

Organic Matter Recycling Regulation

Intentions Paper: Summary of Public Input & Policy Update

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Summary prepared by: Cariad Garratt, Principal, Pinna Sustainability Inc.
Edited by: Gwen Lohbrunner, Ministry of Environment



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A. Introduction

The BC Ministry of Environment (ENV) invited feedback from stakeholders, First Nations and interested parties on a set of proposed policies to update the Organic Matter Recycling Regulation (OMRR). This report serves two purposes: 1) to provide a summary of the input received, and 2) to provide a response from the ministry to these comments, where applicable.

Background on the regulation

In 2002, the Ministry of Environment enacted the OMRR under the *Environmental Management Act* and the *Public Health Act* to regulate the following activities:

- the construction and operation of **composting facilities**, and
- the production, distribution, sale, storage, use, and **land application of biosolids and compost**.

The purpose of the regulation is to enable the recycling of organic material (through land application and composting) while protecting human health and the environment. The OMRR is a results- or outcome-based regulation which provides a set of standards that proponents must meet to be in compliance. This type of regulatory framework provides proponents with flexibility in how they choose to meet the standards established in the regulation, and is well suited to activities that are relatively similar regardless of where they occur, and where the ministry has an established history of and experience with issuing similar types of authorizations, e.g., land application of managed organic matter. There are other management options for organic matter, e.g., use in waste-to-energy processes, that are not included in OMRR as they both are less common and tend to be site-specific. The authorization of these types of activities is typically captured under site-specific authorizations including permits, approvals and operational certificates under the *Environmental Management Act*.

“**Biosolids**” is defined as “stabilized municipal sewage sludge resulting from a municipal wastewater treatment process or septage treatment process which has been sufficiently treated to reduce pathogen densities and vector attraction to allow the sludge to be beneficially recycled in accordance with the requirements of this regulation”¹. The OMRR defines maximum limits of pathogens, specifically fecal coliforms, and trace elements (i.e., metals²) in land-applied biosolids and compost. The OMRR also outlines requirements for the land application of managed organic matter³ including: oversight by a qualified professional (QP); setbacks from water resources, and no grazing and no harvest periods for Class B biosolids and Class B compost; and establishment of maximum concentrations for metals in amended soil. The soil standards established in the OMRR for metals tend to be within the ranges

¹ Schedule 12, [am. B.C. Reg. 198/2007, s. (a).], Organic Matter Suitable for Composting (accessed online Oct 11, 2016, http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/18_2002#Schedule12)

² The term “metals” as used in this report includes metalloids such as arsenic. Note that some metals may be referred to as “trace elements” in regulations, guidelines and documents.

³ Managed organic matter means Class A biosolids, Class B biosolids or Class B compost as defined in OMRR.

established for other jurisdictions in North America and Europe, and in many cases, are in the conservative, more protective end of the typical ranges.

Background to the consultation process

On April 4, 2016, the ministry announced plans to undertake a comprehensive review of the OMRR, for the following purposes:

- to reflect advances in science and current practices, and to ensure it remains protective of the environment and human health;
- to support the Ministry's targets for reduction of organic waste disposal; and
- to align with BC's goal to reduce GHG emissions from waste.

Consultation: Previously, the ministry released Intentions Papers to update the regulation in both 2006 and 2011, receiving over 30 responses and close to 50 responses, respectively. Summaries of these comments are available on the [Ministry of Environment](#) website. While circumstances arose that caused these two respective processes to be put on hold, the previously received feedback will be considered as part of this review.

Due to recent concerns and uncertainty over the impacts of land application of biosolids, the government convened a technical working group to conduct a scientific review of this issue. The scientific review resulted in the development of a literature review, published in June 2016, and in a soil sampling study, published in October, 2016. The results of the scientific review will inform the current review of the regulation.

The ministry released an Intentions Paper on October 3, 2016 that outlines the proposed changes to the OMRR. The 2016 Intentions Paper includes some of the key proposed changes from 2006 and 2011, in addition to several new proposals. Government provided a 60-day public consultation period for the Intentions Paper. The consultation timeline is summarized in Table 1.

Table 1. Consultation timeline.

Date	Event
2006, 2011	Previous OMRR Intentions Papers and Summary of Comments releases <ul style="list-style-type: none">• www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/organics/resources/2006_intentions_paper.pdf• www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/organics/resources/2006_summary_of_comments.pdf• www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/organics/resources/2011_intentions_paper.pdf• www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/organics/resources/2011_summary_of_comments.pdf

Date	Event
	management/recycling/organics/resources/2011_summary_of_comments.pdf
2015	In response to concerns over the land application of biosolids in the Nicola Valley, the Province announces a scientific review of the land application of biosolids and establishes a technical working group to undertake the review
April 4, 2016	Province announces the intention to undertake a comprehensive review of OMRR
June 10, 2016	Biosolids literature review is published: <ul style="list-style-type: none"> • www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/organics/biosolids/literature_review_cover_memo.pdf • www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/organics/biosolids/lit-review-biosolids-nicola-valley.pdf
October 3, 2016	Publication of the soil sampling study: <ul style="list-style-type: none"> • www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/organics/biosolids_sampling_project.pdf
October 3, 2016	Update on the scientific review process for biosolids <ul style="list-style-type: none"> • www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/organics/omrr_sampling_report_guidance_summary_sept_22.pdf
October 3, 2016	Release of updated OMRR Policy Intentions Paper: <ul style="list-style-type: none"> • www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/organics/omrr_ip_sept_22.pdf
Oct 3 - Dec 2, 2016	60-day comment period to obtain feedback on the proposed changes to the OMRR via the online response form <ul style="list-style-type: none"> • www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/organics/omrr_response_form-ip_sept_22.pdf
Feb 2017	Final Summary Report on input received, including responses from ENV

Format of the document

This report summarizes the results of the 60-day consultation period in fall of 2016. The document includes a high-level summary of all input (section B), a summary of the responses to each question in the Intentions Paper Response Form (section C – General and section D – Topics), and a summary of the email and letter responses that were provided outside of the Response Form format. A Ministry response is included at the end of each subsection to address specific questions and to provide clarification where needed.

B. Summary of input received and Ministry responses

Summary of respondents and formats

During the 60-day consultation period, the ministry received a total of 75 submissions, including:

- 14 local governments (regional districts and municipalities)
- 5 First Nations
- 6 federal or provincial government regulatory agencies
- 6 public sector organizations
- 17 waste management industry organizations
- 1 agricultural sector organization
- 1 environmental/community interest group
- 25 unaffiliated individuals

These responses were received in the following formats:

- 36 Intentions Paper Response Forms (fully or partially completed)
- 17 letters that addressed the Intentions Paper Response Form questions
- 22 email responses that did not address the Intentions Paper Response Form questions

Summary of all submissions

The feedback showed a high level of support for undertaking a comprehensive review of the OMRR. Organizations that responded generally note an overall moderate level of support for the changes; however, there is general concern among respondents that the policy directions outlined in the Intentions Paper are not supported by sufficient details or scientific evidence. There is a general request for an additional round of consultation after specific proposed regulatory changes are developed. Individual respondents were generally not supportive of the land application of biosolids.

Common themes raised include:

- Changes are needed to the existing OMRR, with moderate levels of support for the intentions outlined;
- More transparency is needed that links the proposed changes to science-based rationale or evidence;
- Need for earlier discussion and consultation, not only notification, with First Nations;
- Need for additional consultation after specific proposed changes to OMRR are provided, as the policy intentions are too vague for comment in several circumstances;
- Improved consistency, monitoring, reporting and transparency are needed to ensure standards are upheld and to improve public perception of this issue; and
- Clarity through the provisions of definitions with regards to specific terminology, including: watershed, Class A compost, Class A biosolids, Class B biosolids, composting, unstabilized, stabilized, treated or untreated.

Summary of input from Intentions Paper Response Forms and letters

The extent of support for the policy directions in the OMRR Intentions Paper is summarized by topic area in Table 2, according to the format used in the Intentions Paper Response Form (see Appendix A for a copy of the form). This summary table represents input from the 53 submissions (36 forms and 17 letters) that specifically address the Intentions Paper.

Table 2. Extent of respondent support to questions posed in the Response Form

Response Form Question	Primarily supportive	Mix of supportive and not supportive	Primarily not supportive	Requests for clarification or rationale
G1. General level of support	√			√
1. Organic matter suitable for composting				
1.1 Definitions and regulation of organic matter suitable or not suitable for composting		√		
2. Composting facilities				√
2.1 Best Practices				
2.2 Plans, reports and associated requirements	√			
3. Land application and distribution of managed OM		√		
3.1 Addition of new standards				
3.2 Land application	√			√
3.3 Mine site reclamations and landfill closures	√			√
4. Notification under OMRR	√			
4.1.1 Composting facilities				
4.1.2 Land application		√		√
4.2 Engagement with First Nations				√
5. Sampling, monitoring and record keeping	√			
5.1 Sampling and monitoring requirements				
5.2 Record keeping requirements			√	
6. Updates to technical standards				
6.1 Consistency of schedules with other national standards and regulations		√		
6.2 Consistency with the Contaminated Sites Regulation		√		√
6.3 Consistency with the Agricultural Waste Control Regulation	√			√
7. Additional housekeeping changes				√
8. Development of guidance	√			
9. Assuring compliance	√			

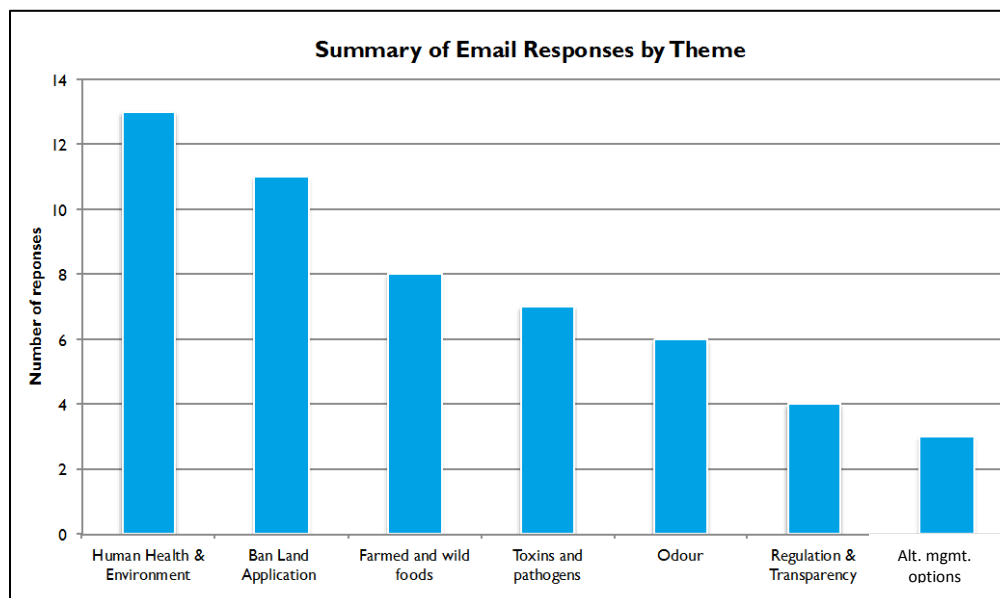
Summary of input from emails

The 22 responses received via email from unaffiliated individuals included three requests for further clarification on specific elements of the OMRR, and the remaining 19 demonstrated some level of opposition to the land application of biosolids and/or the impacts associated with the operation of compost facilities. Several of the responses also highlighted concerns over the consultation process, including difficulties with using the electronic Response Form provided on the ministry's website.

Key themes from these responses are shown in Figure 1, and included:

- Over half of email respondents expressed general concerns about impacts on human health and environment from activities related to biosolids mixing and application;
- Requests to ban the land application of biosolids altogether;
- Concerns over impacts on wild foods and range animals from land application of biosolids, e.g. toxins entering the wild foods or range animals and being eaten by humans;
- Concerns that toxins and pathogens resulting from the land application of biosolids remain in the environment and affect human and environmental health;
- Concerns over odour from compost facilities, biosolids mixing sites, and land application activities;
- Support for increased regulation and transparency; and
- Support for alternatives to land application of biosolids, including incineration or pyrolysis.

Figure 1. Summary of email responses by theme.

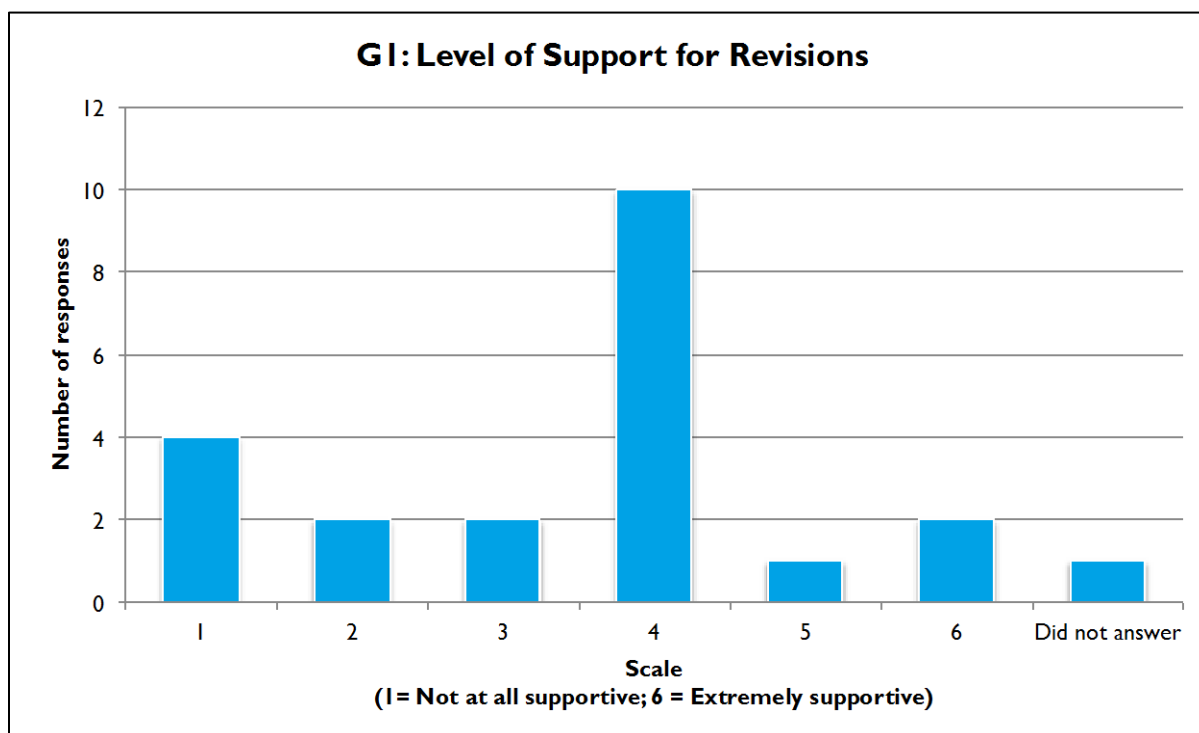


C. Response form input: general support and discussion

This section outlines responses to the general questions within the Intentions Paper Response Form.

G1: General level of support for the proposed revisions

Overall, please indicate your level of support for the proposed revisions to the OMRR described in the Intentions Paper.



Important notes:

- One of the respondents that completed the Intentions Paper Response Form did not answer this question.
- Respondents that provided letter and email comments are not included in this chart because this question was not specifically answered in their submissions.
- Chart includes responses from individuals and organizations representing more than one party. Responses have not been weighted based on the number of parties that a response may represent.

G2: Reasons for your choice

What are the reasons for your choice?

