

03435000 CUMBERLAND RIVER BELOW CHEATHAM DAM, TN

WATER-QUALITY RECORDS

LOCATION.--Lat 36°19'22", long 87°13'42", Cheatham County, Hydrologic Unit 05130205, on left bank 0.4 mi downstream from Cheatham Dam, 2.0 mi southwest of Neptune, 2.6 mi upstream from Half Pone Creek, 9.7 mi west of Ashland City, and at mile 148.4.

DRAINAGE AREA.--14,163 mi².

PERIOD OF RECORD.--February 1993 to September 1997, October 1998 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: February 1993 to September 1997, October 1998 to current year.

pH: February 1993 to September 1997, October 1998 to current year.

WATER TEMPERATURE: February 1993 to September 1997, October 1998 to current year.

DISSOLVED OXYGEN: February 1993 to September 1997, October 1998 to current year.

INSTRUMENTATION.--Data collection platform and water-quality monitor.

REMARKS.--Flow regulated by Cheatham Dam and other reservoirs above station. Interruptions in the record were due to instrument malfunctions. Records for water temperature are rated excellent, for specific conductance are rated good except for the period from June to Sept. rated poor, for p.H. rated fair and for dissolved oxygen which is rated poor.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 298 microsiemens, May 4, 1995; minimum, 152 microsiemens, Jan. 23, 1999.

pH: Maximum, 9.0 units, March 11, 13, 2002; minimum, 6.0 units, June 13, 1993.

WATER TEMPERATURE: Maximum, 28.4°C, Aug. 2, 3, 1995; minimum, 2.3°C, Feb. 6, 1996.

DISSOLVED OXYGEN: Maximum, 16.0 mg/L, Jan. 16, 2001; minimum, 3.7 mg/L, June 29, 1994.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 285 microsiemens, Feb. 13; minimum, 146 microsiemens, May 6.

pH: Maximum, 8.7 units, Apr. 3, 5; minimum, 7.4 units, May 6, June 12.

WATER TEMPERATURE: Maximum, 27.0°C, Aug. 22; minimum, 3.7°C, Jan. 27, 28.

DISSOLVED OXYGEN: Maximum, 14.9 mg/L, Jan. 28, Feb. 11; minimum, 5.7 mg/L, July 28.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	224	219	223	251	237	247	269	262	266	260	253	257
2	227	217	223	249	245	244	262	259	261	266	253	262
3	233	213	219	256	247	247	264	253	258	265	257	260
4	234	223	229	255	248	251	255	234	250	266	250	258
5	254	234	248	252	243	249	252	226	239	270	254	262
6	260	246	252	256	243	249	251	226	239	265	250	260
7	262	249	255	266	246	258	228	216	222	256	241	248
8	261	238	247	264	245	258	229	217	224	243	232	237
9	238	229	233	247	238	244	233	218	228	242	233	236
10	239	204	229	246	234	240	243	232	240	251	235	243
11	241	199	215	252	236	242	251	231	243	248	232	239
12	234	221	228	252	241	246	257	235	244	242	232	236
13	231	216	220	263	248	255	243	239	241	243	231	237
14	250	223	238	248	231	239	252	243	247	234	228	231
15	241	233	236	237	230	234	255	245	251	233	228	230
16	242	222	235	245	233	240	246	242	244	233	225	229
17	255	230	237	261	247	253	248	240	246	233	223	227
18	257	242	249	264	258	260	255	236	248	232	222	226
19	258	245	249	264	258	260	258	237	251	234	223	227
20	259	240	253	265	257	260	260	248	254	228	219	225
21	260	244	255	261	255	258	250	244	247	226	220	223
22	260	247	254	257	252	255	254	248	251	230	219	225
23	263	251	256	258	254	256	256	248	251	231	222	227
24	263	253	259	258	256	254	258	253	254	233	219	224
25	254	246	249	265	254	259	261	258	260	234	222	227
26	256	246	250	264	259	261	258	247	251	234	218	227
27	257	244	252	266	260	263	254	247	250	223	217	219
28	256	246	251	264	254	259	256	252	254	224	218	220
29	251	245	248	262	259	261	256	255	256	231	219	225
30	251	244	247	271	264	268	261	256	259	240	226	234
31	251	243	247	---	---	---	260	254	257	246	237	241
MONTH	263	199	241	271	230	252	269	216	248	270	217	236

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SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	245	233	238	226	219	222	218	214	216	209	203	207
2	237	231	234	223	222	223	219	215	217	208	202	205
3	251	233	242	222	220	221	221	216	218	213	206	208
4	254	236	244	221	215	218	222	216	219	212	205	208
5	260	243	252	215	210	213	228	216	220	215	168	201
6	252	238	245	210	208	209	220	214	218	196	146	172
7	259	246	251	209	207	208	222	215	218	205	196	201
8	269	253	260	210	208	209	242	219	231	208	195	200
9	269	254	262	208	199	205	231	225	228	213	204	207
10	271	249	261	205	197	200	235	230	232	210	206	209
11	266	252	259	207	199	203	240	233	237	223	207	216
12	285	258	269	206	199	202	233	227	229	221	218	220
13	285	271	279	205	196	200	231	229	230	221	213	218
14	275	220	258	206	198	202	230	222	227	214	212	213
15	236	218	226	209	201	204	237	220	225	215	208	211
16	224	211	216	212	201	205	234	220	226	213	208	211
17	217	202	208	201	197	199	231	218	223	209	197	202
18	220	212	217	200	197	198	230	220	223	198	193	196
19	242	220	236	206	200	203	232	217	223	202	194	197
20	242	235	239	217	206	212	223	214	218	202	194	198
21	235	221	227	213	207	210	223	212	216	196	185	190
22	221	199	213	213	207	209	220	206	211	197	189	192
23	216	197	205	212	205	208	217	206	209	197	187	189
24	231	216	227	215	207	210	220	209	216	199	184	190
25	230	226	228	214	208	210	218	206	212	194	184	187
26	232	228	231	214	210	212	207	202	205	196	187	190
27	230	228	229	215	210	212	206	201	203	200	184	192
28	229	226	227	216	211	214	212	198	204	202	190	195
29	---	---	---	215	211	212	203	198	200	200	191	196
30	---	---	---	221	215	217	214	200	208	201	190	195
31	---	---	---	222	214	218	---	---	---	202	190	196
MONTH	285	197	239	226	196	209	242	198	219	223	146	200
	JUNE			JULY			AUGUST			SEPTEMBER		
1	207	191	195	209	200	202	212	196	203	210	202	207
2	212	201	206	208	201	205	200	190	194	210	200	204
3	203	186	196	211	201	206	198	188	194	210	192	201
4	196	185	190	---	---	---	198	192	194	212	207	209
5	196	186	192	---	---	---	196	193	194	211	208	210
6	205	185	192	---	---	---	219	195	204	210	202	207
7	207	197	202	208	204	206	223	207	213	203	201	202
8	211	179	193	207	203	205	222	209	213	208	201	203
9	195	185	189	206	201	203	217	206	210	208	205	206
10	203	194	200	208	201	203	219	206	213	214	205	207
11	224	202	210	211	202	207	216	209	211	224	208	217
12	225	217	222	210	202	206	229	213	224	230	213	222
13	221	206	212	214	206	211	228	216	221	218	204	210
14	212	206	209	209	202	206	225	214	218	211	202	205
15	219	194	214	205	200	202	223	214	217	207	200	204
16	225	216	222	206	200	203	224	212	217	211	200	206
17	---	---	---	206	197	202	224	213	216	207	202	204
18	---	---	---	208	199	204	222	209	216	207	204	205
19	236	214	226	207	198	202	213	209	210	207	203	205
20	221	212	215	203	197	200	216	212	214	210	204	206
21	223	212	216	203	197	200	218	211	215	212	207	209
22	222	212	216	201	193	197	211	205	207	213	181	206
23	225	215	219	199	193	195	210	205	207	207	197	202
24	227	214	220	198	194	196	214	206	209	223	203	209
25	226	211	216	200	193	196	215	209	211	238	223	233
26	219	208	213	201	194	196	213	206	209	238	224	229
27	216	208	211	200	192	196	211	205	208	237	228	233
28	214	206	209	199	194	196	213	206	208	240	221	231
29	211	204	207	203	196	200	207	202	205	233	220	228
30	206	200	203	202	195	200	213	197	207	233	219	227
31	---	---	---	202	193	198	206	202	204	---	---	---
MONTH	---	---	---	---	---	---	229	188	209	240	181	212

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PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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

