



Ministry of  
Environment and  
Climate Change Strategy

# Engagement on the Remediation of Contaminated Sites in B.C.

## **“What We Heard” Report**

November 14 – December 13, 2022



*Report authored by Mahihkan Management on behalf of the Ministry of  
Environment and Climate Change Strategy.*

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## EXECUTIVE SUMMARY

The Ministry of Environment and Climate Change Strategy (ENV) convened a series of engagement sessions between November – December 2022 titled *Engagement on the Remediation of Contaminated Sites in B.C.* The series was broken down into seven engagement sessions and involved Ministry staff and representatives of various B.C. First Nations and Indigenous organizations. It was supported by Indigenous facilitators, technical advisors, and notetakers contracted by Mahihkan Management.

Over the course of the engagements, representatives from ENV gathered feedback from over 90 Indigenous Nations/organizations and 150 participants that showcased very clear themes and produced 7 recommendations. There was agreement that First Nations need to be consulted early and often, ideally before problems even arise. If there are risks within a First Nations territory, then the community must be notified. Additionally, First Nations that are downstream from contaminated sites or share territory with an impacted community must be consulted, as they are also at risk.

The barriers associated with capacity and funding were highlighted, and how a lack of resources and inadequate staffing make it a challenge for First Nations to participate in consultations and the remediation process. Complicated language can also make information about contaminated sites inaccessible for community members and exacerbates capacity issues by requiring extra technical staff to translate the materials.

There was a strong desire from First Nations to participate in site investigations, remediations, and long-term monitoring. Instead of bringing in outside technicians to perform the work, community members should be trained and hired. This would not only create new job and economic opportunities within First Nations but ensures that Indigenous interests are being fully represented throughout the process.

Lastly, First Nations want greater authority in these processes and need the ability to choose what information gets shared with industry and government officials. Whether it was historical data, cultural practices, or their extensive knowledge of the lands and waters, all that information is sensitive and privileged. Therefore, it must be up to each Nation to decide what they are comfortable sharing with outsiders.

Overall, First Nations want to see improvements to engagement and consultation, have greater supports to increase capacity and training, become meaningfully involved in the process, and have control over what sensitive information they share.

## INTRODUCTION

The Ministry of Environment and Climate Change Strategy (ENV) regulates contaminated sites in British Columbia under the *Environmental Management Act* and Contaminated Sites Regulation. The Land Remediation Section of the ENV ensures protection of human health and the environment by regulating the identification, investigation, and cleanup of contaminated sites in British Columbia.

The ENV convened a series of engagement sessions between November and December 2022 titled *Engagement on Contaminated Sites in B.C.*, as part of implementing the *B.C. Declaration on the Rights of Indigenous Peoples Act*. This series was broken down into seven engagement sessions and involved ENV staff and representatives of various B.C. First Nations and was supported by graphic recorders, Indigenous facilitators, technical advisors, and notetakers organized by Mahihkan Management.

The B.C. First Nations participants included representatives from Indigenous communities, governments, organizations, and spanned multiple generations with involvement from Indigenous youth and Elders. The full list of communities that were represented, along with support staff, can be found in [Appendix III](#) at the end of the report.

## OBJECTIVES

The objectives for the seven sessions were to build upon what had already been heard in past engagements, while also gathering deeper insight and feedback from Indigenous Peoples on specific topics related to the remediation of contaminated sites. This insight will then be used to improve future regulations; support incorporation of Indigenous traditional knowledge, views, and interests in future policies and laws; with specific focuses on site investigation and making contaminated sites climate ready.

## ENGAGEMENT STRUCTURE AND OVERVIEW

To meet the engagement objectives, the ENV designed an in-depth engagement series of seven meetings within three different sections. Each session was also planned in accordance with the framework of the *B.C. Declaration on the Rights of Indigenous Peoples Act*.

Session 1: Making Contaminated Sites Climate Ready	Session 2: Investigating Contaminated Sites	Session 3: Soil Relocation Changes in B.C.	Session 4: Final Wrap-Up and Report Back
November 14, 2022 November 16, 2022	November 17, 2022 November 21, 2022	December 7, 2022 December 9, 2022	December 13, 2022

Table 1 - Overview of the Engagement Sessions

Each session began with a welcome from the facilitator, followed by a land acknowledgement and a virtual gift of tobacco offered to the Indigenous Elder that started each session, either with a prayer, cultural performance, or opening remarks to set the tone for the day. Participants were then introduced to the co-facilitator, graphic recorder, and the ENV officials that were attending the session. Following presentations from Ministry staff, participants were invited to share their feedback during small-group breakout discussions. Each room was also moderated by a facilitator and a volunteer participant was appointed to report back during the plenary, before a review of the graphic illustration and a closing from the Elder took place.

Over 90 Indigenous Nations and organizations participated in the seven engagement sessions. The number of participants that attended each session are broken down below.

Nov. 14	Nov. 16	Nov. 17	Nov. 21	Dec. 7	Dec. 9	Dec. 13
54	39	37	47	52	27	52

*Table 2 - Participation Figures per Session*

### **Session 1 – Making Contaminated Sites Climate Ready**

During the first session meetings, the ENV presentation covered the ways to make contaminated sites climate ready. Contaminated sites were defined as areas that contained concentrations of substances that exceeded numerical standards or caused unacceptable risks to humans or the environment. The discussion paper was then reviewed, including the six main outcomes to make contaminated sites climate ready: increased Indigenous engagement, climate change adaptation, evaluation of remediation alternatives, periodic review of remediation effectiveness, the impact of contaminated sites on viable groundwater aquifers, and financial security provisions.

Participants were then divided into breakout rooms and asked the following questions to help facilitate the conversation:

**Q1. How best to incorporate Indigenous Peoples’ perspectives on risk assessment and remediation options?**

**Q2. What are the requirements for Indigenous engagement when remediating contaminated sites?**

**Q3. When should First Nations be engaged when evaluating remediation options?**

**Q4. What is the preferred method of engagement, timeframes for response, and process for sharing of information/reports?**

## Session 2 – Investigating Contaminated Sites

During the second session meetings, the ENV presentation covered contaminated site investigations, which are undertaken to collect detailed information on sites to determine whether remediation is needed. The stages of site investigations were then outlined, starting with the two stages of Preliminary Site Investigation, followed by Detailed Site Investigation and Confirmation of Remediation. As the second phase of the project, the Ministry was proposing to set more requirements for the researching of land use, the collection and testing of samples, and reporting. The breakout rooms for this session were guided by the following questions:

**Q1. What types of Indigenous historical records should be reviewed as part of a Stage 1 Preliminary Site Investigation?**

**Q2. Where do you see opportunities for engagement with First Nations in the site investigation process?**

**Q3. When should First Nations be engaged when evaluating remediation options?**

**Q4. What is the preferred method of engagement, timeframes for response, and process for sharing of information/reports?**

## Session 3 – Soil Relocation Changes in B.C.

During the third session meetings, the ENV presentation covered soil relocation changes in B.C. This session included two separate presentations followed by Q&A periods, and overall focused on the amendments to the *Environmental Management Act (EMA)* and the *Contaminated Sites Regulation (CSR)* that will come into effect on March 1, 2023. In lieu of breakout rooms with a prepared list of discussion questions, participants were kept together in the plenary and invited to ask questions and share feedback following both presentations.

