

# Environmental Site Assessment for Limited Remediation Checklist

This checklist is for all sites undergoing L1, L2 or L3 Limited Remediation



New submission     Updated checklist

NSE file number (mandatory) **33000-**\_\_\_\_\_

## Instructions for completing this checklist

- All relevant sections of this checklist must be completed and must accompany the Environmental Site Assessment for Limited Remediation Report.
- The signature required on this checklist is from the managing site professional.
- All regulatory protocols must be followed, and all forms/checklists must be completed separately for each property. This means that a source property and an impacted third-party property must have all documents filed separately. Once the source property or impacted third-party property is identified by the check box below, all subsequent reference on this form/checklist are to that site owner.
- Each checklist item corresponds to a requirement in the Regulations or Protocols. It is not acceptable to check a field and refer to justification of why a minimum requirement was not completed.
- Forms/checklists must be complete prior to filing with the Minister.

## 1 - Site Location and Contact Information

Details provided on this form are applicable to  Source Property **or**  Impacted Third-Party Property

<b>Site Location</b> Mandatory must be completed.	Site Address _____	City _____
	Parcel Identification Number (PID) _____	Postal Code _____
	GPS (NAD83 UTM coordinates, source central point) Easting _____	Northing _____
	Zone (select one) <input type="checkbox"/> 19 <input type="checkbox"/> 20 <input type="checkbox"/> 21	
	Description (optional) _____	

<b>Property Owner</b> Mandatory must be completed.	Name _____	Phone _____
	Email _____	Fax _____
	Recognized Agent (if applicable) _____	
	Company Name (if applicable) _____	City _____
	Mailing Address _____	Postal Code _____
	Preferred method of correspondence (select one) <input type="checkbox"/> Letter <b>or</b> <input type="checkbox"/> Email	

<b>Contact for Correspondence</b> If different than above.	Name _____	Phone _____
	Email _____	Fax _____
	Recognized Agent (if applicable) _____	
	Company Name (if applicable) _____	City _____
	Mailing Address _____	Postal Code _____
	Preferred method of correspondence (select one) <input type="checkbox"/> Letter <b>or</b> <input type="checkbox"/> Email	

<b>Site Professional</b> Mandatory must be completed.	Name _____	Phone _____
	Email _____	Fax _____
	Company Name _____	City _____
	Mailing Address _____	Postal Code _____
	Professional Registration Number _____	
	Preferred method of correspondence (select one) <input type="checkbox"/> Letter <b>or</b> <input type="checkbox"/> Email	

# Environmental Site Assessment for Limited Remediation Checklist

This checklist is for all sites undergoing L1, L2 or L3 Limited Remediation



## 2 - Environmental Site Assessment (ESA) Requirements for Limited Remediation

### Type of Environmental Site Assessment conducted under Limited Remediation

Check type of ESA completed and complete corresponding section below.

- L1 ESA     L2 ESA     L3 ESA

### 2a - L1 Environmental Site Assessment Requirements

Confirm **all** the following information has been submitted to the Department. Indicate 3 digit report ID, section and page number where information is documented. It is not acceptable to provide justification for not completing a minimum requirement. The site professional must ensure all work has been completed in accordance with the PRO-200, Environmental Site Assessment for Limited Remediation Protocol.

Supporting  
Information  
provided

Reference Document

Yes    Report    Section    Page  
Number

#### Restrictions for use of L1

- |   |  |                          |  |  |  |
|---|--|--------------------------|--|--|--|
| 1 | Contamination has not extended below the water table. All potential pathways in the subsurface have been fully investigated to ensure contamination has not come into contact with groundwater   | <input type="checkbox"/> |  |  |  |
| 2 | Contaminants listed in Section 4.1 b) of PRO-200, Environmental Site Assessment for Limited Remediation Protocol exceeding Tier 1 EQS are not present at a depth greater than 0.3 m from surface | <input type="checkbox"/> |  |  |  |
| 3 | Contamination has not directly impacted a watercourse, wetland or potable water  | <input type="checkbox"/> |  |  |  |
| 4 | Contamination has not come in contact with bedrock on a potable site   | <input type="checkbox"/> |  |  |  |
| 5 | Measures greater than short-term emergency action and/or temporary excavation are not required to address vapours within a building  | <input type="checkbox"/> |  |  |  |

