

*PROTOCOL 12*  
**FOR CONTAMINATED SITES**

Site Risk Classification, Reclassification and Reporting

Draft 8 July 2009

Prepared pursuant to Sections 63 and 64 of the  
*Environmental Management Act*

Approved:

\_\_\_\_\_  
Director of Waste Management

\_\_\_\_\_  
Date

## 1.0 Definitions

The following words, acronyms and expressions used in this protocol are defined in the ministry procedure "Definitions and Acronyms for Contaminated Sites":

Act	NAPL
Approved Professional	onsite
aquatic habitat	offsite
contaminant	parcel
contaminated sites legal instrument	receptor
dense nonaqueous phase liquid	Regulation
Director	soil
DNAPL	sensitive habitat
exposure zone	soil surface
high water mark	source site
independent remediation	terrestrial habitat
light nonaqueous phase liquid	UC
LNAPL	undeveloped land
ministry	upper cap concentration
mobile DNAPL	wildlands land use
mobile LNAPL	wildlife corridors
nonaqueous phase liquid	

## 2.0 Introduction

This protocol provides procedures for classifying sites and parts of sites based on their risks to the environment and human health. Sites which have the high risk site conditions identified in this protocol are classified "high risk". They require high standards of care and responsiveness in investigation and remediation and warrant involvement of the ministry to ensure that appropriate and timely action takes place. It also identifies:

- conditions for classifying sites as high risk sites under Section 64(2)(i) of the Act;
- notification procedures for all sites and
- reporting and reclassification requirements for high risk sites pursuant to Section 64(1)(d) of the Act.

Risk classifications under this protocol apply to toxicological risks associated with substances listed in the Contaminated Sites Regulation. Risks of flammability, explosivity, corrosivity or other safety hazards are not addressed.

This protocol and its procedures should not be confused with the process of conducting detailed risk assessment under the Regulation and associated protocols and guidance.

The performance of detailed risk assessment for determining site-specific risk levels and developing risk-based remediation strategies is an acceptable approach for all sites where immediate risks to human health or the environment have been controlled.

Scientific background information and procedural recommendations that guided the development of this protocol are contained in the report *Recommended Procedures for Identification of High Priority Contaminated Sites in British Columbia*, prepared by the Science Advisory Board for Contaminated Sites in British Columbia.

### **3.0 Site information needs**

The conditions in this protocol for classifying site risk levels require simple, objective measurements for characterizing primary contributors to environmental and human health risk (contaminant toxicity, exposure pathways and receptors). They are intended to enable sites to be classified on the basis of limited and readily obtainable site data.

The level of information necessary to determine the risk classification of a site will vary on a site-by-site basis depending on the nature and extent of contamination, site geology and hydrogeology and site proximity to receptors. In general, information needed to classify site risk may be obtained at any stage of the investigation and remediation process. When required, further detailed site information should be obtained at the earliest opportunity to enable a risk classification to be determined.

Risk classifications determined under this protocol must be supported by appropriate, satisfactory site information obtained in accordance with ministry procedures, protocols, guidance and standard professional practice.

### **4.0 Site risk classification**

#### **4.1 High risk site conditions**

A site is considered a high risk site under this protocol if mobile nonaqueous phase liquids (NAPL) are present or high risk exposure to contaminants is likely.

In completing a site risk classification the potential for both of these conditions to occur must be satisfactorily evaluated. If either of these conditions exists, the site is classified as high risk.

A flowchart showing the high risk site condition evaluation process is presented in Figure 1.

#### **4.1.1 Condition 1. Mobile nonaqueous phase liquids (NAPL) are present**

Mobile LNAPL and mobile DNAPL sources lead to contaminant spreading and potential for current and future high risks as well as increased complexity, cost, and effort of remediation. Mobile NAPL is defined and discussed in detail in the ministry's Protocol 16, "Determining the Presence and Mobility of Nonaqueous Phase Liquids and Odorous Substances". If mobile NAPL occurs at a site, the site is considered a high risk site.

#### **4.1.2 Condition 2. Potential high risk exposure exists**

For a site to qualify as high risk under condition 2, the site must exhibit two features:

- a) upper cap concentrations must be exceeded, and
- b) complete exposure pathways must be present.