## Session 4 – Final Wrap-Up and Report Back

For the final meeting of the series, participants were invited back for a wrap-up session. It began with a review of the previous three sessions, along with further discussion on capacity building, compliance, and continued collaboration and engagement during the policy development process. The graphic recordings from the previous sessions were also reviewed, along with some of the feedback given by participants. Following this, attendees were divided into breakout rooms, where the following questions were asked:

**Q1. What funding is needed to participate meaningfully in policy development and discussion about future training needs?**

**Q2. What existing working groups may be a good fit for us to collaborate with to reduce the time and effort required of Nations?**

## SURVEY RESULTS

Following conclusion of the engagement series, a survey was sent out to participants that posed a question related to the topics that were covered, in order to garner further feedback for each engagement session. Overall, there were 27 participants for the post-engagement survey, with each question resulting in a minimum of 25 responses.

When asked how to best incorporate Indigenous Peoples' perspectives on risk assessment and remediation options, responses centered around contacting affected communities as early and as often as possible, developing lines of meaningful communication and proper working relationships with First Nations; and ensuring that the correct departments are contacted, such as Lands and Resources.

When asked about opportunities for engagement with First Nations in the site investigation process, responses highlighted the need for ongoing engagements and greater inclusion of Indigenous knowledge, including training Indigenous People to become consultants and site monitors in their own territories.

When asked to provide feedback on the new soil relocation rules coming into effect on March 1, 2023, responses included wanting greater transparency and information, along with concerns over invasive plants and the industry being held accountable.

Lastly, participants were asked if they were interested in participating in a contaminated sites working group with Ministry staff, and 84% of respondents answered that they were.

## KEY THEMES

The following themes are representative of the key comments, questions and concerns that were voiced by participants during the engagement series. There was no attempt to seek a consensus from participants or to gauge the weight of opinion on any issue.

### Session 1 – Making Contaminated Sites Climate Ready

#### 1. Cultural and Site-Specific Assessment Tools

- The concept of 'risk assessment' has a different meaning for every First Nation, as each community faces unique challenges and risks from their surrounding landscape. For example, the risk assessment tools that are needed for coastal and marine environments will differ from urban and remote communities. Site-specific factors must be considered when applying risk assessment tools to different regions – there needs to be a more strategic approach.

- Assessment tools also need to incorporate more Indigenous perspectives and knowledge. For example, many communities have concerns regarding food security and food sovereignty, yet current risk assessments do not incorporate such concerns or search for important data, such as information on consumption rates.



Figure 1 - Section from November 14, 2022, Graphic Illustration

## 2. Engage Early, Consult Often

- The current engagement efforts have not been adequate and need to change.
- Engagement with First Nations must happen before an activity takes place, or when risks are identified within their territories. They need to be contacted as early as possible.
- First Nations need to be consulted at every stage of the process as they are entitled to information about what takes place within their territories. Their intimate knowledge of the lands and waters would also be invaluable for the assessment and remediation phases.
- The earlier that First Nations are informed of risks or contaminated sites, the greater time it affords them in responding and ensuring that community members are protected.
- With more consistent consultations, First Nations could also help categorize contaminated sites and identify which are historic, active, and need to be addressed immediately because they pose the greatest risk to communities and the environment.
- Do not rely on e-mails as the only form of communication, especially because they can get lost within busy inboxes. Instead, reach out by phone and ensure that the most appropriate department – such as Lands or Natural Resources – gets contacted to increase efficiency.
  - A tiered approach to communication was also suggested, depending on the urgency of the situation, so that quicker responses could be ensured if it was an emergency.



- A timeframe structure could also be imposed on both ends. Initially, for the government to engage with First Nation communities regarding contaminated sites in a timely matter, and then for the communities to respond back within a certain period of time.
- In general, First Nations need a longer review period before being required to give a response.



Figure 2 - Section from November 14, 2022, Graphic Illustration

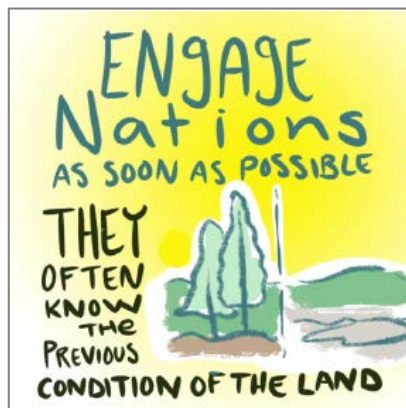


Figure 3 - Section from November 16, 2022, Graphic Illustration



Figure 4 - Section from November 16, 2022, Graphic Illustration

### 3. Clearer Language Needed

- Any information that First Nations receive must be written in clear, easy to understand language, while remaining culturally aware of the sensitive subject matter. When materials rely too heavily on technical jargon it creates a barrier in accessing that vital knowledge. Chief and council, Elders, and community members, all must be able to understand this information if they choose to engage with it.

- Both high-level and specific information must be provided on any contaminated sites in a First Nations territory. Do not assume that community members have the general knowledge; understanding the larger picture helps ensure an understanding of the smaller details too.



Figure 5 - Section from November 14, 2022, Graphic Illustration

#### 4. Train First Nations to Help

- It would be more efficient to train members of a First Nation to perform risk assessments, rather than keep them out of the process by relying on outside experts.
- Due to existing levels of distrust between First Nations and the government, having local community members present during the process would help to alleviate some concerns over Indigenous interests not being represented.
- First Nations should be present during every stage of the process, including restoration, reclamation, rehabilitation, and the crucial enforcement phase.



Figure 6 - Section from November 14, 2022, Graphic Illustration

#### 5. Provide Capacity Funding

- While many First Nations desire increased involvement during assessments and remediation, serious challenges with capacity were also noted. More staff will be needed to respond to inquiries, and ensure First Nations involvement at every stage of the process, including technical staff to process or translate technical documents for other community members.

- In terms of responding to engagements and consultation, a lack of response may not mean that there are no issues. It could simply mean that the First Nation does not have the capacity to adequately respond.



