Sequence of Board Meetings
Board meetings generally occur in the following order, up to a maximum of eight. Not all meetings may be scheduled.
1. GVRD open meeting for parks items   2. GVRD closed meeting for parks items   3. GVRD open meeting for non-parks items   4. GVWD open meeting   5. GVS&DD open meeting   6. GVRD closed meeting for non-parks items   7. GVWD closed meeting   8. GVS&DD closed meeting.

NOTICE OF REGULAR MEETING
GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT (GVS&DD)
BOARD OF DIRECTORS

9:00 a.m.
Friday, October 26, 2012
2nd Floor Boardroom, 4330 Kingsway, Burnaby, British Columbia.

REVISED AGENDA

Note: Recommendation is shown under each item, where applicable.

A. ADOPTION OF THE AGENDA

1. October 26, 2012 Regular Meeting Agenda
   That the Board adopt the agenda for its regular meeting scheduled for October 26, 2012 as circulated.

B. ADOPTION OF THE MINUTES

1. September 21, 2012 Regular Meeting Minutes
   That the Board adopt the minutes for its regular meeting held September 21, 2012 as circulated.

C. DELEGATIONS

D. INVITED PRESENTATIONS

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. FINANCE COMMITTEE REPORTS

1.1 Draft Metro Vancouver Districts’ 2013 Budget
   That the Board approve the 2013 Revenue and Expenditure Budgets, use of Reserves, and Capital Expenditures as shown in the following schedules:
   Schedule 1 Revenue and Expenditure Summary
   Schedule 2 2013 Budget - Proposed Application of Reserves
1.2 **GVS&DD Temporary Borrowing Authority**
That the GVS&DD Administration Board authorize the borrowing from the District’s Banker or others in the course of the calendar year 2013 in anticipation of the collection of its revenue, of a sum or sums of money, the outstanding total of which shall not exceed $12 million at any one time, by the issue of promissory notes or by such other means as are appropriate.

2. **ZERO WASTE COMMITTEE REPORTS**

2.1 **New Waste-to-Energy Procurement Process**
That the Board approve:
1. Proceeding with the recommended procurement process described in this report commencing with a technology only request for qualifications (RFQ1), with an operational date for new waste-to-energy capacity no later than mid 2018.
2. Requiring in RFQ1 that proponents demonstrate that at a minimum the proposed technology solution has operated continuously for one year in the last five years processing a minimum of 25,000 tonnes per year of municipal solid waste.

2.2 **New Waste-to-Energy Capacity: Proposed Engagement and Consultation Program**
1. That the Board approve the proposed engagement and consultation program for new waste-to-energy capacity, as described in the report titled “New Waste-to-Energy Capacity: Proposed Engagement and Consultation Program” dated October 2, 2012.
2. That the Board Chair write the Minister of Environment asking for confirmation that Board approval of the procurement process for new WTE capacity will trigger the requirement to initiate consultation with the FVRD, and send a copy of the correspondence to the FVRD.
2.3 **New Waste-to-Energy Capacity – Third Party Expert Panel**

2.4 **Metro Vancouver Waste Composition and Energy Content Projections**
That the Board receive the report dated September 24, 2012, titled “Metro Vancouver Waste Composition and Energy Content Projections” for information.

2.5 **Sample Municipal Bylaw for the Management of Waste and Recyclable Materials from Demolition Work**
That the Board approve the proposed municipal permit approach to encourage demolition material recycling, and refer the attached sample municipal bylaw to member municipalities for consideration in their demolition permit processes.

2.6 **Metro Vancouver 2012 Zero Waste Conference**
That the Board:
   a. Share the report dated September 20, 2012 titled “Metro Vancouver 2012 Zero Waste Conference,” with member municipalities; and
   b. Direct staff to investigate an enhancement of the Design Challenge in its planning for the 2013 Zero Waste Conference.

2.7 **National Zero Waste Marketing Council – Inaugural Roundtable**
That the Board receive for information the September 20 report titled, “National Zero Waste Marketing Council – Inaugural Roundtable”, and direct staff to continue efforts to establish a National Zero Waste Marketing Council.

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

G. **REPORTS FROM COMMITTEE OR STAFF NOT INCLUDED IN CONSENT AGENDA**

1. **GVS&DD Food Sector Grease Interceptor Bylaw No. 268, 2012**
   That the GVS&DD Board:
   a) introduce and give first, second and third reading to “Greater Vancouver Sewerage and Drainage District Food Sector Grease Interceptor Bylaw No. 268, 2012”;
   b) introduce and give first, second and third reading to “Greater Vancouver Sewerage and Drainage District Sewer Use Amending Bylaw No. 273, 2012”;
   c) reconsider, pass and finally adopt “Greater Vancouver Sewerage and Drainage District Food Sector Grease Interceptor Bylaw No. 268, 2012”;
   and
   d) reconsider, pass and finally adopt “Greater Vancouver Sewerage and Drainage District Sewer Use Amending Bylaw No. 273, 2012”.

2. **2013 Tipping Fee Bylaw**
   That the Board:
   1. Approve a 2013 tipping fee of $105 per tonne, a decrease of $2 per tonne from the 2012 tipping fee;
2. Introduce and give first, second and third reading to “Greater Vancouver Sewerage and Drainage District Tipping Fee and Solid Waste Disposal Regulation Bylaw No. 275, 2012”;
3. Reconsider, pass and finally adopt “Greater Vancouver Sewerage and Drainage District Tipping Fee and Solid Waste Disposal Regulation Bylaw No. 275, 2012”.

3. **Greater Vancouver Sewerage and Drainage District (GVS&DD) Amending Bylaw No. 272, 2012**
   That the Board:
   a) introduce and give first, second and third reading to “Greater Vancouver Sewerage and Drainage District Amending Bylaw No. 272, 2012”; and
   b) forward “Greater Vancouver Sewerage and Drainage District Amending Bylaw No. 272, 2012” to the Minister of Environment for approval.

4. **Greater Vancouver Sewerage and Drainage District 2013 Cost Apportionment Bylaw 274, 2012**
   a) That the Board give leave to introduce “Greater Vancouver Sewerage and Drainage District 2013 Cost Apportionment Bylaw No. 274, 2012”, being a bylaw governing the distribution of the GVS&DD tax levy for 2013, and that it be read a first, second and third time; and
   b) That the Board reconsider, pass and finally adopt “Greater Vancouver Sewerage and Drainage District 2013 Cost Apportionment Bylaw No. 274, 2012”.

H. MOTIONS FOR WHICH NOTICE HAS BEEN GIVEN

I. OTHER BUSINESS

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.*

   That the Board close its regular meeting scheduled for October 26, 2012 pursuant to the Community Charter provisions, Section 90 (1) (g) and 90 (2) (b) 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:
   (g) litigation or potential litigation affecting the regional district; and
   90 (2) A part of a meeting must be closed to the public if the subject matter being considered relates to one or more of the following:
   (b) the consideration of information received and held in confidence relating to negotiations between the regional district and a provincial government or the federal government or both, or between a provincial government or the federal government or both and a third party.”

K. ADJOURNMENT/TERMINATION
   That the Board adjourn/conclude its regular meeting of October 26, 2012.
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 9:55 a.m. on Friday, September 21, 2012 in the 2nd Floor Boardroom, 4330 Kingsway, Burnaby, British Columbia.

MEMBERS PRESENT:
Chair, Director Greg Moore, Port Coquitlam
Vice Chair, Director Raymond Louie, Vancouver
Director Malcolm Brodie, Richmond
Director Mike Clay, Port Moody
Director Ernie Daykin, Maple Ridge
Director Heather Deal, Vancouver (arrived at 9:56 a.m.)
Director Sav Dhaliwal, Burnaby
Director Helen Fathers, White Rock
Director Jack Froese, Langley Township
Director Maria Harris, Electoral Area A
Director Linda Hepner, Surrey
Director Marvin Hunt, Surrey
Director Lois Jackson, Delta
Alternate Director Dan Johnston, Burnaby for Derek Corrigan
Director Colleen Jordan, Burnaby (departed at 10:58 a.m.)
Director Gayle Martin, Langley City (departed at 10:42 a.m.)
Director Geoff Meggs, Vancouver
Director Darrell Mussatto, North Vancouver City
Alternate Director Barinder Rasode, Surrey for Judy Villeneuve
Director Mae Reid, Coquitlam
Director Andrea Reimer, Vancouver
Director Gregor Robertson, Vancouver
Director Michael Smith, West Vancouver
Alternate Director Barbara Steele, Surrey for Dianne Watts
Director Tim Stevenson, Vancouver
Director Harold Steves, Richmond
Director Richard Stewart, Coquitlam
Director Deb Walters, Pitt Meadows
Director Richard Walton, North Vancouver District
Director Wayne Wright, New Westminster
Commissioner Carol Mason*

MEMBERS ABSENT:
None

STAFF PRESENT:
Klara Kutakova, Assistant to Regional Committees, Board Secretariat and Corporate Information Department

* Non-voting member.
A. ADOPTION OF THE AGENDA

1. September 21, 2012 Regular Meeting Agenda

   It was MOVED and SECONDED
   That the Board adopt the agenda for its regular meeting scheduled for
   September 21, 2012 as circulated.

   CARRIED

B. ADOPTION OF THE MINUTES


   It was MOVED and SECONDED
   That the Board adopt the minutes for its regular meeting held July 27, 2012
   as circulated.

   CARRIED

C. DELEGATIONS

No items presented.

D. INVITED PRESENTATIONS

No items presented.

E. CONSENT AGENDA

9:56 a.m. Director Deal arrived at the meeting.

At the request of Directors, the following item was removed from the Consent
Agenda for consideration under Section F Items Removed from Consent Agenda:

2.3 New Waste-to-Energy Procurement Process and Ownership Model

It was MOVED and SECONDED
That the Board adopt the recommendations contained in the following items
presented in the September 21, 2012 GVS&DD Board Consent Agenda:

1.1 Amendment – Fraser Sewerage Area Boundary – Barnston Maple Ridge
   Pump Station in the City of Pitt Meadows;
1.2 Lions Gate and Iona Island Secondary Wastewater Treatment Plants –
   Project Update;
1.3 Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw No.
   299, 2007 – Staff Appointments;
2.1 Waste Flow Management Update;
2.2 New Waste-to-Energy Capacity and Contingency Disposal Requirements;
2.4 Technical Specifications for Storage Space and Access for Recycling in Multi-Family Residential and Commercial Developments;
2.5 Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw – Staff Appointments; and

3.1 Appointment of Commissioner to the Greater Vancouver Sewerage and Drainage District.

CARRIED

The items and recommendations referred to above are as follows:

1.1 Amendment – Fraser Sewerage Area Boundary – Barnston Maple Ridge Pump Station in the City of Pitt Meadows
Report dated August 15, 2012 from Ed von Euw, Senior Engineer, Utility Planning Department, seeking GVS&DD Board approval to expand the Fraser Sewerage Area (FSA) to include the property at 20001 Lougheed Highway in Pitt Meadows to accommodate the new Barnston/Maple Ridge Water Pump Station.

Recommendation:
That the Board approve the expansion of the Fraser Sewerage Area to include 20001 Lougheed Highway in the City of Pitt Meadows as shown on Plan SA-2376 – Sheet 68 and described in the report titled “Amendment – Fraser Sewerage Area Boundary – Barnston Maple Ridge Pump Station in the City of Pitt Meadows”, dated August 15, 2012.

Adopted on Consent

1.2 Lions Gate and Iona Island Secondary Wastewater Treatment Plants – Project Update
Report dated September 4, 2012 from Fred Nenninger, Project Manager, Wastewater Secondary Treatment Upgrades, and Marie Griggs, Public Involvement Division Manager, Engineering and Construction Department, providing an update on the work underway to complete the Project Definition Phases for the Lions Gate and Iona Wastewater Treatment Plant upgrades.

Recommendation:
That the Board receive for information the report dated September 4, 2012 titled “Lions Gate and Iona Island Secondary Wastewater Treatment Plants – Project Update”.

Adopted on Consent

1.3 Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw No. 299, 2007 – Staff Appointments
Report dated August 27, 2012 from Ray Robb, Environmental Regulation and Enforcement Division Manager, Metropolitan Planning, Environment and Parks Department, updating staff appointments under the Environmental Management Act and Greater Vancouver Sewerage and Drainage District Sewer Bylaw No. 299, 2007.
Recommendation:
That the Board, pursuant to the Environmental Management Act and Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw No. 299, 2007:

a) Appoint the following Metro Vancouver staff:
   Dennis Klick, Natasha Markovic-Mirovic and Susy Marble as Municipal Sewage Control Officers; and

b) Rescind the following Metro Vancouver staff:
   Silvano Padovan as Municipal Sewage Control Officer; and

c) Rescind the following City of Vancouver staff:
   David Pope as Deputy Sewage Control Manager and Municipal Sewage Control Officer.

Adopted on Consent

2.1 Waste Flow Management Update
Report dated September 6, 2012 from Paul Henderson, Manager, Solid Waste Department, describing a preferred Waste Flow Management approach and seeking authorization from the Board to initiate consultation on Waste Flow Management.

Recommendation:
That the Board direct staff to initiate consultations on the waste flow management options presented in the report dated September 6, 2012, titled “Waste Flow Management Update”.

Adopted on Consent

2.2 New Waste-to-Energy Capacity and Contingency Disposal Requirements
Report dated September 13, 2012 from the Zero Waste Committee, together with report dated September 5, 2012 from Paul Henderson, Manager, Solid Waste Department, recommending new waste-to-energy capacity requirement and the requirement and timing for securing contingency disposal capacity.

Recommendation:
1. That the Board set new core waste-to-energy capacity for waste generated by the Metro Vancouver regional system 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.
3. That the Board refer to staff for comment the following:
   • long-term viability of the existing Waste-to-Energy facility in Burnaby;
   • any plans in relation to special and other waste;
   • potential waste from other regions; and
   • incremental costs and impacts of building additional capacity as well as the question of scalability.

Adopted on Consent
2.4 Technical Specifications for Storage Space and Access for Recycling in Multi-Family Residential and Commercial Developments
Report dated August 17, 2012 from Esther Bérubé, Project Engineer, Solid Waste Department, seeking 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.

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.

Adopted on Consent

2.5 Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw – Staff Appointments
Report dated August 28, 2012 from Ray Robb, Regulation and Enforcement Division Manager, Metropolitan Planning, Environment and Parks Department, updating staff appointments 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.

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.

Adopted on Consent

3.1 Appointment of Commissioner to the Greater Vancouver Sewerage and Drainage District
Report dated August 7, 2012 from Paulette Vetleson, Corporate Secretary/Manager, Board Secretariat and Corporate Information Department, seeking appointment of a new Commissioner to the Greater Vancouver Sewerage and Drainage District.

Recommendation:
That the Board remove Johnny Carline and appoint Carol Mason as the Commissioner to the Greater Vancouver Sewerage and Drainage District; Ms. Mason’s term of office is effective as of September 4, 2012.

Adopted on Consent
F. ITEMS REMOVED FROM THE CONSENT AGENDA

2.3 New Waste-to-Energy Procurement Process and Ownership Model

Report dated September 13, 2012 from the Zero Waste Committee, together with report dated August 28, 2012 from Paul Henderson, Manager, Solid Waste Department, providing an update on the development of the new waste-to-energy capacity and recommending a procurement process and ownership model for new waste-to-energy capacity.

At the request of Director Brodie, the recommendations contained in the subject report were separated into distinct propositions, considering propositions 1) and 3) together and proposition 2) separately.

Propositions 1) and 3) were before the Board:

Main Motion

It was MOVED and SECONDED
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 no later than mid 2018.

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/facilities.

It was suggested that promising technologies be also allowed to compete in the procurement process.

Amendment to the Main Motion

It was MOVED and SECONDED
That the Board amend the Main Motion, at the end of proposition 1), by adding the following: "Further, that promising technologies that may not have a full scale reference facility currently available not be automatically excluded solely on that basis, and that they be considered as part of the process to accommodate opportunities for different technologies and systems and different site locations that may be feasible on a smaller scale."

10:42 a.m. Director Martin departed the meeting.

Referral Motion

It was MOVED and SECONDED
That the Board refer the following motion to staff and the Zero Waste Committee for comments:

“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 no later than mid 2018. Further, that promising technologies that may not have a full scale reference facility currently available not be automatically excluded solely on that basis, and that they be considered as part of the process to accommodate opportunities for different technologies and systems and different site locations that may be feasible on a smaller scale.

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/facilities.”

CARRIED
Director Stevenson absent at the vote.

Proposition 2) was before the Board:

Concerns were expressed about the technical and legal implications of public versus Metro Vancouver ownership models of new Waste-to-Energy facility(ies).

10:58 a.m. Director Jordan departed the meeting.

It was MOVED and SECONDED
That the Board refer proposition 2), as presented in the report dated September 13, 2012, titled “New Waste-to-Energy Procurement Process and Ownership Model” back to staff to analyze, in consultation with member municipal staff, the technical and legal implications of public and/or Metro Vancouver ownership of new Waste to Energy capacity and report back.

CARRIED
Directors Clay, Hunt and Steves voted in the negative.
Director Jordan absent at the vote.

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

It was MOVED and SECONDExed
That the Board close its regular meeting scheduled for September 21, 2012 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:

___________________________
Minutes of the Regular Meeting of the Greater Vancouver Sewerage and Drainage District (GVS&DD) Board of Directors held on Friday, September 21, 2012
Page 7 of 8

Greater Vancouver Sewerage and Drainage District - 11
(k) negotiations and related discussions respecting the proposed provision of a regional district service that are at their preliminary stages and that, in the view of the board or committee, could reasonably be expected to harm the interests of the regional district if they were held in public.”

CARRIED

K. ADJOURNMENT/TERMINATION

It was MOVED and SECONDED
That the Board adjourn its regular meeting of September 21, 2012.

CARRIED
(Time: 11:01 a.m.)

CERTIFIED CORRECT

Paulette A. Vetleson, Corporate Secretary  Greg Moore, Chair
To: GVS&DD Board

From: Jim Rusnak, Chief Financial Officer, Finance & Administration Department

Date: October 17, 2012

Subject: Draft Metro Vancouver Districts’ 2013 Budget

Recommendation:
That the Board approve the 2013 Revenue and Expenditure Budgets, use of Reserves, and Capital Expenditures as shown in the following schedules:

Schedule 1 Revenue and Expenditure Summary
Schedule 2 2013 Budget - Proposed Application of Reserves
Schedule 3 GVS&DD Liquid Waste 2013 Budget
Schedule 4 GVS&DD Liquid Waste Capital Programs & Project Details – Non-Discretionary
Schedule 5 GVS&DD Liquid Waste Capital Programs & Project Details – Discretionary – In Design
Schedule 6 GVS&DD Liquid Waste Capital Programs & Project Details – Discretionary – Conceptual
Schedule 7 Solid Waste 2013 Budget
Schedule 8 Solid Waste Capital Programs & Project Details – Non-Discretionary
Schedule 9 Solid Waste Capital Programs & Project Details – Discretionary – In Design
Schedule 10 Solid Waste – Wastech Services Capital Plan

The attached schedules have been amended as required to reflect the direction from the Special Board meeting held on October 17, 2012.

Attachments:
Budget Schedules 1-10

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## METRO VANCOUVER DISTRICTS
### REVENUE AND EXPENDITURE SUMMARY
#### 2013 BUDGET

### EXPENDITURES

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<th>2012 BUDGET</th>
<th>2013 BUDGET</th>
<th>% CHANGE</th>
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<td>West Nile Virus</td>
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<td>Regional Global Positioning System</td>
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<td>Metro Vancouver Housing Corporation</td>
<td>36,142,718</td>
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**TOTAL EXPENDITURES**

|                        | $619,970,240 | $635,614,674 | 2.52% |

### REVENUES

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<th>2012 BUDGET</th>
<th>2013 BUDGET</th>
<th>% CHANGE</th>
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<td>Water Sales</td>
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<td>Tipping Fees</td>
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<td>Transfer from DCC Reserves</td>
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<td>Federal Funding Homelessness Secretariat</td>
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<td>User Fees</td>
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<td>Other External Revenues - Non Road Diesel Fees</td>
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<td>GPS User Fees</td>
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<td>Solid Waste Net Income</td>
<td>(647,561)</td>
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<td>Housing Net Income</td>
<td>(1,113,399)</td>
<td>(993,929)</td>
<td>(10.73%)</td>
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**TOTAL REVENUES**

|                        | $619,970,240 | $635,614,674 | 2.52% |
## METRO VANCOUVER DISTRICTS

### 2013 Budget - Proposed Application of Reserves (To Be Approved by the Board in October 2012)

<table>
<thead>
<tr>
<th>Function</th>
<th>Application</th>
<th>Operating Reserves</th>
<th>Designated Reserves</th>
</tr>
</thead>
<tbody>
<tr>
<td>MVHC</td>
<td>Fund Property Portfolio Activities</td>
<td>$</td>
<td>$ 83,345</td>
</tr>
<tr>
<td></td>
<td>Fund Capital Replacement Activities</td>
<td></td>
<td>4,459,050</td>
</tr>
<tr>
<td></td>
<td>Fund MVHC Capital Replacement and Development</td>
<td></td>
<td>969,743</td>
</tr>
<tr>
<td>GVRD</td>
<td>Parks</td>
<td></td>
<td>5,000,000</td>
</tr>
<tr>
<td></td>
<td>Fund Heritage Parkland Acquisitions</td>
<td></td>
<td>1,534,000</td>
</tr>
<tr>
<td></td>
<td>Fund Capital Replacement Projects</td>
<td></td>
<td>5,930,000</td>
</tr>
<tr>
<td></td>
<td>Fund Basic Facilities Projects</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fund Capital Maintenance Work at Delta Heritage Airpark</td>
<td></td>
<td>66,000</td>
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<tr>
<td></td>
<td>Contribution to Heritage Parkland Acquisition Fund Reserve</td>
<td>118,797</td>
<td></td>
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<tr>
<td></td>
<td>Fund Operations Services 2-year uniform replacement program</td>
<td>16,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fund Colony Farm Wilson Farm project</td>
<td>42,158</td>
<td></td>
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<tr>
<td></td>
<td>Fund Boundary Bay Centennial Beach project from Corporate Sustainability</td>
<td>150,000</td>
<td></td>
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<tr>
<td>General Government</td>
<td>Fund Cultural grants</td>
<td>100,000</td>
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<tr>
<td></td>
<td>Contribution to Regional District Sustainability Innovation Fund</td>
<td>40,828</td>
<td></td>
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<tr>
<td>Information Technology</td>
<td>Fund software development projects</td>
<td>2,000,000</td>
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<tr>
<td></td>
<td>Fund computer replacements</td>
<td>942,035</td>
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<tr>
<td>Building Operations</td>
<td>Head Office building renovations - 4330 Kingsway and 5945 Kathleen Ave</td>
<td>140,000</td>
<td></td>
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<tr>
<td></td>
<td>Fund system furniture - 4330 Kingsway and 5945 Kathleen Ave</td>
<td>430,000</td>
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<tr>
<td>Air Quality</td>
<td>Fund Equipment Purchases</td>
<td>212,560</td>
<td></td>
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<tr>
<td></td>
<td>Fund Regulatory Enforcement Integrated Application (REIA) system development project</td>
<td>193,233</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Contribution to Air Quality Equipment Fund - equipment purchases</td>
<td>271,912</td>
<td></td>
</tr>
<tr>
<td>Strategic Planning</td>
<td>Application of Excess Reserves</td>
<td>167,000</td>
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<tr>
<td></td>
<td>Fund consulting projects supporting Ecological Health Plan (EHAP)</td>
<td>130,000</td>
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</tr>
<tr>
<td></td>
<td>Fund one-time consulting studies for parking and industrial lands</td>
<td>25,000</td>
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<td></td>
<td>Fund Future Sustainability Reserve</td>
<td>60,221</td>
<td></td>
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<tr>
<td>GVWD</td>
<td>Fund Lab equipment purchases</td>
<td>115,000</td>
<td></td>
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<td></td>
<td>Fund Capital / Reduce debt or paydown existing debt</td>
<td>14,001,643</td>
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<tr>
<td>GVS &amp; DD</td>
<td>Solid Waste</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fund Environmental Improvement Projects</td>
<td>410,000</td>
<td></td>
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<tr>
<td></td>
<td>Fund Equipment Purchases</td>
<td>525,000</td>
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<td></td>
<td>Fund Capital / Reduce debt or paydown existing debt</td>
<td>7,983,811</td>
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<tr>
<td>Sewerage &amp; Drainage</td>
<td>Fund Movement of Biosolids from prior years' stockpiles at Iona</td>
<td>1,250,000</td>
<td></td>
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<tr>
<td></td>
<td>Fund Instream/Riparian work for Brunette River identified in Ecological Health Plan (EHAP)</td>
<td>120,000</td>
<td></td>
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<tr>
<td></td>
<td>Fund Regulatory Enforcement Integrated Application (REIA) system development project</td>
<td>193,233</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fund Capital / Reduce debt or paydown existing debt</td>
<td>4,593,889</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL RESERVE APPLICATION**

$ 27,618,567 $ 24,655,891
### EXPENDITURES

**Operating Programs:**

<table>
<thead>
<tr>
<th>Service</th>
<th>2012 Budget</th>
<th>2013 Budget</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wastewater Treatment</td>
<td>$28,144,264</td>
<td>$30,127,104</td>
<td>7.05%</td>
</tr>
<tr>
<td>Maintenance</td>
<td>$26,015,400</td>
<td>$27,700,213</td>
<td>6.48%</td>
</tr>
<tr>
<td>Major Capital - Metro Vancouver Labour</td>
<td>$8,772,385</td>
<td>$10,509,795</td>
<td>19.81%</td>
</tr>
<tr>
<td>Liquid Waste Residuals (Nutrifor)</td>
<td>$12,300,147</td>
<td>$9,624,330</td>
<td>(21.75%)</td>
</tr>
<tr>
<td>Wastewater Collection</td>
<td>$11,087,608</td>
<td>$9,118,983</td>
<td>(17.76%)</td>
</tr>
<tr>
<td>Minor Capital</td>
<td>$7,707,921</td>
<td>$6,325,704</td>
<td>(19.93%)</td>
</tr>
<tr>
<td>Quality Control</td>
<td>$5,724,665</td>
<td>$5,961,347</td>
<td>4.13%</td>
</tr>
<tr>
<td>Utility Administration and Support</td>
<td>$4,621,648</td>
<td>$5,294,355</td>
<td>14.56%</td>
</tr>
<tr>
<td>Wastewater Environmental Management</td>
<td>$2,101,294</td>
<td>$2,113,091</td>
<td>0.56%</td>
</tr>
<tr>
<td>Liquid Waste Regulation</td>
<td>$1,619,813</td>
<td>$1,636,069</td>
<td>1.00%</td>
</tr>
<tr>
<td>Wastewater Utility Planning</td>
<td>$959,649</td>
<td>$1,192,907</td>
<td>24.31%</td>
</tr>
<tr>
<td>Urban Drainage</td>
<td>$1,102,543</td>
<td>$1,175,966</td>
<td>6.66%</td>
</tr>
<tr>
<td>SCADA Control Systems</td>
<td>$1,135,873</td>
<td>$1,127,998</td>
<td>(0.69%)</td>
</tr>
<tr>
<td>Sustainability Fund</td>
<td>$1,127,000</td>
<td>$1,127,000</td>
<td>0.00%</td>
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<tr>
<td>Wastewater System Analysis</td>
<td>$793,303</td>
<td>$946,983</td>
<td>19.37%</td>
</tr>
<tr>
<td>Wastewater Research and Innovation</td>
<td>$698,822</td>
<td>$780,717</td>
<td>11.72%</td>
</tr>
<tr>
<td>Wastewater Treatment-Annacis Wastewater Center</td>
<td>$200,000</td>
<td>$536,032</td>
<td>168.02%</td>
</tr>
<tr>
<td>Operating Contingency</td>
<td>$500,000</td>
<td>$500,000</td>
<td>0.00%</td>
</tr>
<tr>
<td>Source Compliance Monitoring</td>
<td>$317,360</td>
<td>$299,958</td>
<td>(5.48%)</td>
</tr>
<tr>
<td>Trucked Liquid Waste</td>
<td>$221,897</td>
<td>$224,358</td>
<td>1.11%</td>
</tr>
<tr>
<td>Security Enhancements</td>
<td>$440,085</td>
<td>-</td>
<td>(100.00%)</td>
</tr>
<tr>
<td><strong>Total Operating Programs</strong></td>
<td>$133,077,878</td>
<td>$134,252,044</td>
<td>0.88%</td>
</tr>
</tbody>
</table>

| Debt Service                                  | $33,646,955 | $23,322,771 | (30.68%) |
| Contribution to Capital                       | $33,732,723 | $41,179,207 | 22.07%   |

**TOTAL EXPENDITURES**

<table>
<thead>
<tr>
<th>2012 Budget</th>
<th>2013 Budget</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>$200,457,556</td>
<td>$198,754,022</td>
<td>(0.85%)</td>
</tr>
</tbody>
</table>

### REVENUES

<table>
<thead>
<tr>
<th>Source</th>
<th>2012 Budget</th>
<th>2013 Budget</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>GVS&amp;DD Levy</td>
<td>$175,595,332</td>
<td>$180,040,741</td>
<td>2.53%</td>
</tr>
<tr>
<td>User Fees</td>
<td>$2,154,917</td>
<td>$2,518,359</td>
<td>16.87%</td>
</tr>
<tr>
<td>Transfer from DCC Reserves</td>
<td>$6,018,903</td>
<td>$4,705,546</td>
<td>(21.82%)</td>
</tr>
<tr>
<td>BOD/TSS Industrial Charges</td>
<td>$7,426,185</td>
<td>$7,705,276</td>
<td>3.76%</td>
</tr>
<tr>
<td>Other External Revenues</td>
<td>$1,064,002</td>
<td>$900,048</td>
<td>(15.41%)</td>
</tr>
<tr>
<td>Other Funds / Reserves / Surplus</td>
<td>$8,198,217</td>
<td>$2,884,052</td>
<td>(64.82%)</td>
</tr>
</tbody>
</table>

**TOTAL REVENUES**

<table>
<thead>
<tr>
<th>2012 Budget</th>
<th>2013 Budget</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>$200,457,556</td>
<td>$198,754,022</td>
<td>(0.85%)</td>
</tr>
</tbody>
</table>
### CAPITAL EXPENDITURES

**Infrastructure Growth**

2013 - Approved Projects in Progress

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Cost</th>
<th>Increase</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSA - Lions Gate - Interim CEPT Upgrade - Equip Pre-Purchase &amp; Prelim Site Work</td>
<td>$560,000</td>
<td>$1,300,000</td>
<td>$1,860,000</td>
</tr>
<tr>
<td>FSA - North Surrey Interceptor - Port Mann Section Twinning/Replacement</td>
<td>14,000,000</td>
<td>20,600,000</td>
<td>34,600,000</td>
</tr>
<tr>
<td>FSA - NWLWWTP - Phase 1 Design &amp; Site Prep</td>
<td>500,000</td>
<td>9,000,000</td>
<td>9,500,000</td>
</tr>
<tr>
<td>FSA - NWLWWTP - Phase 1 Construction</td>
<td>1,000,000</td>
<td>51,000,000</td>
<td>52,000,000</td>
</tr>
<tr>
<td>FSA - Burnaby Lake North Interceptor - Sperling Section - Constr</td>
<td>4,200,000</td>
<td>6,500,000</td>
<td>10,700,000</td>
</tr>
<tr>
<td>FSA - NSI - 104th Ave Extension</td>
<td>800,000</td>
<td>6,800,000</td>
<td>7,600,000</td>
</tr>
</tbody>
</table>

2013 - New Projects

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Cost</th>
<th>Increase</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSA - Lions Gate - Interim CEPT Upgrade - Construction</td>
<td>150,000</td>
<td>1,320,000</td>
<td>1,470,000</td>
</tr>
<tr>
<td>FSA - Sperling PS - Increase Pump Capacity - Constr &amp; Propery Acquisition</td>
<td>100,000</td>
<td>3,000,000</td>
<td>3,100,000</td>
</tr>
</tbody>
</table>

**Infrastructure Maintenance**

2013 - Approved Projects in Progress

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Cost</th>
<th>Increase</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>VSA - Iona MCC/Power Distribution Assess/Replace - Future Years</td>
<td>320,000</td>
<td>1,625,000</td>
<td>1,945,000</td>
</tr>
<tr>
<td>VSA - Iona MCC/Power Distribution Assess/Replace - 2009</td>
<td>350,000</td>
<td>1,375,000</td>
<td>1,725,000</td>
</tr>
<tr>
<td>VSA - Iona MCC/Power Distribution Assess/Replace - 2010</td>
<td>160,000</td>
<td>953,000</td>
<td>1,113,000</td>
</tr>
<tr>
<td>NSA - Lions Gate - Power Dist. MCC Replace/Transformers Future Years</td>
<td>80,000</td>
<td>1,470,000</td>
<td>1,550,000</td>
</tr>
<tr>
<td>NSA - Lynn Pump Station Design/Construction</td>
<td>9,000,000</td>
<td>9,000,000</td>
<td>18,000,000</td>
</tr>
<tr>
<td>NSA - Lions Gate - Power Dist. MCC Replace/Transformers 2009</td>
<td>390,000</td>
<td>830,000</td>
<td>1,220,000</td>
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<tr>
<td>NSA - Lions Gate - Control and Instrumentation Replacement 2011</td>
<td>160,000</td>
<td>600,000</td>
<td>760,000</td>
</tr>
<tr>
<td>VSA - Glen Eagles Pump Station 1 - Rehab</td>
<td>240,000</td>
<td>1,300,000</td>
<td>1,540,000</td>
</tr>
<tr>
<td>LSA - Gilbert/Bighthouse Trunk Pressure Sewer Twinning Phase 1 - Design</td>
<td>240,000</td>
<td>2,000,000</td>
<td>2,240,000</td>
</tr>
<tr>
<td>LSA - Gilbert/Bighthouse Trunk Pressure Sewer Twinning Phase 1 - Construction</td>
<td>7,600,000</td>
<td>21,000,000</td>
<td>28,600,000</td>
</tr>
<tr>
<td>FSA - AIWWTP Trickling Filter Pumps (1 to 4) Impeller Change (from 2 to 3 vanes)</td>
<td>228,000</td>
<td>855,000</td>
<td>1,083,000</td>
</tr>
<tr>
<td>NSA - North Surrey Interceptor - Annemie Channel Crossing Scour Protection</td>
<td>580,000</td>
<td>995,000</td>
<td>1,575,000</td>
</tr>
<tr>
<td>FSA - AIWWTP Gravity Thickener and DAF Steel Repair and Recoating</td>
<td>300,000</td>
<td>2,000,000</td>
<td>2,300,000</td>
</tr>
<tr>
<td>FSA - Annacis - Gas Circulation Compressor Replacement</td>
<td>144,000</td>
<td>800,000</td>
<td>944,000</td>
</tr>
<tr>
<td>FSA - Annacis - MCC 80-051, 80-070, 80-071 Replacement</td>
<td>800,000</td>
<td>2,844,000</td>
<td>3,644,000</td>
</tr>
<tr>
<td>FSA - Marshall PS Rehab Construction</td>
<td>3,200,000</td>
<td>7,000,000</td>
<td>10,200,000</td>
</tr>
<tr>
<td>FSA - South Surrey Interceptor Rehab- Construction</td>
<td>80,000</td>
<td>3,000,000</td>
<td>3,800,000</td>
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</table>

2013 - New Projects

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Cost</th>
<th>Increase</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSA - AIWWTP IPS Pump Building Roof Replacement - Phase 1</td>
<td>500,000</td>
<td>550,000</td>
<td>1,050,000</td>
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</tbody>
</table>

**Infrastructure Relocation**

2013 - Approved Projects in Progress

<table>
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<tr>
<th>Project Description</th>
<th>Cost</th>
<th>Increase</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSA - Gateway</td>
<td>40,000</td>
<td>6,737,592</td>
<td>6,777,592</td>
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</table>

**Infrastructure Risk Management**

2013 - Approved Projects in Progress

<table>
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<tr>
<th>Project Description</th>
<th>Cost</th>
<th>Increase</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>VSA - 8th Ave Interceptor - Cambie &amp; Balaclava Gates Data Collection</td>
<td>80,000</td>
<td>575,000</td>
<td>655,000</td>
</tr>
<tr>
<td>VSA - Highbury Interceptor - Air Treatment Facilities</td>
<td>1,600,000</td>
<td>6,000,000</td>
<td>7,600,000</td>
</tr>
<tr>
<td>VSA - Highbury Interceptor North Arm Crossing - Upgrade of Siphons Constr</td>
<td>1,200,000</td>
<td>12,000,000</td>
<td>13,200,000</td>
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<tr>
<td>FSA - Easement Acquisition</td>
<td>180,000</td>
<td>1,500,000</td>
<td>1,680,000</td>
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</table>

**Infrastructure Upgrade**

2013 - Approved Projects in Progress

<table>
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<tr>
<th>Project Description</th>
<th>Cost</th>
<th>Increase</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>VSA - Iona Island WWTP - Gas Flow Meter Replacement</td>
<td>80,000</td>
<td>302,500</td>
<td>382,500</td>
</tr>
<tr>
<td>NSA - Lions Gate WWTP - Gas Flow Meter Replacement</td>
<td>50,000</td>
<td>370,000</td>
<td>420,000</td>
</tr>
<tr>
<td>LSA - Lulu Island WWTP - Gas Flow Meter Replacement</td>
<td>50,000</td>
<td>236,000</td>
<td>286,000</td>
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<tr>
<td>FSA - Annacis - Gas Flow Meter Replacement</td>
<td>50,000</td>
<td>542,202</td>
<td>592,202</td>
</tr>
<tr>
<td>FSA - Langley Connector No.1 and Carvolth Trunk Upgrading/Replacement</td>
<td>4,880,000</td>
<td>7,100,000</td>
<td>12,000,000</td>
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</tbody>
</table>

2013 - New Projects

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Cost</th>
<th>Increase</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>VSA - Wastewater Meter Upgrades</td>
<td>50,000</td>
<td>300,000</td>
<td>350,000</td>
</tr>
<tr>
<td>NVSA - Wastewater Meter Upgrades</td>
<td>60,000</td>
<td>300,000</td>
<td>360,000</td>
</tr>
<tr>
<td>LSA - LIWSA Wastewater Meter Upgrades</td>
<td>50,000</td>
<td>300,000</td>
<td>350,000</td>
</tr>
<tr>
<td>FSA - Sperling Pump Station Upgrade - Construction</td>
<td>100,000</td>
<td>7,000,000</td>
<td>7,100,000</td>
</tr>
<tr>
<td>FSA - WWT Divisional Control System (CDAC), Migration</td>
<td>500,000</td>
<td>500,000</td>
<td>1,000,000</td>
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</table>

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$5,870,000</td>
<td>$16,950,702</td>
<td>$22,820,702</td>
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</table>

<table>
<thead>
<tr>
<th>Sewer Opportunity Programs</th>
<th>Cost</th>
<th>Increase</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSA - AIWWTP IPS VFD Replacement (Pumps 1 to 3)</td>
<td>360,000</td>
<td>1,050,000</td>
<td>1,410,000</td>
</tr>
<tr>
<td>FSA - AIWWTP TF VFD Replacement (Pumps 1 to 4)</td>
<td>320,000</td>
<td>870,000</td>
<td>1,190,000</td>
</tr>
</tbody>
</table>

2013 - New Projects

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Cost</th>
<th>Increase</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSA - Evergreen LRTP Impacts &amp; Queen St. Sewer Relocation</td>
<td>600,000</td>
<td>750,000</td>
<td>1,350,000</td>
</tr>
</tbody>
</table>

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$1,280,000</td>
<td>$2,670,000</td>
<td>$3,950,000</td>
</tr>
</tbody>
</table>

**TOTAL CAPITAL EXPENDITURES**

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$51,332,000</td>
<td>$204,150,294</td>
<td>$255,482,294</td>
</tr>
</tbody>
</table>

**2013 BUDGET**

GREATER VANCOUVER SEWERAGE & DRAINAGE DISTRICT
CAPITAL PROGRAMS & PROJECT DETAILS
LIQUID WASTE - Non Discretionary
## Capital Expenditures

### Infrastructure Growth

#### 2013 - Approved Projects in Progress

<table>
<thead>
<tr>
<th>Project Description</th>
<th>2013 Capital Expenditures</th>
<th>2013 Total Project Costs</th>
<th>Increase in Total Project Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSA - Lulu - Raw Sewage Pump and Replace Generator</td>
<td>1,120,000</td>
<td>1,600,000</td>
<td>1,300,000</td>
</tr>
<tr>
<td>FSA - Katzie Pump Upgrade - Design Phase II</td>
<td>600,000</td>
<td>2,000,000</td>
<td>-</td>
</tr>
<tr>
<td>FSA - Maple Ridge Forcemain - Surrey Section Twinning - Design</td>
<td>480,000</td>
<td>1,400,000</td>
<td>-</td>
</tr>
<tr>
<td>FSA - North Surrey Interceptor - Roebuck Road Section - Design</td>
<td>560,000</td>
<td>4,300,000</td>
<td>1,000,000</td>
</tr>
<tr>
<td>FSA - Sapperton Pump Station - Design</td>
<td>1,800,000</td>
<td>3,700,000</td>
<td>-</td>
</tr>
<tr>
<td>FSA - Sapperton Pump Station - Equipment &amp; Construction</td>
<td>100,000</td>
<td>40,000,000</td>
<td>-</td>
</tr>
</tbody>
</table>

#### 2013 - New Projects

<table>
<thead>
<tr>
<th>Project Description</th>
<th>2013 Capital Expenditures</th>
<th>2013 Total Project Costs</th>
<th>Increase in Total Project Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSA - Langley Pump Station Upgrade - Design</td>
<td>50,000</td>
<td>1,400,000</td>
<td>-</td>
</tr>
</tbody>
</table>

#### Total Capital Expenditures

| Total Capital Expenditures | $19,100,000 | $372,710,000 | $3,400,000 | $376,110,000 |

