

"Ontario's focus needs to change from one of granting regulatory relief for polluters to improving its commitments to the environmental health of its residents and the natural environment."

Eva Ligeti Environmental Commissioner of Ontario Open Doors - Ontario's Environmental Bill of Rights Annual Report 1997 April 1998

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OUR FUTURE, OUR HEALTH: The Consequences of Inaction

"Our Future Our Health: The Consequences of Inaction" is the follow-up report to "Our Future Our Health: A Statement of Concern from Environmental Organizations in Ontario" (March 1997). It was prepared by a working group of individuals and representatives from environmental groups. The report has been formally endorsed by the following organizations:

- The Canadian Environmental Defence Fund
- The Canadian Environmental Law Association
- The Canadian Institute for Environmental Law and Policy
- Citizen's Network on Waste Management
- Greenest City
- Greenpeace
- Greensville Against Serious Pollution Inc. (G.A.S.P.)
- Ontario Public Interest Group Toronto
- Ontario Toxic Research Coalition
- The Toronto Environmental Alliance

Prepared for the Ontario Environmental Protection Working Group by Nancy Palardy, with contributions from working group members. Layout by Chris Winter.

June 1998

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or The Canadian Environmental Law Association 517 College St., Suite 401, Toronto, Ontario M6G 4A2 Telephone (416) 960-2284

This report is also available free of charge via the internet at http://www.greenontario.com/oepwg/inaction.htm

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EXECUTIVE SUMMARY

On March 12, 1997, the Ontario Environmental Protection Working Group released a report titled "Our Future, Our Health: A Statement of Concern from Environmental Organizations in Ontario". The purpose of the report was to document the actions taken by the Ontario government which had placed the health and environment of Ontarians at increased risk.

The Working Group has returned one year later to provide concrete evidence which shows that the concern expressed last year was warranted. This document highlights reports from independent and authoritative bodies that have been published over the past year, ranging from the Office of the Fire Marshal to the North American Commission for Environmental Cooperation. Each of these reports has identified serious and, in many cases, growing threats to the province's environment and to the health of its residents.

This report also documents events over the past year, such as the Plastimet PVC recycling facility fire in Hamilton, that indicate serious weaknesses in the province's capacity to protect public safety, public health and the environment.

On the basis of these independent reports and occurrences, four challenges are identified as presenting particularly serious threats to the health and environment of Ontario residents. These are: acid rain; smog and other toxic air pollutants; waste management sites; and the operations of Ontario Hydro.

The report documents the government's activities and decisions in these areas over the past three years. In each case, the pattern of government behaviour has been the same. Where action has been taken, it has been hopelessly inadequate in light of the scale of the problems the province faces. More commonly, there has been no action at all, or worse, actions have been taken that will likely make these threats to the well-being of Ontarians even more serious.

The report concludes with a Call to Action to the provincial government to take specific and immediate steps to address the problems which are identified. The Working Group members believe that implementation of these measures is essential to safeguarde the health and environment of the people of Ontario.

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I. INTRODUCTION

1. A Statement of Concern

In March 1997 a number of Ontario's leading environmental organizations released a statement of concern warning that the provincial government was seriously eroding its capacity to ensure a healthy and safe environment for present and future generations of Ontarians.

The report, prepared by the Ontario Environmental Protection Working Group, was entitled *Our Future, Our Health: A Statement of Concern by Environmental Organizations in Ontario.* At that time we expressed our concern regarding dramatic changes being made to Ontario's environmental laws, regulations, policies and institutions. Accordingly, we challenged the government to publicly commit that it would:

- 1. ensure that Ontario is able to fulfill its intergovernmental environmental commitments, such as those under the 1994 Canada-Ontario Agreement on the Great Lakes Ecosystem, and that it does not undermine Canada's international commitments under such treaties as the Great Lakes Water Quality Agreement;
- 2. provide detailed annual state of the environment reports to Ontarians; and
- 3. provide for the effective enforcement of Ontario's laws which protect the environment and the health and safety of its residents.

The government declined to make any such commitments, and has continued to erode its capacity in these areas. There has been no effort to provide state of the environment reports to Ontarians, and the province's environmental monitoring and scientific capacity continues to be dismantled. The enforcement of what remains of Ontario's environmental laws continues to decline, as do the resources dedicated for this purpose.

2. Objectives of This Report

We are returning one year later, therefore, to provide concrete evidence which shows that the concern we expressed last year was warranted.

Over the past year an array of reports have been delivered by independent and authoritative bodies which have highlighted continuing, and in many cases growing, threats to the integrity of the province's environment and to the health of its residents.



The past year has also witnessed events, like the fire at the Plastimet PVC recycling facility in Hamilton, that indicate serious weaknesses in the province's framework of laws and regulations which are intended to protect public safety, public health and the environment. These events have also illustrated major gaps in the capacity of the province to administer and enforce these laws.

This report documents these reports and events, as well as the provincial government's failure to respond to the problems they illustrate. Rather than fulfilling its mandate to protect the public good, the government has retreated from this basic obligation. In fact, in many cases, the government has taken actions which are almost certain to make these threats to the health, safety and environment of Ontarians even worse.

Finally, this report presents a call to action to the Ontario government to address the pressing threats which are identified. It outlines steps which we believe need to be taken immediately to safeguard the health and environment of Ontario residents.

II. EVIDENCE

In the year since the release of the first *Our Future, Our Health* report in March 1997, virtually every month has witnessed events, or the publication of reports from independent and authoritative bodies, that demonstrate major threats to the health and environment of Ontarians and indicate serious gaps or weaknesses in the province's environmental laws and institutions.

This section reviews the highlights of the past year in three sections:

- 1. authoritative reports from independent agencies
- 2. environmental events
- 3. the implications of this evidence of environmental harm.

In Appendix I we present a more exhaustive chronological table outlining the environmental events that have taken place in Ontario over the past year.

1. Authoritative Reports

As can been seen through the seventeen reports summarized below, we are not alone in expressing our concern. Over the course of the past year, a number of independent and authoritative bodies, including the Commission for Environmental Cooperation, the International Joint Commission, the Provincial Auditor, the Environmental Commissioner for Ontario, and the Office of the Ontario Fire Marshal have released reports which identify major environmental problems facing Ontario. Many of the reports make recommendations for immediate action to be taken by the province to address threats to the health and safety of Ontarians. The key findings of these reports are summarized below.



i) **April 1997**

Keep the Doors Open to Better Environmental Decision Making: 1996 Annual Report of the Environmental Commissioner of

The Office of the Environmental Commissioner of Ontario was created through the Environmental Bill of Rights, 1993. The Commissioner is mandated by the Bill to deliver an annual report on governmental implementation of the Bill and compliance with its requirements.

[the provincial ministries] "demonstrated an alarming lack of environmental vision"

- throughout 1996 the provincial ministries "demonstrated an alarming lack of environmental vision" and "failed to put their stated environmental values into action."2
- the government is rebuked for relying on sweeping "omnibus-style legislation." Within the MoEE, for example, the Ministry's own consultation paper on regulatory reform "showed that a sweeping review of every Ministry environmental regulation is happening too guickly and is too narrowly focused."4 The dramatic and sudden reductions or terminations of environmental programs were found to "reduce[] the ministries' responsibility to protect the environment."5 For example, despite the need to do more, "cuts to Ontario's acid rain program have reduced our ability to protect our lakes and forests and to contribute to the national and international fight against acid rain."6
- despite the finding that "good decisions are more likely to happen, and be more acceptable to all Ontarians, when the process is effective, timely, open and fair,"7 the government has made it increasingly difficult for the public to participate in environmental decision-making as a result of its decision to let the Intervenor Funding Project Act expire.8
- alarm is expressed over the shift of many of the province's environmental responsibilities to municipalities and the private sector given that the province has made "no commitment to providing assistance and supervision to municipalities, and to private sector and other organizations that now find themselves more responsible for delivering environmental protection. Without these commitments, Ontario will fall behind as a leader in environmental protection."9 The sudden and unilateral withdrawal of the Ministries of Health and Environment from municipal drinking water quality testing is given as an example of such a shift.
- if the province continues along its current path, "our right to a healthy environment will be jeopardized...We cannot afford to focus on short-term savings at the expense of long-term environmental health."10



ii) June 1997

Evaluation of Emissions From Ontario Hydro Admiralty Brass Condensers to the Great Lakes

An expert advisory panel was established after the press revealed that over the past 25 years 1,813 tonnes of metals - predominately copper and zinc - have been released into Lake Ontario as a result of the corrosion of the brass condenser cooling water systems used in Ontario Hydro nuclear and fossil fuel generating facilities. The highest emissions occurred at Hydro's Pickering Nuclear Generating Station.

[There] "does not appear to be a strong environmental ethic within [Hydro's] nuclear business"

- the data on copper presents a troubling picture as the "overall estimated concentration in the [condenser cooling water]...is three times the [Provincial Water Quality Objective of 5 ppb]. This level would be expected to cause a slight to moderate environmental impact, particularly with respect to reduced diversity of zooplankton and direct toxicity to larval fish."

 Due to the absence of a program to measure metal levels in the receiving environment, "the ability to estimate the possible risks of copper impacts...was limited."

 Nevertheless, the "Panel concluded that copper may pose some environmental risk in the Pickering receiving environment."
- given that approximately fifty tonnes of copper may be released annually from the Pickering site, the Panel concluded this was a significant discharge and, "in the interest of environmental and human health, felt that the principle of 'prudent avoidance' [is] relevant"14 and recommend[ed] that "discharges...be reduced or eliminated with the best available technology."15
- found that there "does not appear to be a strong environmental ethic within [Hydro's] nuclear business"¹⁶ and accordingly, there is a need for Ontario Hydro, particularly in this area, to develop a "<u>real sense of urgency</u> about developing specific, integrated and enforceable environmental accountabilities at all levels of the company."¹⁷ (emphasis in original)
- gaps within Hydro's management system resulted in undue delays in informing both the MoEE and the Board of Directors of these problems. As noted in the report, "the Head Office environment staff in Nuclear had an oversight responsibility but did not exercise it here and did not advise the general manager of a significant delay in informing MOEE." 18
- inadequacies in Ontario Hydro's management system were identified in the areas of: environmental accountability; environmental awareness; internal reporting; and external reporting.¹⁹



iii) July 1997

Report to Management: IIPA/SSFI Evaluation Findings and Recommendations

This report to Ontario Hydro management was prepared by the **Independent and Integrated Performance Assessment (IIPA) team** of over 75 experienced personnel from both the Canadian and American nuclear industries.

