

CHOWAN RIVER BASIN

02052000 MEHERRIN RIVER AT EMPORIA, VA

LOCATION.--Lat 36°41'24", long 77°32'27", Emporia City, Hydrologic Unit 03010204, on left bank at downstream side of bridge on U.S. Highway 301 and 1.2 mi upstream from Falling Run.

DRAINAGE AREA.--747 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1951 to current year.

REVISED RECORDS.--WSP 2104: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 67.17 ft above sea level (levels by U.S. Army Corps of Engineers).

REMARKS.--Records good except for period of no gage-height record, Mar. 17-23, which is fair. Prior to November 1965 and since April 1986, low and medium flow regulated by powerplant 0.8 mi upstream from station. Minimum discharge, 5.0 ft<sup>3</sup>/s, Nov. 11, 1954, gage height, 1.00 ft, result of regulation. Several measurements of water temperature were made during the year. Water-quality records for some prior 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 31.5 ft, from floodmarks, discharge, about 40,000 ft<sup>3</sup>/s, from rating curve extended above 18,000 ft<sup>3</sup>/s on basis of record for station near Lawrenceville.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,800 ft<sup>3</sup>/s, Sep 16, gage height, 26.33 ft; minimum 6.3 ft<sup>3</sup>/s, Oct 3, result of regulation; minimum daily, 19.0 ft<sup>3</sup>/s, Oct 3.

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	48	59	102	271	371	277	348	758	133	122	95	111
2	29	72	64	221	406	274	611	619	177	198	182	92
3	19	83	100	1580	516	285	1170	462	132	131	547	82
4	38	87	67	5380	624	365	698	391	124	115	144	155
5	68	101	96	5000	540	343	732	367	125	76	86	2470
6	63	96	62	1550	428	353	635	338	124	79	86	6650
7	91	92	97	574	375	302	506	322	97	108	50	10600
8	89	44	63	456	356	259	415	311	116	349	65	8720
9	129	90	149	352	344	247	386	291	73	122	72	2570
10	114	89	162	342	325	252	636	253	144	108	33	1550
11	82	66	177	303	300	245	1150	216	110	101	38	1050
12	70	85	142	266	288	250	3240	236	109	103	64	407
13	75	51	336	250	315	230	4860	247	73	125	61	236
14	49	87	862	232	309	284	2930	290	61	319	101	245
15	76	99	945	413	314	2410	1250	2260	123	1040	205	497
16	40	73	449	583	278	4410	1200	1620	102	543	287	12600
17	52	108	302	612	261	e2200	1780	715	197	306	113	18000
18	53	75	244	558	327	e1050	1220	432	173	161	89	17700
19	63	89	196	594	431	e750	794	352	83	139	72	14800
20	62	87	183	720	485	e580	632	301	197	115	64	6550
21	47	92	91	686	442	e720	546	270	87	160	50	2880
22	47	82	97	424	341	e3560	498	239	75	122	53	2610
23	48	87	151	354	297	e2600	455	235	134	104	52	5510
24	48	84	118	1430	275	1340	423	232	173	48	52	3510
25	48	87	429	4850	258	815	401	229	117	260	56	1490
26	48	99	522	6070	266	570	374	227	73	192	69	734
27	56	89	417	2910	251	458	364	225	113	175	628	646
28	55	87	386	1070	262	400	349	118	110	146	3120	2220
29	51	102	329	661	---	363	399	122	107	128	832	2920
30	57	67	373	508	---	338	606	179	98	131	218	3550
31	58	---	333	416	---	319	---	154	---	97	153	---
TOTAL	1873	2509	8044	39636	9985	26849	29608	13011	3560	5923	7737	131155
MEAN	60.4	83.6	259	1279	357	866	987	420	119	191	250	4372
MAX	129	108	945	6070	624	4410	4860	2260	197	1040	3120	18000
MIN	19	44	62	221	251	230	348	118	61	48	33	82
CFSM	.08	.11	.35	1.71	.48	1.16	1.32	.56	.16	.26	.33	5.85
IN.	.09	.12	.40	1.97	.50	1.34	1.47	.65	.18	.29	.39	6.53

02052000 MEHERRIN RIVER AT EMPORIA, VA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	413	529	668	1075	1237	1376	1063	660	421	342	298	368
MAX	3057	3711	1772	3063	2749	3631	3077	2244	1399	2647	1536	4372
(WY)	1973	1986	1973	1978	1998	1998	1987	1958	1972	1975	1955	1999
MIN	37.7	60.0	89.9	159	298	261	221	256	119	62.9	46.3	18.7
(WY)	1969	1955	1966	1966	1968	1981	1995	1995	1999	1954	1995	1954

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1952 - 1999

ANNUAL TOTAL	347670.6		279890		701	
ANNUAL MEAN	953		767		1297	
HIGHEST ANNUAL MEAN					248	
LOWEST ANNUAL MEAN					1981	
HIGHEST DAILY MEAN	15200	Mar 22	18000	Sep 17	20700	Oct 8 1972
LOWEST DAILY MEAN	a9.6	Sep 24	a19	Oct 3	a7.1	Jul 20 1986
ANNUAL SEVEN-DAY MINIMUM	37	Sep 27	49	Oct 21	a9.1	Nov 4 1954
INSTANTANEOUS PEAK FLOW			18800		Sep 16	21100
INSTANTANEOUS PEAK STAGE			26.33		Sep 16	27.38
INSTANTANEOUS LOW FLOW			a6.3		Oct 3	a5.0
ANNUAL RUNOFF (CFSM)	1.28		1.03		.94	
ANNUAL RUNOFF (INCHES)	17.31		13.94		12.76	
10 PERCENT EXCEEDS	2340		1550		1440	
50 PERCENT EXCEEDS	275		245		356	
90 PERCENT EXCEEDS	57		63		70	

a Result of regulation.  
e Estimated.