Figure 7 - Section from November 16, 2022, Graphic Illustration

## Session 2 – Investigating Contaminated Sites

### 1. Protection of Sensitive Records

- There must be an agreement in place between First Nations and the government to protect any sensitive information, because Indigenous historical records, whether oral or written, contain important Indigenous knowledge and cultural practices that many communities would be hesitant to share.
- The problematic past of collecting First Nations knowledge must be acknowledged if any system is to succeed. As damage has been done and trust broken, getting access to historical records will be challenging and must be approached with that understanding.
- Phase I studies should be outsourced to First Nations themselves, which would allow them to collect the relevant information and maintain control over it.



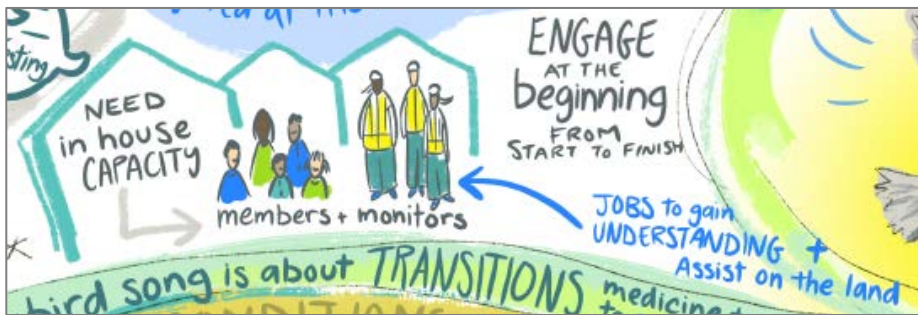
Figure 8 - Section from November 17, 2022, Graphic Illustration



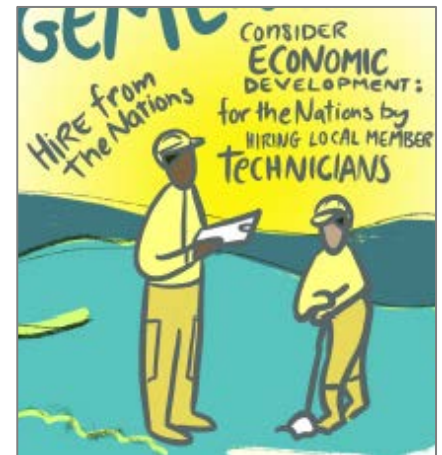
Figure 9 - Section from November 21, 2022, Graphic Illustration

## 2. Greater Involvement and Authority

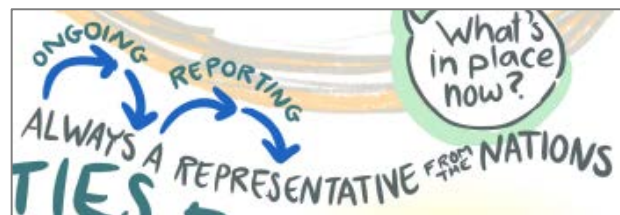
- First Nations want to become involved and get out into the field, especially as monitors that can engage firsthand with sites – both short and long-term.
- Indigenous involvement must go beyond just being spectators. They need to be given legal authority to act and be supported by financial backing and easy access to resources.
- One way to increase First Nations capacity would be to involve Indigenous businesses and community members in the site investigations, rather than only bringing in outside personnel. This would create helpful economic and work opportunities for the community.



Figures 10-11 - Sections from November 17, 2022, Graphic Illustration



Figures 12-13 - Sections from November 21, 2022, Graphic Illustration



### 3. Suggestions for Site Investigation Protocol

- First Nations want to be included in the protocol creation process.
- Free and Prior Informed Consent must be incorporated.
- There should be progressive monitoring conducted during all four seasons, ideally by Indigenous monitors.
- The Site Investigation Protocol must be a living document that can adapt to changing needs and circumstances, especially as First Nations were not consulted for the initial draft. As such, it must be able to expand or shrink as First Nations provide their feedback in the future.



Figure 14 - Section from November 17, 2022, Graphic Illustration



Figure 15 - Section from November 17, 2022, Graphic Illustration

### 4. Adopt a Holistic Perspective

- Due to the interconnectedness of the environment and the chain reaction that contamination can have, any First Nation that may be impacted by a site needs to be notified. These include First Nations downstream from contaminated sites, or those with overlapping territories.
- First Nations should still be consulted whose territory falls within a more urban area, as they may have needs being unmet. For example, urban marine communities that have lost access to shellfish due to water contamination in their harvesting areas.



Figure 16 -  
Section from  
November 21,  
2022, Graphic  
Illustration

## Session 3 – Soil Relocation Changes in B.C.

### 1. Need for Prior Consultation

- Many First Nations did not have the opportunity to provide feedback and help shape the amendments to the soil relocation legislation, especially regarding reserve lands. Instead, they were brought in for an engagement session after the work was already done and told what changes were about to take place. There was agreement amongst participants that any prior engagements done to consult with First Nations were inadequate.
- Regarding the soil relocation legislation, although some British Columbian First Nations were informed of the Ministry's intention to endorse new legislation, the First Nations participating in this particular session complained that they had never been informed about this initiative. Instead, they were brought in for an engagement after the amendments were completed and were told what changes were being made. This was especially inappropriate as the amendments affected reserve lands. All participants at this engagement agreed that this past practice was inadequate. Future engagements must include First Nations right at the beginning of all legislative amendment processes.

### 2. Support for Collaboration

- In the future, there should be more support for ensuring the sharing of information and collaboration between First Nations. A more Indigenous-focused dashboard should be created that enables communities to update each other on the activities happening within their territories and how they can help. It could also be used to facilitate greater cooperation between the government and First Nations.

## Session 4 – Final Wrap-Up and Report Back

### 1. Funding Ideas

When participants were asked about what funding was needed to participate meaningfully, the following feedback was given:

- It was agreed that honoraria must be provided for attending meetings, as it takes valuable time from every participant's day.
- There was also support for creating multiple funding streams, such as base funding, operational funding, and funding to address costs associated with contamination and enforcement after a site was remediated.

- In order to direct funding to First Nations that need the most help, there could be a requirement to submit a proposal that outlines the financial need for training and costs to become involved in policy development.

## 2. Collaboration Ideas

When participants were asked for suggestions of potential collaborations, the following feedback was given:

- There should be a focus on reaching out to organizations that have experience dealing with cumulative effects.
- In general, future collaborations should be made with Indigenous organizations and working groups, as they would be the best fit for the work.



