

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

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Submissions of the  
CANADIAN ENVIRONMENTAL LAW ASSOCIATION  
to the  
INTERNATIONAL JOINT COMMISSION  
on the  
REPORT RESPECTING POLLUTION  
OF THE  
GREAT LAKES BY LAND USE ACTIVITIES

IJC Public Hearing  
Toronto, Ontario  
28 November, 1978

by

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Research Director

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## I. INTRODUCTION

The Report of the Great Lakes Pollution from Land Use Activities Reference Group<sup>1</sup> (hereinafter PLUARG) is the distillation of an approximately \$20 million effort by eleven governments over 5 1/2 years to answer three questions. The questions, posed to the IJC in a reference as part of the 1972 Canada-United States Great Lakes Water Quality Agreement, were (1) Are the Great Lakes being polluted by land drainage sources? (2) If so, from which land uses and what are the contaminants? and (3) What remedial measures should be adopted and what will they cost? The three main chapters in the report are organized to answer those three questions and in that order.

The Canadian Environmental Law Association (hereinafter CELA) is a national non-profit, non-governmental group established in 1970 to use existing laws to protect the environment and to support needed environmental law reforms. Because seeking remedies to environmental pollution problems has been the traditional area of CELA's interest and expertise, our comments, with some exceptions, are directed to Chapter 3 - the proposed environmental management strategy.

## II. OVERVIEW CONCERNS

In general terms, CELA supports the final PLUARG report as an important contribution to international efforts directed at restoring and enhancing the Great Lakes Ecosystem. However, there are a number of significant problems with the PLUARG report as well. Our submissions, therefore, are organized to deal in summary form with the following general concerns arising from discussion in Chapter 3. These include:

- 1) Land Use Activities Regarded as Non-Great Lakes Problems;
- 2) Methods of Control Emphasized for those Land Uses Deemed to be Great Lakes Problems;
- 3) The Proposed Role of the Public; and
- 4) The Lack of Specificity or Comprehensiveness in the Management Strategy Proposal.

Where possible we have attempted to draw to the IJC's attention not only our summary findings but have suggested alternative recommendations as well. In this latter regard Appendix I to our submissions is CELA's proposed Management Plan for Ontario.

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<sup>1</sup>. International Joint Commission. Reference Group on Great Lakes Pollution from Land Use Activities. Final Report: Environmental Management Strategy for the Great Lakes System. July 1978. Windsor, Ontario.

### III. LAND USE ACTIVITIES REGARDED AS NON-GREAT LAKES PROBLEMS

The PLUARG report indicates that many land use activities are sources of local water quality degradation, but are not Great Lakes problems.<sup>2</sup> These include such land use activities as nonsewered waste disposal; transportation; extractive; recreation; deepwell disposal; solid waste disposal; sewage sludge disposal; shoreline and riverbank erosion; shoreline landfilling; and forested areas.

With respect, this PLUARG conclusion is puzzling on a number of grounds and adherence to this arbitrary distinction might well have unfortunate consequences for any management strategy for pollution prevention and abatement. Moreover, it is submitted that the statement is not supported by the findings of other environmental watchdog agencies and even appears to be contradicted by other views expressed elsewhere in the PLUARG final report itself.

The U.S. Council on Environmental Quality<sup>3</sup>, for example, argues that: "No clear distinction can or should be made between local and widespread pollution problems in the Great Lakes because the widespread problems are due to multiple local causes." The PLUARG report<sup>4</sup> itself notes in the executive summary: "While in many cases it is difficult to ascribe pollution to any particular land use, it is important to note that it is the cumulative effect of a variety of land use activities that ultimately contributes to pollution of the Great Lakes."

In short, we ask, as undoubtedly many others have, "How many local problems make up a Great Lakes problem?"

We think that PLUARG's arbitrary distinction could well give support, albeit unintended, to those in both government and the private sector who would shrug off some very necessary and long overdue reforms, for business as usual.

CELA RECOMMENDS THEREFORE THAT THE IJC NOT ENDORSE THE PLUARG DISTINCTION BETWEEN LOCAL VS. GREAT LAKES PROBLEMS AND THAT INSTEAD THE IJC RECOMMEND TO GOVERNMENTS THAT MANAGEMENT PLANS MUST BE DEvised FOR THE FULL RANGE OF LAND USES WHICH ARE CONTRIBUTING TO WATER QUALITY DEGRADATION IN THOSE MANAGEMENT AREAS. THIS WOULD REQUIRE AMENDING PLUARG RECOMMENDATIONS 3.1.1 AND 3.2.9.

Lest you think that this proposition is not supportable based on what we've said to this point, we would like to take you briefly through a couple of the "local problem area" land uses, practically at random, to further demonstrate that we do not believe the distinction made by PLUARG is supported by PLUARG's own findings or by other literature on the subject.

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<sup>2</sup> Supra, note 1, section 3.2.9, page 84. Local Problem Areas.

<sup>3</sup> Environmental Quality. The Eight Annual Report. 1977, page 252.

<sup>4</sup> Supra, note 1, page 3.

A. Nonsewered Waste Disposal

According to the PLUARG Task B Joint Summary Report<sup>5</sup>, for example, private sewage disposal systems (typically a septic tank used in conjunction with a soil absorption or tile field system) are the sole means of sewage disposal for at least 20% of the population of the Great Lakes Basin. The main problems with such systems are generally associated with the movement of phosphorus from improperly designed or maintained systems. Phosphorus, as the final PLUARG report tells us, is one of the main contaminants of concern with respect to the Great Lakes.

