

# INTENTIONS PAPER

SITE  
REMEDIATION  
SECTION



## REGULATING SOIL RELOCATION



Ministry of  
Environment and  
Climate Change Strategy

## THE KEY CHANGES WE PROPOSE

### Problems with the Current Regime

- Lack of transparency
- Unclear, complex, lengthy, captures more sites than needed resulting in:
  - Soil going to landfills
  - Soil moving outside regulatory requirements
- Currently all contaminated soil relocation requires ministry approval

### What's Changing

- Replacing blanket Contaminated Soil Relocation Agreements with tools more specifically tailored to differing contamination levels
- Adding notification requirements for uncontaminated soil movements
- Adding enforcement tools for those who do not follow the rules

### Proposed New Regime

- Will focus on regulated commercial and industrial sites and volumes greater than 10 cubic metres for greater protection of human health and the environment
- Will provide a robust and publicly accessible notification system tracking uncontaminated soil movement in B.C.
- Will introduce new requirements for sites receiving high volumes of soil

This Intentions Paper describes the proposed regulatory amendments in more detail. Comments on the amendments will be compiled, and the ministry will post a report summarizing feedback on the Site Remediation webpage.

**REGULATING SOIL RELOCATION  
INTENTIONS PAPER – December 2020**

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## 1. INTRODUCTION

The Ministry of Environment and Climate Change Strategy (the ministry) is updating the legal regime for soil relocation in B.C. Following consultations and engagement, the ministry has amended the *Environmental Management Act* (EMA) to enable a new process for the relocation of soil that meets the land use standards of the receiving site (meaning it is considered uncontaminated for the purpose of reusing the soil at the receiving site). The ministry is planning to amend the Contaminated Sites Regulation (CSR) and other associated regulations governing soil relocation to support the changes to EMA. This paper provides information on the ministry's proposed regulatory changes and invites comment regarding the proposals.

This Intentions Paper:

- Provides background information on recent changes to EMA and the consultation and engagement process leading to the changes;
- Confirms the ministry's commitment to working together with Indigenous peoples in B.C.;
- Sets out the ministry's proposed intentions to establish a new process for regulating relocation of uncontaminated soil, and the reasons for the proposals; and
- Describes how to provide comments on the ministry's intentions for the revised regulation.

Comments on the proposed regulatory amendments described in this paper will be compiled and the ministry will prepare and post a report summarizing feedback on the proposed regulatory changes. The proposed soil relocation amendments to the CSR are targeted for final consideration and regulatory approval by Cabinet in 2021.

### Key Proposed Changes

- The proposed regulatory changes will establish a new process for uncontaminated soil relocation.
- **Uncontaminated soil:** is soil from land on which commercial or industrial uses occurred that meets land use standards of the receiving site.
- Generally, this process will be initiated if:
  - (1) specified commercial or industrial uses have occurred on a site; **and**
  - (2) ten or more cubic metres of soil is being relocated.
- The new process will require the person removing soil to analyze it to determine its quality.
- If this analysis shows that the substances in soil exceed the land use standards of the receiving site, other CSR requirements (for contaminated soil) will apply.
- If the substances in soil meet the relevant land use standards, then the person removing the soil must submit an online notification form. The form:
  - (1) must be circulated – for notification purposes – to nearby Indigenous Nations and municipal governments at least two weeks prior to the date of relocation; and
  - (2) will be available to members of the public on the site registry maintained by the ministry.
- Additional proposed provisions relate to vapour analysis, high volume receiving sites, exemptions and administrative penalties.

## 2. BACKGROUND INFORMATION

### 2.1 WHAT IS THE CURRENT SOIL RELOCATION PROCESS?

EMA and the CSR establish a process for tracking the transport and deposit of soil from contaminated sites in British Columbia.<sup>1</sup>

Under EMA and the supporting provisions of the CSR, the primary tool for regulating contaminated soil relocation is currently the requirement to obtain a Contaminated Soil Relocation Agreement (CSRA). Persons relocating soil from a source site that exceeds the CSR land use standards of a receiving site (contaminated soil) must enter into a CSRA with the owner or operator of a receiving site and the Director of Waste Management (for the ministry). The purpose of the CSRA is to ensure that contaminated soil is moved only to suitable receiving sites. Movement of waste quality soil (in which concentrations of substances exceed industrial land use standards) is regulated through the authorizations process under the Waste Discharge Regulation (WDR) and Part 2 of EMA.

### 2.2 WHY IS THE MINISTRY INTRODUCING A NEW PROCESS FOR SOIL RELOCATION?

The ministry has engaged in consultations and worked for more than five years to develop the proposed changes – confirming issues with the existing process, clarifying ministry priorities and objectives, reviewing experience in other jurisdictions, and drawing on technical expertise for specific issues. A summary of the consultations is included in Appendix 3 of this paper. From engagement with Indigenous Nations and comments received from municipal governments, environmental consultants and members of the public, the ministry understands that current soil relocation provisions are overly complex and poorly understood. Concerns have been voiced that soil has been relocated outside of regulatory requirements, that burdensome relocation provisions drive soil to landfills rather than for appropriate beneficial re-use and that provisions add delays without clearly supporting environmental protection.

The existing regulatory process was intended to provide ministry oversight of contaminated soil relocation. The ministry is now proposing to replace CSRAs with other processes that are more effective and better understood, such as authorizations and Approvals in Principle. This change will facilitate a more comprehensive, holistic approach to the relocation of contaminated soil and remediation of contaminated sites.

There is currently no ministry oversight of the relocation of uncontaminated soil, or clear process to ensure that soil quality on lands with commercial and industrial uses is assessed and documented prior to relocation to an appropriate receiving site. To address these issues and improve ministry oversight of soil movement in the province,

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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.

the ministry introduced legislative amendments to EMA in Spring 2020 and is now developing the supporting regulatory amendments.

