Water-Data Report 2007

08062000 East Fork Trinity River near Crandall, TX

Upper Trinity Basin
East Fork Trinity Subbasin

LOCATION.--Lat 32°38′19″, long 96°29′06″ referenced to North American Datum of 1927, Kaufman County, TX, Hydrologic Unit 12030106, on right bank 15 ft downstream from downstream eastbound bridge on U.S. Highway 175, 0.7 mi downstream from Mustang Creek, 1.8 mi northwest of Crandall, 4.0 mi upstream from Buffalo Creek, and 11.0 mi upstream from mouth.

DRAINAGE AREA.--1,256 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--June 1949 to current year. Water-quality records: Chemical data: Jan. to Apr. 1964, May 1966 to Sept. 1981, June 1986 to Sept. 2000. Biochemical data: Jan. to Apr. 1964, May 1966 to Sept. 1981, June 1986 to Sept. 2000. Pesticide data: Mar. 1977 to July 1981. Sediment data: Apr. to Sept. 1964. Specific conductance: Oct. 1967 to Sept. 1981, May 1986 to Sept. 2000. pH: Mar. to Sept. 1977, May 1986 to Sept. 2000. Water temperature: Oct. 1967 to Sept. 1981, May 1986 to Sept. 2000. Dissolved oxygen: Mar. to Sept. 1977, May 1986 to Sept. 2000. Precipitation records: Oct. 2001 to Sept. 2002.

REVISED RECORDS.--WSP 1922: Drainage area. WDR TX-75-1: 1974.

GAGE.--Water-stage recorder. Datum of gage is 338.69 ft above NGVD of 1929. Prior to Feb. 21, 1983, at datum 5.00 ft higher. Satellite telemeter at station.

REMARKS.--Records good except for Oct. 20 to Mar. 27, which are fair. Since Sept. 1953, at least 10% of contributing drainage area has been regulated. The city of Forney discharges wastewater effluent into a tributary below Lake Ray Hubbard and above this station. The North Texas Municipal Water District discharges wastewater effluent into tributaries above this station from their Mesquite and Changler's Landing wastewater treatment plants. Flow is also affected at times by discharge from floodwater-retarding structures controlling runoff from a 39.2 mi^2 area above this station. No flow at times.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--4 years (water years 1950-53) prior to regulation by Lavon Lake, 652 ft^3/s (472,400 acre-ft/yr).

EXTREMES FOR PERIOD PRIOR TO REGULATION.--WATER YEARS, 1950-1953: Maximum discharge, 24,000 ft^3/s May 4, 1950 (gage height, 22.12 ft); no flow at times.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	71	99	297	194	131	103	3,120	134	2,680	4,230	2,540	96
2	76	96	140	149	191	98	815	164	2,810	3,800	2,910	85
3	78	100	110	128	154	103	522	698	4,190	4,040	2,580	91
4	83	97	118	738	121	99	325	411	7,150	6,410	1,270	93
5	81	106	114	537	130	100	233	208	6,060	5,490	630	1,220
6	83	572	105	209	123	103	179	163	2,840	4,420	625	713
7	83	332	110	167	123	103	158	149	1,480	5,960	1,050	185
8	76	148	101	153	120	100	154	150	2,350	4,060	1,180	134
9	77	115	98	128	112	107	149	155	3,790	1,560	1,170	119
10	129	114	104	131	122	101	149	479	5,040	2,210	1,120	1,680
11	238	111	108	130	109	98	133	608	5,870	3,010	508	5,570
12	117	103	108	121	115	110	132	486	4,970	4,760	374	3,910
13	83	107	102	1,020	131	110	131	351	2,510	6,770	359	471
14	88	113	107	1,820	121	476	339	152	1,540	7,020	267	150
15	81	104	107	970	102	225	244	194	1,180	6,980	205	126
16	942	104	108	337	110	126	156	137	1,250	6,910	177	114
17	751	98	107	216	100	119	145	124	1,960	6,880	214	102
18	185	102	109	216	107	114	247	129	2,710	6,940	184	99
19	126	101	103	181	104	107	197	122	2,250	6,990	141	90
20	109	106	238	383	114	112	154	126	1,020	6,970	120	93
21	105	99	424	1,040	102	115	137	132	2,270	7,020	103	84
22	105	107	165	366	101	100	123	144	3,210	6,930	108	86
23	106	100	123	214	101	108	131	145	4,260	6,840	101	85
24	100	101	111	171	104	103	118	138	5,250	6,720	100	84
25	106	99	367	162	116	108	195	613	5,130	6,650	93	86
26	126	105	253	151	112	119	208	2,060	5,660	6,050	93	87
27	115	107	140	158	111	1,120	141	3,030	9,370	4,400	102	84
28	101	101	127	139	101	354	132	5,160	15,600	4,070	93	94
29	104	103	171	134	---	178	120	5,540	14,700	4,360	89	83
30	102	229	1,290	136	---	2,000	124	3,510	8,790	4,070	135	83
31	108	---	454	125	---	5,950	---	2,510	---	2,780	112	---
Total	4,735	3,979	6,119	10,724	3,288	12,869	9,111	28,122	137,890	165,300	18,753	15,997
Mean	153	133	197	346	117	415	304	907	4,596	5,332	605	533
Max	942	572	1,290	1,820	191	5,950	3,120	5,540	15,600	7,020	2,910	5,570
Min	71	96	98	121	100	98	118	122	1,020	1,560	89	83
Ac-ft	9,390	7,890	12,140	21,270	6,520	25,530	18,070	55,780	273,500	327,900	37,200	31,730

