

# FINAL POLICY DIRECTION

LAND  
REMEDIATION



## PREVENTION OF SITE CONTAMINATION FROM SOIL RELOCATION



BRITISH  
COLUMBIA

Ministry of  
Environment and  
Climate Change Strategy

**PREVENTION OF SITE CONTAMINATION FROM SOIL RELOCATION  
FINAL POLICY DIRECTION PAPER – January 2019**

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## 1. INTRODUCTION

The British Columbia (B.C.) Ministry of Environment and Climate Change Strategy (ENV) is considering updating the provisions of B.C.'s contaminated sites legal regime addressing the prevention of contamination from soil relocation and the management of soil on receiving sites.

This final policy direction paper:

- Provides background information on current soil relocation legal provisions;
- Outlines the regulatory review and consultation process used by ENV to develop the proposed changes;
- Confirms ENV commitment to working together with Indigenous Peoples in B.C.;
- Sets out proposed changes in relation to current legal provisions, with a discussion of rationale and implications;
- Provides a summary table of proposed changes; and
- Describes planned next steps and timeframe for implementing the proposed changes.

The ENV [site remediation website](#) provides links to additional information, including the [Environmental Management Act Part 4](#) and the [Contaminated Sites Regulation](#).

## 2. CURRENT SOIL RELOCATION LEGAL PROVISIONS AND ASSOCIATED ISSUES

### 2.1 CURRENT SOIL RELOCATION PROVISIONS IN B.C. LEGISLATION

The *Environmental Management Act* (EMA) and Contaminated Sites Regulation (CSR) establish a process for tracking transport and deposit of soil from contaminated sites in British Columbia.<sup>1</sup> The primary regulatory tool for this process is a Contaminated Soil Relocation Agreement (CSRA) enabled under Part 4 of EMA – made between the owner of a source site, the owner or operator of a receiving site, and the Director of Waste Management (for the Province).

Prior to November 1, 2017, a CSRA was triggered when substance concentrations were greater than the CSR Schedule 7 Contaminated Soil Relocation Standards. The Stage 10/11 amendments to the CSR (which came into effect on November 1, 2017) eliminated the existing soil standards used to trigger a CSRA and replaced them with the applicable new CSR standards. A CSRA is currently required when a substance listed in Schedule 3.1 of the CSR is contaminated to a degree greater than the applicable land use standards. Transported soil must meet conditions based on soil characteristics and land use of the receiving site (e.g., residential, urban park, agricultural, commercial, industrial). There are

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<sup>1</sup> See the BC Laws website ([www.bclaws.ca](http://www.bclaws.ca)) for full text of the Act and Regulation. Soil relocation provisions are addressed under Section 55 of EMA and Part 8 of the CSR.

currently a number of exemptions to the requirement, including transport of less than five cubic metres of soil and deposit in landfills that are authorized under Part 2 of EMA to receive contaminated soil. Soil that is moved outside of B.C. is not regulated by the soil relocation provisions in the CSR.

## 2.2 ISSUES AND CONCERNS WITH CURRENT SOIL RELOCATION PROVISIONS

Since the late 1990s, the ENV has seen an increase in remediation of contaminated sites. However, the use of CSRAs has substantially decreased over the same time period, an indication that they are not being used as intended. ENV staff received comments from local government, environmental consultants, and members of the public that soil relocation provisions are overly complex and poorly understood. Concerns have been voiced that soil has been relocated outside of regulatory requirements, burdensome relocation provisions drive soil to landfills rather than for appropriate re-use, and provisions add delays without clearly supporting environmental protection.

## 3. REGULATORY REVIEW AND CONSULTATION PROCESS

The ENV has worked for more than five years to develop the proposed changes – confirming issues with the existing process, clarifying ENV priorities and objectives, engaging in consultations, reviewing experience in other jurisdictions, and drawing on technical expertise for specific issues. A summary of the review process and consultation comments, with links to the ENV website with associated documents, is provided in Appendix 2 of this final policy direction paper.