A background paper, on private waste disposal systems, prepared by PLUARG for its public consultation panels last year<sup>6</sup>, estimated that in the Great Lakes Basin, approximately 30% of the households in high density, nonsewered areas may have malfunctioning systems. With over 7 million people in the Basin being served by septic tanks, and with phosphorous discharges from septic tank effluents at 0.74Kg (1.6 lb) per capita per year, this paper concluded that "there is a large potential phosphorus load available."

Now, add to this information, a glimpse of the regulatory picture (at least for Ontario).

It was indicated to PLUARG<sup>7</sup> that the Ontario Ministry of Environment operates an annual cottage pollution control program (begun in 1970) to investigate the adequacy of existing private waste disposal systems. These surveys indicate that many such systems are inadequate. A 1975 survey of 1,427 Victoria County private sewage systems indicated, for example, that only 19.4% were deemed satisfactory. In the same year, a survey of 1,448 systems in Muskoka District and Haliburton County found only 36% to be satisfactory. While remedial and enforcement activity is undertaken where problems are identified, the great number of cottages in the province (estimated, probably conservatively, at 250,000) and the relatively small number of cottages surveyed annually (approximately 5,000) suggests that given current funding, it will be the year 2020 before all existing cottage systems are reviewed and deficiencies corrected. Moreover, septic tank systems are also used extensively in rural areas of the province and the present inspection program is not even directed to these areas.

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5. International Joint Commission. Land Use and Land Use Practices in the Great Lakes Basin. Task B - Joint Summary Report. Windsor Ontario - September 1977. 45 pp.
  6. PLUARG Background paper on Private Waste Disposal Systems for Canada - U.S. Public Consultation Panels. November 1977.
  7. Castrilli, J.F. "Control of water pollution from land use activities in the Canadian Great Lakes Basin: An Evaluation of legislative, regulatory and administrative programs." Submitted to PLUARG Task Group A (Canada). Windsor, Ontario. 1977. 460 pp.

That's the remedial enforcement picture in Ontario with respect to septics. There are also problems with the approvals end of this process as well. It was indicated to PLUARG <sup>8</sup> that The Environmental Protection Act <sup>9</sup> and regulations <sup>10</sup> are silent on control of nutrients from septic tank-tile field systems, though 50-foot setbacks from bodies of water are required. It was further indicated to PLUARG that local health units (responsible for septic approvals under Part VII of the EPA), as well as consultants who prepare reports on soils and septic systems as background for approvals, frequently note that the EPA regulations are silent on control of nutrients. As a result, consultants and local health units have been known to disregard improper soil types for phosphorous removal, in recommending sites for septic systems. At the same time, some local health units admit to having no expertise with respect to phosphorous control. They have traditionally been concerned primarily with control of bacteriological pathogens, and thus, it is not surprising that they continue to emphasize that concern in their septic system approvals.

Indeed, this is also reflected in health unit requirements where fill must be imported because of high groundwater. A type of fill many health units will recommend is of the sand/silt variety. Debate in the scientific community suggests that this type of soil may not be the best for phosphorous control. Even the PLUARG background paper for the public consultation panels indicated that "in sandy soil, phosphorous has a higher mobility and the possibilities for migration to surface waters are greater". The presumption is that local health units prefer this type of soil primarily for reasons of bacterial control.

On the subject of septic tanks or nonsewered waste disposal then, suffice it to say that there is considerable doubt that septic tank pollution is anything but a "local problem area".

#### B. Forested Areas

The same exercise might be undertaken for other land uses such as forested areas. PLUARG indicates that forested areas are another local problem area only. Indeed, the report <sup>11</sup> goes so far as to state that "the legislation and/or control programs and measures concerning...forestry operations, where boundary waters are affected, are considered adequate at present". With respect, however, it was not a finding of the Canadian legislative study <sup>7</sup> or the joint summary report <sup>8</sup> that legislation respecting forestry, on its face or as applied, was adequate to control water pollution from such operations. Ontario legislation, principally The Crown Timber Act<sup>12</sup>

<sup>8</sup>. Castrilli, J.F. and A.J. Dines. "Control of Water Pollution from Land Use Activities in the Great Lakes Basin: An evaluation of Legislative and Administrative Programs in Canada and the United States; Joint Summary Report." Prepared for PLUARG Task Group A. Windsor, Ontario. March 1978. 109 pp.

<sup>9</sup>. S.O. 1971, c. 86 as amended.

<sup>10</sup>. O. Reg 229/74 as amended.

<sup>11</sup>. Supra, note 1, page 4.

<sup>12</sup>. R.S.O. 1970, c. 102 as amended.

does not create a duty to control water pollution from forestry operations; Crown timber licences frequently (if not normally) do not contain provisions setting down how the licensee is to control erosion and sedimentation during cutting or related operations; while regeneration was seen by Ministry of Natural Resources personnel to be a key for local water quality protection, regeneration on Crown management units reviewed was inadequate in part because of insufficient government field resources as well as due to the clear-cutting practices of some logging companies; erosion and sediment controls for Crown timber road construction have been difficult to establish on the extensive network of such roads and I think it is fair to say that timber road construction erosion and sediment control is in its infancy in Ontario.

