

SITE RISK CLASSIFICATION REPORT

Land Remediation Section PO Box 9342 Stn Prov Govt Victoria B.C. V8W 9M1 Telephone: (250) 387-4441 Fax: (250) 387-8897 E-mail: site@gov.bc.ca

Instructions

You must complete and sign the following Site Risk Classification Report form (and where required the Exposure Pathway Questionnaire in Part 8 of the form) and send it to the Ministry of Environment when required under Protocol 12, "Site Risk Classification, Reclassification and Reporting." That document appears on our website at: http://www.env.gov.bc.ca/epd/remediation/policy_procedure_protocol/protocols/pdf/protocol12-final.pdf.

Where to send Site Risk Classification Reports for source parcels

Notifications of Independent Remediation and Offsite Migration

Site Risk Classification Reports which are required to be submitted with a Notification of Independent Remediation initiation or Notification of Likely or Actual Offsite Migration must be sent at the time those forms are submitted, to:

Director of Waste Management c/o Site Information Advisor Ministry of Environment PO Box 9342 Stn Prov Govt Victoria, B.C. V8W 9M1

Fax (250) 387-8897

E-mail: Advisor.SiteInformation@gov.bc.ca

Required or ordered site investigations¹

Site Risk Classification Reports which are required to be submitted in response to a requirement or order for a site investigation report by the Director must be sent at the time the site investigation report is submitted, to:

Director of Waste Management c/o Site Profile Administration Ministry of Environment #200 - 10470 - 152nd Street Surrey BC V3R 0Y3

Fax (604) 584-9751

E-mail: siteprofiles@gov.bc.ca

Contaminated Sites Service Applications

Site Risk Classification Reports which are required to be submitted with an application to the Director of Waste Management for a contaminated sites service must be sent with the Contaminated Sites Service Application form to:

Director of Waste Management c/o Client Information Officer Ministry of Environment PO Box 9342 Stn Prov Govt Victoria, B.C. V8W 9M1

Fax (250) 387-8897

E-mail: csp cio@Victoria1.gov.bc.ca

Site Risk Classification Reports Required by a Director Site Risk Classification Reports which are required to be

submitted directly to a Director of Waste Management must be sent by the time the Director has specified, to:

Director of Waste Management c/o Site Risk Classification Administration Ministry of Environment #200 - 10470 - 152nd Street Surrey BC V3R 0Y3

Fax (604) 584-9751

E-mail: SiteClassification@gov.bc.ca

Where to send Site Risk Classification Reports for neighbouring parcels

Site Risk Classification Reports which are submitted in relation to potential or high risk conditions at a neighbouring parcel or area indicated in the Site Risk Classification Report submitted to the Director of Waste Management for a source parcel must be submitted to the Director to the applicable address, fax number or e-mail address above, with the Site Risk Classification Reports for the source site.

This category includes all site investigations required subsequent to the submission of a site profile (including local government release requests) as well as those site investigations required or ordered by the Director separate from the site profile process.

For further information regarding site risk classification, please refer to Fact Sheet 45, "Site Risk Classification" (available at: http://www.env.gov.bc.ca/epd/remediation/fact sheets/) or e-mail us at SiteClassification@gov.bc.ca.



Ministry of Environment

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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)		or	PIN
Is the land part of a site?	☐ yes	☐ no	If the answer is "yes" please provide details:
Legal Description			
Latitude	Degrees	Minute	es Seconds
Longitude	Degrees	Minute	es Seconds
Site Civic Address	Street		Produit On the
	City		Postal Code
Section II Property Owner an	d/or Opera	tor (if applica	able)
Name			
Address	Street		
	City		Province/State
	Country		Postal /Zip Code
Phone	,	Fa	ax
Section III Environmental Cor	neultant / C	ontractor / A	gent Contact (if applicable)
Section in Environmental Col	isuitant / C	ontractor / A	igent contact (ii applicable)
Name			
Address	Street		
	City		Province/State
	Country		Postal /Zip Code
Phone			Fax

