Water-Data Report 2011

08095000 North Bosque River near Clifton, TX

Middle Brazos-Bosque Basin
North Bosque Subbasin

LOCATION.--Lat 31°47′09″, long 97°34′04″ referenced to North American Datum of 1927, Bosque County, TX, Hydrologic Unit 12060204, on right bank at downstream side of bridge on Farm Road 219, 0.5 mi northeast of Clifton, 2.5 mi downstream from Meridian Creek, and 42.0 mi upstream from mouth.

DRAINAGE AREA.--968 mi^2 (revised).

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Oct. 1923 to current year. Monthly discharge only for some periods, published in WSP 1312.

PERIOD OF RECORD, Water-Quality.--
CHEMICAL DATA: Dec. 1961 to Feb. 1965.
BIOCHEMICAL DATA: Dec. 1961 to Feb. 1965.

REVISED RECORDS.--WSP 788: 1924-26, 1928, 1930. WSP 1058: 1945(M). WSP 1512: 1924(M), 1927, 1928(M), 1929, 1930(M), 1931-33, 1934(M), 1935-37, 1939. WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 605.43 ft above NGVD of 1929. Prior to Oct. 1, 1955, and from Apr. 23, 1957 to Mar. 26, 1958, nonrecording gage at site 1.1 mi upstream at datum 17.02 ft higher; Oct. 1, 1955 to Apr. 22, 1957; Mar. 27, 1958 to Sept. 30, 1959 and Jan 2, 1961 to current year, water-stage recorder at present site and datum; Oct. 1, 1959 to Jan. 1, 1961, nonrecording gage at present site and datum. Satellite telemeter at station.

REMARKS.--Records fair; except for estimated daily discharges which are poor. Since installation of gage at least 10% of contributing drainage area has been regulated. At times flow is affected by discharge from floodwater-retarding structures controlling runoff from 202 mi^2 in the North Bosque River and Green Creek drainage basins. The cities of Meridian, Stephenville and Clifton discharge wastewater effluent into the river above this station. The city of Clifton diverts water from the river upstream from this station for municipal use. No flow at times. Some records listed in the "Period of Record" for surface water and water quality may not be available electronically.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 9, 1922, reached a stage of about 32 ft, from information by local residents.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	49	12	12	31	25	e21	15	6.3	6.3	3.9	0.28	0.00
2	39	14	12	28	24	19	14	9.5	6.0	3.1	e0.24	0.00
3	33	28	12	25	24	18	12	15	6.4	2.4	e0.18	0.00
4	32	30	13	24	27	17	13	15	6.1	2.2	e0.16	0.00
5	32	28	12	23	29	16	12	11	6.0	2.3	0.06	0.00
6	30	26	17	23	26	17	11	20	6.6	2.6	0.00	0.03
7	28	25	23	22	26	15	11	25	6.5	2.6	0.00	0.05
8	27	22	28	22	25	17	13	16	5.5	1.5	0.00	0.03
9	25	20	25	61	24	16	9.1	10	5.0	0.67	0.00	0.02
10	23	21	25	78	25	17	8.1	11	4.9	0.62	0.00	0.03
11	24	22	24	52	25	16	57	21	5.1	0.63	0.00	0.08
12	22	21	23	58	24	15	32	25	4.7	0.62	0.00	0.17
13	21	23	22	57	24	16	15	18	4.6	0.65	0.00	0.23
14	20	21	20	45	24	17	9.7	11	4.2	0.57	0.01	0.21
15	19	20	19	41	22	17	11	49	4.1	0.55	0.04	0.19
16	18	20	19	41	21	16	13	32	3.8	0.56	0.05	0.18
17	18	19	20	43	23	15	13	20	3.2	0.60	0.23	0.38
18	17	19	21	38	27	16	10	12	3.0	0.53	0.13	2.4
19	18	19	20	33	26	16	8.9	8.8	2.6	0.50	0.03	4.1
20	17	19	20	29	21	16	9.6	7.5	2.0	0.44	0.00	2.4
21	17	18	21	29	23	16	8.3	8.0	3.0	0.31	0.00	1.8
22	17	19	20	27	23	14	6.7	6.6	8.4	0.23	0.00	1.5
23	17	21	20	26	23	17	6.1	6.6	6.3	0.22	0.00	1.8
24	18	18	22	24	23	17	6.1	9.3	5.8	0.30	0.00	2.0
25	17	18	27	17	23	15	6.3	12	6.1	0.23	0.00	2.2
26	17	19	29	18	e22	17	7.5	11	5.7	0.14	0.00	2.1
27	18	19	27	18	e23	15	7.3	8.8	4.9	0.14	0.00	2.2
28	25	17	40	18	e22	16	7.4	7.1	4.9	0.15	0.00	2.8
29	19	19	42	16	---	15	6.2	6.1	4.6	0.14	0.00	2.9
30	15	16	37	17	---	15	5.7	5.6	4.4	0.16	0.00	4.5
31	14	---	35	21	---	15	---	6.3	---	0.24	0.00	---
Total	706	613	707	1,005	674	505	365.0	430.5	150.7	29.80	1.41	34.30
Mean	22.8	20.4	22.8	32.4	24.1	16.3	12.2	13.9	5.02	0.96	0.05	1.14
Max	49	30	42	78	29	21	57	49	8.4	3.9	0.28	4.5
Min	14	12	12	16	21	14	5.7	5.6	2.0	0.14	0.00	0.00
Ac-ft	1,400	1,220	1,400	1,990	1,340	1,000	724	854	299	59	2.8	68

