Water-Data Report 2012

06887000 BIG BLUE RIVER NEAR MANHATTAN, KS

Big Blue Basin
Lower Big Blue Subbasin

LOCATION.--Lat 39°14′14″, long 96°34′16″ referenced to North American Datum of 1927, in NW ¼ SW ¼ NE ¼ sec.30, T.9 S., R.8 E., Riley County, KS, Hydrologic Unit 10270205, on right bank at downstream side of county highway bridge, 2.5 mi downstream from Tuttle Creek Dam, 4.0 mi north of Manhattan, and at mile 7.5.

DRAINAGE AREA.--9,640 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--May to July 1951 (published in WSP 1139), October 1954 to current year. Records for April 1895 to October 1905, published in previous Annual Reports and Water-Supply Papers, have been found to be unreliable and should not be used.

GAGE.--Water-stage recorders. Datum of gage is 988.86 ft above NGVD of 1929. May 1 to July 31, 1951, nonrecording gage above power dam 1.1 mi upstream at datum 8.34 ft higher. Oct. 1 to Nov. 17, 1954, nonrecording gage and Nov. 18, 1954, to Sept. 30, 1974, recording gage at present site and datum 3.00 ft higher.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Flow regulated since 1962 by Tuttle Creek Lake (station 06886900), 2.5 mi upstream. Discharge may, at times, be affected by backwater from the Kansas River. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 31, 1903, reached a stage of 38.85 ft, and flood in June 1941 reached a stage of about 37.1 ft, from floodmarks and information by local resident.

REVISIONS.--WDR 93-1:1933(M).

Suggested citation: U.S. Geological Survey, 2012, Water-resources data for the United States, Water Year 2012: U.S. Geological Survey Water-Data Report WDR-US-2012, site 06887000, accessed at http://wdr.water.usgs.gov/wy2012/pdfs/06887000.2012.pdf

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

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	3,670	295	597	1,330	690	840	1,530	1,110	309	2,110	1,090	374
2	3,640	300	595	1,330	690	838	1,160	1,190	308	1,670	1,060	372
3	3,620	307	627	1,030	714	840	719	1,280	306	1,040	801	371
4	2,790	352	601	614	724	843	738	1,400	301	894	535	425
5	785	310	1,670	614	701	841	730	1,520	320	926	471	505
6	248	307	3,570	614	1,170	842	761	1,530	490	925	470	505
7	311	327	4,010	614	1,880	838	811	1,710	521	924	471	505
8	311	339	4,080	614	1,970	836	769	1,990	582	921	470	475
9	314	708	4,060	614	1,970	835	762	2,090	583	1,220	469	448
10	324	1,270	4,050	615	1,960	833	751	2,090	559	1,650	469	464
11	311	1,420	4,040	618	1,960	838	1,150	1,540	531	1,580	468	483
12	327	1,420	4,020	611	1,960	835	1,700	1,050	533	1,410	469	487
13	307	1,420	4,010	611	1,960	833	1,390	1,040	531	1,350	465	489
14	307	1,480	3,150	612	1,950	832	1,010	1,040	538	1,350	467	474
15	305	1,520	2,130	612	1,200	831	1,000	1,020	633	1,340	484	474
16	306	1,070	2,130	614	428	831	1,010	808	717	1,340	639	474
17	303	508	2,130	640	589	834	2,720	652	736	1,340	502	473
18	299	507	2,120	649	728	833	5,610	649	1,280	1,050	476	469
19	295	507	2,140	531	728	841	5,640	645	2,050	723	471	469
20	294	503	1,670	475	732	846	5,830	640	2,080	721	468	468
21	293	503	507	414	728	861	5,960	470	2,150	717	462	466
22	294	545	504	416	728	923	6,020	173	2,080	884	484	466
23	294	595	500	412	731	885	6,060	312	2,090	1,030	489	465
24	293	594	498	413	783	874	6,020	305	2,090	1,030	508	471
25	294	596	498	412	845	873	5,010	302	2,100	1,030	502	480
26	294	602	497	411	840	1,040	3,140	307	2,100	1,130	483	481
27	292	593	555	411	841	1,380	1,130	318	2,100	1,220	440	688
28	294	596	634	408	842	1,490	682	316	2,100	1,200	373	957
29	293	596	635	409	836	1,540	728	315	2,100	1,110	380	877
30	294	595	977	408	---	1,530	884	323	2,100	1,090	378	875
31	295	---	1,330	544	---	1,530	---	316	---	1,090	376	---
Mean	719	690	1,888	601	1,099	957	2,381	918	1,164	1,162	519	514
Max	3,670	1,520	4,080	1,330	1,970	1,540	6,060	2,090	2,150	2,110	1,090	957
Min	248	295	497	408	428	831	682	173	301	717	373	371
Ac-ft	44,230	41,030	116,100	36,930	63,230	58,840	141,700	56,430	69,260	71,440	31,910	30,610

