AGENDA

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT (GVS&DD)
REGULAR MEETING

Friday, February 25, 2011
9:00 a.m.
2nd Floor Boardroom
4330 Kingsway, Burnaby, BC

Board Members:
Chair, Director Lois Jackson, Delta
Vice Chair, Director Richard Walton, North Vancouver District
Director Malcolm Brodie, Richmond
Director Derek Corrigan, Burnaby
Director Ernie Daykin, Maple Ridge
Director Heather Deal, Vancouver
Director Sav Dhaliwal, Burnaby
Director Catherine Ferguson, White Rock
Director Charlie Fox, Langley Township
Director Pamela Goldsmith-Jones, West Vancouver
Director Maria Harris, Electoral Area A
Director Linda Hepner, Surrey
Director Marvin Hunt, Surrey
Director Colleen Jordan, Burnaby
Director Raymond Louie, Vancouver

Please advise Kelly Birks at (604) 432-6250 if you are unable to attend.

* Non-voting member
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NOTICE OF REGULAR MEETING
GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT (GVS&DD)
BOARD OF DIRECTORS

9:00 a.m.
Friday, February 25, 2011
2nd Floor Boardroom, 4330 Kingsway, Burnaby, British Columbia.

A G E N D A

A. ADOPTION OF THE AGENDA

1. February 25, 2011 Regular Meeting Agenda
   Staff Recommendation:
   That the Board adopt the agenda for its regular meeting scheduled for February 25, 2011 as circulated.

B. ADOPTION OF THE MINUTES

1. January 14, 2011 Regular Meeting Minutes
   Staff Recommendation:
   That the Board adopt the minutes for its regular meeting held January 14, 2011 as circulated.

2. January 28, 2011 Regular Meeting Minutes
   Staff Recommendation:
   That the Board adopt the minutes for its regular meeting held January 28, 2011 as circulated.

C. DELEGATIONS
   No items presented.

D. INVITED PRESENTATIONS
   No items presented.

E. CONSENT AGENDA
   Note: Directors may adopt in one motion all recommendations appearing on the Consent Agenda or, prior to the vote, request an item be removed from the Consent Agenda for debate or discussion, voting in opposition to a recommendation, or declaring a conflict of interest with an item.
1. WASTE MANAGEMENT REPORTS

1.1 Zero Waste Challenge Strategy
Waste Management Committee Recommendation:

1.2 North Shore Transfer Station Organic Waste Management
Waste Management Committee Recommendation:
That the Board approve the expenditure of up to $400,000 for Metro Vancouver to build the infrastructure for food waste handling at the North Shore Transfer Station.

2. OTHER REPORTS

2.1 Delegations’ Executive Summaries Presented at Committee – February 2011
Staff Recommendation:
That the Board receive for information the report dated February 15, 2011 titled “Delegations’ Executive Summaries Presented at Committee – February 2011”.

F. ITEMS REMOVED FROM THE CONSENT AGENDA
No items presented.

G. REPORTS FROM COMMITTEE OR STAFF NOT INCLUDED IN CONSENT AGENDA
No items presented.

H. MOTIONS FOR WHICH NOTICE HAS BEEN GIVEN
No items presented.

I. OTHER BUSINESS

1. Zero Waste Challenge: Christmas Campaign
Note: This item is being presented to the Board for information.

J. RESOLUTION TO CLOSE MEETING
Note: The Board must state by resolution the basis under section 90 of the Community Charter on which the meeting is being closed. If a member wishes to add an item the basis must be included below.

Staff Recommendation:
That the Board close its regular meeting scheduled for February 25, 2011 pursuant to the Community Charter provisions, Section 90 (1)(e) as follows:
“90 (1) A part of a board meeting may be closed to the public if the subject matter being considered relates to or is one or more of the following:
(e) the acquisition, disposition or expropriation of land or improvements, if the board or committee considers that disclosure could reasonably be expected to harm the interests of the regional district.”

K. ADJOURNMENT
Staff Recommendation:
That the Board conclude its regular meeting of February 25, 2011.
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GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
BOARD OF DIRECTORS

Minutes of the Regular Meeting of the Greater Vancouver Sewerage and Drainage District (GVS&DD) Board of Directors held at 9:11 a.m. on Friday, January 14, 2011 in the 2nd Floor Boardroom, 4330 Kingsway, Burnaby, British Columbia.

MEMBERS PRESENT:
Chair, Director Lois Jackson, Delta
Vice Chair, Director Richard Walton, North Vancouver District
Director Malcolm Brodie, Richmond
Director Derek Corrigan, Burnaby
Director Ernie Daykin, Maple Ridge
Director Sav Dhaliwal, Burnaby
Director Catherine Ferguson, White Rock
Director Pamela Goldsmith-Jones, West Vancouver
Director Maria Harris, Electoral Area A
Director Linda Hepner, Surrey
Director Marvin Hunt, Surrey
Alternate Director Dan Johnston, Burnaby for Colleen Jordan
Director Raymond Louie, Vancouver
Director Gayle Martin, Langley City
Director Geoff Meggs, Vancouver
Director Greg Moore, Port Coquitlam
Director Darrell Mussatto, North Vancouver City
Director Andrea Reimer, Vancouver
Director Gregor Robertson, Vancouver
Director Lou Sekora, Coquitlam
Director Richard Stewart, Coquitlam
Director Harold Steves, Richmond
Director Joe Trasolini, Port Moody
Director Judy Villeneuve, Surrey
Director Wayne Wright, New Westminster
Commissioner Johnny Carline *

MEMBERS ABSENT:
Director Heather Deal, Vancouver
Director Charlie Fox, Langley Township
Director Tim Stevenson, Vancouver
Director Don MacLean, Pitt Meadows
Director Dianne Watts, Surrey

STAFF PRESENT:
Paulette Vetleson, Corporate Secretary, Corporate Secretary’s Department
Klara Kutakova, Assistant to Regional Committees, Corporate Secretary’s Department

A. ADOPTION OF THE AGENDA

1. January 14, 2011 Regular Meeting Agenda

It was MOVED and SECONDED
That the Board adopt the agenda for its regular meeting scheduled for January 14, 2011 as circulated.

CARRIED
B. ADOPTION OF THE MINUTES

1. November 26, 2010 Regular Meeting Minutes

It was MOVED and SECONDED
That the Board adopt the minutes for its regular meeting held
November 26, 2010 as circulated.

CARRIED

C. DELEGATIONS
No items presented.

D. INVITED PRESENTATIONS
No items presented.

E. CONSENT AGENDA

It was MOVED and SECONDED
That the Board adopt the recommendation contained in the following item presented
in the January 14, 2011 GVS&DD Board Consent Agenda:

1.1 Infrastructure Stimulus Fund Extension – Annacis Wastewater Centre.

CARRIED

The item and recommendation referred to above is as follows:

1.1 Infrastructure Stimulus Fund Extension – Annacis Wastewater Centre

Report dated January 5, 2011 from Jeff Chan, Senior Engineer, Engineering
and Construction Department, and Laurie Fretz, Sustainability Academy
Division Manager, Corporate Relations Department, seeking an extension of
the deadline under the Infrastructure Stimulus Fund for the completion of the
Annacis Wastewater Centre.

