REGULATING SOIL RELOCATION – INTENTIONS PAPER 2021

SUMMARY OF COMMENTS

Prepared for:
Ministry of Environment and Climate Change Strategy
Land Remediation Section

August 2021

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Regulating Soil Relocation – Intentions Paper 2021

Summary of Comments

Contents

Acronyms and Abbreviations

Acronym	Term
AiP	Approval in Principle
AL	Agricultural Land
ALC	Agricultural Land Commission
ALR	Agricultural Land Reserve
AMP	Administrative Monetary Penalty
AP	Approved Professional
APEC	Area of Potential Environmental Concern
B.C.	British Columbia
CIRNAC	Crown-Indigenous Relations and Northern Affairs Canada
CL	Commercial Land
CoC	Certificate of Compliance
CSAP	Society of Contaminated Sites Approved Professional of B.C.
CSR	Contaminated Sites Regulation
DSI	Detailed Site Investigation
EMA	*Environmental Management Act*
ESC	Erosion and sedimentation control
GHG	Greenhouse Gas
GPM	Groundwater Protection Model
ID	Identification
MEMPR	B.C. Ministry of Energy, Mines and Low Carbon Innovation
MIRR	B.C. Ministry of Indigenous Relations and Reconciliation
MOTI	B.C. Ministry of Transportation and Infrastructure
NIR	Notification of Independent Remediation
OGC	Oil and Gas Commission
PCOC	Potential Contaminant of Concern
PL	Park Land
PSI	Preliminary Site Investigation

Acronym	Term
QEP	Qualified Environmental Professional
QP	Qualified Professional
RL	Residential Land
SMP	Soil Management Plan
SOSC	Summary of Site Condition
SRNCF	Soil Relocation Notification and Certification Form
TG1	Technical Guidance 1: Site Characterization and Confirmation Testing
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples
VAF	Vapour Attenuation Factor
WDR	Waste Discharge Regulation

Background to the Consultation Process

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 the other associated regulations governing soil relocation to support the changes to EMA.

Ministry Intentions Paper

A draft Intentions Paper was posted to the ministry website on January 15th, 2021 for review and comment by Indigenous Nations, government regulatory agencies, public sector organizations and those that work in industry that involves relocation of soil.

The Intentions Paper:

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

Consultation process

The ministry adapted the consultation process in recognition of in-person contact and other limitations on resources of Indigenous Nations and stakeholder groups as a result of COVID-19.

Information letters were circulated by email to Indigenous Nations along with the draft Intentions Paper in early January 2021. This was followed by telephone contacts and response to requests for additional information. The ministry hosted four information webinars for Indigenous Nations on February 3rd and 4th 2021. The webinars included a presentation by ministry staff, followed by time for questions and comment from participants.

Notice of posting of the Intentions Paper and Comment Form was circulated through the Site Remediation News email service. Information webinars open to all registrants were conducted on February 18th and 25th 2021. The webinars included a presentation by ministry staff, followed by questions and comment from participants. Note that due to the number of participants and comments received in each webinar, not all of comments were addressed during the time available. The full set of comments has been compiled and forwarded to the ministry for review and consideration as part of the consultation process.

The ministry requested submissions and comments on the ministry's intentions by March 15th, 2021.

Purpose and format of the *Summary of Comments* document

This document has been prepared by C. Rankin & Associates, contracted by the ministry to compile and summarize comment on the proposed intentions. The summary of comments is arranged by topic as presented in the Intentions Paper. Comments received to March 25th, 2021 have been included in this document.

The complete set of comments and submissions received through the consultation process, as well as questions and comments received during webinars, has been compiled and passed to the ministry for detailed review and consideration. All comments and references submitted through this process, through independent submissions and through direct consultation with stakeholders, will be reviewed and carefully considered by the ministry.

Overview of Respondents and Webinar Participants

Information webinars held on February 3rd and 4th for Indigenous Nations had a total of 34 registrants and 22 attendees. Open registration webinars involved 203 registrants and 182 attendees for the February 18th webinar, and 208 registrants with 172 participants for the February 25th session.

A total of 61 responses were received and included submissions with cover letters and supplementary information, as well as comment forms. Respondents included: one interested individual; five Indigenous Nations or community members; 39 companies or associations working in industry or development that involves relocation of soil; twelve government or regulatory agencies; one environmental interest group; and three "other interests" (including two airport authorities).

Respondent Comments

1. General Comments

Many respondents provided substantive general comments in covering letters or in summary statements as part of their response to the ministry's Intentions Paper.

Almost all of the respondents working in relocation of soil expressed concern that the proposed changes would add costs and delays to construction projects.

Respondents questioned, for example, "why a tracking system for uncontaminated soil [is] required" and suggested that the "intentions paper is inadvertently broad and over-captures and over characterizes low risk soils on large sites." Concerns were expressed that restrictions for high-volume receiving sites "may result in a low supply of receiver sites willing to accept [clean] soil from Schedule 2 activity source sites." For example, several respondents commented that "restrictive" requirements "will result in unnecessary disposal of soil at licensed facilities and/or restrict economic activity leaving 'clean' sites vacant and undeveloped."

Many respondents commented on the proposed notification process in their general comments. For example, one respondent noted concern "that ministry and stakeholders would be overwhelmed with the volume of individual notifications creating resourcing challenges and minimizing the intended benefits."

Several respondents noted their agreement with the ministry that "current soil relocation provisions are overly complex and poorly understood [and that] measures that promote and increase the beneficial reuse of clean soil in B.C. are overdue." However, respondents commented also that the proposed changes could have "unintended consequences that may [be] opposite… from the ministry's intent."

In their general or opening comments, a number of respondents suggested that, before further undertaking revisions to regulation of soil relocation, the ministry consider further consultations with specific groups such as "industry stakeholders, individual municipalities, Metro Vancouver, [land] developers, and large volume fill site owners and operators." Several First Nations respondents and webinar participants also requested or suggested further consultation between the ministry and First Nations on the regulation of soil relocation and related topics.

Additional examples of comments included:

- "The [intentions] paper does not adequately consider or address impacts upon archaeological and cultural resources and interests";
- "Regulation of uncontaminated soils should be risk based, the current proposed changes are too broad and rigid and would result in the expenditure of resources with low value return. We recommend a process be developed to subdivide or separate areas of large site for the purposes of 'site' identification or classification. An exemption or process should be considered for large sites to define a project area using a qualified professional and appropriate site assessment approach";
- "Ongoing access to licensed and permitted hazardous waste facilities for disposal of contaminated soil is of critical importance… we are encouraged to see confirmation… that the process for contaminated soils will continue to be regulated by other ministry requirements";
- "The threshold limits and conditions proposed… are unrealistic for [existing large fill sites associated with aggregate extraction] accepting large volumes of soil and which accept fill from a large number of source sites";

- "I do not believe the proposed regulation will effectively address the illegal and uncontrolled dumping which still exists in the [Lower Fraser Valley] region";
- "This process creates stigma that will limit the re-use of clean soil";
- "The [proposed notification] process sets up the potential for political interference from municipal governments and indigenous nations who may have objections to a project that are non-environmental in nature";
- "It [is] not clear the extent to which the proposed soil relocation requirements adhere to, or conflict with, existing municipal bylaws regarding soil transfers";
- "By limiting the proposed notification to sites with known Schedule 2 activity history, the ministry misses a great opportunity to address soil movement issues not directly under the EMA CSR mandate including illegal filling of ALR land, spread of invasive species, trucking traffic issues, ESC disturbances, destruction of archaeological sites, illegal dumping on indigenous lands, and disturbance of riparian areas. The proposed changes should manage the movements of all soil in BC, and not just this narrow scope of uncontaminated soil movements from Schedule 2 properties";
- "A common issue with contaminated soil relocation and/or management I often witness is the development of sites for which the previous owner obtained a risk-based Certificate of Compliance (CoC) (most common with former bulk plants, service stations and highway maintenance yards). The local government and new landowner/developer consider the site to be remediated with no further requirements but considerable soil management and relocation occurs during the foundation work of the new development. Again, this highlights a disconnect between the developer, local government and the CSR. The Soil Relocation Process should capture these sites given the known Schedule 2 but it should be explicit that a CoC does not exempt the requirements for soil relocation or the WD[R]";
- "[The proposed] requirements appear to be a complete duplication of research, planning and regulation by other regulators, we are asking… to exempt all provincially permitted construction aggregate (sand and gravel pits and quarries) mine sties from the proposed… regulation";
- "How does the Soil Relocation Process apply to MoTI contractors who seasonally remove soil/sediment from roadside ditches and deposited this soil wherever is convenient? This is particularly of concern in the Teck Trail wide area where I've witnessed such soils moved in a concerning fashion";
- "Our experience with various Site Investigations in the [Kootenay] region have identified naturally occurring metals greater than the CSR Standards (particularly Arsenic and Cadmium)… many of these potentially contaminated sites are not being identified by the Site Disclosure Statement process and therefore will likely not be captured by the soil relocation notification process"; and
- "Emergency responses, such as spills, are obligated by Federal and Provincial regulations to stop a leak as soon as possible and getting soil tested before moving it would significantly delay that process… it would be beneficial if the ministry considers to exempt the emergency response such as spills from the new soil relocation process."

1.1 General comments – additional suggestions

Some respondents supplemented general comments with specific suggestions for the ministry to consider. Most commonly, respondents suggested additional consultation, or formation of a "working group" to discuss specific measures to achieve ministry objectives and address issues associated with regulation of soil relocation in B.C.

Several respondents suggested additional measures to track movement of "uncontaminated soils", for example, including "additional information [such as] soil certificate of analysis and maps illustrating relocation sites… [to support] evaluating risk management and assessing impacts on Aboriginal rights and interests." Another respondent recommended "[more specific direction] on the amount of due diligence expected to ensure there [have been] no Schedule 2 activities on a site." The

respondent further noted that "the ministry's proposed [intentions] do not address additional soil movements that can cause contamination but do not originate from Schedule 2 activities, including movements of fill soils of unknown origin, movements from lands adjacent to salt-applied roadways, and from areas of high background concentrations."

Several respondents from both municipal government and industry commented on the proposed notification provisions and implications on workload (to review and assess notifications) for municipalities and Indigenous Nations, as well as for parties involved in relocating soil. One respondent, for example, suggested that "a higher threshold of 200 m^3 or more would be more realistic and will also reduce tracking requirements for municipalities and industry." Another respondent felt that "the voluntary notification system strikes a reasonable balance between diligent reporting and [the] practical limitations of oversight at such a wide scale." Another suggested that "the ministry reconsider if there is really a need for a notification at all."

