



Canada Energy
Regulator

Régie de l'énergie
du Canada

CER Reported Contaminated Sites and Updates to Remediation Operating Practices

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Canada 



What the CER Regulates

- Over 73,000 km of oil and gas pipelines
- 1,400 km of electrical power lines
- Those that cross provincial, territorial, or federal boundaries

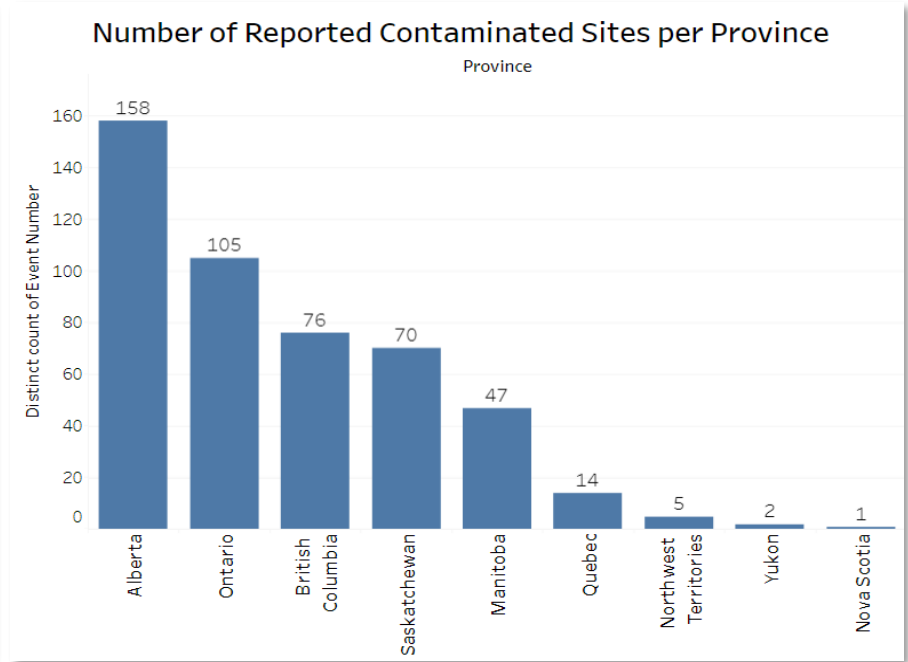
Our Mission:

To ensure the safe and efficient delivery of energy to Canada and the world, protecting the environment, recognizing and respecting the rights of the Indigenous peoples of Canada, and providing timely and relevant energy information and analysis



