An Introduction to Contaminated Sites in British Columbia

What is a contaminated site?
In British Columbia, a contaminated site is defined as an area of land in which the soil or underlying groundwater or sediment contains a hazardous waste or substance in an amount or concentration that exceeds provincial environmental quality standards. A site is contaminated if it is unsuitable for specific uses of land, water and sediment.

Many sites in the province became contaminated during past industrial or commercial uses. Such activities often resulted in chemicals and other toxic materials being spilled or deposited on land. The most common substances found at sites in BC are heavy metals such as lead, arsenic, cadmium, and mercury. Organic chemicals, including benzene and toluene in gasoline, occur at about two-thirds of the sites. Chlorophenols are common at wood treatment operations, as are benzo[a]pyrene and naphthalene from creosote. Polychlorinated biphenyls (PCBs) often occur at sites where electrical equipment was used.

Why are contaminated sites a concern?
Contaminants pose a threat to human health, the environment, and safety. Their potential effects on humans, for example, range from minor physical symptoms to life-threatening diseases such as cancer. Children are often most at risk from exposure to contaminated soil, air, water, and food. And even if a site does not pose a threat to people, it can still be an environmental hazard. Soil, water, and sediment at a site may contain substances that can injure fish or mammals; impair the reproduction of birds; and accumulate in the food web. These effects can be severe enough to impair, or cause imbalance in, ecological functions or systems.

How many contaminated sites are there in British Columbia?
Currently, there are over 9000 sites in the ministry's records. This number includes sites that are being screened and are not yet confirmed as being (or not being) contaminated; sites that are being cleaned up; sites that are awaiting final confirmation that cleanup is complete; and sites where cleanup is confirmed.

Why does the provincial government regulate contaminated sites?
The impetus for creating a system to regulate and administer the investigation and cleanup of contaminated sites has come from several quarters. Stakeholders asked for a system that would:

- improve protection of human health, environment, infrastructure, and safety;
- enhance business certainty in land transactions;
- increase fairness in determining liability (amongst land owners and operators, financial institutions, and local governments);
- provide easy public access to information sites;
- minimize government involvement in site cleanups;

- provide formal certification of cleanups;
- use defensible, scientifically based standards; and
- involve public health officials to develop alternative health protection standards.

How is contamination on Crown land managed?
The Crown Land Restoration Branch in the Ministry of Agriculture and Lands manages identified high risk contaminated sites on provincial lands, to ensure protection of human health and the environment. The Program provides cross-government policy on site management; improves the store of information on provincial contaminated sites; and establishes a way for ministries and agencies to report their progress in dealing with the liabilities and risks posed by contaminated sites on Crown land. For more information, view the Program's web site at: http://www.agf.gov.bc.ca/clad/ccs/

Who else is involved in the contaminated sites process in BC?

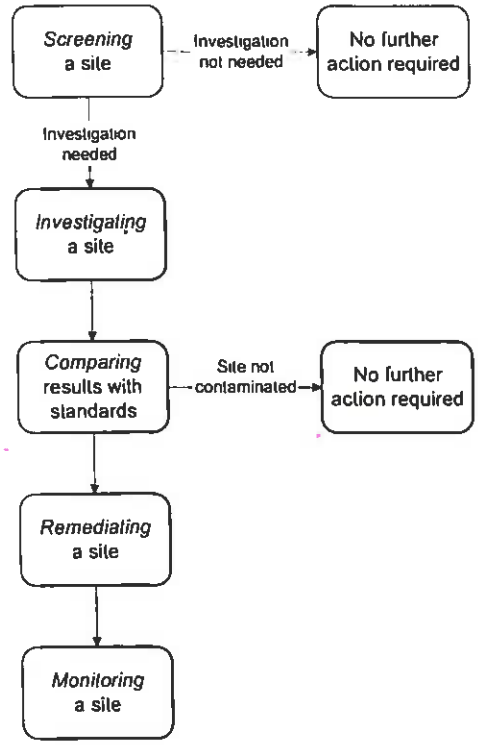
Many other parties play a role in the management of contaminated sites in the province. Examples include land owners and developers, provincial law makers and ministry staff, approved professionals and environmental consultants, lawyers, local governments, and scientific experts.

What requirements has the provincial government put in place to regulate contaminated sites?

The *Environmental Management Act* is the main law governing contaminated sites in the province. Brought into force in July 2004 (replacing the former *Waste Management Act*), it lays out standards for site identification, assessment, and cleanup ("remediation"). Other provisions are set out in the Contaminated Sites Regulation. It includes a system to streamline the cleanup of low and moderate-risk sites. The Ministry of Environment administers these legal requirements.

What are the steps in investigating and cleaning up a site?

The flow chart below shows the stages of the process for identifying, assessing, and cleaning up contaminated sites.



Process for determining whether a site is contaminated

When does the ministry find out about a site that is, or might be, contaminated?