Specific suggestions for the ministry to consider included:

- "Instead of adding an additional notification requirement, the province should mimic the system that [our company] has in place for fill site acceptance, and for other high volume fill sites. The receiving sites should be responsible for ensuring that their practices are not having an impact on the surrounding environment. For tracking purposes, we provide volumes, and reports to [municipalities] as part of our fill permits. These same documents can be provided to the province upon request";
- "The notification process should be fully automated under the submission";
- "Qualified professionals have the expertise and knowledge to make determinations on the risks associated with the relocation of uncontaminated material, or to deem that material is generally uncontaminated. The regulatory burden here may be excessive";
- "It is unclear how new requirements for notification will stop 'bad actors' from continuing to relocate potentially contaminated soil from Schedule 2 sites. It appears to us that the current rules would suffice if compliance was increased";
- "Please consider adding discretion for the Director to issue an exemption from individual notifications provided that an alternate process (permit or approval) is in place for uncontaminated soil relocation. With extensive maintenance and capital programs and existing stakeholder consultation in place individual notifications for uncontaminated soil seem overly onerous. Providing a process for a blanket permit or approval would address our administrative burden concerns";
- "It is unclear from the information in the intentions paper who or at what level within a First Nation should be notified about intended soil relocation… The ministry could consult with First Nations and Indigenous Services Canada to determine the appropriate notification process and timelines";
- "Tracking of soil relocation is recommended to prevent movement of contaminated soils on to the ALR as well as ensuring that operators are only depositing uncontaminated soils on sites authorized by the ALC to receive soils"; and
- "The process does not use a risk-based approach for low-risk soil, either by over-capturing or over-sampling large sites with localized Schedule 2 uses."

2. Comments regarding *Declaration on the Rights of Indigenous Peoples Act* in relation to the proposed regulatory changes

Specific comments received from Indigenous Nations or community members included:

- "[We] would like to remind you that the process of reaching this consent extends beyond the opportunity to comment on the Paper and allows sufficient time for our community to bring forward indigenous cultural values to help inform shared decision making in site selection. One such value is our cultural heritage. It is our belief that the

proposed short two-week comment period after a site has been selected does not afford the opportunity for meaningful consultation and does not allow for community processes to help inform decision making";

- With the exception of the proposed soil management plan requirements for high volume receiving sites... there is no explicit requirement for proponents to engage in meaningful communications with First Nations, or when evaluating siting for characteristics for a proposed receiving site and surrounding area to consider heritage/archaeological sites, and Indigenous knowledge of the area. Indeed, the proposed provisions do not consider impacts upon cultural and spiritual uses of areas, particularly those involving cleansing and purification activities and ceremonies, which can be impacted by even small amounts of relocated soil. Furthermore, analyses to determine protection of groundwaters again are predicated upon standards developed to protect the environment, not cultural concerns";
- "The lack of notification and hence tracking processes for exempt relocations could result in significant adverse impacts as certain areas receive soil as mapped and unmapped archeological sites could be disturbed by relocations of even completely clean soil"; and
- "Further clarification is needed to understand how First Nations will be notified and consulted meaningfully... [our] First Nation requires that it be provided with sufficient information (including soil source location and certificate of analysis) and time to review documentation and provide a meaningful response, in advance of soil movement onto its territories. As rights holders, First Nations must be consulted as such."

Other respondents commenting on this subject expressed "support [for] the implementation" or "agreement with the intent" of the *Declaration on the Rights of Indigenous Peoples Act*. Several respondents from companies and utilities noted related efforts being taken in their organization commenting, for example, that "[we are] taking steps within the context of our mandate to implement UNDRIP."

Specific comments (from respondents who did not identify as indigenous) included:

- "We concur that EMA should be amended to include notification & informed consent for handling, transport, treatment and disposal of Hazardous Waste and waste in traditional territories under Provincial Jurisdiction";
- "The proposed notification and engagement process targets non-hazardous soil and appears to overreach the intent of Article 29. A better approach may be to just record the soil movements passively on a public registry and interested parties can look up soil movements if they have concerns and wish to confirm the soil quality and source site";
- "Providing notifications suggests that the indigenous people have some level of claim to the lands but giving them no mechanism to respond to the notifications or stop the soil movement makes it clear that they do not have any REAL rights to the land";
- "The proposed changes are long overdue";
- "We feel that it is fair and honest to provide full transparency of soil relocation to reserve lands. First Nation communities should have full understanding of what they are accepting prior to relocating soils to Reserve Land. Notification seems justified for relocation of soils to reserve lands, as separate standards apply between the CSR and CCME. Soils could meet CSR standards, but fail to meet the incoming CCME guidelines applicable to the receiving site";
- "We would expect that a public database of community location and contact is available in GIS format for ease of location identification and communication. In addition, we feel this is the ministry's responsibility to notify and consult with these communities. It is unrealistic to expect private landowners to be responsible for this";
- "We are of the view [that] notification by the ministry for relocation of uncontaminated soil should be sufficient to meet the intent of Article 29. This will allow the ministry to assess whether a specific instance of soil relocation may raise a concern that "hazardous materials" are being stored or disposed of contrary to Article 29. The Province has the best understanding of its own mapping database, the extent of the traditional territories, and has existing contacts

within the Indigenous Nations… since mandatory notifications will impose a considerable administrative burden on Indigenous Nations, there should be a strong, defensible justification that such a process is necessary to achieve the intent of UNDRIP";

- "Our members would also like to reiterate the need for the ministry to provide any notice to First Nations – not proponents. We note that the Ministry of Forests, Lands, Natural Resource Operations & Rural Development is responsible for these types of notifications under the *Water Sustainability Act*. To be consistent, we suggest the Ministry of Environment and Climate Change Strategy do the same";
- "Will Indigenous communities and Nations have a mechanism for preventing soil relocation if they do not agree with a proposed project[?]"; and
- "The availability and accessibility of the Consultative Areas Database layer on iMap and the regional contacts from MIRR will be key elements to a successful implementation of the proposed changes."

Ministry Intentions

3. Comments regarding the proposed soil relocation notification process for the relocation of uncontaminated soil – Intentions Paper section 4.1

Many respondents commenting on this topic expressed concern that the proposed notification process for relocation of uncontaminated soil would pose additional costs and delay development projects. One respondent, for example, expressed concern that "the proposed process will create significant additional administrative challenges, additional costs, and staff resources with enhanced planning and record management for notifications to multiple parties and follow-up as needed – this is more process than is currently done for contaminated soil relocation."

Several respondents, including development industry associations, noted their support for "the proposal of a provincial registry to make the relocation of soil more transparent to the public, municipalities, First Nations, and other stakeholders." However, respondents also expressed "concern that the Ministry lacks the resources and experience to administer and maintain a registry." Other respondents, voiced "significant concerns associated with posting information and intent of soil relocation… in advance of soil being relocated" commenting that "this effectively opens up a public consultation process each time soil needs to be relocated."

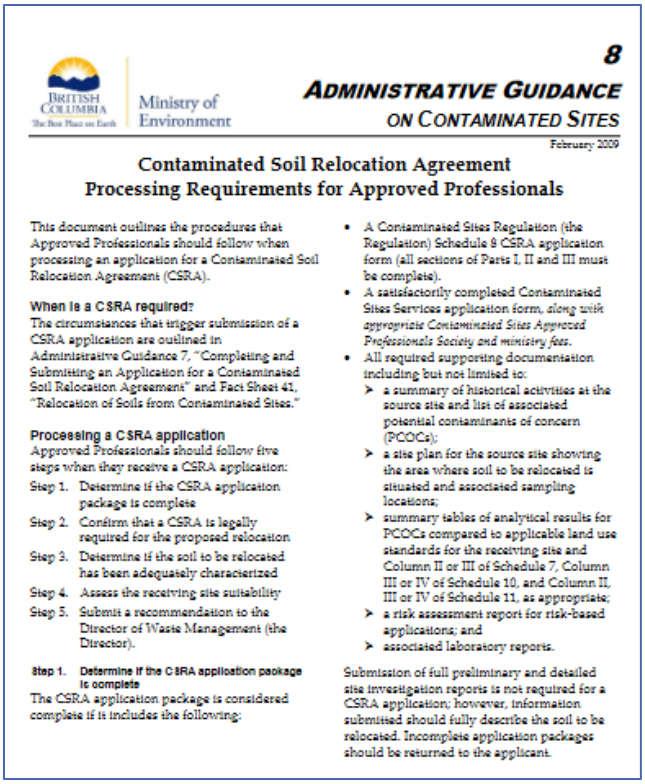
A number of respondents requested "clarification" of ministry intent, on various aspects of the proposed notification process. Subjects on which clarification was requested or questions posed to the ministry included: "the timelines for the notification process…and what information will be provided"; "what the ministry means by 'notification'… [i.e.,] will there be opportunities for… First Nation[s] to engage meaningfully to assess and address impacts to Aboriginal rights and interests"; "what will happen if a notified party opposes the work in question"; "who will certify that the investigation was done adequately?"; "[requirements for] larger sites [that] may have Schedule 2 activities that are not in proximity to the subject soils"; "[process for] soil relocation projects that will be active when the changes take effect"; "the rationale for implementing a two-week notification period… since most larger municipalities already have bylaws detailing the permitting and approval requirements for soil transfers"; and "[whether the intention of the proposed notification process] is to, simply notify, or consult First Nations… [and also] what ability municipalities and or First Nations government may have to appeal the movement of uncontaminated soil from a Commercial/Industrial site."

Respondents noted their "understanding and agreement with the ministry on the desire for better oversight on soil relocation in B.C. to prevent the unwanted or unreported relocation of contaminated soils… [and] that proper TG1 characterization of soils prior to relocation is warranted to confirm the location [of] clean soil on brownfield sites." Recommendations or advice for the ministry included:

- "The proposed process needs to be clear, consistent and timely, and not become an administrative or financial hardship for source sites";
- "This is an important initiative that we believe can be made more workable by: allowing for an exemption for soils meeting CSR residential land use (RL) from the process; [and] in lieu of the 2-week notification process, setting up a process in Public Registry which would afford accessibility to cities, municipalities, and first nations";
- "[Consider] a much larger minimum quantity exemption… [in] alignment with Technical Guidance #1 and the 250m^3 suspect industrial quality maximum stockpile size. This would enable more focus for stakeholders on fewer and higher risk soil relocations";
- "By limiting the proposed notification to sites with known Schedule 2 activity history, the ministry misses a great opportunity to address soil movement issues not directly under the EMA CSR mandate including illegal filling of ALR land, spread of invasive species, trucking traffic issues, ESC disturbances, destruction of archeological sites, illegal dumping on indigenous lands, and disturbance of riparian areas. The proposed changes should manage the movements of all soil in B.C., and not just this narrow scope of uncontaminated soil movements from Schedule 2 properties";
- "If uncontaminated soils are relocated to the ALR the ALC [should be] included in the notification process as these materials cannot be deposited without prior authorization from the ALC as per the *Agricultural Land Commission Act*"; and
- "For the purposes of 'site' identification or classification… an exemption or process should be considered for large sites to define a project area using a qualified professional and appropriate site assessment approach."

3.1 Comments on use of existing regulatory tools and ending the use of Contaminated Soil Relocation Agreements (CSRAs)

Respondents commented that CSRAs are "rarely used" and "complicated and expensive" noting, for example, that "the movement of contaminated soil has been regulated through other regulatory tools" and that "ending the use of CSRAs is long overdue." Several respondents commented on the importance of "continued access for contaminated soils to licensed and permitted waste management and hazardous waste facilities (as described in the Intentions Paper), [and] continued use of authorizations and Approvals in Principle (AiP)," as well as voicing "support [for] use of the Contaminated Sites Regulation to regulate movement of contaminated soils."



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BRITISH COLUMBIA — Ministry of Environment

ADMINISTRATIVE GUIDANCE ON CONTAMINATED SITES

February 2009

Contaminated Soil Relocation Agreement
Processing Requirements for Approved Professionals

This document outlines the procedures that Approved Professionals should follow when processing an application for a Contaminated Soil Relocation Agreement (CSRA).