##### Upper cap concentrations must be exceeded

First, one or more substances at the site must have concentrations greater than the upper cap (UC) concentrations for those substances in soil, water, sediment or vapour at the site. These are concentrations of contaminants that, when present at a site, may pose a high risk. The ministry's UC concentrations are established in Protocol 11, "Upper Cap Concentrations for Substances Listed in the Contaminated Sites Regulation". UC concentrations are to be evaluated in relation to the presence in the exposure zone in the exposure pathway evaluation section below.

Where notifications to the Director are triggered under the reporting procedures of this protocol and detailed investigations have not yet been completed, the presence or absence of UCs must be established. If UC concentrations are exceeded, exposure pathways must be evaluated. If UC concentrations are not exceeded, then the following exposure pathway analysis need not be evaluated.

##### Complete exposure pathways must be present

This step must be carried out if UC concentrations are exceeded at a site. The analysis involves simple pathway assessments for each of the eight exposure pathways considered in this protocol. The eight exposure pathways include:

##### Human health

- Soil exposure
- Vapour exposure
- Water exposure

##### Environmental health

- Soil exposure - terrestrial life
- Water exposure - aquatic life
- Sediment exposure - aquatic life
- Water exposure - livestock watering
- Water exposure - irrigation of crops

Each exposure pathway consists of a series of risk criteria that are evaluated in a step-wise fashion. Risk criteria vary by exposure pathway, but generally comprise criteria related to contaminant concentrations, contaminant extent, and distance from the exposure zone. All exposure pathways for which UC concentrations have been identified must be evaluated. Where the combined risk criteria of one or more exposure pathways are present at a site the site is classified high risk.

Figure 1 shows the eight exposure pathways and associated exposure risk criteria. The exposure risk criteria are also provided in the Exposure Pathway Questionnaire and are further explained in questionnaire notes which are both in Appendix 1.

#### **4.2 High risk classification**

Sites at which one or more high risk site conditions have been identified are *high risk sites*. Contaminated sites where high risk site conditions 1 and 2 have not been identified are *not high risk sites*.

Site risk classifications are based on current land use except where there is an active application for a change in land use or where a change in land use is proceeding in the absence of an application. Risk classifications for sites in the application process or proceeding towards a change in land use must be based on the proposed land use.

On a site-specific basis, a Director may designate a site as high risk if the Director considers that site conditions and risks warrant oversight of remediation by the ministry. Sites at which high risk site conditions are remediated using in situ risk management will remain classified as high risk sites.

### **5.0 Reporting requirements**

#### **5.1 Triggers and timing of notifications of site risk classification to the Director**

Site risk classifications and related reports must be provided to a Director if the triggers shown in Column I of Table 1 occur. The timing of these submissions is shown in Column II for each site risk classification notification trigger. Tables 2 and 3 provide details of the reporting and submission requirements for each trigger.

In addition, site risk classifications and related reports must be provided to a Director for each neighbouring site which has actual or potential offsite high risk conditions due to the offsite migration of substances from a source site which is the subject of any of the notification triggers in Table 1. The notification triggers and timing of notifications for the offsite parcels are the same as those for the applicable notification triggers for the source sites.

**Table 1. Site risk classification notification triggers and timing of related reports**

Column I	Column II
Notification Trigger	Timing of Submission of Risk Classifications and Related Reports
Submission to the Director of a Notification of Independent Remediation initiation	At the time the Notification of Independent Remediation initiation is submitted
Submission to the Director of a site investigation report required or ordered by a Director	At the time the site investigation report is submitted
Submission of a Notification of Offsite Migration to the Director	At the time the Notification of Offsite Migration is submitted
Application to a Director for a contaminated sites service in Table 2 or 3 of Schedule 3 of the Regulation	At the time the application for a contaminated sites service is submitted
Imposition of the requirement for a Site Risk Classification Report submission by the Director	At the time the Director has specified for the submission

## 5.2 Reporting format

Reporting submissions must be provided in the form of a Site Risk Classification Report (attached in Appendix 2) and, where exposure pathways were evaluated in reaching a site risk classification, an Exposure Pathway Questionnaire (attached in Appendix 1). For sites classified as high risk a Summary of Site Condition (Schedule 1.1 of the Regulation) must also be provided.