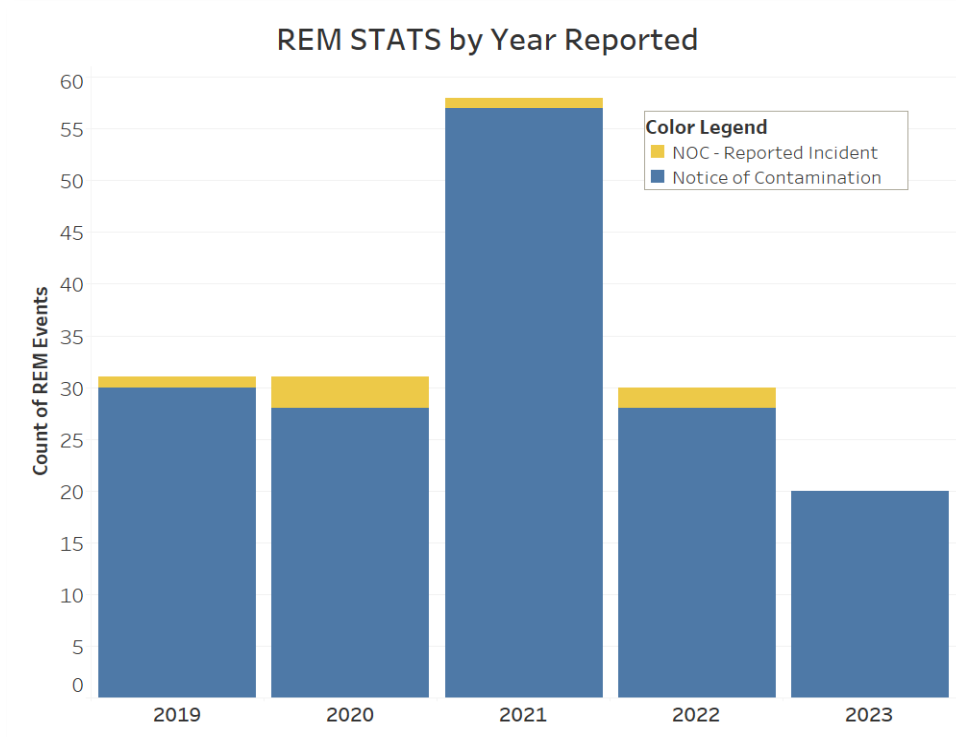


Contamination Reported to the CER





Contamination Reported to the CER



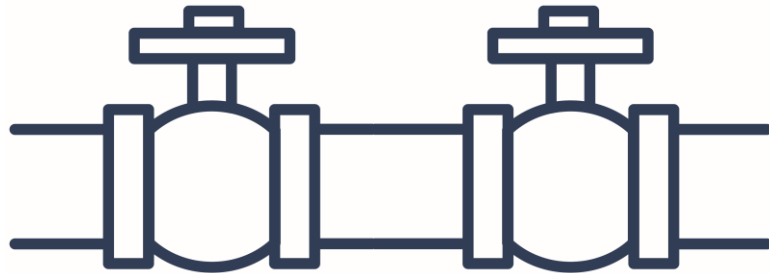


Where to find CER Contaminated Sites Information Online

- Pipeline Profiles
- RegDocs
- Interactive Pipeline Map
- CER Remediation Webpage

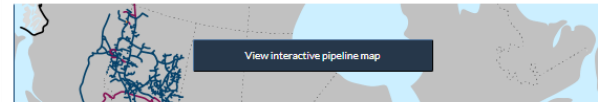


Pipeline Profiles: Source for pipeline data by company



Pipeline Profiles

Explore key data and information for pipelines regulated by the Canada Energy Regulator, including use, safety and environment, tolls, and financials.



Select a pipeline profile to explore

Oil and Liquids

- [Aurora](#)
- [Cochin](#)
- [Enbridge Bakken](#)
- [Enbridge Line 9](#)
- [Enbridge Mainline](#)
- [Enbridge Norman Wells](#)
- [Express](#)
- [Genesis](#)
- [Keystone](#)
- [Milk River](#)
- [Montreal Pipeline](#)
- [Southern Lights](#)
- [Trans Mountain](#)
- [Trans-Northern](#)
- [Wascana](#)
- [Westcoast](#)

Natural Gas

- [Alliance](#)
- [Emera Brunswick](#)
- [Foothills](#)
- [Mary Islands](#)
- [Maritimes & Northeast](#)
- [NOVA Gas Transmission Ltd. \(NGTL\)](#)
- [TransCanada's Canadian Mainline](#)
- [Trans Québec & Maritimes](#)
- [Vector](#)
- [Westcoast](#)



RegDocs: CER records database



The screenshot shows the top navigation bar of the REGDOCS website. It includes the Canada Energy Regulator logo and name in both English and French. A search bar is located in the top right corner. Below the navigation bar is a horizontal menu with five items: Safety and environment, Consultation and engagement, Applications and hearings, Data and analysis, and About Us. The breadcrumb trail reads 'CER Home / REGDOCS Home'. The main heading is 'Welcome to REGDOCS'. Below this, a paragraph states: 'REGDOCS is a regulatory database for activities and transactions conducted at the Canada Energy Regulator.' There are two search boxes: 'Search by Keyword(s):' with a text input field containing the placeholder 'Type the keyword you are searching for here', a 'Search' button, and an 'Exclude Receipts' checkbox; and 'Search by Document Number:' with a text input field, a 'Search' button, and examples: 'Examples: A12345, A12345-9, A1A1A1'.



Interactive Pipeline Map: Geospatial pipeline data

Interactive Pipeline Map

We have a vast network of pipelines in Canada that transport millions of litres of oil and gas every day. Any pipeline that crosses a provincial or international border falls under the federal regulation of the CER.

What this map shows

The map below shows the location of pipelines and data we have been collecting on incidents since 2008 that were reported to us under the [Substance Pipeline Regulations](#) and [Processing Plant Regulations](#). The pipeline data shown represents the majority of federally regulated pipelines (about 90% of operating pipelines as of March 2017). The map will be updated to show additional pipelines as more digital location data becomes available.