Recommendation
That:
WHEREAS the federal and provincial governments will make a one-time
extension of the deadline for funding of projects under the Infrastructure
Stimulus Fund from March 31, 2011 to October 31, 2011;
AND WHEREAS all funding from the Government of Canada and the
Province will cease after October 31, 2011;
AND WHEREAS the Greater Vancouver Sewerage & Drainage District has
asked the provincial government for an extension to October 31, 2011 for the
following project(s):
● Annacis Wastewater Centre

<table>
<thead>
<tr>
<th>Project number</th>
<th>Project title</th>
<th>Total eligible cost</th>
<th>Federal contribution</th>
<th>Provincial contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>15030</td>
<td>Annacis Island Wastewater Treatment</td>
<td>$9,000,000</td>
<td>$3,000,000</td>
<td>$3,000,000</td>
</tr>
</tbody>
</table>
THEREFORE BE IT RESOLVED THAT the Greater Vancouver Sewerage & Drainage District attests that it will continue to contribute its share of the required funding for the aforementioned project(s);
AND BE IT FURTHER RESOLVED THAT actual claims for all eligible costs incurred by March 31, 2011, for the aforementioned project(s) must be and will be submitted no later than April 15, 2011 to the Province;
AND BE IT FURTHER RESOLVED THAT Greater Vancouver Sewerage & Drainage District will ensure that the project(s) will be completed.

Adopted on Consent

F. ITEMS REMOVED FROM THE CONSENT AGENDA
No items presented.

G. REPORTS FROM COMMITTEE OR STAFF NOT INCLUDED IN CONSENT AGENDA
No items presented.

H. MOTIONS FOR WHICH NOTICE HAS BEEN GIVEN
No items presented.

I. OTHER BUSINESS
No items presented.

J. RESOLUTION TO CLOSE MEETING
No items presented.

K. ADJOURNMENT

It was MOVED and SECONDED
That the Board conclude its regular meeting of January 14, 2011.

CARRIED
(Time: 9:12 a.m.)

CERTIFIED CORRECT

Paulette A. Vetleson, Corporate Secretary
Lois E. Jackson, Chair
Minutes of the Regular Meeting of the Greater Vancouver Sewerage and Drainage District (GVS&DD) Board of Directors held at 9:07 a.m. on Friday, January 28, 2011 in the 2nd Floor Boardroom, 4330 Kingsway, Burnaby, British Columbia.

MEMBERS PRESENT:
Chair, Director Lois Jackson, Delta
Vice Chair, Director Richard Walton, North Vancouver District
Director Malcolm Brodie, Richmond
Director Derek Corrigan, Burnaby (arrived at 9:15 a.m.)
Director Ernie Daykin, Maple Ridge
Director Heather Deal, Vancouver (arrived at 9:10 a.m.; departed at 9:54 a.m.)
Director Sav Dhaliwal, Burnaby
Director Catherine Ferguson, White Rock
Director Charlie Fox, Langley Township
Director Pamela Goldsmith-Jones, West Vancouver (departed at 9:54 a.m.)
Director Maria Harris, Electoral Area A
Director Linda Hepner, Surrey
Director Marvin Hunt, Surrey
Alternate Director Dan Johnston, Burnaby for Colleen Jordan
Director Raymond Louie, Vancouver
Director Don MacLean, Pitt Meadows
Director Gayle Martin, Langley City (arrived at 9:09 a.m.)
Director Greg Meggs, Vancouver
Director Greg Moore, Port Coquitlam
Director Darrell Mussatto, North Vancouver City
Director Andrea Reimer, Vancouver (arrived at 9:11 a.m.)
Director Lou Sekora, Coquitlam
Director Tim Stevenson, Coquitlam
Director Harold Steves, Richmond
Director Richard Stewart, Coquitlam
Director Joe Trasolini, Port Moody
Director Dianne Watts, Surrey (departed at 9:54)
Alternate Director Barinder Rasode, Surrey for Judy Villeneuve
Director Wayne Wright, New Westminster
Commissioner Johnny Carline*

MEMBERS ABSENT:
None

STAFF PRESENT:
Paulette Vetleson, Corporate Secretary, Corporate Secretary’s Department
Janis Olsen, Assistant to Regional Committees, Corporate Secretary’s Department

A. ADOPTION OF THE AGENDA

1. January 28, 2011 Regular Meeting Agenda

   It was MOVED and SECONDED
   That the Board adopt the agenda for its regular meeting scheduled for January 28, 2011 as circulated.

   CARRIED

B. ADOPTION OF THE MINUTES
No items presented.

* Non-voting member.
C. DELEGATIONS
No items presented.

D. INVITED PRESENTATIONS

1. Dr. Donald S. Mavinic, Professor, UBC Civil Engineering
Dr. Donald Mavinic, Professor, University of British Columbia, provided members with a presentation regarding Global Phosphorus Depletion.

Presentation material titled, “A Green and Sustainable Solution to Global Phosphorus Depletion”, is retained with the January 28, 2011 Greater Vancouver Sewerage and Drainage District agenda.

Members were provided with an overview of the global implications of phosphorus depletion and the relevant research currently being undertaken in North America.

9:09 a.m.
Director Martin arrived at the meeting.
9:10 a.m.
Director Deal arrived at the meeting.
9:11 a.m.
Director Robertson arrived at the meeting.
9:15 a.m.
Director Corrigan arrived at the meeting.

Members were informed that Dr. Mavinic would be taking his presentation to Ottawa in February 2011 at a meeting with the federal government and would present the following recommendations:

• mandate a national policy for major biological waste treatment plants including nutrient removal and recovery; and
• implement a Canadian Council of Ministers of the Environment (CCME) directive to begin addressing this new paradigm.

Regarding the phosphorus depletion presentation, members commented on the following:

• the relationship between global food prices and phosphorus depletion
• phosphorus extraction and nutrient capture from bio-solid sludge
• past and future consideration of economic modeling of struvite within Metro Vancouver

Request of Staff
Staff was requested to post the January 28, 2011 presentation by Dr. Mavinic, Professor, University of British Columbia, titled “A Green and Sustainable Solution to Global Phosphorus Depletion” to the Metro Vancouver website.
Regarding questions arising from the phosphorus depletion presentation, members were advised that:

- the Portland reactor is a success model with significant savings including sludge and energy production costs and Greenhouse Gas Credits
- struvite is being applied in streams as a temporary means to introduce necessary nutrients needed due to low or non-existent salmon returns

A member suggested that the Metro Vancouver Board provide Dr. Mavinic with a letter of support for his phosphorus research to accompany him on his upcoming trip to Ottawa.

**It was MOVED and SECONDED**
That the Board:

a) write a letter supporting the work and recommendations of Dr. Donald Mavinic, Professor, University of British Columbia, regarding his research on phosphorus depletion, to accompany him on his upcoming trip to Ottawa, and

b) refer a copy of the letter to the Agriculture Committee for discussion. **CARRIED**

9:54 a.m.
Directors Deal, Goldsmith-Jones and Wright departed the meeting.

E. **CONSENT AGENDA**
   No items presented.

F. **ITEMS REMOVED FROM THE CONSENT AGENDA**

G. **REPORTS FROM COMMITTEE OR STAFF NOT INCLUDED IN CONSENT AGENDA**
   No items presented.

H. **MOTIONS FOR WHICH NOTICE HAS BEEN GIVEN**
   No items presented.

I. **OTHER BUSINESS**
   No items presented.

J. **RESOLUTION TO CLOSE MEETING**
   No items presented.
K. ADJOURNMENT

It was MOVED and SECONDED That the Board conclude its regular meeting of January 28, 2011.

CARRIED
(Time: 9:55 a.m.)

