

Ontario's Environment and the "Common Sense Revolution"



A Third Year Report

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Ontario's Environment and the "Common Sense Revolution"

A Third Year Report

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June 1998

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The authors assume responsibility for the views expressed in this paper and responsibility for any inaccuracies or misconceptions that may arise.

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Introduction

This is the Third Annual Report prepared by the Canadian Institute for Environmental Law and Policy (CIELAP) on the changes to Ontario's environmental laws, policies and institutions that have taken place since the election of the current provincial government on June 8, 1995. The government was elected on the basis of a platform entitled the 'Common Sense Revolution.'

The Government of Ontario's environmental policies over the past three years have been structured around three core themes:

- regulatory "reform" in the guise of sweeping amendments to virtually every statute in the province dealing with environmental protection or natural resources management;
- enormous reductions in the budgets, and consequently, human resources of provincial and local agencies charged with the protection of the province's environment and natural resources; and
- an extensive restructuring of roles and responsibilities between the province, municipal governments, and the private sector.

There have been major developments in each of these areas over the past year.

Regulatory ' Reform '

During the government's first two years in office, major amendments were made to every significant provincial statute related to environmental protection or natural resources management, with the exceptions of the *Environmental Bill of Rights* and the *Power Corporation Act*. These typically weakened environmental protection requirements, expanded ministerial and cabinet discretion in decision-making, reduced or eliminated opportunities for public participation in decision-making and structures for government accountability, established self-regulation systems for a wide range of industries and activities which have major impacts on the environment, and insulated the government from lawsuits arising out of damages resulting from the government's removal of environmental protection requirements.

The pace of legislative change has slowed significantly in the government's third year. This is partially as a result of the fact that many of the province's environmental and natural resources statutes have now been amended to grant the cabinet or, in some cases, individual ministers, virtually unlimited authority to act through regulations.

However, the past year has seen a number of significant new legislative initiatives. These have included the enactment of Bill 92, the *Development Charges*

Act, and Bill 146, the *Farming and Food Production Protection Act*. Bill 92 limits the degree to which municipalities can require developers to internalize the costs of the infrastructure to serve new developments. This effectively requires municipal governments to subsidize urban sprawl. Bill 146 provides a mechanism through which municipal-by laws intended to control environmental nuisances arising from 'normal' farm operations can be overturned in response to complaints by farmers.

In addition, the government has proposed extensive changes to the *Municipal Act*, and to amend the *Power Corporation Act* to introduce competition into the province's electricity market. Both of these initiatives have the potential to have significant negative environmental impacts. The introduction of competition into the electricity sector, for example, is almost certain to result in major increases in air pollution, unless specific measures to control emissions from new sources of supply are adopted.¹

The Ministry of the Environment has also put forward proposals to significantly weaken the regulations under MISA industrial water pollution control program. The Ministry has re-iterated its intention, most recently in June 1998, to proceed with proposals to weaken its regulations controlling waste management, including the handling of hazardous wastes, as well.

The impact of the government's earlier changes to environmental legislation has become increasingly apparent over the past year. This has been especially clear in the areas of approvals for waste management facilities. A number of major undertakings have been approved without hearings before the Environmental Assessment Board, and the scope of hearings for others have been significantly limited. The province has also approved a number of major water takings over the year. The most controversial of these involved the taking of water from Lake Superior for the purposes of export to Asia.²

Budgetary and Personnel Reductions

The fall of 1995 and spring of 1996 were marked by a series of announcements regarding reductions in the budgets of Ontario government agencies and in transfer payments from the province to municipalities and other agencies. The Ministries of Natural Resources and of Environment were particularly heavily affected by these reductions (for the impact of budgetary reductions on these and other ministries, see also Appendix A).

The government's May 1998 budget indicates that, by the end of the 1998/99 fiscal year, the Ministry of Environment and Energy will have lost 45% of its operating budget and 81% of its capital budget, as measured against its actual budget for the 1994/95 year. These losses are outlined in Tables i,ii and Figures i(a), i(b). Figures provided by the Ministry indicate that staffing levels have fallen from 2208 to 1494 over the same period (see Appendix A).

Table i : Operating Expenditures - Select Ministries 1993/94 to 1997/98 (in millions \$)

Ministry	1993/94	1994/95	1995/96	1996/97	interim 1997/98	plan 1998/99	Change: 94/95 to 98/99%
Agriculture, Food & Rural Affairs	\$474	\$409	\$420	\$374	\$449	\$340	-17
Citizenship, Culture & Recreation	\$370	\$408	\$363	\$302	\$287	\$307	-25
Community & Social Services	\$9,165	\$9,364	\$8,816	\$7,965	\$8,010	\$7,848	-16
Consumer & Commercial Rel.	\$175	\$150	\$140	\$123	\$100	\$133	-11
Economic Dev't, Trade & Tour.	\$416	\$463	\$385	\$245	\$237	\$170	-63
Energy, Science and Technology	na	\$14	\$13	11	3	\$161	1,050
Environment	\$390	\$258	\$226	\$146	\$158	\$143	-45
Health	\$17,375	\$17,599	\$17,607	\$17,760	\$18,340	\$18,682	6
Native Affairs Secretariat	\$14	\$16	\$16	\$17	\$10	\$9	-44
Natural Resources	\$502	\$478	\$519	\$417	\$429	\$388	-19
Northern Development & Mines	\$83	\$54	\$66	\$52	\$55	\$100	85
Transportation	\$608	\$598	\$1,054	\$879	\$720	\$499	-17

Source: 1998 Ontario Budget, Budget Papers, May 1998

Table ii : Capital Expenditures - Select Ministries 1993/94 to 1998/99 (in million \$)

Ministry	1993/94	1994/95	1995/96	1996/97	Interim 1997/98	Plan 1998/99	Change 94/95 to 98-99 %
Agriculture, Food & Rural Affairs	\$13	\$12	\$5	\$0	\$1	\$3	-75
Citizenship, Culture & Recr'tion	\$28	\$42	\$29	\$9	\$3	\$5	-88
Community & Social Services	\$77	\$72	\$14	\$116	\$31	\$20	-72
Economic Dev't, Trade & Tour.	\$113	\$117	\$113	\$11	\$3	\$0	-100
Energy, Science & Technology	\$0	\$0	\$0	\$0	\$0	\$45	n/a
Environment	\$162	\$271	\$238	\$225	\$100	\$51	-81
Health	\$309	\$249	\$168	\$175	\$113	\$471	89
Native Affairs Secretariat	\$15	\$17	\$9	\$13	\$11	\$12	-29
Natural Resources	\$95	\$54	\$47	\$33	\$151	\$29	-46
Northern Development & Mines	\$208	\$240	\$163	\$168	\$175	\$179	-25
Transportation	\$1,824	\$1,757	\$1,387	\$1,279	\$1,150	\$849	-52

Source: 1998 Ontario Budget, Budget Papers, May 1998

The operating budget of the Ministry of Natural Resources will have fallen by 19% over the same period, and its capital budget by 45%, as illustrated in Tables i,ii and Figures ii(a), ii(b). The Ministry's staff has declined from a total of 6,639 in 1994/95 to 4,643 in 1997/98,³ a loss of 30% (see Appendix A).

In its 1998 budget, the provincial government stated that it intended to increase spending on environmental matters by \$35 million over the next four years. This is to include \$20 million for land acquisition in the Niagara Escarpment and other sensitive areas, \$10 million to improve fish and wildlife management, and a \$5 million endowment for a foundation to attract contributions for cleaning up the Great Lakes. However, it is important to note that the budget also indicates that the operating and capital budgets of the Ministries of the Environment and of Natural Resources are to fall by more than \$100 million over 1998/99 fiscal year.

Provincial transfers to municipalities for a range of environmentally related activities, including curbside recycling and household hazardous waste collection programs were terminated in the government's first year in office. The provincial government has also indicated its intention to withdraw provincial support for sewer and water infrastructure and public transit operations. However, it has stated that it will provide a series of one-time capital grants for sewer and water infrastructure and public transit services during the transition period. Conservation Authorities, which have traditionally played a major role in the delivery of water resources management and the protection of ecologically significant areas have also lost the bulk of their funding from the province.⁴

The most dramatic evidence of the impact of the budgetary and personnel reductions to provincial agencies is the precipitous decline in their environmental law enforcement activities. This is outlined for the Ministry of the Environment in Table iii and Figure iii. The total fines obtained by the Ministry for 1997 were \$955,860, the lowest figure in the past decade, and less than one third of the total for 1995. Fines fell, in part, as a consequence of the significant reduction in Investigation and Enforcement Branch

Figure i (a)

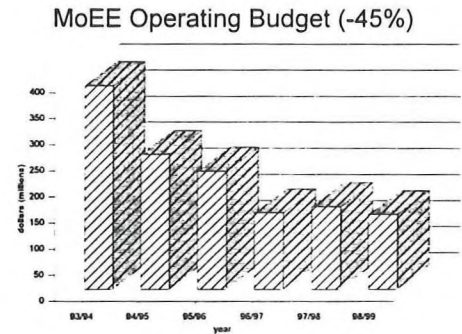


Figure i (b)

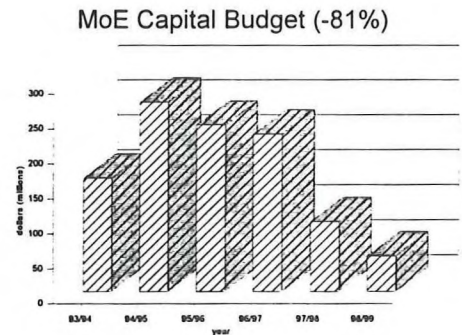


Figure ii (a)

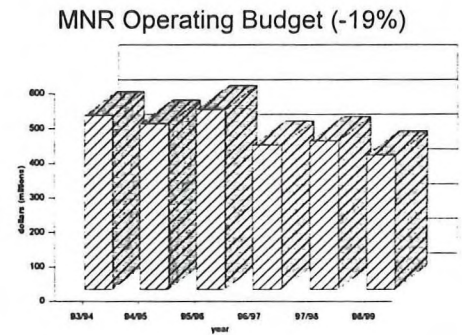
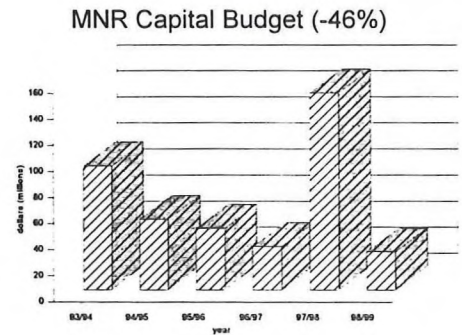


Figure ii (b)



staff (a 28% reduction over the period 1995-1998, See Table v in Appendix A).

There has also been a growing number of incidents that indicate serious gaps in the province's capacity to monitor activities which may threaten the health, safety or environment of Ontarians. The most prominent of these occurrences was the four-day long, July 1997 fire at the Plastimet PVC recycling facility in Hamilton.⁵ The Ontario Court, General Division's February and May 1998 decisions⁶ regarding the Ministry of Natural Resource's compliance with the *Crown Forest Sustainability Act* and the Terms and Conditions of the

Table iii: Ministry of Environment and Energy Enforcement Activities 1995 and 1996

Activity	1995	1996	1997
Total number of Crown Briefs received.	196	143	145
Total number of charges against individuals	615	343	491
Total number of charges against corporate defendants	430	409	463
Total number of convictions against corporate defendants	232	148	215
Total fines against Corporate defendants (<i>in 1000s of dollars</i>)	\$1,845	\$750	\$760
Total number of convictions against individuals	280	189	203
Total fines obtained against individuals (<i>in 1000s of dollars</i>)	\$1,220	\$453	\$195

Class Environmental Assessment of Timber Management on Crown Lands, raised similar questions about the management of the province's natural resources.

Restructuring

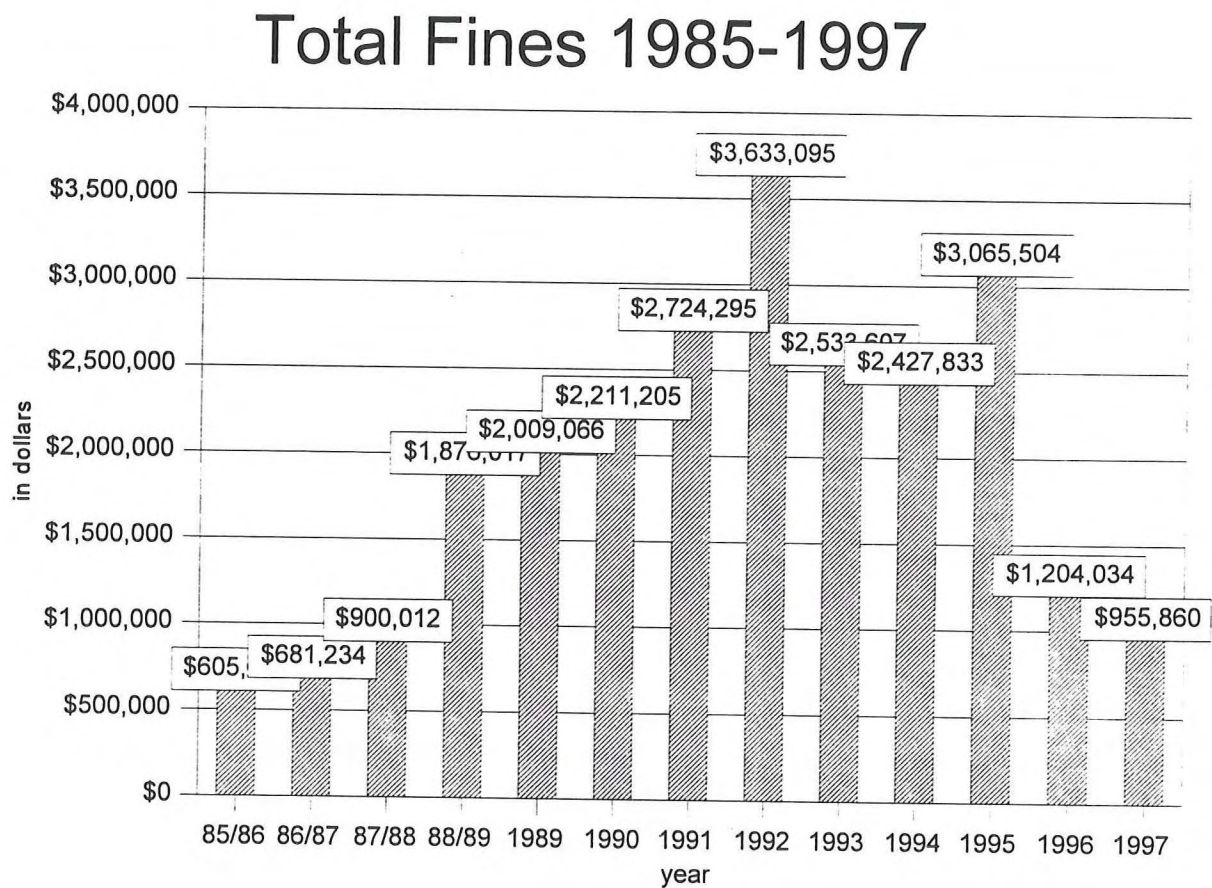
The Provincial/Municipal Relationship

A wide range of provincial responsibilities has been transferred to municipal governments over the three years, including the regulation of septic systems. As noted earlier, the province has also announced the withdrawal of provincial funding for public transit services, and the construction, operation and maintenance of sewer and water infrastructure, curbside recycling and a range of other activities.

The Role of the Private Sector

The past two years have been marked by the transfer, to the private sector, of a wide range of functions previously carried out by the province. These changes have taken a number of different forms. In the case of the Ministry of Natural Resources, self-monitoring and compliance systems have been established for the forestry, aggregates, petroleum, brine, commercial fisheries and fur industries which were previously regulated by the Ministry. Similar arrangements appear to be under consideration regarding the regulation of the closure of mines by the Ministry of Northern Development and Mines.

Figure iii: Total fines recorded by the Ministry of Environment 1985-97.



In the case of the Ministry of Consumer and Corporate Relations, in May 1997 the regulatory functions of the Ministry related to underground storage tanks, boilers, pressure vessels, fuels, elevators, amusement devices, and upholstered furniture were transferred to a private organization called the Technical Standards and Safety Authority (TSSA). The Authority's board of directors is dominated by representatives of the industries it is to regulate.⁷

Serious questions regarding the implications of these transfers have been raised by the Environmental Commissioner,⁸ Provincial Ombudsman⁹ and others. There are particular concerns that, as these functions will no longer be carried out by provincial government agencies, they will escape the application of such statutes as the *Environmental Bill of Rights* and *Freedom of Information and Protection and Privacy Act*, and mechanisms for public and legislative oversight and accountability, such as the Provincial Auditor.

The Evidence of Harm

The past year has been marked by the release of a significant number of reports, from independent and authoritative bodies, highlighting the extent of the environmental challenges facing the province. These included a July 1997 report from the North American Commission on Environmental Cooperation, indicating that the province was the third largest source of releases to the environment and transfers to disposal of pollutants in Canada and the United States.¹⁰ As shown in Table iv, Ontario's releases and transfers of pollutants were exceeded only by those of the states of Texas and Tennessee.

Other reports released over the past year from the Commission on Environmental Cooperation,¹¹ Environmental Commissioner for Ontario,¹² Ontario Medical Association,¹³ International Joint Commission,¹⁴ the Acidifying Emissions Task Group of the National Air Issues Coordinating Committee,¹⁵ the North East States for Coordinated Air Use Management,¹⁶ and the University of Toronto¹⁷ have stressed the province's air pollution problems and their impacts on human health. Serious questions about environmental management and nuclear safety at

Table iv: The Top Twelve Jurisdictions in North American Releases and Transfers by State and Province, 1994 (Matched Chemicals and Industries)

Province/ State	1994 Population	Total Releases and transfers (kg)
Texas	18378000	134570175
Tennessee	5175000	79366746
Ontario	10928000	78803309
Ohio	11102000	73481781
Louisiana	4315000	70018775
Illinois	11752000	69769517
Alabama	4219000	65189966
Pennsylvania	12052000	59436588
Michigan	9496000	56855878
Mississippi	2669000	55278082
Indiana	5752000	53444669
Quebec	7281000	52809233

Ontario Hydro were raised by two independent evaluations of the utility's operations,¹⁸ and by the Select Committee of the Legislature on Ontario Hydro Nuclear Affairs.¹⁹

A report by the Office of the Fire Marshal in the aftermath of the Plastimet PVC fire raised serious questions about the adequacy of the province's regulation of waste 'recycling' and handling sites.²⁰ Similar issues were identified by the Canadian Institute for Environmental Law and Policy in a report on the management of hazardous wastes in Ontario.²¹ The Provincial Auditor, for his part, challenged the effectiveness of the province's municipal waste diversion efforts in his Annual Report to the Legislature.²²

Despite this growing body of evidence, the government of Ontario's actions to improve environmental protection over the past year have been limited to two minor regulatory initiatives. These were the adoption of an 'interim' Acceptable Ambient Air Quality Criteria (AAQC) for PM10 in November 1997,²³ and the imposition of an 'interim' ban on the approval of new waste oil burning space heaters in March 1998.²⁴ The government also continues to state its intention to proceed with proposals to seriously weaken the province's regulatory framework for the management of hazardous wastes.²⁵

Intergovernmental Relations

The enormous reductions in the budgets and resources of the province's environmental and natural resources agencies have had a major impact on the province's ability to fulfil its obligations under agreements with other levels of government.

The Canada-Ontario Agreement on the Great Lakes Basin Ecosystem

In its 1996 *8th Biennial Report on Great Lakes Water Quality*, the International Joint Commission expressed concern over the effects of the Ontario government's actions on the province's ability to fulfil its responsibilities under the 1994 *Canada-Ontario Agreement on the Great Lakes Ecosystem Basin* (COA).²⁶ The Agreement is the primary instrument for the carrying out of Canada's obligations under the Canada-U.S. *Great Lakes Water Quality Agreement*. The Canadian Institute for Environmental Law and Policy will be completing a detail study of the consequences of the 'Common Sense Revolution' for Ontario's ability to fulfil its commitments under the COA agreement later this year.

Fisheries Act Enforcement

One of the most significant developments over the past year was the Ministry of the Natural Resources decision, in September 1997 to terminate its enforcement of the habitat protection provisions of the federal *Fisheries Act*. The Ministry had responsibility for the enforcement of these provisions of the Act under an arrangement with the federal Department of Fisheries and Oceans. The Ministry ended its enforcement efforts on one month's notice, leaving little or no opportunity for alternative arrangements for the enforcement of the Act to be made. Initially four, and later two, federal Fisheries Officers

were left to do the work previously undertaken by over 200 provincial Conservation Officers.²⁷ In a May 1998 report the House of Commons Standing Committee on the Environment and Sustainable Development described the Ontario government's action in this regard as leaving a "huge hole"²⁸ in the protection of fish habitat, such as streams and wetlands, in the province.

Blocking National Initiatives on Acid Rain and Smog

Despite the Government of Ontario's repeated statements that reducing air pollution is its priority environmental issue, the province has taken steps to block a number of major intergovernmental initiatives on the subject. Ontario's representatives played a central role in undermining the consensus on the National Air Issues Coordinating Committee's Acidifying Emissions Task Group in favour of additional action to reduce emissions that cause acid rain.²⁹ Ontario also prevented discussion of the Task Group's report, which indicated that a 75% reduction in permitted levels of acidifying emissions in Eastern Canada was required to halt the continuing damage to water bodies and human health,³⁰ at the November 1997 joint meeting of Canada's federal and provincial energy and environment ministers.³¹

The province has played a similar role in halting the development of a National Smog Management Plan. Efforts towards the development of such a plan were ended in the summer of 1997 when Ontario and British Columbia indicated that they would be unable to prepare and consult on their Regional Smog Management Plans prior to the fall Joint Ministers' Meeting.³²

The Structure of this Report

This report is divided into four parts. The first is this introduction. The second deals with developments over the past year in such cross cutting areas as: environmental approvals and environmental assessment; standard setting and regulatory reform; land-use; and environmental science and monitoring. Part III deals with the specific issue areas of: air quality; water; waste management; energy; pesticides and agriculture; forestry, protected areas and wildlife; fisheries and aquatic ecosystems; non-renewable resources; and transportation. Each chapter includes a brief overview of developments approximately between the period of June 8, 1997 and June 8, 1998, along with a chronological table of events. The final part is a brief overall conclusion, summarizing the key events and their implications for the future of Ontarians and the quality of their environment.

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Review of Initiatives affecting Ontario's Environment (by subject)

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ENVIRONMENTAL APPROVALS & ENVIRONMENTAL ASSESSMENT

Introduction

Changes to the environmental approvals process have been a major focus of the government's regulatory 'reform' initiatives. The impact of changes to legislation, particularly Bill 57, the *Environmental Approvals Process Improvement Act*, passed in June 1997, and Bill 76, the *Environmental Assessment and Consultation Improvement Act*, passed in November 1996, and consequences of budgetary reductions to the Ministry of the Environment have become increasingly evident over the past year. This has been especially true in the area of waste management.

Opportunities for public participation in decision-making have been reduced, both through the discretionary waiving of public hearing requirements, and as a consequence of the expiry of the *Intervenor Funding Project Act*, in April 1996. In addition, the scope of the environmental assessment of a number of major undertakings has been significantly reduced. More broadly, a several controversial approvals, including the granting of a Certificate of Approval for the taking of water from Lake Superior for the purpose of export to Asia, have raised serious questions about the level of scrutiny being applied to approval applications by the Ministry of the Environment.

Concerns regarding the operation of the environmental assessment process were expressed by the Provincial Auditor in his Annual Report, particularly regarding monitoring compliance with terms and conditions of environmental assessment decisions. In addition, in September 1997 the Ministry of Natural Resource was convicted for violating the *Environmental Assessment Act* with respect to the construction of a logging road. Furthermore, a landmark February 1998 Court decision found the Ministry's forest management practices to be out of compliance with the *Crown Forest Sustainability Act* and the Terms and Conditions of the Class Environmental Assessment on Timber Management decision of the Environmental Assessment Board.

Waste Approvals

The past year has seen a number of other controversial approvals in the area of waste management. Among the most prominent was the Ministry of the Environment's September 1997 approval of a 1.9 million cubic meter expansion of Laidlaw Environmental Services hazardous waste landfill in Sarnia with no public hearing under either the *Environmental Protection Act* or the *Environmental Assessment Act*. This was despite concerns raised by members of the public regarding

the proposal.¹ The facility is the only hazardous waste landfill in the province. The expansion is expected to extend its life for another 15-20 years.²

In December 1997, the use of a scrap metal smelting furnace as the province's only permanent low-level PCB destruction facility was approved by the Ministry of the Environment. However, in its decision the Environmental Assessment Board highlighted a number of concerns regarding the undertaking. In particular, the Board questioned why the project had not been designated for review under the *Environmental Assessment Act*, despite its implications for non-incineration PCB destruction technologies. It also noted the inability of members of the public to participate effectively in the process due to the absence of intervenor funding and its expressed concern over the granting of an approval to proponent with no previous experience in handling hazardous wastes.³

The Assessment Board's decision also suggested that the Ministry of the Environment failed to follow through on its own staff's concerns regarding the potential health impacts of the facility.⁴ In her April 1998 report to the Legislature, the Environmental Commissioner highlighted the Ministry of the Environment's failure to post the proposed approval for the facility on *Environmental Bill of Rights* (EBR) registry.⁵

The Ministry of the Environment has also made use of the provisions of the Bill 76 amendments to the *Environmental Assessment Act* to limit the scope of the environmental assessments of individual undertakings. The most prominent example of this kind of action has been with respect to the environmental assessment of the proposed Adams Mine Landfill in Northeastern Ontario. Directions issued by the Minister of the Environment in December 1997 limited the Environmental Assessment Board to hearing evidence on two issues about the site: its hydrogeology and surface water characteristics and leakage containment.⁶ Issues such as consideration of the need for the facility, and the availability of alternatives to it, which would have been required elements of the assessment under the pre-Bill 76 provisions of the *Environmental Assessment Act*, were excluded from the assessment of the proposal.

'Recycling' Sites

Concerns have also been raised regarding the Ministry of the Environment's application of the exemption, contained in Regulation 347, from waste management site approval requirements for 'recycling' facilities.⁷ In particular, the Environmental Commissioner, in her April 1998 Annual Report to the Legislature, questioned the Ministry's exemption of the Plastimet Inc. PVC recycling facility from the requirement to obtain a Certificate of Approval on the basis that it was a 'recycling' facility. In her report, the Commissioner concluded that there was no "realistic market demand" for recycled PVC plastic at the time the approval was granted.⁸

In its report in the aftermath of the July 1997 Plastimet fire, the Office of the Fire Marshal recommended that the province's regulation of 'recycling' and other waste handling facilities be significantly strengthened.⁹ A report on hazardous waste

management in Ontario published by the Canadian Institute for Environmental Law and Policy (CIELAP) also raised serious questions about the Ministry's application of the Regulation 347 exemption for 'recycling' facilities.¹⁰

Despite these concerns, the Ministry of the Environment re-iterated its intention to expand the application of the 'recycling' exemption to hazardous waste handling facilities in November 1997.¹¹ Proposals for amendments to Regulation 347 to do this were posted on the EBR Environmental Registry on June 2, 1998.¹²

Water Approvals

Over the past year there have been approvals granted for a number of very large groundwater takings, particularly for aggregate and mining operations. These are outlined in detail in the "Water" Chapter.

In addition, In early May 1998, it was revealed that the Ministry of the Environment had granted a Certificate of Approval under the *Ontario Water Resources Act* to take up to 10 million litres of water per day from Lake Superior over a period of five years. The firm that obtained the approval indicated that it intended to export the water to drought-stricken areas of Asia.¹³

The approval prompted suggestions that the province had violated the 1909 *Boundary Waters Treaty* Canada and the United States.¹⁴¹⁵ In the resulting controversy, the federal government sought a referral of the issue to the International Joint Commission, and stated that it was opposed to bulk exports of fresh water from Canada.¹⁶ On May 14, the Ontario Minister of the Environment stated that it was his intention to revoke the approval of the water taking and to adopt a new policy against the approval of water takings for bulk export in the future.¹⁷

In addition to highlighting a number of issues related to Canada's international obligations, the incident raised serious questions about the level of scrutiny being applied to proposals by the Ministry of the Environment in its environmental approvals process.

'Standardized' Approvals and Approval Exemptions

The Ministry of the Environment has indicated its intention to proceed with further changes to the approvals process. The Ministry proposed to establish a 'standardized' approval process for a wide range of activities in its July 1996 "Responsive Environmental Protection" and November 1997 "Better, Stronger Clearer Environmental Regulations for Ontario," documents. It also indicated its intention to provide outright exemptions from the approval process for a wide range of activities.

In the case of 'standardized' approvals, a Certificate of Approval would be 'deemed' to exist for facilities which meet conditions outlined in the 'standardized'

approval regulation relevant to the facility in question. The first proposals for Standardized Approval Regulations (SARs) and Approval Exemption Regulations (AERs) were posted on EBR registry in February 1998.¹⁸ The Ministry's specific proposals are outlined in Table 1.

Table 1 - Standardized Approvals and Approval Exemptions Proposed by the MoE (February 1998).

<i>Regulation 347 - Environmental Protection Act (Waste Management)</i>	
SAR Candidates: a) Municipal Waste Transfer/Processing Sites b) Utilization of Sewage BioSolids on Agricultural Land	
<i>Ontario Water Resources Act ss. 34, 52, &53 (Water and Sewage Works)</i>	
SAR Candidates: a) Water and Sewage Work Modifications b) Watermain and Sewers Construction c) Spill Containment and Stormwater Management works at Electrical Transformer Stations d) Water and Sewage Pumping Stations e) Temporary Water Taking from Ground Water	AER (Exemption) Candidates: a) Service Connections b) Appurtenances (e.g. fire hydrants) c) Area Drains. d) Relining Sewer and Water Mains. e) Replacement of watermains and sewers. f) Bottled Water Plants g) Stormwater Management facilities
<i>Environmental Protection Act s. 9 (Air)</i>	
SAR Candidates: a) Modifications resulting in less than 10% change in emissions, provided total emissions are 50% below current permitted levels b) Combustion Equipment for space heating or industrial processes where only emissions are from burning of fuel. c) Emergency Generator Sets d) Sterilizers e) Arc Welding AER (exemption) Candidates: a) Ventilation systems for: non-process areas; drainage systems; indoor emission discharges (i.e. emissions directed back into source building; and warehouses. b) Food Preparation Exhaust Systems c) Air Conditioners d) Mobile Equipment to be used in construction and maintenance activities; duct, carpet or upholstery cleaning; asbestos removal; and crushing stone and screening stone, where the equipment will be below grade in pits or quarries;	e) Washing With Aqueous Detergents; f) Fireplaces and stoves; g) Household Can handling included aerosol cans; h) Area sources: - building and structure construction, alteration, demolition, drilling, blasting, crushing, screening, storage and sandblasting; - dust from roads or parking lots; lagoons, clarifiers, or ponds for the treatment or detention of sewage; - irrigation of farmland with effluent; - MNR prescribed forestry burns; - fire fighting exercises and training; - festivals and special events, including speedway events, concerns, fireworks, fairs, boat races, air shows, etc.; and - snow-making. i) anything used in connection with a building or structure designed for the housing of not more than three families.

The Ministry's proposals gave rise to a number of serious concerns. These include:¹⁹

- the lack of a Ministry strategy to ensure compliance with the requirements of SAR's;
- the loss of public notice of proposed undertakings, as proposed individual SAR approvals would not be posted on the *Environmental Bill of Rights* Environmental Registry;
- the scope, scale and environmental significance of the activities covered by some of the proposed SARs; and
- the legal implications of approvals granted through SAR regulations. In particular, it appears that the granting of an approval through a SAR regulation would provide proponents with a defence of statutory authorization against any civil action taken against them by someone who is harmed by activities conducted under the SAR. This defence is generally not thought to be provided by normal Certificates of Approval issued under the *Environmental Protection Act*.

It should also be noted that as a result of the Crown immunity clause included in Bill 57, individuals whose persons or property were harmed as a result of an activity approved through a SAR or exempted through an AER would potentially face significant difficulties initiating an action against the Ministry of the Environment for 'regulatory negligence.'²⁰

Forestry and Environmental Assessment

The past year saw a number of major legal developments regarding the Ministry of Natural Resources's compliance with the requirements of the *Environmental Assessment Act* in its forest management activities. These developments, including the Ministry's September 1997 conviction under the Act for the construction of a logging road, and the February 1998 Ontario Court decision regarding the Ministry's compliance with the Terms and Conditions of the Class Environmental Assessment for Timber Management on Crown Lands decision and the *Crown Forest Sustainability Act* are described in detail in the "Forestry, Wildlife and Protected Area" chapter.

CHRONOLOGY

May 14/97 A hearing is held in Ontario Divisional Court to determine whether the Minister of Natural Resources Chris Hodgson violated the *Crown Forest Sustainability Act* and the *Environmental Assessment Act*. The dispute arose from allegations made by two organizations, Algonquin Wildlands League and Friends of Temagami, that the Minister exceeded his

- jurisdiction by approving plans and work schedules without providing for the sustainability of Crown forests.
- May 28/97 Regulation 206/97 made (the "Duplicate Hearings" Regulation). Regulation exempts waste management disposal sites from mandatory public hearing requirement prior to approval under the *Environmental Protection Act* if they have been exempted from a public hearing under the *Environmental Assessment Act*.
- Jun 5/97 Bill 57, The *Environmental Approvals Improvement Act* is given royal assent. The Bill provides for:
- the exemption by the Lieutenant-Governor in Council of any person from any provision of the *Environmental Protection Act* or *Ontario Water Resources Act* or any regulation made under those Acts;
 - the dissolution of the Environmental Compensation Corporation;
 - the dissolution of the Ontario Waste Management Corporation and repeal of the *Ontario Waste Management Corporation Act*;
 - the Lieutenant-Governor in Council to prohibit, regulate or control any thing or activity related to the Act;
 - the Lieutenant-Governor in Council to deem a certificate of approval to exist under the *Environmental Protection Act*;
 - the prohibition of any action against the Crown arising out of any exemption from an approval requirement under the *Environmental Protection Act* or *Ontario Water Resources Act*; and
 - an amendment giving the Ministry of the Environment and Energy authority to administer fees to recover administrative costs.
- Jun 27/97 Linda Stevens transferred from position of deputy minister at the Ministry of Environment and Energy to Cabinet Office. The position of Deputy Minister of the Environment remains vacant until October 1997.
- Jul 97 The Ministry of Environment and Energy posts a second draft of a regulation governing timelines for Environmental Assessment Processes on the EBR Registry.
- Sept 13/97 Ministry of Natural Resources submits a plea of guilty with respect to the charges laid against it, under the *Environmental Assessment Act*, for the construction of an access road to Cross Lake and is fined subsequently (in December 1997) \$1200. Specifically, the MNR contravened the Comprehensive Land Use Plan for the Temagami Region by allowing the construction of an access road to Cross Lake. The lake was designated to be motor vehicle access free.
- Nov 25/97 The Provincial Auditor Erik Peters submits his annual report to the Ontario Legislature. The Auditor highlights the lack of monitoring and enforcement with respect to terms and conditions imposed on approvals through the environmental assessment process and suggests that the

process deserves better monitoring.

