

03170000 LITTLE RIVER AT GRAYSONTOWN, VA

Kanawha Basin
Upper New Subbasin

LOCATION.--Lat 37°02'15", long 80°33'25" referenced to North American Datum of 1927, Pulaski County, VA, Hydrologic Unit 05050001, on left bank at upstream side of bridge on State Highway 693 at Snowville, 0.5 mi southeast of Graysontown, 7 mi south of Radford, and at mile 8.6.

DRAINAGE AREA.--309 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1928 to current year. Published as "at Graysonton" prior to October 1990.

REVISED RECORDS.--WSP 823: 1929-36. WSP 1143: 1945. WSP 1305: 1929(M). WSP 1625: 1951(M). WSP 1725: 1936(M). OFR 2006-1308: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,816.04 ft NGVD of 1929. Prior to Nov. 20, 1931, nonrecording gage at bridge 1.0 mi downstream, at datum of 1,798.05 ft NGVD of 1929. Nov. 20, 1931, to Nov. 12, 1941, water-stage recorder 1.2 mi downstream, at datum of 1,795.46 ft NGVD of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. U.S. Army Corps of Engineers satellite gage-height telemeter at station. Maximum discharge, 22,800 ft³/s, from rating curve extended above 16,000 ft³/s on basis of slope-area measurements at gage heights 12.76 ft and 13.40 ft. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 1	1500	4,980	4.84
Mar 6	2230	*6,200	*5.54
Apr 17	0030	5,910	5.38
Sep 6	1300	3,760	4.07

03170000 LITTLE RIVER AT GRAYSONTOWN, VA—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	798	186	2,470	243	214	1,110	403	565	395	186	157	88
2	325	175	1,010	409	267	541	376	522	373	182	140	85
3	249	173	451	348	326	377	354	501	348	172	124	106
4	229	234	362	249	259	317	337	1,070	329	173	119	140
5	211	336	325	222	245	294	580	952	323	216	117	144
6	191	251	270	215	242	2,110	721	645	313	216	116	2,270
7	180	211	195	202	225	2,480	490	556	315	255	133	1,680
8	175	194	170	185	212	839	440	559	313	219	135	435
9	169	189	e150	e145	196	598	724	578	301	244	122	298
10	165	177	e145	134	190	1,310	1,040	498	289	240	111	249
11	165	173	e140	e140	159	1,530	722	676	279	192	106	214
12	163	173	e170	e128	167	818	602	593	275	181	106	200
13	161	169	e180	e125	206	598	690	573	311	169	108	184
14	166	165	e165	e120	198	490	554	825	273	165	161	174
15	180	168	e160	e142	182	439	497	757	251	161	130	165
16	171	175	172	e144	176	424	1,420	671	242	155	117	159
17	161	192	211	e142	173	421	2,680	746	239	160	114	157
18	157	207	236	e146	173	392	950	1,740	234	165	110	157
19	157	184	215	e145	176	387	703	1,090	252	159	110	157
20	174	175	210	e150	176	361	606	723	242	157	124	159
21	235	173	187	e165	173	340	554	578	226	159	110	163
22	208	172	e180	149	173	335	501	506	229	150	105	167
23	176	169	e185	147	173	335	500	561	227	152	104	197
24	173	169	e178	163	198	456	486	541	232	174	100	301
25	173	169	e175	186	364	414	446	534	220	178	96	237
26	189	169	e174	237	364	353	426	477	208	159	95	190
27	224	169	e160	253	283	358	495	718	210	152	104	195
28	433	167	e155	228	463	363	1,780	741	218	138	101	238
29	304	161	e160	211	---	352	1,370	567	211	132	99	182
30	223	164	e175	220	---	357	683	469	196	125	93	160
31	203	---	185	221	---	411	---	427	---	130	90	---
Total	6,888	5,589	9,321	5,914	6,353	19,910	22,130	20,959	8,074	5,416	3,557	9,251
Mean	222	186	301	191	227	642	738	676	269	175	115	308
Max	798	336	2,470	409	463	2,480	2,680	1,740	395	255	161	2,270
Min	157	161	140	120	159	294	337	427	196	125	90	85
Cfsm	0.72	0.60	0.97	0.62	0.73	2.08	2.39	2.19	0.87	0.57	0.37	1.00
In.	0.83	0.67	1.12	0.71	0.76	2.40	2.66	2.52	0.97	0.65	0.43	1.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	284	301	336	398	462	535	499	405	339	261	244	252
Max	1,458	916	860	1,050	1,055	1,213	1,444	810	942	945	1,584	988
(WY)	(1930)	(1986)	(1949)	(1937)	(1998)	(1993)	(1987)	(1958)	(1972)	(1949)	(1940)	(1989)
Min	79.9	89.2	115	108	113	220	146	168	101	97.6	53.7	76.9
(WY)	(2009)	(2009)	(1966)	(1966)	(1934)	(1940)	(1942)	(1941)	(2002)	(2002)	(2002)	(1932)

03170000 LITTLE RIVER AT GRAYSONTOWN, VA—Continued

SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1929 - 2011	
Annual total	147,997		123,362			
Annual mean	405		338		359	
Highest annual mean					631	1949
Lowest annual mean					148	2002
Highest daily mean	4,610	Jan 25	2,680	Apr 17	13,200	Oct 2, 1929
Lowest daily mean	120	Jul 26	85	Sep 2	31	Aug 14, 2002 ^a
Annual seven-day minimum	127	Sep 19	94	Aug 27	32	Aug 10, 2002
Maximum peak flow			6,200	Mar 6	22,800	Jun 21, 1972
Maximum peak stage			5.54	Mar 6	13.40	Jun 21, 1972
Instantaneous low flow			84	Sep 1 ^b	^c 21	Feb 22, 1942
Annual runoff (cfsm)	1.31		1.09		1.16	
Annual runoff (inches)	17.82		14.85		15.79	
10 percent exceeds	760		655		613	
50 percent exceeds	278		210		265	
90 percent exceeds	157		134		124	

^a Also Aug. 15, 2002.

^b Also Sept. 2, 2011.

^c Result of freezeup.

