NOTICE OF REGULAR MEETING
ZERO WASTE COMMITTEE

8:00 a.m.
Thursday, September 13, 2012
2nd Floor Boardroom, 4330 Kingsway, Burnaby, British Columbia.

A G E N D A

1. ADOPTION OF THE AGENDA

1.1 September 13, 2012 Regular Meeting Agenda
That the Zero Waste Committee adopt the agenda for its regular meeting scheduled for September 13, 2012 as circulated.

2. ADOPTION OF THE MINUTES

2.1 July 12, 2012 Regular Meeting Minutes
That the Zero Waste Committee adopt the minutes of its regular meeting held July 12, 2012 as circulated.

3. DELEGATIONS
No items presented.

4. INVITED PRESENTATIONS

4.1 Overview of Waste to Energy (WTE) Technologies, Bruce J. Howie, HDR

5. REPORTS FROM COMMITTEE OR STAFF

5.1 Waste Flow Management Update
Designated Speaker: Paul Henderson, Manager
Solid Waste Department
Recommendation:
That the Board direct staff to initiate consultations on the waste flow management options presented in this report.

5.2 New Waste-to-Energy Capacity and Contingency Disposal Requirements
Designated Speaker: Paul Henderson, Manager
Solid Waste Department
Recommendation:
1. That the Board set new waste-to-energy capacity at 370,000 tonnes per year.
2. That the process to secure contingency disposal capacity not be pursued at this time and re-evaluated prior to 2016.
5.3 **New Waste-to-Energy Procurement Process and Ownership Model**  
*Designated Speaker:* Paul Henderson, Manager  
Solid Waste Department  
*Recommendation:*  
That the Board direct staff to:  
1. Proceed with the recommended procurement process described in this report commencing with a technology only request for qualifications (RFQ1), with an expected operational date for new waste-to-energy capacity of mid-2018.  
2. Specify in RFQ1 that new WTE capacity is to be developed based on Metro Vancouver ownership of any new WTE facility.  
3. Consider proponent and site owner submissions based on long-term land leases where the lease term exceeds the expected life of any new WTE facility.

5.4 **Technical Specifications for Storage Space and Access for Recycling in Multi-Family Residential and Commercial Developments**  
*Designated Speaker:* Esther Bérubé, Project Engineer  
Solid Waste Department  
*Recommendation:*  
That the Board approve the proposed municipal approach to establish specifications for storage space and access for recycling in new and altered multi-family residential and commercial developments as part of development permits, and refer to member municipalities for consideration in their development permit processes.

5.5 **GVS&DD/Wastech Comprehensive Agreement – 2011 Financial Results**  
*Designated Speaker:* Peter Wishart, Senior Engineer  
Solid Waste Department  
*Recommendation:*  
That the Committee receive for information the report dated August 4, 2012 titled “GVS&DD/Wastech Comprehensive Agreement – 2011 Financial Results”.

5.6 **Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw – Staff Appointments**  
*Designated Speaker:* Ray Robb, Division Manager, Metropolitan Planning, Environment and Parks Department  
*Recommendation:*  
That the Board, pursuant to the Environmental Management Act and Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw 181, 1996 as amended by Bylaw 183, 1996:  
a) Appoint the following as Officers: Dennis Klick, Natasha Markovic-Mirovic and Susy Marble; and  
b) Rescind the appointment of the following Officers: Silvano Padovan.

5.7 **Beverage Container Program**  
*Designated Speaker:* Andrew Doi, Environmental Planner  
Solid Waste Department  
*Recommendation:*  
5.8 Manager’s Report  
*Designated Speaker:* Paul Henderson, Manager  
*Solid Waste Department*  
*Recommendation:*  
That the Zero Waste Committee receive for information the report dated July 4, 2012 titled “Manager’s Report”.

6. INFORMATION ITEMS

6.1 Letter dated July 11, 2012 from City of Vancouver regarding Provincial Recycling Regulation  
6.2 Letter dated August 2, 2012 from City of Coquitlam regarding Provincial Recycling Regulation  
6.3 Letter dated July 20, 2012 from Corporation of Delta regarding Vancouver Landfill Technical Liaison Committee  
6.5 Email dated August 15, 2012 regarding Strathcona BIA Resource Park Tour  
6.6 Email message to MMBC Stakeholders dated September 6, 2012 regarding (PPP) Printed Paper and Packaging

7. OTHER BUSINESS

No items presented.

8. RESOLUTION TO CLOSE MEETING  
*Staff Recommendation:*  
That Zero Waste Committee close its regular meeting scheduled for September 13, 2012 pursuant to the *Community Charter* provisions, Section 90 (1) (e) as follows:  
“90 (1) A part of a committee meeting may be closed to the public if the subject matter being considered relates to or is one or more of the following: (e) disposition of land or improvements, if the Board or Committee considers that disclosure could reasonably be expected to harm the interests of the regional district.”

9. ADJOURNMENT  
*Staff Recommendation:*  
That the Zero Waste Committee conclude its regular meeting of September 13, 2012.
GREATER VANCOUVER REGIONAL DISTRICT
ZERO WASTE COMMITTEE

Minutes of the Regular Meeting of the Greater Vancouver Regional District (GVRD) Zero Waste Committee held at 9:00 a.m. on Thursday, July 12, 2012 in the 2nd Floor Boardroom, 4330 Kingsway, Burnaby, British Columbia.

PRESENT:
Chair, Director Malcolm Brodie, Richmond
Vice Chair, Director Derek Corrigan, Burnaby (arrived at 9:16 a.m.)
Councillor Roger Bassam, North Vancouver District
Director Mike Clay, Port Moody
Councillor Scott Hamilton, Delta
Director Marvin Hunt, Surrey
Director Gayle Martin, Langley City (arrived at 9:07 a.m.)
Director Andrea Reimer, Vancouver
Director Wayne Wright, New Westminster

ABSENT:
Councillor Neal Nicholson, Coquitlam
Director Deb Walters, Pitt Meadows

ALSO PRESENT:
Board Chair, Director Greg Moore, Port Coquitlam

STAFF:
Jim Rusnak, Interim Deputy Commissioner/Chief Financial Officer, Chief Administrative Officer’s Department
Paul Henderson, Manager, Solid Waste Department
Klara Kutakova, Assistant to Regional Committees, Board Secretariat and Corporate Information Department

1. ADOPTION OF THE AGENDA

1.1 July 12, 2012 Regular Meeting Agenda

It was MOVED and SECONDED
That the Zero Waste Committee adopt the agenda for its regular meeting scheduled for July 12, 2012 as circulated.

CARRIED

2. ADOPTION OF THE MINUTES

2.1 June 14, 2012 Regular Meeting Minutes

It was MOVED and SECONDED
That the Zero Waste Committee adopt the minutes of its regular meeting held June 14, 2012 as circulated.

CARRIED
3. DELEGATIONS
No items presented.

4. INVITED PRESENTATIONS
No items presented.

5. REPORTS FROM COMMITTEE OR STAFF

5.1 Waste-to-Energy Facility – Feedwater Treatment Plant Upgrade
Budget Request
Report dated June 12, 2012 from Chris Allan, Senior Engineer, Solid Waste
Department, informing about the requirement to replace the floor slab to
complete the Feedwater Treatment Plan Upgrade project underway at the
Metro Vancouver Waste-to-Energy Facility, and seeking approval of
additional 2012 Capital funds to complete the project.

It was MOVED and SECONDED
That the Board approve an additional $300,000 of 2012 capital funding for the
Feedwater Treatment upgrade project.

CARRIED

Agenda Varied
The order of the agenda was varied to consider item 5.3 at this point.

5.3 Future of the Region Sustainability Dialogues and Post-Dialogue
Forum: Dematerialization: Transitioning to an Economy Without Waste
Report dated July 4, 2012 from Simon Cumming, External Outreach and
Intergovernmental Relations Division Manager, Corporate Relations
Department, and Denise Philippe/Joanne Gauci, Policy Advisors, Corporate
Relations Department, providing an update on the Future of the Region
Sustainability Dialogues and Post-Dialogue Forum held throughout the region
in March and June 2012 respectively, on the topic of Dematerialization: Transitioning to an Economy Without Waste.

It was MOVED and SECONDED
That the Board forward the report dated July 4, 2012 and titled “Future of the
Region Sustainability Dialogues and Post-Dialogue Forum: Dematerialization:
Transitioning to an Economy Without Waste” to member municipalities, and
other related agencies for their information and comment.

CARRIED

Agenda Order Resumed
The order of the agenda resumed with item 5.2.

5.2 Organic Materials Processing Odour Emission Control Regulatory
Model
Report dated July 4, 2012 from Paul Henderson, Manager, Solid Waste
Department, together with report dated June 14, 2012 from Ray Robb,
Regulations and Enforcement Division Manager, and Kevin Stock, Senior
Policy Analyst, Metropolitan Planning, Environment and Parks Department,
informing of consultation planned for a proposed regulatory model to control odour from facilities processing organic materials.

9:07 a.m. Director Martin arrived at the meeting.
9:16 a.m. Director Corrigan arrived at the meeting.

Presentation titled “Organic Materials Processing Odour Emission Control” is retained with the July 12, 2012 Zero Waste Committee agenda.

**It was MOVED and SECONDED**
That the Zero Waste Committee receive for information the report dated June 14, 2012, titled “Organic Materials Processing Odour Emission Control Regulatory Model”.

**CARRIED**

5.3 **Future of the Region Sustainability Dialogues and Post-Dialogue Forum: Dematerialization: Transitioning to an Economy Without Waste**
This item was previously considered.

5.4 **Manager’s Report**
Report dated July 4, 2012 from Paul Henderson, Manager, Solid Waste Department, providing an update on consultation with the FVRD on the consultation process for new Waste to Energy capacity for Metro Vancouver and an update on the 2012 Zero Waste Committee workplan.

Marie Griggs, Public Involvement Division Manager, Engineering and Construction Department, provided an update on consultation with the Fraser Valley Regional District. Members discussed specifics of the provincial requirement for consulting with the FVRD on the new Waste to Energy Capacity and reasons for proceeding with the FVRD consultation process at this point.

Inconsistency in dates referring to the start of the Metro Vancouver waste-to-energy facility’s commercial operation was raised.

**Request of Staff**
Staff was requested to correct the Board version of the report titled “Waste-to-Energy Facility – Feedwater Treatment Plant Upgrade Budget Request” in the second paragraph of the report by replacing the year “1998” with the year “1988”.

Paul Henderson, Manager, Solid Waste Department, informed the Committee that staff is working on scheduling a special Zero Waste Committee meeting in September to discuss the development of new waste-to-energy capacity.

Heather Schoemaker, Manager, and David Hocking, Corporate Communications Division Manager, Corporate Relations Department provided an overview of the Metro Vancouver Zero Waste Conference to be held in Vancouver Convention Centre on September 14 and 15, 2012. The presenters outlined the conference format and themes, elaborated on the signature event – the Zero Waste Design Challenge, and informed the Committee about the key note speaker, sponsors, and media coverage of the
conference. The invitation to the conference will be sent to councils and municipal staff on Friday, July 13, 2012.

**It was MOVED and SECONDED**
That the Zero Waste Committee receive for information the report dated July 4, 2012 titled “Manager’s Report”.

**CARRIED**

6. **INFORMATION ITEMS**

6.1 **Encorp Pacific Canada 2011 Annual Report**

**It was MOVED and SECONDED**
That the Zero Waste Committee receive for information item 6., titled “Encorp Pacific Canada 2011 Annual Report”.

**CARRIED**

Request of Staff
Staff was requested to provide an update on recycling regulations on beverage containers.

7. **OTHER BUSINESS**

No items presented.

8. **RESOLUTION TO CLOSE MEETING**

**It was MOVED and SECONDED**
That Zero Waste Committee close its regular meeting scheduled for July 12, 2012 pursuant to the Community Charter provisions, Section 90 (1) (i) as follows:

“90 (1) A part of a committee meeting may be closed to the public if the subject matter being considered relates to or is one or more of the following:

(i) the receipt of advice that is subject to solicitor-client privilege, including communications necessary for that purpose;

**CARRIED**

9. **ADJOURNMENT**

**It was MOVED and SECONDED**
That the Zero Waste Committee conclude its regular meeting of Thursday, July 12, 2012.

**CARRIED**

(Time: 10:00 a.m.)

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Klara Kutakova,  Malcolm Brodie, Chair
Assistant to Regional Committees

6340278 FINAL
To: Zero Waste Committee  
From: Paul Henderson, Manager  
Solid Waste Department  
Date: September 6, 2012  
Subject: Waste Flow Management Update

Recommendation:

That the Board direct staff to initiate consultations on the waste flow management options presented in this report.

1. PURPOSE

The purpose of this report is to seek direction from the Board to initiate consultation on Waste Flow Management and to describe a preferred Waste Flow Management approach.

2. CONTEXT

On May 25, 2012, the Board received the report “Waste Flow Analysis and Management Options” and directed staff to review options for Waste Flow Management and to report back with a recommended strategy. The May 25, 2012 report notes that staff may provide an update to the Board in advance of reporting back with a recommended strategy.

Under the British Columbia Environmental Management Act, SBC 2003, Part 3, Section 25 (EMA), regional districts and the Greater Vancouver Sewerage and Drainage District (Metro Vancouver) are delegated the authority to manage municipal solid waste and recyclable material. Through the implementation of solid waste management plans, regional districts may develop bylaws and fee structures to help achieve their goals.

Staff has been working on a number of regulatory measures to achieve the regional waste reduction and recycling goals identified in the Integrated Solid Waste and Resource Management Plan (ISWRMP).

The following is a list of the various municipal solid waste sectors with brief summaries of regulatory measures under consideration where applicable. The figure below the list illustrates these concepts graphically.

   a. Demolition Sector: Staff is developing a proposed model by-law for municipalities to consider that is designed to encourage the diversion of demolition materials, particularly wood waste, which is currently primarily sent for disposal at landfills. Financial incentives to encourage recycling would likely be incorporated into municipal demolition permit fees.
b. **Construction and Renovation Sector**: Material generated by these activities is typically delivered either to privately-operated transfer stations or the one private licensed landfill within Metro Vancouver, which are required to be licensed under Metro Vancouver’s *Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181*, or alternatively to “**Regional Facilities**” comprising the Vancouver Landfill, Vancouver South Transfer Station, one of Metro Vancouver’s transfer stations, and the Waste-to-Energy facility in Burnaby. Staff is developing proposed revisions to Bylaw No. 181 intended to encourage additional diversion of construction and renovation waste at privately-operated transfer stations. Metro Vancouver staff and City of Vancouver staff have implemented various measures to improve recycling services at Regional Facilities and are working on a range of new initiatives.

c. **Recyclables from all sectors**: Staff is developing proposed revisions to Bylaw No. 181 to license additional types of privately-operated facilities that receive recyclable materials. The changes will allow Metro Vancouver to better track the movement of recyclable materials in the region as well as ensure more effective regulation of these facilities.

d. **Single Family**: Municipal solid waste from single family residences throughout the region (with a few exceptions) is collected by municipalities or through municipal collection contracts and is then delivered to Regional Facilities for disposal.

e. **Commercial, Institutional, and Industrial (IC&I) and Multi-Family Residential Sectors**: Most waste from the IC&I and multi-family residential sectors is collected by private waste haulers who typically deliver that waste to Regional Facilities and pay tipping fees. Material from these sectors accounts for 60% of the waste delivered to Regional Facilities.

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**Proposed Flow Management Measures**

It is believed that some IC&I and multi-family residential waste haulers are now by-passing Regional Facilities and delivering waste for disposal at facilities located out of the region. These haulers are not subject to the disposal bans and prohibitions at Regional Facilities that are in place to encourage recycling and they are avoiding paying their fair share of the
costs to manage the regional waste management system and implement waste reduction and recycling initiatives.

If action is not taken to manage this sector, it is likely that Metro Vancouver will not be able to achieve the ISWRMP waste reduction targets of 70% diversion by 2015 and an aspirational goal of 80% diversion by 2020. Waste Flow Management measures would be applied to the IC&I and multi-family residential waste sectors to ensure that Metro Vancouver can achieve the diversion targets identified in the ISWRMP. Waste Flow management of IC&I and multi-family residential waste sectors is the focus of the remainder of this report.

**Economic Analysis**

A key question for both municipal and commercial waste customers is whether Metro Vancouver offers a cost effective waste disposal solution, particularly if in the future flow management measures are implemented.

Metro Vancouver’s current tipping fee is $107 per tonne. In the July 19, 2012, Finance Committee Report, “Financial Projections for 2013 to 2017”, the 2013 tipping fee is also projected to be $107 per tonne. The 2013 tipping fee projection is lower than was projected in 2011 based on revised waste flow projections along with changes in expected timing for new capital infrastructure.

2012 tipping fees for various jurisdictions are as follows:

- Metro Vancouver = $107/t
- Nanaimo RD, BC = $115/t
- Halifax RM, NS = $125/t
- Capital Regional District, BC = $107/t
- Toronto, ON = $100/t
- Calgary, AB = $98/t

Based on this information, Metro Vancouver’s tipping fee is well aligned with tipping fees in other major Canadian communities.

**Waste Flow Management Options**

In the May 25, 2012 Board report “Waste Flow Analysis and Management Options”, staff identified a number of potential options for Waste Flow Management measures. The options identified in the initial report included:

**Economic Measures**
- Property Tax Levy Split Fee
- Hauler Licensing Split Fee
- Non-Regional Facility Split Fee

**Regulatory Measures**
- Franchising
- Hauler Licensing
- Municipal Service Provision
- Designated Facilities By-law

A summary and analysis of each of the options is included in Attachment 1. Based on the analysis in Attachment 1, either Hauler Licensing or a Designated Facilities By-law are the approaches that would be the most likely to be successful. These approaches would have
the least impact on stakeholders, particularly the hauler community, have been implemented successfully in other communities, are relatively simple to implement and enforce, and are therefore most likely to be successful in managing waste flow in support of achieving the Region’s waste reduction and recycling goals.

A non-Regional Facility Split Fee may also be possible, but as noted in Attachment 1, there are a number of drawbacks and uncertainties with this approach including:
  o Determining the level of the fee could be challenging as the fee would need to be set at a level such that it would not be considered a tax.
  o Collecting fees could be difficult and costly
  o Metro Vancouver would likely lose the ability to successfully implement bans and prohibitions.

The ISWRMP is based on the principles of maximizing source reduction and recycling. WTE is the primary approach identified in the ISWRMP to manage residuals with only a small amount of waste being disposed at landfills. Control exercised at Regional Facilities through setting of fees and implementation of disposal bans is a key tool in achieving the waste reduction and recycling goals of the ISWRMP.

Staff’s conclusion is that a system based on permitting third parties to manage the residual residential and commercial waste, almost certainly through some method inconsistent with the ISWRMP, using a non-Regional Facility Split Fee would be inconsistent with the principles of the ISWRMP. This approach would significantly reduce the likelihood of achieving the ISWRMP’s waste reduction and recycling goals, and would provide no environmental benefit.

In Halifax, a Designated Facilities By-law has been in place successfully since 2002. The by-law has been an important tool in achieving Halifax’s waste reduction and recycling objectives. In Halifax, haulers are required to deliver organics and construction and demolition waste along with residential and IC&I waste to designated facilities. On this basis, a Metro Vancouver by-law that would require residential and IC&I waste to be delivered to Regional Facilities is considered conservative in comparison to the Halifax approach.

