

Water-Data Report 2008

04216000 NIAGARA RIVER AT BUFFALO, NY

Eastern Lake Erie Basin
Niagara Subbasin

LOCATION.--Lat 42°52'40", long 78°55'00" referenced to North American Datum of 1927, Erie County, NY, Hydrologic Unit 04120104, at head of Niagara River at Buffalo, and 34.3 mi upstream from mouth.

DRAINAGE AREA.--263,700 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--January 1860 to September 1960 (monthly discharges only published in WSP 1912), October 1960 to current year. Records of January 1926 to September 1960 daily discharges available in files of U.S. Department of Commerce and U.S. Geological Survey.

REVISED RECORDS.--WSP 1912: 1862 (M), 1955 (M), 1936 (M). WDR NY-77-1: Drainage area.

GAGE.--Discharge determined from several powerplants at Niagara Falls and discharge over the falls. Discharge before 1926 determined from records of Corps of Engineers gages at Buffalo and Cleveland.

COOPERATION.--Records of daily discharge provided by Detroit District, U.S. Army Corps of Engineers and Canada Department of the Environment, not reviewed by the USGS.

REMARKS.--Records do not include water diverted from Lake Michigan by Illinois and Michigan Canal during period of its operation prior to 1910 and by Chicago Sanitary and Ship Canal, which began operation in 1900, and from Lake Erie by Welland and New York State Canals before 1918. Records include water diverted into Lake Superior from Hudson Bay drainage by the Long Lake project, which began operation in July 1939, and by the Ogoki project, which began operation in July 1943. Figures of monthly mean discharge for 1860 to 1960 and daily discharge for 1961 to 1965, published in WSP 1912, are the official records of the U.S. Lake Survey, and have been coordinated with and concurred by the counterpart Canadian agencies, as have been the extremes for period of record through December 1976 and records October 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 347,000 ft³/s, Dec. 2, 1985, result of high, storm-generated Lake Erie level; minimum daily, 90,000 ft³/s, Jan. 13, 1964, Aug. 29, 1984. Maximum monthly mean discharge, 268,400 ft³/s, June 1986; minimum monthly mean, 116,200 ft³/s, Feb. 1936. Maximum and minimum instantaneous discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 247,000 ft³/s, Jan. 30, result of high, storm-generated Lake Erie level; minimum daily discharge, 136,000 ft³/s, Feb. 1. Maximum and minimum instantaneous discharge not determined.

04216000 NIAGARA RIVER AT BUFFALO, NY—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	183,000	188,000	177,000	192,000	136,000	206,000	232,000	210,000	213,000	209,000	208,000	191,000
2	182,000	175,000	172,000	184,000	172,000	192,000	210,000	213,000	213,000	207,000	208,000	190,000
3	189,000	180,000	225,000	191,000	157,000	199,000	212,000	216,000	206,000	212,000	206,000	190,000
4	181,000	181,000	196,000	204,000	150,000	192,000	216,000	226,000	206,000	204,000	204,000	188,000
5	179,000	183,000	176,000	188,000	170,000	200,000	218,000	215,000	205,000	205,000	208,000	197,000
6	183,000	222,000	186,000	184,000	167,000	208,000	214,000	215,000	209,000	207,000	208,000	189,000
7	182,000	185,000	185,000	189,000	198,000	199,000	215,000	216,000	206,000	205,000	207,000	194,000
8	183,000	178,000	184,000	190,000	196,000	199,000	217,000	218,000	207,000	208,000	207,000	196,000
9	188,000	174,000	172,000	215,000	205,000	219,000	220,000	211,000	204,000	213,000	208,000	192,000
10	191,000	170,000	177,000	188,000	230,000	203,000	213,000	216,000	210,000	210,000	212,000	186,000
11	183,000	176,000	178,000	209,000	182,000	208,000	209,000	207,000	204,000	210,000	205,000	186,000
12	182,000	178,000	186,000	198,000	157,000	208,000	228,000	215,000	197,000	209,000	205,000	195,000
13	191,000	176,000	181,000	188,000	182,000	204,000	220,000	216,000	200,000	215,000	204,000	195,000
14	184,000	182,000	204,000	209,000	183,000	204,000	219,000	215,000	202,000	212,000	201,000	202,000
15	176,000	183,000	167,000	206,000	197,000	206,000	223,000	216,000	203,000	209,000	200,000	213,000
16	170,000	185,000	184,000	192,000	183,000	209,000	219,000	217,000	206,000	212,000	206,000	195,000
17	178,000	172,000	201,000	192,000	191,000	204,000	217,000	220,000	205,000	209,000	208,000	201,000
18	177,000	161,000	195,000	225,000	216,000	205,000	218,000	220,000	205,000	210,000	209,000	189,000
19	189,000	171,000	192,000	211,000	230,000	215,000	217,000	222,000	204,000	210,000	196,000	190,000
20	210,000	177,000	186,000	213,000	203,000	227,000	218,000	220,000	203,000	212,000	192,000	194,000
21	184,000	168,000	178,000	201,000	189,000	221,000	215,000	221,000	204,000	212,000	192,000	191,000
22	180,000	168,000	181,000	198,000	195,000	213,000	216,000	223,000	206,000	210,000	196,000	186,000
23	181,000	179,000	212,000	198,000	196,000	216,000	216,000	216,000	206,000	206,000	196,000	187,000
24	181,000	186,000	241,000	187,000	194,000	217,000	215,000	215,000	205,000	217,000	200,000	189,000
25	165,000	191,000	199,000	195,000	194,000	220,000	214,000	214,000	203,000	215,000	193,000	189,000
26	174,000	176,000	186,000	167,000	195,000	220,000	220,000	213,000	206,000	216,000	186,000	183,000
27	199,000	210,000	192,000	182,000	197,000	218,000	217,000	211,000	204,000	217,000	186,000	185,000
28	184,000	179,000	186,000	182,000	197,000	217,000	216,000	208,000	206,000	212,000	190,000	188,000
29	189,000	212,000	215,000	185,000	199,000	216,000	218,000	212,000	210,000	208,000	194,000	186,000
30	184,000	208,000	185,000	247,000	---	209,000	215,000	207,000	209,000	209,000	194,000	195,000
31	186,000	---	189,000	157,000	---	221,000	---	216,000	---	213,000	192,000	---
Total	5,688,000	5,474,000	5,888,000	6,067,000	5,461,000	6,495,000	6,517,000	6,680,000	6,167,000	6,523,000	6,221,000	5,752,000
Mean	183,500	182,500	189,900	195,700	188,300	209,500	217,200	215,500	205,600	210,400	200,700	191,700
Max	210,000	222,000	241,000	247,000	230,000	227,000	232,000	226,000	213,000	217,000	212,000	213,000
Min	165,000	161,000	167,000	157,000	136,000	192,000	209,000	207,000	197,000	204,000	186,000	183,000