### Infrastructure Maintenance

#### 2013 - Approved Projects in Progress

<table>
<thead>
<tr>
<th>Project Description</th>
<th>2013 Capital Expenditures</th>
<th>2013 Total Project Costs</th>
<th>Increase in Total Project Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>VSA - Iona - Electrical Room HVAC Upgrades</td>
<td>360,000</td>
<td>2,095,000</td>
<td>-</td>
</tr>
<tr>
<td>VSA - Iona - Solids Handling Upgrade Project - Design</td>
<td>2,000,000</td>
<td>4,500,000</td>
<td>-</td>
</tr>
<tr>
<td>NSA - Glen Eagles Pump Station 2-5 - Rehab Design</td>
<td>400,000</td>
<td>500,000</td>
<td>700,000</td>
</tr>
<tr>
<td>NSA - LGWWWTP Influent Channel Bar Screen Replacement</td>
<td>80,000</td>
<td>690,000</td>
<td>-</td>
</tr>
<tr>
<td>NSA - Lions Gate -Gas Line Condensate Removal System</td>
<td>360,000</td>
<td>900,000</td>
<td>400,000</td>
</tr>
<tr>
<td>NSA - Lions Gate-MG Blower and HSG Compressor Replacement</td>
<td>90,000</td>
<td>450,000</td>
<td>-</td>
</tr>
</tbody>
</table>

#### 2013 - New Projects

<table>
<thead>
<tr>
<th>Project Description</th>
<th>2013 Capital Expenditures</th>
<th>2013 Total Project Costs</th>
<th>Increase in Total Project Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>VSA - Iona - Solids Handling Upgrade Project - Construction</td>
<td>100,000</td>
<td>26,000,000</td>
<td>-</td>
</tr>
<tr>
<td>LSA - Gilbert/Brihouse Trunk Pressure Sewer Twinning Phase 2 - Design</td>
<td>300,000</td>
<td>3,700,000</td>
<td>-</td>
</tr>
<tr>
<td>FSA - NWL WWTP 25 kV Substation Replacement - Design</td>
<td>50,000</td>
<td>300,000</td>
<td>-</td>
</tr>
</tbody>
</table>

#### Total Capital Expenditures

| Total Capital Expenditures | $3,730,000 | $39,135,000 | $1,100,000 | $40,235,000 |

### Infrastructure Risk Management

#### 2013 - Approved Projects in Progress

<table>
<thead>
<tr>
<th>Project Description</th>
<th>2013 Capital Expenditures</th>
<th>2013 Total Project Costs</th>
<th>Increase in Total Project Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSA - AIWWTP Cogeneration Backup Power - Project Definition</td>
<td>400,000</td>
<td>1,400,000</td>
<td>-</td>
</tr>
<tr>
<td>FSA - New CSO Management Gates for New Westminster Interceptor - Design</td>
<td>340,000</td>
<td>825,000</td>
<td>-</td>
</tr>
</tbody>
</table>

#### 2013 - New Projects

<table>
<thead>
<tr>
<th>Project Description</th>
<th>2013 Capital Expenditures</th>
<th>2013 Total Project Costs</th>
<th>Increase in Total Project Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSA - AIWWTP Cogeneration Backup Power - Predesign &amp; Detail Design</td>
<td>175,000</td>
<td>9,000,000</td>
<td>-</td>
</tr>
<tr>
<td>FSA - AIWWTP SCL Flow Balancing - Design</td>
<td>50,000</td>
<td>450,000</td>
<td>-</td>
</tr>
<tr>
<td>FSA - AIWWTP PST Area Walkway &amp; Column Remediation - Design</td>
<td>50,000</td>
<td>300,000</td>
<td>-</td>
</tr>
</tbody>
</table>

#### Total Capital Expenditures

| Total Capital Expenditures | $1,015,000 | $11,975,000 | - | $11,975,000 |

### Infrastructure Annacis Stage 5 Expansion

#### 2013 - Approved Projects in Progress

<table>
<thead>
<tr>
<th>Project Description</th>
<th>2013 Capital Expenditures</th>
<th>2013 Total Project Costs</th>
<th>Increase in Total Project Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSA - Annacis Stage 5 Expansion Phase 1 T1 &amp; T2</td>
<td>6,400,000</td>
<td>243,500,000</td>
<td>-</td>
</tr>
<tr>
<td>FSA - Annacis Stage 5 Expansion Phase 2 - Pre Design</td>
<td>$1,600,000</td>
<td>$5,000,000</td>
<td>-</td>
</tr>
</tbody>
</table>

#### Total Capital Expenditures

| Total Capital Expenditures | $8,000,000 | $248,500,000 | - | $248,500,000 |

### Infrastructure Upgrade

#### 2013 - Approved Projects in Progress

<table>
<thead>
<tr>
<th>Project Description</th>
<th>2013 Capital Expenditures</th>
<th>2013 Total Project Costs</th>
<th>Increase in Total Project Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSA - Sperling Pump Station Upgrade - Design</td>
<td>200,000</td>
<td>500,000</td>
<td>-</td>
</tr>
</tbody>
</table>

#### 2013 - New Projects

<table>
<thead>
<tr>
<th>Project Description</th>
<th>2013 Capital Expenditures</th>
<th>2013 Total Project Costs</th>
<th>Increase in Total Project Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>VSA - IIWWTP Digester 4 Roof Replacement &amp; Mixing Upgrade - Design</td>
<td>50,000</td>
<td>1,500,000</td>
<td>-</td>
</tr>
<tr>
<td>VSA - IIWWTP Interim Facility Plan</td>
<td>125,000</td>
<td>250,000</td>
<td>-</td>
</tr>
<tr>
<td>FSA - AIWWTP Secondary Bypass-Design</td>
<td>50,000</td>
<td>450,000</td>
<td>-</td>
</tr>
<tr>
<td>FSA - Cloverdale SSD Treatment - Pre-Design</td>
<td>120,000</td>
<td>150,000</td>
<td>-</td>
</tr>
<tr>
<td>FSA - NLWWTP SBS Storage - Design</td>
<td>50,000</td>
<td>250,000</td>
<td>-</td>
</tr>
<tr>
<td>FSA - NLWWTP Sludge Dewatering - Design</td>
<td>150,000</td>
<td>2,500,000</td>
<td>-</td>
</tr>
</tbody>
</table>

#### Total Capital Expenditures

| Total Capital Expenditures | $745,000 | $5,600,000 | - | $5,600,000 |

### Sewer Opportunity Programs

#### 2013 - Approved Projects in Progress

<table>
<thead>
<tr>
<th>Project Description</th>
<th>2013 Capital Expenditures</th>
<th>2013 Total Project Costs</th>
<th>Increase in Total Project Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSA - Microsludge and Green Biomethane Project</td>
<td>$1,100,000</td>
<td>$13,100,000</td>
<td>-</td>
</tr>
</tbody>
</table>

#### Total Capital Expenditures

| Total Capital Expenditures | $1,100,000 | $13,100,000 | - | $13,100,000 |

Greater Vancouver Sewerage and Drainage District - 19
## CAPITAL EXPENDITURES

### Infrastructure Growth
- **2013 - Approved Projects in Progress**
  - FSA - Annacis Stage 8 Outfall Pre Design & Land Investigation: 800,000, 3,000,000, - , 3,000,000
  - LSA - LiWWTP Ammonia Removal - Conceptual Design: 50,000, 200,000, - , 200,000
  - **TOTAL CAPITAL EXPENDITURES**: 850,000, 3,200,000, - , 3,200,000

### Infrastructure Maintenance
- **2013 - Approved Projects in Progress**
  - VSA - Iona Inlet modifications - Conceptual Design: $1,200,000, $2,260,000, $, $2,260,000
  - FSA - AIWWTP WSS Line Replacement: 80,000, 995,000, - , 995,000
  - FSA - Annacis - Secondary Clarifier Corrosion Repair: 780,000, 1,946,000, - , 1,946,000
  - **TOTAL CAPITAL EXPENDITURES**: 2,080,000, 5,201,000, $, 5,201,000

### Infrastructure Risk Management
- **2013 - New Projects**
  - FSA - AIWWTP Ammonia Removal - Conceptual Design: 50,000, 300,000, 300,000
  - **TOTAL CAPITAL EXPENDITURES**: 50,000, 300,000, 300,000

### Infrastructure Secondary Upgrade
- **2013 - Approved Projects in Progress**
  - VSA - Iona Secondary Treatment Upgrade - Project Definition: $1,600,000, $16,500,000, $, $16,500,000
  - NSA - Lions Gate Plant Upgrade - Project Definition: 3,200,000, 20,000,000, - , 20,000,000
  - **TOTAL CAPITAL EXPENDITURES**: 4,800,000, 36,500,000, $, 36,500,000

### Infrastructure Upgrade
- **2013 - New Projects**
  - LSA - LIWWTP Second Incomer Feeder - Conceptual Design: 50,000, 250,000, 250,000
  - FSA - Comprehensive Wastewater Treatment Plan for FSA - Conceptual Study: 200,000, 400,000, 400,000
  - FSA - NWL Outfall - Conceptual Design: 200,000, 300,000, 300,000
  - **TOTAL CAPITAL EXPENDITURES**: 450,000, 950,000, $, 950,000

### TOTAL CAPITAL EXPENDITURES
- **TOTAL CAPITAL EXPENDITURES**: 8,210,000, 46,151,000, $, 46,151,000
## EXPENDITURES

### Operating Programs:

<table>
<thead>
<tr>
<th>Category</th>
<th>2012 Budget</th>
<th>2013 Budget</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transfer Station System</td>
<td>$25,482,192</td>
<td>$31,766,367</td>
<td>24.66%</td>
</tr>
<tr>
<td>Landfills</td>
<td>$27,647,467</td>
<td>$21,183,147</td>
<td>(23.38%)</td>
</tr>
<tr>
<td>Waste to Energy Facility</td>
<td>$17,092,037</td>
<td>$18,435,011</td>
<td>7.86%</td>
</tr>
<tr>
<td>Environmental Impact Reduction</td>
<td>$7,457,292</td>
<td>$8,025,163</td>
<td>7.61%</td>
</tr>
<tr>
<td>Zero Waste Implementation</td>
<td>$1,501,954</td>
<td>$2,006,518</td>
<td>33.59%</td>
</tr>
<tr>
<td>Policy and Facility Development</td>
<td>$1,612,000</td>
<td>$1,612,000</td>
<td>0.00%</td>
</tr>
<tr>
<td>Sustainability Fund</td>
<td>$1,100,153</td>
<td>$1,115,361</td>
<td>1.38%</td>
</tr>
<tr>
<td>Regulation</td>
<td>$767,081</td>
<td>$1,072,408</td>
<td>39.80%</td>
</tr>
<tr>
<td>New Waste-to-Energy Capacity Project</td>
<td>$684,807</td>
<td>$540,472</td>
<td>(21.08%)</td>
</tr>
<tr>
<td>Residuals</td>
<td>$281,208</td>
<td>$293,437</td>
<td>4.35%</td>
</tr>
<tr>
<td>Minor Capital</td>
<td>$71,021</td>
<td>$59,362</td>
<td>(16.42%)</td>
</tr>
<tr>
<td>Major Capital - Metro Vancouver Labour</td>
<td>$1,100,153</td>
<td>$1,115,361</td>
<td>1.38%</td>
</tr>
<tr>
<td>Quality Control</td>
<td>$21,239</td>
<td>$21,287</td>
<td>0.23%</td>
</tr>
<tr>
<td>Allocation of Centralized Support Costs</td>
<td>$3,904,460</td>
<td>$3,529,804</td>
<td>(9.60%)</td>
</tr>
<tr>
<td>Total Operating Programs</td>
<td>$91,342,703</td>
<td>$93,138,622</td>
<td>1.97%</td>
</tr>
</tbody>
</table>

### Debt Program

<table>
<thead>
<tr>
<th>Category</th>
<th>2012 Budget</th>
<th>2013 Budget</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt Program</td>
<td>$3,609,899</td>
<td>$3,070,297</td>
<td>(14.95%)</td>
</tr>
</tbody>
</table>

### Contribution to Capital

<table>
<thead>
<tr>
<th>Category</th>
<th>2012 Budget</th>
<th>2013 Budget</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contribution to Capital</td>
<td>$3,857,685</td>
<td>$8,460,642</td>
<td>119.32%</td>
</tr>
</tbody>
</table>

### TOTAL EXPENDITURES

<table>
<thead>
<tr>
<th>Category</th>
<th>2012 Budget</th>
<th>2013 Budget</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL EXPENDITURES</td>
<td>$98,810,287</td>
<td>$104,669,561</td>
<td>5.93%</td>
</tr>
</tbody>
</table>

## REVENUES

<table>
<thead>
<tr>
<th>Category</th>
<th>2012 Budget</th>
<th>2013 Budget</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tipping Fees</td>
<td>$87,512,130</td>
<td>$90,617,796</td>
<td>3.55%</td>
</tr>
<tr>
<td>Net Income</td>
<td>(647,561)</td>
<td>(100.00%)</td>
<td></td>
</tr>
<tr>
<td>Energy Sales</td>
<td>$6,674,372</td>
<td>$7,500,000</td>
<td>12.37%</td>
</tr>
<tr>
<td>Other External Revenues</td>
<td>$4,577,305</td>
<td>$5,882,277</td>
<td>28.51%</td>
</tr>
<tr>
<td>Other Funds / Reserves / Surplus</td>
<td>$694,041</td>
<td>$669,488</td>
<td>(3.54%)</td>
</tr>
</tbody>
</table>

### TOTAL REVENUES

<table>
<thead>
<tr>
<th>Category</th>
<th>2012 Budget</th>
<th>2013 Budget</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL REVENUES</td>
<td>$98,810,287</td>
<td>$104,669,561</td>
<td>5.93%</td>
</tr>
</tbody>
</table>
### Greater Vancouver Sewerage & Drainage District

**CAPITAL PROGRAMS & PROJECT DETAILS**

**SOLID WASTE - Non Discretionary**

**2013 BUDGET**

<table>
<thead>
<tr>
<th>Project Details</th>
<th>2013 Capital Expenditures</th>
<th>Original Increase in Total Capital Expenditures</th>
<th>Total Project Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Waste-to-Energy Facility</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013 - Approved Projects in Progress</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nox Reduction - Design and Construction</td>
<td>3,000,000</td>
<td>7,000,000</td>
<td>-</td>
</tr>
<tr>
<td>Air Cooled Condenser Expansion - Construction</td>
<td>400,000</td>
<td>4,200,000</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3,400,000</strong></td>
<td><strong>11,200,000</strong></td>
<td><strong>-</strong></td>
</tr>
<tr>
<td><strong>Transfer Station System</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013 - Approved Projects in Progress</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Material &amp; Foodwaste Diversion Upgrades</td>
<td>800,000</td>
<td>6,400,000</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>800,000</strong></td>
<td><strong>6,400,000</strong></td>
<td><strong>-</strong></td>
</tr>
<tr>
<td><strong>Landfills</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013 - Approved Projects in Progress</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cache Creek Landfill Gas Collection System Upgrade</td>
<td>$1,300,000</td>
<td>$2,900,000</td>
<td>-</td>
</tr>
<tr>
<td>Coquitlam Landfill Leachate Collection System Grade Realignment - Contr.</td>
<td>$480,000</td>
<td>$800,000</td>
<td>-</td>
</tr>
<tr>
<td>Coquitlam Landfill Gas Collection Upgrades Phase II - Construction</td>
<td>2,300,000</td>
<td>3,300,000</td>
<td>-</td>
</tr>
<tr>
<td>Cache Creek Landfill Flyash Cell Expansion</td>
<td>1,500,000</td>
<td>1,500,000</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5,580,000</strong></td>
<td><strong>8,500,000</strong></td>
<td><strong>-</strong></td>
</tr>
<tr>
<td><strong>SW Opportunity Programs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013 - Approved Projects in Progress</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coquitlam Landfill - Beneficial Use of Landfill Gas</td>
<td>870,000</td>
<td>2,000,000</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>870,000</strong></td>
<td><strong>2,000,000</strong></td>
<td><strong>-</strong></td>
</tr>
<tr>
<td><strong>TOTAL CAPITAL EXPENDITURES</strong></td>
<td><strong>10,650,000</strong></td>
<td><strong>28,100,000</strong></td>
<td><strong>-</strong></td>
</tr>
</tbody>
</table>
### Capital Expenditures

#### Waste-to-Energy Facility

<table>
<thead>
<tr>
<th>Project Description</th>
<th>2013 Capital Expenditures</th>
<th>Original Total Project Costs</th>
<th>Increase in Total Project Costs</th>
<th>Total Project Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEMS Upgrade - Design</td>
<td>$500,000</td>
<td>$500,000</td>
<td>$0</td>
<td>$500,000</td>
</tr>
<tr>
<td>Scrubber - Design</td>
<td>$750,000</td>
<td>$500,000</td>
<td>$1,000,000</td>
<td>$1,500,000</td>
</tr>
<tr>
<td>Seismic Upgrades - Design</td>
<td>$400,000</td>
<td>$1,400,000</td>
<td>$400,000</td>
<td>$1,800,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$1,650,000</strong></td>
<td><strong>$2,400,000</strong></td>
<td></td>
<td><strong>$3,800,000</strong></td>
</tr>
</tbody>
</table>

#### Transfer Station System

<table>
<thead>
<tr>
<th>Project Description</th>
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<th>Original Total Project Costs</th>
<th>Increase in Total Project Costs</th>
<th>Total Project Costs</th>
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#### Solid Waste Management Plan Initiatives

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**Total Capital Expenditures**

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These projects are incurred by Wastech and recovered through contract payments.

* Approval required by GVS&DD/Wastech Strategic Planning Committee
To: Finance Committee

From: Phil Trotzuk, Financial Planning & Operations Manager, Finance & Administration Department

Date: September 15, 2012

Subject: GVS&DD Temporary Borrowing Authority

Recommendation:

That the GVS&DD Administration Board authorize the borrowing from the District’s Banker or others in the course of the calendar year 2013 in anticipation of the collection of its revenue, of a sum or sums of money, the outstanding total of which shall not exceed $12 million at any one time, by the issue of promissory notes or by such other means as are appropriate.

1. PURPOSE

To renew the authority for 2013 which permits temporary borrowing, should it be required, in anticipation of revenues during the year.

2. CONTEXT

The resolution is a standard one brought forward each year, and authorizes temporary borrowing in the event operating expenditures and debt charges exceed monies available to cover such at any time during the year. This authority bridges the gap between the incurring of expenditures and the receipt of revenues, the majority of which are received in August. The limit of $12 million is unchanged from previous years.

GN/wc

Doc. #6503458
To: Board of Directors

From: Zero Waste Committee

Date: October 15, 2012

Subject: **New Waste-to-Energy Procurement Process**

**Zero Waste Committee Recommendation:**

That the Board approve:

1. Proceeding with the recommended procurement process described in this report commencing with a technology only request for qualifications (RFQ1), with an operational date for new waste-to-energy capacity no later than mid 2018.

2. Requiring in RFQ1 that proponents demonstrate that at a minimum the proposed technology solution has operated continuously for one year in the last five years processing a minimum of 25,000 tonnes per year of municipal solid waste.

At its October 11, 2012 meeting, the Zero Waste Committee considered the attached report titled “New Waste-to-Energy Procurement Process”, dated September 24, 2012. The Committee subsequently passed the above recommendation. In addition, the Committee requested staff to revise the recommended procurement process outlined in the report as follows:

- In the third paragraph of Section 1, by adding “potential revenue streams” under the evaluation criteria
- In Section 3, by replacing the phrase “whether one or more facilities is required” with the phrase “whether one or more facilities is required or advisable”
- In Sections 4 and 5, make reference to a business case rather than cost of the facility only
- In Section 5 – at the end of the sentence, add the phrase “and other revenue streams”

Attachment:

To: Zero Waste Committee

From: Paul Henderson, Manager
Solid Waste Department

Date: September 24, 2012

Subject: New Waste-to-Energy Procurement Process

Recommendation:

That the Board approve:

1. Proceeding with the recommended procurement process described in this report commencing with a technology only request for qualifications (RFQ1), with an operational date for new waste-to-energy capacity no later than mid 2018.
2. Requiring in RFQ1 that proponents demonstrate that at a minimum the proposed technology solution has operated continuously for one year in the last five years processing a minimum of 25,000 tonnes per year of municipal solid waste.

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 evaluation criteria for RFQ1.

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.

On September 21, 2012, the Board referred the following recommendation back to staff and the Zero Waste Committee for comment:

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 no later than mid 2018. Further, that promising technologies that may not have a full scale reference facility currently available not be automatically excluded solely on that basis, and that they be considered as part of the process to accommodate opportunities for different technologies and systems and different site locations that may be feasible on a smaller scale.
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 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
   - 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
   - Alignment with Metro Vancouver’s sustainability principles
   - Potential revenue streams

   Staff recommend that RFQ1 specifically require that proponents demonstrate that their proposed technology solution has been used on a continuous basis for a minimum of one year in the last five years to process a minimum of 25,000 tonnes per year of municipal solid waste.

   Twenty five thousand tonnes per year is less than 10% of the total estimated new waste-to-energy capacity and is an amount small enough to ensure that there is maximum opportunity to develop a diverse waste-to-energy network.

   The high-level evaluation criteria presented above 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 (RFQ2) 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 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 or facilities, which along with information on proposed sites will be used to determine whether one or more facilities is required or advisable 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 business case of the proposed facilities. The successful proponent or proponents 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 business case 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 or proponents with a final contract being contingent on the successful proponent or proponents delivering appropriate municipal and environmental approvals along with other key project deliverables such as energy contracts and other revenue streams.

Metro Vancouver will work closely with regulators to define which responsibilities and risks are most appropriately held by Metro Vancouver and which responsibilities and risks are most appropriately held by proponents.
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 on multiple occasions 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. A companion report lays out a proposed engagement and consultation program, including specific activities.

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.

As per the direction from the Board on September 21, Metro Vancouver staff are investigating options to maximize opportunities to consider other materials and/or municipal solid waste from other jurisdictions and will report back to the Board with the outcomes of that analysis.

8. **Overall Timeline**

The expected timeline to new WTE capacity operations is shown in Attachment 1. The successful proponent(s) 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 1 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**

At the September 21 Board meeting, the Board referred the ownership of new WTE capacity issue back to staff for additional analysis. Staff will work with municipal staff to develop a proposed ownership model considering interests communicated at the Board to provide mechanisms to facilitate the potential for municipal ownership along with
Metro Vancouver ownership. One option that will be explored with municipal staff is facilitating the potential for municipal ownership of a portion of new WTE capacity outside of the Metro Vancouver procurement process.

3. ALTERNATIVES

RFQ1 Evaluation Criteria

1. Staff recommend that in their RFQ1 responses proponents be required to demonstrate that their proposed technology solution has been used on a continuous basis for a minimum of one year in the last five years processing a minimum of 25,000 tonnes per year of municipal solid waste.

2. Alternatively, the Board could direct staff to consider proponents that are not currently able to demonstrate experience processing 25,000 tonnes per year of municipal solid waste, but based on facilities under development are expected to be able to demonstrate the ability to process a minimum of 25,000 tonnes per year by the time RFQ2 submissions are made in 2014.

Based on input from Metro Vancouver’s consultants, staff expects that at least 10 potential proponents representing various technology options could meet the requirement to demonstrate a minimum 25,000 tonnes per year of continuous operation for more than one year in the last five years.

If the recommendation is changed to qualify proponents that are expected to be able to demonstrate the ability to process a minimum 25,000 tonnes per year of waste by early 2014, staff anticipates that many more proponents would assert they would be capable of meeting this requirement. Determining whether or not proponents will be able to process a minimum 25,000 tonnes per year of waste by 2014 could be challenging given the number of factors that will determine if a particular proponent would meet the requirement. Staff anticipates as many as 10 or more additional proponents would be successful in RFQ1 if proponents only need to demonstrate that they may be able to process 25,000 tonnes per year of waste by early 2014.

Staff believe that reducing the required criteria to qualify proponents that cannot currently demonstrate the ability to process a minimum 25,000 tonnes per year of MSW, but are expected to be able to process a minimum of 25,000 tonnes per year of MSW by early 2014 would have the following drawbacks:

- The number of potential proponents likely to meet the requirement would make the procurement process unwieldy
- One of the reasons for shortlisting proponents is to minimize uncertainty and concern about environmental performance within potential host communities, which is a likely outcome if unproven technologies are qualified through RFQ1. Local communities have already experienced uncertainty and resulting community concern associated with unproven waste management technology solutions.
- The benefit of RFQ1 would be limited given the large number of proponents that would likely be qualified.

Staff recommend 1.
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 including specific RFQ1 evaluation criteria for demonstrating that the proponents’ proposed technology solutions are capable of processing municipal solid waste.

ATTACHMENT
Metro Vancouver New Waste-to-Energy Capacity Development Schedule (6556201)
## Procurement Process
1. Consultation Strategy
2. RFQ1: Technology
3. Potential Site Identification Process
4. PPP Canada Business Case
5. RFQ2: Technology and Sites
6. RFP: Short-listed Proponents and Sites
7. Regulatory and Environmental Consultation and Engagement
8. Detailed Design/Construction

### Metro Vancouver New Waste-to-Energy Capacity Development Schedule

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reports to ZWC/Board
To: Board of Directors

From: Zero Waste Committee

Date: October 15, 2012

Subject: New Waste-to-Energy Capacity: Proposed Engagement and Consultation Program

Zero Waste Committee Recommendation:
1. That the Board approve the proposed engagement and consultation program for new waste-to-energy capacity, as described in the report titled “New Waste-to-Energy Capacity: Proposed Engagement and Consultation Program” dated October 2, 2012.
2. That the Board Chair write the Minister of Environment asking for confirmation that Board approval of the procurement process for new WTE capacity will trigger the requirement to initiate consultation with the FVRD, and send a copy of the correspondence to the FVRD.

At its October 11, 2012 meeting, the Zero Waste Committee considered the attached report titled “New Waste-to-Energy Capacity: Proposed Engagement and Consultation Program”, dated October 2, 2012. The Committee subsequently amended the recommendation as presented above in underline style.

Attachment:
To: Zero Waste Committee

From: Marie Griggs, Public Involvement Division Manager
Engineering and Construction Department

Date: October 2, 2012

Subject: New Waste-to-Energy Capacity: Proposed Engagement and Consultation Program

Recommendation:

1. That the Board approve the proposed engagement and consultation program for new waste-to-energy capacity, as described in the report titled “New Waste-to-Energy Capacity: Proposed Engagement and Consultation Program” dated October 2, 2012.

2. That the Board Chair write the Minister of Environment asking for confirmation that Board approval of the procurement process for new WTE capacity will trigger the requirement to initiate consultation with the FVRD.

1. PURPOSE

This report summarizes the proposed overall engagement and consultation program for the development of new waste-to-energy capacity for Metro Vancouver and identifies specific activities for the early phases of the process.

2. CONTEXT

On July 30, 2010, the GVS&DD Board adopted the Integrated Solid Waste and Resource Management Plan (ISWRMP). In addition to waste reduction, reuse and recycling initiatives to increase the diversion of waste from disposal, the ISWRMP included a strategy to develop new waste-to-energy (WTE) capacity to help manage the region’s remaining municipal solid waste.

In a July 22, 2011 letter to the Board chair, the B.C. Minister of Environment approved the ISWRMP, attaching conditions on the approval, including requirements that Metro Vancouver consider all WTE technology options and both in and out-of-region WTE solutions. The Minister requested Metro Vancouver to develop a consultation plan on the options and to establish a working group with the Fraser Valley Regional District (FVRD) to address air quality concerns if Metro Vancouver selects an in-region option(s).

On March 2, 2012, the Board directed staff to recommend a new WTE capacity procurement process, a broad consultation and communications strategy, and a process by which Metro Vancouver would consult with the FVRD. The Board further directed staff to liaise with the FVRD to provide a venue for staff of the two regional districts to share information on waste-to-energy (WTE) and air emissions in the Lower Fraser Valley airshed. Since then, staff has
met with FVRD senior staff eight times to share technical information and to gain a better understanding of their interests. A summary of meeting topics can be found in Attachment 1.

On March 28, 2012, the Zero Waste Committee (ZWC) received the report titled “Communications Plan for Waste-to-Energy Procurement Process”, which includes strategies and actions that will provide additional support for the engagement and consultation program.

This report outlines the objectives, audiences and mechanisms for the overall engagement and consultation program and the specific activities proposed for Phase 1 and the introduction of Phase 2 (described in Section 2.3).

In addition to responding to the Minister’s conditions on the ISWRMP approval, the new WTE capacity engagement and consultation program is aligned with the Ministry of Environment’s guidelines addressing regional solid waste management plan development, implementation and monitoring. The program also reflects Metro Vancouver’s commitment in the Sustainability Framework to build and facilitate collaborative processes and engage citizens affected by major projects and initiatives. The program builds on relationships established during the development of the ISWRMP.

2.1 Objectives

The following are the objectives for the new WTE capacity engagement and consultation program:

- Inform all audiences about the new WTE capacity development process at key milestones
- Notify all audiences of the opportunities to comment on the new WTE capacity development process
- Provide a variety of methods for audiences to submit comments
- Meet all applicable engagement and consultation guidelines including the related conditions of the Minister of Environment’s ISWRMP approval
- Document and summarize all input for consideration by Metro Vancouver and regulatory agencies, as applicable
- Provide summaries of activities, input, and Metro Vancouver responses to input in consultation reports.

2.2 Audiences

The engagement and consultation program for the new WTE capacity development process is structured to encourage the following target audiences to participate and provide input:

- Metro Vancouver public (residents, businesses, non-governmental organizations, industry)
- Metro Vancouver members (mayors and councils, staff)
- Adjacent regional districts – as per Ministry of Environment guidelines on preparation and implementation of solid waste management plans (FVRD and Squamish-Lillooet Regional District – SLRD): boards, members (mayors and councils, staff), and public (residents, businesses, non-governmental organizations, industry)
- All First Nations and tribal councils/associations whose traditional territory lies within BC
- Potential out-of-region communities (mayors and council, staff and public) where a proponent or site owner proposes to develop new WTE capacity for MV
- Federal, provincial and regional government agencies and ministries.
2.3 Phased Approach to Consultation

A phased iterative approach to engagement and consultation is proposed, allowing for the appropriate level of notification and involvement for specific audiences as the development process proceeds. The new WTE capacity engagement and consultation program is linked to the milestones identified in the project schedule attached to the report titled "New Waste-to-Energy Procurement Process" also on this meeting’s agenda. The development process encompasses Phases 1-8 below and includes the procurement process (Phases 1-4).

- Public request for qualifications (RFQ) process to evaluate proponents’ proven experience with WTE

Phase 2: Potential Site Identification Process (Feb. – Sept. 2013)
- Process to allow site owners to identify potential project sites and identify any sites secured by shortlisted RFQ1 proponents

Phase 3: RFQ2: Technology and Sites (Sept. 2013 – May 2014)
- Second-stage RFQ process to evaluate each proponent’s technology and site

Phase 4: RFP: Short-listed Proponents and Sites (May 2014 – Q1 2015)
- Iterative process to identify successful proponent


Phase 7: Commissioning and Operation (2018)

Phase 8: Monitoring (2018 and ongoing)

This report proposes specific engagement and consultation activities for Phase 1 and the introduction of Phase 2. Specific activities for Phases 2 - 8 will be developed by staff and presented to the ZWC and Board for approval.

2.3.1 Timing of Consultation with Fraser Valley Regional District

The Minister of Environment’s July 22, 2011, letter approving the ISWRMP requires that, if Metro Vancouver pursues in-region WTE capacity, Metro Vancouver consult with FVRD to address air quality concerns related to new WTE capacity. The letter specifically identifies the following areas for consultation: emission standards, environmental monitoring, mitigation measures and any other related issue agreed to by the parties. If the parties are unable to reach agreement on these issues within one year of making a decision to site a WTE facility in-region, their respective positions are to be put to an arbitrator who will render a recommendation to the Ministry of Environment.

To ensure a fair and transparent procurement process, the decision on whether to develop new WTE capacity in or out-of-region will be made through a competitive process. This approach aligns with the requirement of the Minister’s July 22, 2011 letter that the competitive process for developing new WTE capacity “considers the full range of possible options both in and out of region in an equal and fair manner”.

As outlined in the companion report titled “New Waste-to-Energy Procurement Process”, Metro Vancouver’s proposed procurement process is a multi-stage approach that will allow comparison of project proposals based on both technology and site from an economic, environmental and social basis. The process will begin with a technology only request for qualifications expected to be issued in November 2012. The multi-stage competitive approach that will be undertaken dictates that a decision to site new WTE capacity in or out-
of-region will likely not be made until early 2015 when the project proponent(s) is/are selected.

To be able to compare project proposals on an economic, environmental and social basis, Metro Vancouver will need to be able to quantify the costs of the items identified for consultation with the FVRD (emission standards, monitoring requirements, mitigation and other related issues). The potential cost of these items may have significant bearing on the evaluation of proposals. Metro Vancouver needs to be able to quantify these items by the time it issues the final request for proposals for new WTE capacity, expected in early 2014.

To ensure meaningful consultation with the FVRD is initiated and carried out in a timely manner, staff recommends seeking confirmation from the Minister of Environment that the Board’s approval of the procurement process for new WTE capacity will trigger the requirement to initiate consultation with the FVRD.

2.4 Early Phase Engagement and Consultation Objectives

The following are the specific engagement and consultation objectives for Phase 1 and the introduction of Phase 2:

- Inform all audiences about RFQ1: Technology and the criteria used to evaluate submissions, and the subsequent Potential Site Identification Process
- Notify all audiences of the opportunities to comment on the Potential Site Identification Process and the procurement process in general
- Address specific conditions of the Minister of Environment’s ISWRMP approval regarding consultation with the FVRD
- Receive input and summarize activities, input, and Metro Vancouver responses to input in a consultation report.

2.5 Early Phase Engagement and Consultation Activities

This section provides a summary of engagement and consultation audience activities and components for Phase 1 and the introduction of Phase 2. Additional background and details regarding these activities can be found in Attachment 2.

Correspondence will be used to inform all audiences of the opportunity to provide input and a formal comment period will be established for specific elements of each phase to ensure timely receipt. In addition to formal notification, the following activities are proposed to receive feedback from engagement and consultation audiences.

Metro Vancouver Public

A meeting for the public (format to be determined) will be held in Metro Vancouver regarding the Potential Site Identification Process.

Metro Vancouver Members

- Member councils will be provided regular updates via the ZWC and Board through regular staff reports.
- Meeting for elected officials and staff, such as a potential Council of Councils, to introduce Phase 2: Potential Site Identification Process.
- Presentations to Regional Administrative Advisory Committee, Regional Engineers Advisory Committee (REAC), Regional Finance Advisory Committee,
Regional Planning Advisory Committee, REAC Solid Waste Subcommittee and Municipal Waste Reduction Coordinators Committee.

- Presentations to individual member councils upon request.

Adjacent Regional Districts

**Fraser Valley Regional District**

Staff will continue to meet with the FVRD to present information and seek input regarding the appropriate audiences and mechanisms for consulting within their jurisdiction. Background on the following proposed Phase 1 and introduction of Phase 2 activities can be found in Attachment 2.

- Invitation to meeting for elected officials and staff, such as a potential Council of Councils, to introduce Phase 2: Potential Site Identification Process.
- A meeting for the public will be held in the FVRD (format to be determined with input from the FVRD) regarding Phase 2: Potential Site Identification Process.
- Potential for a Board-to-Board meeting with the FVRD will be determined through discussions between the respective Chairs.
- Formation of a Working Group with the FVRD to address air quality concerns. The Working Group is proposed to be overseen by a Steering Committee made up of elected officials from the two regional districts. Attachment 2 includes more information on the Working Group.

**Squamish-Lillooet Regional District**

- Staff to discuss with the SLRD the methods by which they wish to be consulted.
- Invitation to meeting of elected officials and staff, such as a potential Council of Councils, to introduce Phase 2: Potential Site Identification Process.

First Nations

- Invitations to any meetings for the public regarding Phase 2: Potential Site Identification Process.
- Metro Vancouver will provide regional meetings for affected First Nations groups, as requested.

Government Agencies and Ministries

- Regular meetings with B.C. Ministry of Environment staff to discuss the new WTE capacity development process and the engagement and consultation program.
- An agency workshop to introduce the development process to key regulatory agencies and to receive initial feedback on the early phases.

Integrated Utility Management Advisory Committee

- The Integrated Utility Management Advisory Committee (IUMAC) is a high-level advisory committee established to monitor and provide advice to Metro Vancouver on the implementation of the ISWRMP, the Drinking Water Management Plan, and the Integrated Liquid Waste and Resource Management Plan.
- The formation of an IUMAC sub-committee is being considered to allow for more in-depth reporting and exchange regarding specific ISWRMP projects, including New WTE capacity.
Supporting Communication Activities

- As outlined in Attachment 2, Metro Vancouver will provide a full range of communications support for the engagement and consultation process.

3. ALTERNATIVES

The Board may:
   a) Approve the proposed overall engagement and consultation program for the development of new WTE capacity for Metro Vancouver and specific activities for Phase 1 and introduction of Phase 2 of the development process.
   b) Provide direction to staff to modify the proposed program prior to commencing engagement and consultation on new WTE capacity development.

4. CONCLUSION

The engagement and consultation program proposed in this report would provide meaningful opportunities for Metro Vancouver members and public, First Nations, members and public of adjacent regional districts, potential out-of-region communities where a proponent or site owner proposes to develop new WTE capacity for MV, government agencies and other interested parties to provide input on the development of new WTE capacity for Metro Vancouver.

Feedback generated from engagement and consultation activities will be reported to the Board at key milestones and will inform future phases of the new WTE capacity engagement and consultation process.

ATTACHMENTS:

1. Metro Vancouver / FVRD Technical Team Activity Summary
2. Engagement and Consultation Activities: New Waste-to-Energy Capacity Phase 1 and the Introduction of Phase 2
Metro Vancouver / Fraser Valley Regional District Technical Team
Activity Summary

Purpose

In March 2012, the Metro Vancouver/Fraser Valley Regional District (FVRD) Technical Team was formed to provide a venue for staff of the two regional districts to share information on waste-to-energy (WTE) and air emissions in the Lower Fraser Valley airshed. Information regarding a proposed process by which Metro Vancouver (MV) would consult the FVRD on new WTE capacity was also provided to FVRD.

Meetings to Date

To date, eight (8) meetings of the Metro Vancouver/FVRD Technical Team have been held – half of them in the Fraser Valley. Meetings were held on the following dates in 2012: April 11, April 30, June 6, June 15, July 13, July 30, September 17, and October 1.

Meeting Topics to Date

Existing Metro Vancouver WTE Facility (Metro Vancouver presentation)
- Overview and tour
- Environmental monitoring programs and results
- Continuous improvements (emissions)
- Regulatory framework

Lower Fraser Valley Airshed
- Airshed characteristics
- Emission sources (defining and quantifying regulated and non-regulated)
- Air quality conditions (historical and forecasted)
- Air quality monitoring program
- Interagency collaboration (including cross-border considerations)
- Potential areas for airshed improvement including but not limited to MV Air Quality Management Plan actions

Waste-to-Energy Technologies
- Technologies
- Operation
- Air pollution controls
- Emissions
- Emissions monitoring

Waste Flow Projections and Implications for WTE Capacity Requirements
- Future of overall diversion rates
- Future of plastics recycling
- Future of wood recycling
- Implications of new packaging and printed paper program
Meeting Topics to Date (continued)

Developing an Engagement and Consultation Framework
Metro Vancouver has provided the FVRD with materials on the proposed engagement and consultation process. Topics presented by MV include:

- Framework
- Planning phases
- Objectives
- Audiences/databases
- Draft document re: establishing a Working Group Terms of Reference
- Potential activities and communications

Future Meeting Agenda Items

- Regulatory/jurisdictional framework for WTE development
  - Municipal, provincial, federal and First Nations considerations and requirements
- Environmental/health impact assessments
- Ultrafine particles
- Waste-to-energy emission standards
  - International, federal and provincial standards
  - Current state of the art
- Others (to be determined)
Engagement and Consultation Activities: New Waste-to-Energy Capacity Phase 1 and the Introduction of Phase 2

This attachment provides additional background and details on the engagement and consultation activities proposed for Phase 1 and the introduction of Phase 2 of the new waste-to-energy (WTE) capacity development process (see Section 2.3 of the report outlining the development phases).

1. Metro Vancouver Public

Opportunities will be provided to Metro Vancouver residents and businesses to provide input in writing and in person. Comment will be invited on the overall procurement process and any other factors Metro Vancouver should consider before proceeding with the Potential Site Identification Process. A meeting for the public (format to be determined) will be held in Metro Vancouver to receive public delegations regarding Phase 2: Potential Site Identification Process.

2. Metro Vancouver Members

Information and opportunities for input will be provided to Metro Vancouver member mayors, councils and staff. Metro Vancouver member councils will be provided regular updates via the Zero Waste Committee and Board through regular staff reports. Metro Vancouver may also host a meeting for elected officials and staff, such as a potential Council of Councils, to introduce Phase 2: Potential Site Identification Process. Metro Vancouver will present development process information to, and seek input on a regular basis from, municipal staff members of Metro Vancouver advisory committees, including Regional Administrative Advisory Committee, Regional Engineers Advisory Committee (REAC), Regional Finance Advisory Committee, Regional Planning Advisory Committee, REAC Solid Waste Subcommittee and Municipal Waste Reduction Coordinators Committee. Meetings with and presentations to individual member councils will be held upon request.

3. Adjacent Regional Districts

Metro Vancouver will actively seek input on the new WTE capacity development process from the Fraser Valley Regional District (FVRD) and Squamish-Lillooet Regional District (SLRD) throughout all project phases.

3.1. Fraser Valley Regional District

In March 2012, the Metro Vancouver/Fraser Valley Regional District (FVRD) Technical Team was formed to provide a venue for staff of the two regional districts to share information on waste-to-energy (WTE) and air emissions in the Lower Fraser Valley airshed. Information regarding a proposed process by which Metro Vancouver (MV) would consult the FVRD on new WTE capacity was also provided to FVRD (see Attachment 1 for details regarding meeting topics and activities). FVRD staff provided input to determine the meeting agendas and have requested information and clarification on the existing Metro Vancouver WTE facility, Lower Fraser Valley Airshed characteristics, WTE technologies and the new WTE capacity engagement and consultation process. Metro Vancouver has provided the FVRD with materials on the proposed engagement and consultation process. Metro Vancouver staff is proposing to continue the Technical Team meetings beyond the 8 meetings that have been held to date. The
Technical Team has not been able to cover all of the agenda topics identified at the outset of the meeting series.

3.1.1. FVRD Audiences
As part of the Technical Team’s agendas, MV staff has provided a listing of audiences in the FVRD’s jurisdiction that would be consulted by Metro Vancouver. The proposed FVRD engagement and consultation audiences identified by MV include FVRD Board (Chair, Directors and staff), FVRD member municipalities (Mayors, councils and staff), First Nations, FVRD public (residents, businesses, non-governmental organizations) and government agencies and ministries including Fraser Health (see Section 2.5 of the report).

