

it is the best regulated river that we know of, and this is due to the Great Lakes acting as enormous compensating reservoirs.

The drainage area of the Great Lakes is about 287,688 square miles, of which about 95,000 square miles is lake surface. The minimum flow of the river, above the Ottawa River, is 180,000 cubic feet of water per second, and the maximum flow has reached 330,000 cubic feet per second, the general average flow being about 255,000 cubic feet of water per second, or over 7,500 tons of water per second.

The regulation of the river is indicated by the ratio of minimum to maximum flow, which is 1 to 1.9, which shows remarkable regularity of flow, as compared with the Ottawa River, for instance, where the ratio is 1 to 15, varying as it does from 20,000 to 300,000 cubic feet per second.

No work of man has approached or ever will approach the perfection of the regulation of the St. Lawrence River.

The history of navigation on the St. Lawrence dates back to a very early period.

The first lock canals in Canada were built on the St. Lawrence around the upper and lower of the three rapids between Lake St. Francis and Lake St. Louis. They were built by the Royal Engineers, and finished in 1783. The locks were 40' long, 6' wide, with 30" of water on the sill.

In 1815, money was voted by Lower Canada for the construction of the Lachine Canal, and the work was completed in 1825. This canal was 48' wide at the water surface and 4½' deep. There were seven locks, each 100' long and 20' wide, built of masonry.

In 1818, a joint commission from Upper and Lower Canada reported in favor of a canal system for the St. Lawrence, with 4' depth of water, that being the depth of the Erie Canal.

The year after the Lachine Canal was completed, the Royal Engineers recommended longer and wider locks for the St. Lawrence, with 8' of water, and in 1832 a decision was come to that the depth of water should be 9'.

The Cornwall Canal was commenced in 1834, but the rebellion interfered with its completion, and it was not completed until 1843. Its locks were 200' long, 55' wide, and it had 9' of water on the sill.

The Beauharnois Canal was enlarged about the same time to similar dimensions, and was opened in 1848.

The canals at Farran's Point and Rapid Plat, and the Galops, now known at the Williamsburg Canals, were completed in 1847, upon the same scale as the Beauharnois Canal.

In 1871 a commission appointed by the Federal Government advised a uniform scale of navigation for the St. Lawrence Canals, with locks 270' by 45', and 12' of water on the sill. However, in 1875, the Dominion Parliament ordered that the enlarged canals