

Waste Management Act Review

Discussion Paper #1

AUTHORIZATION OF WASTE DISCHARGE

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Preface

As part of the Government's New Era commitment to ensuring sound environmental protection and economic prosperity, the Ministry of Water, Land and Air Protection has initiated a comprehensive review of the *Waste Management Act*. The review is intended to:

- Establish a scientifically based, principled approach to environmental management that ensures sustainability, accountability and responsibility.
- Implement a streamlined, results-oriented regulatory framework to protect human health and the environment.
- Address the degree of unnecessary regulatory burden imposed by existing legislation.

This review will be conducted in accordance with an overall plan outlined in the project backgrounder that is published at:

http://wlapwww.gov.bc.ca/epd/waste_mgt_review/index.html.

The plan contemplates the preparation of several discussion papers on topics of interest, and a process for public and stakeholder consultation.

This paper focuses on the authorization processes for waste discharges and related matters. It has been prepared by Robin Junger, Barrister and Solicitor for discussion purposes only. The analysis and comments in the paper do not necessarily reflect the positions of the ministry, and they must not be taken as constituting legal advice to any person.

Interested persons and organizations are encouraged to provide comments on this discussion paper including, but not limited to, the specific consultation questions noted in the paper. Comments must be provided by November 4, 2002 to:

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1 Executive Summary

This paper is intended to facilitate discussions concerning a review of the *Waste Management Act*. It focuses on the regulatory provisions that govern the discharge of waste in British Columbia, and the authorization of such waste discharges. The paper reviews concerns that have been identified with the present system in British Columbia, and considers potential options to address them. In doing so, it draws upon comparative analysis with other jurisdictions in Canada, the United States and Europe, and draws heavily upon a major review under taken in Ontario in 2001 regarding environmental management generally.

The *Waste Management Act* presently requires all businesses that discharge waste in the course of their activities to have some authorization to do so. Most such businesses are authorized by way of a site-specific permit, and a significant number are also authorized by regulations concerning specific activities. There are presently 35 regulations under the *Waste Management Act*, and approximately 3,000 sites specific permits.

The *Waste Management Act* is 20 years old, and some criticisms have been expressed about its approach to regulating waste discharge. It is necessary therefore to review the present approaches to ensure that the *Waste Management Act* sufficiently reflects creative approaches and new regulatory tools that might be of benefit to both business and the environment. This includes consideration of matters such as performance-based management, increased use of partnerships, and increased regulatory responsiveness.

Some of the specific concerns that have been identified relative to the *Waste Management Act*, and some options that may be considered to address them, include the following:

- The Act does not sufficiently differentiate between low, medium or high risk activities. In this regard, it may be useful to consider the use of a tiered approach to waste management authorizations based on level of environmental risk, as has been done in Alberta and Nova Scotia. Such an approach would continue to require permits for high risk sites. Other sites could be authorized through use of sector-specific codes of conduct, or through a final category that would simply require businesses to notify the ministry of their actions and to avoid causing “pollution” as defined in the Act.
- The Act requires considerable resources to administer and it results in application backlogs. This is due primarily to the information and procedural requirements associated with processing permit applications, including application of the public notification regulation to all permits. These concerns might be addressed through various means including limiting the number of discharges regulated by site-specific permits through a tiered approach to authorizations, streamlining application processes (for example through web-based service delivery), simplification of the public notification requirements and increased delegation of authority to for certain matters to local governments or professional organizations
- The Act focuses on site-specific activities without adequate regard for cumulative impact. One of the concepts presently being used or considered in other jurisdictions (and in BC in other contexts) is the notion of “area-based” planning. This can take different forms but, in general, would allow different areas to be designated according to criteria such as assimilative capacity, geographical attributes and environmental sensitivity. These areas could be treated differently for the purposes of waste management discharge authorizations. Area based planning often involves community based consultations and multi-stakeholder processes.
- The Act is not sufficiently responsive to environmental knowledge and business innovation. Other jurisdictions, including Alberta, Nova Scotia and Ontario have

recently taken various steps to ensure their legislation embraces modern regulatory tools to provide environmental protection that is modern and responsive. This can include use of economic instruments which rely upon incentives and creative partnerships to achieve environmental management objectives, regulatory tools specifically dealing with greenhouse gas management (particularly in provinces such as Ontario and the state of Oregon), use of contracts and covenants as a basis for partnership and problem solving between government, industry and communities (based primarily on the example of the Netherlands), and increased reliance on ministerial authority to make or amend regulations rather than requiring cabinet approval for all such changes.

- The fee structure in the Act requires review. Different views have been taken on whether the fees for waste discharge are sufficiently high to significantly influence behaviour, or whether they are appropriate having regard to the cost of administering permit applications. Different jurisdictions take different approaches to waste fee regulations respecting waste management and it may be useful to review these. This is particularly true if changes are to be made to the regulatory regime concerning authorizations generally.

Based on a review of the research and practices of other jurisdictions, a number of consultation questions have been identified for the purposes of this discussion paper. These are as follows:

1. Is the tiered approach to waste management authorizations preferable to the approach presently used in British Columbia? What do you consider to be the relative strengths and weaknesses of the approaches? Should other options be pursued?
2. If a tiered approach is pursued, are the three categories proposed above the most effective and efficient? How should the ministry determine which specific

- businesses and activities should fall within the categories? What mechanisms should exist to move individual businesses or sectors between categories?
3. What changes, if any, should be made to the permit approval process to maximize efficiency while ensuring appropriate environmental protection?
 4. Should the public notice requirements be modified to require a level of notice commensurate with the level of risk of environmental harm? If a tiered approach to authorizations is pursued, should the public notification requirements apply only to applications concerning permits?
 5. Should the *Waste Management Act* be amended to provide for area-based planning?
 6. If so, what legal relationship should such plans have to existing activities authorized under the *Waste Management Act*? How should areas be designated? How should plans be developed and approved?
 7. Should the *Waste Management Act* be amended to specifically enable the use of economic instruments (such as section 13 of the Alberta *Environmental Protection and Enhancement Act*)
 8. Should the *Waste Management Act* be amended to better or more clearly enable regulation of monitoring, reporting and restricting of greenhouse gas emissions? If so, what changes should be made?
 9. Should the *Waste Management Act* be amended to specifically contemplate the use of contracts and covenants as alternative or supplementary tools of environmental management? If so, what provision should be made in the Act to ensure that their relationship to the other provisions of the act, regulations and

permits is clear, and that the necessary public accountability occurs in the development and use of such instruments?

10. Should the *Waste Management Act* be amended to provide the minister with the power to make certain types of regulations or related authorizations regarding waste discharge? If so, what should be the extent of the minister's powers relative to the Lieutenant Governor in Council?

11. Should changes be made to the waste discharge fee system established under the *Waste Management Act*? If so, what types of changes should be considered?

2 Introduction

The Ministry of Water, Land and Air Protection has initiated a comprehensive review of the *Waste Management Act*. A detailed background of the review is posted on the internet at: http://wlapwww.gov.bc.ca/epd/waste_mgt_review/index.html.

This paper is one in a series of discussion papers being prepared to facilitate public comment on substantive issues considered in the review. The paper focuses on the regulatory provisions that govern the discharge of waste in British Columbia. It reviews concerns that have been identified with the present system and discusses some of the potential options that may be considered to address those concerns.

In considering potential options for reforms, the discussion paper draws upon analysis and options that have been considered in other jurisdictions. These include Alberta, which in 1992 significantly revised its waste management regulatory regime to reflect new thinking in environmental management; and Ontario, which in 2001 completed a major and comprehensive study of best practices for environmental management (the “Best Practices Review”).¹ This 329-page study comprehensively reviewed strategic shifts and best practice in various jurisdictions in Canada, the United States, Europe and Australia. It draws upon 13 detailed background papers that were prepared as part of the review.

The options discussed in this paper are consistent with the strategic shifts set out in the Ministry of Water, Land and Air Protection’s 2002/2003 – 2004/2005 Service Plan.²

3 Present system for authorization of waste discharge in BC

3.1 Basic prohibitions

The key section for regulation of waste and pollution under the *Waste Management Act* is section 3. Subsections (2) and (3) prohibit the introduction of waste into the environment during the course of an industry or business, or from any other activity prescribed in the regulations. The term “waste” includes:

- (a) air contaminants,³
- (b) litter,
- (c) effluent,⁴
- (d) refuse,⁵
- (e) biomedical waste⁶,
- (f) special wastes⁷, and
- (g) any other substance designated by the Lieutenant Governor in Council,

whether or not the type of waste referred to in paragraphs (a) to (f) or designated under paragraph (g) has any commercial value or is capable of being used for a useful purpose;

In addition, subsection (4) prohibits the introduction of waste into the environment in such a manner or quantity as to cause “pollution”. The term “pollution” is defined to mean:

the presence in the environment of substances or contaminants that substantially alter or impair the usefulness of the environment

This is a general prohibition that overarches all activities. It is not limited to the business and industries that are subject to the waste discharge prohibitions in sections 3(2) and 3(3) (discussed above).

3.2 Exemptions

It is important to note that the strict prohibitions set out in sections 3(2) to 3(4) of the *Waste Management Act* are subject to exemptions. The types of exemptions permitted are set out in section 3(5), and include any activity that is undertaken in accordance with a permit, approval, order, regulation or waste management plan approved by the minister.

