

01335754 HUDSON RIVER ABOVE LOCK 1 NEAR WATERFORD, NY

Upper Hudson Basin
Hudson-Hoosic Subbasin

LOCATION.--Lat 42°49'45", long 73°40'00" referenced to North American Datum of 1927, 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 October 1, 1998, supplementary water-stage and taintor gate-position recorders, 0.4 mi downstream at dam at Lock 1C. Datum of gage is NGVD of 1929. Prior to October 1976, various gages at site 5.8 mi upstream at different datum. Prior to February 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 (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 prior to construction of Great Sacandaga Lake in 1930, 120,000 ft³/s, Mar. 28, 1913; maximum discharge since construction of lake, 118,000 ft³/s, Jan. 1, 1949; maximum gage height, 36.38 ft, May 30, 31, 1984; minimum daily discharge since construction of lake, 614 ft³/s, Feb. 1, 1931; minimum instantaneous discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 31,900 ft³/s, Dec. 13; maximum gage height, 32.70 ft, July 2; minimum daily discharge, 3,200 ft³/s, Sept. 20; minimum instantaneous discharge not determined.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	4,160	14,100	10,400	12,000	e7,860	e8,100	19,600	9,510	10,500	13,000	23,900	9,550
2	4,860	13,200	10,400	13,300	7,450	7,890	17,300	9,860	10,300	15,500	16,600	9,530
3	4,430	12,600	9,490	13,000	6,710	7,880	17,300	9,250	10,100	13,200	18,600	9,480
4	4,250	11,700	e8,000	12,500	7,680	9,230	24,300	11,100	9,700	10,700	13,800	8,460
5	4,080	11,300	e7,000	11,800	7,300	8,230	26,900	9,700	9,620	9,300	13,800	8,170
6	4,200	9,730	e6,900	12,000	7,680	8,010	23,100	9,100	8,550	9,350	12,500	7,950
7	4,040	9,270	e6,500	11,200	7,350	8,640	21,000	10,000	5,800	8,270	11,500	7,550
8	4,120	10,400	6,150	11,200	6,690	17,000	18,500	10,700	4,830	8,780	10,600	7,190
9	4,090	10,800	6,580	11,300	6,630	24,500	15,500	10,700	5,460	7,720	10,300	6,150
10	3,930	11,000	7,680	10,700	5,870	22,400	13,400	11,300	5,600	7,180	10,200	5,390
11	3,770	9,510	16,000	9,740	4,180	21,600	13,200	11,400	6,490	6,500	10,300	4,100
12	3,860	8,060	24,400	9,760	5,410	23,800	12,800	10,300	6,790	7,340	9,530	3,710
13	3,780	7,810	26,800	10,100	e6,680	e17,800	12,500	9,010	8,620	8,240	9,670	3,530
14	3,770	8,390	17,800	9,130	e6,980	14,500	e11,500	6,980	9,620	7,520	8,710	3,790
15	3,700	9,600	17,200	e8,890	e6,980	13,700	e11,500	7,010	8,970	6,940	6,340	3,890
16	4,210	12,300	22,400	e8,360	e6,790	13,300	e11,900	7,430	9,780	6,520	5,650	3,350
17	4,250	12,700	20,100	e7,550	e6,530	13,200	e11,900	10,800	9,550	5,590	5,390	3,690
18	4,030	11,900	17,200	e7,810	e6,320	13,900	e12,100	13,500	10,400	6,040	5,210	3,500
19	3,790	10,400	14,500	e7,940	e6,350	16,300	e12,300	12,700	15,200	6,250	4,990	3,610
20	3,770	9,900	12,500	e7,990	e5,430	17,200	e11,000	11,100	13,900	5,860	4,970	3,200
21	3,880	e8,820	12,400	e8,080	e5,610	14,700	e11,600	9,680	13,100	5,340	4,640	3,640
22	4,030	e10,300	11,900	e7,940	e5,740	15,200	12,300	10,400	13,300	6,040	5,630	3,270
23	3,540	e9,840	12,000	e7,770	e5,340	14,000	12,100	10,600	12,000	6,000	8,270	3,630
24	3,780	e9,470	11,400	7,360	e4,720	13,100	11,600	10,200	11,700	5,570	9,970	3,460
25	3,790	8,700	17,300	e7,550	e4,560	11,300	11,300	9,340	10,900	5,210	8,090	3,470
26	13,600	11,200	17,300	7,740	e4,150	12,800	11,600	8,520	10,700	4,870	6,900	3,730
27	15,600	9,360	15,200	7,710	e4,800	13,000	11,200	9,700	10,800	4,630	7,450	3,960
28	15,400	9,280	18,700	7,490	e8,500	12,200	11,200	10,200	10,300	5,430	8,100	5,710
29	20,900	9,690	21,900	7,420	---	14,900	11,000	12,700	10,200	4,830	10,300	5,730
30	16,400	9,360	17,900	7,670	---	21,000	10,500	13,100	10,000	14,300	10,900	6,150
31	14,000	---	14,900	7,310	---	22,700	---	11,600	---	19,300	9,500	---
Total	196,010	310,690	438,900	290,310	176,290	452,080	432,000	317,490	292,780	251,320	302,310	158,540
Mean	6,323	10,360	14,160	9,365	6,296	14,580	14,400	10,240	9,759	8,107	9,752	5,285
Max	20,900	14,100	26,800	13,300	8,500	24,500	26,900	13,500	15,200	19,300	23,900	9,550
Min	3,540	7,810	6,150	7,310	4,150	7,880	10,500	6,980	4,830	4,630	4,640	3,200

