Water-Data Report 2011

03187500 CRANBERRY RIVER NEAR RICHWOOD, WV

Kanawha Basin
Gauley Subbasin

LOCATION.--Lat 38°17′43″, long 80°31′36″ referenced to North American Datum of 1927, Nicholas County, WV, Hydrologic Unit 05050005, Monongahela National Forest, on left bank 30 ft downstream from U.S. Forest Service highway bridge, 0.6 mi upstream from Barrenshe Run, 5.0 mi north of Richwood, and at mile 5.6.

DRAINAGE AREA.--80.4 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1944 to December 1951, and July 1964 to September 1971 (daily discharge and peaks), October 1971 to September 1979 (daily discharge and annual maxima; records provided by U.S. Forest Service, discharge computations made from average rating without periodic discharge measurement verification, published in WDR-82-1), October 1979 to September 1982, and March 1984 to current year (daily discharge and peaks).

REVISED RECORDS.--WDR WV-82-1: Drainage area. WDR WV-97-1: 1946(M), 1948(M), 1954(M), 1967(P), 1970(M), 1972-79(M), 1980-81(P), 1986(P), 1989(P), 1991-92(M), 1994(P).

GAGE.--Water-stage recorder with satellite telemeter. Datum of gage is 2,129.88 ft above NAVD 88 (2,130.32 ft above NGVD 29, corrected).

REMARKS.--Records good except those for periods of estimated daily discharges (ice effect), which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 19, 1954, reached a stage of 12.22 ft (from floodmarks, present site and datum), discharge, 12,200 ft^3/s, highest since 1932.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,900 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 1	0600	*4,760	*8.03
Feb 28	2000	3,060	6.90
Mar 6	1030	3,420	7.16
Apr 16	1700	3,060	6.90

Minimum discharge, 2.9 ft^3/s, Aug. 5, 6, gage height, 1.66 ft.

Suggested citation: U.S. Geological Survey, 2012, Water-resources data for the United States, Water Year 2011: U.S. Geological Survey Water-Data Report WDR-US-2011, site 03187500, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/03187500.2011.pdf