There are several ways that potentially contaminated sites can come to the attention of the ministry:

- when a spill has occurred or a complaint of possible contamination is received;
- when a development application for land rezoning, demolition, soil relocation, or similar activity is received by a local government agency;

- when certain specific industrial or commercial land uses are known to have occurred on the site;
- when information is received about an independent cleanup taking place;
- when a property-related decommissioning or bankruptcy occurs, and
- when an application for a contaminated site service by the ministry is received.

In many cases, the requirement for a *site profile* is triggered.

What is a site profile?

A site profile is a screening form for identifying potentially contaminated sites. This summary is created from readily available information about a site, including a basic description and its past and present uses. The form is typically filled out by a site owner or a qualified consultant acting for the site owner. Based on the information provided, a site profile could trigger a site investigation.

What is a site investigation?

A site investigation is the key means of gathering information to determine if a site is contaminated. Land owners can have an investigation done without government involvement, but it should be carried out by experienced consultants. Under the contaminated sites legislation, the ministry's Director of Waste Management can order a site investigation, prompted by a site profile or other information received.

Site investigations can be done in one or two stages. A *preliminary site investigation* involves searching existing records for information about a site, interviewing people who are or have been involved with the site, and determining the general location and degree of any contamination. If more information is needed, then a *detailed site investigation* is undertaken. In this case, investigators conduct more detailed work to determine the location, extent, and impact of contamination. The information gathered is usually sufficient to develop a remediation plan, or a human health or environmental risk assessment. Sometimes both stages are combined.

Findings of these investigations are compared with environmental quality standards in the Contaminated Sites Regulation – the "measuring sticks" against which the presence of contamination by substances in soil, surface water, ground water, vapour and sediment is determined.

The ministry's Director of Waste Management has the authority to order site investigations.

What are environmental quality standards, and how were they developed?

The contaminated sites legislation defines two general types of standards:

- *Numerical standards* are acceptable concentrations of substances in soil, surface water, groundwater, vapour and sediments.
- *Risk-based standards* are acceptable risk levels from exposure to substances at sites.

To meet stakeholders' requests for flexibility, the ministry has provided five specific types:

- generic numerical standards and criteria,
- matrix numerical standards,
- site-specific numerical standards,
- Director's interim standards, and
- default risk-based standards.

Environmental quality standards are used to:

- determine if a site is contaminated;
- determine when a site has been adequately cleaned up;
- determine when soil relocation may occur; and
- identify potential safety hazards.

Process for cleaning up contaminated sites

Once a site is known to be contaminated, who is liable to pay for the cleanup?

The *Environmental Management Act* casts a relatively wide net of liability for contaminated sites remediation. Individuals with potential responsibility might be, for example, current or former owners (including developers) of a contaminated site or of a site from which contamination migrated. Other potentially responsible individuals include those who produce or transport hazardous substances.

To achieve fairness, the legislation also provides many exemptions from liability. Among those exemptions are:

- a government body involuntarily acquiring ownership of contaminated land;
- a person who "innocently" acquired the land;
- a person whose site is contaminated only by migration from another site;
- a consultant assisting a developer in the remediation of a site, provided the consultant is not negligent;
- construction contractors and transporters of contaminated soil who did not contribute further to the contamination at a site; and
- secured creditors who act only to protect their financial interest and do not, in any way, cause or increase contamination.

How clean should a contaminated site be after cleanup?

To be considered fully cleaned up, a contaminated site must meet the environmental quality standards set for the intended use of the site. Those remediation standards are, as described above, either numerical- or risk-based.

Site Cleanup Success Stories

How well has contaminated site management in BC worked? The record speaks for itself. In the 20 years since first developing standards to deal with the Expo '86 site in Vancouver, there has been significant progress in cleaning up sites across the province. To date, well over 2000 sites have been remediated. Most of the cleanup work has taken place in areas of BC where industrial and commercial activity has been greatest.

Among the most high-profile contaminated sites now successfully remediated are:

- the Nexen site near Squamish;
- the Songhees site in Victoria; and
- the area below Vancouver's Oak Street bridge.

At the same time, the Crown Land Restoration Branch (part of the Ministry of Agriculture and Lands) has also achieved a number of milestones, including substantial progress in cleaning up the Britannia Mine site near Howe Sound, and Pacific Place (part of the lands occupied by Expo '86), located on False Creek in Vancouver.

When contaminated sites have good potential for redevelopment (once remediated), they're referred to as "brownfields." Cleanup of these abandoned or underutilized commercial and industrial properties offers numerous public benefits to the community, the economy, and the environment.

A notable brownfield site currently undergoing redevelopment is the award-winning Dockside Green located near downtown Victoria. The project involves a mix of residential, commercial, and industrial use on the 11-acre property, and incorporates an extensive range of environmentally sustainable features. Dockside Green won the Canadian Urban Institute's 2005 Brownie Award recognizing leadership and innovation in brownfield redevelopment.

What are the options for voluntary site remediation?

Once it is determined that a contaminated site requires cleanup, the site owner generally has a number of options for going ahead. These differ

according to the extent of involvement required by the ministry and by environmental consultants and according to the legal instruments required. One option does not require any ministry involvement. This is called "independent remediation." Other options require increasing degrees of ministry involvement.