Most respondents that completed the form stated that they **support in principle the objectives** in the Intentions Paper but that **further clarification is required**. Many went on to say that an informed response was difficult to provide due to the lack of rationale and scientific arguments to back up the proposed changes. Some respondents felt that research on human health and biosolids is either poor or lacking and therefore they cannot support the safe land application of biosolids.

“...Various points of clarification are required to gain additional support for the proposed revisions.”

“There are some (largely administrative) changes which are probably useful, but there are significant omissions. Some are presumably due to lack of appropriate data (organic chemical contaminants and associated risk assessment/toxicology; standards for biochar).”

G3: General comments

Do you have any general comments about the ministry’s proposed revisions to the OMRR?

In general, the changes to the OMRR are moderately supported by **organizations** that submitted responses. Changes are viewed as necessary, though many respondents request further clarification on the rationale for the proposed changes and how the rationale translates into specific regulations.

- **Direct link between policy and science:** Many respondents note that complete transparency is required and that *“it is imperative that the Ministry is able to provide supporting scientific information, data and the [sic] rational to support each intended change.”* There is some concern that certain changes are recommended that may increase processes and costs, but are not warranted if the changes are not founded in evidence. One respondent organization provided a recommendation: *“That the Province [sic] provide financial support to conduct research that has been recommended by the Technical Review Committee.”*
- **Additional comment period:** There are requests for a comment period following the development of the draft regulation because the Intentions Paper is lacking in detail: *“...it is critical for the Ministry to allow for a round of submissions and comments on a draft of the revised regulation prior to implementing final amendments. Without the specifics, we cannot comment on any revisions that could have a significant impact on the ability to recycle organic matter.”*

“We believe that, in order to rectify the current lack of information, the changes to OMRR should be provided in the following clear format for further consultation:

1. *The complete proposed change, and what existing component of OMRR it is intended to replace or supersede;*
2. *The intention that gives rise to this change, and specifically what the change is expected to achieve for Municipalities, Generators, and the Public of British Columbia;*

3. *The data, information, rationale, and supporting scientific information that provides compelling context and evidence in support of the intended change."*

- **Ministry to take responsibility for notification:** respondents note that the ENV should *"take a central role in the notification requirements for OMRR. The current process of the discharger undertaking notifications does not ensure a smooth notification process."*
- **First Nation consultation:** First Nation respondents note that Indigenous peoples must be included in all parts of the regulation, and consider opportunities for joint management.

"The Ministry of Environment must ensure that the amended regulation fulfills the duty to consult. The Crown holds constitutional obligations in respect of aboriginal rights and title, including the obligation to consult and accommodate First Nations about decisions which have the potential to impact First Nations' rights. To fulfill this obligation consultation must be on a government- to- government basis and to seek the consent of First Nations consistent with the direction set by the Supreme Court in Tsilhqot'in prior to approving land application plans."

The Ministry Environment must recognize that First Nations are often well positioned to manage [sic] biosolid land application. Joint management can help [sic] relieve Provincial capacity constraints and help build the capacity of First Nations. In Addition, joint management will further strengthen the government -to- government relationship. An amended OMRR must support co-management with First Nations."

The need for clarity with respect to First Nations consultation is also addressed by non-First Nation respondents: *"The need for First Nations notification (consultation) and public transparency are worthy goals for this OMRR amendment...I would recommend that the section dealing with First Nations notification be substantially rewritten so that it is quite clear who, when, where and how it is to be applied. It is too important to leave vague, particularly as it applies to privately owned lands."*

- Strengthen the link between climate action and prevention of landfill disposal of organic matter.
- **Distinction between small and large operations:** *"Small community based biosolids composting programs producing Class A compost for retail sale of landscaper specific soil blends seem to be getting lumped in with large scale processors of Metro Vancouver biosolids that are doing large applications on a small number of sites outside of Metro Vancouver. Our retail grade landscape soils are sold in relatively low quantities to a large number of sites. Notification requirements for every single application seems onerous, as there could be one shipment to a landscaper that could end up being put on multiple job sites. There just doesn't seem to be the distinction between large land application programs ([sic] ie. Nicola Valley, central Okanagan) and small community based programs (Comox/Courtenay, Kelowna and Whistler)."*
- **Request to include digestate in anaerobic or aerobic digesters** as a material to be managed under OMRR because these can be used to manage manure, green waste, or food wastes, and it is foreseen that these facilities will become more popular.

- **Streamlined pilot projects:** one respondent noted their main concern is *"the ability to conduct pilot projects to evaluate different technologies, and requests that the permitting process for conducting pilot projects be streamlined so there are no delays and minimal red tape involved."*
- **Provide definitions of key terms.** *"On pg. 8 of the Intentions Paper under section 3.2, the terms 'fill' and 'disposal' are used. If these terms are used in the updated OMRR, clear definitions are suggested. If used in the OMRR, the term 'watershed' should be defined. Consider amending the definitions of 'Class A compost,' 'Class B compost,' 'Class A biosolids,' and 'Class B biosolids' to more clearly describe which classes have undergone a greater degree of treatment and meet more stringent standards (e.g. lower concentrations of contaminants), rather than referring to schedules in the definition. This provides clarity to the reader (e.g. Medical Health Officer), who may not be reviewing the OMRR on a regular basis. Additional clarity on the definition of the term, 'composting' is suggested, to delineate between active composting and storage. Clarity on the definition of 'composting facility' is also suggested, to determine whether or not, for example, a few piles of biosolids would constitute a composting facility. If the terms 'unstabilized', 'stabilized', 'treated' or 'untreated' are used in the revised OMRR, clear definitions are suggested. If the term CO₂e is used in the OMRR, please include a definition."*
- **Support for evidence-based standards.** *"The proposed changes establish evidence-based standards and practices for composting facilities by setting out not only the organic materials they can accept, but specific material restrictions as well. This provides clear direction for operators, investors and the general public who may be more willing to support a clean and environmentally safe operation in a suitable location within their community."*

In general, responses from **individuals** were not supportive of the land application of biosolids. Most comments centered on testing requirements for land applied biosolids to ensure that both human health and the environment are protected (e.g., testing for pathogens, toxins and other chemicals).

"These proposed revisions support an industry's agenda and do not represent a careful and unbiased consideration of the impacts of land application of sewage sludge which includes the toxic wastes from human [sic] activities such as industrial and commercial chemicals, medical wastes, domestic wastes, pharmaceutical and personal care products, infectious agents, and stormwater runoff."

Ministry Response to General Comments

The ministry is committed to conducting the research recommended by the Technical Working Group. The ministry has addressed several of the recommendations and work related to others is in progress. For example, a recent soil sampling study conducted by the ministry found that the OMRR-regulated metal concentration in soils (at select sites where biosolids had been land applied) were all well below the thresholds established in the OMRR. In addition, the majority of legacy organic contaminants measured were not detected in biosolids amended soil, and the few that were detected were present in very low concentrations, well below the Contaminated Sites Regulation thresholds.

The ministry is conducting the second phase of the sampling project, which involves testing biosolids samples for the OMRR-regulated metals, legacy organics, and selected emerging substances of concern (pharmaceuticals and personal care products). Results are expected in the spring of 2017.

In addition to conducting the sampling project described previously, the ministry will continue to monitor the scientific literature for new evidence to ensure that the standards established in the OMRR are up-to-date. The ministry is also conducting a risk-assessment study to provide information on the potential exposure of wildlife and humans to land-applied biosolids. Results of this study are expected in the spring of 2017.

Regarding the inclusion of “digestate” as a composting feedstock, this would be allowed under the OMRR if the organic materials used to produce the digestate are included on Schedule 12. Land application of digestate is not specifically covered under the OMRR and would require an authorization in the form of an approval or permit under the *Environmental Management Act* (EMA), or would have to be done in accordance with the Agricultural Waste Control Regulation for on-farm applications.

Compliance and Enforcement

Compliance and enforcement (C&E) activities are carried out by Regional Operations staff under in the Environmental Protection Division and the Conservation Officer Service staff under the BC Parks and Conservation Officer Service Division. C&E staff are guided by the Compliance and Enforcement Policy and Procedure (C&E Policy), which ensures consistent and risk-based assessment responses to non-compliance. This policy achieves this in two ways: first, through the use of the Non-compliance Decision Matrix; and second, by promoting effective communication and collaboration between ministry staff.

For more information, please visit: www.env.gov.bc.ca/main/prgs/docs/ce_policy_and_procedure.pdf

Notification and Consultation

Currently under the OMRR, proponents are required to provide the following types of notifications:

- 30 days’ notice for proposed land applications of managed organic matter, as follows:
 - To a director;
 - To the medical health officer if the proposed application is to agricultural land or in a watershed; and
 - To the Agricultural Land Commission if the proposed application is within an agricultural land reserve; and
- 90 days’ notice before beginning the operation of a composting facility, in writing, to:
 - A director, and
 - The Agricultural Land Commission if the composting facility is located in an agricultural land reserve.

The ministry has received feedback that this notification system bypasses local governments and First Nations, and lacks in transparency for the general public. The ministry is therefore proposing changes to the current notification system to increase the level of transparency for the public and to provide First Nations and local governments with the ability to provide feedback on proposed activities. More

information on enhancements to the notification system will be described in a follow-up Intentions Paper anticipated for release in the summer of 2017. Stakeholders, First Nations and interested parties will have the opportunity to provide feedback on the proposed system at this time.

General Concerns Regarding Land Application

British Columbia is a signatory to the Canadian Council of Ministers of the Environment (CCME) Canada-wide Approach for the management of biosolids. The CCME promotes the beneficial use of biosolids, including: production of compost and soil products, forestry applications as a fertilizer/soil conditioner, land application, land reclamation and energy production (with positive energy balance, emission of low levels of nitrogen oxides and recovery of a significant portion of ash phosphorous). While ministry staff has the experience and knowledge to be able to codify some management options under the OMRR, other management options may be more site-specific in nature. Any emission to the environment from those activities would need to be authorized under the *Environmental Management Act* most likely via an operational certificate under an approved solid or liquid waste management plan or via a permit.

To clarify, the application of raw sewage sludge to land is not an authorized activity in British Columbia. The OMRR does not allow the direct application of sewage sludge to soil. First, sewage sludge must be stabilized via processing to reduce pathogen content and convert the sludge to biosolids (Class A or Class B). Only then can the Class A and Class B biosolids be land applied under stringent requirements and conditions, or further processed into Class A compost, Class B compost or biosolids growing medium. All of these products must meet specific quality standards.

The majority of agricultural applications are on rangeland in the interior of the province. The standards and requirements in the OMRR are in place to ensure that activities carried out in accordance with the regulation are protective of human health and the environment. This includes mandatory wait periods for livestock grazing (60 days) and food crop production and plant harvesting (18 to 38 months), where biosolids have been land applied.

D. Response form input: proposed policy intentions

1. Organic matter suitable for composting

1.1. Do you have any comments regarding the definitions and regulation of organic matter suitable or not suitable for composting under the OMRR or other regulations?

In general, comments from those that completed the Response Form and submitted letters are summarized as follows:

- There is clear support for the addition of **clean wood, paper and cardboard**, with some requests for definition of **clean material**.
- **Clarity on waxed paper materials.** *"Is it the Ministry's intention to include waxed cardboard as organic matter suitable for composting?"*
- There is mixed support for the inclusion of **compostable plastics**, with many comments on requiring further clarity on what types of compostable plastics should be allowed (e.g., only accepting plastics that meet certain standards like ASTM or made from renewable resources).
- There is a division on accepting **domestic composting toilet sludge**. Concern arises from lack of a robust verification process to ensure requirements are being met.

"The Ministry needs to establish a regulatory verification process to ensure that facilities that are composting any undigested sludge (including domestic composting toilet sludge, domestic septic tank sludge, municipal sewage sludge, etc.) are meeting the OMRR's Schedule 1 (pathogen reduction processes), Schedule 2 (vector attraction reduction), and Schedule 6 (record keeping). Without a robust verification process by the Ministry, land application of the finished product cannot be considered protective of human health, and we would not be supportive of the inclusion of "domestic composting toilet sludge" in the Schedule 12 as materials suitable for composting."

- Many respondents requested clarity on how the Ministry expects the broader category of **unstabilized sludge** should be managed and whether composting sludge falls within OMRR. There is some concern about the source of the sludge (i.e., domestic or industrial).
- Two respondents propose including **discretionary authority** for additional materials, although clear process must be defined and communicated.

"It would be useful for the director to have discretionary authority to approve additional materials suitable for composting under the OMRR on a case specific basis."

- Concerns that the temperature thresholds for yard waste composting are insufficient for destruction of invasive plant and noxious weed seeds and propagules.

Ministry Response to Question 1

To clarify, the proposed addition of "paper and cardboard" includes food packaging that is made from waxed paper and waxed cardboard.

The ministry intends to allow compostable plastics that meet the BNQ 9011-911/2007 or BPI – ASTM D6400 and/or ASTM D6868 standards.

Regarding “domestic composting toilet sludge”, Schedule 12 of the OMRR currently includes “domestic septic tank sludge”. The ministry’s intention is to add “domestic composting toilet sludge”. Compost derived from either of these feedstocks would need to meet the requirements set out in Schedules 1 through 6 to ensure quality of finished product. Undigested or raw sewage sludge is not currently included on Schedule 12. It is not the ministry’s intention to include undigested or raw sewage sludge as a feedstock for several reasons, including:

- odours from undigested or raw sewage sludge tend to be at a higher level when compared to these other materials or to biosolids; and
- there are benefits associated with two-part processing, i.e., anaerobic digestion and composting.

Operators considering composting of undigested or raw sewage sludge would require a permit or approval under the *Environmental Management Act*, or an operational certificate under an approved waste management plan.

The ministry is considering measures to appropriately manage invasive species or noxious weeds in yard waste. More information on these proposed measures will be described in a follow-up Intentions Paper anticipated for release in the summer of 2017. Stakeholders, First Nations and interested parties will have the opportunity to provide feedback on the proposed update at this time.

2. Composting facilities

2.1 Best Practices: Do you have any comments regarding this topic?

The comments in this section are varied. Many request **further clarification** on storage requirements, and the context is important. Suggestions include:

- Clarification about the **requirement for cover**: Several requests for specifying which activities require cover. *"As per Ontario's experience, best practices should include and specify the types of operations that should be in a fully enclosed facility, including but not limited to, receiving, processing, aging and storage operations."*
- *"The covering of wood chips, for example, is not deemed necessary and may represent an unnecessary and prohibitive cost as well as cause additional operational challenges (i.e. how long can the feedstock remain uncovered during active operations?). Additionally, [the respondent] does not see any need to regulate that finished compost be covered; finished compost should not give off foul odour if managed correctly and cured properly. The requirement to cover finished products could again pose a logistical challenge for large operators and is likely to introduce an unnecessary expense to the operator."*
- **Expand amendments with respect to odour management:**

“It would be beneficial to expand the proposed amendment to require any material, products, or substances to be managed and stored in a manner that prevents impacts of odorous air contaminants on communities surrounding compost facilities. OMRR supporting best management practices should include guidance for monitoring odours.”

“There is an urgent need to give odour a firmer legal footing. For example, by explicitly including odour as a substance that can be regulated as an air contaminant under the new [sic] Env Mgmt Act”.