There are presently 35 regulations that exempt specified activities from the prohibitions set out in section 3 (see appendix 1 for a list of regulations). In addition, there are at this time approximately 3,000 site-specific permits issued in B.C., to more than 2000 different permit holders.

For the majority of business and industry discharging waste in BC this means that they must either apply for a permit or approval, or comply with a specific regulation governing their type of business or industry in order to not be in contravention of sections 3(2) to 3(3) of the Act. In addition, a business or industry would be required to remit waste management permit fees on an annual basis for most authorizations.

4 Concerns that have been identified with the present system

The approach set out in the *Waste Management Act* is similar to that which had been taken in other Canadian provinces. However, the act is now twenty years old, and some criticisms have been expressed about its approach to regulating waste discharge, and whether it sufficiently contemplates creative approaches and partnerships that might provide mutual gain for both businesses and the environment.

The Ontario Best Practices Review notes that, while the traditional focus on issuing authorizations and enforcing compliance has been a significant contribution to environmental management, it is a *first-generation* environmental management strategy.

The Review goes on to state:

The current leading thinking is that our complex environmental problems require more collective solutions including broader participation, changes in behaviour, and cooperation among all stakeholders and across jurisdictions – what Kettl refers to as *second generation* environmental strategies. These more evolved strategies go beyond government dictating what industry must do within a command and control model.

The emerging direction is much more *performance*-based, rather than *rules*-based, with a greater emphasis on government's role to set outcomes and then work with the regulated community to determine how best to meet them, including:

- More emphasis on partnerships with industry sectors, NGOs, and communities.

- Greater emphasis on innovation and flexibility as long as the performance goals are being met, including more cooperative agreements, streamlined processes, multimedia permits, and emissions trading just to name a few.
- More emphasis on compliance assistance to help firms comply with regulation. This approach arises from an improved understanding of why firms fail to comply with regulations. Consistent factors in non-compliance include: ignorance of regulatory requirements, inadequate knowledge in the organization of its own operations, poor internal environmental management systems, and an inadequate internal capacity to comply. Many jurisdictions, including the US, Australia, and Canada, have introduced substantial compliance assistance programs aimed at information, training, and providing technical assistance.
- Finally, there is also much greater emphasis on applying this range of flexible tools to deal more directly and effectively with non-point source emissions. (p. 28-29)

The above comments certainly have some relevance to review of the *Waste Management Act* in British Columbia, and it is clear that a new generation of environmental management ideas warrant serious consideration. Considerable discussion has already occurred or is occurring in BC. For example, pilot projects have been developed with six companies regarding pollution prevention planning. These voluntary projects involved various stakeholders, and led to the development of a Pollution Prevention Planning Implementation Advisory Committee.⁸

At the same time, it is important not to oversimplify the approach taken in the *Waste Management Act*, or to overstate the inadequacies that may exist at present. For example, while the *Waste Management Act* and Regulations impose rules that may affect business practice (command and control), they do not generally tell business *how* to achieve specific goals. Rather, in many cases the regulations simply specify an outcome that must be achieved, such as a limited concentration of emissions at the end of a pipe. In those cases, it is left to the business to determine how that can be best achieved. This is, for example, the approach taken in the *Land Based Fin Fish Waste Control Regulation* for facilities that seek exemption from the *Waste Management Act* by compliance with that regulation.⁹ Similarly, in the context of permits, most do not specify precisely *how* a given result is to be achieved, although this may be the case in some instances where ministry staff determine that such is necessary to ensure environmental protection.

Much of the literature and the Ontario Best Practices Review recommend a move from prescriptive regulatory requirements to performance-based standards. It should however be noted that the differences between prescriptive regulatory requirements and performance-based standards are not always easy to identify, nor is it clear that one approach is to be preferred over the other in all cases. For example, a specific and very prescriptive “end-of-pipe” emission limitation may be seen as performance-based, in that it leaves business with considerable discretion to determine *how* to achieve the resulting requirement. A broader understanding of “performance-based” standards might apply to regulations that do not specify end-of-pipe emission standards, but rather focus on the effect on ambient air or water quality in a given area. Whatever approach one takes to defining “performance-based” standards, it must also be noted that it is not likely to be preferred in *all* cases. Rather, some businesses may find it much more efficient and effective to have clear rules of specified conduct that, if met, will ensure they are in compliance with the act, without any need for detailed monitoring and assessments or frequent changes to operational processes.

All of this is to suggest that there is not likely to be one simple answer to how waste management should be regulated, or how the *Waste Management Act* should be reformed. Rather, it will require a considered assessment of the many tools available and steps to ensure that the right tool is matched to the right situation – for the benefit of both the environment and the economy. In that regard, it is necessary to turn to consideration of some of the specific problems that have been identified to date and some of the options that might be available to address them, particularly in light of approaches and options being considered in other jurisdictions.

4.1 Does not sufficiently differentiate between low, medium or high risk activities

Although there are numerous different regulations authorizing waste discharge in BC, there are still a large number of businesses that do not fall within one of the exemptions provided by regulation. In BC, all such businesses require a site-specific permit or

approval - even if the activities they are engaged in pose low or medium risk to the environment. At the present time, there are approximately 3400 permits issued. In addition, the ministry estimates that there are in excess of 6,000 other businesses that are discharging waste without an appropriate permit, concerning matters such as kennels, laundromats and dry cleaners, metal working shops, cooling water etc.

The requirement for a large number of businesses to obtain permits is consistent with the approach that has been traditionally taken by most other Canadian jurisdictions over the years. However, since 1992 Alberta has made changes to its regulatory regime to modify this basic rule. Rather than simply prohibiting the deposit of all waste and then using large numbers of permits or regulatory exemptions, Alberta designates specific activities for which requirements are imposed. If an activity is not designated then there is no need for any authorization with respect to waste discharge, provided it does not cause an “adverse effect” on the environment.¹⁰

Within the various activities that are regulated, Alberta differentiates them according to the degree of risk they pose, and applies varying degrees of regulatory requirements in respect of each of three categories of activities:

Site-specific approvals¹¹ – These are required for facilities and activities that have a significant potential for environmental harm. These include facilities such as waste treatment facilities, chemical manufacturing or storage facilities, petrochemical manufacturing plants, power plants, etc. The approvals are similar to permits issued under the *Waste Management Act*.

Registrations¹² – Some activities are specified as requiring “registration”. Registered activities must comply with a code of practice where that has been developed in accordance with an established protocol¹³ and effected by way of regulation. To date, 15 codes of practice have been developed, dealing with the following matters or activities:

-
- Asphalt paving plants
 - Composting facilities
 - Compressor and pumping stations and sweet gas processing plants
 - Concrete producing plants
 - Exploration operations
 - Foundries
 - Hydrologic tracing analysis studies
 - Landfills
 - Oil production sites
 - Pesticides
 - Small fish farms and fish processing plants
 - Meat processing plants
 - Small vegetable processing plants
 - Tanker truck washing facilities
 - Release of hydrostatic test water from hydrostatic testing of petroleum liquid and gas pipelines¹⁴

The number of registrations under each code of practice varies, from a limited number to over 1,000, depending on the code of practice in question.

Notice¹⁵ - A further category of activities is authorized by simply giving the ministry notice of the activity in question. This applies to the construction, operation or reclamation of certain types of compost facilities and waste storage sites.

In deciding which category a particular activity should fall under, Alberta Environment officials indicate that they considered the following factors:

- Whether the activity constituted a minor source of discharges overall
- Whether the activity had significant potential for environmental harm

- Whether approvals previously granted in respect of that activity were generally consistent (other than location)
- Whether there was a significant degree of public concern with respect to the activity (including a significant number of appeals of such decisions)
- Whether the ministry officials considered there to be value added to review of approval applications (i.e. did this allow them to identify potential concerns that would not have been addressed without a site specific review)

Based on these considerations, Alberta Environment officials prepared a proposed breakdown of activities and undertook consultation with industry, non-governmental environmental organizations and other interested parties. They indicated that there was general support for their approach, as all parties agreed that it was appropriate for the government to allocate limited resources as effectively and efficiently as possible.

The Ontario Best Practices review describes Alberta's tiered approach as "noteworthy" and a means by which to improve the efficiency and effectiveness of the traditional approach, particularly as it relates to industry sectors that are often difficult and costly to administer under the traditional approval system.¹⁶ It recommends it be pursued as part of a "more strategic approach to environmental approvals" in concert with appropriate public and stakeholder consultation.¹⁷ Similarly, a June 2000 study entitled "An Evaluation of Alternative & Innovative Regulatory Approaches for Environmental Management in Alberta" interviewed industries, environmental non-government organizations and provincial government staff, and noted:

A set of four initial general questions was used at the beginning of the interview to evaluate the current regulatory system and its administration by AENV. The comments for each question are summarized individually in the sections below.

The specific questions were:

1. Generally, do approvals focus on the key environmental issues?
2. Does the current system achieve the objectives of environmental protection and pollution control?