A number of terms we use in our illustrations and graphics are common in industry and have specific meanings. Learn more in our [glossary](#) for this section.

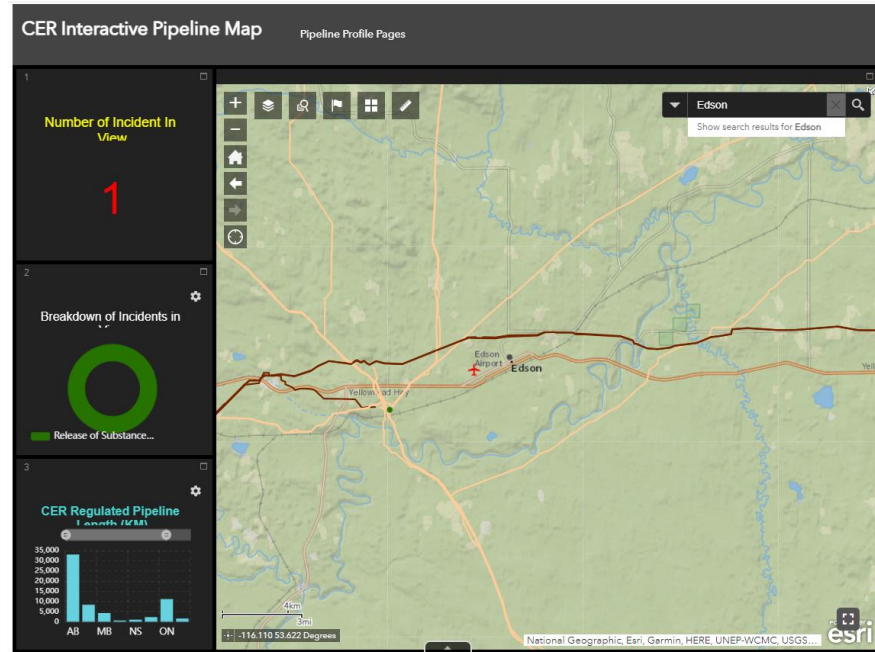
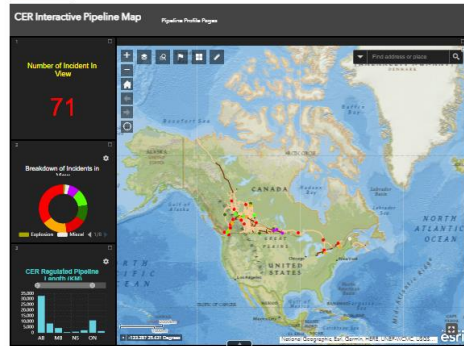
Download the incident data

The incident data used to create this map is available for people to conduct their own analysis and research. Visit the [Incident Data](#) page to download data from the current year or previous years.

View this map in the full browser window

Please note this will take you to a new page.

[Open the full map](#)





CER Remediation Website

Remediation

Reporting

We require companies to report contamination they encounter. The CER 2020 Remediation Process Guide further explains what needs to be reported and what activities need to take place after contamination is reported.

To learn more about the Notices of Contamination that have been submitted to the CER, click on the button below.

[View the Notices of Contamination](#)

If a release occurs, companies need to follow the CER [Event Reporting Guidelines](#).

[Learn more about reporting releases to the CER.](#)

Notice of Contamination (NOC)

- To view the NOCs and annual updates that have been submitted to the CER visit [REGDOCS](#).
 - You can search by **Company – Notification of Contamination (Featured Item) – Year**. This will bring you to the list of NOCs and annual updates submitted by a company that calendar year. To search for all annual updates linked to the NOC, search using the REM number (ex. REM2021-000).
- NOC submitted since 15 August 2018 are also available as a [data set on Canada Open Government](#). The dataset is updated monthly. Where applicable, the dataset has been integrated with the CER's pipeline information product Pipeline Profiles (see the Safety and Environment section).



