



REGIONAL DISTRICT OF BULKLEY-NECHAKO

WASTE MANAGEMENT COMMITTEE (Committee of the Whole)

AGENDA

Thursday, January 14, 2016

Page		Action
	1) Accept Supplementary Agenda	
	2) Minutes	
2-4	Waste Management Committee Meeting Minutes December 10, 2015	Receive
	3) Business Arising Out of the Minutes	
	4) Reports/Documents	
5-29	Landfill Criteria for Municipal Solid Waste – Second Edition, Webinar – November 12, 2015	Receive
	5) Items for Discussion	
	Landfill Development Costs and Budget Implications	
	Solid Waste Management Plan Review	
	Cardboard Ban	
	Re-Use Sheds	
	6) Correspondence	
	7) New Business	
	8) Adjournment	

REGIONAL DISTRICT OF BULKLEY-NECHAKO**WASTE MANAGEMENT COMMITTEE MEETING**
(Committee Of The Whole)**Thursday, December 10, 2015**

PRESENT: Chair Taylor Bachrach

Directors Eileen Benedict
Shane Brienen
Mark Fisher
Tom Greenaway
Dwayne Lindstrom
Thomas Liversidge
Rob MacDougall
Bill Miller
Rob Newell
Mark Parker
Jerry Petersen
Darcy Repen
Gerry Thiessen

Director Absent Luke Strimbold, Village of Burns Lake

Staff Gail Chapman, Chief Administrative Officer
Cheryl Anderson, Manager of Administrative Services
Hans Berendorff, Financial Administrator
Janine Dougall, Director of Environmental Services – arrived at 2:37 p.m.
Wendy Wainwright, Executive Assistant

Other Jesse Hiemstra, Smithers

CALL TO ORDER

Chair Bachrach called the meeting to order at 2:35 p.m.

AGENDAMoved by Director Repen
Seconded by Director Brienen**WMC.2015-3-1**

"That the Waste Management Committee receive the December 10, 2015 Waste Management Committee Agenda,"

(All/Directors/Majority)

CARRIED UNANIMOUSLY**MINUTES****Waste Management**
Committee Meeting Minutes
-June 11, 2015Moved by Director Petersen
Seconded by Director Parker**WMC.2015-3-2**

"That the Minutes of the Waste Management Committee for June 11, 2015 be received."

(All/Directors/Majority)

CARRIED UNANIMOUSLY

REPORTS/DOCUMENTS

Salvaging Ban and Re-Use Shed Closure – Feedback Summary Document

Chair Bachrach thanked staff for the very complete and detailed report. Director Repen noted that there was substantial responses from the public in regard to the re-use shed closures, possible solutions and options.

Director Repen spoke to the possible implementation of CCTV cameras as a preventative measure. Separating the receiving goods from the picking up of goods may also address safety concerns. The use of volunteers at the re-use sheds and possible benefits to the volunteers was discussed.

Director Fisher spoke of the possibility of hiring a part-time employee to maintain the re-use sheds based on area needs. He spoke to possible funding options, staff training and authority given to staff to address non-compliance and ability to ban users. Director Parker noted the need to address each transfer station individually as some of the smaller transfer stations may only require CCTV cameras rather than having to hire additional staff. Discussion took place regarding the possibility of the re-use sheds being operated on a contract basis.

Director Miller noted concerns regarding the risk of liability. He also noted that people can potentially take items to local second hand businesses that in turn support local economies. Director Miller spoke of the need for producers and consumers to take responsibility for the products being sold and bought.

Each of the solutions and options in regard to re-opening the re-use sheds has a certain monetary value that needs to be considered. There are a number of factors that will impact a cost analysis depending on Regional Board direction. Janine Dougall, Director of Environmental Services, noted that some areas such as Houston and Fraser Lake do not have sufficient funding in their residual recycling initiative funds.

Metal and wood salvaging was discussed as being separate issues from the re-use sheds and may need to be addressed separately.

The possible inconvenience to the public of moving the re-use sheds off site from the transfer stations was discussed. Moving the re-use sheds may reduce liability issues. Some new to you organizations have indicated that they do not have the capacity to take on the re-use sheds.

