

Seneca Lake Fact Sheet

Carved out of bedrock over 10,000 years ago by glaciers, Seneca Lake is the deepest freshwater lake east of the Mississippi River outside the Great Lakes. Due to its depth, the lake does not freeze in the winter.

Location: New York, USA

42.39 N, 76.89 W; 135.6 m above sea level

Lake Type: Ground Moraine

Primary Inflows: Catharine Creek, Keuka Lake Outlet, underwater sources

Primary Outflows: Cayuga-Seneca Canal

Mean Length: 56.6 km (35.2 miles)

Max Length: 61 km (38 mi)

Mean Width: 3.10 km (1.9 miles)

Mean Depth: 88.6 m (290.7 ft)

Max Depth: 198.4 m (650.9 ft)

Surface Elevation: ~440 ft (130 m)

Surface Area: 42,800 acres, 66.9 sq mi, (173 km²)

Volume: 15.539 km³ (3.8 cu mi)

(approx Retention time is the longest (18.1 yr) of the Finger Lakes)

1" of lake level on Seneca Lake = 1.2 billion gallons of water

Seneca Falls Power Corp normal operation = 1,500 cubic feet per second

Maximum operation = 3,200 CFS

Average usage: 1,500 cu ft sec = 11,221 gal/ sec = 40.4 million gal/hr = 323 million gal/8 hours

Canal locks 45' x 328', varying depths; 25' (worst case) = 2.8 million gallons per operation

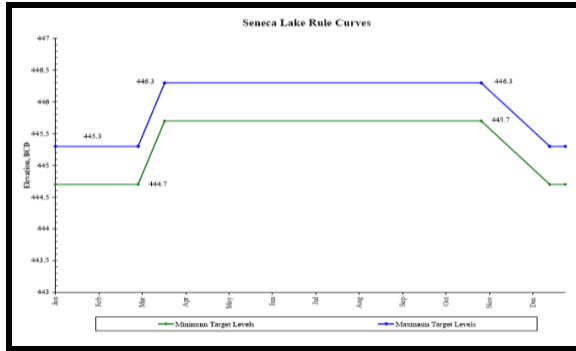
Summer hours: 7 AM to 10 PM; Winter hours: 7 AM to 5 PM

Average cycle time = 45 minutes

8 hours of operation = ~ 11 cycles = 31 million gal/8 hours

Water Level Data

Condition 6 of the Federal Energy Regulatory Commission requires that the daily fluctuation of Seneca Lake should not exceed 0.1 foot and the daily fluctuation of Van Cleef Lake should not exceed 0.25 feet from the daily target elevation for each lake, respectively, set by the New York State Thruway Authority (NYSTA). Seasonal fluctuations should be in accord with the rule curve developed by the New York State Department of Transportation and NYSEG in the late 1970s in response to concerns of the Seneca Lake Waterways Association.



The Hansen rule defines the target lake levels to be achieved throughout the year.

<http://www.nyscanals.gov/waterlevels/oswego/rule-curves/seneca.pdf>

To get Geneva lake level (used by SFPC as BCD datum) call 315-438-2499 weekdays – recording.

To see weekly Hansen Rule Curve chart data, go to:

<http://www.nyscanals.gov/faq/oswego/netdata/seneca-levels.pdf>

It's clear from this chart that between August 19th 2008 and November 11th 2008, the lake level dipped below the minimum allowable level.

You can get to FERC's search site at: <http://elibrary.ferc.gov/idmws/search/fercgensearch.asp>
Federal Energy Regulatory Commission's eLibrary:

Enter a time range (e.g. 1 year), the Docket number: P-2438 and submit.

Seneca Falls Power Corporation License issued February 13, 1997 Project No. 2438-007

Article 405. The licensee shall operate the Waterloo and Seneca Falls Project to control fluctuations of the reservoir surface elevation at each development for the protection of wetlands, wildlife, and fish habitat and recreational opportunities in the project impoundments. The Licensee shall act at all times to maintain the impoundment water surface elevations, as measured immediately upstream of each project dam, as follows:

Maintain the Seneca Lake impoundment +/- 0.1 foot of the seasonal target elevations of 446.0 feet BCD during the summer and at 445.0 feet BCD during the winter;

The seasonal fluctuations shall be in accord with the rule curve developed by the New York State Thruway Authority (NYSTA) and the New York State Electric & Gas Corporation; and

The Seneca Falls Power Company (SFPC) may vary from the recommended water level management regime due to circumstances beyond the control of SFPC (emergency conditions) and for short periods of time upon mutual agreement with the NYSTA and

the New York State Department of Environmental Conservation. If the water level management regime is so modified, the Licensee shall notify the Commission as soon as possible, but not later than 10 days after such incident.