02074000 SMITH RIVER AT EDEN, NC

LOCATION.--Lat 36°31'31", long 79°45'57", Rockingham County, Hydrologic Unit 03010103, on right bank at Eden, 0.3 mi downstream of bridge on State Highway 14, 0.8 mi upstream from bridge on Secondary Road 1714, 1.2 mi south of Virginia-North Carolina State line, 1.3 mi downstream of Stuart Creek, and 3.9 mi upstream from mouth.

DRAINAGE AREA.--538 mi^2.

PERIOD OF RECORD.--October 1939 to current year. Prior to October 1970, published as "Smith River at Spray".

REVISED RECORDS.--WSP 1433: 1946.

GAGE.--Water-stage recorder. Datum of gage is 539.56 ft above sea level. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated since August 1950 by Philpott Lake, 40 mi upstream (usable capacity, 6,325,000,000 ft^3). Additional regulation by hydroelectric plant at Martinsville, Virginia, 18 mi upstream. Maximum discharge prior to regulation: 45,600 ft^3/s, Aug. 15, 1940, from rating curve extended above 12,000 ft^3/s on the basis of computation of peak flow over dam 1.5 mi downstream; gage height: 19.28 ft.

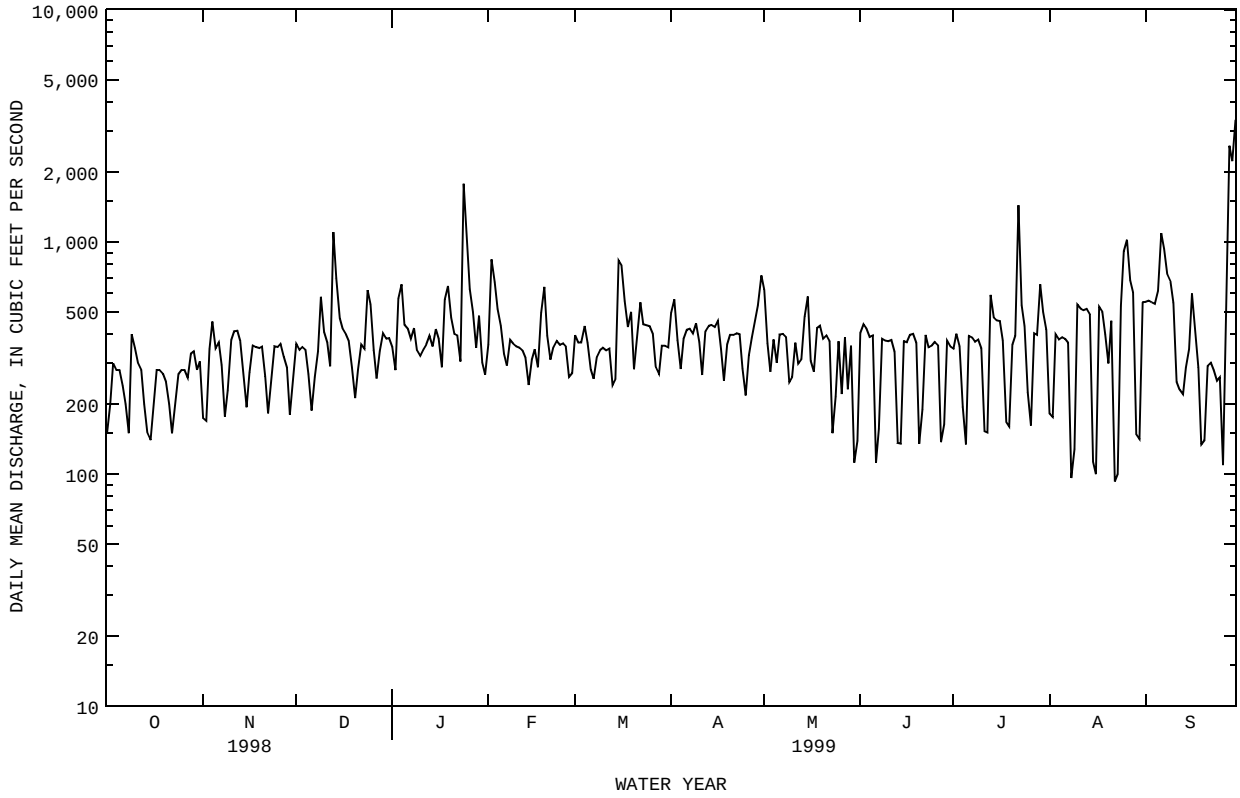
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e150	174	364	353	362	396	495	623	405	347	182	551
2	e200	169	343	e280	841	369	566	366	442	403	176	558
3	e300	346	353	e570	672	369	378	276	424	356	400	550
4	e280	454	343	657	514	434	284	380	390	195	380	542
5	e280	349	270	439	436	369	382	301	396	134	389	617
6	e240	371	188	421	330	282	418	399	112	394	383	1090
7	e200	295	262	382	293	257	422	402	157	388	367	935
8	e150	177	338	425	378	320	403	389	383	372	96	722
9	e400	230	580	341	365	343	445	249	376	380	128	675
10	e350	378	409	324	354	350	371	262	373	348	536	546
11	e300	412	368	344	350	341	267	368	378	153	516	249
12	e280	414	291	361	340	348	413	300	336	151	508	231
13	e200	374	1100	394	317	242	435	313	136	591	515	e220
14	e150	275	701	355	242	257	439	476	135	471	487	288
15	e140	194	470	421	311	830	431	581	373	458	113	346
16	e200	274	423	383	345	792	458	307	370	456	100	598
17	e280	358	400	289	289	557	344	276	397	377	525	408
18	e280	352	374	565	494	431	253	427	401	167	e500	288
19	e270	349	289	647	641	499	361	436	367	160	e400	134
20	e250	355	213	472	395	283	397	383	135	360	e300	140
21	e200	264	282	402	311	385	397	395	190	394	457	292
22	e150	183	362	396	352	550	404	373	398	1440	93	301
23	e200	261	346	305	374	441	400	150	353	534	100	280
24	e270	354	e620	1780	360	437	285	216	358	434	530	253
25	e280	352	540	1060	366	433	218	373	371	225	911	261
26	e280	364	343	627	355	401	325	221	358	162	1020	109
27	e260	321	258	499	262	289	386	388	137	404	683	726
28	331	287	339	350	273	269	458	232	164	398	607	2600
29	338	180	404	481	---	357	533	357	376	657	148	2230
30	281	261	383	303	---	357	717	112	355	500	141	3360
31	305	---	385	268	---	351	---	139	---	419	550	---
TOTAL	7795	9127	12341	14894	10922	12339	12085	10470	9546	12228	12241	20100
MEAN	251	304	398	480	390	398	403	338	318	394	395	670
MAX	400	454	1100	1780	841	830	717	623	442	1440	1020	3360
MIN	140	169	188	268	242	242	218	112	112	134	93	109
†	-69	-81	-30	+117	+84	+78	+9	+48	-133	-143	-287	-10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1999*, BY WATER YEAR (WY)