## 4. PROVINCE OF BRITISH COLUMBIA'S RELATIONSHIP WITH INDIGENOUS PEOPLES

As part of committing to true and lasting reconciliation with Indigenous Peoples in British Columbia, the Province is moving forward on the Truth and Reconciliation Commission Calls to Action. This includes reviewing policies, programs and legislation to find ways to bring the principles of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) into action in British Columbia. In May 2018, the Province released the Draft Principles that Guide the Province of British Columbia's Relationship with Indigenous Peoples (draft principles). The draft principles will renew the Crown-Indigenous relationship and support the shift toward a government-to-government relationship with First Nations. The mandate and ministerial objectives for the ENV include commitments to UNDRIP. The ENV has embraced the draft principles, including the following specific points:

- Enable traditional Indigenous knowledge to be incorporated into resource management; and
- Build processes and approaches aimed at securing consent, as well as creative and innovative mechanisms that will help build deeper collaboration, consensus and new ways of working together.

## 5. MINISTRY OF ENVIRONMENT AND CLIMATE CHANGE STRATEGY FINAL POLICY DIRECTION – PROPOSED CHANGES TO REGULATORY PROVISIONS

The proposed changes to regulatory provisions for soil relocation involve amendments to both the EMA and the CSR. These **proposed** changes are described in this section. Please note that these changes remain subject to further changes.

### 5.1 DEFINITION OF WASTE SOIL

**Current law:** Legal provisions in Section 41 of the CSR (exemptions for soil relocation) help to determine when soil is not a waste and an authorization is not required (i.e., when a substance concentration is less than the lowest applicable industrial land use standard) however, do not expressly state when soil is considered to be waste and an authorization must be obtained.

**Proposed changes:** Section 41(1) in Part 8 of the CSR would be amended to clearly define waste soil (when a substance concentration is greater than the lowest applicable industrial land use standard) to specify when it requires an authorization and is therefore exempt from soil relocation. Relevant legislative provisions of EMA would also be amended to incorporate the revision.

**Discussion:** The proposed changes would clarify soil that is considered to be waste, would require a Waste Discharge Authorization, and is exempt from the soil relocation requirements. The changes would reduce potential for misunderstanding among responsible persons, and support ENV compliance and enforcement measures.

### 5.2 NOTIFICATION PROCESS

**Current law:** No notification is required for soil that meets applicable standards. A CSRA is required for soil that exceeds the minimum applicable standards set out in Schedule 3.1 of the CSR at the receiving site.

**Proposed changes:**

(1) For relocation of soil that meets numerical land use standards for a receiving site, a *Soil Relocation Notification and Certification* form would be completed by the proponent and sent to the ENV (or uploaded to the ENV website – if this avenue becomes available). The proposed triggers for notification are summarized in section 5.3.

(2) Soil that exceeds the applicable land use standards would not be regulated under the soil relocation process – but under other ENV requirements (such as an authorization under Part 2 of the *Environmental Management Act* and the Waste Discharge Regulation, independent remediation, Certificates of Compliance or Approvals in Principle).

**Discussion:** The proposed notification and certification form would be similar to existing “notice of commencement of independent remediation” requirements and would replace provisions related to CSRA. The changes uphold ENV awareness of soil move-

ment (for compliance purposes). They would also allow for viewing of notification forms by any interested party in real time and without a fee. Completion and submission of the form should not be time consuming or costly for proponents.

### 5.3 TRIGGERS FOR NOTIFICATION – ACTIVITY AND MINIMUM VOLUME

**Current law:** The requirement for a CSRA is triggered when the soil being moved exceeds applicable land use standards of the receiving site. Relocation of contaminated soil from a specific site that does not exceed five cubic metres in volume is exempt from the requirement.

**Proposed changes:**

A *Soil Relocation Notification and Certification* form would be required when:

- (1) the source site has been used for one or more of the industrial or commercial purposes and activities listed in [Schedule 2 of the CSR](#);

**AND**

- (2) the relocation involves ten cubic metres or more of soil from the source site.

For high-risk source sites, there would be no minimum volume requirement.

**Discussion:** The changes simplify and clarify regulatory requirements while ensuring that typical sources of soil contamination are included in the notification process. Increasing the minimum volume requirement from five to ten cubic metres allows very small projects, such as minor maintenance and landscaping by local government or private contractors, to proceed without undue time delay. Sites identified as high-risk for soil contamination would be captured no matter what volume of soil is involved.

### 5.4 SOIL CHEMICAL CHARACTERIZATION REQUIREMENT

**Current law:** No provision exists expressly stating that soil is to be chemically characterized prior to relocation. Triggers for the process are based on prescribed standards that stipulate maximum concentrations of particular substances and therefore require characterization.

**Proposed changes:** If the soil to be moved is subject to the notification requirement (i.e., triggered by a Schedule 2 activity and a minimum volume or is a high-risk site), the soil would be chemically characterized in accordance with ENV protocols and guidance including Technical Guidance 1.

