

02074000 SMITH RIVER AT EDEN, NC

LOCATION.--Lat 36°31'32", long 79°45'56", 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 NGVD of 1929. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. 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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,270	567	807	1,290	412	484	625	898	811	688	434	464
2	1,200	438	837	1,290	430	766	613	432	585	706	553	492
3	1,190	594	1,050	1,230	874	787	533	572	680	625	1,080	482
4	1,100	814	1,090	437	1,030	773	464	802	892	337	891	437
5	560	823	1,280	588	770	768	560	782	1,150	409	746	276
6	653	1,200	1,130	960	1,370	749	715	764	563	719	751	279
7	683	1,510	732	879	2,270	488	770	746	491	796	800	561
8	675	933	802	862	953	483	735	739	696	412	280	5,610
9	704	588	789	877	742	600	761	436	755	735	394	3,470
10	706	660	932	809	977	601	679	436	699	599	464	1,850
11	634	750	2,750	447	1,120	599	436	684	890	426	469	1,740
12	429	703	1,150	504	1,120	599	626	587	740	438	1,120	650
13	607	706	1,460	702	1,040	562	2,260	609	391	959	1,200	891
14	681	693	1,530	632	999	431	2,680	609	418	669	726	727
15	791	624	1,600	686	546	464	1,840	544	722	669	425	756
16	706	464	1,520	779	587	781	1,360	366	4,030	627	390	625
17	673	672	1,420	590	914	826	1,200	473	912	646	914	1,300
18	610	743	1,410	432	909	690	1,240	750	884	283	1,760	1,850
19	391	874	844	477	924	657	1,140	668	755	374	736	743
20	582	1,130	643	574	925	599	1,170	813	429	681	520	428
21	732	886	605	557	879	470	1,160	1,110	497	629	555	636
22	693	743	569	569	506	483	1,160	719	1,010	597	394	606
23	687	571	542	662	519	569	1,130	671	957	658	415	552
24	680	797	530	534	786	601	1,080	826	1,060	672	451	555
25	599	1,440	645	416	786	583	480	546	1,060	259	486	497
26	384	1,390	919	425	738	614	520	931	3,220	334	358	335
27	746	1,410	906	627	762	504	978	857	804	1,140	377	352
28	761	1,440	439	683	687	448	913	800	647	988	503	4,350
29	742	1,210	706	786	463	489	868	789	844	826	190	1,810
30	687	540	1,230	796	---	640	940	459	657	1,180	315	1,700
31	661	---	1,310	641	---	657	---	466	---	879	528	---
TOTAL	22,217	25,913	32,177	21,741	25,038	18,765	29,636	20,884	28,249	19,960	19,225	35,024
MEAN	717	864	1,038	701	863	605	988	674	942	644	620	1,167
MAX	1,270	1,510	2,750	1,290	2,270	826	2,680	1,110	4,030	1,180	1,760	5,610
MIN	384	438	439	416	412	431	436	366	391	259	190	276
CFSM	1.33	1.61	1.93	1.30	1.60	1.13	1.84	1.25	1.75	1.20	1.15	2.17
IN.	1.54	1.79	2.22	1.50	1.73	1.30	2.05	1.44	1.95	1.38	1.33	2.42
†	-33	+45	+11	-48	+80	+24	+2	+9	-13	-74	+7	+229

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2004,* BY WATER YEAR (WY)

	500	498	585	678	731	887	885	707	654	512	497	540
MEAN	500	498	585	678	731	887	885	707	654	512	497	540
MAX	1,572	1,530	1,376	1,453	1,633	2,519	3,016	1,567	2,026	1,374	1,454	2,030
(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)

02074000 SMITH RIVER AT EDEN, NC—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1951 - 2004*	
ANNUAL TOTAL	397,539		298,829		639 (UNADJUSTED)	
ANNUAL MEAN	1,089		816		1,010 1987	
HIGHEST ANNUAL MEAN					254 2002	
LOWEST ANNUAL MEAN					16,700 Jun 21, 1972	
HIGHEST DAILY MEAN	11,400	Mar 20	5,610	Sep 8	46	Aug 14, 1967
LOWEST DAILY MEAN	185	Jan 19	190	Aug 29	100	Aug 10, 2002
ANNUAL SEVEN-DAY MINIMUM	348	Jan 26	383	Aug 24	24,800	Jun 21, 1972
MAXIMUM PEAK FLOW			13,100	Sep 8	16.24	Jun 21, 1972
MAXIMUM PEAK STAGE			11.39	Sep 8	38	Aug 7, 1967
INSTANTANEOUS LOW FLOW			184	Aug 29	1.19	
ANNUAL RUNOFF (CFSM)	2.02		1.52		16.13	
ANNUAL RUNOFF (INCHES)	27.49		20.66			
10 PERCENT EXCEEDS	1,860		1,230			
50 PERCENT EXCEEDS	881		698			
90 PERCENT EXCEEDS	442		432			

† Change in contents, equivalent in cubic feet per second, in Philpott Lake provided by U.S. Army Corps of Engineers.

* Regulated period only (1951-2004). See REMARKS.

‡ Adjusted for change in contents.

