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Canadian Environmental Law Association
L'Association canadienne du droit de l'environnement

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LAWS AND PROVINCIAL PROGRAMS

AN ADDRESS TO THE SYMPOSIUM ON
WATER SUPPLY: GROUNDWATER AND
SURFACE STRATEGIES IN THE GREAT LAKES BASIN

SPONSORED BY: SIERRA CLUB WATER RESOURCES
AND GREAT LAKES COMMITTEES AND ALIDA ROCKEFELLER DAYTON

BY

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I. INTRODUCTION

The Canadian Environmental Law Association (CELA) founded in 1970, is a public interest environmental law group. Since 1980, CELA has focussed both its casework and law reform efforts in the area of toxic chemicals, hazardous wastes and pesticides.

CELA has represented numerous citizen and environmental groups in relation to the contamination of ground and surface water supplies caused by leaky hazardous waste landfills. We have also co-authored with Pollution Probe an article on the need for a Safe Drinking Water Act in Canada and helped organize the first national conference on Critical Issues in Drinking Water Quality held in Ottawa last February. Our sister organization, the Canadian Environmental Law Research Foundation is currently working on a report for the Great Lakes Institute on Legal Mechanisms for Control of Toxic Contamination in Ontario.

I have been asked to speak on Laws and Provincial programs in relation to groundwater and surface strategies in the Great Lakes Basin. My focus will be on Ontario.

I will discuss briefly the nature of the problem, constitutional considerations; the major pieces of provincial legislation and

related policies affecting both our ground and surface water resources; and conclude with suggested directions for law reform in the area of protecting our water resources.

The value of the Great Lakes and their river systems cannot be measured. Forty million people in the U.S. and Canada live in the Great Lakes Basin. In Ontario alone, over 60% of the population now lives in six urban centres located within the Great Lakes watershed.

Recently, the Ontario government published the first comprehensive review of Ontario's water quantity resources. Some of the statistics on water use are significant:

- 1) In 1981, 57 million cubic metres per day of water were used in Ontario for domestic, agricultural and industrial use. Every second, Ontarians and Americans living along the Great Lakes remove 140,000 litres (31,000 gallons) for these uses.
 - 2) Water generates about 1/3 of Ontario's electricity.
 - 3) • 395 litres of water per day per person are used in our cities for domestic needs;
• 10 litres of water are used to produce 1 litre of gasoline; and
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- 250,000 litres of water are used in production of one tonne of steel.

The value of groundwater as a major source of supply is well recognized in Ontario in spite of the general abundance of surface water. Most rural water supplies in Ontario are obtained from wells, and almost one half of all municipal water supplies are from groundwater resources. Yet both our surface and groundwater supplies are under constant assault by industrial dischargers, leaky hazardous waste dumps, agricultural run-off of pesticides and toxic air pollutants. While the success of the phosphorus removal program in the Great Lakes should not be down-played, the situation regarding toxic chemicals is very disheartening. While levels of PCBs, DDT, mercury and other contaminants seemed to be on the decline in the late 1970's, recent IJC reports found that this trend appears to have ended and in some cases concentrations may be increasing again.

Recent examples of the current water quality problems in both our surface water and groundwater resources point out the need for comprehensive programs including law reforms and changes in enforcement practices both federally and provincially in Canada. The following examples also point out the different pathways of contaminants, and the variety of water supplies impacted.

A recent study of Toronto's drinking water by the Department of Health found 83 chemicals in the water, 7 of which are human carcinogens and 23 potential carcinogens. Toronto's water was also found to have relatively high mutagenicity compared with other municipalities. Finally, Toronto's drinking water has the highest levels of trihalomethanes of any municipality in Ontario. Sources of contamination were identified as the leaky landfills on the Niagara River, Toronto rivers including the Don and Humber rivers, (the Don contains higher levels of lindane than the Niagara River!); the Toronto sewage system; lakefilling and dredging; and drinking water filtration and disinfection processes.

In 1979, in Ontario following the roadside spraying of the herbicides 2,4-D and 2,4,-DP along a ditch to control brush and weeds, 70,000 trout were killed when the chemicals reached a nearby body of water.