Staff’s preferred approach is a hybrid of Hauler Licensing and a Designated Facilities By-law. All IC&I and multi-family waste collected within Metro Vancouver would be required to be delivered to Regional Facilities with the exception of loads that can legally be received at private licensed transfer stations or the private licensed landfill within Metro Vancouver. These facilities typically receive loads containing wood and other inert materials that can be effectively recycled at these facilities. A load containing no putrescible wastes from a home improvement or furniture store could likely meet these requirements. An exemption would also be made for specific source separated materials processed at private licensed facilities such as juice boxes or yogurt containers that can be processed to recover organics and packaging materials. Other potential exemptions will be identified during the consultation program.

The preferred approach includes licensing haulers with an exemption from licensing for haulers collecting less than a specified amount of waste annually. The exemption amount would likely be in the order of 20,000 tonnes per year of waste to maximize the benefit of a licensing program, while minimizing the administrative burden for both Metro Vancouver and waste haulers. Licensed haulers would be required to undertake annual third party audits to demonstrate that all regulated IC&I and multi-family waste that they collect within Metro
Vancouver is delivered to Regional Facilities. Licensing costs could potentially be offset through reduced tipping fees for licensed haulers.

Staff believes that the preferred approach maximizes the benefits of both Hauler Licensing and a Designated Facilities by-law while minimizing potential drawbacks of each approach.

The preferred approach is only one possible waste flow management option. Stakeholders will bring new perspectives and information to the discussion, which could result in a different final strategy being recommended to the Board. The preferred approach along with other options identified will be explored during the consultation program with a recommended strategy to be brought back to the Board in early 2013.

**Engagement and Consultation**

Staff has designed an Engagement and Consultation Program to support the development of a waste flow management approach for the region. The objectives of the program are to provide target audiences with:

- information on waste flow issues facing Metro Vancouver
- information on waste flow management options and how a preferred approach was identified
- opportunities for input regarding the preferred waste flow management approach and the other options

Target audiences for Metro Vancouver’s Waste Flow Management Engagement and Consultation Program are: Metro Vancouver Board and Zero Waste Committee; member municipalities; contracted waste haulers and processors (individually and through the Waste Management Association of B.C.); businesses; adjacent regional districts; First Nations and government ministries and agencies.

Staff will host two workshops on Waste Flow Management: one for member municipal staff, government agency staff and First Nations; and one for industry representatives. Member municipal staff will also be notified and consulted through RAAC, REAC, REAC Solid Waste Sub-committee and municipal waste reduction coordinators. Additional meetings with associations and individuals will be held as required. An online survey will also be used to ensure participants can provide input with ease.

Input received will be considered by staff in the development of a recommended waste flow management strategy, which together with the consultation results, will be presented to the Zero Waste Committee and Board.

3. **ALTERNATIVES**

None presented.

4. **CONCLUSION**

Staff has identified a preferred Waste Flow Management approach of requiring haulers of IC&I and multi-family residential waste to use Regional Facilities only and requiring licensing of haulers. Staff will engage stakeholders in a consultation program exploring this and other possible approaches and report back to the Board in early 2013.
ATTACHMENT:

1: Waste Flow Management Options
Waste Flow Management Options

FINANCIAL MECHANISMS

Property Tax Levy Split Fee
Metro Vancouver costs for implementing the ISWRMP and other similar initiatives are removed from the tipping fee and funded through property taxes. Tipping fees would be lowered and only include direct operational costs. There would then be no economic incentive for waste to migrate to a parallel system.

The drawback of this approach would be that solid waste disposal is not funded on a user pay basis. A portion of the costs would be shifted to the general tax levy. Additionally, and most importantly, reducing the tipping fee removes an important incentive to encourage recycling and reduction.

Hauler Licensing Split Fee
Metro Vancouver costs for implementing ISWRMP actions and other similar initiatives are collected through hauler licensing fees tied to the amount of waste that the hauler collects within the region.

The drawbacks of this approach are identical to the Property Tax Split Fee.

Non-Regional Facility Fees
Metro Vancouver costs to implement ISWRMP actions and other similar initiatives would be charged to any entity not using Regional Facilities through a non-Regional Facility fee. Fees could depend on the final destination of the waste, with no fee for recycled waste and escalating costs depending on how the waste is managed.

The potential drawbacks to this approach are:
- determining the level of the fee could be challenging as the fee would need to be set at a level such that it would not be considered a tax.
- Even once an appropriate fee level had been established, collecting the fee could be difficult and costly. Fees would potentially need to be collected from many haulers and facilities, inside and outside of the region, receiving waste from various sources. Under our current regulatory model for licensing private facilities managing construction and demolition waste, facilities are required to pay fees based on the amount of disposed material. Ensuring the facilities properly report and pay fees is challenging in spite of the fact that there are a relatively small number of facilities, all with approved weighscales, and all located within Metro Vancouver.
- The Metro Vancouver ISWRMP includes bans and prohibitions for a number of materials, with additional bans for organics and woodwaste planned to be fully implemented by 2015. With only financial incentives, Metro Vancouver would not be able to enforce bans on any particular material and as a result, what would be acceptable for disposal would depend on where the material was being disposed.
REGULATORY MECHANISMS

Franchising
Under an exclusive franchising model, multifamily and IC&I waste haulers are granted a franchise giving them exclusive rights to collect waste (and potentially recyclables) within a specific geographical region. Haulers would pay a franchising fee and rates and comply with other performance requirements specified in the franchising agreement. As a condition of the franchise, the hauler would be required to deliver waste to an approved facility.

The key drawback of franchising is that Metro Vancouver may not have the regulatory authority to implement a franchising model. Additionally, even with that authority, franchising would be extremely disruptive to the existing waste and recyclables management community, and would likely not be supported by that community.

Hauler Licensing
Similar to franchising, only licensed haulers are allowed to collect waste (and potentially recyclables) within a jurisdiction. Unlike franchising, generators continue to be able to select their preferred contractor and rates are not set by the local authority. As a condition of the license, haulers are required to deliver waste to an approved facility.

Hauler licensing has been implemented in a number of communities. One drawback to hauler licensing is that it creates an additional regulatory burden on haulers. Many haulers are relatively small, and therefore if licensing of all commercial haulers was required there would be a significant administrative and enforcement burden for Metro Vancouver.

Municipal Service Provision
In Metro Vancouver, for the most part, municipalities provide municipal solid waste and recyclables collection services to single family homes and similar dwellings. In some jurisdictions, municipalities or their contractors provide municipal solid waste collection services to multifamily and IC&I sectors as well. Municipalities, through provision of these services can then ensure that waste is delivered to approved facilities.

Although possible, this approach is considered impractical as waste collection services for the multi-family and IC&I sectors would be a significant expansion of municipal services and would similar to Franchising dramatically impact the commercial waste community.

Designated Facilities By-law
As implemented in Halifax Regional Municipality, by-law(s) are adopted requiring that all waste and potentially recyclables generated within the jurisdiction is delivered to Regional Facilities.

This approach has been successfully implemented in Halifax as well as a number of communities in the United States. The benefit of this approach is that it would not result in any changes for haulers currently using the Metro Vancouver system, and would ensure that a level playing field is created for all haulers. One potential challenge of a Designated Facilities By-law would be that enforcement could be challenging. According to Halifax staff, their experience has been that since the by-law was put in place in 2002, there has been good compliance from all of their major haulers.
Zero Waste Committee Meeting Date: September 13, 2012

To: Zero Waste Committee

From: Paul Henderson, Manager
Solid Waste Department

Date: September 5, 2012

Subject: New Waste-to-Energy Capacity and Contingency Disposal Requirements

Recommendations:

1. That the Board sets new waste-to-energy capacity at 370,000 tonnes per year.
2. That the process to secure contingency disposal capacity not be pursued at this time and re-evaluated prior to 2016.

1. PURPOSE

This report recommends new waste-to-energy (WTE) capacity requirement and the requirement and timing for securing contingency disposal capacity.

2. CONTEXT

In the March 2, 2012, Board report titled “Waste to Energy Consultation and Procurement Process” staff advised the Board that required new WTE capacity would be between 250,000 and 400,000 tonnes per year. The Integrated Solid Waste and Resource Management Plan (ISWRMP) projected a requirement of up to 500,000 tonnes per year.

Under the ISWRMP Goal 4, Metro Vancouver commits to continue to monitor disposal requirements, and if required secure additional contingency disposal capacity.

Under the ISWRMP Goal 3, Metro Vancouver commits to “scale any additional waste-to-energy capacity so that total waste-to-energy capacity does not exceed the most probable minimum waste flow projected over the economic life of those facilities.”

Future Projected Waste Flow

Since 2006, the quantity of waste disposed of in the Metro Vancouver and City of Vancouver solid waste management systems (Regional System) has decreased substantially.

As described in the May 25, 2012 Board report titled “Waste Flow Analysis and Management Options”, approximately 200,000 tonnes of the 300,000 tonnes total reduction of waste handled by the Regional System is due to the migration of material to private sector waste systems. Most of the waste has migrated to private licensed transfer stations within Metro Vancouver that process construction and demolition wastes, and are able to recycle a portion of the material. The remaining third is attributed to a reduction in

ZWC - 16
waste generation (approximately 6%-8% reduction) caused by changes in the economic environment and increased waste reduction efforts.

Based on the decrease in waste entering the Regional System, future waste flow projections have been updated. The following assumptions were made when developing the residual waste flow projections:

1. Population forecasts are based on estimates prepared for the Metro Vancouver Regional Growth Strategy which projects the regional population to increase to nearly 3.4 million people by 2040;
2. Economic growth estimates are based on BC Ministry of Finance and Economic Forecast Council of Canada projections.
3. A flow management mechanism is implemented such that residual IC&I and residential waste generated within Metro Vancouver is received into the Regional System.

The graph included in Attachment 1 illustrates three scenarios projecting the total quantity of residual waste that the Regional System will need to dispose of until 2030. The current and future permitted disposal capacity of the Regional System is shown in the background.

The Status Quo projection at the top of the chart illustrates what the required disposal capacity would be if the diversion rate is maintained at 55% with no reduction in generation. The amount of waste requiring disposal would continue to increase based on projected population and economic growth.

Assuming a 10% reduction in per capita waste generation by 2020 as contemplated in the ISWRMP, the other two projections are scenarios based on achieving either 80% diversion by 2020 (80% Diversion Scenario) or 70% diversion by 2020 and 80% diversion by 2030 (70% Diversion Scenario). The 80% and 70% Diversion Scenarios are considered to be a likely range of possible outcomes based on the implementation of the ISWRMP. Additionally, the Ministry of Environment requires that communities target 70% diversion prior to considering new WTE capacity. Therefore a 55% diversion scenario could not be used for planning WTE capacity requirements.

Eighty percent (80%) diversion is currently considered to be the maximum practical diversion rate. To staff’s knowledge, this level of waste diversion has not been exceeded in any major jurisdiction in the developed world. Given all of the actions required by producers, other levels of government etc., over which Metro Vancouver has no control, it is possible that 80% diversion may not be achievable in Metro Vancouver, and on this basis 80% diversion is the aspirational goal of the ISWRMP.

The projections show that under the 80% Diversion Scenario, for disposed waste quantities to stay constant at 2020 levels until 2030, an additional 11% reduction in per capita waste generation would need to be achieved. Projections beyond 2030 become too speculative and are dependent upon a number of unknown changes in technology and future waste growth patterns.

A table, included as part of Attachment 1, shows the same information in the chart and adds columns showing the required additional disposal capacity beyond what is available in the Regional System at each point in time for each scenario. Note that the scenarios presented show only the amount of IC&I and residential waste that would be disposed of in the Regional System. Diversion rates also include new diversion in the construction and
demolition waste sector, particularly for wood waste, material that is managed for the most-part outside of the Regional System.

Under the ISWRMP, the target maximum disposal quantity at the Vancouver Landfill (VLF) is 100,000 tonnes per year by 2020. In the table, a target VLF disposal rate of 50,000 tonnes per year is used to determine the required new WTE capacity. This is the estimated minimum operational tonnage that would be delivered to the VLF to account for materials not suitable for management in a WTE facility, seasonal waste flow fluctuations and facility maintenance shutdowns.

Approximately fifty thousand tonnes per year of municipal solid waste is the estimated minimum landfill disposal requirement to support new WTE capacity. In addition to 50,000 tonnes per year of municipal solid waste, VLF would receive any non-recycled WTE residuals. Once new WTE capacity is in place, continued operation of the VLF at low annual tonnages will have to be reviewed jointly by the City of Vancouver, Delta and Metro Vancouver with respect to regional disposal needs and economies of scale for VLF. Depending on the outcome that review, Metro Vancouver may need to arrange for disposal of residual municipal solid waste and non-recycled WTE residuals through the contingency disposal process described below.

**Contingency Disposal Capacity**

Under the ISWRMP, Metro Vancouver controls the allocation of waste between Regional Facilities. Additionally, the ISWRMP provides for the use of VLF to dispose of any remaining waste not directed to WTE facilities.

Metro Vancouver is committed to work cooperatively with the Corporation of Delta and the City of Vancouver along with other stakeholders to implement the ISWRMP. A transition strategy will be required as Metro Vancouver ceases delivery of waste to Cache Creek in 2016 with the expiry of the Comprehensive Agreement. The transition strategy for VLF will need to cover the full period of 2016-2020 to account for increases in required disposal with the cessation of delivery of waste to Cache Creek, and subsequent reductions in required disposal to VLF with the operation of new WTE capacity and achieving the ISWRMP target maximum disposal tonnage of 100,000 tonnes per year at VLF by 2020.

The chart shown in Attachment 1 is based on potentially using Vancouver to its maximum annual permitted capacity of 750,000 tonnes per year between 2016 and 2018 as waste deliveries to Cache Creek cease and in advance of new WTE capacity being operational.

For VLF to receive 750,000 tonnes per year of municipal solid waste, Vancouver would need to phase out the receipt of wood waste demolition materials at VLF. Under the ISWRMP, wood waste will be banned from disposal by 2015, and Vancouver has communicated that their goal is to phase out the receipt of wood waste demolition materials in accordance with the ISWRMP. Currently however there is insufficient capacity within the region to process all of the construction and demolition materials generated and more detailed investigations on quantities, sources and possible diversion or disposal locations for this material are underway.

If the transition strategy agreed to by Delta, Vancouver and Metro Vancouver results in less than 750,000 tonnes per year of waste being delivered to VLF from 2016 to 2018, Additional Disposal capacity beyond what is indicated in the Table in Attachment 1 would be required.
Staff will work with Vancouver and Delta to monitor waste flows annually and determine at what point contingency capacity is required, which would be 2016 at the earliest with the phase out of delivery of waste to Cache Creek. Metro Vancouver will also work with Vancouver and Delta on an appropriate transition strategy for VLF.

In addition to providing capacity beyond what can be managed in the Regional System, contingency disposal capacity would be used to mitigate the risk related to short term facility closures.

As per the ISWRMP, contingency capacity would be secured through an appropriate procurement process. Various remote landfills, either currently operating or planned, have capacity to meet Metro Vancouver’s contingency disposal requirements. The procurement process to secure contingency landfill capacity is expected to take approximately one year, and therefore does not need to be initiated at this time.

**WTE Business Case**

Metro Vancouver’s consultants are developing a business case for new WTE capacity as part of Metro Vancouver’s P3 Canada Fund application. The business case will be based on the new WTE capacity required as directed by the Board through this report. The results of the business case will be reported to the Zero Waste Committee in spring 2013.

### 3. ALTERNATIVES

**New WTE Capacity Requirement**

a) That the Board set new WTE capacity at 370,000 tonnes per year.

Setting new WTE capacity at 370,000 tonnes per year is based on achieving 70% diversion by 2020 and 80% diversion by 2030. Three hundred seventy thousand tonnes per year would be the amount of new WTE capacity required in 2030 under this scenario. In advance of 2030, landfill disposal in excess of the Vancouver Landfill target of 100,000 tonnes per year will be required, including 130,000 tonnes per year of additional capacity required in 2020.

The 70% Diversion Scenario is consistent with the ISWRMP and recognizes that 80% diversion will likely not be achieved by 2020. The scenario is optimistic from the perspective that there is no certainty that 80% diversion will be achieved even by 2030. If by the time new WTE capacity is in place around 2018, residual waste flow and future planned waste reduction and recycling activities suggest that 80% diversion even by 2030 is not practical, planning could commence to develop additional WTE capacity.

If higher diversion rates are achieved, throughput at the existing WTE facility could be reduced providing contingency disposal capacity. Alternatively, supplemental fuels such as demolition wood waste not suitable for recycling could potentially be secured to allow maximum energy production. The appropriate solution would depend on the relative economic and environmental implications of each option.

b) That the Board sets new WTE capacity at 250,000 tonnes per year.

Setting new WTE capacity at 250,000 tonnes per year is based on achieving 80% diversion by 2020, the ISWRMP’s aspirational goal. Metro Vancouver is currently at 55% diversion, a rate that has not changed significantly since 2007 in spite of significant actions by Metro
Vancouver and its partners. A number of programs are expected to be put in place by 2015 including organics and wood-waste bans, but based on the region’s progress to date, it is likely that 80% diversion will be achieved later than 2020. Additionally, even if 80% diversion is achieved in 2020, for the disposal tonnage to remain fixed until 2030 an additional 11% reduction in per capita waste generation would need to be achieved.

Achieving 80% diversion by 2020 and achieving the subsequent additional reductions in per capita waste generation would require actions by many external parties including the private sector, producers and manufacturers, other levels of government, etc. Metro Vancouver is working diligently to affect these other parties, but does not control their actions.

c). That the Board sets new WTE capacity at 500,000 tonnes per year

A third option, not shown in Attachment 1, is to set new WTE capacity at 500,000 tonnes per year. This is the required new WTE capacity in 2020 under the 70% Diversion Scenario, and would assume that beyond 2020, future waste reduction and recycling activities keep residual waste quantities constant without additional reduction. This option is consistent with the Ministry of Environment’s requirement to target 70% diversion in planning new WTE capacity, but does not account for the aspirational goal of the ISWRMP to achieve 80% diversion.

Option a) is recommended given that developing 370,000 tonnes per year of new WTE capacity will ensure that landfill disposal is minimized while ensuring there is not surplus WTE capacity in the region. If 80% diversion is achieved earlier than anticipated under the 70% Diversion Scenario, waste flow into the existing WTE facility, which will be more than 40 years old by 2030, could be reduced. Potentially other feedstocks could supplement the regional municipal solid waste.

4. CONCLUSION

Waste quantities delivered to the Regional System have dropped by approximately 300,000 tonnes per year since 2006 resulting in a requirement to update waste projections for determining new WTE capacity as well as timing for securing contingency landfilling.

Assuming a 10% reduction in per capita generation by 2020, two scenarios were investigated including:

1. 80% waste diversion by 2020 (80% Diversion Scenario);
2. 70% diversion by 2020 and 80% diversion by 2030 (70% Diversion Scenario).

Two additional scenarios are presented: Status Quo 55% diversion with no additional reduction in generation, and a scenario based on achieving 70% Diversion by 2020 with no subsequent reductions in waste flow.

Based on these scenarios, staff recommends developing an additional 370,000 tonnes per year of new WTE capacity as it represents minimum required capacity under the most probable scenario (70% Diversion Scenario) and minimizes landfill disposal.

Contingency landfill capacity may not be needed until as late as 2020, and at the earliest would be required in 2016, after cessation of waste hauling to the Cache Creek Landfill. The
process to secure contingency landfill capacity should therefore be delayed to a later date prior to 2016.

ATTACHMENT:

1. Regional MSW System Waste Flow Projection Graph and Table (6470975)
Regional MSW System Waste Flow Projection Graph and Disposal Requirement Table

Graph: Regional Municipal Solid Waste disposal projection to 2030 (metric tonnes; excludes DLC).

