Water-Data Report 2012

03197000 ELK RIVER AT QUEEN SHOALS, WV

Kanawha Basin
Elk Subbasin

LOCATION.--Lat 38°28′15″, long 81°17′03″ referenced to North American Datum of 1927, Kanawha County, WV, Hydrologic Unit 05050007, on right bank 50 ft upstream from Queen Shoals Creek, 100 ft downstream from highway bridge at Queen Shoals, 4.0 mi upstream from Big Sandy Creek, and at mile 26.2.

DRAINAGE AREA.--1,145 mi^2, includes that of Queen Shoals Creek.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October to November 1928 (monthly discharge published in WSP 1305), December 1928 to September 1960 (daily discharge and peaks), October 1960 to current year (daily discharge and annual maxima).

REVISED RECORDS.--WSP 783: Drainage area. WSP 1335: 1929-32, 1935(M), 1936, 1939, 1943(M). WDR WV-2004-1: 1981-2003(P). WDR-US-2008: 1981-2003.

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 603.50 ft above NAVD 88 (VERTCON conversion of 604.09 ft above NGVD 29). Prior to June 19, 1932, nonrecording gage. June 19, 1932, to Sept. 30, 1946, water-stage recorder, at bridge 100 ft upstream at same datum.

REMARKS.--Records good. Flow regulated since October 1960 by Sutton Lake. Unregulated statistics of monthly mean data and summary statistics for water years 1929-1958 are also published. Flows were effected by dam construction during the 1959-60 water years and were not used for any statistical calculations.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 72,000 ft^3/s, from rating curve extended above 40,000 ft^3/s, July 5, 1932, gage height, 29.20 ft; minimum discharge, 0.30 ft^3/s, Nov. 4, 5, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,900 ft^3/s, Nov. 23, gage height, 14.94 ft; minimum discharge, 113 ft^3/s, July 11, gage height, 3.58 ft.

Suggested citation: U.S. Geological Survey, 2013, Water-resources data for the United States, Water Year 2012: U.S. Geological Survey Water-Data Report WDR-US-2012, site 03197000, accessed at http://wdr.water.usgs.gov/wy2012/pdfs/03197000.2012.pdf

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	907	2,670	3,620	2,210	2,280	10,900	890	2,070	514	146	769	190
2	1,230	2,030	3,310	2,020	2,610	10,600	802	7,920	583	137	3,060	191
3	1,630	1,930	2,520	2,300	4,290	14,100	789	11,300	878	135	2,180	180
4	1,860	1,740	2,120	2,360	3,980	11,000	716	7,340	522	140	1,400	304
5	2,500	1,370	1,900	2,280	3,700	8,040	679	11,200	353	151	1,040	343
6	2,340	1,100	1,710	2,230	3,030	5,900	636	9,890	291	143	736	291
7	1,600	969	3,640	1,850	2,560	4,770	586	5,290	225	129	1,120	227
8	1,030	856	12,100	1,430	2,140	3,570	518	3,370	217	121	1,390	180
9	574	802	10,400	1,300	1,960	3,770	474	3,550	208	117	990	200
10	482	645	7,020	1,290	1,900	3,900	456	4,030	190	115	764	222
11	458	711	4,970	1,540	1,710	3,730	440	2,820	179	114	514	211
12	501	807	3,680	1,910	1,490	3,450	419	2,090	183	121	469	174
13	878	578	2,420	2,080	1,380	3,100	400	1,670	189	159	435	155
14	1,420	547	1,810	2,080	1,300	2,380	385	1,920	183	296	321	146
15	1,770	548	1,770	2,020	1,320	1,990	367	2,880	167	229	232	139
16	2,710	786	1,770	1,950	1,510	1,930	343	5,050	159	196	216	135
17	2,370	5,840	1,690	2,130	2,150	1,750	332	3,950	153	179	219	132
18	1,600	8,100	1,570	4,330	4,550	1,430	330	2,620	154	150	221	238
19	1,070	6,820	1,420	6,220	4,990	4,240	352	1,620	168	334	209	567
20	868	4,300	1,380	5,370	3,370	9,270	338	884	163	814	193	532
21	1,100	4,500	1,370	3,740	2,610	6,330	327	758	157	489	203	329
22	1,470	7,240	1,320	3,020	2,100	4,390	371	687	154	355	209	237
23	1,460	17,200	1,720	2,730	1,730	3,140	431	652	152	1,010	186	197
24	1,430	12,300	3,280	2,720	3,650	2,570	565	657	154	626	173	175
25	1,290	9,720	3,310	2,320	7,000	2,250	728	784	143	853	173	162
26	939	7,300	3,030	2,070	5,680	2,940	2,130	1,070	137	1,440	185	156
27	944	5,270	4,770	2,880	4,310	3,250	3,360	764	133	1,900	257	151
28	1,920	4,150	7,970	3,650	3,330	2,670	2,220	497	131	3,240	256	157
29	3,240	4,030	6,090	4,020	3,020	2,270	1,920	420	132	2,680	236	193
30	4,470	3,820	4,950	3,730	---	2,100	1,600	927	136	1,580	171	210
31	3,700	---	3,250	2,750	---	1,660	---	895	---	1,020	150	---
Total	49,761	118,679	111,880	82,530	85,650	143,390	23,904	99,575	7,108	19,119	18,677	6,724
Mean	1,605	3,956	3,609	2,662	2,953	4,625	797	3,212	237	617	602	224
Max	4,470	17,200	12,100	6,220	7,000	14,100	3,360	11,300	878	3,240	3,060	567
Min	458	547	1,320	1,290	1,300	1,430	327	420	131	114	150	132