However, the PLUARG forested watershed study for Canada<sup>13</sup> concluded that "forest harvesting was a minor contributor to water pollution". It further indicated that forestry operations in the Canadian portion of the Great Lakes Basin annually cover about 111,000 ha or 0.49% of the terrestrial area and that the pulp and paper industry annually generates much more phosphorous (12 times) and suspended sediment (110 times) than that estimated from Ontario forestry operations.

Now, I do not possess the expertise to refute the technical findings of the forestry study. However, I would submit that other non-PLUARG studies indicate that all is not well with the way forestry operations are conducted in Ontario. I leave it to the Commission to determine for itself the significance for water quality and the Great Lakes Ecosystem of the following. A recent study for the Forest Management Institute in Ottawa<sup>14</sup> indicated in part that:

"...Uncontrolled clear-cutting in northern Ontario, where the practice has been to remove all merchantable timber as it is made accessible by a developing road system, has resulted in widespread areas of denudation. In some regions, contiguous clear-cuts of up to 8-10,000 ha have been reported."

The report also notes that: "If it is properly applied, clear-cutting does not lead to soil erosion, nutrient depletion, damage to wildlife habitat or stream deterioration." I repeat: If it is properly applied.

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One could go through this exercise for the other PLUARG designated "local problem areas" as well, but I think the point has been made; the IJC should recommend a comprehensive approach dealing with all, or certainly most, of the land uses investigated by PLUARG.

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<sup>13</sup>. Nicolson, J.A. "Forested Watershed Studies: Summary Technical Report". Submitted to PLUARG Task C. Windsor, Ontario. December 1977. 23 pp.

<sup>14</sup>. Forest Management in Canada. Prepared for the Forest Management Institute, Canadian Forestry Service, Fisheries and Environment Canada. By F.L.C. Reed. January 1978. pp.44 and 134.

IV. METHODS OF CONTROL EMPHASIZED FOR THOSE LAND USES DEEMED TO BE GREAT LAKE PROBLEMS

PLUARG's emphasis in controlling Great Lakes pollution from land use has fallen on urban and agriculture. CELA supports PLUARG's emphasis on these two land uses (subject to our comments above). However, we think certain matters ought to be addressed as to how these two land use activities should be controlled.

A. Urban Land Use

While a number of different sets of recommendations could be said to apply to urban land use in the PLUARG report, (see, for example, 3.1.2 planning; 3.1.3 fiscal; 3.1.4 education; 3.1.5 regulations; 3.2.3 sediment and 3.2.7 urban) because the discussion under 3.2.7 is most specifically related to urban land use it may well be the one which is most intensely reviewed by federal, provincial and local governments in considering an approach to control of urban land use water pollution.

While the section makes many important linkages and contributions to our understanding on this issue, it is submitted that the section contains one glaring deficiency; it fails to indicate the very strong likelihood in Ontario, at any rate, that the current separation of agency authority for development planning and water pollution control may inhibit the effectiveness of non-point source controls. Quite simply Ontario agencies responsible for water pollution control do not necessarily have legislative authority to deal with urban land use water pollution. They will need the great cooperation of non-environmental agencies with development planning authority. If they don't get such cooperation, and in many instances they don't, then simple declarations of policy (as are discussed in several places under 3.2.7) will not be enough.

One recent example will make this clearer. The Ontario Municipal Board, the province's planning tribunal, recently permitted a developer to proceed with a subdivision proposal along a ravine edge despite environmental agency objection.<sup>15</sup> It was acknowledged in the OMB decision that environmental agencies generally lack authority to control grading or tree cutting on private property. The OMB also noted that: "It is perhaps disturbing that these lands should develop for the reasons given in evidence but at the same time, it should be recognized that an owner has a right to develop within the law". In earlier stages of this case, local government agencies had overridden environmental agency objections to the location of this subdivision through the municipal planning process - the principal land development control process in Ontario.

The IJC has other documentation of this, and related, situations in the PLUARG background technical reports<sup>7,8</sup> and we strongly urge it to pursue the matter further.

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<sup>15</sup>. Re Trimontium Developments. OMB file no. R772220. July 13, 1978.



CELA RECOMMENDS THAT IF THE PLANNING ACT OF ONTARIO IS TO REMAIN THE PRINCIPAL CONTROL INSTRUMENT FOR NEW URBAN DEVELOPMENT THEN AT THE VERY LEAST THE MINISTER OF HOUSING (THE MINISTER RESPONSIBLE) MUST HAVE A STATUTORY DUTY TO PROTECT WATER QUALITY IN ALL DECISIONS MADE UNDER THIS ACT AS MUST LOCAL AND REGIONAL GOVERNMENTS IN THEIR OFFICIAL PLANNING, ZONING, SUBDIVISION, REDEVELOPMENT AND RELATED CONTROL ACTIVITIES.

We think it preferable that environmental agencies have direct authority to protect water quality in these urban non-point situations. Currently, with some exceptions, they are substantially limited if not statutorily locked-out of the process. Their essentially advisory role in controlling new urban development water pollution has simply proved insufficient to date.

B. Agricultural Land Use

For the same reasons as outlined under urban land use above, the PLUARG discussion under 3.2.6 for agriculture is likely to be key for decision-makers considering an approach to control of agricultural water pollution.

With some exceptions, the section on agriculture heavily emphasizes voluntary approaches and fiscal assistance to control soil erosion, livestock and poultry manures and commercial fertilizers.

Suffice it to say that CELA supports the view that government should be fair to the agricultural community on this issue. We also argue, however, that at long last government ought to be firm as well.