3. Is the system cost effective for obtaining an approval and for maintaining one?

4. Do you consider the current approval and monitoring reasonable and appropriate?

Overall the current system received very favourable rating from all of the groups interviewed.¹⁸

The BC and Alberta approach differ in their initial starting position. The BC legislation operates on the premise that *all* waste discharge in the course of a business should be subject to a broad initial prohibition, but that a large number of exemptions should be made thereafter. The Alberta legislation starts from the assumption that only “designated” activities should require some form of authorization, and all other activities are simply subject to the requirement not to cause an “adverse effect” on the environment. This is similar to the prohibition against polluting in section 3(4) of the BC *Waste Management Act*. This aspect of the Alberta model is used in Nova Scotia, which amended its legislation in 1994.¹⁹

Use of some type of a tiered approach may also be appropriate in British Columbia, if it could minimize regulatory expense and burden, while ensuring appropriate oversight commensurate with the environmental risk posed. While there are various ways in which the categories could be broken down, it might be appropriate to consider something along the following lines:

Site-specific permits or approvals - Higher risk activities could continue to require a site-specific permit or approval, and potentially other regulatory requirements as well.²⁰ This would occur by specific designation of business activity. Examples might include aluminum smelters, refineries and metal ore mining. In addition, the act could provide that the minister (or a delegate) would have the authority to require any other individual or specific business to obtain a site specific permit if the circumstances warranted such (for example, based on repeated non-compliance with the provisions of other categories, discussed below).

Codes of practice – For medium-risk activities or businesses that are engaged in by a number of parties, performance based standards and / or operational requirements could

be developed to apply specifically to that type of business or activity. This would be similar to the approach present taken in the *Agricultural Waste Control Regulation*, which adopts a Code of Agricultural Practice for Waste Management. These rules could be adopted by ministerial or Cabinet regulation, and site-specific permits or approvals could not be required. However, registration would be required and provisions could be made for monitoring and audits as appropriate.

Notification only – All other business activities presently that discharge waste (which presently require permits under the *Waste Management Act*) could fall into this residual category. No specific waste management standards would be prescribed for these businesses, but they could be required to ensure that they do not engage in conduct that would constitute “pollution” as defined in the Act. They would also be required to notify the ministry of their operations, and be subject to periodic inspections or audits.

The notification category would be premised upon the basic requirement to not pollute, as set out in section 3(4) of the Act (see section 3.1 above). While this is similar to the approach that has been taken in Alberta, it would represent a relatively significant departure from the approach presently used in B.C. This raises some important issues that would require consideration. For example,

- The basic requirement to not pollute is a truly performance-based standard that may be preferred by some business to specific discharge limitations or prescriptive rules. On the other hand, some businesses may feel that reliance on the rather general definition of pollution does not provide the certainty they require to know what waste discharge is or is not permissible.

This concern could be addressed somewhat through the development of general guidelines that could be used to help identify the types and quantities of emissions that might be considered to cause pollution. These guidelines could be developed in partnership with industries and could be easily amended as necessary. Such concerns

might also be addressed by modifications to the enforcement and sanction regime, such as differentiating between intentional and non-intentional pollution, establishing a clear statutory defence of due diligence, and developing an administrative penalty regime that would provide more expedient but lower level penalties than the court system.²¹

- To successfully prosecute a case of “pollution” it would be necessary satisfy a court that the release of a substance “substantially alter[ed] or impair[ed] the usefulness of the environment”. This may be more difficult to do than proving responsibility for discharge beyond a level or concentration specified in a permit.

On the other hand, high-risk activities would still be subject to permit requirement and thus enforcement action could be taken in respect of them, if necessary, without proving “pollution”. Even with respect to activities that may generally be regarded as low to medium risk, the ministry has in the past been able to successfully prosecute people for pollution where significant environmental harm been shown. Finally, as noted above, such concerns might also be addressed by differentiating between intentional and non-intentional pollution, establishing a clear statutory defence of due diligence, and developing an administrative penalty regime that would provide more expedient but lower level penalties than the court system.

- Reliance on the prohibition against pollution would leave considerable discretion to enforcement officials. In one sense, this may be seen as positive in that it leaves discretion to deal with individual cases as appropriate, having regard to their actual effect on the environment. On the other hand, unduly broad discretion can raise concerns regarding consistency of application.

This concern might be addressed through the development of ministry policies that focus on education and securing cooperative compliance before resorting to enforcement action. It could also be tempered by use of specific guidelines to help

identify the types and concentrations of emissions that might generally be considered to cause pollution (as noted above), and by limitations on penalties for non-intentional pollution or a clear statutory defence of due diligence.

Overall, the approach outlined above would not alter the range of activities covered by the Act, and it would result in regulatory changes only for some types of businesses. Some would continue to require site specific permits, and some that presently operate under rules developed for a specific business sector would likely continue to do so (see, for example, the *Oil and Gas Waste Regulation* or the *Mushroom Composting Pollution Prevention Regulation*). However, for a significant number of businesses, it could result in a shift of from the requirement for a site-specific permit to one of the other two categories discussed.

The main difference between the approach discussed above and the Alberta model is that the third category would be a residual one. It would apply to all businesses that discharge waste that are not specifically designated as falling within one of the first two categories, (whereas in Alberta, only activities specifically listed fall within this category). This approach would ensure that the ministry remains aware of all businesses that discharge waste, thus enhancing the ministry's ability to ensure individual accountability and to monitor cumulative environmental impacts across regions and sectors. It would also provide a practical means of bringing the low-risk business that are presently discharging waste without permits into the fold of regulatory compliance.

If such an approach were adopted fees could be differentiated among the categories to reflect environmental risk and costs of administration.

Consultation Questions:

1. Is the tiered approach to waste management authorizations preferable to the approach presently used in British Columbia? What do you consider to be the

- relative strengths and weaknesses of the approaches? Should other options be pursued?
2. If a tiered approach is pursued, are the three categories proposed above the most effective and efficient? How should the ministry determine which specific businesses and activities should fall within the categories? What mechanisms should exist to move individual businesses or sectors between categories?

4.2 Requires considerable resources to administer and results in application backlogs

The existing authorization regime relies heavily on site-specific permits, of which approximately 3,400 presently exist. The application and approval system for these types of authorizations is often time consuming and resource intensive, for both the applicants and the ministry.

Where an applicant wishes to receive a permit, they must complete a form specified by the manager, and must indicate:²²

- the name, address and postal code of the applicant;
- a clear description of the source and location of the waste, including any commonly known name of the plant, operation or storage facility;
- if applicable, the legal description of the land or the premises where the plant, operation or source and treatment works are or will be located;
- the legal description of the place where the waste is or will be discharged or emitted or the storage is or will be located;
- a description of the waste in general terms based on the origin or nature of the operation that produced it;
- the characteristics of the waste in specific terms including the content of potential pollution causing substances expressed in metric scientific units;
- the volume of material to be discharged, emitted or stored during a specific time period.

In addition, the applicant must, if requested, provide the manager with:

- particulars concerning the applicant's title to the works and the land on which the waste originates,
- details of the works,
- a description of all lands on which it is proposed to construct the works, and
- information respecting any other matter the manager considers relevant to the application.

Once the application is made, the applicant must also comply with certain public notice requirements. For most permits, this requires:

- Posting the application on site,
- Giving notice to municipalities, regional districts and chairpersons of waste management planning committees,
- Publishing the application in British Columbia Gazette Part I (at the applicant's expense), and
- Publishing the application in local newspaper(s) (at the applicant's expense),

Some types of permit applications may also require posting a billboard, and giving notice to residents and owners of property immediately adjacent to the property under application and within an area specified by a manager.

The investment of time and resources necessary to complete the above noted process may be appropriate and necessary to ensure environmental protection in some cases. However, it is not clear that this approach needs to be taken with activities that have low or medium ability to adversely affect the environment. Failure to distinguish between those sites that require the full permitting process and those that could benefit from another authorization system may have negative impact on the overall effectiveness of the environmental protection regime. Specifically, it may cause undue delays for business, or may divert limited ministry resources from higher risk activities.

Given that limited resources are available to process permit applications, a considerable backlog of applications for permits and amendments has developed. A review done by the ministry in 2001 indicated that there were 507 permit applications that were over one year old, and that 352 of those had been waiting more than three years. A small percentage is in excess of seven years old. While there can be various reasons for extended wait time, such as the need for further information, the existing backlog is generally regarded as not meeting the ministry's client service goals.

One aspect of the permit application and review process that requires considerable resources is the public notification requirement. While all provinces recognize the need for appropriate public notification in appropriate cases, they do not necessarily adopt the specific approach presently undertaken in BC. For example, Ontario has a comprehensive public notification and participation process related to environmental protection, set out in the *Environmental Bill of Rights*. It divides various statutory decision making powers into three classes,²³ and imposes different public notification requirements in respect of each class. All classes require public notification in a central web based "environmental registry". In addition, for class II decisions (the class in which most decisions under the *Environmental Protection Act* fall), the minister must ensure notice is given through one or more the following:

- News release
- Notice through local, regional or provincial news media, such as television, radio, newspapers and magazines
- Door to door flyers
- Signs
- Mailings to members of the public
- Actual notice to community leaders and political representatives
- Actual notice to community organizations, including environmental organizations
- Notice on the registry in addition to the notice required by section 22
- Any other means of notice that would facilitate more informed public participation in decision-making on the proposal²⁴

In Alberta, section 72 of the *Environmental Protection and Enhancement Act* requires public notification only for applications for “approvals”. It does not apply to those activities designated as only requiring a person to register with the ministry or give the ministry notice of the activity. Section 73(3) also provides that the requirement for public notification can be waived if the Director is satisfied that:

- (a) there is an emergency,
- (b) the activity to which the application relates or the proposed amendment, addition, deletion or change is a routine matter within the meaning of the regulations, or
- (c) adequate notice of the subject-matter of the application or the proposed amendment, addition, deletion or change has already been given,

Where notification is required, the regulations provide that the Director may require one or both of:

- publication in a local newspaper, and
- notice to persons in the manner determined by the Director²⁵

Given the concerns that exist with the present BC permit application and public notification system, and the approaches taken in other jurisdictions, a number of options may warrant consideration.

