

Water-Data Report 2007

02113850 ARARAT RIVER AT ARARAT, NC

Upper Pee Dee Basin
Upper Yadkin Subbasin

LOCATION.--Lat 36°24'16", long 80°33'42" referenced to North American Datum of 1983, Surry County, NC, Hydrologic Unit 03040101, on right bank 265 ft upstream from bridge on Secondary Road 2019 at Ararat, and 300 ft downstream of Flat Shoal Creek.

DRAINAGE AREA.--231 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--April 1964 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 880.97 ft above NGVD of 1929. Satellite telemetry at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Minimum discharge for period of record also occurred August 20, 1999.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 14, 1947, reached a stage of 21.4 ft, result of failure of dams upstream; discharge, 26,000 ft³/s, from information by local resident.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	176	231	314	2,640	304	367	344	259	392	228	122	510
2	162	279	301	848	310	2,910	344	253	239	170	115	189
3	155	234	272	570	298	796	326	251	489	161	125	121
4	151	218	261	498	290	538	320	266	428	154	159	107
5	158	214	255	591	282	475	307	273	262	159	110	98
6	444	205	248	563	e280	439	304	261	229	176	115	92
7	227	240	247	537	e285	412	303	240	208	147	110	88
8	234	475	235	1,890	283	396	298	238	200	139	104	86
9	195	355	234	730	275	378	295	238	197	132	94	83
10	178	285	234	554	277	368	294	237	182	159	87	80
11	168	262	231	498	270	363	318	233	196	160	82	79
12	186	298	229	471	270	347	471	236	196	152	97	81
13	163	251	235	451	331	345	345	225	179	133	83	77
14	158	245	233	432	906	340	323	212	196	134	75	1,680
15	154	236	228	416	418	335	743	208	198	127	71	587
16	154	2,970	226	400	347	1,090	856	208	209	145	68	245
17	275	919	221	377	323	754	454	229	192	151	68	179
18	318	513	221	371	317	506	390	215	173	148	64	157
19	222	416	219	372	293	455	366	202	165	132	62	143
20	296	371	216	358	299	428	358	196	214	119	60	133
21	242	340	215	358	322	412	333	191	176	111	67	127
22	209	389	639	391	305	397	318	188	156	105	88	130
23	195	403	1,030	365	283	385	307	185	151	102	96	131
24	185	336	460	344	277	374	303	186	147	123	86	119
25	179	311	826	338	341	365	297	179	181	312	81	116
26	178	293	751	326	364	355	288	181	175	180	75	112
27	219	282	481	328	e330	352	341	183	151	149	105	108
28	756	275	410	326	306	347	301	172	198	150	88	105
29	368	268	373	307	---	369	277	170	215	139	97	97
30	277	266	350	308	---	347	266	164	281	131	132	97
31	249	---	371	304	---	341	---	171	---	128	158	---
Total	7,231	12,380	10,766	17,262	9,186	16,086	10,790	6,650	6,575	4,656	2,944	5,957
Mean	233	413	347	557	328	519	360	215	219	150	95.0	199
Max	756	2,970	1,030	2,640	906	2,910	856	273	489	312	159	1,680
Min	151	205	215	304	270	335	266	164	147	102	60	77
Cfsm	1.01	1.79	1.50	2.41	1.42	2.25	1.56	0.93	0.95	0.65	0.41	0.86
In.	1.16	1.99	1.73	2.78	1.48	2.59	1.74	1.07	1.06	0.75	0.47	0.96

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2007, BY WATER YEAR (WY)

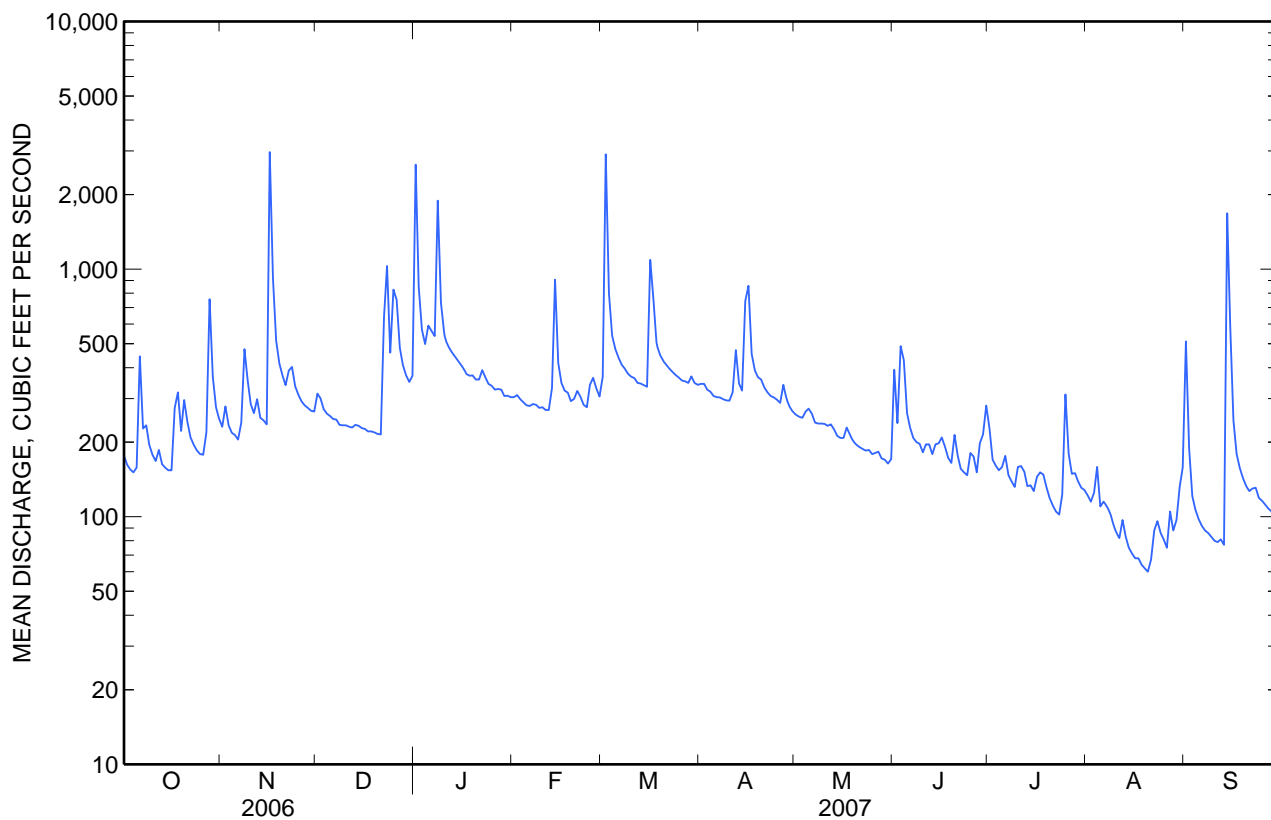
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	236	254	288	341	359	424	420	343	319	258	244	233
Max	587	537	584	743	691	992	1,048	591	855	658	930	879
(WY)	(1977)	(1993)	(1974)	(1978)	(1990)	(1993)	(1980)	(1973)	(2003)	(2003)	(2003)	(1979)
Min	83.1	90.3	121	120	141	172	170	143	80.3	81.9	43.0	88.2
(WY)	(2001)	(2002)	(2001)	(1981)	(2001)	(1981)	(1967)	(2002)	(2002)	(1986)	(2002)	(1998)

