



# Water Resources Data Kentucky Water Year 1994



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT KY-94-1  
Prepared in cooperation with the Commonwealth of  
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## SALT RIVER BASIN

03301580 WILSON CREEK NEAR DEATSVILLE, KY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	2.3	.6	1.3	6.3	5.2	5.7	11.4	4.1	7.7	14.5	10.6	11.9
2	2.9	.6	1.7	5.4	4.3	4.8	12.8	6.4	9.5	14.9	9.0	12.1
3	4.1	1.8	2.8	7.3	3.1	5.2	10.6	6.7	8.4	13.2	11.3	12.1
4	5.0	1.4	3.2	10.1	3.9	7.0	11.8	4.6	8.0	13.4	3.2	12.1
5	5.5	3.3	4.3	9.5	5.1	7.7	10.1	6.3	8.5	15.1	10.2	12.8
6	4.5	1.2	3.1	10.5	4.9	8.0	9.4	6.2	8.2	14.5	12.7	13.8
7	4.7	1.4	3.3	9.5	7.1	8.5	11.3	5.3	7.8	15.8	12.4	14.0
8	5.8	3.7	4.6	8.8	6.1	7.0	12.3	4.4	8.2	15.6	11.6	13.4
9	5.7	2.5	4.0	6.1	2.3	3.9	11.8	7.1	9.6	17.3	10.8	14.1
10	3.1	1.7	2.4	7.4	4.4	5.4	11.6	9.4	10.8	16.9	12.7	14.9
11	3.5	2.3	2.8	8.7	4.1	5.8	11.0	8.8	9.5	17.9	11.5	15.0
12	4.8	3.5	4.1	9.4	4.3	6.4	12.6	8.7	10.7	19.2	14.5	16.8
13	5.2	3.5	4.4	7.8	5.2	6.5	11.8	9.2	10.4	17.1	12.8	15.4
14	6.2	2.3	4.1	10.0	5.5	7.6	16.0	7.4	11.4	18.9	14.0	16.6
15	7.1	3.5	5.0	11.4	7.1	8.9	12.5	9.9	11.0	17.2	15.3	16.1
16	6.7	2.6	4.6	9.1	5.7	7.4	12.8	7.8	10.1	18.6	13.5	16.1
17	7.0	2.8	4.9	7.9	3.2	5.8	14.3	7.4	10.6	19.6	12.8	16.5
18	8.7	3.3	6.1	11.3	6.4	8.8	15.5	7.5	11.4	19.5	14.7	17.2
19	10.7	6.1	8.4	9.5	5.1	7.8	20.1	9.8	14.6	19.2	14.1	16.6
20	9.9	8.6	9.1	9.5	7.1	8.4	18.5	11.9	15.4	20.4	14.1	17.0
21	9.8	8.4	9.0	11.2	7.8	9.8	15.9	10.9	13.8	21.3	14.5	17.5
22	8.4	6.8	7.2	11.8	5.4	8.5	17.0	11.2	14.1	22.4	15.4	18.5
23	10.6	7.0	8.6	12.8	5.9	9.5	16.5	9.0	13.3	24.2	17.4	20.2
24	7.8	5.3	6.3	12.3	10.7	11.4	18.0	10.0	14.5	24.8	18.8	21.4
25	8.4	4.0	6.0	11.5	7.8	9.8	20.3	13.4	17.2	24.5	19.6	21.6
26	5.1	2.2	3.7	8.7	6.4	7.6	21.6	15.3	18.6	21.8	19.0	20.2
27	4.9	1.0	3.1	8.3	7.5	7.9	20.0	14.9	17.4	20.6	18.0	18.0
28	6.7	2.3	4.5	9.5	7.2	8.1	19.5	11.3	16.8	21.6	14.2	17.4
29	---	---	---	8.6	5.8	7.2	17.2	.5	15.1	22.9	14.6	18.2
30	---	---	---	7.7	4.7	6.3	15.7	13.4	14.4	23.3	17.2	19.8
31	---	---	---	10.6	5.9	7.8	---	---	---	25.7	18.2	21.4
MONTH	10.7	.6	4.7	12.8	2.3	7.4	21.6	.5	11.9	25.7	3.2	16.4
	JUNE			JULY			AUGUST			SEPTEMBER		
1	26.5	20.0	22.8	26.6	21.9	24.2	26.3	22.0	24.1	22.9	20.2	21.2
2	23.1	18.7	20.0	26.9	22.8	24.9	25.9	22.5	24.3	21.5	18.5	19.8
3	23.1	16.7	19.5	27.7	23.7	25.6	26.9	23.2	24.9	20.5	17.0	18.7
4	24.3	17.2	20.4	28.3	24.0	26.1	27.0	23.4	25.1	20.0	15.7	18.0
5	24.9	18.0	21.2	29.3	24.4	26.7	24.9	21.9	23.4	19.2	17.8	18.5
6	25.6	20.9	23.0	27.3	24.8	26.0	23.1	18.7	20.9	21.2	18.9	19.6
7	24.1	21.7	22.8	26.4	23.8	25.3	24.1	18.9	21.3	22.2	17.2	19.4
8	24.5	19.6	22.0	26.5	24.1	25.2	24.8	19.6	22.1	22.2	17.1	19.4
9	23.0	19.8	21.3	25.6	24.1	25.0	25.8	21.2	23.5	22.5	16.9	19.5
10	23.9	19.8	21.6	25.9	22.3	24.0	25.3	21.0	23.0	22.6	17.1	19.8
11	24.7	20.2	22.4	25.5	21.0	23.3	25.1	21.1	23.1	22.1	17.6	20.0
12	25.7	19.9	22.6	24.1	20.1	22.6	26.5	22.1	24.1	22.2	17.5	19.9
13	27.0	21.4	24.1	25.5	22.0	23.6	27.5	22.5	24.9	22.2	16.4	19.3
14	27.1	22.6	24.8	24.7	22.0	23.3	26.4	23.8	24.9	23.2	16.2	19.6
15	28.6	23.2	25.8	24.7	22.5	23.5	24.5	21.0	22.7	---	---	---
16	27.8	23.9	25.9	25.1	22.9	23.9	23.6	19.4	21.4	---	---	---
17	27.6	24.2	25.6	26.7	22.7	24.5	24.0	19.2	21.7	---	---	---
18	28.2	23.3	25.7	27.8	23.8	25.8	23.1	19.1	21.2	---	---	---
19	28.4	24.6	26.5	28.5	24.1	26.3	22.6	18.2	20.6	---	---	---
20	29.3	24.7	27.0	29.1	24.7	26.9	22.1	18.6	20.5	---	---	---
21	29.0	25.7	27.2	27.8	24.8	26.3	23.9	20.2	22.1	---	---	---
22	29.0	24.8	26.5	26.2	23.3	24.5	23.1	19.8	21.6	---	---	---
23	27.8	24.8	26.3	26.7	22.4	24.4	24.4	19.9	21.9	---	---	---
24	26.7	23.3	25.0	27.1	22.7	24.9	24.4	20.3	22.1	---	---	---
25	24.9	21.4	23.2	26.4	23.5	24.8	24.8	20.3	22.6	---	---	---
26	23.6	21.3	22.3	26.7	22.4	24.3	23.9	20.2	22.1	---	---	---
27	22.6	19.5	20.9	24.7	21.7	23.2	24.2	20.0	22.2	---	---	---
28	25.2	19.5	22.1	24.6	20.8	22.6	24.1	19.8	22.1	18.5	14.5	16.2
29	26.1	21.8	23.9	23.1	20.9	22.0	23.7	21.7	22.6	18.7	13.6	15.9
30	25.7	21.9	23.9	24.0	20.1	22.0	24.6	19.0	21.6	18.6	13.7	16.2
31	---	---	---	25.3	20.8	22.9	24.4	21.2	22.7	---	---	---
MONTH	29.3	16.7	23.5	29.3	20.1	24.5	27.5	18.2	22.6	---	---	---

## SALT RIVER BASIN

03301580 WILSON CREEK NEAR DEATSVILLE, KY--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.9	7.2	7.6	11.4	10.1	10.6	14.1	12.8	13.4	14.4	13.2	13.7
2	7.4	4.9	6.5	11.7	10.2	10.9	14.3	12.8	13.5	14.7	12.7	13.6
3	7.7	6.4	7.0	11.5	9.9	10.5	16.2	13.4	14.8	13.4	11.9	12.6
4	8.4	6.2	7.6	10.6	9.6	10.0	15.1	11.8	14.5	14.3	11.9	12.8
5	8.1	6.4	7.3	9.8	8.3	9.1	11.8	10.3	10.6	14.4	12.5	13.2
6	7.8	6.0	7.4	9.4	7.9	8.6	11.2	10.5	10.9	13.2	11.5	12.4
7	7.6	5.8	6.8	10.9	9.0	9.8	11.8	11.0	11.4	11.7	10.6	11.2
8	7.2	5.1	6.3	11.3	10.0	10.6	12.2	11.5	11.9	12.7	11.0	12.0
9	6.4	4.5	5.7	11.1	10.2	10.6	12.7	10.9	11.9	13.7	12.4	13.2
10	8.6	6.4	8.0	11.0	10.0	10.5	11.7	10.6	11.0	13.8	12.0	12.9
11	8.6	7.3	7.9	10.8	9.8	10.4	14.5	11.1	12.5	12.3	10.8	11.7
12	8.9	7.8	8.3	10.7	9.6	9.9	15.2	12.3	13.5	12.2	10.8	11.4
13	8.7	7.7	8.2	10.0	7.7	8.7	15.0	11.8	13.2	12.2	10.5	11.3
14	8.4	7.6	8.1	8.0	7.4	7.8	13.2	11.2	11.9	13.6	11.0	12.3
15	8.4	7.5	7.9	8.6	7.7	8.1	13.8	11.2	11.9	15.3	12.3	13.8
16	7.6	5.8	7.0	10.2	8.2	9.0	12.8	11.3	11.8	15.1	10.4	12.5
17	7.8	6.3	6.9	9.1	8.5	8.8	13.8	11.3	12.1	13.0	6.1	10.6
18	8.1	7.0	7.4	10.2	9.1	9.6	13.6	11.2	11.9	14.2	10.4	12.4
19	8.1	6.9	7.4	10.2	9.4	9.8	14.7	11.4	12.6	13.5	9.8	11.5
20	8.5	7.4	8.1	11.6	10.0	10.9	14.2	11.6	12.6	13.5	11.7	12.4
21	9.0	7.8	8.4	12.3	11.0	11.6	15.4	11.6	13.0	12.4	10.6	11.5
22	10.1	8.6	9.4	13.1	11.3	12.1	15.6	12.4	13.5	14.6	9.3	11.7
23	10.5	9.1	9.7	13.1	11.6	12.2	15.4	12.3	13.6	14.3	10.8	12.6
24	10.6	9.2	9.8	13.4	11.5	12.3	15.5	12.6	13.7	14.3	12.4	13.3
25	10.4	9.0	9.6	13.6	11.4	12.2	14.8	12.4	13.3	13.2	12.2	12.8
26	10.3	8.5	9.3	13.7	11.4	12.3	15.6	13.3	14.1	12.6	11.7	12.2
27	10.6	8.1	9.3	12.9	11.7	12.3	15.5	12.8	13.9	12.0	11.0	11.6
28	11.1	8.7	9.8	13.7	12.3	13.0	15.2	12.7	13.7	12.0	8.0	11.1
29	10.9	9.1	10.0	13.8	12.7	13.2	15.3	13.3	14.1	12.8	11.9	12.2
30	10.7	9.0	9.8	14.5	13.2	13.7	15.6	13.6	14.4	13.2	11.9	12.4
31	11.1	9.7	10.3	---	---	---	15.4	13.4	14.2	12.8	11.6	12.4
MONTH	11.1	4.5	8.2	14.5	7.4	10.6	16.2	10.3	12.9	15.3	6.1	12.3
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	14.1	12.5	13.3	13.2	11.6	12.2	12.7	9.7	11.3	10.4	8.6	9.5
2	14.2	12.7	13.5	12.9	10.8	11.8	12.3	8.9	10.6	10.9	8.9	9.9
3	13.9	12.7	13.2	13.7	9.8	11.3	12.7	10.3	11.4	10.9	9.0	9.7
4	13.9	12.0	13.1	11.9	9.8	10.7	13.4	10.6	12.0	11.1	9.1	9.9
5	13.6	12.0	12.6	13.1	9.9	11.1	13.0	10.2	11.5	10.6	7.3	9.2
6	14.2	12.1	13.1	12.9	9.8	11.2	11.6	10.2	10.9	10.2	3.2	8.7
7	14.4	12.2	13.2	12.0	9.8	10.8	13.1	10.7	11.9	9.9	8.2	8.9
8	13.0	11.6	12.3	11.5	10.2	10.9	13.0	9.9	11.6	9.6	8.4	9.1
9	12.9	11.4	12.3	12.0	10.1	11.2	12.4	9.5	10.9	9.3	8.1	8.7
10	13.9	12.7	13.1	12.5	10.2	11.6	10.1	8.5	9.2	9.0	8.3	8.7
11	13.5	12.4	12.8	13.1	11.8	12.5	10.7	9.8	10.2	9.4	8.0	8.8
12	13.2	12.3	12.5	13.8	12.0	12.8	10.1	8.1	9.2	9.4	8.0	8.6
13	13.3	12.2	12.6	13.5	11.7	12.4	9.7	7.9	8.7	9.9	8.0	8.9
14	13.8	11.8	12.7	13.9	11.5	12.6	9.9	7.9	8.7	9.6	8.0	8.7
15	13.8	11.6	12.6	15.1	12.1	13.3	9.4	8.0	8.7	9.5	8.6	9.0
16	14.3	11.6	12.8	15.7	12.2	13.7	10.3	8.7	9.5	10.1	8.6	9.3
17	14.7	11.4	12.8	16.0	12.5	14.2	11.8	8.7	10.0	10.4	7.3	9.2
18	14.6	10.6	12.5	15.0	11.7	13.3	11.6	8.4	10.0	9.8	7.3	8.4
19	14.3	10.1	11.9	15.3	11.7	13.3	11.5	7.6	9.5	10.1	7.4	8.5
20	12.9	10.1	11.0	14.5	11.3	12.8	10.9	7.6	9.0	9.9	7.5	8.4
21	13.2	10.5	11.5	12.4	10.9	11.5	10.9	7.6	9.0	9.9	7.4	8.4
22	13.3	10.6	11.5	14.0	10.8	12.4	10.9	7.8	9.0	9.8	7.2	8.2
23	11.5	9.6	10.6	13.7	10.0	11.9	11.0	7.7	9.2	9.6	7.0	8.0
24	12.2	9.8	11.2	12.3	10.0	10.8	10.8	7.3	9.0	9.1	6.6	7.7
25	12.2	9.7	11.0	12.8	10.0	11.2	10.4	6.9	8.5	9.1	6.5	7.5
26	12.3	10.2	11.3	12.4	10.3	11.2	10.2	6.7	8.1	8.3	6.5	7.4
27	13.5	10.9	12.0	11.3	10.1	10.9	8.4	6.6	7.7	9.6	7.2	8.2
28	14.1	11.0	12.6	11.7	10.3	10.9	9.3	7.8	8.5	9.6	7.6	8.4
29	---	---	---	12.7	10.2	11.4	9.1	7.9	8.5	9.6	7.6	8.4
30	---	---	---	13.0	10.4	11.4	9.4	8.5	8.9	9.8	7.2	8.3
31	---	---	---	13.1	10.4	11.6	---	---	---	9.4	6.9	7.9
MONTH	14.7	9.6	12.3	16.0	9.8	11.9	13.4	6.6	9.7	11.1	3.2	8.7



## 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<sup>2</sup>.

PERIOD OF RECORD.--Water year 1975 to August 1994 (discontinued).

