Water-Data Report 2009

02084000 TAR RIVER AT GREENVILLE, NC

Pamlico Basin
Lower Tar Subbasin

LOCATION.--Lat 35°37′00″, long 77°22′22″ referenced to North American Datum of 1983, Pitt County, NC, Hydrologic Unit 03020103, on right bank approximately 1,500 ft downstream from railroad bridge, and 21 mi upstream from Pamlico River at Washington.

DRAINAGE AREA.--2,660 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--May 1997 to current year. Gage height records collected at site 800 ft upstream from 1905 to 1935 and at site 200 ft upstream from 1935 to 1984, are in reports of the National Weather Service. Unpublished records of gage height for the period October 1984 to September 1990 are available from the USGS Water Science Center, Raleigh, NC.

REVISED RECORDS.--
WDR NC-99-1A: 1997 (minimum discharge).

GAGE.--Water-stage recorder and acoustic velocity meter. Datum of gage is 3.54 ft below North American Vertical Datum of 1988. Satellite telemetry at streamgage.

REMARKS.--Records fair except those for negative flow, which are poor. This site is affected by both astronomical and wind tides.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 22, 1940 reached a stage of 22.07 ft at site 200 ft upstream at present datum; discharge 36,500 ft^3/s. Maximum observed stage during period 1905-39 (National Weather Service Records) 24.5 ft, July 28, 1919.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1,240	164	647	1,740	1,650	1,150	10,100	804	524	260	276	90
2	976	156	715	1,500	1,810	3,420	10,900	736	517	264	323	177
3	774	147	850	1,270	1,720	5,440	10,800	673	465	252	350	179
4	667	85	1,380	1,130	1,490	6,830	9,480	682	455	208	314	204
5	518	276	1,460	1,100	1,380	8,310	7,390	595	622	158	329	105
6	502	95	1,130	1,110	1,170	9,360	4,760	718	528	269	310	167
7	416	208	1,050	1,600	1,170	9,890	4,090	824	436	168	225	89
8	412	253	829	2,540	1,220	9,620	4,180	1,240	401	190	234	242
9	357	327	760	3,350	1,050	8,150	4,310	1,840	1,270	211	281	54
10	317	420	706	4,400	1,010	5,380	3,960	1,550	1,700	190	249	240
11	205	408	715	4,720	1,010	3,450	3,480	1,210	1,850	192	225	129
12	208	356	979	3,760	1,010	2,610	3,000	1,060	2,410	208	181	182
13	231	382	1,470	2,800	903	2,110	2,480	928	1,860	187	142	111
14	218	469	2,920	2,280	855	2,230	2,280	840	1,300	46	224	151
15	186	749	4,370	2,030	827	3,070	2,280	785	1,070	191	267	141
16	185	1,040	5,020	1,680	819	4,080	2,190	749	1,020	249	377	88
17	141	1,080	4,410	1,360	781	5,210	1,920	742	945	192	338	178
18	235	1,090	2,870	1,260	786	6,560	1,940	635	1,130	246	283	167
19	139	1,100	2,010	1,270	922	8,180	1,830	844	1,640	251	209	109
20	191	1,050	1,540	1,240	996	9,330	1,470	960	2,100	330	235	182
21	213	992	1,470	1,300	980	10,100	1,380	1,010	1,580	244	215	146
22	169	779	1,690	1,290	1,230	10,300	1,490	945	1,080	226	226	191
23	144	666	1,560	1,310	1,260	9,670	1,230	845	852	272	216	177
24	139	623	1,790	1,250	1,070	8,370	1,120	771	771	456	252	269
25	258	597	2,140	1,130	969	6,000	1,150	675	699	430	279	229
26	174	577	1,880	1,080	923	4,130	1,080	575	620	486	200	118
27	256	527	1,570	1,050	887	3,420	967	511	440	404	214	421
28	222	525	1,530	1,050	834	3,900	909	508	423	271	188	224
29	66	503	1,720	1,080	---	5,360	882	556	377	188	266	237
30	132	551	1,850	1,200	---	7,350	762	622	328	169	236	194
31	172	---	2,080	1,450	---	9,070	---	654	---	239	204	---
Total	10,063	16,195	55,111	55,330	30,732	192,050	103,810	26,087	29,413	7,647	7,868	5,191
Mean	325	540	1,778	1,785	1,098	6,195	3,460	842	980	247	254	173
Max	1,240	1,100	5,020	4,720	1,810	10,300	10,900	1,840	2,410	486	377	421
Min	66	85	647	1,050	781	1,150	762	508	328	46	142	54
Cfsm	0.12	0.20	0.67	0.67	0.41	2.33	1.30	0.32	0.37	0.09	0.10	0.07
In.	0.14	0.23	0.77	0.77	0.43	2.69	1.45	0.36	0.41	0.11	0.11	0.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2009, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,803	1,937	2,340	3,050	3,870	4,508	3,466	1,813	1,719	1,035	1,419	4,106
Max	11,690	8,492	5,521	6,167	13,280	12,020	8,873	4,968	6,939	3,988	4,658	29,850
(WY)	(2000)	(2007)	(2003)	(1999)	(1998)	(1998)	(2003)	(2003)	(2006)	(2006)	(2004)	(1999)
Min	72.6	45.2	455	1,133	1,098	1,065	1,002	528	190	247	189	62.0
(WY)	(2008)	(2008)	(2002)	(2001)	(2009)	(2006)	(2006)	(2002)	(2002)	(2009)	(2008)	(2007)