And sometimes, government ought to begin by being most firm with itself.

1. Soil Erosion

On the issue of soil erosion, for example, as long ago as 1976 the Ontario Ministry of Agriculture's advisory committee on environmental quality<sup>16</sup> told it that the 1977 field crops and vegetable production publications (which are extensively used by the agricultural community) should include a section on soil erosion, its effects on food productivity and water quality, as well as its control. I've recently checked these government publications and found that they did not contain a section on soil erosion in 1977<sup>17</sup> or 1978<sup>18</sup>. The 1979 publications come out in January and I understand that they're unchanged as well, though I haven't been able to confirm this as yet.

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16. Ontario Ministry of Agriculture and Food. Environmental Quality Subcommittee. Soil Erosion in Ontario. A Report Prepared for the Ontario Soil Management Research Committee, June 1976.

17. Ontario Ministry of Agriculture and Food. 1977 Field Crop Recommendations. Publication 296; and 1977 Vegetable Production Recommendation. Publication 363.

18. Ontario Ministry of Agriculture and Food. 1978 Field Crop Recommendations. Publication 296; and 1978 Vegetable Production Recommendation. Publication 363.

Moreover, the subject of soil erosion is not a new one to the Ontario farmer, that we should suddenly be embracing education as our light at the end of the tunnel. Basically, the same sorts of recommendations for education, information, soil conservation practices and farm plans were indicated as necessary by the 1950 Ontario Select Committee on Conservation<sup>19</sup>. Three decades ago! The intervening years have not exactly demonstrated the efficacy of the voluntarism approach in Ontario.

CELA submits that it's about time we began to investigate the notion that regulation done properly can have an educative effect as well. It's being demonstrated in the State of Iowa, for example, where a mixture of policies include education, subsidy and regulatory instruments<sup>20</sup>.

## 2. Livestock and Poultry Manures

On the subject of the Agricultural Code of Practice respecting livestock and poultry manures, it should be made clear that the Code (referred to at page 81 of the PLUARG report) cannot be adopted into municipal by-laws for the purposes of water pollution control. The Code contains information on water pollution, but only the formulae, which are attached as appendices to the Code and which only deal with odour pollution, may be adopted into a municipal zoning by-law. The PLUARG report (p. 81 last paragraph) should be appropriately amended.

Again, it should be made clear that feedlots and animal wastes generally are an unregulated source of water pollution in Ontario. Experience in the American midwest suggests that preventive regulatory controls (e.g. approvals, permits, etc.) when properly administered can be effective. Ontario doesn't appear ready to entertain that notion.

## 3. Commercial Fertilizers

With respect to commercial fertilizers, it could be said that some of what PLUARG recommends (at page 82) that is, that farmers should be encouraged to make greater use of soil testing services and fertilize in accordance with the tests, is already in place. The question is, what influence has it had on the farmer to date? For example, the two publications mentioned earlier (i.e. OMAF Publications 296 and 363) with respect to soil erosion, have long had sections on soil testing and adherence to soil test recommendations. Yet, the Commission has already been apprised of the PLUARG findings on this matter; that is, that farmers were found on average to be using twice the amount of phosphorous fertilizer as recommended.

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<sup>19</sup>. Legislative Assembly of Ontario. Select Committee on Conservation. 1950.

<sup>20</sup>. Wesley D. Seitz. "Agricultural Non-Point Pollution Approaches for Control". International Joint Commission. Great Lakes Research Advisory Board. Workshop on Economic and Legal Enforcement Mechanisms. February 1977.

Where, therefore, does this PLUARG recommendation really leave us? Moreover, does it already portend what the effectiveness will be of a section on soil erosion in these (and other) publications on farm practices?

V. THE PROPOSED ROLE OF THE PUBLIC

The PLUARG report recommends early public involvement in future IJC references as its sole view on the role of the public. With respect the recommendation does not begin to meet legitimate public expectations. What, for example, does PLUARG think the public should do between references? It ignores the very important developments in the law in both parts of the Basin which have begun to recognize the public's right to involvement in administrative hearings and/or to access to the courts. The PLUARG, or the IJC, should not be seen to arrest this development.

The public consultation panels<sup>21</sup> and the PLUARG legislative <sup>7</sup> and joint summary reports<sup>8</sup> also provide guidance on the subject. CELA offers recommendations on this matter in Appendix I of these submissions.

VI. THE LACK OF SPECIFICITY OR COMPREHENSIVENESS IN THE MANAGEMENT STRATEGY PROPOSAL

It is not likely that CELA will be the first group to inform the IJC, that while we generally support the PLUARG report, we also find it somewhat vague. A government that wanted to protect the aquatic environment from land use pollution could probably take the final PLUARG report and with the help of several of the background studies do a reasonable job of putting together a management plan. However, a government that wasn't as keen to proceed on this issue could well justify inaction on the grounds of lack of specific direction in the PLUARG report itself. CELA wishes to give the Canadian Portion of the Great Lakes Basin no such excuse. Therefore, Appendix I to these submissions is CELA's proposed Management Plan for Ontario. It is divided as to:

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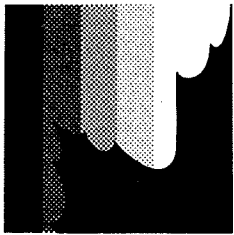
21. "Reports of the Canadian Public Consultation Panels to the Pollution from Land Use Activities Reference Group". Windsor, Ontario. March 1978.

