

Water-Data Report 2008

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.--No estimated daily discharges. Records fair. Minimum discharge for period of record also occurred August 20, 1999. Minimum discharge for current water year also occurred August 26, 2008.

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 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	97	205	132	328	414	161	226	277	134	116	88	74
2	96	188	133	261	377	157	197	251	131	90	74	70
3	97	178	133	220	248	154	191	235	129	82	66	66
4	98	173	129	209	252	170	283	226	131	78	58	60
5	99	165	129	205	291	265	272	215	127	120	52	55
6	98	159	129	190	270	204	806	208	118	146	54	53
7	98	152	126	186	342	297	460	196	111	126	55	51
8	94	150	128	180	277	423	341	203	129	109	73	50
9	93	147	130	176	242	316	293	528	111	176	63	122
10	102	148	130	186	220	260	269	265	170	207	53	286
11	82	145	129	207	202	237	250	250	130	131	47	144
12	77	145	128	190	199	223	247	300	160	108	41	97
13	84	147	129	175	261	206	229	227	122	98	42	92
14	91	151	131	167	236	201	216	204	138	216	48	81
15	90	153	128	162	206	212	212	200	206	125	62	71
16	87	140	258	156	195	230	203	229	128	97	84	137
17	91	138	189	175	187	197	199	209	108	87	55	111
18	93	137	156	193	210	187	194	190	94	78	46	82
19	102	135	147	182	196	209	192	185	92	75	40	72
20	118	135	142	167	182	453	302	175	90	69	39	69
21	110	135	153	149	176	288	239	170	91	63	36	69
22	100	137	150	169	174	248	219	163	103	59	34	66
23	106	135	216	160	174	226	204	156	199	66	38	63
24	137	130	293	156	168	214	197	161	114	81	33	61
25	586	132	201	143	167	204	185	155	91	66	34	56
26	2,880	145	251	152	184	197	187	147	82	61	39	62
27	1,030	169	242	149	189	194	231	149	102	60	408	240
28	429	147	262	147	166	191	550	154	110	58	256	198
29	299	139	514	147	160	191	475	162	145	56	138	119
30	249	137	470	153	---	189	320	147	194	65	102	98
31	222	---	521	144	---	213	---	142	---	85	84	---
Total	8,035	4,497	6,109	5,584	6,565	7,117	8,389	6,479	3,790	3,054	2,342	2,875
Mean	259	150	197	180	226	230	280	209	126	98.5	75.5	95.8
Max	2,880	205	521	328	414	453	806	528	206	216	408	286
Min	77	130	126	143	160	154	185	142	82	56	33	50
Cfs/m	1.12	0.65	0.85	0.78	0.98	0.99	1.21	0.90	0.55	0.43	0.33	0.41
In.	1.29	0.72	0.98	0.90	1.06	1.15	1.35	1.04	0.61	0.49	0.38	0.46

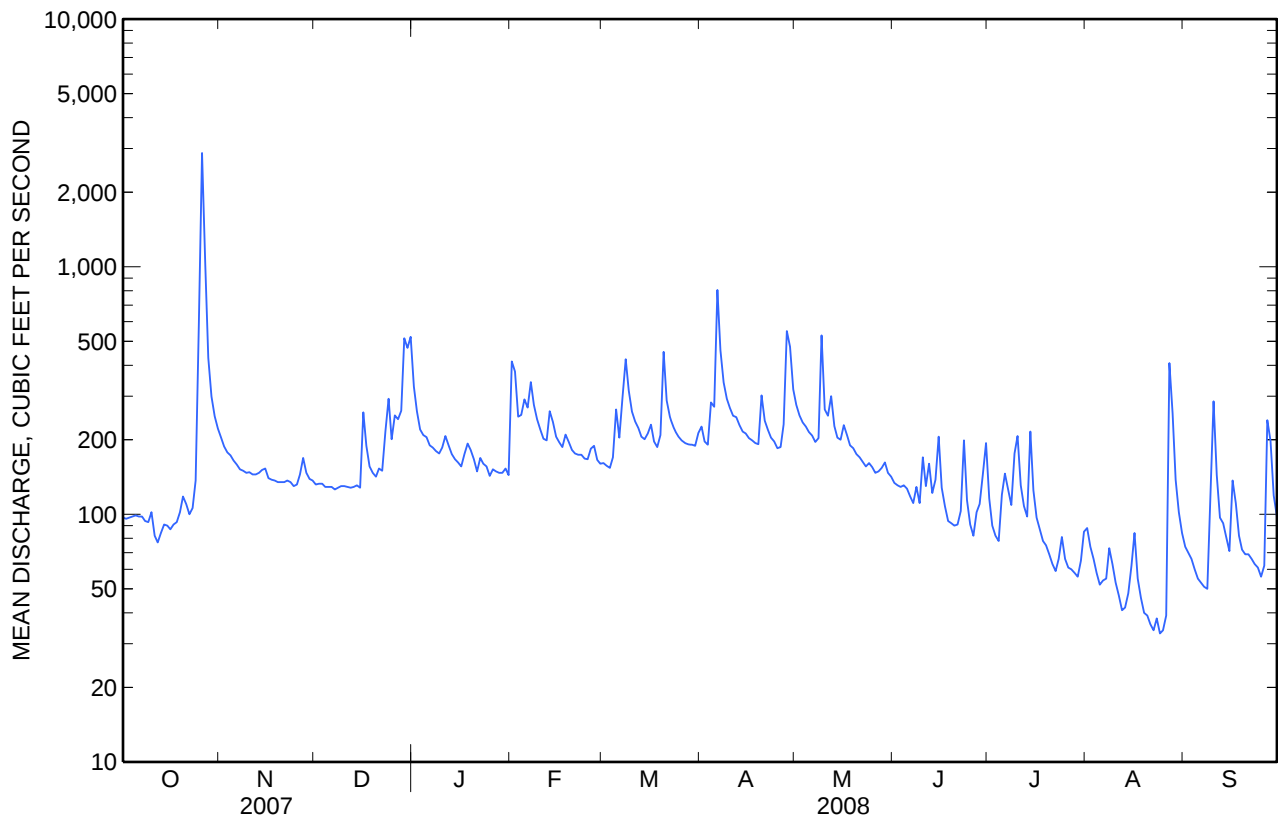
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	237	252	285	337	356	420	417	340	315	255	240	230
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 2007		Water Year 2008		Water Years 1964 - 2008	
Annual total	98,747		64,836			
Annual mean	271		177		307	
Highest annual mean					493	2003
Lowest annual mean					137	2002
Highest daily mean	2,910	Mar 2	2,880	Oct 26	13,600	Sep 22, 1979
Lowest daily mean	60	Aug 20	33	Aug 24	13	Aug 19, 1999
Annual seven-day minimum	66	Aug 15	36	Aug 20	23	Aug 24, 1981
Maximum peak flow			4,580	Oct 26	35,000	Sep 22, 1979
Maximum peak stage			8.31	Oct 26	24.46	Sep 22, 1979
Instantaneous low flow			^a 30	Aug 24	^a 12	Aug 19, 1999
Annual runoff (cfs)	1.17		0.767		1.33	
Annual runoff (inches)	15.90		10.44		18.04	
10 percent exceeds	444		269		500	
50 percent exceeds	192		152		236	
90 percent exceeds	96		64		118	