CERTIFIED CORRECT

______________________________  ______________________________
Paulette A. Vetleson, Corporate Secretary  Lois E. Jackson, Chair
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To: Waste Management Committee

From: Dan Hajduković, Sustainable Business Services Division Manager
      Ken Carrusca, Integrated Planning Division Manager
      Dennis Ranahan, Senior Engineer
      David Hocking, Corporate Communications Division Manager

Date: February 10, 2011

Subject: Zero Waste Challenge Strategy

Recommendation:


1. PURPOSE


2. CONTEXT

Metro Vancouver’s Integrated Solid Waste and Resource Management Plan has a commitment to Minimize Waste Generation and Maximize Reuse, Recycling and Material Recovery (goals one and two). It also establishes a set of targets to be achieved by the region:

- A minimum of 70% waste diversion by 2015
- An aspirational target of 80% diversion by 2020
- A minimum of 10% reduction in per capita waste generation by 2020

The attached Zero Waste Challenge Strategy (Attachment) presents a series of initiatives and actions in support of goals one and two. In particular, the strategy focuses on sectors and materials with immediate opportunity for change and success in these priority areas:

- Organic materials
- Multi-family housing complexes
- Construction and demolition industry
- Businesses and Institutions

Additionally, in order to begin the more fundamental changes needed to achieve the 2020 targets of a 10% per capita reduction in waste generation and an 80% diversion rate, the strategy also includes a set of initiatives aimed to:

- Influence product design

Four basic tools or levers are identified to reduce waste and influence recycling rates:
• Imposing new regulations that require materials to be diverted or recycled
• Providing the infrastructure to divert, collect and process recyclable material
• Setting differential pricing that provides incentives for the desired behaviours
• Enhancing communications programs to encourage the desired behaviour changes

Strategic communications are integrated throughout the strategy in order to help facilitate the necessary changes. They include, but are not limited to: awareness and educational information; community and business outreach and social marketing and behavioural change initiatives.

3. ALTERNATIVES

None presented.

4. CONCLUSION


ATTACHMENT:
Metro Vancouver Zero Waste Challenge Strategy

(4852710)
Contents

A. Introduction
B. Key Considerations of the Strategy
C. Strategic Priorities
   1. Organics
   2. Multi-Family Sector
   3. Construction and Demolition Waste
   4. Business and Institutions
   5. Influencing Product Design
D. Conclusions
A. Introduction

Metro Vancouver’s Integrated Solid Waste and Resource Management Plan has a commitment to Minimize Waste Generation (Goal 1) and Maximize Reuse, Recycling and Material Recovery (Goal 2). It also establishes a set of targets to be achieved by the region:

- a minimum of 70% waste diversion by 2015
- an aspirational target of 80% diversion by 2020
- a minimum of 10% reduction in per capita waste generation by 2020

The Zero Waste Challenge Strategy builds from the Management Plan by presenting a series of priority initiatives and actions. In particular, the strategy focuses on sectors and materials with immediate opportunity for change and success.

This strategy will evolve over time as detailed plans for implementation are developed and decision points are identified.

B. Key Considerations of the Strategy

Solid waste management is a complex process. It involves a web of stakeholders, materials, residential and business sectors, and regulatory and voluntary tools (levers), all affecting the outcome of waste diversion initiatives.

Waste and recyclables are generated from four sectors: single-family homes, multi-family complexes, businesses and institutions, and the construction and demolition industry. The main recyclable materials targeted for diversion from the waste stream are: organics, paper, wood, and plastic.

Four basic tools or levers can be utilized to reduce waste and influence recycling rates.

- Imposing new regulations that require materials to be diverted or recycled
- Providing the infrastructure to divert, collect and process recyclable material
- Setting differential pricing that provides incentives for the desired behaviours
- Enhancing communications programs to encourage the desired behaviour changes

Strategic communications are assumed throughout this strategy in order to help facilitate the necessary changes. Educational and outreach programs will be vitally important in providing information on new practices and programs, working at the community level to remove barriers to change and reinforcing new habits, and gradually building a public appetite for the more fundamental changes needed to approach higher waste reduction and diversion rates. However, these programs alone will not deliver the desired objectives. Regulations, infrastructure and pricing strategies are necessary to achieve the targets, particularly in the short term.

The strategy implementation will have cost implications, particularly in the short term. However, greater spending on reduction and recycling initiatives, as well as private and public investments in infrastructure, will be offset by lower overall costs for disposal.
**Priority Sectors**

The four sectors (single family homes, multi-family homes, businesses and institutions, construction and demolition) differ in terms of their current and potential diversion rates, as well as the composition of the recyclable materials and the tactics needed to divert those materials.

Three sectors are considered priorities and are targeted for action in this strategy:
- Multi-family (lowest recycling rates at 16%).
- Businesses and institutions (waste contains the greatest volume of recyclable materials)
- Construction and demolition sector (recycles more than three quarters of its waste, but still disposes large quantities of wood, a largely homogenous and valuable material that can be diverted from disposal for reuse and recycling)

The strategy addresses the major approaches needed within each priority sector to reach the targeted reduction and diversion rates.

Single family homes are not targeted explicitly because significant actions are already underway in this sector.

**Waste Quantities (tonnes/year) and Diversion Rates by Sector**

<table>
<thead>
<tr>
<th></th>
<th>Multi-Family</th>
<th>Single Family Homes</th>
<th>Business &amp; Institutions</th>
<th>Construction &amp; Demolition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Generation</td>
<td>260,000</td>
<td>800,000</td>
<td>1,200,000</td>
<td>1,250,000</td>
</tr>
<tr>
<td>Diversion Rate</td>
<td>16%</td>
<td>46%</td>
<td>44%</td>
<td>76%</td>
</tr>
<tr>
<td>Quantity Recycled</td>
<td>40,000</td>
<td>370,000</td>
<td>530,000</td>
<td>950,000</td>
</tr>
<tr>
<td>Quantity Disposed</td>
<td>220,000</td>
<td>430,000</td>
<td>670,000</td>
<td>300,000</td>
</tr>
</tbody>
</table>

**Targeted Materials**

The region’s existing waste stream contains many materials that can be recovered for better use. Currently 40% of the materials that are disposed as garbage are organics. These materials – largely food waste, soiled paper and yard waste – could be recovered and processed into useful products, such as compost or biofuels, instead of creating methane in landfills. To meet the 70% diversion target, about 265,000 tonnes of organics will need to be recycled annually by 2015, in addition to those that are currently being composted. These materials alone represent almost half the quantity that is needed to achieve the 70% diversion target. A comprehensive approach to recycle organic materials is therefore an important element of the Zero Waste Challenge Strategy.

About 15% of the waste stream is wood. To meet the 70% diversion target, about 155,000 tonnes of wood will need to be recycled annually by 2015. This material is addressed as part of the Construction and Demolition sector outlined in the strategic priorities below.

**Manufacturing and Distribution Considerations**

In the longer term, to reach the more aggressive reduction and diversion targets set for 2020, the generation of waste needs to be reduced at its source – the manufacturing and distribution of the products used by society. Currently, products are designed with consumers in mind, with little consideration for end-of-life disposition. To reduce waste and facilitate more effective and
economic recycling, products will need to be redesigned to meet cradle-to-cradle goals, where at the end of their useful life they can be efficiently reused, repaired or remanufactured into new products. While these processes are mostly outside of the jurisdiction of local governments, the importance of product design is an important component of the Zero Waste Challenge Strategy.

C. Strategic Priorities

The Management Plan identified a wide range of actions to meet the waste diversion targets. This strategy focuses on the priority actions needed to achieve the 70% diversion target by 2015. The priority areas are as follows:

1. Organic materials
2. Multi-family housing complexes
3. Construction and demolition industry
4. Businesses and Institutions

Additionally, in order to begin the more fundamental changes needed to achieve the 2020 targets of a 10% per capita reduction in waste generation and an 80% diversion rate, the strategy also includes a set of initiatives aimed to:

5. Influence product design

1. Organics

Forty percent of the materials that are disposed as garbage are organics. These materials – such as food scraps, yard trimmings, and soiled paper – could be recovered and processed into useful products, such as compost or biofuels, instead of creating methane in landfills. To meet the 70% diversion target, about 265,000 tonnes of organics will need to be recycled annually by 2015, in addition to those that are currently being composted.