MEAN	516	506	594	702	749	910	901	713	645	515	497	533
MAX	1572	1530	1376	1453	1633	2519	3016	1567	2026	1374	1454	2030
(WY)	1990	1986	1997	1979	1998	1993	1987	1978	1972	1989	1985	1996
MIN	201	211	273	291	325	331	294	266	213	214	194	248
(WY)	1952	1982	1981	1989	1968	1967	1967	1964	1964	1981	1953	1951

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1951 - 1999*	
ANNUAL TOTAL	264114		144088			
ANNUAL MEAN	724		395	‡359	648	(UNADJUSTED)
HIGHEST ANNUAL MEAN					1010	1987
LOWEST ANNUAL MEAN					309	1981
HIGHEST DAILY MEAN	6350	Jan 28	3360	Sep 30	16700	Jun 21 1972
LOWEST DAILY MEAN	130	Sep 23	93	Aug 22	46	Aug 14 1967
ANNUAL SEVEN-DAY MINIMUM	200	Sep 21	217	Oct 13	130	Aug 21 1964
INSTANTANEOUS PEAK FLOW			5420	Sep 30	24800	Jun 21 1972
INSTANTANEOUS PEAK STAGE			7.25	Sep 30	16.24	Jun 21 1972
INSTANTANEOUS LOW FLOW			74	Jul 7	38	Aug 7 1967
10 PERCENT EXCEEDS	1490		565		1180	
50 PERCENT EXCEEDS	482		361		457	
90 PERCENT EXCEEDS	219		179		227	

e Estimated.
† Change in contents, equivalent in cubic feet per second, in Philpott Lake provided by U.S. Army Corps of Engineers.
‡ Adjusted for change in contents.
* Regulated period only (1951-1999). See REMARKS.

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