03435000 CUMBERLAND RIVER BELOW CHEATHAM DAM, TN—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	22.5	22.3	22.4	17.2	16.9	17.0	9.9	9.5	9.7	9.0	8.7	8.8
2	22.7	22.2	22.4	16.7	16.4	16.5	9.5	9.3	9.4	9.1	8.9	9.0
3	23.2	22.7	22.9	16.3	15.9	16.1	9.3	8.7	9.1	9.0	8.6	8.8
4	22.8	22.7	22.8	15.7	15.3	15.5	8.7	8.3	8.6	8.6	8.3	8.5
5	22.7	22.3	22.5	15.3	15.0	15.2	8.5	7.6	7.9	8.3	8.2	8.2
6	22.7	22.2	22.4	15.0	14.5	14.6	7.9	7.6	7.8	8.2	8.0	8.1
7	22.4	21.9	22.2	14.5	14.4	14.5	8.1	7.6	7.9	8.0	7.8	7.9
8	23.0	21.7	21.9	14.6	14.3	14.5	8.2	7.8	8.0	7.8	7.6	7.7
9	22.1	21.6	21.8	14.6	14.3	14.4	8.4	8.2	8.3	8.0	7.7	7.8
10	21.7	21.1	21.5	15.0	14.5	14.8	8.3	8.0	8.1	7.9	7.7	7.8
11	21.2	20.6	20.9	15.3	14.9	15.1	8.0	7.8	7.9	7.8	7.6	7.7
12	21.2	20.8	21.0	15.3	15.2	15.2	7.9	7.6	7.7	7.6	7.1	7.3
13	21.5	21.2	21.4	15.5	14.8	15.3	7.8	7.7	7.8	7.2	6.8	7.0
14	21.2	20.5	20.7	15.2	14.4	14.7	8.0	7.7	7.8	7.0	6.8	6.9
15	20.6	20.0	20.4	14.4	14.2	14.4	8.1	7.9	8.0	6.8	6.4	6.5
16	20.1	19.6	19.9	14.2	14.2	13.8	8.3	7.8	8.0	6.5	6.0	6.2
17	19.9	18.9	19.5	13.4	13.4	13.1	8.6	8.3	8.4	6.0	5.7	5.8
18	19.2	18.5	18.9	12.8	12.8	12.6	9.0	8.6	8.8	5.7	5.4	5.6
19	18.9	18.7	18.8	12.8	12.8	12.7	9.4	9.0	9.2	5.5	5.3	5.4
20	18.7	18.4	18.5	12.8	12.8	12.6	9.5	9.3	9.5	5.6	5.1	5.3
21	18.6	18.2	18.4	12.9	12.6	12.8	9.5	9.2	9.3	5.6	5.4	5.5
22	18.6	18.1	18.2	12.8	12.3	12.5	9.2	9.1	9.2	5.4	5.2	5.3
23	18.4	17.9	18.1	12.3	12.1	12.2	9.1	9.0	9.1	5.2	4.5	4.8
24	18.1	17.9	18.0	12.1	11.9	12.0	9.0	8.8	8.9	4.5	4.3	4.4
25	18.1	18.0	18.1	11.9	11.5	11.7	8.8	8.4	8.5	4.4	4.2	4.3
26	18.2	18.0	18.1	11.5	11.2	11.4	8.4	8.1	8.2	4.3	3.8	4.1
27	18.2	17.9	18.0	11.2	10.6	11.0	8.2	8.0	8.1	3.9	3.7	3.8
28	18.1	17.8	18.0	10.8	10.5	10.6	8.0	7.9	7.9	3.9	3.7	3.8
29	18.3	17.9	18.1	10.6	10.4	10.5	8.0	7.8	7.9	4.2	3.8	4.0
30	18.0	17.6	17.7	10.5	9.7	10.3	8.3	7.8	8.1	4.2	3.9	4.1
31	17.6	17.2	17.4	---	---	---	8.7	8.3	8.5	4.6	4.2	4.4
MONTH	23.2	17.2	20.0	17.2	9.7	13.6	9.9	7.6	8.4	9.1	3.7	6.3
	FEBRUARY			MARCH			APRIL			MAY		
1	4.8	4.5	4.7	6.7	6.6	6.7	12.9	12.2	12.5	15.8	15.5	15.6
2	5.3	4.8	5.0	6.7	6.6	6.7	13.5	12.7	13.0	15.9	15.7	15.8
3	6.0	5.3	5.6	6.8	6.4	6.6	14.1	13.4	13.7	16.0	15.7	15.9
4	6.5	6.0	6.2	6.9	6.5	6.7	14.4	13.9	14.1	16.2	15.8	15.9
5	6.6	6.3	6.5	7.3	6.9	7.1	14.8	14.4	14.6	17.4	16.1	16.6
6	6.3	6.1	6.2	7.4	7.3	7.3	14.8	14.2	14.4	17.2	16.7	17.0
7	6.1	5.5	6.0	7.5	7.2	7.3	14.2	13.9	14.0	16.7	16.4	16.5
8	5.8	5.5	5.7	7.8	7.3	7.5	14.4	14.0	14.3	16.7	16.5	16.6
9	5.6	5.2	5.5	8.0	7.7	7.8	14.2	13.1	13.6	17.3	16.5	16.9
10	5.2	5.0	5.1	8.0	7.6	7.8	13.1	12.6	12.8	17.1	16.7	17.0
11	5.4	5.0	5.2	7.9	7.6	7.8	12.7	12.4	12.6	18.1	17.1	17.7
12	5.8	5.4	5.6	8.2	7.6	7.9	12.6	12.1	12.4	18.0	17.7	17.9
13	6.1	5.6	5.8	8.6	8.1	8.3	13.4	12.4	12.9	18.0	17.7	17.9
14	6.6	6.0	6.2	8.8	8.5	8.7	13.2	12.9	13.1	18.2	18.0	18.1
15	7.6	6.6	7.3	9.2	8.7	9.0	13.4	12.7	13.0	18.4	18.1	18.3
16	7.8	7.4	7.7	9.5	9.0	9.2	13.7	13.2	13.4	18.6	18.2	18.4
17	7.4	7.2	7.3	9.8	9.4	9.6	13.9	13.4	13.6	18.4	18.0	18.2
18	7.3	7.2	7.2	10.0	9.7	9.8	14.2	13.7	13.9	18.0	17.7	17.9
19	7.2	6.9	7.0	10.6	9.9	10.2	14.5	13.9	14.1	18.0	17.7	17.8
20	7.3	6.9	7.1	11.2	10.4	10.8	14.8	14.3	14.6	18.0	17.6	17.8
21	7.3	7.3	7.3	11.2	11.0	11.1	14.8	14.5	14.7	17.6	17.2	17.3
22	7.9	7.0	7.6	11.3	10.9	11.1	14.8	14.3	14.6	17.3	16.9	17.1
23	7.8	7.3	7.5	11.2	10.9	10.9	14.8	14.2	14.5	17.5	17.0	17.2
24	7.3	7.0	7.1	11.7	11.2	11.2	14.6	14.1	14.3	17.7	17.3	17.5
25	7.1	6.8	7.0	12.4	11.6	11.6	14.4	14.2	14.3	17.6	17.3	17.4
26	6.8	6.6	6.6	13.0	12.3	12.6	14.3	14.0	14.1	17.5	17.0	17.3
27	6.6	6.6	6.6	13.4	12.7	13.0	14.4	14.0	14.2	17.7	17.1	17.4
28	6.7	6.6	6.6	13.4	13.3	13.4	14.8	14.2	14.4	17.9	17.3	17.6
29	---	---	---	13.6	13.2	13.4	15.2	14.6	14.9	17.8	17.6	17.7
30	---	---	---	13.5	12.8	12.8	15.8	15.1	15.4	18.1	17.6	17.9
31	---	---	---	12.8	12.4	12.5	---	---	---	18.4	17.9	18.2
MONTH	7.9	4.5	6.4	13.6	6.4	9.6	15.8	12.1	13.9	18.6	15.5	17.3

03435305 RED RIVER BELOW HIGHWAY 161 NEAR BARREN PLAINS, TN

LOCATION.--Lat 36°38'32", long 86°59'18", Robertson County, Hydrologic Unit 05130206, on left bank in pump house of Springfield water plant, 0.2 mi south of Kentucky-Tennessee state line, 0.7 mi below Highway 161 bridge, 4.8 mi northwest of Barren Plains.

DRAINAGE AREA.--549 mi², includes 246 mi² without surface drainage.

PERIOD OF RECORD.--October 1994 to current year. Occasional low-flow measurements, water years 1966-1967 at site 1.8 mi upstream.

GAGE.-- Data collection platform. Datum of gage is 440.00 ft above NGVD of 1929 (levels based on information provided by City of Springfield).

