

## JAMES RIVER BASIN

02042500 CHICKAHOMINY RIVER NEAR PROVIDENCE FORGE, VA

LOCATION.--Lat 37°26'10", long 77°03'40", New Kent County, Hydrologic Unit 02080206, on left bank 100 ft downstream from bridge on State Highway 618, 1.1 mi southwest of Providence Forge, and 1.7 mi downstream from Schiminoe Creek.

DRAINAGE AREA.--252 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1942 to current year.

REVISED RECORDS.--WSP 1553: 1956. WSP 2104: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6.07 ft above sea level.

REMARKS.--Records good. Maximum discharge, 7,710 ft<sup>3</sup>/s, from rating curve extended above 5,520 ft<sup>3</sup>/s. Minimum gage height, 1.53 ft, Sep. 13, 1965. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,370 ft<sup>3</sup>/s, Sep 17, gage height, 10.95 ft; minimum discharge, 0.51 ft<sup>3</sup>/s, Aug, 17, gage height, 1.73 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	13	8.7	34	209	407	140	222	137	41	95	5.5	28
2	22	8.6	31	188	318	142	218	124	28	157	18	20
3	29	12	28	304	264	144	213	110	18	316	12	14
4	39	14	30	528	232	160	208	100	12	401	8.0	13
5	41	17	30	624	215	149	197	93	10	355	5.9	89
6	34	16	33	e600	197	170	186	84	8.6	313	4.5	118
7	23	17	36	e530	183	191	184	76	7.8	232	3.4	150
8	17	17	30	520	172	188	178	69	7.0	192	3.8	198
9	16	17	68	497	159	176	173	64	7.0	172	2.2	279
10	16	15	94	422	148	167	202	55	6.5	96	1.4	685
11	15	16	129	324	137	157	206	47	5.8	79	1.2	1370
12	14	18	140	249	130	148	266	40	5.4	88	1.1	1100
13	13	17	254	202	130	142	275	40	6.4	136	.87	833
14	13	17	365	176	129	144	277	108	6.7	186	.90	631
15	12	17	444	186	129	311	287	104	12	213	.89	521
16	9.8	16	456	209	126	470	314	101	19	212	.77	2260
17	9.2	15	390	206	127	682	294	102	22	194	.66	4910
18	7.4	13	434	228	137	822	248	98	19	162	.92	3880
19	5.7	12	398	262	153	976	215	96	16	130	1.2	3980
20	4.2	12	284	300	157	946	180	85	15	92	2.0	3380
21	3.0	15	191	319	161	825	152	68	18	61	1.7	2430
22	2.2	15	138	312	159	764	134	53	20	41	2.1	2000
23	2.0	18	112	305	158	782	124	64	21	28	9.8	1390
24	2.5	19	135	354	153	822	156	80	20	20	31	1060
25	2.4	20	162	491	143	746	170	113	17	17	58	835
26	2.0	28	175	591	136	727	177	142	14	13	76	602
27	2.5	29	190	637	128	630	173	138	11	11	89	458
28	3.0	36	205	668	127	534	165	136	10	9.6	76	365
29	4.0	37	225	684	---	430	165	118	9.7	8.4	60	333
30	7.1	35	236	600	---	333	155	85	37	7.1	48	329
31	9.0	---	228	515	---	262	---	58	---	5.2	36	---
TOTAL	393.0	547.3	5705	12240	4815	13280	6114	2788	450.9	4042.3	562.81	34261
MEAN	12.7	18.2	184	395	172	428	204	89.9	15.0	130	18.2	1142
MAX	41	37	456	684	407	976	314	142	41	401	89	4910
MIN	2.0	8.6	28	176	126	140	124	40	5.4	5.2	.66	13
CFSM	.05	.07	.73	1.57	.68	1.70	.81	.36	.06	.52	.07	4.53
IN.	.06	.08	.84	1.81	.71	1.96	.90	.41	.07	.60	.08	5.06

02042500 CHICKAHOMINY RIVER NEAR PROVIDENCE FORGE, VA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	142	206	285	380	425	480	381	238	162	145	159	125
MAX	794	768	1043	1214	1198	1055	1152	676	757	1081	1445	1142
(WY)	1980	1986	1958	1978	1998	1998	1984	1978	1972	1945	1955	1999
MIN	3.81	17.5	28.0	58.7	94.4	108	102	34.9	14.1	12.5	5.53	.17
(WY)	1969	1966	1966	1955	1942	1981	1995	1985	1977	1968	1995	1997

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR
ANNUAL TOTAL	131393.4	85199.31				
ANNUAL MEAN	360	233			262	
HIGHEST ANNUAL MEAN					482	1958
LOWEST ANNUAL MEAN					91.4	1966
HIGHEST DAILY MEAN	2750	Mar 22	4910	Sep 17	6680	Aug 15 1955
LOWEST DAILY MEAN	1.3	Sep 21	.66	Aug 17	.07	aSep 12 1997
ANNUAL SEVEN-DAY MINIMUM	2.4	Oct 21	.87	Aug 12	.07	Sep 12 1997
INSTANTANEOUS PEAK FLOW			5370	Sep 17	7710	Aug 15 1955
INSTANTANEOUS PEAK STAGE			10.95	Sep 17	11.67	Aug 15 1955
INSTANTANEOUS LOW FLOW			.51	Aug 17	.06	bSep 12 1997
ANNUAL RUNOFF (CFSM)	1.43		.93		1.04	
ANNUAL RUNOFF (INCHES)	19.40		12.58		14.13	
10 PERCENT EXCEEDS	944		529		600	
50 PERCENT EXCEEDS	176		124		165	
90 PERCENT EXCEEDS	9.0		6.9		21	

a Also Sep 15-17, and Oct 12, 13, 1997.  
 b Also Sep 14-15, 16, 17, 18, 1997.  
 e Estimated.