Discussion took place in regard to the immediate need to address the safety issues and the potential of utilizing a safety consultant to review the safety management of the sites. Director Repen spoke of developing baseline safety guidelines for the entire RDBN for transfer stations and landfills including the use of re-use shed facilities. He also noted the need to develop individual guidelines to address usage at individual sites. Discussion took place in regard to the Regional Board developing bylaws to address the use of re-use sheds, transfer stations and landfills that clearly outline allowable behavior and consequences for non-compliance. The displaying of rules and regulations through signage was discussed. Chair Bachrach mentioned that each re-use shed at each of the RDBN transfer station facilities is different but he noted that Electoral Area "A" (Smithers Rural) residents have indicated their want to have the re-use sheds opened as soon as possible.

Director MacDougall commented that each Director for his or her area should develop a plan as to what they would like to have in their community and how the plan can be implemented in regard to re-opening the re-use sheds and that the information be brought forward for staff.

The importance of reviewing and updating the RDBN Solid Waste Management Plan was discussed.

REPORTS/DOCUMENTS (CONT'D)

Safety Plan for RDBN
Waste Management Facilities

Moved by Director Repen
Seconded by Director Miller

WMC.2015-3-3

"That the Waste Management Committee recommend that the Regional District of Bulkley-Nechako Board of Directors direct staff to request quotes for a baseline safety plan to address RDBN legal liability in regard to safety at all RDBN waste management facilities."

(All/Directors/Majority)

CARRIED UNANIMOUSLY

Plan to Re-Open RDBN
Re-Use Sheds

Moved by Director Fisher
Seconded by Director Miller

WMC.2015-3-4

"That the Waste Management Committee recommend that the Regional District of Bulkley-Nechako Board of Directors meet with their respective counterparts from each area and develop a plan to individually address area issues and concerns including how the plan can be implemented for the re-opening of the re-use sheds; and further, that the information be provided to staff prior to the January 14, 2016 meeting date agenda deadline."

(All/Directors/Majority)

CARRIED UNANIMOUSLY

Director Fisher noted that it is important to develop an individual plan for each area that can then be brought forward to determine the level of support and funding required for each area plan for re-opening the re-use sheds. The three concerns to be addressed by the Regional Board are the safety and liability at RDBN waste management facilities, a region by region plan for re-use sheds and the RDBN Solid Waste Management Plan.

NEW BUSINESS

Solid Waste Management
Plan

Director Miller brought forward the need to discuss the review of the RDBN Solid Waste Management Plan at the January 14, 2016 Waste Management Committee Meeting.

ADJOURNMENT

Moved by Director Benedict
Seconded by Director Parker

WMC.2015-3-5

"That the meeting be adjourned at 3:36 p.m."

(All/Directors/Majority)

CARRIED UNANIMOUSLY

Taylor Bachrach, Chair

Wendy Wainwright, Executive Assistant



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“Landfill Criteria for Municipal Solid Waste”

Second Edition

Webinar

November 12, 2015

Victoria, BC

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Presentation Outline

- **Criteria Update Process**
- **Objectives**
- **Review Process**
- **Summary of Comments**
- **Document Status**
- **Application and Exceptions**
- **Financial Security**
- **Landfill Plans and Reports**
- **Siting, Design and Operation**
- **Ministry Resources**
- **Next Steps**

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Criteria Update Process

- **First Edition was introduced in 1993**
- **Jurisdictional scan**
- **Review of the existing document**
- **Two consulting companies were involved**
- **Second Edition was posted as an Interim Draft on the Ministry website for 6 months for comments**
- **Presented to SWANA, APEG BC and LG Working Group**
- **Extensive feedback (32 submissions) received**



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Objectives

- Outline new standards and operating procedures for landfills consistent with current industry and ministry practices and ensure better environmental protection
- Address new regulatory requirements (Landfill Gas Management and Contaminated Sites Regulation)
- Provide:
 - *Guidance for ministry staff, landfill owners and QP's*
 - *Basis for consistent decision making*
 - *Clarity and consistency in regulatory approach province-wide*

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Objectives

- Applies to:
 - *New landfills*
 - *Lateral and/or vertical expansions of existing landfills*
 - *New landfill phases*
 - *Existing landfills*
- Flexibility based on equivalency:
 - *BMPs are straightforward path*
 - *The proponent may ask for an exception*
 - *Require significant justification and technical rationale completed by QP*
 - *Demonstrate equivalent or better level of environmental protection*

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***for your comments
and feedback***



