Workshop on Contaminated Sites Legislation and Policy Development

Vancouver, BC – September 28, 2004

Introductory Remarks

BC's Contaminated Sites Legislation affects a great many stakeholders and we appreciate the opportunity to meet with you to discuss the recent and anticipated improvements to this important area of the ministry. Figure 1 maps out many of our stakeholders and illustrates the numerous relationships between them.

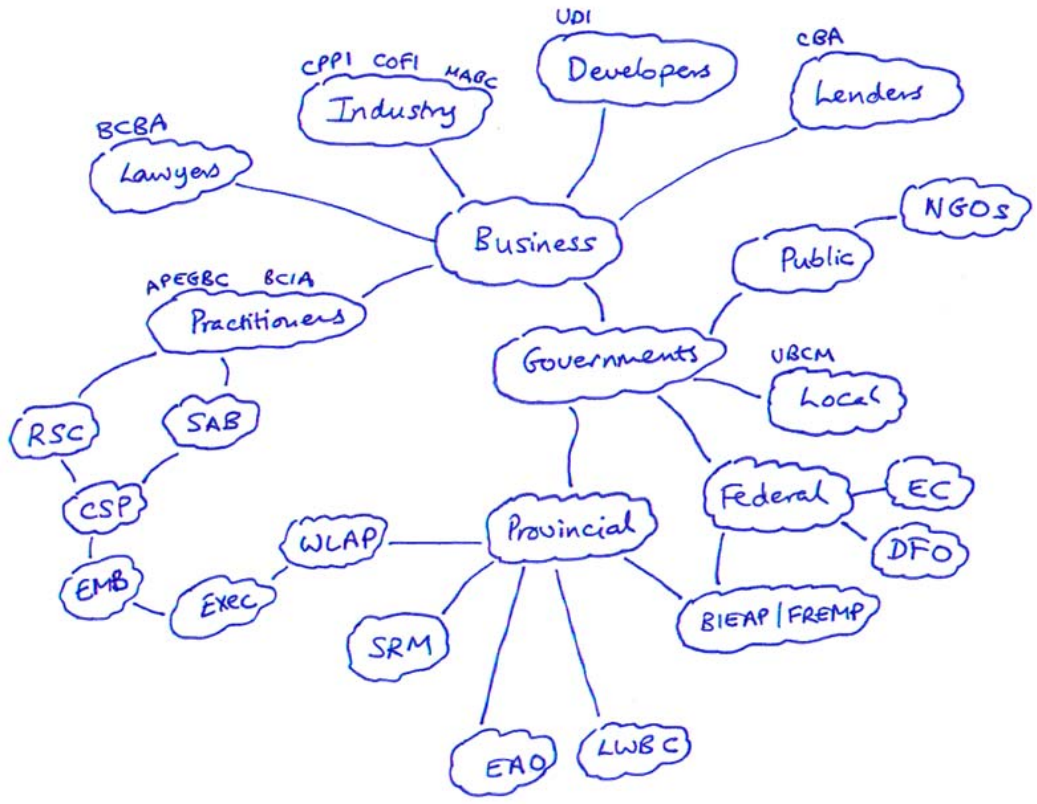

Figure 1 - Stakeholders and Relationships

I'd like to spend a few moments putting the contaminated sites legislation in the context of a number of changes that we have been working on in the Environmental Management Branch and the direction the ministry is taking as a whole.

For some time we have been emphasizing the importance of shared stewardship, in recognition of the joint responsibility that all areas of society have to protect our

environment. This philosophy, embodied in our Minister's Service Plan, extends to all areas of our business from local communities helping restore salmon habitat to private sector professionals forming partnerships with government regulators.

We have also taken seriously the concerns voiced by some stakeholders who have sought greater consistency, clarity and fairness when dealing with the ministry. We are working hard to balance environmental protection and economic considerations and many of the changes you will hear about today reflect these objectives.

The provincial government has maintained a very ambitious legislative calendar over the past year and our part of the ministry is no exception. We have had to explore creative ways of balancing the appetite for legislative change against a significant existing case load. We have taken steps to focus ministry resources on the higher risk issues and defer oversight of lower risk issues to professionals in the private sector.

Squeezing our revisions into an extremely busy legislative calendar has not been without its challenges and we appreciate your patience as we work to publish and explain the changes. We are grateful for the comments from stakeholders who have taken the time to carefully read the new legislation and draw our attention to areas requiring clarification or correction.

Overview of Contaminated Sites Program

I should note at the outset that management of contaminated sites within the provincial government has been split across two ministries. The Ministry of Water, Land and Air Protection continues to lead the regulation of contaminated sites assessment and clean up in BC. The Ministry of Sustainable Resource Management has been tasked with the administration of contaminated crown land in BC. This distinction has been made to separate the province's dual role of regulator and land owner.