FVRD staff have been provided for their review, draft engagement and consultation databases for audiences within their jurisdiction, which would form the basis of the outreach within the FVRD.

3.1.2. FVRD Consultation Mechanisms
Once the FVRD has confirmed database contacts, FVRD would be requested to provide input on the appropriate mechanisms for engaging and consulting with the above audiences.

FVRD will be invited to participate in a meeting for elected officials and staff, such as a potential Council of Councils, to introduce Phase 2: Potential Site Identification Process. Metro Vancouver will also host a meeting for the public in the FVRD regarding Phase 2: Potential Site Identification Process. The public meeting format will be determined with input from the FVRD. The potential for a Board-to-Board meeting with the FVRD will be determined through discussions between the respective Chairs.

As a ministerial condition of ISWRMP approval, Metro Vancouver must form a Working Group with the FVRD to address air quality concerns if a decision is made to site in-region solution(s) for new WTE capacity. The decision, whether or not to site new WTE capacity in-region, is not expected until 2014/15 and staff identifies benefits to both organizations to start Working Group meetings sooner. The proposed Working Group would provide the FVRD with the opportunity to help firmly establish key environmental protection measures prior to issuing the RFP (Phase 4) and would offer Metro Vancouver some certainty regarding the costs of the measures identified, as the procurement and regulatory processes move forward. Metro Vancouver proposes to transition to the formation of the Working Group with oversight by a Steering Committee made up of elected officials from the two regional districts.

At the time of writing this report, Metro Vancouver has proposed a structure for the Working Group to FVRD staff; however it is still considered draft, subject to review by both the FVRD and Metro Vancouver Board. The relationship between the proposed Metro Vancouver/FVRD Steering Committee, Working Group and Technical Team is described below.

New Waste-to-Energy Capacity
MV/FVRD Working Group and Oversight

- MV/FVRD Steering Committee (elected officials)
- MV/FVRD Working Group (MV, FVRD staff; MV, FVRD member municipal staff; health authorities)
- MV/FVRD Technical Team (MV, FVRD senior staff)
3.1.3. Steering Committee
The Metro Vancouver/FVRD Steering Committee would be formed to provide oversight to the Working Group. Metro Vancouver proposes the Steering Committee consist of the Metro Vancouver and FVRD Chairs, the Chair of Zero Waste Committee and another elected official from the FVRD, to be nominated by the FVRD.

3.1.4. Technical Team
The Metro Vancouver/FVRD Technical Team currently consisting of staff from both organizations would provide assistance to the Working Group with setting agendas and identifying resources.

3.1.5. Working Group
The Metro Vancouver/FVRD Working Group would be formed in order to address the potential impact of Metro Vancouver’s new WTE capacity on FVRD and Metro Vancouver’s common airshed. The objectives of the Working Group, as described in the ministerial conditions on ISWRMP approval, would be to:
   a) develop recommendations for WTE emission standards that do not conflict with Provincial or Federal policy and/or legislation
   b) develop recommendations for an environmental monitoring program for any new or expanded in-region WTE facility(s)
   c) establish mitigation measures that address reasonable concerns of the FVRD with respect to additional WTE in-region
   d) include any other reasonable related issue agreed to by the parties.

Metro Vancouver is developing a Terms of Reference for the Working Group pending further input from the Metro Vancouver Board and the FVRD. The Working Group would consist of members with technical knowledge of issues related to WTE, air quality and human health, including representatives from the FVRD, Metro Vancouver, their respective member municipalities and, Vancouver Coastal Health and Fraser Health.

3.2. Squamish-Lillooet Regional District
Metro Vancouver will discuss with the SLRD the methods by which they wish to be consulted. SLRD will be invited to meetings of elected officials and staff, such as a potential Council of Councils, held to introduce Phase 2: Potential Site Identification Process.

4. First Nations
Metro Vancouver will correspond directly with all potentially affected First Nations in BC (described in Section 2.2 of the report) informing them of the new WTE capacity development process and notifying them of engagement opportunities. Invitations will be provided to any meetings for the public (format to be determined) in Metro Vancouver and/or the FVRD, regarding Phase 2: Potential Site Identification Process. Metro Vancouver will provide regional meetings for affected First Nations groups, as requested.

5. Government Agencies and Ministries
Metro Vancouver staff will meet regularly with B.C. Ministry of Environment staff to discuss the project development process and the engagement and consultation program. The Metro Vancouver / FVRD Working Group would also provide quarterly updates to the Ministry of
Environment as per the conditions in the ministerial letter of approval for the Integrated Solid Waste and Resource Management Plan (ISWRMP).

Government agencies with an interest in solid waste management, air emission and health issues will be provided with information on the new WTE capacity development process and notified of the engagement and consultation process.

Metro Vancouver is hosting an agency workshop to introduce the project to key regulatory agencies and to receive initial feedback on the early phases of the development process. Additionally, letters will be sent to provincial and federal government agencies and ministries to solicit input on the procurement process. As required, individual meetings will be held with agencies to provide clarification on aspects of new WTE capacity development.

6. Integrated Utility Management Advisory Committee

The Integrated Utility Management Advisory Committee (IUMAC) is a high-level advisory committee established to monitor and provide advice to Metro Vancouver on the implementation of the ISWRMP, the Drinking Water Management Plan, and the Integrated Liquid Waste and Resource Management Plan.

The panel includes up to 15 representatives residing or working in Metro Vancouver with experience and expertise in one or more of the utilities managed by Metro Vancouver. Members will include staff from Metro Vancouver, municipalities, senior government agencies, technical and professional experts, public, and non-governmental and business representatives.

The formation of an IUMAC sub-committee is being considered to allow for more in-depth reporting and exchange regarding specific ISWRMP projects, including new WTE capacity.

7. Supporting Communication Activities

The following activities are proposed to support the engagement and consultation program for Phase 1 and the introduction to Phase 2, and to encourage participation and input:

- development and maintenance of contact databases for all target audiences
- distribution of notification correspondence to all target audiences regarding the new WTE capacity development process and the opportunities to comment
- placements of advertisements region-wide in Metro Vancouver, adjacent regional districts and if required in potential out-of-region communities (mayors and council, staff and public) where a proponent or site owner proposes to develop new WTE capacity for MV, to notify of public meetings, other opportunities to provide input and information on the new WTE capacity development process
- distribution of notification e-mails to individuals and organizations on Metro Vancouver’s regional dialogue database (approximately 6,500) and the new WTE capacity database (approximately 1,300) regarding public meetings and the opportunities to provide input
- advertisement of Metro Vancouver contact information (via phone, fax, letter, email) in all materials
- media relations support
- materials posted on the Metro Vancouver website.
MEMORANDUM

To: Chair and Members of the Fraser Valley Regional District Board
From: George M. Murray, Chief Administrative Officer
        Stacey Barker, Manager of Environmental Services
Date: October 11th, 2012
Subject: Metro Vancouver Waste to Energy Consultation Process
File No.: 9050-20-099

RECOMMENDATION:

THAT the Fraser Valley Regional District Board write to the Minister of Environment advising that the Fraser Valley Regional District opposes Metro Vancouver’s assumption that its Board’s approval of a procurement process for new Waste to Energy (incineration) will trigger the requirement to initiate consultation (i.e. formation of the “working group”) with the FVRD.

SUMMARY OF ISSUE(S):

Marie Griggs, Public Involvement Division Manager prepared a report for the Zero Waste Committee of Metro Vancouver (attached). In that report, Ms. Griggs made a recommendation that Metro Vancouver (MV) should approach the Minister of Environment to deem that the maximum one (1) year consultation period with the FVRD should commence as Metro Vancouver is commencing the Waste to Energy (WtE) procurement process.

FVRD staff takes a completely opposing view of this issue and would vehemently oppose such a decision. This report will provide the basis for staff’s position on this matter.

BACKGROUND:

On July 22nd, 2011 the Minister of Environment Terry Lake approved MV’s Integrated Solid Waste and Resource Management Plan (ISWRMP). Contained in the Minister’s letter (attached) was the requirement for MV to form a “working committee” with the FVRD. Section 3 of the Minister’s letter stated that

“... if Metro Vancouver pursues establishing additional in-region W2E capacity, it shall consult with the FVRD to address air quality concerns prior to beginning construction of a new or expanded facility. As a minimum, Metro Vancouver must establish a working group with the FVRD on the potential impact to the airshed due to additional W2E capacity. ...”
The Minister's letter went on to discuss a number of other matters, including the requirement for the parties to submit their positions to an arbitrator if consensus could not be reached on the issue.

The issues concerning the existing and any proposed WtE facility are complex and very technical. As the Board is aware, the Fraser Valley is comprised of a "funnel shaped valley". Picture 1 below illustrates this fact.

Picture 1

While MV and the FVRD may not always agree on the "science" of WtE and airshed issues, staff believe that both parties (including renowned experts) would agree that the Fraser Valley is a "unique" and "sensitive" airshed and as such needs special consideration in any decisions regarding air quality issues (including WtE).

Based on the sensitive nature of the airshed and the air that our residents and visitors breathe, MV and the FVRD staff formed a "Technical Team" to discuss issues surrounding both the airshed and various WtE technical issues. As noted by Ms. Griggs in her report, the committee has met on a number of occasions (eight) to try to clarify and agree upon a number of technical issues. However, there are a significant number of unanswered questions; as well, it is staff's position that the Activity Summary presented does not accurately reflect the eight meetings to date. By way of just one (1) example, FVRD staff asked at the very first meeting for a comparison of air quality in similar airsheds in the world where WtE occurs. This issue has never been addressed in any of the eight subsequent meetings.

In the Technical Team Activity Summary it is noted that MV developed an Engagement and Consultation Framework. The proposed engagement and consultation program described by Ms. Griggs was provided to the FVRD on Friday September 28th, 2012 and MV expected our comments at the next Technical team meeting held the following Monday afternoon (October 1st, 2012). Due to the
complexity and breadth of the document presented, as well as all the other projects/activities being undertaken at the FVRD, staff was not able to review and discuss the basis of the MV consultation plan before the Monday Technical Team meeting.

In addition to that issue, the Technical Team Activity Summary provided in Ms. Griggs’ report is misleading with respect to the nature and the breadth of the discussions held at the Technical Team meetings. By way of another example, it is noted that the team discussed WtE “Technologies” at these meetings. While it may be true that various technologies were presented by a consultant of MV (who used to be the operator of the Burnaby WtE facility), it cannot be said that all the FVRD’s questions regarding WtE technologies were fully addressed.

While the Technical Team meetings have been extremely productive and conducted in a respectful fashion, the example of the WtE technologies is but one example of the differences of opinions between MV and the FVRD on the activities of the Technical Team meetings

DISCUSSION:

While the concept of undertaking broad consultation is commendable, staff has a number of concerns with MV’s proposal:

1. The FVRD understands the need for MV to have clear objectives in their RFQ process, however staff does not believe that MV has fully explored, nor is open to, the option of not employing any new WtE capacity. It is staff’s opinion that MV has decided to build new and/or expand their existing capacity regardless of the Technical, Health and Environmental concerns of the residents of the Lower Mainland and Fraser Valley.

2. The FVRD is “lumped” in with other “Adjacent Regional Districts”. In doing so, the MV proposal would characterize our concerns to be the same as those residents in Squamish or Pemberton. This is simply unrealistic and does not correctly reflect that the FVRD is “downstream” from MV.

3. The proposed “working group” does not fairly reflect the importance, magnitude or authority of this group as articulated in the Minister’s July 2011 letter.

4. The composition of the proposed working group has not been undertaken with the FVRD as noted in the Minister’s letter. Rather, it is staff’s perspective that MV is proceeding with the establishment of the composition of the consultation, including the working group, without the thoughtful input of the FVRD.

5. It is unreasonable for MV to expect “meaningful consultation” on a Technology, Location, Capacity and WtE Program that has not been developed yet. As such, the FVRD will need to expend considerable resources on evaluating a program that has not been defined as of yet.

6. The Minister’s letter clearly outlines the requirement to develop the working committee should MV decide to site an incinerator “In-Region”. Unless MV has already made this decision, it would appear that the decision to strike this working committee is years premature of this decision being made.
After having participated in eight Technical Team meetings, staff of the FVRD continues to believe that the additional WtE capacity in MV is not warranted from a Social, Environmental and/or Economic basis. As such, the striking of the “Working Group” as defined in the Minister’s letter is an important issue that needs to be carefully considered and undertaken at the appropriate time and with the appropriate information.

**COST:**

Considerable staff time and resources have been committed to the MV Technical Team meetings to date. Sufficient funds are contained in both the 2012 and 2013 Financial Plans for the allocation of staff time, however it should be noted that due to the level of resources, other pressing projects are not proceeding as expeditiously as previously anticipated.

**COMMENT BY DIRECTOR OF REGIONAL PROGRAMS:**

Reviewed and supported.
To: Zero Waste Committee

From: Sarah Wellman, Senior Project Engineer
Solid Waste Department

Date: September 25, 2012


Recommendation:


1. PURPOSE

The purpose of this report is to update the Board on the selection of the third party expert panel, supporting the procurement of new Waste-to-Energy (WTE) capacity, as directed by the Board on July 30, 2010.

2. CONTEXT

At the March 2, 2012 meeting, the Metro Vancouver Board approved a staff report that proposed engaging a third party expert panel (the panel) with expertise in waste-to-energy technology, energy and sustainability, air emissions, and health; to assist Metro Vancouver by reviewing the procurement process and documents for new WTE Capacity, thus satisfying the Board’s resolution of July 30, 2010 that:

“the evaluation process [of the request-for-proposal for new WTE capacity] include a review by an independent expert third party.”

The role of the panel will be to advise staff on the various WTE technologies being considered; their associated potential health, sustainability and environmental impacts; and the overall objectivity and comprehensiveness of the procurement process. The key functions of the panel are to review and report on the following:

- the overall procurement process ensuring that it is not biased with respect to technology,
- the various procurement documents, including the evaluation criteria and weighting thereof, and
- the evaluation process for the various proposals provided to Metro Vancouver.

Solicitation of Nominations

To provide impartiality and credibility to the panel, respected organizations within each sector were requested to nominate panel members:
• Solid Waste Association of North America (SWANA): waste-to-energy technologies
• Pacific Institute for Climate Solutions (PICS): sustainability and energy
• Fraser Health Authority and Vancouver Coastal Health: health
• The UBC Bridge Program: Air quality and health

Nominations

As per recommendations from the above organizations, the following panel members have been engaged by Metro Vancouver to provide an independent expert review of the new WTE capacity procurement process and documents:

Energy and Sustainability – Thomas Pedersen, PhD, FRSC, FAGU, Executive Director, Pacific Institute for Climate Solutions
Air Quality and Health – Professor Michael Brauer, BA, ScD; Professor, School of Population and Public Health; Director, The Bridge Program, UBC
Health impact assessment – pending

An orientation workshop will be held for the panel members on October 10th to provide them with background on the project, the procurement process, and to present RFQ1 – Technology Only for their review and comment.

3. ALTERNATIVES

None presented.

4. CONCLUSION

Staff have engaged a third party expert panel to provide an independent review of Metro Vancouver’s new WTE capacity procurement process as directed by the Board on July 30, 2010. This report presents the selected third party expert panel members.
To: Zero Waste Committee

From: Kris La Rose, Project Engineer
Solid Waste Department

Date: September 24, 2012

Subject: Metro Vancouver Waste Composition and Energy Content Projections

Recommendation:

That the Board receive the report dated September 24, 2012, titled “Metro Vancouver Waste Composition and Energy Content Projections” for information.

1. PURPOSE

To update the Board on an analysis estimating future Metro Vancouver waste composition and heating value.

2. CONTEXT

The Regional Waste disposal system (Metro Vancouver and City of Vancouver facilities) received 1,000,000 tonnes of MSW in 2011; of this, 280,000 tonnes were managed at the Metro Vancouver waste-to-energy (WTE) facility in Burnaby, and the remainder was landfilled at the Vancouver Landfill or Cache Creek Landfill. The Integrated Solid Waste and Resource Management Plan (ISWRMP) commits Metro Vancouver to reducing disposal to landfill by increasing recycling diversion and building additional WTE capacity for disposal of the residual waste.

At the Zero Waste Committee Meeting on September 13, 2012, Directors asked staff to report back on future waste composition and energy value in order to understand the implications of future diversion activities on WTE capacity requirements.

Waste Composition

Metro Vancouver monitors the composition of the region’s waste stream on a regular basis to identify disposal trends and target specific materials for focused diversion programs. This detailed information allows staff to track changes in waste composition as new diversion programs take effect. A summary of the waste composition data from 1995 through 2011 is provided in Table 1 of Attachment 1. The summary shows that the relative composition of waste has been slowly changing over the years, as certain materials are successfully diverted.

The ISWRMP set ambitious targets for regional waste diversion: 70% of the region’s waste will be diverted from disposal by 2015 and 80% by 2020. To achieve these targets, specific components of the waste stream are being aggressively targeted for further diversion.
through the use of educational campaigns, EPR programs, new material disposal bans, and expansion of recyclables collected at the curbside. The diversion performance anticipated for each targeted material is based on likely participation rates and results from other jurisdictions and Metro Vancouver pilot programs.

As the region moves closer to achieving its diversion targets, the relative composition of waste is expected to change along with the heating value of the waste. The three columns at the right in Table 2 of Attachment 1 show the actual and anticipated waste compositions at 55% (2011), 70% and 80% diversion.

**Heating Value**
Two factors determining the heating value of each waste category in Metro Vancouver’s post diversion waste are the fuel value and moisture content of each; moisture reduces the heating value of a fuel because it has no fuel value and steals heat from the thermal process when vaporizing. Plastics have the highest heating value and very little moisture. In general, waste components with higher moisture content have a lower heating value, and inert components like glass, ceramics and metals have little to no heating value. The second and third columns from the left in Table 2 of Attachment 2 show the heating value and moisture content of each waste category.

One of the waste categories most aggressively targeted for diversion is yard and food waste, the largest fraction of Metro Vancouver’s waste composition, and also the waste category with the highest moisture content. The bottom row of Table 2 in Attachment 1 shows the actual heating value of Metro Vancouver’s waste in 2011 and the anticipated heating values at 70% and 80% diversion. Analysis indicates a marginal increase (less than 10%) in the heating value of the region’s waste between now and when 80% waste diversion is achieved.

3. **ALTERNATIVES**

None presented

4. **CONCLUSION**

Achieving Metro Vancouver’s aspirational targets for waste diversion will result in significant changes to the region’s waste quantity, but only a marginal increase to the heating value of the waste. Based on the relatively small change in anticipated energy value, the most significant factor in determining new WTE capacity is total waste quantities rather than future composition.

**ATTACHMENT**
Metro Vancouver Waste Composition and Energy Content Projections
# Metro Vancouver Waste Composition and Energy Content Projections

## Table 1: Historical Waste Composition

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<td>1%</td>
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<td>10%</td>
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<td>Yard &amp; Food</td>
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<td>44%</td>
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## Table 2: Anticipated Future Waste Composition and Heating Value

<table>
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<tr>
<th>Waste Category</th>
<th>MC %</th>
<th>Energy Content (GJ/t)</th>
<th>Composition of Waste %</th>
<th>55%</th>
<th>70%</th>
<th>80%</th>
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<td>Metals</td>
<td>0%</td>
<td>0.7</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Glass</td>
<td>0%</td>
<td>0.2</td>
<td>1%</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Inorganics &amp; E-Waste</td>
<td>8%</td>
<td>1.8</td>
<td>10%</td>
<td>11%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Paper &amp; Paperboard</td>
<td>24%</td>
<td>16.4</td>
<td>19%</td>
<td>18%</td>
<td>17%</td>
<td>17%</td>
</tr>
<tr>
<td>Plastics</td>
<td>8%</td>
<td>34.9</td>
<td>15%</td>
<td>18%</td>
<td>16%</td>
<td>16%</td>
</tr>
<tr>
<td>Yard &amp; Food</td>
<td>64%</td>
<td>14.7</td>
<td>33%</td>
<td>24%</td>
<td>23%</td>
<td>23%</td>
</tr>
<tr>
<td>Wood</td>
<td>15%</td>
<td>17.1</td>
<td>9%</td>
<td>11%</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>Mixed Organic Composites</td>
<td>12%</td>
<td>20.0</td>
<td>4%</td>
<td>5%</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>Household Hygiene</td>
<td>25%</td>
<td>15.1</td>
<td>6%</td>
<td>8%</td>
<td>11%</td>
<td>11%</td>
</tr>
<tr>
<td>Total % moisture</td>
<td></td>
<td></td>
<td>31%</td>
<td>26%</td>
<td>26%</td>
<td>26%</td>
</tr>
<tr>
<td>Energy Content (GJ/t)</td>
<td></td>
<td></td>
<td>11.8</td>
<td>12.8</td>
<td>12.7</td>
<td>12.7</td>
</tr>
</tbody>
</table>
To: Zero Waste Committee  
From: Esther Bérubé, Project Engineer  
Solid Waste Department  
Date: September 12, 2012  
Subject: Sample Municipal Bylaw for the Management of Waste and Recyclable Materials from Demolition Work

Recommendation:  
That the Board approve the proposed municipal permit approach to encourage demolition material recycling, and refer the attached sample municipal bylaw to member municipalities for consideration in their demolition permit processes.

1. PURPOSE  
The purpose of this report is to obtain the Board's support for a municipal approach to encourage diversion of demolition materials from disposal, which is recommended to be applied through municipal demolition permits. The proposed municipal approach is based on the sample bylaw presented in Attachment 1, which municipalities may tailor and implement as appropriate.

2. CONTEXT  
In 2011, the demolition, land clearing, and construction (DLC) sector disposed of about 307,000 tonnes of material, which represents about 22% of the disposed waste from the region. Demolition activities are the source of over 90% of the waste from the DLC sector going directly to landfills for disposal. Improved diversion in the DLC sector, along with initiatives targeting other sectors outlined in Metro Vancouver’s Integrated Solid Waste and Resource Management Plan (ISWRMP), are important to achieve the Region’s diversion goals.

As part of Action 2.4.4 in the ISWRMP, Metro Vancouver worked with the public and private sectors over the past three years to develop a regulatory approach to encourage recycling of materials from construction and demolition sites. The proposed approach is two-pronged:

1. The sample municipal bylaw presented in Attachment 1 will encourage demolition projects to take waste containing recyclable materials to acceptable facilities as a condition of demolition permits. Municipalities will consider whether a portion of the waste management fee can be refundable.

2. Construction and renovation waste is for the most part delivered to either private transfer stations within the region or to Regional Facilities. Private transfer stations are regulated under the Greater Vancouver Sewerage & Drainage District (GVS&DD) Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996, as amended. Metro Vancouver staff are proposing revisions to that bylaw to further increase recycling. Construction and renovation waste delivered to Regional Facilities is subject to bans and prohibitions that will include wood by 2015.
The objective of the sample municipal bylaw is to encourage recyclable materials from demolition sites to be reused, sorted on site, or taken as mixed loads to transfer stations and processing facilities for recovery, instead of going directly to disposal. This variety of options, including the ability to send mixed loads to facilities that are encouraged to recover materials, will make it easier for the demolition sector to improve its recycling rate. Currently, direct disposal of mixed loads is the main form of demolition waste management, particularly for residential wood-frame buildings.

The sample municipal bylaw will encourage diversion in the following way:

1. Demolition permit applicants will submit:
   - a checklist of materials present on site,
   - any plans for salvage or reuse,
   - a refundable waste management fee, which would cover municipal costs related to demolition waste management, and
   - a signed form indicating that they will give the municipality copies of WorkSafe BC notification regarding hazardous materials, if present on site.

2. After project completion, demolition projects will submit:
   - receipts or other proof that materials were reused on site or taken to acceptable facilities that are encouraged to sort or recycle materials
   - copies of WorkSafe BC notification about hazardous materials, if applicable.

3. Demolition projects will receive a refund of their waste management fee in proportion to the amount of material reused or delivered to acceptable facilities.

Each municipality will tailor the sample municipal bylaw based on municipal needs and resources when implementing its regulatory approach. Each municipality will conduct its own legal review and, if feasible, determine whether a portion of the waste management fees may be made refundable according to the municipality’s unique costs related to demolition waste management and the nature of the municipality’s services to be provided. Municipalities are encouraged to discuss their adapted approach with industry.

Consultation and Engagement
As part of its consultation on regulatory mechanisms to increase recycling, Metro Vancouver developed and implemented a program for a draft municipal approach. Simultaneously, input was requested on the draft approach to Mandatory Space and Access for Recycling in Multi-Family and Commercial Developments, which was presented to the Zero Waste Committee in September 2012, and Metro Vancouver’s own Solid Waste Regulatory Bylaw Review, which will be presented as a separate report.

Building on its previous work, Metro Vancouver began formal engagement and consultation in September 2011. The program included workshops, discussion groups, meetings with associations and on-line feedback forms to generate input from government, First Nations and industry representatives. In addition, while the formal comment period closed on 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 engagement 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 former Waste Management 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 districts, 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 the sample municipal bylaw 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, targeted materials, fees, application/administration requirements and compliance/enforcement. Workshop summaries were provided to participants. The Industry Workshop summary was posted on Metro Vancouver’s website:

Two discussion groups were held with demolition contractors in December 2011 regarding the sample municipal bylaw. Fourteen individuals who own or manage demolition companies varying in size from across Metro Vancouver participated in the discussion groups. The key objective of the groups was to identify the range of issues demolition contractors might experience as a result of the proposed requirements of the sample bylaw.

Throughout 2012, Metro Vancouver continued to discuss the proposed bylaw approach with key stakeholders such as the Regional Engineers Advisory Committee (REAC) and its Solid Waste Sub-Committee (REAC-SW), the Regional Permitting and Licensing Committee (RPLC), the Urban Development Institute (UDI), and the Greater Vancouver Home Builders’ Association (GVHBA). Staff presented the approach to REAC-SW in August 2012, reported to REAC and RPLC in September 2012, and made 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 communications activities entitled “Sample Municipal Bylaw for the Management of Waste and Recyclable Materials from Demolition Work: Engagement and Consultation Program: Report on Activities and Findings” will be available upon request from the Metro Vancouver Information Centre (604-432-6200).

Key Issues
Metro Vancouver’s responses to key issues from consultation appear in Attachment 2. The key issues include:

- Setting an appropriate level of fees to encourage recycling while staying within the regulatory authority of each municipality
- Opportunities for municipalities to approve out-of-region facilities as destinations for recyclable materials, where geographic proximity or other reasons warrant approval
- Need for simple administration process
- Need for municipalities to analyze their staffing requirements for the regulatory approach
- Incentives for good recyclers
- Options for projects to use licensed haulers instead of reporting on the destination of waste and recyclable materials
- Capacity of licensed recycling facilities and transfer stations to accept all waste from demolition sites

Licensed demolition waste sorting and recycling facilities in the region are currently at capacity. Private transfer stations that accept mixed loads will be encouraged to improve their recycling rates. Existing licensed facilities have plans to expand, and new facilities are planned. Metro Vancouver encourages municipalities to support the establishment of additional demolition waste sorting and recycling capacity. Furthermore, municipalities are likely to phase in their demolition waste requirements at different times. With the resulting staggered increase in the material delivered to private transfer stations, and the development of new and expanded facilities, Metro Vancouver expects that sufficient capacity will be in place to process new material. Staff will continue to monitor the quantity of material available, the processing capacity, and markets for recycled products.

Jurisdictions throughout California, as well as Chicago (Illinois), Port Moody, City of North Vancouver, and Vancouver apply similar requirements for materials diversion or hazardous materials reporting in their construction and/or demolition permits. Over time, this approach has improved diversion rates in the construction and demolition sectors. Metro Vancouver will support municipal staff with their adaptation and implementation of the sample municipal bylaw. Municipalities can tailor the sample bylaw according to their needs and resources.

3. ALTERNATIVES

The Board may:


- Request modifications to the proposed municipal approach.

Staff recommends alternative a).

4. CONCLUSION

To fulfill a key action in the ISWRMP, Metro Vancouver has prepared a sample municipal bylaw that seeks to encourage the diversion of demolition materials by incorporating provisions for demolition material management into municipal demolition permits. Each municipality will tailor the sample bylaw according to their needs and resources.

This approach was developed through collaboration and consultation with municipal staff, the Urban Development Institute, the Greater Vancouver Home Builders’ Association, the construction and demolition industry, waste haulers, and licensed facility operators over the last three years. Jurisdictions throughout California, as well as Chicago (Illinois), Port Moody, City of North Vancouver, and Vancouver apply similar requirements for material diversion or hazardous materials reporting in their construction and/or demolition permits. Over time, this approach has improved diversion rates in construction and demolition.
Metro Vancouver will support municipal staff with their adaptation and implementation of the sample bylaw, as municipalities tailor it according to their needs and resources.

ATTACHMENTS

1: Sample Municipal Bylaw for the Management of Waste and Recyclable Materials from Demolition Work (Orbit # 6430731)

2: Metro Vancouver’s Responses to Key Issues from Consultation on a Demolition Recycling Bylaw (Orbit # 6496500)
Sample Municipal Bylaw

A Bylaw for the Management of Waste and Recyclable Materials from Demolition Work

Whereas Part 2, Division 1, Section 8 of the Community Charter confers authority to, by bylaw, regulate, prohibit, and impose requirements in relation to the protection and enhancement of the well-being of its community in relation to refuse, garbage or other material that is noxious, offensive or unwholesome, and in relation to the use of waste disposal and recycling services;

Whereas Part 7, Division 2, Section 194 of the Community Charter confers authority to, by bylaw, impose a fee in respect of the exercise of authority to regulate, prohibit or impose requirements;

Whereas the Greater Vancouver Sewerage and Drainage District, Greater Vancouver Regional District, and their respective member municipalities have set a target in the Integrated Solid Waste and Resource Management Plan of 70% diversion of municipal solid waste from disposal by 2015; and

Whereas it is deemed desirable to regulate, prohibit, and impose requirements with respect to the use of waste disposal and recycling services to ensure that waste and recyclable materials resulting from demolition work are managed in a manner that enhances and protects the well-being of the community and the target diversion rate is achieved;

Now therefore, the Council of the [Municipality of...], in an open session assembled, enacts as follows:

1. **Citation**
   1.1 This Bylaw may be cited as the “Demolition Waste and Recyclable Materials Management Bylaw No. ______________”.

2. **Definitions**
   2.1 In this Bylaw:

   “Authorized Agent” means a person authorized in writing to act on behalf of the Owner in connection with a Permit, including a hired tradesman or contractor;

   “Building Bylaw” means the Municipality’s Building Bylaw No. __________;

   “Compliance Report” means the form of report attached to this Bylaw as Schedule “__”;

   “Disposal” means:
   (a) the abandonment, discard, or destruction of any materials, substances, or objects;
   (b) the application, release, or incorporation of materials, substances or objects in or to land, unless such application, release, or incorporation is authorized under the Municipality’s Bylaw No. ______ [Municipal bylaw concerning the use of construction and demolition waste from the Site for backfill or other purposes on the Site];
   (c) the conduct prescribed in Schedule “__” attached to this Bylaw or in writing by the Building Official as Disposal;

   “Disposal Facility” means a Facility that:
   (a) has a valid and subsisting permit, licence, or operational certificate issued under GVS&DD’s Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996 for the operation of a disposal facility regulated under that bylaw;
(b) is approved as a disposal facility under the Integrated Solid Waste and Resource Management Plan;
(c) destroys or landfills Waste or Recyclable Materials in the course of conducting an industry, trade, or business;
(d) is prescribed in Schedule “___” attached to this Bylaw [Municipality can seek a list from GVS&DD] or in writing by the Building Official as a Disposal Facility;

“Facility” means any land, building, site, or structure;

“Fee Refund” means the refund of a Waste Disposal and Recycling Services Fee paid in respect of a Waste Disposal and Recycling Services Plan as calculated in accordance with Schedule “___” attached to this Bylaw;

“GVS&DD” means the Greater Vancouver Sewerage and Drainage District;

“Hazardous Materials” means any material, product, or substance regulated as a controlled product or hazardous waste under the B.C. Workers Compensation Act and B.C. Environmental Management Act, respectively, that is present on a Site or is produced, originates, or results from Work;

“Hazardous Materials Report” means the form of report attached to this Bylaw as Schedule “___”;


“Municipality” means the ____________________;

“Owner” means the registered owner in fee simple of land;

“Permit” has the same meaning defined in the Building Bylaw;

“Project Completion” [has the same meaning defined in the Building Bylaw] or [means the date of completion and final approval of Work as determined in accordance with the Building Bylaw];

“Recyclable Material” means a material, substance, or object that is produced, originates or results from Work and satisfies at least one of the following:
(a) is organic material from residential, commercial or institutional sources and is capable of being composted;
(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; or
(d) is a material, product or substance prescribed in Schedule “___” attached to this Bylaw as a Recyclable Material;

“Recycling Facility” means a Facility, other than a Disposal Facility, that:
(a) has a valid and subsisting permit, licence, or operational certificate issued under the GVS&DD’s Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996 for a Facility regulated under that bylaw;
(b) is approved as:
   (i) a new organics processing facility; or
   (ii) a publicly-owned transfer station,

   under the Integrated Solid Waste and Resource Management Plan for purposes other than Disposal;
(c) is prescribed in Schedule “___” attached to this Bylaw [Municipality can seek a list from GVS&DD] or in writing by the Building Official as a Recycling Facility;
“Site” means any land, building, structure, or improvements where Work is or is intended to be performed;

“Waste” means any discarded or abandoned material, substance, or object that is produced, originates, or results from Work, and any other prescribed material, substance or object;

“Waste Disposal and Recycling Services Fee” means the fee calculated in accordance with Schedule “____” attached to this Bylaw;

“Waste Disposal and Recycling Services Plan” means the form of plan attached to this Bylaw as Schedule “__”; 

“Work” means the demolition, deconstruction, or systematic disassembly of a building, structure or improvement regulated by the Building Bylaw.

2.2 References in this Bylaw to enactments, bylaws of the Municipality, or the bylaws or plans of GVS&DD, include those enactments, bylaws, and plans as they may be amended or replaced from time to time.

2.3 Unless otherwise defined herein, all words or expressions used in this Bylaw have the same meaning as the same or like words or expressions used in the Building Bylaw.

3. Application

3.1 No person shall commence or continue, or cause or allow the commencement or continuation of, any Work except in accordance with the provisions of this Bylaw.

3.2 This Bylaw does not apply to:

(a) any demolition, deconstruction, or systematic disassembly of a building, structure or improvement that the Building Official deems is required to protect public health or safety in an emergency; or

(b) any other demolition, deconstruction, or systematic disassembly of a building, structure or improvement approved in writing by the Building Official.

3.3 Nothing in this Bylaw precludes or relieves a person from complying with any provision of the Building Bylaw, other bylaws of the Municipality, or any federal, provincial, or local government laws or regulations applicable to Work.

3.4 Neither the review nor acceptance of a Waste Disposal and Recycling Services Plan, Hazardous Materials Report, or Compliance Report constitutes a representation, warranty, assurance or statement by the Municipality that the Owner has complied with the Building Bylaw, this Bylaw, or any other applicable enactment, law, or regulation respecting safety.

4. Mandatory Recycling

4.1 At the time of submitting an application for a Permit, a properly completed Waste Disposal and Recycling Services Plan regarding the management of Waste and Recyclable Material must be signed by the Owner or Authorized Agent and submitted to the Building Official.

4.2 If Recyclable Material is removed from a Site, the Recyclable Material must be removed:

(a) to a Recycling Facility; or

(b) in accordance with an approved Waste Disposal and Recycling Services Plan.

4.3 No person shall commence or continue, or cause or allow the commencement or continuation of, any Work unless the Building Official has approved a Waste Disposal and Recycling Services Plan for that Work.

4.4 Notwithstanding the provisions of any other bylaw of the Municipality, no Permit issued under the Building Bylaw for Work with respect to which a Waste Disposal and Recycling Services Plan is
required under this Bylaw is valid unless the Building Official has approved the Waste Disposal and Recycling Services Plan for that Work.

5. **Compliance Reporting and Record Keeping**

5.1 To ensure compliance with this Bylaw, records of the surveying, removal, handling, management, and Disposal of Waste and Recyclable Material must be kept, including:

(a) payment receipts, donation receipts, weigh bills, inspection reports, clearance letters, sampling reports, and Waste transport manifests;

(b) photographs, if applicable, recording:

   (i) the use of Recyclable Material on the Site for backfill or for those purposes authorized under the Municipality’s Bylaw No. ______ [optional if municipal bylaw concerning the use of construction and demolition waste exists]; or

   (ii) the removal of Recyclable Material from the Site and used as backfill or for those purposes authorized under the Municipality’s Bylaw No. ______ [optional if municipal bylaw concerning the use of construction and demolition waste exists] or as specified in an approved Waste Disposal and Recycling Services Plan; and

(c) any other records that the Building Official specifies at the time of application for a Permit must be kept.

5.2 Within ninety (90) days after Project Completion, the following must be submitted to the Building Official:

(a) a properly completed Compliance Report; and

(b) originals of the records required to be kept under section 5.1.

6. **Hazardous Materials**

6.1 At the time of submitting an application for a Permit, a properly completed Hazardous Materials Report regarding the surveying, removal, handling, management, and Disposal of Hazardous Materials must be signed by the Owner or Authorized Agent and submitted to the Building Official.

6.2 No person shall commence or continue, or cause or allow the commencement or continuation of, any Work unless the Building Official has received a completed Hazardous Materials Report for that Work to the satisfaction of the Building Official.

6.3 Notwithstanding the provisions of any other bylaw of the Municipality, no Permit issued under the Building Bylaw for Work with respect to which a Hazardous Materials Report is required under this Bylaw is valid unless the Building Official has received a completed Hazardous Materials Report for that Work to the satisfaction of the Building Official.

6.4 To ensure compliance with this Bylaw, the Owner or Authorized Agent must keep records of the notification to WorkSafe BC regarding the surveying, removal, handling, management, and Disposal of Hazardous Materials, including:

(a) a completed WorkSafe BC “Notice of Project” for Work that is or is intended to be performed on a Site, where a “Notice of Project” is required by WorkSafe BC;

(b) if 6.4(a) applies, confirmation from WorkSafe BC that it has received the “Notice of Project” for that Work; and

(c) any other records that the Building Official specifies at the time of application for a Permit.

6.5 If 6.4(a) and (b) apply, a copy of the confirmation from WorkSafe BC that it has received the “Notice of Project” for Work that is or is intended to be performed on a Site must be posted on the Site for inspection by the Building Official.
7. **Waste Disposal and Recycling Services Fee**

7.1 Every person who performs, or causes or allows the performance of Work, must pay the Waste Disposal and Recycling Services Fee at the time of submitting the Waste Disposal and Recycling Services Plan.

7.2 A person who has paid the Waste Disposal and Recycling Services Fee and completed:

   (a) a Waste Disposal and Recycling Services Plan; and

   (b) a Compliance Report,

   to the satisfaction of the Building Official, is eligible for a Fee Refund as calculated in accordance with Schedule "___" attached to this Bylaw.

7.3 A person who is eligible for a Fee Refund must:

   (a) within ninety (90) days after Project Completion, apply to the Building Official for the Fee Refund; and

   (b) within seven (7) days of being requested to do so, submit any of the records required to be kept under this Bylaw to the Building Official in order to evaluate eligibility for the Fee Refund.

8. **Offences**

8.1 Any person who gives false information required under this Bylaw commits an offence and is liable on conviction to a fine not exceeding $2,000.
Sample Form 1: **Waste Disposal and Recycling Services Plan**

**Date** __________________________________________

**Demolition Project Site Address**
________________________________________________________________

**Building Type**  
- [ ] Residential  
- [ ] Commercial  
- [ ] Other ______________________________

**Project Square Footage** __________

**Type of Structure (Wood frame, Concrete, Steel, etc)** _______________________________________

**Expected Project Completion Date** (DD/MM/YYYY)  ____/____/____

**Name of Permit Applicant:** ______________________________________________________ (please print)

**Signature of Permit Applicant** ___________________________________________________ **Date** ______________

**NOTE TO APPLICANT:** Please complete the other side of the form

---

**STAFF USE ONLY**

**Building Permit No.** ______________

<table>
<thead>
<tr>
<th><strong>Waste Disposal and Recycling Services Package</strong></th>
<th><strong>Form 1 – Project information and checklist received from permit applicant</strong></th>
<th><strong>Form 2 – Completed Form 2 (Hazardous Materials) received from permit applicant</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ] Package provided to applicant</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[ ] Fee Received

**Total Waste Disposal and Recycling Services Fee** $ ______

**Fee Calculation**

- For Demolition Projects: Fee based on calculation in Schedule “___”.

**Permit No** ______________

Fee range from $200 - $50,000 in other jurisdictions, depending on project
<table>
<thead>
<tr>
<th><strong>Waste Disposal and Recycling Services</strong> that will be required:</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Removal of all recyclable materials to an authorized recycling facility or to a disposal facility for a purpose other than disposal</td>
</tr>
<tr>
<td>☐ Re-use of recyclable materials as proposed in this <strong>Waste Disposal and Recycling Services Plan</strong> or in another acceptable manner</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Signature of Application Reviewer:</strong> __________________________</th>
</tr>
</thead>
</table>

*Keep a copy of this page and Form 2 in file*
Planning how you will manage the recyclable materials generated at your site will help you meet the recycling requirements. **Please complete the following checklist of the types of recyclable materials that your project is expected to generate and submit as part of Form 1.** Use this checklist for discussion with waste collection, recycling and disposal companies. A list of recycling facilities is available from the Permits Department or [http://www.metrovancouver.org/services/permits/Permits%20Regulations/ActiveSolidWasteLicenceList.pdf](http://www.metrovancouver.org/services/permits/Permits%20Regulations/ActiveSolidWasteLicenceList.pdf)

You must keep track of **all materials generated over the duration of the project by keeping receipts** from all recycling and disposal facilities or **signed forms** from all salvagers for material re-use (Form 3 –Compliance Report).

