128 RED# 12803 RG Nov 24/93

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Publication #128
ISBN# 978-1-77189-601-6

SUBMISSIONS TO THE INQUIRY ON FEDERAL WATER POLICY

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October, 1984

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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 focused 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 landfills and other industrial activities. We have also co-authored with Pollution Probe an article on the need for a Safe Drinking Water Act in Canada[1] and helped organize the first national conference on Critical Issues on Drinking Water Quality held in Ottawa last February.

Through our cases and research, we have become acutely aware of the fragile nature of our water resources and their susceptibility to chemical contaminiation. We have also become aware of major gaps in water quality laws, policy and enforcement at both the federal and provincial levels which need to be addressed. To this end we welcome the establishment of the Inquiry on Federal Water Policy and hope that a comprehensive series of recommendations will emerge to enable the federal government to better deal with the extremely important issues of water quality and quantity.

CELA's submission will focus solely on the issue of water quality. We will discuss briefly the nature of the problem, and constitutional considerations before turning to an examination of the major pieces of relevant legislation. We will then address the need for a comprehensive national groundwater strategy, and the need for federal Safe Drinking Water legislation before concluding with suggested directions for law reforms that the Inquiry can recommend in the area of protecting water quality.

II. THE NATURE OF THE ENVIRONMENTAL PROBLEM

The value of Canada's water resources cannot be measured. Yet with only 1% of the world's population and roughly 9% of the world's supply of fresh water,[2] Canadians have often been complacent about the availability of clean water. However, water quality today has emerged as the number one environmental issue of concern to the Canadian public. As well, environmental matters generally continue to be at the top of the non-environmental agenda.[3] The reasons for this concern are largely traceable to the 'fall-out' of the so-called "chemical revolution" that began with World War II and brought about the massive introduction of synthetic organic chemicals into the marketplace. Since many of these compounds are not easily degradable, they remain in the environment and enter both surface and ground waters from a number of pathways.

These include:

- urban and agricultural run off
- industrial effluents and impoundments
- municipal sewage
- underground injection wells
- mining and petroleum development
- accidental spills
- illegal waste dumping
- primitive methods of waste disposal in landfills, and
- toxic airborne pollutants.[4]

Often because of long latency periods, effects on human health and the environment are not known until many years after the introduction of the chemical.

Recent examples of the continuing chemical assaults on water quality in both our surface and groundwater resources point out the need for comprehensive programs including law reform and changes in enforcement practices both federally and provincially. The following examples also point out the different pathways of contaminants, the variety of water supplies impacted and most importantly, the national scope of the water quality issue.

- 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.[5]

- In October 1978, 18,000 litres of chlorophenol wood treatment solution leaked from a sawmill dip tank in Penticton, British Columbia, resulting in the contamination of an underlying aquifer used as a source for domestic and industrial waste. The cost of the spill, including site investigations, chemical analysis and remedial work was in excess of $200,000.[6]

- Prince Edward Island is threatened with contamination by aldicarb (temic) and other pesticides. Aldicarb residues of up to 5 ppb have been found in 25% of the samples of ground water/tap water taken in a recent study.[7]

- A leaky waste disposal site in Ville Mercier, Quebec, has polluted 300 wells and 30 sq. km. of an aquifer beneath some of Quebec's farmland with phenols and volatile chlorinated hydrocarbons.[8]

- In the Prairies,the Regina sand aquifer has been threatened by heavy metal sludges from a steel mill that were placed in unlined pits overlying the aquifer as well as by the migration of PCBs through the soil from a ruptured pipeline linking a PCB storage tank with the Federal Pioneer Electric Plant just north of downtown Regina.[9]

III. CONSTITUTIONAL CONSIDERATIONS

Canada's constitution which reflected the problems and concerns of 1867 when it was enacted did not allocate legislative authority on environmental matters to either the federal or provincial governments. As a result of the division of powers, the two levels of governments have overlapping jurisdiction over the quality of our water resources.

