

## JAMES RIVER BASIN

02041000 DEEP CREEK NEAR MANNBORO, VA

LOCATION.--Lat 37°16'59", long 77°52'12", Amelia County, Hydrologic Unit 02080207, on left bank 300 ft upstream from bridge on State Highway 153, 0.9 mi upstream from Sweathouse Creek, 3.4 mi northwest of Mannboro, and 7.5 mi southeast of Amelia.

DRAINAGE AREA.--158 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1946 to current year.

REVISED RECORDS.--WSP 1203: 1948 (calendar year figures only). WSP 2104: Drainage area. WDR VA-79-1: 1973-76(P), 1978.

GAGE.--Water-stage recorder. Datum of gage is 177.20 ft above sea level. Prior to Sept. 2, 1949, nonrecording gage at same site and datum.

REMARKS.--Records good except for period of doubtful or no gage-height record, Sep. 5-8, which is fair. Maximum discharge, 15,000 ft<sup>3</sup>/s, from rating curve extended above 3,900 ft<sup>3</sup>/s. Minimum gage height, 0.29 ft, Aug. 9-12, 1957. Several measurements of water temperature were made during the year. Water-quality records for some periods have been collected at this location.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in August 1940 reached a stage of 14.8 ft, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Jan 26	0230	1,420	7.74	Sep 17	0830	*6,140	*12.20

Minimum discharge, 1.6 ft<sup>3</sup>/s, Aug 16-18.

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	3.0	5.3	21	66	82	56	70	59	15	14	4.8	3.2
2	2.7	5.8	20	58	89	56	113	52	14	12	5.4	2.6
3	2.3	6.5	19	152	109	55	139	45	13	11	7.2	2.3
4	2.2	8.7	19	347	118	66	113	42	12	9.4	7.7	2.4
5	2.3	11	19	572	102	74	93	39	12	8.5	6.3	e70
6	2.4	11	19	326	85	73	83	37	11	7.5	5.8	e330
7	2.8	12	20	151	74	64	75	36	11	6.6	5.3	e260
8	2.9	12	20	107	69	56	68	34	10	7.6	4.4	e229
9	3.6	12	35	94	68	51	64	31	9.3	8.0	3.7	282
10	4.5	12	56	83	64	52	69	29	8.8	12	3.2	180
11	5.0	12	61	71	58	56	78	26	8.6	11	2.7	78
12	5.2	12	50	62	55	56	179	24	7.6	7.9	2.3	39
13	5.5	14	101	55	60	53	330	24	8.0	9.5	2.0	25
14	5.8	14	206	51	61	57	183	134	9.1	15	1.9	18
15	5.7	15	228	65	59	317	118	347	9.7	18	1.8	18
16	5.3	16	123	99	56	879	132	421	9.7	19	1.6	1270
17	5.0	16	72	120	53	886	171	214	9.9	18	1.6	5070
18	4.7	16	52	113	59	357	134	99	11	15	2.3	1870
19	4.2	16	42	159	81	183	97	65	11	11	2.2	646
20	4.0	17	35	211	91	133	80	51	11	9.1	2.3	232
21	3.9	17	31	168	80	119	70	40	11	8.7	2.6	131
22	3.6	18	29	116	65	210	64	34	14	7.2	3.7	197
23	3.4	18	28	92	55	311	59	41	15	6.0	3.2	311
24	3.4	19	38	208	50	224	55	47	16	5.6	2.5	271
25	3.9	19	66	714	49	154	49	37	13	9.4	2.7	135
26	3.9	20	89	1200	49	124	44	30	9.8	7.8	5.0	82
27	4.3	21	82	517	49	103	42	26	8.7	5.6	5.7	61
28	4.4	21	78	228	50	90	41	22	8.2	5.1	5.8	59
29	4.1	21	80	158	---	82	49	19	8.7	6.0	6.2	82
30	4.5	21	85	119	---	76	56	17	14	4.8	5.1	133
31	4.9	---	79	97	---	69	---	16	---	4.6	3.9	---
TOTAL	123.4	439.3	1903	6579	1940	5142	2918	2138	330.1	300.9	120.9	12089.5
MEAN	3.98	14.6	61.4	212	69.3	166	97.3	69.0	11.0	9.71	3.90	403
MAX	5.8	21	228	1200	118	886	330	421	16	19	7.7	5070
MIN	2.2	5.3	19	51	49	51	41	16	7.6	4.6	1.6	2.3
CFSM	.03	.09	.39	1.34	.44	1.05	.62	.44	.07	.06	.02	2.55
IN.	.03	.10	.45	1.55	.46	1.21	.69	.50	.08	.07	.03	2.85

02041000 DEEP CREEK NEAR MANNBORO, VA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	102	138	154	221	253	280	214	132	82.2	66.1	57.9	79.0
MAX	859	821	453	800	793	718	632	406	449	301	309	1002
(WY)	1973	1986	1997	1978	1979	1993	1987	1971	1972	1975	1978	1979
MIN	3.55	14.6	26.4	48.5	52.4	74.8	51.2	36.4	11.0	7.26	3.43	2.19
(WY)	1971	1999	1966	1966	1968	1981	1985	1985	1999	1991	1987	1968

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1947 - 1999	
ANNUAL TOTAL	66450.4		34024.1			
ANNUAL MEAN	182		93.2		148	
HIGHEST ANNUAL MEAN					319	
LOWEST ANNUAL MEAN					67.5	
HIGHEST DAILY MEAN	5050		Mar 20		12000	
LOWEST DAILY MEAN	1.3		Sep 3		.04	
ANNUAL SEVEN-DAY MINIMUM	1.9		Aug 29		.16	
INSTANTANEOUS PEAK FLOW					15000	
INSTANTANEOUS PEAK STAGE					b24.04	
INSTANTANEOUS LOW FLOW					.03	
ANNUAL RUNOFF (CFSM)	1.15		.59		.94	
ANNUAL RUNOFF (INCHES)	15.65		8.01		12.70	
10 PERCENT EXCEEDS	335		181		286	
50 PERCENT EXCEEDS	52		34		74	
90 PERCENT EXCEEDS	3.4		3.9		16	

- a Also Aug 17, 1999.
- b From floodmarks.
- c Also Aug 17-18, 1999.
- d Also Oct 5, 1968.
- e Estimated.