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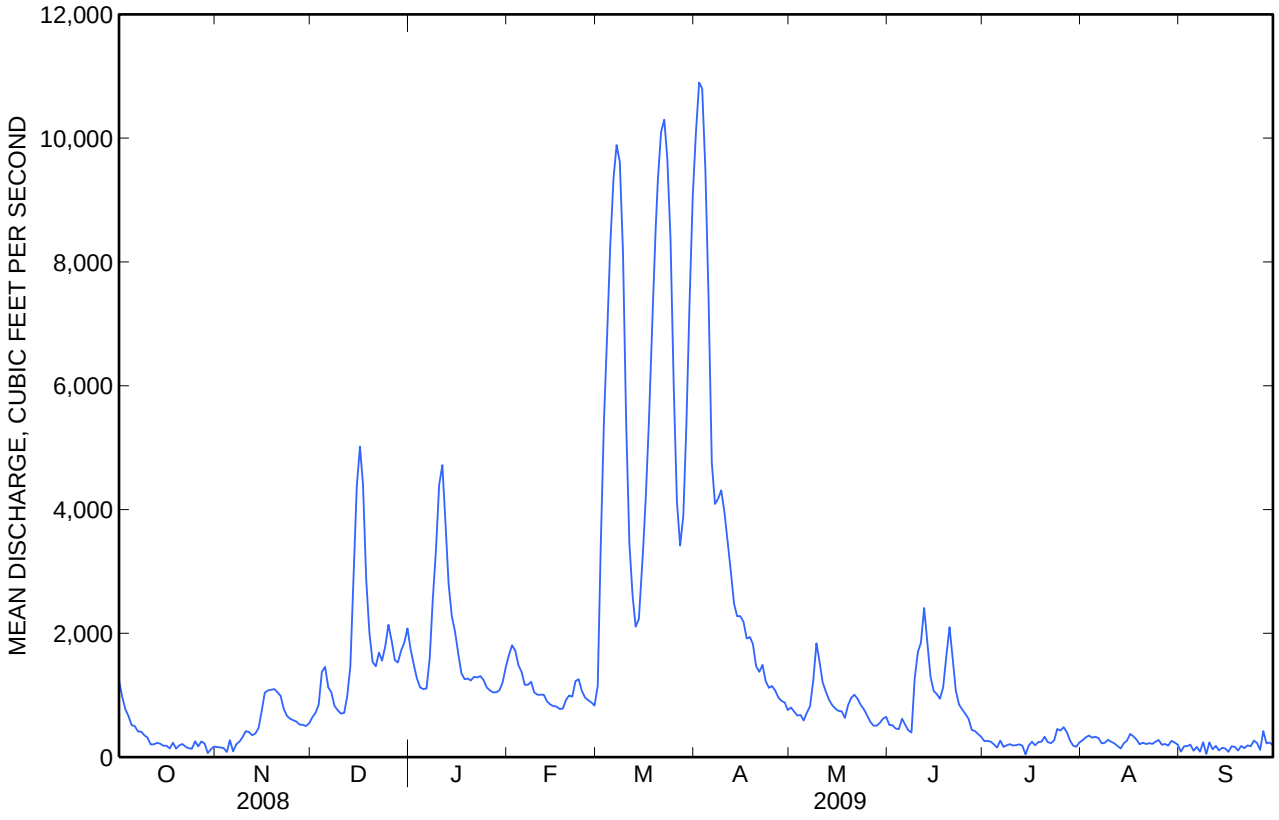
SUMMARY STATISTICS