Pickering, Bruce and Darlington stations are "minimally acceptable"

- IIPA team ranked all of the operating stations (Pickering, Bruce and Darlington) as "Minimally Acceptable" (emphasis in original). Immediate management attention is needed to improve performance or even to maintain current performance. This ranking is consistent "with the lower ranks that the Institute of Nuclear Power Operators would issue and still permit the plants to operate if in America." The rating would "likely result in the plants being placed on the 'NRC' [U.S. Nuclear Regulatory Commission] watch list."
- fundamental problems exist. Most notably "a lack of authoritative and accountable managerial leadership" (emphasis in original) must be addressed and corrected.
- inability of personnel to comply with established processes or procedures has resulted in "serious operating and safety issues."²³
- "the status of Radiation Protection [at the Bruce facility] is less than adequate to prevent the spread of contamination and to control radioactive materials."²⁴ As well, "the SSFI Team concluded that objective evidence, based on the issues identified, does not provide reasonable assurance that the Emergency Water System will function as intended during design basis accident conditions."²⁵
- at Darlington, "processes are not in place that will ensure long term, safe operation of the station."26
- at Pickering, "operations procedures and processes require improvement to maintain plant safety and to reduce the consequences of events."²⁷



iv) July 1997 *Taking Stock:* North American Pollutant Releases and Transfers 1994

This report, prepared by the Commission for Environmental Co-operation established under the North American Free Trade Agreement (NAFTA), compared the reported releases and transfers of pollutants from facilities in Canada and the United States based on 1994 data.

Ontario ranks as the third largest source of releases and transfers of NPRI and TRI pollutants among the Canadian provinces and U.S. states

- Ontario ranks as the third largest source of releases and transfers of National Pollutant Release Inventory (NPRI) and Toxic Release Inventory (TRI) pollutants among the Canadian provinces and U.S. states.²⁸
- ranking only after Texas and Tennessee, the 767 industrial facilities located within Ontario either released or transferred 78,803,309 kilograms of chemical pollutants in 1994.²⁹
- while Canada represents only 11% of the continent's population, it contributes 15% of North America's pollution to water, air, land and underground areas.³⁰
- Canadian facilities released over 55 million kilograms of pollutants into surface waters compared with the almost 30 million kilograms released in the United States.³¹
- Canadian facilities produce, on average, 105,000 kilograms of pollution yearly compared with 45,000 kilograms from American facilities.³²
- Canada receives a significant volume of waste from the United States through transfers for disposal or recycling. Ontario is identified as the leading recipient of waste exports from the U.S., receiving 22,486,848 kilograms or 36.1% of all U.S. transfers while Canada as a whole receives 28,980,450 kgs or 46.5%.³³



v) July 1997

1996 Annual Report on the Federal-Provincial Agreements for the Eastern Canada Acid Rain Program

This report by Environment Canada provides a snap-shot of the 1996 emissions of sulphur dioxide in the seven easternmost provinces and compares them to the emission targets of the Acid Rain Program.

"791,000 square kilometers - an area the size of France and the United Kingdom combined - is still expected to receive acid deposition in excess of critical loads or threshold levels"

- by the year 2010, "even with full implementation of the U.S. Acid Rain Program, 791,000 square kilometers an area the size of France and the United Kingdom combined is still expected to receive acid deposition in excess of critical loads or threshold levels" ³⁴
- the report's conclusions are consistent with the findings of previous annual reports and states that "although the program goals are now being met, many ecosystems are still being damaged...even after all currently planned emissions reductions are in place on both sides of the border, some regions are expected to receive excess acid deposition post-2000, i.e. in excess of critical loads for sulphur as currently defined for aquatic ecosystems."35



vi) August 1997

The Nine Year Report: Acidification of Surface Water in Europe and North America - Long-term Developments (1980s and 1990s)

This report was prepared by the International Cooperative Programme on Assessment and Monitoring of Acidification of Rivers and Lakes which was established in 1985 under the United Nations Economic Commission for Europe Convention on Long-Range Transportation of Air Pollution (LRTAP).

Quebec and the midwest area of North America either show no signs of water quality recovery or have experienced a further increase in acidification

Highlights

 Quebec and the midwest area of North America either show no signs of water quality recovery or have experienced a further increase in acidification despite declining sulphur concentrations.³⁶

Ontario is the source of much of the acid rain falling on Quebec, and is part of the same overall airshed.



vii) August 1997

Protecting the Public and the Environment by Improving Fire Safety at Ontario's Recycling and Waste Handling Facilities

This report was prepared by the Office of the Ontario Fire Marshal in the aftermath of the July 1997 Plastimet PVC recycling site fire in Hamilton.

"It is evident there is a potential for other fires, similar to the Plastimet fire, to occur in Ontario"

- between 1994 and 1995 there were 202 fires at facilities that store, handle or process all categories of waste or hazardous materials, causing \$7.2 million in property damage, 26 injuries and 1 fatality.³⁷
- in order "to adequately protect the public, the advantages of recycling must be coupled with appropriate fire safety measures."38
- the "disposal and recycling of combustible materials pose some unique fire, explosion and environmental risks when compared to other industries."³⁹
- "Fire departments face the challenge of not knowing what materials are stored at waste handling or recycling facilities in their community." 40
- concludes that "it is evident there is a potential for other fires, similar to the Plastimet fire, to occur in Ontario. Strong positive action by the Government can significantly reduce the possibility of fires that have the potential to seriously endanger the health or safety of any person or the quality of the environment, from occurring in recycling and other facilities."
- recommends strengthening of regulatory controls on recycling and waste handling facilities by the Ministry of the Environment.



viii) September 1997 Continental Pollutant Pathways:

An Agenda for Cooperation to Address Long-Range
Transport of Air Pollution in North America

This report was prepared by the Commission for Environmental Cooperation with a view to increasing trilateral cooperation to deal with longrange transport of air pollutants in North America.

"Enough is already known on most fronts for us to say, unequivocally, that significant emission reductions from present levels are needed now"

- long-range persistent air pollutants represent a significant threat to human health and the environment. Focusing on acid deposition, mercury, ozone, particulate matter and persistent organic pollutants the report concludes "enough is already known on most fronts for us to say; unequivocally, that significant emission reductions from present levels are needed now."42 (emphasis in original)
- primary sources of pollutants are identified as industrial, fossil fuel burning vehicles, pesticides and medical, hazardous, and municipal waste incinerators.⁴³
- given that pollutants travel significant distances, an effective collaborative mechanism needs to be established between Canada, the United States and Mexico to ensure long-range pollutants remain a significant trinational priority.44
- significant emission reductions are required at the domestic level. Rather than relying on endof-pipe management or remediation-based approaches, domestic policy should be "focused primarily on pollution prevention as the primary means for reducing pollution... [as it]... can more efficiently address the risks associated with widely disseminated pollutants by avoiding or minimizing their creation and release."45
- comprehensive and up-to-date information needs to be obtained through research and monitoring. Despite this, both funding and human resources dedicated to research and monitoring have declined substantially in recent years. "These ominous trends do not bode well in terms of the long-term capacity to reduce the exposure of humans and the environment to persistent pollutants released to the atmosphere and other environmental media."46
- recommends "recent alarming trends of reduced expenditures on research and monitoring be reversed."47



ix) October 1997 Towards a National Acid Rain Strategy

This report was prepared by the Acidifying Emissions Task Group, a multi-stakeholder body created under the auspices of the Canadian Council of Ministers of the Environment (CCME) National Air Issues Co-ordinating Committee (NAICC) to develop a national strategy to deal with acid rain.

"95,000 lakes in southeastern Canada will remain damaged by acid rain"

- even with full implementation of current Canadian and U.S. programs, by the year 2010 "almost 800,000 km2 in southeastern Canada - an area the size of France and the United Kingdom combined - will receive harmful levels of acid rain... As a result, 95,000 lakes in southeastern Canada will remain damaged by acid rain."
- "Acid rain is a serious threat to biodiversity in Canada, especially in Ontario, Quebec and the Atlantic region...acidified lakes have fewer species of wildlife living in or around them...at least 13,500 populations of fish have disappeared from the 48,000 lakes in the Outaouais and Abitibi regions of Quebec."
- adverse effects "on the health of large portions of Canada's forests are occurring as a result of continuous exposure to a range of air pollutants."⁵⁰
- particle pollution is "responsible for increases in the number of hospital admissions for respiratory and cardiac problems as well as increases in the number of people with respiratory symptoms and reduced pulmonary function." Strong associations exist "between airborne particles and premature death from respiratory diseases. Deaths from cardiopulmonary diseases rise with increases in the concentrations of particles in the air." 52
- even if emissions were cut by 58% in eastern Canada and 50% in the entire United States, New Brunswick and Nova Scotia would be protected, but 222,000 km2 of Ontario and Quebec would remain at risk. 550 premature deaths, 210,070 asthma symptom days, and 1,530 emergency room visits would be avoided. Annualized health benefits would be between \$590 to \$5,400 million.⁵³
- concludes that sulphur dioxide emissions need to be cut by a full 75% above and beyond the regulatory caps which currently exist in both eastern Canada and the entire United States in order to protect Eastern Canada from the effects of acid rain.⁵⁴



October 1997 | 1997 Annual Report of the Provincial Auditor of Ontario to the Legislative Assembly

The annual report of the Office of the Provincial Auditor provides an audit of the performance of government programs.

The Ministry of the Environment has not measured or reported on the effectiveness of its waste reduction programs since 1994

Highlights

Municipal Solid Waste Management

- in 1989 the MoEE announced two waste reduction goals: to reduce solid waste going to disposal by 25% by 1992 and a further goal of 50% diversion by 2000 (based on 1987 quantities). The first goal has been achieved but only a further 5% additional reduction has been achieved.55 Figures subsequently released by the Environment Minister in February 1998 show that the province currently diverts only 32% of its waste after 8 years of waste-reduction programs, and it has less than two years to reach its goal of 50%.56
- although a business plan for the Waste Reduction Branch was completed in May 1997, no mention was made of the provincial goal of a 50% reduction by the year 2000.57
- the Ministry has not measured or reported on the effectiveness of its waste reduction programs since 1994. Report concludes that "without a timely assessment of the effectiveness of its various waste reduction programs, the Ministry cannot adjust strategies or develop appropriate action plans on a timely basis."58
- the MoEE has "consistently failed" to enforce its own regulations that would reduce the volume of material entering the recycling stream. For example, Regulation 340 of the Environmental Protection Act requires a minimum of 30% of soft drinks to be sold in refillable containers. Ministry has not enforced this requirement and "currently less than 2% of soft drinks are sold in refillable containers."59

Environmental Assessment

 MoEE has "no consistent process in place to regularly monitor compliance with all the terms and conditions, including the reporting requirement."60



October 1997 | Long-Range Transport of Ground-

Level Ozone and Its Precursors:
Assessment of Methods to Quantify Transboundary
Transport Within the Northeastern United States and

This report was prepared by the. Commission for Environmental Co-operation to assess the current state of science on the transboundary impacts of ozone air pollution.

