

# **LAND REMEDIATION DISCUSSION PAPER CONSULTATION**

## **PREVENTION OF SITE CONTAMINATION FROM SOIL RELOCATION**

### **SUMMARY OF PUBLIC COMMENTS**

Prepared for:

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**Land Remediation Discussion Paper Consultation**  
**Prevention of Site Contamination from Soil Relocation –**  
**Summary of Public Comments**

**Table of Contents**

<b>Introduction .....</b>	<b>1</b>
Background to the consultation process.....	1
Purpose and format of the <i>Summary of Public Comments</i> document .....	1
Description of responses received .....	1
 <b>Summary of Public Comments .....</b>	 <b>2</b>
1. Ministry priorities and objectives for updating soil relocation provisions .....	2
2. Concerns with the current soil management and soil relocation provisions .....	4
3. Suggestions for revised soil relocation provisions .....	5
4. Revising the role of soil relocation provisions .....	7
5. Clarifying definitions and scope of soil relocation provisions .....	13
6. Additional comments .....	16



## Land Remediation Discussion Paper Consultation – Prevention of Site Contamination from Soil Relocation

### Introduction

The Ministry of Environment (the ministry) is reviewing aspects of British Columbia’s site remediation legal regime. The review encompasses a number of components, including provisions addressing soil relocation and the mechanism for identifying potentially contaminated sites (the site profile process). See the [ministry’s land remediation website](#) for links to the [Contaminated Sites Regulation \(CSR\) and Schedule 2 of the regulation](#) for further information.

This report is a summary of stakeholder comments received as part of the consultation process on the prevention of site contamination from soil relocation.

### Background to the consultation process

A [discussion paper](#) was posted for public review and comment on the ministry’s land remediation website October 7, 2014 through to February 2, 2015. The discussion paper provided background information, concerns with current soil relocation provisions, ministry objectives and priorities, and options for amendments to soil relocation provisions. A separate response form for providing comments or suggestions to the ministry was also posted on the website.

The ministry hosted webinars on Oct. 15, 2014 and Jan. 14, 2015 to inform and update interested stakeholders on the consultation process. Face to face meetings involving ministry presentations and questions from participants were also held in Victoria, Vancouver and Kelowna in October-November 2014. In total, these events involved close to one hundred participants.

### Purpose and format of the *Summary of Public Comments* document

This document has been prepared for the Ministry of Environment by C. Rankin & Associates, contracted by the ministry to independently receive, compile and review comment on the ministry’s review of the legal regime for the prevention of site contamination from soil relocation.

The complete set of responses received through the consultation process has been compiled and passed to the ministry for detailed review and consideration. All comments and references submitted during this process, through independent submissions and through direct consultations with stakeholders, will be reviewed by the ministry in considering provisions addressing the prevention of site contamination from soil relocation.

The summary of responses is arranged by topic as presented in the discussion paper.

### Description of responses received

As well as comments made in information sessions, twenty-two (22) responses to the discussion paper were received (by e-mail and attached file), and have been recorded for this summary of stakeholder comments. Respondents included representation from the resource development and delivery sector, the land development sector, those providing professional services to private companies or government, government regulatory agencies and two public sector organizations.

## Summary of Public Comments

### 1. Ministry priorities and objectives for updating soil relocation provisions

*Response Form Question 1.1 : Do you have any comments regarding the ministry's priority interests and objectives for site management and prevention of contamination from soil relocation?*

Most respondents who commented on this question expressed agreement or support for the ministry's stated priority interests and objectives, noting, for example, that "increased transparency and predictability in how regulations are applied will facilitate efficiencies for both industry and government while ensuring continued protection of the environment". Several respondents noted that compliance with regulatory provisions is essential to realizing the ministry's objectives and expressed concerns, for example, that there "will be (and has been) a lot of illegal soil movement and dumping [without enforcement of soil relocation provisions]" or that "the ministry does not have the resources to enforce or administer [the provisions]".

Many respondents expanded on or provided examples related to the objectives set out in the discussion paper and recognized "complexities associated with [meeting the objectives]" as well as potential overlaps with other regulatory provisions such as those addressing identification of potentially contaminated sites or transport and storage of hazardous wastes. One respondent commenting on reuse of soil as a management option, for example, noted that to be effective "all stages of the process will need to be addressed... a broad perspective of 'reuse' will need to be considered... [and] initial identification and realistic, considered classification of soils as to quality/characteristics will be required". Another respondent commented that the "objectives [are of] varying importance and strengths, especially considering the context of soil relocation provisions along with other practices and regulatory provisions".

Several respondents cautioned the ministry that while clarity and "hard wiring" requirements may be worthwhile there is still a need for "flexibility in the system". One respondent, for example, commented that "an expectation that clear, fair, effective and streamlined provisions can all be 'hardwired' should not be dismissed but may be overly optimistic". Another respondent noted that "if a decision is made to hard wire all requirements... the [ministry] will also need to determine what 'back-up' provisions are needed and if/how a 'complaint based' compliance program will operate in regard to soil relocation that has proved to be an highly sensitive, emotionally charged issue".