<u>Government Level</u>	<u>Control Function</u>	<u>Land Use</u>
Federal	Planning	Urban
Provincial	(pollution control)	Agriculture
Regional	Regulation	Liquid, solid, deepwell
Conservation Authority	Fiscal	transportation
Municipal	Education	shoreline landfilling
The Public		forested areas
		extractive
		recreational
		lakeshore and river
		bank
		erosion

It should be read in conjunction with the Canadian legislative study 7 (in particular the overview chapter) and the joint summary report.<sup>8</sup>

While this proposed management plan doesn't purport to be comprehensive by any means, we think it covers many matters that are going to have to at least be considered in Ontario.

All of which is respectfully submitted.



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Appendix I

A Proposed Management Plan for  
Ontario.

Submitted to the International Joint  
Commission as part of the Submissions  
of the Canadian Environmental Law  
Association Review of the Report  
Respecting Great Lakes Pollution  
from Land Use Activities.

28 November 1978

by

J.F. Castrilli  
Research Director

### III. RECOMMENDATIONS

#### A. Federal Government

##### 1. Fiscal Activity

- Urban Areas
- \* Amend National Housing Act to require sediment plans and laws as a pre-condition to CMHC funding of land assemblies and new communities.
  - \* Amend National Housing Act to ensure that quantity control of stormwater is funded to include adequate monies for supervision of construction activity.
- Agri-culture
- \* Amend Income Tax Regulations to permit tax write-offs under ACCA program for non-structural controls such as bank revegetation and fencing to control cattle stream access.
  - \* Reactivate ARDA agreements respecting soil and water conservation projects to require soil conservation funding.
  - \* Offer subsidization of structural and non-structural sediment and erosion controls under Farm Credit Act and Syndicates Act.
  - \* Apply statutory federal environmental criteria<sup>\*\*</sup> to DREE funding of outlet drainage schemes or cease such funding until adequate provincial environmental controls on drainage exist.
  - \* Apply statutory federal environmental criteria<sup>\*\*</sup> to Farm Credit Corporation funding of farm improvements and livestock operations or cease such funding until adequate provincial environmental controls on on feedlots/animal wastes exist.
  - \* If fertilizers are or become funded by FCC attach condition that no loans are to be available unless rates of fertilizer application as disclosed in a soil test or crop needs analysis are met. (To be effective soil test would probably have to become mandatory under provincial law).
- \*\* Enact federal environmental subsidy legislation which would authorize promulgation of regulations outlining environmental criteria which federal funding programs must meet as pre-conditions to distributing federal funds.

Urban  
Areas  
and Agri-  
culture

- \* As an alternative each statute noted above or a single new statute could require that DFE (EPS?) be required to sign-off before any federal funds are allocated in the above areas.

## 2. Jurisdictional or Regulatory Activity

### a. Preventive Pollution Controls

- \* Amend the Fertilizers Act to permit CDA to make its registration, re-registration and cancellation decisions on environmental grounds where necessary.
- \* Under both the Pest Control Products Act and the Fertilizers Act CDA should be required to give public notice, receive submissions and where necessary hold public hearings prior to product registration, re-registration, re-classification or cancellation decisions. (See also Public Participation).
- \* In the absence of adequate preventive provincial control of animal husbandry operations all such future proposals should be subject to Ministerial order under the Fisheries Act. The Fisheries Act should be amended so that Cabinet approval is not necessary before plans and specifications are modified or the operation prohibited.
- \* If national effluent standards for intensive feedlot operations are to be promulgated by EPS, it is submitted that, in the absence of preventive provincial controls, such standards should be regulations under the Fisheries Act and not voluntary guidelines. It is difficult to see what the contribution of non-legal guidelines will be considering that the Ontario Agricultural Code of Practice and the CDA Animal Waste Management Guide are already available.

Shore-  
line  
Land-  
filling  
and Trans-  
portation  
Corridors

- \* The federal Minister of Fisheries and Environment's capacity under the Fisheries Act to require plans and specifications from an operator should be used systematically as though it were a permit system. This should be limited to those activities that are arguably under exclusive federal jurisdiction or where comprehensive provincial control may be in doubt. The Fisheries Act should be amended so that Cabinet approval is not necessary before plans and specifications are modified or the operation prohibited.
- \* In the alternative all federal statutes regulating activities under the Shoreline Landfill and Transportation categories should be amended to require agency consideration of and action on environmental (e.g. sedimentation) concerns arising from those activities.
- \* In the further alternative, each federal statute or a single new statute covering activities under these two categories could require that DFE (EPS?) be required to sign-off before any federal approvals are given.

\* In the further alternative, a comprehensive federal environmental statute such as proposed under Bill C-236 should be considered.

Disposal \* The same four recommendations are made for radioactive waste  
Areas and management and uranium/thorium mining activities under Atomic Energy  
Extrac- Control Act authority.  
tive Oper-  
ations

Extrac- \* Fisheries Act mining regulations should establish compliance  
tive Oper- deadlines for existing operations or in the alternative public  
ations involvement in mining compliance schedules and any extensions should  
be statutorily authorized.

b. Reactive Pollution Controls

Shore- \* Increased staff and resources should be provided so that agencies  
line with environmental responsibilities will be able to provide field  
Land- inspection to at least the "spot check" level, as well as be able to  
filling observe the effectiveness of environmental conditions they impose  
and as a basis for improving those conditions in future development  
generally proposals.  
all cate-  
gories

\* Under all federal statutes of relevance to this study or else  
under a comprehensive federal environmental statute environmental  
inspectors should be authorized to ensure that environmental  
conditions are being met; environmental inspectors should be authorized  
to issue stop and/or clean-up orders when environmental conditions  
are not being followed and; inspector's reports should be made  
available to the public at the end of each month of a project's life.