REMARKS.--No estimated daily discharges. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 11	0515	8,810	14.61	May 8	0215	10,100	15.97
Dec 20	0830	7,320	13.27	Jun 18	1945	5,830	11.98
Feb 16	1430	*15,000	*20.94	Sep 22	2315	10,000	15.86
Feb 22	1945	8,860	14.66				

Minimum discharge, 164 ft³/s, Aug. 30, 31.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	971	562	491	2,250	530	1,920	559	755	343	526	553	253
2	796	498	456	2,360	512	1,750	527	569	327	499	382	372
3	680	467	438	1,830	496	1,570	496	564	326	466	1,830	1,810
4	595	451	435	1,570	636	1,450	475	497	321	432	1,250	1,480
5	800	525	810	1,400	833	1,360	511	1,450	307	402	1,600	840
6	813	2,310	986	1,240	670	1,280	677	2,850	310	373	1,000	602
7	619	1,500	752	1,090	636	1,180	1,240	4,020	854	354	655	483
8	516	1,180	686	1,010	598	1,090	1,340	6,510	689	337	517	407
9	454	1,030	683	971	552	1,030	1,030	2,750	503	325	439	358
10	1,570	2,300	712	881	546	953	1,260	1,980	460	333	385	319
11	7,140	3,390	1,260	786	534	875	1,480	1,630	1,440	330	340	288
12	3,250	2,370	1,610	711	544	804	1,140	1,400	3,650	314	398	287
13	2,110	1,770	1,450	658	563	760	973	1,140	1,900	298	385	264
14	1,590	1,470	2,510	631	918	717	845	988	1,420	571	403	240
15	1,330	1,480	1,770	590	8,970	678	761	889	1,290	346	381	302
16	1,140	2,390	1,480	566	13,400	646	699	804	1,790	362	293	260
17	981	1,930	1,280	541	7,260	622	922	793	1,940	418	262	219
18	851	1,570	1,120	505	4,050	596	1,250	907	2,890	287	243	206
19	764	1,350	1,920	475	3,070	610	856	716	3,270	259	224	195
20	729	1,190	6,250	466	3,210	889	737	641	1,710	242	211	188
21	687	1,070	3,160	460	2,780	688	1,230	628	1,300	237	199	178
22	621	971	2,250	460	5,930	605	1,130	619	1,090	575	193	4,220
23	561	869	1,820	428	6,640	552	811	569	950	379	499	4,220
24	519	791	1,580	387	4,180	515	710	528	838	281	365	1,640
25	488	726	1,650	374	3,210	493	681	497	745	247	261	1,180
26	463	674	1,380	365	2,700	582	796	471	684	226	218	939
27	437	625	1,180	352	2,400	681	708	441	843	213	201	792
28	416	579	1,080	340	2,160	591	598	414	755	210	189	677
29	529	545	1,000	395	---	577	546	398	632	303	177	582
30	893	525	933	677	---	744	724	381	565	326	172	516
31	665	---	909	586	---	616	---	362	---	284	216	---
TOTAL	33,978	37,108	44,041	25,355	78,528	27,424	25,712	37,161	34,142	10,755	14,441	24,317
MEAN	1,096	1,237	1,421	818	2,805	885	857	1,199	1,138	347	466	811
MAX	7,140	3,390	6,250	2,360	13,400	1,920	1,480	6,510	3,650	575	1,830	4,220
MIN	416	451	435	340	496	493	475	362	307	210	172	178
CFSM	2.00	2.25	2.59	1.49	5.11	1.61	1.56	2.18	2.07	0.63	0.85	1.48
IN.	2.30	2.51	2.98	1.72	5.32	1.86	1.74	2.52	2.31	0.73	0.98	1.65

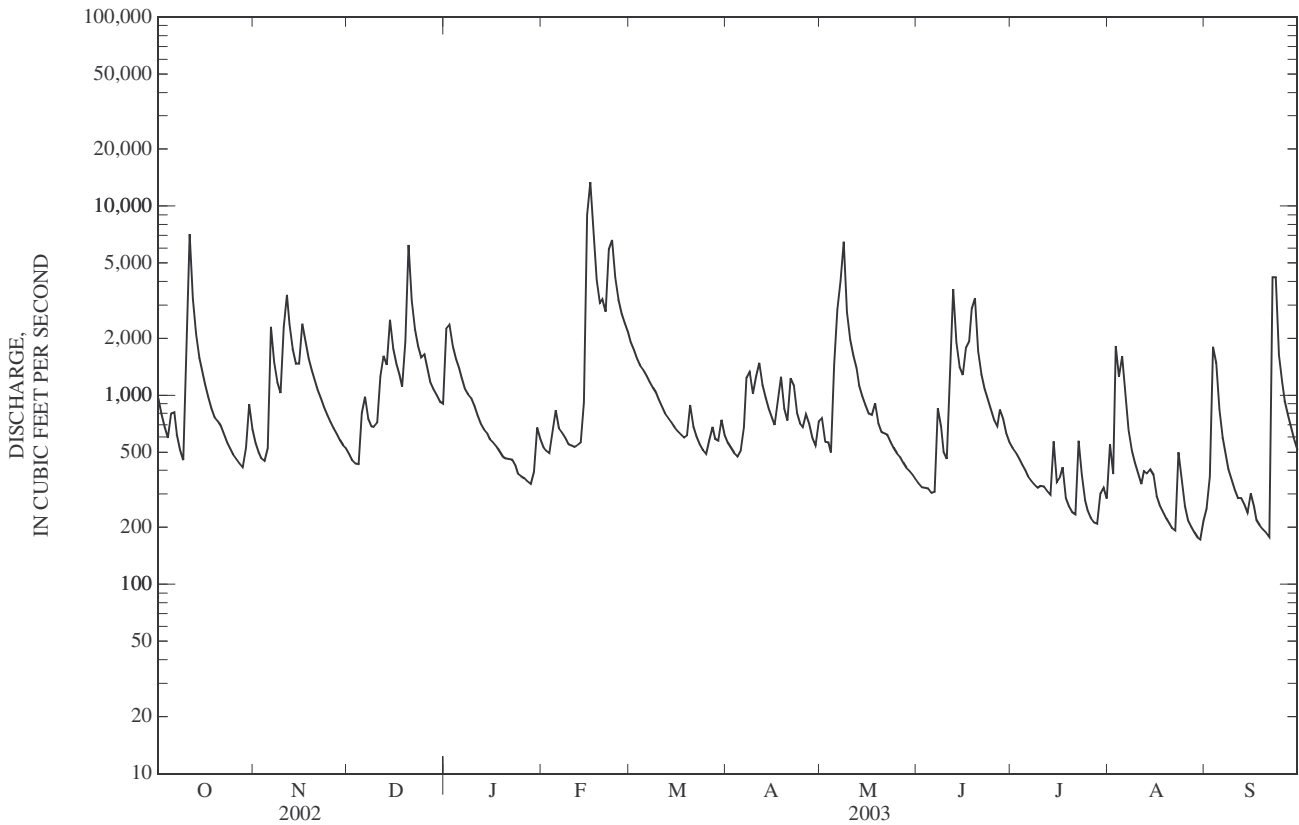
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2003, BY WATER YEAR (WY)

MEAN	259	445	836	1,023	1,279	1,397	893	1,103	857	307	248	272
MAX	1,096	1,237	2,335	2,718	2,805	4,219	1,594	1,810	3,219	655	507	811
(WY)	(2003)	(2003)	(1997)	(1999)	(2003)	(1997)	(1998)	(2002)	(1998)	(1998)	(1998)	(2003)
MIN	47.3	48.4	166	121	525	406	333	355	200	110	77.1	42.3
(WY)	(2000)	(2000)	(2000)	(2000)	(2000)	(2000)	(2001)	(2001)	(1999)	(2000)	(1999)	(1999)

03435305 RED RIVER BELOW HIGHWAY 161 NEAR

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1994 - 2003	
ANNUAL TOTAL	356,351		392,962		741	
ANNUAL MEAN	976		1,077		286	
HIGHEST ANNUAL MEAN					1,170	1997
LOWEST ANNUAL MEAN					286	2000
HIGHEST DAILY MEAN	9,380	May 18	13,400	Feb 16	19,800	Mar 3, 1997
LOWEST DAILY MEAN	58	Sep 13	172	Aug 30	30	Oct 26, 1999
ANNUAL SEVEN-DAY MINIMUM	67	Sep 8	204	Aug 26	31	Oct 26, 1999
MAXIMUM PEAK FLOW			15,000	Feb 16	22,100	Mar 2, 1997
MAXIMUM PEAK STAGE			20.94	Feb 16	28.49	Mar 2, 1997
INSTANTANEOUS LOW FLOW			1.64	Aug 30	23	Oct 5, 2001
ANNUAL RUNOFF (CFSM)	1.78		1.96		1.35	
ANNUAL RUNOFF (INCHES)	24.15		26.63		18.33	
10 PERCENT EXCEEDS	2,240		2,130		1,640	
50 PERCENT EXCEEDS	571		678		373	
90 PERCENT EXCEEDS	126		300		73	