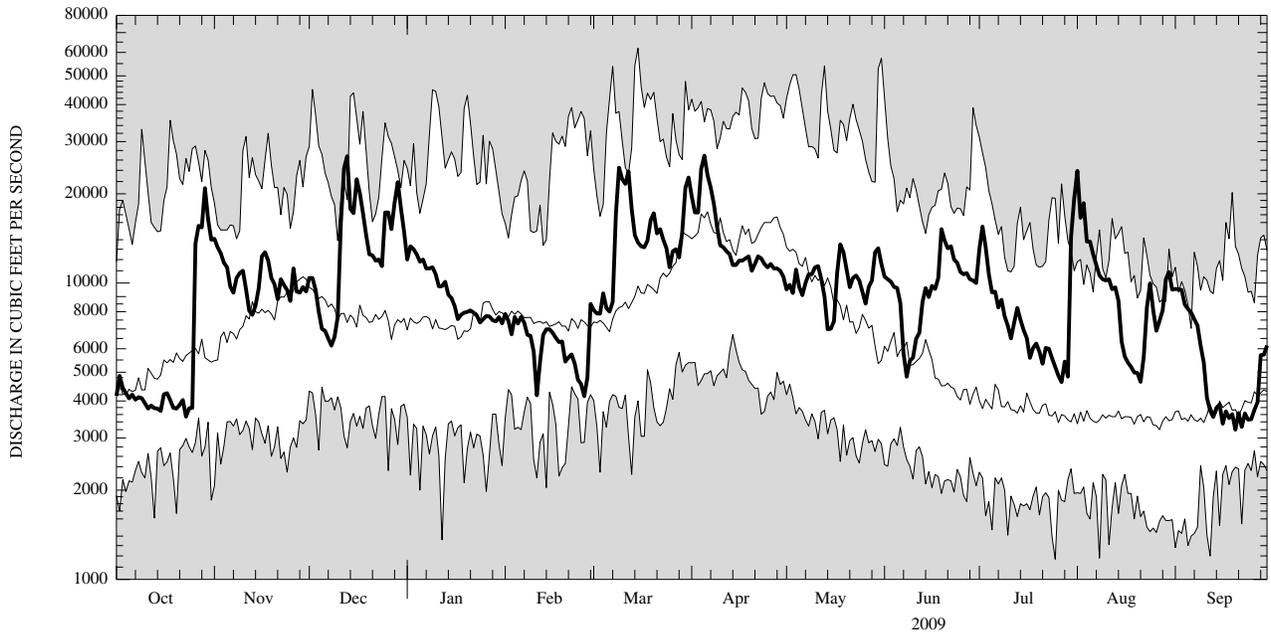
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2009, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	5,699	7,795	8,267	8,321	7,545	11,120	16,120	11,060	6,644	4,673	4,142	4,203
Max	16,560	15,790	18,960	18,480	16,250	25,600	29,480	24,610	16,750	14,580	9,752	11,320
(WY)	(1978)	(2006)	(1997)	(1949)	(1981)	(1936)	(1993)	(1996)	(1947)	(2006)	(2009)	(1938)
Min	2,378	2,539	2,696	2,063	1,611	3,440	5,508	2,622	2,009	1,937	1,604	2,169
(WY)	(1942)	(1931)	(1931)	(1931)	(1931)	(1931)	(1995)	(1941)	(1941)	(1941)	(1941)	(1941)

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SUMMARY STATISTICS

	Calendar Year 2008		Water Year 2009		Water Years 1931 - 2009	
Annual total	4,093,730		3,618,720			
Annual mean	11,190		9,914		7,960	
Highest annual mean					12,330	2006
Lowest annual mean					4,240	1931
Highest daily mean	37,900	Mar 9	26,900	Apr 5	94,400	Dec 31, 1948
Lowest daily mean	3,160	Jul 9	3,200	Sep 20	614	Feb 1, 1931
Annual seven-day minimum	3,490	Jun 14	3,470	Sep 16	1,180	Feb 1, 1931
10 percent exceeds	22,100		16,100		15,700	
50 percent exceeds	9,420		9,510		5,890	
90 percent exceeds	3,770		4,160		2,880	



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.