

POTOMAC RIVER BASIN

01644000 GOOSE CREEK NEAR LEESBURG, VA

LOCATION.--Lat 39°01'10", long 77°34'40", Loudoun County, Hydrologic Unit 02070008, on left bank 400 ft upstream from bridge on State Highway 621 at Evergreen Mills, 1.4 mi downstream from Little River, 6.7 mi south of Leesburg, and 10.9 mi upstream from mouth.

DRAINAGE AREA.--332 mi².

PERIOD OF RECORD.--July 1909 to April 1911, September 1911 to December 1912, January 1930 to current year.

REVISED RECORDS.--WSP 851: 1935-37. WSP 951: 1933(M), 1937. WSP 1302: 1934-35(M). WSP 2103: Drainage area. WDR VA-72-1: 1937(M), 1943(M), 1951(M), 1956(M). WDR VA-79-1: 1978.

GAGE.--Water-stage recorder. Datum of gage is 248.93 ft above sea level. Jul. 12, 1909, to Dec. 31, 1912, nonrecording gage at site 1,000 ft downstream at different datum. Jan. 21, 1930, to Nov. 28, 1938, non-recording gage at site 400 ft downstream at datum 4.20 ft lower than present datum.

REMARKS.--Records good except those for periods with backwater from beaver dams, Oct. 19 to Dec. 1, and Dec. 14 to Jan. 2, which are poor, and period with ice effect, Feb. 24, 25, which is fair. National Weather Service gage-height telemeter at station. Maximum discharge, 78,100 ft³/s, from rating curve extended above 11,000 ft³/s on basis of slope-area measurement of peak flow. 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 May or June 1889 reached a stage of about 29 ft, discharge, about 45,000 ft³/s, site and datum in use 1930-38, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Sep 30	1530	*7,240	*10.95	No other peak greater than base discharge.			

Minimum discharge, 0.48 ft³/s, Aug 13.

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	4.4	e19	e14	e13	96	162	231	152	52	16	3.4	2.9
2	3.9	e19	13	e12	135	134	334	142	50	13	2.8	2.3
3	3.6	e21	12	149	186	130	259	135	45	13	2.0	2.0
4	3.6	e24	11	359	141	395	225	137	40	14	1.4	2.6
5	3.6	e17	13	115	116	345	283	132	36	10	1.0	9.9
6	3.5	e18	14	67	99	267	287	124	33	8.9	.90	34
7	4.6	e19	14	56	94	253	241	124	29	7.1	.78	52
8	26	e21	15	40	94	197	216	214	27	6.0	.82	100
9	46	e23	23	40	88	175	209	259	23	4.8	.79	82
10	30	e35	28	55	80	212	316	158	21	4.6	.66	145
11	18	e64	33	46	75	205	341	127	18	4.3	.61	67
12	12	e40	28	41	72	190	503	114	17	3.4	.58	37
13	8.5	e25	24	59	82	243	364	105	16	3.4	.55	20
14	6.7	e19	e21	192	78	331	307	100	18	3.0	1.4	13
15	5.7	e17	e19	198	68	505	281	97	26	2.9	3.1	10
16	6.2	e15	e17	396	64	744	288	91	22	3.2	2.4	406
17	6.7	e14	e15	255	67	931	258	86	19	2.9	2.5	564
18	6.8	e13	e14	452	187	915	222	84	20	2.6	1.9	173
19	e6.7	e11	e14	520	292	686	200	82	19	2.3	2.7	93
20	e6.6	e10	e13	237	196	518	192	78	20	2.2	2.5	66
21	e7.4	e11	e13	187	153	519	188	72	24	2.4	2.0	159
22	e8.2	e11	e12	372	125	794	219	71	26	5.4	1.7	251
23	e7.6	e11	e13	306	99	526	236	128	23	3.7	1.7	144
24	e7.2	e12	e15	1180	e92	450	462	172	20	4.3	1.7	92
25	e7.0	e11	e14	782	e85	413	292	136	17	14	2.0	67
26	e7.0	e13	e13	363	99	346	237	94	15	17	2.5	54
27	e8.0	e16	e13	251	97	305	209	78	13	8.6	33	46
28	e10	e15	e12	198	113	280	191	69	13	5.1	16	155
29	e15	e14	e13	160	---	254	175	63	20	3.3	7.2	342
30	e21	e15	e16	129	---	226	164	59	23	4.1	5.1	4870
31	e20	---	e14	109	---	200	---	55	---	4.8	3.8	---
TOTAL	331.5	573	503	7339	3173	11851	7930	3538	745	200.3	109.49	8061.7
MEAN	10.7	19.1	16.2	237	113	382	264	114	24.8	6.46	3.53	269
MAX	46	64	33	1180	292	931	503	259	52	17	33	4870
MIN	3.5	10	11	12	64	130	164	55	13	2.2	.55	2.0
CFSM	.03	.06	.05	.71	.34	1.15	.80	.34	.07	.02	.01	.81
IN.	.04	.06	.06	.82	.36	1.33	.89	.40	.08	.02	.01	.90

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 1913, 1930 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	194	220	330	419	515	596	516	368	259	139	155	136
MAX	2265	1155	1316	1499	1621	1892	1766	1322	2887	1207	1188	1054
(WY)	1943	1933	1993	1996	1998	1993	1983	1989	1972	1956	1937	1945
MIN	2.12	3.83	14.8	25.8	26.3	83.6	141	85.5	24.8	6.46	1.86	1.38
(WY)	1931	1931	1966	1966	1931	1931	1981	1969	1999	1999	1930	1985

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1910 - 1912 1930 - 1999	
ANNUAL TOTAL	189005.4		44354.99			
ANNUAL MEAN	518		122		323	
HIGHEST ANNUAL MEAN					664	
LOWEST ANNUAL MEAN					55.2	
HIGHEST DAILY MEAN	11800		4870		e53600	
LOWEST DAILY MEAN	3.4		Mar 21 Sep 16		Aug 13 Aug 7	
ANNUAL SEVEN-DAY MINIMUM	3.9		Sep 30		.68 Aug 7	
INSTANTANEOUS PEAK FLOW			7240		78100	
INSTANTANEOUS PEAK STAGE			10.95		Sep 30 b30.59	
INSTANTANEOUS LOW FLOW			.48		Aug 13 (c)	
ANNUAL RUNOFF (CFSM)	1.56		.37		.97	
ANNUAL RUNOFF (INCHES)	21.18		4.97		13.21	
10 PERCENT EXCEEDS	1240		297		700	
50 PERCENT EXCEEDS	147		33		160	
90 PERCENT EXCEEDS	6.9		3.2		17	

- a Also Sep 28-30, 1941.
- b From high-water mark in gage house.
- c Not determined.
- d Probably occurred Sep 27-30, 1941.
- e Estimated.