Federal jurisdiction generally 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

(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. Jurisdiction over agriculture and health is shared with the provinces.

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

(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 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.

The problem of jurisdiction becomes even more complicated when one looks at the various sources of water quality contamination listed above. For example, pesticide run off from agricultural use and other pesticide applications are an important contributer to water quality impairment. As pesticides control is clearly a matter of shared jurisdiction, it can be argued that the federal government can, for example, enact specific requirements under the Pest Control Products Act for applicants to determine the impacts of pesticides on ground and surface water before registration takes place. Other areas are not so clear-cut. For example, commentators have argued for a greater federal role in the area of hazardous waste management, yet the federal government has not legislated due, in part, to perceived constitutional constraints.[10]

However, the federal government has legislated in regard to aspects of toxic chemicals control through the Environmental Contaminants Act, the Clean Air Act and the Transportation of Dangerous Goods Act. Generally, a combination of the criminal law power and the general peace, order and good government power may be said to justify, constitutionally, such federal legislation.

The criminal law power has been held to encompass the preservation of " public peace, order, security, health and morality".[11] Arguably, the impairment of drinking water is a serious public health issue which could justify the use of the criminal law power even with intraprovincial effects. However, legislation based solely on the criminal power is limited to a prohibition type approach rather than a management type scheme.[12]

The "peace, order and good government" power is an important basis for the enactment of broader federal environmental legislation. The courts have held this general power capable of supporting federal legislation where the subject matter has attained "national dimensions" or become a matter of "national concern."[13]

CELA maintains that the contamination of our drinking water supplies by chemicals is a matter of grave national concern and goes beyond " local or provincial concerns or interest" and that therefore the general power along with the criminal law power could be used to justify enactment of a federal Safe Drinking Water Act.[14]

The courts have tried to define the circumstances where a subject matter may reach "national dimensions" as follows:

> "...the most important element of national dimension or national concern is a need for one national law which cannot realistically be satisfied by cooperative provincial action because the failure

> of one province to cooperate would carry with it grave consequences for the residents of other provinces. A subject matter of legislation which has this characteristic has the necessary national dimension of concern to justify invocation of the peace, order and good government."[15]

The possibility of "pollution havens" may justify national legislation to ensure that, for example, drinking water quality or hazardous waste disposal standards are uniform. Mr. Maxwell Cohen, the former Canadian chairman of the International Joint Commission and chairman of the Environmental Contaminants Board of Review on PCBs, has observed that:

> "...I am not persuaded that any classical view of Canadian federalism is a barrier to a national policy on something as important as toxics. Groundwaters go from one province to another...we are dealing with something that is very mobile."[16]

In summary, it is our contention that the federal government can and should address the issue of toxic chemical contamination of our water supplies through more aggressive legislation. Because of the varying pathways of contamination, this may be accomplished by amendments to existing legislation or enactment, where necessary, of new laws to fill the regulatory gaps. We would urge the Inquiry to take a broad interpretation of the federal government's constitutional authority to act in this area.

While reforms to provincial law are beyond the scope of the Inquiry, it is clear that cooperation between the two levels of

government is both necessary and desirable to tackle the threats to water quality.

IV. EXISTING FEDERAL LAWS

While there is a patchwork of laws dealing with water pollution and toxic chemical control at the federal level, we will examine in this section the main pieces of legislation and make suggestions for reform. It is clear that both a preventive approach to controlling the sources of contamination as well as a remedial approach to clean-up must be pursued. Our legislation is often inadequate in addressing both the front-end and the back end of water quality issues.

A. The Fisheries Act

Presently the most important statute for combatting water pollution is the Fisheries Act.[17] The purpose of the Act is to protect and conserve fisheries under the jurisdiction of the Government of Canada. The anti-pollution provisions of the Act operate by stating a general prohibition against pollution and then allowing, by regulation, specified levels or amounts of certain contaminants to be put into the water. Thus the Fisheries Act prohibits any person from depositing or permitting the deposit of a deleterious substance into water frequented by fish. The regulations set out allowable levels of substances in the effluent of a variety of industries including pulp and paper

mills, petroleum refineries, chlor-alkali plants, meat and poultry processing plants, and mines.