^aSee 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 may be poor.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY SUM VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.00	0.00	0.00	0.00	1.41	0.00	0.09	0.00	0.00	0.00	0.12	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00
3	0.00	0.00	0.01	0.00	0.14	0.00	0.62	0.00	0.36	0.00	0.00	0.00
4	0.01	0.00	0.00	0.00	0.31	0.57	0.32	0.01	0.00	0.18	0.00	0.00
5	0.00	0.00	0.00	0.00	0.01	0.00	0.57	0.00	0.00	0.35	0.00	0.00
6	0.00	0.04	0.00	0.00	0.19	0.00	0.59	0.00	0.00	0.03	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.91	0.00	0.00	0.00	0.00	0.05	0.00
8	0.00	0.00	0.00	0.00	0.00	0.14	0.00	1.01	0.00	0.36	0.00	0.26
9	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.81	0.00	0.78	0.00	0.13
10	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.50
11	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.01
12	0.00	0.00	0.00	0.00	0.01	0.00	0.12	0.00	0.00	0.00	0.00	0.00
13	0.00	0.02	0.01	0.00	0.60	0.00	0.00	0.00	0.00	0.26	0.00	0.00
14	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.05	0.21	0.00
15	0.00	0.18	0.80	0.00	0.00	0.35	0.00	0.02	0.01	0.00	0.11	0.00
16	0.00	0.00	0.15	0.00	0.00	0.01	0.00	0.11	0.00	0.00	0.01	1.03
17	0.00	0.00	0.00	0.14	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.31	0.09	0.00	0.00	0.12	0.00	0.00	0.00	0.00
19	0.07	0.00	0.00	0.00	0.00	0.61	0.53	0.01	0.00	0.00	0.00	0.00
20	0.00	0.00	0.02	0.00	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.21	0.00	0.00	0.00	0.16	0.01	0.01	0.04	0.00	0.00
22	0.00	0.00	0.00	0.00	0.03	0.00	0.06	0.00	0.17	0.00	0.00	0.00
23	0.05	0.00	0.52	0.00	0.01	0.00	0.00	0.00	0.11	1.14	0.00	0.00
24	0.37	0.00	0.00	0.00	0.02	0.00	0.00	0.16	0.00	0.01	0.00	0.00
25	2.25	0.11	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01
26	1.95	0.16	0.62	0.00	0.28	0.00	0.02	0.00	0.00	0.00	0.66	1.40
27	0.01	0.01	0.00	0.00	0.00	0.00	0.56	0.41	0.64	0.00	1.87	0.44
28	0.00	0.00	0.85	0.00	0.00	0.00	0.37	0.16	0.02	0.00	0.04	0.03
29	0.00	0.00	0.03	0.02	0.00	0.09	0.00	0.00	1.31	0.26	0.00	0.00
30	0.00	0.00	0.88	0.09	---	0.07	0.00	0.00	0.04	0.00	0.00	0.09
31	0.00	---	0.01	0.00	---	0.67	---	0.00	---	0.97	0.00	---
Total	5.03	0.53	4.11	1.16	3.20	3.43	4.03	3.30	2.73	4.53	3.31	3.90

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