11% reduction in the per capita generation rate from 2020 to 2030.
**Table:** Regional Municipal Solid Waste Flow Summary and Disposal Requirement (metric tonnes).

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Regional MSW Disposal System</th>
<th>Existing WTE</th>
<th>Cache Creek LF</th>
<th>Vancouver LF</th>
<th>New WTE Capacity</th>
<th>Additional Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>1,090,000</td>
<td>1,070,000</td>
<td>970,000</td>
<td>280,000</td>
<td>200,000</td>
<td>610,000</td>
</tr>
<tr>
<td>2014</td>
<td>1,090,000</td>
<td>1,050,000</td>
<td>890,000</td>
<td>280,000</td>
<td>200,000</td>
<td>610,000</td>
</tr>
<tr>
<td>2015</td>
<td>1,110,000</td>
<td>1,060,000</td>
<td>840,000</td>
<td>280,000</td>
<td>200,000</td>
<td>630,000</td>
</tr>
<tr>
<td>2016</td>
<td>1,130,000</td>
<td>1,040,000</td>
<td>810,000</td>
<td>280,000</td>
<td>50,000</td>
<td>750,000</td>
</tr>
<tr>
<td>2017</td>
<td>1,160,000</td>
<td>1,030,000</td>
<td>770,000</td>
<td>280,000</td>
<td>-</td>
<td>750,000</td>
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<tr>
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<td>1,180,000</td>
<td>960,000</td>
<td>700,000</td>
<td>280,000</td>
<td>-</td>
<td>530,000</td>
</tr>
<tr>
<td>2019</td>
<td>1,210,000</td>
<td>920,000</td>
<td>640,000</td>
<td>280,000</td>
<td>-</td>
<td>560,000</td>
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<tr>
<td>2020</td>
<td>1,230,000</td>
<td>880,000</td>
<td>580,000</td>
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<td>-</td>
<td>100,000</td>
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<tr>
<td>2030</td>
<td>1,510,000</td>
<td>700,000</td>
<td>580,000</td>
<td>280,000</td>
<td>-</td>
<td>100,000</td>
</tr>
</tbody>
</table>

1 Actual tonnage delivered to Cache Creek Landfill in 2016 will depend on Annex closure requirements.
2 Indicates the amount of waste the system may be over capacity.
To: Zero Waste Committee

From: Paul Henderson, Manager
Solid Waste Department

Date: August 28, 2012

Subject: New Waste-to-Energy Procurement Process and Ownership Model

Recommendation:

That the Board direct staff to:

1. Proceed with the recommended procurement process described in this report commencing with a technology only request for qualifications (RFQ1), with an expected operational date for new waste-to-energy capacity of mid 2018.

2. Specify in RFQ1 that new WTE capacity is to be developed based on Metro Vancouver ownership of any new WTE facility.

3. Consider proponent and site owner submissions based on long-term land leases where the lease term exceeds the expected life of any new WTE facility.

1. PURPOSE

The purpose of this report is to update the Board on the development of the new Waste-to-Energy (WTE) capacity and recommend a procurement process and ownership model for new WTE capacity.

2. CONTEXT

On March 2, 2012, the Board directed staff to recommend a procurement process for new WTE capacity that ultimately:

a) Considers all WTE technology options within one procurement process;

b) Allows proposals that include a site or sites along with proposed technology solution;

c) Allows owners of potential sites to self-identify.

Market Sounding Results

Over the summer, Metro Vancouver’s new WTE capacity project consulting team interviewed all known potential proponents for developing new WTE capacity. The purpose of the process was to determine the level of interest in the new WTE capacity project and understand any barriers to ensuring a competitive procurement process. In total 16 potential proponents were asked standard questions that were forwarded to the interviewees in advance. Individual responses were not provided to Metro Vancouver to
protect proponents’ business interests and retain confidentiality of the responses. A summary document listing all of the interviewees and summarizing their comments is attached as Attachment 1.

The market sounding results indicate there are a large number of vendors representing a variety of technologies ready to participate in a procurement process to develop new WTE capacity. The recommendations/conclusions of the market sounding process are as follows:

1. Of the sixteen vendors interviewed only one of the conventional mass-burn technology respondents has secured a potential in-region site (four conventional mass burn technology respondents indicated they had secured out of region sites), and only two of the eleven non-mass burn vendors indicated they were looking at potential sites (both in-region). To ensure the process is equally accessible to all technologies and promote competition between in-region and out of region options it is recommended that Metro Vancouver should proceed with the self identification of sites necessary to identify at least one in-region site available to all vendors.

2. Establish a minimum capacity for any proposed WTE facility for Metro Vancouver as part of the RFQ evaluation criteria, and define the allowable minimum reference facility unit size.

3. Allow (but do not require) proponents as part of their RFQ submissions to identify potential opportunities to maximize material recovery from the waste stream.

4. A requirement for Metro Vancouver to be the owner of new WTE capacity would not create a significant barrier to ensuring a competitive process.

5. A requirement for proponents to finance a portion of the project cost would not create a significant barrier to ensuring a competitive process.

Recommended Procurement Process

As per the Board’s direction, staff have prepared the following recommended procurement process for the Board’s consideration. The process is a multi-stage process designed to ensure a competitive process in developing new WTE capacity.

1. **RFQ 1: Technology Only**

RFQ1 will enable Metro Vancouver staff to evaluate proponents on their proven experience with WTE, based on reference facilities and the experience of the proposed project team. RFQ1 will result in a short-list of approximately six proponents with proven ability to complete the project. RFQ1 will not ask proponents whether they have or are able to secure a potential site to ensure that the ability to provide a site is not a barrier to participation in the process. The RFQ1 process will in no way determine whether new WTE capacity will be developed in or out of the Metro Vancouver region.

RFQ1 Evaluation Criteria will focus on proponent’s technology and teams. Detailed evaluation criteria and the evaluation scoring matrix will be reviewed by the Independent Third Party Expert Panel who are tasked with ensuring that the process fairly considers all technology options. RFQ1 will also be reviewed by a third party Fairness Advisor who will be tasked with ensuring that the overall process is fair to all proponents.
High level evaluation criteria for RFQ1 will include a requirement to have demonstrated at existing facilities:
- Ability to process municipal solid waste at an appropriate scale
- Cost effectiveness in managing municipal solid waste
- High energy productivity and material recovery from municipal solid waste
- Minimizing and where possible beneficially using residuals
- Excellent environmental performance in jurisdictions with comparable or higher environmental performance requirements
- Competent and experienced proposed team
- Financial capability
- Alignment with Metro Vancouver’s sustainability principles

These criteria are consistent with the evaluation criteria identified in the ISWRMP, which was developed with significant public input and consultation.

2. **Potential Site Identification Process**

The purpose of the potential site identification process is to allow site owners to identify potential project sites and identify any sites that have been secured by shortlisted project proponents selected through RFQ1.

Sites owners will be given the opportunity to identify potential sites through a public process. A set of criteria will be developed to screen potential sites. Screening will be based on criteria from the ISWRMP and criteria used in other jurisdictions for WTE project siting and will include a variety of criteria such as proximity to heat use, required site size, transportation logistics, air quality analysis, allowed and neighbouring land uses, sensitive land uses, etc.

As part of the potential site identification and procurement process, Metro Vancouver will organize study tours for Directors and community leaders to shortlisted proponent reference facilities. The purpose of the study tours is to provide the opportunity for greater understanding of WTE both from the perspective of technologies and exposure to communities presently hosting WTE facilities.

A shortlist of potential sites both those available to all proponents, and those secured by the short listed individual proponents of RFQ1 will be publicly communicated at the end of the potential site identification process.

If not enough suitable sites are identified to ensure a competitive process, Metro Vancouver may need to directly secure a site which would add significantly to the expected project timeline. Given interest in the project from member municipalities and site owners, staff anticipates that suitable sites will be identified.

3. **RFQ 2: Technology and Sites**

This second stage RFQ will jointly evaluate each proponent’s technology and site, focusing on opportunities for energy recovery, transportation, air emissions control, and suitability of site. The purpose of RFQ2 will be to create a shortlist of approximately three potential proponents and sites that will participate in the Request for Proposals (RFP). At this stage there is the possibility that all proposed solutions could be in or out of region depending on the responses to RFQ2. However, there will probably be a mix of in and out of region sites and thus the decision on whether new WTE capacity will be located in or out of region will likely be made through the RFP.
Proponents will specify the relative costs for their proposed solution depending on the size of their proposed facility, which along with information on proposed sites will be used to determine whether one or more facilities is required for new WTE capacity. Proposals that supplement Metro Vancouver waste with waste from other jurisdictions will also be considered.

4. **RFP**

The RFP will be issued to the short-listed proponents identified through the previous steps. The RFP process will be iterative, requiring multiple meetings with the proponents, and will result in detailed design and costing of the proposed facilities. The successful proponent will be identified at the end of this stage.

5. **Municipal/Environmental Approvals**

To ensure fair comparison of proposals, Proponents will to be required to define a final project price (capital and operating) as part of their response to Metro Vancouver’s RFP. To the extent possible responsibility for environmental and municipal permitting will be transferred to the successful proponent with a final contract being contingent on the successful proponent delivering appropriate municipal and environmental approvals along with other key project deliverables such as energy contracts.

6. **Consultation and Engagement**

Metro Vancouver is committed to consult meaningfully with stakeholders, including the FVRD, in developing new WTE capacity. The Minister of Environment’s approval of the ISWRMP requires that within a year of deciding to develop new WTE capacity within the Metro Vancouver region that Metro Vancouver work with the FVRD to develop recommendations for a range of items related to the development of new WTE capacity.

As described in this report, a decision on whether to locate new WTE capacity inside or outside of the region will not be made until mid 2014 or early 2015. On this basis, there will be ample opportunity for consultation with stakeholders.

On March 2, 2012, the Board directed staff to liaise with FVRD staff to develop a consultation process for new WTE capacity and report back to the Board with a recommended process. Metro Vancouver staff have met with FVRD staff six times to date to work towards developing a recommended consultation process.

This report lays out an overall strategy and timeline to develop new WTE capacity for Metro Vancouver. The consultation process is linked to the milestones and activities that make up the strategy. Staff will present a draft engagement and consultation framework to the FVRD as part of Metro Vancouver’s ongoing work to provide information and develop a process by which the FVRD will be consulted on new WTE capacity. This draft framework will outline the objectives, audiences and potential activities for the first phase of engagement and consultation, which will focus on RFQ1 and the potential site identification process. This draft framework will be sent to FVRD staff, for review and comment, in advance of one of the next two Metro Vancouver/FVRD Technical Team meetings, scheduled for September 17 and October 1 2012.

Staff will then report to the October Zero Waste Committee meeting with a proposed overall engagement and consultation program, including specific activities, for new WTE capacity for Metro Vancouver.
7. **Supplemental Feedstocks**
There is a potential that proponents may propose solutions whereby Metro Vancouver waste is supplemented with either other materials or municipal solid waste from other jurisdictions. Supplemental feedstocks have the potential benefit of increasing economies of scale, and thereby reducing the cost of developing new WTE capacity. If supplemental feedstocks are proposed, a full analysis of the implications of adding the feedstocks would be undertaken, and the proposed addition would be incorporated into the engagement and consultation process along with environmental and municipal approvals processes.

8. **Overall Timeline**
The expected timeline to new WTE capacity operations is shown in Attachment 2. The successful proponent is expected to be selected in early 2015 with the project fully operational by mid 2018. Although this appears to be a lengthy procurement process, staff concluded it is reasonable based on the required project scope. The timeline aligns well with other similar projects in communities such as Durham/York, Ontario, and Peel, Ontario, who are also developing new WTE capacity.

The timeline provided in Attachment 2 is an initial expected timeline. Staff will report regularly to the Zero Waste Committee as the project progresses, and will update the timeline if required.

**Ownership Model**
A key decision related to developing new WTE capacity is determining the appropriate ownership model for new WTE capacity. Metro Vancouver’s existing WTE facility was developed with Metro Vancouver ownership of land and capital assets.

One of the reasons for the success of the existing WTE facility is that Metro Vancouver has regularly invested in environmental performance upgrades frequently in advance of any regulatory requirement. As owner of the facility, Metro Vancouver has full control of implementing these important upgrades thus ensuring excellent environmental performance.

Another benefit of Metro Vancouver ownership of the existing facility is that the capital cost of the facility was fully paid back after 15 years of operation. Metro Vancouver now receives full benefit of the capital asset paying only for operations, maintenance, and upgrades while receiving revenues from electricity and metal sales. Because Metro Vancouver owns the existing facility, it is now the least cost asset in the Regional solid waste system, cheaper on a cost per tonne basis than either the Vancouver Landfill or Cache Creek.

On May 25, 2012, the Board directed staff to submit an application to the P3 Canada Fund to help fund new WTE capacity. For the project to be eligible for funding from the P3 Canada Fund, the WTE facility must be owned by Metro Vancouver.

Staff recommends specifying that new WTE capacity be developed based on Metro Vancouver ownership of any new WTE facility.

There may be potential sites available on lands that cannot easily be outright owned by Metro Vancouver. To ensure that these lands are not excluded from the procurement process, staff recommends that long-term land leases be considered. The leases would
need to be longer than the expected life of any WTE facility, which is in the range of 50 years at a minimum.

3. ALTERNATIVES

Procurement Process

The Board could direct staff to eliminate both RFQ1 and RFQ2 and the Potential Site Identification process and go directly to an RFP. This approach could reduce the timeline to develop new WTE capacity by approximately 18 months potentially allowing new WTE capacity to be in place by the end of 2016.

There would be a number of downsides to this approach:

- There wouldn’t be an opportunity for property owners to self identify potential sites available to all proponents, hence a reliance on privately offered sites would be necessary. Based on the Market Sounding results, this would reduce competition and potentially create a barrier for non-mass burn technology solutions.
- It would be challenging for Metro Vancouver and proponents to explore potential opportunities for multiple smaller facilities likely eliminating the potential for distributed WTE capacity. A distributed WTE system would minimize transportation requirements and maximize opportunities for neighbourhood energy.
- Consultation activities will be undertaken in parallel with a procurement process. A multi-stage procurement process would allow more time and more consultation on each component of the process compared to what would be practical if Metro Vancouver proceeds directly to RFP.
- Progressively reducing the number of proponents through a multi-stage procurement process ensures that only qualified proponents are responding to the RFP. This approach allows for a more detailed RFP and more detailed responses. Proponents are less likely to invest resources in a process where many potential proponents are responding to an RFP.
- As outlined in the companion report entitled “New Waste-to-Energy Capacity and Contingency Disposal Requirements”, sufficient capacity is available in the current Regional System system to support new WTE capacity commencing operations in 2018.

Based on the downsides to proceeding directly to RFP, staff does not recommend this approach.

Ownership Model

An alternative approach would be to allow proponents to specify a proposed ownership model in their response to RFQ1 and for the Board to decide later in the procurement process what is the best approach. Given the benefits of public ownership, and the challenges associated with comparing project proposals with different ownership models, staff recommends that the Board require Metro Vancouver ownership of any new WTE facility at this time.
4. CONCLUSION

On March 2, 2012 the Board directed staff to recommend a procurement process for new WTE capacity. This report lays out a recommended procurement process and recommends that new WTE capacity be developed with Metro Vancouver ownership of any new facility.

ATTACHMENTS:
Attachment 1: Results of the Market Sounding Exercise
Attachment 2: Metro Vancouver New Waste-to-Energy Development Schedule (6442301)
RE: Results of the Market Sounding Exercise

Introduction
A market sounding was conducted by the HDR Team to ascertain the level of interest among potential key project participants within the category of technology providers in responding to the upcoming procurement of additional waste-to-energy capacity serving Metro Vancouver (MV). The questionnaire included in Attachment A was distributed to the technology providers (hereinafter referred to as vendors) identified in the vendor database included as Attachment B. General comments associated with the information gathered from the confidential conversations with the vendors are summarized in this document. The intent of this effort is to provide information to Metro Vancouver regarding the level and readiness of market interest and the potential effects that key decisions regarding desired roles, ability to provide a suitable site, technology, and willingness to participate in the procurement process within the expectations of Metro Vancouver in terms of delivery approach and financing.

Methodology
The market sounding exercise consisted of five steps as described below:

1. Develop vendor database from industry organization lists (Solid Waste Association of North America, Energy Recovery Council, Canadian Energy from Waste Coalition, etc.) and by utilizing the project team’s professional network of contacts.
2. Email vendors the questionnaire in Attachment A.
3. Schedule a follow-up conference call to discuss the questionnaire.
4. Summarize general content and results of the conversations in a memorandum.

Upon compilation of the vendor database, 20 potential vendors were solicited for information regarding potential waste-to-energy project development in the Vancouver region. Of the 20 vendors contacted, 16 agreed to participate under the basis of confidentiality (the other 4 either declined to participate or did not respond). Each vendor was asked if the information they would be sharing in the conversation could potentially reveal confidential information which, if made public, could diminish their ability to compete. All 16 participants confirmed that this was the case and the information obtained in the conversation could be harmful to them if released to the public. The participants were then informed that the conversation could be summarized in a fashion that
generalizes the discussion in a manner that can be shared with Metro Vancouver, allowing the participants to provide anonymous input into the procurement process. Consequently, to retain the confidentiality of the information provided by the vendors, none of the specific information discussed is presented in this memorandum.

Results

In general, the vendors were pleased to participate and eager to hear that the procurement process is moving forward. Many technology suppliers have been tracking the Metro Vancouver process over the last several years and have potential projects that are purported to be well-developed. The consensus amongst the HDR Team was that more technology suppliers had aspects of projects further developed than originally anticipated, and the extent of the project development phase was further along than expected. The vendor teams who have made their interests public in local newspaper articles (which generally represent mass-burn technologies) appear to have projects further along in the development phase than most the other vendors/technology providers. However, there are a number of vendors purporting to provide non mass-burn technologies which have proceeded with identifying sites and appear to be pursuing project development efforts. The results of the four key topics are summarized below: Site, Technology, Delivery Model, and Organization.

Site

Of the 16 vendors contacted, 9 had not yet explored the possibility of securing their own site, whereas the remaining 7 have either initiated an effort to secure sites through ownership, options or leases, or claim to be in final negotiations. Only one mass-burn vendor team has secured an in-region site. This vendor also anticipates offering an out-of-region site. Although most of the vendors representing mass-burn technologies have out-of-region sites identified, all but one of them believed it would be preferable if an in-region site be provided in the procurement process. If Metro Vancouver desires a competitive offering of vendors for an in-region location, it was the majority view of vendors that Metro Vancouver should provide an in-region site. The issue of in-region site selection dominated the siting discussions for most interviews conducted, and identification of out-of-region sites did not appear to be an issue for those interviewed.

Table 1. Summary of technology vendor site status.

<table>
<thead>
<tr>
<th>Technology</th>
<th>In-Region</th>
<th>Out-of-Region</th>
<th>No Site</th>
<th>Prefers MV Provides In-region Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mass Burn</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>All Other</td>
<td>2*</td>
<td>0</td>
<td>9</td>
<td>6</td>
</tr>
</tbody>
</table>

*Site(s) have not been secured, but both vendors claimed to be looking at several in-region options.

The vendors reported a variety of levels of securing sites in Table 1. The extent of site control ranges from identification of sites but no formal agreement, sites with long-term leases, options to purchase and full ownership. Some vendors interviewed indicated that in addition to waste-to-energy sites, they had also explored securing additional property for the purposes of ancillary infrastructure development (i.e., barge loading/unloading and transfer station site(s)).
With the exception of a few of the mass-burn vendors, little had been done amongst the market sounding participants with respect to community outreach. Most vendors who have identified sites expressed that they anticipate they will be able to garner the appropriate support for their sites when it becomes necessary (during the procurement process) but that they have not yet initiated the public process awaiting issuance of a formal process from Metro Vancouver.