Early last year we reorganized the contaminated sites program. Probably the single most significant change is to place all ministry staff across the province, who are involved with contaminated sites regulation, into a single organizational unit. In the past, reporting lines were different in the regions and headquarters. Now, all staff are managed by a single assistant director who reports to the Director of the Environmental Management Branch. Staff responsibilities are organized by function rather than geographic area. This has enabled us to improve the delivery of consistent services with greater certainty for our clients.

We have about thirty staff in the program at the moment spread across five units. Figure 2 shows the units and the broad responsibilities across each unit. Since we are in transition to a new contaminated sites framework, staff often support the work of other units.

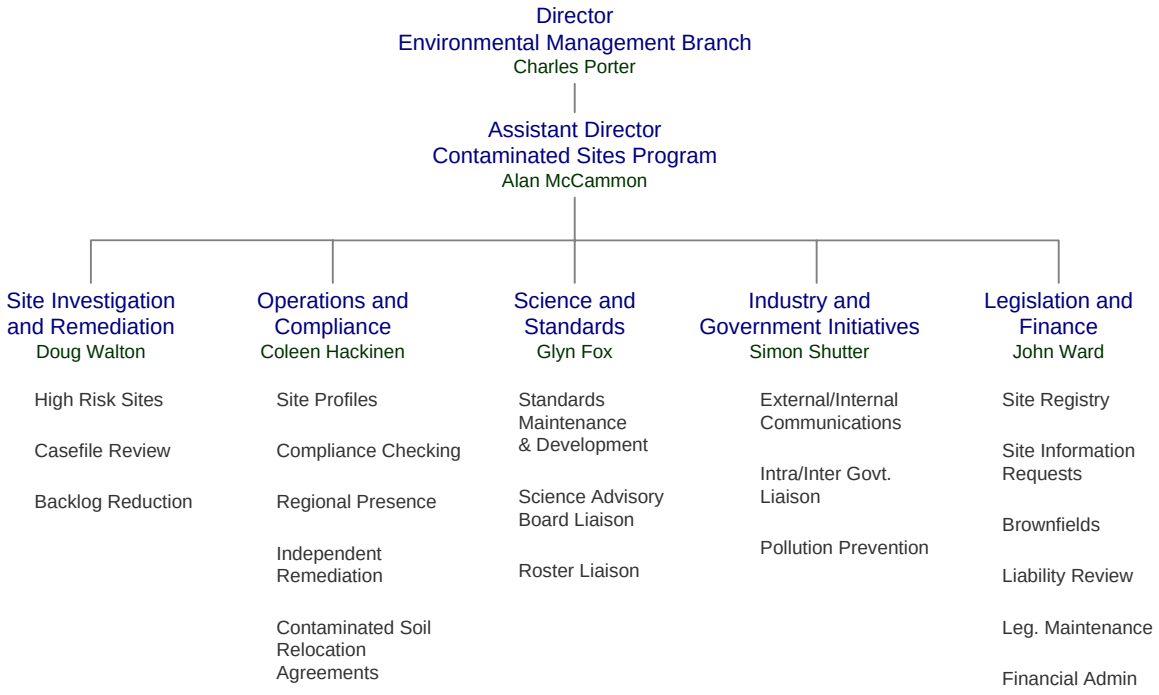

Figure 2 – Contaminated Sites Program Structure

For more on who works where and contact information you can use the online government directory at http://www.dir.gov.bc.ca/.

Evolution of Contaminated Sites Legislation

In the Spring of 2003, the minister received a report on Contaminated Sites in BC, prepared by an Advisory Panel. The panel spent a year meeting with stakeholders and learning about the legislative framework of BC and a number of other jurisdictions. The panel report contained over 80 recommendations and the ministry has either implemented or has plans to implement many of these recommendations. More details will be provided by speakers throughout this workshop.

This has been a very busy year of legislative change. Although much of the detailed policy work and tools development is in progress, the amendments brought into force this summer are substantial and set the stage for future improvements.

Since the process of drafting new legislation can sometimes appear complex, particularly outside government, we thought it would be worth spending some time going over the process with you.

Before a law is approved, it is called a bill. In 2003, Bill 57 was tabled to amalgamate the *Waste Management Act* and the *Environment Management Act* into the new *Environmental Management Act* (which we call EMA or "emma"). All bills must pass through three "readings" to give MLAs and the public the time and opportunity to examine each bill and suggest changes or improvements. Usually the readings are spaced a few days apart but last year, due to the large number of bills before the house, Bill 57

received first reading in May 2003 and passed third reading five months later in October. However, EMA was purposely written to be brought into force by regulation and this did not occur until this past July. In the meantime, Bill 13 was introduced to amend EMA and it passed third reading on April 19. Both Bill 13 and Bill 57 contained consequential amendments that changed related statutes such as the *Local Government Act* and *Petroleum and Natural Gas Act* to reflect the new and updated provisions of EMA.