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Review Process



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Summary of comments



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Document Status

- **Guidance versus Regulation.**
- **1993 Edition did not provide clear explanation.**
- **Interim Draft Second Edition, 2013 included brief explanation how it should be considered in setting legal standards.**
- **Revised Draft Second Edition, 2015 contains expanded description of the document intent and role as a guidance in setting legal standards in Foreword and Application sections.**



Application and Exceptions

Topic	First Edition, 1993	Interim Draft Second Edition, 2013	Stakeholder feedback	Changes made
GENERAL Approach to Exceptions	<ul style="list-style-type: none"> Site-specific exemptions by request. 	<ul style="list-style-type: none"> Blanket default application of the requirements and standards to all landfills. Site-specific exemptions can be made on request. 	<ul style="list-style-type: none"> Provide more scenarios to be considered as straightforward exceptions. Application to existing sites. 	<ul style="list-style-type: none"> Grandfathering of some criteria for existing sites.
	<ul style="list-style-type: none"> No reference to QP. 	<ul style="list-style-type: none"> QP has to certify justification for exception. 	<ul style="list-style-type: none"> Additional expenses. 	<ul style="list-style-type: none"> Generally no changes. MOE heavily relies on QP expertise in all areas including landfilling.
	<ul style="list-style-type: none"> No details on processing exceptions by MOE. 	<ul style="list-style-type: none"> General direction to submit application for exception to MOE. 	<ul style="list-style-type: none"> Provide clear description of the steps to apply and obtain an exception. 	<ul style="list-style-type: none"> Regional Operations Branch uses the Structured Application Process to review all site-specific applications.

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Application and Exceptions

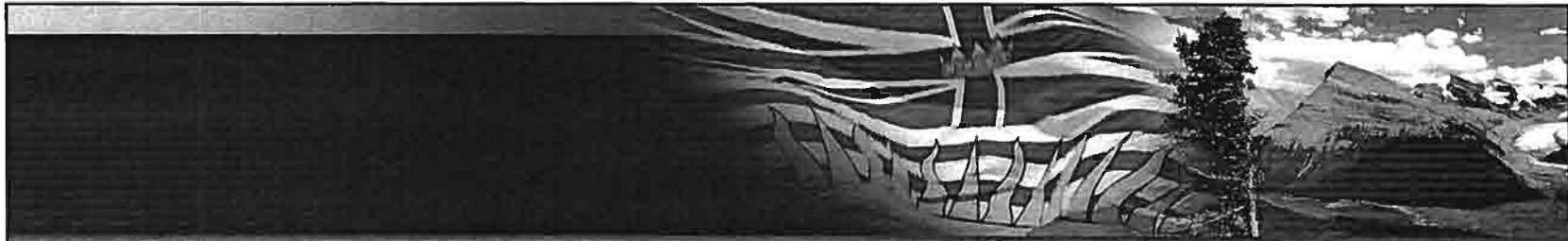
Topic	First Edition, 1993	Interim Draft Second Edition, 2013	Stakeholder feedback	Changes made
<p>Application of the LC standards to all landfills regardless of the size and operational stage.</p> <p>Small landfills.</p>	<ul style="list-style-type: none"> Some small landfills may be exempted from certain sections. Not applicable to Performance, Siting and Design standards. 	<ul style="list-style-type: none"> Blanket application of the requirements to all landfills. Exceptions can be made on a site-specific basis. 	<ul style="list-style-type: none"> Lack of funding and resources for small landfills to complete the reports and implement BMPs, especially if they are close to end of life and did not plan for that. 	<ul style="list-style-type: none"> If closed within 5 years, sites may be subject only to closure and post-closure requirements (at the discretion of the Director). Written confirmation submitted to MOE within 12 months.

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Application and Exceptions

Topic	First Edition, 1993	Interim Draft Second Edition, 2013	Stakeholder feedback	Changes made
Siting Criteria: Application to existing landfills	<ul style="list-style-type: none"> • Siting criteria are not very detailed. • Applicable to all landfills. 	<ul style="list-style-type: none"> • Existing landfills are not explicitly grandfathered from siting requirements. 	<ul style="list-style-type: none"> • May lead to unnecessary efforts to apply for and review exemptions. 	<ul style="list-style-type: none"> • Explicit statement that Siting Criteria are generally applicable to new landfills and lateral expansions. Some recommended standards (e.g. buffer zones) can be taken into account when planning new phases at existing sites.

