

## Bancroft watersheds at high risk

**By Sarah Sobanski**

Bancroft sits on the border of two of the most threatened watersheds in the country.

According to a new report by World Wildlife Fund Canada, greatest threats to local water sources include pollution, habitat fragmentation, overuse of water, invasion of outside species and alteration to water flows. That's for the Lake Ontario and Niagara Peninsula sub-watershed within the Great Lakes watershed to the west of town and the Central Ottawa sub-watershed within the Ottawa watershed to the east. A sub-watershed is a division within a larger watershed.

‘You kind of fall between two major watersheds there,’ said vice president of science, research and innovation for WWF Canada James Snider. ‘What we found, especially in the Central Ottawa sub-watershed where Bancroft itself is found, there's a high degree of stress already observed there.’

The report is the first-ever nationwide assessment of Canada's freshwater resources – 20 per cent of the world's. It was conducted over four years.

‘We've drawn upon monitoring right across the country to report on the health and stressors of Canada's freshwater ecosystems,’ said Snider. ‘Many of these watersheds, in fact more than a third of Canada's watersheds, are already showing a high degree of stress. We've observed that there is a fair amount of disturbance occurring in those watersheds.’

Disturbances or threats might mean dams which interrupt migrations of aquatic life, agricultural runoff, habitat fragmentation by roads or bridges through aquatic ecosystems, urbanization and invasion of species such as foreign mussels in Bancroft's watersheds. ‘Invasive species are an issue within the Ottawa River region? In the Great Lakes system as a whole there are a number of invasive species,’ Snider explained noting the proximity to the St. Lawrence River and international shipping channels. ‘There's the zebra mussel ? [and] the new Asian carp question. This region as a whole is a hot spot in terms of invasive species.’

Bancroft's western sub-watershed runs to about Hamilton. It's eastern sub-watershed runs to about Aylmer.

Almost 430 sites were measured in the Great Lakes watershed, 191 were in the Lake Ontario and Niagara Peninsula. Closer to 70 sites were measured in the Ottawa watershed, 16 were in the Central Ottawa sub-watershed. Most were closer to larger centres.

*Bancroft This Week* asked why monitoring sites were inconsistent across the watersheds report map – increasingly sparse as they headed towards rural areas.

‘The monitoring system that we use as part of our health assessment looks at four indicators. We look at floor quality. We look at bugs – We also look at fish populations and hydrology or the flow of water in a river,’ said Snider. ‘That information is compiled from a whole host of data sources whether that's provincial, territorial, federal government agencies as well as local watershed groups in Ontario. That includes, for instance, the conservation authorities.’

He suggested, however, there just weren't enough boots on the ground for consistent monitoring yet. There is a need for community-based monitoring.

‘Not only is there a need for the provincial and federal government to develop a robust framework for monitoring freshwater but that there's a role for individuals,’ said Snider. ‘Individuals can get engaged with their local organizations, community-based or local conservation groups, to get out there, get their boots muddy, help monitor our rivers, do water quality measuring [and] in some cases we can monitor fish – That actually is a model that will help Canada build that necessary framework to be able to build evidence-based decisions around the management of our freshwater.’

Bancroft's west bordering watershed received a ‘fair’ bill of health on a five level scale from ‘very poor’ to ‘very good.’ To the east however, there wasn't enough data to diagnose.

While the upper Ottawa sub-watershed was labelled good and the lower fair, there wasn't enough to go on for the central sub-watershed. Data deficiency was a major issue for the report – 60 per cent lacked data.

‘For the Ottawa River watershed, one of the concerns there is that despite the huge population of people that live in the region that it's still data deficient? There's an opportunity for people within the region to get engaged, get outside and participate in help building that monitoring system within the region,’ said Snider.

Snider noted that from the data that was collected, things didn't look good.

The report concludes that climate change already affects every sub-watershed in Canada. Snider said there have been changes in temperature and precipitation impacting fish that are reliant on timed events such as spring floods.

‘Climate change can mean that that flood event will change its magnitude or its timing and that has important consequences in terms of fish and other aquatic ecosystems.’

Bancroft and surrounding area was hit hard by flooding this year. Neighbouring communities such as Minden and Combermere saw

record damage. *Bancroft This Week* asked if the climate's impact on local watersheds could be a contributing factor.

?Flooding is a complex factor, but I would say, certainly this year there has been a trend for sure. There has been a high frequency of flood events and that the magnitude of flood events has grown in size. There's evidence to suggest that climate change is likely to increase the severity and size of flood events? That's a likely scenario that climate change could bring.?

Snider said next steps included becoming one of the most innovative countries in the world for freshwater monitoring ? as Canada is amongst the top four countries with the most freshwater resources. He suggested it was important to get ahead of risks to prevent them as the rate of water scarcity continues to grow.

?Water is inherently a local issue. People relate to water in their backyard, whether it's their local river or their pond. As such, there is an important role on the individual in the community in monitoring freshwater resources,? said Snider.

For the full report is available for download [here](#)] or see WWF Canada's interactive watershed map [here](#).