#### Intrusive Investigation

- |   |   |                          |  |  |  |
|---|---|--------------------------|--|--|--|
| 6 | All contamination has been delineated to appropriate Tier 1 EQS criteria specified in the PRO-100, Notification of Contamination Protocol   | <input type="checkbox"/> |  |  |  |
| 7 | With the exception of the evaluation process for inaccessible soils below building structures outlined in PRO-200, Environmental Site Assessment for Limited Remediation Protocol, including the use of Tier 2 PSS tables where applicable, all contamination has been remediated to appropriate Tier 1 EQS criteria                                      | <input type="checkbox"/> |  |  |  |
| 8 | Air sampling requirements not applicable to the site<br><b>or</b><br>where applicable soil vapour, sub-slab and/or indoor air sampling work followed the latest version of the Atlantic RBCA Guidance for Soil Vapour and Indoor Air Monitoring Assessments available from the Atlantic RBCA website <a href="http://atlanticrbc.com">atlanticrbc.com</a> | <input type="checkbox"/> |  |  |  |
| 9 | Confirmatory soil samples have been collected from the side walls and floor of the excavation in accordance with Table 1 (Confirmatory Sampling Requirements) of PRO-700, Confirmation of Remediation Protocol  | <input type="checkbox"/> |  |  |  |

# Environmental Site Assessment for Limited Remediation Checklist

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## 2a - L1 Environmental Site Assessment Requirements continued

Confirm **all** the following information has been submitted to the Department. Indicate 3 digit report ID, section and page number where information is documented. It is not acceptable to provide justification for not completing a minimum requirement. The site professional must ensure all work has been completed in accordance with the PRO-200, Environmental Site Assessment for Limited Remediation Protocol.

**Supporting Information provided**

**Reference Document**

Yes

Report

Section

Page Number

10 Contamination does not remain below any part of a building footprint;

**or**

where contaminated soil below any part of a building footprint has been left in place, full delineation of contamination and verification through soil vapour, sub-slab or indoor air sampling that the indoor air quality is not affected above an acceptable level has been completed



11 Contamination has not extended to bedrock;

**or**

where contaminated soil has extended to bedrock on non-potable sites and no evidence of free product is present, the site professional has used their professional judgement to determine whether a groundwater assessment is required. In cases where it is determined that a groundwater assessment is not required, and contaminated soil contained gasoline or volatile organic compounds an evaluation of soil vapour, sub-slab or indoor air has been accomplished through the collection and interpretation of empirical site data and the indoor air quality is not affected above an acceptable level



12 Composite soil sampling procedures for volatile organic compounds have not been used

13 Site does not rely on a potable well or spring supply water source;

**or**

on sites where there is a potable well or spring supplied water source, the well or spring has been analyzed for the contaminant being addressed in the soil



14 All sampling and analysis have conformed to the laboratory requirements identified in Section 4.2.4 of PRO-200, Environmental Site Assessment for Limited Remediation Protocol

### Reporting

The environmental site assessment, remedial action plan and confirmation report requirements of the Contaminated Sites Regulations may be compiled and documented in a single report for an L1 limited remediation. The time requirements specified in the Contaminated Sites Regulations must be followed.

15 A cover page title that identifies the site location, and report title

16 Project background description

17 Basic site information, including physical address, PID and/or GPS coordinates

18 Summary of the results and findings of the L1 ESA

19 Site plan(s) showing the site location, location of sample points. All spatial information represented on a scaled diagram

20 Results of all analyses conducted displayed in a table and compared to relevant environmental quality standards, with exceedance values/data highlighted

# Environmental Site Assessment for Limited Remediation Checklist

This checklist is for all sites undergoing L1, L2 or L3 Limited Remediation



## 2a - L1 Environmental Site Assessment Requirements continued

Confirm **all** the following information has been submitted to the Department. Indicate 3 digit report ID, section and page number where information is documented. It is not acceptable to provide justification for not completing a minimum requirement. The site professional must ensure all work has been completed in accordance with the PRO-200, Environmental Site Assessment for Limited Remediation Protocol.

