

Smith Mountain Lake - Water Treatment Plant

Lake Statistics

- 1) Smith Mountain Lake has a surface area of more than 20,600 acres, or 32 square miles.¹
- 2) The Lake's deepest point is about 212 feet, near the dam itself. Its "average" depth is 55 feet. Outside the lake's many coves in its main channel, 80-150 feet is typical.
- 3) The first foot of water on the surface of the lake contains more than 6,516,576,000 gallons of water.
- 4) The first inch of water on the lake surface contains more than 543,048,000 gallons of water.
- 5) The average amount of water lost to evaporation each day is 0.23 inches.²
- 6) The daily variation for electricity production is 12 to 24 inches.³
- 7) The average annual daily inflow to Smith Mountain Lake is 631 million gallons per day (MGD).⁴
 - a) Below are the historic average daily inflow values by month for Smith Mountain Lake:

<u>Month</u>	<u>Average Daily Inflow in MGD</u>
January	790
February	952
March	1,116
April	1,024
May	700
June	505
July	332
August	375
September	342
October	429
November	462
December	564
Annual Average	631
Max. Mean Daily	33,170
Min. Mean Daily	33

- 8) The water level every hour can be tracked at this website:
<http://www.smithmountainlakelevel.com/Scripts/SMLLevelWeb.exe/period>
- 9) The proposed water treatment plant is projected to be able to treat as much as an average of 6,000,000 gallons per day.
 - a) If there was zero inflow into the lake each day (through the rivers, streams, and rainfall), the lake level would be lowered 0.011 inches in a day at the maximum proposed withdrawal.
 - b) With the inflow shown above, the proposed withdraw equates to less than 1% of what is coming in.

¹ Charting a Course for Smith Mountain Lake: Background Studies for Lake Planning; November 1996

² [Virginia DEQ Modeling Support Document](#)

³ [Smith Mountain Project - AEP](#)

⁴ 2008 FERC Report to the Authority