### 2.3 ENVIRONMENTAL MANAGEMENT AMENDMENT ACT (BILL 3)

Enabling provisions for the proposed regulatory changes and the new process for regulating soil relocation are included in the [Environmental Management Amendment Act](#) (Bill 3). Bill 3 was passed in March 2020 by the Provincial Legislative Assembly and will be brought into force by the proposed amendments to the CSR. The new soil relocation process addresses soil that is uncontaminated (soil with regulated substance concentrations that meet the CSR land use standards of the receiving site). The new process will ensure that the ministry, Indigenous Nations, municipal governments and the public are all aware of soil relocation and that notifications about soil movement are done in a clear, consistent manner.

As the CSRA process will no longer be used for relocation of contaminated soil, the definition of a CSRA has been deleted from EMA, and the requirement to enter into a CSRA when relocating contaminated soil has been repealed.<sup>2</sup> Relocation of contaminated soil will be regulated under existing provisions in Part 2 of EMA (authorizations) or Part 4 of EMA and CSR regulatory tools (e.g., Approvals in Principles).

Bill 3, section 55 (1.1) of EMA now states that a person must not remove soil from a site that has been used for a specified industrial or commercial use unless the person has:

- (a) analyzed the quality of the soil, in accordance with the regulations, if any; and
- (b) provided notice of the removal to the persons identified in the CSR, in accordance with subsection (1.2).

The notice will include the following information:

- the site from which the soil will be removed;
- the site or sites at which the soil will be deposited;
- the maximum amount of soil that will be deposited at each site;
- a summary, prepared in accordance with the regulations, of the analysis referred to in subsection (1.1)(a); and
- any other information that will be prescribed in the regulation.

The method and timing of notification will also be prescribed in the CSR. The addition of section 55 (1.3) in EMA makes it an offence for a person who has provided notice of soil removal, to deposit soil at a different site or at a higher volume than was specified in the notification. An exemption to the notification requirement is identified in section 55 (1.4) if the amount of soil to be removed is less than what is prescribed in the

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<sup>2</sup> The current CSRA process will remain in place until the new regulatory amendments proposed by the ministry are finalized and adopted.

regulation. Under the new process, section 55.1 of EMA states that additional requirements will be added for receiving sites that accept greater than a prescribed amount of soil relocated from a site with a commercial or industrial use (high volume sites).

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

As part of the Province's commitment to true and lasting reconciliation with Indigenous peoples in B.C., the Province is moving forward on the Truth and Reconciliation Commission Calls to Action.

In 2007, the United Nations General Assembly adopted the [United Nations Declaration on the Rights of Indigenous Peoples](#) (UNDRIP). It includes 46 articles covering all facets of human rights of Indigenous peoples including culture, identity, religion, language, health, education and community. The provincial government passed the [Declaration on the Rights of Indigenous Peoples Act](#) (Declaration Act) in November 2019 to implement the UN Declaration, which the Truth and Reconciliation Commission confirms as the framework for reconciliation. The Declaration Act aims to create a path forward that respects the human rights of Indigenous peoples while introducing better transparency and predictability in the work we do together.

Article 29 of the UN Declaration states that Indigenous peoples have the right to conservation and protection of the environment and the protective capacity of their lands or territories and resources, and that government shall take effective measures to ensure that no storage or disposal of hazardous materials shall take place in the land or territories of Indigenous peoples without their free, prior and informed consent.

In keeping with the UN Declaration and the intentions set out in the Declaration Act, the ministry is seeking to engage with Indigenous Nations regarding the proposed regulatory changes for soil relocation (see specifically sections 4.1.B and 4.4.B below).

## 4. MINISTRY INTENTIONS – PROPOSED PROVISIONS FOR REGULATION OF SOIL RELOCATION

The proposed changes to regulatory provisions for soil relocation involve amendments to the CSR and other associated regulations. The **proposed** changes (ministry intentions) are described in this section. Please note that these proposals remain subject to further changes contingent on feedback, additional consultation and ministry review.

### 4.1 SOIL RELOCATION NOTIFICATION PROCESS

#### 4.1.A. NEW NOTIFICATION PROCESS FOR RELOCATION OF UNCONTAMINATED SOIL

**Ministry intentions:** The ministry is proposing a new notification process that includes a requirement for analysis of all soil from sites with commercial or industrial uses that is proposed for relocation.<sup>3</sup> Submission of a notification form will be required if the soil meets land use standards of the receiving site (i.e., is classified as uncontaminated on the basis of soil analysis and land use class of the receiving site).<sup>4</sup> There would be no regulated fee associated with the new notification process and the existing CSRA fee for relocation of contaminated soil would no longer be applicable.

The requirements to complete soil analysis and submit the notification form will apply to those relocating soil that:

- (1) originates on lands that have been used for commercial or industrial uses; **and**
- (2) is ten or more cubic metres in volume.

A diagram of the steps involved in the proposed new notification process is provided in Appendix 1.

**Discussion:** The proposed notification requirement focuses on sites with the commercial and industrial uses most typically associated with contamination (i.e., prescribed CSR Schedule 2 activities).

The proposed process is intended to ensure that uncontaminated soil that will be relocated from sites with a current or historic prescribed commercial or industrial use will be reported through a notification process. Part of the reporting will involve analyzing the soil to confirm that it is uncontaminated – based on the soil's characteristics and the land use of the receiving site (see section 4.3 below).

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<sup>3</sup> [Schedule 2](#) of the CSR sets out a list of prescribed commercial and industrial uses (e.g., chemical and electrical equipment industries, metal smelting and processing, mining, petroleum and gas processing and retailing, and wood and pulp & paper facilities).