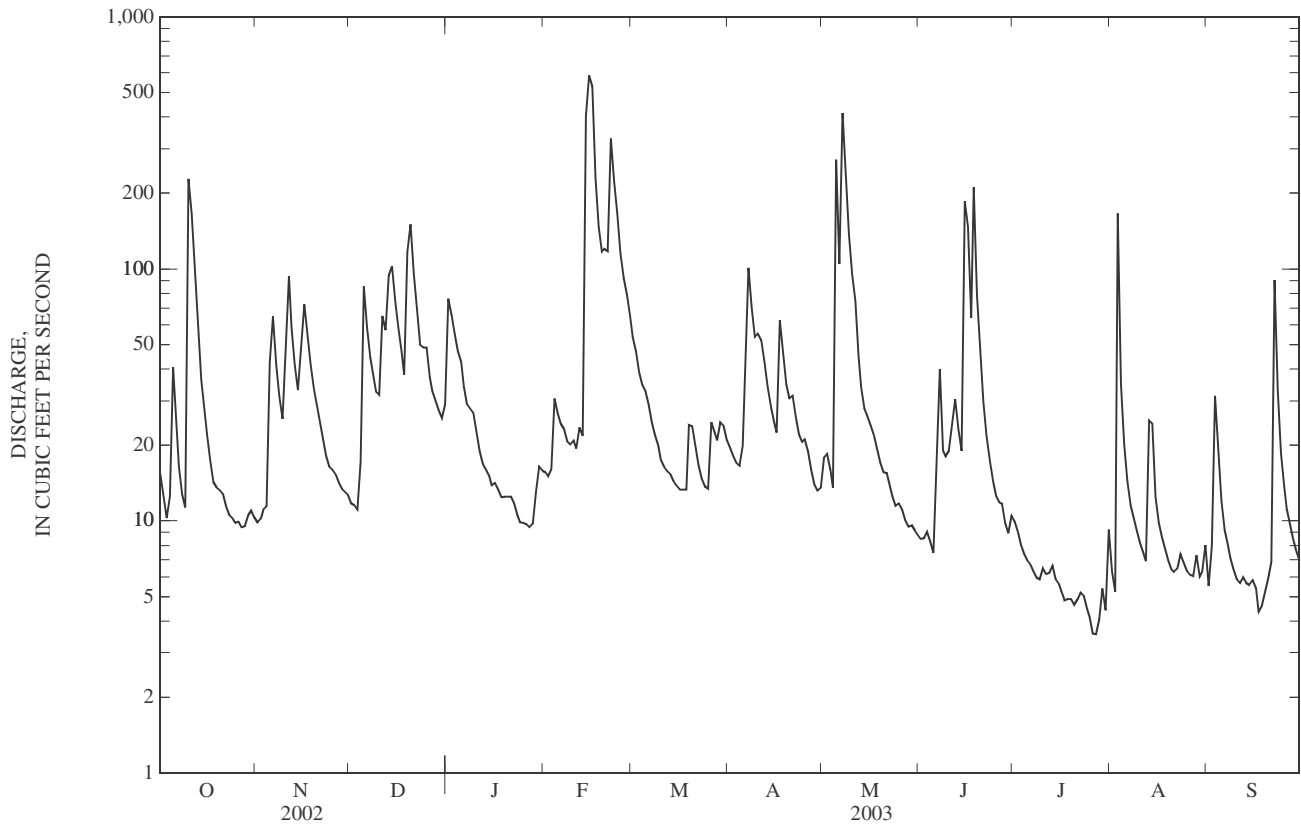
a Also occurred Aug. 31.



03435970 MILLERS CREEK AT TURNERSVILLE, TN—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 2000 - 2003	
ANNUAL TOTAL	13,351.2		13,468.6			
ANNUAL MEAN	36.6		36.9		29.5	
HIGHEST ANNUAL MEAN					41.5	2002
LOWEST ANNUAL MEAN					10.3	2001
HIGHEST DAILY MEAN	455	Mar 20	588	Feb 15	825	Dec 13, 2001
LOWEST DAILY MEAN	1.7	Sep 8	3.6	Jul 26	0.41	Sep 15, 2001
ANNUAL SEVEN-DAY MINIMUM	1.9	Sep 3	4.3	Jul 24	0.54	Sep 28, 2001
MAXIMUM PEAK FLOW			undetermined		undetermined	
MAXIMUM PEAK STAGE			6.82	Jun 15	8.89	Dec 13, 2001
ANNUAL RUNOFF (CFSM)	1.78		1.80		1.44	
ANNUAL RUNOFF (INCHES)	24.23		24.44		19.58	
10 PERCENT EXCEEDS	95		79		73	
50 PERCENT EXCEEDS	14		17		10	
90 PERCENT EXCEEDS	2.9		6.2		2.1	

e Estimated



LOCATION.--Lat 36°33'17", long 87°08'31", Montgomery County, Hydrologic Unit 05130206, on left bank at county road bridge at Port Royal, 250 ft downstream from Sulphur Fork, and at mile 25.5.

DRAINAGE AREA.--935 mi² includes 437 mi² without surface drainage.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1961 to September 1991. October 1991 to September 1996, crest-stage partial record station. October 1997 to current year.

GAGE.--Data collection platform, crest-stage gage and satellite telemeter at station. Datum of gage is 376.25 ft above NGVD of 1929. July 13, 1961, to Oct. 9, 1963, nonrecording gage and crest-stage gage at same site and datum.

REMARKS.--Records good except for estimated discharges, which are fair. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 23, 1937, reached a stage of 44.4 ft; from flood profile of U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 11,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 11	1200	12,700	23.64	Feb 16	1830	*23,300	*33.71
Dec 20	1400	11,000	21.67	May 8	0700	15,000	26.34

Minimum discharge, 229 ft³/s, Sept. 21.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,820	1,030	900	3,410	994	3,480	1,120	1,440	567	830	726	382
2	1,480	932	857	4,500	954	3,160	1,060	1,080	539	778	685	416
3	1,240	877	825	3,480	935	2,830	1,010	1,050	538	735	3,300	2,180
4	1,100	845	826	2,990	1,210	2,580	964	972	523	692	2,710	2,580
5	1,610	1,020	1,710	2,630	1,510	2,410	1,000	3,120	506	651	2,240	1,450
6	1,740	3,640	2,130	2,320	1,270	2,250	1,230	5,260	592	617	2,010	979
7	1,240	2,880	1,540	2,010	1,190	2,040	2,170	6,390	2,510	586	1,120	770
8	1,010	2,140	1,360	1,830	1,130	1,870	2,710	13,400	1,540	567	e800	657
9	878	1,810	1,300	1,740	1,050	1,750	2,020	6,560	974	543	e600	578
10	2,910	3,510	1,320	1,600	1,040	1,610	2,220	4,140	809	535	e500	512
11	11,400	5,560	1,970	1,420	1,020	1,510	2,830	3,320	1,360	549	e450	451
12	6,800	4,480	3,120	1,280	1,040	1,410	2,260	2,800	5,390	530	e550	407
13	3,960	3,220	2,840	1,200	1,080	1,340	1,860	2,200	3,370	508	594	410
14	2,970	2,630	4,350	1,150	2,450	1,270	1,590	1,860	2,350	660	941	358
15	2,420	2,570	3,490	1,090	14,300	1,200	1,420	1,650	1,990	588	673	342
16	2,050	3,950	2,840	1,050	22,100	1,150	1,310	1,460	3,140	492	546	425
17	1,730	3,550	2,410	1,020	18,100	1,120	1,630	1,370	3,000	607	467	327
18	1,500	2,870	2,070	962	9,040	1,080	2,330	1,570	3,570	483	423	292
19	1,350	2,410	3,240	921	5,850	1,160	1,630	1,260	5,310	427	383	269
20	1,280	2,080	10,000	901	5,680	1,490	1,380	1,090	2,880	392	352	250
21	1,220	1,850	6,820	898	5,090	1,310	1,690	1,050	2,130	370	328	246
22	1,120	1,670	4,340	897	e10,000	1,140	2,150	1,020	1,740	498	312	3,730
23	1,030	1,490	3,450	860	e14,000	1,050	1,470	939	1,480	658	417	7,510
24	958	1,350	2,980	788	e8,500	996	1,280	859	1,280	446	619	2,710
25	909	1,240	2,980	775	6,150	961	1,220	799	1,130	380	416	1,780
26	872	1,170	2,640	761	4,950	1,170	1,360	755	1,030	343	337	1,350
27	835	1,090	2,190	737	4,390	1,310	1,300	705	1,140	320	309	1,110
28	800	1,020	1,970	722	3,910	1,180	1,100	666	1,160	318	282	936
29	855	977	1,810	768	---	1,190	1,010	645	954	428	280	789
30	1,360	945	1,680	1,090	---	1,350	1,140	622	873	525	261	703
31	1,210	---	1,620	1,100	---	1,230	---	597	---	535	270	---
TOTAL	61,657	64,806	81,578	46,900	148,933	49,597	47,464	70,649	54,375	16,591	23,901	34,899
MEAN	1,989	2,160	2,632	1,513	5,319	1,600	1,582	2,279	1,812	535	771	1,163
MAX	11,400	5,560	10,000	4,500	22,100	3,480	2,830	13,400	5,390	830	3,300	7,510
MIN	800	845	825	722	935	961	964	597	506	318	261	246
CFSM	2.13	2.31	2.81	1.62	5.69	1.71	1.69	2.44	1.94	0.57	0.82	1.24
IN.	2.45	2.58	3.25	1.87	5.93	1.97	1.89	2.81	2.16	0.66	0.95	1.39