Sites remediated without ministry involvement – independent remediation

Independent remediation carried out in accordance with regulations is allowed, as long as the ministry is notified at the start and at the completion of remediation. At many sites, remediation may be routine, the risks posed by the site low, and methods of treatment readily available. With the assistance of capable environmental consultants, such a site can be remediated with very little involvement of the ministry.

With environmentally responsible care by site owners, independent site cleanups are practical and sensible. About 55% of the sites being cleaned up in BC are handled this way.

Sites remediated with ministry involvement – the ministry process

Option 1: Submission to ministry by Approved Professional – Applications for ministry services for low and moderate risk sites (such as an application to receive a Certificate of Compliance) must be submitted by an Approved Professional. About 25% of sites being cleaned up in BC are handled this way.

Option 2: Submission to ministry requesting external contract review – In limited cases, the ministry may contract out report reviews externally to qualified consultants. About 5% of site cleanups are handled this way.

Option 3: Submission to ministry for direct ministry review – For high risk sites and sites where risk-based standards are used, the ministry must conduct the review directly. About 15% of cleanups are handled this way.

Initiating and approving remediation

There are several options for initiating remediation. A person may request an Approval in Principle of a remediation plan or a Voluntary Remediation Agreement to obtain ministry approval of the conditions required to address contamination.

When a person does not voluntarily remediate a site, a remediation order can be issued by a Director. This could occur if contamination is severe or the person found liable will not agree to responsibility or to carrying out remediation requirements. At high risk orphan sites or other sites where environmental or human health is seriously threatened, the Minister may order remediation. The legislation also provides for access to funds for orphan site cleanup.

What steps are taken to ensure that a site meets the remediation standards after cleanup?

For sites being cleaned up to meet numerical remediation standards, post-cleanup sampling and analyses are obtained to ensure that the contaminants have been removed and that the residual soil, water, and sediment meet the applicable standards.

For sites being cleaned up to meet risk-based standards, post-cleanup inspections and regular environmental monitoring are carried out to check that exposure to substances remaining in place is reduced and satisfies the applicable remediation standards.

Are there any regulations for the relocation of contaminated soil?

Yes, Contaminated Soil Relocation Agreements regulate the movement of soil from contaminated sites, taking into account the soil quality and environmental conditions at the deposit site.

What services does the ministry offer in dealing with contaminated site cleanups?

The ministry offers clients a range of services related to managing and regulating contaminated sites. Clients may apply for services such as:

- site investigation report and remediation plan reviews;
- determinations whether or not a site is contaminated;
- Approvals in Principle of site remediation plans;
- Certificates of Compliance for cleanups to remediation standards;
- Voluntary Remediation Agreements; and
- Contaminated Soil Relocation Agreements.

The province uses a fee for service approach in providing these services.

How can you get information about specific contaminated sites?

The ministry's Site Registry documents milestones in the screening, identification, and cleanup of all sites in the province's records. Information gathered since 1988 is accessible to the public. The Site Registry is *not* a registry only of contaminated sites. Some sites on file are contaminated, but most are simply being investigated and require little if any cleanup, or they have already been cleaned up to provincial standards.

To get information about a particular site, search the Site Registry through BC OnLine (www.bconline. gov.bc.ca). The *Site Registry User's Guide* is also available on BC OnLine's web site. As well, ministry staff will perform a search if requested. If you wish to obtain site information that is available in paper records or on other databases, ministry staff can also get that for you through the Site Information Request process.

What other information is available?

Extensive information about contaminated sites in BC is available from the ministry in a number of different forms, including fact sheets, policies, procedures, protocols, and guidance documents. Visit the ministry's contaminated sites web site at http://www.env.gov.bc.ca/epd/remediation/ Paper copies of legislation and other documents can be purchased from Crown Publications (www.crownpub.bc.ca).

What changes are coming?

Since the release of the Minister's Advisory Panel Report in 2003, we have worked hard to update and improve the contaminated sites legal regime in BC. The result is a fairer, more streamlined, more effective process for regulating and managing the investigation and cleanup of contaminated sites. Key changes already underway include increasingly greater reliance on the services of Approved Professionals, greater focus by ministry staff on the highest risk sites, and elimination of the backlog of contaminated sites applications.

Note: This summary is solely for the convenience of the reader. The current legislation and regulations should be consulted for complete information.

For more information, contact the Environmental Management Branch at site@gov.bc.ca

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The Best Place on Earth

Ministry of Environment

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FACTS
ON CONTAMINATED SITES

December 2008

Site Profiles: Local Governments Duties

The provincial Contaminated Sites Regulation under the *Environmental Management Act* contains a site profile form. The form, which requires a basic land description and information on the past and present uses of the site, is an initial screening tool for identifying sites that might be contaminated.

Who is required to submit a site profile?

Developers, owners, and vendors of property, as well as local governments (as land owners), may have to submit site profiles.

What is the process for producing site profiles?

The flowchart on page 2 outlines the site profile process. The number for each step below corresponds to the numbered steps in the chart. Local government duties are shown in steps 4 through 6.

What triggers the need for a site profile?

