ARKANSAS RIVER BASIN

07247500 FOURCHE MALINE NEAR RED OAK, OKLA.

LOCATION. – Lat 34°54′45″, long 95°09′20″, referenced to North American Datum of 1927, in NW ¼ NW ¼ sec. 13, T.5 N., R.20 E., Latimer County, Okla., Hydrologic Unit 11110105, on downstream side of left abutment of county road bridge, 0.1 mi downstream from Little Fourche Maline, 5.0 mi southwest of Red Oak, and at mile 41.2.

DRAINAGE AREA. – 122 mi².

PERIOD OF RECORD.–October 1938 to April 1991, October 1991 to current year. Monthly discharges only October 1938 to February 1939.

REMARKS.–Regulation since 1966 by floodwater-retarding structures.

UNREGULATED STREAMFLOW PERIOD

[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1939-1963

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	392	0.00	43.8	3.82	2.9
Nov.	352	0.00	67.6	12.0	4.5
Dec.	584	0.41	91.7	42.3	6.1
Jan.	314	0.52	90.3	51.2	6.0
Feb.	715	7.58	202	150	13.4
Mar.	1,100	5.95	204	139	13.5
Apr.	1,224	18.6	288	162	19.0
May	1,377	24.2	279	138	18.4
Jun.	695	0.91	95.9	27.0	6.3
Jul.	847	0.04	94.2	6.39	6.2
Aug.	143	0.00	18.4	3.50	1.2
Sep.	546	0.00	37.8	5.23	2.5
Annual	317	18.3	126	114	–

Magnitude and probability of annual instantaneous peak flow based on 25 years of record, 1939-1963						
Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent						
2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
6,700	14,200	20,900	31,500	41,100	52,100	84,000

Oklahoma weighted skew = -0.039

Duration table of daily mean flow for period of record, 1939-1963															
Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time															
1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
2,150	1,340	506	224	132	85.1	41.9	23.3	12.8	6.73	2.90	0.71	0.05	0.02	0.01	0.00

Magnitude and probability of annual low flow based on period of record, 1940-1963

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.14	0.00	0.00	0.00
60	0.99	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1939-1963
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	6.94	3.54	2.50	1.88
3	8.06	4.26	3.09	2.38
7	10.2	5.27	3.81	2.95
10	11.6	6.02	4.49	3.60
30	67.4	31.8	22.4	17.0
60	215	108	74.2	54.3

Magnitude and probability of annual low flow based on period of record, 1939-1962
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.14	0.00	0.00	0.00
60	1.25	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1939-1963
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.83	0.00	0.00	0.00
3	1.10	0.00	0.00	0.00
7	1.29	0.00	0.00	0.00
10	1.48	0.05	0.00	0.00
30	4.23	0.76	0.24	0.04
60	13.0	2.88	1.19	0.55

ARKANSAS RIVER BASIN

07247500 FOURCHE MALINE NEAR RED OAK, OKLA.—Continued

REGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges and average percent of annual runoff, based on period of record, 1966-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	675	0.03	87.6	15.3	5.1
Nov.	811	0.05	169	44.3	9.8
Dec.	726	0.05	177	135	10.3
Jan.	762	1.39	142	86.5	8.2
Feb.	780	1.75	176	101	10.3
Mar.	662	2.42	236	202	13.7
Apr.	748	13.8	244	188	14.2
May	1,121	8.85	249	214	14.5
Jun.	551	0.92	139	92.2	8.1
Jul.	390	0.98	37.2	14.3	2.2
Aug.	144	0.00	10.4	3.82	0.6
Sep.	430	0.00	52.6	10.2	3.1
Annual	267	30.6	144	146	–

Magnitude and probability of annual instantaneous peak flow based on 42 years of record, 1966-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
15%	5%	10%	4%	2%	1%	0.2%
3,260	5,570	7,480	10,300	12,800	15,600	23,500

station skew = 0.226

Duration table of daily mean flow for period of record, 1966-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
1,680	1,340	813	420	230	146	75.6	43.6	24.4	12.4	5.93	2.68	0.76	0.18	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1967-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.08	0.00	0.00	0.00
3	0.11	0.00	0.00	0.00
7	0.19	0.00	0.00	0.00
10	0.24	0.00	0.00	0.00
30	0.90	0.07	0.00	0.00
60	1.98	0.37	0.14	0.06

Magnitude and probability of annual low flow based on period of record, 1966-2007
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	8.87	4.00	2.66	1.91
3	9.99	4.42	2.90	2.06
7	12.7	5.44	3.52	2.46
10	15.5	6.65	4.38	3.14
30	82.5	30.4	17.4	10.8
60	204	105	72.4	52.2

Magnitude and probability of annual low flow based on period of record, 1966-2006
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.10	0.00	0.00	0.00
3	0.13	0.00	0.00	0.00
7	0.22	0.00	0.00	0.00
10	0.27	0.00	0.00	0.00
30	1.14	0.12	0.01	0.00
60	2.71	0.57	0.22	0.10

Magnitude and probability of annual low flow based on period of record, 1966-2007
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	2.64	0.37	0.02	0.00
3	3.72	0.46	0.03	0.00
7	4.21	0.71	0.14	0.00
10	5.18	0.91	0.18	0.00
30	18.6	3.38	1.00	0.31
60	44.2	8.33	2.57	0.82

ARKANSAS RIVER BASIN

07248500 POTEAU RIVER NEAR WISTER, OKLA.

LOCATION. – Lat 34°56′15″, long 94°42′54″, referenced to North American Datum of 1927, in NW ¼ NW ¼ sec. 6, T.5 N., R.25 E., Le Flore County, Okla., Hydrologic Unit 11110105, on left bank of outflow channel 700 ft downstream from Wister Dam, 2,2 mi southeast of Wister, 2.6 mi upstream from Caston Creek, and at mile 60.8.

DRAINAGE AREA. – 993 mi².

PERIOD OF RECORD.–May 1938 to September 1984. Monthly discharge only for some periods, published in WSP 1311. Prior to May 21, 1951, records below about 500 ft3/s include flow from Caston Creek, drainage area, 70 mi².

REMARKS.–Flow completely regulated since October 1949 by Wister Lake.

UNREGULATED STREAMFLOW PERIOD

[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1939-1948

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	1,458	0.00	312	19.1	2.0
Nov.	4,522	13.6	840	201	5.3
Dec.	5,687	30.0	1,257	803	7.9
Jan.	2,876	35.3	1,041	704	6.6
Feb.	6,657	146	2,421	2,608	15.3
Mar.	10,860	114	2,268	994	14.3
Apr.	6,619	1,073	2,871	2,168	18.1
May	6,830	384	2,961	2,244	18.7
Jun.	7,115	85.5	1,319	496	8.3
Jul.	790	17.0	169	71.4	1.1
Aug.	316	1.01	119	64.3	0.8
Sep.	1,648	0.34	249	45.6	1.6
Annual	3,168	268	1,311	1,190	–

Magnitude and probability of annual instantaneous peak flow based on 10 years of record, 1939-1948

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
29,900	60,300	86,000	124,000	157,000	193,000	291,000

Oklahoma weighted skew = -0.153

Duration table of daily mean flow for period of record, 1938-1948

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
19,800	13,200	6,500	3,000	1,700	1,130	653	376	215	131	64.4	27.4	4.62	0.65	0.03	0.02

Magnitude and probability of annual low flow based on period of record, 1940-1948

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.14	0.00	0.00	0.00
3	0.14	0.00	0.00	0.00
7	0.21	0.00	0.00	0.00
10	0.26	0.00	0.00	0.00
30	2.09	0.27	0.00	0.00
60	9.44	1.73	0.71	0.33

Magnitude and probability of annual low flow based on period of record, 1939-1948
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	145	96.2	78.6	66.8
3	155	108	90.4	79.1
7	175	121	106	88.0
10	245	142	111	92.6
30	1,220	668	470	345
60	2,760	1,700	1,270	972

Magnitude and probability of annual low flow based on period of record, 1939-1947
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.15	0.00	0.00	0.00
3	0.22	0.00	0.00	0.00
7	0.30	0.00	0.00	0.00
10	0.34	0.00	0.00	0.00
30	3.33	0.30	0.00	0.00
60	14.2	2.29	0.81	0.33

Magnitude and probability of annual low flow based on period of record, 1939-1948
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	11.2	0.52	0.00	0.00
3	19.9	0.74	0.00	0.00
7	25.9	5.22	2.05	0.90
10	37.8	10.1	4.61	2.29
30	102	39.7	24.0	15.8
60	244	80.9	41.8	23.2

ARKANSAS RIVER BASIN

07248500 POTEAU RIVER NEAR WISTER, OKLA.—Continued

REGULATED STREAMFLOW PERIOD

[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges and average percent of annual runoff, based on period of record, 1950-1984

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	1,872	3.38	295	45.6	2.3
Nov.	3,694	0.53	679	192	5.4
Dec.	4,244	0.17	1,172	766	9.3
Jan.	4,753	0.14	1,123	876	8.9
Feb.	4,876	10.0	1,347	998	10.7
Mar.	4,330	53.1	1,698	1,558	13.4
Apr.	4,347	135	1,652	1,290	13.1
May	5,940	93.1	2,211	2,072	17.5
Jun.	5,786	11.4	1,399	315	11.1
Jul.	5,704	0.84	523	162	4.2
Aug.	3,652	2.48	289	23.4	2.3
Sep.	1,709	0.40	238	43.5	1.9
Annual	2,087	200	1,050	942	–

Magnitude and probability of annual instantaneous peak flow based on 35 years of record, 1950-1984

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
15%	5%	10%	4%	2%	1%	0.2%
6,560	7,740	8,500	9,420	10,100	10,800	12,300

station skew = 0.322

Duration table of daily mean flow for period of record, 1950-1984

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
6,780	6,530	5,710	4,110	2,700	1,750	755	364	163	66.8	21.3	11.6	6.36	1.73	0.44	0.18

Magnitude and probability of annual low flow based on period of record, 1951-1984

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	3.05	0.64	0.08	0.00
3	4.44	1.12	0.18	0.00
7	5.37	1.30	0.25	0.04
10	6.87	1.41	0.38	0.07
30	9.84	2.24	0.82	0.31
60	16.1	3.65	1.60	0.79

Magnitude and probability of annual low flow based on period of record, 1950-1984
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	21.3	7.75	4.09	2.27
3	35.4	14.2	8.90	6.10
7	105	37.8	22.7	15.0
10	143	47.2	26.9	17.1
30	689	304	198	138
60	1,730	957	668	483

Magnitude and probability of annual low flow based on period of record, 1950-1984
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	4.06	1.11	0.44	0.15
3	4.68	1.35	0.56	0.20
7	5.41	1.58	0.71	0.34
10	7.06	2.14	0.95	0.45
30	10.0	3.54	2.00	1.24
60	20.5	5.88	3.15	1.91

Magnitude and probability of annual low flow based on period of record, 1950-1983
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	7.72	1.55	0.18	0.00
3	10.7	2.40	0.47	0.00
7	17.4	3.15	0.38	0.05
10	19.9	3.70	0.45	0.07
30	78.6	7.65	1.69	0.41
60	387	56.8	13.7	3.33

ARKANSAS RIVER BASIN

07249400 JAMES FORK NEAR HACKETT, ARK.

LOCATION. – Lat 35°09′45″, long 94°24′25″, referenced to North American Datum of 1927, in NW ¼ NW ¼ sec. 34, T.6 N., R.32 W., Sebastian County, Ark., Hydrologic Unit 11110105, near left bank on downstream side of bridge on State Hwy 45, 1.7 mi south of Hackett, 2.0 mi downstream from Elder Branch, 2.0 mi upstream from small tributary, and 3.6 mi upstream from Arkansas-Oklahoma State line.

DRAINAGE AREA. – 147 mi².

PERIOD OF RECORD.–April 1958 to current year.

UNREGULATED STREAMFLOW PERIOD

[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1958-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	867	0.00	65.3	11.2	3.8
Nov.	915	0.00	156	41.7	9.0
Dec.	760	0.40	200	107	11.5
Jan.	820	0.50	176	134	10.1
Feb.	727	1.08	211	155	12.2
Mar.	996	0.92	264	185	15.2
Apr.	1,047	19.9	231	165	13.3
May	1,203	18.7	256	153	14.7
Jun.	342	1.76	95.7	38.7	5.5
Jul.	768	0.42	53.4	12.4	3.1
Aug.	81.7	0.02	10.1	5.69	0.6
Sep.	159	0.00	18.3	7.79	1.1
Annual	308	18.9	143	153	–

Magnitude and probability of annual instantaneous peak flow based on 50 years of record, 1958-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
6,710	11,400	14,900	19,600	23,400	27,400	37,300

Oklahoma weighted skew = -0.146

Duration table of daily mean flow for period of record, 1958-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
2,280	1,350	583	282	185	139	79.2	49.0	29.4	16.5	8.21	3.78	1.48	0.56	0.09	0.00

Magnitude and probability of annual low flow based on period of record, 1959-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.52	0.07	0.00	0.00
3	0.63	0.08	0.00	0.00
7	0.78	0.15	0.00	0.00
10	0.89	0.17	0.00	0.00
30	1.84	0.43	0.14	0.02
60	3.75	0.75	0.20	0.05

Magnitude and probability of annual low flow based on period of record, 1958-2007
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	16.0	5.73	2.99	1.64
3	17.7	6.28	3.28	1.81
7	21.4	7.42	3.84	2.10
10	24.4	8.97	4.93	2.89
30	66.8	31.0	21.3	15.9
60	181	83.2	54.0	37.2

Magnitude and probability of annual low flow based on period of record, 1958-2006
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.55	0.07	0.00	0.00
3	0.66	0.08	0.00	0.00
7	0.81	0.16	0.00	0.00
10	0.92	0.18	0.00	0.00
30	1.97	0.47	0.16	0.02
60	4.38	0.89	0.24	0.05

Magnitude and probability of annual low flow based on period of record, 1958-2007
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	3.79	0.88	0.36	0.15
3	5.09	1.24	0.52	0.22
7	6.88	1.77	0.75	0.32
10	7.96	2.09	0.89	0.38
30	20.6	4.54	1.63	0.57
60	63.0	13.9	4.85	1.75

ARKANSAS RIVER BASIN

07249413 POTEAU RIVER NEAR PANAMA, OKLA.

LOCATION. – Lat 35°09′56″, long 94°39′10″, referenced to North American Datum of 1927, in SE ¼ SE ¼ sec. 15, T.8 N., R.25 E., Le Flore County, Okla., Hydrologic Unit 11110105, on left end of county road bridge, 1.5 mi east of Panama, Okla., .8 mi down-stream from James Fork Creek, and at mile 26.4.

DRAINAGE AREA. – 1,767 mi².

PERIOD OF RECORD.–October 1989 to December 1990, May 1992 to current year.

REMARKS.–Flow regulated by Wister Reservoir 34.5 mi upstream.

REGULATED STREAMFLOW PERIOD

[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1990-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	3,519	15.0	524	95.6	2.0
Nov.	9,861	11.5	1,809	645	6.9
Dec.	8,135	9.68	3,134	2,879	12.0
Jan.	10,930	27.6	3,535	2,490	13.5
Feb.	7,467	24.7	3,356	2,935	12.8
Mar.	8,242	270	3,417	2,310	13.1
Apr.	8,912	262	3,157	2,522	12.1
May	16,670	403	3,594	2,226	13.7
Jun.	5,531	180	2,110	1,906	8.1
Jul.	4,587	16.8	809	278	3.1
Aug.	2,478	20.8	303	62.3	1.2
Sep.	2,678	21.8	419	95.4	1.6
Annual	3,907	295	2,171	2,318	–

Magnitude and probability of annual instantaneous peak flow based on 18 years of record, 1990-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
19,600	33,700	44,600	59,900	72,400	85,800	120,000

station skew = -0.060

Duration table of daily mean flow for period of record, 1990-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
15,600	11,600	8,360	6,890	5,420	4,040	2,310	1,170	485	191	90.2	49.0	23.8	15.8	10.4	8.27

Magnitude and probability of annual low flow based on period of record, 1991-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	13.3	7.08	4.81	3.38
3	14.3	7.53	5.05	3.51
7	16.1	8.37	5.53	3.78
10	17.2	9.30	6.31	4.41
30	22.2	14.0	12.0	11.0
60	33.0	21.1	18.7	17.6

Magnitude and probability of annual low flow based on period of record, 1990-2007
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	153	61.2	42.8	33.7
3	184	68.4	45.3	33.9
7	281	89.4	52.5	35.0
10	349	115	67.8	45.2
30	1,360	503	290	182
60	2,460	1,240	872	656

Magnitude and probability of annual low flow based on period of record, 1990-2006
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	15.4	8.36	5.62	3.88
3	16.6	8.87	5.89	4.02
7	19.0	9.80	6.39	4.29
10	20.4	10.9	7.26	5.01
30	28.4	15.3	12.4	10.9
60	52.3	25.3	19.2	16.0

Magnitude and probability of annual low flow based on period of record, 1990-2007
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	35.4	14.0	8.89	6.18
3	42.1	16.8	10.5	7.00
7	66.0	21.3	11.6	7.04
10	75.8	23.3	12.5	7.44
30	222	43.9	17.6	7.94
60	785	128	40.0	13.6

ARKANSAS RIVER BASIN

07249500 COVE CREEK NEAR LEE CREEK, ARK.

LOCATION. – Lat 35°43′20″, long 94°24′28″, referenced to North American Datum of 1927, in SW 1⁄4 NW 1⁄4 sec. 16, T.12 N., R.32 W., Crawford County, Ark., Hydrologic Unit 11110104, near left bank on downstream side of bridge, 4.5 miles northwest of Lee Creek, and at mile 5.8.

DRAINAGE AREA. – 35.3 mi².

PERIOD OF RECORD.–May 1950 to September 1970.

UNREGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1951-1970

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	44.4	0.00	12.6	3.06	2.7
Nov.	118	0.04	23.7	4.22	5.1
Dec.	104	0.16	27.8	13.3	6.0
Jan.	93.0	0.34	33.1	19.7	7.1
Feb.	216	3.09	53.4	32.2	11.5
Mar.	202	6.49	70.6	58.1	15.2
Apr.	290	7.82	85.1	66.4	18.4
May	349	13.9	93.3	63.3	20.1
Jun.	112	1.00	20.5	10.1	4.4
Jul.	102	0.08	22.2	6.47	4.8
Aug.	77.1	0.00	10.4	1.66	2.2
Sep.	95.0	0.00	11.2	1.13	2.4
Annual	85.0	7.78	37.9	37.7	–

Magnitude and probability of annual instantaneous peak flow based on 55 years of record, 1950-2004

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
5,000	10,600	15,400	22,600	28,800	35,500	53,600

Oklahoma weighted skew = -0.230

Duration table of daily mean flow for period of record, 1950-1970

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
578	343	153	78.5	52.7	39.4	23.3	13.2	6.73	3.48	1.71	0.78	0.12	0.10	0.02	0.01

Magnitude and probability of annual low flow based on period of record, 1952-1970

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.07	0.00	0.00	0.00
3	0.07	0.00	0.00	0.00
7	0.08	0.00	0.00	0.00
10	0.09	0.00	0.00	0.00
30	0.16	0.01	0.00	0.00
60	0.36	0.06	0.02	0.00

Magnitude and probability of annual low flow based on period of record, 1951-1970
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	5.46	3.06	2.33	1.88
3	6.05	3.35	2.51	2.01
7	7.97	4.10	2.93	2.24
10	9.16	4.77	3.50	2.76
30	39.3	20.4	14.2	10.3
60	69.2	43.4	34.8	29.2

Magnitude and probability of annual low flow based on period of record, 1951-1969
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.07	0.00	0.00	0.00
3	0.07	0.00	0.00	0.00
7	0.08	0.00	0.00	0.00
10	0.10	0.00	0.00	0.00
30	0.19	0.04	0.00	0.00
60	0.51	0.09	0.03	0.00

Magnitude and probability of annual low flow based on period of record, 1951-1970
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.90	0.00	0.00	0.00
3	0.93	0.07	0.00	0.00
7	1.09	0.09	0.00	0.00
10	1.12	0.11	0.00	0.00
30	2.38	0.40	0.14	0.06
60	8.20	1.52	0.54	0.22

ARKANSAS RIVER BASIN

07249985 LEE CREEK NEAR SHORT, OKLA.

LOCATION. – Lat 35°31′02″, long 94°27′51″, referenced to North American Datum of 1927, in NW ¼ NE ¼ sec. 17, T.12 N., R.27 E., Sequoyah County, Okla., Hydrologic Unit 11110104, on left bank 0.5 mi west of Arkansas-Oklahoma State line, 500 ft downstream from Webbers Creek, 4.1 mi south of Short, Oklahoma, and 7.5 mi southwest of Uniontown, and at river mile 11.0.

DRAINAGE AREA. – 420 mi².

PERIOD OF RECORD.–October 1930 to June 1937, October 1950 to current year. Prior to October 1992, published as "07250000 Lee Creek near Van Buren".

UNREGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1931-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	2,837	0.00	216	51.9	3.3
Nov.	3,572	0.13	551	200	8.5
Dec.	2,378	0.75	573	362	8.8
Jan.	2,831	2.04	607	426	9.3
Feb.	2,824	2.94	753	560	11.6
Mar.	3,100	25.2	1,037	835	16.0
Apr.	3,657	94.6	1,080	874	16.6
May	3,516	41.3	907	803	14.0
Jun.	4,450	7.00	446	170	6.9
Jul.	1,909	0.19	163	34.2	2.5
Aug.	583	0.00	44.5	10.9	0.7
Sep.	1,678	0.00	123	9.61	1.9
Annual	1,090	92.5	540	480	–

Magnitude and probability of annual instantaneous peak flow based on 77 historic years of record, 1931-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
24,900	43,100	56,800	75,500	90,300	106,000	144,000

Oklahoma weighted skew = -0.203

Duration table of daily mean flow for period of record, 1931-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
6,580	4,200	2,310	1,280	886	654	390	236	135	67.5	29.6	9.96	2.15	0.36	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1932-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.38	0.00	0.00	0.00
3	0.46	0.00	0.00	0.00
7	0.53	0.00	0.00	0.00
10	0.59	0.00	0.00	0.00
30	1.50	0.09	0.00	0.00
60	4.37	0.45	0.07	0.00

Magnitude and probability of annual low flow based on period of record, 1931-2007
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	93.3	47.8	33.3	24.5
3	101	51.6	35.9	26.5
7	120	59.6	41.3	30.5
10	134	65.9	45.5	33.5
30	453	200	125	82.2
60	874	496	356	266

Magnitude and probability of annual low flow based on period of record, 1931-2006
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.39	0.00	0.00	0.00
3	0.46	0.00	0.00	0.00
7	0.53	0.00	0.00	0.00
10	0.59	0.00	0.00	0.00
30	1.94	0.12	0.00	0.00
60	5.58	0.75	0.14	0.00

Magnitude and probability of annual low flow based on period of record, 1931-2007
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	19.8	2.05	0.04	0.00
3	22.3	2.28	0.04	0.00
7	29.0	2.35	0.06	0.00
10	31.5	2.49	0.23	0.00
30	87.6	11.6	2.91	0.78
60	205	38.7	12.3	4.12

ARKANSAS RIVER BASIN

07250000 LEE CREEK NEAR VAN BUREN, ARK.

LOCATION. – Lat 35°29′40″, long 94°26′58″, referenced to North American Datum of 1927, in SE 1⁄4 sec. 21, T.12 N., R.27 E., Indian Meridian, Sequoyah County, Okla., Hydrologic Unit 11110104, on right bank 300 ft west of Arkansas-Oklahoma State line, 3.2 miles downstream from Webbers Creek, 6.8 miles northwest of Van Buren, and at mile 7.8.

DRAINAGE AREA. – 426 mi².

PERIOD OF RECORD.–October 1930 to June 1937, October 1950 to November 1992.

UNREGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	2,837	0.00	250	50.0	4.0
Nov.	3,572	0.13	494	178	7.9
Dec.	2,378	1.95	538	261	8.6
Jan.	2,557	3.31	502	361	8.0
Feb.	2,824	18.8	703	502	11.2
Mar.	3,100	25.2	1,045	835	16.6
Apr.	3,657	94.6	1,048	872	16.7
May	3,516	41.3	941	803	15.0
Jun.	4,450	7.00	435	172	6.9
Jul.	1,909	0.19	127	30.2	2.0
Aug.	583	0.00	55.3	10.9	0.9
Sep.	1,678	0.00	139	9.90	2.2
Annual	1,090	92.5	522	463	–

Table title: Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1931-1992

Magnitude and probability of annual instantaneous peak flow based on 51 historic years of record, 1931-1992

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
24,400	42,900	56,700	75,600	90,400	106,000	144,000

Oklahoma weighted skew = -0.243

Duration table of daily mean flow for period of record, 1931-1993

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
6,580	4,260	2,280	1,240	856	635	382	234	133	66.4	29.0	9.68	2.12	0.29	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1932-1992

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.47	0.00	0.00	0.00
3	0.53	0.00	0.00	0.00
7	0.59	0.00	0.00	0.00
10	0.63	0.00	0.00	0.00
30	1.44	0.05	0.00	0.00
60	3.87	0.31	0.02	0.00

Magnitude and probability of annual low flow based on period of record, 1931-1992
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	101	50.6	34.2	24.4
3	110	54.8	37.2	26.6
7	131	64.2	43.4	31.1
10	147	71.1	47.9	34.3
30	489	220	137	90.1
60	857	479	344	257

Magnitude and probability of annual low flow based on period of record, 1931-1991
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.47	0.00	0.00	0.00
3	0.53	0.00	0.00	0.00
7	0.59	0.00	0.00	0.00
10	0.63	0.00	0.00	0.00
30	1.94	0.06	0.00	0.00
60	5.15	0.53	0.04	0.00

Magnitude and probability of annual low flow based on period of record, 1931-1992
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	16.5	1.50	0.00	0.00
3	18.2	1.66	0.00	0.00
7	27.8	1.70	0.03	0.00
10	33.0	1.82	0.17	0.00
30	78.3	11.8	3.30	0.98
60	171	35.9	12.7	4.77

ARKANSAS RIVER BASIN

07250550 ARKANSAS RIVER AT JAMES W. TRIMBLE LOCK AND DAM NEAR VAN BUREN, ARK.

LOCATION. – Lat 35°20′56″, long 94°17′54″, referenced to North American Datum of 1927, in NE ¼ NE ¼ sec. 28, T.8 N., R.31 W., Sebastian County, Ark., Hydrologic Unit 11110104, in metal shelter on dam and at river mile 308.9.

DRAINAGE AREA. – 128,306 mi².

PERIOD OF RECORD.–October 1927 to current year. Prior to October 1969, published as "07250500 Arkansas River at Van Buren", and October 1969 to September 1988, published as "at Dam No. 13", near Van Buren. Gage height records collected from 1879 to Dec 1955 at Fort Smith, 16.3 mi upstream, are contained in reports of the National Weather Service.

REMARKS.–Prior to October 1969, published as "07250500 Arkansas River at Van Buren", and October 1969 to September 1988, published as "at Dam No. 13, near Van Buren". Flow regulated since 1964 by Lake Eufaula and Keystone Lake. Flow has been further regulated by Robert S. Kerr Reservoir since 1970. Beginning April 26, 1970, daily discharge computed from relations between discharge, head and gate openings.

UNREGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1928-1963

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	164,300	492	25,186	11,490	6.6
Nov.	146,400	1,262	20,306	10,340	5.4
Dec.	56,170	1,421	17,318	10,130	4.6
Jan.	90,690	1,194	19,765	12,920	5.2
Feb.	111,700	2,328	25,094	18,640	6.6
Mar.	141,700	2,401	29,752	23,620	7.9
Apr.	219,200	3,185	47,627	30,850	12.6
May	302,100	7,446	69,654	49,730	18.4
Jun.	231,000	5,353	55,168	42,520	14.6
Jul.	176,000	1,585	34,267	18,480	9.0
Aug.	97,360	818	16,107	10,720	4.2
Sep.	71,400	742	18,457	13,080	4.9
Annual	65,250	5,965	31,564	33,050	–

Magnitude and probability of annual instantaneous peak flow based on 36 years of record, 1928-1963

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
223,000	371,000	481,000	633,000	755,000	883,000	1,210,000

Water Resources Council weighted skew = -0.075

Duration table of daily mean flow for period of record, 1928-1963

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
244,000	195,000	132,000	80,800	57,600	43,900	27,200	18,800	13,600	9,730	7,100	4,980	3,010	1,910	1,170	800

Magnitude and probability of annual low flow based on period of record, 1929-1963

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	2,500	1,160	731	484
3	2,690	1,240	778	512
7	2,940	1,340	836	551
10	3,040	1,380	863	571
30	3,840	1,650	1,020	675
60	5,040	2,230	1,410	946

Magnitude and probability of annual low flow based on period of record, 1928-1963
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	8,670	4,360	2,940	2,080
3	9,320	4,600	3,080	2,180
7	10,800	5,280	3,550	2,530
10	12,400	5,950	4,000	2,860
30	24,900	10,600	6,500	4,270
60	46,000	21,100	13,500	9,070

Magnitude and probability of annual low flow based on period of record, 1928-1962
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	2,850	1,290	796	517
3	3,040	1,350	825	530
7	3,270	1,430	873	562
10	3,380	1,470	899	581
30	4,520	1,860	1,110	709
60	7,060	2,780	1,650	1,040

Magnitude and probability of annual low flow based on period of record, 1928-1963
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	3,460	1,740	1,180	845
3	3,640	1,880	1,300	954
7	3,990	2,120	1,500	1,120
10	4,170	2,200	1,560	1,160
30	6,110	3,090	2,110	1,530
60	8,760	4,460	3,060	2,210

ARKANSAS RIVER BASIN

07250550 ARKANSAS RIVER AT JAMES W. TRIMBLE LOCK AND DAM, NEAR VAN BUREN, ARK.—Continued

REGULATED STREAMFLOW PERIOD

[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges and average percent of annual runoff, based on period of record, 1970-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	224,500	1,446	23,999	12,880	5.2
Nov.	161,200	1,329	34,855	22,520	7.5
Dec.	139,700	2,144	34,262	20,160	7.4
Jan.	127,000	696	33,210	21,500	7.1
Feb.	87,650	2,656	33,534	26,660	7.2
Mar.	147,200	4,003	56,129	44,060	12.0
Apr.	164,300	2,910	57,270	53,740	12.3
May	187,500	12,160	64,210	56,200	13.8
Jun.	191,500	4,688	59,900	49,820	12.8
Jul.	171,600	4,457	35,691	24,570	7.7
Aug.	75,760	4,378	17,808	12,820	3.8
Sep.	54,130	3,207	15,296	10,410	3.3
Annual	87,670	7,145	38,851	35,190	–

Magnitude and probability of annual instantaneous peak flow based on 38 years of record, 1970-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
15%	5%	10%	4%	2%	1%	0.2%
162,000	223,000	265,000	320,000	363,000	407,000	515,000

station skew = 0.173

Duration table of daily mean flow for period of record, 1970-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
169,000	162,000	140,000	106,000	80,300	64,200	44,200	33,000	22,900	15,900	11,100	7,130	3,300	1,480	217	82.6

Magnitude and probability of annual low flow based on period of record, 1971-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	56.2	12.8	0.00	0.00
3	665	146	58.1	25.2
7	2,140	1,070	725	518
10	2,720	1,430	984	709
30	4,780	2,520	1,720	1,230
60	6,770	3,760	2,700	2,020

Magnitude and probability of annual low flow based on period of record, 1970-2007
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	8,330	1,160	327	100
3	14,500	3,730	1,540	668
7	17,200	6,220	3,460	2,070
10	18,800	6,940	3,920	2,380
30	36,600	15,600	9,240	5,780
60	52,100	27,200	18,500	13,200

Magnitude and probability of annual low flow based on period of record, 1970-2006
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	145	33.4	14.5	0.00
3	1,340	472	256	149
7	2,880	1,460	1,020	750
10	3,400	1,770	1,250	934
30	6,390	3,420	2,410	1,780
60	8,610	4,990	3,790	3,030

Magnitude and probability of annual low flow based on period of record, 1970-2007
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	298	25.1	0.00	0.00
3	1,910	291	91.0	31.6
7	4,480	1,680	979	614
10	5,400	2,210	1,340	877
30	9,780	4,220	2,660	1,790
60	14,800	6,510	4,120	2,770

RED RIVER BASIN

07299300 LITTLE RED RIVER NEAR TURKEY, TEX.

LOCATION. – Lat 34°32′27″, long 100°46′13″, referenced to North American Datum of 1927, Hall County, Tex., Hydrologic Unit 11120105, on left bank at downstream side of bridge on Farm Road 657, 10 mi (16 km) upstream from mouth, and 14.5 mi (23.3 km) northeast of Turkey.

DRAINAGE AREA. – 139 mi².

PERIOD OF RECORD.–August 1968 to September 1981.

UNREGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	13.7	0.16	4.29	2.07	3.2
Nov.	10.2	0.07	2.30	0.52	1.7
Dec.	2.02	0.06	0.50	0.23	0.4
Jan.	1.55	0.08	0.33	0.14	0.3
Feb.	2.14	0.05	0.41	0.28	0.3
Mar.	52.8	0.05	7.18	0.59	5.4
Apr.	67.6	0.06	12.4	0.40	9.4
May	72.5	0.32	27.0	16.9	20.4
Jun.	73.4	0.22	26.4	17.4	20.0
Jul.	43.7	0.00	9.25	1.67	7.0
Aug.	66.3	0.97	17.9	13.4	13.6
Sep.	68.7	0.09	24.1	20.4	18.2
Annual	18.5	2.41	11.0	10.9	–

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1969-1981

Magnitude and probability of annual instantaneous peak flow based on 14 years of record, 1968-1981

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent						
2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
2,470	3,410	4,020	4,780	5,320	5,860	7,100

Oklahoma weighted skew = -0.140

Duration table of daily mean flow for period of record, 1968-1981

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time																
1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
307	149	32.8	6.24	2.41	1.20	0.48	0.27	0.20	0.15	0.11	0.08	0.05	0.01	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1970-1981

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.01	0.00	0.00	0.00
3	0.01	0.00	0.00	0.00
7	0.01	0.00	0.00	0.00
10	0.01	0.00	0.00	0.00
30	0.06	0.01	0.00	0.00
60	0.10	0.04	0.03	0.01

Magnitude and probability of annual low flow based on period of record, 1969-1981
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.06	0.00	0.00	0.00
3	0.06	0.00	0.00	0.00
7	0.06	0.01	0.00	0.00
10	0.08	0.02	0.01	0.00
30	0.48	0.13	0.07	0.04
60	17.3	4.65	1.81	0.72

Magnitude and probability of annual low flow based on period of record, 1969-1980
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.01	0.00	0.00	0.00
3	0.02	0.00	0.00	0.00
7	0.02	0.00	0.00	0.00
10	0.02	0.00	0.00	0.00
30	0.07	0.00	0.00	0.00
60	1.12	0.15	0.04	0.01

Magnitude and probability of annual low flow based on period of record, 1969-1981
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.04	0.02	0.01	0.01
3	0.05	0.03	0.02	0.02
7	0.06	0.04	0.03	0.02
10	0.07	0.04	0.03	0.03
30	0.09	0.06	0.05	0.04
60	0.13	0.08	0.06	0.06

RED RIVER BASIN

07299540 PRAIRIE DOG TOWN FORK RED RIVER NEAR CHILDRESS, TEX.

LOCATION. – Lat 34°34′09″, long 100°11′37″, referenced to North American Datum of 1927, Childress County, Tex., Hydrologic Unit 11120105, on left bank at downstream side of bridge on U.S. Highways 62 and 83, 3.1 mi downstream from Salt Creek, 10.0 mi north of Childress, and at mile 1,061.

DRAINAGE AREA. – 7,725 mi², of which 4,767 mi² is probably noncontributing.

PERIOD OF RECORD.–April 1965 to current year.

REMARKS.–Since water year 1974, at least 10 percent of contributing drainage area has been regulated by MacKenzie Reservoir (station 07298100), normal storage 46,077 acre-ft, Baylor Lake, and Lake Childress. Flow is also affected by flood-detention pools of 23 floodwater-retarding structures with a combined detention capacity of 20,010 acre-ft. These structures control runoff from 95.2 square miles in the drainage basin above station. Many small diversions upstream from station.

UNREGULATED STREAMFLOW PERIOD

[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1966-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	1,279	3.14	115	34.7	8.1
Nov.	490	0.08	58.6	19.4	4.1
Dec.	288	2.27	44.0	14.9	3.1
Jan.	296	2.05	40.8	15.4	2.8
Feb.	358	2.00	44.2	19.2	3.1
Mar.	500	1.72	70.2	31.3	4.9
Apr.	735	2.95	108	26.9	7.6
May	1,835	1.18	254	111	17.8
Jun.	1,297	3.46	320	217	22.4
Jul.	367	0.66	90.0	50.9	6.3
Aug.	1,086	1.56	152	74.6	10.6
Sep.	470	3.39	132	92.9	9.2
Annual	286	27.6	119	116	–

Magnitude and probability of annual instantaneous peak flow based on 43 years of record, 1965-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
14,800	30,700	44,000	63,600	80,000	97,800	145,000

Water Resources Council weighted skew = -0.253

Duration table of daily mean flow for period of record, 1965-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
2,150	1,230	518	195	107	68.3	32.8	17.5	10.2	6.29	4.18	2.45	1.14	0.52	0.14	0.04

Magnitude and probability of annual low flow based on period of record, 1967-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.15	0.02	0.00	0.00
3	0.24	0.04	0.00	0.00
7	0.51	0.11	0.04	0.01
10	0.69	0.19	0.08	0.04
30	2.65	1.02	0.58	0.35
60	6.02	3.05	2.23	1.75

Magnitude and probability of annual low flow based on period of record, 1966-2007
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	1.15	0.19	0.06	0.02
3	1.44	0.33	0.15	0.08
7	2.24	0.71	0.40	0.25
10	2.93	0.96	0.54	0.34
30	16.9	5.30	2.97	1.86
60	102	43.0	27.7	19.4

Magnitude and probability of annual low flow based on period of record, 1966-2006
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.24	0.04	0.01	0.00
3	0.36	0.06	0.01	0.00
7	0.63	0.14	0.05	0.02
10	0.81	0.22	0.10	0.05
30	4.67	1.56	0.88	0.55
60	21.0	6.82	3.61	2.08

Magnitude and probability of annual low flow based on period of record, 1966-2007
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	1.55	0.41	0.18	0.02
3	2.01	0.56	0.24	0.03
7	3.33	0.78	0.28	0.10
10	3.58	1.02	0.45	0.21
30	6.86	2.31	1.18	0.64
60	9.85	4.26	2.92	2.20

RED RIVER BASIN

07299570 RED RIVER NEAR QUANAH, TEX.

LOCATION. – Lat 34°24′47″, long 99°44′03″, referenced to North American Datum of 1927, Jackson County, Okla., Hydrologic Unit 11130101, on right bank at downstream side of bridge on State Highway 6, 8 mi north of Quanah, 30 mi upstream from Salt Fork Red River, and at mile 1,030.

DRAINAGE AREA. – 8,321 mi², of which 4,769 mi² is probably noncontributing.

PERIOD OF RECORD.–November 1959 to September 1982.

REMARKS.–Several small diversions above station for irrigation. Flow is also affected by flood-detention pools of 23 floodwater-retarding structures with a combined detention capacity of 20,010 acre-ft. These structures control runoff from 95.2 square miles in the drainage basin above station.

UNREGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1960-1982

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	1,836	0.71	128	15.9	7.2
Nov.	88.8	0.64	31.6	19.2	1.8
Dec.	212	0.55	33.8	11.3	1.9
Jan.	103	2.02	23.4	13.5	1.3
Feb.	115	2.82	28.8	20.5	1.6
Mar.	404	0.84	48.5	13.0	2.7
Apr.	382	1.76	79.4	30.9	4.5
May	1,754	5.07	304	96.5	17.1
Jun.	2,535	6.71	576	324	32.4
Jul.	666	0.00	151	44.5	8.5
Aug.	1,582	0.03	190	54.4	10.7
Sep.	800	3.61	181	98.7	10.2
Annual	282	23.9	140	119	–

Magnitude and probability of annual instantaneous peak flow based on 23 years of record, 1960-1982

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
20,300	36,100	48,600	66,800	82,000	98,500	143,000

Water Resources Council weighted skew = -0.026

Duration table of daily mean flow for period of record, 1960-1982

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
2,730	1,440	430	167	90.8	59.0	28.5	15.0	8.76	5.48	3.27	1.66	0.37	0.05	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1961-1982

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.05	0.00	0.00	0.00
3	0.05	0.00	0.00	0.00
7	0.08	0.00	0.00	0.00
10	0.12	0.00	0.00	0.00
30	1.44	0.32	0.08	0.00
60	4.61	0.81	0.24	0.07

Magnitude and probability of annual low flow based on period of record, 1960-1982
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.62	0.08	0.01	0.00
3	0.74	0.15	0.05	0.01
7	1.06	0.33	0.15	0.04
10	1.48	0.39	0.16	0.07
30	9.15	2.92	1.73	1.17
60	87.8	26.6	14.0	8.11

Magnitude and probability of annual low flow based on period of record, 1960-1981
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.05	0.00	0.00	0.00
3	0.05	0.00	0.00	0.00
7	0.08	0.00	0.00	0.00
10	0.12	0.00	0.00	0.00
30	2.08	0.33	0.08	0.00
60	11.0	1.21	0.28	0.07

Magnitude and probability of annual low flow based on period of record, 1960-1982
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	1.21	0.30	0.12	0.05
3	1.44	0.47	0.24	0.13
7	2.10	0.91	0.54	0.34
10	2.56	1.14	0.69	0.44
30	4.86	2.04	1.27	0.85
60	8.49	3.73	2.33	1.54

RED RIVER BASIN

07299670 GROESBECK CREEK AT STATE HIGHWAY 6 NEAR QUANAH, TEX.

LOCATION. – Lat 34°21′16″, long 99°44′24″, referenced to North American Datum of 1927, Hardeman County, Tex., Hydrologic
   Unit 11130101, near left bank at downstream side of bridge on State Highway 6, 2.0 mi downstream from confluence of North and
   South Groesbeck Creeks, 4.0 mi north of Quanah, and 9.0 mi upstream from mouth.

DRAINAGE AREA. – 303 mi².

PERIOD OF RECORD.–November 1961 to current year. Prior to Oct. 1974, published as "Groesbeck Creek at State Highway 283".

REMARKS.–No known regulation. There are several diversions upstream from station for farm and ranch use and for a gypsum
   plant. No flow at times.

UNREGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

**Monthly and annual mean, median, maximum and minimum discharges, and average percent
of annual runoff, based on period of record, 1962-2007**

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	393	0.68	34.6	10.7	12.0
Nov.	41.3	1.33	12.4	11.0	4.3
Dec.	43.0	1.48	10.7	8.46	3.7
Jan.	26.4	1.33	9.87	7.85	3.4
Feb.	62.0	1.35	11.4	7.33	4.0
Mar.	91.2	1.18	15.3	8.35	5.3
Apr.	271	1.12	20.8	10.8	7.2
May	163	1.74	29.6	16.3	10.3
Jun.	502	1.54	50.6	18.9	17.6
Jul.	228	0.10	21.3	10.2	7.4
Aug.	545	0.00	29.4	9.79	10.2
Sep.	286	0.39	42.5	17.4	14.7
Annual	112	2.97	23.7	19.2	–

Magnitude and probability of annual instantaneous peak flow based on 46 years of record, 1962-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
1,860	4,700	7,770	13,500	19,400	27,000	53,700

Oklahoma weighted skew = 0.175

Duration table of daily mean flow for period of record, 1962-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
286	124	41.8	27.5	22.6	19.5	14.1	10.6	8.26	6.47	4.71	3.19	1.88	1.07	0.29	0.00

Magnitude and probability of annual low flow based on period of record, 1963-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	2.77	0.31	0.00	0.00
3	3.20	0.49	0.00	0.00
7	3.50	0.73	0.00	0.00
10	3.68	0.83	0.00	0.00
30	6.01	0.92	0.13	0.00
60	5.18	1.58	0.70	0.30

Magnitude and probability of annual low flow based on period of record, 1962-2007
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	5.12	1.48	0.62	0.25
3	5.43	1.75	0.86	0.44
7	5.77	2.10	1.14	0.66
10	6.03	2.24	1.24	0.73
30	7.95	3.53	2.27	1.56
60	15.1	6.49	4.20	2.94

Magnitude and probability of annual low flow based on period of record, 1962-2006
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	3.38	0.35	0.00	0.00
3	3.69	0.52	0.00	0.00
7	3.98	0.78	0.00	0.00
10	4.19	0.88	0.00	0.00
30	6.63	0.96	0.13	0.00
60	6.11	1.69	0.73	0.30

Magnitude and probability of annual low flow based on period of record, 1962-2007
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	5.45	2.10	1.18	0.70
3	5.89	2.34	1.33	0.80
7	6.13	2.66	1.63	1.06
10	6.20	2.89	1.88	1.30
30	6.88	3.32	2.20	1.54
60	7.22	3.48	2.32	1.63

RED RIVER BASIN

07299890 LELIA LAKE CREEK BELOW BELL CREEK NEAR HEDLEY, TEX.

LOCATION. – Lat 34°56′08″, long 100°41′46″, referenced to North American Datum of 1927, Donley County, Tex., Hydrologic Unit 11120201, on left downstream side of bridge of FM 2471, 1.0 mi downsteam from Bell Creek, and 5.0 mi north of Hedley.

DRAINAGE AREA. – 74 mi².

PERIOD OF RECORD.–August 1997 to current year.

REMARKS.–There are several small diversions upstream from the station for farm and ranch use. No flow at times.

UNREGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1998-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	4.95	0.80	1.95	1.15	5.8
Nov.	6.46	1.25	2.68	1.92	8.0
Dec.	5.04	1.43	2.97	2.85	8.8
Jan.	5.70	0.98	2.90	2.86	8.6
Feb.	7.72	1.25	3.24	2.90	9.6
Mar.	13.5	0.85	5.76	3.91	17.1
Apr.	7.48	1.55	4.15	3.58	12.4
May	7.64	0.85	3.37	3.67	10.0
Jun.	9.67	0.22	3.42	1.93	10.2
Jul.	7.75	0.00	1.43	0.78	4.2
Aug.	4.39	0.20	0.94	0.49	2.8
Sep.	3.17	0.28	0.83	0.56	2.5
Annual	4.57	1.40	2.80	2.71	–

Magnitude and probability of annual instantaneous peak flow based on 10 years of record, 1998-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
274	660	1,010	1,570	2,050	2,600	4,100

Oklahoma weighted skew = -0.292

Duration table of daily mean flow for period of record, 1997-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
17.5	10.9	7.04	4.98	4.45	3.91	3.16	2.48	1.86	1.43	1.01	0.67	0.33	0.03	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1999-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.23	0.05	0.00	0.00
60	0.53	0.26	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1998-2007
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	1.22	0.54	0.34	0.23
3	1.33	0.63	0.42	0.29
7	1.48	0.78	0.56	0.42
10	1.55	0.84	0.61	0.47
30	2.64	1.54	1.11	0.83
60	3.47	2.23	1.74	1.40

Magnitude and probability of annual low flow based on period of record, 1998-2006
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.23	0.05	0.00	0.00
60	0.53	0.26	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1998-2007
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	1.12	0.65	0.48	0.38
3	1.24	0.74	0.56	0.45
7	1.34	0.81	0.62	0.49
10	1.42	0.85	0.64	0.50
30	1.74	1.06	0.81	0.64
60	2.09	1.39	1.13	0.95

RED RIVER BASIN

07300000 SALT FORK RED RIVER NEAR WELLINGTON, TEX.

LOCATION. – Lat 34°57′27″, long 100°13′14″, referenced to North American Datum of 1927, Collingsworth County, Tex., Hydrologic Unit 11120202, near center of stream at downstream side of bridge on U.S. Highway 83, 4.0 mi downstream from Fort Worth and Denver (Burlington) Railway Co. bridge, 4.5 mi south of Lutie, and 7.2 mi north of Wellington.

DRAINAGE AREA. – 1,222 mi², of which 209 mi² is probably noncontributing.

PERIOD OF RECORD.–June 1952 to current year.

REMARKS.–Since water year 1967, at least 10% of contributing drainage area has been regulated. There are several small diversions upstream from gage for irrigation.

