Water-Data Report 2013

03381700 OHIO RIVER AT OLD SHAWNEETOWN, IL-KY

Lower Ohio Basin
Lower Ohio-Bay Subbasin

LOCATION.--Lat 37°41′31″, long 88°08′00″ referenced to North American Datum of 1983, in SE ¼ NW ¼ sec.32, T.9 S., R.10 E., Union County, KY, Hydrologic Unit 05140203, on main bridge pier on downstream side of State Highway 13, 9.5 miles upstream from Saline River, and at mile 858.2.

DRAINAGE AREA.--141,000 mi^2, approximately.

SURFACE-WATER RECORDS

PERIOD OF RECORD.—
SURFACE-WATER DISCHARGE AND STAGE
DISCHARGE: January 2002 to current year.
STAGE: January 2002 to current year.
SURFACE-WATER QUALITY
TEMPERATURE: October 1975 to October 3, 1977.

GAGE.--Water-stage recorder, satellite telemeter, and acoustic-velocity meter. Datum of gage is 309.10 ft above NAVD of 1988 (309.43 ft NGVD 1929).

REMARKS.--Discharge records fair except for estimated daily discharges, which are poor. Some regulation by locks and dams upstream from station at Uniontown, KY and downstream at Smithland, KY.

EXTREMES FOR PERIOD OF RECORD.--
SURFACE-WATER DISCHARGE AND STAGE: Maximum discharge, 1,260,000 ft^3/s, May 6, 2011, gage height, 56.36 ft; maximum gage height, 56.37 ft., discharge, 1,090,000 ft^3/s, May 6, 2011; minimum daily discharge, 6,280 ft^3/s, Sept. 26, 2010.

EXTREMES OUTSIDE PERIOD OF RECORD.--
SURFACE-WATER DISCHARGE AND STAGE: Flood of Jan. 30, 1937, reached a stage of 65.64 ft, from information by National Weather Service.

