'What's in the soil, what's in the water, what's in the food' Health and environment monitoring outline for incinerator

Mon Jun 30, 2008 By Reka Szekely

DURHAM -- The Region's consultants will be combing hills in the coming weeks, taking samples from land and from water, as they work to establish a health and environmental monitoring program for the proposed incinerator in Clarington.

At last week's Joint Waste Management Group Meeting, the Region's consultants presented a framework for the monitoring. Now that Durham is moving forward with the process and issuing a request for proposals from vendors to build the incinerator, it's time to look at establishing a baseline of what kind of chemical concentrations currently exist in the environment, said Dr. Chris Ollson, one of the Region's consultants from Jacques Whitford. It will form a basis for comparison when the facility is operational.

"It's now appropriate to collect this information, what's in the soil, what's in the water, what's in the food," he said.

His team is looking at monitoring soil, surface water, sediment, vegetation, produce, small mammals such as field mice, terrestrial invertebrates such as beetles and worms and fish. They'll potentially look at groundwater as well, but Dr. Ollson said common scientific belief is that contaminants would be deposited in the top layer of soil and would be diluted and filtered before entering the groundwater.

"No one's got a drinking water well right there," he added. The surface water and fish samples will come from Tooley Creek, which is about 900 metres from the proposed site.

The sampling will be focused in a one-kilometre radius around the incinerator.

"You focus on the areas where you expect things to fall on the ground," said Dr. Ollson, but he added he didn't expect changes in the environment to be detectable within the first few years of the incinerator being operational, if ever.

As well, the consultants will meet with representatives from Durham's Agricultural Advisory Committee to determine what types of farm products to monitor. However, they'll be taking samples of seasonal items such as strawberries right away and freezing them as they work on deciding exactly what items to monitor.

Council will have to decide whether they want to collect and analyze samples every year or on a cycle such as every three years. The more frequently the monitoring is conducted, the more expensive it will be.

"My personal preference is a three-year cycle, because it's very rare that you can detect an appreciable change on a yearly basis," Dr. Ollson said.

He also discussed options for establishing a baseline for human health monitoring. The consultants will look at possibly using data for the ongoing Canadian Health Measures Survey which is currently being conducted across Canada. Clarington is one of the sample communities. The survey tests for a variety of chemicals including heavy metals such as mercury and pesticides, through blood and urine samples. The second cycle of the survey

begins in 2009 and the consultants have suggested the addition of some new chemicals, including dioxins and furans, to the list.

The consultants are just beginning to develop options for human health biomonitoring and will present those to staff and council at a later date.

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