Water-Data Report 2012

05558300 ILLINOIS RIVER AT HENRY, IL

Lower Illinois Basin
Lower Illinois-Senachwine Lake Subbasin

LOCATION.--Lat 41°06′26″, long 89°21′22″ referenced to North American Datum of 1983, in SE ¼ SW ¼ NE ¼ sec.16, T.13 N., R.10 E., Marshall County, IL, Hydrologic Unit 07130001, on right bank at grain elevator, 1100 ft downstream from State Highway 18 bridge, 4.1 mi upstream from Crow Creek, 37.9 mi upstream from Peoria Lock and Dam, and at mile 195.7.

DRAINAGE AREA.--13,544 mi^2, does not include diversion from Lake Michigan through the Chicago Sanitary and Ship Canal, which has occurred since Jan. 17, 1900.

SURFACE-WATER RECORDS

PERIOD OF RECORD.—
SURFACE-WATER DISCHARGE AND STAGE
DISCHARGE: October 1981 to current year. Prior to October 1983, published asstation number "05558900."
STAGE: Water years 1994 to current year.
SURFACE-WATER QUALITY
SEDIMENT: June 1983 to September 1986, May 1993 to September 1993.
MISCELLANEOUS: Contaminants in streambed sediments, October 1996; contaminants in fish tissue, October 1996.

GAGE.--U.S. Army Corps of Engineer's water-stage recorder and satellite telemeter, acoustic-velocity meter, and a crest-stage gage. Datum of gage is 425.88 ft above NGVD of 1929 (425.65 ft NAVD 1988). Prior to October 12, 2007, at site 1900 feet upstream at same datum.

REMARKS.--Discharge records fair. Some regulation by locks and dams upstream from station at Starved Rock and downstream at Peoria.

EXTREMES FOR PERIOD OF RECORD.--
SURFACE-WATER DISCHARGE AND STAGE: Maximum discharge, 128,000 ft^3/s, based on a stage-area and velocity rating, Sept. 16, 2008, gage height, 27.96 ft; maximum gage height, 32.02 ft, Mar. 7, 1985; minimum daily discharge, 2,040 ft^3/s, Sept. 27, 1991.
SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 324 mg/L, June 11,1993; minimum daily mean, 19 mg/L, May 2, 1993.
SUSPENDED-SEDIMENT LOADS: Maximum daily, 52,800 tons, June 11, 1993; minimum daily, 1,600 tons, June 2, 1993.

EXTREMES OUTSIDE PERIOD OF RECORD.—
SURFACE-WATER DISCHARGE AND STAGE: Flood of Mar. 22, 1979, reached a stage of 32.67 ft, discharge about 140,000 ft^3/s, based on rating curve extended above 32.20 ft, from information obtained from the U.S. Army Corps of Engineers.

Suggested citation: U.S. Geological Survey, 2013, Water-resources data for the United States, Water Year 2012: U.S. Geological Survey Water-Data Report WDR-US-2012, site 05558300, accessed at http://wdr.water.usgs.gov/wy2012/pdfs/05558300.2012.pdf