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1958, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	557	1,093	2,233	3,130	3,578	4,210	2,995	2,149	1,061	1,279	980	408
Max	3,510	3,488	5,245	6,482	7,715	7,339	5,307	4,352	3,111	6,268	4,453	2,398
(WY)	(1938)	(1930)	(1943)	(1937)	(1939)	(1936)	(1958)	(1958)	(1940)	(1932)	(1958)	(1950)
Min	3.46	7.50	204	402	759	2,154	799	384	113	17.1	13.1	7.21
(WY)	(1931)	(1931)	(1931)	(1940)	(1934)	(1937)	(1942)	(1930)	(1936)	(1930)	(1930)	(1930)

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SUMMARY STATISTICS

	Water Years 1929 - 1958	
Annual mean	1,967	
Highest annual mean	2,821	1950
Lowest annual mean	1,214	1941
Highest daily mean	58,100	Jul 5, 1932
Lowest daily mean	0.30	Nov 3, 1953 [a]
Annual seven-day minimum	0.86	Oct 30, 1953
Maximum peak flow	[b] 72,000	Jul 5, 1932
Maximum peak stage	29.20	Jul 5, 1932
Instantaneous low flow	0.30	Nov 4, 1953 [c]
10 percent exceeds	4,650	
50 percent exceeds	955	
90 percent exceeds	90	