We should note that not all provisions of Bill 13 have come into force. Some require new regulatory provisions that are still being developed. However, by including them in Bill 13 we have set the stage for these regulatory changes without the requirement to make additional statutory changes.

EMA is supported by a number of regulations including the Contaminated Sites Regulation. These regulations bring EMA provisions into force and provide additional detail. Regulations are passed through Orders in Council, whereby the "Executive Council" (the Cabinet) makes a decision and it is approved by the Lieutenant Governor, hence the term "Lieutenant Governor in Council". One of the new changes to EMA is that a distinction has been made between regulations made by the Lieutenant Government in Council and those made by the Minister through a Ministerial Order. Section 63 of EMA lists the contaminated sites items that the Minister can make regulations on. In July there were several orders made that relate to contaminated sites including:

- Order in Council 720 – Brought into force most of EMA
- Order in Council 725 – Amended Contaminated Sites Regulation
- Ministerial Order 271 – Amended Contaminated Sites Regulation – standards

Figure **3** presents a timeline of amendments to the contaminated sites legislation since it was first launched in 1997.

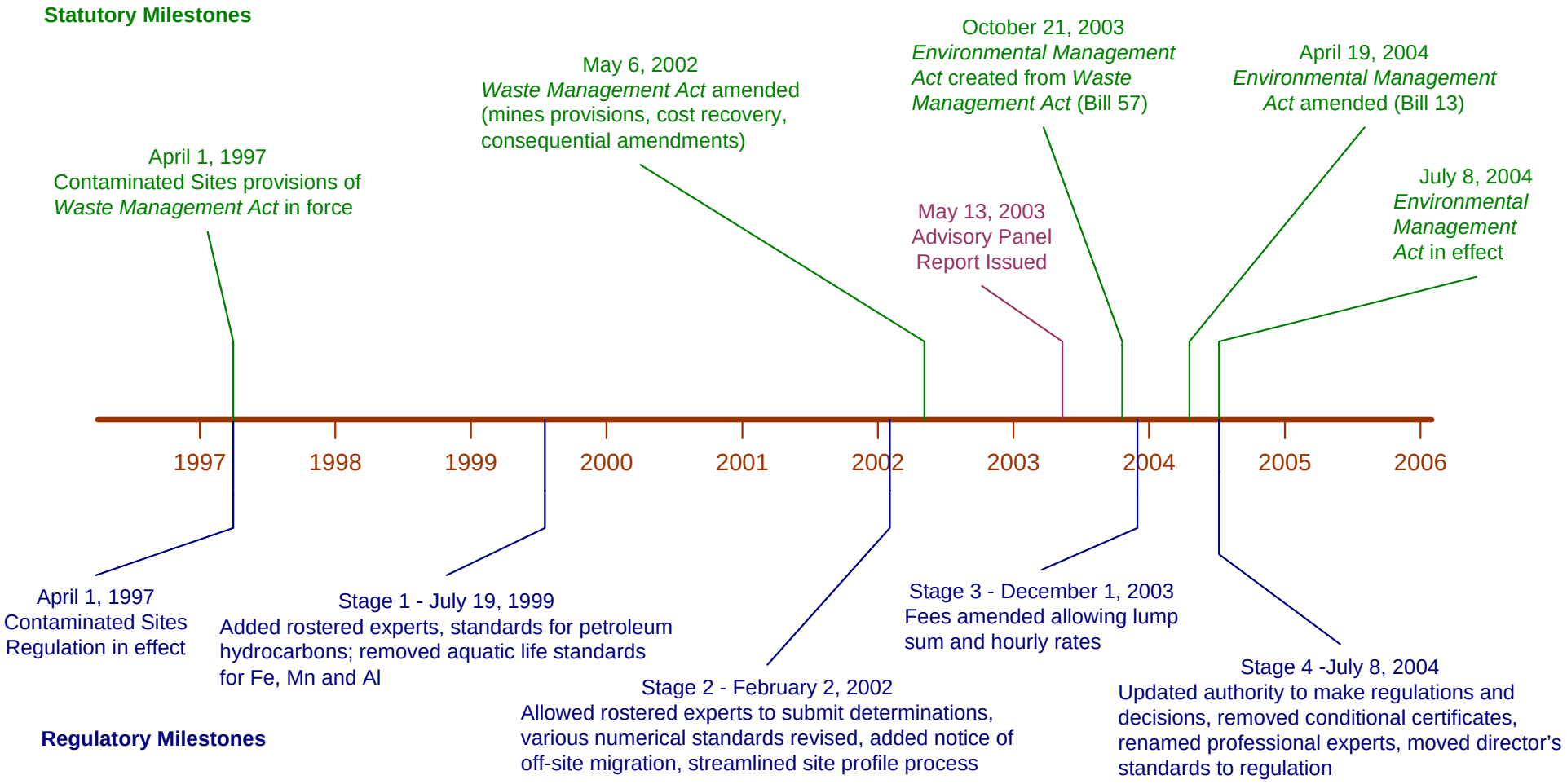

Figure 3 – Contaminated Sites Legislative Milestones

All the statutes, regulations, readings and orders are available on the Legislative Assembly web site: http://www.legis.gov.bc.ca/index.htm. However, the ministry has also created annotated versions of our legislation and these can be accessed from our web site: http://wlapwww.gov.bc.ca/epd/epdpa/contam_sites/.

In developing the annotated versions we:

- Used color-coding to distinguish between old and new text and between provisions that are and are not yet in force
- Added hyperlinks within and between EMA and the CSR
- Allow the user to switch between annotated and non-annotated views
- Added in-line explanatory text to annotate the changes

A screen shot is shown in Figure 4.

