ARKANSAS RIVER BASIN

07229200 CANADIAN RIVER AT PURCELL, OKLA.

LOCATION. – Lat 35°00′50″, long 97°20′50″, referenced to North American Datum of 1927, in NW ¼ sec. 7, T.6 N., R.1 W., McClain County, Okla., Hydrologic Unit 11090202, near left bank on downstream side of pier of U.S. Highway 77, 0.5 mi east of Purcell, 1.0 mi upstream from Walnut Creek, and at mile 184.9.

DRAINAGE AREA. – 25,939 mi², of which 4,801 mi² is probably noncontributing.

PERIOD OF RECORD.–October 1959 to June 1961, October 1979 to September 1983, October 1985 to current year.

REMARKS.–Flow regulated since October 1964 by Lake Meredith (station 07227900) located in Texas.

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, 1980-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	7,083	2.84	554	197	6.0
Nov.	2,648	11.9	541	284	5.9
Dec.	2,602	101	617	330	6.7
Jan.	2,055	23.7	632	434	6.9
Feb.	1,865	21.3	674	492	7.3
Mar.	3,533	113	982	697	10.7
Apr.	3,168	38.1	894	662	9.7
May	7,717	73.1	1,693	1,192	18.4
Jun.	5,863	286	1,374	828	15.0
Jul.	2,522	41.4	443	248	4.8
Aug.	3,724	2.00	382	131	4.2
Sep.	1,563	2.54	395	227	4.3
Annual	2,287	118	765	720	–

Magnitude and probability of annual instantaneous peak flow based on 26 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%
17,300	37,100	55,300	84,800	112,000	144,000	238,000

station skew = 0.024

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%
8,450	5,060	2,460	1,480	1,090	850	600	440	341	253	176	105	40.0	17.0	4.44	1.08

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	21.1	4.94	0.92	0.00
3	22.0	5.31	1.04	0.00
7	27.0	4.78	1.13	0.08
10	33.0	5.78	1.84	0.25
30	54.2	13.4	5.20	2.10
60	114	38.1	16.8	7.50

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	206	76.2	39.1	20.8
3	218	84.1	44.9	25.0
7	239	101	59.1	36.3
10	260	111	66.2	41.3
30	488	215	132	84.9
60	968	381	217	131

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	21.1	4.94	0.92	0.00
3	22.0	5.31	1.04	0.00
7	27.0	6.00	1.13	0.08
10	33.0	6.50	1.84	0.25
30	54.6	13.4	5.20	2.10
60	140	43.7	18.6	8.04

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	128	37.3	16.8	8.04
3	154	48.8	22.5	10.8
7	183	59.4	27.4	13.0
10	193	62.0	28.6	13.6
30	260	98.1	53.8	31.1
60	326	134	79.7	50.6

ARKANSAS RIVER BASIN

07229300 WALNUT CREEK AT PURCELL, OKLA.

LOCATION. – Lat 34°59′56″, long 97°22′00″, referenced to North American Datum of 1927, in NW ¼ NW ¼ sec. 13, T.6 N., R.2 W., McClain County, Okla., Hydrologic Unit 11090202, on downstream side of right pier of bridge on U.S. Highway 77, at south edge of Purcell, and at mile 1.0.

DRAINAGE AREA. – 202 mi².

PERIOD OF RECORD.–October 1965 to September 1993.

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, 1966-1993

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	1,399	0.30	104	31.5	10.2
Nov.	236	2.78	47.6	27.8	4.7
Dec.	386	2.62	65.0	27.0	6.4
Jan.	240	3.87	50.2	32.9	4.9
Feb.	707	1.72	82.9	32.5	8.2
Mar.	619	3.25	106	44.0	10.4
Apr.	453	7.47	107	54.1	10.5
May	1,374	5.05	217	124	21.4
Jun.	696	5.92	117	61.0	11.5
Jul.	293	1.00	48.9	21.4	4.8
Aug.	99.6	0.24	24.5	18.2	2.4
Sep.	305	0.28	47.3	25.7	4.6
Annual	275	11.9	84.9	57.6	–

Magnitude and probability of annual instantaneous peak flow based on 28 years of record, 1966-1993

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%
8,670	17,300	25,200	38,200	50,400	64,900	110,000

Oklahoma weighted skew = 0.229

Duration table of daily mean flow for period of record, 1966-1993

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%
1,150	591	248	133	90.6	68.1	45.2	32.9	24.0	17.2	11.6	5.94	2.24	0.58	0.25	0.13

Magnitude and probability of annual low flow based on period of record, 1967-1993

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	1.72	0.14	0.00	0.00
3	1.80	0.16	0.00	0.00
7	2.05	0.22	0.00	0.00
10	2.11	0.30	0.04	0.01
30	4.24	0.96	0.41	0.20
60	7.62	2.02	0.91	0.45

Magnitude and probability of annual low flow based on period of record, 1966-1993 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	18.0	4.72	1.85	0.76
3	18.5	5.74	2.87	1.55
7	20.6	7.03	3.76	2.16
10	23.2	8.80	5.12	3.21
30	41.1	17.7	11.5	8.08
60	100	38.3	22.3	14.0

Magnitude and probability of annual low flow based on period of record, 1966-1992 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	1.73	0.14	0.00	0.00
3	1.80	0.16	0.00	0.00
7	2.05	0.22	0.00	0.00
10	2.11	0.30	0.04	0.01
30	4.26	0.96	0.41	0.20
60	8.78	2.31	1.03	0.50

Magnitude and probability of annual low flow based on period of record, 1966-1993 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	13.1	3.45	1.23	0.26
3	14.0	3.69	1.29	0.27
7	14.4	3.95	1.66	0.73
10	15.2	4.21	1.78	0.78
30	17.8	5.89	3.09	1.75
60	21.4	8.12	4.88	3.19

ARKANSAS RIVER BASIN

07230000 LITTLE RIVER BELOW LAKE THUNDERBIRD NEAR NORMAN, OKLA.

LOCATION. – Lat 35°13′18″, long 97°12′49″, referenced to North American Datum of 1927, in NE ¼ SE ¼ sec. 29, T.9 N., R.1 E., Cleveland County, Okla., Hydrologic Unit 11090203, at right bank of outlet channel, 170 ft upstream from State Highway 9, 1, 200 ft downstream from Lake Thunderbird, 1.0 mi upstream from Prairie Creek, 13.0 mi east of Norman, and at mile 96.2.

DRAINAGE AREA. – 257 mi².

PERIOD OF RECORD.–October 1952 to current year. Prior to October 1964, published as "Little River below Hog Creek near Norman".

REMARKS.–Flow regulated by Lake Thunderbird since March 1965 (station 07229900). In prior years, occasional small diversions above station 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, 1953-1964

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	286	0.04	59.9	12.2	8.5
Nov.	112	0.55	21.4	7.80	3.0
Dec.	90.6	1.28	23.4	9.63	3.3
Jan.	93.1	2.22	18.3	7.23	2.6
Feb.	142	1.92	24.3	9.74	3.4
Mar.	89.8	2.30	26.8	14.3	3.8
Apr.	222	6.32	68.7	44.0	9.7
May	1,160	9.50	213	85.0	30.2
Jun.	781	2.30	132	36.4	18.8
Jul.	267	0.26	60.9	13.9	8.6
Aug.	41.2	0.00	12.6	9.46	1.8
Sep.	187	0.00	43.3	8.44	6.1
Annual	200	11.8	58.9	42.5	–

Magnitude and probability of annual instantaneous peak flow based on 12 years of record, 1953-1964

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%
5,780	10,600	15,200	23,100	30,700	40,200	71,600

Oklahoma weighted skew = 0.595

Duration table of daily mean flow for period of record, 1953-1964

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%
1,030	475	158	68.9	45.0	32.8	19.2	11.7	7.61	5.26	3.17	1.81	0.55	0.18	0.04	0.02

Magnitude and probability of annual low flow based on period of record, 1954-1964

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.71	0.00	0.00	0.00
3	0.74	0.00	0.00	0.00
7	0.92	0.07	0.00	0.00
10	1.00	0.08	0.00	0.00
30	2.32	0.31	0.02	0.00
60	5.93	1.01	0.09	0.00

Magnitude and probability of annual low flow based on period of record, 1953-1964
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	3.98	1.56	0.97	0.65
3	4.53	1.82	1.14	0.78
7	5.46	2.28	1.45	1.01
10	6.06	2.62	1.74	1.25
30	28.9	12.3	8.10	5.83
60	70.4	39.9	32.6	28.8

Magnitude and probability of annual low flow based on period of record, 1953-1963
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	0.71	0.02	0.00	0.00
3	0.74	0.02	0.00	0.00
7	0.92	0.07	0.00	0.00
10	1.00	0.08	0.00	0.00
30	2.37	0.32	0.02	0.00
60	6.57	1.03	0.09	0.00

Magnitude and probability of annual low flow based on period of record, 1953-1964
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	3.47	0.41	0.03	0.00
3	3.50	0.51	0.04	0.00
7	3.96	0.94	0.40	0.19
10	4.18	1.00	0.43	0.20
30	5.44	1.46	0.67	0.33
60	6.46	2.02	1.10	0.67

ARKANSAS RIVER BASIN

07230000 LITTLE RIVER BELOW LAKE THUNDERBIRD NEAR NORMAN, 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.	489	0.13	25.4	0.67	3.8
Nov.	626	0.12	45.6	0.67	6.8
Dec.	431	0.12	34.7	0.68	5.2
Jan.	438	0.12	39.4	0.60	5.9
Feb.	324	0.14	43.9	0.73	6.6
Mar.	548	0.15	82.0	0.90	12.3
Apr.	625	0.14	82.4	0.88	12.3
May	936	0.15	108	19.6	16.2
Jun.	688	0.20	117	13.4	17.6
Jul.	660	0.18	48.0	0.79	7.2
Aug.	536	0.20	26.8	0.68	4.0
Sep.	338	0.15	14.5	0.68	2.2
Annual	251	0.16	55.7	28.4	–

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%
475	1,210	1,640	2,040	2,240	2,370	2,540

station skew = -1.533

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%
824	661	432	221	2.67	1.19	0.90	0.76	0.65	0.55	0.48	0.41	0.24	0.18	0.14	0.13

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	0.43	0.25	0.18	0.13
3	0.45	0.26	0.18	0.13
7	0.45	0.27	0.19	0.14
10	0.46	0.27	0.19	0.14
30	0.47	0.29	0.21	0.16
60	0.50	0.30	0.22	0.19

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	0.36	0.31	0.22	0.16
3	0.37	0.30	0.29	0.28
7	0.39	0.30	0.29	0.28
10	0.47	0.32	0.30	0.30
30	1.98	0.32	0.32	0.32
60	10.6	0.92	0.33	0.33

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	0.50	0.30	0.21	0.16
3	0.51	0.31	0.22	0.16
7	0.52	0.31	0.22	0.16
10	0.52	0.32	0.23	0.16
30	0.54	0.32	0.30	0.29
60	0.56	0.33	0.30	0.29

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	0.46	0.26	0.18	0.12
3	0.48	0.27	0.19	0.13
7	0.48	0.27	0.19	0.13
10	0.48	0.28	0.19	0.14
30	0.53	0.33	0.20	0.20
60	0.70	0.39	0.21	0.21

ARKANSAS RIVER BASIN

07230500 LITTLE RIVER NEAR TECUMSEH, OKLA.

LOCATION. – Lat 35°10′21″, long 96°55′54″, referenced to North American Datum of 1927, in NE ¼ NE ¼ sec. 13, T.8 N., R.3 E., Pottawatomie County, Okla., Hydrologic Unit 11090203, on downstream side of center pier of bridge on U.S. Highway 177, 1.5 mi downstream from Dance Creek, 5.0 mi south of Tecumseh, and at mile 77.2.

DRAINAGE AREA. – 456 mi².

PERIOD OF RECORD.–October 1943 to current year. Monthly discharge only for some periods, published in WSP 1311.

REMARKS.–Flow regulated or diverted since 1965 by Lake Thunderbird, 19.2 mi upstream (station 07229900).

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, 1944-1964

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	729	0.00	95.8	16.4	5.4
Nov.	179	0.89	44.4	21.5	2.5
Dec.	189	3.51	51.0	23.9	2.9
Jan.	242	4.31	44.2	25.7	2.5
Feb.	380	2.86	77.0	35.5	4.3
Mar.	913	6.30	130	57.4	7.3
Apr.	1,300	20.9	214	114	12.0
May	1,941	25.5	505	303	28.4
Jun.	1,318	6.76	334	142	18.8
Jul.	589	0.19	140	35.3	7.9
Aug.	232	0.00	37.2	24.2	2.1
Sep.	880	0.00	108	25.9	6.1
Annual	449	28.6	149	104	–

Magnitude and probability of annual instantaneous peak flow based on 33 historic years of record, 1932-1964

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%
8,950	16,300	23,600	36,600	49,800	66,900	128,000

Oklahoma weighted skew = 0.855

Duration table of daily mean flow for period of record, 1944-1964

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%
3,020	1,420	462	204	121	82.0	50.4	33.4	23.1	16.0	9.80	5.41	2.00	0.05	0.02	0.01

Magnitude and probability of annual low flow based on period of record, 1945-1964

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	2.19	0.00	0.00	0.00
3	2.45	0.00	0.00	0.00
7	2.81	0.00	0.00	0.00
10	3.12	0.00	0.00	0.00
30	5.76	0.61	0.00	0.00
60	11.0	1.23	0.17	0.00

Magnitude and probability of annual low flow based on period of record, 1944-1964
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	12.6	4.66	2.64	1.61
3	14.2	5.34	3.10	1.95
7	17.3	7.02	4.28	2.81
10	19.3	8.43	5.42	3.75
30	76.4	33.8	22.6	16.4
60	250	118	79.9	57.9

Magnitude and probability of annual low flow based on period of record, 1944-1963
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	2.19	0.00	0.00	0.00
3	2.45	0.00	0.00	0.00
7	2.81	0.00	0.00	0.00
10	3.12	0.00	0.00	0.00
30	5.76	0.61	0.00	0.00
60	13.1	1.23	0.17	0.00

Magnitude and probability of annual low flow based on period of record, 1944-1964
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	7.66	2.57	0.00	0.00
3	8.98	2.60	0.31	0.00
7	10.1	2.65	0.79	0.03
10	10.7	2.78	1.00	0.06
30	14.3	4.55	2.19	1.11
60	16.7	7.30	4.72	3.29

ARKANSAS RIVER BASIN

07230500 LITTLE RIVER NEAR TECUMSEH, 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.	898	0.01	96.8	23.4	5.5
Nov.	628	2.27	108	24.4	6.2
Dec.	851	2.12	96.1	31.2	5.5
Jan.	844	2.74	89.7	34.1	5.1
Feb.	783	2.45	126	46.5	7.2
Mar.	1,086	4.49	199	96.3	11.4
Apr.	1,265	5.55	233	118	13.3
May	1,687	9.25	319	178	18.3
Jun.	1,401	5.53	263	134	15.0
Jul.	1,091	1.38	97.6	22.2	5.6
Aug.	863	0.00	62.8	9.90	3.6
Sep.	477	0.22	58.4	15.7	3.3
Annual	511	6.96	146	101	–

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%
4,890	7,080	8,520	10,300	11,600	12,900	15,800

station skew = -0.212

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%
1,650	1,190	796	476	281	151	48.4	28.7	19.1	12.9	8.08	4.78	2.13	0.54	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	1.02	0.00	0.00	0.00
3	1.05	0.00	0.00	0.00
7	1.30	0.00	0.00	0.00
10	1.68	0.00	0.00	0.00
30	3.13	0.59	0.11	0.00
60	6.10	1.68	0.74	0.34

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	10.1	3.59	2.23	1.56
3	11.2	4.08	2.58	1.83
7	13.3	4.80	3.08	2.23
10	15.1	5.37	3.44	2.49
30	57.4	20.1	12.1	8.14
60	172	59.4	32.0	18.5

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	1.02	0.00	0.00	0.00
3	1.05	0.00	0.00	0.00
7	1.30	0.00	0.00	0.00
10	1.68	0.00	0.00	0.00
30	3.13	0.61	0.13	0.00
60	6.93	1.75	0.76	0.36

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	6.29	2.19	1.07	0.19
3	6.98	2.50	1.24	0.22
7	8.70	2.99	1.51	0.81
10	8.51	3.68	2.33	1.58
30	13.0	5.02	3.19	2.25
60	20.6	7.22	4.31	2.86

ARKANSAS RIVER BASIN

07231000 LITTLE RIVER NEAR SASAKWA, OKLA.

LOCATION. – Lat 34°57′55″, long 96°30′44″, referenced to North American Datum of 1927, in NE ¼ sec. 25, T.6 N., R.7 E., Seminole County, Okla., Hydrologic Unit 11090203, near right abutment on downstream side of State Highway 56 bridge, 1.6 mi north of Sasakwa, 15.1 mi downstream from Salt Creek, and at mile 17.7.

DRAINAGE AREA. – 884 mi².

PERIOD OF RECORD.–October 1942 to current year. Monthly discharge only for some periods, published in WSP 1311.

REMARKS.–Flow regulated since 1962 by numerous floodwater-retarding structures. Flow regulated by Lake Thunderbird (station 07229900) 78.7 miles upstream since March 1965.