## 5.3 Reporting exemptions

If there are multiple triggers for notification of the Director which apply at the same time, only one completed Site Risk Classification Report and completed Exposure Pathway Questionnaire (where applicable) need to be provided to the Director.

## 5.4 Reporting for Approved Professional submissions

Site Risk Classification Reports submitted with contaminated sites service applications and the recommendation of an Approved Professional as required under Protocol 6, "Eligibility of Applications for Review by Approved Professionals, must indicate that the site for which the application is submitted is not a high risk site.

## 5.5 Reporting for offsite migration

If the migration or likely migration of substances from a source site results in actual or potential offsite high risk conditions being identified in a Site Risk Classification Report for the source site, a separate Site Risk Classification Report and, where exposure pathways were evaluated in reaching a site risk classification, an Exposure Pathway Questionnaire must be submitted to the Director for each offsite parcel which would be, or would likely be classified as high risk.

In the situation where insufficient information is available to provide site risk classifications for offsite parcels, the Director may impose the requirement for a Site Risk Classification Report, which would require additional site investigations.

### **5.6 Reporting for high risk sites for independent remediation**

The reporting requirements for high risk sites undergoing independent remediation are provided in Table 3. Notifications of initiation of independent remediation where remediation will be completed in less than 90 days must indicate in the Site Risk Classification Report that all high risk conditions will be addressed within 90 days of initiating independent remediation. If high risk conditions are encountered and not addressed within 90 days, the Director must be provided a revised Site Risk Classification Report and updated completion schedule at 90 days. These requirements apply to any site undergoing independent remediation including sites where a site investigation was required or ordered by the Director or a Notification of Offsite Migration or Site Risk Classification Report was submitted to the Director before or at the time independent remediation began.

### **5.7 Reporting for part site remediation**

Where a Notification of Independent Remediation has been submitted for a part of a large site, the attached Site Risk Classification Report must indicate the presence of all parts of the site that are potentially or known to be high risk and provide a general schedule for remediating all high risk parts of the site.

## **6.0 Site risk reclassification**

Once all high risk site conditions have been removed or otherwise satisfactorily addressed, a person may apply to the Director to have a site reclassified as not high risk. A reclassification decision simply refers to a site's risk classification under this protocol. Sites reclassified as not high risk may, depending on the nature and extent of remedial actions undertaken, continue to be contaminated sites.

Reporting requirements for obtaining a reclassification decision are as follows:

- A Site Risk Classification Report confirming that no high risk conditions remain onsite;
- A Summary of Site Condition where remedial actions to address all high risk site conditions exceeded 90 calendar days in duration; and
- Approved Professional signoff of the above reports.

The Director may, depending on site circumstances, require additional information to be provided in order to reach a decision on reclassification.

For a site where remediation is being carried out in parts, responsible persons may obtain a reclassification for parts of their site where high risk conditions have been addressed. However, they will not be eligible for a reclassification of the entire site until all site contamination has been properly investigated and classified and all high risk site conditions have been remediated to satisfy the requirements of this protocol.

*For more information, contact the Environmental Management Branch at [site@gov.bc.ca](mailto:site@gov.bc.ca).*

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**Table 2. Reporting requirements for sites by notification trigger**

Notification Trigger	Not High Risk Site Additional Reporting Requirements	High Risk Site Additional Reporting Requirements	Notes 1, 2, 3, 4
Notification of initiation of independent remediation submission	Site Risk Classification Report Exposure Pathway Questionnaire	Refer to Table 3	
Site investigation report ordered or required by Director submission		Site Risk Classification Report Exposure Pathway Questionnaire Summary of Site Condition	
Notification of Offsite Migration submission			
Service application submission – Approved Professional review		Not applicable	5
Service application submission – ministry review	Not applicable	Site Risk Classification Report Exposure Pathway Questionnaire	5
Imposition of requirement for Site Risk Classification Report submission	Site Risk Classification Report Exposure Pathway Questionnaire	Site Risk Classification Report Exposure Pathway Questionnaire Summary of Site Condition	

