

Water-Data Report 2009

## 03193000 KANAWHA RIVER AT KANAWHA FALLS, WV

Kanawha Basin  
Upper Kanawha Subbasin

LOCATION.--Lat 38°08'17", long 81°12'52" referenced to North American Datum of 1927, Fayette County, WV, Hydrologic Unit 05050006, on right bank 150 ft downstream from bridge, 0.8 mi downstream from village of Kanawha Falls, 2.0 mi downstream from Gauley Bridge, 2.0 mi downstream from confluence of New River and Gauley River, and at mile 94.3.

DRAINAGE AREA.--8,371 mi<sup>2</sup>.

### **SURFACE-WATER RECORDS**

PERIOD OF RECORD.--April 1877 to current year (daily discharge and annual maxima). October 1916 to September 1918 and October 1927 to October 1928, published as Kanawha River at Lock 2, Montgomery.

REVISED RECORDS.--WSP 923: 1878, 1886, 1897, 1899, 1901-03. WSP 1305: 1902(M), 1940. WSP 1335: 1931. WDR WV-82-1: Drainage area. WDR-US-2008: 1904, 1920, 1924, 1927.

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 620.57 ft above NAVD 88 (621.18 ft above NGVD 29). Prior to Oct. 27, 1928, nonrecording gages at several sites within 9.0 mi of present site at various datums. Oct. 27, 1928, to Sept. 30, 1964, water-stage recorder at present site at datum 2.00 ft higher.

REMARKS.--Records good except those for period of estimated daily discharges (no gage-height record), which are fair. Flow regulated since May 1939 by Claytor Dam, since August 1949 by Bluestone Dam, and since May 1965 by Summersville Dam. Unregulated statistics of monthly mean data and summary statistics for water years 1877-1938 are also published.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 74,700 ft<sup>3</sup>/s, May 9, gage height, 14.65 ft; minimum discharge, 1,480 ft<sup>3</sup>/s, Sept. 9, gage height, 1.89 ft.

## 03193000 KANAWHA RIVER AT KANAWHA FALLS, WV—Continued

**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**  
**DAILY MEAN VALUES**

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	4,080	2,180	4,530	7,560	15,600	11,500	17,200	10,300	22,000	4,300	11,700	2,560
2	2,720	1,950	3,530	6,960	12,900	14,200	14,700	12,100	16,300	4,240	21,700	2,430
3	2,870	1,930	3,230	5,310	11,900	14,400	12,800	13,100	13,600	4,390	27,300	2,400
4	3,300	1,920	3,060	5,380	10,800	12,300	13,100	21,200	13,200	4,010	18,500	2,430
5	2,930	2,240	3,140	7,130	8,150	11,200	22,400	39,600	15,200	4,550	12,900	2,420
6	2,790	2,830	2,790	7,770	6,830	8,800	18,000	40,000	28,700	7,250	9,390	2,380
7	2,430	2,760	2,650	30,100	6,650	8,280	17,400	39,500	22,200	7,260	10,200	2,640
8	2,210	3,360	2,620	63,000	7,520	8,740	18,600	49,900	16,500	6,470	7,910	2,500
9	2,040	3,280	2,370	52,000	8,380	9,260	15,000	63,000	12,100	5,230	6,760	2,400
10	1,940	3,770	2,980	33,600	8,660	9,230	12,400	68,500	11,500	4,550	6,170	3,360
11	2,430	3,160	10,200	35,500	9,590	8,130	17,000	52,000	10,400	6,000	5,830	3,940
12	2,790	2,220	28,600	38,200	11,100	7,190	15,800	29,900	19,100	5,380	6,550	4,050
13	2,370	1,870	42,200	34,000	11,500	7,580	14,800	22,900	25,000	4,930	7,250	4,710
14	2,030	2,340	28,800	25,200	11,500	7,440	14,000	e14,800	17,200	4,390	6,300	4,540
15	2,040	3,030	19,500	18,000	11,000	8,720	14,600	e13,500	14,100	4,170	5,500	3,530
16	2,010	3,700	15,500	14,000	8,500	18,100	12,500	14,000	10,400	3,500	4,690	2,440
17	1,950	4,230	23,000	9,550	7,470	31,000	11,100	14,900	10,900	3,160	4,250	2,320
18	1,940	4,900	22,800	7,970	6,770	30,400	9,840	16,900	21,400	4,550	3,630	2,920
19	2,280	3,500	22,400	8,000	8,570	25,700	9,940	17,300	25,200	4,380	3,450	3,860
20	2,200	3,420	17,300	6,760	9,410	19,700	10,700	13,800	23,400	4,230	3,820	3,970
21	1,800	3,300	14,100	6,160	10,900	15,800	14,800	10,700	16,200	4,830	3,740	4,220
22	1,800	2,930	15,000	5,810	11,600	13,600	19,700	8,290	12,800	4,650	4,890	3,990
23	1,860	2,560	12,100	5,560	8,710	8,240	19,400	8,030	9,680	3,950	4,930	4,110
24	1,880	2,500	9,220	5,590	8,240	9,470	16,900	7,150	9,000	3,760	5,120	3,610
25	1,960	4,750	9,030	5,890	7,410	9,880	15,500	6,550	7,430	3,640	5,450	3,830
26	1,990	6,810	8,970	5,410	7,300	9,430	12,400	7,370	6,020	5,400	3,900	5,730
27	1,820	6,270	9,530	5,260	7,300	14,700	11,200	10,200	5,790	9,510	3,870	12,400
28	2,010	4,910	10,200	15,100	9,840	22,400	10,400	20,900	5,550	6,680	3,460	19,300
29	1,940	5,140	8,990	29,100	---	31,100	8,790	26,400	4,870	6,860	3,010	16,700
30	1,900	5,100	8,380	25,200	---	29,700	8,930	26,600	4,600	7,590	3,080	11,200
31	2,080	---	7,990	19,100	---	23,700	---	22,600	---	11,300	2,850	---
<b>Total</b>	70,390	102,860	374,710	544,170	264,100	459,890	429,900	721,990	430,340	165,110	228,100	146,890
<b>Mean</b>	2,271	3,429	12,090	17,550	9,432	14,840	14,330	23,290	14,340	5,326	7,358	4,896
<b>Max</b>	4,080	6,810	42,200	63,000	15,600	31,100	22,400	68,500	28,700	11,300	27,300	19,300
<b>Min</b>	1,800	1,870	2,370	5,260	6,650	7,190	8,790	6,550	4,600	3,160	2,850	2,320

