Water-Data Report 2012

02013100 JACKSON RIVER BELOW DUNLAP CREEK, AT COVINGTON, VA

James Basin
Upper James Subbasin

LOCATION.--Lat 37°47′19″, long 80°00′03″ referenced to North American Datum of 1927, Covington City, VA, Hydrologic Unit 02080201, on left bank in city recreation park and 0.5 mi downstream from Dunlap Creek.

DRAINAGE AREA.--612 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1974 to current year.

REVISED RECORDS.--WDR VA-76-1: 1975(M). OFR 2006-1308: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,206.53 ft NGVD of 1929.

REMARKS.--Records good. Small diurnal fluctuation at low flow caused by Westvaco plant 0.8 mi upstream and occasionally by dam on Dunlap Creek 12.7 mi upstream. Flow regulated since December 1979 by Lake Moomaw (station 02011795) 19.9 mi upstream; since October 1984 by Back Creek Lake 47.9 mi upstream, amount unknown; and since January 1985 by Little Back Creek Lake 51.0 mi upstream, amount unknown. Statistics of monthly mean data and summary statistics for water years 1975-1979 (unregulated flow) are available in previous data books, water years 1991-1998. Diversion by Westvaco plant averages 47 ft^3/s for industrial use of which approximately 42 ft^3/s is returned upstream from station. Diversion 2.0 mi upstream from station averages less than 4.0 ft^3/s. U.S. Army Corps of Engineers satellite gage-height telemeter at station. Virginia Department of Emergency Services gage-height radio transmitter at station. Maximum discharge, 31,300 ft^3/s, from rating curve extended above 18,100 ft^3/s. Several measurements of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 21, 1972, reached a stage of 24.36 ft, from floodmarks, discharge, about 34,000 ft^3/s, and flood of Dec. 27, 1973, reached a stage of 22.09 ft, from floodmarks, discharge, about 28,300 ft^3/s.

Suggested citation: U.S. Geological Survey, 2012, Water-resources data for the United States, Water Year 2012: U.S. Geological Survey Water-Data Report WDR-US-2012, site 02013100, accessed at http://wdr.water.usgs.gov/wy2012/pdfs/02013100.2012.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	274	226	444	408	721	5,280	641	1,030	393	326	363	324
2	239	205	331	467	671	4,360	690	1,170	387	330	350	310
3	234	204	282	512	636	4,920	712	1,260	375	334	345	308
4	232	202	254	598	488	5,820	528	1,030	364	340	342	311
5	231	201	237	524	528	4,760	550	734	360	332	360	332
6	232	201	253	490	599	2,780	541	720	370	329	373	327
7	228	200	3,040	395	546	1,710	490	850	369	340	355	315
8	230	196	3,220	308	495	1,650	399	1,010	352	338	345	311
9	227	194	965	306	456	1,340	393	1,090	342	359	339	309
10	230	197	628	306	431	828	386	959	340	336	352	308
11	232	196	486	556	390	783	406	816	337	332	342	305
12	253	195	414	950	377	750	450	655	358	328	334	303
13	256	197	509	1,190	368	760	428	611	357	330	332	299
14	262	197	765	1,630	387	795	347	674	343	328	337	302
15	254	201	525	1,240	455	697	340	1,300	337	344	334	304
16	249	215	311	741	465	534	333	1,690	331	339	331	305
17	245	215	297	717	515	514	329	1,390	329	329	332	310
18	237	212	286	1,110	545	497	365	1,560	341	329	330	454
19	243	209	378	1,300	555	779	409	1,170	334	336	394	521
20	246	206	685	1,070	622	1,220	420	668	327	398	362	392
21	245	204	695	1,800	803	1,200	444	632	322	364	347	353
22	236	206	490	2,130	891	943	494	985	335	353	330	333
23	232	231	1,790	1,770	1,010	889	446	1,240	333	360	333	327
24	232	240	1,740	1,390	1,030	1,750	450	863	324	379	331	320
25	229	236	1,300	1,020	1,140	3,090	472	730	320	372	333	319
26	219	222	818	1,260	1,090	3,010	3,200	613	317	354	335	318
27	230	216	861	1,230	922	3,340	2,950	494	316	362	331	313
28	231	215	1,020	838	860	2,680	1,890	463	316	356	331	314
29	243	1,440	1,080	798	1,250	1,970	1,210	436	315	353	329	315
30	235	797	1,030	768	---	1,600	1,040	532	310	353	328	312
31	235	---	617	742	---	1,210	---	613	---	354	330	---
Total	7,401	8,076	25,751	28,564	19,246	62,459	21,753	27,988	10,254	10,717	10,610	9,874
Mean	239	269	831	921	664	2,015	725	903	342	346	342	329
Max	274	1,440	3,220	2,130	1,250	5,820	3,200	1,690	393	398	394	521
Min	219	194	237	306	368	497	329	436	310	326	328	299
Cfsm	0.39	0.44	1.36	1.51	1.08	3.29	1.18	1.48	0.56	0.56	0.56	0.54
In.	0.45	0.49	1.57	1.74	1.17	3.80	1.32	1.70	0.62	0.65	0.64	0.60