- Update the Ministry’s Best Management Practices in **collaboration with industry**.
- Request for addition of **mandatory compost facility operator training** to ensure a baseline expertise that is common across all sites.
- Ensure best practices incorporate methods for minimizing greenhouse gas (**GHG**) emissions.
- **Impacts to local governments.** Regarding setback requirements for composting facilities: *“While local government does have the legislative authority to establish setbacks, there are concerns about the amount of red tape that will be created for local governments who do not have adequate setbacks in their current bylaws. There is also a concern that a patchwork approach could occur if each local government develops its own bylaws, creating confusion for businesses wanting to start a new composting enterprise. Many zoning bylaws were written before composting was widespread or when it was done exclusively by local government.”* Regarding nuisance issues: *“Many local governments do not have nuisance bylaws which are able to deal with some nuisance issues related to poorly run composting facilities and do not have the in-house expertise to develop regulatory bylaws of this nature.”*
- **Vector attraction reduction requirements.** *“Access by pests and other vectors cannot be “prevented”. They can, however, be “controlled and managed.”*
- *“...commercial composting operations must follow best practices and be fully enclosed...”*
- *“The release of leachate into the environment is one of the major issues associated with composting sites. It cannot be underestimated how dangerous a leachate spill could be to the adjoining lands and waterways.”*
- *“OMRR must require leachate ponds to be leachate storage to be made of an impermeable surface that is capable of withstanding wear and tear from normal operations and that will prevent the release of leachate into the environment and be fully enclosed.”*
- *“There should be a human consideration, i.e. that the facility is managed in a way that prevents the escape of odours that [sic] effect the human population and does not create a nuisance beyond the property boundary.”*
- Concerns over plastic contamination in finished compost.

Ministry Response to Question 2.1

The ministry intends to update the guidelines and best practices for compost facilities. This will include considerations such as: a fully enclosed facility for receiving, processing and storage operations. The ministry recognizes the importance of engaging with industry in developing best practices and guidance.

Requirements regarding covering of stored finished compost are primarily intended to mitigate the generation of leachate in high precipitation areas of the province. It is not expected that finished compost would produce significant odour if fully mature.

The ministry is considering strengthening the outcome-based requirements for odour management. It is the ministry's intention to specify odour plan requirements directly in the OMRR. More information on proposed odour plan requirements will be described in a follow-up Intentions Paper anticipated for release in the summer of 2017. Stakeholders, First Nations and interested parties will have the opportunity to provide feedback on the proposed changes at this time.

The ministry will consider the requirement for compost facility operator training for a future amendment.

As per section 2 of Schedule 4, the OMRR currently sets a 1 percent limit on foreign matter content for retail-grade and managed organic matter. In order to improve compost quality, the ministry is considering lowering the limit for plastic contamination. More information on this proposed plastic limit will be described in a follow-up Intentions Paper anticipated for release in the summer of 2017. Stakeholders, First Nations and interested parties will have the opportunity to provide feedback on the proposed limit at this time.

2.2 Plans, reports and associated requirements: Do you have any comments regarding the ministry intention to update provisions so that all composting facilities designed to produce 5,000 tonnes or greater of compost per year prepare a facility environmental management plan (FEMP)?

The majority of applicants **support the requirement for a FEMP**. Additional comments include:

- There is support for a **more streamlined approach**. *"Consolidation of several plans (environmental impact study, odour management plan, operating and leachate management plan) into one plan should reduce red tape for business."*
- Plans should be available to local Indigenous bands and the public.
"...supports the requirement for facilities to prepare a facility environmental management plan (FEMP) which is transparent and available to the public."
"all reports including monitoring reports need to be supplied to the local Indigenous bands with funding that will allow and duplication of any testing."
- There is support for the requirement that the **FEMP be prepared by a Qualified Professional**.
- Some respondents suggest that the Ministry *"explicitly state that facilities must be actively following all aspects of their environmental management plan, as the requirement to have a plan does not necessarily imply that the plan must be used or followed."*

- Regulation should **differentiate** between biosolids growing medium (BGM) and temporary mixing facilities.
- **Plan requirements need to be clearly stated**, including size of the facility requiring a FEMP, the time frame to submit a plan and the frequency of required updates.
“The Intentions Paper frequently references the requirement that documents are kept up to date. This wording is vague and it is unclear of what type of operational change would require a resubmission to the Ministry. ... We believe an annual update of a FEMP is unnecessary as much of the contents will change over longer periods of time.”
- Suggestion to **define odour** within OMRR.
- Some support for reducing the FEMP requirement to facilities that produce 1,000 metric tonnes dry weight.
- Some support for facilities to be subject to review and approval, including the recommendation that the *“ministry also be required to review and approve all of the documents that are submitted. Information is only useful if it used.”*
- **Increased clarity regarding qualified professionals.** *“The criteria that must be met in order to recognized as a “Qualified Professional” could be clearer to avoid problems where the province does not agree a person conducting a facility environmental management plan is a “Qualified Professional”.*

Ministry Response to Question 2.2

To clarify, the ministry intends to consolidate and amend the current planning requirements as follows:

- All compost facilities will require a facility environmental management plan (FEMP), regardless of design production capacity (dry weight of finished compost).
- Those with a design production capacity of less than 5,000 tonnes per year, or that process only yard waste and/or untreated and unprocessed wood residuals will require a “light” version of the FEMP (operational, leachate and odour components).
- Those with a design production capacity of 5,000 tonnes or greater per year will require a full version of the FEMP (operational, leachate, odour and EIS components).

The compost facility guidelines will be updated accordingly with a description of the FEMP requirements.

The ministry intends to require that compost operators must comply with their plans.

The ministry intends to distinguish between temporary and permanent facilities for the production of biosolids growing medium. Temporary facilities would be exempt from notification requirements. A “temporary” facility is characterized as a facility or site that mixes biosolids with other media to produce biosolids growing medium for a one-time application at that site, and is generally in operation for less

than 9 months, consistent with storage requirements for managed organic matter under Section 19 of the regulation.

It is not the ministry's intention to approve facility plans. However, it is the ministry's intention that directors will have the ability to request additional information or specify additional requirements with respect to the plans and specifications, and may specify particular concerns, questions, standards or monitoring that the plans and specifications must address.

The ministry recognizes the importance of air quality surrounding compost facilities. Odour modelling which can simulate the effect of a compost facility on local air quality as it relates to odour is a best management practice that should be used when siting and designing facilities. The ministry will ensure guidance material clearly outlines the odour modelling process and its importance.

The ministry intends to provide that all plans, reports and specifications required under the regulation are kept up-to-date, and the ministry be notified of changes within 30 days of the change. Respecting compost facility plans, changes include, but are not limited to:

- A change in name of the discharger or registered owner
- A transfer of ownership to a new discharger or new registered owner
- A change in legal address or mailing address of either the discharger or registered owner
- A change in the qualified professional
- A change in the boundaries of the site
- Changes to the design production capacity, greater than 10%
- Changes in the types of organic matter that is or will be processed into compost, e.g., addition of a new feedstock or elimination of an existing feedstock
- A change in the proportion of any type of organic matter feedstock of greater than 10%, e.g., from 50% yard waste, 30% food waste and 20% biosolids to 30% yard waste, 50% food waste and 20% biosolids
- Changes in the types of compost produced

3. Land application and distribution of managed organic matter

3.1 Addition of new standards: Do you have any comments regarding the ministry's intention to introduce regulatory standards for chromium and copper for Class A biosolids?

- Most respondents support adding **chromium and copper** standards for Class A biosolids. Although one respondent opposed this, this response is interpreted as concern for allowing *any* level of chromium and copper in biosolids. Another respondent recommends that trace elements should be specified for Class A biosolids.

- There is support in principle for standards for **emerging substances of concern (ESOCs)** but only if the regulation is evidence-based and scientifically grounded. Respondents stated that there is **not enough information** included in the background documents to form an educated opinion. Some respondents suggest that the Ministry should organize and fund a sampling survey for ESOCs that would allow for informed discussion and decision making.

“The [respondent] is concerned that an arbitrary, non-evidence-based addition of ESOCs as regulated parameters will lead to improper management of WWTP processes and undue impact on municipal wastewater management, ultimately resulting in poorly performing, unnecessary, and extremely expensive facility updates even when those WWTPs are in full compliance with existing discharge permits. As a community currently reviewing its options for wastewater treatment upgrades, we are concerned by the possibility that ESOCs may be added for monitoring in the absence of an evidence basis, and that there be a future requirement for treatment of these substances.

Given the complexity of the issue and the lack of detail presented within the Intentions Paper, the [respondent] expects that any movement on the proposed addition of new standards must be accompanied with additional stakeholder consultation, and a more significant, collaborative, data-gathering process.”

“[The respondent] supports Canada’s leading toxicologists in their assertion that the mere presence of a parameter does not in itself represent a risk to human health and / or the environment; any additional substance standards to be included in OMRR must be derived through a risk-based assessment and have an evidence-based rationale for inclusion. The list of ESOC and legacy organics provided by the Ministry in the Intentions Paper is too broad to provide specific comment.”

- There is no support for the addition of standards for **legacy organics**, except for one respondent that recommends: *“Immediately adopt limits from countries with regulations in place and/or BC Contaminated Sites Regulation schedules 4 & 5.”*
- There are some respondents that **oppose the land application of biosolids** under any circumstances due to concerns about toxins and human health.

Ministry Response to Question 3.1

The ministry intends to add a column into the table in Schedule 4, section 1 to include the trace element concentrations for Class A biosolids.

The ministry is currently conducting a biosolids sampling study to measure various potential contaminants including legacy organics and emerging substances of concern (ESOCs) (results anticipated spring of 2017). The ministry is evaluating the option of requiring that wastewater treatment plants perform periodic testing of their biosolids for select contaminants, including legacy organics and ESOCs. The ministry will work with local governments to develop any such sampling protocol. More information on this proposed sampling protocol will be described in a follow-up Intentions Paper anticipated for release in the summer of 2017. Stakeholders, First Nations and interested parties will have the opportunity to provide feedback on the proposed protocol at this time.

As per the recommendations from the scientific review, the ministry is conducting a risk assessment on potential effects of biosolids land application on wildlife, including birds and large mammals. Results from this assessment are expected in the spring of 2017.

In practice, managed organic matter is generally surface applied. In order to further reduce potential exposure (to people, wildlife and water sources), the ministry is considering additional requirements for surface applications of managed organic matter. More information on proposed requirements for surface and subsurface applications will be described in a follow-up Intentions Paper anticipated for release in the summer of 2017. Stakeholders, First Nations and interested parties will have the opportunity to provide feedback on the proposed requirements at this time.

3.2 Land application: Do you have any comments or suggestions regarding this topic?

- On “**agronomic requirements**”, respondents that commented on this all felt that the term was poorly defined and required context and clarity for the requirement. For example, some respondents suggest there should be one-time exceptions, such as in the case of reclamation sites, as it limits the ability to use organic matter for different end goals.
- *“There are several beneficial uses of biosolids which are well proven and are not necessarily ‘agronomic’ in origin: biosolids growing medium (BGM) which typically contains < 10%dw biosolids, or mine reclamation which is a soil building technique. The [respondent] has concerns with the practicality of this intention if one of the great benefits of the OMRR is that it is an enabling regulation, not requiring further permitting.”*
- *“With the intended changes, the OMRR would not have a mechanism in place to reclaim mine sites or aggregate pits that do not exceed the soil quality criteria (therefore not needing approval or the permitting process as described in Section 3.3 of the Intentions Paper). Limiting the application rate to agronomic would also prohibit the ability to use biosolids reclamation mixes or fabricated soil as a landscaping soil, which has been previously used in many areas of the province, providing a sustainable beneficial use of biosolids in urban park development and an alternative to topsoil. Soil building biosolids application rates (that would exceed crop nutrient uptake) could be restricted to a one time application per area. Note that biosolids reclamation mixes or fabricated soil can include the use of Class B biosolids and can currently be managed under a LAP. It is our assertion that the use of a reclamation mix, fabricated soil, or direct application of biosolids using a reclamation-based application rate is appropriate and should be managed under a LAP.”*
- *“Based on a strict reading of the proposed change (i.e., agronomic rate), the OMRR would not have a mechanism in place to enable biosolids-based reclamation of mine sites or aggregate pits that do not exceed the soil quality criteria (and are therefore ineligible for the approval or permitting process). Soil-building biosolids application rates could be restricted to a one-time application per area.”*
- Many respondents express support for the intention to include **contingency plans in the Land Application Plan** but request further clarification on the details of the contingency plan.

Additionally, a few respondents ask for a clear definition of non-compliance. Specific questions that relate to contingency plans include:

- what is expected in a contingency plan;
 - how will the requirements for contingency be implemented;
 - what is a suitable contingency plan;
 - are contingency plans to be developed for the biosolids or the site; and
 - how should non-compliance be managed?
- Some respondents are unclear on the **notification process** and how the Intentions Paper affects these processes. *“The Intentions Paper is unclear on how notification “within 30 days of the change” is to be interpreted. We assume this means “30 days after the change” and not “30 days before the change”. If that is not the case and it is intended to require notification before the change, that will be problematic given the seasonal nature of land application and the impact that a delay in the process will create on the operation, particularly for minor changes.”*
“In regards to the submission of LAPs to the Ministry, medical health officers and ALC, the [respondent] believes that LAPs should be submitted to one point of contact, specifically the Ministry of Environment. It is the [respondent]’s position that the Ministry be responsible for distributing the notification and Land Application Plan to all those who are to be notified under OMRR, including the ALC, the Medical Health Officer and First Nations. This is important as the contact information for dissemination of these notifications is not always current or available to the individuals submitting a notification. “
 - Some respondents request clarification on **what constitutes a change** to the Land Application Plan.
 - Support for regular soil tests and designing land application rates based on plant or crop requirements.
 - *“Harvesting is a significant cultural practice for [the respondent]. As such the introduction of various foreign biosolids in the [respondent’s] ecosystem could have serious [sic] implication for [the respondent’s] ability to continue our ongoing cultural practices with regards to harvesting plant life.”*

Ministry Response to Question 3.2

The ministry intends to specify agronomic requirements (based on nitrogen) that will be specific to land applications made in support of plant growth for agricultural operations, or for forestry or silviculture operations. The ministry recognizes that this requirement is not warranted for site reclamation or other activities where exceeding agronomic rates may be warranted.

The ministry is proposing a permit requirement for application of managed organic matter to sites that exceed the soil limits established in the OMRR and the Contaminated Sites Regulation.

The ministry is intending to maintain the current flexibility in the OMRR that enables proponents to develop site specific soil standards using protocols approved by the director (new Schedule 10.1). The protocol could factor in regional background levels where necessary.

The ministry intends to specify that a land application plan must include a contingency in the event that sampling and monitoring results suggest non-compliance. If sampling or monitoring data indicate that soil substance concentrations exceed the limits specified in Schedule 10.1, or as approved by the director, the discharger must immediately notify the Director or designate by email of any non-compliance with the requirements of the Organic Matter Recycling Regulation by the discharger and take remedial action to remedy any effects of non-compliance.

The ministry intends to require that proponents must comply with their land application plans.

The ministry intends to provide land application plans required under the regulation are kept up-to-date, and the ministry be notified of changes within 30 days of the change. Respecting land application plans, changes include, but are not limited to the following:

- A change in name of the discharger or registered owner.
- A transfer of ownership to a new discharger or new registered owner.
- A change in legal address or mailing address of either the discharger or registered owner.
- A change in the qualified professional.
- A change in the boundaries of the site, including whether additions any of new Agricultural Land Reserve land.
- Changes made in information respecting the use of the application site, including the type of crop that will be grown on the site, if any, including whether the site will be used to grow food crops, tree crops or forage crops, or will be used for domestic animal grazing, or if the site will be used to grow a food crop for human consumption and whether the crop will have harvested parts above the ground or below the ground or both, and crop rotation on the site.
- Changes to the description of the managed organic matter to be applied.
- Changes to the intended dates for each land application in the time period to which the land application plan relates.
- Changes to the application rate or total tonnes to be applied.

