Water-Data Report 2012

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^2.

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 for estimated daily mean discharges, 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^3/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^3/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^3/s, May 17, 1949, gage height, 28.20 ft, present datum, from rating curve extended above 16,000 ft^3/s on basis of contracted-opening measurement of 107,000 ft^3/s. No flow at times many years.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	35	10	8.7	18	56	523	969	31	34	8.8	0.88	3.8
2	35	8.9	11	16	49	354	846	28	21	9.1	1.1	3.5
3	30	8.0	43	17	100	146	790	28	17	7.8	2.2	3.3
4	14	7.5	418	16	186	143	465	28	15	6.6	5.5	2.9
5	26	8.9	259	16	172	111	396	57	14	6.2	6.0	2.3
6	26	10	38	16	166	43	301	33	511	5.3	5.2	2.3
7	29	18	28	17	167	43	81	29	88	4.7	4.9	1.8
8	84	31	20	17	142	45	518	27	37	7.3	4.5	0.75
9	1,420	12	17	417	39	42	109	26	28	8.5	23	0.91
10	48	9.9	17	497	51	313	68	23	22	29	2.0	1.4
11	22	8.6	15	83	109	232	56	190	19	45	0.06	2.1
12	212	8.2	14	59	107	89	50	84	18	14	0.01	2.2
13	28	8.9	17	40	150	82	46	34	21	7.9	3.5	4.1
14	15	9.1	31	39	133	161	45	29	23	7.2	5.0	23
15	11	9.1	60	37	112	169	128	25	22	20	260	15
16	9.6	8.2	61	38	51	145	53	22	23	15	24	14
17	25	8.0	30	35	130	52	43	18	17	9.5	45	13
18	118	9.6	22	30	946	46	42	18	16	6.7	573	7.8
19	15	9.8	92	29	423	275	40	16	14	4.9	121	7.6
20	9.4	9.3	50	29	210	3,150	67	17	13	5.9	22	6.4
21	7.9	9.3	23	27	365	e358	45	17	12	25	24	4.9
22	7.9	67	23	26	597	e255	39	16	12	8.6	21	3.9
23	9.2	13	24	22	568	e123	37	16	12	3.9	12	3.7
24	11	9.3	22	109	543	116	36	14	11	3.1	8.7	3.7
25	10	8.9	24	4,180	533	1,030	35	13	10	4.2	7.9	2.6
26	7.2	10	23	625	531	1,020	35	13	8.9	5.1	34	1.7
27	6.6	9.1	21	181	527	1,300	34	13	7.9	3.5	15	2.1
28	15	7.4	20	93	537	1,710	33	16	7.4	3.4	10	4.8
29	14	6.3	19	68	530	1,710	31	63	6.6	3.3	13	307
30	12	7.5	19	67	---	1,400	32	17	7.6	3.5	6.9	114
31	12	---	19	61	---	987	---	533	---	2.0	4.8	---
Total	2,324.8	360.8	1,488.7	6,925	8,230	16,173	5,470	1,494	1,068.4	295.0	1,266.15	566.56
Mean	75.0	12.0	48.0	223	284	522	182	48.2	35.6	9.52	40.8	18.9
Max	1,420	67	418	4,180	946	3,150	969	533	511	45	573	307
Min	6.6	6.3	8.7	16	39	42	31	13	6.6	2.0	0.01	0.75
Ac-ft	4,610	716	2,950	13,740	16,320	32,080	10,850	2,960	2,120	585	2,510	1,120

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 2012[Z], BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	62.5	103	80.1	102	143	245	185	275	261	86.4	32.9	36.3
Max	547	1,555	1,118	2,198	1,019	1,838	1,012	3,020	2,219	1,300	247	245
(WY)	(2010)	(1992)	(1992)	(1992)	(1992)	(1997)	(1977)	(1990)	(1989)	(1989)	(1979)	(1962)
Min	0.00	0.84	1.68	2.28	2.84	0.91	3.12	3.41	0.27	0.75	0.54	0.28
(WY)	(1953)	(1955)	(1979)	(1957)	(1953)	(1956)	(1954)	(1959)	(1953)	(1954)	(1954)	(1954)