Figure 17 - Section from December 13, 2022, Graphic Illustration



Figure 18 - Section from December 13, 2022, Graphic Illustration

## RECOMMENDATIONS

The following recommendations have been put forward by Mahihkan Management based on the feedback received from Indigenous Peoples during the engagement sessions. They are intended as constructive suggestions for improving the dialogue and working relationship between First Nations and the Ministry of Environment and Climate Change Strategy, British Columbia.

1. At the beginning of a session, it is recommended to explain to the participants that this is a provincial government law which may also apply on certain federal lands but not on reserve lands as stipulated in Indian Act (91-24).
2. The authority of the First Nations on their unceded ancestral territory regarding the remediation of contaminated sites must be clarified jointly between the provincial government, the federal government, and the First Nations.
3. Regarding the session on soil relocation changes, explain that some First Nations have already been consulted and have themselves requested to benefit from the application of the associated Act.
4. Provide a table explaining the various jurisdictions and/or complementarities between the federal, provincial and municipal governments, the First Nations signatories to treaties and those participating in the Community land management Act with regard to the management of territories including the remediation of contaminated sites in order to clarify the jurisdiction and responsibilities of each of the parties.
5. A Directorate of Relations with Indigenous Peoples should be created within the Ministry of Environment and Climate Change Strategy with the aim of maintaining a continuous and progressive dialogue between the parties.
6. In line with the spirit of implementing the United Nations Declaration on the Rights of Indigenous Peoples, the Government of British Columbia and First Nations should assess the benefits of developing true collaboration – a form of partnership in order to optimize the protection of their respective territories including remediation of the numerous contaminated sites.
7. In all future proposals, a First Nation ‘two-eyed,’ approach is recommended. A ‘two-eyed’ approach means that First Nations come together to interpret environmental



phenomena, to view the world, through an Indigenous lens with one eye, while the other eye sees through a western lens.

## ASSESSMENT OF INITIATIVE

Overall, these engagement sessions may be judged as being successful.

It is important to mention that British Columbia is currently the only Canadian province that officially recognizes the United Nations Declaration on the Rights of Indigenous Peoples and has committed to taking steps to facilitate its application in consultation with First Nations.

The preparation and presentation of each session reflect this commitment and the high level of respect and sensitivity to Indigenous peoples' protocol is noteworthy. For example, retaining the services of an Aboriginal firm for the organization and presentation of the sessions, providing the territorial recognition and the opening by a credible Elder, and the presentation of tobacco to the Elder all demonstrate the seriousness of this commitment.

Following the majority of sessions, a short meeting between the organizers and the Ministry made it possible to evaluate the progress of the session and to make changes, if necessary.

The participants have on more than one occasion indicated the large number of dialogue sessions and/or consultations on a range of subjects to which they are invited and their deficiency in terms of skills. Notwithstanding this state of affairs, the quality of their participation is commendable. On the other hand, in order to further support and encourage their contribution within the framework of a true partnership relationship, special attention to the acquisition of skills would be greatly beneficial.

The mixed formula of presentations by Ministry professionals followed by interactive discussions in sub-groups is a *modus operandi* to be maintained.

The good collaboration between the facilitators and the professionals of the Ministry has certainly made it possible to achieve the initial objectives with regard to the remediation of contaminated sites.

The contribution of a graphic recorder was well appreciated by the participants, taking into account that the First Nations have the reputation of being visual people and inspired by legends.

The technical support and note-taking work allowed both the smooth running of the sessions within the allotted time and the capture of all the points of view expressed.

**APPENDIX I – ENGAGEMENT BACKGROUNDER AND INFOGRAPHICS**

**Backgrounder**



Ministry of  
Environment and  
Climate Change Strategy

**WHO WE ARE**

The Land Remediation Section of the Ministry of Environment and Climate Change Strategy (ENV) ensures protection of human health and the environment by regulating the identification, investigation, and cleanup of contaminated sites in British Columbia.

**WHAT WE ARE DOING**

ENV is continuing in-depth Indigenous engagement as part of implementing the B.C. Declaration on the Rights of Indigenous Peoples Act with the goal of incorporating Indigenous traditional knowledge, views and interests into future policies and laws relating to the identification, investigation, and remediation of contaminated sites.

The engagement will focus on the following specific topics related to remediation of contaminated sites:

- Groundwater protection for future drinking water use and adaptation of remedial approaches to account for impacts of climate change; and
- Site investigation policies.

**CAPACITY BUILDING**

The ministry is also offering two training sessions focusing on new soil relocation laws coming into effect on March 1, 2023. These sessions will be about 1.5 hours long and will include demonstrations of the new Soil Relocation Information System.

**GOAL OF ENGAGEMENT**

To build on what we have heard from past engagements and gain greater insight and feedback from Indigenous Peoples that will inform opportunities to improve the regulation of contaminated sites. To ensure success of future amendments to the Environmental Management Act and Contaminated Sites Regulation we are seeking Indigenous perspectives on:

- Making contaminated sites climate ready
- Investigating contaminated sites

**HOW YOU CAN PARTICIPATE**

B.C. Indigenous Peoples including governments, communities, organizations, youth and Elders are invited to participate in small group sessions with an experienced Indigenous Facilitator. Sessions will be 2 hours in length, include breakout sessions and will be documented by a graphic recorder.

**THE FOLLOWING SESSIONS ARE PLANNED:**

<p><b>Session 1:</b></p> <p><b>Making Contaminated Sites Climate Ready</b></p> <p>Monday, November 14 (1:00pm-3:00pm) <b>OR</b> Wednesday, November 16 (10:00am-12:00pm)</p>	<p><b>Session 2:</b></p> <p><b>Investigating Contaminated Sites</b></p> <p>Thursday, November 17 (1:00pm-3:00pm) <b>OR</b> Monday, November 21 (10:00am-12:00pm)</p>
<p><b>Session 3:</b></p> <p><b>Soil Relocation Changes in B.C.</b></p> <p>Wednesday, December 7 (1:00pm-2:30pm) <b>OR</b> Friday, December 9 (10:00am-11:30am)</p>	<p><b>Session 4:</b></p> <p><b>Final Wrap-Up and Report Back</b></p> <p>Tuesday, December 13 (1:00pm-3:00pm)</p>

Choose the date and time to attend each session that best suits your schedule.

**CLICK HERE TO REGISTER:**

[submit.digital.gov.bc.ca/app/form/submit?f=5ed3e61c-32a3-435b-be48-4d77b7ee33db](https://submit.digital.gov.bc.ca/app/form/submit?f=5ed3e61c-32a3-435b-be48-4d77b7ee33db)

If you are unable to join a session, please consider submitting a written response to: [site@gov.bc.ca](mailto:site@gov.bc.ca)

Figure 19 – Engagement on Remediation of Contaminated Sites in B.C. Backgrounder

Infographic – Session 1



Get involved and have your say about the recently published discussion paper **Making Contaminated Sites Climate Ready.**

The paper summarizes ideas to ensure the cleanup efforts of contaminated sites adapt to our changing climate.