2020 Remediation Process Guide (RPG)

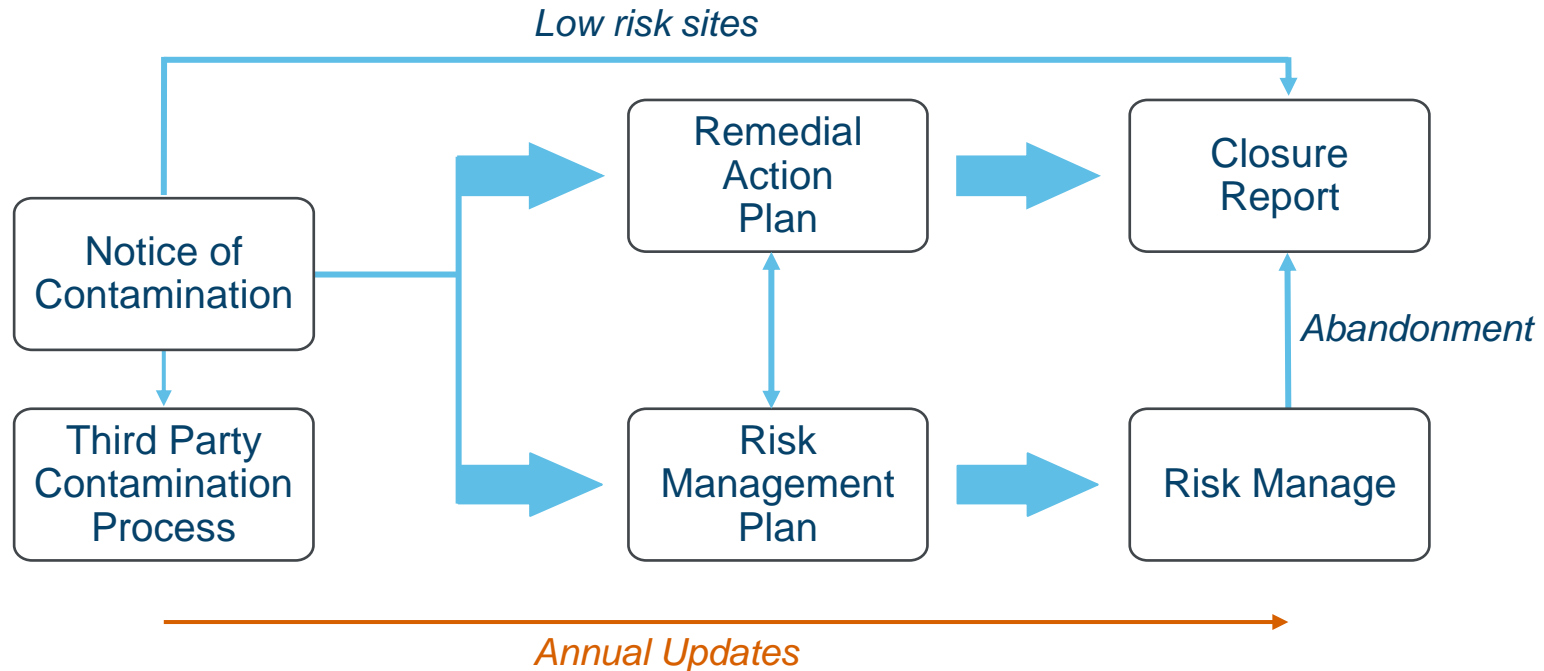
Technical guidance supporting our performance-based regulation

RPG provides the **framework** by which companies can show they are meeting our requirements for environmental protection related to contamination