- Nov 27/97 Ministry of the Environment releases discussion document "Better, Stronger Clearer: Environmental Regulations for Ontario." Proposals related to approvals include:
- removal of public hearing requirements under Environmental Protection Act and Ontario Water Resources Act for 'demonstration' projects.
 - removal of rules of practice regulation of EAB under Environmental Assessment Act (under the *Statutory Powers Procedures Act*, the Board can now make its own rules of procedure).
 - revoking obsolete exemption regulations made under the EAA;
 - delaying proposed removal of EBR notification requirements for certain instruments of little environmental significance;
 - 'simplified' procedures for 'manufacturer controlled networks' for waste approvals;
 - 'Standardized' approvals for a range of waste management related activities including PCB storage and transfer sites;
 - exemptions from waste approval requirements for battery and precious metal bearing sludge recycling activities.
- Dec 4/97 Environmental Assessment Board approves use of scrap metal smelting furnace in Northumberland County to destroy low level PCB's. The facility is the first permanent PCB destruction facility to be approved in Ontario. In its decision the Board expressed concern over the province's failure to designate the undertaking under the *Environmental Assessment Act*, its implications for non-incineration PCB destruction technologies, the inability of public interest intervenors to participate effectively in the hearing due to the lack of intervenor funding, and the operator's lack of previous experience in the handling of hazardous wastes.
- Dec 5/97 Ministry of the Environment centralizes approvals functions by transferring the issuing of all waste-related provision certificates of approval from MoE regional offices to the MoE Approvals Branch.
- Dec/97 The Ministry of Environment announces the scope of the Environmental Assessment Board hearing for the Adams Mine waste disposal proposal. The Board will hear evidence on two issues about the site: its hydrogeology and surface water characteristics and leakage containment.
- Dec 30/97 Decision posted on EBR registry not to proceed with removal of 'minor' approvals for EBR notice requirements, as proposed in the July 1996 "Responsive Environmental Protection" document.
- Feb 1/98 Ministry of the Environment posts proposal for Standardized Approvals Regulations (SARs) and Approval Exemption Regulations (AERs) for a 45 day public comment period. SAR regulated activities would not be

required to obtain a certificate of approval, but would be subject to conditions laid out in the SAR regulation. Exempted activities would not be subject to any approval requirements at all. See Table 1.

- Feb 7/98 The Ontario Divisional Court declares three Northern Ontario timber management plans to be "of no force and effect." The panel who heard the case gave the province 12 months to bring the Elk Lake, Upper Spanish and Temagami plans into compliance with the *Crown Forest Sustainability Act* and Terms and Conditions of the Class Environmental Assessment of Timber Management on Crown Lands. The most contentious actions by the Ministry of Natural Resources included:
- approving work schedules without proof that the forest would managed sustainably;
 - approving plans which lacked any sustainability indicators and frequently allowed for clear-cutting; and
 - timetables for phasing in new standards were arbitrarily extended.
- Apr 29/98 Environmental Commissioner for Ontario tables annual report in the Legislature. In her report the Commissioner expresses concern that polluters may be able to avoid liability in the civil courts under the Ministry of the Environment's proposed 'standardized' approval system if they are sued under the common law causes of action such as negligence, nuisance and trespass, or the public nuisance provisions of the EBR. This avoidance of liability may arise as polluters will be able to claim they were acting under legislative authority and thus have permission to discharge pollution.
- May 1/98 Permit granted to Nova Group by the Ontario Ministry of the Environment to take water from Lake Superior takes effect. The permit allows for a maximum taking of 600 million litres per year for the next five years and is intended for export to Asia. This permit possibly violates the International Boundary Waters Treaty with the U.S. government as well as a long-standing policy against water exports from the Great Lakes Basin. Environment Minister Norm Sterling issued the permit without consultation with either federal environment or provincial natural resources departments and defended the permit as an action that will not cause significant environmental damage.
- Jun 2/98 Ministry of the Environment posts proposals for major changes to Regulation 347 on the EBR Registry. The proposals include 'standardized' approvals for on-site storage of hazardous wastes, including PCBs, expanding exemptions from approval requirements for hazardous waste 'recycling' activities, and eliminating requirements for public hearings prior to the approval of expansions of hazardous or municipal solid waste disposal facilities.

ENVIRONMENTAL STANDARDS & REGULATORY PROCESSES

Introduction

The Ministry of the Environment and Energy announced a major project to revise its standards for water, air, soil contaminants in October 1996. Air standards were to be a priority in this review. However, progress on this initiative has been very slow, and only one new air standard was adopted over the past year.

In November 1997, the Ministry of the Environment released its response to the proposals contained in the July 1996 "Responsive Environmental Protection" discussion paper. The response, a document entitled "Better, Stronger, Clearer: Environmental Regulations for Ontario" indicated that the Ministry had backed away from many of its original proposals. However, with respect to waste management and Municipal-Industrial Strategy for Abatement (MISA) regulations, the Ministry's proposals remained intact.

The government's practice of delegating its regulatory functions to industry operated non-governmental entities has continued over the past year. This has been particularly evident at the Ministry of Natural Resources, where new industry self-regulation arrangements were established with the commercial fishing and fur industries.

There is evidence that the 'Red Tape Commission' has been very active over the past year especially with regards to the operations of the Ministry of the Environment. The Commission is also seeking to 'streamline' the building approvals process.

The past year saw the delivery of reports from a several Legislative Officers that were very critical of the government's environmental record. The Provincial Auditor's October 1997 report highlighted problems in the areas of waste management, environmental assessment and sewer and water infrastructure.

The Environmental Commissioner delivered her Annual Report in April 1998. The Commissioner's report noted that while the government's technical compliance with the *Environmental Bill of Rights* had improved, there was evidence of serious problems in such areas as environmental monitoring, air quality, and the management of Crown forests and public lands.

Standards Revisions

The Ministry of Environment and Energy announced a major project to revise its

standards for water, air and soil contaminants in October 1996.²¹ Air standards were to be a priority in this review, as the province's current standards in this area are widely recognized as being out of date and inadequate.²²

The standards revision process to date has been extremely slow. There has been only one new standard adopted over the past year, an Acceptable Air Quality Criteria (AAQC) for PM10 (particulate matter up to 10 microns in diameter). However, even this standard is a guideline, and will not be incorporated into present or future Certificates of Approval.

Proposals for revised air standards for 10 toxic substances were posted on the EBR environmental registry in March 1998.²³ However, in some cases, the proposed standards were significantly weaker than the proposals put forward by the Ministry in January 1997²⁴ (weaker in terms of protecting human health and the environment). Proposals for new standards for four heavy metals (nickel, chromium IV, Cadmium and Arsenic), which included some of the most dramatic changes, appear to have been dropped altogether. Table 2 provides a comparison between the Ministry's original January 1997 proposals, and the proposals posted in March 1998.

There have been indications that very strong lobbying from the affected industries was a major factor in the weakening of the Ministry's January 1997 proposals. It was also reported in the press that these industries have been given opportunities to 'preview' the proposed standards before they were made available to the general public.²⁵

More broadly, the Ministry of the Environment appears to intend to rely on Canadian Council of Ministers of the Environment (CCME) for virtually all other new standards to be adopted through the standards revision program.²⁶ The CCME standards developed process have been widely criticized for leading to lowest common denominator outcomes.²⁷

Table 2 - Proposed revisions to standards for hazardous air pollutants

Chemical	Existing Standard	January 1997 Proposals	March 31, 1998 EBR posting	Comments
1,2 dichlorobenzene	None	AAQC: 230 ug/m ³ (24 Hour) POI: 690 ug/m ³	AAQC: 95 ug/m ³ (24 hour) POI 285 ug/m ³	Stronger than January Proposal but only a guideline.
Formaldehyde	AAQC: 65 ug/m ³ POI: 65 ug/m ³ (standard)	No Change.	No Change.	No change from current standard.
Tetrachlorethylene (perchloro-ethylene)	AAQC: 4000 ug/m ³ POI: 10000 ug/m ³ (guideline)	AAQC: 100 ug/m ³ POI: 300 ug/m ³	AAQC: 360 ug/m ³ POI: No proposal.	Proposal for POI standard dropped.
Trichloro-ethylene	AAQC: 28000 ug/m ³ POI: 85000 ug/m ³ (standard)	AAQC: 640 ug/m ³ POI: 1900 ug/m ³	AAQC: 115 ug/m ³ POI: No proposal	Proposal for POI standard dropped.
1,2 dichloroethane (ethylene dichloride)	AAQC: 400 ug/m ³ POI: 1200 ug/m ³ (guideline)	AAQC: 2 ug/m ³ POI: 6 ug/m ³	AAQC: 2 ug/m ³ POI: 6 ug/m ³ (guideline)	No change from January proposal.
Carbon Tetrachloride	AAQC: 600 ug/m ³ POI: 1800 ug/m ³ (guideline)	AAQC: 2.4 ug/m ³ POI: 7.2 ug/m ³	AAQC: 2.4 ug/m ³ POI: 7.2 ug/m ³	No Change from January Proposal.
Cyclohexane	AAQC: 100000 ug/m ³ POI: 300000 ug/m ³ (guideline)	AAQC: 280 ug/m ³ POI: 840 ug/m ³	AAQC: 500 ug/m ³ POI: 500 ug/m ³ (guideline)	AAQC Weakened and POI strengthened from January proposal.
Styrene	AAQC: 400 ug/m ³ POI: 400 ug/m ³ (standard)	AAQC: 125 ug/m ³ POI: 400 ug/m ³	AAQC: 400 ug/m ³ POI: 400 ug/m ³ (standard)	AAQC weakened from January 1997.
Methylene Chloride	AAQC: 1765 ug/m ³ POI: 5300 ug/m ³ (guideline)	AAQC: 50 ug/m ³ POI: 150 ug/m ³	AAQC: 220 ug/m ³ POI: No proposal.	AAQC weakened and POI proposal dropped from January 1997 proposal.
Acetaldehyde	No current standard	AAQC: 9 ug/m ³ POI: 27 ug/m ³	AAQC: 500 ug/m ³ POI: 500 ug/m ³	Weakened from January 1997 proposal.
Cadmium	AAQC: 2000 ng/m ³ POI: 5000 ng/m ³ (standard)	AAQC: 20 ng/m ³ POI: 60 ng/m ³	No proposal.	No proposal.

Chemical	Existing Standard	January 1997 Proposals	March 31, 1998 EBR posting	Comments
Chromium IV	AAQC: 1.5 ng/m ³ POI: 5 ng/m ³ (guideline) (not clear if existing standard sources conflict).	AAQC: 2 ng/m ³ POI: 15 ng/m ³	No proposal.	No proposal.
Nickel	AAQC: 2000 ng/m ³ POI: 5000 ng/m ³ (standard)	AAQC: 200 ng/m ³ POI: 600 ng/m ³	No proposal.	No proposal
Arsenic	AAQC: 300 ng/m ³ POI: 1000 ng/m ³ (guideline)	AAQC: 50 ng/m ³ POI: 150 ng/m ³	No proposal.	No proposal.

- Notes:**
- * All AAQCs (Ambient Air Quality Criteria) are 24 Hour.
 - * POI (Point of Impingement) Guidelines would only be applied to new or modified facilities
 - * POI (Point of Impingement) standards would be applied to all new and existing facilities.

Regulatory Reform

In November 1997, the Ministry of the Environment released a document entitled "Better, Stronger, Clearer: Environmental Regulations for Ontario." In this document, the Ministry backed away from many of the proposals contained in the July 1996 "Responsive Environmental Protection" consultation paper.²⁸ This was particularly evident with respect to the regulation of sources of air pollution (see also Table 2).

However, the Ministry's proposals to weaken its regulations in the area of waste management remained largely intact, particularly with respect to hazardous waste. The Ministry also proposed to weaken the reporting and monitoring requirements under the MISA regulations, and to remove the AOX elimination planning requirement from the MISA pulp and paper regulation. Proposals to implement changes contained in "Better, Stronger, Clearer," related to air quality,²⁹ the Environmental Bill of Rights³⁰ and MISA,³¹ began to appear on the EBR Registry in December 1997. Proposals for 'standardized approvals' related to air quality, water use, and waste management were posted on the Registry in February 1998.³²

Figure 1: Summary of MoE's November 1997 regulatory 'reform' proposals.

"Better, Stronger, Clearer: Environmental Regulations for Ontario."

Nov 27/98. Ministry releases "Better, Stronger, Clearer: Environmental Regulations for Ontario."

Waste. Specific proposal related to waste management include:

- revoke regulation thus permitting eight waste disposal sites to receive Liquid Industrial Wastes. None of the sites currently receive such wastes;
- amend the regulation governing deep well disposal to bring oil field brine disposal under the *Environmental Protection Act*, eliminate the oil field brine exemption, and consolidate the requirements into a revised general waste regulation;
- amend definition for agricultural wastes, waste-derived fuel, and clarify the management requirements for biomedical waste and asbestos waste;
- simplify approval and administrative requirements for "manufacturer controlled networks," to promote "product stewardship;"
- introduce four classes of approvals: Class I: mandatory hearings under EPA and as required under EAA; Class II: Discretionary hearing under EPA; Class III: Standardized Approvals; and Class IV: exemptions from waste approval requirements.
- numerous changes related to hazardous waste management including:
 - reducing reporting requirements for small movements of hazardous wastes;
 - amending the definition of a "site" (presumably to include all facilities within a given municipality as proposed in July 1996);

- remove generator registration requirements for registerable solid waste;
- exempt battery and precious metal bearing waste recycling activities from regulatory requirements;
- modify (weaken) the definition of PCB wastes and establish standardized approvals for PCB storage and transfer sites;
- numerous changes related to municipal solid waste management:
- amend Recycling and Composting Municipal Waste Regulations to allow two stream collection systems, amend (weaken?) the 50 metre buffer requirement, and allow food composting at leaf and yard composting facilities;
- revoke regulations related to the types of disposable containers than may be used to package milk;
- retain refillable and non-refillable soft drink container regulations;
- amendment of the Waste Audits and Waste Reduction Workplan Regulations and Packaging Audits and Packaging Reduction Workplan Regulations to "streamline" the regulations, "increase their flexibility" and "reduce the paper burden on the regulated community;"

Spills. Proposed changes related to spills include:

- proposal to eliminate reporting requirements for notification of "insignificant" spills under the *Environmental Protection Act*.

Figure 1 - Continued

Nov 27/98 Ministry releases "Better, Stronger, Clearer: Environmental Regulations for Ontario." Water. Proposed changes related to water related regulations include: ■ ban the use of methanol as a heat transfer fluid in heat pumps; ■ amend the Water Wells regulation to improve the transmission of water well data: increase licensing fees for well drillers and contractors/technicians; and provide new standards for well construction; ■ Amend the MISA Regulations to: ■ reduce the frequency of chronic toxicity testing semi-annually to annually; ■ remove effluent limits for substances that are not used, produced or stored on site;	■ reduce daily monitoring requirements for some parameters if a sites performance surpasses permitted limits for 12 consecutive months; ■ permit the transmittal of data in alternative formats; ■ amend the Pulp and Paper Sector Regulation to remove the requirement that facilities submit plans on the elimination of AOX, and advance the date for the AOX limit of 0.8kg/tonne to December 1997 from December 1999. ■ retain the Marinas Regulation, which the Ministry had proposed to repeal in July 1996, and supplement it with a voluntary Code of Practice Developed by the Marina Industry.
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Figure 1 - Continued

Nov 27/98. Ministry releases "Better, Stronger, Clearer: Environmental Regulations for Ontario." Pesticides and Agriculture. Proposed changes related to pesticides include: ■ prohibition of the burial of empty pesticide containers and require recycling of agricultural and commercial containers made of plastic or metal; ■ elimination of the sections of Regulation 914 dealing with obsolete pesticides that are no	longer available; and ■ consolidation and clarification of the sections of Regulation 914 on fumigants. ■ simplify the licensing system and reduce the number of types of licences; ■ upgrade training requirements for exterminators; and ■ eliminate exterminator licences requirement for the use of some "low risk" pesticides. ■ introduce Standardized Approvals for applications of "low risk" pesticides.
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Figure 1 - Continued

Nov 27/98. Ministry releases "Better, Stronger, Clearer: Environmental Regulations for Ontario." Energy. Proposed changes related to energy regulations include: ■ repeal of regulations related to electric stationary water heaters under the <i>Energy Efficiency Act</i>, as this type of heater is no longer permitted for sale or lease in Ontario; ■ establish energy efficiency standards for gas-	fired room heaters; wall furnaces; and fluorescent lamps; ■ establish uniform systems of accounting for utilities regulated by the Ontario Energy Board; ■ Remove obsolete exemptions related to completed transactions regulated by the Ontario Energy Board; and ■ permit the Ontario Energy Board to set its own rules of procedure.
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Figure 1 - Continued

Nov 27/98. Ministry releases "Better, Stronger, Clearer: Environmental Regulations for Ontario."

Air. Proposed changes related to air regulations include :

- consolidate the Gasoline Volatility Regulation, Motor Vehicles Regulation and Recovery of Gasoline Vapour in Bulk Transfers Regulation into one regulation.
- consolidate the four Countdown Acid Rain regulations into one and reduce reporting requirements from quarterly to annual reports. The regulations apply to the four largest sources of Acidifying emissions in Ontario, Ontario Hydro, Inco, Falconbridge and Algoma Steel.
- consolidate Ambient Air Quality and General - Air Pollution Regulations;
- revoke obsolete Air Contaminants from Ferris Foundries Regulation;
- retain Hot Mix Asphalt Facilities regulation and supplement with an industry code of practice. The Ministry had proposed to replace this regulation with a SAR;
- retain the Lambton Industry Meteorological Alert Regulation, and supplement with a contractual agreement with the Lambton Industrial Society. The Ministry had proposed to repeal this regulation.
- retain the Sulphur Content of Fuels Regulation and the Boilers Regulation. The Ministry had proposed to repeal these regulations and replace them with a SAR.

Red Tape Commission

The Red Tape Commission has continued to be very active. The Commission is a Committee of government member of the Legislature, Chaired by Frank Sheehan, M.P.P. The Commission issued a report in January 1997 that recommended a significant weakening of the Ministry of Environment and Energy's environmental protection regulations, particularly in the area of waste management.³³

The Commission appears to be maintaining a very close watch on the activities of the Ministry of the Environment. A freedom of information request filed by CIELAP in April 1998 regarding communications between the Commission and the Ministry, resulted in a response that its fulfilment would require reviewing the files of a large number of individuals in the Ministry, and involve up to 100 hours of search time. CIELAP is continuing to pursue this request.

The Commission is also focussed on 'streamlining' building approvals with the Ministry of Municipal Affairs and Housing.³⁴ Such streamlining will likely further facilitate urban sprawl. There is also evidence of the Commission exercising a major influence on Ministry of the Environment decisions, especially around waste management approvals.

Delegated Regulatory Organizations

The government's practice of delegating its regulatory functions to non-governmental actors has continued. In its report last year, the Institute highlighted the

legal and accountability problems with this practice, focussing on the transfer of the public safety regulation functions of the Ministry of Consumer and Commercial Relations to an industry operated Technical Standards and Safety Authority.³⁵ Similar concerns were expressed by the Office of the Environmental Commissioner³⁶ and the Ombudsman.³⁷

The most recent changes in this area have been at the Ministry of Natural Resources. Over the past year, the Ministry has entered into delegation agreements with respect to commercial fisheries³⁸ and the regulation of the fur industry.³⁹ The Ministry has also adopted self-inspection and monitoring programs for the non-renewable resources (aggregates, petroleum and brine) and forestry industries.⁴⁰

Privatization

In March 1998, the Office of Privatization identified the Ontario Clean Water Agency as a potential targets for the government's privatization efforts.⁴¹ The agency currently operates approximately one third of the sewer and water works in the province, including 123 municipal water treatment facilities and 234 municipal sewage treatment facilities.⁴² This reflects recommendations made by the Commission on Agencies Boards and Commissions, a committee of Progressive Conservative M.P.P.'s in February 1997.⁴³

Report of the Provincial Auditor

In November 1997, The Provincial Auditor submitted his annual report to the Ontario Legislature. Several environmental programs were criticized in the report. Among its key findings:

- the measuring of, and reporting on the Province's waste reduction targets needs to be strengthened;
- the province needs to work with municipalities on reducing the cost of collecting and processing recycled materials as well as implementing a full costing approach for waste disposal;
- the provincial goal of 50% waste diversion from disposal should be incorporated into the Ministry of the Environment's Waste Reduction Branch's business plan;
- the Ministry should expedite the resolution of issues surrounding refillable soft drink containers and address municipal concerns;
- the environmental assessment process requires better monitoring of the compliance with EA decision terms and conditions;
- water or sewage expansion projects should not be funded by the province unless municipalities have implemented and maximized water conservation; documentation filing and grant overpayment need to be better monitored as well.

Report of the Environmental Commissioner for Ontario

The Environmental Commissioner for Ontario tabled her Third Annual Report: *Open Doors - Ontario's Environmental Bill of Rights* in April 1998. A summary of the main points of the Commissioner's report appears in Figure 2. Upon delivering her report, the Commissioner stated that:

"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."⁴⁴

In the introduction to her report, the Commissioner added:

"The government of Ontario needs to shift its focus from providing regulatory relief to industry to protecting the environment and human health."⁴⁵

The Minister of the Environment responded to the Commissioner's report by stating that he disagreed with its conclusions.⁴⁶ For his part, the Premier stated that it was unfair to assess the governments devotion to the environmental protection by looking at spending and staff cutbacks.⁴⁷

Figure 2: Comments from the 3rd Annual Report of the Environmental Commissioner of Ontario

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 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 licenses 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
- 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

- the report 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

- the report 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

- the 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;
- the Commissioner calls for and inquiry into Plastimet fire.

CHRONOLOGY

- May 21/97 A policy proposal is posted on the Environmental Bill of Rights Registry to establish an interim ambient air quality criterion for inhalable particulates (PM10) of 50 micrograms / m³ (24 hour average).
- Jun 10/97 Release of the Annual Report of the Ontario Ombudsman. In the report, the Ombudsman cites the Ontario government's delegation of decision-making authority to private sector bodies and the promotion of industry self-regulation as causes for concern, particularly the Technical Standards and Safety Authority.
- Nov 4/97 Ontario Environment Minister writes to federal Environment Minister Christine Stewart regarding the MoE's opinion that National Pollutant Release Inventory data does not provide an accurate indicator of environmental health. Furthermore, the data should not be used for reporting purposes (e.g. "Taking Stock / North American Pollutant Releases and Transfers") by the Commission for Environmental Cooperation in the MoE's opinion.
- Nov 25/97 The Provincial Auditor Erik Peters submits his annual report to the Ontario Legislature. Among the key points:
- the measuring of, and reporting on the Province's waste reduction targets needs to be strengthened;
 - the province needs to work with municipalities on reducing the cost of collecting and processing recycled materials as well as implementing a full costing approach for waste disposal;
 - the provincial goal of 50% waste diversion from disposal should be incorporated into the Ministry of the Environment's Waste Reduction Branch's business plan;
 - the Ministry should expedite the resolution of issues surrounding refillable soft drink containers and address municipal concerns;
 - the environmental assessment process requires better monitoring of the compliance with EA Act decision terms and conditions;
 - water or sewage expansion projects should not be funded by the province unless municipalities have implemented and maximized water conservation; documentation filing and grant overpayment need to be better monitored as well.
- Nov 27/97 The Minister of the Environment releases "Better, Stronger, Clearer Environmental Regulation in Ontario" - a package of 38 amendments to the province's environmental regulations. These amendments evolved from the initial proposals contained in the August 1996 "Responsive

Environmental Protection" initiative and will be implemented by summer 1998. The amendments will take place in the regulatory areas of: air quality, approval of technologies, energy, environmental assessment, the Environmental Bill of Rights, pesticides, spills, waste management and water quality. Some of the regulations amended include:

- air quality (Vehicles and Fuels, Acid Rain, Air Regulation);
- approval of technologies (Technology Demonstration);
- energy (Energy Efficiency Standards Regulations);
- environmental assessment (EA Rules of Practice);
- the Environmental Bill of Rights (Classification of Proposals of Instruments, Application of the EBR Act);
- waste management (Deep Well Disposal, General Waste, Mobile PCB Destruction, PCB Waste Management, Recycling and Composting, Disposable Milk Containers, Waste Audits & Reduction Work Plans and Packaging & Packaging Reduction Work Plan) Refillable Containers at least at this date undergo no revision;
- water quality (Water Wells, Regulations under MISA)

Final amendments are to be posted on the Environmental Bill of Rights of Registry by June 1998.

Jan 12/98 Minister of Natural Resources initiates another self-regulation process by signing an agreement with the Ontario Commercial Fisheries Association (OCFA) which will see the industry adopt a larger role in the management of the province's commercial fisheries. This agreement follows the pattern of other industry self-regulation agreements. Under it the OCFA will:

- compile data from commercial fish harvest reports;
- administer royalties;
- monitor compliance;
- cooperate with MNR projects.

Jan/98 Final Agreement between Dofasco and the Ministry of the Environment posted on EBR Registry. Agreement commits Dofasco to "all reasonable efforts to meet several targets for reducing air and water emissions and solid waste production. In exchange, the Ministry of the Environment will use "all reasonable efforts" to exempt Dofasco from the requirement under Regulation 347 to manifest its shipments of hazardous and liquid industrial wastes on public roads.

Feb 1/98 Ministry of the Environment posts proposal for Standardized Approvals Regulations (SARs) and Approval Exemption Regulations (AERs) for a 45 day public comment period. SAR regulated activities would not be subject to requirement to obtain a certificate of approval, but would be subject to conditions laid out in the SAR regulation. Exempted activities would not be subject to any approval requirements at all. Approvals under regulations under the following acts are affected:

- *Environmental Protection Act* Reg. 347(Waste Management);

- *Environmental Protection Act* S.9 (Air);
 - *Ontario Water Resources Act* S.34, 52 & 53 (Water and Sewage);
- See Table 1 in chapter "Environmental Approvals and Environmental Assessment" for a complete listing of proposed SARs and AERs.

- Feb 11/98 The Red Tape Commission and the Ministry of Municipal Affairs and Housing announce that they will initiate an industry consultation to explore the feasibility of a 'one-window' approach to building regulations and approvals. Such an approach will continue to limit the amount of review that the Ministry of the Environment has of land development projects and speed the approval of urban sprawl.
- Mar 31/98 Proposals for revisions of standards for 10 hazardous air pollutants and 4 drinking water contaminants posted on EBR registry. Some of the proposed air standards have been weakened significantly from the Ministry's January 1997 proposals. See Table 2 above.
- Apr 27/98 Environmental Commissioner for Ontario tables Third Annual Report: "Open Doors - Ontario's Environmental Bill of Rights." The Commissioner states "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." Major areas of concern included Air Quality, Forest Management, Environmental Monitoring, Voluntary Agreements, Conservation Authorities and Watershed Management, the Plastimet Fire (see Figure 2 above).
- May 11/98 Information and Privacy Commissioner of Ontario orders the Ontario Ministry of the Environment to provide the Sierra Legal Defence Fund with a list of companies with violations of their operating permits as well as companies who have been convicted of an environmental offence. The MoE originally offered the information at a cost of \$19,868 but was ordered to provide at the cost of photocopying the information (about \$3000). The MoE has:
- 4,650 pages on water quality violations;
 - 9,735 pages on air quality violations.
- Formerly, the MoEE published this information in a format that made it easily publicly accessible. The last time was 1993/94.

LAND USE PLANNING

Introduction

The central feature of the government's policies related to land-use in Southern Ontario has been the degree to which they have both facilitated and, in many cases, promoted urban sprawl. This pattern has continued over the past year, with the enactment of the *Development Charges Act*, the extension of the Land Transfer Tax Rebate Program, and through the activities of the 'Red Tape Commission' to 'streamline' the building approvals process.

The past year has also seen the presentation of proposals for extensive changes to the *Municipal Act*. These changes would clarify the authority of municipal governments to act in a number of areas related to the environment. However, they would also limit the ability of municipalities to prevent private sector competition in the delivery of public services, such as transit and sewer and water infrastructure.

The integrity of the Niagara Escarpment continues to be threatened. The past year saw the appointment of a number of individuals to the Escarpment Commission whose commitment to the protection of the Escarpment is open to serious question.

Finally, the province has moved forward with revisions to the *Farm Practices Protection Act* to limit the ability of municipalities to enact by-laws to control the environmental and health impacts of 'normal' farm operations.

Land-use Planning

Land-use planning changes, implemented by the Ontario government, over the past three years have been notable by the degree to which the policies have both facilitated and, in many cases, promoted urban sprawl, especially in the Greater Toronto Area.

This process began in March 1996 with repeal, through Bill 20, of key elements of the Bill 163 amendments to the *Planning Act*, and accompanying provincial policy statements. These provisions, which had been intended to discourage new urban developments, particularly on prime agricultural lands, had flowed from the June 1993 report of the Commission on Planning and Development Reform in Ontario.⁴⁸

Furthermore, Bill 92, the *Development Charges Act*, adopted in December 1997 effectively requires municipalities to subsidize urban sprawl. The Bill limits the degree to which municipalities can require that the infrastructure costs of new developments to be internalized.

The government has also continued its Land Transfer Tax Rebate program. This

was first introduced in the May 1996 budget, and extended in the 1997 and 1998 budgets. The program provides a rebate of up to \$1,700 on purchases of newly constructed homes. Such homes are, of course, almost entirely in new subdivisions which are a central feature of the urban sprawl problem. Total expenditures under the program were over \$16 million in the 1996-97 fiscal year, and rose to over \$20.5 million in the 1997-98 fiscal year.⁴⁹

In addition, the government has continued, although at reduced levels, to provide subsidies for road and highway construction. At the same time, as outlined in the "Transportation" chapter of this report, it has stated its intention to eliminate both capital and operating support for public transit. This again seems likely to further contribute to urban sprawl and add to the province's air pollution problems associated with motor vehicle use.

For its part, the Red Tape Commission is focusing on 'streamlining' building regulations and approvals with the Ministry of Municipal Affairs.⁵⁰ The result will again likely be a further facilitation of urban sprawl.

Municipal Act Revisions

In February 1998 the government proposed extensive amendments to the *Municipal Act*.⁵¹ The proposals would give municipalities clearer authority to make by-laws in a number of areas related to the environment, including public health and safety, waste management, nuisance, noise, odour, vibration, illumination and dust, and the "natural environment." At the same time, however, the proposed amendments would prohibit municipalities to preventing competition from the private sector in the delivery of municipal services, such as waste management and public transit.

The proposed amendments have led to expressions of concern that the private sector will provide municipal services on profitable routes, and leave municipal governments having to provide service in less profitable areas. Concerns have also been raised about degree to which the Act would permit the cabinet to restrict the powers of municipalities under the Act, or any other Act of the Legislature, through regulations.⁵²

Niagara Escarpment Commission

There continue to be serious concerns over the fate of the Niagara Escarpment. The Escarpment has been designated as a UNESCO World Biosphere Reserve. In February 1997, responsibility for the Administration of the *Niagara Escarpment Planning and Development Act* was transferred from the Ministry of the Environment to the Ministry of Natural Resources. The MNR is also responsible for the promotion of the interests of the aggregates industry. Aggregate extraction is widely regarded as a major threat to the ecological integrity of the Escarpment.

The 1996-97 year saw the appointment of a number of Commissioners who were known to be hostile to the principles of protecting the Escarpment.⁵³ This pattern has continued in 1997-98. The government's appointments to the Commission over the past year have included the former President of the Aggregate Producers' Association of Ontario.⁵⁴

Natural Heritage Sites Fund

The May 1998 budget included a commitment to spend \$20 million over four years to protect heritage sites and environmentally sensitive lands, such as the Bruce Trail and Niagara Escarpment.⁵⁵ This expenditure represents a small fraction of the value of reductions in spending for these purposes that have taken place over the past three years.

Farm Practices Protection Act

In June 1997, the government introduced the *Farming and Food Production Protection Act*. The Bill received Royal Assent and came into force in May 1998. The Bill maintains the current prohibition in the *Farm Practices Protection Act* barring neighbours of farms from undertaking actions in relation to nuisances which arise from 'normal' farm practices. It also permits farmers to appeal municipal by-laws to control such nuisances to 'Normal' Farm Practices Protection Board. The Board is granted power to disallow these by-laws in response to an appeal by a farmer.⁵⁶

The legislation is particularly disturbing given that a draft State of the Environment Report prepared by the Ministry of Environment and Energy and released to the public in February 1997, indicated that runoff from agricultural operations the leading cause of declining surface water quality in Southern Ontario.⁵⁷ Evidence of the growing environmental impacts of industrial agricultural operations in the province has also emerged from other sources over the past year as well.⁵⁸

CHRONOLOGY

- May 15/97 The Niagara Escarpment Commission is unable to deal with a development permit request as the number of eligible and available board members was insufficient to form a quorum. Under the current government, the board has been reduced from 17 to 10 members.
- May 27/97 Bill 106 *Fair Municipal Finance Act* receives Royal Assent. This legislation will revise the property tax assessment of conservation, managed forest and farm lands. Some of its provisions offer certain landowners an incentive to undertake conservation initiatives.

- May 28/97 Passage of Bill 107. The Bill provides for the transfer of the ownership and operation of provincially owned sewer and water infrastructure to municipalities and regulation of septic systems to municipalities and the Ministry of Municipal Affairs.
- Jun 12/97 Appointment of seven Niagara Escarpment Commissioners, some of whom have called for the dissolution of the Niagara Escarpment Plan and the abolition of the designation of the escarpment as a World Biosphere Preserve by the United Nations.
- Jun 26/97 Bill 146, the *Farming and Food Production Protection Act* receives first reading. The Bill, if enacted, would maintain current prohibition in the *Farm Practices Protection Act* which bars neighbours of farms from undertaking actions in relation to nuisances which arise as a result of 'normal' farm practices, and adds a mechanism to permit farmers to appeal a municipal by-laws to control such nuisances to the Farm Practices Protection Board.
- Aug 27/97 Norman Seabrook is appointed to the Niagara Escarpment Commission. The appointee has stated publicly that the Niagara Escarpment Commission should be abolished and that the United Nations Biosphere Reserve status is illegitimate.
- Sept 24/97 Bill 146, *The Farming and Food Production Protection Act*, passes Second Reading.
- Dec 8/97 Bill 98, the *Development Charges Act* receives royal assent. The Bill which was introduced on November 15, 1996 will:
- provide new means to limit the contributions of land developers to community benefits such as parks;
 - place limits on the use of development charges by municipalities to recoup the costs imposed by new developments;
 - require that existing municipal infrastructure be available for servicing new developments (in effect promoting urban expansion at the expense of compact urban form and infilling);
- These provisions seem likely to facilitate and promote low density urban sprawl-type developments
- Dec 10/97 The Ministry of Natural Resources issues a request for proposals from parties knowledgeable about real estate to assist in the development of a disposition strategy for public lands controlled by the MNR. The subject lands are located throughout the province.
- Dec 12/97 Finance Minister Ernie Eves informs municipalities that they will need to make a further \$565 million in spending reductions. At the same time, municipalities are undertaking more responsibilities from the province. Areas relating to environmental protection that could be impacted by

financial restructuring include transit, water and sewage works operation and conservation areas.

- Dec 17/97 Bill 146, the *Farming and Food Production Protection Act* is referred to the Standing Committee on Resources Development.
- Jan 1/98 The cities and borough of the Municipality of Metropolitan Toronto are officially amalgamated into the City of Toronto.
- Jan 27/98 An attempt at financing \$400 million in sewage treatment facilities in Hamilton-Wentworth fails as the Ministry of Finance refuses to let the arrangement proceed on the basis that the deal's tax deferral structure was too generous for investors. Such deals involving private financing of public works infrastructure have been made possible by amendments to the *Municipal Act*.
- Feb 4/98 Ministry of Municipal Affairs and Housing announces new Ontario Building Code Regulations for septic system management "Regulation to Amend Ontario Regulation 403/97 made under the *Building Code Act*, 1992." The new regulation will take effect April 6, 1998 and:
- transfer authority for regulating smaller on-lot sewage systems to the *Building Code Act* for "one-window" permitting purposes;
 - introduce new certification requirements for installers/inspectors.
- These changes have been brought as a consequence of Bill 107 amendments to the *Environmental Protection Act* regarding the regulation of septic systems.
- Feb 11/98 The Red Tape Commission and the Ministry of Municipal Affairs and Housing announce that they will initiate an industry consultation to explore the feasibility of a 'one-window' approach to building regulations and approvals.
- Feb 11/98 The province announces its intent to seek input by May 8, 1998 on a new *Municipal Act*. The Act if adopted will have wide ranging ramifications on the urban environment, natural environment and service impacting on the natural environment. The Act would give municipalities certain general powers and areas of responsibility called Spheres of Jurisdiction. These include the following::
- health, safety, protection and well-being of people and the protection of property;
 - public utilities;
 - waste management;
 - highways, including parking and traffic on highways;
 - transportation systems such as transit, ferries and airports;
 - the natural environment;
 - culture, parks, recreation and heritage;
 - economic development;

- nuisance, noise, odour, vibration, illumination and dust;
- drainage and flood control;
- structures including fences and signs;
- parking (other than on highways); and
- animals.

