CELA Publications:
Canadian Environmental Law Association;
Canadian Institute for Environmental Law and
CELA Brief no. 358; Submission to the Ontario
Minsitry of Environment re: EBR Notice
RN 23518

CANADIAN INSTITUTE FOR
ENVIRONMENTAL LAW & POLICY

517 College Street, Suite 400, Toronto, On. M6G 4A2
Tel: (416).923-3529 Fax: (416) 923-5949 E-mail: cielap@web.net

Submission to the Ontario Ministry of Environment Re: EBR Notice RA8E0030

Criteria for the Management of Excess Soil

Publication #358
ISBN# 1-894158-07-5

Prepared by:

Ramani Nadarajah
Counsel
Kathleen Cooper
Researcher

CANADIAN ENVIRONMENTAL LAW ASSOCIATION

and

Mark Winfield Ph.D
Director of Research

CANADIAN INSTITUTE FOR ENVIRONMENTAL LAW AND POLICY

November 2, 1998

Submission to the Ministry of Environment
Re: EBR Notice RA8E003.0
Criteria for the Management of Excess Soil

November 2, 1998

PART I - INTRODUCTION

The Canadian Environmental Law Association (CELA) is a public interest group founded in 1970 for the purpose of using and improving laws to protect the environment and conserve natural resources. Funded as a community legal clinic specializing in environmental law, CELA represents individuals and citizens' groups before trial and appellate courts and administrative tribunals on a wide variety of environmental issues. In addition to environmental litigation, CELA undertakes public education, community organization, and law reform activities.

The Canadian Institute for Environmental Law and Policy (CIELAP) is an independent not for profit, environmental law and policy research and education organization, founded in 1970 as the Canadian Environmental Law Research Foundation.

The purpose of this brief is to respond to the proposed amendment to the definition of "inert fill" in Regulation 347 pursuant to the *Environmental Protection Act*, as proposed by the Ministry of Environment ("MoE"). The proposed amendments were posted on the Environmental Bill of Rights Registry on August 8, 1998, EBR Registry Number RA8E0030 with an approximately two and a half month comment period.[1]

CELA and CIELAP's comments focus on the following issues:

- inappropriate classification of contaminated soils as "inert"
- scientific and ethical limitations of risk assessment
- redistribution of contaminated soils to uncontaminated land
- lack of sampling and testing methodologies
- failure to ensure compliance and enforcement
- failure to provide public notice
- lack of consideration for mixed zoning
- health and environmental risks associated with on-site exemptions

[1] EBR Registry Number RA8E0030

PART II - SUMMARY OF GENERAL COMMENTS

These are CELA and CIELAP's recommendations regarding the proposed changes to Regulation 347:

1) Recommendation No. 1: The current definition of "inert fill" in Regulation 347 should not be amended to undermine the meaning of the word "inert." Rather, the Province should:

> **i] amend the regulation to establish that "inert" soil is defined as soil with contaminant levels no higher than the rural background levels noted in the proposed Class I criteria (Column I, Schedule 1, Chemical Criteria for Inert Fill) and;**
>
> **ii] for soils containing contaminants at levels noted in the proposed Classes II, III, and IV, the MoE should explicitly state that these are contaminated soils acceptable as fill in designated receiving locations and apply the regulatory controls under the *Environmental Protection Act* ("EPA") in addition to the recommendations specified in this brief.**

2) Recommendation No. 2: The MoE should not consider effects-based clean up criteria to be "fully protective of human health and the environment."

3) Recommendation No. 3: Regardless of the zoning designation, Class II, Class III and Class IV fill should not be permitted to be deposited at a site if it will increase soil contamination levels.

4) Recommendation No. 4: The MoE should specify the sampling methodology and should ensure that testing is done at accredited laboratories prior to the use of the four classes of fill.

5) Recommendation No. 5: The MoE should require data be provided on the testing and sampling of fill. In addition, MoE should obtain and maintain records identifying sites on which Class II, III and IV fill are deposited as well as the quantity of fill deposit. These records should be provided to the MoE so that it can verify compliance and take appropriate enforcement action, if warranted. The Province should ensure these records are accessible to the public in accordance with recommendation No. 6 below.

