

03535400 BEAVER CREEK AT SOLWAY, TN

LOCATION.--Lat 35°57'53", long 84°10'43", Knox County, Hydrologic Unit 06010207, at bridge on Solway Road, 1.1 mi southwest of Solway and 5.9 mi southeast of intersection of State Highways 95 and 62 in Oak Ridge.

DRAINAGE AREA.--86.8 mi².

PERIOD OF RECORD.--August 1961 to September 1964, low-flow partial-record site, August 1998 to April 1999, flood crest-stage partial-record site, April 1999 to current year.

GAGE.--Data logger.

REMARKS.--Records good, except for estimated daily discharges, which are poor. 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 2,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 7	1730	*1,960	*10.69				

Minimum discharge, 33 ft³/s, Sept. 7.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	41	129	127	126	132	163	e95	e250	e50	238	55
2	88	40	117	117	119	155	148	e120	e150	e45	130	54
3	77	41	108	113	204	196	135	e150	e120	e50	97	40
4	69	40	182	109	244	175	131	e120	e100	e60	82	39
5	66	43	279	290	186	157	125	e100	e95	e70	80	39
6	63	406	218	722	1,300	1,240	118	e80	e90	e80	87	37
7	59	444	171	618	1,820	1,450	115	e70	e80	e110	71	46
8	55	277	151	266	1,090	702	115	e65	e70	e130	62	214
9	52	137	137	217	503	393	109	e62	e70	e120	59	197
10	52	116	198	193	336	304	107	e60	e65	94	56	111
11	51	98	309	169	262	252	110	e58	e65	85	52	83
12	51	87	255	153	231	220	154	e56	e60	127	63	68
13	51	92	176	141	214	198	e450	e55	e120	136	69	60
14	51	86	222	130	189	184	e350	e70	e100	93	59	57
15	86	73	240	121	197	174	e250	e65	e600	90	50	53
16	81	75	191	114	336	283	e200	e60	e300	76	47	57
17	58	94	231	109	361	331	e170	e55	e180	82	46	869
18	50	110	245	149	240	261	e150	e60	e130	135	43	814
19	47	733	200	207	211	284	e140	e55	e100	90	41	364
20	47	800	176	164	191	239	e130	e50	e80	76	41	177
21	45	497	152	136	183	298	e120	e50	e70	67	55	143
22	41	204	141	125	164	292	e115	e48	e65	63	61	123
23	40	165	139	115	151	225	e110	e45	e65	61	51	105
24	42	175	178	108	144	202	e105	e45	e60	63	45	91
25	39	184	187	150	136	186	e100	e45	e170	58	42	82
26	41	152	154	262	137	173	e170	e55	e200	98	41	76
27	54	137	137	221	159	163	e150	e120	e120	110	40	71
28	68	151	127	181	166	157	e120	e110	e80	107	38	68
29	58	176	121	156	146	151	e110	e90	e70	73	47	66
30	48	149	134	145	---	159	e100	e80	e60	104	60	62
31	44	---	149	136	---	176	---	e500	---	219	54	---
TOTAL	1,776	5,823	5,554	5,964	9,746	9,512	4,570	2,694	3,785	2,822	2,007	4,321
MEAN	57.3	194	179	192	336	307	152	86.9	126	91.0	64.7	144
MAX	102	800	309	722	1,820	1,450	450	500	600	219	238	869
MIN	39	40	108	108	119	132	100	45	60	45	38	37
CFSM	0.66	2.24	2.06	2.22	3.87	3.54	1.75	1.00	1.45	1.05	0.75	1.66
IN.	0.76	2.50	2.38	2.56	4.18	4.08	1.96	1.15	1.62	1.21	0.86	1.85

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2004, BY WATER YEAR (WY)

MEAN	40.0	90.8	132	182	348	234	190	155	93.4	109	56.0	75.8
MAX	65.0	194	307	387	786	417	390	344	154	227	131	144
(WY)	(2003)	(2004)	(2003)	(2002)	(2003)	(2002)	(2003)	(2003)	(1999)	(1999)	(2003)	(2004)
MIN	20.6	24.5	34.9	98.1	126	113	84.4	43.5	40.1	37.8	27.0	25.6
(WY)	(2001)	(2002)	(2000)	(2000)	(2002)	(2001)	(2001)	(2001)	(2001)	(2000)	(2000)	(1999)

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SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1998 - 2004	
ANNUAL TOTAL	82,408		58,574		140	
ANNUAL MEAN	226		160		235	
HIGHEST ANNUAL MEAN					84.5	
LOWEST ANNUAL MEAN					2001	
HIGHEST DAILY MEAN	3,580	Feb 17	1,820	Feb 7	3,580	Feb 17, 2003
LOWEST DAILY MEAN	37	Sep 20	37	Sep 6	17	Oct 20, 2000
ANNUAL SEVEN-DAY MINIMUM	41	Sep 15	42	Oct 20	18	Sep 14, 2000
MAXIMUM PEAK FLOW			1,960	Feb 7	4,520	Feb 17, 2003
MAXIMUM PEAK STAGE			10.69	Feb 7	15.79	Feb 17, 2003
INSTANTANEOUS LOW FLOW			33	Sep 7	a16	Sep 16, 2000
ANNUAL RUNOFF (CFSM)	2.60		1.84		1.62	
ANNUAL RUNOFF (INCHES)	35.32		25.10		21.98	
10 PERCENT EXCEEDS	445		269		265	
50 PERCENT EXCEEDS	130		116		72	
90 PERCENT EXCEEDS	51		49		26	

a Also occurred Oct. 18, 19, 2000.

e Estimated