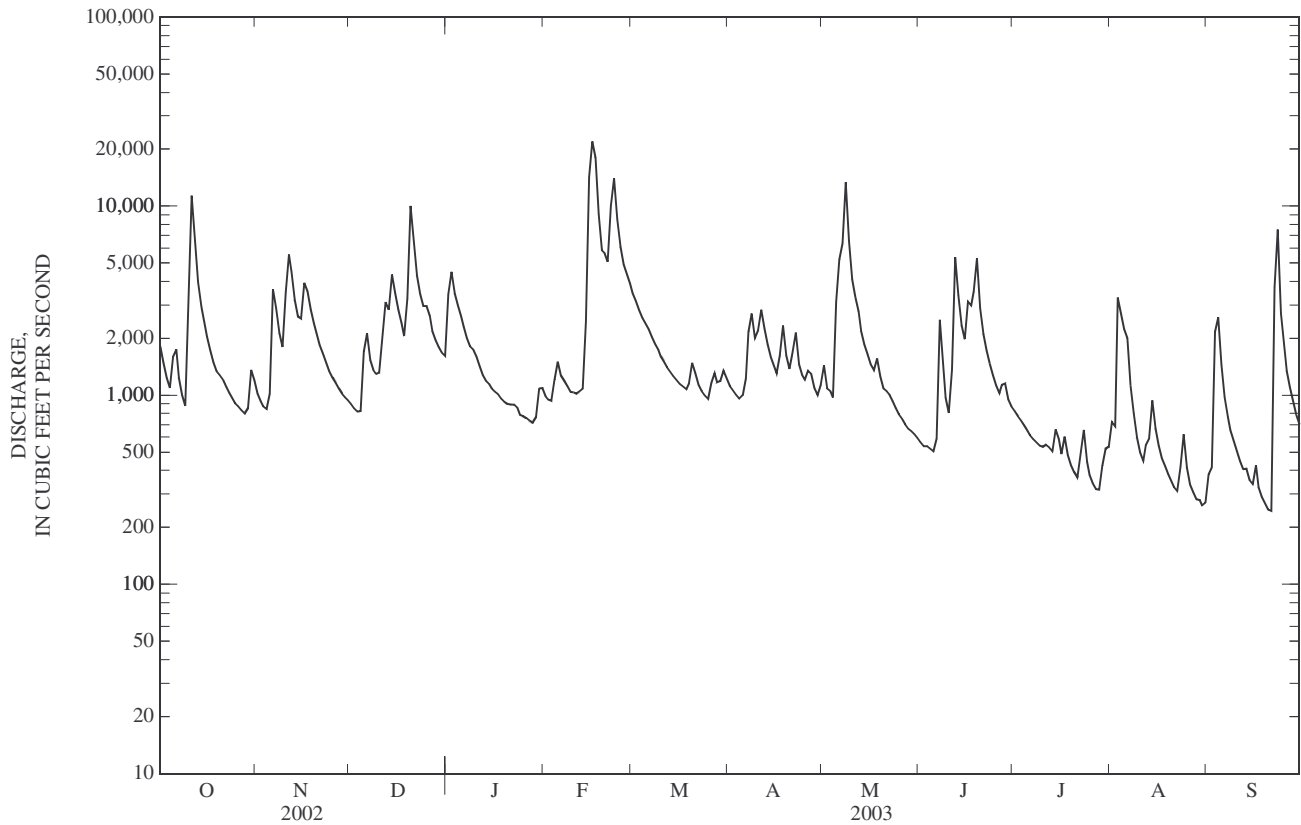
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2003, BY WATER YEAR (WY)

MEAN	308	686	1,759	1,968	2,501	2,603	2,027	1,653	1,077	583	318	401
MAX	1,989	3,610	5,054	5,984	7,429	9,874	6,482	7,183	5,467	2,858	809	3,939
(WY)	(2003)	(1980)	(1991)	(1974)	(1989)	(1975)	(1979)	(1983)	(1998)	(1989)	(1998)	(1979)
MIN	68.2	74.4	73.4	91.7	562	724	490	270	140	143	130	83.4
(WY)	(1964)	(1964)	(1964)	(1981)	(1964)	(2000)	(1986)	(1988)	(1988)	(1988)	(1988)	(1999)

03436100 RED RIVER AT PORT ROYAL, TN—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1961 - 2003	
ANNUAL TOTAL	621,240		701,350			
ANNUAL MEAN	1,702		1,922		1,328	
HIGHEST ANNUAL MEAN					2,594	
LOWEST ANNUAL MEAN					514	
HIGHEST DAILY MEAN	13,300	May 18	22,100	Feb 16	56,600	Mar 13, 1975
LOWEST DAILY MEAN	52	Sep 14	246	Sep 21	52	Sep 14, 2002
ANNUAL SEVEN-DAY MINIMUM	61	Sep 8	303	Aug 26	58	Sep 12, 1964
MAXIMUM PEAK FLOW			23,300		60,300	
MAXIMUM PEAK STAGE			33.71		48.26	
INSTANTANEOUS LOW FLOW			229		50	
ANNUAL RUNOFF (CFSM)	1.82		2.06		1.42	
ANNUAL RUNOFF (INCHES)	24.72		27.90		19.30	
10 PERCENT EXCEEDS	3,750		3,560		3,000	
50 PERCENT EXCEEDS	982		1,200		605	
90 PERCENT EXCEEDS	156		461		122	

e Estimated



CUMBERLAND RIVER BASIN

03436100 RED RIVER AT PORT ROYAL, TN

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Specific conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Suspended sediment concentration mg/L (80154)
OCT 03...	1100	1,240	388	22.0	26
DEC 12...	1250	3,110	227	7.5	--
JUN 05...	1510	498	377	21.5	--
JUL 29...	0935	400	401	24.5	--

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03436690 YELLOW CREEK AT ELLIS MILLS, TN

LOCATION.--Lat 36°18'39", long 87°33'15", Houston County, Hydrologic Unit 05130205, on right bank at downstream end of bridge on county road, 0.3 mi northeast of Ellis Mills, 1.0 mi upstream from Leatherwood Creek, 1.0 mi downstream from Williamson Branch.

DRAINAGE AREA.--103 mi².

PERIOD OF RECORD.--October 1980 to September 1991. October 1991 to September 1997, crest-stage partial record station. October 2000 to current year.

GAGE.--Data collection platform, crest-stage gage and satellite telemeter at station. Elevation of gage is 417 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,400 ft³/s May 6, 1984, gage height, 18.47 ft recorded, 18.95 ft, from floodmarks, from rating curve extended above 9,500 ft³/s on basis of regression formula and peak discharge at Station No. 03436700 Yellow Creek near Shiloh, TN; minimum, 7.2 ft³/s Oct. 14, 1986, result of upstream regulation.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 10	1830	2,060	8.56	Feb 22	1600	1,960	8.39
Dec 19	1900	4,880	12.12	May 5	1000	2,520	9.28
Feb 14	2030	2,480	9.23	May 6	0230	*7,910	*14.59
Feb 16	0200	2,990	9.93	May 7	1430	5,010	12.25

Minimum discharge, 34 ft³/s, Aug. 29.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

