..... 77-80
at lock 14, at Heidelberg..... 74
Middle Fork, at Tallega..... 70,296
near Hyden..... 68,296
North Fork, at Hazard..... 63
at Jackson..... 64-67
South Fork, at Booneville..... 73,297
Kentucky River basin, analyses of samples collected at water-quality partial-record stations..... 291,292
gaging-station records in..... 62-97
low-flow partial-records in..... 282-284,289
miscellaneous temperatures and field determinations..... 296-299
Kimper, Long Fork near..... 289
Kyrock, Nolin River at..... 180-182,301

LaGrange, Brush Creek near..... 289
Cedar Creek near..... 289
Harrods Creek near..... 98,289,299
Lakes:
Martins Fork Lake at Martins Fork Dam near Smith..... 204-226
Lamero, Rockcastle River at..... 287
Land-surface datum, definition of..... 19
Larue County, ground-water levels..... 373
Laurel County, ground-water levels..... 373
Laurel Fork at Tyner..... 287
near Linwood..... 285

Page

Laurel River, at Municipal Dam, near Corbin 253
near Fariston..... 287
Latitude-Longitude System..... 8
Lebanon Junction, Rolling Fork near..... 149,150
Lebanon, Rolling Fork near..... 146,300
Left Fork Beaver Creek at Drift..... 280
Leon, Little Sandy River below Grayson Dam, near..... 41,294
Letcher County, ground-water levels..... 374
Levels, ground-water..... 311-375
Levisa Fork, at Paintsville..... 38,293
at Pikeville..... 35,293
below Fishtrap Dam, near Millard..... 32,293
Lewis Creek near Rockport..... 286
Lewisburg, Mud River near..... 290,302
North Fork Licking River near..... 54,295
Licking River, at Butler..... 59,60
at Catawba..... 58,296
at Farmers..... 49-51,295
at McKinneysburg..... 55,295
near Salyersville..... 48,294
near West Liberty..... 281
North Fork, near Lewisburg..... 54,295
North Fork, near Wrigley..... 281
South Fork, at Cynthiana..... 57,296
Licking River Basin,
gaging-station records in..... 48-60
low-flow partial-records in..... 281,282
miscellaneous temperatures and field determinations..... 294-296
Lincoln County, ground-water levels..... 374
Linwood, Lynn Camp Creek near..... 285
Little Barren River near Crailhope..... 285
Little Bayou Creek near Grahamville..... 271,272,306
Little Brush Creek near Gabe..... 285
Little Goose Creek near Harrods Creek..... 102
Little Laurel River near London..... 287
Little Muddy Creek near Woodbury..... 286
Little Pitman Creek near Campbellsville..... 170,301
Little River near Cadiz..... 264,305
Little Rock, Hinkston Creek near..... 282
Little Sandy River at Grayson..... 42,294
below Grayson Dam, near Leon..... 41,294
East Fork, near Fallsburg..... 43,294
Little Sandy River basin,
gaging-station records in..... 41-43
low-flow partial-records in..... 281
miscellaneous temperature and field determinations..... 294
Little South Fork Cumberland River near Oil Valley..... 287
Lockport, Kentucky River at lock 2, at..... 91-96
Locust Creek near Hillsboro..... 281
Logan County, ground-water levels..... 374
London, Little Laurel River near..... 287
Long Falls Creek near Rumsey..... 286
Long Fork near Kimper..... 289
near South Williamson..... 281
Long Run near Fisherville..... 135
Lost Creek near Lost Creek..... 283
Lotts Creek near Bulan..... 282
Louisa, Big Sandy River at..... 39,40
Louisville and Jefferson County Metropolitan Sewer District (MSD) Sampling Network..... 7
Louisville, Cedar Creek at Thixton Road near..... 141
Fern Creek at Old Bardstown Road at..... 153
Middle Fork Beargrass Creek at..... 112-119
Beals Branch Road at..... 120
Mill Creek (tributary to Ohio River) at Orell Road near..... 131
Mill Creek Cutoff near..... 123-130
Muddy Fork at Mockingbird Valley Road at..... 121
Ohio River at..... 122
Pennsylvania Run at Mt. Washington Road near..... 142
Pond Creek at Pendleton Road near..... 164
Pond Creek near..... 156-163
South Fork Beargrass Creek at..... 103-110
at Winter Avenue..... 111
Lsd, definition of..... 19
Lynn Camp Creek at Corbin..... 254,305