One of the options that can be pursued to address these concerns is use of “tiered” approaches to waste discharge authorizations, as discussed above. This would limit the number of activities that would be subject to the permit application process to relatively higher risk activities, which could in turn limit the number of public notifications required. Public input with respect to low and medium risk sites would rest principally with local governments and land use planning decisions.

Another approach that can be used is to streamline the permit application process itself, including use of web-based client service delivery models. For example, some jurisdictions allow for permit applications and renewals to be made on-line.

A third approach would be to simplify the public notification requirements, particularly in respect of activities that would not pose significant threats to the environment. For example, one may question whether the general requirement to publish applications in the BC Gazette Part I and in local newspapers is necessary for all cases.

A fourth option to address these concerns might be to develop mechanisms that would allow the ministry to delegate permit issuance authority (for certain categories of matters) to other levels of government or qualified professionals.²⁶ Accountability under such regimes could be complemented by measures such as audits, professional disciplinary regimes, and public information. Professional reliance is already utilized to some extent under the *Waste Management Act*, in the context of *Contaminated Site Regulation*.²⁷

These various options are not mutually exclusive.

Consultation Question:

3. What changes, if any, should be made to the permit approval process to maximize efficiency while ensuring appropriate environmental protection?
4. Should the public notice requirements be modified to require a level of notice commensurate with the level of risk of environmental harm? If a tiered approach to authorizations is pursued, should the public notification requirements apply only to applications concerning permits?

4.3 Focuses on site specific activities without adequate regard for cumulative impact

Most of the regulatory activities taken under the *Waste Management Act* focus on site specific issues. There is, generally speaking, no mechanism under the *Waste Management Act* for dealing with situations where pollution control problems come to exist in an area, even if all applicable regulations and permits are being complied with. This might, for example, occur through the cumulative impact of emissions from various specific sites or from a variety of activities that are not necessarily related to site specific operations and emissions (such as automobile emissions). These are sometimes referred to as “point-source” and “non-point source emissions, respectively. In such cases, the ministry would have to rely on the power to amend permits and approvals under section 13 of the *Waste Management Act*²⁸ or environmental protection orders under the *Environment Management Act*.²⁹

One of the concepts discussed to address the cumulative impacts of pollution is “area-based” planning. This concept may take various different forms but, in general, would allow different areas to be designated, according to criteria such as assimilative capacity, geographical attributes and environmental sensitivity. Area-based planning also relies on collaboration and partnerships between provincial regulators, industries, local governments and the general public. Area-based planning processes could range from considering non-binding provincial land use planning initiatives and local government planning processes, to developing formal and binding area-based plans under the *Waste Management Act* that could restrict future (or even existing) waste discharge authorizations. It can also be used to guide provincial funding for projects that have an impact on waste management. Area-based planning can also be used to develop implementation programs for local areas in order to comply with general standards that apply over larger regions. This is the approach used under the U.S. *Clean Air Act*, which allows the federal government to specify how much of a pollutant can be in the air anywhere in the United States, but provides that the states must develop implementation plans to determine how those goals will be met.³⁰

Area-based planning is, to some extent, contemplated by section 56(4) of the Nova Scotia *Environment Act*. It states:

In environmentally sensitive areas, the terms and conditions of an approval may be more stringent, but may not be less stringent, than applicable terms and conditions provided in the regulations, policies, guidelines or standards prescribed or adopted by the Department

Similarly, section 43 of the Manitoba *Environment Act* states:

The minister may make regulations declaring or designating certain areas of the province as sensitive or critical areas and prescribing standards or controls respecting environmental matters in those areas.³¹

To date, officials of the Ministry of Water, Land and Air Protection have utilized area based planning to some extent. This includes:

- Development of voluntary airshed plans in Williams Lake, Quesnel, Prince George and the Bulkley Valley.³²
- Development of municipal solid and liquid waste management plans under part 3 of the *Waste Management Act*,
- Informal consideration of local conditions as part of the exercise of statutory discretion.

However, there is no specific provision in the *Waste Management Act* dealing with area based planning as it relates to authorization of waste discharge generally.

The concept of area based planning as a more general component of environmental management was recently considered by Mr. Justice O'Connor in Part II of the Report of the Walkerton Inquiry. Specifically, he recommended that water source protection plans be developed for each watershed in Ontario, that they be approved by the Ministry of Environment, and that decisions under all provincial statutes that may affect drinking water be legally required to be consistent with the source protection plans.³³ In a similar regard, the Ontario Best Practices Review (which was cited with approval by the Walkerton Inquiry) stated:

Using a watershed as a distinct biophysical unit for environmental management is a significant step forward towards integrating numerous compliance instruments and the monitoring of contaminants from point and non-point sources. Since the early 1990s, US EPA and many state environmental agencies has [sic] been moving from *end-of-pipe* controls to tailored strategies to improve overall watershed health, not just water quality. All 50 states, six territories and 80 tribes have completed comprehensive watershed assessments. US EPA's approach has subsequently changed how facility permits are issued to industry and to municipalities and has introduced new requirements for monitoring, reporting and shared database management.

Our commissioned research into best practices in mainly US jurisdictions (Ohio, Washington, New Jersey, Pennsylvania) suggests that it makes sense to structure environmental management, compliance and infrastructure development on the basis of watersheds. Water and air quality monitoring programs are being designed with public and private stakeholder consultation and managed on a watershed basis. This allows the information to be used for land use planning, community development, industrial and municipal discharge permitting and other watershed related purposes. (p. 69-70)

Some provincial statutes already contemplate area-based planning processes in relation to specific statutory decisions and permits. For example, the *Forest Practices Code* contemplates "higher level plans", with which all subordinate plans and statutory decisions under that Act must be consistent. Similarly, the *Drinking Water Protection Act* (not yet proclaimed) contemplates the development of area-based drinking water protection plans if necessary to protect human health. These plans would have to be approved by Cabinet, and could potentially include restrictions on the issuance of licences and approvals under other statutes regarding activities in the area for which a plan exists.³⁴

While the general concept of area-based plans appears to be of potential interest to environment management, the specific means of developing and implementing such plans and their relationship to authorizations under the *Waste Management Act* is not simple. Nor is it a matter for which all parties will necessarily share the same view. As such, it will be necessary to carefully consider specific proposals in this regard, and how they would, in practice, fit within the overall legislative and regulatory framework that will exist following review of the *Waste Management Act*.³⁵

Consultation Question:

5. Should the *Waste Management Act* be amended to provide for area-based planning?
6. If so, what legal relationship should such plans have to existing activities authorized under the *Waste Management Act*? How should areas be designated? How should plans be developed and approved?

4.4 *Not sufficiently responsive to changing environmental knowledge and business innovation*

The existing *Waste Management Act* has, at times, been criticized for not being sufficiently responsive to changing environmental knowledge and business innovation. For example, the act is based on regulatory concepts that are 20 years old, and it may not reflect the full range of modern regulatory tools that are available or being considered in other jurisdictions. Similarly, the Act relies heavily on regulations that are established and amended only by the Lieutenant Governor in Council. The need for an Order-in-Council each time an environmental standard requires amendment can result in delays and lack of responsiveness where additional information or knowledge is gained regarding the environmental impact of certain waste discharge issues. Such concerns can also arise when businesses want to develop new practices that may respect or even enhance environmental protection, but which do not fit within the current regulatory regime.

A number of options exist that may address these concerns, as discussed below.

4.4.1 Economic Instruments

In some other jurisdictions in Canada and around the world, modern regulatory tools are being developed that build upon the standard waste discharge authorization regulatory model, through use of economic instruments. These are described in the Ontario Best Practices review as follows:

[T]hough often created through legislation and regulation, these are methods of using the market-type incentives and charges that will motivate compliance and exemplary environmental performance. Such instruments are said to “internalize” the environmental costs into a process, service, product or activity. In theory, high-polluting products should cost more to make than low-polluting products. Examples: tradeable emission permits, emissions charges and “feebates”, financial assurance, subsidies and deposit-refund systems. (p. 55)

In January 2001, the United States Environmental Protection Agency (EPA) released a report, entitled “The United States Experience with Economic Incentives for Protecting the Environment”³⁶. The EPA notes:

The report finds two general trends concerning the use of incentives:

- Increasing diversity of economic incentives used by EPA--Although historically EPA has relied on regulations to reduce pollution and improve the environment, it has begun to use a wide variety of economic incentive mechanisms in recent years.
- Increasing application at other levels of government--Dozens of such applications are discussed in the report but there are hundreds more. Both the number of applications and their diversity is growing rapidly at the state and local level. Incentives are particularly useful in controlling pollution that has not already been subjected to traditional forms of regulation

The EPA adds:

The Report concludes that economic incentives for environmental pollution control:

- Provide a unique contribution to environmental management--In many cases incentives generate benefits beyond what is possible with traditional regulations; sometimes they are applied where traditional regulations might not be possible. They are particularly useful for small and geographically dispersed sources. They can also provide impetus for technological change.
- Provide cost savings relative to traditional regulatory approaches--Demonstrated theoretically, based on at least 40 studies. One study estimates potential savings of widespread use of economic incentives could reach \$45 billion annually. On a practical level, acid rain trading savings are at least \$700 million annually.