03187500 CRANBERRY RIVER NEAR RICHWOOD, WV—Continued

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

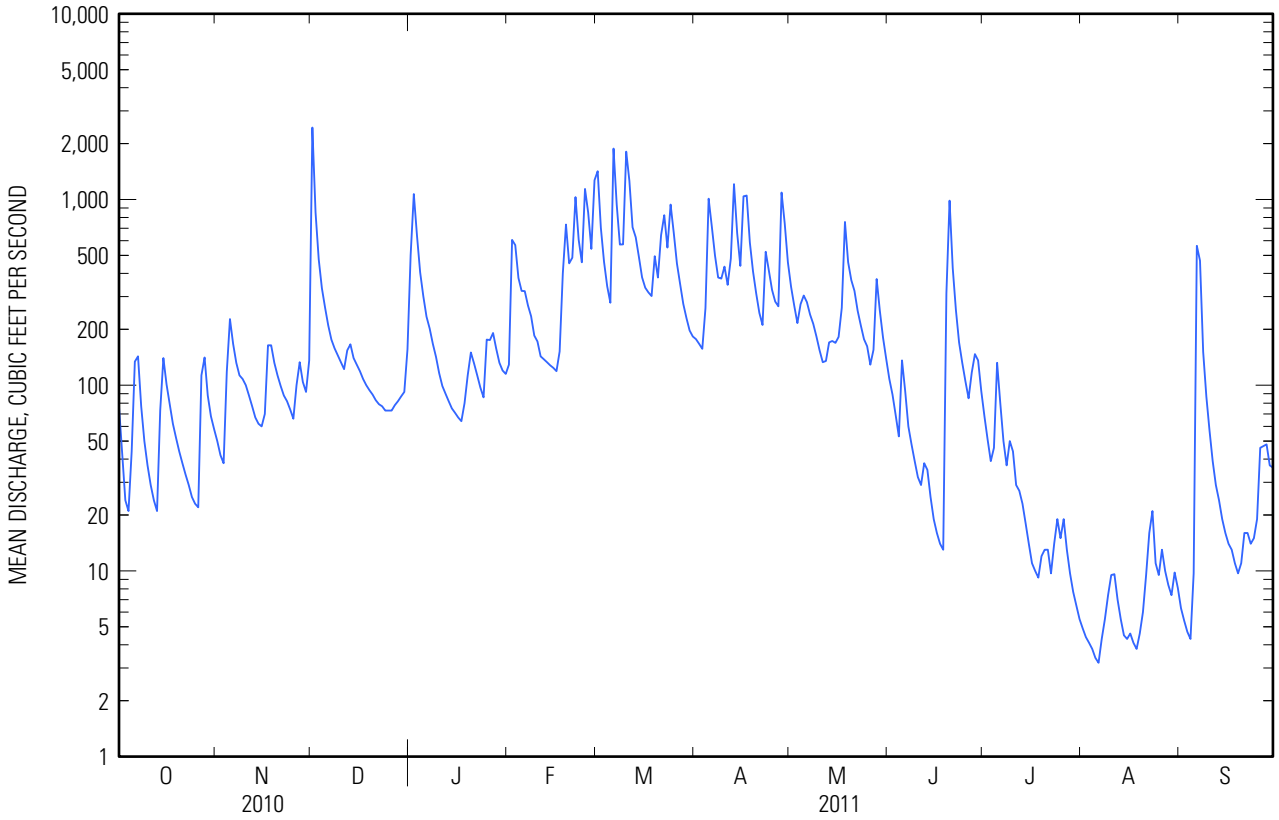
Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	77	50	2,440	503	129	1,420	177	339	108	68	4.9	6.3
2	43	42	852	1,070	606	704	167	268	89	51	4.4	5.4
3	24	38	477	639	568	462	157	216	69	39	4.1	4.7
4	21	118	333	405	378	341	260	273	53	46	3.8	4.3
5	44	227	262	301	322	278	1,010	304	136	132	3.4	9.7
6	134	167	210	234	321	1,880	716	280	93	80	3.2	563
7	143	132	176	202	269	940	500	240	60	50	4.3	468
8	77	113	158	167	235	572	380	214	48	37	5.5	151
9	50	108	e145	e142	185	573	375	183	39	50	7.4	87
10	37	100	e133	116	172	1,810	435	154	32	44	9.5	57
11	29	88	122	e99	143	1,260	347	133	29	29	9.6	39
12	24	77	154	e90	e138	709	481	135	38	27	7.0	29
13	21	67	166	e82	e133	626	1,210	170	35	23	5.5	24
14	73	62	140	e75	e128	491	659	173	25	18	4.5	19
15	140	60	e129	e71	e124	381	439	169	19	14	4.3	16
16	101	70	e119	e67	119	335	1,040	182	16	11	4.6	14
17	79	164	e108	e64	152	316	1,050	261	14	10	4.1	13
18	62	164	e100	80	400	302	587	757	13	9.2	3.8	11
19	52	132	e94	113	733	495	410	460	312	12	4.6	9.7
20	44	113	e89	e150	453	380	312	368	986	13	6.0	11
21	38	99	83	e131	486	e643	245	322	427	13	9.5	16
22	33	88	e79	e113	1,030	e823	211	252	254	9.7	16	16
23	29	82	77	e97	608	551	523	210	170	14	21	14
24	25	74	73	e86	459	939	414	177	132	19	11	15
25	23	66	73	176	1,140	661	326	162	105	15	9.5	19
26	22	100	73	175	850	452	282	129	85	19	13	46
27	113	133	e78	191	542	351	266	155	117	13	10	47
28	141	104	e82	157	1,270	274	1,090	373	147	9.7	8.4	48
29	88	92	e87	132	---	230	743	252	136	7.7	7.4	37
30	68	136	92	120	---	197	459	181	93	6.5	9.8	36
31	58	---	156	115	---	183	---	139	---	5.5	8.1	---
Total	1,913	3,066	7,360	6,163	12,093	19,579	15,271	7,631	3,880	895.3	228.2	1,836.1
Mean	61.7	102	237	199	432	632	509	246	129	28.9	7.36	61.2
Max	143	227	2,440	1,070	1,270	1,880	1,210	757	986	132	21	563
Min	21	38	73	64	119	183	157	129	13	5.5	3.2	4.3
Cfsm	0.77	1.27	2.95	2.47	5.37	7.86	6.33	3.06	1.61	0.36	0.09	0.76
In.	0.89	1.42	3.41	2.85	5.60	9.06	7.07	3.53	1.80	0.41	0.11	0.85

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	120	226	306	316	330	438	319	275	155	124	99.9	89.7
Max	613	746	632	636	642	954	570	567	470	389	562	381
(WY)	(1977)	(1986)	(1979)	(1974)	(1982)	(1984)	(1987)	(1996)	(2003)	(2001)	(1989)	(2003)
Min	6.32	12.7	63.0	40.3	68.2	197	114	86.1	12.7	7.64	7.36	2.50
(WY)	(2009)	(2002)	(1966)	(1977)	(1978)	(2006)	(1995)	(1991)	(1966)	(1993)	(2011)	(1946)

03187500 CRANBERRY RIVER NEAR RICHWOOD, WV—Continued

SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1945 - 2011	
Annual total	78,561.4		79,915.6			
Annual mean	215		219		232	
Highest annual mean					318	1979
Lowest annual mean					126	1999
Highest daily mean	4,480	Jan 25	2,440	Dec 1	6,770	Mar 21, 1984
Lowest daily mean	2.3	Sep 26	3.2	Aug 6	0.16	Aug 21, 1987
Annual seven-day minimum	3.0	Sep 21	4.0	Aug 1	0.28	Aug 15, 1987
Maximum peak flow			4,760	Dec 1	[a]12,200	Nov 19, 2003
Maximum peak stage			8.03	Dec 1	[b]11.93	Aug 21, 1989
Instantaneous low flow			2.9	Aug 5[c]	0.14	Aug 22, 1987
Annual runoff (cfsm)	2.68		2.72		2.89	
Annual runoff (inches)	36.35		36.98		39.29	
10 percent exceeds	538		570		529	
50 percent exceeds	100		115		135	
90 percent exceeds	8.8		9.7		16	

[a] From rating curve extended above 9,000 ft³/s on basis of slope-area measurement at gage height 11.00 ft.
[b] From floodmarks.
[c] Also Aug. 6.