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 YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, (PERCENT SATURATION)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS TOTAL (MG/L AS CaCO <sub>3</sub> )	CALCIUM DISSOLVED (MG/L AS Ca)
NOV 1993												
09...	1030	65	475	7.7	6.0	3.6	10.9	88	78	220	210	58
FEB 1994												
24...	1030	16400	239	7.9	7.5	270	9.9	83	K16000	13000	100	32
MAY												
11...	1030	1900	330	7.9	18.5	28	7.6	82	1200	660	150	45
AUG												
11...	1115	190	331	7.8	24.0	9.4	5.6	67	100	190	150	43

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE WATER DIS FIELD (MG/L AS HCO <sub>3</sub> )	ALKALINITY WAT DIS TOT IT FIELD (MG/L AS CaCO <sub>3</sub> )	ALKALINITY WAT DIS TOT FET FIELD (MG/L AS CaCO <sub>3</sub> )	CHLORIDE, DISSOLVED (MG/L AS CL)	SULFATE, DISSOLVED (MG/L AS SO <sub>4</sub> )	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SiO <sub>2</sub> )	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
NOV 1993											
09...	16	10	5.4	217	178	177	15	50	0.20	6.1	277
FEB 1994											
24...	5.7	2.1	2.4	94	77	77	3.0	19	0.10	5.1	165
MAY											
11...	9.6	3.2	2.0	151	124	125	3.4	27	0.10	6.2	197
AUG											
11...	9.2	4.6	4.1	140	114	114	6.7	24	0.20	5.6	184

## SALT RIVER BASIN

03301630 ROLLING FORK NEAR LEBANON JUNCTION, KY--Continued  
(National stream-quality accounting network station)

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (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)	BARIUM, DIS- SOLVED (UG/L AS BA)	COBALT, DIS- SOLVED (UG/L AS CO)	IRON, DIS- SOLVED (UG/L AS FE)
NOV 1993											
09...	0.010	0.600	0.060	2.6	0.240	0.200	0.170	20	28	<3	120
FEB 1994											
24...	0.020	0.830	0.050	1.2	0.810	0.120	0.090	850	12	<3	210
MAY											
11...	<0.010	0.620	0.040	0.40	0.120	0.040	0.050	70	20	<3	90
AUG											
11...	<0.010	0.540	0.040	0.70	0.230	0.090	0.060	<10	29	<3	9

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	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)	SEDI- MENT, SUS- PENDEED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 1993											
09...	<4	83	<10	2	<1	<1.0	140	<6	--	--	--
FEB 1994											
24...	<4	7	<10	1	<1	<1.0	68	<6	500	22100	85
MAY											
11...	<4	17	<10	<1	<1	<1.0	100	<6	62	319	91
AUG											
11...	4	16	10	<1	<1	<1.0	110	<6	94	48	88

## 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<sup>2</sup>.

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 1993 TO SEPTEMBER 1994

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (FT <sup>3</sup> /S)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)
OCT						
06...	1115	1.4	737	7.5	16.5	8.5
NOV						
03...	1150	4.5	770	7.2	8.0	10.8
DEC						
08...	1145	12	592	7.6	8.0	11.3
JAN						
10...	1110	12	638	7.6	1.5	12.7
FEB						
15...	1125	15	432	7.5	8.0	11.9
MAR						
07...	1145	8.4	587	7.9	11.5	11.1
APR						
11...	1220	95	470	7.7	11.5	8.6
MAY						
09...	1130	17	479	7.8	16.0	9.5
JUN						
09...	1100	3.4	596	7.8	22.5	6.4
JUL						
11...	1120	0.70	730	8.3	26.0	8.4
AUG						
09...	1135	0.71	661	7.4	25.5	5.6
SEP						
07...	1050	0.55	538	7.0	20.0	2.7

## SALT RIVER BASIN

03301885 SLOP DITCH NEAR OKOLONA, KY

## WATER-QUALITY RECORDS

LOCATION.--Lat 38°08'40", long 85°43'15", Jefferson County, Hydrologic Unit 05140102, at bridge on service road at Outer Loop landfill.

DRAINAGE AREA.--1.4 mi<sup>2</sup>

PERIOD OF RECORD.--April 1994 to present.

REMARKS.--Samples were collected monthly.

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

## WATER-QUALITY DATA, FOR THE PERIOD APRIL 1994 TO SEPTEMBER 1994

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (FT <sup>3</sup> /S)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)
APR						
11...	1045	4.6	472	7.1	12.0	5.7
MAY						
09...	1225	1.3	474	7.3	21.5	7.0
JUN						
09...	1220	1.0	550	7.6	25.0	5.5
JUL						
11...	1220	0.00	615	8.2	25.0	7.5
AUG						
09...	1255	0.04	377	8.0	28.5	9.5
SEP						
07...	1140	1.4	1280	7.9	22.0	6.8



## SALT RIVER BASIN

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<sup>2</sup>.

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 1993 TO SEPTEMBER 1994

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (FT <sup>3</sup> /S)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)
OCT						
20...	1220	24	414	7.4	18.5	8.3
NOV						
08...	1040	4.4	747	8.2	8.0	14.3
DEC						
06...	1220	9.0	618	7.9	10.0	9.8
JAN						
12...	1100	6.5	524	7.9	7.0	12.8
FEB						
14...	1150	7.0	501	8.1	7.5	14.8
MAR						
09...	1140	8.2	978	8.0	4.0	12.7
APR						
06...	1135	15	370	7.9	11.0	9.8
MAY						
04...	1115	9.6	622	8.2	13.5	9.7
JUN						
02...	1220	2.0	666	7.9	17.0	7.5
JUL						
25...	1215	1.0	717	8.1	24.5	6.9
AUG						
03...	1105	0.04	712	7.9	24.0	6.8
SEP						
19...	1250	0.85	649	7.1	19.0	7.9

## 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<sup>2</sup>.

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 1993 TO SEPTEMBER 1994

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (FT <sup>3</sup> /S)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WFOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)
OCT						
06...	1000	4.3	671	8.3	13.5	14.6
NOV						
03...	1045	8.9	670	8.0	8.5	11.7
DEC						
08...	1040	19	575	8.0	7.5	12.2
JAN						
10...	1000	17	654	7.5	2.5	13.8
FEB						
15...	1030	20	457	7.9	6.0	13.1
MAR						
07...	1100	12	622	8.0	11.5	14.1
APR						
11...	0955	30	531	7.5	12.0	8.6
MAY						
09...	1035	24	513	7.9	16.0	10.6
JUN						
09...	1000	3.8	594	9.0	21.0	16.6
JUL						
11...	1035	3.1	653	8.7	26.0	13.6
AUG						
09...	1030	3.1	603	9.1	24.5	15.5
SEP						
07...	0955	3.6	618	7.5	19.5	10.0

## 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<sup>2</sup>.

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 1993 TO SEPTEMBER 1994

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (FT <sup>3</sup> /S)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)
OCT						
06...	0905	1.0	699	7.4	14.0	7.5
NOV						
03...	0915	2.0	660	7.3	11.5	7.1
DEC						
08...	0925	3.5	524	7.1	9.0	9.3
JAN						
10...	0905	2.0	703	7.1	5.5	10.2
FEB						
15...	0910	6.9	495	6.9	6.0	11.4
MAR						
07...	1030	0.90	738	7.4	12.5	11.0
APR						
11...	0900	4.6	542	7.0	12.0	7.0
MAY						
09...	0910	3.0	595	7.5	16.5	7.2
JUN						
09...	0905	1.2	703	7.7	18.5	8.4
JUL						
11...	0915	0.50	786	8.3	23.0	14.5
AUG						
09...	0915	0.44	660	7.8	23.5	8.8
SEP						
07...	0855	0.90	606	6.7	18.0	4.8

## 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 Rd, right bank, 0.4 mi south of Third Street Rd, 0.6 mi downstream from Bee Lick Creek, 1.5 mi downstream from confluence of Northern and Southern Ditches, 2.4 mi south of Louisville city limits, and at mile 15.4.

DRAINAGE AREA.--64.0 mi<sup>2</sup>.

## 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 sea level. See WDR KY-90-1 for history of changes prior to Nov. 16, 1962.

REMARKS.--Estimated daily discharges: Many days. Water-discharge records poor.

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 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	38	35	38	86	55	81	250	11	8.4	6.4	8.3
2	19	28	36	129	67	51	64	130	12	7.0	8.1	7.6
3	18	32	250	121	57	44	81	110	11	7.2	9.2	6.9
4	13	30	580	88	51	39	87	85	9.2	7.0	10	6.4
5	10	29	280	62	50	33	68	64	7.7	5.9	88	40
6	10	27	126	62	44	28	84	57	7.8	16	21	28
7	9.1	24	78	400	90	27	89	400	8.2	11	9.8	12
8	9.1	22	59	111	400	61	71	184	15	7.9	7.5	8.2
9	37	21	50	66	390	110	57	102	25	7.9	6.7	7.5
10	28	22	93	48	260	230	110	71	11	6.4	6.1	7.5
11	12	21	54	42	190	450	170	53	10	6.3	6.4	7.0
12	10	22	38	70	140	250	120	48	10	6.6	7.2	6.7
13	9.7	250	34	61	113	170	94	36	10	6.8	7.5	6.7
14	9.5	480	76	44	81	130	68	74	9.9	6.8	11	6.2
15	9.6	250	99	26	74	102	200	177	11	7.2	11	6.2
16	54	125	64	19	60	74	79	92	8.0	6.6	7.5	6.7
17	178	600	46	17	51	59	61	47	100	6.2	6.3	129
18	52	194	40	15	50	67	44	30	12	6.3	5.8	17
19	200	120	35	13	46	47	35	23	10	6.5	5.7	8.7
20	640	85	31	12	100	43	26	22	20	5.6	6.5	7.0
21	162	61	38	11	200	84	22	18	40	110	30	6.5
22	82	50	30	11	400	56	19	16	17	14	11	6.3
23	58	43	26	45	580	42	16	15	11	9.1	8.0	45
24	47	39	21	259	170	42	15	13	12	6.8	6.9	95
25	38	33	20	580	110	33	15	13	20	8.7	6.4	22
26	31	44	18	450	85	29	13	33	22	15	6.2	13
27	26	144	17	720	66	540	150	16	40	11	6.0	15
28	24	62	16	1000	57	300	130	13	18	14	6.1	9.8
29	23	46	15	400	---	200	300	13	13	10	81	8.1
30	52	39	14	177	---	130	660	10	9.6	10	22	7.2
31	57	---	20	127	---	103	---	10	---	8.0	10	---
TOTAL	1940.0	2981	2339	5224	4068	3629	3029	2225	521.4	366.2	441.3	561.5
MEAN	62.6	99.4	75.5	169	145	117	101	71.8	17.4	11.8	14.2	18.7
MAX	640	600	580	1000	580	540	660	400	100	110	88	129
MIN	9.1	21	14	11	44	27	13	10	7.7	5.6	5.7	6.2
CFSM	.98	1.55	1.18	2.63	2.27	1.83	1.58	1.12	.27	.18	.22	.29
IN.	1.13	1.73	1.36	3.04	2.36	2.11	1.76	1.29	.30	.21	.26	.33

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1994, BY WATER YEAR (WY)

	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
MEAN	27.4	60.1	98.6	130	162	182	135	100	60.9	47.0	35.2	32.3
MAX	117	256	310	614	454	738	551	505	304	282	186	399
(WY)	1976	1974	1979	1950	1989	1964	1970	1983	1950	1973	1992	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 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1944 - 1994	
ANNUAL TOTAL	32405.2		27325.4			
ANNUAL MEAN	88.8		74.9		89.0	
HIGHEST ANNUAL MEAN					159	
LOWEST ANNUAL MEAN					11.4	
HIGHEST DAILY MEAN	1230	Feb 21	1000	Jan 28	6340	Mar 10 1964
LOWEST DAILY MEAN	8.2	Jul 11	5.6	Jul 20	.10	Sep 3 1945
ANNUAL SEVEN-DAY MINIMUM	10	Sep 8	6.5	Jul 14	.19	Sep 17 1945
INSTANTANEOUS PEAK FLOW					8020	Mar 9 1964
INSTANTANEOUS PEAK STAGE					22.69	Mar 9 1964
ANNUAL RUNOFF (CFSM)	1.39		1.17		1.39	
ANNUAL RUNOFF (INCHES)	18.84		15.88		18.89	
10 PERCENT EXCEEDS	212		180		186	
50 PERCENT EXCEEDS	43		32		26	
90 PERCENT EXCEEDS	12		7.0		5.6	

## SALT RIVER BASIN

03302000 POND CREEK NEAR LOUISVILLE, KY--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1988 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1988 to September 1992.

pH: May 1988 to September 1992.