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 2007 [Z], BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	360	449	649	630	828	1,030	1,096	1,573	1,034	488	165	202
Max	4,116	3,293	4,401	5,039	4,176	8,028	6,394	9,586	5,718	5,332	1,459	1,560
(WY)	(1974)	(1995)	(1972)	(1998)	(2001)	(2001)	(2002)	(1957)	(1989)	(2007)	(1989)	(1974)
Min	1.58	3.78	3.57	7.77	23.1	10.6	7.47	42.1	17.8	3.84	0.00	0.00
(WY)	(1957)	(1956)	(1955)	(1957)	(1957)	(1956)	(1956)	(1959)	(1954)	(1956)	(1956)	(1954)

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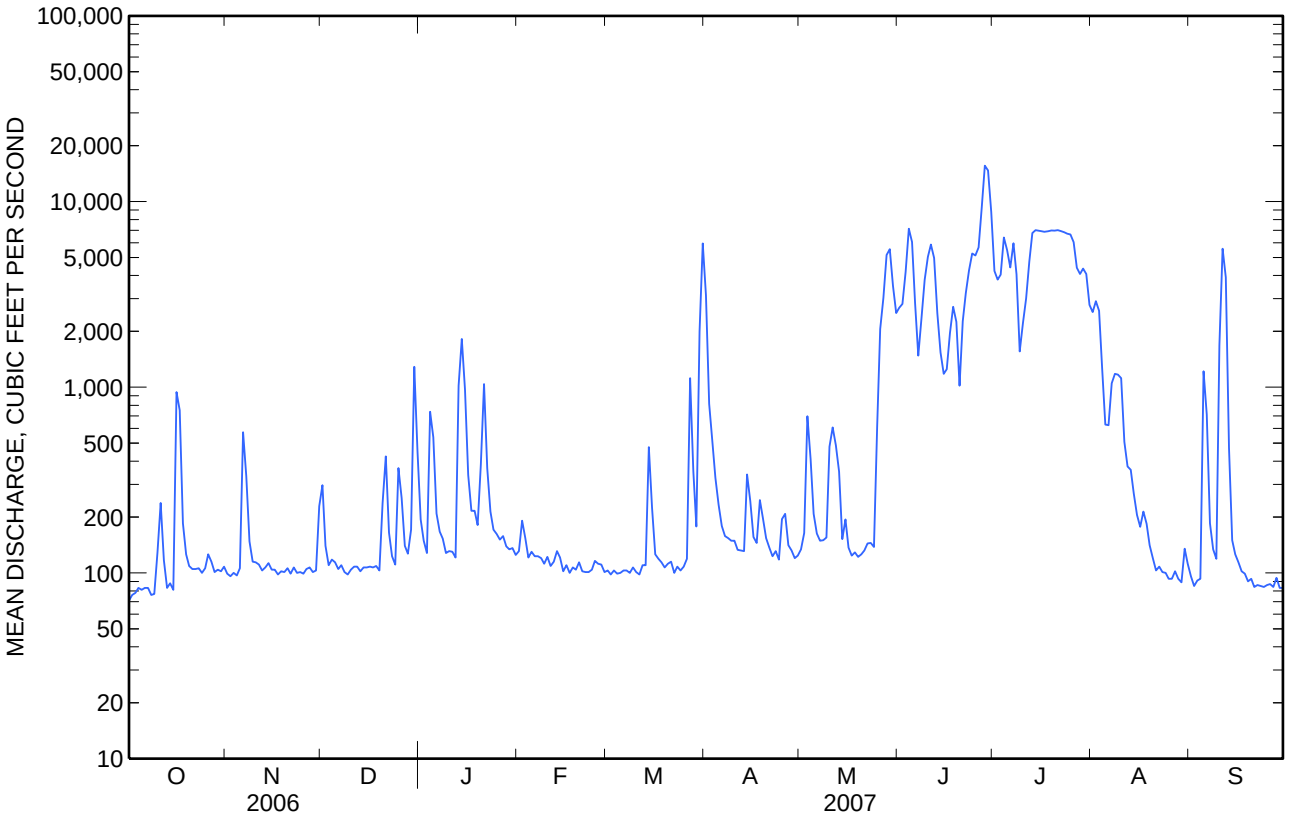
SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1954 - 2007 [Z]	
Annual total	65,074		416,887			
Annual mean	178		1,142		708	
Highest annual mean					2,209	1995
Lowest annual mean					38.4	1955
Highest daily mean	8,820	Mar 20	15,600	Jun 28	48,800	May 5, 1990
Lowest daily mean	59	Jun 15	71	Oct 1	0.00	Oct 1, 1953
Annual seven-day minimum	61	Jun 9	79	Oct 1	0.00	Oct 1, 1953
Maximum peak flow			16,600	Jun 28	59,900	May 5, 1990
Maximum peak stage			17.74	Jun 28	27.17	May 5, 1990
Annual runoff (ac-ft)	129,100		826,900		512,800	
10 percent exceeds	227		4,380		2,120	
50 percent exceeds	87		138		103	
90 percent exceeds	70		98		23	

[Z] Period of regulated streamflow.