1 Usually a subdivision, development, zoning, demolition, or soil removal application for a property triggers the submission of a site profile.

How do land uses relate to a site profile?

2 A site profile is required if a site has been used for industrial or commercial activities listed in Schedule 2 of the Regulation. If a site has been used exclusively for residential use, a profile is not required.

Are there any exemptions?

3 The Contaminated Sites Regulation provides for numerous exemptions, such as when a local government applies to zone or rezone land if the local government does not have an ownership interest in the land. If any of the exemptions apply, a site profile is not required.

What are a local government's main duties?

4 Local government officials must assess if the form is completed properly. If it is not, they must notify the person who provided the site profile and request corrections.

5 When the site profile has been properly completed, local government officials will review if there are any "yes" answers.

What are the forwarding duties?

6 If there is one or more "yes" answer, local government officials must forward the site profile to a Director of Waste Management. If there are all "no" answers, the profile must be forwarded to the Site Registrar.

For a site profile that needs further review, local governments must assess and forward the profile to the ministry within 15 days.

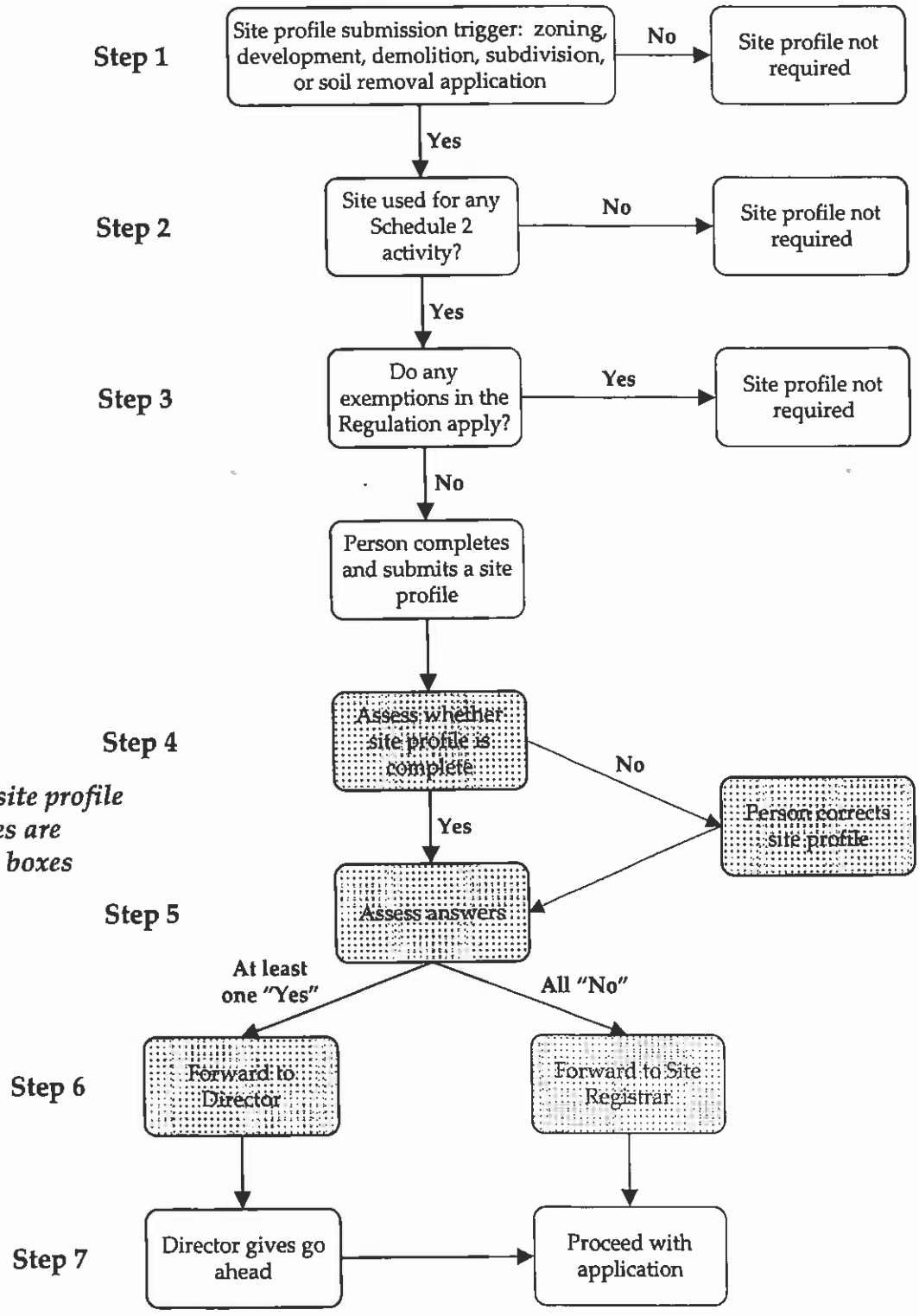
Do site profiles affect the approval of applications?

7 If a site profile is forwarded to a Director, the affected application must not be approved by the local government until the Director makes a decision, usually within 15 days, if the site requires investigation.

