

Soil Management Task Force Report

March, 1992



British Columbia
Handle with care



Soil Management Task Force

March 3, 1992

Hon. John Cashore
Minister of Environment, Lands and Parks
Room 346, Parliament Buildings
Victoria, B.C.
V8V 1X4

Dear Mr. Minister:

Re: Report of the Soil Management Task Force

On behalf of the Soil Management Task Force, I am pleased to submit the Task Force's report to you. This report was called for in the Task Force's terms of reference and is intended to fulfil its mandate of advising the Minister of Environment, Lands and Parks on the environmentally safe management of soils.

The Task Force discovered that stakeholders wish to address soil quality and soil disposal issues in a cooperative and consistent manner. The Task Force therefore determined that it is of paramount importance to develop a uniform regulatory approach to soils management and made specific legislative recommendations in this regard.

In a number of instances, implementation of the Task Force's recommendations will require coordinated efforts by the Ministry of Environment, Lands and Parks, the Ministry of Health, and the Ministry of Municipal Affairs, Recreation and Housing. The Task Force's recommendation to the Minister of Environment, Lands and Parks is that he work with his counterparts to implement the Task Force's recommendations.

We are pleased to have been able to serve the province in this critical endeavour and trust that we have been able to improve clarity in this matter which will add to the well-being of the Province of British Columbia.

Mr. Minister, we thank you for your consideration of the recommendations in this report.

Yours sincerely,


Ernie Olson,
CHAIRPERSON

CHAIRMAN
Ernie Olson
Municipal Manager,
Burnaby

Members:
David Driscoll
Mayor,
Port Moody
Ivan Hanchard
President,
B.C. Roadbuilders
Dr. Jim Malick
Chairman,
Environment Committee,
Urban Development
Institute
Dr. Nelson Ames
Medical Health Officer,
Central Kootenay
Health Unit
Dr. John Blatherwick
Medical Health Officer,
City of Vancouver



REPORT TO THE MINISTER OF ENVIRONMENT, LANDS AND PARKS
FROM THE SOIL MANAGEMENT TASK FORCE
FEBRUARY, 1992

TABLE OF CONTENTS

- I. Background
 - a) Appointment of Task Force and Terms of Reference
 - b) Consultation Process

- II. General Discussion

- III. Recommendations

Appendices

- Appendix A
 - 1. List of Task Force Members
 - 2. Terms of Reference for Task Force
 - 3. Press releases announcing Task Force
- Appendix B* Chairman's letter to Stakeholder's inviting submissions to the Task Force and Distribution Lists
- Appendix C *
 - 1. Summary of oral submissions of stakeholders
 - 2. Copies of written submissions of stakeholders
- Appendix D * Ministry of Environment, "Criteria for Managing Contaminated Sites in British Columbia", Draft 6, November, 1989
- Appendix E* CCME, "Interim Canadian Environmental Quality Criteria for Contaminated Sites", August, 1991
- Appendix F* Consultation process on establishment of the criteria for managing contaminated sites in British Columbia

* Appendices B, C, D, E and F are not included as part of this publication, but are available for viewing at all BC Environment regional offices, at the Toxics Reduction Branch, and at the BC Environment library in Victoria.

I. BACKGROUND

a) Appointment of Task Force and Terms of Reference

The recent growth of British Columbia's population, especially in the lower mainland, has resulted in the redevelopment of industrial land for urban, recreation and other uses.

This redevelopment has focused attention on the problems faced by those needing to dispose of excavated soils which, due to their past use, may require some regulation or restrictions on use.

During the summer of 1991, a number of lower mainland municipalities passed bylaws restricting the disposal of some types of quality impaired soil within their boundaries.

These municipalities were concerned about the potential risks and liabilities associated with accepting soil excavated from the Pacific Place site, as well as other quality impaired soil.

In response to these and other related concerns, the then Minister of Environment struck a task force on August 23, 1991. The six members of the Soil Management Task Force were drawn from the private sector, the health field, and from municipal governments.