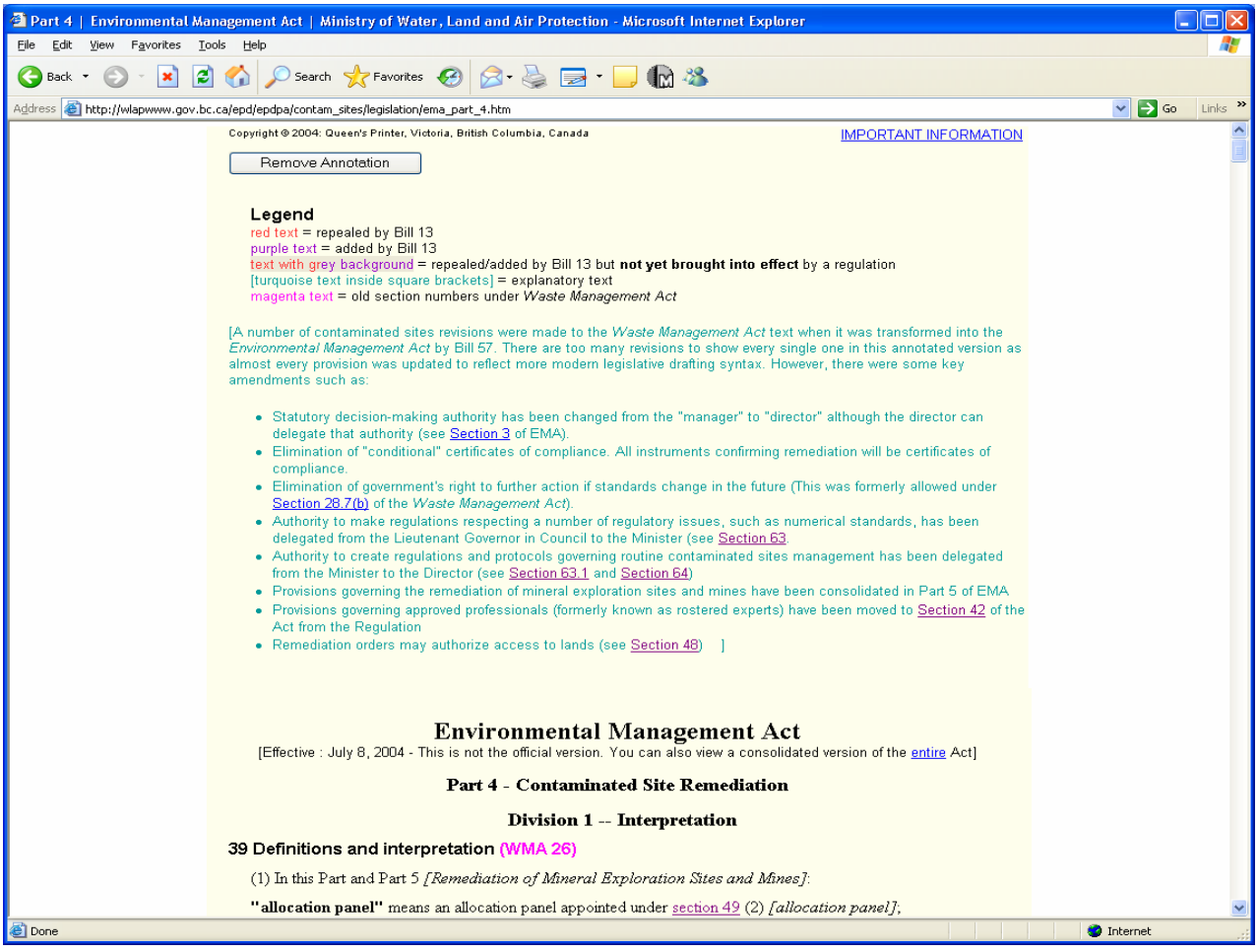

Figure 4 - Screen Shot of Annotated Legislation

Review of Recent Legislation and Policy Changes

Authority to create regulations

As mentioned above, EMA now differentiates the authority to create regulations between the Lieutenant Governor in Council and the Minister. In fact, it also allows the Director to make regulations in the specific case of establishing interim standards, something that will be discussed later. Figure 5 summarizes the role of the cabinet, minister and positions within the ministry.

Consolidation of Decision Making

When the contaminated sites legislation was launched in 1997, statutory decision making authority was spread across the province at the manager level. Some stakeholders raised concerns of inconsistencies between decision makers. EMA has consolidated the decision making to the director and delegates of the director. Furthermore, the contaminated sites program was reorganized last year into a distinct operational unit headed by a single assistant director. Functions have also been consolidated to unit heads within the program, responsible for specific business areas rather than geographic areas.