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, 1943-1961

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	2,100	0.79	316	56.0	5.8
Nov.	735	4.11	153	50.7	2.8
Dec.	938	14.1	169	47.7	3.1
Jan.	724	13.8	137	61.4	2.5
Feb.	1,244	17.0	225	107	4.2
Mar.	3,075	14.3	412	188	7.6
Apr.	3,355	32.8	609	347	11.2
May	4,629	107	1,546	1,225	28.6
Jun.	3,669	27.6	942	378	17.4
Jul.	2,303	4.58	484	152	8.9
Aug.	1,521	0.38	180	53.7	3.3
Sep.	1,115	0.00	241	39.3	4.4
Annual	1,106	50.2	453	460	–

Magnitude and probability of annual instantaneous peak flow based on 23 historic years of record, 1939-1961

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%
15,000	26,600	36,800	53,000	67,700	85,000	138,000

Oklahoma weighted skew = 0.327

Duration table of daily mean flow for period of record, 1943-1961

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%
7,570	4,810	2,190	796	423	277	144	89.6	59.9	41.8	27.4	16.0	7.40	3.26	0.19	0.03

Magnitude and probability of annual low flow based on period of record, 1944-1961

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	3.48	0.16	0.00	0.00
3	3.88	0.52	0.00	0.00
7	4.61	0.72	0.00	0.00
10	5.36	0.91	0.00	0.00
30	11.6	2.16	0.55	0.00
60	25.4	5.32	1.50	0.00

Magnitude and probability of annual low flow based on period of record, 1943-1961 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	43.9	19.7	12.2	8.06
3	48.0	21.3	13.2	8.70
7	56.7	25.3	16.2	11.0
10	64.1	28.6	18.3	12.5
30	206	82.2	51.2	34.9
60	849	366	222	143

Magnitude and probability of annual low flow based on period of record, 1943-1960 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	3.48	0.16	0.00	0.00
3	3.88	0.52	0.00	0.00
7	4.61	0.72	0.00	0.00
10	5.36	0.91	0.00	0.00
30	12.6	2.26	0.56	0.00
60	30.6	5.49	1.50	0.00

Magnitude and probability of annual low flow based on period of record, 1943-1961 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	15.8	5.31	2.70	1.46
3	17.9	6.15	3.14	1.70
7	20.4	7.21	3.76	2.08
10	21.6	7.68	4.06	2.28
30	30.0	13.3	8.22	5.38
60	37.3	19.0	13.9	11.0

ARKANSAS RIVER BASIN

07231000 LITTLE RIVER NEAR SASAKWA, 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.	2,523	0.00	225	59.8	5.2
Nov.	1,705	0.01	300	50.1	7.0
Dec.	2,095	0.30	260	89.0	6.0
Jan.	1,307	1.69	235	85.5	5.5
Feb.	1,852	1.80	341	133	7.9
Mar.	2,618	7.39	496	310	11.6
Apr.	3,591	17.2	595	334	13.9
May	2,762	30.7	778	544	18.1
Jun.	3,437	11.2	624	332	14.5
Jul.	2,284	2.00	199	49.8	4.6
Aug.	1,111	0.00	111	17.8	2.6
Sep.	754	0.00	128	35.5	3.0
Annual	996	13.6	357	302	–

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%
7,210	11,300	14,000	17,500	20,000	22,500	28,100

station skew = -0.342

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%
4,870	3,240	1,630	980	649	421	178	94.2	55.6	34.0	19.6	8.80	1.92	0.26	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	1.03	0.00	0.00	0.00
3	1.14	0.00	0.00	0.00
7	1.35	0.00	0.00	0.00
10	1.77	0.01	0.00	0.00
30	3.51	0.28	0.02	0.00
60	10.6	1.22	0.22	0.03

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	36.6	9.55	4.20	1.99
3	40.3	10.5	4.65	2.22
7	48.4	12.6	5.63	2.74
10	59.9	15.9	7.23	3.58
30	184	67.1	39.4	25.4
60	490	179	97.3	56.4

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	1.03	0.00	0.00	0.00
3	1.14	0.00	0.00	0.00
7	1.35	0.00	0.00	0.00
10	1.77	0.01	0.00	0.00
30	3.62	0.29	0.02	0.00
60	13.9	1.52	0.32	0.07

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	13.5	1.37	0.11	0.00
3	14.9	1.50	0.12	0.00
7	17.7	1.82	0.14	0.00
10	18.1	2.26	0.25	0.00
30	35.7	3.89	0.82	0.18
60	56.3	10.0	3.42	1.29

ARKANSAS RIVER BASIN

07231500 CANADIAN RIVER AT CALVIN, OKLA.

LOCATION. – Lat 34°58′40″, long 96°14′36″, referenced to North American Datum of 1927, in NW ¼ SW ¼ sec. 22, T.6 N., R.10 E., Hughes County, Okla., Hydrologic Unit 11090202, on downstream left bank at north end of bridge on U.S. Highway 75, 0.5 mi northeast of Calvin, 2.6 mi upstream from Shawnee Creek, 8.4 mi downstream from Little River, and at mile 94.1.

DRAINAGE AREA. – 27,952 mi², of which 4,801 mi² is probably noncontributing.

PERIOD OF RECORD.–July 1905 to December 1906, October 1938 to September 1942, July 1944 to current year. Monthly discharge only for some periods, published in WSP 1311. Gage-height records collected in this vicinity since 1904 are contained in reports of National Weather Service.

REMARKS.–Occasional slight regulation by dams in New Mexico and Texas since 1964; Lake Thunderbird (station 07229900) since March 1965.

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, 1906-1964

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	21,530	0.10	1,971	524	8.9
Nov.	5,321	10.1	749	259	3.4
Dec.	3,725	20.7	743	324	3.4
Jan.	2,784	16.4	562	364	2.6
Feb.	4,423	43.6	841	360	3.8
Mar.	8,004	58.5	1,132	548	5.1
Apr.	14,750	45.7	2,318	1,392	10.5
May	16,160	376	4,838	2,426	21.9
Jun.	15,350	64.8	3,860	2,488	17.5
Jul.	9,669	16.2	2,174	1,352	9.8
Aug.	8,398	16.0	1,305	673	5.9
Sep.	6,467	0.00	1,610	716	7.3
Annual	5,513	350	1,852	1,571	–

Magnitude and probability of annual instantaneous peak flow based on 59 historic years of record, 1906-1964

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%
60,400	94,700	121,000	157,000	186,000	218,000	300,000

Water Resources Council weighted skew = 0.119

Duration table of daily mean flow for period of record, 1906-1964

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%
26,500	17,900	9,280	4,210	2,550	1,680	858	504	319	207	125	61.2	21.8	6.81	0.48	0.03

Magnitude and probability of annual low flow based on period of record, 1907-1964

Period (consecutive days)	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	0.56	0.00	0.00
3	15.2	0.66	0.00	0.00
7	19.2	0.86	0.00	0.00
10	22.0	1.01	0.00	0.00
30	39.5	2.24	0.24	0.00
60	94.3	14.7	3.97	0.29

Magnitude and probability of annual low flow based on period of record, 1906-1964
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	93.1	34.0	19.2	11.7
3	104	38.3	22.1	13.8
7	144	58.2	35.9	24.0
10	182	69.8	42.5	28.3
30	660	220	123	76.3
60	2,430	1,070	691	480

Magnitude and probability of annual low flow based on period of record, 1906-1963
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	14.1	0.66	0.00	0.00
3	16.4	0.78	0.00	0.00
7	21.3	1.04	0.00	0.00
10	25.2	1.23	0.00	0.00
30	62.6	3.06	0.31	0.00
60	247	28.4	5.98	0.34

Magnitude and probability of annual low flow based on period of record, 1906-1964
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	47.8	7.14	1.97	0.58
3	52.8	8.31	2.40	0.74
7	64.5	12.2	4.14	1.50
10	72.6	14.4	5.01	1.87
30	128	42.3	21.8	12.1
60	173	61.8	35.5	22.3

ARKANSAS RIVER BASIN

07231500 CANADIAN RIVER AT CALVIN, 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, 1965-2007					
Month	**Maximum**	**Minimum**	**Mean**	**Median**	**Average % of Annual Runoff**
Oct.	11,150	2.12	1,245	489	6.0
Nov.	6,529	3.82	1,417	656	6.8
Dec.	9,355	7.76	1,227	710	5.9
Jan.	6,655	17.3	1,207	692	5.8
Feb.	7,059	23.4	1,612	852	7.7
Mar.	10,230	20.9	2,366	1,609	11.3
Apr.	15,110	111	2,719	1,815	13.0
May	20,640	195	3,816	2,471	18.3
Jun.	11,540	33.7	2,944	2,071	14.1
Jul.	7,106	10.8	920	400	4.4
Aug.	4,732	0.00	558	186	2.7
Sep.	4,387	0.60	869	402	4.2
Annual	5,000	184	1,740	1,314	–

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**
15%	**5%**	**10%**	**4%**	**2%**	**1%**	**0.2%**
46,040	79,800	105,000	140,000	168,000	198,000	272,000

station skew = -0.165

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%**
21,400	13,800	7,130	4,170	2,740	2,100	1,220	766	505	330	202	105	33.4	12.1	2.53	0.32

Magnitude and probability of annual low flow based on period of record, 1966-2007

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	14.0	1.25	0.00	0.00
3	16.2	1.67	0.00	0.00
7	20.5	3.04	0.17	0.00
10	25.7	5.00	0.54	0.00
30	56.3	10.4	3.06	0.12
60	129	22.1	6.37	1.90

Magnitude and probability of annual low flow based on period of record, 1965-2007 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	256	67.6	31.0	15.5
3	279	74.3	34.1	17.1
7	334	92.9	44.2	23.0
10	390	114	56.7	30.6
30	990	422	276	197
60	2,310	974	595	387

Magnitude and probability of annual low flow based on period of record, 1965-2006 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	14.0	1.25	0.00	0.00
3	16.2	1.67	0.00	0.00
7	20.5	3.04	0.17	0.00
10	25.9	5.00	0.54	0.00
30	58.4	10.5	3.06	0.12
60	161	26.4	7.43	2.18

Magnitude and probability of annual low flow based on period of record, 1965-2007 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	182	30.4	6.43	1.00
3	186	31.4	10.2	3.45
7	198	44.5	16.3	6.26
10	207	49.7	19.6	8.17
30	307	85.7	38.8	18.8
60	470	141	65.9	32.9

ARKANSAS RIVER BASIN

07232000 GAINES CREEK NEAR KREBS, OKLA.

LOCATION. – Lat 34°59′00″, long 95°37′00″, referenced to North American Datum of 1927, in SW ¼ NE ¼ sec. 21, T.6 N., R.16 E., Pittsburg County, Okla., Hydrologic Unit 11090204, on downstream side of right pier of abandoned county road bridge, 0.8 mi upstream from Nutter Creek, and 6.5 mi northeast of Krebs.

DRAINAGE AREA. – 588 mi².

PERIOD OF RECORD.–October 1942 to September 1963.

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, 1943-1963

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	2,177	0.00	194	20.3	2.9
Nov.	2,197	0.00	309	38.4	4.6
Dec.	2,778	1.30	404	132	6.0
Jan.	1,444	4.04	337	159	5.0
Feb.	2,671	19.0	745	492	11.0
Mar.	4,555	27.1	911	681	13.4
Apr.	4,926	28.2	999	533	14.7
May	5,461	98.1	1,469	1,236	21.6
Jun.	4,102	3.14	608	182	9.0
Jul.	3,155	0.65	415	53.3	6.1
Aug.	709	0.00	99.6	13.6	1.5
Sep.	2,887	0.00	295	52.5	4.4
Annual	1,429	83.0	564	483	–

Magnitude and probability of annual instantaneous peak flow based on 26 historic years of record, 1938-1963

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%
12,200	23,200	33,800	52,000	69,800	92,100	167,000

Oklahoma weighted skew = 0.541

Duration table of daily mean flow for period of record, 1943-1963

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%
9,070	6,460	3,150	1,330	620	342	154	82.8	43.0	22.7	11.0	2.89	0.47	0.04	0.02	0.01

Magnitude and probability of annual low flow based on period of record, 1944-1963

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	0.10	0.00	0.00	0.00
10	0.20	0.00	0.00	0.00
30	1.48	0.00	0.00	0.00
60	6.24	0.22	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1943-1963
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	27.2	9.12	4.56	2.41
3	32.5	10.6	5.11	2.61
7	37.0	15.9	10.2	7.04
10	44.6	19.2	12.8	9.30
30	274	86.7	47.0	28.2
60	857	412	282	207

Magnitude and probability of annual low flow based on period of record, 1943-1962
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	0.09	0.00	0.00	0.00
3	0.12	0.00	0.00	0.00
7	0.19	0.00	0.00	0.00
10	0.31	0.00	0.00	0.00
30	2.34	0.00	0.00	0.00
60	11.2	0.51	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1943-1963
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	2.17	0.02	0.00	0.00
3	3.02	0.21	0.00	0.00
7	3.63	0.22	0.00	0.00
10	4.38	0.33	0.00	0.00
30	10.7	1.85	0.13	0.00
60	44.1	8.53	3.04	1.18

ARKANSAS RIVER BASIN

07232500 BEAVER RIVER NEAR GUYMON, OKLA.

LOCATION. – Lat 36°43′17″, long 101°29′21″, referenced to North American Datum of 1927, NW ¼ SW ¼ sec. 18, T.3 N., R.15 E., Texas County, Okla., Hydrologic Unit 11100101, near center of span on downstream side of pier of bridge on U.S. Highway 64 at Dry Sand Draw, 1.2 mi upstream from Goff Creek, 2.5 mi north of Guymon, and at mile 650.7.

DRAINAGE AREA. – 2,139 mi², of which 964 mi² is probably noncontributing.

PERIOD OF RECORD.–October 1937 to September 1993. Monthly discharge only for some periods, published in WSP 1311. Prior to October 1970, published as "North Canadian River near Guymon".

REMARKS.–Prior to 1972 considered a natural, unregulated basin. After 1978, irrigation development has had a significant effect on natural streamflow (Wahl and Tortorelli, 1997).

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, 1938-1971

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	226	0.23	18.5	2.79	5.6
Nov.	18.8	0.81	6.43	6.00	1.9
Dec.	13.8	2.00	7.38	7.33	2.2
Jan.	12.7	2.00	8.22	7.96	2.5
Feb.	15.3	2.00	9.36	9.16	2.8
Mar.	25.5	5.00	9.71	8.41	2.9
Apr.	330	3.83	19.5	7.38	5.8
May	418	1.10	50.0	12.8	15.0
Jun.	370	0.81	62.0	8.47	18.6
Jul.	270	0.01	48.6	19.8	14.6
Aug.	296	0.00	41.0	13.7	12.3
Sep.	826	0.00	52.9	2.08	15.8
Annual	138	4.85	27.9	18.6	–

Magnitude and probability of annual instantaneous peak flow based on 35 years of record, 1937-1971

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%
8,630	21,500	33,000	50,400	65,000	80,800	121,000

Oklahoma weighted skew = -0.451

Duration table of daily mean flow for period of record, 1938-1971

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%
420	144	34.6	17.0	13.6	11.3	8.51	7.11	5.88	4.53	2.83	1.35	0.53	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1939-1971

Period (consecutive days)	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	0.03	0.00	0.00	0.00
7	0.14	0.00	0.00	0.00
10	0.19	0.00	0.00	0.00
30	0.57	0.10	0.01	0.00
60	1.62	0.36	0.14	0.05

Magnitude and probability of annual low flow based on period of record, 1938-1971
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	1.87	0.31	0.00	0.00
3	1.90	0.49	0.14	0.00
7	2.55	0.89	0.43	0.22
10	3.10	1.26	0.68	0.38
30	5.08	2.91	2.14	1.64
60	13.7	5.88	4.09	3.15

Magnitude and probability of annual low flow based on period of record, 1938-1970
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	0.04	0.00	0.00	0.00
7	0.17	0.00	0.00	0.00
10	0.21	0.00	0.00	0.00
30	0.59	0.09	0.01	0.00
60	2.08	0.34	0.12	0.05

Magnitude and probability of annual low flow based on period of record, 1938-1971
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	2.09	0.97	0.38	0.00
3	2.39	1.22	0.78	0.46
7	3.08	1.68	1.14	0.81
10	3.48	1.90	1.28	0.88
30	5.20	3.08	2.14	1.50
60	6.33	4.18	3.16	2.43

ARKANSAS RIVER BASIN

07232500 BEAVER RIVER NEAR GUYMON, OKLA.—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, 1978-1993

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	0.28	0.00	0.02	0.00	0.1
Nov.	1.51	0.00	0.09	0.00	0.3
Dec.	3.69	0.00	0.42	0.00	1.4
Jan.	3.99	0.00	0.86	0.00	2.8
Feb.	5.28	0.00	1.45	0.20	4.6
Mar.	5.88	0.00	1.84	0.86	5.9
Apr.	6.12	0.00	1.55	0.62	5.0
May	50.2	0.00	4.92	0.57	15.8
Jun.	74.5	0.00	6.26	0.11	20.0
Jul.	34.5	0.00	3.07	0.00	9.8
Aug.	113	0.00	7.28	0.00	23.3
Sep.	55.0	0.00	3.47	0.00	11.1
Annual	12.4	0.00	2.61	0.54	–

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%
181	1,160	2,510	5,020	7,340	9,910	16,300

station skew = -0.876

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%
16.8	9.61	5.67	3.55	1.92	0.91	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, 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	0.00	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, 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	0.00	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	0.15	0.00	0.00	0.00
60	0.74	0.07	0.00	0.00

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	0.00	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, 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	0.00	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

ARKANSAS RIVER BASIN

07232900 COLDWATER CREEK NEAR GUYMON, OKLA.

LOCATION. – Lat 36°34′19″, long 101°22′52″, referenced to North American Datum of 1927, in NW ¼ NW ¼ sec. 7, T.1 N., R.16 E., Texas County, Okla., Hydrologic Unit 11100103, near left bank on downstream side of pier of bridge on county road, 0.3 mi downstream from Frisco Creek, 4.0 mi east and 7.5 mi south of Guymon, and at mile 18.0.

DRAINAGE AREA. – 1,903 mi², of which 1,178 mi² is probably noncontributing.

PERIOD OF RECORD.–October 1980 to current year.

REMARKS.–Natural flow affected by flood retarding strutures and irrigation development. After 1978, irrigation development has had a significant effect on natural streamflow (Wahl and Tortorelli, 1997).

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, 1981-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	21.0	0.00	0.92	0.00	6.0
Nov.	3.23	0.00	0.12	0.00	0.8
Dec.	0.00	0.00	0.00	0.00	0.0
Jan.	0.00	0.00	0.00	0.00	0.0
Feb.	0.00	0.00	0.00	0.00	0.0
Mar.	0.00	0.00	0.00	0.00	0.0
Apr.	52.7	0.00	1.95	0.00	12.8
May	86.0	0.00	5.84	0.00	38.3
Jun.	42.3	0.00	4.42	0.00	29.0
Jul.	0.52	0.00	0.04	0.00	0.3
Aug.	6.90	0.00	0.80	0.00	5.2
Sep.	27.5	0.00	1.18	0.00	7.7
Annual	8.37	0.00	1.27	0.23	–

Magnitude and probability of annual instantaneous peak flow based on 27 years of record, 1981-2007

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%
126	808	1,900	4,320	7,030	10,600	22,300

station skew = -0.554

Duration table of daily mean flow for period of record, 1981-2007

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%
1.24	0.00	0.00	0.00	0.00	0.00	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, 1982-2007

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	0.00	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1981-2007
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	0.00	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, 1981-2006
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	0.00	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1981-2007
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	0.00	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

ARKANSAS RIVER BASIN

07233000 COLDWATER CREEK NEAR HARDESTY, OKLA.

LOCATION. – Lat 36°38′38″, long 101°12′38″, referenced to North American Datum of 1927, NW ¼ NE ¼ sec. 15, T.2 N., R.17 E., Texas County, Okla., Hydrologic Unit 11100103, on downstream side of piling near center of bridge on State Highway 3, 2.0 mi northwest of Hardesty, and at mile 5.7.

DRAINAGE AREA. – 1,967 mi², of which 1,200 mi² is probably noncontributing.

PERIOD OF RECORD.–October 1939 to September 1964.