<sup>4</sup> [Schedule 3](#) of the CSR sets out chemical characterization values (land use standards) for specified chemicals based on five land uses (agricultural, urban park, residential, commercial and industrial).

Ten cubic metres is approximately one truck load. The ministry is proposing that setting this figure establishes a reasonable minimum volume for the notification requirement without compromising the protection of human health and the environment. The proposed soil volume provision would reduce undue costs and time delays for very small projects, particularly for individual homeowners, small commercial landscaping and minor municipal government maintenance.

There is currently no ministry oversight of the relocation of uncontaminated soil. Relocation of contaminated soil currently requires payment of a fee to the ministry and a Contaminated Soil Relocation Agreement (CSRA) between the persons relocating the soil and the owner or operator of the receiving site. As described in previous consultation papers (see links in section 2.2 and summary in Appendix 3), the CSRA process is poorly understood and not commonly followed. Hence the ministry's intention is to replace the CSRA for soil that exceeds the applicable land use standards of the receiving site with other existing regulatory tools (see text box – "Process for Contaminated Soil").

#### Process for Contaminated Soil

Soil that exceeds the applicable land use standards of the receiving site would not be regulated under the new soil relocation process – but rather under other existing ministry requirements. These regulatory tools include: requiring an authorization under Part 2 of EMA and the Waste Discharge Regulation; stipulation of independent remediation requirements; issuance of Certificates of Compliance; and/or Approvals in Principle (under direction of the ministry).

#### 4.1.B. FEDERAL RESERVE LANDS INCLUDED IN THE NOTIFICATION PROCESS

**Ministry intentions:** The ministry is proposing to remove the "exemption" for federal reserve lands from the soil relocation requirements. The exemption would remain for all other federal lands.

**Discussion:** The proposed amendment is needed in order to establish consistent requirements for soil relocation throughout the province. Under the existing CSRA process, federal reserve lands are exempt from CSR requirements. Furthermore, the federal *Indian Act* and associated regulations lack comprehensive soil relocation provisions.

The proposed amendment was previously described in the ministry's [2019 Final Policy Direction Paper](#). During consultation on the ministry's proposed changes, some members of Indigenous communities indicated support for the proposed amendment – expressing concerns regarding the potential environmental consequences of relocating soil of unknown qualities onto federal reserve lands.

Indications of support for the proposed change have been received from Indigenous Nations, Environment Canada, and B.C. representatives of Indigenous and Northern Affairs Canada, and Indigenous Services Canada.

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#### 4.1.1.C. PROPOSED EXEMPTIONS TO THE NOTIFICATION PROCESS

**Ministry intentions:** The ministry is proposing three circumstances that would be exempt from notification requirements for soil relocation:

1. Uncontaminated soil that is to be relocated outside of the province.
2. When the volume of uncontaminated soil is less than 10 cubic metres per “job”<sup>5</sup> requires many soil relocations to a single receiving site during a project for a period of up to two years.
3. “Preload”<sup>6</sup> that originates from a site without a Schedule 2 activity or use.

It is important to note that there would be no minimum soil volume requirement or exemption for soil from high risk sites (as defined in [Protocol 12](#)).

**Discussion:**

Exemption 1: The provincial government does not have the authority to oversee uncontaminated soil leaving B.C., therefore, the ministry cannot impose requirements for soil deposits outside of the province. The goal of the proposed amendments is to oversee soil deposits at receiving sites within B.C.

Exemption 2: The minimum soil volume of 10 cubic metres (approximately one truckload) is proposed to allow movement of small volumes of material that do not compromise human health and the environment. Establishing the definition of a ‘job’ is intended to provide clear regulatory direction; projects that occur over an extended period will require the owner or operator to update and submit a notification form every two years.

The proposed soil volume and quality exemption would reduce undue costs and time delays for very small projects, particularly for minor municipal government maintenance.

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<sup>5</sup> A job would be defined as including activities where a single source site with a current or historical commercial or industrial use (as prescribed in CSR Schedule 2) requires many soil relocations to a single receiving site during a project for a period of up to two years.

<sup>6</sup> Preload is soil used on the surface of a site to compress the underlying soil for geotechnical purposes.

The proposed changes address the relocation of soil that is considered high risk even at low volumes. Relocation in such situations could cause contamination that puts human health or the environment at risk.

Exemption 3: Preload soil material is typically sourced from sites without a Schedule 2 activity, although it may be used or reused at sites with a Schedule 2 activity. Without the proposed exemption, preload could be captured by unwarranted soil relocation provisions. The proposed preload exemption would be of relevance to B.C. businesses working on development projects and to the Ministry of Transportation and Infrastructure working on road/highway construction. The owner or operator of the preload receiving site would retain the right to refuse preload they suspect to have elevated background concentrations of substances that may exceed the applicable receiving site standards.

#### 4.2 SOIL RELOCATION NOTIFICATION AND CERTIFICATION FORM

**Ministry intentions:** The ministry is proposing that a *Soil Relocation Notification and Certification Form* (notification form) be required for soil that will be relocated from a site where a commercial or industrial use (listed in CSR Schedule 2) has occurred and will be deposited at a receiving site within the province.

The notification form will be available in a format that enables electronic submission to the ministry. There will be no provincial fees associated with submission of the notification form.

The ministry is also proposing to revise the wording of CSR section 8(1) so that soil relocation records (i.e., notification forms) will be included in the site registry.

The site registry is publicly accessible.

The notification form will include the following site identification and information fields:

- Source and receiving site addresses or location descriptions;
- Geographic locations (latitude and longitude);
- Legal descriptions (PID);
- Ownership;
- Association between source and receiving sites; and
- Notations to indicate the activity or activities that have taken place at the site (i.e., specified Schedule 2 activities).