When is a CSRA required?
The circumstances that trigger submission of a CSRA application are outlined in Administrative Guidance 7, "Completing and Submitting an Application for a Contaminated Soil Relocation Agreement" and Fact Sheet 41, "Relocation of Soils from Contaminated Sites."

Processing a CSRA application
Approved Professionals should follow five steps when they receive a CSRA application:

Step 1. Determine if the CSRA application package is complete
Step 2. Confirm that a CSRA is legally required for the proposed relocation
Step 3. Determine if the soil to be relocated has been adequately characterized
Step 4. Assess the receiving site suitability
Step 5. Submit a recommendation to the Director of Waste Management (the Director).

Step 1. Determine if the CSRA application package is complete
The CSRA application package is considered complete if it includes the following:

- A Contaminated Sites Regulation (the Regulation) Schedule 9 CSRA application form (all sections of Parts I, II and III must be complete).
- A satisfactorily completed Contaminated Sites Services application form, *along with appropriate Contaminated Sites Approved Professionals Society and ministry fees.*
- All required supporting documentation including but not limited to:
  - a summary of historical activities at the source site and list of associated potential contaminants of concern (PCOCs);
  - a site plan for the source site showing the area where soil to be relocated is situated and associated sampling locations;
  - summary tables of analytical results for PCOCs compared to applicable land use standards for the receiving site and Column II or III of Schedule 7, Column III or IV of Schedule 10, and Column II, III or IV of Schedule 11, as appropriate;
  - a risk assessment report for risk-based applications; and
  - associated laboratory reports.

Submission of full preliminary and detailed site investigation reports is not required for a CSRA application; however, information submitted should fully describe the soil to be relocated. Incomplete application packages should be returned to the applicant.

Respondents provided a number of additional detailed comments or suggestions on this topic, including:

- "After the Omnibus changes in November 2017… opportunities [for relocation of soils with concentrations greater than Schedule 7 (or AL) to sites for beneficial reuse] became substantially smaller as [the] Arsenic standard in soil was reduced from 15 ug/g to 10 ug/g for most sites in B.C. (as the soil standard protective of

drinking water standards is applicable on the majority of sites)... therefore, soil is currently either classed as waste (which ends up in permitted sites/landfills as cover) or AL";
- "[If there are not existing provisions in] the Waste Discharge Regulation to accommodate soil movement under the 'Contaminated Site Contaminant Management' category to assist in streamlining the process... an alternative to issuing an approval or permit would be to include 'Contaminated Site Contaminant Management' under a Code of Practice and move it from Schedule 1 to Schedule 2";
- "The ministry [needs to be] adequately staffed to make sure rules are followed";
- "There needs to be a regulatory tool that addresses movement of soils within areas of high background concentrations. Existing regulatory legal instrument costs (minimum $200K) make soil movements within areas of high background concentrations cost prohibitive. The implications of this are that large volumes of soil are diverted to landfills, and land is not raised in preparation for sea level rise. Additionally, there is a strong incentive not to test for background contaminants prior to soil movement";
- "Replacing [CSRAs] with other complicated and expensive processes that will rarely be used is probably not a significant change"; and
- "Ensure that soil standards for agricultural land are always used for sites located in the ALR regardless of the current activity as agriculture is the priority use. If contaminated soils exceed agricultural standards these materials must not be placed in the ALR."

3.2 Comments regarding the ministry's proposal to include federal reserve lands in the notification process

Respondents commenting on this topic were commonly supportive of including federal reserve lands in the notification process. For example, one respondent commented that "it makes sense to treat all lands within B.C. the same way" and another felt that "reserve lands should be included, or these lands run the risk of being a soil deposit destination of projects that wish to avoid the new soil movement requirements."

An indigenous respondent commented that "two weeks notification to [our Nation] is not sufficient time – I will suggest this process would be at a minimum Category I Referral." One respondent expressed concern that "Indigenous Nations [may not have] been consulted adequately on these proposed legislative changes" as "there are Indigenous Nations who receive non contaminated soils on their reserve lands to raise site elevations for flood protection and preparation for future development, [as well as] other Indigenous Nations [that] have already developed some areas of their reserve land post filling." Another respondent commented that "the registry... [proposed for public posting of notification information] is often referred to as the contaminated sites registry.... [and] the inclusion of a site on this registry, simply because it received clean or uncontaminated soil from a Schedule 2 site may result in unjustified negative stigma and impact the value or development options for this property."

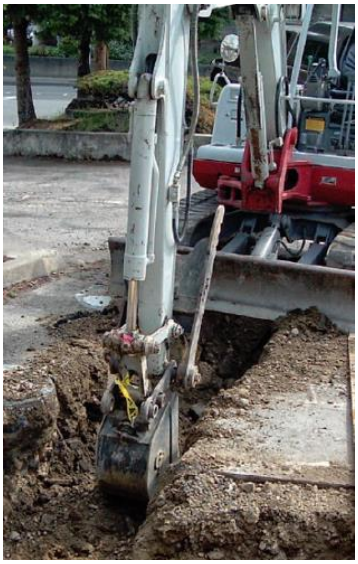
Related comments or questions for the ministry to consider included:

- "If the new legislation will result in a more level playing field, the regulated industry would fully support such a move";
- "Has the Province consulted with Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) to confirm that they want and or will allow Federal land, which is generally exempt from Provincial jurisdiction, to be placed on the Province's Site Registry?"; and
- "Will the relocation standards for such a receiving site be provincial or federal?"

3.3 Comments regarding the proposed exemptions to the notification process

1. For uncontaminated soil that is to be relocated outside the province

Several respondents noted that they are "in agreement" with this proposed exemption. One respondent recommended replacing "the word 'province' with 'Jurisdiction', as federal (non-reserve) land is exempt from CSR requirements, as are out-of-country waste sites such as in Washington State."



2. When the volume is less than 10 cubic metres per job

Respondents working in industry frequently commented that the proposed volume of 10 cubic metres per job is "too low" and would result in "over-capture, unnecessary delays [and/or] excessive administrative paperwork." Suggested alternatives included: "further consultation with excavation contractors and the development industry [to establish an appropriate] "risk-based process"; "200 m^3 or more"; "50 m^3"; and "250 m^3." Some respondents expressed support for the proposed volume exemption and one respondent commented that "we believe this threshold is still too low to meet the desired rationale."

3. For applicable "preload" situations

Several respondents commented that "preload is often transferred from site to site, so the 'originating' site details may not be known." Other comments on the subject of preload included: "

- "The proposed exemption for preload projects is not justified. If the preload is sourced from a commercial or industrial site it should be captured by the notification process. If the preload originates from a site without Schedule 2 activities it is exempt and that should be sufficient relief without a special exemption"
- "The 'preload' exemption is too narrow and would require notification from aggregate (sand and gravel) operations that have Schedule 2 activities well away from their extraction areas. To resolve this, the exemption should also include relocation of construction fill from lands within a site where no Schedule 2 activities have occurred, as defined in a Mine Development Plan authorized under the *Mines Act*"; and
- "What about potential for chloride – at least in 'fresh' dredged material? Captured in beneficial use? If so, what about after preload is removed?"

Recommendations or requests for additional exemptions

Several respondents noted additional situations where they felt that exemptions were warranted. Examples of respondent recommendations for exemptions included:

- "There should be an explicit exemption for soils relocated to a facility authorized under either EMA or the *Mines Act*, as they will often accept uncontaminated soils for use as cover material with a separate soil tracking process";
- "An exemption is required... for temporary storage sites for municipal projects from non-Schedule 2 sites, such as road or utility maintenance. Many municipalities temporarily move soil from non-Schedule 2 sites (e.g., roadways) to their facility and then reuse the soil as fill for road/utility or other projects";
- "We strongly recommend that municipal yards and operations be added to the exemptions... the proposed policy changes will have significant ramifications to municipalities' yard operations. In order to maintain the City's infrastructure and services to the community, hundreds of cubic meters of material are being trucked in and out of the municipal work yards at any given time. The volume limitation, sampling and notification requirements would be too onerous on the municipality to maintain a cost-effective operation and quality services";

- "[There should be exemptions for] uncontaminated soil from areas on Schedule 2 use sites that have been investigated as per the CSR and Protocols, disposal to a licensed soil remediation contractor, disposal to a permitted landfill, [and] spill response";
- "[Add] another exemption from updating the Registry (or providing notice) for proponents moving soils from Schedule 2 sites in cases when the soils have been characterized by an Approved Professional as being of residential quality or better";
- "Movement of rock greater than 2 mm in diameter";
- "Quarries and other large parcels (e.g., municipal parks) that only have a Schedule 2 use on a small portion of the site, but there has been no Schedule 2 use in the vicinity of the soil or contamination has been delineated and does not extend to the area of soil removal... (all the undisturbed area beyond the metes and bounds should not require characterization/notification if there has never been industrial activity in the area)"; and
- "Uncontaminated soil movement to a permitted landfill (e.g., Vancouver landfill accepting soil cover) that is not captured in other [ministry] processes."

4. Soil Relocation Notification and Certification Form – Intentions Paper section 4.2

4.1 General comments regarding the proposed form

Several respondents noted support for electronic submission and/or "automatic notification of the local municipality and Indigenous Nation." Other respondents however, reiterated their concerns regarding the need for a notification process (and associated form) for "clean" soil commenting, for example, that "if the uncontaminated soil relative to the applicable soil standards of the source site is moved to a landfill or a permitted facility, is the notification form or process still required?"

Specific comments or questions for the ministry included:

- "As the volume of soil needs to be stipulated, and as the volume of soil to be moved is not always known at the start of a project, when notification is given, this volume will often be an over-estimate of actual volumes";
- "What about sites regulated by OGC and MEMPR?";
- "[Our municipality] does not want to receive a notification form and does not want to manage the administration of it. This should be the Province's responsibility. This proposed change will significantly impact our administrative workload for negligible environmental benefit";
- "It is unclear what is meant by the 'association between source and receiving sites' on the proposed form";
- "Some proponents are indicating they will provide notice for multiple, potential receivers to allow flexibility and options during construction. Is this allowed? Would there be a process to rescind or update a notification in the event no soil is actually received (something akin to a Notification of Independent Remediation Completion)?";
- "It is unclear how linear project crossing sites historically occupied by Schedule 2 activities will be handled (lat/long, volume per site, etc.)";
- "Use of an online notification form is encouraged but should include email verification to avoid errors and the generation of duplicate SITE IDs"; and
- "An opportunity to comment on the draft notification form would be appreciated."