Note: This summary is solely for the convenience of the reader. The current legislation and regulations should be consulted for complete information.

For information about site profiles, please send a message to siteprofiles@gov.bc.ca. For more information, contact the Environmental Management Branch at site@gov.bc.ca.

Site Profiles and Local Government Requirements



Local government's site profile administration duties are shown in the shaded boxes

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FACTS
ON CONTAMINATED SITES

November 2007

The Site Profile System

The site profile system is a legally defined, uniform process that provides a mechanism to screen potentially contaminated sites in British Columbia.

Site profiles are forms that require readily available information about the past and present uses of a site, as well as basic land descriptions. The assistance of a consultant is not required to complete a site profile.

The content and format of a site profile are provided in Schedule 1 of the *Environmental Management Act's* Contaminated Sites Regulation. The ministry has prepared a user-friendly version which can be obtained from the ministry's web site at: http://www.env.gov.bc.ca/epd/remediation/forms/index.htm

When must a site profile be completed and submitted?

There are three steps in determining if a site profile is required.

Step 1 is to establish if any of the following triggers pertain to the site:

- application to local government for zoning, subdivision, development or development variance, soil removal, or demolition;
- decommissioning a site;
- taking over a property as a trustee, receiver or liquidator;
- selling property that has or had a Schedule 2 activity on it; and
- application for a Certificate of Restoration under the *Petroleum and Natural Gas Act*.

In step 2, it must be determined if any of the activities listed in Schedule 2 of the Regulation have occurred on the site. Schedule 2 lists commercial and industrial activities and uses that have the potential to cause contamination. If the answer is no, then there is no requirement to complete a site profile. If the answer is yes, then a site profile may have to be submitted.

Step 3 involves determining if any exemptions apply. The Regulation lists numerous exemptions from the requirement to submit a site profile.

In summary, a site profile must be completed and submitted to the appropriate recipient if a Schedule 2 use or activity applies, a specific type of activity or application is involved, and there are no applicable exemptions. In addition, a site profile must be submitted if one is ordered by a Director of Waste Management.

Site profiles must be submitted to different parties depending on the site profile trigger. These parties include approving officers, local governments, prospective purchasers or a Director of Waste Management.

For detailed instructions on completing and submitting a site profile, see Administrative Guidance document 1, "Completing and Submitting Site Profiles".

Assessing site profiles

Site profiles submitted to local governments or approving officers are assessed within 15 days of submission. If the site profile is not satisfactorily completed, it will be returned for correction.

Site profiles submitted to local governments or approving officers that have any "yes" responses in sections IV through IX of the form will be forwarded to a Director for review and entry into the Site Registry. If there are all "no" responses, the site profile will be forwarded to the Site Registrar in Victoria and entered directly into the Site Registry.

Site investigations

Once a site profile has been received by a Director, he or she has 15 days to determine whether a site investigation is required. If one is required, the local government or approving officer and the applicant will be notified of the Director's decision.

When the Director determines that a site investigation is required, this decision will suspend approval of the subject application, or other future applications for the site as identified in section 40 of the *Environmental Management Act* until:

- the proponent applies for and obtains one of the following *Environmental Management Act* instruments, as applicable: a Determination that the site is not a contaminated site, a Voluntary Remediation Agreement, an Approval in Principle of a remediation plan, or a Certificate of Compliance confirming the satisfactory remediation of the site; or
- the local government receives a "release" notice from the Director.

For more information about site investigations and site profile freeze and release provisions, please refer to Technical Guidance documents 10 and 11 and Fact Sheet 37.

How do I obtain a contaminated sites legal instrument for my site?

Almost all applications for contaminated sites legal instruments must be submitted with the recommendation of a person on the Roster of Approved Professionals. Please refer to Fact Sheet 30 for some basic information about the Roster.

Applications for a contaminated sites legal instrument must include a completed Contaminated Sites Services Application form. We recommend that a qualified consultant assist with the application process. An overview of the contaminated sites services offered by the ministry is provided in Fact Sheet 28. Service fees are listed in Schedule 3 of the Contaminated Sites Regulation and are reviewed in Fact Sheet 25, "Fees for Contaminated Sites Services."

Note: This summary is solely for the convenience of the reader. The current legislation and regulations should be consulted for complete information.

For information about site profiles, please send a message to siteprofiles@gov.bc.ca.

SCHEDULE 1
Site Profile

Version 4.0

Introduction

Under section 40 of the *Environmental Management Act*, a person who knows or reasonably should know that a site has been used or is used for industrial or commercial purposes or activities must in certain circumstances provide a site profile.

Schedule 2 of the Contaminated Sites Regulation sets out the types of industrial or commercial purposes or activities to which site profile requirements apply.

If section 40 of the Environmental Management Act applies to you and you know or reasonably should know that the site has been used or is used for one of the purposes or activities found in Schedule 2 of the Contaminated Sites Regulation, you may be required to complete the attached site profile.