#### Site Registry

The site registry is a repository of information about sites that come to the attention of the ministry through provisions in Part 4 of EMA.

Inclusion of soil relocation information in the site registry ensures that a complete record of site activities is available in one location.

The public can access the site registry through [BCeid](#). The ministry will review access provisions of the site registry to ensure that notification information associated with both source and receiving sites is accessible to the public.

The ministry is also proposing the following are included in the notification form:

- Volume of soil to be relocated will be required and should be provided in cubic metres.
- A summary of the soil quality must be provided in the notification form (see section 4.3 below).
- An explanation that the person responsible for providing notice could be: (i) the person responsible for the soil relocation; (ii) the current or former owner or operator of the source site; and/or (iii) the current owner or operator of the receiving site.

**Discussion:** Receipt of the notification form and posting to the provincial site registry will provide the ministry and members of the public with the means to check relocation history of all soil (including soil not classed as contaminated under the CSR) associated with specific sites.

The notification form will be designed for ease of use, submission and processing. The online form will identify incomplete fields – so that only completed forms can be submitted. Integrating the form with other provincial systems will enable uploading to a database for public access, and those submitting the notification form will be able to retain or print the completed form for their records.

#### 4.3 SOIL TESTING REQUIREMENTS

**Ministry intentions:** A person who intends to relocate soil from sites that will be subject to notification requirements (see sections 4.1 and 4.2 above) will be responsible for testing soil quality in accordance with the ministry's [Technical Guidance #1](#) document.

A summary of analysis will be required for the notification and would include a list substances and corresponding concentrations (in accordance with ministry technical guidance). Analytical tables and quality assurance/quality control (QA/QC) data may also be requested by the ministry as part of random compliance audits.

**Discussion:** There are concerns that, under current regulatory provisions, soil from source sites has not been consistently sampled and/or adequately analyzed – which may have led to receiving sites accepting contaminated soil.

The proposed notification and clarified soil quality testing requirements are intended to ensure that soil is analyzed appropriately, and that the information collected is accessible for governments and interested members of the public. Ministry oversight through audits and other compliance activities will be important in ensuring accuracy of information and accountability of the parties involved in the relocation of soil.

## 4.4 NOTIFICATION OF MUNICIPAL GOVERNMENTS AND INDIGENOUS NATIONS

### 4.4.A. MUNICIPAL GOVERNMENTS

**Ministry intentions:** The person responsible for submitting the notification form to the ministry will also be responsible for notifying municipal governments with jurisdiction over the locations of the source site and the receiving sites of the prospective soil relocation. The notification will need to occur at least two weeks in advance of the proposed relocation date and would include all information that will be required on the notification form.

**Discussion:** Municipal governments set land use and other bylaws pertaining to soil relocation under local governance legislation. Within the current CSRA process, municipal governments must be notified four business days in advance of contaminated soil relocation.

The ministry's intention is to ensure that municipal governments receive at least two weeks advance notice of uncontaminated soil relocation. This time period is intended to give municipal governments adequate time to review and assess the prospective soil relocation against municipal bylaws and zoning on behalf of the municipality and in the interests of residents and property owners.

### 4.4.B. INDIGENOUS NATIONS

**Ministry intentions:** The person responsible for submitting the notification form to the ministry will also be responsible for notifying Indigenous Nations with lands or territories located within a prescribed radius of either the source or the receiving site of the prospective soil relocation. Consistent with the requirements for Municipalities, the notification will need to occur at least two weeks in advance of the proposed relocation date and will need to include all information that will be required on the notification form. Indigenous governing bodies (under applicable jurisdiction and governance provisions) may establish specific bylaws or regulations for soil relocation.

Nations with lands or territories within 1,000 m (1km) of either the source or receiving site will receive notice of the relocation. In addition, Indigenous Nations within 1,500 m (1.5 km) of high-volume receiving sites (see section 4.5) will receive the notification. (See table below).

Site	Soil Volume (m <sup>3</sup> )	Notification Distance
Source site	Less than 10	1,000 metres (1.0 km)
Receiving site	10 to High volume threshold	1,000 metres (1.0 km)
High volume receiving site	above High-volume threshold	1,500 metres (1.5 km)

**Discussion:** Soil relocation can have direct or indirect influence or impact on lands or territories (e.g., with increased noise, dust, traffic, run-off).

Upholding UNDRIP was considered in the development of the proposed amendments and several Indigenous Nations expressed interest in being notified of soil relocation to or from their jurisdictional and reserve lands (lands) or traditional territories (territories). One modern treaty Nation<sup>7</sup> indicated to the ministry that they would prefer to receive notice of soil relocation that involves their jurisdictional lands but not necessarily soil relocation to their territory land. Other Nations, without treaty, will be provided an opportunity to specify for which of their lands they are interested in receiving a soil relocation notification.

This approach will inform Indigenous Nations of proposed soil relocation near or adjacent to, as well as within, their lands or territories.

Guidance on the new process will include a recommendation that the person intending to move soil engage with Indigenous Nations (Nations with interests related to both source and receiving sites) early in the planning process. This effort would help in establishing good relations and promoting mutually-agreed upon resolutions relating to the proposed soil relocation.

Applying a prescribed distance radius for the proposed notification requirement provides clear and consistent guidance to those submitting a notification. The notification distances will be prescribed in the CSR. The responsible party will be able to use publicly available resources, including the [Consultative Areas Database](#) layer in iMap and regional contacts at the [Ministry of Indigenous Relations and Reconciliation](#) to identify which Indigenous Nation(s) to notify. This prescribed distance approach is consistent with other provincial guidance, such as the Consultation Notification Regulation under the *Oil and Gas Activities Act*.

