

## Water Level Management on Lakes Simcoe and Couchiching.

### A Summary

Our lake levels rise by about 15 inches (37cm) from the winter level due to ice and snow melt, reaching their peak in late May. The levels start to drop in June due to evaporation and the draining actions taken by Parks Canada (PC) returning to the winter level in time to accept the freshet the following spring. In doing so PC follows the Rule Curve (RC) which is a calendar based set of water level targets to ensure navigation, prevent flooding and protect fish habitat. You can view a regularly updated Water Level Chart for Lake Simcoe on PC's website.

[http://www.pc.gc.ca/lhn-nhs/on/trentsevern/visit/ne-wl/trent\\_e.asp](http://www.pc.gc.ca/lhn-nhs/on/trentsevern/visit/ne-wl/trent_e.asp)

A comprehensive study (the Acres Report) which was completed in 1988 recommended a Modified Rule Curve (MRC) with a later start to the drawdown of Lake Simcoe commencing after Labour Day, allowing for a longer period of high water. This would extend the boating season by 3 weeks and provide 10 to 12cm more water over Labour Day weekend. Children are back at school after that date and boating activity dies down. PC did not adopt this recommendation.

After much lobbying the MRC went into effect in 2013, however this may well have been a 'one off.' Many entities along the Waterway demand adherence to the existing RC including the Lake Simcoe Regional Conservation Authority, Ministry of Natural Resources, Municipalities in Lake Simcoe and Severn River shoreline owners, driven mostly by the fear of flooding. In fact the waterway crosses many jurisdictions and is also subject to the authority of several government agencies, making it almost impossible to change operating procedures. The fear of flooding if water levels remain higher for a longer boating season on the lakes has raised demands to adhere to the RC although the 1988 Study indicates that the Modified Rule Curve can be introduced without a downside impact. It would also permit easier lake access for marinas and lakeshore owners as well as serve to inhibit weed growth.

PC normally commences the aggressive drawdown of our lakes in the middle of August. Lake Couchiching's level is approximately 3 to 5 cm lower than Simcoe over the summer months but reduces rapidly when the drawdown commences and is 15cm (6inches) or more below the level of Simcoe during the drawdown period, negatively impacting boating on Couchiching. Couchiching is essentially a run-out channel connecting Lake Simcoe to the Severn River and its level drops dramatically when the dams are open at Washago in August. The River Severn has a limited capacity to accept run off from the lakes as well as an uncontrolled flow from the Black River during heavy rainfalls, hence the forced lowering of Lake Simcoe. PC has on occasion

experienced difficulty reaching the winter level setting in time to accept the spring runoff the following year. A significant rain event during the drawdown can impact on their ability to meet the schedule and increases the risk of flooding due to fall and winter storms and the freshet. However 3 weeks of higher water in August and early September would have a very limited impact indeed on that risk.

To provide the flexibility that PC requires to curtail flooding, and greatly reduce the fear of flooding, as well as serve the interests of most users the following dramatic actions would be required.

1. Increase flow rates on the Severn by dredging and widening the river in critical areas. This is the major bottleneck in the system.
2. Construct a manmade lake to accept much of the Black River's fast flow, possibly by using Crown land in the area.
3. Dredge the Atherley Narrows in order to accelerate the drainage of Lake Simcoe although First Nations at Rama would most likely object to any dredging or removal of railway trestles which might endanger the historic fish fences.

PC is aware of these points but has no funds to address them.

These actions may be viewed by environmentalists as altering the geophysical aspect of the Waterway and would therefore elicit objections. That along with strong lobbying by various groups to maintain the status quo makes any lasting change to PC's operating method extremely difficult if not impossible to achieve. Bruce Stanton (MP for Simcoe North), who is well versed on all aspects of the Waterway, is aware that in order to adjust to the Modified Rule Curve all the opponents mentioned earlier in this summary will need to accept the adjustment. This, along with lack of funding and potential environmental objections, makes the goal of achieving an extended boating season on our lakes a bridge too far.

Bill Macleod

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