07171000 VERDIGRIS RIVER NEAR LENAPAH, OK

Verdigris Basin
Middle Verdigris Subbasin

LOCATION.--Lat 36°51′04″, long 95°35′09″ referenced to North American Datum of 1927, in NE ¼ SW ¼ sec.3, T.27 N., R.16 E., Nowata County, OK, Hydrologic Unit 11070103, on right bank on downstream side of State Highway 10 bridge, 2.8 mi east of Lenapah, 5.5(revised) mi upstream from Cedar Creek, and at mile 144.6.

DRAINAGE AREA.--3,639 mi^2.

SURFACE-WATER RECORDS

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

REVISED RECORDS.--WSP 977: 1942 (M). WSP 1117: drainage area.

GAGE.--Water-stage recorder. Datum of gage is 644.90 ft above NGVD of 1929.

REMARKS.-- Records good except for estimated periods which are poor. Some regulation since April 1949 by Fall River Reservoir in Kansas. Flow regulated since 1960 by Toronto Lake in Kansas. Flow has been further regulated since 1966 by Elk City Lake in Kansas. U.S. Army Corps of Engineers' satellite telemeter at station.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	75	155	60	992	650	3,580	16,100	3,820	e25,000	e13,000	3,520	1,100
2	319	129	58	963	627	2,690	7,020	2,970	e23,400	e12,600	1,980	1,080
3	573	102	60	910	647	10,600	6,270	10,700	e16,600	e12,900	1,840	919
4	291	84	61	829	830	10,800	6,080	9,630	e11,500	e13,100	2,610	833
5	165	73	59	981	1,950	7,080	3,110	2,060	e13,400	e13,100	2,630	836
6	103	65	57	1,030	3,960	3,720	2,390	1,710	20,400	e13,100	2,290	786
7	81	57	58	950	3,340	6,540	2,150	6,560	24,600	e13,000	1,730	1,680
8	126	53	60	991	2,500	7,710	2,130	30,700	16,200	e12,800	1,760	2,200
9	138	53	70	1,070	2,820	7,360	2,750	25,900	27,900	12,400	1,740	1,210
10	113	51	79	1,160	2,950	7,070	23,300	14,900	e37,100	10,300	21,700	1,030
11	93	50	369	1,130	2,940	5,130	24,400	13,100	32,200	9,300	28,300	1,000
12	75	51	1,610	1,060	2,980	2,320	10,200	12,700	21,200	9,140	16,400	5,280
13	63	52	752	994	5,480	1,750	3,030	12,000	e14,300	9,240	9,460	15,400
14	54	51	430	962	6,880	2,260	1,900	12,000	28,600	9,040	9,550	30,100
15	57	50	370	1,020	5,970	1,510	2,790	11,400	28,300	9,600	8,570	19,500
16	67	47	360	1,090	3,250	1,380	6,580	10,800	31,300	10,500	7,220	7,410
17	67	48	329	1,230	6,270	1,370	8,400	9,330	29,500	11,100	8,840	9,680
18	801	49	291	1,470	4,650	5,010	e8,270	7,930	e18,300	8,790	9,280	12,200
19	1,320	48	267	1,180	5,290	13,300	e8,140	7,510	e15,800	4,590	9,210	12,500
20	887	47	235	762	3,400	4,990	e8,030	6,620	e14,500	1,840	8,570	12,400
21	469	46	206	662	5,570	3,130	e7,810	5,630	e15,300	1,260	7,870	12,300
22	288	47	192	631	6,240	4,230	e7,640	3,120	e16,300	1,200	8,000	12,100
23	e420	47	415	618	5,490	4,680	e7,400	1,470	e16,700	1,050	9,580	11,900
24	e1,200	47	988	580	5,870	4,500	e14,400	1,690	e17,000	618	10,600	11,800
25	e823	48	995	557	7,360	4,380	e10,200	2,440	e14,800	390	10,300	11,600
26	567	55	994	644	7,340	4,290	e5,150	11,500	e13,000	314	9,580	10,500
27	382	60	1,010	666	6,220	4,240	e5,110	37,400	e13,200	1,050	6,420	9,640
28	299	60	1,070	662	4,540	4,150	e5,130	40,200	e15,300	415	2,710	8,820
29	249	58	1,120	668	4,670	4,050	e4,830	35,600	e19,700	831	838	7,950
30	195	59	1,100	663	---	3,980	4,340	28,800	e16,100	1,540	3,390	7,240
31	172	---	1,040	668	---	6,270	---	e17,900	---	4,750	2,120	---
Total	10,532	1,842	14,765	27,793	120,684	154,070	225,050	398,090	607,500	222,858	228,608	240,994
Mean	340	61.4	476	897	4,162	4,970	7,502	12,840	20,250	7,189	7,374	8,033
Max	1,320	155	1,610	1,470	7,360	13,300	24,400	40,200	37,100	13,100	28,300	30,100
Min	54	46	57	557	627	1,370	1,900	1,470	11,500	314	838	786
Ac-ft	20,890	3,650	29,290	55,130	239,400	305,600	446,400	789,600	1,205,000	442,000	453,400	478,000