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SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1964 - 2007	
Annual total	98,843		110,483			
Annual mean	271		303		310	
Highest annual mean					493	2003
Lowest annual mean					137	2002
Highest daily mean	2,970	Nov 16	2,970	Nov 16	13,600	Sep 22, 1979
Lowest daily mean	80	Jun 23	60	Aug 20	13	Aug 19, 1999
Annual seven-day minimum	87	Jun 18	66	Aug 15	23	Aug 24, 1981
Maximum peak flow			6,020	Mar 2	35,000	Sep 22, 1979
Maximum peak stage			10.16	Mar 2	24.46	Sep 22, 1979
Instantaneous low flow			55	Aug 21	^a 12	Aug 19, 1999
Annual runoff (cfsm)	1.17		1.31		1.34	
Annual runoff (inches)	15.92		17.79		18.22	
10 percent exceeds	384		471		504	
50 percent exceeds	210		245		239	
90 percent exceeds	149		106		120	

^a See Remarks.



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PERIOD OF RECORD.--October 2002 to current year.

INSTRUMENTATION.--Tipping-bucket raingage and electronic datalogger. Satellite telemetry at station.

REMARKS.--Precipitation data collected during freezing periods may not be accurately reflected in daily record; consequently, winter record is poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY SUM VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.11	0.13	0.10	1.22	0.04	---	---	0.00	0.00	0.00	0.00	0.22
2	0.00	0.19	0.00	0.00	0.02	0.57	---	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	1.46	0.00	0.97	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00
5	0.68	0.00	0.00	0.59	0.00	0.00	0.00	0.01	0.05	0.46	0.00	0.00
6	0.25	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
7	0.04	0.70	0.00	1.07	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00
8	0.51	0.22	0.00	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00
11	0.17	0.22	0.00	0.00	0.00	0.00	0.85	0.01	1.22	0.32	0.00	0.00
12	0.03	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.03	0.00
13	0.00	0.00	0.05	0.00	1.45	0.00	0.00	0.00	0.21	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.03	0.00	0.37	0.00	0.01	0.00	0.00	5.39
15	0.00	0.31	0.00	0.00	0.00	0.00	1.16	0.00	0.02	0.00	0.00	0.01
16	0.02	1.56	0.00	0.00	0.00	1.55	0.00	0.03	0.06	0.00	0.00	0.00
17	0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.07	0.00	0.00
18	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00
19	0.04	0.00	0.00	0.01	0.00	0.00	0.17	0.00	0.01	0.00	0.00	0.00
20	0.24	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.02	0.00	0.00
21	0.00	0.19	0.06	0.40	0.16	0.00	0.00	0.00	0.00	0.00	0.40	0.00
22	0.00	0.56	1.05	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
23	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.38	0.00	0.00
25	0.00	0.00	1.19	0.00	0.53	0.00	0.00	0.00	0.52	0.36	0.00	0.00
26	0.00	0.00	0.16	0.00	0.01	0.00	0.04	0.00	0.01	0.00	0.00	0.00
27	1.06	0.00	0.00	0.00	---	0.00	0.36	0.00	0.00	0.01	0.00	0.00
28	0.09	0.00	0.00	0.00	---	---	0.00	0.00	0.07	0.01	0.00	0.00
29	0.00	0.00	0.00	0.00	---	---	0.00	0.00	0.11	0.00	0.95	0.00
30	0.00	0.00	0.00	0.00	---	---	0.00	0.00	0.14	0.00	0.54	0.00
31	0.00	---	0.65	0.00	---	---	---	0.00	---	0.00	0.01	---
Total	4.15	4.08	3.27	3.65	---	---	---	0.31	4.11	1.74	3.14	5.62

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