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, 1940-1964

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	625	0.00	30.0	0.12	16.2
Nov.	21.9	0.00	3.32	2.83	1.8
Dec.	9.43	0.00	3.66	3.87	2.0
Jan.	10.5	0.00	4.81	4.86	2.6
Feb.	10.4	1.62	5.65	5.53	3.0
Mar.	14.0	2.13	6.24	5.72	3.4
Apr.	21.7	1.92	6.01	5.71	3.2
May	336	0.83	35.6	6.06	19.2
Jun.	380	0.00	32.2	8.52	17.4
Jul.	353	0.00	31.5	11.6	17.0
Aug.	121	0.00	14.8	3.66	8.0
Sep.	226	0.00	11.5	0.00	6.2
Annual	95.4	1.43	15.5	8.05	–

Magnitude and probability of annual instantaneous peak flow based on 26 years of record, 1939-1964

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%
2,730	7,470	12,300	20,300	27,900	36,700	62,600

Oklahoma weighted skew = -0.265

Duration table of daily mean flow for period of record, 1940-1964

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%
177	58.2	22.2	12.2	8.76	7.09	5.28	4.05	2.87	1.53	0.05	0.03	0.02	0.01	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1941-1964

Period (consecutive days)	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, 1940-1964
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	0.76	0.00	0.00	0.00
10	1.13	0.13	0.01	0.00
30	3.04	1.46	0.97	0.69
60	7.07	2.94	2.05	1.59

Magnitude and probability of annual low flow based on period of record, 1940-1963
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, 1940-1964
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	0.21	0.00	0.00	0.00
10	0.22	0.00	0.00	0.00
30	1.37	0.00	0.00	0.00
60	2.74	0.57	0.00	0.00

ARKANSAS RIVER BASIN

07233500 PALO DURO CREEK NEAR SPEARMAN, TX

LOCATION. – Lat 36°12′08″, long 101°18′20″, referenced to North American Datum of 1927, Hansford County, TX, Hydrologic Unit 11100104, on right bank at downstream side of bridge on State Highway 15, 6 mi west of Spearman, and 18 mi upstream from Horse Creek.

DRAINAGE AREA. – 1,076 mi², of which 520 mi² is probably noncontributing.

PERIOD OF RECORD.–August 1945 to September 1979, June 1999 to current year.

REMARKS.–After 1971, irrigation development began in the region and has had a significant effect on natural streamflow (Wahl and Tortorelli, 1997).

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, 1945-1971

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	835	0.00	51.9	1.14	20.9
Nov.	7.24	0.00	1.71	1.01	0.7
Dec.	7.99	0.00	1.37	0.88	0.6
Jan.	3.00	0.00	0.93	0.68	0.4
Feb.	3.47	0.00	0.91	0.66	0.4
Mar.	1.97	0.00	0.90	0.83	0.4
Apr.	106	0.00	9.85	0.81	4.0
May	349	0.12	36.6	3.16	14.7
Jun.	879	0.30	64.1	14.9	25.8
Jul.	188	0.39	37.8	19.3	15.2
Aug.	91.8	0.00	18.9	11.0	7.6
Sep.	188	0.00	23.3	1.54	9.4
Annual	89.9	1.50	20.8	16.2	–

Magnitude and probability of annual instantaneous peak flow based on 35 historic years of record, 1936-1971

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%
2,890	7,410	12,500	22,200	32,700	46,500	97,500

Oklahoma weighted skew = 0.262

Duration table of daily mean flow for period of record, 1944-1971

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%
416	166	35.1	9.29	4.81	3.21	1.90	1.14	0.74	0.44	0.29	0.01	0.00	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1947-1971

Period (consecutive days)	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	0.02	0.00	0.00	0.00
60	0.27	0.08	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1946-1971
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	0.01	0.00	0.00	0.00
30	0.36	0.06	0.02	0.00
60	3.42	0.72	0.35	0.20

Magnitude and probability of annual low flow based on period of record, 1946-1970
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	0.19	0.00	0.00	0.00
60	1.41	0.17	0.04	0.00

Magnitude and probability of annual low flow based on period of record, 1946-1971
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	0.10	0.00	0.00	0.00
10	0.15	0.00	0.00	0.00
30	0.34	0.08	0.02	0.00
60	0.49	0.21	0.10	0.00

ARKANSAS RIVER BASIN

07233650 PALO DURO CREEK AT RANGE, OKLA.

LOCATION. – Lat 36°32′38″, long 101°04′50″, referenced to North American Datum of 1927, in SE ¼ SE ¼ SE ¼ sec. 14, T.1 N., R.18 E., Texas County, Okla., Hydrologic Unit 11100104, on downstream side of pier of county road bridge, 3.4 mi upstream from Hackberry Creek, 11.0 mi southeast of Hardesty, and at mile 14.9.

DRAINAGE AREA. – 1,513 mi², of which 687 mi² is probably noncontributing.

PERIOD OF RECORD.–October 1991 to current year.

REMARKS.–Flow regulated since April 1991 by Palo Duro Reservoir, 18 mi upstream. Natural flow also affected by local irrigation withdrawals.

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.	0.97	0.00	0.40	0.37	3.7
Nov.	1.58	0.28	0.84	0.79	7.8
Dec.	2.68	0.43	1.10	0.98	10.2
Jan.	2.12	0.47	1.21	1.25	11.2
Feb.	2.17	0.52	1.30	1.35	12.1
Mar.	2.96	0.40	1.50	1.39	13.9
Apr.	3.43	0.35	1.51	1.31	14.0
May	3.20	0.45	1.31	1.21	12.2
Jun.	2.72	0.00	0.82	0.61	7.6
Jul.	3.12	0.00	0.38	0.13	3.5
Aug.	0.55	0.00	0.18	0.15	1.7
Sep.	1.47	0.00	0.23	0.09	2.1
Annual	1.64	0.33	0.90	0.90	–

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%
5.50	17.3	36.3	89.7	172	323	1,320

station skew = 1.148

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%
3.68	2.98	2.30	1.89	1.67	1.45	1.19	1.01	0.79	0.57	0.34	0.11	0.00	0.00	0.00	0.00

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	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	0.04	0.00	0.00	0.00

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	0.55	0.15	0.04	0.00
3	0.60	0.20	0.08	0.00
7	0.73	0.34	0.20	0.12
10	0.83	0.42	0.26	0.16
30	1.09	0.70	0.54	0.44
60	1.36	0.90	0.70	0.56

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	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	0.04	0.00	0.00	0.00

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	0.52	0.28	0.14	0.00
3	0.57	0.28	0.15	0.00
7	0.65	0.29	0.15	0.08
10	0.65	0.30	0.17	0.10
30	0.69	0.46	0.36	0.30
60	0.85	0.59	0.48	0.41

ARKANSAS RIVER BASIN

07234000 BEAVER RIVER AT BEAVER, OKLA.

LOCATION. – Lat 36°49′20″, long 100°31′08″, referenced to North American Datum of 1927, in SW ¼ sec. 7, T.4 N., R.24 E., Beaver County, Okla., Hydrologic Unit 11100201, near right bank on downstream side of pier of bridge on U.S. Highway 270 at Beaver, 1.1 mi downstream from Home Creek, 5.0 mi upstream from Clear Creek, and at mile 576.0.

DRAINAGE AREA. – 7,955 mi², of which 4,270 mi² is probably noncontributing.

PERIOD OF RECORD.–October 1937 to current year. Monthly discharge only for some periods, published in WSP 1311. Published as Beaver Creek at Beaver 1904 to 1905, and October 1937 to September 1970 as "North Canadian River at Beaver".

REMARKS.–Prior to 1972 considered a natural, unregulated basin. After 1978, irrigation development has had a significant effect on natural streamflow (Wahl and Tortorelli, 1997). Regulation by Optima Lake (station 07233200) 47.0 mi upstream, since Oct. 1978, and regulation by Palo Duro Reservoir (station 07233550) since May 1991.

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, 1938-1971

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	2,848	0.00	149	3.14	10.9
Nov.	253	0.00	20.3	5.15	1.5
Dec.	79.9	0.00	18.3	13.7	1.3
Jan.	95.6	0.00	26.4	24.3	1.9
Feb.	81.2	0.00	31.8	31.3	2.3
Mar.	103	0.00	34.8	29.1	2.5
Apr.	615	0.19	67.8	32.2	4.9
May	2,924	1.24	276	61.2	20.1
Jun.	2,232	0.96	337	219	24.6
Jul.	1,915	0.00	179	61.0	13.1
Aug.	1,058	0.00	106	35.2	7.7
Sep.	993	0.00	127	8.88	9.2
Annual	361	26.1	115	78.9	–

Magnitude and probability of annual instantaneous peak flow based on 34 years of record, 1938-1971

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%
9,060	18,900	27,900	42,400	55,600	71,000	117,000

Water Resources Council weighted skew = 0.042

Duration table of daily mean flow for period of record, 1938-1971

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%
2,250	1,060	333	130	76.9	54.0	32.8	22.1	14.1	6.74	1.02	0.00	0.00	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1939-1971

Period (consecutive days)	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	0.35	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1938-1971
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	0.95	0.00	0.00	0.00
3	1.08	0.00	0.00	0.00
7	1.78	0.00	0.00	0.00
10	2.30	0.00	0.00	0.00
30	11.4	1.73	0.55	0.20
60	54.2	15.1	7.96	4.76

Magnitude and probability of annual low flow based on period of record, 1938-1970
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	3.85	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1938-1971
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	0.41	0.00	0.00	0.00
10	0.49	0.00	0.00	0.00
30	2.92	0.00	0.00	0.00
60	8.26	0.24	0.00	0.00

ARKANSAS RIVER BASIN

07234000 BEAVER RIVER AT BEAVER, OKLA.—Continued

REGULATED 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, 1979-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	130	0.00	5.93	0.04	3.7
Nov.	28.6	0.00	3.32	0.20	2.1
Dec.	20.8	0.00	3.12	0.24	2.0
Jan.	24.2	0.00	4.57	0.82	2.9
Feb.	33.5	0.00	6.63	2.35	4.2
Mar.	27.6	0.02	10.2	7.08	6.4
Apr.	83.8	0.03	15.5	9.14	9.8
May	295	0.02	39.8	16.5	25.0
Jun.	362	0.00	45.2	9.76	28.5
Jul.	79.4	0.00	12.4	1.13	7.8
Aug.	25.9	0.00	4.05	0.24	2.6
Sep.	78.5	0.00	8.08	0.02	5.1
Annual	64.0	0.01	13.2	8.59	–

Magnitude and probability of annual instantaneous peak flow based on 29 years of record, 1979-2007

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%
378	1,580	3,070	5,920	8,770	12,200	22,800

station skew = -0.478

Duration table of daily mean flow for period of record, 1979-2007

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%
171	96.1	38.4	24.1	17.7	13.6	7.14	3.49	0.57	0.20	0.09	0.01	0.00	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1980-2007

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	0.02	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1979-2007
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	1.31	0.08	0.00	0.00
3	1.73	0.11	0.00	0.00
7	2.28	0.14	0.02	0.00
10	2.70	0.21	0.03	0.00
30	5.85	0.78	0.20	0.06
60	17.0	2.51	0.64	0.17

Magnitude and probability of annual low flow based on period of record, 1979-2006
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	0.02	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1979-2007
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	0.08	0.00	0.00	0.00
3	0.10	0.00	0.00	0.00
7	0.14	0.00	0.00	0.00
10	0.15	0.00	0.00	0.00
30	0.23	0.00	0.00	0.00
60	0.37	0.03	0.00	0.00

ARKANSAS RIVER BASIN

07234100 CLEAR CREEK NEAR ELMWOOD, OKLA.

LOCATION. – Lat 36°38′42″, long 100°30′07″, referenced to North American Datum of 1927, SW ¼ SW ¼ sec. 8, T.2 N., R.24 E., Beaver County, Okla., Hydrologic Unit 11100201, on downstream side of pier of county road bridge, 2.0 mi north, 1.2 mi east of Elmwood, and at mile 16.9.

DRAINAGE AREA. – 170 mi².

PERIOD OF RECORD.–October 1965 to September 1993.

REMARKS.–Low flows sustained by nearby springs; natural flows affected by diversion ponds and occasional diversion for irrigation. After 1978, irrigation development has had a significant effect on natural streamflow (Wahl and Tortorelli, 1997).

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, 1966-1993

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	193	1.09	8.64	1.77	11.1
Nov.	77.9	1.56	5.07	2.28	6.5
Dec.	3.71	1.57	2.47	2.27	3.2
Jan.	3.27	1.52	2.42	2.28	3.1
Feb.	3.36	1.68	2.45	2.53	3.1
Mar.	22.2	1.68	3.20	2.46	4.1
Apr.	16.7	1.40	3.41	2.45	4.4
May	289	1.17	13.9	2.90	17.8
Jun.	123	0.92	12.3	2.48	15.7
Jul.	80.7	0.91	9.02	1.40	11.5
Aug.	79.3	0.62	10.1	1.64	12.9
Sep.	34.0	0.31	5.18	1.58	6.6
Annual	30.0	1.67	6.54	3.58	–

Magnitude and probability of annual instantaneous peak flow based on 28 years of record

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%
957	5,420	12,400	28,300	46,800	72,000	163,000

Oklahoma weighted skew = -0.397

Duration table of daily mean flow for period of record, 1966-1993

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%
27.7	8.90	4.64	3.57	3.31	3.04	2.62	2.40	2.17	1.94	1.71	1.46	1.13	0.87	0.62	0.32

Magnitude and probability of annual low flow based on period of record, 1967-1993

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	0.69	0.19	0.04	0.00
3	0.81	0.23	0.07	0.01
7	0.90	0.32	0.14	0.06
10	0.90	0.40	0.21	0.11
30	1.00	0.69	0.56	0.47
60	1.20	0.88	0.76	0.67

Magnitude and probability of annual low flow based on period of record, 1966-1993 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	1.50	0.95	0.72	0.56
3	1.56	1.08	0.88	0.74
7	1.67	1.23	1.04	0.91
10	1.72	1.28	1.10	0.97
30	1.97	1.52	1.34	1.22
60	2.50	1.92	1.86	1.84

Magnitude and probability of annual low flow based on period of record, 1966-1992 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	0.69	0.19	0.04	0.00
3	0.81	0.23	0.07	0.01
7	0.90	0.32	0.14	0.06
10	0.90	0.40	0.21	0.11
30	1.00	0.69	0.56	0.47
60	1.23	0.88	0.76	0.67

Magnitude and probability of annual low flow based on period of record, 1966-1993 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	1.75	1.22	0.94	0.73
3	1.76	1.35	1.20	1.08
7	1.77	1.47	1.34	1.26
10	1.82	1.52	1.39	1.30
30	2.06	1.73	1.58	1.48
60	2.20	1.85	1.70	1.58

ARKANSAS RIVER BASIN

07234500 BEAVER RIVER NEAR FORT SUPPLY, OKLA.

LOCATION. – Lat 36°35′30″, long 99°35′30″, referenced to North American Datum of 1927, NE ¼ NE ¼ sec. 6, T.24 N., R.22 E., Woodward County, Okla., Hydrologic Unit 11100201, at bridge on State Highway 35, 1.5 mi northwest of Fort Supply, 8.1 mi upstream from Wolf Creek, and at mile 495.8.

DRAINAGE AREA. – 9,615 mi², of which 4,547 mi² is probably noncontributing.

PERIOD OF RECORD.–October 1937 to September 1950.

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, 1938-1950

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	1,951	0.00	278	3.58	12.3
Nov.	367	0.00	59.6	3.83	2.6
Dec.	136	0.00	37.1	6.99	1.6
Jan.	131	0.00	40.8	27.2	1.8
Feb.	186	0.00	53.8	38.6	2.4
Mar.	212	0.00	71.4	44.2	3.2
Apr.	664	0.00	168	52.7	7.4
May	1,392	12.0	358	147	15.8
Jun.	931	14.0	378	444	16.7
Jul.	3,204	0.29	405	114	17.9
Aug.	1,851	0.00	211	50.5	9.3
Sep.	1,006	0.00	203	27.0	9.0
Annual	562	24.9	190	170	–

Magnitude and probability of annual instantaneous peak flow based on 14 years of record, 1937-1950

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%
9,640	19,400	27,800	40,500	51,400	63,600	97,200

Water Resources Council weighted skew = -0.106

Duration table of daily mean flow for period of record, 1938-1950

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%
3,410	1,890	626	291	182	135	82.0	54.1	29.1	14.1	4.72	0.05	0.02	0.01	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1939-1950

Period (consecutive days)	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	0.83	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1938-1950
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	9.04	1.74	0.00	0.00
3	11.7	1.77	0.04	0.00
7	14.3	1.81	0.18	0.00
10	18.8	2.81	0.36	0.00
30	48.9	8.48	1.40	0.00
60	154	39.8	17.8	8.66

Magnitude and probability of annual low flow based on period of record, 1938-1949
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	7.68	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1938-1950
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	1.49	0.00	0.00	0.00
3	1.74	0.00	0.00	0.00
7	2.09	0.00	0.00	0.00
10	2.21	0.00	0.00	0.00
30	2.68	0.00	0.00	0.00
60	8.11	0.00	0.00	0.00

ARKANSAS RIVER BASIN

07235000 WOLF CREEK AT LIPSCOMB, TX

LOCATION. – Lat 36°14′19″, long 100°16′31″, referenced to North American Datum of 1927, Lipscomb County, TX, Hydrologic Unit 11100203, on rightbank at downstream side of State Highway 305, 0.3 mi north of Lipscomb, 0.6 mi downstream from Sand Creek, 2.0 mi upstream from Plum Creek, and 61.2 mi upstream from mouth.

DRAINAGE AREA. – 697 mi², of which 222 mi² is probably noncontributing.

PERIOD OF RECORD.–October 1940 to September 1942, October 1961 to current year. Monthly discharge only for some periods, published in WSP 1311.

REMARKS.–There are several small diversions upstream from station for irrigation and recreation. Since installation of the gage, at least 10 percent of contributing drainage area has been regulated by Lake Fryer (capacity 2,792 acre-ft) 30 mi upstream. After 1978, irrigation development has had a significant effect on streamflow (Wahl and Tortorelli, 1997).