"The failure to integrate environmental protections at this critical juncture in the restructuring of the utility industry... could have serious air quality implications for upwind regions in both the United States and Canada"

- two transboundary pollution 'rivers' exist which transport ground-level ozone and its precursors (VOCs and NOx) long distances. One flows "from the upper midwest United States and the Ohio River Valley across Southern Ontario and the Northeastern United States" and the second carries pollutants "up the 'northeast corridor' of the United States and...into the Atlantic provinces of Canada."61
- "Transboundary flows of ozone and ozone precursors are not limited to a single pathway or direction...Different transport pathways may be more important for other types of pollutants."62
- "An alarming trend noted in recent years is the closing of many monitoring stations, some of which have valuable long-term records. Any further erosion will severely jeopardize the ability to track the impact of emissions reductions on ozone levels and assess whether the countries are meeting treaty obligations."63
- "A study of southern Ontario hospital admissions between 1983 and 1988 estimated that 5 percent of daily respiratory admissions in the months of May to August were attributable to ozone, with sulfates accounting or an additional 1 percent. The largest impact was found for infants, where 15 percent of admissions were attributable to the ozone-sulfate mix."64
- "the existing 'weight of evidence' for cross-border ozone transport is robust and points to the need for significant broad based NOx emissions reductions."65
- · concern is expressed over electricity restructuring. "The failure to integrate environmental protections at this critical juncture in the restructuring of the utility industry has raised concern...about the potential for increased utilization of low-cost, older, coal-fired power plants...and commensurate emissions increases as a result of deregulation. Such a trend could have serious air quality implications for upwind regions in both the United States and Canada."66



xii) October 1997 | The IJC and the 21st Century

The International Joint Commission is a joint Canada-U.S. body established under the Boundary Waters Treaty of 1909 to resolve disputes between the two governments, and to deal with other cross-border water issues. Since the adoption of the Great Lakes Water Quality Agreement in 1970, the Commission's primary focus has been on the health of the Great Lakes Basin Ecosystem. This report responds to a request by the governments of Canada and the United States for proposals on how the IJC might best assist these parties in meeting the environmental challenges of the 21st century.

"As governments downsize, their ability to cooperate and coordinate to address problems of common interest also shrinks"

- significant air pollution problems will persist and could worsen in the next century, thus leading to the conclusion that "transboundary particulate pollution that affects localities within the Great Lakes basin...will have to be addressed." 67
- "Continuing episodes of excessive ozone, combined with increased public awareness of the health risks of ozone exposure, will pose significant challenges to the parties. Because climate change may increase episodes of high summertime temperatures in the border area, it raises the probability of further ozone standard exceedances."
- "New concerns have emerged about the possible human and ecological health implications of exposure to many compounds legally released into the environment...[∏he weight of evidence based on findings of wildlife biologists, toxicologists, and epidemiologists clearly indicates that both wildlife and human populations in the boundary area are being affected by exposure to persistent toxic substances." ¹⁶⁹
- "On both sides of the border, there is a clear trend toward a reduction in the size of government...[S]taff and budget cuts in environmental agencies have already undermined basic environmental monitoring and research programs...Monitoring provides the capacity to identify changes in environmental quality and to measure the effectiveness of control and prevention programs. All along the boundary, this capacity is being lost...As governments downsize, their ability to cooperate and coordinate to address problems of common interest also shrinks."



xiii) November 1997 | The Canada Country Study:
Climate Impacts and Adaptation, Ontario Region
Executive Summary

This report was prepared by Environment Canada to assess the impacts of climate change and strategies for adaptation.

Simulations suggest an average annual warming of 2-5 degrees Celsius by the latter part of the 21st century

- for Ontario, results from some of the latest Global Circulation Model simulations suggest an average annual warming of 2-5 degrees Celsius by the latter part of the 21st century.71
- key impacts of climate change include: changed weather patterns which may affect the frequency and intensity of pollution episodes, increased heat stress, negative health effects due to possible increases in the number or severity of poor air quality episodes facilitation of the migration of disease-carrying organisms.72



xiv) December 1997

Report of the Select Committee on Ontario Hydro Nuclear Affairs

This report was prepared by the Select Committee on Ontario Hydro Nuclear Affairs which was mandated to review and report on, among others, the Independent Integrated Performance Assessment and the recovery plan proposed by Ontario Hydro. As its terms of reference, the Committee was to examine the costs and environmental impacts of the recovery plan.

"The proposed increased reliance on fossil fuels is of serious concern to the Committee"

- "There are no binding emission requirements on Ontario Hydro for greenhouse gases such as carbon dioxide (CO2). Voluntary limits have been established by Ontario Hydro which are expected (by Ontario Hydro) to be exceeded if the NAOP [Nuclear Asset Optimization Plan] is implemented as currently planned."⁷³
- "Expert testimony was provided...that replacement power obtained from certain sources, such
 as the Ohio Valley, would result in increased emissions of greenhouse and transport of other
 gases in Ontario...The proposed increased reliance on fossil fuels is of serious concern to the
 Committee. [The] NAOP significantly increases fossil related emissions, at least for the next
 few years."⁷⁴
- concludes that "the historical failure to properly manage the nuclear assets, through prudent preventative maintenance and other measures, is unacceptable, regardless of the rationale."⁷⁵
- "A more formal approach to the regulation of nuclear operations is necessary to ensure safety standards are transparent, consistently applied and readily understood by the public. In particular, there is a strong need for a standardized investigation and reporting practice to be instituted by the [Atomic Energy Control Board], to be applied equally and objectively to all nuclear facilities."⁷⁶
- "existing mechanisms for accountability" were found to be inadequate and the Committee called for "more effective mechanisms for direct and immediate accountability to...the Ontario Government."
- in relying on the IIPA report which found that emergency preparedness for each of the Bruce, Pickering and Darlington sites was 'Below Standard', the Select Committee concluded that "anything less than 'excellent' performance ratings" is unacceptable. "The poor communications that have occurred, particularly with communities around the Pickering facility, are not acceptable."



xv) January 1998

Air Pollution Impacts of Increased Deregulation in the Electric Power Industry: An Initial Analysis

This report was prepared by the Northeast States for Coordinated Air Use Management (NESCAUM). NESCAUM is the air-pollution watchdog for the 8 northeastern states of Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont.

"Deregulated markets will result in significantly increased power production at low-cost, highly polluting coal-fired power plants"

Highlights

- expresses concern that "deregulated markets will result in significantly increased power production at low-cost, highly polluting coal-fired power plants" and reports that initial data strongly suggests that "industry restructuring played a significant role in...the shift from gas to coal in 1996."
- given prevailing west to east wind patterns, pollutants from these power plants may be transported "over long distances, exacerbating already severe air quality problems in the Northeast." 83
- warns that the trend towards deregulation may boost smog levels and threaten public health unless "aggressive, overall" NOx and CO2 emission caps are established.

The provinces of Ontario, Quebec and New Brunswick and are within the same airshed as the U.S. states, and can be expected to experience the same degradation.



xvi) April 1998

Open Doors -- Ontario's Environmental Bill of Rights

On April 29, 1998, the Environmental Commissioner for Ontario, Eva Ligeti, tabled her Third Annual Report: "Open Doors - Ontario's Environmental Bill of Rights."

"There has been little substantive improvement in the actions taken by provincial ministries toward protecting the environment"

Highlights

Overall

 In releasing the report, the Commissioner stated "I regret to report that in the past year there has been little substantive improvement in the actions taken by provincial ministries toward protecting the environment."

Air Quality

- the ministry is relying on a voluntary approach to cutting pollution;
- there are no plans to upgrade old certificates of approval granted to sources of pollution;
- the province has announced the elimination of funding for public transit, although road vehicles are Ontario's number one source of air pollution;
- the Ministry of the Environment's own emissions projections show that even if all proposed control activities are carried out, Ontario's air quality will be worse in 2015 (the date implementation of the Smog Plan is to be complete) than it is today.

Forest Management

- despite its budget and staff being cut in half, the Ministry of Natural Resources is faced with increasing pressures from rising demand for wood, the need to complete the provincial parks system, and conflicts between forestry, tourism and natural heritage values.
- report is critical of the pace of the 'Lands for Life' process and lack of adequate public consultation in this program to determine the uses for 46% of the province's land area.
- The Commissioner also expresses concern over some of the approaches to forest management being adopted or considered by the Ministry of Natural Resources including: tenure in perpetuity for forestry companies; compensation if the land licenced to companies is later re-allocated; industry self-monitoring of compliance with forestry regulations; and streamlining the sale of crown lands.



Environmental Monitoring

Crucial environmental data is not being collected in such areas as:

Ministry of the Environment

- loading of toxic substances into Ontario's lakes and rivers;
- presence of persistent toxic substances in sewage treatment plant effluent;
- total loadings of raw sewage spills into waterways;
- the condition of the 1 million plus septic systems in the province; and
- o emissions of inhalable particulates.

Ministry of Natural Resources

- no analysis of figures for harvested forest areas since 1991;
- does few population surveys of small game species or non-game wildlife;
- has no population estimates for most wildlife species that are vulnerable, threaten or endangered;
- is not analyzing data on big game mortality, and its not producing provincial or regional reports; and
- has weak information on rare species in Northern Ontario.

Voluntary Agreements

• notes the Ministry of the Environment is entering into voluntary agreements to reduce environmental protection, despite considerations that the agreements are not enforceable, lack clear goals, are often negotiated "behind closed doors," and that there is no legal framework for such arrangements in Ontario.

Conservation Authorities and Watershed Management

• notes the reduction in MNR share of funding to Conservation Authorities from 33% to 5%, limiting their ability to undertake watershed management planning.

Plastimet Fire

- report is critical of Ministry of Environment exemption of Plastimet PVC recycling facility from requirements for Certificate of Approval, on basis that no realistic market demand existed for material.
- calls for inquiry into Plastimet fire.



xvii) May 1998

The Health Effects of Ground-Level Ozone, Acid Aerosols and Particulate Matter

The Ontario Medical Association represents Ontario's 23,000 doctors. The report, "The Health Effects of Ground-Level Ozone, Acid Aerosols and Particulate Matter," was presented at a May 12, 1998 seminar entitled "Air Pollution: Effects on Ontario's Health and Environment".

"there can be little doubt that ground-level ozone, particulates and acid aerosols are linked to increases in hospitalization for respiratory and cardiac disease, and to increased premature mortality."