Page

Manchester, Goose Creek at ... 72,297
Map:
location of gaging stations in Kentucky.. 28
location of observation wells in downtown area in Louisville ... 310
location of observation wells in Jefferson County ... 309
location of observation wells in Kentucky ... 308
location of surface-water quality stations in Jefferson County for the MSD Sampling Network ... 30
location of surface water-quality stations in Kentucky ... 29
Markland Dam, Ohio River at ... 61
Marrowbone Creek at Wolfpit ... 280
Marshall Branch near Wheelwright ... 289
Martins Fork,
Lake at Martins Fork Dam near Smith ... 204-226
near Smith ... 227-233,304
Massac Creek basin, gaging station records in ... 269
miscellaneous temperature and field determinations ... 306
Massac Creek near Paducah ... 269,306
Maud, Beech Fork at ... 147,300
Beech Fork near ... 284
McConnell Run near Georgetown ... 289
McCracken County, ground-water levels ... 375
McKinneysburg, Licking River at ... 55,295
Mean concentration, sediment, definition of 22
Mean discharge, definition of ... 19
Measuring point, definition of ... 19
Meta, Johns Creek near ... 36,293
Metamorphic stage, definition of ... 20
Metcalfe County, ground-water levels ... 375
Methylene blue active substances, definition of ... 20
Metropolis, IL, Ohio River at ... 270
Micrograms per gram, definition of ... 20
Micrograms per liter, definition of ... 20
Middle Creek near Ivyton ... 289
Middle Fork near Salyersville ... 281
Middle Fork Rockcastle River at Inez ... 281
Middlesboro, Yellow Creek, near ... 239-242
By Pass, near ... 286
Middletown, Pope Lick at Pope Lick Road near ... 138
Unnamed Tributary to Middle Fork Beagrass, at ... 299
Midway, South Elkhorn Creek near ... 86,298
Mill Creek basin
gaging-station records in ... 123-131
Mill Creek Cutoff near Louisville ... 123-130
Mill Creek (tributary to Ohio River) at Orell Road near Louisville ... 131
Mill Creek (tributary to Slate Creek) near Preston ... 281
Mill Creek (tributary to South Fork Licking River) near Cynthiana ... 282
Millard, Levisa Fork below Fishtrap Dam, near ... 32,293
Milligrams of carbon per area or volume per unit time ... 21
Milligrams of oxygen per area or volume per unit time ... 21
Milligrams per liter, definition of ... 20
Monterey, Cedar Creek at ... 284
Monticello, Beaver Creek near ... 260,261
Morehead, North Fork Triplett Creek near ... 53,295
Triplett Creek at ... 52,295
Morgan, Fork Lick Creek at ... 282
Mortonsville, Clear Creek near ... 284
Mount Washington, Floyds Fork near ... 140,290
Mud Creek near Grethel ... 280
Mud River, near Homer ... 286
near Lewisburg ... 290,302
Muddy Fork at Mockingbird Valley Road at Louisville ... 121
Mullins, Crooked Creek near ... 287
Munfordville, Green River at ... 171-177

Nada, Indian Creek (tributary to Red River) near ... 284
National Geodetic Vertical Datum of 1929, definition of ... 20
National stream-quality accounting network, (NASQAN), definition of ... 20
National Water-Quality Assessment Network (NAWQA), definition of ... 20
National trends network, definition of ... 20
Negro Creek at Broadhead ... 284
Neon, Wright Fork at ... 282
Nicholasville, Jessamine Creek at ... 284
Noble, Troublesome Creek at ... 283
Nolin River at Kyrock ... 180-182,301
at White Mills ... 178,301
Northern Ditch at Okolona ... 154
North Elkhorn Creek near Georgetown ... 84,298
Numbering system for wells and miscellaneous sites ... 8

Oaks, Brownies Creek near ... 286
Obion River basin
low-flow partial-records in ... 288
Ohio River, at Cannelton Dam ... 165
at Evansville, IN ... 199
at Greenup Dam ... 44
at lock and dam 53, near Grand Chain, IL. 277,278
at Louisville ... 122
at Markland Dam ... 61
at Metropolis, IL ... 270
near Uniontown ... 201
Ohio River Main Stem, gaging-station records in ... 44,61,122
165,199,201
270,277,278
Oil Valley, Little South Fork Cumberland River near ... 287
Olaton, Upper Three Lick Creek at ... 290
Olive Hill, Tygarts Creek at ... 45,294
Olney, Tradewater River at ... 202,304
Okolona, Fishpool Creek at Bost Road at ... 151
Northern Ditch at ... 154
Southern Ditch at Minors Lane near ... 152
Spring Ditch at Private Drive near ... 155
Oneida, Bullskin Creek (tributary to Kentucky River) at ... 283
Order, downstream, of listing stations ... 7
Organic mass, definition of ... 18
Organism, definition of ... 20
count/area ... 20
count/volume ... 20