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Application and Exceptions

Topic	First Edition, 1993	Interim Draft Second Edition, 2013	Stakeholder feedback	Changes made
Design Standards: Application to existing landfills	<ul style="list-style-type: none"> • Not detailed. • Applicable to all landfills. 	<ul style="list-style-type: none"> • Blanket application of the standards (e.g. engineered liner) to all landfills. • Existing site owners have to submit a request for exception justified by QP if they want to proceed with a natural attenuation site. 	<ul style="list-style-type: none"> • Some standards are impossible to implement at existing sites (liners). • Inevitably lead to unnecessary exception requests for existing landfills. • Uncertainty with the timelines. 	<ul style="list-style-type: none"> • Sections specified within Design Criteria chapter that apply to new sites only.

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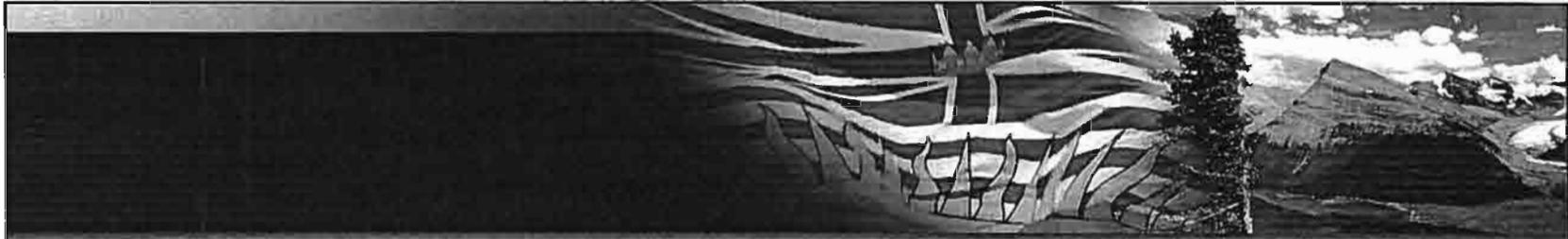
Application and Exceptions

Topic	First Edition, 1993	Interim Draft Second Edition, 2013	Stakeholder feedback	Changes made
Design standards: Base Liner Requirements for new phases and expansions of existing landfills	<ul style="list-style-type: none"> • Two site types: <ul style="list-style-type: none"> ✓ Natural control landfills. ✓ Engineered landfills. 	<ul style="list-style-type: none"> • Engineered liner as a default requirement for all new landfills and expansions. 	<ul style="list-style-type: none"> • Lack of LGs resources to convert small natural attenuation sites in remote locations to engineered lined landfills. • Those sites might not pose risk to the environment. • It's not an effective environmental protection policy and use of tax payers money. 	<ul style="list-style-type: none"> • Exceptions can be made for new phases and expansions of existing landfills if all the conditions are met: <ol style="list-style-type: none"> 1. Less than 5000 tonnes of waste/year and total WIP less than 100000 tonnes. 2. Very remote location with no practical disposal alternative (sub-regional engineered landfill) closer than 100 km. 3. Less than 500 mm of annual precipitation. 4. Demonstration of no existing groundwater contamination from the landfill site.

Application and Exceptions

Topic	First Edition, 1993	Interim Draft Second Edition, 2013	Stakeholder feedback	Changes made
Upgrading Plan	<ul style="list-style-type: none"> • An action plan to upgrade nonconforming landfills to be included in SWMP. • A corrective action plan to be submitted to MOE. 	<ul style="list-style-type: none"> • A requirement to submit a Landfill Criteria Upgrading Plan if needed. 	<ul style="list-style-type: none"> • Request to clarify the requirement for an Upgrading Plan completion. • Might be onerous to complete. 	<ul style="list-style-type: none"> • Not a new requirement. • Created a separate section: Conformance of existing landfills. • Status check for existing landfills was divided into two steps: <ul style="list-style-type: none"> ✓ LC Conformance Review. ✓ LC Upgrading Plan if needed.

