03171000 NEW RIVER AT RADFORD, VA

Kanawha Basin
Upper New Subbasin

LOCATION.--Lat 37°08′30″, long 80°34′10″ referenced to North American Datum of 1927, Pulaski County, VA, Hydrologic Unit 05050001, on left bank 2,000 ft downstream from bridge on U.S. Highway 11 at Radford, 5 mi downstream from Little River, and 5.5 mi downstream from Claytor Dam.

DRAINAGE AREA.--2,767 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1907 to September 1915, August 1939 to current year. Records for August 1898 to September 1907, published in WSP 27, 36, 48, 65, 83, 98, 128, 169, 205, 243, and 536, are unreliable and should not be used. Gage-height records collected at same site since 1895 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 953: 1940-41. WSP 1305: 1908-12. OFR 2006-1308: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 1,712.16 ft NGVD of 1929. Prior to Aug. 30, 1939, nonrecording gage at highway bridge 2,000 ft upstream, at datum of 1,711.31 ft NGVD of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated since 1939 by Claytor Reservoir (station 03169000). Some additional regulation at low flow by dam and powerplant on Little River. Statistic of monthly mean data and summary statistics for water years 1908-1915 (unregulated flow) are available in previous data books, water years 1991-1998. U.S. Army Corps of Engineers satellite precipitation and gage-height telemeter at station. National Weather Service gage-height telemeter at station. Maximum discharge, 218,000 ft^3/s, from rating curve extended above 76,000 ft^3/s on basis of records for other stations on New River and flow over Claytor Dam, computed by Appalachian Power Company. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 16, 1916, reached a stage of 35.7 ft, discharge, 200,000 ft^3/s, at site and datum used by Geological Survey 1907-15, from reports of the National Weather Service.

Suggested citation: U.S. Geological Survey, 2013, Water-resources data for the United States, Water Year 2013: U.S. Geological Survey Water-Data Report WDR-US-2013, site 03171000, accessed at http://wdr.water.usgs.gov/wy2013/pdfs/03171000.2013.pdf

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	2,410	1,120	1,370	2,740	27,400	7,200	5,030	4,880	4,190	7,450	8,070	5,540
2	2,960	1,140	1,400	2,270	13,400	5,850	6,250	4,560	4,630	9,500	7,330	4,880
3	4,360	1,240	1,400	2,340	9,420	4,690	5,460	4,450	4,190	19,200	6,900	5,420
4	5,020	1,480	1,350	2,670	8,430	4,530	5,760	4,530	3,640	39,900	6,140	4,800
5	2,870	1,990	1,360	2,720	6,500	6,290	6,150	5,420	4,180	33,500	6,320	4,700
6	2,590	2,020	1,370	2,340	6,270	4,090	7,230	7,880	7,700	29,900	6,330	4,340
7	2,280	3,730	1,370	2,280	6,890	6,410	8,020	37,500	13,800	17,700	6,710	3,460
8	1,970	4,590	1,360	1,770	5,080	6,070	6,810	22,200	8,420	18,500	6,520	3,700
9	2,180	4,020	1,370	1,920	4,670	4,850	5,780	16,600	7,270	16,000	5,960	3,970
10	2,240	1,750	1,360	1,740	5,500	4,750	4,950	11,600	9,480	11,900	6,070	3,710
11	1,910	1,740	1,360	1,730	5,050	6,790	5,210	11,100	14,000	15,000	7,510	3,870
12	1,940	1,540	1,330	1,860	5,430	6,000	10,500	10,200	11,500	14,100	6,060	4,560
13	1,750	1,350	1,340	1,970	5,460	8,630	12,200	8,030	7,640	11,500	7,850	4,060
14	1,560	2,060	1,330	3,880	5,180	7,050	11,300	7,200	6,620	8,970	8,200	3,490
15	1,820	2,020	1,310	12,500	4,830	6,100	7,670	5,970	5,740	10,400	8,080	3,700
16	1,930	1,350	1,310	36,900	4,060	5,540	6,770	5,940	5,470	11,400	6,790	3,330
17	1,990	1,520	1,330	27,100	4,390	5,220	5,910	5,670	5,530	7,850	5,200	3,280
18	1,980	1,280	1,340	24,400	4,650	5,810	6,340	5,670	5,790	8,140	6,250	3,590
19	1,900	1,090	1,340	14,400	2,820	5,150	6,750	6,190	9,090	7,960	9,060	3,560
20	1,610	1,090	1,350	8,720	4,140	3,690	8,480	8,690	7,670	7,570	10,700	3,660
21	1,570	1,090	1,320	7,470	3,990	5,570	8,220	7,440	6,140	7,380	7,020	3,870
22	1,560	1,120	1,430	7,770	3,410	5,210	6,630	6,670	5,750	6,970	7,290	4,590
23	1,480	1,100	2,690	6,680	2,680	3,560	5,650	7,110	5,090	7,160	7,140	4,670
24	1,480	1,090	1,710	4,160	3,430	4,330	5,230	7,980	4,900	7,150	6,280	3,960
25	1,510	1,090	1,460	4,790	4,450	6,370	4,640	7,170	4,930	6,680	6,030	3,610
26	1,510	1,090	3,860	2,730	5,640	5,590	4,820	6,100	5,700	6,300	5,800	3,110
27	1,410	1,090	7,740	4,280	8,750	5,330	4,640	5,300	4,870	12,400	5,110	2,910
28	2,460	1,170	5,960	4,710	9,050	4,940	5,020	5,250	4,720	21,100	4,740	3,240
29	2,600	1,080	4,270	4,720	---	4,700	6,040	4,880	4,810	13,200	5,310	2,930
30	1,460	1,080	3,580	7,500	---	4,080	6,190	4,610	5,230	e9,800	5,060	3,080
31	1,300	---	3,390	65,600	---	4,190	---	4,330	---	7,970	5,290	---
Total	65,610	49,120	64,460	276,660	180,970	168,580	199,650	261,120	198,690	412,550	207,120	117,590
Mean	2,116	1,637	2,079	8,925	6,463	5,438	6,655	8,423	6,623	13,310	6,681	3,920
Max	5,020	4,590	7,740	65,600	27,400	8,630	12,200	37,500	14,000	39,900	10,700	5,540
Min	1,300	1,080	1,310	1,730	2,680	3,560	4,640	4,330	3,640	6,300	4,740	2,910
Cfsm	0.76	0.59	0.75	3.23	2.34	1.97	2.41	3.04	2.39	4.81	2.41	1.42
In.	0.88	0.66	0.87	3.72	2.43	2.27	2.68	3.51	2.67	5.55	2.78	1.58