**The paper has 2 main topics:**

- How to incorporate climate change adaptation and sustainability into B.C.'s existing contaminated sites framework
- What remediation requirements need to be strengthened to protect groundwater quality

**In developing the principles, key concepts and outcomes, the Ministry considered:**

- Climate Preparedness Adaptation Strategy (CPAS) objectives
- The Ministry's mandate
- Messages heard through Indigenous engagement
- Approaches of other governments
- Land remediation experts

VISIT [GOVTOGETHERBC](http://GOVTOGETHERBC) TO LEARN MORE AND SHARE YOUR IDEAS AND PERSPECTIVES.



Figure 20 – Making Contaminated Sites Climate Ready Infographic

## RISK ASSESSMENT ON CONTAMINATED SITES IN BC



Ministry of  
Environment and  
Climate Change Strategy

### 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.



Figure 21 – Risk Assessments on Contaminated Sites in B.C. Infographic

# NEW REGULATIONS FOR SOIL RELOCATION



Ministry of Environment and Climate Change Strategy

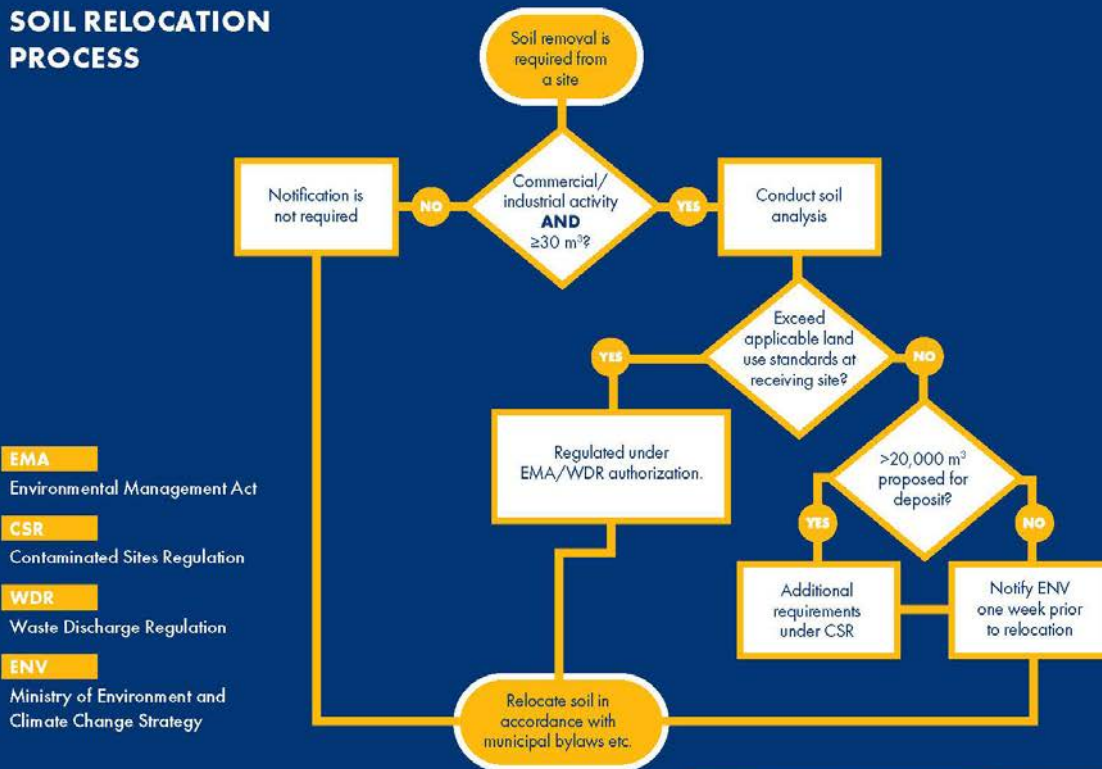
## WHAT IS SOIL RELOCATION?

The soil relocation process is a series of legal provisions in the Environmental Management Act (EMA) and Contaminated Sites Regulation (CSR) that ensure non-waste quality soil is characterized before it is relocated to receiving sites for beneficial re-use. The process includes provisions for notification and for registration of high volume receiving sites.

### Notification is required when:

- Relocating 30 m<sup>3</sup> or more of non-waste quality soil; and
- Relocating soil from sites with a history of specific industrial or commercial uses.

## SOIL RELOCATION PROCESS



- EMA**  
Environmental Management Act
- CSR**  
Contaminated Sites Regulation
- WDR**  
Waste Discharge Regulation
- ENV**  
Ministry of Environment and Climate Change Strategy

## THE NEW SOIL RELOCATION PROCESS

Changes to EMA and the CSR will come into effect on March 1, 2023. These changes will bring the relocation of non-waste quality soil under increased ministry oversight. Persons relocating 30 m<sup>3</sup> or more of non-waste quality soil must follow the new soil analysis and notification requirements. Procedures for compliance verification and enforcement are also being implemented.



Figure 22 – New Regulations for Soil Relocation (Page 1)



## WHAT IS REQUIRED IF RELOCATING SOIL FROM SCHEDULE 2 SITES?

If a person intends to relocate 30 m<sup>3</sup> or more of soil from a site where a Schedule 2 industrial or commercial use occurred, they must first:

- Analyze the soil to determine if it is non-waste quality in relation to the receiving site; and
- Submit a soil relocation notification form through an online system.

### Requirements for soil relocation do not apply when:

- the receiving site is outside of BC;
- the receiving site is on federal land, other than a reserve;
- quarry material has been extracted under a Mines Act permit and is transported directly to a receiving site;
- pre-load soil originates from non-Schedule 2 use site;
- the soil is winter maintenance sand; and
- the total volume is less than 30 m<sup>3</sup> for the same project over 2 years (for non-high risk sites).