Supporting Information provided	Reference Document		
	Report	Section	Page Number

21	Interpretation and evaluation of the findings from the site investigation, which identify and describe any contaminants found at the site including concentrations, locations, possible sources, potential pathways and receptors of concern	<input type="checkbox"/>			
22	Clear and concise conclusions of the L1 ESA, including a summary of risks posed by contaminants remaining on site and potential risk to receptor(s) both on and off the property	<input type="checkbox"/>			
23	Recommendations regarding risks posed by any contaminants remaining on site, and recommended action(s)	<input type="checkbox"/>			
24	Excavation practices	<input type="checkbox"/>			
25	Soil sampling procedures used for each contaminant	<input type="checkbox"/>			
26	QA/QC procedures	<input type="checkbox"/>			
27	Copies of laboratory analytical data sheets	<input type="checkbox"/>			
28	Site professional sign-off, with original or electronic signatures, and a stamp/seal confirming the findings and conclusions contained in the report	<input type="checkbox"/>			

## 2b - L2 Environmental Site Assessment Requirements

Confirm **all** the following information has been submitted to the Department. Indicate 3 digit report ID, section and page number where information is documented. It is not acceptable to provide justification for not completing a minimum requirement. The site professional must ensure all work has been completed in accordance with the PRO-200, Environmental Site Assessment for Limited Remediation Protocol.

Supporting Information provided	Reference Document		
	Report	Section	Page Number

Intrusive Investigation					
1	Soil sampling conducted at source area(s)	<input type="checkbox"/>			
2	Groundwater flow direction, velocity, hydraulic gradient, and elevation has been evaluated by the placement of at least 3 drilled boreholes and the installation of monitoring wells within the boreholes	<input type="checkbox"/>			
3	Determination has been made whether free product in soil or groundwater exist at the site	<input type="checkbox"/>			
4	The horizontal extent of soil contamination on and off the property, for each contaminant has been determined and described in text and on a graphical site plan	<input type="checkbox"/>			
5	The vertical extent of soil contamination on and off the property has been determined, including the maximum depth at which contamination was identified, and confirmation that the vertical depth of contamination has been determined, using site profiles as appropriate	<input type="checkbox"/>			

# Environmental Site Assessment for Limited Remediation Checklist

This checklist is for all sites undergoing L1, L2 or L3 Limited Remediation



## 2b - L2 Environmental Site Assessment Requirements continued

Confirm **all** the following information has been submitted to the Department. Indicate 3 digit report ID, section and page number where information is documented. It is not acceptable to provide justification for not completing a minimum requirement. The site professional must ensure all work has been completed in accordance with the PRO-200, Environmental Site Assessment for Limited Remediation Protocol.

**Supporting Information provided**

**Reference Document**

Yes

Report

Section

Page Number

- 6 The estimated area of soil contamination exceeding applicable environmental quality standards on and off the property have been calculated for each contaminant
- 7 The horizontal and vertical extent of groundwater contamination, exceeding applicable environmental quality standards has been determined, on and off the property for each contaminant, and is described in text and on a graphical site plan
- 8 Sediment and surface water have not been impacted;   
**or**  
 where Sediment or surface water contamination, exceeding applicable environmental quality standards has been determined, contamination is described on a graphical site plan
- 9 Laboratories that have performed analysis are accredited to ISO/IEC 17025 standards (and subsequent revisions) by the Standards Council of Canada (SCC) or the Canadian Association of Laboratory Accreditation Inc. (CALA)
- 10 All sampling and analysis has been conducted in accordance with laboratory-approved recommendations concerning sample containers, storage and preservation
- 11 Appropriate laboratory analytical methods have been used to ensure adequate conformance to data quality objectives, assessment endpoints (ecological or human health) and method/reportable detection limits

### Reporting

- 12 A cover page title that identifies the site location and report title
- 13 Project background description
- 14 Basic site information, including physical address, PID and/or GPS coordinates if available
- 15 Summary of all preliminary work and field activities conducted at the site as part of the Limited Phase 2 ESA program
- 16 Conceptual site model which represent an understanding of the site characteristics, including expected locations of contaminants, likely contaminant transport mechanisms, and the existence of potentially preferential pathways for contaminant transport to receptors
- 17 A description of geological, hydrogeological and hydrological information as required by PRO-200, Environmental Site Assessment for Limited Remediation Protocol
- 18 Site plans showing the site location, location of sample points, groundwater elevation maps, and location(s) of samples exceeding the applicable regulatory criteria. Locations where contaminant concentrations exceed background values should also be identified. All spatial information must be represented on a scaled diagram
- 19 Results of all analyses conducted are displayed in a table and compared to relevant environmental quality standards, with exceedance values/data highlighted

