REVISED AGENDA

1. ADOPTION OF THE AGENDA

   1.1 March 7, 2019 Regular Meeting Agenda
      That the Zero Waste Committee adopt the agenda for its regular meeting scheduled
      for March 7, 2019 as circulated.

2. ADOPTION OF THE MINUTES

   2.1 February 8, 2019 Regular Meeting Minutes
      That the Zero Waste Committee adopt the minutes of its regular meeting held
      February 8, 2019 as circulated.

3. DELEGATIONS

   3.1 Steve Bryan, Director, Waste Management Association of BC (WMABC)
       Subject: WMABC Response to March 7, 2019 Zero Waste Committee Agenda Reports
       5.1-5.4

   3.2 Ken Carrusca, Vice President, Environment and Marketing (Western Region),
       Cement Association
       Subject: Greenhouse Gas Reduction through a Transition to Alternative Lower Carbon
       Fuels

4. INVITED PRESENTATIONS

5. REPORTS FROM COMMITTEE OR STAFF

   5.1 Bylaw 181 Update and Commercial Waste Hauler Licensing Bylaw Overview
       Designated Speaker: Paul Henderson, General Manager, Solid Waste Services
       That the GVS&DD Board receive for information the report dated March 1, 2019,
       titled “Bylaw 181 Update and Commercial Waste Hauler Licensing Bylaw Overview”.

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

Zero Waste Committee
5.2 Generator Levy Overview  
*Designated Speaker: Paul Henderson, General Manager, Solid Waste Services*  
That the GVS&DD Board receive for information the report dated March 1, 2019, titled “Generator Levy Overview”.

5.3 Solid Waste Regulatory Framework Correspondence Update  
*Designated Speaker: Paul Henderson, General Manager, Solid Waste Services*  
That the GVS&DD Board receive for information the report dated February 27, 2019, titled “Solid Waste Regulatory Framework Correspondence Update”.

5.4 Mixed Waste Processing Pilot  
*Designated Speaker: Paul Henderson, General Manager, Solid Waste Services*  
That the GVS&DD Board:  
  a) authorize engaging a consultant to assist in the design of a pilot project, financial model, and procurement process for the purpose of processing municipal solid waste for the recovery of materials and/or fuel; and  
  b) direct staff to report back to the Board with the concept plan and procurement model for the implementation of the pilot project.

5.5 Waste-to-Energy Facility Second Pass Superheater Replacement Project Contract Award  
*Designated Speaker: Brent Kirkpatrick, Lead Senior Engineer, Solid Waste Services*  
That the GVS&DD Board authorize:  
  a) award to Covanta Burnaby Renewable Energy, ULC, for the construction of the second pass superheater replacement project at the Metro Vancouver Waste-to-Energy Facility at a cost of $5,484,000 (including PST, but excluding GST), under the terms and conditions of existing Contract 98106; and  
  b) the Commissioner and Corporate Officer to execute any necessary documents.

5.6 Metro Vancouver’s 2018 Zero Waste Conference  
*Designated Speakers: Heather Schoemaker, General Manager, External Relations and Ann Rowan, Program Manager, External Relations*  
That the MVRD Board receive for information the report dated February 1, 2019, titled “Metro Vancouver’s 2018 Zero Waste Conference”.

5.7 2018 Regional Create Memories Not Garbage Campaign Results  
*Designated Speaker: Larina Lopez, Corporate Communications Division Manager, External Relations*  
That the Committee and MVRD Board receive for information the report dated, February 19, 2019, titled “2018 Regional Create Memories Not Garbage Campaign Results”.
5.8 Staff Appointments for the Purpose of Serving Summons under the Offence Act
Designated Speaker: Ray Robb, Division Manager, Environmental Regulation and Enforcement
That the GVS&DD Board appoint, for the purpose of serving summons under section 28 of the Offence Act for alleged violation of GVS&DD solid waste bylaws, all Metro Vancouver staff currently appointed as officers under the Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996.

5.9 Manager’s Report
Designated Speaker: Paul Henderson, General Manager, Solid Waste Services
That the Zero Waste Committee receive for information the report dated February 28, titled “Manager’s Report”.

6. INFORMATION ITEMS

6.1 Correspondence re Remove or Seal Unsafe Donation Bins in Metro Vancouver from Mayor Kennedy Stewart, City of Vancouver dated February 6, 2019

6.2 Correspondence re Metro Vancouver Solid Waste Regulatory Framework Updates: Economic and Environmental Benefits to Deputy Minister Mark Zacharias dated March 6, 2019

7. OTHER BUSINESS

8. BUSINESS ARISING FROM DELEGATIONS

9. RESOLUTION TO CLOSE MEETING
Note: The Committee 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 Zero Waste Committee close its regular meeting scheduled for February 8, 2019 pursuant to the Community Charter provisions, Section 90 (1) (e) and (g) as follows:

“90 (1) A part of the meeting may be closed to the public if the subject matter being considered relates to or is one or more of the following:
(e) the acquisition, disposition or expropriation of land or improvements, if the board or committee considers that disclosure could reasonably be expected to harm the interests of the regional district; and
(g) litigation or potential litigation affecting the regional district”.

Zero Waste Committee
10. ADJOURNMENT/CONCLUSION
That the Zero Waste Committee adjourn/conclude its regular meeting of March 7, 2019.

Membership:
Froese, Jack (C) - Langley Township
Hodge, Craig (VC) - Coquitlam
Calendino, Pietro - Burnaby
Cameron, Craig - West Vancouver
Elford, Doug - Surrey

Fathers, Helen - White Rock
Fry, Pete - Vancouver
Little, Mike - North Vancouver District
Madsen, Hunter - Port Moody

Martin, Gayle - Langley City
Morden, Mike - Maple Ridge
Steves, Harold - Richmond
Trentadue, Mary - New Westminster
Minutes of the Regular Meeting of the Metro Vancouver Regional District (MVRD) Zero Waste Committee held at 9:00 a.m. on Friday, February 8, 2019 in the 28th Floor Committee Room, 4730 Kingsway, Burnaby, British Columbia.

MEMBERS PRESENT:
Chair, Mayor Jack Froese, Langley Township
Vice Chair, Councillor Craig Hodge, Coquitlam
Councillor Pietro Calendino, Burnaby
Councillor Doug Elford, Surrey
Councillor Helen Fathers, White Rock
Councillor Pete Fry, Vancouver
Mayor Mike Little, North Vancouver District
Councillor Hunter Madsen, Port Moody
Councillor Gayle Martin, Langley City
Councillor Harold Steves, Richmond
Councillor Mary Trentadue, New Westminster

MEMBERS ABSENT:
Councillor Craig Cameron, West Vancouver
Mayor Mike Morden, Maple Ridge

STAFF PRESENT:
Paul Henderson, General Manager, Solid Waste Services
Carol Mason, Chief Administrative Officer
Janis Knaupp, Legislative Services Coordinator, Board and Information Services

1. ADOPTION OF THE AGENDA

1.1 February 8, 2019 Regular Meeting Agenda

It was MOVED and SECONDED
That the Zero Waste Committee:
   a) amend the agenda for its regular meeting scheduled for February 8, 2019 by:
      i. adding Item 3.1 Michael Zarbl, Major Appliance Recycling Roundtable (MARR) BC;
      ii. varying the order of the agenda to consider Item 9. Resolution to Close Meeting, prior to Section 2. Adoption of the Minutes; and
   b) adopt the agendas as amended.

CARRIED
Agenda Varied
Pursuant to Item 1.1, the order of the agenda was varied to consider a resolution to close the meeting at this point.

9. RESOLUTION TO CLOSE MEETING

It was MOVED and SECONDED
That the Zero Waste Committee close its regular meeting scheduled for February 8, 2019 pursuant to the Community Charter provisions, Section 90 (1) (g) as follows:
“90 (1) A part of the 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”.

CARRIED

ADJOURNMENT
The Zero Waste Committee adjourned its open meeting of February 8, 2019 at 9:01 a.m. to convene a closed meeting.

RECONVENE
The Zero Waste Committee reconvened its open meeting of February 8, 2019 at 10:12 a.m. with the following members being in attendance:

MEMBERS PRESENT:
Chair, Mayor Jack Froese, Langley Township
Vice Chair, Councillor Craig Hodge, Coquitlam
Councillor Pietro Calendino, Burnaby (arrived at 10:16 a.m.)
Councillor Craig Cameron, West Vancouver (arrived at 10:16 a.m.)
Councillor Doug Elford, Surrey
Councillor Helen Fathers, White Rock
Councillor Pete Fry, Vancouver (arrived at 10:16 a.m.)
Mayor Mike Little, North Vancouver District
Councillor Hunter Madsen, Port Moody (arrived at 10:16 a.m.)
Councillor Gayle Martin, Langley City
Councillor Harold Steves, Richmond (arrived at 10:16 a.m.)
Councillor Mary Trentadue, New Westminster

MEMBERS ABSENT:
Mayor Mike Morden, Maple Ridge

Agenda Order Resumed
The order of the agenda resumed with Section 2. Adoption of the Minutes being before the Committee at this point.
2. ADOPTION OF THE MINUTES

2.1 January 10, 2019 Regular Meeting Minutes

It was MOVED and SECONDED
That the Zero Waste Committee adopt the minutes of its regular meeting held January 10, 2019 as circulated.

CARRIED

3. DELEGATIONS

3.1 Michael Zarbl, Major Appliance Recycling Roundtable (MARR) BC
Michael Zarbl, Executive Director, MARR BC, introduced MARR BC as a producer-responsibility organization, and commented on his professional experience in the hauler and waste management industry. Mr. Zarbl spoke in support of proposed amendments to Bylaw 181 (Solid Waste and Recyclable Material Regulatory Bylaw) hauler licensing and the generator levy, as presented in Item 5.3 of the agenda.

Mr. Zarbl spoke about GVS&DD policies reducing the amount of waste going to landfill, and creating business opportunities for haulers through increased diversion of green waste from the waste stream. He further commented about the policies contributing to the promotion of the circular economy, and spoke about the need for private industry to lower contamination levels and invest in infrastructure.

10:16 a.m. Councillors Calendino, Cameron, Fry, and Hunter arrived at the meeting.

The delegation requested that Metro Vancouver continue efforts to seek approval from the Province of BC with respect to proposed bylaw changes related to the hauler levy and generator levy.

4. INVITED PRESENTATIONS
No items presented.

5. REPORTS FROM COMMITTEE OR STAFF

5.1 Recycling and Waste Case Studies
Report dated January 30, 2019 from Paul Henderson, General Manager, Solid Waste Services, providing the Zero Waste Committee and GVS&DD Board with a series of recycling and waste case studies.

Members were provided with a presentation on the GVS&DD solid waste regulatory framework which pertained to Items 5.1, 5.2, and 5.3 of the agenda.
Presentation material related to Items 5.1, 5.2, and 5.3 of the agenda, titled “Solid Waste Regulatory Framework Update” is retained with the February 8, 2019 Zero Waste Committee agenda.

It was MOVED and SECONDED
That the GVS&DD Board receive for information the report dated January 30, 2019, titled “Recycling and Waste Case Studies”.

CARRIED

5.2 Response to Waste Management Association of BC Delegation at the January 10, 2019 Zero Waste Committee Meeting
Report dated January 30, 2019 from Paul Henderson, General Manager, Solid Waste Services, providing Metro Vancouver’s response to the January 25th delegation to the GVS&DD Board from the Waste Management Association of BC.

It was MOVED and SECONDED
That the GVS&DD Board receive for information the report dated January 30, 2019, titled “Response to Waste Management Association of BC Delegation at the January 10, 2019 Zero Waste Committee Meeting”.

CARRIED

5.3 Solid Waste Regulatory Framework Update
Report dated January 30, 2019 from Paul Henderson, General Manager, Solid Waste Services, providing an update on the Metro Vancouver solid waste regulatory framework, and recommending the GVS&DD Board to write a letter to the Minister of Environment and Climate Change Strategy requesting approval of the GVS&DD Commercial Waste Hauler Licensing Bylaw No. 307, 2017 (Commercial Waste Hauler Licensing Bylaw) and the GVS&DD Solid Waste and Recyclable Material Regulatory Amending Bylaw No. 309, 2017, as well as requesting a meeting with the Minister of Environment and Climate Change Strategy.

Members were informed about a correction to be made to the report.

Request of Staff
Staff was requested to correct the January 30, 2019 report titled “Solid Waste Regulatory Framework Update”, in the recommendation and in alternatives, by replacing “GVD&DD” with “GVS&DD”, prior to being forwarded to the February 22, 2019 Board meeting.

Main Motion
It was MOVED and SECONDED
That the GVS&DD Board:

a) send a letter to the Minister of Environment and Climate Change Strategy requesting that the Minister approve the GVS&DD Commercial Waste Hauler Licensing Bylaw No. 307, 2017

b) request a meeting with the Minister of Environment and Climate Change Strategy.

CARRIED
Distinct Propositions
At the request of Director Elford, the motion was separated into district propositions.

Part a) of the recommendation was before the Committee as follows:
“That the GVS&DD Board:
a) send a letter to the Minister of Environment and Climate Change Strategy requesting that the Minister approve the GVS&DD Commercial Waste Hauler Licensing Bylaw No. 307, 2017 and the GVS&DD Solid Waste and Recyclable Material Regulatory Amending Bylaw No. 309, 2017; and”

CARRIED

Part b) of the recommendation was before the Committee as follows:
“That the GVS&DD Board:
b) direct staff to request a meeting with the Minister of Environment and Climate Change Strategy and representatives of the GVS&DD Board.”

CARRIED

5.4 Single-Use Item Reduction Approach
Report dated January 31, 2019 from Karen Storry, Senior Project Engineer, Solid Waste Services, providing an update on Metro Vancouver efforts to develop a single-use item strategy and propose next steps.

Request of Staff
Staff was requested to report back to the Zero Waste Committee on the development of a best practices guide for local governments on regulatory approaches to reducing single-use items.

It was MOVED and SECONDED
That the GVS&DD Board write the Minister of Municipal Affairs and Housing and the Minister of Environment and Climate Change Strategy expressing support for the Union of British Columbia Municipalities’ resolution requesting that a provincial single-use item reduction strategy be put in place.

CARRIED
Councillor Cameron absent at the vote.

5.5 2019 Regional Clothing Waste Reduction Campaign
Report dated January 23, 2019 from Larina Lopez, Corporate Communications Division Manager, External Relations, providing an overview on the upcoming regional campaign to reduce clothing waste.
Members were informed about the *Clothing Waste Reduction 2019 Campaign*. Presentation material titled “Clothing Waste Reduction 2019 Campaign Overview” is retained with the February 8, 2019 Zero Waste Committee agenda.

**It was MOVED and SECONDED**
That the MVRD Board receive for information the report dated January 23, 2019, titled “2019 Regional Clothing Waste Reduction Campaign”.

**CARRIED**

5.6 Metro Vancouver’s 2018 Zero Waste Conference  

The Committee discussed deferring consideration of this item until the next meeting.

**It was MOVED and SECONDED**
That the Zero Waste Committee defer consideration of the February 1, 2019 report titled “Metro Vancouver’s 2018 Zero Waste Conference”, as presented in Item 5.6 of the February 8, 2019 agenda, to the March 7, 2019 Committee meeting.

**CARRIED**

5.7 Manager’s Report  
Report dated February 1, 2019 from Paul Henderson, General Manager, Solid Waste Services, updating the Zero Waste Committee on regional organics management, Residential Gypsum Program, Matsqui Transfer Station demolition, weigh scale replacements, Electronic Disposal Ban Surcharge Program, regional facilities tour, attendance at 2019 standing committee events, and the Committee’s 2018 Work Plan.

Members were informed to notify the Committee Chair of any interest to attend standing committee events by February 22, 2019.

**It was MOVED and SECONDED**
That the Zero Waste Committee receive for information the report dated February 1, 2019, titled “Manager’s Report”.

**CARRIED**

6. INFORMATION ITEMS  
No items presented.
7. OTHER BUSINESS
No items presented.

8. BUSINESS ARISING FROM DELEGATIONS
No items presented.

9. RESOLUTION TO CLOSE MEETING
This item was previously considered.

10. ADJOURNMENT/CONCLUSION

It was MOVED and SECONDED
That the Zero Waste Committee conclude its regular meeting of February 8, 2019.

CARRIED
(Time: 11:55 a.m.)

____________________________  ____________________________
Janis Knaupp, Jack Froese, Chair
Legislative Services Coordinator
WMABC Response to Metro Vancouver Zero Waste Committee
March 7, 2019 Reports 5.1, 5.2, 5.3 & 5.4

The following is a WMABC summary on Metro’s Vancouver’s proposed Bylaw 307, a Hauler Licensing Bylaw and Bylaw 309, amendments to the existing Bylaw 181 that have been submitted to the Minister of Environment & Climate Change Strategy for the provincial government’s decision.

The WMABC believes these bylaws should not be considered a waste diversion strategy but rather characterized as a revenue generating or tax strategy with significant and unintended economic and environmental consequences that will result in increased taxes and costs further impacting the lack of affordability within the Region.

Some of the cumulative environmental and economic Impacts of Bylaws 307 & 309 include:

- Metro Vancouver has failed to clarify how the proposed requirements of the industry within the Bylaws would be administered as some of them are technically and logistically impossible to implement;
- Metro Vancouver has failed to demonstrate how these actions will in fact increase diversion in the IC&I sector which is supposedly the intention of the bylaws;
- The Bylaws represent a new tax on each Metro Vancouver business with collection service, conservatively estimated to be more than $2,400 per year. Collectively this is an annual tax of over $133 million on the Region’s businesses, further impacting the lack of affordability within the Region;
- These Bylaws threaten to push smaller waste hauling company’s haulers out of business resulting in job losses and less choice for waste generators;
- The Bylaws place a significant barrier to new private sector waste investments in innovative diversion technologies due to Metro Vancouver’s anti-competitive practices currently under review by the Competition Bureau Canada. This puts smaller waste haulers at a competitive disadvantage with larger waste haulers, which could push smaller waste haulers out of the market resulting in business failures and job losses and less choice for waste generators;
- Provides an exemption for recycling facilities that are processing municipal and commercial materials under contract with Recycle BC creating a competitive disadvantage for those companies outside of the Recycle BC program;
- Provides Metro Vancouver an additional revenue stream to fund the building of a second incinerator, and;
- Bylaws are contrary to the objectives and goals of the Integrated Solid Waste and Resource Management Plan not to impede private sector investment in the delivery of waste management services.

These proposed bylaws are opposed by BC’s leading business and industry associations, letters which we have provided separately, that represent key industries within the Metro Vancouver Industrial, Commercial and Intuitional (IC&I) sector.
It should be noted that Competition Bureau Canada launched an investigation into Metro Vancouver’s waste management practices. The WMABC believes that Metro Vancouver is using its authority to regulate solid waste disposal in the Region to advance its own private commercial interests at the expense of private waste processing facilities which we consider an abuse of power by Metro Vancouver under Section 79 of the Competition Act.

It is important to note there was no consultation by Metro Vancouver Waste Services with the WMABC, waste generators in the IC&I sector or the general public during the conceptual development of the proposed bylaws despite the WMABC hosting Metro Vancouver staff to present at the Association’s numerous members meeting and annual conferences prior to the announcement of the three proposed Bylaws. Suffice to say, we believe the discussion of these Bylaws was not conducted in a transparent, inclusive and collaborative environment and as such will have a significant negative environmental and economic risks to Metro Vancouver businesses and taxpayers.

The WMABC has recommended to the Minister of Environment that Bylaws 307 and 309 be rejected. But we have also recommended the Minister bring together the private waste services industry, waste generators along with other stakeholders including Metro Vancouver and other regional districts to meet in a transparent, inclusive and collaborative environment to discuss the key issues/barriers and a process to develop a sustained approach to waste diversion in the IC&I sector in Metro Vancouver and across BC.

The WMABC is asking this Committee to defer approval of its February 22 motion and allow more study into the environmental and economic impacts of these Bylaws.

The WMABC stands ready and willing to work with Metro Vancouver to address the issue of a sustainable policy approach to waste diversion in Metro Vancouver’s IC&I sector.