- Have wide applicability to specific environmental problems –Although a wide variety of incentives are available, any particular one may be effective in managing only a fairly narrow range of problems. The report suggests which incentives are most useful for particular problems.

The Best Practices review considered leading examples of economic instruments, including a background paper prepared specifically on this issue³⁷. The report stated:

[L]eading jurisdictions in Europe and the US are harnessing market forces to drive and motivate compliance with environmental policies aimed, in particular, at reducing priority pollutants. Examples of market-based economic instruments include programs for tradable emission permits, emission charges and *feebates*, financial assurance, subsidies and deposit-refund systems. Such programs can be administered by a government agency or through cooperative agreements by either industry-led or multistakeholder councils involving consumers and environmental organizations.

The commissioned research identified a number of potential benefits of economic instruments. One benefit is that they can be used to implement the *polluter pays* principle while giving government added flexibility to redeploy scarce enforcement resources to critical environmental problems. A second benefit is that they can help pay for environment infrastructure, making it more financially sustainable in the long term. Economic instruments can motivate the greening of industry processes and business strategies and stimulate the development of green technologies. The difficulty is that the design of market-based economic programs for compliance is very complex. Implementation of such programs is often within the context of broader fiscal policy and regulatory reforms. (p. 65)

The Best Practices review goes on to state:

[B]oth the US and European Union countries have implemented major nation-wide economic instruments. The US has made widespread use of emissions trading to address smog, acid rain and lead in gasoline. Market-based approaches are being built into virtually all US EPA rules for motor vehicles and engines. Numerous watershed protection programs have also featured economic instruments to address both point and non-point sources (California).

European countries have emphasized environmental taxes and charges. Revenue-neutral tax restructuring is a cornerstone of air quality and quality change initiatives in Sweden, Norway, Denmark and the United Kingdom. France has used effluent charges with revenues recycled back as its key water quality protection policy. Germany has implemented a nation-wide advance disposal fee and high curbside disposal fees to achieve very high rates of solid waste diversion. (p. 66)

Ultimately, the Best Practices Review concluded that a number of lessons could be learned from this research. Namely:

- (1) From large nation-wide to local applications, there is extensive practical experience with most economic instruments.

(2) The design of economic instruments must take into account complex issues around market structure, firm and household behavior, and financing issues. Different analytical skills and information than traditionally used in environmental policy designs are often required.

(3) The development and implementation of economic instruments requires a long-term investment into the meaningful involvement and education of stakeholders and the public.

(4) Economic instruments rely on traditional regulatory and legislative frameworks to provide the necessary triggers for use, to prevent *free riders* and to provide a level playing field in a competitive marketplace.

(5) Many leading jurisdictions are using industry-led and multistakeholder councils to administer the collection and management of environmental charges. Other non-government entities have been established to administer emission trades.

(6) Some small environmental charges work very well, serving to both cover the cost of environmental programs and also to encourage behavioral change. However, for large-scale environmental charges to work, they likely have to be implemented within broader tax reform initiatives that motivate positive environmental performance. (p. 66-67)

Finally, the Best Practices Review also noted that, while economic instruments “are a practical approach to encouraging continuous improvement in environmental performance... they more often complement traditional command-and-control methods than replace them.” (p. 52).³⁸

In 1996 Ontario undertook a small-scale pilot project utilizing economic instruments to facilitate market-based trading systems for air emissions. The program, entitled the Pilot Emissions Reduction Trading (PERT), involved various stakeholders, including energy companies and other industries. It was originally limited to nitrogen oxides and volatile organic compounds, but was expanded in 1997 to include carbon dioxide, sulphur dioxide and carbon monoxide.

Building on the results of the pilot project and the Best Practices Report, the province of Ontario has recently moved forward with a significant emissions reduction trading program that applies to nitrogen oxides and sulphur dioxide emitted from electricity generating facilities. It plans to expand this system in 2004 to other major industrial emitters such as pulp and paper, cement and concrete, iron and steel, petroleum refineries, chemicals and non-iron metal smelters, and to other emissions. To this end, it

has introduced comprehensive monitoring and reporting requirements for 358 substances across a range of industrial, commercial and municipal facilities. The province has also noted that, in future, greenhouse gases like carbon dioxide could be added to the program.³⁹

The use of economic instruments as part of a comprehensive approach to waste management regulation has also been adopted in Alberta. Specifically, section 13 of the *Alberta Environmental Protection and Enhancement Act* contains a general enabling power, which expressly states:

The Minister may, in accordance with the regulations, establish programs and other measures for the use of economic and financial instruments and market-based approaches, including, without limitation,

- (a) emission trading,
- (b) incentives,
- (c) subsidies,
- (d) emission, effluent and waste disposal fees, and
- (e) differential levies,

for the purposes of protecting the environment, achieving environmental quality goals in a cost effective manner and providing methods of financing programs and other measures for environmental purposes.

The province of Alberta has utilized economic instruments to address matters such as bottle, tire and lubricating oil recycling programs, and sulphur recovery performance for sour gas plants. The province is currently examining the potential of air emissions trading to more cost-effectively improve its air quality and to fulfill a part of the Alberta Climate Change Plan for Action. This project includes a \$250,000 Major Feasibility Study, presently out to tender.⁴⁰ Other instruments with an economic incentive dimension presently being considered by the Alberta Government include voluntary environmental farm management plans and expedited and flexible approval processes for high environmental performers.⁴¹

Nova Scotia has also expressly endorsed the use of economic instruments in environmental management. Specifically, section 15 of the *Nova Scotia Environment Act* states,

The Minister may, in accordance with the regulations, establish programs for the research, development and use of economic instruments and market-based approaches for the management of the environment and for the purpose of achieving environmental quality objectives in a cost-effective manner, including, without limiting the generality of the foregoing,

- (a) tradable emission and effluent permits;
- (b) offsetting environmental costs and benefits;
- (c) user charges;
- (d) resource pricing and physical resource accounts;
- (e) deposit refund systems;
- (f) emission, effluent and waste-disposal fees;
- (g) product charges;
- (h) charges on inputs or materials;
- (i) tax incentives and tax differentiation;
- (j) subsidies, loans and grants

Nova Scotia has utilized economic instruments to develop several industry stewardship programs relating to beverage containers, tires, dairy stewardship, syringes, newsprint and crankcase oil.⁴²

BC has adopted a number of regulatory programs that might appropriately be considered “economic instruments”. These relate principally to recycling or stewardship initiatives, and include the *Beverage Container Stewardship Program Regulation*, the *Post-Consumer Residual Stewardship Program Regulation* and the *Return of Used Lubricating Oil Regulation*. These programs provide mechanisms and incentives (or at least reduce disincentives) for the appropriate disposal of such products by consumers. These limited initiatives have been undertaken within the existing regulation making authority of the *Waste Management Act*. There is however no specific provision in the Act related to use of economic instruments generally. By contrast, section 13 of the *Alberta Environmental Protection and Enhancement Act* specifically grants broad ability to utilize economic instruments as part of waste management regulation. It also gives this authority to the Minister, and does not require Cabinet approval of every such instrument. On the other

hand, the ministerial power in the Alberta legislation is “subject to the regulations” and as such can be overridden or constrained by Cabinet if that is considered appropriate.

Development of specific economic instruments such as emission trading systems can be complex, and may have various pros and cons. Use of them would therefore require considerable, detailed consultation with interested parties. These matters are beyond the scope of this document, and will be the subject of additional work specifically dedicated to economic instruments. However, the ministry does at this time wish to obtain input from interest parties as to the potential for increased use of such concepts generally, and how the framework of the *Waste Management Act* might be modified to better enable this.

Consultation Question:

7. Should the *Waste Management Act* be amended to specifically enable the use of economic instruments (such as section 13 of the Alberta *Environmental Protection and Enhancement Act*)?

4.4.2 Greenhouse gas management

Under the 1997 Kyoto Protocol, Canada had agreed to reduce its annual greenhouse gas emissions to 6% below the 1990 level, by 2008-2012. Greenhouse gases include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs) perfluorocarbons (PFCs) and sulphur hexafluoride (SF₆).

The specific steps that will be taken in Canada in this regard remain the subject of considerable discussion at the provincial, federal and international levels. In any event, it appears quite likely that some further regulatory steps will be taken in respect of greenhouse gases.

As noted earlier, Ontario has recently implemented monitoring requirements for greenhouse gases, and is expected to introduce an emissions trading reduction system in respect of these gases in the near future. Alberta is also carefully considering the issue of emissions reduction trading in respect of greenhouses gases (among other things). BC has not taken any specific regulatory steps, but has participated in a national, multi-stakeholder Greenhouse Gas Emission Reduction Trading Project (GERT). This pilot project allows for credits to be obtained in achieving voluntary reduction targets, which may in future be recognized by future greenhouse gas reduction and trading regulatory regimes. However, in the absence of legislated greenhouse gas caps, the project has generated only modest interest.⁴³ In 1997 the State of Oregon became the first state to introduce an emission reduction and trading system, related to carbon dioxide emissions from new power plants.⁴⁴ Since then, New Hampshire⁴⁵ and Massachussets⁴⁶ have also established similar regimes.