3. Proprietary Activity

a. Federal Land Management

Shore- \* Federal land development should either be subject to preventive  
line environmental assessment legislation or federal legislation should be  
Land- enacted requiring federal land use/water quality activities to be  
filling consistent with regional environmental planning goals or programs.  
and

\* In the alternative federal land use/water quality policies  
generally should be developed and made public for discussion to assist in guiding  
all land federal agency decision-making or development of subsequent control  
uses legislation.

b. Federal Facilities and Property

\* A detailed public listing of existing non-point pollution problems  
at named federal facilities in Ontario should be developed. In  
addition a detailed cost estimate of funds necessary to complete the  
clean-up at each facility should be made. Progress made to date  
should also be outlined and made public. This should assist in  
determining whether Treasury Board clean-up funds currently earmarked  
for Ontario federal facilities will be sufficient to meet the  
remaining tasks.



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- \* In the alternative, consideration should be given to issuing Ministerial orders under the Fisheries Act (as amended for control of existing pollution sources) for federal facilities with existing pollution problems. The Fisheries Act should be amended so that Cabinet approval is not necessary before plans or modifications are authorized.

B. Provincial Government

1. Planning Function

Urban  
Areas

- \* The Planning Act should explicitly acknowledge the role of conservations authorities and provincial environmental agencies with respect to official plans, subdivision and re-development controls, severances and related matters. It should authorize these agencies to sign-off before any provincial planning approvals are given.

- \* In conjunction with the above, the Environmental Assessment Act should apply to provincial development policies as crystallized in such activities as the Toronto Centred Region Plan, the North Pickering Development and new townsites generally. In addition where it is thought too cumbersome to utilize the environmental assessment procedure for small new urban developments, sediment control legislation should apply to those developments not covered by individual/specific environmental assessments. This would require enactment of a sediment control statute.

Agri-  
culture

- \* The Environmental Assessment Act should apply to agricultural outlet drainage schemes.

- \* Either the Planning Act should be amended to make it explicit that it can authorize municipal by-law development for water quality/animal waste management control or it should cease to be considered as the appropriate enabling tool for such a task.

- \* In the alternative municipal by-laws respecting animal waste/water quality concerns could be authorized under environmental legislation such as the Ontario Water Resources Act. This would require amending the OWRA to permit such enablement but would also facilitate incorporating the Agricultural Code of Practice as a regulation under the OWRA. The amendments should also ensure that the Municipal Act and the Ontario Building Code do not act as a constraint on municipalities adopting such animal waste by-laws.

2. Pollution Control Function

a. Preventive Pollution Controls

Disposal  
Areas

- \* A leachate pollution fund should be mandatory for every provisional or regular waste disposal site approval or expansion under the Environmental Protection Act or prospectively under the Environmental Assessment Act.

The fund must be sufficient to protect local drinking water supplies and meet any contingency clean-ups that become necessary during operations and for a 5-15 year period after de-commissioning of the site.

- \* Approvals under the Environmental Protection Act, the Municipal Act, the Planning Act and the Environmental Assessment Act should not be granted to any municipality wishing to export its waste problem to another municipality unless (1) it demonstrates to the satisfaction of the appropriate approval authority that it is doing everything possible to minimize landfill and maximize reclamation, re-use and resource recovery; (2) a fee is charged for the disposal of waste in another municipality to make exporting garbage more expensive and improve the economics for reclamation, such fee to be payable to authorized resource recovery or reclamation programs; (3) where the municipality proposing the landfill site is not involved in any area-wide plans to reduce landfill and maximize reclamation, an approval may be given only on condition that such planning be undertaken as soon as possible and (4) no long-term landfill commitments be made which would have the effect of foreclosing or post-poning plans for reclamation.
- \* Reclamation and re-use of toxic liquid industrial wastes should be made mandatory under the Environmental Protection Act.
- \* The responsibilities of private sewage system haulers, including record-keeping, and the criteria used by the Ministry of Environment in evaluating a private sewage system hauler application under Part VII of the Environmental Protection Act, should be incorporated into Part V of the Act and the Waste Management regulations respecting haulers of sewage sludge.
- \* The Sewage Sludge Spreading Guidelines should be amended to make explicit the need for soil conservation measures, including terracing and strip cropping, by those farmers expected to accept sludge.
- \* The Sewage Sludge Spreading Guidelines should also become regulations under the Environmental Protection Act.
- \* The application of sewage sludge to agricultural lands should be subject to Environmental Assessment Board pre-scruting under the Environmental Assessment Act or the Environmental Protection Act. This should either be done on every sewage sludge spreading application, in conjunction with sludge transfer station hearings or through a general overview hearing on the issue of sewage sludge spreading. This should be done so that the sufficiency of provincial sewage sludge spreading guidelines and the soil conservation practices of farmers accepting sewage sludge may be evaluated.
- \* If agricultural pesticide use is found to be a problem for water quality then consideration of the following might be appropriate. Evaluate the viability of a requirement that a farmer or a farmer helping a neighbour (or both categories) obtain a licence or permit prior to specific

Agri-  
culture

pesticide applications involving (1) more than a certain acreage of land or (2) more than a certain amount of pesticide used in a certain period or (3) after a demonstration of competency in such pesticide's use in relation to environmental concerns.

