Water-Data Report 2012

07185000 NEOSHO RIVER NEAR COMMERCE, OK

Neosho Basin
Lake O' Cherokees Subbasin

LOCATION.--Lat 36°55′43″, long 94°57′26″ referenced to North American Datum of 1927, in SW ¼ SE ¼ sec.5, T.28 N., R.22 E., Ottawa County, OK, Hydrologic Unit 11070206, on downstream side of right pier of county road bridge, 1.3 mi upstream from Mud Creek, 2.2 mi downstream from Four Mile Creek, 4.5 mi west of Commerce, and at mile 153.4.

DRAINAGE AREA.--5,926 mi^2, revised. 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.--June 1939 to current year.

REVISED RECORDS.--WSP 1117: Drainage area. WDR 2012: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 748.97 ft above NGVD of 1929 (U.S. Army Corps of Engineers' datum). Since February 1989, supplementary water-stage recorder 1000 ft to the left at same datum used as needed when flow exceeds 21 ft GH.

REMARKS.--Records fair except for estimated periods which are poor. Flow regulated to some extent since 1963 by John Redmond Reservoir in Kansas, 190 mi upstream. U.S. Army Corps of Engineers' satellite telemeter at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20,000 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar 23	1000	40,700	19.81
May 2	0600	*60,400	*22.04

Suggested citation: U.S. Geological Survey, 2013, Water-resources data for the United States, Water Year 2012: U.S. Geological Survey Water-Data Report WDR-US-2012, site 07185000, accessed at http://wdr.water.usgs.gov/wy2012/pdfs/07185000.2012.pdf

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	35	11	156	331	218	1,190	7,500	44,000	280	50	19	107
2	e28	11	132	325	212	983	7,230	58,000	309	46	19	94
3	e27	17	138	293	223	904	6,820	46,100	262	42	21	84
4	e21	23	280	286	745	874	6,560	18,100	354	39	27	80
5	22	22	529	269	1,340	787	6,590	4,860	602	35	31	73
6	22	22	570	264	1,320	723	6,060	2,970	392	31	33	66
7	20	28	358	260	1,170	714	4,780	4,450	249	31	33	67
8	18	75	251	247	899	735	3,310	4,220	176	35	30	71
9	19	1,900	186	238	681	768	2,670	3,590	140	32	26	58
10	26	2,000	150	233	693	1,330	2,500	2,870	113	29	23	48
11	29	738	131	230	728	1,940	1,910	2,090	102	28	20	42
12	30	331	119	223	709	3,900	1,050	1,480	92	30	19	40
13	30	199	114	213	747	4,100	656	934	82	31	16	41
14	29	132	106	215	755	2,980	5,200	664	73	31	17	94
15	28	101	103	207	785	2,040	6,650	529	73	30	22	125
16	27	79	93	209	841	1,510	6,250	525	68	30	24	406
17	29	60	91	226	959	1,370	4,090	528	62	30	25	569
18	39	45	101	211	1,090	1,400	2,630	450	58	32	25	332
19	38	40	119	212	1,020	1,600	2,000	343	54	32	24	204
20	33	50	1,130	207	962	20,200	1,720	293	52	29	22	139
21	30	46	10,600	206	931	34,500	1,360	273	74	27	20	107
22	28	45	8,770	203	893	38,700	984	243	98	23	20	84
23	27	43	3,540	212	899	39,400	822	206	124	19	21	67
24	25	38	1,920	207	885	31,000	767	195	148	16	20	55
25	24	42	1,170	213	857	13,700	731	190	150	14	22	46
26	22	238	795	218	814	5,280	712	204	128	13	44	43
27	22	573	601	212	775	6,070	710	222	96	14	271	44
28	21	345	466	203	725	7,080	980	189	78	16	406	48
29	18	216	381	196	1,030	8,120	1,940	170	66	19	238	173
30	15	182	327	195	---	7,880	16,800	709	56	18	148	140
31	13	---	302	208	---	6,620	---	455	---	18	115	---
Total	795	7,652	33,729	7,172	23,906	248,398	111,982	200,052	4,611	870	1,801	3,547
Mean	25.6	255	1,088	231	824	8,013	3,733	6,453	154	28.1	58.1	118
Max	39	2,000	10,600	331	1,340	39,400	16,800	58,000	602	50	406	569
Min	13	11	91	195	212	714	656	170	52	13	16	40
Ac-ft	1,580	15,180	66,900	14,230	47,420	492,700	222,100	396,800	9,150	1,730	3,570	7,040

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	3,055	3,060	2,092	1,943	2,578	4,545	5,534	6,545	6,928	5,084	1,740	2,772
Max	33,400	22,280	17,280	10,090	13,980	21,630	23,270	29,560	27,950	53,350	11,680	16,930
(WY)	(1987)	(1999)	(1993)	(1973)	(1985)	(1973)	(1945)	(1961)	(1995)	(1951)	(1993)	(1951)
Min	0.00	1.60	6.33	8.60	24.9	11.9	62.6	395	154	21.1	0.00	1.52
(WY)	(1957)	(1940)	(1940)	(1957)	(1954)	(1956)	(1981)	(1956)	(2012)	(1954)	(1954)	(1953)