None of the vendors interviewed objected to site disclosure as a requirement of the procurement process and were willing to come forward with their site(s) at the initial RFQ stage, if requested.

**Technology**

The vendors purport to be ready to offer a variety of waste treatment technologies, including mass-burn, gasification, waste-to-fuel, plasma arc, etc. All of the vendors communicated an ability to convert MSW in usable energy outputs. The vendors indicated that they anticipate scaling up or down their respective unit sizes, or providing multiple modules or units, would allow their technology to accommodate the range of tonnes predicted by Metro Vancouver (250,000 to 400,000 tonnes per year). In general, the minimum unit size was as low as 100 tonnes per day, but most vendors stated that their nominal unit or module size is approximately 250 tonnes per day (or approximately 100,000 tonnes per year).

The maximum throughput capacity of the technology suppliers interviewed was contingent upon the volume of waste flowing to a facility. Many indicated that there is no upper limit to the size of the facilities, and that larger volumes of waste heading to a particular facility would tend to drive the costs down.

Some vendors indicated a need to pre-process the MSW feedstock prior to energy recovery. All of the vendors indicated that they could provide the required processing (i.e., they are able to accept Metro Vancouver waste as collected). The extent of pre-processing is anticipated to range from shredding or grinding the material, to more robust processes that removed moisture from the feedstock and recovered glass and metals. The vendors were also asked whether their technology had the flexibility to process other waste streams, such as biomass (i.e., woody wastes), biosolids or sludge, and agricultural wastes. Most of the vendors responded that their technology had the flexibility to handle most of these waste streams, but may be limited depending on the quantity and quality (e.g., heating and moisture content) of these wastes. Further, processing some of these wastes (such as high moisture content wastes) could have an adverse impact on the productivity of energy from the facility.

Many of the participating vendors indicated a willingness to develop additional pre-processing capacity if it was Metro Vancouver’s desire to increase material recovery. However, the costs and benefits associated with development of additional front-end materials recovery technology implementation were not discussed.

In general, vendors representing mass-burn technologies indicated an abundance of reference facilities. Many of the non mass-burn technology vendors relied on a single or minimal demonstration/pilot scale facilities, or facilities whose construction is underway or about to begin. However, there were non-mass burn technologies that claimed to have a number of commercially operating reference facilities (in excess of 3) outside of North America, with operating history at some of these facilities in excess of 10 years. We were not able to ascertain from these conversations whether the operating history for the reference facilities was based on similar feedstocks to Metro Vancouver’s waste stream. Consequently, closer evaluation of the similarity of
the waste stream/feedstock will be required when respondent’s proposals are received in response to the RFQ.

**Delivery Model**
Two primary questions were asked of the vendors: 1) Would you participate in a process where public ownership was required; and 2) Would you participate in a process if some level of private financing was required? With few exceptions, the answer to both questions was “yes.” While there were a few vendors indicated it was their preference to own the facility and simply operate through a “put or pay” type of agreement, most were willing to enter into an arrangement with Metro Vancouver regardless of ownership or financing structure. Several vendors expressed certain preferences regarding the structure of delivery model. However, the delivery model is likely not an issue that will exclude potential technology suppliers from participation in the process.

**Organization**
Some of the vendors have aligned themselves with financiers; developers; engineering, procurement, and construction (EPC) contractors; and public relations firms for the purposes of this project. Other vendors have not developed this level of teaming relationships specifically for this project but purport they have standing relationships that are ready to develop projects all over the world. The majority of the vendors which have developed relationships and teaming arrangements represented mass-burn or more established technologies and North American developers. Many of the non mass-burn technology vendors had not established formed teams, but indicated a willingness to do so. None of the vendors indicated that waste supplies from other entities had been secured, as they all indicated the project development was contingent upon a guarantee of waste from Metro Vancouver.

**Conclusions and Recommendations**
The market sounding exercise indicates that there are a large number of vendors representing a variety of technologies ready to prepare responses to a Metro Vancouver waste-to-energy RFQ. The following recommendations for the procurement process have been developed as a result of conducting this exercise.

1) Of the sixteen vendors interviewed only one has secured an in-region site and only two of the eleven non-mass burn vendors indicated they were looking at potential sites (both in-region). To ensure the process is equally accessible to all technologies and promote competition between in-region and out of region options it is recommended that Metro Vancouver should identify at least one in-region site available to all vendors.

2) Establish a minimum capacity for any proposed facility for Metro Vancouver as part of the RFQ evaluation criteria, and define the allowable minimum reference facility unit size.

3) Allow (but do not require) proponents as part of their RFQ submissions to identify potential opportunities to maximize material recovery from the waste stream.

4) The requirement of Metro Vancouver to be the owner of the future WTE capacity would not create a significant barrier to ensuring a competitive process.

5) The requirement of proponents to finance a portion of the project would not create a significant barrier to ensuring a competitive process.
Attachment A: Market Sounding Questionnaire
Metro Vancouver Waste-to-Energy Capacity
Initial Market Sounding of Technology Providers

1. Introduction

This document details the proposed market sounding that Metro Vancouver is undertaking to ascertain the level of interest among potential key project participants in responding to the upcoming Request for Qualifications (RFQ) / Request for Proposals (RFP) to be issued by Metro Vancouver related to the implementation of additional waste-to-energy capacity to meet their long term residual waste management needs. This specific document is focused on garnering information from the technology providers in the industry. A separate set of questions will be provided to solicit the input of financial institutions and P3 Canada developer entities. The intent of this effort is to provide information to Metro Vancouver regarding the level of market interest and the potential effects that key decisions regarding desired roles, ability to provide a suitable site, delivery approach and responsibility for financing may have on participation.

2. Project Overview

a. Description of Project

Metro Vancouver provides drinking water, sewerage and drainage, and solid waste management services to member municipalities in the lower mainland of British Columbia. Metro Vancouver manages over one million tonnes of solid waste annually, even after implementing extensive recycling and waste diversion strategies. Waste that remains to be managed after the diversion of recyclables and compostables is either sent to Metro Vancouver's existing Waste-to-Energy Facility (WTEF) in Burnaby, for recovery of energy, or sent directly to a landfill for disposal (Vancouver Landfill or Cache Creek Landfill). In addition, treated residuals from the WTEF are shipped to one of these two landfills.

The Metro Vancouver Board approved the provincially mandated Integrated Solid Waste and Resource Management Plan (Plan) on July 20, 2010. In adopting the Plan, the Board approved a strategy to increase waste diversion to 70%, with an aspirational goal of 80%. The waste which remains after implementation of significant waste reduction, reuse and recycling efforts is to be managed through the development of new waste-to-energy capacity, inside or outside of the region. The British Columbia Minister of the Environment (BC MoE) granted approval of the Plan on July 22, 2011. At present, the proposed amount of additional waste-to-energy capacity is identified as being between 250,000 and 400,000 tonnes per year.
A waste-to-energy (WTE) facility is a resource recovery facility that utilizes residual waste (i.e., the waste that remains after reduction, reuse, recycling and composting) in the production of:

a) refuse derived fuel (that may be subsequently combusted or gasified);

b) syngas that is subsequently combusted or further processed into a liquid fuel; or,

c) energy (electricity, heat and/or steam for industrial or district heating).

In addition the facility also recovers other valuable materials such as metals. These facilities are utilized across North America and the world, including the existing WTEF in the City of Burnaby, with extensive monitoring and environmental controls to ensure the protection of the surrounding environment.

Metro Vancouver expects to select a WTE technology, or technologies, through an RFQ/RFP process. The technology, or technologies, eventually selected will provide the highest level of environmental protection commercially available and will comply with stringent air emissions and health standards thus ensuring protection of health and the environment.

b. Current Status

Metro Vancouver is commencing the procurement process to secure the desired new WTE capacity.

c. Anticipated Project Structure(s)

The anticipated project structure will be some form of design, build, operate and maintain. The project may potentially be partially or completely financed using privately funded project financing.

Metro Vancouver’s preference is for a publicly owned facility but would be willing to consider other models if public ownership is not practical.

d. Anticipated Timeline

Metro Vancouver anticipates issuing the RFQ in the next few months.

3. Target Participants

The market sounding is targeting key potential project participants such as technology providers in the WTE industry and operators of industrial facilities. These include:

a. Vendors / Technology Suppliers
WTE technology suppliers/project operators including traditional mass burn and new/emerging conversion technology industry participants.

b. WTE Facility Operators

c. Proponent Teams
   There are several existing proponent teams that will be contacted.

4. Questions

The following sections detail proposed questions to be asked delineated by subject area. For each of the target audiences identified above, there will be overlap among the specific questions. For example, site related questions will be raised with technology suppliers and with existing proponent teams.

The subject areas are:
   1) Site
   2) Technology
   3) Delivery Approach
   4) Organization/Team

Appendix
   A- Call Script
   B- Questions
A. Call Script

Introduction

- HDR is contacting you on behalf of Metro Vancouver to perform a market sounding to
gauge the level of interest among potential key project participants in responding to the
upcoming Request for Qualifications / Request for Proposals to be issued by Metro
Vancouver related to the implementation of a waste-to-energy facility (or facilities) to
meet their long term residual waste management needs.
- The intent of these efforts is to provide information to Metro Vancouver regarding the
level of market interest and the potential effects that key decisions regarding desired
roles, delivery approach and responsibility for financing may have on participation.

Confidentiality

- The reason HDR is contacting you in this manner is to capture this information in a way
that the information can remain confidential.
- Is the information you are being asked to supply of a commercial/financial nature
supplied explicitly in confidence and could reasonably be expected to harm your
competitive position if released through a Freedom of Information and Protection of
Privacy Act request? If so then according to Section 21 of the act the information must
not be released to the public.
- The terms of confidentiality are as follows, but essentially our goal is to collect and
summarize the overall interest/preparedness of the industry and report that interest to
Metro Vancouver, while keeping the specific content of the information you provide us
confidential.
- A list of entities/individuals contacted will be provided to Metro Vancouver and may be
publicly disclosed.
- No specific site locations (addresses or communities) will be listed in the summary
provided to Metro Vancouver, only the number of in/out of region potential sites.

Background

- As background, the Metro Vancouver Board approved the provincially mandated
adopting the Plan, the Board approved a strategy to increase waste diversion to 70%,
with a further goal of aspiring to 80% diversion. The waste which remains after the
implementation of significant waste reduction, reuse and recycling efforts is to be
managed through the development of additional waste-to-energy capacity, inside or
outside of the region. The British Columbia Minister of the Environment (BC MoE)
granted approval of the Plan on July 22, 2011. At present, the capacity of new proposed waste-to-energy capacity is identified as being between 250,000 and 400,000 tonnes per year.

- The Metro Vancouver use of the term waste–to-energy is a broad definition and allows for a wide range of facilities. A WTE facility is a resource recovery facility that utilizes residual waste (i.e., the waste that remains after reduction, reuse, recycling and composting) in the production of:
  a) refuse derived fuel (that may be subsequently combusted or gasified);
  b) syngas that is subsequently combusted or further processed into a liquid fuel; or,
  c) energy (electricity, heat and/or steam for industrial or district heating) and the recovery of additional materials such as metals.

B. Questions

The following questions are directed towards technology vendors (P3 developers, financial institutions, site owners, etc. will be performed at a later date).

Site

1. Metro Vancouver expects as part of the RFQ to ask technology providers and related proponents to identify a project site if they have secured one. Have you secured a site that you are planning to include as part of your project proposal to develop new WTE capacity for Metro Vancouver?
   a. If yes, to the extent you are able to share with us, please provide the following:
      i. What is the manner that you have secured the site: own, option, lease?
      ii. Is the site inside the Metro Vancouver Region or outside of the Metro Vancouver Region?
      iii. If inside Metro Vancouver, how many kilometres (as the crow flies) from the nearest Metro Vancouver facility (including City of Vancouver facilities) is the site located?
      iv. If outside of Metro Vancouver, where is the proposed facility located and have you secured a location within Metro Vancouver where Metro Vancouver could deliver waste for shipment to the site? If yes, what constraints would be on the use of the transhipment site (e.g., transfer containers only)
      v. To what extent are you able to demonstrate community support for your proposed site?

2. If you have not yet secured a site, do you expect that you will be able to secure a site as part of your response to an RFQ/RFP?
   a. If Yes: How, and would it be inside or outside of Metro Vancouver?
   b. If No: What prevents you from securing a site?
   c. If No: Is there anything the Metro Vancouver could do to encourage you to secure a site as part of your response to an RFQ/RFP?
3. If you answered yes to either 1 or 2,
   a. Will you be able to publicly disclose the specific location of the site as part of your submission to the RFQ/RFP? If not, when would you be able to disclose the specific location publicly?

4. Does Metro Vancouver need to identify and secure a specific site for the project for you to consider participating in the procurement process?

Technology

5. Between 250,000 and 400,000 tonnes per year of mixed municipal solid waste will be managed at one or more WTE facilities. Metro Vancouver’s initial expectation is that the waste would not require any pre-processing and thus any pre-processing would be based on requirements of the WTE technology solution. Would your proposed technology solution be able to process mixed MSW, and if so would there be a capacity limit (in tonnes per year) on what could be processed at your proposed facility (or facilities)?

6. What factors, if any, affect the capacity limit for the proposed technology solution?

7. Is there a minimum annual capacity for your proposed technology? If so what is it, and what determines the minimum annual capacity? Metro Vancouver is considering the possibility of implementing multiple facilities. Please describe the implications of reduced throughput capacity for multiple facilities.

8. Please describe the technology solution proposed along with all of the components of the proposed solution. Describe what feedstocks can be processed based on the technology solution, and all of the possible outputs (products, energy, residuals).

9. Please list reference facilities for the proposed technology. For each facility specify:
   a. Location (land use of surrounding area);
   b. ownership;
   c. operating and business model;
   d. start-up date;
   e. type of material being processed;
   f. throughput in tonnes per year actual production;
   g. outputs (including products, energy and residuals); and,
   h. any other relevant information regarding each reference facility.

Delivery Approach

10. Metro Vancouver’s current WTE facility is based on a design build operate (DBO) model. Metro Vancouver is considering an availability-based design build operate finance maintain (DBFOM) model for new WTE capacity, likely with up to 50% of the capital cost funded by Metro Vancouver with the remainder to be financed over the operating term, typically 30 years. Would you participate in a project structured
in this manner? What risks would you be willing to accept, and not accept, under a DBFOM structure?

11. Metro Vancouver’s preference is public ownership of land and assets. Could your proposed solution be based on Metro Vancouver ownership of land and assets? If not, what would be your proposed solution?

Organization, Team

12. Can you please tell of your organization/team? The following is a list of potential teaming members which are expected to be necessary:
   a. land owners;
   b. technology providers;
   c. finance partners (equity and debt);
   d. public relations advisors;
   e. engineers;
   f. waste suppliers; and,
   g. others.

Closing

This information has been helpful. Thank you for your cooperation and interest.
Attachment B: Technology Supplier Database
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<th>Company</th>
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<tr>
<td>Covanta Holding Corporation</td>
<td>40 Lane Road, Fairfield, New Jersey 07004</td>
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<td>Wheelabrator Technologies Inc.</td>
<td>4 Liberty Lane West, Hampton, New Hampshire, 03842</td>
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<tr>
<td>Aquilini Renewable Energy</td>
<td>510 West Hastings, Vancouver, BC V6B 1L8</td>
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<tr>
<td>Samsung Engineering Co. Ltd.</td>
<td>Sevilla No. 40 Piso 9, Col. Juarez Delegacion, Cuauhtemoc, Mexico</td>
</tr>
<tr>
<td>Nexterra Energy Corp</td>
<td>PO Box 11582, Vancouver, BC V6B 4N8</td>
</tr>
<tr>
<td>Renewable Energy Management Inc.</td>
<td>Suite 270 - 1101 Kingston Road, Pickering, Ontario L1V 1B5</td>
</tr>
<tr>
<td>J.U.M. Global</td>
<td>CPI Waste-to-Energy</td>
</tr>
<tr>
<td>Plasco Energy Group</td>
<td>Suite 100 - 1145 Innovation Drive, Ottawa, Ontario K2K 3G8</td>
</tr>
<tr>
<td>Green Conversion Systems</td>
<td>411 Theodore Fremd Ave, Rye, NY 10580</td>
</tr>
<tr>
<td>Babcock &amp; Wilcox/Volund</td>
<td>20 S. Van Buren Ave, PO Box 351, Barberton, OH 44203 (US)</td>
</tr>
<tr>
<td>Alta NRG/Westinghouse Plasma Corp.</td>
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<tr>
<td>Pyrogenesis</td>
<td>1744 William St, Suite 200; Montreal, Quebec H3J 1R4</td>
</tr>
<tr>
<td>Enerkem Technologies, Inc.</td>
<td>1130, rue Sherbrooke Ouest; Bureau 1400; Montréal QC H3A 2M8</td>
</tr>
<tr>
<td>Elementa Group (formerly EnQuest Power)</td>
<td>11 Bond St. Suite 103; St. Catharines, Ontario; L2R 4Z4</td>
</tr>
<tr>
<td>Taylor Biomass Energy</td>
<td>336 Neelytown Road, Montgomery, NY</td>
</tr>
<tr>
<td>Interstate Waste Technologies/Thermoselect</td>
<td>105 W. Washington St, Suite D, PO Box 1280, Middleburg, VA</td>
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## Metro Vancouver New Waste-to-Energy Capacity Development Schedule

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<th>2014</th>
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### Alternatives:

- **Straight to RFP**
  - Would move completion to end of 2016, shortening process by about 1.5 years
To: Zero Waste Committee  
From: Esther Bérubé, Project Engineer  
Solid Waste Department  
Date: August 17, 2012  
Subject: Technical Specifications for Storage Space and Access for Recycling in Multi-Family Residential and Commercial Developments

Recommendation:
That the Board approve the proposed municipal approach to establish specifications for storage space and access for recycling in new and altered multi-family residential and commercial developments as part of development permits, and refer to member municipalities for consideration in their development permit processes.

1. PURPOSE
The purpose of this report is to obtain the Board’s support for the municipal approach for recycling storage space and access specifications in new multi-family residential and commercial developments as well as existing ones undergoing alterations that require a development permit. The municipal approach hinges on a set of technical specifications for recycling storage space and access, presented in Attachment 1, which municipalities may tailor and implement as part of development permit processes as appropriate.

2. CONTEXT
In 2011, the multi-family residential and institutional, commercial, and light industrial (ICI) sectors collectively disposed of about 720,000 tonnes of material, which represents over 50% of the disposed waste from the region. Improved diversion in these sectors, along with initiatives targeting other sectors outlined in Metro Vancouver’s Integrated Solid Waste and Resource Management Plan (ISWRMP), will enable the region to reach its goal of 70% diversion by 2015 and the aspiration of 80% diversion by 2020. The ISWRMP includes the following municipal action for increasing waste reuse and recycling by 2015:

- Action 2.9.2: Municipalities will work with Metro Vancouver to implement recycling in multi-family and commercial buildings

Two of the biggest barriers to increased waste diversion in multi-family and commercial buildings are a lack of sufficient recycling storage space, and poor access to this space by building occupants and collection crews. A recent study of multi-family buildings across the region and a survey of Metro Vancouver staff indicated that over 60% of sampled multi-family residences did not have enough space for the recommended number of bins, leading to overflowing bins and restricted capacity for recycling. An assessment of various measures to boost recycling at Metro Vancouver Housing Corporation properties found that improvements to recycling amenities resulted in significant increases in diversion.
As part of Action 2.9.2 in the ISWRMP, over the past two years Metro Vancouver has worked and consulted with municipal staff, residential and business associations, the Urban Development Institute, the Greater Vancouver Home Builders’ Association, waste haulers, and property managers to develop a recommended approach to address the barriers to increased diversion in these sectors. The proposed municipal approach calls for the application of technical specifications related to centralized recycling storage space and access for occupants and collection vehicles in new developments and existing buildings and complexes undergoing alterations. These specifications are intended to be applied through the development permit process, at the early stages of design and business casing. The specifications do not apply to door-to-door collection in townhouse complexes.