WATER TEMPERATURE: May 1988 to September 1992.

DISSOLVED OXYGEN: June 1988 to September 1992.

REMARKS.--Water-quality samples collected monthly.

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

EXTREMES FOR PERIOD OF DAILY 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, and Dec. 19, 1992.

DISSOLVED OXYGEN: Maximum, 20.1 mg/L, June 30, 1991; minimum, 0.7 mg/L, July 3, 1991.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (FT <sup>3</sup> /S)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)
OCT						
07...	1030	9.6	680	8.2	19.0	8.3
NOV						
04...	1110	29	538	8.0	10.5	10.3
DEC						
07...	1105	74	545	7.5	7.0	9.9
JAN						
06...	1045	52	484	7.7	3.0	11.7
FEB						
01...	1030	82	601	7.4	1.0	11.7
MAR						
01...	1005	54	463	7.8	6.5	10.3
APR						
05...	1010	72	404	7.7	11.5	8.2
MAY						
03...	1025	107	480	7.5	13.0	7.1
JUN						
03...	1000	11	656	7.8	20.0	4.8
JUL						
05...	1055	6.1	664	8.8	31.5	6.8
AUG						
02...	1125	8.3	630	7.9	27.0	4.6
SEP						
06...	1015	28	480	6.6	20.5	3.6

## 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<sup>2</sup>.

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 1993 TO SEPTEMBER 1994

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (FT <sup>3</sup> /S)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)
OCT						
07...	0915	8.9	623	8.0	16.0	8.8
NOV						
04...	0915	33	575	7.9	9.5	10.0
DEC						
07...	0925	90	496	7.6	6.5	10.2
JAN						
06...	0935	45	645	7.7	3.0	12.1
MAY						
03...	0910	131	433	7.9	14.5	8.2
JUN						
03...	0845	15	644	7.9	20.0	6.6
JUL						
05...	0955	6.0	566	7.8	26.5	5.5
AUG						
02...	0945	4.8	445	7.8	24.0	6.4
SEP						
06...	0900	35	635	7.5	20.5	6.2

## SALT RIVER BASIN

03302110 OTTER CREEK AT OTTER CREEK PARK NEAR ROCK HAVEN, KY

## WATER-QUALITY RECORDS

LOCATION.--Lat 37°56'37", long 86°01'47", Mead County, Hydrologic Unit 05140104, 1.4 mi east of Rock Haven, and at mile 3.3.

DRAINAGE AREA.--99.2 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1993 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, FOR THE PERIOD OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (FT <sup>3</sup> /S)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)
OCT						
14...	1115	11	488	8.0	13.5	9.8
NOV						
18...	1130	301	330	7.7	12.0	9.9
DEC						
21...	1140	65	465	8.3	6.0	13.1
JAN						
25...	1150	1130	340	7.0	6.5	11.1
FEB						
22...	1115	153	314	8.0	10.0	11.1
MAR						
10...	1150	478	298	7.3	9.5	11.3
APR						
20...	1205	118	412	8.3	16.5	11.5
MAY						
19...	1140	92	426	8.4	14.0	12.2
JUN						
08...	1140	32	468	8.2	19.5	9.5
JUL						
19...	1110	19	481	8.3	24.0	8.3
AUG						
18...	1100	11	445	8.0	23.0	8.1
SEP						
20...	1130	10	502	7.6	17.5	8.7

## 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<sup>2</sup>, 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.--No estimated daily discharges. Records fair except for periods below 20,000 ft<sup>3</sup>/s, which are poor. Daily discharge computed from head, gate openings, and lockages. Flow regulated by Ohio River system of locks, dams, and reservoirs upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42400	40600	201000	57500	522000	448000	464000	264000	38700	69300	79300	69000
2	32300	51100	219000	68900	522000	422000	481000	242000	38000	63600	47400	69400
3	38500	64700	207000	62600	512000	358000	487000	188000	49200	53800	41300	76700
4	36000	65500	186000	75200	485000	257000	473000	162000	44200	67200	41500	74200
5	29400	64000	216000	114000	431000	261000	444000	147000	17800	60800	55400	60400
6	21500	58500	251000	150000	348000	287000	400000	143000	36500	46700	53300	33500
7	24000	68300	281000	211000	243000	284000	340000	152000	41700	39100	77200	38900
8	28600	78100	278000	236000	208000	276000	280000	198000	37500	45700	84800	35900
9	13900	81600	337000	272000	196000	268000	266000	251000	40300	52700	81800	30000
10	29300	77700	349000	304000	242000	286000	290000	290000	34400	44700	41200	30000
11	16800	64500	313000	321000	284000	300000	304000	300000	31600	30000	35800	18200
12	24300	48500	267000	329000	287000	404000	365000	333000	31700	37800	44300	32900
13	17400	52700	223000	294000	370000	463000	396000	312000	32400	44800	21200	27000
14	17900	69400	191000	227000	413000	501000	417000	255000	35100	39800	18100	21000
15	21200	168000	178000	226000	441000	518000	436000	191000	43800	42600	47700	18100
16	28600	202000	158000	242000	452000	510000	448000	154000	52800	42200	82800	21100
17	18900	216000	138000	236000	441000	470000	458000	150000	75400	52100	92400	23900
18	44600	245000	126000	192000	397000	409000	472000	127000	71700	40400	92000	32900
19	31300	257000	118000	121000	320000	340000	484000	112000	59100	33500	111000	30000
20	33000	258000	109000	72400	255000	265000	486000	108000	51200	37400	150000	32900
21	79300	261000	113000	73000	240000	253000	469000	84500	62100	31800	171000	35700
22	84400	256000	108000	82400	249000	229000	433000	70300	51900	31000	168000	18100
23	87200	231000	105000	74500	263000	214000	377000	72800	50200	40100	145000	21100
24	80000	192000	107000	79600	297000	233000	261000	67800	48400	33300	126000	26900
25	64100	166000	106000	121000	348000	269000	220000	49000	42700	41600	116000	18000
26	61200	143000	84500	202000	396000	284000	181000	60600	42600	46500	101000	21100
27	40500	124000	81400	289000	430000	294000	159000	62400	61100	47600	84000	47300
28	34000	122000	81700	306000	448000	326000	153000	75800	63300	47200	58000	35700
29	37000	137000	58900	416000	---	361000	144000	67600	50400	42900	55400	38700
30	31800	163000	64500	476000	---	398000	223000	70600	69100	60900	63800	30000
31	33600	---	63900	509000	---	435000	---	63900	---	92800	74200	---
TOTAL	1183000	4026200	5319900	6440100	10040000	10623000	10811000	4824300	1404900	1459900	2460900	1068600
MEAN	38160	134200	171600	207700	358600	342700	360400	155600	46830	47090	79380	35620
MAX	87200	261000	349000	509000	522000	518000	487000	333000	75400	92800	171000	76700
MIN	13900	40600	58900	57500	196000	214000	144000	49000	17800	30000	18100	18000

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1994, BY WATER YEAR (WY)

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	
MEAN	62060	97430	166500	162600	205400	234000	211300	145600	95280	67200	54110	45320								
MAX	155800	222400	334000	368700	358600	347400	360400	374700	235400	105200	148200	186500								
(WY)	1980	1986	1979	1991	1994	1979	1994	1983	1981	1992	1980	1979								
MIN	13980	28150	54160	36500	94740	125500	72990	46020	16490	18760	13130	14820								
(WY)	1982	1992	1990	1977	1992	1983	1986	1976	1988	1988	1988	1983								

## SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1976 - 1994	
ANNUAL TOTAL	46739000		59661800			
ANNUAL MEAN	128100		163500		128500	
HIGHEST ANNUAL MEAN					188900	
LOWEST ANNUAL MEAN					72150	
HIGHEST DAILY MEAN	473000		522000		617000	
LOWEST DAILY MEAN	6420		13900		3540	
ANNUAL SEVEN-DAY MINIMUM	13400		20100		7650	
INSTANTANEOUS PEAK STAGE			44.52		49.08	
10 PERCENT EXCEEDS	279000		411000		284000	
50 PERCENT EXCEEDS	83200		92000		90800	
90 PERCENT EXCEEDS	19000		31800		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<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1930 to March 1932, October 1963 to September 1994 (discontinued). Monthly discharge only for October 1930, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 500.00 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Apr. 1, 1932, nonrecording gage at site 1.1 mi downstream, altitude of gage 600 ft, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 16-23. Water-discharge records good. Flow regulated by Green River Lake beginning February 1969.

REVISIONS.--The maximum gage height for the period of record has been corrected to 111.32 ft. The maximum gage height for the 1991 water year has been corrected to 104.02 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 28, 1962, reached a stage of 122.6 ft, from floodmarks, discharge, 60,700 ft<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	999	1410	680	3830	5010	5510	4230	244	72	244	262
2	78	775	1040	697	4110	5000	5990	3040	244	72	244	262
3	78	773	713	706	4060	5000	5950	1920	245	71	247	260
4	79	773	752	861	4030	4980	5910	1720	199	71	247	262
5	79	770	756	1200	3980	4950	5550	1360	152	71	250	265
6	79	769	1680	1390	3950	4920	5020	1190	153	71	250	262
7	79	765	3110	1990	3910	4900	5520	964	153	71	250	262
8	79	765	3440	2660	3880	4140	5810	1230	153	71	250	168
9	81	765	3410	2660	3200	1570	5770	1580	153	70	250	89
10	82	764	3420	2650	3250	237	5070	1580	153	70	250	89
11	82	760	3400	2640	4260	228	3200	1370	153	69	247	90
12	82	759	3400	2660	216	1810	1710	738	153	60	247	90
13	82	758	3380	2660	209	4530	3750	359	152	75	244	92
14	82	765	3360	2840	1440	5370	5540	364	151	78	247	82
15	82	1360	3330	3260	4290	5330	5230	836	150	77	244	92
16	83	2150	3270	2150	2760	5290	3120	1620	150	75	241	92
17	85	2140	3260	1510	200	5260	2540	1960	149	74	241	94
18	459	2430	3250	1510	201	5230	4110	1950	109	164	241	92
19	1150	2760	2930	1510	407	5200	5570	1530	75	238	238	92
20	1980	2740	2060	1000	2830	5180	6110	727	75	238	320	92
21	2320	2720	1380	765	4080	5150	6210	361	75	238	208	92
22	2300	2010	1050	765	3840	5120	6160	360	75	239	174	92
23	2280	1420	680	765	1470	5090	6110	292	74	238	265	90
24	2270	1420	680	522	1950	5060	6060	235	74	237	262	301
25	2250	1420	680	737	4290	5030	6010	237	74	237	262	87
26	2240	1410	513	1100	5120	5010	5960	237	75	236	262	87
27	1790	1410	304	1130	5080	4420	5920	236	74	236	262	87
28	1330	1410	402	1160	5030	2380	5860	239	73	238	262	145
29	1180	1410	480	1820	---	3540	4990	241	72	244	265	250
30	1180	1410	491	2990	---	5170	4260	241	72	241	262	250
31	1170	---	437	3480	---	5160	---	242	---	244	262	---
TOTAL	25270	40580	58468	52468	85873	135265	154520	33189	3904	4486	7738	4580
MEAN	815	1353	1886	1693	3067	4363	5151	1071	130	145	250	153
MAX	2320	2760	3440	3480	5120	5370	6210	4230	245	244	320	301
MIN	78	758	304	522	200	228	1710	235	72	60	174	87

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1994, BY WATER YEAR (WY)

MEAN	844	1339	1766	2019	2300	1687	1324	1181	813	361	331	627
MAX	3075	2732	4516	4798	5630	4363	5151	4632	4374	1498	1386	2902
(WY)	1980	1987	1980	1979	1982	1994	1994	1984	1983	1971	1977	1982
MIN	99.8	27.5	2.88	74.0	4.19	2.10	62.9	44.2	73.1	70.5	65.7	64.9
(WY)	1972	1982	1982	1981	1977	1983	1985	1986	1987	1970	1983	1983

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1970 - 1994
ANNUAL TOTAL	313641	606341	
ANNUAL MEAN	859	1661	1210
HIGHEST ANNUAL MEAN			2077
LOWEST ANNUAL MEAN			535
HIGHEST DAILY MEAN	4170	Feb 24	8350
LOWEST DAILY MEAN	35	Apr 16	.00
ANNUAL SEVEN-DAY MINIMUM	56	Apr 15	.58
INSTANTANEOUS PEAK FLOW		6270	29200
INSTANTANEOUS PEAK STAGE		106.71	111.32
10 PERCENT EXCEEDS	2510	5040	3740
50 PERCENT EXCEEDS	279	764	420
90 PERCENT EXCEEDS	73	79	74

## GREEN RIVER BASIN

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 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, 22.8°C, July 4-6, 11, 17, 18, 24, Aug. 8-20, Sept. 2, 3; minimum, 1.7°C, Jan. 24 to Feb. 2.