By way of background, the WMABC is comprised of over 70 independent private waste services businesses & suppliers with over 3,000 employees that provide a majority of the waste and recycling services in Metro Vancouver and British Columbia. As an active participant in the waste management services sector in BC, we have and continue to provide a critical role in the delivery of efficient and cost-effective waste diversion, recycling and disposal services for the residential and the industrial, commercial and institutional sector. For over 30 years, it has acted as a conduit and representative voice for its members in connection with, among other things, local and provincial government policy and regulation.

For further information, please contact Noel Massey, President of WMABC at nmassey@wmabca.ca or Lori Bryan, Executive Director for the WMABC at lbryan@wmabc.com
Good morning. My name is Ken Carrusca and I’m the Vice President of Environment and Marketing for the Cement Association of Canada.

In the gallery I’m joined by Stephanie Voysey, a Professional Engineer and Environment & Public Affairs Manager for Lafarge Canada; as well as Jasper van de Wetering, Alternative Fuels and Resources / CO2 Manager for Lehigh Cement.

We’re here to provide some additional context and to support Item 5.4 titled “Mixed Waste Processing Pilot.”

**Introduction and Background on the Local Cement Industry**

The Cement Association works with cement producers across Canada. Here in the region, Lafarge Canada operates a cement kiln in Richmond and Lehigh operates a cement kiln in Delta.

Cement production is an energy-intensive process, and one of our key goals is to transition away from fossil fuels. In that respect, the industry has been attempting to work with Metro Vancouver for nearly ten years, by using municipal solid waste or biosolids as a replacement for coal and natural gas. We’re therefore quite excited today for the opportunity to work with Metro Vancouver on this project.

Cement is used to make concrete that is part of virtually every capital project that might be presented to this Committee, or to you as a Mayor or Councillor in your community. Without concrete, we’d be lacking a figurative foundation for our society.

**Reducing Greenhouse Gas (GHG) Emissions**

One of our industry’s prime objectives is to support the fight against climate change and our regional, provincial and national commitments to reduce GHGs. If we can reduce GHGs right here in our region by replacing fossil fuel and reducing landfill disposal, we’ll be better able to reach the 40% target set by the provincial government. As we’ve all witnessed, this threat is real. Here in BC we’re seeing the impacts of climate change with summers of forest wildfires.

There’s no single solution to address climate change. The cement and concrete industry believe we can make a significant contribution towards reducing GHGs, but we need to partner with governments to make that happen. Working with Metro Vancouver on this pilot presents a great opportunity to help all of us transition away from fossil fuels, towards the use of non-recyclable municipal solid waste as a local, lower-carbon fuel.
**Non-recyclable Wastes as Alternative, Lower-Carbon Fuels**

Using non-recyclable wastes as alternative, lower-carbon fuels is one of the ways in which we can reduce GHGs. Why landfill, incinerate, or ship these wastes to far-away landfills in the United States when we can manage some of these wastes locally? In this way we can instead focus our efforts on additional waste reduction and recycling – true Zero Waste actions; move away from the status-quo of landfill disposal; while also reduce the use of fossil fuels.

Our industry is here to support the Committee and Metro Vancouver staff on this project. Using municipal waste as a fuel to replace coal or natural gas is common practice, especially in jurisdictions which have had carbon pricing and landfill restrictions. Our industry has experience in Europe and Britain where they have had carbon taxes, as well as landfill taxes for many years (e.g. next month the UK landfill tax will be £91.35 = CAN $160 per tonne of waste).

**Mixed Waste Processing Pilot**

In the context of supporting Item 5.4, our specific ask to the Committee is to have Paul Henderson and his team continue to work in a transparent and collaborative manner with the cement industry. Our aim is to make use of existing expertise that can save public funds in the design of the pilot.

While it’s always difficult to estimate the price of consultants, we’re confident that by working together, the $300,000 estimate can be brought down significantly. And hopefully the pilot will be a success and lead to a full-scale project.

**Closing and Next Steps**

In closing, I invite the Committee or any of you individually to tour the cement plants in the region; Lafarge and Lehigh would be happy to host a visit for you.

Thank you for your time and attention. We’re happy to address any questions you may have.

**Cement Association of Canada**

Ken Carrusca, P.Eng.
Vice President, Environment and Marketing (Western Region)
To: Zero Waste Committee

From: Paul Henderson, General Manager, Solid Waste Services

Date: March 1, 2019  
Meeting Date: March 7, 2019

Subject: Bylaw 181 Update and Commercial Waste Hauler Licensing Bylaw Overview

RECOMMENDATION
That the GVS&DD Board receive for information the report dated March 1, 2019, titled “Bylaw 181 Update and Commercial Waste Hauler Licensing Bylaw Overview”.

PURPOSE
The purpose of this report is to provide the Zero Waste Committee and the GVS&DD Board with additional information on Bylaw 181 updates and the GVS&DD Commercial Waste Hauler Licensing Bylaw No. 307, 2017 (Commercial Waste Hauler Licensing Bylaw).

BACKGROUND
At its February 8, 2019 meeting the Zero Waste Committee received a series of reports related to the Metro Vancouver solid waste regulatory framework, specifically the GVS&DD Commercial Waste Hauler Licensing Bylaw No. 307, 2017 (Commercial Waste Hauler Licensing Bylaw); GVS&DD Tipping Fee and Solid Waste Disposal Regulation Amending Bylaw No. 308, 2017, implementing the Generator Levy; and the GVS&DD Solid Waste and Recyclable Material Regulatory Amending Bylaw No. 309, 2017, that updates GVS&DD Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996 (Bylaw 181). The Generator Levy has been in place since January 1, 2018. The Commercial Waste Hauler Licensing Bylaw and updates to Bylaw 181 are before the Minister of Environment and Climate Change Strategy for consideration.

There were a number of questions from the Committee about these bylaws, and at its February 22, 2019 meeting, the Board referred the following recommendations from the report dated January 30, 2019, titled “Solid Waste Regulatory Framework Update” back to the Committee for more information.

That the GVS&DD Board:

a) send a letter to the Minister of Environment and Climate Change Strategy requesting that the Minister approve the GVS&DD Commercial Waste Hauler Licensing Bylaw No. 307, 2017 and the GVS&DD Solid Waste and Recyclable Material Regulatory Amending Bylaw No. 309, 2017; and

b) direct staff to request a meeting with the Minister of Environment and Climate Change Strategy and representatives of the GVS&DD Board.

This report provides more detail on the Bylaw 181 Updates and Commercial Waste Hauler Licensing Bylaw.
BYLAW 181 UPDATES

Purpose of Bylaw 181

Bylaw 181 is an important tool to enhance diversion in Metro Vancouver through the issuance and enforcement of Solid Waste Licenses for private sector facilities that manage municipal solid waste and recyclable material. Approximately 50 facilities managing a range of source-separated recyclable materials and construction and demolition materials are operating with licenses under Bylaw 181.

Bylaw 181 Update Overview

Bylaw 181 has been in place without any changes since 1996. Bylaw updates modernize the regulation of these facilities, increase recycling and ensure a level playing field. Below is an overview of the changes:

- updated the types of facilities requiring licenses;
- created a new simplified license category;
- specified a minimum recovery/reduction rate for mixed waste facilities;
- revised the definition of recyclable material;
- revised and clarified exclusions and exemptions; and
- set a maximum facility license term of 10 years, with renewal provisions.

A blacklined version showing updates to Bylaw 181 is included in Attachment 1. The following outlines key sections of Bylaw 181 along with proposed updates.

Section 1 Interpretation

Definitions: This section includes a series of definitions describing facility types, material types and other terms. Updates include the addition of facility types to ensure that regulated materials are subject to bylaw requirements regardless of the type of facility that manages the material. Mixed waste facilities are added to specify requirements for facilities processing waste from residential and commercial/institutional sources (mixed municipal solid waste). The definition of recyclable material is changed to align with the B.C. Environmental Management Act.

Section 2 Facilities Requiring Licenses

Prohibition: Specifies that facilities regulated under the bylaw require licenses unless exempted.

Exclusions: Identifies facilities that are exempted from licensing, including Metro Vancouver and City of Vancouver disposal facilities listed in Schedule C. Brokering facilities that purchase materials are no longer exempted, but rather require a simplified license. Changes to the exemptions are listed below:

- remove exemption for asphalt and concrete facilities (these facilities now require a simplified license)
- exempt drop-off depots that receive source separated products Extended Producer Responsibility materials defined in the Recycling Regulation;
- clarify that existing exemptions for charitable drop-offs, and return to retail systems are exempted if the accept source separated materials only;
- exempt processing facilities that exclusively receive source separated materials under an extended producer responsibility program.
• specify that exemption only applies to facilities owned and operated by member municipalities that accept only source-separated recyclable material;
• clarify that the bylaw does not apply to facilities handling only agricultural or industrial waste;
• exempt composting or digesting facilities that are owned and operated by a farmer processing material only from farm businesses; and
• exempt facilities that manage products such as books and clothing for resale to the public.

Section 3 License Applications

Referral to Municipality: License applications are referred to the municipality where the facility is located for review.

Municipal Approval Required: If a municipality states that it does not approve of the license application within the 60-day referral period a license will not be issued.

Evaluation of License Application: A range of factor will be considered in evaluating a facility’s license application. These same factors will also be considered in the event of a license renewal. Compliance history for the facility has been added as a new consideration.

Section 4 Licenses

Terms and Conditions of Licenses: This section allows for the issuance of a license and was updated to allow license amendments or renewals. A new requirement to keep and submit records of the facility’s operational monitoring data was added.

License Term: This new provision adds a maximum 10-year license term. Maximum license/permit terms are used in many jurisdictions including Alberta, New Brunswick and Nova Scotia.

Term of Existing License: This new provision designates an expiry date of December 31, 2028 on existing licenses that have not been renewed if an expiry date is not already specified in the license.

Renewals: This new provision specifies the time period for applying for a license renewal.

Mixed Waste Facilities: Requirements for mixed waste facilities are added to the bylaw specifying that these facilities must reduce the amount of mixed municipal solid waste by a minimum of 25% by means of material or energy recovery.

Limited Brokering Facilities and Asphalt Facilities: This new provision requires these facilities to maintain records and provide quarterly reports on the type and quantity of waste received. These facilities were previously exempt from requiring licenses.

Section 5 Transition

Transition Period for Existing Facilities: This new provision creates a transition process for existing facilities that were not previously licensed.
Issuance of Licenses to Existing Facilities: This provision identifies the factors that can be considered for licensing a facility existing at the time the bylaw is put in place. These are similar to new facilities, with the exception of no requirement for approval from the municipality where the facility is located.

Section 6 Amendments
Amendment of License: This section is updated to identify the considerations for an amendment of a license by application of the licensee or due to non-compliance.

Section 7 Variances
Amendment of License: This section includes the terms and conditions for the issuance of a variance to the license.

Section 8 Investigation, Inspection, Monitoring and Records
This section includes provisions for investigating, inspecting, observing, monitoring and if deemed necessary an environmental impact assessment.

Section 9 Security
This section includes the financial security to be provided to Metro Vancouver to ensure compliance with the license. The required security can be provided in various forms such as letter of credit, cash etc.

Section 10 Closure
This section sets standards and requirements related to facility closures.

Section 11 Weigh Scales at Disposal Facilities
This section sets the weigh scale requirements at the facility for measuring the material, capturing data and certifying the accuracy of the scale.

Section 12 Fees
This section includes application fees, annual administration fee and disposal fees. Fees are consistent with the existing Bylaw 181 with new fees identified for new facility types.

Credit for Separated Material for Disposal Facility: This section is updated to allow a credit toward a facility’s disposal fee based on receipts that show the material was recycled instead of being disposed.

Monthly Statement: This section is updated to require a monthly statement of the quantity of each load of municipal solid waste or recyclable material received and removed at the facility.

Annual Audit: This section includes a provision for when an audit is requested of the quantities of material received and removed at the facility.

COMMERCIAL WASTE HAULER LICENSING BYLAW
Purpose of Commercial Waste Hauler Licensing Bylaw
The Commercial Waste Hauler Licensing Bylaw ensures that recycling systems are in place wherever garbage is collected in the region and assists in the collection of the Generator Levy. The bylaw will
require that all commercial waste haulers collecting more than 10 tonnes per month of mixed municipal solid waste from residential and commercial/institutional source using mechanically unloaded vehicles apply for a license. Currently, Metro Vancouver estimates that less than 50 haulers currently operating within the Metro Vancouver region will require licenses. The bylaw is included in Attachment 2.

**Commercial Waste Hauler Licensing Bylaw Overview**
The following outlines key sections of the bylaw.

**Section 2**
Definitions: This section includes a series of definitions describing material types, types of facilities and other terms including:
- **mixed municipal solid waste**: municipal solid waste from residential or commercial/institutional garbage, not including source separated recyclable material or construction and demolition waste;
- **Generator Levy**: the levy payable by the generator of municipal solid waste to the GVS&DD; and
- **Regional Facilities**: Metro Vancouver and City of Vancouver disposal facilities.

**Section 3**
License Required: Waste haulers are required to apply for a license.

**Section 4**
Exemptions: The following haulers do not require licenses:
- collectors of only source-separated recyclables or construction and demolition materials;
- municipalities collecting from multi-family or commercial/institutional premises with policies or bylaws in place requiring recycling containers be provided wherever garbage is collected, and;
- haulers collecting less than 10 tonnes per month of garbage or only using hand unloaded vehicles.

**Section 6**
Application Fee: An application fee of $100 per company is required.

**Section 8**
License Information Requirements: License applications must include: company or owner name, list of vehicles, expected monthly quantities of mixed municipal solid waste, and confirmation that the hauler provides separate organic and non-organic recycling containers to clients along with mixed municipal solid waste collection service.

**Section 10**
License Term: Licenses have a term of up to 1 year and expire each year on March 31.
Section 11
License Renewal: Haulers must declare either that all collected mixed municipal solid waste has been delivered to regional facilities or alternatively if the hauler delivered mixed municipal solid waste to other facilities, a declaration that the Generator Levy has been paid on all mixed municipal solid waste. An annual renewal fee of $100 per company is required.

Section 12
Separation of Recyclable Material: Haulers must provide separate containers for mixed municipal solid waste, organic recyclables and non-organic recyclables or verify that recycling containers are provided by others. Mixed municipal solid waste, organic and non-organic recyclables must all be managed separately.

Section 15
Record Keeping: Records must be kept of all mixed municipal solid waste collected.

Section 16
Quarterly Report: If a hauler delivers mixed municipal solid waste to any facility other than a regional facility, each quarter, the hauler must report on a load by load basis the origin and destination of all collected mixed municipal solid waste.

Section 17
Powers of Manager: The manager has various powers including suspending or revoking a license.

Section 18
License Revocation and Suspension: Licenses may be suspended if the hauler violates the license conditions or the bylaw among other reasons.

Section 20
Appeals to the Commissioner: Appeals are heard by the GVS&DD Commissioner.

Section 22
Offence: Offences under the bylaw are subject to fines up to $200,000 per day.

ALTERNATIVES
This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS
Updates to Bylaw 181 ensure a level playing field for facilities processing municipal solid waste and recyclable material. The $100 per year Commercial Waste Hauler License fee is expected to cover administrative costs associated with the license applications.

Enforcement resources for the bylaws will be reviewed over time with any new requirements being brought forward to the Board for consideration as the requirements are identified.
SUMMARY / CONCLUSION
On February 22, 2019, the Board referred recommendations related to two bylaws before the Minister of Environment and Climate Change Strategy back to the Zero Waste Committee for more information. The proposed updates to Bylaw 181 modernize a bylaw that has not been changed since 1996 and aim to increase waste diversion, increase transparency, and ensure a level playing field for facilities managing recyclable material and municipal solid waste in the region.

The Commercial Waste Hauler Licensing Bylaw establishes a licensing program for commercial waste haulers collecting mixed municipal solid waste. Under the bylaw, these haulers apply for an annual $100 license with a series of requirements including ensuring that recycling containers are provided wherever mixed municipal solid waste is collected. Implementing the Commercial Waste Hauler Licensing Bylaw will help advance waste diversion in the region and assist in the collection of the Generator Levy.

Attachments (Orbit # 28782984)
1. GVS&DD Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996 – Blacklined version
2. GVS&DD Commercial Waste Hauler Licensing Bylaw No. 307, 2017
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. Greater Vancouver Sewerage and Drainage District is authorized, inter alia, to regulate with respect to Municipal Solid Waste and Recyclable Material;

C. 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 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.

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 Environmental Management Act shall have the same meaning for the purpose of this Bylaw unless otherwise defined in this Bylaw and,

“Asphalt Facility” means any land or buildings and related improvements used to receive exclusively asphalt, concrete or both for the purposes of reprocessing, resale or reuse;

“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 municipal solid waste source separated organic material is composted on a commercial basis using composting technology which may include physical turning, windrowing, in-vessel, static pile aeration or other mechanical handling of organic matter;

“Construction and Demolition Waste” means refuse that originates from demolition or construction sources that has not been managed with waste from other sources;

“Digesting Facility” means any land or buildings and related improvements where, in the course of conducting an industry, trade or business, source separated 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;

“Drop-off Depot” means a facility that exclusively receives Recyclable Material from hand-unloaded vehicles from residents and small business for cleaning, sorting, baling, compacting or packaging for the purpose of recycling;

“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, including an Asphalt 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; Digesting Facility or Limited Brokering Facility, lawfully operating without a License prior to July 1, 2017;

“Facility” means any or all of lands, buildings, machinery, equipment or systems used for managing Municipal Solid Waste, Recyclable Material, or both, and includes, but is not limited to, an Asphalt Facility, a Brokering Facility, a Digesting Facility, a Disposal Facility, a Composting Facility, a Limited Brokering Facility, a Material Recovery Facility, a Mixed Waste Facility, a Storage Facility, and a Transfer Station;

“License” means a License issued by the Solid Waste Manager under section 4.1;

“Licensed Disposal Facility” means a Disposal Facility in respect of which

“Licensee” means the person to whom a valid and subsisting License has been issued;

“Limited Brokering Facility” means 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;

“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;

“Mixed Waste Facility” means any Facility that manages or co-manages Mixed Municipal Solid Waste, and may include, but is not limited to, a Disposal Facility, Material Recovery Facility, Storage Facility or Transfer Station;

“Mixed Municipal Solid Waste” means refuse that originates from residential, commercial, or institutional sources, or any combination of waste or refuse from these sources and other sources, but does not include Source Separated Recyclable Material or Construction and Demolition Waste;

“Municipal Liquid Waste” has the same meaning as in the Environmental Management Act, and for clarity includes fats, oils and grease diverted from municipal and District liquid waste infrastructure pursuant to the GVS&DD Sewer Use Bylaw No. 299, 2007.

“Municipal Solid Waste” means refuse that originates from residential, commercial, institutional, demolition, land clearing or construction sources, but expressly excludes Municipal Liquid Waste;

“New Facility” means any Facility other than an Existing Facility;

“Officer” means a person appointed by the Board under section 13.2;

“Recyclable Material” means a product or substance no longer usable in its current state that can be has been diverted or recovered from municipal solid waste disposal, and used in satisfies at least one of the processing or manufacture of a new product, 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 of the Environment pursuant to the Environmental Management Act;

“recycle” or “recycling” means any process by which Municipal Solid Waste and Recyclable Material is transformed into new products;
“Regional Facility” means any facility owned or operated by the GVS&DD or the City of Vancouver, including any of the facilities listed in Schedule “C”;

“Solid Waste Manager” means the person appointed by the Board under section 13.1;

“Source Separated Recyclable Material” means Recyclable Material that has been separated from Municipal Solid Waste by the waste generator at the point of generation for the purposes of recycling;

“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
   Schedule “C” – Regional Facilities.

1.4 No Conflict with Waste-Environmental Management Act. Nothing in this Bylaw is intended to conflict with the Waste-Environmental Management Act, but this Bylaw may impose further restrictions or require further conditions than those imposed under the Waste-Environmental Management Act.

1.5 Compliance with Other Laws. Except as otherwise specifically provided, nothing in this Bylaw, including, inter alia, a License excuses any person from complying with all other applicable enactments and laws.

ARTICLE 2

2 FACILITIES REQUIRING LICENSES
2.1 **Prohibition.** Subject to section 2.2, no person shall own or operate a Facility 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;

the GVS&DD unless that person has with respect thereto and strictly complies with a valid and subsisting License for that Facility.