Highlights87

Key Findings

- Physicians know of the adverse health impacts of air pollution and they are concerned. However, individually they now focus on treatment of symptoms.
- In a Toronto study, a two to four per cent excess of respiratory deaths could be attributed to pollutant levels.
- Children living in rural Ontario communities with the highest levels of airborne acids were significantly more likely to report at least one episode of bronchitis, as well as to show decreases in lung function.
- Every Ontarian is affected by air pollutants, although they may be unaware of the asymptomatic effects such as lung inflammation.
- Evidence from research conducted on Ontarians clearly shows that increases in these pollutants are linked to increases in emergency room visits and hospitalizations.

Major Recommendations

More stringent sulphur and nitrogen oxide emission limits should be enacted, including a
province-wide SO2 reduction of 75 per cent from current cap levels, and a maximum allowable
NOx emission limit of 6,000 tonnes annually from Ontario Hydro.



- New transportation sector emission limits should include California-level standards for light and heavy-duty vehicles, reductions from off-road engines, an expanded vehicle inspection and maintenance program, and tougher standards for sulphur-in-fuel content.
- The USEPA Administrator should be petitioned under Section 115 of the U.S. Clean Air Act to require reductions in U.S. emissions of SO2 and NOx which damage the health of Canadian residents and their environment.
- Physicians should advise patients about the risks of smog exposure, should support more health effects research on air pollution, and should advocate the development of air pollutionrelated health education materials.

The OMA concludes, "there can be little doubt that ground-level ozone, particulates and acid aerosols are linked to increases in hospitalization for respiratory and cardiac disease, and to increased premature mortality."88



2. Environmental Events

Along with the release of the above reports, the past year has witnessed a large number of events which indicate serious weaknesses or gaps in the province's framework of laws, regulations and institutions intended to protect public safety, public health, and the environment. This section highlights a number of the most significant of these occurrences.

March 1997: Kingston Landfill Failure.

More than 300,000 litres a year of toxic liquids seep from an old industrial chemical dump into the Cataraqui river, which flows through Kingston.⁸⁹

June 1997: Ontario Hydro Bruce Facility Radioactive Discharges.

Fish in Lake Huron near the Bruce nuclear plant are nine times more radioactive than fish in Lake Ontario and the levels have grown worse in the past two years. Fish caught near the Darlington nuclear station on Lake Ontario have an average of 12 Bq per litre, but fish near the older Bruce station average 112 Bq per litre in 1996. Two years earlier, fish from the same spot near the Bruce station averaged 84 Bq per litre. Hydro's environmental sampling also showed somewhat elevated levels of radioactivity in drinking water, fruits and vegetables.⁹⁰

July 1997: Plastimet PVC Fire.

A massive fire broke out at a plastics recycling operation in Hamilton. The fire burned for four days and released toxic chemicals including hydrochloric acid, carbon monoxide gases, benzene, dioxins and furans. The fire caused serious adverse effects to residents, including breathing problems, sore throats and burning eyes. Approximately six hundred residents were evacuated. According to MoEE reports prepared after the fire, "worst-case estimates suggest that the Canadian Tolerable Daily Intake (TDI) of dioxins and furans of 10pg TEQ/kg body weight/day may have been exceeded for some people." In addition, elevated levels of contaminants have also been found present in the soil at the site. These include dioxins and furans at concentrations well above the MoEE cleanup guidelines. The company had been able to operate without a Certificate of Approval from the Ministry because plastic waste was classified as recyclable.

July 1997: Southern Ontario Smog Alerts.

The third air-quality advisory of the year is called off after two days. 92

August 1997: Ontario Hydro Tritium Leakage.

Radioactive tritium from the Pickering nuclear plant has leaked into and contaminated groundwater around the site as long as 18 years ago. Despite this, the Environment Ministry only learned about the contamination at the end of July, 1997. Ontario Hydro apparently had known for 18 years that groundwater was being contaminated.⁹³



August 1997: York Region Sewage Spill.

During a heavy rainstorm, a sewage pumping station fails and 22 million litres of untreated sewage are dumped into the Don River in Toronto. Bacteria levels in Lake Ontario are from 3 to 6 times higher than the acceptable levels for swimming. Coalition of community groups files a request that the province begin an investigation into the spill through the Environmental Bill of Rights.⁹⁴

August 1997: Guelph Industrial Lubricant Spill.

3,000 litres of industrial lubricant solution are dumped into the water supply in Guelph in August 1997. Due to the risk posed to the public, 50,000 people are warned not to use the water.⁹⁵

August 1997: Hamilton Park Contamination.

Contaminated soil (polycyclic aromatic hydrocarbons) is found in Hamilton's park. Reports state that there is a high exposure risk if the soil surface is disturbed.⁹⁶

August 1997: Bruce Nuclear Plant Heavy Water Leak.

The facility was shut down due to heavy water leak.97

November 1997: Deloro Mine Site.

The site is highlighted as one of the worst hazardous wastes sites in the province given the volume of hazardous chemicals which leak from it and contaminate the surrounding environment. Is estimated that in 1996 alone, 3.27 tons of arsenic leaked from the mine into the Moira River. 98 Other heavy metals such as cadmium and cobalt, along with radioactive material, are located at the site as well.

December 1997: Brantford Tire Fire.

A fire in Brantford on December 2 burns approximately 7,000 tires and leaves a film of black particles over the surrounding area. Although the owner of the site was ordered to remove the debris by December 10th, no cleanup had been done by December 17th. Earlier in the year (mid-October) the MoEE had issued an order requiring the company which operated the site to reduce the number of tires to under 5,000 by December 15. As of December 16, 12,700 tires were still on site.⁹⁹

February 1998: Crown Forest Sustainability Act Implementation Decision.

The Divisional Court of Ontario declares three Northern Ontario timber-management plans "of no force and effect" because the government failed to follow provincial laws designed to sustain forests. Province is given 12 months in which to comply with the law by making the Elk Lake, Upper Spanish and Temagami plans conform with requirements of the *Crown Forest Sustainability Act.*¹⁰⁰

February 1998: Ontario Hydro Failure to File Safety Improvement Plan with Atomic Energy Control Board.

Hydro chairman William Farlinger makes an unprecedented appearance before the Atomic Energy Control Board in Ottawa to explain why utility missed a filing deadline which would have required it to file information explaining how it intends to improve operations at its Bruce B nuclear plant.¹⁰¹



February 1998: Grey County Tire Dump.

33,000 buried tires are reported to be leaching toxic chemicals into ground water in Georgian Bay-area site which is 50 kms southeast of Owen Sound. Site neighbours sue the province for failure to act on the problem.¹⁰²

February 1998: Etobicoke Recycling Site Fire.

A fire at Ontario Material Recovery Centre causes more than \$1 million in damage and requires full day to extinguish.¹⁰³

April 1998: Darlington Radioactive Water Leak.

A station emergency declared after leak of approximately 100 litres of radioactive heavy water occurred in a unit shut down since April 17 for maintenance.¹⁰⁴

April 1998: Thomasburg Tire Fire.

A fire at truck-repair yard in hamlet of Thomasburg, 40 kms northeast of Belleville, involving more than 1,000 tires. Thousands of litres of water contaminated with toluene and benzene flows into a nearby waterway.¹⁰⁵



3. The Implications of the Evidence

While the foregoing reports and occurrences cannot be said to provide a complete picture of the state of Ontario's environment, they do provide evidence of a number of serious threats to the health and well-being of Ontarians. In reviewing the evidence that has emerged over the past year, four key areas seem to us to require immediate attention. These are: acid rain; smog and toxic air pollutants; waste management sites; and the operations of Ontario Hydro.¹⁰⁶

In each of these areas, we believe that immediate and decisive action by the government of Ontario is required to prevent further damage to the environment and health of the province's residents.

i. Acid Rain

There is overwhelming evidence of continuing damage to lakes, waterways, forests and human health as a result of acid rain in Ontario and elsewhere in Eastern Canada. This is reflected in the reports of the NAICC Acidifying Emissions Task Group, the United Nations Economic Commission for Europe under the LRTAP Convention, Environment Canada and the Commission for Environmental Cooperation.

The NAICC Acidifying Emissions Task Group concluded that a 75% reduction below current regulatory caps in Eastern Canada is required to halt the damage to human health and the environment. Furthermore, there are indications that if current proposals within the electricity sector proceed, emissions which cause acid rain are likely to increase. The implementation of Ontario Hydro's nuclear recovery plan, which relies heavily on coal-fired power generation as an interim power source, and the introduction of electricity market competition in U.S. and Ontario are particularly serious problems in this context.

ii. Air Quality/Smog

Again, there is substantial evidence of harm to the health and well-being of Ontarians arising from problems related to air quality and smog. This is reflected in the reports of the for Environmental Cooperation, the Northeast States for Coordinated Air Use Management, the International Joint Commission and the Ontario Ministry of the Environment itself. Indeed, the Minister of the Environment publicly stated in January 1998 that "smog is a factor in the premature deaths of as many as 1,800 Ontarians every year." ¹⁰⁷

The Commission for Environmental Cooperation has concluded that long-range persistent air pollutants represent a significant threat to human health and the environment and that significant emission reductions from present levels are needed now. As with acid rain, if the current proposals within the electricity sector proceed, emissions which cause smog are likely to increase.



iii. Waste Management Sites

The Plastimet fire and subsequent report of the Office of the Ontario Fire Marshal, the Brantford tire fire and contamination problems at other former waste disposal sites all indicate the need for major reforms to the province's regulatory framework for waste management. These steps are necessary to protect public safety, public health, and the environment.

Recommendations have been made by the Office of the Fire Marshal for strengthening the province's regulation of waste handling, recycling and disposal sites. In addition, the Provincial Auditor has stated that the Ministry is failing to enforce its existing waste management regulations, and the Minister of the Environment has stated that the province will fail to meet the 50% municipal solid waste diversion goal set in 1989.

iv. Ontario Hydro

Evidence of continuing serious mismanagement in the areas of safety, health and the environment has been presented by two independent expert review committees examining Ontario Hydro's operations and the Report of the Select Committee on Ontario Hydro Nuclear Affairs. Specific problems have included unreported metal discharges from generating plants, leaks of radioactive tritium and heavy water from nuclear facilities, along with 'minimally acceptable' safety and operating practices within the utility's nuclear division.

Ontario Hydro's response to the Independent and Integrated Performance Assessment (IIPA) team was to propose a Nuclear Asset Optimization Plan:

- the plan will temporarily 'lay-up' seven of the utility's twenty nuclear reactors at the Pickering and Bruce plants for 'upgrading', but possibly forever. An \$8 billion contingency plan is envisaged by the utility.¹⁰⁸
- the utility intends to bring one oil-fueled and two coal-powered plants back into service to replace the lost power generation.¹⁰⁹ It is estimated that fossil (primarily coal) generation will increase by approximately 50% to meet Ontario's electricity needs.¹¹⁰

The utility's nuclear recovery plan is likely to have major environmental impacts due to its reliance on a coal-fired interim energy supply, from both mothballed Hydro facilities and U.S. based sources, and its intention to continue to rely on nuclear supply in the long term.