Although municipalities already have authority in many of these areas, the amendments would permit its broader exercise in these areas. However, eight general limitations would be imposed on the exercise of these powers::

- municipalities would not be able to regulate in a more restrictive way than a provincial regulation;
- municipalities would not be able to regulate in certain defined areas of exclusive provincial jurisdiction such as workplace health and safety;
- municipal by-laws would be subject to any procedural requirements and limits contained in specific provisions of the new Municipal Act or any other Act;
- municipalities would not be able to regulate or prohibit privately-owned systems under the "public utilities", "waste management", and "transportation systems other than highways" spheres of jurisdictions;
- municipalities would not be able to grant any person a monopoly on carrying on any business, trade or occupation, unless specifically authorized to do so;
- municipalities would not be able to set up corporations or purchase shares in a company;
- municipalities would only be able to exercise their authority within their geographic boundaries with some exceptions; and, of course,
- municipal bylaws would not be able to conflict with federal or provincial bylaws.

Such a reworking of municipal roles and responsibilities calls into question the innovative role that some municipalities have played in past, in particular setting standards that are more stringent than the province or acting when the province would not act. Anti-smoking municipal by-laws would unlikely be permissible. Information concerning municipal solid waste and diversion could become difficult to obtain if taken out of municipal hands. Private 'transit' operators could put pressure on the most lucrative routes driving municipal systems to the brink of infeasibility. Parks and conservation authority management could become very non-uniform. Traffic control systems will become unique to every municipality thereby reducing the uniformity of driving conditions across the province, potentially leading to unpredictable situations, diminished public safety and increased threat of spills to the environment.

Mar 13/98 The proposal for a Greater Toronto Services Board is released by Minister of Municipal Affairs and Housing Al Leach. The proposed structure would

make the body primarily a service coordinating agency with no executive powers other than the oversight of GO Transit. On GO Transit issues a 2/3 majority would decide municipal contributions to the transit system's operating and capital budgets. The 30 member board would have:

- 14 elected councillors from the City of Toronto;
- 5 from Peel Region;
- 4 from York Region;
- 3 from Durham Region;
- 2 from Halton Region; and
- 2 from Hamilton-Wentworth;

The Board will not have any direct decision making authority over matters such as waste disposal, sewer and water infrastructure or any other such common, region-wide issues. The Board can however offer advice on such matters. The combined region wide population is 4.5 million.

- Apr 13/98 Urban growth throughout Ontario, particularly the construction of new homes and buildings, has led to shortages in bricks despite brick manufacturers stepping up production. Such a development will spur demand for earth materials for brick production. Housing starts have grown from 35,818 in 1995 to 43,062 in 1996 to 54,072 in 1997.
- Apr 16/98 Government appoints David Arnill to the Niagara Escarpment Commission. Mr Arnill is the former campaign manager for Energy Minister Jim Wilson and the past president of the Aggregate Producers of Ontario.
- Apr /98 Land Transfer Tax Rebate program extended.
- May 11/98 Bill 146, *The Farming and Food Production Protection Act*, receives Royal Assent.
- 1997-98 Ontario contributes \$459 million to the Canada-Ontario Infrastructure Work program. The funding is used primarily to upgrade roads but is able to be applied to a wide range of transportation, communication, municipal and public health related infrastructure.

ENVIRONMENTAL SCIENCE & MONITORING

In her April 1998 report to the Legislature, the Environmental Commissioner again expressed concern over the serious deterioration of the province's capacity in the areas of environmental science and monitoring. The Commissioner also highlighted major gaps in the province's environmental monitoring efforts, particularly with respect to air and water quality, forestry, and biodiversity.⁵⁹ Concerns over the decline in environmental monitoring capacity in Ontario and elsewhere in North America have also been expressed by the North American Commission on Environmental Cooperation⁶⁰ and the International Joint Commission⁶¹ over the past year.

The past year has also witnessed the delivery of a number of reports from independent and authoritative bodies identifying major threats to the health of Ontarians and their environment. These have included reports on smog and toxic air pollutants from the North American Commission on Environmental Cooperation,⁶² Dam safety⁶³ and the health of the Great Lakes Basin Ecosystem⁶⁴ from the International Joint Commission, fire safety at waste recycling and handling facilities from the Office of the Fire Marshal,⁶⁵ the impacts of climate change⁶⁶ and acid rain from Environment Canada,⁶⁷ and on the safety at Ontario Hydro's nuclear generating facilities.⁶⁸

The Commission on Environmental Cooperation also published a report based on data from the National Pollutant Release Inventory and the United States Toxic Release Inventory, indicating that Ontario was the third largest source of releases and transfers of NPRI and TRI pollutants in North America.⁶⁹ The rankings are presented in Table 3.

Many of these reports made recommendations for immediate action, on the problems identified. Governments, including the government of Ontario, were the target of many of these recommendations. The province has taken virtually no action to implement these recommendations.

Table 3: The Top Twelve Jurisdictions in North American Releases and Transfers by State and Province, 1994 (Matched Chemicals and Industries)⁷⁰

Province/ State	1994 Population	Total Releases and transfers (kg)
Texas	18378000	134570175
Tennessee	5175000	79366746
Ontario	10928000	78803309
Ohio	11102000	73481781
Louisiana	4315000	70018775
Illinois	11752000	69769517
Alabama	4219000	65189966
Pennsylvania	12052000	59436588
Michigan	9496000	56855878
Mississippi	2669000	55278082
Indiana	5752000	53444669
Quebec	7281000	52809233

CHRONOLOGY

- May 97 Ministry of Environment and Energy announces a number of programs to speed the approval of, and promote new environmental technologies:
- the New Environmental Technologies Evaluation (NETE) program will review the potential for a particular technology's application in Ontario. The review, if positive, will speed up the placement of the technology in site-specific applications;
 - Environmental technology development may also be supported through the R&D Challenge fund which provides tax breaks for companies undertaking research development in several areas of science and engineering.
- Jun 21/97 It is reported that levels of radioactivity in fish near Ontario Hydro's Bruce Nuclear Generating Station on Lake Huron are 9 times higher, and rising, than the levels of radioactivity in fish in Lake Ontario.

- Jul 8/97 Release of the "Report on the Evaluation of Emissions from Ontario Hydro's Admiralty Brass Condensers to the Great Lakes." The report indicates that over the past 25 years, 1,813 tonnes of metals predominately copper and zinc, have been discharged to the Great Lakes by Ontario Hydro electricity generating stations. The releases exceed the Provincial Water Quality Objective for copper and would likely have a toxic impact on aquatic life.
- Jul 29/97 According to the report by the Commission for Environmental Cooperation "Taking Stock / North American Pollutant Releases and Transfers", the province of Ontario is ranked third in North America behind Texas and Tennessee as a source of release and transfer of matched NPRI and TRI substances. Ontario is also the leading recipient of waste exports from the United States. Canadian facilities, on average, release or transfer greater quantities of pollutants than American facilities.
- July 97 Environment Canada and U.S. EPA Release "State of the Great Lakes 1997." Report summarizes state of the Great Lakes Basin Ecosystem. Key conclusions:
- aquatic community health: mixed/improving;
 - aquatic habitat and wetlands: poor;
 - state of human health in the Great Lakes basin, as reflected by human exposure to persistent toxic substances: mixed/improving;
 - and toxic contaminants: mixed/improving.
- July 97 "Report to Management: IIPA/SSFI Evaluation Findings and Recommendations." This report to Ontario Hydro ranked the Pickering, Bruce and Darlington operating stations as "Minimally Acceptable," citing problems with safety and a lack of "authoritative and accountable managerial leadership." Ontario Hydro responded with the Nuclear Asset Optimization Plan which will "lay up" seven of its 20 nuclear reactors for upgrading.
- July 97 The "1996 Report on Federal Provincial Agreements for the Eastern Canada Acid Rain Program" by Environment Canada concluded that "even with full implementation of the U.S. Acid Rain Program, 791,000 km² is still expected to receive acid deposition in excess of critical loads or threshold levels. "
- Aug 97 The International Cooperative Programme on Assessment and Monitoring of Acidification of Lakes and Rivers released " The Nine Year Report: Acidification of Surface Water in Europe and North America - Long term Developments (1980s and 1990s)." The report concluded that Quebec and Midwest North America had shown either no signs of water quality recovery or had experienced an increase in acidification despite declining

sulphur concentrations.

- Aug 97 The Office of the Ontario Fire Marshall releases "Protecting the Public and Environment by Improving Fire Safety at Ontario's Recycling and Waste Handling Facilities." The report found that there was strong potential for fires at sites where waste, recyclable materials and hazardous materials are stored. These combustibles pose unique fire, explosion and environmental risks making more stringent government regulatory controls necessary.
- Sept 97 The Commission for Environmental Cooperation prepared "Continental Pollutant Pathways: An Agenda for Cooperation to Address Long-Range Transport of Air Pollution in North America." The report makes it clear that long-range persistent air pollutants pose significant threats to human health and the environment. Pollution prevention, achieved through trilateral cooperation between Canada, the U.S., and Mexico, is the best strategy for significantly reducing emissions from present levels.
- Oct 97 The Acidifying Emissions Task Group reported in "Towards a National Acid Rain Strategy" that by 2010, 95,000 lakes in southeastern Canada will remain damaged by acid rain. The health of forests in the area will be compromised and the level of biodiversity in the acidified lakes will be reduced. In addition, particle pollution was found to have detrimental effects on human health by increasing the incidence of respiratory problems and diseases. The Task Force concludes that a 75% reduction in permitted emissions from sources in Eastern Canada and the United States is required to halt the environmental and health damage being caused by acid rain.
- Oct 97 In the "1997 Annual Report of the Provincial Auditor of Ontario to the Legislative Assembly" it was revealed that the MoEE has not assessed the waste reduction programs it established in 1989, since 1994. The province currently diverts 32% of its waste, leaving only two years for it to reach its goal of 50% diversion by 2000. Assessment is necessary to adjust strategies or develop appropriate action plans so that goals can be achieved on a timely basis.
- Oct 97 The Commission for Environmental Co-operation prepared "Long-Range Transport of Ground level Ozone and its Precursors: Assessment of Methods and Quantify Transboundary Transport Within the Northeastern United States and Eastern Canada." The report expresses concern that any further closing of monitoring stations will jeopardize the ability to track emission reductions and their affects on ozone levels. Ozone and its precursors enter Canada from the U.S. mainly from the Ohio Valley into southern Ontario and up the northeast corridor of the U.S. into the Atlantic Provinces.

- Oct 97 The International Joint Commission publishes "The IJC and the 21st Century." The Commission states that transboundary air pollution problems will continue to worsen in the next century, threatening the health of wildlife and human populations in the area. Government down-sizing in Canada and the U.S. has decreased the level and extent of environmental monitoring along the border. Down-sizing has also undermined the capacity of governments to cooperate and coordinate to address environmental problems in the areas that are of common interest.
- Nov 97 Environment Canada produced an executive summary for "The Canada Study: Climate Impacts and Adaptation." Global Circulation Models simulations predict an average annual warming of 2-5°C by the end of the 21st century. Increased air pollution will negatively affect human health and concurrent climate change will lead to an increase in the frequency of extreme weather events and high pollution episodes.
- Dec 97 In the "Report of the Select Committee on Ontario Hydro Nuclear Affairs" it was concluded that the failure to properly manage the nuclear assets, through prudent preventative maintenance or other methods, is unacceptable, regardless of rationale. A more formal approach is necessary to ensure that safety standards are maintained at a high level. Any replacement power obtained from the Ohio Valley, while making repairs, would result in increased emissions of greenhouse gases and transport of other pollutants in Ontario.
- Jan 98 The Northeast States for Coordinated Air Use Management (NESCAUM) prepared "Air Pollution Impacts of Increased Deregulation in the Electric Power Industry: An Initial Analysis." NESCAUM is concerned that deregulation will result in "significantly increased power production at low-cost, highly polluting coal-fired plants." Deregulation will also cause a boost in smog levels unless NO_x and CO₂ emission caps are established.
- Feb 98 Authoritative study suggests that Ontario's hazardous waste regulatory system is badly out of date and in need of repair. Canadian Institute for Environmental Law and Policy releases report *Hazardous Waste Management In Ontario: A Report and Recommendations*. The report highlights major gaps in the available information and regulatory framework for hazardous waste management in Ontario. A request for review of the province's hazardous waste regulations and policies is filed under the *Environmental Bill of Rights* on the basis of the report's findings.
- Mar 27/98 Board members appointed to province's Ontario Research and Development Challenge Fund. The Ontario government will contribute \$500 million over 10 years. Board members' backgrounds include:

medicine, banking, electronics research, systems design engineering, pathology, agri-food biotechnology, biotechnology, materials research and environmental science. As well, six members of the board will come from the Ontario government departments of: Ontario Jobs and Investment Board; Energy Science and Technology; Finance; Economic Development, Trade and Tourism; Education and Training and Agriculture, Food and Rural Affairs.

Apr 8/98 Ontario government announces intention to review the possibility of privatizing ORTECH which has, in past, conducted research on environmental modelling, clean-up technology and waste materials.

Apr 29/98 Environmental Commissioner for Ontario tables Third Annual Report: "Open Doors - Ontario's Environmental Bill of Rights." The Commissioner states "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." Comments on environmental monitoring issues include that 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
- 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.

Apr 30/98 Three former Premiers of Ontario (Davis, Peterson and Rae) join a campaign to complete the funding for a Great Lakes environmental research centre at the University of Windsor. \$3.6 million is needed to complete the project when the provincial government withdrew a prior funding commitment in 1995.

May 8/98 In Ottawa, a forum called "Understanding and Coping with Weather Disasters" draws the conclusion that extreme weather events are becoming more frequent. Storm damage magnitude is increasing as well. Recent flooding and ice storms in eastern Ontario were cited as

examples.

May/98

At the 41st conference of the International Association of Great Lakes Research, delegates were told that more and better early-warning environmental monitoring systems are urgently needed. Issues covered:

- Biological systems respond to the hazards associated with the complex mixtures of toxic pollutants that exist in the environment today. These systems need monitoring;
- How political restructuring and reduced funding could harm the ecological health of the Great Lakes shoreline in Ontario;
- The devastating impact of lampreys on the lake trout.

AIR QUALITY

Introduction

On a number of occasions over the past year, the government has identified reductions in air pollution, particularly the serious smog problems in Southern Ontario, as its leading environmental priority.⁷¹ Several reports from independent and authoritative sources released in 1997 and 1998 have highlighted the extent of the province's air pollution problems, and its impact on human health. However, actual progress on measures to reduce air pollution have been extremely slow.

The implementation of a vehicle inspection and maintenance program was deferred, for at least another year, in April 1998. In addition, the Ministry's Smog Plan, released in January 1998, was widely criticized as being inadequate and unlikely to be effective. Similarly, the Ministry of the Environment's proposals to revise its standards for toxic air pollutants have moved forward very slowly. In some cases, the proposals, eventually put forward by the Ministry, were significantly weakened from what it had earlier stated was necessary to protect human health and the environment.

Major concerns have also been raised about the implications of Ontario's Hydro's Nuclear Asset Optimization Plan (NAOP). The Plan relies heavily on fossil fuel powered generating stations to provide replacement power for Ontario Hydro's 'laid-up' nuclear facilities. It is likely to result in major increases in emissions of carbon dioxide, sulphur dioxide, nitrogen oxides, particulates and heavy metals. The government has also failed articulate how it intends to ensure that the introduction competition into the province's electricity market will not result in increases in air pollution.

The Ontario government was also very active over the past year in ensuring that no action was taken by any Canadian government to deal with the problem of Acid rain. Among other things, Ontario blocked discussion of the report of the National Air Issues Coordinating Committee's Task Group on Acidifying Emissions, which indicated that a 75% reduction in permitted levels of acidifying emissions in Eastern Canada was required to halt the continuing damage to waterbodies and human health, at the November 1997 joint meeting of Canada's federal and provincial energy and environment ministers.

Regulatory Reform

In November 1997, the Ministry released "Better, Stronger, Clearer: Environmental Regulations for Ontario" a document outlining its intentions regarding the implementation of the regulatory 'reform' proposals presented in the July 1996

discussion paper "Responsive Environmental Protection." The November 1997 document indicated that the government intended to back away from many of the proposals it had presented in July 1996 with respect to air pollution.

In the meantime, the Ministry posted a number of proposals for 'standardized' approvals for sources of air pollution and exemptions from approval requirements for several other activities.⁷² The Ministry's specific proposals related to air pollutants are outlined in Table 2. As noted earlier, major questions have been raised about the Ministry's ability to effectively monitor and enforce approvals under the SAR system, and regarding the legal status and implications of SAR approvals.⁷³

Motor Vehicle Inspection and Maintenance

The Ministry of Environment and Energy announced, in August 1997, its intention to proceed with the implementation of a vehicle emissions inspection and maintenance program. The program was to begin to be implemented in the summer of 1998. However, in April 1998, the Minister of the Environment announced that the government would not be proceeding with the program this year.⁷⁴

The Smog Plan

The Ministry of the Environment announced its broader plan to reduce smog in January 1998. The Plan's key goals are to reduce nitrogen oxides (NOx) and volatile organic compounds (VOCs) by 45% by the target year of 2015. The government expects that this will reduce ozone exceedences by 75%.⁷⁵

The smog plan has

To Commit or Not to Commit: is that the question?

Ontario has made commitments to reduce precursors of smog, lung irritants such as sulphur dioxide and greenhouse gases such as methane. Yet the MoE continues to approve discharges to the atmosphere of these gases, when in many cases, control methods or technology exist. A few of the atmospheric discharge approvals and permitted increases over the second half of 1997 include:

Nov 21/97. MoE issues a certificate of approval to the Toronto Transit Commission to discharge methane gas (a potent global warmer) to the atmosphere at its Greenwood Yard Carhouse (EBR Decision: IA7E1540.D).

Dec 17/97. MoE approves an amendment to the existing permit for Imperial Oil, Products & Chemical Division in Nanticoke city. According to the amendment, incremental sulphur dioxide emissions will increase not more than 1 tonne per day at the maximum feed rates compared to the original mentioned on the existing certificate of approval. (EBR Decision: IA7E1670.D).

Proposal to discharge:

Aug 28/97. The Ministry of Environment and Energy approves WMI Waste Management of Canada Inc. proposal to vent landfill gas pressure in the soil adjacent to the site in the town of Witchurch-Stouffville. (EBR: Proposal IA7E1278.P)

An exception:

Oct 14/97. Ministry of the Environment and Energy approves upgrades to the City of Vaughan Landfill's gas collection system. Gas will be collected and transmitted to the Keele Valley Landfill site's capture and control system where methane is combusted to produce electricity and in the process its global warming potential vastly reduced. (EBR Decision: IA5E0732.D)

Figure 3: Examples of Air Approvals in Ontario

been widely criticized as being inadequate. In her April 1998 report to the Legislature, the Environmental Commissioner noted that the Plan only identified how half of the proposed emission reductions were to be achieved, lacked clear funding priorities, contained no plan to upgrade existing Certificates of Approval for point sources, and failed to provide a plan to improve public transit.⁷⁶ The Commissioner also noted that policies being pursued by the Ministries of Municipal Affairs and Housing, and Transportation, seemed likely to increase urban sprawl and vehicle use, and thereby make the smog problem worse.⁷⁷ Environmental and public health organizations have criticized the plan for its slow time line, reliance on voluntary action by industry, and lack of monitoring and reporting mechanisms.⁷⁸

The Environmental Commissioner concluded by stating that:

"In fact, MOE's own emissions projects, 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."⁷⁹

Standards Revisions

The Ministry of the Environment announced a program to revise its standards for water, air, soil contaminants as a major project in October 1996.⁸⁰ The updating of standards for toxic air pollutants was identified as a priority for this effort. The province's current standards in this area are widely recognized as being out of date and inadequate.⁸¹

However, progress in this area has been very slow. There have been only two changes to actual standards to date. Strengthened summer gasoline volatility limits were adopted in February 1997 and a new Allowable Air Quality Criteria (AAQC) for PM10 was adopted in November 1997. However, the latter standard is only a guideline, and will not be incorporated into present or future Certificates of Approval for individual facilities.

Proposals for revised air standards for 10 substances posted on the EBR registry in March 1998.⁸² However, a number of the proposed standards were substantially weakened from January 1997 proposals put forward by Ministry indicating what was required in order to protect of human health and the environment.⁸³ Proposals for new standards for four heavy metals (nickel, chromium IV, Cadmium and Arsenic), which included some of the most dramatic changes appear to have been dropped altogether (See Table 2). There have been indications these changes were the result of very strong lobbying from industry, which had been given opportunities to 'preview' the proposed standards.⁸⁴

Sulphur Content of Fuel

In March 1998, it was revealed that gasoline sulphur levels are higher in Ontario than anywhere else in North America and even other parts of the world. As a consequence, automakers declared that they would not agree to the provincial plan for smog reduction until gasoline refining improves. Average sulphur levels for various jurisdictions were:

- | | |
|---------------------------|--------------------------|
| ■ Canada (1995) 343 ppm | ■ Ontario (1996) 533 ppm |
| ■ Atlantic (1995) 276 ppm | ■ Quebec (1995) 364 ppm |
| ■ Prairies (1995) 228 ppm | ■ B.C. (1995) 273 ppm |

The US average is 260 ppm while the average in California is 30 ppm. The MoE estimates that 1800 premature deaths are caused by air pollution each year. Sulphur dioxide is a significant lung irritant.⁸⁵

In April 1998, The International Joint Commission called upon the Canadian and U.S. governments to make a major reduction in the sulphur content of gasoline. The Commission recommends that the current California standard of an annual average of 30 ppm and a maximum of 80 ppm be adopted by the year 2001, and not later than 2005.⁸⁶

Waste Oil Burners

On March 19, 1998, the Minister of Environment placed a hold on the approval of any new small space heaters that burn waste oil pending "public input on the environmental impact of the heaters." The MoE estimates that about 10 million litres of oil per year are disposed of this way each year in the province.⁸⁷

Ontario Hydro

In August, as the utility was announcing its plan to refurbish most of its nuclear capacity, it also divulged the extent to which the temporary reliance on coal and oil based generating capacity will increase fossil fuel related emissions. The utility's carbon dioxide emissions had been falling for a number of years (27 Mt in 1992; compared to 21 Mt in 1996).^{88 89} Its target was to stabilize its emissions at the 1990 level (26 Mt) by the year 2000.⁹⁰ Preliminary estimates suggest that Ontario Hydro will violate this commitment by emitting at least 30 Mt of carbon dioxide per year over 1998, 1999 and 2000.⁹¹ Even in advance of this increase in carbon dioxide emissions, electricity production was one of Ontario's largest producers of carbon emissions at 14.8% of the province's total emissions in 1995 (only the transportation and industrial sectors were larger at 32.1% and 25.8% respectively). During the nuclear restructuring, electricity production could rival the industrial sector for second place in terms of emissions of carbon dioxide in the province.

In addition, the utility's acid gas emissions (nitrogen oxides and sulphur dioxide) will rise in the process of switching to fossil fuel generating capacity. Ontario Hydro's

acid gas emissions had fallen from 210,000 tonnes in 1992 to 120,000 tonnes in 1996. Its current limit under the Countdown Acid Rain Program is 215,000 tonnes. It is expected that the utility's new operating mix will cause it to return to emitting at the upper permitted level.⁹²

To combat some of the ramifications of these developments, Ontario Hydro purchased 10,000 (U.S.) tons of carbon dioxide reduction credits from the Southern California Edison electric utility. The utility did this despite the fact that a verifiable and workable greenhouse gas emission credit trading system has not been devised nationally or internationally. The purchase was viewed as lending support to the concept of an international emissions trading program, one of the options under discussion at the Kyoto Conference on Climate Change in December 1997.⁹³

Electricity Competition and Increased Air Emissions

It is anticipated that air quality is bound to worsen with the introduction of competition into the electricity system for several reasons. In a competitive electricity market, municipal utilities and investor-owned corporations are likely to build new electricity generating capacity in Ontario (see also "Energy" section). When the emissions from these stations are combined with Ontario Hydro's output, emission levels from electricity production in Ontario will increase. In fact, forecasts suggest that the province's electricity-related greenhouse gas emissions in 2020 will be 2.2 times greater than its 1990 levels.⁹⁴

Furthermore, under competition, some of Ontario's electricity needs will almost certainly be met by importing power from Ohio Valley generating stations. Ohio Valley coal-fired generating stations operate under no emission caps on greenhouse gas, nitrogen oxides, air toxic, or particulate emissions.⁹⁵ Moreover, coal-fired electricity imports from the Ohio Valley are especially harmful since the NO_x emission rates of many Ohio Valley stations are significantly higher than those of Ontario Hydro's coal-fired stations.⁹⁶ The increased use of low-cost, coal-fired plants located in the U.S. and the commensurate emissions increases would have serious air quality implications for Ontario, as this province is directly downwind from the Ohio Valley.

Merely maintaining existing regulations will not be adequate to prevent increased air pollution in a competitive electricity market. Ontario's existing caps on emissions of SO₂, CO₂ (self-imposed) and NO_x emissions apply only to Ontario Hydro. Unless these regulations are strengthened, Ontario Hydro's domestic and Ohio Valley competitors will not be subject to CO₂, NO_x or air toxics emission caps (U.S. electricity generating stations are subject to a SO₂ emissions cap). Air pollution will, therefore, increase significantly in a competitive market.

Blocking Action on Acid Rain and Smog at the National Level

The Ontario government was very active over the past year in ensuring that no

action was taken by any Canadian government to deal with the problem of acid rain. Ontario's representatives played a central role in undermining the consensus on the National Air Issues Coordinating Committee's Acidifying Emissions Task Group, in favour of additional action to reduce emissions that cause acid rain.⁹⁷ Ontario also blocked discussion of the Task Group's report, which indicated that a 75% reduction in permitted levels of acidifying emissions in Eastern Canada was required to halt the continuing damage to waterbodies and human health,⁹⁸ at the November 1997 joint meeting of Canada's federal and provincial energy and environment ministers.⁹⁹

The province has played a similar role in blocking the development of a National Smog Management Plan. Efforts towards the development of such a plan were ended in the summer of 1997 when Ontario and British Columbia indicated that they would be unable to prepare and consult on their Regional Smog Management Plans prior to the fall Joint Ministers' Meeting.¹⁰⁰

CHRONOLOGY

- May 21/97 A policy proposal is posted on the Environmental Bill of Rights Registry to establish an interim ambient air quality criterion for inhalable particulates (PM10) of 50 micrograms / m³ (24 hour average).
- Jun 3/97 Minister of Environment and Energy announces *Partners in Air* a "student-led air quality initiative." Under the program students will monitor air quality, use their findings in the classroom and exchange findings with other students in the program over the Internet.
- Jun 10/97 The Premier of Ontario acknowledges in the legislature that more efforts have to be taken to tackle the problems of smog in Ontario.
- Jul 11/97 At a meeting with the Governors of U.S. states bordering Great Lakes, Premiers of Ontario and Quebec solicit U.S. support to combat transboundary air pollution. The Premier of Ontario urges the U.S. Great Lakes states to reduce their air emissions to help Ontario in its efforts.
- Jul 23/97 Ontario Premier Mike Harris publicly criticizes Minister of Environment and Energy Norm Sterling, for failing to move quickly enough to develop a vehicle-emissions testing program for the province.
- Jul 97 The Ministry of Environment and Energy releases "Draft Guideline for Preparing a Source Inventory and Dispersion Modelling Report" a guide for demonstrating compliance with section 5 of Regulations 346 General - Air Pollution.
- Aug 22/97 The Minister of Environment and Energy announces a vehicle emissions testing program called "Drive Clean" (see also retraction on Apr 17/98). Under the program, heavy duty trucks and buses would be the first to

have their emissions tested. The next phase would see cars and light trucks in the Greater Toronto Area and in Hamilton have their emissions tested. Within a period of five years, the program would extend to various centres from Windsor to Peterborough. Under the program:

- vehicles would be tested every time they change ownership or at every other years' licensing renewal for cars and light trucks that are 4-19 years old;
- if the vehicle's exhaust does not conform to the model year standards, the vehicle could be subject to repairs up to \$200.

The program is aimed at reducing volatile organic compounds, nitrogen oxides and particulates.

Nov 18/97 PM10 standard is implemented on an interim basis. It is classified as interim as a 'national' standard is to be developed through the CCME.

Nov 27/97 Release of "Better, Stronger Clearer: Environmental Regulations for Ontario. Specific elements dealing with air issues intend to:

- consolidate the Gasoline Volatility Regulation, Motor Vehicles Regulation and Recovery of Gasoline Vapour in Bulk Transfers Regulation into one regulation.
- consolidate the four Countdown Acid Rain regulations into one and reduce reporting requirements from quarterly to annual reports. The regulations apply to the four largest sources of Acidifying emissions in Ontario, Ontario Hydro, Inco, Falconbridge and Algoma Steel.
- consolidate Ambient Air Quality and General - Air Pollution Regulations;
- revoke obsolete Air Contaminants from Ferris Foundries Regulation;
- retain Hot Mix Asphalt Facilities regulation and supplement with an industry code of practice. The Ministry had proposed to replace this regulation with a SAR;
- retain the Lambton Industry Meteorological Alert Regulation, and supplement with a contractual agreement with the Lambton Industrial Society. The Ministry had proposed to repeal this regulation.
- retain the Sulphur Content of Fuels Regulation and the Boilers Regulation. The Ministry had proposed to repeal these regulations and replace them with a SAR.

Dec 6/97 The MoE wins the right to prosecute Inco Limited over a massive sulphur dioxide leak to the atmosphere in Sudbury in November 1995. The charges were temporarily in doubt after a hearing on April 4/97 in which the MoE did not appear as it had requested the relocation of the trial to Provincial Court.

Dec 10/97 Ontario Hydro becomes the first company in Canada to purchase credits

for carbon dioxide emission reductions made outside of the country. The utility purchased 10,000 tons of carbon dioxide reduction credits from the Southern California Edison electric utility. The purchase was viewed as lending support to the concept of an international emissions trading program, one of the options under discussion at the Kyoto Conference on Climate Change.

- Dec 18/97 Ministry of the Environment releases the study "Air Quality in Ontario 1995." The report indicates that:
- between 1970 and 1995 carbon monoxide decreased by 87%;
 - between 1970 and 1995 sulphur dioxide decreased by 86%
 - between 1970 and 1995 total suspended particulates decreased by 54%; and
 - between 1974 and 1995 nitrogen oxides were reduced by 46% and nitrogen dioxide by 22%.
- Dec 30/97 EBR posting proposing to consolidate four Countdown Acid Rain regulations into one and reduce reporting requirements from quarterly to annual reports. The regulations apply to the four largest sources of Acidifying emissions in Ontario, Ontario Hydro, Inco, Falconbridge and Algoma Steel.
- Dec 30/97 EBR posting of decision not to proceed with proposed SAR for Hot Mix Asphalt Facilities and to retain existing regulation 349 and supplement with an industry code of practice.
- Jan 20/98 Ministry of Environment launches Ontario's Smog Plan. The goal of the plan is to reduce smog causing emissions by 45% by 2015. The plan attempts to rely upon:
- a vehicle inspection and maintenance program called "Drive Clean" (which was announced but never implemented);
 - public involvement in smog reduction efforts;
 - efforts in the U.S. to reduce transboundary pollution; and
 - developing strategies for particulate emission reduction.
- Environmental and public health organizations criticize the plan as being grossly inadequate with reference to its slow time line, reliance on voluntary action by industry, lack of source/sector targets, and lack of monitoring and reporting mechanisms.
- Jan 98 The Institute for Environmental Studies (University of Toronto) and Pollution Probe release "Emissions for Coal-Fired Electric Stations: Environmental Health Effects and Reduction Options." The report concludes:
- emissions of several key pollutants from coal-fired electric stations are at levels which represent a threat to human health and the environment. This threat remains despite emission reductions which have already been achieved.

- over 90% of each of the five pollutants investigated are generated in the region defined as the Ohio Valley/Great Lakes States. Emissions from this region have a direct impact on air and water quality in Ontario. Government action in Canada and the U.S. is required to achieve the coal station emission reductions necessary to obtain acceptable air quality standards to protect human and ecosystem health.

Subsequent media reports indicate major utilities in the U.S. Midwest have begun to increase production using coal-fired generating stations. This led to a warning by the group Northeast States for Coordinated Air Use Management (NESCAUM) who prepared "Air Pollution Impacts of Increased Deregulation in the Electric Power Industry: An Initial Analysis." NESCAUM is concerned that deregulation will result in "significantly increased power production at low-cost, highly polluting coal-fired plants." Deregulation will also cause a boost in smog levels unless NO_x and CO₂ emission caps are established. The States involved in the warning border Ontario, Quebec and New Brunswick. These provinces are in the same airshed as the U.S. states and will experience the same degradation in air quality experienced there.

Feb 27/98 Ontario Hydro decides against installing the modern air pollution control equipment at its Lennox Power Generating Station near Kingston. The equipment would reduce levels of nitrous oxides. Recently, Ontario Hydro has elected to install emission control devices at its Lambton and Nanticoke stations.

Mar 3/98 It is revealed that gasoline sulphur levels are higher in Ontario than anywhere else in North America and even other parts of the world. As a consequence, automakers say they will not agree to the provincial plan for smog reduction until gasoline refining improves. Average sulphur levels for various jurisdictions were:

- | | |
|---------------------------|--------------------------|
| ◦ Canada (1995) 343 ppm | ◦ Ontario (1996) 533 ppm |
| ◦ Atlantic (1995) 276 ppm | ◦ Quebec (1995) 364 ppm |
| ◦ Prairies (1995) 228 ppm | ◦ B.C. (1995) 273 ppm |

The US average is 260 ppm while the average in California is 30 ppm. The MoE estimates that 1800 premature deaths are caused by air pollution each year. Sulphur dioxide is a significant lung irritant.

Mar 13/98 Environment Canada and Ontario Ministry of Environment fail to file full submissions with the U.S. Environmental Protection Agency before the 120 day consultation period for a proposed tougher limit on smog expired. Environment Canada filed a letter while, the MoE suggested that it might comment at a later date. Ontario is one of the regions of Canada most impacted by transboundary sources of smog.

Mar 19/98 Minister of Environment places a hold on the approval of any new small space heaters that burn waste oil pending "public input on the

environmental impact of the heaters." The MoE estimates that about 10 million litres of oil per year are disposed of this way each year in the province.

- Mar 31/98 Proposals for revisions of standards for 10 hazardous air pollutants posted on EBR registry. Some of the proposed air standards have been weakened significantly from the Ministry's January 1997 proposals. See "Standards Setting and Regulatory Processes" for more detail.
- Apr 17/98 Premier indicates that a possible delay of up to one year to initiate "Drive Clean" the province's vehicle emission testing program is unacceptable. The MoE had indicated that it would be operating by Spring 1999.
- heavy trucks and buses were to be tested this summer across southern Ontario followed by cars and light trucks in Hamilton and the Greater Toronto Area in autumn;
 - by the year 2000 vehicles in 13 cities were to be subject to mandatory testing;
- April 23/98 Speech from the Throne makes vague references environmental protection : "Understanding the role that a clean environment plays in attracting jobs and investment, your government is determined to improve our air and water quality through initiatives such as Drive Clean." The Drive Clean program has still not yet been implemented.
- Apr 29/98 The International Joint Commission calls upon the Canadian and U.S. governments to make a major reduction in the sulphur content of gasoline. Ontario gasoline has the highest sulphur content (550 ppm) in the western world. The IJC calls for the current California standard of an annual average of 30 ppm and a maximum of 80 ppm by the year 2001, and not later than 2005.
- Apr 29/98 The Environmental Commissioner of Ontario releases her annual audit of Ontario government environmental policies and programs. Air quality programs were identified as being particularly deficient: "even if all of the ministry's proposed pollution-control activities are carried out, 20 years from now Ontario's air quality will be worse than it is today. Notable points include:
- even where the government has adequate regulation, they tend to go under-enforced as a result of substantial budget cuts;
 - Ontario's Smog Plan has almost no details as to how it will achieve one-half of the required reduction in smog agents;
 - the MoE is relying heavily on voluntary actions by industry to meet air quality targets;
 - new technology exists to cut air emissions but the government has no plan to phase out the older equipment in use under certificates issued in past;
 - the vacating from the municipal transit sphere by the provincial

- government;
- Ontario Hydro's new heavier reliance on coal.