3.3 Mine site reclamations and landfill closures: Do you have any comments regarding this topic?

The majority of respondents support enabling the Director to exercise discretion to issue a permit or approval for land application of managed organic matter that otherwise does not meet soil quality standards with the caveat that it is evaluated on a case-by-case basis. However, there are many comments on the process, including:

- Request for **clarification on the permit/approval process**, including requirements for notification and development of clear regulation to avoid subjectivity of different Directors. *“The OMRR needs to include the specific protocol and steps required in order to obtain a permit/approval, and the timeline for the Ministry’s response. This is necessary for clarity among all parties, and to ensure consistency across the Province, as historically there has been inconsistency across regional offices. A critical component of the protocol will be the requirements around notification/ consultation, recognizing that the time required to undertake full consultation could prohibit organics recycling opportunities, and may not be appropriate in all cases (such as landfill closures).”*
- Request for **clarification on the timeline for permit / approval**. Many respondents felt that the process should be time sensitive, similar to the LAP. One respondent stated: *“It is our understanding that current permit processes may take up to 18 months to reach a decision; this is an onerous timeline, particularly for small footprint mines or landfills that can benefit significantly from reclamation or closure.”*
- Suggestions that OMRR **adopt risk-based tools** to manage complex situations: *“tools available to Contaminated Sites Approved Professionals in regards to sites or materials exceeding simple numerical quality standards would enable a streamlined and protective approach to mine reclamation with biosolids.”*
- **Allowing for a one-time soil building application** on sites where naturally occurring levels of trace elements exceed the limits. A respondent proposes that the following statement be added to Schedule 4: *“A director may issue permits or approvals to allow managed organic matter to exceed substances concentrations set out in column 2 and 3 (from the table in paragraph 1) by up to 100%.”* The respondent then goes on to say *“It would make sense that biosolids which exceeded trace element limits would not be permitted to be used on sites where the soil quality limits were exceeded, and vice versa.”* Another respondent suggests the use of Class B biosolids be allowed for one-time applications at mine sites and landfill closures.

“This can be a positive impact for the mining sector, but only so long as the amendment includes reference to the Mines Act and the Health, Safety and Reclamation Code.”
- **Support for enabling the beneficial use of biosolids for landfill closures**, *“...which has potential to significantly reduce greenhouse gases from landfills, which are a significant source of provincial GHGs. To date, biosolids have been beneficially used in BC landfill closures under the landfill closure plan with some guidance from Ministry personnel on a case-by-case basis. Biosolids have been used as part of final cover in the form of fabricated soil designed for a particular end use (e.g., parkland), as a component of a “biocover” or “biofilter” for methane mitigation, and in evapotranspiration covers.”*

Ministry Response to Question 3.3

The ministry is proposing a permit option for application of managed organic matter to sites that exceed the soil limits established in the OMRR and the Contaminated Sites Regulation.

The ministry is also intending to maintain the current flexibility in the OMRR that enables proponents to develop site specific soil standards using protocols approved by the director (Schedule 10.1). The protocol could factor in regional background levels where necessary.

The ministry is a signatory to the CCME Canada-wide approach to the management of biosolids which supports beneficial use of biosolids, including for landfill closures. This is generally captured under the solid waste management planning process. For more information on solid waste management plans: www2.gov.bc.ca/gov/content/environment/waste-management/garbage/municipal-waste-management-plans&title=Municipal%20Waste%20Management%20Plans.

4. Notification under the OMRR

4.1.1 Composting facilities: (a) Do you have any comments regarding the ministry's intention to amend the OMRR and include notification provisions for composting facilities?

In general, many respondents **support in principle the intention to amend the OMRR to include notification provisions for composting and BGM facilities**. Some note that local and regional governments should also be included in the notification process: *"Where subject lands are within the boundaries of a local government, [the respondent] suggests that the notification to the local government is required. This ensures that local governments are aware and can confirm compliance with local zoning and other regulatory tools that are in place to represent the community's interests."*

Further clarification on the notification process is required to unconditionally support the intention for notification. There are many questions on proposed notification process, such as:

- Is the process a means to provide information to the public only?
- Does the process include opportunities for the public to provide feedback?
- Are the proponents required to undertake public consultation?
- Do existing small-scale facilities of less than 5,000 metric tonnes need to resubmit all the original plans?

Comments about the process include **concerns about responding to feedback**: *"Our interpretation of the Intention Paper is that information submitted to the Ministry by the Proponent will be made available on-line to the public by the Ministry. What is the process for responding to public concerns, and who is responsible to do it? What is the process if there is opposition by members of the public to a facility? Will there be a prescribed time limit for public feedback on the proposed facility?"*

One industry respondent felt that proponents *"...should be inviting public feedback as our operations do affect the wellbeing of our public."* An individual notes: *"There should be a public notification process, newspaper or online [sic] add."*

Other recommendations and suggestion from respondents include:

- Differentiate between temporary sites and permanent facilities.
- Allow a reasonable time period to prepare plans, suggested to be 120 days minimum, is required and needs to be specified.
- A contact for the public.
- A timeline for notification needs to be clearly specified.
- Definitions for "significant amendment" and "change" are required for clarity.
- Recommendation that the ENV invest in public education prior to releasing plans publicly.

“For biosolids growing medium facilities, it would be enabling if the director was allowed discretionary authority over the 90 day notice on a case-by-case basis, in order to respond to smaller scale projects that arise on short notice, where a temporary biosolids growing medium (BGM) mixing operation may be needed (e.g., to create a large volume of BGM on site for use in a park).”

“The [respondent] recommends the Ministry provides more information regarding public notification. i.e. will there be a time frame allocated to the public for feedback? If so, what would the process be in responding to comments or concerns? The [respondent] supports notification processes and transparency, and places a high priority on ensuring these processes are clear, focused, and provide biosolids managers with certainty in the process and its timelines.

- How is the Ministry investing in public education, prior to releasing compost facility plans, reports and specifications to the public? The [respondent] recommends a thorough educational treatment from the Ministry to ensure the public and interested stakeholders have the information available to make informed decisions within the public process.*
- Will there be separate reporting requirements for the Province and the public?*
- How often will reports be required to be updated?*
- What is the course of action if any of the stakeholders mentioned objects to the land application plan or report that has been submitted? This detail is not included in the policy IP [Intentions Paper].*
- Compost advertising requirements already require notification that biosolids are included in a product.”*

“Transparency - in addition to public consultation on new facilities and new permits, it should be part of the regulation that the neighbouring communities to a composting plant actively participate in the odour monitoring and addressing odour complaints. This should be seen as a best practice --> best available technology.”

*“...it would **not be advisable** to make all submissions by operators available online to the public. A summary of pertinent information would be much more valuable and beneficial for all. This approach would also promote better public policy because operators would likely be willing and able to share more information (and more sensitive information) with the Ministry.”*

Ministry Response to Question 4.1.1 (a)

At least 90 days before beginning the operation of a composting facility, proponents are required to notify the ministry, and the Agricultural Land Commission if the facility is located on agricultural reserve land. The ministry does not intend to change this timeline.

The province is committed to publishing government data and information in an effort to increase transparency as part of the province’s “Open Government” initiative. The ministry’s proposal to publish plans and reports online is in line with this initiative. Accordingly, proponents will be required to submit all plans to the ministry for online posting. The online posting will enable members of the public to

review information content. The ministry is not intending that proponents will conduct the type of public consultation that is associated with a statutory decision (e.g., permit). If members of the public have any concerns regarding activities regulated under the OMRR, they retain the ability to contact the proponent, ENV staff or local health authorities.

The ministry has received feedback that this notification system bypasses local governments and First Nations, and lacks in transparency for the general public. The ministry is therefore proposing changes to the current notification system to increase the level of transparency for the public and to provide First Nations and local governments with the ability to provide feedback on proposed activities. More information on enhancements to the notification system will be described in a follow-up Intentions Paper anticipated for release in the summer of 2017. Stakeholders, First Nations and interested parties will have the opportunity to provide feedback on the proposed system at this time.

The ministry is not intending that existing operations re-submit notifications of operation. However, the facilities will be subject to the requirement that all plans be kept up-to-date when the changes to the regulation come into effect.

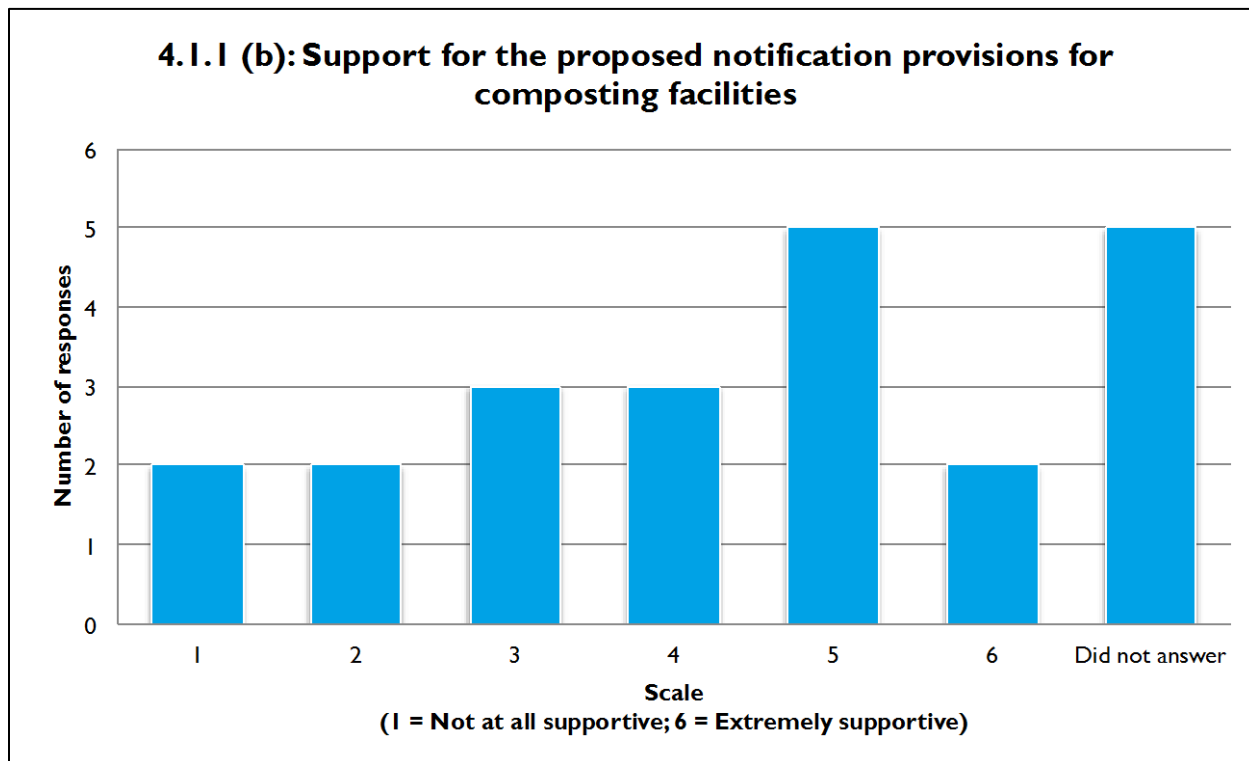
The ministry intends that “temporary facilities” would be exempted from the requirement to provide notification. A “temporary” facility is characterized as a facility or site that mixes biosolids with other media to produce biosolids growing medium for a one-time application at that site, and is generally in operation for less than 9 months.

The ministry intends to update guidance documents for industry and members the public as required to reflect any changes to the regulation.

Proponents have the flexibility to choose as much time as they require for preparation of plans. Plans should be in the final draft stages when notification is provided to the ministry and others as required.

The ministry intends to require that producers of compost derived from biosolids disclose to users that the product is derived from biosolids irrespective of the volume of compost or biosolids growing medium distributed.

4.1.1 Composting facilities: (b) Please indicate your level of support for the proposed notification provisions for composting facilities?



Important notes:

- Five of the respondents that completed the Intentions Paper Response Form did not answer this question.
- Respondents that provided letter and email comments are not included in this chart because this question was not specifically answered in their submissions.
- Chart includes responses from individuals and organizations representing more than one party. Responses have not been weighted based on the number of parties that a response may represent.

4.1.1 Composting facilities: (c) What are the reasons for your choice in question 4.1.1 (b)?

Of the respondents that answered the question, many agree “with the Ministry that the industry should provide increased public transparency and the OMRR should include notification requirements.” In addition, these same respondents feel that the Ministry should take on a centralized role in the notification process, acting as the point of contact to disseminate information to appropriate stakeholders (e.g., First Nations, Agricultural Land Commission, Ministry of Health, regional and local

governments, landowners and citizens). Respondents felt that this would foster transparency and public confidence in the process.

However, while the majority of organizations support the intentions in principle, many felt that there was not enough detail in the Intentions Paper to support unconditionally. The requirements must be clearly outlined.

“The IP does not include adequate information on what will occur if a stakeholder, such as First Nations, objects to the notification of composting facilities or land applications. This creates uncertainty around biosolids reuse and for composting facilities. This could potentially lead to sustained issues for municipal wastewater treatment plants in the province.”

“Without completely clear understanding of what the additional notification provisions entail, and what responsibilities are, complete support is not provided. Support is conditional and provided in principle, subject to clarity and further consultation on the issue.”

“There is not enough information in the intentions paper with regards to how the process will be affected by public comments or concerns.”

Of the individuals that responded to this question, all support a public notification process, including notification of municipal governments.

Ministry Response to Question 4.1.1 (c)

The ministry has received feedback that this notification system bypasses local governments and First Nations, and lacks in transparency for the general public. The ministry is therefore proposing changes to the current notification system to increase the level of transparency for the public and to provide First Nations and local governments with the ability to provide feedback on proposed activities. More information on enhancements to the notification system will be described in a follow-up Intentions Paper anticipated for release in the summer of 2017. Stakeholders, First Nations and interested parties will have the opportunity to provide feedback on the proposed system at this time.

The OMRR is enacted taking into account the Province’s general legal obligations to consult and accommodate First Nations, where required, on land and resource management decisions that could impact their Aboriginal interests. While the Province is responsible for ensuring adequate and appropriate consultation and accommodation, it may involve the proponent in the procedural aspects of consultation. The Province encourages proponents to engage with First Nations to build relationships and for information sharing purposes that may support engagement processes.

4.1.2 Land application: (a) Do you have any comments regarding the ministry’s intention to amend the OMRR and include notification provisions for land application and distribution of managed organic matter?

Many of the comments from respondents referenced their comments in 4.1.1 (a). **Further clarity is requested before the respondents feel they can give their support.** Many of the comments are regarding the notification process and publication of plans. The respondent *“supports the requirement that LAPs and post-application certification be submitted to the Ministry, Agricultural Land Commission, Health Authority, and landowner, as appropriate.”* However, other respondents **disagree** saying they would *“...prefer a better law enforcement regime of the adjusted OMRR quality requirements instead of additional notifications (resulting in more bureaucracy).”*

There is some support for requiring notification of land application of BGM and Class A compost in volumes exceeding 5,000 cubic metres: *“Where subject lands are within the boundaries of a local government, [the respondent] suggests that the notification to the local government is required. This ensures that local governments are aware and can confirm compliance with local zoning and other regulatory tools that are in place to represent the community’s interests.”*

First Nation respondents assert that “The land application of biosolids pose a great risk to Aboriginal rights, including title due to the importance and dependence on the land and water resources. Contamination from leachate from biosolids are of particular concern to us due to the potential of long-lasting adverse impacts of pollution and toxins to our local water supply and ecosystem.”