While it appears likely that this is a matter that will receive increasing attention among Canadian jurisdictions in years ahead, it is beyond the purpose and scope of this paper to review the issue of greenhouse gas regulation in detail. However, it is necessary to consider whether the existing provisions of the *Waste Management Act* provide the tools that may be necessary to implement any regulatory initiatives related to the authorization of greenhouse gas emissions that may be undertaken in BC. Aside from the issue of economic instruments, which are discussed above, the two key questions that must be asked for the purpose of this review of the *Waste Management Act* are:

- Does the *Waste Management Act* provide the authority necessary to implement comprehensive monitoring requirements in respect of greenhouse gases?
- Does the *Waste Management Act* provide the authority to limit emissions of greenhouse gases?

With respect to the first question, the *Waste Management Act* does not contain any specific general power requiring monitoring and reporting of specified substances. This may be contrasted with the Ontario *Environmental Protection Act*, which states at section 176(1)(b):

The Lieutenant Governor in Council may make regulations...requiring the persons responsible for sources of contaminants in a class of sources of contaminants to monitor, record and report to the Ministry or to the persons specified in the regulations on the sources of contaminants...

A detailed set of monitoring and reporting requirements in respect of air quality matters are, in turn, set out in the Ontario *Airborne Contaminant Discharge Monitoring and Reporting Regulation*

However, monitoring and reporting is sometimes required as a component of other regulations (see, for example, the *Pulp Mill and Pulp and Paper Mill Liquid Effluent Control Regulation*). Similarly, monitoring and reporting is routinely required as a term and conditions of permits (as expressly contemplated by section 10(1)(c).

With respect to the second question, it would appear that the *Waste Management Act* does indeed provide the authority to limit the emission of greenhouse gases. As noted at the outset of this paper, the Act prohibits the discharge of any waste in the course of a business or prescribed activity, unless that occurs in accordance with a permit, approval or regulation. The term “waste” is defined to include “air contaminant”, which is in turn defined to include anything that “damages or is capable of damaging the environment”. Moreover, the Lieutenant Governor in Council also has the further ability to designate any substance as falling within the definitions of “waste”.

Consultation Question:

8. Should the *Waste Management Act* be amended to better or more clearly enable regulation of monitoring, reporting and restricting of greenhouse gas emissions? If so, what changes should be made?

4.4.3 Contracts and covenants

In response to criticisms of the “command and control” model of regulation, some commentators have suggested that waste discharge authorizations should be developed through a more collaborative approach, between industry, government and environmental stakeholders. This can involve creative problem solving, and result in solutions that are more beneficial to the environment than those which would result from the unilateral imposition of rules (sometimes referred to as “compliance-plus”). The leading example of this approach is the Netherlands, where the government has entered into numerous environmental covenants with industry associations or local governments to achieve environmental objectives. Covenants supplement but do not fully replace regulation, and one of the incentives for firms and industries to enter into these agreements is that it limits the possibility of unilateral regulation by government. A memorandum prepared by the government of the Netherlands for the OECD⁴⁷ states:

Over the years there has been a growing realization that environmental problems cannot be solved simply through obligations imposed unilaterally by government. The required change in behavior can only be brought about by using the right mix of instruments. Legislation and regulations remain important instruments, but it is necessary to seek other instruments which are more in line with the concept of individual responsibility for ensuring a clean environment...

Covenants have evolved over the years. Initially, in the 1980s, they were usually gentlemen's agreements, in which the parties stated their intentions. There was a great deal of uncertainty as to their status and enforceability. There were no arrangements for evaluation, consultation, etc. The relationship between covenants and other instruments, such as legislation and regulations, was also very unclear.

Over the years ideas have developed concerning when it is appropriate to use covenants and how they relate to legislation and regulations... A great deal of attention has also been focused on the form and content of covenants. They are now a more uniform instrument as a result of the fact that certain matters, such as the settlement of disputes, evaluation, consultation, later accession,

etc. are now included as a matter of course when covenants are drawn up. There has also been a move away from voluntary agreements, with most covenants now being enforceable in law. Covenants with industry generally explicitly state that the agreement is governed by civil law...

A large number of environmental covenants have been agreed to date. A recent survey showed that there are now more than 30, on a range of subjects, from the properties or composition of products or packaging, to waste disposal, the curbing of emissions, funding for research or projects to the use of administrative law powers...

One of the issues that arises with respect to the use of environmental covenants is their relationship to existing regulatory regimes. Do they replace permits and regulations? Do they duplicate them? In this regard, the Netherlands government memorandum notes:

[T]he issue is by no means always a choice between legislation or a covenant. Often, it is more a matter of how a covenant can support existing legislation or regulations. These include the covenants agreed with industry on the contribution which particular sectors are to make towards achieving the objectives set out in the National Environmental Policy Plan (NEPP). They contain agreements on how the national objectives are to be translated into individual efforts on the part of companies. The key element in these covenants is the agreement for companies to draw up environmental plans, in which they indicate how they think they can contribute towards the realization of the objectives. The company environmental plan plays an important role in the issuing and updating of environmental licenses. Since parts of the plan are officially laid down in the licence, their enforceability is guaranteed. In such cases, covenants do not, therefore, operate in place of regulations and licensing but simply enhance their effectiveness.

The above applies particularly to the role that covenants can play in the achievement of environmental policy objectives. However, besides the question of when it is appropriate to use a covenant, the matter of what aspects should be taken into account if a covenant is opted for is also important. This includes the way in which a covenant is prepared and drawn up, its status, whether it is binding and the elements which must be included in all covenants. There has been a great deal of confusion regarding these matters, which has given rise to a range of problems. It was often unclear (to the parties and to outsiders) to what degree the parties were bound by the covenant, and there was a danger that the desired result would not be achieved because arrangements on a number of crucial matters had not been included. In order to prevent such problems, a code of conduct on environmental covenants has been drawn up, which regulates both procedure and contents. It also sets out principles on a number of matters of general significance, such as how the agreements in the covenant are to be translated down to the level of individual companies and government agencies. The code of conduct applies to covenants between central government and industry associations that are aimed at realising environmental objectives. Individual companies, local authorities and local authority associations can also become party to such covenants.

The 2002 Evaluation of Alternative & Innovative Regulatory Approaches for Environmental Management in Alberta reviewed the use covenants by the Netherlands, particular in the context of greenhouse gas emissions. It described the process for development of covenants as follows:

The Netherlands approach to greenhouse gas emission controls has been to use environmental covenants based on Integrated Environmental Objectives (IEO). As described by De Hoog (1998), it is a two step process. First the federal government works with industry sectors (often associations) to develop a National Environmental Policy Plan (NEPP) which determines the emission reduction targets for each sector. These plans are determined at a very senior level through an intra-sectoral consultative group. The theory is that this process uses peer pressure to bring most companies into line. Once all parties have agreed the negotiated reductions and time frame, a covenant is signed between government and the industry sector. This provides security to both parties and details the terms under which the industry sector will have to implement the IEOs.

The next step is for the individual companies to implement this through a Company Environmental Plan (CEP). The CEP is approved by the authority granting the licence, usually local, and is renewed every four years. If a company's CEP makes enough of a contribution to the IEO then it's licence will be amended (e.g., to permit more internal flexibility). If the company doesn't adhere to its CEP then its licence can be tightened.⁴⁸

It concludes:

The program appears to have been working but the author notes that there were a number of initial problems that took a lot of effort and dialogue to solve. A major factor still to be resolved is the participation of the public and/or ENGOS. Most Netherlands ENGOS subscribe to the potential benefits of the process but would like to see a more transparent and factual dialogue between themselves and industry.

De Hoog (1998) notes six conditions for effective agreements:

- A basic level of regulation including compliance monitoring and enforcement.
- A shared vision of the long-term goals.
- A robust [environmental management system] in each participating company
- Government ability to deal with free riders
- Transparent and public monitoring and reporting
- Sufficient public awareness and pressure on industry to improve their environmental performance.⁴⁹

As the above comments note, covenants appear to be a valid tool for achieving environmental objectives, provided that requisite consideration is given to the relationship to legislative licensing regimes, and matters of public accountability. However, where these related considerations are not adequately addressed, a potential for concern exists. In this regard, the Evaluation of Alternative & Innovative Regulatory Approaches for Environmental Management in Alberta cites the following example from Ontario:⁵⁰

Dofasco, the Ontario Ministry of Environment (MOE) and Environment Canada (EC) signed an agreement in November of 1997 that committed Dofasco to reduce benzene and PAH emissions

by more than would have been required under the steel manufacturing sectors strategic options negotiations with EC. In return, the governments will streamline Dofasco's approval process, consolidate approvals to accommodate facility modifications and process changes, and increase operational flexibility. It is assumed (Lukasik 1998) that Dofasco saw the potential for regulatory changes as a result of the steel manufacturing sector strategic options negotiations with Environment Canada and decided to pursue an agreement that would allow them a more flexible regulatory approach. MOE and EC were willing to participate because Dofasco has met its commitments in the past.