4.2 Comments about information that should be included in the notification form

A limited number of comments were received on this topic. Several respondents noted that "the suggested content seems reasonable." Specific suggestions for the ministry included:

- "Information on the project or the trigger for why the soil is being relocated as it would allow for the respective parties to tie the relocation to their other records for the project";
- "Information about the nearest waterbody to the receiving site include the name and distance would be helpful to review the risks of soil reception";
- "The form could indicate which regulatory standards have been met – this could be relevant if land uses change in the future";
- "Form should require that the title / date / author of supporting reports be provided. For example, Stage 1 report used to identify Schedule 2 activities, and soil characterization reports for soil quality";
- "The form should ask for a contact email addresses for the owner(s) of both the source and receiving sites so they may be sent confirmation emails when a notification is submitted. The confirmation emails should include information and ENV contact links so the source/receiving site owners can take action in case erroneous data is submitted";
- "The form should include the list of municipalities and First Nations to be notified and send notices via email to the respective local governments/Nations when the notification is submitted";
- "The form should include required signed statements regarding presence/absence of archeological significant areas, invasive species, background concentrations of contaminants, and deposit location in the ALR"; and
- "Include type and texture of surficial materials (e.g., gravelly sandy loam till deposits, stone-free silty loam floodplain deposits) – this will ensure that soils deposited in the ALR are homogenous and stone free if required as a condition of ALC approval."

4.3 Comments regarding the site registry

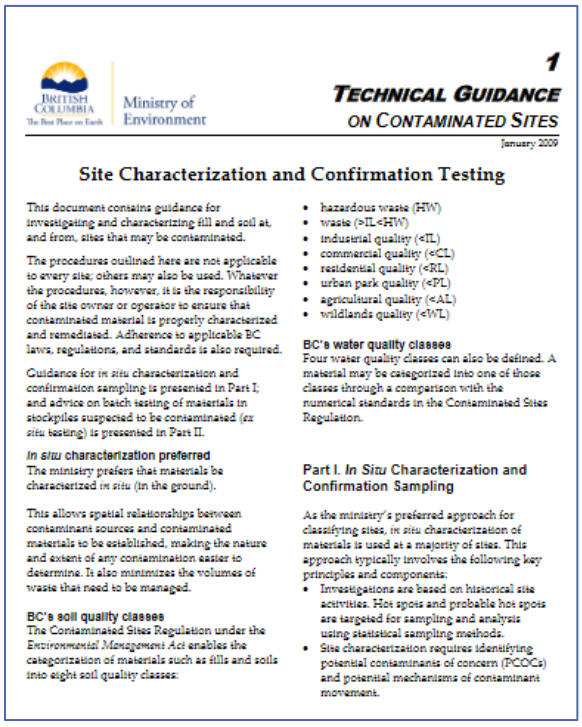
Many respondents commenting on this topic noted that inclusion of sites from the notification process will "greatly expand the [current 'contaminated'] site registry with many additional uncontaminated sites." Respondents commonly emphasized the importance of having clear "distinguishing identifiers" or "different naming/numbering conventions" to easily differentiate between "clean" and "contaminated" sites, and to support understanding and effective use of the registry. Some respondents expressed concern that "properties on the registry can be viewed as a liability and... placing non-contaminated properties on the registry... could have a negative valuation on the land for no reason." One respondent noted that "the potentially useful data set [could] reduce the [number] of Areas of Potential Environmental Concern (APECs) with 'fill of unknown quality' that currently need to be investigated."

Additional comments and questions for the ministry included:

- "How will the site registry function for federal lands with legal lots that define a substantially sized area? Will there be a way to define an area within a lot?";
- "Will multiple notifications for a source or receiver site result in multiple registered sites for that property?";
- "Is this going to be retroactive where sites made before this will be listed? If not, it should be";

- "There is the potential that many federal sites such as Ports, Military bases, Coast Guard facilities etc., that have been used for Schedule 2 activities and generate uncontaminated soils would be placed on the registry…has the Province consulted with other departments of the Federal Government to confirm that they will allow the Province to act in a regulatory function on land owned by the Federal Government?";
- "Does [the ministry] have an estimate of how many new sites could be generated with this new notification process?";
- "There is currently a fee to access information in Site Registry – please provide clarity as to whether there will there be a fee for users to look up information for uncontaminated soil"; and
- "There is also concern that the Ministry lacks the resources to administer and maintain a registry."

5. Soil Testing Requirements – Intentions Paper section 4.3



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BRITISH COLUMBIA The Best Place on Earth | Ministry of Environment

TECHNICAL GUIDANCE ON CONTAMINATED SITES

January 2009

Site Characterization and Confirmation Testing

This document contains guidance for investigating and characterizing fill and soil at, and from, sites that may be contaminated.

The procedures outlined here are not applicable to every site; others may also be used. Whatever the procedures, however, it is the responsibility of the site owner or operator to ensure that contaminated material is properly characterized and remediated. Adherence to applicable BC laws, regulations, and standards is also required.

Guidance for *in situ* characterization and confirmation sampling is presented in Part I; and advice on batch testing of materials in stockpiles suspected to be contaminated (*ex situ* testing) is presented in Part II.

***In situ* characterization preferred**

The ministry prefers that materials be characterized *in situ* (in the ground).

This allows spatial relationships between contaminant sources and contaminated materials to be established, making the nature and extent of any contamination easier to determine. It also minimizes the volumes of waste that need to be managed.

BC's soil quality classes

The Contaminated Sites Regulation under the *Environmental Management Act* enables the categorization of materials such as fills and soils into eight soil quality classes:

- hazardous waste (HW)
- waste (>IL<HW)
- industrial quality (<IL)
- commercial quality (<CL)
- residential quality (<RL)
- urban park quality (<PL)
- agricultural quality (<AL)
- wildlands quality (<WL)

BC's water quality classes

Four water quality classes can also be defined. A material may be categorized into one of those classes through a comparison with the numerical standards in the Contaminated Sites Regulation.

Part I. *In Situ* Characterization and Confirmation Sampling

As the ministry's preferred approach for classifying sites, *in situ* characterization of materials is used at a majority of sites. This approach typically involves the following key principles and components:

- Investigations are based on historical site activities. Hot spots and probable hot spots are targeted for sampling and analysis using statistical sampling methods.
- Site characterization requires identifying potential contaminants of concern (PCOCs) and potential mechanisms of contaminant movement.

Respondents provided substantive and detailed technical comments on this topic.

Many respondents commented on use of the ministry's Technical Guidance #1 (TG1) document. One respondent, for example, noted that "TG1 does not provide guidance for sampling a clean site or clean soil stockpile" and that "[the costs and] environmental impacts of excessive soil sampling of clean sites or soils going to landfill would be in direct contradiction [to the ministry's objectives for the proposed revisions]." Another respondent commented that "TG1 is out of date (12 years) and provides too much flexibility in deciding what is an appropriate level of investigation." Several respondents requested clarification regarding whether "PSI-level soil testing frequency [would be considered] sufficient (per Part 1 of TG1), or [whether the ministry expects] soil to be tested at the ex-situ frequencies provided in Part 2 of TG1." A respondent noted that "TGD-1 provides several methods of characterizing soil (PSI-grid sampling, stockpile sampling, step out sampling, etc.)" and asked "What is the appropriate method to confirm soil quality at a Schedule 2 site to facilitate relocation?" Another respondent commented that: "TG1 is meant for assessing and remediating suspect or known contaminated sites [and is] not designed to assess the bulk excavation of soils from a site where no contamination has been identified or where remediation has been successfully completed (and demonstrated with confirmatory sampling)."

Respondents also provided suggestions or requested clarification regarding certification and auditing of testing. Related comments included: "the regulations should require that analytical laboratories performing soil test follow ISO/IEC 17025 standards for the competence of testing and calibration laboratories"; "the ministry needs to step in and test when there is an ounce of doubt about what is in the soil"; "who is qualified to determine if TG#1 has been sufficiently followed for a site – will this be audited?"; and "please provide additional information on random compliance audits such as frequency of audits, whether audits will be conducted at the notification stage or after relocation has taken place, the general process for the audit; and steps/outcome if an audit finds an issue(s) with compliance."

Additional comments included:

- "If TG1 is included within legislative changes, the testing requirements for uncontaminated native soil outside of or below suspect fill and contaminant areas should be reduced by using a risk-based approach and subject to professional judgment";
- "If soil must be sampled as a grid at multiple depths throughout the entire site, the cost of sampling will be excessive – the result will be that it is cheaper to dispose of soil at landfills than to re-use perfectly clean soil";
- "[Our company] already requires soil testing and review by a QP for all incoming soils to our fill sites. We do not make exceptions for soils from properties within residential, agricultural or wildlands standards. [We] reference TG1 in our fill site acceptance criteria and are of the opinion that all high-volume fill sites should require similar testing requirements to ensure that clean soils are accepted in fill sites";
- "Ensure that soil standards for agricultural land are always used for sites located in the ALR regardless of the current activity as agriculture is the priority use";
- "How will [the ministry] know whether the parameters are correct unless they also critically review a current Stage 1 PSI?";
- "How does [the ministry] envision that volume will be derived for reporting/compliance purposes? What margin of error is acceptable, particularly in light of the penalties and compliance and enforcement efforts that are being highlighted by [the ministry] as part of the consultation process?";
- "Consider lowering a minimum sample ratio requirement based on a Phase 1/Stage 1 10";
- "According to TG1, one in-situ discreet sample is 'worth' or representative of $10m^3$. Therefore, soil characterization tends to be ex-situ, which will be time consuming considering excavation, sampling, analytics, and a two-week comment period; this will ultimately drive proponents to divert smaller volumes to the landfill. For larger sites, it's expected that the cost-benefit of the two-week waiting period will remain in favour of notification, but the two-week waiting period may have unattended side effects";
- "There is no reference to Technical Guidance in the legislation. Perhaps the changes to the legislation could be worded that soil removal (contaminated or uncontaminated) from a commercial/industrial site with a Schedule 2 activity cannot be undertaken unless a Preliminary and if necessary, a detailed site investigation has been conducted and reports must include professional statements in accordance with Section 63";
- "If the intention is to capture sites which could potentially be contaminated and confirm soil quality prior to movement, should the focus not be on conducting a Stage 1 PSI to identify APECs and a limited Stage 2 PSI to confirm or refute contamination in areas undergoing excavation?"; and
- "[The Intentions Paper] references concerns that receiving sites may have accepted contaminated soil. Can [the ministry] elaborate on who has raised the concerns? Have current compliance measures proven inadequate? Is this issue so pervasive as to warrant the proposed amendments?"

6. Notification of Municipal Governments and Indigenous Nations – Intentions Paper section 4.4

6.1 Comments regarding notification of municipal governments

Six of the of the 61 respondents commenting on the Intentions Paper, were from municipal governments. Two of these respondents provided explicit comments regarding notification of municipal governments. One noted that "the management of potentially contaminated soil movements from Schedule 2 sites is trusted to the Province... [and that our municipal] staff

expect that review and regulation will be handled at a provincial level." The respondent continued with the suggestion that the proposed notification process (limited to sites with known Schedule 2 activity history) "misses a great opportunity to address soil movement issues not directly under the EMA CSR mandate" and that "proposed changes should manage the movements of all soil in BC, and not just this narrow scope of uncontaminated soil movements from Schedule 2 properties." The second municipal respondent expressed "concern that the Province is relying too heavily on municipalities to review these notifications to regulate soil movement on its behalf… [our city] does not want individual notifications sent directly to us… [and] also does not want to be fielding questions from the development community… which WILL happen during the 2-week notification window."