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, 1962-1971

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	167	0.10	19.3	2.54	11.6
Nov.	15.6	2.06	4.86	3.86	2.9
Dec.	9.71	3.07	5.66	5.11	3.4
Jan.	11.8	1.75	5.86	6.04	3.5
Feb.	10.9	4.26	7.41	6.80	4.4
Mar.	11.3	4.46	6.51	6.23	3.9
Apr.	9.64	2.19	5.70	5.59	3.4
May	94.6	1.14	14.5	3.62	8.7
Jun.	206	0.74	43.3	21.7	26.0
Jul.	82.7	0.42	14.2	5.50	8.5
Aug.	77.6	0.00	21.6	7.88	13.0
Sep.	61.8	0.42	17.7	7.51	10.6
Annual	30.5	3.77	13.9	10.5	–

Magnitude and probability of annual instantaneous peak flow based on 10 years of record, 1962-1971

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%
3,240	7,040	10,100	14,400	17,900	21,400	30,000

station skew = -0.481

Duration table of daily mean flow for period of record, 1962-1971

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%
178	67.0	22.5	13.4	10.7	8.79	7.11	5.81	4.82	3.90	2.72	1.43	0.49	0.19	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1963-1971

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.09	0.00	0.00	0.00
3	0.11	0.00	0.00	0.00
7	0.16	0.02	0.00	0.00
10	0.18	0.02	0.00	0.00
30	0.38	0.05	0.00	0.00
60	1.62	0.53	0.27	0.15

Magnitude and probability of annual low flow based on period of record, 1962-1971
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	0.73	0.11	0.00	0.00
3	0.94	0.18	0.00	0.00
7	1.18	0.40	0.22	0.14
10	1.30	0.43	0.24	0.14
30	2.67	1.40	0.99	0.74
60	4.75	3.04	2.42	2.01

Magnitude and probability of annual low flow based on period of record, 1962-1970
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	0.09	0.00	0.00	0.00
3	0.11	0.00	0.00	0.00
7	0.17	0.02	0.00	0.00
10	0.20	0.02	0.00	0.00
30	0.38	0.05	0.00	0.00
60	2.75	0.82	0.38	0.19

Magnitude and probability of annual low flow based on period of record, 1962-1971
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	1.57	0.80	0.55	0.40
3	1.62	0.81	0.56	0.42
7	2.04	1.08	0.77	0.59
10	2.23	1.31	1.02	0.84
30	3.50	2.22	1.76	1.45
60	4.36	2.99	2.48	2.14

ARKANSAS RIVER BASIN

07235000 WOLF CREEK AT LIPSCOMB, TX—Continued

REGULATED 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.	25.6	0.39	2.02	0.86	2.0
Nov.	18.1	0.50	2.17	1.34	2.2
Dec.	14.6	0.60	2.57	2.06	2.6
Jan.	10.2	0.55	3.07	2.37	3.1
Feb.	11.0	0.60	3.75	2.90	3.8
Mar.	73.4	1.10	7.49	3.95	7.5
Apr.	109	0.94	11.8	3.51	11.9
May	570	0.36	35.5	4.11	35.5
Jun.	59.8	0.12	11.5	6.62	11.5
Jul.	54.7	0.03	6.16	2.83	6.2
Aug.	15.6	0.09	2.06	1.20	2.1
Sep.	323	0.21	11.8	0.72	11.8
Annual	62.8	1.01	8.36	3.77	–

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%
229	1,650	4,380	11,900	22,100	38,100	109,000

station skew = -0.260

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%
58.5	31.7	17.1	10.5	6.79	5.29	3.54	2.67	2.13	1.60	1.16	0.79	0.54	0.41	0.26	0.16

Magnitude and probability of annual low flow based on period of record, 1979-2007				
	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	0.34	0.13	0.00	0.00
3	0.38	0.14	0.06	0.00
7	0.43	0.21	0.14	0.08
10	0.46	0.25	0.17	0.11
30	0.75	0.32	0.17	0.11
60	0.88	0.38	0.21	0.12

Magnitude and probability of annual low flow based on period of record, 1978-2007 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	1.85	0.70	0.27	0.09
3	2.61	0.71	0.27	0.10
7	2.37	0.75	0.37	0.19
10	2.44	0.81	0.42	0.23
30	3.09	1.20	0.76	0.54
60	5.48	1.84	1.15	0.82

Magnitude and probability of annual low flow based on period of record, 1978-2006 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	0.36	0.16	0.00	0.00
3	0.40	0.16	0.09	0.04
7	0.44	0.23	0.16	0.10
10	0.48	0.26	0.18	0.12
30	0.76	0.33	0.16	0.08
60	0.92	0.38	0.21	0.12

Magnitude and probability of annual low flow based on period of record, 1978-2007 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	0.85	0.42	0.28	0.18
3	0.88	0.44	0.30	0.20
7	0.98	0.47	0.32	0.22
10	1.00	0.51	0.36	0.27
30	1.20	0.66	0.50	0.41
60	1.53	0.87	0.66	0.54

ARKANSAS RIVER BASIN

07236000 WOLF CREEK NEAR FARGO, OKLA.

LOCATION. – Lat 36°23′57″, long 99°37′22″, referenced to North American Datum of 1927, SE ¼ NE ¼ sec. 11, T.22 N., R.23 W., Ellis County, Okla., Hydrologic Unit 11100203, near right bank on downstream side of pier of county road bridge, 800 ft downstream from Boggy Creek, 1.2 mi downstream from Sixteen Mile Creek, 1.5 mi north of Fargo, and at mile 18.7.

DRAINAGE AREA. – 1,624 mi², of which 238 mi² is probably noncontributing.

PERIOD OF RECORD.–October 1942 to September 1976. Monthly discharge only for some periods, published in WSP 1311.

REMARKS.–Prior to 1958 considered a natural, unregulated basin. Localized irrigation activities are most likely occurring on or about 1958 which has significantly affected runoff (Esralew and Smith, 2009, Esralew and Lewis, 2010, Turton and others, 2010). After 1971, irrigation development began in the region and may also have had a significant effect on natural streamflow (Wahl and Tortorelli, 1997).

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, 1943-1958

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	265	0.00	60.6	29.3	5.3
Nov.	69.1	0.20	30.4	34.4	2.7
Dec.	75.1	2.66	35.2	33.1	3.1
Jan.	74.7	9.16	40.3	42.6	3.6
Feb.	100	10.8	47.0	44.5	4.1
Mar.	78.7	18.4	53.2	58.8	4.7
Apr.	280	15.9	83.9	69.3	7.4
May	1,210	18.6	282	92.5	24.8
Jun.	1,824	3.71	245	67.8	21.5
Jul.	1,227	0.27	143	55.2	12.6
Aug.	633	0.00	67.9	22.6	6.0
Sep.	299	0.00	48.4	16.6	4.3
Annual	272	18.8	95.0	67.1	–

Magnitude and probability of annual instantaneous peak flow based on 16 years of record, 1943-1958

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%
7,220	15,900	23,800	36,500	47,800	60,900	98,500

Oklahoma weighted skew = -0.097

Duration table of daily mean flow for period of record, 1943-1958

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%
1,290	658	243	114	79.6	68.3	51.6	42.1	33.3	24.8	16.0	5.61	0.05	0.02	0.01	0.00

Magnitude and probability of annual low flow based on period of record, 1944-1958

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	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	5.60	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1943-1958
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	20.1	9.60	5.96	3.83
3	21.6	10.5	6.60	4.28
7	24.4	12.6	8.22	5.51
10	26.3	13.9	9.27	6.41
30	38.2	21.5	16.7	13.8
60	102	41.6	26.6	18.6

Magnitude and probability of annual low flow based on period of record, 1943-1957
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	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	7.33	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1943-1958
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	12.7	0.33	0.00	0.00
3	14.0	0.52	0.00	0.00
7	14.0	1.47	0.00	0.00
10	14.8	1.60	0.12	0.00
30	21.9	5.02	1.73	0.60
60	27.6	10.5	5.37	2.81

ARKANSAS RIVER BASIN

07237000 WOLF CREEK NEAR FORT SUPPLY, OKLA.

LOCATION. – Lat 36°34′00″, long 99°33′05″, referenced to North American Datum of 1927, SE ¼ SE ¼ sec. 9, T.24 N., R.22 W., Woodward County, Okla., Hydrologic Unit 11100203, on left bank on downstream side of U.S. Highway 270, 1.0 mi southeast of Fort Supply, 1.6 mi downstream from Fort Supply Dam, and at mile 3.9.

DRAINAGE AREA. – 1,739 mi², of which 241 mi² is probably noncontributing.

PERIOD OF RECORD.–October 1937 to September 1993. Prior to October 1941, published as "Near Supply".

REMARKS.–Flow completely regulated since May 1942 by Fort Supply Lake (station 07236500). Localized irrigation activities are most likely occurring on or about 1958 which has significantly affected runoff upstream of Fort Supply which effected release rates (Esralew and Smith, 2009, Esralew and Lewis, 2010, Turton and others, 2010). After 1971, irrigation development began and has had a significant effect on streamflow since 1978 (Wahl and Tortorelli, 1997).

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, 1943-1971

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	272	0.00	50.0	2.44	6.5
Nov.	72.0	0.07	19.9	14.5	2.6
Dec.	79.6	0.36	28.2	28.0	3.6
Jan.	96.8	0.20	32.3	32.5	4.2
Feb.	152	0.10	44.4	41.5	5.8
Mar.	103	0.00	40.0	34.8	5.2
Apr.	251	0.50	59.0	35.6	7.6
May	993	1.97	133	41.4	17.2
Jun.	1,016	0.50	164	49.9	21.2
Jul.	1,017	0.39	107	27.2	13.8
Aug.	718	0.00	47.5	4.22	6.1
Sep.	1,057	0.00	48.0	2.99	6.2
Annual	288	3.61	64.5	38.0	–

Magnitude and probability of annual instantaneous peak flow based on 29 years of record, 1943-1971

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%
924	2,170	3,170	4,550	5,600	6,650	9,020

station skew = -0.653

Duration table of daily mean flow for period of record, 1943-1958

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%
1,220	831	241	109	70.8	52.0	34.6	19.6	4.97	2.44	1.37	0.95	0.50	0.16	0.02	0.01

Magnitude and probability of annual low flow based on period of record, 1944-1971

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	0.23	0.00	0.00	0.00
3	0.30	0.00	0.00	0.00
7	0.34	0.00	0.00	0.00
10	0.39	0.00	0.00	0.00
30	0.59	0.28	0.00	0.00
60	1.32	0.31	0.14	0.06

Magnitude and probability of annual low flow based on period of record, 1943-1971
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	1.47	0.47	0.24	0.10
3	1.65	0.58	0.33	0.18
7	2.07	0.76	0.49	0.35
10	2.62	0.95	0.61	0.43
30	18.5	4.92	2.31	1.19
60	45.1	13.4	6.79	3.79

Magnitude and probability of annual low flow based on period of record, 1943-1970
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	0.00	0.00	0.00
3	0.31	0.00	0.00	0.00
7	0.36	0.00	0.00	0.00
10	0.41	0.00	0.00	0.00
30	0.54	0.30	0.00	0.00
60	1.62	0.45	0.25	0.14

Magnitude and probability of annual low flow based on period of record, 1943-1971
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	1.05	0.00	0.00	0.00
3	1.14	0.20	0.00	0.00
7	1.33	0.34	0.00	0.00
10	1.52	0.41	0.00	0.00
30	4.78	0.67	0.18	0.03
60	11.6	2.41	0.88	0.34

ARKANSAS RIVER BASIN

07237000 WOLF CREEK NEAR FORT SUPPLY, OKLA.—Continued

REGULATED 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, 1978-1993

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	215	0.70	26.3	1.91	5.3
Nov.	73.1	0.81	23.1	5.39	4.6
Dec.	58.6	1.11	23.8	20.0	4.8
Jan.	83.7	1.20	36.2	40.4	7.2
Feb.	94.0	3.33	44.3	45.0	8.9
Mar.	186	25.9	60.3	46.1	12.1
Apr.	148	17.1	59.3	44.4	11.9
May	722	17.5	117	67.6	23.5
Jun.	160	1.06	70.5	46.0	14.1
Jul.	62.9	0.85	19.5	8.18	3.9
Aug.	40.5	0.74	9.42	2.04	1.9
Sep.	35.7	0.52	9.30	2.52	1.9
Annual	90.3	8.49	41.6	38.8	–

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%
306	735	1,160	1,900	2,600	3,460	6,140

station skew = 0.000

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%
362	237	140	95.7	71.3	58.7	45.7	28.9	18.9	5.32	2.12	1.51	1.05	0.81	0.67	0.58

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	0.80	0.54	0.45	0.40
3	0.83	0.55	0.45	0.40
7	0.94	0.60	0.51	0.45
10	0.95	0.60	0.51	0.46
30	1.10	0.67	0.58	0.53
60	1.97	0.81	0.60	0.57

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	3.32	1.16	0.72	0.51
3	4.84	1.52	0.86	0.55
7	7.68	2.34	1.24	0.73
10	9.93	2.93	1.48	0.82
30	28.3	14.3	10.0	7.50
60	59.1	31.2	23.0	18.1

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	0.88	0.54	0.45	0.40
3	0.90	0.55	0.45	0.40
7	1.01	0.61	0.51	0.45
10	1.02	0.61	0.51	0.46
30	1.20	0.68	0.58	0.53
60	2.23	0.89	0.60	0.57

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	1.17	0.79	0.72	0.68
3	1.39	0.79	0.72	0.69
7	1.88	0.88	0.74	0.70
10	2.72	0.98	0.75	0.70
30	5.47	1.47	0.76	0.72
60	8.66	2.17	1.02	0.73

ARKANSAS RIVER BASIN

07237500 NORTH CANADIAN RIVER AT WOODWARD, OKLA.

LOCATION. – Lat 36°26′12″, long 99°16′41″, referenced to North American Datum of 1927, in SW ¼ SW ¼ sec. 30, T.23 N., R.19 W., Woodward County, Okla., Hydrologic Unit 11100301, on downstream side of pier of bridge on State Highway 412 (formerly State Highway 15), 275 ft downstream from The Atchison, Topeka and Santa Fe Railway Co. bridge, 6.0 mi east of Woodward, 7.2 mi upstream from Indian Creek, 27.5 mi downstream from Wolf Creek, and at mile 460.2.

DRAINAGE AREA. – 11,589 mi², of which 4,812 mi² is probably noncontributing.

PERIOD OF RECORD.–October 1905 to June 1906, October 1938 to current year. Monthly discharge only for some periods, published in WSP 1311. Published as "Canadian River (North Fork) near Woodward" 1903 to 1906. Gage-height records collected in this vicinity since 1919 are contained in reports of National Weather Service.

REMARKS.–Some regulation since May 1942 by Fort Supply Lake (station 07236500) on Wolf Creek, 33.0 miles upstream. Prior to 1972 considered a natural, unregulated basin. After 1978, irrigation development has had a significant effect on natural streamflow (Wahl and Tortorelli, 1997). Regulation by Optima Lake (station 07233200) 47.0 mi upstream, since Oct. 1978, and regulation by Palo Duro Reservoir (station 07233550) since May 1991.

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, 1939-1971

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	2,719	0.00	245	14.1	9.5
Nov.	497	0.00	63.0	19.0	2.4
Dec.	277	0.00	56.4	33.0	2.2
Jan.	200	0.00	66.6	48.5	2.6
Feb.	366	0.00	93.1	86.5	3.6
Mar.	288	1.07	107	86.4	4.1
Apr.	1,027	1.40	183	92.8	7.1
May	3,913	4.50	499	172	19.3
Jun.	2,346	6.32	591	284	22.9
Jul.	3,291	0.16	360	140	13.9
Aug.	2,650	0.00	182	44.9	7.0
Sep.	2,235	0.00	138	24.3	5.4
Annual	790	20.1	216	124	–

Magnitude and probability of annual instantaneous peak flow based on 34 years of record, 1938-1971

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%
5,320	12,400	19,400	31,300	42,600	56,200	98,700

Water Resources Council weighted skew = 0.015

Duration table of daily mean flow for period of record, 1939-1971

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%
3,590	2,190	899	381	236	170	106	70.4	44.3	22.9	8.10	1.30	0.00	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1940-1971

Period (consecutive days)	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	0.29	0.00	0.00	0.00
60	4.32	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1939-1971
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	13.2	1.56	0.00	0.00
3	14.0	1.98	0.00	0.00
7	16.1	2.76	0.69	0.00
10	20.0	3.27	0.95	0.22
30	47.4	10.8	4.48	2.06
60	144	42.4	22.2	13.0

Magnitude and probability of annual low flow based on period of record, 1939-1970
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	0.58	0.00	0.00	0.00
60	9.19	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1939-1971
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	6.06	0.00	0.00	0.00
3	6.71	0.00	0.00	0.00
7	7.96	0.00	0.00	0.00
10	8.50	0.00	0.00	0.00
30	11.9	0.48	0.00	0.00
60	16.4	1.58	0.07	0.00

ARKANSAS RIVER BASIN

07237500 NORTH CANADIAN RIVER AT WOODWARD, OKLA.—Continued

REGULATED 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, 1979-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	377	2.33	55.5	14.2	4.3
Nov.	281	5.43	66.7	33.1	5.2
Dec.	242	8.33	62.9	41.4	4.9
Jan.	206	11.0	82.7	68.3	6.4
Feb.	246	12.6	101	79.7	7.8
Mar.	404	30.6	141	94.5	11.0
Apr.	576	32.6	172	125	13.4
May	900	13.3	220	185	17.1
Jun.	814	9.57	212	121	16.5
Jul.	328	4.24	88.9	54.1	6.9
Aug.	254	1.73	44.2	22.0	3.4
Sep.	368	0.95	38.4	12.8	3.0
Annual	248	16.9	107	112	–

Magnitude and probability of annual instantaneous peak flow based on 29 years of record, 1979-2007

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%
736	1,350	1,810	2,420	2,900	3,380	4,540

station skew = -0.366

Duration table of daily mean flow for period of record, 1979-2007

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%
785	565	377	250	193	160	111	81.0	59.1	41.9	25.2	14.0	7.14	4.34	2.51	1.66

Magnitude and probability of annual low flow based on period of record, 1980-2007

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	6.21	2.12	1.11	0.49
3	7.00	2.20	1.12	0.52
7	7.74	2.31	1.12	0.59
10	8.03	2.55	1.30	0.72
30	9.52	3.47	2.01	1.27
60	11.6	4.60	2.87	1.95

Magnitude and probability of annual low flow based on period of record, 1979-2007
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	58.1	28.3	18.8	13.2
3	61.6	30.0	20.0	14.0
7	66.5	32.7	21.9	15.5
10	70.9	35.2	23.7	16.9
30	96.6	46.4	31.4	22.7
60	150	70.4	46.1	32.0

Magnitude and probability of annual low flow based on period of record, 1979-2006
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	6.21	2.12	1.11	0.53
3	7.00	2.20	1.12	0.54
7	7.74	2.31	1.12	0.59
10	8.03	2.55	1.30	0.72
30	9.60	3.47	2.01	1.27
60	12.5	4.82	2.94	1.97

Magnitude and probability of annual low flow based on period of record, 1979-2007
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	17.5	6.83	4.17	2.77
3	18.5	7.20	4.39	2.91
7	19.8	7.58	4.61	3.06
10	20.8	7.78	4.67	3.07
30	27.5	10.8	6.60	4.39
60	35.1	14.4	8.90	5.96

ARKANSAS RIVER BASIN

07238000 NORTH CANADIAN RIVER NEAR SEILING, OKLA.

LOCATION. – Lat 36°11′00″, long 98°55′15″, referenced to North American Datum of 1927, in NW ¼ sec. 28, T.20 N., R.16 W., Major County, Okla., Hydrologic Unit 11100301, near center of span on downstream side of pier of bridge on U.S. Highway 60, 2.0 mi upstream from Seiling Creek, 2.2 mi north of Seiling, 2.8 mi downstream from Deep Creek, and at mile 422.6.

