



Water-Data Report 2010

02081747 TAR RIVER AT U.S. HIGHWAY 401 AT LOUISBURG, NC

Pamlico Basin
Upper Tar Subbasin

LOCATION.--Lat 36°05'35", long 78°17'46" referenced to North American Datum of 1983, Franklin County, NC, Hydrologic Unit 03020101, on left bank 0.1 mi downstream of bridge on U.S. Highway 401 (Bickett Boulevard) at Louisburg, and 0.2 mi upstream from Fox Creek.

DRAINAGE AREA.--427 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1963 to current year. Prior to September 1973, published as "Tar River at Louisburg, NC" (02081740). Prior to October 1972, medium- and high-water discharges only.

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

GAGE.--Water-stage recorder. Datum of gage is 175.75 ft above North American Vertical Datum of 1988. Prior to November 21, 1973, nonrecording gage at bridge 0.4 mi upstream at 178.53 ft; November 22, 1973, to June 24, 1980, at site 0.1 mi upstream at same datum. National Weather Service telephone telemetry at streamgage. Satellite telemetry at streamgage.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Minimum discharge for current year also occurred July 9, 10, 12.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of December 1934, September 1945, and August 1955 reached stages of 26 ft, 24 ft, and 24 ft, respectively, at site and datum 0.4 mi upstream, from U.S. Army Corps of Engineers.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	38	83	237	426	444	293	467	108	210	26	27	29
2	33	352	266	433	430	277	365	107	182	25	26	27
3	30	259	3,540	361	670	287	310	105	174	24	24	26
4	27	125	6,810	300	1,970	298	274	103	143	22	22	25
5	26	82	4,260	272	1,540	280	254	101	125	21	37	24
6	25	66	1,320	254	4,330	258	236	96	111	20	208	24
7	25	55	863	245	7,340	240	218	105	100	19	144	22
8	24	48	560	243	4,570	232	204	101	92	19	85	22
9	25	45	1,250	224	1,090	225	296	90	87	18	57	22
10	23	46	3,430	202	930	221	278	80	84	21	45	22
11	23	543	3,490	189	882	238	208	77	80	19	39	22
12	23	3,460	711	225	644	281	189	78	75	19	49	22
13	24	5,880	518	189	556	472	181	78	114	20	37	23
14	27	6,430	1,190	192	518	780	177	80	132	57	35	25
15	29	e3,540	1,050	196	475	628	170	81	110	63	33	25
16	33	e1,260	601	188	452	483	165	105	91	35	32	24
17	34	365	453	365	449	361	159	186	559	32	30	23
18	33	273	377	1,810	412	304	148	727	195	89	31	22
19	31	289	839	1,050	365	276	139	574	116	60	35	22
20	28	565	2,310	570	333	251	135	279	77	71	35	21
21	25	542	1,220	442	306	233	136	190	58	43	35	21
22	25	338	771	910	300	280	149	152	48	34	35	21
23	27	335	616	1,370	392	260	145	402	43	33	35	21
24	33	2,200	531	716	462	229	145	1,040	39	27	34	20
25	39	1,650	503	1,450	439	215	166	507	36	24	64	20
26	37	556	1,940	3,770	453	216	172	342	33	22	64	21
27	40	426	3,830	3,750	390	222	148	229	32	21	44	37
28	47	393	1,760	758	329	205	131	172	31	20	37	55
29	54	307	597	530	---	800	117	572	29	21	34	67
30	68	251	459	481	---	1,790	111	701	27	24	32	546
31	55	---	416	496	---	753	---	323	---	27	31	---
Total	1,011	30,764	46,718	22,607	31,471	11,888	5,993	7,891	3,233	976	1,476	1,301
Mean	32.6	1,025	1,507	729	1,124	383	200	255	108	31.5	47.6	43.4
Max	68	6,430	6,810	3,770	7,340	1,790	467	1,040	559	89	208	546
Min	23	45	237	188	300	205	111	77	27	18	22	20
Cfsm	0.08	2.40	3.53	1.71	2.63	0.90	0.47	0.60	0.25	0.07	0.11	0.10
In.	0.09	2.68	4.07	1.97	2.74	1.04	0.52	0.69	0.28	0.09	0.13	0.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2010, BY WATER YEAR (WY)