The majority of respondents commenting on this topic worked in industry that involves relocation of soil. The most common concern among this group of respondents was the proposed two-week notification period (before relocation of soil). Respondents raised questions and concerns regarding: the value and purpose of notifying municipalities about the movement of "uncontaminated" soil; the capacity of municipalities to review notifications in a timely manner; duplication with existing municipal bylaws; and uncertainty regarding the process for resolving "objections" or addressing information requests from municipalities following submission of notifications. A common concern raised by respondents in this group was the difficulty of identifying specific receiving sites and volumes of material that would be received in advance of the movement commenting, for example, that "in many cases, excavation projects will likely file multiple notifications for multiple potential receiver sites at the start of the work so that they have multiple options / backups."

Several respondents provided recommendations for the ministry to consider on this topic, including:

- "Consider the model that BC One Call has implemented with an option for accelerated notification (i.e., 1-2 days notice). Perhaps the accelerated notification option could be volume dependent";
- "The Province should provide municipalities free access to the Site Registry and/or the notifications that affect them… [and] the Province should be sufficiently resourced to field questions, monitor compliance, and enforce the regulation [and] update as required.";
- "We suggest that further direct consultation with municipalities be conducted and that [the ministry] also consider municipalities to have a voluntary opt out of the notification process";
- "[Our organization] suggests that further discussion with municipalities and Indigenous Nations are warranted to confirm processes, resourcing, understanding and response expectations. Level of approval and jurisdictional authority should be clearly stated so that it is equally applied and understood";
- "[We] recommend… including the Agricultural Land Commission (ALC) [in notification requirements]… [and also] a cap on the volume of soil that can be imported on a site located in the Agricultural Land Reserve even if the soil originates from so-called 'jobs' – this would help the ALC to protect farmland and combat illegal dumping"; and
- "Consider developing guidance or a portal for municipalities such that information and details are consistent across B.C."

6.2 Comments regarding notification of Indigenous Nations

Five of the of the 61 respondents commenting on the Intentions Paper, self-identified as an Indigenous Nation or community member. Respondents in this grouping, and participants in information webinars noted that the Intentions Paper communication and comment process did not constitute formal consultation or engagement with First Nations. One respondent from an Indigenous Nation provided detailed comment on the topic of notification. The respondent noted that "it is essential that [our Nation] be notified of all relocations within its Traditional Territory so it can determine the need to conduct applicable surveys to determine potential impacts to archeological or cultural sites or indicators before relocation

occurs." However, "notification through a reporting system does not equal free, prior and informed consent." The respondent commented that:

> "The proposed reporting system appears to put the onus on First Nations to ascertain if there is a notice of relocation. Also, it puts the onus on the person responsible for submitting the form to the ministry to ensure the appropriate First Nations are identified in the notification process. The ministry appears to play no role in ensuring First Nations are notified. It is our contention our community needs to be contacted for all proposed projects that fall within our unceded territory. The Consultative Areas Database indicates our territory, and we see only one mention of it, with wording suggestive use is optional… providing a minimum of 14 days' notice… is insufficient time to conduct reviews for important sites and activities that might be compromised by receiving soil. A minimum of thirty days is required. [Our Nation] has a community process, particularly where we must consult our knowledge keepers about cultural values. Second, even the Province finds it difficult to ensure all applicable First Nations are informed of proposed actions; it will be even more difficult for others. The Paper notes "The responsible party will be able to use publicly available resources…to identify which Indigenous Nation(s) to notify." A quick check of iMap indicated it was easy, as there was a specific layer, to find reserves and which First Nation was associated with the reserve. However, no contact information was provided. Conversely, the process to determine which First Nations' traditional territory would be impacted by soil relocation is more difficult. No layer is available, instead a person must fully follow a series of steps, which are not obvious…It is suggested that these instructions be brought forward and be prominently displayed…The process of determining if the correct notification has been sent to First Nations would be helped if the registry contained two categories for First Nation notification; (1) one that lists the First Nations to be notified for work on or near a reserve; and (2) one that lists First Nations notified if soil relocation is proposed in their Traditional Territories. Ideally, the registry should automatically generate a list of First Nations to be informed by category simply by the applicant entering the location of the sites to receive soil and automatically forward the notifications to applicable First Nations. [Our Nation] also would like to remind you that throughout our province there are many nations with overlapping territories. Shared use areas require full and meaningful consultation with all impacted nations. Engagement must be equal and without any pre-determinations of strength of associations to areas based on current reserve locations. The history of our reserve creation is complex, and many important places were not reserved."

Comments from other respondents on this topic, included:

- "The ministry should conduct sufficient engagement with Indigenous communities to ensure that they have the opportunity to provide feedback on this process. This proposed notification process would place a significant administrative, staffing and cost burden on both parties. We request that the ministry develop and provide a single electronic portal website to facilitate a one-window notification of Indigenous communities.";
- "Indigenous Nations rightly consider themselves caretakers of the land and this extends well past the boundaries of the reserve lands. [We] would recommend further consultation to determine if their interests regarding notification extend to a greater extent (i.e., Traditional Lands). It should also be clearly identified that the notifications are with respect to non-contaminated soils to allow them the opportunity to determine whether they wish to stretch their already thin review resources to this activity";
- "The ministry could consider further emphasis on early engagement with potentially affected First Nations, and the ministry should consult with Indigenous Services Canada to ensure appropriate notification timelines for Indigenous Nations";

- "If different nations want different notification requirements, this will cause confusion and inconsistency… there needs to be clarity with regards to lands or territories, otherwise soil movement may require numerous notifications and touchpoints";
- "A requirement to notify, but only a suggestion to consult. How is that reconciliation?";
- "Engagement and acknowledgement can be a meaningful step towards reconciliation";
- "Is the province sure that the municipality and the first nations will have the qualified professionals to review the technical reports that may be accompanying these notifications? Without a QP, these notifications may be raising undue concern on sites seeking to relocate soil that have appropriate soil qualification, or delineation that ensures that the soils are clean and meet the land standards of the receiving site.";
- "Has capacity funding been considered?";
- "This process should be automated with the submission of the form to avoid missing notifications and additional work by the person submitting the application";
- "We agree that Indigenous Nations should have the option to specify which of their lands they are interested in receiving a soil relocation notification";
- "From discussions with some First Nations in the Lower Mainland it appears that some believe this change will result in a requirement to consult them and that they will have the ability to block or delay the movement of soil not only to their reserve land but between privately owned land within their traditional territory";
- "[Our organization] understands and supports the inclusion of jurisdictional and reserve lands in the notification process. However, we can foresee that the inclusion of traditional (unceded) territories could create confusion and overlapping requirements, since some areas in the province of B.C., including the Lower Mainland, have areas that are claimed as traditional territories by more than one Indigenous Nation";
- "Some readers of the intentions paper interpreted the Indigenous Nations notification as applying to those nations where the soil will pass through. While the Intentions Paper is fairly clear, it might help to clarify that notification does not apply for locations along the transport route"; and
- "(1) Having the notification apply to traditional territories, not just reserves, treaty or title lands, would create an excessive administrative burden on both Indigenous Nations and on our company… [and] (2) If the activity that prompts the removal of uncontaminated soil triggers the duty to consult, we already notify Indigenous Nations. This applies to both capital projects and maintenance programs. In addition, where First Nations have informed our company that they would like us to notify them of work regardless of whether the duty to consult is triggered, we have mutually agreed-upon processes in place with those Nations. These processes involve working closely with our Environmental staff so that Indigenous Nations are informed of erosion and sediment control practices, as well as other soil management best practices. We request a regulatory mechanism be included to allow for exemptions where a company can demonstrate an equivalent level of alternate notification approved by the Director."

6.3 Comments regarding notification of Indigenous Nations and high-volume sites

Five of the of the 61 respondents commenting on the Intentions Paper, self-identified as an Indigenous Nation or community member. Respondents in this grouping, and participants in information webinars noted that the Intentions Paper communication and comment process did not constitute formal consultation or engagement with First Nations. Two respondents from Indigenous Nations provided comment on this topic.

One indigenous respondent commented that: "for high-volume receiving sites, a two-week notification period to review the proposed soil movement may be insufficient. It is recommended that… the notification period be extended to three-week[s]…

to allow for a deeper level of consultation and review. If upon receiving a referral, significant impacts or concerns are identified, we request that the process be flexible to deepen the level of consultation, consistent with the Province's consultation policy "Updated Procedures for Meeting Legal Obligations when Consulting with First Nations."

The second indigenous respondent provided substantive comments and expressed concern regarding "cumulative impacts of soil relocation below threshold reporting volume." The respondent also provided comment on "informed consent – the process by which First Nations can state a lack of consent to a soil relocation proposal is not articulated in the paper. Not only will a considerable amount of soil be relocated into [our Nation's] territory with no notification, for those relocations for which [our Nation] is aware, no process is listed for [our Nation] to indicate it might not consent to such proposed relocations. Notification without the ability to express a lack of consent is not reconciliation. Any person proposing to relocate soil within [our Nation's] Traditional Territory should be required to submit a referral to [our Nation] using its established referral processes and understand there could be timing restrictions to avoid or minimize effects on ceremonies, practices, and cultural uses, or that consent might not be granted."

Other respondents commenting on this topic commonly referred to their concerns or suggestions provided in relation to notification of Indigenous Nations (summarized in the previous section). Additional specific comments included:

- "Notification sets up expectations of consultation and veto that may ultimately undermine the ability to re-use uncontaminated soils";
- "1.5 km distance for the high-volume receiving sites may be acceptable, however the notification process distance of 1 km for low volume receiving sites seems too great for locations receiving small volumes of clean fill material";
- "Why the 1000 m requirement to Indigenous lands? Even when applying for a Certificate of Compliance, a 500 m requirement is generally used for proximity to aquatic habitat or drinking water wells. 500 m would seem like a more appropriate requirement"; and
- "Was this radius chosen based on discussion with Indigenous Nations and was it clearly stated that this was with respect to the movement of uncontaminated soil? It is counterintuitive that they should receive notification on uncontaminated soil, but have to date not received the same for contaminated sites."

7. High-Volume Receiving Sites – Intentions Paper section 4.5

7.1 Comments regarding proposed definitions – high volume receiving sites

Numerous respondents whose work involves relocation of soil provided substantive and detailed comments on this topic. Commonly stated concerns or questions were provided regarding: (1) the threshold of 20,000 cubic metres; (2) what soil and sources would be considered within the definition (i.e., scope); (3) the costs of meeting "landfill equivalent" requirements for high-volume receiving sites relative to the risks posed by source materials; and (4) potential for unintended consequences of "pushing relocated soils to landfills or disposal at sea [rather than beneficial reuse on land]."

Many respondents commented that the proposed threshold for determining a high volume site was "very low" or "too low". Examples of related comments included: "any of the well managed soil fill sites in the Fraser Valley… easily accept this volume of fill… in one or two weeks of operation"; "the volume of non-contaminated… clean soils generated from historic Schedule 2 source sites in the Lower Mainland equates to approximately 1,500,000-2,200,000 cubic metres of material annually"; and "a typical downtown Vancouver excavation to accommodate an underground parkade ranges from 40,000 m^3-80,000m^3 – this means that a single excavation at a CSR Schedule 2 site will likely create one or more high-volume receiving sites."

