

JAMES RIVER BASIN

02035000 JAMES RIVER AT CARTERSVILLE, VA

LOCATION.--Lat 37°40'15", long 78°05'10", Goochland County, Hydrologic Unit 02080205, on left bank 200 ft downstream from bridge on State Highway 45 at Cartersville, 1.8 mi downstream from Willis River, and at mile 156.4.

DRAINAGE AREA.--6,257 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1898 to current year. Monthly discharge only for some periods, published in WSP 1303.

REVISED RECORDS.--WSP 972: 1936(M). WSP 1203: 1901-2(M), 1923-25(M), 1928(M). WSP 2104: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 163.90 ft above sea level. Prior to Jun. 4, 1927, nonrecording gage at same site and datum.

REMARKS.--Records good except for Jun. to Sep., which are fair. Moderate diurnal fluctuation caused by powerplants upstream from station. National Weather Service gage-height telemeter at station. Maximum discharge, 362,000 ft³/s, from rating curve extended above 160,000 ft³/s on basis of slope-conveyance study. Minimum gage height, 0.02 ft, Sep. 13, 14, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Sep 30	2100	*81,100	*21.73	No other peak greater than base discharge.			

Minimum discharge, 667 ft³/s, Aug 13, gage height, 0.54 ft.

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	1160	1220	1340	1580	4350	4150	5710	3130	2200	1260	e1200	e1700
2	1100	1340	1390	1600	4380	3910	5730	3310	2020	1110	e1000	e1200
3	1050	1270	1460	2180	7670	3590	6230	3140	1970	1320	e880	1470
4	1160	1510	1340	5260	7470	4110	e5600	3080	1950	1310	1280	1190
5	948	1790	1350	5410	7670	4720	e5100	2940	1860	1210	1010	2800
6	1050	1590	1340	3710	6990	4460	e4700	2900	1830	1260	903	8250
7	1070	1400	1430	3660	6020	5690	e4400	2880	1830	1170	941	14400
8	1230	1400	1350	3120	5200	5160	4490	2840	1800	1160	808	15400
9	2150	1360	1690	2730	4850	4930	3950	3520	1590	1160	794	10400
10	3210	1270	2300	2690	4220	5150	3690	3950	1490	1130	854	8740
11	2340	1510	2470	2700	4260	5000	3950	6090	1510	1170	769	7870
12	2300	1390	1960	2680	4030	4800	4000	4730	1470	1090	746	5660
13	1940	1510	2150	2700	3940	4520	4370	4020	1470	992	745	4370
14	1610	1520	2500	2910	3660	4330	3990	6430	1350	1020	790	3570
15	1730	1470	3050	2920	3420	13200	4090	8680	1570	1360	743	3570
16	1300	1490	2580	4870	3240	17400	4180	10000	1400	e1250	777	6710
17	1170	1460	2100	6660	3120	13200	4110	11200	1480	e1150	888	10900
18	1290	1350	2020	8660	3570	12800	3920	8550	1260	e1100	869	7550
19	1330	1320	1990	9450	5470	15500	3820	6540	1540	1420	781	5520
20	1170	1420	1820	7140	5650	17300	3610	5400	1540	1260	870	4080
21	1340	1310	1630	5560	6240	14500	3630	4470	1600	1180	929	3530
22	1240	1350	1640	5100	6050	12900	3500	4110	1810	1140	1130	3410
23	1200	1450	1270	4510	5280	12400	3460	5170	1500	1170	1240	3740
24	1220	1290	1580	9110	4610	12100	3310	4650	1230	1320	1340	3940
25	1130	1340	1610	21900	4110	11500	3510	3880	1100	e1220	1240	3110
26	1300	1330	1830	22800	4020	9900	3290	3130	1010	e1140	1240	2890
27	1070	1380	1680	14400	3600	8780	3120	3040	1250	1380	3240	2850
28	1210	1490	1580	9550	3640	7720	3230	2850	1240	1250	e2500	3050
29	1180	1360	1640	7300	---	6930	3190	2590	1250	1150	e1900	8140
30	1280	1430	1730	5920	---	6520	3250	2410	1190	1160	e1500	57000
31	1230	---	1670	4950	---	5960	---	2330	---	1270	e1400	---
TOTAL	43708	42320	55490	193730	136730	263130	123130	141960	46310	37282	35307	217010
MEAN	1410	1411	1790	6249	4883	8488	4104	4579	1544	1203	1139	7234
MAX	3210	1790	3050	22800	7670	17400	6230	11200	2200	1420	3240	57000
MIN	948	1220	1270	1580	3120	3590	3120	2330	1010	992	743	1190
CFSM	.23	.23	.29	1.00	.78	1.36	.66	.73	.25	.19	.18	1.16
IN.	.26	.25	.33	1.15	.81	1.56	.73	.84	.28	.22	.21	1.29

02035000 JAMES RIVER AT CARTERSVILLE, VA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1899 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4220	4761	6986	9630	10920	13150	11070	7965	6052	3795	4006	3554
MAX	20830	28210	25990	26480	33750	31810	33500	23530	30330	15070	20490	18140
(WY)	1907	1986	1949	1936	1998	1993	1987	1989	1972	1919	1969	1996
MIN	528	924	1054	1353	2055	2646	3286	2710	1544	605	652	561
(WY)	1931	1931	1966	1956	1934	1981	1995	1930	1999	1966	1930	1930

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1899 - 1999

ANNUAL TOTAL	3782808	1336107	
ANNUAL MEAN	10360	3661	7156
HIGHEST ANNUAL MEAN			12410
LOWEST ANNUAL MEAN			2981
HIGHEST DAILY MEAN	78500	Mar 22	57000
LOWEST DAILY MEAN	948	Oct 5	743
ANNUAL SEVEN-DAY MINIMUM	1080	Oct 1	775
INSTANTANEOUS PEAK FLOW			81100
INSTANTANEOUS PEAK STAGE			21.73
INSTANTANEOUS LOW FLOW			b667
ANNUAL RUNOFF (CFSM)	1.66	.59	1.14
ANNUAL RUNOFF (INCHES)	22.49	7.94	15.54
10 PERCENT EXCEEDS	26600	7600	15000
50 PERCENT EXCEEDS	3740	2300	4470
90 PERCENT EXCEEDS	1300	1140	1440

- a From floodmarks.
- b May has been affected by regulation.
- c Also Sep 14, 1966.
- e Estimated.