2.2 **Exclusions.** Notwithstanding section 2.1, no License shall be required for:

() 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;

() Facilities owned or operated by the District or its member municipalities; and

(a) those Facilities set out in Schedule “B” to this Bylaw;

(b) Regional Facilities.

2.3 **Compliance with License Terms and Conditions.** Every person who owns or operates a Facility shall comply with all License terms and conditions for that Facility.

ARTICLE 3

3 **LICENSE APPLICATIONS**

3.1 **Form of Application.** An application to obtain or amend a License 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 License 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 License 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 or renew 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) the history of compliance or non-compliance with any current or pre-existing license with respect to the same Facility;

(e) any other information submitted to the Solid Waste Manager under subsection 8.7(e);

(f) any closure plan submitted to the Solid Waste Manager under section 10.1; and

(g) 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 LICENSEES

4.1 Terms and Conditions for Licenses. The Solid Waste Manager, as a result of an application, may issue, amend or renew a License 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 License:

(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 License;
(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;

(j) require a Licensee to keep records of all samples or monitoring data obtained in relation to the Facility and to submit the records to the Solid Waste Manager or an Officer;

(j)(j) 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)(k) 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)(l) provide for implementing terms and conditions in phases or varying dates for compliance with terms and conditions.

4.2 License Term. The term of every License, including any License renewal, shall be 10 years, or a lesser time if specified in the application.

4.3 Term of Existing License. The term of a valid and subsisting License that was issued prior to the adoption of “Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Amendment Bylaw No. 309, 2017” shall expire, if not renewed, on December 31, 2028, unless a fixed term exceeding December 31, 2028 is expressly stated in the License, in which case it will expire on the date stated in the License.
4.4 **Renewals.** Every Licensed Facility is entitled to apply for a renewal of an existing License on a form prescribed by the Solid Waste Manager, provided that the application for renewal of the License is made no less than one year before the License term has expired.

4.5 For clarity, the following provisions of this bylaw apply to the Solid Waste Manager’s authority to renew a License without amendment: 3.7, 4.1, 4.2 and 4.4.

**Requirements for Specific Facilities**

4.6 **Mixed Waste Facilities.** In addition to any terms and conditions imposed by the Solid Waste Manager, every Mixed Waste Facility shall reduce the total weight of Mixed Municipal Solid Waste received by at least 25% by means of:

a) recycling;

b) energy recovery at the Facility; or

c) other lawful means at the Facility,

such that no more than 75% of the Mixed Municipal Solid Waste received at the Mixed Waste Facility is removed from the Facility.

4.7 For the purposes of section 4.6 any refuse, waste, products, or residuals managed or otherwise delivered to a landfill shall be included in the measurement of waste disposed of, including material used as alternate daily cover or road material.

4.8 **Limited Brokering Facilities and Asphalt Facilities.** Despite section 4.1, the only terms and conditions that may be imposed on a Limited Brokering Facility or an Asphalt Facility are terms and conditions related to:

(a) compliance as a Limited Brokering Facility or Asphalt Facility;

(b) collecting, recording and maintaining records of the type and quantity (by volume or weight) of waste received by the Facility on a daily basis; and

(c) providing quarterly reports to the District stating the type and quantity of waste received by the Facility in that quarter.

**ARTICLE 5**

5 **TRANSITION**

5.1 **Transition Period for Existing Facilities.** The owner or operator of an Existing Facility who does not hold a valid License 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 "Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and..."
Recyclable Material Regulatory Amendment Bylaw No. 309, 2017” Bylaw an application under section 3.1 to obtain a Licensee in respect of the Existing Facility.

5.2 **Issuance of Licenses 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 Licensee 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 Licensee.** The Solid Waste Manager may:

(a) on his or her own initiative where he or she considers it necessary; or due to:

(i) the Licensee failing to comply with the terms and conditions of the License or the Bylaw;

(ii) the Licensee making a material misstatement or misrepresentation in the application for the License or reporting, or

(iii) the Licensee failing to make payment of fees under Article 12, or comply with any other provision of this Bylaw;

or

(b) on application by a Licensee;

amend the terms and conditions of a Licensee, either in whole or in part.

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 Licensee.

6.3 **Evaluation of Amendment Application.** The Solid Waste Manager may, as a result of an application, amend the terms and conditions of a Licensee 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 or the Solid Waste Manager considers that a person should have temporary relief from the requirements of a Licensee, he or she may issue a variance order with respect to that Licensee.
7.2 **Terms and Conditions.** Where the Commissioner or the Solid Waste Manager issues a variance order, he or she 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 or the Solid Waste Manager 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, contents of a vehicle, 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.

8.2 **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) inspect contents of a vehicle; and

(b)(c) carry out inspections, observations, measurements, tests and monitoring and to otherwise ascertain whether the terms and conditions of this Bylaw or a Licensee 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 **Assessments.** The Solid Waste Manager, where he deems it necessary in the circumstances, may require:

(a) a person who applies for a License;

(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 License application; or

   (ii) determine whether such person is in compliance with the provisions of this Bylaw or any License.

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
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

SECURITY

9.1 Requirement for Security. The Solid Waste Manager, as a condition of issuing, amending, or in a License, may require an applicant or a Licensee to post provide a bond letter of credit, cash 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 License or the Bylaw.

ARTICLE 10

CLOSURE

10.1 Closure Requirements. The Solid Waste Manager in a License 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

WEIGH SCALES AT DISPOSAL FACILITIES

11.1 Installation of Weigh Scales. Every Licensee who operates a Disposal Facility or Mixed Waste 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 or Mixed Waste 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 License 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 License is not issued or amended.

12.3 Annual Administration Fee. Every Licensee shall pay to the District upon the date of issuance of a License 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

(a) Subject to subsection (b), the fees payable under sections 12.2 and 12.3, every person, except as exempted under section 2.2, who operates a Disposal Facility or Mixed Waste Facility, Transfer Station, Material Recovery Facility or Storage Facility other than those persons exempted under section 2.2, 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 for material that is removed from July 1, 1996 and the first payment will be due and payable within 30 days of the date of the first invoice such Mixed Waste Facility, Transfer Station, Material Recovery Facility or Storage Facility and delivered to a site that is not

(i) a Disposal Facility for which a License has been issued, or

(ii) a Regional Facility.

(b) Subsection (a) does not apply to Source Separated Recyclable Material that is managed as Recyclable Material.

12.5 Disposal Fees for Disposal Facility. The owner or operator of a Disposal Facility shall pay the disposal fee set out in Column 6 of Schedule “A” per metric tonne of Municipal Solid Waste or Recyclable Material received at that Disposal Facility.
12.6 **Receipts for Separated Material for Disposal Facility.** The owner or operator of a Disposal Facility may deliver to the District monthly invoices setting out the receipts issued by a Brokering Facility or other Facility that manages Recyclable Material showing the quantity in metric tonnes of material that has been managed as Recyclable Material and has not been disposed.

12.7 **Credit for Separated Material for Disposal Facility.** The quantity of Recyclable Material that has been transferred for management other than disposal fees due and payable based on the statements received as verified in receipts provided under section 12.5 shall be multiplied by the disposal fee set out in receipts provided under section 12.5 and that amount shall be applied as a credit toward the Disposal Facility’s disposal fee invoice.

12.8 **Monthly Statement.** Every person, except as exempted under section 2.2, who operates a Disposal Facility, Mixed Waste 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) each load of Municipal Solid Waste and Recyclable Material received at that person’s Facility— and the quantities of each load of Municipal Solid Waste and Recyclable Material removed from the Facility and delivered to each of:

(a) a Disposal Facility that is licensed under this Bylaw;  
(b) a Regional Facility;  
(c) a Brokering Facility or other Facility that manages Recyclable Material; or  
(d) any other location.

The statement shall be delivered monthly to the District within seven days after the last day of each month.

12.9 **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 and removed at that person’s Facility.

12.10 **Failure to Provide Monthly Statement.** If a person who operates a Disposal Facility, Mixed Waste 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 or 12.5 based upon the quantity of Municipal Solid Waste and Recyclable Material authorized in a permit, operational certificate or License relating to the Mixed Waste Facility, 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 12.11 12.8—Receipts for Separated Material. A Licensee who operates a Disposal Mixed Waste Facility, Transfer Station, Material Recovery Facility or Storage Facility may shall deliver to the District on monthly basis 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 July 1, 2018 for the purpose of recycling and the delivery of those items to such Recycling Facility 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 12.12—Receipts for Disposal. A Licensee who owns or operates a Mixed Waste Facility, Transfer Station, Material Recovery Facility or Storage Facility may shall deliver to the District on a monthly basis receipts from any Regional 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 July 1, 2018.

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 and 12.45 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 13

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 Licensee 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 Licensees.** 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 Licensee or a part of License where:

(a) the Licensee fails to comply with the terms and conditions or requirements of the Licensee or the Bylaw;

(b) the Licensee has made a material misstatement or misrepresentation in the application for the Licensee; 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 Licensee for up to but not longer than the length of time requested; and

(b) cancel a Licensee 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 or is dissolved,

   (iii) the Licensee is a partnership that is dissolved, or

   (iv) the Licensee requests that the Licensee 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 Licensee; and

   (d) the inclusion in any Licensee 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 License or requirement made or imposed under this Bylaw commits an offence and is liable to a fine not exceeding $1,000,000.

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 License 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.
SCHEDULE “A”

FEES

The application, administration and disposal fees payable to the District under this Bylaw shall be as follows:

<table>
<thead>
<tr>
<th>Facility</th>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
<th>Column 4</th>
<th>Column 5</th>
<th>Column 6</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>
<td></td>
</tr>
<tr>
<td>Mixed Waste Facility</td>
<td>$1,000</td>
<td>$5,000</td>
<td>$2,500</td>
<td>$1,000</td>
<td>$3</td>
<td></td>
</tr>
<tr>
<td>Transfer Station</td>
<td>$500</td>
<td>$1,000</td>
<td>$500</td>
<td>$1,000</td>
<td>$3</td>
<td></td>
</tr>
<tr>
<td>Material Recovery Facility</td>
<td>$500</td>
<td>$1,000</td>
<td>$500</td>
<td>$1,000</td>
<td>$3</td>
<td></td>
</tr>
<tr>
<td>Storage Facility</td>
<td>$500</td>
<td>$1,000</td>
<td>$500</td>
<td>$1,000</td>
<td>$3</td>
<td></td>
</tr>
<tr>
<td>Brokering Facility</td>
<td>$500</td>
<td>$1,000</td>
<td>$500</td>
<td>$1,000</td>
<td>N.A.</td>
<td></td>
</tr>
<tr>
<td>Composting Facility</td>
<td>$500</td>
<td>$1,000</td>
<td>$500</td>
<td>$1,000</td>
<td>N.A.</td>
<td></td>
</tr>
<tr>
<td>Digesting Facility</td>
<td>$500</td>
<td>$1,000</td>
<td>$500</td>
<td>$1,000</td>
<td>N.A.</td>
<td></td>
</tr>
<tr>
<td>All Other</td>
<td>$500</td>
<td>$1,000</td>
<td>$500</td>
<td>$1,000</td>
<td>N.A.</td>
<td></td>
</tr>
<tr>
<td>Limited Brokering and Asphalt</td>
<td>$100</td>
<td>$100</td>
<td>$100</td>
<td>$100</td>
<td>N.A.</td>
<td></td>
</tr>
<tr>
<td>Facilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The disposal fee in Column 6 will apply to Municipal Solid Waste removed from a Facility per Section 12.4(a) or 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 Disposal Facility per 12.5. 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 owned or operated by the District’s member Municipalities that accept only Source Separated Recyclable Material;

3. 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 that accepts only Source Separated Recyclable Material;

4. any retail food, grocery, beverage or drug establishment that accepts recyclable products on a return-to-retail basis, and that accepts only Source Separated Recyclable Material;

5. any Drop-off Depot that operates for the sole purpose of receiving Source Separated Recyclable Materials, and that manages products that are defined in section 1 of the Recycling Regulation B.C. Reg. 449/2004;

6. any Facility that operates for the sole purpose of receiving Source Separated Recyclable Materials or Municipal Solid Waste consisting exclusively of products defined in section 1 of the Recycling Regulation B.C. Reg. 449/2004, and which the Facility is responsible for managing under a Provincial Stewardship Program;

7. 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, R.S.B.C. 1996, c. 131, if that Composting Facility or Digesting Facility uses Municipal Solid Waste and Recyclable Material originating solely from one or more farm businesses as defined in the Farm Practices Protection (Right to Farm) Act; and

8. Facilities that only manage consumer products such as books and clothing for resale to the general public.
SCHEDULE “C”

REGIONAL FACILITIES

- Coquitlam Transfer Station 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
- Waste-to-Energy Facility located at 5150 Riverbend Drive, Burnaby
- Vancouver South Transfer Station located at 377 West Kent Avenue North, Vancouver
- Vancouver Landfill located at 5400 72nd Street, Delta
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. The GVS&DD is authorized pursuant to section 25(3)(h) and (i) of the Environmental Management Act to regulate with respect to municipal solid waste and recyclable material, and to require haulers to hold a hauler licence and to set conditions for the issuance, suspending or cancelling of a hauler licence;

C. Licensing of waste collection service providers is identified as an initiative in the Integrated Solid Waste and Resource Management Plan; and

D. In relation to the disposal of solid waste generated within the geographic area of the GVS&DD, 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 commercial waste hauler based on the quantity, volume, type or composition of waste generated, and to require haulers to remit that levy to the GVS&DD;

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

1.0 Citation

1.1 This bylaw may be cited as the “Greater Vancouver Sewerage and Drainage District Commercial Waste Hauler Licensing Bylaw No. 307, 2017”.

2.0 Definitions

2.1 In this Bylaw, terms defined in the Environmental Management Act shall have the meaning set out therein for the purpose of this bylaw unless otherwise defined in this bylaw. In this bylaw:

“Board” means the board of directors of the Greater Vancouver Sewerage and Drainage District;

“Client” means a person, a household, a strata corporation, a business, an institution, or any other generator of waste, who pays a hauler to collect or manage municipal solid waste;

“Construction and Demolition Waste” means refuse that originates from demolition or construction sources that has not been handled or managed with waste from other sources;
“Environmental Management Act” means the Environmental Management Act S.B.C. 2003 c. 53;

“Generator Levy” means the levy payable by the generator of municipal solid waste to the GVS&DD pursuant to the Tipping Fee Bylaw in effect from time to time;

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

“Hauler Licence” means a valid and subsisting licence issued under this bylaw;

“Licence Holder” means the person who is the holder of a valid and subsisting Hauler Licence;

“Manager” means the person appointed as the Solid Waste Manager pursuant to the Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996, and includes any person appointed or designated to act in his or her place;

“Mixed Municipal Solid Waste” means refuse that originates from residential, commercial, or institutional sources, or any combination of waste or refuse from these sources and other sources, but does not include Source Separated Recyclable Material or Construction and Demolition Waste;

“Non-organic Recyclable Material” means recyclable material as defined in the Environmental Management Act, other than Organic Recyclable Material;

“Organic Recyclable Material” includes packaged or unpackaged food waste, green waste, clean wood, recyclable paper that has been soiled by or comingled with food residue, compostable packaging and products, carbon paper, tissue paper, paper napkins or towels or paper that is covered or infused with wax, or any combination thereof and does not contain more than 5% (by wet weight) of any other type of refuse;

“Private Facility” means a facility that handles, manages, accepts or disposes of waste that is not a Regional Facility;

“Regional Facility” means any facility owned or operated by the GVS&DD or the City of Vancouver, including any of the facilities listed in Schedule “A”, as attached hereto as Schedule “A” and hereby made part of this bylaw;

“Source Separated Recyclable Material” means:

(i) Organic Recyclable Material that has been separated from other recyclable material and from municipal solid waste, and

(ii) Non-organic Recyclable Material that has been separated from municipal solid waste,

by the waste generator at the point of generation for the purposes of recycling; and
“Tipping Fee Bylaw” means the Greater Vancouver Sewerage and Drainage District Tipping Fee and Solid Waste Disposal Regulation Bylaw in effect from time to time, or where no such bylaw exists, the bylaw in effect from time to time that establishes tipping fees at Regional Facilities.

3.0 Licence Required

3.1 No person shall haul waste within the geographic area of the GVS&DD unless that person holds a valid and subsisting Hauler Licence authorizing that activity.

4.0 Exemptions

4.1 Notwithstanding section 3.0 of this bylaw, the following haulers do not require a Licence:

   (a) Haulers that collect only Source Separated Recyclable Material, Construction and Demolition Waste, or both;

   (b) Municipalities that collect municipal solid waste from multi-family buildings, commercial and institutional sectors, or both, provided that the municipality has a bylaw or policy requiring recycling containers to be provided wherever the municipality collects municipal solid waste;

   (c) A hauler that manages less than 10 tonnes of Mixed Municipal Solid Waste in every month of a calendar year; or

   (d) A hauler that only uses vehicles that are hand unloaded, with no mechanical assistance.

5.0 Licence Applications

5.1 Every application for a Hauler Licence shall be made to the GVS&DD on the application form prescribed by the Manager.

6.0 Application Fee

6.1 At the time of making application for a Hauler Licence under this bylaw, an applicant shall pay to the GVS&DD the non-refundable application fee of $100.

7.0 Applicants

7.1 Every application for a Hauler Licence shall be made by the owner of the vehicle or vehicles used by the applicant to haul waste, or that person’s authorized signatory.

7.2 If there is more than one owner of the vehicle that is the subject matter of a Licence application, each owner must sign the application or consent to another owner signing the document on their behalf.
8.0 License Information Requirements

8.1 All applications for a Hauler Licence shall include the following information:

(a) Company or owner name and contact information;

(b) A list of all vehicles used by the hauler to haul Mixed Municipal Solid Waste, including the gross vehicle weight and licence plate number of each vehicle;

(c) The anticipated monthly amount of Mixed Municipal Solid Waste hauled by the hauler;

(d) Confirmation that the hauler has provided its clients with containers for each of Organic Recyclable Materials, Non-Organic Recyclable Materials and Mixed Municipal Solid Waste, or an explanation of why those containers are not provided in accordance with sections 12.1 and 12.2 of this bylaw.

9.0 Licence Issuance

9.1 The Manager shall issue a Hauler Licence to the applicant where a complete application for a Hauler Licence under this bylaw has been made indicating compliance with all terms of this bylaw, and the applicant has paid the application fee for the Licence. All future Licences issued to the same hauler may only be issued as a renewal.

10.0 Term of Licence

10.1 The term of every Hauler Licence will be up to one year and shall expire on March 31 of each calendar year.

11.0 Licence Renewal

11.1 A Licence Holder may apply to renew its Hauler Licence annually anytime after December 31 but before March 31 of each calendar year by submitting to the Manager the following:

(a) A completed renewal application in the form prescribed by the Manager, clearly indicating any changes in licensing information from the previous licence term;

(b) Where the hauler has only delivered Mixed Municipal Solid Waste to Regional Facilities, and has not delivered any Mixed Municipal Solid Waste to a Private Facility, a declaration in the form prescribed by the Manager; and

(c) Where the hauler has delivered any Mixed Municipal Solid Waste to a Private Facility, a copy of the hauler’s Quarterly Reports as required pursuant to sections 16.1 and 16.2 of this bylaw, and a declaration in the form prescribed by the Manager that all Generator Levy amounts collected by the Hauler up to December 31 of the previous calendar year have been remitted to the GVS&DD in accordance with the Tipping Fee Bylaw.

11.2 The Manager shall issue a renewal of a Hauler Licence where:
(a) the Hauler Licence is in good standing, all fees are up to date, and all Generator Levy amounts have been remitted pursuant to the Tipping Fee Bylaw;

(b) all the original Licence information is still valid and applicable to the existing operations, or has been updated in the renewal application;

(c) the reporting requirements applicable to the hauler under this bylaw or any other enactment have been satisfied; and

(d) the Licence Holder has paid to the GVS&DD a renewal fee of $100.

12.0 Separation of Recyclable Materials

12.1 Every hauler shall provide to each of its clients bins of adequate size for the separate collection of each of the following:

(a) Non-organic Recyclable Material including, at a minimum, paper and paper products, and metal, glass and plastic containers;

(b) Organic Recyclable Material; and

(c) Mixed Municipal Solid Waste.

12.2 As a limited exception to section 12.1, where a hauler has verified the provision of any one of the containers required to be provided under section 12.1 by their client or another hauler, that hauler is not required to provide that container to its client.