#### 4.5 HIGH VOLUME RECEIVING SITES

**Ministry intentions:** The ministry is proposing additional requirements for “high volume” receiving sites. High volume receiving sites will be defined as sites receiving greater than 20,000 cubic metres of soil over the lifetime of the receiving site. The lifetime of a high-volume site is the period during which the deposited soil has the potential to produce contamination. The lifetime of a high-volume site starts on the date the site receives soil deposits (the date that EMA and CSR amendments come into force) and has no defined end date. The CSR will also be amended to specify a minimum distance of 50 metres

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<sup>7</sup> Upon Confederation in 1871, 14 treaties on Vancouver Island (Douglas treaties) had been signed, and aboriginal title to the rest of the province was left unresolved. Since Confederation, additional Indigenous Nations have signed “modern” treaties that clarify Aboriginal rights and title, and ownership of land and resources.

between high volume sites and to add provisions addressing Soil Management Plans (SMPs).

Appendix 2 provides a detailed list of proposed requirements and associated guidance for contents of a SMP.

**Discussion:** The CSR soil standards are derived based on physical and environmental factors associated with the land use of a particular property. The process to establish these standards considers factors associated with “typical” contaminated sites but does not consider the larger soil volumes connected with many of the receiving sites found throughout the province. In these cases, the generic numerical standards prescribed in the CSR Schedules 3.1 to 3.4 may not be sufficiently protective of human health and the environment. A limited study by Land Remediation Section staff indicated that exceedances over 3,000 to 5,000 cubic metres may not be protective for some substances.

The proposed requirements provide clarity regarding management of larger scale (high volume) receiving sites. The requirements would be proactive and protective – intended to prevent, contain, control and monitor potential adverse effects on human health and the environment and prescribe information that must be provided to the Director – in accordance with Bill 3 (see section 2.1 above). Defining a site’s “lifetime” and volume-based parameters for high volume receiving sites will establish clear regulatory provisions for additional requirements such as preparation and maintenance of a SMP.

Requirements will apply to uncontaminated soil deposit sites not captured under requirements in Part 2 of EMA (authorizations) and in Waste Discharge Authorization (WDR). These requirements will create a level playing field for the industry. If all sites follow best management practices and operational plans that ensure soil is acceptable for the receiving site, fewer new contaminated sites will be created.

The purpose of a SMP will be to ensure that requirements and best management practices are considered and put into place prior to the development of new site for receiving volumes of soils that exceed high volume thresholds (20,000 cubic metres). A SMP can also address considerations that modeling cannot predict, such as geotechnical issues (e.g., slope stability) and seasonal effects (e.g., spring melt runoff). Ensuring high volume receiving sites are located at least 50 metres apart reduces cumulative effects from multiple adjacent high volume properties.

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#### 4.5.1 SITING REQUIREMENTS AND EXEMPTIONS FROM THE HIGH VOLUME RECEIVING SITE SOIL THRESHOLD

**Ministry intentions:** The ministry is proposing to introduce specific requirements to protect “environmental receptors” (aquatic systems, irrigation or livestock watering wells, and existing or potential future buildings) near high volume receiving sites. The proposed changes will:

- amend the CSR to include siting requirements;

- specify exemptions in the CSR from the high volume soil threshold contained in EMA Bill 3 (of no less than 5,000 cubic metres); and
- make it an offence if high volume sites contravene the requirements.

The following table provides requirements and maximum volumes of soil that can be deposited based on distance from specified environmental receptors.

Distance from Receptor <sup>(1)</sup>	Max Volume of Soil Deposit (m <sup>3</sup> )	Specified Requirements <sup>(2)</sup>
0 to 30 metres	-	No soil deposit will be allowed
30 to 100 metres	5,000	No additional requirements
>100 metres	20,000	No additional requirements
>100 metres	>20,000	Soil Management Plan required

1. Distance is measured from deposit area boundary closest to receptor.  
Receptor = high water mark of the aquatic receiving environment; drinking, irrigation or livestock watering well; and any existing or potential future buildings.
2. Properties receiving high volumes of soil must be at least 50 m away from any other property receiving high volumes of soil.

**Discussion:** The proposed regulatory framework provides additional measures in order to achieve appropriate ministry oversight of high-volume sites and to protect human health and the environment, while still maintaining some flexibility. The ministry's intention is to support responsible management of soil and prevent illegal dumping due to restricted disposal opportunities.

The proposed siting requirements provide clear and consistent province-wide guidance. Locating high volume sites further from an environmental receptor decreases the uncertainty that is inherent in modelling differing distances. Imposing a minimum distance to a receptor at more than 30 metres aligns with other ministry regulations and guidance:

- [TG4 \(Vapour Investigation and Remediation\)](#) states that “the ministry considers buildings and outdoor areas which are more than 30 m laterally away from detectable vapour substance concentrations in soil, sediment, and water to have a low potential for vapour intrusion” (eliminating the need to assess vapours for soil relocation).
- The [Riparian Areas Protection Regulation](#) defines the riparian assessment area as a 30 m strip on each side of the stream and limits development within streamside protection and enhancement areas.
- The [Health Hazard Regulation](#) limits the installation of wells to at least 30 m from any probable source of contamination.

The ministry used a [Groundwater Protection Model](#) (GPM or “model”) to determine the soil volumes and distances to receptors. The model was developed to calculate CSR numerical soil standards with the assumption that the volume of soil containing

leachable concentrations of substances is limited to 900 cubic metres or less. In order to determine if numerical soil standards were equally protective at higher volumes, a ministry modelling study used the GPM to perform various simulations applying soil volumes up to 100,000 cubic metres. Model-predicted leachate concentrations at the receptor were compared to toxicology-derived CSR groundwater numerical standards – to determine if substance concentrations in higher soil volumes may have impacts on ecological and human health. Details on the GPM framework and the CSR numerical standards calculation procedures are provided in ministry [Protocol 28, Chapter 4](#).