Recent tests by the Ontario Ministry of the Environment have found dioxin in soil in an old landfill in Elmira, Ontario. Uniroyal Ltd., a company which produced 2,4,5-T in the 1950's and 1960's buried the wastes from their process on site. The migration of these chemicals posed danger to the town's water supply.

The well water of two families living near a leaky dump in Perkinsfield, Ontario has been contaminated with trichloroethylene and other organic chemicals. One family's well had readings as high as 500 ppb TCE. The landfill was licensed as a municipal dump, but took in thousands of gallons of liquid industrial waste, including TCE in the 1970's. The leachate plume from the site is heading in the direction of Georgian Bay. A lawsuit launched by the families against the owner of the site and the government for negligence was settled recently. A piped water system is to be provided to the whole town of Perkinsfield as well as the affected families.

II. CONSTITUTIONAL ASPECTS

Canada's constitution which reflected the problems and concerns of 1867 when it was enacted, did not allocate legislative authority on environmental matters ^{to} of either the federal government or to the provinces. As a result of the division of powers, the federal and provincial governments have overlapping jurisdictions over water resources. X

Federal jurisdiction over water pollution is derived primarily from its powers to legislate in the areas of:

- (a) navigation and shipping
 - (b) sea coast and inland fisheries
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- (c) the criminal law; and
- (d) the general power to make laws for the peace, order and good government of Canada.

The federal government also has jurisdiction over federal lands which include the northern territories and national parks.

Provincial jurisdiction in regard to water is derived from the authority to ~~legislature~~ in regard to: *legislate*

- (a) property and civil rights
- (b) local works and undertakings other than those placed under federal control; and
- (c) all matters of a merely local or private nature in the province.

The constitution also establishes the provinces' ownership rights to lands and other natural resources including water within their boundaries. The provinces recently were given exclusive jurisdiction in respect ^{of} for the generation and production of electricity.

Without clear responsibility for environmental matters, both levels of government have been able to disclaim authority for managing environmental problems by alleging that it is within the other's jurisdiction.

One example of jurisdictional buck-passing was the refusal in the late 1970's of either the federal government or the Ontario provincial government to acknowledge jurisdiction to close the English-Wabigoon River in Northern Ontario to sports fishing in the face of the high levels of mercury.

III PROVINCIAL LAW AND POLICY

A. The Ontario Water Resources Act

The primary provincial laws governing the use and quality of waters in Ontario are the Ontario Water Resources Act and the Environmental Protection Act. I will deal first with the Ontario Water Resources Act which is administered primarily by the Ministry of the Environment. Despite its title, the Act does not consider water as a resource to be protected in the same way as other legislation protects oil, gas, or mineral ores. The Act was first passed in 1956 in a skeletal form to regulate the use of Ontario's water resources on a provincial instead of on a municipal basis. Its main focus was on the provision of municipal and industrial sewage treatment and water supply systems. The main impetus for the Act came from two law suits launched in the 1950's, where downstream property owners successfully sued two Ontario towns for releasing partially untreated sewage into the streams passing through their lands. The Courts granted injunctions even though the municipalities claimed they did not have the financial resources to improve

their plants. A crisis resulted from the granting of these injunctions.

The Ontario legislature responded by passing legislation to curtail the rights of downstream owners. Amendments to the Public Health Act (the governing legislation at the time), provided that as long as the sewage works abided by the terms and conditions of their approval, they would be immune from civil action. The injunctions were dissolved. This was a short-term solution and was followed by the passage of the Ontario Water Resources Commission Act in 1956, which gave the Province authority over sewage treatment plants and water supply systems. The major activities of the Water Resources Commission established at that time were to finance and supply water and sewage services to municipalities. However, the immunity from civil action granted to sewage treatment plants under the Public Health Act was transferred to the OWRCA. Specifically, as long as sewage treatment plants are operated in accordance with government approval, any discharge into water bodies which might impair the quality of water are exempted from prosecution. This section still exists today. In 1972, the newly created Ministry of the Environment took over the administration of the Act and the OWR Commission was dissolved. The Minister of the Environment was given broad powers to supervise and examine all surface water and groundwaters in Ontario, and to determine the extent and cause of the pollution in them. This made possible a

shift of attention from sewage works and water supply to a more general concern with water pollution.