The objective of the municipal approach is to design and construct buildings with enough accessible storage space to accommodate greater participation in recycling – necessary to meet the regional goals of 70% diversion by 2015 and 80% by 2020 - while minimizing the challenges for developers, collection crews, and municipalities. The proposed municipal approach is to apply the technical design specifications to both new developments and building additions and renovations. The proposed municipal approach reflects Metro Vancouver’s responses to the issues raised during consultation.

In the case of multi-family developments, the storage space will accommodate food scraps, mixed paper, mixed containers, newspaper, and cardboard. The amount of space is based on weekly collection, which is what most municipalities currently provide to multi-family developments. The space requirements for single-stream and multi-stream recycling are expected to be similar based on available data and participation targets used in calculating the storage specifications.

For commercial developments, collection contracts with private haulers allow for more flexibility. Thus, the technical specifications for commercial developments limit the amount of storage space required in light of the options to increase collection frequency or to use compactors for storage of recyclable materials like paper, cardboard, and mixed containers. The specifications for storage space are geared toward offices, restaurants, large venues, and retail developments.

For both multi-family and commercial developments, the specifications for collection vehicle access will enable average front-end loading collection vehicles to reach a loading area, collect the materials, and leave the loading area with less risk of property damage or personal injury. The technical specifications define sufficient access road widths, turning radii, and vertical clearances. The technical specifications can apply to loading areas that are on the property or in public rights-of-way; each municipality will determine the authorized location of loading areas. Municipalities can choose to allow access for smaller collection vehicles, but this will affect collection service costs, road traffic, and vehicle emissions.

Some developments face specific challenges to comply with the storage space and access requirements. The technical specifications give municipalities the flexibility to consider alternative approaches to storage space and collection services on a case-by-case basis.

Consultation
As part of its consultation on regulatory mechanisms to increase recycling, Metro Vancouver developed and implemented an engagement and consultation program for a draft municipal approach. Concurrent consultation took place on the draft approach to Mandatory Recycling for Demolition and Construction Worksites and Metro Vancouver's Solid Waste Regulatory Bylaw Review, which will be the subjects of separate reports to the Zero Waste Committee.
Building on its previous work, Metro Vancouver began formal consultation in September 2011. The engagement and consultation program included workshops, discussion groups, meetings with associations, on-line feedback forms and other mechanisms to generate feedback from government, First Nations and industry representatives. In addition, while the formal comment period closed December 16, 2011, staff conducted follow-up interviews and meetings with key municipal and industry representatives well into 2012.

Materials were developed for consultation and posted on the Metro Vancouver website, including the draft municipal approach and technical specifications, background documents, online feedback forms and workshop agendas.

In the weeks leading up to the workshops, notification of engagement and consultation activities was sent to the Zero Waste Committee and Metro Vancouver mayors and councils. Notification of workshop invitations and opportunities for online input were sent to representatives of potentially affected industries, municipal staff, members of Metro Vancouver advisory committees, as well as representatives of First Nations, adjacent regional districts and agencies. Metro Vancouver hosted two workshops:

- October 4, 2011, for staff from Metro Vancouver members, adjacent regional district staff, First Nations and agencies
- October 14, 2011, for industry and municipal representatives with experience in implementing similar approaches.

The objectives of the workshops were to provide information and opportunities for input and to inform Metro Vancouver staff efforts to revise technical specifications for review by the Zero Waste Committee and Board.

The workshops featured presentations by Metro Vancouver and municipal staff with experience with this type of approach and offered breakout discussion tables on key topics, including eligible projects, recycling storage space and vehicle access requirements, and compliance/enforcement. Workshop summaries were provided to participants. The Industry Workshop summary was posted on Metro Vancouver’s website: http://www.metrovancouver.org/services/solidwaste/planning/SWMP%20Docs/IndustryWorkshopSummaryOct14-2011.pdf

Throughout 2012, Metro Vancouver continued to discuss concerns with key stakeholders such as the Regional Engineering Advisory Committee (REAC), the Regional Planning Advisory Committee (RPAC), the Regional Permitting and Licensing Committee (RPLC), the Urban Development Institute (UDI), the Greater Vancouver Home Builders’ Association (GVHBA), and the Waste Management Association. Staff has presented the approach to RPAC, REAC, and the REAC Solid Waste Sub-Committee in July and August, 2012, and has made final revisions based on input from these committees.

Feedback received through the engagement and consultation program was documented and the comments, questions and issues raised were tracked. Tables of these issues along with Metro Vancouver responses are posted on Metro Vancouver’s website: http://public.metrovancouver.org/services/solidwaste/planning/Pages/Goal2.aspx The documentation of all input, consultation and communication activities entitled “Technical Specifications for Storage Space and Access for Recycling in Multi-Family Residential and Commercial Developments: Engagement and Consultation Program: Report on Activities and Findings” is available upon request from Metro Vancouver’s Information Centre (604-432-6200).
Responses to Key Issues
Some of the key issues from consultation appear below with Metro Vancouver’s responses. Municipalities are encouraged to discuss their adapted approach with industry, particularly as it relates to these issues:

- **Site-specific challenges call for flexible application of recycling space and access specifications as part of the development permit application process.** The proposed municipal approach enables municipalities to choose whether to implement the technical specifications as part of guidelines or bylaws. Either way, municipalities should allow permit applicants to suggest alternative recycling storage and collection strategies that meet the intent of greater recycling capacity while addressing site-specific challenges. This flexible approach will also mitigate any potential conflicts with other municipal policies, such as tree bylaws, height restrictions, or parking bylaws, that might make design of certain sites more challenging.

- **The potential for reduced development density as a result of larger recycling storage space.** Municipalities, the UDI, and the GVHBA support exempting the recycling amenities from the Floor Area Ratio. Municipalities may consider relaxing parking or setback requirements to accommodate the expanded recycling amenities. To address space challenges in high-rise buildings and large developments, the technical specifications for storage space accommodate the use of compactors to store large volumes of recyclables using less space than these recyclables would occupy otherwise.

- **The potential for reduced development density and project viability as a result of wider and higher access routes and loading areas suitable for average front-end loading recycling collection trucks, in both townhouse and multi-level developments.** In mid- and high-rise buildings, the UDI and the GVHBA felt strongly that municipalities should consider relaxing building height restrictions to accommodate below-grade access routes and loading areas for average collection vehicles, where such amenities are required to be located on the property. Alternatively, the UDI, the GVHBA, and recycling haulers felt municipalities should support the loading of recyclables into collection vehicles at the curb or laneway, possibly through more flexible set-back requirements, to maximize development density. This would be particularly applicable for townhouse developments or in cases where the BC Building Code limits building height.

- **Cost impacts of upgrading recycling amenities in existing buildings.** A cost impact study performed by Morrison Hershfield Ltd. reviewed a sample of twelve types of multi-family and commercial developments across the region. All of them were compliant or could be modified to become compliant with the recycling storage space specifications at no cost or minimal cost, occasionally by occupying a few excess visitor parking stalls. However, the cost of upgrading the vehicle access route to below-grade storage and loading areas would be prohibitive; staging areas near the curb could be negotiated with municipalities to bring recyclables closer to an accessible loading area on collection day. The technical specifications for upgrades to recycling amenities in existing buildings do not require upgrades to collection vehicle access routes.

- **The need to ensure that recycling storage space is not used for garbage storage or other purposes.** The technical specifications emphasize the intended use of the recycling storage area and require site plans to include garbage storage areas. Metro Vancouver will assist municipalities with the development of specifications for garbage storage space, as needed. Municipal planners requested this to make it easier to check plans for both recycling and garbage storage space. Eventual bylaws related to mandatory recycling will also ensure that recycling storage space is used for the intended purpose.
Jurisdictions such as Seattle (Washington), Vaughan (Ontario), Vancouver, Richmond, and Burnaby apply similar recycling space and access specifications in their development permits. Over time, this approach has reduced the barriers to recycling in multi-family and commercial buildings and contributed to increased diversion rates, particularly in jurisdictions where mandatory recycling bylaws require the use of the recycling amenities. Metro Vancouver will support municipal staff with their adaptation and implementation of these specifications.

3. ALTERNATIVES

The Board may:

   a) approve the approach to establish specifications for storage space and access for recycling in new and altered multi-family residential and commercial developments as part of development permits, outlined in the report dated August 17, 2012, titled, “Technical Specifications for Storage Space and Access for Recycling in Multi-family Residential and Commercial Developments”, and refer to member municipalities for consideration in their development permit processes.

   b) Request modifications to the proposed municipal approach

Staff recommends option a).

4. CONCLUSION

To fulfill a key action in the Integrated Solid Waste and Resources Management Plan, Metro Vancouver has prepared technical specifications for recycling storage space and access in new and renovated multi-family and commercial buildings, to be applied as part of the municipal development permit process. The objective of the municipal approach is to design and construct buildings with sufficient and accessible space for multi-family and commercial recycling while minimizing the challenges for developers, collection crews, and municipalities. Municipalities may use the technical specifications to amend existing bylaws or develop guidelines for recycling space and access in the multi-family residential and commercial sectors. This approach provides the flexibility to take into consideration site-specific conditions and other municipal policies that affect site design. This approach was developed through collaboration and consultation with municipal staff, residential and business associations, the Urban Development Institute, the Greater Vancouver Home Builders’ Association, waste haulers, and property managers over the last two years. Jurisdictions such as Seattle (Washington), Vaughan (Ontario), Vancouver, Richmond, and Burnaby have implemented similar recycling space and access specifications to reduce the barriers to recycling in multi-family and commercial buildings and increase diversion rates. Metro Vancouver will support municipal staff with their adaptation and implementation of these specifications. An assessment of measures to boost recycling at Metro Vancouver housing sites found that expanded recycling amenities resulted in increased diversion.

ATTACHMENT

Technical Specifications for Recycling Amenities in Multi-family & Commercial Developments (6239963)
Technical Specifications for Recycling Amenities in Multi-family and Commercial Developments

TECHNICAL SPECIFICATIONS FOR THE PURPOSE OF ALLOCATING SUFFICIENT AND ACCESSIBLE RECYCLING SPACE IN MULTI-FAMILY AND COMMERCIAL BUILDINGS AND COMPLEXES

The following technical specifications are provided for consideration as an addition to a municipal bylaw or guideline affecting the development permit process. Municipalities can tailor and implement them according to their needs. The text requires modification to suit each municipality’s bylaw structure and definitions.

1. Definitions

The following terms have the meaning presented below.

**Approving Authority** means the Planning Director, Chief Building Inspector, or any other official authorized by **<Municipality Name>** to approve applications for zoning, development and/or building permits.

**Commercial Buildings** refers to the following types of establishments:

- **Hospitality Lodging** means a building containing more than six sleeping units wherein accommodation is provided for transient lodgers, and having a public reception or dining area. Accommodations can be without private cooking facilities or with minor ones that do not exceed the following, namely, a two-burner cook top, a microwave oven, a sink and a small refrigerator
- **Large Venue** means a facility dedicated to cultural and recreational uses, conferences, or conventions that can accommodate 2000 or more visitors per day.
- **Office Building** means a building where the majority of the space is dedicated to conducting business, clerical, or professional activities, excluding retail and industrial activities, and is generally not open to the public.
- **Restaurant** means an eating establishment where food is sold or given to the public for immediate consumption on the premises, but where no provision is made for the consumption of food in motor vehicles that are parked on site.
- **Retail Building** means a building or warehouse where goods, wares, merchandise, substances, articles or things are sold for purposes of consumption, use, or resale, and any retail outlet otherwise classified or defined in the City’s zoning bylaw no. ____.

**Curbside Pickup** means the municipal or private regularly scheduled collection of recyclable material from a residential dwelling or unit fronting the public or private street.

**Development Proponent** means a developer, architect, builder, engineer or other professional or agency applying for a development or building permit for a new construction or building alteration project subject to these technical specifications.

**Mixed Use Building** means any building consisting of commercial space, plus **<insert municipality's minimum multi-family threshold>** or more dwelling units, each of which is occupied, or intended to be occupied, as the home or residence of one household only.

**Multi-Family Residential Building** means any building consisting of **<insert municipality's minimum multi-family threshold>** or more dwelling units, each of which is occupied, or intended to be occupied, as the home or residence of one household only.
Recycling Storage Space means the centralized physical space allocated within a property for communal deposit and collection of recyclable material between collection days.

Recyclable Material means a product or substance that has been diverted from disposal, and satisfies at least one of the following criteria:

a) is organic material and is capable of being composted or digested, or is being composted or digested, at a site
b) is managed as a marketable commodity with an established market by the owner or operator of a site
c) is being used in the manufacture of a new product that has an established market or is being processed as an intermediate stage of an existing manufacturing process

The targeted recyclable materials are listed in the technical specifications, as provided by <Municipality Name> upon application for a building permit.

Refuse means discarded or abandoned materials, substances or objects, not including hazardous materials.

Temporary Recycling Storage Area means a space that is used for the storage of recycling containers on collection days.

2. Applicability

2.1 All construction involving the erection of a building, which requires either a change to the zoning bylaw to allow for multi-unit housing, commercial or mixed use development or a development permit on any lot zoned for multi-unit housing, commercial or mixed use development should provide suitable amenities for the deposit and collection of recyclable material, as listed in the following technical specifications, in addition to amenities for the deposit and collection of refuse.

2.2 Building alteration projects as listed in the table below, or as defined by the municipal building permit requirements for the alteration of existing buildings, shall provide Recycling Space for the shared deposit and collection of recyclable material that meets the technical specifications pertaining to the recycling storage area size, location, and design as well as vehicle access and occupant access for recycling space for multi-family residential buildings, commercial buildings, and mixed use buildings, as outlined in the table below.

Table 1 – Technical Specifications applicable to various types of construction and building alteration projects

<table>
<thead>
<tr>
<th>Type of Project</th>
<th>Applicable Sections</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Multi-Family or Commercial Construction</td>
<td>• Size (Section 6)</td>
</tr>
<tr>
<td></td>
<td>• Location (Section 7)</td>
</tr>
<tr>
<td></td>
<td>• Design (Section 8)</td>
</tr>
<tr>
<td></td>
<td>• Temporary Loading Area – where applicable</td>
</tr>
<tr>
<td></td>
<td>• Loading Area (Section 10)</td>
</tr>
<tr>
<td></td>
<td>• Vehicle Access Route (Section 11)</td>
</tr>
<tr>
<td></td>
<td>• Occupant Access (Section 12)</td>
</tr>
<tr>
<td>Major horizontal additions</td>
<td>• Size (Section 6)</td>
</tr>
<tr>
<td></td>
<td>• Design (Section 8)</td>
</tr>
<tr>
<td>Minor horizontal additions</td>
<td>• Occupant Access (Section 12)</td>
</tr>
<tr>
<td>Reconstruction</td>
<td>• Location (Section 7) – where practical</td>
</tr>
</tbody>
</table>

Major horizontal additions are horizontal additions which increase the total aggregate floor area by more than the smaller of 25% or 500 m².

Minor horizontal additions are horizontal additions that increase the total aggregate floor area by less than the smaller of 25% or 500 m².

Reconstruction means any project where extensive renovations are being carried out throughout the building, which involve substantial reconstruction of the interior floor space that exposes the building’s structure. Reconstruction may include repair,
<table>
<thead>
<tr>
<th><strong>Type of Project</strong></th>
<th><strong>Applicable Sections</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>renovation, alteration or combination thereof.</td>
<td></td>
</tr>
<tr>
<td><strong>Change in Major Occupancy Classification</strong>-type projects are limited to a change of use within a building or portion thereof such that the proposed use is outside of the existing major occupancy classification.</td>
<td></td>
</tr>
<tr>
<td><strong>Major renovations</strong> are limited to work within multiple occupied spaces. Major renovations may include re-configuration of the interior space, interconnected floor spaces, and exterior alterations that affect a building’s recycling or refuse storage space. However, new mezzanines may not be considered as a major renovation, and are considered to be vertical additions.</td>
<td></td>
</tr>
<tr>
<td><strong>Major vertical additions</strong> are additions that add an additional floor level (mezzanine or storey) to a building that increases the total aggregate floor area by more than the smaller of 25% or 500 m².</td>
<td></td>
</tr>
<tr>
<td><strong>Minor vertical additions</strong> are additions that add an additional floor level (mezzanine or storey) to a building that increases the total aggregate floor area by less than the smaller of 25% or 500 m².</td>
<td></td>
</tr>
</tbody>
</table>

* Municipal planners will work with permit applicants to ensure that the recycling space meets as many of the location specifications as practical.

2.3 The technical specifications in this document do not apply to the following:

   a) Any project that demonstrates, to the satisfaction of the Approving Authority, that it will qualify for and receive municipally-provided curbside pickup of recyclable materials from individual residential units on public streets after occupancy
   
   b) Any project so designated by the approving authority of <Municipality Name>

3 Alternative Approaches

A Development Proponent may propose an alternative approach to the technical specifications listed in this document - as long as the proposal meets the intent of the recycling amenity specifications.

4 Use of Recycling Facilities

All recycling storage space identified on the plans upon issuance of the building permit shall be used only for the purpose of depositing and collecting recyclable material generated by occupants, visitors, and users of the principal building. The recycling space must not be used for storage of garbage. Any temporary recycling storage area identified on the plans upon issuance of the building permit shall be available for storing recycling containers on collection days.

5 Verification

A checklist of recycling space and access specifications is included in this document. This checklist must be completed and submitted with development permit and re-development permit plans.

6 Size of Recycling Storage Space

In addition to storage space for the deposit and collection of refuse:

6.1 The minimum size of the centralized recycling storage space for multi-family residential buildings and hospitality lodgings shall be the greater of:

   a) 5 m² or
   
   b) the space allocation determined by multiplying the number of housing units by 0.19 m²
In the case of hospitality lodgings, specifications are the same as multi-family residential buildings, up to a maximum of 50 m², at which point the frequency of collection can be increased beyond once per seven days.

6.2 For new multi-family building construction only, the centralized recycling storage space shall also include a “Flex Space” for storage of other reusable or recyclable materials. The required size of this space is equivalent to an additional 50% of the space allocation for recyclable materials specified in Section 1.1.