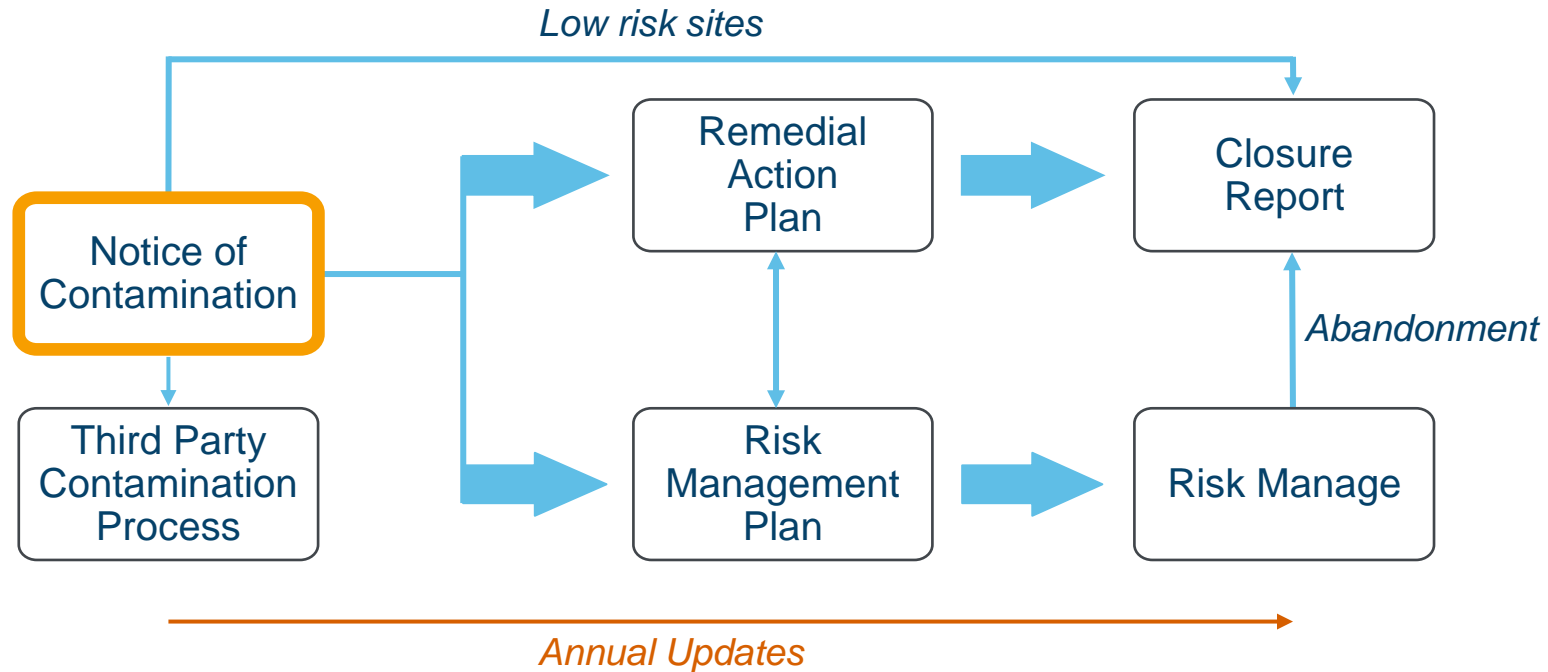


Remediation Process





Remediation Process: Recent Advances





Notice of Contamination (NOC) Updates

Purpose

- Alignment with recent CER guidance
- Modernizing and simplifying data entry
- Improve company usability