DRAINAGE AREA. – 12,261 mi², of which 4,847 mi² is probably noncontributing.

PERIOD OF RECORD.–October 1946 to current year.

REMARKS.–Some regulation since May 1942 by Fort Supply Lake (station 07236500) on Wolf Creek, 33.0 miles upstream. Prior to 1972 considered a natural, unregulated basin. After 1978, irrigation development has had a significant effect on natural streamflow (Wahl and Tortorelli, 1997). Additional regulation by Optima Lake (station 07233200) 47.0 mi upstream, since Oct. 1978, and minor regulation by Palo Duro Reservoir (station 07233550) since May 1991.

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, 1947-1971

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	2,118	0.00	173	19.7	6.1
Nov.	569	0.00	64.4	26.1	2.3
Dec.	245	0.00	62.2	48.0	2.2
Jan.	238	0.00	75.6	84.8	2.7
Feb.	455	0.00	123	100	4.3
Mar.	367	0.00	139	107	4.9
Apr.	632	0.00	169	102	6.0
May	3,724	13.7	602	187	21.2
Jun.	2,572	1.83	635	321	22.4
Jul.	3,051	0.00	408	150	14.4
Aug.	2,651	0.00	217	32.0	7.7
Sep.	2,314	0.00	163	30.8	5.8
Annual	801	14.0	237	146	–

Magnitude and probability of annual instantaneous peak flow based on 25 years of record, 1947-1971

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%
4,454	9,550	14,600	23,200	31,600	42,100	76,400

Water Resources Council weighted skew = 0.264

Duration table of daily mean flow for period of record, 1947-1971

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%
3,550	2,340	1,030	440	277	205	130	92.1	58.8	32.7	13.7	0.49	0.00	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1948-1971

Period (consecutive days)	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	0.86	0.00	0.00	0.00
60	9.31	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1947-1971
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	20.8	2.06	0.00	0.00
3	25.9	3.61	0.00	0.00
7	33.5	3.67	0.25	0.00
10	36.7	5.20	0.60	0.00
30	74.7	16.1	5.28	0.91
60	167	53.2	29.5	18.2

Magnitude and probability of annual low flow based on period of record, 1947-1970
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	0.89	0.00	0.00	0.00
60	15.5	0.04	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1947-1971
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	17.8	0.00	0.00	0.00
3	18.0	0.00	0.00	0.00
7	20.1	0.00	0.00	0.00
10	20.9	0.00	0.00	0.00
30	28.9	0.00	0.00	0.00
60	36.0	0.32	0.00	0.00

ARKANSAS RIVER BASIN

07238000 NORTH CANADIAN RIVER NEAR SEILING, OKLA.—Continued

REGULATED 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, 1979-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	471	2.73	94.0	35.8	4.8
Nov.	540	10.6	117	61.7	5.9
Dec.	333	24.5	106	76.7	5.4
Jan.	360	30.5	128	102	6.5
Feb.	360	36.7	153	118	7.7
Mar.	645	61.8	217	143	11.0
Apr.	1,128	57.3	250	185	12.7
May	984	32.3	339	295	17.2
Jun.	982	16.3	300	211	15.2
Jul.	395	4.45	130	104	6.6
Aug.	409	1.23	65.4	41.6	3.3
Sep.	698	0.07	72.8	22.9	3.7
Annual	380	29.4	164	163	–

Magnitude and probability of annual instantaneous peak flow based on 29 years of record, 1979-2007

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%
1,900	3,390	4,520	6,070	7,300	8,580	11,800

station skew = -0.238

Duration table of daily mean flow for period of record, 1979-2007

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%
1,230	929	587	383	286	241	171	126	93.7	68.4	48.4	31.4	13.2	5.73	0.88	0.20

Magnitude and probability of annual low flow based on period of record, 1980-2007

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	7.38	0.20	0.00	0.00
3	7.73	0.24	0.00	0.00
7	8.48	0.28	0.00	0.00
10	9.70	0.70	0.06	0.00
30	13.7	2.89	1.05	0.41
60	21.2	6.08	2.71	1.27

Magnitude and probability of annual low flow based on period of record, 1979-2007 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	98.0	50.2	33.8	23.8
3	101	52.0	35.5	25.5
7	107	56.2	39.4	29.1
10	111	59.4	42.2	31.7
30	145	76.4	55.1	42.3
60	234	114	76.3	53.7

Magnitude and probability of annual low flow based on period of record, 1979-2006 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	7.38	0.20	0.00	0.00
3	7.73	0.25	0.00	0.00
7	8.48	0.28	0.00	0.00
10	9.70	0.70	0.06	0.00
30	13.7	2.89	1.05	0.41
60	22.4	6.17	2.72	1.27

Magnitude and probability of annual low flow based on period of record, 1979-2007 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	38.8	16.1	9.99	6.67
3	40.3	16.8	10.4	6.92
7	43.5	18.2	11.3	7.58
10	45.2	19.0	11.9	8.03
30	58.3	26.6	17.4	12.2
60	69.3	35.5	25.1	18.9

ARKANSAS RIVER BASIN

07239000 NORTH CANADIAN RIVER AT CANTON, OKLA.

LOCATION. – Lat 36°04′37″, long 98°35′47″, referenced to North American Datum of 1927, in NE ¼ SW 1?4 sec. 33, T.19 N., R.13 W., Blaine County, Okla., Hydrologic Unit 11100301, on right bank 2,700 ft downstream from Canton Lake, 1.5 mi northwest of Canton, 4.8 mi upstream from Minnehaha Creek, and at mile 393.8.

DRAINAGE AREA. – 12,484 mi², of which 4,883 mi² is probably noncontributing.

PERIOD OF RECORD.–October 1937 to September 1993, July 2000 to June 2003. Monthly discharge only for some periods, published in WSP 1311. Gage-height records collected in this vicinity since 1914 are contained in reports of National Weather Service.

REMARKS.–Flow partly regulated by Fort Supply Lake for period May 1942 to April 1948 and completely regulated thereafter by Canton 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, 1938-1947

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	2,744	0.00	597	172	18.3
Nov.	658	0.00	152	24.4	4.7
Dec.	394	0.00	96.4	25.1	3.0
Jan.	270	0.00	95.0	47.9	2.9
Feb.	232	0.00	91.9	89.5	2.8
Mar.	428	0.00	133	90.3	4.1
Apr.	1,047	0.00	430	321	13.2
May	1,815	17.4	626	234	19.2
Jun.	1,661	37.0	590	629	18.1
Jul.	743	6.39	231	143	7.1
Aug.	315	0.00	79.9	34.8	2.4
Sep.	561	0.00	142	25.7	4.3
Annual	595	53.2	273	192	–

Magnitude and probability of annual instantaneous peak flow based on 10 years of record, 1938-1947

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%
7,680	14,500	20,000	27,800	34,300	41,200	59,000

Water Resources Council weighted skew = -0.193

Duration table of daily mean flow for period of record, 1938-1947

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%
4,050	2,450	1,050	618	371	277	172	104	60.1	33.3	10.2	0.05	0.02	0.01	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1939-1947

Period (consecutive days)	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	2.81	0.20	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1938-1947
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	27.2	0.00	0.00	0.00
3	36.9	3.38	0.00	0.00
7	43.3	6.16	0.00	0.00
10	51.0	8.26	0.00	0.00
30	177	38.2	0.00	0.00
60	380	124	63.2	34.4

Magnitude and probability of annual low flow based on period of record, 1938-1946
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	0.20	0.00	0.00	0.00
60	8.15	0.47	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1938-1947
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	5.67	0.00	0.00	0.00
3	7.25	0.00	0.00	0.00
7	9.67	0.00	0.00	0.00
10	10.3	0.00	0.00	0.00
30	12.4	0.00	0.00	0.00
60	16.2	0.97	0.00	0.00

ARKANSAS RIVER BASIN

07239000 NORTH CANADIAN RIVER AT CANTON, 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, 1949-2002					
Month	**Maximum**	**Minimum**	**Mean**	**Median**	**Average % of Annual Runoff**
Oct.	1,155	0.01	86.3	12.5	4.7
Nov.	558	0.27	74.2	12.6	4.0
Dec.	566	0.31	63.5	11.9	3.4
Jan.	284	0.40	62.8	12.0	3.4
Feb.	406	0.72	89.7	14.6	4.9
Mar.	513	0.35	125	65.5	6.8
Apr.	682	0.59	164	94.1	8.9
May	1,187	2.52	205	112	11.1
Jun.	3,259	5.28	391	226	21.2
Jul.	2,781	2.07	258	66.3	14.0
Aug.	2,713	0.34	157	32.6	8.5
Sep.	2,881	0.34	170	28.1	9.2
Annual	782	27.2	154	111	–

Magnitude and probability of annual instantaneous peak flow based on 45 years of record, 1949-1993						
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%**
1,100	1,600	2,080	2,880	3,650	4,610	7,850

station skew = 1.454

Duration table of daily mean flow for period of record, 1949-2002															
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%**
2,140	1,300	868	476	250	160	60.6	23.6	13.5	8.29	5.57	4.00	2.81	2.08	0.92	0.33

Magnitude and probability of annual low flow based on period of record, 1950-2003

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	3.04	1.33	0.77	0.43
3	3.40	1.57	0.95	0.57
7	3.69	1.72	1.04	0.61
10	4.74	1.82	1.06	0.65
30	4.81	1.95	1.13	0.70
60	6.12	2.35	1.46	1.00

Magnitude and probability of annual low flow based on period of record, 1949-2003
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	6.77	2.88	1.78	1.18
3	7.88	3.20	1.95	1.27
7	10.5	3.47	2.00	1.28
10	12.8	3.72	2.01	1.30
30	25.0	5.71	2.65	1.41
60	90.1	20.8	8.82	4.12

Magnitude and probability of annual low flow based on period of record, 1949-2002
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	4.86	2.02	1.11	0.59
3	5.00	2.27	1.36	0.81
7	5.25	2.35	1.44	0.89
10	7.11	2.41	1.50	0.95
30	7.85	2.98	1.72	1.07
60	13.4	4.14	2.24	1.34

Magnitude and probability of annual low flow based on period of record, 1949-2003
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	3.79	1.87	1.00	0.59
3	5.09	1.88	1.03	0.60
7	5.55	2.07	1.20	0.76
10	5.80	2.07	1.23	0.81
30	8.44	2.47	1.37	0.86
60	10.4	2.85	1.53	0.93

ARKANSAS RIVER BASIN

07239300 NORTH CANADIAN BELOW WEAVERS CREEK NEAR WATONGA, OKLA.

LOCATION. – Lat 35°48′43″, long 98°25′14″, referenced to North American Datum of 1927, in NE ¼ NE ¼ sec. 1, T.15 N., R.12 W., Blaine County, Okla., Hydrologic Unit 11100301, near right abutment on downstream side of U.S. Highway 281, 2.0 mi south of intersection of U.S. Highway 281 and State Highway 33 and at mile 361.2.

DRAINAGE AREA. – 12,736 mi², of which 4,899 mi² is probably noncontributing.

PERIOD OF RECORD.–October 1983 to current year.

REMARKS.–Considerable regulation by Canton Lake (07238500) 33 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, 1984-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	708	3.09	112	30.6	4.7
Nov.	532	6.69	110	43.0	4.6
Dec.	452	7.05	126	56.0	5.3
Jan.	620	11.4	161	109	6.8
Feb.	532	14.0	178	111	7.5
Mar.	597	18.3	232	119	9.8
Apr.	863	23.6	300	185	12.7
May	1,004	10.4	293	178	12.4
Jun.	977	13.6	355	277	15.0
Jul.	895	10.1	208	69.7	8.8
Aug.	610	4.90	158	50.7	6.7
Sep.	666	2.66	133	43.0	5.6
Annual	476	32.1	197	159	–

Magnitude and probability of annual instantaneous peak flow based on 24 years of record, 1984-2007

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%
2,080	3,760	5,120	7,100	8,770	10,600	15,500

station skew = -0.029

Duration table of daily mean flow for period of record, 1984-2007

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%
1,080	1,030	864	648	471	350	198	99.2	53.4	37.0	27.5	20.4	13.4	9.21	6.15	4.32

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	12.8	5.79	3.49	2.17
3	13.5	6.14	3.69	2.29
7	14.6	6.61	3.99	2.48
10	15.4	7.03	4.26	2.66
30	17.8	8.44	5.51	3.80
60	20.8	10.8	7.91	6.02

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	39.0	15.8	9.75	6.53
3	41.6	16.9	10.5	7.13
7	49.4	18.4	11.2	7.50
10	57.2	20.1	11.9	7.86
30	104	34.8	19.4	11.9
60	177	58.0	30.8	17.8

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	14.5	6.00	3.51	2.17
3	15.0	6.28	3.69	2.29
7	16.1	6.84	4.03	2.48
10	17.0	7.28	4.30	2.66
30	21.0	9.14	5.71	3.80
60	30.2	13.2	8.57	6.02

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	20.6	9.93	6.73	4.86
3	21.5	10.9	7.69	5.81
7	23.9	11.5	8.20	6.35
10	25.0	12.0	8.54	6.60
30	40.8	16.1	10.1	6.88
60	50.8	19.0	11.4	7.45

ARKANSAS RIVER BASIN

07239450 NORTH CANADIAN RIVER NEAR CALUMET, OKLA.

LOCATION. – Lat 35°37′01″, long 98°03′54″, referenced to North American Datum of 1927, in NW ¼ SW ¼ sec. 9, T.13 N., R.8 W., Canadian County, Okla., Hydrologic Unit 11100301, near left bank on downstream side of county road bridge, 1 mi north and 3 mi east of Calumet, and at mile 320.7.

DRAINAGE AREA. – 12,962 mi², of which 4,899 mi² is probably noncontributing.

PERIOD OF RECORD.–October 1988 to current year.

REMARKS.–Some regulation by Canton Lake (07238500).

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, 1989-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	745	2.28	143	70.2	4.4
Nov.	603	5.13	146	76.2	4.5
Dec.	547	9.10	168	93.5	5.2
Jan.	777	21.3	196	163	6.1
Feb.	600	20.7	221	132	6.8
Mar.	976	26.2	321	180	10.0
Apr.	1,110	32.6	375	204	11.6
May	1,878	24.7	473	342	14.7
Jun.	1,435	23.8	523	365	16.2
Jul.	1,260	15.2	256	149	8.0
Aug.	1,533	4.72	234	82.8	7.2
Sep.	535	5.01	171	156	5.3
Annual	635	62.9	269	263	–

Magnitude and probability of annual instantaneous peak flow based on 19 years of record, 1989-2007

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%
2,740	5,470	8,540	14,700	21,600	31,500	72,600

station skew = 1.091

Duration table of daily mean flow for period of record, 1989-2007

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%
1,920	1,360	1,040	786	608	448	258	142	91.7	60.7	41.9	31.8	21.6	13.6	6.43	4.09

Magnitude and probability of annual low flow based on period of record, 1990-2007

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	19.4	6.70	3.12	1.54
3	19.9	6.86	3.30	1.64
7	20.8	7.18	3.48	1.74
10	21.2	7.49	3.76	1.96
30	23.3	9.11	5.30	3.23
60	30.0	12.8	8.08	5.48

Magnitude and probability of annual low flow based on period of record, 1989-2007 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	68.9	29.0	18.4	12.6
3	73.1	30.4	19.2	13.2
7	83.6	32.8	20.7	14.4
10	94.6	36.0	22.2	15.1
30	163	58.2	33.9	21.6
60	257	89.4	49.6	29.9

Magnitude and probability of annual low flow based on period of record, 1989-2006 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	20.0	6.59	3.12	1.54
3	20.6	6.88	3.30	1.64
7	21.5	7.24	3.49	1.74
10	22.5	7.76	3.83	1.96
30	26.2	9.52	5.35	3.23
60	41.9	15.1	8.91	5.79

Magnitude and probability of annual low flow based on period of record, 1989-2007 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	39.2	16.8	9.68	5.78
3	40.6	17.2	9.87	5.90
7	41.5	18.6	11.4	7.40
10	42.7	19.2	12.0	7.92
30	61.7	24.6	14.5	9.16
60	75.6	29.2	17.1	10.8

ARKANSAS RIVER BASIN

07239500 NORTH CANADIAN RIVER NEAR EL RENO, OKLA.

LOCATION. – Lat 35°33′47″, long 97°57′26″, referenced to North American Datum of 1927, in SW ¼ NW ¼ NW ¼ sec. 33, T.13 N., R.7 W., Canadian County, Okla., Hydrologic Unit 11100301, near left downstream end of bridge on new U.S. Highway 81, 2.0 mi north of courthouse in El Reno, 2.3 mi downstream from Target Creek, and at mile 307.3.

DRAINAGE AREA. – 13,042 mi², of which 4,899 mi² is probably noncontributing.

PERIOD OF RECORD.–October 1902 to April 1908, October 1937 to current year. Monthly discharge only for some periods, published in WSP 1311. Gage-height records collected at site 1.1 mi upstream February 1914 to March 1934 and at site 0.1 mi upstream thereafter are contained in reports of National Weather Service. Published as "Canadian River (North Fork) near El Reno" 1902 to 1904.

REMARKS.–Some regulation by Fort Supply Lake (station 07236500) for period May 1942 to April 1948 and by Canton Lake (07238500) thereafter.