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 03381700, accessed at http://wdr.water.usgs.gov/wy2013/pdfs/03381700.2013.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	67,500	128,000	41,500	256,000	286,000	216,000	235,000	339,000	105,000	222,000	120,000	118,000
2	53,100	173,000	36,400	232,000	327,000	247,000	214,000	348,000	161,000	239,000	101,000	138,000
3	53,500	200,000	35,900	202,000	367,000	265,000	200,000	334,000	172,000	264,000	53,900	126,000
4	51,500	224,000	45,700	176,000	400,000	273,000	189,000	323,000	174,000	279,000	44,900	84,300
5	37,400	223,000	52,500	165,000	437,000	267,000	186,000	311,000	167,000	278,000	38,800	60,300
6	40,500	197,000	58,800	150,000	457,000	252,000	182,000	300,000	157,000	284,000	44,300	48,500
7	49,400	173,000	75,800	143,000	468,000	234,000	171,000	314,000	159,000	312,000	50,500	50,900
8	46,100	146,000	107,000	126,000	467,000	234,000	154,000	333,000	161,000	342,000	41,600	48,200
9	45,000	129,000	135,000	110,000	429,000	253,000	143,000	326,000	163,000	365,000	55,000	38,700
10	39,800	116,000	166,000	108,000	379,000	267,000	141,000	312,000	152,000	356,000	78,000	39,300
11	29,400	100,000	218,000	135,000	e352,000	279,000	139,000	309,000	165,000	340,000	111,000	30,700
12	18,200	88,700	250,000	170,000	e323,000	289,000	153,000	331,000	176,000	323,000	140,000	29,900
13	28,300	93,800	278,000	224,000	e299,000	305,000	180,000	346,000	174,000	295,000	161,000	35,200
14	28,400	89,700	299,000	298,000	e282,000	311,000	206,000	341,000	171,000	294,000	161,000	42,600
15	34,500	87,000	308,000	346,000	e257,000	301,000	233,000	325,000	183,000	301,000	154,000	35,100
16	42,900	104,000	301,000	382,000	e237,000	291,000	257,000	299,000	209,000	299,000	156,000	27,800
17	29,500	114,000	269,000	413,000	e213,000	285,000	278,000	260,000	234,000	274,000	161,000	41,300
18	29,000	117,000	209,000	433,000	181,000	312,000	285,000	231,000	248,000	215,000	135,000	38,900
19	36,400	100,000	170,000	447,000	176,000	349,000	302,000	203,000	248,000	167,000	102,000	34,700
20	30,700	81,600	155,000	452,000	169,000	373,000	334,000	178,000	206,000	146,000	54,600	25,300
21	26,500	65,800	176,000	472,000	151,000	399,000	356,000	166,000	178,000	132,000	80,000	44,700
22	33,400	57,900	218,000	482,000	150,000	422,000	369,000	149,000	175,000	137,000	71,500	79,700
23	37,900	58,900	244,000	473,000	155,000	427,000	365,000	135,000	173,000	175,000	69,600	71,000
24	40,000	56,800	258,000	454,000	155,000	420,000	352,000	129,000	146,000	184,000	84,300	62,900
25	43,500	50,600	266,000	409,000	159,000	389,000	334,000	129,000	123,000	180,000	73,200	82,900
26	36,200	51,400	263,000	353,000	145,000	347,000	323,000	132,000	102,000	183,000	90,600	72,200
27	45,600	36,900	258,000	245,000	152,000	301,000	329,000	131,000	136,000	190,000	76,300	48,300
28	40,600	32,000	248,000	179,000	181,000	281,000	332,000	115,000	194,000	186,000	39,300	38,700
29	41,100	38,100	240,000	149,000	---	277,000	327,000	99,200	222,000	143,000	51,500	33,800
30	42,800	43,600	249,000	163,000	---	267,000	337,000	96,000	215,000	114,000	67,300	28,500
31	50,100	---	257,000	226,000	---	254,000	---	95,300	---	129,000	88,400	---
Total	1,228,800	3,176,800	5,888,600	8,573,000	7,754,000	9,387,000	7,606,000	7,439,500	5,249,000	7,348,000	2,755,600	1,656,400
Mean	39,640	105,900	190,000	276,500	276,900	302,800	253,500	240,000	175,000	237,000	88,890	55,210
Max	67,500	224,000	308,000	482,000	468,000	427,000	369,000	348,000	248,000	365,000	161,000	138,000
Min	18,200	32,000	35,900	108,000	145,000	216,000	139,000	95,300	102,000	114,000	38,800	25,300
Cfsm	0.28	0.75	1.35	1.96	1.96	2.15	1.80	1.70	1.24	1.68	0.63	0.39
In.	0.32	0.84	1.55	2.26	2.05	2.48	2.01	1.96	1.38	1.94	0.73	0.44

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	87,540	148,300	234,800	290,800	253,800	330,000	292,300	300,500	169,700	105,000	65,980	79,760
Max	208,100	294,500	432,700	609,600	334,300	553,900	484,400	681,100	325,400	237,000	139,300	218,800
(WY)	(2007)	(2007)	(2012)	(2005)	(2008)	(2011)	(2011)	(2011)	(2004)	(2013)	(2003)	(2004)
Min	19,440	34,090	118,000	109,200	182,000	196,000	121,900	112,600	37,450	34,930	30,240	21,990
(WY)	(2009)	(2009)	(2006)	(2011)	(2007)	(2009)	(2012)	(2007)	(2007)	(2007)	(2002)	(2010)

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SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 2002 - 2013	
Annual total	51,497,500		68,062,700			
Annual mean	140,700		186,500		195,800	
Highest annual mean					241,200	2004
Lowest annual mean					150,100	2006
Highest daily mean	490,000	Feb 1	482,000	Jan 22	1,070,000	May 6, 2011
Lowest daily mean	13,600	Jul 14	18,200	Oct 12	6,280	Sep 26, 2010
Annual seven-day minimum	21,200	Aug 26	30,100	Oct 12	14,300	Oct 11, 2007
Maximum peak flow			[A]553,000	Jan 23	[B]1,260,000	May 6, 2011
Maximum peak stage			[C]37.95	Jan 23	[D]56.37	May 6, 2011
Instantaneous low flow			5,160	Oct 12		
Annual runoff (cfsm)	0.998		1.32		1.39	
Annual runoff (inches)	13.59		17.96		18.87	
10 percent exceeds	322,000		346,000		396,000	
50 percent exceeds	89,000		171,000		166,000	
90 percent exceeds	28,400		40,300		34,000	