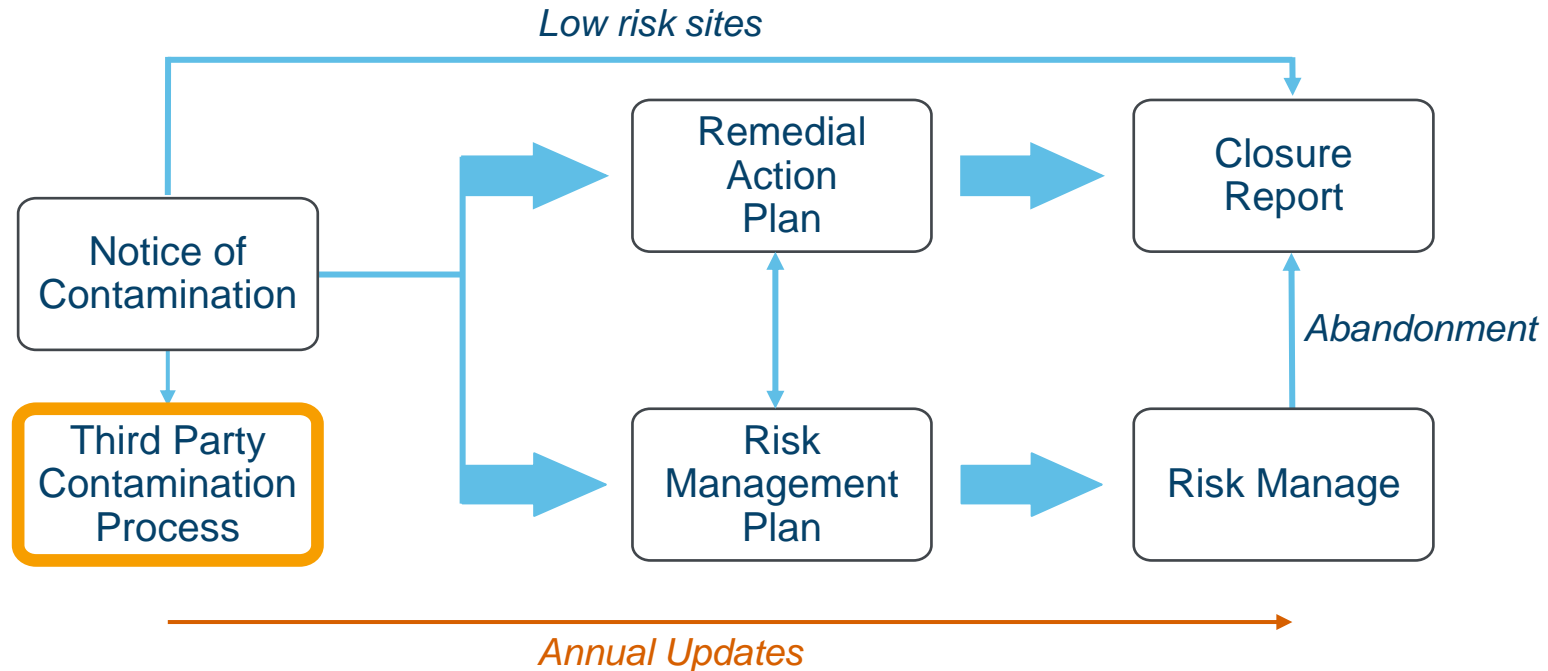
Changes

- Revised language and reorganization of questions
- Updated selections for pulldown tabs
- Checkbox to identify Third Party Contamination
- Addition of new Engagement section

Updated Guidance for Companies



Remediation Process: Recent Advances





Third Party Contamination

On-site contamination that can be shown to **be not emanating or migrating** from a Company's:

- Facilities
- Company Owned or Leased Lands
- Right-of-Way

Established through:

- Analytical testing
- Fingerprinting
- Or other methods that CER finds acceptable

If accepted, will receive **event** closure with CER, not Remediation Closure.





Third Party Contamination

A Company should:

1. Complete the **notification and reporting steps** per Section 9.1 of the *2020 Remediation Process Guide (RPG)*
2. **Manage Contamination** per Section 9.2 of the *2020 RPG*
3. Complete the CER's **Third Party Contamination Checklist**
 - Include further justification as required



Third Party Contamination Checklist

Divided into three Sections

1. Report Contamination

2. Manage Contamination

3. Evidence that the Contamination is Third Party

Task	Response		Explanation / Justification for response
	Yes	No	
Section 9.1 Report Contamination			
1a. Has the entity which the reporting company believes to be responsible for the contamination been identified?	<input type="checkbox"/>	<input type="checkbox"/>	
1b. Has this entity been notified? If Yes, provide a record of notification with this checklist submission.	<input type="checkbox"/>	<input type="checkbox"/>	
2a. Has the contamination been reported to any other regulatory authorities since the submission of the NOC? If Yes, please provide the contact name(s) and regulatory authority or authorities in the notes. If No, provide further context / justification in the notes.	<input type="checkbox"/>	<input type="checkbox"/>	
2b. Has a record of notifying other regulatory authorities been provided to the CER? (i.e., a copy of an email or notes from a phone call to regulatory authority including date, time, name of individual contacted and file number).	<input type="checkbox"/>	<input type="checkbox"/>	