## WATER TEMPERATURE, IN CELSIUS, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	22.2	21.1	15.0	14.4	10.0	10.0	5.6	5.6	1.7	1.7	4.4	4.4
2	21.1	21.1	14.4	14.4	10.0	10.0	5.6	5.6	1.7	1.7	5.0	4.4
3	21.1	21.1	14.4	14.4	10.0	10.0	5.6	5.6	2.2	2.2	5.0	5.0
4	21.1	20.6	14.4	14.4	10.0	9.4	5.6	5.0	2.2	2.2	5.0	5.0
5	20.6	21.1	14.4	13.9	9.4	9.4	5.0	5.0	2.2	2.2	5.6	5.0
6	21.7	21.1	13.9	13.9	9.4	9.4	5.0	5.0	2.2	2.2	5.6	5.6
7	21.1	20.6	13.9	13.9	9.4	9.4	5.0	5.0	2.2	2.2	5.6	5.6
8	21.1	20.6	13.9	13.3	9.4	9.4	5.0	4.4	2.2	2.2	6.7	5.6
9	21.1	21.1	12.8	12.8	9.4	9.4	4.4	4.4	2.2	2.2	6.7	6.7
10	21.1	20.6	12.8	12.8	9.4	9.4	4.4	4.4	2.2	2.8	6.7	6.7
11	20.6	19.4	12.8	12.8	9.4	9.4	4.4	3.9	2.8	2.8	6.7	6.7
12	19.4	19.4	12.8	12.8	9.4	9.4	3.9	3.3	2.8	2.8	6.7	6.7
13	19.4	19.4	12.8	12.2	9.4	9.4	3.3	3.3	2.8	2.8	6.7	6.7
14	20.0	19.4	12.2	11.7	9.4	8.9	3.3	3.3	2.8	2.8	7.2	6.7
15	19.4	19.4	11.7	11.7	8.9	8.9	3.3	3.3	2.8	2.8	7.2	7.2
16	19.4	19.4	11.7	11.7	8.9	8.9	3.3	2.8	2.8	2.8	7.2	7.2
17	19.4	18.9	11.7	12.2	8.9	8.3	2.8	2.8	2.8	2.8	7.2	7.2
18	18.3	15.0	12.2	12.2	8.9	8.3	2.8	2.8	2.8	2.8	7.2	7.2
19	15.0	15.0	12.2	12.2	8.3	8.3	2.8	2.8	3.3	2.8	7.2	7.2
20	15.6	15.0	11.7	11.7	8.3	8.3	2.8	2.8	3.3	3.3	7.2	7.2
21	15.6	16.1	11.7	11.7	7.8	7.8	2.8	2.8	3.3	3.3	7.2	7.2
22	16.1	16.1	11.7	11.7	7.8	7.2	2.8	2.2	3.9	3.3	7.8	7.2
23	16.1	16.1	11.7	11.7	7.2	7.2	2.2	2.2	4.4	3.9	7.8	7.8
24	16.1	16.1	11.7	11.7	7.2	7.2	2.2	1.7	4.4	4.4	7.8	7.8
25	16.1	16.1	11.7	11.7	7.2	7.2	1.7	1.7	4.4	4.4	8.3	7.8
26	16.1	16.1	11.7	11.7	7.2	6.7	1.7	1.7	4.4	4.4	8.3	8.3
27	16.1	16.1	11.7	11.7	6.7	6.7	1.7	1.7	4.4	4.4	8.3	8.3
28	16.1	16.1	11.7	11.7	6.7	6.1	1.7	1.7	4.4	4.4	8.9	8.3
29	15.6	15.6	11.7	10.6	6.1	6.1	1.7	1.7	---	---	8.3	8.3
30	15.6	15.6	10.6	10.0	6.1	6.1	1.7	1.7	---	---	8.3	8.3
31	15.6	15.0	---	---	6.1	5.6	1.7	1.7	---	---	8.9	8.3
MONTH	22.2	15.0	15.0	10.0	10.0	5.6	5.6	1.7	4.4	1.7	8.9	4.4



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<sup>2</sup> (includes Butlers Fork), of which about 15 mi<sup>2</sup> does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1939 to current year. Prior to December 1939, monthly discharge only, published in WSP 1305.

REVISED RECORDS.--WSP 1275: 1940. WSP 1335: 1953. WSP 1555: Drainage area. WRD KY-75-1: 1949(M), 1952(M), 1955(M), 1962(M), 1967(M), 1974(M).

GAGE.--Water-stage recorder. Datum of gage is 610.96 ft above sea level. Prior to June 25, 1953, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 25-27, 30 to Jan. 3, and 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.

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 1993 TO SEPTEMBER 1994--DAILY MEAN VALUES

Table with 13 columns (DAY, OCT, NOV, DEC, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP) and 31 rows of daily mean discharge data. Includes summary rows for TOTAL, MEAN, MAX, MIN, CFSM, and IN.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1994, BY WATER YEAR (WY)

Table with 13 columns (MEAN, MAX, WY, MIN, WY) and 13 rows of monthly mean data statistics for water years 1940-1994.

Table with 4 columns (SUMMARY STATISTICS, FOR 1993 CALENDAR YEAR, FOR 1994 WATER YEAR, WATER YEARS 1940 - 1994) and 16 rows of summary statistics.

GREEN RIVER BASIN

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 west of Campbellsville, and at mile 9.1.

DRAINAGE AREA.--19.3 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1990 to current year.

GAGE.--Water-stage recorder. Datum of gage is 685.93 ft above sea level.

REMARKS.--Estimated daily discharges: Dec. 17-31, Jan 17-22, May 23, 24, and 29 to June 14. 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. Flow partially regulated by the city of Campbellsville.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	6.4	14	20	60	53	81	29	13	8.8	10	9.0
2	7.0	6.2	14	30	51	98	66	23	12	7.7	8.5	8.5
3	6.2	6.4	20	44	44	89	60	31	11	7.8	7.6	6.8
4	8.2	6.4	306	55	39	75	50	28	11	7.6	8.2	5.9
5	7.5	6.0	217	45	35	60	43	23	10	5.3	23	6.8
6	7.0	4.7	99	44	33	51	92	26	10	6.0	8.9	10
7	7.1	4.7	67	269	29	78	81	35	19	5.7	6.5	9.7
8	6.4	6.2	51	106	57	354	61	36	28	4.9	8.2	8.9
9	9.2	6.1	48	68	381	1570	51	27	19	6.5	7.9	8.1
10	7.2	5.6	184	54	160	357	105	23	12	5.2	7.5	6.0
11	8.6	5.4	90	51	468	152	244	21	11	3.4	7.6	6.9
12	8.7	5.5	63	103	246	104	135	20	9.5	9.5	7.1	8.7
13	7.9	13	50	69	181	84	90	19	8.5	10	5.3	7.4
14	9.1	79	46	59	117	70	67	23	8.2	12	12	7.1
15	6.9	71	59	42	90	57	207	41	12	17	9.5	7.8
16	49	32	47	35	69	45	165	25	9.1	12	8.7	6.8
17	53	135	38	29	58	39	95	21	5.9	8.8	7.5	15
18	12	53	33	26	50	37	69	20	5.7	8.7	7.7	8.5
19	43	34	29	23	44	30	55	19	4.5	7.5	6.2	9.1
20	28	24	25	21	75	28	45	18	6.8	7.0	10	8.1
21	15	19	23	19	90	29	39	18	7.5	9.4	48	7.9
22	10	16	20	18	260	24	34	17	21	12	16	7.8
23	6.6	14	19	21	413	22	29	16	14	11	12	8.3
24	5.5	12	17	85	132	22	26	15	19	6.3	11	15
25	7.8	10	16	346	90	21	25	17	11	8.1	10	8.7
26	6.9	12	15	141	65	21	24	19	31	7.4	9.2	13
27	6.3	45	14	248	54	394	28	17	26	30	8.1	12
28	5.6	27	13	398	48	305	23	16	14	13	5.6	8.7
29	5.0	21	12	148	---	125	22	15	11	21	17	8.5
30	6.5	16	12	101	---	96	35	15	7.9	14	10	7.4
31	4.8	---	15	76	---	118	---	14	---	9.4	9.7	---
TOTAL	379.2	702.6	1676	2794	3439	4608	2147	687	388.6	303.0	334.5	262.4
MEAN	12.2	23.4	54.1	90.1	123	149	71.6	22.2	13.0	9.77	10.8	8.75
MAX	53	135	306	398	468	1570	244	41	31	30	48	15
MIN	4.8	4.7	12	18	29	21	22	14	4.5	3.4	5.3	5.9

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1994, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994
MEAN	12.2	18.0	80.0	71.4	81.6
MAX	12.5	23.4	150	90.1	127
(WY)	1992	1994	1991	1994	1994
MIN	11.9	9.99	27.9	48.9	30.0
(WY)	1993	1992	1993	1993	1992

SUMMARY STATISTICS FOR 1993 CALENDAR YEAR, FOR 1994 WATER YEAR, WATER YEARS 1990 - 1994

	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1990 - 1994
ANNUAL TOTAL	9967.3	17721.3	
ANNUAL MEAN	27.3	48.6	39.8
HIGHEST ANNUAL MEAN			48.6
LOWEST ANNUAL MEAN			24.8
HIGHEST DAILY MEAN	306	1570	1570
LOWEST DAILY MEAN	4.7	3.4	2.2
ANNUAL SEVEN-DAY MINIMUM	5.5	5.3	3.8
INSTANTANEOUS PEAK FLOW		2370	2960
INSTANTANEOUS PEAK STAGE		8.28	8.96
INSTANTANEOUS LOW FLOW		2.1	2.1
10 PERCENT EXCEEDS	61	100	81
50 PERCENT EXCEEDS	14	19	17
90 PERCENT EXCEEDS	6.6	6.5	6.6

GREEN RIVER BASIN

03308500 GREEN RIVER AT MUMFORDVILLE, 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 Mumfordsville, and at mile 225.9.

DRAINAGE AREA.--1,673 mi<sup>2</sup>, of which about 180 mi<sup>2</sup> does not contribute directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1915 to December 1922, October 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 sea level. See WDR KY-90-1 for history of changes prior to Nov. 29, 1940.

REMARKS.--Estimated daily discharges: Dec. 25-27, and Jan. 14-22. Records good except for periods of estimated record, which are fair. 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<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	190	1290	2150	1160	6000	6460	10100	6300	680	357	717	615
2	184	1240	2030	1460	5680	6620	8980	5700	644	316	609	510
3	179	943	1800	1720	5670	9400	7970	4730	629	294	552	456
4	177	904	2540	2000	5420	9120	7910	3350	621	279	537	434
5	175	892	14600	2490	5240	7670	7570	3320	606	265	615	422
6	171	874	12300	2730	5100	6880	7390	2770	571	259	670	426
7	168	865	5900	4860	4950	6450	8080	2370	535	258	793	425
8	168	858	5170	10000	4870	10100	7920	3340	522	246	651	412
9	168	854	4950	7210	7810	20600	7670	3950	947	241	556	407
10	168	855	5870	5300	14600	32600	7610	3200	684	240	501	378
11	166	852	8330	4640	12700	33900	11300	2800	562	248	474	281
12	169	851	6480	4790	18700	24100	18700	2490	499	268	458	249
13	168	877	5360	5440	19900	9330	13300	1890	462	258	443	235
14	169	1000	4910	4650	10400	8070	8170	1100	440	307	467	228
15	170	2770	4800	4250	5860	8240	8570	1780	427	702	679	223
16	177	4060	5020	3900	6400	7630	15900	4310	416	1840	706	218
17	780	4340	4870	3500	5810	7080	13400	3940	425	1470	554	219
18	2450	5300	4600	3190	2730	6760	7360	3390	420	1600	482	223
19	990	4290	4430	3000	1970	6540	6630	3090	483	742	448	227
20	1950	3930	4090	2820	1680	6310	7230	2740	435	553	438	362
21	3200	3640	3400	2650	4470	6160	7290	2000	354	550	1320	293
22	3020	3460	2700	2500	8150	6040	7170	1130	336	948	3140	261
23	2810	3020	2440	2330	16600	5930	6940	989	434	1220	1160	244
24	2710	2060	1750	2660	22000	5800	6750	930	481	1960	681	244
25	2640	1960	1500	6600	14100	5710	6600	887	437	1060	585	246
26	2610	1900	1300	12600	8020	5690	6470	1340	407	774	512	316
27	2580	1960	1130	9480	7340	10800	6410	1770	443	692	468	310
28	2290	2530	1030	14200	6790	18500	6780	1170	575	793	443	251
29	1650	2640	1010	13400	---	19900	6540	905	530	1150	487	237
30	1310	2340	1460	7560	---	10800	6250	791	423	890	601	230
31	1310	---	1370	6410	---	9160	---	730	---	804	631	---
TOTAL	35067	63355	129290	159500	238960	338350	258960	79202	15428	21584	21378	9582
MEAN	1131	2112	4171	5145	8534	10910	8632	2555	514	696	690	319
MAX	3200	5300	14600	14200	22000	33900	18700	6300	947	1960	3140	615
MIN	166	851	1010	1160	1680	5690	6250	730	336	240	438	218

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1994, BY WATER YEAR (WY)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	
MEAN	1395	2564	4466	4788	5730	4785	3731	3124	1961	1072	943	1431														
MAX	5337	5187	12800	12130	13610	12040	8632	13250	6819	3132	3642	6104														
(WY)	1976	1978	1979	1974	1989	1975	1994	1983	1981	1973	1977	1979														
MIN	244	210	545	255	1852	1066	552	487	214	280	202	192														
(WY)	1987	1972	1981	1981	1992	1983	1986	1988	1988	1993	1993	1983														

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1970 - 1994	
ANNUAL TOTAL	725939		1370656			
ANNUAL MEAN	1989		3755		2985	
HIGHEST ANNUAL MEAN					5285	
LOWEST ANNUAL MEAN					1348	
HIGHEST DAILY MEAN	14600	Dec 5	33900	Mar 11	62800	May 8 1984
LOWEST DAILY MEAN	166	Oct 11	166	Oct 11	157	Jul 8 1988
ANNUAL SEVEN-DAY MINIMUM	168	Oct 7	168	Oct 7	160	Jul 5 1988
INSTANTANEOUS PEAK FLOW			35000		76800	
INSTANTANEOUS PEAK STAGE			39.64		57.72	
INSTANTANEOUS LOW FLOW			166		157	
10 PERCENT EXCEEDS	4900		8430		7100	
50 PERCENT EXCEEDS	1160		1950		1530	
90 PERCENT EXCEEDS	185		259		292	

## GREEN RIVER BASIN

03308500 GREEN RIVER AT MUNFORDVILLE, KY--Continued

## WATER-QUALITY RECORDS

LOCATION.--Water temperature collected from gage located on right bank at downstream side of pier of bridge on U.S. Highway 31W at Mumfordsville, and at mile 225.9

DRAINAGE AREA.--1,673 mi<sup>2</sup>, of which about 180 mi<sup>2</sup> does not contribute directly to surface runoff.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Water years 1950-77, 1980, 1983-90, August 1992 to current year.

INSTRUMENTATION.--Temperature recorded from Data Collection Platform.

REMARKS.--Specific conductance and temperature measurements made in conjunction with discharge measurements published in the miscellaneous water-quality section.

