02034000 RIVANNA RIVER AT PALMYRA, VA

LOCATION.--Lat 37°51'28", long 78°15'58", Fluvanna County, Hydrologic Unit 02080204, on left bank 10 ft upstream from bridge on U.S. Highway 15 at Palmyra, 0.5 mi upstream from Cunningham Creek, and 15 mi upstream from mouth.

DRAINAGE AREA.--664 mi^2.

PERIOD OF RECORD.--October 1933 to current year. Monthly discharge only for some periods, published in WSP 1303.

REVISED RECORDS.--WSP 802: 1936(M). WSP 852: 1937. WSP 892: 1934-35. WSP 1303: 1945-46(M). WSP 1503: 1956. WSP 2104: Drainage area. WDR VA-72-1: 1969(M).

GAGE.--Water-stage recorder. Datum of gage is 210.39 ft above sea level. Prior to Oct. 24, 1942, water-stage recorder at site 200 ft downstream at same datum. Oct. 24, 1942, to Dec. 18, 1947, nonrecording gage 10 ft downstream at same datum.

REMARKS.--Records good except for periods with ice effect, Dec. 25, Jan. 22 to Feb. 4, Feb. 6-9, 13, which are fair. Some diurnal fluctuation at times mostly at low and medium flow caused by South Fork Rivanna River Reservoir, diversions for water supply and discharge from wastewater treatment plants upstream at Charlottesville. National Weather Service gage-height telemeter at station. Maximum discharge, 86,000 ft^3/s, from rating curve extended above 76,000 ft^3/s on basis of contracted-opening measurement of peak flow and velocity-area study. Minimum gage height, 2.13 ft, Sept. 9-11, 1966. 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, 22,100 ft^3/s, Oct. 1, gage height, 23.07 ft, stage falling, peak occurred Sept. 30, 1999. Peak discharges greater than base discharge of 6,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Sep 4	0230	*6,280	*10.85	No other peak greater than base discharge.			

Minimum discharge, 91 ft^3/s, Aug. 17, 18, gage height, 2.50 ft.