Third Party Contamination Checklist

Divided into three Sections

1. Report Contamination

2. Manage Contamination

3. Evidence that the Contamination is Third Party

Section 9.2 Manage Contamination			
3. Were all reasonable precautions taken to ensure (i) worker safety and (ii) safety of other persons at or near the contaminated site while work was performed? Please provide a description of the precautions taken in the Notes.	<input type="checkbox"/>	<input type="checkbox"/>	
4. Will contaminated soils and/or liquids that were/will be transported off-site be disposed of pursuant to applicable laws, unless otherwise specifically exempted from such requirements pursuant to permits issued by regulatory authorities.	<input type="checkbox"/>		6. Were reasonable efforts made to source soil of a quality which meets the needs of the landowners to maintain or improve equivalent land capability? <input type="checkbox"/> <input type="checkbox"/>
5. Confirm that uncontaminated soil was/will be confirmed (with analytical data) to meet regulatory Remediation Criteria before being used to replace any contaminated material removed from the site.	<input type="checkbox"/>		7. Were/will potential mitigation measures be implemented to a) prevent increasing the migration potential and b) prevent creating further impacts to lands, water or receptors (including but not limited to water wells) of contamination? Please describe in the Notes or by attachment. <input type="checkbox"/> <input type="checkbox"/>
			8. Were/will potential mitigation measures be implemented to prevent the project activities from providing a conduit for contamination migration? Please describe in the Notes or by attachment. <input type="checkbox"/> <input type="checkbox"/>
			9. Will the contamination location(s) be retained in the 'spills and leaks', or contaminated site list (or as company otherwise describes its list or database) which the company maintains of all its locations/sites with contamination, such that it will be identified and managed appropriately for the company's future site activities at this location? <input type="checkbox"/> <input type="checkbox"/>