12.3 Every hauler shall manage Non-organic Recyclable Material, Organic Recyclable Material and Mixed Municipal Solid Waste so as to keep these materials separate from one another at all times.

13.0 Inspection and Weighing of Loads

13.1 Every hauler shall ensure that every load of Mixed Municipal Solid Waste or recyclable material delivered to a Regional Facility or Private Facility is weighed or otherwise quantified and recorded upon receipt at the facility and before mixing with any other loads.

14.0 Record of Loads

14.1 Every hauler shall maintain a record of all loads of Mixed Municipal Solid Waste delivered to a Regional Facility or Private Facility, including the date, time, quantity, facility name, location, and vehicle licence plate number.

15.0 Record Keeping

15.1 A Licence Holder shall maintain accurate and up-to-date records of all Mixed Municipal Solid Waste delivered to every Regional Facility and Private Facility, and make those records available...
for inspection by request of the Manager or any officer appointed by the Board for the purpose of enforcing the bylaws of the GVS&DD.

16.0  **Quarterly Report**

16.1 Every Licence Holder shall prepare a Quarterly Report containing the following:

(a) the quantity (by weight or volume) of Mixed Municipal Solid Waste collected from generators within the geographic area of the GVS&DD on a load by load basis;

(b) the quantity (by weight or volume) of Mixed Municipal Solid Waste collected from generators within the geographic area of the GVS&DD and delivered to Regional Facilities on a load by load basis; and

(c) the quantity (by weight or volume) of Mixed Municipal Solid Waste collected from generators within the geographic area of the GVS&DD and delivered to Private Facilities or locations other than Regional Facilities on a load by load basis.

16.2 Every Licence Holder shall submit to the Manager the Quarterly Report prepared pursuant to section 16.0 as follows:

(a) for January 1 to March 31, by April 15 of each calendar year;

(b) for April 1 to June 30, by July 15 of each calendar year;

(c) for July 1 to September 30, by October 15 of each calendar; and

(d) for October 1 to December 31, by January 15 of the following calendar year.

16.3 Where a Licence Holder has only delivered Mixed Municipal Solid Waste to a Regional Facility in any given quarter, no Quarterly Report is required.

17.0  **Powers of Manager**

17.1 Without limiting the authority granted to the Manager under this bylaw and other enactments, the Manager has the following powers:

(a) To prepare and prescribe forms that are to be used for the purposes of this bylaw;

(b) To determine whether a Licence application or Licence renewal is complete;

(c) To request additional information from an applicant where the Manager considers that the information provided in relation to a Licence application or Licence renewal is incomplete;

(d) To refuse a Hauler Licence application or Licence renewal on the basis that the application is incomplete, or where satisfied that the conditions of this bylaw have not been met;
To suspend or revoke a Hauler Licence in accordance with this Part;
To impose conditions on a Hauler Licence in accordance with this Part;
To request information from a Licence Holder in relation to compliance with a Licence or this bylaw; and
To renew a Hauler Licence in accordance with this bylaw.

18.0 Licence Revocation and Suspension

18.1 The Manager may suspend or revoke a Hauler Licence under this bylaw where the Manager considers that:

(a) The Licence Holder has contravened this bylaw, or another relevant and applicable bylaw or enactment;
(b) The Licence Holder has contravened a condition of the Licence;
(c) The Licence was issued on the basis of information submitted by the Licence Holder in support of the Licence application which was incorrect or misleading in a material way; or
(d) The Licence Holder has failed or refused to pay a fee or remit a levy required under this bylaw or a related bylaw.

19.0 Imposition of Conditions in Relation to Suspension or Revocation

19.1 Where the Manager suspends a Licence, it may also impose conditions in relation to compliance with this bylaw or related enactments, including conditions that:

(a) Shorten the term of a suspension upon compliance with a Hauler Licence or this bylaw; or
(b) Impose additional monitoring or reporting requirements on a Licence Holder.

19.2 All conditions imposed in relation to a Licence suspension become Licence conditions, and are enforceable under this bylaw in the same manner as other Licence conditions.

19.3 An applicant may appeal a determination by the Manager to refuse a Licence application or Licence renewal, to impose conditions on a Licence, or to revoke or suspend a Licence to the Commissioner.

19.4 The decision of the Manager with respect to any of the above matters is immediately effective unless or until varied or reversed by the Commissioner on appeal.
20.0 Appeals to the Commissioner

20.1 If the Manager refuses a Hauler Licence application or Hauler Licence renewal, or revokes or suspends a Hauler Licence, the applicant or Licence Holder may appeal this determination to the Commissioner by submitting a written request for an appeal to the Manager within 30 days of the Manager’s decision.

20.2 The Commissioner may extend the time for commencing an appeal either before or after the time for commencement of the appeal has elapsed.

20.3 On an appeal of a decision of the Manager, the Commissioner may consider new information submitted to the Commissioner by the applicant or Licence Holder, the Manager, an affected municipality, or other relevant parties, provided that this information is made available to all interested parties prior to the Commissioner’s determination of the appeal.

20.4 On considering an appeal, the Commissioner may:

(a) confirm, reverse or vary the decision appealed from;

(b) refer the matter back to the Manager for reconsideration, as the case may be, with or without directions; or

(c) make any decision that the Manager could have made and that the Commissioner considers appropriate in the circumstances.

20.5 At the request of the Manager whose decision is being appealed, the Commissioner shall permit the Manager to have full party status at the appeal.

21.0 Compliance with Bylaw and Licence

21.1 No person shall:

(a) Fail to comply with the terms of a Hauler Licence issued under this bylaw;

(b) Deliver Mixed Municipal Solid Waste to a Regional Facility without a Hauler Licence, unless exempted under section 4.0 of this bylaw;

(c) Manage Mixed Municipal Solid Waste, Organic Recyclable Material or Non-Organic Recyclable Material contrary to this bylaw;

(d) Prevent or obstruct, or seek or attempt to prevent or obstruct the Manager or another GVS&DD employee administering or enforcing this bylaw; or

(e) In relation to an application for a Hauler Licence under this bylaw, intentionally submit false or misleading information.
21.2 The Manager, and every officer appointed by the Board for the purpose of enforcing the bylaws of the GVS&DD, is authorized to enter a site or inspect the contents of a vehicle for the purpose of enforcing this bylaw and, for this purpose, to exercise all the authority set out in sections 109 and 111 (2) of the Environmental Management Act.

22.0 Offence

22.1 Every person who commits an act that is prohibited by this bylaw commits an offence under this bylaw is liable on summary conviction to fines of up to $200,000.

22.2 Each day that a violation of this bylaw continues constitutes a separate offence.

23.0 Compliance with Other Laws

23.1 Nothing in this bylaw, including, a Licence under this bylaw, excuses any person from complying with all other applicable enactments.

24.0 Application

24.1 This bylaw applies to all land located within the geographic area of the GVS&DD.

25.0 Date of Effect

25.1 This bylaw comes into force and effect upon adoption.

READ A FIRST TIME this 24th day of November, 2017.

READ A SECOND TIME this 24th day of November, 2017.

READ A THIRD TIME this 24th day of November, 2017.

APPROVED BY THE MINISTER OF ENVIRONMENT this _____ day of __________________, ______.

PASSED AND FINALLY ADOPTED this _____ day of __________________, ______.

__________________________
Greg Moore, Chair

__________________________
Chris Plagnol, Corporate Officer
SCHEDULE A

Regional Facilities

- Coquitlam Transfer Station 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
- Waste-to-Energy Facility located at 5150 Riverbend Drive, Burnaby
- Vancouver South Transfer Station located at 377 West Kent Avenue North, Vancouver
- Vancouver Landfill located at 5400 72nd Street, Delta
To: Zero Waste Committee

From: Paul Henderson, General Manager, Solid Waste Services

Date: March 1, 2019

Subject: Generator Levy Overview

RECOMMENDATION
That the GVS&DD Board receive for information the report dated March 1, 2019, titled “Generator Levy Overview”.

PURPOSE
The purpose of this report is to provide the Zero Waste Committee and the GVS&DD Board with additional information on the Tipping Fee Bylaw and Generator Levy.

BACKGROUND
On November 24, 2017, the Board approved the GVS&DD Tipping Fee and Solid Waste Disposal Regulation Amending Bylaw No. 308, 2017 to implement the Generator Levy effective January 1, 2018. At the February 8, 2019 Zero Waste Committee meeting there were a number of questions from Committee members on the Generator Levy, in response to the report titled “Solid Waste Regulatory Framework Update”. The purpose of this report is to provide an overview of the Tipping Fee Bylaw and additional information on the Generator Levy.

GENERATOR LEVY BYLAW

Tipping Fee Bylaw
The Tipping Fee Bylaw establishes fees for municipal solid waste and recyclable materials such as yard trimmings dropped off at Metro Vancouver solid waste facilities. The Tipping Fee Bylaw also specifies materials included in the region’s disposal ban program, and includes both the criteria for levying disposal ban surcharges along with disposal ban surcharge fees. The City of Vancouver separately sets fees and requirements for the Vancouver Landfill through the City of Vancouver Solid Waste Bylaw, and by agreement the City of Vancouver fees and requirements align with the Tipping Fee Bylaw provisions.

Generator Levy
The Generator Levy ensures that all generators of waste from residential and commercial/institutional sources (mixed municipal solid waste) contribute to the fixed costs of Metro Vancouver’s transfer station network and solid waste planning, services that benefit all waste generators in the region. The Generator Levy is included in the tipping fee charged at Metro Vancouver and City of Vancouver disposal facilities (regional facilities) and does not increase the cost of disposal at these facilities. The Generator Levy is required to be remitted by haulers to Metro Vancouver for mixed municipal solid waste delivered to facilities other than regional facilities. The Generator Levy is set at $42 per tonne for 2019, making up on average about 1/3 of the tipping fee at regional facilities.
One of the benefits of the Generator Levy is it encourages the delivery of mixed municipal solid waste to regional facilities, where disposal bans and other requirements and services are in place to help encourage waste diversion. The net cost of recycling services at transfer stations is also funded through the Generator Levy.

In 2018, the Generator Levy was revised through the *GVS&DD Tipping Fee and Solid Waste Disposal Regulation Amending Bylaw No. 312, 2018*. The updated Generator Levy provides a rebate to private facilities processing mixed municipal solid waste to recover energy or materials that reduce mixed municipal solid waste by a minimum of 25%. The rebate ensures that the Generator Levy is only paid once for waste being processed at these facilities.

**Tipping Fee Bylaw Generator Levy Provisions**

A blacklined version of the Tipping Fee Bylaw showing all of the components related to the Generator Levy is included in the Attachment.

Section 3: Definitions

Definitions added to the Tipping Fee Bylaw to implement the Generator Levy include new types of materials along with “qualified private facility”. A qualified private facility is a facility that recovers a minimum of 25% of incoming mixed municipal solid waste for fuel or recycling materials. Any use of material at a landfill would not be considered recovery.

Section 5: Rates and Charges

Waste generators pay the $42/tonne Generator Levy for all municipal solid waste with exceptions specified in the bylaw.

Section 8: Waste Haulers

The Generator Levy is included in the tipping fee at regional facilities. Waste haulers must remit the Generator Levy to Metro Vancouver if they deliver waste to any facility other than a regional facility.

Haulers must create and maintain records related to the collection and disposal of mixed municipal solid waste. If haulers deliver waste to facilities other than regional facilities, the Generator Levy must be remitted to Metro Vancouver on a quarterly basis.

Section 9: Generator Levy Rebate

This establishes requirements for the Generator Levy rebate for qualified private facilities recovering energy or materials. The Generator Levy is originally paid to Metro Vancouver by haulers delivering waste to the qualified private facility. Residual waste delivered from the qualified private facility to a regional facility is eligible for the rebate on tipping fees paid by the qualified private facility. The qualified private facility must provide documentation that all Generator Levy payments have been made by haulers. Up to 75% of the total Generator Levy paid can be remitted to the qualified private facility recognizing that at a minimum 25% of the incoming waste to the qualified private facility must be reduced through material or energy recovery.

**ALTERNATIVES**

This is an information report. No alternatives are presented.
FINANCIAL IMPLICATIONS
The Tipping Fee Bylaw sets fees and requirements for regional facilities as well as the amount and requirements related to the Generator Levy. Fees and the Generator Levy are set such that Solid Waste Services revenues and expenditures match on an annual basis.

SUMMARY / CONCLUSION
The Generator Levy was approved by the Board in November 2017, and has been in place since January 2018. This report provides an overview of the Tipping Fee Bylaw and the Generator Levy. The Generator Levy is an important tool in advancing waste diversion in the region and ensuring a cost effective and equitably funded regional solid waste system.

Attachment
Consolidation of Greater Vancouver Sewerage and Drainage District Tipping Fee and Solid Waste Disposal Regulation Bylaw No. 306, 2017 – Blacklined Version (Orbit #28730051)
TIPPING FEE AND SOLID WASTE REGULATION BYLAW

THIS IS A CONSOLIDATION, FOR REFERENCE PURPOSES, OF:


- “Greater Vancouver Sewerage and Drainage District Tipping Fee and Solid Waste Disposal Regulation Amendment Bylaw No. 312, 2018”. (Adopted February 23, 2018).

- “Greater Vancouver Sewerage and Drainage District Tipping Fee and Solid Waste Disposal Regulation Amendment Bylaw No. 323, 2018”. (Adopted October 26, 2018).

As of January 1, 2019

COPIES OF THE ORIGINAL BYLAWS MAY BE INSPECTED AT BOARD AND INFORMATION SERVICES, METRO VANCOUVER
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; and

E. Section 55(4) of the Act empowers the GVS&DD to establish a method of apportionment of its costs among its member municipalities.

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. 302, 2016" is hereby repealed.

1.2 “Greater Vancouver Sewerage and Drainage District Tipping Fee and Solid Waste Disposal Regulation Amendment Bylaw No. 304, 2017” 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. 306, 2017".

2.2 This Bylaw may be cited as the "2018 Tipping Fee Bylaw".

3.0 Definitions

3.1 In this Bylaw:

"Agricultural Waste" means Refuse that originates from an agricultural operation as defined pursuant to the Agricultural Waste Control Regulation, B.C. Reg. 131/1992, adopted pursuant to the Environmental Management Act, and includes manure, used mushroom medium and agricultural vegetation waste;

"Banned Materials" means Hazardous and Operational Impact Materials, Recyclable Materials or Product Stewardship Materials;

"Board" means the board of directors of the Greater Vancouver Sewerage and Drainage District;

"Clean Wood" means Municipal Solid Waste that comprises solid wood, lumber or pallets:

(i) that does not contain any glues or resins;

(ii) that is unpainted, unstained and untreated; and

(iii) that may or may not be pierced with nails or other metal fasteners;

Added by Bylaw 308, 2017

"Construction and Demolition Waste" means refuse that originates from demolition or construction sources that has not been handled or managed with waste from other sources;

"Contaminated Recyclable Paper" means Recyclable Paper that has been contaminated with grease, oil, food residue or other material;

"Corrugated Cardboard" means Recyclable Paper that consists of a fluted corrugated sheet and one or two flat linerboards;

"Delta Garbage" means all Garbage originating from within the territorial boundaries of the Corporation of Delta, except Delta Residential Drop-off Garbage;

"Delta Residential Drop-off Garbage" means Garbage brought to a Vancouver Disposal Site by residential customers who reside in Delta;
“Disposal Rate” is the difference between the Tipping Fee and the Generator Levy, and is generally calculated on the basis of the costs of transportation and disposal of waste;

"Disposal Site" means any of the Municipal Solid Waste disposal facilities listed in Schedule "A";

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

(i) is organic material from residential, commercial or institutional sources and is capable of being composted, or is being composted, at a site;

(ii) is managed as a marketable commodity with an established market by the owner or operator of a site;

(iii) 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;

(iv) has been identified as a recyclable material in a waste management plan;

(v) is any other material prescribed by the Lieutenant Governor in Council, or the Minister of the Environment pursuant to the Environmental Management Act;

"Environmental Management Act" means the Environmental Management Act S.B.C. 2003 c. 53;

“Expanded Polystyrene Packaging” means white expanded polystyrene used for protecting and distributing products, but excluding:

(i) food and beverage containers;

(ii) packing ‘peanuts’; and

(iii) expanded polystyrene that has been painted, soiled or treated.

"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 and packaged or unpackaged;

"Garbage" means the Municipal Solid Waste that is disposed of in a bunker, pit or on the tipping floor, as opposed to a Recycling Area, at a Disposal Site or a Vancouver Disposal Site;
“Generator Levy” means the levy payable by the generator of Municipal Solid Waste pursuant to this bylaw in the amount set out at section 5, which is calculated annually on the basis of the amount required to recover the projected fixed costs of the regional transfer station network and solid waste planning, including the Regional Services Rate;

"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 Snow Flocked or Frosted Trees, Toxic Plants, Clean Wood, Food Waste and Agricultural Waste;

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

"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;

“Gypsum – New” means Gypsum date stamped 1990 or newer that has not been previously installed and does not contain tape, paint or drywall mud;

“Gypsum – Used” means Gypsum without a date stamp, Gypsum that is date stamped before 1990, or Gypsum that contains tape, paint or drywall mud;

"Hazardous and Operational Impact Materials" means the classes of Refuse listed in Schedule "C";

"International Waste" means Municipal Solid Waste originating from outside of Canada, but excludes Refuse from cruise ships from the United States;

"Load" means a quantity of Municipal Solid Waste that is or was contained within a single vehicle attending at a Disposal Site;

"Manager" means the person appointed to the position of General Manager, Solid Waste Services from time to time and includes any person appointed or designated to act in his or her place;

"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;  
"Municipal Garbage" means:

(i) Loads that contain any Municipal Solid Waste collected from single family residences, whether or not mixed with other types of Municipal Solid Waste, and collected by local government, their contractors or by entities contracting directly with individual households where such collection occurs on a regular basis (typically: weekly, every two weeks or monthly); or

(ii) Loads of Municipal Solid Waste collected by local government staff from local government owned premises, such as parks, streets or public buildings;

Added by Bylaw 312, 2018

"Mixed Municipal Solid Waste" means refuse that originates from residential, commercial or institutional sources, or any combination of waste or refuse from these sources and other sources, but does not include Source-Separated Recyclable Material or Construction and Demolition Waste;

"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;

“Noxious Weeds” means the weeds designated as noxious weeds in Part I and Part II of Schedule A of the Weed Control Regulation, B.C. Reg. 143/2011 but excludes Giant Hogweed (Heracleum Mantegazzianum) and Spurge Laurel (Daphne Laureola);

"Peak Hours" means from 10:00 am to 2:00 pm on Monday to Friday, excluding statutory holidays;

Added by Bylaw 308, 2017

“Person” includes natural persons, as well as businesses, households, strata corporations, institutions, non-profit societies, and corporations;

"Personal Hygiene Products" means personal care products such as diapers, feminine hygiene products and incontinence products;

"Product Stewardship Materials" means the classes of Refuse listed in Schedule "E";

Added by Bylaw 312, 2018

"Qualified Private Facility" means a facility that:

(i) manages Mixed Municipal Solid Waste;
(ii) reduces the total weight of incoming Mixed Municipal Solid Waste by at least 25%, calculated monthly, as a result of resource recovery or the production of fuel at the facility, provided always that any material delivered to a landfill, including material used for roads or for alternative daily cover, is included in the calculation as waste disposed from the facility; and

(iii) operates in full compliance with all applicable laws, including holding a valid and subsisting license to manage Mixed Municipal Solid Waste pursuant to Greater Vancouver Sewerage and Drainage District Solid Waste and Recyclable Material Regulatory Bylaw 181, 1996, as amended or replaced from time to time;

"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;

"Recyclable Materials" means the classes of Refuse listed in Schedule "D";

replaced by Bylaw 323, 2018

"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;

"Recycling Area" means those parts of a Disposal Site or Vancouver Disposal Site designated for Green Waste, Source-Separated Organic Waste, Clean Wood, Gypsum, Mattresses and the specific materials, substances and objects that comprise Recyclable Materials and Product Stewardship Materials;

"Recycling Depots" means the area located in front of the weigh scales at the Coquitlam Transfer Station and the North Shore Transfer Station, where identified materials can be dropped-off at no charge;

"Recycling Fee" means the recycling fee charged by the GVS&DD for Green Waste, Source-Separated Organic Waste, Clean Wood, Gypsum, Mattresses and the specific materials, substances and objects that comprise Recyclable Materials dropped off in the designated Recycling Area at Disposal Sites, as set out in Table 3 of Schedule "B" of this Bylaw;

"Recycling Regulation" means the Recycling Regulation, B.C. Reg. 449/2004 adopted pursuant to the Environmental Management Act;

"Refuse" means discarded or abandoned materials, substances or objects;

"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 and administration;

“The Snow Flocked or Frosted Tree” means a natural tree that has received an application of a substance that looks like artificial snow.