Recycling of organics from single-family homes is largely established. Almost all member municipalities already have backyard-composting programs, and have programs to collect yard trimmings at depots and at the curb. Many municipalities collect food scraps together with the yard trimmings from single-family residences. The remaining municipalities are in the process of implementing the necessary infrastructure to collect single-family food scraps. Processing capacity for handling this single-family material has been established in the region.

Very few multi-family homes and businesses are recycling organics. The major barriers are a lack of space, limited access available for recycling-collection vehicles and tenants, and a lack of processing facilities that can accept large amounts of food scraps.

Businesses are the largest generators of organic wastes and food scraps are the majority of the organic materials they generate. The region will need additional composting and biofuel facilities in order to process the increased amount of organic waste. In particular, new processing facilities will need to manage business food scraps which will be the largest part of organics diverted from disposal in the future.
**Priority Actions**

1. **Implement a disposal ban on food scraps and soiled papers**

   (a) Single-family residents

   Metro Vancouver will ban the disposal of organics from single-family homes when all member municipalities have single-family organics collection in place. This is expected to occur in the next 12 to 18 months.

   The cost to comply with a ban will depend on the transition from a municipality’s existing method and frequency of collecting yard trimmings to the collection of all organics. Food scraps collection uses the same containers and vehicles that are already in place for collecting yard trimmings, and the cost per tonne to process mixed organics at the regional composting facility is much lower than the cost per tonne to dispose of garbage. As food scraps are increasingly diverted from garbage, municipalities will be able to further reduce costs by switching garbage to a bi-weekly collection.

   (b) Multi-family residents and businesses

   Metro Vancouver will announce a ban on commercial and multi-family organics, to take effect by 2015. Private companies have been slow in investing in new processing facilities primarily because of the lack of an assured supply of feedstock. Other reasons include the regulatory environment, technology, and siting. This announcement will provide investors with the desired assurance of future feedstock, and provide advance notice to the business sector so that they can prepare infrastructure to separately collect, deliver and process their organic material.

   (c) Enforcement of disposal bans

   At waste disposal sites, Metro Vancouver will strengthen the enforcement of disposal bans using methods such as increasing the frequency of disposal ban inspections, increasing fines for infractions, and barring repeat offenders from accessing regional waste facilities.

   To ensure effectiveness of the disposal bans, the waste generators must be affected by the enforcement. This is achieved by enforcing bans not only at the disposal sites, but also at the source, through ticketing of violators by municipalities, or by using hauler licenses or franchised contracts to require haulers to inspect and refuse loads that are in violation of bans.

2. **Mandate the separation and collection of organics from multi-family homes and businesses**

   (a) Mandating space and access for recycling organics

   Metro Vancouver member municipalities have the legal authority to enact bylaws requiring sufficient space for recycling organics in multi-family and commercial buildings.

   Municipalities and key stakeholders have developed a sample municipal bylaw and specifications for new building construction and major renovations which municipalities can customize and implement. Municipalities will begin implementing their municipal bylaws within 2011.
For existing buildings, Metro Vancouver will work with stakeholders to develop a sample municipal bylaw and performance specifications for multi-family and commercial buildings. Existing buildings will have options such as reallocating existing spaces currently used for garbage collection or parking, increasing the frequency of waste removal service, collecting organics from within tenant suites, managing organics through on-site composting/digestion, or arranging with nearby buildings to share a neighbourhood collecting/processing facility. This bylaw will take about a year to develop.

(b) Mandating organics collection and recycling

Metro Vancouver will add organic waste to the list of banned materials when the organics processing capacity is established.

Municipalities will in turn need to enact bylaws that require businesses and multi-family residences to collect organics separately and transport them to a processing facility for recycling, or alternatively, to manage organics on-site.

Metro Vancouver will work with stakeholders to develop an appropriate sample municipal bylaw.

In the event that further regulatory and pricing incentives are still needed, a specific requirement for the collection and transportation of organics could be included in hauler contracts.

The annual business licence renewal process will require existing businesses to prove that adequate recycling infrastructure or appropriate collection service is in place for organics and other recyclables by 2013.

To a degree, municipalities will be able to enforce these new bylaws using existing bylaw enforcement staff. However, there will be an incremental increase in the municipal enforcement costs.

3. Ensure that appropriate infrastructure for processing organics is established

Existing organics processing facilities in the region are a mix of private and publicly-owned/contracted facilities. Metro Vancouver has contracted for a regional composting facility owned and operated by Fraser Richmond Soil and Fibre, the City of Vancouver operates its own yard trimmings composting site, and a few private companies also provide composting services to the region. Several private companies are also actively building or planning to build new composting and biofuel facilities within Metro Vancouver.

Organics processing facilities can produce compost or biofuels, and it is best to have both types of facilities serving the region. Biofuel production has a better future market potential, and is better suited for pure food scraps of the type generated by businesses. Composting is better suited for pure yard trimmings and is still required for processing the residues from biofuel production.

Metro Vancouver is developing a regional framework for organics processing facilities that will provide greater detail on criteria and a proposed business model for establishing future capacity.
4. Ensure that the price of processing organics is significantly lower than disposal

There will be a cost for most businesses and multi-family residences to collect organics separately from their garbage and in particular a cost to transport them to a processing facility. However, once materials are received at an organics processing facility, the tipping fee will be significantly lower than the fee charged at waste disposal facilities (currently $97 per tonne).

A strong differential between the garbage and organics tipping fee is a significant driver. It will result in an overall saving for many businesses, like restaurants, food processors, and supermarkets for which a large part of their waste is food scraps, as well as providing processing facilities with additional assurance of future supply of feedstock.

Other Actions

- Engaging the food industry to modify products and marketing so as to reduce over purchasing and other habits that generate food waste by vendors and consumers.

- The largest fraction of the multi-family waste stream is food, of which several studies in large cities have found 30%-40% is “over purchased” and thrown away without ever being used. The UK’s Waste and Resources Action Programme (WRAP) implemented a successful "Love Food, Hate Waste" campaign that encouraged the food industry to modify products, packaging, and storage to reduce food waste generation. Metro Vancouver will work with major food processors and retailers to undertake similar initiatives.

- Local government may provide equipment, training, and operational support for composting in or near multi-family complexes.

2. Multi-Family Sector

The multi-family sector has a diversion rate of only 16%, compared to about 55% for the region as a whole. Furthermore, as the region densifies, the majority of the population will live in multi-family households.

Multi-family household recycling has unique challenges to overcome. Residents in multi-family complexes share garbage bins, which reduces the incentives for individual residents to divert wastes. This sharing also provides anonymity to those who choose not to recycle. In addition, many multi-family complexes have limited space for adding containers to collect recyclables or organics, and limited access for recycling collection vehicles.

Priority Actions

1. Mandate sufficient and accessible space for recyclable materials and organics at multi-family complexes

A major barrier to increased recycling from multi-family homes and businesses is a lack of space assigned for recycling and the limited access available to recycling collection vehicles and tenants.

For new buildings and major renovations, the Management Plan calls for municipal bylaws to set minimum standards for space and access for recycling. Metro Vancouver, member
municipalities and key stakeholders have already developed a sample municipal bylaw and specifications, which municipalities can customize and implement. Member municipalities will begin implementing their municipal bylaws by 2012.