Paducah, Massac Creek near ... 269,306
Paintsville, Levisa Fork at ... 38,293
Parameter code, definition of ... 20
Paris, Stoner Creek at ... 56,295
Partial-record station, definition of ... 20
discharge at ... 280-290
Particle size classification, definition of 21
Particle size, definition of ... 20
Pennsylvania Run at Mt. Washington Road near Louisville ... 142
Percent composition, definition of ... 21
Periphyton, definition of ... 21
Pesticides, definition of ... 21
Phil, Trace Fork near ... 285
Phyllis, Grapevine Creek near ... 31,293
Phytoplankton, definition of ... 21
Pikeville, Levisa Fork at ... 35,293
Pineville, Cumberland River near ... 243
Pitman Creek near Somerset ... 287
Plankton, definition of ... 21
Polly, Camp Branch near ... 282
Pond Creek (tributary to Green River) near Drakesboro ... 286
Pond Creek (tributary to Salt River) at Pendleton Road near Louisville ... 164
near Louisville ... 156-163
Pond River near Apex ... 197,303
Poor Fork at Cumberland ... 203,304
Pope Lick at Pope Lick Road near Middletown ... 138
Precipitation quality, records of ... 383-386
Preston, Mill Creek (tributary to Slate Creek) near Preston ... 281
Prestonsburg, Abbot Creek near ... 280
Priceville, Bacon Creek near ... 179,301
Primary Productivity, definition of ... 21
Prospect, Harrods Creek near ... 99
Publications of techniques of water resources investigations ... 25-27

INDEX

	Page
Quality of Water, Summary of Hydrologic Conditions	3
Quality of ground water by county	376-382
Radiochemical program, definition of	21
Records of	
Data Table of daily mean values	10
Ground-Water Levels	15
Data Collection and Computation	15
Data Presentation	15
Precipitation Quality	16,383-386
On-site Measurements and Sample Collection	16
Data Presentation	16
Station Manuscript	10
Stage and Water Discharge	9
Accuracy of the Records	12
Data Collection and Computation	9
Data Presentation	9
Identifying Estimated Daily Discharge	12
Other Records Available	12
Statistics of monthly mean data	11
Summary statistics	11
Surface-Water Quality	12
Arrangements of records	13
Classification of records	12
Data Presentation	14
Laboratory measurements	14
On-site measurements and Sample Collection	13
Remarks Code	14
Sediment	13
Water temperature	13
Recoverable from bottom material, definition of	21
Red Bird River near Big Creek	71,297
Redlick Creek near Station Camp	283
Red River at Clay City	76,297
near Hazel Green	75,297
Reedyville, Big Reedy Creek near	285
Return period, definition of	22
Rhoda, Beaverdam Creek at	184,302
Richland Creek at Barbourville	286
Right Fork Beaver Creek at Wayland	280
Roaring Paunch Creek near Smith Town	287
Robinson Creek, Robinson Creek near	280
Sugarcamp Creek near	280
Rockcastle River, at Billows	255,305
at Lamero	287
Rockport, Lewis Creek near	286
Rolling Fork, near Boston	148,300
near Lebanon	146,300
near Lebanon Junction	149,150
Rough River at Rough River Dam near Falls of Rough	191,192
at Falls of Rough	193,303
near Dundee	195,303
Rowan County, chemical quality of precipitation, records in	383-386
Rowena, Cumberland River near	262
Rumsey, Long Falls near	286
Runoff in inches, definition of	22
Russell Creek, near Columbia	169,301
near Gresham	285
Russell Fork, at Elkhorn City	34,293
at Haysi, VA	33
Sadieville, Eagle Creek at	284
Salt Lick Creek at Salt Lick	281
Salt River at Glensboro	132,299
at Shepherdsville	143-145
Salt River basin	
gaging-station records in	132-164
low-flow partial-records in	284,290
miscellaneous temperature and field determinations	299,300
Salvisa, Kentucky River at lock 6, near	82,298
Salyersville, Licking River near	48,294
Burning Fork near	281
Middle Fork near	281
Sassafras, Carr Fork near	62,296
Saxton, Clear Fork at	286,304
Scottsville, Bays Fork near	285
Buck Creek near	285
West Bays Fork at	285
Seatonville, Chenoweth Run at	290
Sediment, definition of	22
Shady Grove, Clarks River near	288
Sharps Branch near Franklin	290
Sharpsburg, Hinkston Creek near	282
Shepherdsville, Cedar Creek near	290
Salt River at	143-145
Sherburne, Flat Creek near	282
Shopville, Buck Creek near	256
Silver Creek at Silver Creek	291,292
Simpsonville, Bullskin Creek near	284
Sinking Fork near Cadiz	288
Smith, Martins Fork Lake at Martins Fork Dam near	204-226
Martins Fork near	227-233,304
Smith Town, Roaring Paunch Creek near	287
Sodium-adsorption-ratio, definition of	22
Soldier Creek near Harvey	288
Solute, definition of	22
Somerset, Pitman Creek near	287
South Elkhorn Creek, at Fort Spring	85,298
near Midway	86,298
Southern Ditch at Minors Lane near Okolona	152
South Williamson, Long Fork near	281
Special networks and programs	7
Specific conductance, definition of	22
Spencer Creek near Howard's Mill	281
Spring Ditch at Private Drive near Okolona	155
St. Matthews, Goose Creek near	100
Stage and water-discharge records, explanation of	9
Stage-discharge relation, definition of	22
Station Camp Creek at Alumbaugh	283
Station Camp, Red Lick Creek near	283
Station Identification Numbers	7
Stearns, South Fork Cumberland River near	257-259
Stevens Creek near Holbrook	289
Stoner Creek at Paris	56,295
Streamflow, definition of	22
Sturgeon Creek at Cressmont	283
at Heidelberg	283
Substrate, definition of	22
artificial, definition of	22
natural, definition of	22
Sugarcamp Creek near Robinson Creek	280
Sulphur Creek near Columbia	285
Surface area of a lake, definition of	22
Surface-water, summary of hydrologic conditions	1
Surficial bed material, definition of	23
Suspended, definition of	23
recoverable, definition of	23
Total, definition of	23
Suspended-sediment, definition of	22
concentration, definition of	22
discharge, definition of	22
load, definition of	22
mean concentration, definition of	22
Symsonia, West Fork Clarks River near	288
System, Downstream Order	7
Tallega, Middle Fork Kentucky River at	70,296
Taxonomy, definition of	23
Taylorsville, Brashears Creek at	133,299
Temperature, measurements and field determinations, miscellaneous	293-307
Tennessee River basin,	
gaging-station records in	267,268
low-flow partial-records in	288
miscellaneous temperature and field determinations	306
Thermograph, definition of	23
Time-weighted average, definition of	23
Tollesboro, Cabin Creek near	47,294
Tons per acre-foot, definition of	23
Tons per day, definition of	23
Total, definition of	23
coliform bacteria, definition of	18
organism count, definition of	20
recoverable, definition of	23
Total discharge, definition of	23
Total sediment discharge, definition of	22
Total sediment load, definition of	22
Trace Fork near Phil	285
Tradewater River at Olney	202,304
Tradewater River Basin,	
gaging-station records in	202
low-flow partial-records in	286,290
miscellaneous temperature and field determinations	304
Trenton, West Fork Red River near	287