- May 8/98 Ontario Hydro announces that it has sold emission credits worth \$500,000 to a Connecticut company (Hartford Co-generation Ltd) in order for that company to achieve its state-directed emission targets. 500 tonnes of nitrogen oxides were sold under the Pilot Emission Reduction Trading Project. The credits were reviewed in Canada by the PERT Project, and approved in the US by the Connecticut Department of Environmental Protection. Ontario Hydro created the credits by reducing nitrogen oxide emissions through the use of new burners and other modification to its Nanticoke and Lambton generating stations in 1995 and 1996.
- May 12/98 The Ontario Medical Association (OMA) states publicly that it is dangerous to breathe the air during smog episodes when air pollution exceeds provincial guidelines. In summer, emissions from automobiles, equipment and plants combine with sunlight to produce smog conditions which reduce lung function, worsen asthma symptoms and even cause premature death. The OMA called for:
- equivalent of California standards for sulphur in gas (no more than 30 ppm). Ontario is currently at about 550 ppm;
 - reduced acid emissions from coal-fired electricity stations; and
 - a complaint under the US Clean Air Act to reduce emissions emanating from US sources.
- May 13/98 Toronto City Council unanimously endorses a plan to reduce smog. The plan could involve the following measures on smog prone days:
- suspension of road paving and pesticide spraying activities;
 - shutting off lawnmowers and other gasoline-powered equipment;
 - asking Ontario Hydro to reduce its atmospheric emissions; and
 - reducing the amount of sewage sludge incineration at the city's main waste treatment plant.
- May 15/98 Province issues first smog alert of the season. The episode is the earliest smog incident since 1988. A rating of 50 is considered poor, the day's rating is 59 (scale is 0 to 100 with 100 the worst). The year's above average temperature trend suggests that more smog days may lay ahead if the trend continues.

WASTE MANAGEMENT

Introduction

Waste management has been a major focus of the government's regulatory 'reform' efforts over the past three years. In November 1997, the Ministry re-iterated its intent to significantly weaken the regulatory controls on such activities as hazardous and municipal waste 'recycling' and the handling and storage of PCB's. Proposals to implement these changes were posted on the EBR Registry on June 2, 1998.

In terms of the impact of changes to the approvals process, the past year has been quite remarkable. It included the approval of a major expansion of the province's only hazardous waste landfill, without a public hearing, and the approval of a number of other controversial facilities.

The past year has also witnessed a series of major incidents at waste management sites throughout the province. The most serious of these was the Plastimet PVC 'Recycling' site fire in Hamilton in July 1997. This prompted the Office of the Fire Marshal to make recommendations for a significant strengthening of the regulation of 'recycling' and waste handling facilities in the province.

In addition, major problems were identified with the province's municipal waste diversion programs by the Provincial Auditor. The province stated publicly that it was unlikely to meet the goal of 50% diversion of municipal waste from disposal by the year 2000. This commitment was first made in 1989.

A major controversy also emerged over the province's approval of the use of industrial by-products as 'dust suppressants,' including a material produced at Domtar Ltd.'s Trenton Ontario facility under the trade name 'Dombind.'

Regulatory Reform

Major revisions to the province's waste management regulations were proposed in July 1996.¹⁰¹ These included the removal from the waste approvals process of a wide range of activities including the 'recycling' of hazardous and municipal solid wastes. Proposals were also made for 'standardized' approvals for such activities as the on-site storage of hazardous wastes, including PCB's, the operation of hazardous waste and PCB transfer stations, and the use of sewage and paper mill sludge as a soil conditioner. In addition, the Ministry proposed to repeal the Regulations requiring that 30% of soft drinks sold in the province be provided in refillable containers.¹⁰²

The Ministry modified some of these proposals in its November 1997 "Better,

Stronger, Clearer : Environmental Regulations for Ontario" document.¹⁰³ In particular, it stated that the refillable container regulations would be retained, pending the resolution of the Blue Box funding issue. However, the Ministry re-iterated the bulk of its proposals, particularly with respect to hazardous wastes. Proposals to implement these changes were posted on the EBR Registry on June 2, 1998.¹⁰⁴

Waste Definitions

In the meantime, (October 1997) the Ministry posted a number of proposed amendments to Regulation 347 on the EBR registry. These included a redefinition of waste to include residuals from recycling operations. The proposed amendments would also have exempted 'chop line' residue (wire recycling residue) recycling, waste photochemical recycling, and the use of spent 'pickle liquor in sewage treatment plants, and wood waste recycling sites, from the requirements of the Regulation.¹⁰⁵

The proposals regarding the definition of waste and exemption of 'chop line' residue appeared to be related to a June 1997 Ontario Court decision that only "unusable leftovers" from processing or recycling operations should be considered 'waste.' The Court also concluded that 'chop line residue' did not meet this definition and was therefore exempt from the waste management requirements of the *Environmental Protection Act*.¹⁰⁶ Ministry of Environment and Energy officials had argued before the court that 'chop line residue' should be considered a hazardous waste as it included heavy metals, including lead and cadmium.¹⁰⁷ Concerns were also expressed, by a number of environmental organizations, over the proposed exemptions for photochemical processing waste recycling and the use of spent 'pickle liquor'.¹⁰⁸ As of June 1998, the Ministry had not implemented the proposed amendments to the Regulation.

Waste Management Facility Approvals

As noted in the chapter "Environmental Approvals and Environmental Assessment", waste management has been one of the areas where the impact of the changes to the approvals process have been most prominent. Developments over the past year have included the approval of a 1.9 million cubic metre expansion of the province's only hazardous waste landfill, operated by Laidlaw Environmental Services, without a public hearing under either the *Environmental Protection* or *Environmental Assessment Acts*.¹⁰⁹ The past year also saw the approval of the use of a scrap metal smelting furnace, by an operator with no previous experience in handling hazardous wastes, as the province's only permanent low-level PCB destruction site.¹¹⁰ In addition, the Minister of the Environment acted to limit the scope of the scope and time frame of the environmental assessment hearing of the proposed Adams mine landfill site in Northeastern Ontario.¹¹¹ Other recent actions by the province related to the approval of waste management facilities are presented in Figure 4.

Further changes to the waste approvals system were proposed by the Ministry

in February 1998. These included proposals to establish a 'standardized approval regulation' for municipally operated waste transfer and processing stations handling up to 300 tonnes a day, and for the use of sewage sludge as a soil conditioner.¹¹² As noted in the "Environmental Approvals and Environmental Assessment" chapter, serious concerns have been raised regarding the environmental and legal implications of 'standardized' approvals by the Environmental Commissioner¹¹³ and others.¹¹⁴

Fast-Tracking Waste Disposal Projects : Putting the Brakes on Waste Reduction?

Exempting new waste disposal undertakings from environmental assessment hearings is a speedy way to secure new waste disposal capacity, as well as forego detailed examination of the project and take the pressure off finding alternatives to disposal such as 3Rs initiatives. "Declaration Requests" or in effect, exemptions, have been used increasingly to grant speedy approval. A few of the many waste disposal approvals in 1997 include:

May 21/97. The Ministry of the Environment and Energy approves an Exemption Order for the interim expansion (from 1.1ha to 1.74ha), operation and closure of the Edwardsburgh Township waste disposal site.

Jul 15/97. The Minister of the Environment and Energy approves a declaration request which exempts a 5 year interim expansion of the Nickel Centre Landfill in the Region of Sudbury from review under the *Environmental Assessment Act*. The landfill deals with the disposal of non-hazardous municipal, commercial and solid industrial wastes.

Sept 19/97. MoEE approves the use and operation of a waste processing site with a total area of 5,000 square feet, for the processing of subject and non-subject industrial waste. The proponent is Pharma processing of Brampton.

Nov 18/97. MoE approves Mid Ontario Disposal Doug Roe Ent. Inc. request to increase the area of their waste disposal site located in Orillia from 0.75 acres to 1.8 acres and to increase

the capacity of the site accordingly.

Nov 18/97. MoE approves a Certificate of Approval to burn waste derived fuel at a maximum rate of 23,000 litres per year with a maximum storage capacity of 13,650 litres. The proponent is Frank Kelly & Sons Garage Ltd. and the site is the Town of Mitchell.

More to come? :

Dec 30/97. The MoE posts a proposal that would make the planned expansion of the KMS Peel Inc. Energy-From-Waste facility subject to the Environmental Assessment Act. The EA Act process will assist in determining the environmental effects of the proposed expansion of the facility, however, many recent EAs have been very limited in terms issued addressed.

Some exceptions :

Jul 15/97. The MoEE approves an order designating Fibre Environmental & Ecology Ltd. as being subject to the *Environmental Assessment Act* for the Quinte Sanitation Landfill in the Township of Sidney.

Dec 2/97. Minister of the Environment and Energy approves regulation designating the Lafleche Environment Inc. proposal subject to the requirements of the EA Act. The proposal concerned is a landfill site in eastern Ontario within the Township of Roxborough, United Counties of Stormont, Dundas and Glengarry.

Figure 4: Examples of waste approvals in Ontario

Incidents at Waste Management Sites

The past year has witnessed a series of major incidents at waste management sites throughout the province. The most serious of these was the Plastimet PVC 'Recycling' site fire in Hamilton in July 1997. This burned for four days, and is believed to have produced large amounts of highly toxic combustion products, including dioxins.¹¹⁵ There have also been a number of smaller tire fires,¹¹⁶ and fires at other 'recycling' facilities.¹¹⁷ In the aftermath of the Plastimet Fire, the Office of the Fire Marshal issued a report calling for the strengthening of the environmental and fire safety regulation of recycling and waste handling sites.¹¹⁸ The Ministry has taken no action to implement the Fire Marshal's recommendations to date.

Municipal Waste Diversion

The Provincial Auditor highlighted major problems with the province's municipal waste management programs in his October 1997 report to the Legislature.¹¹⁹ In particular, the report highlighted the Ministry's failure to adequately measure and report on progress towards the province's waste reduction targets, failure to incorporate the 50% waste diversion goal into the Ministry's business plan and failure to enforce waste management regulations, particularly with respect to the use of refillable beverage containers.

In February 1998, the Minister of the Environment stated publicly that the province was unlikely to meet the goal 50% waste diversion from landfill or incineration by the year 2000. The goal has been first set in 1989. Figures released by the Ministry of the Environment indicate that the province is currently diverting 32% of its waste from disposal.¹²⁰

A report on options for the future funding of the province's municipal waste diversion programs was presented by the Recycling Council of Ontario to the Ministry at the end of April 1998.¹²¹ The Ministry of the Environment and Energy terminated provincial funding support for residential recycling programs in the fall of 1995.¹²²

Dust Suppressants and 'Dombind'

The past year has also been marked by a controversy over the use of "black liquor" from Domtar Ltd's., pulp mill in Trenton, Ontario as a dust suppressant under the product name "Dombind." The Office of the Environmental Commissioner,¹²³ the World Wildlife Fund Canada,¹²⁴ and a number of other environmental organizations have expressed serious concerns about the environmental impacts of this practice.¹²⁵ In May 1998 it was revealed that dioxin levels rose sharply in samples taken from road beds, ditches and fields close to where Dombind had been applied.¹²⁶

The agreement between the Ministry of the Environment and Domtar, which purports to exempt the material from the requirements of Regulation 347 on the basis

that it is a dust suppression 'product' expires in 1998 and is currently under review. In its February 1998 report on hazardous waste management in the province, CIELAP noted that there appeared to be no statutory basis for the agreement between Domtar and the Ministry of the Environment regarding the exemption of 'Dombind' from the province's waste management regulations.¹²⁷

In June 1997 the Ministry of Transportation posted decision on EBR registry stating that it would no longer test, prior to approval, materials used to minimize dust during road construction and on unpaved rural roads. Instead, the Ministry would depend on the list of dust suppressants issued by the Ministry of Environment. In her Annual Report, the Environmental Commissioner noted that the MoE's list comes with the disclaimer: "The MoE does not endorse any of the following products nor does it guarantee that the products are environmental benign."¹²⁸

Hazardous Waste Management

Finally, on April 20, 1998, the Ministry of the Environment rejected a request for review of the province's hazardous waste regulations filed by the Canadian Institute for Environmental Law and Policy, stating that a review was "not in the public interest."¹²⁹ The Institute's request had been based on the findings of a comprehensive report on the management of hazardous wastes in the province presented in February.¹³⁰ The report had concluded that there were major gaps in both the available information and underlying regulatory framework for the protection of public safety, public health and the environment in the management of hazardous wastes in the province.

C H R O N O L O G Y

- May 21/97 Ministry of the Environment and Energy issues an exemption order which allows municipalities to not consider municipal waste incinerators as an alternative in current municipal waste management plans.
- Jun 10/97 Ontario Court decision that only "unusable leftovers" from processing or recycling operations should be considered 'waste.' The Court also concluded that 'chop line residue' did not meet this definition and was therefore exempt from the waste management requirements of the *Environmental Protection Act*.
- Jun 12/97 Ministry of Transportation posts decision on EBR registry stating that it will no longer test, prior to approval, materials used to minimize dust during road construction and on unpaved rural roads. Instead, the Ministry will depend on the list of dust suppressants issued by the Ministry of Environment. However, the MoE's list comes with the

disclaimer: "The MoE does not endorse any of the following products nor does it guarantee that the products are environmental benign."

- Jul 6/97 Ontario Environment Minister Norm Sterling announces that the MoEE will spend \$18 million to clean up the hazardous materials, including low level radioactive wastes, left behind at the Deloro Mine north of Belleville. Mine wastes have been leaching into the Moira River that flows south into the Bay of Quinte at Lake Ontario.
- Jul 11/97 A fire begins at a plastics recycling operation in Hamilton known as Plastimet. The fire burns for nearly 72 hours before it is brought under control. The MoEE is criticized for the length of time it took (12 hours) to respond with on-site testing and monitoring. Details of the incident:
- 650 persons were evacuated due to smoke hazard (benzene);
 - water entering Hamilton Harbour from the fire site has 2000 times the normal level for zinc;
 - chromium, lead and cadmium are also of concern;
 - during and after the blaze, concerns are raised about levels dioxins and furans in the immediate vicinity;
 - for the most part, the province has resisted getting involved, preferring instead to regard the incident as a municipal matter.
- Aug 20/97 The Office of the Fire Marshall submits its report to the Minister of the Solicitor General and Correctional Services on fire safety at recycling and waste handling facilities. The report is a follow-up to the July 1997 Plastimet fire. Some of the twelve recommendations in the report include:
- new recycling facilities should be monitored much more closely for compliance with local zoning by-laws and fire safety requirements;
 - facilities without a Regulation 347 Certificate of Approval should require similar identification and control measures;
 - examining the establishment of a provincial contingency fund;
 - update the fire code provisions for storage and handling of flammable liquids;
 - increase fines and allow municipalities to retain fine revenue;
 - develop a coordinated training plan for and with fire experts and recycling facility operators;
 - the recycling industry should set up an industry-wide council and code of conduct;
 - more resources are needed for local fire departments to handle such situations.
- Aug 26/97 Aquatech Blue Ltd., an oil recycling firm is charged with dumping waste oil containing toxic materials in Toronto Harbour. Previously it had been convicted of discharging metal-based releases into sanitary sewers. The Ontario government seeks extradition of three US citizens charged with the Lake Ontario dumping.

- Aug 29/97 A spill at a manufacturing unit in Guelph dumps 3000 litres of an industrial lubricant into the water supply system prompting health officials to warn northern half of the city i.e. about 50,000 people, not to use the water.
- Sept 97 Ministry of the Environment grants approval for 1.9 million cubic metre expansion of the Laidlaw hazardous waste landfill at Sarnia, Ontario. This is expected to provide landfill capacity for approximately 20 years. Although the undertaking was designated under the *Environmental Assessment Act*, a public hearing was not required by the Minister before the Environmental Assessment Board prior to the approval of the facility.
- Oct 6/97 Amendments to Fire Code announced. The province will adopt an Ontario version of Part 4 of the National Fire Code which attempts to ensure that flammable and combustible liquids are properly stored. No changes are announced which relate to the recommendations of the Ontario Fire Marshal (see August 20/97) in the wake of the Plastimet Fire.
- Oct 21/97 Ministry of the Environment posts proposed amendments to Regulation 347 on EBR environmental registry. Proposed amendments include:
- redefine 'waste' to include residues from recycling operations;
 - exempt 'chop line' residue (wire recycling residue) recycling from the requirements of the regulation;
 - exempt photochemical recycling activities from the requirements of the regulation;
 - exempt the use of spent 'pickle' liquor in sewage treatment plants from the requirements of the regulation; and
 - exempt wood waste recycling sites from the requirements of the regulation.
- Oct 29/97 The *Fire Protection and Prevention Act* is proclaimed into law. The Act moves in the opposite direction of the recommendations made by the Ontario Fire Marshal in the wake of the Plastimet Fire in Hamilton in July 1997. The Act sets out to reinforce the voluntary fire-fighting system and private sector participation in prevention and education as well as more local autonomy. The August 20th Fire Marshal's report called for more provincial supervision, more resources for training and information exchange among fire departments and the establishment of a provincial contingency fund. Under the new act, municipalities and residents will be left to "determine the level of fire service they need."
- Nov 18/97 MoE issues a Certificate of Approval to burn waste derived fuel at a maximum rate of 23,000 litres per year with a maximum storage capacity of 13,650 litres. The proponent is Frank Kelly & Sons Garage Ltd. and the site is the Town of Mitchell.

- Nov 25/97 The Provincial Auditor Erik Peters submits his annual report to the Ontario Legislature. Several environmental programs are targeted:
- the measuring of, and reporting on the Province's waste reduction targets needs to be strengthened;
 - the province needs to work with municipalities on reducing the cost of collecting and processing recycled materials as well as implementing a full costing approach for waste disposal;
 - the provincial 50% reduction goal should be incorporated into the Waste Reduction Branch business plan;
 - the Ministry should expedite the resolution of issues surrounding refillable softdrink containers and address municipal concerns.
 - the environmental assessment process demands better monitoring of the process and compliance with EA terms and conditions;
 - water or sewage expansion projects should not be funded by the province unless municipalities have implemented and maximized water conservation; documentation filing and grant overpayment need to be better monitored as well;
- Nov 27/97 Ministry releases document "Better, Stronger, Clearer: Environmental Regulations for Ontario." Specific proposals related to waste management include:
- revoke a regulation permitting eight waste disposal sites to receive Liquid Industrial Wastes. None of the sites currently receive such wastes;
 - amend the regulation governing deep well disposal to bring oil field brine disposal under the *Environmental Protection Act*, eliminate the oil field brine exemption, and consolidate the requirements into a revised general waste regulation;
 - amend definition for agricultural wastes, waste-derived fuel, and clarify the management requirements for biomedical waste and asbestos waste;
 - simplify approval and administrative requirements for "manufacturer controlled networks," to promote "product stewardship";
 - introduce four classes of approvals: Class I: mandatory hearings under EPA and as required under EAA; Class II: Discretionary hearing under EPA; Class III: Standardized Approvals; and Class IV: exemptions from waste approval requirements.
 - numerous changes related to hazardous waste management including:
 - reducing reporting requirements for small movements of hazardous wastes;
 - amending the definition of a "site" (presumably to include all facilities within a given municipality as proposed in July 1996);
 - remove generator registration requirements for registerable

- solid waste;
- exempt battery and precious metal bearing waste recycling activities from regulatory requirements;
- modify (weaken) the definition of PCB wastes and establish standardized approvals for PCB storage and transfer sites;
- numerous changes related to municipal solid waste management:
 - amend Recycling and Composting Municipal Waste Regulations to allow two stream collection systems, amend (weaken?) the 50 metre buffer requirement, and allow food composting at leaf and yard composting facilities;
 - revoke regulations related to the types of disposable containers than may be used to package milk;
 - retain refillable and non-refillable soft drink container regulations;
 - amendment of the Waste Audits and Waste Reduction Workplan Regulations and Packaging Audits and Packaging Reduction Workplan Regulations to "streamline" the regulations, "increase their flexibility" and "reduce the paper burden on the regulated community;"

Proposed changes related to spills include:

- proposal to eliminate reporting requirements for notification of "insignificant" spills under the *Environmental Protection Act*.

- Dec 2/97 Minister of the Environment and Energy approves 3 environmental assessments for the following three waste related undertakings:
- Green Lane Landfill in the Township of Southwold.
 - Adams Mine Landfill in the township of Boston.
 - Ridge Landfill site in the Township of Harwich.
- Dec 2/97 A fire in Brantford at tire yard consumes 7000 tires. MoE orders to have the tire number reduced both before and after the fire were not obeyed. As of Dec 16/97 12,700 were still on site.
- Dec 4/97 Environmental Assessment Board approves use of scrap metal smelting furnace in Northumberland County to destroy low level PCB's. The facility is the first permanent PCB destruction facility to be approved in Ontario. In its decision the Board expressed concern over the province's failure to designate the undertaking under the *Environmental Assessment Act*, its implications for non-incineration PCB destruction technologies, the inability of public interest intervenors to participate effectively in the hearing due to the lack of intervenor funding, and the operator's lack of previous experience in the handling of hazardous wastes.
- Dec 5/97 Ministry of the Environment centralizes approvals functions by transferring the issuing of all waste-related provision certificates of approval from MoE regional offices to the MoE Approvals Branch.

- Dec 97 The Ministry of Environment announces the scope and timeline for the Environmental Assessment Board hearing the Adams Mine waste disposal proposal. The Board will hear evidence on two issues about the site: its hydrogeology and surface water characteristics and leakage containment.
- Feb 10/98 Proposal for SARs posted on EBR registry for:
- municipally operated waste transfer or processing facilities handling up to 300 tonnes/day;
 - use of municipal sewage sludge (biosolids) as a soil conditioner.
- Under the SAR proposal neither type of activity would be required to obtain a Certificate of Approval under the *Environmental Protection Act* if they complied with conditions set out in the SAR.
- Feb 18/98 Canadian Institute for Environmental Law and Policy releases report "Hazardous Waste Management In Ontario: A Report and Recommendations." The report highlights major gaps in the available information and regulatory framework for hazardous waste management in Ontario. A request for review of the province's hazardous waste regulations and policies is filed under the *Environmental Bill of Rights* on the basis of the report's findings.
- Feb 19/98 The Ministry of the Environment releases figures for the provincial waste diversion rate. The province is currently diverting 32% of its waste from landfill, however, the goal is to achieve a rate of 50% by the year 2000. The Minister indicated that the province is still committed to the goal but that the province is unlikely to meet the target by that year.
- Feb 26/98 The Minister of Environment announces that the province will act soon to clean up a landfill site in Egremont Township. The site contains 33,000 buried tires. Citizens in the area have launched a lawsuit against the province. The Minister recognizes that the problems with the site demonstrate the shortcomings of environmental law in trying to stop illegal actions. He indicates that his ministry is "looking at ways of amending the law to give our environmental officers a much stronger hand in dealing with bad actors."
- Mar 16/98 Minister of Environment announces agreement between the County of Grey and the MoE to recycle 20,000 tires from a waste tire site in Egremont Township. The site is a fire and groundwater safety hazard.
- Mar 19/98 Minister of Environment places a hold on the approval of any new small space heaters that burn waste oil pending "public input on the environmental impact of the heaters." The MoE estimates that about 10 million litres of oil per year are disposed of this way each year in the province.

- Mar 30/98 A landfill site (Greenlane Environmental) may be considered eligible to expand in southwestern Ontario despite its manager having been convicted of issuing death threats against MoE inspectors and the owner's history of fines for environmental violations (\$45,000.00) including accepting waste from outside his licensed jurisdiction and filling the site beyond its approved capacity. In addition, the owner's Elgin County waste transfer station is being investigated for receiving liquid wastes beyond its license. The owner is proposing to double its current 500 tonne per day limit. The owner has close ties to the Provincial Progressive Conservative Party.
- Mar 30/98 The Ministry of Environment orders further clean-up at the site of the Plastimet plastics recycling site in Hamilton as a consequence of continued high levels of dioxins, furans, and heavy metals after the July 1997 fire. Previous clean-up orders have not been complied with.
- Apr 10/98 Metropolitan Toronto's Keele Valley landfill site may face a class action lawsuit from 30,000 nearby landowners. The suit would seek \$600 million in damages from nuisance odours, dust and gases. The facility handles waste from York, Durham and Toronto.
- Apr 15/98 The Ontario Ministry of the Environment appeared in court to begin to explain why the cleanup of the former Deloro gold mine site has not proceeded. Last year, \$10 million was supposed to have been committed by the province to the cleanup. The charges were laid by the Environmental Bureau of Investigation and the Sierra Legal Defence Fund. The hearing will resume on May 26, 1998.
- Apr 20/98 Ministry of the Environment rejects CIELAP's Request for Review of the province's laws and policies related to hazardous wastes under the *Environmental Bill of Rights*, stating that a review would "not be in the public interest."
- Apr 28/98 Thomasburg tire fire. Fire involving more than 1,000 tires requires six fire departments more than two hours to bring under control. Some homes are evacuated as a result of the fire.
- Apr 30/98 Report submitted by the Recycling Council of Ontario to the Minister of the Environment concerning Blue Box financing and LCBO deposit return systems. The report lists a number of options one of which is to employ user fees on municipal solid waste (for disposal) as means of encouraging consumers to divert recyclable materials to the Blue Box).
- May 2/98 City of Toronto Council bans wine and spirit containers from its Blue Box collection program. The Council also approves a recommendation that residents be advised to return their empty bottles to the LCBO store where they bought them.

- May 20/98 The owner of Plastimet Inc. and the owner of its site drop their legal challenge of the MoE's clean-up order and agree to undertake legal and financial responsibility for the clean-up of the site. The owners also plan to apologize to the community.
- May 21/98 Domtar Limited's dust suppressing product Dombind is causing elevated dioxin levels in the environments near the roads on which it is sprayed according to a Ministry of the Environment investigation. Levels varied widely with one test above the acceptable provincial limit for dioxin. 100 million litres per year of the product, which is a pulp and paper waste liquor, are sprayed on Ontario gravel-top roads.
- Jun 2/98 Ministry of the Environment posts proposals for major changes to Regulation 347 on the EBR Registry. The proposals include 'standardized' approvals for on-site storage of hazardous wastes, including PCBs, expanding exemptions from approval requirements for hazardous waste 'recycling' activities, and eliminating requirements for public hearings prior to the approval of expansions of hazardous or municipal solid waste disposal facilities.

WATER

Introduction

The management of the province's water resources has been a major area of activity by the province over the past year. The responsibility for the regulation of septic systems was passed from the Ministry of the Environment to municipalities, and from the *Environmental Protection Act* to the *Building Code Act*.

In addition, the province has proposed to weaken the monitoring and reporting requirements for industrial facilities under the MISA program, and to eliminate the requirement that Pulp and Paper mills plan to eliminate organochlorines (AOX) from their effluent. The Ministry has also increased the allowable discharge limits for a number of individual facilities.

The past year has also seen the release of a number of reports highlighting continuing problems related to the integrity of the Great Lakes Basin ecosystem. In addition, the International Joint Commission released a report raising serious questions about the safety of dams along the Canada-U.S. border.

Finally, in May 1998 a major controversy emerged over the Ministry of the Environment's approval of a proposal to export water from Lake Superior. The year was also marked by the Ministry's approval of a number of other very large water takings, particularly related to the aggregates and mining industries.

Septic Systems

Some of the most dramatic changes have been in the regulation of septic systems. These systems have been associated with serious environmental and human health problems in the province.¹³¹

Bill 107, the *Water and Sewerage Services Improvements Act*, enacted in May 1997, transferred responsibility for the approval and regulation of most septic systems under the *Environmental Protection Act* from the Ministry of the Environment to municipalities, or the Ministry of Municipal Affairs and Housing in areas without municipal organization. Bill 152, the *Services Improvement Act*, enacted in December 1997, then transferred authority for regulating small, on-lot septic systems from Part VIII of the *Environmental Protection Act* to the *Building Code Act*. The Ministry of Municipal Affairs and Housing promulgated requirements regarding the approval of septic systems into the building code through a regulation made under the *Building Code Act* in April 1998.¹³²

In her Annual Report to the Legislature, the Environmental Commissioner expressed concern that these arrangements appeared to be more concerned with

expediting the approval of septic systems, than ensuring the protection of human health and the environment. The Commissioner also questioned whether municipalities had adequate investigation and enforcement capabilities to deal with the cumulative and growing environmental and public health threats due to improperly functioning septic systems.¹³³

Sewer and Water Infrastructure

The Provincial Auditor's November 1997 Annual Report to the Legislature highlighted a number of problems with the province's programs related to sewer and water infrastructure. In particular, the Auditor stated that water or sewage expansion projects should not be funded by the province unless municipalities have implemented and maximized water conservation.¹³⁴

In March 1998 the Minister with Responsibility for Privatization and the Minister of Environment announce the referral of the Ontario Clean Water Agency (OCWA) to the Office of Privatization to review the provincial government's role in operating municipally owned water and sewage treatment systems. OCWA operates and maintains 123 municipal water treatment facilities and 234 municipal waste treatment facilities.¹³⁵

In March 1998, 44 water treatment plant operators in 23 communities in southwestern Ontario are warned by the MoE that their drinking water testing programs are inadequate.¹³⁶ In 1996, the MoEE and MoH terminated their municipal water testing programs. This action was strongly criticized by the Environmental Commissioner in her 1996 Annual Report to the Legislature.¹³⁷

Municipal-Industrial Strategy for Abatement (MISA)

The Municipal-Industrial Strategy for Abatement (MISA) has been a major target of the province's regulatory reform initiatives. Regulations made under this program establish discharge limits and monitoring requirements for facilities in nine industrial sectors¹³⁸ releasing pollutants into the province's surface waters.

Proposals to reduce the monitoring and reporting requirements under the MISA regulations were presented in the Ministry of the Environment's November 1997 document "Better, Stronger, Clearer: Environmental Regulations in Ontario." The Ministry also proposed to effectively eliminate the requirement that pulp and paper mills plan for zero discharge of AOX (organochlorines). Proposals to implement these changes in the MISA regulations were posted on the EBR Registry on December 30, 1997.¹³⁹ As of June 1998, they had yet to be put into law.

Serious concerns were expressed regarding these proposals by a number of environmental organizations¹⁴⁰ and the Office of the Environmental Commissioner,¹⁴¹ particularly given the Ministry of the Environment's inability to provide estimates of

the total loadings of Ontario water bodies of pollutants generated by facilities regulated under the MISA program.

Furthermore, in January 1998, the Ministry amended the MISA Regulations for the organic and inorganic manufacturing sector to raise the permissible discharge limits for 'conventional' pollutants for a number of facilities.¹⁴² These changes were justified on the basis of increases in production levels at the facilities concerned.¹⁴³

Ontario Hydro Discharges

In May 1997 it was revealed that large quantities of metals had been released into Lake Ontario from a number of Ontario Hydro facilities over the preceding decade. A subsequent review of the situation identified serious problems with the utility's environmental management systems.¹⁴⁴ However, in April 1998, a Ministry of Environment investigation concluded that the release of 1800 tonnes of copper and zinc from Ontario Hydro's Pickering Nuclear Generating Stations had had no measurable effect on drinking water quality or fish life near the plant.¹⁴⁵ The investigation was carried out in response to a request for investigation filed under the EBR in June 1997.

Over the year there were also several releases of radioactive tritium from a number of Hydro's nuclear facilities.¹⁴⁶

Great Lakes

A number of reports were released regarding the state of the Great Lakes over the past year. In July 1997, Environment Canada and U.S.EPA Released their "State of the Great Lakes 1997."¹⁴⁷ Among the report's conclusions: aquatic community health is mixed/improving; aquatic habitat and wetlands are in poor condition; the state of human health in the Great Lakes basin, as reflected by human exposure to persistent toxic substances is mixed/improving; and the situation with respect to toxic contaminants is mixed/improving.

In October 1997, Environment Canada and the Ministry of the Environment released a progress report on activities under the 1994 *Canada-Ontario Agreement on the Great Lakes Basin Ecosystem*. The agencies stated that zero discharge has been achieved for five toxic substances: aldrin/dieldrin, chlordane, DDT, toxaphene and mirex in terms of these products not being imported to, sold or used in the province, although residual of these compounds could still be active in the environment). Other highlights of the report included: reduced discharge levels for some Tier 1 compounds; 50% of required Remedial Action Plans (RAP's) completed; 5000 hectares of wetlands protected and rehabilitated; almost 30% of stored high level PCBs destroyed. However, the report also acknowledged that a number of other commitments made under the Agreement are not being fulfilled, due to budgetary reductions at both levels of government.¹⁴⁸

In the same month, the International Joint Commission (IJC) released a report on its potential future role in meeting the environmental challenges of the 21st century. In its report the IJC stated that significant air pollution problems in the Great Lakes basin will persist and could worsen in the next century. It also noted that new concerns have emerged about possible human and environmental health implications of exposure to many compounds legally released into the environment, and that staff and budget cuts to environmental agencies have already undermined basic environmental monitoring and research programs.¹⁴⁹

In February 1998 the Commission released a report on the safety of dams along the Canada-U.S. border. The report concluded that some regulated facilities are not subject to comprehensive government safety inspections and oversight by governments is unsatisfactory. The Commission was particularly concerned about the situation in Canada, where it concluded that "there does not appear to be any way of obtaining regular government safety inspections for regulated facilities."¹⁵⁰ The Commission recommended regular, periodic, complete and independent on-site inspections by qualified experts; timetables for the implementation of all inspection report recommendations; the establishment and testing of emergency action plans; and public access to all reports and documentation relating to safety issues.¹⁵¹

The province's May 1998 budget included a one-time \$5 million investment into an endowment for the Ontario Great Lakes Renewal Foundation. The province stated that it hoped to use the Foundation to attract private sector contributions for clean-up efforts.¹⁵²

Water Exports

In early May 1998, it was revealed that the Ministry of the Environment had granted a Certificate of Approval under the *Ontario Water Resources Act* to take up to 10 million litres of water per day from Lake Superior over a period of five years. The firm that obtained the approval indicated that it intended to export the water to drought-stricken areas of Asia.¹⁵³

The approval prompted the Great Lakes Commission, an interstate agency based in Michigan,¹⁵⁴ and a former Ontario Minister of the Environment and Energy¹⁵⁵ to suggest that the province had violated the 1909 *Boundary Waters Treaty* between Canada and the United States by granting the approval. Concerns were also raised regarding the implications of permitting water exports under the *North American Free Trade Agreement*.¹⁵⁶ In response, the Canadian federal government suggested to the United State government that the issue be referred to the International Joint Commission.¹⁵⁷

The Minister of the Environment indicated his intention to withdraw the Certificate of Approval for the water taking on May 14, 1998 and to adopt a Ministry

Taking Liberties with Water Takings?

Those who wish to draw large amounts of water from a water body in Ontario are required to obtain a permit to take water from the Ministry of the Environment. The permitting process is intended to avoid or reduce conflicts between water-takers and ensure that water is withdrawn only on a sustainable basis. The system needs to be closely monitored to ensure that such intents are met.

The water taking permitting process has become a subject of concern lately as the MoE has begun to authorize some large and unprecedented water takings and has been increasingly issuing permits with no expiry dates (perpetual permits). Such permits call into question the usefulness of the permit process to ensure sustainable use of a resource and to prevent future conflicts if a taking is permitted on a perpetual basis.

Nova Group : In early 1998, a permit to take water from Lake Superior was granted by Ontario Environment Ministry to Nova Group for export to Asia. The permit allowed a maximum taking of 600 million litres per year for the next five years. This permit possibly violates the International Boundary Waters Treaty with the U.S. government as well as a long-standing policy against water exports from the Great Lakes Basin.