UNREGULATED STREAMFLOW PERIOD

[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1953-1966

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	521	4.06	68.0	24.1	7.8
Nov.	53.7	2.33	23.4	18.9	2.7
Dec.	82.9	3.26	29.6	23.1	3.4
Jan.	97.9	5.38	32.8	28.4	3.8
Feb.	85.8	12.7	35.3	25.1	4.1
Mar.	94.3	5.27	28.0	20.9	3.2
Apr.	412	4.18	53.3	17.9	6.1
May	1,181	7.85	228	50.2	26.3
Jun.	642	1.76	201	106	23.1
Jul.	482	3.36	96.2	22.1	11.1
Aug.	189	1.34	40.8	24.9	4.7
Sep.	104	1.48	31.2	21.0	3.6
Annual	160	23.8	72.6	64.7	–

Magnitude and probability of annual instantaneous peak flow based on 14 years of record, 1953-1966

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
21,700	50,000	77,700	124,000	169,000	222,000	389,000

Oklahoma weighted skew = 0.028

Duration table of daily mean flow for period of record, 1952-1966

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
1,040	544	171	83.7	56.3	42.3	27.2	19.4	13.0	8.00	6.00	4.00	2.00	1.00	1.00	0.00

Magnitude and probability of annual low flow based on period of record, 1954-1966

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	**5**	**10**	**20**
	50%	**20%**	**10%**	**5%**
1	1.16	0.59	0.40	0.27
3	1.51	0.94	0.72	0.57
7	2.01	1.33	1.06	0.86
10	2.28	1.47	1.14	0.90
30	3.56	2.10	1.57	1.23
60	6.91	3.28	2.25	1.66

Magnitude and probability of annual low flow based on period of record, 1953-1966
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	**5**	**10**	**20**
	50%	**20%**	**10%**	**5%**
1	2.50	1.59	1.22	0.96
3	3.03	2.41	2.15	1.96
7	3.83	3.04	2.73	2.52
10	4.46	3.31	2.90	2.64
30	8.75	4.74	4.03	3.72
60	54.7	17.9	10.4	6.81

Magnitude and probability of annual low flow based on period of record, 1953-1965
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	**5**	**10**	**20**
	50%	**20%**	**10%**	**5%**
1	1.26	0.62	0.40	0.27
3	1.55	0.94	0.71	0.56
7	2.05	1.34	1.05	0.85
10	2.34	1.48	1.13	0.89
30	3.52	1.96	1.52	1.27
60	9.15	4.03	2.58	1.76

Magnitude and probability of annual low flow based on period of record, 1953-1966
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	**5**	**10**	**20**
	50%	**20%**	**10%**	**5%**
1	3.72	1.86	1.29	0.96
3	4.59	2.66	2.03	1.64
7	6.44	3.76	2.82	2.21
10	7.22	4.14	3.05	2.34
30	11.3	5.88	4.07	2.97
60	18.2	8.89	5.79	3.95

RED RIVER BASIN

07300000 SALT FORK RED RIVER NEAR WELLINGTON, TEX.—Continued

REGULATED STREAMFLOW PERIOD

[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges and average percent of annual runoff, based on period of record, 1968-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	279	3.81	31.7	16.2	5.1
Nov.	213	5.85	29.8	19.4	4.8
Dec.	92.4	3.59	28.6	21.6	4.6
Jan.	86.0	10.5	33.9	27.8	5.5
Feb.	117	12.1	40.9	35.4	6.6
Mar.	165	8.15	50.6	37.9	8.1
Apr.	1,218	6.10	87.2	36.6	14.0
May	468	2.61	103	63.0	16.6
Jun.	1,006	5.62	131	63.0	21.1
Jul.	155	2.65	28.8	10.6	4.6
Aug.	301	1.68	25.3	10.3	4.1
Sep.	123	2.22	30.3	22.4	4.9
Annual	165	10.5	51.7	47.5	–

Magnitude and probability of annual instantaneous peak flow based on 40 years of record, 1968-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
15%	5%	10%	4%	2%	1%	0.2%
5,150	15,800	29,300	58,500	92,800	142,000	347,000

station skew = 0.297

Duration table of daily mean flow for period of record, 1968-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
546	334	140	75.5	55.0	43.3	30.1	23.1	18.0	13.9	10.3	6.91	4.08	2.87	1.98	1.60

Magnitude and probability of annual low flow based on period of record, 1969-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	1.90	1.06	0.78	0.60
3	2.08	1.18	0.87	0.67
7	2.41	1.43	1.09	0.87
10	2.75	1.66	1.28	1.03
30	4.20	2.59	2.02	1.64
60	6.60	3.58	2.67	2.12

Magnitude and probability of annual low flow based on period of record, 1968-2007
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	7.56	3.39	2.01	1.24
3	8.24	3.85	2.40	1.56
7	9.27	4.70	3.18	2.26
10	9.91	5.32	3.86	2.96
30	20.0	9.78	6.80	5.07
60	59.2	26.1	17.0	11.9

Magnitude and probability of annual low flow based on period of record, 1968-2006
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	1.96	1.12	0.83	0.65
3	2.15	1.28	0.98	0.79
7	2.60	1.60	1.24	1.01
10	2.94	1.82	1.41	1.14
30	4.21	2.60	2.04	1.68
60	6.67	3.58	2.67	2.12

Magnitude and probability of annual low flow based on period of record, 1968-2007
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	9.37	5.57	4.06	3.05
3	10.2	5.94	4.28	3.18
7	11.4	6.56	4.71	3.50
10	11.8	6.86	5.01	3.81
30	16.0	9.85	7.58	6.07
60	20.1	12.9	10.3	8.65

RED RIVER BASIN

07300500 SALT FORK RED RIVER AT MANGUM, OKLA.

LOCATION. – Lat 34°51′30″, long 99°30′30″, referenced to North American Datum of 1927, in SE ¼ SW ¼ SE ¼ sec. 34, T.5 N., R.22 W., Greer County, Okla., Hydrologic Unit 11120202, near left bank on downstream side of pier of bridge on State Highway 34, 0.5 mi south of Mangum, 13.0 mi downstream from Fish Creek, and at mile 35.5.

DRAINAGE AREA. – 1,566 mi², of which 209 mi² is probably noncontributing.

PERIOD OF RECORD.–April 1905 to June 1906, October 1937 to current year. Monthly discharge only for some periods, published in WSP 1311.

UNREGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1938-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	920	0.00	72.0	16.1	7.1
Nov.	196	0.00	32.4	20.9	3.2
Dec.	148	0.00	38.1	28.4	3.8
Jan.	199	0.00	47.1	37.3	4.6
Feb.	263	0.00	55.9	40.8	5.5
Mar.	344	0.12	57.8	38.4	5.7
Apr.	1,292	0.00	101	55.1	10.0
May	1,389	0.00	243	105	24.0
Jun.	1,602	0.00	219	99.5	21.6
Jul.	575	0.00	60.9	20.9	6.0
Aug.	539	0.00	36.9	8.26	3.6
Sep.	424	0.00	48.0	16.4	4.7
Annual	277	12.3	84.4	71.2	–

Magnitude and probability of annual instantaneous peak flow based on 70 years of record, 1938-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
9,770	22,300	33,800	52,200	68,500	87,200	140,000

Oklahoma weighted skew = -0.168

Duration table of daily mean flow for period of record, 1938-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
1,300	642	251	129	91.1	68.8	43.2	28.8	19.2	10.9	3.43	0.00	0.00	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1939-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00
60	1.46	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1938-2007
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	1.36	0.00	0.00	0.00
3	1.55	0.00	0.00	0.00
7	2.20	0.00	0.00	0.00
10	3.84	0.00	0.00	0.00
30	25.4	7.02	1.97	0.00
60	97.0	37.8	22.6	14.4

Magnitude and probability of annual low flow based on period of record, 1938-2006
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00
60	2.05	0.04	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1938-2007
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	2.88	0.00	0.00	0.00
3	4.04	0.00	0.00	0.00
7	5.47	0.00	0.00	0.00
10	6.53	0.00	0.00	0.00
30	13.4	1.98	0.00	0.00
60	25.4	5.80	1.00	0.00

RED RIVER BASIN

07301110 SALT FORK RED RIVER NEAR ELMER, OKLA.

LOCATION. – Lat 34°28′44″, long 99°22′55″, referenced to North American Datum of 1927, in NE ¼ NW ¼ NE ¼ sec. 15, T.1 S., R.21 W., Jackson County, Okla., Hydrologic Unit 11120202, on right bank at bridge on paved county road, formerly State Highway 5, 1.7 mi west of Elmer, and at mile 3.5.

DRAINAGE AREA. – 1,878 mi², of which 209 mi² is probably noncontributing.

PERIOD OF RECORD.–October 1979 to current year.

REMARKS.–Low flows sustained at times by irrigation returns from Lake Altus.

UNREGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1980-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	1,828	3.79	204	61.6	7.6
Nov.	680	4.72	127	66.3	4.7
Dec.	701	11.3	115	62.0	4.3
Jan.	362	13.3	113	85.6	4.2
Feb.	697	13.7	149	88.2	5.5
Mar.	1,100	21.1	192	132	7.1
Apr.	2,108	13.9	238	125	8.8
May	2,566	7.51	466	256	17.3
Jun.	2,836	17.9	529	238	19.6
Jul.	641	9.25	159	115	5.9
Aug.	1,681	4.19	228	100	8.5
Sep.	950	7.90	176	59.7	6.5
Annual	594	34.5	225	184	–

Magnitude and probability of annual instantaneous peak flow based on 28 years of record, 1980-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
6,310	14,300	22,600	37,300	52,100	70,900	135,000

Oklahoma weighted skew = 0.271

Duration table of daily mean flow for period of record, 1980-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
3,030	1,740	754	388	259	198	132	97.9	74.4	57.4	42.1	26.8	13.9	8.10	4.95	3.20

Magnitude and probability of annual low flow based on period of record, 1981-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	11.4	3.50	1.47	0.64
3	12.7	4.03	1.69	0.73
7	14.3	4.68	2.04	0.91
10	15.1	5.37	2.59	1.30
30	20.5	8.18	4.81	3.03
60	31.4	13.3	8.07	5.22

Magnitude and probability of annual low flow based on period of record, 1980-2007
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	26.1	9.86	5.77	3.65
3	28.3	10.9	6.42	4.10
7	32.7	12.5	7.48	4.89
10	37.1	14.2	8.50	5.53
30	85.3	32.3	19.0	12.2
60	220	92.6	58.4	39.7

Magnitude and probability of annual low flow based on period of record, 1980-2006
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	12.3	3.50	1.47	0.64
3	13.8	4.03	1.69	0.73
7	15.5	4.68	2.04	0.91
10	16.2	5.37	2.59	1.30
30	23.1	8.54	4.92	3.06
60	44.4	18.9	12.3	8.72

Magnitude and probability of annual low flow based on period of record, 1980-2007
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	23.1	9.30	5.66	3.71
3	24.6	10.2	6.33	4.24
7	28.0	11.6	7.17	4.76
10	29.4	12.1	7.46	4.94
30	41.3	17.0	10.4	6.82
60	53.0	24.4	16.3	11.8

RED RIVER BASIN

07301300 NORTH FORK RED RIVER NEAR SHAMROCK, TEX.

LOCATION. – Lat 35°15′51″, long 100°14′29″, referenced to North American Datum of 1927, Wheeler County, Tex., Hydrologic Unit 11120302, on left bank at downstream side of bridge on U.S. Highway 83, 2.5 mi north of Shamrock.

DRAINAGE AREA. – 1,082 mi², of which 379 mi² is probably noncontributing.

PERIOD OF RECORD.–February 1964 to September 1991, October 2000 to current year.

REMARKS.–Since installation of gage in Oct. 1951, at least 10% of contributing drainage area has been regulated. Flow is partially regulated by McClellan Reservoir (1938). Flow is also affected at times by discharge from flood-detention pools of eleven floodwater retarding structures with combined detention capacity of 18,290 acre-feet. These structures control runoff from 165 mi². No flow at times.

UNREGULATED STREAMFLOW PERIOD

[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

	Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1965-1979				
Month	**Maximum**	**Minimum**	**Mean**	**Median**	**Average % of Annual Runoff**
Oct.	60.2	0.00	12.7	13.4	3.2
Nov.	75.2	0.00	19.6	21.3	4.9
Dec.	33.0	0.00	26.5	16.8	6.6
Jan.	29.5	0.00	63.3	23.6	15.8
Feb.	47.9	6.35	108	47.0	27.0
Mar.	84.6	0.06	88.2	9.66	22.0
Apr.	252	0.00	15.2	0.16	3.8
May	609	1.57	9.47	4.24	2.4
Jun.	369	0.00	17.0	6.42	4.2
Jul.	73.6	0.00	13.9	6.64	3.5
Aug.	55.5	0.00	14.2	5.12	3.5
Sep.	60.9	0.00	13.0	13.6	3.2
Annual	91.7	3.68	33.4	31.6	–

Magnitude and probability of annual instantaneous peak flow based on 15 years of record, 1965-1979						
Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent						
2	**5**	**10**	**25**	**50**	**100**	**500**
50%	**20%**	**10%**	**4%**	**2%**	**1%**	**0.2%**
6,460	10,100	12,700	16,200	19,000	21,900	29,200

Oklahoma weighted skew = -0.024

Duration table of daily mean flow for period of record, 1964-1979																
Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time																
1%	**2%**	**5%**	**10%**	**15%**	**20%**	**30%**	**40%**	**50%**	**60%**	**70%**	**80%**	**90%**	**95%**	**98%**	**99%**
712	327	100	45.8	28.6	19.8	9.49	3.38	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1966-1979

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1965-1979
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	4.87	1.37	0.67	0.00
60	51.9	12.0	4.70	1.96

Magnitude and probability of annual low flow based on period of record, 1965-1978
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00
60	0.01	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1965-1979
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.02	0.00	0.00	0.00
30	1.31	0.04	0.00	0.00
60	7.71	1.29	0.14	0.00

RED RIVER BASIN

07301300 NORTH FORK RED RIVER NEAR SHAMROCK, TEX.—Continued

REGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges and average percent of annual runoff, based on period of record, 1982-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	155	0.00	21.7	5.29	5.3
Nov.	74.2	0.00	17.3	10.8	4.2
Dec.	124	0.00	31.9	24.3	7.8
Jan.	158	7.94	44.5	36.7	10.9
Feb.	97.1	13.6	46.9	44.9	11.5
Mar.	131	9.22	55.7	47.0	13.6
Apr.	83.5	1.48	32.0	32.5	7.8
May	211	0.36	63.3	55.4	15.5
Jun.	342	3.47	66.7	30.8	16.3
Jul.	38.3	0.00	9.23	6.65	2.3
Aug.	48.8	0.00	6.45	0.91	1.6
Sep.	54.3	0.00	13.2	1.06	3.2
Annual	58.8	10.5	34.0	36.0	–

Magnitude and probability of annual instantaneous peak flow based on 26 years of record, 1982-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
15%	5%	10%	4%	2%	1%	0.2%
2,590	5,520	8,530	14,000	19,700	27,000	53,100

station skew = 0.495

Duration table of daily mean flow for period of record, 1982-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
711	326	100	45.7	28.6	19.8	9.59	3.44	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1983-2007			
Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
Period (consecutive days)	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00
60	0.12	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1982-2007 spring season, April 1 through May 31			
Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
Period (consecutive days)	2	5	10	20
	50%	20%	10%	5%
1	0.05	0.00	0.00	0.00
3	0.09	0.00	0.00	0.00
7	0.25	0.00	0.00	0.00
10	0.31	0.01	0.00	0.00
30	5.04	1.57	0.88	0.55
60	40.6	26.4	21.2	17.8

Magnitude and probability of annual low flow based on period of record, 1982-2006 summer season, June 1 through October 31			
Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
Period (consecutive days)	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00
60	0.12	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1982-2007 winter season, November 1 through March 31			
Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
Period (consecutive days)	2	5	10	20
	50%	20%	10%	5%
1	0.26	0.00	0.00	0.00
3	0.61	0.00	0.00	0.00
7	2.01	0.00	0.00	0.00
10	2.77	0.00	0.00	0.00
30	6.10	0.31	0.04	0.00
60	17.2	4.17	1.51	0.56

RED RIVER BASIN

07301410 SWEETWATER CREEK NEAR KELTON, TEX.

LOCATION. – Lat 35°28′23″, long 100°07′14″, referenced to North American Datum of 1927, Wheeler County, Tex., Hydrologic Unit 11120302, near center of stream at downstream side of bridge on Farm Road 592, 5.0 mi north of Kelton, 8.0 mi upstream from Texas-Oklahoma State line, and 8.5 mi northeast of Wheeler.

DRAINAGE AREA. – 287 mi², of which 20 mi² is probably noncontributing.

PERIOD OF RECORD.–November 1961 to current year.

REMARKS.–No known regulation. There are many small diversions upstream from the station for ranch use. Peak flows and runoff have been slightly affected by irrigation activities since 1978 (Esralew and Smith, 2009).

UNREGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1962-1977

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	39.4	0.73	8.90	3.78	5.0
Nov.	34.5	3.95	11.9	10.4	6.7
Dec.	18.9	6.23	12.5	12.4	7.0
Jan.	18.2	7.82	12.8	12.8	7.2
Feb.	24.4	10.1	15.5	14.7	8.7
Mar.	32.2	9.09	17.4	16.6	9.8
Apr.	74.6	8.72	24.2	17.4	13.6
May	196	3.38	28.6	15.9	16.1
Jun.	86.3	2.80	24.4	14.4	13.7
Jul.	32.3	0.44	6.13	4.03	3.4
Aug.	42.7	0.00	7.94	1.61	4.5
Sep.	30.3	0.05	7.66	4.13	4.3
Annual	26.8	6.92	14.4	12.9	–

Magnitude and probability of annual instantaneous peak flow based on 16 years of record, 1962-1977

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
816	1,360	1,760	2,320	2,770	3,240	4,420

Oklahoma weighted skew = -0.094

Duration table of daily mean flow for period of record, 1962-1977

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
129	68.2	32.8	23.3	20.3	17.4	15.0	12.8	10.6	8.32	5.48	2.83	0.99	0.32	0.09	0.00

Magnitude and probability of annual low flow based on period of record, 1963-1977

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.12	0.00	0.00	0.00
3	0.14	0.00	0.00	0.00
7	0.17	0.04	0.00	0.00
10	0.20	0.04	0.00	0.00
30	0.62	0.18	0.07	0.00
60	1.60	0.38	0.14	0.06

Magnitude and probability of annual low flow based on period of record, 1962-1977
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	6.33	3.02	1.90	1.24
3	6.75	3.28	2.08	1.36
7	7.33	3.74	2.47	1.69
10	7.98	4.23	2.87	2.03
30	12.8	7.78	5.76	4.40
60	18.4	11.1	8.96	7.68

Magnitude and probability of annual low flow based on period of record, 1962-1976
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.12	0.00	0.00	0.00
3	0.14	0.00	0.00	0.00
7	0.17	0.04	0.00	0.00
10	0.20	0.04	0.00	0.00
30	0.62	0.18	0.07	0.00
60	1.60	0.38	0.14	0.06

Magnitude and probability of annual low flow based on period of record, 1962-1977
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	5.88	3.16	2.03	1.32
3	6.42	3.48	2.26	1.49
7	7.09	4.56	3.46	2.69
10	7.41	4.76	3.61	2.80
30	9.40	6.59	5.27	4.30
60	10.7	7.80	6.45	5.44

RED RIVER BASIN

07301410 SWEETWATER CREEK NEAR KELTON, TEX.—Continued

UNREGULATED IRRIGATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges and average percent of annual runoff, based on period of record, 1978-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	42.1	0.30	7.72	4.50	5.0
Nov.	31.8	1.05	9.25	8.79	6.0
Dec.	27.1	3.11	11.6	11.4	7.5
Jan.	27.6	5.78	13.5	13.2	8.7
Feb.	30.5	6.83	16.0	15.6	10.4
Mar.	42.2	9.23	19.0	17.3	12.3
Apr.	100	8.65	20.1	15.3	13.1
May	104	5.76	22.6	19.2	14.6
Jun.	83.7	3.17	19.5	12.4	12.7
Jul.	24.7	0.50	5.33	3.30	3.5
Aug.	22.0	0.06	3.26	1.57	2.1
Sep.	40.9	0.03	6.30	1.13	4.1
Annual	33.5	4.89	12.8	12.2	–

Magnitude and probability of annual instantaneous peak flow based on 30 years of record, 1978-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
15%	5%	10%	4%	2%	1%	0.2%
260	596	902	1,390	1,820	2,320	3,710

station skew = -0.179

Duration table of daily mean flow for period of record, 1978-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
80.5	53.2	32.5	24.4	20.5	18.1	14.9	12.2	9.75	7.59	4.92	2.16	0.74	0.38	0.16	0.09

Magnitude and probability of annual low flow based on period of record, 1979-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.29	0.05	0.01	0.00
3	0.30	0.06	0.02	0.00
7	0.37	0.10	0.04	0.02
10	0.40	0.12	0.06	0.03
30	0.65	0.20	0.10	0.06
60	1.04	0.37	0.22	0.14

Magnitude and probability of annual low flow based on period of record, 1978-2007
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	7.55	4.88	3.82	3.10
3	7.82	5.11	4.10	3.41
7	8.21	5.54	4.63	4.05
10	8.70	5.95	5.03	4.45
30	11.5	8.32	7.46	7.00
60	16.5	12.1	10.9	10.2

Magnitude and probability of annual low flow based on period of record, 1978-2006
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.29	0.05	0.01	0.00
3	0.30	0.06	0.02	0.00
7	0.37	0.10	0.04	0.02
10	0.40	0.12	0.06	0.03
30	0.65	0.20	0.10	0.06
60	1.04	0.37	0.22	0.14

Magnitude and probability of annual low flow based on period of record, 1978-2007
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	4.55	1.56	0.80	0.43
3	4.83	1.84	1.02	0.60
7	5.30	2.22	1.32	0.82
10	5.53	2.37	1.43	0.91
30	7.16	3.48	2.25	1.52
60	8.91	5.33	3.98	3.09

RED RIVER BASIN

07301420 SWEETWATER CREEK NEAR SWEETWATER, OKLA.

LOCATION. – Lat 35°25′20″, long 99°58′08″, referenced to North American Datum of 1927, in NW ¼ NE ¼ sec. 20, T.11 N., R.26 W., Roger Mills County, Okla., Hydrologic Unit 11120302, on right bank downstream bridge piling of State Highway 152, 0.4 mi downstream from Freezeout Creek, 3.3 mi west of Sweetwater, and at mile 16.0.

DRAINAGE AREA. – 424 mi², of which 20 mi² is probably noncontributing.

PERIOD OF RECORD.–April 1986 to current year.

REMARKS.–Peak flows and runoff have been slightly affected by upstream irrigation activities since 1978 (Esralew and Smith, 2009).

UNREGULATED IRRIGATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1987-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	72.2	0.20	15.9	9.00	5.4
Nov.	61.1	4.42	20.4	16.1	7.0
Dec.	51.5	6.73	23.9	22.6	8.2
Jan.	53.7	11.2	27.5	27.8	9.4
Feb.	53.6	12.8	29.1	28.7	10.0
Mar.	85.6	17.9	36.8	31.7	12.6
Apr.	126	11.2	35.6	29.0	12.2
May	150	9.99	39.8	30.7	13.6
Jun.	115	2.97	34.5	27.1	11.8
Jul.	31.6	0.59	11.4	9.18	3.9
Aug.	38.7	0.08	6.69	3.23	2.3
Sep.	51.6	0.08	10.0	3.42	3.4
Annual	53.0	8.15	24.2	23.8	–

Magnitude and probability of annual instantaneous peak flow based on 22 years of record, 1986-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
211	475	760	1,300	1,870	2,630	5,470

station skew = 0.501

Duration table of daily mean flow for period of record, 1986-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
145	103	66.4	48.0	39.8	34.3	28.2	23.2	19.5	15.5	10.9	5.42	1.74	0.70	0.28	0.15

Magnitude and probability of annual low flow based on period of record, 1988-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.64	0.19	0.10	0.00
3	0.66	0.19	0.10	0.00
7	0.90	0.20	0.12	0.02
10	0.81	0.20	0.15	0.05
30	1.28	0.36	0.18	0.10
60	2.84	0.81	0.39	0.20

Magnitude and probability of annual low flow based on period of record, 1987-2007
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	14.5	8.09	5.61	4.01
3	15.0	8.66	6.21	4.60
7	15.7	9.29	7.01	5.53
10	16.6	10.1	7.79	6.30
30	22.1	14.7	12.4	11.0
60	29.2	19.9	17.0	15.2

Magnitude and probability of annual low flow based on period of record, 1987-2006
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.64	0.19	0.10	0.00
3	0.66	0.19	0.10	0.00
7	0.90	0.20	0.12	0.02
10	0.81	0.20	0.15	0.05
30	1.28	0.36	0.18	0.10
60	2.84	0.81	0.39	0.20

Magnitude and probability of annual low flow based on period of record, 1987-2007
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	11.1	4.15	2.10	1.10
3	11.1	4.83	2.87	1.78
7	12.0	6.12	4.12	2.91
10	12.5	6.51	4.44	3.17
30	16.0	9.06	6.46	4.78
60	19.3	12.0	9.09	7.10

RED RIVER BASIN

07301500 NORTH FORK RED RIVER NEAR CARTER, OKLA.

LOCATION. – Lat 35°10′05″, long 99°30′25″, referenced to North American Datum of 1927, in NW ¼ SE ¼ sec. 15, T.8 N., R.22 W., Beckham County, Okla., Hydrologic Unit 11120302, on left bank on downstream side of roadway on State Highway 34, 3.0 mi south of Carter, 10.8 mi downstream from Timber Creek, and at mile 110.5.