The mandate of the task force as described in the terms of reference was to advise the minister, local government, and a range of stakeholder groups on environmentally safe management of soils across the province. A List of Task Force Members and the Terms of Reference are attached as Appendix A.

The terms of reference for the task force included the following tasks:

- Develop and recommend implementation of a short-term plan to manage the transition period for dealing with soil quality issues until a long-term implementation strategy is in place.
- Identify and respond to concerns of local government and industry with respect to management of soil quality and other related issues.
- Communicate to all interested parties intended provincial standards and procedures for classifying and managing soil quality.
- Provide practical advice to local governments and the private sector on managing specific soil quality problems.
- Make recommendations respecting a draft model soil removal and soil deposit bylaw for use by local governments.

b) Consultation Process

The task force made efforts to consult with local governments and appropriate stakeholders on suggestions and concerns respecting soil management issues.

The chairman made inquiries by letter to each principal appointed officer and to each works superintendent or engineer of every local government jurisdiction in British Columbia (179 villages, towns, cities, municipal and regional districts) inviting submissions on soil quality issues.

As a result of the letter, forty-four written replies were received and approximately fifty telephone calls answered. Locations and specific interest varied throughout the province but all displayed a keen interest in improving existing soil management practises.

Upon receiving specific requests, the chairman and a Ministry of Environment, Lands and Parks representative visited two areas to discuss the general subject of soil quality.

At Sooke, we toured a former sawmill with the director representing that particular area on the Board of the Capital Regional District. The site has some unique problems that require resolution prior to being allowed its redevelopment and we were able to explain how the work of the task force would possibly fit into the resolution of those problems.

In Kamloops, we addressed the Board of Directors of the Thompson-Nicola Regional District and explained the work of the task force to them. The board was genuinely interested in the possibility of applying the findings of the task force to the resolution of future general and specific soil quality problems in their area.

On two separate occasions, the task force received submissions from interested parties (including industrial and environmental interest groups) who were considered to be stakeholders in soil quality and soil management in general. (The chairman's Letter to Stakeholders and distribution lists are in Appendix B which is not included in this publication).

The general concerns expressed by stakeholders focused on a desire for a uniform provincial regulatory structure respecting the management of soil, along with a request for clear identification respecting potential risks of assumption of liability. (A summary of Submissions of Stakeholders and Copies of the Written Submissions are in Appendix C which is not included in this publication.)

II. GENERAL DISCUSSION

The Soil Management Task Force had the opportunity to obtain input from many stakeholders regarding the management of impaired quality soils in British Columbia. Several difficulties were found, arising largely from two sources:

- 1) Difficulty understanding the very technical soils issue and remedies, and
- 2) the structure of the current legislation.

The outcome of these difficulties has been the establishment of by-laws and ad hoc requirements. These inhibit the appropriate management of quality-impaired soils as well as negatively affect economic activity and misplacing scarce economic resources.

Several factors have led to the current difficulties and are discussed below.

Over the past several years the British Columbia Ministry of Environment, Lands and Parks has been developing legislation and criteria to manage quality impaired soils. Currently, the province and local governments share responsibility for the management of these soils. The province has jurisdiction under the Waste Management Act to manage, through permits, "special waste" and soils impaired beyond levels suitable for unrestricted use on industrial or commercial properties. The Special Waste Regulation and the Waste Management Act are the authority for this responsibility.

Current provincial soils management criteria, hereinafter referred to as "the B.C. soil quality criteria", are described in BC Environment's "Criteria for Managing Contaminated Sites in British Columbia, 1989" (Appendix D, which is not included in this publication). This document prescribes management options and criteria for concentrations of chemicals in soils. The B.C. soil quality criteria are not currently referenced in legislation.

The B.C. soil quality criteria describes two possible approaches for management of quality impaired soil.

The first approach uses numerical contaminant concentration criteria to classify soil quality. The numerical concentration criteria can be used to determine whether remediation of soils is required.