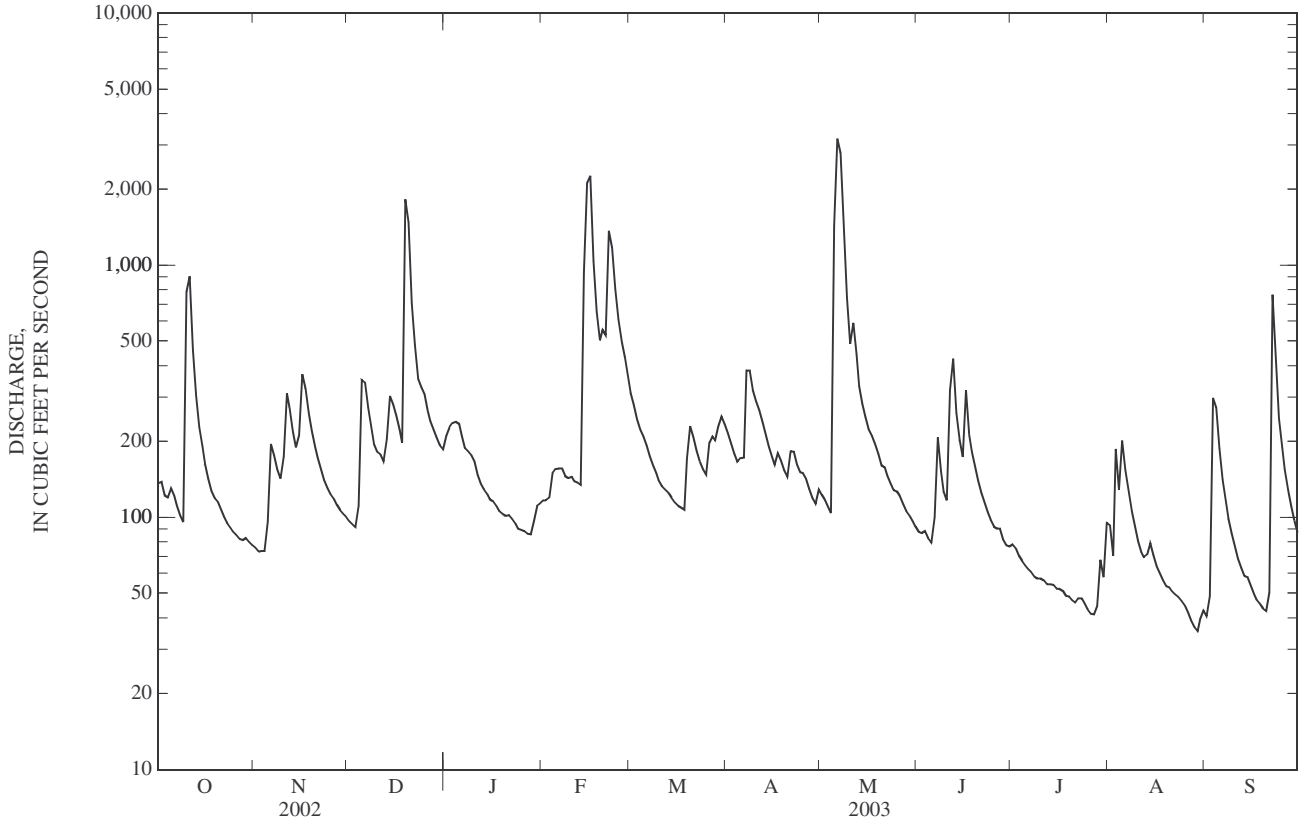
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	76	97	212	117	312	216	123	88	78	93	41
2	138	73	94	227	117	279	197	117	87	76	70	49
3	123	74	92	237	120	245	179	110	88	70	187	298
4	121	74	111	240	149	223	166	104	83	67	128	273
5	131	96	351	236	156	209	172	1,440	79	64	202	187
6	122	196	343	212	157	194	173	3,180	100	63	154	141
7	111	176	272	189	157	175	383	2,800	207	61	128	116
8	102	155	228	184	146	161	383	1,380	153	58	106	99
9	96	142	196	178	143	151	320	745	127	57	92	87
10	787	174	182	167	145	140	290	488	117	57	81	77
11	906	310	178	147	139	133	266	590	320	56	73	69
12	466	273	167	136	138	129	240	443	426	54	70	63
13	306	221	204	129	135	125	214	333	258	54	71	59
14	228	190	303	124	936	120	192	282	204	54	79	58
15	191	213	281	118	2,130	115	174	251	174	52	71	54
16	163	370	253	117	2,260	112	162	224	320	52	64	50
17	142	325	224	112	1,040	109	180	211	212	51	60	47
18	128	261	198	106	650	108	168	196	183	49	56	46
19	120	220	1,830	103	504	171	154	179	160	49	53	44
20	116	191	1,480	102	554	231	145	161	140	47	53	42
21	108	173	706	102	529	209	183	158	126	46	51	50
22	101	156	481	99	1,370	184	183	147	115	48	50	764
23	95	141	354	95	1,180	167	162	137	105	48	48	416
24	91	132	329	91	806	155	151	128	98	45	47	247
25	88	124	309	89	607	148	151	127	92	43	45	189
26	86	119	265	88	501	198	143	121	90	42	42	155
27	83	112	241	86	434	209	130	113	90	41	39	130
28	81	107	224	86	364	203	120	106	82	44	37	112
29	83	104	207	97	---	231	113	101	77	68	35	98
30	80	101	194	111	---	251	129	96	77	58	40	88
31	78	---	186	114	---	234	---	92	---	95	43	---
TOTAL	5,608	5,079	10,580	4,334	15,684	5,631	5,839	14,683	4,478	1,747	2,368	4,149
MEAN	181	169	341	140	560	182	195	474	149	56.4	76.4	138
MAX	906	370	1,830	240	2,260	312	383	3,180	426	95	202	764
MIN	78	73	92	86	117	108	113	92	77	41	35	41
CFSM	1.76	1.64	3.31	1.36	5.44	1.76	1.89	4.60	1.45	0.55	0.74	1.34
IN.	2.03	1.83	3.82	1.57	5.66	2.03	2.11	5.30	1.62	0.63	0.86	1.50

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2003, BY WATER YEAR (WY)

	53.6	102	232	183	358	249	234	250	127	59.0	36.0	44.9
MEAN	53.6	102	232	183	358	249	234	250	127	59.0	36.0	44.9
MAX	181	272	499	490	845	477	609	795	437	173	76.4	138
(WY)	(2003)	(2002)	(1991)	(1989)	(1989)	(1989)	(1983)	(1984)	(1981)	(1989)	(2003)	(2003)
MIN	16.2	27.2	34.1	22.9	101	124	78.5	46.8	30.0	26.1	19.2	16.4
(WY)	(1988)	(1988)	(1981)	(1981)	(1984)	(1981)	(1986)	(1986)	(1988)	(1988)	(1987)	(1987)

03436690 YELLOW CREEK AT ELLIS MILLS, TN—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1981 - 2003	
ANNUAL TOTAL	68,782		80,180			
ANNUAL MEAN	188		220		159	
HIGHEST ANNUAL MEAN					270	1989
LOWEST ANNUAL MEAN					82.1	2001
HIGHEST DAILY MEAN	2,250	Mar 18	3,180	May 6	5,530	Feb 3, 1990
LOWEST DAILY MEAN	19	Sep 12	35	Aug 29	14	Aug 24, 1987
ANNUAL SEVEN-DAY MINIMUM	20	Sep 8	40	Aug 26	14	Oct 2, 1987
MAXIMUM PEAK FLOW			7,910	May 6	14,400	May 6, 1984
MAXIMUM PEAK STAGE			14.59	May 6	18.47	May 6, 1984
INSTANTANEOUS LOW FLOW			34	Aug 29	7.2	Oct 14, 1986
ANNUAL RUNOFF (CFSM)	1.83		2.13		1.55	
ANNUAL RUNOFF (INCHES)	24.84		28.96		21.04	
10 PERCENT EXCEEDS	394		358		314	
50 PERCENT EXCEEDS	106		136		75	
90 PERCENT EXCEEDS	29		54		23	



RESERVOIRS IN CUMBERLAND RIVER BASIN

03413500 LAKE CUMBERLAND.--Lat 36°52'09", long 85°08'45", Russell County, KY, Hydrologic Unit 05130103, in pylon of Wolf Creek Dam on Cumberland River and 10 mi southwest of Jamestown, Ky. DRAINAGE AREA, 5,789 mi². PERIOD OF RECORD, April 1950 to current year. Prior to October 1954, published as Wolf Creek Reservoir. April to June 1950, published in WSP 1726. GAGE, water-stage recorder. Datum of gage is Sandy Hook datum. Prior to Dec. 6, 1950, nonrecording gage at same site at datum 545.0 ft higher.

REVISIONS.--WSP 1556: Drainage area.

REMARKS.--Reservoir is formed by earth embankment and concrete gravity dam surmounted by 10 taintor gates, each 37 high by 50 ft wide. Final closure of dam made Aug. 7, 1950. Total capacity at elevation 760.00 ft top of gates, is 3,070,000 cfs-days, of which 1,056,000 cfs-days above elevation 723.00 ft, crest of spillway, are reserved for flood control and 1,080,000 cfs-days between elevation 673.00 ft, minimum power pool, and 723.00 ft are used for power production. Figures given herein represent total contents, of which 934,000 cfs-days below elevation 673.00 ft is dead storage. Reservoir is used for flood control, power, navigation, and recreation.

COOPERATION.--Records furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 2,811,000 cfs-days, May 13, 1984, elevation, 751.70 ft; minimum, first filling, 934,400 cfs-days, Jan. 1, 1956, elevation, 673.01 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,371,800 cfs-days, Feb. 26, elevation, 736.54 ft; minimum, 1,387,900 cfs-days, Oct. 28, elevation, 696.11 ft.