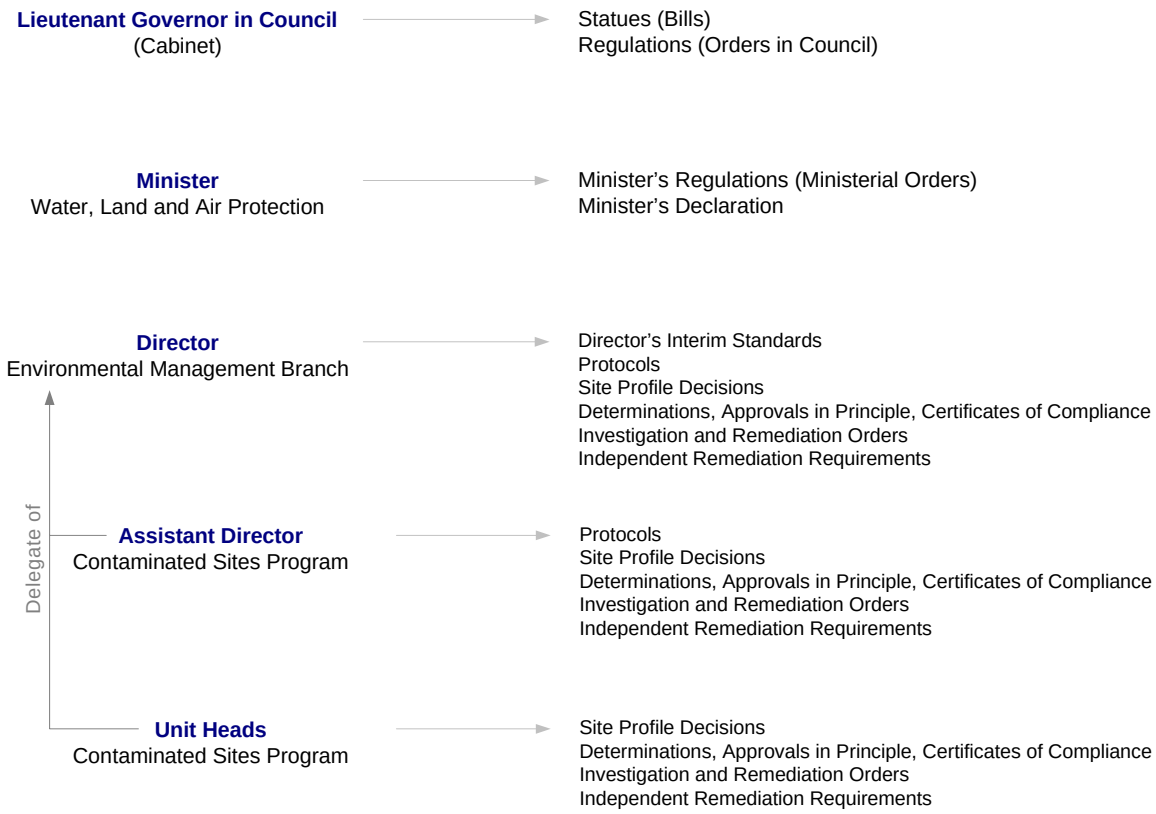

Figure 5 – Authorities and Decision Making

Elimination of Further action If Standards Change

Another concern raised by stakeholders has been the potential for the ministry to reopen files if the values of standards drop after instruments have been issued. This was legally permitted, although never used in practice, under the former *Waste Management Act*. Under EMA, the ability of the ministry to reopen files is now strictly tied to the level of risk represented by the site. An instrument issued for a site can not be revoked simply because the standards change. Rather, the ministry would have to show that the site poses a threat to human health or the environment to revoke an instrument. This change increases certainty for land owners and operators. This applies to determinations, approvals in principle and certificates of compliance.