The main offence provision under the OWRA makes it illegal for anyone to discharge or deposit any material into any place that may impair water quality. However, impairment is a relative concept and the potential effectiveness of the Act is limited by the fact that there are no specific legally defined limits that automatically constitute an offence. Indeed, in 1980, Falconbridge Mines tried to defend a prosecution brought under this Act by stating that the contaminated water it was discharging to a lake was less contaminated than the actual lake water and that therefore it shouldn't be found guilty. Fortunately, the court didn't buy this argument.

The maximum fines under the OWRA have been raised in recent years to \$5,000 for a first offence and \$10,000 for subsequent offences. Each day that the OWRA is contravened constitutes a separate offence. Interestingly enough, of all our provincial environmental legislation, only the OWRA provides for a penalty of one year of imprisonment which may be imposed separately or in addition to a fine. Needless to say, the Ontario courts have not utilized that option to date. Even more recent amendments to the Environmental Protection Act provide that where any person is convicted of an offence of impairing water quality under the OWRA in respect of hauled liquids industrial waste or hazardous wastes, the fines are raised to a minimum of \$2,000 and a maximum

of \$25,000 for a first offence, with a minimum of \$4,000 and a maximum of \$40,000 for subsequent offences.

1. Approvals

With certain exceptions, no one, including municipalities and industries may remove water from a body of water without a Certificate of Approval. With regard to groundwater, the classic position at common law was that a landowner could not prevent another landowner from extracting groundwater by means of a well, even if the well draws water which would otherwise have entered a stream and even though the landowner had used the spring for a number of years. The OWRA puts some restrictions on these common law rights by providing that no one may take more than a total of 50,000 litres of water per day by means of a well, inlet from a surface water supply, or works for the diversion or storage of water, without a permit. This section does not apply to the taking of water for domestic or farm purposes or for fighting fires.

Sewage works also require a Certificate of Approval from the Ministry of the Environment. Public hearings are only required where a municipality or industry wishes to build a new sewage works (or extend its old one) in another municipality or in a territory without municipal organization. If the sewage works is to be constructed or extended within a municipality a hearing is ~~totally within the discretion of the Ministry of the Environment.~~

A panel of the Environmental Assessment Board holds these public hearings and makes recommendations to the full Board which then issues a report with its recommendations. The Director of Environmental Approvals in the Ministry of the Environment makes the final decision. If the Director refuses to grant an approval, the proponent may require a hearing of the Environmental Appeal Board. Only the proponent may appeal, not an affected third party. In other words, if an approval is granted, an intervenor group cannot appeal. It is arguable whether this provision is in violation of our new Charter of Rights and Freedoms which provides for equal access to the law. So far this has not been tested in the Courts.

As mentioned earlier, once sewage works have been approved and are operating in accordance with their approvals, they are immune from prosecution under the OWRA for impairing water quality. Coupled with the fact that the public is often locked out of the front-end approval process may lead to the unfortunate results that sewage works are in fact given "licenses to pollute".

If an industry or commercial enterprise is not adequately dealing with its sewage, the Director can issue a direction or requirement to carry out an investigation, upgrade equipment or change processes to meet Ministry specifications. Due to the fact that we do not have standards for industrial effluents; these are established on an ad hoc basis and placed in the

Certificate of Approval or direction or requirement. The allowable limits are derived from industry and government negotiation, without public input.

2. Water Management Programs

The Minister of the Environment has wide regulation-making powers under the OWRA. Specifically, the Minister may make regulations "specifying standards of quality for potable and other water supplies, sewage and industrial waste effluents, receiving streams and water courses". Unfortunately, no enforceable regulations have ever been promulgated either for:

- (a) drinking water quality
- (b) sewage or industrial effluents

There are only unenforceable water management goals and objectives.

