

# High levels of mercury found in Cataraqui River: Queen's study

March 17 2010

---

The Inner Harbour on the Cataraqui River in Kingston, Ont., has mercury levels in sediment more than two times the Canadian government's most severe effect limits, according to a Queen's University study.

"Mercury levels in this part of the river have never been studied before," says biology professor Linda Campbell. "Now we know the sources of the problem and just how widespread it is."

Most of the western shore of the Cataraqui River south of Belle Park and above the LaSalle Causeway Bridge had levels of contamination, with the worst area around the Cataraqui Canoe Club, just south of the former Davis Tannery.

Over the past century, the area has been home to many industries, such as a coal gasification plant, tannery and lead smelter, municipal dump, textile mill and fuel depot. The report found rain is washing contaminated shoreline soil near the canoe club into the river, adding to the sediment already contaminated by decades of industry.

The mercury comes in two forms, mercury and its organic and more toxic form, methylmercury. Right now, most of the mercury around the rowing club seems to be associated with the sediment in its inorganic form, with very little if any actually being mobile in the river [water](#).

Rower and canoeists don't have to be too concerned about the high

mercury levels because they don't drink the water or spend a long periods of time swimming there. But more studies will be needed to determine the impact on marine life.

Allison Rutter, Director of Analytical Services Unit in the Environmental Studies department worked on the study with Dr. Campbell, along with geography PhD student Nathan Manion.

"People have always been worried about lead, chromium and PCBs in the Cataraqui River," says Professor Rutter. "This study looked at mercury. We need to know what and where the major sources of contamination are before we can make a decision on how to solve the problem."

The findings are were just published in *Science of the Total Environment*. The City of Kingston and Ontario Ministry of Environment have also received the study results for consideration when making future decisions about contaminants in the river.

Provided by Queen's University

Citation: High levels of mercury found in Cataraqui River: Queen's study (2010, March 17) retrieved 4 May 2024 from

<https://phys.org/news/2010-03-high-mercury-cataraqi-river-queen.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.