**Notes**

1. Notification triggers refer to the timing of submission of Site Risk Classification Reports to the Director. Site Risk Classification Reports must be provided with the submissions listed in the column with the header “Notification Trigger”.
2. Reports for notification triggers required elsewhere in the contaminated sites legal regime (e.g., Summaries of Site Condition with contaminated sites service applications required under section 7.1 of the Regulation) are not included in this table.
3. Completed Exposure Pathway Questionnaires must be submitted only if substances which exceed upper cap concentrations are present at the site.
4. If the migration or likely migration of substances from a source site results in actual or potential offsite high risk conditions being identified in a Site Risk Classification Report for the source site, a separate Site Risk Classification Report and, where exposure pathways were evaluated in reaching a site risk classification, an Exposure Pathway Questionnaire must be submitted to the Director for each offsite parcel which would be, or would likely be classified as high risk.
5. Service applications refer to contaminated sites service applications listed in Table 2 and 3 of Schedule 3 of the Regulation. Service applications eligible for review by Approved Professionals are as specified in Protocol 6, “Eligibility of Applications for Review by Approved Professionals”. All other service applications are subject to review by the ministry.

**Table 3. Reporting requirements for high risk sites undergoing independent remediation**

Type of Requirement	Reporting requirements for remediation of high risk conditions within 90 days	Reporting requirements for remediation of high risk conditions taking more than 90 days	Notes 1 - 4
Reporting at initiation of independent remediation	Confirmation that remediation of high risk conditions will occur within 90 days Site Risk Classification Report Exposure Pathway Questionnaire	Site Risk Classification Report Exposure Pathway Questionnaire Summary of remedial methods and schedule for remediation Summary of Site Condition signed by Approved Professional	5, 6, 7
Interim reporting	Not required	Progress reports as required by the Director	
Reporting at completion of remediation of high risk conditions	Site Risk Classification Report confirming that site is no longer high risk Approved Professional signoff	Site Risk Classification Report confirming that site is no longer high risk Summary of Site Condition Approved Professional signoff	7

**Notes**

1. Reports for notification triggers required elsewhere in the contaminated sites legal regime (e.g., Notifications of Offsite Migration and Notifications of Independent Remediation) are not included in this table.
2. Remedial actions restricted to management of high risk conditions would only address requirements of this protocol. Where contamination remains after high risk conditions are removed, additional remediation may be required to meet the broader requirements of the Act and Regulation.
3. Applications to the Director for a reclassification decision may occur at any time after high risk conditions have been removed. It is not necessary to wait until all site remediation is completed.
4. The Director, as authorized under the Act, may set conditions and timelines differing from those set out above as appropriate and warranted by site conditions and circumstances.
5. Remedial methods and schedule refer to actions and timelines to address all site conditions leading to the reclassification of a high risk site.
6. Exposure Pathway Questionnaires are required only if upper cap concentrations of substances are present at the site.
7. If high risk conditions are not addressed within 90 days of initiation of independent remediation, the Director must be provided a revised Site Risk Classification Report and updated completion schedule for remediation at 90 days.