The Ministry's water management program is outlined in what has become known as the "Blue Book". The program includes the components of:

- (a) surface and groundwater quality management and
- (b) surface and groundwater quantity management

The goal of the surface water quality program is to ensure that Ontario's surface waters are of a quality which is satisfactory

to aquatic life and recreation. According to the MOE, water which meets the water quality criteria for aquatic life and recreation will be suitable for most other beneficial uses such as drinking water and agriculture. The principle which underlines the approach is that all the lakes and rivers should be suitable for all uses. Exceptions are recognized in cases where previous discharges of waste may have accumulated and where rehabilitation of a water course is not yet considered practical. The use of stream classification, whereby specific courses in the province are designated for various and different uses calling for different levels of water quality is not permitted. However, some effluent discharges are permitted which do not meet the objectives. These locations are called mixing zones and are again designated on a case-by-case basis.

The Ministry's role in Ontario's surface water quantity management is through the water taking permit system under the Ontario Water Resources Act.

The groundwater quality management programs' stated goal is to protect the quality of groundwater for the greatest number of beneficial uses. Again, the approach is regulation of waste discharges on a case-by-case basis. Groundwater quantity is again regulated by the OWRA permit system.

As far as drinking water, a revised edition of drinking water objectives was issued this year. The Ontario drinking water

objectives generally follow federal guidelines which are limited to only 42 substances. One can compare these figures to the International Joint Commission's identification of over 800 substances of potential concern in the Great Lakes.

Both the federal and provincial guidelines are noticeably lacking in suggested limits for organic chemicals. For example, no guidelines have been established for benzene, which is a known carcinogen and a common contaminant in polluted water supplies. In tests done on drinking water from Niagara-on-the-Lake, the majority of organics, including benzene, found in drinking water samples were not covered by the drinking water guidelines.

As I mentioned earlier, the guidelines that we do have are not legally enforceable standards. This means that no one has a legal right to bring an action based on a violation of the maximum allowable levels contained in the guidelines. Also, while a violation of a guideline supposedly constitutes ground for the rejection of the water supply, this provision is meaningless when there is no legal right of action. Furthermore there is no onus on the water supplier to notify the public when a guideline has been violated, and in the case of a violation, there is no clear instruction as to the course of action that should be followed by the water supplier in carrying out his responsibilities to the public, other than the resampling of the water. Environmentalists have been advocating over the past few years the need for a Safe Drinking Water Act in Canada. We have

suggested that both a federal bill and provincial bill should be enacted. In February of this year, Health and Welfare Canada indicated that they are going to "consider" federal drinking water legislation. The status of this initiative is unclear.

The last set of non-enforceable guidelines are the 1976 Objectives for the Control of Industrial Wastes Discharge in Ontario. Because these are non-enforceable objectives, the Ministry can deal with each industry on an individual basis. This has created a situation where many major polluters are discharging in violation of the Ministry's objectives. For example, in 1979, 11 out of 16 Canadian companies whose discharges end up in the Niagara River, were not in compliance with the Ministry's objectives. Four companies had discharges at least ten times in excess of the objectives on one or more of the parameters measured.

B. The Environmental Protection Act (EPA)

The other major piece of provincial legislation which deals with water pollution is the Environmental Protection Act, first enacted in 1971, and administered by the Ministry of the Environment. The stated purpose of this Act is to provide for the protection and conservation of the natural environment. "Natural environment" is defined to include the air, land, and water of Ontario. "Water" is defined to mean surface and/or groundwater. The main offence provision of the Environmental

Protection Act, which prohibits the discharge of contaminants into the natural environment is applicable to contaminants deposited in water. While there are legally enforceable regulations for air contaminants; as in the case of the OWRA, there are no specific legally defined limits that automatically constitute an offence for the impairment of water quality.

However, the Act does provide for a hierarchy of regulatory mechanisms which the Ministry can use for polluting industries. The first is a program approval which allows a person responsible for a contaminant source to submit a plan for its abatement. Once the Ministry has accepted the polluter's plan and approved the program, the polluter may not be prosecuted under the general offence section. Program approvals for the most part have become obsolete. The lack of response from industry shifted the emphasis away from voluntary program approvals to other regulatory mechanisms. Indeed companies faced with the threat of a prosecution on the one hand and the cost of preparing a large scale feasibility study prior to gaining a program approval in the past have preferred first taking the risk of prosecution knowing fines would probably be lower than the cost of the study.