Lukasik (1998) notes that this agreement has been widely criticized by the Canadian Environmental Law Association (CELA), among others. The main concern is that there is no public participation, including no input to the agreement negotiations, no accessibility to the agreement and no commitment to public reporting on their emission results. Also, she reports that CELA questions whether or not the agreement is enforceable and is concerned that moves like this frustrate attempts to level the regulatory playing field.

It should also be noted that, even in the traditional process of permit issuance and regulation development, ministry staff can, and frequently do, engage in a degree of dialogue and problem solving with industry and environmental organizations. This is not however mandated by the *Waste Management Act*, nor is there any specific provision in the Act to give effect to any resulting agreements, other than the traditional permit issuance and regulation making process.

Consultation Question:

9. Should the *Waste Management Act* be amended to specifically contemplate the use of contracts and covenants as alternative or supplementary tools of environmental management? If so, what provision should be made in the Act to ensure that their relationship to the other provisions of the act, regulations and permits is clear, and that the necessary public accountability occurs in the development and use of such instruments?

4.4.4 Ministerial authority to make or amend regulations

The *Waste Management Act* gives ministry officials considerable authority to authorize waste discharges on a site-specific basis. This is consistent with the approach taken in other Canadian jurisdictions.

With respect to the ability to make general authorizations through regulations, the Act provides that such regulation can only be made by the Lieutenant-Governor in Council. This means that any time a regulation needs to be amended, it must be submitted to Cabinet for review and approval. Given the competing demands on Cabinet time, it is not always possible to secure regulatory amendments as quickly as may be desired.

Some provincial legislation provides that certain types of regulations can be made by the minister responsible for the Act. For example, section 15(3) of the *Environment Management Act* provides:

The minister may make regulations respecting the sampling, analytical, quality control and reporting procedures to be followed by a person required to submit environmental monitoring data as a requirement of an order, permit, licence, approval or certificate issued under this or any other enactment administered by the minister.

In Alberta, the Minister is given considerable powers in this regard. This includes the power to designate activities in respect of which approval or registration is required, and the power to exempt any activities related to the storing or processing of designated material (*Environmental Protection and Enhancement Act*, s. 85(1). However, other powers are reserved for Cabinet. These include regulations respecting the terms and conditions on which approvals may be granted, and the length of time for which approvals and registration may be issued (s. 86).

Consultation Question:

10. Should the *Waste Management Act* be amended to provide the minister with the power to make certain types of regulations or related authorizations regarding

waste discharge? If so, what should be the extent of the minister's powers relative to the Lieutenant Governor in Council?

4.5 Fee structure requires review

The fee structure for permits under the *Waste Management Act* is set out in the *Waste Management Permit Fees Regulation*.⁵¹

An annual permit fee must be paid, which is based on quantity and the toxicity of the waste discharge authorized. For example, to discharge one tonne of flouride, the annual permit fee would be \$453.60. In addition, when a permit is applied for, there is a permit application fee, which is \$100, plus 10% of the annual fee. The application fee the permit discussed above would therefore be \$145.36

Fees can also be charged under regulations that authorize waste discharge, even where no permit is issued. (E.g., section 9 of the *Oil and Gas Waste Regulation*.)

The ministry presently receives approximately \$12 million per year in waste management permit fees, which are considered to be essential to funding related ministry operations. Of this, approximately 95% is derived from large operations that comprise approximately one sixth of the permits issued.

Various concerns have been expressed with the present fee structure. Some have argued that the fees for waste discharges are not sufficiently high, and that they do not serve to significantly influence behaviour. It has also been suggested that the fees fail to distinguish between low and high-risk activities, and that the calculation and payment processes are not efficient.

A review conducted by the ministry in 2001 indicated that a variety of approaches to waste management fees are used in other jurisdictions. For example, in Alberta and the

state of Washington, fees are based on the nature of the facility and production capacity. Oregon uses a system based on the cost of administering and processing applications. Ontario has traditionally used a similar system for its “certificate of approvals”, but has also recently instituted a fee system for hazardous waste discharges that is based on number of sites registered, number of shipment manifests and tonnage of discharge (without differentiating based on toxicity).⁵² The state of Maine adopts an approach similar to BC.

As part of its overall review of the authorization process, it is necessary to review the present fee structure, and to consider whether changes to the regulatory structure may require a corresponding change to fees, or alternative means of funding regulatory activities.

Consultation Question:

11. Should changes be made to the waste discharge fee system established under the *Waste Management Act*? If so, what types of changes should be considered?

5 Appendices

5.1 Appendix 1 – List of regulations under the Waste Management Act

- Agricultural Waste Control Regulation
- Antisapstain Chemical Waste Control Regulation
- Aquaculture Waste Control Regulation
- Asphalt Plant Regulation
- Beverage Container Stewardship Program Regulation
- Cleaner Gasoline Regulation
- Conditional Exemption Regulation
- Contaminated Sites Regulation
- Gasoline Vapour Control Regulation
- Land-based Fin Fish Waste Control Regulation

- Motor Vehicle Emissions Control Warranty Regulation
- Motor Vehicle Emissions Reduction Regulation
- Mushroom Composting Pollution Prevention Regulation
- Oil and Gas Waste Regulation
- Ootsa Lake Beehive Burner Regulation
- Open Burning Smoke Control Regulation
- Organic Matter Recycling Regulation
- Ozone Depleting Substances and Other Halocarbons Regulation
- Petroleum Storage and Distribution Facilities Storm Water Regulation
- Placer Mining Waste Control Regulation
- Post-Consumer Paint Stewardship Program Regulation
- Post-Consumer Residual Stewardship Program Regulation
- Public Notification Regulation
- Pulp Mill and Pulp and Paper Mill Liquid Effluent Control Regulation
- Rebate of Waste Management Fees Regulation
- Return of Used Lubricating Oil Regulation
- Solid Fuel Burning Domestic Appliance Regulation
- Special Waste Regulation
- Spill Cost Recovery
- Spill Reporting Regulation
- Storage of Recyclable Material Regulation
- Sulphur Content of Fuel Regulation
- Waste Management Act Municipal Sewage Regulation
- Waste Management Permit Fees Regulation
- Wood Residue Burner and Incinerator Regulation

¹ In January 2001 the Executive Resource Group presented its report entitled, “Managing the Environment: A Review of Best Practices”. See <http://www.ene.gov.on.ca/envision/ergreport/index.htm>. The report has been commented on favourably by the Mr. Justice O’Connor in Part II of the Walkerton Commission Inquiry. See Chapter 2, section 2.4 (http://www.walkertoninquiry.com/report2/pdf/Chapter_2.pdf). For a critical review of the Best Practices Paper, see Canadian Institute for Environmental Law and Policy, “6th Annual Report on Ontario’s Environment,” chapter 1 (<http://www.cielap.org/sixthannual.pdf>)

² See http://www.gov.bc.ca/prem/popt/corereview/srv_pln/wlap/wlap.pdf.

³ “Air contaminants is defined as a substance that is emitted into the air and that:

- (a) injures or is capable of injuring the health or safety of a person,
- (b) injures or is capable of injuring property or any life form,
- (c) interferes or is capable of interfering with visibility,
- (d) interferes or is capable of interfering with the normal conduct of business,
- (e) causes or is capable of causing material physical discomfort to a person, or
- (f) damages or is capable of damaging the environment

⁴ See above.

⁵ “Refuse” is defined as “discarded or abandoned materials, substances or objects”.

⁶ “Biomedical waste” is defined as “(a) a substance that is prescribed as a biomedical waste by the Lieutenant Governor in Council, and (b) if the Lieutenant Governor in Council prescribes circumstances in which a substance is a biomedical waste, a substance that is present in those circumstances;”

⁷ “Special waste is defined as “(a) a substance that is prescribed as a special waste by the Lieutenant Governor in Council, and (b) if the Lieutenant Governor in Council prescribes circumstances in which a substance is a special waste, a substance that is present in those circumstances”. These are set out in the *Special Waste Regulation*.

⁸ In July 2001, the Committee issued its report in which it recommended that pollution prevention planning be implemented as a "voluntary compliance-plus initiative based on a commitment to continual improvement", and that the process be open to all large industrial companies meeting proposed qualification criteria.

See http://wlapwww.gov.bc.ca/epd/epdpa/industrial_waste/pollution_prvntn/ipphome.html

⁹ Section 6 of the *Land-Based Fin Fish Waste Control Regulation* exempts a person from the requirements of sections 3(2) and 3(3) of the *Waste Management Act* if, among other things, they ensure that the phosphorous concentration in effluent does not exceed 0.1 mg/L where the dilution ratio is less than 20 to 1, or .2 mg/L where the dilution ratio is 20 to 1 or greater. On the other hand, some regulations do indeed specify particular acts or things that must be done to ensure exemption from the requirements of section 3 of the *Waste Management Act*. For example, the *Agricultural Waste Control Regulation* includes a Code of Agricultural Practice, which specifies certain detailed requirements that must be met, such as locating certain animals pens at least 15m from watercourses.

¹⁰ See Alberta EPEA, section 109. “Adverse effect” is defined in section 1 of the similar to the term “pollution” as used in section 3(4) of the *Waste Management Act*. Section 109(3) provides that section 109(1) applies only where the release is not authorized by an approval or registration.