Other important sections of the Fisheries Act give commercial fishermen the right to sue for damages if their livelihood is affected by the deposit of a deleterious substance into a watercourse, and provide for citizens launching private prosecutions to recover half of any fines imposed by a court. The Act also includes preventive as well as remedial sections which allow the Minister of the Environment to require a copy of the plans and specification of any proposed new operations or information on any aspect of an ongoing operation to be submitted to him. Upon review of the information, if the Minister believes that a deleterious substance will be emitted in such a way that a breach of the general prohibition in the Fisheries Act might occur, he may order modifications to or in some circumstances stop the undertaking.

Unfortunately, the Fisheries Act has not lived up to its expectations as an anti-pollution statute. Although the Act confers broad powers on the federal government, its implementation has been left largely to the provinces. In fact, over the last 85 years the federal government has made various arrangements to delegate the responsibility to enforce this Act to a number of the provinces. In Ontario, this delegation in relation to the management of the fisheries took place at the turn of the century.[18] Unfortunately, Ontario has chosen to

largely ignore the Act and indeed in the past 80 years has only launched two prosecutions under it.[19] The tendency has been to use existing provincial law. In one instance, where the Ministry of the Environment proceeded against Eldorado Nuclear Limited for a breach of the Ontario Water Resources Act (OWRA) the case was dismissed on the preliminary point of law that Eldorado, as a federal crown agency, was not bound by the provisions of the OWRA.[20] Quaere the result had the Ministry proceeded under the Fisheries Act, which does bind the federal crown.

It is clear that the requirement for "plans and specifications" could be used, for example, to control dredge and fill activities in our harbours. For example, highly contaminated material in the Toronto harbour has been continuously dredged by the Toronto Harbour Commission and deposited in uncontained cells alongside the man-made Leslie Street spit. Though asked to use the Fisheries Act, the federal government declined.[21] One drawback of the Act itself is that while the Minister is authorized to obtain plans, there is no permitting system or requirement that the proponents of proposed activities that might adversely affect aquatic habitat submit information about their impacts to the government.

The Navigable Waters Protection Act[22], whose sole purpose is the protection of navigation, requires that proponents who want to construct anything that might affect navigable waters make application to the Department of Transport for approval.

Unfortunately, pollution control is not one of the Act's objectives and it is therefore not an effective tool for regulating activities which may have an adverse effect on water quality. In fact, the Act allows the proponent of any works that might interfere with navigation to apply for approval after the work has commenced.[23]

B. Canada Water Act

The purpose of this Act is to regulate water on a national scale, through cooperation with provincial governments. It is interesting to note that in 1970 when the Act was proclaimed, water pollution was seen as an issue of national concern. The preamble to the Act reads as follows:

> "And whereas pollution of the water resources of Canada is a significant and rapidly increasing threat to the health, well-being and prosperity of the people of Canada and to the quality of the Canadian environment at large and as a result it has become a matter of urgent national concern that measures be taken to provide for water quality management in those areas of Canada most critically affected."[24]

Under the Canada Water Act, the federal government may make agreements with the provinces to provide for comprehensive water resource management projects related to any waters in which there is a significant national interest. Once a region has been designated as a water quality management area, the deposit of waste of any type in its water or in any place where waste may ultimately enter those waters becomes an offence. Also under the Act, federal agencies could be set up to manage a basin located

entirely within a province. Unfortunately, no water quality management areas have ever been established under the legislation.

CELA would submit that this Inquiry should give serious consideration to a recommendation that the Great Lakes basin be designated a water quality managment area.