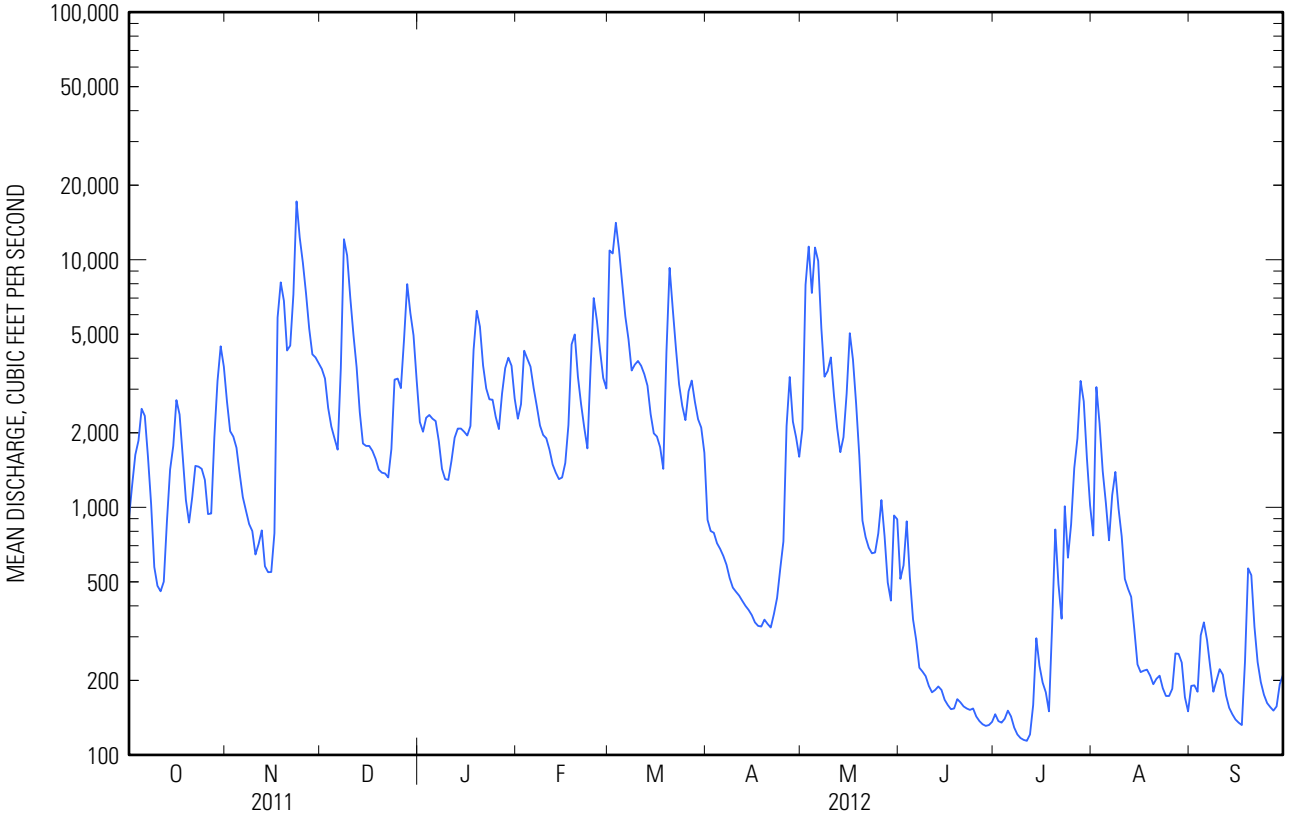
[a] Also Nov. 4, 1953.
[b] From rating curve extended above 40,000 ft³/s.
[c] Also Nov. 5, 1953.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,028	2,058	2,851	2,985	3,428	4,162	2,797	2,594	1,298	904	852	643
Max	5,017	6,700	7,402	6,259	6,776	9,051	5,606	6,151	4,555	2,667	3,487	3,072
(WY)	(1977)	(2004)	(1973)	(1979)	(1994)	(1967)	(1973)	(1967)	(2003)	(1992)	(1972)	(1971)
Min	229	352	244	594	955	1,279	562	409	132	120	83.7	142
(WY)	(2009)	(2002)	(1966)	(1977)	(2002)	(2006)	(1963)	(1964)	(1965)	(1964)	(1965)	(1999)

SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1961 - 2012	
Annual total	945,081		766,997			
Annual mean	2,589		2,096		2,128	
Highest annual mean					3,088	1994
Lowest annual mean					1,063	1966
Highest daily mean	17,200	Nov 23	17,200	Nov 23	35,300	Mar 15, 1967
Lowest daily mean	132	Aug 5	114	Jul 11	47	Sep 3, 1993
Annual seven-day minimum	169	Aug 28	123	Jul 6	59	Sep 5, 1964
Maximum peak flow			18,900	Nov 23	[a] 45,100	Mar 2, 1997
Maximum peak stage			14.94	Nov 23	25.36	Mar 2, 1997
Instantaneous low flow			113	Jul 11	(b)	
10 percent exceeds	6,770		4,820		5,570	
50 percent exceeds	1,540		1,380		1,160	
90 percent exceeds	210		161		225	

[a] From rating curve extended above 40,000 ft³/s.
[b] Not determined.

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