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	143	89.5	180	164	295	290	360	510	297	107	59.4	108
Max	1,438	1,527	7,330	1,442	3,738	2,681	3,739	2,626	4,071	2,699	1,238	1,484
(WY)	(1960)	(2005)	(1992)	(1938)	(1992)	(1998)	(1957)	(1957)	(2007)	(2007)	(1995)	(1936)
Min	0.00	0.03	0.05	0.25	1.16	0.66	1.26	1.40	0.44	0.00	0.00	0.00
(WY)	(1952)	(1956)	(1956)	(1957)	(1952)	(1956)	(1925)	(1984)	(1984)	(1954)	(1929)	(1952)

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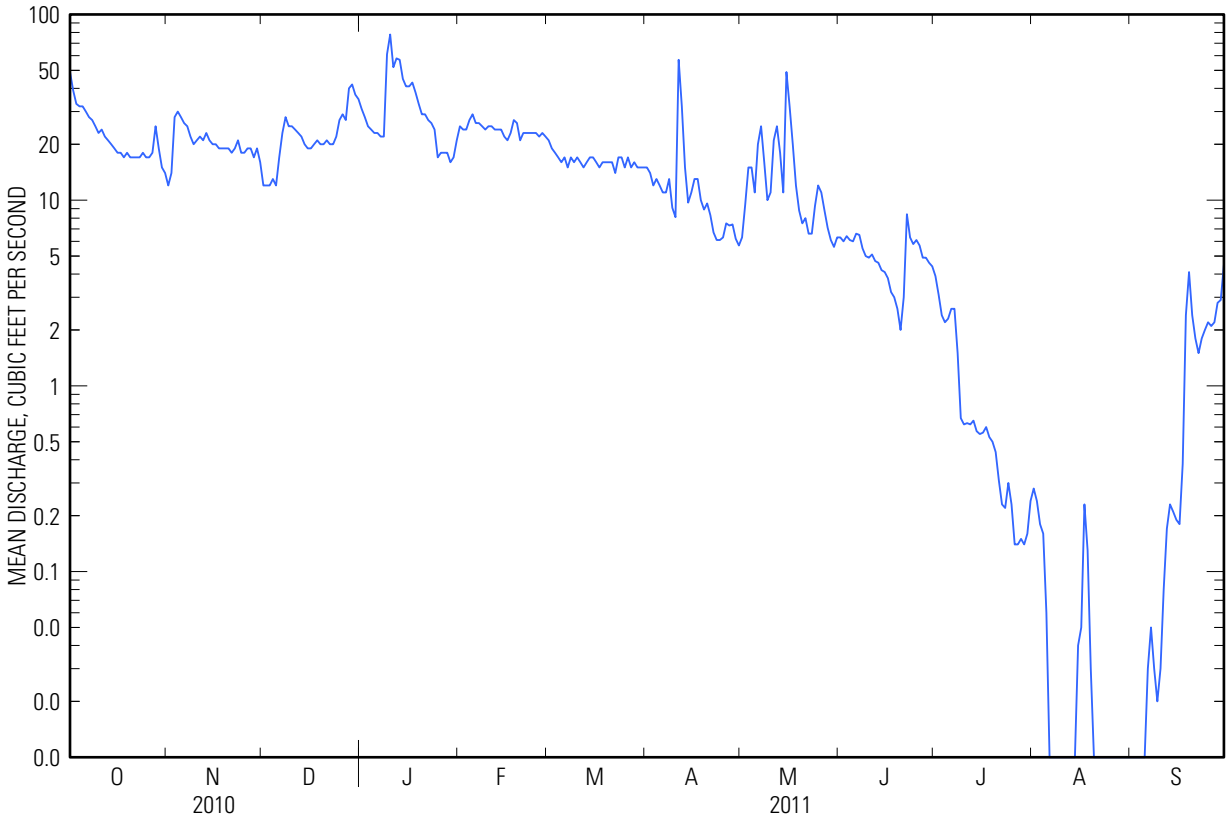
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1924 - 2011	
Annual total	123,038.7		5,221.71			
Annual mean	337		14.3		216	
Highest annual mean					1,366	1992
Lowest annual mean					11.7	1984
Highest daily mean	24,600	Jan 29	78	Jan 10	96,800	Dec 21, 1991
Lowest daily mean	5.2	Aug 20	0.00	Aug 6	0.00	Jun 25, 1925
Annual seven-day minimum	7.7	Aug 15	0.00	Aug 6	0.00	Jul 13, 1925
Maximum peak flow			147	Apr 11	200,000	Dec 20, 1991
Maximum peak stage			2.46	Apr 11	[a]38.30	Dec 20, 1991
Annual runoff (ac-ft)	244,000		10,360		156,700	
10 percent exceeds	681		27		342	
50 percent exceeds	62		15		24	
90 percent exceeds	18		0.11		1.4	

[a] From floodmark.