

Water-Data Report 2007

02082585 TAR RIVER AT NORTH CAROLINA HIGHWAY 97 AT ROCKY MOUNT, NC

Pamlico Basin
Upper Tar Subbasin

LOCATION.--Lat 35°57'17", long 77°47'14" referenced to North American Datum of 1983, Edgecombe County, NC, Hydrologic Unit 03020101, on left bank 20 ft downstream of bridge on North Carolina Highway 97, 0.5 mi upstream from Cowlick Branch, and 1.0 mi north-northeast of Rocky Mount.

DRAINAGE AREA.--925 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--August 1976 to current year.

REVISED RECORDS.--WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 52.81 ft above North American Vertical Datum of 1988. City of Rocky Mount telephone telemetry at station. Satellite telemetry at station.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Prior to October 1996, some regulation at low flow caused by mill above station. The city of Rocky Mount diverted an average of 17.0 ft³/s for municipal water supply, most of which was returned downstream of station as treated effluent. Minimum discharge for current water year and period of record, result of regulation. Minimum discharge for current water year also occurred September 28, 29, 30.

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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	415	717	1,060	1,100	789	1,120	1,380	435	89	106	113	27
2	356	503	1,140	1,070	944	1,420	1,010	306	76	112	107	25
3	289	442	1,270	1,200	1,050	2,710	749	314	123	113	88	24
4	226	357	1,260	1,300	1,050	3,850	715	334	466	111	83	23
5	197	295	1,150	1,100	962	2,410	638	280	513	108	84	25
6	175	257	1,040	1,290	828	1,360	595	245	637	106	90	21
7	224	299	936	2,260	733	1,060	571	318	441	109	90	15
8	477	715	840	3,300	687	885	456	256	359	80	88	16
9	932	2,420	734	2,680	664	799	507	262	248	89	84	19
10	809	3,640	709	2,980	634	743	526	257	195	e104	86	17
11	666	2,150	666	2,140	605	697	430	255	172	e113	79	9.2
12	547	1,890	646	1,430	582	659	548	297	139	127	77	13
13	430	3,260	613	1,180	568	632	805	446	128	98	74	18
14	393	5,060	620	1,060	1,190	607	1,500	440	125	95	72	27
15	323	5,380	610	981	1,480	593	1,550	380	74	92	72	41
16	324	5,540	583	919	1,800	768	2,300	371	110	93	72	15
17	266	6,250	575	863	1,380	1,580	3,640	270	96	150	39	14
18	337	7,160	553	839	1,040	3,470	4,240	268	112	382	62	17
19	330	6,490	532	899	866	4,030	3,300	257	118	170	74	21
20	436	5,800	520	936	777	2,150	1,380	245	113	259	71	24
21	536	2,770	513	919	715	1,260	994	240	82	137	58	23
22	492	3,060	500	1,580	747	1,040	819	221	94	118	37	18
23	422	5,450	884	2,340	761	896	719	191	107	108	38	14
24	391	6,670	1,200	2,700	854	815	636	177	105	101	36	15
25	297	6,450	2,090	1,910	855	765	585	118	109	99	36	13
26	318	6,280	4,080	1,400	1,080	725	480	111	104	90	37	9.4
27	324	3,790	5,070	1,160	1,190	699	290	126	103	94	35	8.3
28	811	1,520	5,060	1,020	1,390	804	481	117	101	155	34	8.5
29	783	1,220	2,980	933	---	776	496	134	105	113	32	8.4
30	1,220	1,080	1,530	843	---	1,190	494	127	105	107	30	8.3
31	1,000	---	1,210	770	---	2,130	---	108	---	108	27	---
Total	14,746	96,915	41,174	45,102	26,221	42,643	32,834	7,906	5,349	3,847	2,005	537.1
Mean	476	3,230	1,328	1,455	936	1,376	1,094	255	178	124	64.7	17.9
Max	1,220	7,160	5,070	3,300	1,800	4,030	4,240	446	637	382	113	41
Min	175	257	500	770	568	593	290	108	74	80	27	8.3

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2007, BY WATER YEAR (WY)

