

KANAWHA RIVER BASIN

03171000 NEW RIVER AT RADFORD, VA

LOCATION.--Lat 37°08'30", long 80°34'10", Pulaski County, 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.--2,748 mi².

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 873: Drainage area. WSP 953: 1940-41. WSP 1305: 1908-12. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 1,712.16 ft above sea level. Prior to Aug. 30, 1939, nonrecording gage at highway bridge 2,000 ft upstream at datum 0.85 ft lower.

REMARKS.--No estimated daily discharges. Records good. 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 ft³/s, from rating curve extended above 76,000 ft³/s on basis of records for other stations on New River and flow over Claytor Dam, computed by Appalachian Power Company. Minimum gage height, 1.08 ft, Aug. 25, 27, 1944. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jul. 16, 1916, reached a stage of 35.7 ft, discharge, 200,000 ft³/s, at site and datum used by Geological Survey 1907-15, from reports of the National Weather Service.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,500 ft³/s, May 15, gage height, 4.80 ft; minimum discharge, 548 ft³/s, Aug 1, gage height, 1.58 ft; minimum daily, 912 ft³/s, Oct 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1300	973	1080	1230	2740	4950	2600	5740	1650	1970	1280	986
2	1250	1330	1120	982	4370	2770	2820	3950	1600	2050	1340	971
3	1300	1340	1070	2220	5410	2630	2270	3620	1910	1640	1350	977
4	1160	1130	1060	3690	4360	6600	1090	3230	1720	1620	1290	975
5	1140	991	1120	2530	2980	5330	2280	3430	1650	1810	1050	1730
6	1090	1730	1050	2860	2140	2970	2330	3080	1650	1820	1020	5110
7	1230	923	1110	1900	927	2800	2410	1720	1630	1350	1010	1780
8	5700	968	1070	1670	2800	5110	2350	3140	1560	1350	1020	1350
9	5210	3360	1180	1090	4200	5390	3220	4480	1450	1510	1000	1600
10	1670	3410	1250	2790	2310	4180	924	3430	1500	1710	1060	1530
11	1150	3410	1090	4620	2140	2610	1770	2840	1430	1550	981	1320
12	1100	3450	1110	2820	2420	2970	5920	2460	1430	3240	940	1250
13	1630	4270	1190	2940	919	3680	3010	2260	1470	3790	943	1020
14	1440	1380	2020	3170	917	969	2510	6650	1490	2900	997	2410
15	1150	1290	5810	4490	2430	5140	2330	9170	1420	1810	947	1260
16	2260	1390	2850	6240	2260	4300	2180	4860	1390	2140	943	1130
17	958	1310	2050	3200	2030	5250	3210	3550	1470	1940	965	1070
18	912	1320	1680	3710	4960	5620	2290	3680	1530	1720	928	1050
19	1030	1260	1030	3790	5430	5650	2660	5740	1620	2150	926	1050
20	1150	1360	1020	2940	2290	4750	2370	5180	1690	1750	939	1070
21	1220	1160	1840	2650	1440	1130	2460	3390	1590	1460	956	1060
22	1100	1360	1880	5060	3690	4980	2450	3080	1480	1720	990	1060
23	934	1230	1950	5470	2550	4950	2200	2740	1490	1250	1220	1070
24	959	1300	1060	7760	2370	3080	3540	2600	1420	1420	1090	1050
25	979	1170	1050	7650	3870	3690	3570	2500	1480	1690	2280	1040
26	927	1340	1040	7860	2440	4120	982	1910	1430	1620	2800	994
27	1190	1150	1530	5240	1600	1030	1030	2190	1880	1690	2940	1080
28	1240	1260	2960	3440	1330	993	1410	2150	1970	1410	1580	1180
29	1240	1210	2380	2860	---	2830	3010	2100	2020	2060	1260	1390
30	1240	1120	1510	3290	---	2720	6290	1910	2070	1500	995	2970
31	953	---	1620	926	---	3060	---	1840	---	1090	990	---
TOTAL	45812	48895	49780	111088	77323	116252	77486	108620	48090	56730	38030	42533
MEAN	1478	1630	1606	3583	2762	3750	2583	3504	1603	1830	1227	1418
MAX	5700	4270	5810	7860	5430	6600	6290	9170	2070	3790	2940	5110
MIN	912	923	1020	926	917	969	924	1720	1390	1090	926	971
()	+302	-9932	+8924	+807	-252	-1210	+706	+1160	+202	0	-1916	+1613
MEAN	1488	1299	1894	3610	2753	3711	2606	3541	1610	1830	1165	1472
CFSM	.54	.47	.69	1.31	1.00	1.35	.95	1.29	.59	.67	.42	.54
IN	.62	.53	.79	1.51	1.04	1.56	1.06	1.49	.65	.77	.49	.60

CAL YR 1998 TOTAL 1704893 MEAN 4671 MAX 37300 MIN 912 MEAN 4672 CFSM 1.70 IN 23.08
WTR YR 1999 TOTAL 820639 MEAN 2248 MAX 9170 MIN 912 MEAN 2249 CFSM .82 IN 11.11

Total change in contents, equivalent in cubic feet per second, per month, in Claytor Reservoir; provided by American Electric Power.
Adjusted for monthly change in contents.

03171000 NEW RIVER AT RADFORD, VA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2688	3053	3608	4417	5429	6087	5518	4541	3608	2773	2684	2466
MAX	7619	10300	7426	9459	10590	13130	14490	8875	9627	7545	14170	9855
(WY)	1990	1978	1962	1995	1998	1993	1987	1973	1992	1949	1940	1989
MIN	1068	1156	1144	1064	2437	2016	2203	1721	1244	1208	1081	1126
(WY)	1989	1940	1940	1940	1941	1988	1942	1941	1941	1988	1956	1968

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1940 - 1999
ANNUAL TOTAL	1704893	820639	
ANNUAL MEAN	4671	2248	3897
HIGHEST ANNUAL MEAN			5471
LOWEST ANNUAL MEAN			2151
HIGHEST DAILY MEAN	37300	Apr 20	9170
LOWEST DAILY MEAN	912	Oct 18	912
ANNUAL SEVEN-DAY MINIMUM	1040	Oct 20	943
INSTANTANEOUS PEAK FLOW			12500
INSTANTANEOUS PEAK STAGE			4.80
INSTANTANEOUS LOW FLOW			548
ANNUAL RUNOFF (CFSM)	1.70	.82	1.42
ANNUAL RUNOFF (INCHES)	23.08	11.11	19.27
10 PERCENT EXCEEDS	9890	4480	7370
50 PERCENT EXCEEDS	3410	1680	2960
90 PERCENT EXCEEDS	1090	994	1180