#### 4.5.2 PRE-EXISTING HIGH VOLUME RECEIVING SITES

**Ministry intentions:** The new requirements will not apply retroactively to sites that exceed the high-volume threshold but will apply when new soil deposits reach the high-volume threshold calculated from the time that EMA and CSR amendments come into force.

**Discussion:** It would be difficult and costly to retroactively apply certain requirements to existing soil deposits at high volume receiving sites. The soil may have been managed differently or may not have been accepted at all if responsible persons knew the acceptance of soil would be subject to legal requirements. Receiving sites are unlikely to have records on soil quality and volume since there were previously no legal requirements.

Receiving sites will be required to come into compliance when soil deposits reach the high-volume threshold and owners of existing high-volume sites will be made aware that they are not to accept more soil unless they meet the additional requirements. High volume sites currently in operation remain subject to existing regulatory provisions for protection of human health and the environment.

#### 4.6 SOIL VAPOUR INVESTIGATION FOR SOIL RELOCATION

**Ministry intentions:** The ministry is proposing to revise Part 8 of CSR to include language from [Technical Guidance 4 \(TG4\)](#) regarding a 30 metre preclusion distance for vapour assessment purposes, and to adopt the current policy. TG4 states that current and potential future buildings and outdoor areas that lie more than 30 m laterally from all detectable substance concentrations in vapour would be considered free of vapour contamination. Therefore, it is proposed that vapour assessment would not be required if there are no current and potential future buildings within 30 m of the soil deposit.

Soil containing chlorinated solvents would not be included in this exemption and would still require vapour assessment in all circumstances.

For receiving sites with buildings currently or in the foreseeable future located within 30 metres of the relocated soil, relocation of that soil will be possible for soil containing substances that are not listed in Schedule 3.3 of the CSR, or if vapour concentrations at

the source site met the applicable numerical vapour standards listed in Schedule 3.3 for the receiving site breathing zone.

The proposed approach for vapour assessment for soil relocation will preclude the use of [Vapour Attenuation Factors or the Attenuation Adjustment Divisors listed in Protocol 22](#) (P22).

**Discussion:** A proposed change presented during initial public consultation was to provide relief to those moving soil by providing exemptions of vapour assessment at a source site in circumstances where vapour was not expected to be a concern at the receiving site.

The ministry is proposing to require vapour assessment for soil containing chlorinated solvents because these are carcinogenic, toxic and largely do not degrade. Currently, this material is largely diverted to landfills.

Future redevelopment of receiving sites will be dependent on factors outside the scope of the amendments proposed here, including building codes and municipal bylaws. For receiving sites with a history of a commercial and industrial use, an application for redevelopment will trigger the site identification process. Additionally, in accordance with the BC Building Code, new commercial and industrial buildings customarily include a vapour barrier building envelope and HVAC system. These will address potential vapours from the relocated soil, and any associated risks to human health.

### Soil Vapour Investigation – Option for Consideration

The ministry is considering – and seeking comment on – the option of having no vapour assessment requirements for relocation of soil that meets receiving site soil standards. Without vapour assessment requirements, soil is more likely to be redirected from landfills, promoting beneficial reuse of uncontaminated soil. The ministry, and other parties such as municipal and Indigenous governments, would continue to collect data on soil relocation through the proposed notification process. The ministry would also continue to work with other parties towards a practical, long-term approach to soil vapour assessment.

#### Advantages of this option:

- Does not add to the bottlenecks for people relocating soil (due to a lack of soil treatment/remediation facilities in the province);
- Aligns with the economic stimulus direction from government in support of the industries affected by COVID-19 – supports B.C. development/construction industries;
- Re-directs soils from landfills (in line with future landfill review recommendations) and promotes beneficial reuse of clean soil (i.e., that meets standards of the receiving site); and
- Allows the ministry to collect data on soil relocation while providing time for further work on a practical, long-term approach to vapours.

#### Disadvantages of this option:

- Could create vapour contaminated sites when soil that contains Schedule 3.1 substances and also exceeds Schedule 3.3 standards is relocated;
- Is counter to established science that the presence of any volatile substances in soil will result in vapour concentrations that exceed Schedule 3.3 vapour standards (which are set for the protection of human health);
- Overlooks Indigenous Nations' concern indicated during consultation in 2019, regarding vapour exemptions on wildlands, due to potential exposure during harvesting activities on these lands;
- Does not align with current 30 metre receptor policy, derived by the EPA and practiced across North America; and
- Introduces confusion as practitioners currently understand that soil investigation and characterization include a vapour assessment.

## 4.7 CONSEQUENTIAL AMENDMENTS

### 4.7.A. WASTE DISCHARGE AUTHORIZATION

**Ministry intentions:**

The ministry is proposing an amendment to the WDR regarding “contaminated site contaminant management”. The amendment would define this as:

“An activity, at or away from a contaminated site involving the treatment, movement, disposal, removal, recycling or destruction of contaminated substances and contaminants from the site, if the activity involves a discharge of waste to the environment.”

**Discussion:** Current soil relocation provisions only address movement of soil away from the site of origin and a regulatory gap exists relating to the management of waste soil on the site of origin. To ensure appropriate management of waste soil on the site of origin and to align with current policy, the WDR will require an amendment to the definition of “contaminated site contaminant management”. This amendment will clarify when a waste discharge authorization is required for onsite management of waste soil. This will not address the reuse of contaminated soil as backfill (which would not be considered a waste, therefore not require a permit). Soil that does not meet (i.e., exceeds) the applicable land use standards would require an Approval in Principle (AiP) for situations involving onsite treatment.