Elimination of Conditional Certificates of Compliance

Under the *Waste Management Act* proponents seeking certification for risk-assessed sites would receive a conditional certificate of compliance. Proponents, lending institutions and other stakeholders have indicated that nomenclature of "conditional" certificate was perceived as less substantive than a certificate of compliance. In addition, there was some confusion caused by the inclusion of conditions or notations in certificates of compliance for numerical standards-based remediation.

To address these concerns and encourage the use of the risk based approach to site remediation, the ministry has eliminated conditional certificates. Now, proponents seeking an instrument from the ministry on completion of remediation will receive a certificate of compliance, whether the remedial strategy is based on adherence to numerical standards or risk-based standards.

We have had a number of enquiries from proponents who obtained conditional certificates under the former legislation. Those conditional certificates now have the equivalent meaning as certificates of compliance. The ministry will accept requests to reissue conditional certificates as certificates. However, it is important to remember that all certificates, whether they involve numerical or risk-based standards may have conditions attached to them respecting such issues as future land use, performance measures etc.

Definition of Contaminated Site

The definition of contaminated site has changed in EMA to more explicitly state that exceedances of either risk based or numerical standards constitute a contaminated site. In addition the reference to special waste has been changed to hazardous waste and a line break has been added for clarity. The previous wording implied to some that a site was a contaminated site if it contained hazardous waste in *any* quantity or concentration.

Old (WMA)

"…an area of land in which the soil or any groundwater lying beneath it, or the water or the underlying sediment, contains

(a) a special waste, or

(b) another prescribed substance in quantities or concentrations exceeding prescribed criteria, standards or conditions;"

New (EMA):

"…an area of the land in which the soil or any groundwater lying beneath it, or the water or the underlying sediment, contains

(a) a **hazardous** waste, or

(b) another prescribed substance ◄—— **Line break**

in quantities or concentrations exceeding prescribed **risk based or numerical** criteria or standards or conditions;"

Site Profiles

There have been no changes to the site profile provisions in EMA. However, Bill 13 did contain amended language, not yet in force, which effectively moves provisions (that stipulate when a site profile is required) from the Act to the Regulation.

Approved Professionals

In 1999 the ministry amended the CSR to enable clients to use "rostered experts" to make recommendations with respect to low to moderate risk sites. Since that time the scope of rostered experts has been expanded through a further amendment to the CSR and by revising Protocol 6, which relates to this issue. In the latest Stage 4 amendments the term "rostered expert" has been replaced by "approved professional".

The word "professional" appears in several contexts within EMA, its regulations and proposed ministry policies. Other regulations use the terms "qualified professional" and "professional engineer". Meanwhile, the term "licensed environmental professional" has been proposed as a successor to the contaminated sites approved professional. Each of these terms has a slightly different definition but it is hoped that some convergence of the terms describing "professionals" will occur as further legislative amendments are made.

In addition, the CSR now enables the Director to *require* that an application for a determination, approval in principle or certificate of compliance include the report and recommendation of an approved professional, where eligible. This will facilitate the transfer of oversight for non-high risk sites from ministry staff to approved professionals.

Access to Lands

In rare circumstances, responsible persons have been unable to access lands owned by other parties to carry out investigation and remediation. The ministry's ability to facilitate the cooperation of recalcitrant land owners was conspicuously absent from the remediation orders order provision and has been corrected with the recent amendments.

Regulation of the Mining and Petroleum Sector

The mining and upstream oil industries pose some unique situations when it comes to contaminated sites. In addition, the Ministry of Energy and Mines (MEM) and the Oil and Gas Commission (OGC) have specific expertise and authority within these areas.

EMA recognizes these differences in a couple of ways. First the provisions that deal with mines were segregated into a separate part of EMA (this occurred in 2002) and, in the recent amendments, removed from the CSR altogether. A memorandum of understanding (MOU) has been developed with MEM that sets out the roles and responsibilities of our respective agencies. Second, although responsibilities of the OGC are specified in EMA, an MOU has also been developed with the OGC.

Linkages to Hazardous Waste Regulation

The Special Waste Regulation has been renamed the Hazardous Waste Regulation. In creating the HWR a number of minor changes were made and a more comprehensive revision to this regulation is planned for the future. The HWR sets out rules for the identification, registration, transportation and management of hazardous waste. Because contaminated sites often involve hazardous waste, there are a number of linkages between these two regulations. As further amendments to the HWR are contemplated we will examine how the CSR may be affected and work to improve the clarity of the relationship between them.