Several respondents sought clarification or raised questions regarding the soil that would be captured or considered as within the proposed 20,000 cubic metre threshold (e.g., if soil from non-Schedule 2 lands would be included in the volume calculation). One respondent, for example, asked: "Does this include ALL properties / projects where this volume will be imported (e.g., highway / infrastructure construction projects, dyking projects, and projects where grades must be raised for flood protection reasons prior to development)?" Several respondents used the example of "sites that receive high volumes of soils from roadway construction, residential developments, rail right of ways etc. [being] exempt from the requirements [as non-Schedule 2 sites]… however, as the soil quality would be similar at both types of receiving sites, the rationale for regulating one type of receiving site would lead to receiving sites only accepting soils from non-commercial/industrial sites in order to avoid regulatory requirements."

Respondents also commonly noted that the proposed requirements for high volume sites "are similar to the requirements [for] a permitted landfill [e.g., installation of liners and leachate control measures]" and would lead to increased costs and pricing for receiving "uncontaminated" materials from Schedule 2 lands.

As a consequence of the proposed definition of high volume receiving sites, several respondents commented that the "deposit of clean soil [will likely be] uneconomical for the source site [with the] likely result [of] these soils being dumped in the ocean or in some cases sent to landfills – instead of being used appropriately on receiving sites."

Comments, questions and suggestions for the ministry included:

- "It is possible that through the course of moving soils, that a site may change from its intended low-volume to a high-volume designation";
- "Are [the proposed] soil management plans (SMPs) the same or different than Operating Plans that current permitted landfills are required to have?";
- "The lifetime concept is confusing and may be difficult to manage… a site may be raised multiple times [over] several decades… the volumes imported from one event to the next are not likely to be available to future developers… thus the volumes imported over a lifetime will rarely be known";

- "I am in full support of more oversight of soil movement, to ensure that the environment is being protected and that contaminated soils are not being mismanaged… however… my main concern is that… many receiver sites will simply refuse to accept soil from Schedule 2 activity sites, so that they can avoid the additional costs / obligations imposed by being labeled a 'high-volume' site – this is a major concern I've heard from excavation contractors";
- "The large sites I am aware of, directly or indirectly, have a very good record of conformance to local and environmental standards… these large corporations are very risk adverse and do everything possible to avoid placing any contaminated material on one of their sites, many of which operate on leased lands. The financial impacts of having contaminated soil found on a site are very significant and would have a negative effect on the property value not to mention the cleanup costs";
- "High-volume soil deposition in the ALR is dependent on the size and agricultural capability of the parcel where soils are being relocated. Further consultation with ALC staff is requested on this matter";
- "I believe the regulation should be focused on the few operators who circumvent the rules, dump on locally unapproved sites, often on farmland on weekends, and have no intention of following the rules. I see nothing in the proposed regulation which will address this issue";
- "This blanket requirement is punitive to certain projects and should only apply to soils with detected leachable substances listed in the BC Hazardous Waste Regulation Leachate Quality Standards list";
- "We believe that additional justification that high volume sites with non contaminated soils pose a risk to the environment is required [and] should be based on peer reviewed science or at minimum publicly available reports… the groundwater protection model used to develop the soil standards in the CSR… [is a] simplified and very conservative model which has not been calibrated and adjusted with actual field measurements";
- "We request that the Ministry consult with stakeholders about only mandating the proposed soil relocation requirements for the areas on sites where a Schedule 2 Activity occurred. We suggest that if soils are characterized by an Approved Professional as being residential quality or better, they be exempt from the proposed requirements. For example, these soils should not be counted towards the 20,000 m3 threshold for high-volume receiving sites";
- "Climate adaptability requirements re: flood protection may result in a significant number of 'high-volume' sites"; and
- "We seek clarification on the application of the definition of high-volume sites. Does this apply for fill imported on a construction sites, to build a road, etc. Please define the responsibilities for tracking of soil deposition at these sites, so that we, as soil depositors, are able to determine if our deposit is compliant with receiver restrictions. We recommend that designated high-volume sites be identified on iMap or other accessible platform."

7.2 Comments regarding proposed siting requirements – high volume receiving sites and soil management plans (SMPs)

Numerous respondents provided substantive comment, and specific examples illustrating practical implications of the proposed siting requirements for high volume receiving sites. Many respondents linked their comments to previous statements regarding the proposed threshold and associated requirements for high-volume sites (i.e., that the proposed threshold volume was too low and the requirements inappropriate to the risks associated with the soil being received). Respondents also commonly commented that the proposed siting and SMP provisions for high volume receiving sites would be "overly restrictive" relative to the "low risk" posed by "uncontaminated soil" and could result in "available clean soil going to ocean disposal or existing landfill operations." One respondent, for example, commented that "as we interpret the proposed

requirements… any high-volume site that is receiving clean soil must install extremely expensive liners and leachate collection systems and then take on ongoing operational and maintenance costs…. [and] the additional impact of these costs to any development are material and ultimately will only serve to increase the cost to the end consumer or occupant."

Several respondents commented that the proposed requirements would constrain use of relocated soil for dyking and/or floodplain fill. One respondent commented, for example, that "the suggested requirement that high volume receiving sites be located at least 50 metres apart would eliminate virtually all the well managed fill sites in Abbotsford which accept a very large fraction of the excavation fill in the Lower Mainland." Another respondent commented that "requiring a minimum of 50 metres distance between high-volume sites would complicate development within a floodplain area requiring fill to raise the ground elevation to address issues such as flooding and sea-level rise." A respondent from municipal government commented that "in [our municipality] we have a number of existing and proposed high volume… soil fill sites for the purpose of preparing the land for industrial development… some of the items proposed within the Soil Management Plan requirements appear to be unduly prescriptive and onerous. The respondent suggested that "a preferred approach would to be less prescriptive… and allow for site specific issues and intended land use to be considered… the Approved Professional could be provided the flexibility to develop a soil management plan that is appropriate for the site and surrounding context completed with the appropriate performance monitoring to ensure the measures in place are protective of the environment."

Differing comments were received from respondents who self-identified as indigenous. One respondent noted that "clear and consistent province-wide guidance… [would require consideration of] Aboriginal Rights and Title." The respondent suggested several additional factors that should be considered for high-volume receiving sites, including "channel migration zones…determination [of whether there are] nearby areas used for cultural purposes… [and] consideration of culturally determined buffer zones to protect culturally significant areas… [also,] there should be the inclusion of indigenous monitors and ongoing management strategies to ensure indigenous communities are meaningfully involved in the planning, management and monitoring of soil sites." Another indigenous representative noted that "[our Nation] has a large contiguous land base which is experiencing growth through phased development… [the proposed separation] requirement could negatively impact plans for developing our land base; accordingly, we would like additional clarity on this requirement and its application in the case of [our Nation]."

Comments, questions and suggestions from other respondents included:

- "The Ministry [should] consult stakeholders [and] develop a meaningful understanding of the redevelopment of properties in the Lower Mainland and elsewhere, where building in floodplains remains the only remaining development land";
- "[The proposed requirements] would have saved us a lot of heartache when [an industrial land owner] filled a creek with 'clean' dirt directly above my house";
- "Invasive species transported in the [relocated] soil could spread into new areas – this is an issue that needs to be considered";
- "Many active fill sites are mining operations where fill is used as part of the reclamation activities. How do the restrictions for high volume fill sites based on distance from another fill site and sensitive receptors come into play when the new fill site is an active mine with a permit from Ministry of Mines to backfill with clean fill";
- "While the siting requirements may be reasonable for certain land uses and locations, they would essentially prohibit any controlled filling which is essential with contemporaneous aggregate extraction and backfilling operations carried on in the ALR. These operations of necessity require close contact between active agricultural activities, aggregate extraction and commensurate backfilling with clean soil. These sites often involve volumes in excess of millions of

cubic metres and irrigation wells and buildings are necessarily in close proximity. Careful planning and protection measures are required by local Bylaws and the ALC and regular monitoring of test wells is carried out by a hydrologist. All the major aggregate – fill operations that I am familiar with have detailed Land Reclamation and Environmental Management Plans in place";

- "Ground water and surface water treatment are already addressed through local government and Fisheries through Erosion Sediment Control/Offsite Water Discharge guidelines. They address discharge and run off limits and require approvals as well as monitoring and reporting";
- "In cases where the legal import of soil (fill) is used to aid farm/farming activities… the proposed distance of 30 meters from buildings – which can be farmstead or homestead – or from irrigation wells may result in a substantial loss of farmable land and thus, have a considerable negative economic impact on the farm operation… I recommend to align the distances on farmland with the relevant setbacks found in section 17 of the Code of Practice for Agricultural Environmental Management. This should, of course, only apply to uncontaminated soil and even stricter standards, or reasonable limits to the volume, within the proposed distance could be considered";
- "[Our municipality] has an extensive dyking system that requires continual maintenance; activities [that] include raising and widening the dykes, replacing flood boxes, and upgrading pump stations. These activities will require soil amounts well in excess of 20,000 cubic metres over the lifetime of the dyke system. In addition, dykes and related flood control infrastructure would be impacted by the [proposed] threshold requirements… with regards to the distance from receptors (such as watercourses)";
- "Placing a liner under relocated soil results in a water management issue. With building codes now requiring infiltration basins, permeable asphalt etc. there is an effort to direct surface water down through soil, where placing a liner results in a long-term water management issue… the requirement to add a liner to high volume fill sites will result in higher volumes over smaller areas and large mounds"; and
- "Setbacks for high-volume sites may reduce the farmable area. For instance, if a farmer is berming their property to prevent flooding, a 30 m setback would significantly reduce the area available for farming. Further consultation with ALC staff is requested on this matter."

7.3 Comments regarding provisions for existing high-volume receiving sites

Most respondents commenting on this topic agreed that it would be inappropriate and/or impractical for the proposed provisions to be applied retroactively to existing receiving sites, noting, for example, that "we concur that the requirements should not be applied retroactively."

Specific comments, suggestions or questions included:

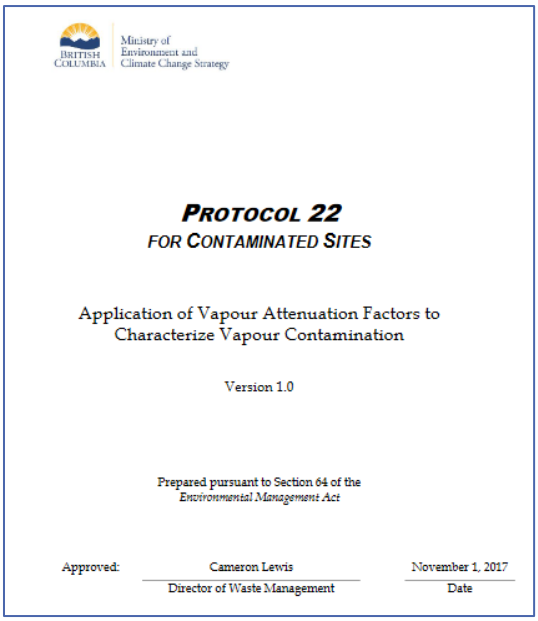
- "Are existing Soil Receivers going to still require a siting study, consultations and a SMP? Or will these be grandfathered?";
- "This is not right and it should be retroactive. Big industry gets away with too much in this province";
- "We disagree [with the ministry's proposed intentions]… while we agree that the new regulations should not apply to dormant high-volume sites, existing soil piles at active sites should be included in total volume calculations to ensure that total soil substances found in both new and existing soils [is] accounted for";
- "Siting requirements should not be applied retroactively but Soil Management Plans should be required when the high-volume threshold is reached";

- "I don't agree with the ideas behind the high-volume sites. You [have] to have high contaminants concentration before the soil will be leachable. If you are relocating compliant materials (i.e., RL+ but IL-) to other sites, the concentrations won't even be high enough to cause leachate issue. High volume sites will have higher total contaminant concentrations but low contaminant concentrations per mass";
- "The soil management plan described in [the Intention Paper] Appendix appears akin to landfill operations plan for regulated materials – this seems far too onerous for non-contaminated soil";
- "A permanent solution technology [to remediate contaminated soil] is available, it should be used in B.C."; and
- "The ministry needs to provide public notice prior to a receiving site reaching the 'high volume site' designation."