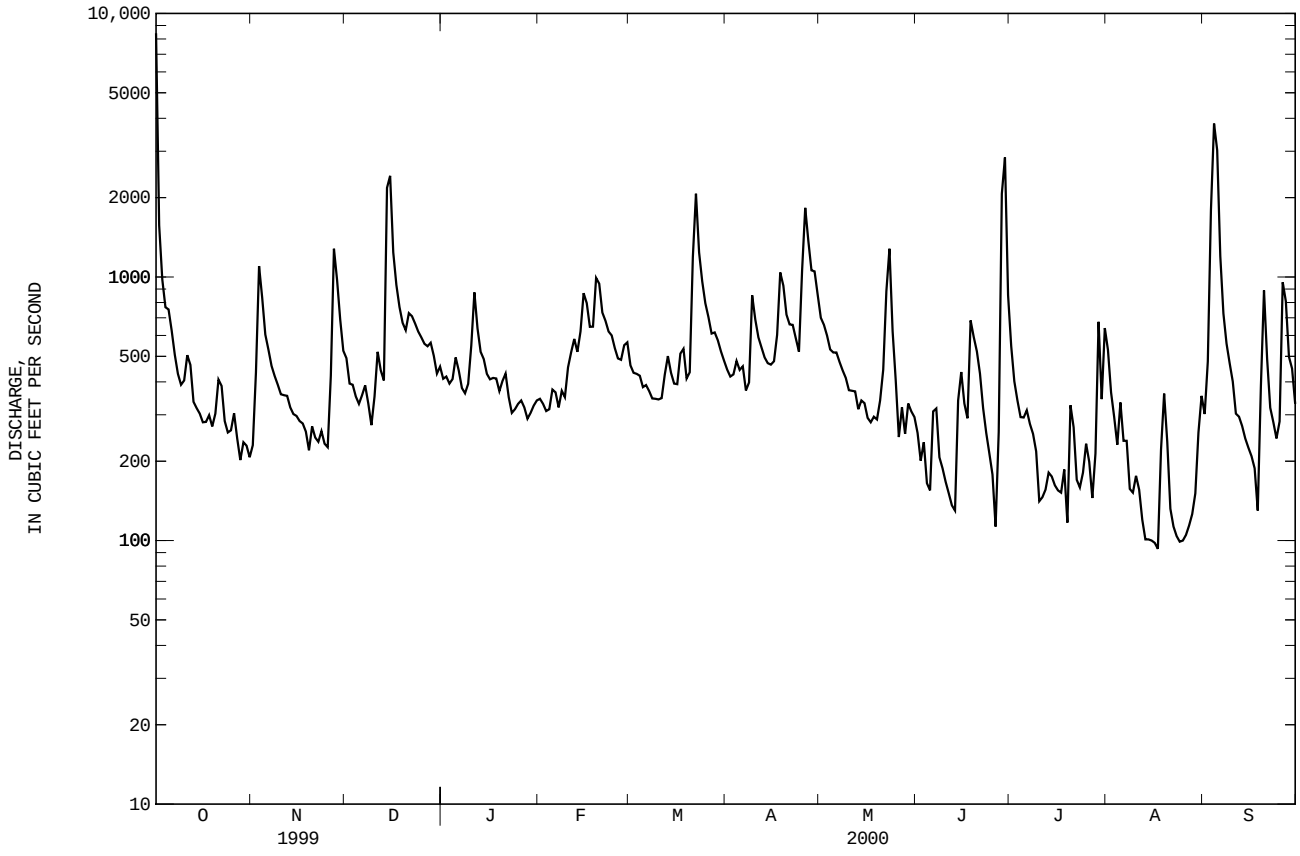
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8410	230	492	411	e345	462	445	700	256	547	529	302
2	1570	434	394	419	e330	433	419	658	201	402	365	478
3	979	1100	390	394	e310	429	427	599	236	340	294	1790
4	768	835	352	410	e315	422	480	531	165	294	231	3820
5	753	605	330	495	374	382	444	517	155	293	334	3030
6	626	530	356	441	e365	389	458	517	309	312	239	1200
7	507	460	388	379	e320	369	371	476	317	277	239	727
8	429	421	331	362	e370	346	398	442	207	254	157	559
9	390	390	274	393	e350	345	852	414	188	218	152	471
10	405	359	352	549	454	343	690	372	167	141	176	401
11	505	356	520	874	518	347	590	370	151	146	156	303
12	464	354	442	638	582	426	540	368	136	156	120	295
13	336	320	405	520	e520	501	495	315	130	181	101	272
14	318	302	2180	488	621	433	471	340	340	175	101	244
15	303	297	2420	429	868	394	465	332	436	162	100	225
16	281	284	1240	409	796	392	479	292	331	155	98	209
17	282	278	933	414	647	512	603	281	291	152	93	188
18	299	259	769	412	648	534	1040	295	684	186	221	130
19	271	220	670	369	992	412	927	288	592	117	361	384
20	303	271	628	403	943	435	720	340	522	326	237	889
21	408	246	729	430	733	1190	661	445	430	269	132	489
22	386	237	710	e350	682	2070	658	883	318	170	113	319
23	284	260	666	e305	621	1240	584	1280	256	159	104	281
24	257	233	621	e315	600	963	521	623	214	181	99	244
25	262	226	e590	e330	537	795	1060	405	178	233	100	283
26	304	422	558	e340	491	704	1830	247	113	199	105	955
27	244	1280	546	e320	485	610	1370	320	258	145	114	809
28	202	975	563	e290	551	616	1060	254	2070	214	126	498
29	236	691	502	e305	565	575	1050	331	2840	676	151	449
30	229	525	430	e325	---	522	855	309	853	344	257	330
31	207	---	457	e340	---	481	---	294	---	640	354	---
TOTAL	21218	13400	20238	12859	15933	18072	20963	13838	13344	8064	5959	20574
MEAN	684	447	653	415	549	583	699	446	445	260	192	686
MAX	8410	1280	2420	874	992	2070	1830	1280	2840	676	529	3820
MIN	202	220	274	290	310	343	371	247	113	117	93	130
CFSM	1.03	.67	.98	.62	.83	.88	1.05	.67	.67	.39	.29	1.03
IN.	1.19	.75	1.13	.72	.89	1.01	1.17	.78	.75	.45	.33	1.15

02034000 RIVANNA RIVER AT PALMYRA, VA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	559	584	758	943	1046	1200	1047	761	589	393	460	474
MAX	3535	3521	2667	2620	3468	3415	3662	2472	4473	1524	3404	2915
(WY)	1943	1986	1949	1936	1998	1993	1937	1989	1972	1975	1969	1979
MIN	46.4	79.8	88.9	104	302	225	214	212	95.9	39.0	20.2	19.1
(WY)	1942	1942	1966	1966	1954	1981	1981	1956	1999	1966	1966	1954

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1935 - 2000	
ANNUAL TOTAL	167786		184462			
ANNUAL MEAN	460		504		733	
HIGHEST ANNUAL MEAN					1401	1973
LOWEST ANNUAL MEAN					241	1981
HIGHEST DAILY MEAN	15500	Sep 30	a8410	Oct 1	68000	Jun 22 1972
LOWEST DAILY MEAN	19	Aug 13	93	Aug 17	5.2	bSep 9 1966
ANNUAL SEVEN-DAY MINIMUM	24	Aug 8	109	Aug 22	5.6	Sep 7 1966
INSTANTANEOUS PEAK FLOW			6280	Sep 4	86000	Aug 20 1969
INSTANTANEOUS PEAK STAGE			10.85	Sep 4	39.85	Aug 20 1969
INSTANTANEOUS LOW FLOW			91	cAug 17	5.2	bSep 9 1966
ANNUAL RUNOFF (CFSM)	.69		.76		1.10	
ANNUAL RUNOFF (INCHES)	9.40		10.33		15.00	
10 PERCENT EXCEEDS	775		854		1410	
50 PERCENT EXCEEDS	325		390		420	
90 PERCENT EXCEEDS	52		174		111	

a Stage falling, peak occurred Sept. 30, 1999.
b Also Sept. 10, 11, 1966.
c Also Aug. 18, 2000.
e Estimated.