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, 1903-1947

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	2,461	0.00	350	151	10.7
Nov.	815	0.00	160	49.9	4.9
Dec.	642	0.00	139	85.9	4.2
Jan.	542	0.00	121	104	3.7
Feb.	484	0.00	131	130	4.0
Mar.	480	0.00	184	119	5.6
Apr.	1,449	23.9	417	304	12.7
May	1,973	20.7	650	397	19.8
Jun.	1,653	80.0	524	487	16.0
Jul.	1,421	18.4	332	202	10.1
Aug.	600	0.14	144	67.4	4.4
Sep.	420	0.00	125	39.3	3.8
Annual	631	61.7	273	237	–

Magnitude and probability of annual instantaneous peak flow based on 15 years of record, 1903-1947

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%
4,770	7,170	8,990	11,600	13,700	16,000	22,100

Water Resources Council weighted skew = 0.303

Duration table of daily mean flow for period of record, 1903-1947

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%
3,200	2,140	1,030	632	458	348	240	158	107	61.5	33.5	10.8	0.04	0.02	0.01	0.00

Magnitude and probability of annual low flow based on period of record, 1904-1947

Period (consecutive days)	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	0.11	0.00	0.00	0.00
30	2.58	0.00	0.00	0.00
60	10.7	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1903-1947
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	66.9	17.6	5.17	0.00
3	71.4	19.6	6.01	0.00
7	80.6	24.0	8.33	0.00
10	97.2	29.5	10.3	0.00
30	242	51.3	14.4	3.88
60	457	184	103	59.6

Magnitude and probability of annual low flow based on period of record, 1903-1946
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	0.27	0.00	0.00	0.00
10	0.86	0.00	0.00	0.00
30	5.39	0.00	0.00	0.00
60	19.5	0.90	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1903-1947
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	16.0	0.00	0.00	0.00
3	16.1	0.00	0.00	0.00
7	16.8	0.96	0.00	0.00
10	17.2	1.10	0.00	0.00
30	26.8	1.78	0.00	0.00
60	42.4	2.16	0.10	0.00

ARKANSAS RIVER BASIN

07239500 NORTH CANADIAN RIVER NEAR EL RENO, 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, 1949-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	1,904	0.00	179	68.7	6.4
Nov.	884	0.00	128	51.3	4.6
Dec.	592	0.00	110	46.1	3.9
Jan.	826	0.00	120	56.6	4.3
Feb.	673	0.00	149	83.3	5.3
Mar.	971	0.00	229	147	8.2
Apr.	1,129	0.00	275	180	9.8
May	2,354	8.00	415	269	14.8
Jun.	3,121	0.17	515	342	18.4
Jul.	2,597	0.73	281	132	10.0
Aug.	2,460	0.00	198	59.1	7.1
Sep.	2,786	0.00	202	52.9	7.2
Annual	807	31.8	234	165	–

Magnitude and probability of annual instantaneous peak flow based on 59 years of record, 1949-2007

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%
3,170	5,930	8,340	12,100	15,600	19,500	31,400

station skew = 0.211

Duration table of daily mean flow for period of record, 1949-2007

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%
2,690	1,710	1,020	689	460	306	165	99.7	59.6	38.8	24.3	13.5	3.53	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1950-2007

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	4.32	0.00	0.00	0.00
3	4.75	0.00	0.00	0.00
7	5.50	0.00	0.00	0.00
10	6.33	0.00	0.00	0.00
30	10.7	0.30	0.00	0.00
60	19.0	3.79	1.07	0.00

Magnitude and probability of annual low flow based on period of record, 1949-2007
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	35.4	6.70	1.53	0.00
3	37.1	7.85	2.53	0.00
7	48.1	8.75	2.65	0.77
10	50.1	11.0	4.24	1.67
30	97.1	27.5	12.9	6.26
60	226	84.4	47.7	29.0

Magnitude and probability of annual low flow based on period of record, 1949-2006
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	4.67	0.00	0.00	0.00
3	5.08	0.00	0.00	0.00
7	5.60	0.00	0.00	0.00
10	6.44	0.00	0.00	0.00
30	10.7	0.47	0.00	0.00
60	28.3	5.45	1.60	0.00

Magnitude and probability of annual low flow based on period of record, 1949-2007
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	18.2	2.63	0.00	0.00
3	20.2	3.47	0.66	0.00
7	22.7	5.10	1.36	0.00
10	25.0	6.25	2.23	0.00
30	30.9	8.23	3.44	1.14
60	40.9	10.7	4.39	1.40

ARKANSAS RIVER BASIN

07241000 NORTH CANADIAN RIVER BELOW LAKE OVERHOLSER NEAR OKLAHOMA CITY, OKLA.

LOCATION. – Lat 35°28′43″, long 97°39′47″, referenced to North American Datum of 1927, in NE ¼ NW ¼ sec. 31, T.12 N., R.4 W., Oklahoma County, Okla., Hydrologic Unit 11100301, on left downstream side of bridge on NW 10th Street, 0.5 mi downstream from Lake Overholser, 2.4 mi upstream from Mustang Creek, 9.1 mi southwest of State Capitol of Oklahoma, and at river mile 281.0.

DRAINAGE AREA. – 13,222 mi², of which 4,899 mi² is probably noncontributing.

PERIOD OF RECORD.–October 1952 to September 1968, October 1969 to September 1972, October 1973 to September 1987, October 1988 to current year.

REMARKS.–Flow regulated by Canton Lake (station 07238500) and Lake Overholser (station 07240500). Diversions upstream from station into Lake Overholser and Lake Hefner Canal (station 07240000).

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, 1953-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	2,426	0.00	165	37.5	7.4
Nov.	1,489	0.00	127	41.5	5.7
Dec.	563	0.02	105	35.2	4.7
Jan.	922	0.04	111	39.5	5.0
Feb.	708	0.06	138	41.0	6.2
Mar.	1,487	0.00	190	59.5	8.5
Apr.	1,149	0.03	182	87.8	8.1
May	2,922	0.46	340	115	15.2
Jun.	2,774	0.01	443	280	19.7
Jul.	2,266	0.04	201	42.9	9.0
Aug.	2,380	0.00	137	10.3	6.1
Sep.	826	0.00	103	33.1	4.6
Annual	749	0.42	187	121	–

Magnitude and probability of annual instantaneous peak flow based on 84 historic years of record, 1924-2007

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%
3,240	8,580	14,000	23,200	31,900	42,300	73,500

station skew = -0.182

Duration table of daily mean flow for period of record, 1953-2007

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%
2,400	1,540	836	514	338	226	111	53.7	22.8	7.61	3.92	2.23	0.98	0.09	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1954-2007

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	1.28	0.22	0.00	0.00
3	1.44	0.27	0.05	0.00
7	1.69	0.40	0.11	0.00
10	2.01	0.51	0.14	0.00
30	3.81	0.90	0.29	0.00
60	8.67	0.98	0.30	0.03

Magnitude and probability of annual low flow based on period of record, 1953-2007
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	3.79	0.62	0.23	0.07
3	5.08	0.83	0.30	0.09
7	6.88	1.01	0.34	0.09
10	8.39	1.17	0.38	0.09
30	29.4	2.87	0.68	0.18
60	84.2	13.4	4.61	1.81

Magnitude and probability of annual low flow based on period of record, 1953-2006
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	1.92	0.29	0.00	0.00
3	2.02	0.30	0.05	0.00
7	2.45	0.44	0.11	0.00
10	2.81	0.54	0.14	0.00
30	5.05	1.14	0.36	0.00
60	11.6	1.24	0.40	0.04

Magnitude and probability of annual low flow based on period of record, 1953-2007
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	3.08	0.69	0.13	0.00
3	3.78	0.73	0.14	0.00
7	4.59	0.84	0.15	0.00
10	6.07	0.90	0.19	0.00
30	11.6	1.63	0.44	0.00
60	22.0	2.14	0.48	0.12

ARKANSAS RIVER BASIN

07241500 NORTH CANADIAN RIVER NEAR OKLAHOMA CITY, OKLA.

LOCATION. – Lat 35°29′40″, long 97°25′40″, referenced to North American Datum of 1927, on north line of sec. 29, T.12 N., R.2W., Oklahoma County, Okla., Hydrologic Unit 11100302, near right bank on downstream side of pier of bridge on U.S. Highway 62, 4.5 mi east of State Capitol in Oklahoma City, 5.0 mi upstream from Crutcho Creek, and at mile 261.2.

DRAINAGE AREA. – 13,354 mi², of which 4,899 mi² is probably noncontributing.

PERIOD OF RECORD.–October 1938 to September 1953, October 1959 to June 1961. Monthly discharge only for some periods, published in WSP 1311.

REMARKS.–Flow regulated since 1919 by Lake Overholser (station 07240500).

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, 1939-1960

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	2,664	24.1	554	65.3	12.1
Nov.	1,108	22.6	181	56.0	4.0
Dec.	454	21.3	134	46.8	2.9
Jan.	306	20.9	120	67.3	2.6
Feb.	695	29.9	148	105	3.2
Mar.	480	19.1	203	202	4.4
Apr.	1,838	44.4	500	304	10.9
May	2,472	36.6	786	510	17.1
Jun.	3,692	36.7	922	575	20.1
Jul.	2,739	48.6	498	254	10.8
Aug.	2,532	34.9	267	67.4	5.8
Sep.	2,883	24.6	280	54.9	6.1
Annual	953	56.0	392	359	–

Magnitude and probability of annual instantaneous peak flow based on 52 historic years of record, 1932-1983

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%
4,850	8,180	11,700	18,600	26,100	36,400	77,600

station skew = 1.531

Duration table of daily mean flow for period of record, 1939-1960

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%
4,180	3,390	2,260	902	550	398	220	122	70.6	52.4	42.2	34.5	27.8	23.5	20.0	18.4

Magnitude and probability of annual low flow based on period of record, 1940-1961

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	26.6	19.8	16.4	13.8
3	28.0	21.8	18.8	16.5
7	30.0	23.3	20.2	17.8
10	31.2	23.9	20.6	18.1
30	37.2	26.1	22.4	20.0
60	45.5	28.9	23.8	20.6

Magnitude and probability of annual low flow based on period of record, 1939-1961
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	44.4	29.3	23.1	18.8
3	51.0	31.2	24.0	19.4
7	62.7	35.5	27.2	22.2
10	84.3	42.6	30.6	23.5
30	201	80.1	48.3	31.4
60	451	170	95.4	57.1

Magnitude and probability of annual low flow based on period of record, 1939-1960
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	28.6	20.5	17.1	14.6
3	30.7	22.7	19.4	17.1
7	34.3	25.3	21.6	19.0
10	36.5	26.6	22.5	19.5
30	41.6	28.4	23.9	21.0
60	50.3	32.1	27.9	25.8

Magnitude and probability of annual low flow based on period of record, 1939-1961
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	32.3	21.0	16.8	14.0
3	33.5	22.2	18.1	15.5
7	34.1	22.7	19.1	16.9
10	34.8	23.2	19.7	17.5
30	44.0	26.7	21.6	18.6
60	64.4	32.9	23.8	18.4

ARKANSAS RIVER BASIN

07241520 NORTH CANADIAN RIVER AT BRITTON ROAD AT OKLAHOMA CITY, OKLA.

LOCATION. – Lat 35°33′56″, long 97°22′01″, referenced to North American Datum of 1927, in SW ¼ SW ¼ sec. 25, T.13 N., R.2 W., Oklahoma County, Okla., Hydrologic Unit 11100302, on right downstream abutment of county road bridge, 3.8 mi downstream from Crutcho Creek, 4.0 mi west of Jones, and at mile 252.7.

DRAINAGE AREA. – 13,413 mi², of which 4,899 mi² is probably noncontributing.

PERIOD OF RECORD.–October 1988 to current year.

REMARKS.–Flow regulated by Canton Lake (station 07238500) and Lake Overholser (station 07240500) where diversions are made into Lake Hefner Canal (station 07240000), and by several small dams in Oklahoma City. Low flow sustained in part by sewage effluent from Oklahoma City.

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, 1989-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	860	58.2	253	177	4.5
Nov.	928	41.7	295	212	5.2
Dec.	968	67.3	315	206	5.6
Jan.	1,162	72.5	308	192	5.4
Feb.	879	20.2	334	250	5.9
Mar.	2,011	82.4	533	356	9.4
Apr.	1,415	107	508	283	9.0
May	4,095	55.5	828	626	14.6
Jun.	3,662	121	1,017	547	18.0
Jul.	3,233	49.3	518	315	9.2
Aug.	2,929	56.9	418	184	7.4
Sep.	1,350	70.2	331	242	5.8
Annual	1,065	99.1	472	391	–

Magnitude and probability of annual instantaneous peak flow based on 19 years of record, 1989-2007

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%
10,400	19,200	26,500	37,400	46,800	57,200	86,000

station skew = 0.020

Duration table of daily mean flow for period of record, 1989-2007

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%
5,130	2,800	1,570	991	773	616	416	279	197	136	97.4	71.1	44.4	29.6	21.0	17.6

Magnitude and probability of annual low flow based on period of record, 1990-2007

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	34.9	19.5	14.3	11.0
3	36.6	20.9	15.5	12.0
7	39.0	23.0	17.9	14.7
10	41.2	24.0	18.6	15.3
30	62.1	37.3	29.0	23.8
60	86.5	56.6	46.7	40.3

Magnitude and probability of annual low flow based on period of record, 1989-2007 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	88.0	29.4	15.9	9.30
3	98.2	32.9	18.0	10.7
7	128	46.0	26.2	16.3
10	143	52.4	30.0	18.6
30	248	106	68.9	48.4
60	428	178	112	76.8

Magnitude and probability of annual low flow based on period of record, 1989-2006 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	42.7	24.1	17.9	14.0
3	44.6	25.5	19.2	15.2
7	48.6	27.5	20.9	16.8
10	50.3	29.3	22.8	18.8
30	70.3	43.9	36.1	31.5
60	122	68.3	53.4	44.9

Magnitude and probability of annual low flow based on period of record, 1989-2007 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	58.4	28.6	19.4	14.0
3	64.3	32.1	21.9	15.8
7	75.7	36.8	24.3	17.0
10	84.3	39.6	25.4	17.2
30	129	56.7	35.1	23.0
60	171	86.6	59.9	43.9

ARKANSAS RIVER BASIN

07241550 NORTH CANADIAN RIVER NEAR HARRAH, OKLA.

LOCATION. – Lat 35°30′01″, long 97°11′37″, referenced to North American Datum of 1927, in SW ¼ NW ¼ sec. 22, T.12 N., R.1 E., Oklahoma County, Okla., Hydrologic Unit 11100302, on left bank downstream side county road bridge, 2.2 mi northwest of Harrah, 3.8 mi downstream from Choctaw Creek, and at mile 230.0.

DRAINAGE AREA. – 13,501 mi², of which 4,899 mi² is probably noncontributing.

PERIOD OF RECORD.–October 1968 to current year.

REMARKS.–Flow regulated by Canton Lake (station 07238500) and by Lake Overholser (station 07240500) where diversions are made into Lake Hefner Canal (station 07240000). Low flow sustained in part by sewage effluent from Oklahoma City.

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.	3,634	71.3	410	259	7.0
Nov.	1,627	56.7	378	239	6.4
Dec.	1,209	68.1	318	216	5.4
Jan.	1,351	58.3	323	221	5.5
Feb.	1,293	61.1	376	250	6.4
Mar.	2,596	76.1	574	407	9.8
Apr.	2,312	76.6	562	387	9.6
May	4,265	79.5	891	736	15.1
Jun.	4,041	75.5	914	697	15.5
Jul.	3,863	83.1	472	228	8.0
Aug.	3,289	54.5	349	180	5.9
Sep.	1,699	64.0	322	208	5.5
Annual	1,322	93.0	491	431	–

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%
6,380	11,800	16,200	22,700	28,100	34,000	50,000

station skew = -0.219

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%
4,570	2,900	1,580	1,060	817	639	420	296	222	176	139	106	75.7	63.8	55.2	50.8

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	78.1	50.0	39.3	32.0
3	81.5	52.4	41.3	33.7
7	86.5	56.7	45.4	37.8
10	91.3	60.0	48.0	39.8
30	107	71.8	58.6	49.7
60	130	86.6	70.4	59.6

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	140	78.3	57.9	45.2
3	153	82.8	60.6	46.9
7	175	92.6	67.2	51.9
10	189	99.2	71.5	54.8
30	298	154	111	84.7
60	550	261	172	120

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	82.3	51.4	40.3	32.9
3	85.8	53.7	42.1	34.5
7	92.7	58.8	46.8	38.9
10	96.9	61.8	49.3	41.1
30	112	73.2	60.2	51.9
60	144	91.0	75.3	66.0

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	109	66.6	52.6	43.6
3	115	71.0	56.3	47.0
7	124	76.8	60.8	50.5
10	130	79.2	62.0	51.0
30	156	90.2	68.7	55.4
60	192	110	83.0	66.2

ARKANSAS RIVER BASIN

07242000 NORTH CANADIAN RIVER NEAR WETUMKA, OKLA.

LOCATION. – Lat 35°15′56″, long 96°12′21″, referenced to North American Datum of 1927, in NE ¼ SW ¼ sec. 12, T.9 N., R.10 E., Hughes County, Okla., Hydrologic Unit 11100302, on left downstream side of bridge on U.S. Highway 75, 2.3 mi upstream from Wewoka Creek, 2.5 mi northeast of Wetumka, and at mile 84.4.

DRAINAGE AREA. – 14,290 mi², of which 4,899 mi² is probably noncontributing.

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

REMARKS.–Some regulation by Lake Overholser (station 07240500) and other dams 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, 1938-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	4,914	4.25	674	343	6.8
Nov.	4,580	16.7	654	286	6.6
Dec.	3,225	43.8	499	342	5.0
Jan.	2,825	44.3	480	310	4.8
Feb.	3,037	56.6	632	355	6.4
Mar.	5,684	43.5	881	582	8.9
Apr.	6,643	72.8	1,141	829	11.5
May	6,989	85.3	1,697	1,460	17.1
Jun.	6,081	73.4	1,588	1,046	16.0
Jul.	6,063	42.5	743	485	7.5
Aug.	4,239	8.71	434	224	4.4
Sep.	3,894	0.00	480	294	4.8
Annual	2,229	156	825	692	–

Magnitude and probability of annual instantaneous peak flow based on 69 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%
11,800	19,700	25,900	34,600	41,800	49,600	70,100

station skew = 0.024

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%
8,820	5,950	3,190	1,910	1,350	1,020	664	455	324	234	166	113	73.4	52.0	31.3	19.0

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	76.0	32.9	18.8	9.96
3	80.0	35.6	20.8	11.4
7	84.7	37.9	22.3	12.4
10	88.1	39.9	23.8	13.4
30	114	53.9	33.4	19.7
60	145	68.0	45.0	29.0

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	211	107	74.9	55.6
3	222	113	79.2	59.2
7	249	127	89.5	67.3
10	273	135	94.0	69.6
30	536	245	160	112
60	1,090	497	316	212

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	84.2	35.2	19.5	10.0
3	85.7	36.8	21.1	11.3
7	90.3	39.1	22.6	12.3
10	94.2	41.2	24.0	13.3
30	123	55.6	34.0	20.1
60	284	83.0	45.5	30.5

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	122	54.4	34.7	23.6
3	131	59.2	38.1	26.1
7	145	65.5	41.8	28.4
10	150	68.1	43.6	29.7
30	182	85.5	57.6	41.5
60	227	103	68.8	49.3

ARKANSAS RIVER BASIN

07242350 DEEP FORK NEAR ARCADIA, OKLA.

LOCATION. – Lat 35°38′50″, long 97°21′35″, referenced to North American Datum of 1927, NE ¼ SW ¼ sec. 36, T.14 N., R.2 W., Oklahoma County, Okla., Hydrologic Unit 11100303, on right bank 400 ft downstream from Arcadia Dam, 2.0 mi southwest of Arcadia, 2.6 mi upstream from Coffee Creek, and at mile 213.7.

DRAINAGE AREA. – 105 mi².

PERIOD OF RECORD.–October 1969 to September 1986.

REMARKS.–Dam construction 0.5 miles upstream effects flow at times. Regulated by Arcadia Dam since November 1986. Flow affected by urban watershed in the city of Oklahoma City, Okla..

