

04237500 SENECA RIVER AT BALDWINVILLE, NY

Oswego Basin
Seneca Subbasin

LOCATION.--Lat 43°09'25", long 76°19'55" referenced to North American Datum of 1927, Onondaga County, NY, Hydrologic Unit 04140201, on left bank 200 ft downstream from bridge on State Highways 31 and 48 in Baldwinsville, and 400 ft downstream from navigation dam at Lock 24 of New York State Erie (Barge) Canal.

DRAINAGE AREA.--3,138 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--November 1949 to current year. November 1898 to December 1908, prior to construction of Erie (Barge) Canal, not equivalent to later records at same site because of extensive development of Erie (Barge) Canal system. January 1909 to September 1925 (gage heights only) in reports of State Engineer and Surveyor.

REVISED RECORDS.--WDR NY-78-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 361.38 ft above NGVD of 1929 (362.60 ft Erie (Barge) Canal Datum). Prior to Dec. 31, 1908, nonrecording gage at same site at different datum. Auxiliary water-stage recorder 1,500 ft downstream from base gage at same datum.

COOPERATION.--Records of lockages at Lock 24 furnished by New York State Thruway Authority, Office of Canals.

REMARKS.--No estimated daily discharges. Records good except those for discharges below 500 ft³/s, which are fair. Discharge from 1898 to 1908 determined on basis of head on dam, flow through 10 mills nearby, lockages at Oswego Canal lock, estimated leakage of dam, wheel gates, flumes, and penstocks; not adjusted for inflow from Lake Erie through Erie (Barge) Canal. Discharge, from November 1949 to September 1996, computed by using fall as determined by auxiliary water-stage recorder. Records from October 1996 to current, computed by using standard stage-discharge methods. Published discharge represents the total flow at Baldwinsville and includes flow in Erie (Barge) Canal. A large amount of natural storage and some artificial regulation is afforded by many large lakes and the Erie (Barge) Canal system in the river basin. Large diurnal fluctuations at low and medium flows caused by powerplants upstream from station. Seneca River basin receives water from Erie (Barge) Canal through Lock 32 near Pittsford. During part of year, entire flow from 45.5 mi² of Mud Creek drainage area may be diverted from Chemung River basin into Keuka Lake in Oswego River basin. Telephone and satellite gage-height telemeters at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 18,100 ft³/s, Apr. 27, 1993, maximum gage height, 9.63 ft, Apr. 26, 27, 1993; minimum daily discharge, 34 ft³/s, Sept. 17, 1985, result of extreme regulation. Maximum and minimum instantaneous discharges not determined.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 8,840 ft³/s, Mar. 16; minimum daily discharge 407 ft³/s, Aug. 21. Maximum and minimum instantaneous discharges not determined.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	882	4,030	3,040	3,720	5,610	2,000	6,870	2,680	1,520	1,840	1,010	2,690
2	1,650	4,510	2,380	3,640	5,720	2,400	6,340	2,920	1,590	1,330	970	2,340
3	1,420	4,360	1,930	3,710	6,090	2,750	5,990	2,630	1,240	1,080	935	1,330
4	1,280	4,260	2,570	4,400	6,020	3,040	4,990	2,320	1,320	1,100	953	1,130
5	1,840	4,310	3,740	3,660	5,610	3,330	3,990	2,920	1,990	1,100	756	718
6	1,810	4,380	4,300	2,280	4,260	3,430	2,840	3,700	3,070	1,090	597	509
7	1,600	4,380	4,730	2,000	3,120	3,060	2,260	3,760	4,390	1,150	689	481
8	1,680	4,390	4,720	1,950	2,760	2,610	2,400	3,010	5,820	1,310	842	498
9	2,110	4,390	4,790	1,950	2,030	2,690	2,400	2,210	5,620	2,370	1,030	501
10	2,570	3,780	5,150	1,940	1,630	3,950	2,280	2,570	5,020	4,240	1,030	763
11	2,600	4,170	4,780	1,910	1,740	5,320	2,060	3,120	4,450	4,730	664	708
12	2,580	2,620	4,600	1,900	1,960	6,870	1,370	2,910	3,320	4,080	498	546
13	2,270	1,300	4,330	2,100	1,930	7,830	864	3,230	3,010	2,760	481	577
14	1,720	1,000	4,140	2,510	1,870	8,380	1,340	3,950	2,230	1,860	482	742
15	1,420	1,070	3,620	2,650	1,760	8,610	1,360	4,380	1,790	2,780	470	1,010
16	1,030	1,360	3,360	2,640	1,500	8,840	1,060	4,530	1,940	2,510	524	794
17	1,050	1,150	2,860	2,720	1,320	8,590	1,100	4,040	2,560	1,430	580	607
18	1,270	907	2,540	2,790	1,540	8,010	1,400	4,480	2,970	824	1,050	706
19	1,490	949	2,340	2,850	2,170	7,190	1,230	4,320	3,130	1,680	755	613
20	1,330	1,440	1,650	2,820	2,370	6,750	1,050	3,730	2,700	1,530	456	628
21	1,060	1,540	1,980	2,680	2,250	6,810	1,080	2,880	2,130	1,110	407	751
22	1,070	1,170	2,300	2,380	2,040	6,900	998	2,030	2,270	699	982	1,250
23	1,100	960	2,460	2,380	1,960	7,510	1,150	1,570	2,500	1,150	3,520	1,520
24	1,230	1,080	2,170	3,400	1,930	8,130	1,010	1,320	2,570	2,650	3,690	2,390
25	1,720	1,050	1,930	5,490	1,890	8,260	871	1,200	1,980	6,000	3,540	2,350
26	1,700	884	2,100	7,780	1,840	8,350	1,180	1,240	1,130	6,230	3,270	1,380
27	995	1,300	3,920	8,080	1,870	8,190	1,250	1,500	1,130	4,800	2,830	1,720
28	1,460	1,770	4,850	8,090	1,890	7,860	1,110	1,590	1,520	2,220	2,040	1,570
29	2,370	1,680	4,840	7,460	---	7,520	1,470	1,250	1,540	1,110	1,740	1,520
30	3,240	2,440	4,140	6,200	---	7,230	2,260	1,420	1,660	1,090	1,650	3,220
31	3,360	---	3,740	5,670	---	7,310	---	1,310	---	1,050	2,080	---
Total	52,907	72,630	106,000	113,750	76,680	189,720	65,573	84,720	78,110	68,903	40,521	35,562
Mean	1,707	2,421	3,419	3,669	2,739	6,120	2,186	2,733	2,604	2,223	1,307	1,185
Max	3,360	4,510	5,150	8,090	6,090	8,840	6,870	4,530	5,820	6,230	3,690	3,220
Min	882	884	1,650	1,900	1,320	2,000	864	1,200	1,130	699	407	481