The Commission for Environmental Cooperation and NESCAUM have also highlighted a concern that the introduction of competition into the electricity supply market is likely to seriously exacerbate Ontario's acid rain and other air quality problems, unless significant action is taken by the province.



Ontario Hydro's Nuclear Asset Optimization Plan Leaves Much to be Desired

The **Ontario Clean Air Alliance** has expressed a number of concerns regarding the Nuclear Asset Optimization Strategy:

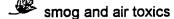
- the increased reliance on coal-fired electricity generation will substantially increase Ontario Hydro's air toxins (of which there are 35), nitrogen oxides, sulphur dioxide, greenhouse gas and particulate emissions.¹¹¹
- emissions of heavy metals such as antimony, arsenic, cadmium, chromium, cobalt, lead, manganese, mercury and nickel will increase by approximately 50-60%.¹¹²
- currently, Ontario Hydro is responsible for 7% of Ontario's mercury emissions.
 The proposed strategy would "lead to an increase in the utilities' mercury emissions by approximately 70%."¹¹³ Accordingly, this strategy appears to be "inconsistent with Ontario, Canada and United States agreements to reduce mercury emissions by 90% by the year 2000."¹¹⁴
- Hydro's particulate emissions would increase by approximately 65%.¹¹⁵
- the recovery strategy is "inconsistent with Regulation 355 with respect to nitrogen oxide emissions and the Ontario Hydro-Ontario Ministry of Environment Nitrogen Oxides Agreement of 1991."¹¹⁶
- the strategy is "not consistent with Regulation 355 with respect to sulphur dioxide emissions."
- the strategy is "not consistent with Ontario Hydro's <u>Strategy To Manage</u> <u>Greenhouse Gas Emissions</u> filed with the Canadian Climate Change Voluntary Challenge and Registry in 1995."¹¹⁸

III. GOVERNMENTAL RESPONSE: Four Case Studies



From our review of the independent research studies in the previous section, we have selected four issues as case studies of the Ontario government's response to environmental priorities. The four issues are:







Ontario Hydro

In each of these areas, where there is overwhelming evidence of serious and pressing environmental problems, the pattern of governmental response has been the same. Where some action has been taken, it has been hopelessly inadequate in light of the scale of problems we face. More commonly, there has been no action at all, or worse, actions have been taken which will likely make the problems even more serious.

1. Acid Rain

Acid rain continues to cause significant damage to Ontario's environment, and new evidence is emerging linking acidifying emissions to major human health impacts. Unfortunately, over the past three years, the government of Ontario has taken a series of steps which have undermined its ability to deal with this problem and has advanced proposals which have the potential to make the situation significantly worse. The government has:

- ⇒ reduced the number of sites within MoEE's acid rain monitoring network from 39 to 16 since 1991.¹¹⁹
- ⇒ left unanalyzed more than 10 years' worth of acid rain deposition data. 120
- ⇒ implemented, in 1996, substantial budget cuts which resulted in decreased quality assurance procedures. This served to compromise the completeness and integrity of acid rain data already collected.¹²¹
- ⇒ terminated monitoring of the recovery of acidified lakes in the Sudbury area despite the fact that many consider this information to be critical in understanding how ecosystems recover from acidification. 122



- ⇒ forced removal of discussion of the implementation of the NAICC Acidifying Emissions Task Group report, which concluded that a 75% reduction in current acid deposition levels in Eastern Canada is necessary to protect eastern forests, lakes and rivers, from the agenda of the November 1997 Joint Federal-Provincial Energy and Environment Ministers' meeting. In the absence of discussion at the Joint Ministers' meeting no action has been taken by the federal or provincial government to act on the report's conclusions. 123
- ⇒ jeopardized the future of Ontario's Forest Health Survey by cutting funding at MoEE and MNR. This survey has, for almost a decade, monitored 110 permanent forest plots across the province which have been designed to illustrate trends in tree health over time. Such monitoring is essential in order to help understand and avoid massive forest dieback as has occurred in Europe. 124
- ⇒ allowed Ontario Hydro to sign an option to purchase electricity from an American company which is the largest single U.S. utility source of sulphur dioxide emissions along the Eastern Canadian border. If this option is exercised, the sulphur dioxide emissions of American Electric Power Co. Inc. would rise significantly. Given that the prevailing winds blow the pollutants into Ontario, they will contribute to Ontario's acid rain problem.¹25 The purchase appears to be intended to circumvent the limitations on sulphur dioxide and nitrogen oxide emissions from Hydro's facilities established under the province's acid rain regulations (Regulation 355).
- ⇒ In August 1997, Ontario Hydro's Board of Director's approved the Nuclear Asset Optimization Plan (NAOP). Despite clear evidence that the plan's implementation would result in significant increases in acid rain, smog precursors, air toxics and greenhouse gases, 126 the government failed to exercise powers available to it under the Power Corporation Act to require Ontario Hydro to consider and address this problem. This is despite Ontario Hydro's own prediction that "its fossil fuel emissions of several air pollutants will rise by about 70 percent between 1996 and 1998." 127
- ⇒ implemented a funding cut of the Dorset Environmental Science Centre (which monitors acid-rain recovery), thus reducing its budget by more than 50% compared with 1991-92 figures. 40 full-time employees have been reduced to 14.128
- ⇒ failed to provide any indication of how it intends to deal with likely increases in acid rain and other forms of air pollution arising from the proposed introduction of electricity market competition. Only commitment is to maintain existing standards, which are clearly inadequate and only apply to Ontario Hydro facilities.
- ⇒ proposed, in December of 1997, to reduce the reporting requirements under the Countdown Acid Rain regulations from quarterly to annual reports.¹²⁹



2. Smog and Air Toxics

The provincial government has repeatedly stated that action to deal with smog is its greatest environmental priority given its own estimates that 1,800 premature deaths and 1,400 cardiac and respiratory hospital admissions are related to the current high levels of inhalable particulates. Accordingly, four governmental initiatives (Smog Plan, PM10 Standard, Drive Clean initiative, and Summer Gasoline Volatility Limits) have been advanced to address this issue since 1995.

Smog Plan

⇒ In January 1998 the Ministry of Environment released a long-awaited smog plan. In it, the MoE set an Air Quality Target for Smog to achieve, by 2015, a 75% reduction in the number of times the 80 ppb one hour ozone criterion (Ontario's Air Quality Criterion) is exceeded. In order to achieve this target, the Smog Plan calls for reduced emissions of nitrogen oxides (NOx) and volatile organic compounds (VOCs) by 45% from 1990 levels by the year 2015. To achieve this target, it calls for voluntary emission reductions and places a heavy reliance on the Drive Clean program.

Interim PM10 Standard for Particulate Matter

⇒ In May 1997, the Minister of Environment and Energy announced a proposal to establish a new interim ambient air quality criterion for PM10 particles. Inhalable particulates, known as PM10, are those ranging in size up to 10 microns in diameter and which are suspended in air. PM10 particles can be made up of many constituents including sulphates, nitrates, elemental carbon, organic compounds, metals and soil dust. They are easily inhaled and the smaller size particles (those less than 2.5 microns) can travel to and affect the deepest part of the respiratory tract. ¹³² The interim standard establishes an interim ambient air quality criterion for PM10 of 50 micrograms per cubic metre of air during a 24-hour period. ¹³³

Drive Clean Vehicle Emissions Testing Program

⇒ In August 1997, MoEE announced a mandatory vehicle emissions testing program for trucks, buses and cars. This was scheduled to begin in the Toronto region by 1998 and was projected to reduce annual emissions of NOx by 15,000 tonnes, VOC emissions by 47,000 tonnes, particulate emissions by 220 tonnes and CO2 emissions by 900,000 tonnes when fully in effect.¹³⁴



Summer Gasoline Volatility Limits

⇒ In April 1997, the Minister of Environment and Energy announced a revision to the Gasoline Volatility Regulation (Reg. 271/91) to reduce emissions by lowering summertime gasoline volatility requirements in Southern Ontario from 72 kiloPascals (kPa) to 62 kPa. Essentially, this regulation requires gasoline refiners to reduce the smog-causing fumes emitted from summer-grade gasoline. According to Ministry estimates, this reduction will lead to an 18,000 tonne reduction in volatile organic compounds released into the air each year. 135

While we welcome these specific efforts, we note that several of them suffer from serious shortcomings. They include the following:

Smog Plan

- the plan will take 17 years or until 2015 to be fully implemented. Given that smog causes the premature death of about 1,800 Ontario residents per year, the plan does not move quickly enough. Furthermore, it only calls for a 45% reduction of smog-causing pollutants and provides "no detail...as to how the other half of the needed reductions can be achieved." ¹³⁶
- the goals are inadequate. No quantitative rationale is provided as to why a 45% reduction is the desired target. No evidence is provided that this target will achieve the objective of reducing the number of ozone level exceedances by 75%.
- despite the fact that the MoE has identified air quality as a 'major focus', only 3% of the ministry's environmental protection budget is allocated to clean air.¹³⁷
- the plan does not address the upgrading of old Certificates of Approval (Cs of A). Facilities holding old Cs of A which permit emissions which exceed new, more rigorous air quality standards are not targetted.¹³⁸
- no mechanism exists within the plan to set interim targets, monitor progress or report back to the public. Furthermore, no mechanism exists to engage the public and provide education.
- important Ministries such as the Ministries of Health, Municipal Affairs and Housing, Education, and Transportation are not included. Many of these agencies have undertaken initiatives that may undermine the goals of the smog plan (see below).

Interim PM10 Standard for Particulate Matter

• although more stringent than new standards set by the American *Clean Air Act*, the Ontario PM10 standard differs in that it is only a guideline and therefore is legally unenforceable.



• due to a lack of monitoring data, the MoE does not have adequate information on current emission levels. Therefore, the establishment of the stated target is "of limited value." 139.

Drive Clean initiative

 despite its promise to implement this program in the summer of 1998, in April 1998 the Ministry of Environment announced it had postponed implementation for another year.

Summer Gasoline Volatility Limits

 despite the fact that this initiative is expected to reduce Ontario's total VOC emissions by about 2%, this may not contribute to a noticeable improvement in air quality due to the expectation that "Ontario's total VOC emissions are expected to grow by about 10 percent per decade." 141

In addition to their specific weaknesses, we have a more general concern that these measures are inadequate in light of the scale of the problem. We are even more seriously alarmed that a number of other measures taken by the government are likely to overwhelm the positive impacts of these forward steps.