C. Environmental Contaminants Act (ECA)[25]

The purpose of the Act is to "protect human health and the environment from substances that contaminate the environment." Under the Act, the Ministers of Environment and Health and Welfare can ban or restrict the import, manufacture or use of a substance if it constitutes "a signifant danger to human health or the environment." The Act however, is meant to be residual legislation and only to be used if the environmental problem cannot be addressed by other provincial or federal laws. Only five substances have been regulated under this Act. Many deficiencies in the legislation have been identified,[26] including the fact that a person only has to notify the government within three months of manufacturing or importing a chemical substance in excess of 500 kilograms. There is also no registration or pre-manufacture notice requirement for new chemicals. Presently we do not even have an inventory of existing chemicals in Canada.

One amendment that would help ensure that toxic chemicals do not end up in our water supplies, would be a requirement for

manufacturers and importers to provide information on how their products can be disposed of. CELA would submit that long-overdue amendments to the ECA are necessary to effect more front end control on the introduction of toxic chemicals into the environment.

D. Pest Control Products Act[27]

The federal government, through the PCPA, is responsible for the registration of pesticides in Canada. For a pesticide to be registered, an applicant must provide information on human health and environmental impacts as well as the efficacy of the product. There should be a specific requirement to evaluate the persistence of pesticides in groundwater. This is emerging as a concern in the Prairies and Prince Edward Island where it has been found that pesticides which break down when exposed to sunlight may not degrade if they reach groundwater.

E. Clean Air Act[28]

The Clean Air Act empowers the federal Department of the Environment to set:

- national air quality objectives;
- national emission standards where there is a significant danger to health or where international agreements on air pollution are involved;
- national emission guidelines to assist provinces and local governments in developing uniform regulations across

Canada; and

- specific emission standards for undertakings under federal legislative authority.

Unfortunately, the standards which are the only enforceable controls may not adequately control pollution. For example, the secondary lead smelter standard does not set any upper limit on the total amount of lead a smelter may emit, but only the amount the smelter may emit in each cubic metre of air. By increasing production the smelter may actually increase the amount of lead it emits. The only control is that the smelters may not emit more lead than the maximum set by provincial law.

With the increasing knowledge of the long range transport of toxic chemicals and their deposition into water bodies with subsequent effects on fish and drinking water, it would seem that existing standards should be re-examined and new standards considered.

F. The Great Lakes Water Quality Agreement

The Great Lakes, containing approximately one-fifth of the world's fresh surface water supply, have been the subject of Canada-U.S. concerns and investigations since the signing of the Boundary Waters Treaty in 1909. The Treaty required that "the boundary waters and waters flowing across the boundary shall not be polluted on either side to the injury of health or property of the other." A six year pollution study completed in 1970 was the

immediate impetus for the Canada- U.S Great Lakes Water Quality Agreement of 1972 and 1978. The 1978 Agreement's purpose is to "restore and maintain the chemical, physical and biological integrity of the water of the Great Lakes Basin Ecosystem." A key policy agreed to by the Parties is to prohibit the discharge of toxic substances in toxic amounts and to virtually eliminate all discharges of "persistent toxic substances." The Agreement also establishes general and specific water quality objectives which, while not enforceable by themselves, can have legal effect if adopted under the domestic legislation or regulations of either country. Unfortunately, Canada has no enforceable water quality standards.

While the goals of the Agreement are admirable, the International Joint Commission itself has raised concerns about the time it is taking the Canadian and U.S. governments to meet important objectives under the 1978 Agreement. The Commission also concluded in 1982 and again in 1983, after a review of the toxic substances control programs of the States, Ontario and the two federal governments, that there is no overall Great Lakes toxic substances management strategy to assist jurisdictions in coordinating the development of their programs. Ironically, the mechanisms and objectives authorized under the 1978 Agreement to control current and future damage from toxic substances may be inadequate themselves in certain respects. For example, the agreement lists specific objectives for only approximately 30 chemicals. Yet the IJC has now identified over 800 chemicals in

the Great Lakes. Moveover, the IJC further noted that the specific objectives themselves do not consider the potential cummulative effects of many chemicals acting together, which may be greater than their individual effects considered alone.[29]

A recent study presented by the Canada-Ontario Review Board to the IJC in January of this year points out the inadequacy of enforcement practices.[30] 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 federal or provincial 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.