UNREGULATED URBAN 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, 1970-1986

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	399	12.1	69.6	34.5	8.8
Nov.	299	16.2	53.8	30.0	6.8
Dec.	163	14.1	38.6	28.8	4.9
Jan.	183	15.9	46.8	28.5	5.9
Feb.	119	14.4	47.9	41.7	6.0
Mar.	204	20.0	60.2	41.2	7.6
Apr.	174	26.7	64.9	57.0	8.2
May	578	16.0	170	165	21.3
Jun.	237	28.4	107	104	13.5
Jul.	124	8.40	48.4	40.1	6.1
Aug.	83.2	8.60	35.9	32.1	4.5
Sep.	200	3.66	51.9	37.6	6.5
Annual	126	35.5	66.3	52.5	–

Magnitude and probability of annual instantaneous peak flow based on 17 years of record, 1970-1986

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%
6,380	11,200	14,200	17,600	19,900	21,900	25,800

station skew = -0.815

Duration table of daily mean flow for period of record, 1970-1986

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%
843	494	176	89.5	63.3	51.7	39.6	33.1	29.0	25.6	22.9	20.2	14.1	9.40	6.77	5.15

Magnitude and probability of annual low flow based on period of record, 1971-1986

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	13.4	6.12	2.90	0.00
3	16.2	6.20	3.05	0.70
7	17.5	6.34	3.29	1.71
10	18.0	7.98	5.14	3.38
30	20.2	11.4	7.40	4.84
60	23.3	15.0	11.2	8.51

Magnitude and probability of annual low flow based on period of record, 1970-1986 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	22.7	15.5	11.8	9.08
3	23.0	17.8	15.2	13.2
7	24.4	18.9	16.3	14.2
10	25.4	19.7	17.0	14.8
30	44.9	29.5	23.0	18.5
60	102	53.1	36.3	26.0

Magnitude and probability of annual low flow based on period of record, 1970-1985 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	14.4	6.32	2.90	0.00
3	17.5	6.50	3.10	0.70
7	18.0	6.64	3.36	1.71
10	19.0	8.37	5.24	3.36
30	21.5	11.5	7.36	4.76
60	28.6	17.5	12.6	9.30

Magnitude and probability of annual low flow based on period of record, 1970-1986 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	16.8	11.0	8.52	6.81
3	17.5	11.4	8.82	7.02
7	18.0	12.0	9.45	7.67
10	18.4	12.5	9.97	8.20
30	21.5	16.6	14.7	13.4
60	27.1	20.0	17.4	15.6

ARKANSAS RIVER BASIN

07242380 DEEP FORK AT WARWICK, OKLA.

LOCATION. – Lat 35°40′51″, long 97°00′29″, referenced to North American Datum of 1927, in NW ¼ NE ¼ sec. 20, T.14 N., R.3 E., Lincoln County, Okla., Hydrologic Unit 11100303, on left downstream abutment on U.S. Highway 66, 0.5 mi southwest of Warwick, and at mile 190.9.

DRAINAGE AREA. – 532 mi².

PERIOD OF RECORD.–October 1983 to current year.

REMARKS.–Considerable regulation by Arcadia Lake (station 07242340), 22.9 miles upstream, since November 1986.

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, 1988-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	591	14.7	133	86.7	4.3
Nov.	539	20.7	178	86.0	5.7
Dec.	683	20.9	152	108	4.9
Jan.	699	23.5	148	86.2	4.7
Feb.	516	21.0	158	110	5.0
Mar.	1,249	28.3	325	186	10.4
Apr.	1,435	46.6	366	215	11.7
May	2,494	49.7	514	303	16.5
Jun.	2,978	49.8	566	227	18.1
Jul.	1,649	18.0	238	96.5	7.6
Aug.	630	12.4	157	53.5	5.0
Sep.	1,527	11.7	190	83.8	6.1
Annual	574	32.0	260	198	–

Magnitude and probability of annual instantaneous peak flow based on 20 years of record, 1988-2007

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%
10,000	16,600	21,400	28,200	33,600	39,400	54,000

station skew = -0.058

Duration table of daily mean flow for period of record, 1988-2007

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%
2,840	1,860	1,060	595	411	294	171	103	72.5	53.9	41.4	29.8	22.3	17.2	12.7	10.8

Magnitude and probability of annual low flow based on period of record, 1989-2007

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	14.9	10.0	8.05	6.64
3	15.7	10.5	8.48	7.05
7	16.6	11.5	9.81	8.65
10	17.7	12.2	10.5	9.27
30	24.1	16.0	13.1	11.1
60	36.5	21.4	16.1	12.7

Magnitude and probability of annual low flow based on period of record, 1988-2007
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	40.6	24.6	20.0	17.3
3	42.2	26.1	21.8	19.4
7	51.8	29.2	23.0	19.4
10	56.7	30.8	23.8	19.7
30	154	69.7	48.1	36.2
60	281	123	80.1	56.2

Magnitude and probability of annual low flow based on period of record, 1988-2006
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	14.9	10.0	8.05	6.64
3	15.7	10.5	8.48	7.06
7	16.6	11.5	9.81	8.71
10	17.7	12.2	10.5	9.42
30	24.2	16.0	13.3	11.6
60	41.3	21.7	16.4	13.4

Magnitude and probability of annual low flow based on period of record, 1988-2007
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	35.0	20.0	13.0	8.48
3	36.0	21.7	15.9	12.0
7	36.5	24.1	19.3	16.0
10	39.0	25.6	20.5	16.9
30	51.6	31.5	25.1	21.1
60	68.8	38.6	29.0	23.0

ARKANSAS RIVER BASIN

07243000 DRY CREEK NEAR KENDRICK, OKLA.

LOCATION. – Lat 35°46′55″, long 96°51′14″, referenced to North American Datum of 1927, NW ¼ NW ¼ sec. 14, T.15 N., R.4 E., Lincoln County, Okla., Hydrologic Unit 11100303, near left bank on downstream side of county road bridge, 1.0 mi downstream from Beaver Creek, and 4.5 mi west of Kendrick.

DRAINAGE AREA. – 69 mi².

PERIOD OF RECORD.–October 1955 to September 1994.

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, 1956-1994

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	132	0.00	15.3	3.41	4.8
Nov.	247	0.00	20.7	3.23	6.6
Dec.	153	0.00	19.1	3.89	6.0
Jan.	60.7	0.00	12.1	6.45	3.8
Feb.	234	0.00	24.1	5.41	7.6
Mar.	215	0.00	36.0	12.1	11.4
Apr.	297	0.83	44.0	21.5	13.9
May	309	0.57	66.4	43.9	21.0
Jun.	225	0.54	47.1	24.2	14.9
Jul.	80.9	0.00	10.8	4.19	3.4
Aug.	30.3	0.00	3.77	1.41	1.2
Sep.	104	0.00	16.4	2.68	5.2
Annual	88.0	2.02	26.2	17.6	–

Magnitude and probability of annual instantaneous peak flow based on 39 years of record, 1956-1994

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%
3,930	6,990	9,570	13,500	17,000	20,900	32,300

Oklahoma weighted skew = 0.205

Duration table of daily mean flow for period of record, 1956-1994

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%
545	268	73.2	28.5	17.5	12.3	7.21	4.54	2.79	1.53	0.70	0.12	0.00	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1957-1994

Period (consecutive days)	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	0.07	0.00	0.00	0.00
60	0.49	0.02	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1956-1994
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	2.40	0.58	0.00	0.00
3	2.55	0.66	0.00	0.00
7	2.90	0.78	0.00	0.00
10	3.77	0.90	0.13	0.00
30	8.76	2.42	1.15	0.56
60	38.0	13.0	6.71	3.66

Magnitude and probability of annual low flow based on period of record, 1956-1993
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	0.08	0.00	0.00	0.00
60	0.58	0.06	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1956-1994
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	0.51	0.00	0.00	0.00
3	0.60	0.00	0.00	0.00
7	0.72	0.00	0.00	0.00
10	0.80	0.00	0.00	0.00
30	1.58	0.21	0.00	0.00
60	3.30	0.21	0.01	0.00

ARKANSAS RIVER BASIN

07243500 DEEP FORK NEAR BEGGS, OKLA.

LOCATION. – Lat 35°40′26″, long 96°04′06″, referenced to North American Datum of 1927, in NW ¼ SW ¼ sec. 20, T.14 N., R.12 E., Okmulgee County, Okla., Hydrologic Unit 11100303, near right downstream abutment of county road bridge, 3.0 mi upstream from Adams Creek, 4.0 mi south of Beggs, 8.0 mi downstream from Flat Rock (Checkerboard) Creek, and at mile 85.0.

DRAINAGE AREA. – 2,018 mi².

PERIOD OF RECORD.–October 1938 to current year.

REMARKS.–Flow regulated since 1968 by numerous floodwater-retarding structures. Some regulation by Arcadia Lake (station 07242340) since November 1986.

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, 1939-1967

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	5,464	0.00	613	124	6.4
Nov.	5,981	0.00	477	65.9	4.9
Dec.	1,221	0.51	252	89.4	2.6
Jan.	1,194	7.74	206	115	2.1
Feb.	1,846	20.3	309	202	3.2
Mar.	4,494	9.65	584	195	6.0
Apr.	9,520	37.0	1,570	760	16.3
May	12,470	178	2,354	1,238	24.4
Jun.	8,899	59.0	1,822	930	18.9
Jul.	3,950	5.67	830	527	8.6
Aug.	1,773	3.31	275	131	2.8
Sep.	1,302	0.00	364	195	3.8
Annual	2,454	114	806	597	–

Magnitude and probability of annual instantaneous peak flow based on 29 years of record, 1939-1967

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%
9,400	22,600	37,000	64,300	93,300	132,000	273,000

Oklahoma weighted skew = 0.364

Duration table of daily mean flow for period of record, 1939-1967

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%
11,900	7,060	3,830	2,210	1,220	716	324	194	126	81.6	51.0	28.7	13.2	4.75	0.27	0.03

Magnitude and probability of annual low flow based on period of record, 1940-1967

Period (consecutive days)	Discharge, in ft³/s, for indicated recurrence interval, in years, and nonexceedance probability, in percent			
	2	5	10	20
	50%	20%	10%	5%
1	7.89	1.24	0.00	0.00
3	8.80	1.40	0.00	0.00
7	10.3	1.64	0.00	0.00
10	11.8	1.92	0.00	0.00
30	21.7	4.33	1.00	0.00
60	44.4	10.5	2.92	0.00

Magnitude and probability of annual low flow based on period of record, 1939-1967 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	77.9	31.4	17.2	9.73
3	83.0	33.6	18.4	10.5
7	103	41.1	22.4	12.7
10	123	47.2	26.2	15.3
30	502	155	76.2	40.2
60	1,360	559	338	219

Magnitude and probability of annual low flow based on period of record, 1939-1966 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	7.96	1.42	0.00	0.00
3	8.86	1.65	0.00	0.00
7	10.5	1.95	0.00	0.00
10	12.0	2.24	0.00	0.00
30	23.5	5.24	1.45	0.00
60	91.2	13.0	2.76	0.27

Magnitude and probability of annual low flow based on period of record, 1939-1967 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	22.6	3.00	0.43	0.00
3	25.1	3.50	0.55	0.00
7	29.8	3.55	0.63	0.05
10	35.0	4.83	0.95	0.09
30	44.6	13.7	6.22	2.26
60	78.0	17.8	6.31	2.30

ARKANSAS RIVER BASIN

07243500 DEEP FORK NEAR BEGGS, 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, 1968-2007					
Month	**Maximum**	**Minimum**	**Mean**	**Median**	**Average % of Annual Runoff**
Oct.	4,778	17.5	737	192	6.0
Nov.	8,391	20.3	937	321	7.6
Dec.	4,797	32.5	740	328	6.0
Jan.	3,749	34.4	626	270	5.1
Feb.	4,388	39.9	972	552	7.9
Mar.	8,895	62.5	1,632	926	13.2
Apr.	6,702	63.6	1,419	819	11.5
May	9,635	120	2,167	1,255	17.5
Jun.	8,994	72.6	1,938	998	15.7
Jul.	8,667	58.5	596	162	4.8
Aug.	2,416	10.7	249	95.3	2.0
Sep.	1,947	7.10	349	150	2.8
Annual	2,645	71.3	1,029	744	–

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%**
9,280	18,000	25,100	35,200	43,400	52,200	74,800

station skew = -0.245

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%**
11,400	8,120	5,000	3,000	1,920	1,250	617	367	224	149	97.1	58.0	30.8	18.6	9.82	6.45

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	16.0	6.06	3.37	2.00
3	16.9	6.56	3.76	2.29
7	18.6	7.32	4.24	2.62
10	20.0	7.99	4.69	2.94
30	33.0	14.1	8.69	5.70
60	54.3	25.3	16.8	11.8

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	145	67.4	44.9	32.0
3	156	72.2	48.2	34.6
7	179	81.1	54.4	39.3
10	197	89.4	60.6	44.4
30	510	196	120	80.6
60	1,240	505	302	194

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	16.2	6.12	3.40	2.01
3	17.0	6.63	3.79	2.31
7	18.8	7.38	4.27	2.64
10	20.0	8.00	4.70	2.95
30	34.2	14.2	8.71	5.72
60	63.8	27.3	17.8	12.5

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	67.6	25.4	13.8	7.89
3	70.8	27.2	15.2	8.93
7	76.9	31.3	18.8	12.0
10	80.0	33.9	21.2	14.3
30	126	52.2	33.4	23.2
60	204	77.3	47.0	31.3

ARKANSAS RIVER BASIN

07244000 DEEP FORK NEAR DEWAR, OKLA.

LOCATION. – Lat 35°28′43″, long 95°52′57″, referenced to North American Datum of 1927, SE ¼ sec. 25, T.12 N., R.13 E., Okmulgee County, Okla., Hydrologic Unit 11100303, at bridge on U.S. Highway 266, 3.2 mi upstream from Wolf Creek, 3.5 mi east of Dewar, and at mile 43.9.

DRAINAGE AREA. – 2,307 mi².

PERIOD OF RECORD.–October 1937 to September 1950.

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, 1938-1950

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	6,907	7.93	978	192	6.1
Nov.	7,252	16.8	902	108	5.6
Dec.	1,712	9.58	413	103	2.6
Jan.	1,261	12.4	274	230	1.7
Feb.	3,200	42.0	743	431	4.6
Mar.	5,579	15.4	1,060	835	6.6
Apr.	11,780	74.5	2,734	987	17.0
May	13,220	327	3,867	2,476	24.1
Jun.	7,953	124	2,850	1,546	17.8
Jul.	5,029	74.6	1,308	674	8.2
Aug.	1,847	24.8	419	218	2.6
Sep.	1,671	14.8	500	217	3.1
Annual	2,866	125	1,337	1,338	–

Magnitude and probability of annual instantaneous peak flow based on 47 historic years of record, 1909-1955

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%
11,000	23,500	35,900	57,300	78,400	105,000	192,000

Oklahoma weighted skew = 0.287

Duration table of daily mean flow for period of record, 1938-1950

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%
16,800	11,600	6,390	3,910	2,590	1,570	580	296	181	113	74.3	42.5	21.4	13.0	8.14	6.24

Magnitude and probability of annual low flow based on period of record, 1939-1950

Period (consecutive days)	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	5.01	3.17	2.17
3	12.4	5.66	3.80	2.74
7	13.9	6.62	4.59	3.42
10	14.6	7.62	5.68	4.56
30	28.3	13.3	9.03	6.60
60	51.1	22.2	14.3	9.94

Magnitude and probability of annual low flow based on period of record, 1938-1950
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	113	44.7	23.7	12.9
3	118	49.2	27.3	15.6
7	156	68.6	39.6	23.5
10	209	83.0	46.2	27.0
30	928	307	148	73.9
60	2,880	1,100	578	316

Magnitude and probability of annual low flow based on period of record, 1938-1949
ummer 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	12.4	5.71	3.84	2.77
3	13.0	6.16	4.21	3.09
7	14.4	6.83	4.71	3.50
10	15.2	7.86	5.81	4.63
30	28.8	13.6	9.40	6.98
60	78.9	28.6	17.0	11.2

Magnitude and probability of annual low flow based on period of record, 1938-1950
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	28.4	9.22	4.88	2.81
3	28.9	10.5	6.08	3.83
7	30.7	12.4	7.80	5.32
10	35.8	14.0	8.47	5.52
30	57.1	22.2	12.9	8.08
60	79.4	30.9	18.3	11.7

ARKANSAS RIVER BASIN

07245000 CANADIAN RIVER NEAR WHITEFIELD, OKLA.

LOCATION. – Lat 35°15′44″, long 95°14′13″, referenced to North American Datum of 1927, in SW ¼ SW ¼ sec. 7, T.9 N., R.20 E., Haskell County, Okla., Hydrologic Unit 11090204, on right downstream bank at end of bridge on State Highway 2, 0.8 mi north of Whitefield, 5.5 mi upstream from Taloka (Snake) Creek, 8.2 mi downstream from Eufaula Dam, and at mile 18.8.

DRAINAGE AREA. – 47,576 mi², of which 9,700 mi² is probably noncontributing.

PERIOD OF RECORD.–October 1938 to current year. Monthly discharge only for some periods, published in WSP 1311.

REMARKS.–Prior to February 1964, occasional slight regulation by Conchas Lake in New Mexico and, except for 54 mi² of intervening area, completely regulated thereafter by Eufaula Lake (station 07244800).

