

Rivers — A Source of Drinking Water

By Janet Stavinga, Chair

Four municipalities in our region get their source of municipal drinking water from local rivers: **Carleton Place, Ottawa, Perth** and **Smiths Falls**. Their intake pipes draw water straight out of the Mississippi River, Ottawa River, Tay River and Rideau River, respectively. That water is then filtered, disinfected and tested before being piped out to homes and businesses in those urban areas.

The Mississippi-Rideau Source Protection Committee (SPC) is now completing studies that will make municipal drinking water even safer! These rivers and the land that drains into them upstream of the intakes were studied to determine where pollutants might be able to get into the water and how vulnerable the intakes are to contamination. Knowing this will allow us to create policies that will help prevent contamination in crucial areas.

First, the studies assessed how vulnerable the intakes are to contamination. For instance, Ottawa's intakes, that are over 300 metres from shore and more than 6 metres deep, are generally less vulnerable than intakes in smaller rivers like Perth's whose intake is only four metres from shore and is less than two metres deep.

Next, the studies mapped land and water where polluted runoff or spilled chemicals could flow downstream and reach the intake. Three important **Intake Protection Zones (IPZs)** were mapped: a 200 metre buffer around each intake (**IPZ-1**); an area within which runoff and spilled contaminants could reach the intake within 2 hours (**IPZ-2**); and a large area within which water could reach the intake (**IPZ-3**).

Lastly, scientists determined how easily contaminants (if present) could enter the river within these three zones – the vulnerability of the area. They considered: amount of land in IPZ-2 (more land, more chance of contamination); land cover, soil type, permeability and slope (all determine if water will run off into the river or seep into the soil – higher runoff means more chance of contamination); and the presence of pathways like ditches, storm sewers and tributaries which make it easier for contaminants to get to the river. In IPZ-1, only Ottawa's intakes received the lower of two possible vulnerability scores. In IPZ-2, Smiths Falls and Ottawa received the middle of three possible scores while Carleton Place and Perth received the highest.

This is the first time this type of study has been done in Ontario and there has been a lot of debate about methodologies. While it's not in the public interest to underestimate how vulnerable our drinking water sources are, it also isn't right to assign the most restrictive vulnerability score to an area without scientific rationale. The SPC considers these results to be a reasonable first time assessment with the desire to reassess them (and assign vulnerability scores in IPZ-3) once more provincial direction is provided.

Land uses are now being looked at within the most vulnerable areas to estimate how many significant threats to the water supply currently exist. Examples include municipal landfills and sewage treatment plants, large volume fuel storage, large volume fertilizer and pesticide application and spreading of manure. Many of these land uses can easily reduce their threat by implementing best management practices. A Source Protection Plan containing policies to address each threat will get underway this fall and will involve lots of public input.

Coming Up!

Next SPC meeting is **June 3** at **6pm** at the **Smiths Falls** RCAF Wing (44 Abbott St. North). Committee members will be there early for a "meet and greet" from 5pm. The only agenda item is the approval of a **DRAFT** version of our **Assessment Report**. This report is a collection of all our technical findings and it will be posted this summer for public consultation – see our next column for details!

Mississippi-Rideau Source Protection Region
613-692-3571 or 1-800-267-3504 ext. 1147
janet.stavinga@mrsourcewater.ca
www.mrsourcewater.ca

Next Meeting
June 3, 2010
6 p.m.
Smiths Falls