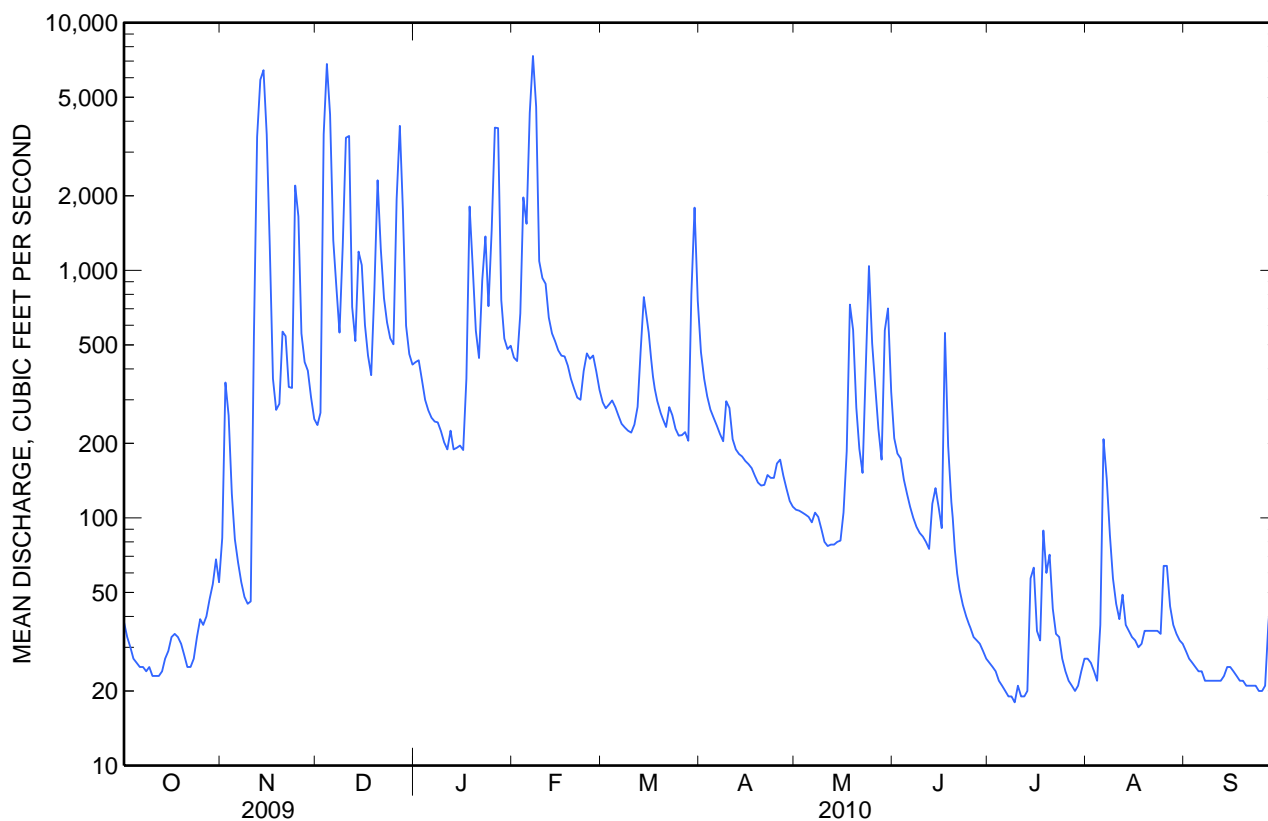
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	180	328	449	717	718	915	591	333	246	215	163	286
Max	809	1,678	1,507	1,845	1,956	2,726	1,557	984	1,451	1,692	657	2,949
(WY)	(2003)	(2007)	(2010)	(1978)	(1998)	(1998)	(1993)	(1989)	(1982)	(1975)	(2004)	(1999)
Min	28.5	20.7	64.5	78.0	150	117	127	54.2	14.1	29.8	12.9	4.97
(WY)	(1987)	(2008)	(2002)	(1981)	(2009)	(2006)	(1995)	(2002)	(2002)	(2002)	(2007)	(2007)