Part 2. Site risk classification notification triggers

Section IV	Applicable triggers
Check the ap	oplicable triggers for the submission of this Site Risk Classification Report to the Director:
	Notification of Initiation of Independent Remediation
	Site investigation report ordered or required by the Director
	Notification of Likely or Actual 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 5.4 of Protocol 12
	Site Risk Classification Report otherwise required by a Director

Part 3. Site investigation status

Secti	Section V Source and affected parcel investigation status							
	A. Adequacy of completed site investigations Is site information appropriate and satisfactory to determine a site risk classification?							
3	l. 2. 3.	ource parcel investigation status Stage I preliminary site investigation completed? Stage II preliminary site investigation completed? Detailed site investigations completed? Migration of contamination identified?	☐ yes ☐ yes ☐ yes ☐ yes	☐ no	Scheduled Con	npletion Date		
* If	2. 3. site	Stage I preliminary site investigation completed? Stage II preliminary site investigation completed? Detailed site investigations completed? e information is insufficient to determine the site risk class Classification Report will be submitted:	☐ yes ☐ yes ☐ yes sification, ir	no n	date by which a c	completed Site		

Section VI High risk conditions details					
Is mobile NAPL present at the parcel?	☐ yes		□no		
If yes, describe the mobile NAPL substances and their general location.	_,				
If yes, describe the mobile NALL substances and their general location.					
Are upper cap concentrations exceeded?	☐ yes	□no			
	-				
If yes, what substances exceed upper cap concentrations, in what media? Attach Expos	sure Pathway	y Questio	nnaire		
3. Exposure pathways – are the risk criteria for any exposure pathway exceeded? ☐ yes	□no	□ n/a			
If yes, which exposure pathways indicate high risk?					
Section VII Site risk classification					
☐ high risk ☐ not high risk	.; _	. 4:	li4: I		
Note that for parcels for which there is insufficient information to determine the site risk classification, additional information must be provided in Part 3 of this report on the scheduled dates for completion of site investigations and resubmission of a completed Site Risk Classification Report.					
Part 4. Independent remediation status					
Section VIII 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	∐ n/a		
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 Risk Classification Report and an updated completion of remediation schedule on or before the 90 th day of independent remediation.					

Part 5. Affected parcel conditions

Se	ction IX	Affected par	cel high risk	conditions deta	ils				
1.	Is mobile	NAPL present	or likely pres	ent at an affected	parcel?		☐ yes	☐ likely	no
_	If yes or li	kely, describe	the mobile N	APL substances a	and their gene	ral locatio	n.		
_									
2.	Are upper	cap concentr	ations exceed	led or likely excee	eded?		☐ yes	☐ likely	☐ no
_		likely, what su xposure Pathv		eed or are likely to naire.	exceed uppe	er cap con	centrations	, and in wha	at media?
3.	Are high r	isk exposure į	oathways pres	sent or likely preso	ent?		yes	□ likely	no
	If yes or	likely, list the e	exposure path	ways which impa	ct or are likely	to impact	affected pa	arcel recept	ors.
4.	Are any a	ffected parcels	classified as h	nigh risk or likely c	lassified as hig	Jh risk?		☐ yes	□ no
		the following t at is high risk o		ed parcel and atta sk.	ch a separate	Site Risk (Classificatio	n Report for	each affected
	Site ID (i	f known)	Affected	d parcel owner		Civic Ac	Idress		
_									
_									
_									
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Part 6. Additional Information

Section X	Additional information			
Part 7. Sig	ınatures			
	Professional signatures			
Section At 1	Froiessional signatures			
		bove have been conducted in accordance with approved procedures and		
guidance an	d standard professional practice	. I confirm the above information and that provided on the Exposure Pathway		
Questionnaii	re, il 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)		

Send the completed Site Risk Classification Report (including when required the Exposure Pathway Questionnaire in Part 8 of the form) to the Director of Waste Management at the applicable address, fax number or e-mail address noted on the cover sheet to this Report.