DRAINAGE AREA. – 2,337 mi², of which 399 mi² is probably noncontributing.

PERIOD OF RECORD.–October 1944 to September 1962, August 1964 to current year.

REMARKS.–Statistical analysis includes streamflow record from nearby station North Fork Red River near Granite, Okla. (07302000), October 1903 to March 1908, October 1937 to September 1944. Some regulation by floodwater retarding structures since 1987.

UNREGULATED STREAMFLOW PERIOD

[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1904-1962

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	796	0.00	77.5	54.9	4.2
Nov.	381	0.00	89.6	56.4	4.8
Dec.	468	0.00	78.1	47.8	4.2
Jan.	319	0.00	161	108	8.7
Feb.	365	0.00	496	227	26.6
Mar.	309	0.00	412	265	22.2
Apr.	1,027	0.00	122	69.0	6.5
May	1,639	0.27	80.9	35.7	4.3
Jun.	1,287	1.16	64.4	7.61	3.5
Jul.	828	0.00	142	3.68	7.6
Aug.	431	0.00	64.4	9.99	3.5
Sep.	497	0.00	72.3	14.0	3.9
Annual	355	6.30	154	162	–

Magnitude and probability of annual instantaneous peak flow based on 59 historic years of record, 1904-1962

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
8,410	14,800	19,600	26,400	31,900	37,600	52,300

Oklahoma weighted skew = -0.151

Duration table of daily mean flow for period of record, 1904-1962

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
2,510	1,380	516	243	164	117	66.4	34.7	17.0	4.70	0.05	0.03	0.02	0.01	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1905-1962

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00
60	0.39	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1904-1962
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	3.05	0.00	0.00	0.00
3	4.34	0.00	0.00	0.00
7	6.86	0.00	0.00	0.00
10	11.3	0.00	0.00	0.00
30	48.2	5.31	0.96	0.08
60	222	74.3	38.8	21.7

Magnitude and probability of annual low flow based on period of record, 1904-1961
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00
60	1.42	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1904-1962
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.09	0.00	0.00	0.00
7	0.99	0.00	0.00	0.00
10	2.18	0.00	0.00	0.00
30	4.76	0.00	0.00	0.00
60	11.8	0.00	0.00	0.00

RED RIVER BASIN

07301500 NORTH FORK RED RIVER NEAR CARTER, OKLA.—Continued

REGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges and average percent of annual runoff, based on period of record, 1987-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	1,195	1.46	106	34.3	5.9
Nov.	360	4.65	98.3	74.6	5.4
Dec.	333	11.5	111	96.2	6.1
Jan.	362	20.6	123	116	6.8
Feb.	331	22.7	140	119	7.7
Mar.	466	61.3	195	182	10.7
Apr.	1,253	37.7	220	176	12.1
May	917	47.3	326	140	18.0
Jun.	1,560	16.1	281	149	15.5
Jul.	174	0.41	68.0	72.8	3.8
Aug.	560	0.01	65.3	21.7	3.6
Sep.	432	0.00	81.5	23.6	4.5
Annual	356	36.5	151	133	–

Magnitude and probability of annual instantaneous peak flow based on 21 years of record, 1987-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
15%	5%	10%	4%	2%	1%	0.2%
3,870	9,670	15,300	24,400	32,800	42,500	70,100

station skew = -0.216

Duration table of daily mean flow for period of record, 1987-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
1,410	790	425	282	229	185	142	108	82.2	60.0	38.8	18.7	4.00	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1988-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.40	0.00	0.00	0.00
3	0.70	0.00	0.00	0.00
7	1.15	0.00	0.00	0.00
10	1.40	0.00	0.00	0.00
30	2.73	0.00	0.00	0.00
60	7.05	0.65	0.14	0.03

Magnitude and probability of annual low flow based on period of record, 1987-2007
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	49.7	19.6	11.3	6.86
3	53.0	21.1	12.2	7.50
7	59.6	25.6	15.8	10.4
10	63.2	29.6	19.8	14.1
30	97.6	52.0	39.4	32.2
60	179	92.2	67.4	52.9

Magnitude and probability of annual low flow based on period of record, 1987-2006
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.40	0.00	0.00	0.00
3	0.70	0.00	0.00	0.00
7	1.15	0.00	0.00	0.00
10	1.40	0.00	0.00	0.00
30	2.73	0.00	0.00	0.00
60	7.46	0.65	0.14	0.03

Magnitude and probability of annual low flow based on period of record, 1987-2007
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	30.4	9.16	4.36	2.21
3	32.1	9.89	4.80	2.49
7	35.8	11.7	5.98	3.28
10	37.7	12.5	6.51	3.63
30	58.2	23.3	13.2	7.96
60	74.6	37.0	24.8	17.5

RED RIVER BASIN

07303000 NORTH FORK RED RIVER BELOW ALTUS DAM NEAR LUGERT, OKLA.

LOCATION. – Lat 34°53′22″, long 99°18′24″, referenced to North American Datum of 1927, in SW ¼ sec. 22, T.5 N., R.20 W., Greer County, Okla., Hydrologic Unit 11120302, on right bank at State Highway 44A bridge, 3, 500 ft downstream from Altus Dam, 1.9 mi upstream from Elm Fork of North Fork, 2.0 mi west of Lugert, and at mile 72.8.

DRAINAGE AREA. – 2,515 mi², of which 399 mi² is probably noncontributing.

PERIOD OF RECORD.–March 1930 to December 1932 (published as "at Lugert Dam"), December 1943 to September 1950 (published as spill from Lake Altus), October 1950 to September 1962, August 1964 to current year. Monthly discharge only for some periods, published in WSP 1311.

REMARKS.–Some regulation at low flow by Lugert Lake prior to December 1943, capacity 13,500 acre-ft and completely regulated thereafter by Lake Altus (station 07302500). Diversions at Lake Altus bypass most of streamflow. Seepage from Altus Dam not included for period February 1953 to September 1977.

REGULATED STREAMFLOW PERIOD

[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1978-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	101	0.00	5.29	0.42	0.8
Nov.	698	0.00	33.8	0.60	4.9
Dec.	389	0.00	32.2	0.64	4.7
Jan.	324	0.01	32.4	0.80	4.7
Feb.	477	0.06	52.9	0.96	7.7
Mar.	803	0.00	81.9	0.78	11.8
Apr.	1,828	0.00	103	0.63	14.9
May	1,049	0.00	158	1.56	22.8
Jun.	1,109	0.00	157	1.31	22.7
Jul.	178	0.00	15.2	0.63	2.2
Aug.	550	0.00	18.9	0.35	2.7
Sep.	2.58	0.00	0.62	0.35	0.1
Annual	379	0.02	57.4	3.14	–

Magnitude and probability of annual instantaneous peak flow based on 57 years of record, 1951-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
193	2,500	6,900	16,500	26,000	36,800	63,300

station skew = -1.027

Duration table of daily mean flow for period of record, 1978-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
1,090	691	318	86.1	5.37	2.57	1.50	0.91	0.53	0.26	0.15	0.04	0.00	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1979-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.05	0.00	0.00	0.00
60	0.11	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1978-2007
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.14	0.00	0.00	0.00
3	0.16	0.00	0.00	0.00
7	0.17	0.00	0.00	0.00
10	0.18	0.00	0.00	0.00
30	0.47	0.02	0.00	0.00
60	3.09	0.10	0.01	0.00

Magnitude and probability of annual low flow based on period of record, 1978-2006
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.05	0.00	0.00	0.00
60	0.12	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1978-2007
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.16	0.00	0.00	0.00
3	0.16	0.00	0.00	0.00
7	0.19	0.00	0.00	0.00
10	0.19	0.02	0.00	0.00
30	0.32	0.03	0.00	0.00
60	0.42	0.07	0.03	0.00

RED RIVER BASIN

07303400 ELM FORK OF NORTH FORK RED RIVER NEAR CARL, OKLA.

LOCATION. – Lat 35°00′42″, long 99°54′12″, referenced to North American Datum of 1927, Harmon County, Okla., Hydrologic Unit 11120304, on downstream side of pier of bridge on State Highway 30, 4.0 mi northeast of Carl, and at mile 54.0.

DRAINAGE AREA. – 416 mi².

PERIOD OF RECORD.–October 1959 to September 1979, October 1994 to current year.

UNREGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	208	2.61	34.0	19.2	6.7
Nov.	91.0	5.97	27.2	19.9	5.4
Dec.	54.9	7.95	21.9	17.6	4.3
Jan.	61.4	10.0	21.4	17.7	4.2
Feb.	64.7	8.85	24.2	19.4	4.8
Mar.	127	7.29	33.5	22.7	6.6
Apr.	351	5.77	57.2	37.0	11.3
May	662	7.17	87.3	40.8	17.3
Jun.	844	2.67	92.9	60.3	18.4
Jul.	134	0.30	25.2	16.8	5.0
Aug.	171	0.48	33.4	20.6	6.6
Sep.	224	0.98	46.5	26.0	9.2
Annual	107	8.09	42.0	42.0	–

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1960-2007

Magnitude and probability of annual instantaneous peak flow based on 33 years of record, 1960-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
3,960	10,800	17,900	30,400	42,600	57,500	104,000

Oklahoma weighted skew = -0.126

Duration table of daily mean flow for period of record, 1960-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
504	256	107	61.6	45.6	35.8	26.4	21.3	17.0	14.4	11.8	8.84	5.04	2.30	0.57	0.31

Magnitude and probability of annual low flow based on period of record, 1961-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	**5**	**10**	**20**
	50%	**20%**	**10%**	**5%**
1	1.90	0.34	0.12	0.05
3	2.10	0.38	0.13	0.05
7	2.45	0.48	0.17	0.07
10	2.76	0.55	0.20	0.08
30	4.83	1.55	0.79	0.44
60	8.45	3.09	1.61	0.88

Magnitude and probability of annual low flow based on period of record, 1960-2007
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	**5**	**10**	**20**
	50%	**20%**	**10%**	**5%**
1	9.62	4.06	2.41	1.50
3	10.1	4.22	2.56	1.66
7	11.2	4.82	2.99	1.98
10	11.9	5.28	3.37	2.29
30	21.8	9.90	6.61	4.75
60	43.6	19.2	12.7	9.10

Magnitude and probability of annual low flow based on period of record, 1960-2006
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	**5**	**10**	**20**
	50%	**20%**	**10%**	**5%**
1	1.96	0.34	0.12	0.05
3	2.16	0.38	0.13	0.05
7	2.51	0.48	0.17	0.07
10	2.82	0.55	0.20	0.08
30	4.89	1.55	0.79	0.44
60	9.69	3.15	1.61	0.88

Magnitude and probability of annual low flow based on period of record, 1960-2007
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	**5**	**10**	**20**
	50%	**20%**	**10%**	**5%**
1	9.06	5.56	4.35	3.58
3	10.3	6.47	5.12	4.24
7	11.3	7.30	5.85	4.89
10	12.0	7.90	6.42	5.44
30	14.4	9.72	7.94	6.74
60	16.5	11.3	9.30	7.96

RED RIVER BASIN

07303500 ELM FORK OF NORTH FORK RED RIVER NEAR MANGUM, OKLA.

LOCATION. – Lat 34°55′36″, long 99°30′00″, referenced to North American Datum of 1927, on east line of sec. 10, T.5 N., R.22 W., Greer County, Okla., Hydrologic Unit 11120304, at bridge on U.S. Highway 283, 3.0 mi north of Mangum, 5.0 mi downstream from Haystack Creek, and at mile 17.8.

DRAINAGE AREA. – 838 mi².

PERIOD OF RECORD.–April 1905 to March 1908 (published as "Elm Fork of Red River"), March 1930 to September 1931, October 1937 to September 1947, April 1965 to September 1967, August 1968 to 1976. Monthly discharge for some periods, published in WSP 1311.

UNREGULATED STREAMFLOW PERIOD

[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	761	0.16	129	45.7	10.6
Nov.	254	3.67	60.6	34.1	5.0
Dec.	366	6.00	45.7	28.0	3.7
Jan.	388	6.79	49.2	23.8	4.0
Feb.	173	7.47	36.2	20.3	3.0
Mar.	184	3.64	48.4	38.5	4.0
Apr.	688	3.44	125	58.8	10.2
May	1,121	4.71	244	128	20.0
Jun.	1,144	5.08	236	177	19.3
Jul.	308	0.08	71.7	35.9	5.9
Aug.	344	1.28	66.6	26.2	5.5
Sep.	484	0.01	107	74.0	8.8
Annual	259	15.3	99.5	83.6	–

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1906-1976

Magnitude and probability of annual instantaneous peak flow based on 72 years of record, 1905-1976

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
7,300	15,900	23,600	35,200	45,400	56,700	87,800

Oklahoma weighted skew = -0.203

Duration table of daily mean flow for period of record, 1905-1976

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
1,790	1,060	359	159	100	71.9	45.4	31.4	23.7	17.9	13.0	7.60	3.70	1.38	0.08	0.00

Magnitude and probability of annual low flow based on period of record, 1906-1976

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	1.28	0.00	0.00	0.00
3	1.55	0.00	0.00	0.00
7	2.25	0.00	0.00	0.00
10	2.48	0.00	0.00	0.00
30	5.02	0.60	0.12	0.00
60	14.1	3.67	1.52	0.66

Magnitude and probability of annual low flow based on period of record, 1905-1976
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	7.78	2.86	1.51	0.61
3	8.48	3.24	1.77	0.77
7	16.2	3.43	2.35	1.10
10	21.5	3.62	3.20	1.55
30	52.3	16.7	8.09	4.16
60	130	41.1	20.0	10.3

Magnitude and probability of annual low flow based on period of record, 1905-1975
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	1.54	0.00	0.00	0.00
3	1.84	0.00	0.00	0.00
7	2.39	0.00	0.00	0.00
10	2.48	0.02	0.00	0.00
30	5.63	0.66	0.14	0.00
60	22.4	5.56	2.15	0.87

Magnitude and probability of annual low flow based on period of record, 1905-1976
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	11.3	3.38	1.50	0.69
3	12.7	3.92	1.75	0.81
7	13.1	4.64	2.39	1.29
10	13.5	5.16	2.87	1.69
30	16.3	7.56	5.08	3.66
60	18.6	9.10	6.42	4.88

RED RIVER BASIN

07304500 ELK CREEK NEAR HOBART, OKLA.

LOCATION. – Lat 34°54′51″, long 99°06′49″, referenced to North American Datum of 1927, in NE ¼ NE ¼ sec. 17, T.5 N., R.18 W., Kiowa County, Okla., Hydrologic Unit 11120303, near right bank on downstream side of pier of county road bridge, 7.0 mi downstream from Little Elk Creek, 7.5 mi south of Hobart, and at mile 10.9.

DRAINAGE AREA. – 549 mi².

PERIOD OF RECORD.–October 1904 to March 1908, October 1949 to September 1993.

REMARKS.–Part of high flows are diverted 1.0 miles upstream from station, by means of a breech canal (U.S. Bureau of Reclamation), into Tom Steed Reservoir. Flow regulated since 1967 by numerous floodwater-retarding structures. Baseflow has significantly increased in the basin since 1987 which may be associated with changes in irrigation practices (Esralew and Smith, 2009).

UNREGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1905-1966

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	645	0.00	125	25.9	14.9
Nov.	390	0.00	37.1	7.88	4.4
Dec.	150	0.00	28.1	14.2	3.4
Jan.	166	0.00	27.4	8.98	3.3
Feb.	260	0.69	33.5	10.2	4.0
Mar.	83.2	0.54	21.8	10.5	2.6
Apr.	480	0.97	53.7	25.6	6.4
May	1,049	0.03	194	74.8	23.1
Jun.	662	2.26	157	94.3	18.7
Jul.	448	0.00	74.9	32.0	8.9
Aug.	136	0.00	23.4	8.00	2.8
Sep.	607	0.00	63.2	11.4	7.6
Annual	146	14.8	68.8	62.7	–

Magnitude and probability of annual instantaneous peak flow based on 20 years of record, 1905-1966

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
3,990	6,880	9,280	12,900	16,100	19,700	30,000

Oklahoma weighted skew = 0.244

Duration table of daily mean flow for period of record, 1905-1966

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
1,550	717	189	88.3	56.7	42.2	25.7	16.2	9.84	6.11	3.75	1.21	0.08	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1906-1966

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.78	0.00	0.00	0.00
3	0.94	0.00	0.00	0.00
7	1.07	0.00	0.00	0.00
10	1.22	0.00	0.00	0.00
30	1.92	0.00	0.00	0.00
60	5.36	0.48	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1905-1966
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	2.95	0.37	0.00	0.00
3	3.33	0.48	0.00	0.00
7	4.15	0.64	0.00	0.00
10	5.30	0.96	0.00	0.00
30	17.5	2.71	0.77	0.23
60	61.6	22.6	13.6	8.95

Magnitude and probability of annual low flow based on period of record, 1905-1965
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.81	0.00	0.00	0.00
3	0.96	0.00	0.00	0.00
7	1.09	0.00	0.00	0.00
10	1.22	0.00	0.00	0.00
30	2.08	0.00	0.00	0.00
60	7.69	0.64	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1905-1966
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	3.91	0.40	0.01	0.00
3	4.20	0.48	0.01	0.00
7	4.86	0.54	0.01	0.00
10	5.08	0.58	0.01	0.00
30	7.35	0.76	0.11	0.00
60	8.08	1.43	0.42	0.02

RED RIVER BASIN

07304500 ELK CREEK NEAR HOBART, OKLA.—Continued

REGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges and average percent of annual runoff, based on period of record, 1967-1987

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	1,935	0.92	209	12.5	18.0
Nov.	381	0.24	52.3	21.8	4.5
Dec.	160	1.41	25.2	16.9	2.2
Jan.	159	2.83	27.7	17.7	2.4
Feb.	236	4.18	37.6	17.9	3.2
Mar.	339	2.33	62.3	20.6	5.4
Apr.	442	0.51	62.5	30.1	5.4
May	1,446	0.34	320	107	27.6
Jun.	597	17.3	152	83.7	13.1
Jul.	813	0.44	65.7	15.7	5.7
Aug.	199	0.38	36.8	9.41	3.2
Sep.	557	0.91	107	25.2	9.3
Annual	427	13.9	97.0	55.5	–

Magnitude and probability of annual instantaneous peak flow based on 27 years of record, 1967-1993

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
15%	5%	10%	4%	2%	1%	0.2%
5,630	12,100	18,600	29,800	40,900	54,800	101,000

station skew = 0.290

Duration table of daily mean flow for period of record, 1967-1987

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
1,690	878	291	137	74.7	48.7	30.5	21.3	16.4	12.1	8.11	4.54	1.72	0.62	0.19	0.03

Magnitude and probability of annual low flow based on period of record, 1968-1987

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	1.13	0.12	0.00	0.00
3	1.18	0.20	0.00	0.00
7	1.52	0.21	0.00	0.00
10	1.57	0.22	0.00	0.00
30	2.46	0.54	0.21	0.09
60	4.82	1.42	0.70	0.38

Magnitude and probability of annual low flow based on period of record, 1967-1987
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	7.69	3.25	2.00	0.80
3	8.18	3.46	2.12	0.82
7	14.4	3.50	2.30	0.90
10	15.9	3.60	2.75	1.30
30	24.3	7.84	3.58	1.68
60	125	26.6	9.11	3.25

Magnitude and probability of annual low flow based on period of record, 1967-1986
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	1.17	0.12	0.00	0.00
3	1.20	0.20	0.00	0.00
7	1.55	0.21	0.00	0.00
10	1.57	0.22	0.00	0.00
30	3.41	0.69	0.25	0.10
60	6.74	1.89	0.93	0.51

Magnitude and probability of annual low flow based on period of record, 1967-1987
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	5.01	1.18	0.46	0.05
3	5.36	1.27	0.50	0.06
7	7.23	1.30	0.60	0.12
10	8.90	1.50	0.65	0.12
30	11.4	3.30	1.51	0.73
60	12.8	5.03	3.00	1.93

RED RIVER BASIN

07305000 NORTH FORK RED RIVER NEAR HEADRICK, OKLA.

LOCATION. – Lat 34°38′17″, long 99°06′12″, referenced to North American Datum of 1927, in NW ¼ NW ¼ sec. 21, T.2 N., R.18 2., Jackson County, Okla., Hydrologic Unit 11120303, on downstream side of bridge on U.S. Highway 62, 2.2 mi east of Headrick, 13.3 mi upstream from Otter Creek, and at mile 33.4.

DRAINAGE AREA. – 4,244 mi², of which 399 mi² is probably noncontributing.

PERIOD OF RECORD.–April 1905 to March 1908, October 1937 to current year. Monthly discharge only for some periods, published in WSP 1311. Prior to July 1905, published as "near Snyder".

REMARKS.–Flow regulated since December 1943 by storage and diversion at Lake Altus, 39.5 mi upstream from station (station 07302500). Diversions for irrigation of about 48,000 acres upstream from station; some return flow may re-enter at Stinking Creek, 16 mi downstream from station.

REGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1945-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	5,608	0.00	339	97.3	8.8
Nov.	1,743	0.00	158	72.2	4.1
Dec.	984	0.20	133	58.3	3.4
Jan.	793	0.84	116	56.4	3.0
Feb.	1,375	4.06	168	60.1	4.3
Mar.	2,785	4.27	248	75.3	6.4
Apr.	5,366	0.64	329	118	8.5
May	6,104	0.31	947	306	24.4
Jun.	4,659	10.3	777	458	20.0
Jul.	2,016	0.25	233	113	6.0
Aug.	2,522	0.00	175	63.6	4.5
Sep.	1,675	0.00	254	89.5	6.6
Annual	1,562	50.0	324	263	–

Magnitude and probability of annual instantaneous peak flow based on 63 years of record, 1945-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
11,600	22,000	29,700	39,900	47,800	55,700	74,300

station skew = -0.433

Duration table of daily mean flow for period of record, 1945-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
5,330	3,100	1,240	587	353	244	130	88.9	64.8	46.9	33.0	21.3	7.68	2.07	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1946-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	6.20	0.00	0.00	0.00
3	6.56	0.00	0.00	0.00
7	7.50	0.15	0.00	0.00
10	8.64	0.27	0.00	0.00
30	15.0	1.43	0.20	0.00
60	33.6	5.21	1.05	0.17

Magnitude and probability of annual low flow based on period of record, 1945-2007
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	31.6	8.40	3.45	1.19
3	33.3	9.24	3.94	1.42
7	36.7	10.8	5.00	2.06
10	39.4	12.5	6.22	2.86
30	106	25.5	9.94	4.10
60	362	99.9	44.7	21.4

Magnitude and probability of annual low flow based on period of record, 1945-2006
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	6.89	0.00	0.00	0.00
3	7.21	0.04	0.00	0.00
7	7.78	0.33	0.00	0.00
10	8.74	0.45	0.00	0.00
30	19.4	1.86	0.26	0.00
60	41.1	6.80	1.84	0.47

Magnitude and probability of annual low flow based on period of record, 1945-2007
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	25.4	5.53	1.82	0.09
3	26.0	6.36	2.45	0.77
7	28.5	7.61	3.14	1.09
10	30.6	8.21	3.38	1.16
30	51.2	11.2	4.00	1.50
60	57.5	13.9	5.26	2.08

RED RIVER BASIN

07305500 WEST OTTER CREEK AT SNYDER LAKE NEAR MOUNTAIN PARK, OKLA.

LOCATION. – Lat 34°44′02″, long 98°59′10″, referenced to North American Datum of 1927, in SE ¼ sec. 16, T.3 N., R.17W., Kiowa County, Okla., Hydrologic Unit 11120303, near east end of Snyder Dam, 0.8 mi upstream from small tributary, 3 mi north-west of Mountain Park, and at mile 26.0.

DRAINAGE AREA. – 132 mi².

PERIOD OF RECORD.–April 1903 to March 1908, October 1951 to September 1971, July 1972 to current year. Published as "Ot-ter Creek near Mountain Park" 1903 to 1908 and as "Otter Creek at Snyder Lake, near Mountain Park" 1951 to 1960. Monthly discharge only for some periods, published in WSP 1311.

