

CONTAMINATED SITES IN A CHANGING CLIMATE

THE ISSUE: Contaminated sites can be remediated in a number of different ways, but none of them take into account the effects of climate change so a cleaned up site may not be safe for future use.

THE END GOAL: To ensure continued protection of human health and the environment under changing climates.

Contaminated Sites in BC

Current legal requirements for management and remediation of contaminated sites do not account for effects of climate change events.

Remediation Strategies:

- Excavation
- Risk assessment
- On-site remediation

Goals:

New regulations needed for management of contaminated sites under a changing climate.

Considerations:

- Protecting groundwater
- Protecting human health and the environment
- Sustainable remediation technologies

How does Climate Change Affect Contaminated Sites?

Possible impacts from:



REMEDIATION STRATEGIES FOR CONTAMINATED SITES



FUTURE IMPACTS



CLIMATE CHANGE EFFECTS



Please consider the following proposed policy actions and related questions and join one of the scheduled sessions to share your comments, ideas, and experiences.

#1: Adapting policies and regulations to require evaluation of future risks to valuable water resources from contaminated sites.

QUESTIONS

- What are your concerns with how climate change may affect water quality in your community?
- How does your community protect current water resources using Traditional Knowledge or other laws and policy?
- How would you like water to be protected for future generations?

#2: Considering climate change effects in contaminated sites management and remediation to protect human health and the environment.

QUESTIONS

- What are your concerns about contaminated sites and the health of your community?
- Is your community involved in long term management of any contaminated sites?
- What should be considered when selecting a remediation strategy?

RISK ASSESSMENT ON CONTAMINATED SITES IN BC

WHAT IS RISK ASSESSMENT?

Risk Assessment is a tool in British Columbia's toolbox used to decide if a contaminated site has been cleaned up according to the Contaminated Sites Regulation. Risk assessment involves studying what chemicals are released into the environment, how they are released, and if people, plants, or animals will be affected by those chemicals. The results of a risk assessment help determine if the contaminated site is safe to live, work, and play on.

RISK ASSESSMENT HELPS ANSWER:

1. What are we concerned about? e.g. What chemicals are in the water?
2. Who is being exposed? e.g. People- Wildlife- Vegetation
3. How are they being exposed? e.g. Food- Drinking Water- Soil- Dust



WHY SHOULD YOU CARE ABOUT RISK ASSESSMENT?

1. The results of a risk assessment could impact land and water uses. If unacceptable risks are found, restrictions to land and water use may be needed. For example, fencing around a contaminated area or fishing restrictions.
2. The risk assessment process on contaminated sites is decades old and does not include Indigenous perspectives.

WHY SHOULD YOU COME TO THE RISK ASSESSMENT SESSION?

The Land Remediation Section is looking to increase the robustness of risk assessment across BC and needs your help. We want to hear from you to improve our policies. Some questions we will discuss include:

- A. How would you like to be engaged with about contaminated sites on your land?
- B. What do you value and what do you want to protect during a clean up of a contaminated site?
- C. What practices do you use to assess risk?

RISK ASSESSMENT EXAMPLE

Risk Assessment was one tool used to redevelop False Creek in Vancouver. The area was previously used for industrial activity. Clean up occurred and a small amount of contamination was left in the soil and sediment. A risk assessment was conducted on the remaining contamination and the risks were considered acceptable for redevelopment.