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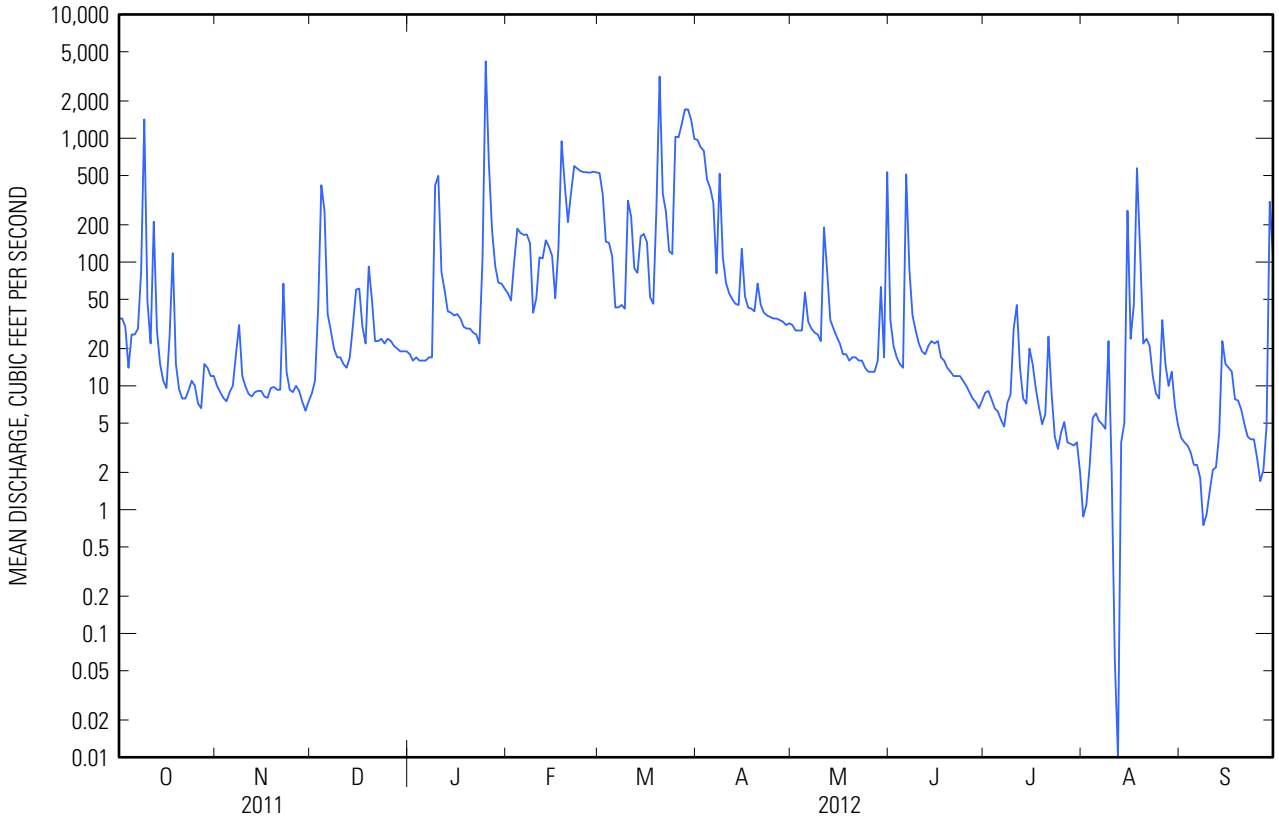
SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1953 - 2012[z]	
Annual total	12,561.12		45,662.41			
Annual mean	34.4		125		134	
Highest annual mean					660	1992
Lowest annual mean					4.55	1954
Highest daily mean	1,420	Oct 9	4,180	Jan 25	11,000	Mar 11, 1990
Lowest daily mean	0.92	Sep 23	0.01	Aug 12	0.00	Oct 1, 1952
Annual seven-day minimum	4.4	Aug 27	1.6	Sep 6	0.00	Oct 1, 1952
Maximum peak flow			11,300	Jan 25	20,900	May 2, 1990
Maximum peak stage			14.07	Jan 25	16.80	May 2, 1990
Annual runoff (ac-ft)	24,910		90,570		97,170	
10 percent exceeds	43		355		299	
50 percent exceeds	16		22		18	
90 percent exceeds	7.7		4.8		1.7	

[z] Period of regulated streamflow.