

Water-Data Report 2011

## 08092000 Nolan River at Blum, TX

Middle Brazos-Bosque Basin  
Middle Brazos-Lake Whitney Subbasin

LOCATION.--Lat 32°09'02", long 97°24'09" referenced to North American Datum of 1927, Hill County, TX, Hydrologic Unit 12060202, on upstream right bank of bridge on Farm Road 933, 0.6 mi northwest of Blum, 2.8 mi downstream from Mustang Creek, 3.0 mi downstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 3.2 mi upstream from Rock Creek, and 8.5 mi upstream from mouth.

DRAINAGE AREA.--282 mi<sup>2</sup>.

### SURFACE-WATER RECORDS

PERIOD OF RECORD.--Aug. 1924 to Sept. 1925, Dec. 1947 to Sept. 1985 (daily mean discharge). Oct. 1985 to Sept. 2005 (peaks above base discharge), Oct. 2005 to current year. Prior to 1968, published as "Nolands River at Blum".

PERIOD OF RECORD, Water-Quality.--

CHEMICAL DATA: Jan. 1962 to Aug. 1981, Feb. 1999 to Aug. 2004.

BIOCHEMICAL DATA: Jan. 1962 to Aug. 2004.

PESTICIDE DATA: Aug. 1970 to June 1972.

RADIOCHEMICAL DATA: Apr. to June 1981, Feb. 1999 to Aug. 2004.

REVISED RECORDS.--WSP 1312: 1925(M). WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 551.48 ft above NGVD of 1929. July 29, 1924, to Sept. 30, 1925, and Nov. 14, 1947, to May 28, 1949, nonrecording gage at railway bridge (now abandoned) 0.5 mi upstream at datum 5.00 ft higher. May 29 to July 7, 1949, nonrecording gage at present site and datum then in use (5.00 ft higher than present datum). Satellite telemeter at station.

REMARKS.--Records fair. Some records listed in the Period of Record for surface water and water quality may not be available electronically. Since water year 1965, at least 10% of contributing drainage area has been regulated. The City of Cleburne diverts water from Lake Pat Cleburne and returns wastewater effluent to a tributary upstream.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--17 years (water years 1925, 1949-64) prior to regulation by Lake Pat Cleburne, 66.1 ft<sup>3</sup>/s (47,890 acre-ft/yr).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1887, 35.0 ft May 8, 1922, present site and datum, from information by local resident.

EXTREMES FOR PERIOD PRIOR TO REGULATION.--WATER YEARS 1924-1925, 1949-1964: Maximum discharge prior to regulation by Lake Pat Cleburne, 25,000 ft<sup>3</sup>/s, May 17, 1949, gage height, 24.0 ft (from floodmark); no flow at times.