REMARKS.–The city of Snyder diverted about 130 acre-ft annually prior to October 1958 and none thereafter. Flow completely regulated since June 1975 by Tom Steed Reservoir.

REGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1976-2003

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	105	0.00	7.77	0.00	5.5
Nov.	252	0.00	12.8	0.00	9.1
Dec.	143	0.00	8.76	0.00	6.2
Jan.	61.9	0.00	2.64	0.00	1.9
Feb.	180	0.00	8.94	0.00	6.3
Mar.	164	0.00	11.7	0.07	8.3
Apr.	39.6	0.00	4.43	0.07	3.2
May	384	0.00	32.7	0.20	23.2
Jun.	421	0.00	38.1	0.22	27.1
Jul.	71.6	0.00	4.29	0.00	3.0
Aug.	123	0.00	4.79	0.00	3.4
Sep.	65.6	0.00	3.94	0.00	2.8
Annual	125	0.00	12.1	2.25	–

Magnitude and probability of annual instantaneous peak flow based on 32 years of record, 1976-2003

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
128	402	745	1,460	2,280	3,410	7,850

station skew = 0.152

Duration table of daily mean flow for period of record, 1976-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
294	224	38.9	1.54	0.46	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1977-2003

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1976-2003
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00
60	0.37	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1976-2002
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1976-2003
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00

RED RIVER BASIN

07307028 NORTH FORK RED RIVER NEAR TIPTON, OKLA.

LOCATION. – Lat 34°30′25″, long 99°12′28″, referenced to North American Datum of 1927, in NW ¼ NE ¼ sec. 5, T.1 S., R.19 W., Jackson County, Okla., Hydrologic Unit 11120303, near left bank on downstream side of bridge pier on State Highway 5, 3.5 mi west of Tipton, 4.8 mi downstream from Otter Creek, and at mile 15.3.

DRAINAGE AREA. – 4,691 mi², of which 399 mi² is probably noncontributing.

PERIOD OF RECORD.–June 1983 to current year.

REMARKS.–Flow regulated since December 1943 by storage and diversion at Lake Altus 54.2 mi upstream (station 07302500). Diversions for irrigation of about 48,000 acres upstream from station.

REGULATED STREAMFLOW PERIOD

[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1983-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	5,784	15.1	594	180	9.1
Nov.	2,276	27.5	363	198	5.6
Dec.	1,287	27.3	318	120	4.9
Jan.	1,126	49.9	251	133	3.9
Feb.	1,773	42.7	345	119	5.3
Mar.	3,268	54.8	590	237	9.1
Apr.	5,020	49.3	570	259	8.8
May	5,347	62.6	1,029	469	15.8
Jun.	5,560	93.8	1,255	664	19.3
Jul.	1,093	31.9	309	229	4.8
Aug.	3,932	39.5	414	126	6.4
Sep.	1,796	13.5	455	200	7.0
Annual	1,987	80.4	545	481	–

Magnitude and probability of annual instantaneous peak flow based on 23 years of record, 1985-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
11,300	23,400	33,140	47,030	58,300	70,100	99,800

station skew = -0.362

Duration table of daily mean flow for period of record, 1983-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
7,140	4,360	2,010	1,010	661	479	303	197	141	110	86.5	63.1	42.0	29.5	17.1	9.02

Magnitude and probability of annual low flow based on period of record, 1985-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	**5**	**10**	**20**
	50%	**20%**	**10%**	**5%**
1	31.6	12.3	6.91	4.09
3	32.7	13.2	7.56	4.59
7	35.2	14.3	8.24	5.00
10	36.6	15.0	8.64	5.25
30	47.4	20.6	12.6	8.19
60	68.1	35.7	25.2	18.8

Magnitude and probability of annual low flow based on period of record, 1984-2007
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	**5**	**10**	**20**
	50%	**20%**	**10%**	**5%**
1	89.8	41.4	27.8	20.0
3	92.0	43.6	29.9	22.0
7	94.7	47.2	35.1	28.4
10	100	51.7	39.5	32.8
30	175	80.4	56.7	43.8
60	378	156	102	74.0

Magnitude and probability of annual low flow based on period of record, 1984-2006
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	**5**	**10**	**20**
	50%	**20%**	**10%**	**5%**
1	35.4	12.6	6.86	4.02
3	36.4	13.3	7.46	4.49
7	38.6	14.3	8.06	4.87
10	40.1	15.0	8.46	5.13
30	54.3	20.9	12.4	8.04
60	88.5	39.7	27.3	20.5

Magnitude and probability of annual low flow based on period of record, 1984-2007
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	**5**	**10**	**20**
	50%	**20%**	**10%**	**5%**
1	66.0	34.0	24.6	19.1
3	68.0	36.1	26.7	21.2
7	71.8	38.7	28.9	23.0
10	74.1	39.5	29.3	23.2
30	88.2	45.9	34.1	27.3
60	109	58.4	44.3	36.0

RED RIVER BASIN

07308500 RED RIVER NEAR BURKBURNETT, TEX.

LOCATION. – Lat 34°06′36″, long 98°31′53″, referenced to North American Datum of 1927, Cotton County, Okla., Hydrologic Unit 11130102, on downstream guardrail of downstream bridge on U.S. Highways 277 and 281, 2.5 mi northeast of Burkburnett, and at mile 933.

DRAINAGE AREA. – 20,570 mi², of which 5,936 mi² is probably noncontributing.

PERIOD OF RECORD.–July 1924 to September 1924, December 1959 to current year.

REMARKS.–No known regulation. There are many small diversions upstream from station for irrigation, but total amounts are unknown.

UNREGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1960-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	14,900	21.9	1,409	447	9.8
Nov.	4,960	0.96	707	400	4.9
Dec.	4,435	2.98	553	300	3.9
Jan.	2,293	5.53	499	298	3.5
Feb.	4,986	8.37	686	334	4.8
Mar.	10,050	7.97	957	428	6.7
Apr.	13,040	0.15	1,044	423	7.3
May	12,470	11.4	2,203	1,129	15.4
Jun.	24,780	148	3,274	2,255	22.9
Jul.	5,947	0.06	919	542	6.4
Aug.	10,540	1.29	833	334	5.8
Sep.	6,381	29.9	1,231	430	8.6
Annual	4,424	178	1,196	975	–

Magnitude and probability of annual instantaneous peak flow based on 48 years of record, 1960-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
28,000	55,200	78,000	112,000	140,000	172,000	256,000

Water Resources Council weighted skew = -0.145

Duration table of daily mean flow for period of record, 1960-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
17,400	10,200	4,540	2,470	1,590	1,110	659	445	317	231	162	104	53.5	23.4	3.85	0.01

Magnitude and probability of annual low flow based on period of record, 1961-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	32.0	4.97	0.54	0.00
3	35.4	5.64	0.61	0.00
7	41.4	6.38	0.79	0.00
10	44.5	8.54	1.22	0.00
30	106	13.8	2.11	0.22
60	137	38.6	16.1	6.97

Magnitude and probability of annual low flow based on period of record, 1960-2007
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	110	47.2	28.5	17.5
3	116	50.2	30.6	19.0
7	126	57.6	39.2	28.3
10	138	63.6	43.7	32.0
30	542	158	51.8	40.0
60	1,190	372	166	76.6

Magnitude and probability of annual low flow based on period of record, 1960-2006
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	33.9	5.01	0.54	0.00
3	45.3	5.64	0.61	0.00
7	45.8	6.38	1.24	0.00
10	46.4	7.92	1.80	0.00
30	134	19.0	3.18	0.37
60	226	57.0	23.0	9.78

Magnitude and probability of annual low flow based on period of record, 1960-2007
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	110	25.8	9.02	3.22
3	129	32.8	11.7	4.19
7	144	38.5	14.5	5.55
10	148	41.8	17.1	7.14
30	211	68.1	31.3	14.8
60	242	79.8	39.8	21.0

RED RIVER BASIN

07311000 EAST CACHE CREEK NEAR WALTERS, OKLA.

LOCATION. – Lat 34°21′44″, long 98°16′56″, referenced to North American Datum of 1927, in SE ¼ SE ¼ sec. 19, T.2 S., R.10 W., Cotton County, Okla., Hydrologic Unit 11130202, at right bank on downstream side of bridge on State Highway 53, 1.8 mi east of Walters, 12.2 mi upstream from West Cache Creek, and at mile 19.7.

DRAINAGE AREA. – 675 mi².

PERIOD OF RECORD.–May 1938 to December 1963, October 1969 to current year. Prior to October 1969, published as "Cache Creek near Walters".

REMARKS.–Flow partly regulated by Lake Lawtonka, capacity, 42,300 acre-ft on Medicine Creek prior to late 1953, and 63,000 acre-ft thereafter by Lake Thomas, capacity 8,300 acre-ft on Little Medicine Creek; and since March 1961 by Lake Ellsworth, capacity 94,500 acre-ft on East Cache Creek. Low flow sustained by sewage effluent from cities of Lawton and Walters.

UNREGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1938-1960

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	1,043	0.00	219	36.0	10.1
Nov.	260	0.15	69.9	27.3	3.2
Dec.	435	0.15	76.3	20.9	3.5
Jan.	250	0.63	48.3	26.8	2.2
Feb.	389	2.20	90.4	40.3	4.2
Mar.	1,153	2.09	134	41.2	6.2
Apr.	1,011	7.81	216	75.1	10.0
May	2,577	5.13	702	424	32.3
Jun.	1,591	12.6	368	246	17.0
Jul.	374	9.25	109	62.1	5.0
Aug.	210	3.75	36.8	19.3	1.7
Sep.	895	0.00	102	20.0	4.7
Annual	394	12.6	183	160	–

Magnitude and probability of annual instantaneous peak flow based on 22 years of record, 1939-1960

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
7,590	13,400	18,200	25,500	31,800	38,800	58,900

Oklahoma weighted skew = 0.159

Duration table of daily mean flow for period of record, 1938-1960

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
3,490	2,150	677	259	152	103	59.1	38.4	26.2	19.5	15.0	10.5	6.17	2.43	0.13	0.04

Magnitude and probability of annual low flow based on period of record, 1939-1960

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	7.03	1.86	0.21	0.00
3	7.33	2.77	0.69	0.00
7	7.73	3.02	0.81	0.00
10	7.96	3.16	0.89	0.00
30	12.5	3.55	0.95	0.00
60	15.9	3.64	0.97	0.04

Magnitude and probability of annual low flow based on period of record, 1938-1960
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	24.4	7.63	2.84	1.01
3	24.8	8.19	3.39	1.38
7	24.7	8.77	4.52	2.45
10	25.3	9.79	5.51	3.29
30	57.6	20.4	12.0	7.77
60	334	103	48.0	23.7

Magnitude and probability of annual low flow based on period of record, 1938-1959
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	7.33	1.88	0.21	0.00
3	7.61	2.79	0.69	0.00
7	8.02	3.03	0.81	0.00
10	8.16	3.16	0.89	0.00
30	12.9	3.60	0.95	0.00
60	18.1	3.75	0.97	0.04

Magnitude and probability of annual low flow based on period of record, 1939-1960
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	14.1	3.14	0.80	0.03
3	14.1	3.70	1.26	0.11
7	14.1	4.21	1.63	0.20
10	16.9	4.80	1.90	0.36
30	21.3	6.74	2.71	1.07
60	26.6	7.48	2.96	1.19

RED RIVER BASIN

07311000 EAST CACHE CREEK NEAR WALTERS, OKLA.—Continued

REGULATED STREAMFLOW PERIOD

[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges and average percent of annual runoff, based on period of record, 1962-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	2,738	13.2	244	38.6	8.3
Nov.	1,167	18.1	153	43.2	5.2
Dec.	1,796	17.4	157	43.1	5.3
Jan.	916	19.4	144	43.9	4.9
Feb.	1,356	23.2	199	58.3	6.7
Mar.	2,120	19.2	336	116	11.4
Apr.	1,243	18.2	250	98.5	8.5
May	2,654	18.8	492	243	16.7
Jun.	4,593	18.9	562	198	19.0
Jul.	2,101	9.72	141	58.6	4.8
Aug.	1,581	9.30	110	31.8	3.7
Sep.	1,637	9.86	163	44.6	5.5
Annual	916	38.7	247	161	–

Magnitude and probability of annual instantaneous peak flow based on 40 years of record, 1962-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
15%	5%	10%	4%	2%	1%	0.2%
5,210	11,700	18,300	30,300	42,400	57,800	111,000

station skew = 0.318

Duration table of daily mean flow for period of record, 1962-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
3,700	2,220	996	501	304	183	82.7	53.6	42.3	34.4	27.8	22.7	17.3	13.7	10.0	7.51

Magnitude and probability of annual low flow based on period of record, 1963-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	9.94	5.47	3.91	2.92
3	10.8	6.07	4.38	3.31
7	12.2	7.17	5.35	4.17
10	13.1	8.03	6.17	4.95
30	17.6	12.0	9.92	8.49
60	22.9	15.2	12.1	10.1

Magnitude and probability of annual low flow based on period of record, 1962-2007
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	29.5	16.7	12.6	10.1
3	30.7	17.6	13.5	10.9
7	31.8	18.7	15.2	13.3
10	33.9	19.8	16.2	14.2
30	68.5	33.9	25.4	20.9
60	216	87.6	54.7	37.0

Magnitude and probability of annual low flow based on period of record, 1962-2006
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	10.6	5.77	4.08	3.02
3	11.5	6.41	4.59	3.43
7	12.8	7.48	5.55	4.29
10	13.7	8.32	6.40	5.14
30	18.3	12.1	10.0	8.76
60	26.3	15.3	12.1	10.1

Magnitude and probability of annual low flow based on period of record, 1962-2007
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	20.4	12.4	9.81	8.17
3	21.2	13.0	10.3	8.62
7	23.4	14.4	11.4	9.50
10	24.6	15.1	12.0	10.1
30	30.0	20.0	17.9	16.9
60	42.3	23.8	19.3	16.9

RED RIVER BASIN

07311200 BLUE BEAVER CREEK NEAR CACHE, OKLA.

LOCATION. – Lat 34°37′24″, long 98°33′48″, referenced to North American Datum of 1927, in NE ¼ NE ¼ sec. 28, T.2 N., R.13 W., Comanche County, Okla., Hydrologic Unit 11130203, on downstream side of right bank pier on old U.S. Highway 62, 3,000 ft upstream from St. Louis-San Francisco Railway Co. bridge, 4.0 mi east of Cache, and at mile 12.0.

DRAINAGE AREA. – 24.6 mi².

PERIOD OF RECORD.–July 1964 to September 2003.

REMARKS.–Regulated by Lake Rush, Lake Jed Johnson, and Lake Ketch, combined surface-area 132 acres. Is considered a "hydrologic benchmark" station.

REGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1965-2003

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	193	0.00	16.3	0.37	10.1
Nov.	61.1	0.00	8.18	2.01	5.1
Dec.	108	0.00	9.43	2.41	5.8
Jan.	53.2	0.00	8.41	2.30	5.2
Feb.	67.1	0.00	12.7	6.71	7.9
Mar.	142	0.00	23.0	11.1	14.2
Apr.	88.0	0.02	18.0	9.90	11.2
May	176	0.03	32.0	26.7	19.8
Jun.	125	0.01	23.0	5.94	14.2
Jul.	14.1	0.00	1.82	0.66	1.1
Aug.	27.5	0.00	2.02	0.01	1.2
Sep.	50.9	0.00	6.61	0.16	4.1
Annual	47.8	0.48	13.4	12.5	–

Magnitude and probability of annual instantaneous peak flow based on 39 years of record, 1965-2003

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
1,650	3,600	5,500	8,780	12,000	15,900	28,700

Oklahoma weighted skew = 0.211

Duration table of daily mean flow for period of record, 1964-2003

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
222	113	47.9	24.5	15.9	10.8	4.92	2.32	1.11	0.53	0.09	0.00	0.00	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1966-2003

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00
60	0.01	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1965-2003
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.93	0.31	0.12	0.00
3	1.01	0.34	0.13	0.00
7	1.22	0.41	0.18	0.00
10	1.40	0.47	0.24	0.00
30	4.06	1.42	0.80	0.46
60	26.2	6.97	2.10	0.58

Magnitude and probability of annual low flow based on period of record, 1965-2002
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00
60	0.01	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1965-2003
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.32	0.00	0.00	0.00
3	0.32	0.00	0.00	0.00
7	0.39	0.00	0.00	0.00
10	0.40	0.00	0.00	0.00
30	0.66	0.02	0.00	0.00
60	1.17	0.07	0.00	0.00

RED RIVER BASIN

07311500 DEEP RED CREEK NEAR RANDLETT, OKLA.

LOCATION. – Lat 34°13′15″, long 98°27′10″, referenced to North American Datum of 1927, in SW ¼ SW ¼ sec. 10, T.4 S., R.12 W., Cotton County, Okla., Hydrologic Unit 11130203, near right bank on downstream side of pier of bridge on U.S. Highway 277, 2.8 mi north of Randlett, and at mile 4.8.

DRAINAGE AREA. – 617 mi².

PERIOD OF RECORD.–October 1949 to current year. Prior to October 1993, published as "Deep Red Run near Randlett".

REMARKS.–Some regulation by numerous floodwater-retarding structures, and Lake Frederick.

UNREGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1950-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	3,345	0.00	255	21.6	12.6
Nov.	994	0.00	105	10.9	5.2
Dec.	1,493	0.00	66.5	5.21	3.3
Jan.	568	0.00	61.9	5.85	3.1
Feb.	1,020	0.02	81.8	12.1	4.0
Mar.	1,540	0.10	138	22.9	6.8
Apr.	1,398	0.00	133	34.7	6.6
May	2,800	0.06	436	237	21.5
Jun.	4,654	0.00	444	140	21.9
Jul.	1,316	0.00	78.0	15.8	3.8
Aug.	1,109	0.00	66.6	8.37	3.3
Sep.	1,453	0.00	161	22.9	8.0
Annual	904	6.27	169	105	–

Magnitude and probability of annual instantaneous peak flow based on 58 years of record, 1950-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
7,170	16,800	26,200	42,300	57,700	76,400	135,000

Oklahoma weighted skew = 0.028

Duration table of daily mean flow for period of record, 1950-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
3,780	2,110	661	181	76.4	42.1	16.5	8.31	4.91	3.00	1.56	0.55	0.00	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1951-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent

Period (consecutive days)	2 / 50%	5 / 20%	10 / 10%	20 / 5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.18	0.00	0.00	0.00
60	0.94	0.05	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1950-2007
spring season, April 1 through May 31

Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent

Period (consecutive days)	2 / 50%	5 / 20%	10 / 10%	20 / 5%
1	1.69	0.17	0.00	0.00
3	1.92	0.20	0.00	0.00
7	2.23	0.31	0.00	0.00
10	2.58	0.36	0.04	0.00
30	17.0	2.37	0.69	0.22
60	167	33.7	11.2	3.93

Magnitude and probability of annual low flow based on period of record, 1950-2006
summer season, June 1 through October 31

Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent

Period (consecutive days)	2 / 50%	5 / 20%	10 / 10%	20 / 5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.36	0.00	0.00	0.00
60	3.22	0.16	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1950-2007
winter season, November 1 through March 31

Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent

Period (consecutive days)	2 / 50%	5 / 20%	10 / 10%	20 / 5%
1	0.95	0.00	0.00	0.00
3	1.02	0.00	0.00	0.00
7	1.22	0.03	0.00	0.00
10	1.37	0.05	0.00	0.00
30	2.11	0.24	0.02	0.00
60	3.38	0.52	0.17	0.00

RED RIVER BASIN

07313000 LITTLE BEAVER CREEK NEAR DUNCAN, OKLA.

LOCATION. – Lat 34°29′35″, long 98°06′50″, referenced to North American Datum of 1927, in NE ¼ sec. 11, T.1 S., R.9 W., Stephens County, Okla., Hydrologic Unit 11130208, on downstream side of right pier of bridge on county road, 0.8 mi downstream from Stage Stand Creek, 8.2 mi west of Duncan, and at mile 11.9.

DRAINAGE AREA. – 158 mi².

PERIOD OF RECORD.–October 1948 to December 1963.

UNREGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	388	0.00	57.4	12.6	9.2
Nov.	70.3	0.00	18.4	9.52	3.0
Dec.	79.3	0.00	16.3	7.25	2.6
Jan.	39.0	0.15	11.8	11.0	1.9
Feb.	106	1.41	20.4	12.1	3.3
Mar.	76.5	2.63	22.7	16.3	3.6
Apr.	155	1.94	29.1	17.7	4.7
May	1,003	7.67	258	106	41.3
Jun.	818	6.04	129	55.7	20.7
Jul.	130	0.68	32.3	15.9	5.2
Aug.	86.8	0.00	12.3	3.45	2.0
Sep.	103	0.00	16.4	1.18	2.6
Annual	118	7.00	52.3	49.0	–

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1949-1963

Magnitude and probability of annual instantaneous peak flow based on 15 years of record, 1949-1963						
Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent						
2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
10,100	29,000	51,400	96,000	145,000	212,000	464,000

Oklahoma weighted skew = 0.184

Duration table of daily mean flow for period of record, 1949-1963																
Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time																
1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
973	408	111	42.7	28.3	21.9	14.7	11.1	7.22	4.49	2.13	0.20	0.03	0.01	0.01	0.00

Magnitude and probability of annual low flow based on period of record, 1950-1963

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.14	0.00	0.00	0.00
60	1.55	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1949-1963
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	5.02	1.19	0.00	0.00
3	5.53	1.48	0.00	0.00
7	5.98	1.86	0.00	0.00
10	6.80	2.30	0.23	0.06
30	13.9	5.46	3.30	2.16
60	95.2	32.2	17.0	9.67

Magnitude and probability of annual low flow based on period of record, 1949-1962
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.14	0.00	0.00	0.00
60	1.55	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1949-1963
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	1.71	0.00	0.00	0.00
3	2.27	0.00	0.00	0.00
7	2.87	0.00	0.00	0.00
10	3.12	0.00	0.00	0.00
30	4.41	0.00	0.00	0.00
60	5.74	1.29	0.36	0.00

RED RIVER BASIN

07313500 BEAVER CREEK NEAR WAURIKA, OKLA.

LOCATION. – Lat 34°13′00″, long 98°02′57″, referenced to North American Datum of 1927, on north line of NW ¼ NW ¼ sec. 16, T.4 S., R.8 W., Jefferson County, Okla., Hydrologic Unit 11130208, on left bank on downstream side of bridge on State Highway 5, 1.2 mi belowWaurika Dam, 4.5 mi northwest ofWaurika, 6.2 mi upstream from Cow Creek, and at mile 25.8.

DRAINAGE AREA. – 563 mi².

PERIOD OF RECORD.–October 1953 to September 1993.

REMARKS.–Flow completely regulated by Waurika Lake (07313400) 1.2 miles upstream beginning August 1977.

UNREGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1954-1976

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	794	0.00	87.1	29.3	6.8
Nov.	451	0.00	90.0	27.6	7.0
Dec.	280	0.00	41.5	17.4	3.2
Jan.	153	0.06	34.3	21.2	2.7
Feb.	276	0.07	44.0	17.9	3.4
Mar.	537	1.90	70.9	44.4	5.5
Apr.	726	1.40	112	63.0	8.7
May	2,629	0.81	434	125	33.9
Jun.	2,132	4.55	229	52.6	17.9
Jul.	170	0.00	50.2	28.7	3.9
Aug.	168	0.00	28.6	14.9	2.2
Sep.	230	0.00	58.7	50.3	4.6
Annual	349	19.7	107	74.4	–

Magnitude and probability of annual instantaneous peak flow based on 26 historic years of record, 1951-1976

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
3,970	9,760	16,100	28,000	40,600	57,200	117,000

Oklahoma weighted skew = 0.294

Duration table of daily mean flow for period of record, 1954-1976

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
1,980	1,090	372	128	76.5	55.4	34.0	21.8	12.8	6.49	2.79	0.47	0.00	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1955-1976

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.26	0.00	0.00	0.00
60	1.14	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1954-1976
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	4.30	0.23	0.00	0.00
3	5.71	0.45	0.00	0.00
7	8.18	0.84	0.04	0.00
10	8.39	0.99	0.23	0.06
30	37.8	8.31	3.15	1.28
60	132	39.3	19.7	10.8

Magnitude and probability of annual low flow based on period of record, 1954-1975
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.55	0.00	0.00	0.00
60	2.47	0.01	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1954-1976
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	1.40	0.00	0.00	0.00
3	2.45	0.00	0.00	0.00
7	4.75	0.00	0.00	0.00
10	4.80	0.00	0.00	0.00
30	6.20	0.16	0.00	0.00
60	10.0	0.76	0.02	0.00

RED RIVER BASIN

07313500 BEAVER CREEK NEAR WAURIKA, OKLA.—Continued

REGULATED STREAMFLOW PERIOD

[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges and average percent of annual runoff, based on period of record, 1978-1993					
Month	**Maximum**	**Minimum**	**Mean**	**Median**	**Average % of Annual Runoff**
Oct.	959	0.00	114	0.95	4.8
Nov.	1,639	0.00	210	0.85	8.8
Dec.	711	0.00	134	0.69	5.6
Jan.	830	0.00	171	0.37	7.2
Feb.	845	0.00	162	1.29	6.7
Mar.	1,677	0.01	308	124	12.8
Apr.	898	0.00	219	27.4	9.2
May	2,123	0.00	329	132	13.7
Jun.	2,501	0.00	544	283	22.7
Jul.	708	0.00	109	4.69	4.5
Aug.	65.2	0.00	9.31	4.79	0.4
Sep.	958	0.00	86.5	6.54	3.6
Annual	631	0.02	199	169	–

Magnitude and probability of annual instantaneous peak flow based on 16 years of record, 1978-1993						
Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent						
2	**5**	**10**	**25**	**50**	**100**	**500**
15%	**5%**	**10%**	**4%**	**2%**	**1%**	**0.2%**
1,660	2,610	2,930	3,130	3,200	3,230	3,260

station skew = -1.968

Duration table of daily mean flow for period of record, 1978-1993															
Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time															
1%	**2%**	**5%**	**10%**	**15%**	**20%**	**30%**	**40%**	**50%**	**60%**	**70%**	**80%**	**90%**	**95%**	**98%**	**99%**
2,500	2,290	1,680	738	357	116	11.3	4.98	1.19	0.40	0.08	0.00	0.00	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1979-1993

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.03	0.00	0.00	0.00
60	0.12	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1978-1993
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.57	0.00	0.00	0.00
3	0.62	0.00	0.00	0.00
7	0.67	0.00	0.00	0.00
10	0.74	0.00	0.00	0.00
30	2.24	0.01	0.00	0.00
60	50.8	2.10	0.28	0.04

Magnitude and probability of annual low flow based on period of record, 1978-1992
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.31	0.00	0.00	0.00
60	0.39	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1978-1993
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.04	0.00	0.00	0.00
3	0.04	0.00	0.00	0.00
7	0.05	0.00	0.00	0.00
10	0.06	0.00	0.00	0.00
30	0.27	0.01	0.00	0.00
60	1.08	0.01	0.00	0.00

RED RIVER BASIN

07315500 RED RIVER NEAR TERRAL, OKLA.

LOCATION. – Lat 33°52′43″, long 97°56′03″, referenced to North American Datum of 1927, Jefferson County, Okla., Hydrologic Unit 11130201, on left bank at downstream side of bridge abutment on U.S. Highway 81, 0.5 mi downstream from Chicago and Rock Island Railroad Co. bridge, 1.2 mi south of Terral, 3.6 mi downstream from Little Wichita River, and at mile 872.

DRAINAGE AREA. – 28,723 mi², of which 5,936 mi² is probably noncontributing.

PERIOD OF RECORD.–April 1938 to current year. Monthly discharge only for some periods, published in WSP 1311.

REMARKS.–There are many small diversions upstream from station for irrigation, oil field operations, and for municipal uses. Flow regulated by Lake Kemp (station 07312000 in Texas), and since December 1943 by Lake Altus (station 07302500 in Oklahoma). Some additional regulation since 1946 by Lake Kickapoo (station 07314000 in Texas), since 1967 by Lake Arrowhead (station 07314800 in Texas) since 1978 by Waurika Lake; and by numerous floodwater-retarding structures.

REGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1945-2001

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	23,900	108	977	468	3.4
Nov.	9,713	112	1,394	631	4.8
Dec.	11,810	98.0	2,119	803	7.4
Jan.	5,306	106	2,359	1,005	8.2
Feb.	9,320	136	5,897	3,302	20.5
Mar.	14,710	112	5,700	3,497	19.8
Apr.	18,080	142	1,758	982	6.1
May	43,580	134	1,337	645	4.6
Jun.	36,230	268	1,952	849	6.8
Jul.	11,370	103	2,660	1,040	9.2
Aug.	14,730	107	1,503	915	5.2
Sep.	9,653	100	1,132	525	3.9
Annual	8,925	411	2,402	1,963	–

Magnitude and probability of annual instantaneous peak flow based on 63 years of record, 1945-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
42,700	82,600	117,000	169,000	215,000	267,000	414,000

station skew = 0.018

Duration table of daily mean flow for period of record, 1945-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
32,200	21,500	10,300	5,690	3,710	2,530	1,380	868	620	474	368	276	186	140	108	97.0

Magnitude and probability of annual low flow based on period of record, 1946-2001

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	156	97.2	76.5	63.1
3	163	103	82.4	68.6
7	174	112	90.0	75.6
10	180	116	92.9	78.0
30	231	147	118	99.9
60	294	179	142	119

Magnitude and probability of annual low flow based on period of record, 1945-2001
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	293	170	134	114
3	308	178	141	119
7	342	192	151	127
10	361	200	158	135
30	818	399	295	238
60	2,830	1,210	764	518

Magnitude and probability of annual low flow based on period of record, 1945-2000
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	179	109	85.7	71.1
3	185	113	89.2	74.4
7	196	120	96.4	82.0
10	203	124	100	85.4
30	284	163	129	109
60	449	236	177	143

Magnitude and probability of annual low flow based on period of record, 1945-2001
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	225	126	95.4	76.9
3	233	134	103	84.4
7	251	146	113	93.5
10	260	150	117	97.1
30	312	177	140	118
60	394	208	159	132

RED RIVER BASIN

07315700 MUD CREEK NEAR COURTNEY, OKLA.

LOCATION. – Lat 34°00′15″, long 97°34′00″, referenced to North American Datum of 1927, in NW ¼ SE ¼ sec. 25, T.6 S., R.4 W., Jefferson County, Okla., Hydrologic Unit 11130201, on downstream side of bridge on State Highway 89, 4.0 mi downstream from North Mud Creek, 6.0 mi northwest of Courtney, and at mile 11.5.

DRAINAGE AREA. – 572 mi².

PERIOD OF RECORD.–October 1960 to current year.

UNREGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1961-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	1,216	0.00	99.4	10.7	4.4
Nov.	1,219	0.00	139	6.82	6.2
Dec.	1,766	0.01	143	21.5	6.3
Jan.	898	0.00	114	15.9	5.0
Feb.	1,251	0.06	172	23.6	7.6
Mar.	1,594	0.00	267	127	11.8
Apr.	3,075	0.16	279	76.5	12.3
May	3,670	0.10	493	142	21.8
Jun.	2,156	0.02	367	137	16.2
Jul.	387	0.00	50.6	7.89	2.2
Aug.	866	0.00	41.9	4.33	1.8
Sep.	571	0.00	97.5	19.3	4.3
Annual	614	1.68	188	124	–

Magnitude and probability of annual instantaneous peak flow based on 51 historic years of record, 1957-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
5,980	15,500	25,900	45,500	66,100	92,900	188,000

Oklahoma weighted skew = 0.178

Duration table of daily mean flow for period of record, 1961-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
3,910	2,400	973	285	129	76.4	34.6	17.4	8.70	4.38	1.88	0.47	0.02	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1962-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.10	0.00	0.00	0.00
60	0.85	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1961-2007
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	4.83	0.35	0.00	0.00
3	5.95	0.40	0.00	0.00
7	6.10	0.59	0.10	0.00
10	6.55	0.83	0.19	0.01
30	33.8	5.92	1.85	0.55
60	184	39.9	15.5	6.57

Magnitude and probability of annual low flow based on period of record, 1961-2006
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.12	0.00	0.00	0.00
60	2.41	0.03	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1961-2007
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.70	0.00	0.00	0.00
3	0.83	0.03	0.00	0.00
7	1.00	0.04	0.00	0.00
10	1.11	0.05	0.00	0.00
30	1.91	0.10	0.01	0.00
60	6.43	0.56	0.14	0.04

RED RIVER BASIN

07316000 RED RIVER NEAR GAINESVILLE, TEX.

LOCATION. – Lat 33°43′40″, long 97°09′35″, referenced to North American Datum of 1927, in SW ¼ sec. 36, T.9 S., R.1 E., Love County, Okla., Hydrologic Unit 11130210, on downstream right bank at end of bridge on Interstate 35, 0.2 mi downstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 5.0 mi downstream from Fish Creek, 4.5 mi southwest of Thackerville, Okla., 7.0 mi north of Gainesville, and at mile 791.5.

DRAINAGE AREA. – 30,782 mi², of which 5,936 mi² is probably noncontributing.

PERIOD OF RECORD.–May 1936 to current year. Monthly discharge only for some periods, published in WSP 1311.

REMARKS.–Flow regulated by Lake Kemp (station 07312000 in Texas), since 1943 by Lake Altus (station 07302500 in Oklahoma), since 1946 by Lake Kickapoo (station 07314000 in Texas), since 1967 by Lake Arrowhead (station 07314800 in Texas) and Moss Lake (station 07315950 in Texas), since 1978 by Waurika Lake; and by numerous floodwater-retarding structures.

REGULATED STREAMFLOW PERIOD

[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1945-2007					
Month	**Maximum**	**Minimum**	**Mean**	**Median**	**Average % of Annual Runoff**
Oct.	27,710	119	3,298	1,179	8.7
Nov.	13,780	137	2,049	1,056	5.4
Dec.	14,990	141	1,649	732	4.3
Jan.	7,258	126	1,369	567	3.6
Feb.	10,920	151	1,853	916	4.9
Mar.	19,590	159	2,935	1,418	7.7
Apr.	27,400	153	3,201	1,599	8.4
May	47,780	204	7,437	4,179	19.6
Jun.	42,460	296	7,654	4,389	20.1
Jul.	23,390	146	2,475	1,417	6.5
Aug.	20,730	97.5	1,680	707	4.4
Sep.	12,880	108	2,450	1,429	6.4
Annual	11,890	567	3,174	2,562	–

Magnitude and probability of annual instantaneous peak flow based on 63 years of record, 1945-2007						
Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent						
2	**5**	**10**	**25**	**50**	**100**	**500**
50%	**20%**	**10%**	**4%**	**2%**	**1%**	**0.2%**
46,000	83,900	115,000	161,000	200,000	244,000	364,000

station skew = 0.020

Duration table of daily mean flow for period of record, 1945-2007																
Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time																
1%	**2%**	**5%**	**10%**	**15%**	**20%**	**30%**	**40%**	**50%**	**60%**	**70%**	**80%**	**90%**	**95%**	**98%**	**99%**
42,000	27,800	13,100	7,220	4,600	3,260	1,840	1,210	842	621	466	337	219	168	126	108

Magnitude and probability of annual low flow based on period of record, 1946-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	190	114	87.8	71.2
3	194	117	90.9	74.3
7	205	123	95.2	77.6
10	211	126	97.7	79.6
30	272	158	120	95.8
60	353	203	154	125

Magnitude and probability of annual low flow based on period of record, 1945-2007
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	410	235	185	156
3	428	244	192	161
7	486	264	202	166
10	514	273	208	171
30	1,090	526	383	304
60	3,330	1,480	966	676

Magnitude and probability of annual low flow based on period of record, 1945-2006
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	207	118	90.9	74.3
3	212	122	94.0	77.3
7	226	129	99.1	81.2
10	237	134	103	83.6
30	328	173	129	103
60	508	254	184	144

Magnitude and probability of annual low flow based on period of record, 1945-2007
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	301	169	128	103
3	308	173	132	106
7	330	184	139	111
10	340	189	144	116
30	400	220	168	139
60	520	264	196	157

RED RIVER BASIN

07316500 WASHITA RIVER NEAR CHEYENNE, OKLA.

LOCATION. – Lat 35°37′35″, long 99°40′05″, referenced to North American Datum of 1927, in SE ¼ sec. 5, T.13 N., R.23 W., Roger Mills County, Okla., Hydrologic Unit 11130301, on left bank on downstream side of bridge on U.S. Highway 283, 0.5 mi downstream from Sergeant Major Creek, 1.0 mi north of Cheyenne, 5.2 mi upstream from Dead Indian Creek, and at mile 543.9.

DRAINAGE AREA. – 794 mi².

PERIOD OF RECORD.–October 1937 to current year. Monthly discharge only for some periods, published in WSP 1311.

REMARKS.–Flow regulated since 1961 by numerous floodwater-retarding structures.

UNREGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1938-1960

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	248	0.00	31.3	3.40	6.3
Nov.	61.6	0.00	10.7	1.29	2.1
Dec.	64.5	0.00	13.0	8.54	2.6
Jan.	52.1	0.00	13.7	10.6	2.7
Feb.	43.5	0.00	16.0	15.0	3.2
Mar.	91.1	0.00	21.5	18.0	4.3
Apr.	305	0.24	56.3	37.8	11.3
May	724	2.59	162	67.3	32.4
Jun.	462	0.22	117	49.3	23.5
Jul.	130	0.00	27.0	20.0	5.4
Aug.	110	0.00	20.4	3.12	4.1
Sep.	87.7	0.00	9.89	1.93	2.0
Annual	122	4.94	41.7	31.2	–

Magnitude and probability of annual instantaneous peak flow based on 27 historic years of record, 1934-1960

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
5,610	15,500	26,600	47,200	68,700	96,300	192,000

Oklahoma weighted skew = 0.043

Duration table of daily mean flow for period of record, 1938-1960

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
688	367	145	64.5	44.1	33.2	21.0	12.9	6.33	1.20	0.04	0.03	0.01	0.01	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1939-1960

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00
60	0.00	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1938-1960
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	2.32	0.00	0.00	0.00
3	4.30	0.00	0.00	0.00
7	4.84	0.45	0.00	0.00
10	6.54	1.22	0.00	0.00
30	24.2	5.92	2.45	1.10
60	62.2	21.0	11.6	6.97

Magnitude and probability of annual low flow based on period of record, 1938-1959
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00
60	1.75	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1938-1960
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.06	0.00	0.00	0.00
30	0.62	0.00	0.00	0.00
60	3.30	0.00	0.00	0.00

RED RIVER BASIN

07316500 WASHITA RIVER NEAR CHEYENNE, OKLA.—Continued

REGULATED STREAMFLOW PERIOD

[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges and average percent of annual runoff, based on period of record, 1961-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	144	0.00	13.0	2.21	5.1
Nov.	64.3	0.00	11.7	6.43	4.6
Dec.	67.7	0.00	14.0	11.2	5.5
Jan.	80.7	0.03	17.7	15.5	7.0
Feb.	71.0	1.50	21.9	18.9	8.6
Mar.	138	2.22	29.1	21.1	11.4
Apr.	146	1.08	33.8	23.0	13.3
May	348	0.00	49.1	27.1	19.3
Jun.	203	0.00	41.2	25.9	16.2
Jul.	61.7	0.00	9.64	5.66	3.8
Aug.	32.8	0.00	5.19	0.98	2.0
Sep.	122	0.00	7.88	0.89	3.1
Annual	64.0	2.60	21.1	15.3	–

Magnitude and probability of annual instantaneous peak flow based on 47 years of record, 1961-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
15%	5%	10%	4%	2%	1%	0.2%
639	1,820	3,170	5,750	8,460	12,000	24,400

station skew = 0.046

Duration table of daily mean flow for period of record, 1961-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
204	125	71.9	48.3	36.5	29.7	20.7	14.8	9.33	5.05	2.41	0.13	0.00	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1962-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00
60	0.19	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1961-2007
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	4.66	0.37	0.00	0.00
3	5.48	0.60	0.00	0.00
7	6.76	0.63	0.02	0.00
10	7.06	0.79	0.15	0.02
30	15.6	5.71	3.03	1.60
60	30.1	11.4	6.25	3.60

Magnitude and probability of annual low flow based on period of record, 1961-2006
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00
60	0.21	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1961-2007
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	2.90	0.00	0.00	0.00
3	3.10	0.00	0.00	0.00
7	3.22	0.00	0.00	0.00
10	3.27	0.06	0.00	0.00
30	5.55	0.64	0.00	0.00
60	8.35	1.88	0.29	0.00

RED RIVER BASIN

07319500 SANDSTONE CREEK NEAR BERLIN, OKLA.

LOCATION. – Lat 35°30′26″, long 99°33′27″, referenced to North American Datum of 1927, on west line of NW ¼ NW ¼ sec. 20, T.12 N., R.22W., Beckham County, Okla., Hydrologic Unit 11130301, on left bank 50 ft downstream from county road bridge, 5.5 mi northeast of Berlin.

DRAINAGE AREA. – 44.9 mi², of which 4.0 mi² is probably noncontributing.

PERIOD OF RECORD.–October 1952 to September 1972.

REMARKS.–Flow is regulated since 1951 by numerous floodwater-retarding structures.

REGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1953-1972

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	15.8	0.00	2.81	1.01	6.4
Nov.	7.07	0.00	1.96	1.27	4.5
Dec.	9.35	0.00	2.28	1.37	5.2
Jan.	7.83	0.00	2.22	1.28	5.1
Feb.	14.4	0.00	2.74	1.44	6.2
Mar.	10.5	0.00	2.40	1.81	5.4
Apr.	21.6	0.14	4.50	2.38	10.2
May	70.3	0.03	11.8	4.29	26.9
Jun.	30.2	0.32	7.24	6.01	16.5
Jul.	13.3	0.08	2.78	1.05	6.3
Aug.	8.13	0.00	1.43	0.83	3.3
Sep.	9.21	0.00	1.80	0.66	4.1
Annual	8.58	0.19	3.67	2.76	–

Magnitude and probability of annual instantaneous peak flow based on 20 years of record, 1953-1972

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
670	1,540	2,440	4,080	5,760	7,910	15,400

station skew = 0.300

Duration table of daily mean flow for period of record, 1953-1972

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
52.3	24.3	9.05	5.96	4.37	3.37	2.26	1.67	1.28	0.95	0.66	0.36	0.00	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1954-1972

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.06	0.00	0.00	0.00
3	0.09	0.00	0.00	0.00
7	0.10	0.00	0.00	0.00
10	0.14	0.00	0.00	0.00
30	0.36	0.00	0.00	0.00
60	0.42	0.05	0.01	0.00

Magnitude and probability of annual low flow based on period of record, 1953-1972 spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.68	0.23	0.00	0.00
3	0.82	0.27	0.00	0.00
7	1.04	0.31	0.06	0.00
10	1.08	0.34	0.13	0.00
30	1.86	0.63	0.33	0.00
60	3.73	1.00	0.47	0.24

Magnitude and probability of annual low flow based on period of record, 1953-1971   summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.06	0.00	0.00	0.00
3	0.10	0.00	0.00	0.00
7	0.10	0.00	0.00	0.00
10	0.14	0.00	0.00	0.00
30	0.37	0.00	0.00	0.00
60	0.54	0.07	0.01	0.00

Magnitude and probability of annual low flow based on period of record, 1953-1972 winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.57	0.13	0.00	0.00
3	0.68	0.18	0.00	0.00
7	0.87	0.27	0.00	0.00
10	0.92	0.28	0.00	0.00
30	1.21	0.29	0.00	0.00
60	1.46	0.29	0.07	0.00

RED RIVER BASIN

07323000 SANDSTONE CREEK NEAR CHEYENNE, OKLA.

LOCATION. – Lat 35°33′10″, long 99°31′50″, referenced to North American Datum of 1927, on west line of NW ¼ NW ¼ sec. 20, T.12 N., R.22W., Roger Mills County, Okla., Hydrologic Unit 11130301, on left bank 50 ft downstream from county road bridge, 5.5 mi northeast of Berlin.

DRAINAGE AREA. – 87.1 mi².

PERIOD OF RECORD.–October 1951 to June 1974.

REMARKS.–Some diversion for irrigation above station. Flow regulated since 1951 by numerous floodwater-retarding structures.

REGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1952-1974

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	32.7	0.00	5.83	2.38	7.7
Nov.	14.4	0.04	3.39	1.79	4.5
Dec.	22.6	0.05	4.11	2.22	5.5
Jan.	16.7	0.03	3.54	2.23	4.7
Feb.	33.0	0.10	4.49	2.19	6.0
Mar.	24.4	0.17	4.22	2.68	5.6
Apr.	42.3	0.00	8.01	4.78	10.6
May	127	0.00	17.6	7.98	23.3
Jun.	62.7	0.50	11.5	8.14	15.3
Jul.	29.4	0.00	5.25	1.89	7.0
Aug.	25.2	0.00	3.32	1.32	4.4
Sep.	16.2	0.00	4.02	1.77	5.3
Annual	17.2	0.69	6.33	4.95	–

Magnitude and probability of annual instantaneous peak flow based on 23 years of record, 1951-1973

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
1,250	2,520	3,560	5,060	6,300	7,610	11,000

station skew = -0.278

Duration table of daily mean flow for period of record, 1952-1974

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
85.5	44.4	19.1	10.7	7.88	6.19	4.12	2.83	1.94	1.28	0.70	0.27	0.00	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1953-1974

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.06	0.00	0.00	0.00
3	0.06	0.00	0.00	0.00
7	0.11	0.00	0.00	0.00
10	0.13	0.00	0.00	0.00
30	0.26	0.00	0.00	0.00
60	0.52	0.03	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1952-1974 spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.90	0.23	0.05	0.00
3	0.97	0.24	0.05	0.00
7	1.12	0.28	0.06	0.00
10	1.28	0.33	0.06	0.00
30	3.10	0.81	0.33	0.07
60	6.47	2.16	1.10	0.37

Magnitude and probability of annual low flow based on period of record, 1952-1973   summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.08	0.00	0.00	0.00
3	0.09	0.00	0.00	0.00
7	0.13	0.00	0.00	0.00
10	0.15	0.00	0.00	0.00
30	0.30	0.00	0.00	0.00
60	0.67	0.10	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1952-1974 winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.82	0.00	0.00	0.00
3	0.95	0.07	0.00	0.00
7	1.11	0.10	0.00	0.00
10	1.25	0.12	0.00	0.00
30	1.33	0.26	0.10	0.04
60	1.73	0.38	0.15	0.06

RED RIVER BASIN

07324200 WASHITA RIVER NEAR HAMMON, OKLA.

LOCATION. – Lat 35°39′23″, long 99°18′21″, referenced to North American Datum of 1927, in sec. 26, T.14 N., R.20 W., Custer County, Okla., Hydrologic Unit 11130301, on right bank near county road bridge, 2.2 mi downstream from Quartermaster Creek, 4.7 mi northeast of Hammon, and at mile 494.5.

DRAINAGE AREA. – 1,387 mi².

PERIOD OF RECORD.–October 1969 to September 1987, October 1989 to current year.

REMARKS.–Flow regulated since 1961 by numerous floodwater-retarding structures.

REGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1970-2007					
Month	**Maximum**	**Minimum**	**Mean**	**Median**	**Average % of Annual Runoff**
Oct.	384	0.00	36.5	8.81	4.7
Nov.	254	0.00	41.0	16.0	5.3
Dec.	258	0.00	37.0	20.6	4.8
Jan.	342	0.00	45.5	25.9	5.9
Feb.	299	0.00	52.8	30.9	6.8
Mar.	548	0.00	77.0	42.4	10.0
Apr.	528	0.00	91.8	52.1	11.9
May	755	0.01	158	61.2	20.4
Jun.	502	0.00	129	99.5	16.7
Jul.	158	0.03	37.7	29.8	4.9
Aug.	170	0.00	27.3	14.1	3.5
Sep.	450	0.00	40.0	12.4	5.2
Annual	262	0.49	64.4	38.1	–

Magnitude and probability of annual instantaneous peak flow based on 36 years of record, 1970-2007						
Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent						
2	**5**	**10**	**25**	**50**	**100**	**500**
50%	**20%**	**10%**	**4%**	**2%**	**1%**	**0.2%**
1,090	2,180	3,080	4,400	5,490	6,680	9,780

station skew = -0.223

Duration table of daily mean flow for period of record, 1970-2007																
Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time																
1%	**2%**	**5%**	**10%**	**15%**	**20%**	**30%**	**40%**	**50%**	**60%**	**70%**	**80%**	**90%**	**95%**	**98%**	**99%**
735	462	260	149	103	79.0	50.3	35.0	24.5	16.0	8.97	2.83	0.19	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1971-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	1.01	0.00	0.00	0.00
3	1.10	0.00	0.00	0.00
7	1.30	0.00	0.00	0.00
10	1.44	0.00	0.00	0.00
30	2.19	0.10	0.00	0.00
60	4.66	0.31	0.02	0.00

Magnitude and probability of annual low flow based on period of record, 1970-2007 spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	17.0	2.85	0.68	0.00
3	18.1	3.14	0.77	0.00
7	20.3	3.86	1.08	0.00
10	22.2	4.43	1.28	0.00
30	61.6	10.8	1.79	0.15
60	97.5	21.7	6.93	2.21

Magnitude and probability of annual low flow based on period of record, 1970-2006   summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	1.36	0.00	0.00	0.00
3	1.46	0.00	0.00	0.00
7	1.64	0.00	0.00	0.00
10	1.79	0.00	0.00	0.00
30	2.19	0.10	0.01	0.00
60	4.66	0.32	0.05	0.01

Magnitude and probability of annual low flow based on period of record, 1970-2007 winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	7.57	0.82	0.00	0.00
3	9.61	0.82	0.02	0.00
7	9.75	0.83	0.04	0.00
10	9.98	0.92	0.06	0.00
30	12.9	1.61	0.15	0.00
60	20.6	2.29	0.31	0.00

RED RIVER BASIN

07324400 WASHITA RIVER NEAR FOSS, OKLA.

LOCATION. – Lat 35°32′20″, long 99°10′10″, referenced to North American Datum of 1927, in SW ¼ SW ¼ sec. 1, T.12 N., R.19 W., Custer County, Okla., Hydrologic Unit 11130302, on right bank at downstream side county road bridge, 0.4 mi downstream from Oak Creek, 0.9 mi downstream from Foss Dam, 2.5 mi west of Stafford, 6.0 mi north of Foss, and at mile 473.5.

