

01358000 HUDSON RIVER AT GREEN ISLAND, NY

Upper Hudson Basin
Hudson-Hoosic Subbasin

LOCATION.--Lat 42°45'08", long 73°41'20" referenced to North American Datum of 1983, Albany County, NY, Hydrologic Unit 02020003, on right bank at Green Island, just upstream from Troy Lock and Dam, and 0.5 mi downstream from 5th branch Mohawk River.

DRAINAGE AREA.--8,090 mi², approximately (including that above site of former auxiliary gage).

SURFACE-WATER RECORDS

PERIOD OF RECORD.--February 1946 to current year (October 1997 to September 2000, discharges only for days when inflatable rubber dam was considered to have been collapsed; see REMARKS).

GAGE.--Water-stage recorder. Datum of gage is 0.31 ft below NGVD of 1929 (Corps of Engineers benchmark). From July 1, 1946 to Mar. 12, 1962, auxiliary water-stage recorder on bypass channel at datum 10.59 ft higher. Power transducer on each turbine in powerplant. Since Oct. 1, 2008, auxiliary acoustic velocity meter about 1,600 ft upstream from base gage.

COOPERATION.--Information on turbine operation provided by Green Island Power Authority.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Records include flow over spillway, flow through lock, and flow through powerplant. Powerplant, located on the right bank just downstream from gage, was inoperative from Nov. 20, 1960 to Feb. 23, 1971. An inflatable rubber dam was installed on the spillway during August 1991. August 1991 through September 1997, and since October 2000, estimated water-discharge data based on records for Hudson River above Lock 1 near Waterford (01335754) and Mohawk River at Cohoes (01357500) due to inflatable rubber dam. October 1997 to September 2000, discharges only for days when inflatable rubber dam was considered to have been collapsed. Satellite gage-height and power transducer telemeter readings at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 181,000 ft³/s, Dec. 31, 1948, Aug. 29, 2011, gage height, 27.05 ft; minimum discharge not determined; minimum gage height, 13.68 ft, July 6, 1981, when pool was lowered for inspection of flashboards.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 19, 1936, reached a stage of 29.48 ft at gage on opposite bank, from information by Corps of Engineers (discharge, 215,000 ft³/s). Flood of Mar. 28, 1913, prior to construction of Sacandaga Reservoir and Troy lock and dam, reached a stage about 0.2 ft higher upstream from former dam near same site. Downstream from dams, flood in 1913 was about 3.3 ft higher than flood in 1936, from information by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 107,000 ft³/s, June 14, gage height, 22.74 ft; minimum discharge not determined; minimum gage height, 14.88 ft, Nov. 23.

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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	5,390	22,000	6,390	14,000	38,700	17,000	18,400	13,700	22,800	41,500	5,860	6,650
2	7,920	14,900	5,320	12,700	26,800	15,000	18,500	13,000	22,200	44,600	5,990	7,790
3	7,150	12,900	6,180	e11,300	21,400	12,900	16,800	13,000	25,600	55,100	7,750	12,900
4	7,000	12,800	8,600	e13,000	17,000	11,100	15,400	11,700	21,300	46,800	8,900	11,000
5	6,540	12,500	11,300	e13,500	15,200	10,400	13,400	10,600	17,600	37,400	7,940	8,390
6	7,770	13,000	10,500	e13,100	13,800	9,040	12,800	8,760	17,000	33,200	7,990	6,780
7	7,410	13,500	11,700	e13,000	12,900	8,150	13,200	9,640	20,700	29,100	5,230	5,210
8	7,550	12,000	12,600	e12,500	12,700	7,900	12,400	11,600	33,200	31,300	5,490	5,490
9	6,860	12,200	12,400	e12,000	e12,400	9,090	13,500	9,370	29,700	33,200	7,580	4,860
10	6,850	13,100	12,600	e12,500	e12,300	8,660	23,000	8,310	24,900	30,900	9,750	5,110
11	7,160	9,580	18,500	12,200	e13,000	10,300	43,000	9,850	51,100	28,100	9,370	5,360
12	7,440	10,500	20,500	12,500	e14,100	16,200	43,800	11,400	67,500	22,200	8,020	11,300
13	5,020	13,100	17,000	14,100	e13,900	48,000	48,800	9,830	60,500	22,300	10,200	14,900
14	6,330	16,300	14,400	19,700	e13,400	38,400	38,900	8,890	95,200	19,100	15,200	13,100
15	11,900	13,600	13,000	27,000	12,400	28,300	31,600	7,770	69,400	15,900	12,100	7,710
16	11,700	11,100	12,500	22,800	13,500	22,400	26,900	7,670	49,100	12,500	7,770	6,570
17	10,200	14,200	14,200	20,300	13,100	18,400	28,600	6,510	38,100	11,600	5,790	11,100
18	8,180	13,000	18,200	17,000	e10,200	17,200	29,900	5,690	28,000	12,400	6,510	5,140
19	14,500	11,700	25,700	14,700	e9,000	16,200	e28,800	4,650	25,600	10,400	5,550	6,440
20	32,500	14,100	23,500	13,000	e9,800	15,600	44,200	4,830	22,500	14,500	5,890	5,190
21	30,100	14,800	21,400	13,000	e9,400	15,100	53,000	5,390	19,300	12,700	4,990	4,980
22	21,200	10,200	35,300	11,800	e8,300	14,500	40,700	e14,700	15,500	10,800	5,120	6,660
23	17,900	9,150	31,000	e10,600	e8,200	13,700	29,600	22,900	14,500	17,700	5,550	7,040
24	16,500	8,490	26,000	e9,200	9,470	14,900	23,100	18,800	14,900	20,200	5,320	6,080
25	15,700	8,910	22,100	e8,400	9,380	15,200	19,200	30,300	17,700	11,900	4,230	5,940
26	16,700	12,500	18,400	e9,200	9,000	16,300	23,600	41,100	19,000	10,800	3,770	5,890
27	20,700	10,300	17,800	e8,800	9,960	16,900	20,900	32,800	21,900	9,410	5,980	5,380
28	21,600	9,180	17,000	e8,000	13,300	17,400	19,300	24,600	40,100	8,440	5,540	4,880
29	17,000	7,740	16,500	e7,500	---	17,300	14,600	22,800	63,300	10,200	5,150	4,670
30	14,800	6,980	15,900	e8,800	---	17,100	14,600	40,600	45,300	10,300	4,110	5,040
31	20,800	---	14,500	23,100	---	17,500	---	31,200	---	8,810	5,660	---
Total	398,370	364,330	510,990	419,300	382,610	516,140	780,500	471,960	1,013,500	683,360	214,300	217,550
Mean	12,850	12,140	16,480	13,530	13,660	16,650	26,020	15,220	33,780	22,040	6,913	7,252
Max	32,500	22,000	35,300	27,000	38,700	48,000	53,000	41,100	95,200	55,100	15,200	14,900
Min	5,020	6,980	5,320	7,500	8,200	7,900	12,400	4,650	14,500	8,440	3,770	4,670