Permits to Take Water Issued to Ducks Unlimited : The wildlife organization Ducks Unlimited alters natural environments to promote conditions favourable to waterfowl. In so doing the organization frequently restructures aquatic environments. Since June of 1997, at least 30 permits to take water or renewal of permits were granted to Ducks Unlimited. Many of the renewals have been made on the basis of having no expiry date. Examples include:

- Bognor Creek. Renewal, without change, of Permit for operation of artificial wetland. Normal operations allow for outflow equals inflow. Max. taking: 5,580 L/min and

8,040,000 L/day. (Proposal date: Oct 31/97)

- Springwater Township. Renewal, w/o change, of Permit of operation of artificial wetland form an unnamed creek. Max. taking: 1,555 L/min and 2,240,000 L/day. Continuous operation 24 hrs/day, 365 days/year. (Proposal date: Nov. 20/97)
- Permits for tributary of Frederick House River; Dundonald Lake tributary; Rufus Lake Road stream; Redstone River tributary; and Clute Creek issued or renewed without expiry date.

Other recent water takings which are notable because of their volumes include:

Sept 19/97. MoE issues permit to take water for Dufferin Aggregates in the Town of Milton. A maximum of 4,200 litres/minute (6,040,000 lpd) of surface and groundwater collected in the quarry floor will be used for quarry dewatering for extraction for the next 15 years.

Sept 29/97. MoE issues permit to take water to Joan Hutchings in North Crosby. The permit allows a taking of 1,577,424 litres/minute (2.25 billion litres/day) during part of April and May for aquaculture.

Nov 5/97. MoE issues permit to Canada Building Materials Company to take 99,653,000 litre/day (21,950,500 IGPd) of water from 2 wells and a nearby pond for 200-313 days/yr. The water is used for commercial aggregate washing.

Dec 23/97. MoE issues permit to take water to Clublink Corporation allowing it to take 21,600 IGPd from groundwater wells, 2,880,000 IGPd from an unnamed tributary, and 360,000 IGPd from 16 Mile Creek for ten years. The purpose is to irrigate a golf course in Milton. Total taking up to 14,807,664 lpd.

Figure 5: Examples of Water Approvals in Ontario

policy against the approval of bulk water takings for export in the future.¹⁵⁸ However, the incident made it clear that the federal government lacked any clear legislative authority to prohibit water exports. It also raised serious questions about the level of scrutiny being applied to proposals by the Ministry of the Environment in its

environmental approvals process.

Water Takings

The past year was also marked by the approval by the Ministry of the Environment of a number of other large water takings. Some of these approvals are presented in Figure 5.

Water Standards

In March 1998, the Ministry of the Environment posted proposed revisions to provincial water standards for four substances on the EBR Registry as part of its standards revisions project. The proposed Provincial Water Quality Objectives for Cadmium, Carbaryl, Trivalent and Hexavalent Chromium and Arsenic were based on the Canadian Water Quality Guidelines. Scientific criteria documents for development of Interim Provincial Water Quality Objectives were also posted for Molybdenum, Vanadium, and NDMA.¹⁵⁹ An Interim Provincial Water Quality Objective for hexachlorocyclopentadiene was adopted in December 1997.¹⁶⁰

CHRONOLOGY

- May 17/97 Revelation that Ontario Hydro's Pickering Nuclear Generating Station has released more than 1,000 tonnes of copper and zinc into Lake Ontario over the past 25 years. The emissions are toxic and bioaccumulative and arise from the scouring of brass (copper-zinc) condenser tubes in the plant's heat exchanger systems. The discharges were never reported, but should have been, under the Municipal Industrial Strategy for Abatement regulations. It is also thought to violate the MISA Power Generation Sector Regulation (Regulation 215/95). The problem had been known to exist since at least 1981.
- May 21/97 Ministry of the Environment and Energy makes a decision on the "Draft Effluent Limits regulation for the MISA Iron and Steel Manufacturing Sector" to control industrial wastewater discharges. The proposed major features are:
- Maximum daily and monthly average loading limits for up to 12 parameters.
 - All process and cooling water must not kill fish or water fleas.
 - All process effluents must be within pH range of 6.0 to 9.5 at all times.

- May 28/97 Passage of Bill 107. The Bill provides for the Transfer of the ownership and operation of provincially owned sewer and water infrastructure to municipalities and the regulation of septic systems to municipalities and the Ministry of Municipal Affairs and Housing.
- July /97 Environment Canada and U.S.EPA Release "State of the Great Lakes 1997." Report summarizes state of the Great Lakes Basin Ecosystem. Key conclusions:
- aquatic community health: mixed/improving;
 - aquatic habitat and wetlands: poor;
 - state of human health in the Great Lakes basin, as reflected by human exposure to persistent toxic substances: mixed/improving; and
 - toxic contaminants: mixed/improving.
- Aug 18/97 York Region and Metro Works Department step up testing and monitoring the Don River system in the wake of a sewage spill from 200,000 homes (22 million litres) into German Creek, a tributary of the Don River. An application is filed in January 1998 under the Environmental Bill of Rights for a provincial review. The spill is being linked to rapid urban development in York Region.
- Aug 26/97 MoE approves a mine water treatment system for River Gold Mines Ltd. located in Jacobson Township. The treatment system will treat a maximum flow of 12.6 L/sec of excess mine water containing suspended solids, ammonia, and some heavy metals.
- Aug 26/97 Aquatech Blue Ltd., an oil recycling firm is charged with dumping waste oil containing toxic materials in Toronto Harbour. Previously it had been convicted of discharging metal-based releases into sanitary sewers. The Ontario government seeks extradition of three US citizens charged with the Lake Ontario dumping.
- Aug 28/97 Ministry of Environment and Energy establishes a \$200 million fund to assist municipalities to upgrade water and sewage systems. The Fund was established in response to a recommendation from the Who Does What Panel and will make funding available to municipalities over the next 3 years. The funds are intended to be used by municipalities to upgrade their water and sewage systems in response to specific health and environmental problems. The Fund appears to be intended to replace the \$140 million/yr Municipal Assistance Program, whose termination was announced in the April 1996 budget.
- Sept 15/97 MoE approves the drainage water the underground working to be discharged in the existing water settling pond in the Township of Beatty. The water treatment will be the sedimentation of suspended solids. The volume of water that will be pumped per day is estimated at 82,000

litres/day meaning a retention time of 12 days. If the water does not meet the standard, McWatters Mines Inc. will take measures such as building another pond.

- Sept 30/97 MoE approves a permit allowing Hamilton Sod/Greenhorizons to take 1,135,000 litres per day or 250,000 Imperial gallons per day, 30 days per year from a dugout pond located in Glanbrook. The water will be used for irrigation of a sod farm.
- Oct 31/97 Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem Second Progress Report is released jointly by Environment Canada and the Ontario Ministry of the Environment. The report indicates that zero discharge has been achieved for five toxic substances: aldrin/dieldrin, chlordane, DDT, toxaphene and mirex at least in terms of these products not being imported to, sold or used in the province (residual of these compounds could still be active in the environment). Other highlights of the report include:
- reduced discharge levels for some Tier 1 compounds;
 - 50% of required remedial actions completed;
 - 5000 hectares of wetlands protected and rehabilitated;
 - almost 30% of stored high level PCBs destroyed.
- The report also acknowledges that certain commitments under the Agreement have not been met due to budget cuts at both levels of government.
- Nov 5/97 Madsen Gold Corp. applied for a permit allowing it to augment water taken from Beaverdam Lake for industrial purposes in Madsen with water from Russett Lake at a rate of 360,000 Imperial gallons per day (1,634,400 lpd) for 244 days seasonally for five years. The Ministry of the Environment and Energy approves this with the following conditions:
- Should the quantity of water change, an amendment is required.
 - Copy of permit must be posted.
 - Company must ensure all staff are knowledgeable about the permit.
 - No more than 10% of the natural flow of Russett Lake at outlet.
 - Water for augmentation of water levels in Beaver Dam Lake.
- Nov 25/97 The Provincial Auditor Erik Peters submits his annual report to the Ontario Legislature. Several environmental programs undergo criticism:
- water or sewage expansion projects should not be funded by the province unless municipalities have implemented and maximized water conservation;
 - documentation filing and grant overpayment need to be better monitored as well.
- Nov 27/98 Ministry releases document "Better, Stronger, Clearer: Environmental Regulations for Ontario." Proposed changes related to water include:

- ban the use of methanol as a heat transfer fluid in heat pumps;
- amend the Water Wells regulation to improve the transmission of water well data: increase licensing fees for well drillers and contractors/technicians; and provide new standards for well construction;
- Amend the MISA Regulations to:
 - reduce the frequency of chronic toxicity testing semi-annually to annually;
 - remove effluent limits for substances that are not used, produced or stored on site;
 - reduce daily monitoring requirements for some parameters if a sites performance surpasses permitted limits for 12 consecutive months;
 - permit the transmittal of data in alternative formats;
 - amend the Pulp and Paper Sector Regulation to remove the requirement that facilities submit plans on the elimination of AOX, and advance the date for the AOX limit of 0.8kg/tonne to December 1997 from December 1999.
- retain the Marinas Regulation, which the Ministry had proposed to repeal in July 1996, and supplement it with a voluntary Code of Practice Developed by the Marina Industry.

- Dec 9/97 Ministry of the Environment approves an Interim Provincial Water Quality Objective for hexachlorocyclopentadiene. The Interim PWQO is 0.06 ug/L.
- Dec 23/97 MoE renews the existing permit allowing Aquafarms 93 in Osprey Township to take water from 3 boreholes and from Beaver River for fish farm operations and for bulk water sales.
- Dec 24/97 Ministry posts on the Ontario Environmental Bill of Rights Registry a number of planned revisions to permitted discharge limits for organic and inorganic manufacturing sector firms under the MISA. The proposals raise the permissible discharge limits for a number of facilities.
- Dec 30/97 Ministry posts proposed amendments to MISA discharge regulations for 8 industrial sectors (Electric Power: Iron and Steel; Industrial Minerals; Inorganic Manufacturing; Metal Casting; Metal Mining; and Organic Chemicals) The amendments would:
- reduce the monitoring frequency for chronic toxicity from semi-annually to annually (provided three years of monitoring have been completed an enough data collected to ascertain safety of effluent);
 - reduce monitoring requirements from daily to three days week if sites surpass monthly average loading limits for 12 consecutive months; and
 - remove of effluent limits for substances that are not used,

produced or stored on the site. Requires monitoring of effluent for parameter once per year.

The proposal for the pulp and paper sector would remove the requirement that kraft pulp mills submit reports on how to achieve goal of zero discharge of AOX. The proposal also indicates that the Ministry may advance date that mills are required to reach a loading limit of 0.8kg AOX per tonne of pulp by December 31, 1999.

- Jan 31/98 The Ontario Ministry of Environment announces that it is raising discharge limits for two companies (GE Plastics and Geon Canada) to allow for a change in production. The amendments involve, in one case, a 63% increase in dissolved organic carbon, a 241% increase in oil and grease discharges and a 38% increase in phenolics. These amendments were originally posted on the Environmental Bill of Rights Registry on Dec 24/97.
- Feb 4/98 Ministry of Municipal Affairs and Housing announces new Ontario Building Code Regulations for septic system management "Regulation to Amend Ontario Regulation 403/97 made under the *Building Code Act*, 1992." The new regulation will take effect April 6, 1998 and:
- transfer authority for regulating smaller on-lot sewage systems to the *Building Code Act* for "one-window" permitting purposes;
 - introduce new certification requirements for installers/inspectors.
- Feb 98 The International Joint Commission releases "Unsafe Dams? A Report by the IJC" The Report concludes:
- that some regulated facilities are not subject to comprehensive government safety inspections and oversight by governments is unsatisfactory;
 - in Canada, "there does not appear to be any way of obtaining regular government safety inspections for Regulated Facilities."
 - without government oversight there is "no effective means of ensuring accountability for activities that can put the lives and property of Canadian and United States citizens in jeopardy."
- The report recommends regular, periodic, complete and independent on-site inspections by qualified experts; timetables for the implementation of all inspection report recommendations; establishment and testing of emergency action plans; and public access to all reports and documentation relating to safety issues.
- Mar 9/98 The Minister with Responsibility for Privatization and the Minister of Environment announce the referral of the Ontario Clean Water Agency (OCWA) to the Office of Privatization to review the provincial government's role in operating municipally owned water and sewage treatment systems. OCWA operates and maintains 123 municipal water treatment facilities and 234 municipal waste treatment facilities.

- Mar 23/98 44 water treatment plant operators in 23 communities in southwestern Ontario are warned by the MoE that their drinking water testing programs are inadequate. The minimum standards for drinking water have been violated. In 1996, the MoEE and MoH terminated their municipal water testing programs. Locations included:
- Towns of Wingham, Exeter, Petrolia, Seaforth, Durham, Hanover, North Perth and East Perth;
 - Villages of Bayfield, Blyth and Zurich;
 - Townships of Goderich, Ashfield, Colborne, East Wawanosh, Morris, Tuckersmith, Teaswater-Culross, Sarawak, Derby, Brant, Kincardine and Bruce.
- Mar 29/98 Ontario Hydro receives its second assessment of its program to repair its brass condenser cooling equipment. The program flows from recommendations from the July 1997 report "Evaluation of Emissions from Ontario Hydro Admiralty Brass Condensers to the Great Lakes." Some dates have slipped but overall the program is said to be on track.
- Mar 31/98 Ministry posts proposed revisions to Provincial Water Standards on EBR Registry, including:
- proposed Provincial Water Quality Objectives for Cadmium (based on Canadian Water Quality Guideline);
 - proposed Provincial Water Quality Objectives for Carbaryl (based on Canadian Water Quality Guideline);
 - proposed Provincial Water Quality Objectives for Trivalent and Hexavalent Chromium (based on Canadian Water Quality Guidelines);
 - proposed Provincial Water Quality Objectives for Arsenic (based on Canadian Water Quality Guidelines);
 - scientific criteria documents for development of Interim Provincial Water Quality Objectives for Molybdenum, Vanadium, and NDMA.
- Apr 3/98 A Ministry of Environment investigation concludes that the release of 1800 tonnes of copper and zinc from Ontario Hydro's Pickering Nuclear Generating Stations has had no measurable effect on drinking water quality or fish life near the plant. The investigation was carried out in response to an EBR request.
- Apr 30/98 Three former Premiers of Ontario (Davis, Peterson and Rae) join a campaign to complete the funding for a Great Lakes environmental research centre at the University of Windsor. \$3.6 million is needed to complete the project when the provincial government withdrew a prior funding commitment in 1995.
- May 1/98 It is revealed that the Ministry of the Environment had granted a Certificate of Approval under the *Ontario Water Resources Act* to take up to 10 million litres of water per day from Lake Superior over a period of five

years. The firm (Nova Group) that obtained the approval indicated that it intended to export the water to drought-stricken areas of Asia.

- May 6/98 Nova Group, the company that was awarded a permit to take 600 million litres of water from Lake Superior for Export to Asia, decides to relinquish the permit because of the controversy that it generated.
- May 8/98 Michigan Congressman Bart Stupak introduces a non-binding House resolution that would have the US Congress block the sale of Great Lakes water for export to Asia. The transaction that the resolution refers to is the proposal by Nova Group (see May 1/98) to export 590 million litres of water per year from the lake to Asia. Canada has asked that the issue be referred to the International Joint Commission rather than quashing the proposal with a ban on exports.
- May 15/98 Province moves toward arriving at a policy that would ban transfers of water from one drainage basin to another. This in effect should quell any possibility of an export of water from the Great Lakes basin as was proposed by the Nova Group (see May 1/98). The Minister implies that the Ontario government would be more comfortable having the federal government implement a bulk water export ban.
- May/98 At the 41st conference of the International Association of Great Lakes Research, delegates were told that more and better early-warning environmental monitoring systems are urgently needed. Issues covered:
- Biological systems respond to the hazards associated with the complex mixtures of toxic pollutants that exist in the environment. These systems need monitoring;
 - How political restructuring and reduced funding could harm the ecological health of the Great Lakes shoreline in Ontario;
 - The devastating impact of lampreys on the lake trout.
- May 20/98 Ontario Hydro Nuclear has submitted three separate proposals to the Ministry of the Environment to re-test its treatment equipment allowing them to meet the effluent requirements of the Clean Water Regulation. The company has informed the Ministry that this re-testing is necessary to consistently meet all the effluent limits imposed by the regulation at its: Pickering Generating Station; Bruce Nuclear Generating Stations A & B; and Darlington Generating Station.

ENERGY

Introduction

Events in Ontario's energy sector loomed large in 1997-98, particularly in their impact on environmental protection in the province. Ontario Hydro, the province's electrical utility, was at the centre of these events whether they related to fossil fuel emissions or nuclear safety issues.

Nuclear and Heavy Metal Spills and Emissions at Ontario Hydro Facilities

In May 1997, it was revealed that over the past 25 years, Ontario Hydro's Pickering Nuclear Generating Station had released more than 1,000 tonnes of copper and zinc (which are toxic and bioaccumulative) into Lake Ontario. The emissions arose from the scouring of brass (copper-zinc) condenser tubes in the plant's heat exchanger systems. Ontario Hydro staff were aware of the copper erosion problem since at least 1981 yet the utility never reported the discharges of copper to the MoE.

This unprecedented non-disclosure of environmental contamination prompted a filing of a request for an investigation under the Ontario Environmental Bill of Rights alleging violations of both the *Environmental Protection Act* and the Municipal Industrial Strategy for Abatement regulations. An investigation was launched however the MoE decided not to lay any charges.

In response to the public concern expressed over these discharges, Ontario Hydro released in July, the "Report on the Evaluation of Emissions from Ontario Hydro's Admiralty Brass Condensers to the Great Lakes." The report indicated that in fact, 1,813 tonnes of metals, predominately copper and zinc, have been discharged to the Great Lakes by Ontario Hydro electricity generating stations over the past 25 years. Though the releases were initially thought to exceed the Provincial Water Quality Objective for copper and to have had a toxic impact on aquatic life, the report concluded that there was no measurable effect. The highest emitting facility has been the Pickering Nuclear Generating Station. The report did conclude, however, that serious inadequacies exist within Ontario Hydro's management system in the areas of: environmental accountability, environmental awareness, internal reporting and external reporting.¹⁶¹

In addition to copper and zinc discharges, it was also revealed in 1997 that spills of radioactive tritium from Ontario Hydro facilities have been occurring without the utility disclosing the information. For example, at the Pickering Nuclear Generating Station ground water was contaminated with tritium 18 years ago (in 1979) and the spill was never reported. The Ministry of Environment and Energy's response to this revelation was regarded as rather tepid. Environment Minister Norm Sterling at first responded by requesting that Ontario Hydro's Board of Directors review and update

their notification procedures. Later, the Ministry of Environment and Energy served Ontario Hydro a draft order that would require it to eliminate the cause of increased tritium levels at its Pickering Nuclear Generating Station, clean up or contain previous tritium leaks and disclose any other potential contamination at this or any of its other facilities. It was noted that if the Ministry were to charge the utility with an *Environmental Protection Act* violation it would be subject to a fine of up to \$50,000 per day since 1979.

Tritium leaks continued to occur despite the threats of action made by the MoE. In April 1998 another spill occurred. This spill was, however, reported to the public and appropriate authorities.¹⁶²

The events of 1997-98, such as Ontario Hydro's cavalier performance with regards to heavy metal and radioactive spills, demonstrates that the institution has been capable, at times, of exhibiting a highly contemptuous view of public disclosure requirements and for environmental protection in the province.

Nuclear Restructuring

As early as 1996, a movement was afoot within Ontario Hydro to bring the utility in line with current health and safety standards and practices for its nuclear facilities management. This requirement became closer to being fulfilled on August 13, 1997, when the utility publicly released "Report to Management IIPA/SSFI Evaluation Findings and Recommendations." The report was the product of an "Independent and Integrated Performance Assessment (IIPA)" of Ontario Hydro's nuclear operations and found that three nuclear plants (Pickering, Bruce and Darlington) were operating at a "minimally acceptable level."¹⁶³ The assessment included six Safety System Functional Inspections (SSFI) of plant systems. The report noted that long standing management, process and equipment problems in the nuclear plants are well known and that the plants' performance are well below levels at the best operated plants.

Key deficiencies in the nuclear plants that were identified included: inadequate definition of employee accountabilities; poorly defined lateral working relationships; inadequate managerial practices; nonconservative decision-making; inadequate quality assurance and inadequate work protection; and incomplete or flawed processes. The report concluded that "immediate action is required in many areas" but that the deficiencies identified have not yet quite "undermined the minimum safety envelopes at the sites."

In conjunction with the release of the IIPA report, the province's utility announced that it would undertake a massive overhaul of its nuclear generating capacity in the province (the Nuclear Asset Optimization Plan). The plan would not only have an enormous impact on the use, production and disposal of radioactive substances but also on the level of emissions from coal-fired power stations whose electricity would be required while part of the nuclear capacity is under repair. Details about the refurbishing include:

- 7 of Ontario Hydro's 20 reactors (4 units at Pickering and 3 units at Bruce) will be out of service for at least two years (restart decision to be made at a later date); upgrades will be made to Pickering B, Bruce B and Darlington reactors;
 - Nanticoke and Lambton coal/oil fired stations will run at higher levels to make up the short fall in electricity;
 - a coal fired unit at the Lennox Generating Station near Kingston will be brought out of retirement; (emission impact below)
 - the plan is expected to cost \$5 to \$8 billion over the next four years;
- The Premier of Ontario, as well as the Chairman of Ontario Hydro insisted that these costs will not be passed onto electricity customers in the form of a rate increase.¹⁶⁴

In order to present the image of asserting control over the utility and its operations, the Ontario legislature formed a committee to scrutinize the restructuring plan in September. The mandate of the Select Committee on Ontario Hydro Nuclear Affairs included the review of Ontario Hydro's nuclear recovery plan and of the serious assertions made about Hydro in the recent IIPA report on nuclear safety at the utility. The committee was headed by Derwyn Shea, MPP with Monte Kwinter, MPP as vice chairperson.

Unfortunately, the Select Committee did little to attempt to steer the utility away from its heavy reliance on nuclear generated electricity. In its December 1997 report,¹⁶⁵ the committee made recommendations which largely reinforced the notion of strengthening regulatory supervision, and improving the safety and integrity of nuclear operations but did not question the overall environmental integrity and sustainability of such infrastructure. Accordingly, the report made recommendations in the areas such as of: nuclear safety; nuclear asset integrity; nuclear asset optimization plan; the Atomic Energy Control Board; the Ontario Energy Board; the relation of Ontario Hydro to the Ontario Government; emergency planning; fire prevention and response; and electricity sector restructuring. The committee concluded that the "safe and efficient" operation of Ontario's Hydro's nuclear generating stations was "vitally important" and that "proper management" was required to protect the \$24 billion invested in the nuclear program. In terms of environmental concerns, the report recommended that:

- the Minister of the Environment should ensure that Ontario Hydro's implementation decisions comply with all environmental legislation, policies and standards;
- Ontario Hydro should evaluate access to existing generation which creates less in terms of emissions and is financially competitive;
- Ontario Hydro should aggressively promote cost-effective energy conservation as a further means of reducing environmental emissions.

Recommendations of this nature have been made in other reports and fora to little effect over the years. It seems particularly contradictory to recommend to "aggressively promote cost-effective energy conservation as a further means of reducing environmental emissions" at a time when the utility is embarking on a massive overhaul of its nuclear generating capacity.

Fossil Fuel Emissions

In August, as the utility was announcing its plan to refurbish most of its nuclear capacity, it also divulged the extent to which the temporary reliance on coal and oil based generating capacity will increase fossil fuel related emissions. The utility's carbon dioxide emissions had been falling for a number of years (27 Mt in 1992; compared to 21 Mt in 1996).^{166 167} Its target was to stabilize its emissions at the 1990 level (26 Mt) by the year 2000.¹⁶⁸ Preliminary estimates suggest that Ontario Hydro will violate this commitment by emitting at least 30 Mt of carbon dioxide per year over 1998, 1999 and 2000.¹⁶⁹ Even in advance of this increase in carbon dioxide emissions, electricity production was one of Ontario's largest producers of carbon emissions at 14.8% of the province's total emissions in 1995 (only the transportation and industrial sectors were larger at 32.1% and 25.8% respectively). During the nuclear restructuring, electricity production could rival the industrial sector for second place in terms of emissions of carbon dioxide in the province.

In addition, the utility's acid gas emissions (nitrogen oxides and sulphur dioxide) will rise in the process of switching to fossil fuel generating capacity. Ontario Hydro's acid gas emissions had fallen from 210,000 tonnes in 1992 to 120,000 tonnes in 1996. Its current limit under the Countdown Acid Rain Program is 215,000 tonnes. It is expected that the utility's new operating mix will cause it to return to emitting at the upper permitted level.¹⁷⁰

To combat some of the ramifications of these developments, Ontario Hydro purchased 10,000 (U.S.) tons of carbon dioxide reduction credits from the Southern California Edison electric utility.¹⁷¹ The utility did this despite the fact that a verifiable and workable greenhouse gas emission credit trading system has not been devised nationally or internationally. The purchase was viewed as lending support to the concept of an international emissions trading program, one of the options under discussion at the Kyoto Conference on Climate Change in December 1997.

Introduction of Electricity Competition

In November 1997, the Ontario government released "Direction for Change: Charting a Course for Competitive Electricity in Ontario" and announced that it was intending to open Ontario's electricity market to competition. The paper proposed the following elements :

- create a competitive market in the year 2000 for wholesale and retail customers;
- separate monopoly operations from competitive businesses throughout the electricity sector;
- establish an Independent Market Operator for interim power;
- redesign the Ontario Energy Board with an expanded mandate;
- provide for the introduction of new mechanisms to ensure environmental

- protection;
- encourage reform of existing municipal utilities;
- establish a level playing field on taxes and regulations in the industry;
- restructure Ontario Hydro into new companies with clear business mandates.

New mechanisms will clearly be required to ensure environmental protection as, in a new competitive electricity market, municipal utilities and investor-owned corporations are likely to build new electricity generating capacity in Ontario. When the emissions from these stations are combined with Ontario Hydro's output, emission levels from electricity production in Ontario will increase. In fact, according to a recent Natural Resources Canada forecast, if new environmental policies are not enacted in Ontario, the province's electricity-related greenhouse gas emissions in 2020 will be 2.2 times greater than its 1990 levels.¹⁷²

Furthermore, some of Ontario's electricity needs will be met by importing power from Ohio Valley generating stations. It is believed that Ohio Valley coal-fired electricity stations will be able to offer Ontario consumers very competitive prices. Although Ohio Valley coal-fired generating stations will be able to offer Ontario consumers low-cost electricity, there are no emission caps on the greenhouse gas, nitrogen oxides, air toxic, or particulate emissions from these stations.¹⁷³ Moreover, coal-fired electricity imports from the Ohio Valley are especially harmful since the NO_x emission rates of many Ohio Valley stations are significantly higher than those of Ontario Hydro's coal-fired stations.¹⁷⁴ The increased use of low-cost, coal-fired plants located in the U.S. and the commensurate emissions increases would have serious air quality implications for Ontario, as this province is directly downwind from the Ohio Valley.

Merely maintaining existing regulations will not be adequate to prevent increased air pollution in a competitive electricity market. Ontario's existing caps on emissions of SO₂, CO₂ and NO_x emissions apply only to Ontario Hydro. Unless these regulations are broadened, Ontario Hydro's domestic and Ohio Valley competitors will not be subject to CO₂, NO_x or air toxics emission caps (U.S. electricity generating stations are subject to a SO₂ emissions cap).¹⁷⁵ Air pollution will, therefore, increase significantly in a competitive market.

Competition Committees

Continuing with the theme of competition, the province and Ontario Hydro announced in January 1998, the establishment of an interim market for replacement electricity. The interim market will open up the supply side of Ontario Hydro to other generators. The system claims to be renewable-preferring: "Energy from competitively-priced renewable sources such as small hydroelectric, solar and wind power will be selected over non-renewable sources." However, given the large economies of scale and purchasing power of coal fired facilities, coal-based power is likely to be more "competitively-priced." Also to be factored into decisions are transmission and operational factors. These factors would tend to favour large established producers

including Ontario Hydro which have reliable transmission infrastructure established.

To manage some of the consequences of opening up Ontario's electricity market, the Minister of Energy, Science and Technology established two committees in early 1998. The Market Design Committee, created in January 1998, will advise the government on market rules, powers and responsibilities of the regulatory agency. In February, the minister announced the creation of an Electricity Transition Committee to advise minister on proposed changes to Ontario's electricity system. Specifically, the Committee will solicit input from affected stakeholders with regards to how they are likely to be effected by impending changes.

Both committees will be guided by the Government's White Paper *Direction for Change: Charting a Course for Competitive Electricity in Ontario* which sets out principles to ensure that the market is fair and equitable to all operators and includes the consideration that environmental protection measures be incorporated into the market design. Such measures will be needed given competition's likely environmental impacts.

Summary

The energy sector in Ontario, in particular the electricity production segment, continues to evolve and develop in a pattern that is not environmentally sustainable. The system is heavily reliant on uranium which brings with it a host of environmental and health and safety problems in its mining, use and disposal and on coal, one of the most emission-intensive fossil fuels. Furthermore, the regulatory oversight of the electrical system has proven only as effective as ensuring that the most pronounced impacts continue within certain bounds but rarely abate - the escalation of acid gas emissions to their regulatory ceiling being a case in point. Regrettably, the introduction of competition is likely to only exacerbate the situation regarding fossil fuel emissions (permanently high levels of emissions). On the nuclear side, the introduction of competition and the possibility of the privatization of Ontario Hydro raises a lot of uncertainties, particularly given that the nuclear operation of Ontario Hydro were the birthplace of the utility's monumental debt.

CHRONOLOGY

- May 17/97 Revelation that Ontario Hydro's Pickering Nuclear Generating Station has released more than 1,000 tonnes of copper and zinc into Lake Ontario over the past 25 years.
- Jun 11/97 Filing of an EBR Request for Investigation regarding Ontario Hydro's discharge of more than 1800 tonnes of copper and zinc into Lake Ontario from Pickering Nuclear Generating Station.

- Jun 21/97 It is reported that levels of radioactivity in fish near Ontario Hydro's Bruce Nuclear Generating Station on Lake Huron are significantly higher than levels in fish in Lake Ontario. The difference is approximately 9 times and rising. The findings have implications for Ontario Hydro's plan to store more used radioactive fuel on site and for Ontario's electricity supply as the Bruce Station has provided, in past, almost one quarter of Ontario's electricity.
- Jul 8/97 Release of the "Report on the Evaluation of Emissions from Ontario Hydro's Admiralty Brass Condensers to the Great Lakes."
- Aug 1/97 It is revealed that a spill of radioactive tritium from Ontario Hydro's Pickering Nuclear Generating Station contaminated ground water in the vicinity 18 years ago (1979) and that the spill was never reported.
- Aug 2/97 Ministry of Environment and Energy presents Ontario Hydro with a draft order that would require it to eliminate the cause of increased tritium levels at its Pickering Nuclear Generating Station, clean up or contain previous tritium leaks and disclose any other potential contamination at this or any of its other facilities.
- Aug 13/97 Release of "Report to Management IIPA/SSFI Evaluation Findings and Recommendations." This report finds Ontario Hydro's nuclear operations at three plants (Pickering A&B, Bruce A&B and Darlington) to be operating at a "minimally acceptable level." Ontario Hydro announces that it is preparing to undertake a massive overhaul of its nuclear generating capacity in the province (the Nuclear Asset Optimization Plan). The plan will cost \$5 to \$8 billion over four years and temporarily shutdown 7 of 20 reactors.
- Aug 14/97 Ontario Hydro reveals that the coming increase in fossil fuel use (because of nuclear shut-down) will greatly increase emissions of carbon dioxide and acid gas emissions (nitrogen oxides and sulphur dioxide).
- Sep 15/97 The Ontario legislature forms the Select Committee on Ontario Hydro Nuclear Affairs to scrutinize Ontario Hydro's nuclear recovery plan and the serious assertions made about Hydro in the recent Independent Integrated Performance Assessment (IIPA) report on nuclear safety at the utility.
- Oct 10/97 The Provincial Cabinet is reorganized. The Ministry of Environment and Energy separates into two different entities. Norm Sterling remains the Minister of the Environment while Jim Wilson becomes the Minister of Energy, Science and Technology.
- Nov 6/97 Ministry releases White Paper on restructuring Ontario Hydro. The paper

proposes to create a competitive market in the year 2000 for wholesale and retail customers.

- Nov 27/97 Ministry releases document "Better, Stronger, Clearer: Environmental Regulations for Ontario." Proposed changes related to energy include:
- repeal of regulations related to electric stationary water heaters under the *Energy Efficiency Act*, as this type of heater is no longer permitted for sale or lease in Ontario;
 - establish energy efficiency standards for gas-fired room heaters; wall furnaces; and fluorescent lamps;
 - establish uniform systems of accounting for utilities regulated by the Ontario Energy Board;
 - Remove obsolete exemptions related to completed transactions regulated by the Ontario Energy Board; and
 - permit the Ontario Energy Board to set its own rules of procedure.
- Dec 1/97 Richard Dicerri, a former Deputy Minister of Environment and Energy, is appointed Vice-President, Corporate and Environmental Affairs, for Ontario Hydro.
- Dec 10/97 Ontario Hydro becomes the first company in Canada to purchase credits for carbon dioxide emission reductions made outside of the country. The utility purchased 10,000 tons of carbon dioxide reduction credits from the Southern California Edison electric utility. The purchase was viewed as lending support to the concept of an international emissions trading program, one of the options under discussion at the Kyoto Conference on Climate Change.
- Dec 31/97 Ontario Hydro fails to meet a deadline for filing information with the Atomic Energy Control Board on its plan to improve nuclear plant operating performance at its Bruce B nuclear facility.
- Dec 97 The "Report of the Select Committee on Ontario Hydro Nuclear Affairs" is presented in the Ontario legislature. The report dwells mainly on nuclear safety and nuclear asset integrity and largely validates Ontario Hydro's Nuclear Asset Optimization Plan.
- Jan 1/98 Ontario Hydro begins shutdown of three reactors at its Pickering A facility. Each reactor can produce 540 megawatts of power and will be laid up until at least the year 2000.
- Jan 16/98 The province and Ontario Hydro announce the establishment of an interim market for replacement electricity. The interim market will open up the supply side of Ontario Hydro to other generators. "Energy from competitively-priced renewable sources such as small hydroelectric, solar and wind power will be selected over non-renewable sources." Given the large economies of scale and purchasing power of coal fired facilities,

this type of power is likely to be more "competitively-priced." Also to be factored into decisions would be transmission and operational factors. These factors would tend to favour large established producers including Ontario Hydro. As well, purchase contracts are short (2-4 years) which limits the ability to invest in renewable infrastructure.

Jan 20/98 Minister of Energy, Science and Technology Jim Wilson establishes the Market Design Committee to restructure Ontario's electricity industry. The committee will advise the government on market rules, powers and responsibilities of the regulatory agency. The committee will be guided by the Government's White Paper *Direction for Change: Charting a Course for Competitive Electricity in Ontario* which sets out principles to ensure that the market is fair and equitable to all operators and includes the consideration that environmental protection measures be incorporated into the market design.

Jan 28/98 Floyd Laughren is appointed to the Chair of the Ontario Energy Board.

Jan 98 The Institute for Environmental Studies (University of Toronto) and Pollution Probe release "Emissions for Coal-Fired Electric Stations: Environmental Health Effects and Reduction Options." The report concludes:

- emissions of several key pollutants from coal-fired electric stations are at levels which represent a threat to human health and the environment. This threat remains despite emission reductions which have already been achieved.
- over 90% of each of the five pollutants investigated are generated in the region defined as the Ohio Valley/Great Lakes States. Emissions from this region have a direct impact on air and water quality in Ontario. Government action in Canada and the U.S. is required to achieve the coal station emission reductions necessary to obtain acceptable air quality standards to protect human and ecosystem health.

Subsequent media reports indicate major utilities in the U.S. Midwest have begun to increase production using coal-fired generating stations. This led to a warning by the group Northeast States for Coordinated Air Use Management (NESCAUM) which prepared "Air Pollution Impacts of Increased Deregulation in the Electric Power Industry: An Initial Analysis." NESCAUM is concerned that deregulation will result in "significantly increased power production at low-cost, highly polluting coal-fired plants." Deregulation will also cause a boost in smog levels unless NO_x and CO₂ emission caps are established. States involved in issuing the warning border Ontario, Quebec and New Brunswick. These provinces are in the same airshed as the U.S. states and will experience the same degradation in air quality found there.