EXTREMES FOR PERIOD OF DAILY RECORD.--Maximum daily, 29.0°C July 13-17, 1980; minimum daily, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT PERIOD.--Maximum, 25.9°C, July 21-26; minimum, 2.8°C, Jan. 10.

## WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	15.4	15.0	15.0	11.0	10.2	10.7	7.4	7.1	7.1	3.5	3.5	3.5
2	15.4	15.4	15.4	10.2	9.9	10.2	7.4	7.1	7.3	3.9	3.5	3.8
3	15.4	14.6	14.9	10.2	10.2	10.2	8.1	7.4	7.9	3.9	3.9	3.9
4	14.6	14.3	14.4	10.2	10.2	10.2	9.5	8.1	8.7	3.9	3.5	3.7
5	15.0	14.3	14.6	10.6	10.2	10.6	10.6	9.5	10.1	3.9	3.9	3.9
6	15.0	14.6	14.7	---	---	---	10.2	9.5	10.0	4.2	3.9	4.0
7	15.4	15.0	15.0	9.9	9.5	9.9	9.5	8.8	9.1	5.7	4.2	4.8
8	15.4	15.4	15.4	9.5	9.2	9.3	8.8	8.5	8.5	6.0	5.3	5.8
9	15.8	15.4	15.7	9.2	8.5	8.8	8.5	8.1	8.1	5.3	3.5	4.2
10	15.8	14.6	15.1	8.5	8.5	8.5	9.2	8.1	8.6	3.5	2.8	3.2
11	14.6	13.5	13.9	8.5	8.5	8.5	9.5	8.8	9.2	3.9	3.2	3.4
12	13.5	13.1	13.3	8.8	8.5	8.6	8.8	7.4	8.0	4.6	3.9	4.3
13	13.5	13.1	13.2	9.5	8.8	9.1	7.4	6.7	7.1	5.4	5.0	5.2
14	13.9	13.5	13.6	10.2	9.5	9.7	7.8	7.1	7.3	---	---	---
15	13.9	13.5	13.8	11.3	10.2	10.7	8.1	7.8	7.9	---	---	---
16	14.3	13.9	14.1	12.1	11.3	11.7	8.1	8.1	8.1	---	---	---
17	15.0	14.3	14.5	12.8	12.1	12.5	8.1	7.8	8.1	---	---	---
18	15.0	15.0	15.0	12.8	12.4	12.5	8.1	7.8	7.9	4.5	4.1	4.2
19	15.0	15.0	15.0	12.4	11.3	11.9	7.8	7.4	7.8	4.5	4.1	3.6
20	15.4	15.0	15.2	11.3	10.6	11.0	7.4	7.1	7.2	4.9	4.2	4.3
21	15.4	15.0	15.4	10.6	9.5	10.0	7.1	6.4	6.7	4.7	4.0	4.3
22	15.4	15.0	15.2	9.5	9.2	9.4	6.7	6.4	6.4	4.7	4.0	4.3
23	15.0	14.3	14.4	9.5	9.2	9.4	6.0	5.7	5.8	4.8	3.5	4.2
24	14.3	13.9	13.9	9.9	9.5	9.5	5.7	4.9	5.4	4.9	3.5	4.1
25	13.9	13.9	13.9	10.2	9.9	9.9	5.3	4.6	4.8	5.0	3.9	4.4
26	14.3	13.9	14.1	10.2	10.2	10.2	4.6	3.9	4.1	5.8	4.3	4.7
27	14.3	14.3	14.3	10.2	9.5	10.0	4.2	3.9	4.0	8.0	5.8	6.8
28	14.3	13.9	14.0	9.5	6.4	8.7	4.2	3.9	4.2	9.5	8.0	8.9
29	13.9	13.1	13.4	8.5	6.2	7.2	3.9	3.5	3.9	9.2	8.6	8.9
30	13.1	12.1	12.5	7.8	7.4	7.5	4.2	3.2	3.5	8.6	7.2	7.9
31	12.1	11.0	11.5	---	---	---	3.9	3.5	3.5	7.2	5.5	6.3
MONTH	15.8	11.0	14.3	12.8	6.2	9.9	10.6	3.2	7.0	9.5	2.8	4.8





## GREEN RIVER BASIN

03308500 GREEN RIVER AT MUNFORDVILLE, KY--Continued  
(National stream-quality accounting network station)

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950 to August 1994 (discontinued).

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1949 to September 1973, October 1978 to September 1980, October 1983 to September 1992.

WATER TEMPERATURES: October 1950 to September 1980, October 1982 to September 1992.

SUSPENDED-SEDIMENT DISCHARGE: April 1951 to September 1993.

## 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.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (FT <sup>3</sup> /S)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TURBIDITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED SATURATION (%)	COLIFORM, FECAL, UM-MF (COLS./100 ML)	STREPTOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS TOTAL (MG/L AS CaCO <sub>3</sub> )	CALCIUM DIS-SOLVED (MG/L AS Ca)
OCT 1993												
13...	1106	166	320	7.7	13.0	4.0	8.8	85	840	98	130	42
DEC												
22...	1030	2530	247	7.6	6.0	5.9	12.8	105	60	220	100	32
FEB 1994												
23...	0954	16700	199	7.9	12.0	120	10.9	104	9800	13000	87	28
APR												
12...	0940	20900	136	--	17.0	95	6.9	72	22000	30000	64	21
JUN												
07...	0945	500	269	7.8	22.5	1.2	6.3	75	3700	28000	120	39
AUG												
09...	1040	561	294	7.8	24.0	3.0	7.2	87	120	150	120	38

DATE	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTASSIUM, DIS-SOLVED (MG/L AS K)	BICARBONATE WATER FIELD (MG/L AS HCO <sub>3</sub> )	ALKALINITY WATER TOT IT (MG/L AS CaCO <sub>3</sub> )	ALKALINITY WAT DIS TOT FET (MG/L AS CaCO <sub>3</sub> )	CHLORIDE, DIS-SOLVED (MG/L AS CL)	SULFATE, DIS-SOLVED (MG/L AS SO <sub>4</sub> )	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO <sub>2</sub> )	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT 1993											
13...	7.0	13	2.1	137	113	110	16	21	0.10	3.7	179
DEC											
22...	5.8	4.2	1.9	98	80	78	7.0	18	<0.10	5.1	134
FEB 1994											
23...	4.1	2.2	1.7	85	70	70	4.3	12	<0.10	5.2	126
APR											
12...	2.9	1.4	1.2	63	51	51	2.8	8.4	<0.10	4.6	91
JUN											
07...	5.8	5.9	1.8	--	--	--	9.6	15	<0.10	1.6	155
AUG											
09...	6.5	12	2.7	121	99	97	15	21	0.10	5.4	158

## GREEN RIVER BASIN

03308500 GREEN RIVER AT MUNFORDVILLE, KY--Continued  
(National stream-quality accounting network station)

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (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)	BARIUM, DIS- SOLVED (UG/L AS BA)	COBALT, DIS- SOLVED (UG/L AS CO)	IRON, DIS- SOLVED (UG/L AS FE)
OCT 1993											
13...	<0.010	0.370	0.040	<0.20	<0.010	<0.010	0.020	<10	25	<3	13
DEC											
22...	<0.010	1.10	0.030	<0.20	0.020	<0.010	0.020	10	24	<3	40
FEB 1994											
23...	0.020	1.20	0.040	0.80	0.220	0.040	0.030	490	20	<3	130
APR											
12...	0.010	0.650	0.060	1.2	0.290	0.040	0.040	130	15	<3	200
JUN											
07...	<0.010	0.560	0.060	0.40	0.040	<0.010	<0.010	10	26	<3	7
AUG											
09...	<0.010	0.620	0.040	0.40	0.090	0.080	0.050	--	--	--	--

  

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	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)	SEDI- MENT, SUS- PENDEDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 1993											
13...	8	16	<10	<1	<1	<1.0	180	<6	16	7.2	62
DEC											
22...	4	11	<10	<1	<1	<1.0	110	<6	19	128	62
FEB 1994											
23...	<4	8	<10	1	<1	<1.0	81	<6	362	16300	70
APR											
12...	<4	6	<10	2	<1	<1.0	59	<6	444	25100	88
JUN											
07...	4	8	<10	<1	<1	<1.0	150	<6	27	36	61
AUG											
09...	--	--	--	--	--	--	--	--	34	51	69

## 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<sup>2</sup>, of which about 120 mi<sup>2</sup> does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 583.08 ft above sea level. Prior to Jan. 8, 1960, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 27 to Jan. 2, and 17-23. 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 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	82	203	180	1210	806	1310	588	193	96	65	61
2	58	89	192	240	999	772	1100	495	183	92	64	59
3	61	88	190	288	870	748	968	432	177	89	61	58
4	64	85	415	363	767	670	906	405	171	85	64	56
5	63	87	1370	363	688	604	798	386	162	81	173	55
6	61	89	961	341	628	555	779	362	156	79	143	55
7	58	84	667	1220	572	522	1100	393	155	76	107	55
8	56	79	539	1520	539	1660	887	539	154	75	87	56
9	56	76	469	911	953	3220	771	453	154	71	78	53
10	59	76	504	710	1420	7030	954	402	189	71	71	52
11	66	74	744	599	1260	7280	1860	362	163	70	68	51
12	66	71	547	582	2340	3310	2810	330	144	70	66	49
13	65	117	477	661	2560	2220	1950	307	134	79	64	49
14	62	654	440	567	2070	1760	1520	291	128	96	64	49
15	60	1170	432	495	1600	1480	1200	435	123	131	61	48
16	60	614	456	427	1320	1240	1780	857	119	112	60	46
17	61	1300	412	380	1110	1050	1450	575	114	100	61	46
18	68	1850	383	350	962	940	1080	462	111	90	61	46
19	79	817	371	320	846	855	909	406	114	83	60	47
20	778	579	354	300	773	747	780	367	107	78	59	48
21	568	469	338	280	964	688	673	334	103	77	74	47
22	236	380	326	270	935	697	598	305	99	97	98	46
23	172	328	297	260	3460	613	547	281	97	97	77	49
24	142	288	276	440	3790	566	506	264	98	81	65	57
25	126	267	263	2040	1790	531	477	248	100	73	59	58
26	117	244	253	3680	1330	497	448	264	99	70	58	54
27	106	248	230	2560	1060	1710	440	354	124	68	57	64
28	99	265	215	4440	901	3520	481	289	157	68	64	70
29	96	244	200	4110	---	2900	507	253	117	79	71	59
30	95	219	190	2000	---	1720	673	218	102	77	69	55
31	94	---	185	1490	---	1460	---	204	---	69	68	---
TOTAL	3810	11043	12899	32387	37717	52371	30262	11861	4047	2580	2297	1598
MEAN	123	368	416	1045	1347	1689	1009	383	135	83.2	74.1	53.3
MAX	778	1850	1370	4440	3790	7280	2810	857	193	131	173	70
MIN	56	71	185	180	539	497	440	204	97	68	57	46
CFSM	.34	1.03	1.17	2.93	3.77	4.73	2.83	1.07	.38	.23	.21	.15
IN.	.40	1.15	1.34	3.37	3.93	5.46	3.15	1.24	.42	.27	.24	.17

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1994, BY WATER YEAR (WY)

MEAN	147	298	647	684	914	945	776	550	282	242	173	207
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	83.2	55.5	46.3
(WY)	1970	1964	1964	1981	1964	1983	1986	1976	1988	1994	1962	1983

## SUMMARY STATISTICS

## FOR 1993 CALENDAR YEAR

## FOR 1994 WATER YEAR

## WATER YEARS 1960 - 1994

ANNUAL TOTAL	145873	202872	
ANNUAL MEAN	400	556	486
HIGHEST ANNUAL MEAN			971
LOWEST ANNUAL MEAN			283
HIGHEST DAILY MEAN	6220	Feb 22	7280
LOWEST DAILY MEAN	56	Aug 30	46
ANNUAL SEVEN-DAY MINIMUM	60	Oct 4	47
INSTANTANEOUS PEAK FLOW			8710
INSTANTANEOUS PEAK STAGE			21.13
INSTANTANEOUS LOW FLOW			35
ANNUAL RUNOFF (CFSM)	1.12		1.56
ANNUAL RUNOFF (INCHES)	15.20		21.14
10 PERCENT EXCEEDS	833		1390
50 PERCENT EXCEEDS	254		253
90 PERCENT EXCEEDS	68		59

## 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<sup>2</sup>, of which about 31 mi<sup>2</sup> does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1959 to September 1994 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 568.13 ft above sea level.