Part 8. Exposure Pathway Questionnaire

Property Owner (print name)	Site ID
Signature	

		Yes	No	Notes
Human	Health Exposure	<u> </u>		2, 3, 4
Soil Ex	posure			
HS-1	Do substances in soil exceed upper cap concentrations (UCs) for human intake of soil for the applicable land use?			5, 6
HS-2	Are UC-contaminated soils located within 1 m of the soil surface?			7
HS-3	Does the area of UC contaminated soil exceed 50 m ² on urban park, agricultural or residential lands or 125 m ² on commercial or industrial lands?			8
HS-4	Is the site land use urban park, agricultural, residential, commercial or industrial (i.e. not wildlands)?			
HS-5	If the site land use is wildlands, are humans present on the site for greater than 2 hours/day, 1 day/week?			9
Vapou	r Exposure			
HV-1	Do substances in air or soil vapour exceed UC concentrations for human inhalation for the applicable land use?			5, 6, 7, 10
HV-2	Is the site land use urban park, agricultural, residential, commercial or industrial?			
Water I	Exposure			
HW-1	Does drinking water use apply to groundwater or surface water at the site?			11
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?			6,12
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?			6
Enviro	nmental Health Exposure			2, 3, 4
Terres	trial Soil Exposure			
TS-1	Do substances in soil exceed UC concentrations for toxicity to invertebrates and plants for the applicable land use?			5, 6
TS-2	Are UC contaminated soils within 1 m of the soil surface?			7
TS-3	Is the soil surface above UC contaminated soil <i>undeveloped land</i> ?			
TS-4	Is the area identified in TS-3 terrestrial habitat?			
TS-5	Does the area of UC contaminated soil exceed 100 m ² on urban park, agricultural or residential lands or 250 m ² on commercial or industrial lands or 500 m ² on wildlands?			8, 16
-	c Life Water Exposure			
AW-1	Does aquatic life water use apply to groundwater or surface water at the site?			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?			12, 13
AW-3	Do substances in surface water or unauthorized discharges to surface water exceed UC concentrations for aquatic life water use?			14
Aquati	c Life Sediment Exposure			
AS-1	Do substances in the upper 1 m of sediment exceed the UC concentrations for the applicable site sensitivity?			6, 15
AS-2	Does the area of UC-contaminated sediment exceed 50 m ² ?			8
	ock and Irrigation Water Exposure	:		
LIW-1	Do livestock or irrigation water uses apply to groundwater or surface water at the site?			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?			4, 11, 12
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 intake?			

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):

 $HS-1 \Rightarrow HS-2 \Rightarrow HS-3 \Rightarrow HS-4 = HR$ $HS-1 \Rightarrow HS-2 \Rightarrow HS-3 \Rightarrow HS-4 (No) \Rightarrow HS-5 = HR$ $HV-1 \Rightarrow HV-2 = HR$ $HW-1 \Rightarrow HW-3 = HR$ $TS-1 \Rightarrow TS-2 \Rightarrow TS-3 \Rightarrow TS-4 \Rightarrow TS-5 = HR$ $AW-1 \Rightarrow AW-2 = HR$ $AW-1 \Rightarrow AW-2 = HR$ $AW-1 \Rightarrow AW-3 = HR$ $AS-1 \Rightarrow AS-2 = HR$

 $LIW-1 \Rightarrow LIW-2 = HR$ $LIW-1 \Rightarrow LIW-3 = HR$

- 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 parcel or parcels under investigation. Where contamination originating from the parcel under investigation has migrated off of the parcel the evaluation of exposure pathways pertains to contamination originating from the site under investigation. Co-contamination of affected lands that preclude the evaluation of exposure pathways associated with the source parcel 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, cross-sections are required to support conclusions that UC contamination is located at depths greater than 1 m below soil surface.
- 8. Where concentrations occur above UC concentrations, 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 12 month period. Actual human exposure must be indicated in supporting technical reports.
- 10. Soil vapour investigations must follow Technical Guidance 4 for Contaminated Sites Vapour Investigation and Remediation
- 11. Applicable groundwater use must be determined in accordance with Technical Guidance document 6, "Water Use Determination" and ministry procedures and guidance.
- 12. Where groundwater concentrations exceed UC concentrations near a groundwater receptor (e.g., drinking water well), contour maps and cross-sections are required to support conclusions of UC-contaminated groundwater located outside 10 m of the correspondent receptor.
- 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.