For existing buildings, Metro Vancouver will work with stakeholders to develop a sample municipal bylaw template and performance specifications for multi-family and commercial buildings. To meet the recycling performance specifications, existing buildings will have options such as reallocating existing spaces currently used for garbage collection or parking to collect organics, increasing the frequency of waste removal service, collecting recyclables from within tenant suites, managing organics through on-site composting/digestion, or sharing facilities with nearby buildings. Municipalities may also consider allocating public space for these purposes.

2. Mandate the separation and collection of organics from multi-family homes

Metro Vancouver will mandate recycling of all banned materials, and will add organic waste to the list of banned materials when the organics processing capacity is established. Mandatory organics recycling bylaws will coincide with the start of the regional disposal ban on organics.

Municipalities will need to enact bylaws that require multi-family residences to have organics collected separately and transported to a processing facility, or alternatively, to be managed on-site. This bylaw will work in unison with the municipal bylaws that establish minimum requirements for recycling space and access, as well as interim performance specifications.

In the event that further regulatory and pricing incentives are still needed, a specific requirement for the collection and transportation of organics could be included in hauler contracts.

Metro Vancouver will work with stakeholders to develop an appropriate municipal bylaw template that will take effect at the same time as the regional disposal ban on organics (2015).

3. Increase the effectiveness of material disposal ban enforcement

Despite the fact that materials such as paper, cardboard and plastics and other “blue box” materials are already banned from disposal, they continue to be disposed as waste.

Metro Vancouver will strengthen the enforcement of disposal bans at disposal sites, using methods such as increasing the frequency of disposal ban inspections, increasing fines for infractions, and barring repeat offenders from accessing regional waste facilities.

To ensure effectiveness of the disposal bans, the waste generators must be affected by the enforcement. This is achieved by enforcing bans not only at the disposal sites, but also at the source, through ticketing of violators by municipalities, or by using hauler licenses or franchised contracts to require haulers to inspect and refuse loads that are in violation of bans.

Other Actions

• New waste reduction regulations from the provincial and federal levels, such as opt-in programs for unsolicited mail and industry stewardship programs.
3. Construction and Demolition Waste

Construction, renovation and demolition activities are the source of over 1.3 million tonnes of waste materials generated in Metro Vancouver each year. Waste from these activities consists of, in order of magnitude: wood, concrete, carpet, asphalt roofing and plastic. Because the material is relatively homogeneous compared with typical mixed solid waste, the recovery and recycling of useable materials is well developed through private sector initiatives. Nearly 900,000 tonnes of the waste generated annually is recycled – a diversion rate of almost 70%. An additional 155,000 tonnes annually of construction and demolition materials – primarily wood – has been targeted to reach the 2015 diversion goal identified in the Management Plan.

Reuse and recycling of clean wood has been very successful within the private sector due to the high commodity value associated with wood. This strategy builds upon this success by increasing the supply of wood for reuse and recycling by the private sector. This will be achieved through increasing the processing capacity for large quantities of mixed materials, and establishing convenient collection facilities for small loads of source separated wood. Demand for recycled materials is well established at market prices well below the cost of disposal.

Increased processing capacity, provided by the private sector, will be encouraged through mandatory waste reduction and recycling on construction and demolition sites. Convenient collection facilities for small loads will be provided by the public sector at transfer stations or recycling depots, by the private sector at building supply stores, or a combination of these. Use of these facilities will be supported through expansion of material disposal bans to include wood.

Priority Actions

1. Mandate waste reduction and recycling on construction and demolition projects

Mandatory recycling at construction and demolition jobsites will be imposed through revisions to municipal bylaws. These revisions will require waste diversion requirements to be included in demolition and building permits issued by municipalities. Applicants for demolition and building permits will be required to provide estimates of the quantity and types of material generated and identify where it will go. Deposits will be required based upon the size or value of the project, with the deposit returned if the prescribed diversion rate has been met.

A recommended bylaw has been developed by Metro Vancouver in consultation with member municipalities and industry players. The bylaw will be provided to member municipalities in 2011 with the expectation that a policy be adopted and implemented by all municipalities.

Permitting and enforcement may be accommodated by existing municipal staff with minimal additional cost depending upon level of enforcement required. Any additional cost incurred by this program transferred to permit applicants may be recovered through cost savings of recycling programs – which will vary based on market value of recyclable materials.

2. Provide depots for the convenient collection of wood

To provide convenient collection infrastructure for small loads of wood, local government will establish additional facilities to collect source separated wood by 2015. This can be accomplished directly through separated areas at existing transfer stations, municipal recycling
depots, or potentially at new eco-centres. They may also be provided indirectly by working with building material retailers to provide depots for wood. Use of wood recycling facilities will be supported by new material disposal bans introduced for wood.

3. Ban wood waste from disposal

The Management Plan outlines specific actions targeting the reduction of wood waste, including the implementation of a ban on the disposal of wood by 2015. Notification of the intention to implement the ban and the associated schedule will encourage greater waste reduction, reuse, recycling and the expansion of existing markets and the development of new uses. This action will complement mandatory recycling regulations to ensure generators utilize the recycling programs that are established as part of these regulations.

Material disposal bans are enforced at regional disposal facilities under the authority of Metro Vancouver’s Tipping Fee Bylaw. Materials banned from disposal have convenient alternatives for recycling – in the case of wood, convenient alternatives will be provided either at transfer stations, or at nearby recycling depots. At private sector facilities, material disposal bans are enforced through provisions in Metro Vancouver’s solid waste regulatory bylaw and associated facility licences.

Changes in waste composition and quantities will be closely monitored for the effectiveness of bans. Disposal bans may result in the unintended consequences of waste export and illegal dumping. The magnitude of these actions will be monitored, with additional preventative measures developed and implemented as necessary.

Material disposal bans for other materials will be announced once infrastructure and material pricing allow for successful implementation.

Other Actions

Other actions will be implemented to encourage market development and behaviour change. The short term benefits are not easily quantified, but are essential elements to achieve long term waste reduction and alignment of actions with the highest and best use consistent with the waste hierarchy. These other actions include:

- Metro Vancouver will provide financial incentives to recycle through license fees under its solid waste regulatory bylaw.
- Municipalities can provide incentives for “deconstruction” rather than demolition of buildings and other structures. Incentives could include permit fast tracking and lower permit fees.
- Metro Vancouver will advocate that the provincial government allow the use of salvaged lumber through revisions to the BC Building Code.
- Municipalities will encourage reuse through mechanisms such as green procurement practices and municipal green building programs.
- Local governments will advocate for minimum recycled content legislation to encourage market development and demand for recycled materials. This may offset federal or provincial subsidies or economic incentives for virgin resource industries that undermine the use of recycled materials.
4. Businesses and Institutions

Businesses and institutions generate the greatest volume of recyclable materials, including organics, paper, cardboard, and plastic materials, contributing about 40%, or 1,200,000 tonnes annually, of the overall waste generated in the region. The current diversion rate is 44%. Key sub-sectors include hospitality (restaurants, hotels and events), schools and healthcare, offices, manufacturing, warehousing and retail.

Changing solid waste management practices is often a low priority compared to core business or institutional goals. Other barriers include a lack of space and the limited access available for recycling collection vehicles and tenants. Also, current recycling services available to business and institutions have not evolved sufficiently to provide efficient, cost-effective service.

Priority Actions

1. Mandate the separation and collection of recyclable materials and organics at businesses and institutions

(a) Mandating space and access for recycling collection

The Management Plan calls for municipal bylaws to set minimum standards for space and access for recycling in new construction and major renovations of multi-family and commercial buildings.