Additional comments on ministry priority interests and objectives included:

- ◆ "Relocation of soil from one municipal jurisdiction to another should not be viewed as spreading of contamination or creating new sites – a larger perspective is required than... restricting deposit of soil to the municipal jurisdiction in which it originates... receiving site characteristics have to be considered"
- ◆ "Clarification is required on how the term 'reuse' and 'management' are being viewed and defined or if they are considered together"

- ◆ “We encourage the [ministry] not to lose sight of the fact that the original impetus for the regulation was the protection of human health and the environment”
- ◆ “Groundwater and surface water quality protection should be considered in all aspects of standards and regulatory provisions, but in balance with other aspects of environmental management, impacts to the environment, and other systems in place (e.g., water supply)”
- ◆ “Local governments should not be allowed to regulate soil cleanliness, as having different standards and processes throughout the province is confusing, frustrating and costly”
- ◆ “No provisions in [the *Environmental Management Act*] EMA or the CSR currently specifically address safe transport of soil... unsafe transport has not been raised as an issue requiring strengthening or otherwise regulating by CSR amendments”

**Response Form Question 1.2: Are there any additional objectives or consideration that should inform or guide the ministry’s review of British Columbia’s site remediation legal regime?**

Suggestions for additional objectives included:

- ◆ “The last priority interest listed should reference the protection of both groundwater and surface water”
- ◆ “We observe that one of the likely reasons the number of applications has decreased is simply because soil is sent to permitted landfills – at [our company’s] operations, large volumes of what would otherwise be useful topsoil (for use in onsite land rehabilitation) are sent to the landfill because of the complicated and expensive requirements to obtain a risk-based relocation agreement”
- ◆ “Soil relocation... may not be environmentally sustainable in the long term given the number of potentially contaminated sites across the province and the land use pressure due to population growth... prior to re-writing the CSR the Province is encouraged to undertake a comprehensive risk analysis of the different options for soil mitigation”
- ◆ “Create an efficient and manageable system... this can be accomplished either through: i) quicker response times than present for reviews and approvals by the ministry; or ii) greater reliance on [Contaminated Sites Approved Professional] CSAP judgment and approval, with notification required to, but not approval by, the ministry”
- ◆ “It would be helpful if any changes to legislation and regulation regarding contaminated soils and their movement and relocation would acknowledge the provincial objective of preserving our limited agricultural land base as part of the priority interests and objectives. Further, that attempts to minimize impacts of unauthorized disposal of contaminated soils on ALR lands is a priority”

**Response Form Question 1.3: Do you have any comments or suggestions regarding the ability of local governments to enforce management plans in relation to the prevention of site contamination from soil relocation?**

Almost all respondents who commented on this question recommended that “responsibility for enforcement of management plans in relation to the prevention of site contamination from soil

relocation should remain the responsibility of the [ministry]”. Reasons cited by respondents for their recommendation included: “most local governments do not have the resources or expertise to enforce management plans in relation to the prevention of site contamination from soil relocation”; “soil relocation crosses municipal boundaries and even regional district boundaries, so ministry oversight is necessary”; “there is limited capacity for local governments to enforce provincial management plans without the necessary support from the province”; “[provisions should be] consistent across B.C.”; and “local governments should not be forcing soil contamination related matters as [the responsibility is under] provincial jurisdiction”.

Some respondents advised the ministry to “consult with the [Union of British Columbia Municipalities] UBCM to examine an acceptable practice that permits consistency across municipalities and regional districts in the province”. One respondent, for example suggested that the ministry “consider with the UBCM whether some local governments could together determine areas within their boundaries that require soil management plans based on current or future land uses or zoning, thereby resulting in some areas falling under the revised Ministry soil relocation process, while other areas require a second level of review provided by the applicable local government”.

Additional specific comments on this topic included:

- ◆ “Has consideration been given for local governments to ask for soil chemistry data allowing them to make it part of their permitting process for development, etc.?”
- ◆ “Some local governments have soil removal/disposal requirements... addition[al] provincial requirements [would] cause duplication / redundancy for permits and procedures”
- ◆ “Knowledge of which local governments require soil management plans could be shared so that it is known in advance (during project planning) what additional requirements there are for soil relocation from one area to another”

## 2. Concerns with the current soil management and soil relocation provisions

**Response Form Question 2.1: Do you have any comments or concerns regarding current regulations and practices addressing prevention of site contamination from soil relocation?**

Many respondents commented that the current process for obtaining a contaminated soil relocation agreement (CSRA) is “cumbersome and not efficient... based on complexity, time required and high cost”. Additional related comments included: “the current process is not feasible in most situations”; “it takes too long, is costly, [and] trigger concentration standards are overly conservative”; and “[the CSRA] does not support sustainability initiatives and repurposing of soils – many of the soils are ending up in landfills”. One respondent commented that “nobody uses the current provisions... it’s not only to reduce liability that owners send soils to landfills – frankly, it’s simpler”.