However, many respondents have questions, concerns and site opposition to a requirement for notification for large applications of Class A compost. *“How is this to be done when these products are distributed through landscaping companies? The facility that makes the BGM or Class A compost has no control over how the material is distributed after it leaves their facility. This could kill this beneficial reuse option for these residuals. This will have huge impacts on biosolids beneficial reuse in this province, especially since direct land application is quite unpalatable to the general population of the province anywhere south of 100 Mile BC. This could mean that most biosolids and food waste is again landfilled - not a progressive move. The Ministry should consider this very carefully as it could have far-reaching ramifications for residual reuse in the province.”*

“The [respondent] does not support the requirement for notification of “large volume usage” of Class A compost and BGM. The MoE should clarify what is meant by a “large” volume in this case, but as these products are high-quality materials that are unrestricted in their use, and co-regulated by CFIA, we do not believe that notification should be required. For these high-quality materials, potential risks have already been addressed during the production process and no site-specific processes (e.g., notification) are required to further manage these risks.” Additional responses indicate that there should be **clarification on what is meant by “large” volumes.**

“Please clarify that the only proposed change for the application of Class A compost is that it be limited to not “exceed agronomic requirements”. Please confirm that not land application plan will be required for Class A compost.”

Other comments and questions include:

- **Misleading language about biosolids.** For example, “It is fair to say that compost is *DERIVED* from biosolids not that it “contains” biosolids. The biosolids are converted to humus and are no longer biosolids. It is misleading to consumers who have trouble differentiating between sludge and compost.”
- **Biosolids as a feedstock.** “Because biosolids are allowed to be composted as organic matter to produce Class A compost under Schedule 12 there appears to be a widespread misapprehension among members of the public that all compost facilities do, or may on a whim, compost biosolids. That not only heightens fear in the public about all compost and composting it also degrades the perception of quality and value of all compost, even that which does not contain biosolids...Our suggestion is that you establish another class of compost, being that which is produced without biosolids.”
- **Clarify the authority of the other agencies** that are being notified. “The Ministry must clarify what powers the agencies who are being notified have with respect to vetoing or modifying land application programs. Specifically, the [respondent] requests that the Ministry clarify if medical health officers have the authority to halt land application at a specific site. If this is the case, the [respondent] requests that the Ministry provide additional clarity that the medical health officer must make a decision based on scientific and risk-based research regarding the protection of human health. The [respondent] considers that requests made by the medical health officer that do not reflect concerns over protection of human health are outside of their jurisdiction. Medical Health Officers should be provided with training specific to biosolids and biosolids management prior to their review of land application plans. Additionally, dischargers must be provided with an opportunity to address questions and remediate the source of concern or add additional management approaches to the LAP to satisfy the medical health officer.”
- **Clarify what materials are subject to notification:** “Class A compost has always been able to be distributed without restriction. If compost makes the standard as a class A then why would there now be a requirement for notification for large applications? ... For instance, if a municipality was building a relatively small park area of less than 2 ha it is entirely possible they could use 3000 yds of composted garden soil which could contain as much as 2000yds of Class A compost and 1000yds of sand. Would notification to the MOE require a waiting period before an installation of Class A compost blended soil can proceed? We do not think that a landscaper would be willing to wait 30 days for MOE to do notification for a large application. The landscaper will just call down to the City where they can get the soil on a [sic] days notice. This results in material being moved in from out of our region and increases greenhouse gas emissions associated with the transport of this composted soil.”

“I think there has to be a **distinction between a small scale community based biosolids composting program** that are keeping the communities waste stream close to home and producing products primarily for landscaping purposes; and large scale biosolids disposal operations that are primarily disposing of Metro’s biosolids through large scale land application of biosolids growing medium. We seem to be lumped into the same group.”
- **Clarify the process for responding to public concerns.** “What is the process for responding to public concerns, and who is responsible to do it? What is the process if there is opposition by members of the public to the land application? Will there be a prescribed time limit for public feedback on the application?”

At what point in the process does the Ministry intend to publicly post land application plans? We recommend the Ministry not post land application plans until they are considered accepted by the regulator (i.e. after the 30 day submittal period) as there is potential for land application plans to change significantly during the 30 day period if the regulators require clarifications, or changes to the plan. Additionally, if the regulators deny a land application plan during the 30 day period there is no value in having the plan publicly posted.”

Ministry Response to Question 4.1.2 (a)

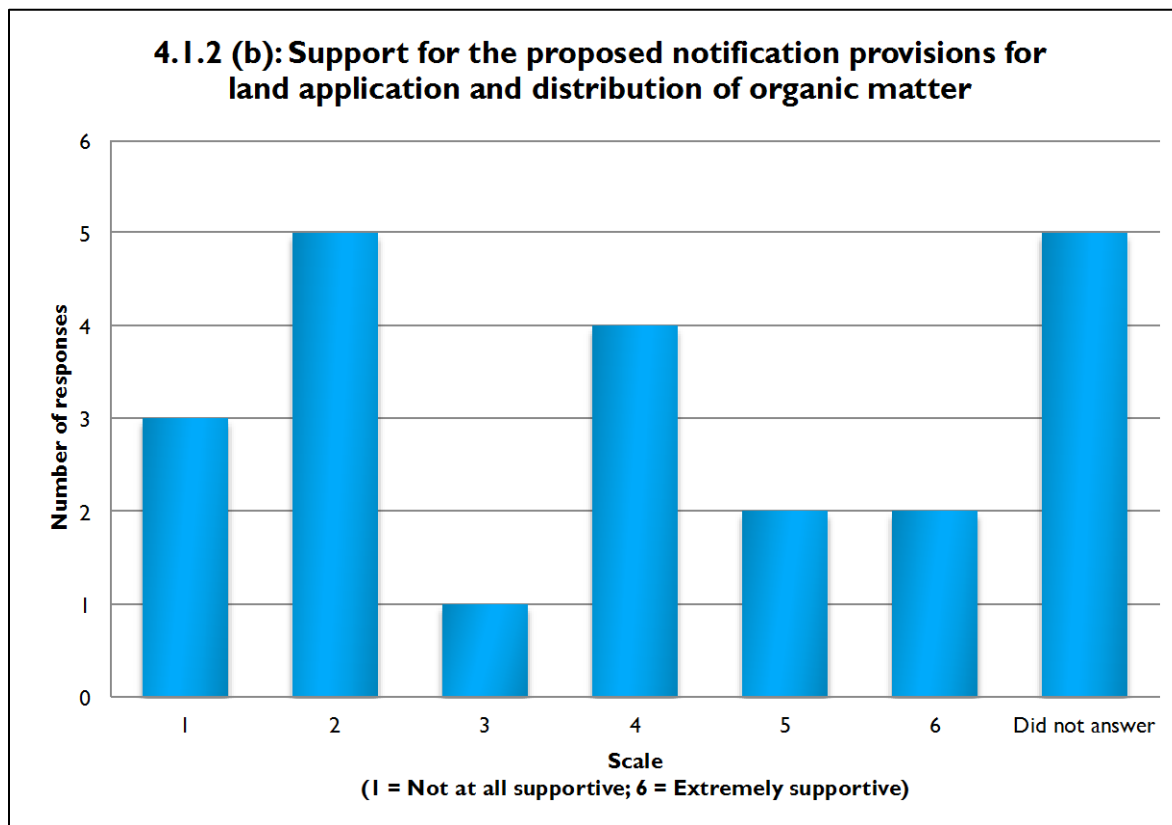
The Province is committed to publishing government data and information in an effort to increase transparency as part of an “Open Government” initiative. Our proposal to publish plans and reports online is in line with this initiative. Accordingly, the ministry is intending to increase transparency under the regulation. Proponents will be required to submit all plans to the ministry for online posting. The online posting will enable members of the public to review information content. The ministry is not intending that proponents will conduct the type of public consultation that is associated with a statutory decision. If members of the public have any concerns regarding activities regulated under the OMRR, they have the ability to contact ministry staff or local health authorities.

The ministry has received feedback that this notification system bypasses local governments and First Nations, and lacks in transparency for the general public. The ministry is therefore proposing changes to the current notification system to increase the level of transparency for the public and to provide First Nations and local governments with the ability to provide feedback on proposed activities. More information on enhancements to the notification system will be described in a follow-up Intentions Paper anticipated for release in the summer of 2017. Stakeholders, First Nations and interested parties will have the opportunity to provide feedback on the proposed system at this time.

The ministry has and will continue to work in collaboration with the Ministry of Health and the provincial health authorities, and will produce guidance and training for all staff, including medical health officers, to support the changes to the regulation.

The ministry is not proceeding with its intention to require notifications for large volume applications of Class A compost or biosolids growing medium. However, the ministry is evaluating the option of allowing the director to request that compost facilities that apply Class A compost or BGM on their own land demonstrate that it is being done in an agronomically sound fashion. More information on this proposed requirement will be described in a follow-up Intentions Paper anticipated for release in the summer of 2017. Stakeholders, First Nations and interested parties will have the opportunity to provide feedback on the proposed requirement at this time.

4.1.2 Land application: (b) Please indicate your level of support for the proposed notification provisions for land application and distribution of organic matter?



Important notes:

- Five of the respondents that completed the Intentions Paper Response Form did not answer this question.
- Respondents that provided letter and email comments are not included in this chart because this question was not specifically answered in their submissions.
- Chart includes responses from individuals and organizations representing more than one party. Responses have not been weighted based on the number of parties that a response may represent.

4.1.2 Land application: (c) What are the reasons for your choice in question 4.1.2(b)?

The majority of respondents support the need for a notification process that would provide increased public transparency, however the agreement is limited until the process is specified. *“However, the*

[respondent] asserts that the Ministry's description of the notification process in both the OMRR and the Intentions Paper lacks sufficient detail. The requirement for notification must include 1) how notification is to occur, 2) the role of each notified agency in vetoing or amending land application plans, 3) the scope of the basis for requested amendments (i.e. protection of human health and the environment based on scientific data) and 4) the required (if any) follow-up actions by the discharger if comments or questions are received following notification. The [respondent] asserts that this process must be equitably applied throughout the province.

The [respondent] strongly believes that the Ministry should take a centralized role in the notification process. The Ministry should act as the point of contact to ensure information is being disseminated to the appropriate people (i.e. ALC, Ministry of Health, First Nations). In addition, the Ministry should be the one to identify which comments or questions require follow-up and should guide the proponents on how they are to respond. This will create a uniform notification and response system within the industry."

Generally, there is **no support for the notification requirements for large volume applications** of Class A compost and BGM, though some respondents indicated support would be subject to further clarification of the process and volumes. Some individual respondents indicated the public should receive notification for all land applications of biosolids.

Ministry Response to Question 4.1.2 (c)

See section 4.1.2(a).

4.2. Engagement with First Nations: Do you have any comments regarding this topic?

The majority of comments **request clarification on engagement versus notification**. The Intentions Paper references "notification" while the Response Form refers to "engagement". The respondents note that in this context, those terms hold different meanings and it is important to differentiate between the two terms. **Clear direction and clarity is required** from the Ministry with respect to the proponent's requirements. *"The [respondent] acknowledges that Engagement, Consultation and Notification are terms with similar but different meanings in the First Nations lexicon. The Ministry has not made clear the requirements of a proponent in this intention, and the [respondent] requests that the precise requirements and expectations of the proponent be provided. The OMRR should be clear if either notification or consultation is required, and the context in terms of impact that have led to this decision. The OMRR and the Ministry should be clear that consultation is not required for the land application of managed organic matter."*

Respondents also highlight concerns that **"Aboriginal rights, including title, have not been considered or adequately assessed by the MoE. Notwithstanding our concerns, [the respondent] would welcome the opportunity to assist the MoE in developing a OMRR framework that would ensure that decisions and**

actions made or taken in adherence to this framework do not impair, interfere or infringe Aboriginal rights, including title."

"[The respondents] have an inherent constitutional right to be consulted and accommodated in relation to applications being considered within our traditional territory. Based on the impact to [the respondents'] ability to utilize our lands and resources and practice our Aboriginal rights, the Province's proposal of notification is insufficient...Early engagement provides greater opportunities for developing plans that avoid impacts to Aboriginal interests and are more responsive to the broader interests and values of the First Nation...The proposed requirement of written notification is inadequate with respect to First Nations. Proponents should engage local First Nations that may be adversely impacted in a deep and meaningful way starting at the pre-application phase."

Further clarification requested on the process, including:

- **Who will pay for the notification of First Nations:** *"...(i.e. forestry companies pay First Nations to read and review their forestry operations plans as it is a legislated referral process)."*
- **The duration of the notification period:** *"The Ministry has included the intent to require notification to First Nations in writing at least 30 days before the land application. The [respondent] would like to comment that the Ministry should consider greater time allotment to give individuals more time to review the notification material. The [respondent] believes that a notification period of 60-days is more reasonable."*
- **Who is responsible** for ensuring the notification of all First Nations in the project area: *"The Ministry should maintain a list of First Nations requiring notification depending on the location of the project site and contact information for each First Nation. It should be the Ministry's responsibility to provide industry and stakeholders with appropriate contact points for notification."*
- **Uncertainty for proponents.**

"Notifying First Nations is supported but the notification process needs to be carefully prescribed to avoid creating uncertainty for proponents and to ensure the appropriate First Nations groups are notified and a streamlined approach, such as a template letter that the proponents can use which includes direction for the First Nations groups on how to register concerns."

"...the recommended requirement to notify First Nations about plans for land application on private land may be infringing upon rights of private landowners."

"...the Province has an obligation to protect personal privacy and landowners' rights to use their deeded lands. We fear that notification could subject landowners to unwarranted public scrutiny or protests."

There is **support for the LAPs to be made publicly available.** *"The Ministry should clarify when the LAPs will be made available. The [respondent] supports making LAPs publically available online following the 30-day notification period as there may be changes made to the LAP during the 30-day period."*

Overall, respondents note that it is **difficult to provide meaningful feedback** on a process that has not been clearly outlined.

Ministry Response to Question 4.2

See section 4.1.2(a).

The ministry will not require proponents to provide funding to First Nations to review any notifications or plans. Proponents are encouraged to independently develop their own relationships with local First Nations which may include various approaches for supporting capacity building. Some First Nations may also have existing agreements with the BC government that include capacity building provisions.

While the Province is responsible for ensuring adequate and appropriate consultation and accommodation, it may involve the proponent in the procedural aspects of consultation. Accordingly, the ministry encourages proponents to engage with First Nations to build relationships and for information sharing purposes that may support consultation processes.

The ministry will develop guidance to support proponents and First Nations in the notification and engagement process. This includes reference to existing tools to assist proponents in determining details including whom to contact and protocols for communication.

5. Sampling, monitoring and record keeping

5.1. Sampling and monitoring requirements: (a) Do you have any comments or suggestions regarding the proposed revisions to sampling requirements?

- The majority of respondents **support sampling based on the volume** rather than mass. Some respondents support increased sampling and would like to know the rationale for changing the requirements. *“The [respondent] would like to comment that the importance is to keep the sampling requirements consistent across all generators.”*
- However, one respondent *“...supports a sampling requirement based on a certain level of production as long as it is consistent and flexible. For example, there should be a minimum number of three samples which should be taken irrespective of production in order to characterize any trends in quality over time. However, the threshold at which the number of samples increases could be expressed both in terms of mass or volume based on various categories of solids content.”*
- And another respondent notes that *“...sampling based on volume makes sense for compost and biosolids growing medium. However, for straight biosolids cake, mass makes more sense, as biosolids are tracked by (mass) hauling records (wastewater treatment facilities scale biosolids haul trucks leaving the facility or on the highway). Biosolids density varies from plant to plant and during operational changes, so volume between plants will not be directly comparable; as well, conversions based on density have more opportunities for errors. Land application rates and physical applications for biosolids are determined and conducted on a dry tonne basis.”*
- *“We recommend to **increase frequency of biosolids sampling** by amending OMRR Schedule 5, which currently requires “sampling be carried out at intervals of at least every 1,000 dry tonnes of organic matter or once per year whichever occurs first” to: intervals of at least three times for every 1,000 dry tonnes organic matter, or once per month, whichever occurs first. Under the current requirements, some small facilities are only required to sample once a year, which does not help public confidence.”*
- One respondent requested baseline testing for air quality and bioaerosols before facilities start operation as well as during operation (perhaps including a health component in the Environmental Impact Study), suggesting this would be instrumental in closing the gap on odour complaints.
- A few individuals firmly believe that testing of the biosolids for toxins, pathogens and heavy metals should be done before and after land application.
- Some respondents request that the Ministry **define “finished product”**.
- **Clarification that the fecal coliform requirement** is to be applied to Class A biosolids, not Class B: *“...it is assumed that this proposed change is directed at Class A biosolids only and represents a clarification in language in OMRR, although this is not clear in the Intentions Paper. This requires clarification. We agree with the change from representative to discrete samples for fecal coliform to align the criteria with Class B requirements. If this proposal is not enacted, the ministry should provide clarity in the OMRR about how to define a representative sample given that there is generally only a small volume of material available for sampling at any given time.”*

The [proponent] supports the existing requirement for Class B biosolids that the fecal coliform limit be met by a geometric mean of seven [sic] discreet samples.”

