

JAMES RIVER BASIN

02041650 APPOMATTOX RIVER AT MATOACA, VA

LOCATION.--Lat 37°13'28", long 77°28'32", Chesterfield County, Hydrologic Unit 02080207, on left bank at upstream side of bridge on State Highway 600, 0.2 mi south of Matoaca, 2.0 mi upstream from Rohoic Creek, 2.8 mi downstream from Lake Chesdin, 3.5 mi west of Petersburg, and at mile 15.9

DRAINAGE AREA.--1,344 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 68.30 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Appomattox Water Authority at Lake Chesdin, capacity, 36,000 acre-ft, 2.8 mi upstream from which an average of 36.1 ft³/s is diverted for industrial and municipal use. Records do not include flow of Upper Appomattox Canal of city of Petersburg which diverts around station. National Weather Service gage-height telemeter at station.

COOPERATION.--Records were provided by the Virginia Department of Environmental Quality - Water Division.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,100 ft³/s, Sep 16, gage height, 11.58 ft; minimum, 47 ft³/s, Aug 30-31, result of regulation; minimum daily, 47 ft³/s, Aug 31, result of regulation.

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	97	84	106	123	827	507	633	482	189	206	90	50
2	97	82	105	302	681	510	805	441	112	185	88	52
3	98	75	106	1100	622	638	962	437	109	164	84	54
4	100	74	107	1790	810	863	1050	376	128	151	71	71
5	100	101	107	2210	940	529	962	309	119	134	57	665
6	100	106	106	2220	569	574	682	309	114	119	53	1130
7	101	107	107	1960	936	658	670	317	113	109	60	1920
8	103	106	108	1210	613	570	582	331	108	221	63	1800
9	99	99	121	1000	496	494	566	296	101	153	64	1740
10	86	85	109	552	469	519	643	243	98	101	63	1400
11	81	87	109	453	477	511	762	245	94	95	62	1040
12	80	84	243	433	472	482	1080	226	86	95	61	524
13	80	84	1040	465	553	393	1090	215	88	129	58	270
14	81	84	1230	434	440	542	1290	599	83	213	61	188
15	85	83	1140	659	415	1530	1240	1710	85	187	63	233
16	96	83	1090	751	437	3650	1210	3230	86	194	65	8850
17	99	83	596	730	421	4880	1130	3080	87	208	67	11300
18	99	85	376	979	539	4790	1060	1740	89	197	61	10300
19	100	85	346	1200	571	2780	752	1140	89	162	54	8930
20	97	86	291	1410	805	1620	633	664	89	125	58	6730
21	91	85	320	1810	921	1290	504	368	104	105	54	2720
22	90	84	351	1510	722	1620	449	318	115	101	52	1910
23	90	90	219	1180	496	2160	592	570	104	98	50	1550
24	90	121	243	1390	447	2190	560	536	100	108	49	1360
25	91	105	186	3270	474	1660	442	413	99	154	50	830
26	90	106	307	4770	477	1270	431	396	101	112	62	563
27	86	105	376	5040	419	1080	416	357	101	106	57	533
28	85	105	427	4450	487	871	389	288	109	150	55	594
29	83	105	964	2610	---	675	435	224	106	270	50	794
30	83	106	737	1520	---	636	433	211	143	153	48	1230
31	83	---	178	1060	---	547	---	210	---	90	47	---
TOTAL	2841	2775	11851	48591	16536	41039	22453	20281	3149	4595	1877	69331
MEAN	91.6	92.5	382	1567	591	1324	748	654	105	148	60.5	2311
MAX	103	121	1230	5040	940	4880	1290	3230	189	270	90	11300
MIN	80	74	105	123	415	393	389	210	83	90	47	50
(†)	1249	1225	1126	1069	727	894	1004	1176	1238	1181	1205	1094

CAL YR 1998 TOTAL 654733 MEAN 1794 MAX 13600 MIN 69 (†) 13575
WTR YR 1999 TOTAL 245319 MEAN 672 MAX 11300 MIN 47 (†) 13188

† Total diversion, in cubic feet per second, at Lake Chesdin, provided by Appomattox Water Authority.

02041650 APPOMATTOX RIVER AT MATOACA, VA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1999, BY WATER YEAR (WY) [REGULATED, UNADJUSTED]

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1066	1081	1419	2080	2267	2576	2094	1340	897	556	485	764
MAX	6869	5648	3857	5868	6532	6098	5003	4452	5293	2123	1818	5312
(WY)	1973	1986	1997	1978	1998	1993	1983	1978	1972	1995	1978	1979
MIN	87.8	92.5	382	384	591	478	498	411	105	99.2	60.5	85.1
(WY)	1994	1999	1999	1981	1999	1981	1985	1985	1999	1986	1999	1993

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1970 - 1999
ANNUAL TOTAL	654733	245319	
ANNUAL MEAN	1794	672	1381
HIGHEST ANNUAL MEAN			2559
LOWEST ANNUAL MEAN			460
HIGHEST DAILY MEAN	13600	Mar 21	39400
LOWEST DAILY MEAN	a69	Sep 18	a32
ANNUAL SEVEN-DAY MINIMUM	a79	Sep 15	a48
INSTANTANEOUS PEAK FLOW			40800
INSTANTANEOUS PEAK STAGE			11.58
INSTANTANEOUS LOW FLOW			a47
ANNUAL RUNOFF (CFSM)	1.33	.50	1.03
ANNUAL RUNOFF (INCHES)	18.12	6.79	13.96
10 PERCENT EXCEEDS	6230	1510	3420
50 PERCENT EXCEEDS	505	270	690
90 PERCENT EXCEEDS	87	81	147

a Result of regulation.
 b Also Aug 31, 1999.