**Discussion:** Current requirements related to soil chemical characterization may not be well understood across all responsible parties. The ENV is also concerned that current practices do not always adequately and consistently address characterization of soil being relocated, leading to receiving site owners having to deal with soil not appropriate for relocation. The goal of the proposed change is to provide clarity – there would be an explicit legal requirement to characterize any soil that is intended to be managed offsite.

## 5.5 NOTIFICATION OF LOCAL GOVERNMENT

**Current law:** Local government is notified after a CSRA is signed by all parties and a minimum of 96 hours before soil transport. Local government is not notified for soil meeting applicable standards at the receiving site.

**Proposed changes:** The *Soil Relocation Notification and Certification* form would be required to be provided to applicable local governments for both source and receiving sites at least two weeks prior to movement.

**Discussion:** The advance notification period is intended to allow local governments to verify and commence actions needed for compliance with local bylaws and other non-provincial requirements. The two week notice period is intended as a balance between industry interests regarding timely and effective project management, and local government capacity to review and address proposed movement of soil.

## 5.6 NOTIFICATION OF INDIGENOUS GROUPS

**Current law:** There are no current requirements under EMA and the CSR for Indigenous groups to be notified of proposed soil relocation. Federal lands (including Indian Reserves) are exempt from provincial soil relocation regulatory provisions. Modern treaty lands are not exempt from soil relocation provisions.

**Proposed changes:** The *Soil Relocation Notification and Certification* form would be required to be provided to Indigenous groups in the area of both source and receiving sites at least two weeks prior to movement.

**Discussion:** Notification of Indigenous groups is a new provision intended to ensure they are informed about soil relocation. The proposed change is aligned with the Provincial commitment to reconciliation and communication with Indigenous Peoples.

## 5.7 OFFENCES AND PENALTIES – ENV OVERSIGHT

**Current law:** Legal penalties are associated with CSRAs (which have not been effectively or consistently utilized).

**Proposed changes:** EMA would be amended to include soil relocation notification requirements with provision for Administrative Monetary Penalties.

**Discussion:** The regulatory provisions would make notification of soil relocation a legal requirement and support compliance and enforcement measures by ENV.

## 5.8 SOIL DISPOSAL AT LANDFILLS

**Current law:** Contaminated soil may be received at a landfill site without a CSRA if the substance concentrations in the soil are less than the lowest applicable land use stan-

standard or if an authorization allows for the acceptance of contaminated soil of a specified quality. Section 42 (1) of the CSR currently allows relocation of contaminated soil to occur without a CSRA or an authorization if the owner of the receiving site provides a written statement to the Director indicating the intended future use of the site and that substance concentrations in the soil are not greater than or equal to the lowest concentration for that substance in Schedule 3.1 for the applicable future land use.

**Proposed changes:** The ENV is proposing to remove Section 42 of the CSR so that all landfill sites not authorized to accept contaminated soil by means of an approval, permit or operational certificate would be subject to the soil relocation notification requirements as a receiving site.

**Discussion:** The proposed changes would clarify and strengthen regulatory obligations of responsible persons related to landfill sites receiving contaminated soil and improve ENV oversight of soil relocation.

## 5.9 REQUIREMENTS FOR HIGH VOLUME RECEIVING SITES

**Current law:** There are currently no legal requirements related to onsite soil management at receiving sites for soil that meets the numerical standards unless specific conditions have been included in a CSRA, permit, approval or operational certificate.

**Proposed changes:** High volume receiving sites, defined as sites receiving soil at a volume greater than 20,000 cubic metres in a lifetime, could be subject to additional requirements. These could include providing operational management plans (similar to that required for authorized landfills) to ENV, providing annual reports to ENV and compliance audits by ENV.

**Discussion:** The proposed changes support protective measures such as appropriate management practices and identification of environmental and human health concerns associated with high volumes of soil (research indicates that the CSR numerical standards may not be sufficiently protective for some substances in high volumes of soil). The regulatory requirements would apply to sites that may not be captured under the Waste Discharge Regulation (those receiving soil that is not considered waste but involve high volumes of material with potential for environmental or human health impacts).



## 5.10 MANAGEMENT OF VAPOUR IN SOIL

**Current law:** All relocated soil is required to meet vapour standards (see [Protocol 22](#)) applicable at the receiving site.