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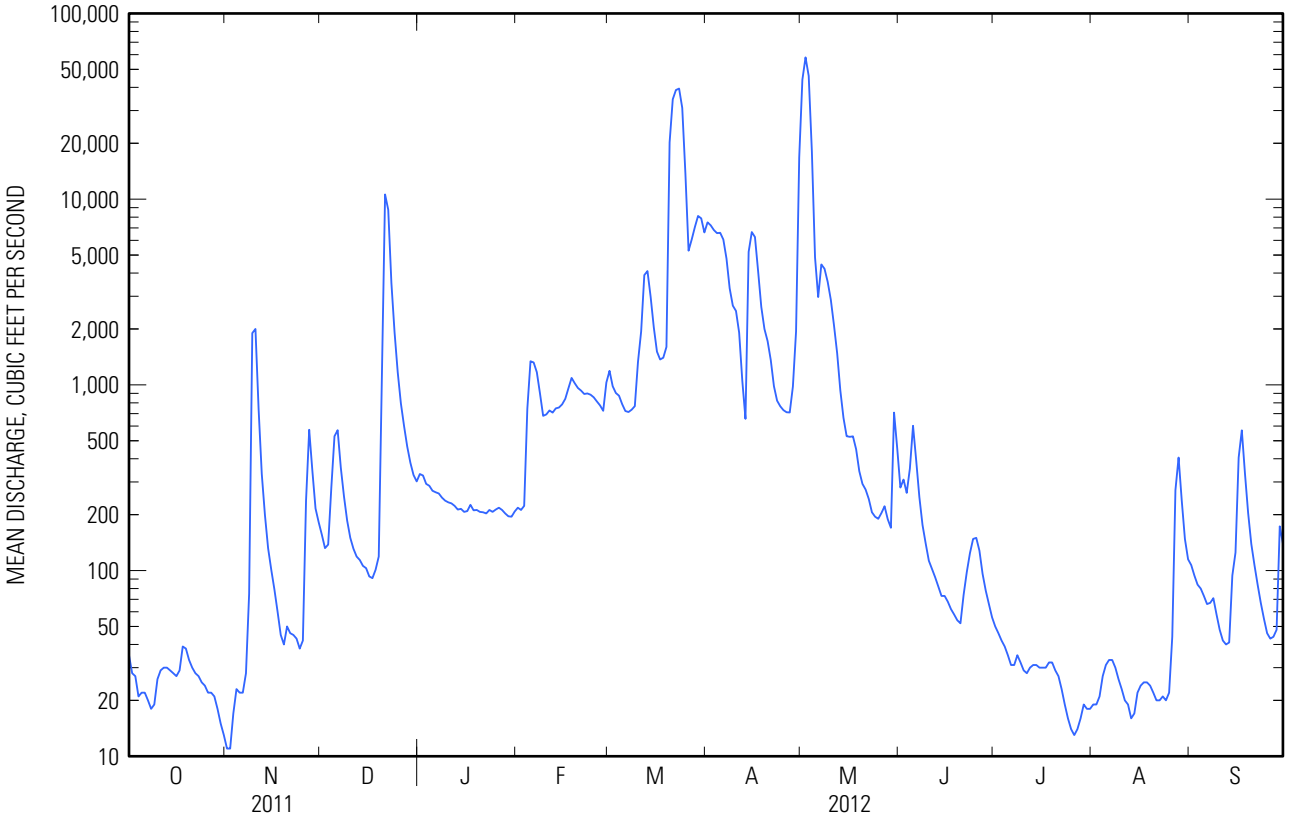
SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1940 - 2012	
Annual total	588,685		644,515			
Annual mean	1,613		1,761		3,824	
Highest annual mean					11,140	1993
Lowest annual mean					246	1953
Highest daily mean	30,400	May 24	58,000	May 2	251,000	Jul 15, 1951
Lowest daily mean	11	Nov 1[a]	11	Nov 1[a]	0.00	At times
Annual seven-day minimum	15	Oct 8	15	Oct 28	0.00	Sep 27, 1953
Maximum peak flow			60,400	May 2	[b]267,000	Jul 15, 1951
Maximum peak stage			22.04	May 2	[c]34.03	Jul 16, 1951
Annual runoff (ac-ft)	1,168,000		1,278,000		2,770,000	
10 percent exceeds	4,100		3,560		11,200	
50 percent exceeds	168		204		947	
90 percent exceeds	27		22		59	

[a] Also Nov 2.
[b] Computed by flood-routing method from hydrograph defined at Miami, mile 144.2, by several discharge measurements, gage height record, and by comparison with computed inflow into Lake O' the Cherokees.
[c] From floodmark.