Water-Data Report TX-2005

07312500 Wichita River at Wichita Falls, TX

Red River Basin

LOCATION.--Lat 33°54′34″, long 98°32′00″ referenced to North American Datum of 1927, Wichita County, Hydrologic Unit 11130206, near center of stream at downstream side of bridge on Beverly Drive (loop 11) in Wichita Falls, 4.0 mi upstream from Fort Worth and Denver Railway Co. bridge, 8.4 mi upstream from Holliday Creek, and 55.3 mi upstream from mouth.

DRAINAGE AREA.--3,140 mi^2 of which 2,086 mi^2 probably is noncontributing, of which 2,086 mi^2 is above Lake Kemp Dam.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Feb. 1901 to Jan. 1902 (monthly discharge only, published in WSP 1311), Oct. 1910 to Dec. 1911 (gage heights only), Mar. 1938 to current year. Water-quality records: Chemical data: Apr. 1966 to July 1975, Oct. 1981 to Sept. 1989, June 1996 to Sept. 1997. Biochemical data: Nov. 1981 to Aug. 1989, June 1996 to Sept. 1997. Sediment data: Apr. 1966 to July 1975. Specific conductance: Oct. 1981 to Sept. 1989, June 1996 to Sept. 2002. Water temperature: Oct. 1981 to Sept. 1989, June 1996 to Sept. 2002.

REVISED RECORDS.--WSP 1211: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 924.26 ft above NGVD of 1929. Feb. 1901 to Jan. 1902 and Oct. 1, 1910, to Dec. 31, 1911, nonrecording gages at site 4.0 mi downstream at different datum. Mar. 30, 1938, to Dec. 1, 1959, nonrecording gage at present site and datum. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good. Since installation of gage in Mar. 1938, at least 10% of contributing drainage area has been regulated. Since completion of Lake Kemp (station 07312000) in 1923, no outflow has passed over the spillway. Water is diverted from Lake Diversion (conservation pool storage 40,000 acre-ft) 41 mi upstream for the irrigation of 42,000 acres by the city Wichita Falls and the Wichita County Water Improvement District No. 2 for mining, industrial, irrigation, and recreational uses.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 50,000 ft^3/s June 8, 1915, computed by Vernon L. Sullivan, engineer for Big Wichita River Irrigation Co.