	Page
Triplett Creek at Morehead	52,295
North Fork, near Morehead	53,295
Tritium network, definition of	23
Troublesome Creek, at Noble	283
Right Fork near Hindman	283
Tygarts Creek, at Olive Hill	45,294
near Greenup	46,294
Tygarts Creek Basin, gaging-stations records in	45-46
miscellaneous temperature and field determinations	294
Tyner, Laurel Fork at	287
Ulysses, George's Creek near	281
Union, Fowlers Fork at	289
Unnamed Tributary to Middle Fork Beargrass Creek near Middletown	299
Unnamed Tributary to Spring Creek near Guthrie	287
Uniontown, Ohio River near	201
Upper Three Lick Creek at Olaton	290
Van Lear, Johns Creek near	37,293
Warren County, ground-water levels	375
Water-quality records, discontinued	392-397
explanation of	12-14
Water-resources investigations, Publications on techniques of	25-27
Water year, definition of	24
WATSTORE data, access to	16
Watts Creek near Wofford	287
Wayland, Right Fork Beaver Creek at	280
WDR, definition of	24
Weighted average, definition of	24
West Bays Fork at Scottsville	285
West Fork Red River near Trenton	287
West Liberty, Licking River near	281
Wet mass, definition of	18
Wheelwright, Marshall Branch near	289
Whippoorwill Creek near Claymour	263,305
White Mills, Nolin River at	178,301
Whitesburg, Cowen Creek near	282
Williamsburg, Cumberland River at	248-251
Wilson Branch near Defeated Creek	282
Wilson Creek near Deatsville	300
Winchester, Kentucky River at lock 10, near	77-80
Winston, Drowning Creek near	283
Wofford, Watts Creek near	287
Wolf Creek at Cinda	283
Wolfpit, Marrowbone Creek at	280
Woodbury, Green River at lock 4, at	190,302
Little Muddy Creek near	286
Wooton, Cutshin Creek at	69,296
Wright Fork at Neon	282
Wrigley, North Fork Licking River near	281
WSP, definition of	24
Yellow Creek Bypass at Middlesboro	286
Yellow Creek near Middlesboro	239-242
Zooplankton, definition of	21

☆U.S. GOVERNMENT PRINTING OFFICE: 1992-634-298

END

DATE FILMED

9/1/01 93