The primary mechanism used to control polluting companies is the control order which may be issued if the company is violating the general offence provision of the Act or the regulations. These Orders are similar to the Directions and Requirements issued under the OWRA. While OWRA requirements are used if an industry

has only a discharge into a water body, control orders are often issued under the EPA when a company has both air emissions and is discharging contaminants to a water course.

The control order ideally should function as a mechanism to bring industry in line with provincial requirements. However, as we have already mentioned, with no legally enforceable water quality standards in effect, control orders may be viewed as a de facto way of determining water quality standards loosely based on the provincial water quality objectives, one company at a time.

Once a control order is issued and as long as the polluter complies with the order, he is exempt from prosecution by the Ministry or anyone else. However the control order will not act as a bar to a prosecution launched under the Federal Fisheries Act which contains a prohibition against the deposit of deleterious substances into water frequented by fish. This was tested in a private prosecution against Cyanamid Ltd. for polluting the Welland River with an ammonia discharge. Fish died almost instantaneously when placed in the toxic ammonia effluent. The company was under a control order which it was following, but the court still convicted the company under the Fisheries Act. However only a token fine of \$1.00 was given. Largely due to limited resources, the fine was not appealed. Again, there is no statutory opportunity for public input into the control order process. Recently the Ministry has called informal meetings to

discuss draft orders, but this is usually subsequent to lengthy industry-government negotiations.

Stop orders may be issued by the Ministry where the Director has reasonable and probable grounds to believe the contaminant emissions may cause an immediate danger to life, health and property. A stop order takes effect immediately on issuance. Because of the stringent requirement to show "immediate danger", stop orders are almost impossible to use. The MOE's only attempt to impose a stop order - on a Toronto lead smelter - was overruled by the courts.

Other types of orders include repair or clean-up orders in which the Minister may order a polluter to do anything necessary to repair the damage done by his polluting activity. The Minister may also launch an action for a court order to restrain a polluter from breaching any prohibition of the Act or the regulations, or any approval or order. Unfortunately, the general public does not have access to the courts to gain a similar restraining order.

The EPA also regulates waste management in the province which has a great impact on our surface and groundwater resources. Under Part V of the Act, no one may establish a waste disposal site or waste management system without the approval of the Director of the Environmental Approvals Branch. Public hearings are required

when the Director receives an application to establish, alter, enlarge or extend a site for the disposal of:

- (1) hauled liquid industrial waste;
- (2) hazardous waste; or
- (3) other waste, which is the equivalent of the domestic waste of not less than 1,500 people. In the case of other applications, the hearing is discretionary .

Conditions may be imposed on the Certificates of Approval by the Director of Approvals and in the case where there has been a hearing, they will usually follow the recommendations of the Environmental Assessment Board. Recent approvals for domestic waste sites often set out allowable levels of certain leachate parameters (e.g. chloride) at the property line, or in adjoining water courses.

A number of legislative initiatives in the area of waste disposal are long overdue. These include:

- the need for a perpetual care fund to provide for clean-up of closed and abandoned sites. We have no "superfund" legislation in Canada and no requirements for waste disposal site owners to post bonds, establish trust funds or take out environmental liability insurance.

- an update to our waybill regulation. Our present tracking system in Ontario only covers liquid industrial wastes. Solid waste, recycled waste, and waste stored on site are not tracked;

- initiatives for recycling; and

- a definition of hazardous waste.

While the MOE issued its ambitious Blueprint for Waste Management in June 1983; 14 months later, no draft legislation or regulations have been proposed. Comprehensive and long-overdue waste management legislation will go a long way in minimizing the threat to ground and surface waters caused by leaky landfills.

One last section of the EPA that has potential impact on water quality is the so-called "spills" provision. Part IX of the EPA sets out provisions providing for the cleanup of spills. There are approximately 1,000 chemical spills a year in Ontario, many which may have an impact on ground and surface water quality. Unfortunately, these far-reaching provisions, though passed in December 1979, have never been proclaimed and are therefore not law. Industry has been successfully lobbying against the enactment of these provisions.