Changes to Standards

The CSR has become considerably thicker as a result of newly appended schedules that describe soil and water standards and sediment criteria. However, these standards and criteria are not new. They existed formally as Director's Standards for MTBE, Director's Nonscheduled Toxic Substances Standards and Director's Sediment Criteria. But, the new legislation imposes a time limit of one year for Director's Standards and Criteria (see EMA 63.1(3)) and so these have been incorporated into the CSR schedules.

A number of other changes to the appearance of the schedules have been made to categorize substances more consistently across the schedules. No numbers have changed as a result of this process.

Similarly, the Schedule 5 (matrix soil standard) table for Mercury has been corrected slightly to remove the acronym NS (no standard specified) for the site-specific factors "groundwater flow to surface water used by aquatic life" and "groundwater used for livestock watering" for land uses where it was not applicable (see grey text in Table 1). Again, no numbers were changed.

Site-specific Factor	**SOIL STANDARD FOR PROTECTION OF SITE-SPECIFIC FACTOR**				
	Agricultural (AL)	**Urban Park (PL)**	**Residential (RL)**	**Commercial (CL)**	**Industrial (IL)**
Groundwater used for livestock watering	NS	NS	NS	NS	NS
Groundwater used for irrigation watering	NS	NS	NS	NS	NS

Table 1 – Excerpt from Matrix Numerical Soil Standards for Mercury

Finally, the soil standards for radioactive substances have been removed from Schedule 4 in recognition of the Ministry of Health's jurisdiction over human health effects of radioactive substances.

Changing Role of Roster of Approved Professionals

Since 1999 the ministry has allowed consideration of the recommendations of approved professionals when issuing regulatory instruments for low to moderate risk sites.

Over the past several years a number of changes to the approved professional process have been made which have increased the number and scope of submissions and the number of approved professionals. The approved professional process is expected to transition to a new framework for licensed environmental professionals (or LEPs) sometime in 2005. More information on the development of the new LEP framework is available at:

http://www.apeg.bc.ca/aboutus/cs/LicensedEnvironmentalProfessionalframe.html

In the meantime, the ministry has been working with the Roster Steering Committee, which represents approved professionals, to further improve the existing process. In June 2004 the ministry set the stage for a number of additional changes. Many of these will be reflected in a revised operating procedure for the roster, which is anticipated in October 2004.

Four individuals were appointed to the roster to draft examinations in anticipation of the addition of risk assessment specialists to the roster. Because many risk assessors are biologists, membership in the College of Applied Biology (CAB) is being recognized as an appropriate requirement for eligibility for appointment to the roster. The CAB joins the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC) and British Columbia Institute of Agrologists (BCIA).

The appointment period will be extended from three to five years.

Quality control of roster submissions is conducted through performance assessments of 1 in 10 submissions. Recently, performance assessments changed from being conducted by two ministry staff to being conducted by one ministry staff member and one member of the Roster Steering Committee. From now on, performance assessments will be conducted by Roster Steering Committee members only. Note that the ministry's contact for performance assessments is Katherine O'Leary.

The focus of performance assessments will change from disciplinary to educational. This will be accomplished by: providing opportunity to meet performance assessors early in the assessment process, increasing the transparency of performance assessments, conducting both random and targeted assessments and reserving disciplinary action, such as removal from the roster, to exceptional cases where work can be shown to be grossly negligent or incompetent.

Responsibility for director's decisions related to the roster has been delegated to the Assistant Director of Contaminated Sites, Alan McCammon.

The ministry's latest Service Plan reaffirms the high priority that we have placed on reduction of the contaminated sites application backlog. For some time, the ministry has been encouraging applicants to take advantage of the roster and external contract review options to minimize review turnaround times. In addition, the ministry has redirected some applications to external and other review contractors at increased cost to the ministry. These and other efforts during recent years have reduced the backlog to a limited extent only.

Effective November 1, all applications for low to moderate risk sites must be submitted as roster submissions by approved professionals. This change has been made for several reasons, including further backlog reduction, improving client service, meeting Service Plan targets, focusing ministry resources on high risk sites and expanding the role of approved professionals on lower risk sites. By taking these actions and continuing to improve our internal processing efficiencies, we anticipate a positive effect on backlog reduction. The number of applications reviewed by those other than ministry staff will increase and ministry review timelines will decrease.

Introduction to Roster Steering Committee and Science Advisory Board

As the ministry began to draw up a plan for change it was clear that we did not have sufficient resources to create the scientific and administrative tools that are integral to the new legislative framework. To address this need we sought external resources and two key partners have been the Science Advisory Board and the Roster Steering Committee (see Figure 6).