8. Soil Vapour investigation for soil relocation – Intentions Paper section 4.6

Ministry's proposed guidance for the conduct of soil vapour investigations related to relocation of soil

About half of the respondents commented on the topic of soil vapour investigation. Several respondents commented that "any requirement for vapour assessment in addition to the already required soil characterization will serve an additional barrier to the beneficial re-use of clean soil." Comments on this topic often referred to technical standards, for example, several respondents recommended "use of the Protocol 22 subslab Vapour Attenuation Factor (VAF) [for] commercial buildings [to address potential vapour issues]." Several respondents who were not involved in work related to relocating soil expressed concerns regarding odours from soil relocation receiving sites, commenting, for example, that "no soils that generate detectable odours should be relocated without a review process that considers such impacts – even at considerable distance detectable odours can impair cultural use of areas."


Ministry of Environment and Climate Change Strategy

PROTOCOL 22
FOR CONTAMINATED SITES

Application of Vapour Attenuation Factors to Characterize Vapour Contamination

Version 1.0

Prepared pursuant to Section 64 of the *Environmental Management Act*

Approved: Cameron Lewis, Director of Waste Management — November 1, 2017, Date

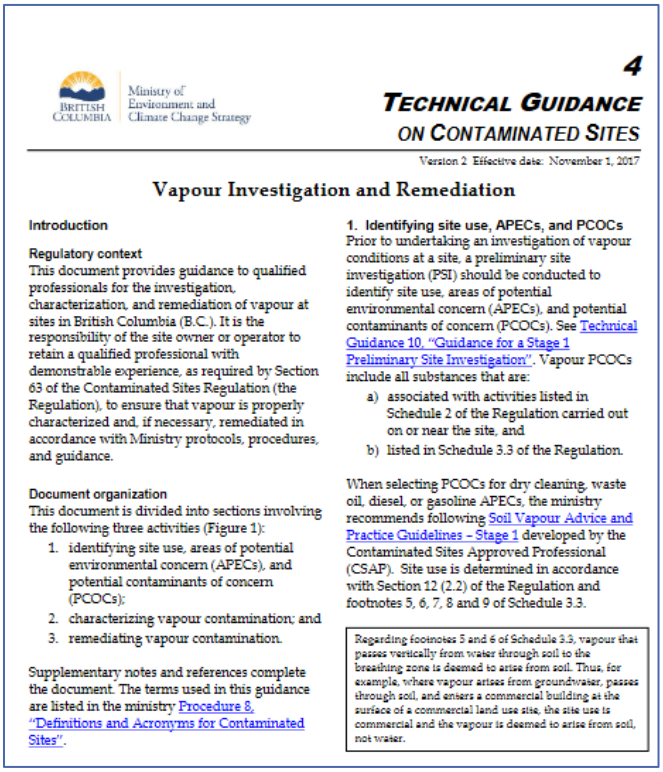
Specific comments included:

- "As these standards were developed without consideration of cultural issues and impacts, the stage is set for ongoing cumulative impacts";
- "Vapour assessment should be required if an QEP believes vapour can be an issue for the soils to be relocated – the ministry should leave this option open for QEPs to decide if vapour assessment is warranted";
- "The concept of trying to sample soil vapour in-situ before soil is moved and assuming that this is representative of conditions once soil has been moved is not realistic";
- "I don't know what to think of this, all I know is I live less than 200 ft from [an industrial facility] dump, and it stinks. It burns our sinuses and throats. Worse in rain, heat, east wind and when they go up and push it around. It's not normal. And it's scary to live beneath that pile. NO ONE CARES... The soil above me supposedly meets the requirements... we need some government agency to care enough to test it";
- "Having no assessment requirements for relocation of soil would be beneficial per the advantages listed by the ministry. Perhaps a middle ground could be found that would both investigate vapour and would be realistic in a soil relocation scenario. The ability to use attenuation factors would be an improvement";

- "The existing large sites I am involved with are very cognizant of screening odourous soils from their sites… each box is visually inspected… and checked for odor. Similarly, as each load is dumped, machine operators are trained to observe any sheen, staining or hint of odor. Protocols are in place for dealing with any suspect soil";
- "A common issue is that diesel particulates can result in a low-level false positive for certain diesel-related substances, especially VPHv. The unattenuated concentrations may temporarily exceed the applicable standards; however, it is usually not an issue at a source site since any VAF will usually address it. However, if a VAF (even just a sub-slab) was allowed for soil relocation, this would address the vapour in most soils for soil relocation"; and
- "The proposed 30 metre building setback is considered unreasonable where careful monitoring of receiving soils is carried out. Building sites are constructed with structural fill soil. Many dwellings have been constructed on such filled areas without incident."

Option of having no vapour assessment for the relocation of soil that meets receiving site standards

Many respondents whose work involves relocation of soil noted their "support [for] the 'Option for Consideration' in the Intentions Paper with regard to not requiring vapour investigations" recommending that "the ministry… consider waiting for long-term policy approach to vapour testing being developed before regulating now." Comments in support of this option (of having no vapour assessment requirement) included:



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BRITISH COLUMBIA | Ministry of Environment and Climate Change Strategy

TECHNICAL GUIDANCE ON CONTAMINATED SITES

Version 2 Effective date: November 1, 2017

Vapour Investigation and Remediation

Introduction

Regulatory context

This document provides guidance to qualified professionals for the investigation, characterization, and remediation of vapour at sites in British Columbia (B.C.). It is the responsibility of the site owner or operator to retain a qualified professional with demonstrable experience, as required by Section 63 of the Contaminated Sites Regulation (the Regulation), to ensure that vapour is properly characterized and, if necessary, remediated in accordance with Ministry protocols, procedures, and guidance.

Document organization

This document is divided into sections involving the following three activities (Figure 1):

1. identifying site use, areas of potential environmental concern (APECs), and potential contaminants of concern (PCOCs);
2. characterizing vapour contamination; and
3. remediating vapour contamination.

Supplementary notes and references complete the document. The terms used in this guidance are listed in the ministry Procedure 8, "Definitions and Acronyms for Contaminated Sites".

1. Identifying site use, APECs, and PCOCs

Prior to undertaking an investigation of vapour conditions at a site, a preliminary site investigation (PSI) should be conducted to identify site use, areas of potential environmental concern (APECs), and potential contaminants of concern (PCOCs). See Technical Guidance 10, "Guidance for a Stage 1 Preliminary Site Investigation". Vapour PCOCs include all substances that are:

a) associated with activities listed in Schedule 2 of the Regulation carried out on or near the site, and
b) listed in Schedule 3.3 of the Regulation.

When selecting PCOCs for dry cleaning, waste oil, diesel, or gasoline APECs, the ministry recommends following Soil Vapour Advice and Practice Guidelines - Stage 1 developed by the Contaminated Sites Approved Professional (CSAP). Site use is determined in accordance with Section 12 (2.2) of the Regulation and footnotes 5, 6, 7, 8 and 9 of Schedule 3.3.

Regarding footnotes 5 and 6 of Schedule 3.3, vapour that passes vertically from water through soil to the breathing zone is deemed to arise from soil. Thus, for example, where vapour arises from groundwater, passes through soil, and enters a commercial building at the surface of a commercial land use site, the site use is commercial and the vapour is deemed to arise from soil, not water.

- "[Our Nation] is concerned that vapours from soils may impact wildlife, harvesting and traditional use of lands. Further, we believe that this regulation should align with science and best practices from other jurisdictions, which suggest the presence of volatile substances in soils presents human and environmental health hazards. As a result, we strongly oppose the elimination of vapour assessment requirements";
- "Soil that meets applicable land use standards (industrial, residential, etc.) and has also been disturbed – by excavation, loading hauling and dumping – is unlikely to present a public safety hazard at the receiving site";
- "Having no vapour assessment requirements for relocation of soil that meets the receiving site soil standards is the correct approach as it supports the beneficial reuse of confirmed (TG1) clean soil";
- "This option is preferred as soil characterization at the source site represents both soil and groundwater sources, results are prone to false positives (e.g., elevated VPH common despite no identified soil or groundwater source) and doesn't consider volatilization that will occur during handling and transportation"; and
- "Since introduction of the vapour standards I have yet to have a contaminated site where vapour contamination was present in the absence of soil and/or groundwater contamination. Furthermore, the excavation, loading, hauling and placement of fill allows for additional volatilization of typical volatile contaminants if present. For the rare circumstances where vapour risk may occur in the absence of soil contamination, reliance on an ethical QP conducting the soil characterization should suffice."

9. Consequential Amendments – Intentions Paper section 4.7

9.1 Comments regarding the ministry's proposal to amend the Waste Discharge Regulation (WDR)

Several respondents requested clarification from the ministry regarding intentions for reuse of "contaminated" or "uncontaminated" soil as backfill on site. One respondent suggested that "it would be better to redefine 'waste soil' as discussed in Administrative Bulletin 6, where 'waste soil is considered soil that exceeds the mandatory industrial land use standards' [and] exclude the application of site-specific factors when determining whether soil is considered a waste, as they are often the same for all land uses."

Specific comments, questions or recommendations ranged beyond the ministry's proposed intentions and included:

- "Good to get this clarified inside the regulation";
- "Agree with the new definition, however, contaminated site contaminant management should be under a Code of Practice";
- "During remediation works it is often necessary to stage impacted soil temporarily. There should be allowances for short-term soil management that allows more flexibility compared to permanent soil placement";
- "Will the proposed Stage 14 amendments (soil relocation) address the unintended negative consequences [of sending] otherwise uncontaminated soil to a landfill (i.e., transport of soil to landfill, use of landfill, extraction of virgin soil, and transport of virgin soil to the site)?";
- "The Intentions Paper states [that] 'soil that does not meet (i.e., exceeds) the applicable land use standards would require an Approval in Principle (AiP) for situation involving onsite treatment' – what about other options like Part 2 EMA or Waste Discharge Act – why are these not an option also?";
- "There are many details [of the] the proposed amendments, such as permit application requirements (specific to waste soils), what exceptions would be in place (sites with Certificates, Sites with AiPs, small volumes, etc.) [that] we would like a chance to comment on,";
- "[Our organization] supports the use of risk-based remediation technologies on-site that ultimately reduce the volume of contaminated soil that needs to be relocated off-site"; and
- "Why [is] the Ministry asking for an AiP for onsite treatment of contaminated material? It just creates additional paperwork, increased timelines and expenses. This should be done under the Independent Remediation."