<table>
<thead>
<tr>
<th>Materials</th>
<th>Will the Work generate this material?</th>
<th>Will this material be reused or used as backfill? If yes, specify how and where.</th>
<th>For information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Banned or prohibited from disposal</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asphalt</td>
<td></td>
<td></td>
<td>All must be recycled</td>
</tr>
<tr>
<td>Cardboard</td>
<td></td>
<td></td>
<td>All must be recycled.</td>
</tr>
<tr>
<td>Cement and concrete</td>
<td></td>
<td></td>
<td>All must be recycled</td>
</tr>
<tr>
<td>Clean fill and soil</td>
<td></td>
<td></td>
<td>All must be recycled</td>
</tr>
<tr>
<td>Drywall</td>
<td></td>
<td></td>
<td>All must be recycled.</td>
</tr>
<tr>
<td>Green waste (shrubs, lawn, small trees)</td>
<td></td>
<td></td>
<td>Can be reused or composted</td>
</tr>
<tr>
<td><strong>Other Materials</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appliances</td>
<td></td>
<td></td>
<td>Can be reused or recycled</td>
</tr>
<tr>
<td>Cabinetry</td>
<td></td>
<td></td>
<td>Can be reused or recycled</td>
</tr>
<tr>
<td>Bricks, blocks and ceramic tile</td>
<td></td>
<td></td>
<td>Can be reused or recycled</td>
</tr>
<tr>
<td>Doors</td>
<td></td>
<td></td>
<td>Can be reused or may be recyclable</td>
</tr>
<tr>
<td>Fixtures (lighting and plumbing etc)</td>
<td></td>
<td></td>
<td>Can be reused or recycled</td>
</tr>
<tr>
<td>Windows in frames</td>
<td></td>
<td></td>
<td>Can be reused or recycled</td>
</tr>
<tr>
<td>Asphalt roofing shingles</td>
<td></td>
<td></td>
<td>Can be recycled</td>
</tr>
<tr>
<td>Item</td>
<td>Recycling Information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-----------------------</td>
<td></td>
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</tr>
<tr>
<td>Cable and wiring</td>
<td>May need to be cut prior to recycling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metals – steel, aluminum, copper, brass, etc.</td>
<td>Can be recycled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metal – cable and wiring</td>
<td>May need to be cut prior to recycling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metal - window frames</td>
<td>Can be recycled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paper</td>
<td>Can be recycled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plastic - rigid buckets, pails, etc</td>
<td>Can be recycled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plastic - wrapping and bags</td>
<td>Can be recycled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plywood, particle board, OSB</td>
<td>Can be recycled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wood – structural (incl pallets)</td>
<td>Can be recycled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wood – plywood, particle board, OSB</td>
<td>Can be recycled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glass</td>
<td>May be recyclable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carpeting and underlay</td>
<td>May be recyclable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plastic – foam packing and insulation</td>
<td>Some types of foam packing are recyclable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Hazardous Materials**

*(Refer to Form 2)*

*All hazardous wastes must be disposed of according to Work Safe BC and BC Ministry of Environment requirements, as well as any additional requirements imposed by the disposal facility.*
Schedule B
Sample Form 2 – Hazardous Materials Report

Project Site Address______________________________________________________________

CONDITIONS

1. Every Person who applies for a demolition permit must have a Hazardous Materials Survey completed by a qualified person, as defined in WorkSafe BC Guideline 6.6(4).
   
   http://www2.worksafebc.com/publications/OHSRegulation/Part6.asp

2. The Hazardous Materials Survey applies to the work area of the project defined in the application. For demolition projects, this corresponds to the entire Site.

3. If the project must submit a "Notice of Project" to WorkSafe BC, a copy of the confirmation from WorkSafe BC that it has received the “Notice of Project” for Work that is or is intended to be performed on a Site must be posted on the Site for inspection by the Building Official.

   Refer to Part 20 of the WorkSafe BC Guideline at http://www2.worksafebc.com/publications/OHSRegulation/Part6.asp for information on the types of projects that must submit a “Notice of Project” to WorkSafe BC.

4. All Hazardous Materials identified in the Hazardous Materials Survey shall be handled and disposed of in accordance with all applicable rules and regulations. In the event that the hazardous materials are found during the demolition process, work must cease until they are removed.

5. A copy of the documentation indicating that a survey of Hazardous Materials was completed by a qualified person and that WorkSafe BC was notified of the handling, removal and disposal of hazardous materials (i.e. WorkSafe BC “Notice of Project” and a copy of the confirmation from WorkSafe BC that it has received the “Notice of Project”) must be submitted for inspection with the Compliance Report in Schedule C after project completion.

   Signature of Permit Applicant __________________________ Date __________________

STAFF USE ONLY

Form 2 – Hazardous Materials Report ☐ Form received

Permit #_________ Municipal Stamp of Reception ______________________________________

Keep a copy of Form 2 on file.
Sample Form 3 – Compliance Report

I. Project Information

Building Use:  
- Residential
- Commercial
- Other

Building Type:  
- Wood frame
- Concrete
- Other

Building Permit No.: ____________________________________________

Name of permit holder: ______________________________________

Project Site Address: __________________________________________

Project Floor Space (square feet): ________

Project Start Date (DD/MM/YYYY): ______/____/____

Project Completion Date (DD/MM/YYYY): ______/____/____

II. Hazardous Materials Report Compliance

Were any hazardous materials identified on the Site?

Yes ☐  No ☐

Submit copies of hazardous materials documentation (check those obtained).

If "yes" checked above:
- WorkSafe BC Notice of Project
- WorkSafe BC confirmation number (proof that Notice of Project received)
- Signed letter from qualified professional (WorkSafe BC Certification No. ___________________), or
- Statutory Declaration by Owner stating that no Hazardous Materials were identified on the Site

If "no" checked above:
- Signed letter from qualified professional (WorkSafe BC Certification No. ___________________), or
- Statutory Declaration by Owner stating that no Hazardous Materials were identified on the Site

III. Waste Disposal and Recycling Services Plan Compliance

Diversion Form and documentation (i.e., receipts and weigh bills) attached

Tonnes managed as authorized (i.e. non-hazardous material removed to a Recycling Facility or as approved in Waste Disposal and Recycling Services Plan) = ________

Total non-hazardous tonnages = ________ = “Total”

Level of Compliance = (A ÷ Total) x 100 = ________%

Refund Calculation

Waste Disposal and Recycling Services Fee paid (from Form 1) $__________ = “C” (use for refund calculation)

Refund calculated as follows:

(Non-hazardous tonnages managed as authorized / Total non-hazardous tonnages) x (C ) = Refund

(_______ tonnes / ________ tonnes) x ($__________) = $__________

CITY STAFF USE ONLY

Amount of fee paid (Form 1) = $__________

Amount of fee refunded= $__________

Compliance with Waste Disposal and Recycling Services requirements

☐ Yes  ☐ Partial  ☐ No

Hazardous Materials Compliance Information Received

☐ Yes  ☐ No

Signature of Permit Holder: __________________________

Signature of Compliance Report Reviewer: __________________________

DATE: __________________________  DATE: __________________________
Diversion Form Example

**Project Site Address _______________________________________________**  Permit #. ___________

Calculate your achieved recycling rate as described below. Use recycling and disposal facility receipts to fill out the information below. Ask your hauler, recycler or site cleanup vendor to assist you. A volume to weight conversion table, if required, is on the next page.

**COMPLETE AND RETURN WITH RECEIPTS WITHIN 90 DAYS OF PROJECT COMPLETION**

Note: Each receipt must show the type and quantity of materials received and permit #

<table>
<thead>
<tr>
<th>Material Type</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tonnnes taken to Reuse or Recycling Facility</td>
<td>Reuse or Recycling Facility used for purposes other than Disposal (name, location)</td>
</tr>
<tr>
<td>Asphalt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cardboard</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cement and concrete</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clean soil and fill</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drywall / Gypsum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green waste</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glass</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metal - Scrap metals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metal - Cable and wiring</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paper</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plastic – rigid (no PVC)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plastic wrapping and bags</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roofing – asphalt shingles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wood - Clean</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wood - Roofing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salvaged fixtures, windows, doors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other recycled/reused materials(Please list)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed materials (excluding hazardous materials)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL non-hazardous MATERIALS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Column Totals A____/(A____ + B____) X 100= ________% Materials managed as authorized

**TOTAL HAZARDOUS MATERIALS**

**TOTAL MATERIALS**

(non-hazardous + hazardous)

*The Building Official will compare the total quantity of materials with the amount of waste expected from the project, based on estimates in Table 1 of Schedule C.*
### TABLE 1 - ESTIMATING WASTE GENERATION

<table>
<thead>
<tr>
<th>Material type</th>
<th>Quantity</th>
<th>Lbs</th>
<th>Kg</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>New Construction</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Structure (with foundation)</td>
<td>1 sq ft</td>
<td>8</td>
<td>3.6</td>
</tr>
<tr>
<td>New Structure</td>
<td>1 sq ft</td>
<td>4</td>
<td>1.8</td>
</tr>
<tr>
<td>New Deck/Similar (wood)</td>
<td>1 sq ft</td>
<td>2</td>
<td>0.9</td>
</tr>
<tr>
<td><strong>Demolition</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete Wood-frame Demolition</td>
<td>1 sq ft</td>
<td>40</td>
<td>18.2</td>
</tr>
<tr>
<td>Demolition - per linear foot of wall</td>
<td>1 sq ft</td>
<td>20</td>
<td>9.1</td>
</tr>
<tr>
<td>Concrete slab</td>
<td>1 lin ft</td>
<td>50</td>
<td>22.7</td>
</tr>
<tr>
<td>Asphalt</td>
<td>1 sq ft</td>
<td>50</td>
<td>22.7</td>
</tr>
<tr>
<td>Brick/masonry</td>
<td>1 sq ft</td>
<td>50</td>
<td>22.7</td>
</tr>
<tr>
<td>Spread footing</td>
<td>1 sq ft</td>
<td>150</td>
<td>68.2</td>
</tr>
<tr>
<td><strong>Remodel</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed Debris (interior remodel)</td>
<td>1 sq ft</td>
<td>20</td>
<td>9.1</td>
</tr>
<tr>
<td>Remodel</td>
<td>2 sq ft</td>
<td>10</td>
<td>4.5</td>
</tr>
<tr>
<td>Carpeting</td>
<td>3 sq ft</td>
<td>0.5</td>
<td>0.2</td>
</tr>
<tr>
<td>Ceiling Tiles</td>
<td>4 sq ft</td>
<td>1.1</td>
<td>0.5</td>
</tr>
<tr>
<td>Sheetrock/Drywall</td>
<td>1 cu yd</td>
<td>394</td>
<td>179.1</td>
</tr>
<tr>
<td>Tile Flooring</td>
<td>1 sq ft</td>
<td>3</td>
<td>1.4</td>
</tr>
</tbody>
</table>

### TABLE 2 - VOLUME TO WEIGHT CONVERSION

<table>
<thead>
<tr>
<th>Mixed C&amp;D</th>
<th>Quantity</th>
<th>Lbs</th>
<th>Kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixed C&amp;D (structural)</td>
<td>1 cu yd</td>
<td>500</td>
<td>227.3</td>
</tr>
<tr>
<td>Mixed inerts (concrete, brick, dirt, asphalt)</td>
<td>1 cu yd</td>
<td>2000</td>
<td>909.1</td>
</tr>
<tr>
<td>Separated inerts</td>
<td>1 cu yd</td>
<td>2000</td>
<td>909.1</td>
</tr>
<tr>
<td>Wood</td>
<td>1 cu yd</td>
<td>375</td>
<td>170.5</td>
</tr>
<tr>
<td>Metals</td>
<td>1 cu yd</td>
<td>906</td>
<td>411.8</td>
</tr>
<tr>
<td><strong>Roofing Materials</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asphalt shingles/Composition</td>
<td>1 cu yd</td>
<td>419</td>
<td>190.5</td>
</tr>
<tr>
<td>Asphalt shingles/Composition</td>
<td>1 sq ft</td>
<td>3</td>
<td>1.4</td>
</tr>
<tr>
<td>Asphalt Tar Roofing</td>
<td>1 cu yd</td>
<td>2919</td>
<td>1326.8</td>
</tr>
<tr>
<td>Wood Shake/Shingle Roofing</td>
<td>1 cu yd</td>
<td>435</td>
<td>197.7</td>
</tr>
<tr>
<td>Wood Shake/Shingle Roofing</td>
<td>1 sq ft</td>
<td>2</td>
<td>0.9</td>
</tr>
<tr>
<td>Tiles (concrete roofing)</td>
<td>1 cu yd</td>
<td>10</td>
<td>4.5</td>
</tr>
<tr>
<td>Tiles (concrete roofing)</td>
<td>1 sq ft</td>
<td>2900</td>
<td>1318.2</td>
</tr>
<tr>
<td><strong>Yard Waste</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green waste (shrubs, turf, etc.)</td>
<td>1 cu yd</td>
<td>500</td>
<td>227.3</td>
</tr>
<tr>
<td>Yard trimmings</td>
<td>1 cu yd</td>
<td>108</td>
<td>49.1</td>
</tr>
</tbody>
</table>

*source: City of Santa Monica and Foster City Building Inspection Division (CA)*
### Metro Vancouver Responses to Key Issues from Engagement and Consultation on a Demolition Recycling Bylaw

<table>
<thead>
<tr>
<th>Key Issue</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting an appropriate level of fees to encourage recycling while staying within the regulatory authority of each municipality</td>
<td>Other jurisdictions use either refundable fees or fines to enforce their construction and demolition recycling requirements, with the most effective and easiest approach being the use of upfront fees refunded after compliance has been demonstrated. Section 194 of the Community Charter provides municipalities with the authority to impose a fee relating to municipal services or the exercise of regulatory authority and to provide refunds of fees. However, each municipality will need to determine, with legal advice, whether they can charge a fee and issue refunds, under which circumstances, and to what extent.</td>
</tr>
<tr>
<td>Opportunities for municipalities to approve out-of-region facilities as destinations for recyclable materials, where geographic proximity or other reasons warrant approval</td>
<td>Municipalities can choose to accept any facility as part of their bylaw requirements. Metro Vancouver can provide a list of private facilities within the Metro Vancouver region that are licensed through the GVS&amp;DD Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996.</td>
</tr>
<tr>
<td>Capacity of licensed recycling facilities and transfer stations to accept all waste from demolition sites</td>
<td>A few licensed facilities have plans to expand or establish new demolition waste facilities in the region, depending on the provisions in the eventual municipal regulatory approaches adapted from this sample bylaw. This additional capacity will supplement the licensed demolition waste recycling facilities that are currently at capacity. Metro Vancouver encourages municipalities to support the establishment of additional demolition waste sorting and recycling capacity.</td>
</tr>
<tr>
<td>Need for simple administration process</td>
<td>Forms for waste management plans, hazardous materials reporting, and compliance reports have been simplified to facilitate municipal review. By directing all recyclable material to a licensed or other acceptable facility, municipal staff is likely to receive a small number of receipts from most demolition projects, which tend to do a minimum amount of on-site separation. Demolition contractors generally send mixed loads containing recyclable materials to recycling or transfer facilities, which will be encouraged to recycle more through the proposed revisions to the GVS&amp;DD Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996. The focus on demolition projects also reduces the number of eligible projects to be reviewed, while regulating the source of over 90% of the construction and demolition waste that goes directly to disposal.</td>
</tr>
<tr>
<td>Need for municipalities to analyze their staffing requirements for the regulatory approach</td>
<td>Jurisdictions experienced in similar policies require up to 30 minutes per demolition permit to administer the waste management requirements. When the program is first implemented, the review process can take up to 2 hours as staff becomes familiar with the requirements. In municipalities that receive more than 200 demolition permit applications per year, this could result in additional staffing requirements. Metro Vancouver estimates this at about 1 FTE per 200 permits at first, but each municipality will determine actual staffing requirements based on their internal permit application and review processes.</td>
</tr>
<tr>
<td>Key Issue</td>
<td>Response</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Incentives for good recyclers</td>
<td>Waste composition studies of the Demolition, Landclearing, and Construction (DLC) sector in Metro Vancouver have found that recycling rates are generally lower for wood-frame residential buildings compared to larger concrete structures, where the cost savings are greater for recycling. In municipalities that implement refundable fees, a fee structure based on floor space, up to a certain amount, can place a greater incentive for behavior change on the types of projects that currently have lower recycling rates. Other incentives for good recyclers, such as reduced administration, can be introduced if Metro Vancouver establishes other mechanisms for waste flow management that can dovetail with the proposed regulatory approach.</td>
</tr>
<tr>
<td>Options for projects to use licensed haulers instead of reporting on the destination of waste and recyclable materials</td>
<td>The Urban Development Institute and the Greater Vancouver Home Builders Association would like demolition projects to have the option of choosing to use a licensed hauler instead of tracking and reporting on the destination of waste and recyclable materials originating from each demolition site. Metro Vancouver does not license haulers at present, but this is an option that will be included in the future consultation process approved as part of the “Waste Flow Management Update” presented to the Board in September.</td>
</tr>
</tbody>
</table>
To: Zero Waste Committee
   Intergovernmental and Administration Committee

From: Heather Schoemaker, Manager, Corporate Relations Department
       David Hocking, Division Manager, Communications

Date: September 20, 2012

Subject: Metro Vancouver 2012 Zero Waste Conference

Recommendation:

That the Board:
   a. Share the report dated September 20, 2012 titled “Metro Vancouver 2012 Zero Waste Conference,” with member municipalities; and
   b. Direct staff to investigate an enhancement of the Design Challenge in its planning for the 2013 Zero Waste Conference.

1. PURPOSE

To provide the Intergovernmental and Administration Committee and Zero Waste Committee with an overview of Metro Vancouver’s second annual Zero Waste Conference and to outline the outcomes.

2. CONTEXT

Metro Vancouver’s second annual Zero Waste Conference was held at the Vancouver Convention Centre on Friday, September 14th. It was attended by over 600 people, with an additional 600 livestream viewers, amounting to over 1200 participants. (The audience reach will increase with the airing of a special Shaw TV show focusing on the design challenge component of the conference.) The conference engaged a broad representation of those involved in waste management including municipal elected officials and staff, representatives from the provincial government, the business community – such as waste generators, haulers and processors – NGOs and other citizens.

The theme of the conference was, “Rethinking waste management… the design difference.” The objectives were to energize a movement in support of waste reduction and recycling, encourage action to implement Goals 1 and 2 of Metro Vancouver’s Integrated Solid Waste and Resource Management Plan, and to engage the public, businesses and government officials in the need to reduce the generation of waste by improving product and packaging design. (See Attachment 1 for the full conference program and panellists.)

The conference was opened by the BC Minister of Environment, Terry Lake, and moderated by Chair Greg Moore and Zero Waste Committee Chair Malcolm Brodie.
The conference had five basic components: a design challenge, a keynote address, three concurrent workshops (organics, wood, products and packaging), a plenary presentation on the results of the workshops, and a discussion on encouraging the social change needed to energize the zero waste movement. Social media was also a key element of the conference encouraging participants to engage and share their thoughts through a twitter photo mosaic.

**Design Challenge**

The Design Challenge was a new and unique conference element developed to tangibly illustrate the role that design can play in the waste equation, as well as attract a broader audience and inject energy into the day.

In this real-time design challenge, three teams were given less than six hours to re-design a common household product so that it would generate as little waste as possible at all stages of its development, use, and deconstruction. The design criteria were based on cradle to cradle principles, which aim to produce waste-free products that can be re-used or up-cycled when their original lifespan is over.

Three teams of industrial designers, engineers, business professionals and design students were recruited, and given a design brief outlining the specific waste reduction and product affordability elements that needed to be considered in their work. At the opening of the conference they were given the product to be re-created – a sofa – and provided a public working area to complete their task. At the end of the conference, each team presented their proposal before attendees and a panel of expert judges.

The judges, Bridgett Luther, President, Cradle to Cradle Institute; David Boyd, lawyer, author and Adjunct Professor in the School of Resource and Environmental Management at Simon Fraser University; and Maureen Cureton, Green Business Manager, Vancity, scored the designs and selected a winner based on the waste reduction achieved, marketing rationale, creativity, and proposed policy changes that would encourage the development of low-waste products. In addition, audience applause was used to give a “people’s choice” award.

This event started and ended the conference, and added an intriguing element to the day. Follow up discussion with the design teams and the judges expressed interest in building from the success of this year’s event, and investigating the possibility of developing a real challenge where funding would be available for promising, low waste designs.

The Design Challenge was hosted by Vanessa Timmer from Metro Vancouver’s Sustainable Region TV show, and will be presented as a TV show on Shaw cable.

**Keynote address**

The keynote address, Bridgett Luther, noted environmentalist and President of the Cradle to Cradle Products Innovation Institute in California, was introduced by Director Lois Jackson. Ms. Luther framed design changes as necessary from an environmental and economic perspective, but presented it as a positive opportunity from both a business and lifestyle perspective. She outlined the principles, science and economics that are the foundation for the cradle to cradle philosophy. She complimented the region and the province on its work in waste reduction and recycling, and urged participants to take a leadership role in moving forward.

The Cradle to Cradle Products Innovation Institute is a non-profit organization created to bring about a large scale transformation in the way things are made. It was founded by
William McDonough and Michael Braungart, the authors of the best-selling book, *Cradle to Cradle*. The Institute works with leaders from academia, NGOs, government and industry to improve and certify products based on the Cradle to Cradle framework. Metro Vancouver will explore opportunities for continued work with the Institute.

**Workshops on Organics, Wood and Products and Packaging**

Three concurrent workshops were held on organics, wood, and products and packaging. At each workshop several experts gave presentations demonstrating some of the barriers that needed to be addressed and leading approaches that are under way to make progress in that area. Workshop participants then discussed at their tables the barriers and opportunities that they thought were most significant. Dialogues at the tables were conveyed to other attendees through the “Twitter Photo Mosaic”, where participants’ tweets were shared to all attendees on screens in each workshop and in the plenary. About 900 messages were tweeted during the conference.

The organics session was moderated by Zero Waste Committee Chair Malcolm Brodie. It explored ideas on food recovery, the challenge facing those who generate organic materials, the problems created by the complex packages for various foods, the need for de-packaging facilities, and the challenges faced by organics processors. It included presentations by: Jennifer Erickson, Senior Planner and creator of *Fork it Over!*, from the Metro Portland Metropolitan Area; Steve Harpur, the Founder and President of Earth Renu, a de-packaging facility; Jan Allen, the General Manager & VP of Quality and Engineering at Harvest Power, and Bill Payne, the Senior Manager of Service Contracts and Waste Diversion at Western Canada Loblaw.

The workshop on wood, moderated by Derek Corrigan, Vice-Chair of Metro Vancouver’s Zero Waste Committee, explored local and international deconstruction, reclamation and remanufacturing initiatives to reuse wood. Best practice industry examples were presented to help recognize the opportunities to utilize the versatility and value of wood as a resource. The panellists were: Dave Bennink, Owner, Re-Use Consulting; Tracy Casavant, Executive Director, Light House Sustainable Building Centre; and Walter Francl, Principal, Walter Francl Architecture Inc.

The workshop on products and packaging was moderated by Zero Waste Committee member, Director Andrea Reimer. The objective of the discussion was to look at the barriers and opportunities to redesign products and their packages from a cradle to cradle perspective. The panelists were: David Lawes, the BC Ministry of Environment Section Head on Industry Product Stewardship; Rachel Morier, the Program Coordinator for PAC NEXT, of the Packaging Association of Canada; and Christian Shelepuk, the Waste Reduction Program Manager at Wal-Mart Canada Corp.

**Workshop Highlights**

Metro Vancouver Zero Waste Committee member, Director Marvin Hunt, gave a plenary presentation summarizing the workshop discussions and the Twitter Photo Mosaic. Some highlights of the discussion on organics were:

- Reducing food waste in the US by 15% could feed 25 million people, so “donation is the best approach, then compost the rest.”
- Since 12% of single family waste is unused food, next year’s conference should focus on reducing food waste.
- We need consistent messaging around the region on compostable organic bags.
- More research money is needed to address on-site composting.
• Several municipalities are still purchasing top soil instead of compost for their municipal works. They should be required to change purchasing policies and instead use local compost to strengthen markets for the large volumes of compost that will be generated as organics are increasingly recycled.
• People and businesses are too far removed from the cost of dumping organics in the garbage; education needs to more fully expose the full financial, environmental and social costs.

The highlights from the discussion on wood were:
• There is a large array of value-added products that can be made from salvaged wood, and there are economic opportunities from deconstruction because there are 25 reuse workers for one demolition worker, as well as social benefits for low-income home owners.
• Deconstruction can become time and cost competitive with conventional demolition through the right training, supportive public policies, and strengthening the infrastructure for collecting and retailing used wood so that it can compete with virgin wood.
• Supportive policies could include procurement specifications requiring used wood content and a deconstruction plan to be submitted with the construction plan when a new building is designed.
• Not all buildings can be deconstructed but the most success comes from being able to incorporate the materials salvaged from an old building into the new building replacing it.
• There are companies in BC that already use reclaimed wood in manufacturing of furniture.

In the products and packaging workshop there were discussions regarding the importance of design in the manufacturing process, and the challenges of moving upstream to design products that are more reusable, recyclable or compostable. Attendees identified many products that could benefit from design rethinking, such as toothpaste, balloons, toys, deodorant, and fast food. Other tweets mentioned:
• Single use items should be reduced or eliminated.
• Convenience is a big challenge for consumer choices and therefore product design.
• More standardization and clarity around recyclable materials would help consumer choices.
• Changes in behaviour and design are challenging in a consumer society, when people are programmed to buy, buy, and buy!
• “If we design waste into a system, we get waste out of a system.”

Social Change Plenary
The afternoon plenary was entitled, Stimulating Social Change, Beyond Being Right. It reviewed strategies to engage the public so that citizens, businesses and governments could more readily take action and accelerate progress toward a cradle to cradle economy. Panelists were James Hoggan, President, James Hoggan & Associates and Chair of the David Suzuki Foundation; Cara Pike, Director of the Resource Innovation Group's Social Capital Project and Climate Access; Marc Stoiber, Creative Director, Brand Strategist at Marc Stoiber Enterprises; and Robert Gifford, Professor, Department of Psychology, University of Victoria.

James Hoggan’s presentation, The Advocacy Trap: Smashing Heads Doesn't Open Minds, pointed to the need for advocates to raise the issue of excessive waste, but that the typical approach to environmental issues has polarized audiences and hindered progress. He advised on specific approaches that could be more successful. Cara Pike’s presentation, Building Constituency Support for a Cradle-to-Cradle Economy, identified barriers such as: a
single action bias, finite pool of worry, lack of systems thinking, and environmental overload. She proposed overcoming barriers by tapping into values such as entrepreneurship and innovation, and building identity by empowering champions. Marc Stoiber spoke of building a powerful and resilient “brand” for a zero waste movement by finding the connection between zero waste goals and the public’s aspirations. Robert Gifford’s presentation, *The Dragons of Inaction: Why We Waste More Than We Should and How We Can Overcome*, outlined the structural influences and personal factors with limit behaviour change, such as the perceived risks involved in new behaviours, and the behaviour of one’s peers. He proposed developing a careful understanding of the specific new behaviours needed, and then evaluating the interventions and innovations required.

**Media Coverage**
Efforts were taken to encourage the media to attend and cover the conference, but the results were limited. Coverage included a print story in World Journal (Chinese-language newspaper), Fairchild TV, and CBC TV French language. A Vancouver Sun reporter attended the conference.

**Feedback**
Anecdotal feedback on the conference has been excellent. For example, Maureen Cureton from Vancity said, “I’ve been participating in sustainability related conferences for a couple of decades and this one was a breath of fresh air. I thought the keynote and folks who talked about behaviour change were all fabulous, there was tremendous opportunity for interaction and broader reach through the tweets, and, of course, the design challenge was heaps of fun.” Bridgett Luther from the Cradle to Cradle Products Innovation Institute said, “I’d like to add my voice to all the congratulations. I’ve been talking nonstop in California and now this week in NYC about the great conference in Vancouver.”

An online feedback form has also gone out to all conference participants; however, at the time of the writing of this report, we are still receiving responses and are unable to provide reliable or representative information. The results of the feedback form will be provided to the Committee at a later date.

**Website information**
All conference presentations, including the livestream, can be found on the Metro Vancouver website at [http://www.metrovancouver.org/zwc](http://www.metrovancouver.org/zwc)

**Conference partners**
Vancity, Shaw, Emily Carr University of Art and Design, and SofaWorks.

3. **ALTERNATIVES**

The Board may:
- b) Direct staff to investigate an enhancement of the Design Challenge in its planning for the 2013 Zero Waste Conference.
- c) Receive the report and take no further action.
4. FINANCIAL IMPLICATIONS

The annual zero waste conference is reflected in the budget and priorities for the external outreach program. An enhancement of the design challenge for next year’s conference would require a more focused effort to move the design challenge to competitive process resulting in a market ready product. This would require significant advance work on the design brief, engagement of design teams well in advance of the conference and efforts to secure conference partners and sponsors committed to investing in promising low waste designs.

5. CONCLUSION

Metro Vancouver’s second annual Zero Waste Conference attracted over 1200 participants, either in person or online. The conference was aimed at energizing efforts in support of waste reduction and recycling, encouraging action to implement the waste reduction and diversion goals of Metro Vancouver’s Integrated Solid Waste and Resource Management Plan, and to engaging the public, businesses and government officials in the need to reduce the generation of waste by improving product and packaging design.

The conference had five basic components: a design challenge, a keynote address, three concurrent workshops, a plenary presentation on the results of the workshops, and a discussion on encouraging the social change needed to energize the zero waste movement.

The design challenge was the most unique element of the conference. It generated energy and interest among attendees, and both the judges and the design teams are interested in engaging with Metro Vancouver staff to build from the experience this year, and potentially develop a real challenge with potential funding for winning designs.

The workshops on organics, wood, and products and packaging design led to discussions among panellists and attendees on ideas that could be implemented as part of Metro Vancouver’s Zero Waste Challenge actions.

All elements of the conference can be found on Metro Vancouver’s website at http://www.metrovancouver.org/zwc

ATTACHMENT: Conference Program and Panellists (Doc# 6612024)
rereading waste management... the design difference

Conference Moderator: Greg Moore, Chair, Metro Vancouver Board

OPENING PLENARY

9:00 am Welcome and Opening Remarks
The Honourable Terry Lake, Minister of Environment
Malcolm Brodie, Chair, Metro Vancouver Zero Waste Committee

9:10 am ZERO WASTE DESIGN CHALLENGE – “6 hours to make a difference.”
Host, Vanessa Timmer, Executive Director, One Earth

In a real-time, visible zero waste design challenge, three innovative design teams won’t just be thinking outside the box— they’ll be redesigning it entirely during the conference.

– Introduction of Judges and Design Teams

Judges:
Bridgett Luther - President, Cradle to Cradle Products Innovation Institute
David Boyd - Lawyer, author and Adjunct Professor in the School of Resource and Environmental Management at SFU
Maureen Cureton - Green Business Manager, Vancity

Team 1 – The Freshly Baked Cookies
Lead, Stephanie Bertels, Assistant Professor at SFU Beedie School of Business, Associate Director of the CMA Innovation Centre
Designer, Ruben Anderson, Industrial Designer
Student Designer, Andreas Eiken, Student, Industrial Design, Emily Carr
Business Rep, Lawrence Silcox, Owner and Lead Designer, Cima Coppi Cycle Wear

Team 2 – Octopus Spectacular
Lead, Marten Sims, Designer and Consultant
Designer, Sarah Willie, Operations Coordinator at Product Care Association
Student Designer, Jeremy Calhoun, Photographer and Designer
Business Rep, Amielle Lake, CMO and Founder at Tagga Media Inc.

Team 3 – The Mobius Strips
Lead, Michael Green, Architect and Principal, MGA
Designer, Duane Elverum, CityStudio
Co-Founder, Designer and Sustainability Educator at Emily Carr
Student Designer, Maia Rowan, Student, Industrial Design, Emily Carr
Business Rep, Julian Radlein, President, SymbiAudit

9:30 am KEYNOTE PRESENTATION
Introductions by Lois Jackson, Director, Metro Vancouver Board of Directors
Bridgett Luther, noted environmentalist and President of the Cradle to Cradle Products Innovation Institute

Bridgett spent five years as Director of the California Department of Conservation, overseeing a budget of $1.4 billion and 700 employees in 14 offices around California. As Director, she was responsible for a wide variety of programs, including the California beverage container recycling program. California recycles more than 42 billion beverage containers a year, the world’s largest such program.

10:00 am Performance by DreamRider Productions
Break

Greater Vancouver Sewerage and Drainage District - 78
## CONCURRENT WORKSHOPS

**10:30 am** Organics, Wood, Products and Packaging

### ORGANICS: closing the loop
Together solid waste management innovators will explore ideas on food recovery from retail pre-consumer overstock and depackaging, to organics processing into the nutrient rich black gold for our gardens.

Introductions by Malcolm Brodie, Chair, Metro Vancouver Zero Waste Committee

Panellists:
- Jennifer Erickson, Senior Planner, creator, Fork it Over!, Metro, Portland Metropolitan Area
- Steve Harpur, CGA, Founder and President, Earth Renu
- Jan Allen, General Manager & VP Quality and Engineering, Harvest Power
- Bill Payne, Senior Manager of Service Contracts and Waste Diversion in Western Canada, Loblaw Companies

### WOOD: rediscovering its worth
Explore local and international deconstruction, reclamation and remanufacturing initiatives for the reuse of wood. Best practice industry examples will help you realize the strength and versatility of this valuable resource.

Introductions by Derek Corrigan, Vice-Chair, Metro Vancouver Zero Waste Committee

Panellists:
- Dave Bennink, Owner, Re-Use Consulting
- Tracy Casavant, Executive Director, Light House Sustainable Building Centre
- Walter Francl, Principal, Walter Francl Architecture Inc.

### PRODUCTS AND PACKAGING: design for up-cycling
Industry leaders will fuel imaginations for rethinking design for life cycle materials management.

Introductions by Andrea Reimer, Director, Metro Vancouver Zero Waste Committee

Panellists:
- David Lawes, Ministry of Environment Section Head, Industry Product Stewardship
- Rachel Morier, Packaging Association (PAC) PAC Next Program, Program Coordinator
- Christian Shelepuk, Wal-Mart, Senior Manager of Service Contracts and Waste Diversion in Wal-Mart’s Western Canada corporate stores

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**12 Noon** LUNCH – Twitter Photo Mosaic and Design Fair
- Check-out the Design Challenge in progress

**12:45 pm** WORKSHOP HIGHLIGHTS presented by Marvin Hunt, Director, Metro Vancouver Zero Waste Committee

### ENERGIZING THE ZERO WASTE MOVEMENT

**1:00 pm** Stimulating Social Change – Beyond Being Right
Moving beyond dialogue about zero waste, so citizens, businesses and governments are taking action and accelerating progress toward a cradle to cradle economy.

- Panel Discussion
- Q&A

Panellists:
- Marc Stoiber, Creative Director, Brand Strategist at Marc Stoiber Enterprises
- Cara Pike, Director, The Resource Innovation Group’s Social Capital Project and Climate Access
- Robert Gifford Professor, Department of Psychology, University of Victoria

**2:15 pm** Break

**2:30 pm** Design Challenge – Re-inventing Our Future
Host, Vanessa Timmer, Executive Director, One Earth
- Design Team pitch and Judges’ Critiques
- People’s choice
- Judges’ Choice

**3:30 pm** Closing Remarks
Malcolm Brodie, Chair, Metro Vancouver Zero Waste Committee
To: Intergovernmental and Administration Committee
Zero Waste Committee

From: Heather Schoemaker, Corporate Relations Department Manager
David Hocking, Corporate Communications Division Manager

Date: September 20, 2012

Subject: National Zero Waste Marketing Council – Inaugural Roundtable

Recommendation:

That the Board receive for information the September 20 report titled, “National Zero Waste Marketing Council – Inaugural Roundtable”, and direct staff to continue efforts to establish a National Zero Waste Marketing Council.

1. PURPOSE

To provide the Intergovernmental and Administration Committee and the Zero Waste Committee with an update on the September 15 inaugural roundtable discussion that took place regarding the feasibility of the proposed National Zero Waste Marketing Council.

2. CONTEXT

As part of its approved Integrated Solid Waste and Resource Management Plan (ISWRMP), Metro Vancouver has set aggressive waste reduction and diversion targets that are supported by a number of specific goals. The strategies and actions to achieve these targets are largely found under the Plan’s Goal 1: Minimize Waste Generation and Goal 2: Maximize Reuse, Recycling and Material Recovery. Most of the actions are within the jurisdiction of Metro Vancouver and its member municipalities, but the Plan also recognizes that in order to reach the targets, advocacy work reaching beyond local jurisdiction will be necessary in order to influence the design of products toward “cradle-to-cradle” approaches, and to create greater public awareness of the need to reduce and prevent waste. Specifically, the ISWRMP commits Metro Vancouver to:

1. Advocate that senior governments progressively move towards the prohibition of the manufacture and distribution of non-essential, non-recyclable materials and products;
2. Advocate that senior governments prohibit the manufacture and distribution of no-recyclable packaging;
3. Work with other municipalities and regions across BC, Canada and internationally to advocate for more development by senior governments in encouraging and developing incentives, including regulation, that promote design of products with an emphasis on reuse and recycling (cradle-to-cradle-design);
4. Develop a national zero waste marketing council so that cities across Canada can pool resources and develop common messaging, with national impact, on the need to reduce waste, resulting in informed and educated citizens on waste reduction opportunities.
To help achieve these objectives, Metro Vancouver has been collaborating with the Federation of Canadian Municipalities (FCM) on the development of a National Zero Waste Marketing Council, the purpose of which would be to provide “a national, unified voice on waste prevention and reduction where collaborative action and communication among municipalities, businesses and others encourages behaviour change and influences the design of products and packaging.”

On September 15, 2012 – as an adjunct to its second annual Zero Waste Conference – Metro Vancouver hosted (in collaboration with FCM) a National Zero Waste Marketing Council Roundtable, as a means of identifying and assessing interest in and support for the concept of a National Zero Waste Marketing Council. The roundtable was in invitation-only event, and attracted 46 representatives from local and provincial governments, businesses and business associations, and non-governmental organizations from across the country. Another 90 participated by livestream.

The Roundtable was presented in two distinct components: the first featured a welcome from Metro Vancouver Board Chair Greg Moore and FCM British Columbia Caucus Chair John Dooley, Mayor of the City of Nelson, followed by presentations from four invited guests: Bridgett Luther, President of the Cradle-to-Cradle Products Innovation Institute; David Lawes, Manager, Community Waste Reduction, BC Ministry of Environment; Rachel Morier, Program Coordinator, PAC NEXT; and Cara Pike, Director, Social Capital Project. The purpose of these presentations was to set the context for a discussion on the value and feasibility of a national organization with a focus on shared communications and advocacy.

The second section of the roundtable began with a presentation from Metro Vancouver Board Chair Greg Moore on “Why a Zero Waste Marketing Council?” which was followed by a discussion moderated by Zero Waste Committee Chair Malcolm Brodie which considered the following two questions:

- Is there interest in collaborating nationally to reduce waste?
- Is a National Council the best way to move forward, and if so, are the two roles appropriate:
  - Sharing communication campaigns?
  - Collaborating on advocacy to reduce waste by influencing product and packaging design?

The conference participants indicated strong interest in collaborating nationally and in the two roles identified.

From that agreement on the value of a national council and its roles, Chair Moore led a broad conversation on next steps, which included the self-identification of individuals interested in sitting on a Steering Committee that would be charged with implementing those steps. A significant number of roundtable attendees have indicated their interest in sitting on the Steering Committee, including representatives from Harvest Power, Recycling Council of BC, Recycling Council of Alberta, City of Calgary, City of Edmonton, City of Vancouver, Retail Council of Canada, Canadian Restaurant and Foodservices Association, Packaging Association of Canada, Walmart, One Earth, Emterra, FCM, and others.
Next Steps:

Metro Vancouver and FCM will be communicating with those that expressed an interest in sitting on the Steering Committee within the next few weeks, to schedule the first meeting of the Committee. Every attempt will be made to accommodate those that have shown an interest, but consideration will also be made to limiting the size of the Steering Committee to facilitate a fulsome but focused effort to advance the development and implementation of the council. Included in the work of the steering committee will be the definition of terms of reference for the council, a proposed governance structure, a discussion on priority areas and mandate for the council. In addition, the steering committee will explore opportunities to resource the work of the council.

3. ALTERNATIVES

The Board may:
  a) Receive for information the September 20 report entitled, “National Zero Waste Marketing Council – Inaugural Roundtable” and direct staff to continue efforts to establish a National Zero Waste Marketing Council.
  b) Direct staff to discontinue efforts to establish a National Zero Waste Marketing Council

4. FINANCIAL IMPLICATIONS:

Both Metro Vancouver and the Federation of Canadian Municipalities recognize that there will be ongoing administrative and other operational costs associated with the management and implementation of a National Zero Waste Marketing Council. At present, Metro Vancouver has been playing a key facilitation and advocacy role overseeing almost all Council administrative functions through its Corporate Relations Department (with relatively small amounts of staff time also being allocated out of the Solid Waste Department). How to resource the council will be a consideration for the steering committee and ongoing discussions between Metro Vancouver and FCM will continue as to how to quantify and allocate those costs on a longer-term basis.

5. CONCLUSION

The success the inaugural roundtable to assess interest in a National Zero Waste Marketing Council holds significant promise not only for the achievement of the waste reduction targets included in Metro Vancouver’s Integrated Solid Waste and Resource Management Plan, but also for the implementation of broad-based national strategies targeting governments and manufacturers in developing “cradle to cradle” product/packaging design and expanded producer responsibility programming, and the launch of national campaigns designed to change behaviour as it relates to the generation and disposal of waste. Moving forward, Metro Vancouver will continue to offer leadership, in collaboration with FCM, in delivering on the strategies to be developed by the National Zero Waste Marketing Council Steering Committee.

Attachments:
2. Inaugural Roundtable Program (Doc# 6612039)
Summary of the Inaugural Roundtable of the National Zero Waste Marketing Council discussions held September 15, 2012 at Metro Vancouver, Burnaby, British Columbia.

WELCOME

Greg Moore, Chair, Metro Vancouver Board of Directors and Mayor, City of Port Coquitlam and John Dooley, Mayor, City of Nelson, BC Caucus Chair, FCM welcomed participants to the inaugural roundtable at 9:06 a.m.

INVITED PRESENTATIONS

• Bridgett Luther, President, Cradle to Cradle Products Innovation Institute
• David Lawes, Ministry of Environment Section Head, Industry Product Stewardship
• Rachel Morier, Program Coordinator, PAC NEXT, The Packaging Association
• Cara Pike, Director, Social Capital Project, Behaviour Change Presentation

Presentation material is retained with the September 15, 2012 National Zero Waste Marketing Council program package.

WHY A NATIONAL ZERO WASTE MARKETING COUNCIL?

Greg Moore, Chair, Metro Vancouver Board of Directors and Mayor, City of Port Coquitlam presented the concept of a National Zero Waste Marketing Council.