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	2,012	2,599	1,848	1,677	2,181	4,283	4,009	4,789	5,534	2,951	1,090	1,239
Max	27,970	15,440	11,000	7,998	8,983	17,130	16,300	12,840	20,250	25,480	7,374	8,033
(WY)	(1987)	(1975)	(1993)	(1973)	(1985)	(1973)	(1988)	(2008)	(2008)	(2007)	(2008)	(2008)
Min	15.5	20.0	29.2	17.6	20.0	19.7	30.2	366	84.3	17.9	16.1	9.99
(WY)	(1981)	(1981)	(1967)	(1981)	(1981)	(1981)	(1981)	(1992)	(1972)	(1980)	(1983)	(1980)

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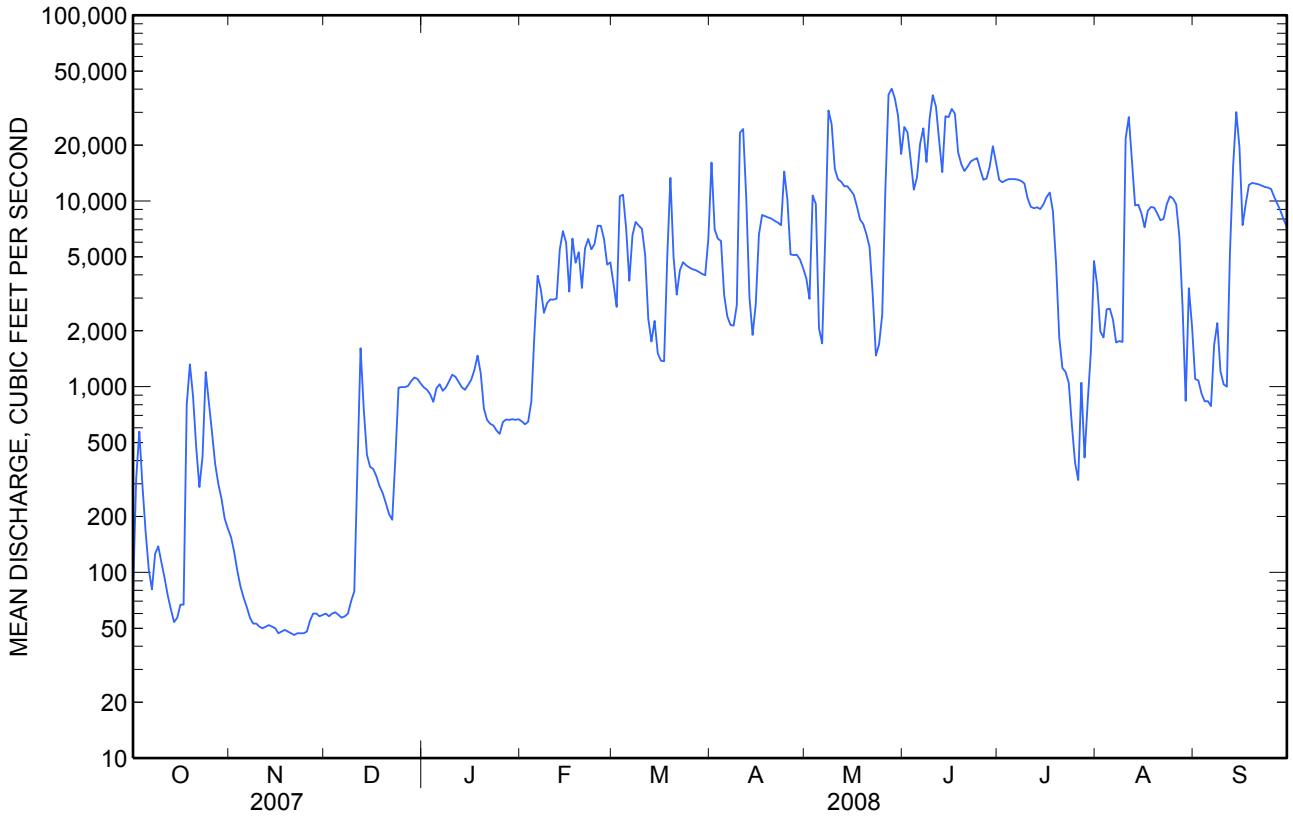
SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1967 - 2008	
Annual total	1,888,386		2,252,786			
Annual mean	5,174		6,155		[a]2,851	
Highest annual mean					6,227	1999
Lowest annual mean					301	1996
Highest daily mean	168,000	Jul 2	40,200	May 28	168,000	Jul 2, 2007
Lowest daily mean	34	Jan 20	46	Nov 21	[b]5.5	Sep 30, 1980
Annual seven-day minimum	42	Jan 16	47	Nov 19	5.7	Sep 26, 1980
Maximum peak flow			41,000	May 28	192,000	Jul 2, 2007
Maximum peak stage			33.35	May 28	[c]43.19	Jul 2, 2007
Annual runoff (ac-ft)	3,746,000		4,468,000		2,065,000	
10 percent exceeds	12,300		15,500		8,940	
50 percent exceeds	522		2,960		627	
90 percent exceeds	57		66		39	

[a] Prior to regulation, water years 1939-59, 2,084 ft^3/s.

[b] Minimum daily discharge for period of record, no flow at times in 1939,1940, and 1956.

[c] Occured during backwater from Oologah Lake