6) Recommendation No. 6: The public should be provided with notice and also have access to information from a central registry (preferably the Land Registry Offices) as to the use of contaminated soils as fill (i.e., Classes II, III and IV) at specific locations, including information about the origin of the fill, the type and levels of contamination of the fill and the quantity of fill that was deposited at the site.

7) Recommendation No. 7: At sites which have mixed zoning designations the more protective class of fill should apply.

8) Recommendation No. 8: The deposit of fill in ecologically sensitive areas should not be permitted.

9) Recommendation No. 9: Class II, Class III and Class IV fill should not be permitted to be deposited as lakefill because it may impair water quality and harm aquatic life.

10) Recommendation No. 10: The MoE should not provide the on-site exemption as it has the potential to increase environmental degradation by permitting contaminated soil to be redistributed to previously uncontaminated parts of a site.

11) Recommendation No. 11: The MoE should only provide clean up exemptions on a case by case basis and only when a proponent can establish that the deposit of fill will not result in further contamination of the site.

PART III - CRITIQUE OF THE PROPOSED AMENDMENTS TO REGULATION 347 AND RATIONALE FOR RECOMMENDATIONS

1. Introduction

According to the notice posted on the Environmental Registry, the purpose of the proposed amendments is to "provide a clearer and more comprehensive definition which will allow stakeholders to better manage the movement of soil during site clean up."[2] The MoE also anticipates the proposed changes will promote site clean up and brownfield development by allowing more soils to be used as fill.[3]

The proposed amendments seek to achieve these objectives by providing four inert fill classifications. Class I inert fill is based on rural parkland background values of soil in Ontario and may be deposited anywhere without restrictions. Class II inert fill is based on the urban parkland background values of soil in Ontario and may be deposited at any site, including within confined lakefill, but not in ecologically sensitive areas. Class III may be deposited in agricultural, commercial and industrial areas, again including within confined lakefill, but not residential or ecologically sensitive areas. Finally, Class IV inert fills can be deposited in areas zoned for commercial and industrial use but not agricultural, residential or ecologically sensitive areas. The proposal states that the criteria in each of these four Classes are "fully protective of human health and the environment."

The movement and placement of soil which meet the new inert fill definition will be exempt from Part V, EPA waste management approval requirements.

While the objective of enabling stakeholders to better manage the movement of soil during a site clean up may be worthwhile, it does not follow that the proposed definition, or rather, the proposed classes of "inert fill," are necessary or appropriate. Similarly, the objective of enabling more soils to be used as fill may also

---

[2]Ibid.

[3]Ibid.

be worthwhile. However, it does not follow that the means to do so is by expanding the definition of "inert" to include soils that are in fact contaminated and, in the case of Classes III and IV, significantly contaminated. The statement that the criteria "are fully protective of human health and the environment" is debatable and should therefore not be stated in such absolute terms. The related step of removing Part V, EPA approval requirements from these so-called "inert" soils is cause for public concern. The proposed changes will eliminate requirements for independent monitoring, for verifiable record-keeping and for provincial approvals. With no regulatory oversight, this regulation will enable the redistribution of all manner of contamination around the Province. The potential for abuse of this unregulated system is extremely high. The public interest is not served by amending a regulation in a manner that eliminates governmental oversight of environmental contamination and opens the door to abuse of the rules that could cause even greater environmental contamination.

2. Inappropriate Classification of Contaminated Soils as "Inert"

Regulation 347 currently defines inert fill as: "[meaning] earth or rock fill or waste of similar nature that contains no putrescible materials or soluble or decomposable chemical substances." We agree that the definition is vague and in need of improvement. However, as proposed, the regulation will classify as "inert" soils that are in fact contaminated. The current definition of "inert fill" in Regulation 347 should not be amended to undermine the meaning of the word "inert." Rather, if the Province is going to regulate the redistribution of contaminated soil, it should do so with transparency and accountability.

One of the stated objectives of this exercise is to harmonize the "Criteria for the Management of Excess Soil" with the recently revised "Guideline for Use at Contaminated Sites in Ontario." With that objective in mind, the proposed amendment to Regulation 347 should be amended to establish a revised definition of "inert" that reflects the lowest level of contamination found in the "rural background" levels noted in the proposed Class I. Let that be the benchmark for clarifying what is meant by "inert."