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1877 - 1938, BY WATER YEAR (WY)**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	6,529	8,513	12,670	19,170	21,700	24,400	19,440	14,670	10,260	7,556	6,486	5,279
<b>Max</b>	23,470	23,460	34,030	38,890	52,880	52,620	46,930	38,140	35,870	20,210	22,440	21,070
<b>(WY)</b>	(1938)	(1878)	(1902)	(1882)	(1884)	(1899)	(1901)	(1901)	(1901)	(1916)	(1901)	(1888)
<b>Min</b>	1,133	1,514	2,691	5,600	3,181	10,160	8,151	4,797	2,546	1,290	1,394	1,308
<b>(WY)</b>	(1931)	(1923)	(1931)	(1931)	(1934)	(1925)	(1915)	(1930)	(1930)	(1930)	(1925)	(1930)

## 03193000 KANAWHA RIVER AT KANAWHA FALLS, WV—Continued

## SUMMARY STATISTICS

	Water Years 1877 - 1938	
Annual mean	13,020	
Highest annual mean	21,210	1901
Lowest annual mean	7,591	1904
Highest daily mean	266,000	May 23, 1901
Lowest daily mean	690	Oct 29, 1921
Annual seven-day minimum	984	Oct 7, 1930
Maximum peak flow	<sup>a</sup> 320,000	Sep 14, 1878
Maximum peak stage	<sup>b</sup> 37.80	Sep 14, 1878
Instantaneous low flow	640	Aug 15, 1930
10 percent exceeds	27,900	
50 percent exceeds	8,330	
90 percent exceeds	2,550	

<sup>a</sup> From gage-height relationship and rating curve extended above 150,000 ft<sup>3</sup>/s.

<sup>b</sup> Site then in use, 39.80 ft gage height at current datum.

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2009, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	5,833	9,116	12,850	15,990	19,620	23,160	17,910	14,600	9,273	6,367	5,777	4,907
Max	24,980	35,220	29,690	38,490	42,410	50,300	50,240	29,510	30,120	16,040	23,350	18,960
(WY)	(1977)	(2004)	(1973)	(1996)	(1957)	(1955)	(1987)	(1996)	(2003)	(2001)	(1940)	(2004)
Min	1,452	1,669	2,174	2,412	5,457	7,272	5,065	4,051	2,450	2,167	1,945	1,510
(WY)	(1954)	(1954)	(1966)	(1940)	(2002)	(2006)	(1986)	(1941)	(1999)	(1966)	(1944)	(1953)