Figure 6 – Relationship Between CSP, RSC and SAB

Development of a Framework for Licensed Environmental Professionals

See recommended framework for Licensed Environmental Professionals, available at: http://www.apeg.bc.ca/aboutus/cs/LicensedEnvironmentalProfessionalframe.html.

Science Advisory Board Projects

See SAB web site: http://www.sabcs.chem.uvic.ca/.

Future Work and Consultation Opportunities

Improve Relationship between EMA and CSR

EMA is designed to set out a broad legislative framework while the underlying regulations such as the CSR, which are typically developed after the statutory amendments, provide more detailed provisions. During the evolution of the legislation, some provisions in EMA have not been implemented through regulation and some are modified by regulation. Over the course of the next legislative cycle, the relationship between EMA and the CSR will be examined and legislative provisions will be reworked to improve the flow of the law from statute to regulation. Some of this work has already begun through the Stage 4 amendments. For example, provisions describing the procedures for administrating determinations have been moved from EMA to the CSR.

Changes to Standards

There are a number of changes to standards that are planned to ensure that British Columbia's standards are scientifically current, defensible and consistent including

- Modification of Schedules 4, 5 and 6 so that a consistent risk threshold is applied to all substances and receptors. Water standards may be updated to reflect changes in the way CCME calculates water criteria.
- Assessment of the need for mandatory site-specific factors for soil invertebrates and human ingestion in Schedule 5 (matrix soil standards). These two site-specific factors are conservatively applied at all sites but this policy will be revisited to see if it is still appropriate.
- Development of standards for land uses not already addressed in the legislation. For example, "wild" land use is distinct from the existing recognized land uses such as agricultural land and urban park land and therefore requires a unique set of standards. Another example is multi-family residences such as condominiums, which present a different scenario of exposures relative to human health risk from the single family residences contemplated by the existing residential land use standards.

Site Investigation Triggers

In late 2003, the ministry released a discussion paper on the conditions that trigger the need for a site investigation in British Columbia. Following feedback from stakeholders, notably local government stakeholders, the ministry realized that there is a broad spectrum of understanding of the existing legislation. In view of this the ministry feels

that further education and clarification related to the regulatory intent and function of the existing process is necessary, in conjunction with any proposed changes to the site investigation trigger process. UBCM will assist with disseminating information to local governments.

Site Classification, Investigation and Remediation Process

Also in late 2003 a discussion paper on the site classification, investigation and remediation process was released. This will be further refined in consultation with stakeholders as the Science Advisory Board completes it various projects developing tools in support of this process.

Brownfields Strategy

The ministry is working with the Canadian Council of Ministers of the Environment (CCME) to develop a national brownfield strategy and associated tools. The ministry is co-ordinating efforts with the Ministry of Sustainable Resource Management, which has responsibility for crown lands.

We have already taken some preliminary steps to implement a provincial brownfield strategy through enabling provisions for a Land Remediation Fund in EMA and the commission of an economic analysis of the business case for a brownfields redevelopment initiative in British Columbia (Lime Kiln Inc., 2004). The ministry is also examining the issue of brownfields with its United States counterparts in the Pacific North West.

Liability Review and Dispute Resolution

We have a number of initiatives in progress that address the issues of liability and allocation. Among the issues we are currently exploring are options for capping roster liability and a general review of the liability provisions in EMA. This latter project will be integrated with the brownfields strategy.

Communication with Stakeholders

As legislation and policy have been developed over the past year we have communicated with our stakeholders through a variety of means. We have held stakeholder workshops, issued requests for comment on our web site and issued information bulletins using our Cs-elink mailing list. Cs-elink has been a particularly useful tool to reach almost 700 subscribers. Since it was implemented, however, new technologies have evolved that offer improvements to Cs-elink and we have been exploring these alternatives. One option we are considering is an online web discussion forum. We have been using an online forum within the program for more than a year and it has a number of advantages over traditional email.

With an online discussion forum announcements are posted to a web site instead of via email. When you want to read an announcement you go to the web site where you can post replies or even start your own discussion topic. You have the system notify you when topics are posted and you can even select the type of notifications. For example,

you can choose to be notified of every topic, only topics within a specified category or individual topics.

We feel that providing stakeholders with a discussion forum that allows two way communications will assist the contaminated sites community. A discussion forum can also become a searchable repository of contaminated sites information.

Of course, there is no substitute for face to face meetings such as this one and we do plan to engage stakeholders in this type of forum more often in the future. We are hosting a practitioners' forum on October 6 and we are open to travelling to other parts of the province depending on demand.