For new buildings and major renovations, member municipalities will amend the development permit process that requires adequate infrastructure for recycling and organics collection by 2012. Metro Vancouver, member municipalities and key stakeholders have already developed a sample municipal bylaw and specifications for new building construction and major renovations which municipalities can customize and implement.

For existing buildings, Metro Vancouver will work with stakeholders to develop sample performance specifications for commercial buildings. To meet the recycling performance specifications, existing buildings will have options such as: reallocating existing spaces currently used for garbage collection or parking to collect recyclables, increasing the frequency of waste removal service, collecting recyclables from within tenant suites, managing organics through on-site composting/digestion, or sharing facilities with nearby buildings. Municipalities may also consider allocating public space for these purposes.

(b) Mandating collection recyclables and organics

Metro Vancouver will mandate recycling of all banned materials and will add organic waste to the list of banned materials when the organics processing capacity is established.

Municipalities will in turn need to enact bylaws that require businesses and multi-family residences to collect organics separately and transport them to a processing facility for recycling, or alternatively, to manage organics on-site. All municipalities need to enact their respective recycling bylaws by 2012, or there will be inconsistencies throughout the region. A bylaw template is being drafted by Metro Vancouver staff.

In the event that further regulatory and pricing incentives are still needed, a specific requirement for the collection and transportation of organics could be included in hauler contracts.
(c) Enforcement of mandatory recycling requirements

To ensure effectiveness of the mandatory recycling, the waste generators must be affected by the enforcement. This is achieved by enforcing mandatory recycling bylaws at the source, through ticketing of violators by municipalities, or by using hauler licenses or franchised contracts to require haulers to inspect and refuse loads that are in violation of bans.

Also, the annual business licence renewal process will require existing businesses to prove that adequate recycling infrastructure or appropriate collection service is in place for organics and other recyclables by 2013.

To a degree, municipalities will be able to enforce these new bylaws using existing bylaw enforcement staff. However, there will be an incremental increase in the municipal enforcement costs.

2. Enforce existing disposal ban on paper, cardboard and plastics and implement new disposal ban on food scraps and soiled paper

(a) Implement new disposal ban on organics

Metro Vancouver will announce a ban on commercial and multi-family organics, to take effect by 2015.

There will be a cost for most businesses and multi-family residences to collect organics separately from their garbage and in particular a cost to transport them to processing facilities. However, once materials are received at a processing facility, the tipping fee will be significantly lower than the fee charged at waste disposal facilities (currently $97 per tonne).

A strong differential between the garbage and organics tipping-fee is a significant driver. It will result in an overall saving for many businesses, like restaurants, food processors, and supermarkets for which a large part of their waste is food scraps.

(b) Enforcement of all disposal bans

Despite the fact that materials such as paper, cardboard and plastics and other “blue box” materials are already banned from disposal, they continue to be disposed.

Metro Vancouver will strengthen the enforcement of disposal bans at disposal sites, using methods such as increasing the frequency of disposal ban inspections, increasing fines for infractions, and barring repeat offenders from accessing regional waste facilities.

To ensure effectiveness of the disposal bans, the waste generators must be affected by the enforcement. This is achieved by enforcing bans not only at the disposal sites, but also at the source, through ticketing of violators by municipalities, or by using hauler licenses or franchised contracts to require haulers to inspect and refuse loads that are in violation of bans.

To a degree, municipalities will be able to enforce these new bylaws using existing bylaw enforcement staff. However, there will be an incremental increase in the municipal enforcement costs.
Other Actions

- Business outreach to improve waste management practices and reduce waste generation. Metro Vancouver will work with priority business sub-sectors to develop and implement practices that will reduce waste generation and improve diversion. Priorities are set by waste composition data.
- Consider establishing an agency to develop markets for reused and recycled materials.
- Develop model purchasing-policies for municipalities and government institutions to strengthen demand for products made from recycled materials.
- New waste reduction regulations from the provincial and federal levels, such as opt-in programs for unsolicited mail and industry stewardship programs.

5. Influencing Product Design

To achieve the aggressive waste reduction and diversion targets and reduce waste management costs, changes of an entirely different magnitude will be required. As long as products are made that are difficult to reuse or recycle, municipalities and society will be burdened by the significant efforts and high costs needed to manage waste. As we approach the limits of what can be practically and economically recycled, society will likely face diminishing returns in efforts to reach the 80% diversion level and the 10% per-capita reduction in waste generation.

To overcome these limits, products and their packaging will need to be designed with “cradle-to-cradle” principles, so that at the end of their useful life, they can be repurposed or economically recycled into similar products. With those changes, the volume of waste that becomes the responsibility of local governments would be reduced, and local recycling initiatives would be more effective.

However, those responsible for product design and manufacturing currently have little or no responsibility for designing products that minimize waste. Product development, marketing and distribution are global businesses, largely beyond the direct control of local governments and citizens.

Therefore, the strategy to influence product design requires that manufacturers, distributors, retailers and consumers become engaged in the process of reducing waste at its source.

Priority Actions

1. Improve the effectiveness of Extended Producer Responsibility programs in influencing product design, and accelerate their implementation

Extended Producer Responsibility (EPR) is a policy initiative which seeks to shift the responsibility and costs of managing products at end-of-life from taxpayers and municipalities to consumers and producers. In theory, this approach could provide an incentive to redesign products along cradle-to-cradle principles.

In practice, however, EPR has been mostly focused on collection and recycling. The current approach in BC allows producers to collectively manage an entire category of products and pass the cost to customers. For example, when buying a television, the purchaser pays a fee to handle its end-of-life management. The fee is the same for all brands, regardless of their design.
and the degree to which each product can be recycled. This practice removes the incentive for individual companies to redesign their products, since the overall program must operate at the level of the lowest performing manufacturer in that sector.

To address this issue, Metro Vancouver will:
- Offer, in 2011, staffing support for and partnership with the BC Ministry of Environment on their Extended Producer Responsibility Programs to enhance and accelerate EPR programs so that they reduce waste disposal by mandating design-for-environment principles.
- Participate on Federal EPR initiatives to advocate that manufacturing and distributing non-recyclable packaging be prohibited and develop national guidelines for sustainable packaging.

2. Develop national and international organizations to advocate for improved material, product and packaging design

The objective is to bring cities and regions around the world together through networks and relationships to provide greater leverage in discussions with designers, manufacturers, distributors, retailers and consumers on the need for changes in the design of materials, products and packaging.

The approach will involve both national and international collaborations.

**National:**
In 2011 Metro Vancouver will initiate discussion to develop a national zero waste marketing council that will:
- Build relationships among local governments across Canada, including the Federation of Canadian Municipalities, to leverage limited resources.
- Create an environment to share, on a national scale, communication and education campaigns and resources.
- Develop greater awareness among the Canadian public and businesses on the need to reduce waste, resulting in informed and educated citizens on waste reduction opportunities.

**International:**
Working through existing international bodies such as the World Business Council on Sustainable Development, United Cities and Local Governments and others, to promote and assess interest in the concept of an international initiative on sustainable solid waste management. Actions include:
- Work to establish partnerships with select cities (Canadian and International) to articulate a clear purpose and set of objectives and activities.
- Advocate that senior governments on a global scale use incentives and regulations to promote the design of products and materials that reflect principles of cradle-to-cradle design.
- Open discussions with key representatives of the design, manufacturing, distribution and retail industry on shifting toward cradle-to-cradle design principles.
D. Conclusions

In order for the Zero Waste Challenge Strategy to be successful and sustainable, it must be financially affordable within the context of all financial pressures facing the region.