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,680	1,420	1,219	829	1,458	2,282	2,919	3,328	4,371	3,947	2,347	1,833
Max	13,370	20,110	4,969	3,311	5,586	12,200	15,400	15,210	27,820	24,360	23,900	14,770
(WY)	(1987)	(1974)	(1974)	(1974)	(1973)	(1969)	(1987)	(1987)	(1951)	(1993)	(1993)	(1993)
Min	63.7	56.6	161	106	21.9	48.1	50.8	53.7	91.5	230	156	43.3
(WY)	(1985)	(1988)	(1965)	(1970)	(1975)	(1967)	(1967)	(1967)	(1981)	(2011)	(1955)	(1988)

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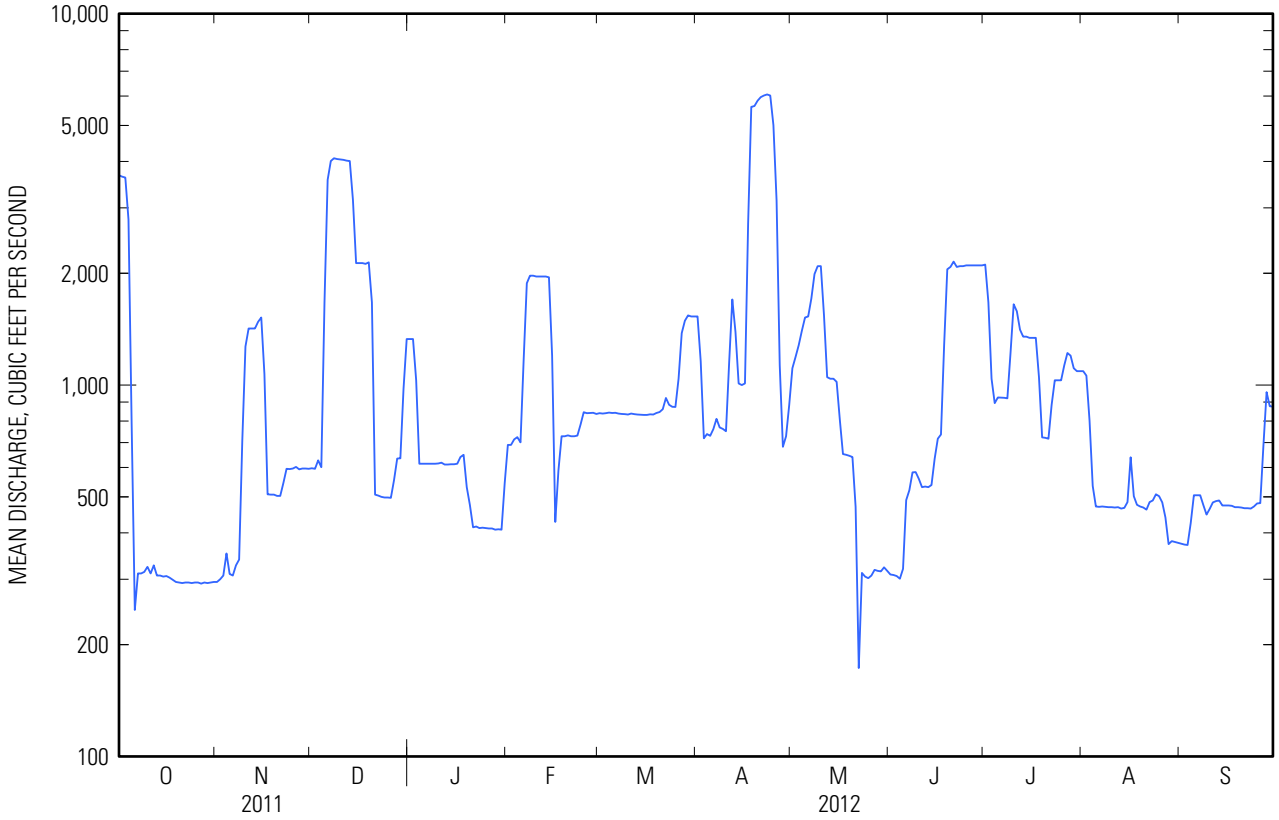
SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1951 - 2012	
Annual mean	1,451		1,049		2,305	
Highest annual mean					9,450	1993
Lowest annual mean					567	1956
Highest daily mean	15,900	Jun 1	6,060	Apr 23	86,400	Jul 13, 1951
Lowest daily mean	205	Aug 4	173	May 22	2.3	Sep 14, 1988
Annual seven-day minimum	211	Aug 1	290	May 22	2.6	Sep 8, 1988
Maximum peak flow			6,100	Apr 22	93,400	Jul 12, 1951
Maximum peak stage			7.89	Apr 22	36.04	Jul 12, 1951
Instantaneous low flow			36	May 22	0.20	Nov 23, 1978
Annual runoff (ac-ft)	1,051,000		761,700		1,670,000	
10 percent exceeds	3,810		2,090		5,810	
50 percent exceeds	661		717		915	
90 percent exceeds	222		312		219