C. Enforcement

Under the EPA, the range of fines varies depending upon the type of pollution. General fine provisions provide for a maximum fine of not more than \$5,000 on the first conviction and a fine of not more than \$10,000 upon subsequent convictions. Each day the EPA is breached constitutes a separate offence. These are similar to the fines set out in the OWRA. The only difference is that the EPA does not provide for an imprisonment option.

While our legislation and fine provisions may look reasonably good on paper, it is instructive to look at the enforcement record. One major difference between our environmental legislation and U.S. legislation is the lack of mandatory duties in Canadian environmental law. Our legislation is largely discretionary, and a citizen cannot take the Ministry to court for failure to enforce the law.

A recent study, ironically done for the provincial government, found that in many cases, companies find it less expensive to continue polluting than to comply with government requirements for pollution abatement. Fines that have been levied for convictions of pollution offences in Ontario have been almost trivial. The study also noted that a polluting company has a relatively small chance of getting caught, being prosecuted, being convicted, and if convicted, sentenced with a large fine.

The possibility that fines under the EPA and OWRA may be treated by large companies as a license to pollute is not surprising. Witness the response of Inco's representative to the Court's question as to when the company could pay a \$19,500 fine. (This is one of the higher fines levied.) The company representative stated: "Well, your Honour, as I said in the previous case, it is just a matter of getting a cheque".

Over the past 10 years fines have ranged from 0 to \$26,500. However the majority of polluters are only fined an average of \$1,000 to \$2,000 for violations.

Besides the problem of low fines, a study presented by the Canada-Ontario Review Board to the International Joint Commission in January of this year also points out the inadequacy of Ontario's enforcement practices. The report contained an inventory of the major industrial point source dischargers in the Great Lakes Basin based on 1982 data. The report found that 45 out of 101 industries discharging into the Great Lakes were not in compliance with either provincial or federal effluent requirements. Toxic chemicals such as lead, arsenic, phenols, radium 226 and ammonia were discharged into the Great Lakes in breach of our environmental statutes. While some of these companies are now in compliance two years later, it seems clear that unless a more aggressive enforcement policy is undertaken,

industry will continue to find it cheaper to pollute rather than clean up.

Because of the lack of government initiatives, citizens have from time to time launched private prosecutions under both the EPA and OWRA as well as federal statutes. While government ministries and departments are largely responsible for the enforcement of environmental statutes, individuals are also entitled to enforce these statutes by way of private prosecution. Prosecutions may be initiated by any person and it is not necessary for the prosecutor to show personal damages as the result of the accused polluter's actions. The right of an individual to conduct a private prosecution for breach of a federal or provincial statute is founded at common law and recognized both in our Criminal Code and the Ontario Provincial Offences Act. It is however subject to the right of intervention by the Attorney-General who may take over and complete the prosecution or have it stopped. While there have been some successful private prosecutions under the EPA and OWRA, the total numbers have been small and the first question the courts usually ask is why the government is not laying the charges. However, it is one mechanism for citizen redress.

IV. Conclusions and Recommendations

I would now like to conclude with some recommendations for law reform needed to ensure better protection of our ground and surface water resources.

1. Enactment of the Safe Drinking Water Act both at the federal and provincial level. This Act should include legally enforceable drinking water quality standards, a public notification procedure when regulations are violated; public input into the regulation-making process; and additional rights of the individual to sue the Ministry of the Environment for failure to perform any duties under the Statute.
2. Enactment of water quality standards under the OWRA.
3. Public input into the regulation-making process, approval and control order processes under the EPA and OWRA.
4. Immediate ^{proclamation} enactment of the spills provisions of the EPA.
5. Development of a ground water strategy at both the federal and provincial level including an inventory of groundwater resources, and the scope of groundwater contamination. We asked the provincial MOE for copies of any of their groundwater policies and were given just one that dealt

with cost sharing arrangements for situations where restoration of groundwater supplies are required as a result of winter road maintenance by a road authority. This is not adequate.

6. Enactment of perpetual care fund for clean-up of existing and inactive or abandoned landfill sites.
7. Reforms to the waybill regulation to better track hazardous wastes.
8. Better enforcement practices, higher minimum fines and additional procedures to allow citizens to go to court to enforce environmental legislation.
9. Requirements in pesticide registration and permits to deal with impacts on ground and surface water.