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SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1964 - 2010	
Annual total	157,695		165,329			
Annual mean	432		453		426	
Highest annual mean					765	2003
Lowest annual mean					124	2002
Highest daily mean	6,810	Dec 4	7,340	Feb 7	22,400	Sep 17, 1999
Lowest daily mean	16	Sep 5	18	Jul 9	2.1	Aug 14, 2002
Annual seven-day minimum	17	Sep 1	19	Jul 6	2.7	Aug 11, 2002
Maximum peak flow			7,900	Feb 7	23,700	Sep 17, 1999
Maximum peak stage			20.42	Feb 7	26.05	Sep 17, 1999
Instantaneous low flow			^a 18	Jul 8	1.7	Aug 15, 2002
Annual runoff (cfsm)	1.01		1.06		0.998	
Annual runoff (inches)	13.74		14.40		13.56	
10 percent exceeds	1,080		918		864	
50 percent exceeds	136		159		170	
90 percent exceeds	26		24		33	

^a See Remarks.



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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.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
DAILY SUM VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.00	1.72	0.00	0.01	---	0.00	0.00	0.00	0.18	0.00	0.03	0.00
2	0.00	0.00	2.17	0.02	---	0.22	0.00	0.00	0.57	0.00	0.01	0.00
3	0.00	0.00	0.00	0.00	---	0.07	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00
5	0.01	0.00	0.41	0.00	1.72	0.00	0.00	0.00	0.00	0.00	2.07	0.00
6	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.20	0.12	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
8	0.00	0.00	0.43	0.05	0.00	0.00	0.13	0.00	0.00	0.01	0.00	0.00
9	0.00	0.00	0.96	0.00	0.24	0.00	0.56	0.00	0.00	0.00	0.00	0.00
10	0.00	1.25	0.00	0.00	---	0.11	0.00	0.00	0.00	0.50	0.00	0.00
11	0.00	2.82	0.00	0.00	---	0.29	0.00	0.00	0.00	0.00	0.86	0.18
12	0.20	0.62	0.00	0.00	---	0.01	0.00	0.00	0.01	0.00	0.34	0.10
13	0.00	0.06	0.28	0.00	---	0.23	0.03	0.00	0.34	1.45	0.00	0.00
14	0.12	0.00	0.01	0.00	---	0.12	0.00	0.00	0.00	0.07	0.00	0.00
15	0.11	0.00	0.00	0.00	0.01	0.00	0.00	0.02	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.13	0.00	0.00	0.00
17	0.00	0.00	0.00	1.41	0.00	0.00	0.00	2.28	0.01	0.46	0.00	0.00
18	0.00	0.43	0.42	0.00	0.00	0.00	0.00	0.60	0.00	0.20	0.41	0.00
19	0.00	0.04	0.52	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.10	0.00
20	0.00	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.76	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00
22	0.00	0.08	0.00	0.02	0.23	1.18	0.01	0.59	0.00	0.00	0.00	0.00
23	0.00	0.30	0.00	0.00	0.00	0.03	0.00	0.04	0.00	0.00	0.07	0.00
24	0.04	0.00	0.00	0.01	0.12	0.00	0.25	0.27	0.00	0.00	0.15	0.00
25	0.00	0.00	0.84	1.00	0.02	0.00	0.21	0.01	0.00	0.14	0.01	0.00
26	0.14	0.09	0.01	0.00	0.00	0.12	0.00	0.00	0.02	0.01	0.00	1.09
27	0.12	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.02	1.83
28	0.26	0.00	0.01	---	0.00	0.03	0.00	0.91	0.00	0.00	0.00	0.06
29	0.00	0.00	0.00	---	---	2.14	0.00	0.26	0.00	0.52	0.00	1.56
30	0.00	0.15	0.01	---	---	0.00	0.00	0.00	0.00	0.01	0.00	2.43
31	0.03	---	0.24	---	---	0.00	---	0.00	---	0.06	0.00	---
Total	1.03	7.65	6.35	---	---	4.55	1.31	5.32	1.38	3.47	4.10	7.25

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