

this condition—with reference always to the Plan (A.) accompanying this Report—on which is delineated most correctly the sinuosities of the shore, the several Islands which now stand as impelliments to the Navigation, or would serve some particular purpose in the proposed improvement—the soundings throughout the Boat track upwards—and the velocity in miles in the current or rapids at each of the points where improvement is required, from one extreme to the other.

First then, it will be necessary to premise that the Navigation as to the dimensions of the Boat used is governed in some degree by the dimensions of the Chamber Locks and Canals erected on this Coast at the CASCADES—SPLIT ROCK, and COTEAU DU LAC—there being admittance but for boats drawing at most 30 inches water—and of 12 feet beam—of and under this dimension, are all the Durham Boats now used in the Navigation of those Rapids,—and which, with from 20 to 25 tons on board—draw about 30 inches of water—when they are full loaded, as they are in descending they draw about 40 inches—but it has not been noticed that they lead with more than about 25 tons in their ascent, and the Batteaux, when full loaded, with 12 to 14 tons, draw no more than 30 inches water. This therefore may be justly considered the limit proper to be fixed to the improvements proposed, so that such Boats as now navigate these Rapids may be enabled without any additional cost to ascend from LAKE SAINT LOUIS to that of SAINT FRANCIS, through the Rapids with the same quantity of lading as they are at present in the habit of carrying across the LAKE SAINT LOUIS from MONTREAL to the CASCADES,—and which, if done, would complete such Navigation from the PORT OF MONTREAL (or farther down the River) to CORNWALL, in Upper-Canada, in one set of Boats, without the necessity of at all deranging their Cargoes on the way.

In the Locks at the CASCADES, there are 30 inches water.

Along the shore from the CANAL to the Locks at SPLIT ROCK no improvement is required, as there is but very little current, and water enough at a moderate distance from shore.

In the inferior entrance Lock at SPLIT ROCK, there are 27 to 30 inches water, but when the water in the River is very low, as it was in the fall of 1824 or 25, the superior entrance Lock and the clearing from it becomes extremely low, even to 3 or 4 inches upon a bed of hard girt-stone, which here runs across the River, and can only be considered as a continuation of the extensive bed which obtains on the opposite bank throughout the Seigneurie of Beauharnois. It would be somewhat expensive to deepen this—but as long as it remains as it is, (we found 24 inches) the navigation must be considered as liable to a very material interruption whenever the summer happens to be sufficiently warm and dry, to cause a considerable fall in the water of this River.

Immediately above the SPLIT ROCK, at POINTE A DELISLE, the velocity of the current is 8 miles an hour—it is 4 feet deep at 18 or 20 yards (an inconvenient towing distance) from the shore, and nearer full of boulders and blocks of girt-stone. To improve it would require an excavation, partly in the Beach, of 18 feet wide—averaging 2 feet deep and 300 feet long, with a towpath, which may be easily and cheaply constructed at this place, the banks of the River being not very steep and opposing no obstacle to this disposition.

In ascending from this point towards POINTE A CHIEN the blocks of stone would require to be removed—and an excavation made partly on the beach and partly in the river, averaging  $1\frac{1}{2}$  foot deep by 18 feet wide, for a distance of about 660 yards, and along the whole of which extent as there is a pretty strong current, a towing path in continuation of that at Pointe à Delisle might be constructed, and particularly as the beach is pretty broad, no slides in the Bank, and on account of the direction given to the ice by the direction of the current at Pointe à Coulonge, not liable to be injured by the shoving of that destructive element in the spring.

From this place to POINTE A CHIEN, a distance of about 200 yards, there is water enough close in and not much current, the bank of the river composed of clay, being high and steep, rising immediately from