The other approach suggested by B.C.'s soil quality criteria involves site-specific risk assessment followed by risk management, where potential human health and environmental risks posed by contaminants are evaluated and are compared to levels of risk that are considered publicly acceptable.

Soils within the quality classes prescribed in B.C.'s soil quality criteria may be subject to soil deposit and removal control by local governments. Local governments have authority to regulate deposit and removal of such soils pursuant to the Municipal Act and the Vancouver Charter.

The B.C. soil quality criteria were drawn from guidelines and criteria currently in use in other jurisdictions across Canada, the United States and Europe. The Canadian Council of Ministers of the Environment (CCME) has recently established soil quality criteria as a basis for the national contaminated sites remediation program (Appendix E, which is not included in this publication).

The CCME criteria parallel closely B.C.'s soils quality criteria and are expected to be harmonized and reflected in provincial legislation. The CCME criteria relate the numerical concentration criteria to land uses as shown in Table A-2 "Interim Remediation Criteria for Soil" (Appendix E, not included in this publication).

Officials from the Ministry of Environment, Lands and Parks assured the task force that B.C.'s soil quality criteria are being, and will continue to be, assessed and that they will be modified as required to reflect the emerging body of scientific knowledge and data relevant to the environment and human health.

According to the CCME, the existing criteria "provide a working set of values that have already been used in some jurisdictions in Canada and appear to provide an adequate degree of human and environmental protection based on experience and professional judgment" (Appendix E, not included in this publication). The task force did not assess the scientific appropriateness of the B.C. soil quality criteria.

The health professionals on the task force, and health advisors to the task force, indicated that the control of soils based on the current B.C. soil quality criteria exceeds the requirements for public health protection. They indicated concern that controlling the levels of soil contaminants to these standards will place an enormous burden of cost on public and private enterprises with little additional protection to human health. They suggest that many areas of British Columbia are currently built on land that would not meet the standards. The Minister should be aware of the concerns of these members when considering this report.

The review and consultation process involved in selection of the soil quality criteria by Environment, Lands and Parks is documented in Appendix F, which is not included in this publication. A parallel review undertaken by CCME is documented in "Review and Recommendations for Interim Canadian Environmental Quality Criteria for Contaminated Sites" by Angus Environmental Limited (1991).

It is the opinion of the task force that considerable confusion surrounds the application of the B.C. soil quality criteria which, when coupled with the criteria having no legal force, causes great uncertainty.

In the existing unregulated environment, some municipalities have exercised the authority vested in them in the Municipal Act to control soil movement and deposition within their boundaries. They have done this through the development and enforcement of bylaws. Many of the by-laws impose management criteria which are more stringent than the B.C. soil quality criteria. This has resulted in a patchwork approach to soil administration. In the absence of any regulatory provincial standards or legislative framework, this will continue.

Several other factors also act to complicate the management of quality-impaired soils in British Columbia. A few of these factors are identified below:

- the scientific/technical basis of the soil management criteria are not well understood;
- the authority to regulate soils on the basis of quality has not been clear;
- provincially-regulated disposal, remediation and treatment sites for poor-quality soils are essentially unavailable;
- in absence of the B.C. soil quality criteria being legislated, municipalities may be assuming liability by establishing soil criteria in by-laws;
- municipalities have been provided no protection regarding liability associated with municipal approval and permitting requirements where impaired-quality soils are concerned;
- municipalities are also concerned about liability arising from quality-impaired soils relative to municipal lands such as those dedicated as part of developments, streets and other such lands; and
- property owners have been placed in difficult positions through regulatory uncertainty which also endangers project financing.

The understanding of the soils management issues gained by the task force in a relatively short time is the result of significant effort on the part of stakeholders, and underscores their concern. To this end, the Task Force has made several broad recommendations that it feels must be addressed. These recommendations form only the preliminary basis of a resolution to difficult soil quality issues.