Several respondents commented on numerical versus risk based standards for remediation. One respondent, for example, noted that “increasingly, the risk based standards remediation approach rather than the numerical standards approach is being used” citing a number of factors, including: “[use of] the drinking water related factor for assessing soils makes it

impossible or cost prohibitive to remediate to achieve all numerical concentrations standards;... [the time and expense of] additional investigation requirements, analysis and prerequisite reporting to demonstrate compliance with criteria,... new concentration standards... making it increasingly difficult to achieve all numerical concentration standards; [and determining]... local background concentrations to establish an acceptable, alternate numerical concentration standard is costly, often difficult to implement”. The respondent felt that as an alternative, “using the risk based remediation approach... may provide additional incentives to consider and use soil [rather than] relocation”.

A number of respondents addressing this question pointed to the current Schedule 7 [parkland/residential] standards as “overly stringent”. One respondent, for example, commented that “[the standards] are overly conservative, and require pH characterization of the receiving site in order to modify the numerical standards – this requirement is costly and complicated for smaller scale soil relocations and likely [to] lead people to avoid this process”.

Additional specific comments on this topic included:

- ♦ “A weakness with the current soil relocation regulation is that there is no verification by the provincial regulator that the relocated soil has been transported to a licensed facility, according to approved remediation plans... necessary follow up or verification needs to be strengthened to ensure that there is not the creation of contaminated sites on Federal Lands from remediation projects”
- ♦ “[Our municipality’s] main concern is the... lack of awareness among the public regarding the need for CSRAs and the potential for new site contamination issues... there is also concern regarding soil contamination from residential underground storage tanks as older residential properties are redeveloped”
- ♦ “The current [CSRA] provisions in the CSR are difficult to implement in typical excavation services procurement scenarios... a successful management system for re-use of suitable contaminated soil must be cost effective, reliable, can be implemented quickly and will work in all services procurement scenarios”
- ♦ “[Our organization] is concerned there is not a provision for temporary storage of potentially contaminated soil to accommodate characterization prior to disposal”

### 3. Suggestions for revised soil relocation provisions

**Response Form Question 3.1: Do you have any suggestions for a revised process that would address prevention of site contamination from soil relocation?**

Most commonly, respondents suggested that “more risk based provisions should be incorporated into the process” often also recommending a focus on the receiving site. Related comments included: “require a Soil Relocation Agreement only if the soil being relocated is considered ‘contaminated’ by definition at the receiving site”; “allow a receiving site to obtain blanket authorizations (perhaps in a ‘receiving site soil management plan’) for a specific time, amount, and composition of soil received”; “[we recommend] simplification and broader applicability [of]... screening level risk assessment procedures”; and “the risk management approach of reducing/eliminating source, pathway or receptor to mitigate/avoid risk should be

applied to soil relocation – accordingly, soil relocation compliance should involve source sites ('source') and relocation sites ('receptor') and the transport industry ('pathway')". One respondent also cautioned that "reducing use of the numerical standards remediation approach and increased use of risk-based standards remediation may reduce the feasibility of the stated priority of facilitating reuse of soil (unless reuse becomes part of and is facilitated by the risk-based standards remediation approach)".

Several respondents commented that "use of Schedule 7 constituent standards as the trigger [for soil relocation provisions] is overly restrictive". Respondents suggested, for example, that as an alternative "using... Schedules 4, 5, 10 and 11 [applicable to specific land uses] would be more appropriate". One respondent further suggested that properties "without any history of Schedule 2 activities... [should be] exempted [from soil relocation provisions]".

Respondents differed in their recommendations regarding the need for ministry involvement through the entire "chain of custody" for soils being moved from a source site to a receiving site. Some respondents commented, for example, that "any and all soil relocation in the province should be tracked, including soils that are not contaminated of soil quantities that are below municipal permit thresholds". At the other end of the spectrum, another respondent recommended "eliminat[ing] the entire process" as "following regulatory changes in the mid-2000s... the majority of site remediation is completed with some level of risk assessment which results in less 'source' removal... [and that] overall awareness of contaminated sites and the liabilities associated with them has increased greatly in recent years and individuals are less willing to risk creating a contaminated site by relocating soil from one site to another".

Additional specific comments on this topic included:

- ◆ "A critical overview appears to be needed in regard to what policy objectives are intended for a soil relocation scheme – the immediate and ongoing risks associated which soil relocation should be evaluated along with appropriate and effective potential 'control points' "
- ◆ "A soil transportation plan is not needed"
- ◆ "[Our municipality] agrees with most of the suggestions listed in the review document, but emphasizes the importance of continued Ministry responsibility and oversight – local governments with Soil Removal and Deposit Bylaws could perhaps include a checklist item with respect to provincial CSRA requirements to improve awareness"; "
- ◆ "This is a very complex issue that is going to be a challenge to address... whatever process [is put] in place, it [should] be 'dynamic' and subject to ongoing adaptive management"
- ◆ "Characterizing and classifying soils in regard to actual conditions and potential risks posed is critical and should remain 'science based' "
- ◆ "Soil relocation provisions of the contaminated regulatory regime cannot be addressed in isolation – regulatory provisions and 'pressures' exist that tend to decrease soil relocation as part of remediation, but there are certainly provisions that currently or with time will tend to increase soil relocation"
- ◆ "Investigations of receiving sites [should] be limited to determining site specific factors affecting application of the standards (e.g., application of water and land use affecting soil standards, and soil pH)"