Beyond rural background levels, contaminant levels increase. Indeed, the proposed Classes II, III and IV contain increasing levels of contamination. The proposed amendment sets out both the levels of contamination in each of these classes of soil and the lands or land uses where the soil can be used as fill. The problem with this approach is threefold. First, contaminated soils should not be considered "inert." Second, this approach enables the redistribution of contaminated soils to areas which may well contain lower levels of contamination than the so-called "inert" fill. Third, by removing regulatory controls, this approach opens to the door to abuse. These latter two concerns are discussed further in subsequent sections.

If the Province wants to use the proposed Classes II, III, and IV for the purpose of redistributing contaminated soils to specific receiving locations, then these three Classes should be established for this express purpose and the existing regulatory framework should continue to be applied.

Recommendation No. 1: The current definition of "inert fill" in Regulation 347 should not be

amended to undermine the meaning of the word "inert." Rather, the MoE should:

i] amend the regulation to establish that "inert" soil is defined as soil with contaminant levels no higher than the rural background levels noted in the proposed Class I criteria (Column I, Schedule 1, Chemical Criteria for Inert Fill) and;

ii] for soils containing contaminants at levels noted in the proposed Classes II, III, and IV, the MoE should explicitly state that these are contaminated soils acceptable as fill in designated receiving locations and apply the regulatory controls under the *Environmental Protection Act* ("EPA") in addition to the recommendations specified in this brief.

3. Scientific and Ethical Limitations of Risk Assessment

The proposed amendment to Regulation 347 confidently states that the effects-based clean up criteria in each of these four Classes are "fully protective of human health and the environment." This statement is highly questionable. It is not possible within the scientific limitations of the risk assessment approach to make such a statement.

As we stated in a submission[4] in response to the consultation in 1994 that sought to revise the Guideline for Use at Contaminated Sites in Ontario, there are important scientific limitations on the "science" of risk assessment. Crucial ethical issues arise as well.

The so-called "science" of risk assessment underlies the effects-based cleanup criteria used in the proposed Classes of "inert fill."

However, risk assessment does not just assess risk, the technique itself is hotly debated. Independent scientists and commentators with a public interest, environmental perspective from Canada and the United States have developed extensive, credible critiques of the risk assessment approach to evaluating toxic or other hazardous exposure.

A key criticism of the "science" of risk assessment includes the fact that risk assessment involves a complicated series of steps requiring many subjective (and therefore malleable) judgements. It cannot claim to be an "objective" science.

Risk assessment procedures involve many important scientific limitations including[5]:

---

[4]Letter from K. Cooper, P. Muldoon and M. Winfield to the Advisory Committee on Environmental Standards dated October 13, 1994 at p. 2-3.

[5]See for example: Agriculture Canada, *Risk-Benefit Analysis in the Management of Toxic Chemicals*, August 1994; Chess, Caron and Daniel Wartenberg, *The Risk Wars: Assessing Risk Assessment,* Smith, C. Mark, Karl T. Kelsey, David Christiani, *Risk Assessment and Occupational Health: Overview and Recommendations,* and

* uncertainties or errors that can result from the extrapolation of high concentrations of chemical exposure in small populations as a means of predicting health effects in large populations exposed to lower concentrations of the same chemical

* uncertainties or errors that can result from the extrapolation of health effects derived from animal studies (both high dose, short term exposure and low dose, long term exposure) to human health effects

* a tendency to ignore or be unaware of background sources of exposure to chemicals affecting people or ecosystems leading to exceedances of threshold values established through risk assessment

* vast areas of uncertainty, variability and errors in areas such as emissions estimates, modelling, limited or inappropriate toxicological data, misuse of epidemiological data, problems associated with exposure estimates, health effects or risk estimates, etc. all of which can cause errors in the input data and methods of calculation

* the inability of risk assessment to accommodate real-world situations of multiple chemical exposures of varying doses and durations, i.e., it is incapable of assessing the synergistic and cumulative effects of such multiple exposures

* the heavy reliance of risk assessment calculations on carcinogenicity as a surrogate measure for any and all chronic health effects to the near total exclusion of other less understood and less studied outcomes such as reproductive, neurological, immunological and endocrine effects

* the ability to overcome a lack of critically important scientific and empirical data by making best guess assumptions in order to continue the analysis and derive dose-response curves for human exposure estimates