**Proposed changes:** The ENV will clarify for practitioners that a vapour assessment should be conducted if substances with both soil and vapour standards in Schedules 3.1 and 3.3 of the CSR are present in the soil being relocated.

Vapour intrusion risk is primarily a concern for indoor air and is generally not a concern for outdoor air due to air exchange. Therefore, a vapour assessment would **not** be required if soil is being relocated: to a receiving site with Wildlands, Agricultural or Urban Park land use; or to a site with Residential, Commercial or Industrial land use provided there are no buildings within thirty metres of the deposit location on the site. Practitioners may rely on the tools available in Protocol 22 to demonstrate that soil vapours meet numerical standards at the receiving site.

A clean soil cap with a vertical thickness of at least one metre may be required for specified locations. Restrictions to building over and within thirty metres depth or surface distance from the relocated soil would be required in perpetuity unless a vapour assessment is conducted. This regulatory direction would be documented by the ENV in new guidance.

**Discussion:** The proposed changes allow for relocation without vapour assessment in cases where vapour is not likely to be a concern – and focus efforts on situations where vapour investigation is warranted to ensure protection of human health. The clarifications provided by the ENV would reflect recent advances in vapour science.

## 5.11 SALT CONTAMINATED SOIL

**Background:** The potential for contamination of soil from salt was raised as a concern in the course of the regulatory review consultation process. Elevated salt from such sources as dredged marine sediments and winter highway maintenance have the potential to impact the environment and human health.

**Current law:** The ENV has [Technical Guidance 20](#) that provides guidance on sodium (Na+) and chloride (Cl-) ion soil standards which trigger CSRA and their applicability to dredged material of marine and estuarine origin when applied to land. The ENV does not have guidance for management of roadside soil or the application of salt for winter maintenance.

**Proposed changes:** Regulatory provisions and technical guidance regarding relocation of marine and estuarine materials would be retained. The ENV does not intend to introduce additional soil relocation provisions for the management of roadside soil at this time.

**Discussion:** The ENV has reviewed policy and best management practices from other jurisdictions and is considering a framework for management of roadside soil and the application of salt for winter maintenance.

## 6. NEXT STEPS IN IMPLEMENTING THE PROPOSED REGULATORY CHANGES

The ENV is planning to host information webinars in February and March 2019 to support communication and understanding of the proposed changes. Parties who have expressed interest or submitted comments to the ENV through the regulatory review consultation process will be notified of the proposed changes and webinars. Indigenous Peoples will also be contacted and notified of the proposed changes and webinars.

The ENV plans to bring the proposed changes forward to Cabinet for consideration in 2019.

Questions can be sent to the ENV at [site@gov.bc.ca](mailto:site@gov.bc.ca).

**Thank you for your time and interest**

## APPENDIX 1– SUMMARY OF REGULATORY DEVELOPMENT PROCESS

### DISCUSSION PAPER AND CONSULTATIONS – 2014-2015

The ENV developed a discussion paper and response form that was posted for public review and comment from October 2014 through February 2015. The paper presented background information, ENV objectives and priorities, and options for amendments to soil relocation provisions. As well as hosting two webinars to update interested stakeholders on the contents of the discussion paper, ENV staff held meetings and presentations in Vancouver, Victoria and Kelowna in October and November 2014.

Comments and responses received through the process were compiled and reviewed by the ENV. Common themes included: support for the general principles outlined by the ENV, with emphasis on protecting human health and the environment; cautions that both clarity and flexibility are needed in regulatory provisions; the limited capacity and resources of many local governments concurrent with their need to be aware of soil relocation activities within their jurisdiction; the importance of maintaining oversight by ENV; problems with extensive regulatory provisions and the CSRA process; and continued interest in being involved in the regulatory review process.

### INTENTIONS PAPER, CONSULTATIONS & REVIEW OF OTHER JURISDICTIONS – 2016

The ENV considered comments received through the discussion paper consultations and conducted a review of soil relocation best practices in other Canadian and international jurisdictions. This information was used in preparing an intentions paper dated July 2016. The intentions paper outlined proposed regulatory provisions, including: a notification process with approved professional certification; ENV approval for risk-based soil relocation; an audit component; and requirements for specific activities. Again, the ENV hosted webinars to inform interested parties and seek comments on specific elements of the proposed provisions. Detailed responses were received through the process from a range of interested parties, including local government, the land development sector, and those providing professional services to private companies.