The strategies that have been presented are consistent with the Management Plan. As part of its development, Metro Vancouver and individual municipalities prepared cost estimates for each action in the Plan. On a regional basis, overall expenditures on solid waste management have been estimated to understand the net impact of the strategies. Detailed financial analyses will be conducted where appropriate in conjunction with the detailed development and implementation of each strategy.

A broad and aggressive series of changes is needed across society to achieve the targets. Responsibilities for these changes are shared among various groups:

- Residents and businesses need to be actively engaged in separating recyclable materials from garbage.
- Municipal governments have responsibility for establishing regulations, collecting recyclables, providing recycling infrastructure and connecting with residents and businesses with educational materials.
- Metro Vancouver develops overall strategies and guides the implementation of recycling activities and infrastructure with municipalities.
- Senior governments develop Extended Producer Responsibility programs for industry to implement and have jurisdiction over manufacturing and trade (the processes that produce the goods and packaging that eventually end up as garbage).

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To: Waste Management Committee

From: Ken Carrusca, Integrated Planning Division Manager
Policy and Planning Department

Date: February 2, 2011

Subject: North Shore Transfer Station Organic Waste Management

Recommendation:

That the Board approve the expenditure of up to $400,000 for Metro Vancouver to build the infrastructure for food waste handling at the North Shore Transfer Station.

1. PURPOSE

To obtain the Board’s approval to spend up to $400,000 to build the infrastructure for food waste handling at the North Shore Transfer Station.

2. CONTEXT

The Integrated Solid Waste and Resource Management Plan calls for Metro Vancouver to work with municipalities to establish new organics processing facilities and divert organic waste, including food waste, from homes and businesses.

All major municipalities in Metro Vancouver collect residential yard trimmings for composting. Two municipalities (Port Coquitlam and Port Moody) also started food waste collection prior to mid-2009, when Metro Vancouver contracted with Fraser Richmond Soil and Fibre (FRSF) to become the first regional processing facility for mixed residential food and yard wastes. Since then, five additional municipalities (Richmond, Vancouver, Burnaby, New Westminster, and Coquitlam) have started residential food waste collection.

It is not practical for every municipality to haul collected organic wastes directly to FRSF’s facility in Richmond. Some municipalities use intermediate transfer sites near or within their municipal boundaries. The three North Shore municipalities collect yard trimmings and use a transfer site situated next to Metro Vancouver’s North Shore Transfer Station. Metro Vancouver manages the operation of the yard trimmings site. In order to begin food waste collection in early 2011, we propose to build a source separated organics storage facility at the yard trimmings site. The 2011 Capital Plan identified $400,000 for this purpose. These costs will be recovered from the North Shore users of the facility.
3. ALTERNATIVES

The Board may:

   a) Approve the expenditure of up to $400,000 for Metro Vancouver to build the infrastructure for food waste handling at the North Shore Transfer Station.
   
   b) Not adopt the recommendation, and proceed in a different manner

Staff recommend alternative (a).

4. CONCLUSION

The Integrated Solid Waste and Resource Management Plan calls for Metro Vancouver to work with municipalities to establish new organics processing facilities, and divert organic waste, including food waste, from homes and businesses.

The three North Shore municipalities collect yard trimmings and use a transfer site situated next to Metro Vancouver’s North Shore Transfer Station. Metro Vancouver manages the operation of the yard trimmings site. In order to begin food waste collection in early 2011, we propose to build a source separated organics storage facility at the yard trimmings site. The capital costs are approximately $400,000 as identified in the 2011 Capital Plan. These costs will be recovered from the North Shore users of the facility.
To: Board of Directors

From: Kelly Birks, Office Manager, Corporate Secretary’s Department

Date: February 15, 2011

Subject: **Delegations’ Executive Summaries Presented at Committee – February 2011**

**Staff Recommendation:**

That the Board receive for information the report dated February 15, 2011 titled “Delegations’ Executive Summaries Presented at Committee – February 2011.”

Attachment:

Canada Green Pack

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Summary of the Presentation to the Waste Management Committee of Metro Vancouver:

While municipal programs aimed at keeping lawn clippings and food scraps out of landfills are a significant contributor to solid waste reduction, existing programs do not address a key source of preventable solid waste. In the Lower Mainland, disposable food service packaging, and particularly coffee cups, represent a significant volume of the solid waste being sent to our landfills. In the City of Vancouver alone over 1,300 public garbage cans are emptied daily, and over half of the waste is food packaging, with the majority of that being coffee cups and lids. When you consider that the vast majority of coffee cups and food service items are not placed in public garbage cans, but are actually discarded in food service outlets, offices, shopping malls, and homes, you begin to gain an understanding of the sheer volume of these items that are shipped to our landfills on a daily basis.

Given that viable compostable alternatives to these products are readily available, there is simply no logical reason why cups and food packaging that are neither recyclable nor compostable should comprise the vast majority of the food packaging utilized in Metro Vancouver. In Seattle, a City ordinance that took effect in 2010 requires that all single-use food service packaging be either recyclable or compostable, and that all food service outlets maintain separate collection bins for recyclable and compostable items. In response, manufacturers and distributors have introduced a variety of compostable food service items, many of which are of equal or better quality than their traditional counterparts, and the majority of which are comparable in price to the disposable products they are replacing.

The unique challenge facing Metro Vancouver is the fact that none of the composting facilities currently established in the region are willing and able to accept products containing polylactic acid (PLA), a plastic substitute derived from corn starch. PLA is utilized in a variety of food service products, including coffee cups, lids and cutlery. However, this challenge should not prevent the introduction of measures to curb this preventable form of solid waste, as both short and long-term solutions are available.

In the long-term, the simple answer is to ensure that one or more regional facilities are developed that have the ability to accommodate products containing PLA. This is not a costly, high tech proposition, as the efficient composting of PLA simply requires higher levels of heat than are produced by traditional compost piles. In fact, the in-vessel composting facility proposed for Port Coquitlam utilizes a technology that should be able to readily process products containing PLA. Whether the long-term solution is a regional facility in Burns Bog, or a series of smaller facilities in multiple locations, the key is for member municipalities to define the development of this facility as a priority for Metro Vancouver; thus enabling regional staff to commence the associated planning process.
In the short-term there are composting facilities in Washington State, including one close to the border in Lynden, that are willing and able to process compostable items containing PLA from Metro Vancouver. Although border procedures and transport times will result in higher shipping costs, the disposal rate for compostable items in Lynden is only $35 USD per ton (approximately $39 per tonne), relative to a local trash disposal rate at Wastech of $97 CAD per tonne. This significant savings in disposal costs can be utilized to mitigate any incremental costs associated with collection and shipping.

Canada Green Pack's request of the Metro Vancouver Waste Management Committee is as follows:

1. Prioritize the development of a regional composting facility capable of processing PLA
2. Introduce a regional by-law that:
   a. Follows the lead of many major US cities (including all the major cities on the West Coast), by banning the sale and use of food packaging made from styrofoam.
   b. Establishes a date by which all single-use food packaging must be either recyclable or compostable.
OTHER BUSINESS
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Waste Management Committee Meeting Date: February 15, 2011

To: Waste Management Committee
From: David Hocking, Corporate Communications Div. Manager, Corporate Relations
Date: February 1, 2011
Subject: Zero Waste Challenge: Christmas Campaign

Recommendation:

That the Waste Management Committee receive for information the report dated February 1, 2011 titled “Zero Waste Challenge: Christmas Campaign”.

1. PURPOSE

Over the last three years Metro Vancouver has conducted Christmas waste reduction campaigns as part of the ongoing Zero Waste Challenge campaign. This report updates the committee on our most recent Christmas campaign, specifically on the effectiveness of tools used to reach Metro Vancouver residents.