- ◆ “When notification is required, it should be done by an Approved Professional (AP) who ‘signs-off’ through a standard form to the ministry, the source site owner, the hauling company, and the receiver site owner that the soil being moved has concentrations that are acceptable for the receiving site’s current land use designation... with the Contaminated Sites Approved Professionals (CSAP) Society, there is appropriate professional oversight of the professional filling out the forms to ensure that appropriate testing is being done on soils being transported”
- ◆ “[With] reduced involvement of MOE... proposed options for notification and reference to local government bylaws, increased roles and involvement of local governments in the process appears to be suggested... all aspects of the process, along with roles and responsibilities, both short and long-term, will need to be defined or the objectives will not be achieved”
- ◆ “A phased investigation process is prescribed in EMA and the CSR and followed in professional practice – if phased investigations are followed and decisions are made by environmental professionals based on the prescribed and accepted procedures, it is still possible that soil exceeding standards may be relocated to receiving sites or in a manner that does not, in the end, comply with results of new, compliance assessment sampling – compliance assessment provisions in the new soil relocation regulatory regime should be designed to consider due diligence procedures in balance with limited, compliance assessment sampling”

#### 4. Revising the role of soil relocation provisions

*Response Form Question 4.1 a: Do you have any general comments about the role and use of soil relocation agreements in regulating the relocation of potentially contaminated soils?*

Previous comments related to this question included: “the standard form... should be renamed ‘soil relocation notice’ [from the current ‘contaminated soil relocation agreement’]”; “the ‘standard form’ should be simple and quick to fill out”; and “eliminate the entire process – the data presented illustrates that [soil relocation agreements] are not a preferred approach for developers... or local governments”.

A limited number of additional comments were made in response to this question, including:

- ◆ “Is there indeed a risk of contaminated soil being disposed of inappropriately without an agreement in place? – if so, are soil relocation agreements the effective tool to mitigate this risk? – it could be argued that soil relocation agreements would not effectively mitigate the risk of illegal dumping since these parties may not apply for a soil relocation agreement regardless of the requirements”
- ◆ “Some form of soil relocation agreement and soil relocation tracking is required – a clear relocation process would help prevent contaminated soil relocation and the creation of contaminated sites through soil movement, while permitting consistent tracking of soil fill sites and parties involved”
- ◆ “They should be used when moving large amounts of soil where significant cost savings can be realized. They don’t seem to make sense for small sites and the liability is still present”

- ◆ “It does not appear that the current soil relocation agreements are able to adequately control contaminated soil movement”
- ◆ “CSRAs are an important tool that should continue to be used”

**Response Form Question 4.1 b: Would you recommend that they be amended or deleted? If so, why?**

Limited comments in response to this question included:

- ◆ “Provisions [should] be added to allow for the temporary storage of contaminated soils (based on storage site applicable standards) for at least 30 days... [this] would also allow for bulking small quantities of contaminated soil before transporting to an authorized disposal site – alternatively there could be an exemption for containerized soil”
- ◆ “Soil relocation agreements should be less cumbersome/onerous”
- ◆ “They should be amended to be more inclusive and potentially also be used as a tool to certify clean soil movement given the appropriate level of investigation has been completed at the source site”
- ◆ “We would suggest a notation on the ‘Application for a CSRA’ under the receiving site identification section that says ‘Disposal on Agricultural Land Reserve (ALR) lands is prohibited unless approval from the Agricultural Land Commission (ALC) has been granted’ ”

**Response Form Question 4.2: Do you have any comments or suggestions about *when* and/or *why* the ministry should be notified of soil relocation (that is, “triggers” for ministry notification)?**

Most respondents who commented on this question suggested that “notifications should continue to be sent to the ministry”; that “the regulatory framework [should] incorporate clear and meaningful triggers for when notification is appropriate”; or that “the ministry should be notified of any soil relocation from one site to another, if not exempt from notification through: no previous Schedule 2 activities on the generator site; results meet Schedule 7 standards; [and/or] soil going to approved/regulated landfill”.

In contrast, a few respondents commented, for example, that “there does not seem to be significant value in overwhelming [ministry] resources with notifications for relocating soil to receiving sites where that soil meets applicable land use standards at the receiving site”. Suggestions of appropriate triggers for ministry notification included: “notification of independent remediation (NIR) at the source site if moving soil to a receiving site where the soil will no longer be considered ‘contaminated’ (i.e., the soil meets applicable standards at the receiving site”); and “soil containing substances not already found on receiving site [and] soil with concentrations greater than the applicable land use standards of the receiving site”.

Additional specific comments on this topic included:

- ◆ “The receiving landowner should be aware of the soil movement and be in agreement that the soil meets applicable standards – could there be some form of a ‘sign-off’ by the

receiving landowner/local government/Aboriginal Affairs and Northern Development Canada (AANDC) (if relocated onto First Nations (FN) Land) on the chain of custody forms or on the soil relocation agreements/notifications?”