	Calendar Year 2008		Water Year 2009		Water Years 1997 - 2009	
Annual total	512,103.5		539,497			
Annual mean	1,399		1,478		2,600	
Highest annual mean					5,052	2003
Lowest annual mean					1,227	2008
Highest daily mean	8,520	Mar 12	10,900	Apr 2	72,300	Sep 21, 1999
Lowest daily mean	4.5	Jul 2	46	Jul 14	-49	Nov 19, 2007
Annual seven-day minimum	106	Aug 20	132	Oct 29	-11	Nov 17, 2007
Maximum peak flow			11,500	Apr 3	73,000	Sep 21, 1999
Maximum peak stage			13.33	Apr 3	29.72	Sep 21, 1999
Instantaneous low flow			-720	Aug 31	-851	Aug 22, 1999
Annual runoff (cfsm)	0.526		0.556		0.977	
Annual runoff (inches)	7.16		7.54		13.28	
10 percent exceeds	3,310		4,010		6,000	
50 percent exceeds	857		781		1,400	
90 percent exceeds	161		179		227	



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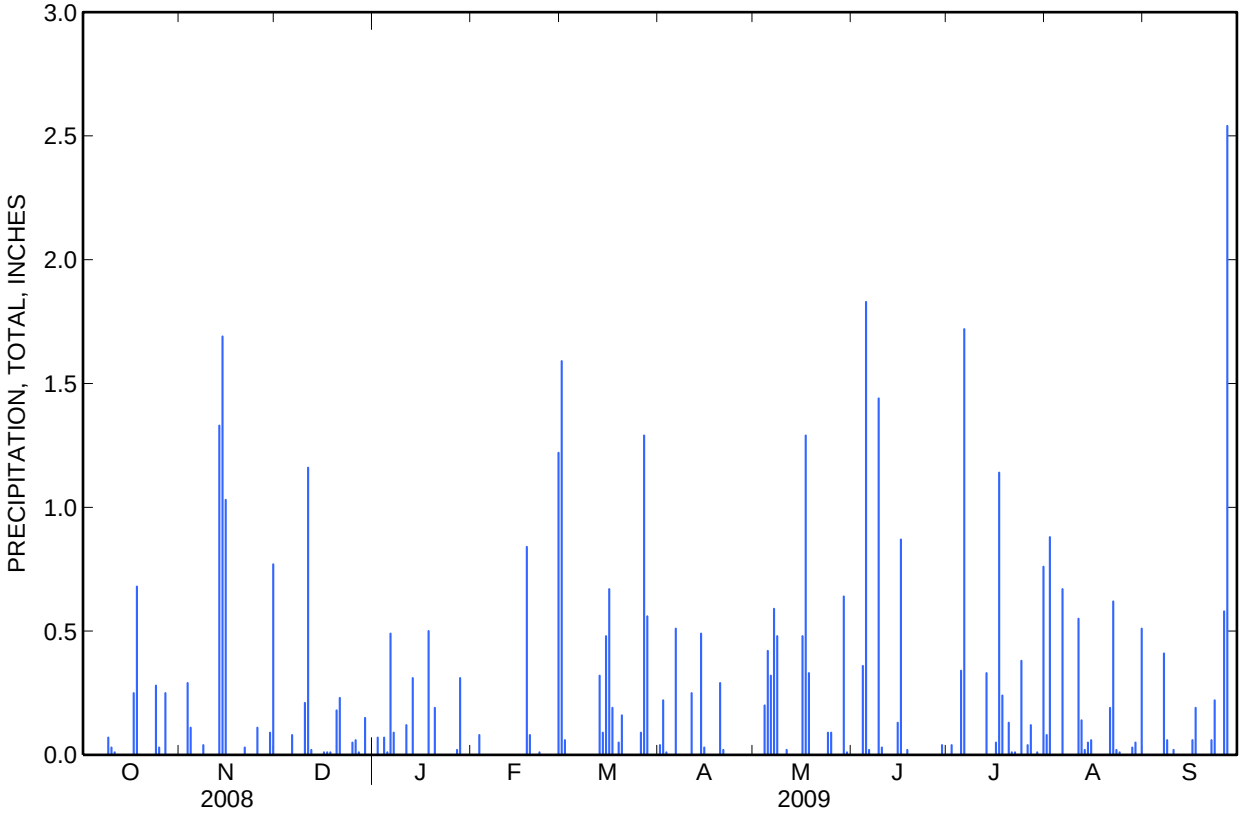
CLIMATOLOGICAL RECORDS