6.3 The minimum size of the centralized recycling storage space for commercial buildings shall be the greater of:
   a) 4 m² or
   b) the space allocation determined by multiplying the commercial floor area by the space allocation ratios defined in the table below for the listed building type:

<table>
<thead>
<tr>
<th>Building Development Type</th>
<th>Space Allocation per m² of floor area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail</td>
<td>0.015 m²</td>
</tr>
<tr>
<td>Office</td>
<td>0.005 m²</td>
</tr>
<tr>
<td>Large Venue</td>
<td>0.011 m²</td>
</tr>
<tr>
<td>Restaurant</td>
<td>0.022 m²</td>
</tr>
</tbody>
</table>

Space allocation for each building type is required up to the maximums listed below, after which increased frequency of collection may be used to provide adequate recycling capacity:

<table>
<thead>
<tr>
<th>Building Development Type</th>
<th>Development Size Threshold</th>
<th>Maximum Required Space Allocation For Developments below Threshold</th>
<th>Maximum Required Space Allocation For Developments above Threshold*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail</td>
<td>5,500 m²</td>
<td>20 m²</td>
<td>60 m²</td>
</tr>
<tr>
<td>Office</td>
<td>40,000 m²</td>
<td>50 m²</td>
<td>60 m²</td>
</tr>
<tr>
<td>Large Venue</td>
<td>11,000 m²</td>
<td>30 m²</td>
<td>60 m²</td>
</tr>
<tr>
<td>Restaurant</td>
<td>5,500 m²</td>
<td>30 m²</td>
<td>60 m²</td>
</tr>
</tbody>
</table>

*Developments larger than the threshold size should have enough space to set up compactors for paper and cardboard (41m²) and storage for other recyclables, in order to store a greater volume on a smaller footprint than several bins would occupy and to enable a collection frequency equal to or below four (4) times per week.

Development Size Threshold = (Maximum Space below Threshold x 4 collections per week) / Space allocation per m² of floor area

6.4 For mixed use buildings, the minimum size of the centralized recycling storage space shall be equivalent to the recycling storage space required for each anticipated use. When the exact future commercial use in not known, the recycling storage space shall be equal to the space needed for the potential commercial use with the highest storage needs.

7 Location of Recycling Storage Space

7.1 The location of any centralized recycling storage space must be:
   a) on the lot of the structure served;
   b) in an area such that noise and odour impacts to building occupants and neighbouring developments are minimized;
   c) at ground level, or no more than one storey below grade; and
   d) adjacent to each of the designated garbage storage areas for each type of use in the development.

7.2 Every garbage storage area must be located beside a recycling storage space.
7.3 A centralized recycling storage space shall not be located in any of the following positions:
   a) in alleys or other publicly owned rights-of-way where it may disrupt traffic circulation patterns;
   b) between a street-facing facade of the structure and the street if the area is located outdoors;
   c) in any required driveways, parking aisles, or parking spaces for the structure; or
   d) in any location that may block or impede fire exits, public rights-of-ways or pedestrian and vehicular access.

7.4 Notwithstanding the location specifications of sub-sections 2.1 and 2.2, any centralized recycling storage space must be located so as to comply with applicable building codes, fire codes, safety requirements, or other building requirements of <Municipality Name>.

8 Design of Recycling Storage Space

8.1 The recycling storage space must:
   a) have a level and hard-surfaced floor;
   b) be configured to allow each recycling storage container to be individually accessible so as to be removed and replaced without having to take out other containers;
   c) be configured such that no horizontal dimension (width or depth) is less than 2 m;
   d) have an entry point no less than 1.5 m in width for multi-family buildings over 25 units and for all commercial developments;
   e) ensure adequate ventilation to the exterior of the building, in compliance with applicable building code requirements for the storage of garbage;
   f) be sufficiently secure to minimize pest and wildlife access through the use of roofs, fencing, and wheels under gate doors;
   g) be protected from unlawful entry through the use of strike-plates, locks, and astragals to close clearance gaps between doors and frames, if the storage area is located indoors;
   h) be well lit, both as a security measure and for ease of access; and
   i) have windows, as well as white or pale-coloured interior walls, to enhance lighting and safety, if the storage area is enclosed.

9 Temporary Recycling Storage Area

9.1 If the loading area will be located farther than 50 metres from the recycling storage space, a temporary recycling storage area for recycling containers must be provided for use on collection days.

9.2 The temporary storage area must:
   a) have a level and hard surfaced floor;
   b) be configured such that no horizontal dimension (width or depth) is less than 1 m;
   c) be located at ground level within 50 metres of the loading area to facilitate collection;
   d) be connected to the loading area and recycling storage space via a level grade or continuous slope of no more than 6%;
   e) have a footprint equal to at least 50% of the recycling storage space allocation; and
   f) be available for recycling container storage on the day of collection, but may be used for other purposes at other times.

10 Loading Area

10.1 The loading area for the collection vehicle to service one recycling storage containers at a time must meet the following minimum design criteria:
   a) be located away from the fresh air intakes for the building;
   b) be connected to the recycling storage space or temporary recycling storage area via a level grade or continuous slope of no more than 6%, to facilitate movement of wheeled recycling
containers from the **recycling storage space** or **temporary recycling storage area** to the loading area for servicing.

10.2 If the loading area is to be located on the building site, it must also meet the following minimum design criteria:
   a) be directly accessible by a driving surface meeting the Vehicle Access Route specifications;
   b) have an appropriate slope as per applicable building code requirements, to facilitate drainage to the designated stormwater management system for the site, and to avoid settling of liquids within the loading area;
   c) be constructed to accommodate the weight of a 28-tonne collection vehicle; and
   d) maintain minimum dimensions of 7.5 m high, 6.0 m wide, and 15.0 m long. All dimensions are to be unencumbered (i.e., unrestricted by fixtures such as sprinkler systems, meters, surveillance cameras, mirrors, landscaping, etc.).

11 Vehicle Access Route to Loading Area

11.1 Vehicle access route specifications are triggered for developments expecting collection vehicles to access a loading area within the building site.

11.2 The vehicle access area must be located such that collection vehicles are not required to reverse onto a public road.

11.3 The vehicle access route, whether intended to be indoors or outdoors, must:
   a) be configured in such a way as to allow a collection vehicle to drive up to the loading area, collect the garbage/recycling, and leave the site in a forward motion, or via the use of a turnaround area allowing for a three-point turn of not less than one truck length;
   b) be situated in a location that will minimize interface with pedestrian traffic and public vehicular access to the building’s main parking area, including underground garage and visitor parking areas;
   c) be constructed to accommodate the weight of a 28-tonne collection vehicle;
   d) provide a minimum width of 4.5 m throughout the vehicle access route and access driveways with a minimum width of 6 m at the points of entrance and exit for the site;
   e) maintain a minimum vertical clearance of 4.4 m throughout the entire access route;
   f) provide the collection vehicle a minimum turning radius of 12.5 m throughout the entire access route; and
   g) ensure that the slope of the access route does not exceed 6%.

11.4 The site plan must include a diagram illustrating the anticipated movement of the collection vehicle through the building site, including dimensions for minimum width, height and turning radii throughout.

11.5 Where the Official Community Plan (OCP) or other regulatory instruments used by <Municipality Name> indicate a preference for particular access configurations, the **development proponent** should indicate how any additional configuration requirements stemming from these technical specifications will be met.

12 Occupant Access

12.1 The **recycling storage space** must be accessible to all occupants of the development, including those with restricted mobility.

12.2 The occupant access provisions of the **recycling storage space** must be shown on the site plan.

12.3 The distance that occupants must travel to reach the **recycling storage space** must be similar to the distance travelled to reach the **refuse containers**.
To: Zero Waste Committee  
    Finance Committee  

From: Peter Wishart, Senior Engineer  
    Solid Waste Department  

Date: August 4, 2012  

Subject: GVS&DD/Wastech Comprehensive Agreement – 2011 Financial Results  

Recommendation:  

That the Committee receive for information the report dated August 4, 2012 titled “GVS&DD/Wastech Comprehensive Agreement – 2011 Financial Results”.  

1. PURPOSE  

To provide the 2011 financial results for the GVS&DD/Wastech Comprehensive Agreement to the Committee.  

2. CONTEXT  

On December 20, 1996, the GVS&DD executed a 20-year Comprehensive Agreement with Wastech Services Ltd. that combined three fixed price contracts between the GVS&DD and Wastech into a single agreement. The Comprehensive Agreement includes operation of the Coquitlam Transfer Station, North Shore Transfer Station, Matsqui Transfer Station, Surrey Transfer Station and the Cache Creek Landfill.  

The Comprehensive Agreement allocates risks to the party best able to manage them. On this basis, Wastech took on the responsibility for the operations of the above facilities based on service levels set by the GVS&DD. To achieve the goal of sharing risks and benefits, a target Operating Ratio (ratio of eligible operating expenses over total revenues) approach was implemented as this provides incentive for both parties to work cooperatively and seek new efficiencies and economies on an ongoing basis. The target Operating Ratio was set at 0.89 on the basis of the net income margin that was earned by Wastech in the fixed price contracts prior to the Comprehensive Agreement, as well as industry standards in similar waste management agreements.  

Under this agreement, the GVS&DD receives secure long term waste management services, economies resulting from any increase in waste volumes and efficiencies from integration of multiple facility operations into one agreement. Wastech receives compensation for Eligible Operating Expenses (adjusted by the target Operating Ratio) related to receiving, transferring and disposal of waste, and resource recovery and
recycling. Excess revenues or expenditures are shared 50/50 between the GVS&DD and Wastech and are referred to in the Agreement as the Carry-Over Variance. The Comprehensive Agreement base rates were established in 2000 following a three year transition period (1997-1999) from the fixed price contracts. These rates are adjusted annually in accordance with the terms and conditions of the Agreement.

Under the terms of the Comprehensive Agreement, the parties conduct a review of the financial results of the operations for the immediately preceding operating year. For 2011, KPMG completed a detailed audit of Wastech's financial records and reports. The audit report produced by KPMG, in condensed form, is presented as Attachment 1. Items audited or reviewed include revenues and expenditures, pass-through expenses, capital expenses, and waste and recycling flows.

The 2011 Audit of the Comprehensive Agreement has confirmed the total waste and recycling flows handled by Wastech decreased by 66,702 tonnes compared to 2010. Further, the waste received and transferred to the Cache Creek Landfill decreased by 123,328 tonnes compared to 2010.

In 2011, revenues decreased by $9,116,838 compared to 2010. The reduction in revenue is due to decreases in waste flow to Cache Creek, overall system waste flow, and resource recovery.

In 2011, total eligible operating expenses decreased by $4,099,884 compared to 2010. The decrease in expenses is attributable to a reduction in labour, fuel and freight costs associated with the lower waste flows to Cache Creek.

As noted in Attachment No. 1, disputed revenues and costs in the approximate amounts of $237,000 and $646,000, respectively, are currently under negotiation between the two parties. Any change to these amounts would impact the Carry-Over Variance.

Based on the audit, Wastech’s actual Operating Ratio for 2011 was 1.041. This resulted in an operating deficit of $5,655,931, fifty percent of which, or $2,827,966, is payable by GVS&DD as a Carry-Over Variance.

Pass-Through expenses are those items, pre-approved under the Comprehensive Agreement, that are not to be marked up such as property taxes, post closure trust fund payments, permit related expenses, etc. There is no pass-through expense adjustment for 2011.

Wastech receives compensation for eligible capital expenses incurred. Capital payments are estimated at the start of the year based on the approved Wastech capital plan and GVS&DD budget. There is no capital expenditure adjustment for 2011.

Under the terms of the Agreement, a retroactive lump sum payment is made (without accrual of interest) which includes the Carry-Over Variance, the pass-through expense adjustment, and the capital expense adjustment. The adjustments resulting from the 2011 year end review total $2,827,966, payable from GVS&DD to Wastech. This amount was estimated and accrued in 2011 year-end financials.
The Attachment also contains a statement of waste flows including long haul, short haul, and recycling volumes.

3. ALTERNATIVES

No alternatives presented.

4. CONCLUSION

Based on the KPMG Audit of the Comprehensive Agreement for the year 2011, the net year end adjustment payable from GVS&DD to Wastech is $2,827,966. This represents 50% of the operating deficit. Disputed revenues and costs in the approximate amounts of $237,000 and $646,000, respectively, are currently under negotiation between the two parties.

ATTACHMENT:

Condensed Statement of Revenue, Expenditures and Carry-Over Variance of GVS&DD and Wastech Services Ltd. Comprehensive Agreement – Year ended December 31, 2011 by KPMG.
INDEPENDENT AUDITORS’ REPORT

To Wastech Services Ltd.

We have audited the Condensed Statement of Revenue, Expenditures, and Carry-Over Variance (Table 1) for the year ended December 31, 2011 and notes, comprising a summary of significant accounting policies (together "the schedule"). The schedule has been prepared by management in accordance with the financial reporting provisions of section 10.2 and Schedule E - Table 1 of the Comprehensive Agreement Respecting the Management of Municipal Solid Waste in the Greater Vancouver Regional District dated December 20, 1996 between the Greater Vancouver Sewerage & Drainage District and Wastech Services Ltd.

Management’s Responsibility for the Schedule

Management is responsible for the preparation of the schedule in accordance with the financial reporting provisions of section 10.2 and Schedule E - Table 1 of the Comprehensive Agreement Respecting the Management of Municipal Solid Waste in the Greater Vancouver Regional District, and for such internal control as management determines is necessary to enable the preparation of the schedule that is free from material misstatement, whether due to fraud or error.

Auditor’s Responsibility

Our responsibility is to express an opinion on the schedule based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the schedule is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the schedule. The procedures selected depend on the auditor’s judgment, including the assessment of the risks of material misstatement of the schedule, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity’s preparation of the schedule in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity’s internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the schedule.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.
Opinion

In our opinion, the financial information in the Condensed Statement of Revenue, Expenditures, and Carry-Over Variance (Table 1) for the year ended December 31, 2011 is prepared, in all material respects, in accordance with the financial reporting provisions of section 10.2 and Schedule E - Table 1 of the Comprehensive Agreement Respecting the Management of Municipal Solid Waste in the Greater Vancouver Regional District dated December 20, 1995 between the Greater Vancouver Sewerage & Drainage District and Wastech Services Ltd.

Basis of Accounting and Restrictions on Use

Without modifying our opinion, we draw attention to note 1 to the schedule which describes the basis of accounting. The schedule is prepared to provide information to Greater Vancouver Sewerage & Drainage District and Wastech Services Ltd. As a result, the statement may not be suitable for another purpose. Our report is intended solely for the Greater Vancouver Sewerage & Drainage District and Wastech Services Ltd. and should not be used by parties other than these parties.

KPMG LLP

Chartered Accountants

June 20, 2012
Vancouver, Canada
GREATER VANCOUVER SEWERAGE & DRAINAGE DISTRICT AND WASTECH SERVICES LTD. COMPREHENSIVE AGREEMENT
Statement of Revenue, Expenditures, and Carry-Over Variance (Table 1)

Year ended December 31, 2011, with comparative information for 2010

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greater Vancouver Sewerage &amp; Drainage District payments - eligible variable and fixed operating expenses</td>
<td>$25,962,143</td>
<td>$33,745,648</td>
</tr>
<tr>
<td>Backhaul and recycling revenue</td>
<td>$7,298,314</td>
<td>$8,632,647</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$33,261,457</td>
<td>$42,378,265</td>
</tr>
</tbody>
</table>

| **Expenditures:**        |        |        |
| Eligible variable operating expenses (Section 14.1(n)): |       |        |
| Transfer stations        | 15,207,773 | 15,372,867 |
| Cache Creek Landfill     | 19,422,603  | 23,146,640  |
| Recycling                | 1,819,999   | 1,825,916   |
| Administrative           | 1,670,316   | 1,909,303   |
| **Total eligible variable operating expenses**     | 38,120,691   | 42,253,726   |
| Total eligible fixed operating expenses (Section 14.1(ij)) | 796,897 | 763,546 |
| **Total eligible operating expenses (Section 14.1(a))** | 38,917,388 | 43,017,272 |

| Expenditures in excess of revenue | 5,655,931 | 638,977 |

| Carry-Over Variance (Section 14.19) – receivable from Greater Vancouver Sewerage & Drainage District | $2,827,986 | $319,489 |

| Greater Vancouver Sewerage & Drainage District payments - pass-through expenses | $1,998,045 | $4,040,420 |
| Pass-through expenses (Section 14.1(y)) | $1,998,045 | $4,040,420 |

| Payable to (receivable from) Greater Vancouver Sewerage & Drainage District | $ - | $ - |

| Greater Vancouver Sewerage & Drainage District payments - eligible capital expenses | $2,512,791 | $2,658,186 |
| Eligible capital expenses (Section 14.1(i)) | $2,512,791 | $2,658,186 |

| Payable to (receivable from) Greater Vancouver Sewerage & Drainage District | $ - | $ - |

See accompanying notes to the Statement of Revenue, Expenditures, and Carry-Over Variance (Table 1).
GREATER VANCOUVER SEWERAGE & DRAINAGE DISTRICT AND
WASTECH SERVICES LTD. COMPREHENSIVE AGREEMENT
Notes to Condensed Statement of Revenue, Expenditures, and Carry-Over Variance

Year ended December 31, 2011

1. Basis of presentation:
The Condensed Statement of Revenue, Expenditures, and Carry-Over Variance (Table 1) is
compiled in accordance with section 10.2 and Schedule E of the Comprehensive Agreement
Respecting the Management of Municipal Solid Waste in the Greater Vancouver Regional District
dated December 20, 1996 between the Greater Vancouver Sewerage & Drainage District and
Wastech Services Ltd.
Total eligible variable and fixed operating expenses are adjusted by the target operating ratio of
0.850 referred to in Section 14.1(a) of the Agreement.

2. Significant accounting policies:
   (a) Revenue recognition:
      Revenue is recognized when services are provided and collectability is reasonably assured.
With the exception of amounts included in note 3 - Contingency, Wastech Services Ltd.
reasonably expects to collect amounts outstanding.

3. Contingency:
The Greater Vancouver Sewerage & Drainage District and Wastech Services Ltd. are in dispute
over certain revenues and costs included in Table 1. For the year ended December 31, 2011, the
disputed revenues are approximately $237,000, and disputed costs are approximately $846,000.
If these revenues and costs are considered to be non-eligible, or a portion thereof, it would impact
the Revenue, Expenditures, Expenditures in Excess of Revenue, and the Carry-Over Variance
reported in Table 1.

4. Restatement of the Schedule:
As a result of a settlement between the Greater Vancouver Sewerage & Drainage District and
Wastech Services Ltd. with respect to the classification of approximately $212,000 of expenses
between eligible operating expenses and pass-through expenses, the 2010 comparative figures
have been adjusted.
4. Restatement of the Schedule (continued):

The following tables present the impact of the restatement on eligible operating expenses and pass through expenses for the year ended December 31, 2010:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total eligible operating expenses:</td>
<td></td>
</tr>
<tr>
<td>As previously stated</td>
<td>$43,041,381</td>
</tr>
<tr>
<td>Adjustment</td>
<td>(24,109)</td>
</tr>
<tr>
<td></td>
<td>$43,017,272</td>
</tr>
<tr>
<td>Pass through expenses:</td>
<td></td>
</tr>
<tr>
<td>As previously stated</td>
<td>$3,952,097</td>
</tr>
<tr>
<td>Adjustment</td>
<td>188,323</td>
</tr>
<tr>
<td></td>
<td>$4,040,420</td>
</tr>
</tbody>
</table>
## Greater Vancouver Sewerage & Drainage District and Wastech Services Ltd. Comprehensive Agreement

### Condensed Statement of Waste Flows (Table 2)

(Unaudited)

Year ended December 31, 2011, with comparative information for 2010

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Transfer - shorthaul</td>
<td>336,322</td>
<td>265,993</td>
</tr>
<tr>
<td>Transfer - longhaul</td>
<td>273,018</td>
<td>396,346</td>
</tr>
<tr>
<td>Resource recovery</td>
<td>22,953</td>
<td>28,493</td>
</tr>
<tr>
<td>Recycling operations</td>
<td>21,207</td>
<td>28,370</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>655,500</td>
<td>720,202</td>
</tr>
</tbody>
</table>

---

ZWC - 67
To: Zero Waste Committee

From: Ray Robb, Division Manager
Metropolitan Planning, Environment and Parks Department

Date: August 28, 2012

Subject: Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw – Staff Appointments

Recommendation:

That the Board, pursuant to the Environmental Management Act and Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw 181, 1996 as amended by Bylaw 183, 1996:

a) Appoint the following as Officers: Dennis Klick, Natasha Markovic-Mirovic and Susy Marble; and

b) Rescind the appointment of the following Officers: Silvano Padovan.