"Source-Separated Organic Waste" means unpackaged Food Waste, Green Waste, Clean Wood, Recyclable Paper that has been soiled by or comingled with food residue, or carbon paper, tissue paper, paper napkins or towels or paper that is covered or infused with wax, or any combination thereof and does not contain more than 0.05% (by wet weight) of any other type of Refuse;

"Source-Separated Recyclable Material" means EMA Recyclable Material that has been separated from Municipal Solid Waste by the waste generator at the point of generation for the purposes of recycling;

"Special Handle Waste" means International Waste and Municipal Solid Waste that requires immediate destruction or is designated for product destruction by a regulatory agency;

"Surcharge" means the amount charged by the GVS&DD, in addition to the applicable Tipping Fee, for disposing of Banned Materials at a Disposal Site, as set out in Table 4 of Schedule "B" of this Bylaw;

"Tipping Fee" means the fee charged by the GVS&DD for disposing of Garbage or Special Handle Waste at Disposal Sites, as set out in Table 1 of Schedule "B" of this Bylaw, and which includes the Regional Services Disposal Rate and the Generator Levy;

"Toxic Plants" means Devil’s Club (Oplopanax Horridus), Giant Hogweed (Heracleum Mantegazzianum) and Spurge Laurel (Daphne Laureola);

"Transaction Fee" means the fee charged by the GVS&DD, in addition to the Tipping Fee, for all Loads of Garbage disposed of at Disposal Sites, all Loads of Special Handle Waste disposed of at the Waste-to-Energy Facility and all Loads of Gypsum dropped off at designated Recycling Areas, as set out in Table 2 of Schedule "B" of this Bylaw;

"Unsecured Load" means a Load that is not tied and covered or otherwise secured to prevent any of the Load escaping from the vehicle; 
"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;
(ii) Vancouver South Transfer Station, Recycling Depot and Yard Trimmings Drop-off located at 377 West Kent Avenue North, Vancouver; and

"Vancouver Garbage" means all Garbage that originates from within the territorial boundaries of the City of Vancouver.

Replaced by Bylaw 308, 2017

“Waste Hauler” has the same meaning as in the Act; and

“Weight Only Ticket” means a document provided at the scale house that records only the weight of the particular Load brought to a Disposal Site.

4.0 Restrictions and Prohibitions

4.1 No person shall dispose of anything at a Disposal Site except in accordance with this Bylaw.

4.2 No person shall dispose of Municipal Solid Waste at a Disposal Site unless it originates from within the geographic area of the GVS&DD.

4.3 Despite section 4.2, the Board may authorize acceptance at a Disposal Site of Municipal Solid Waste that originates from outside the geographic area of the GVS&DD, including International Waste.

4.4 No person shall dispose of any Loads that emit odours, fumes or particulate matter (such as dust) that cause or are capable of causing material discomfort to a person at a Disposal Site, except that where expressly authorized by the Manager such Loads may be disposed of at the Waste-to-Energy Facility.

4.5 No person shall dispose of any Loads dominated by oily materials, substances or objects at a Disposal Site, except that where expressly authorized by the Manager such Loads may be disposed of at the Waste-to-Energy Facility.

4.6 No person shall dispose of any Loads of Toxic Plants at a Disposal Site, except that where expressly authorized by the Manager such Loads may be disposed of at the Waste to Energy Facility, double bagged and in dedicated Loads.

Added by Bylaw 323, 2018

4.7 Despite anything else in this Bylaw, Noxious Weeds can be disposed of as Garbage or as Green Waste.

4.8 through 4.12 Renumbered by Bylaw 323, 2018

4.8 No person shall dispose of Gypsum at a Disposal Site, except Gypsum that weighs less than one half tonne may be dropped off at a designated Recycling Area.

4.9 No person shall dispose of Mattresses at a Disposal Site, except that four or fewer Mattresses
may be dropped off at a designated Recycling Area.

4.10 No person shall dispose of refrigerators, freezers, air conditioners, dehumidifiers, and water coolers at a Disposal Site, except that four or fewer of these types of appliances may be dropped off at a designated Recycling Area.

4.11 No person shall scavenge or salvage any Municipal Solid Waste or Recyclable Materials from a Disposal Site.

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.

Replaced by Bylaw 323, 2018

5.0 Tipping Fees, Transaction Fee, Recycling Fees and Surcharges

5.1 Every person who generates Municipal Solid Waste within the geographic area of the GVS&DD must pay the Generator Levy in the amount of $42/tonne with respect to all Municipal Solid Waste that that person generates as follows:

(a) to the GVS&DD at a Disposal Site in accordance with section 5.2;

(b) to the City of Vancouver at a Vancouver Disposal Site as part of the applicable tipping fee at those sites; or

(c) to a Waste Hauler that picks up their Municipal Solid Waste.

5.15.2 Every person who disposes of Municipal Solid Waste at a Disposal Site must pay to the GVS&DD:

(a) the applicable Tipping Fees set out in Table 1 of Schedule "B";

(b) the Transaction Fee set out in Table 2 of Schedule "B";

(c) the applicable Recycling Fees set out in Table 3 of Schedule "B"; and

(d) the applicable Surcharges set out in Table 4 of Schedule "B",

and all such fees and charges must be paid before the person leaves the Disposal Site.

5.25.3 Every person who disposes of Special Handle Waste at the Waste-to-Energy Facility must pay the applicable Tipping Fee specified in Table 1 of Schedule "B" of this Bylaw and the Transaction Fee specified in Table 2 of Schedule "B" of this Bylaw.
5.35.4 Every person who drops off Source-Separated Organic Waste, Green Waste, Clean Wood, Gypsum or Mattresses at a designated Recycling Area must pay the applicable Recycling Fee specified in Table 3 of Schedule "B" of this Bylaw.

5.45.5 If a person attends a Disposal Site with a Load that contains any combination of Source-Separated Organic Waste, Green Waste, Food Waste, Clean Wood, Gypsum, Mattresses, other Recyclable Materials and/or other Municipal Solid Waste and the person chooses not to weigh-out after dropping off each part of the Load at the designated Recycling Areas, then the person must pay to the GVS&DD the 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.

5.55.6 Every person who disposes of a Load at a Disposal Site that contains a quantity of Recyclable Materials other than Food Waste or Expanded Polystyrene Packaging 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 amount set out in Table 4 of Schedule "B" of this Bylaw.

5.65.7 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 Table 4 of Schedule "B" of this Bylaw.

5.75.8 Every person who disposes of a Load at a Disposal Site that contains Expanded Polystyrene Packaging that exceeds either 20% of the total weight of the Load or 20% of the total volume of the Load must pay a Surcharge in the amounts set out in Table 4 of Schedule “B” of this Bylaw.

5.85.9 Every person who disposes of a Load at a Disposal Site that contains Food Waste that exceeds either 25% of the total weight of the Load or 25% of the total volume of the Load must pay a Surcharge in the amounts set out in Table 4 of Schedule “B” of this Bylaw.

5.95.10 Every person who drops off a Load of Source-Separated Organic Waste at a designated Recycling Area that contains more than 0.05% (by wet weight) of any other type of Refuse must pay a Surcharge in the amount set out in Table 4 of Schedule "B" of this Bylaw.

5.105.11 Every person who disposes of a Load at a Disposal Site that contains any Hazardous and Operational Impact Materials or Product Stewardship Materials must pay a Surcharge in the amount set out in Table 4 of Schedule "B" of this Bylaw, plus the costs of remediation and clean up.
5.11 Every person who enters a Disposal Site with an Unsecured Load must pay a Surcharge in the amount set out in Table 4 of Schedule "B" of this Bylaw.

5.12 Special Handle Waste is exempt from all Surcharges, but if a Load of Special Handle Waste contains any Hazardous and Operational Impact Materials, it will be subject to the costs of remediation and clean-up.

5.13 Where a single Load is subject to multiple Surcharges, the Surcharge with the highest value will apply for the weight of the entire Load.

5.14 Despite anything else in this Bylaw, in advance of any person transporting a single Load or multiple Loads to a Disposal Site, the Manager may, at his or her discretion, waive any Surcharge or Surcharges or a portion thereof for a specified period and for specified classes of persons.

5.15 Despite anything else in this Bylaw, the Manager may, at his or her discretion, waive all fees and charges for a Load delivered to a Disposal Site by a non-profit or volunteer group resulting from a community clean-up project, provided that:

(a) the community clean-up project is conducted within the geographic area of any GVRD member municipalities;

(b) the community clean-up project involves collecting Noxious Weeds, litter or abandoned waste from the natural environment from any of the following publicly owned areas:

(i) green space, such as natural areas, recreational parks or playgrounds;

(ii) roads;

(iii) marine shorelines and harbours;

(iv) lakes, ponds, rivers, creeks, streams or other natural waterways.

(c) the Load does not contain Recyclable Materials or Hazardous and Operational Impact Materials;

(d) the Manager receives an advance written request from the non-profit or volunteer group prior to the date the community clean-up project is to be held;

(e) the Manager confirms in writing to the non-profit or volunteer group that fees and charges otherwise payable under this Bylaw will be waived; and

(f) the non-profit or volunteer group brings the Manager's written confirmation to the Disposal Site at the time of disposal.

5.16 The weigh scales at Disposal Sites weigh to the nearest 0.005 tonnes. For those customers who do not have a customer charge account, as described in Schedule "F", the total amount payable to GVS&DD is rounded to the nearest dollar.
5.175.18 Every person who enters a Disposal Site to obtain a Weight Only Ticket must pay a fee of $15 per ticket.

5.185.19 Every person who disposes of a Load at the Waste-to-Energy Facility that is made up of at least 85% by weight of metals will receive a credit of $25 per tonne on exiting the scale house at the Waste-to-Energy Facility.

5.195.20 Despite section 5.1 of this Bylaw, any 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 "F" to this Bylaw.

5.205.21 In the event the weigh scale system at a Disposal Site is not functioning for any reason, at his or her discretion the Manager may:

(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 minimum Tipping Fee set out in Table 1 of Schedule "B" of this Bylaw, plus the Transaction Fee, will be charged for the Load.

5.215.22 In the event that a customer enters the Disposal Site with a rental vehicle, out-of-province or dealer licence plate, or previously left without payment then a $50 deposit is required on entry to the Disposal Site.

6.0 Regional Services Rate

6.1 The Regional Services Rate is set at an amount equal to 6% of the Tipping Fee for Municipal Garbage, as specified in Table 1 of Schedule "B". The Regional Services Rate is included in all Tipping Fees.

6.2 Every Quarter, the City of Vancouver must record:

(a) the total tonnage of Garbage;

(b) the tonnage of Vancouver Garbage and Delta Garbage; and

(c) the tonnage of Delta Residential Drop-off Garbage,

that is disposed of at the Vancouver Disposal Sites during that Quarter and provide such information to GVS&DD and the Corporation of Delta within 30 days of the end of the Quarter.
6.3 Every Quarter GVS&DD will invoice the City of Vancouver for an amount equal to the Regional Services Rate for every tonne of Vancouver Garbage and Delta Residential Drop-off Garbage disposed of at the Vancouver Disposal Sites during the previous Quarter, and the City of Vancouver must remit payment to GVS&DD within 30 days of the date of such invoice.

6.4 Every Quarter GVS&DD will invoice the Corporation of Delta for an amount equal to the Regional Services Rate for every tonne of Delta Garbage disposed of at the Vancouver Disposal Sites during the previous Quarter, and the Corporation of Delta must remit payment to GVS&DD within 30 days of the date of such invoice.

7.0 **Apportionment of Recycling Depot Costs**

7.1 On or before March 31 each year, the GVS&DD will prepare a detailed estimate of the amount required for constructing, maintaining, administering and operating the Recycling Depot at the North Shore Transfer Station ("Annual Estimate North Shore Recycling Depot") in that calendar year.

7.2 The Annual Estimate North Shore Recycling Depot will be calculated as follows: Annual Estimate North Shore Recycling Depot = OP + AD + CA + LA – R +/- DE Where:

- **OP** = the amount charged by GVS&DD's service provider for operating the Recycling Depot at the North Shore Transfer Station in that calendar year (which does not include costs related to management of mixed metals at the Recycling Depot);
- **AD** = GVS&DD's administrative charge of $25,000;
- **CA** = amortized capital costs, amounting to $68,000 each year for the calendar years 2017 – 2031;
- **LA** = a land use contribution of $23,268 each calendar year;
- **R** = revenues received from Multi-Material BC Society and Product Care Association of Canada for collection of recyclable materials from the Recycling Depot at the North Shore Transfer Station during the calendar year; and
- **DE** = any deficit or surplus in the estimate from any previous calendar year.

7.3 The GVS&DD will apportion the Annual Estimate North Shore Recycling Depot among the City of North Vancouver, District of North Vancouver the District of West Vancouver on the basis of population (as published in the most recent version of British Columbia Municipal and Regional District Population Estimates of the Demographic Analysis Section of BC Stats, Ministry of Technology, Innovation and Citizens' Services of the Government of the Province of British Columbia).

7.4 On or before March 31 each year, the GVS&DD will prepare a detailed estimate of the amount required for constructing, maintaining, administering and operating the Recycling Depot at the Coquitlam Transfer Station ("Annual Estimate Coquitlam Recycling Depot") in that calendar year.

7.5 The Annual Estimate Coquitlam Transfer Station will be calculated as follows: Annual Estimate
Coquitlam Recycling Depot = OP + AD + LA – R +/- DE Where:

OP = the amount charged by GVS&DD's service provider for operating the Recycling Depot at the Coquitlam Transfer Station in that calendar year (which does not include costs related to management of mixed metals at the Recycling Depot);
AD = GVS&DD's administrative charge of $25,000;
LA = a land use contribution of $17,812;
R = revenues received from Product Care Association of Canada for collection of recyclable materials from the Recycling Depot at the Coquitlam Transfer Station during the calendar year; and
DE = any deficit or surplus in the estimate from any previous calendar year.

7.6 The GVS&DD will apportion the Annual Estimate Coquitlam Recycling Depot among the City of Port Moody, the City of Coquitlam and the City of Port Coquitlam on the basis of population (as published in the most recent version of British Columbia Municipal and Regional District Population Estimates of the Demographic Analysis Section of BC Stats, Ministry of Technology, Innovation and Citizens' Services of the Government of the Province of British Columbia).

7.7 On or before March 31 each year the GVS&DD will deliver to each municipality referenced in this section 7 an invoice for its apportionment of costs pursuant to this section 7, and, in accordance with section 56 of the Greater Vancouver Sewerage and Drainage District Act, such invoices are payable on or before August 15 of the calendar year.

Added by Bylaw 308, 2017.

8.0 Waste Haulers

8.1 Waste Haulers must collect the Generator Levy in the amount set out at section 5.1 of this bylaw with respect to all Municipal Solid Waste that the Waste Hauler collects from generators of waste within the geographic area of the GVS&DD as an agent of the GVS&DD.

8.2 A Waste Hauler who has collected the Generator Levy in accordance with section 8.1 must remit the full amount of the Generator Levy to the GVS&DD as follows:

(a) where the Waste Hauler delivers the Municipal Solid Waste collected from a generator to a Disposal Site, the Waste Hauler must remit the Generator Levy in accordance with section 5.2 of this bylaw;
(b) where the Waste Hauler delivers the Municipal Solid Waste collected from a generator to a Vancouver Disposal Site, the Waste Hauler must remit the Generator Levy as part of the applicable tipping fee at those sites; or
(c) Where the Waste Hauler delivers the Municipal Solid Waste collected from a generator to a facility or location other than a Disposal Site or Vancouver Disposal Site, the Waste Hauler must remit the Generator Levy directly to the GVS&DD on a quarterly basis in accordance with section 8.4.

8.3 Every Waste Hauler that handles Municipal Solid Waste within the geographic area of the GVS&DD must create and maintain the following records for at least 5 years:

(a) The quantity (by weight or volume) of Municipal Solid Waste collected from generators within the geographic area of the GVS&DD on a load by load basis;

(b) The quantity (by weight or volume) of Municipal Solid Waste collected from generators within the geographic area of the GVS&DD and delivered to Disposal Sites or Vancouver Disposal Sites on a load by load basis; and

(c) The quantity (by weight or volume) of Municipal Solid Waste collected from generators within the geographic area of the GVS&DD and delivered to facilities or locations other than to a Disposal Site or Vancouver Disposal Site, on a load by load basis.

8.4 Every Waste Hauler that handles Municipal Solid Waste collected from generators within the geographic area of the GVS&DD and delivers any portion of that Municipal Solid Waste to a facility or location other than a Disposal Site or Vancouver Disposal Site must remit the Generator Levy collected in the previous quarter to the person appointed by the Board as the Solid Waste Manager, as follows:

(a) For January 1 to March 31, on or before April 15 of each calendar year;

(b) For April 1 to June 30, on or before July 15 of each calendar year;

(c) For July 1 to September 30, on or before October 15 of each calendar year; and

(d) For October 1 to December 31, on or before January 15 of the following calendar year.

8.5 Sections 5.1, 8.2, 8.3 and 8.4 of this bylaw do not apply where a generator or Waste Hauler delivers only Source-Separated Recyclable Material or Construction and Demolition Waste to a facility or location other than a Disposal Site or Vancouver Disposal Site.

8.6 Every Waste Hauler must permit any person appointed by the Board as the Solid Waste Manager or an Officer appointed pursuant to the Greater Vancouver and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996 to inspect and...
make copies of the records required pursuant to section 8.3 of this Bylaw, Mondays to Fridays between 9 am and 5 pm.

8.7 No person shall misrepresent the class or quantities of Municipal Solid Waste collected from generators within the geographic area of the GVS&DD.

8.8 No person shall fail to remit the Generator Levy in accordance with section 8.2 of this bylaw.

**Added by Bylaw 312, 2018**

**9.0. Generator Levy Rebate**

9.1. A Qualified Private Facility may apply to the Greater Vancouver Sewerage and Drainage District for a rebate of the Generator Levy in respect of residual waste from the Qualified Private Facility delivered to a Disposal Site or a Vancouver Disposal Site, where:

(a) the residual waste is from the Qualified Private Facility only and is not mixed with waste from other sources;

(b) the Qualified Private Facility applies for the rebate within 30 days of the end of the calendar month in which the residual waste was delivered to a Disposal Site or Vancouver Disposal Site;

(c) all Tipping Fees and Surcharges payable under this Bylaw for residual waste from the Qualified Private Facility have been paid for the calendar month;

(d) the Qualified Private Facility provides documentation satisfactory to the Manager identifying:

(i) for each load of Mixed Municipal Solid Waste received at the Qualified Private Facility originating within the geographic area of the GVS&DD, the date, time of delivery, name of the hauler, and the weight of the load; and

(ii) for each load of material leaving the Qualified Private Facility, the quantity, material type, date, and destination.

9.2. A Qualified Private Facility is not entitled to a rebate of the Generator Levy under Section 9.1 of this Bylaw if any of the conditions set out in that section are not met.

9.3. Subject to Section 9.2, the GVS&DD will rebate to the Qualified Private Facility an amount equal to the Generator Levy paid for each tonne of residual waste delivered to either a Disposal Site or a Vancouver Disposal Site in the immediately preceding calendar month, up to a maximum of 75% of the total Generator Levy received by the Greater Vancouver Sewerage and Drainage District for Mixed Municipal Solid Waste delivered to the Qualified Private Facility in the immediately preceding calendar month.
Section Re-numbered by Bylaw 312, 2018; Section Re-numbered by Bylaw 308, 2017.

9.010.0 Interpretation

9.110.1 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.

9.210.2 In this Bylaw, the word "person" includes a corporation.

9.310.3 Schedules "A", "B", "C", "D", "E", and "F" are attached to and form part of this Bylaw.

Section Re-numbered by Bylaw 312, 2018; Section Re-numbered by Bylaw 308, 2017.