Presentation material is retained with the September 15, 2012 National Zero Waste Marketing Council program package.

DISCUSSION TOPIC: WHY A NATIONAL ZERO WASTE MARKETING COUNCIL?

Moderated by Mayor Malcolm Brodie, Chair, Metro Vancouver Zero Waste Committee and Mayor, City of Richmond

AREAS FOR DISCUSSION:

What should be the role of the municipalities? Of Business? Of Industry? Academia?

Can municipalities and others working together through a council affect change in waste prevention and reduction?

Is national collaboration worthwhile? Is there interest in a National Council?

QUESTION AND ANSWER SESSION:

Carey McIver, Regional District of Nanaimo
• Regional District of Nanaimo currently sitting at 70% waste diversion level for all waste
• Zero Waste goal was adopted in year 2000.
• Challenge to fully hit target as success locally, but require collaboration at a national level to move beyond current levels. Regional District of Nanaimo would really benefit from branding, campaigns, collaborations created for a national audience with availability for everyone.
• Very supportive of this concept, would like to benefit from the best that the national council would offer.
Vanessa Timmer, One Earth
• Commends Metro Vancouver for their efforts in arranging this roundtable, powerful idea that is instrumental in changing thinking.
• Critical to share marketing campaigns, not just for residential marketplace but should be utilized beyond to include a broader scale.
• Paradigm shift in thinking to create campaigns with a broader understanding of what it means to be a global citizen and human being.
• Changes baseline for measurement to what it means to live a good life with integrated images that portray a positive, sustainable lifestyle and what could be shared globally.

Ben Henderson, City of Edmonton
• Absolutely supportive of a national council. A national council would provide a useful forum that would result in a broader conversation.
• City of Edmonton has achieved a 90% participation rate in residential recycling with no resistance.
• Challenge is competition with commercial landfills – this is where the construction, demolition and institutional waste is going.

Malcolm Brodie, Chair, Metro Vancouver Zero Waste Committee
• Metro Vancouver Zero Waste Committee currently discussing ways to move toward a closed system – where waste generated within the region is dealt with within the region.
• Metro Vancouver Zero Waste Committee is exploring the possibility of linking a deposit to construction and demolition permits.

Shannon Joseph, Federation of Canadian Municipalities
• Interested in harmonizing EPR policies across Canada as well as aligning incentives/disincentives across the country that would enable managing resources in a more sustainable manner.
• FCM has been collaborating with Metro Vancouver to develop a national council and is seeking enhanced communication to identify if national barriers exist, and if so, how to move forward and overcome as well as achieve redesigning at the source to eliminate waste. Consideration of the industry, provincial and federal voice important.

Wayne Tuck, City of Whitehorse
• City of Whitehorse appreciates the importance of standardized EPR nationally, but also globally, since goods are produced in the US and other countries, but purchased and waste disposed locally.

Jan Allen, Harvest Power
• National council would be useful. Harvest Power is finding that there are a number of challenges in establishing local markets for compost.
• The Cradle to Cradle concept is applicable for organics. As greater amounts of compost are generated, more have to be sold. There is a huge opportunity to educate homeowners, urban farmers, community gardens to the benefits and value of local compost.
• One of the challenges is compostable dishware – there is a great need for standardization to eliminate confusion and contamination problems.
• A national council would be useful in the creation of a policy to standardize the color coding of bio-plastics – particularly those used in the packaging of food.
Frank Came, Globe Foundation

- Waste reduction is a global concern.
- Power shift in progress with leadership coming from a municipal and local government direction.
- Challenge is to get a national consensus regarding practices and policies regarding waste reduction.
- Tremendous potential to work with regional partners including Washington, Oregon and California.
- Work together to create best practices with British Columbia demonstrating leadership.

Mark McKenney, PacNEXT

- PAC NEXT is already involved in a customer engagement program and is fully supportive of a national initiative.
- PAC NEXT volunteers to work closely with FCM to understand common elements in messaging and programs across the country.
- A national approach allows for opportunities for communication and dialogue between producers and end users.

Will Burrows, Coast Waste Management Association

- In support of a national council, influencing change.
- Not necessary to re-invent the wheel, great to have Walmart here because large retailers are key in driving change. They will influence producers.

Len Shaw, Canadian Association of Recycling Industries

- National council makes sense if those with purchasing power demand product redesign.
- Education is key in changing purchasing habits and policies.
- Focus on influencing producers at the design stage, e.g. Dell.

A discussion between participants raised the following points (not attributable to any one speaker):

- Current EPR programs do not drive design change, therefore we need to look at changing them.
- Canada is not a big enough market, it does not necessarily have the purchasing power to drive change.
- Basic education is essential to making marketing campaigns truly effective (i.e., what does post-consumer waste mean?)
- Governments should be leading by example; does their own procurement policies drive design change/reduce waste?

Malcolm Brodie, Chair, Metro Vancouver Zero Waste Committee

- Consider that change may happen faster if focus and influence placed on compliance by producers rather than affecting the behavior of purchasers?

Nicole Stefenelli, Urban Impact Recycling

- A national strategy is beneficial, but consideration that waste diversion and exporting could result in diverting jobs from our economy.

Christian Shelpuk, Walmart

- EPR programs have to be harmonized to drive change at the manufacturing stage. The cost of product that has component parts that can’t be recycled has to be made more expensive than similar products that can be totally recycled at end of life.
- Walmart endorses a unified strategy, with focus on affecting manufacturers to produce recyclable goods.
David Lawes, BC Ministry of Environment

- Recycling “on steroids” will not solve the waste problem. The focus must be on waste prevention – at the inputs into the system stages.
- Proposed scope is right; Canada has a high waste generation record. The focus of the marketing council should be on influencing behavior and in finding ways to change design.
- Regulatory roles and penalties may not be as effective as a marketing initiative.

Livestream Question:

- Is the UBCM on board with this initiative?

Response by Greg Moore, Chair Metro Vancouver Board of Directors and Mayor of City of Port Coquitlam

- UBCM has sent materials and been involved with the discussions, but this topic has not been part of the UBCM council.

Stacey Barker, Fraser Valley Regional District

- Merit in collaboration but need to be strategic, collaborative, focused and specific to be effective.
- Is a lobbyist necessary to affect change? Who are the right people to talk to?
- Care must be taken that the message is not lost with the size of the group.
- Terms of Reference does not include any Federal representatives - Why?

Shannon Joseph, Federation of Canadian Municipalities

- Federal representatives have a role in waste management, initial conversation with industry, NGO, Municipalities, those on the ground prior to a policy discussion with a federal body.

Rod Muir, Sierra Club Canada

- If legislation is not the message, then what is the message?

Bridgett Luther, Cradle to Cradle Products Innovation Institute

- Incrementalism won’t work, there is a need to step up and fill the leadership void on this issue.
- Need a better name: rethinking waste; rethink logo, think smaller.
- Focus on achievable targets, move quickly as possible.
- Do something bold, because it is something bold that we need.
- One starting action would be to host a certification workshop. I can offer this.
- Get focused on doing something achievable and fun. Governments move too slowly – it took 7 years in California to develop and implement regulation. Start with edible packaging for strawberries for instance.
- BC is well-positioned to be leaders. We stepped out on the Climate Change initiatives; perhaps it is in our DNA to take chances.

Malcolm Brodie, Chair, Metro Vancouver Zero Waste Committee and Mayor, City of Richmond

- Cannot take on whole world, but need national exposure.
- What is the answer - pick a product, pick an industry, pick a series of products?

Bridgett Luther, Cradle to Cradle Products Innovation Institute

- Focus on composting organics, e.g. mushrooms as compostable packaging or
- Edible packaging for strawberries.
- Start with pilot programs that are politically friendly. Pilots are the way to take risks and be innovative.
David Ranson, Environmental Standards Branch

- Consider focus on Design for Environment (DFE), studies show that there is a weak signal with the EPR to drive design change. This initiative must be national in scope.
- Avoid jurisdictional divide and overlaps.
- Federal government is a key player there is an inability to affect exports and imports at a provincial level.
- EPR works best when you include industry and harness market forces.

Rod Muir, Sierra Club Canada

- Area of focus should be plastic packaging, i.e., styrofoam and fast food industry packaging. Items that can be moved on quickly.
- Campaign sharing should focus on creating and messaging one central theme about the importance of reducing use of packaging not on recycling. The message should be similar to “McDonalds”, a national campaign that is easily recognizable.

Malcolm Brodie, Chair, Metro Vancouver Zero Waste Committee

- Consider packaging from a recycling perspective, but also initiatives to achieve fundamental reduction of waste at the implementation and design stage.

Andrea Reimer, City of Vancouver

- Echoing Bridget’s comments. Transformative change is difficult and time consuming. And how do we stimulate changes in behavior.
- This initiative is great, but question remains: how to get it done?
- Who wants to put in the time, what do next steps look like?
- Do we meet annually to discuss incremental progress or do we work much more intensely to make significant transformative change.
- Transformative change is key.

Wayne Tuck, City of Whitehorse

- The price of some products works against our waste reduction objectives. For instance, if you can buy a $10 DVD player, you won’t be able to fix it and why would you for that price? You just buy another.
- Look beyond the sale price of products, the recycling or dumping of products is done at a significantly higher price that the purchase price.

Brock Macdonald, Recycling Council of British Columbia

- To engage manufacturers and the Federal government, we need to frame this initiative as a point of influence with an economic argument based on a system’s analysis.
- Economic argument is the leverage point.

David Lawes, BC Ministry of Environment

- Frame this initiative as a point of influence with an economic argument.
- Economic argument can be used to influence business, biggest leverage point.

Ben Henderson, City of Edmonton

- Must include Federal and Provincial representatives, bring diversity.
- Who is the audience for advocacy?
- Problem is the patchwork of different approaches, needs national approach to make progress.
Mark von Schellwitz, Canadian Restaurant and Foodservices Association
• A national focus is essential for creating partnerships with national associations.
• Frustration at lack of national council as product design is both national and international.

Craig Foster, Canadian Plastics Industry Association
• Challenge for CPIA is dealing with a variety of ad-hoc local initiatives. The diversity of approaches, knowledge and information works against being effective.
• CPIA considers this could be a great initiative if the appropriate stakeholders are involved or represented in a focused discussion to identify the scope and mission of the council. This must involve people with knowledge, passion and good intent.
• Difficult to move forward before all players are included.

NEXT STEPS – HOW DO WE MOVE FORWARD?

Moderated by Greg Moore, Chair Metro Vancouver Board of Directors and Mayor of City of Port Coquitlam

AREAS FOR DISCUSSION:
• What are the next steps in advancing the Council?
• What are considerations for the implementation of a council? [i.e., Are there Champions? What resources can be brought to the table?]

COMMENTS AND RESPONSES:

Greg Moore, Chair Metro Vancouver Board of Directors and Mayor of City of Port Coquitlam
• Positive consensus for a National Council, synergies present.
• Must include a broad base of support.

Mark McKenney, PacNEXT
• Diverse group required on consumer engagement, PacNEXT already involved in this type of initiative.
• PacNEXT willing to be a participant, engage in consumer communication, providing people and expertise.
• Require consistent message from municipality to municipality

Rachel Morier, PacNEXT
• Opportunity exists to influence designers on a national level and for smaller municipalities with limited funding to receive consistent messaging and obtain resources from others

Greg Moore, Chair Metro Vancouver Board of Directors and Mayor of City of Port Coquitlam
• Metro Vancouver works diligently to provide unity across the region, engages industry to utilize consistent symbols.

Frank Came, Globe Foundation
• Globe Foundation on board to be part of a national foundation.

Len Shaw, Canadian Association of Recycling Industries
• Support absolutely, affects all of Canada in a positive way.
Christina Seidel, Recycling Council of Alberta
- Expressed concern that a national initiative has focus, defined goals, and ability to measure success with a razor sharp focus.
- Other provincial governments must participate to be effective.
- Working group selection must be critical in selection process, being aware of self interest players, keep it small.

Ben Henderson, City of Edmonton
- Measuring success is critical, consider two subgroups.
- Defining scope of work important to provide focus, allowing for understanding of project before able to provide decisions regarding participation.

Carey McIver, Regional District of Nanaimo
- Smaller communities should have access to our campaigns.
- Concentrate on being eco-effective, not on eco-efficiency. This will mean encouraging changes in purchasing decisions, at all levels, to buy well-designed products.

Shannon Joseph, Federation of Canadian Municipalities
- Interested in knowing if there is interest in harmonizing approaches – e.g., harmonizing components of stewardship? Establishing a common standard for biodegradable? Business will say “yes.”

Rod Muir, Sierra Club Canada
- Focus on standardizing plastic packaging. Nothing should be PVC, eliminate discrepancies in packaging used and standardize types of plastics used.

Christina Seidel, Recycling Council of Alberta
- Structure, consider the Council to be the group that defines the high level goals and subcommittees that can focus on specific products or processes.
- Council has to be small enough to be functional, difficult to do with a large group.

Marten Simms, Industrial Designer and Consultant
- Provided a jigsaw puzzle metaphor. Look for the corner pieces (goals), then fill in the sides which establish the boundaries, then fill in the middle to drill down into details.

Wayne Tuck, City of Whitehorse
- Standardized packaging is critical for all components of products, this should be focus.
- Consider using less paper for handouts and materials when planning zero waste events.

Monica Kosmak, City of Vancouver
- Build the social capacity, going beyond marketing and encourage complimentary policies.
- Beyond EPR, need complimentary measures that will lead to design change.
- Need to address planned obsolescence.
- Pick projects that would yield results. Measurable goals are important.
David Griffiths, City of Calgary
- Focus on a signature project to provide quick wins.
- Articulate what the group stands for, define mandate.

Ben Henderson, City of Edmonton
- What more can this group do that is already being done, is there overlap with another organization?
- Are we recreating the wheel? Should we utilize an existing organization?

Mark McKenney, PacNEXT
- No other organization actually meets/comes together as a national body on sustainability and stewardship programs. This has resulted in a fractured group/discussions.
- Need a national body.

Christine Seidel, Recycling Council of Alberta
- Fascinating that this came from a municipal planning process, please provide a two minute synopsis on where this idea came from.

Greg Moore, Chair Metro Vancouver Board of Directors and Mayor of City of Port Coquitlam
- Solid waste planning and community engagement on our drive to reduce waste.
- Seed was planted and there was a realization that alone we couldn’t change too much, talked to others and found an interest in collaboration to address this issue.

Mark McKenney, PacNEXT
- FCM could be a major influencer and initiator of the next steps.
- FCM could bring parties together, business will respond to the FCM.

Shannon Joseph, Federation of Canadian Municipalities
- FCM is an advocacy vehicle for their members as well builds capacity of their members on issues of common interest.
- FCM has interest in this initiative as it relates to cost savings for the municipalities in the services of waste management.
- There is a direct link to our mandate and core business.
- FCM is positioned to be part of the conversation and engage our members, will take this recommendation under advisement back to our board for consideration.

Monica Kosmak, City of Vancouver
- Convene a steering committee to develop goals for the Council and proposed some initial areas of focus. The committee could report back to this group.
- Perhaps some of the speakers at this roundtable could be involved.
- “Quick Start Action”, take up on the offer by Bridgett to provide workshops.

David Griffiths, City of Calgary
- Focus on the “low hanging fruit”, quick/signature wins for the Council. For instance, uniformity in food sector packaging – the diversity is a pain for retailers too!
Frank Came, Globe Foundation

- Utilize tremendous momentum from this session, create steering committee with a three month mandate to create a draft implementation plan with members from FCM, Retail Association, Manufacturing Association, Tech Development, Recycling Association, Food Industry and NGO.
- Ask participants to focus on leadership rather than representation of their sector.

David Ranson, Environmental Standards Branch

- Need to articulate what this group stands for to ensure “buy in”.
- Define mandate first prior to participation.

Wayne Wright, Director, Metro Vancouver Board of Directors and Mayor, City of New Westminster

- The Affordable Housing Coalition might be a useful model for moving forward.

POTENTIAL LIST OF STEERING COMMITTEE MEMBERS:

- Mark McKenney, PacNEXT
- City of Edmonton Representative
- Metro Vancouver
- Richard Babcock/Jan Allen, Harvest Power/ Fraser Richmond Soil and FiberCanadian Restaurant and Food Association
- Shannon Joseph, Federation of Canadian Municipalities
- Retail Council of Canada
- Monica Kosmak, City of Vancouver
- David Griffiths, City of Calgary
- Christina Seidel, Recycling Council of Alberta/Brock Macdonald, RCBC
- Vanessa Timmer, One Earth

Greg Moore, Chair Metro Vancouver Board of Directors and Mayor of City of Port Coquitlam thanked participants for their time and contributions to the roundtable, noting a summary of the discussion would be compiled and provided to all attendees.

The Inaugural Roundtable of the National Zero Waste Marketing Council discussions held September 15, 2012 at Metro Vancouver, Burnaby, British Columbia concluded at 12:35 pm.
PROGRAM

GOAL: A national unified voice on waste prevention and reduction where collaborative action and communication among municipalities, businesses and others encourages behaviour change and influences the design of products and packaging.

ROUNDTABLE OBJECTIVES: To explore interest and support for the development of a National Zero Waste Marketing Council, uniting governments, business (including design and packaging associations) and academia in a movement to prevent and reduce the generation of Canada’s waste.

DESIRED OUTCOMES:
• A shared understanding among participants regarding scope and areas for collaboration, including challenges and opportunities related to the themes of behaviour change and product design and packaging.
• An understanding of stakeholder interests, roles, responsibilities and resources as they pertain to the implementation of the Council.
• Support for the development of a National Zero Waste Marketing Council and the identification of individuals/champions to participate on a steering committee or similar structure moving forward.
• Input and agreement on draft terms of reference and next steps (including scope, mandate, a set of broad principles setting out the scope of the Council).

8:30 am  Breakfast

9:00 am  Welcome/Opening Remarks
• Greg Moore, Chair, Metro Vancouver Board of Directors and Mayor, City of Port Coquitlam
• John Dooley, Mayor, City of Nelson, BC Caucus Chair, FCM

9:15 am  Invited Presentations
• Bridgett Luther, President, Cradle to Cradle Products Innovation Institute
• David Lawes, Ministry of Environment Section Head, Industry Product Stewardship
• Rachel Morier, Program Coordinator, PAC NEXT, The Packaging Association
• Cara Pike, Director, Social Capital Project, Behaviour Change Presentation.

10:00 am  Break
10:15 am  Why a National Zero Waste Marketing Council?

Greg Moore, Chair, Metro Vancouver Board of Directors and Mayor, City of Port Coquitlam, presenting the concept of a National Zero Waste Marketing Council

Participants will explore at a high-level the concept of a National Zero Waste Marketing Council, developing a shared understanding around key terms, stakeholder areas of interest and the proposed streams of behaviour change and product design and packaging. Metro Vancouver’s Discussion Paper, setting out relevant case studies and best practices, will be tabled and provide the basis for discussion.

Moderated by Mayor Malcolm Brodie, Chair, Metro Vancouver Zero Waste Committee

Areas for Discussion:
• What should be the role of municipalities? Of Business/Industry? Of Academia?
• Can municipalities and others working together through a Council affect change in waste prevention and reduction?

11:30 am  Next Steps – How do we move forward?

Participants will consider ways to move forward with the development of a National Zero Waste Marketing Council, looking at scope, mandate, resources and next steps. A draft Terms of Reference will be tabled to provide the basis for discussion.

Moderated by Greg Moore, Chair, Metro Vancouver Board of Directors and Mayor, City of Port Coquitlam

Areas for Discussion:
• What broad principles can guide the work of the Council?
• Where should the Council focus its efforts?
• What are next steps in advancing the concept of a National Zero Waste Marketing Council?
• What resources are available for implementation? Who should be involved moving forward?
• Do the terms of reference need to be refined?
• Are there champions to form a core working group and advance discussions?

12:25 pm  Closing Remarks

Greg Moore, Chair, Metro Vancouver Board of Directors and Mayor, City of Port Coquitlam
John Dooley, Mayor, City of Nelson, BC Caucus Chair, FCM

12:30 pm  Networking Lunch

1:30 pm  Roundtable Concludes
At the Federation of Canadian Municipalities’ (FCM) June 2011 Annual General Meeting, the Big Cities Mayor’s Caucus (BCMC) endorsed a resolution that:

The FCM urge the federal government to develop a coordinated approach to waste management that leads to the implementation of “cradle to cradle” product and packaging design with emphasis on reuse and recycling and extended producer responsibility regulations for a range of products; and further that:

The FCM examine options and opportunities, as resources allow, to establish a National Zero Waste Marketing Council, with membership including but not limited to local governments and regional districts, that would collaborate across all levels of government in Canada in development of a national public awareness campaign regarding the need to reduce solid waste and the actions that can be taken by the public to accomplish such reduction.

This resolution was subsequently adopted by the FCM at their 2011 AGM.

Every year, local governments spend approximately $2.6 billion to manage waste, including $1.1 billion in collection and transportation costs, $465 million for operation of disposal facilities and $368 million in tipping fees. This state of affairs diverts dollars from municipal coffers and locks Canada into a linear waste management model – from producer to consumer to landfill.

Communities across Canada are aiming to do better, closing the waste loop and getting more value for their dollars. Working together communities can share best practices for enhancing organics diversion, implementing extended producer programs and engaging the public in an effort to make smarter use of resources.

They can also develop a clearer picture of municipal needs and a platform for advocacy both federally and at the provincial and territorial government levels.

A National Zero Waste Marketing Council, a specific action from Metro Vancouver’s Integrated Solid Waste Management Plan, can be the starting point for a national movement for better waste management policy and practice at the national, provincial and local levels.

The Council can advocate strengthening all levels of government regulations and other approaches that encourage manufacturers and retailers to redesign products and packaging, so they can more easily be reused, repaired and recycled. Work in this area would be strengthened if cities and regions collaborated to develop a unified voice around a clear set of waste reduction measures.
As outlined in the backgrounder (attached), the National Zero Waste Marketing Council will develop and implement national strategies designed to reduce the solid waste stream in Canada by:

- advocating with governments and manufacturers to implement “cradle to cradle” product/packaging design and expand producer responsibility programming on a broad range of products,
- collaborating on the development and sharing of marketing campaigns designed to influence consumer behaviour and reduce the amount of waste entering the waste stream.

Metro Vancouver and FCM will work together to initiate a broad, multilateral discussion on building a national case for a “cradle to cradle” approach to product and packaging design that will help reduce the generation of waste and its associated environmental and monetary costs.

Metro Vancouver, in collaboration with FCM and other partners, will convene an inaugural roundtable with local government, provincial associations and other key stakeholders, to assess interest and confirm Terms of Reference for a marketing and advocacy council, including scope, mandate, expectations and resources.

The inaugural roundtable will be held in Vancouver on September 15, 2012.

The National Zero Waste Marketing Council shall be comprised of local government representatives, businesses, NGOs, Academia, municipal associations and other key stakeholders, as required.

Proposed administrative support to the council could be jointly provided by Metro Vancouver and FCM and other potential partners as required.

To find out more please contact:
Heather.Schoemaker@metrovancouver.org
Jerry.Colman@metrovancouver.org
To: Utilities Committee

From: Jeff Gogol, Environmental Regulatory Planner
Ray Robb, Division Manager
Metropolitan Planning, Environment and Parks Department

Date: September 21, 2012

Subject: GVS&DD Food Sector Grease Interceptor Bylaw No. 268, 2012

Recommendation:

That the GVS&DD Board:

a) introduce and give first, second and third reading to “Greater Vancouver Sewerage and Drainage District Food Sector Grease Interceptor Bylaw No. 268, 2012”;

b) introduce and give first, second and third reading to “Greater Vancouver Sewerage and Drainage District Sewer Use Amending Bylaw No. 273, 2012”;

c) reconsider, pass and finally adopt “Greater Vancouver Sewerage and Drainage District Food Sector Grease Interceptor Bylaw No. 268, 2012”; and

d) reconsider, pass and finally adopt “Greater Vancouver Sewerage and Drainage District Sewer Use Amending Bylaw No. 273, 2012”.

1. PURPOSE

This report recommends the adoption of Greater Vancouver Sewerage and Drainage District (“GVS&DD”) Food Sector Grease Interceptor Bylaw No. 268, 2012 and consequential amendments to the GVS&DD Sewer Use Bylaw No. 299, 2007. The grease interceptor bylaw is necessary to better regulate the discharge of wastewater from restaurants and other commercial kitchens in the region.

2. CONTEXT

The Environmental Management Act and the Greater Vancouver Sewerage and Drainage Act enable the GVS&DD to make bylaws regulating the discharge of wastewater to the sanitary sewer. The Sewer Use Bylaw provides the regulatory framework to control these sources.

In 2000, Metro Vancouver staff developed the Food Sector Code of Practice (the “code”), in cooperation with stakeholders and member municipalities. The primary objective of the code was to reduce the quantity of grease discharged to sewer from restaurants and cafeterias, grocery facilities, and food processors not operating under Waste Discharge Permits. The code sets regulatory requirements for installation, sizing, operation, and maintenance of grease interceptors, and contains provisions for inspection and enforcement.
In 2009, staff reviewed the existing code and noted significant changes were needed to modernize the grease management requirements and recommended that Metro Vancouver should increase enforcement of the code within the region. In 2010, an Issue Paper was forwarded to the former Waste Management Committee and Metro Vancouver staff began consultation on the proposed changes. Staff proposes making the code its own stand-alone regulatory bylaw to streamline the Sewer Use Bylaw and is also proposing additional requirements not included in the existing code.

2.1 Proposed Grease Interceptor Bylaw (the “Bylaw”) Requirements

Grease discharged from commercial kitchens may accumulate in sewer lines resulting in blockages and sewer overflows with associated public health concerns. Metro Vancouver estimates that the annual cost to Metro Vancouver and its member municipalities to deal with grease accumulations in the sewer system is over $2 million. The proposed bylaw will improve the enforceability of the requirements as well as set out standards to better manage fats, oils and grease (“FOG”) from commercial kitchens. The proposed bylaw includes:

- discharge limits from the grease interceptor to sewer;
- minimum standards for grease interceptors installed after the adoption of the bylaw;
- requirements to clean the interceptor when the accumulation of grease and solids exceeds 25% of the wastewater depth or every 90 days, whichever occurs first;
- re-inspection and sampling/analysis fees for kitchens not in compliance with the bylaw; and
- minimum fines for specific contraventions of the bylaw.

2.1.1 Discharge Limits

Unlike other codes of practice attached as schedules to the Sewer Use Bylaw, the existing food code does not specify any discharge limits for total suspended solids or total oil & grease. Staff is proposing adding the following discharge limits in the bylaw:

- Total Suspended Solids 600 mg/L
- Oil & Grease (total) 300 mg/L

These limits are readily achievable with a properly sized and maintained grease interceptor.

2.1.2 Grease Interceptor Standards

Jurisdictions across North America have recently recognized the need to enhance the effectiveness of the removal of grease from restaurant discharges to sewer. Recent reviews of grease interceptor performance have resulted in the development of grease interceptor standards. In 2007, the Canadian Standards Association (CSA) published a series of standards for grease interceptor construction, testing, rating, installation and maintenance. Staff has reviewed these standards and is proposing that all grease interceptors installed after the adoption of this bylaw must achieve a rating standard of 90% grease removal efficiency measured in accordance with CSA standard B481.1 or similar standard approved by the Sewage Control Manager. This will ensure that all grease interceptors meet minimum standards.
It is proposed that grease interceptors installed after January 1, 2015 be certified at a performance standard of a maximum effluent oil and grease concentration of 150 mg/L measured in accordance with CSA standard B481.2 or similar standard approved by the Sewage Control Manager. This is a standardized test that is used to determine the expected effluent quality for each model of interceptor manufactured. The delay is to allow manufacturers the time to rate their existing interceptors. To date, manufacturers have been waiting for jurisdictions to require ratings before testing their interceptors.

2.1.3 Maintenance Requirements

The existing code requires that a grease interceptor be cleaned when the amount of grease in the interceptor exceeds 25% of the wetted height. However, the accumulation of solids in the grease interceptor also affects performance. To ensure adequate grease removal, most jurisdictions within North America require clean-outs when the accumulation of grease and solids exceed 25% of the wastewater volume in the grease interceptor. Therefore, staff is proposing to align Metro Vancouver’s requirements with other jurisdictions.

In addition, many jurisdictions have a minimum cleaning frequency for interceptor maintenance typically ranging between 30 and 90 days. The rationale for this minimum frequency is to protect the grease interceptor and sewer pipes as organic wastewater can acidify if left too long in the interceptor, creating corrosion issues in the interceptor and the sewer collection system. Since a minimum frequency of 30 days may create a substantial negative financial burden on some facilities, staff is proposing a minimum frequency of 90 days to be reviewed in the future. Consequently, staff proposes that interceptors be maintained when the grease and solids exceed 25% or every 90 days, whichever occurs first.

2.1.4 Fees and Fines

To help fund the increased enforcement activities associated with this bylaw and to be fair to restaurants that comply with the law, staff reviewed and consulted on three funding options:

1. Annual municipal levy (status quo)
2. Annual fee for all facilities (proposed $100)
3. Fee to re-inspect ($300) or re-sample ($150) non-compliant facilities.
Staff is proposing to continue to use the municipal levy to recover the costs of a first inspection or sampling of a facility. Re-inspection and re-sampling fees are proposed in instances where an officer believes additional regulatory inspections are required to achieve compliance with the bylaw. Such additional regulatory inspection activities impose a strain on resources and therefore it is proposed that a fee be charged to recover the cost of re-inspections and sampling from those facilities that require additional inspections, consistent with Metro Vancouver’s polluter-pay principle.

The provincial *Environmental Management Act* authorizes a maximum fine for bylaw violations of $10,000. However, courts have the discretion to impose a lower amount, which may not be sufficient to meet Metro Vancouver’s regulation and enforcement objectives. Staff is proposing a minimum fine of $2,000 for serious violations of the Grease Interceptor Bylaw and proposes that the following infractions, if taken to court, be subject to a minimum fine:

- failure to install a grease interceptor;
- all grease-bearing fixtures are not connected to an interceptor;
- grease interceptor not properly sized for the fixtures connected to it; and
- failure to properly maintain an interceptor.

Staff continues to work with the Ministry of Environment and the Ministry of Community, Sport and Cultural Development to raise the maximum available court fines for serious violations of its liquid waste bylaws, as well as enable ticketing for less serious infractions.

### 2.1.5 Miscellaneous Changes

Metro Vancouver staff is also proposing miscellaneous other requirements to modernize the bylaw including the following:

- improved definition of a grease interceptor;
- banning the use of bacteria in a grease interceptor; and
- improved sampling point requirements.

### 2.1.6 Consequential Amendments to the Sewer Use Bylaw

Consequential amendments to the Sewer Use Bylaw are also required to remove references to the code as well as other minor amendments to harmonize the two bylaws.

### 2.2 Consultation

From March to June 2011, Metro Vancouver consulted with commercial kitchen operators about potential changes to Metro Vancouver’s Grease Interceptor Bylaw (formerly the Food Sector Code of Practice). Consultation activities included focus groups of commercial kitchen operators in English and Cantonese, as well as in-person surveys. In addition, manufacturers and suppliers of grease interceptors were contacted regarding proposed requirements for operational standards.

Feedback from the consultation focus groups and surveys was integrated into the planned bylaw requirements. In July 2012, staff conducted a second survey by phone and by email to discuss additional requirements in the bylaw.
Notification

Fact sheets on the proposed changes were posted on the Metro Vancouver website in English, Farsi, Korean, Punjabi, Traditional Chinese, and Vietnamese. A video outlining the proposed changes was also posted. All communications materials included information on how to provide feedback to Metro Vancouver on the proposed bylaw by phone and via the website.

Surveys

In March 2011, Metro Vancouver enforcement officers were sent to areas in the region with high concentration of restaurants to talk to operators about the proposed changes and obtain feedback. Using an iPad survey tool, enforcement officers conducted short surveys with commercial kitchen operators. During the follow up survey in July 2012, enforcement officers contacted respondents from the first survey by telephone to ask for feedback based on proposed revisions to the bylaw.

Focus Groups

Three focus groups – two in English, one in Cantonese – were held in the Lower Mainland to explore issues commercial kitchen operators might experience as a result of the proposed new requirements of the Grease Interceptor Bylaw:

- June 13, 2011 Surrey
- June 14, 2011 Burnaby
- June 27, 2011 Richmond (Cantonese)

Focus group participants were recruited by an agency using the InfoCanada list of Lower Mainland restaurants. Participants were a mix of independent commercial kitchen owner/operators and operators of larger, corporate chains.

The focus group sessions included guided discussions on the proposed regulatory requirements and related communications materials. Metro Vancouver staff was present to answer questions from the participants.

Municipal Consultation

Municipal consultation on the proposed changes included meetings with the Lower Mainland Plumbing Code Committee on September 1, 2011 and the Regional Engineers Advisory Committee – Liquid Waste Sub-Committee on May 24 and September 20, 2012.

Feedback

Feedback received through the engagement and consultation program was documented and the comments, questions and issues raised were tracked.
The following key themes emerged from the focus groups discussions and surveys:

<table>
<thead>
<tr>
<th>Theme / Issue</th>
<th>Response</th>
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<tbody>
<tr>
<td>Measuring grease and solids maximum depth requirements may be difficult based on the design of many currently installed grease traps and may disrupt daily business.</td>
<td>Grease trap service providers can help to measure the grease and solids levels to determine a pump out frequency to meet this requirement.</td>
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<tr>
<td>Purchasing a new grease trap with measurement gauges/clear grease boxes or paying external suppliers to measure the grease and solids could cost commercial kitchen operators extra money in order to be compliant with the new bylaw.</td>
<td>There are alternative methods to measure the depth of grease and solids that do not require significant expenditures.</td>
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<tr>
<td>Frequency-based cleaning (i.e., once per month) could potentially lead to over or under-cleaning as different restaurants produce different amounts of grease.</td>
<td>The interceptor must be cleaned out when the amount of grease and solids reaches 25% of the depth of wastewater in the interceptor or 90 days, whichever occurs first.</td>
</tr>
<tr>
<td>The proposed bylaw could have a higher cost and daily business impact on small establishments than on large establishments.</td>
<td>The relative costs should be similar to both establishments. The main difference would be that the larger operation would have a larger interceptor which traps more grease.</td>
</tr>
<tr>
<td>Inspection cost recovery by Metro Vancouver on the basis of charging commercial kitchens that fail inspections a re-inspection fee is fairer than having all commercial kitchens pay an annual inspection fee.</td>
<td>Agreed. Staff is proposing re-inspection and sampling fees.</td>
</tr>
<tr>
<td>A concern was raised by one of the interceptor suppliers regarding the requirement that floor drains and mop sinks that are located below grade would preclude the installation of above-ground grease removal devices.</td>
<td>The BC Building Code requires that all grease bearing fixtures must discharge through a grease interceptor.</td>
</tr>
</tbody>
</table>

A table of all issues raised along with Metro Vancouver responses is posted on Metro Vancouver’s website at: http://www.metrovancouver.org/boards/bylaws/Pages/bylawreview.aspx

The documentation of all input, consultation and communications activities entitled GVS&DD Food Sector Grease Interceptor Bylaw No. 268, 2012: Consultation Program: Report on Activities and Findings will be available from the Metro Vancouver Information Centre by calling 604-432-6200.
2.3 Communications and Outreach Strategy

Metro Vancouver has developed a communications and outreach strategy to support the changes to the grease interceptor bylaw. The overarching goal of this plan is to encourage restaurants and commercial kitchens to adopt practices around grease interceptors that are in line with Metro Vancouver bylaws. This means ensuring that these establishments are aware of the requirements of the bylaw and understand the importance of maintaining their grease interceptors.

Information on grease interceptors will target the sector as whole and will include restaurants, schools, hotels, food courts, caterers, bakeries, coffee shops and grocery stores with food preparation areas. Within the food services sector, restaurants are the greatest source of grease-related issues. Outreach to this sector will therefore prioritize restaurants, specifically those in problem areas identified by Metro Vancouver. Particular attention will be given to the best ways to reach ethnic restaurants.

Metro Vancouver will use a range of different channels to provide the food services sector with information on grease interceptors and to let the sector know about the changes to the bylaw. This will include updated web resources and informational videos, information brochures (see attached sample), materials for posting in kitchens, electronic mail-outs through associations and other channels, and the possible development of training videos in 2013. Metro Vancouver will also pursue media coverage, including through non-English media, to increase general awareness of the issues and regulatory changes.

Metro Vancouver will also be working more directly with relevant associations to support restaurants in adopting better grease interceptor practices. As part of its initiatives around the proposed organics ban, Metro Vancouver is beginning to work with local restaurant and hotel associations. To avoid targeting the same sector twice, Metro Vancouver is including the issue of grease interceptors as part of a larger package of areas where it can provide assistance and support to this sector. Working with associations is a longer term approach that should allow these issues to be addressed in a collaborative and more in-depth way.

Metro Vancouver will be working with municipalities to ensure a consistent messaging to the restaurants. This will include:

- the development and communication of a consistent grease interceptor sizing methodology;
- creation of outreach materials that can be used by the municipalities; and
- dialogue with municipal staff regarding areas with significant grease build-up in the sewer lines.

For those municipalities with grease programs in effect, Metro Vancouver staff will work with the municipal staff as a resource for their program and to help when required. The main goal with these municipalities is to work towards similar messaging and outcomes.

3. ALTERNATIVES

That the Board may:

a) provide comments or direction to staff and/or provide revisions to the proposed bylaws; or

b) give three readings to and adopt the revised bylaws.

Staff recommends alternative (b).
4. CONCLUSION

To better regulate the discharge of wastewater containing fats, oils and grease from restaurants and other commercial kitchens in the region, staff is proposing a regulatory bylaw containing improved requirements for grease management.

ATTACHMENTS

1. Greater Vancouver Sewerage and Drainage District Food Sector Grease Interceptor Bylaw No. 268, 2012 (Doc. #6496377).

2. Greater Vancouver Sewerage and Drainage District Sewer Use Amending Bylaw No. 273, 2012 (Doc. #6496097).

3. Sample Outreach Material (Doc. #6496293).
Whereas:

A. The *Environmental Management Act* of British Columbia and the *Greater Vancouver Sewerage and Drainage District Act* authorize the Greater Vancouver Sewerage and Drainage District (the “District”) to make bylaws respecting the direct or indirect discharge of wastes into any sewer or drain connected to a sewerage facility operated by the District;

B. The *Greater Vancouver Sewerage and Drainage District Act* authorizes the District to set fees payable by persons who discharge liquid waste into any work, service or plant of the District for conveying, disposing of, or treating liquid waste, or work, service, or plant connected thereto; and

C. It is deemed desirable to regulate the discharge of wastewater from food sector establishments that contains or may be contaminated with fats, oils and grease.

NOW THEREFORE the Board of Directors of the Greater Vancouver Sewerage and Drainage District in an open meeting duly assembled enacts as follows:

**Citation**

1. For citation purposes, the name of this bylaw is the “Food Sector Grease Interceptor Bylaw No. 268, 2012” (“this bylaw”).

**Definitions**

2. In this bylaw:

   “approved” means an approval of or given by the Sewage Control Manager;

   “drain” means a pipe, conduit, channel, or other similar equipment used to convey wastewater;

   “fats, oils and grease” means insoluble organic fats, oils and grease from animal or vegetable sources;

   “flow capacity” means the quantity of wastewater measured in relation to units of time that is discharged into or through a grease interceptor;

   “flow control fitting” means a device that controls flow capacity;

   “food sector establishment” means any premises, except premises used solely as a private residence, where food is prepared, packaged, served, sold, or otherwise handled in a manner that results in the formation of fats, oils and grease, including restaurants,
delicatessens, fast-food premises, cafeterias, hospitals, bars, grocery stores, bakeries, butcher shops, and other similar premises where food is handled;

“garbage compactor” means a device that compacts waste which contains or may be contaminated with fats, oils and grease;

“gravity grease interceptor” means a device that uses gravity and interior baffling to separate and retain fats, oils and grease from wastewater;

“grease interceptor” means a gravity grease interceptor, hydromechanical grease interceptor, or grease removal device that separates, and then removes or retains, fats, oils and grease from wastewater before it is discharged into a sewer or sewage facility;

“grease removal device” means a hydromechanical grease interceptor that separates and removes fats, oils and grease from wastewater using an automatic, mechanical process;

“hydromechanical grease interceptor” means a device that uses hydromechanical separation, interior baffling, and air entrainment barriers, whether in combination or independently, to separate and retain fats, oils and grease from wastewater;

“point of discharge” means the point at which wastewater is discharged from a grease interceptor into a sewer or sewage facility;

“rated flow capacity” means the flow capacity prescribed by the manufacturer of a grease interceptor;

“sampling point” means the point at which a sample of wastewater can be collected;

“Sewer Use Bylaw” means Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw No. 299, 2007;

“solids interceptor” means a device that separates, and then removes or retains, solids from wastewater, including a basket, screen, or other similar device;

“total oil and grease” means any matter, whether of animal, vegetable or mineral origin, extractable by solvent as determined by procedures set out in standard methods, and includes fats, oils and grease; and

“wastewater depth” means the depth of the wastewater measured from the bottom of the grease interceptor to the surface of the wastewater in the grease interceptor.

3. Terms defined in the Sewer Use Bylaw or incorporated by reference into the Sewer Use Bylaw have the same meaning in this bylaw unless otherwise defined.

4. References in this bylaw to an enactment, including the Sewer Use Bylaw, include the enactment as it may be amended or replaced from time to time.
Part 1 – Application

5. Every person who discharges, or allows or causes to be discharged, directly or indirectly, wastewater from a food sector establishment into a sewer or sewage facility must comply with this bylaw.

Part 2 – Restrictions

6. Subject to sections 7 and 8, no person shall discharge, or allow or cause to be discharged, directly or indirectly, wastewater from a food sector establishment into a sewer or sewage facility if the wastewater contains any of the following:

(a) high volume discharge;
(b) restricted waste;
(c) storm water;
(d) prohibited waste;
(e) uncontaminated water;
(f) groundwater;
(g) trucked waste;
(h) any substance, whether gaseous, liquid, or solid, that may cause damage to a sewer or sewage facility by corrosion;
(i) any substance, whether gaseous, liquid, or solid, in a concentration or quantity that may cause interference with the proper operation of a sewer or sewage facility;
(j) any substance, whether gaseous, liquid, or solid, in a concentration or quantity that may injure or is capable of injuring the health of any person, property or life form;
(k) any substance, whether gaseous, liquid, or solid, in a concentration or quantity that is or may become a safety hazard to persons who operate or maintain a sewer or sewage facility; or
(l) any substance, whether gaseous, liquid, or solid, used to dilute non-domestic waste, including water.