2. CONTEXT

Metro Vancouver’s 2010 Christmas campaign encouraged residents to minimize waste related to the holiday season. The theme (Create memories, not garbage) and graphic elements were tested to ensure their effectiveness prior to the launch of the campaign.

In addition to newspaper and transit advertising, this year Metro Vancouver also utilized online advertising, radio and television to test the effectiveness of these tools.

To further extend the reach of the Christmas campaign, graphics and other elements were made available to the region’s municipalities.

In a recent survey, roughly one third (32%) of respondents who recalled Metro Vancouver’s 2009 and 2010 Christmas campaigns reported changing their behaviour as a result of those campaigns. However, behavioural changes reported as a result of the 2010 campaign reflect a more significant reduction in waste generation; specifically, 2010 respondents reported more practical and longer-lasting gifts purchased, more home-made gifts, regifting and giving experiences.
The survey sample size (495) allows us to estimate that over 300,000 residents did something to generate less waste this past Christmas. Should this “rethinking our purchases” – buying practical, durable gifts or giving experiences – become the norm for these residents, this campaign will have advanced residents toward the 10% per capita waste reduction goal identified in our Sustainability Framework.

Post-campaign survey respondents rated all tactics as very or somewhat effective. Respondents ranked radio as the most effective tactic likely because the call to action was clear and because “tags” were utilized in high rotation at the beginning and end of commercial breaks. Radio’s overall market penetration was low because ads were placed on only a few of the region’s radio stations. Online advertising failed to meet expectations. A more detailed analysis will confirm if this tactic was utilized to its full potential.

<table>
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<th>Tactic</th>
<th>% of overall budget</th>
<th>Recall</th>
<th>Rated as very or somewhat effective</th>
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<td>(shown ad) 53%</td>
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<td>Any ads</td>
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<tr>
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Social media tactics including Facebook, Twitter, online advertising and direct e-mails were used to drive residents to campaign-specific web pages that contained a variety of videos containing the Make memories – not garbage message as well as an e-card that residents could send requesting low-waste or zero-waste gifts.

Residents who came to Metro Vancouver’s campaign-specific web pages returned at least once. The most visited elements were Metro Vancouver’s e-card and videos. Also significant were the number of visitors who were referrals from “trusted sources”, direct e-mails from site visitors who shared these links with their friends.

Earned media also increased web site traffic, with notable increases correlating to stories appearing in community papers as well as Director Deal’s appearance on Global Television and Chair Moore’s appearance on CBC radio. A high level earned media summary is attached (Attachment 1).

Following on the heels of the Christmas reduce campaign, Metro Vancouver undertook a post-Christmas Reuse/Recycle campaign in January, when residents would typically have a surplus of possessions they no longer needed. A report summarizing the results of that campaign will be provided at the next committee meeting.

3. ALTERNATIVES

The Committee may:

   a) Receive the report for information; or

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1 Fees for creative and media placement services, materials for the Rogers Santa Claus Parade and the region’s municipalities comprised the remaining 3% of the overall budget.
b) Refer the report back to staff for additional detail.

4. CONCLUSION

Metro Vancouver’s Create Memories, Not Garbage 2010 Christmas waste reduction campaign was successful in reaching the region’s residents. Increased reach was achieved through the addition of radio, television and online advertising. The effectiveness of radio “tags” exceeded expectations in delivering Metro Vancouver’s reduce message, demonstrating radio is a cost-effective way to support other campaign elements. A more detailed analysis will confirm if Metro Vancouver utilized online advertising to its full potential.

Of those recalling the 2010 campaign, roughly one-third reported taking action to reduce the amount of waste they generated last Christmas. Behaviour changes reported as a result of the 2010 campaign reflect a more significant reduction in waste generation; specifically, more practical and longer-lasting gifts purchased, more home-made gifts, regifting and giving experiences.

ATTACHMENT:

2010 “Create Memories, Not Garbage” Campaign Media Hits (4795590)
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2010 “Create Memories, Not Garbage” Campaign Media Hits
Print / Digital: (Total 20 articles – highlights below)

I got the gift of insight; A holiday message to reduce and reuse has year round implications
The Globe and Mail, Jan. 8, 2011 – “Amid all the exhortations to shop till you drop and buy, buy, buy, one particular message caught my eye … it captured my attention at a time when advertising reaches a fever pitch precisely because of its stark contrast to every other ad message out there.”

Cut greenhouse gas emissions by reducing food waste
Coquitlam NOW, Dec. 24, 2010 – “Keeping food out of the garbage is one of the easiest things you can do to fight global warming. Here are some tips, courtesy of Metro Vancouver” (Similar stories also appeared in the North Shore News, Langley Advance)

Garbage mentality
24Hrs, Dec. 17, 2010 – “For the holiday season Metro Vancouver is adding a fourth 'R' to that old mantra 'reduce, reuse and recycle.' 'Rethink!'''

Giving gift experiences
South Delta Leader, Dec. 16, 2010 – “Last week, Metro Vancouver officials urged consumers to "create memories, not garbage" … so, the South Delta Leader decided to think of local experiences shoppers could give to their friends and family.”

Memories, from Metro
pricetags.wordpress.com, Dec. 13, 2010 – “Here’s a really beautiful piece of messaging, made of home movies and a melody.”

Metro Vancouver residents urged to make memories, not garbage during this Christmas season
GROWTH SPURTS (Vancouver Sun Blog), Dec. 8, 2010 – “Greg Moore, chairman of Metro’s waste management committee, noted that during the two weeks that follow Christmas and New Year, a larger-than-normal "mountain of trash" ends up in the dump.”

Metro Vancouver wishes residents a merry, less trash-producing Christmas
The Vancouver Province, Dec. 6, 2010 – “For Christmas, Metro Vancouver wants you to give your garbage can a break.”

Television / Radio:
Global TV Dec. 20
~4-minute interview with Director Heather Deal and staffer Lucy Duso about low waste decorating, wrapping and packaging, kid’s gifts, food waste and more.
Details:
NOON NEWS (CHAN-TV), Burnaby, 20 Dec 2010, Length: 00:03:53, Time: 12:24pm Reach: 90,000
CBC Radio Dec. 21
7-minute segment featuring Waste Committee Chair Greg Moore and Jenny Rustemeyer from the Clean Bin Project about ways to give gift experiences and low-waste gifts.

Details:
EARLY EDITION 2 (CBU-AM), Vancouver, 21 Dec 2010, Length: 00:07:20, Time: 08:21am
Reach: 54,000

CBC TV Dec. 28 (aired three times this day)
2-minute news segment at Coquitlam Transfer Station featuring Waste Committee Chair Greg Moore. Pointed out the amount of recyclable and reusable materials going in the garbage and the holiday waste surge, directed viewers to Metro Vancouver’s website for electronics recycling information.

Details:
CBC NEWS: VANCOUVER (CBUT-TV), 28 Dec 2010, Length: 00:02:11, Time: 05:06pm
Reach: 27,000
CBC NEWS: VANCOUVER (CBUT-TV), 28 Dec 2010, Length: 00:02:40, Time: 06:18pm
Reach: 27,000
CBC LATE NIGHT: VANCOUVER (CBUT-TV), 28 Dec 2010, Length: 00:01:39, Time: 11:00pm
Reach: 89,000

Global TV Dec. 31
5-minute spot with C Restaurant head Chef Robert Clark about practical ways to reduce holiday food waste. “Metro Vancouver has a great initiative to try and reduce the amount of food going to the landfill.”

Details:
NOON NEWS (CHAN-TV), 31 Dec 2010, Length: 00:05:38, Time: 12:33pm Reach: 90,000