Over the past three years, the government has adopted a number of policies which seem likely to promote urban sprawl and otherwise increase private passenger vehicle use, a leading cause of the province's smog and air quality problems.

- ⇒ Despite the fact that road vehicles are Ontario's number one source of smog-causing pollution¹⁴², in January 1997, the Ministry of Transportation announced the province would eliminate all operating and capital funding for public transit in Ontario, effective January 1, 1998.¹⁴³ This means a cut of \$718 million in public transportation spending and the downloading of transportation responsibilities to municipalities.¹⁴⁴ The government has since allocated \$200 million of the Municipal Capital Operating and Restructuring fund to the Ministry of Transportation to be distributed to municipalities taking on new transportation-related responsibilities, ¹⁴⁵ however this is one-time funding to ease the transition to municipal-financed transit.
- ⇒ Since 1995, over \$100 million has been provided for highway projects in Hamilton and Ottawa. 146
- ⇒ In March 1996, the government amended the *Planning Act* through Bill 20 and also amended the related Provincial Policy Statement to remove or severely weaken legal and policy tools designed to curb urban sprawl, reduce private automobile use, and protect Ontario's natural heritage.¹⁴⁷



- ⇒ In May 1996, the province began to offer a Land Transfer Tax Rebate for first time buyers of newly built homes. This rebate provides a subsidy of up to \$1,725 per new home, effectively subsidizing urban sprawl.¹⁴⁸
- ⇒ In December 1997, Bill 98 amendments to the *Development Charges Act* were adopted which place new limits on the services and costs for which municipalities can levy development charges. These amendments limit the degree to which municipalities can require the internalization of infrastructure costs for new developments. In effect, they require municipalities to subsidize urban sprawl and work against infilling or intensification opportunities.¹⁴⁹
- ⇒ Despite its assertions that air pollution is one of the most serious environmental problems, the Ontario government missed a March 1998 deadline to file a submission with the U.S. Environmental Protection Agency for tougher limits on smog that drifts into the province from the United States. It has been estimated that about half of Southern Ontario's air pollution originates south of the border.¹⁵⁰
- ⇒ The government continues to allow Ontario gasoline to contain the highest sulphur content within Canada. As recent federal government reports show, Canadians "are filling their tanks with gasoline that has the highest average level of smog-causing sulphur among major developed economies." The dirtiest gasoline within Canada is found in Ontario which contains 17 times the average sulphur content allowed in California. While international sulphur levels have been declining in recent years, the amount of this pollutant in Ontario gasoline has been increasing. Adoption of California's sulphur levels would avoid 53 premature deaths a year and save \$281-million annually in health care and other costs. 152
- ⇒ In March 1998, the government backed down on many proposed revisions to the province's standards for air contaminants. The proposals, first released in January 1997, would have set more stringent standards for a number of substances, particularly heavy metals.

In summary, the Ministry of Environment has failed to take adequate action to deal with the province's growing air pollution problems. Furthermore, the few actions that have been taken by the Ministry seem certain to be overwhelmed by the consequences of the activities of other provincial government agencies, such as the Ministries of Municipal Affairs and Housing, and Transportation. In her April 1998 report to the Legislature, the Environment Commissioner provided the following assessment of the likely effectiveness of the province's strategy to reduce air pollution:

MoE's own emissions projections, which factor in future economic growth, show that even if all existing and proposed pollution control activities are carried out over the next 18 years, Ontario's overall air quality is likely to be somewhat worse in 2015 than it is today.¹⁵³



3. Waste Management Sites

Despite a number of serious occurrences over the past year at waste management sites across the province, including the Plastimet Fire and the fire Marshal's subsequent report, the Ministry of Environment has consistently proposed to further weaken its regulatory oversight of these facilities.

- ⇒ In April 1996, the government permitted the *Intervenor Funding Project Act* to expire. This has made it very difficult for local citizens and community groups to participate in the review of proposed waste disposal facilities.¹⁵⁴ The government ignored the recommendations of MoE staff that the *Act* should not be allowed to expire as it had improved the decision making process for environmental assessments.¹⁵⁵
- ⇒ In October 1997, the MoE proposed to widen the exemption from waste management regulations for:
 - the 'recycling' of PVC wire coatings which, according to the Ministry's own staff, contain lead and cadmium and should be regulated as a hazardous waste,
 - photochemical processing wastes, and
 - the handling and use of waste acid (known as 'pickle' liquor) from steel making operations in sewage treatment plants.¹⁵⁶
- ⇒ In June 1997, the government enacted Bill 57, the *Environmental Approvals Process Improvement Act* which, among other things, dissolved the Environmental Compensation Corporation. This agency was created through the 1979 Spills Bill to assist innocent victims of spills in obtaining compensation.¹⁵⁷ Victims will now be required to initiate their own claims and legal actions against responsible parties. This will be "time-consuming and costly for individuals and families [and], in those circumstances where the responsible parties are bankrupt, it is probable that spill victims will not be compensated."¹⁵⁸
- ⇒ Bill 57 also amended the *Environmental Protection Act* and *Ontario Water Resources Act*. Broad powers were given to the Minister to exempt matters from these Acts regardless of their environmental significance. As well, the amendments purport to prohibit legal action against the Crown by anyone adversely affected by such exempted activities. ¹⁵⁹
- ⇒ In September 1997, the MoEE approved a 1.9 million cubic metre, 20 year expansion of the province's only hazardous waste landfill without a public hearing before the Environmental Assessment Board (Laidlaw Waste Environmental Services Inc, September 1997). The facility is permitted to accept all types of hazardous wastes except PCB's, pathological wastes, explosive manufacturing wastes and reactive wastes. ¹⁶⁰
- ⇒ In November 1997, the MoE proposed to put a wide range of waste management activities, including hazardous waste transfer stations, PCB handling, and municipal waste transfer stations and processing facilities under standardized approvals. This means that these



activities would no longer undergo an up-front review by MoE staff to ensure compliance with environmental standards. 161

- ⇒ In November 1997, the MoE made a proposal to weaken the regulatory requirements that industrial, commercial and institutional waste generators develop waste reduction plans to reduce the amount of waste they generate.¹⁶²
- ⇒ In November 1997, the MoE proposed to expand the 'recycling' exemptions within the waste management regulations for both hazardous and municipal wastes, despite the Ontario Fire Marshal's Plastimet recommendations. ¹⁶³
- ⇒ The government passed Bill 76 in December 1996 to amend the *Environmental Assessment Act*. New provisions now make it possible for proponents to seek approvals for new or expanded waste disposal sites without demonstrating need or examining the availability of alternative ways of dealing with the waste. ¹⁶⁴ Bill 76 also gave the Minister of the Environment the power to place strict time frames on the environmental assessment process, thus hampering citizen involvement, and provides for increased Ministerial discretion over whether, when, and how the *Act* will apply.
- ⇒ In November 1997, the MoE approved the use of a scrap metal smelting furnace as the province's only permanent facility for the destruction of low level PCB's. The approval was given despite the availability of proven, non-incineration PCB destruction technologies which had been developed in Ontario.¹⁶⁵
- ⇒ In March 1998, the MoE admitted that the province will fail to meet its 50% municipal waste diversion goal which was set in 1987 and failed to provide any plan as to how it would address this failure. The province terminated funding for municipal recycling programs in 1995¹⁶⁷ and has failed to establish an alternative funding arrangement to date.
- ⇒ In April 1998, the Ministry of Environment rejected a request for a review of the province's laws, regulations and policies related to the management of hazardous wastes. The request had been filed under the *Environmental Bill of Rights* by the Canadian Institute for Environmental Law and Policy as a follow-up to a report on hazardous waste management in the province published in February 1998. The report had identified serious gaps in the regulatory framework for the management of these wastes, resulting in significant potential threats to the public safety, public health and the environment.
- ⇒ To date, the government has failed to take any action on the recommendations made by the Office of the Fire Marshal to strengthen the regulation of waste recycling and handling sites.



- ⇒ To date, the government has failed to provide a redefinition of 'waste' in order to deal with a loophole created by the June 1996 Philip decision (Proposed revised definition posted on EBR Registry). 170
- ⇒ There has been a 30% reduction in the waste management branch staff since the 1994-1995 fiscal year. 171

4. Ontario Hydro

The operations of Ontario Hydro have been another area where the government has failed to respond effectively to the evidence of serious problems.

- ⇒ In May 1997, the Minister of Environment and Energy responded to the findings that there had been unreported discharges of approximately 1,800 tonnes of metals from Hydro facilities over period of twenty years with a statement that such discharges were not harmful.¹⁷²
- ⇒ In August 1997, Ontario Hydro's Board of Director's approved the Nuclear Asset Optimization Plan (NAOP). Despite clear evidence that the plan's implementation would result in significant increases in acid rain, smog precursors, air toxics and greenhouse gases, ¹⁷³ the government failed to exercise powers available to it under the Power Corporation Act to require Ontario Hydro to consider and address this problem. Ontario Hydro itself "is predicting that its fossil fuel emissions of several air pollutants will rise by about 70 percent between 1996 and 1998." ¹⁷⁴
- ⇒ allowed Ontario Hydro to sign an option to purchase electricity from an American company which is the largest single U.S. utility source of sulphur dioxide emissions along the Eastern Canadian border. If this option is exercised, the sulphur dioxide emissions of American Electric Power Co. Inc. would rise significantly. Given that the prevailing winds blow the pollutants into Ontario, they will contribute to Ontario's acid rain problem.¹⁷⁵ The purchase appears to be intended to circumvent the limitations on sulphur dioxide and nitrogen oxide emissions from Hydro's facilities established under the province's acid rain regulations (Regulation 355).
- ⇒ In January 1998, the government rejected a request under the Environmental Bill of Rights that it establish caps on the emissions of heavy metals and particulates from Ontario Hydro's fossil fuel powered generating stations. The request was made in the context of both the government's commitment under the July 1994 Canada-Ontario Agreement respecting the Great Lakes Ecosystem to reduce the use, generation and release of mercury (a heavy metal) by 90% by the year 2000, and an anticipated 70% increase in emissions in 1998 due to an increased reliance on fossil fuel generating power under the NAOP. 176



- ⇒ In March 1998, the Minister of Environment rejected a request by the Town of Pickering, Durham Nuclear Awareness and concerned residents for an environmental assessment under the *Environmental Assessment Act* of the operation of the Pickering nuclear power station. 18,000 Pickering residents had voted for an assessment in the November 1997 municipal election. 177
- ⇒ despite Ontario Hydro's own report which provides evidence of adverse effects, the MoE decided not to lay charges against Ontario Hydro for violations of Ontario's environmental laws because of a "lack of evidence to identify an adverse effect." 178
- ⇒ The government has, to date, failed to act on recommendations made by the Select Committee regarding nuclear safety¹⁷⁹, the identification of environmental impacts of the NAOP¹⁸⁰, the evaluation of access to existing generation sources which create less emissions¹⁸¹, the promotion of cost effective energy efficiency conservation¹⁸², ensuring strengthened oversight of Ontario Hydro by Ministers of Finance, Environment and Energy Science and Technology¹⁸³, improving emergency preparedness¹⁸⁴ and fire prevention and response.¹⁸⁵
- ⇒ The government has consistently failed to make a commitment that it will ensure that introduction of competition in the electricity supply sector will not result in increased emissions of smog and acid rain precursors, air toxics and greenhouse gases associated with electricity generation and supply for Ontario. This is despite estimates by Natural Resources Canada and others that the introduction of competition without new regulatory measures will result in increases of emissions of these pollutants. Instead the government has consistently stated that existing regulations will continue to apply. However, these only apply to Ontario Hydro facilities, not facilities operated by new suppliers inside or outside of Ontario. 186

5. Conclusions

In each of these areas: acid rain, smog, waste management and the operations of Ontario Hydro, the provincial government has failed, and continues to fail to take action which would effectively address these pressing problems. In fact, in many cases the government has taken actions that will likely exacerbate, rather than alleviate, these concerns.