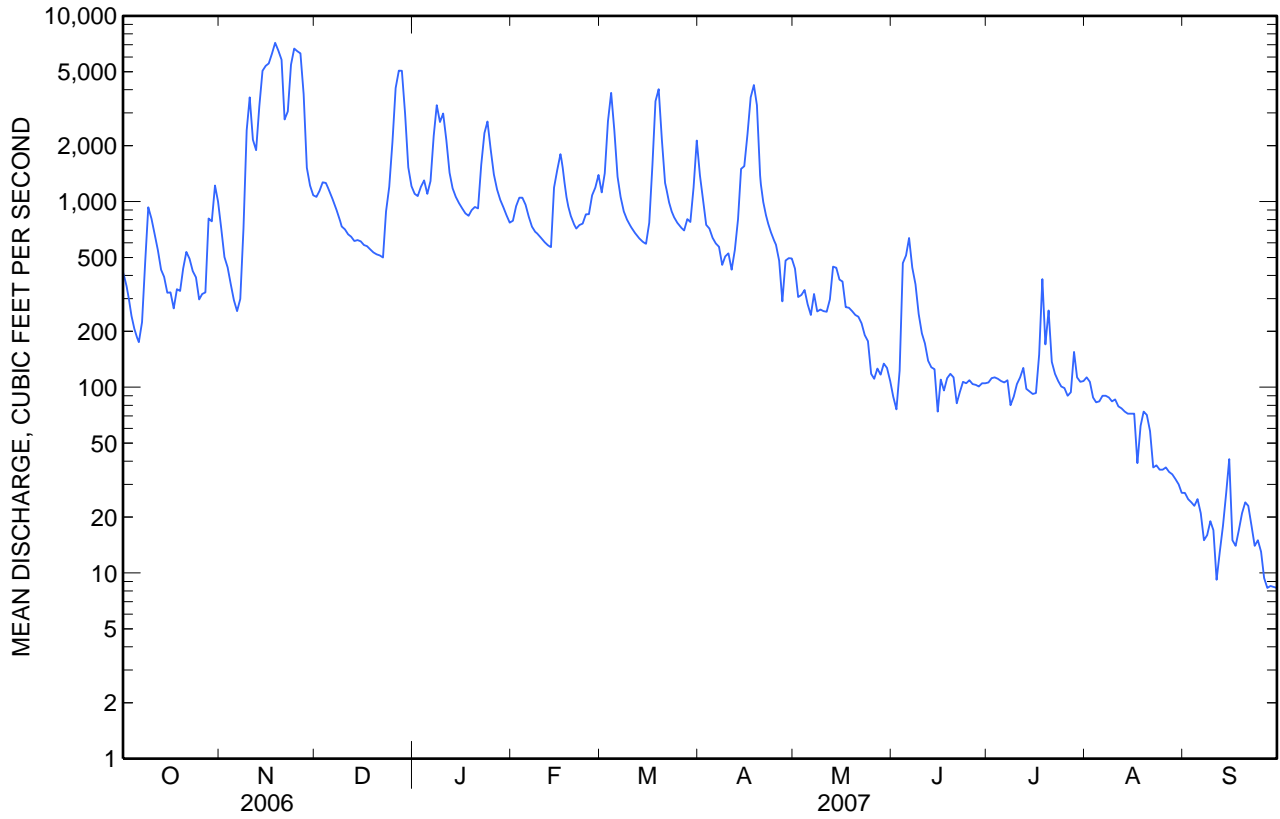
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	474	677	857	1,455	1,531	1,969	1,324	803	646	418	439	710
Max	2,918	3,230	2,318	3,230	3,920	4,507	3,447	2,725	2,532	1,368	1,482	8,135
(WY)	(2000)	(2007)	(2003)	(1978)	(1998)	(1998)	(1987)	(1989)	(2006)	(2000)	(2004)	(1999)
Min	68.1	74.5	125	254	546	343	332	148	67.3	54.1	64.7	17.9
(WY)	(2006)	(1981)	(1992)	(1981)	(1977)	(2006)	(1995)	(2002)	(2002)	(1986)	(2007)	(2007)

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SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1977 - 2007	
Annual total	380,238		319,279.1			
Annual mean	1,042		875		952	
Highest annual mean					1,764	2003
Lowest annual mean					262	1981
Highest daily mean	13,600	Jun 16	7,160	Nov 18	31,500	Sep 17, 1999
Lowest daily mean	43	Aug 28	8.3	Sep 27	6.6	Oct 3, 1983
Annual seven-day minimum	49	Aug 23	10	Sep 24	10	Sep 24, 2007
Maximum peak flow			7,260	Nov 18	34,100	Sep 17, 1999
Maximum peak stage			17.74	Nov 18	31.66	Sep 17, 1999
Instantaneous low flow			^a 8.2	Sep 27	^a 5.7	Sep 23, 1988
10 percent exceeds	2,400		2,190		2,240	
50 percent exceeds	520		492		480	
90 percent exceeds	213		37		95	

^a See Remarks.



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CLIMATOLOGICAL RECORDS

PERIOD OF RECORD.--November 2003 to current year.

INSTRUMENTATION.--Tipping-bucket raingage. 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	0.00	0.00	0.04	0.13	0.39	0.06	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.09	0.20	0.01	0.00	0.05	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.46	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00
5	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00
6	0.89	0.00	0.00	0.23	0.00	0.00	0.00	0.13	0.36	0.00	0.00	0.00
7	0.12	0.89	0.00	0.06	0.00	0.00	0.11	0.00	0.00	0.31	0.00	0.00
8	0.02	0.11	0.00	0.24	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
9	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.01	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.91	0.57	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.18	0.00	0.00
12	0.03	1.95	0.00	0.00	0.00	0.00	0.40	0.07	0.00	0.01	0.00	0.00
13	0.00	0.00	0.00	0.00	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00	1.23
15	0.00	0.00	0.00	0.00	0.00	0.00	1.54	0.00	0.00	0.00	0.00	0.28
16	0.00	2.09	0.00	0.03	0.00	1.17	0.03	0.00	0.00	0.00	0.00	0.00
17	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	1.50	0.13	0.00
18	0.06	0.00	0.00	0.17	0.00	0.00	0.00	0.04	0.00	0.35	0.00	0.00
19	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
20	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.48
21	0.00	0.56	0.00	0.53	0.07	0.00	0.00	0.00	0.00	0.00	0.83	0.01
22	0.04	0.90	0.67	0.30	0.13	0.00	0.00	0.01	0.00	0.00	0.00	0.00
23	0.01	0.02	0.11	0.01	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	0.00	0.00	0.00	0.00
25	0.00	0.00	1.85	0.00	0.58	0.00	0.00	0.00	0.36	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00
27	0.73	0.00	0.00	0.00	0.00	0.04	0.09	0.00	0.00	0.56	0.00	0.00
28	0.69	0.00	0.00	0.02	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.01	---	0.28	0.00	0.00	0.24	0.00	0.00	0.00
30	0.00	0.09	0.00	0.00	---	0.00	0.00	0.00	0.01	0.05	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
Total	3.19	6.62	2.67	1.75	1.86	---	2.23	1.00	2.68	4.87	1.74	2.00

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