REMARKS.--Estimated daily discharges: Dec. 20 to Jan. 1, 15-22, and June 20-28. 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 November 1957 reached a stage of 21.8 ft, from floodmark.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.4	17	17	24	95	112	139	75	24	15	13	9.0
2	8.8	17	16	26	84	116	125	67	23	14	12	8.6
3	9.2	17	16	33	77	117	117	61	23	14	12	8.2
4	9.1	16	66	38	70	105	111	60	23	13	12	7.9
5	8.9	16	130	38	66	98	104	57	22	13	21	8.3
6	8.5	16	86	34	62	91	110	53	21	13	20	8.5
7	8.5	16	68	101	56	89	115	53	23	13	15	8.5
8	8.5	16	55	101	55	260	101	53	22	12	13	8.3
9	8.7	15	46	72	145	880	96	50	22	13	13	8.1
10	9.3	15	75	61	133	1670	113	47	21	13	12	8.1
11	9.4	15	79	54	123	389	190	44	20	13	12	8.1
12	10	14	62	74	190	255	209	42	19	13	11	8.1
13	10	16	54	77	212	205	231	40	18	12	11	7.4
14	10	28	48	67	156	179	159	39	18	12	14	7.1
15	10	112	46	53	132	157	179	58	18	13	23	7.0
16	11	55	51	46	113	139	301	58	17	14	13	6.9
17	13	156	45	41	99	125	179	46	19	13	9.8	7.3
18	14	101	43	37	90	119	148	40	26	12	9.1	7.8
19	18	54	40	34	82	110	131	37	17	12	8.8	7.8
20	41	41	35	32	95	102	116	35	15	11	8.6	7.7
21	38	34	33	30	125	98	106	33	17	11	8.9	7.3
22	21	29	30	29	134	94	99	31	20	12	9.0	7.2
23	18	26	28	28	686	88	92	29	26	12	8.6	7.4
24	16	24	27	79	256	84	87	28	37	12	8.2	8.2
25	16	23	25	305	175	80	83	26	25	11	8.0	8.3
26	15	22	24	280	147	77	78	36	21	11	8.0	8.7
27	15	22	23	158	128	311	75	38	19	14	7.9	9.5
28	14	22	22	460	117	394	74	30	18	20	7.8	8.5
29	15	20	21	235	---	217	67	27	17	16	11	8.5
30	16	18	20	142	---	162	71	26	16	14	11	7.8
31	17	---	20	112	---	154	---	25	---	13	9.8	---
TOTAL	435.3	993	1351	2901	3903	7077	3806	1344	627	404	361.5	241.1
MEAN	14.0	33.1	43.6	93.6	139	228	127	43.4	20.9	13.0	11.7	8.04
MAX	41	156	130	460	686	1670	301	75	37	20	23	9.5
MIN	8.4	14	16	24	55	77	67	25	15	11	7.8	6.9
CFSM	.16	.39	.51	1.10	1.63	2.67	1.49	.51	.24	.15	.14	.09
IN.	.19	.43	.59	1.26	1.70	3.08	1.66	.59	.27	.18	.16	.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1994, BY WATER YEAR (WY)

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994					
MEAN	19.2	35.0	76.7	78.3	108	110	91.9	74.3	35.8	30.2	21.9	23.1																												
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 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1960 - 1994

ANNUAL TOTAL	14344.0	23443.9	
ANNUAL MEAN	39.3	64.2	58.4
HIGHEST ANNUAL MEAN			127
LOWEST ANNUAL MEAN			28.2
HIGHEST DAILY MEAN	429	Feb 22	1670
LOWEST DAILY MEAN	7.6	Aug 30	6.9
ANNUAL SEVEN-DAY MINIMUM	7.8	Aug 27	7.3
INSTANTANEOUS PEAK FLOW			2230
INSTANTANEOUS PEAK STAGE			12.28
INSTANTANEOUS LOW FLOW			7.6
ANNUAL RUNOFF (CFSM)	.46		.75
ANNUAL RUNOFF (INCHES)	6.25		10.21
10 PERCENT EXCEEDS	81		113
50 PERCENT EXCEEDS	27		30
90 PERCENT EXCEEDS	8.9		8.6

## 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<sup>2</sup>, of which about 223 mi<sup>2</sup> does not contribute directly to surface runoff. Area at site used Oct. 1, 1960, to Sept. 30, 1973, 707 mi<sup>2</sup>.

## 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 sea level. 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 for period of record affected by backwater from the Green River. Flow regulated since March 1963 by Nolin Lake (station 03310900). Discharge records computed using gate openings.

COOPERATION.--Record of discharge furnished by U.S. Army Corps of Engineers.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since 1854, 26.35 ft, in January 1937, from floodmarks, at site and datum used in 1939-50.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	263	1940	773	284	4060	4500	2070	913	537	90	131	131
2	263	1540	471	284	5490	4650	3030	729	537	90	131	131
3	263	1530	470	285	5620	4140	3390	833	537	90	131	131
4	263	1520	925	285	5540	3960	4110	833	536	90	82	131
5	262	1520	500	381	5450	6030	4080	632	536	90	52	131
6	262	1510	287	477	5360	3160	3130	550	535	90	52	131
7	262	1500	289	714	4940	1340	1790	550	535	90	52	131
8	262	1500	1010	734	3900	2740	1090	550	535	90	102	131
9	262	1490	1870	517	1810	1210	1090	550	534	90	201	131
10	262	1490	1870	968	767	300	815	550	534	90	177	131
11	261	1480	1860	1180	290	308	542	550	533	90	131	131
12	261	1470	1850	1440	293	314	548	458	533	90	131	131
13	261	1470	1840	1440	297	317	553	400	380	90	131	131
14	261	1470	1260	2180	301	1400	2390	401	266	90	131	131
15	261	1470	922	3310	303	3210	4450	673	228	90	131	215
16	261	2090	846	3270	2110	3200	2880	471	200	197	131	266
17	261	2450	696	2240	4340	3190	681	268	200	267	131	266
18	260	2450	696	697	5370	3170	2460	268	200	267	131	266
19	261	2450	696	621	5840	3160	4070	335	200	267	131	266
20	419	1780	457	471	5270	3140	2270	401	200	267	131	265
21	522	1690	282	471	2190	2520	1120	448	200	267	131	265
22	522	1680	283	471	1330	1510	1120	471	200	267	131	265
23	522	1680	283	471	752	717	1120	471	127	267	131	321
24	521	1670	283	472	301	389	1120	471	90	267	131	432
25	1550	1500	283	1090	305	260	953	471	90	267	131	376
26	2150	1420	284	915	1050	260	738	519	90	266	131	265
27	2510	1410	284	296	3210	263	606	539	90	266	131	264
28	2680	1400	284	303	4390	267	719	538	90	199	131	264
29	2660	1400	189	308	---	270	719	538	90	131	131	193
30	2640	1100	189	312	---	273	873	538	90	131	131	193
31	2620	---	284	1740	---	483	---	538	---	131	131	---
TOTAL	24288	49070	22516	28627	80879	60651	54527	16457	9453	5074	3862	6216
MEAN	783	1636	726	923	2889	1956	1818	531	315	164	125	207
MAX	2680	2450	1870	3310	5840	6030	4450	913	537	267	201	432
MIN	260	1100	189	284	290	260	542	268	90	90	52	131

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1994, BY WATER YEAR (WY)

MEAN	908	1353	1299	1602	1611	1242	846	1074	741	499	294	551
MAX	4959	3393	4491	4852	4541	5533	4777	4161	4437	2009	1335	2266
(WY)	1980	1973	1978	1979	1985	1989	1975	1984	1983	1967	1967	1982
MIN	.000	452	1.50	122	91.4	203	.63	.39	.000	.000	.000	.000
(WY)	1976	1964	1985	1981	1992	1983	1966	1964	1964	1964	1964	1975

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1964 - 1994
ANNUAL TOTAL	269511	361620	
ANNUAL MEAN	738	991	998
HIGHEST ANNUAL MEAN			1880
LOWEST ANNUAL MEAN			597
HIGHEST DAILY MEAN	5020	Feb 27	10300
LOWEST DAILY MEAN	52	Aug 12	.00
ANNUAL SEVEN-DAY MINIMUM	52	Aug 12	.00
INSTANTANEOUS PEAK FLOW			22700
INSTANTANEOUS PEAK STAGE			59.27
10 PERCENT EXCEEDS	1660	2800	2500
50 PERCENT EXCEEDS	506	471	470
90 PERCENT EXCEEDS	89	131	53



## GREEN RIVER BASIN

03311000 NOLIN RIVER AT KYROCK, KY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	5.0	3.1	4.2	8.1	7.8	7.9	9.2	8.8	9.0	12.1	12.1	12.1
2	4.2	3.9	4.1	8.1	8.1	8.1	9.5	9.2	9.4	12.1	12.1	12.1
3	3.9	3.9	3.9	8.5	8.1	8.2	9.5	9.5	9.5	12.4	12.1	12.2
4	4.2	3.9	4.1	8.5	8.5	8.5	9.9	9.5	9.9	12.4	12.4	12.4
5	5.1	3.1	4.6	8.8	8.5	8.6	10.2	9.9	10.0	12.4	12.4	12.4
6	5.3	4.9	5.1	8.8	8.8	8.8	10.2	10.2	10.2	12.4	12.1	12.2
7	5.7	5.3	5.5	8.8	8.8	8.8	10.2	9.9	10.2	12.4	12.1	12.4
8	6.0	5.7	5.8	8.8	8.8	8.8	10.2	10.2	10.2	12.4	12.4	12.4
9	6.0	6.0	6.0	8.5	8.1	8.4	10.2	10.2	10.2	12.4	12.4	12.4
10	6.0	5.7	6.0	8.5	8.1	8.4	10.6	10.2	10.3	12.4	12.4	12.4
11	5.7	5.7	5.7	8.5	8.5	8.5	10.6	10.2	10.4	12.8	12.4	12.6
12	5.7	5.7	5.7	8.5	8.5	8.5	10.6	10.2	10.4	13.9	12.8	13.1
13	5.7	5.7	5.7	8.5	8.5	8.5	10.6	10.2	10.5	14.3	13.9	14.1
14	5.7	5.7	5.7	8.5	8.5	8.5	11.0	10.2	10.6	14.6	14.3	14.4
15	6.0	5.7	5.7	8.5	8.5	8.5	11.3	11.0	11.1	14.6	14.3	14.5
16	6.0	5.7	5.7	8.8	8.5	8.7	11.3	11.3	11.3	14.6	13.9	14.4
17	6.0	5.7	5.8	8.8	8.8	8.8	11.3	11.0	11.3	15.0	14.6	14.7
18	6.0	6.0	6.0	8.8	8.8	8.8	11.7	11.0	11.2	15.0	14.6	14.8
19	6.4	6.0	6.2	9.2	8.8	8.8	12.1	11.7	12.0	15.4	15.0	15.1
20	6.7	6.4	6.6	9.2	8.8	8.9	12.4	12.1	12.2	15.4	15.0	15.2
21	7.1	6.7	7.1	8.8	8.8	8.8	12.1	11.7	12.0	15.4	15.0	15.3
22	7.4	7.1	7.3	8.8	8.8	8.8	12.1	11.7	12.0	15.4	15.0	15.2
23	7.8	7.4	7.7	9.2	8.8	8.8	12.1	11.7	12.1	15.4	15.0	15.2
24	7.4	7.4	7.4	8.8	8.8	8.8	12.1	12.1	12.1	15.4	15.0	15.0
25	7.4	7.4	7.4	8.8	8.8	8.8	12.4	12.1	12.1	15.4	15.0	15.1
26	7.4	7.4	7.4	8.8	8.8	8.8	12.4	12.1	12.1	15.4	15.0	15.4
27	7.4	7.4	7.4	9.2	8.8	8.9	12.4	12.1	12.2	15.8	15.4	15.5
28	7.8	7.4	7.7	8.8	8.8	8.8	12.4	12.1	12.2	15.8	15.4	15.4
29	---	---	---	8.8	8.8	8.8	12.4	11.7	11.9	15.8	15.4	15.5
30	---	---	---	8.8	8.8	8.8	12.1	11.7	12.0	15.8	15.4	15.7
31	---	---	---	8.8	8.8	8.8	---	---	---	15.8	15.4	15.8
MONTH	7.8	3.1	6.0	9.2	7.8	8.6	12.4	8.8	11.0	15.8	12.1	14.0
	JUNE			JULY			AUGUST			SEPTEMBER		
1	15.8	15.8	15.8	18.1	17.3	17.6	18.1	17.7	18.0	19.3	19.3	19.3
2	15.8	15.8	15.8	18.5	17.7	18.1	18.1	17.0	18.0	19.7	18.9	19.4
3	15.8	15.8	15.8	18.9	18.1	18.5	18.1	18.1	18.1	19.7	19.3	19.4
4	16.1	15.8	15.9	19.3	18.5	18.8	19.3	18.1	18.3	19.3	18.9	19.2
5	16.1	15.8	16.0	19.3	18.5	19.0	19.3	18.5	18.7	19.3	18.9	19.0
6	16.1	16.1	16.1	19.3	18.9	19.1	18.5	18.1	18.3	19.3	18.9	18.9
7	16.1	15.8	16.0	19.3	18.9	18.9	18.1	17.7	18.0	19.3	18.5	18.9
8	16.1	16.1	16.1	19.3	18.5	19.0	18.1	17.7	18.0	19.3	18.5	18.8
9	16.5	16.1	16.1	19.3	18.9	19.1	18.5	18.1	18.3	19.3	18.1	18.8
10	16.5	16.1	16.4	19.3	18.9	19.0	18.9	18.1	18.5	19.3	18.5	18.9
11	16.5	16.1	16.1	19.3	18.1	18.8	18.9	18.1	18.5	19.7	18.5	19.0
12	16.5	16.1	16.3	19.3	18.5	18.7	18.9	18.5	18.8	19.7	18.9	19.2
13	16.5	16.1	16.4	19.3	18.5	18.9	19.3	18.5	19.0	19.7	18.5	19.1
14	16.9	16.1	16.5	19.3	18.5	19.0	19.3	18.9	19.0	19.7	18.9	19.2
15	16.9	16.9	16.9	19.3	18.5	18.8	19.3	18.9	19.1	19.7	18.9	19.4
16	17.3	16.9	17.0	18.9	18.0	18.5	19.3	18.9	18.9	19.7	19.3	19.5
17	17.3	16.9	17.1	22.9	18.1	18.5	18.9	18.5	18.9	19.7	19.7	19.7
18	17.3	16.9	17.2	18.1	17.0	17.7	18.9	18.5	18.7	19.7	19.3	19.4
19	17.3	16.9	17.2	17.7	17.5	17.7	18.9	18.5	18.7	19.7	18.9	19.1
20	17.3	16.9	17.3	17.7	17.7	17.7	18.9	18.9	18.9	19.3	18.5	18.9
21	17.3	17.3	17.3	18.1	17.7	17.7	19.3	18.9	19.1	19.3	18.5	18.9
22	17.7	17.3	17.5	18.1	17.7	17.9	19.3	18.5	18.9	19.3	18.9	18.9
23	18.1	17.3	17.8	18.1	18.1	18.1	18.9	18.5	18.7	19.3	18.9	18.9
24	18.1	17.3	17.6	18.1	18.1	18.1	18.9	18.5	18.8	19.3	18.9	19.1
25	17.3	16.9	17.2	22.6	18.1	18.7	18.9	18.5	18.6	19.3	18.9	19.2
26	18.1	17.3	17.6	18.1	17.7	18.0	18.9	18.5	18.8	18.9	18.1	18.3
27	18.1	17.7	17.8	18.1	18.1	18.1	19.3	18.9	19.0	18.1	18.1	18.1
28	18.1	17.3	17.5	18.5	18.1	18.2	19.3	18.9	19.0	21.4	17.7	18.1
29	17.7	17.3	17.5	18.1	17.7	17.8	19.3	18.9	19.2	18.1	17.3	17.7
30	17.7	17.3	17.3	17.7	17.7	17.7	19.3	18.9	19.2	17.7	16.5	17.2
31	---	---	---	18.1	17.7	17.8	19.3	18.9	19.2	---	---	---
MONTH	18.1	15.8	16.8	22.9	17.0	18.4	19.3	17.0	18.7	21.4	16.5	18.9

## 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 Hwy 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<sup>2</sup>.