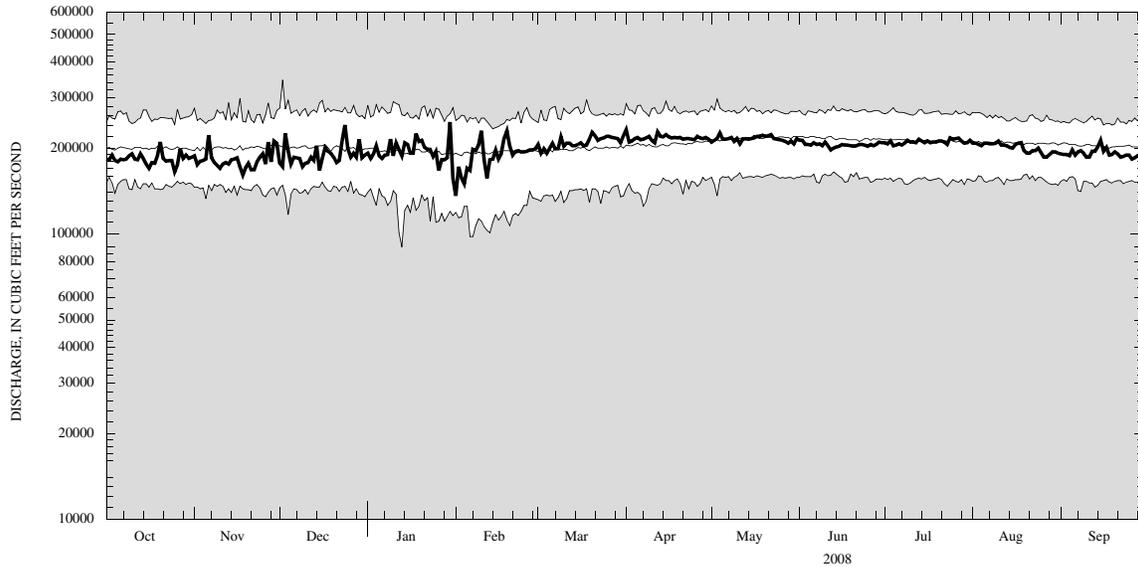
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	199,800	200,000	200,900	195,700	193,100	199,200	207,600	215,900	215,000	211,400	207,500	203,100
Max	254,000	248,000	260,900	254,000	241,600	255,500	264,200	264,700	268,400	265,200	253,500	243,700
(WY)	(1987)	(1987)	(1986)	(1987)	(1987)	(1986)	(1985)	(1974)	(1986)	(1986)	(1986)	(1986)
Min	152,700	148,100	149,800	138,500	116,200	142,700	152,000	159,100	158,000	154,100	155,000	153,900
(WY)	(1935)	(1935)	(1965)	(1964)	(1936)	(1934)	(1935)	(1934)	(1934)	(1934)	(1934)	(1934)

04216000 NIAGARA RIVER AT BUFFALO, NY—Continued

SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1926 - 2008	
Annual total	72,152,000		72,933,000			
Annual mean	197,700		199,300		204,500	
Highest annual mean					249,600	1986
Lowest annual mean					155,300	1934
Highest daily mean	251,000	Jan 8	247,000	Jan 30	347,000	Dec 2, 1985
Lowest daily mean	159,000	Feb 13	136,000	Feb 1	90,000	Jan 13, 1964
Annual seven-day minimum	171,000	Nov 17	158,000	Jan 31	105,000	Feb 6, 1936
10 percent exceeds	218,000		217,000		238,000	
50 percent exceeds	194,000		203,000		204,000	
90 percent exceeds	180,000		178,000		172,000	



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.