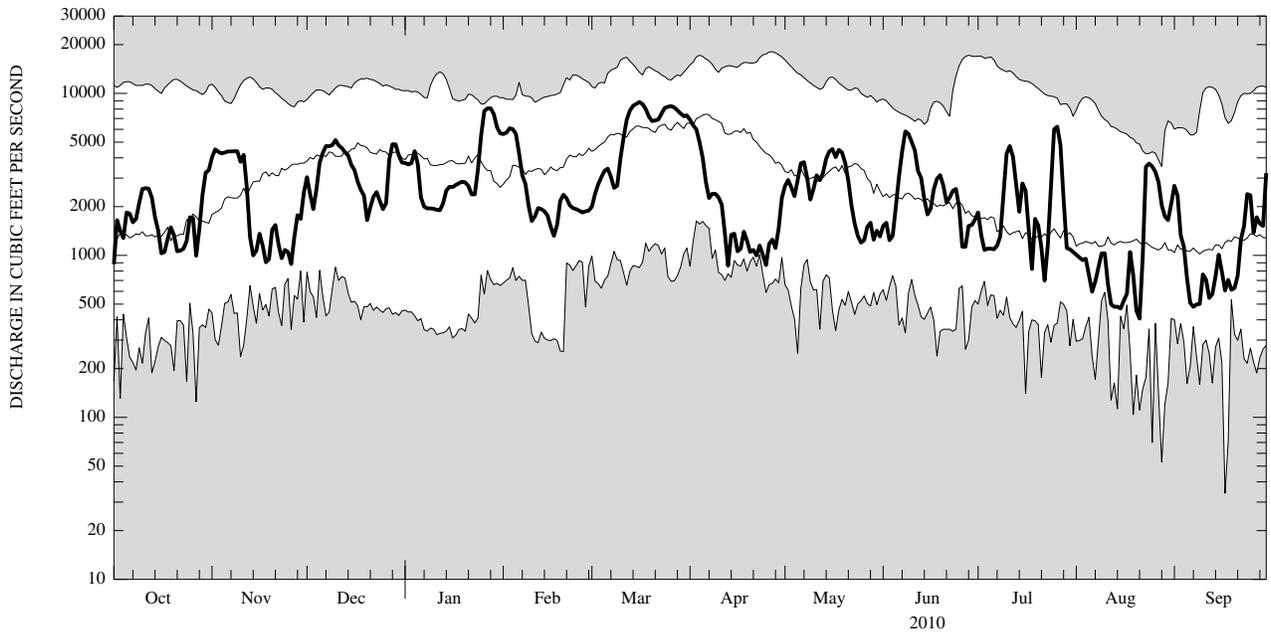
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2010, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	2,160	3,403	4,516	4,199	4,097	5,869	5,951	3,954	2,714	2,005	1,539	1,532
Max	11,020	9,491	10,330	8,807	8,342	11,650	15,610	9,778	6,456	12,100	6,214	7,523
(WY)	(1978)	(1978)	(1978)	(1978)	(2006)	(1956)	(1993)	(1996)	(1972)	(1972)	(1992)	(2004)
Min	572	675	778	805	965	1,606	1,317	719	592	621	576	421
(WY)	(1986)	(1958)	(1961)	(1954)	(1980)	(1965)	(1981)	(1995)	(1995)	(1985)	(2001)	(1995)

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SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1950 - 2010	
Annual total	1,179,753		985,076			
Annual mean	3,232		2,699		3,489	
Highest annual mean					5,998	1978
Lowest annual mean					1,357	1965
Highest daily mean	9,710	Jan 1	8,840	Mar 16	18,100	Apr 27, 1993
Lowest daily mean	220	Sep 26	407	Aug 21	34	Sep 17, 1985
Annual seven-day minimum	623	Sep 21	528	Aug 11	283	Sep 23, 1988
10 percent exceeds	7,240		5,610		7,760	
50 percent exceeds	2,470		2,110		2,430	
90 percent exceeds	867		898		836	



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.