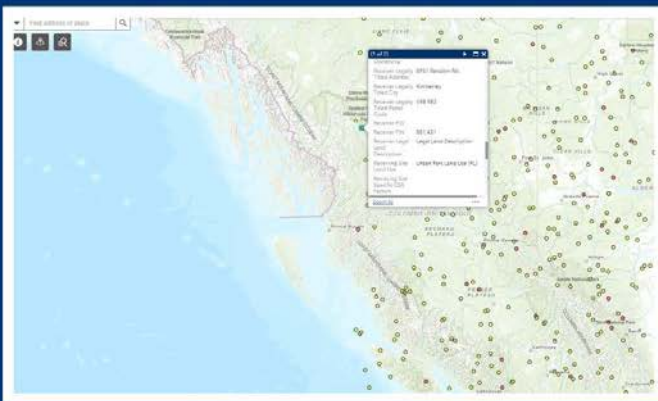
## HIGH VOLUME SITES

Sites that receive more than 20,000 m<sup>3</sup> of non-waste quality soil are called high volume receiving sites. The owner of a high volume receiving site is required to register the site by submitting a High Volume Receiving Site Registration Form to ENV. Owners are further required to implement a soil management plan developed by a Qualified Professional and signed by an Approved Professional. High volume receiving sites must be managed in accordance with that soil management plan until the site is closed. In addition, soil containing organic substances is not allowed within 10 metres of a water body.

High volume site requirements do not apply when:

- The soil being relocated is low impact soil (residential, urban park, agricultural or wildlands soil qualities);
- The soil being relocated for the purpose of constructing or maintaining linear infrastructure including a highway, transit system, pipeline, sewage collection system, a drainage collection system that is below ground, a water distribution system, an electricity transmission or distribution system, a telecommunications line or tower, a right of way required for infrastructure, or a dyke or other structure constructed to prevent flooding or erosion.

## SOIL RELOCATION INFORMATION SYSTEM



A Soil Relocation Information System (SRIS) has been established to allow Indigenous Nations, local governments and other interested parties to access information on soil relocation.

The information in this document does not modify in any way the requirements of EMA, the CSR and the WDR.

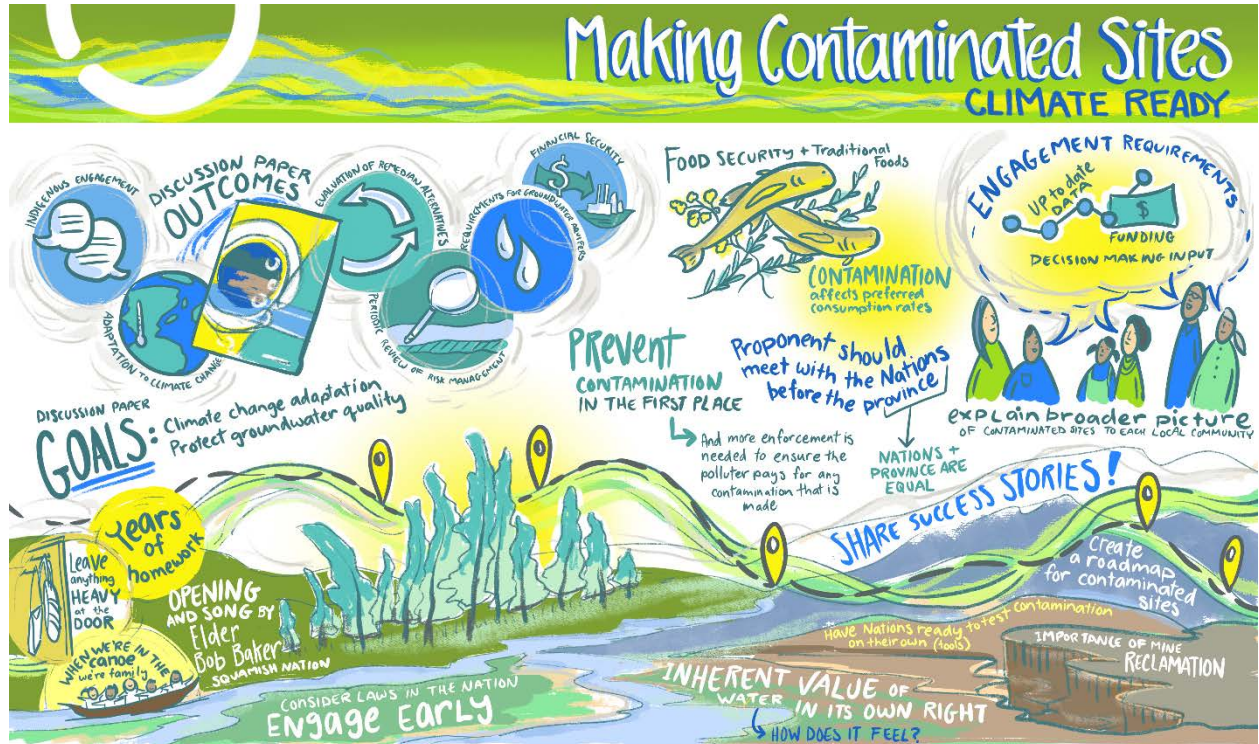


Figure 23 – New Regulations for Soil Relocation (Page 2)

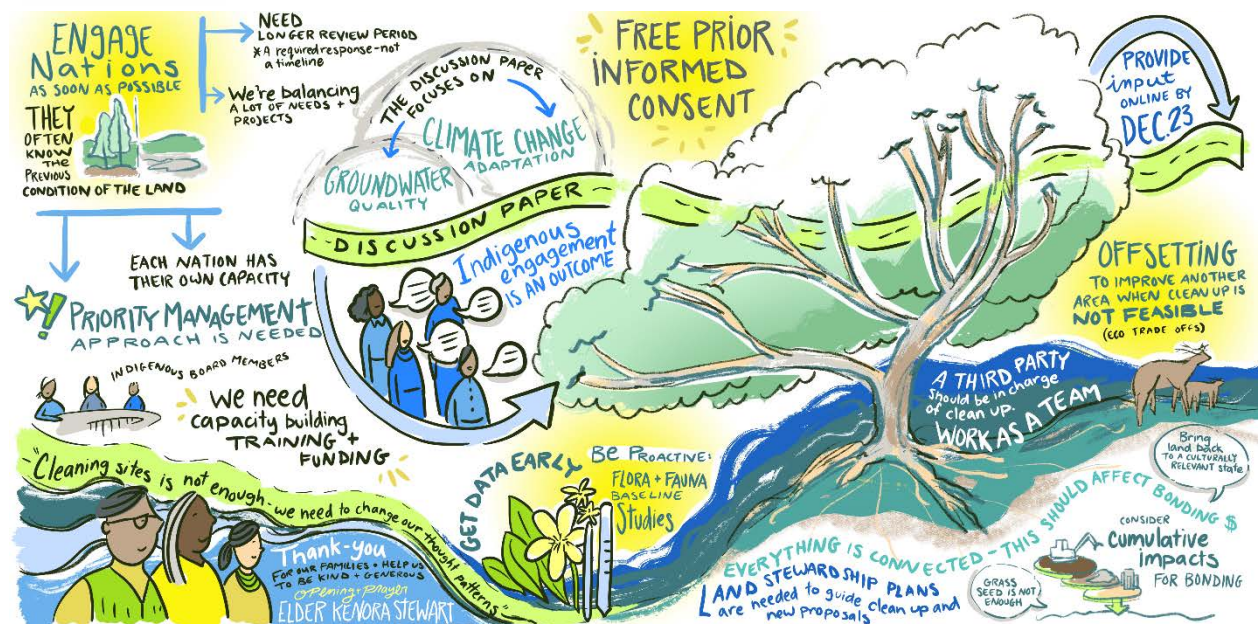
APPENDIX II – GRAPHIC RECORDER ILLUSTRATIONS

The following digital illustrations were created by graphic recorder, Kristen Elkow from Drawing Change, for Sessions 1, 2, and 4 of the engagement.

