

Water-Data Report 2013

07176000 VERDIGRIS RIVER NEAR CLAREMORE, OK

Verdigris Basin
Lower Verdigris Subbasin

LOCATION.--Lat 36°18'27", long 95°41'59" referenced to North American Datum of 1983, in NE ¼ NW ¼ sec.15, T.21 N., R.15 E., Rogers County, OK, Hydrologic Unit 11070105, on right bank on downstream side of bridge on State Highway 20, 2.3 mi downstream from Caney River, 4.5 mi west of Claremore, 12.4 mi upstream from Bird Creek, and at mile 76.0.

DRAINAGE AREA.--6,451 mi², from automated delineation using 10-meter National Elevation Dataset digital elevation model data dated 10/01/2006 and Watershed Boundary Dataset dated 10/01/2006, using Albers Equal-Area Projection, North American Datum 1983.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1935 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WDR 2012: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 538.62 ft above NGVD of 1929. Prior to Feb. 24, 1939, and May 17 to Aug. 24, 1967, non-recording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Some regulation since 1949 by dams in Kansas, and since February 1950 by Hulah Lake (station 07172500). Flow regulated since May 1963 by Oologah Lake (station 07171300), 14.3 mi upstream from station, and since April 1983 by Copan Lake (station 07174300). U.S. Army Corps of Engineers' satellite telemeter at station.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	105	28	33	35	123	381	41	5,490	16,200	4,080	7,820	12,000
2	103	30	35	31	82	221	76	6,280	16,500	2,290	4,610	10,900
3	102	30	35	29	63	153	103	8,800	12,000	907	4,170	9,710
4	102	28	36	27	52	120	207	8,750	8,480	168	3,690	8,610
5	101	25	34	27	45	101	348	7,780	11,200	144	3,620	7,950
6	103	24	36	27	41	84	273	6,040	15,800	138	5,030	6,870
7	104	25	37	27	40	74	203	3,370	17,100	137	12,100	6,830
8	105	24	35	27	39	64	163	3,180	18,800	135	12,800	6,790
9	105	24	33	28	38	58	132	3,210	18,200	132	16,500	6,200
10	104	25	30	30	38	60	117	3,440	17,800	132	18,600	3,760
11	104	40	30	33	36	55	123	4,860	17,400	132	20,500	2,430
12	143	49	30	33	38	50	122	4,200	17,400	134	18,700	1,450
13	171	39	28	33	46	54	145	3,830	17,200	134	18,100	176
14	1,380	73	26	30	47	50	155	3,790	17,500	131	24,800	149
15	355	62	25	27	46	44	119	3,410	16,400	131	23,500	124
16	259	49	26	28	42	41	99	3,110	15,800	151	20,600	109
17	191	42	28	29	40	31	85	2,800	14,500	159	21,200	146
18	148	38	28	32	41	33	1,350	2,030	12,000	154	21,400	282
19	128	36	32	33	35	31	2,210	2,020	11,700	143	21,400	249
20	119	34	35	32	37	63	1,020	1,420	11,700	115	21,500	232
21	120	31	33	31	61	34	458	6,260	11,100	263	21,100	206
22	121	32	31	31	248	26	279	9,180	8,710	3,660	21,100	254
23	71	30	30	29	171	23	206	8,620	5,050	3,150	21,200	219
24	52	29	27	28	146	24	169	9,160	5,540	5,520	21,000	194
25	51	31	25	28	130	24	175	8,940	6,760	6,550	20,700	184
26	48	33	27	29	993	22	457	8,030	6,460	5,550	20,500	175
27	45	31	29	30	1,040	22	881	8,390	5,730	4,460	19,800	172
28	41	31	29	31	728	21	1,200	9,860	4,620	3,630	17,900	195
29	37	32	30	43	---	21	2,230	9,490	4,530	4,150	16,000	200
30	32	32	28	76	---	88	4,650	12,100	4,500	5,420	14,300	535
31	29	---	33	108	---	50	---	17,700	---	8,010	12,900	---
Total	4,679	1,037	954	1,062	4,486	2,123	17,796	195,540	366,680	60,010	507,140	87,301
Mean	151	34.6	30.8	34.3	160	68.5	593	6,308	12,220	1,936	16,360	2,910
Max	1,380	73	37	108	1,040	381	4,650	17,700	18,800	8,010	24,800	12,000
Min	29	24	25	27	35	21	41	1,420	4,500	115	3,620	109
Ac-ft	9,280	2,060	1,890	2,110	8,900	4,210	35,300	387,900	727,300	119,000	1,006,000	173,200

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	2,857	3,847	3,120	3,064	3,285	6,457	7,438	8,206	8,470	5,385	1,944	1,623
Max	47,570	23,150	16,250	15,850	11,470	23,920	25,200	23,610	31,010	39,900	16,360	8,007
(WY)	(1987)	(1975)	(1993)	(1993)	(1975)	(1985)	(1988)	(2009)	(2008)	(2007)	(2013)	(2009)
Min	24.1	18.0	30.8	29.8	31.3	23.2	107	87.2	84.0	42.5	52.7	53.3
(WY)	(1967)	(1967)	(2013)	(2006)	(1967)	(1967)	(1971)	(1971)	(1972)	(1966)	(1965)	(2000)

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SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1965 - 2013	
Annual total	921,194		1,248,808		c4,644	
Annual mean	2,517		3,421		c4,644	
Highest annual mean					10,940	1999
Lowest annual mean					234	1996
Highest daily mean	18,100	Apr 15	24,800	Aug 14	77,700	Oct 13, 1986
Lowest daily mean	24	Nov 6 ^a	21	Mar 28 ^b	d3.4	Aug 9, 1997
Annual seven-day minimum	25	Nov 4	22	Mar 23	8.6	Jul 12, 1966
Maximum peak flow			25,400	Aug 14	e78,400	Oct 12, 1986
Maximum peak stage			20.58	Aug 14	f44.99	Oct 12, 1986
Annual runoff (ac-ft)	1,827,000		2,477,000		3,364,000	
10 percent exceeds	11,200		14,400		14,200	
50 percent exceeds	114		132		1,010	
90 percent exceeds	32		29		60	

^a Also Nov 8, 9

^b Also Mar 29

^c Prior to regulation by Oologah Lake, water years 1936-62, 3,723 ft³/s.

^d No flow at times in 1936, 1939, 1940, 1956.

^e Maximum discharge for period of record, 182,000 ft³/s, May 21, 1943.

^f Maximum gage height for period of record, 55.05 ft, May 21, 1943.