7. A person may discharge wastewater from a food sector establishment into a sewer or sewage facility if that person is also in compliance with the Sewer Use Bylaw and a valid and subsisting waste discharge permit, trucked waste authorization, or order.

8. A person may discharge wastewater from a food sector establishment into a sewer or sewage facility if, at the point of discharge, the wastewater contains only:
(a) biochemical oxygen demand; and

(b) total oil and grease less than 300 mg/L.

9. No person shall add, or cause or permit to be added into a grease interceptor any enzymes, solvents, hot water, bacteria, or other biological or chemical substance to facilitate the passage of fats, oils and grease through a grease interceptor.

Part 3 – Grease Interceptor Requirements

10. Every owner or operator of a food sector establishment must use grease interceptors in accordance with this bylaw to separate fats, oils and grease, and then remove or retain such fats, oils and grease, from wastewater before the wastewater is discharged into a sewer or sewage facility.

11. The following in a food sector establishment must be connected to a drain that is connected to a grease interceptor:

(a) cooking equipment that is connected, directly or indirectly, to a drain, including woks, soup kettles, tilt kettles, and other similar cooking equipment;

(b) sinks that are used for washing pots, pans, dishes, cutlery, kitchen utensils, mops, and to perform other similar washing activities;

(c) self-cleaning exhaust hoods installed over cooking equipment;

(d) garbage compactors;

(e) floor drains used to convey water or wastewater that contains or may be contaminated with fats, oils and grease;

(f) dishwashing equipment; and

(g) any other plumbing equipment or device that discharges or conveys wastewater which contains or may be contaminated with fats, oils and grease.

12. The following in a food sector establishment must not be connected to a grease interceptor:

(a) toilets and urinals;

(b) sinks used only for washing hands or washing any thing that is not contaminated with fats, oils and grease; and

(c) subject to section 13, food grinders, potato peelers and other similar equipment used for the preparation of food.

13. Food grinders, potato peelers and other similar equipment used in the preparation of food must be connected to a solids interceptor that is connected to a grease interceptor if the
wastewater discharged from such food preparation equipment contains or may be contaminated with fats, oils and grease.

14. A garbage compactor used in connection with a food sector establishment but is situated outside of the building or structure of that food sector establishment must:

(a) be connected to a drain that is connected to a grease interceptor; and

(b) prevent the mixing of storm water with the wastewater that is discharged into the drain connected to the grease interceptor.

15. Grease interceptors must not be located in a place or manner that obstructs or interferes with an officer’s exercise of powers to ensure compliance with this bylaw, the Sewer Use Bylaw, or the Environmental Management Act.

Part 4 – Grease Interceptor Standards

16. All grease interceptors installed after the adoption of this bylaw but prior to January 1, 2015 must achieve a rating standard of 90% grease removal efficiency measured in accordance with Canadian Standards Association standard B481.1, or be rated in accordance with such other standard approved by the Sewage Control Manager.

17. All grease interceptors installed after January 1, 2015 must achieve a rating standard of a maximum effluent grease concentration of 150 mg/L measured in accordance with Canadian Standards Association standard B481.2, or be rated in accordance with such other standard approved by the Sewage Control Manager.

18. Where the rating methodology in the Canadian Standards Association B481 Series of Standards does not apply, then the grease interceptor must be designed, engineered, and installed in accordance with the standards prescribed for grease interceptors in the American Society of Plumbing Engineers Data Book, Volume 4, Chapter 8, Grease Interceptors.

19. If a grease interceptor was installed in conformity with the BC Building Code prior to the adoption of this bylaw but does not conform to the standards for grease interceptors in this Part, the grease interceptor may continue to be used as a non-conforming grease interceptor.

Part 5 - Grease Interceptor Sizing

20. The maximum flow capacity of all plumbing fixtures connected to a grease interceptor must not exceed the grease interceptor’s maximum rated flow capacity.
21. A grease interceptor must have sufficient flow capacity to separate, and then remove or retain, fats, oils and grease from wastewater in compliance with this bylaw, and must be sized in accordance with an approved sizing methodology.

22. If the manufacturer of a grease interceptor prescribes the use of a flow control fitting with the grease interceptor, the grease interceptor must have the prescribed flow control fitting.

23. The size of a flow control fitting that is required to be used with a grease interceptor must not exceed the rated flow capacity of the grease interceptor.

**Part 6 - Sampling**

24. Every food sector establishment must designate a sampling point for each grease interceptor that discharges into a sewer or sewage facility.

25. A sampling point may be located at any point where a grease interceptor discharges wastewater into a sewer or sewage facility, provided that the sampling point is upstream from any other points where wastewater from sources other than the grease interceptor can be discharged into that sewer or sewage facility.

26. If a sampling point is part of a pipe, the sampling point must be vertically perpendicular to and on the top of the pipe.

27. Every food sector establishment must keep on the premises a record of the designated locations of all sampling points for that food sector establishment and make such record available for inspection by an officer or the Sewage Control Manager upon request.

28. A sampling point must be readily and easily accessible at all times for inspection and sampling by an officer or the Sewage Control Manager.

29. An officer or the Sewage Control Manager may require anything related to the discharge of wastewater from a food sector establishment, including any machine, structure, material or equipment on the premises that is being inspected, be operated, used, set in motion, or opened under conditions specified by the officer or Sewage Control Manager.

**Part 7 - Labelling Requirements**

30. The rated flow capacity of a grease interceptor must be:

   (a) permanently labelled on the grease interceptor and be visible and clearly legible at all times; or

   (b) shown to an officer or the Sewage Control Manager in written documentation issued by the manufacturer of the grease interceptor.
Part 8 - Grease Interceptor Maintenance

31. Every grease interceptor must be examined and cleaned in accordance with this Part.

32. A grease interceptor must be examined, and cleaned:

(a) at least once every 90 consecutive days; or

(b) when the total thickness of fats, oils and grease and solids in the grease interceptor is equal to 25% or more of the wastewater depth,

whichever occurs earlier, or at any time an officer or the Sewage Control Manager directs.

33. Examination and cleaning of a grease interceptor must include:

(a) full evacuation of the grease interceptor;

(b) clearing of all inlet, outlet, and air relief ports of any obstructions or other matter that may interfere with the proper functioning of the grease interceptor;

(c) examination of all baffles, seals, and internal components for damage and other defects or conditions that may interfere with the proper functioning of the grease interceptor; and

(d) replacement or repair of any damaged components and other defects or conditions that may interfere with the proper functioning of the grease interceptor.

34. Fats, oils and grease evacuated from a grease interceptor during the examination and cleaning required under this Part must not, directly or indirectly, be discharged:

(a) in any form or manner, into the environment or into any sewer or storm sewer; or

(b) in liquid form, into a municipal solid waste collection system.

Part 9 - Record Keeping

35. For each examination and cleaning required to be performed under Part 8, every owner or operator of a food sector establishment must:

(a) keep and maintain on the premises a written record of the date of the examination, cleaning, and maintenance, with detailed descriptions of the types and quantities of matter evacuated;

(b) keep each record for at least two years after the year in which the record was first made; and

(c) make such records available for inspection by an officer or the Sewage Control Manager upon request.
Part 10 – Orders and Fees

36. If the Sewage Control Manager has grounds to believe that a person has contravened or is contravening this bylaw or the Sewer Use Bylaw, the Sewage Control Manager may issue an order requiring a person to do anything the Sewage Control Manager deems necessary to stop the contravention or prevent another contravention.

37. If the Sewage Control Manager deems that any of the following inspection actions are required to ensure compliance with this bylaw, the owner or operator of a food sector establishment must pay the following fees set out in Table 1:

<table>
<thead>
<tr>
<th>Inspection action</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Re-inspection</td>
<td>$300</td>
</tr>
<tr>
<td>(b) Sampling and analyses</td>
<td>$150</td>
</tr>
</tbody>
</table>

Part 11 - Offences

38. A person who contravenes any provision of this bylaw, other than the provisions listed in section 39, commits an offence and is liable to a fine not exceeding $10,000.

39. A person who contravenes any of the following commits an offence and is liable to a minimum fine of $2,000 and a maximum fine not exceeding $10,000:
   (a) section 10 [installation of a grease interceptor];
   (b) section 11 [connection to a grease interceptor]; and
   (c) section 20 [flow from all plumbing fixtures connected to the grease interceptor]
   (d) section 31 [examination and cleaning].

40. If an offence under section 38 continues for more than one day, separate fines, each not exceeding the maximum fine for that offence, may be imposed for each day the offence continues.

41. If an offence under section 39 continues for more than one day, separate fines, each not less than the minimum fine for that offence and not exceeding the maximum fine for that offence, may be imposed for each day the offence continues.

42. Nothing in this bylaw limits the Sewage Control Manager or the District from utilizing any other remedy that would otherwise be available at law.
Part 12 – General Conditions

43. If any portion of this bylaw is deemed *ultra vires*, illegal, invalid, or unenforceable in any way, in whole or in part, by a court or tribunal of competent jurisdiction, such decision shall not invalidate or void the remainder of the bylaw. The portion so held to be *ultra vires*, illegal, invalid, or unenforceable shall be deemed to be reduced in scope so as to be valid and enforceable, or in the alternative to have been stricken therefrom with the same force and effect as if such parts had never been included in this bylaw or as revised.

44. Nothing in this bylaw is intended to conflict with the *Environmental Management Act*. A conflict does not exist solely because further restrictions or conditions are imposed by this bylaw or the Sewer Use Bylaw.

45. Words importing the singular number include the plural number and vice versa.

READ A FIRST, SECOND AND THIRD TIME this ____ day of ____________ 2012.

RECONSIDERED, PASSED AND FINALLY ADOPTED this ____ day of ____________ 2012.

______________________________
Chairperson

______________________________
Secretary
WHEREAS the Board of Directors of the Greater Vancouver Sewerage and Drainage District has adopted “Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw No. 299, 2007”, to manage the direct or indirect discharge of wastes into any sewer or drain connected to a sewerage facility operated by the District;

AND WHEREAS the Board of the Greater Vancouver Sewerage and Drainage District wishes to amend “Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw No. 299, 2007”;

NOW THEREFORE the Board of the Greater Vancouver Sewerage and Drainage District, in an open meeting assembled, enacts as follows:

1. “Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw No. 299, 2007” is hereby amended as follows:

(a) adding the following definition to section 2.1

“Grease Interceptor Bylaw” means the Greater Vancouver Sewerage and Drainage District Food Sector Grease Interceptor Bylaw No. 268, 2012, as amended or replaced from time to time;

(b) deleting the definition of a “Food Sector Establishment” in section 2.2 and replacing with the following:

“Food Sector Establishment” means a food sector establishment as defined in the Grease Interceptor Bylaw;

(c) replacing section 4.1 (b) with the following:

(b) a person operates a Food Sector Establishment in full compliance with the Grease Interceptor Bylaw and the Trucked Waste is discharged at a District facility designated for receipt of Trucked Waste.

(d) replacing section 5.2 with the following:

Nothing prohibits the discharge of Waste specified in section 5.1 provided the person is also in compliance with this Bylaw, the Grease Interceptor Bylaw, a valid and subsisting Waste Discharge Permit, a Trucked Waste Authorization, an Order, or a Code of Practice.

(e) adding “,the Grease Interceptor Bylaw,” to section 5.8 after the word “Order” and before the words “or this Bylaw”;

(f) adding “,the Grease Interceptor Bylaw,” to section 6.1 after the words “in compliance with” and before the words “a Waste Discharge Permit”;
(g) adding “the Grease Interceptor Bylaw,” to section 10.2 after the words “any provision of this Bylaw” and before the words “or any Waste Discharge Permit”;

(h) deleting the letter “D” in the title page of the Schedules to Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw No. 299, 2007”; and

(i) deleting Schedule “D”, entitled “Code of Practice for Wastewater Management at Food Sector Establishments” in its entirety.

2. This Bylaw shall be cited as “Greater Vancouver Sewerage and Drainage District Sewer Use Amending Bylaw No. 273, 2012”.

READ A FIRST, SECOND AND THIRD TIME this ___ day of ____________ 2012.

RECONSIDERED, PASSED AND FINALLY ADOPTED this ___ day of ____________ 2012.

____________________________
Chairperson

____________________________
Secretary
Maintenance – what’s required

Grease interceptors only work if they are properly maintained.

- The depth of fats, oils, grease and solids (combined together) must not be more than 25% of the total liquid depth of the grease interceptor.

- Have grease interceptors fully pumped out by a waste management company:
  - when fats, oils, grease and solids are more than 25% of the total liquid depth, OR
  - every 90 days (whichever happens first).

Inspect all components that may affect its proper operation.

- If properly maintained, wastewater leaving the grease interceptor will not exceed the regulation limits of:
  - 300 mg/L of oil and grease
  - 600 mg/L of solids

- Don’t use enzymes or other agents that will allow grease to bypass the grease interceptor and go into the sewer.

- Keep a record of inspection and maintenance activities. Have two years on hand and available for inspection.

- Have someone on site who can open the grease interceptor for inspection.

Non-compliance with regulations

Commercial kitchens that do not meet the regulations could be subject to a $300 re-inspection fee, a $150 sampling and analysis fee, and for serious offenses, a fine.

Information and assistance

If you operate or service a commercial kitchen, Metro Vancouver can help you with the technical requirements of the regulation, including advice on installing and maintaining your grease interceptor.

Metro Vancouver Information Centre
604-432-6200
www.metrovancouver.org
(search: grease trap regulation)
Grease: a big problem for our sewers

When you put fats, oils and grease from food preparation and cooking down the drain it can plug your drain lines and eventually clog the region’s sewers.

Grease build-up in sewers causes them to overflow, potentially damaging homes, businesses and the environment. Removing grease from our sewers costs Metro Vancouver residents at least $2 million every year.

A lot of the grease in our sewers comes from commercial kitchens where grease interceptors are not properly maintained or are too small.

What is a grease interceptor?

A grease interceptor (or grease trap) is a device that separates fats, oils and grease from wastewater and stops it from entering the sewer system.

All commercial kitchens whose wastewater contains fats, oils and grease are required by law to have a properly installed and maintained grease interceptor.

Installing a grease interceptor

A grease interceptor should be:

- connected to any fixture that generates grease
- properly sized – if it is too small it will fill with fats, oils and grease too quickly and will not do its job
- equipped with a sampling point so that the quality of liquids leaving the interceptor can be tested
- accessible – so it can be inspected and so you can maintain it

Keeping grease out of our sewers

Greater Vancouver Sewerage and Drainage District - 116
How to keep grease OUT of the sewer

1. Keep grease out of drains. Do not pour oil, grease or oily liquids such as gravy, sauce or salad dressing down the drain.

2. Recycle cooking grease and oil. Transfer all grease and oil from pans and fryers into covered grease containers for recycling.

3. Post NO GREASE signs. Post signs on the front of dishwashers, above sinks and next to floor drains.

4. Practice dry cleanup. Use rubber scrapers to remove fats, oils and greases from cookware and utensils.

5. Clean exhaust hood filters. Filters should be cleaned in sinks connected to the grease trap.

6. Use sink basket strainers. Strainers cover the drain and collect food particles.

7. Eliminate the use of garburators. These devices put large quantities of grease and solids into the sewer.

8. Supply spill management and clean up kits. Store kits in areas where spills are likely to happen.

9. Train all staff. Make sure everyone knows how to keep grease out of the sewer.

10. Maintain your grease trap. Practice regular grease trap maintenance according to the Grease Trap Regulation.

For more information, visit www.metrovancouver.org/services/permits and click on “Grease Trap Regulation” or call 604-432-6200.
To: Zero Waste Committee
Finance Committee

From: Lyn Ross, Senior Project Engineer
Solid Waste Department

Date: September 21, 2012

Subject: 2013 Tipping Fee Bylaw

Recommendation:
That the Board:
1. Approve a 2013 tipping fee of $105 per tonne, a decrease of $2 per tonne from the 2012 tipping fee;
2. Introduce and give first, second and third reading to “Greater Vancouver Sewerage and Drainage District Tipping Fee and Solid Waste Disposal Regulation Bylaw No. 275, 2012”;
3. Reconsider, pass and finally adopt “Greater Vancouver Sewerage and Drainage District Tipping Fee and Solid Waste Disposal Regulation Bylaw No. 275, 2012”.

1. PURPOSE

To update the Greater Vancouver Sewerage and Drainage District Bylaw No. 275, 2012 – A Bylaw to Establish the Tipping Fee and Solid Waste Disposal Regulation reducing the Regional tipping fee to $105 (currently $107) per tonne along with some other minor modifications.

2. CONTEXT

A bylaw was established in 2009 to formally set the tipping fee to be charged at solid waste transfer and disposal facilities in Metro Vancouver. The bylaw must be amended or replaced when the tipping fee or any other fees or surcharges require changes or if operational requirements of the facilities must be changed. The key changes proposed to take effect January 1, 2013 are:

- The tipping fee for municipal solid waste and small gypsum loads will be set at $105/tonne, reduced $2 from the 2012 tipping fee, subject to Board approval of the 2013 budget. One hundred and five dollars per tonne will result in an expected break-even budget for solid waste operations for 2013. The 2013 tipping fee is able to be reduced as a result of the stabilization of waste flow into the Regional System.

- The tipping fee for municipal solid waste originating in the District of Maple Ridge will reduced to $109/tonne, also down $2, with the additional $4/tonne returned to the District of Maple Ridge in order to help finance its recycling programs.
• The tipping fee for Abbotsford municipal solid waste delivered to the Matsqui Transfer Station will also be reduced to $105/tonne, down $2, plus the applicable Fraser Valley Regional District (FVRD) levy. The FVRD levy for 2013 is expected to increase from $1.45/tonne to $1.55/tonne and will be passed on to customers at Matsqui Transfer Station only.

• The mattress recycling fee changed to $15/unit reduced $5 from the 2012 rate to match actual costs for managing the mattresses. The new rate is the same rate as charged at the Vancouver Landfill and Vancouver Transfer Station. A lower tipping fee for mattresses may reduce illegal dumping.

• The revised bylaw will take effect on January 1, 2013. This timeframe will be sufficient for informing Metro Vancouver customers if the bylaw is approved by the Board by the end of October.

Outreach
Following approval of the bylaw, a communications strategy will be implemented in November and December to inform customers of the revised rates.

Financial Implications
Reducing the tipping fee to $105 per tonne and reducing mattress recycling costs to $15 per unit will result in a break-even budget for solid waste operations in 2013.

3. ALTERNATIVES
a. Reduce tipping fees to $105 per tonne as recommended in this report, and reduce mattress recycling costs to $15 per tonne as recommended in this report.
b. Maintain tipping fees at $107 per tonne and mattress recycling costs at $20 per tonne with excess revenues contributed to Solid Waste capital program recovery.

4. CONCLUSION
The Tipping Fee Bylaw requires revision to implement reduced charges for waste disposal and recycling processing services. Adjustment of tipping fees will ensure full cost recovery for services provided to manage municipal solid waste. As a result of the stabilization of waste flow into the Regional System, the 2013 tipping fee can be reduced by $2 to $105 per tonne.

ATTACHMENT
Greater Vancouver Sewerage and Drainage District Bylaw No. 275, 2012.
GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
BYLAW NO. 275, 2012

A Bylaw to Establish the Tipping Fee and Solid Waste Disposal Regulation

WHEREAS:

A. Pursuant to the Greater Vancouver Sewerage and Drainage District Act (the “Act”) the objects of the Greater Vancouver Sewerage and Drainage District (“GVS&DD”) include the disposal of all types of waste and the operation and administration of facilities for the disposal of all types of waste;

B. Section 7A(5)(b) of the Act empowers the GVS&DD to establish the uses to which its waste disposal facilities may be put and by whom they may be used;

C. Section 7A(5)(g) of the Act empowers the GVS&DD to establish scales of charges for services rendered by the GVS&DD and for the use of any of the GVS&DD’s waste disposal facilities;

D. In relation to the disposal of solid waste generated within its area, section 7B of the Act empowers the GVS&DD to set levies payable by generators of waste or by other persons who use the services of a waste hauler based on the quantity, volume, type or composition of waste generated;

E. Pursuant to section 14 of the Act, the Board of the GVS&DD may proceed by bylaw, resolution or order unless specially required by the Act to proceed by by-law.

NOW THEREFORE the Board of the Greater Vancouver Sewerage and Drainage District in open meeting assembled, enacts as follows:

1.0 Repeal of Bylaw

1.1 “Greater Vancouver Sewerage and Drainage District Tipping Fee and Solid Waste Disposal Regulation Bylaw No. 267, 2012” is hereby repealed.

2.0 Citation

2.1 The official citation for this bylaw is “Greater Vancouver Sewerage and Drainage District Tipping Fee and Solid Waste Disposal Regulation Bylaw No. 275, 2012”.

2.2 This Bylaw may be cited as the “2013 Tipping Fee Bylaw”.

3.0 Definitions

3.1 In this Bylaw:

(a) “Agricultural Waste” means Municipal Solid Waste that originates from an agricultural operation as defined pursuant to the Environmental Management
Greater Vancouver Sewerage and Drainage District Tipping Fee and Solid Waste Disposal Regulation
Bylaw No. 275, 2012

Act and includes manure, used mushroom medium and agricultural vegetation waste;

(b) “Assistant Commissioner” means the person appointed to the position of Assistant Commissioner from time to time by the GVS&DD and includes any person appointed or designated to act in his or her place;

(c) “Banned Recyclable Material” means Refuse listed under Schedule “D”;

(d) “Banned Recyclable Plastic” means polyethylene terephthalate (number 1 PET plastic), high density polyethylene (number 2 HDPE plastic), low density polyethylene (number 4 LDPE plastic) or polypropylene (number 5 PP);

(e) “Biomedical Waste” means Municipal Solid Waste defined as biomedical waste pursuant to the Environmental Management Act;

(f) “Board” means the Board of the Greater Vancouver Sewerage and Drainage District;

(g) “Clean Wood Waste” means Municipal Solid Waste that comprises solid wood, plywood, particle board, oriented strand board that is unpainted, unstained and untreated, but that may or may not be pierced with nails or other metal fasteners;

(h) “Commissioner” means the person appointed to the position of Commissioner from time to time by the GVS&DD and includes any person appointed or designated to act in his or her place;

(i) “Contaminated Recyclable Paper” means Recyclable Paper that has been contaminated with grease, oil, food residue or other material with the result that the paper is Unmarketable;

(j) “Corrugated Cardboard” means Recyclable Paper that consists of a fluted corrugated sheet and one or two flat linerboards;

(k) “Disposal Site” means any of the Municipal Solid Waste disposal facilities listed in Schedule A;

(l) “Emergency” means a present or imminent event or circumstance that:

(i) is caused by accident, fire, explosion, technical failure, labour strike or the forces of nature; and

(ii) requires prompt coordination of action or special regulation of persons or property to protect the health, safety or welfare of a person or to limit damage to property;

(m) “Environmental Management Act” means the Environmental Management Act S.B.C. 2003 c. 53;

(n) “Food Waste” means Municipal Solid Waste that comprises food, including meat, fish, fat, dairy products, bread, baking products, fruits and vegetables, whether cooked or uncooked;
“Fraser Valley Regional District Levy” or “FVRD Levy” means the solid waste levy that is charged by the Fraser Valley Regional District pursuant to the Fraser Valley Regional District Bylaw No. 0327, 1999, as amended or replaced from time to time;

“Garbage” means Municipal Solid Waste that is deposited in a bunker, pit or on the tipping floor at a Disposal Site or a Vancouver Disposal Site for disposal, as opposed to a Recycling Area;

“Greater Vancouver Sewerage and Drainage District Act” or “the Act” means the Greater Vancouver Sewerage and Drainage District Act S.B.C. 1956 c. 59;

“Green Waste” means Municipal Solid Waste that comprises vegetative matter resulting from gardening, landscaping or land clearing that is capable of being composted and includes grass, shrub and tree branches, grass sod, flowers, weeds, leaves, vegetable stalks, brush and tree stumps with a maximum diameter of 30 centimetres and maximum length of 120 centimetres, but excludes Food Waste and Agricultural Waste;

“Gypsum” means Municipal Solid Waste that comprises board made of several plies of fiberboard, paper or felt bonded to a hardened gypsum plaster core that is also known as drywall and includes gypsum board that has been painted or covered in wallpaper and removed during renovation and demolition;

“Hazardous Waste” means

(i) dangerous goods if they:

(1) are no longer used for their original purpose, and

(2) meet the criteria for Class 2, 3, 4, 5, 6, 8 or 9 of the federal dangerous goods regulations,

including those that are recycled, treated, abandoned, stored or disposed of, intended for recycling, treatment or disposal or in storage or transit before recycling, treatment or disposal,

(ii) PCB wastes,

(iii) wastes containing dioxin,

(iv) waste oil,

(v) waste asbestos,

(vi) waste pest control product containers and wastes containing pest control products, including wastes produced in the production of treated wood products using pest control products,

(vii) leachable toxic waste,

(viii) waste containing tetrachloroethylene,
(ix) wastes listed in Schedule 7 to the *Hazardous Waste Regulation* B.C. Reg. 63/88, as amended or replaced from time to time; and

(x) waste containing polycyclic aromatic hydrocarbon.

(u) “International Waste” means Municipal Solid Waste traveling or originating from outside Canada but does not include Refuse from cruise ships from the United States;

(v) “Load” means the quantity of Municipal Solid Waste material that is or was contained within a single vehicle attending at a Disposal Site;

(w) “Manager” means the person appointed to the position of Division Manager, Contracted Services from time to time by the GVS&DD and includes any person appointed or designated to act in his or her place;

(x) “Mattresses” means Municipal Solid Waste that comprises a case of canvas or other heavy cloth stuffed with wool, cotton, other fibers or similar material, with or without coiled springs, that was used as a bed or as support for a bed;

(y) “Municipal Solid Waste” means Refuse that originates from residential, light industrial, commercial, institutional, demolition, land clearing or construction sources or Refuse specified to be included in the GVS&DD’s solid waste management plan pursuant to the *Environmental Management Act*;

(z) “Occupational Health and Safety Regulation” means the *Occupational Health and Safety Regulation* B.C. Reg. 296/97 enacted pursuant to the *Workers Compensation Act*;

(aa) “Peak Hours” means from 10:00 am to 2:00 pm on Monday through Friday inclusive;

(bb) “Prohibited Material” means Refuse listed under Schedule “C”;

(cc) “Quarter” means, within any calendar year, the three month period from January 1 to March 31, April 1 to June 30, July 1 to September 30, or October 1 to December 31;

(dd) “Radioactive Waste” means waste defined as radioactive waste pursuant to the *Environmental Management Act*;

(ee) “Reactive Waste” means waste defined as reactive waste pursuant to the *Environmental Management Act*;

(ff) “Recyclable Paper” means Municipal Solid Waste manufactured from thin sheets from wood pulp or other fibrous substances that may be converted into reusable materials and includes newspapers and inserts, magazines, telephone directories, catalogues, office papers, envelopes, boxboard, paper bags and mail, but excludes photographic paper, carbon paper, tissue paper, paper napkins or towels, paper that is adhered to plastic or metal, composite paper products such as tetrapak containers, gable-top paper containers such as milk cartons, or paper that is covered or infused with wax;

(gg) “Recycling Area” means those parts of a Disposal Site or Vancouver Disposal Site designated for Gypsum, Green Waste, Source Separated...
Organics, Clean Wood Waste, Mattresses and the specific materials, substances and objects that comprise Source-Separated Recyclables;

(hh) “Recycling Regulation” means the Recycling Regulation, B.C. Reg. 449/2004 enacted pursuant to the Environmental Management Act;

(ii) “Refuse” means discarded or abandoned materials, substances or objects;

(jj) “Regional Services Rate” means the fee charged by the GVS&DD for solid waste management related services that the GVS&DD provides for the benefit of the entire area of the GVS&DD including, but not limited to, system analysis and planning, regulation and enforcement, demolition, land clearing and construction waste management, recycling and sustainability initiatives, public education, communication and administration;

(kk) “Soiled Paper” means:

(i) Recyclable Paper that has been soiled by or commingled with food residue; or

(ii) carbon paper, tissue paper, paper napkins or towels, gable top paper containers such as milk cartons and paper that is covered or infused with wax;

(ll) “Source-Separated Organic Waste” means Food Waste, Green Waste, Clean Wood Waste, or Soiled Paper or any combination thereof that has been collected by or on behalf of a GVS&DD member municipality from single family residences within the boundaries of that municipality in a loose (unbagged) form or in kraft paper bags and does not contain more than 0.05% (by wet weight) of any other type of Refuse;

(mm) “Source-Separated Recyclables” means Municipal Solid Waste that has been sorted by material, substance or object and that satisfies at least one of the following criteria:

(i) is managed as a marketable commodity with an established market by the owner or operator of the Disposal Site, including Recyclable Paper, Corrugated Cardboard, glass and metal;

(ii) 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; or

(iii) has been identified as a recyclable material in the GVS&DD’s solid waste management plan;

but does not include Source-Separated Organic Waste, Mattresses or Gypsum;

(nn) “Surcharge” means the cost charged by the GVS&DD, in addition to the applicable Tipping Fee, for depositing Banned Recyclable Materials or Prohibited Materials at Disposal Sites;
“Tipping Fee” means the fee charged by the GVS&DD for depositing Municipal Solid Waste at Disposal Sites, which fee includes the applicable Regional Services Rate;

“Treasurer” means the person appointed to the position of Treasurer from time to time by the GVS&DD and includes any person appointed or designated to act in his or her place;

“Treated Wood Waste” means Municipal Solid Waste that comprises solid wood, plywood, particle board or oriented strand board that has been painted, stained, treated or that it is coated in residue from form work or similar contamination;

“Unmarketable” means a material, substance or object that cannot be sold or otherwise disposed of through an existing recycling program or a commercial market;

“Vancouver Disposal Site” means either of the following Municipal Solid Waste disposal facilities that are owned or operated by the City of Vancouver:

(i) Vancouver Landfill located at 5400 72nd Street, Delta; and

(ii) Vancouver South Transfer Station, Recycling Depot and Yard Trimmings Drop-off located at 377 West Kent Avenue North, Vancouver.

4.0 Restrictions and Prohibitions

4.1 No person shall dispose of any material, substance or object at a Disposal Site except in accordance with this Bylaw.

4.2 No person shall dispose of any Prohibited Material at a Disposal Site.

4.3 No person shall dispose of any Loads that emit odours, fumes or particulate matter (such as dust) that causes or is capable of causing material discomfort to a person at a Disposal Site.

4.4 No person shall dispose of any Loads dominated by oily materials, substances or objects at a Disposal Site.

4.5 Despite sections 4.3 and 4.4, the Manager may authorize Loads that:

(a) emit odours, fumes or particulate matter (such as dust) that causes or is capable of causing material discomfort to a person; or

(b) are dominated by oily materials, substances or objects,

to be accepted at the Waste-to-Energy Facility.

4.6 No person shall dispose of any Gypsum or Mattresses at the Waste to Energy Facility.

4.7 No person shall dispose of any Gypsum at a Disposal Site:

(a) except at a Recycling Area designated for Gypsum; and
(b) unless the Load of Gypsum weighs one-half (1/2) tonne or less.

4.8 No person shall dispose of Mattresses at a Disposal Site:

(a) except at a Recycling Area designated for Mattresses; and

(b) unless the Load of Mattresses comprises four (4) or fewer Mattresses.

4.9 No person shall dispose of Municipal Solid Waste at a Disposal Site unless it originates from within the boundaries of GVS&DD’s member municipalities.

4.10 Despite section 4.9, the Board may authorize the Manager to accept Municipal Solid Waste at a Disposal Site, including International Waste, that originates from outside the boundaries of GVS&DD’s member municipalities.

4.11 No person shall enter a Disposal Site with a Load unless the Load is tied, tarped, covered or otherwise secured to prevent any Municipal Solid Waste from escaping while the vehicle is in motion or at a standstill.

4.12 The Manager may prohibit a person who contravenes this Bylaw from disposing of Municipal Solid Waste at any Disposal Site for such period as the Manager may determine.

5.0 **Tipping Fees and Surcharges**

5.1 Every person disposing of Municipal Solid Waste at a Disposal Site must pay to the GVS&DD the applicable Tipping Fees and Surcharges calculated in accordance with Schedule “B” of this Bylaw.

5.2 If a person attends a Disposal Site with a Load that contains Source-Separated Recyclables, Green Waste, Source-Separated Organic Waste, Clean Wood Waste, Gypsum and/or other Municipal Solid Waste and the person chooses not to weigh-out after disposing of each part of the Load, namely the Source-Separated Recyclables, Green Waste, Source-Separated Organic Waste, Clean Wood Waste, Gypsum and/or other Municipal Solid Waste, at the designated Recycling Areas, then the person must pay to the GVS&DD a Tipping Fee for the entire Load that is based on the highest fee payable for any part of the Load, in the amounts set out in Schedule “B” of this Bylaw, together with any applicable Surcharges.

5.3 In addition to the Tipping Fees and Surcharges set out in Schedule “B” of this Bylaw, every person who disposes of a Load at the Matsqui Transfer Station must pay the applicable FVRD Levy when disposing of the Load.

5.4 Every person who disposes of a Load at a Disposal Site that contains a quantity of Banned Recyclable Materials that exceeds either 5% of the total weight of the Load or 5% of the total volume of the Load must pay a Surcharge in the amounts set out in Schedule “B” of this Bylaw.

5.5 Every person who disposes of a Load at a Disposal Site that contains Contaminated Recyclable Paper that exceeds either 5% of the total weight of the Load or 5% of the total volume of the Load must pay a Surcharge in the amounts set out in Schedule “B” of this Bylaw.

5.6 Every person who disposes of a quantity of Prohibited Material must pay a Surcharge in the amount set out in Schedule “B” of this Bylaw.
5.7 Despite sections 5.4 and 5.5, in the event of an Emergency, the Manager may waive the Surcharges that are payable for Loads that contain Banned Recyclable Materials or Contaminated Recyclable Paper.

5.8 Despite section 5.6, for three months from the date an item is added to any product category described in a schedule to the Recycling Regulation and becomes a Prohibited Material under this Bylaw, the Manager may waive the Surcharge that is payable for disposing of such item.

5.9 All Tipping Fees and Surcharges payable pursuant to this Bylaw must be paid to the Greater Vancouver Sewerage and Drainage District before the person leaves the Disposal Site.

5.10 Despite section 5.9 of this Bylaw, a person who disposes of Municipal Solid Waste at a Disposal Site on a regular basis may apply to the GVS&DD for a customer charge account in accordance with Schedule “E” to this Bylaw.

5.11 In the event the weigh scale system at a Disposal Site is not functioning, whether due to a power outage, mechanical failure or any other reason, at his or her discretion the Manager may either:

(a) close the Disposal Site until the weigh scale system is functioning; or

(b) permit a person to dispose of a single Load at the Disposal Site subject to the following:

(i) the Load must not measure more than 0.5 cubic metres in volume; and

(ii) the flat fee Tipping Fees set out in Schedule “B” of this Bylaw will apply to the Load.

6.0 Regional Services Rate

6.1 The Regional Services Rate is $0.60 per flat fee charged or $0.06 per 10 kilograms or $6.00 per tonne, whichever amount is greater, for every Load of Garbage deposited at a Disposal Site or at a Vancouver Disposal Site.

6.2 In addition to any fees and charges levied by the City of Vancouver, every person disposing of Municipal Solid Waste at a Vancouver Disposal Site must pay the applicable Regional Services Rate to the City of Vancouver.

6.3 The City of Vancouver must:

(a) record the number of Loads and tonnage deposited at a Vancouver Disposal Site that originate from the Corporation of Delta and provide such information to both the GVS&DD and the Corporation of Delta;

(b) collect the applicable Regional Services Rate for every Load that is deposited at a Vancouver Disposal Site except for residential curbside Loads that originate from the Corporation of Delta;

(c) establish and maintain a separate account for the Regional Services Rate monies collected by the City of Vancouver under this Bylaw and deposit and hold those monies in that separate account in trust for the GVS&DD;
(d) on or before July 30 of each year, remit to the GVS&DD the total amount of Regional Services Rate monies collected between January 1 and June 30 of that year based on an invoice provided by GVS&DD that explains the amount due; and

(e) on or before January 31 of each year, remit to the GVS&DD the total amount of Regional Services Rate monies collected between July 1 and December 31 of that year based on an invoice provided by GVS&DD that explains the amount due.

6.4 If the City of Vancouver fails or neglects, for any reason, to collect all or any part of the Regional Services Rate monies payable under this Bylaw, then the City of Vancouver must pay to the GVS&DD an amount equal to the Regional Services Rate monies that the City of Vancouver should have collected and remitted under this Bylaw.

6.5 The City of Vancouver must retain, for a period of at least four years, sufficient information to support the records referred to in section 6.3.

6.6 During normal business hours for the City of Vancouver and subject to first giving reasonable notice to the City of Vancouver, the GVS&DD may inspect any and all records of the City of Vancouver relating to the calculation and collection by the City of Vancouver of the Regional Services Rate levied under this Bylaw. The City of Vancouver shall permit the GVS&DD’s employees or agents to inspect the records referred to above and to make and take away copies of those records.

6.7 The Corporation of Delta must:

(a) pay the equivalent of the Regional Services Rate for every residential curbside Load that is deposited at a Vancouver Disposal Site and that originates from the Corporation of Delta (the “Delta Regional Services Charge”);

(b) on or before July 30 of each year, remit to the GVS&DD the Delta Regional Services Charge calculated for between January 1 and June 30 of that year based on an invoice provided by GVS&DD that explains the amount due; and

(c) on or before January 31 of each year, remit to the GVS&DD the total amount of the Delta Regional Services Charge calculated for between July 1 and December 31 of that year based on an invoice provided by GVS&DD that explains the amount due.

6.8 The Corporation of Delta must retain, for a period of at least four years, sufficient information to support the records referred to in section 6.7.

6.9 During normal business hours for the Corporation of Delta and subject to first giving reasonable notice to the Corporation of Delta, the GVS&DD may inspect any and all records of the Corporation of Delta relating to the calculation of the Delta Regional Services Charge levied under this Bylaw. The City of Vancouver shall permit the GVS&DD’s employees or agents to inspect the records referred to above and to make and take away copies of those records.

7.0 Interpretation
7.1 If a portion of this Bylaw is held to be invalid it shall be severed and the remainder of the Bylaw shall remain in effect.

7.2 In this Bylaw, the word “person” includes a corporation.

7.3 Schedules “A”, “B”, “C”, “D” and “E” are attached to and form part of this Bylaw.

8.0 Effective Date

8.1 This Bylaw comes into force and takes effect January 1, 2013.

Read a first, second and third time this _____ day of ___________________ 2012.

Reconsidered, passed and finally adopted this _____ day of _________________ 2012.

________________________________________
Greg Moore, Chair

________________________________________
Paulette A. Vetleson, Secretary
SCHEDULE “A”

DISPOSAL SITES

- Coquitlam Resource Recovery Plant located at 1200 United Boulevard, Coquitlam
- North Shore Transfer Station located at 30 Riverside Drive, North Vancouver
- Surrey Transfer Station located at 9770 192nd Street, Surrey
- Langley Residential Transfer Station located at 1070 272 Street, Langley
- Maple Ridge Residential Transfer Station located at 10092 236 Street, Maple Ridge
- Matsqui Transfer Station located at 33621 Valley Road, Abbotsford
- Waste-to-Energy Facility located at 5150 Riverbend Drive, Burnaby
2013 TIPPING FEES AND SURCHARGES*

Tipping Fees for Garbage

Originating from the District of Maple Ridge:

$10.00 flat fee or $1.09 per 10 kilograms or $109.00 per tonne, whichever amount is greater

Deposited at the Matsqui Transfer Station:

$10.00 flat fee or $1.05 per 10 kilograms or $105.00 per tonne, whichever amount is greater, plus the applicable FVRD Levy *

Deposited at Coquitlam Resource Recovery Plant, North Shore Transfer Station and Surrey Transfer Station during Peak Hours:

$20.00 flat fee or $1.05 per 10 kilograms or $105.00 per tonne, whichever amount is greater

All other Loads of Garbage:

$10.00 flat fee or $1.05 per 10 kilograms or $105.00 per tonne, whichever amount is greater

Tipping Fees for Source-Separated Organic Waste, Green Waste, or Clean Wood Waste

Deposited at the North Shore Transfer Station in the Recycling Area designated for each category of waste:

$7.00 flat fee or $0.71 per 10 kilograms or $71.00 per tonne, whichever amount is greater, plus an additional fee of $50.00 per Load if the Load contains more than 0.05% (by wet weight) of any other type of Refuse.

Tipping Fees for Green Waste or Clean Wood Waste

Deposited at Disposal Sites other than the North Shore Transfer Station in the Recycling Area designated for Green Waste or Clean Wood Waste

$6.00 flat fee or $0.63 per 10 kilograms or $63.00 per tonne, whichever amount is greater

Tipping Fees for Gypsum

Loads comprising two 1.22 metre x 2.44 metre sheets or less deposited at a Recycling Area designated for Gypsum:

$10.00 flat fee or $1.05 per 10 kilograms or $105.00 per tonne, whichever amount is greater

Loads comprising more than two 1.22 metre x 2.44 metre sheets deposited at a Recycling Area designated for Gypsum:

$15.00 flat fee or $1.50 per 10 kilograms or $150.00 per tonne, whichever amount is greater

*SCHEDULE “B”*
Tipping Fees for Mattresses

Deposited at a Recycling Area designated for Mattresses:

$15.00 flat fee for each Mattress

Tipping Fees for International Waste

International Waste:

$50.00 flat fee or $2.00 per 10 kilograms or $200.00 per tonne, whichever amount is greater

Tipping Fees for Source Separated Recyclables

Source-Separated Recyclables deposited at Recycling Areas designated for such materials, substances and objects:

No Charge

Surcharges

Prohibited Material:

$50 Surcharge plus the cost of removal, clean-up and remediation

Banned Recyclable Materials in excess of either 5% of the total weight of the Load or 5% of the total volume of the Load:

50% of the applicable Tipping Fee

Contaminated Recyclable Paper in excess of either 5% of the total weight of the Load or 5% of the total volume of the Load:

50% of applicable Tipping Fee

*Note: As per section 5.3 of this Bylaw, in addition to the Tipping Fees and Surcharges set out in this Schedule, every person depositing a Load at the Matsqui Transfer Station must pay the applicable FVRD Levy when depositing the Load.
SCHEDULE “C”

PROHIBITED MATERIALS

(a) Agricultural Waste;
(b) Automobile parts and bodies;
(c) Biomedical Waste;
(d) Refuse that is on fire, smouldering, flammable or explosive;
(e) Empty oil containers identified in “Schedule 2 — Residual Product Categories” to the Recycling Regulation;
(f) Oil filters identified in “Schedule 2 — Residual Product Categories” to the Recycling Regulation;
(g) Paint products identified in “Schedule 2 — Residual Product Categories” to the Recycling Regulation;
(h) Pesticide products identified in “Schedule 2 — Residual Product Categories” to the Recycling Regulation;
(i) Pharmaceutical products identified in “Schedule 2 — Residual Product Categories” to the Recycling Regulation;
(j) Solvents and flammable liquids identified in “Schedule 2 — Residual Product Categories” to the Recycling Regulation;
(k) Electronic and electrical products identified in “Schedule 3 — Electronic and Electrical Product Category” to the Recycling Regulation;
(l) Tires identified in “Schedule 4 — Tire Product Category” to the Recycling Regulation;
(m) Hazardous Waste;
(n) Inert fill material including soil, sod, gravel, concrete and asphalt exceeding 0.5 cubic metres per load;
(o) Lead acid batteries;
(p) Liquids;
(q) Sludges;
(r) Metal household or commercial appliances;
(s) Dead animals;
(t) Excrement;
(u) 45 gallon or larger barrels or drums, whether full or empty;
(v) Radioactive Waste;

(w) Reactive Waste;

(x) Any single object that:

1. weighs more than 100 kilograms; or

2. exceeds 3 500 centimetres squared in cross section at any point; or

3. exceeds 2.5 metres in length.