- ◆ “Notifications should continue to be sent to the ministry, with a copy to local governments”
- ◆ “Concentration standards relating to soil relocation should be reviewed in light of priorities and objectives for a revised scheme – currently the most restrictive of all residential use (RL) standards trigger the requirement for a CSRA regardless of the actual or planned land use at the receiving site – requiring a CSRA for relocating soil from a site [with] more stringent land use soil standards (e.g., RL) to a site with less stringent standards (e.g., CL or IL) should be reconsidered, since a new contaminated site is likely not being created”
- ◆ “Any contaminated soil should trigger ministry notification – there should be a public process”
- ◆ “CSR and associated factsheets/guidance might want to distinguish clearly between (1) ‘when and what type of soil can be legally relocated’ and (2) ‘when the ministry needs to be notified through a soil relocation notification/agreement’ – ideally, soil can only be relocated if applicable standards at the receiving site are being met”
- ◆ “[The appropriate scope of notification requirements] warrants further evaluation in terms of manageable workload for the ministry”
- ◆ “The low threshold inherent in the trigger concentrations for soil relocation regulatory processes has likely contributes to residents’ concerns about ‘contaminated soil’ relocation – the underlying ‘factors’ and protection measures inherent in using the most stringent standards in the trigger concentrations are likely not recognized and understood [by local residents in areas of soil deposit]”
- ◆ “[With respect to notification options] at the present time, local governments do not monitor soil quality but only administer the deposition should they have a bylaw in place – by changing the current notification process, local governments may be required to add soil testing into the requirements for soil permits to ensure contaminated soils are going to sites with appropriate land use designations”

**Response Form Question 4.3: Do you have any suggestions for *how* the ministry could or should be notified of soil relocation (for example, in site risk classification report, with application for a Certificate of Compliance)?**

A limited number of responses were received on this topic. Most respondents who commented suggested the current NIR or a “similar form” would be appropriate. One respondent recommended “adding a check box to the NIR form that would ask: ‘does the soil/sediment quality meet the applicable CSR land use standards at the receiving site? – if no, is the receiving site authorized by way of a current Soil Relocation Agreement or Waste Discharge Regulation to accept contaminated soils of the applicable quality?’ – negative responses to both of these questions could prompt follow up by the [ministry]”. Additional suggestions included: “require all trucking companies [to] report their soil loads”; “a site risk classification report or similar assessment of both the generator site and disposal site”; and “notification posted for a set amount of time on dedicated Ministry website, with potential for public comment within set time”.

**Response Form Question 4.4: Do you have any comments or suggestions regarding appropriate requirements for management of soil relocation (for example, source and/or receiving site soil management plans, transportation plans)?**

In commenting on previous questions, several respondents suggested that “soil transportation plans for relocation of soil [are not needed]”. Other respondents, in contrast, expressed support for a “chain of custody” approach that would include documentation with respect to source and receiving sites, as well as transportation of soil being relocated.

Several respondents commenting on this topic noted potential for duplication if the ministry is considering requirements for “additional plans” related to soil relocation. Using the potential of the ministry requiring a soil management plan, for example, one respondent pointed to existing requirements (such as a remediation plan prepared for an approval in principle (AIP) and the NIR form) that address soil management.

Additional specific comments in response to this question included:

- ◆ “Management and transportation plans will be helpful, as long as the transporter is legally bound to provide and follow the approved plans”
- ◆ “As QEPs [qualified environmental professionals] are usually involved in remediation projects, it would make sense to expand their ability to review and approve SRAs... receiving site for [contaminated] soils could be reviewed by QEP to confirm suitability for placement of [contaminated] soils as part of remedial scope or as a stand-alone report in the cases of minor impacted sites”
- ◆ “[With respect to soil management plans] if preference is given and requirements are established for volume related sampling and analysis, consideration should also be given to confirmation that the results of analysis by that program, will be used and must be accepted by all parties involved (e.g., ministry, municipalities, source site owner, receiving site owner, any third party) that that data will be considered ‘official’ ”
- ◆ “[A] carefully considered and rationale approach to sampling, analysis and data interpretation is needed and [should] account for investigations prescribed for sites in provisions for Stage 2 preliminary site investigations (PSI), detailed site investigations (DSI), as well as previous, older data available for many sites – allowance for [this information] and other representative previous sampling and analysis data is recommended when prescribed requirements are established”
- ◆ “There could be a performance based requirement to track contaminated soil movement to the receiving site, and to contain and place contaminated soil/sediment in such a way as to prevent a release – however... these requirements [should not] be prescriptive or onerous as they may not be met”
- ◆ “Both notification and trigger of the soil relocation process should include sites that have a risk based certificate of compliance (CoC)”
- ◆ “[Our] members note that some municipal governments in B.C. have soil removal and disposal requirements – we suggest that [any] additional provincial requirements be carefully considered to avoid duplication and/or redundancy”

**Response Form Question 4.5: Do you have any comments or suggestions regarding when, why and/or how local governments should be notified of soil relocation from or to a potentially contaminated site?**

This topic generated substantive comment from respondents. Most respondents noted the importance of a “fair and consistent process across the province” often pointing out that some of the options/considerations listed in the ministry’s discussion paper – no notification or notification only if local bylaws have soil management provisions – would “be contrary to [this] objective” and “would risk ongoing complaints of hiding potential problems, deliberately misleading residents and their local governments, etc.”.