By continuing to cut funding for programs and monitoring, as well as by severely weakening the regulatory framework, the government has undermined its own capacity to deal with environmental problems. In our view, this constitutes an abandonment of the duty and obligation of the provincial government to protect public goods, such as public safety, public health and the environment.

A.W.

IV. A CALL TO ACTION

Within this document we have presented what is, in our view, overwhelming evidence of the environmental problems and threats currently faced by Ontarians. In many cases there is strong evidence that these problems are already having direct impacts on human health, and that these effects may worsen in the future.

Despite this evidence, the government of Ontario has consistently failed to take action to address the threats to the health and well-being of Ontario residents. In the few cases where the government has acted, its efforts have been hopelessly inadequate. More commonly, the government has undertaken initiatives that seem almost certain to deepen the environmental challenges facing the province.

This pattern of behaviour must change. The health and well-being of present and future generations of Ontarians can only be protected through decisive and consistent action by their provincial government.

The preamble of the *Environmental Bill of Rights* states that the people of Ontario recognize the inherent value of the natural environment and that they have a right to a healthful environment. The preamble also states that the government has the primary responsibility for protecting our environment. The provincial government accordingly has a duty to its citizens to act and must do so immediately before further environmental damage is done.

Accordingly, we are reasserting the challenge which we issued last year and call upon the government of Ontario to:

- 1. ensure that Ontario is able to fulfill its intergovernmental environmental commitments and that it does not undermine Canada's international commitments:
- 2. provide detailed annual state of the environment reports to Ontarians; and
- 3. provide for the effective enforcement of Ontario's laws which protect the environment and the health and safety of its residents.

We continue to regard these steps as being essential to demonstrating the government's commitment to the protection of the environment and health of present and future generations of Ontarians.



Furthermore, we are calling upon the government of Ontario to respond to the evidence of harm to the health and environment of Ontarians that has been presented within this report. Specifically in areas of smog, acid rain, waste management and the operations of Ontario Hydro, we ask that the government undertake the following immediate measures:

Smog and Air Toxics

- 1. Commit to the rapid modernization of the province's standards for toxic air pollutants. The standards should be based on what is necessary to protect the health and environment of Ontarians.
- 2. Commit to revising the Provincial Policy Statement and the Planning Act to curb urban sprawl and promote the use of public transit and other less polluting forms of transportation.
- 3. Commit to terminate the land transfer tax rebate program.
- 4. Commit to reallocate subsidies for road and highway construction to public transit.
- 5. Commit to not proceed with the introduction of competition in the electricity sector until measures are in place to ensure there will be: 1) no increase and 2) significant decreases over time in emissions of smog precursors (such as NOx and particulates) and air toxics (such as mercury and arsenic) associated with electricity generation and supply in Ontario.
- 6. Commit to restore and upgrade the province's air quality monitoring network.
- 7. Commit to incorporate the province's new PM10 standard into all new Certificates of Approval for air emissions, and to establish a schedule for its incorporation into existing Certificates.



Acid Rain

- 1. Commit to review the adequacy of the 1986 Countdown Acid Rain Program emission limits, and to establish a schedule to lower emission caps under the program by 75%, as recommended by the NAICC Acidifying Emissions Task Group.
- 2. Commit not to proceed with introduction of competition in the electricity sector until measures are in place to ensure there will be: 1) no increase and 2) significant decreases over time in emissions of acid rain precursors (SOx and NOx) associated with electricity generation and supply in Ontario.
- 3. Commit to restore the province's science and monitoring capacity with respect to acid rain impacts.
- 4. Commit to the implementation of the IJC's recommendation of a standard of 30PPM for sulphur content of gasoline.¹⁸⁷
- 5. Make a commitment to continued funding for the Forest Health Survey which provides critical data on the health of Ontario's forests.

Waste Management Sites

- 1. Implement the recommendations of the Office of the Fire Marshal to strengthen the regulation of 'recycling' and other waste handling sites.
- 2. Implement a revised definition of waste to ensure that 'recycling' activities are adequately regulated.
- 3. Provide a commitment as to when the goal of 50% diversion of municipal waste from disposal (based on a 1987 base year) will be met, and what measures the province will take to meet the goal.
- 4. Commit to reinstating a permanent intervenor funding program in order that bona fide public interest intervenors are more able to participate in environmental assessment board hearings.
- 5. Commit to apply requirements to consider need and alternatives in the terms of reference for all environmental assessments of new or significantly expanded waste disposal sites.



Ontario Hydro

- 1. Make a commitment to **not** proceed with introduction of competition in the electricity sector until measures are in place to ensure there will be no 1) increase and 2) significant decreases over time in emissions of acid rain and smog precursors, air toxics and particulates associated with electricity generation and supply in Ontario.
- 2. Carry through on Select Committee recommendations regarding nuclear safety, identification of environmental impacts of the NAOP, evaluation of access to existing generation sources which create less emissions, promotion of cost effective energy efficiency conservation, ensure strengthened oversight of Ontario Hydro by Ministers of Finance, Environment and Energy Science and Technology, improve emergency preparedness, and fire prevention and response.
- 3. Commit to ensuring that during transition and NAOP implementation phases that emissions from all sources of electricity (including those outside of Ontario) used to supply electricity to Ontario do not, in the aggregate, exceed existing regulatory limits which apply to Ontario Hydro for SOx and NOx emissions. Should seek to avoid increases over existing actual emission levels, and reduce total emissions of all pollutants, including greenhouse gases and air toxics where possible.
- 4. Carry through on the recommendations made in the Brass Condensers report to require the establishment of water monitoring programs at all nuclear facilities, the establishment of clear accountabilities and public disclosure.

We believe that the adoption of these measures would be essential first steps in ensuring the protection of the health and environment of present and future generations of Ontarians.

APPENDIX I



CHRONOLOGY OF PHYSICAL EVIDENCE: EVENTS FROM MARCH 1997 - APRIL 1998

MARCH, 1997

- more than 300,000 litres of toxic liquids seep from an old industrial chemical dump into Cataraqui river which flows through Kingston (Toronto Star, March 15, 1997)
- two malls in Ajax are closed and 33 people are taken to hospital after strong gas smells detected (Globe and Mail, March 27, 1997)
- Environment Minister writes to the U.S. Environmental Protection Agency, urging the adoption of tougher standards than those it is considering for ground-level ozone and particulates, despite the fact that Ontario has yet to adopt standards for particulates (Martin Mittelstaedt, "U.S. asked to toughen pollution rules", Globe and Mail, March 12, 1997)

APRIL, 1997

- the 1996 Annual Report of the Environmental Commissioner of Ontario is submitted to the Legislative Assembly and is highly critical of the government's environmental performance (Keep the Doors Open to Better Environmental Decision Making: 1996 Annual Report of the Environmental Commissioner of Ontario)
- Environment Canada reports ozone level in areas of northern Arctic was the lowest ever recorded for the month of March (Robert Matas, "Ozone level hits new low", Globe and Mail, April 8, 1997)
- 30% of lakes tested in Central Ontario contain fish with mercury levels high enough to cause reproductive impairment in the loons feeding on them; concentration of mercury in loons rises from west to east across continent and closely matches air-pollution patterns; major sources of mercury are coal-fired power plants and incinerators; mercury does not break down in the environment, but rather continues to circulate and accumulate in the tissues of living things (Martin Mittelstaedt, "Loons' future threatened by mercury", Globe and Mail, April 8, 1997)



JUNE, 1997

- an expert advisory panel is established after press reveals that over the past 25 years 1,813 tonnes of metals predominately copper and zinc have been released into Lake Ontario as a result of corrosion of the brass condenser cooling water systems used in Ontario Hydro nuclear and fossil fuel generating facilities (Report on Evaluation of Emissions From Ontario Hydro Admiralty Brass Condensers to the Great Lakes)
- federal Atmospheric Environment Service scientists claim much larger reductions in industrial emissions of sulphur dioxide are necessary to stop acid rain from further damaging the environment in the next century (Globe and Mail, June 11, 1997)
- fish in Lake Huron near Bruce nuclear plant are nine times more radioactive than fish in Lake Ontario and levels have grown worse in the past two years; fish caught near Darlington nuclear station on Lake Ontario have an average of 12 Bq per litre, but fish near the older Bruce station average 112 Bq per litre in 1996; two years earlier, fish from the same spot near the Bruce station averaged 84 Bq a litre; Hydro's environmental sampling also showed somewhat elevated levels of radioactivity in drinking water, fruits and vegetables (Tom Spears, "Fish near Bruce plant glow with distinction", Toronto Star, June 21, 1997)

JULY, 1997

- a report released by North American Commission on Environmental Co-operation ranks Ontario as third highest source of toxic pollutants (*Taking Stock: North American Pollutant Releases and Transfers 1994*)
- a report to Ontario Hydro Board of Directors prepared by American nuclear industry experts severely criticizes management of Hydro's nuclear division (Report to Management: IIPA/SSFI Evaluation Findings and Recommendations)
- a report indicates that even with full implementation of U.S. Acid Rain Program a large land mass will still receive excessive acid deposition (1996 Annual Report on the Federal-Provincial Agreements for the Eastern Canada Acid Rain Program)
- a massive fire occurs at Plastimet plastics recycling operation in Hamilton. The fire burned for four days and released a significant amount of toxic chemicals into the surrounding community
- a survey conducted by Hamilton newspaper reports that of 105 responses, 70% said they had asthma or another respiratory illness (Spectator, July 25, 1997)
- scientists at a symposium on 'endocrine disrupters' (sponsored by EPA) warn that man-made chemicals may be wreaking havoc on human and wildlife hormones, causing increased prostate or breast cancers and spawning deformed frogs/alligators with stunted penises; is a serious problem in the Great Lakes region where 17 million pounds of hormone-mimicking chemicals are released annually (Agence France Presse English, July 15, 1997)
- Bruce nuclear plant is shut down due to heavy water leak (Star, August 16, 1997)