### 4.7.B. ABILITY TO APPLY ADMINISTRATIVE PENALTIES

**Ministry intentions:** The ministry intends to amend section 12 (1) of the [Administrative Penalties \(Environmental Management Act\) Regulation](#) (APR) to remove reference to section 55 (1) and replace it with reference to sections 55 (1.1), 55 (1.2), 55.1, and the transitional provisions in EMA.

**Discussion:** Section 12 (1) of the APR currently states that a person who contravenes section 55 (1) of EMA is liable for an administrative penalty not exceeding \$75,000. This change supports compliance by providing the ministry with the ability to apply administrative penalties under the amended soil relocation provisions in the EMA and the CSR. The revision is important for compliance and enforcement.

## 5. PROVIDING COMMENT ON MINISTRY INTENTIONS

The ministry has prepared a consultation questions and a response form based on the intentions proposed in this paper. A “Proposed Soil Relocation Amendments Response Form” can be downloaded as a pdf form or in Word format from the ministry’s consultation webpage. The response form includes consultation questions, as well as space for additional comments and feedback to the ministry.

The ministry is also planning to host information webinars in early 2021 to support communication and understanding of the proposed changes. Parties who have expressed interest or submitted comments to the ministry through the regulatory review consultation process will be notified of the proposed changes and the webinars. And Indigenous Nations will also be contacted and consulted on the proposed changes and the webinars.

Submissions received by March 15, 2021 (60 days after posting) will be considered by the ministry prior to finalizing the process. A summary of the responses to the consultation questions will be prepared and posted on the ministry’s website.

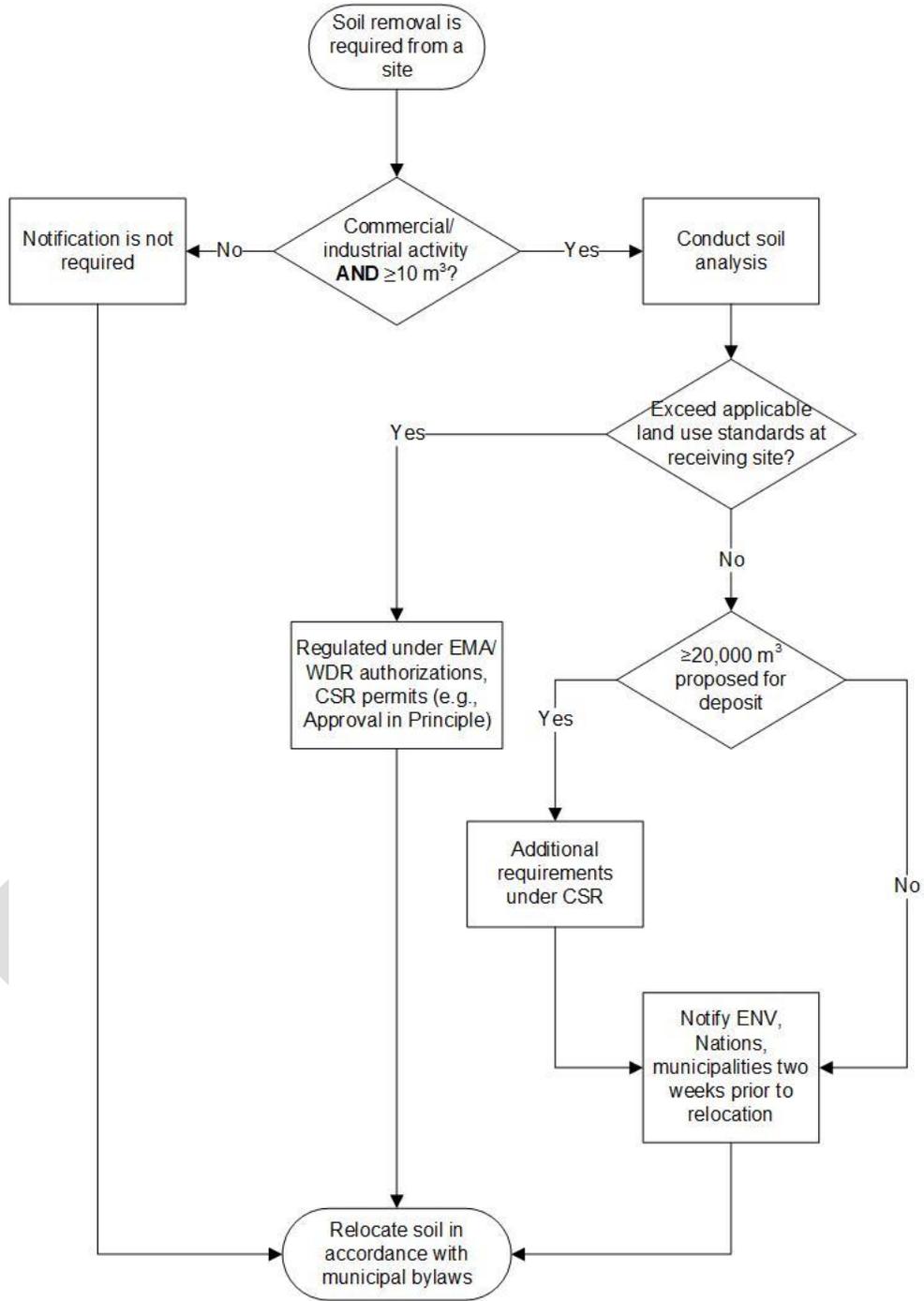
Proposed changes to the regulation of soil relocation are targeted for final consideration and regulatory review in 2021.