Respondents from local governments commonly expressed support for continued and/or improved notification of local municipalities by the ministry. Related comments from this sector included: “in an effort to avoid the historical challenges that came about prior to the implementation of the regulation, [municipal] staff are of the opinion that the current soil relocation process remain in place”; “if the site hasn’t been approved by the local government, the ministry should not approve the relocation agreement”; and “the [ministry] should be responsible for any follow-up, enforcement and compliance monitoring required as part of the CSRA to ensure that the process is being followed appropriately... [our municipality] does not have the resources to manage this on behalf of the ministry”.

One respondent from a public sector organization noted that “continued strong coordinated effort between provincial officials and local governments is extremely important” and recommended “that local government should be required to track source site material (who is the developer or remediation company, what is the soil, who is the trucking company and where is the suitable receiving site)... [and] that a central system that tracks source and receiving sites that is accessible by all local governments in a region would be a useful tool as often the source site and receiving sites are in different municipal and regional district jurisdictions”.

Respondents involved in the land development or redevelopment sector frequently expressed concern about the extent of involvement of local municipalities in “imposing separate requirements [for soil relocation]” that may be “beyond their mandate”. One respondent, for example, noted that “we understand why local governments that receive the soils may need [soil relocation] information – they may have soil fill deposit bylaws – there may also be a request to change land uses in the future on a site that received soil, and this information may be needed to ensure that appropriate steps [if needed] are taken... [however], when municipalities are notified, [the ministry should] make it clear that it is the ministry that has regulatory responsibility for soil contamination – not local government”. In summary, the respondent recommended that “the relocation process for these soils should be defined by the ministry within the context of the EMA and the CSR, and be applicable in all local government jurisdictions in the province – without the imposition of additional municipal soil cleanliness requirements”.

Related comments included: “local governments often don’t have staff with environmental expertise... ‘not in my back yard’ sentiments [are] often very prevalent in local governments... often mak[ing] no distinction between heavily contaminated soil and lightly contaminated soils suitable for use on a commercial site”; “expanded involvement of local government in the SRA

process will add more bureaucracy and further prevent the beneficial re-use of soils suitable for relocation”; “decisions on soil relocation should be based on science and regulation not politics and negative perceptions”; and “requiring notification only if relocation occurs outside of a local government area, may have the effect of site owners / agents actively seeking sites within the source site municipality... [and] could have the effect of promoting deposit at site that are less environmentally suitable than others within the general area”.

Additional specific comments on this topic included:

- ◆ “Health authorities should be included in the same notification requirements and processes as notification to local governments... while it is unnecessary and inefficient for health authorities to be notified of every identified contaminated site and site remediation plan, the revised regulation should include provisions to give Health Officers under the *Public Health Act* the authority to request and gain access in a timely manner, as the need arises, to site profiles, remediation plans, and other related information such as soil sampling results from information and data holders at the provincial, local government levels as well as from the property owner”
- ◆ “A provincial registry on relocated contaminated soil, containing information on location as well as soil composition should be available to the public – there is increasing recognition on the benefits of local agriculture and community gardens – the public availability of such a registry will be important to minimize the inadvertent use of inappropriate soil for growing food for human consumption”
- ◆ “Send automated emails to respective municipalities and provide access to the database to review data, if needed”
- ◆ “Priorities of expanding options for soil management and for promoting reuse of soil are unlikely to be realized in favour of ‘safe’ options that are unlikely to cause conflict (i.e., unless a municipality and local citizens in the area of a receiving site view it as an environmentally desirable business contributing jobs, revenue and entirely safe environmental solutions)”
- ◆ “The considerable differences in the capacity of local governments across the province (e.g., the differences between large urban municipalities and small rural communities) to manage soil contamination/contaminated sites should be kept in mind when drafting revisions”
- ◆ “The soil relocation provisions and current CSRA process and the regulatory application and permit/ authorization process for waste under the EMA under which receiving sites are considered and may be authorized may not be distinguished and understood, so may have to be more clearly accounted for in revisions to the soil relocation regulatory scheme – roles and opportunities for local government and resident’s involvement are different in current provisions and will likely be in an amended scheme”
- ◆ “[Our] members suggest that soil relocation reporting should only be triggered if the soil to be moved has substances with concentration that exceed the CSR land use standards of the receiving site”

**Response Form Question 4.6: Do you have any comments or suggestions about including provisions to manage contaminated soil generated within local government or regional district boundaries in Official Community Plans, Waste Management Plans and/or Landfill Operational Certificates?**

A limited number of comments were received on this topic, including:

- ◆ “Requiring local governments to manage contaminated soil as part of their responsibilities would require provincial funding as local governments do not have the resources to take on more programs”
- ◆ “Keeping or removing SRA may depend if the ministry changes the standard to compare soil to be relocated – if it matches receiving site land use standards, could be useful”
- ◆ “Contaminated soil relocation should not be restricted based on local or regional boundaries.... it has been [our] experience that there are not sufficient contaminated soil remediation/disposal outlets within all local or regional areas”
- ◆ “Our landfill doesn’t want excess soil diverted to it as this doesn’t align with [our municipality’s] Greenest City Action Plan”
- ◆ “Landfill Operational Certificates include provisions for accepting contaminated soils at the facility, but none of the other plans seem applicable since this is a provincial responsibility”
- ◆ “A coordinated database of all soil removal sites that contains information related to investigations and potential contamination would be helpful when it comes to regulating soil quality at deposit sites within a community”

## **5. Clarifying definitions and scope of soil relocation provisions**

**Response Form Question 5.1: Do you have any comments regarding definitions (for example, definition of a contaminated site) that could or should be clarified in the context of requirements for relocation of contaminated soil?**

A limited number of comments were received on this question. One respondent, for example, commented that “items listed in this section of the discussion paper are... very straight forward – staff have no concerns with [them]”.