[A] Gage height, 37.82 ft.
[B] Gage height, 56.36 ft.
[C] Discharge, 463,000 ft³/s.
[D] Discharge, 1,090,000 ft³/s.

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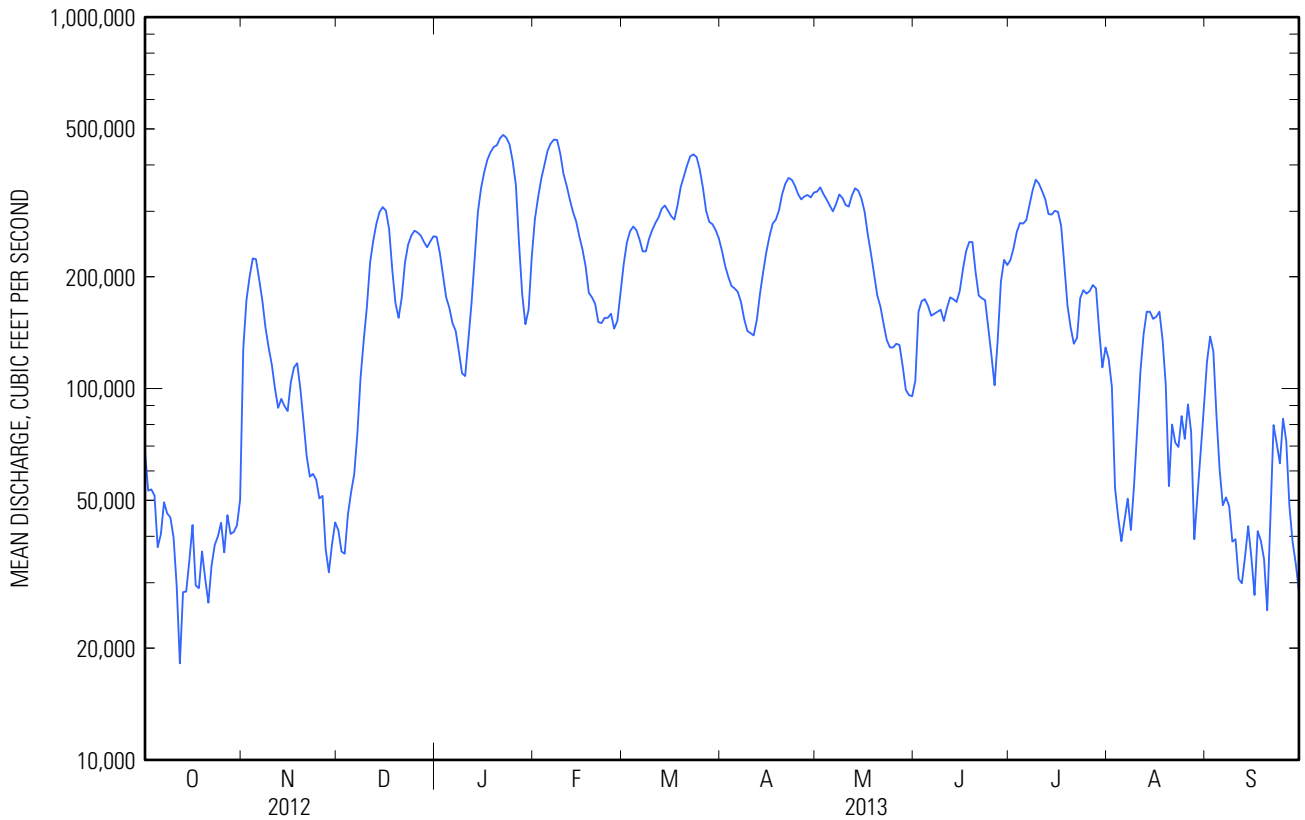