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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	16	5.8	4.0	6.5	11	5.4	4.5	7.9	7.5	2.1	e0.06	1.1
2	13	6.4	5.0	6.6	21	4.4	13	108	11	1.4	6.4	e0.71
3	7.0	15	3.8	6.7	12	3.7	17	83	1.6	0.41	e4.7	0.79
4	5.3	24	4.8	6.7	19	2.2	16	20	3.0	5.5	e4.9	0.62
5	6.6	7.9	5.4	6.4	11	0.97	27	8.9	3.7	7.7	0.06	2.3
6	9.0	6.3	4.3	6.1	16	2.6	14	8.2	5.7	2.9	e0.00	1.1
7	5.4	5.6	5.0	6.8	16	5.7	12	4.2	3.1	2.5	0.00	1.5
8	9.4	5.7	6.3	7.0	15	5.6	23	4.5	8.0	0.76	0.98	e2.0
9	7.7	8.7	6.8	88	12	4.7	14	3.8	15	0.81	e0.00	e7.7
10	7.6	7.3	9.6	86	13	5.0	15	4.3	15	e1.9	e0.00	16
11	6.9	5.2	7.5	27	11	6.6	65	3.7	6.1	e0.63	0.01	e11
12	7.2	6.4	7.3	15	11	6.2	31	41	5.2	0.94	0.07	e8.0
13	6.7	9.5	7.1	12	9.5	6.4	8.4	20	2.6	2.5	0.07	e6.2
14	5.2	8.1	7.7	11	10	6.3	9.0	9.2	4.2	1.2	1.5	e4.8
15	5.9	4.0	7.5	11	10	5.7	7.8	5.3	1.2	e1.3	10	e1.6
16	6.1	5.4	9.2	15	10	6.2	6.1	5.1	0.50	1.2	e0.89	e0.13
17	7.0	4.6	4.9	16	10	6.5	6.6	2.4	0.29	2.4	e0.60	0.04
18	8.3	5.0	5.8	13	10	7.1	5.6	e5.5	0.14	e2.7	1.1	0.00
19	8.4	5.1	7.2	11	11	6.3	9.2	e7.8	3.3	0.85	2.0	1.1
20	9.7	5.3	5.3	9.7	9.7	6.5	23	8.1	22	0.65	3.1	0.67
21	8.6	5.6	5.9	8.1	11	7.6	16	7.2	19	1.9	2.1	e0.05
22	8.3	4.1	5.5	8.8	8.7	7.3	13	19	6.8	e2.0	1.3	0.31
23	15	3.6	4.9	9.0	7.7	8.4	16	11	3.3	1.0	1.1	0.03
24	63	2.9	6.9	7.9	7.2	8.1	3.3	20	2.3	e2.0	0.62	0.11
25	16	3.9	38	8.1	6.7	8.0	5.5	6.9	1.2	1.4	0.67	0.08
26	7.8	5.0	12	8.2	7.8	10	69	12	1.1	1.7	1.0	2.0
27	9.1	4.7	8.0	8.1	8.1	9.7	17	17	1.9	2.3	2.1	3.2
28	7.7	3.7	7.6	7.9	7.7	11	8.8	8.8	0.63	1.1	3.5	4.3
29	5.9	3.5	45	7.8	---	13	4.6	12	0.39	3.0	3.4	2.7
30	6.6	2.8	23	9.4	---	14	4.1	11	0.43	5.5	2.7	2.9
31	5.2	---	12	9.3	---	6.0	---	13	---	4.1	0.67	---
<b>Total</b>	311.6	191.1	293.3	460.1	313.1	207.17	484.5	498.8	156.18	66.35	55.60	83.04
<b>Mean</b>	10.1	6.37	9.46	14.8	11.2	6.68	16.1	16.1	5.21	2.14	1.79	2.77
<b>Max</b>	63	24	45	88	21	14	69	108	22	7.7	10	16
<b>Min</b>	5.2	2.8	3.8	6.1	6.7	0.97	3.3	2.4	0.14	0.41	0.00	0.00
<b>Ac-ft</b>	618	379	582	913	621	411	961	989	310	132	110	165

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2011<sup>h2</sup>, BY WATER YEAR (WY)**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	66.2	27.1	37.8	49.7	70.6	135	164	255	117	40.5	13.7	49.9
<b>Max</b>	669	240	588	334	584	876	995	1,746	872	704	154	532
<b>(WY)</b>	(1972)	(1975)	(1972)	(2010)	(1975)	(1977)	(1973)	(1969)	(1973)	(2007)	(1974)	(2010)
<b>Min</b>	1.57	3.21	2.35	2.58	4.36	5.11	4.16	2.09	1.78	0.56	0.05	0.75
<b>(WY)</b>	(1984)	(1970)	(2009)	(1978)	(1984)	(1971)	(1984)	(1984)	(1984)	(1978)	(1984)	(1982)

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SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1965 - 2011 <sup>h,z</sup>	
<b>Annual total</b>	48,950.63		3,120.84			
<b>Annual mean</b>	134		8.55		85.6	
<b>Highest annual mean</b>					298	2007
<b>Lowest annual mean</b>					7.08	1978
<b>Highest daily mean</b>	13,000	Sep 8	108	May 2	30,200	May 7, 1969
<b>Lowest daily mean</b>	0.00	Jul 5	0.00	Aug 6	0.00	Jul 20, 1971
<b>Annual seven-day minimum</b>	0.66	Jul 3	0.15	Aug 5	0.00	Aug 20, 1984
<b>Maximum peak flow</b>			323	May 2	79,600	May 17, 1989
<b>Maximum peak stage</b>			2.94	May 2	33.44	May 17, 1989
<b>Annual runoff (ac-ft)</b>	97,090		6,190		61,990	
<b>10 percent exceeds</b>	199		16		90	
<b>50 percent exceeds</b>	14		6.4		7.2	
<b>90 percent exceeds</b>	3.0		0.83		1.6	

<sup>h</sup> See Period of Record paragraph.

<sup>z</sup> Period of regulated streamflow.

Peak of record discharge from rating curve extended above 22,000 ft<sup>3</sup>/s on basis of contracted-opening measurement of peak flow; no flow at times.

