

Presentation to C.E.C. February 5, 2015 by Ross Bailey

I grew up in Gimli, have owned lakefront property since 1975, and have lived on the lakeshore since 1985.

In addition, I sold real estate in the Gimli area for 15 years, was a member of the Lake Winnipeg Shoreline Advisory Group and currently serve on the Province of Manitoba Shoreline Erosion Technical Committee.

The data referred to in this presentation was obtained from the Manitoba Hydro website.

The purpose of my presentation is not to report on the effects of lake levels on my property. It is to lend awareness of a much greater issue, a crime against nature and the environment. One that, if we are not to become part of solution, we will all continue to be part of the problem. The issue is the loss of the beaches on the shores of Lake Winnipeg.

When Manitoba Hydro applied for a temporary operating license to regulate Lake Winnipeg water levels, the license was granted on the basis of several assumptions including, but not limited to:

- Operating range between 711 and 715 feet above sea level was in the best interests of all parties.
- A 50 % increase in the outflow would protect property owners from extreme high water levels.
- A low end of 711 would still insure a consistent supply of water to generate hydro electricity.

In theory, this proposal appeared to satisfy most of the users and, obviously, the granters of the license.

In practice, however, there are flaws in this model and analysis of the data collected during the years of regulation allow us now to modify the model to correct those flaws.

At the upper control level of 715 feet Manitoba Hydro has shown an inability to control the lake level as evidenced by the many occurrences of sustained levels above 716 feet and even 717 feet, including the summer of 2014. The upper range data does somewhat mirror pre-regulation in that from 1930 – 1975 the 715 level was exceeded in 9 years, and from 1975 -2014 it was also exceeded in 9 years.

Where the model tends to fail even more greatly is at the lower end of regulation. From 1975 – 2014 the lake fell below 712 only 4 times, or 10% of the time, and was never below 711. From 1930 – 1975 the lake fell below 712 in 12 different years, or 38% of the time, including 6 years below 711.

The greatest losers due to this reduction in years of low water are the marshes and beaches surrounding the south basin of Lake Winnipeg. Both require periods of low water to rebuild their ecosystems.

The beaches are not a static entity. They are dynamic, forever changing. We are extremely fortunate to have a huge volume of sand under the water along the shoreline of the lake. This sand comes ashore during storm events. When the storm events take place during periods of high water we have all witnessed the subsequent erosion and shoreline destruction. This has always been a fact along the shoreline but, in years past, when a storm event took place during periods of low water, the beaches were rebuilt.

This no longer happens as witnessed by the permanent loss of many of our beaches. By my count, in the RM of Gimli, the 22 or 23 miles of beach that used to exist have been reduced to less than half by a combination of the effects of erosion protection and the inability of the lake to rebuild beaches during periods of low water. I am most familiar with the RM of Gimli but similar results will be found everywhere in the south basin of the lake. The value of the beaches can not be under stated. They have been here for thousands of years and should not be lost forever due to the misguided actions of two or three generations.

Another factor that may or may not have been originally contemplated in the regulation model is climate. Weather events cause the actions along the shoreline of Lake Winnipeg and current recognition of climate change and its effects must be taken into consideration when devising a new model. It's worth noting that of the twelve maximum wind setup events since records have been kept, (those events that cause the most damage along the shoreline), only one took place between 1945 and 1992 (1956) and five have occurred since 1992.

In my opinion the solution to help reduce the negative effects of regulation is to re-set the upper limit of the license to no more than 714 feet above sea level. As the lower limit has never been reached since regulation began there should be no threat to Manitoba Hydro's ability to continue to generate a consistent supply of electricity to the people of Manitoba. Even if the 711 level is reached, I am sure that a prudent applicant would have built in a cushion to protect their interests. I do not know at what lake level the ability to produce maximum electricity is compromised, but it must be somewhere below 711. Once the upper limit is reached, in this case 714, then it is simply a matter of "water in – water out", and one could expect a recurrence of past data, but at a level one foot lower. This would provide a cushion at the high end to help mitigate erosion damage and provide more years of 711 – 712 levels to help re-nourish the beaches and marshes.

We must not squander this opportunity to adjust the model of Lake Winnipeg regulation to best suit the needs of all Manitobans and preserve a resource that should continue to be enjoyed by future generations long after all of us are gone.