Specific comments included:

- ◆ “Conservative standards are therefore used for defining contamination – along with the standards, the term CSRA also immediately and officially labels the soil [as ‘contaminated’], regardless of the... applicable standards at a receiving site”
- ◆ “Simplified guidance is required to verify if soil can be relocated without a CSRA”
- ◆ “Review of CSR Schedule 2 is highly recommended”
- ◆ “Definitions – not all soil at a contaminated site is contaminated”

**Response Form Question 5.2: Do you have any suggestions for developing common understanding and supporting consistent application of regulatory provisions relevant to First Nation Lands?**

All respondents who commented on this question noted that it is important to have consistency in requirements across the province. Respondents commented, for example, that: “remediation contractors have been known to relocate contaminated soil from remediation projects on provincially regulated lands to federal lands”; “a regulatory gap in the management of soil relocation from source to final disposal [that]... has been exploited by individuals without AANDC’s knowledge, resulting in deposit of soil exceeding Canadian Council Ministers of Environment (CCME) Environmental Quality Guidelines for Soil”; and “in the past, unauthorized deposit of contaminated soil on FN lands has resulted in the creation of federal contaminated sites for which the federal government then becomes the responsible custodian”.

Several respondents recommended that “the exemption [of the CSR being applicable] to federal lands should be removed”. One respondent suggested that while “(in general) provincial law does not apply on federal land (or outside of the province)” there may be options to ensure that appropriate provincial standards are followed, such as “requir[ing] that soil only be moved away from the provincially regulated site if it is documented that the receiving landowner (regardless of jurisdiction) has agreed to accept the contaminated soil (i.e., entered a soil relocation agreement or the equivalent thereof)”. Another respondent requested “a change in the regulation to include notification of federal landholders [and FNs] including AANDC and the adjacent FN community, as well as an amendment to the notification process to include federal lands”.

**Response Form Question 5.3: Do you have any comments regarding scope and application of regulatory provisions in relation to soil relocation (for example, rock, sediment, vapours)?**

Responses to this question frequently included detailed technical information and/or reference to existing guidance provided by the ministry’s Land Remediation Section, such as Technical Guidance (TG) 20 (applicability of sodium and chloride ion soil relocation standards to dredged marine and estuarine materials) and TG 4 (addressing vapour).

**Vapours in excavated soil.** Respondents most commonly pointed to the difficulties associated with sampling and “overly conservative” standards in existing guidance. One respondent, for example, recommended that “applicable standards at the receiving site should be considered, including Schedule 5 pathways [although]... this will be difficult to reconcile with the current TG6 and draft Protocol 21 requirements”. Another respondent commented that “vapour sampling at a source site according to guidance by [the ministry], for comparison to applicable land use related standards at the receiving site according to the CSR, is confusing and lacks rationale... TG 4 allowance for in situ or ex situ (e.g., stockpile) sampling for comparing vapour concentrations to CSR standards and for triggering soil relocation requirements lacks rationale, creates uncertainty, poses further risks regarding potential non-compliance and enforcement action, invites onsite ex situ soil ‘handling’ to avoid non-compliance, creates additional regulatory complexity, but provides little or no additional human health or environmental protection”. In summary, one respondent recommended that “the Province not proceed with new requirements for soil and vapour... given [that] the soil being transported is at the lowest

level of contamination and that soils containing vapours when disturbed and handled will release these low level of vapours”.

**Sediment.** Several respondents commented that “dredged sediment management has been addressed... outside the CSR [and soil relocation provisions]... particularly due to issues [associated with] concentrations of sodium and chloride”. One respondent noted that “sediment relocation and deposit is recognized as having similar potential implications as excavated soil in relation to transport, receiving site implications, etc., so in concept the application of soil relocation provisions is supported... [and that] consideration should be given to the type of environmental impact evaluations and exemptions as in TG20 to other sites”.

**Quarried rock and gravel.** One respondent commented, for example, that: “[although] rock products... have been considered subject to the requirements of the provisions for relocation soil... the benefit, purpose and implications [of this] should be reassessed... does the use of rock products at sites other than where they are generated pose an unacceptable risk to human health or the environment (e.g., other than from specific mineralized source sites or mine related wastes)? – does the ministry need to or wish to regulate rock products as ‘contaminated soil’?... more rigorous application and enforcement of the soil relocation provisions to rock products would likely identify many technical non-compliance situations”.