10.011.0 Effective Date

10.111.1 This Bylaw comes into force and takes effect January 1, 2018.
SCHEDULE "A"

DISPOSAL SITES

- Coquitlam Transfer Station 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
- Waste-to-Energy Facility located at 5150 Riverbend Drive, Burnaby
**SCHEDULE "B"**

**TIPPING FEES, TRANSACTION FEE, RECYCLING FEES AND SURCHARGES**

Replaced by Bylaw 308, 2017; Replaced by Bylaw 323, 2018

**Table 1-Tipping Fees for Garbage and Special Handle Waste (including the Regional Services Generator Levy and the Disposal Rate)**

<table>
<thead>
<tr>
<th>Net Weight</th>
<th>North Shore Transfer Station¹</th>
<th>Surrey Transfer Station¹</th>
<th>Coquitlam Transfer Station¹</th>
<th>Maple Ridge Transfer Station¹</th>
<th>Langley Transfer Station¹</th>
<th>Waste-to-Energy Facility¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Garbage other than Municipal Garbage</td>
<td>0 to .99 tonnes</td>
<td>$142/tonne²</td>
<td>$120/tonne⁴</td>
<td>$90/tonne</td>
<td>$142/tonne²</td>
<td>$120/tonne⁴</td>
</tr>
<tr>
<td></td>
<td>1.0 to 8.99 tonnes</td>
<td>$142/tonne²</td>
<td>$120/tonne⁴</td>
<td>$90/tonne</td>
<td>$142/tonne²</td>
<td>$120/tonne⁴</td>
</tr>
<tr>
<td></td>
<td>9.0 tonnes or more</td>
<td>$142/tonne²</td>
<td>$120/tonne⁴</td>
<td>$90/tonne</td>
<td>$142/tonne³</td>
<td>$120/tonne⁵</td>
</tr>
<tr>
<td></td>
<td>Minimum Tipping Fee for Garbage</td>
<td>$20/Load</td>
<td>$20/Load</td>
<td>$20/Load</td>
<td>$10/Load</td>
<td>$10/Load</td>
</tr>
<tr>
<td></td>
<td>Minimum Tipping Fee outside of Peak Hours</td>
<td>$10/Load</td>
<td>$10/Load</td>
<td>$10/Load</td>
<td>$10/Load</td>
<td>$10/Load</td>
</tr>
</tbody>
</table>

¹All Loads originating from Maple Ridge will be assessed an additional fee of $4/tonne.
²To a maximum of $120 per Load.
³To a maximum of $124 per Load.
⁴To a maximum of $810 per Load.
⁵To a maximum of $846 per Load.

**Table 2 - Transaction Fee**

| Each Load of Garbage disposed of at any Disposal Site, each Load of Special Handle Waste disposed of at the Waste-to-Energy Facility, and each Load of Gypsum dropped off at a designated Recycling Area | $5/Load |

Consolidation of Greater Vancouver Sewerage and Drainage District Tipping Fee and Solid Waste Disposal Regulation Bylaw No. 306

23493820

Zero Waste Committee
## Table 3 – Recycling Fees for materials dropped off in designated Recycling Areas

<table>
<thead>
<tr>
<th>Material</th>
<th>North Shore Transfer Station</th>
<th>Surrey Transfer Station</th>
<th>Coquitlam Transfer Station</th>
<th>Maple Ridge Transfer Station</th>
<th>Langley Transfer Station</th>
<th>Waste-to-Energy Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source-Separated Organic Waste</td>
<td>$95/tonne, $10 minimum</td>
<td>$95/tonne, $10 minimum</td>
<td>$95/tonne, $10 minimum</td>
<td>$95/tonne, $10 minimum</td>
<td>$95/tonne, $10 minimum</td>
<td>Not accepted.</td>
</tr>
<tr>
<td>Green Waste</td>
<td>$95/tonne, $10 minimum</td>
<td>$95/tonne, $10 minimum</td>
<td>$95/tonne, $10 minimum</td>
<td>$95/tonne, $10 minimum</td>
<td>$95/tonne, $10 minimum</td>
<td>Not accepted.</td>
</tr>
<tr>
<td>Clean Wood</td>
<td>$95/tonne, $10 minimum</td>
<td>$95/tonne, $10 minimum</td>
<td>$95/tonne, $10 minimum</td>
<td>$95/tonne, $10 minimum</td>
<td>$95/tonne, $10 minimum</td>
<td>Not accepted.</td>
</tr>
<tr>
<td>Gypsum – New: less than ½ tonne</td>
<td>$150/tonne, $10 minimum</td>
<td>$150/tonne, $10 minimum</td>
<td>$150/tonne, $10 minimum</td>
<td>$150/tonne, $10 minimum</td>
<td>$150/tonne, $10 minimum</td>
<td>Not accepted.</td>
</tr>
<tr>
<td>Gypsum – Used: less than ½ tonne</td>
<td>$200/tonne, $10 minimum</td>
<td>$200/tonne, $10 minimum</td>
<td>$200/tonne, $10 minimum</td>
<td>$200/tonne, $10 minimum</td>
<td>$200/tonne, $10 minimum</td>
<td>Not accepted.</td>
</tr>
<tr>
<td>Mattresses</td>
<td>$15 per Mattress</td>
<td>$15 per Mattress</td>
<td>$15 per Mattress</td>
<td>$15 per Mattress</td>
<td>$15 per Mattress</td>
<td>Not accepted.</td>
</tr>
</tbody>
</table>
### Table 4- Surcharges

*Replaced by Bylaw 308, 2017; Replaced by Bylaw 323, 2018*

<table>
<thead>
<tr>
<th>Description</th>
<th>Surcharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loads containing Recyclable Materials other than Food Waste or Expanded Polystyrene Packaging that exceeds either 5% of the total weight of the Load or 5% of the total volume of the Load (section 5.6)</td>
<td>50% of the applicable Tipping Fee</td>
</tr>
<tr>
<td>Loads containing Contaminated Recyclable Paper that exceeds either 5% of the total weight of the Load or 5% of the total volume of the Load (section 5.7)</td>
<td>50% of the applicable Tipping Fee</td>
</tr>
<tr>
<td>Loads containing Expanded Polystyrene Packaging that exceeds either 20% of the total weight of the Load or 20% of the total volume of the Load (section 5.8)</td>
<td>100% of the applicable Tipping Fee</td>
</tr>
<tr>
<td>Loads containing Food Waste that exceeds either 25% of the total weight of the Load or 25% of the total volume of the Load (section 5.9)</td>
<td>50% of the applicable Tipping Fee</td>
</tr>
<tr>
<td>Loads of Source Separated Organic Waste containing more than 0.05% (by wet weight) of any other type of Refuse (section 5.10)</td>
<td>$50 per Load</td>
</tr>
<tr>
<td>Loads containing any Hazardous and Operational Impact Materials or Product Stewardship Materials (section 5.11)</td>
<td>$65 per Load plus any remediation or clean-up costs</td>
</tr>
<tr>
<td>Unsecured Loads (section 5.12)</td>
<td>50% of the applicable Tipping Fee to a maximum of $50.00</td>
</tr>
</tbody>
</table>
SCHEDULE "C"

HAZARDOUS AND OPERATIONAL IMPACT MATERIALS

1. Agricultural Waste;

2. Automobile parts and bodies;

3. Refuse that is on fire, smoldering, odourous, dusty, flammable or explosive;

4. Hazardous Waste as defined in the *Hazardous Waste Regulation*, B.C. Reg. 63/88;

5. Propane tanks;

6. Liquids or sludge;

7. Coated or uncoated wire, hosing, rope or cable exceeding 1.0 metre in length;

8. Dead animals;

9. Inert fill material including soil, sod, gravel, concrete and asphalt exceeding 0.5 cubic metres per load.

10. Excrement, other than amounts of pet excrement that are double bagged and discarded with Municipal Solid Waste and that do not exceed either 5% of the total weight of the Load or 5% of the total volume of the Load;

11. Personal Hygiene Products where the Personal Hygiene Products make up more than 10% of the Load unless the Personal Hygiene Products are double bagged in sealed plastic bags that are sufficiently durable to resist leaking or breaking during collection and disposal;

12. Barrels, drums, pails or other large (205 litre or greater) liquid containers;

13. Any single object that:

   (a) weighs more than 100 kilograms; or

   (b) exceeds 1.2 metres in width or 2.5 metres in length, except at the Waste-to Energy Facility where a single object must not exceed 1.0 metre in length.

14. Gypsum;
15. Mattresses;

16. Railroad ties or creosote treated wood;

17. Toxic Plants;

18. 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* B.C. Reg. 296/97 enacted pursuant to the *Workers Compensation Act*, as amended or replaced from time to time; and

19. Any other Refuse that the Manager considers unsuitable for handling at a Disposal Site.
SCHEDULE "D"

RECYCLABLE MATERIALS

1. Beverage containers identified in "Schedule 1-Beverage Container Product Category" to the Recycling Regulation;

2. Containers other than beverage containers made of:
   (a) metal;
   (b) glass;
   (c) 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); or
   (d) composite materials to create rigid packaging consisting of paper and polyethylene (gable top cartons, frozen food boxes, ice cream cartons and microwaveable dinner cartons) or paper, polyethylene and aluminum (aseptic cartons);

3. Corrugated Cardboard;

4. Recyclable Paper;

5. Green Waste;

6. Food Waste;

7. Clean Wood; and

8. Expanded Polystyrene Packaging.
SCHEDULE "E"

PRODUCT STEWARDSHIP MATERIALS

1. The following materials pursuant to Schedule 2 – Residual Product Category to the Recycling Regulation:
   
   (a) Solvents and flammable liquids;
   
   (b) Pesticides;
   
   (c) Gasoline;
   
   (d) Pharmaceutical products and medications;
   
   (e) Oil, oil filters and oil containers;
   
   (f) Lubricating oils and lubricating oil containers;
   
   (g) Paint and paint containers;
   
   (h) Lead-acid batteries;
   
   (i) Antifreeze and antifreeze containers;

2. Electronics and electrical products, including metal household and commercial appliance, as identified in Schedule 3 – Electronics and Electrical Products Category to the Recycling Regulation;

3. Tires pursuant to Schedule 4 - Tire Product Category to the Recycling Regulation.
SCHEDULE "F"

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 Treasury Manager may approve the Application for Credit on behalf of the GVS&DD and establish a commercial charge account for a person for up to $250,000.

3. The Division Manager of Financial Planning and Processes may approve the Application for Credit on behalf of the GVS&DD and establish a commercial charge account for a person for amounts up to $500,000.

4. The Chief Financial Officer may approve the Application for Credit on behalf of the GVS&DD and establish a commercial charge account for a person for amounts up to $2,000,000.

5. If the GVS&DD approves a person's Application for Credit and establishes a commercial charge account, then:

   Replaced by Bylaw 312, 2018

   (a) the person, or a hauler authorized by the person, may leave the Disposal Site before paying the applicable Tipping Fees, Transaction Fee, Recycling Fees and Surcharges; and

   (b) the GVS&DD will generate invoices for Tipping Fees, Transaction Fees, Recycling Fees and Surcharges on a monthly basis for up to the established commercial charge account limit, which invoices are payable within 35 days.

6. Where a person fails or refuses to pay an invoice for Tipping Fees, Transaction Fees, Recycling Fees and Surcharges within 35 days, then the GVS&DD may rescind their customer charge account and the person must:

   (a) pay interest 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: Paul Henderson, General Manager, Solid Waste Services
Date: February 27, 2019

Meeting Date: March 7, 2019
Subject: Solid Waste Regulatory Framework Correspondence Update

RECOMMENDATION
That the GVS&DD Board receive for information the report dated February 27, 2019, titled “Solid Waste Regulatory Framework Correspondence Update”.

At the February 8, 2019 Zero Waste Committee meeting, staff were requested to provide committee members with stakeholder correspondence received by Metro Vancouver relating to the solid waste regulatory framework updates, including letters of support or concern. The information below was emailed to Zero Waste Committee members on February 14, 2019. On February 20, 2019, the David Suzuki Foundation sent a letter of support to the Minister of Environment and Climate Change Strategy. This letter is included as Attachment 1.

The letters provided to the Committee on February 14, 2019 are available as follows:

- Letters received between July 7 and November 24, 2017 are included in the consultation summary reports that were provided to the Minister of Environment and Climate Change Strategy, available on the Metro Vancouver website:
  - Bylaw 181 Consultation Program Report is included as Reference 1. Letters start on page 489.
  - Commercial Waste Hauler Licensing and Generator Levy Consultation Program Report is included as Reference 2. Letters start on page 469.
- Correspondence received since November 24, 2017 is included as Attachment 2.

Attachments (Orbit #28770471)
1. Correspondence re Support for approval of the GVS&DD Bylaws No. 307, 2017 and No. 309, 2017 dated February 20, 2019 from the David Suzuki Foundation
2. Correspondence re Metro Vancouver Solid Waste Regulatory Updates (Received between November 24, 2017 and February 14, 2019)

References
1. Bylaw 181 Consultation Program Report
2. Commercial Waste Hauler licensing and Generator Levy Consultation Program Report
Re: Support for approval of the GVS&DD ByLaws No. 307, 2017 and No. 309, 2017

Dear Minister Heyman,

The David Suzuki Foundation supports approval and implementation of the two bylaws noted, above, the GVS&DD Commercial Waste Hauler Licensing Bylaw No. 307, 2017 and the GVS&DD Solid Waste and Recyclable Material Regulatory Amending Bylaw No. 309, 2017.

These bylaws are a necessary step to increased waste diversion and a financially sustainable regional solid waste system as Metro Vancouver strives to meet its zero waste goals. These measures will also help reduce greenhouse gas emissions and thus align with regional and provincial greenhouse gas emission reduction goals.

The bylaws have undergone extensive consultation and technical review and are specifically identified as key strategies in the Metro Vancouver Integrated Solid Waste and Resource Management Plan. The proposals are well thought out, share costs equitably and consistently across the waste disposal supply chain and will provide certainty and a level playing field for businesses wanting to engage in waste management and recycling.

While there is opposition from some sectors, the support for these regulatory measures is strong from a wide spectrum of individual waste and recycling companies, waste and recycling associations, industry associations, extended producer responsibility agencies and other regional districts.

Finally, the David Suzuki Foundation supports these bylaws for reasons beyond their ability to create an efficient and effective system of reducing and recycling waste. We also support them because they exemplify the citizens of Metro Vancouver acting on the knowledge that we are all a part of the shared ecosystem and taking responsibility for the waste we generate. Taking that responsibility is an excellent way to encourage ever improving performance towards a zero waste region.

Thank you for your attention to and support of this important regulatory improvement. Please contact me should you have any questions regarding our support for these bylaws.

Sincerely,

Jay Ritchlin
Director-General
Western Canada
## Correspondence: Metro Vancouver Solid Waste Regulatory Updates (Received between November 24 2017 and February 14 2019)

<table>
<thead>
<tr>
<th>Date</th>
<th>To</th>
<th>From</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 5, 2018</td>
<td>Minister of Environment and Climate Change Strategy</td>
<td>Cascades Recovery</td>
<td>Re: Support for Metro Vancouver Generator Levy/Hauler Licensing/Bylaw 181 Updates</td>
</tr>
<tr>
<td>June 3, 2018</td>
<td>Minister of Environment and Climate Change Strategy</td>
<td>Recycle BC</td>
<td>Re: Metro Vancouver Bylaw 181 Update</td>
</tr>
<tr>
<td>March 29, 2018</td>
<td>Minister of Environment and Climate Change Strategy</td>
<td>West Coast Reduction Ltd.</td>
<td>Re: Metro Vancouver Solid Waste Regulatory Initiatives</td>
</tr>
<tr>
<td>March 21, 2018</td>
<td>Minister of Environment and Climate Change Strategy</td>
<td>SWANA Pacific Chapter</td>
<td>Support for Metro Vancouver Generator Levy/Hauler Licensing/Bylaw 181 Updates</td>
</tr>
<tr>
<td>March 16, 2018</td>
<td>Minister of Environment and Climate Change Strategy</td>
<td>Recycling Council of BC</td>
<td>Support for Metro Vancouver Generator Levy/Hauler Licensing/Bylaw 181 Updates</td>
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<tr>
<td>March 9, 2018</td>
<td>Minister of Environment and Climate Change Strategy</td>
<td>Retail Council of Canada (RCC)</td>
<td>RE: Metro Vancouver Generator Levy and Hauler Licensing Bylaws</td>
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<td>March 6, 2018</td>
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<td>BC Electronic Products Recycling Association (EPRA)</td>
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<td>To</td>
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<td>February 22, 2018</td>
<td>Minister of Environment and Climate Change Strategy</td>
<td>Product Care</td>
<td>RE: Metro Vancouver Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181 Updates</td>
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<td>Minister of Environment and Climate Change Strategy</td>
<td>Comox Valley Regional District</td>
<td>RE: GVS&amp;DD Commercial Waste Hauler Licensing Bylaw No. 307, 2017</td>
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<td>Minister of Environment and Climate Change Strategy</td>
<td>Merlin Plastics Supply Inc.</td>
<td>Re: Support for Metro Vancouver Generator Levy/Hauler Licensing/Bylaw 181 Updates</td>
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<td>Central Coast Regional District</td>
<td>RE: Central Coast Regional District (CCRD) expression of support for the GVS&amp;DD Commercial Waste Hauler Licensing Bylaw No. 307, 2017</td>
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<td>Minister of Environment and Climate Change Strategy</td>
<td>Covanta Renewable Energy, ULC</td>
<td>Re: GVS&amp;DD Regional Bylaws</td>
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<td>Minister of Environment and Climate Change Strategy</td>
<td>Net Zero Waste</td>
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<td>Encorp Pacific (Canada)</td>
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<td>January 18, 2018</td>
<td>Minister of Environment and Climate Change Strategy</td>
<td>Major Appliance Recycling Roundtable (MARR)</td>
<td>Re: Metro Vancouver Generator Levy/Hauler Licensing/Bylaw 181 Updates</td>
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<td>Sender</td>
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<tr>
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<td>Minister of Environment and Climate Change Strategy</td>
<td>Surrey Board of Trade</td>
<td>Surrey Board of Trade: Hauler Licensing Program</td>
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<td>Minister of Environment and Climate Change Strategy</td>
<td>Business Council of British Columbia (BCBC)</td>
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<td>December 4, 2017</td>
<td>Metro Vancouver</td>
<td>City of Abbotsford</td>
<td>Re: Metro Vancouver Solid Waste Regulatory Changes</td>
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<td>January 26, 2018</td>
<td>Metro Vancouver</td>
<td>WMABC</td>
<td>Re: Metro Vancouver Generator Levy Implementation</td>
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June 5, 2018

The Honourable George Heyman
Minister of Environment and Climate Change Strategy
PO Box 9047 Stn Prov Govt
Victoria, BC V8W 9E2
Via email: env.minister@gov.bc.ca

Dear Minister Heyman:

RE: Support for Metro Vancouver Generator Levy/Hauler Licensing/Bylaw 181 Updates

We are writing you in support of Metro Vancouver’s proposed amendments to Bylaw 181.

Cascades Inc. is built on the concept of resource recovery, resource return and has operated with this mindset since its inception in 1964. The Circular business model has flourished with the full integration of the Recovery Operations into the Cascades family, allowing Cascades to strengthen its presence in the marketplace and focus on the development of sustainable products and packaging that can be collected, processed and returned as resources. The history of Cascades Recovery+ division is diverse and founded on hard work and commitment to a sustainable future.

Our view is that the Bylaws will provide socio-economic benefits to business and residents in Metro Vancouver while allowing for innovation and improvements in the operation of waste and recycling systems.

Cascades Recovery+ appreciates the efforts of Metro Vancouver staff to ensure a thorough stakeholder consultation and is satisfied with that process.

Thank you for your time and attention to this matter.

Sincerely

Brandon Rogers
Regional General Manager, BC Operations

CC:  Paul Henderson, General Manager, Solid Waste Services, Metro Vancouver
June 3, 2018

George Heyman  
Minister of Environment and Climate Change Strategy  
BC Government  
PO Box 9047 Stn Prov Govt  
Rm 112, Parliament Buildings  
Victoria BC V8W9E2

Re: Metro Vancouver Bylaw 181 Update

Dear Minister Heyman,

I am writing to you in support of Metro Vancouver’s proposed amendments to Bylaw 181.