DRAINAGE AREA. – 1,551 mi².

PERIOD OF RECORD.–March 1956 to April 1957, February to December 1958, July 1961 to September 1987, October 1989 to current year.

REMARKS.–Flow completely regulated since 1961 by Foss Reservoir (station 07324300), except for 55 mi² intervening area.

REGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1962-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	598	0.15	47.3	6.92	6.8
Nov.	278	0.28	25.6	7.87	3.6
Dec.	298	0.36	25.2	7.28	3.6
Jan.	633	0.56	45.9	7.08	6.6
Feb.	342	0.60	44.7	6.82	6.4
Mar.	297	0.57	49.3	9.30	7.0
Apr.	607	1.62	70.8	11.2	10.1
May	622	1.08	108	18.4	15.5
Jun.	763	1.28	141	25.8	20.1
Jul.	385	2.27	58.1	11.8	8.3
Aug.	579	3.12	49.5	9.66	7.1
Sep.	444	0.46	35.4	7.08	5.0
Annual	373	3.87	58.5	20.9	–

Magnitude and probability of annual instantaneous peak flow based on 44 years of record, 1962-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
857	1,470	1,880	2,400	2,770	3,120	3,900

station skew = -0.530

Duration table of daily mean flow for period of record, 1962-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
779	616	397	205	78.1	23.9	12.4	9.54	7.61	6.39	5.23	4.21	2.53	1.06	0.39	0.27

Magnitude and probability of annual low flow based on period of record, 1963-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	2.29	0.67	0.30	0.14
3	2.50	0.76	0.35	0.17
7	2.77	0.87	0.41	0.20
10	2.94	0.96	0.46	0.23
30	3.43	1.19	0.66	0.40
60	4.22	1.62	0.96	0.61

Magnitude and probability of annual low flow based on period of record, 1962-2007 spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	4.60	1.73	1.06	0.71
3	4.84	1.92	1.21	0.84
7	5.66	2.16	1.42	1.04
10	6.14	2.26	1.47	1.09
30	10.3	3.52	2.25	1.64
60	26.4	7.38	3.96	2.42

Magnitude and probability of annual low flow based on period of record, 1962-2006   summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	2.71	0.76	0.33	0.15
3	2.92	0.86	0.38	0.18
7	3.16	0.97	0.44	0.21
10	3.36	1.08	0.50	0.24
30	3.78	1.22	0.68	0.42
60	4.74	2.02	1.42	1.10

Magnitude and probability of annual low flow based on period of record, 1962-2007 winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	4.03	1.61	0.91	0.54
3	4.44	1.89	1.11	0.68
7	4.45	1.91	1.21	0.82
10	4.48	1.95	1.27	0.90
30	5.18	2.28	1.52	1.11
60	5.68	2.35	1.62	1.25

RED RIVER BASIN

07325000 WASHITA RIVER NEAR CLINTON, OKLA.

LOCATION. – Lat 35°31′51″, long 98°58′00″, referenced to North American Datum of 1927, in SW ¼ NE ¼ sec. 11, T.12 N., R.17 W., Custer County, Okla., Hydrologic Unit 11130302, on downstream side of bridge on U.S. Highway 183, 0.5 mi north of Clinton, 0.8 mi upstream from Beaver Creek, 4.8 mi downstream from Barnitz Creek, and at mile 447.4.

DRAINAGE AREA. – 1,977 mi².

PERIOD OF RECORD.–October 1935 to current year. Monthly discharge only for some periods, published in WSP 1311.

REMARKS.–Flow regulated since February 1961 by Foss Reservoir (station 07324300) and by numerous floodwater-retarding structures.

UNREGULATED STREAMFLOW PERIOD

[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1936-1960

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	906	0.07	122	28.9	7.0
Nov.	267	0.21	44.1	22.4	2.5
Dec.	250	1.40	35.5	14.4	2.0
Jan.	164	0.56	36.1	22.5	2.1
Feb.	412	2.07	59.1	24.0	3.4
Mar.	252	1.55	54.4	28.3	3.1
Apr.	882	2.70	208	122	11.9
May	1,859	16.8	543	210	31.0
Jun.	1,232	18.7	364	248	20.8
Jul.	581	0.37	135	110	7.7
Aug.	311	0.00	76.8	60.9	4.4
Sep.	367	0.00	73.5	18.8	4.2
Annual	341	22.5	146	121	–

Magnitude and probability of annual instantaneous peak flow based on 27 years of record, 1934-1960

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
7,650	18,200	30,000	53,100	78,500	113,000	247,000

Oklahoma weighted skew = 0.507

Duration table of daily mean flow for period of record, 1936-1960

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
2,390	1,490	551	240	155	111	60.6	38.2	25.0	16.8	11.0	5.88	2.27	0.68	0.05	0.02

Magnitude and probability of annual low flow based on period of record, 1937-1960

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	2.91	0.00	0.00	0.00
3	3.58	0.14	0.00	0.00
7	3.60	0.27	0.00	0.00
10	3.62	0.32	0.00	0.00
30	6.76	1.14	0.00	0.00
60	11.1	2.52	0.52	0.00

Magnitude and probability of annual low flow based on period of record, 1936-1960 spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	13.6	2.19	0.50	0.04
3	14.6	2.60	0.79	0.25
7	16.5	3.14	1.03	0.36
10	19.5	3.96	1.37	0.50
30	62.9	15.3	6.62	3.13
60	236	79.7	42.8	24.9

Magnitude and probability of annual low flow based on period of record, 1936-1959   summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	3.08	0.00	0.00	0.00
3	3.63	0.14	0.00	0.00
7	3.65	0.27	0.00	0.00
10	3.66	0.32	0.00	0.00
30	7.34	1.14	0.00	0.00
60	21.4	4.07	0.65	0.00

Magnitude and probability of annual low flow based on period of record, 1936-1960 winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	7.44	1.34	0.37	0.05
3	7.87	1.46	0.49	0.18
7	9.20	2.08	0.81	0.34
10	9.79	2.23	0.87	0.36
30	12.0	3.09	1.33	0.62
60	13.4	4.14	2.16	1.24

RED RIVER BASIN

07325000 WASHITA RIVER NEAR CLINTON, OKLA.—Continued

REGULATED STREAMFLOW PERIOD

[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges and average percent of annual runoff, based on period of record, 1962-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	1,477	3.30	106	28.4	7.1
Nov.	494	4.23	74.0	31.4	5.0
Dec.	504	5.68	61.7	31.0	4.2
Jan.	742	4.78	79.2	30.1	5.4
Feb.	574	7.00	90.4	32.0	6.1
Mar.	654	6.24	109	45.2	7.4
Apr.	1,112	9.64	135	46.4	9.1
May	1,256	4.10	230	87.6	15.5
Jun.	1,190	4.44	255	116	17.2
Jul.	705	6.42	114	43.1	7.7
Aug.	1,061	6.01	107	32.0	7.2
Sep.	1,519	5.87	119	27.5	8.0
Annual	696	13.8	123	71.0	–

Magnitude and probability of annual instantaneous peak flow based on 46 years of record, 1962-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
15%	5%	10%	4%	2%	1%	0.2%
2,020	4,080	5,820	8,400	10,600	13,000	19,500

station skew = -0.171

Duration table of daily mean flow for period of record, 1962-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
1,190	972	600	359	210	128	64.5	43.6	33.0	25.5	20.0	14.6	8.90	5.63	3.43	2.33

Magnitude and probability of annual low flow based on period of record, 1963-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	8.85	2.26	0.81	0.10
3	9.58	2.61	1.02	0.37
7	11.1	3.02	1.25	0.54
10	11.2	3.39	1.64	0.84
30	11.2	5.50	3.99	3.14
60	14.7	7.79	5.94	4.88

Magnitude and probability of annual low flow based on period of record, 1962-2007 spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	24.3	7.99	4.22	2.41
3	24.7	9.04	5.28	3.36
7	26.3	9.75	6.07	4.20
10	28.4	10.6	6.64	4.63
30	41.8	16.1	10.3	7.29
60	91.1	33.8	20.3	13.4

Magnitude and probability of annual low flow based on period of record, 1962-2006 summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	9.25	2.34	0.84	0.12
3	9.96	2.63	1.02	0.37
7	11.1	3.04	1.25	0.54
10	11.2	3.46	1.66	0.85
30	11.6	5.51	4.08	3.31
60	17.1	9.15	7.34	6.41

Magnitude and probability of annual low flow based on period of record, 1962-2007 winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	18.0	7.99	5.16	3.58
3	18.6	8.79	6.02	4.43
7	19.7	9.39	6.50	4.85
10	20.0	9.64	6.76	5.10
30	24.0	11.4	7.90	5.92
60	26.5	12.3	8.70	6.68

RED RIVER BASIN

07325500 WASHITA RIVER AT CARNEGIE, OKLA.

LOCATION. – Lat 35°07′02″, long 98°33′49″, referenced to North American Datum of 1927, in NW ¼ NW ¼ sec. 3, T.7 N., R.13 W., Caddo County, Okla., Hydrologic Unit 11130302, on downstream side of left abutment of bridge on State Highway 9, 1,300 ft upstream from Running Creek, 2.7 mi east of Carnegie, and at mile 353.9. Records include flow of Running Creek.

DRAINAGE AREA. – 3,129 mi².

PERIOD OF RECORD.–October 1937 to September 2006.

REMARKS.–Some diversion for irrigation upstream from station. October 1942 to May 1949, occasional fluctuation caused by powerplant at Carnegie, 7.5 mi upstream from station. Flow regulated by Foss Reservoir since February 1961 (station 07324300), and by numerous flood-retarding structures.

UNREGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1938-1960

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	2,053	4.12	332	74.5	8.8
Nov.	431	10.8	93.2	58.0	2.5
Dec.	636	15.4	98.4	55.1	2.6
Jan.	385	15.1	85.6	57.4	2.3
Feb.	913	13.4	127	59.7	3.4
Mar.	438	16.0	120	73.8	3.2
Apr.	2,028	29.2	455	187	12.1
May	3,359	42.0	1,045	375	27.8
Jun.	2,561	66.2	752	532	20.0
Jul.	1,349	38.9	349	224	9.3
Aug.	868	3.87	170	131	4.5
Sep.	584	1.42	127	75.5	3.4
Annual	706	87.5	314	280	–

Magnitude and probability of annual instantaneous peak flow based on 48 historic years of record, 1913-1960

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
6,970	12,800	18,100	26,600	34,500	44,000	73,400

Water Resources Council weighted skew = 0.380

Duration table of daily mean flow for period of record, 1938-1960

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
4,760	3,190	1,430	582	353	251	146	95.1	69.8	55.8	43.3	31.0	18.7	13.3	6.73	3.68

Magnitude and probability of annual low flow based on period of record, 1939-1960

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	21.2	6.21	2.33	0.85
3	20.5	6.60	2.91	1.31
7	22.0	7.38	3.79	2.01
10	23.0	7.84	4.04	2.15
30	30.5	10.6	5.46	2.99
60	42.7	14.4	7.06	3.62

Magnitude and probability of annual low flow based on period of record, 1938-1960 spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	38.8	18.7	12.7	9.28
3	42.2	20.9	14.4	10.6
7	48.3	24.2	17.1	13.0
10	52.9	26.5	18.8	14.2
30	132	55.8	36.9	26.8
60	497	199	121	78.8

Magnitude and probability of annual low flow based on period of record, 1938-1959   summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	23.6	6.42	2.35	0.85
3	24.5	6.85	2.96	1.31
7	26.0	7.56	3.80	2.01
10	27.0	8.05	4.06	2.15
30	33.2	11.0	5.58	3.02
60	63.0	17.8	7.93	3.76

Magnitude and probability of annual low flow based on period of record, 1938-1960 winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	29.7	15.0	10.4	7.57
3	32.1	16.0	11.0	7.90
7	34.0	17.0	11.8	8.69
10	34.6	17.5	12.3	9.22
30	39.0	21.1	15.4	12.0
60	43.9	23.6	17.9	14.6

RED RIVER BASIN

07325500 WASHITA RIVER AT CARNEGIE, OKLA.—Continued

REGULATED STREAMFLOW PERIOD

[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges and average percent of annual runoff, based on period of record, 1962-2006

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	5,311	21.8	408	156	8.8
Nov.	1,471	27.3	292	165	6.3
Dec.	1,032	33.6	221	153	4.8
Jan.	1,100	36.0	219	141	4.7
Feb.	1,127	36.6	244	150	5.3
Mar.	2,255	34.2	388	174	8.4
Apr.	2,832	11.1	386	213	8.3
May	5,356	10.0	783	376	16.9
Jun.	4,994	94.0	808	493	17.4
Jul.	1,150	7.10	280	143	6.1
Aug.	1,760	14.6	256	144	5.5
Sep.	2,468	15.6	343	124	7.4
Annual	1,432	72.8	386	295	–

Magnitude and probability of annual instantaneous peak flow based on 46 years of record, 1962-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
15%	5%	10%	4%	2%	1%	0.2%
5,480	11,100	16,700	27,000	37,500	51,100	99,500

station skew = 0.599

Duration table of daily mean flow for period of record, 1962-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
4,390	2,860	1,520	857	602	447	261	182	138	110	85.6	61.8	39.4	27.5	17.2	10.4

Magnitude and probability of annual low flow based on period of record, 1963-2006

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	36.9	9.28	3.33	1.08
3	37.3	10.0	3.86	1.37
7	39.5	11.7	4.99	1.98
10	40.7	13.2	6.17	2.77
30	51.6	22.6	14.3	9.66
60	69.3	35.5	24.9	18.6

Magnitude and probability of annual low flow based on period of record, 1962-2006 spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	116	44.6	23.4	12.7
3	116	46.5	25.8	14.9
7	120	48.7	28.6	17.8
10	123	50.6	30.5	19.6
30	179	79.6	52.4	37.1
60	385	153	89.7	56.3

Magnitude and probability of annual low flow based on period of record, 1962-2005 summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	37.8	9.28	3.33	1.08
3	38.2	10.0	3.86	1.37
7	40.5	11.7	4.95	1.98
10	41.8	13.4	6.32	2.88
30	53.3	23.2	15.2	10.8
60	76.8	38.1	28.0	22.3

Magnitude and probability of annual low flow based on period of record, 1962-2006 winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	72.4	38.2	27.9	21.7
3	78.8	41.9	30.5	23.5
7	83.8	44.6	32.4	24.9
10	86.2	46.0	33.4	25.7
30	102	55.1	40.6	31.8
60	116	61.7	45.6	36.0

RED RIVER BASIN

07325800 COBB CREEK NEAR EAKLY, OKLA.

LOCATION. – Lat 35°17′26″, long 98°35′38″, referenced to North American Datum of 1927, in NW ¼ NE ¼ sec. 5, T.9 N., R.13 W., Caddo County, Okla., Hydrologic Unit 11130302, near left downstream abutment of bridge, on State Highway 152, 0.5 mi downstream from Fivemile Creek, 2.4 mi southwest of Eakly, 3.0 mi upstream from Fort Cobb Reservoir, and at mile 22.9.

DRAINAGE AREA. – 132 mi².

PERIOD OF RECORD.–October 1968 to current year.

REMARKS.–Flow regulated since 1957 by numerous floodwater-retarding structures.

REGULATED STREAMFLOW PERIOD

[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1969-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	317	4.34	28.4	14.7	7.9
Nov.	104	6.11	26.3	18.2	7.3
Dec.	84.9	4.88	24.1	18.4	6.7
Jan.	50.2	8.78	21.0	19.9	5.8
Feb.	55.1	8.99	21.6	18.5	6.0
Mar.	138	8.38	34.4	23.3	9.6
Apr.	140	5.27	28.4	21.1	7.9
May	303	2.79	57.5	34.0	16.0
Jun.	292	7.84	58.4	32.5	16.2
Jul.	85.1	1.01	17.0	9.66	4.7
Aug.	205	0.90	22.9	9.81	6.4
Sep.	161	2.15	20.5	11.4	5.7
Annual	91.0	10.1	30.1	25.3	–

Magnitude and probability of annual instantaneous peak flow based on 39 years of record, 1969-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
2,150	4,690	7,110	11,100	14,900	19,400	33,200

station skew = 0.074

Duration table of daily mean flow for period of record, 1969-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
325	210	71.3	40.0	32.2	27.7	22.8	18.8	15.7	13.3	11.1	8.36	5.31	3.68	2.26	1.17

Magnitude and probability of annual low flow based on period of record, 1970-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	4.08	1.24	0.39	0.00
3	4.44	1.32	0.54	0.17
7	4.65	1.53	0.64	0.27
10	4.78	1.75	0.86	0.43
30	6.02	2.94	1.90	1.28
60	7.43	4.13	3.01	2.30

Magnitude and probability of annual low flow based on period of record, 1969-2007 spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	11.3	7.14	5.40	4.06
3	11.7	7.53	5.78	4.44
7	13.0	8.00	6.00	5.20
10	14.0	8.60	6.50	5.50
30	18.6	10.8	8.00	6.18
60	31.6	16.2	11.5	8.61

Magnitude and probability of annual low flow based on period of record, 1969-2006 summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	4.59	1.24	0.39	0.10
3	4.44	1.32	0.55	0.23
7	4.65	1.60	0.77	0.38
10	4.78	1.80	0.95	0.52
30	6.15	3.00	1.94	1.32
60	7.70	4.19	3.06	2.36

Magnitude and probability of annual low flow based on period of record, 1969-2007 winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	11.8	7.49	5.75	4.57
3	12.2	7.90	6.15	4.94
7	12.9	8.50	6.70	5.45
10	13.2	8.74	6.92	5.64
30	14.7	9.84	7.86	6.48
60	16.2	11.0	8.85	7.37

RED RIVER BASIN

07325850 LAKE CREEK NEAR EAKLY, OKLA.

LOCATION. – Lat 35°17′27″, long 98°31′44″, referenced to North American Datum of 1927, in NE ¼ NW ¼ sec. 1, T.9 N., R.13 W., Caddo County, Okla., Hydrologic Unit 11130302, on downstream side of bridge on State Highway 152, 2.0 mi southeast of Eakly, 2.7 mi upstream from Fort Cobb Reservoir, and at mile 4.2.

DRAINAGE AREA. – 59.6 mi².

PERIOD OF RECORD.–October 1969 to June 1978, December 2004 to current year.

UNREGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1970-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	8.04	0.03	2.79	2.01	2.9
Nov.	33.8	0.08	5.70	2.87	5.9
Dec.	12.1	0.32	4.39	3.37	4.5
Jan.	10.8	1.73	4.96	4.20	5.1
Feb.	14.3	2.99	5.84	4.63	6.0
Mar.	36.9	1.91	9.09	5.54	9.4
Apr.	20.0	1.08	7.19	4.42	7.4
May	139	1.38	21.2	5.04	21.9
Jun.	52.7	0.66	14.2	8.02	14.7
Jul.	41.2	0.00	6.49	1.93	6.7
Aug.	93.2	0.00	12.0	1.31	12.4
Sep.	10.5	0.00	2.95	2.24	3.0
Annual	19.7	3.17	8.34	5.47	–

Magnitude and probability of annual instantaneous peak flow based on 12 years of record, 1970-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
867	2,720	5,240	11,100	18,500	29,900	83,000

Oklahoma weighted skew = 0.486

Duration table of daily mean flow for period of record, 1970-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
122	63.6	20.3	9.89	7.30	5.93	4.70	3.72	2.88	2.09	1.26	0.35	0.02	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1971-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.05	0.00	0.00	0.00
60	0.32	0.04	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1970-2007 spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.63	0.05	0.00	0.00
3	0.77	0.08	0.00	0.00
7	1.01	0.17	0.05	0.02
10	1.32	0.23	0.07	0.02
30	4.02	1.63	0.79	0.37
60	8.41	2.92	1.59	0.94

Magnitude and probability of annual low flow based on period of record, 1970-2006   summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.05	0.00	0.00	0.00
60	0.32	0.04	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1970-2007 winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	1.27	0.31	0.11	0.04
3	1.41	0.36	0.13	0.05
7	1.63	0.43	0.16	0.06
10	1.76	0.48	0.18	0.07
30	2.60	0.93	0.40	0.17
60	3.02	1.23	0.64	0.34

RED RIVER BASIN

07326000 COBB CREEK NEAR FORT COBB, OKLA.

LOCATION. – Lat 35°08′37″, long 98°26′33″, referenced to North American Datum of 1927, in NE ¼ NE ¼ sec. 27, T.8 N., R.12 W., Caddo County, Okla., Hydrologic Unit 11130302, on left bank 10 ft upstream from county road bridge, 0.3 mi upstream from Punjo Creek, 2.3 mi downstream from Fort Cobb Dam, 3.0 mi north of Fort Cobb, and at mile 5.8.

DRAINAGE AREA. – 307 mi².

PERIOD OF RECORD.–October 1939 to current year. Monthly discharge only for some periods, published in WSP 1311. Prior to October 1960, published as "Pond Creek near Fort Cobb".

REMARKS.–Flow regulated since March 1959, by Fort Cobb Reservoir (station 07325900).

