

ROANOKE RIVER BASIN

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 mi².

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.--No estimated daily discharges. Records good. Flow regulated since August 1950 by Philpott Lake, 40 mi upstream (usable capacity, 6,325,000,000 ft³). Additional regulation by hydroelectric plant at Martinsville, Virginia, 18 mi upstream. Maximum discharge prior to regulation: 45,600 ft³/s, Aug. 15, 1940, from rating curve extended above 12,000 ft³/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 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	219	233	259	278	287	296	910	297	473	195	434	139
2	289	233	158	404	276	306	1100	294	448	197	437	126
3	248	234	256	321	184	246	634	289	260	431	401	131
4	240	243	299	340	223	277	561	286	278	474	392	161
5	229	161	248	313	377	447	467	192	407	1270	169	177
6	227	298	249	211	275	320	419	304	322	588	162	220
7	207	256	246	289	256	304	286	364	368	501	381	288
8	221	235	241	291	261	295	374	300	372	360	391	357
9	283	277	237	297	255	290	465	253	211	311	385	120
10	216	331	165	252	216	240	342	285	249	317	374	135
11	204	295	321	251	221	280	343	304	296	261	411	286
12	210	177	253	251	321	309	330	238	432	222	291	266
13	232	306	248	215	278	332	341	276	399	238	253	255
14	223	259	239	225	263	313	249	250	425	228	456	269
15	215	264	278	284	271	327	357	293	409	222	416	237
16	148	257	185	256	269	440	324	1010	405	245	406	105
17	268	259	419	250	420	288	386	767	196	204	389	140
18	213	167	537	266	393	335	323	532	204	246	393	247
19	215	251	332	450	397	411	318	376	397	233	433	251
20	236	293	308	957	309	328	311	2000	374	217	243	259
21	146	247	258	691	303	1310	190	957	381	193	415	286
22	239	243	279	572	292	1060	323	4300	424	133	406	220
23	261	152	246	375	298	657	379	1900	565	194	406	131
24	238	312	188	353	214	359	318	963	267	244	451	201
25	230	269	250	312	361	452	300	710	301	191	418	323
26	236	279	419	297	445	446	300	1080	437	222	176	339
27	260	408	262	242	346	351	389	1080	576	324	159	243
28	221	279	252	240	323	331	203	984	438	310	405	316
29	159	271	249	336	---	447	313	744	397	305	408	218
30	287	257	247	322	---	2250	357	482	382	312	376	134
31	238	---	154	311	---	761	---	542	---	470	313	---
TOTAL	7058	7746	8282	10452	8334	14808	11912	22652	11093	9858	11150	6580
MEAN	228	258	267	337	298	478	397	731	370	318	360	219
MAX	289	408	537	957	445	2250	1100	4300	576	1270	456	357
MIN	146	152	154	211	184	240	190	192	196	133	159	105
†	-55	-26	-11	+10	+18	+157	+63	+106	-11	-58	-152	-73

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2001,* BY WATER YEAR (WY)

	507	497	583	688	733	891	884	707	634	506	490	525
MEAN	507	497	583	688	733	891	884	707	634	506	490	525
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	298	331	294	266	213	214	194	219
(WY)	1952	1982	2001	1989	2001	1967	1967	1964	1964	1981	1953	2001

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1951 - 2001*

ANNUAL TOTAL	124528	129925		
ANNUAL MEAN	340	356	+353	636 (UNADJUSTED)
HIGHEST ANNUAL MEAN				1010 1987
LOWEST ANNUAL MEAN				309 1981
HIGHEST DAILY MEAN	2700	Sep 3	4300	May 22 16700 Jun 21 1972
LOWEST DAILY MEAN	124	Aug 27	105	Sep 16 46 Aug 14 1967
ANNUAL SEVEN-DAY MINIMUM	174	Aug 21	177	Sep 1 130 Aug 21 1964
MAXIMUM PEAK FLOW			8480	May 22 24800 Jun 21 1972
MAXIMUM PEAK STAGE			9.07	May 22 16.24 Jun 21 1972
INSTANTANEOUS LOW FLOW			79	Dec 31 38 Aug 7 1967
10 PERCENT EXCEEDS	493		468	1170
50 PERCENT EXCEEDS	286		291	448
90 PERCENT EXCEEDS	202		197	225

† 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 (1951-2001). See REMARKS.

02074000 SMITH RIVER AT EDEN, NC--Continued

