

Water-Data Report 2011

03294500 OHIO RIVER AT LOUISVILLE, KY

Lower Ohio-Salt Basin
Silver-Little Kentucky Subbasin

LOCATION.--Lat 38°16'49", long 85°47'57" referenced to North American Datum of 1927, Jefferson County, KY, Hydrologic Unit 05140101, on left bank at downstream end of lock guide wall in lower pool at McAlpine Locks at Louisville, 5.3 miles downstream from Beargrass Creek, and at mile 607.3.

DRAINAGE AREA.--91170.0 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--January 1928 to current year. Prior to October 1935 monthly discharge only, published in WSP 1305. Gage-height records collected in this vicinity since 1871 are published in reports of National Weather Service.

REVISED RECORDS.--WSP 893: 1939, KY-92-1 peak.

GAGE.--Water-stage recorder with telemetry. Datum of gage is 373.18 feet above NGVD of 1929 or 374.00 feet Ohio River datum. Prior to October 1, 1939, and October 1, 1943 to September 30, 1946, various combinations of gages near Louisville were used. October 1, 1939 to September 30, 1943, water-stage recorders at Louisville and Kosmosdale, downstream from McAlpine Dam (4 miles and 20.1 miles, respectively), were used to determine discharge. October 1, 1946 to September 30, 1961, nonrecording gage at site 0.3 mile upstream at same datum. October 1, 1952 to September 30, 1970, upper nonrecording gage at dam 43, 25.9 miles downstream used as an auxiliary gage. Since October 1, 1970, auxiliary water-stage recorder at Kosmosdale, 19.8 miles downstream. Datum of auxiliary gage is 372.75 feet above NGVD of 1929 or 373.67 feet above Ohio River Datum.

COOPERATION.--U.S. Army Corps of Engineers, Louisville District.

REMARKS.--Records good except for those estimated and for those less than 20,000 ft³/s, which are poor. Flow regulated by Ohio River system of locks, dams, and reservoirs.