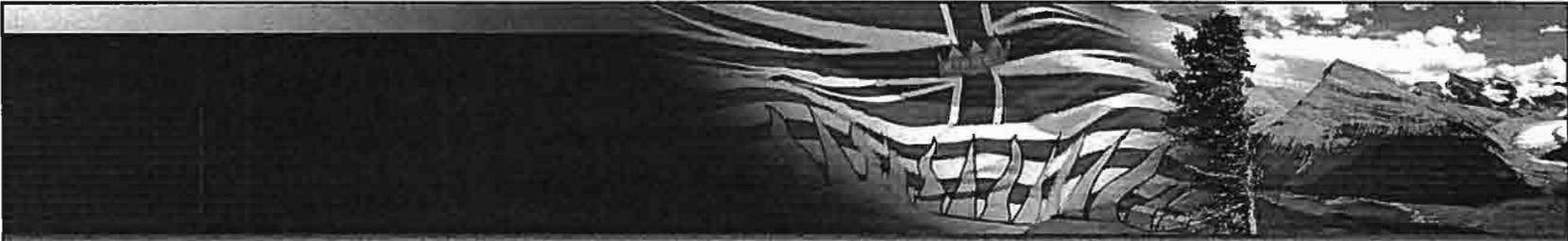
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Financial Security

Topic	First Edition, 1993	Interim Draft Second Edition, 2013	Stakeholder feedback	Changes made								
Default period for calculating financial security	<ul style="list-style-type: none"> No details on financial security calculation 	<ul style="list-style-type: none"> Default period of 1000 years in the absence of technical rationale 	<ul style="list-style-type: none"> Difficulty with calculating financial liabilities for such an extended period of time. Proper calculations might be too costly for smaller landfills to secure exception. 	<ul style="list-style-type: none"> Default numbers were changed using more risk-based approach to determining contaminating lifespan of the landfill: <table border="1" data-bbox="1430 1060 1799 1320"> <thead> <tr> <th>Tonnes of MSW in place</th> <th>Contaminating lifespan, years</th> </tr> </thead> <tbody> <tr> <td>>1,000,000</td> <td>200</td> </tr> <tr> <td>100,000-1,000,000</td> <td>100</td> </tr> <tr> <td><100,000</td> <td>50</td> </tr> </tbody> </table>	Tonnes of MSW in place	Contaminating lifespan, years	>1,000,000	200	100,000-1,000,000	100	<100,000	50
Tonnes of MSW in place	Contaminating lifespan, years											
>1,000,000	200											
100,000-1,000,000	100											
<100,000	50											

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Landfill Plans and Reports

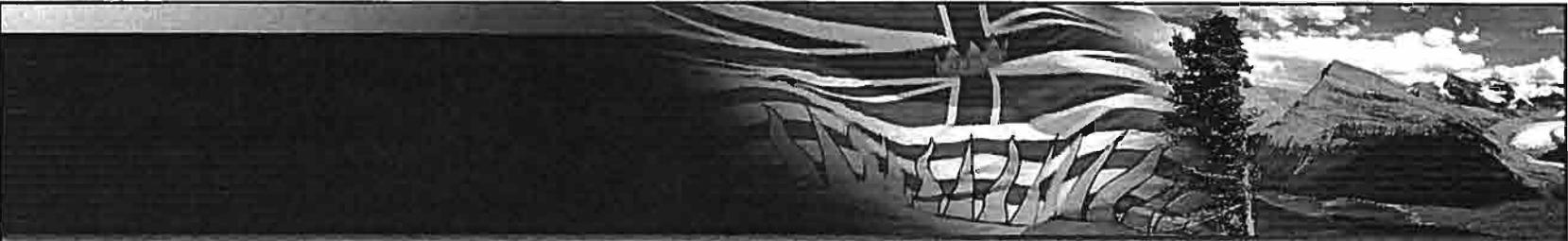
Topic	First Edition, 1993	Interim Draft Second Edition, 2013	Stakeholder feedback	Changes made
Content of the landfill plans and reports	<ul style="list-style-type: none"> • General requirements for sound knowledge of the environmental setting and a detailed site location investigation addressing broad categories of concern (water contamination, wildlife conflicts, etc.) • No details on the content of the plans and reports. 	<ul style="list-style-type: none"> • Detailed structured content of the plans and reports to be submitted to MOE. • New reports: <ul style="list-style-type: none"> ✓ Hydrogeology and Hydrology Characterization report. ✓ Construction report. 	<ul style="list-style-type: none"> • Outlined detailed content of the reports seemed to be onerous, especially for small landfills. • Extra costs to complete all the reporting requirements. • Uncertain timelines for MOE review 	<ul style="list-style-type: none"> • No changes