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	320	522	593	764	948	1,410	1,215	977	602	368	363	367
Max	1,302	2,363	1,947	2,644	2,702	3,189	3,540	2,223	2,148	742	1,285	938
(WY)	(1980)	(1986)	(2010)	(1996)	(1998)	(1993)	(1987)	(1989)	(2003)	(2003)	(1984)	(1989)
Min	111	114	130	119	176	211	356	349	303	190	117	87.3
(WY)	(1981)	(1982)	(1981)	(1981)	(2002)	(1981)	(1986)	(2006)	(1980)	(1981)	(1981)	(1981)

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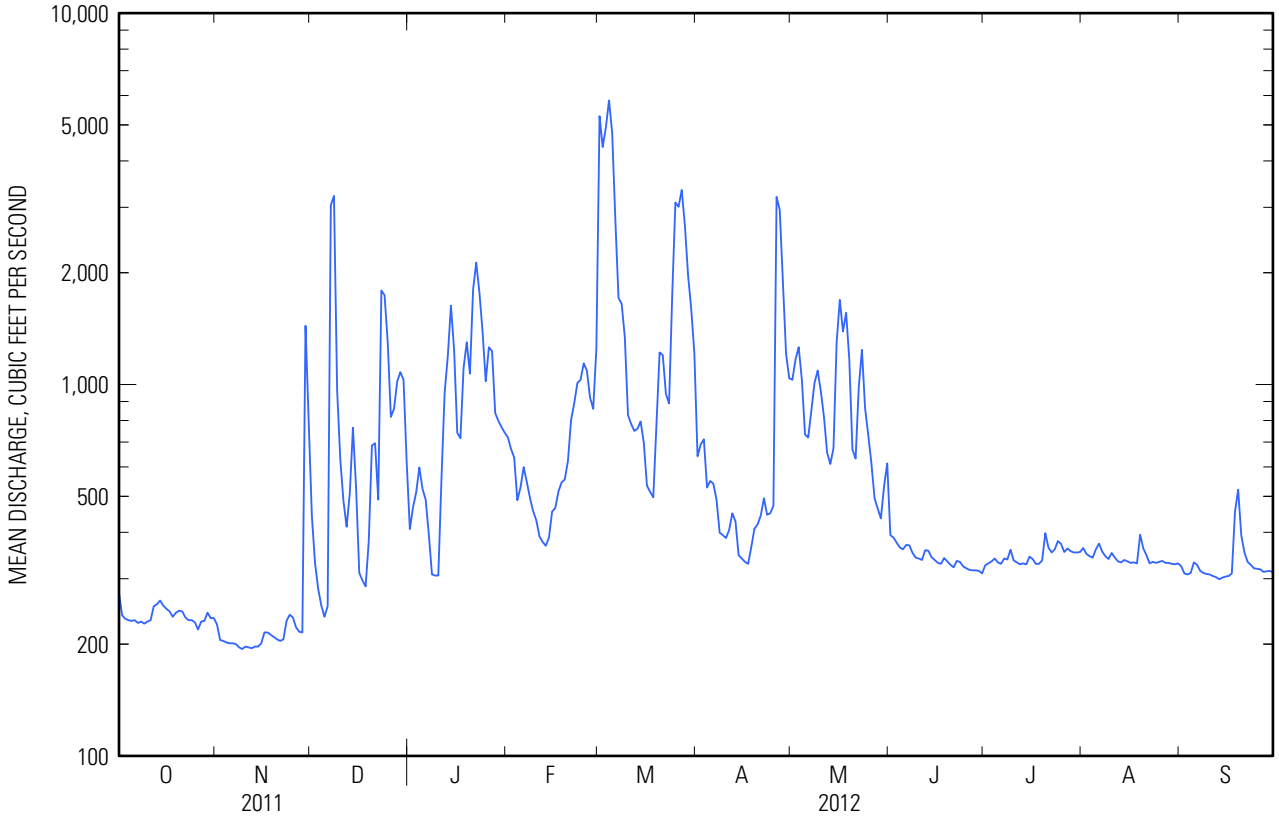
SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1980 - 2012	
Annual total	272,521		242,693			
Annual mean	747		663		703	
Highest annual mean					1,184	2003
Lowest annual mean					348	1981
Highest daily mean	6,850	Apr 14	5,820	Mar 4	15,100	Jan 19, 1996
Lowest daily mean	181	Jan 1	194	Nov 9	67	Sep 3, 1981 [a]
Annual seven-day minimum	196	Nov 8	196	Nov 8	71	Sep 25, 1981
Maximum peak flow			8,470	Dec 7	[b]31,300	Nov 4, 1985
Maximum peak stage			11.14	Dec 7	[b]23.31	Nov 4, 1985
Instantaneous low flow			145	Oct 26	[c,d]41	Jan 5, 1981
Annual runoff (cfsm)	1.22		1.08		1.15	
Annual runoff (inches)	16.57		14.75		15.60	
10 percent exceeds	1,710		1,260		1,520	
50 percent exceeds	316		364		357	
90 percent exceeds	211		232		214	

[a] Also Sept. 27-29, 1981.
[b] Prior to regulaton, 1975-79, maximum peak flow, 23,200 ft³/s, Apr. 5, 1977, gage height, 19.85 ft.
[c] Prior to regulation, 1975-79, instantaneous low flow, 80 ft³/s, Nov. 9, 1978.
[d] Result of freezeup.