Some respondents suggest that there be **allowances to retest fecal coliform samples**, or that outliers are permitted. *“Fecal coliform testing is notorious for problems with contamination of samples from the outer parts of the pile to the test sample. There should be an allowance for an outlier ([sic] ie. 8 samples must be taken and 7 should meet the standard). If you were to test the soil in most public parks you will find some fecal coliform contamination from dogs, deer, geese, ducks, etc. It seems unreasonable to expect every single discrete sample taken from a pile to be below 1000 mpn/g as it is just too easy for contamination to get from the surface of the pile into the sample.”*

“It has been stated on Page 9 (Section 5.1. Sampling and monitoring requirements) that “Fecal coliform levels be met in all seven discrete (not representative) samples” (emphasis added). The current OMRR indicates in Schedule 3 (section 4) that “The required fecal coliform levels must be met in all 7 representative samples”. Therefore, the proposed use of not representative samples should be clarified for the reader.”

One respondent notes that sampling can be **cost prohibitive**: *“For small once only soil amendment projects the cost of such work can dictate whether the project is viable and therefore an opportunity for input before amendment of OMRR is necessary. The Qualified Professional should have latitude to determine if any or what follow-up sampling and monitoring is appropriate. This post application assessment could be part of the original request so everyone is aware before the projected land application occurs.”*

Feedback was provided that tests should be carefully **evaluated for practicality and cost** before being selected for inclusion into the revised OMRR: *“...the fecal coliform test itself may need to be evaluated for its suitability to predict risks to human health. This test provides positive readings for many microorganisms and is a broad brush test rather than a specific test for pathogens.”*

- **First Nations** respondents state that local Indigenous peoples should be included in this work. *“[The respondent] proposes that training and opportunity be provided to local First Nations to provide employment opportunities for compliance in more remote areas.”*
- Regarding clarification of **yard waste** testing for metals and pathogens, few respondents commented on it, but among those that did there was **no support for testing**: *“The [respondent] does not support the requirements for testing yard waste for metals and pathogens. This proposal is a departure from how Class A compost derived from yard waste is currently treated in the OMRR. As the finished product must meet the quality criteria outlined in Schedules 3 and 4, we do not believe there is any value in additional testing of the low-risk feedstocks prior to composting.”*
- *“[The respondent] submits there should be a specified number of random sample audits throughout the year. [The respondent] is concerned with the accuracy and neutrality of having proponents be responsible for performing their own sampling and monitoring requirements.”*

Ministry Response to Question 5.1(a)

To clarify, the ministry intends for the **sampling of the finished product to be done based on volume rather than mass** to ensure accuracy and consistency. In addition, **fecal coliform levels must be met in all seven representative (not discrete) samples**. Specifically, for Class A biosolids or Class A compost, 7 representative samples must be taken at the same time **from every 5,000 cubic metres** produced or once per year, whichever occurs first. The required fecal coliform and salmonella levels must be met in all 7 **representative** samples. The required fecal coliform levels for Class B biosolids and Class B compost must be met for the **geometric mean of 7 representative samples** taken at the same time **from every 5,000 cubic metres** produced or once per year, whichever comes first. More information on the proposed sampling requirements will be described in a follow-up Intentions Paper anticipated for release in the summer of 2017. Stakeholders, First Nations and interested parties will have the opportunity to provide feedback on the proposed requirements at this time.

“Finished product” refers to material that meets the standards in the regulation for pathogen and vector attraction reduction requirements, including the following requirement for compost maturity: the temperature rise of the compost above ambient temperature is less than 8°C (see section 6.1 for more details).

The ministry recognizes the importance of air quality surrounding compost facilities. Odour modelling which can simulate the effect of a compost facility on local air quality as it relates to odour is a best management practice that should be used when siting and designing facilities. The ministry will ensure guidance material clearly outlines the odour modelling process and its importance.

The ministry does not intend to change the current metal and pathogen testing requirements for Class A compost produced from yard waste alone.

5.1. Sampling and monitoring requirements: (b) Do you have any comments or suggestions regarding the proposed requirements for confirmatory soil sampling and monitoring?

There is **general support in principle** for confirmatory soil sampling and monitoring but many respondents **request additional information** on the requirements and the rationale. One respondent suggests the ENV should provide detailed sampling procedures, such as those provided in Ontario.

Additionally, many respondents request that direction is provided in the OMRR regarding **who is responsible for the testing** with suggestions that testing be completed by an independent organization (i.e., not the landowner, the generator or the Province). There are further questions on how long monitoring is required and what is covered under the monitoring requirements.

“We assert that the discharger (or biosolids generator) through their QP continue to be responsible for adhering to OMRR; it would not be suitable for a regional government to be burdened with the cost of

such monitoring in their jurisdiction. Furthermore, [respondent] foresees major legal complications with any insistence in regulation that a third party be given unfettered access to private land for the purposes of monitoring.”

Two respondents feel that if all requirements in the OMRR are met then further testing and monitoring are not required, and **additional consultation** would be required if this requirement is to be added to the OMRR.

Ministry Response to Question 5.1(b)

The ministry intends to add chromium and copper maximum allowable standards to Class A biosolids into Schedule 4 (1060 µg/g for chromium and 2200 µg/g for copper).

The ministry is currently conducting a biosolids sampling study to measure various potential contaminants including legacy organics and emerging substances of concern (ESOCs) (results anticipated early 2017). In order to improve source control and odour reduction initiatives and to monitor trends, the ministry is evaluating the option of requiring wastewater treatment plants to perform periodic testing of their biosolids for select contaminants, including legacy organics and ESOCs. The ministry will work with local governments to develop any such sampling protocol. More information on this proposed sampling protocol will be described in a follow-up Intentions Paper anticipated for release in the summer of 2017. Stakeholders, First Nations and interested parties will have the opportunity to provide feedback on the proposed protocol at this time.

5.2. Record keeping requirements: Do you have any comments regarding this topic?

- The majority of respondents that answered this question **do not support the requirements to keep records for 10 years**. Further rationale and reasoning is required. One organization does *"support increasing the record keeping from the current 3 years to 7 years, as consistent with the Freedom of Information and Protection of Privacy Act. Although maintaining records for 10 years, as proposed in the intentions paper, may not present a challenge for larger organizations it could be overly burdensome for smaller facilities/municipalities."*
- The majority of respondents felt that submitting results from soil sampling and monitoring activities to the Ministry represents a **confidentiality issue**.
"Providing all soil samples to the Ministry may be considered a confidentiality issue. All farmers now using biosolids would be required to have their soil data given to the Ministry and potentially distributed to others under the Freedom of Information Act. Trace element soil data should be the only information required for submission to the Ministry. It is [sic] recommend that the QP [Qualified Professional] provide the post application soil trace elements data in the post application compliance letter and sign off of this. The Ministry can then audit the data if needed."

“Providing soil samples to the ministry is a confidentiality issue...Currently, a LAP must specify the pre-application soil concentrations of OMRR Schedule 4 substances as well as projected post-application soil concentrations; these site average datasets should continue to be the only requirement for submission of soil data (along with pH and electrical conductivity). ...[the respondent] does not support additional post-application monitoring if OMRR requirements have been met under a LAP.”

“It will confirm that application rates were as stipulated in the LAP. Will increase Ministry staff workload significantly to review all data sets. But if it gives the public assurance that applications are as the QP stipulated, that is a good thing.”

The **exception** to this view was from two individuals who felt that *“All information must be easily and readily accessible to the public.”*

Ministry Response to Question 5.2

The ministry has reexamined the proposed ten year record keeping requirement and is now intending that records be kept for seven, rather than the current three year requirement.

The ministry is intending to require all plans, reports and notification required under the regulation be posted online, in alignment with the province’s “Open Government” initiative. Proponents currently have the ability to identify information they believe is confidential, and can provide a rationale, in writing, regarding why this information should not be disclosed under the *Freedom of Information and Privacy Protection Act* (FOIPPA). Please see the following website for more information:

www2.gov.bc.ca/assets/gov/environment/waste-management/waste-discharge-authorization/forms/epd-omr-04_omrr_notification_of_land_application_form.pdf

6. Updates to technical standards

6.1. Consistency of schedules with other national standards and regulations: Do you have any comments regarding this topic?

- The **majority of respondents support the harmonization** of OMRR with other national standards, regulations and guidelines, however some request additional information on how this will be achieved.

“The [respondent] believes that all information in regards to the management of organic matter should be included in the OMRR without a requirement to reference multiple regulations in order to determine compliance. The [respondent] recommends that the Ministry undertake a regular update schedule for OMRR to address the issue of changes to related regulations. A three year review cycle would enable the regulation to keep pace with any potential industry changes. This review cycle should be synchronised with ongoing research either carried out by or supported by the Ministry as identified earlier in the response.”

- There is **some support for adopting CCME Guidelines for Compost Quality** and adding Salmonella limits, however further information and clarification is required on how this will be implemented in the OMRR.

“We support the proposal to adopt CCME Category A compost quality standards and Trade Memorandum T-4-120 salmonella limits for Class A compost. However, the Ministry should be clear on how changes to these other regulations and guidelines will be accommodated by the OMRR. We believe that the standards should be brought into the regulation and codified there rather than merely making an external reference to them as this provides more certainty for long-term program planning.”

For Salmonella limits, one respondent noted *“Salmonella testing in compost is currently regulated by the CFIA Trade Memorandum T-4-120 and therefore we **do not see a need for the inclusion in OMRR**. We also see no need to regulate both fecal coliform and salmonella in biosolids...We would support a modification to the regulation that mirrored the US EPA 503 with respect to fecal coliform and/or salmonella monitoring. The Ministry should clarify that products registered under the CFIA or being sold under a letter of no objection are not regulated under OMRR.”*

- There is **support for using respiration as a measure of compost maturity** although there are questions and concern around the preferred testing method:

“I agree strongly with getting rid of the C/N ratio requirement for composting and substituting respiration. [sic] it should be clear if QP's can use an on-site respiration tool such as a Solvita tester or whether samples need to go to a lab. At this time, A&L in Ontario is the nearest lab in Canada that does this test; a heads up should be given to BC labs to allow them to get up to speed on this method as there will be a huge need. A bit tricky to get compost samples to Ontario within the time limit for respiration testing, and air freight is extremely expensive.”

- Only a few respondents commented on **compost maturity** generally supporting the curing time requirements:

“We strongly support strengthening the OMRR standards for compost maturity by aligning with Section 3.4 in CCME Guidelines for Compost Quality PN1340 (2005). The proposed amendments should go further by updating Section 2 (iv) of OMRR (“the compost must not re-heat upon standing to greater than 20° Celsius above ambient temperature”) to align with Section 3.4 (c) of the CCME Guidelines for Compost Quality PN1340 (2005) (“the temperature rise of the compost above ambient temperature is less than 8°C”). We strongly support extending curing time requirements for compost or introducing a requirement to demonstrate maturity according to CCME standards if curing time for compost is less than 14 days.”

“I don’t believe any compost is truly mature after 30 days. All compost whether from yard waste, food waste or biosolids should [sic] have be at least 60 days curing with a couple turns to mix during that period. For composts derived solely from biosolids, curing times should probably be more like 120 days and maybe as long as 180 days accompanied by several turns, which will ensure that recolonization of pathogens won’t occur. At the end of 120 days even undigested biosolids will be degraded to the point that pathogens will have to outcompete the beneficial bacteria, fungi and actinomycetes. The multiple heating cycles that occurs every time a curing

windrow is moved will also help ensure an end product that will meet the Class A standards for compost.”

Ministry Response to Question 6.1

The ministry regularly reviews codes and regulations under the *Environmental Management Act* to assess and prioritize the need for updates and changes. To ensure harmonization, references to multiple regulations may be required. However, we intend to clarify requirements in supporting guidance.

The ministry intends to add Salmonella standards for Class A compost into Schedule 3. The intention is to harmonize with CFIA requirements and to ensure that Class A compost that isn't sold is also captured.

The ministry intends to delete references to the carbon to nitrogen ratio for composting maturity and replace with respiration as a measure of compost maturity. The ministry does not intend to require specific methods for measuring respiration, but rather provide composters with the flexibility to choose methods that suit their requirements. Information on maturity testing will be included in the supporting guidance.

With respect to the requirements for compost maturity, the ministry intends to replace the requirements that the compost must not re-heat upon standing to greater than 20° Celsius above ambient temperature with the requirement that the temperature rise of the compost above ambient temperature is less than 8°C. More information on this proposed requirement will be described in a follow-up Intentions Paper anticipated for release in the summer of 2017. Stakeholders, First Nations and interested parties will have the opportunity to provide feedback on the proposed requirement at this time.

Maturity requirements for respiration and reheating will ensure that the product meets the desired standard. The curing time of 30 days is specified as a minimum only and is expected to change depending on the composting process and feedstock.

6.2. Consistency with the Contaminated Sites Regulation: Do you have any comments regarding this topic?

There are **some concerns with the inclusion of the Contaminated Sites Regulation (CSR)** and clarification is required. *“Clear guidance for professionals and the public as to the important differences between these regulations, and their structure, is required. ... Without a clear understanding of the different natures of the regulations, these significant variations in instruction can be misunderstood.”*

“The OMRR adopted the CSR soil trace element standards but does not have the ‘background release’ mechanism that is built into the CSR. The CSR background release system is not transferable to OMRR as it is currently written. The [respondent] asserts that either 1) the background release mechanism must be included in OMRR, 2) trace element standards be modified that reflect regional differences (as in Table 1

of Protocol 4 of the CSR), or 3) both of these be included. This is applicable to Schedules 9 and Schedule 10 of the OMRR.”

“The [respondent] supports the Ministry approach to harmonize regulations and guidelines. It is suggested that the OMRR include a set of trace element standards that are regional in nature as in Table 1 of Protocol 4 of the CSR. Currently it is not possible under the OMRR to land apply managed organic matter at a site where soil trace elements concentrations are elevated due to high regional background concentrations. This should be allowed, as in many case biosolids would not elevate those trace elements levels.”

One respondent noted that webinars about CSR changes are currently in progress and that it is difficult to comment before those are complete.

Ministry Response to Question 6.2

The Contaminated Sites Regulation was amended on October 25, 2016. Consequential amendments to the OMRR were included as part of this process. Accordingly, Schedules 9 (Generic Soil Standards) and 10 (Matrix Soil Standards) were substituted with the new Schedule 10.1 (Soil Substance Concentrations). These changes will come into effect on November 1, 2017.

The ministry intends to reference the Contaminated Sites Regulation in Section 4 (Contaminated Sites) and [Schedule 10.1 \(Soil Substance Concentrations\)](#).

The ministry is proposing a permit requirement for application of managed organic matter to sites that exceed the soil limits established in the OMRR and the Contaminated Sites Regulation. The ministry is also intending to maintain the current flexibility in the OMRR that enables proponents to develop site specific soil standards using protocols approved by the director (Schedule 10.1). The protocol could factor in regional background levels.

