

The City's Other Water Problem

There has been considerable attention in recent weeks to Charlottetown's sewer and water issues. First, there was the disturbing image of effluent being released into the harbour because of storm water overflow and its threat to the oyster fishery. Then, the failure of a sewage lagoon in Miltonvale Park led to the community's request to connect to the City system to meet their sewage and water needs. Sharp comments were exchanged, and some political threats ensued. Recently, the province committed to funding and to working with the City to make the needed upgrade to its sewer system.

In its editorial (August, 19,2011), The Guardian stated that "it's time the Province of PEI and the City of Charlottetown got down to work to solve the water and sewer issues facing the capital city." This is clearly necessary.

But there is another critical water issue facing the City that needs solving, that is not being discussed. While it is not nearly as visible and dramatic as overflowing effluent, it is equally important and urgent. That is the issue of the City's water supply.

It is not unusual for City officials or documents to refer to the importance of protecting "our" water. In fact, Charlottetown does not have its own supply of water within its watersheds. As Darragh Mogan, Chair of the Ellen's Creek Watershed Group wrote in the Guardian recently, many of the City's once functional watersheds have disappeared, the victims of siltation and pollution from development, and the absence of any meaningful management plan.

All of the City's water for its 32,000 residents, its businesses, industries and institutions comes from the Winter River watershed, as it has for the last 80 years. Each day more than 18 million litres of water are pumped out of a watershed that is not within the City, the watershed where the residents of Brackley, Union, York, Suffolk, Pleasant Grove, Corran Ban, and Grand Tracadie live and work. Since this water is pumped out contrary to flow, it is unavailable to recharge the watershed and replenish the water supply, unlike the water used by our own residents. And while the withdrawal of water is continuous, the supply depends on the variability of precipitation. Contrary to this year's experience, it doesn't really rain all the time in PEI!

How much is 18 million litres of water per day? Citizens are currently understandably disturbed about fracking and its threat to the water supply of communities, residents and habitats. But each time a well is fracked, it uses only about half of what the City of Charlottetown extracts every day from the Winter River watershed. Or imagine a "swimming lap pool" three feet wide and three feet deep that extends from Charlottetown 20 kilometres to the north shore at Brackley Beach. That's the amount water drawn, consumed and lost to the Winter River watershed each day.

Furthermore, there are no limits on the amount of water that the City can draw the three well fields they've established. Current guidelines for sustainable water extraction suggest 50% of recharge as the maximum amount of water withdrawn from a well field. At Brackley, 108% of the recharge is withdrawn, and at Union, 74%. Why can such unsustainable practices continue? Because they are 'grandfathered in' - the wells were developed before there were any extraction guidelines. We eagerly await a report with new policies on sustainable extraction in the hopes that it will put an end to this practice.

What's the impact of all this water extraction? While the lines between cause and effect are often difficult to draw (as the long history of fish kills on PEI would indicate), you can't withdraw all this water without consequences. Here are some observations from our river. Water levels in many parts of the Winter River are regularly extremely low. In 2001, the river actually dried up with no water passing over the fish ladder at Hardy's Mill Pond. In that same year, a number of residents had their wells go dry. A once vibrant salmon fishery has disappeared. A dry November left trout without enough water to effectively spawn.

Fishers report fewer fish now than in the past. Habitat is definitely affected. And the critical question of the relationship between water quantity and water quality remains.

The next part of this discussion will focus on ways to solve the City's 'other' water problem.

Don Mazer is Co-Chair of the Winter River-Tracadie Bay Watershed Association.

Solving the City's 'Other' Water Problem

The City of Charlottetown meets all its water needs by pumping more than 18 million litres of water a day from the Winter River watershed. The first part of this discussion focused on the consequences of this extensive water extraction.

There has been a commendable increase in awareness among City officials on watershed and environmental issues. Watershed management and water conservation are at the forefront of the City's Integrated Community Sustainability Plan. There are new positions in Water Conservation and Sustainability filled by excellent people working actively on these issues. In the past two years, the City has provided very helpful funding to our organization in its work, and has shown interest in developing a collaborative partnership with us.

But what's missing is any sense of urgency about reducing water usage and getting a new well field established. We seem to feel that we have all the time and all the water in the world. There's some water metering, but only required for new homes. While business users are metered, they can use all they want at the same rate. There are no restrictions on water use; we can all water our lawns and gardens, wash our cars or dogs, fill our pools, irrigate our fields, take long showers, flush our high-flow toilets, use any of the water our large industries and institutions require, etc. Any time of the day or time or year, we can use as much water as we like for any reason.

All the while, the City continues to grow, to encourage new development and new businesses. We even provide water for cruise ships.

And still, we seem to have the water we actually need and depend on to sustain us, clean water for drinking and for our food.

Given such seemingly abundant water, it might be difficult to accept the fact that the Winter River watershed is operating beyond its capacity as a source of water for Charlottetown, and that we need to act immediately and effectively to avoid a crisis. Access to clean water is already one of the major issues in other parts of the world. Gwyn Dyer recently commented about future food shortages based on the drying up of the aquifers that have supplied water for crop growth. Saudi Arabia and Japan have already stopped growing most of their own wheat. They can't spare the water. What might our future look like here if we don't protect our water?

There are three important paths to solving the City's water source issues.

First, the City and the province need to commit to the funding for development of a new well field in Miltonvale Park, much as they have committed to the upgrade of the City's sewer system. Second, new policies are required that limit extraction from all well fields (both existing and new ones) to sustainable

levels. Third, significant water conservation measures need to be implemented in Charlottetown that include targets to reduce water usage on a yearly basis until the new well field is operational.

We should certainly be concerned about the effluent that goes out the end of the pipe. But we need to be equally concerned about the water that goes into the pipe. Because, without water, there would be no effluent issue to solve.

Don Mazer is Co-chair of the Winter River-Tracadie Bay Watershed Association.