

06909000 MISSOURI RIVER AT BOONVILLE, MO

Missouri River Main Stem

LOCATION.--Lat 38°58'42", long 92°45'13" referenced to North American Datum of 1927, in sec.26, T.49 N., R.17 W., Cooper County, MO, Hydrologic Unit 10300102, near mid-span of the Highways 40 and 5 bridge just north of Boonville, 5.4 mi below Lamine River, and at mile 196.6.

DRAINAGE AREA.--500,700 mi², the 3,959 mi² in Great Divide basin are not included.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1925 to current year. Gage-height records collected at same site 1893-99 are in reports of the Missouri River Commission; since 1900 in reports of the National Weather Service.

REVISED RECORDS.--WDR MO-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 565.42 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1928, nonrecording gage on old Highway 40 bridge, at datum 3.14 ft lower; Oct. 1, 1928, to May 9, 1931, nonrecording gage at site .4 mile upstream at the old Missouri/Kansas/Texas Railroad bridge at present datum; May 10, 1931, to Apr. 12, 1934, water-stage recorder on old Highway 40 bridge at present datum; Apr. 12, 1934 to Apr. 8, 2003, water-stage recorder at site .4 mile upstream at the Missouri/Kansas/Texas Railroad Bridge at present datum; Apr. 8, 2003 to present, water-stage recorder at present site and datum.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are fair. Some regulation from many upstream reservoirs.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 21, 1844, reached a stage of 32.7 ft, discharge, about 710,000 ft³/s, computed by the U.S. Army Corps of Engineers. Flood of June 6, 1903, reached a stage of 30.5 ft, discharge, about 612,000 ft³/s, computed by the U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 302,000 ft³/s, May 15, maximum gage height, 30.16 ft, June 20; minimum discharge, 35,700 ft³/s, Dec. 18, gage height, 5.28 ft.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	50,800	139,000	59,500	51,000	71,000	45,500	121,000	112,000	90,900	181,000	160,000	94,600
2	50,100	121,000	57,300	48,400	66,400	45,900	116,000	110,000	93,400	167,000	152,000	119,000
3	50,100	99,900	55,300	45,800	63,500	45,900	119,000	118,000	127,000	158,000	139,000	130,000
4	51,500	82,200	54,300	44,900	61,700	45,900	124,000	115,000	164,000	153,000	131,000	121,000
5	51,100	74,600	53,900	44,100	60,200	46,900	126,000	100,000	164,000	152,000	125,000	112,000
6	50,500	69,900	52,300	43,700	58,400	49,400	128,000	93,800	155,000	167,000	126,000	100,000
7	50,800	66,300	50,500	42,800	57,000	55,000	139,000	89,900	154,000	201,000	134,000	92,600
8	59,300	63,900	49,800	e42,900	56,500	70,900	155,000	91,300	169,000	219,000	143,000	88,500
9	79,600	62,300	49,400	e42,300	55,300	101,000	143,000	105,000	195,000	212,000	147,000	86,100
10	85,600	61,100	48,700	e42,100	53,800	123,000	128,000	107,000	202,000	194,000	147,000	85,800
11	85,200	60,200	46,800	e41,800	52,400	156,000	117,000	126,000	200,000	173,000	144,000	105,000
12	68,700	59,500	43,000	e41,600	50,700	198,000	107,000	175,000	194,000	166,000	141,000	119,000
13	59,700	58,700	39,600	e41,500	49,300	221,000	101,000	205,000	196,000	173,000	140,000	111,000
14	57,900	57,200	37,900	41,500	48,800	241,000	98,300	265,000	215,000	163,000	142,000	102,000
15	57,900	55,100	38,000	41,700	49,000	238,000	94,300	295,000	235,000	152,000	148,000	109,000
16	58,200	57,000	37,900	44,400	48,700	221,000	89,700	287,000	257,000	146,000	147,000	111,000
17	54,300	75,500	36,400	49,100	47,200	196,000	86,800	273,000	263,000	151,000	142,000	112,000
18	51,700	117,000	36,200	53,100	45,500	167,000	85,500	254,000	270,000	159,000	139,000	104,000
19	50,500	132,000	38,500	57,000	44,000	146,000	83,800	221,000	279,000	153,000	134,000	102,000
20	49,500	134,000	41,600	64,300	44,200	139,000	81,200	195,000	280,000	153,000	128,000	137,000
21	48,800	118,000	42,000	81,200	53,700	143,000	78,800	214,000	263,000	174,000	155,000	148,000
22	51,500	94,400	40,900	101,000	73,300	154,000	77,300	222,000	240,000	197,000	167,000	167,000
23	83,500	76,700	42,300	101,000	76,800	166,000	78,900	207,000	227,000	192,000	149,000	208,000
24	123,000	68,500	58,700	117,000	62,100	168,000	99,900	174,000	220,000	185,000	126,000	217,000
25	115,000	64,600	81,300	144,000	54,000	163,000	165,000	144,000	216,000	187,000	111,000	213,000
26	116,000	62,700	103,000	155,000	48,600	179,000	222,000	126,000	209,000	183,000	104,000	206,000
27	113,000	73,100	90,900	134,000	45,600	199,000	215,000	126,000	204,000	171,000	100,000	199,000
28	101,000	78,600	76,300	115,000	45,400	192,000	191,000	117,000	206,000	162,000	98,500	184,000
29	89,500	69,400	65,900	95,700	---	169,000	168,000	110,000	202,000	152,000	95,000	163,000
30	132,000	62,500	58,700	82,200	---	151,000	135,000	104,000	193,000	150,000	91,300	144,000
31	157,000	---	53,500	75,900	---	134,000	---	95,800	---	163,000	89,900	---
Mean	74,300	80,500	52,920	68,580	55,110	141,000	122,500	160,600	202,800	171,300	132,100	133,000
Max	157,000	139,000	103,000	155,000	76,800	241,000	222,000	295,000	280,000	219,000	167,000	217,000
Min	48,800	55,100	36,200	41,500	44,000	45,500	77,300	89,900	90,900	146,000	89,900	85,800
In.	0.17	0.18	0.12	0.16	0.11	0.32	0.27	0.37	0.45	0.39	0.30	0.30