* the ongoing debate within the "science" of risk assessment over which is the most appropriate model to estimate dose-response relationships of low level chemical exposures (and the fact that different models yield quite different results)

Ginsberg, Robert, *Quantitative Risk Assessment and the Illusion of Safety*, and O'Brien, Mary H., *Alternatives to Risk Assessment* in New Solutions: A Journal of Environmental and Occupational Health Policy, vol. 3, no. 2, Winter, 1993; Dunnett, Ed, *Regulation of Pesticides and Risk-Benefit Analysis: Can it Help?* in Canadian Farm Economics, vol. 18, No. 1; Gregory, Michael, *Pesticide Reform in Arizona: Moving Beyond Risk Assessment and Clean-Up to Exposure Prevention,* in Arizona Toxics Information, March 12, 1991; Gregory, Michael, *Some Unacceptable Risks of Risk Assessment*, in Pesticides and You, Spring 1995, p.15; Highland, Joseph H., *Risk-Benefit Analysis in Regulatory Decision Making*, Toxic Chemicals Program, Environmental Defense Fund; Chociolko, Christina, *The Experts Disagree: A Simple Matter of Facts versus Values?* in Alternatives, vol. 21, no. 3, July/August 1995; Gutin, JoAnn, *At Our Peril: The False Promise of Risk Assessment*, in Greenpeace Magazine, vol. 16, no. 2, March/April 1991; and Thornton, Joe, *Risking Democracy*, in Greenpeace Magazine, vol. 16, no. 2, March/April 1991.

* the tendency to exclude the most sensitive segments of the population from calculations of risk by not including a wide enough margin of safety (assuming "safe" levels are known or knowable)

* the many limitations of animal bioassays including the fact that they do not always extend over an animals entire lifetime; the fact that dosing generally starts after weaning therefore skipping the in utero and neonatal period comparable to the first 3 to 6 years of human life (hence, not assessing certain chemicals that are toxic only during early life stages or recognizing that human chemical exposure can be greatest during these sensitive life stages); the complication of the "wasted dose" which is the difference between the lifetime dose and the dose that actually causes disease; and the inappropriate assumption that negative results in animal bioassays indicate safety of a chemical in humans.

There are ethical concerns as well including:

* Risk assessment tends to impose risks on those that are often most susceptible to harm such as the poor, the elderly, children (including via in utero exposure in pregnant women), and minority groups.

* Risks can be imposed without the consent of these groups, and risk assessment avoids the ethical problem of imposing risks on those who may not receive a commensurate share of the benefits incurred from whatever activity the risk assessment sanctions.

* The critical gaps in knowledge that exist in the "science" of risk assessment make the process and the outcome vulnerable to political manipulation. Those with money have the opportunity to influence the outcome.

* In the face of ignorance and uncertainty about the effects of toxic chemicals, these chemicals tend to be treated as "innocent until proven guilty." For example, unknown or poorly understood neurotoxic or immunotoxic effects have to be assumed to be non-existent (or require "best guess" calculations of safety margins) and it is impossible to know if they adequately inform the risk assessment calculations. Chemicals which are unidentified or untested (including synergistic effects which can occur as a result of diverse contaminants mixing in the environment) must similarly be assumed to be safe in the face of vast ignorance about their possible effects. When people are asked to rely upon incomplete and controversial information, value judgements need to be made. Such decision-making belongs in the public and political arenas where the affected public can rely upon or, more likely, have the opportunity to demand that, democratic safeguards apply and that their governments act in the public interest.

We include this perspective on the controversy surrounding the "science" of risk to demonstrate that the Ministry cannot with scientific integrity state that the proposed criteria are "fully protective of human health and the environment." The uncertainty and risk that the public is expected to accept when such criteria are applied underscores the need for continued governmental regulatory oversight in the public interest.

Recommendation No. 2: The MoE should not consider effects-based clean up criteria to be "fully protective of human health and the environment."

4. Redistribution of Contaminated Soils to Uncontaminated Land

As already noted, the proposed definition of inert fill and the excess soil management criteria are being harmonized with clean up criteria established under the recently revised *"Guideline for Use at Contaminated Sites in Ontario* ("the Guideline")[6]. The level of clean up required for contaminated sites under the Guideline derives from effects-based cleanup criteria whereby the clean up level varies with proposed future use of the land. For example, lands which are intended for industrial or commercial use are required to clean up to less stringent levels than, for example, residential use.