\* Enact a Fertilizers Act similar to the Ontario Pesticides Act.

\* In addition, under such a fertilizer control statute, the University of Guelph soil test or crop needs analysis (or some similar approved test) could be made mandatory prior to annual fertilizer purchases. Under this scheme the amounts of fertilizer available for sale to farmers could be limited to that recommended in an approved soil test multiplied by the number of acres the farmer intends to have in production for that crop year.

\* Make the Agricultural Code of Practice a regulation under either the Ontario Water Resources Act or the Environmental Protection Act. Repeal EPA approval exemptions for animal wastes disposed of in accordance with normal farming practices. (With respect to possible municipal planning involvement in animal wastes see recommendations made above). Generally, a compliance time frame under either of these Acts might be set up respecting existing animal husbandry operations. Future feedlot proposals, expansions or alterations should be subject to either of these Acts or to the Environmental Assessment Act.

\* If agricultural soil erosion is found to be a problem for water quality then apply the above proposed sediment control statute to agricultural crop production practices in conjunction with farm soil conservation education and subsidy programs discussed here and elsewhere.

\* The Environmental Assessment Act should apply to new, expanded or altered agricultural outlet drainage schemes.

Shore-  
line  
Land-  
filling

\* Exemptions for clean or inert fill should be repealed under the Environmental Protection Act Regulations.

Trans-  
porta-  
tion  
corridors  
Forested  
Areas and  
Urban  
Areas

\* Where the Environmental Assessment Act will not apply, or where only generic as opposed to site specific environmental assessments will be performed, sediment control legislation should apply to activities in these categories.

Urban  
Areas

\* Stormwater control should be undertaken through Ontario water Resources Act approvals. In addition, the Municipal Act and the Ontario Building Code could be amended to make it explicit that municipalities may control urban stormwater runoff for water pollution control purposes.

b. Reactive Pollution Controls

Urban Areas Disposal Areas and Extractive Operations

\* Systematic enforcement of water quality violations would appear possible for non-point pollution through a series of civil assessments, sureties, performance bonds and the like as established under the Connecticut Environmental Enforcement Act. This statute is directed to point sources but its precepts and mechanisms appear useful for non-point control as well. (See summary of the Act by J.K. Haynes at the IJC Economic and Legal Mechanisms Conference February 1977). As an economic enforcement statute it appears to have two very valuable attributes (1) the need for in-the-field enforcement is not essential to the success of such a scheme and (2) the polluter is fined no more than he saves by breaking the law.

Disposal Areas and Extractive Operations

\* Compliance deadlines and their extensions should be subject to public involvement as authorized by statute. (Principally, the EPA and OWRA).

Disposal Areas

\* Field personnel should be increased for the purposes of controlling where and how sewage sludge spreading is performed. Making regional governments or other local governments responsible for post-disposition of sewage sludge might aid in policing the activity. (Under EPA or EAA).

\* In the alternative sewage sludge spreading should be banned.

Agriculture

\* The Connecticut statute discussed above would appear to be an appropriate vehicle for dealing with animal husbandry operations and outlet drainage schemes as well. It would not appear to be practical for pesticides, fertilizers or agricultural soil erosion control.

Recreational Areas and Disposal Areas

\* Funding should be increased for the Ministry of Environment cottage pollution control program so that existing cottage sewage systems will be reviewed and corrected more quickly than would otherwise appear to be the case.

Extractive Operations

\* Bonds, security deposits or other techniques for ensuring complete mine rehabilitation and contamination control (e.g. re-vegetation) during operation and post abandonment should be mandatory under environmental legislation. (e.g. OWRA).

\* The Pits and Quarries Control Act should apply to operations in the northern, southwestern and eastern part of the province if water pollution problems are likely.

\* In the alternative, the Environmental Assessment Act should apply to new pits where the Pits and Quarries Act would otherwise not apply.

### 3. Direct Provincial Actions

No recommendations.

### 4. Provincial Use of Financial Incentives

Trans-  
portation  
Corridors \* Pre-conditions to MTC funding and subsidization of municipal road construction and upgrading should include assurance and demonstration that proper sediment controls will be applied.

Agri-  
culture \* Reactivate ARDA agreements respecting soil and water conservation projects to require soil conservation funding.

\* Amend Woodland Improvement Act to permit the Ministry of Natural Resources to enter into agreements with farmers for the planting of windbreaks to control wind erosion.

### 5. Provincial Acquisition of Hazard and Sensitive Land Areas

Lake-  
shore and  
River bank  
Erosion \* Require individual environmental assessments under the Environmental Assessment Act where provincially acquired hazard lands are to be subsequently landfilled for recreational or other development.

## C. Regional Government

### 1. Planning

Urban  
Areas \* Regional (and other local government) councils should include phraseology similar to the following in their official plans: "Council shall restrict uses in environmentally sensitive areas and only permit those uses which will not adversely affect water quality".

\* Regional (and other local government) official plans should address more specifically the inter-relationships between land use and water quality as a foundation and pre-condition to requiring greater control where necessary.

### 2. Regulation

Urban  
Areas \* Regional governments with subdivision and redevelopment approval powers should establish policies respecting construction site and storm-water runoff controls for new urban development.

### 3. Management

Disposal  
Areas \* Regional governments should retain responsibility for how and where sewage sludge is land applied after they contract with a sludge hauler for its removal or transfer from regional facilities.

