

and which join a short distance above the village of Portage du Fort.

Of these two channels the south or Roche Fendu, is very rough and rocky. The north channel from Le Passe around the north end of the island and down to Bryson, flows for the most part of the distance through great beds of sand which show on both sides of the river but are very largely developed on the island, especially on the northwest portion.

Below the Chenaux Rapids the Chats Lake forms the river and extends down to the head of the Chats rapids and Falls about three miles east of the town of Arnprior. The shore on the north side opposite Sand Point and thence to a point opposite the mouth of the Bonnechère River is largely drift covered, and this feature is well seen at Norway Bay where great banks of sand form the shore line for some distance. Inland also these deposits are largely developed to the east of Shawville, where they overlie a great thickness of clay, which extends northward to the main ridge of crystalline rocks.

The Chats Falls are caused by a large dyke of reddish granite which cuts across the crystalline limestone of the Arnprior and White Lake belt, here several miles in width. The falls are among the most beautiful on the river, extending across the whole breadth of the stream which is here about two miles in width. The total rise from the foot of the falls to the waters of Chats Lake is about fifty feet.

Just below the Chats Falls on the south side is the village of Fitzroy Harbour. It is built on a clay bluff about forty feet in height and this rests on the Calciferous dolomite, which in turn reposes on the gneiss and crystalline limestone at the foot of the falls. These newer rocks are seen on both sides of the river.

The Carp river enters the Ottawa a short distance below the village, and has a course of about twenty miles. It also flows westerly against the general course of the Ottawa in a depression through the northern part of the townships of Huntley and Fitzroy and is on the whole a very sluggish stream. About four miles above its mouth there is a rapid formed by a ridge of granite. Elsewhere the bed of the stream is a clay flat, in places very marshy, to its source, which is in the northern part of the township of Goulbourn.