

Water-Data Report 2013

01335754 HUDSON RIVER ABOVE LOCK 1 NEAR WATERFORD, NY

Upper Hudson Basin
Hudson-Hoosic Subbasin

LOCATION.--Lat 42°49'45", long 73°39'58" referenced to North American Datum of 1983, Saratoga County, NY, Hydrologic Unit 02020003, 0.4 mi upstream from dam at Lock 1 of the Champlain (Barge) Canal, 2.8 mi northeast of Waterford, and 3.4 mi downstream from dam at Lock 2 of the Champlain (Barge) Canal.

DRAINAGE AREA.--4,605 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1887 to September 1956, October 1976 to current year. Prior to October 1976, published as "at Mechanicville" (01335500, drainage area 4,500 mi²). Daily discharge records from October 1976 to September 1981 are published with suspended-sediment data as 01335770 Hudson River at Waterford, NY.

REVISED RECORDS.--WDR NY-99-1: 1998.

GAGE.--Water-stage recorder. Since Oct. 1, 1998, supplementary water-stage and taintor gate-position recorders, 0.4 mi downstream at dam at Lock 1. Datum of gage is NGVD of 1929. Prior to October 1976, various gages at site 5.8 mi upstream at different datum. October 1976 to January 1978, nonrecording gage 200 ft downstream.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Flow regulated appreciably by Great Sacandaga Lake since March 1930 (see station 01323500) and Indian Lake (see station 01314500). Diurnal fluctuation caused by powerplants upstream from station. Water is diverted into St. Lawrence River basin through Glens Falls feeder, Bond Creek, and Champlain (Barge) Canal, and occasionally may be received from that basin through summit level of Champlain (Barge) Canal at Dunham Basin. Water-discharge data for July 1992 through May 1994 based on records for Hudson River at Stillwater (01331095) and Hoosic River near Eagle Bridge (01334500) due to reconstruction of dam at Lock 1. Satellite and telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge since construction of Great Sacandaga Lake, 118,000 ft³/s, Jan. 1, 1949; maximum gage height, 36.38 ft, May 30, 31, 1984; minimum daily discharge, 614 ft³/s, Feb. 1, 1931; minimum instantaneous discharge not determined.

EXTREMES FOR PERIOD PRIOR TO REGULATION.--Maximum discharge prior to construction of Great Sacandaga Lake, 120,000 ft³/s, Mar. 28, 1913.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 46,200 ft³/s, June 14, gage height, 31.67 ft; maximum gage height, 32.47 ft, Oct. 20; minimum daily discharge, 2,950 ft³/s, Sept. 29; minimum instantaneous discharge not determined.

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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	4,630	14,900	4,630	8,440	16,200	7,310	9,680	8,340	13,300	14,900	4,320	3,850
2	5,370	11,800	3,800	8,750	11,400	6,910	9,220	7,580	13,500	17,600	3,890	5,680
3	5,090	11,000	4,470	7,240	10,300	6,520	8,270	7,400	16,500	23,100	4,290	6,940
4	5,330	10,900	4,490	8,810	8,970	6,300	7,830	6,730	12,600	19,800	4,640	5,750
5	5,040	10,900	5,380	8,410	8,690	6,280	7,350	6,350	10,900	17,200	4,680	4,450
6	4,660	10,500	5,580	8,530	8,270	5,940	6,610	5,530	8,670	18,200	4,910	4,110
7	4,480	10,200	6,740	8,790	8,290	4,620	6,340	5,370	e9,760	17,000	4,480	3,880
8	4,300	9,540	7,430	8,620	7,980	4,380	6,640	5,090	e14,200	16,200	4,510	3,860
9	4,200	9,320	7,670	7,840	7,720	4,350	7,690	4,890	16,400	16,900	4,690	3,460
10	4,560	9,570	7,490	8,180	8,290	4,720	12,300	4,920	14,300	16,700	6,270	3,610
11	4,260	8,840	9,350	8,050	8,630	5,230	20,400	5,080	24,900	17,500	5,290	3,980
12	4,290	8,800	9,360	8,240	8,450	7,280	21,000	5,850	32,800	15,200	5,520	4,720
13	3,750	9,160	9,260	8,520	8,800	19,900	20,200	5,330	35,200	13,400	5,460	9,710
14	4,400	9,890	9,060	10,100	8,680	16,700	17,400	4,770	41,600	12,600	7,510	8,500
15	5,490	9,750	8,680	10,900	8,410	12,300	14,800	4,590	32,400	11,800	6,230	6,540
16	5,690	8,460	8,530	9,780	8,320	10,800	13,200	4,420	25,800	10,000	4,530	5,270
17	5,430	9,200	8,510	10,200	8,040	9,700	15,200	3,980	22,300	9,250	4,450	4,730
18	5,290	8,670	10,100	9,450	6,840	9,180	18,000	3,460	16,800	9,970	4,080	4,130
19	7,530	8,090	9,800	8,490	5,880	8,790	18,000	3,410	13,500	8,620	3,920	4,230
20	18,900	7,160	10,600	7,910	6,120	9,160	26,500	3,380	12,500	9,340	3,770	3,620
21	16,900	6,520	10,300	7,520	5,400	8,970	28,500	e5,060	11,500	8,280	3,640	3,550
22	13,600	6,350	14,000	6,370	5,120	8,800	22,200	e6,030	10,300	7,900	3,600	4,020
23	11,900	6,190	12,600	e6,440	4,370	8,720	17,100	12,300	9,110	9,430	3,520	4,340
24	11,700	5,950	11,900	5,990	5,190	9,560	e14,500	11,700	8,520	11,800	3,460	3,470
25	11,800	5,670	11,800	e5,530	5,070	10,200	e13,100	18,300	9,880	9,260	3,460	3,500
26	11,800	e5,380	10,600	5,220	5,400	10,000	e13,100	26,700	10,100	8,130	3,400	3,500
27	11,000	5,030	10,600	5,090	5,600	10,000	11,600	23,200	9,170	8,090	3,660	3,270
28	11,100	4,600	10,500	4,900	6,920	10,100	10,400	18,200	12,400	8,260	3,610	3,110
29	11,000	5,110	10,000	4,000	---	9,940	9,170	15,800	20,300	8,410	3,510	2,950
30	11,200	4,830	10,100	4,810	---	9,720	8,580	19,000	17,600	8,070	3,350	3,230
31	13,800	---	9,760	12,200	---	9,830	---	16,200	---	5,910	3,590	---
Total	248,490	252,280	273,090	243,320	217,350	272,210	414,880	278,960	506,810	388,820	136,240	135,960
Mean	8,016	8,409	8,809	7,849	7,762	8,781	13,830	8,999	16,890	12,540	4,395	4,532
Max	18,900	14,900	14,000	12,200	16,200	19,900	28,500	26,700	41,600	23,100	7,510	9,710
Min	3,750	4,600	3,800	4,000	4,370	4,350	6,340	3,380	8,520	5,910	3,350	2,950