Additional comments on this topic included:

- ◆ “The objectives of soil relocation regulatory provisions in terms of scope and application requires critical review or clarification, so that applicable provisions can be developed and revised (e.g., exemptions, standards) can match those objectives”
- ◆ “Leadership by the Province on scope and application, on standards, etc. appears to be important and should not be addressed by dependence on municipal bylaws”
- ◆ “Exemptions in regulation will likely be critical to ‘refining’ the scope/prescribing when soil relocation provisions apply... exemptions might be considered relating to rock and gravel products [and] some naturally occurring substances – the need to use exemptions will depend on... other requirements [associated with soil relocation provisions such as]... definition of contamination [and] concentration standards”
- ◆ “Salts are present in soils at many sites irrespective of land used, activities and commercial / industrial contamination – a number of site development situations have been encountered where impacts of sodium (Na) and chloride (Cl) in soil and the soil relocation trigger standards have had significant cost and other implications... Provisions to address such substances, particularly in regard to soil relocation must be very carefully considered before new provisions are developed and put in place (e.g., exemptions, environmental impact evaluation factors as in TG20)... provisions potentially applicable to establishing ‘background’ conditions are difficult to use so do not provide a very useable alternative”

## 6. Additional comments

*Response Form Question 6.1: Do you have any additional comments or suggestions regarding the ministry's review of British Columbia's site remediation legal regime and/or the prevention of site contamination from soil relocation?*

Additional comments included:

- ◆ “A coordinated database of all soil removal sites that contains information related to investigations and potential contamination would be helpful when it comes to regulating soil quality at deposit sites”
- ◆ “A continued strong coordinated effort between provincial officials and local governments is extremely important [to reduce unauthorized deposit of soil and waste on ALR lands] – [Our commission] believes that local government should be required to track source site material (who is the developer or remediation company, what is the soil, who is the trucking company and where is the suitable receiving site) – it would seem that a central system that tracks source and receiving sites that is accessible by all local governments in a region would be a useful tool as often the source site and receiving sites are in different municipal and regional district jurisdictions”
- ◆ “In addition, a pro-active approach could be the identification of suitable receiving sites for relocation of contaminated soils and a central list of identified sites again accessible to all local governments – [another important step would be]... a coordinated effort between provincial government officials and local governments to deal with individuals and companies who carry out unauthorized movement and disposal of contaminated soils in the ALR”
- ◆ “With respect to ‘contamination’ being relative to the source site or receiving site and the question of which site should be used to establish contamination, the more sensitive land use of the two sites should be used... this will ensure future land use is not constrained by the presence of contaminated soil on the site – for example, if ‘residentially’ contaminated soil is transported to a ‘commercial’ property that property could not be rezoned to a residential land use (assuming the property owner wanted to rezone and Council would support it) until soils can meet residential criteria – the land use change may not be permanent, but it would [remain] until natural attenuation etc. reduces contamination below the contaminated threshold”
- ◆ “Involvement and role [of] approved professionals (APs) – increasingly the ministry is requiring that ... various contaminated sites management [required documents] are reviewed and submitted by an AP – especially with the [ministry's] objective of reduced involvement in the soil relocation process, the roles, immediate and ongoing responsibilities, liabilities, etc. [of APs] must be addressed clearly in any alternate soil relocation regulatory scheme – initial reviews and preparation of reports site evaluations, soil classification etc. often become the responsibility of APs, but implementation is the responsibility of current or subsequent site owners or responsible parties, so regulatory provisions should assure that APs are not held responsible for actions they have no control over”
- ◆ “Just as provisions are made for some alternates for oil & gas exploration and production sites in the northeast area of B.C. (e.g., application of vapour standards) and for alternate administration (e.g., high/low priority classification of sites and follow-up requirements by the Oil & Gas Commission), accommodation and adjustments to application of provisions

may be needed to achieve effective, streamlined and fair processes in all areas of the province”

Several respondents also provided comments that could be considered beyond the scope of the discussion paper. These comments included:

- ◆ “While outside the scope of the discussion papers, there are opportunities to streamline the contaminated site administrative process – with the exception of high risk sites, the ministry’s role is primarily administrative as it relies on recommendations from CSAPs – [municipal] staff feel that within this model there is an opportunity to reduce administrative times for processing Certificates of Compliance and other ministry approvals which should be further investigated”
- ◆ “The soil removal trigger for site investigation is not consistent in all municipalities – often soil removal is addressed through other permits such as building permits that are not formal triggers for site profile submission and subsequent site investigations”
- ◆ “There is no mention of invasive species in this paper invasive species are recognized by the International Union for the Conservation of nature (IUCN) as the second leading threat to global biodiversity – one of the recognized causes of the spread of invasive species is relocation of soil contaminated with invasive species (e.g., construction and development, road works and landscaping – all very common practices in B.C.) – this issue is currently being discussed by various B.C. municipalities and environmental organizations in an effort to develop tools to reduce the risk of spreading invasive species via soil relocation – it would be ideal if this discussion paper included invasive species in its definition of contamination and then addressed relevant tools to reduce the risk to biodiversity through invasives-contaminated soil relocation”
- ◆ “Ontario [has] created an online dating site for soils [ [www.soil.com](http://www.soil.com) – to match those entities with excess ‘clean’ soils with those requiring soil of similar quality and quantity in a timely fashion]... this is based on a process in place in [the United Kingdom] – I think if we had such a site, a larger portion of the soil would be reused rather than disposed of”