Feb 3/98 Minister of Energy Science and Technology establishes Electricity

Transition Committee to advise minister on proposed changes to Ontario's electricity system. Specifically, the Committee will solicit input from affected stakeholders. The Committee is chaired by David McFadden, a partner in the Toronto law firm Smith Lyons and Arthur Kroeger, Chancellor of Carleton University.

- Feb 19/98 The President of Ontario Hydro makes an unprecedented appearance before hearings of the Atomic Energy Control Board to offer reassurances that it will not again miss a deadline for filing information on its nuclear plant operating performance improvement commitments. The utility missed a filing deadline on December 31, 1997.
- Feb 98 The Ontario Ministry of Housing moves away from its original proposal to dramatically reduce the insulation requirements for new homes contained in the Ontario Building Code. The standard for new homes will be set at R17 above grade and R8 below grade.
- Feb 27/98 Ontario Hydro decides against installing the modern air pollution control equipment at its Lennox Power Generating Station near Kingston. The equipment would reduce levels of nitrous oxides. Recently, Ontario Hydro has elected to install emission control devices at its Lambton and Nanticoke stations.
- Mar 6/98 Ontario Hydro receives its second progress report of its program to repair its brass condenser cooling equipment. The program flows from a recommendation from the report "Evaluation of Emissions from Ontario Hydro Admiralty Brass Condensers to the Great Lakes" (see Jul/97) The progress report indicates that some dates have slipped but overall the program is on track.
- Mar 18/98 Ontario Hydro affirms its earlier decision to mothball the final two nuclear reactors at its Bruce A Nuclear Generating Station. Bruce A reactors may restart in 2003. The Bruce B plant is attempting to improve its performance.
- Mar 22/98 Minister of the Environment rejects a request by the Town of Pickering, Ajax, Whitby, Uxbridge, Durham Region, Durham Nuclear Awareness and concerned residents for an environmental assessment on the future of the Pickering nuclear power station. 18,000 Pickering residents had voted for an assessment in the November 1997 municipal election.
- Mar 27/98 Ontario Hydro's Pickering Nuclear Generating Station is granted a one year operating licence (a five year licence was requested). Many local interests requested a maximum 9 month licence given Ontario Hydro's nuclear operating performance. Ontario Hydro and is required to report back in six months.

- Mar 31/98 Union Gas Ltd. asks the Ontario Energy Board to financially penalize Pollution Probe for generating negative media reports about its water heater deregulation proposal. Union Gas is seeking permission from the board to shift its water-heater rental business to an unregulated affiliate. Pollution Probe estimates that reorganization could cost ratepayers \$27.1 million in additional charges each year and is worried that higher rates will encourage the use of electric water heaters, leading to higher emissions of pollutants from coal-fired electric power plants.
- Apr 3/98 A Ministry of Environment investigation concludes that the release of 1800 tonnes of copper and zinc from Ontario Hydro's Pickering Nuclear Generating Stations has had no measurable effect on drinking water quality or fish life near the plant. The investigation was carried out in response to an EBR request.
- Apr 22/98 The Ontario government receives a proposal for industry self-regulation from the Ontario Energy Marketers Association (the province's natural gas brokers). While the plan applies primarily to consumer relations, the concept is consistent with many other schemes in which governments turn over the management of concerns about environment, health, safety and the public interest to private sector bodies (usually the same bodies that caused the concern for environment, health, safety and the public interest in the first place).
- Apr 25/98 A 100 litre spill of radioactive heavy water causes a station emergency declared at Ontario Hydro's Darlington Nuclear Generating Station triggering standby of provincial nuclear emergency response. Concern is expressed for workers who may have been exposed to high levels of radiation.
- May 8/98 Ontario Hydro announces that it has sold emission credits worth \$500,000 to a Connecticut company (Hartford Co-generation Ltd) in order for that company to achieve its state-directed emission targets. 500 tonnes of nitrogen oxides were sold under the Pilot Emission Reduction Trading Project. The credits were reviewed in Canada by the PERT Project. and approved in the US by the Connecticut Department of Environmental Protection. Ontario Hydro created the credits by reducing nitrogen oxide emissions through the use of new burners and other modification to its Nanticoke and Lambton generating stations in 1995 and 1996.
- May 21/98 The Atomic Energy Control Board criticizes Ontario Hydro for a spill of 400 kilograms of radioactive heavy water in April 1998 (see above). The Board concluded that the spill could have been avoided had the utility expedited its nuclear operations improvement plan.
- May 20/98 Ontario Hydro Nuclear has submitted three separate proposals to the

Ministry of the Environment to re-test its treatment equipment allowing them to meet the effluent requirements of the Clean Water Regulation. The company has informed the Ministry that this re-testing is necessary to consistently meet all the effluent limits imposed by the regulation at its: Pickering Generating Station; Bruce Nuclear Generating Stations A & B; and Darlington Generating Station.

May 29/97 Ontario Energy Board issues decision approving Union Gas Ltd.'s proposal to deregulate the water-heating rental activity. This could lead to shift to electric water heaters whose energy source (coal-fired electricity) is more emission intensive. The OEB declined to penalize Pollution Probe for releasing to the media Union Gas Ltd.'s proposal.

PESTICIDES & AGRICULTURE

Introduction

The past year has been marked by a number of major developments related to agriculture and its impact on the environment. In her 1997 Report to the Legislature, the Environmental Commissioner noted the disappearance of any reference to the environment in the mission statement of the Ministry of Agriculture, Food and Rural Affairs.¹⁷⁶ This was followed by revisions to the Ministry's Statement of Environmental Values to reflect the Ministry's Business Plan. This apparent lack of concern for environmental matters was reflected in the Ministry's principle legislative initiative over the past year, the *Farming and Food Production Protection Act*.

The Farming and Food Production Protection Act

Bill 146, the *Farming and Food Production Protection Act*, was enacted in May 1998. The Act maintains the current prohibition in the *Farm Practices Protection Act* barring neighbours of farms from undertaking actions in relation to nuisances which arise from 'normal' farm practices. It also adds a provision permitting farmers to appeal municipal by-laws that attempt to control such nuisances to the 'Normal' Farm Practices Protection Board, and provides the Board with the power to overturn such by-laws.¹⁷⁷ The measure appears to have been motivated by concerns on the part of industrial scale hog farmers that municipal councils were considering the adoption of such by-laws to control the environmental and health effects of their operations.¹⁷⁸

Bill 146 is of particular concern given that a draft State of the Environment Report prepared by the Ministry of Environment and Energy released to the public in February 1997, indicated that runoff from agricultural operations the leading cause of declining surface water quality in Southern Ontario.¹⁷⁹ Furthermore, a February 1998 report by the Canadian Institute for Environmental Law and Policy, noted that there was virtually no information available regarding the management of waste pesticides from agricultural operations in the province.¹⁸⁰

The passage of Bill 146 further insulates farm operations from either public or private actions to control their impacts on human health and the environment. The Bill is particularly noteworthy as it is one of the few pieces of legislation in Canada intended to *protect* an activity which may damage the environment or human health.¹⁸¹

Pesticides Regulation

The Ministry of the Environment's November 1997 "Better, Stronger, Clearer: Environmental Regulations for Ontario" document proposed a number of changes

related to pesticides including:¹⁸²

- the prohibition of the burial of empty pesticide containers and require recycling of agricultural and commercial containers made of plastic or metal;
- the elimination of the sections of Regulation 914 dealing with obsolete pesticides that are no longer available; and
- the consolidation and clarification of the sections of Regulation 914 on fumigants.
- the simplification of the licensing system and reduction of the number of types of licenses;
- the upgrading of training requirements for exterminators; and
- the elimination of exterminator licenses requirement for the use of some "low risk" pesticides.
- the introduction of Standardized Approvals for applications of "low risk" pesticides.

In December 1997, proposed amendments to Regulation 914 were posted on EBR Registry beginning the process of their implementation.¹⁸³ These amendments would strengthen the requirements for supervision of non-certified agriculturalists by certified agriculturalists, and would place responsibility on the supervisor for the acts and omissions of non-certified agriculturalists and labourers.

The proposals would also require non-certified agriculturalists who apply schedule 2 and 5 pesticides to attend a course on safe pesticide use and that only a certified agriculturalist can decide on the pesticide mix to be used, purchase the products and oversee proper storage. The proposal would also remove the requirement for certification for agriculturalists to use Schedule 3 pesticides on the basis that these pesticides are readily available to untrained homeowners. The latter proposal prompted an expression of concern by the Environmental Commissioner. She pointed out that agricultural applications of pesticides are on a much larger scale than domestic uses.¹⁸⁴

Biotechnology and the Commercialization of Genetically Engineered Crops in Ontario

The past year has also seen the widespread introduction of genetically engineered crops in Ontario, particularly pest resistant corn, and herbicide resistant soya. Serious concerns have been raised about the environmental implications of the commercialization of these crops. Pest resistant corn, for example, uses genes from the bacteria *bacillus thuringiensis* (bt) to produce a substance which is toxic to insects. However, bt is widely used by organic farmers as a biological pesticide. There is a major concern that the widespread exposure of pest populations to bt toxin as a result of the commercialization of pest resistant crops using bt toxin gene will result in the emergence of pest populations that are resistant to bt toxin. This would render bt useless as a biological pesticide. Concerns have also been raised about the impact of pesticide producing plants on non-target organisms, particularly beneficial or ecologically significant insects.¹⁸⁵

CHRONOLOGY

- Jun 26/97 Bill 146, the *Farming and Food Production Protection Act* receives first reading. The Bill, if enacted, would maintain current prohibition in the *Farm Practices Protection Act* barring neighbours of farms from undertaking actions in relation to nuisances which arise as a result of 'normal' farm practices, and adds a mechanism through which the Farm Practices Protection Board can overturn municipal by-laws that attempt to control such nuisances.
- Sept 19/97 Premier attends unveiling of one of 75 Ontario developed transgenic grape vines at Chateau des Charmes vineyard in Niagara. The grape has been given genes from arabidopsis, a Canadian wildplant related to broccoli and cauliflower.
- Sept 24/97 Bill 146, the *Farming and Food Production Protection Act* passes Second Reading.
- Nov 13/97 Ministry of Agriculture, Food and Rural Affairs (OMAFRA) posts a proposal on the EBR Registry to alter its Statement of Environmental Values (SEV). OMAFRA proposes to alter its SEV to reflect the priorities in its business plan which are: to foster competition, increase exports and encourage investment.
- Nov 27/97 Ministry releases document "Better, Stronger, Clearer: Environmental Regulations for Ontario." Proposed changes related to pesticides include:
- prohibition of the burial of empty pesticide containers and the required recycling of agricultural and commercial containers made of plastic or metal;
 - elimination of the sections of Regulation 914 dealing with obsolete pesticides that are no longer available; and
 - consolidation and clarification of the sections of Regulation 914 on fumigants.
 - simplify the licensing system and reduce the number of types of licences;
 - upgrade training requirements for exterminators; and
 - eliminate exterminator licences requirement for the use of some "low risk" pesticides.
 - introduce Standardized Approvals for applications of "low risk" pesticides.
- Dec 17/97 Bill 146, the *Farming and Food Production Protection Act* is referred to the Standing Committee on Resources Development.
- Dec 24/97 The Ministry of Environment proposes changes to grower certification requirements under regulation 914 of the Pesticides Act. If the proposals

are accepted, all growers, including assistants, using Schedule 2 and 5 (commercial) pesticides would require certification. In, addition, agriculturalists using Schedule 3 (low toxicity) pesticides would require certification beginning in April 1, 1998.

FORESTRY, WILDLIFE & PROTECTED AREAS

Introduction

Debates around Forest Management, wildlife and protected areas in Ontario over the past year have been dominated by one subject: the Ministry of Natural Resource's 'Lands for Life' initiative. This land-use planning and allocation process is to determine the uses of approximately half of the province's land surface for the foreseeable future.

Although the 'Lands for Life' process has drawn the most attention in this area, there have been a number of other major developments related to forestry, wildlife and protected areas. These have included a major court decision regarding the province's forest management practices, and the enactment of a *Fish and Wildlife Conservation Act* to replace the *Game and Fish Act*.

Lands for Life

The 'Lands for Life' process was initiated in February 1997. The process is intended to allocate uses for public lands in the central region of Ontario, an area of 46 million hectares. Under the program, the Ministry of Natural Resources has divided central Ontario into three large planning areas. Regional round tables, one in each planning area, are to draft recommendations on how land and resources in their region (Boreal West, Boreal East, and Great Lakes-St Lawrence) should be allocated. The members of the Round Tables, who must be residents of their area, were appointed by the Minister of Natural Resources. The three major land-uses that have been developed in the process are: natural heritage protection, which includes parks and protected areas; remote tourism areas; and general industrial use, including forestry and mining. The Round Tables were originally scheduled to make their recommendations to the Minister of Natural Resources by March 1998.

Serious concerns have been raised about several aspects of the 'Lands for Life' process. These have included the short time lines for such a massive planning undertaking, the fairness of the public consultation process, and the quality of the information made available to the public. Specific concerns have included the lack of representation from members of the public from outside of the planning areas themselves, the lack of input from Southern Ontario, the weighting of the Round Tables' membership in favour of resource industries, and the lack of specific guidelines or policies on how the Round Tables are to arrive at their conclusions.¹⁸⁶

In response to these concerns, the Ministry of Natural Resources has increased consultation in Southern Ontario, issued some guidelines to the Round Tables, and extended the time line for the Round Tables to draft their recommendations until June

1998. However, in her April 1998 Annual Report to the Legislature, the Environmental Commissioner noted that the MNR's previous land use planning process for this region took more than 10 years to complete. The Commissioner also expressed concerns that the Round Tables' tight schedule does not allow MNR enough time to compile detailed analyses of potential natural heritage areas, or to identify existing old growth forests.¹⁸⁷

Forest Management

The changes that have been taking place in the province's approach to forest management highlight the significance of the 'Lands for Life' process. Over the past two years, the Ministry has been transferring much of its responsibility for monitoring and ensuring compliance with forest management rules to the forest industry. This has been a result of the enormous reductions in the budget and staff resources of the Ministry over the past three years.¹⁸⁸

The MNR is also considering major changes to the forest tenure system. These appear to be in response to pressures from the forest industry for perpetual tenure, and rights to compensation if tenured lands are re-allocated to such uses as remote tourism and parks.¹⁸⁹ In her 1997 Annual Report to the Legislature, the Environmental Commissioner noted that in 1997 the MNR developed wood supply agreements that would grant companies 'compensable tenure.' In addition the Minister has confirmed his willingness to negotiate the length of tenure, based on scientific and business principles. However, the development of an 'enhanced' tenure system has been postponed pending the outcome of the 'Lands for Life' process.¹⁹⁰

There have been a number of other major developments related to forest management over the past year. In September 1997, the Ministry of Natural Resources submitted a plea of guilty with respect to the charges laid against it under the *Environmental Assessment Act*, for the construction of an access road to Cross Lake. The lake was designated to be motor vehicle free under the Temagami Regional Comprehensive Land Use Plan.¹⁹¹ The Ministry was fined \$1,200 for its violation of the Act.¹⁹²

In February 1998 a decision of the Ontario Divisional Court declared three Northern Ontario timber management plans to be "of no force and effect." The Court concluded that MNR had failed to comply with the requirements of the *Crown Forest Sustainability Act* and the decision of the Environmental Assessment Board in the Class Environmental Assessment of Timber Management on Crown Land in: approving work schedules without proof that the forest would be managed sustainably; approving plans which lacked any sustainability indicators and frequently allowed for clear-cutting; and arbitrarily extending timetables for phasing in new standards. The Court gave the province 12 months to bring the Elk Lake, Upper Spanish and Temagami plans into compliance with the Act.¹⁹³

In its decision, the Court stated that:

"The nature and quality of noncompliance is extreme...The difficulty is not with individual foresters or planners, but with the Institutional failure of the Ministry to appreciate and fulfil its legal obligations. The Ministry's violations, however, are serious."¹⁹⁴

An effort by the Ministry of Natural Resources and the forest industry to amend the judgement on the basis of the impact of the cuts to the Ministry's budget was rejected by the Court on May 20, 1998, with a cost award of \$127,293.96 to the applicants (i.e. Algonquin Wildlands League and the Friends of Temagami).¹⁹⁵

The Court decision was followed by the publication of report by Wildlands League and Sierra Legal Defence Fund revealing a pattern of serious failure to enforce environmental regulations applicable to the forestry industry in Algoma Highlands.¹⁹⁶ Publication of the report was accompanied by the filing of a request for investigation under the *Environmental Bill of Rights*.

The first assessment of the province's timber supply under its new Forest Resources Assessment Policy (FRAP), was released in June 1997. The assessment concluded that the province's timber supply was projected to decline substantially over the next 60 years, while industrial demand for timber would continue to rise. The assessment also laid out some possible approaches to the problem. These included the creation of more replanted forest by dealing with the 'backlog' of harvested areas that have not been restocked; opening more Crown lands to timber harvests, including areas north of where timber harvesting activities are currently permitted; increasing investments in silviculture; improving forest management decision-making; and accepting limitations on timber supply.¹⁹⁷

Disposition and Sale of Crown Lands

Over the past three years, the MNR has accelerated its efforts to sell public lands that are "no longer needed" and are not "ecologically significant." The Environmental Commissioner for Ontario reported that in 1995-96 the Ministry sold 151 properties with a market value of more than \$4 million. The MNR's current target for the sale of Crown land is currently approximately \$5 million/yr.¹⁹⁸

In her April 1998 report to the Legislature, the Environmental Commissioner expressed concern the proposed Bill 119 amendments to the *Public Lands Act* which would remove limits on the maximum size and minimum price of parcels of public land for sale. Other proposed changes to the Act would delegate the power to authorize the sale of public lands from the Lieutenant-Governor in Council to the Minister of Natural Resources.¹⁹⁹ The Commissioner also noted that the EBR public notice and comment requirements do not apply to the sale of public lands.²⁰⁰

In December 1997, the Ministry of Natural Resources issued a request for proposals from parties knowledgeable about real estate to assist in the development of a disposition strategy for lands controlled by the MNR. The subject lands are

located throughout the province.²⁰¹

The Fish and Game Conservation Act

In December 1997, Bill 139 the *Fish and Wildlife Act* was enacted. This legislation replaced the *Game and Fish Act*. The new Act:

- raises the maximum penalty for an offence to \$100,000;
- raises the time limit on prosecution from six months to two years;
- prohibits the possession of wildlife;
- increases court powers to suspend licenses;
- adds a new category of protected species; and
- prohibits the possession of black bear gall bladders separate from the animal itself.

However, concerns have been expressed that the legislation continues to advance the privatization of fish and wildlife resource management, lacks the legal mechanisms necessary to protect wildlife, allows for a wide range of ministerial discretion on the application of the act, defines "aquaculture" but does not define "conservation", limits the investigation of hunting, fishing and trapping activities, and is not strong enough to prevent the trafficking of animal parts.²⁰²

A one-time expenditure of \$10 million to improve fish and wildlife management was announced in the May 1998 budget.²⁰³

Protected Areas

In July 1997, the MNR officially announced the new boundary of Wabakimi Provincial Park, north of Armstrong, making it the second largest park in Ontario. The park has been expanded from 155,000 hectares to 892,061 hectares. The review of the boundary started in 1992.

In April 1998, the World Wildlife Fund released its annual progress report on Canada's efforts to conserve natural spaces (the Endangered Spaces Campaign). The report noted that the province of Ontario only established two new protected areas over the preceding year. Concern was also expressed over recent trends in the new Ontario Parks agency, which oversees the management of existing provincial parks. Large scale recreational developments, which threaten the natural and ecological integrity values have, for example, been proposed within Bronte Creek and Samuel de Champlain provincial parks.²⁰⁴

As a consequence, of these developments, the province received a grade of D- for the 1997-98 year, down from a C+ for the 1996-97 year. This gave Ontario the fourth lowest ranking among Canada's thirteen jurisdictions with respect to terrestrial protected areas.²⁰⁵ The Endangered Spaces Report rankings for terrestrial ecosystems

are presented in Figure 6.

Figure 6: WWF's Endangered Spaces Report rankings for terrestrial ecosystems for Ontario

NATIONAL REPORT CARD		
<i>on Protected Areas</i>		
	Final Grade 1997-98	Last Year's Grade
Marine		
Federal	D+	D
Atlantic Region	D+	D-
Pacific Region	D+	C-
Great Lakes Region	D	D
Arctic Region	D-	D-
Terrestrial		
Prince Edward Island	B	B
Saskatchewan	B-	F
British Columbia	C+	C
Nova Scotia	C+	C-
Yukon	C+	C-
Manitoba	C	B+
Northwest Territories	C	C-
Ontario	D+	C-
Federal	D	A-
New Brunswick	D	F
Newfoundland/Labrador	D	C-
Quebec	F	D-
Alberta	F	D+



1997-98 PROGRESS REPORT

CHRONOLOGY

- May 14/97 A hearing is held in Ontario Divisional Court to determine whether the Minister of Natural Resources, Chris Hodgson, violated the *Crown Forest Sustainability Act* and the *Environmental Assessment Act*. The dispute arises from the allegations made by two organizations, Algonquin Wildlands League and Friends of Temagami, that the Minister exceeded his jurisdiction by approving plans and work schedules without providing for the sustainability of Crown forests.
- May 27/97 The Ministry of Natural Resources proposes and adopts a Wilderness Area Policy. The policy fails to satisfy a longstanding obligation of the MNR to establish a policy for roadless wilderness areas under the Class Environmental Assessment on Timber Management. The implementation of a roadless area policy is very likely to conflict with the Lands for Life land tenure process.
- Jun 5/97 The Minister of Natural Resources announces withdrawal of fee for fish stocking licence in Ontario.
- Jun 9/97 Bill 139, the *Fish and Wildlife Conservation Act* is introduced to the legislature for first reading. If passed, the new Act would:
- raise the maximum penalty for offence to \$100,000;
 - raise the time limit on prosecution from six months to two years;
 - include wildlife possession prohibitions;
 - increase court powers to suspend licences;
 - add a new category of protected species;
 - prohibit the possession of black bear gall bladders separate from the animal itself;
- Concerns are expressed that the legislation :
- continues to advance the privatization of fish and wildlife resource management;
 - lacks necessary legal mechanisms to protect wildlife;
 - allows for a wide range of ministerial discretion on the application of the act;
 - defines "aquaculture" but does not define "conservation";
 - will limit the investigation of hunting, fishing and trapping activities;
 - is not strong enough to prevent the trafficking of animal parts.
- Jun 17/97 The minister announces nomination of 40 persons as members of the three regional round tables as part of the Lands for Life process devised for the management of Crown lands in Ontario. These committees are to make recommendations on the use of Crown lands in their respective areas. Concerns over the process include:
- land uses may be designated for large portions of Ontario on a

perpetual basis (between 37 and 46 million hectares or about 47% of Crown lands in Ontario;

- that the process includes no objectives for protected areas;

As this process is continuing, the MNR is also in discussions to allocate up to 60% of non-protected public lands to "intensive forestry" and to strengthen the tenure of forest companies on public lands.

- Jul 8/97 The Minister of Natural Resources changes the designation of Boundary Waters-Voyageur Waterway as a Canadian Heritage River. The Boundary Waters-Voyageur Waterways is a series of lakes and rivers crossing two watersheds and stretching from the mouth of Pigeon River on Lake Superior to Lac la Croix in Quetico Provincial Park.
- Jul 15/97 Four new members are to join the Northern Ontario Heritage Fund's board of directors. The new members are Patrick Chilton, John Hodder, Janis Ryder and Alan Spacek.
- Jul 22/97 The minister re-appoints all of the 11 members of the Fish and Wildlife Advisory Board. The members are almost exclusively from fishing and hunting interests and represent no conservation interests. The board is asked to provide advice on potential revenue sources as well as continued expansion of fishing and hunting opportunities.
- Jul 25/97 The ministry officially announces the new boundary of Wabakimi Provincial Park, north of Armstrong, making it the second largest park in Ontario. The park has been expanded from 155,000 hectares to 892,061 hectares. The review of the boundary started in 1992.
- Jul 28/97 The Ministry of Natural Resources approves an amendment to Regulation 512 under the Game and Fish Act which extends the controlled deer hunt season by 6 days in several Wildlife Management Units (WMU) in S. Ontario. The archery season will also open 15 days earlier in most WMU's. Managers will be able to control increasing deer numbers in some WMU's where excessive crop damage and vehicle-deer collisions are occurring.
- Jul 29/97 The Minister of Natural Resources sets up a Big Game Management Advisory Committee, comprised of qualified hunters, to improve hunting opportunities in Ontario. This committee will assist the government on big game species management and ensure that allocation of hunting opportunities is done on a fair and equitable basis.
- Sep 13/97 The Ministry of Natural Resources submits a plea of guilty with respect to the charges laid against it, under the *Environmental Assessment Act*, for the construction of an access road to Cross Lake. Specifically, the MNR contravened the Comprehensive Land Use Plan for the Temagami Region by allowing the construction of an access road to Cross Lake (the

lake was designated to be motor vehicle free).

- Sept 17/97 The minister announces an 11 member Board of Directors for Ontario Parks replacing the Provincial Parks Advisory Council. Frank Miller, a former Premier of Ontario, will chair the new Board of Directors.
- Sept 26/97 The minister appoints Bob Michels of Atikokan as the new chair of the Lands for Life Boreal West Round Table replacing Leo Bernier who stepped down because of personal reasons.
- Oct 7/97 Conservation Ontario, the network of Ontario's 38 conservation authorities, clarifies that seats on its council are not for sale. This clarification is in response to an article in Globe and Mail of October 6, 1997 in which Inco limited made a large contribution to the organization.
- Oct 10/97 The Provincial Cabinet is reorganized. John Snobelen becomes the Minister of Natural Resources. Chris Hodgson vacates Natural Resources but retains Mines and Northern Development.
- Dec 10/97 The Ministry of Natural Resources issues a request for proposals from parties knowledgeable about real estate to assist in the development of a disposition strategy for lands controlled by the MNR. The subject lands are located throughout the province.
- Dec 15/97 The Ministry of Natural Resources accepts the Prescribed Burn Planning Manual as containing the guidelines for planning and conducting prescribed burns in Ontario. Each plan will include:
- a statement of objectives to be achieved;
 - a burn prescription that will meet the objectives;
 - a list of all areas of concern;
 - a description of the methods used to notify the public;
 - a description of ignition, suppression, safety and support measures;
 - an outline of the requirements for a post-burn analysis.
- Dec 18/97 Bill 120, the *Red Tape Reduction Act (Ministry of Northern Development and Mines)*, 1997 receives royal assent. Bill 119, the *Red Tape Reduction Act (Ministry of Natural Resources)*, 1997 has not proceeded past first reading and is still under review.
- Dec 18/97 Royal Assent of Bill 139. Ministry of Natural Resources replaces the *Game and Fish Act* with the *Fish and Wildlife Conservation Act*. For highlights of the new legislation see Jun 9/97.
- Dec 19/97 The Ministry of Natural Resources approves the inception of the Forest Resource Assessment Policy as the successor to the Forest Production Policy (1972). The new policy provides an analytical framework within which forest resource use decisions are to be made and ensures that

assessments of Ontario's Crown forest resources will be updated every five years.

- Dec 19/97 The Ministry of Natural Resources approves a policy directed towards classifying the Seed Zones of Ontario more accurately by using information from the Ontario Climate Model. The control of tree seed and stock transfer helps to maintain genetic diversity and the high effectiveness of artificial regeneration programs by ensuring the use of well adapted plant material.
- Dec 22/97 NOHFC is working with the Northern Ontario Tourism Industry Working Group (NOTIWG) to develop a long-term marketing strategy to attract tourists to Northern Ontario.
- Jan 30/98 Minister of Natural Resources extends deadline for Lands for Life roundtable reports. Originally the recommendations were to be submitted to the minister by March 1998 but now are requested by June 30, 1998. The recommendations from these consultations could determine the fate of between 37 and 46 million hectares or about 47% of Crown lands in Ontario. Timber, tourism or parks are the three designated land use options.
- Feb 7/98 An Ontario Divisional Court declares three Northern Ontario timber management plans to be "of no force and effect." The panel who heard the case gave the province 12 months to bring the Elk Lake, Upper Spanish and Temagami plans into compliance with the *Crown Forest Sustainability Act*. The most contentious actions by the Ministry of Natural Resources included:
- approving work schedules without proof that the forest would managed sustainably;
 - approving plans which lacked any sustainability indicators and frequently allowed for clear-cutting; and
 - timetables for phasing in new standards were arbitrarily extended.
- Mar 4/98 A study conducted for Ontario Parks indicates that Ontario's provincial parks are large generators of economic activity.
- Mar 18/98 Minister of Natural Resources announces that admission fees and revenues collected at provincial parks will be used to directly fund park operations. This development flows from revisions to parks legislation (*Provincial Parks Act*) and organizational and operational over the past several years (formation of Ontario Parks).
- Apr 15/98 Spring Bear Hunt opens. Ministry of Natural Resources statistics indicate that an average of 274 bear cubs starve to death each year because their mothers are shot. Hunting female bears with cubs, or the cubs is prohibited. Over the past two years, only two hunters have been charged

and only one convicted and fined \$750 of a possible \$25,000. The province derives \$1.5 million in licensing fees from the Spring Bear Hunt.

Apr 27/98 The MNR announces more wild turkey hunting opportunities due to increased bag limit, season extensions and expanded hunting areas.

Apr 28/98 Publication of report by Wildlands League and Sierra Legal Defence Fund indicating pattern of serious failure to enforce environmental regulations applicable to forestry industry in Algoma Highlands. Publication of report is accompanied by the filing of a request for investigation under the *Environmental Bill of Rights*.

Apr 29/98 World Wildlife Fund releases its progress report on Canada's effort to conserve natural spaces (Endangered Spaces Campaign). The province of Ontario did not add to its protected spaces over the past year, though some private conservation efforts were made (1000 hectares). As a consequence, the province received a D+.

Apr 29/98 Environmental Commissioner for Ontario tables Third Annual Report: "Open Doors - Ontario's Environmental Bill of Rights." The Commissioner states "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." Comments on specific issues include the following:

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 licences to companies is later re-allocated; industry self-monitoring of compliance with forestry regulations; and streamlining the sale of crown lands.

May 1/98 Minister of Natural Resources John Snobelen signs the Canada Forest Accord. The accord helps ensure that forest industries sustain a competitive position in a global market. Ontario's contributions to advance the accord include:

- the longterm tenure for forest companies on Crown land that is to be allocated through the Lands for Life process;

- efforts to understand and define forest management;
- attempting to complete a system of parks in the province;
- trying to understand climate change impacts on forests;
- improving public information.

May 1/98 Reservation service opens for the season at Ontario Parks.

May 10/98 Ontario Court rejects application to amend its February 1998 decision regarding the failure of the Ministry of Natural Resources to comply with the requirements of the *Crown Forest Sustainability Act* and the Environmental Assessment Board's decision regarding the Class Environmental Assessment of Timber Management on Crown Lands. The Court grants the original applicants in the case, the Wildlands League and the Friends of Temagami, a costs award of \$127,000 in relation to the Ministry's application.

FISHERIES AND FISH HABITAT

Introduction

The past year has seen a number of major developments related to fisheries and aquatic ecosystems. The most dramatic was the Ministry of Natural Resource's September 1997 decision to cease enforcing the habitat protection provisions of the federal *Fisheries Act*. Given the limited resources of the federal Department of Fisheries and Oceans in the province, this action, in combination with the Ministry's removal of many of the permitting requirements under the *Public Lands Act* and the *Lakes and Rivers Improvements Act*, left fish habitat in Ontario with virtually no effective protection by either level of government.

During the same period, the Ministry of Natural Resource transferred its responsibilities for the regulation of commercial fisheries to the industry, following the same model it has pursued with the forestry and non-renewable resource sectors. The Ministry also enacted a new *Fish and Wildlife Conservation Act* to replace the *Fish and Game Act*.

Enforcement of the Habitat Protection Provisions of the Federal *Fisheries Act*

On September 19, 1997, the Ministry of Natural Resources announced that it was withdrawing from a 1989 agreement with the federal Department of Fisheries and Oceans to enforce the habitat protection provisions of the federal *Fisheries Act*. The Ministry stated that it would take further no action to enforce the Act in Ontario.²⁰⁶

The *Fisheries Act* contains strong provisions related to the protection of fish habitat, such as wetlands, streams and shorelines. These include a prohibition on the alteration or destruction of fish habitat without the permission of the Minister of Fisheries and Oceans.²⁰⁷ Over the years, the Ministry of Natural Resources has undertaken numerous prosecutions under the Act.²⁰⁸

The Ministry of Natural Resource's action was a result of a dispute with the federal government over the delegation of the power to authorize the alteration or destruction of fish habitat to the provinces. The provinces have sought the unconditional delegation of this power through amendments to the *Fisheries Act*. Ontario has also been seeking financial compensation for its activities related to the habitat protection provisions of the Act.

The federal government has stated that it is unwilling to proceed with unconditional delegation. Amendments to the *Fisheries Act* introduced into Parliament in October 1996 would have delegated decision-making authority regarding fish habitat to the province. However, the delegation would have been subject to conditions regarding compliance with federal policies regarding habitat protection and

requirements that the provinces report to the federal government and the public regarding their activities with respect to the administration and enforcement of the habitat protection provisions of the Act.²⁰⁹

When it withdrew from the enforcement of the Act in September 1997, the Ministry of Natural Resources indicated that it would resume its enforcement activities if the federal government committed to the delegation of decision-making authority related to habitat alteration and destruction, and to provide financial resources to support the Ministry's activities in relation to the Act.²¹⁰

The Ministry of Natural Resource's action created a situation in which no one was responsible for the enforcement of the habitat protection provisions of the *Fisheries Act* in Ontario. This was a particularly serious situation given that the provincial government had significantly weakened or even repealed the requirements of provincial legislation, regulations and policies related to the protection of fish habitat.