Trans-  
portation  
Corridors

- \* Regional road department contract specifications should contain specific provisions requiring sediment controls especially with respect to the use of interim and temporary soil stabilization techniques during construction or upgrading unrelated to stream crossings.

#### 4. Conflicts With Other Government Levels

Urban  
Areas and  
all land  
uses

- \* The date by which area municipal zoning amendments must conform with a provincially approved regional official plan should be stated in regional legislation. Substantial time lags should be avoided so as to minimize the threat to environmentally sensitive areas and water quality.

#### D. Conservation Authorities

##### 1. Municipal Planning Process Involvement

Urban  
Areas

- \* (See Provincial Government - Planning Function).
- \* Municipal building by-laws and/or the Ontario Building Code should be amended so that grading plans authorized by these instruments are not contrary to conservation authority regulations or prospectively to statutory sediment controls.
- \* Funds and staffing for conservation authorities for the purposes of non-point pollution control should be increased.

##### 2. Conservation Authorities as Regulators

Urban  
Areas

- \* Conservation authority regulations should be supplemented by statutory authorization for sediment control anywhere in the watershed.

Agriculture

- \* If necessary the above should apply to agricultural soil erosion as well.

- \* Conservation authority use of save harmless agreements for construction in hazard lands (e.g. flood or erosion prone lands) should be encouraged.

##### 3. Conservation Authorities as the Regulated

Shore-  
line Land-  
filling

- \* If necessary conservation authority shoreline landfilling projects for recreational area purposes should be re-evaluated.

- \* In the alternative individual environmental assessments under the Environmental Assessment Act should be mandatory for such projects.

- \* In the further alternative, if only generic environmental assessments are to be performed on such projects, sediment control permits on an individual project basis should be required. (This latter recommendation again is based on enactment of sediment control legislation).

#### 4. Other Conservation Authority Roles

Urban  
Areas and  
Lakeshore  
and River-  
bank Erosion

\* The pollution control function of conservation authorities should be reaffirmed under provincial law and better facilitated under Authority regulations.

Agri-  
culture

\* Conservation authority funding and technical assistance programs for control of agricultural soil erosion should be greatly expanded, perhaps in conjunction with federal and provincial ARDA agreements and federal income tax programs.

#### E. Municipal Government

##### 1. Official Plans, Zoning, Environmental Plans and Protection Areas

Urban  
Areas

\* All municipalities in the Great Lakes Basin should establish in their official plans, policies for controlling storm runoff.

\* Municipal official plans should address more specifically the inter-relationships between land use and water quality as a foundation and pre-condition to requiring greater control where necessary.

\* Municipal councils should include phraseology similar to the following in their official plans: "Council shall restrict uses in environmentally sensitive areas and only permit those uses which will not adversely affect water quality".

##### 2. Subdivision Controls

Urban  
Areas

\* All municipalities in the Great Lakes Basin should investigate the feasibility of systematically implementing stormwater runoff controls on present and plans of subdivision and re-development proposals.

\* At the conclusion of such investigations municipalities should report on serious financial or other constraints that may exist to minimize the effectiveness of such policies and procedures.

##### 3. Other Municipal Regulatory Initiatives

Urban  
Areas

\* Municipal topsoil preservation and sediment control by-laws should be encouraged under either the Municipal Act, Planning Act or provincial environmental legislation.

Disposal  
Areas

\* Municipal solid waste reduction or recycling by-laws should be encouraged under provincial environmental legislation.

Agri-  
culture

\* (See Provincial Government - Planning Function).

#### 4. Direct Municipal Actions and Practices

Transportation  
Corridors

\* Municipalities should adhere to Ontario Ministry of Environment highway salt de-icing and storage guidelines.

\* In the alternative, the MOE guidelines should become regulations under either the EPA or the OWRA. In this case exemptions for salt or other de-icing agents as contaminants should be repealed under the EPA.

\* Municipalities should be subject to sediment control legislation in their own road construction and upgrading practices to the extent that individual environmental assessments will not be required under provincial law for such activities in future.

#### F. Public Participation and Court Action

##### 1. Public or Administrative Hearings

###### a. Hearing Limitations

\* Public hearings under environmental and other legislation affecting land use/water quality relationships should result in decisions not recommendations. (EPA and OWRA).

Urban  
Areas and  
Agriculture

\* Key land use activities such as new townships and outlet drainage schemes should not be exempt from the provisions of the Environmental Assessment Act.

\* In future before regulations or orders exempt key land use activities from the provisions of environmental control legislation public hearings should be held.

##### 2. Advisory Committees

No recommendation.

##### 3. Court Action

###### a. Private Prosecutions

Extrac-  
tive  
Operations

\* Private prosecutions should be permitted under the Mining Act, Pits and Quarries Control Act and the Beach Protection Act.

###### b. Injunctions/Public Nuisance Actions

Standing

\* Any person should be permitted judicial review of an environmental tribunal decision, and have standing to appear before a court of competent jurisdiction to seek temporary or permanent injunctions for land/water



activities that may be public nuisances though he or she has no financial or proprietary interest in stopping such pollution any greater than any other member of the public.

**Costs**

\* The tribunal or court should award reasonable costs of participating in a hearing to an intervenor or litigant who has substantially prevailed, or who has raised a substantial issue of public policy in relation to land use/water quality matters, such costs to be paid by the proponent of a land use of management undertaking or activity.