

ROANOKE RIVER BASIN

02064000 FALLING RIVER NEAR NARUNA, VA

LOCATION.--Lat 37°07'36", long 78°57'36", Campbell County, Hydrologic Unit 03010102, on left bank at upstream side of bridge on State Highway 643, 2.7 mi northeast of Naruna, and 3.2 mi upstream from Little Falling River.

DRAINAGE AREA.--173 mi².

PERIOD OF RECORD.--July 1929 to January 1935, September 1941 to current year.

REVISED RECORDS.--WSP 1333: 1930, 1931-34(M), 1935. WSP 2104: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 412.32 ft above sea level. Prior to Jan. 15, 1935, nonrecording gage at same site and datum.

REMARKS.--Records good except those for period with ice effect, Jan. 5, 6, and periods of doubtful or no gage-height record, Jan. 8 and Sep. 1-3, which are fair. Small diurnal fluctuation caused by gristmill at Spring Mills. Maximum discharge, 62,800 ft³/s, from rating curve extended above 7,100 ft³/s on basis of slope-area measurements at gage heights 23.9 ft, 26.5 ft, 29.2 ft, and 36.1 ft. Minimum gage height, 2.18 ft, Oct. 9, 1932. 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 26.5 ft, from floodmarks, discharge, 22,000 ft³/s, by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 24	1545	3,190	11.11	Sep 30	0430	*4,620	*13.81

Minimum discharge, 7.8 ft³/s, Aug 19.

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	40	48	52	59	107	129	198	81	42	34	21	e18
2	37	47	52	57	302	100	279	75	41	35	34	e17
3	36	52	51	312	245	93	173	72	40	35	30	e16
4	38	68	52	322	169	127	143	71	39	31	22	20
5	41	60	52	e115	132	107	128	72	38	27	20	123
6	45	53	53	e73	115	98	112	72	36	27	19	316
7	50	51	53	e83	109	96	106	71	36	88	17	220
8	62	51	53	e74	110	84	99	69	35	86	17	163
9	92	53	116	83	97	85	100	65	33	41	16	65
10	58	54	92	94	92	93	101	62	31	29	16	52
11	49	59	61	81	87	94	250	60	31	25	16	40
12	47	64	55	74	88	86	274	58	33	31	16	35
13	45	57	249	70	92	79	163	59	32	82	15	32
14	45	55	173	71	82	123	134	111	35	61	22	31
15	43	55	86	217	79	737	124	140	34	56	15	64
16	44	55	66	204	78	495	130	78	35	42	12	647
17	44	54	60	124	81	269	109	64	41	35	9.7	211
18	43	53	55	442	283	196	101	60	41	34	9.0	88
19	43	52	52	420	266	151	96	59	35	36	8.3	62
20	43	53	52	193	168	130	94	57	33	29	12	53
21	41	55	51	142	130	201	94	52	41	28	14	57
22	41	53	50	117	109	286	93	54	41	29	17	130
23	40	52	50	132	97	182	88	73	38	28	16	71
24	42	53	70	1880	93	156	92	59	33	27	15	54
25	47	53	78	738	91	150	83	52	31	27	195	47
26	45	56	63	312	89	127	81	51	33	29	156	43
27	45	56	63	207	85	114	81	49	34	25	53	54
28	45	55	70	161	107	107	88	48	33	27	35	472
29	45	52	73	132	---	101	98	45	32	26	27	1140
30	45	52	69	114	---	95	88	43	51	24	22	2490
31	47	---	62	102	---	90	---	43	---	22	19	---
TOTAL	1428	1631	2234	7205	3583	4981	3800	2025	1088	1156	916.0	6831
MEAN	46.1	54.4	72.1	232	128	161	127	65.3	36.3	37.3	29.5	228
MAX	92	68	249	1880	302	737	279	140	51	88	195	2490
MIN	36	47	50	57	78	79	81	43	31	22	8.3	16
CFSM	.27	.31	.42	1.34	.74	.93	.73	.38	.21	.22	.17	1.32
IN.	.31	.35	.48	1.55	.77	1.07	.82	.44	.23	.25	.20	1.47

02064000 FALLING RIVER NEAR NARUNA, VA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1934, 1942 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	104	125	160	204	236	263	216	165	121	90.5	82.2	125
MAX	399	639	487	636	683	844	552	606	898	334	400	1475
(WY)	1973	1986	1997	1978	1979	1975	1987	1971	1972	1972	1985	1996
MIN	24.5	32.2	44.0	47.9	56.5	62.9	60.2	50.7	25.4	29.9	23.9	20.1
(WY)	1970	1970	1966	1966	1931	1981	1966	1981	1970	1970	1932	1970

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1930 - 1934 1942 - 1999

ANNUAL TOTAL		87735		36878.0								
ANNUAL MEAN		240		101						157		
HIGHEST ANNUAL MEAN										322		1996
LOWEST ANNUAL MEAN										60.9		1970
HIGHEST DAILY MEAN				4010	Mar 21	2490	Sep 30	e200000			Sep 6	1996
LOWEST DAILY MEAN				36	Oct 3	8.3	Aug 19	5.0			aSep 27	1932
ANNUAL SEVEN-DAY MINIMUM				39	Sep 29	11	Aug 15	7.7			Jul 22	1966
INSTANTANEOUS PEAK FLOW						4620	Sep 30	62800			Sep 6	1996
INSTANTANEOUS PEAK STAGE						13.81	Sep 30	b36.14			Sep 6	1996
INSTANTANEOUS LOW FLOW						7.8	Aug 19	3.0			Oct 9	1932
ANNUAL RUNOFF (CFSM)			1.39			.58		.91				
ANNUAL RUNOFF (INCHES)			18.87			7.93		12.34				
10 PERCENT EXCEEDS			538			173		268				
50 PERCENT EXCEEDS			116			58		94				
90 PERCENT EXCEEDS			45			27		38				

- a Also Oct 9, 14, 1932.
- b From high-water mark on gage house.
- e Estimated.