Finally, in 1972, the Pollution from Land Use Activities Reference Group (PLUARG) was established by the IJC for the purpose of examining the causes of pollution from land use activities and recommending appropriate remedial actions. PLUARG reported to the IJC in 1978, and a set of recommendations were forwarded to the Parties by the IJC in 1980. Unfortunately, to

date there has been no formal response from either of the Parties to these recommendations.

CELA would submit that the Inquiry should recommend that the Canadian government (a) take immediate action in responding to the IJC's recommendations regarding the PLUARG study and (b) take an aggressive role in consultation with the public in strengthening the Great Lakes Water Quality Agreement when it comes up for renegotiation.

V. THE NEED FOR A FEDERAL GROUNDWATER STRATEGY

In the United States, since the late 1970's, there has been the growing apprehension that groundwater resources were becoming dangerously and perhaps irrevocably contaminated by toxic chemicals. In 1980, the Environmental Protection Agency (EPA), instead of first developing a proposed groundwater strategy internally and then submitting it for public comment, made the unique decision to initially hold two workshops where 80 participants from all sectors were asked to develop recommendations for an EPA groundwater strategy. Following those workshops, a draft strategy was developed and public hearings were held in 1981. Extensive written comments were also received by the Agency. In June 1983, new EPA Administrator William Ruckleshaus created a Groundwater Task Force charged with the development of a new groundwater strategy. A draft strategy was circulated for comment and finalized on August 30,1984.

In Canada, we seem to be slowly realizing that groundwater pollution is not just a problem for our neighbours to the south, but is a problem facing all industrialized countries. In addition to the examples cited at the beginning of the paper dealing with both surface and groundwater pollution, the following examples point out the widespread nature of the threat to our groundwater resources.

- The well water of at least two families living near a leaky landfill in Perkinsfield, Ontario has been contaminated with tricloroethylene and other organic chemicals. One family's well had readings as high as 500 ppb TCE. The landfill was licenced only as a municipal dump but took in thousands of gallons of liquid industrial waste, including TCE,in the 1970s. A piped water system costing over $600,000 is to be provided to the village of Perkinsfield as well as the affected families.

- Dioxin from the Uniroyal landfill at Elmira, Ontario and toxic organic chemicals migrating from the Federal special waste compound near Ottawa, Ontario also pose threats to drinking water supplies.

- The outwash sand and gravel aquifers in the lower Fraser Valley of B.C. are tapped by some 4000 operating wells and are threatened by contamination with nitrates, pesticides and landfill leachate.[31]

- Radioative wastes continue to leach into groundwater at Eldorado Nuclear Limited's disposal sites at Port Granby and Welcome, Ontario.

In Canada approximately 31% of the population is dependent on groundwater and experts are predicting that this proportion will rise.[32] In Prince Edward Island the figure is 100% and in Ontario almost 50% of all municipal water supplies are from groundwater

resources.[33] Approximately 80% of all groundwater pumped in Canada for domestic, commercial, agricultural or industrial purposes (or about 20% of total Canadian water use) is withdrawn from shallow sand and gravel aquifers. These aquifers are especially susceptible to becoming contaminated as they lack the natural protection afforded them by overlying silts or claybeds.[33]

The difference between groundwater and surface water is important in developing a strategy for the protection of ground water quality. While surface waters can be cleansed somewhat by exposure to air and by dilution; in contrast, once groundwater becomes contaminated, it can remain so for decades. Groundwater also moves very slowly. While river flow is usually measured in feet per second, groundwater is measured in feet per year. Since groundwater is not exposed to the atmosphere, volatile organics in aquifers do not readily dissipate. Because of these differences, contaminants in groundwater are often far more concentrated than are contaminants in even the most polluted surface water supplies. For example, in Pennsylvania polluted wells contained TCE of up to 27,300 ppb, while surface waters in the area contained less than 160 ppb. (EPA's criterion in ambient water is 2.7 ppb).[34]