Notes/Instructions:

Persons preparing a site profile *must* complete Section I, II and III, answer all questions in sections IV through IX, and sign section XI. If the site profile is not satisfactorily completed, it will not be processed under the *Environmental Management Act* and the Contaminated Sites Regulation. Failure to complete the site profile satisfactorily may result in delays in approval of relevant applications and in the postponement of decisions respecting the property.

The person completing this site profile is responsible for the accuracy of the answers. Questions must be answered *to the best of your knowledge.*

Section 27 (1) of the *Freedom of Information and Protection of Privacy Act* requires that provision of personal information concerning an individual must be authorized by that individual. Persons completing the site profile on behalf of the site owner must be authorized by the site owner.

One (1) site profile may be completed for a site comprised of more than one titled or untitled parcel, but individual parcels must be identified.

The latitude and longitude (accurate to 0.5 of a second using North American Datum established in 1983) of the centre of the site must be provided. Also, please attach an accurate map, containing latitude, longitude and datum references, which shows the boundaries of the site in question. Please use the largest scale map available.

If the property is legally surveyed, titled and registered, then all PID numbers (**P**arcel **ID**entifiers – Land Title Registry system) must be provided for *each* parcel as well as the appropriate legal description.

If the property is untitled Crown land (no PID number), then the appropriate PIN numbers (**P**arcel **I**dentification **N**umbers – Crown Land registry system) for each parcel with the appropriate land description should be supplied.

If available, the Crown Land File Number for the site should also be supplied.

Anything submitted in relation to this site profile will become part of the public record and may be made available to the public through the Site Registry as established under the *Environmental Management Act.*

Under section 43 of the *Environmental Management Act,* corporate and personal information contained in the site profile may be made available to the public through the Site Registry. If you have questions concerning the collection of this information, contact the Site Registrar, at site@gov.bc.ca. For questions on site profiles, please send a message to siteprofiles@gov.bc.ca.

I CONTACT IDENTIFICATION

A. Name of Site Owner:

Last_____ First_____ Middle Initial(s) _____ (and/or, if applicable)

Company_____

Owner's Civic Address_____

City_____ Province/State_____

Country_____ Postal Code/ZIP_____

B. Person Completing Site Profile (Leave blank if same as above):

Last_____ First_____ Middle Initial(s) _____ (and/or, if applicable)

Company_____

C. Person to Contact Regarding the Site Profile:

Last _____ First _____ Middle Initial(s)_____ (and/or, if applicable)

Company_____

Mailing Address_____

City_____ Province/State_____

Country_____ Postal Code/ZIP_____

Telephone (_____) _____ - _____ Fax (_____) _____ - _____

II SITE IDENTIFICATION

Please attach a site location map

All Property

Coordinates (using the North American Datum 1983 convention) for the centre of the site:

Latitude: Degrees_____ Minutes_____ Seconds_____

Longitude: Degrees_____ Minutes_____ Seconds_____

Please attach a map of appropriate scale showing the boundaries of the site.

For Legally Titled, Registered Property

Site Street Address (if applicable)_____

City_____ Postal Code_____

PID numbers and associated legal descriptions. ***Attach an additional sheet if necessary.***

PID	Legal Description

Total number of titled parcels represented by this site profile is: _____

For Untitled Crown Land

PIN numbers and associated Land Description. ***Attach an additional sheet if necessary.***

PIN	Land Description

Total number of untitled crown land parcels represented by this site profile is:_____

(and, if available)

Crown land file numbers. ***Attach an additional sheet if necessary.***

_____ _____ _____ _____ _____

III COMMERCIAL AND INDUSTRIAL PURPOSES OR ACTIVITIES

Please indicate below, in the format of the example provided, which of the industrial and commercial purposes and activities from Schedule 2 have occurred or are occurring on this site.

EXAMPLE

Schedule 2 Reference	Description
E1	appliance, equipment or engine repair, reconditioning, cleaning or salvage
F10	solvent manufacturing or wholesale bulk storage

Please print legibly. Attach an additional sheet if necessary

Schedule 2 Reference	Description

IV	AREAS OF POTENTIAL CONCERN		
	Is there currently or to the best of your knowledge has there previously been on the site any (please mark the appropriate column opposite the question):	**YES**	**NO**
A.	Petroleum, solvent or other polluting substance spills to the environment greater than 100 litres?		
B.	Residue left after removal of piled materials such as chemicals, coal, ore, smelter slag, air quality control system baghouse dust?		
C.	Discarded barrels, drums or tanks?		
D.	Contamination resulting from migration of substances from other properties?		

V	FILL MATERIALS		
	Is there currently or to the best of your knowledge has there previously been on the site any deposit of (please mark the appropriate column opposite the question):	**YES**	**NO**
A.	Fill dirt, soil, gravel, sand or like materials from a contaminated site or from a source used for any of the activities listed under Schedule 2?		
B.	Discarded or waste granular materials such as sand blasting grit, asphalt paving or roofing material, spent foundry casting sands, mine ore, waste rock or float?		
C.	Dredged sediments, or sediments and debris materials originating from locations adjacent to foreshore industrial activities, or municipal sanitary or stormwater discharges?		