• the third air-quality advisory of the summer ends on July 15 after two days (Chad Skelton, "Ontario's air-quality alert expected to end today", Globe and Mail, July 15, 1997)

AUGUST, 1997

- a report by International Cooperative Programme on Assessment and Monitoring of Acidification of Rivers and Lakes (established under UN/Economic Commission for Europe Convention on Long-Range Transportation of Air Pollution) finds either no sign of water quality recovery or a further increase in acidification of lakes despite declining sulphur concentration (The Nine Year Report: Acidification of Surface Water in Europe and North America - Long-term Developments [1980s and 1990s])
- a report prepared by Office of the Ontario Fire Marshal in aftermath of Plastimet fire calls for action by the provincial government to prevent further fires (*Protecting the Public and the Environment by Improving Fire Safety at Ontario's Recycling and Waste Handling Facilities*)
- contaminated soil (polycyclic aromatic hydrocarbons) is found in Hamilton park; high exposure risk if surface is disturbed (Toronto Star, August 2, 1997)
- approximately 22 million litres of untreated sewage spill into East Don River due to a series of electrical failures at a pumping station on August 15; bacteria levels at the mouth of the Don and near Toronto's main water-intake pipe are 3 to 6 times the acceptable levels for swimming; coalition of community groups demand province begin probe into reasons behind spill and uses EBR to launch formal investigation; coalition argues sewage expansion in York Region will encourage urban sprawl in rural areas and turn Toronto in the sewer system for the greater Toronto area; was at least the sixth York Region spill of raw sewage into rivers since April, 1994 (Richard Mackie, "City may become toilet, environmentalists warn", Globe and Mail, January 22, 1998)
- 3,000 litres of industrial lubricant solution is dumped into the water supply in Guelph and 50,000 people are warned not to use water (Jeff Gray, "Industrial spill sparks fears about Guelph's water supply", Toronto Star, August 29, 1997)

SEPTEMBER, 1997

a report by North American Commission for Environmental Cooperation provides clear evidence
that long-range persistent air pollutants represent significant threat to human health and
environment and calls for significant emission reductions (Continental Pollutant Pathways: An
Agenda for Cooperation to Address Long-Range Transport of Air Pollution in North America)

OCTOBER, 1997

• a report by the North American Commission for Environmental Cooperation indicates the existence of two cross border pollution 'rivers' of ground-level ozone (Long-Range Transport of Ground Level Ozone and its Precursors)



- a report submitted to National Air Issues Coordinating Committee by the Acidifying Emissions
 Task Group concludes acid rain is still a serious threat and that, despite full implementation of
 current Canadian and U.S. programs, almost 800,000 sq.kms will continue to receive harmful
 levels of acid rain; calls for increased emission reductions (*Towards a National Acid Rain Strategy*)
- the annual report by the Office of the Provincial Auditor indicates significant lack of compliance by MoEE with its own waste reduction goals and problems in the area of environmental assessment (1997 Annual Report of the Provincial Auditor of Ontario to the Legislative Assembly)
- a report prepared by the International Joint Commission in response to a request by the governments of Canada and the United States for proposals on how the IJC might best assist these parties in meeting the environmental challenges of the 21st century shows that air pollution probably will persist and could worsen in the next century (The IJC and the 21st Century)
- a scientific report made to International Joint Commission reveals that dioxin, the most deadly toxic chemical, may have started killing lake trout in the Great Lakes more than 50 years ago; levels 2.5 times higher than the amount considered deadly for lake trout eggs and embryos were discovered in core samples drilled from the bottom of Lake Ontario. For years the IJC has urged governments to clean up toxic chemicals in the lakes. Despite this, Environment Canada will cut a further 200 jobs in addition to the 1,400 lost over the past three years. (Brian McAndrew, "Dioxin blamed for killing trout in lakes", Toronto Star, October 25, 1997)

NOVEMBER, 1997

• a report by Environment Canada assesses the significant impacts of climate change and strategies for adaptation (*The Canada Country Study: Climate Impacts and Adaptation, Ontario Region Executive Summary*)

DECEMBER, 1997

- a report prepared by the Select Committee on Ontario Hydro reveals that the historical failure to properly manage Ontario Hydro's nuclear plants is unacceptable. (Report of the Select Committee on Ontario Hydro Nuclear Affairs)
- a tire fire in Brantford on December 2 consumes about 7,000 tires and leaves film of black particles over the surrounding area; owner of site is ordered to remove debris by December 10 but as of Dec. 17 cleanup had not be done; in mid-October, the Ministry had issued an order requiring the company to reduce the number of tires on site to under 5,000 by December 15; on December 16, 12,700 tires were still on site ("Tire yard a mess weeks after fire", Globe and Mail, December 17, 1997)



JANUARY, 1998

- a report released by Institute for Environmental Studies, University of Toronto and Pollution Probe indicates pollution emissions from coal-fired electric stations are at levels which threaten human health (Emissions for Coal-Fired Electric Stations: Environmental Health Effects and Reduction Options)
- a report by air-pollution watchdog for northeastern states expresses concern regarding health and environmental implications of deregulation in electric power sector (Air Pollution Impacts of Increased Deregulation in the Electric Power Industry: An Initial Analysis, Northeast States for Coordinated Air Use Management)

FEBRUARY, 1998

- a report by the Canadian Institute for Environmental Law and Policy reveals Ontario lacks essential information and legal framework to adequately address hazardous wastes (Hazardous Waste Management in Ontario: A Report and Recommendations)
- a report by International Joint Commission concludes 14 dams along Canada-U.S. border may not be safe due to inadequate inspection; Canada found mostly to blame due to failure to conduct safety inspections; IJC demands response from Canadian and U.S. governments by June 1 (Unsafe Dams? A Report by the IJC)
- a report by the Northeast States for Coordinated Air Use Management (NESCAUM) reveals elevated rates of mercury in waters in northeastern U.S. and eastern Canada and expresses concern about potential public health and environmental impacts (Atmospheric Mercury Emissions in the Northeastern States)
- figures released by Environment Minister show Ontario is far from meeting its commitment to cut waste going to landfill sites in half by 2000; province currently diverts only 32% of its waste after 8 years of garbage-reduction programs, and it has less than two years to reach its goal of 50% (Martin Mittelstaedt, "Ontario likely to miss waste-reduction target", Globe and Mail, February 20, 1998)
- the Divisional Court of Ontario declares three Northern Ontario timber-management plans "of
 no force and effect" because government failed to follow provincial laws designed to sustain
 forests; province is given 12 months to comply with the law by making the Elk Lake, Upper
 Spanish and Temagami plans conform with requirements of the Crown Forest Sustainability Act
 (Thomas Claridge, "Activists win Temagami battle, Globe and Mail, February 7, 1998)
- Hydro chairman William Farlinger makes an unprecedented appearance before Atomic Energy Control Board in Ottawa to explain why utility missed a filing deadline which would have required it to file information explaining how it intends to improve operations at its Bruce B nuclear plant (Globe and Mail, February 19, 1998)



33,000 buried tired are leaching toxic chemicals into ground water in Georgian Bay-area site
which is 50 kms southeast of Owen Sound; neighbours sue the province (Toronto Star,
February 28, 1998)

MARCH, 1998

- Federal government reports show Canadian gasoline contains substantially higher average levels of smog-causing sulphur than Europe and Japan; level has been increasing over recent years; Ontario's gasoline is the dirtiest and contains 17 times the average sulphur content allowed in California; highest sulphate level in Canada is found in Toronto; adoption of California's sulphur levels would avoid 53 premature deaths a year and save \$281 million annually in health care (Martin Mittelstaedt, "Canadian gasoline fuels smog, federal study says", Globe and Mail, March 7, 1998)
- the Ontario Ministry of Environment's assessment of the Commission for Environmental Cooperation report which ranks Ontario as the third-worst polluter fails to uncover any errors (Martin Mittelstaedt, "Ontario stuck with rank as top polluter", Globe and Mail, March 11, 1998)
- the Ontario government misses deadline to lobby the U.S. Environmental Protection Agency for tougher limits on smog that drifts into the province from the U.S.; federal government complies with deadline, but submits an incomplete report; both Sierra Legal Defence Fund and City of Toronto file full responses (Martin Mittelstaedt, "Ontario silent, Ottawa slow on smog question", Globe and Mail, March 13, 1998)
- Ontario Hydro plans to mothball two nuclear reactors at the Bruce A nuclear station by the end
 of March; possibly to remain out of service until 2003 (James Rusk, "Bruce A nuclear station
 fails to win reprieve", Globe and Mail, March 18, 1998)

APRIL, 1998

- The Ministry of Environment announces that Ontario's program to test cars for smog causing emissions, which was to begin this year, will be delayed until next spring (Globe and Mail, April 17, 1998)
- a mine site near Deloro, about 50 km northeast of Peterborough, was used as a disposal site
 for uranium waste from the U.S. government's crash program to build the first atomic bomb.
 Canadian radioactive waste from Eldorado Nuclear in Port Hope, was shipped there and for 50
 years the site was the home to an insecticide manufacturing firm which left tonnes of poisonous
 arsenic. Estimates by some ministry officials peg high-end remediation measures in the
 hundreds of millions of dollars. (Toronto Star, April 20, 1998)
- A leak of radioactive water was reported at the Darlington nuclear plant in a unit shut down for maintenance. Hydro officials said the leak which was noticed around 5 p.m., was immediately contained and was no threat to nearby residents (Toronto Star, April 25, 1998)



- a massive tire fire started April 27 in the hamlet of Thomasburg, northeast of Belleville.
 Investigators from the environment ministry and the local health unit are probing possible contamination from the runoff of thousands of litres of water used to extinguish the 1,000 burning tires (Globe and Mail, April 28, 1998)
- Environmental Commissioner of Ontario, Eva Ligeti, releases the 1997 Annual Report, "Open Doors Ontario's Environmental Bill of Rights". She says the ministry's smog-fighting plan is flawed because it contains few details about how to reduce air-pollution by a target date of 2010 (Toronto Star, April 30, 1998)

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        Ibid., p.6.
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        Ibid., p.5.
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        Ibid., p.20.
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        Ibid., p.17.
        This Act provided funding to individuals and groups to participate in the environmental assessment process. No
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