III. RECOMMENDATIONS:

1. (i) the Province conduct a final public review of the B.C. soil quality criteria;
- (ii) once B.C. soil quality criteria are reviewed, they be referenced in legislation;
- (iii) the B.C. soil quality legislation, when established, provide that municipalities utilizing the B.C. soil quality criteria and conforming to their intent be:
 - granted authority to require soil quality "comfort" letters as part of their land development process,
 - granted authority to require certificates of compliance from the Ministry of Environment, Lands and Parks with respect to remediation of sites with quality impaired soils, and

- be granted personal and corporate liability exclusions for issuance of any permit or approval when the local government has relied on a letter of comfort or certificate of compliance in the development of redevelopment of the site.
 - (iv) The B.C. soil quality legislation, when established, be subject to an ongoing scientific/technical review by environmental and public health agencies, professionals, academics and other stakeholders, which provides adequate opportunities for public consultation.
2. In order to discourage the continued furtive dumping of soils, that within one month, a letter be delivered to all local governments, jointly signed by the Minister of Environment, Lands and Parks, the Minister of Municipal Affairs, Recreation and Housing, and the Minister of Health, setting out the proposed regulatory framework. The letter should:
- (i) state that the B.C. soil quality criteria will be encompassed in regulation in the immediate future and that in the meantime, the Ministry of Environment, Lands and Parks, and the Ministry of Municipal Affairs, Recreation and Housing will devise policies and procedures to facilitate the management of soils;
 - (ii) advise of upcoming consultation opportunities with the Ministry of Environment, Lands and Parks respecting the implementation of the B.C. soil quality criteria (Recommendation 3);
 - (iii) advise of the pending availability of guidelines for drafting municipal by-laws respecting soil removal/deposit (Recommendation 4);
 - (iv) request that those municipalities who have existing bylaws amend them to reflect the intended use of the B.C. soil quality criteria and include provisions to require letters of comfort and certificates of compliance; and
 - (v) request that those municipalities wishing to pass soil removal and deposit by-laws base them on the intended use of the B.C. soil quality criteria and include provisions to require letters of comfort and certificates of compliance.
3. Within two months, a communication strategy be implemented by the Ministry of Environment, Lands and Parks which supports acceptance of the task force's recommendations by local governments.
4. Within two months, a guidelines for drafting a municipal soil removal/deposit bylaw be developed jointly by the Ministry Of Environment, Lands & Parks and the Ministry of Municipal Affairs, Recreation and Housing.

5. In addition, whereas the task force recognizes a province-wide urgent issue respecting the treatment and disposal of soil impaired to the extent that it is a "waste" or "special waste", it further recommends that the Ministry of Environment, Lands and Parks, in consultation with local governments, develop a framework to commence siting of appropriate facility(ies) to store or remediate poor quality soils and establish approved methods for remediation of waste or special waste at the site where such waste is located or stored.

The Task Force further recommends that such facility(ies) siting:

- (i) be subject to an environmental impact assessment;
- (ii) meet all provincial and local government requirements to ensure the protection of the environment and human health; and
- (iii) be sited and developed in consultation with the community.

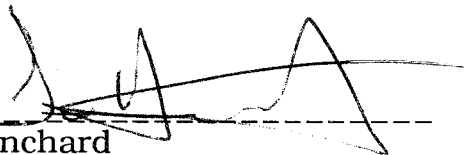
This Report to the Minister of Environment, Lands and Parks is presented on this 3rd day of March, 1992 by:



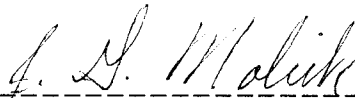
Mr. Ernie Olson, Burnaby
CHAIRMAN, SOILS MANAGEMENT
TASK FORCE



Mr. David Driscoll,
Mayor, Port Moody



Mr. Ivan Hanchard
President, B.C. Roadbuilders and Heavy
Construction Association