03416500 DALE HOLLOW LAKE.--Lat 36°32'19", long 85°27'05", Clay County, Hydrologic Unit 05130105, at Dale Hollow Dam on Obey River, 3.0 mi east of Celina, and 7.3 mi upstream from mouth. DRAINAGE AREA, 936 mi². PERIOD OF RECORD, August 1943 to current year. Prior to October 1965, published as Dale Hollow Reservoir. GAGE, water-stage recorder. Datum of gage is Sandy Hook datum. Prior to June 25, 1946, nonrecording gage at same site and datum.

REVISIONS.--WSP 1306: 1944. WSP 2110: Drainage area.

REMARKS.--Reservoir is formed by concrete gravity dam. Spillway is equipped with six taintor gates, each 12 ft high by 60 ft wide. Closure of dam was made Aug. 30, 1943; water in reservoir first reached minimum pool elevation May 7, 1944. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 663.0 ft, top of gates, is 859,800 cfs-days of which 177,500 cfs-days between elevations 663.00 ft and 651.00 ft, crest of spillway, are reserved for flood control, and 250,200 cfs-days between elevations 651.00 ft and 631.00 ft, ordinary minimum pool, are used for power production. Contents of 432,100 cfs-days below elevation 631.00 ft is dead storage. Reservoir is used for flood control, navigation, and power.

COOPERATION.--Records furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 828,600 cfs-days, Mar. 15, 1975, elevation, 660.98 ft; minimum, first filling, 428,000 cfs-days, Sept. 11, 1944, elevation, 630.63 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 731,200 cfs-days, May 11, elevation, 654.44 ft; minimum, 512,700 cfs-days, Oct. 9, elevation, 673.97 ft.

03418400 CORDELL HULL RESERVOIR.--Lat 36°17'23", long 85°56'39", Smith County, Hydrologic Unit 05130108, at Cordell Hull Dam Cumberland River, 2.7 mi north of Carthage, and at mile 313.5. DRAINAGE AREA, 8,095 mi². PERIOD OF RECORD, October 1972 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete gravity dam with earth embankment. Spillway is equipped with five gates, each 41 ft high and 45 ft wide. Closure of dam was made Oct. 4, 1967; water in reservoir first reached ordinary minimum pool Mar. 13, 1973. Total capacity at elevation 508.0 ft, maximum surcharge pool, is 156,700 cfs-days, of which 53,400 cfs-days is controlled storage between elevations 508.0 ft and 499.0 ft, ordinary minimum pool. Contents of 5,000 cfs-days between elevation of 499.0 ft and 500.0 ft full winter pool, is available for power production. Contents of 48,400 cfs-days above 500.0 ft is available for flood control during the winter, and 26,100 cfs-days above 504.0 ft, full pool during spring to fall season, is available for flood control the rest of the year. Contents of 103,300 cfs-days below elevation 499.0 ft is dead storage. Reservoir is used for navigation, power, and flood control.

COOPERATION.--Records furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 156,700 cfs-days, Mar. 13, 1975, May 8, 1984, elevation, 508.00 ft; minimum, after first filling to ordinary minimum pool, 96,700 cfs-days, Apr. 18, 1974, elevation, 497.65 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 145,400 cfs-days, May 8, elevation, 506.34 ft; minimum, 104,200 cfs-days, Apr. 14, elevation, 499.19 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DATE	03413500 LAKE CUMBERLAND			03416500 DALE HOLLOW LAKE			03418400 CORDELL HULL RESERVOIR		
	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
Sept. 30...	697.45	1,416,600	-	638.38	517,600	-	503.45	127,400	-
Oct. 31...	697.62	1,420,200	3,600	638.33	517,000	-600	502.69	122,900	-4,500
Nov. 30...	703.64	1,552,400	+132,200	640.54	544,200	+27,200	500.44	110,600	-12,300
Dec. 31...	716.40	1,850,100	+297,700	646.42	619,800	+75,600	500.33	110,000	-600
CAL YR 2002	-	-	+441,000	-	-	+85,400	-	-	-300
Jan. 31...	708.52	1,663,400	-186,700	644.53	595,000	-24,800	501.00	113,600	+3,600
Feb. 28...	735.62	2,346,500	+683,100	652.96	710,000	+115,000	500.60	111,500	-2,100
Mar. 31...	720.09	1,940,800	-405,700	648.62	649,500	-60,500	500.39	110,400	-1,100
Apr. 30...	727.29	2,124,000	+183,200	650.94	681,500	+32,000	504.33	132,700	+22,300
May 31...	722.64	2,004,800	-119,200	651.18	684,800	+3,300	504.62	134,500	+1,800
June 30...	723.66	2,030,600	+25,800	650.77	679,100	-5,700	504.18	131,700	-2,800
July 31...	719.05	1,915,000	-115,600	649.84	666,200	-12,900	505.12	137,600	+5,900
Aug. 31...	712.58	1,758,400	-156,600	646.97	627,200	-39,000	504.37	132,900	-4,700
Sept. 30...	713.14	1,771,700	+13,300	645.76	611,100	-16,100	504.21	131,900	-1,000
WTR YR 2003	-	-	+355,100	-	-	+93,500	-	-	+4,500

RESERVOIRS IN CUMBERLAND RIVER BASIN--CONTINUED

03422000 GREAT FALLS LAKE.--Lat 35°48'21", long 85°38'09", Warren County, Hydrologic Unit 05130108, at pen-stock inlet on Collins River, 700 ft southwest of powerhouse of Tennessee Valley Authority, 1.5 mi northwest of Rock Island, 1.8 mi upstream from mouth of Collins River, and 2.0 mi upstream from Great Falls Dam on Caney Fork. DRAINAGE AREA, 1,677 mi². PERIOD OF RECORD, January 1917 to current year. GAGE, remote indicator gage. Datum of gage is sea level. REVISIONS.--WSP 2110: Drainage area.

REMARKS.--Reservoir is formed by concrete gravity dam. Spillway is equipped with 18 taintor gates, each 14 ft high by 25 ft wide. Closure of dam was made in 1916; dam redesigned and crest raised 35 ft in 1925. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 805.3 ft top of gates, is 25,900 cfs-days, of which 18,700 cfs-days are controlled storage above elevation 780.0 ft, normal minimum pool. Contents of 1,500 cfs-days below elevation 762.0 ft is dead storage. Reservoir is used primarily for power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum midnight elevation, 817.48 ft, Mar. 23, 1929, contents not determined; minimum midnight contents, 1,700 cfs-days, Aug. 19, 1918, elevation, 756.3 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 27,800 cfs-days, May 6, elevation, 807.50 ft; minimum, 9,900 cfs-days, Apr. 30, elevation, 784.94 ft.

03424000 CENTER HILL LAKE.--Lat 36°05'48", long 85°49'38", DeKalb County, Hydrologic Unit 05130108, at Center Hill Dam on Caney Fork, 10 mi north of Smithville, 14 mi southeast of Carthage, and at mile 26.6. DRAINAGE AREA, 2,174 mi². PERIOD OF RECORD, October 1948 to current year. Prior to October 1965, published as Center Hill Reservoir. GAGE, water-stage recorder. Datum of gage is Sandy Hook datum. Prior to Mar. 14, 1949, nonrecording gage at site 1,320 ft upstream at same datum. REVISIONS.--WSP 1910: Drainage area.

REMARKS.--Reservoir is formed by earth embankment and concrete gravity dam. Spillway is equipped with eight taintor gates, each 37 ft high by 50 ft wide. Closure of dam was made Nov. 27, 1948; water in reservoir first reached minimum pool elevation Jan. 11, 1949. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 685.0 ft, top of gates, is 1,054,800 cfs-days, of which 384,500 cfs-days between 685.0 ft and 648.0 ft, crest of spillway, are reserved for flood control, and 248,000 cfs-days between elevations 648.0 ft and 618.0 ft, ordinary minimum pool, are used for power production. Contents of 422,300 cfs-days below 618.0 ft is dead storage. Reservoir is used for flood control, navigation, and power.

COOPERATION.--Records furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,014,600 cfs-days, May 10, 1984, elevation, 681.52 ft; minimum, after first filling, 171,000 cfs-days, Dec. 1, 2, 1949, elevation, 576.1 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 913,800 cfs-days, May 9, elevation, 672.39 ft; minimum, 515,900 cfs-days, Oct. 31, elevation, 630.12 ft.

03426300 OLD HICKORY LAKE.--Lat 36°17'50", long 86°39'20", Sumner County, Hydrologic Unit 05130201, at Old Hickory Dam on Cumberland River, 2.0 mi west of Hendersonville, 10 mi northeast of the State Capitol in Nashville, and at mile 216.2. DRAINAGE AREA, 11,673 mi². PERIOD OF RECORD, June 1954 to current year. GAGE, water-stage recorder. Datum of gage is sea level; gage readings have been reduced to elevations NGVD. Prior to Apr. 4, 1957, nonrecording gage at same site and datum. REVISIONS.--WSP 2110: Drainage area.