November 14 & 16, 2022 – Session 1



Engagement on Remediation of Contaminated Sites in BC: Making Contaminated Sites Climate Ready November 14, 2022 LIVE GRAPHIC RECORDING | Drawing Change Kristen Elkow



Engagement on Remediation of Contaminated Sites in BC: Making Contaminated Sites Climate Ready November 16, 2022 LIVE GRAPHIC RECORDING | Drawing Change Kristen Elkow

Figure 24 – November 14 & 16, 2022, Graphic Illustrations

November 17 & 21, 2022 – Session 2

# Investigating Contaminated Sites

Engagement on Remediation of Contaminated Sites in BC: Investigating Contaminated Sites  
November 17, 2022

LIVE GRAPHIC RECORDING | Drawing Change  
Kristen Elkow

# Investigating Contaminated Sites

Engagement on Remediation of Contaminated Sites in BC: Investigating Contaminated Sites  
November 21, 2022

LIVE GRAPHIC RECORDING | Drawing Change  
Kristen Elkow

Figure 25 – November 17 & 21, 2022, Graphic Illustrations





Figure 26 - December 13, 2022, Graphic Illustration

**APPENDIX III – PARTICIPANTS**
**Attendance List – Session 1 (November 14 & 16, 2022)**
**MINISTRY OF ENVIRONMENT AND  
CLIMATE CHANGE STRATEGY STAFF**
**SUPPORT STAFF**

Elder Bob Baker – Squamish Nation  
 Elder Kenora Stewart – Lheidli T'enneh First Nation  
 Luc Lainé – Lead Facilitator  
 Wesley Shennan – Co-Facilitator  
 Kristen Elkow – Graphic Recorder

**MAHIHKAN MANAGEMENT**

Vanessa Ong – Technical Support  
 Ricky Grewal – Technical Support  
 Imane Regragui – Technical Support  
 Domini Maceda – Notetaker  
 Ashley Ertel-Ritzmann - Notetaker

**COMMUNITIES & ORGANIZATIONS REPRESENTED**

ʔaąam Community  
 Aboriginal Housing Management Association  
 BC Assembly of First Nations  
 Blueberry River First Nations  
 Bonaparte First Nation  
 Champagne-Aishihik First Nations  
 Citxw Nlaka'pamux Assembly  
 Doig River First Nation  
 Gitxsan Lax yip Management  
 GWAI Planning  
 Haida/OMVC Homalco Nation  
 Haisla Nation Council  
 Ka:'yu:'k't'h'/Che:k:tlas7et'h' First Nations  
 Kanaka Bar Indian Band  
 Katzie First Nation  
 Kitselas First Nations  
 KNC contractor  
 K'omoks First Nation  
 Ktunaxa Nation Council  
 Kwantlen First Nation  
 Kwikwetlem First Nation  
 Kwikwetlem First Nation Enterprises LP  
 Lax Kw'alaams First Nation  
 Leq'a:mel First Nation

**COMMUNITIES & ORGANIZATIONS  
REPRESENTED**

Lheidli T'enneh First Nation  
 Little Shuswap Lake Band  
 Lower Similkameen Indian Band  
 Malahat Nation  
 McLeod Lake Indian Band  
 Métis Nation BC  
 Milestone Environmental Contracting  
 Nak'azdli Whut'en  
 'Namgis First Nation  
 Nanoose First Nation  
 Nisga'a Lisims Government  
 Nuxalk Nation  
 Old Massett Village Council  
 Pauquachin First Nation  
 Popkum First Nation  
 Quatsino First Nation  
 Quatsino Economic Development  
 Ram Remediation Ltd.  
 Saanichton  
 Saik'uz First Nation  
 Seabird Island Band  
 Secwepemcul'ecw Restoration and Stewardship  
 Skwah First Nation  
 Songhees Nation  
 Soowahlie First Nation  
 Southern Dakelh Nation Alliance  
 Squamish Nation  
 Stswecem'c Xget'tem First Nation  
 Sumas First Nation  
 Tahltan Central Government  
 Takla Nation  
 Teslin Tlingit Council  
 T'k'emlúps te Secwépemc  
 Tsay Keh Dene Nation  
 Ucluelet First Nation  
 West Moberly First Nation  
 Whispering Pines Clinton Indian Band  
 Williams Lake First Nation  
 Xení Gwet'in First Nations Government  
 Yinka Dene Economic Development LP

**Attendance List – Session 2 (November 17 & 21, 2022)**
**MINISTRY OF ENVIRONMENT AND  
CLIMATE CHANGE STRATEGY STAFF**
**SUPPORT STAFF**

Elder Bob Baker – Squamish Nation  
 Elder Kenora Stewart – Lheidli T'enneh First Nation  
 Luc Lainé – Lead Facilitator  
 Wesley Shennan – Co-Facilitator  
 Kristen Elkow – Graphic Recorder

**MAHIHKAN MANAGEMENT**

Vanessa Ong – Technical Support  
 Ricky Grewal – Technical Support  
 Imane Regragui – Technical Support  
 Domini Maceda – Notetaker  
 Ashley Ertel-Ritzmann - Notetaker

**COMMUNITIES & ORGANIZATIONS REPRESENTED**

ᑭᐱᑭᐱᑭ Community  
 Aboriginal Housing Management Association  
 Adams Lake Indian Band  
 BC Aboriginal Land Managers  
 BC Assembly of First Nations  
 Blueberry River First Nations  
 Bonaparte First Nation  
 Champagne-Aishihik First Nations  
 Citxw Nlaka'pamux Assembly  
 Doig River First Nation  
 First Nations Health Authority  
 Kanaka Bar Indian Band  
 Katzie First Nation  
 Kelly Lake First Nation  
 Kispiox Band  
 Kitselas First Nations  
 K'omoks First Nation  
 Ktunaxa Nation Council  
 Kwantlen First Nation