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2010^a, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	63,380	59,000	43,900	36,380	48,490	70,260	88,150	94,810	98,280	83,680	64,180	66,080
Max	187,800	139,100	106,200	90,150	106,300	183,900	212,700	234,700	212,400	375,200	213,600	165,900
(WY)	(1974)	(1999)	(1983)	(1973)	(1982)	(1973)	(1973)	(1995)	(2008)	(1993)	(1993)	(1993)
Min	32,680	22,610	13,840	14,770	17,620	19,460	39,060	40,770	41,990	37,000	33,550	36,730
(WY)	(2007)	(2007)	(1964)	(1963)	(1964)	(1964)	(1989)	(1989)	(1988)	(2006)	(2003)	(1991)

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SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1958 - 2010 ^a	
Annual mean	77,370		116,500		68,090	
Highest annual mean					140,500	1993
Lowest annual mean					36,880	2006
Highest daily mean	269,000	Apr 30	295,000	May 15	721,000	Jul 30, 1993
Lowest daily mean	32,600	Jan 30	36,200	Dec 18	5,000	Dec 21, 1963
Annual seven-day minimum	33,000	Jan 27	37,800	Dec 13	5,730	Dec 19, 1963
Maximum peak flow			302,000	May 15	755,000	Jul 29, 1993
Maximum peak stage			30.16	Jun 20	37.10	Jul 29, 1993
Instantaneous low flow			35,700	Dec 18	5,500	Jan 22, 1963
Annual runoff (inches)	2.10		3.16		1.85	
10 percent exceeds	132,000		204,000		125,000	
50 percent exceeds	64,200		109,000		53,800	
90 percent exceeds	38,300		46,900		28,500	

^a Period of Regulated Streamflow

