

Water-Data Report 2007

02082506 TAR RIVER BELOW TAR RIVER RESERVOIR NEAR ROCKY MOUNT, NC

Pamlico Basin
Upper Tar Subbasin

LOCATION.--Lat 35°54'02", long 77°51'56" referenced to North American Datum of 1983, Nash County, NC, Hydrologic Unit 03020101, near center of span on downstream side of bridge on Secondary Road 1544, 1.8 mi downstream of Tar River Reservoir, 2.8 mi downstream of Sapony Creek, 2.9 mi upstream from Grape Branch, and 5.0 mi southwest of Rocky Mount.

DRAINAGE AREA.--777 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--August 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is 84.85 ft above NAVD of 1988 (levels by North Carolina State Highway Commission). Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. The city of Rocky Mount diverted an average of 5.9 ft³/s for municipal water supply, most of which was returned downstream of station as treated effluent. Minimum discharge for period of record and current water year due to regulation. Maximum gage height for period of record from floodmarks.

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

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	426	561	858	892	673	926	1,140	329	66	90	119	38
2	378	450	918	876	771	1,140	821	309	59	91	108	37
3	329	388	968	1,040	829	2,110	695	283	140	92	108	41
4	287	346	961	1,100	857	2,820	644	286	249	91	110	41
5	247	317	902	919	804	1,750	585	278	364	90	113	41
6	236	303	828	1,050	710	1,080	537	259	419	91	113	40
7	253	325	763	2,080	636	862	514	254	316	91	112	40
8	507	610	697	2,710	605	738	496	262	251	92	113	39
9	761	2,270	644	2,220	586	674	482	265	203	106	109	39
10	620	3,080	603	2,530	561	635	473	257	157	107	97	37
11	513	1,660	568	1,720	541	601	465	261	118	103	96	36
12	431	1,210	556	1,190	531	577	532	322	96	103	97	37
13	351	2,550	547	987	524	557	862	372	101	104	97	35
14	318	3,910	543	887	806	542	1,390	363	83	104	103	29
15	293	4,280	537	831	1,070	531	1,190	339	86	104	102	29
16	278	3,770	526	790	1,440	580	1,880	294	86	117	110	25
17	275	4,440	513	747	1,100	1,470	3,260	278	84	118	106	26
18	295	5,010	498	727	842	3,160	3,810	258	76	118	102	30
19	289	4,770	487	752	726	3,420	2,630	251	69	116	99	34
20	390	4,560	480	771	670	1,690	1,150	243	64	120	75	34
21	420	1,800	470	755	620	1,070	838	227	83	118	74	31
22	383	2,270	472	1,150	624	889	686	219	86	117	94	26
23	350	4,370	666	1,910	639	775	594	204	84	116	34	26
24	318	5,140	969	2,110	725	716	507	183	81	120	46	23
25	298	5,160	1,440	1,540	690	678	448	167	95	117	41	15
26	291	5,330	2,900	1,160	794	651	335	152	101	116	40	13
27	292	2,450	3,790	959	986	614	325	129	98	117	41	18
28	432	1,210	3,870	855	1,170	590	365	113	97	120	40	18
29	542	989	2,110	793	---	597	387	95	94	117	39	15
30	1,010	889	1,220	725	---	1,180	368	83	92	126	36	17
31	787	---	978	673	---	1,870	---	76	---	127	35	---
Total	12,600	74,418	32,282	37,449	21,530	35,493	28,409	7,411	3,998	3,359	2,609	910
Mean	406	2,481	1,041	1,208	769	1,145	947	239	133	108	84.2	30.3
Max	1,010	5,330	3,870	2,710	1,440	3,420	3,810	372	419	127	119	41
Min	236	303	470	673	524	531	325	76	59	90	34	13
Cfsm	0.52	3.19	1.34	1.55	0.99	1.47	1.22	0.31	0.17	0.14	0.11	0.04
In.	0.60	3.56	1.55	1.79	1.03	1.70	1.36	0.35	0.19	0.16	0.12	0.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	387	584	770	1,262	1,330	1,644	1,117	678	538	443	387	560
Max	2,157	2,481	2,406	2,794	3,002	3,829	2,864	2,123	2,064	2,321	1,224	6,436
(WY)	(2000)	(2007)	(1973)	(1978)	(1998)	(1998)	(1987)	(1989)	(1982)	(1975)	(2004)	(1999)
Min	54.0	66.2	109	186	456	308	284	128	72.7	53.9	77.9	30.3
(WY)	(2006)	(1981)	(1992)	(1981)	(1991)	(2006)	(1981)	(2002)	(2002)	(2002)	(1988)	(2007)

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SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1972 - 2007	
Annual total	292,490		260,468			
Annual mean	801		714		807	
Highest annual mean					1,471	1973
Lowest annual mean					211	1981
Highest daily mean	10,000	Jun 16	5,330	Nov 26	25,000	Sep 17, 1999
Lowest daily mean	54	Aug 27	13	Sep 26	13	Sep 26, 2007
Annual seven-day minimum	59	Aug 22	17	Sep 24	17	Sep 24, 2007
Maximum peak flow			5,450	Nov 26	29,300	Sep 16, 1999
Maximum peak stage			14.20	Nov 26	^a 32.89	Sep 16, 1999
Instantaneous low flow			^a 10	Sep 26	^a 10	Sep 26, 2007
Annual runoff (cfsm)	1.03		0.918		1.04	
Annual runoff (inches)	14.00		12.47		14.10	
10 percent exceeds	1,670		1,770		1,910	
50 percent exceeds	416		419		387	
90 percent exceeds	199		41		95	

^a See Remarks.