The [2016 intentions paper](#) and [summary of public comments](#) documents are posted on the ENV [site remediation – requests for comments](#) webpage. Detailed comments echoed those received through the first steps in the consultation. The comments included: general support for ENV's proposed notification process; the need for ENV oversight and monitoring for compliance with regulatory provisions; the potential role of the [Society of Contaminated Site Approved Professionals of British Columbia](#) (CSAP) in the process proposed by ENV; interests of local government and the public in being notified of soil relocation in order to address concerns in a timely manner; and trigger volumes for notifications. ENV also sought and received comment on specific provisions for high-risk materials and sites receiving high volumes of materials.

**TECHNICAL WORKING GROUPS & DETAILED REGULATORY PROVISIONS – 2017-2018**

The ENV convened technical working groups to provide input on specific issues regarding potential soil relocation legislative and regulatory changes: (1) legal framework for investigation and management of vapours in soil; (2) requirements for receiving sites that accept large volumes of soil that meet land use standards; and (3) specific requirements for relocation of salt contaminated soil related to dredged marine environments, road maintenance, and oil and gas applications. The groups met between September 2017 and March 2018. Each group was chaired by an ENV staff member and included consulting professionals and municipal government staff.

ENV staff then prepared a detailed set of regulatory changes that incorporated recommendations and comments received through the consultation process. The Land Remediation Management Team of the ENV reviewed and approved the proposed changes in July and October 2018.

This final policy direction paper has been prepared to address stakeholder comments received through years of consultation and to communicate the final proposed changes to the soil relocation provisions.

## APPENDIX 2-SUMMARY TABLE OF PROPOSED REGULATORY CHANGES

<b>1. Definition of a “waste soil”</b>
The Contaminated Sites Regulation and the <i>Environmental Management Act</i> would potentially be amended to define “waste soil” and explicitly outline when an authorization is required for waste soil.
<b>2. Notification process</b>
(1) For relocation of soil that meets applicable numerical land use standards for the receiving site, a <i>Soil Relocation Notification and Certification</i> form would be required to be completed by the proponent and submitted to the ENV. (2) Soil that exceeds the industrial land use standards is not regulated under the soil relocation process but under other ENV requirements (such as an authorization under the Waste Discharge Regulation).
<b>3. Triggers for notification requirements</b>
A <i>Soil Relocation Notification and Certification</i> form would be required when: (1) the source site has been used for one or more of the industrial or commercial purposes listed in Schedule 2 of the CSR; <b>AND</b> (2) the relocation involves ten cubic metres or more of soil from a source site. For high-risk sites – there would be no minimum volume requirement. High-risk sites have explicit regulatory requirements that include notification.
<b>4. Soil chemical characterization requirement</b>
If the soil to be moved is subject to the notification requirement (i.e., triggered by Schedule 2 activity and minimum volume), the soil would be chemically characterized in accordance with ENV protocols and guidance.
<b>5. Requirement to notify local government</b>
The <i>Soil Relocation Notification and Certification</i> form would be provided to applicable local governments for both source and receiving sites at least two weeks prior to movement.
<b>6. Requirement to notify Indigenous groups</b>
The <i>Soil Relocation Notification and Certification</i> form would be provided to applicable Indigenous groups for both source and receiving sites at least two weeks prior to movement.
<b>7. Offences and penalties – ENV oversight and enforcement</b>
The <i>Environmental Management Act</i> would be amended to include soil relocation notification requirements with provision for Administrative Monetary Penalties.
<b>8. Soil disposal at landfills</b>
Landfills not authorized to accept contaminated soil by means of an approval, permit or operational certificate would be subject to the soil relocation notification requirements as a receiving site.
<b>9. Requirements for high volume receiving sites</b>
High volume receiving sites, defined as sites receiving greater than 20,000 cubic metres of soil in a lifetime, could be subject to additional requirements including operational plans and compliance audits by ENV.
<b>10. Management of vapour in soil</b>
A vapour assessment would be completed if substances with both soil and vapour standards under the CSR are present in the soil being moved (currently 87 such substances meet this criterion).  A vapour assessment would <b>not</b> be required if soil is being relocated: to a receiving site with Wildlands, Agricultural or Urban Park land use; or to a site with Residential, Commercial or Industrial land use provided there are no buildings within thirty metres of the deposit location on the site. Practitioners may rely on the tools available in Protocol 22 to demonstrate that soil vapours meet numerical standards at the receiving site.
<b>11. Salt contaminated soil</b>
The ENV does not intend to introduce additional soil relocation provisions for the management of roadside soil at this time.