¹¹ See *Activities Designation Regulation*, s. 5 and schedule 1.

¹² See *Activities Designation Regulation*, s. 5 and schedule 2

¹³ AENV Protocol for the Development, Review and Use of Codes of Practice; June 30, 1999. (See <http://www3.gov.ab.ca/env/dept/reports/annual/1999-00/annual00.pdf>, p. 12)

¹⁴ See http://www.qp.gov.ab.ca/display_codes.cfm.

¹⁵ See *Activities Designation Regulation*, s. 5 and schedule 3

¹⁶ Best Practices Review, p. 60 – 61.

¹⁷ Ibid, p. 217

¹⁸ See <http://www3.gov.ab.ca/env/protenf/publications/AIRSforEnvMgntJune00.pdf>. (p. 3-4)

¹⁹ See Nova Scotia *Environment Act*, section 50 and *Activities Designation Regulation*. See also section 67 which prohibits “the release into the environment of a substance in an amount, concentration or level or at a rate of release that causes or may cause a significant adverse effect, unless authorized by an approval or the regulations” and section 68, which prohibits the release of a substance in excess of that set out in an authorization. the Nova Scotia legislation requires approvals for all types of designated activities, and does not adopt the tiered approach used by Alberta.

²⁰ For example, pulp mills are required to have a site-specific permit and to comply with the specific requirements set out in the *Pulp Mill and Pulp and Paper Mill Liquid Effluent Control Regulation*.

²¹ These concept will be discussed further in a separate discussion paper regarding compliance.

²² See *Public Notification Regulation*, sections 2 and 3.

²³ See *Classification of Proposals For Instruments* O. Reg. 681/94

²⁴ *Environmental Bill of Rights*, sections 22, 25, 27 and 28. The minister’s decision as to what type of notice is required is not subject to appeal.

²⁵ See Environmental Protection And Enhancement (Miscellaneous) Regulation, s. 2

²⁶ See Ontario Best Practices review, page 30.

²⁷ See section 49.1. For a discussion of professional reliance in the forest management context, see “Status Report on Professional Accountability”, Registered Professional Foresters of British Columbia Forum, Volume 6, Issue 4 July / August 1999.

²⁸ Although section 33 of the Act allows a manager to issue “pollution prevention orders”, section 31(5) provides that those powers cannot be exercised in relation to an activity that is in compliance with the permit, approval or regulations.

²⁹ Under section 4 of the *Environment Management Act*, the minister may require a person to restrict, modify or prohibit the operation of a work or undertaking or the use of a product or resource. Such orders of the minister would have effect for only up to 15 days, and would then require approval by Cabinet. This

act also allows Cabinet to direct the minister to develop an environment management plan for an area. In order to implement a plan, Cabinet may restrict the issuance of licenses or permits under other acts, and order that existing permits and licenses have no effect.

³⁰ See http://www.epa.gov/oar/oaq_caa.html

³¹ To date only two regulations have been established in this regard, and they relate restrictions on well drilling and septic systems in specific areas. They do not relate to restrictions on authorization of waste discharge as discussed in this paper (See Manitoba Regulation 126/88 R and Regulation 121/94)

³² These plans are developed through consultation among the various agencies with regulatory responsibility over matters that affect of air quality issues, including local government. They involve identification of actions and strategies that may be taken by each agency. In the context of the *Waste Management Act* this could include consideration of air quality issues in an air shed as part of the permit and review, although the plans do not have any direct regulatory effect under the *Waste Management Act*.

³³ See Part II – Walkerton Inquiry, Chapter 4 (pages 89-120)

(http://www.walkertoninquiry.com/report2/pdf/Chapter_2.pdf)

³⁴ See also the *Fish Protection Act* which, among other things, allows for the designation of “sensitive streams” and related recovery plans, and the *Environment Management Act*, which allows Cabinet to require the minister to develop an environment management plan for areas that are subject to a ministerial declaration of detrimental environmental impact from some specified activity.

³⁵ The Alberta *Environmental Protection and Enhancement Act* contemplates the establishment of “management areas” for which the minister may establish ambient environmental quality objectives. (See sections 14 and 36(g)). It is not however clear how these objectives relate the administration of other provisions of the Act.

³⁶ See <http://yosemite.epa.gov/ee/epa/eed.nsf/pages/incentives>

³⁷ See International Institute for Sustainable Development, “Research Paper #2 - Economic Instruments for Environmental Policy Making in Ontario” (December 1, 2001), available at http://www.ene.gov.on.ca/envision/ergreport/downloads/report_paper2.pdf

³⁸ For a further discussion of economic instruments generally, see, e.g., Barry C. Field, Nancy D. Olewiler, *Environmental Economics, First Canadian Edition*, (1994) McGraw-Hill Ryerson Ltd., Toronto, Canada; Bryner, Gary C *New Tools for Improving Government Regulation: An Assessment of Emissions Trading and Other Market-Based Regulatory Tools*, (1999) The Pricewaterhouse Coopers Endowment for the Business of Government 28; and Portney and Stavins, *Public Policies for Environmental Protection* 2nd Ed. (2000) Resources for the Future Press.

³⁹ See the Ontario government’s Air Quality web site at <http://www.ene.gov.on.ca/air.htm>. This web site contains various announcements and backgrounders of interest to emission trading. It also contains references to the *Emissions Trading regulation* established under the Ontario *Environmental Protection Act* (http://www.ene.gov.on.ca/envision/env_reg/er/documents/2001/RA01E0020-A.pdf), the Ontario Emissions Trading Code (http://www.ene.gov.on.ca/envision/env_reg/er/documents/2001/RA01E0020-B.pdf), and the [Emissions Reduction Trading Systems for Ontario - A Discussion Paper](http://www.ene.gov.on.ca/envision/news/032601mb1.htm) (<http://www.ene.gov.on.ca/envision/news/032601mb1.htm>)

⁴⁰ See http://www3.gov.ab.ca/env/air/emissions_trading/index.html. It includes a review of the Ontario emissions trading system. See “Ontario Emissions Trading: Review and Assessment” (http://www3.gov.ab.ca/env/air/emissions_trading/pdf/ontario.pdf)

⁴¹ Personal Communication, Bill Calder, Chair, Alberta Economic Incentives Implementation Network.

⁴² See <http://www.gov.ns.ca/enla/emc/wasteman/>.

⁴³ See <http://www.gert.org/>

⁴⁴ In 1997 Oregon created the first mandatory requirements in the US to control CO₂ release from new electric power plants. This scheme is set out in the Oregon Administrative Rules Chapter 345, Division 345. See: <http://www.energy.state.or.us/siting/rules.htm> It requires that carbon dioxide emissions from any proposed new power plant must be at least 17 percent below those of the most efficient natural gas-fired plant now operating in the United States. Proposed plants may meet this standard either by developing more efficient technologies or by purchasing carbon dioxide offsets through the Oregon Climate Trust, which is an independent, non-profit organization. A detailed account of this program is set out at:

<http://www.energy.state.or.us/climate/ccnewst.pdf>

⁴⁵ In May 2002 New Hampshire passed a law to regulate existing fossil fuel power plant emissions of CO₂ through a multiple pollutant reduction program which came into effect on July 1, 2002. The program requires a reduction of CO₂ emissions to 1990 levels by 2010.

See House Bill 284 at: <http://www.gencourt.state.nh.us/legislation/2002/hb0284.html>

In addition to CO₂, the final version of the new law (HB284, NH Laws of 2002, Chapter 130) establishes caps on emissions of sulfur dioxide and nitrogen oxides by existing fossil fuel electric power plants and also requires a reduction in mercury pollution. This law permits the banking and trading of emissions reductions credits to achieve compliance with the caps.

⁴⁶ Whereas Oregon has concentrated on new energy facilities, Massachusetts has focused on some of its most established—and significant—greenhouse gas sources. In April 2001, regulations were developed that establish carbon dioxide caps for six power plants that collectively produce 40 percent of the state's electricity and 87% of its CO₂ emissions. Each must reduce its carbon dioxide release 10 percent below late 1990 levels by 2004-06. Options for attaining compliance include changing fuel or generating technologies, swapping carbon dioxide reduction credits with other plants in the state, or investing in off-system reductions. See: Massachusetts DEP Air Pollution Control Regs 310 CMR 7.25-7.60 <http://www.state.ma.us/dep/bwp/daqc/files/regs/7c.htm#29>

⁴⁷ Memorandum of CJ. Bastmeijer, Ministry of Housing, Spatial Planning and the Environment, Directorate-General of the Environment, Directorate for Policy Affairs Department for Legal Policy Affairs/660, P.O. Box 30945, 2500 GX DEN HAAG, The Netherlands (For the full text of this memorandum see <http://www.rri.org/gparchive/necoven.html>)

⁴⁸ See note 18, above, p. 27

⁴⁹ See note 18, above, p. 28. See also De Hoog, M. 1998, Environmental Agreements in the Netherlands: Sharing the responsibility for sustainable industrial development, UNEP Industry and Environ., (Vol. 21, No. 1-2), Jan-June.

⁵⁰ See note 18, above, p. 20-21

⁵¹ See http://www.qp.gov.bc.ca/statreg/reg/W/WasteMgmt/299_92.htm

⁵² See <http://www.ene.gov.on.ca/envision/news/121801mb.htm>