07312500 Wichita River at Wichita Falls, TX—Continued

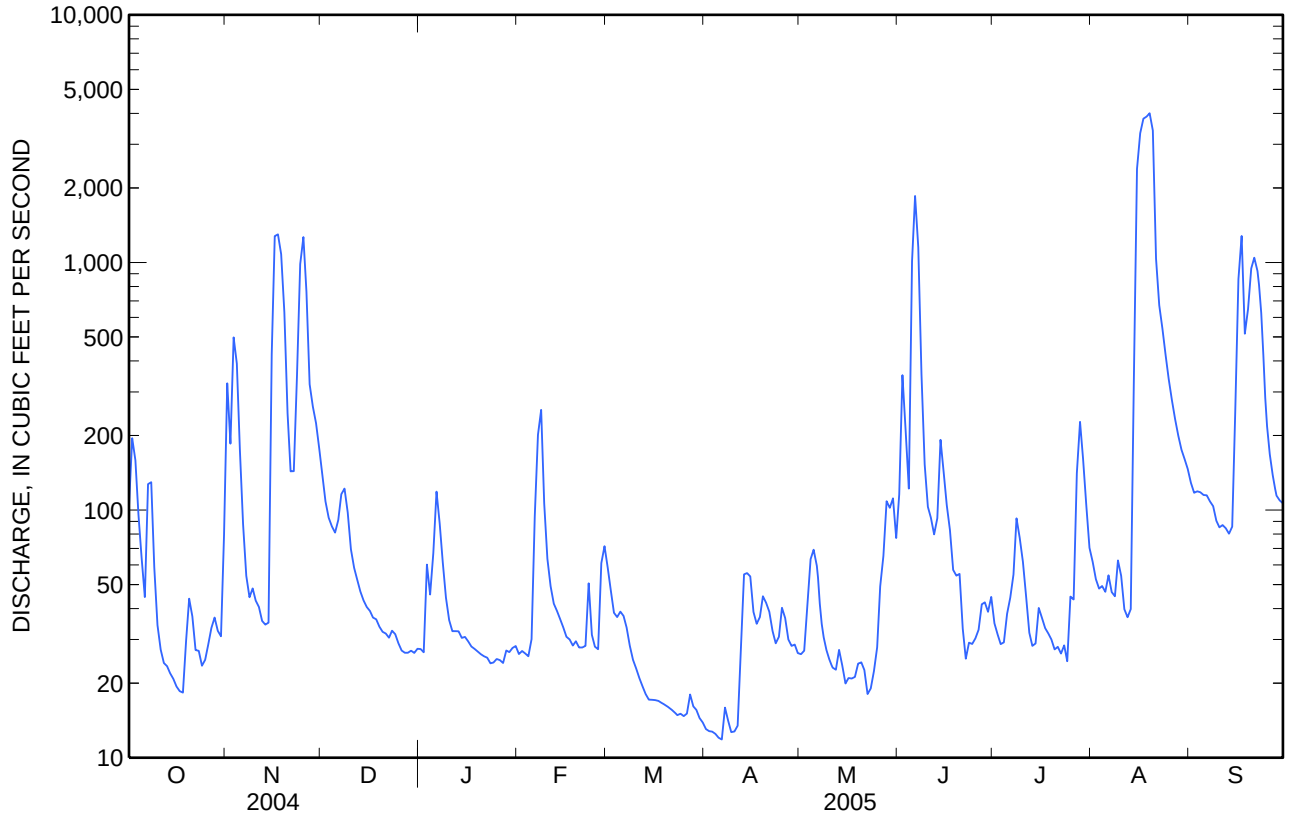
DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	103	325	138	27	26	59	13	26	116	35	62	129
2	195	185	108	27	27	48	13	27	350	31	53	118
3	159	498	93	60	26	39	13	41	209	29	48	119
4	96	390	86	46	26	37	12	63	122	29	49	118
5	64	175	81	67	30	39	12	69	1,010	38	47	115
6	45	88	91	119	94	37	12	60	1,860	44	54	115
7	127	54	116	88	201	34	16	41	1,150	55	47	108
8	130	44	122	62	254	28	14	32	354	93	45	104
9	59	48	98	44	107	25	13	27	153	77	63	91
10	34	43	69	36	64	23	13	25	103	62	54	85
11	27	41	58	32	49	21	13	23	93	45	40	87
12	24	36	52	32	42	19	27	23	80	32	37	84
13	23	34	47	32	39	18	55	27	93	28	40	80
14	22	35	43	30	36	17	56	24	192	29	323	86
15	21	425	41	31	34	17	54	20	142	40	2,390	249
16	19	1,280	39	29	31	17	39	21	105	37	3,320	858
17	19	1,300	37	28	30	17	35	21	83	33	3,810	1,280
18	18	1,080	36	27	28	17	37	21	57	32	3,880	516
19	30	629	34	27	30	16	45	24	54	30	4,000	648
20	44	246	32	26	28	16	42	24	55	27	3,410	946
21	37	143	32	26	28	16	39	23	33	28	1,030	1,050
22	27	144	31	25	28	15	33	18	25	26	671	924
23	27	350	33	24	51	15	29	19	29	28	540	667
24	24	984	32	24	31	15	31	22	29	25	422	376
25	25	1,260	29	25	28	15	40	28	30	45	339	221
26	29	762	27	25	27	15	37	49	33	44	279	163
27	33	322	27	24	61	18	30	65	42	141	233	134
28	37	262	27	27	71	16	28	109	42	227	200	114
29	33	224	27	27	---	16	29	102	39	161	175	109
30	31	177	27	28	---	14	26	111	45	105	160	106
31	80	---	28	28	---	14	---	77	---	70	147	---
Total	1,642	11,584	1,741	1,153	1,527	713	856	1,262	6,728	1,726	25,968	9,800
Mean	53.0	386	56.2	37.2	54.5	23.0	28.5	40.7	224	55.7	838	327
Max	195	1,300	138	119	254	59	56	111	1,860	227	4,000	1,280
Min	18	34	27	24	26	14	12	18	25	25	37	80
Ac-ft	3,260	22,980	3,450	2,290	3,030	1,410	1,700	2,500	13,340	3,420	51,510	19,440

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2005, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	379	206	111	87.4	147	192	217	521	485	228	257	301
Max	4,017	1,784	1,091	859	1,252	1,412	1,450	4,105	4,475	1,201	2,791	2,619
(WY)	(1942)	(1973)	(1992)	(1992)	(1992)	(1993)	(1990)	(1941)	(1941)	(1975)	(1950)	(1950)
Min	27.2	23.5	14.2	13.7	14.7	16.7	27.6	35.4	53.8	46.5	53.3	32.7
(WY)	(2004)	(1998)	(2004)	(2004)	(2002)	(2003)	(2003)	(2000)	(2001)	(2000)	(2000)	(2004)

07312500 Wichita River at Wichita Falls, TX—Continued

SUMMARY STATISTICS

	Calendar Year 2004		Water Year 2005		Water Years 1938 - 2005	
Annual total	28,893		64,700			
Annual mean	78.9		177		258	
Highest annual mean					977	1941
Lowest annual mean					44.1	2004
Highest daily mean	1,300	Nov 17	4,000	Aug 19	17,300	Oct 3, 1941
Lowest daily mean	11	Jan 3	12	Apr 4	7.7	Apr 9, 1978
Annual seven-day minimum	11	Jan 5	13	Mar 31	9.1	Mar 10, 2002
Maximum peak flow			4,050	Aug 19	17,800	Oct 3, 1941
Maximum peak stage			15.35	Aug 19	24.00	Oct 3, 1941
Annual runoff (ac-ft)	57,310		128,300		187,100	
10 percent exceeds	159		331		504	
50 percent exceeds	31		40		78	
90 percent exceeds	15		20		32