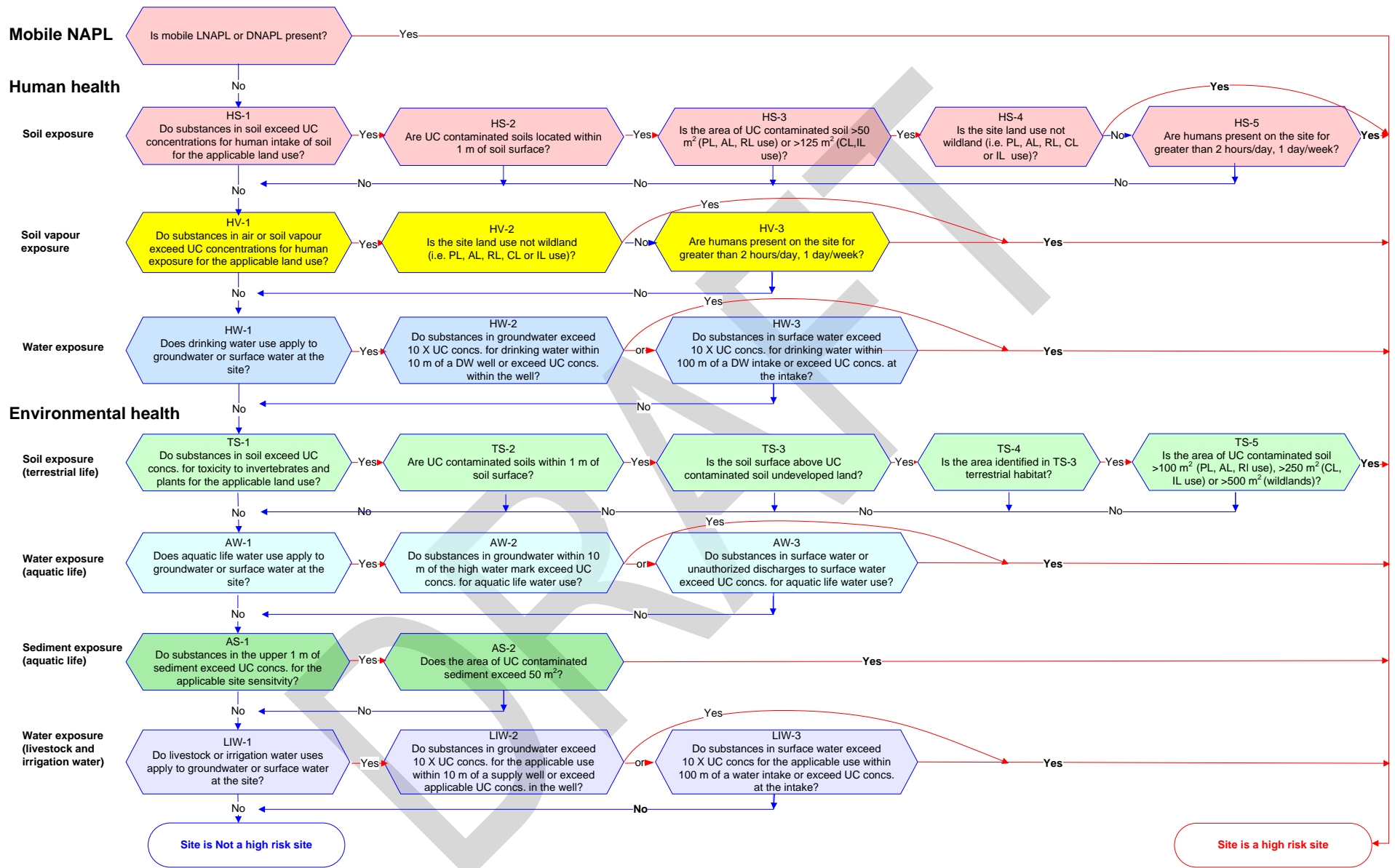


Figure 1. High risk site condition evaluation (see Exposure Pathway Questionnaire for detailed notes)

