

Water-Data Report 2011

## 08047500 Clear Fork Trinity River at Fort Worth, TX

Upper Trinity Basin  
Lower West Fork Trinity Subbasin

LOCATION.--Lat 32°43'56", long 97°21'31" referenced to North American Datum of 1927, Tarrant County, TX, Hydrologic Unit 12030102, at Fort Worth pumping station on left bank, 240 ft upstream from the Texas and Pacific Railway Co. bridge in Fort Worth, 830 ft upstream from East West Expressway bridge, 2.5 mi upstream from mouth, 5.0 mi downstream from Marys Creek, and 10.0 mi downstream from Benbrook Dam.

DRAINAGE AREA.--518 mi<sup>2</sup>.

### **SURFACE-WATER RECORDS**

PERIOD OF RECORD.--Mar. 1924 to current year.

PERIOD OF RECORD, Water-Quality.--

CHEMICAL DATA: Feb. 1994.

PESTICIDE DATA: Feb. 1994.

SEDIMENT DATA: Feb. 1994.

REVISED RECORDS.--WSP 1392: 1924-25, 1927. WSP 1922: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 532.91 ft above NGVD of 1929. Prior to Apr. 3, 1970, various nonrecording and recording gages were located within 650 ft of present site at different datums. Satellite telemeter at station.

REMARKS.--Records good except those from Apr. to July, which are fair. Some records listed in the Period of Record for surface water and water quality may not be available electronically. Since water year 1953, at least 10% of contributing drainage area has been regulated. No flow at times. The City of Fort Worth diverted water from pool at gage during the current year. The Benbrook Water and Sewage Authority diverted water from the river upstream from station for municipal use.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--28 years (water years 1925-52) prior to regulation by Benbrook Lake, 112 ft<sup>3</sup>/s (81,140 acre-ft/yr).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 25, 1922, reached a stage of 27.5 ft, present datum, discharge, 74,300 ft<sup>3</sup>/s, by slope-area measurement of peak flow; data furnished by Fort Worth City Engineer. Maximum stage since at least 1900, that of May 17, 1949, at present datum.

EXTREMES FOR PERIOD PRIOR TO REGULATION.--WATER YEARS 1924-1952: Maximum discharge, 107,000 ft<sup>3</sup>/s, May 17, 1949, gage height, 28.20 ft, present datum, from rating curve extended above 16,000 ft<sup>3</sup>/s on basis of contracted-opening measurement of 107,000 ft<sup>3</sup>/s. No flow at times many years.

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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	35	15	14	17	56	13	13	109	24	12	13	1.0
2	33	96	6.4	16	28	11	13	813	21	12	13	3.0
3	32	163	12	16	18	11	13	50	22	16	12	10
4	29	39	12	15	23	11	162	21	21	10	10	9.1
5	26	30	11	16	49	10	17	18	19	5.1	12	8.3
6	24	25	11	15	44	9.8	16	17	20	2.4	10	11
7	26	22	29	15	42	9.8	15	15	20	1.6	12	13
8	21	19	42	15	28	10	14	14	18	9.8	9.9	8.2
9	19	17	40	447	40	9.4	15	14	19	11	3.9	5.3
10	20	17	28	57	27	8.8	15	28	14	13	2.8	9.0
11	19	16	15	33	22	9.2	386	441	6.6	15	2.7	13
12	18	69	14	27	20	9.1	25	81	5.9	12	1.3	19
13	18	37	13	28	20	10	23	22	5.4	12	32	27
14	17	23	13	25	18	9.8	23	16	3.9	13	17	4.8
15	18	21	13	24	17	8.7	20	14	7.5	13	35	2.6
16	18	19	12	30	20	9.9	18	14	10	18	17	149
17	18	16	12	26	19	10	19	14	29	22	12	205
18	18	14	13	23	18	9.8	17	14	25	26	11	112
19	17	17	13	20	18	9.5	20	14	25	20	10	104
20	18	17	15	19	18	10	18	78	20	21	9.1	79
21	18	20	13	19	17	9.8	18	29	76	2.5	8.0	20
22	18	18	11	19	14	9.4	19	37	34	32	8.4	11
23	348	16	12	18	15	9.4	18	600	12	28	7.9	0.92
24	60	16	183	17	17	11	28	100	7.8	21	6.5	2.2
25	26	13	49	16	15	13	157	102	5.3	16	5.9	35
26	17	12	22	17	14	13	22	36	4.4	17	5.3	33
27	14	13	17	e17	15	11	19	34	4.1	16	4.1	15
28	14	12	19	e17	17	12	18	30	14	14	4.2	10
29	13	14	135	16	---	12	17	24	21	13	7.0	20
30	15	15	29	16	---	13	16	23	13	13	8.8	46
31	15	---	21	14	---	13	---	25	---	14	2.9	---
<b>Total</b>	1,002	841	849.4	1,070	669	326.4	1,194	2,847	527.9	451.4	314.7	986.42
<b>Mean</b>	32.3	28.0	27.4	34.5	23.9	10.5	39.8	91.8	17.6	14.6	10.2	32.9
<b>Max</b>	348	163	183	447	56	13	386	813	76	32	35	205
<b>Min</b>	13	12	6.4	14	14	8.7	13	14	3.9	1.6	1.3	0.92
<b>Ac-ft</b>	1,990	1,670	1,680	2,120	1,330	647	2,370	5,650	1,050	895	624	1,960

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 2011<sup>Z</sup>, BY WATER YEAR (WY)**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	62.3	105	80.7	100	141	240	185	279	265	87.7	32.8	36.6
<b>Max</b>	547	1,555	1,118	2,198	1,019	1,838	1,012	3,020	2,219	1,300	247	245
<b>(WY)</b>	(2010)	(1992)	(1992)	(1992)	(1992)	(1997)	(1977)	(1990)	(1989)	(1989)	(1979)	(1962)
<b>Min</b>	0.00	0.84	1.68	2.28	2.84	0.91	3.12	3.41	0.27	0.75	0.54	0.28
<b>(WY)</b>	(1953)	(1955)	(1979)	(1957)	(1953)	(1956)	(1954)	(1959)	(1953)	(1954)	(1954)	(1954)

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SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1953 - 2011 <sup>Z</sup>	
<b>Annual total</b>	65,863.6		11,079.22			
<b>Annual mean</b>	180		30.4		134	
<b>Highest annual mean</b>					660	1992
<b>Lowest annual mean</b>					4.55	1954
<b>Highest daily mean</b>	3,200	Sep 8	813	May 2	11,000	Mar 11, 1990
<b>Lowest daily mean</b>	3.0	Jun 24	0.92	Sep 23	0.00	Oct 1, 1952
<b>Annual seven-day minimum</b>	5.5	Jul 30	4.4	Aug 27	0.00	Oct 1, 1952
<b>Maximum peak flow</b>			5,080	May 23	20,900	May 2, 1990
<b>Maximum peak stage</b>			11.96	May 23	16.80	May 2, 1990
<b>Annual runoff (ac-ft)</b>	130,600		21,980		97,280	
<b>10 percent exceeds</b>	641		39		299	
<b>50 percent exceeds</b>	35		17		18	
<b>90 percent exceeds</b>	9.3		8.4		1.6	

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