Third Party Contamination Checklist

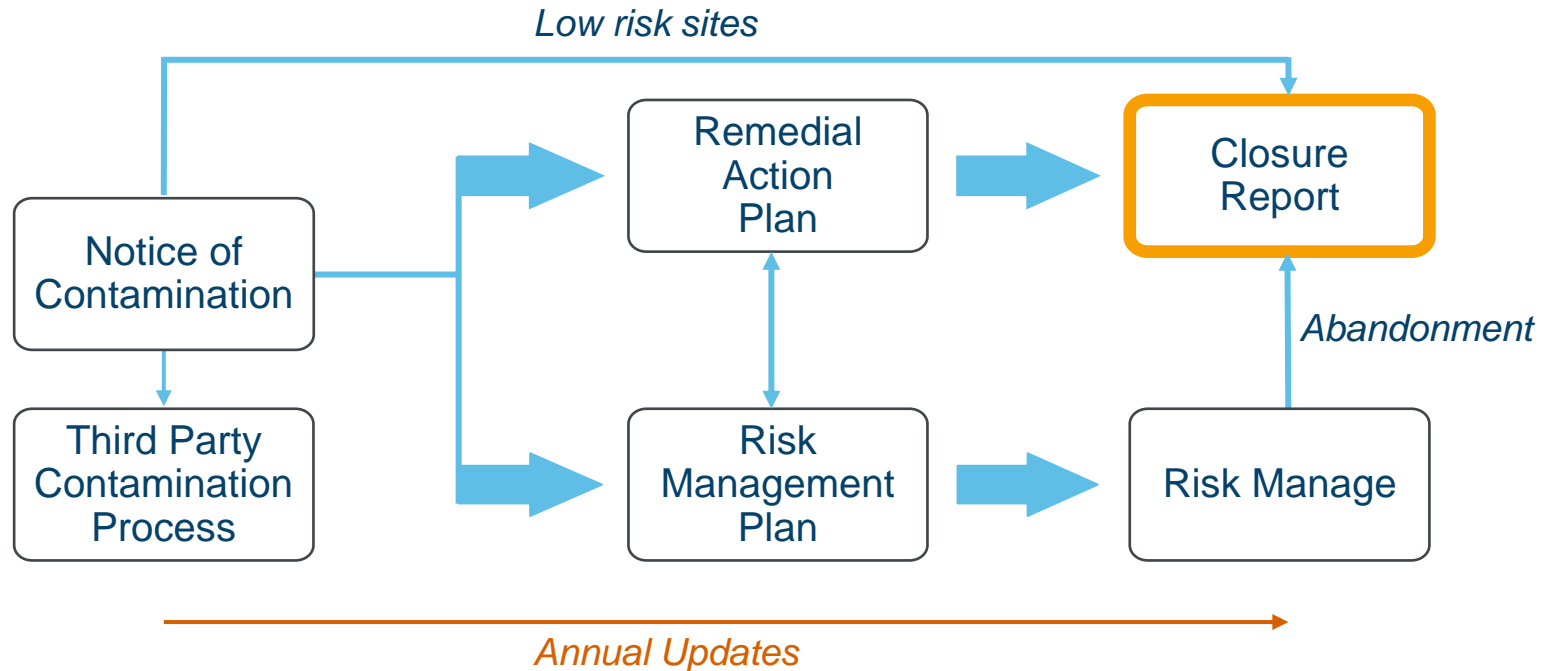
Divided into three Sections

1. Report Contamination
2. Manage Contamination
3. **Evidence that the Contamination is Third Party**

Evidence that the Contamination is Third Party		
10. Provide a narrative describing why and how the company had concluded that the contamination is third party.	<input type="checkbox"/>	<input type="checkbox"/>
11. Has evidence (where applicable; data, figures, fingerprinting analysis, chain of title, etc.) been provided to demonstrate that the contamination is third party? Please describe in the notes or by attachment.	<input type="checkbox"/>	<input type="checkbox"/>



Remediation Process: Recent Advances





Closure Report Worksheet

Company can seek site **Remediation Closure Letter** by submitting a Closure Report

Closure Reports:

- Show all work is complete
- Must be a **standalone document**
- Must have enough detail to demonstrate remediation of **all media** is complete

Requirement	Response		Description	Reference location in Closure Report
	Yes	No		
Administrative				
Declaration Letter	<input type="checkbox"/>	<input type="checkbox"/>	The <i>2020 Remediation Process Guide</i> Appendix I provides a template for the Declaration Letter to be submitted with all Closure Reports that are submitted 01 January 2021 onward.	
Background				
Site background	<input type="checkbox"/>	<input type="checkbox"/>	Summarize site history, setting, source(s) of contamination and previous site investigations.	
Maps, figures and supporting documentation	<input type="checkbox"/>	<input type="checkbox"/>	Include site maps and figures relevant to the remedial activities, as applicable. Some examples include: <ul style="list-style-type: none"> • Site location • Site topography or drone imagery depicting topography • Previous extent of contamination and/or excavation footprint(s) • Sampling locations for all affected media • Final wall and base excavation drawings showing confirmatory sample locations • Cross-sectional diagrams to show geology and vertical and lateral contaminant delineation • Treatment/monitoring well locations • Groundwater contours and estimated flow direction • Borehole logs with monitoring well completion details • Site photographs 	



Closure Report Worksheet

Checklist was developed from common Information Requests sent to companies by CER

Groundwater, show that it either:

- Meets Remediation Criteria; or,
- Was not exposed to/in contact with contamination

Assumptions must be supported:

- e.g., grain size, background values, contaminant of concern selection

Demonstration Contamination is Remediated			
Confirmatory sampling	<input type="checkbox"/>	<input type="checkbox"/>	For all potentially affected media, describe the sampling protocol(s) for confirmatory sampling. Include both spatial and temporal information, as applicable (e.g., sampling frequency, seasonality for groundwater and soil vapour sampling). Note: Confirmatory sampling protocols should be consistent with provincial and/or federal guidance where available, and referenced in the Closure Report (e.g., Appendix 5-1 in CCME Guidance Manual Volume 1 for Soil Characterization).
Analytical results	<input type="checkbox"/>	<input type="checkbox"/>	Provide summary tables and attach laboratory analytical reports to demonstrate all potentially affected media are remediated. Ensure it is clear which samples represent final conditions. If generic Remediation Criteria or SSROs have been updated since remedial activities were completed, ensure analytical results are compared to the current Remediation Criteria.
Groundwater consideration	<input type="checkbox"/>	<input type="checkbox"/>	Compare post-remediation groundwater analytical results to current groundwater Remediation Criteria. Seasonality should be considered. If groundwater was not a component of active remediation, demonstrate groundwater was either: <ul style="list-style-type: none"> • Not exposed to or in contact with contamination; or, • Meets Remediation Criteria for the site.
Background conditions	<input type="checkbox"/>	<input type="checkbox"/>	Do any parameters exceed the Remediation Criteria but are attributed to background conditions? If yes, include the rationale and supporting information to demonstrate background conditions, such as background sample analytical results. The use of statistics, publications, maps and figure, may also be acceptable.



Advancements

**Continued
work with
provinces/
territories in
overlapping
jurisdictions**

**Recent
Advancements
to Remediation
Process**

**Engagement
requirements
working toward
reconciliation
with Indigenous
peoples**

**Public
posting of
contaminated
sites
information**



Photo: LassenNPS in Audubon



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Questions?

Email us at
remediation@cer-rec.gc.ca

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