

Pointe-Claire, Qué.

20th June, 2008

International Joint Commission

St Lawrence River Level Control

The writer is a retired electrical engineer with a background in hydro-electrical projects, a native of Québec City, with an ongoing interest in the ebbing and flowing of our great river.

We read in the press about diminishing flows at certain times, with consequent effects on river levels affecting navigation up to Montreal and shoreline interests all the way down.

Could my hydraulic and civil confrères not come up with barrages across the N & S channels towards the E end of Ile d'Orleans that could be beneficial?

1. Stabilizing water level in Port of Québec and thereby, all the way to Port of Montreal.
2. Generating at least a couple of hundred MW during hours of low tide.

The very low head turbines would have to pass the river's average flow while operating only half of the time. Gates and channel improvements would have to ensure that upstream levels at times of high flow e.g. spring flood, should not be higher than at present. Shipping would get past the barrages through structures, wide open at high tide, and locked through at other times.

One of the fringe benefits would be the formation of unbroken ice cover along portions of shoreline now affected by the tide, skating, iceboating, curling..... On the other hand, year round navigation would break up the ice frequently along shipping channels.

The power generation aspect cited above would be laughable except for the extraordinary rise in the market price of energy. This perhaps naïve outline is put forward as a possible approach to accommodating the fluctuations and downward trend in outflow from the Great Lakes.

Yours truly,

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