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	2,575	3,051	3,612	4,361	5,162	5,892	5,443	4,455	3,617	2,874	2,639	2,519
Max	7,619	10,300	8,855	9,459	10,590	13,130	14,490	8,875	9,627	13,310	14,170	9,855
(WY)	(1990)	(1978)	(2010)	(1995)	(1998)	(1993)	(1987)	(1973)	(1992)	(2013)	(1940)	(1989)
Min	1,028	925	1,144	1,064	1,618	2,016	2,203	1,721	1,198	1,208	867	1,122
(WY)	(2002)	(2002)	(1940)	(1940)	(2002)	(1988)	(1942)	(1941)	(2002)	(1988)	(2002)	(2007)

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SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1940 - 2013	
Annual total	1,279,290		2,202,120			
Annual mean	3,495		6,033		3,842	
Highest annual mean					6,033	2013
Lowest annual mean					1,708	2002
Highest daily mean	15,300	Apr 27	65,600	Jan 31	105,000	Aug 14, 1940
Lowest daily mean	1,080	Nov 29[a]	1,080	Nov 29[a]	568	Aug 24, 2008
Annual seven-day minimum	1,100	Nov 19	1,100	Nov 19	599	Aug 20, 2008
Maximum peak flow			89,300	Jan 31	[b]218,000	Aug 14, 1940
Maximum peak stage			21.13	Jan 31	[b]35.96	Aug 14, 1940
Instantaneous low flow			970	Nov 18[c]	[d]165	Aug 25, 1944
Annual runoff (cfsm)	1.26		2.18		1.39	
Annual runoff (inches)	17.20		29.61		18.87	
10 percent exceeds	5,980		10,300		7,200	
50 percent exceeds	3,000		4,950		2,910	
90 percent exceeds	1,360		1,370		1,160	

[a] Also Nov. 30, 2012.
[b] Prior to regulation, 1908-15, maximum peak flow, 46,000 ft³/s, May 21, 1909; maximum gage height, 15.00 ft, May 21, 1909 and Mar. 27, 1913, at site and datum then in use.
[c] Also Nov. 19 to Dec. 1, 2012.
[d] Prior to regulation, 1908-15, instantaneous low flow not determined.