The MoE's rationale for adopting this approach was that it permitted greater flexibility and allowed clean up requirements to be tailored to specific conditions of a site. Consequently, this approach permits a less rigorous standard than the use of the more rigorous generic criteria for all sites. Moreover, by continuing this approach in the management of excess soil, the proposed amendment will allow contaminated soils to be used as fill in areas of Ontario that are significantly less contaminated than the fill itself. For example, an agricultural site in Markham recently zoned industrial may have relatively clean soil in comparison to an industrial site in downtown Toronto. However, as a result of the proposed amendment, the Markham site would now be able to receive the more heavily contaminated soil from the Toronto site as use for fill. The proposed amendments thus has the very real potential to redistribute contaminated soils to uncontaminated lands.

Recommendation No. 3: Regardless of the zoning designation, Class II, Class III and Class 1V fill should not be deposited at a site if it will increase the level of soil contamination.

5. Lack of Sampling and Testing Methodologies

There are no provisions in the proposed amendments which outline the testing and sampling methodology to ascertain contamination levels and there is no requirement that the laboratories undertaking the testing be accredited.

Recommendation No. 4: The MoE should specify the sampling methodology and should ensure that testing is done at accredited laboratories prior to the use of 'inert' fill.

6. Failure to Ensure Compliance and Enforcement

---

[6]Rationale for the Development and Application of Generic Soil, Groundwater and Sediment Criteria for Use at Contaminated Sites in Ontario (Toronto: Ministry of Environment and Energy, December 1996) at p.1.

The proposed scheme fails to specify for any regulatory oversight or controls to ensure compliance. For example, the proposal fails to require the regulated community provide testing and sampling data on the level of fill contamination. This data should be provided to the MoE so that it can audit the records to verify compliance. The MoE should also retain the data and make it accessible to the public in case of future public health issues or the necessity to reexamine exposure risks.

The MoE has over the past three years been faced with substantial cutbacks to both budget and staff.[7] Consequently, we consider it highly unlikely the MoE has adequate resources and capacity to regulate compliance with the proposed amendments.

Recommendation No. 5: The MoE should require data be provided on the testing and sampling of fill. In addition, MoE should obtain and maintain records identifying sites on which Class II, III and IV fill are deposited as well as the quantity of fill deposit. These records should be provided to the MoE so that it can verify compliance and take appropriate enforcement action, if warranted. The Province should ensure these records are accessible to the public in accordance with recommendation No. 6 below.

7. Failure to Provide Public Notice

The lack of information about the risks and the number of contaminated sites have been significant factors hindering the redevelopment of brownfields. The proposed amendments would increase this level of uncertainty about site conditions by facilitating the movement and deposit of contaminated soils in Ontario.

Therefore, the public should, have notice as well as access to information through a central registry on the use of contaminated soil as fill. The rationale for establishing a central registry on the use of contaminated soil include:

- ensuring the public's right to know. If contaminated soil was used as fill at a site, the public has a right to know what kind of contamination was involved, where the soil originated, where it was deposited and how much was deposited.

- provide for a systematic approach to planning at an early stage. Potential developers and prospective purchasers should have an opportunity to make informed decisions about soil conditions at a site. Moreover, in the event that the site is intended for a different land use in future (e.g., the site is being rezoned from industrial to residential), developers and

---

[7] Ontario's Environment and the Common Sense Revolution: A Third Year Report (Toronto: Canadian Institute for Environmental Law and Policy 1998). The report notes that the government's May 1998 budget indicates that by the end of the 1998/99 fiscal year the MoE would have lost 45% of its operating budge and 81% of its capital budget, as measured against its actual budget for 1994/95 year.

prospective purchasers should be provided information about the use of contaminated soil as fill.

- assist regulators to fulfil their statutory duties to locate sources of pollution and ensure environmental protection.

Recommendation No. 6: The public should be provided with notice and also have access to information from a central registry (preferably the Land Registry Offices) as to the use of contaminated soils as fill (i.e., Classes II, III and IV) at specific locations, including information about the origin of the fill, the type and levels of contamination of the fill and the quantity of fill that was deposited at the site.