REMARKS.--Reservoir is formed by concrete gravity dam with earth embankment. Spillway is equipped with six taintor gates, each 41 ft high and 45 ft wide. Closure of dam was made in June 1954 and water in reservoir was raised sufficiently to maintain navigation through the lock. Water in reservoir first reached ordinary minimum pool elevation Dec. 30, 1956. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 450.0 ft, maximum surcharge pool, 274,600 cfs-days of which 63,000 cfs-days between elevations 450.0 ft and 445.0 ft, normal pool, are induced surcharge storage provided to compensate for loss of natural valley storage incurred by construction of the project, and 31,800 cfs-days between elevations 445.0 ft and 442.0 ft, ordinary minimum pool, are used for power production. Contents of 179,800 cfs-days below elevation 442.0 ft, is dead storage. Reservoir is used for navigation and power.

COOPERATION.--Records furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 277,200 cfs-days, May 9, 1984, elevation, 450.18 ft; minimum, after first filling to ordinary minimum pool, 179,400 cfs-days, Oct. 22, 1957, Oct. 28, 1969, elevation, 441.96 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 256,600 cfs-days, May 9, elevation, 448.67 ft, minimum, 184,300 cfs-days, Nov. 21, elevation, 442.45 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DATE	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
	03422000 GREAT FALLS LAKE			03424000 CENTER HILL LAKE			03426300 OLD HICKORY LAKE		
Sept. 30...	801.16	21,500	-	632.22	533,000	-	444.36	204,500	-
Oct. 31...	790.05	13,000	-8,500	630.27	517,100	-15,900	445.05	212,200	+7,700
Nov. 30...	786.56	10,800	-2,200	633.18	540,900	+23,800	442.90	188,900	-23,300
Dec. 31...	804.12	24,100	+13,300	645.75	649,800	+108,900	444.65	207,700	+18,800
CAL YEAR 2002	-	-	+7,000	-	-	+98,100	-	-	-1,700
Jan. 31...	805.10	25,100	+1,000	637.95	581,100	-68,700	445.00	211,600	+3,900
Feb. 28...	805.10	25,100	0	660.58	791,100	+210,000	444.62	207,400	-4,200
Mar. 31...	785.91	10,500	-14,600	643.90	633,200	-157,900	445.10	212,800	+5,400
Apr. 30...	785.48	10,200	-300	647.13	662,300	+29,100	444.91	210,600	-2,200
May 31...	791.72	14,100	+3,900	647.87	669,100	+6,800	444.45	205,500	-5,100
June 30...	791.16	13,700	-400	648.39	673,900	+4,800	444.55	206,600	+1,100
July 31...	799.66	20,200	+6,500	645.49	647,400	-26,500	445.64	219,000	+12,400
Aug. 31...	800.26	20,700	+500	642.96	624,800	-22,600	444.92	210,700	-8,300
Sept. 30...	798.76	19,400	-1,300	639.43	593,900	-30,900	444.47	205,700	-5,000
WTR YR 2003	-	-	-2,100	-	-	+60,900	-	-	+1,200

RESERVOIRS IN CUMBERLAND RIVER BASIN--CONTINUED

03430050 J. PERCY PRIEST RESERVOIR.--Lat 36°09'23", long 86°37'07", Davidson County, Hydrologic Unit 05130203, on upstream face of J. Percy Priest Dam on Stones River, 2.6 mi east of Donelson, and 6.8 mi above mouth. DRAINAGE AREA, 892 mi². PERIOD OF RECORD, September 1967 to current year. GAGE, water-stage recorder. Datum of gage is sea level. Prior to Dec. 15, 1967, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by concrete gravity dam with earth embankments. Spillway is equipped with four taintor gates, each 41 ft high by 45 ft wide. Closure of dam was made Sept. 18, 1967; water in reservoir first reached ordinary minimum pool May 15, 1968. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 504.5 ft, maximum controlled pool, is 328,700 cfs-days of which 193,600 cfs-days is controlled storage between elevations 504.5 ft and 480.0 ft, ordinary minimum pool. Contents of 17,200 cfs-days between elevations 480.0 ft and 483.0 ft, full winter pool, is available for power production. Contents of 176,400 cfs-days above 483.0 ft is available for flood control during the winter, and 131,100 cfs-days above 490.0 ft, full pool during spring-to-fall season, is available for flood control the rest of the year. Contents of 135,100 cfs-days below elevation 480.0 ft is dead storage. Reservoir is used for flood control, power, recreation, and wildlife.

COOPERATION.--Records furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 336,600 cfs-days, May 9, 1984, elevation, 505.18 ft; minimum, after first filling to ordinary minimum pool, 109,500 cfs-days, Dec. 5, 1968, elevation, 474.75 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 291,600 cfs-days, May 8, elevation, 501.07 ft, minimum, 147,000 cfs-days, Mar. 14, elevation, 482.10 ft.

03434900 CHEATHAM LAKE.--Lat 36°18'56", long 87°13'10", Cheatham County, Hydrologic Unit 05130202, at Cheatham Dam on Cumberland River, 9.4 mi west of Ashland City, 16 mi southeast of the courthouse in Clarksville, and at mile 148.7. DRAINAGE AREA, 14,159 mi².

REMARKS.--Reservoir is formed by concrete gravity dam. Spillway is equipped with seven semi-submersible taintor gates, each 27 ft high by 60 ft wide. Total capacity at elevation 385.0 ft, normal pool, is 52,200 cfs-days, of which 9,800 cfs-days are controlled storage. Records of contents not published herein.

03438210 LAKE BARKLEY.--Lat 37°01'17", long 88°13'16", Lyon County, KY, Hydrologic Unit 05130205, in powerhouse of Barkley Dam on Cumberland River, 1.4 mi northeast of Grand Rivers, KY, and at mile 30.6. DRAINAGE AREA, 17,598 mi². PERIOD OF RECORD, July 1964 to current year. GAGE, water-stage recorder. Datum of gage is sea level, (levels by U.S. Army Corps of Engineers). Prior to Jan. 1, 1966, nonrecording gage, 1,200 ft upstream from Barkley Dam at same datum.

REMARKS.--Reservoir is formed by concrete gravity dam with earth embankments. Spillway is equipped with 12 taintor gates, each 50 ft high by 55 ft wide. Construction cofferdam was closed and limited storage began July 1, 1964; reservoir reached ordinary minimum pool elevation of 354.0 ft Feb. 16, 1966. Total level pool capacity at elevation 375.0 ft, top of gates, is 1,049,600 cfs-days, of which 742,000 cfs-days is controlled storage above 354.0 ft, ordinary minimum pool. Contents of 130,500 cfs-days between ordinary minimum pool elevation, 354.0 ft, and full pool elevation, 359.0 ft, is available for power during the spring-to-fall season. Minimum pool elevation in advance of floods is 346.0 ft, contents 171,000 cfs-days. Reservoir is used for navigation, flood control, power, and recreation. Barkley-Kentucky Canal opened June 13, 1966, for navigation and power use. Canal is 1.75 mi long and interconnects Lake Barkley and Kentucky Lake at a point 2.2 mi upstream from Barkley Dam. For daily discharges through the canal, see station 03438190, Kentucky reports.

COOPERATION.--Records furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 370.04 ft, May 13, 1984; minimum after reaching permanent pool elevation, 353.20 ft, Dec. 20, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 708,000 cfs-days, May 17, elevation, 367.00 ft; minimum content, 298,700 cfs-days, Jan. 24, minimum, 353.60 ft. Contents based on backwater profile.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-day)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
	03430050	J. PERCY PRIEST LAKE		*03438210	LAKE BARKLEY	
Sept. 30.....	491.21	206,500	-	357.15	386,100	-
Oct. 31.....	488.30	185,700	-20,800	355.40	340,800	-45,300
Nov. 30.....	484.04	158,500	-27,200	354.65	322,700	-18,100
Dec. 31.....	484.22	159,600	+1,100	354.50	319,100	-3,600
CAL YR 2002	-	-	+8,200	-	-	+9,200
Jan. 31.....	482.90	151,700	-7,900	354.70	323,900	+4,800
Feb. 29.....	488.31	185,800	+34,100	354.85	327,400	+3,500
Mar. 31.....	485.25	165,900	-19,900	355.70	348,300	+20,900
Apr. 30.....	490.19	199,000	+33,100	359.35	448,400	+100,100
May 31.....	490.30	199,800	+800	359.05	439,500	-8,900
June 30.....	490.20	199,100	-700	359.60	455,800	+16,300
July 31.....	490.36	200,200	+1,100	358.20	415,200	-40,600
Aug. 31.....	490.20	199,100	-1,100	356.55	370,100	-45,100
Sept. 30.....	490.58	201,900	+2,800	355.15	334,700	-35,400
WTR YR 2003	-	-	-4,600	-	-	-51,400

* Contents based on backwater profile.

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