## SUMMARY STATISTICS

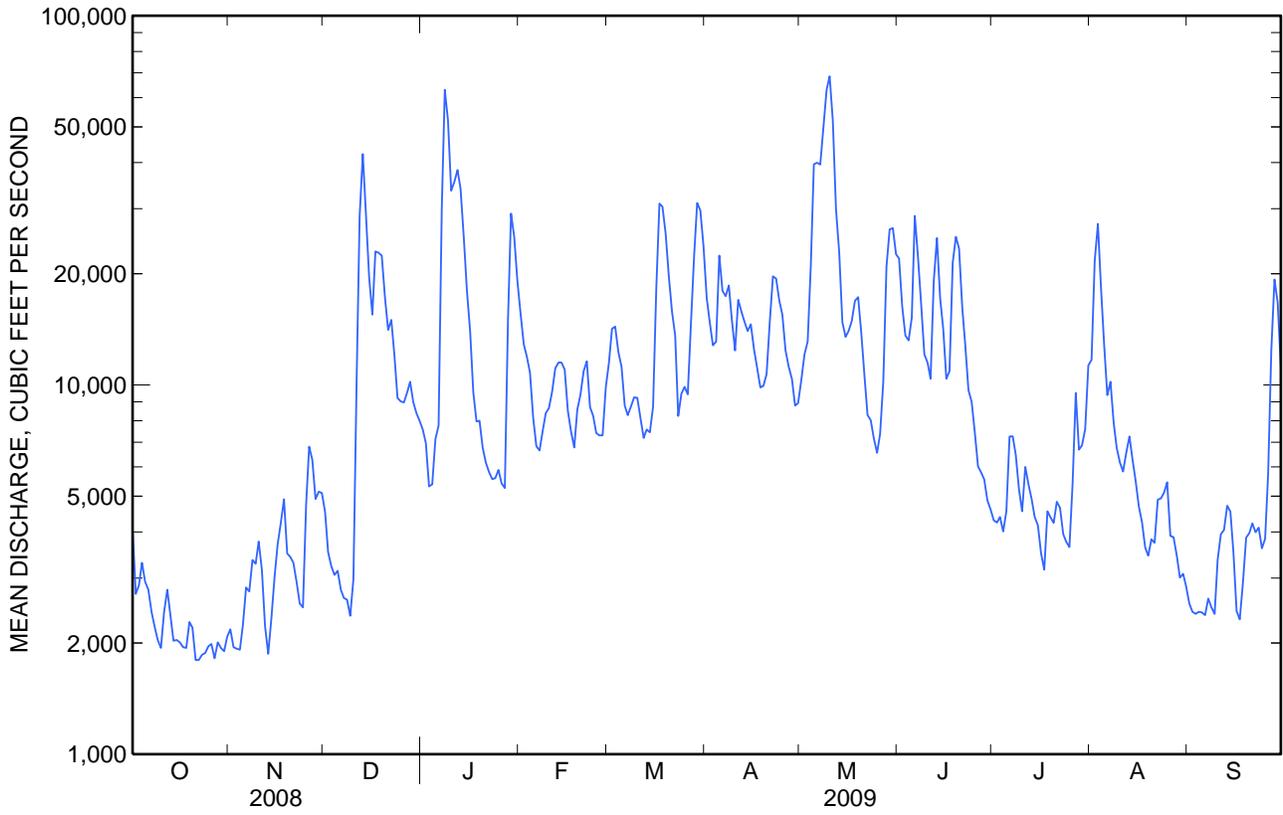
	Calendar Year 2008		Water Year 2009		Water Years 1939 - 2009	
Annual total	3,344,980		3,938,450			
Annual mean	9,139		10,790		12,080	
Highest annual mean					19,960	
Lowest annual mean					6,792	
Highest daily mean	78,800	Mar 6	68,500	May 10	163,000	Aug 15, 1940
Lowest daily mean	1,750	Jul 30	1,800	Oct 21 <sup>a</sup>	970	Sep 30, 1953
Annual seven-day minimum	1,870	Oct 21	1,870	Oct 21	1,230	Sep 23, 1963
Maximum peak flow			74,700	May 9	248,000	Aug 15, 1940
Maximum peak stage			14.65	May 9	<sup>b</sup> 29.60	Aug 15, 1940
Instantaneous low flow			1,480	Sep 9	(c)	(c)
10 percent exceeds	21,800		22,800		26,600	
50 percent exceeds	5,400		7,770		7,620	
90 percent exceeds	1,990		2,430		2,590	

<sup>a</sup> Also Oct. 22.

<sup>b</sup> 31.60 ft gage height at current datum.

<sup>c</sup> Not determined.

03193000 KANAWHA RIVER AT KANAWHA FALLS, WV—Continued



**03193000 KANAWHA RIVER AT KANAWHA FALLS, WV—Continued**

**WATER-QUALITY RECORDS**

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: December 1957 to September 1966, July 1968 to May 1983.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 29.0°C, Aug. 1-7, 1975; minimum, 0.0°C, on several days during 1958-60, 1963, 1971, 1978.