05558300 ILLINOIS RIVER AT HENRY, IL—Continued

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	10,800	5,930	12,400	14,400	19,300	15,200	10,800	7,520	8,580	3,330	3,390	5,370
2	9,530	7,510	11,900	13,400	19,300	16,300	10,300	11,500	7,750	3,660	2,890	5,290
3	8,680	7,330	10,900	11,900	18,400	16,200	10,400	12,400	7,580	3,630	3,020	4,490
4	7,890	6,530	13,100	12,400	17,500	15,700	9,020	23,800	7,250	3,840	3,520	4,570
5	6,410	5,780	13,000	12,000	16,600	16,100	8,500	25,900	7,560	3,280	5,250	4,180
6	5,230	5,710	11,900	11,500	17,000	13,400	7,570	23,900	6,640	3,240	3,510	3,460
7	5,590	7,720	12,100	11,700	16,400	13,300	7,080	32,300	5,990	3,480	3,470	5,220
8	5,580	9,800	11,500	10,300	14,900	15,800	7,290	41,200	5,160	3,250	3,350	3,200
9	5,240	15,000	10,900	10,100	13,200	14,000	6,870	45,300	5,170	2,740	3,710	5,030
10	4,680	18,400	10,200	9,890	13,800	12,200	7,060	43,400	4,180	2,600	3,030	3,590
11	4,670	18,100	9,560	9,550	12,100	13,200	6,170	36,500	4,740	2,590	4,130	3,990
12	4,610	14,000	9,750	9,560	11,300	13,200	6,660	32,400	4,780	2,700	4,320	3,430
13	5,790	14,200	8,840	9,760	10,900	14,300	4,810	28,800	3,110	3,020	4,120	3,800
14	5,720	13,100	10,400	9,680	11,600	13,200	7,050	24,600	4,270	2,560	3,900	3,240
15	5,440	11,900	23,900	7,760	11,300	13,000	5,830	21,600	3,530	3,050	3,820	3,140
16	5,630	11,400	32,500	9,410	11,900	13,000	12,100	18,900	3,230	2,610	5,030	3,890
17	5,940	10,000	30,600	9,830	10,800	13,000	12,200	17,000	7,000	3,260	4,490	3,380
18	6,360	7,670	26,100	9,920	12,300	12,500	10,800	15,700	10,000	3,110	4,680	3,390
19	5,930	9,530	25,200	11,900	10,500	12,400	11,300	14,500	12,600	7,850	2,950	4,080
20	6,860	9,900	22,500	10,600	9,970	12,300	12,100	12,900	9,340	5,240	3,710	5,660
21	6,730	8,550	20,500	10,400	9,730	14,000	9,710	13,600	10,600	4,530	4,030	3,080
22	6,780	8,170	20,200	10,400	10,500	12,000	9,400	12,000	6,820	4,510	2,900	3,970
23	6,820	8,510	17,900	12,600	11,000	12,500	8,190	11,200	5,680	3,970	2,880	3,330
24	7,430	6,660	17,100	19,500	11,000	15,000	7,620	7,040	5,630	4,350	3,560	3,230
25	6,450	7,840	16,900	22,000	12,200	14,200	7,090	10,800	3,590	5,210	3,230	3,140
26	8,390	7,930	15,100	22,600	10,900	13,800	7,180	8,220	4,140	4,560	3,390	3,010
27	7,030	12,400	15,900	21,400	11,500	11,700	6,280	6,760	2,410	3,450	9,410	3,590
28	7,580	15,100	14,600	19,300	11,300	13,900	7,260	6,130	3,380	3,720	8,360	3,610
29	7,600	15,400	13,700	20,700	11,500	11,900	5,740	7,590	3,730	3,430	6,680	3,360
30	6,150	12,200	12,700	19,200	---	12,000	7,870	6,430	3,800	3,250	5,210	3,710
31	7,000	---	11,900	18,800	---	10,300	---	6,930	---	3,330	5,160	---
Total	204,540	312,270	493,750	412,460	378,700	419,600	250,250	586,820	178,240	113,350	131,100	116,430
Mean	6,598	10,410	15,930	13,310	13,060	13,540	8,342	18,930	5,941	3,656	4,229	3,881
Max	10,800	18,400	32,500	22,600	19,300	16,300	12,200	45,300	12,600	7,850	9,410	5,660
Min	4,610	5,710	8,840	7,760	9,730	10,300	4,810	6,130	2,410	2,560	2,880	3,010

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2012, BY WATER YEAR (WY)