03294500 OHIO RIVER AT LOUISVILLE, KY—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES
[e, estimated; ×10⁶, million]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	17,500	34,300	130,000	74,100	82,500	462,000	189,000	495,000	179,000	e45,500	e30,300	8,220
2	29,100	15,600	185,000	93,800	126,000	473,000	161,000	465,000	e147,000	e36,000	e27,800	7,800
3	33,000	16,200	258,000	149,000	186,000	479,000	139,000	445,000	e128,000	e33,900	21,700	29,200
4	28,700	19,100	312,000	176,000	217,000	491,000	139,000	457,000	e111,000	e27,000	30,000	33,200
5	25,900	13,200	326,000	195,000	220,000	499,000	182,000	405,000	e92,200	e41,400	31,500	29,100
6	39,100	26,900	278,000	188,000	194,000	501,000	246,000	349,000	e89,600	e47,400	15,000	63,300
7	18,300	19,600	181,000	160,000	166,000	493,000	290,000	312,000	e87,900	e23,300	31,900	91,700
8	27,000	22,000	141,000	130,000	139,000	474,000	356,000	284,000	e77,100	e43,900	43,300	117,000
9	26,600	31,000	114,000	113,000	138,000	503,000	368,000	280,000	e72,100	e60,200	60,400	135,000
10	36,000	32,900	100,000	82,600	124,000	541,000	370,000	266,000	e80,400	e53,500	50,500	146,000
11	23,400	31,400	92,100	70,100	117,000	557,000	357,000	250,000	e86,300	e55,900	39,000	127,000
12	23,700	30,400	79,100	53,300	79,300	555,000	426,000	257,000	e85,200	e55,600	50,100	e56,100
13	18,400	27,000	73,500	56,200	67,800	558,000	470,000	270,000	e74,200	e65,100	47,400	e59,400
14	10,700	19,800	110,000	50,400	65,300	558,000	468,000	259,000	e70,400	58,600	25,200	e69,000
15	3,650	14,000	131,000	54,600	61,900	548,000	457,000	232,000	e64,700	64,600	17,600	e54,200
16	16,900	8,180	123,000	47,000	62,000	532,000	457,000	229,000	e60,300	52,900	13,900	e39,100
17	17,000	34,500	107,000	44,900	78,000	512,000	454,000	239,000	e33,500	13,600	34,600	38,000
18	9,610	36,500	89,000	49,100	86,400	486,000	450,000	242,000	e52,100	57,700	52,300	38,800
19	15,700	29,300	84,500	47,800	99,900	471,000	460,000	254,000	e62,700	69,300	22,500	43,200
20	15,600	41,100	90,600	53,100	118,000	456,000	481,000	270,000	e90,600	75,500	17,400	38,400
21	15,700	41,500	70,300	84,700	146,000	408,000	483,000	286,000	e137,000	66,600	28,500	37,600
22	17,000	46,000	67,000	98,300	224,000	321,000	465,000	308,000	e153,000	64,700	24,700	30,300
23	18,100	48,900	69,700	92,300	258,000	306,000	486,000	302,000	e119,000	52,200	10,100	35,600
24	11,400	44,400	67,500	69,300	267,000	289,000	569,000	293,000	e95,400	74,900	11,400	45,500
25	3,110	52,200	61,200	64,600	361,000	286,000	609,000	287,000	e95,900	69,200	49,300	65,600
26	13,300	83,800	47,300	75,900	434,000	292,000	619,000	277,000	e111,000	52,200	34,500	89,100
27	34,800	82,500	48,200	55,200	436,000	298,000	644,000	277,000	e83,800	77,100	31,700	81,700
28	22,300	101,000	48,800	82,200	446,000	292,000	633,000	275,000	e73,800	e73,900	52,300	81,600
29	27,800	110,000	46,400	89,900	---	272,000	564,000	254,000	e72,200	e33,400	42,200	104,000
30	17,800	141,000	43,900	90,200	---	235,000	529,000	230,000	e75,000	e49,800	14,100	77,000
31	38,400	---	67,700	90,800	---	224,000	---	211,000	---	e47,500	7,610	---
Total	655,570	1,254,280	3,642,800	2,781,400	5,000,100	13.37×10 ⁶	12.52×10 ⁶	9,260,000	2,760,400	1,642,400	968,810	1,871,720
Mean	21,150	41,810	117,500	89,720	178,600	431,400	417,400	298,700	92,010	52,980	31,250	62,390
Max	39,100	141,000	326,000	195,000	446,000	558,000	644,000	495,000	179,000	77,100	60,400	146,000
Min	3,110	8,180	43,900	44,900	61,900	224,000	139,000	211,000	33,500	13,600	7,610	7,800

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	39,680	71,720	125,600	168,400	192,700	243,200	205,400	148,900	88,610	56,060	44,100	36,600
Max	169,200	245,900	321,300	595,800	430,400	524,300	417,400	392,900	234,400	163,400	151,300	207,000
(WY)	(2007)	(1986)	(1973)	(1937)	(1939)	(1945)	(2011)	(1996)	(1981)	(1958)	(1958)	(2004)
Min	4,377	6,660	14,090	21,630	38,010	69,390	66,480	29,350	16,400	8,035	4,924	6,005
(WY)	(1931)	(1931)	(1931)	(1931)	(1934)	(1969)	(1986)	(1941)	(1988)	(1930)	(1930)	(1930)

03294500 OHIO RIVER AT LOUISVILLE, KY—Continued

SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1929 - 2011	
Annual total	39,512,377		55,730,480			
Annual mean	108,300		152,700		118,000	
Highest annual mean					184,400	2004
Lowest annual mean					57,390	1954
Highest daily mean	483,000	Mar 17	644,000	Apr 27	1,110,000	Jan 27, 1937
Lowest daily mean	877	Sep 21	3,110	Oct 25	877	Sep 21, 2010
Annual seven-day minimum	11,000	Sep 20	12,700	Oct 14	3,530	Oct 15, 1930
Maximum peak flow			682,000	Apr 27	1,110,000	Jan 27, 1937
Maximum peak stage			62.88	Apr 27	85.44	Jan 27, 1937
10 percent exceeds	263,000		457,000		283,000	
50 percent exceeds	69,000		78,000		74,500	
90 percent exceeds	17,300		20,900		17,000	