(y) Clean Wood Waste or Treated Wood Waste exceeding 2.5 metres in length

(z) Fabricated objects exceeding 1.2 metres in width or thickness and 2.5 metres in length or 3 cubic metres in volume

(aa) Gypsum commingled with other Municipal Solid Waste;

(bb) Mattresses commingled with other Municipal Solid Waste;

(cc) Refuse that would cause undue risk of injury or occupational disease to any person at the Disposal Site or that would otherwise contravene the Occupational Health and Safety Regulation;

(dd) Any other Refuse that the Manager considers unsuitable for handling at a Disposal Site.
SCHEDULE “D”

BANNED RECYCLABLE MATERIALS

(a) Beverage containers identified in “Schedule 1 — Beverage Container Product Category” to the Recycling Regulation;

(b) Containers made of metal, glass or Banned Recyclable Plastic;

(c) Corrugated Cardboard;

(d) Recyclable Paper; and

(e) Green Waste.
CUSTOMER CHARGE ACCOUNTS

1) Any person wishing to establish a customer charge account with the GVS&DD must complete the GVS&DD’s application for credit ("Application for Credit").

2) The Treasurer may approve the Application for Credit on behalf of the GVS&DD and establish a commercial charge account for a person for up to one million dollars ($1,000,000).

3) Any two of the Commissioner, Assistant Commissioner and Treasurer may approve the Application for Credit on behalf of the GVS&DD and establish a commercial charge account for a person for up to two million dollars ($2,000,000).

4) If the GVS&DD approves a person’s Application for Credit and establishes a commercial charge account, then:
   a) the person may leave the Disposal Site before paying the applicable Tipping Fees and Surcharges; and
   b) the GVS&DD will generate invoices for Tipping Fees and Surcharges on a monthly basis for up to the established commercial charge account limit, which invoices are payable on receipt.

5) Where a person fails or refuses to pay an invoice for Tipping Fees and Surcharges within thirty-five (35) days, then the Treasurer may rescind their customer charge account and the person must:
   a) pay interest on the Tipping Fee or Surcharge at the rate of 1.25% per month (15% per year) compounded monthly and calculated daily on all amounts overdue, including all overdue interest from the date the charge was due to the date of payment; and
   b) not dispose of any Municipal Solid Waste at a Disposal Site until any outstanding invoice has been paid in full.
To: Zero Waste Committee

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

Date: October 2, 2012

Subject: Greater Vancouver Sewerage and Drainage District (GVS&DD) Amending Bylaw No. 272, 2012

Recommendation:

That the Board:

a) introduce and give first, second and third reading to “Greater Vancouver Sewerage and Drainage District Amending Bylaw No. 272, 2012”; and

b) forward “Greater Vancouver Sewerage and Drainage District Amending Bylaw No. 272, 2012” to the Minister of Environment for approval.

1. PURPOSE

This report recommends amendments to the Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996, (the Bylaw) for managing municipal solid waste (MSW) and recyclable material (RM) at private facilities.

The proposed amendments include expansion of the type of facilities regulated as well as changes to fees, primarily disposal fees. These changes may increase the amount of material recovered at these private licensed facilities and improve record keeping for monitoring progress in achieving Metro Vancouver’s Integrated Solid Waste and Resource Management Plan (the Plan) goals.

2. CONTEXT

The provincial government authorizes local governments, through the development and implementation of solid waste management plans, to develop initiatives to recover and conserve resources. The province, through the Environmental Management Act (EMA), enables regional districts, including the GVS&DD, to regulate, by bylaw, private sector solid waste and recyclable material facilities to achieve Plan goals. The Bylaw requires disposal fees to be paid to Metro Vancouver for waste disposed at facilities other than Metro Vancouver or member municipalities’ facilities.

Private licensed facilities are integral in achieving the goals of the Integrated Solid Waste and Resource Management Plan (ISWRMP). These facilities process source separated recyclables, compostables, and construction and demolition waste. In total these facilities process approximately 1,000,000 tonnes per year of material.
In 2011, the cost of Metro Vancouver’s solid waste regulatory program was $787,000 or roughly $0.70/tonne of material managed at private sector facilities. Regulation of private licensed facilities through the regulatory and enforcement program, ensures protection of the environment and supports maximum recovery of resources from the materials processed through these facilities in a cost effective and efficient manner.

This report follows extensive consultation carried out based on two Reports and Issue Papers presented to the former Waste Management Committee in November 2010 and May 2011.

2.1 Proposed Bylaw Changes
To increase resource conservation and recovery (waste diversion), improve fairness and better recover regulatory costs; staff proposes the following revisions to the Bylaw:
1. revise the recyclable material definition to match the definition in EMA;
2. increase the number of facility types requiring licences;
3. increase the private sector regulatory fees including the disposal fee; and
4. other housekeeping changes to improve Bylaw clarity.

2.1.1 Expanding the definition of recyclable material
Staff proposes changing the definition of “Recyclable Material” in the Bylaw to match the provincial definition which was changed subsequent to the adoption of the GVS&DD Bylaw. The change is proposed to achieve, from a legal perspective, consistency with the EMA and, from a policy perspective, simplification of reporting requirements for regulated facilities. There will not be significant economic impacts upon regulated facilities as recyclable materials are not subject to disposal fees.

Impacts of RM Definition Change
The new definition is expected to have the following impacts:
   a) accounting will be simpler for licensed facilities;
   b) Metro Vancouver will be able to require reporting of the fate of all materials that meet the provincial definition of recyclable materials; and
   c) increasing the number of facilities that require a license.

2.1.2 Increase the number of facility types requiring licences
There are currently only six types of facilities that require licences. The Plan seeks to divert more waste, notably organics, from landfill. The private sector has responded by planning new types of organics processing facilities, such as anaerobic digesters, that are not on the current list of facilities requiring licences. These facilities will compete with new and existing composters and a rendering plant for raw materials. To ensure fairness within the organics management sector, it is proposed to add rendering plants, aerobic/anaerobic digesters and biogas production facilities to the list of facilities requiring licences.

Brokers that pay for recyclable materials, such as metal recyclers, are currently exempt from licensing requirements. However, like other private MSW&RM facilities, staff believe that these facilities present concerns that should be addressed through licensing. Further, records from these facilities are required to satisfy provincial information requirements. Consequently, it is proposed that all brokers be required to obtain licences.

Impacts of Requiring Licences for Additional Facility Types
The new facility types are primarily involved in diverting resource (recyclable materials) from disposal and therefore will not pay significant disposal fees. Requiring licences for new facility types enhances fairness across sectors.
2.1.3 Fee Revisions

Regulatory program costs are currently only partially recovered through Application, Administration and Disposal Fees.

Application Fees

Minor changes are proposed for Licence Application fees to better reflect costs for licence processing and adjudication. The proposed changes are shown in Table 1 below.

Table 1 - Solid Waste Licence Application Fees

<table>
<thead>
<tr>
<th></th>
<th>Existing Fees</th>
<th>Proposed Fees</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Application Fees</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Licence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disposal Facilities</td>
<td>$5,000</td>
<td>$5,000</td>
</tr>
<tr>
<td>Other facilities</td>
<td>$1,000</td>
<td>$1,500</td>
</tr>
<tr>
<td>Licence Amendment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disposal Facilities</td>
<td>$2,500</td>
<td>$2,500</td>
</tr>
<tr>
<td>Other facilities</td>
<td>$500</td>
<td>$750</td>
</tr>
</tbody>
</table>

Administration Fees

No changes are proposed for annual Licence Administration fees.

Disposal Fees

Under the current bylaw, municipal solid waste taken to landfills other than facilities owned or operated by Metro Vancouver or its member municipalities, is subject to a $3/tonne disposal fee (there is no fee if materials are recycled). Any waste that is taken to Metro Vancouver or member municipality facilities is assessed a tipping fee that includes $6/tonne Regional Services Fee.

Fee consultation was based on the Issue Paper for Proposed Revisions to Metro Vancouver’s Solid Waste Regulatory Fees presented to the May 2011 Waste Management Committee. Initial fee consultation proposed differential fees on disposal of material to unlicensed facilities. Staff has concluded, at least as an initial measure, to focus efforts on facilities initially receiving waste with no differentiation of disposal fee between licensed and unlicensed facilities. This is consistent with current by-law provisions.

Figure 1 shows current and recommended fees.

**Figure 1 Regulatory Disposal Fees**

<table>
<thead>
<tr>
<th>Destination</th>
<th>Metro Vancouver or Member Municipality (Public) Facility</th>
<th>Licensed Private Facility</th>
<th>Unlicensed Facility</th>
<th>Any Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Fee</td>
<td>$6/tonne</td>
<td>$3/tonne</td>
<td>$3/tonne</td>
<td>$0</td>
</tr>
<tr>
<td>Recommended Fee</td>
<td>$6/tonne</td>
<td>$6/tonne</td>
<td>$6/tonne</td>
<td>$0</td>
</tr>
</tbody>
</table>
As shown above, the recommended regulatory disposal fee is equal to the $6.00/tonne Regional Services Fee component of the tipping fee at public facilities.

**Impacts of Fee Revisions**

Administration/Application Fees - The changes to application and administration fees are either none or minor and are not expected to have significant impacts on facility operators.

Disposal Fees - The proposed changes to the disposal fee are expected to increase diversion rates and offset Metro Vancouver expenses. The proposed fees are equal to Regional Services Fee and would better recover regulatory program costs. The impacts upon individual businesses will be dependent upon the quantity of materials disposed by the business – the impact should not substantially impact smaller businesses. However, additional regulatory resources will likely be necessary to manage new recycling facilities and to promote compliance with higher fees. Therefore, fees will continue to be reviewed in the future.

### 2.1.4 Other Minor Changes

Housekeeping changes are proposed to clarify bylaw intent and to enhance bylaw enforceability. These changes include clarifying disposal fee calculation procedures and circumstances which may result in audits. In addition, changes have been made to the licence process to expedite pilot scale trials. These changes can be viewed in more detail by referring to the attached unofficial annotated version of the proposed bylaw.

### 2.2 Engagement and Consultation

As part of its consultation on Regulatory Mechanisms to Increase Recycling, Metro Vancouver developed and implemented an engagement and consultation program for the Solid Waste Regulatory Bylaw Review program. This process also took place simultaneously on sample municipal bylaws regarding Mandatory Recycling for Demolition, Land Clearing and Construction (DLC) Worksites and Mandatory Space for Recycling in Multi-family and Commercial (MFC) Buildings. The process on the sample bylaws has been and will be the subject of separate reports to the Zero Waste Committee.

Metro Vancouver began formal engagement and consultation in September 2011. The program included workshops, additional meetings, and on-line feedback forms to generate input from government, First Nations and industry representatives. Materials were developed and posted on the Metro Vancouver website, which included issue papers, feedback forms and workshop agendas.

The formal comment period closed in December 2011. However, due to the need to consult further with potential licensees who were missed in the first round of consultation, staff undertook a follow-up survey and conducted additional meetings upon the request of specific industry groups in April 2012.

### Notification

In the weeks leading up to the workshops, notification of engagement and consultation activities was sent to the former Waste Management Committee and Metro Vancouver mayors and councils. Notification and workshop invitations were sent to municipal staff, members of Metro Vancouver advisory committees, as well as representatives of affected First Nations, adjacent regional districts and agencies. Members of potentially affected industries, including existing and potential licensees were also notified of input opportunities. A second round of notification was sent out reiterating opportunities for input and noting the comment period deadline.
Workshops
Metro Vancouver hosted two workshops:
  • October 4, 2011, for staff from Metro Vancouver members, adjacent regional districts, First Nations and agencies.
  • October 14, 2011, for industry and key municipal representatives.

Both workshops were divided into three sessions, one for the Solid Waste Regulatory Bylaw Review and one for each of the two sample municipal bylaw initiatives. The objectives of the workshops were to provide information and opportunities for input, and to inform Metro Vancouver staff efforts to revise the bylaw for review by the Zero Waste Committee and Board.

The workshops featured presentations by Metro Vancouver staff and offered breakout discussion tables on key topics including facility types requiring a solid waste licence; recyclable materials definition; facility operator requirements; licence and disposal fees; and compliance promotion.

Workshop summaries were provided to participants and the Industry Workshop summary was posted on Metro Vancouver’s website:

[http://www.metrovancouver.org/boards/bylaws/Pages/bylawreview.aspx](http://www.metrovancouver.org/boards/bylaws/Pages/bylawreview.aspx)

Additional Meetings
Subsequent to the workshops, meetings were conducted by staff with representatives of key stakeholders to discuss the proposed changes to the regulatory bylaw. In April 2012, a survey was sent out to a list of potential licensees not previously contacted to ensure Metro Vancouver received additional feedback.

Feedback
Feedback received through the engagement and consultation program was documented and the comments, questions and issues raised were tracked. A table of these issues along with Metro Vancouver responses is posted on Metro Vancouver’s website at [www.metrovancouver.org/boards/bylaws/Pages/bylawreview](http://www.metrovancouver.org/boards/bylaws/Pages/bylawreview)

Key themes and issues from workshop discussions, online feedback, other meetings, and correspondence followed by Metro Vancouver’s response are shown in Table 2.

<table>
<thead>
<tr>
<th>Theme/Issue</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generally participants supported licensing most or all public and private facilities. Many suggested that facilities should be levied fees, licensed or exempted based upon a tiered system, involving clear definitions involving facility size, performance or type.</td>
<td>Since the types of facilities requiring licenses has been narrowed from what was originally proposed, the need for a tiered system is no longer required.</td>
</tr>
<tr>
<td>Expanding the recycling materials definition, implementing waste audits, and fee modifications were largely supported, although there was some concern that these elements may prove challenging for small businesses.</td>
<td>The revised recyclable material definition should make things simpler for all. Waste audits will only be required when necessary. Fee modifications only affect disposal (small recyclers will not be affected).</td>
</tr>
</tbody>
</table>
Developing streamlined programs, involving fewer inspections and reimbursed audit costs for companies with good compliance records was supported, as reporting requirements could prove onerous for many facilities.

Inspection frequency and audits will be less at compliant facilities.

Consistent and clear communication and enforcement efforts were noted as vital to ensuring successful program implementation.

Metro Vancouver staff recognizes the importance of these points and will do their best to deliver as required.

Representatives of an unlicensed disposal facility opposed the differential fee of $12/tonne for disposal at unlicensed facilities vs. $6/tonne at licensed facilities.

A differential fee is no longer proposed for unlicensed facilities.

The documentation of all input, consultation and communications activities entitled *GVS&DD Amending Bylaw No. 272, 2012: Engagement and Consultation Program: Report on Activities and Findings* is available from the Metro Vancouver Information Centre by calling 604-432-6200.

3. ALTERNATIVES

The Board may:

a) provide comments or direction to staff and/or provide revisions to the amending bylaw; or

b) give three readings to the amending bylaw and forward to the Minister for approval.

Staff recommends alternative b).

4. CONCLUSION

In support of Metro Vancouver’s Integrated Solid Waste and Resource Management Plan goals; staff is proposing amendment of the Bylaw.

ATTACHMENTS

1. Greater Vancouver Sewerage and Drainage District Amending Bylaw No. 272, 2012 (Doc. # 6507035).

A Bylaw to Amend “Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996”

WHEREAS:

A. The Board of Directors of the Greater Vancouver Sewerage and Drainage District has adopted “Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996” to regulate the management of municipal solid waste and recyclable materials; and

B. The Board of Directors of the Greater Vancouver Sewerage and Drainage District wishes to amend “Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996”.

NOW THEREFORE the Board of Directors of the Greater Vancouver Sewerage and Drainage District, in open meeting assembled, enacts as follows:

1. “Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996” is hereby amended as follows:

(a) The entirety of the “Explanatory Note” is deleted;

(b) The entirety of the “Contents” is deleted;

(c) “Whereas A”, “Whereas B”, and “Whereas C” are deleted and replaced with the following:

WHEREAS:

A. The Environmental Management Act of British Columbia and the Greater Vancouver Sewerage and Drainage Act authorize the Greater Vancouver Sewerage and Drainage District to make bylaws to regulate the management of municipal solid waste and recyclable material;

B. Under the Environmental Management Act of British Columbia, a person must manage municipal solid waste and recyclable material at a site in accordance with an approved waste management plan for the site and any bylaw made under section 25(3) of the Act; and

C. It is deemed desirable to regulate the management of municipal solid waste and recyclable material for the purpose of implementing an approved waste management plan.

(d) The following definitions are added to section 1.1:

---

Greater Vancouver Sewerage and Drainage District Amending Bylaw No. 272, 2012
Page 1 of 6

Greater Vancouver Sewerage and Drainage District - 143
"Environmental Management Act" means the *Environmental Management Act* SBC 2003 chapter 53, as amended or replaced and any successor legislation, and any regulations thereunder.

“Municipal Solid Waste” means refuse that originates from residential, commercial, institutional, demolition, land clearing or construction;

“Digesting Facility” means any land or buildings and related improvements that use a biological decomposition of organic material on a commercial basis, whether aerobically or anaerobically;

“Pilot Facility” means a Facility used on an experimental or trial basis in advance of the establishment of a Facility;

“Rendering Facility” means any land or buildings and related improvements used for converting animal by-products into useful fats, oils and protein products;

(e) The definitions of “Facility” and Recyclable Material” in section 1.1 are deleted and replaced with the following:

“Facility” means any or all of a Brokering Facility, Composting Facility, Disposal Facility, Digesting Facility, Material Recovery Facility, Rendering Facility, Storage Facility, and Transfer Station;

“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 from residential, commercial or institutional sources and is capable of being composted, or is being composted, 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;

(d) has been identified as a recyclable material in a waste management plan;

(e) is any other material prescribed by the Lieutenant Governor in Council, or the minister under section 22 of the Environmental Management Act;

(f) The definition for “Waste Management Act” is deleted.

(g) Article 2.1 is deleted and replaced with the following:
2.1 **Prohibition.** Subject to section 2.2, no person shall own or operate within the area of Greater Vancouver Regional District:

(a) a Brokering Facility;
(b) a Composting Facility;
(c) a Disposal Facility;
(d) a Digesting Facility;
(e) a Material Recovery Facility;
(f) a Rendering Facility;
(g) a Storage Facility;
(h) a Transfer Station;

(h) The following subsection is added to section 2.2:

(d) a Composting Facility or Digesting Facility owned or operated by a farmer, as that person is defined in the *Farm Practices Protection (Right to Farm) Act* of British Columbia, if that Facility solely uses Municipal Solid Waste and Recyclable Materials originating from one or more farm businesses;

(i) The following section is added after section 2.2:

2.3 **Exemption.** The Solid Waste Manager, as a result of an application, may exempt a Pilot Facility from this Bylaw or any provision of this Bylaw and issue a Licence on such terms and conditions and specifying such requirements under this Bylaw as the Solid Waste Manager considers necessary.

(j) Section 8.1 is deleted and replaced with the following:

8.1 A person appointed under this Bylaw to be an Officer may enter a site or inspect the contents of a vehicle for the purpose of enforcing this Bylaw and, for this purpose, sections 109 and 111 of the *Environmental Management Act* of British Columbia apply to such a designated person as if the designated person is an officer referred to in those sections.

(k) Section 8.2 is deleted.

(l) Article 12 is deleted and replaced with the following:

**Article 12 A – Application and Administration Fees**

12A.1 The Board may from time to time establish fees payable by persons
who manage Municipal Solid Waste or Recyclable Materials.

12A.2 All fees are payable to the District.

12A.3 Each person who applies for a Licence must pay a licence application fee. The amount of the licence application fee payable is specified in Table A below:

<table>
<thead>
<tr>
<th>Facility Type</th>
<th>Licence Application Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disposal facility</td>
<td>$5,000</td>
</tr>
<tr>
<td>All other facilities</td>
<td>$1,500</td>
</tr>
</tbody>
</table>

12A.4 The licence application fee must be paid at the time when the application for a licence is submitted.

12A.5 Each time a Licensee applies for an amendment to their Licence, the Licensee must pay an amendment application fee in the amount specified in Table B below:

<table>
<thead>
<tr>
<th>Facility Type</th>
<th>Amendment Application Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disposal facility</td>
<td>$2,500</td>
</tr>
<tr>
<td>All other facilities</td>
<td>$750</td>
</tr>
</tbody>
</table>

12A.6 An application fee may not be refunded solely for the reason that a Licence was not issued or amended.

12A.7 Every Licensee shall pay to the District upon the date of issuance of a Licence and thereafter annually on the anniversary date of such issuance, the annual administration fee in the amount specified in Table C below:

<table>
<thead>
<tr>
<th>Facility Type</th>
<th>Administration Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>All facilities</td>
<td>$1,000</td>
</tr>
</tbody>
</table>

12A.8 Upon receipt of an annual invoice from the District, all Licensees shall pay the amount of the invoice within 45 days in accordance with this bylaw.

**Article 12 B - Disposal Fees.**

12.B.1 In addition to the fees payable under Article 12 A, every person, except as exempted under section 2.2, who holds a Licence to operate a facility that manages Municipal Solid Waste or Recyclable Material shall pay to the district a disposal fee of $6 per metric tonne of Municipal Solid Waste or Recyclable Material sent for disposal to a Facility that is not owned or operated by the District or any of its member municipalities or a Licensed Disposal Facility.
12B.2 The operator of a Licensed Disposal Facility shall pay a disposal fee of $6 per metric tonne of Municipal Solid Waste or Recyclable Material accepted for disposal.

12B.3 A person who is required to submit records under section 12C.3, shall pay to the district a disposal fee of $6 per metric tonne of Municipal Solid Waste or Recyclable Material sent for disposal to a facility that is not owned or operated by the District or any of its member municipalities or a Licensed Disposal Facility.

12B.4 If a person who operates a Facility does not submit the records required under section 12C.3 or as required in its Licence, within the specified time, the District may prepare an invoice under section 12B.1 for an amount that the Solid Waste Manager, acting reasonably, determines to be appropriate.

12B.5 The disposal fees established under Article 12B of this Bylaw may include an amount to assist a municipality in which a facility is located to pay the demonstrated costs of providing for constructing, repairing, maintaining and operating highways and roads and obtaining, operating, repairing and maintaining fire fighting equipment and such other reasonable costs, whether of a capital or operating nature or otherwise, directly attributable to the operation of the facility within the municipality.

12B.6 Upon receipt of an invoice from the District, all Licensees shall pay the amount of the invoice within 45 days in accordance with this Bylaw.

12B.7 Interest at the rate of 1.25% per month (15% per annum) will be charged on past due balances.

Article 12 C – Record Keeping

12C.1 Every person, except as exempted under section 2.2, who operates a Facility that manages Municipal Solid Waste or Recyclable Material shall keep records of volumes, weights, types, amounts, quantities and composition and the geographic area of origin of municipal solid waste or recyclable material:

(a) received at the facility;

(b) disposed of or sent for disposal; and

(c) recycled or sent for recycling.

12C.2 The records required under section 12C.1 shall be kept for a period of three years after the year in which the record was first made and shall make such records available for inspection by an Officer or a Solid Waste Manager upon request.
12C.3 Records required under section 12C.1 shall be submitted to the Solid Waste Manager in a manner and frequency considered appropriate by the Solid Waste Manager.

12C.4 A person who is required to submit records under section 12C.3, if requested by the Solid Waste Manager, shall at that person's expense provide to the district an audited annual statement of the quantities of Municipal Solid Waste and Recyclable Material handled through the Facility.

(m) Section 17.1 is deleted and replaced with the following:

17.1 Offence. Any person who contravenes a provision of this Bylaw, a Licence or requirement made or imposed under this Bylaw commits an offence and is liable to a fine not exceeding $200,000.

(n) Section 15.2 (b) (ii) is deleted and replaced with the following:

(i) the licensee is a corporation that is struck off the Corporate Registry under the Business Corporations Act or is dissolved;

(o) Schedule A is deleted.

2. This Bylaw shall be cited as “Greater Vancouver Sewerage and Drainage District Amending Bylaw No. 272, 2012”.

READ A FIRST, SECOND AND THIRD TIME this ____ day of ____________ 2012.

RECEIVED THE APPROVAL OF THE MINISTER OF ENVIRONMENT this _____ day of ________________, 2012.

RECONSIDERED, PASSED AND FINALLY ADOPTED this ____ day of ____________ 2012.

Chairperson

Secretary
THIS IS A CONSOLIDATION, FOR REFERENCE PURPOSES, OF:

β “Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996”
   (Adopted May 24, 1996)

β “Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Amending Bylaw No. 183, 1996”
   (Adopted June 28, 1996)

β “Greater Vancouver Sewerage and Drainage District Amending Bylaw No. 272, 2012”

As of June 29, 2012

COPIES OF THE ORIGINAL BYLAWS MAY BE INSPECTED AT THE CORPORATE SECRETARY’S DEPARTMENT - METROVANCOUVER
EXPLANATORY NOTE

The Greater Vancouver Sewerage and Drainage District (the "District") is operating under a Solid Waste Management Plan approved by the Minister of Environment, Lands and Parks in November 1995. The Solid Waste Management Plan is a commitment by the District to manage municipal solid waste and recyclable material so as to protect the environment and public health and to achieve the provincially mandated 3Rs goal.

Included in the Solid Waste Management Plan is a regulatory system for the management of all privately operated municipal solid waste and recyclable material operations. The regulatory system will be implemented by a regional regulatory bylaw and will be enforced through the District's licences. Under the bylaw, licences will be required for all privately operated landfills, transfer stations, material recovery facilities, storage facilities and certain brokers of municipal solid waste and recyclable material. The goal of the new regulatory system is to ensure proper management of privately operated facilities by specifying operating requirements so as to protect the environment and public health, to protect the region's land base in accordance with the host municipality's zoning and land use policies, to ensure that regional and municipal facilities and private facilities operate to equivalent standards and to achieve the objectives of the Solid Waste Management Plan.

Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable-Material Regulatory Bylaw No. 181, 1996 sets out the terms and conditions for the new regulatory system.
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SCHEDULE "A"                                                                 A-1

SCHEDULE "B"                                                                 B-1
WHEREAS:

A. Greater Vancouver Sewerage and Drainage District and the Province of British Columbia are jointly committed to the regulation and management within the area of Greater Vancouver Regional District of municipal solid waste and Recyclable Material so as to encourage waste reduction and recycling and ensure that residual materials are disposed of in a manner consistent with the Solid Waste Management Plan approved by the Minister of Environment, Lands and Parks;

B. The Environmental Management Act of British Columbia and the Greater Vancouver Sewerage and Drainage Act authorize the Greater Vancouver Sewerage and Drainage District to make bylaws to regulate the management of municipal solid waste and recyclable material;

C. Greater Vancouver Sewerage and Drainage District is authorized, inter alia, to regulate with respect to municipal solid waste and Recyclable Material;

D. Under the Environmental Management Act of British Columbia, a person must manage municipal solid waste and recyclable material at a site in accordance with an approved waste management plan for the site and any bylaw made under section 25(3) of the Act; and

E. Greater Vancouver Sewerage and Drainage District is operating under a Solid Waste Management Plan which defines a regulatory system for the management of all privately operated municipal solid waste and Recyclable Material operations. The goal of the regulatory system is to ensure proper management of privately operated facilities by specifying operating requirements so as to protect the environment and public health, to protect the region's landbase in accordance with the host municipality's zoning and land use policies, to ensure that regional and municipal facilities and private facilities operate to equivalent standards and to achieve the objectives of the Solid Waste Management Plan.

C. It is deemed desirable to regulate the management of municipal solid waste and recyclable material for the purpose of implementing an approved waste management plan.

NOW THEREFORE the Administration Board of Greater Vancouver Sewerage and Drainage District in open meeting duly assembled enacts as follows:

ARTICLE 1

1 INTERPRETATION

1.1 Definitions. In this Bylaw terms defined in the Waste Management Act shall have the same meaning for the purpose of this Bylaw unless otherwise defined in this Bylaw and,
1.1 Definitions. In this Bylaw terms defined in the *Environmental Management Act* shall have the same meaning for the purpose of this Bylaw unless otherwise defined in this Bylaw and,

"Board" means the Administration Board of the District;

"Brokering Facility" means any land or buildings and related improvements used for receiving, cleaning, sorting, baling or packaging Recyclable Material for the purpose of recycling, where the residue does not exceed 10% by weight or volume of the material received;

"Commissioner" means the Commissioner of the District;

“Composting Facility” means any land or buildings and related improvements where, in the course of conducting an industry, trade or business, Municipal Solid Waste is composted using a composting method including, but not limited to, physical turning, windrowing, in-vessel static pile aeration, or other similar methods of composting;

“Digesting Facility” means any land or buildings and related improvements where, in the course of conducting an industry, trade or business, organic material is biologically decomposed, whether aerobically or anaerobically;

"Disposal Facility" means any land or buildings and related improvements used for the landfilling or destruction of municipal solid waste;

"District" means Greater Vancouver Sewerage and Drainage District;

“Environmental Management Act” means the *Environmental Management Act*, S.B.C. 2003, c. 53, as amended or replaced and any successor legislation, and any regulations thereunder;

“Existing Facility” means any Facility which exists and is operating on the date of adoption of this Bylaw or, in the case of a Disposal Facility, has on the date of adoption of this Bylaw a valid and subsisting permit or operational certificate under the *Waste Management Act* and is in compliance with that permit or operational certificate;

“Existing Facility” means any Facility which exists and is operating on the date of adoption of this Bylaw or, in the case of a Disposal Facility, has on the date of adoption of this Bylaw a valid and subsisting permit or operational certificate under the *Environmental Management Act* and is in compliance with that permit or operational certificate;

“Facility” means any or all of a Brokering Facility, Composting Facility, Digesting Facility, Disposal Facility, Material Recovery Facility, Rendering Facility, Storage Facility, and Transfer Station;

"Licence" means a licence issued by the Solid Waste Manager under section 4.1;

"Licensed Disposal Facility" means a Disposal Facility in respect of which there is a valid
and subsisting Licence;

"Licensee" means the person to whom a valid and subsisting Licence has been issued;

"Material Recovery Facility" means any land or buildings and related improvements used for receiving municipal solid waste or Recyclable Material and at which materials are separated manually or mechanically for the purpose of recycling;

"Municipal Solid Waste" means refuse that originates from residential, commercial, institutional, demolition, land clearing or construction;

"New Facility" means any Facility other than an Existing Facility;

"Officer" means a person appointed by the Board under section 13.2;

"Pilot Facility" means a Brokering Facility, Composting Facility, Disposal Facility, Digesting Facility, Material Recovery Facility, Rendering Facility, and Transfer Station used on an experimental or trial basis in advance of the establishment of a Facility;

"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 from residential, commercial or institutional sources and is capable of being composted, or is being composted, 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;
(d) has been identified as a recyclable material in a waste management plan;
(e) is any other material prescribed by the Lieutenant Governor in Council, or the minister under section 22 of the Environmental Management Act;

"recycle" or "recycling" means any process by which municipal solid waste and Recyclable Material is transformed into new products;

"Rendering Facility" means any land or buildings and related improvements where animal by-products are converted into useful fats, oils and protein products;

"Solid Waste Manager" means the person appointed by the Board under section 13.1;

"Storage Facility" means any land or buildings and related improvements where municipal solid waste or Recyclable Material is accumulated and held and in respect of which there is no clear and convincing evidence that all the municipal solid waste or Recyclable Material will be recycled in the near future;
"Transfer Station" means any land or buildings and related improvements at which municipal solid waste from collection vehicles is received, compacted or rearranged for subsequent transport;

"Waste Management Act" means the Waste Management Act S.B.C. c.40, as amended or replaced and any successor legislation, and any regulations thereunder.

1.2 Citation. This Bylaw may be cited for all purposes as "Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996".

1.3 Schedules. The schedules listed below and annexed hereto shall be deemed to be an integral part of this Bylaw,

Schedule "A" - Fees
Schedule "B" - Exemptions from Licensing Requirements.

1.4 No Conflict with Waste Management Act. Nothing in this Bylaw is intended to conflict with the Waste Management Act, but this Bylaw may impose further restrictions or require further conditions than those imposed under the Waste Management Act.

1.4 No Conflict with Environmental Management Act. Nothing in this Bylaw is intended to conflict with the Environmental Management Act, but this Bylaw may impose further restrictions or require further conditions than those imposed under the Environmental Management Act.

1.5 Compliance with Other Laws. Except as otherwise specifically provided, nothing in this Bylaw, including, inter alia, a Licence excuses any person from complying with all other applicable enactments and laws.

ARTICLE 2

2 FACILITIES REQUIRING LICENCES

2.1 Prohibition. Subject to section 2.2, no person shall own or operate within the area of Greater Vancouver Regional District:

(a) a Disposal Facility;
(b) a Transfer Station;
(c) a Material Recovery Facility;
(d) a Storage Facility;
(e) a Brokering Facility; or
(f) a Composting Facility;

unless that person has with respect thereto and strictly complies with a valid and subsisting Licence.
2.1 **Prohibition.** Subject to section 2.2, no person shall own or operate within the area of Greater Vancouver Regional District:

(a) a Brokering Facility;
(b) a Composting Facility;
(c) a Digesting Facility;
(d) a Disposal Facility;
(e) a Material Recovery Facility;
(f) a Rendering Facility;
(g) a Storage Facility;
(h) a Transfer Station;

except in accordance with this Bylaw.

2.2 **Exclusions.** Notwithstanding section 2.1, no Licence shall be required for:

(a) a Brokering Facility that receives exclusively source separated Recyclable Material where the owner or operator purchases or otherwise pays valuable consideration for all Recyclable Material received, cleaned, sorted, baled or packaged at the Brokering Facility;

(b) Facilities owned or operated by the District or its member municipalities; and

(c) those Facilities set out in Schedule "B" to this Bylaw.

(d) a Composting Facility or Digesting Facility owned or operated by a farmer, as that person is defined in the *Farm Practices Protection (Right to Farm) Act* of British Columbia, if that Facility solely uses Municipal Solid Waste and Recyclable Materials originating from one or more farm businesses, as that term is defined in that Act;

2.3 **Exemption.** The Solid Waste Manager, as a result of an application, may:

(a) exempt a Pilot Facility from this Bylaw or any provision of this Bylaw and issue a temporary Licence for a period of up to 15 months; and

(b) issue a temporary Licence subject to such other terms and conditions that the Solid Waste Manager considers necessary and, without restricting the Solid Waste Manager's discretion, may impose as a requirement any provision of this Bylaw.

**ARTICLE 3**

3 **LICENCE APPLICATIONS**

3.1 **Form of Application.** An application to obtain or amend a Licence under this Bylaw shall be filed at the District's offices in the form prescribed by the Solid Waste Manager.
3.2 **Referral to Municipality.** The Solid Waste Manager shall forward an application to issue a Licence in respect of a Facility to the municipality in which the Facility is located or is proposed to be located.

3.3 **Report of Municipality.** A municipality to which an application to issue a Licence has been forwarded under section 3.2:

(a) shall provide the Solid Waste Manager with a report containing its comments and recommendations concerning the application and stating whether the municipality approves or does not approve of the application; and

(b) shall submit the report required under subsection 3.3(a) to the Solid Waste Manager within 60 days after the date of forwarding of the application under section 3.2.

3.4 **No Report.** If no report is received under subsection 3.3(b) by the Solid Waste Manager within 60 days after the date of forwarding, the Solid Waste Manager will complete the evaluation of the application and may issue a Licence.

3.5 **Municipal Approval Required.** The Solid Waste Manager shall not issue a Licence in respect of an application if, in a report submitted to the Solid Waste Manager within the time specified in subsection 3.3(b), the municipality states that it does not approve of the application.

3.6 **Evaluation by Solid Waste Manager.** Where a municipality provides a report under subsection 3.3 (a) approving an application to issue a Licence, the Solid Waste Manager will complete the evaluation of the application and may issue a Licence.

3.7 **Evaluation of Licence Application.** The Solid Waste Manager, as a result of an application to issue a Licence, may consider the following matters with respect to the Facility proposed in the application:

(a) the potential risk posed to the environment and public health;

(b) the compliance with municipal zoning and land use designations;

(c) any environmental impact assessment and any other investigations, tests, surveys or any other action taken under subsection 8.7(d);

(d) any other information submitted to the Solid Waste Manager under subsection 8.7(e);

(e) any closure plan submitted to the Solid Waste Manager under section 10.1; and

(f) any other matter which the Solid Waste Manager considers relevant.

3.8 **Procedure on Application.** An applicant for a Licence, if required by the Solid Waste Manager, shall, at the applicant's cost:

(a) publish a notice in a newspaper that is distributed at least weekly in the area
where the Facility is located or is proposed to be located. The notice must include the following information

(i) the civic address of the Facility,
(ii) the name of the owner of the land on which the Facility is located or proposed to be located,
(iii) the full name and address of the operator of the Facility,
(iv) a brief and complete description of the activity to be carried out and the municipal solid waste or Recyclable Material to be handled at the Facility, and
(v) such other information as the Solid Waste Manager considers necessary.

The applicant, within 15 days of the date of publication of the notice, shall provide to the Solid Waste Manager a copy of the full page tear sheet as proof that the application was published;

(b) post a readable copy of the application in a conspicuous place at all main road entrances to the land on which the Facility is located or proposed to be located within 15 days after the date of the application and keep the copy posted for a period of not less than 30 days; and

(c) serve a written notice that an application has been filed on any person that the Solid Waste Manager considers affected by the application within 15 days of the filing of the application. The written notice shall contain the information set out in paragraphs (a)(i) to (v) above.

ARTICLE 4

4 LICENCES

4.1 Terms and Conditions for Licences. The Solid Waste Manager, as a result of an application, may issue a Licence to a person for a Facility on such terms and conditions and specifying such requirements as the Solid Waste Manager considers necessary and without limiting in any way the generality of the foregoing, the Solid Waste Manager, with respect to the Facility, may in the Licence:

(a) provide that specified municipal solid waste or Recyclable Material be handled at the Facility in the manner, with the frequency, in the quantity or volume and during the period of time specified by the Solid Waste Manager;

(b) provide that specified municipal solid waste or Recyclable Material not be handled at the Facility;

(c) require the Licensee to recover for the purpose of recycling certain Recyclable Material in accordance with the District's region-wide policies;

(d) provide specified operating procedures and requirements;
(e) require the Licensee to repair, alter, remove, improve or add to works or to construct new works and to submit plans and specifications specified in the Licence;

(f) require the Licensee to monitor in the way specified by the Solid Waste Manager the municipal solid waste and Recyclable Material, the method of handling the municipal solid waste and Recyclable Material and the places and things that the Solid Waste Manager considers will be affected by the handling of the municipal solid waste or Recyclable Material;

(g) require a Licensee to install and maintain in good condition at all times at the Facility, devices or equipment and works to inspect, sample or monitor, in a manner specified by the Solid Waste Manager

(i) all or part of the municipal solid waste or Recyclable Material at the Facility, and

(ii) the environment which may be affected by the municipal solid waste or Recyclable Material;

(h) require a Licensee to keep records of volumes, weights, types, amounts, quantities and composition and the geographic area of origin of municipal solid waste or Recyclable Material brought onto or removed from the Facility and to submit the records to the Solid Waste Manager or an Officer;

(i) require a Licensee to prepare and comply with an operating plan approved by the Solid Waste Manager which will contain such matters as may be prescribed by the Solid Waste Manager;

(j) specify a maximum height (expressed as a geodetic elevation) at the Facility to which any accumulation of municipal solid waste or Recyclable Material (including cover material) may be stored or landfilled and require that the Licensee retain a British Columbia Land Surveyor (and other qualified professionals as appropriate) to prepare and update on a periodic basis a legal survey and a legal elevation control survey, topographic survey or such other survey as the Solid Waste Manager may approve; and

(k) provide for implementing terms and conditions in phases or varying dates for compliance with terms and conditions.

ARTICLE 5

5 TRANSITION

5.1 Transition Period for Existing Facilities. The owner or operator of an Existing Facility will not be in contravention of section 2.1 if the owner or operator completes and files at the District's offices on or before the 30th day after the date of adoption of this Bylaw an application
under section 3.1 to obtain a Licence in respect of the Existing Facility.

5.2 Issuance of Licences to Existing Facilities. If an owner or operator of an Existing Facility files an application under section 5.1, the Solid Waste Manager will issue a Licence for the Existing Facility on such terms and conditions and specifying such requirements, *inter alia*, as set out in section 4.1 as the Solid Waste Manager considers necessary. Sections 3.3 to 3.6, inclusive, shall not apply to an application filed under section 5.1.

ARTICLE 6

6 AMENDMENTS

6.1 Amendment of Licence. The Solid Waste Manager may:

(a) on his own initiative where he considers it necessary; or

(b) on application by a Licensee;

6.2 Procedure on Amendment Application. Sections 3.2, 3.3, 3.4, 3.5, 3.6 and 3.8 shall apply, *mutatis mutandis*, to an application to amend the terms and conditions of a Licence.

6.3 Evaluation of Amendment Application. The Solid Waste Manager may, as a result of an application, amend the terms and conditions of a Licence where he considers it advisable after considering any of the matters set out in section 3.7 which, in the Solid Waste Manager's opinion, are relevant at the time of such application.