Dr. Jim Malick
Chairman, Environment Committee
Urban Development Institute



Dr. Nelson Ames
Medical Health Officer
Central Kootenay Health Unit



Dr. John Blatherwick
Medical Health Officer
City of Vancouver

APPENDIX "A"

- 1. Membership of the B.C. Soil Management Task Force (attached)**
- 2. Terms of Reference for Task Force (attached)**
- 3. Press Releases Announcing Task Force**

Appendix "A"

1. Membership of B.C. Soil Management Task Force:

CHAIRMAN

Ernie Olson, now retired
*Municipal Manager,
Burnaby*

MEMBERS:

David Driscoll
*Mayor,
Port Moody*

Ivan Hanchard
*President,
B.C. Roadbuilders*

Dr. Jim Malick
*Chairman,
Environmental Committee,
Urban Development Institute*

Dr. Nelson Ames
*Medical Health Officer,
Central Kootenay Health Unit*

Dr. John Blatherwick
*Medical Health Officer,
City of Vancouver*

October 16, 1991

Provincial Soil Management Task Force

Terms of Reference

Mandate

Advise the Minister, local government, and a range of (client) interest groups on environmentally safe management of soils across the province.

Scope of Work

- Develop and implement a short-term plan to manage the transition period for dealing with soil quality issues until a long-term implementation strategy is in place.
- Identify and respond to concerns of local government and industry with respect to management of soil quality and other issues.
- Communicate to all interested parties intended provincial standards and procedures for classifying and managing soil quality.
- Provide practical advice to local government and the private sector on managing specific soil quality problems.
- Advise local government on generic by-laws suitable for use by all municipalities and that are harmonized with intended national and provincial soil quality standards.
- To liaise with Ministry of Environment staff regarding the development of new legislation and regulations required to manage soil quality.
- Regularly communicate and, where justified, to meet with client groups during the course of the Task Force's mandate.
- Prepare a final report to Ministry of Environment recommending a long-term implementation strategy for managing soil quality across the province.

Membership

- UBCM and local government.
- Public health officials.
- Construction Association.
- Urban Development Institute.
- Ministry of Environment will be an ex-officio member of the Task Force.

The Task Force will select its own Chairman.

The Task Force will identify resource people in a range of interest groups to assist it in its work. These contacts could include but not be limited to the following:

- Ministry of Health
- Ministry of Municipal Affairs, Recreation and Culture
- Environment Canada
- Private Sector
 - Canadian Petroleum Products Institute
 - Mining Association of B.C.
 - Council of Forest Industries
 - Business Council of B.C.
- Local Government officials across the province
- Environmental groups
 - West Coast Law Association
 - B.C. Environmental Network
- Financial institutions
 - insurance industry
 - financial lending institutions
- Hazardous Waste Management Corporation.

Resources

- The Task Force Chairman will be expected to allocate considerable time to the work of the Task Force.
- Ministry of Environment will provide resource back-up.
- Task Force members, both individually and collectively, will be expected to meet with interest groups and resource persons during their mandate.

Timing and Reporting

The Task Force will have an initial mandate of three months and will report to the Ministry of Environment.

RELEASED BY: Minister's Office
387-5202

August 23, 1991

1991:132

SOIL MANAGEMENT TASK FORCE TO BE ESTABLISHED

Environment Minister Dave Mercier today announced that he is establishing a Soil Management Task Force to advise the ministry and municipalities on the environmentally-safe management of soil across the province.

"The recent growth in British Columbia's population has increased the demand for the development and redevelopment of land," said Mercier. "Some municipalities are working independently to ensure safe soil management, but there is a need to coordinate these activities on a province-wide basis."

"We would like to form a partnership between the provincial government, municipalities and industry so that we can tackle soil quality and disposal issues cooperatively."

The provincial government and municipalities already share the responsibility for environmental protection in areas such as waste management planning and air quality. Forming partnerships with local governments is a key component in the recently-released Environment 2001 document that charts future directions for protection of B.C.'s environment.