As has been stated, the contamination of aquifers is seldom reversible. The value of an aquifer can be said to be its replacement value, which may run in the millions of dollars. One

example is Atlantic City, New Jersey, which is presently spending $7,000,000 to develop a new water supply because of the contamination of its existing well field by toxic chemicals migrating from a nearby abandoned landfill.[35] In Ontario, piped water will replace contaminated groundwater for the village of Perkinsfield and for the residents living near the Gloucester dump outside Ottawa.

It is clear that a management strategy is required so that groundwater can be preserved and protected for multiple uses by society. Prevention of contamination must be a goal of any protection strategy. Presently, at the federal level, there has been very little work done to coordinate legislation and policy designed to stop contamination of aquifers.

CELA would submit that this Inquiry recommend that Environment Canada immediately take steps to develop a groundwater protection strategy in consultation with the provinces and with the public. The first steps should be:

a) to quantify the groundwater resources and groundwater uses across Canada;

b) to collect baseline data on aquifers, as recommended by Dr. Richard Jackson of Environment Canada. This would include i) the hydrogeological and geochemical properties of the aquifer to be protected and its place in the regional groundwater flow system (ii) potential contamination sources; and (iii) the risk to the

aquifer from these sources.[35]

c) consult with the public in developing the details of a groundwater strategy. The possibility of classification of aquifers and the establishment of aquifer protection zones should be pursued.

For example, the U.S. groundwater protection strategy divides groundwater into three classes based on the use of the water and its vulnerability to contamination. Under the guidelines, each class would receive a different level of protection. To qualify as Class 1, groundwaters must be particularly vulnerable to contamination because of their hydrogeologic characteristics, and be either an irreplaceable source of drinking water for a substantial population or provide water for a sensitive ecological system. To prevent contamination of Class 1 groundwaters, EPA will eventually ban the siting of hazardous waste facilities over them. EPA will also restrict or ban the use of those pesticides which are a particular problem in groundwater. Finally, cleanup of contamination will be the most stringent in these areas. Class II and Class III groundwaters will receive some less stringent level of protection.[36]

In Europe, and in some of the States, the deposit of liquid and certain toxic solid wastes into landfill sites is already prohibited.

Some of these measures are already being undertaken by the

International Joint Commission in regard to the Great Lakes. In its 1983 Annual Report, the Science Advisory Board recommended that:

(a) the jurisdictions should provide detailed mapping and analysis of those areas of potential concern in order to assess the extent of groundwater contamination in the Great Lakes Basin;

(b) waste disposal sites should be classified according to hydologic settings and proximity to streams, lakes and areas of aquifer infiltration. Sites should be grouped according to tributary basins and to land use for the purpose of developing a monitoring strategy;

(c) sampling methods and strategy should be developed for the monitoring of groundwater quality in the Great Lakes Basin; and

(d) groundwater research capabilities should be developed and maintained in order to understand the transport mechanisms of toxic substances both to the aquifers and the lakes, and to achieve recommendations (a) to (c).[37]

It is submitted that these four recommendations be extended to the whole of Canada. The need for uniform analysis and development of monitoring protocols should be recognized on a national basis.

VI. THE NEED FOR A SAFE DRINKING WATER ACT

In 1982, CELA and Pollution Probe prepared a brief outlining the need for safe drinking water legislation in Canada. (See Appendix A). A review of legislation at both the federal and provincial levels revealed that while legislation has been enacted to control water pollution at the source, this legislation has not been effective in preventing the continued degradation of our waterways. Furthermore, there is no existing legislation which regulates the quality of drinking water at the point of consumption.