9.2 Comments regarding application of the Administrative Penalties Regulation

Several respondents commented that they are "not opposed to the use of Administrative Monetary Penalties (AMPs) or the proposed maximum fine of $75,000." They continued to note that "however, we would need additional details on the ministry's proposals regarding] when and where the AMPs will be applied." Other respondents commented that "an administrative penalty up to $75,000 for contravening a notification requirement related to the movement of uncontaminated soils seems disproportionate." One respondent asked "how does this [compare with] other fines in EMA when violation of management of actual waste occurs?"

Additional comments included:

- "As part of the consultation process, [the ministry] has highlighted compliance penalties and enforcement efforts that will be a part of the new soil relocation regime [however] there is a lack of clarity regarding compliance issues… (e.g., What if the volume differs from that indicated on the Notification? What is the duty of a Generator to ensure compliance of a Receiver? What is the intended frequency of [ministry] audits? Which entities will be audited for compliance?)";
- "[Penalties] should be higher";
- "The ministry should ensure sufficient resources to effectively enforce these regulations, as well as work with First Nations to ensure capacity is in place to participate and apply these new regulations effectively";
- "Enforcement needs to be focused on businesses who do not adhere to the notification process. This can only be done if there is a requirement to complete a certain level of investigation, and register a statement saying there is no Schedule 2 activities. The most applicable regulatory tool would be the Site Disclosure Statement (former Site Profile) but this trigger during soil movement was removed on February 1st 2021";
- "This entire process appears to be highly un-policeable. Reporting of non-compliances will be sporadic and inconsistent, resulting in inconsistent and un-equal application of penalties";
- "It is unclear in the discussion paper how the Province intends to ensure compliance to the notification procedure and penalize owners who move soil without adhering to the notification requirement";
- "Ensure that the penalty imposed is justified (i.e., individual professionals or responsible parties should not be fined because of the lack of clarity in the soil relocation process)";
- "A new regulatory regime is being introduced that will require adjustments and clarifications. As such, we ask that the ministry wait to fully implement the AMPs. Initial warnings could be provided to the various players involved in soil relocation";
- "A maximum fine of $75,000 for a failure to provide notification of relocation of uncontaminated soil would be excessive… in our view, a maximum penalty of $10,000, or possibly $40,000 would be appropriate given the overall context, as currently provided under section 12(2) and 12(2.1) of the Regulation";
- "We request a transition period to comply with the new requirements before the penalties are implemented"; and
- "Many municipalities… already have robust soil deposition and removal bylaws in place that are enforced by City staff. [Our municipality] expects that the ministry would be solely responsible for enforcing the proposed soil relocation regulations; however, this is not explicitly stated in the intentions paper."

10. Additional Comments

Many respondents provided additional comments beyond the specific responses to questions in the Intentions Paper and comment form. This information, including cover letters and individual submissions and completed comment forms, has been compiled and transferred to the ministry for review and consideration.

A sample of these comments is included below, organized by respondent grouping.

B.C. citizen or individual

- "Regarding [pre-existing high-volume sites]: I think this should go retroactive for recent sites, like [the industrial site in Dawson Creek within 200 m of my residence] that is unfinished, unmaintained and a complete hazardous site [that] needs to be dealt with."

Indigenous Nation or community member

- **"**Development on [our Nation's] Lands is taking place rapidly to meet our community's needs and close the socio-economic gaps between [our Nation's] members and the settler population. For that reason, additional development costs impact [our Nation] disproportionately and hamper our efforts to raise all our Members out of poverty."
- "On behalf of [our Council] we have reviewed the Regulating Soil Relocation Intentions Paper. To be able to finalize our comments, we need to obtain feedback from member communities."

Work in industry that involves relocation of soil

- "The proposed legal regime for soil relocation in British Columbia is a welcome improvement on the previous Contaminated Soil Relocation Agreement process and has the potential to divert significant quantities of soil away from landfill for beneficial reuse. Uncontaminated soil will increasingly be in demand for infrastructure and flood protection works and brownfield property development will play a role in surplus soil reuse. [Our organization] strongly supports the overhaul of the soil relocation regime and increase in transparency to the public, but suggests the ministry consider further changes that would improve the certainty that soil relocation projects can proceed without undue delay once a qualified professional has reviewed the project."
- "Schedule and cost impacts of the proposed changes on industry and development / housing could very well be much greater than anticipated by the Ministry."
- "Further dialogue with the key players involved in moving soils would ensure the goals of the Province, the Ministry, municipalities, and stakeholders can be met without adding substantial costs and delays for redevelopments across British Columbia and for receiving sites that need clean fill to level unusable land and to address sea level rise."
- "The intent to regulate movement of non-contaminated soil is a first for B.C. so we would appreciate additional opportunities for engagement/comments before the process is finalized, perhaps in the form of a working group with impacted stakeholders to address similar challenges."
- "We have identified a number of potential unintended consequences of the changes: landowners not leasing to operations with Schedule 2 activities; properties not accepting soil from sites where Schedule 2 activities have occurred resulting in the potential overuse of greenfield source sites (e.g., borrow pits); timeline and cost implications to site redevelopment; and resourcing of municipal departments and Indigenous Nations for review of notifications."
- "We recommend [that the ministry] complete "dry runs" of these regulations with all parties involved, especially owners, developers, contractors and receiving sites. This could provide valuable insight as to what works, what doesn't, and what the knock-on effects might be."

- "The new soil relocation regime would likely not result in additional investigation requirements since the coming into effect of the new Site Identification Process. As soil relocation will be mostly related to redevelopment, site investigation of a Schedule 2 site will mostly already have been triggered by the Site Identification Process prior to concerns about soil relocation. However, it is a very involved administrative process as three levels of government are involved (provincial, municipal and first nations), with added requirements for high volume receiving sites. The benefits from a perspective of ministry oversight are clear, but it is unclear how this process would be more favourable to the reuse of uncontaminated soils as fill."
- "Significant volumes of soil are classified as contaminated based on protection of future drinking water use in underlying aquifers. This is a barrier to re-use of the soil and results in otherwise uncontaminated soil being confined to permitted landfills. If current practice were modified to allow groundwater data (or leaching data) to override soil chemistry when assessing the drinking water pathway, significant diversion from landfill would be achieved."
- "Will a numerical Certificate of Compliance or a Final Determination provide relief to these requirements? If there is proof the Schedule 2 activity has caused no impacts why is there still a need to track and notify?"
- "The results of this process are that the good companies that do their due diligence and try to follow the rules will see significantly higher costs to develop in B.C. The companies that choose to minimize their assessments and operate on a "don't ask-don't tell" basis will rarely be caught violating the new rules (if they even know they exist)."
- "Further dialogue with all stakeholders will ensure that goals detailed in this Paper can be met without adding substantial costs and delays for developments across British Columbia and for receiving sites that need clean fill for grading and to address sea level rise."
- "Appendix 2: Soil Management Plans – Almost all the items listed in this Appendix are well addressed by current regulatory requirements for aggregate and fill operations."
- "Appendix 2 states '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.' I would have thought this was outside the scope of an SMP (typically a technical document). Not disagreeing with the need, but not as part of the SMP."
- "The Ministry of Mines requires extensive notification and consultation with First Nations and provincial agencies. Similarly, local government Bylaws have extensive notification and public hearing requirements."
- "For those large fill site operators who have a proven track record with municipal government I suggest that the ministry provide an exemption… whereby the operator, supported by confirmation by the local authority and the ALC if applicable, would submit… information confirming current procedures which meet or exceed those… proposed by the new Regulation…. any First Nation with 1.5 km of the receiving site would be consulted… It would be reasonable for every exempted operator to provide the ministry with an annual summary report from a QP certifying that they and their operations are in full conformance to the basic conditions under which they operate and on which the exemption is predicated."
- "Recommendations for changes to the new soil relocation regime include: soils from Schedule 2 use sites that are less than the most stringent matrix standards for CSR residential land use (RL) should be exempt from the process requirements; soil should be tracked via tonnage and not volume – an industry standard acceptable soil density can be established to convert tonnage to volume where necessary; rather than having a two-week notification to municipalities and First Nations, relocated soils should be recorded in a section of the Site Registry that is accessible to Municipalities and First Nations with reporting timelines similar to that of a Notification of Independent Remediation (NIR); environmental consultants be allowed more professional judgement with respect to native soil characterization from sites that have been remediated and have an existing CoC; and municipalities need to make

[existing] permits for soil removal/receiving accessible and searchable if proponents are going to be required to ensure suitable approvals are in place."

- "One of the greatest problems with soil relocation in BC is the arsenic in soil standard. Concentrations greater than the standard of 10 ug/g but less than 20 ug/g are commonplace with no anthropogenic source of arsenic present. This suggests that the arsenic concentrations in soils are naturally occurring… these soils are being caught up in the contaminated lands process and… excavated from properties in order to reduce liability."
- "Chloride is another issue/concern with soil relocation, and the 100 ug/g standard is commonly exceeded for excess soil created during road and infrastructure along road upgrades. While the soil standard is commonly exceeded, exceedances of the groundwater standard are rare unless bulk storage of salt is nearby. "
- "Consider adding discretion for the Director to issue an exemption from individual notifications provided that an alternate process (permit or approval) is in place for uncontaminated soil relocation. With extensive maintenance and capital programs and existing stakeholder consultation in place individual notifications for uncontaminated soil seem overly onerous. Providing a process for a blanket permit or approval would address our administrative burden concerns."

Work for a government regulatory agency

- "Are you aware if the proposed changes to the current soil relocation provisions have GHG implications? For example, if large amounts of high carbon soil are buried and emit methane? I reviewed the intentions paper but didn't see any mention of GHGs. Exactly what do you mean by high carbon soils? Organic soils? Or containing hydrocarbon contamination? Any kind of soil that may contain carbon that, if released as methane, could have a material impact on GHGs… I didn't see any mention of carbon/methane/GHGs in the paper."
- "The proposed soil relocation provisions are likely to divert clean soil to landfill for smaller projects as the cost/benefit will lean in favour of Landfilling. This will be especially prevalent in remote sites where mobilization costs are higher. The use of Waste Discharge Authorizations (permits or approvals) is likely increase timelines for projects and I think that "Contaminated Site Contaminant Management" should be authorized via a Code of Practice (and subsequent, simplified registration process)."
- "The use of Schedule 2… could be too prescriptive, causing other activities and uses with potential contamination to be overlooked. For example, the ministry may want to consider including home heating fuel tanks, farm fuel tanks and fertilizer/pesticide storage on farms. These are not considered bulk storage but could be present in storage amounts that potentially have significant effect should spills occur."
- "Unauthorized placement of soil, mainly in the Fraser Valley, has resulted in the degradation of ALR land and constitutes the majority of our compliance and enforcement files. In addition to unauthorized soil placement, the ALC receives hundreds of applications to deposit soil in the ALR every year. For these reasons, the ALC is requesting further consultation on this matter."

Other interest

- "Since the Omnibus changes to Contaminated Sites Regulation in November 2017, opportunities for beneficial reuse of soil… have been limited and resulted in substantial increases in cost and GHG emissions. These impacts are largely driven by to the change in Arsenic standard in soil which was reduced from 15 ug/g to 10 ug/g in addition to a reduction in regional background standards… we suggest that the ministry undertake a review of these background soil standards to ensure they are accurate, similar to the recent work undertaken for groundwater. Until this review is undertaken many clean soils which could be reused beneficially will be relocated as waste to facilities which can accept them."

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