

river. Be the reason what it may, it appears that the navigable channel is fully maintained in its integrity, and the increase in depth is confirmed by the statements of old river pilots who allege that the channel is better now than it was thirty or forty years back.

In addition to the new cross-sections referred to, a series of soundings has been made on a continuous line along the entire length of the channel from Ottawa to Grenville, a distance of sixty miles. These soundings reveal a depth of water for the greater part of the distance which is indeed remarkable.

The accompanying longitudinal section shows the soundings taken in this sixty-mile stretch. These and all the other soundings although taken at different stages of the water, have been reduced to a common uniform datum. This datum conforms with the lowest level of the river of which we have any record, and is established by the observations of the Ottawa Lockmaster of the Rideau Canal, taken daily during a period of seventeen years. A copy of this officer's record is appended; he gives the level of the water above the sill of the lower lock showing the daily variations of the river.

I find the extreme range of level of the River Ottawa in each year, according to this record, as follows:

Year.	Date.	Highest. ft. in.	Date.	Lowest. ft. in.	Yly. Range ft. in.
1872—May	18.....	21 5	April 1.....	5 7	15 10
1873—May	24.....	24 5	Sept. 17.....	6 10	17 7
1874—June	1.....	22 5	Sept. 20.....	5 9	16 8
1875—May	20.....	23 8	Feby. 27.....	6 5	17 3
1876—May	16.....	29 6	Sept. 29.....	5 7	23 11
1877—May	1.....	15 0	Sept. 26.....	5 8	9 4
1888—Oct.	31.....	15 2	Sept. 14.....	6 4	8 10
1879—May	22.....	14 10	Nov. 12.....	5 11	8 11
1880—May	18.....	23 11	Oct. 1.....	6 10	17 1
1881—May	20.....	20 3	Oct. 1.....	4 6½	15 8½
1882—June	1.....	20 6	Feby. 11.....	7 2	13 4
1883—July	5.....	18 10	April 7.....	7 1	11 9
1884—May	13.....	20 10	Sept. 21.....	6 11	13 11
1885—May	23.....	21 6	Oct. 15.....	7 5	14 1
1886—May	1.....	24 2	Sept. 19.....	7 8	16 6
1887—May	10.....	4 3	Oct. 24.....	4 8	19 7
1888—May	21.....	24 2	Mch. 20.....	6 2	18 0

HIGHEST WATER.

Highest in 17 years, May 16, 1876	29 ft. 6 in.
Minimum highest in 17 years, May 1, 1877	15 " 0 "
Mean highest in 17 years	21 " 5 "