8. Mixed Zoning

The proposed amendments also fail to specify which class of fill would apply to sites with mixed zoning designations. It is quite common, particularly in urban areas to have a site designated commercial/residential or commercial/industrial. In these circumstances, it is unclear what class of fill would be permitted to be deposited on the site. We recommend the most protective class of fill should be applicable to these sites, to ensure protection of human health and the environment.

Recommendation No. 7: At sites which have mixed zoning designations the more protective class of fill should apply.

PART IV - SPECIFIC COMMENTS ON THE PROPOSED AMENDMENTS

1. The Use of Fill in Ecologically Sensitive Areas

The proposed definition would allow the use of soils with contamination Class I fill to be /deposited to in an ecologically sensitive area without MoE regulatory oversight. An ecologically sensitive area is defined as:

(a) A Provincial Nature Reserve or Provincial Park established under the Provincial Parks Act.

(b) an area identified by the Ministry of Natural Resources as a Nature Reserve Zone, an Area of Natural or Scientific Interest, or a habitat of vulnerable, threatened or endangered species of plant or animal;

(c) an environmentally sensitive wetland or other environmentally sensitive area identified by a municipality, conservation authority or other local land use planning authority; or

(d) an area in which any existing soil has a pH level less than 5, a pH greater than 9 of the top 1.5 metres of depth, or a pH greater than 11 for any soil below the top 1.5 metres of depth.

In addition the fill could also include waste listed in Schedule 2, namely concrete (without a coating or protruding reinforcing steel) or brick (without coating and excluding refractory brick).

The main purpose in designating land as 'environmental significant areas' is to protect and preserve its natural features and ecological functions. The proposal to permit fill in ecologically significant areas flies in the face of this objective. We are, therefore, of the opinion that *any alteration* of an ecologically sensitive area with fill is environmentally unacceptable.

We are also concerned that the deposition of fill into or upon the habitat of an endangered species regulated under the *Endangered Species Act* may be a violation of section 5(b) of the Act which reads as follows:

5) *no person shall wilfully,*

b) *destroy or interfere with or attempt to destroy or interfere with the habitat of any species of fauna or flora,*

declared to be in the regulations to be threatened with extinction.

Recommendation No. 8: The deposit of fill in ecologically sensitive areas should not be permitted.

2. The Use Of Contaminated Soil as Lakefill

The proposed amendment allows Class II, Class III and Class IV fill to be deposited as lakefill provided it is confined within an enclosed barrier or structure. However, this would not preclude lakefill from leaching into waters and thereby impairing water quality and causing harm to aquatic life.

We are of the view that the depositing contaminated fill into Ontario's waterways (even if the fill is confined within an enclosed barrier or structure) is an environmentally risky activity which has the potential to impair water quality. We note that the proposed amendment is contrary to the underlying principles of the Ministry's policy on water quality which states:

> Hazardous substances (i.e., persistent, bioaccumulative toxic substances), should be dealt with regard to their impact on the ecosystem. These hazardous properties make control on an ecosystem and multi-media (air, water, land) basis absolutely essential. *The hierarchial management approach of reducing discharges to zero through the banning out or phasing out, or the very least, curtailing escape to the environment as much as possible, is one of the fundamental approaches for the control*

of these pollutants in Ontario (emphasis added).[8]

The deposit of lakefill may also violate the provisions in the *Fisheries Act* which prohibit the deposit of deleterious substances and the alteration of fish habitat. (see section 35 (1) and 36 (3) of the *Fisheries Act*).

It is our position that because of the inherently hazardous nature of many of the contaminants listed in Class II, Class III and Class IV, every effort should be made to prevent these substances from entering Ontario's waterways.

Recommendation No. 9: Class II, Class III and Class IV fill should not be permitted to be deposited as lakefill because it may impair water quality and harm aquatic life.

3. On - Site Exemption

Section 4(1) of the proposed amendments permits soil and rock fill regardless of the degree of contamination to be moved and disposed anywhere on a site. Section 4(2) extends the definition of a site in Regulation 347 to include "public or private right of way or easement for utilities and services as such as road, rail line, sewer, water line, oil, or gas pipeline, electrical or telephone or other communications transmission line or municipal drain."