# Environmental Site Assessment for Limited Remediation Checklist

This checklist is for all sites undergoing L1, L2 or L3 Limited Remediation



<b>2b - L2 Environmental Site Assessment Requirements</b> continued		<b>Supporting Information provided</b>	<b>Reference Document</b>		
Confirm <b>all</b> the following information has been submitted to the Department. Indicate 3 digit report ID, section and page number where information is documented. It is not acceptable to provide justification for not completing a minimum requirement. The site professional must ensure all work has been completed in accordance with the PRO-200, Environmental Site Assessment for Limited Remediation Protocol.			Yes	Report	Section
20	Interpretation and evaluation of the findings from the site investigation, which identify and describe any contaminants found at the site including concentrations, locations, source, potential pathways and receptors of concern	<input type="checkbox"/>			
21	Clear and concise conclusions of the Limited Phase 2 ESA, including a summary of risks posed by contaminants remaining on site and potential risk to receptor(s) both on and off the property	<input type="checkbox"/>			
22	Recommendations regarding risks posed by any contaminants remaining on site, and recommended action(s)	<input type="checkbox"/>			
23	A list of any references and supporting documentation used in the preparation of the Limited Phase 2 ESA report	<input type="checkbox"/>			
24	Complete test pit, borehole stratigraphic, and monitoring well installation logs	<input type="checkbox"/>			
25	Borehole drilling practices	<input type="checkbox"/>			
26	Excavation Practices <input type="checkbox"/> Not Applicable	<input type="checkbox"/>			
27	Soil sampling procedures used for each contaminant	<input type="checkbox"/>			
28	Monitoring well installation, development and groundwater sampling procedures	<input type="checkbox"/>			
29	QA/QC procedures	<input type="checkbox"/>			
30	Copies of laboratory analytical data sheets	<input type="checkbox"/>			
31	Site professional sign-off, with original or electronic signatures, and a stamp/seal confirming the findings and conclusions contained in the report	<input type="checkbox"/>			

<b>2c - L3 Environmental Site Assessment Requirements</b>		<b>Supporting Information provided</b>	<b>Reference Document</b>		
Confirm <b>all</b> the following information has been submitted to the Department. Indicate 3 digit report ID, section and page number where information is documented. It is not acceptable to provide justification for not completing a minimum requirement. The site professional must ensure all work has been completed in accordance with the PRO-200, Environmental Site Assessment for Limited Remediation Protocol.			Yes	Report	Section
<b>Investigation</b>					
1	Phase 1 ESA conducted in accordance with PRO-300, Phase 1 ESA Protocol	<input type="checkbox"/>			
2	Phase 2 ESA conducted in accordance with PRO-400, Phase 2 ESA Protocol	<input type="checkbox"/>			
<b>Reporting</b>					
3	Phase 1 ESA reporting requirements completed in accordance with PRO-300, Phase 1 ESA Protocol	<input type="checkbox"/>			

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## 2c - L3 Environmental Site Assessment Requirements continued

Confirm **all** the following information has been submitted to the Department. Indicate 3 digit report ID, section and page number where information is documented. It is not acceptable to provide justification for not completing a minimum requirement. The site professional must ensure all work has been completed in accordance with the PRO-200, Environmental Site Assessment for Limited Remediation Protocol.

**Supporting Information provided**

**Reference Document**

**Yes**      **Report**    **Section**    **Page Number**

4	CHK-300, Phase 1 ESA checklist has been completed and appended to this checklist	<input type="checkbox"/>			
5	Phase 2 ESA reporting requirements conducted in accordance with PRO-400, Phase 2 ESA Protocol	<input type="checkbox"/>			
6	CHK-400, Phase 2 ESA checklist has been completed and appended to this checklist	<input type="checkbox"/>			

## 3 - Declaration

### Site Professional Declaration

I acknowledge it is an offence under Section 158 of the Environment Act to provide false or misleading information and confirm to the best of my knowledge and belief the information provided in this form and supporting documentation is true and accurate and complies with the relevant provisions of the Environment Act and Contaminated Sites Regulations. By signing below, I confirm my qualifications and liability insurance as a site professional as prescribed within the regulations.

Reports and checklist/s have been provided to affected property owner.

Name (print) \_\_\_\_\_

Professional Registration Number/Stamp \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

Site Professional

YYYY/MM/DD

### Reports Applicable to Checklist

Report Title	3 Digit Report ID

**Return completed form and associated documents to your local Nova Scotia Environment office.**

Find office locations online [novascotia.ca/nse/dept/regional-office-locations.asp](http://novascotia.ca/nse/dept/regional-office-locations.asp) or call 1-877-936-8476.