Recycle BC is a not-for-profit organization responsible for residential packaging and paper recycling throughout British Columbia, servicing over 1.8 million households. Recycle BC works in partnership with more than 160 collection and post-collection partners, including local governments, First Nations, non-profits and private companies.

Given the significant developments in the recycling and solid waste management industry over the past two decades, Recycle BC supports the updates proposed in Bylaw 181 with the intent to reduce waste and increase recycling in the Metro Vancouver region. In particular, Recycle BC supports the exemptions under the Bylaw for facilities that manage products captured under provincial stewardship programs. These exemptions recognize the important role these facilities play as part of the network of provincial stewardship programs, including Recycle BC, that are diverting material from landfill while ensuring that it can be recycled in a responsible manner.

If you have any questions or require additional information, please contact us.

Sincerely,

Allen Langdon  
Managing Director, Recycle BC

CC: Paul Henderson, General Manager, Solid Waste Services, Metro Vancouver
March 29, 2018

The Honourable George Heyman
Minister of Environment and Climate Change Strategy
PO Box 9047 Stn Prov Govt
Victoria, BC V8W 9E2

Dear Honourable Minister Heyman,

Re: Metro Vancouver Solid Waste Regulatory Initiatives

We are writing you to express our support for Metro Vancouver’s solid waste regulatory initiatives, two of which are before you now for approval.

West Coast Reduction Ltd. (“WCRL”) is a British Columbia based family business that has played a key role in the management of solid waste and recyclable materials in British Columbia for over 50 years. Our recycling operations represent the best use for organic byproducts; the volume (220,000 tonnes) is approximately 60% of Metro Vancouver’s organic diversion from landfill target, each year. WCRL plays a vital role in accomplishing Metro Vancouver’s solid waste regulatory initiatives which would be difficult to replace if WCRL was not operating.

WCRL supports the GVS&DD Commercial Waste Hauler Licensing Bylaw No. 307, 2017; and GVS&DD Solid Waste and Recyclable Materials Amending Bylaw No. 309, 2017, and we would hope that the regulatory initiatives will receive your approval.

The reduction of waste through source control and increased recycling is a goal that all British Columbians should aspire to and the equitable funding of infrastructure to facilitate it is vital to our success.

We would welcome the opportunity to provide you with further information about WCRL and our role in sustainability and invite you for a plant tour at your convenience.

If there is anything that required further discussion, we would be happy to provide input and/or answer questions.

Yours very truly,
West Coast Reduction Ltd.

Barry C. Glotman, B.Sc.
President and Chief Executive Officer
Direct: 604.252.2070
Email: bglotman@wcrl.com

cc Ken Ingram, WCRL Director of Technical and Environmental Services – kingram@wcrl.com
Carol Mason CAO, Metro Vancouver – carol.mason@metrovancouver.org
Greg Moore, Board Chair, Metro Vancouver Regional District – mooreg@portcoquitlam.ca
Malcolm Brodie, Chair of the Metro Vancouver Solid Waste Committee – mayorandcouncillors@richmond.ca
Mark Zacharias, Deputy Minister of Environment – DM.ENV@gov.bc.ca
Paul Henderson, General Manager, Metro Vancouver Solid Waste Services – paul.henderson@metrovancouver.org
March 23, 2018

Honorable George Heyman
Minister of Environment and Climate Change Strategy
PO BOX 9047 STN PROV GOV
Victoria, BC, V8W9E2

Dear Minister Heyman:


The purpose of this letter is to advise of the Regional District of Central Kootenay’s (RDCK) support of the GVS&DD Commercial Waste Hauler Licensing Bylaw No. 307, 2017 as part of Metro Vancouver’s solid waste regulatory framework. The RDCK Board, at its regular meeting of March 15, 2018, passed the following resolution:

216-18 That the Board support Metro Vancouver’s GVS&DD Commercial Waste Hauler Licensing Bylaw No. 307, 2017 and to demonstrate this support will send a letter to the Honorable George Heyman, Minister of the Environment and Climate Change Strategy to be signed by the Chair.

Bylaw No. 307 requires Commercial Waste Haulers in Metro Vancouver to provide recycling containers for all multi-family and commercial/institutional buildings. Your approval of this bylaw will help Metro Vancouver in reaching their waste diversion targets and implement initiatives included in their Integrated Solid Waste and Resource Management Plan.

Waste flow management is an important issue for many regional districts in British Columbia. The ability to effectively manage waste flow is critical if we are to provide the long term infrastructure and services necessary to reach waste reduction targets. Further, to fully realize the benefit of waste diversion policies local government must have the ability to regulate the flow of municipal waste and recyclable materials as provided for in the Environmental Management Act.

The RDCK commends Metro Vancouver for demonstrating leadership on this issue and we strongly encourage you to approve their bylaw.

Sincerely,

Karen Hamling
RDCK Board Chair

cc: Paul Henderson, General Manager of Solid Waste Services, Metro Vancouver
    Michelle Mungall, MLA, Nelson-Creston
    Katrine Conroy, MLA, Kootenay West

File No. 12-6200-01-2018
March 21, 2018

The Honourable George Heyman  
Minister of Environment and Climate Change Strategy  
PO Box 9047 Stn Prov Govt  
Victoria, BC V8W 9E2  
VIA EMAIL: env.minister@gov.bc.ca

Re: Support for Metro Vancouver Generator Levy/Hauler Licensing/Bylaw 181 Updates

Dear Minister Heyman:

I am writing on behalf of the Executive Board of the Solid Waste Association of North America (Pacific Chapter) to express our support for the Greater Vancouver Sewage & Drainage District’s (GVS&DD) Commercial Waste Hauler Licensing Bylaw No. 307, Amending Bylaw No. 308 and Amending Bylaw No. 309.

The Solid Waste Association of North America (SWANA) is an organization of more than 10,000 public and private sector professionals committed to advancing from solid waste management to resource management through their shared emphasis on education, advocacy and research. For more than 50 years, SWANA has been the leading association in the solid waste management field.

SWANA Pacific is the BC and Yukon Chapter of SWANA, providing expertise and professional development to over 220 members from the public and private sectors through networking, training, and certification in disciplines including: collection, composting, construction and demolition, recycling, landfill management, municipal solid waste management, and transfer stations.

The Executive Board of SWANA Pacific supports the intent of the Bylaws, which is to equitably fund solid waste infrastructure while continuing to both reduce waste and increase recycling. We believe that the Bylaws would provide social and economic benefits to businesses and residents in Metro Vancouver while allowing for innovation and improvements in the operation of waste and recycling systems.

Zero Waste Committee
We also recognize that Metro Vancouver staff have worked to ensure a thorough and open stakeholder consultation process. Thank you for your consideration of this matter.

Sincerely,

[Signature]

Mark Watt, President
SWANA Pacific – BC & Yukon

cc: Mark Zacharias, Deputy Minister of Environment and Climate Change Strategy
    David Morel, Assistant Deputy Minister, Environmental Protection, Environment and Climate Change Strategy
    Greg Moore, Chair of the Board, Metro Vancouver
    Paul Henderson, General Manager, Solid Waste Services, GVS&DD
March 16, 2018

The Honourable George Heyman  
Minister of Environment and Climate Change Strategy  
PO Box 9047 Stn Prov Govt  
Victoria, BC V8W 9E2  
VIA EMAIL: env.minister@gov.bc.ca

Re: Support for Metro Vancouver Generator Levy/Hauler Licensing/Bylaw 181 Updates

Dear Minister Heyman:

I am writing on behalf of the Board of Directors of the Recycling Council of British Columbia (RCBC) to express the organization’s support for the Greater Vancouver Sewage & Drainage District’s (GVS&DD) Commercial Waste Hauler Licensing Bylaw No. 307, Amending Bylaw No. 308 and Amending Bylaw No. 309.

RCBC supports the intent of the Bylaws as mechanisms to equitably fund solid waste infrastructure, while continuing to both reduce waste and increase recycling. It is RCBC’s perspective that the Bylaws would provide socio-economic benefits to businesses and residents in Metro Vancouver while allowing for innovation and improvements in the operation of waste and recycling systems.

RCBC appreciates the efforts of Metro Vancouver staff to ensure a thorough stakeholder consultation and is satisfied with that process. Thank you for your time and attention to this matter.

Sincerely,

Brock Macdonald  
RCBC CEO

CC: Mark Zacharias, Deputy Minister of Environment and Climate Change Strategy  
David Morel, Assistant Deputy Minister, Environmental Protection, Environment and Climate Change Strategy  
Greg Moore, Chair of the Board, Metro Vancouver  
Paul Henderson, General Manager, Solid Waste Services, GVS&DD
9 March 2018

Hon. George Heyman, MLA
Ministry of Environment and Climate Change Strategy
PO Box 9063, Stn Prov Govt
Victoria, B.C. V8W 9E2

By electronic mail

Dear Minister Heyman,

RE: Metro Vancouver Generator Levy and Hauler Licensing Bylaws

Retail is both Canada and British Columbia’s largest employer with over 360,000 British Columbians (May 2017) working in the retail and wholesale trade alone. The sector generated payroll over $10 billion (2016) and $84 billion in sales (2017) in British Columbia. Retail Council of Canada (RCC) members represent more than two-thirds of retail sales in the country. RCC is a not-for-profit industry-funded association and represents small, medium and large retail business in every community across the country. As the Voice of Retail in Canada, we proudly represent more than 45,000 storefronts in all retail formats, including department, grocery, specialty, discount, independent retailers and on-line merchants.

The Retail Council of Canada writes today in support of Metro Vancouver’s proposed Commercial Waste Hauler Licensing Bylaw and their proposed revisions to the Generator Levy bylaws.

Our view is that the changes will improve equity in the system by increasing the number of participants contributing to the fixed costs of the Metro Vancouver’s solid waste program while improving diversion of solid waste through increased recycling.

If you have any questions, please do not hesitate to contact me.

Yours truly,

Greg Wilson
Director of Government Relations (B.C.)

Copy: Mark Zacharias, Deputy Minister
Paul Henderson, General Manager, Solid Waste Services, Metro Vancouver

Halifax • Montreal • Ottawa • Toronto • Winnipeg • Vancouver

Zero Waste Committee
March 6, 2018

George Heyman  
Minister of Environment and Climate Change Strategy  
BC Government  
PO Box 9047 Stn Prov Govt  
Rm 112, Parliament Buildings  
Victoria BC V8W9E2

Dear Minister Heyman,

I am writing to you in support of Metro Vancouver’s proposed amendments to Bylaw 181.

Electronics Products Recycling Association (EPRA) is the not-for-profit stewardship agency that operates electronics recycling programs in British Columbia and across Canada. We contract for collection services with a number of depot operators and retailers in the Metro Vancouver area.

We are writing to provide general support for Bylaw 181 and specifically its recognition of the unique and valuable role of drop-off depots and retailers in the recycling process. They are different from most other solid waste management sites and we support in particular the appropriate exemptions under the revised bylaw for those who manage stewarded products.

If you require additional information, please feel free to contact me.

Regards,

Craig Wisehart  
Executive Director, Western Canada

cc: Andrew Doi, Metro Vancouver  
Paul Henderson, Metro Vancouver
March 3, 2018

Honourable George Heyman
Minister of Environment and Climate Change Strategy
PO Box 9047 Stn Prov Gov
Victoria BC V8W 9E2

Dear Minister;

Re: Endorsement of GVS&DD Commercial Waste Hauler Licensing Bylaw No. 307, 2017

On January 18, 2018, Metro Vancouver Board wrote to the Regional District of Nanaimo (RDN) Board outlining their proposed GVS&DD Commercial Waste Hauler Licensing Bylaw No. 307, 2017.

At the RDN’s regular board meeting of February 27, 2018 the following motion endorsing the proposed bylaw was carried:

Metro Vancouver Commercial Waste Hauler Licencing Bylaw No.18-071

It was moved and seconded that the Board send a letter to the Minister of Environment and Climate Change Strategy endorsing Metro Vancouver’s Greater Vancouver Sewerage and Drainage District Commercial Waste Hauler Licencing Bylaw 307, 2017.

The RDN recognizes that Metro Vancouver’s proposed bylaw is intended to increase waste diversion and ensure that all waste generators pay the cost associated with waste infrastructure. The RDN is also contemplating Waste Hauler Licensing provisions. Staff are currently consulting on our draft Solid Waste Management Plan (Plan) which includes Waste Hauler Licensing and Mandatory Waste Source Separation as key initiatives to achieving the 90% diversion goal proposed in our draft Plan. It is anticipated the RDN Board will consider adoption of our draft Plan in the spring of 2018.

British Columbia is leading the world in its accomplishments towards zero waste. Waste Hauler Licensing is an effective tool for local governments to increase waste diversion. It is an opportunity to promote a sustainable innovative economy with significant environmental benefit.

We look forward to your decision approving Metro Vancouver GVS&DD Commercial Waste Hauler Licensing Bylaw No. 307, 2017.

Sincerely,

William Veenhof, Chair

cc: Greg Moore, Chair, Metro Vancouver Board
Malcolm Brodie, Chair, Metro Vancouver Zero Waste Committee
Paul Henderson, General Manager, Solid Waste Services, Metro Vancouver
February 22, 2018

The Honourable George Heyman
Minister of Environment and Climate Change Strategy
PO BOX9047 Stn Prov Govt
Victoria, BC V8W 9E2
VIA EMAIL: ENV.Minister@gov.bc.ca

Dear Minister Heyman,

Re: Metro Vancouver Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181 Update

Product Care is a not-for-profit industry sponsored association that manages product stewardship programs for household hazardous and special waste on behalf of its members across Canada. Product Care operates stewardship programs in British Columbia for paint, flammable liquids, pesticides and gasoline, lighting products and smoke alarms. Product Care also manages a number of other stewardship programs in BC on behalf of other industries for small appliance and exercise equipment, major appliance, and outdoor electrical power equipment.

We are writing to you in general support of Metro Vancouver Municipal Solid Waste and Recyclable Material Regulatory Amendment Bylaw No. 309, 2017 on the condition that the following amendment be made to SCHEDULE B – EXEMPTIONS FROM LICENSING REQUIREMENTS.

Currently the 3rd exemption reads:

3. any retail food, grocery, beverage or drug establishment that accepts recyclable products on a return-to-retail basis, and that accepts only Source Separated Recyclable Material;

Product Care supported amendment:

3. any retail, including, food, grocery, beverage or drug establishment that accepts recyclable products on a return-to-retail basis, and that accepts only Source Separated Recyclable Material;

It is our understanding based on discussions with Metro Vancouver that the proposed changes to Bylaw 181 were not intended to limit the exemption to food, beverage and drug establishments only but to exempt all establishments accepting products on a return-to-retail
basis. This amendment would allow stewardship programs to continue to flourish and be successful in diverting waste obligated under the Recycling Regulation.

Yours Truly,

Mannie Cheung
Vice President of Operations
Product Care Association of Canada

Cc: Mark Kurschner, President, Product Care Association of Canada
    Paul Henderson, General Manager, Solid Waste Services, Metro Vancouver
February 22, 2018

The Honourable George Heyman
Minister of Environment and Climate Change Strategy
PC Box 9047 Stn Pov Govt
Victoria, BC V8W 9E2

Dear Minister:

Re: GVS&DD Commercial Waste Hauler Licensing Bylaw No. 307, 2017

The Comox Valley Regional District (Comox Strathcona Waste Management) Board, at its February 15, 2018 meeting, passed the following resolution:

“THAT the Comox Strathcona Waste Management Board of Directors send a letter to the Minister of Environment and Climate Change Strategy in support of the "GVS&DD Commercial Waste Hauler Licensing Bylaw No. 307, 2017", and affirm that regional solid waste boards should have autonomy over their waste management affairs.”

Metro Vancouver’s Commercial Waste Hauler Licensing bylaw would help increase waste diversion by requiring Commercial Waste Haulers in Metro Vancouver to ensure recycling containers are provided for all multi-family and commercial/institutional buildings. The multi-family and commercial/institutional sectors have lower recycling rates compared to the single family sector where municipalities typically directly provide waste and recycling services.

In addition, commercial waste hauler licensing would also facilitate the collection of the Generator Levy, which ensures that all waste generators contribute to the fixed costs of the region’s transfer station network and solid waste planning, which benefit all waste generators in the region. As outlined in their proposal, these changes are aligned with their objectives to reduce waste, increase recycling and ensure current and future infrastructure is equitably funded.

The Comox Valley Regional District (Comox Strathcona Waste Management) Board supports Metro Vancouver’s proposed new regulatory framework, and as outlined in the resolution noted above, do so under the principle that regional solid waste boards should have autonomy over their waste management affairs to develop local solutions and innovative methods to meet their unique challenges.

Sincerely,

Bruce Jolliffe
Chair

cc: Claire Trevena, MLA, North Island
Ronna-Rae Leonard, MLA, Courtenay-Comox
Scott Fraser, MLA, Mid-Island Pacific Rim
Greg Moore, Chair, Metro Vancouver Board
Malcolm Brodie, Chair, Zero Waste Committee
February 19, 2018

The Honourable George Heyman  
Minister of Environment and Climate Change Strategy  
PO Box 9047 Stn Pov Govt  
Victoria, BC V8W 9E2  
VIA EMAIL: env.minister@gov.bc.ca

Dear Minister Heyman:

RE: Support for Metro Vancouver Generator Levy/Hauler Licensing/Bylaw 181 Updates

I, Antoine Moucachen, President and CEO of Merlin Plastics, would like to express my support for the GVS&DD’s Commercial Waste Hauler Licensing Bylaw No. 307, Amending Bylaw No. 308 and Amending Bylaw No. 309.

Merlin Plastics supports the intent of the Bylaws to equitably fund solid waste infrastructure while continuing to reduce waste and increase recycling. Our view is that the Bylaws will provide socio-economic benefits to businesses and residents in Metro Vancouver while allowing for innovation and improvements in the operation of waste and recycling systems.

Merlin Plastics appreciates the efforts that Metro Vancouver staff have made to ensure that there was thorough stakeholder consultation and are satisfied with the consultation process.

Yours truly,

Antoine Moucachen  
President & CEO, Merlin Plastics

CC:  Mark Zacharias, Deputy Minister of Environment and Climate Change Strategy  
David Morel, Assistant Deputy Minister, Environmental Protection, Ministry of Environment and Climate Change Strategy  
Greg Moore, Chair of the Board, MetroVan  
Malcolm Brodie, Director of the Board, MetroVan  
Paul Henderson, General Manager, Solid Waste Services, GVS&DD
February 15, 2018

Honourable George Heyman
Minister of Environment and Climate Change Strategy
PO Box 9047 Stn Prov Gov
Victoria, BC
V8W 9E2

Dear Minister Heyman,

RE: Central Coast Regional District (CCRD) expression of support for the GVS&DD Commercial Waste Hauler Licensing Bylaw No. 307, 2017.

The Board of Directors for the Central Coast Regional District is writing to express their support for the GVS&DD Commercial Waste Hauler Licensing Bylaw No. 307, 2017. Your approval of the bylaw is a critical step in helping Metro Vancouver achieve its waste diversion targets and implement regulatory initiatives identified in their approved Integrated Solid Waste and Resource Management Plan (ISWRMP).

A licencing program for commercial waste haulers will allow Metro Vancouver to ensure waste haulers provide recycling containers to the multi-family and commercial/institutional sectors they service. These sectors currently have the lowest diversion rates and their increased participation is required to help achieve the target of 80% waste diversion by 2020.

In closing, CCRD encourages the Ministry of Environment and Climate Change Strategy to support Metro Vancouver and regional districts across the province in implementing strategies to help achieve the goals identified in their respective Solid Waste Management Plans. Your support for GVS&DD Bylaw No. 307 is an important step in this direction.

