

## Canadian Environmental Regulation & Compliance News

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Report recommends regulations to restrict water contamination from drug residues  
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A report issued this month by the Canadian Environmental Law Association points to the dangers of water contamination by drug residues and the need for increased oversight by regulators.

The report, by the Canadian Institute for Environmental Law and Policy, said tests of the past decade in the United States and Europe make it “reasonable to assume...that pharmaceuticals and other emerging contaminants are widely present in the streams, lakes, rivers and groundwater in the densely populated regions of the country.”

In 2004, Canadians filled just under 400 million prescriptions in drugstores. Large quantities of drugs are administered in hospitals and in farming, where antibiotics and growth hormones are used routinely on livestock to make them grow faster. Fifty percent to 90 percent of the active ingredients in drugs are not absorbed by the bodies of humans or farm animals and are excreted, which means they enter sewage and from there are released into surface waters.

According to Kiran Hanspal, a director at Health Canada, concern over the residues is prompting the federal agency to look at developing regulations to address the issue.

The report said that some medicines such as the anticonvulsant carbamazepine, the antidepressant Prozac and the insect repellent DEET “are quite stable in water and should be treated as persistent environmental contaminants.”

CIELAP, a Toronto-based environmental think tank, said in its report that another problem with drug residues is that many compounds are hormones, or can behave like hormones. It cited recent Environment Canada research that found a fish population collapsing after being exposed to water containing only five to six parts per trillion of estrogen, levels similar to those discovered downstream from sewage treatment plants, where the hormone is found because of its use in birth-control pills.

Among its recommendations, the report calls for provinces to develop a system for safe disposal of unused or expired drugs similar to the one used for hazardous household waste. The aim of such a program would be to reduce the amount of drugs poured down drains or thrown into garbage.

The report says British Columbia has a voluntary program run out of drugstores that could be a model for other provinces. In the program, patients can return unused medication.