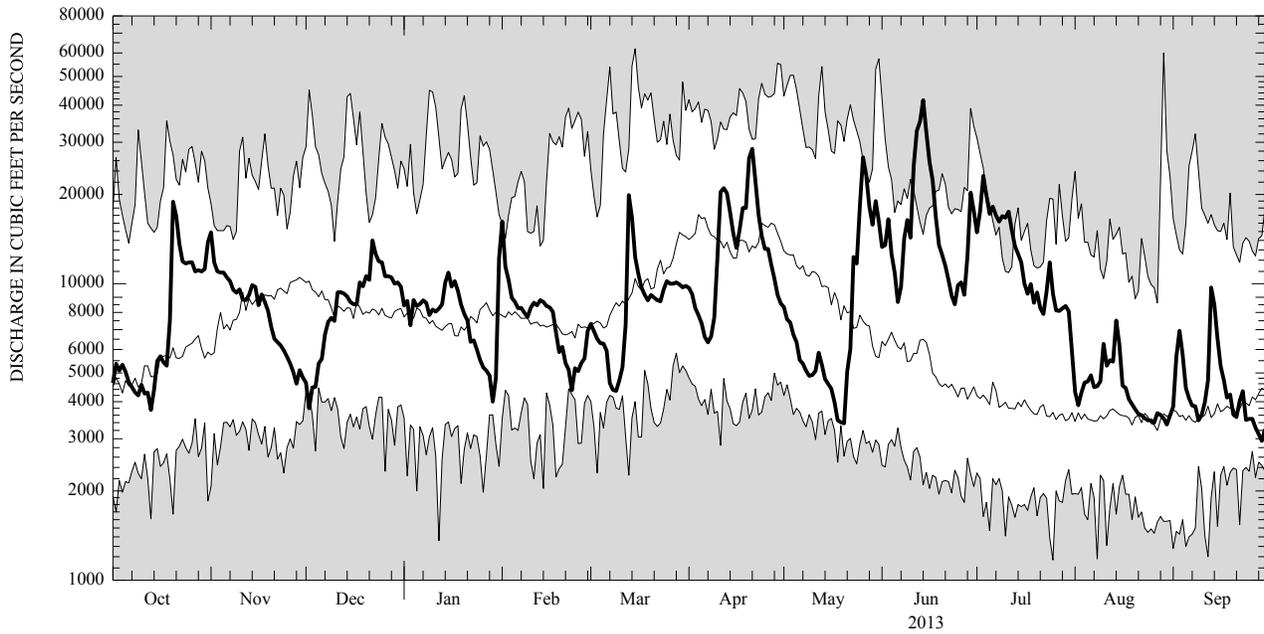
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	6,033	7,969	8,446	8,322	7,502	11,150	15,970	11,100	6,873	4,792	4,204	4,373
Max	16,560	15,790	18,960	18,480	16,250	25,600	29,480	24,610	16,890	14,580	9,752	15,970
(WY)	(1978)	(2006)	(1997)	(1949)	(1981)	(1936)	(1993)	(1996)	(2013)	(2006)	(2009)	(2011)
Min	2,378	2,539	2,696	2,063	1,611	3,440	5,383	2,622	2,009	1,937	1,604	2,169
(WY)	(1942)	(1931)	(1931)	(1931)	(1931)	(1931)	(2012)	(1941)	(1941)	(1941)	(1941)	(1941)

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SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1931 - 2013	
Annual total	2,494,390		3,368,410			
Annual mean	6,815		9,229		8,057	
Highest annual mean					12,780	2011
Lowest annual mean					4,240	1931
Highest daily mean	19,500	Jan 28	41,600	Jun 14	94,400	Dec 31, 1948
Lowest daily mean	2,510	Sep 3	2,950	Sep 29	614	Feb 1, 1931
Annual seven-day minimum	2,660	Aug 30	3,290	Sep 24	1,180	Feb 1, 1931
10 percent exceeds	11,000		16,700		15,700	
50 percent exceeds	6,220		8,410		6,000	
90 percent exceeds	2,960		4,010		2,910	



CURRENT WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
 SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.