ARTICLE 7

7 VARIANCES

7.1 Issuance of Variance Order. Where the Commissioner considers that a person should have temporary relief from the requirements of a Licence, he may issue a variance order with respect to that Licence.

7.2 Terms and Conditions. Where the Commissioner issues a variance order, he shall:

(a) specify the requirements in respect of which he grants relief;

(b) specify the period during which the variance order remains in effect; and

(c) cause a notice of the variance order to be published in a newspaper that is distributed at least weekly in the area where the Facility is located.

7.3 Cancellation and Renewal. The Commissioner may, notwithstanding section 7.2:

(a) cancel a variance order; and
(b) renew or extend a variance order.

ARTICLE 8

8 INVESTIGATION, INSPECTION, MONITORING AND RECORDS

8.1 Investigation. The Solid Waste Manager or an Officer may at any reasonable time enter any Facility, site or premises and investigate any works, process or activity that is related to, used for or capable of being used for the handling of municipal solid waste or Recyclable Material, but nothing in this section authorizes the entry into any structure used solely as a private residence or any residential accommodation in any other structure.

8.1 Inspection Powers. A person appointed under this Bylaw to be an Officer may enter any land or building, inspect any machinery, equipment, device, tank, system or other works, or inspect the contents of a vehicle for the purpose of enforcing this Bylaw and, for this purpose, sections 109 and 111 of the Environmental Management Act of British Columbia apply to such a designated person as if the designated person is an officer referred to in those sections.

8.2 Additional Powers. The powers of the Solid Waste Manager or an Officer under section 8.1 include the power to:

(a) examine, take away and make copies of records relating to

(i) the causing of pollution,

(ii) the handling of municipal solid waste or Recyclable Material, and

(iii) the characteristics of the municipal solid waste or Recyclable Material handled; and

(b) carry out inspections, observations, measurements, tests and monitoring and to otherwise ascertain whether the terms of this Bylaw or a Licence have been or are being complied with and take away samples of land, articles, substances, municipal solid waste or Recyclable Material as he considers appropriate.

8.3 Return of Documents. Where the Solid Waste Manager or an Officer has taken away original records from a Facility, site or premises under subsection 8.2(a), the Solid Waste Manager or Officer, upon written request from the owner or operator of the Facility, will return copies of the records to the owner or operator within 24 hours of the inspection or if that is not possible, as soon thereafter as is practicable.

8.4 Assistance. The Solid Waste Manager or an Officer may take with him on to any Facility, site or premises such other persons or equipment as may be necessary.

8.5 Safety Equipment. The Solid Waste Manager or an Officer entering a Facility, site or premises for the purposes of inspection shall make use of appropriate safety equipment.

8.6 Identification. The Solid Waste Manager or an Officer shall, forthwith upon arrival at a
Facility, site or premises, provide proof of identity to a person present at the Facility.

8.7 Assesments. The Solid Waste Manager, where he deems it necessary in the circumstances, may require:

(a) a person who applies for a Licence;

(b) a Licensee; or

(c) a person who handles or proposes to handle municipal solid waste or Recyclable Material;

at that person's expense

(d) to undertake an environmental impact assessment and other investigations, tests, surveys and any other action, in accordance with methods and procedures approved by the Solid Waste Manager; and

(e) to provide to the Solid Waste Manager such information as he deems necessary to

(i) assess a Licence application, or

(ii) determine whether such person is in compliance with the provisions of this Bylaw or any Licence.

8.8 Assessment by Third Party. The Solid Waste Manager may require that all or some of the environmental impact assessment or other investigations, tests, surveys and other actions required under section 8.7 be undertaken by an independent third party acceptable to the Solid Waste Manager.

8.9 Records. Notwithstanding section 2.2, the Solid Waste Manager may require the owner or operator of a Facility, site or premises at which municipal solid waste or Recyclable Material is handled to keep records of volumes, weights, types, amounts, quantities and composition of municipal solid waste or Recyclable Material originating from within the Greater Vancouver Regional District that is brought onto or removed from the Facility, site or premises and to submit, on request annually, the records to the Solid Waste Manager or an Officer.

ARTICLE 9

9 SECURITY

9.1 Requirement for Security. The Solid Waste Manager, as a condition of issuing or in a Licence, may require an applicant or a Licensee to post a bond or provide other security to the District in such form and amount, as deemed by the Solid Waste Manager acting reasonably, as necessary to ensure compliance with the provisions of a Licence.
ARTICLE 10

10 CLOSURE

10.1 Closure Requirements. The Solid Waste Manager in a Licence may:

(a) set standards and requirements relating to the closure of a Facility; and

(b) require that a closure plan satisfactory to the Solid Waste Manager be prepared and submitted to the Solid Waste Manager within a specified time.

ARTICLE 11

11 WEIGH SCALES AT DISPOSAL FACILITIES

11.1 Installation of Weigh Scales. Every Licensee who operates a Disposal Facility shall have installed by December 31, 1996 at least one weigh scale to measure the quantity of municipal solid waste and Recyclable Material received at that Disposal Facility.

11.2 Weigh Scale Data. Every Licensee that has installed one or more weigh scales under section 11.1 shall weigh on such weigh scales the quantity of municipal solid waste and Recyclable Material received at the Disposal Facility to provide measurements for the monthly written statements referred to in section 12.5.

11.3 Certification of Weigh Scales. Every Licensee who operates a Disposal Facility shall ensure that every weigh scale used to provide measurements for the monthly written statements referred to in section 12.5 shall satisfy the requirements of the Weights and Measures Act and the regulations and shall be regularly certified to be in proper working order thereunder.

11.4 Exemption. Section 11.1 shall not apply in respect of Disposal Facilities which are scheduled for closure within 6 months after December 31, 1996 in accordance with a closure plan approved by the Solid Waste Manager.

ARTICLE 12

12 FEES

12.1 Establishment of Fees. The Board by bylaw may from time to time establish rates or levels of fees to be charged under this Bylaw.

12.2 Application Fees. Every person who applies for a Licence or any amendment thereto shall pay to the District, on application, for a Facility set out in Column 1 of Schedule "A" to this Bylaw, the corresponding Existing Facility application fee, New Facility application fee or amendment application fee as set out in Columns 2, 3 or 4, respectively, of Schedule "A" to this Bylaw, as applicable. An application fee shall not be refunded if a Licence is not issued or amended.
12.3—Annual Administration Fee. Every Licensee shall pay to the District upon the date of issuance of a Licence and thereafter annually on the anniversary date of such issuance, the annual administration fee set out in Column 5 of Schedule "A" to this Bylaw. The District will provide to all Licensees annual invoices setting out the annual administration fee due and payable in accordance with Schedule "A" to this Bylaw.

12.4—Disposal Fees. In addition to the fees payable under sections 12.2 and 12.3, every person, except as exempted under section 2.2, who operates a Disposal Facility, Transfer Station, Material Recovery Facility or Storage Facility shall pay monthly in arrears to the District the applicable disposal fees set out in Column 6 of Schedule "A" to this Bylaw. The disposal fees will be calculated commencing from July 1, 1996 and the first payment will be due and payable within 30 days of the date of the first invoice. The District will provide monthly invoices setting out the disposal fees due and payable based on the statements received under section 12.5 and in accordance with Column 6 of Schedule "A" to this Bylaw.

12.5—Monthly Statement. Every person, except as exempted under section 2.2, who operates a Disposal Facility, Transfer Station, Material Recovery Facility or Storage Facility shall deliver to the District a monthly written statement of the quantity in metric tonnes (or, for Facilities which have not installed weigh scales or are exempt under section 11.4 of this Bylaw, in cubic metres) of municipal solid waste and Recyclable Material received at that person's Facility. The statement shall be delivered monthly to the District within seven days after the last day of each month.

12.6—Annual Audit. A person who is required to provide a monthly statement under section 12.5, if requested by the Solid Waste Manager, shall at that person's expense provide to the District an audited annual statement of the quantities of municipal solid waste and Recyclable Material received at that person's Facility.

12.7—Failure to Provide Monthly Statement. If a person who operates a Disposal Facility, Transfer Station, Material Recovery Facility or Storage Facility does not deliver the monthly statement required under section 12.5 within the specified time, the District may prepare an invoice under section 12.4 based upon the quantity of municipal solid waste and Recyclable Material authorized in a permit, operational certificate or Licence relating to the Disposal Facility, Transfer Station, Material Recovery Facility or Storage Facility or upon such other basis as the Solid Waste Manager, acting reasonably, determines appropriate.

12.8—Receipts for Separated Material. A Licensee who operates a Disposal Facility, Transfer Station, Material Recovery Facility or Storage Facility may deliver to the District receipts from a recycling broker or other person acceptable to the Solid Waste Manager evidencing the quantity in metric tonnes of items recovered from municipal solid waste and Recyclable Material received at the Facility subsequent to July 1, 1996 for the purpose of recycling and the delivery of those items to such recycling broker or other person acceptable to the Solid Waste Manager.

12.9—Credit for Separated Material. The quantity set out in any receipts delivered under and in accordance with section 12.8 shall be multiplied by the per tonne disposal fee set out in Column 6 of Schedule "A" to this Bylaw and the result thereof shall be credited against the amount payable by the Licensee under the Licensee's monthly invoice under section 12.4.
12.10 Receipts for Disposal. A Licensee who owns or operates a Transfer Station, Material Recovery Facility or Storage Facility may deliver to the District receipts from any Facility owned or operated by the District or any of its member municipalities or any Licensed Disposal Facility evidencing the quantity in metric tonnes of municipal solid waste delivered by the Licensee to such Facilities subsequent to July 1, 1996.

12.11 Credit for Disposal. The quantity set out in any receipts delivered under and in accordance with section 12.10 shall be multiplied by the per tonne disposal fee set out in Column 6 of Schedule "A" to this Bylaw and the result thereof shall be credited against the amount payable by the Licensee under the Licensee’s monthly invoice under section 12.4.

12.12 Invoices. All invoices rendered by the District shall be due and payable 30 days from the date of the invoice. Late payments will accrue interest computed at the rate of one and one-quarter percent (1.25%) per month on the outstanding balance, calculated and compounded monthly, from the date such amounts become due and payable until the date they are paid in full.

12.13 Municipal Allocation. The disposal fees established under section 12.4 may include an amount to assist a municipality in which a Facility is located to pay the demonstrated costs of providing for constructing, repairing, maintaining and operating highways and roads and obtaining, operating, repairing and maintaining fire fighting equipment and such other reasonable costs, whether of a capital or operating nature or otherwise, directly attributable to the operation of the Facility within the municipality.

Article 12A – Licence Fees

12A.1 Every person who applies for a Licence for the Facility type in Column 1 of Table A shall, at the time of submitting the application for a Licence, pay to the District the non-refundable Licence application fee specified in Column 2 of Table A:

Table A – Licence Application Fee

<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility Type</td>
<td>Licence Application Fee</td>
</tr>
<tr>
<td>Disposal Facility</td>
<td>$5,000</td>
</tr>
<tr>
<td>All other Facility types</td>
<td>$1,500</td>
</tr>
</tbody>
</table>

12A.2 Every Licensee who applies for an amendment to a Licence for the Facility type in Column 1 of Table B shall, at the time of submitting the application for a Licence amendment, pay to the District the non-refundable Licence amendment application fee specified in Column 2 of Table B:

Table B – Licence Amendment Application Fee

<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility Type</td>
<td>Licence Amendment Application Fee</td>
</tr>
<tr>
<td>Disposal Facility</td>
<td>$2,500</td>
</tr>
<tr>
<td>All other Facility types</td>
<td>$750</td>
</tr>
</tbody>
</table>
12A.3 Every Licensee shall, upon the date of issuance of a Licence for the Facility type in Column 1 and thereafter annually on the anniversary date of such issuance, pay to the District the annual Licence administration fee amount specified in Column 2 of Table C:

<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility Type</td>
<td>Annual Licence Administration Fee</td>
</tr>
<tr>
<td>All Facility types</td>
<td>$1,000</td>
</tr>
</tbody>
</table>

12A.4 Every Licensee shall pay the District within 45 days of issuance of an invoice the amount specified in the invoice. Interest at the rate of 1.25% per month (15% per annum) shall be applied to unpaid annual Licence administration fees.

Article 12B – Disposal Fees

12B.1 Every person who operates a Facility, except persons exempted under sections 2.2 and 2.3, shall pay a disposal fee of $6 per metric tonne for Municipal Solid Waste or Recyclable Material that is removed from the Facility and delivered to a site that is not:

(a) a Licensed Disposal Facility;

(b) a Facility owned or operated by the District or any of its member municipalities; or

(c) a recycling broker or such other person or site acceptable to the Solid Waste Manager.

12B.2 The owner or operator of a Licensed Disposal Facility shall pay a disposal fee of $6 per metric tonne of Municipal Solid Waste or Recyclable Material received at that Licensed Disposal Facility.

12B.3 Every person required to pay disposal fees shall pay to the District the amount specified in a disposal fee invoice issued by the District within 45 days of the date of issuance. Interest at the rate of 1.25% per month (15% per annum) shall be applied to unpaid disposal fees.

12B.4 The owner or operator of a Licensed Disposal Facility may deliver to the District receipts issued by a recycling broker or such other person or site acceptable to the Solid Waste Manager showing the quantity in metric tonnes of recycled Municipal Solid Waste or Recyclable Material.

12B.5 The quantity set out in receipts delivered under and in accordance with section 12B.4, if to the satisfaction of the Solid Waste Manager, shall be multiplied by $6 per metric tonne and that amount shall be applied as a credit on the Licensed Disposal Facility’s disposal fee invoice.

12B.6 If a person does not submit the records required under this Bylaw or in a Licence of the quantity of Municipal Solid Waste or Recyclable Material that is removed from the Facility, the District may issue to that person a disposal fee invoice for the quantity of Municipal Solid Waste or Recyclable Material removed that the Solid Waste Manager deems appropriate.

12B.7 The disposal fees established under Article 12B of this Bylaw may include an amount to
assist a municipality in which a Facility is located to pay the demonstrated costs of providing for constructing, repairing, maintaining and operating highways and roads and obtaining, operating, repairing and maintaining fire fighting equipment and such other reasonable costs, whether of a capital or operating nature or otherwise, directly attributable to the operation of the Facility within that municipality.

**Article 12C – Record Keeping**

12C.1 Every person, except persons exempted under sections 2.2 and 2.3, who operates a Facility shall keep and maintain records of volumes, weights, types, amounts, quantities, composition, and the geographic area of origin of Municipal Solid Waste or Recyclable Material that is:

(a) received at the Facility;

(b) removed from the Facility and delivered to:

(i) a Licensed Disposal Facility;

(ii) a Facility owned or operated by the District or any of its member municipalities; or

(iii) a recycling broker or such other person or site acceptable to the Solid Waste Manager; and

(c) removed from the Facility and delivered to a site that is not:

(i) a Licensed Disposal Facility;

(ii) a Facility owned or operated by the District or any of its member municipalities; or

(iii) a recycling broker or such other person or site acceptable to the Solid Waste Manager.

12C.2 A person required to keep and maintain records must:

(a) keep such records for a period of three years after the year in which the record was first made;

(b) submit such records to the Solid Waste Manager in the manner and at the frequency required by the Solid Waste Manager; and

(c) if an Officer or the Solid Waste Manager requests, produce such records for inspection or deliver such records to the Officer or Solid Waste Manager within 48 hours of being requested to do so.

12C.3 Every person, except persons exempted under sections 2.2 and 2.3, who operates a Facility shall, upon the request of an Officer or the Solid Waste Manager, submit an audited statement of volumes, weights, types, amounts, quantities, composition, and the geographic
area of origin of Municipal Solid Waste or Recyclable Material that is:

(a) received at the Facility;

(b) removed from the Facility and delivered to:

(i) a Licensed Disposal Facility;

(ii) a Facility owned or operated by the District or any of its member municipalities; or

(iii) a recycling broker or such other person or site acceptable to the Solid Waste Manager; and

(c) removed from the Facility and delivered to a site that is not:

(i) a Licensed Disposal Facility;

(ii) a Facility owned or operated by the District or any of its member municipalities; or

(iii) a recycling broker or such other person or site acceptable to the Solid Waste Manager.

ARTICLE 13

13 SOLID WASTE MANAGER AND OFFICERS

13.1 Appointment of Solid Waste Manager. The Board shall appoint by resolution or bylaw a person to be the Solid Waste Manager and a person to be the Deputy Solid Waste Manager who may exercise all the powers given to the Solid Waste Manager under this Bylaw.

13.2 Appointment of Officers. The Board may appoint by resolution or bylaw a person or persons to be an Officer or Officers who may exercise all the powers given to an Officer under this Bylaw.

ARTICLE 14

14 CONTRAVENTIONS

14.1 Reporting. Where there is any conduct or activity contrary to any Licence or that is otherwise in contravention of this Bylaw, any person who:

(a) owns, operates, has charge or control of or manages any Facility or municipal solid waste or Recyclable Material that is affected by or is the subject of such contravention; or
(b) causes or contributes to the causation of such contravention;

shall, at the first available opportunity after becoming aware of the contravention, verbally report such contravention to the Solid Waste Manager and shall forthwith undertake all remedial action that may be necessary to minimize, counteract, mitigate and remedy the effect of such contravention. The verbal report shall be confirmed as soon as possible thereafter by a written report.

ARTICLE 15

15     SUSPENSION AND CANCELLATION

15.1 Suspension and Cancellation of Licences. Without limiting any other provision of this Bylaw, the Solid Waste Manager, after giving reasonable written notice to a Licensee, may suspend or cancel a Licence where:

(a) the Licensee fails to comply with the terms, conditions or requirements of the Licence;

(b) the Licensee has made a material misstatement or misrepresentation in the application for the Licence; or

(c) the Licensee has failed to

(i) make payment of fees under Article 12, or

(ii) comply with any other provision of this Bylaw.

15.2 Further Suspension and Cancellation. The Solid Waste Manager, in addition to his powers under section 15.1, may:

(a) upon request from a Licensee, suspend a Licence for up to but not longer than the length of time requested; and

(b) cancel a Licence where

(i) the Licensee is an individual who has died,

(ii) the Licensee is a corporation that is struck off the register under the Company Act Business Corporations Act or is dissolved,

(iii) the Licensee is a partnership that is dissolved, or

(iv) the Licensee requests that the Licence be cancelled.
ARTICLE 16

16 APPEALS

16.1 Definition of "Decision". For the purpose of this Article 16 "decision" means:

(a) the exercise of a power;
(b) the imposition of a standard or requirement;
(c) the issuance, amendment, suspension, refusal or cancellation of a Licence; and
(d) the inclusion in any Licence of any term or condition.

16.2 Appeal to Commissioner. A person who considers himself aggrieved by a decision of the Solid Waste Manager or the Deputy Solid Waste Manager may appeal to the Commissioner.

16.3 Appeal Procedure. An appeal under section 16.2 shall be commenced by giving written notice of intention to appeal to the Solid Waste Manager within 21 days after the decision appealed from is made.

16.4 Extension of Appeal Period. The Commissioner may extend the time for commencing an appeal either before or after the time for commencement of the appeal has elapsed.

16.5 Decision of Commissioner. On considering an appeal, the Commissioner may:

(a) confirm, reverse or vary the decision appealed from;
(b) refer the matter back to the Solid Waste Manager or Deputy Solid Waste Manager for reconsideration, as the case may be, with or without directions; or
(c) make any decision that the Solid Waste Manager or the Deputy Solid Waste Manager could have made and that the Commissioner considers appropriate in the circumstances.

16.6 No Stay during Appeal. An appeal under this Bylaw does not operate as a stay or suspend the operation of the decision being appealed unless the Commissioner decides otherwise.

16.7 Participation by Solid Waste Manager. At the request of the Solid Waste Manager or the Deputy Solid Waste Manager, whose decision is being appealed, the Commissioner shall permit the Solid Waste Manager or the Deputy Solid Waste Manager to have full party status at the appeal.
ARTICLE 17

17 OFFENCES AND PENALTIES

17.1 Offence. Any person who contravenes a provision of this Bylaw, a Licence or requirement made or imposed under this Bylaw commits an offence and is liable to a fine not exceeding $1,000,000 or $200,000.

17.2 Separate Offences. Where there is an offence that continues for more than one day, separate fines, each not exceeding the maximum fine for the offence, may be imposed for each day or part thereof in respect of which the offence occurs or continues.

17.3 No Limitation. Nothing in this Bylaw shall limit the District from utilizing any other remedy that would otherwise be available to the District at law.

ARTICLE 18

18 GENERAL

18.1 No Transfer or Assignment. A transfer or assignment of a Licence is without effect without the prior written approval of the Solid Waste Manager.

18.2 Headings. The headings in this Bylaw are for convenience only and shall not limit, enlarge or affect the scope of any of the provisions in this Bylaw.

18.3 Gender. In this Bylaw, gender specific terms include both genders and include corporations.

18.4 Severability. If any portion of this Bylaw is deemed ultra vires, illegal, invalid or unenforceable in any way in whole or in part by any court of competent jurisdiction, such decision shall not invalidate or void the remainder of this Bylaw, the parts so held to be ultra vires, illegal, invalid or unenforceable shall be deemed to have been stricken therefrom with the same force and effect as if such parts had never been included in this Bylaw or revised and reduced in scope so as to be valid and enforceable.
Read a first time this 24th day of May, 1996.

Read a second time this 24th day of May, 1996.

Read a third time this 24th day of May, 1996.

Reconsidered, passed and finally adopted by the Administration Board this 24th Day of May, 1996.

__________________________________________
Chairman

__________________________________________
Secretary
The application, administration and disposal fees payable to the District under this Bylaw shall be as follows:

1. **Application, Amendment, Annual Administration and Disposal Fees**

<table>
<thead>
<tr>
<th>Facility</th>
<th>Column 2 Existing Facility Application Fee</th>
<th>Column 3 New Facility Application Fee</th>
<th>Column 4 Amendment Application Fee</th>
<th>Column 5 Annual Administration Fee</th>
<th>(a) Column 6 Disposal Fee (per metric tonne)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disposal Facility</td>
<td>$1,000</td>
<td>$5,000</td>
<td>$2,500</td>
<td>$1,000</td>
<td>$3</td>
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<tr>
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<td>Material Recovery Facility</td>
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<td>Storage Facility</td>
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<td>$500</td>
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</tbody>
</table>

(a) The disposal fee in Column 6 will apply to municipal solid waste received at the Facility. For Facilities which have not installed weigh scales or are exempt under section 11.4 of the Bylaw the applicable fee shall be $1.25 per cubic metre of municipal solid waste received at the Facility (measured in the delivery vehicle). For Transfer Stations and Material Recovery Facilities during a transition period ending November 1, 1996 the applicable fee shall be $0.80 per cubic metre of municipal solid waste received at the Facility (measured in the delivery vehicle).
SCHEDULE "B"

EXEMPTIONS FROM LICENSING REQUIREMENTS

For greater certainty and without limiting the generality of section 2.1 of the Bylaw, the following Facilities shall be exempt from the licensing requirements under section 2.1:

1. any Facility which accepts exclusively asphalt and concrete for the purposes of reprocessing, resale and reuse;

2. any drop-off depot which is owned or operated by a charitable organization, as defined in the Income Tax Act (Canada), or a non-profit organization, as referred to in section 149 of the Income Tax Act (Canada); and

3. any retail food, grocery, beverage or drug establishment that accepts recyclable products on a return-to-retail basis.
Finance Committee Meeting Date: October 11, 2012

To: Finance Committee

From: Phil Trotzuk, Financial Planning & Operations Manager, Finance & Administration Department

Date: September 20, 2012

Subject: Greater Vancouver Sewerage and Drainage District 2013 Cost Apportionment Bylaw 274, 2012

Recommendation:

a) That the Board give leave to introduce “Greater Vancouver Sewerage and Drainage District 2013 Cost Apportionment Bylaw No. 274, 2012”, being a bylaw governing the distribution of the GVS&DD tax levy for 2013, and that it be read a first, second and third time; and

b) That the Board reconsider, pass and finally adopt “Greater Vancouver Sewerage and Drainage District 2013 Cost Apportionment Bylaw No. 274, 2012”.

1. PURPOSE

To seek approval of the Cost Apportionment Bylaw 274, 2012.

2. CONTEXT

In 1993 the Board agreed to principles on the allocation of liquid waste costs among the member municipalities. In 1994, it further approved the procedures developed by a RAAC task force to implement those principles. That Board approval remains the foundation of cost allocation as outlined in the current bylaw. The Bylaw allocates the sewer costs in an approved budget out to member municipalities primarily using sewer flows. The costs are as reflected in the 2013 Budget as presented to the Board earlier in the agenda package, which was reviewed at the Board Budget workshop on October 17, 2012.

3. ALTERNATIVES

N/A

4. CONCLUSION

The approval of the bylaw is largely an administrative issue for the Board. The bylaw is required under provincial legislation to apportion the District’s 2013 Budget.

ATTACHMENT

PT/wc

Doc. #6503452
WHEREAS:

A. Section 55(2) of the Greater Vancouver Sewerage and Drainage District Act (the "Act") provides that the amount for annual expenditures of a sewerage area that is entirely within a municipality shall be apportioned to that municipality, unless a bylaw under section 55(4) applies;

B. Section 55(3) of the Act provides that the amount for annual expenditures of a sewerage area that includes two or more municipalities shall be apportioned among them on the basis of the converted value of land and improvements, unless a bylaw under section 55(4) applies; and

C. Section 55(4) of the Act authorizes the Administration Board by bylaw to establish a different method of apportionment of costs among the member municipalities;

D. This bylaw sets out the Greater Vancouver Sewerage and Drainage District's method of apportioning annual sewerage and drainage expenditures among the member municipalities, as permitted by section 55(4) of the Act;

NOW THEREFORE the Administration Board of the Greater Vancouver Sewerage and Drainage District in open meeting assembled of which and for the purpose of which due notice was given, enacts as follows:

1. Definitions

In this bylaw:

   (a) "Assessed Value" as applied in any calendar year in respect of any particular area, means the aggregate 'converted value of land and improvements' (as that term is defined in the Community Charter) within such area for the immediately preceding calendar year, as provided by the assessment commissioner of the British Columbia Assessment Authority pursuant to section 804.2 of the Local Government Act;

   (b) "Corporation" means the Greater Vancouver Sewerage and Drainage District;

   (c) "Dry Weather Flow" in respect of any 12 month period means

      (i) for a Sewerage Area, the 25th percentile of the average daily flows of sewage and wastewater, as determined by the Corporation, measured at whichever (one or more) of the Corporation's five wastewater treatment plants (being Annacis Island, Iona, Lions Gate, Lulu Island and North-West Langley) providing service to that Sewerage Area,
(ii) for a member municipality of the Fraser Sewerage Area for the purposes of sections 3.1 and 7.4(d), (e), (f), (g) and (h), the 25th percentile of the average daily flows of sewage and wastewater discharged from that member municipality as measured at the flow metering stations for that member municipality, or where there is insufficient data from flow metering stations, as determined by the Corporation, based on (A) discharge rates applicable to land use, land area and population data based on the design criteria for wastewater discharges in the Rawn Report of September 1953, as updated by the Corporation from time to time, (B) temporary flow monitoring from mobile meters, (C) data from pump stations or, (D) such other data deemed appropriate by the Corporation for making such determination;

(d) "Growth Component" means, together, the Tier I Growth Component and the Tier II Growth Component;

(e) "Industrial Assessed Value" in respect of any particular area, means the aggregate of the Assessed Values attributed by the Corporation to all lands and improvements within such area which are the subject of an Industrial Permit or Industrial Permits;

(f) "Industrial Flows" in respect of any 12 month period, for a Sewerage Area or any member municipality thereof, means the average daily flows of sewage and wastewater discharged within the Sewerage Area or member municipality during such 12 month period under an Industrial Permit or Industrial Permits, as determined by the Corporation;

(g) "Industrial Treatment Costs" means the costs as determined by the Corporation to treat and dispose of sewage and wastewater discharged pursuant to an Industrial Permit;

(h) "Industrial Permit" means a permit issued by the Corporation under Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw No.299, 2007, as amended by Greater Vancouver Sewerage and Drainage District Amending Bylaw No. 244, 2008, Greater Vancouver Sewerage and Drainage District Amending Bylaw 252, 2009 and Greater Vancouver Sewerage and Drainage District Amending Bylaw No. 256, 2010 (and any subsequent amendments or replacements) and "Industrial Permittee" means a person holding a valid Industrial Permit;

(i) "Non-Growth Component" for any 12-month period, means the aggregate of those capital expenditures for Tier I Projects and Tier II Projects not constituting the Growth Component;

(j) "Non-Growth Financing" for any 12-month period, means the aggregate amount of principal and interest payments (except where specifically excluded) and other financing costs in respect of monies borrowed by the Corporation to pay for the Non-Growth Component;

(k) "Regional Share" means 70% of Non-Growth Financing;
(l) "Sewerage Area" means any of the Fraser Sewerage Area, the Lulu Island West Sewerage Area, the North Shore Sewerage Area and the Vancouver Sewerage Area, being respectively the sewerage areas established by the Corporation under the Act;

(m) "Sewerage Area Share" for any Sewerage Area, means 30% of Non-Growth Financing incurred by the Corporation with respect to the provision of sewerage services in such Sewerage Area;

(n) "Tier I Growth Component" means all of the capital expenditures incurred by the Corporation on or after January 1, 1995 for Tier I Projects that are primarily "growth" projects, as provided for in the applicable annual budgets of the Corporation or in the supporting documentation to such annual budgets;

(o) "Tier I Growth Component Payments" means the payments of principal and interest due and payable in each year in respect of the Tier I Growth Component (excluding interest payable on any borrowing that has a term in excess of 12 months);

(p) "Tier I Project" means any new capital project provided for in the 1995 annual budget or any later annual budget of the Corporation or in the supporting documentation to any such annual budgets, other than a Tier II Project;

(q) "Tier II Growth Component" means the amount that is equal to the aggregate of all the capital expenditures incurred by the Corporation on or after January 1, 1995 in relation to Tier II Projects;

(r) "Tier II Growth Component Payments" means the payments of principal and interest due and payable in each year in respect of the Tier II Growth Component (excluding interest payable on any borrowing that has a term in excess of 12 months);

(s) "Tier II Project" means the Corporation’s projects that are designed to provide sewage or wastewater treatment beyond the primary level of treatment;

(t) "Total Dry Weather Flows" means the aggregate of the Dry Weather Flows for all five of the Corporation’s wastewater treatment plants;

(u) "UEL Dry Weather Flow" in respect of any 12 month period means the 25th percentile of the average daily flows of sewage and wastewater, as determined by the Corporation, and based upon:

(i) temporary flow monitoring by mobile flow meters for the University Endowment Lands, and

(ii) such other data deemed relevant by the Corporation for making such determination; and

(v) "University Endowment Lands" means the area of the University Endowment Lands (as referred to in section 5(2) of the Act).
2. **Gleneagles Facilities**

2.1 All payments of principal and interest and all other financing costs relating to the Gleneagles facilities will be apportioned to the Corporation of the District of West Vancouver.

3. **Pitt Meadows and Maple Ridge Facilities**

3.1 All payments of principal and interest and all other financing costs relating to the Pitt Meadows and Maple Ridge facilities will be apportioned between the City of Pitt Meadows (“Pitt Meadows”) and the Corporation of the District of Maple Ridge (“Maple Ridge”) in the proportion that 100% of the Dry Weather Flow for each of Pitt Meadows and Maple Ridge during the twelve month period ending June 30, 2012, less 100% of the Industrial Flows for Pitt Meadows and Maple Ridge respectively, bears to the aggregate of the Dry Weather Flow, less 100% of the Industrial Flows for both Pitt Meadows and Maple Ridge, during the same period.

4. **Apportionment of Growth Costs**

4.1 The Corporation will, by way of borrowing, raise sufficient monies to pay the Growth Component in each year, as capital expenditures are incurred.

4.2 The Corporation will apportion to each Sewerage Area 100% of the Tier I Growth Component Payments and 30% of the Tier II Growth Component Payments that are attributable to that Sewerage Area.

4.3 The Corporation will apply the development cost charge monies (the "DCC Monies") received under Greater Vancouver Sewerage and Drainage District Development Cost Charge Bylaw No.254, 2010, (and any subsequent amendments or replacements) in any year and apportioned to a particular Sewerage Area to pay up to 99% of the Tier I Growth Component Payments and Tier II Growth Component Payments apportioned to that Sewerage Area pursuant to section 4.2.

4.4 The Corporation will apportion to each Sewerage Area the total of:

(a) the interest payable on any borrowing having a term of more than 12 months, incurred in respect of

   (i) the Tier I Growth Component attributable to that Sewerage Area, and

   (ii) 30% of the Tier II Growth Component attributable to that Sewerage Area, and

(b) 1% of the amount that is equal to the aggregate of

   (i) the Tier I Growth Component Payments that have been apportioned to that Sewerage Area under section 4.2, and

   (ii) the Tier II Growth Component Payments that have been apportioned to that Sewerage Area under section 4.2.
4.5 The Corporation will apportion among the Sewerage Areas in accordance with the formula set out in section 4.7 the total of:

(a) the interest payable on any borrowing that has a term of more than 12 months incurred in respect of 70% of Tier II Growth Component, and

(b) 1% of the amount that is equal to 70% of the Tier II Growth Component Payments.

4.6 After complying with sections 4.2, 4.3, 4.4 and 4.5 above, the Corporation will apply DCC Monies to pay the unapportioned balances of the Tier I Growth Component Payments and the Tier II Growth Component Payments.

4.7 The Corporation will apportion among the Sewerage Areas the amounts set out in section 4.5, on the basis of the following formula:

\[
\frac{\text{Sewerage Area Population Growth}}{\text{District Population Growth}} \times \frac{\text{Amount to be apportioned among Sewerage Areas}}{\text{Sewerage Area Population Growth}}
\]

4.8 The Corporation will further apportion among the member municipalities within each Sewerage Area (including, in the case of the Vancouver Sewerage Area, the University Endowment Lands) any apportionment under section 4.4 or sections 4.5 and 4.7 on the basis of the following formula:

\[
\frac{\text{Member Population Growth}}{\text{Sewerage Area Population Growth}} = \frac{\text{Amount to be apportioned among member municipalities of the Sewerage Area}}{\text{Sewerage Area Population Growth}}
\]

4.9 For the purposes of the formulae set out in sections 4.7 and 4.8, the Member Population Growth, the Sewerage Area Population Growth and the District Population Growth will be the applicable (rolling) average annual population growth (as published in the most recent edition, as determined by the Corporation, of British Columbia Municipal and Regional District Population Estimates of the Demographic Analysis Section of BC STATS, Ministry of Citizens’ Services of the Government of the Province of British Columbia) in each respective area for the five-year period that precedes and ends on December 31 of the calendar year that is two years prior to December 31 of the calendar year in respect of which the calculation is made. Despite the foregoing, the Member Population Growth for the University Endowment Lands will be deemed to be equal to 0.9% of the Member Population Growth for the City of Vancouver.

5. **Industrial Treatment Costs**

5.1 The Corporation will charge its Industrial Treatment Costs directly to Industrial Permittees and Industrial Treatment Costs will not be apportioned to the Sewerage Areas or member municipalities pursuant to this Bylaw.

5.2 For the purpose of section 7.1, all Assessed Values will be reduced by an amount equal to the Industrial Assessed Value within each relevant area for Industrial Permits (Permittees).
6. **Apportionment of Non-Growth Costs**

6.1 Except as otherwise provided in this bylaw, the Regional Share and all other costs to be apportioned among the Sewerage Areas will be apportioned among the Sewerage Areas in the same proportion that the Dry Weather Flow for each Sewerage Area during the twelve month period ending June 30, 2012 bears to the Total Dry Weather Flows during that same period.

6.2 The Sewerage Area Share attributed to any Sewerage Area under this bylaw will be apportioned to that Sewerage Area.

7. **Apportionment of Non-Growth Costs Among Member Municipalities**

7.1 Except as otherwise provided in this bylaw, the total of:

(a) the portion of the Regional Share apportioned to the Vancouver Sewerage Area under section 6.1,

(b) the Sewerage Area Share apportioned to the Vancouver Sewerage Area under section 6.2, and

(c) all other costs apportioned to the Vancouver Sewerage Area pursuant to sections 9.1 and 9.2, except for the amount apportioned under section 8.1;

will be further apportioned among the member municipalities within the Vancouver Sewerage Area in the same proportion that the Assessed Value (as adjusted in accordance with section 5.2) of the lands of each member municipality within the Vancouver Sewerage Area bears to the Assessed Value (as adjusted in accordance with section 5.2) of all lands within the Vancouver Sewerage Area.

7.2 Except as otherwise provided in this bylaw, the total of:

(a) the portion of the Regional Share apportioned to the Lulu Island West Sewerage Area under section 6.1,

(b) the Sewerage Area Share apportioned to the Lulu Island West Sewerage Area under section 6.2, and

(c) all other costs apportioned to the Lulu Island West Sewerage Area pursuant to sections 9.1 and 9.2;

will be further apportioned entirely to the City of Richmond, being the sole member municipality within that Sewerage Area.

7.3 Except as otherwise provided in this bylaw, the total of:

(a) the portion of the Regional Share apportioned to the North Shore Sewerage Area under section 6.1,

(b) the Sewerage Area Share apportioned to the North Shore Sewerage Area under section 6.2, and
(c) all other costs apportioned to the North Shore Sewerage Area pursuant to sections 9.1 and 9.2;

will be further apportioned among the member municipalities within the North Shore Sewerage Area as follows:

- The Corporation of the District of West Vancouver: 30%
- The Corporation of the District of North Vancouver: 45%
- City of North Vancouver: 25%

7.4 Except as otherwise provided in this bylaw, the total of:

(a) the portion of the Regional Share apportioned to the Fraser Sewerage Area under section 6.1,

(b) the Sewerage Area Share apportioned to the Fraser Sewerage Area under section 6.2, and

(c) all other costs apportioned to the Fraser Sewerage Area pursuant to sections 9.1 and 9.2;

(such costs are collectively hereinafter called the "Fraser Sewerage Area Costs"), will be apportioned among the member municipalities of the Fraser Sewerage Area as follows:

(d) as to 20% of the Fraser Sewerage Area Costs, in the proportion that 100% of the Dry Weather Flow for each member municipality within the Fraser Sewerage Area during the twelve month period ending June 30, 2008, less 100% of the Industrial Flows for each such member bears to 100% of the Dry Weather Flow, less 100% of the Industrial Flows for the Fraser Sewerage Area, during the same period;

(e) as to 20% of the Fraser Sewerage Area Costs, in the proportion that 100% of the Dry Weather flow for each member municipality within the Fraser Sewerage Area during the twelve month period ending June 30, 2009, less 100% of the Industrial Flows for each such member bears to 100% of the Dry Weather Flow, less 100% of the Industrial Flows for the Fraser Sewerage Area, during the same period;

(f) as to 20% of the Fraser Sewerage Area Costs, in the proportion that 100% of the Dry Weather flow for each member municipality within the Fraser Sewerage Area during the twelve month period ending June 30, 2010, less 100% of the Industrial Flows for each such member bears to 100% of the Dry Weather Flow, less 100% of the Industrial Flows for the Fraser Sewerage Area, during the same period; and

(g) as to 20% of the Fraser Sewerage Area Costs, in the proportion that 100% of the Dry Weather Flow for each member municipality within the Fraser Sewerage Area during the twelve month period ending June 30, 2011, less 100% of the Industrial Flows for each such member bears to 100% of the Dry Weather Flow, less 100% of the Industrial Flows for the Fraser Sewerage Area, during the same period; and

(h) as to 20% of the Fraser Sewerage Area Costs, in the proportion that 100% of the Dry Weather Flow for each member municipality within the Fraser Sewerage
Area during the twelve month period ending June 30, 2012, less 100% of the Industrial Flows for each such member bears to 100% of the Dry Weather Flow, less 100% of the Industrial Flows for the Fraser Sewerage Area, during the same period.

8. Special Apportionment for Vancouver Sewerage Area

8.1 For the purpose of further apportioning costs apportioned to the Vancouver Sewerage Area, under section 7.1, the amount to be apportioned to the University Endowment Lands in respect of the University Endowment Lands and the area of the University of British Columbia will be equal to the aggregate of

(a) $1,084,245 and

(b) that portion of the costs apportioned to the Vancouver Sewerage Area that the UEL Dry Weather Flow bears to 100% of the Dry Weather Flow for the Vancouver Sewerage Area less 100% of the Industrial Flows for the Vancouver Sewerage Area, during the 12 month period ending June 30, 2012.

9. Apportionment of Operation and Maintenance and Previously Unapportioned Capital Costs

9.1 The costs of operation and maintenance (excluding costs referred to in section 10.1) to be incurred by the Corporation as set out in the 2013 annual budget of the Corporation will be apportioned among the Sewerage Areas on the basis set out in section 6.1 and further apportioned among the member municipalities within each Sewerage Area on the basis set out in sections 7.1, 7.2, 7.3 and 7.4.

9.2 All principal, interest and other financing costs (excluding costs referred to in section 10.1) arising out of capital expenditures which have not already been apportioned pursuant to any other section of this bylaw and can equitably be apportioned (in the sole discretion of the Corporation) to a single Sewerage Area will be apportioned entirely to that Sewerage Area and further apportioned among the member municipalities of that Sewerage Area on the basis set out in sections 7.1, 7.2, 7.3 and 7.4. If any principal, interest and other financing costs (excluding costs referred to in section 10.1) arising out of capital expenditures which have not already been apportioned pursuant to any other section of this bylaw cannot equitably be attributed to a single Sewerage Area, such costs will be apportioned among the Sewerage Areas on the basis set out in section 6.1 and further apportioned among the member municipalities within each Sewerage Area on the basis set out in sections 7.1, 7.2, 7.3 and 7.4.

10. Apportionment of Drainage Area Costs

10.1 Despite any other section of this bylaw, all costs relating to the three drainage areas of the Corporation, being the Still Creek/Brunette River Drainage Area, the Port Moody/Coquitlam Drainage Area, and University Drainage Area, will be apportioned among the member municipalities in the same proportion that the Assessed Value within each member municipality bears to the total Assessed Value within all member municipalities.

11. Citation

11.1 This bylaw shall be cited for all purposes as "Greater Vancouver Sewerage and Drainage
12 Effective Date

12.1 This bylaw shall take effect on the 1st day of January, 2013.

Read a first, second and third time this _____ day of _____________, 2012.

Reconsidered, passed and finally adopted by the Administration Board this _____ day of _____________, 2012.

__________________________
Greg Moore, Chair

[SEAL]

__________________________
Paulette Vetleson, Secretary