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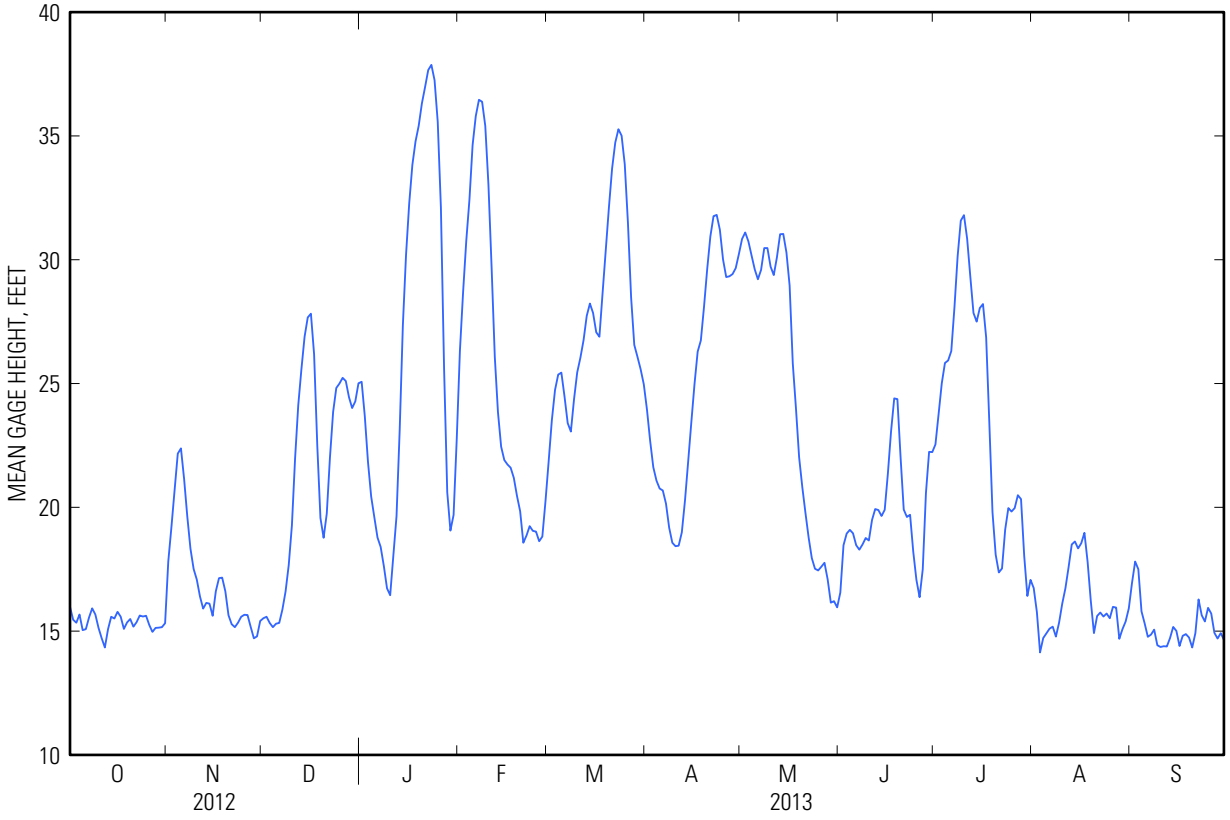
GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	15.98	17.81	15.52	25.07	26.33	21.87	23.95	30.84	16.56	22.54	16.74	16.94
2	15.46	19.21	15.58	23.67	28.69	23.52	22.69	31.10	18.47	23.77	15.77	17.81
3	15.34	20.70	15.33	21.83	30.76	24.74	21.62	30.74	18.94	25.01	14.14	17.50
4	15.67	22.17	15.16	20.44	32.42	25.36	21.08	30.17	19.09	25.83	14.72	15.80
5	15.04	22.38	15.30	19.60	34.63	25.44	20.76	29.61	18.95	25.93	14.91	15.31
6	15.08	21.14	15.33	18.78	35.80	24.47	20.68	29.21	18.47	26.31	15.10	14.77
7	15.55	19.63	15.87	18.40	36.46	23.40	20.15	29.59	18.29	28.08	15.18	14.86
8	15.92	18.33	16.60	17.63	36.38	23.06	19.18	30.47	18.50	30.14	14.78	15.06
9	15.67	17.51	17.67	16.73	35.40	24.37	18.57	30.47	18.76	31.58	15.34	14.43
10	15.13	17.08	19.27	16.45	33.02	25.45	18.43	29.72	18.66	31.80	16.11	14.36
11	14.71	16.40	21.97	18.05	29.67	26.04	18.45	29.38	19.49	30.85	16.73	14.39
12	14.34	15.91	24.12	19.64	26.08	26.75	18.99	30.10	19.93	29.32	17.58	14.38
13	15.08	16.14	25.58	23.12	23.84	27.73	20.28	31.03	19.89	27.85	18.50	14.72
14	15.58	16.11	26.89	27.35	22.45	28.23	21.85	31.04	19.65	27.50	18.62	15.17
15	15.51	15.62	27.67	30.19	21.91	27.85	23.44	30.29	19.90	28.05	18.34	15.01
16	15.78	16.61	27.82	32.27	21.73	27.07	24.98	28.96	21.37	28.21	18.55	14.40
17	15.58	17.14	26.18	33.83	21.60	26.89	26.29	25.81	23.07	26.86	18.97	14.81