VI	WASTE DISPOSAL		
	Is there currently or to the best of your knowledge has there previously been on the site any landfilling, deposit, spillage or dumping of the following materials (please mark the appropriate column opposite the question):	**YES**	**NO**
A.	Materials such as household garbage, mixed municipal refuse, or demolition debris?		
B.	Waste or byproducts such as tank bottoms, residues, sludge, or flocculation precipitates from industrial processes or wastewater treatment?		
C.	Waste products from smelting or mining activities, such as smelter slag, mine tailings, or cull materials from coal processing?		
D.	Waste products from natural gas and oil well drilling activities, such as drilling fluids and muds?		
E.	Waste products from photographic developing or finishing laboratories; asphalt tar manufacturing; boilers, incinerators or other thermal facilities (e.g. ash); appliance, small equipment or engine repair or salvage; dry cleaning operations (e.g. solvents); or from the cleaning or repair of parts of boats, ships, barges, automobiles or trucks, including sandblasting grit or paint scrapings?		

VII	TANKS OR CONTAINERS USED OR STORED, OTHER THAN TANKS USED FOR RESIDENTIAL HEATING FUEL		
	Are there currently or to the best of your knowledge have there been previously on the site any (please mark the appropriate column opposite the question):	**YES**	**NO**
A.	Underground fuel or chemical storage tanks other than storage tanks for compressed gases?		
B.	Above ground fuel or chemical storage tanks other than storage tanks for compressed gases?		

VIII	HAZARDOUS WASTES OR HAZARDOUS SUBSTANCES		
	Are there currently or to the best of your knowledge have there been previously on the site any (please mark the appropriate column opposite the question):	**YES**	**NO**
A.	PCB-containing electrical transformers or capacitors either at grade, attached above ground to poles, located within buildings, or stored?		
B.	Waste asbestos or asbestos containing materials such as pipe wrapping, blown-in insulation or panelling buried?		
C.	Paints, solvents, mineral spirits or waste pest control products or pest control product containers stored in volumes greater than 205 litres?		

IX	LEGAL OR REGULATORY ACTIONS OR CONSTRAINTS		
	To the best of your knowledge are there currently any of the following pertaining to the site (please mark the appropriate column opposite the question):	**YES**	**NO**
A.	Government orders or other notifications pertaining to environmental conditions or quality of soil, water, groundwater or other environmental media?		
B.	Liens to recover costs, restrictive covenants on land use, or other charges or encumbrances, stemming from contaminants or wastes remaining onsite or from other environmental conditions?		
C.	Government notifications relating to past or recurring environmental violations at the site or any facility located on the site?		

X ADDITIONAL COMMENTS AND EXPLANATIONS

(Note 1: Please list any past or present government orders, permits, approvals, certificates and notifications pertaining to the environmental condition, use or quality of soil, surface water, groundwater or biota at the site.

Note 2: If completed by a consultant, receiver or trustee, please indicate the type and degree of access to information used to complete this site profile. Attach extra pages, if necessary):

XI SIGNATURES

The person completing the site profile states that the above information is true based on the person's current knowledge as of the date completed.

_____ _____

Signature of person completing site profile **Date completed: (YY-MM-DD)**

XII OFFICIAL USE

Local Government Authority

Reason for submission *(Please check one or more of the following)*

Subdivision application ❑ **Zoning application** ❑ **Development permit** ❑ **Variance permit** ❑ **Soil removal** ❑ **Demolition permit** ❑

Date received:	Local Government contact : Name_____ Agency_____ Address_____ _____ Telephone _____ Fax_____	Date submitted to Site Registrar:	Date forwarded to Director of Waste Management:

Director of Waste Management

Reason for submission *(Please check one or more of the following)*

Under Order ❑ **Site decommissioning** ❑ **Foreclosure** ❑

Date received:	Assessed by: Name_____ Region_____ Telephone _____ Fax_____ If site profile entered, SITE ID #_____	Investigation Required? **YES NO**	Decision date:

Site Registrar

Date received:	Entered onto Site Registry by:	SITE ID #:	Entry date:

B.C. Reg. 375/96 Deposited December 16, 1996

O.C. 1480/96 and M271/2004 effective April 1, 1997

Environmental Management Act

CONTAMINATED SITES REGULATION

[includes amendments up to B.C. Reg. 343/2008, January 1, 2009]

Schedule 2

[am. B.C. Regs. 17/2002, s. 16; 239/2007, s. 5; 343/2008, s. 12.]