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**Appendix 1**

**Exposure Pathway Questionnaire**

Property Owner

Exposure Pathway Questionnaire<sup>1</sup>

Site ID

		Yes	No	Notes
<b>Human Health Exposure</b>				2, 3, 4
<b>Soil Exposure</b>				
HS-1	Do substances in soil exceed upper cap concentrations (UCs) for human intake of soil for the applicable land use?	<input type="checkbox"/>	<input type="checkbox"/>	5, 6
HS-2	Are UC-contaminated soils located within 1 m of the <i>soil surface</i> ?	<input type="checkbox"/>	<input type="checkbox"/>	7
HS-3	Does the area of UC contaminated soil exceed 50 m <sup>2</sup> on urban park, agricultural or residential lands or 125 m <sup>2</sup> on commercial or industrial lands?	<input type="checkbox"/>	<input type="checkbox"/>	8
HS-4	Is the site land use urban park, agricultural, residential, commercial or industrial (i.e. not <i>wildlands</i> )?	<input type="checkbox"/>	<input type="checkbox"/>	
HS-5	Are humans present on the site for greater than 2 hours/day, 1 day/week?	<input type="checkbox"/>	<input type="checkbox"/>	9
<b>Soil Vapour Exposure</b>				
HV-1	Do substances in air or soil vapour exceed UC concentrations for human inhalation for the applicable land use?	<input type="checkbox"/>	<input type="checkbox"/>	5, 6, 7, 10
HV-2	Is the site land use urban park, agricultural, residential, commercial or industrial (i.e. not <i>wildlands</i> )?	<input type="checkbox"/>	<input type="checkbox"/>	
HV-3	Are humans present on the site for greater than 2 hours/day, 1 day/week?	<input type="checkbox"/>	<input type="checkbox"/>	9
<b>Water Exposure</b>				
HW-1	Does drinking water use apply to groundwater or surface water at the site?	<input type="checkbox"/>	<input type="checkbox"/>	11, 12
HW-2	Do substances in groundwater exceed 10 times UC concentrations for drinking water within 10 m of a drinking water well or exceed UC concentrations within the well?	<input type="checkbox"/>	<input type="checkbox"/>	6, 13
HW-3	Do substances in surface water exceed 10 times UC concentrations for drinking water within 100 m upstream of a drinking water intake or exceed UC concentrations at the intake?	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Environmental Health Exposure</b>				2, 3, 4
<b>Terrestrial Soil Exposure</b>				
TS-1	Do substances in soil exceed UC concentrations for toxicity to invertebrates and plants for the applicable land use?	<input type="checkbox"/>	<input type="checkbox"/>	5, 6
TS-2	Are UC contaminated soils within 1 m of the <i>soil surface</i> ?	<input type="checkbox"/>	<input type="checkbox"/>	7
TS-3	Is the soil surface above UC contaminated <i>undeveloped land</i> ?			
TS-4	Is the area identified in TS-3 <i>terrestrial habitat</i> ?	<input type="checkbox"/>	<input type="checkbox"/>	
TS-5	Does the area of UC contaminated soil exceed 100 m <sup>2</sup> on urban park, agricultural or residential lands or 250 m <sup>2</sup> on commercial or industrial lands or 500 m <sup>2</sup> on wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	8, 16
<b>Aquatic Life Water Exposure</b>				
AW-1	Does aquatic life water use apply to groundwater or surface water at the site?	<input type="checkbox"/>	<input type="checkbox"/>	11
AW-2	Do substances in groundwater within 10 m of the <i>high water mark</i> of an <i>aquatic habitat</i> exceed the UC concentrations for aquatic life water use?	<input type="checkbox"/>	<input type="checkbox"/>	13
AW-3	Do substances in surface water or unauthorized discharges to surface water exceed UC concentrations for aquatic life water use?			14
<b>Aquatic Life Sediment Exposure</b>				
AS-1	Do substances in the upper 1 m of sediment exceed the UC concentrations for the applicable site sensitivity?	<input type="checkbox"/>	<input type="checkbox"/>	6, 15
AS-2	Does the area of UC-contaminated sediment exceed 50 m <sup>2</sup> ?	<input type="checkbox"/>	<input type="checkbox"/>	8
<b>Livestock and Irrigation Water Exposure</b>				
LIW-1	Do livestock or irrigation water uses apply to groundwater or surface water at the site?	<input type="checkbox"/>	<input type="checkbox"/>	9, 10
LIW-2	Do substances in groundwater exceed 10 times applicable UC concentrations within 10 m of the water supply well or exceed applicable UC concentrations in the well?	<input type="checkbox"/>	<input type="checkbox"/>	4, 11
LIW-3	Do substances in surface water exceed 10 times applicable UC concentrations within 100 m upstream of a drinking water intake or exceed applicable UC concentrations at the	<input type="checkbox"/>	<input type="checkbox"/>	