Siting, Design and Operation

- **Agreement that it's a well-written document establishing BMPs and state-of the-art standards for landfills.**
- **Suggested improvements to the recommended standards were incorporated for achieving better landfill performance.**

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Siting, Design and Operation

Topic	First Edition, 1993	Interim Draft Second Edition, 2013	Stakeholder feedback	Changes made
Siting requirements	<ul style="list-style-type: none"> • 300m setbacks from facilities (residencies, water supply wells, public parks, etc.) 	<ul style="list-style-type: none"> • Increased and refined setbacks: <ul style="list-style-type: none"> ✓ 500m from sensitive land uses including residencies and municipal parks. ✓ 300-500m from water supply wells depending on capacity. ✓ 100m from environmentally sensitive areas. 	<ul style="list-style-type: none"> • Possible complaints from adjacent property owners at the existing sites. • Difficulty with siting a new landfill. • Uncertainty with future expansions already planned closer. 	<ul style="list-style-type: none"> • Grandfathering for existing sites.
Buffer zone	<ul style="list-style-type: none"> • 15m must be reserved for natural screening 	<ul style="list-style-type: none"> • 30m recommended to be reserved for natural screening 	<ul style="list-style-type: none"> • Concern with existing operations 	<ul style="list-style-type: none"> • Grandfathering for existing sites • Recommendation to consider for future developments

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Siting, Design and Operation

Topic	First Edition, 1993	Interim Draft Second Edition, 2013	Stakeholder feedback	Changes made
Distance to water table	<ul style="list-style-type: none"> • 1.2m 	<ul style="list-style-type: none"> • 1.5m 	<ul style="list-style-type: none"> • Increased distance is excessive • The required distance is not sufficient 	<ul style="list-style-type: none"> • No changes
Fencing	<ul style="list-style-type: none"> • Required around the perimeter of the landfill 	<ul style="list-style-type: none"> • Required around the entire perimeter of the landfill 	<ul style="list-style-type: none"> • Not practical for rural areas where not all space is used for landfilling • Not practical for phased landfill development 	<ul style="list-style-type: none"> • Required around the perimeter of the operational footprint
Final cover application	<ul style="list-style-type: none"> • No timeline 	<ul style="list-style-type: none"> • Final cover must be placed within 180 days 	<ul style="list-style-type: none"> • Short construction season • Economically more feasible to apply final cover on larger areas 	<ul style="list-style-type: none"> • Final cover shall be placed within 365 days

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Siting, Design and Operation

Topic	First Edition, 1993	Interim Draft Second Edition, 2013	Stakeholder feedback	Changes made
Final contours	<ul style="list-style-type: none"> • No details. 	<ul style="list-style-type: none"> • The final top grade shall be not less than 10% above the final landfill side slope. 	<ul style="list-style-type: none"> • 10% final grade is overly conservative and will limit beneficial end use options. 	<ul style="list-style-type: none"> • Recommended design criteria for the top plateau: <ul style="list-style-type: none"> ✓ Not less than 10% for cover systems using soil barrier layer. ✓ Can be reduced up to 4% for cover systems using a geomembrane or composite barrier layer.
Requirement for QA/QC during construction	<ul style="list-style-type: none"> • No requirement 	<ul style="list-style-type: none"> • QA/QC inspections recommended. • Completion of construction report. 	<ul style="list-style-type: none"> • Request for more rigorous requirements for QA/QC. • Concerns with additional costs. 	<ul style="list-style-type: none"> • No changes.

Ministry Resources

Stakeholder feedback	Proposed solution
<ul style="list-style-type: none"> • History of inconsistency in setting site-specific standards around the province. • Additional applications that will be submitted to MOE to comply with the new document might affect timelines of issuing/amending site-specific authorisations. 	<ul style="list-style-type: none"> • Criteria as a guidance is a flexible document. • Emphasis on adequate protection of human health and environment. • Increased efficiency of Structured Application Process. • Establishment of focused teams and work units to process sector specific applications. • Training of the staff responsible for landfill management.



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Next Steps

- Post as a draft on the Ministry website until January 31, 2016 and plan to finalize after completion of this period.

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