UNREGULATED STREAMFLOW PERIOD

[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1940-1958

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	193	5.36	35.1	18.7	5.8
Nov.	54.2	9.18	25.9	23.9	4.3
Dec.	56.5	12.3	32.1	28.7	5.3
Jan.	55.8	14.3	34.2	35.6	5.7
Feb.	112	18.4	40.8	39.8	6.8
Mar.	98.5	19.1	41.8	38.3	6.9
Apr.	240	25.9	75.1	43.5	12.5
May	676	15.0	121	98.1	20.2
Jun.	306	8.04	101	98.5	16.7
Jul.	172	5.56	52.1	21.0	8.6
Aug.	94.8	1.18	21.5	14.1	3.6
Sep.	89.6	0.52	21.8	14.7	3.6
Annual	98.7	26.3	50.2	49.0	–

Magnitude and probability of annual instantaneous peak flow based on 22 historic years of record, 1937-1958

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
4,220	10,200	17,200	31,200	47,000	68,900	157,000

Oklahoma weighted skew = 0.556

Duration table of daily mean flow for period of record, 1940-1958

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
636	345	108	59.3	48.5	43.2	36.0	30.8	26.2	22.3	18.0	13.1	8.52	5.68	2.64	1.72

Magnitude and probability of annual low flow based on period of record, 1941-1958			
Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	7.68	3.11	1.51	0.72
3	7.97	3.23	1.56	0.74
7	8.41	3.39	1.68	0.82
10	8.74	3.52	1.75	0.86
30	10.3	4.49	2.45	1.34
60	13.0	5.52	3.01	1.67

Magnitude and probability of annual low flow based on period of record, 1940-1958 spring season, April 1 through May 31			
Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	19.6	13.5	10.8	8.73
3	20.2	14.0	11.2	9.13
7	21.7	15.6	12.7	10.5
10	22.6	16.4	13.4	11.2
30	31.0	21.0	17.9	16.0
60	75.6	42.0	31.2	24.6

Magnitude and probability of annual low flow based on period of record, 1940-1957 summer season, June 1 through October 31			
Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	7.68	3.11	1.51	0.72
3	7.97	3.23	1.56	0.74
7	8.41	3.39	1.68	0.82
10	8.74	3.52	1.75	0.86
30	10.3	4.49	2.45	1.34
60	13.6	5.56	3.01	1.67

Magnitude and probability of annual low flow based on period of record, 1940-1958 winter season, November 1 through March 31			
Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	15.9	10.8	8.70	7.26
3	17.5	11.7	9.27	7.60
7	19.0	12.4	9.67	7.82
10	19.5	12.7	9.93	8.02
30	23.1	15.3	12.1	9.90
60	26.8	18.2	14.5	11.8

RED RIVER BASIN

07326000 COBB CREEK NEAR FORT COBB, OKLA.—Continued

REGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges and average percent of annual runoff, based on period of record, 1960-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	345	1.41	20.0	2.73	4.7
Nov.	538	1.47	24.5	3.36	5.7
Dec.	194	1.50	18.7	3.08	4.4
Jan.	139	1.70	22.2	2.87	5.2
Feb.	131	2.08	22.6	3.77	5.3
Mar.	312	2.12	36.9	3.96	8.6
Apr.	237	2.01	32.8	4.07	7.7
May	429	1.50	49.4	6.89	11.6
Jun.	779	1.90	114	45.6	26.7
Jul.	353	0.78	35.1	3.08	8.2
Aug.	368	1.48	24.0	2.94	5.6
Sep.	468	1.60	27.5	2.91	6.4
Annual	176	2.34	35.6	22.5	–

Magnitude and probability of annual instantaneous peak flow based on 48 years of record, 1960-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
15%	5%	10%	4%	2%	1%	0.2%
522	999	1,320	1,710	1,970	2,220	2,710

station skew = -0.777

Duration table of daily mean flow for period of record, 1960-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
727	455	205	79.0	19.6	5.86	4.13	3.55	3.18	2.81	2.55	2.29	1.89	1.65	1.33	1.19

Magnitude and probability of annual low flow based on period of record, 1961-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	1.59	0.95	0.66	0.46
3	1.72	1.07	0.75	0.53
7	1.80	1.21	0.85	0.60
10	1.84	1.27	1.00	0.81
30	2.09	1.50	1.28	1.06
60	2.25	1.69	1.53	1.44

Magnitude and probability of annual low flow based on period of record, 1960-2007 spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	2.41	1.74	1.44	1.22
3	2.50	1.88	1.61	1.41
7	2.62	2.04	1.79	1.60
10	2.67	2.07	1.85	1.71
30	4.23	3.00	2.00	1.80
60	13.6	4.10	2.29	1.90

Magnitude and probability of annual low flow based on period of record, 1960-2006 summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	1.71	1.02	0.70	0.48
3	1.82	1.12	0.78	0.54
7	1.94	1.23	0.86	0.60
10	2.00	1.27	1.00	0.81
30	2.09	1.50	1.28	1.14
60	2.28	1.75	1.67	1.64

Magnitude and probability of annual low flow based on period of record, 1960-2007 winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	2.12	1.50	1.24	1.06
3	2.16	1.63	1.43	1.28
7	2.25	1.76	1.59	1.47
10	2.26	1.81	1.67	1.58
30	2.66	1.83	1.69	1.65
60	3.67	1.85	1.71	1.67

RED RIVER BASIN

07326500 WASHITA RIVER AT ANADARKO, OKLA.

LOCATION. – Lat 35°05′03″, long 98°14′35″, referenced to North American Datum of 1927, in NW ¼ sec. 15, T.7 N., R.10 W., Caddo County, Okla., Hydrologic Unit 11130302, on right downstream bank at bridge on U.S. Highway 281 at north edge of Anadarko, 8.1 mi upstream from Sugar Creek, and at mile 305.2.

DRAINAGE AREA. – 3,656 mi².

PERIOD OF RECORD.–October 1902 to September 1908, June 1924 to June 1925 (published as "near Anadarko"), October 1935 to February 1938, October 1963 to current year. Monthly discharge only for some periods, published in WSP 1311.

REMARKS.–Flow regulated by low-water dams upstream and since March 1959, by Fort Cobb Reservoir (station 07325900), since February 1961, by Foss Reservoir (station 07324300), and since 1963 by numerous flood-retarding structures.

REGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1964-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	5,480	21.2	465	176	7.9
Nov.	2,205	37.0	353	215	6.0
Dec.	1,352	41.6	280	195	4.7
Jan.	1,213	52.0	279	174	4.7
Feb.	1,269	55.4	308	186	5.2
Mar.	2,981	50.6	482	252	8.2
Apr.	3,003	16.7	483	284	8.2
May	5,601	9.57	918	456	15.5
Jun.	5,843	85.7	1,105	671	18.7
Jul.	3,068	12.6	440	181	7.4
Aug.	3,802	19.7	392	135	6.6
Sep.	2,654	32.2	406	152	6.9
Annual	1,788	72.7	493	364	–

Magnitude and probability of annual instantaneous peak flow based on 44 years of record, 1964-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
4,660	10,200	16,700	30,300	46,100	69,000	169,000

station skew = 0.971

Duration table of daily mean flow for period of record, 1964-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
4,740	3,400	2,040	1,180	829	609	344	240	184	143	110	82.1	56.2	41.1	24.8	15.0

Magnitude and probability of annual low flow based on period of record, 1965-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	59.2	14.5	4.79	1.34
3	59.7	15.5	6.24	2.62
7	60.0	17.8	8.04	3.80
10	61.9	19.4	9.15	4.55
30	69.4	32.2	21.2	14.9
60	90.2	48.1	34.7	26.6

Magnitude and probability of annual low flow based on period of record, 1964-2007 spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	155	67.3	40.1	25.0
3	160	70.4	42.3	26.6
7	171	74.0	44.9	28.8
10	177	76.1	46.3	29.8
30	246	105	66.1	44.6
60	497	202	118	73.4

Magnitude and probability of annual low flow based on period of record, 1964-2006   summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	59.2	14.6	4.80	1.34
3	59.7	15.6	6.25	2.62
7	61.0	17.9	8.04	3.80
10	62.9	19.4	9.15	4.56
30	69.7	32.8	23.1	17.7
60	95.7	49.8	38.0	31.4

Magnitude and probability of annual low flow based on period of record, 1964-2007 winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	106	57.6	42.3	33.0
3	109	60.3	44.7	35.1
7	116	64.7	47.9	37.6
10	119	66.0	48.9	38.4
30	136	75.0	56.1	44.6
60	154	82.6	61.1	48.2

RED RIVER BASIN

07327000 SUGAR CREEK NEAR GRACEMONT, OKLA.

LOCATION. – Lat 35°10′30″, long 98°15′20″, referenced to North American Datum of 1927, in NW ¼ NE ¼ sec. 16, T.8 N., R.10W., Caddo County, Okla., Hydrologic Unit 11130302, on downstream side of county road bridge, 1.0 mi south of Gracemont, 2.1 mi downstream from Yellow Creek, 1.1 mi upstream from bridge on U.S. Highway 281, and at mile 9.9.

DRAINAGE AREA. – 208 mi².

PERIOD OF RECORD.–October 1955 to September 1974.

REMARKS.–Flow regulated since 1963 by numerous floodwater-retarding structures.

REGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1963-1974

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	24.4	0.00	6.18	2.59	3.6
Nov.	32.5	1.18	7.01	3.73	4.1
Dec.	23.7	1.66	9.29	8.14	5.4
Jan.	17.8	3.43	8.12	6.81	4.7
Feb.	30.1	4.97	12.4	9.66	7.2
Mar.	71.1	1.25	18.0	10.5	10.4
Apr.	60.2	1.70	21.3	14.3	12.3
May	177	1.67	33.0	20.2	19.1
Jun.	49.1	0.29	21.2	22.4	12.3
Jul.	13.9	0.00	2.77	0.60	1.6
Aug.	16.4	0.00	4.62	0.53	2.7
Sep.	235	0.00	28.8	7.82	16.7
Annual	34.3	3.48	14.4	11.8	–

Magnitude and probability of annual instantaneous peak flow based on 12 years of record, 1963-1974

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
1,480	3,740	5,980	9,800	13,400	17,700	30,900

station skew = -0.111

Duration table of daily mean flow for period of record, 1963-1974

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
158	86.5	42.2	25.7	18.6	14.4	9.88	7.16	5.15	3.24	1.64	0.52	0.05	0.02	0.01	0.00

Magnitude and probability of annual low flow based on period of record, 1964-1974

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.09	0.00	0.00	0.00
60	0.50	0.05	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1963-1974 spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	1.01	0.12	0.00	0.00
3	1.25	0.21	0.00	0.00
7	2.21	0.41	0.05	0.00
10	2.66	0.47	0.14	0.05
30	8.30	2.68	1.23	0.59
60	18.9	5.90	2.86	1.47

Magnitude and probability of annual low flow based on period of record, 1963-1973   summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
30	0.09	0.00	0.00	0.00
60	0.56	0.05	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1963-1974 winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.53	0.06	0.00	0.00
3	0.60	0.07	0.00	0.00
7	1.16	0.36	0.19	0.12
10	1.74	0.61	0.36	0.22
30	3.22	1.61	1.15	0.88
60	5.01	2.98	2.34	1.94

RED RIVER BASIN

073274406 LITTLE WASHITA RIVER ABOVE SOIL CONSERVATION SERVICE POND NO. 26 NEAR CYRIL, OKLA.

LOCATION. – Lat 34°54′53″, long 98°15′02″, referenced to North American Datum of 1927, in SW ¼ SW ¼ SW ¼ sec. 10, T.5 N., R.10 W., Caddo County, Okla., Hydrologic Unit 11130302, on right downstream bank of county road, 3.0 mi west, of Cyril, and at mile 29.6.

DRAINAGE AREA. – 3.44 mi².

PERIOD OF RECORD.–February 1995 to current year.

UNREGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1995-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	19.9	0.04	2.94	0.92	13.0
Nov.	3.34	0.05	1.10	0.85	4.8
Dec.	2.62	0.07	0.95	0.82	4.2
Jan.	7.18	0.14	1.24	0.57	5.5
Feb.	4.39	0.14	1.37	0.62	6.1
Mar.	11.9	0.15	2.39	2.00	10.6
Apr.	3.73	0.22	1.61	0.96	7.1
May	10.9	0.07	2.37	0.93	10.5
Jun.	23.0	0.00	4.35	1.50	19.3
Jul.	5.78	0.00	1.45	0.71	6.4
Aug.	11.6	0.03	1.68	0.41	7.5
Sep.	5.57	0.00	1.12	0.39	5.0
Annual	4.69	0.11	1.66	1.21	–

Magnitude and probability of annual instantaneous peak flow based on 13 years of record, 1995-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
372	1,340	2,730	6,000	10,200	16,500	45,500

Oklahoma weighted skew = 0.281

Duration table of daily mean flow for period of record, 1995-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
29.3	11.8	3.99	2.54	2.07	1.69	1.21	0.86	0.60	0.43	0.28	0.19	0.08	0.03	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1996-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.08	0.00	0.00	0.00
3	0.08	0.00	0.00	0.00
7	0.10	0.00	0.00	0.00
10	0.10	0.00	0.00	0.00
30	0.14	0.01	0.00	0.00
60	0.16	0.03	0.01	0.00

Magnitude and probability of annual low flow based on period of record, 1995-2007 spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.56	0.10	0.01	0.00
3	0.58	0.11	0.01	0.00
7	0.61	0.13	0.02	0.00
10	0.73	0.17	0.04	0.01
30	0.81	0.28	0.15	0.09
60	1.20	0.44	0.25	0.16

Magnitude and probability of annual low flow based on period of record, 1995-2006   summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.08	0.00	0.00	0.00
3	0.08	0.00	0.00	0.00
7	0.10	0.00	0.00	0.00
10	0.10	0.00	0.00	0.00
30	0.14	0.01	0.00	0.00
60	0.18	0.03	0.01	0.00

Magnitude and probability of annual low flow based on period of record, 1995-2007 winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.37	0.12	0.06	0.03
3	0.39	0.14	0.07	0.04
7	0.41	0.15	0.08	0.05
10	0.42	0.15	0.08	0.05
30	0.46	0.18	0.10	0.06
60	0.53	0.21	0.12	0.08

RED RIVER BASIN

07327442 LITTLE WASHITA RIVER NEAR CYRIL, OKLA.

LOCATION. – Lat 34°53′33″, long 98°13′58″, referenced to North American Datum of 1927, in SW ¼ NW ¼ sec. 23, T.5 N., R.10 W., Caddo County, Okla., Hydrologic Unit 11130302, on left bank 300 ft downstream from county road, 1.7 mi west of Cyril, 6.8 mi east of Apache, and at mile 28.0.

DRAINAGE AREA. – 11.6 mi².

PERIOD OF RECORD.–October 1992 to current year.

REMARKS.–Flow affected since 1971 by numerous flood retention reservoirs.

REGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1993-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	25.7	0.29	4.45	1.62	7.4
Nov.	11.6	0.46	3.70	3.73	6.2
Dec.	19.5	0.47	4.32	3.53	7.2
Jan.	16.7	0.52	4.39	2.97	7.4
Feb.	15.4	0.49	4.78	3.20	8.0
Mar.	22.8	0.46	6.80	5.00	11.4
Apr.	17.3	0.49	5.82	4.45	9.8
May	26.2	0.31	6.56	4.48	11.0
Jun.	46.3	0.03	8.95	2.64	15.0
Jul.	17.9	0.01	3.70	1.98	6.2
Aug.	23.7	0.01	3.27	0.98	5.5
Sep.	13.7	0.02	2.98	0.69	5.0
Annual	13.2	0.53	4.97	4.15	–

Magnitude and probability of annual instantaneous peak flow based on 15 years of record, 1993-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
388	1,120	1,740	2,580	3,200	3,790	5,010

station skew = -0.887

Duration table of daily mean flow for period of record, 1993-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
48.6	25.9	15.5	10.9	7.82	6.23	4.46	3.34	2.51	1.58	1.04	0.62	0.37	0.13	0.02	0.00

Magnitude and probability of annual low flow based on period of record, 1994-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.27	0.02	0.00	0.00
3	0.31	0.03	0.00	0.00
7	0.32	0.03	0.00	0.00
10	0.33	0.05	0.01	0.00
30	0.43	0.08	0.02	0.00
60	0.55	0.10	0.03	0.01

Magnitude and probability of annual low flow based on period of record, 1993-2007 spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	2.05	0.49	0.19	0.08
3	2.10	0.52	0.21	0.09
7	2.23	0.59	0.25	0.12
10	2.23	0.65	0.31	0.16
30	2.88	1.02	0.56	0.34
60	3.98	1.41	0.78	0.47

Magnitude and probability of annual low flow based on period of record, 1993-2006   summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.28	0.02	0.00	0.00
3	0.31	0.03	0.00	0.00
7	0.32	0.03	0.00	0.00
10	0.33	0.05	0.01	0.00
30	0.43	0.08	0.02	0.00
60	0.58	0.10	0.03	0.01

Magnitude and probability of annual low flow based on period of record, 1993-2007 winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	1.47	0.64	0.41	0.28
3	1.53	0.69	0.44	0.31
7	1.60	0.74	0.48	0.34
10	1.62	0.75	0.50	0.35
30	1.97	0.89	0.59	0.41
60	2.29	1.04	0.68	0.48

RED RIVER BASIN

07327447 LITTLE WASHITA RIVER NEAR CEMENT, OKLA.

LOCATION. – Lat 34°50′16″, long 98°07′27″, referenced to North American Datum of 1927, in NW ¼ NW ¼ sec. 11, T.4 N., R.9 W., Comanche County, Okla., Hydrologic Unit 11130302, on left bank near downstream side of county road bridge, 5 mi south of Cement, 7 mi east northeast of Fletcher, 8 mi northeast of Sterling, and at mile 23.7.

DRAINAGE AREA. – 61.9 mi².

PERIOD OF RECORD.–February 1992 to current year.

REMARKS.–Flow affected since 1971 by numerous flood retention reservoirs.

REGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1992-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	118	2.48	20.3	13.5	7.3
Nov.	37.4	3.76	15.4	15.5	5.5
Dec.	77.1	5.28	18.7	14.3	6.7
Jan.	73.3	4.32	19.6	13.7	7.0
Feb.	62.2	3.74	22.5	16.9	8.1
Mar.	97.6	5.75	29.4	26.8	10.6
Apr.	69.9	5.68	30.0	20.9	10.8
May	124	3.38	33.6	31.7	12.1
Jun.	244	0.41	43.4	21.9	15.6
Jul.	59.4	0.07	17.7	9.78	6.4
Aug.	88.9	0.20	14.8	4.83	5.3
Sep.	48.4	1.34	13.0	5.95	4.6
Annual	51.6	5.23	22.2	17.0	–

Magnitude and probability of annual instantaneous peak flow based on 15 years of record, 1993-2007

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
949	1,710	2,200	2,760	3,120	3,450	4,080

station skew = -0.836

Duration table of daily mean flow for period of record, 1992-2007

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
249	142	67.3	44.7	34.3	27.4	20.6	16.0	12.7	9.71	7.05	4.82	2.89	1.38	0.65	0.09

Magnitude and probability of annual low flow based on period of record, 1993-2007

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	1.85	0.56	0.24	0.00
3	1.96	0.59	0.26	0.00
7	2.11	0.66	0.29	0.00
10	2.30	0.73	0.33	0.00
30	5.30	0.80	0.39	0.02
60	5.36	1.34	0.50	0.19

Magnitude and probability of annual low flow based on period of record, 1992-2007 spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	9.76	3.57	1.89	1.05
3	10.4	3.89	2.09	1.17
7	11.5	4.47	2.46	1.42
10	11.9	4.74	2.68	1.60
30	16.0	7.28	4.75	3.32
60	23.0	10.0	6.32	4.26

Magnitude and probability of annual low flow based on period of record, 1992-2006   summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	1.85	0.56	0.24	0.00
3	1.96	0.59	0.26	0.00
7	2.11	0.66	0.29	0.00
10	2.30	0.73	0.34	0.00
30	5.32	0.80	0.39	0.02
60	5.39	1.34	0.50	0.19

Magnitude and probability of annual low flow based on period of record, 1992-2007 winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	7.50	4.06	2.83	2.05
3	7.84	4.26	2.98	2.17
7	8.50	4.85	3.52	2.66
10	9.00	5.22	3.82	2.91
30	10.5	6.03	4.48	3.50
60	11.8	6.99	5.39	4.38

RED RIVER BASIN

07327490 LITTLE WASHITA RIVER NEAR NINNEKAH, OKLA.

LOCATION. – Lat 34°56′41″, long 97°57′08″, referenced to North American Datum of 1927, in SE ¼ SE ¼ sec. 32, T.6 N., R.7W., Grady County, Okla., Hydrologic Unit 11130302, at left bank on downstream side of bridge on U.S. Highway 81, 1.0 mi upstream from Rock Creek, 1.5 mi west of Ninnekah, 5.5 mi south of Chickasha, and at mile 8.4.

DRAINAGE AREA. – 208 mi².

PERIOD OF RECORD.–October 1963 to December 1985.

REMARKS.–Small diversions above stations for irrigation. Statistical analyses include streamflow record from nearby station Little Washita River at Ninnekah, Okla. (07327500), October 1951 to September 1963. Flow regulated since 1974 by numerous floodwater-retarding structures.

UNREGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges, and average percent of annual runoff, based on period of record, 1952-1973

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	288	1.19	20.6	15.2	5.1
Nov.	84.9	3.07	22.8	20.2	5.6
Dec.	89.5	6.16	27.6	20.4	6.8
Jan.	65.9	7.82	37.3	36.2	9.2
Feb.	78.2	7.86	96.7	40.0	23.9
Mar.	70.4	7.88	50.7	31.2	12.5
Apr.	99.3	4.56	23.5	9.30	5.8
May	686	6.55	9.50	6.70	2.3
Jun.	167	4.57	31.4	15.2	7.7
Jul.	188	0.44	38.8	12.1	9.6
Aug.	39.2	0.00	23.9	14.5	5.9
Sep.	143	0.00	22.1	14.2	5.5
Annual	101	9.89	33.8	27.4	–

Magnitude and probability of annual instantaneous peak flow based on 27 historic years of record, 1947-1973

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
50%	20%	10%	4%	2%	1%	0.2%
3,250	7,430	12,000	20,900	30,500	43,500	93,300

Oklahoma weighted skew = 0.544

Duration table of daily mean flow for period of record, 1952-1973

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
437	227	83.9	49.2	37.0	31.6	23.3	17.8	13.8	10.9	7.64	4.63	0.83	0.04	0.01	0.01

Magnitude and probability of annual low flow based on period of record, 1953-1973

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.02	0.00	0.00	0.00
30	0.91	0.10	0.00	0.00
60	3.19	0.57	0.17	0.00

Magnitude and probability of annual low flow based on period of record, 1952-1973 spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	10.5	3.57	1.50	0.62
3	10.9	4.20	2.00	0.95
7	11.8	5.69	3.48	2.18
10	12.6	6.77	4.58	3.21
30	23.2	12.2	8.46	6.14
60	45.5	20.8	13.6	9.53

Magnitude and probability of annual low flow based on period of record, 1952-1972   summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
10	0.02	0.00	0.00	0.00
30	0.91	0.10	0.00	0.00
60	3.19	0.57	0.17	0.01

Magnitude and probability of annual low flow based on period of record, 1952-1973 winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	5.56	2.29	1.43	0.96
3	6.45	2.68	1.68	1.13
7	7.85	3.76	2.58	1.89
10	8.46	4.18	2.92	2.18
30	11.2	6.00	4.32	3.29
60	13.0	7.67	5.98	4.94

RED RIVER BASIN

07327490 LITTLE WASHITA RIVER NEAR NINNEKAH, OKLA.—Continued

REGULATED STREAMFLOW PERIOD
[ft³/s, cubic feet per second; %, percent; monthly values may not add to 100]

Monthly and annual mean, median, maximum and minimum discharges and average percent of annual runoff, based on period of record, 1974-1985

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	515	3.36	67.7	22.1	12.4
Nov.	50.0	6.76	26.4	25.7	4.8
Dec.	110	9.50	30.2	25.2	5.5
Jan.	87.2	9.63	29.8	28.2	5.4
Feb.	148	10.6	40.9	30.4	7.5
Mar.	290	16.1	56.8	35.8	10.4
Apr.	176	16.3	46.8	38.9	8.6
May	233	21.9	111	95.8	20.2
Jun.	189	21.4	76.3	50.8	14.0
Jul.	172	4.66	28.2	11.8	5.2
Aug.	48.1	1.17	15.0	11.9	2.7
Sep.	44.1	1.43	18.0	13.0	3.3
Annual	105	16.8	45.6	35.2	–

Magnitude and probability of annual instantaneous peak flow based on 13 years of record, 1974-1986

Discharge, in ft³/s, for indicated recurrence interval, in years, and exceedence probability, in percent

2	5	10	25	50	100	500
15%	5%	10%	4%	2%	1%	0.2%
2,700	4,540	6,020	8,220	10,100	12,200	18,100

station skew = 0.215

Duration table of daily mean flow for period of record, 1974-1985

Discharge, in ft³/s, which was equaled or exceeded for indicated percent of time

1%	2%	5%	10%	15%	20%	30%	40%	50%	60%	70%	80%	90%	95%	98%	99%
568	338	130	66.6	51.0	44.2	34.4	28.2	22.2	17.5	13.5	9.30	5.16	3.28	1.35	0.84

Magnitude and probability of annual low flow based on period of record, 1975-1985

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	1.30	0.29	0.06	0.00
3	1.54	0.41	0.20	0.11
7	2.07	0.72	0.42	0.27
10	2.30	0.92	0.59	0.41
30	4.38	1.94	1.26	0.87
60	6.88	3.02	1.87	1.23

Magnitude and probability of annual low flow based on period of record, 1974-1985
spring season, April 1 through May 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	16.0	11.0	9.26	8.11
3	16.3	11.3	9.55	8.41
7	17.4	12.4	10.6	9.56
10	18.5	13.1	11.3	10.2
30	27.6	18.6	15.7	13.9
60	69.7	45.1	35.4	28.9

Magnitude and probability of annual low flow based on period of record, 1974-1985
summer season, June 1 through October 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	1.65	0.33	0.08	0.00
3	1.90	0.47	0.22	0.12
7	2.48	0.81	0.45	0.27
10	2.73	1.02	0.62	0.41
30	4.95	2.09	1.32	0.90
60	8.38	3.42	2.02	1.28

Magnitude and probability of annual low flow based on period of record, 1974-1985
winter season, November 1 through March 31

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	11.1	6.60	4.92	3.81
3	11.8	7.04	5.25	4.08
7	12.6	7.67	5.76	4.49
10	13.5	8.25	6.16	4.75
30	18.2	11.2	8.33	6.37
60	21.0	13.4	10.5	8.49