

Mississippi River Watchers

Potential Flooding in Downtown Almonte

The river width between the current powerhouse and the patio of the Barley Mow pub is the narrowest point in the river as it passes through downtown Almonte. For comparison a few estimated river widths are listed below:

At Bridge St. bridge	78 metres
Above the weir	68 metres
At pub patio/powerhouse	54 metres
At Post Office	73 metres
Total downstream dam widths	76 metres
MRPC dam & spillway	56 m
Millfall dam	20 m

The river at the pub/powerhouse section is clearly a choke point, and under flood conditions this is where the river rise will be greatest. During the April 1998 flood this point was in fact the place where the greatest danger of uncontrolled flooding was experienced. The water level was above the pub patio. It was only as a result of rapid deployment of sand bags that the flood water was prevented from going into the parking lots of the pub and Post Office, and then down Mill Street. Photographs are provided below as a reminder of that event.



Note that adding the new powerhouse and canal wall as planned by Enerdu would reduce the river width at this point by 18 metres to 36 metres, a reduction of 33% in width. Such a reduction will inevitably increase the height of flood water at this point. Also note that the river flow at the

maximum of the 1998 flood was 282 cubic metres per second (cms). Information from Mississippi Valley Conservation indicates that the Regulatory Flood for this location is 342 cms, a figure that is to be used in hydraulic assessments of potential flooding. To put it another way, design of the power plant upgrade should be based on a flood flow that is 21% higher than the 1998 flood.

The combination of 33% channel restriction and 21% higher flow rate certainly increases the probability of an uncontrolled flood down Mill Street and Almonte Street to Metcalfe Park. A flood down Mill St. is not a happy prospect for business owners in that area, and in Metcalfe Park the new sewage pumping station of the municipality could be damaged seriously.

The simple solution is to not build the new powerhouse as planned, but to confine the upgrade to the footprint of the original powerhouse.