1. PURPOSE

To update staff appointments under the Environmental Management Act and Greater Vancouver Sewerage & Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw 181, 1996 as amended by Bylaw 183, 1996.

2. CONTEXT

Metro Vancouver’s Solid Waste Regulatory Program supports the goals of the Solid Waste Management Plan through regulation of solid waste and recyclable materials management at private facilities. GVS&DD Municipal Solid Waste and Recyclable Materials Regulatory Bylaws 181 and 183 impose requirements upon the private sector and delegate authority upon Metro Vancouver staff to advance solid waste management goals.

Officers may enter property; inspect works; obtain records and other information to promote compliance with the Greater Vancouver Sewerage & Drainage District solid waste management bylaws. The authority for staff to undertake these compliance promotion activities are derived from their appointment by the Board as Officers.

Recent changes in Metro Vancouver staff have resulted in a need for the Board to appoint new Officers pursuant to the Environmental Management Act and GVS&DD Municipal Solid Waste and Recyclable Materials Regulatory Bylaw 181, 1996 as amended by Bylaw 183, 1996. In accordance with Section 32 of the Environmental Management Act, Officers must be appointed by the Board.
3. ALTERNATIVES

None presented.

4. CONCLUSION

Recent changes in staff have resulted in a need to appoint new staff under the *Environmental Management Act* and Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw 181, 1996 as amended by Bylaw 183, 1996.
Zero Waste Committee Meeting Date: September 13, 2012

To: Zero Waste Committee

From: Andrew Doi, Environmental Planner
Solid Waste Department

Date: August 23, 2012

Subject: Beverage Container Program

Recommendation:


1. PURPOSE

To update the Zero Waste Committee about the Ministry of Environment review of the prescriptive requirements for the beverage container Extended Producer Responsibility Program.

2. CONTEXT

On June 15, 2012, Encorp Pacific released their Annual Report and notified all Regional Districts of the results for 2011. At their July 12th meeting, the Zero Waste Committee discussed Encorp Pacific's Annual Report and requested an update from staff on the Recycling Regulation, as it relates to Beverage Containers. The Recycling Regulation (B.C. Reg. 132/2011) identifies the obligations of producers to fund and develop a collection and end-of-life management program for defined product categories. Once the addition of a product category is approved by the Provincial Cabinet, the producers become responsible for creating a Product Stewardship Plan. The plan must be consulted on with stakeholders prior to submission to the Ministry of Environment for approval. The Ministry evaluates the plan, establishes targets and timelines and then transfers responsibility to producers to implement the program.

Typically, Extended Producer Responsibility (EPR) programs established in the Recycling Regulation are granted flexibility in their design and implementation. Schedule 1 of the Recycling Regulation, which regulates beverage containers, is an exception as it includes three prescriptive requirements which must be addressed by the two beverage container programs (i.e., Encorp Pacific and Brewers Distributing Limited). These prescriptive requirements are:

- Minimum deposit levels for containers
- Mandatory return-to-retail
- Collected used beverage containers must be recycled or refilled, they must not be disposed of by landfill or incineration.
In the Fall of 2011, the Ministry of Environment consulted with stakeholders about the status of these requirements to determine whether revisions were necessary. A variety of stakeholders attended the consultation, and expressed opinions which were often in disagreement with each other. For example:

- Some stakeholders expressed a desire for higher deposits, while others believed the current levels were sufficient.
- There was also disagreement about whether return-to-retail should be voluntary or mandatory.

The Ministry subsequently posted a report summarizing the feedback received during the consultation for stakeholder comment. The final report is currently under review within the Ministry.

3. ALTERNATIVES
None presented.

4. CONCLUSION
Distinct from many other Extended Producer Responsibility programs established under the Recycling Regulation, the programs for beverage containers include prescriptive measures regarding minimum deposit levels, return-to-retail requirements, and prohibitions against incineration or landfilling. In the Fall of 2011, the Ministry of Environment consulted with stakeholders on these prescriptive requirements. The Ministry is currently reviewing whether any changes will be implemented.
To: Zero Waste Committee  
From: Paul Henderson, Manager  
Solid Waste Department  
Date: August 27, 2012  
Subject: Manager’s Report  

Recommendation:

That the Zero Waste Committee receive for information the report dated August 27, 2012 titled “Manager’s Report”.

1. Metro Vancouver-Ministry of Environment Extended Producer Responsibility Agreement Update

In partial fulfillment of action 1.1.3 of the Integrated Solid Waste and Resource Management Plan, Metro Vancouver and the Ministry of Environment have entered into a Memorandum of Understanding on Extended Producer Responsibility (EPR). The Memorandum of Understanding identifies the following areas for cooperation:

- Creating a cooperative working relationship to promote EPR;
- Improving awareness and understanding of EPR, so that both the environmental and economic benefits are well supported;
- Supporting the continued expansion of EPR;
- Creating economies of scale to better influence product design;
- Participating jointly in regional, national, and international events and initiatives to communicate about success stories and accomplishments and promote the B.C. model for EPR.

The main purpose of this collaboration is to ensure the ongoing viability and success of the existing and future EPR programs.

Metro Vancouver staff and Ministry of Environment staff are working to develop an annual work plan. Proposed items for the work plan include collaboration with the existing programs to simplify the take-back process for local government and consumers, and a study on the suite of benefits produced by EPR programs today and developing business cases for new EPR programs.

3. Zero Waste Committee 2012 Work Plan

Attached is the updated 2012 Work Plan indicating the quarter that the priority is expected to be considered by the Zero Waste Committee. Completed items are shown in bold.

ATTACHMENT:
2012 Zero Waste Committee Work Plan
# Zero Waste Committee 2012 Work Plan

## 1st Quarter

<table>
<thead>
<tr>
<th>Key priorities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrated Utility Management Advisory Committee (with Utilities Committee) (ISWRMP requirement)</td>
</tr>
<tr>
<td>Tipping Fee Bylaw amendment to allow organics drop-off and transferring at North Shore Transfer Station</td>
</tr>
<tr>
<td>New Waste-to-Energy Consultation and Procurement Decisions</td>
</tr>
<tr>
<td>Implement Waste Reduction Interventions as MVHC Sites</td>
</tr>
<tr>
<td>2012 Christmas Campaign Results ‘Create Memories, Not Garbage’</td>
</tr>
<tr>
<td>Reuse/Recycle campaign promoting Metro Vancouver Recycles</td>
</tr>
<tr>
<td>Launch MV Recycles iPhone App</td>
</tr>
</tbody>
</table>

## 2nd Quarter

<table>
<thead>
<tr>
<th>Key priorities</th>
</tr>
</thead>
<tbody>
<tr>
<td>FVRD Consultation Strategy for additional Waste-to-Energy capacity</td>
</tr>
<tr>
<td>Regional Data Reporting</td>
</tr>
<tr>
<td>Revise waste flow projections based on most recent information</td>
</tr>
<tr>
<td>Strategy to ensure residual waste delivered to appropriate facility</td>
</tr>
<tr>
<td>Template Municipal Bylaws for mandatory construction/demolition recycling, and for recycling space/access in multi-family and commercial buildings</td>
</tr>
<tr>
<td>Options for alternative beneficial use of Burnaby Waste-to-Energy Bottom ash</td>
</tr>
<tr>
<td>Integrated Solid Waste and Resource Management Plan Implementation update</td>
</tr>
<tr>
<td>Food waste reduction/food scrap collection campaign (organics)</td>
</tr>
</tbody>
</table>

## 3rd Quarter

<table>
<thead>
<tr>
<th>Key priorities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generate a list of all known active and closed municipal and regional landfills located within the region (requirement of ISWRMP approval)</td>
</tr>
<tr>
<td>Transfer Station System Strategy</td>
</tr>
<tr>
<td>Solid Waste by-law amendments to encourage better recovery of resources at private solid waste management facilities and to better recover costs for solid waste regulatory program</td>
</tr>
<tr>
<td>Finalize business case and decide on East Fraser Lands district energy development</td>
</tr>
<tr>
<td>Burnaby Waste-to-Energy B.C. Hydro energy purchase agreement</td>
</tr>
<tr>
<td>Zero Waste Challenge Conference</td>
</tr>
<tr>
<td>National Zero Waste Marketing Council Roundtable</td>
</tr>
</tbody>
</table>
### 4th Quarter

**Key priorities**

- Assess and respond to draft Packaging and Printed Material stewardship (EPR) plan (actual timing is dependant on when stewards submit draft plan and MoE makes it available)
- 2013 Tipping Fee Bylaw
  - Phase in organics ban
  - 2013 disposal fees
- Undertake integrated resource recovery (IRR) study for liquid and solid waste in the Vancouver sewerage area
- Establish a new beneficial use for landfill gas from Coquitlam Landfill
- Assessment of regional organics processing capacity
- Assessment of regional DLC waste processing capacity
- Determine shortlist for Waste-to-Energy Proponents
- 2012 Waste Reduction Christmas Campaign ‘Create Memories, Not Garbage’
July 11, 2012

Chair and Members
Metro Vancouver Board of Directors
c/o Paulette Vetleson
Corporate Secretary
4330 Kingsway
Burnaby, BC V5H 4G8

Dear Chair and Members:

RE: Provincial Recycling Regulation

On July 10, 2012, Vancouver City Council approved the following:

WHEREAS

1. Recycling rates for residential homes in Metro Vancouver is currently at 48%, and 58% in the City of Vancouver;

2. In Metro Vancouver, the municipal blue box curbside service is the most established and successful aspect of the waste stream in terms of diversion;

3. Recyclable materials represent a potential revenue stream for municipalities;

4. Public policy priorities to drive zero waste should focus on diverting waste from multi-family dwellings, and the commercial and industrial sectors;

5. The Province has amended the Recycling Regulation to include extended producer responsibility for paper and packaging by 2014;

6. Municipalities have the most knowledge about the recycling system in their communities; and

7. The new stewardship program doesn't require municipal pick up and could eliminate publicly controlled residential collection of paper and packaging;

..../2
THEREFORE BE IT RESOLVED THAT the City request the Province amend the Recycling Regulation to require that where local governments choose to provide recycling services to stewardship organizations that municipalities be fully compensated for those services; and

BE IT FURTHER RESOLVED THAT a copy of this resolution be circulated to all Lower Mainland Municipalities and Metro Vancouver.

Yours truly,

Charlene K. Imai
Meeting Coordinator
tel: 604.873.7657
fax: 604.873.7419
August 2, 2012
Our File: 01-0130-01/000/2012-1
Doc #: 1288118.v1

The Honourable Terry Lake
Minister of Environment
PO Box 9339 STN PROV GOVT
Victoria BC V8W 9M1

Dear Minister Lake:

RE: Provincial Recycling Regulation

Please be advised that on July 30, 2012, Council for the City of Coquitlam approved the following resolution:

That Council request the Province to amend the Recycling Regulation to require that where local governments choose to provide recycling services to stewardship organizations that municipalities be fully compensated for those services and that a copy of this resolution be circulated to all Lower Mainland Municipalities and Metro Vancouver.

Should you or your staff have any questions, or require any further information, with respect to this matter, please contact myself at 604-927-3013 or at jgilbert@coquitlam.ca.

Yours truly,

[Signature]
Jay Gilbert
City Clerk

c - Chair, Metro Vancouver
All Lower Mainland Municipalities
July 20, 2012

Metro Vancouver Board of Directors
4330 Kingsway
Burnaby BC V5H 4G8

Dear Board Members:

Vancouver Landfill Technical Liaison Committee

Please be advised that at the July 16, 2012 Regular Meeting, Delta Council considered the attached report by the Human Resources and Corporate Planning Department dated June 22, 2012 regarding the above and unanimously endorsed the following resolutions:

THAT a copy of this report be provided to the City of Vancouver's Mayor Gregor Robertson and Council; Dr. Penny Ballem, City Manager; and Mr. Peter Judd, General Manager of Engineering Services; and

THAT a copy of this report also be provided to BC's Minister of Environment, the Honourable Terry Lake; Metro Vancouver Directors, and to Metro Vancouver's Zero Waste and Environment Committees.

Accordingly this letter is provided for your information.

Yours truly,

Angila Bains
Municipal Clerk

Encl:
AB/fc
To: Mayor and Council

From: Human Resources and Corporate Planning

Date: June 22, 2012

Vancouver Landfill Technical Liaison Committee

The following report has been reviewed and endorsed by the Chief Administrative Officer.

- RECOMMENDATION:

  THAT a copy of this report be provided to the City of Vancouver's Mayor Gregor Robertson and Council; Dr. Penny Ballem, City Manager; and Mr. Peter Judd, General Manager of Engineering Services.

- PURPOSE:

  To provide information to Council on the subject of a recent meeting of the Vancouver Landfill Technical Liaison Committee.

- BACKGROUND:

  At the April 11, 2011 Regular Meeting of Delta Council the establishment of a Vancouver Landfill Technical Liaison Committee was endorsed in response to concerns raised by Delta regarding landfill gas emissions. The committee meets quarterly to discuss issues relating to the Vancouver Landfill and consists of senior staff from the Corporation of Delta (Delta) and City of Vancouver (Vancouver). A map showing the phases of the Vancouver Landfill is included as Attachment A. Phase 1 has been closed and Phase 2 is in the process of being closed which is discussed further in this report.

- DISCUSSION:

  The fifth meeting of the Vancouver Landfill Technical Liaison Committee (the committee) was held on June 7, 2012 at Delta's Municipal Hall. The following items were discussed:
Landfill Gas Collection and Progressive Landfill Closure Works

Vancouver has stated its commitment to meet or exceed the Ministry of Environment’s 75% landfill gas collection efficiency target by 2016 with a goal of meeting that target by the end of 2012.

Fifty four new landfill gas wells were commissioned earlier this year in an effort to improve landfill gas collection efficiency. For the month of May 2012, landfill gas efficiency has increased to an average of 63% and reached a high of 68%. This is a significant improvement over the average collection efficiency of 41% that was reported for 2011. This improvement is shown in the figure below.

![Monthly LFG Collection Efficiency](image)

**Figure 1. Landfill Gas Collection Efficiency over Time with Projected Improvements.**

It is expected the next phase of landfill gas collection works will bring the landfill to a steady state of 67% efficiency in the upcoming months. In 2011, approximately 32,425,530 m³ of landfill gas was collected and approximately 77% was directed to beneficial use at the Maxim cogeneration facility located at the Village Farms Greenhouse. The remainder of the gas was flared at the landfill. The beneficial use and flaring represents a reduction of approximately 228,551 tonnes of carbon dioxide equivalent that would have been emitted if there was no gas collection system in place. However, since landfill gas collection efficiency was 41% in 2011, the uncaptured methane represents emissions of approximately 300,000 tonnes. The considerable improvements made in 2012 to landfill gas collection will result in significant quantities of additional landfill gas available for beneficial use and marked reductions in greenhouse gas emissions.
The City of Vancouver has just recently closed an expression of interest seeking submissions from proponents relating to the beneficial use of the additional landfill gas being collected that is in excess of the commitment under agreement with Maxim Power. Staff will report back to Council when a formal proposal is received.

The construction contract for implementing the Phase 2 closure works has recently been awarded and is approximately $14 million in value. Approximately 18 hectares of landfill will be closed which includes stormwater management, gas collection infrastructure, site grading and the installation of an impermeable geomembrane cap which minimizes leachate generation and maximizes landfill gas collection efficiency. In the order of 100 new gas wells will be installed in the more recently filled areas of the site as part of this work. Staff will be participating in a workshop along with Ministry of Environment staff to further discuss the environmental protection and landfill gas collection measures that are part of this work.

Vancouver staff advised that the grading work for the Western 40 Hectares that is required as part of the closure works for that area is nearing completion.

**Regulatory Reporting**

It was confirmed at the committee meeting that Delta was receiving regular information on landfill gas, water quality and leachate monitoring from Vancouver. Since the previous committee meeting the following reports have been submitted by Vancouver:

- 2011 Annual Report
- 2011 Landfill Gas Regulation Annual Report (Province of BC)
- 2011 Province of BC GHG report
- 2011 Environment Canada GHG reporting

No issues of non-compliance with regulations or the landfill’s Operational Certificate were identified.

**Complaints**

A summary of the complaints received since the last meeting was reviewed by the committee. No formal odour complaints have been received. The complaints primarily related to wait times, costs, and staff. Delta has also not received any formal odour complaints that were attributed to the Vancouver Landfill to date in 2012.

**Lot 9 Transfer**

Staff discussed the pending transfer of the Lot 9 Transferred Portion from Vancouver to Delta which is approximately 250 acres of bog forest located east and south of the landfill. A subdivision application to create the lot to be transferred was forwarded to the Agricultural Land Commission (ALC) for consideration in late 2011. A letter conveying the ALC’s decision to approve the subdivision was received on June 14, 2012.
South Fraser Perimeter Road

Staff had considerable discussion regarding the impacts of the SFPR construction activities on landfill traffic and operational concerns relating to the design of the Highway 99 interchange and connections to the landfill. It was acknowledged that further discussions directly with the Ministry of Transportation and Infrastructure were required and that Delta and Vancouver staff would continue to work together to advance issues of mutual interest.

Norampac Waste Relocation

Council previously approved in principle the relocation of approximately 200,000 tonnes of waste from the Norampac landfill in Burnaby to the Vancouver Landfill. The material is relatively inert and primarily unrecyclable packaging waste from a cardboard and tetra pak recycling operation. Vancouver staff have recently submitted the technical documentation provided by Oxford to the Ministry of Environment for approval to accept the material. A formal agreement with the proponent, Oxford Properties has not yet been completed. In order to ensure that the annual waste limit at the Vancouver Landfill is not exceeded, it was proposed by Vancouver that the transfer extend over two calendar years. This time frame may not work for the proponent so other alternatives are currently being considered by Oxford which may mean some of the material is transferred to other disposal sites. Staff will provide a further update once details are known.

Implications:
Financial Implications – There are no financial implications associated with this report.

CONCLUSION:

The Vancouver Landfill Technical Liaison Committee continues to be an effective mechanism to improve communication between Delta and Vancouver on issues relating to the Vancouver Landfill. Significant resources have been allocated towards making improvements at the Vancouver Landfill and we are seeing demonstrated results with landfill gas collection efficiency increasing to an average of 63% for the month of May.

Sean McGill
Director of Human Resources and Corporate Planning

Department submission prepared by: Mike Brotherston, Manager of Climate Action and Environment
This report has been prepared in consultation with the following listed departments.

<table>
<thead>
<tr>
<th>Department</th>
<th>Name</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>Steven Lan</td>
<td></td>
</tr>
<tr>
<td>Office of Climate Action and Environment</td>
<td>Mike Brotherston</td>
<td></td>
</tr>
</tbody>
</table>

- ATTACHMENT:
  A. Vancouver Landfill fill plan
TO: UBCM Members

FROM: ENVIRONMENT COMMITTEE
Director Rhona Martin, Chair
Mayor Sharon Gaetz
Chair Al Richmond
Chair Joe Stanhope
Councillor Lorrie Williams

RE: PACKAGING AND PRINTED PAPER
PRODUCT STEWARDSHIP

1. DECISION REQUEST
That the paper be endorsed by the UBCM membership.

2. PURPOSE
The purpose of the policy paper is to:
• identify key local government issues and concerns with the proposed product stewardship program for packaging and printed paper;
• propose recommendations for resolving potential local government issues with the implementation of the packaging and printed paper product stewardship program;
• build local government knowledge and capacity around packaging and printed paper product stewardship to assist in negotiations with producers; and
• support a smooth transition in the responsibility of managing packaging and printed paper (PPP) to producers.