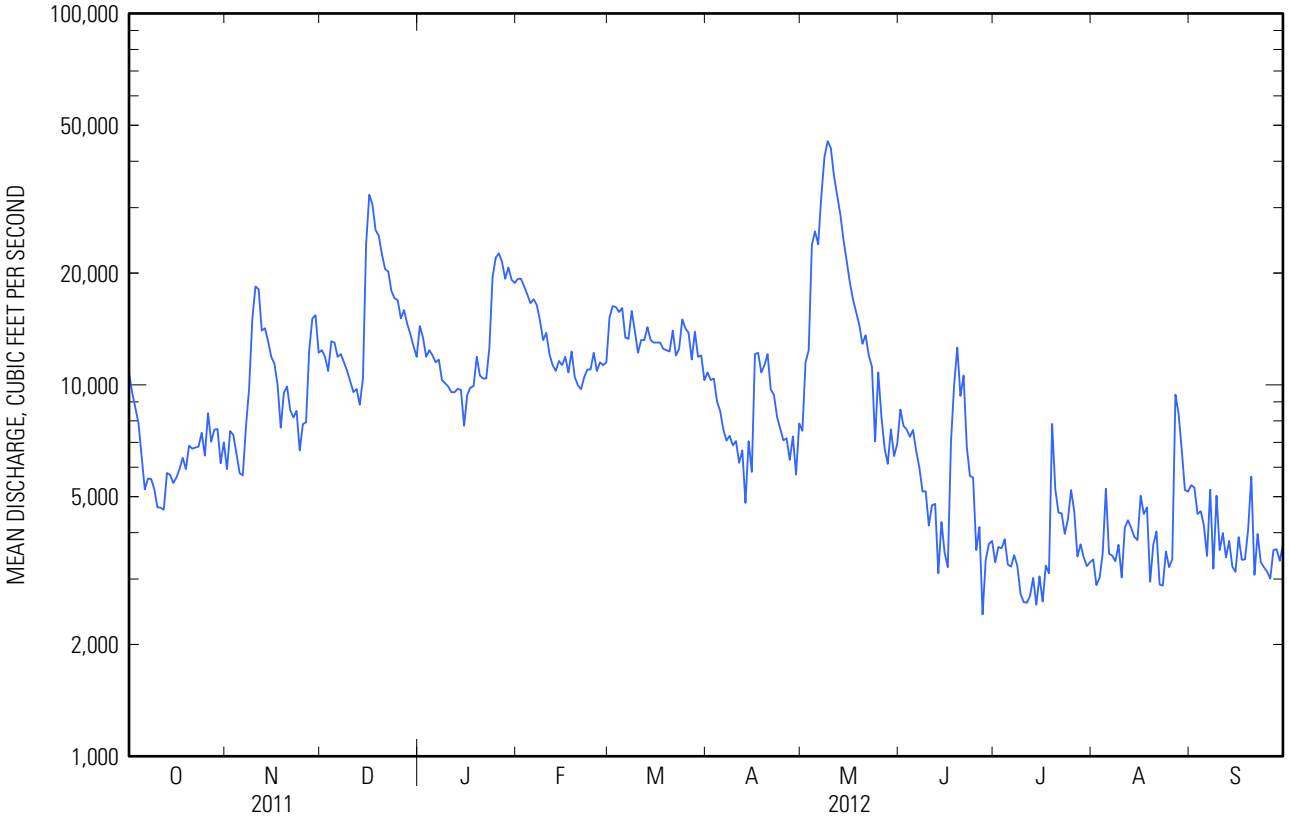
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	9,097	12,040	15,140	14,820	17,080	23,240	21,650	19,800	17,800	12,250	9,665	9,474
Max	23,990	31,730	51,370	36,120	38,680	55,690	48,890	36,220	33,600	28,840	25,770	36,480
(WY)	(1994)	(1986)	(1983)	(1993)	(2001)	(1982)	(1983)	(2002)	(1996)	(1993)	(2007)	(2008)
Min	3,960	3,197	4,041	3,324	3,645	5,904	8,342	7,416	4,979	3,656	3,739	2,687
(WY)	(2006)	(2003)	(2003)	(2003)	(2003)	(2003)	(2012)	(2005)	(2005)	(2012)	(1991)	(1991)

05558300 ILLINOIS RIVER AT HENRY, IL—Continued

SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1982 - 2012	
Annual total	6,368,660		3,597,510			
Annual mean	17,450		9,829		15,160	
Highest annual mean					24,470	1993
Lowest annual mean					8,323	2003
Highest daily mean	59,800	Apr 28	45,300	May 9	120,000	Sep 16, 2008
Lowest daily mean	3,730	Sep 17	2,410	Jun 27	2,040	Sep 27, 1991
Annual seven-day minimum	4,300	Sep 12	2,730	Jul 10	2,140	Sep 24, 1991
Maximum peak flow			[A]49,000	May 10	[B]128,000	Sep 16, 2008
Maximum peak stage			[C]20.99	May 11	[D]32.02	Mar 7, 1985
Instantaneous low flow			984	Jun 27		
10 percent exceeds	35,000		17,200		29,900	
50 percent exceeds	13,100		8,440		11,300	
90 percent exceeds	5,430		3,370		5,170	