The task force will consist of representatives from local governments, including the Union of British Columbia Municipalities, health officials, soil experts and industry. It will be chaired by B.C. Environment. Its mandate will include developing long-term practical solutions to assist municipalities on soil quality management. However, provision will be made to allow the task force to respond immediately to decisions on soil classification and management, where necessary.

.../2



2/...SOIL MANAGEMENT TASK FORCE TO BE ESTABLISHED

The role of the task force is to:

- **Advise the ministry of municipal concerns about soil quality standards**
- **provide independent technical advice to municipalities on the level of environmental risk associated with soils classification and management;**
- **help local government determine perceived risks as opposed to scientifically-based risks;**
- **meet with local councils to explain provincial soil-quality standards and plan for dealing with problem sites;**
- **develop a generic municipal by-law, that is compatible with provincial standards, for use by local governments;**
- **provide practical advice to the private sector and local governments on managing soil quality;**
- **develop a brochure on soil-quality standards, environmental safety, and treatment options for potentially hazardous materials; and,**
- **consult with public groups concerned about the environment.**

The Soil Management Task Force will report back to the ministry within a three-month period.

“Following the work of the task force, an improved, province-wide soil quality program can be implemented with the full support of all the groups involved,” said Mercier.

-30-

CONTACT:

**Jon O’Riordan
Assistant Deputy Minister
Environmental Management Department
B.C. Environment
Victoria, B.C.
(604) 387-9877**

RELEASED BY: Minister's Office
387-5202

September 19, 1991

1991:139

MEMBERS OF SOIL MANAGEMENT TASK FORCE ANNOUNCED

Environment Minister Dave Mercier today announced the members of the Soil Management Task Force. The task force will advise the ministry and municipalities on the environmentally safe management of soils.

"The members represent an excellent cross-section of people who are keenly interested in soil management issues across the province," said Mercier.

Following are the members of the task force:

- **David Driscoll** has been mayor of the City of Port Moody for the past eight years and an active community member all his life. A sociologist trained in land issues and social structure, Driscoll is currently a Director at Large of the Union of B.C. Municipalities where he sits as Chairman of the Environment Committee.
- **Ernie Olson**, a civil engineer, has worked for the District of Burnaby for 30 years—the last two in the position of Municipal Manager. Olson has amassed extensive experience in water and soil management.
- **Ivan Hanchard** is President of the B.C. Roadbuilders and Heavy Construction Association and is active in the Business Council of B.C., the Western Roadbuilders Association, the Canadian Construction Association, and the Vancouver Institute.

.../2



2/...MEMBERS OF SOIL MANAGEMENT TASK FORCE ANNOUNCED

- **Dr. Jim Malick**, who holds a Ph.D in Ecology, is Chairman of the Environment Committee for the Urban Development Institute. Dr. Malick is also President of Norecol Environmental Management Ltd., a consulting firm that deals with waste management issues—which includes soil.
- **Dr. Nelson Ames** is Medical Health Officer for the Central Kootenay Health Unit in Castlegar. Dr. Ames is a member of the Trail Lead Task Force that was formed to address childhood lead exposure in Trail.
- **Dr. John Blatherwick**, who attained a fellowship in public health in 1976, has been Medical Health Officer for the City of Vancouver since 1984. Dr. Blatherwick currently sits on the Pacific Place Advisory Committee, and has chaired the City of Vancouver's Contaminated Soil Committee for the past three years.

"The task force is an important step in building partnerships with business, other agencies and local governments," said Mercier.

The task force will select a chairperson at its inaugural meeting this Friday, Sept. 20. The task force will be working with additional resource people from local governments and the private sector around the province to assist it in carrying out its mandate.

The task force will report back to the minister within three months.

-30-

CONTACT:

Dr. Jon O'Riordan
Assistant Deputy Minister
Environmental Management Department
B.C. Environment
Victoria, B.C.
(604) 387-9877