We have only non-enforceable guidelines at the federal and provincial levels which deal with a limited number of substances. Many of the organic chemicals leaching from landfills and showing up in our drinking water are not covered in the guidelines. Because these guidelines are not legally enforceable, no one has a legal right to bring an action solely based on a violation of the maximum levels contained in the guidelines. As well there is no onus on the water suppliers 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 resampling of the water.

It is our contention that safe drinking water legislation is long-overdue in Canada. We would submit that federal legislation incorporating the principles outlined in our brief should be put in place as soon as possible. Ideally the provinces will also enact complementary legislation. While Health and Welfare Canada indicated in February of this year that they would be "considering" such legislation, there has been no draft legislation put forward for public comment to date.

CELA would submit that the Inquiry recommend that the federal government make the enactment of strong drinking water quality legislation a priority item.

VII. CONCLUSIONS AND RECOMMENDATIONS

CELA considers the mandate of this Inquiry to be extremely important. The development of a federal water policy and specific strategies to implement such a policy is most timely. CELA has decided to focus on the issue of water quality, as we believe the contamination of both our surface and ground waters to be a pressing and serious concern. The following recommendations to the Inquiry address both reforms to existing law and policy as well as suggest new initiatives which we believe the federal government should pursue. They are by no means comprehensive and details of specific reforms to existing environmental legislation

can be found in a number of additional CELA briefs and publications. As was stated earlier, it is our contention that the federal government has the constitutional authority to act in the area of toxic chemical control and the protection of water quality in Canada and that this authority should be interpreted broadly.

A. Existing Law

1. The Fisheries Act should be amended to provide for a mandatory permitting system or requirement that proponents of proposed activities that might adversely effect aquaatic habitat submit information about these impacts to Envionment Canada so that appropriate remedial action can be taken when necessary.

2. Consideration should be given to designating the Great Lakes Basin a water quality management area pursuant to the Canada Water Act.

3. Amendments to the Environmental Contaminants Act are long over-due. Manufacturers and importers should have to provide information about how their products will be disposed before they can be marketed in Canada.

4. The Pest Control Products Act should specifically require data from applicants regarding the fate of their pest control products in both ground and surface water.

5. Existing standards under the Clean Air Act should be re-examined and new standards considered to reflect our new knowledge of long range transport of chemicals and their deposition into water bodies with subsequent effects on fish and drinking water.

6. The Canadian government should take immediate action in résponding to the IJC's recommendations regarding the PLUARG study and should take an aggressive role in consultation with the public in strengthening the Great Lakes Water Quality Agreement when it comes up for renegotiation.

B. New Directions

1. Environment Canada should immediately take steps to develop a groundwater protection strategy in consultation with the provinces and the public. Baseline data on aquifers should be collected and consideration of resticting potentially contaminating activities based on the classification of aquifers should be examined.

2. The development of federal safe drinking water legislation in line with the principles contained in the 1982 CELA/ Pollution Probe brief should be given priority status.

VIII. NOTES

1. Toby Vigod and Anne Wordsworth, "Water fit to drink? The Need for a Safe Drinking Water Act in Canada," (1982),11 C.E.L.R. 80.

2. Inquiry on Federal Water Policy. Water is a Mainstream Issue: Participation Paper. (Ottawa: Supply and Services Canada,1984) at 4.

3. L.J. D'Amore & Associates Ltd. Study in Trends in Canadian Environmental and Water Issues Concerning Ontario and the Great Lakes Region. (Environment Canada, 1983).

4. Grace L. Singer. Nor Any Drop to Drink!: Public Policies Toward Chemical Contamination of Drinking Water. (Princeton, New Jersey: Centre for Energy and Environmental Studies, June 1982) at 3.

5. Katherine Davies and Joan Campbell. Toronto's Drinking Water: A Chemical Assessment. (City of Toronto, Department of Public Health, April 1984).

6. James W. Atwater and Hugh M. Liebscher. Location, Behavior and Recovery of Groundwater Contaminated with Pentachlorophenol and Tetrachlorophenol. 1982.