**COMMUNITIES & ORGANIZATIONS  
REPRESENTED**

Kwikwetlem First Nation  
 Leq'a:mel First Nation  
 Lheidli T'enneh First Nation  
 Lil'wat First Nation  
 Little Shuswap Lake Band  
 Malahat Nation  
 Métis Nation BC  
 Nak'azdli Whut'en  
 'Namgis First Nation  
 Old Massett Village Council  
 Okanagan Indian Band  
 Ram Remediation Ltd.  
 Saik'uz First Nation  
 S.A.Y. Lands  
 Seabird Island Band  
 Secwepemcul'ecw Restoration and Stewardship  
 Skidegate Band Council  
 Skwah First Nation  
 Songhees Nation  
 Soowahlie First Nation  
 S'ólh Téméxw Stewardship Alliance  
 Splitrock Environmental  
 Squamish Nation  
 Stk'emlupsemc Te Secwepemc Nation  
 Stswecem'c Xget'tem First Nation  
 Tahltan Central Government  
 Teslin Tlingit Council  
 Tk'emlúps te Secwépemc  
 Tla'amin Nation  
 Tsay Keh Dene Nation  
 Tseil-Waututh Nation  
 Tseshaht First Nation  
 West Moberly First Nation  
 Whispering Pines Clinton Indian Band  
 Williams Lake First Nation  
 Yinka Dene Economic Development LP

**Attendance List – Session 3 (December 7 & 9, 2022)**

**MINISTRY OF ENVIRONMENT AND  
CLIMATE CHANGE STRATEGY STAFF**

**SUPPORT STAFF**

Luc Lainé – Lead Facilitator  
Elder Bruce Robinson – Nisga’a Nation  
Elder Darlene McIntosh – Lheidli T’enneh First Nation

**MAHIHKAN MANAGEMENT**

Vanessa Ong – Technical Support  
Ricky Grewal – Technical Support  
Marjolein Tanunliong – Notetaker

**COMMUNITIES & ORGANIZATIONS REPRESENTED**

ᑭᐱᑭᐱᑭ Community  
Aboriginal Housing Management Association  
Agassiz Community  
BC Assembly of First Nations  
Blueberry River First Nations  
Bonaparte First Nation  
Champagne-Aishihik First Nations  
Citxw Nlaka’pamux Assembly  
Da’naxda’xw First Nation  
Doig River First Nation  
First Nations Health Authority  
Gitxsan Hereditary Chiefs  
Gitxsan Lax yip Management Office  
Halfway River First Nation  
Homalco Nation  
Haisla Nation Council  
High Bar First Nation  
Kanaka Bar Indian Band  
Katzie First Nation  
Kitselas First Nations  
K’omoks First Nation  
Ktunaxa Nation Council  
Kwantlen First Nation  
Kwikwetlem First Nation  
Kwikwetlem First Nation Enterprises LP  
Lake Babine Nation  
Lax Kw’alaams First Nation  
Leq’a:mel First Nation  
Lheidli T’enneh First Nation  
Lil’wat First Nation  
Lower Nicola Indian Band  
Lower Similkameen Indian Band  
Malahat Nation  
Métis Nation BC  
Michel First Nation

**COMMUNITIES & ORGANIZATIONS REPRESENTED**

Milestone Environmental Contracting  
Musqueam Indian Band  
’Namgis First Nation  
Nanoose First Nation  
Nisga’a Lisims Government  
Nuxalk Nation  
Old Massett Village Council  
Okanagan Indian Band  
Pauquachin First Nation  
Quatsino First Nation  
Ram Remediation Ltd.  
Saik’uz First Nation  
Saulteau First Nations  
S.A.Y. Lands  
Seabird Island Band  
Secwepemcul’ecw Restoration and Stewardship  
Seton Lake Band (Tsal’alh)  
Shxw’ow’hamel First Nation  
Shxwhá:y Village  
Skeetchestn Natural Resource Corp  
Skwah First Nation  
Skawahlook First Nation  
Snuneymuxw First Nation  
Songhees Nation  
S’ólh Téméxw Stewardship Alliance  
Southern Dakelh Nation Alliance  
Squamish Nation  
Sts’ailes First Nation  
St’at’imc Government Services  
St’at’imc Nation  
Stswecem’c Xget’tem First Nation  
Sumas First Nation  
Tahltan Central Government  
Takla Nation  
Taku River Tlingit First Nation  
Teslin Tlingit Council  
Tkemlúps te Secwépemc  
Tla’amin Nation  
Tsay Keh Dene Nation  
Tsawout First Nation  
Ts’kw’aylaxw First Nations  
Tsleil-Waututh Nation  
Upper Nicola Band  
Westbank First Nation  
West Moberly First Nation  
Whispering Pines Clinton Indian Band  
Williams Lake First Nation  
Xaxlip First Nation

**Attendance List – Session 4 (December 13, 2022)**

**MINISTRY OF ENVIRONMENT AND  
CLIMATE CHANGE STRATEGY STAFF****SUPPORT STAFF**

Elder Bruce Robinson – Nisga’a Nation  
Luc Lainé – Lead Facilitator  
Wesley Shennan – Co-Facilitator  
Kristen Elkow – Graphic Recorder

**MAHIHKAN MANAGEMENT**

Vanessa Ong – Technical Support  
Ricky Grewal – Technical Support

**COMMUNITIES & ORGANIZATIONS REPRESENTED**

Adams Lake Indian Band  
BC Assembly of First Nations  
Blueberry River First Nations  
Bonaparte First Nation  
Cayoose Creek Indian Band  
Champagne-Aishihik First Nations  
Doig River First Nation  
Homalco Nation  
Haisla Nation Council  
Kanaka Bar Indian Band  
Katzie First Nation  
Kelly Lake First Nation  
Kitselas First Nations  
K’omoks First Nation  
Ktunaxa Nation Council  
Lake Babine Nation  
Leq’a:mel First Nation

**COMMUNITIES & ORGANIZATIONS  
REPRESENTED**

Little Shuswap Lake Band  
Lower Nicola Indian Band  
Métis Nation BC  
’Namgis First Nation  
Nuxalk Nation  
Old Massett Village Council  
Ram Remediation Ltd.  
S.A.Y. Lands  
Seabird Island Band  
Skwah First Nation  
Songhees Nation  
Soowahlie First Nation  
St’at’imc Government Services  
St’at’imc Nation  
Stswecem’c Xget’tem First Nation  
Takla Nation  
Teslin Tlingit Council  
T’kemplúps te Secwépemc  
Tla’amin Nation  
Tsay Keh Dene Nation  
Tsawout First Nation  
Ulkatcho First Nation  
Upper Similkameen Indian Band  
West Moberly First Nation  
Williams Lake First Nation