PERIOD OF RECORD.--Oct. 1972 to Sept. 1994 (discontinued). 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 sea level.

REMARKS.--Estimated daily discharges: Oct. 13-15, 26-29, Nov. 5-7, Jan. 13-23, Mar. 8, 9, June 18-20, July 11-15, Aug. 12-14, 17-20, 24-28, Sept. 2-4, 9-16, and 19-22. Records good except for periods of estimated record, which are fair. 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 1993 TO SEPTEMBER 1994--DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.58	1.2	2.4	8.8	16	17	22	6.6	1.9	1.8	1.7	1.4
2	.74	.92	2.4	12	13	62	17	5.5	2.0	1.7	1.7	1.3
3	.72	.95	5.6	11	11	32	17	5.9	2.1	1.6	1.7	1.2
4	.68	1.0	220	11	10	21	16	6.9	2.0	1.5	1.6	1.1
5	.58	1.1	74	8.5	9.7	16	15	5.6	1.9	1.4	2.2	1.6
6	.58	1.2	24	9.5	8.4	13	59	5.0	2.0	1.4	1.8	1.7
7	.57	1.1	14	181	7.7	20	28	5.0	68	1.4	1.7	1.5
8	.56	.97	11	32	13	1000	18	5.6	13	1.5	1.6	1.4
9	.61	.85	18	18	198	800	14	4.5	5.5	1.5	1.6	1.2
10	.88	.84	88	13	48	169	128	4.0	3.6	1.3	1.5	1.1
11	.87	.92	23	14	185	56	242	3.6	2.7	1.2	1.4	1.1
12	.71	.86	14	55	102	34	83	3.4	2.2	1.2	1.3	1.0
13	.64	2.3	11	22	66	26	41	3.2	2.0	1.1	1.3	.98
14	.60	12	15	14	40	22	25	3.8	1.9	1.0	1.2	.96
15	.66	15	26	10	33	18	213	13	1.8	1.4	1.4	.92
16	1.5	6.1	16	8.0	23	14	74	9.0	1.7	94	1.3	.90
17	2.2	74	12	6.6	18	12	31	4.3	1.6	12	1.2	1.4
18	1.4	13	10	5.6	15	11	21	3.2	1.5	5.6	1.2	1.4
19	2.6	7.6	8.7	4.8	13	9.5	15	2.8	1.4	3.7	1.1	1.0
20	4.4	5.3	8.2	4.0	97	8.9	12	2.3	1.3	2.9	1.0	.80
21	1.9	3.9	10	3.6	53	8.8	10	2.2	5.8	2.8	1.6	.76
22	1.4	3.0	8.2	3.2	240	7.8	9.3	2.1	5.1	3.0	1.5	.70
23	1.2	2.7	6.9	4.0	261	7.5	8.4	2.0	1.8	2.6	1.4	1.9
24	1.1	2.5	6.1	61	49	7.3	7.7	2.0	25	2.2	1.3	3.6
25	1.0	2.4	6.3	195	28	7.3	7.3	2.6	4.9	2.0	1.2	1.7
26	.92	2.7	5.4	51	19	10	6.7	2.9	3.2	2.1	1.1	1.6
27	.88	6.7	5.5	204	15	450	6.4	2.3	6.2	6.6	1.0	1.8
28	.82	5.2	8.2	231	13	159	6.0	2.1	2.8	3.3	.98	1.3
29	.80	3.7	9.4	47	---	43	5.8	2.0	2.6	2.4	2.3	1.1
30	1.3	2.8	6.8	32	---	27	6.5	2.0	2.0	2.0	1.8	.97
31	1.9	---	6.1	23	---	35	---	1.9	---	1.8	1.5	---
TOTAL	35.30	182.81	682.2	1303.6	1604.8	3124.1	1165.1	127.3	179.5	170.0	45.18	39.39
MEAN	1.14	6.09	22.0	42.1	57.3	101	38.8	4.11	5.98	5.48	1.46	1.31
MAX	4.4	74	220	231	261	1000	242	13	68	94	2.3	3.6
MIN	.56	.84	2.4	3.2	7.7	7.3	5.8	1.9	1.3	1.0	.98	.70
CFSM	.10	.56	2.02	3.86	5.26	9.25	3.56	.38	.55	.50	.13	.12
IN.	.12	.62	2.33	4.45	5.48	10.66	3.98	.43	.61	.58	.15	.13

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1994, BY WATER YEAR (WY)

MEAN	3.53	14.2	32.5	26.9	35.9	36.3	22.5	19.1	9.66	8.53	3.35	6.22
MAX	19.4	41.3	98.4	76.2	129	101	71.5	114	37.7	37.9	22.1	43.4
(WY)	1976	1980	1979	1974	1989	1994	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 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1973 - 1994	
	ANNUAL TOTAL	ANNUAL MEAN	ANNUAL TOTAL	ANNUAL MEAN	ANNUAL TOTAL	ANNUAL MEAN
ANNUAL TOTAL	3914.18	10.7	8658.28	23.7	18.1	33.7
ANNUAL MEAN						
HIGHEST ANNUAL MEAN						1979
LOWEST ANNUAL MEAN						1986
HIGHEST DAILY MEAN	220	Dec 4	1000	Mar 8	1780	May 7 1984
LOWEST DAILY MEAN	.50	Sep 14	.56	Oct 8	.09	Aug 17 1988
ANNUAL SEVEN-DAY MINIMUM	.59	Sep 8	.61	Oct 3	.12	Aug 12 1988
INSTANTANEOUS PEAK FLOW			1120	Feb 22	4850	May 7 1984
INSTANTANEOUS PEAK STAGE			6.40	Feb 22	11.38	May 7 1984
INSTANTANEOUS LOW FLOW					.09	Aug 17 1988
ANNUAL RUNOFF (CFSM)	.98		2.18		1.66	
ANNUAL RUNOFF (INCHES)	13.36		29.55		22.62	
10 PERCENT EXCEEDS	24		47		32	
50 PERCENT EXCEEDS	3.3		3.9		4.7	
90 PERCENT EXCEEDS	.82		1.0		.90	



## GREEN RIVER BASIN

03312765 BEAVER CREEK AT HWY 31 E NEAR GLASGOW, KY

LOCATION.--Lat 37°02'05", long 85°54'13", Barren County, Hydrologic Unit 05110002, on downstream side of bridge on U.S. Highway 31 E, 2.7 mi northeast of Glasgow, 8.3 mi upstream from Little Beaver Creek, and at mile 23.1.

DRAINAGE AREA.--49.6 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder. Datum of gage is 651.43 ft above sea level.

REMARKS.--Estimated daily discharges: Dec. 25-31 and Jan. 17-22. Records good except for estimated daily discharges, 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 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	3.8	18	38	132	169	223	42	21	15	12	19
2	3.6	4.3	17	42	111	239	174	37	21	14	12	17
3	3.6	4.3	17	43	93	339	140	35	21	13	12	15
4	3.6	4.3	595	56	80	264	119	37	20	13	11	14
5	3.6	4.7	916	58	75	204	101	36	19	12	18	13
6	3.6	5.3	332	61	67	159	133	34	19	11	17	13
7	3.6	5.5	201	424	59	156	202	37	36	11	13	13
8	3.6	5.5	122	309	56	870	148	67	40	11	11	12
9	3.7	5.5	93	177	544	2930	119	45	28	11	11	11
10	3.8	5.8	371	126	410	2190	141	37	24	17	10	11
11	3.9	5.9	243	102	1560	1020	2060	34	23	16	9.9	10
12	4.0	7.0	145	107	1410	635	1330	32	20	12	9.6	9.7
13	4.0	14	108	100	1120	413	753	30	18	12	9.3	9.4
14	4.2	28	92	88	698	297	414	30	17	58	81	9.3
15	4.3	106	90	69	500	227	481	119	16	104	109	9.1
16	6.3	26	90	57	375	186	1050	77	15	36	28	9.1
17	77	146	75	47	280	154	535	47	15	31	19	9.5
18	11	102	68	40	196	112	262	40	19	25	15	11
19	7.6	52	62	35	163	82	163	35	19	20	13	9.8
20	16	37	56	31	180	72	116	33	16	17	22	8.9
21	8.0	28	56	28	645	68	90	31	15	21	463	8.6
22	5.3	23	52	26	681	63	76	29	20	47	74	8.4
23	3.8	20	46	36	1910	57	64	28	16	35	37	9.0
24	3.1	18	42	209	921	54	56	27	15	27	29	15
25	2.9	17	38	518	567	51	51	33	15	22	23	12
26	2.7	16	36	375	395	47	46	40	16	19	19	10
27	2.7	25	34	324	275	655	43	31	43	18	17	10
28	2.7	33	33	717	190	1420	40	27	27	17	15	9.9
29	3.1	26	32	385	---	811	41	26	20	15	32	9.2
30	3.4	21	31	247	---	426	47	24	17	13	36	8.8
31	3.4	---	31	170	---	293	---	22	---	12	26	---
TOTAL	215.9	799.9	4142	5045	13693	14663	9218	1202	631	705	1213.8	334.7
MEAN	6.96	26.7	134	163	489	473	307	38.8	21.0	22.7	39.2	11.2
MAX	77	146	916	717	1910	2930	2060	119	43	104	463	19
MIN	2.7	3.8	17	26	56	47	40	22	15	11	9.3	8.4
CFSM	.14	.54	2.69	3.28	9.86	9.54	6.19	.78	.42	.46	.79	.22
IN.	.16	.60	3.11	3.78	10.27	11.00	6.91	.90	.47	.53	.91	.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1994, BY WATER YEAR (WY)

	1991	1992	1993	1994
MEAN	13.7	28.5	121	138
MAX	21.9	32.6	156	163
(WY)	1992	1993	1992	1994
MIN	6.96	26.4	72.2	107
(WY)	1994	1992	1993	1993

SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1991 - 1994
ANNUAL TOTAL	19714.6	51863.3	
ANNUAL MEAN	54.0	142	92.5
HIGHEST ANNUAL MEAN			142
LOWEST ANNUAL MEAN			49.7
HIGHEST DAILY MEAN	916	Dec 5	2930
LOWEST DAILY MEAN	1.7	Sep 14	2.7
ANNUAL SEVEN-DAY MINIMUM	1.8	Sep 8	2.9
INSTANTANEOUS PEAK FLOW			5010
INSTANTANEOUS PEAK STAGE			13.95
ANNUAL RUNOFF (CFSM)	1.09		2.86
ANNUAL RUNOFF (INCHES)	14.79		38.90
10 PERCENT EXCEEDS	131		389
50 PERCENT EXCEEDS	23		32
90 PERCENT EXCEEDS	3.6		6.1

## 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<sup>2</sup>, of which 77 mi<sup>2</sup> does not contribute directly to surface runoff.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1941 to September 1950, October 1960 to September 1994 (discontinued). 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 sea level (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 good except for those below 800 ft<sup>3</sup>/s, which are fair. Flow regulated by Barren River Lake 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 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	224	2820	966	2260	3460	4440	3200	3380	3170	2850	382	1460
2	224	2800	532	1790	3580	4460	3140	3360	3160	2840	386	1140
3	223	2770	374	1370	3560	4460	3120	3360	3140	2830	386	967
4	1620	2750	1440	1380	3530	4420	3100	3360	3140	2820	323	966
5	2680	2730	1350	1980	3520	4380	2770	3340	3130	2810	206	965
6	2840	2710	1790	1600	3490	4360	2560	3340	3120	2780	204	693
7	2820	2680	3010	1790	3470	4350	3130	3430	3120	2600	203	207
8	2820	2650	2990	2510	3450	4520	3130	3410	3100	2290	203	203
9	2810	2180	2980	3160	3760	3610	3130	3350	3090	2140	203	202
10	2800	1530	3070	3390	3550	1000	3200	3340	3080	1960	202	203
11	2780	1230	3230	3370	2980	656	3680	3320	3070	1900	202	204
12	2760	1220	3320	3360	726	575	930	3320	3060	1740	202	204
13	2750	1220	3300	2460	616	1670	1950	3310	3050	1140	203	204
14	2730	1000	3290	3020	2100	3760	3540	3300	3030	635	205	205
15	2720	1270	3450	2990	4130	4740	3640	3440	3020	406	208	247
16	2710	2030	3540	2720	4280	4700	3710	3410	2990	404	207	264
17	2730	2320	3520	2380	4240	4660	3590	3350	3000	402	207	274
18	2930	2490	3490	2350	4200	4640	3540	3330	2980	759	206	273
19	3080	2600	3460	1820	4170	4620	3520	3310	2970	1420	206	272
20	3070	2170	3440	1140	4220	4590	3490	3300	2960	1150	207	271
21	3070	1380	3420	905	4380	4570	3480	3280	2950	630	218	270
22	3040	849	3400	891	3870	3970	3460	3280	2940	407	210	270
23	3020	845	3380	885	1740	3280	3450	3260	2930	401	209	272
24	3000	841	3350	933	587	2990	3450	3260	2920	757	208	272
25	2980	839	3330	1760	2390	2980	3440	3240	2900	620	208	270
26	2960	428	3290	2230	4500	2970	3430	3230	2900	392	208	271
27	2940	215	3270	1770	4490	3280	3420	3210	2900	404	207	271
28	2920	310	2420	1490	4460	3450	3410	3200	2880	391	206	270
29	2890	866	1930	1080	---	3220	3400	3200	2870	391	210	305
30	2870	1210	2360	1810	---	3140	3380	3190	2860	390	995	397
31	2850	---	2620	2850	---	3340	---	3180	---	387	1460	---
TOTAL	79861	50953	85312	63444	93449	111801	96390	102590	90430	41046	9090	12292
MEAN	2576	1698	2752	2047	3337	3606	3213	3309	3014	1324	293	410
MAX	3080	2820	3540	3390	4500	4740	3710	3440	3170	2850	1460	1460
MIN	223	215	374	885	587	575	930	3180	2860	387	202	202