3. EXECUTIVE SUMMARY
The paper contains the following key recommendations for designing and implementing a packaging and printed paper (PPP) product stewardship program:

That producers are responsible for, and have an obligation to, manage one hundred percent (100%) of the packaging and printed paper waste in British Columbia. This obligation includes an extension of the PPP program to the industrial, commercial and institutional (ICI) sector within three (3) years, as well as local government compensation for the management of PPP materials that end up in local government waste streams.

That the packaging and printed paper product stewardship program provides an equitable level of service between urban and rural areas, and that existing levels of service be maintained or exceeded for those local governments that have established PPP programs in place.
That local governments be given the right of first refusal for providing packaging and printed paper product stewardship services under the new PPP program. This option would minimize and/or prevent any disruption to existing services, employment contracts, and community expectations.

That the design and implementation of the PPP program seek to minimize the program’s environmental impact by eliminating the need for landfilling and/or incineration of program materials.

4. BACKGROUND

In May 2011, the Recycling Regulation was amended to include packaging and printed paper. The amendment shifts financial and administrative responsibility for managing these materials from local governments to the producers of packaging and printed paper (PPP). This transfer of responsibility is intended to incent producers of PPP to incorporate environmental considerations in the design of their products.

The addition of packaging, and to a lesser extent printed paper, is partly in response to local government requests. In particular, the UBCM membership has consistently endorsed resolutions calling for the development of strategies to reduce unnecessary product packaging, as well as the creation of product stewardship programs for packaging (1987-B69; 1990-A14; 1991-B18; 1995-B38; 1997-B11; 1999-B14; 2000-B20; 2004-B13; 2005-B115; 2006-B29; 2008-B31). Most recently, Resolution 2009-B39 called for all packaging to be placed under the BC product stewardship legislation. When considering packaging, the membership has similarly called for the addition of milk containers to the Recycling Regulation and the deposit refund system (2011-B38, 2010-B27).

The product stewardship program will be developed by five (5) key producers, which include: the Canada Food and Restaurant Services Association, Retail Council of Canada, Canada Newspaper Association, Food and Consumer Producers of Canada, and the Canadian Federation of Independent Grocers. The producers are represented by Multi Material British Columbia (MMBC), which is a not-for-profit agency established under the British Columbia Society Act formed in anticipation of the requirement to develop, submit and implement a stewardship plan for packaging and printed paper. MMBC’s intention is to assume the role of a stewardship agency in order to discharge the obligations of PPP producers under Schedule 5 of the Recycling Regulation. However, some producers may choose to pursue their product stewardship obligations independently, which may impact collection and recycling efforts on multiple levels.

Since the amendment to the Regulation, several local governments have raised concerns over what service levels and targets will be included in the program. These concerns include, but are not limited to: how the program will work with local governments to ensure there is not a decline in service levels; how the interface with collection systems under union contracts will be managed; how collected materials will be managed; local capacity to manage any increase in collected materials; how the program will incent...
more recyclable packaging; and how local governments could be compensated for the capital investments that have been made in the existing collection infrastructure.

In response to local government concerns and issues, the UBCM Executive approved the creation of a UBCM Packaging and Printed Paper Working Group, issued a call for nominations for representatives, and convened the first meeting in February 2012. The UBCM Packaging and Printed Paper Working Group is designed to provide a voice for local government on their expectations of an industry product stewardship program for PPP; provide information to build capacity in local government understanding of product stewardship as it applies to packaging and printed paper; and build local government capacity to effectively negotiate community interests with the producers.

In addition, the Working Group will: act as a forum for discussing local government issues, both individual and collective, with the producers; identify relevant issues pertinent to the materials/products and scope in the May 2011 amendment that may require negotiating with industry; and identify and propose recommendations to the producers for resolving potential local government issues with the PPP program implementation. The Working Group is comprised of six appointed local government staff representatives from all regions on the province, a UBCM staff representative, a representative from the BC Product Stewardship Council, and a Ministry of Environment staff member that sits as a subject matter expert on provincial policy and regulation.

Throughout the Winter and Spring of 2012, the Working Group met to finalize a terms of reference, identify local government concerns, and develop an issues compendium that would form the foundation of a policy paper. Delegations were also received from interested stakeholders, and communication materials about the efforts of the Working Group were distributed to local government area associations. The Working Group has sought to create recommendations that would advocate local government interests and positions, with the intent of having a policy paper considered by the membership prior to the producers’ submission of a product stewardship plan in November 2012.

5. DISCUSSION

According to the 2007 Environment Action Plan, the provincial framework for any new or expanded product stewardship program must contain the following measures:

- be fully funded by the industry, in which the industry is responsible for all costs such as collection, transportation, and marketing of materials;
- maximizes the recovery rate of products from local landfills, with a recovery rate of 85% or higher;
- ensures the broadest choice of options for consumers, including the use of deposit refund systems and eco fees;
- ensures the operation of a mixed collection system, including return to retailer, curbside and depots; and
- links product stewardship programs to local solid waste management planning decisions of municipalities and regional districts.
The above position on product stewardship was endorsed by the full UBCM membership at the 2007 UBCM Convention, and acts as the foundation for discussion with the Province on all product stewardship programs, including packaging and printed paper.

Upon review of the amended Recycling Regulation, and as a result of Ministry of Environment information sessions, local governments have identified several key concerns and issues with respect to the new extended producer responsibility programs on packaging and printed paper. These concerns pertain to the scope of the program, program design, environmental impact, financial and service provision issues, as well as the role of local government.

**Program Scope**

While recognizing the functionality of focusing on residential collection, several local governments have identified concerns over the product stewardship program’s focus on residential collection prior to industrial, commercial and institutional (ICI) collection. Local governments have invested heavily in the infrastructure, marketing and outreach of their existing collection and recycling programs, and some are concerned that producers may get to capitalize on the costly foundations they have laid. As such, local governments wish to see an expansion of the product stewardship program to the ICI sector as soon as possible, following the successful implementation of the program in the residential sector.

Local governments have also identified concerns over the seventy-five percent (75%) recovery rate identified within the amended Recycling Regulation. To maximize recovery rates, the rate should focus on specific material categories as opposed to overall packaging composite, and the rate should be applied to each local government to ensure equivalency between rural and urban areas. There is also the recognition that in spite of the target recovery rate, producers have an obligation to manage one hundred percent (100%) of the packaging and printed paper waste. This is consistent with the product stewardship model within BC where producers are responsible for the entire life cycle of products. In addition, the program should cover all areas that local governments are currently servicing.

**Program Design**

Local governments have identified the need to move beyond simply diverting PPP materials from local landfills and incinerators to actively putting in place incentives and measures to re-design and re-use packaging and printed paper materials. There is a recognition that in order to move up the pollution prevention hierarchy, the producers need to develop market based incentives and/or design requirements for their products. Such measures would diminish the potential for difficult to recycle or non-recyclable materials to be incinerated and/or landfilled, and would simultaneously reduce the carbon footprint of the product by minimizing production, storage, collection and transportation costs.

Built-in consultation mechanisms also need to be established with the product stewardship program. Local governments require meaningful consultation, both in
terms of time and opportunities, in the design of the PPP stewardship program as well as ongoing consultation and feedback mechanisms during the implementation of the program. Based on past experiences with product stewardship programs, local governments desire the opportunity to provide input on the program design if product stewards are not meeting their stated or expected service delivery levels. In particular, local governments require an enhanced dispute resolution process, whereby they have the right to receive compensation for impacted costs if producers are not providing adequate service levels that result in materials being sent to local landfills and/or incinerators.

More importantly, the product stewardship program should incorporate flexible options that local governments can select to best meet the needs and interests of their respective communities. Many local governments throughout BC have established collection systems for packaging and printed paper, each with a set of community expectations around service levels, as well as associated infrastructure and employment contracts. Some local governments have identified the potential for the product stewardship program to impact existing employment contracts, particularly if the producers decide to contract out collection services or rely on depots instead of using existing local government staff and curbside programs. Implementing a “one size fits all” approach will not yield the greatest results. To improve the effectiveness of the product stewardship program, local governments should have the choice of either continuing to deliver services with fair compensation or selecting the producer’s contracted services for their communities. In effect, local governments should be given the right of first refusal for the provision of services. Similarly, the product stewardship program needs to be integrated with other waste management programs to create efficiencies, facilitate maximum recovery rates, and ensure high customer service.

**Environmental Impacts**

As stewards of their community, local governments are continuously implementing measures to protect the environment and address the impacts of climate change. Local governments believe that the product stewardship program should focus on clear environmental protection as opposed to simply the cost impacts on producers. The program should include measures and incentives for redesigning packaging, to ensure that the program moves up the pollution prevention hierarchy by eliminating the landfilling and/or incineration of collected program materials. Wherever possible, local governments maintain that producers should be seeking efficiencies within the collection, transportation and processing of materials to minimize the carbon footprint within affected communities.

**Funding**

Local governments have identified a wide range of costs associated with both their existing curbside collection programs for packaging as well as costs for the successful implementation of product stewardship programs. While British Columbia has a fully industry funded model for product stewardship, local governments have acknowledged that they have frequently incurred some management costs for existing product stewardship programs when materials end up in local waste streams. In light of this experience, local governments require reimbursement for the management of
any packaging and printed paper materials that end up in local government waste streams, which include garbage, public disposal facilities and illegal dumps. Compensation could be determined through standardized and industry funded waste audits that determine the amount of materials local governments handle. In addition, in accordance with the provincial product stewardship model, the producers must be responsible for all “hard” and “soft” program costs including collection, transportation, processing, and public outreach and education.

Recognizing that the producers may utilize either contracted services or existing local government infrastructure and collection programs, local governments have identified the need for fair compensation for their assistance in any packaging and printed paper product stewardship program. To date, it is unclear as to whether the producers will be providing compensation on a per household or service level basis, and on the level of compensation should local governments choose to participate in collection in the future. However, local governments maintain that compensation for participating in, or assisting with, the product stewardship program should be based on a local government’s true operating costs (capital, operation, maintenance, contract administration, education and outreach, advertising and disposal costs).

**Service Provision**

The level of service to be provided under the proposed packaging and printed paper product stewardship program emerges as one of the biggest concerns and issues for local governments. Local governments continue to identify service provision challenges within existing provincial product stewardship programs, particularly within more rural and remote areas. The new PPP extended producer responsibility program should ensure that rural and remote areas receive an equitable level of service as their urban counterparts so that the additional costs of managing PPP materials are not incurred by local governments.

For those local governments that have established PPP programs in place, there is a concern that existing service levels and quality of service must be maintained or exceeded. Such local governments have invested significantly in the infrastructure of, and public education for, their PPP programs and have established community expectations around what constitutes quality service levels. As such, local governments require a seamless transition with the implementation of the new PPP program to prevent any disruptions to existing service levels, community expectations, and employment contracts. The latter is particularly important to several local governments, as there is concern that the new program could potentially impact existing employment contracts, both in terms timing with contract renewal, and with the failure to utilize existing union staff in providing the service. Moreover, there is a need for the producers to clarify how the PPP program will fit within existing solid waste management plans.

**Local Government Role**

All local governments will be directly impacted by the implementation of a new packaging and printed paper product stewardship program. However, to date, local governments are unclear as to role that local governments will play in managing PPP
materials, as well as the level of local government consultation in the design and implementation of the program. This lack of clarity extends to whether there will be potential partnerships with the producers as well as who has ownership over collected packaging and printed materials. In order to be successfully implemented, the new product stewardship program must provide options and opportunities for local governments to play an active role in managing PPP. This structural flexibility is required given local government’s current administration of recycling and waste diversion programs, existing local government infrastructure, the linkage to solid waste management plans, and current community expectations around service levels.

6. RECOMMENDATIONS

That the following recommendations pertaining to the design and implementation of the packaging and printed paper product stewardship program be adopted by the UBCM membership.

That producers are responsible for, and have an obligation to, manage one hundred percent (100%) of the packaging and printed paper waste in British Columbia. This obligation includes an extension of the PPP program to the industrial, commercial and institutional (ICI) sector within three (3) years, as well as local government compensation for the management of PPP materials that end up in local government waste streams.

That the packaging and printed paper product stewardship program provides an equitable level of service between urban and rural areas, and that existing levels of service be maintained or exceeded for those local governments that have established PPP programs in place.

That local governments be given the right of first refusal for providing packaging and printed paper product stewardship services under the new PPP program. This option would minimize and/or prevent any disruption to existing services, employment contracts, and community expectations.

That the design and implementation of the PPP program seek to minimize the program’s environmental impact by eliminating the need for landflling and/or incineration of program materials.

That the supplementary recommendations contained within Appendix 1 be adopted as a tool for building local government knowledge and capacity to assist in local government discussions and negotiations with producers.
APPENDIX 1: RECOMMENDATIONS

Program Scope

That the PPP program be expanded within three years to cover the industrial, commercial and institutional (ICI) sector following the successful implementation of the program within the residential sector.

That the seventy-five percent (75%) target recovery rate identified in the Recycling Regulation apply to specific material categories as opposed to overall packaging composite.

That the seventy-five percent (75%) target recovery rate identified in the Recycling Regulation apply to each local government to ensure equivalent service levels between urban and rural areas.

That the PPP program seeks a recovery rate of eighty-five (85%) or higher, consistent with the principles adopted by the UBCM membership in the 2007 Environment Action Plan.

That the PPP program include the addition of milk containers to the deposit refund system.

That the PPP program apply to all areas that local governments are currently servicing.

Program Design

That producers develop market based incentives and/or design requirements to stimulate product redesign and re-use to diminish the potential for materials to be incinerated or landfilled.

That material specific targets and performance measures be developed by the producers and enforced by the Province.

That local governments be given meaningful consultation opportunities in the design of the program as well as ongoing consultative mechanisms during the implementation of the program.

That an enhanced dispute resolution process be incorporated into the program, whereby local governments have the right to receive compensation for impacted costs if producers are not providing adequate service levels that result in materials being sent to local landfills and/or incinerators.

That the product stewardship program incorporates flexible and scalable options for local government participation in the management of PPP materials.

That local governments be given the right of first refusal for providing packaging and printed paper product stewardship services under the new PPP product stewardship program.
Environmental Impact

That the design and implementation of the PPP program focus on seeking efficiencies within the collection, transportation and processing of materials to minimize the carbon footprint of the program.

That the product stewardship program include measures and incentives for redesigning packaging, which ensures that the program moves up the pollution prevention hierarchy by minimizing the landfilling and/or incineration of collected program materials.

Funding

That local government compensation for their assistance in, or management of, the product stewardship program be based on a local government’s true operating costs.

That local government be compensated for the management of PPP materials that end up in local government waste streams, and that standardized and industry funded waste audits be conducted to help determine appropriate levels of compensation for such management.

That the product stewardship program be fully funded by industry, in which producers are responsible for all costs associated with the management of PPP materials including, but not limited to collection, transportation, processing, public outreach and education.

That local governments receive compensation for continued education and outreach activities following the implementation of the product stewardship program.

Service Provision

That rural and remote areas receive an equitable level of service as their urban counterparts under the PPP product stewardship program.

That existing service levels and quality of service be maintained or exceeded for those local governments that have established PPP programs in place.

That the implementation of the program seeks to provide a seamless transition for those local governments with established PPP programs, in order to minimize and/or prevent any disruptions to existing services, employment contracts, and community expectations.

Role of Local Government

That local governments be provided the option and opportunity to play an active role in the management of packaging and printed paper under the product stewardship program.
That the PPP program incorporate meaningful consultation opportunities in the design of the program as well as ongoing consultative mechanisms during the implementation of the program.

That local governments explore the creation of a local government product stewardship agency that would facilitate active engagement, and negotiation with, all product stewards on existing and new product stewardship programs.
From: Peter Cech  
Sent: Wednesday, August 15, 2012 8:39 AM  
To: Carrie Hightower; Esther Berube; Kris La Rose; Nicole Tuzi; Genevieve Tokgoz; Karen Storry; Ian Williamson; Christine Cummings; Lucy Duso; Carol Nicolls  
Cc: David Hocking; Dennis Ranahan; Andrew Marr; Craig Shishido  
Subject: Strathcona BIA Resource Park tour

Hello,

The Strathcona BIA has created a resource park where its members can divert what used to be treated as waste, creating local green jobs and valuable agricultural products. This presentation and tour would be of interest to anyone involved in waste diversion for small to medium sized businesses, especially where we need to capture organics.

The genesis of this resource park was the Business Zero Waste Challenge that the Strathcona BIA undertook in collaboration with Metro Vancouver.

The BIA is hosting a luncheon and a tour to promote the new resource park on Thursday, Sept. 20 from noon to 3:30. Early bird price to register is $30 until Aug. 30. The luncheon will take place at the Vancouver Ukrainian Hall, 805 E Pender. The resource park is located at 1245 E Hastings.

To register, go to [http://sbialuncheon.eventbrite.com/](http://sbialuncheon.eventbrite.com/)

Please forward this note to anyone you think would be interested in attending.

Thx

Peter Cech  
Communications Specialist  
Corporate Relations Department  
Metro Vancouver  
(W) 604.451.6043  
(C) 604.616.9496

Have you seen our free iPhone app [weRecycle](http://werecycle.com)?

Use weRecycle or our award-winning [Metro Vancouver Recycles](http://metrovancouver.ca) to find the most convenient locations to donate or recycle just about anything!

Please consider the environment before printing this note
From: Allen Langdon [mailto:alangdon@retailcouncil.org]  
Sent: Thursday, September 06, 2012 9:08 AM  
To: Allen Langdon  
Subject: Message to MMBC Stakeholders

On behalf of Multi-Material British Columbia (MMBC), I am writing to you regarding a recent development in the process for MMBC to develop a program plan for printed paper and packaging (PPP) under the province’s Recycling Regulation.

MMBC has been actively working on program plan development and while we have already made significant investment and progress towards developing what will be Canada’s first true EPR program for PPP, we have also encountered some unexpected and significant challenges. As a result, MMBC has submitted a formal request to the Ministry of Environment for an extension of the current Nov. 19th deadline for plan development.

While it is only the producers that are regulated, MMBC is aware that it is critical to have the participation and support of all key stakeholders, notably municipalities and the waste management industry that have long been providing BC residents with their recycling services. MMBC is committed to working with all of its partners to transition the current system to an EPR model. It is equally important for industry, the provincial government and impacted stakeholders that this program be managed in a transparent, inclusive and responsible manner. We will provide all stakeholders with further information after we have concluded our discussions with the Ministry of Environment.

It is our intention to make MMBC the stewardship agency of choice for all obligated producers and to develop a program model that can be applied to other provinces to help influence a more coordinated, harmonized approach to stewardship for PPP in Canada.

If you have any questions or require further information, please don’t hesitate to contact me either by e-mail at alangdon@retailcouncil.org or by phone at 604.633-3145.

Thanks,
Allen
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LOOK WHO’S SPEAKING AT THE LEADERS IN RETAIL BREAKFAST SERIES  
(September 27)  
Don’t miss Brian Hill, Founder & CEO, Aritzia in Vancouver.  
Register now and visit www.retailcouncil.org/events/partners/ for more details.