Water-Data Report 2013

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, 2014, Water-resources data for the United States, Water Year 2013: U.S. Geological Survey Water-Data Report WDR-US-2013, site 06887000, accessed at http://wdr.water.usgs.gov/wy2013/pdfs/06887000.2013.pdf

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

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	888	425	371	368	300	219	232	102	e903	2,500	e592	248
2	898	426	370	367	302	217	231	132	e2,020	1,500	e567	246
3	897	420	363	367	300	217	230	348	6,770	987	e567	246
4	893	417	355	366	301	230	231	1,090	8,630	986	e550	245
5	888	414	359	365	301	243	230	1,100	9,540	985	e535	246
6	888	410	352	366	302	241	230	1,110	9,800	984	e534	247
7	885	408	357	355	314	242	263	1,120	9,960	981	e534	246
8	884	439	357	350	299	242	274	1,120	9,980	974	e534	236
9	893	446	356	359	300	245	237	1,130	9,910	969	e579	228
10	915	445	351	361	294	242	231	1,120	9,820	973	482	261
11	914	445	352	357	304	234	86	1,120	9,940	828	1,440	265
12	915	431	351	355	314	236	82	1,120	10,000	730	3,210	271
13	917	371	351	350	313	234	82	1,010	10,100	799	3,150	261
14	911	298	352	330	312	235	83	872	7,710	798	3,080	259
15	791	324	353	308	308	227	85	870	5,820	797	3,170	266
16	541	325	350	307	306	222	85	868	5,950	798	e3,050	288
17	432	320	349	306	308	221	226	863	4,580	660	e3,050	264
18	428	315	350	303	308	225	190	863	2,380	493	2,890	260
19	429	309	352	299	304	246	122	863	966	520	2,060	255
20	415	304	353	295	305	245	119	863	996	519	886	255
21	399	311	347	293	315	247	115	854	993	517	629	256
22	379	359	348	296	300	244	120	855	985	517	547	255
23	359	366	347	307	298	247	118	856	1,060	519	573	256
24	357	379	347	308	299	249	104	858	1,000	520	618	255
25	356	379	347	304	301	235	103	855	996	521	616	257
26	399	379	352	305	297	238	103	855	1,920	520	502	259
27	429	375	370	304	303	252	103	860	2,850	518	224	261
28	415	373	369	295	281	250	101	853	2,990	520	216	263
29	421	372	367	293	---	248	100	868	2,970	499	231	260
30	424	371	368	310	---	245	99	901	2,950	e256	252	261
31	423	---	371	304	---	236	---	905	---	e518	251	---
Mean	645	379	356	328	303	237	154	878	5,150	781	1,165	256
Max	917	446	371	368	315	252	274	1,130	10,100	2,500	3,210	288
Min	356	298	347	293	281	217	82	102	903	256	216	228
Ac-ft	39,640	22,520	21,890	20,140	16,840	14,590	9,150	53,960	306,400	48,010	71,640	15,230

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,663	1,403	1,206	821	1,439	2,250	2,875	3,289	4,383	3,897	2,328	1,807
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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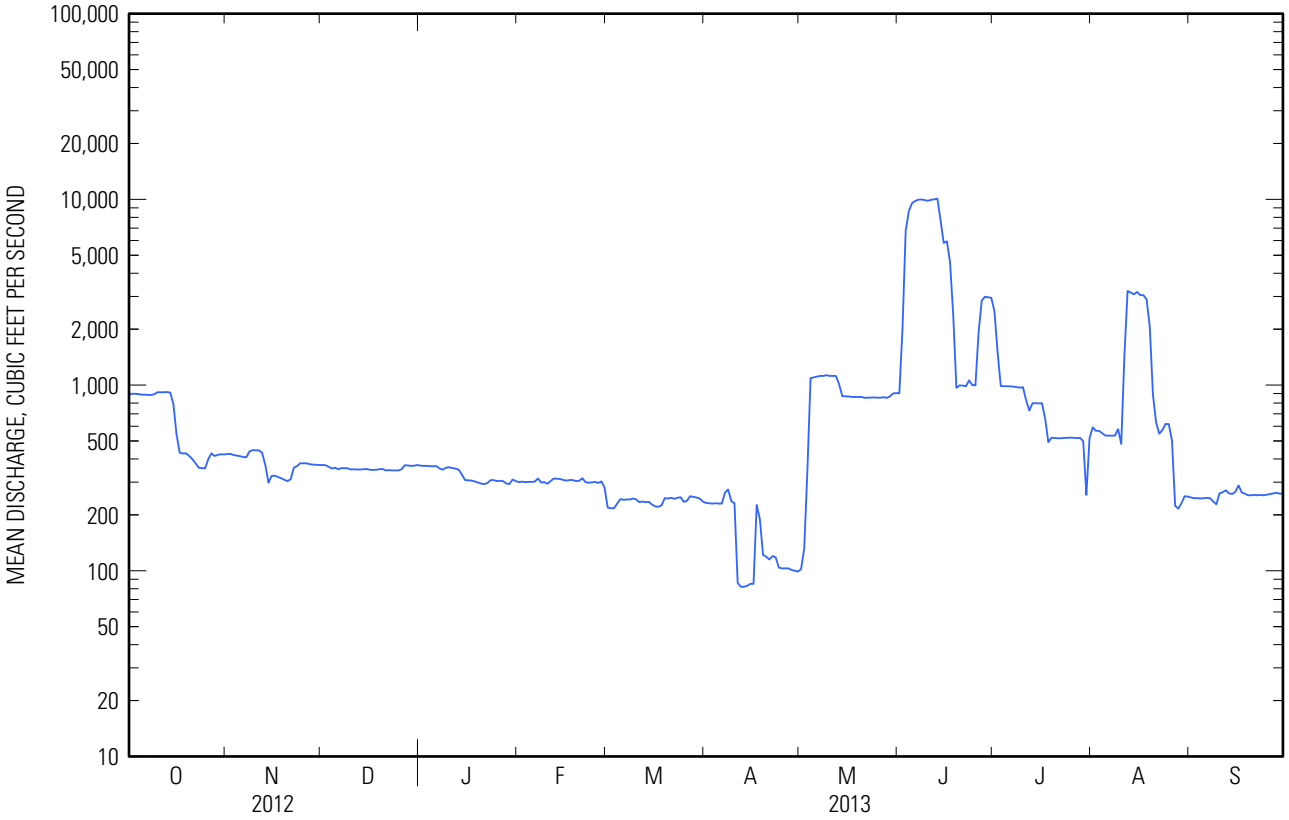
SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1951 - 2013	
Annual mean	888		884		2,283	
Highest annual mean					9,450	1993
Lowest annual mean					567	1956
Highest daily mean	6,060	Apr 23	10,100	Jun 13	86,400	Jul 13, 1951
Lowest daily mean	173	May 22	82	Apr 12	2.3	Sep 14, 1988
Annual seven-day minimum	290	May 22	102	Apr 25	2.6	Sep 8, 1988
Maximum peak flow			10,200	Jun 12	93,400	Jul 12, 1951
Maximum peak stage			10.76	Jun 12	36.04	Jul 12, 1951
Instantaneous low flow			74	Apr 14	0.20	Nov 23, 1978
Annual runoff (ac-ft)	644,400		640,000		1,654,000	
10 percent exceeds	1,680		1,120		5,770	
50 percent exceeds	626		357		900	
90 percent exceeds	352		231		219