Respecting biosolids growing medium, the ministry intends to update the quality criteria in Schedule 4 to align with the new requirements in Schedule 10.1 of the OMRR, as these materials can be applied by homeowners and landscapers without restriction, and are often applied without incorporation into the soil. More information on this proposed change will be described in a follow-up Intentions Paper anticipated for release in the summer of 2017. Stakeholders, First Nations and interested parties will have the opportunity to provide feedback on the proposed change at this time.

6.3. Consistency with the Agricultural Waste Control Regulation: Do you have any comments regarding this topic?

Of the respondents that answered the question, there is **support in principle** for the harmonization of the OMRR with the Agricultural Waste Control Regulation (AWCR). However, most respondents **require**

more details on how this will be achieved before they comment further on this, as they expect the AWCR will be updated in 2017.

“The Ministry intends to harmonize and ensure consistency between the AWCR and the OMRR, particularly in regard to land application of soil amendments by agricultural operations. Is it the intent of the Ministry to reference only the land application requirements (i.e., Part 5 — Application and Composting of Agricultural Waste) of the AWCR? The AWCR is currently under revision, additions or changes to the AWCR could significantly impact the OMRR and beneficial use of organic matter. Will the AWCR include requirements around notification consistent with the OMRR?”

“I agree that the two regs need to be harmonized. Perhaps this would be the time to tighten up the on-farm composting rules to make it a more level playing field between facilities composting under the OMRR and those composting under the AWCR.”

“Animal Manure and Biosolids should be treated the same way. [sic] Its hypocritical to put all sorts of restrictions on Biosolids when in reality they are no worse than Animal Manure and in many cases better.

Pathogens, Metals, and ESOC’s exist in manure from Agricultural operations in significant concentrations similar or greater than biosolids. It is not uncommon for an entire production system to be under treatment for a disease prophylactically. Also all manner of disinfectants and cleaning products are discharged into this waste stream as well and there are few restrictions on the land application of this material. It is a fundamental problem where biosolids and agricultural manure are treated so differently and yet have similar public health implications. If biosolids have been composted there is not the same risk to public health as untreated manure and yet that manure can be applied to food crops with no restriction. Manures are also sold for retail sale with no restrictions as to quality.”

Ministry Response to Question 6.3

The Agricultural Waste Control Regulation is currently under review. The ministry cannot provide specific details regarding the amendments at this time. However, ministry staff are working collaboratively to ensure that the two regulations are harmonized. The intention is to provide a streamlined approach and avoid situations where people would be subject to conflicting requirements.

There are a number of standards in place to ensure food safety, including the BC and Canada – Good Agricultural Practices (GAP), and the BC Environmental Farm Plan Reference Guide. The CFIA also addresses food safety through their inspection and monitoring programs.

7. Additional housekeeping changes

Do you have any comments or suggestions regarding the proposed housekeeping changes?

Of the 11 respondents that answered this question, all had **concerns or comments** on how these housekeeping items would affect the implementation of the regulation.

- Regarding the **exemption of composting sites** where production is less than 20 m³/year at residential and institutional sites, one respondent felt that it *“should be subject to the condition that the activities do not cause pollution.”*
- Consideration to **expand the scope of the exemption**. *“Has consideration been given to extending the exemption to small commercial non-agricultural operations (such as restaurants) and small business start-ups?”*
- **Impacts to local governments**. *“Exemption of composting food waste and yard sites...at residential and institutional sites may create red tape for local governments who will be called upon if these sites become a nuisance or health hazard or there are complaints from neighbouring property owners who disagree with this new use of a property zoned for residential or institutional use.”*
- Further information on the rationale of **covering stored compost between October 1st and March 31st** in areas receiving greater than 600 mm of precipitation is requested. *“The [respondent] would like to understand the rationale for the proposed requirement to cover stored compost between October 1st and March 31st. Covering finished compost with a plastic tarp can reduce the quality of the material and make it unmarketable (i.e., it can cause anaerobic conditions which degrades compost structure, increases odours, and turns the compost into a soupy mess), while cover options that enable moisture movement are costly (e.g., Gore covers or roofed structures). If the intent is to reduce leachate generation, then a leachate management plan should be sufficient to address this issue. Alternatively, the method of pile construction (e.g., large conical piles, with option capping to reduce infiltration and maximize water shedding) can also be used to reduce leachate generation potential.”*
- A couple of respondents note that **seepage plans** need to be in place to identify how runoff is being dealt with.
- On adopting the definition of **“drinking water source”** and other consequential amendments from the *Drinking Water Protection Act*, many respondents require further clarification and are *“...interested in the ministry's understanding of how this harmonization changes the proportional landbase of areas in and outside of drinking water source areas. Again, it is important for the Ministry to share a comprehensive understanding of each of these changes, so that their resultant impact on generators can be fully assessed.”*

“The ministry should provide clarification of the intent and consequence of using the definition of “drinking water source” from the Drinking Water Protection Act. As the current definition refers to “a stream, reservoir, well or aquifer from which drinking water is taken”, it is the [proponent’s] position that the requirements in the OMRR for water protection (i.e., 1-m separation of groundwater and 30-m setbacks from water sources) are sufficient to protect drinking water sources. The ministry should indicate whether adopting this definition will have consequences for land applications of managed organic matter within aquifers and watersheds where water diversion permits or wells are used as domestic water sources.”

“The Ministry should provide clarification of the term “drinking water source”, where it is intended for use and if this is the most appropriate term. ... If this is added to Part 3 Division 3 [sic] Section 9(16) [Section 9(6)] then this could be interpreted to exclude the application of Class B biosolids in nearly every case. The Ministry should indicate whether adopting this definition will

have consequences for land applications of managed organic matter within aquifers and watersheds where water diversion permits or wells are used as domestic water sources. [The respondent] also recommends that the Ministry further define “discharger” similar to what is included in the CoPSA [Code of Practice for Soil Amendments]. In Section 7(2) of the OMRR, “parcel” should be defined by providing a specific area.”

A few respondents feel that **there should be follow up on health concerns or complaints** that are related to operations regulated under OMRR.

Ministry Response to Question 7

Regarding the exemption for food waste or yard waste composting where the annual production of compost does not exceed 20 cubic metres per year, it is the ministry’s intention to extend the scope of this exemption to all sites where the annual production of compost does not exceed the annual 20 cubic metre limit. Local governments will retain the ability to establish bylaws and zoning requirements for composting activities in order to manage concerns regarding nuisance issues such as odour. The ministry will provide guidance on best management practices, including that the composting of food waste be done in containerized (closed) systems in order to effectively manage odour.

Requirements regarding covering of stored finished compost are primarily intended to mitigate the generation of leachate in high precipitation areas of the province. It is not expected that finished compost would produce significant odour if fully mature.

Any concerns regarding “seepage” or “runoff” would be addressed in the leachate management section of the facility environmental management plan. Guidance on this will be updated to reflect changes to the regulation.

The proposed adoption of the definition of “drinking water source” and other consequential amendments from the *Drinking Water Protection Act* will impact the Land Application Plan process. These proposed changes capture most of the land base in the province under the definition of “watershed”, meaning that most Land Application Plans would be captured under the requirement for review by a medical health officer. More information on this proposed change will be described in a follow-up Intentions Paper anticipated for release in the summer of 2017. Stakeholders, First Nations and interested parties will have the opportunity to provide feedback on the proposed change at this time.

Medical health officers may provide written directions to the proponent that the application of organic matter must not proceed, or may only proceed subject to conditions specified by the medical health officer. The ministry does not intend to change the role of the medical health officer or their powers under the regulation.

8. Development of guidance

Do you have any comments or suggestions regarding development of guidance?

In general, **respondents agree with the Ministry** “...that best management practices and guidance documents should be updated as the regulation is updated to ensure the guidelines remain current.” Some respondents feel that there should be additional guidance documents, including **guidance documents on notification requirements for the public and consultation with First Nations**. One respondent suggests the following updates could include:

- *"Guidance on circumstances required for selecting site specific factors in Schedule 10.*
- *Guidance on what should be included in LAP in addition to details listed in Schedule 7 as well as what should be included in annual certification letter.*
- *Guidance on pre and post application soil sampling including how many to collect for a given area and at what standardized depth based on land use.*
- *Guidance on how to notify First Nations and stakeholders, and what to do if they have comments or concerns.*
- *Guidance on where biosolids samples should be collected: at the end of sewage treatment, upon delivery to the storage site or just prior to land application or distribution.*

The guidelines should also clarify how the OMRR and other provincial and federal regulations work together in regulating residuals. For example: the Code of Practice for Soil Amendments (CoPSA)."

A few respondents suggest that there should be **specialized training for individuals operating under the OMRR**, similar to the Contaminated Site Approved Professional. Training Qualified Professionals “...may address some concerns from the public regarding the suitability of QPs to undertake all the work directed under the OMRR.”

There are some questions on **the definition of air pollution**. One respondent suggests “that the **odour management plan** for composting facilities should describe how air contaminants will be “**monitored, managed, treated, and discharged in a manner that minimizes the impacts associated with air contaminants, including odorous air contaminants**” instead of allowing facilities to reach the threshold where air contaminants from the facility are “managed, treated, and discharged in a manner that does not cause pollution” (as is presently stated in the intentions paper). Facilities need to be required to proactively monitor (measure) operations and document monitoring to ensure they are staying well below threshold levels. OMRR should specify how threshold levels will be set.”

In addition there are some other suggestions for the OMRR, including:

- Designate a Ministry contact person “that generators, professionals, public and regulators should go to for more information if they have questions, as it’s not currently clear. In addition, in order for the regulation to be interpreted consistently across the Ministry’s regional offices, it is critical that an interpretation mechanism and process be clearly laid out in the OMRR (as identified by other comments provided in this response).”
- Updating “... Section 10.1 Public Information and Community Considerations of the Land Application Guidelines for the OMRR and Soil Amendment Code of Practice: Best Management

Practices (2008) to include references to: the CCME's Guidance Document for Beneficial Use of Municipal Biosolids, Municipal Sludge and Treated Septage (2012); and WERF's Public Perception of Biosolids Recycling: Developing Public Participation and Earning Trust (2004), and Conducting Effective Community Outreach and Dialogue on Biosolids Land Application (2011)."

Ministry Response to Question 8

The ministry intends to update all existing guidance material and develop new material as required to reflect any changes to the regulation. Where appropriate, this will be done in consultation with industry. The suggestions provided above will be carefully considered in this process. Guidance material will include information on regulatory harmonization with other provincial legislation, federal legislation, and provincial and national standards and guidelines.

Under the OMRR, a "qualified professional" (QP) means a person who:

- is registered in British Columbia with his or her appropriate professional association, acts under that professional association's code of ethics, and is subject to disciplinary action by that professional association; and
- through suitable education, experience, accreditation and knowledge may be reasonably relied on to provide advice within his or her area of expertise as it relates to the regulation.

Qualified professionals are responsible for the following activities under the OMRR:

- Preparing land application plans;
- Certifying that land applications are done in accordance with the land application plan in question;
- Preparing plans and specifications for the construction and operation of new composting facilities, or modifications to any existing facilities;
- Certifying that compost facilities have been constructed in accordance with the plans and specifications in question; and
- Conducting and completing environmental impact studies for compost facilities.

The ministry is considering strengthening the qualified professional requirements. More information on this proposed requirement will be described in a follow-up Intentions Paper anticipated for release in the summer of 2017. Stakeholders, First Nations and interested parties will have the opportunity to provide feedback on the proposed requirement at this time.

The ministry recognizes the importance of air quality surrounding compost facilities. Odour modelling which can simulate the effect of a compost facility on local air quality as it relates to odour is a best management practice that should be used when siting and designing facilities. The ministry will ensure guidance material clearly outlines the odour modelling process and its importance.

The ministry will continue to work in collaboration with the Ministry of Health, provincial health authorities, and will produce guidance and training for all staff, including medical health officers and ministry compliance staff, to support the changes to the regulation.

9. Assuring compliance

Do you have any comments regarding this topic?

Many respondents **support the proposals for compliance** as outlined in the Intentions Paper. However, some feel that the Ministry should take more responsibility for compliance with the LAP including **spot checks for compliance by third parties**. There is also the perception that regular compliance checks and enforcement of regulations will help with the public's confidence with regards to the land application of biosolids.

"We support the Ministry's compliance promotion to include training of Ministry staff, to address historical inconsistencies in regulation across the Province. We also support the Ministry providing information and education for regulated parties; and, encourage the Ministry to extend this information and education approach to the general public to help increase awareness and transparency and to build relationships with communities.

We recommend that Ministry inspections include routine and random checks, documented site inspections at land application sites, compost facilities, and biosolids growing medium production facilities. Enforcement of the regulations, through inspections, would increase credibility of the safety of organics composting/land application, ensuring all activities are meeting a baseline standard (and protects well managed programs from being vulnerable to shortcomings of less rigorously managed programs). Inspection activities may also bolster public confidence in the regulation and the practice of recycling and land applying organic matter."

It is unclear what is meant by the statement "Compliance verification will also occur through the addition of contingency provisions to land application plans."

Additionally, comments from individuals that completed the Response Form **express concerns about health** and the need for further investigation by a Medical Health Officer: *"There are plenty of issues and concerns in Kamloops and no one is looking at situation let alone doing anything about it. There needs to be a medical officer looking seriously at health complaints and looking for answers. This is a serious public health issue. There [sic] need to be regular compliance 'spot checks' or unannounced inspections of biosolids facilities. [Sic] sites that are in [sic] non compliance should not only be fined but should be immediately shut down. The wording around what is [sic] do be done in regards compliance is much [sic] to vague."*

"There needs to be more resources put into compliance by the Ministry. [The respondent] has serious concerns that there is no one on the ground following up with or enforcing fines for contraventions."

Ministry Response to Question 9

Compliance and enforcement (C&E) activities are carried out by Regional Operations staff under in the Environmental Protection Division and the Conservation Officer Service staff under the BC Parks and Conservation Officer Service Division. C&E staff are guided by the Compliance and Enforcement Policy
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and Procedure (C&E Policy), which ensures consistent and risk-based assessment and responses to non-compliance. This policy achieves this in two ways: first, through the use of the Non-compliance Decision Matrix; and second, by promoting effective communication and collaboration between ministry staff. For more information, please visit:

www.env.gov.bc.ca/main/prgs/docs/ce_policy_and_procedure.pdf

The ministry intends to specify that a land application plan must include a contingency in the event that sampling and monitoring results suggest non-compliance. If sampling or monitoring data indicate that soil substance concentrations exceed the limits specified in Schedule 10.1, or as approved by the director, the discharger must immediately notify the Director or designate by email of any non-compliance with the requirements of the Organic Matter Recycling Regulation by the discharger and take remedial action to remedy any effects of non-compliance.

Medical health officers may provide written directions to the proponent that the application of organic matter must not proceed, or may only proceed subject to conditions specified by the medical health officer. The ministry does not intend to change the role of the medical health officer or their powers under the regulation.

Additional comments

Do you have any additional comments or suggestions for the ministry regarding the proposed revisions to the regulation?

This section's comments widely vary. The main points are:

- There is support for changes to the OMRR: *"Where changes to the OMRR are deemed necessary, the [respondent] supports the implementation of these changes with the following principles in mind: enabling the beneficial use of biosolids, ensuring that quality criteria and requirements provide adequate risk mitigation, and requiring science-based decision-making."*
- Numerous respondents would like an opportunity to review the draft legislation, and request that **another round of consultation** be undertaken before it is enacted. *"Given the number of proposed changes in the Intentions Paper and the extent of the [respondent]'s comments in this document, additional stakeholder consultation is deemed necessary."*
- It is important that the Ministry **provide the rationale behind the proposed changes** and clarify certain sections in response to the feedback provided.
- There is a *"Need to specify which regulation is associated with leachate, as currently OMRR does not refer to any specific water quality standards."*
- Respondents raised questions about the authority of different agencies to preclude applications (e.g. the Ministry should *"clarify if regional governments can preclude biosolids applications in their jurisdiction and comment on how this would also apply to composting and BGM facilities"*); and whether the Ministry will amend OMRR that Medical Health Officers should *"make a*

decision based on scientific research and there should be an opportunity to remediate the source of concern or add additional management approaches to the LAP to satisfy the Medical Health Officer."