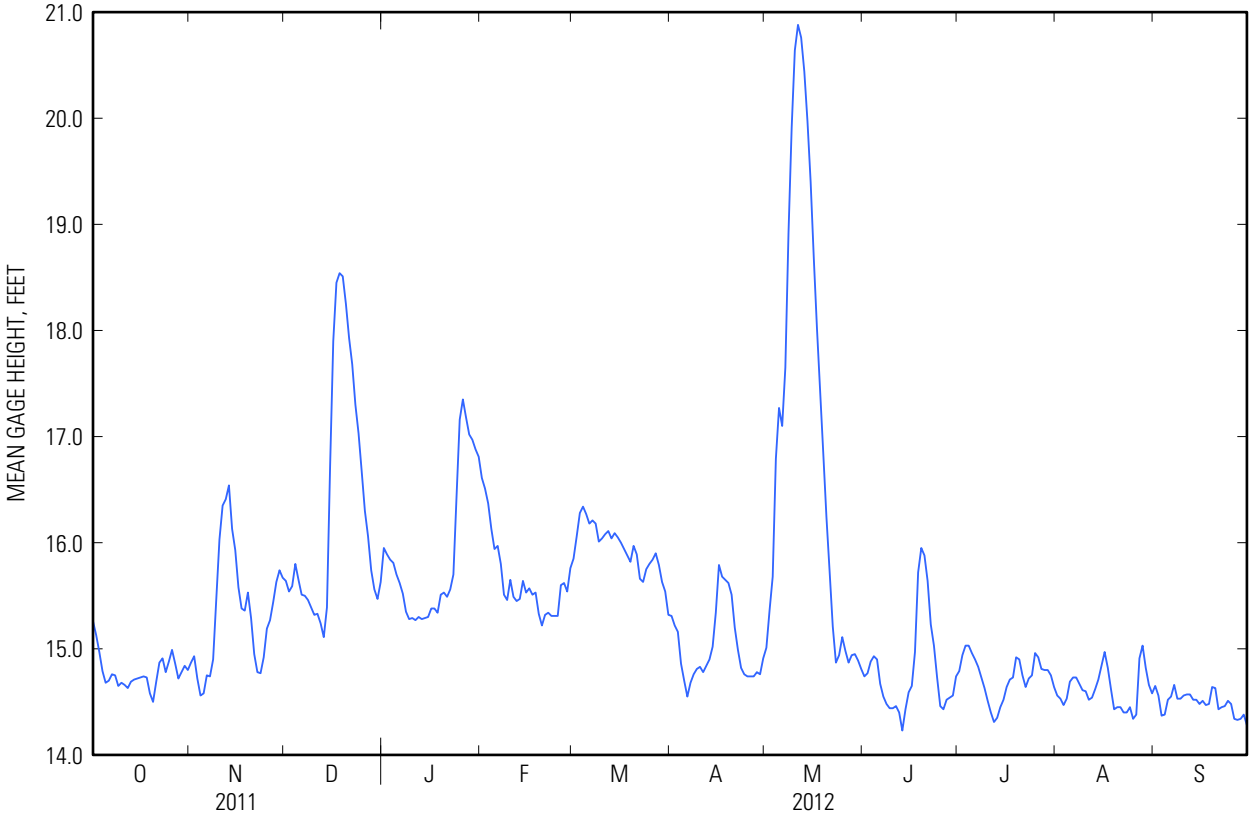
[A] Gage height, 20.52 ft.
[B] Gage height, 27.96 ft.
[C] Discharge, 36,900 ft³/s.
[D] Discharge, 73,000 ft³/s.