## Exposure Pathway Questionnaire Notes

1. Pathways leading to classification of high risk (where yes answer is given for sequential risk criteria, except where indicated otherwise):
  - HS-1* ⇨ *HS-2* ⇨ *HS-3* ⇨ *HS-4* = *HR*
  - HS-1* ⇨ *HS-2* ⇨ *HS-3* ⇨ *HS-4* (No) ⇨ *HS-5* = *HR*
  - HV-1* ⇨ *HV-2* = *HR*
  - HV-1* ⇨ *HV-2* (No) ⇨ *HV-3* = *HR*
  - HW-1* ⇨ *HW-2* = *HR*
  - HW-1* ⇨ *HW-3* = *HR*
  - TS-1* ⇨ *TS-2* ⇨ *TS-3* ⇨ *TS-4* ⇨ *TS-5* = *HR*
  - AW-1* ⇨ *AW-2* = *HR*
  - AW-1* ⇨ *AW-3* = *HR*
  - AS-1* ⇨ *AS-2* = *HR*
  - LIW-1* ⇨ *LIW-2* = *HR*
  - LIW-1* ⇨ *LIW-3* = *HR*
2. Environmental site investigations must be carried out in accordance with ministry procedures and guidance and standard professional practice.
3. The assessment of exposure pathways pertains to contamination arising from the site or sites under investigation. Where contamination originating from the site under investigation has migrated offsite the evaluation of exposure pathways pertains to contamination originating from the site under investigation. Co-contamination of offsite lands that preclude the evaluation of exposure pathways associated with the source site must be identified in supporting technical reports.
4. Terms in italics are listed in section 1.0 (definitions) of this protocol.
5. Applicable land uses are as defined in the Contaminated Sites Regulation (agricultural, urban park, residential, commercial, industrial and wildlands).
6. Ministry's UC concentrations are provided in Protocol 11 "Upper Cap Concentrations for Substances Listed in the Contaminated Sites Regulation".
7. Where concentrations occur above UC concentrations, appropriate cross-sections are required to support conclusions of UC contamination located at depths greater than 1 m below soil surface.
8. Where concentrations occur above UC concentrations, appropriate contour maps are required to support conclusions of the areal extent of UC contamination. "Areal extent" refers to the total combined areal extent of UC contaminated soil at a site, contiguous or non-contiguous.
9. Human exposure on wildlands sites during limited periods of the year (i.e. hunting camps) may be compared to the prescribed exposure threshold of 2 hours/day, 1 day/week by averaging total annual exposure over a 3 month period. Actual human exposure must be indicated in supporting technical reports.
10. Soil vapour investigations must follow Technical Guidance 4 for Contaminated Sites – Soil Vapour Assessment.
11. Applicable groundwater use must be determined in accordance with Technical Guidance document 6, "Applying Water Quality Standards to Groundwater and Surface Water" and ministry procedures and guidance.
12. Where groundwater concentrations exceed UC concentrations near a groundwater receptor (e.g., drinking water well), appropriate contour maps and cross-sections should be provided to support conclusions of UC-contaminated groundwater located outside prescribed distance limits.
13. Where groundwater concentrations exceeding UC concentrations for aquatic life have not been delineated to within 10 m of the high water mark of an aquatic habitat, groundwater concentrations at wells installed nearest 10 m from the high water mark are considered representative of concentrations at that point.
14. Unauthorized discharges are discharges of site surface water (including storm water and drainage ditches) above UC concentrations into an aquatic habitat that are not authorized under the Act.
15. Sediment sensitivity must be determined in accordance with Technical Guidance 19, "Assessing and Managing Contaminated Sediments."
16. Area threshold assumes site contamination is surrounded by the same land use.

**APPENDIX 2**

**SITE RISK CLASSIFICATION REPORT**

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Ministry of Environment

## SITE RISK CLASSIFICATION REPORT

Land Remediation Section  
 PO Box 9342 Stn Prov Govt  
 Victoria B.C. V8W 9M1  
 Telephone: (250) 387-4441  
 Fax: (250) 387-9935

Submission of this report is required by Protocol 12, "Site Risk Classification, Reclassification and Reporting" under the *Environmental Management Act*.

### Part 1. Land, owner and agent information

#### Section I Land Description

Site ID Number (if known)  
 PID or PIN  
 Legal Description  
 Latitude Degrees Minutes Seconds  
 Longitude Degrees Minutes Seconds  
 Site Civic Address Street  
 City Postal Code

#### Section II Property Owner and/or Operator (if applicable)

Name  
 Address Street  
 City Province/State  
 Country Postal /Zip Code  
 Phone Fax

#### Section III Environmental Consultant / Contractor / Agent Contact (if applicable)

Name  
 Address Street  
 City Province/State  
 Country Postal /Zip Code  
 Phone Fax

## Part 2. Site risk classification notification triggers

### Section IV Applicable triggers

Please check the applicable triggers for the submission of this Site Risk Classification Report to the Director:

- Notification of Independent Remediation initiation
- Site investigation report ordered or required by the Director
- Notification of Offsite Migration
- Ministry service application with the recommendation of an Approved Professional
- Ministry service application without the recommendation of an Approved Professional
- Site Risk Classification Report for a neighbouring site under section 5.5 of this protocol
- Site Risk Classification Report otherwise required by a Director

## Part 3. Site investigation status

### Section V Onsite and offsite investigation status

#### A. Adequacy of completed site investigations

Is site information appropriate and satisfactory to determine a site risk classification?  yes  no

If no, please indicate the scheduled completion date of investigations needed to complete classification below.

