

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, Jun 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, Feb 6; minimum daily discharge, 170,000 ft³/s, Oct 24. Maximum and minimum instantaneous discharge not determined.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	191,000	191,000	191,000	189,000	196,000	191,000	205,000	196,000	197,000	200,000	213,000	182,000
2	184,000	188,000	208,000	177,000	195,000	188,000	194,000	197,000	191,000	214,000	214,000	171,000
3	185,000	198,000	197,000	177,000	197,000	190,000	201,000	201,000	191,000	201,000	213,000	196,000
4	185,000	189,000	188,000	188,000	188,000	196,000	209,000	201,000	189,000	204,000	209,000	196,000
5	184,000	182,000	190,000	199,000	242,000	194,000	207,000	198,000	194,000	201,000	204,000	195,000
6	186,000	213,000	195,000	191,000	247,000	189,000	197,000	201,000	192,000	199,000	204,000	197,000
7	178,000	195,000	193,000	196,000	211,000	190,000	197,000	196,000	191,000	200,000	208,000	195,000
8	171,000	185,000	181,000	186,000	198,000	190,000	195,000	198,000	190,000	199,000	201,000	196,000
9	173,000	191,000	206,000	194,000	203,000	192,000	198,000	196,000	191,000	199,000	202,000	194,000
10	175,000	206,000	206,000	189,000	201,000	202,000	197,000	194,000	186,000	201,000	202,000	181,000
11	177,000	192,000	200,000	190,000	193,000	197,000	195,000	196,000	187,000	197,000	189,000	178,000
12	177,000	187,000	182,000	192,000	191,000	195,000	198,000	199,000	186,000	204,000	195,000	188,000
13	183,000	194,000	178,000	188,000	219,000	201,000	201,000	196,000	187,000	200,000	198,000	197,000
14	183,000	195,000	175,000	190,000	209,000	239,000	199,000	192,000	184,000	200,000	203,000	196,000
15	193,000	178,000	173,000	188,000	199,000	215,000	200,000	194,000	184,000	207,000	202,000	194,000
16	193,000	233,000	201,000	177,000	192,000	204,000	195,000	200,000	185,000	206,000	197,000	193,000
17	189,000	220,000	203,000	180,000	232,000	198,000	191,000	204,000	185,000	207,000	194,000	194,000
18	195,000	197,000	189,000	234,000	216,000	207,000	197,000	206,000	185,000	204,000	196,000	197,000
19	189,000	192,000	200,000	207,000	208,000	210,000	195,000	207,000	189,000	198,000	196,000	206,000
20	182,000	195,000	206,000	194,000	197,000	199,000	198,000	211,000	191,000	201,000	200,000	205,000
21	172,000	194,000	190,000	198,000	209,000	195,000	195,000	212,000	186,000	202,000	197,000	196,000
22	171,000	181,000	194,000	193,000	194,000	207,000	198,000	204,000	195,000	196,000	201,000	191,000
23	182,000	185,000	188,000	193,000	198,000	199,000	199,000	203,000	192,000	202,000	194,000	196,000
24	170,000	211,000	176,000	208,000	198,000	198,000	204,000	200,000	194,000	206,000	194,000	215,000
25	174,000	214,000	174,000	214,000	205,000	200,000	199,000	199,000	195,000	208,000	191,000	204,000
26	185,000	184,000	183,000	196,000	194,000	201,000	205,000	199,000	192,000	204,000	185,000	194,000
27	185,000	177,000	183,000	196,000	193,000	201,000	201,000	200,000	195,000	208,000	195,000	197,000
28	184,000	178,000	178,000	191,000	200,000	198,000	194,000	198,000	198,000	216,000	190,000	197,000
29	189,000	191,000	182,000	192,000	---	197,000	192,000	198,000	204,000	214,000	180,000	195,000
30	194,000	204,000	184,000	199,000	---	197,000	192,000	197,000	201,000	210,000	184,000	195,000
31	190,000	---	184,000	201,000	---	199,000	---	196,000	---	211,000	175,000	---
Total	5,669,000	5,840,000	5,878,000	6,007,000	5,725,000	6,179,000	5,948,000	6,189,000	5,727,000	6,319,000	6,126,000	5,831,000
Mean	182,900	194,700	189,600	193,800	204,500	199,300	198,300	199,600	190,900	203,800	197,600	194,400
Max	195,000	233,000	208,000	234,000	247,000	239,000	209,000	212,000	204,000	216,000	214,000	215,000
Min	170,000	177,000	173,000	177,000	188,000	188,000	191,000	192,000	184,000	196,000	175,000	171,000

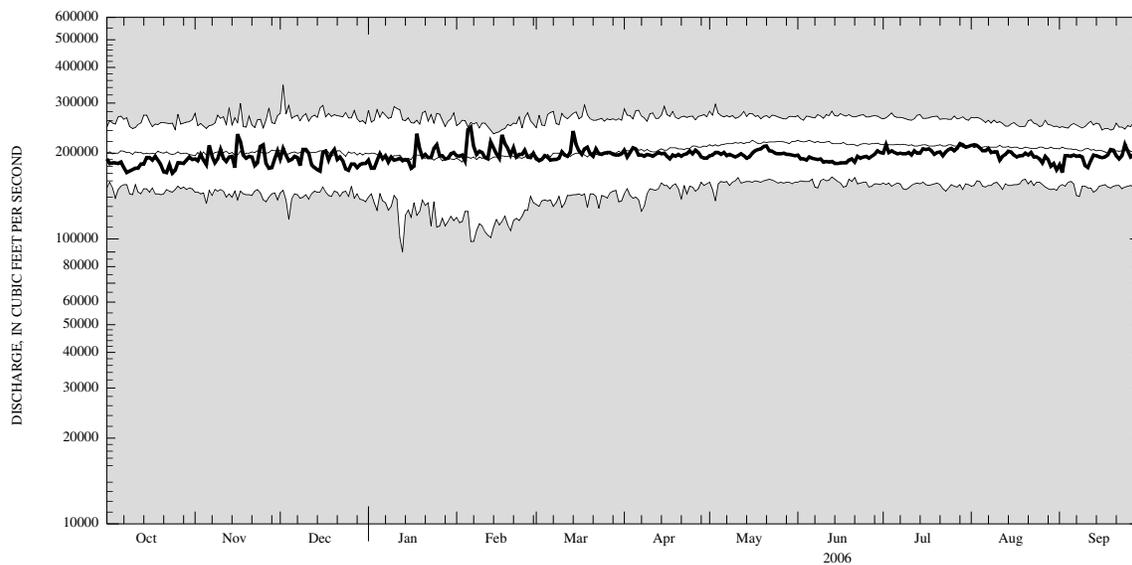
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 2006, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	199,900	200,300	200,800	195,400	193,100	198,900	207,500	215,900	215,300	211,700	207,800	203,400
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)

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SUMMARY STATISTICS

	Calendar Year 2005		Water Year 2006		Water Years 1926 - 2006	
Annual total	73,710,000		71,438,000			
Annual mean	201,900		195,700		204,600	
Highest annual mean					249,600	1986
Lowest annual mean					155,300	1934
Highest daily mean	238,000	Apr 4	247,000	Feb 6	347,000	Dec 2, 1985
Lowest daily mean	170,000	Oct 24	170,000	Oct 24	90,000	Jan 13, 1964
Annual seven-day minimum	176,000	Oct 7	176,000	Oct 7	105,000	Feb 6, 1936
10 percent exceeds	219,000		208,000		238,000	
50 percent exceeds	204,000		196,000		205,000	
90 percent exceeds	183,000		183,000		171,000	



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.