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Ministry of the Environment Ministère de l'Environnement

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## ENVIRONMENT MINISTRY RELEASES REPORT ON EFFECTS OF DREDGING AND LAKEFILLING IN THE TORONTO WATERFRONT DURING 1984

An Ontario Ministry of the Environment Report released today concludes that the effects of 1984 dredging in Toronto Harbor and lake filling at the Leslie Street Spit were localized phenomena that caused no direct harm to recreational or drinking water.

The study, entitled "Effects of Dredging and Lakefilling in the Toronto Waterfront During 1984," tested ambient water quality at 16 stations and suspended sediment at five stations in and around the harbor.

Water testing found elevated levels of phosphorus, lead, zinc and turbidity at the lake filling sites. No organic contaminants were found at the filling or dredging sites.

Suspended sediments at the dredging and filling sites contained iron, silver, arsenic, cadmium, chromium, copper, mercury, nickel, lead and zinc, as well as a range of organic chemicals.

Tests found no measurable effects outside the immediate vicinity of the dredging and landfilling work.

Based on sampling near water filtration plant intakes, the report concludes that no direct adverse impacts on drinking water were detected.

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The report expressed concerns about the long-term effect of contaminants on aquatic life. It recommends investigation of sediment transport and chemical characterization of suspended material discharged to the Toronto waterfront.

Dredging and lakefilling had less measurable impact on water quality than the Don River and the flow from the Main Sewage Treatment Plant (STP) located at Ashbridge's Bay, the report states.

The pesticide Lindane was detected in water sampled from the lower Don River at levels in excess of the Provincial Water Quality Objective of 10 parts per trillion. Similar levels were detected in water near the Main STP outfall.

An industrial organic compound 1,2,3,4 tetrachlorobenzene, and the insecticides Dichlorvos and Mevinphos were found in one of four water samples taken near the Main STP discharge.

Testing of suspended sediments near the main STP outfall and at the mouth of the Don River found detectable levels of metals. These included arsenic, cadmium, chromium, copper, mercury and lead. Seven organochlorine compounds were also detected at one or both of these stations. Three (PCB, HCB and p,p-DDE) were detected in suspended sediments at both stations. Seven (PCB) (alpha-chlordane, gamma-chlordane, dieldrin, HCB, p,p-DDE and (p,p-DDD) were revealed in suspended sediments from the turbidity plume at the Leslie Street Spit lake filling operation.

The report will form part of the data base for several ministry programs aimed at reducing pollution along the waterfront including:

(a) The Toronto Area Watershed Management Strategy (TAWMS) study, which will identify remedial measures necessary to improve water quality in the Humber and Don Rivers, and Mimico Creek.

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- (b) The In-Place Pollutants program, which is investigating the impact of contaminated sediments on benthic organisms along the Toronto waterfront, and other locations throughout the Great Lakes, in order to develop sediment quality management strategies.
- (c) The recently announced Municipal Industrial Strategy for Abatement (MISA) program, which is studying the Toronto Main STP, as one of six pilot sites to improve effluent quality.
- (d) The Toronto Waterfront Remedial Action Plan, which involves the federal, provincial and municipal governments working toward a comprehensive set of recommendations for remedial measures that will benefit the entire waterfront. This process will involve environmental and public interest groups.

Copies of the report are available from Water Resources Branch, Ministry of the Environment on request.

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