A'clear' solution for Kelso water

BY JENNIFER ENRIGHT

esidents of Milton are now enjoying crystal clear water thanks to a new processing plant at the Region of Halton's Kelso well.

Officially opened last month, the Region has stated that the Kelso plant is proving effective in removing manganese, a harmless, naturally-occurring substance found in the Town's well water supply.

Gord Devine, acting manager Region's five water purification treatment plants, is happy with the results. "The filtration system is performing exceptionally well and is removing all of the manganese."

The plant, which began operating last June, houses a \$4.5 million purification system to filter out manganese. In the past, especially when water usage was at its peak such as during the summer months, the manganese build-up on water pipes would flake off, entering the water supply destined for residents. Sometimes the result was brown-coloured water that looked unpleasant, but was still safe to drink.

Residents, many whom have complained about the discoloured

water in the past, may be wondering why it took so long to establish a filtering system and also want to know what the system's lifespan will be.

Mr. Devine says it's a long and involved process setting up such a plant. "The problem (with the manganese) had to be properly studied to determine the best engineering solution [which took] approximately two years. Once the engineering of water plant operations for the solution was determined, the project had to be budgeted for, [which was] a one-year process." Finally, once funding became available, it took approximately two years to complete the design and construction phase. With proper maintenance, Milton's new water purification plant should last more than 50

> Within the plant itself there are four filter units or specialized ion-exchange green sand filters. During the filtration process, the manganese is oxidized and the resulting precipitate is trapped by the filters. The filtered waste material or manganese is stored in a settling tank which is periodically pumped out and disposed of at a wastewater treatment plant.

Mr. Devine says the plant is specifically designed to handle periods of increased water usage as in the summer months. An estimated 12,000 to 15,000 cubic metres of water go through the filtration system each day.

If the plant malfunctions and shuts down, the Milton reservoir will continue to supply Milton with potable water. And in an extreme emergency, the Town can be supplied with water from other treatment plants in the Region.

Power outages, too, have also been considered. If there's a loss of electricity the plant will continue to operate. "The plant is equipped with a diesel generator set that will supply power during a loss of grid electricity," he says.

The filtration process is fully automated. The Region's SCADA or computer system monitors and controls the plant's operations. And a plant operator inspects the system daily, checking equipment, calibrating instruments, and performing water quality tests.

There's still a chance that residents may encounter brown water until the end of this year. The Region is cleaning and flushing



PHOTO BY JENNIFER ENRIGHT

Brown control

John Sosnowski, a water plant operator with the Regional Municipality of Halton, displays the filter control panel at Kelso's new water purification plant. The plant, located within Kelso Conservation Area, contains four filter units that get rid of manganese from Milton's water supply. Manganese is the substance that occasionally turned the Town's well water a brownish shade.

out the distribution system which carries water to Milton households. Over time, there's been a build up of manganese on the pipes. The swabbing or cleaning should be completed by the end of 2003.

The Kelso plant supplies water to residents in urban areas of Milton, except for the new develop-

ment areas which rely on water supplied by the Region from Lake Ontario.

For information regarding water quality, contact the Region at 905-825-6000 or call 1-866-442-5866. To see a list of water quality reports, log on to www.region.halton.on.ca