18	15.09	17.16	22.51	34.78	21.19	28.65	26.74	24.00	24.40	23.41	17.80	14.88
19	15.35	16.61	19.57	35.41	20.46	30.38	28.10	22.02	24.37	19.80	16.23	14.74
20	15.49	15.64	18.77	36.31	19.84	32.11	29.62	20.82	22.03	18.09	14.92	14.34
21	15.18	15.28	19.75	36.97	18.57	33.68	30.94	19.77	19.91	17.37	15.61	14.92
22	15.36	15.16	22.01	37.66	18.86	34.73	31.76	18.78	19.61	17.53	15.75	16.28
23	15.63	15.34	23.85	37.87	19.24	35.27	31.81	17.95	19.70	19.10	15.59	15.64
24	15.59	15.58	24.82	37.25	19.05	35.01	31.21	17.52	18.21	19.97	15.71	15.39
25	15.62	15.66	25.00	35.57	19.02	33.85	30.01	17.45	17.07	19.83	15.52	15.94
26	15.25	15.65	25.23	32.10	18.63	31.49	29.30	17.60	16.37	19.97	15.98	15.71
27	14.97	15.17	25.10	25.62	18.82	28.48	29.33	17.76	17.50	20.49	15.95	14.93
28	15.13	14.71	24.45	20.61	20.26	26.56	29.42	17.09	20.57	20.33	14.69	14.70
29	15.14	14.79	24.01	19.06	---	26.08	29.66	16.15	22.24	18.04	15.08	14.92
30	15.16	15.41	24.28	19.69	---	25.58	30.23	16.21	22.23	16.42	15.39	14.65
31	15.32	---	25.01	22.77	---	24.97	---	15.96	---	17.07	15.92	---
Mean	15.35	17.07	21.49	26.28	25.40	27.71	24.98	24.76	19.74	23.78	16.14	15.23
Max	15.98	22.38	27.82	37.87	36.46	35.27	31.81	31.10	24.40	31.80	18.97	17.81
Min	14.34	14.71	15.16	16.45	18.57	21.87	18.43	15.96	16.37	16.42	14.14	14.34

	Calendar Year 2012	Water Year 2013
Mean	19.48	21.49
Max	38.76	37.87
Min	14.32	14.14

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