In addition, Environment Canada and the U.S.EPA's "State of the Great Lakes 1997" report had concluded that aquatic habitat and wetlands were in "poor" condition in the Great Lakes basin.²¹¹ In the words of the House of Commons Standing Committee on the Environment and Sustainable Development, the Ministry of Natural Resource's action created a "huge hole in the Department's (Fisheries and Oceans) fish habitat program."²¹²

As a temporary measure, the federal Department of Fisheries and Oceans brought in four federal Fisheries Officers from the Maritimes to enforce the habitat protection provisions of the Act in Ontario. These officials were to deal with the work previously handled by 215 provincial enforcement officers.²¹³ The Department has also developed draft agreements with 10 of the province's 38 Conservation Authorities regarding the administration and enforcement of the Act. However, as of May 1998 none of these agreements had been signed, and none would involve the transfer of resources from the Department to the Conservation Authorities to support their enforcement of the federal legislation.²¹⁴ In May 1998, two of the four federal fisheries officers assigned to Ontario were withdrawn to their home regions.²¹⁵

Commercial Fisheries Management

In January 1998, the Minister of Natural Resources signed an agreement with the Ontario Commercial Fisheries Association (OCFA) that will see the industry adopt a larger role in the management of the province's commercial fisheries. This agreement follows the pattern of other industry self-regulation arrangements adopted by the Ministry for such sectors as forestry and aggregates. Under the agreement the OCFA will:

- compile data from commercial fish harvest reports;
- administer royalties;
- monitor compliance; and

- cooperate with MNR projects.²¹⁶

The Fish and Wildlife Conservation Act

In December 1997, Bill 139, the *Fish and Wildlife Conservation Act*, received Royal Assent. The Bill replaced the *Fish and Game Act*. The Bill includes strengthened enforcement provisions. However, it has been criticized for continuing to advance the privatization of fish and wildlife resource management and failing to provide for the protection of fish habitat allowing for a wide range of ministerial discretion on the application of the Act and limiting the investigation of hunting, fishing and trapping activities.²¹⁷

CHRONOLOGY

- May 8/97 Funding is increased for the Community Fisheries Involvement Program (CFIP) and the Community Wildlife Involvement Program (CWIP) according to the MNR. The funding arises from fish and wildlife license fees, royalties and fines which are now diverted to an account separate from general revenue under an amendment contained in Bill 26 the *Government Savings and Restructuring Act*. These programs (CFIP & CWIP) support the work of volunteer organizations which assess, evaluate, monitor and restore wildlife habitats, particularly those capable of supporting populations of game animals and sport fish.
- Jun 5/97 The Minister of Natural Resources announces withdrawal of fee for fish stocking licence in Ontario.
- Jun 9/97 Bill 139, the *Fish and Wildlife Conservation Act* is introduced to the legislature for first reading. If passed, the new Act would:
 - raise the maximum penalty for offence to \$100,000;
 - raise the time limit on prosecution from six months to two years;
 - include wildlife possession prohibitions;
 - increase court powers to suspend licences;
 - add a new category of protected species;
 Concerns are expressed that the legislation :
 - continues to advance the privatization of fish and wildlife resource management;
 - lacks necessary legal mechanisms to protect fish habitat;
 - allows for a wide range of ministerial discretion on the application of the act;
 - defines "aquaculture" but does not define "conservation";
 - will limit the investigation of hunting, fishing and trapping activities;

- is not strong enough to prevent the trafficking of animal parts.
- Jun 21/97 It is reported that levels of radioactivity in fish near Ontario Hydro's Bruce Nuclear Generating Station on Lake Huron are significantly higher than levels in fish in Lake Ontario. The difference is approximately 9 times and rising.
- Aug 18/97 Ministry of Natural Resources states its intention to withdraw from the enforcement of the *Fisheries Act* due to a dispute with the federal government over the delegation of the authority to authorize the alternation or destruction of fish habitat to the province.
- Aug 26/97 Ministry of Natural Resources position on salmon stocking in the Great Lakes is challenged by University of Guelph zoologist. It is charged that the continued stocking of salmon in Great Lakes poses a serious risk to the Lakes' natural stocks of fish and creates artificial "fish ponds." The stocked species are creating competition for habitat and food with native species which could lead to native species demise.
- Sept 18/97 The Ontario Ministry of Natural Resources terminates the federal-provincial joint agreement for fisheries habitat management and protection in Ontario. In effect this means that the OMNR will no longer be applying or enforcing Section 35(2) of the federal *Fisheries Act* when reviewing plans and proposals that are likely to harm fish habitat. Specifically, projects of land developers and extractive industries (mining, forestry and aggregates) are now unlikely to undergo a review of their impact on fish habitat.
- Nov 28/97 The Ministry of Transportation approves the use of the "Fisheries Manual Part 2" to address fisheries concerns on provincial highway undertakings by providing guidelines on selecting and designing appropriate fisheries avoidance, mitigation and compensation measures.
- Dec 18/97 Royal Assent of Bill 139. Ministry of Natural Resources replaces the *Game and Fish Act* with the *Fish and Wildlife Conservation Act*. For highlights of the new legislation see Jun 9/97.
- Dec 29/97 The 1998 Recreational Fishing Regulations Summary will be made available in January. As of April 1, 1998 an export permit will be required for exporting lake sturgeon from Ontario under the application of the Convention on International Trade in Endangered Species.
- Jan 12/98 Minister of Natural Resources signs agreement with the Ontario Commercial Fisheries Association (OCFA) that will see the industry adopt a larger role in the management of the province's commercial fisheries. This agreement follows the pattern of other industry self-regulation agreements. Under it the OCFA will:

- compile data from commercial fish harvest reports;
- administer royalties;
- monitor compliance;
- cooperate with MNR projects.

- Mar 3/98 Aquatic experts of the Lake Erie Committee of the Great Lakes Fishery Commission denounce a proposal by the Ontario Federation of Anglers and Hunters to allow greater phosphorous levels in Lake Erie in order to boost primary production and ultimately fish stocks. Lake dynamics are considered by many experts to be much complex, including the need to look at the effect of nutrient cycling, fish harvesting and the introduction of non-indigenous organisms such as the zebra mussel.
- Apr 1/98 Ontario Minister of Natural Resources responds to the federal government announcement that it will spend \$6 million on a lamprey control program in the Great Lakes in fiscal year 1998-99. The minister believes longer term funding is required. The federal government's action are spurred by its treaty commitments with the United States. A chemical lampricide which attacks young lamprey is the key component of the program.
- Apr 15/98 The Red Hill Creek Expressway project, a highway development near Hamilton which has been approved by the provincial government, is the object of a request for a review by the federal department of fisheries and oceans. The project would have an impact on Red Hill Creek and its fish habitat (see "Transportation" Chapter) but the federal minister indicates that the project is at too preliminary a stage to undertake a review.
- May 25/98 House of Commons Standing Committee on Environment and Sustainable Development tables report on the enforcement of federal environmental law entitled *Putting the Public Interest First*. Among other things, the report is highly critical of the Ontario Ministry of Natural Resource's September 1997 withdrawal from the enforcement of the habitat protection provisions of the federal *Fisheries Act*, describing this action as leaving a "huge hole" in the protection of fish habitat in Ontario.

MINING & NON-RENEWABLE RESOURCES

Introduction

The mining and aggregates industries have continued to rank among the leading beneficiaries of the 'Common Sense Revolution.' In the case of the mining industry, regulatory requirements related to mineral exploration activities have been significantly weakened, and taxation levels frozen for several years. The aggregates and petroleum industries have been placed on systems of self-inspection, and numerous steps have been taken to enhance the industry's access to ecologically sensitive areas, like the Niagara Escarpment.

Mining

In January 1996 the Mine closure provisions of the *Mining Act* were significantly weakened through Bill 26, the 'omnibus' Bill. Among other things, these amendments:

- weakened the Act's provisions for the approval of mine closure plans by the Ministry of Northern Development and Mines (MNDM);
- eliminated the requirement that mining companies post realizable financial securities to ensure that if they go bankrupt the taxpayer does not have to pay for the closure of their mines;
- exempted information related to the financial assurances for mine closures provided by mining companies from freedom of information requests;
- removed the requirements for the delivery of annual reports on implementation of closure plans to the MNDM by mining companies;
- exempted holders of mining claims from liability for pre-existing mine hazards; and
- exempted proponents who voluntarily surrender mining lands from any future environmental liabilities even if they arise as a result of the proponent's actions.²¹⁸

A draft regulation to implement the Bill 26 amendments to the *Mining Act* related to financial assurances was circulated in May 1997. However, as of May 1998 it had yet to be finalized.

In addition, in December 1995, the Ministry of the Environment and Energy granted prospectors immunity from environmental liability for pre-existing mine hazards under the *Environmental Protection Act*. More recently, in December 1997, the Ministry posted proposals on the EBR Registry to amend the MISA Metal Mining Sector Regulation to reduce the frequency of chronic toxicity monitoring, reduce the frequency of discharge monitoring from daily to three days per week, and remove effluent limits for substances that are not used, produced or stored at a facility.²¹⁹

For its part, in November 1996 the Ministry of Natural Resources eliminated most of the permitting requirements related to mineral exploration on public lands under the *Public Lands Act*, and the *Lakes and Rivers Improvements Act*.²²⁰

In addition, the government has frozen all taxes and fees under the *Mining Act*, and reduced mining lease rental rates, Refinery Licences and related fees were eliminated for precious metal refineries, and the provincial Crown's interest in mining rights over certain lands under the *Canada Company Lands Act* were transferred to landholders.²²¹

Amendments to the *Mining Act* adopted through Bill 120 *The Red Tape Reduction Act* (Ministry of Northern Development and Mines), in December 1997 permit the delegation of approval of mine closure plans to any person designated by regulation. These amendments appear to be linked to the Bill 26 amendments to the *Mining Act*. The provision may also be intended to permit the establishment of a self-regulation system for mine closure similar to that set up for pressure vessels, underground storage tanks, elevators and other devices through the Technical Standards and Safety Authority.

Aggregates and Petroleum Resources.

The bulk of the Ministry of Natural Resource's regulatory inspection and enforcement functions related to the Aggregates and Petroleum industry were transferred to those industries in 1997. In addition, in April 1998, the former President of the Aggregate Producer's Association was appointed to the Niagara Escarpment Commission.²²² Aggregate extraction is widely seen as one of the most significant threats to the ecological integrity of the Escarpment.

Responsibility for the Administration of the Escarpment Plan and the Commission were transferred from the Ministry of the Environment to the Ministry of Natural Resources in March 1997. The transfer, was compared by the Coalition on the Niagara Escarpment to "putting Dracula in charge of the blood bank"²²³ given the Ministry of Natural Resource's close associate with the aggregates industry.

Furthermore, over the past year the Ministry of the Environment has granted approval for a number of very large water takings related to the operation of aggregate extractions (see Figure 7 below).

Figure 7: Examples of approved water takings related to aggregate and building materials industry.

Sept 19/97. MoE approves Permit to Take Water for Dufferin Aggregates in the Town of Milton. A maximum of 4,200 litres/min. (6,048,000 lpd) of surface and groundwater collected in the quarry floor will be used for quarry dewatering for extraction for the next 15 years.

Nov 5/97. MoE approves a permit for Canada Building Materials Company to take 99,653,000 litres per day or 21,950,500 Imperial Gallons per day of water from 2 wells and a nearby pond for 200-313 days/yr. The water is used for commercial aggregate washing.

C H R O N O L O G Y

- Jun 27/97 Aggregates and Petroleum Standards under Bill 52 come into effect.
- Jul 6/97 Ontario Environment Minister Norm Sterling announces that the MoEE will spend \$18 million to clean up the hazardous materials, including low level radioactive wastes, left behind at the Deloro Mine north of Belleville. Mine wastes have been leaching into the Moira River that flows south into the Bay of Quinte at Lake Ontario.
- Aug 26/97 MoE approves a mine water treatment system for River Gold Mines Ltd. located in Jacobson Township. The treatment system will treat a maximum flow of 12.6 L/sec of excess mine water containing suspended solids, ammonia, and some heavy metals.
- Sept 15/97 MoE approves the drainage water the underground working to be discharged in the existing water settling pond in the Township of Beatty. The water treatment will be the sedimentation of suspended solids. The volume of water that will be pumped per day is estimated at 82,000 litres/day meaning a retention time of 12 days. If the water does not meet the standard, McWatters Mines Inc. will take measures such as building another pond.
- Oct 9/97 Unimin Canada Ltd. submits proposal to the Ministry of Environment requesting a permit to take water from Midland Bay. Water will be used to suppress dust on active rock stockpiles and will be removed from the bay at a daily maximum rate of 720,000 L.
- Nov 5/97 Madsen Gold Corp. applied for a permit allowing it to augment water taken from Beaverdam Lake for industrial purposes in Madsen with water from Russett Lake at a rate of 360,000 Imperial gallons per day (1,634,400 lpd) for 244 days seasonally for five years. The Ministry of the Environment and Energy approves this with the following conditions:
- Should the quantity of water change, an amendment is required.
 - Copy of permit must be posted.
 - Company must ensure all staff are knowledgeable about the permit.
 - No more than 10% of the natural flow of Russett Lake at outlet.
 - Water for augmentation of water levels in Beaver Dam Lake.
- Nov 20/97 The Ontario Ministry of Environment has asked an environmental group for financial assistance to help stop hazardous chemical leaking from an abandoned mine at Deloro mine site in Eastern Ontario.
- Nov 27/97 The Ministry of Environment and Energy has received a proposal from Agrium Products Inc. for the establishment of an open-pit mine in

Cochrane Ontario. Approval is sought for dewatering activity which will occur in two stages:

- open pit dewatering for bulk sampling of ore body at 4,900,000 L/day for 60 days;
- mining ore body, dewatering working area of the pit at 5,800,000 L/day for 13 years.

Dec 18/97 Bill 120, the *Red Tape Reduction Act (Ministry of Northern Development and Mines)*, 1997 receives royal assent. Bill 120 permits the delegation of approval of mine closure plans to any person designated by regulation. These amendments appear to be linked to the Bill 26 amendments to the *Mining Act*. The provision may also be intended to permit the establishment of a self-regulation system for mine closure similar to that set up for pressure vessels, underground storage tanks, elevators and other devices through the Technical Standards and Safety Authority.

TRANSPORTATION

Introduction

In the year under review, the province has demonstrated little real progress in terms of curbing emissions from the transportation sector. Instead, many transportation amendments and decisions, coupled with decisions and amendments in areas such as land use and municipal restructuring, have promoted the use of the number one source of emissions within the transportation sector, the personal motor vehicle. Additionally, the push to develop infrastructure to accommodate personal vehicles has not come without generating its own set of issues and impacts concerning the natural environment and the policies that are supposed to protect it.

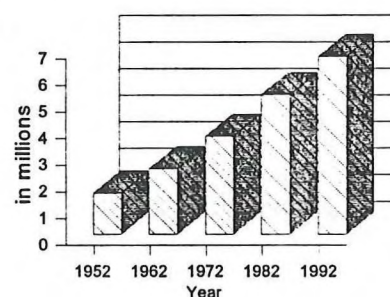
Mobile Impacts

The transportation sector in Ontario has climbed to the number one position in terms of carbon dioxide production and has shown no signs of relinquishing the spot. As of 1995, the transportation sector accounted for 32% of Ontario's carbon dioxide emissions or 47,590,000 tonnes of CO₂.²²⁴ Road and off-road vehicles account for 88% of the total while rail, air and marine account for the remaining 12%.²²⁵

Over the past decade, the average fuel consumption for the entire Canadian new vehicle fleet has risen from 8.9 litres/100 km to 9.5 litres/100 km (in part due to a shift from smaller cars to full-sized models, mini-vans and sport utility vehicles which generally have higher fuel consumptions).²²⁶ This is a disturbing trend given that emissions are directly proportional to the quantity of fuel consumed. It is further worrisome for residents of Ontario given that it was documented in March of 1998 that gasoline sulphur levels are higher in Ontario than anywhere else in North America and even most other parts of the world.²²⁷ Sulphur dioxide is a by-product of fuel combustion and a significant lung irritant. The MoE estimates that 1800 premature deaths are caused by air pollution each year. According to an Environment Canada study, released in February 1998, average gasoline sulphur levels for various jurisdictions were:

The US average is 260 ppm while the average in California is 30 ppm. Adding to the problem, was the announcement that automakers declared they would not agree to the provincial plan for smog reduction (see Jan 20/98) until gasoline refining improves. To date, the province has given no indication that it is willing to pursue a low sulphur

Figure 8: Number of licensed drivers in Ontario



■ Canada (1995)	343 ppm	■ Ontario (1996)	533 ppm
■ Atlantic (1995)	276 ppm	■ Quebec (1995)	364 ppm
■ Prairies (1995)	228 ppm	■ B.C. (1995)	273 ppm

standard with the province's oil refineries.

Fuel Standards Revisions

The Ministry of the Environment announced a program to revise many of its standards, including air quality standards, as a major project in October 1996.²²⁸ The updating of standards for toxic air pollutants was identified as a priority for this effort.

However, progress in this area has been very slow. There have been only two changes to actual standards to date. Strengthened summer gasoline volatility limits were adopted in February 1997 and a new Allowable Air Quality Criteria (AAQC) for PM10 adopted in November 1997. PM10 does not necessarily relate solely or specifically to fuel composition as there are many sources of particulate matter however, fuel composition and use are large contributors of airborne particulate matter. For example, diesel fuel is much higher in particulate content than gasoline which in turn has a higher concentration than natural gas.²²⁹ The province could attempt to ensure that PM10 is met through fuel switching and various other energy conservation measures in the transportation sector. The standard is, however, only a guideline, and does not lead necessarily to any control or abatement actions at source.

"Drive Clean" Motor Vehicle Inspection and Maintenance

In August 1997, The Minister of Environment and Energy announced a vehicle emissions testing program called "Drive Clean." The program was to begin to be implemented for the summer of 1998. However, by 1998 little progress had been made and in April the Minister of the Environment confessed that the government would not be proceeding with the program in 1998.²³⁰ The implementation of the program appears to be now put off until at least the Spring of 1999.

Under the program (if it were implemented), heavy duty trucks and buses would be the first to have their emissions tested. The next phase would see cars and light trucks in the Greater Toronto Area and in Hamilton have their emissions tested. Within a period of five years, the program would extend to various centres from Windsor to Peterborough. Under the program:

- vehicles would be tested every time they change ownership or at every other years' licensing renewal for cars and light trucks that are 4-19 years old;
- if the vehicle's exhaust does not conform to the model year standards, the vehicle could be subject to repairs up to \$200.

Such a program could be particularly beneficial in reducing emissions from some of the more problematic and grossly emitting vehicles. Such vehicles can emit many times more volatile organic compounds, nitrogen oxides and particulates than comparably well maintained vehicles.

Infrastructure Impacts

The province is continuing to proceed with, or allowing to proceed, a series of major highway projects which will help ensure that: the vehicle population continues to rise; land uses change; habitats and drainage patterns are irrevocably altered; and that fuel is consumed and emissions discharged in excess of what they need to be in order for Ontarians to remain mobile. These projects include the Red Hill Creek Expressway near Hamilton, Highway 407 on both sides of the GTA, and Highway 416 near Ottawa (see Figures 9,10).

In addition to larger high profile projects, there are countless paved, unpaved, private, public and utility roads expanding into remote areas of the province for resource extraction and tourism purposes. While these roads are, individually, not very notable, they collectively ensure that few areas of the province are roadless for the purpose of maintaining the health of wildlife and ecosystems. In fact, with the initiation of the "Lands for Life" process (see "Wildlife, Wilderness and Parks" chapter) the possibility of creating any new large roadless wildlife sanctuaries seems increasingly unlikely.²³¹

Funding Preferences

Even maintaining the existing road network, let alone expanding it, is a very capital intensive initiative. In May 1997, the Minister of Transportation reiterated that the province would spend \$628 million on highway maintenance in the fiscal year (the original announcement was made in the budget of May 6, 1997). The total constitutes \$140 million more than the previous year. Earlier in the year, (January 1997) the Minister of Transportation announced the elimination of all transit operating support from the province. In the 1996-97 fiscal year this support totalled \$735 million.

Figure 9: Red Hill Valley Backgrounder

A Joint Hearing Board granted approval to the project in 1985. The East-West section is mostly complete. The North-South Section through the Valley commenced in 1990 but also ceased that year as the province withdrew funding. In March 1997, the MoEE granted the Region an Environmental Assessment Act exemption to allow it to make changes to the North-South section (essentially allowing the Region to proceed under a slightly modified design). The North-South section is slated for construction within a year and the province has maintained its commitment to its funding portion. The project's potential impacts include altered drainage courses and wildlife habitat as well as neighbourhood impacts at highway's terminus.

Source: Red Hill Creek Expressway North-South Section Draft Summary Report Volume 1. November 1997 Ministry of Transportation and Region of Hamilton-Wentworth.

Red Hill Valley Natural Heritage Features:

- Home to Red Hill Creek which in turn is home to 18 species of fish including brown trout, northern pike and chinook salmon.
- Contains evidence of settlement by aboriginals, United Empire Loyalists and early European newcomers.
- 65 kinds of breeding birds; 169 migratory birds; 11 types of amphibians and reptiles; 43 butterfly species; 140 types of moth; 20 mammals including deer, mink foxes and coyotes. Black terns and common moorhens travel through its marshes.
- Red Hill Valley Revitalization Project began in 1995 and attempts to return the Red Hill Valley to its status as a vital ecosystem.
- 640 hectares in size.

Source: Trails of the Red Hill Valley, Hamilton Region Conservation Authority.

Figure 10 : Backgrounder on Highway 407: Ontario's Electronic Toll Road

Highway 407, which was first conceived of in the mid 1950s: ▪ is Ontario's only major toll road ; ▪ is situated in the 22,000 hectare Parkway Belt (an area reserved for highways and other utilities) between Markham and Hamilton; ▪ will eventually be 155 km in length; ▪ has required, to date, excavating 17 million m³ of earth (roughly 3400 football fields to the depth of 1 metre); ▪ has required, to date, 8 million tonnes of aggregate; ▪ will eventually require 1.5 million tonnes of concrete (the equivalent of 12 CN Towers);	▪ crosses, impacts or discharges storm water to 13 streams or rivers; ▪ uses a network of settling ponds to slow the rate of water discharge to nearby water courses; ▪ is landscaped with indigenous plant species and natural stone; ▪ can eventually accommodate ten lanes (is currently six lanes); ▪ is estimated to cost \$1.4 billion will require 25 years to pay for itself; <i>Source: Highway 407 Express Toll Route Information package</i>
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Public Transit Support: A Sprinkle of Sustainability?

The provincial government made one final step to shore up the financial sustainability of municipal transit systems in Ontario before exiting entirely from the activity. In early 1998, the Minister of Transportation, announced that it was helping municipalities establish capital reserve funds.²³² The funds will help to repair and replace aging transit vehicles in the years ahead as municipal transit authorities adapt to complete financial autonomy from the provincial. Regrettably, transit systems in very low density urban sprawl areas have proven to be difficult to finance cost-effectively and not exceptionally emission reducing if ridership is low.

From an environmental standpoint, transit systems with high ridership have proven to be much less emission-intensive than the personal vehicle on an emission per person per kilometre basis (given the low average occupancy of personal vehicles - see Figure 11 below). Lamentably, transit use is on the wane throughout most of Canada except for some higher density urban areas. In low density areas (the rising landform in terms of new developments), service is expensive to provide and ridership frequently suffers because of infrequency and poor connectivity of transit. If this trend continues transit is likely to become a very marginal component of mobility.

Figure 11: Metro Cordon Count

Metro Cordon Count - 1995: A Snapshot of Commuting Trends

The Metro Cordon Count Program presents a picture of weekday vehicle and person travel crossing the Metro Boundary Cordon, Suburban Cordon and Central Area Cordon. For each cordon, results are compared with biennial count date from 1985 through 1993.

Key findings of 1995 count:

- TTC bus, streetcar and subway ridership within Metro continued to decline.
- Service frequency was reduced on some TTC routes between 1993 and 1995.
- GO ridership, which had increased up to 1991, has since levelled off.
- Over the past 20 years, the average number of persons per automobile has followed a downward trend.

Metro Boundary Cordon - Morning Peak Period (6:30 am to 9:30 am)

Inbound and Outbound Person Trips

Year	Auto Persons	Percent of Total	Transit Pass.	Percent of Total	GO Rail Pass.	Percent of Total	Total Persons
1985	190,400	83.5%	19,000	8.3%	18,700	8.2%	228,100
1987	214,200	83.6%	21,400	8.4%	20,600	8.0%	256,200
1989	237,400	82.7%	23,200	8.1%	26,500	9.2%	287,100
1991	241,000	81.7%	22,000	7.4%	32,100	10.9%	295,100
1993	239,400	83.0%	16,600	5.7%	32,500	11.3%	288,500
1995	251,600	83.3%	18,600	6.2%	31,900	10.5%	302,100

Inbound Person Trips by Mode

Year	Private Automobiles					Other Vehicles	Total Vehicles
	Total	1 Occ.	2 Occ.	3+ Occ.	Avg Occ.		
1985	156,200	81.7%	15.9%	2.4%	1.21	23,000	179,200
1987	178,700	83.5%	14.4%	2.1%	1.19	28,100	206,800
1989	197,200	83.7%	14.0%	2.3%	1.19	30,700	227,900
1991	200,800	83.0%	15.0%	2.0%	1.20	30,000	230,800
1993	202,000	84.1%	14.0%	1.9%	1.18	29,100	231,100
1995	216,200	85.9%	12.6%	1.5%	1.16	31,000	247,300

Related Findings

- the modal share of transit (excluding GO Rail) dropped significantly between 1989 and 1993, increasing slightly in 1995.
- GO ridership into Metro increased by 70% from 1985 to 1991 and then levelled off between 1991 and 1995.
- GO Rail service cuts in 1995 may be the reason for increased auto and local transit travel in 1995 compared to 1993.
- the percentage of single occupant private autos increased from 82% in 1985 to 86% in 1995, while the average number of persons per car declined from 1.21 to 1.16 over the same period.

Metro Boundary Cordon - Daytime 12-hour Period (6:30 am to 6:30 pm)

Inbound and Outbound Person Trips

Year	Auto Persons	Percent of Total	Transit Pass.	% of Total	GO Rail Pass.	% of Total	Total Persons
1985	1,097,200	88.9%	95,900	7.8%	40,300	3.3%	1,233,400
1987	1,265,900	88.6%	118,500	8.3%	43,800	3.1%	1,428,200
1989	1,386,800	88.4%	126,600	8.1%	54,800	3.5%	1,568,200
1991	1,466,500	89.3%	108,300	6.6%	67,200	4.1%	1,642,000
1993	1,493,600	90.1%	97,000	5.9%	66,700	4.0%	1,657,300
1995	1,539,100	90.2%	103,400	6.0%	64,400	3.8%	1,706,900

Inbound Person Trips by Mode

Year	Private Automobiles					Other Vehicles	Total Vehicles
	Total	1 Occ.	2 Occ.	3+ Occ.	Avg Occ.		
1985	874,300	79.6%	17.3%	3.1%	1.25	178,400	1,052,700
1987	1,010,800	79.8%	17.1%	3.1%	1.24	221,800	1,232,600
1989	1,117,300	81.1%	16.0%	2.9%	1.23	226,800	1,344,100
1991	1,171,100	79.5%	17.4%	3.1%	1.25	231,400	1,401,500
1993	1,209,700	80.8%	16.3%	2.9%	1.23	220,500	1,430,200
1995	1,274,900	82.8%	14.8%	2.4%	1.20	233,800	1,506,700

Summary

The transportation system in Ontario continues to develop along the path it was set in the 1950s which entailed a high reliance on the personal vehicle as the primary mode of transportation and the continual expansion of a road network to support an ever expanding vehicle population. Many observers have reiterated that this path is not only environmentally unsustainable but is proving to be financially unsustainable as well.²³³ Nonetheless, every provincial government since the 1950s, including the present, has given roads and personal motor vehicles priority in any transportation policy. This focus has, in turn, led to immeasurable land use changes, habitat destruction, drainage pattern alterations, energy consumption in excess of basic needs and a chronic, worsening air quality situation throughout, at least, southern Ontario. The one measure that could mitigate air quality problems to some degree, the Drive Clean vehicle inspection and maintenance program, has been stalled repeatedly in its embryonic stage and as yet is not a functioning entity.

CHRONOLOGY

- May 14/97 Minister of Transportation reiterates that the province will spend \$628 on highway maintenance this year as originally announced in the budget of May 6, 1997. The total amounts to \$140 million more than the previous year.
- May 14/97 The Ministry of Transportation accepts a policy that has been designed to mitigate some aesthetic problems associated with run-off that have occurred in Southwestern and Central Ontario. The MTO will identify a location for a demonstration project where Air Cooled Iron Blast Furnace Slag (ACBFS) is to be used as road building material to study its environmental effects and ability to moderate the run-off problem.
- Jun 4/97 MoEE posts on EBR registry decision to issue an exemption order to the Regional Municipality of Hamilton-Wentworth from the requirements of the *Environmental Assessment Act* for the construction of the Red Hill Creek Expressway (North-South section).
- Jun 6/97 Statistics Canada reports that, Canada-wide, transit use has slipped to its lowest level since 1970 and has been declining since 1988.
- Jun 12/97 Ministry of Transportation posts decision on EBR registry stating that it will no longer test, prior to approval, materials used to minimize dust during road construction and on unpaved rural roads. Instead, the Ministry will depend on the list of dust suppressants issued by the Ministry of Environment and Energy. However, the MoEE's list comes with the disclaimer: "The MoEE does not endorse any of the following products nor does it guarantee that the products are environmentally

benign."

- Jun 18/97 The report "Getting Together" which outlines a blueprint for the Greater Toronto Services Board suggests that one of the main reasons for the GTSB should be to integrate the 17 separate transit systems with the GTA. It recommends that the Board should be able to:
- integrate all GTA transit systems into a seamless web;
 - coordinate decision-making authority among transits;
 - approve transit proposal including subway developments;
 - set financing but allow municipalities to appeal to the OMB;
 - prescribe solutions when municipalities disagree;
 - assume sole responsibility for GO Transit.
- Aug 22/97 The Minister of Environment and Energy announces a vehicle emissions testing program called "Drive Clean" (see also retraction on Apr 17/98). Under the program, heavy duty trucks and buses would be the first to have their emissions tested. The next phase would see cars and light trucks in the Greater Toronto Area and in Hamilton have their emissions tested. Within a period of five years, the program would extend to various centres from Windsor to Peterborough. Under the program:
- vehicles would be tested every time they change ownership or at every other years' licensing renewal for cars and light trucks that are 4-19 years old;
 - if the vehicle's exhaust does not conform to the model year standards, the vehicle could be subject to repairs up to \$200.
- The program is aimed at reducing volatile organic compounds, nitrogen oxides and particulates.
- Sep 10/97 Provincially appointed transition team overseeing Toronto amalgamation orders a 15% reduction (\$31 million) in the budget of the Toronto Transit Commission (TTC). To do so, the Commission would have to:
- raise fares 5 to 10 percent;
 - eliminate more bus routes;
 - eliminate special fares for seniors and students;
 - tighten eligibility for Wheel-Trans (disabled) service;
- The TTC has, over the past several years, eliminated 1,250 positions, eliminated service and raised fares.
- Nov 19/97 The National Round Table on Environment and Economy releases "The Road to Sustainable Transportation in Canada." The report indicates that the transportation system could have a major negative impact on the environment if subsidies are not removed and pricing is not reflective of true cost. It recommends: public awareness about the risks of the status quo; a national strategy for sustainability; targets for emission reduction; and vehicle inspection and maintenance programs.
- Nov 28/97 The Ministry of Transportation approved the use of the "Fisheries Manual

Part 2" to address fisheries concerns on provincial highway undertakings by providing guidelines on selecting and designing appropriate fisheries avoidance, mitigation and compensation measures.

- Jan 20/98 Ministry of Environment launches Ontario's Smog Plan. The goal of the plan is to reduce smog causing emissions by 45% by 2015. The plan attempts to rely upon:
- a vehicle inspection and maintenance program called "Drive Clean" (which was announced but never implemented);
 - public involvement in smog reduction efforts;
 - efforts in the U.S. to reduce transboundary pollution;
 - developing strategies for particulate emission reduction;
- Environmental and public health organizations criticize the plan as being grossly inadequate with reference to its slow time line, reliance on voluntary action by industry, lack of source/sector targets, and lack of monitoring and reporting mechanisms.
- Jan 28/98 The Toronto Transit Commission announces that ridership is up. A total of 379 million trips were made in 1997 (9.9 million more trips than expected). The increase is being managed mostly through attempting to extend the life of existing buses, subway and street cars rather than procuring new ones. The increase is largely credited to an increase in economic activity not improvements in service or integration. Such measures will be required to ensure that transit use does not erode.
- Jan 30/98 According to the federal transport minister, Canadian roads already support 18 million vehicles currently but private vehicle traffic is expected to grow between 50 and 100 percent over the next 25 years unless something is done about it . The minister made a call to limit the growth rate since the existing road network can not support the growth and even if the nation could afford to expand the infrastructure (which it can not) the environment could not support it.
- Feb 18/98 Seven more kilometres are added to Highway 407 (a six lane toll road north of Toronto) on its easternmost flank. The highway now ends in Markham but is intended to continue, with 10 lanes, into Durham Region. Markham Council has voted to restrict traffic exiting the highway for fear of its impact on the city. The long term plan will see this highway stretch 154 kilometres from the Queen Elizabeth Way in Burlington to the Highway 115/35 near Bowmanville.
- Mar 3/98 It is revealed that gasoline sulphur levels are higher in Ontario than anywhere else in North America and even other parts of the world. As a consequence, automakers say they will not agree to the provincial plan for smog reduction until gasoline refining improves. Average sulphur levels for various jurisdictions were:
- Canada (1995) 343 ppm

- Ontario (1996) 533 ppm
- Atlantic (1995) 276 ppm
- Quebec (1995) 364 ppm
- Prairies (1995) 228 ppm
- B.C. (1995) 273 ppm

The US average is 260 ppm while the average in California is 30 ppm. The MoE estimates that 1800 premature deaths are caused by air pollution each year. Sulphur dioxide is a significant lung irritant.

Mar 5/98 Minister responsible for Privatization, Rob Sampson, suggests that Ontario residents may be eligible to purchase shares in Highway 407. This, despite the fact that Ontario residents largely financed its construction and in effect already own it. Unresolved issues surrounding its privatization include:

- how a private consortium could afford to take over the current 69 kilometre section with its \$1.5 billion debt and afford to finance the 24 kilometre western extension;
- whether any private consortium could undertake such a project without public debt guarantees or public subsidy;
- how much any private body could own the road given that the province will always retain ownership of its right-of-way;

The original financing of the road has already been criticized by the provincial auditor as placing the risk with taxpayers and the benefits with the private sector. In order to sell the road to any private consortium it is expected that the government would have to guarantee traffic volume, restrict development near other roads or lower the speed limits of nearby roads to limit competition.

Mar 9/98 Minister of Transportation announces that \$70 million will be made available to municipalities to set up capital reserves for transit responsibilities. The province has terminated all grants to municipal transit systems.

Mar 13/98 Minister of Transportation announces that the province will consider providing GO Transit with half of the \$200 million promised for restructuring pending the passage of the Greater Toronto Services Board legislation. The province has terminated all grants to municipal transit systems. GO Transit is being transferred to the municipalities of the GTA and Hamilton-Wentworth. The funding establishes a capital reserve in each of the municipalities.

Apr 17/98 Premier indicates that a possible delay of up to one year to initiate "Drive Clean" the province's vehicle emission testing program is unacceptable. The MoE had indicated that it would be operating by Spring 1999.

- heavy trucks and buses were to be tested this summer across southern Ontario followed by cars and light trucks in Hamilton and the Greater Toronto Area in autumn;

- by the year 2000 vehicles in 13 cities were to be subject to mandatory testing;

The delay draws criticism from suppliers of testing equipment who expected the program to be underway much sooner.

- Apr 15/98 The Red Hill Creek Expressway project, a highway development near Hamilton which has been approved by the provincial government, is the object of a request for a review by the federal department of fisheries and oceans. The project would impact fish habitat (See Red Hill Backgrounder above) but the federal minister indicates that the project is at too preliminary a stage to undertake a review.
- Apr 29/98 The International Joint Commission calls upon the Canadian and U.S. governments to make a major reduction in the sulphur content of gasoline. Ontario gasoline has the highest sulphur content in the western world.
- May 8/98 Private consortium floats proposal with Ontario, Quebec and federal governments for a high-speed rail link between Quebec City and Toronto.
- May 12/98 Ontario Medical Association calls for lowering the sulphur content in Ontario gasoline (see also "Air" chapter).
- May 21/98 Domtar Limited's dust suppressing product Dombind is causing elevated dioxin levels in the environments near the roads on which it is sprayed according to a Ministry of the Environment investigation. Levels varied widely with one test above the acceptable provincial limit for dioxin. 100 million litres per year of the product, which is a pulp and paper waste liquor, are sprayed on Ontario gravel-top roads.
- May 25/98 Residents of Markham Ontario living near the eastern terminus of highway 407 at McCowan Rd. voice concerns about increased traffic and noise pollution caused by the toll road. Large trucks, forced to exit at McCowan, have been using local roads to connect to other major routes. The highway has been constructed farther east to Markham Rd. but the interchange remains closed to protect historic Markham Village.
- May 25/98 In June, Toronto planners will release a report that insists that city taxpayers pay \$23 million to cover the transit costs of those living in outlying regions. Toronto pays for nearly half of GO transit costs, yet 85% of users live outside of the city. Regional officials and transportation experts have urged Toronto mayor Mel Lastman to consider the importance of public transit to the economy of Toronto before proposing changes to funding distribution.

CONCLUSIONS

Introduction

Perhaps the most the notable feature of past year is almost total lack of action by the government of Ontario to protect the province's environment. This is despite the evidence presented in numerous reports from independent and authoritative sources, ranging from the Ontario Medical Association²³⁴ to the North American Commission on Environmental Cooperation,²³⁵ delivered over the year, outlining the serious environmental problems facing the province. Many of these issues were identified as posing direct threats to the health and safety of Ontarians.

At the same time, the evidence of the consequences of the enormous reductions in budgets and personnel of the province's key environmental and natural resources management agencies continues to grow. The past three years have witnessed a precipitous decline in the environmental law enforcement activities of the Ministries of the Environment and of Natural Resources.