Industrial and Commercial Purposes and Activities

COLUMN I Item	COLUMN II Purpose or Activity
A	**Chemical industries and activities** 1. adhesives manufacturing or wholesale bulk storage 2. chemical manufacturing or wholesale bulk storage 3. explosives or ammunition manufacturing or wholesale bulk storage 4. fire retardant manufacturing or wholesale bulk storage 5. fertilizer manufacturing or wholesale bulk storage 6. ink or dye manufacturing or wholesale bulk storage 7. leather or hides tanning 8. paint, lacquer or varnish manufacturing, formulation, recycling or wholesale bulk storage 9. pharmaceutical products, or controlled substances as defined in the *Controlled Drugs and Substances Act* (Canada), manufacturing or operations 10. plastic products (foam or expanded plastic products) manufacturing 11. textile dying 12. pesticide manufacturing, formulation or wholesale bulk storage 13. resin or plastic monomer manufacturing, formulation or wholesale bulk storage
B	**Electrical equipment and activities** 1. battery (lead acid or other) manufacturing or wholesale bulk storage 2. communications stations using or storing equipment that contains PCBs 3. electrical equipment manufacturing, refurbishing or wholesale bulk storage

	4. electrical transmission or distribution substations 5. electronic equipment manufacturing 6. transformer oil manufacture, processing or wholesale bulk storage 7. electrical power generating operations fuelled by coal or petroleum hydrocarbons and supplying electricity to a community or commercial or industrial operation
C	**Metal smelting, processing or finishing industries and activities** 1. foundries or scrap metal smelting 2. galvanizing 3. metal plating or finishing 4. metal salvage operations 5. nonferrous metal smelting or refining 6. welding or machine shops (repair or fabrication)
D	**Mining, milling or related industries and activities** 1. asbestos mining, milling, wholesale bulk storage or shipping 2. coal coke manufacture, wholesale bulk storage or shipping 3. coal or lignite mining, milling, wholesale bulk storage or shipping 4. milling reagent manufacture, wholesale bulk storage or shipping 5. nonferrous metal concentrate wholesale bulk storage or shipping 6. nonferrous metal mining or milling
E	**Miscellaneous industries, operations or activities** 1. appliance, equipment or engine repair, reconditioning, cleaning or salvage 2. ash deposit from boilers, incinerators, or other thermal facilities 3. asphalt tar manufacture, wholesale storage and distribution 4. coal gasification (manufactured gas production) 5. medical, chemical, radiological or biological laboratories 6. rifle or pistol firing ranges 7. road salt storage facilities 8. measuring instruments (containing mercury) manufacture, repair or wholesale bulk storage 9. dry cleaning facilities or operations and dry cleaning chemical storage 10. sites which have been or likely have been contaminated by substances migrating from other properties 11. controlled substances, as defined in the *Controlled Drugs and Substances Act* (Canada), manufacturing or operations
F	**Petroleum and natural gas drilling, production, processing, retailing, distribution and storage other than the storage of residential heating fuel in tanks** 1. petroleum or natural gas drilling 2. petroleum or natural gas production facilities

	3. natural gas processing 4. petroleum coke manufacture, wholesale bulk storage or shipping 5. petroleum product, other than compressed gas, dispensing facilities, including service stations and card locks 6. petroleum, natural gas or sulphur pipeline rights of way excluding rights of way for pipelines used to distribute natural gas to consumers in a community 7. petroleum product, other than compressed gas, or produced water storage in above ground or underground tanks 8. petroleum product, other than compressed gas, wholesale bulk storage or distribution 9. petroleum refining wholesale bulk storage or shipping 10. solvent manufacturing or wholesale bulk storage 11. sulphur handling, processing or wholesale bulk storage and distribution
G	**Transportation industries, operations and related activities** 1. aircraft maintenance, cleaning or salvage 2. automotive, truck, bus, subway or other motor vehicle repair, salvage or wrecking 3. bulk commodity storage or shipping (e.g. coal) 4. dry docks, ship building or boat repair and maintenance, including paint removal from hulls 5. marine equipment salvage 6. rail car or locomotive maintenance, cleaning, salvage or related uses, including railyards 7. truck, rail or marine bulk freight handling
H	**Waste disposal and recycling operations and activities** 1. antifreeze bulk storage or recycling 2. barrel, drum or tank reconditioning or salvage 3. battery (lead acid or other) recycling 4. biomedical waste disposal 5. bulk manure stockpiling and high rate land application or disposal (nonfarm applications only) 6. construction demolition material, including without limitation asphalt and concrete, landfilling 7. contaminated soil storage, treatment or disposal 8. dredged waste disposal 9. drycleaning waste disposal 10 electrical equipment recycling 11. industrial waste lagoons or impoundments 12. industrial waste storage, recycling or landfilling 13. industrial woodwaste (log yard waste, hogfuel) disposal 14. mine tailings waste disposal 15. municipal waste storage, recycling, composting or landfilling 16. organic or petroleum material landspreading (landfarming) 17. sandblasting waste disposal

	18. septic tank pumpage storage or disposal 19. sewage lagoons or lmpoundments 20. special waste storage, treatment or disposal 21. sludge drying or composting 22. street or yard snow removal dumping 23. waste oil reprocessing, recycling or bulk storage 24. wire reclaiming operations
I	**Wood, pulp and paper products and related industries and activities** 1. particle board manufacturing 2. pulp mill operations 3. pulp and paper manufacturing 4. treated wood storage at the site of treatment 5. veneer or plywood manufacturing 6. wafer board manufacturing 7. wood treatment (antisapstain or preservation) 8. wood treatment chemical manufacturing, wholesale bulk storage 9. sawmills

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