05558300 ILLINOIS RIVER AT HENRY, IL—Continued

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	15.26	14.87	15.64	15.95	16.61	15.85	15.31	15.01	14.74	14.79	14.56	14.65
2	15.13	14.93	15.54	15.89	16.51	16.06	15.22	15.36	14.77	14.94	14.53	14.56
3	14.97	14.72	15.59	15.84	16.37	16.28	15.16	15.68	14.88	15.03	14.47	14.37
4	14.79	14.56	15.80	15.81	16.13	16.34	14.86	16.79	14.93	15.03	14.53	14.38
5	14.68	14.58	15.65	15.70	15.94	16.27	14.70	17.27	14.90	14.96	14.69	14.52
6	14.70	14.75	15.51	15.62	15.97	16.18	14.55	17.10	14.67	14.90	14.73	14.55
7	14.76	14.74	15.50	15.52	15.80	16.21	14.68	17.65	14.55	14.83	14.73	14.66
8	14.75	14.90	15.46	15.35	15.51	16.18	14.76	18.92	14.48	14.73	14.67	14.53
9	14.65	15.47	15.39	15.28	15.46	16.01	14.81	19.91	14.44	14.63	14.61	14.53
10	14.68	16.03	15.32	15.29	15.65	16.04	14.83	20.64	14.44	14.51	14.60	14.56
11	14.66	16.35	15.33	15.27	15.49	16.08	14.78	20.88	14.46	14.40	14.52	14.57
12	14.63	16.41	15.24	15.30	15.45	16.11	14.84	20.76	14.40	14.31	14.54	14.57
13	14.69	16.54	15.11	15.28	15.47	16.04	14.90	20.44	14.23	14.35	14.62	14.52
14	14.71	16.13	15.39	15.29	15.64	16.09	15.02	19.97	14.43	14.45	14.71	14.52
15	14.72	15.93	16.72	15.30	15.53	16.05	15.34	19.40	14.59	14.52	14.84	14.48
16	14.73	15.58	17.90	15.38	15.57	16.00	15.79	18.68	14.65	14.64	14.97	14.51
17	14.74	15.38	18.45	15.38	15.51	15.94	15.68	18.02	14.97	14.71	14.82	14.47
18	14.73	15.36	18.54	15.34	15.53	15.88	15.65	17.43	15.72	14.73	14.62	14.48
19	14.58	15.53	18.51	15.51	15.33	15.82	15.62	16.84	15.95	14.92	14.43	14.64
20	14.50	15.29	18.25	15.53	15.22	15.97	15.51	16.24	15.88	14.90	14.45	14.63
21	14.69	14.95	17.93	15.49	15.32	15.89	15.20	15.73	15.64	14.75	14.45	14.43
22	14.87	14.78	17.68	15.56	15.34	15.66	14.99	15.21	15.23	14.64	14.40	14.45
23	14.91	14.77	17.30	15.70	15.31	15.63	14.82	14.87	15.03	14.72	14.40	14.46
24	14.78	14.92	17.03	16.44	15.31	15.75	14.76	14.94	14.73	14.75	14.45	14.51
25	14.88	15.19	16.67	17.16	15.31	15.80	14.74	15.11	14.46	14.96	14.34	14.48
26	14.99	15.27	16.30	17.35	15.60	15.84	14.74	14.98	14.43	14.92	14.38	14.34
27	14.86	15.44	16.06	17.18	15.62	15.90	14.74	14.87	14.52	14.81	14.91	14.33
28	14.72	15.63	15.74	17.02	15.54	15.79	14.78	14.94	14.54	14.80	15.03	14.34
29	14.78	15.74	15.56	16.97	15.76	15.63	14.76	14.95	14.56	14.80	14.82	14.38
30	14.84	15.67	15.47	16.88	---	15.54	14.91	14.89	14.74	14.75	14.66	14.28
31	14.80	---	15.63	16.81	---	15.32	---	14.81	---	14.64	14.58	---
Mean	14.78	15.35	16.33	15.88	15.65	15.94	15.02	17.04	14.80	14.74	14.61	14.49
Max	15.26	16.54	18.54	17.35	16.61	16.34	15.79	20.88	15.95	15.03	15.03	14.66
Min	14.50	14.56	15.11	15.27	15.22	15.32	14.55	14.81	14.23	14.31	14.34	14.28

	Calendar Year 2011	Water Year 2012
Mean	17.49	15.39
Max	26.19	20.88
Min	14.26	14.23

05558300 ILLINOIS RIVER AT HENRY, IL—Continued