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 NGVD of 1929. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records good. 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.

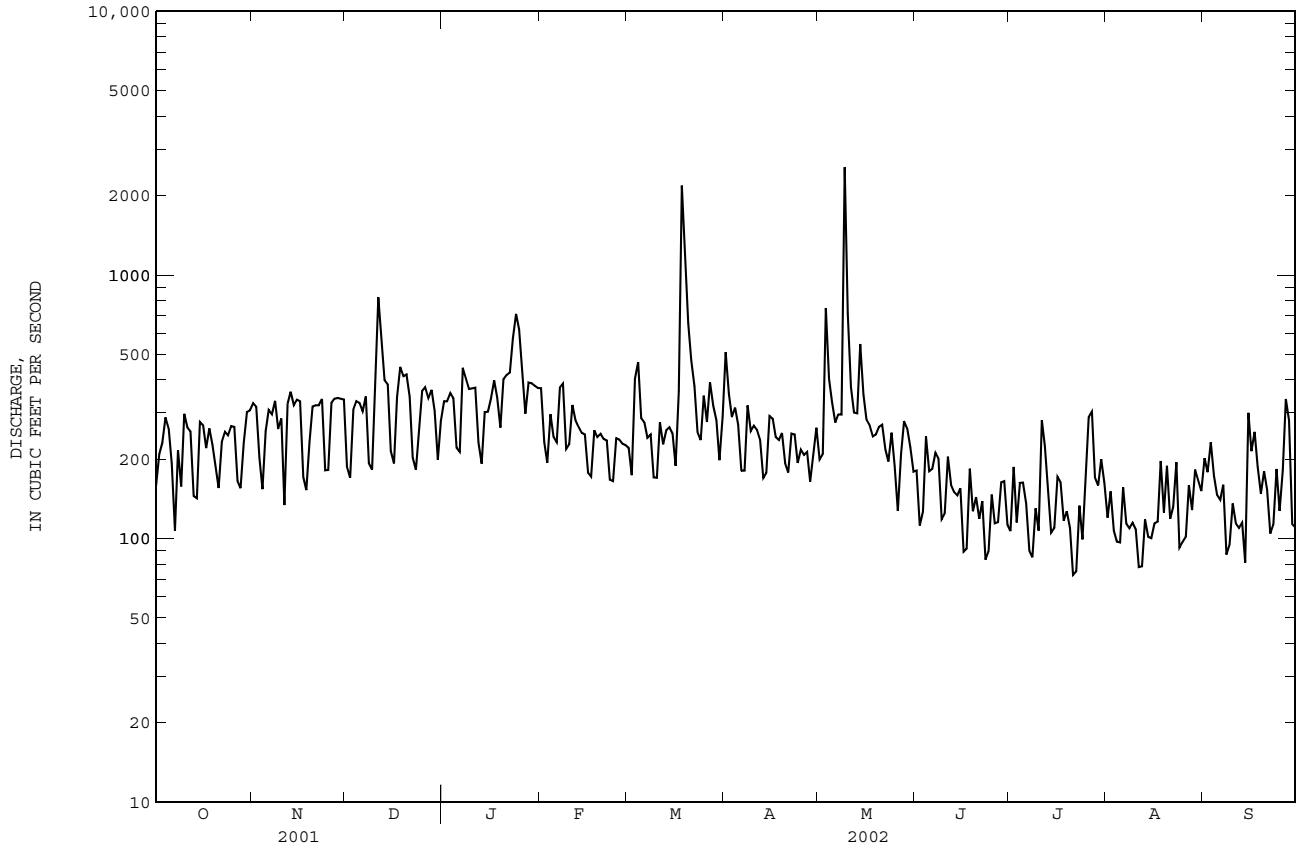
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	159	326	187	332	372	221	509	200	181	107	120	202
2	209	316	170	332	232	174	354	210	112	187	151	179
3	231	202	309	356	194	404	289	749	127	115	107	232
4	288	154	332	341	296	467	314	404	244	163	97	173
5	261	256	327	221	243	287	270	329	180	163	97	147
6	193	308	304	213	232	276	181	275	184	136	157	140
7	107	296	346	444	374	241	181	296	212	90	114	160
8	217	333	193	405	387	249	320	296	201	85	109	87
9	158	260	183	369	219	171	256	2560	118	130	115	94
10	297	285	330	371	228	170	268	716	124	107	109	136
11	264	134	823	374	321	276	259	375	205	281	78	114
12	255	325	545	231	282	228	237	301	160	224	79	110
13	145	361	399	192	265	258	170	299	150	156	118	115
14	142	321	385	302	252	265	178	548	146	105	101	81
15	277	336	215	303	248	250	292	352	155	110	100	300
16	269	332	193	340	178	189	285	283	89	171	114	214
17	220	171	344	398	172	361	242	269	92	164	116	254
18	262	153	448	343	257	2180	237	244	184	117	197	187
19	227	233	413	264	243	1080	251	248	127	127	126	148
20	186	317	420	402	250	656	193	266	144	110	189	180
21	156	321	345	418	239	474	178	271	119	73	119	153
22	233	320	203	426	235	378	250	218	139	75	132	104
23	254	338	182	574	167	254	248	196	83	133	195	113
24	246	182	246	711	165	237	194	252	89	99	92	184
25	267	182	363	621	240	348	218	189	147	169	97	127
26	265	327	375	421	238	277	208	127	114	289	102	182
27	166	339	341	298	229	391	213	209	115	304	160	338
28	155	342	366	391	226	320	165	279	163	171	128	280
29	231	339	305	389	---	281	208	261	165	159	183	113
30	302	337	199	380	---	198	264	222	113	200	166	110
31	307	---	280	373	---	290	---	179	---	162	151	---
TOTAL	6949	8446	10071	11535	6984	11851	7432	11623	4382	4682	3919	4957
MEAN	224.2	281.5	324.9	372.1	249.4	382.3	247.7	374.9	146.1	151.0	126.4	165.2
MAX	307	361	823	711	387	2180	509	2560	244	304	197	338
MIN	107	134	170	192	165	170	165	127	83	73	78	81
†	-94	-118	-60	-62	+5	+196	+67	+28	-31	-25	-63	-3

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2002,* BY WATER YEAR (WY)

MEAN	501.5	492.9	577.8	681.7	723.3	881.6	871.6	700.7	625.1	498.7	482.7	518.5
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	267	291	249	331	248	266	146	151	126	165
(WY)	1952	1982	2001	1989	2002	1967	2002	1964	2002	2002	2002	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1951 - 2002*	
ANNUAL TOTAL	132305		92831			
ANNUAL MEAN	362.5		254.3	‡241	629.0	(UNADJUSTED)
HIGHEST ANNUAL MEAN					1010	1987
LOWEST ANNUAL MEAN					254	2002
HIGHEST DAILY MEAN	4300	May 22	2560	May 9	16700	Jun 21 1972
LOWEST DAILY MEAN	105	Sep 16	73	Jul 21	46	Aug 14 1967
ANNUAL SEVEN-DAY MINIMUM	177	Sep 1	100	Aug 10	100	Aug 10 2002
MAXIMUM PEAK FLOW			5220	May 9	24800	Jun 21 1972
MAXIMUM PEAK STAGE			7.12	May 9	16.24	Jun 21 1972
INSTANTANEOUS LOW FLOW			65	Aug 15	38	Aug 7 1967
10 PERCENT EXCEEDS	471		375		1160	
50 PERCENT EXCEEDS	308		229		442	
90 PERCENT EXCEEDS	189		113		219	

† 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 (1951-2002). See REMARKS.

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