- **Odour** should be recognized **as an important issue**: *"...we need to recognize odour as an important issue to address properly, clearly and with more structure than now if we want greater community acceptance for organic composting. We are behind in BC in having good odour management regulations. If we do not manage odour well, public frustration will be challenging to respond to."*

Ministry Response to Additional Comments

Based on feedback obtained from the 2016 Intentions Paper, and the need to potentially develop new policy tools, the ministry intends to release a follow-up Intentions Paper, anticipated for the summer of 2017. Stakeholders, First Nations and interested parties will have the opportunity to provide additional feedback on the proposed requirements at this time.

Local governments play an important role in bylaw development and zoning considerations, and in the case of Metro Vancouver, air quality permitting. Additionally, local governments are encouraged to develop their own organics management strategies that can include: beneficial use options for biosolids (including waste to energy facilities), organics diversion, and support for composting. The role of the ministry is to enable these activities via regulations (including the OMRR), guidance and other tools including permits, approvals, and operational certificates.

Regarding leachate management, the OMRR sets the requirements for both compost facilities and storage of managed organic matter at land application sites. Leachate that is not collected and reused in the composting process must not be discharged into the environment unless authorized under *the Environmental Management Act* (via an approval, permit or operational certificate under a waste management plan).

E. Email input

There were an additional 22 responses submitted as comments in the body of the email (i.e., no attached Response Forms). Of these 22 responses, three were from regional districts or companies that perform land application of biosolids asking specific questions regarding future or current operations. The ENV responded directly to specific questions.

The **main themes** of the remaining 19 responses were categorized as follows:

- General concern for human health and environment;
- Support for a complete ban on the land application of “sewage sludge” and Class A or B biosolids;
- Concern about the safety of consuming farmed or wild food or grazing animals on lands where biosolids had been applied;
- Concern about toxins and pathogens potentially contained in land applied organic matter;
- Concern about odour from compost facilities and land application of biosolids near residential areas;
- Support for increased regulation and process transparency; and
- Support for alternative biosolids disposal methods, including incineration or pyrolysis.

The chart below summarizes the main themes of the 22 email responses.

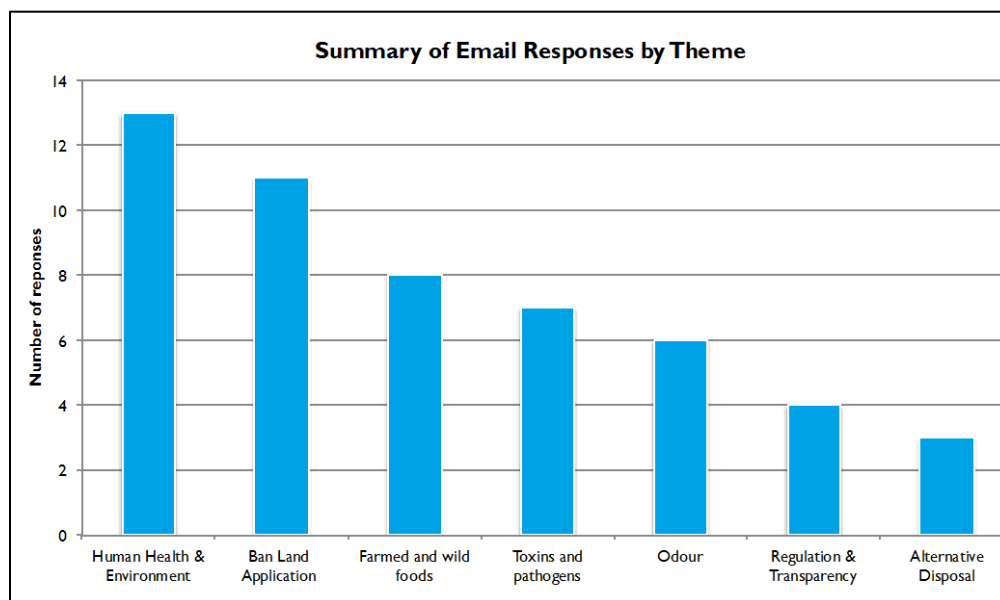


Chart Notes:

- The number of responses will not total 22 as each email may contain more than one theme.
- Responses are not weighted by the number of individuals or organizations the respondents may represent.

Among these respondents there is **little to no support for land application of organic matter derived from biosolids** and consequently, the revisions to OMRR lack support.

Another topic that was unrelated to the OMRR policy intentions was the **difficulty respondents encountered when trying to submit their feedback**. Some respondents expected a web-based form where they could fill in their feedback and press a “Submit” button. The fillable PDF form that was intended to be used presented challenges: there were blank forms attached to emails, and others gave up and instead sent their comments in via email.

Overall, the comments from the general public submitted via email asked/demanded for increased transparency and regulation: *“all food growers who apply biosolids on their food fields must be on a public list, so the people can make valid decisions on what food they want to feed their families”*. They also asked for increased communication regarding potential projects, suggesting *“Public notification must be part of any land [sic] applicaiton.”*

Ministry Response to Email and Letter Comments

To clarify, the application of raw sewage sludge to land is not an authorized activity in British Columbia. The OMRR does not allow the direct application of sewage sludge to soil. First, sewage sludge must be stabilized via processing to reduce pathogen content and convert the sludge to biosolids (Class A or Class B). Only then can Class A and Class B biosolids be land applied under stringent requirements and conditions, or further processed into Class A compost, Class B compost or biosolids growing medium. All of these products must meet specific quality standards.

British Columbia is a signatory to the Canadian Council of Ministers of the Environment (CCME) Canada-wide Approach for the management of biosolids. The CCME promotes the beneficial use of biosolids, including: production of compost and soil products, forestry applications as a fertilizer/soil conditioner, land application, land reclamation and energy production (with positive energy balance, emission of low levels of nitrogen oxides and recovery of a significant portion of ash phosphorous). While we have the experience and knowledge to be able to codify some management options under OMRR, other management options may be more site-specific in nature. Any emission to the environment from those activities would need to be authorized under the *Environmental Management Act* most likely under an approved solid or liquid waste management plan or a permit.

The majority of agricultural applications are on rangeland. The standards and requirements in the OMRR are in place to ensure that activities carried out in accordance with the regulation are protective of human health and the environment. This includes mandatory wait periods for livestock grazing (60 days) and food crop production and plant harvesting (18 to 38 months), where biosolids have been land applied.

Appendix A: OMRR Intentions Paper Response Form

The Ministry of Environment (the ministry) will be revising the [Organic Matter Recycling Regulation](#) (OMRR) of the [Environmental Management Act](#) and the [Public Health Act](#). Enacted in 2002, the OMRR governs the construction and operation of composting facilities and the production, distribution, sale, storage, use, and land application of biosolids and compost. The OMRR was developed to facilitate the recycling of organic material while protecting human health and the environment.

The ministry's intentions for updating the OMRR are described in an intentions paper provided on the ministry's website:

- www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/organics/omrr_ip_sept_22.pdf

In addition, a summary guidance document that describes how the scientific review of biosolids informed the development of the intentions paper is available for reference on the ministry's website:

- www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/organics/omrr_sampling_report_guidance_summary_sept_22.pdf

This response form and consultation questions follow the sequence and structure of the intentions paper. Comments on the ministry's intentions are welcomed, using this response form or via a separate submission. All submissions and comments will be reviewed and considered by the ministry in moving forward with the proposed updates to the regulation. As well, all submissions will be reviewed for inclusion without attribution in a consultation summary report to be made public following the consultation period.

The ministry expects to amend and implement the revised regulation in early 2017. A training and implementation period for the revised regulation will follow.

The ministry welcomes comments on the information and proposals outlined in the intentions paper posted on the ministry's website: www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/organics/omrr_ip_sept_22.pdf

Those interested are invited to submit comments to the ministry using this comment form, or by separate submission if desired. If you have any questions or comments please email: env.omrr.reg.reviews@gov.bc.ca.

Completed response forms or submissions may be submitted using the online form or as an attached file to this email address, or by mail to:

Ministry of Environment – OMRR Reg Review
PO Box 9341 Stn Prov Govt
Victoria, BC V8W 9M1

Responses received by **December 2, 2016** will be considered by the ministry in preparing the proposed revisions to the regulation.

Thank you for your time and comments.

Discussion Questions

The following discussion questions are based on the ministry's policy intentions paper for revising the Organic Matter Recycling Regulation (OMRR). The intentions paper can be downloaded from the ministry website at:

- www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/organics/omrr_ip_sept_22.pdf

General questions

The OMRR has been in place since 2002. It was developed to enable organic waste to be recycled while protecting human health and the environment. The composting and recycling of organic matter under the OMRR facilitates recycling, helps divert materials from landfills and supports the ministry's goal of reducing municipal solid waste disposal.

G1. Overall, please indicate your level of support for the proposed revisions to the OMRR described in the intentions paper:

Please select one box from the scale below (1= Not at all supportive; 6= Extremely supportive)

	1	2	3	4	5	6	
Not at all supportive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Extremely supportive

G2. What are the reasons for your choice?

G3. Do you have any general comments about the ministry's proposed revisions to the OMRR?

PROPOSED UPDATES

1. Organic Matter Suitable for Composting

The OMRR sets out a list of organic matter suitable for composting and management under the regulation. Sections 1.1 to 1.4 of the intentions paper (pages 5 to 6) outline how differing types of material may be defined and regulated under the OMRR.

1.1. Do you have any comments regarding the definitions and regulation of organic matter suitable or not suitable for composting under the OMRR or other regulations?

Text box continues on next page...

2. Composting Facilities

Composting facilities under OMRR must ensure protection of human health and the environment. Adopting best practices and completing plans and reports help address regulatory requirements.

2.1. Best practices (see intentions paper page 6)

Do you have any comments regarding this topic?

2.2 Plans, reports and associated requirements (see intentions paper page 7)

Do you have any comments regarding the ministry intention to update provisions so that all composting facilities designed to produce 5,000 tonnes or greater of compost per year prepare a facility environmental management plan (FEMP)?

Text box continues on next page...

3. Land Application and Distribution of Managed Organic Matter

The OMRR is designed to ensure that managed organic matter is used in a manner that protects human health and the environment.

3.1. Addition of new standards (see intentions paper page 7)

Do you have any comments regarding the ministry's intention to introduce regulatory standards for chromium and copper for Class A biosolids?

3.2. Land application (see intentions paper pages 7 to 8)

Do you have any comments or suggestions regarding this topic?

3.3. Mine site reclamations and landfill closures (see intentions paper page 8)

Do you have any comments regarding this topic?

4. Notification under OMRR

The ministry has received feedback from stakeholders that existing notification requirements in the OMRR are inadequate and there is a need for the regulation to provide increased public transparency.

4.1.1 Composting facilities (see intentions paper page 8)

(a) Do you have any comments regarding the ministry's intention to amend the OMRR and include notification provisions for composting facilities?

(b) Please indicate your level of support for the proposed notification provisions for composting facilities?

Please select one box from the scale below (1= Not at all supportive; 6= Extremely supportive)

	1	2	3	4	5	6	
Not at all supportive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Extremely supportive

(c) What are the reasons for your choice in question 4.1.1(b)?

4.1.2 Land application (see intentions paper pages 8 to 9)

(a) Do you have any comments regarding the ministry's intention to amend the OMRR and include notification provisions for land application and distribution of managed organic matter?

(b) Please indicate your level of support for the proposed notification provisions for land application and distribution of organic matter?

Please select one box from the scale below (1= Not at all supportive; 6= Extremely supportive)

	1	2	3	4	5	6	
Not at all supportive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Extremely supportive

(c) What are the reasons for your choice in question 4.1.2(b)?

4.2. Engagement with First Nations (see intentions paper page 9)

Do you have any comments regarding this topic?

5. Sampling, Monitoring and Record Keeping

5.1. Sampling and monitoring requirements (see intentions paper page 9)

(a) Do you have any comments or suggestions regarding the proposed revisions to sampling requirements?

(b) Do you have any comments or suggestions regarding the proposed requirements for confirmatory soil sampling and monitoring?

5.2. Record keeping requirements (see intentions paper pages 9)

Do you have any comments regarding this topic ?

6. *Updates to Technical Standards*

The proposed amendments will ensure that the OMRR is consistent and harmonized with national and provincial standards, legislation and regulations.

6.1. Consistency of schedules with other national standards and regulations (see intentions paper page 10)

Do you have any comments regarding this topic?

6.2. Consistency with the Contaminated Sites Regulation (see intentions paper page 10)

Do you have any comments regarding this topic?

6.3. Consistency with the Agricultural Waste Control Regulation (see intentions paper page 10)

Do you have any comments regarding this topic?

7. *Additional Housekeeping Changes*

Do you have any comments or suggestions regarding the proposed housekeeping changes (see intentions paper page 10)?

8. *Development of Guidance*

Do you have any comments or suggestions regarding development of guidance (see intentions paper pages 10 to 11)?

9. Assuring Compliance

Do you have any comments regarding this topic (see intentions paper page 11)?

Additional Comments

Do you have any additional comments or suggestions for the ministry regarding the proposed revisions to the regulation?

Text box continues on the next page...

If you have any questions or comments please email: env.omrr.reg.reviews@gov.bc.ca.

Completed response forms or submissions may be submitted using the online form or as an attached file to this email address, or by mail to:

Ministry of Environment – OMRR Reg Review
PO Box 9341 Stn Prov Govt
Victoria, BC V8W 9M1

Responses received by **December 2, 2016** will be considered by the ministry in preparing the proposed revisions to the regulation.

All submissions will be treated with confidentiality by ministry staff and contractors when preparing consultation reports. Please note however that comments you provide and information that identifies you as the source of those comments may be publicly available if a Freedom of Information request is made under the *Freedom of Information and Protection of Privacy Act*.

Background and Area of Interest

Please select the appropriate boxes to describe your primary interest in the Ministry's update:

☐

Work for a regional district

Please describe (e.g., planning, engineering):

☐

Work for a municipality

Please describe (e.g., planning, engineering):

☐

Work for a government regulatory agency (other than local)

Please describe (e.g., federal, provincial):

☐

Work for a public sector organization

Please describe (e.g., health authority, education institution, Crown corporation):

☐

First Nation

Please describe:

☐

Work in the waste management industry (private sector)

Please describe the type of goods or services that you provide:

☐

Work in the agricultural sector

Please describe:

☐

Involvement or work for an environmental or community interest group

Please describe:

☐

Other interest

Please describe:

Thank you for your time and comments!

Please remember to return this comment form to the ministry on or before December 2, 2016

If you wish, you may also provide contact information on the following page. This information will be compiled separately from your comments and used to inform respondents of posting of the summary of comments and progress in revising the Organic Matter Recycling Regulation.

Contact Information

If you wish to receive further information concerning updates to the Organic Matter Recycling Regulation, please provide your contact information – **including an email address** – below.

All submissions will be reviewed for inclusion without attribution in a consultation summary report to be made public following the consultation period. Please note that comments you provide and information that identifies you as the source of those comments may be publicly available if a Freedom of Information request is made under the *Freedom of Information and Protection of Privacy Act*.

Contact Name:

Business or Organization Name (if appropriate):

Email:

Mailing address:

Telephone:

Thank you again for your interest in the regulation of organic matter recycling in British Columbia.

If you have any further questions, please contact:

env.omrr.reg.reviews@gov.bc.ca