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

INSTRUMENTATION.--Tipping-bucket raingage. Satellite telemetry at station.

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

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009
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	0.00	1.59	0.04	0.00	0.00	0.00	0.08	0.00
2	0.00	0.00	0.00	0.07	0.00	0.06	0.22	0.00	0.00	0.04	0.88	0.00
3	0.00	0.29	0.00	0.00	0.08	0.00	0.01	0.00	0.00	0.00	0.00	0.00
4	0.00	0.11	0.00	0.07	0.00	0.00	0.00	0.20	0.36	0.00	0.00	0.00
5	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.42	1.83	0.34	0.00	0.00
6	0.00	0.00	0.08	0.49	0.00	0.00	0.51	0.32	0.02	1.72	0.67	0.00
7	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.59	0.00	0.00	0.00	0.41
8	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.06
9	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.44	0.00	0.00	0.00
10	0.03	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.02
11	0.01	0.00	1.16	0.12	0.00	0.00	0.25	0.02	0.00	0.00	0.55	0.00
12	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00
13	0.00	1.33	0.00	0.31	0.00	0.32	0.00	0.00	0.00	0.33	0.02	0.00
14	0.00	1.69	0.00	0.00	0.00	0.09	0.49	0.00	0.00	0.00	0.05	0.00
15	0.00	1.03	0.00	0.00	0.00	0.48	0.03	0.00	0.13	0.00	0.06	0.00
16	0.00	0.00	0.01	0.00	0.00	0.67	0.00	0.48	0.87	0.05	0.00	0.06
17	0.25	0.00	0.01	0.00	0.00	0.19	0.00	1.29	0.00	1.14	0.00	0.19
18	0.68	0.00	0.01	0.50	0.84	0.00	0.00	0.33	0.02	0.24	0.00	0.00
19	0.00	0.00	0.00	0.00	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.18	0.19	0.00	0.16	0.29	0.00	0.00	0.13	0.00	0.00
21	0.00	0.03	0.23	0.00	0.00	0.00	0.02	0.00	0.00	0.01	0.19	0.00
22	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.62	0.06
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.22
24	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.38	0.01	0.00
25	0.03	0.11	0.05	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00
26	0.00	0.00	0.06	0.00	0.00	0.09	0.00	0.00	0.00	0.04	0.00	0.58
27	0.25	0.00	0.01	0.02	0.00	1.29	0.00	0.00	0.00	0.12	0.00	2.54
28	0.00	0.00	0.00	0.31	1.22	0.56	0.00	0.00	0.00	0.00	0.03	0.00
29	0.00	0.09	0.15	0.00	---	0.00	0.00	0.64	0.04	0.01	0.05	0.00
30	0.00	0.77	0.00	0.00	---	0.00	0.00	0.01	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.76	0.51	---
Total	1.60	5.49	2.18	2.18	2.23	5.55	1.86	4.96	4.74	5.32	3.88	4.14
Max	0.68	1.69	1.16	0.50	1.22	1.59	0.51	1.29	1.83	1.72	0.88	2.54

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