There has also been a growing number of incidents that indicate serious gaps in the province's capacity to monitor activities which may threaten the health, safety or environment of Ontarians. The most prominent of these occurrences was the four-day long, July 1997, fire at the Plastimet PVC recycling facility Hamilton. The Ontario Court, General Division's February and May 1998 decisions regarding the Ministry of Natural Resource's compliance with the *Crown Forest Sustainability Act* and the Terms and Conditions of the Class Environmental Assessment of Timber Management on Crown Lands, raised similar questions about the management of the province's natural resources.

Forward Steps: Less Than Meets the Eye?

Over the past year, the province only took two significant regulatory action to improve the protection of the environment. These were the adoption of a new 'interim' Acceptable Ambient Air Quality Criteria (AAQC) for PM10 in November 1997, and the imposition of an 'interim' ban on the approval of new waste oil burning space heaters in March 1998. A number of other initiatives were also presented by the government as forward steps. However, on closer examination, few appeared to fulfil this promise.

The Smog Plan released in January 1998 was one of the Ministry of the Environment's key initiatives. However, the Plan was widely criticized by environmental and public health organizations, and the province's Environmental Commissioner,²³⁶ as being inadequate and likely ineffective.

The province's May 1998 budget claimed to increase environmental spending by \$35 million. In reality the operating and capital budgets of the Ministries of the Environment and of Natural Resources are scheduled fall by over \$100 million²³⁷ in the 1998-99 fiscal year.

Even the newly adopted PM10 standard was criticized for the Ministry's failure to incorporate into new or existing Certificates of Approval for individual facilities that might emit the pollutant.²³⁸

Legislative and Regulatory 'Reform'

The pace of legislative and regulatory initiatives by the province slowed considerably over the past year. The major changes to legislation that the government intends to make appear to be in place. Regulatory changes have also been implemented by most of the affected agencies. The Ministry of Natural Resources, for example, has moved to consolidate self-regulation systems that it has established for the forestry, aggregates, petroleum industries. It has also moved to expand the model to the commercial fisheries and fur industries.

In November 1997 the Ministry of the Environment withdrew some of its proposals to weaken environmental regulations, especially with respect to air pollution. However, it has continued to propose to weaken regulations under the MISA industrial water pollution control program and regulations dealing with the management of hazardous wastes. The Ministry has also failed to deal with the *Philip* decision, which significantly limits its ability to control 'recycling' and other waste handling activities. This is despite the clear recommendations of the Office of the Fire Marshal in its report on the Plastimet fire that the Ministry's regulation of such activities be strengthened.

In addition, major changes have become evident in the environmental approvals process. Major new private sector landfill capacity for hazardous and municipal solid wastes has been approved without public hearings before the Environmental Assessment Board. In other cases, such as the proposed Adams Mine landfill in Northeastern Ontario, the Minister of the Environment has used his authority under the Bill 76 amendments to the *Environmental Assessment Act* to limit the scope of the Board's hearings on proposed landfills. The Ministry has also granted approvals for a number of very large scale water takings, principally in relation to the aggregates industry.

The approval of a large scale water taking from Lake Superior for the purposes of export in April 1998 also raised serious questions about the level of scrutiny being applied by the Ministry of the Environment to applications for Certificates of Approval. The Minister of the Environment himself indicated that the granting of this approval, which it was suggested was a potential violation of the 1909 *Boundary Waters Treaty* with the United States, was a mistake by his Ministry.²³⁹

Further Steps Backward

The Abandonment of the Protection of Fish Habitat

In September 1997, the Ministry of the Natural Resources, terminated its enforcement of the habitat protection provisions of the federal *Fisheries Act*. The

Ministry had responsibility for the enforcement of these provisions of the Act under an agreement with the federal Department of Fisheries and Oceans. The Ministry ended its enforcement efforts on one month's notice, leaving little or no opportunity for alternative arrangements for the enforcement of the Act to be made.

The House of Commons Standing Committee on the Environment and Sustainable Development described this action, in its May 1998, report on environmental law enforcement as leaving a "huge hole"²⁴⁰ in the protection of fish habitat, such as streams and wetlands, in Ontario. Initially four, and later two, federal fisheries officers were left to do the work previously undertaken by over 200 provincial conservation officers.²⁴¹

The province's action was motivated by a dispute with the federal government over the delegation of the authority to authorize the alteration or destruction of fish habitat under the Act from the federal Minister of Fisheries and Oceans to the province. The province was also seeking financial compensation for its enforcement activities in relation to the Act. The province's action in the case showed a complete disregard for the protection of ecologically significant areas. Its behaviour provides a compelling argument against any further delegation of the administration and enforcement of federal environmental laws to the province.

The Passage of Bill 146 - The Farming and Food Production Protection Act

The passage of Bill 146, the *Farming and Food Production Protection Act*, in May 1998, represents what may be one of the most regressive pieces of environmental and natural resources legislation in the province's history. Evidence of serious and growing environmental and health problems related to agricultural activities in the province have been presented in such places as the Ministry of the Environment's own draft "1992 Status Report on Ontario's Air, Water and Waste."²⁴²

Rather than dealing with these issues, Bill 146 continues the bar on common law nuisance actions in relation to nuisances associated with 'normal' farm practices contained in the original 1988 *Farm Practices Protection Act*. In addition, it provides a mechanism through which municipal by-laws that attempt to address such problems can be overturned by the 'Normal' Farm Practices Protection Board. As such, the Bill is one of the few pieces of legislation in Canada specifically designed to protect activities which are damaging to the environment or human health.

Blocking National Initiatives on Acid Rain and Smog

The Ontario government was also very active over the past year in ensuring that no action was taken by any Canadian government to deal with the problem of acid rain. Ontario's representatives played a central role in undermining the consensus on the National Air Issues Coordinating Committee's Acidifying Emissions Task Group, in favour of additional action to reduce emissions that cause acid rain.²⁴³ Ontario also blocked discussion of the Task Group's report, which indicated that a 75% reduction in permitted levels of acidifying emissions in Eastern Canada was required to halt the

continuing damage to waterbodies and human health,²⁴⁴ at the November 1997 joint meeting of Canada's federal and provincial energy and environment ministers.²⁴⁵

The province has played a similar role in blocking the development of a National Smog Management Plan. Efforts towards the development of such a plan were ended in the summer of 1997 when Ontario and British Columbia indicated that they would be unable to prepare and consult on their Regional Smog Management Plans prior to the fall Joint Ministers' Meeting.²⁴⁶

The 'Common Sense Revolution' and Ontario's Environment - The Beneficiaries

In its report last year, the Institute identified a number of specific economic interests who have emerged as the principle beneficiaries of the environmental and natural resources management policies of the current Ontario government. This included a range of primary resource extraction industries such as the mining, aggregates, forestry, and agri-business sectors. This pattern has continued over the past year.

The Aggregates Industry

In April 1998 the past president of the Aggregates Producers Association was appointed to the Niagara Escarpment Commission. Aggregates extraction is widely seen as one of the key threats to the ecological integrity of the Escarpment. The industry was also granted approval for a number of large-scale ground water takings associated with its operations.

Agri-Business

Bill 146, the *Farming and Food Production Protection Act*, appears to have been intended to deal with the concerns of industrial hog producers that municipalities might enact by-laws to control the environmental and health impacts of their operations.²⁴⁷

Homebuilders and Developers

Homebuilders and developers continue to benefit from policies intended to promote and facilitate new home construction and, by implication, urban sprawl. These policies have included the continuation of the \$20 million/year Land Transfer Tax Rebate program, and the adoption of Bill 92, the *Development Charges Act*. The Act limits the degree to which municipalities can require the internalization of the costs of infrastructure to support new developments. At the same time, the 'Red Tape Commission' has sought to further 'streamline' the building approvals process.

The Forest Industry

The forest industry stands to be the major beneficiary of the Ministry of Natural

Resource's 'Lands for Life' land use planning process. The government has indicated its willingness to consider providing perpetual land tenure as 'compensation' for the transfer of the Ministry of Natural Resource's monitoring and enforcement functions to the industry. In addition, the Ministry of the Environment has proposed to remove the AOX elimination planning requirement from the MISA pulp and paper sector regulation. It has also permitted the continued use of spent 'black liquor' from a pulp mill as a dust suppressant, and authorized the use of paper sludge as a 'soil conditioner.' Both practices have been associated with serious environmental problems.²⁴⁸

The Mining Industry

The mining industry also appears to be likely to benefit from the 'Lands for Life' process. The industry may gain enhanced access to public lands for mineral development, and greatly reduced possibilities for the creation of new protected areas within which mining activities are restricted.

The Waste Management Industry

The waste management industry has benefitted significantly from the changes to the environmental approvals process that have taken place. Over the past year a number of major undertakings were approved, including 15-20 year expansion of the province's only hazardous waste landfill, without public hearings. The government has also failed to apply the *Environmental Assessment Act* to other major projects, such as the establishment of a permanent low level PCB destruction facility. In addition, it has used its powers under the Bill 76 amendments to the Act to narrow the scope of the review of others, including the Adams Mine Landfill proposal in Northeastern Ontario.

Furthermore, The Office of the Environmental Commissioner, Office of the Fire Marshal and CIELAP have raised questions about the application of 'recycling' exemption from the waste management provisions of the *Environmental Protection Act* and Regulation 347 by the Ministry. Both the legitimacy of some of the exemptions granted by the Ministry, and wisdom of the exemption mechanism, particularly in relation to hazardous waste recycling, were challenged. The Ministry has also failed to respond to *Philip* decision regarding the definition of 'waste' or the or Fire Marshal's report on Plastimet. At the same time, it continues to advance proposals to weaken the regulation of hazardous waste 'recycling' activities.

Other Industries

A number of industrial sectors would benefit from the changes to MISA industrial water pollution control program which have been undertaken or proposed by the Ministry of the Environment. Specific facilities within sectors have had their permissible discharge limits for a range of substances increased. In addition, the Ministry has proposed to significantly reduce monitoring and reporting requirements under the regulations, despite its own admission that it cannot provide estimates of

the total loadings of Ontario waterways with MISA controlled contaminants from MISA regulated facilities.

The Next Steps

The Institute's Second Year Report on Ontario's Environment and the 'Common Sense Revolution' highlighted three initiatives as being likely to have a major long-term effect on the protection of the province's environment. The significance of each of these elements has grown over the past year. In addition, the 'reform' of the province's waste management regulations has emerged as a fourth area with serious long-term implications.

Electricity Market Competition

The first of these initiatives is the introduction of competition into the electricity market. This has major environmental implications. If specific measures to limit emissions of greenhouse gases, sulphur and nitrogen oxides, particulates, and toxic contaminants associated with the generation and supply of electricity for the Ontario market are not taken, the introduction of competition has the potential to result in major increases in air pollution from sources both inside and outside of Ontario.²⁴⁹

The provincial government, to date, has been unable to provide any commitments to action in this regard, except to maintain the current controls on Ontario Hydro. However, these standards would not apply to new sources of supply serving the Ontario market. In addition, the government has failed to deal with problems associated with accountability, oversight and environmental management at Ontario Hydro highlighted by internal reports prepared for the utility and the Legislature's Select Committee on Ontario Hydro Nuclear Affairs. The government indicated its intention to bring in legislation to introduce competition into the electricity sector in its May 1998 Throne Speech.

'Lands for Life'

The Ministry of Natural Resources' 'Lands for Life' initiative appears to be poised to determine the fate of almost half of the province's land area. The 'Lands for Life' process is heavily weighted towards the interests of resource extraction industries. In combination with the changes to the tenure of forestry companies being considered by the Ministry, the process may make the establishment of new parks and protected areas extremely difficult, if not virtually impossible. The 'Lands for Life' Round Tables are to present their recommendations to the Minister of Natural Resources in June 1998.

Delegated Regulatory Organizations

The creation of the Technical Standards and Safety Authority (TSSA) to assume the public safety regulation functions of the Ministry of Consumer and Corporate

Affairs represents one of the most dramatic institutional changes undertaken by the current government of Ontario. Although it carries out many of the functions of the safety and standards branch of the Ministry, including law enforcement, the TSSA is a private organization, whose board of directors is dominated by representatives of the industries it is intended to regulate.

The Ombudsman,²⁵⁰ Environmental Commissioner²⁵¹ and others have raised serious questions about the accountability and effectiveness of such entities. There are particular concerns that governmental activities and functions transferred to such bodies escape the requirements of such legislation as the *Environmental Bill of Rights*, *Freedom of Information and Protection of Privacy Act*, and *Ombudsman Act*, and oversight by the Environmental Commissioner, Provincial Auditor, Information and Privacy Commissioner and Ombudsman.

Despite these concerns, there are strong indications that, if re-elected, the current government intends to extend the TSSA model to other agencies and operations, including the Ministry of Environment.

Waste Management Regulatory 'Reform'

In June 1998, the Ministry of the Environment posted a proposed re-drafting of the province's principal regulation dealing with hazardous and municipal waste management.²⁵² The proposals include 'standardized' approvals for on-site storage of hazardous wastes, including PCBs, expanding exemptions from approval requirements for hazardous waste 'recycling' activities, and eliminating requirements for public hearings prior to the approval of expansions of hazardous or municipal solid waste disposal facilities.

The Ministry's proposals contradict the recommendations of the Office of the Fire Marshal in the aftermath of the Plastimet PVC 'recycling' site fire,²⁵³ and of the Canadian Institute for Environmental Law and Policy in its study of hazardous waste management in the province.²⁵⁴ Both had concluded that the regulation of waste management facilities should be significantly strengthened in order to protect public safety and the environment. The Ministry is expected to proceed with its proposals in the fall of 1998.

Conclusions

Over the past year, the evidence of the serious environmental challenges facing the province of Ontario has grown significantly. Reports from a range of independent and authoritative sources have highlighted immediate and increasing threats to the health and environment of Ontarians. Events like the Plastimet fire, the Ontario Court's *Crown Forest Sustainability Act* decision and the serious safety and environmental problems at Ontario Hydro have also highlighted the need for the substantial action by the provincial government.

Despite these developments, the provincial government continues to fail to fulfil

its responsibilities to protect of the health, safety and environment of the province's residents. In the few cases where it has taken action, the province's efforts have been inadequate in the face of the challenges before it. More commonly, the province has responded with initiatives that seem almost certain to make these problems worse. A fundamentally different approach is needed to ensure the well-being of present and future generations of Ontarians.

ENDNOTES

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APPENDIX A

Figure iv: Operating Budgets of Ministries 1996/97 (actual). Total = \$53.6 billion.

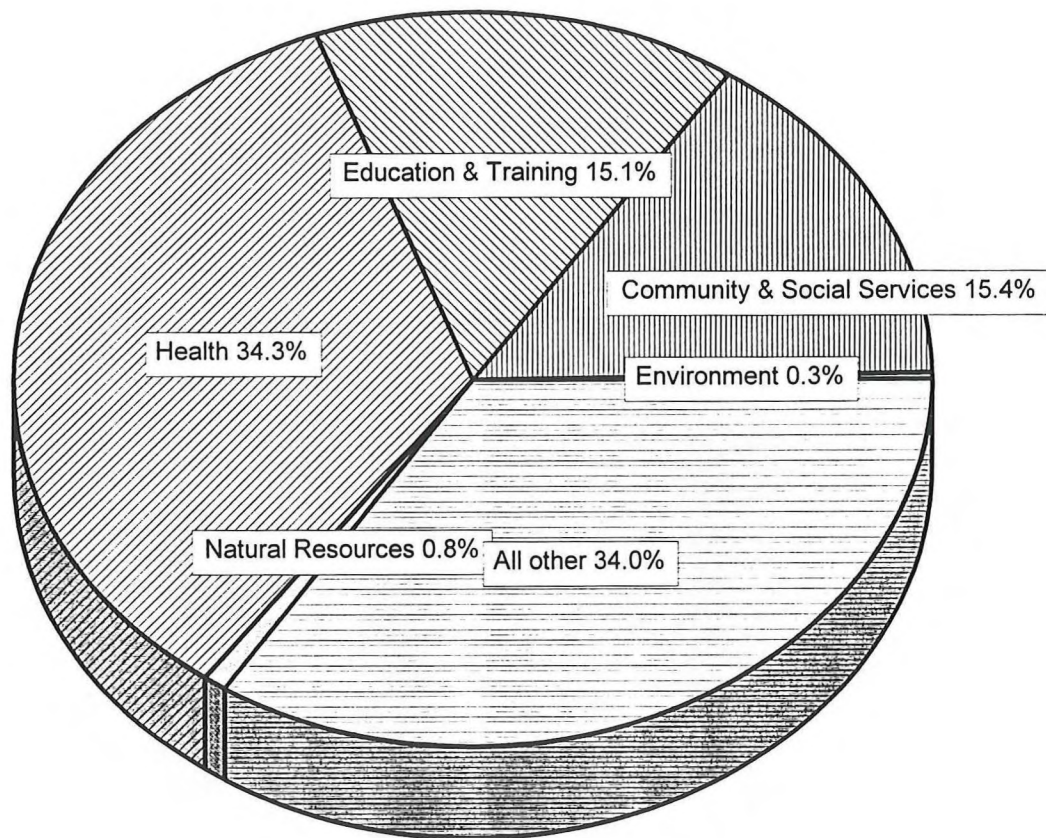
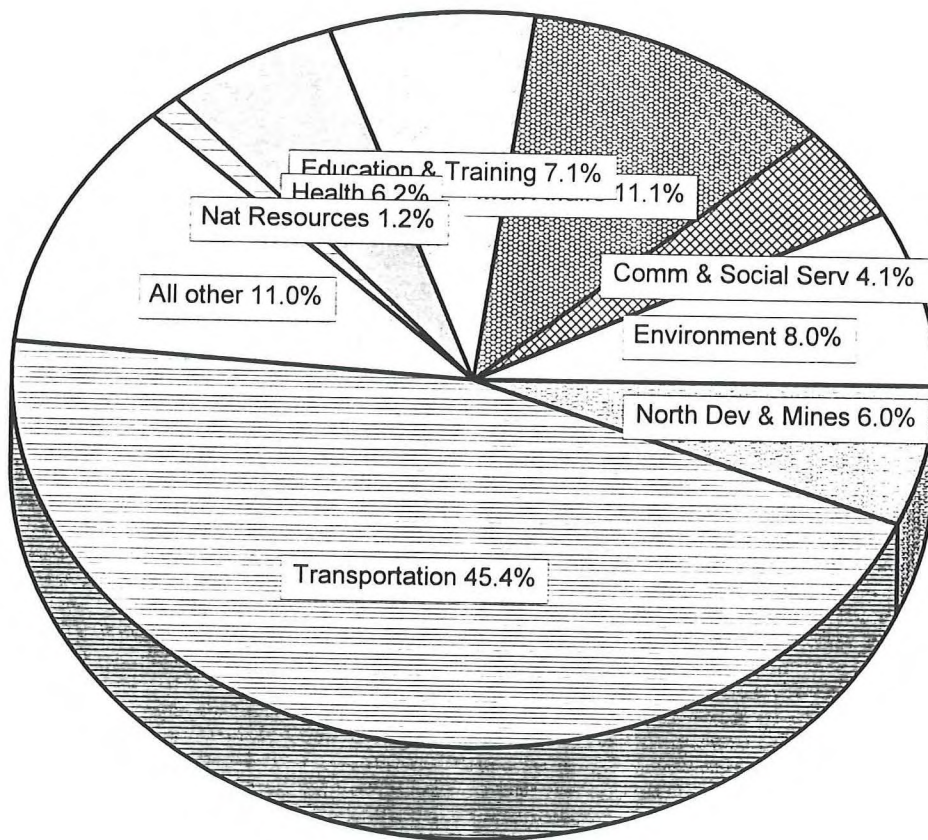
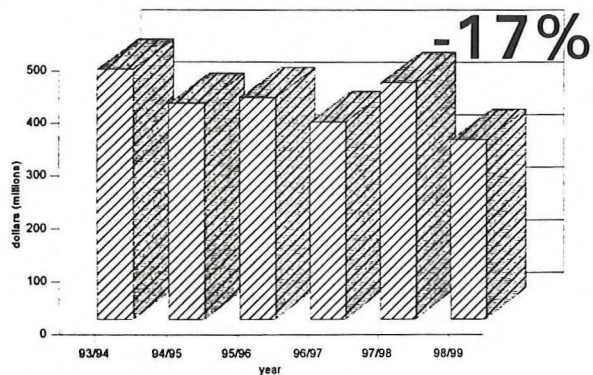


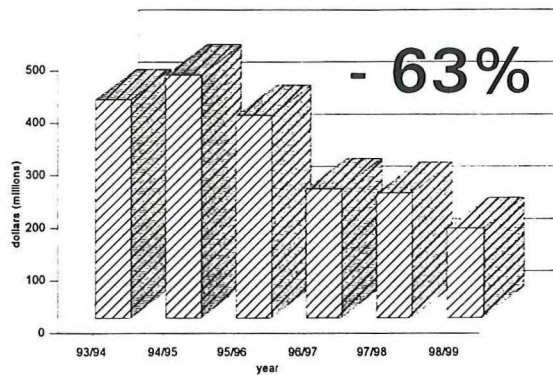
Figure v: Capital Budgets of Ministries 1996/97 (actual). Total = \$2.7 billion



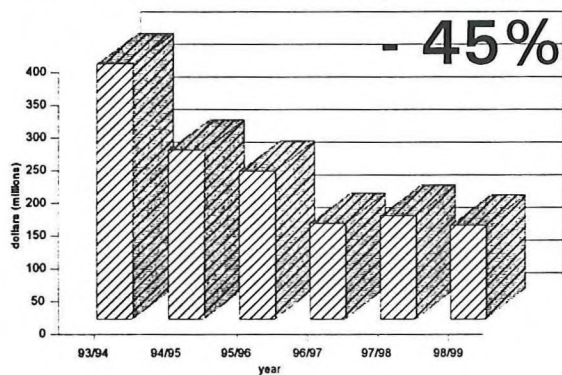
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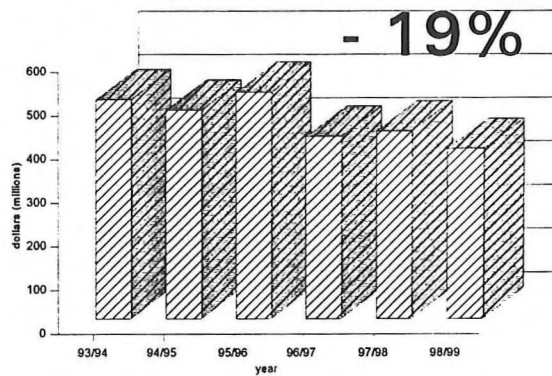
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Ministry of Environment (& Energy)



Ministry of Natural Resources



Ministry of Transportation

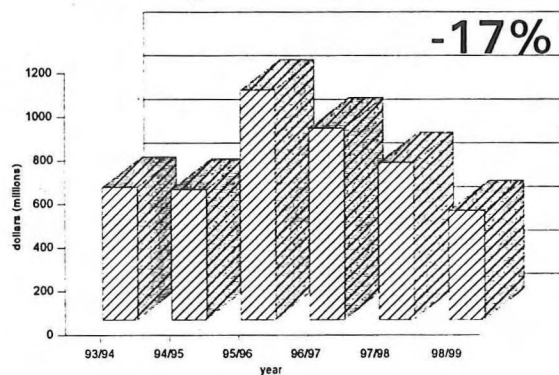
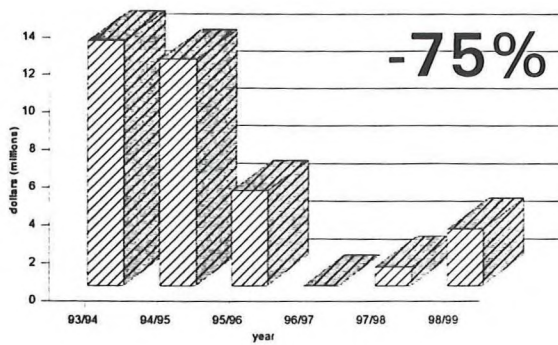
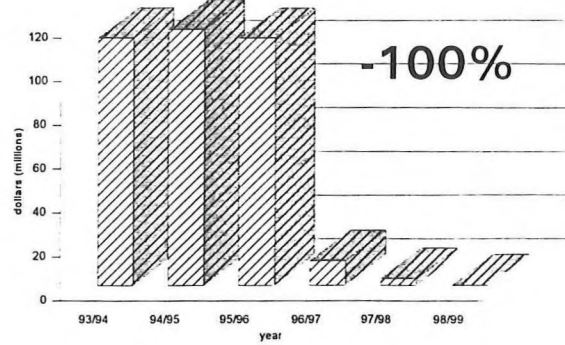


Figure vi: Various ministries and the changes to their operating budgets from 1994/95 to 1998/99

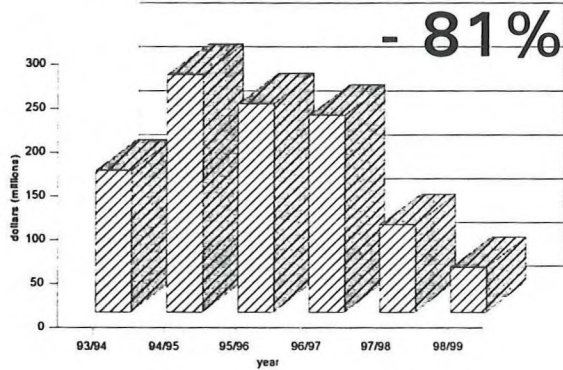
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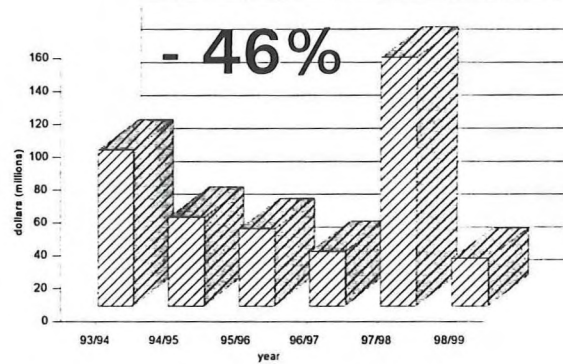
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Ministry of Environment (& Energy)



Ministry of Natural Resources



Ministry of Transportation

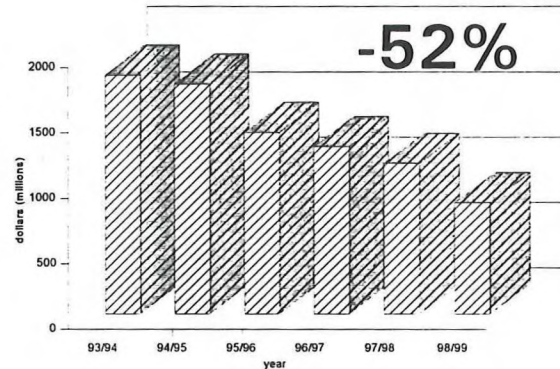


Figure vii: Various ministries and the changes to their capital budgets from 1994/95 to 1998/99

Table v: Ministry of Environment and Energy: Population Report Summary Table

1995		1998	
BRANCH/REGION	Total	BRANCH/REGION	Total
Minister's Office	23	Minister's Office	7
Deputy Minister's Office	6	Deputy Minister's Office	2
SUB-TOTAL	29	SUB-TOTAL	9
Boards and Committees		Boards and Committees	
Advisory Committee on Environmental Standards	3		
Environmental Appeal Board	4	Environmental Appeal Board	3
Environmental Assessment Advisory Committee	2		
Environmental Assessment Board	12	Environmental Assessment Board	5
Environmental Compensation Corporation	2	Environmental Compensation Corporation	0
Interim Waste Authority	4		
MISA Advisory Committee	1		
Niagara Escarpment Commission	38		
Ontario Round Table	5	Ontario Energy Board	38
Pesticides Advisory Committee	3	Pesticides Advisory Committee	2
SUB-TOTAL	74	SUB-TOTAL	48
Legal and Communications		Legal and Communications	
Legal Services Branch	3	Legal Services Branch	0
Ontario Energy Board	40		
Corporate Secretariat	8	Corporate Secretariat	14
Public Affairs and Communications Branch	58	Communications Branch	40
SUB-TOTAL	109	SUB-TOTAL	54
Corporate Management		Corporate Management	
ADM, Corporate Management	5	ADM, Corporate Management	2
Employment Equity	8		
Finance and Administration Branch	82	Business and Fiscal Planning Branch	77

Fiscal Planning and Information Management	70	Information Management and Technology Branch	27
French Services	7	French Services	3
Human Resources Branch	71	Human Resources Branch	53
Management Audit Branch	12	Management Audit Branch	9
SUB-TOTAL	255	SUB-TOTAL	171
Environmental Sciences & Standards		Environmental Sciences & Standards	
ADM, Environmental Sciences & Standards	8	ADM, Environmental Sciences & Standards	6
Program Development Branch	96	Program Development Branch	41
Environmental Bill of Rights Office	7	Environmental Bill of Rights Office	7
Standards Development Branch	65	Standards Development Branch	99
Laboratory Services Branch	205	Laboratory Services Branch	122
Science and Technology Branch	95		
Environmental Monitoring & Reporting Branch	130	Environmental Monitoring & Reporting Branch	93
SUB-TOTAL	606	SUB-TOTAL	368
Policy		Policy	
ADM, Policy	8	ADM, Policy	4
Policy Development	13	Policy Development	3
Intergovernmental Relations	5	Intergovernmental Relations	3
Energy, Liaison & Planning Branch	26	Energy Conservation & Liaison Branch	11
Aboriginal Affairs	4		
		Electricity Policy Branch	11
		Electricity Review Office	3
Economic Services Branch	14	Economic Services Branch	8
SUB-TOTAL	70	SUB-TOTAL	43
Operations		Operations	
ADM, Operations	7	ADM, Operations	8
Security Account	4		
Central Region	129	Central Region	98

Investigations and Enforcement Branch	97	Investigations and Enforcement Branch	70
Mid-Ontario Region	83		
Northern Region	111	Northern Region	104
Eastern Region	125	Eastern Region	92
Southwestern Region	124	Southwestern Region	97
Spills Action Centre	13	Spills Action Centre	12
West Central Region	105	West Central Region	82
Approvals Branch	92	Approvals Branch	88
SUB-TOTAL	890	SUB-TOTAL	651
Conservation and Prevention		Conservation and Prevention	
ADM, Conservation and Prevention	5	ADM, Conservation and Prevention	4
Environmental Assessment Branch	55	Environmental Assessment Branch	30
Environmental Planning & Analysis Branch	16	Environmental Planning & Analysis Branch	30
Waste Reduction Branch	45	Waste Reduction Branch	53
Industry Conservation Branch	22	Industry Conservation Branch	25
Community Conservation Branch	28		
Green Industry Office	4	Green Industry Office	8
SUB-TOTAL	175	SUB-TOTAL	150
TOTAL	2208	TOTAL	1494

Table vi: Employment within the Ministry of Natural Resources for the 1994-95 and 1997-98 Fiscal years

Year 1994/95		Year 1997/98	
DIVISION	Sub-ttl	DIVISION	Sub-ttl
CSDivision		CSDivision	
• Administration	6	• Administration	4
• Finance and Administration Branch	59	• Finance and Administration Branch	119
• Human Resources Branch	86	• Human Resources Branch	109
• Central and Support Services Branch	192	• Corporate Affairs Branch	44
• IFAS	1	TOTAL	276
TOTAL	344	Deputy	
Deputy		• Minister	10
• Minister's Office	14	• Deputy Minister	13
• Mining and Land's Commissioner	3	• Mining and Lands	5
• Communication Branch	55	• Zimbabwe	4
• Forestry Industry Action Group	2	• Communications Services Branch	29
• Corporate Policy and Planning	39	• Niagara Escarpment	23
• Organizational Development Branch	33	TOTAL	84
• Deputy Minister Office	24	FSDivision (Field Services)	
TOTAL	170	• NW Region	850
IRDivision (Information Resources)		• NE Region	863
• Administration Office	6	• South Central Region	562
• Systems Development Branch	71	• Administration Office	4
• Computer Services Branch	82	• Enforcement Section	40
• Natural Resource Information Branch	211	• Aviation Flood and Fire Management	179
• Zimbabwe Project	5	TOTAL	2498
• Regional Information Resources NW	21	NRMDivision (Natural Resources Mngmt)	
• Regional Information Resources NE	20	• Administration Office	7
• Regional Information Resources Cntrl	19	• Native Affairs Branch	9
• Regional Information Resources Sth S	18	• Fish and Wildlife Branch	230
TOTAL	453	• Forest Management Branch	170
Operations Division		• Land Use Planning	64
• NW Region	1245	• Land and Natural Heritage Branch	71
• NE Region	633	• Vacant	1
• Central Region	1371	• Ontario Parks	700
• Southern Region	1178	TOTAL	1252
• Administration Office	5	SIRDivision (Science and Information Res.)	
• Forest Industries Branch	7	• Administration Office	3
• Forest Management Branch	10	• Information Technology Serv. Branch	108
• Emergency Response and Aviation	192	• Information Mngt Services Branch	159
• Great Lakes Fisheries Branch	213	• Science Dev'ment / Transfer Branch	263
• Aboriginal Policy and Oper. Branch	15	TOTAL	533
• Provincial Operations Branch	287		
TOTAL	5156	MINISTRY TOTAL	4643
P&P Division			
• Administration Office	7		
• Aquatic Ecosystems Branch	52		
• Terrestrial Ecosystems Branch	57		
• Research Science Dev.pment Branch	257		
• Resource Stewardship / Dev. Branch	116		
TOTAL	489		
Unknown (no dept listed)	TOTAL		
MINISTRY TOTAL	6639		

Glossary of Acronyms Used

AAQC	-	Acceptable Air Quality Criteria
ACBFS	-	Air Cooled Iron Blast Furnace
AER	-	Approval Exemption Regulations
ADM	-	Assistant Deputy Minister
AOX	-	Adsorbable Organic Halides
CCME	-	Canadian Council of Ministers of the Environment
CEPA	-	Canadian Environmental Protection Act
CFIP	-	Community Fisheries Involvement Program
CWIP	-	Community Wildlife Involvement Program
COA	-	Certificate of Approval
EAA	-	Environmental Assessment Act
EAB	-	Environmental Appeal Board
EAAC	-	Environmental Assessment Advisory Committee
EBR	-	Environmental Bill of Rights
EPA	-	Environmental Protection Agency
FRAP	-	Forest Resource Assessment Policy
GTA	-	Greater Toronto Area
GTSB	-	Greater Toronto Services Board
IIPA/SSFI	-	Independent and Integrated Performance Assessment/Safety Systems Functional Inspections
IJC	-	International Joint Commission
M	-	Millions of dollars, Canadian
MAC	-	MISA Advisory Committee
MISA	-	Municipal-Industrial Strategy for Abatement
MNR	-	Ministry of Natural Resources
MoE	-	Ministry of Environment (Ontario) (after November 97)
MoEE	-	Ministry of Environment and Energy (Ontario), also OMEE
MNDM	-	Ministry of Northern Development and Mines
MTO	-	Ministry of Transportation (Ontario)
NAOP	-	Nuclear Asset Optimization Plan
NESCAUM	-	Northeast States for Coordinated Air Use Management
NETE	-	New Environmental Technologies Evaluation
NOHFC	-	Northern Ontario Heritage Fund Corporation
NOTIWG	-	Northern Ontario Tourism Industry Working Group
NO _x	-	Nitrogen Oxides
NPRI	-	National Pollutant Release Inventory
OCFA	-	Ontario Commercial Fisheries Association
OCWA	-	Ontario Clean Water Agency
OMA	-	Ontario Medical Association
OMB	-	Ontario Municipal Board
OMAFRA	-	Ontario Ministry of Agriculture, Food and Rural Affairs
OWRA	-	Ontario Water Resources Act

PCB	-	Polychlorinated Biphenols
PERT	-	Pilot Emission Reduction Trading Project
POI	-	Point of Impingement
PWQO	-	Provincial Water Quality Objective
SAR	-	Standardized Approval Regulation
SEV	-	Statement of Environmental Values
TRI	-	Toxic Release Inventory
TTC	-	Toronto Transit Commission
UNESCO	-	United Nations Education, Science and Cultural Organization
U.S.EPA	-	United States Environmental Protection Agency
VOC	-	Volatile Organic Compound
WMU	-	Wildlife Management Units