7. R.E. Jackson et al. Contaminant Hydrogeology of Toxic Organic Chemicals at a Disposal Site, Gloucester, Ontario. July 1984.

8. Id. at 8.

9. Id. at 7.

10. J.F. Castrilli. Hazardous Waste Management in Canada: The Legal and Regulatory Response. (Toronto: CELRF, 1982).

11. See Reference Re Validity of Section 5(a) of Dairy Industry Act, [1949] S.C.R. 1 at 50.

12. See Dale Gibson, "The Environment and the Constitution: New Wine in Old Bottles," in Protecting the Environment, O.P. Dwivedi, ed. (Toronto: Copp Clark, 1974) at 119.

13. Attorney- General of Ontario v. Attorney- General of Canada, [1896] A.C. 348; Johannesson v. West St. Paul, [1952] 1 S.C.R. 292; Munro v. National Capital Commission, [1966] S.C.R. 663; Reference re Offshore Mineral Rights, [1967] S.C.R. 792; and The Queen v. Hauser, [1979] 1 S.C.R. 984.

14. Supra, note 1, at 88.

15. Mr. Justice Estey quoting with approval Professor P.W. Hogg's definition of national concern in Labatt Breweries of Canada v. Attorney- General of Canada, [1979] 110 D.L.R. (3d) 594 at 627 (S.C.C.).

16. Maxwell Cohen, Q.C., during CELA/CELRF Roundtable Discussions on Toxic Chemicals Law and Policy in Canada. Proceedings of a Seminar held on June 15-16, 1981. (Toronto: CELA/CELRF, 1981) at 95.

17. R.S.C. 1970, c. F-14, as amended.

18. The delegation took place through a series of correspondence dated 1898-1904. Unfortunately some of the documents have been lost. It is arguable whether the delegation of "management" of the fisheries would include the aspect of pollution which was not a concern at the turn of the century.

19. See R. v. American Can of Canada Ltd., (Ont. Prov. Ct. April 4, 1977) where American Can was convicted and fined $64,000 for depositing mercury into waters in excess of concentrations permitted under the Fisheries Act chlor- alkali regulations. Recently, the Ministry of the Environment has prosecuted E.B. Eddy Forest Products Ltd. for a chemical spill which killed tens of thousands of fish in the Spanish River.

20. R. v. Eldorado Nuclear Ltd., (Ont. Cty. Ct. February 19, 1981).

21. See correspondence between CELA and the Minster of Environment, May 21,1980.

22. R.S.C. 1970, c. S-9.

23. Id. s.6(4).

24. R.S.C. 1970, c.5 (1st Supp.) as amended.

25. S.C. 1974-75-76, c. 72.

26. See J.F. Castrilli, "Control of Toxic Chemicals in Canada: An Analysis of Law and Policy," (1982), 20 Osgoode Hall Law Journal 322.

27. R.S.C. 1970, c. P-10 as amended.

28. S.C. 1970-71-72, c.47 as amended.

29. International Joint Commission. Addendum to the First Biennial Report under the Great Lakes Water Quality Agreement of 1978. (Ottawa and Washington, D.C.: IJC, August 1982) at 33.

30. Canada- Ontario Review Board. Inventory of Major Industrial Point Source Dischargers in the Great Lakes Basin, Canada-1982. January 27,1984.

31. Supra, note 7 at 7.

32. Government of Ontario. Water Quantity Resources of Ontario, June 1984.

33. Supra, note 4 at 6.

34. Id.

35. R.E. Jackson, "The Contamination and Protection of Aquifers," Nature and Resources. Vol. XVIII. No. 3, July- September 1982 at 3.

36. Alvin Alm, "EPA's Ground-Water Protection Strategy," in EPA Journal, Vol. 10, No. 6, July-August 1984 at 3.

37. Science Advisory Board, International Joint Commission. 1983 Annual Report, at 15.