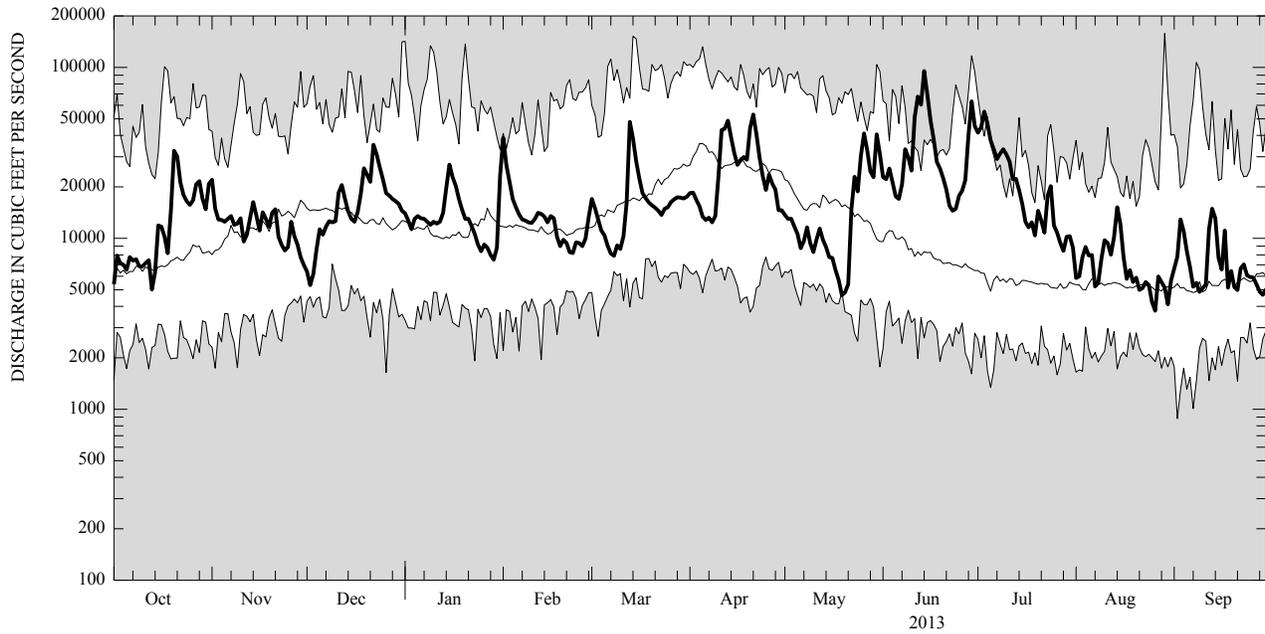
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	10,130	14,050	16,100	14,260	14,090	22,600	30,600	18,800	11,120	7,419	6,430	6,917
Max	30,140	26,790	34,940	33,970	31,260	44,240	61,820	40,520	33,780	23,780	17,470	31,510
(WY)	(1978)	(2006)	(1997)	(1949)	(1976)	(1979)	(1993)	(1972)	(2013)	(2006)	(2011)	(2011)
Min	2,967	3,270	6,096	4,187	4,527	9,123	9,073	5,505	3,573	3,082	2,912	2,875
(WY)	(1965)	(1965)	(1965)	(1961)	(1980)	(1965)	(1995)	(1987)	(1965)	(1965)	(1965)	(1964)

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SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1946 - 2013	
Annual total	4,354,270		5,972,910			
Annual mean	11,900		16,360		14,380	
Highest annual mean					22,840	
Lowest annual mean					6,386	
Highest daily mean	51,300	May 9	95,200	Jun 14	158,000	Aug 29, 2011
Lowest daily mean	3,080	Sep 17	3,770	Aug 26	882	Sep 2, 1968
Annual seven-day minimum	3,630	Aug 31	4,870	Aug 24	2,110	Aug 23, 1995
10 percent exceeds	21,400		31,100		29,600	
50 percent exceeds	11,200		13,000		10,100	
90 percent exceeds	4,030		5,920		4,410	



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.