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1994, BY WATER YEAR (WY)

	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994				
MEAN	1485	2282	2051	2486	2480	1838	1210	1250	1132	957	567	780	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
MAX	3175	3402	3475	5198	5206	5151	4595	3437	3254	3235	2201	2705	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
(WY)	1975	1976	1980	1979	1979	1979	1975	1973	1983	1969	1971	1974	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
MIN	6.46	3.44	371	191	588	345	53.2	32.2	34.8	34.6	41.2	95.1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
(WY)	1977	1977	1970	1981	1977	1988	1969	1966	1966	1966	1991	1988	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

## SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1965 - 1994	
	Value	Date	Value	Date	Value	Date
ANNUAL TOTAL	405133		836658			
ANNUAL MEAN	1110		2292		1538	
HIGHEST ANNUAL MEAN					2766	1979
LOWEST ANNUAL MEAN					750	1988
HIGHEST DAILY MEAN	3540	Dec 16	4740	Mar 15	7150	Jan 30 1979
LOWEST DAILY MEAN	74	May 22	202	Aug 10	.00	Oct 5 1976
ANNUAL SEVEN-DAY MINIMUM	75	May 18	203	Aug 7	.00	Oct 5 1976
INSTANTANEOUS PEAK FLOW			7470	Apr 11	78000	Feb 27 1962
INSTANTANEOUS PEAK STAGE			90.66	Apr 11	110.60	Feb 27 1962
10 PERCENT EXCEEDS	2950		3550		3580	
50 PERCENT EXCEEDS	374		2820		996	
90 PERCENT EXCEEDS	85		224		73	



GREEN RIVER BASIN

03313000 BARREN RIVER AT FINNEY, KY--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	FEBRUARY			MARCH			APRIL			MAY			
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	
1	3.5	3.2	3.4	7.8	7.4	7.4	10.1	9.7	10.1	13.3	12.6	12.9	
2	3.5	3.2	3.3	7.4	7.4	7.4	10.1	9.7	10.0	12.9	12.9	12.9	
3	3.9	3.2	3.8	7.4	7.1	7.4	10.2	9.7	10.0	12.9	12.6	12.9	
4	3.9	3.5	3.7	7.4	7.4	7.4	10.5	9.8	10.3	12.9	12.9	12.9	
5	4.6	3.9	4.3	7.8	7.4	7.6	10.5	10.2	10.5	12.9	12.9	12.9	
6	4.6	4.6	4.6	8.5	7.8	8.0	10.2	9.8	10.1	13.3	12.5	13.0	
7	5.7	4.6	5.0	8.7	7.8	8.1	10.5	9.8	10.3	13.3	12.9	13.0	
8	6.4	5.3	6.1	---	---	---	---	---	---	14.0	12.9	13.3	
9	6.4	5.7	5.9	8.1	7.8	8.0	11.3	10.9	11.3	13.3	12.5	13.2	
10	5.7	5.3	5.3	8.1	7.8	8.0	11.4	10.6	10.8	13.3	13.3	13.3	
11	5.7	5.3	5.3	8.5	8.1	8.1	11.4	10.6	10.9	13.3	13.3	13.3	
12	5.7	5.3	5.5	8.5	8.1	8.1	11.0	10.3	10.7	13.6	13.3	13.4	
13	5.7	5.3	5.5	8.1	8.1	8.1	11.0	10.3	10.8	13.6	13.3	13.5	
14	5.7	5.3	5.4	8.5	8.1	8.1	11.7	11.0	11.4	13.6	13.3	13.5	
15	5.7	5.7	5.7	8.5	8.1	8.2	12.1	11.4	11.6	14.0	13.3	13.5	
16	6.0	5.7	5.7	8.5	8.1	8.3	12.1	11.4	11.6	14.0	13.4	13.6	
17	6.0	5.7	5.8	8.8	8.5	8.5	12.2	11.5	11.8	14.0	13.6	13.7	
18	6.4	6.0	6.2	8.8	8.5	8.6	12.6	11.5	12.2	14.0	13.6	13.9	
19	6.7	6.4	6.4	8.8	8.5	8.6	12.4	11.8	12.0	14.0	13.6	13.9	
20	6.7	6.4	6.4	9.6	8.8	9.1	12.6	11.8	12.2	14.0	14.0	14.0	
21	6.7	6.4	6.6	9.6	8.9	9.3	12.6	12.2	12.2	14.0	14.0	14.0	
22	7.4	6.7	7.0	9.3	8.9	9.1	12.6	11.8	12.2	14.4	14.0	14.1	
23	7.1	6.7	7.0	10.0	9.3	9.6	12.6	11.8	12.2	14.4	14.0	14.2	
24	7.1	6.4	6.6	10.0	9.3	9.5	12.6	12.2	12.4	14.4	14.0	14.3	
25	7.1	6.7	7.1	9.6	9.1	9.3	12.6	12.2	12.4	14.4	14.0	14.3	
26	7.1	7.1	7.1	10.0	9.6	10.0	12.6	12.2	12.5	14.8	14.0	14.4	
27	7.4	6.7	7.0	10.2	9.4	9.8	12.9	12.2	12.6	14.8	14.4	14.5	
28	7.4	7.1	7.3	10.1	9.7	9.8	12.9	12.2	12.6	14.8	14.4	14.6	
29	---	---	---	9.7	9.7	9.7	14.0	12.2	12.7	14.8	14.4	14.7	
30	---	---	---	10.1	9.7	9.9	13.2	12.2	12.7	15.1	14.5	14.8	
31	---	---	---	10.1	9.7	9.8	---	---	---	15.1	14.8	14.8	
MONTH	7.4	3.2	5.7	---	---	---	---	---	---	15.1	12.5	13.7	
		JUNE			JULY			AUGUST			SEPTEMBER		
1	15.1	14.7	14.9	18.2	18.2	18.2	20.2	19.8	19.9	---	---	---	
2	15.5	14.8	15.0	18.6	18.2	18.4	20.4	19.8	20.0	---	---	---	
3	15.1	14.5	15.0	18.6	18.6	18.6	20.2	19.2	20.0	---	---	---	
4	15.1	15.1	15.1	19.0	18.3	18.8	20.2	19.2	19.6	---	---	---	
5	15.5	15.1	15.2	19.0	18.5	19.0	20.2	19.4	19.9	---	---	---	
6	15.5	15.1	15.4	19.4	19.0	19.1	20.2	19.4	19.8	---	---	---	
7	15.5	15.1	15.5	19.4	18.6	19.0	20.2	19.8	19.9	---	---	---	
8	15.9	15.1	15.5	19.4	19.0	19.2	20.6	19.8	20.0	---	---	---	
9	15.9	15.5	15.6	19.4	19.0	19.3	20.6	19.8	20.1	---	---	---	
10	15.9	15.5	15.8	19.4	19.0	19.3	20.6	19.5	20.1	---	---	---	
11	15.9	15.5	15.9	19.4	19.0	19.4	20.6	19.8	20.1	---	---	---	
12	16.3	15.5	16.0	20.2	19.0	19.5	20.6	19.8	20.1	---	---	---	
13	16.3	15.9	16.1	19.4	18.6	18.9	20.6	19.5	20.2	---	---	---	
14	16.3	15.9	16.2	19.0	18.2	18.6	20.6	19.8	20.2	---	---	---	
15	16.3	15.9	16.3	18.6	18.2	18.4	22.6	19.8	21.6	---	---	---	
16	16.6	16.2	16.4	19.3	18.2	18.6	---	---	---	---	---	---	
17	16.6	16.3	16.5	18.6	18.2	18.5	---	---	---	---	---	---	
18	16.6	16.3	16.5	19.0	18.2	18.8	---	---	---	---	---	---	
19	17.0	16.3	16.6	20.2	19.8	19.8	---	---	---	---	---	---	
20	17.0	16.6	16.6	19.8	19.4	19.7	---	---	---	---	---	---	
21	17.0	16.3	16.9	19.4	19.0	19.2	---	---	---	---	---	---	
22	17.4	16.5	16.9	19.5	19.0	19.1	---	---	---	---	---	---	
23	17.4	17.0	17.1	19.5	19.0	19.2	---	---	---	---	---	---	
24	17.4	17.0	17.3	19.8	19.0	19.6	---	---	---	---	---	---	
25	17.8	17.0	17.4	19.8	19.4	19.6	---	---	---	---	---	---	
26	17.8	17.4	17.5	19.8	19.4	19.5	---	---	---	---	---	---	
27	17.8	17.4	17.8	19.8	19.4	19.6	---	---	---	---	---	---	
28	18.2	17.8	17.8	19.8	19.4	19.6	---	---	---	---	---	---	
29	18.2	17.8	18.0	19.8	19.4	19.7	---	---	---	---	---	---	
30	18.2	17.5	18.1	20.2	19.4	19.8	---	---	---	---	---	---	
31	---	---	---	20.2	19.5	19.8	---	---	---	---	---	---	
MONTH	18.2	14.5	16.4	20.2	18.2	19.2	---	---	---	---	---	---	

## GREEN RIVER BASIN

03313700 WEST FORK DRAKES CREEK NEAR FRANKLIN, KY

LOCATION.--Lat 36°43'24", long 86°33'08", Simpson County, Hydrologic Unit 05110002, near left bank at upstream side of city of Franklin pumping plant intake, 20 ft upstream from dam, 0.8 mi downstream from bridge on State Highways 73 and 100, 1.5 mi east of Franklin, 3.3 mi downstream from Sharps Branch, and at mile 46.7.

DRAINAGE AREA.--110 mi<sup>2</sup>, of which about 19 mi<sup>2</sup> does not contribute directly to surface runoff.

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

GAGE.--Water-stage recorder and broad-crested weir. Datum of gage is 581.54 ft above sea level. Prior to Oct. 1, 1981, at site 0.8 mi upstream at datum 8.05 ft lower.

REMARKS.--Estimated daily discharges: Oct. 5-17, Dec. 12-19, and Jan. 7-25. Records good except for discharge below 5.0 ft<sup>3</sup>/s and periods of estimated record, which are poor. Subsequent to Apr. 24, 1976, records of daily discharge less than about 300 ft<sup>3</sup>/s does not include approximately 3 ft<sup>3</sup>/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 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	21	39	174	299	254	583	293	47	131	38	19
2	2.0	17	35	155	238	311	420	196	46	101	37	20
3	1.9	16	38	134	201	359	354	303	46	83	35	23
4	1.8	16	795	112	173	296	317	544	41	71	33	23
5	1.7	15	1760	108	156	250	272	340	38	58	49	24
6	1.6	15	693	115	140	210	498	253	60	50	65	26
7	1.5	13	384	700	127	201	486	223	312	47	47	24
8	1.4	13	275	800	121	625	361	791	268	43	39	21
9	1.3	11	639	600	1830	3060	301	329	119	44	34	16
10	1.3	10	594	400	1170	2370	697	237	90	46	31	14
11	1.3	12	322	300	2250	1130	2810	180	128	47	29	13
12	1.2	13	280	260	1710	784	1330	150	82	42	26	12
13	1.2	14	240	280	1390	549	877	137	62	42	24	11
14	1.2	27	200	300	958	434	554	147	50	45	30	13
15	1.3	113	260	240	679	361	774	831	45	58	255	12
16	1.7	121	240	200	480	293	1330	546	41	440	72	10
17	25	133	220	180	379	243	705	360	45	249	43	12
18	42	137	200	160	316	217	454	258	120	133	34	13
19	131	108	180	120	268	184	367	199	67	97	30	11
20	168	86	157	90	321	160	345	163	51	73	29	9.7
21	79	68	236	80	1270	150	289	137	40	71	33	9.3
22	51	54	186	78	1200	132	241	119	124	96	34	8.6
23	39	47	159	100	2760	119	200	102	133	67	28	17
24	32	43	151	300	1100	116	165	86	79	55	23	167
25	28	42	147	500	698	137	139	74	65	67	20	81
26	25	39	146	921	465	129	148	75	67	160	18	48
27	24	43	168	1040	353	925	161	130	215	97	20	48
28	22	52	147	1600	293	1750	137	92	603	71	19	40
29	18	52	188	925	---	955	207	72	411	57	23	33
30	19	46	794	556	---	588	370	62	196	49	24	29
31	20	---	281	389	---	809	---	54	---	43	21	---
TOTAL	748.4	1397	10154	11917	21345	18101	15892	7483	3681	2733	1243	807.6
MEAN	24.1	46.6	328	384	762	584	530	241	123	88.2	40.1	26.9
MAX	168	137	1760	1600	2760	3060	2810	831	603	440	255	167
MIN	1.2	10	35	78	121	116	137	54	38	42	18	8.6
CFSM	.22	.42	2.98	3.49	6.93	5.31	4.82	2.19	1.12	.80	.36	.24
IN.	.25	.47	3.43	4.03	7.22	6.12	5.37	2.53	1.25	.92	.42	.27

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1994, BY WATER YEAR (WY)

MEAN	44.6	133	314	301	382	383	260	209	148	65.2	33.6	63.7
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 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1968 - 1994
ANNUAL TOTAL	48485.9	95512.0	
ANNUAL MEAN	133	262	194
HIGHEST ANNUAL MEAN			351
LOWEST ANNUAL MEAN			87.8
HIGHEST DAILY MEAN	1760	Dec 5	3060
LOWEST DAILY MEAN	1.2	Oct 12	1.2
ANNUAL SEVEN-DAY MINIMUM	1.3	Oct 9	1.3
INSTANTANEOUS PEAK FLOW			4500
INSTANTANEOUS PEAK STAGE			10.31
ANNUAL RUNOFF (CFSM)	1.21		2.38
ANNUAL RUNOFF (INCHES)	16.40		32.30
10 PERCENT EXCEEDS	301		697
50 PERCENT EXCEEDS	68		120
90 PERCENT EXCEEDS	5.2		15
			27300
			23.20
			434
			70
			8.5