#### B. Onsite investigation status

- |   |                              |                             | <b>Scheduled Completion Date</b> |
|---|------------------------------|-----------------------------|----------------------------------|
| 1. Stage I preliminary site investigation completed?  | <input type="checkbox"/> yes | <input type="checkbox"/> no | _____                            |
| 2. Stage II preliminary site investigation completed? | <input type="checkbox"/> yes | <input type="checkbox"/> no | _____                            |
| 3. Detailed site investigations completed?            | <input type="checkbox"/> yes | <input type="checkbox"/> no | _____                            |
| 4. Offsite migration of contamination identified?     | <input type="checkbox"/> yes | <input type="checkbox"/> no | _____                            |

#### C. Offsite investigation status

- |   |                              |                             |       |
|---|------------------------------|-----------------------------|-------|
| 1. Stage I preliminary site investigation completed?  | <input type="checkbox"/> yes | <input type="checkbox"/> no | _____ |
| 2. Stage II preliminary site investigation completed? | <input type="checkbox"/> yes | <input type="checkbox"/> no | _____ |
| 3. Detailed site investigations completed?            | <input type="checkbox"/> yes | <input type="checkbox"/> no | _____ |

### Section VI Onsite high risk conditions details

1. Is mobile NAPL present onsite?  yes  no

If yes, please describe the mobile NAPL substances and their general location.

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2. Are upper cap concentrations exceeded?

yes  no

If yes, what substances exceed upper cap concentrations, in what media?

3. Exposure pathways – are the risk criteria for any exposure pathway exceeded?  yes  no

If yes, which exposure pathways indicate high risk? Attach Exposure Pathway Questionnaire.

### Section VII Onsite site risk classification

high risk

not high risk

*Note that for sites for which there is insufficient information to determine the site risk classification, information on the scheduled dates for completion of site investigations must be provided in Part 2 of this report.*

### Part 4. Independent remediation status

#### Section VIII Onsite independent remediation

Has independent remediation been initiated at the site?

yes  no

Will the independent remediation of high risk conditions be completed within 90 days?

yes  no

*If independent remediation of high risk site conditions is being carried out and is not completed within 90 days the Director must be provided a revised site classification report and an updated completion of remediation schedule at the 90<sup>th</sup> day of independent remediation.*

### Part 5. Offsite conditions

#### Section IX Offsite high risk conditions details

1. Is mobile NAPL present or likely present offsite?

yes  likely  no

If yes or likely, please describe the mobile NAPL substances and their general location.

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2. Are upper cap concentrations exceeded or likely exceeded offsite?  yes  likely  no

If yes or likely, what substances exceed or are likely to exceed upper cap concentrations, and in what media?

3. Are high risk exposure pathways present or likely present offsite?  yes  likely  no

If yes or likely, please list the exposure pathways which impact or are likely to impact offsite receptors. Attach Exposure Pathway Questionnaire.

4. Are any offsite parcels classified as high risk or likely to be classified as high risk?  yes  no

If yes, please list the following for each offsite parcel

**Site ID (if known)**

**Offsite parcel owner**

**Civic Address**

## Part 6. Signatures

### Section X Professional signatures

I confirm that the investigations referred to above have been conducted in accordance with approved procedures and guidance and standard professional practice. I confirm the above information and that provided on the Exposure Pathway Questionnaire, if attached, to be true, based on current knowledge as of the date completed.

I confirm that I have demonstrable experience in conducting investigations of the type reviewed above.

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Date completed (yy-mm-dd)

Please send your completed Site Risk Classification Report to:

**Director of Waste Management  
c/o Site Risk Classification Report  
Ministry of Environment  
PO Box 9342 Stn Prov Govt  
Victoria B.C. V8W 9M1  
Fax (250) 387-9935**