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

Note that all submissions will remain confidential, however, comments and information you provide that identify you as the source may be publicly available if a Freedom of Information request is made on the *Freedom of Information and Protection of Privacy Act*.

**Thank you for your time and interest**

APPENDIX 1 PROPOSED PROCESS FOR REGULATING SOIL RELOCATION



## APPENDIX 2 PROPOSED SOIL MANAGEMENT PLAN REQUIREMENTS FOR HIGH VOLUME RECEIVING SITES

The following text and lists of proposed requirements are being considered by the ministry, pending review of statutory authority and constitutional jurisdiction.

A Soil Management Plan (SMP) must be prepared by an Approved Professional (AP), in coordination with other Qualified Professionals (QP), as necessary, and include:

- Meaningful engagement – and documentation of communications, meetings and engagement results – with Indigenous Nations regarding the establishment and operation of soil receiving activities at the receiving site;
- Public consultation records regarding the establishment and operation of soil receiving activities at the receiving site;
- Evaluation of siting characteristics for the proposed receiving site and surrounding area, prior to receiving site selection, with consideration of land and water uses, water supply sources, gullies and depressions, faults and unstable areas, environmentally sensitive areas, surface water, floodplains, shorelines, depth to groundwater, and groundwater preferential pathways;
- Evaluation of the hydrology and hydrogeology of the receiving site;
- Design of the receiving site for soil deposit including specification of the service life, site layout and buffer zones, base design, base liner, leachate collection system, surface water management works, slope stability, and environmental monitoring (groundwater/leachate/surface water);
- Confirmation that soil quality meets receiving site standards including procedures for soil evaluation, acceptance, placement, an audit sampling program, record keeping and reporting for soil relocated to the receiving site. The record keeping system must track incoming soils, document acceptance for the receiving site, and track where soil is placed on the receiving site;
- A contingency plan describing how soils are to be managed if the audit sampling program identifies a concern regarding soil quality;
- A leachate management plan for management, treatment and discharge of leachate;
- A surface water control management plan to prevent ponding, flooding, erosion and discharge to nearby watercourses or stormwater systems considering projected extreme events due to climate change, where possible; and
- Groundwater, leachate and surface water environmental monitoring to determine offsite migration of potential contamination.

Other requirements and considerations for high volume receiving sites, based on best management practices and compliance verification are:

- Copies of applicable permits and zoning approvals for the receiving site;
- Evaluation of siting characteristics for the proposed receiving site and surrounding area, prior to receiving site selection, with consideration of heritage/archaeological sites, Indigenous knowledge of the area and airports;
- The design of the receiving site specifically for soil deposit including specification of gas management works, final contours, final cover, and site security/fencing;
- A traffic and transportation management plan including location and configuration of site entrances, truck queuing and parking, dust control and mud-tracking prevention/truck cleaning, and transportation route planning as developed in coordination with applicable regulatory agencies;
- A nuisance control plan including measures to control and mitigate nuisance factors including, but not limited to, dust, noise, litter, odour, vectors and/or wildlife attraction for both the receiving site and in relation to adjacent properties/receptors;
- An invasive plant and/or animal species control plan including measures to control the introduction and spread of invasive plant and animal (invertebrates) species at the receiving site;
- A vapour management plan including measures to limit any soil vapour concentrations at the receiving site;
- A health and safety plan;
- The provision of financial security to provide for future remediation of the site, if required;
- Signage at the site identifying the operator, hours of operation, and contact information for any inquiries;
- The “as-built” plans for the receiving site must be made available for ministry compliance verification following construction;
- Annual reporting of the environmental monitoring and soil management plan activities must be prepared by an AP and made available for ministry compliance verification; and
- An independent audit of the annual reporting to be conducted every two years or at Director’s discretion for ministry compliance verification.

## APPENDIX 3 SUMMARY OF PAST CONSULTATIONS

### DISCUSSION PAPER AND CONSULTATIONS – 2014-2015

The ministry 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, ministry objectives and priorities, and options for amendments to soil relocation provisions. Additionally, the Ministry hosted two webinars to update interested stakeholders on the contents of the discussion paper, and ministry staff held meetings and presentations in Vancouver, Victoria and Kelowna between October and November 2014.

Comments and responses received through the process were compiled and reviewed by the ministry. Common themes included: support for the general principles outlined by the ministry, 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 municipal governments concurrent with their need to be aware of soil relocation activities within their jurisdiction; the importance of maintaining oversight by ministry; 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 ministry considered the 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 the proposed regulatory provisions, including: a notification process with approved professional certification; ministry approval for risk-based soil relocation; an audit component; and, requirements for specific activities. Again, the ministry hosted webinars to inform interested parties and seek comments on specific elements of the proposed provisions. Detailed responses were received throughout the process from a range of interested parties, including municipal 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 ministry [site remediation – requests for comments](#) webpage. Detailed comments echoed those received through the first steps in the consultation. The comments included: general support for the ministry's proposed notification process; the need for ministry 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 the ministry; interests of municipal government and the public in being notified of soil relocation in order to address concerns in a timely manner; and, trigger volumes for notifications. The ministry also

sought and received comment on specific provisions for high risk soil and sites receiving high volumes of soil.

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

The ministry 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 a ministry staff member and included consulting professionals and municipal government staff.

Ministry 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 ministry reviewed and approved the proposed changes in July and October 2018.

A final policy direction paper was prepared to address stakeholder comments received through years of consultation and to communicate the final proposed changes to the soil relocation provisions prior to drafting of *Environmental Management Act Amendment* (Bill 3). See the [2019 Final Policy Direction Paper](#) for additional information.