The on-site exemption permits contaminated soil to be redistributed onto previously uncontaminated portions of a site without any regulatory oversight or controls. This exemption has enormous potential to increase contamination to the natural environment and is fundamentally at odds with the one of the major underlying principles of the Ministry's *Rationale for the Development and Application of Generic Soil, Groundwater and Sediment Criteria for Use at Contaminated Sites in Ontario* which states:

Soil is a non-renewable natural resource that is essential for the current and future health and well-being of the residents on Ontario; once contaminated it is very difficult and expensive to restore.[9]

Although, the MoE has the discretion to take enforcement measures to address any adverse effects caused by soil contamination,[10] such measures are essentially reactive. In many instances the increased contamination to the natural environment will not be readily apparent and may not be detected until many years later. Moreover, in cases involving historical contamination the Ministry may not be able to identify or

---

[8] Water Management Policies, Guidelines, Provincial Water Quality Objectives of the Ministry of Environment and Energy, (Toronto: Ministry of Environment and Energy, July 1994) at p.3.

[9] Rationale for the Development and Application of Generic Soil, Groundwater and Sediment Criteria for use at Contaminated Sites in Ontario, (Toronto: Ministry of Environment and Energy, December 1996) at p.5.

[10] See section 14 of the *Environmental Protection Act,* R.S.O. 1990, Chap. E 19 as amended.

locate the responsible parties. We recommend that the Ministry instead adopt the "pollution prevention" approach and prohibit the spread of contaminated soil onto previously uncontaminated parts of a site.

As a point of draftsmanship, we noticed that section 4(3) of the proposed amendment states that sections 4(1) and 4(2) does not apply to foundry sand (other than for temporary storage). However, there is no definition as to what constitutes `temporary storage.' The term "temporary storage" should specify a time limit.

Recommendation 10: The MoE should not provide the on-site exemption as it has the potential to increase environmental degradation by permitting contaminated soil to be redistributed to previously uncontaminated parts of a site.

4. Clean-Up Exemption

The amendments propose to exempt the deposit of soil and rock fill from sections 27, 40, 41, and 46 of the EPA under the following circumstances:

> (a) where the site is being cleaned up as specified in a remedial work plan being undertaken for the site in accordance with the Ministry of Environment *Guideline for Use at Contaminated Site in Ontario*, Revised February 1997, and
>
> (b) provided the soil and rock fill to be brought to the site for the deposit does not contain quantities of chemical substances in excess of the amounts specified for direct deposit in the remedial work plan being undertaken for the site in accordance with the Ministry of Environment *Guideline for Use at Contaminated Sites in Ontario*, Revised February 1997.

In order to obtain the clean up exemption, a proponent merely has to declare that a cleanup was being undertaken in accordance with the Guideline. This would permit contaminated soils in excess of the levels stipulated for Class II, Class III or Class IV to be deposited at a site. The lack of regulatory oversight and control makes this exemption highly susceptible to abuse. The MoE should, instead grant clean-up exemptions on a case by case basis and only after a proponent can establish the fill will not increase contamination levels at a site.

> **Recommendation No. 11: The MoE should only provide clean-up exemptions on a case by case basis and only when a proponent can establish that the deposit of fill will not result in further contamination of the site.**

PART V - SUMMARY AND CONCLUSION

The MoE's stated objective for the proposed amendment is to "promote site clean-ups and brown field

development by allowing more soil to be used as fill." The Ministry proposes to achieve this objective by de-regulating the transport and deposit of contaminated soils. It is difficult to appreciate how this objective could be achieved without extending the problem of contaminated soil throughout the province to previously uncontaminated sties.

The Ministry's proposal to manage contaminated soils in Ontario is fundamentally flawed in a number of key respects. In particular, the proposal fails to provide for any regulatory oversight or controls. Equally significant, is the lack of sampling and testing requirements to verify whether the soil and rock fill meets the standards set out in the four classes of fill. The proposal also fails to impose any requirement on the regulated community to provide these records to the MoE. This raises the question of whether the MoE intends to verify compliance with the proposed amendment and take appropriate enforcement action to address violations.

We are extremely concerned this proposal will undermine the current regulatory framework and cause even greater soil contamination in the province. We, therefore, strongly urge that the Ministry not implement the proposed amendments to Regulation 347.