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.	41,240	2.22	4,930	1,919	6.8
Nov.	28,630	56.0	3,303	1,046	4.6
Dec.	19,560	118	2,890	979	4.0
Jan.	9,252	109	2,287	1,594	3.2
Feb.	14,690	262	3,854	2,333	5.4
Mar.	36,680	152	5,592	4,934	7.8
Apr.	46,320	227	9,695	5,598	13.5
May	48,210	1,872	16,367	11,450	22.7
Jun.	42,080	314	11,070	5,897	15.4
Jul.	30,360	151	6,230	4,640	8.7
Aug.	12,690	45.4	2,451	1,678	3.4
Sep.	19,980	2.67	3,294	1,639	4.6
Annual	14,210	980	6,005	4,691	–

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%
104,000	183,000	244,000	329,000	399,000	472,000	660,000

Water Resources Council weighted skew = -0.139

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%
69,300	48,000	27,100	15,100	10,100	7,100	4,000	2,490	1,620	1,050	676	397	196	106	36.9	14.6

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	238	58.0	18.0	5.40
3	242	61.0	20.0	6.48
7	261	65.9	22.4	7.68
10	274	68.5	23.6	8.28
30	424	93.4	31.2	10.6
60	676	142	47.9	16.7

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	785	349	208	130
3	852	368	218	136
7	995	457	299	208
10	1,200	540	352	245
30	3,950	1,580	944	602
60	10,100	4,900	3,260	2,300

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	263	58.7	18.0	5.40
3	267	61.4	20.0	6.48
7	282	65.9	22.4	7.68
10	298	68.5	23.6	8.28
30	534	105	33.5	11.1
60	1,260	223	66.0	20.3

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	319	96.2	42.8	19.8
3	334	104	48.4	23.5
7	344	121	63.0	34.8
10	364	134	72.9	41.8
30	551	228	135	85.0
60	748	320	206	143

ARKANSAS RIVER BASIN

07245000 CANADIAN RIVER NEAR WHITEFIELD, 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, 1965-2007					
Month	**Maximum**	**Minimum**	**Mean**	**Median**	**Average % of Annual Runoff**
Oct.	13,100	64.9	2,513	2,176	3.4
Nov.	21,930	248	4,971	2,909	6.8
Dec.	29,600	246	5,696	3,676	7.7
Jan.	32,030	75.5	5,815	2,911	7.9
Feb.	19,480	127	5,657	4,244	7.7
Mar.	30,340	54.9	8,086	4,321	11.0
Apr.	37,980	81.5	8,140	5,513	11.1
May	64,970	148	11,219	7,297	15.2
Jun.	35,550	536	9,530	7,306	13.0
Jul.	43,060	258	5,587	3,811	7.6
Aug.	20,050	204	3,842	3,088	5.2
Sep.	13,910	174	2,540	1,699	3.4
Annual	15,200	357	6,134	5,304	–

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**
15%	**5%**	**10%**	**4%**	**2%**	**1%**	**0.2%**
29,000	49,200	67,100	95,900	122,000	154,000	254,000

station skew = 0.575

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%**
40,600	35,600	24,700	16,900	12,500	9,580	6,090	4,430	3,080	1,900	969	427	120	73.2	51.5	42.1

Magnitude and probability of annual low flow based on period of record, 1966-2007

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	51.6	33.4	26.4	21.6
3	70.2	41.5	32.8	24.2
7	151	65.3	42.5	29.9
10	184	75.8	47.8	32.8
30	459	179	106	67.6
60	811	327	194	122

Magnitude and probability of annual low flow based on period of record, 1965-2007
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	180	53.7	32.0	22.0
3	560	146	72.8	41.3
7	1,340	341	154	76.1
10	1,560	405	185	92.4
30	3,940	1,100	496	239
60	7,270	2,250	1,040	508

Magnitude and probability of annual low flow based on period of record, 1965-2006
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	59.8	44.3	40.5	32.0
3	93.7	53.7	42.2	35.5
7	217	94.2	60.3	41.6
10	278	116	72.3	48.5
30	878	392	240	154
60	1,500	777	530	379

Magnitude and probability of annual low flow based on period of record, 1965-2007
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	74.4	37.2	27.3	21.7
3	124	50.8	33.4	24.2
7	336	105	56.4	33.3
10	429	127	66.0	37.9
30	1,000	307	160	91.6
60	1,570	525	290	175

ARKANSAS RIVER BASIN

07245500 SALLISAW CREEK NEAR SALLISAW, OKLA.

LOCATION. – Lat 35°27′52″, long 94°51′43″, referenced to North American Datum of 1927, in SW ¼ sec. 34, T.12 N., R.23 E., Sequoyah County, Okla., Hydrologic Unit 11110104, on downstream side of right pier of abandoned county road bridge, 300 ft upstream from U.S. Highway 64, 400 ft downstream from water-supply dam of City of Sallisaw, 5 mi upstream from Little Sallisaw Creek, and at mile 9.0.

DRAINAGE AREA. – 182 mi².

PERIOD OF RECORD.–October 1942 to September 1976.

REMARKS.–Flow regulated since 1964 by numerous floodwater-retarding structures. Small diversion above station for municipal water supply for City of Sallisaw.

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, 1943-1963

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	231	0.03	39.9	16.7	1.7
Nov.	758	0.00	118	16.4	4.9
Dec.	856	1.50	138	71.2	5.8
Jan.	583	2.02	130	79.9	5.5
Feb.	719	13.5	243	148	10.2
Mar.	1,705	18.9	346	259	14.6
Apr.	1,977	31.2	405	293	17.0
May	1,509	66.7	509	438	21.4
Jun.	1,525	6.77	269	134	11.3
Jul.	458	0.23	107	63.0	4.5
Aug.	314	0.20	35.2	11.9	1.5
Sep.	231	0.00	36.9	7.43	1.6
Annual	565	35.8	198	175	–

Magnitude and probability of annual instantaneous peak flow based on 22 years of record, 1943-1963

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%
13,100	28,800	43,000	65,500	85,600	109,000	175,000

Oklahoma weighted skew = -0.102

Duration table of daily mean flow for period of record, 1943-1963

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%
2,660	1,600	754	406	265	195	116	72.5	42.1	25.0	14.9	7.03	2.13	0.61	0.16	0.03

Magnitude and probability of annual low flow based on period of record, 1944-1963

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	1.74	0.43	0.00	0.00
3	1.90	0.44	0.00	0.00
7	2.40	0.49	0.00	0.00
10	2.53	0.54	0.00	0.00
30	3.91	0.64	0.00	0.00
60	6.06	0.67	0.14	0.03

Magnitude and probability of annual low flow based on period of record, 1943-1963 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	56.2	17.5	5.65	1.63
3	59.2	18.4	6.39	2.05
7	60.1	23.2	13.0	7.66
10	60.8	25.8	15.4	9.64
30	179	87.6	59.6	43.1
60	360	194	141	108

Magnitude and probability of annual low flow based on period of record, 1943-1962 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	1.95	0.51	0.00	0.00
3	2.13	0.52	0.00	0.00
7	2.65	0.53	0.00	0.00
10	2.80	0.54	0.00	0.00
30	4.42	0.59	0.12	0.00
60	6.78	1.15	0.37	0.13

Magnitude and probability of annual low flow based on period of record, 1943-1963 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	5.76	1.32	0.46	0.03
3	6.46	1.44	0.48	0.03
7	7.24	1.60	0.55	0.03
10	7.49	1.64	0.56	0.04
30	12.0	2.59	0.89	0.06
60	30.4	8.81	4.11	2.06

ARKANSAS RIVER BASIN

07245500 SALLISAW CREEK NEAR SALLISAW, 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, 1964-1976

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	906	0.14	160	28.9	6.4
Nov.	1,083	0.00	259	54.1	10.3
Dec.	867	0.00	244	172	9.7
Jan.	381	0.03	176	155	7.0
Feb.	758	3.64	258	244	10.3
Mar.	1,104	5.74	364	354	14.5
Apr.	1,083	47.0	405	335	16.1
May	753	111	317	314	12.6
Jun.	773	11.8	188	74.3	7.5
Jul.	163	1.86	40.4	30.9	1.6
Aug.	57.6	0.46	16.7	8.30	0.7
Sep.	632	0.64	84.8	14.4	3.4
Annual	395	42.6	209	207	–

Magnitude and probability of annual instantaneous peak flow based on 13 years of record, 1964-1976

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%
6,110	8,290	9,540	10,900	11,800	12,700	14,300

station skew = -0.550

Duration table of daily mean flow for period of record, 1964-1976

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%
2,150	1,640	1,090	577	345	242	150	96.8	59.9	31.5	13.8	5.30	1.17	0.25	0.11	0.03

Magnitude and probability of annual low flow based on period of record, 1965-1976

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	0.36	0.10	0.06	0.00
3	0.39	0.12	0.07	0.00
7	0.47	0.14	0.09	0.00
10	0.53	0.16	0.10	0.00
30	1.25	0.36	0.19	0.00
60	3.98	1.11	0.57	0.00

Magnitude and probability of annual low flow based on period of record, 1964-1976
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	38.7	17.2	10.7	7.07
3	45.4	21.3	13.4	8.91
7	55.2	25.9	16.2	10.5
10	59.5	32.2	22.8	17.0
30	213	122	85.3	61.5
60	322	206	162	133

Magnitude and probability of annual low flow based on period of record, 1964-1975
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	0.36	0.10	0.06	0.04
3	0.39	0.12	0.07	0.05
7	0.47	0.15	0.09	0.06
10	0.54	0.17	0.10	0.07
30	1.28	0.38	0.21	0.13
60	5.31	2.00	1.23	0.83

Magnitude and probability of annual low flow based on period of record, 1964-1976
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	9.11	0.84	0.07	0.00
3	10.3	0.92	0.07	0.00
7	13.9	1.26	0.10	0.00
10	15.7	1.47	0.11	0.00
30	32.1	2.63	0.18	0.00
60	71.2	8.84	0.89	0.00

ARKANSAS RIVER BASIN

07247000 POTEAU RIVER AT CAUTHRON, ARK.

LOCATION. – Lat 34°55′08″, long 94°17′58″, referenced to North American Datum of 1927, in NW ¼ SE ¼ sec. 16, T.3 N., R.31 W., Scott County, Ark., Hydrologic Unit 11110105, on right bank at downstream side of Scott County Rd No 56 bridge at Cauthron, 200 ft south of junction with State Hwy 28, 2.9 mi downstream from Cross Creek, 7.8 mi downstream from Jones Creek, and at river mile 109.0.

DRAINAGE AREA. – 203 mi².

PERIOD OF RECORD.–March 1939 to current year.

REMARKS.–As of Sep 1974, flow from 92.2 mi² upstream from this station is controlled by 16 floodwater-detention reservoirs that have a total combined capacity of 39,082 acre-ft below the flood spillway crests, of which 33,524 acre-ft is flood detention capacity, 2,100 acre-ft is water-supply storage, and 3,458 acre-ft is sediment storage capacity.

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, 1939-1972

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	567	0.00	57.5	12.8	2.3
Nov.	693	0.00	126	39.4	5.0
Dec.	1,262	0.00	247	115	9.8
Jan.	1,650	0.00	285	202	11.3
Feb.	1,514	12.4	368	278	14.6
Mar.	2,212	18.0	378	303	15.0
Apr.	1,629	25.4	396	294	15.7
May	1,480	18.5	426	281	16.8
Jun.	878	1.24	109	40.5	4.3
Jul.	686	0.00	62.2	6.60	2.5
Aug.	283	0.00	30.8	7.95	1.2
Sep.	300	0.00	41.8	7.77	1.6
Annual	538	43.7	210	215	–

Magnitude and probability of annual instantaneous peak flow based on 34 years of record, 1939-1972

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%
11,400	19,900	26,200	34,700	41,400	48,200	64,900

Oklahoma weighted skew = -0.265

Duration table of daily mean flow for period of record, 1939-1972

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%
3,740	2,120	845	393	248	171	91.2	50.5	27.6	13.3	5.20	1.91	0.23	0.00	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1940-1972

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	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
7	0.09	0.00	0.00	0.00
10	0.13	0.00	0.00	0.00
30	0.42	0.00	0.00	0.00
60	1.56	0.01	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1939-1972
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	12.7	6.00	3.98	2.82
3	14.0	6.64	4.46	3.20
7	16.6	7.84	5.36	3.95
10	21.4	9.19	6.07	4.37
30	120	50.8	32.4	22.3
60	328	150	94.3	62.6

Magnitude and probability of annual low flow based on period of record, 1939-1971
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	0.05	0.00	0.00	0.00
3	0.05	0.00	0.00	0.00
7	0.09	0.00	0.00	0.00
10	0.14	0.00	0.00	0.00
30	0.51	0.00	0.00	0.00
60	1.85	0.06	0.00	0.00

Magnitude and probability of annual low flow based on period of record, 1939-1972
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	2.23	0.00	0.00	0.00
3	2.93	0.07	0.00	0.00
7	3.33	0.18	0.00	0.00
10	4.48	0.44	0.00	0.00
30	16.2	3.24	0.98	0.00
60	63.6	11.2	2.61	0.00

ARKANSAS RIVER BASIN

07247000 POTEAU RIVER AT CAUTHRON, 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, 1975-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	1,423	0.02	89.7	11.0	3.2
Nov.	1,900	2.09	271	75.4	9.5
Dec.	1,078	2.02	356	258	12.5
Jan.	1,075	14.1	320	217	11.2
Feb.	1,298	9.20	376	245	13.2
Mar.	1,185	23.5	402	362	14.1
Apr.	1,092	27.3	331	220	11.6
May	2,080	13.6	403	310	14.2
Jun.	846	2.35	192	112	6.7
Jul.	455	0.41	68.8	16.9	2.4
Aug.	93.7	0.81	16.4	4.62	0.6
Sep.	166	0.19	21.3	7.18	0.8
Annual	432	48.7	236	244	–

Magnitude and probability of annual instantaneous peak flow based on 33 years of record, 1975-2007

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%
9,020	12,600	15,100	18,300	20,700	23,200	29,300

station skew = 0.082

Duration table of daily mean flow for period of record, 1975-2007

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%
3,120	1,970	1,060	598	383	267	143	78.7	43.0	21.0	9.34	4.04	1.79	0.84	0.31	0.01

Magnitude and probability of annual low flow based on period of record, 1976-2007

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	0.59	0.04	0.00	0.00
3	0.62	0.10	0.00	0.00
7	0.76	0.12	0.00	0.00
10	0.81	0.17	0.04	0.00
30	1.57	0.67	0.44	0.00
60	3.12	1.14	0.68	0.45

Magnitude and probability of annual low flow based on period of record, 1975-2007 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	17.3	7.08	4.52	3.15
3	19.4	7.91	5.07	3.55
7	28.3	11.0	6.80	4.61
10	33.9	13.4	8.47	5.84
30	107	39.0	22.5	14.1
60	282	115	67.1	41.2

Magnitude and probability of annual low flow based on period of record, 1975-2006 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	0.61	0.11	0.00	0.00
3	0.67	0.15	0.00	0.00
7	0.83	0.13	0.00	0.00
10	0.85	0.19	0.04	0.00
30	2.14	0.50	0.17	0.05
60	3.37	1.34	0.87	0.62

Magnitude and probability of annual low flow based on period of record, 1975-2007 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	4.17	0.78	0.26	0.07
3	4.76	1.06	0.42	0.15
7	7.82	2.05	0.90	0.36
10	9.46	2.59	1.18	0.51
30	36.6	11.2	5.52	2.95
60	101	32.4	15.7	8.08

ARKANSAS RIVER BASIN

07247015 POTEAU RIVER AT LOVING, OKLA.

LOCATION. – Lat 34°52′47″, long 94°29′02″, referenced to North American Datum of 1927, in SW ¼ NW ¼ sec. 29, T.5 N., R.27 E., Le Flore County, Okla., Hydrologic Unit 11110105, on right downstream bank of county road bridge, 0.6 mi northwest of Loving, 1.0 mi above Loving Creek, and at mile 93.6.

DRAINAGE AREA. – 269 mi².

PERIOD OF RECORD.–April 1992 to current year.

REMARKS.–Regulation by numerous small flood-water 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, 1992-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	408	3.35	66.3	21.5	2.0
Nov.	2,217	3.25	417	138	12.3
Dec.	1,146	9.55	498	526	14.7
Jan.	1,289	26.4	534	618	15.8
Feb.	1,639	12.1	459	227	13.6
Mar.	1,420	28.2	445	270	13.1
Apr.	1,038	37.1	362	270	10.7
May	1,001	24.8	326	174	9.6
Jun.	600	12.6	182	128	5.4
Jul.	212	1.84	54.5	18.9	1.6
Aug.	66.1	0.43	8.89	5.35	0.3
Sep.	190	1.83	34.4	11.1	1.0
Annual	481	66.4	281	336	–

Magnitude and probability of annual instantaneous peak flow based on 14 years of record, 1994-2007

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%
8,390	10,800	12,200	13,800	14,900	15,900	18,000

station skew = -0.381

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%
4,060	2,530	1,220	670	431	298	158	87.1	49.2	28.1	13.5	5.91	2.86	1.67	0.81	0.38

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	0.62	0.10	0.00	0.00
3	0.77	0.15	0.05	0.02
7	0.98	0.29	0.14	0.08
10	1.12	0.34	0.17	0.09
30	2.07	0.90	0.62	0.46
60	3.43	1.81	1.41	1.20

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	20.6	11.0	8.06	6.30
3	22.6	11.9	8.73	6.80
7	28.0	13.9	9.93	7.64
10	33.1	15.9	11.3	8.68
30	109	47.1	30.4	21.3
60	270	119	74.0	48.6

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	0.62	0.10	0.00	0.00
3	0.77	0.15	0.05	0.02
7	0.98	0.29	0.14	0.08
10	1.12	0.34	0.17	0.09
30	2.17	0.92	0.62	0.46
60	4.03	1.99	1.47	1.18

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	9.79	3.20	1.72	1.02
3	11.4	4.00	2.21	1.33
7	17.8	6.57	3.65	2.16
10	19.6	7.38	4.17	2.52
30	46.9	14.2	7.03	3.78
60	154	46.6	22.2	11.3

ARKANSAS RIVER BASIN

07247250 BLACK FORK BELOW BIG CREEK NEAR PAGE, OKLA.

LOCATION. – Lat 34°46′25″, long 94°30′43″, referenced to North American Datum of 1927, in NE ¼ SW ¼ sec. 31, T.4 N., R.27 E., Le Flore County, Okla., Hydrologic Unit 11110105, on downstream side of bridge pier of county road bridge, 2.2 mi above Haw Creek, 5.0 mi north of Page, and at mile 24.6.

DRAINAGE AREA. – 74.4 mi².

PERIOD OF RECORD.–March 1992 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, 1992-2007

Month	Maximum	Minimum	Mean	Median	Average % of Annual Runoff
Oct.	491	0.00	62.5	9.10	3.5
Nov.	1,215	0.23	205	74.9	11.4
Dec.	566	0.49	248	221	13.8
Jan.	594	6.98	290	237	16.1
Feb.	958	9.12	234	130	13.0
Mar.	700	39.2	213	148	11.9
Apr.	500	48.7	186	138	10.3
May	553	34.4	173	102	9.6
Jun.	520	1.24	106	49.7	5.9
Jul.	352	0.03	45.4	14.8	2.5
Aug.	36.2	0.00	5.26	1.19	0.3
Sep.	378	0.00	30.5	1.30	1.7
Annual	246	21.8	148	171	–

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%
10,300	18,200	24,100	31,800	37,800	44,000	58,600

Oklahoma weighted skew = -0.326

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%
2,070	1,190	582	296	218	166	100	62.0	38.1	20.0	7.15	1.39	0.05	0.00	0.00	0.00

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	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	0.32	0.01	0.00	0.00

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	17.8	7.18	3.83	2.09
3	20.1	8.19	4.34	2.34
7	24.9	10.3	5.66	3.19
10	29.5	12.6	7.20	4.23
30	73.6	43.1	34.6	29.7
60	136	79.7	61.9	50.9

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	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	0.02	0.00	0.00	0.00
60	0.38	0.01	0.00	0.00

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	4.92	0.00	0.00	0.00
3	5.50	0.06	0.00	0.00
7	10.5	0.56	0.02	0.00
10	11.0	0.71	0.04	0.00
30	21.9	2.67	0.69	0.20
60	105	20.6	5.92	1.70