Yours truly,

Alison Sayers
Chair, Central Coast Regional District
CC: Greg Moore, Chair, Metro Vancouver Board
Paul Henderson, General Manager, Solid Waste Services, Metro Vancouver
Mark Zacharias, Deputy Minister of Environment and Climate Change Strategy
David Morel, Assistant Deputy Minister, Environmental Protection, Ministry of Environment and Climate Change Strategy
Tessa Graham, Executive Director, Regional Operations Branch, Ministry of Environment and Climate Change Strategy
AJ Downie, Regional Director, Authorizations – South, Environmental Protection Division, Ministry of Environment and Climate Change Strategy
Luc Lachance, Section Head, General Industry / Solid Waste Authorizations – South, Regional Operations Branch Environment Protection Division, Ministry of Environment and Climate Change Strategy
January 30, 2018

The Honourable George Heyman
Minister of Environment and Climate Change Strategy
PO Box 9047 Stn Prov Govt
Victoria, BC V8W 9E2
Via email: env.minister@gov.bc.ca

Re: GVS&DD Regional Bylaws

Dear Minister Heyman,

Covanta is writing to express our support for the GVS&DD Commercial Waste Hauler Licensing Bylaw No. 307 and the GVS&DD Solid Waste and Recyclable Material Amending Bylaw No. 309. These bylaws will ensure that Metro Vancouver can continue to reduce waste, increase recycling and ensure the solid waste and recycling infrastructure and planning network is equitably funded. These bylaws will also allow the private sector to continue to participate in the solid waste system in a manner that is fair to all. Metro Vancouver is a recognized leader in the management of solid waste and these bylaws will ensure the continuation of a sustainable waste management system.

We also recognize the efforts that Metro Vancouver staff made to ensure all stakeholders were well informed and had the opportunity to be involved in the consultation process during the review of the proposed bylaws.

Sincerely,

Christopher Baker
Vice President & General Manager – West Region, Covanta

CC: Paul Henderson, General Manager, Metro Vancouver Solid Waste Services
    Mark Zacharias, Deputy Minister of Environment and Climate Change Strategy
Minister of the Environment and Climate Change Strategy  
Room 112 Parliament Buildings  
Victoria, BC  V8V 1X4  

January 27, 2018  

Dear Minister Heyman,

I am writing to you today to express my support for the approval of the Hauler Licensing Bylaw and updates to Bylaw 181 so as to ensure a sustainable waste management system within Metro Vancouver. I provide the following letter of support towards local infrastructure, local jobs, downstream businesses and a level playing field for all businesses that participate in Waste Management within BC. My firm, Net Zero Waste Inc. has a share in the ownership and operation of 4 composting facilities in South Western BC. I am also a Professional Engineer with more than 15 years of experience in the design and construction of composting facilities and organic management programs for communities ranging from as small as Powell River, BC to as large as the Los Angeles County Sanitation Districts, CA.

**Generator Levy**

My understanding is that under the Generator Levy, all waste generators contribute to the fixed costs of transfer stations and solid waste planning within Metro Vancouver. NZW facilities only process Source Separated Organics (which as a recyclable is not covered by the Generator Levy), however the existence of Transfer Stations are critical for an efficient integrated regional processing system. Our composting facilities are located outside of the populations centers where natural buffers help to minimize possible downstream odour impacts. Metro Vancouver Transfer Station Infrastructure allows communities to ship their organics to our facilities at a cost competitive rate. We recently lost a bid for a large Metro Municipality as we could not direct haul, which creates unbalanced processing throughout the region.

It has been proven that the best way to encourage recycling is to make garbage expensive. This can be seen by looking at provinces or states where waste is cheap as they trail others in sustainability and diversion programs. Recycling can then be completed at a savings to the community, allowing regulators to control unpermitted “.dumps” that polute and negatively impact downstream communities.

**Hauler Licensing**

To my understanding, the license conditions focus around municipal waste. If a processor is handling pre-processed or depackaged materials, then they would not require a license. The same would apply regarding the processing of agricultural or industrial waste streams currently not regulated by Metro Vancouver or handled through Metro Vancouver Infrastructure. Other conditions of the license mandate that haulers must ensure recycling containers are provided wherever they pick up garbage and that Organics are collected seperately from dry recyclables or garbage. Net Zero Waste supports this effort as it has been proven that when organics are co-mingled with all wastes they become too heavily contaminated to be sustainably recycled. Our goal should be to keep Organics out of the landfill so while depackaged organics provide a great feedstock for digestors, bulk comingling of solid waste streams does not provide for a sustainable system and typically is driven by cost savings for the hauler rather than improved diversion.

Zero Waste Committee
Bylaw 181 Update
This bylaw has not been updated since 1996. From my understanding, the changes proposed are intended to increase recycling and facilitate a level playing field for all businesses across all sectors within the waste industry. As the updates will only affect facilities that require a license, my concerns about agricultural waste or depackaged materials are covered by the points raised in the previous section. The update will require that any facility handling Mixed Municipal Solid Waste must reduce or recover a minimum of 25% of the total materials processed. This will help to maintain a focused effort to continually improve diversion, even if only a final 25% is pulled from the waste stream.

It is my goal as an environmentalist and businessman to do what I can to support sustainability and a smaller carbon footprint for our community. The changes discussed above do not appear to intend to control organics, but rather to help to ensure a level playing field for all of those that provide the same processing services for the same municipal waste streams. These controls will update our bylaws to include facilities which more than 20 years ago didn’t exist. These sites currently fall in-between the cracks and sit outside of any sort of regulatory control which provides them with a competitive advantage over those facilities which follow the BC regulatory regimen.

Having a degree of regional control in BC’s largest population center helps to ensure that a shared network will allow the “best” solution to be implemented, not only the closest. Metro needs to commit to continue to identify population centers with no access to Transfer Stations and invest in new Transfer Station sites, as the above controls look to discourage private sector investment in waste management infrastructure. We need our communities to be able to access the lowest regional costs and highest end use disposal options. This changes when existing facilities are challenged by increasing tonnages and mass odour complaints or downstream impacts. We need to have the ability to avoid overloading Mega sites that process more than 100,000 Tonnes per year, for balanced regional processing. There needs to be a recognition that funding this infrastructure may not always provide the “cheapest” solution in the short term, however it does help to ensure that a balanced and studied approach is taken for a sustainable solution with high diversion rates over the longer term. Net Zero Waste hopes that our odour free facilities located outside of the population centers can be part of the Metro Vancouver solution. We require the support of Metro Vancouver in our efforts and the utilization of regional infrastructure so as to ensure that organics can be transported to our sites at a cost competitive rate.

Mateo Ocejo; P.Eng
(604)868-6075

Cc: Greg Moore; Metro WMC Chair
    Paul Henderson, P.Eng.; General Manager - Solid Waste Services
January 25, 2018

George Heyman
Minister of Environment and Climate Change Strategy
BC Government
PO Box 9047 Stn Prov Govt
Rm 112, Parliament Buildings
Victoria BC V8W9E2

Dear Minister Heyman,

I am writing to you in support of Metro Vancouver’s proposed amendments to Bylaw 181.

Encorp Pacific (Canada) is the not-for-profit stewardship agency which operates the used beverage container return system under the Return-It brand. We license Return-It Depots as container return locations and collect used beverage containers from retailers across Metro Vancouver.

Solid waste management and recycling have evolved substantially over the past two decades and timely updating of applicable bylaws is needed. We are pleased that the amendments to Bylaw 181 continue to recognize the unique and valuable role of drop-off depots and retailers in the recycling value chain and that they are distinct in character from most other solid waste management sites. Encorp is in support of the proposed revisions, in particular appropriate exemptions under the revised bylaw for those who manage stewarded products.

If you require additional information, please feel free to contact us.

Regards,

ENCORP PACIFIC (CANADA)

Scott Fraser
President

cc: Andrew Doi, Metro Vancouver
Paul Henderson, Metro Vancouver
January 18, 2018

The Honourable George Heyman
Minister of Environment and Climate Change Strategy
PO Box 9047 Stn Pov Govt
Victoria, BC V8W 9E2
VIA EMAIL: ENV.minister@gov.bc.ca

Dear Minister Heyman:

Re: Metro Vancouver Generator Levy/Hauler Licensing/Bylaw 181 Updates

We are writing to you today to advise you that we are in support of the GVS&DD Waste Hauler Licensing Bylaw No. 307 and the GVS&DD Solid Waste and Recyclable Material Regulatory Amending Bylaw No. 309 that were submitted for your approval by Metro Vancouver. Our view is that these Bylaws will help fund solid waste infrastructure while continuing to reduce waste and increase recycling. We believe that the proposals will provide socio-economic benefits to businesses and residents in Metro Vancouver while allowing for innovation and improvements in the operation of waste and recycling systems. We are satisfied with the efforts that Metro Vancouver have made to ensure that there was thorough stakeholder consultation and we are satisfied with the responses to our initial questions and concerns.

Yours Truly,

Michael Zarbl
Executive Director, MARR

Cc: Mark Zacharias, Deputy Minister of Environment and Climate Change Strategy
    David Morel, Assistant Deputy Minister, Environmental Protection, Ministry of Environment and Climate Change Strategy
    Paul Henderson, General Manager, Solid Waste Services, GVS&DD
June 20, 2018

Hon. George Heyman
Minister of Environment and Climate Change Strategy
Legislature Building
Victoria, BC

Submitted by email

Re: Metro Vancouver’s Generator Levy and Hauler Licensing

Dear Minister Heyman,

The Surrey Board of Trade has a responsibility to review changes of policy or legislation or programs at all levels of government if they impact our members. Often we agree that such changes may improve economic opportunity. At other times, however, we find that suggested changes will in fact impede members’ ability to compete fairly in an equally balanced marketplace. The proposed generator levy, coupled with a hauler licensing program, is one that has caused us concern.

Members of our Environment & Resource Infrastructure Team have reviewed the proposed levy and licensing, and have hosted representatives from Metro Vancouver and the Waste Management Association. The members discussed the pros and cons in detail and have come to the conclusion that there are challenges to our members and to the concept of fairness of economic opportunity. As such, we cannot support the program as outlined for the following reasons.

1. Inherent Conflict of Interest

This has been raised before, and we raise it again, as it unfairly skews the market in favour of Metro Vancouver. Metro is regulating the waste disposal/waste haul business in Metro Vancouver. At the same time it is the owner/operator of major waste disposal and waste transfer facilities in Metro. Its proposed regulation can easily be seen as a means of protecting its investment and supporting its operating cost rather than a sincere attempt to provide needed service in the most efficient way and at the lowest cost to the consumer/taxpayer.

There is also an inherent conflict between Metro’s zero waste initiatives and its need to provide revenue to its waste disposal and transfer facilities. Revenues are volume dependent and Metro cannot arbitrarily continue to raise per unit prices to compensate for declining volumes. Progress in environmental management should yield dividends for society at large. Metro needs an analysis to show how improved waste handling reduces everybody’s costs and a plan to scale back its waste management costs as progress takes hold. Less waste should logically mean less cost. A schedule increasing disposal fees from $80/tonne to $93/tonne (16%) over the next 5 years does not meet this expectation.

If waste haulers are paying a $40/tonne levy to Metro Vancouver, regardless of whether they utilize a Metro facility or a private facility, how can a private facility compete? Simply, they can’t. The market is skewed in favour of Metro.

2. Impact on Haulers
Most, if not all, commercial waste haulers already provide source separating containers for their clients. However, the onus is now on the haulers to change the behaviour of waste generators, as per Metro’s goal to increase the effectiveness of source separation of mixed solid waste. Haulers compete for client contracts — admonishing haulers for client inability to source separate through fines and other penalties, requires the haulers to be in the position of enforcers of municipal by-laws, without the means or the authority to do so.

The recourse of “off-loading” or downloading the fine onto their clients, breaches current contracts and is a detriment to future contracts. The challenge is that multiplex units and multi-family towers provide individual anonymity when it comes to non-compliant behaviour, regardless of how many times a hauler may leave letters and notices. Waste haulers realistically have little or no means to influence the behaviour of their customers. Source separation has inherent inefficiencies and there are better, more efficient ways to accomplish these objectives. These alternative solutions might even create a few jobs and a contribution to provincial GDP.

3. Licenses as Free Market Disincentives

As we understand the intended Commercial Waste Hauler Licensing (By-law 181 amendments), licenses are ten years for private facilities, and one year for waste haulers. Neither time period is sufficient to provide long-term stability required by financial institutions or business development strategies. Compounding the detrimental limitation is that the only avenue to appeal is through the same license granting agency.

The short license terms are a major disincentive to private sector investment. Metro is intending to build a transfer station facility in Coquitlam at a cost of about $57M. How can a private entity be able to raise similar investments with only a 5-10 year license; a license that is granted and reviewed by a competitor in the open market?

It is worth noting that across the street from the new proposed Metro facility, there is a private investor who has an approved license and is willing to commit the capital so long as the split fee and facility license are not in place. This would in effect save Metro Vancouver $57 million in capital costs.

Minister Heyman, with respect, the private sector companies — waste haulers and facilities — are full participants in the waste management for the Lower Mainland, and if given sufficient opportunity, could be the means by which Metro can save millions in capital expenditure and operating costs. We hope that you take our comments in the spirit intended, to assist you in making decisions that will help save residents and businesses in the long run.

If you have any questions or require further comment, please do not hesitate to contact me at anita@businessinsurrey.com or 604-581-7130.

Respectfully submitted,

(H) Captain Anita Huberman, CEO, Surrey Board of Trade
March 26, 2018

The Honourable George Heyman
Minister of Environment and Climate Change Strategy
Parliament Buildings
Victoria BC V8V 1X4

Dear Minister:

We write to you today to express our concern and opposition to the Greater Vancouver Sewerage and Drainage District tipping fee and solid waste regulation bylaw or “2018 Tipping Fee Bylaw”. We strongly support using your authority, granted under the Environmental Management Act (EMA), to refuse this bylaw in the interest of businesses and the citizens of Metro Vancouver.

In our view the bylaw was rushed through the Metro Vancouver approval process without sufficient scrutiny or consultation. We are concerned about the legitimacy of the bylaw requirements, practical implications of implementation, and increased costs for citizens and businesses of Metro Vancouver. These additional costs add to the affordability challenges faced by all who live in the region and add unnecessary complexity to a process that should be straightforward. Both these issues are ones your government committed to address. These new bylaws are another in a series of attempts to create an anti-competitive waste management monopoly while doing little to protect the environment or reduce waste.

In 1998, British Columbia established legislation laying the ground work for results based product stewardship and waste management systems with an embedded polluter pay principle and performance standards; a first in North America. In this framework, the operational management of waste was left to experts, in partnership with regional districts, municipalities, home and apartment owners, and citizens. The result is one the most effective recycling programs on the continent along with innovations in waste management and hauling that has benefited the environment and lowered costs.

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The Honourable George Heyman
March 26, 2018
Page Two

The current bylaw undermines the framework and the successes to date. We are concerned this a reworking of previous attempts by Metro Vancouver to create borders where none exist and exert power inappropriately, and add administrative infrastructure and related costs borne by consumers unnecessarily. For example, section 4.2 says “no person shall dispose of Municipal Solid Waste at a Disposal Site unless it originates within the geographic area of the GVS&DD.” This implies monitoring a border and requiring registration of waste management company vehicles outside of Metro Vancouver.

We are concerned the levy, which is a fee under the EMA, is not tied directly to the actual cost of providing service. The supporting material to the bylaw provides no context or analysis on how the flows of revenue are balanced against the actual cost of service or how the tax is assessed for residents and businesses. The supporting correspondence related to this levy specifically suggests use for other purposes. Therefore, this is a tax and the Supreme Court of Canada is clear “(a) charge to users for the relevant service (by government or an agency) must have some reasonable relationship to the cost of the provision of that service.” (Eurig Estate (Re), [1998] 2 S.C.R. 565)

The structure of the new bylaw requirements generates additional administration including reporting and monitoring (but without guidance on the “how to”), and related increases in bureaucracy for questionable additional benefits. For example, Bylaw 307 requires haulers to expand their audit teams and yet provides no details on how the tax is collected, adding unnecessary complexity to a system with no appreciable benefit to the environment. As a result, haulers become data collection agents, raising issues of privacy and competitiveness, while being left with potential tax collection liabilities. This is unacceptable and likely unenforceable.

We have raised the concern about jurisdictional over-reach by Metro Vancouver in the past. For this reason, we ask you to review the bylaws under your EMA authority, reject them, and ask Metro Vancouver to reconsider their approach including consultation with industry. The result should include a set of clear principles, operational instructions, and defined outcomes (e.g., improved efficiency and reducing, not adding, costs and complexity) for businesses and resident of the region who face significant affordability challenges.

Sincerely,

[Signature]

Greg D’Avignon
President & CEO

Zero Waste Committee
Paul Henderson, P.Eng.
General Manager, Solid Waste Services
4330 Kingsway
Burnaby, BC V5H 4G8

Dear Mr. Henderson:

Re: Metro Vancouver Solid Waste Regulatory Changes

I am writing in regards to recent Metro Vancouver solid waste regulatory changes, including the generator levy, commercial hauler licensing, and Bylaw 181 review. In October 2017, Abbotsford City Council received a delegation from the Waste Management Association of BC citing concerns that the changes will control the flow of waste from the region, limit competition and prevent private sector investment. The changes were discussed at the City's Council Meeting held on November 20, 2017, where Council authorized staff to send comments to Metro Vancouver and the Ministry of Environment regarding the proposed regulatory changes.

The City supports the pursuit of increased waste diversion, as evidenced by Council's Strategic Initiatives to align with regional diversion goals. The City understands Metro Vancouver's stated objectives for the regulatory changes, which include providing equitable and sustainable funding of regional solid waste management, increasing waste diversion and increasing the effectiveness of solid waste regulation. Despite this fact, the City has concerns with the proposed Metro Vancouver regulatory changes due to the negative impacts they will have on some local solid waste businesses and the potential for Metro Vancouver to re-instate its pursuit of additional Waste-to-energy (WTE) facilities. The latter is reinforced by the understanding that Metro Vancouver plans to review WTE facility development options as part of its 2018 Zero Waste Committee work plan. WTE is of particular concern given the fragile and vital air shed shared by Metro Vancouver and the Fraser Valley Regional District (FVRD), and the negative consequences that WTE would have on local air quality and public health.

The City would like to continue to work cooperatively with its partners at the FVRD and Metro Vancouver to find workable solutions to achieve diversion that will benefit residents in both regions. We welcome the opportunity to meet with you to further discuss alternate solutions for achieving waste diversion goals.

If you have further questions, please contact Nathan Koning, Senior Engineer, Solid Waste and Environmental Services, at 604-557-1465 or nkoning@abbotsford.ca.

Yours truly,

Peter Sparanese, P.Eng.
General Manager, Engineering and Regional Utilities

cc: Honourable George
    Mayor Henry Braun, Cll
    City of Abbotsford Councillors
    George Murray, City Manager

Engineering & Regional Utilities 32315 South Fraser Way, Abbotsford, BC, V2T 1W7 | T: 604.864.5514 | F: 604.853.2219

www.abbotsford.ca
January 26, 2018

Paul Henderson
General Manager, Solid Waste Services
Greater Vancouver Sewerage and Drainage District
4330 Kingsway
Burnaby, B.C. V5H 4G8

Re: Metro Vancouver Generator Levy Implementation

Dear Paul,

In your letter dated January 25, 2018, you state “Metro Vancouver understands that these records are currently maintained by commercial waste haulers.” That understanding is mistaken and there is currently no means for haulers to maintain the detailed records implicitly required by the purported Generator Levy. As Metro has itself admitted, the Generator Levy depends on its companion draft bylaw. Unless and until that companion bylaw is approved by the Minister, Metro has no authority to require haulers to maintain and remit such (non-existent) records.

As always, we stand ready to meet with you to discuss ways and means that can and would work, for all parties, in order to meet the primary goal of maximizing waste diversion within Metro Vancouver specifically and the Province of BC additionally.

Sincerely,

Lori Bryan
Executive Director, WMABC
To: Zero Waste Committee

From: Paul Henderson, General Manager, Solid Waste Services

Date: March 1, 2019

Subject: Mixed Waste Processing Pilot

RECOMMENDATION
That the GVS&DD Board:

a) authorize engaging a consultant to assist in the design of a pilot project, financial model, and procurement process for the purpose of processing municipal solid waste for the recovery of materials and/or fuel; and

b) direct staff to report back to the Board with the concept plan and procurement model for the implementation of the pilot project.

PURPOSE
The purpose of this report is to seek direction from the Zero Waste Committee and GVS&DD Board to initiate a pilot project for the purpose of processing municipal solid waste for the recovery of materials and/or fuel.

BACKGROUND
Representatives of the cement industry have communicated to Metro Vancouver that cement kilns provide a unique opportunity for this region to divert a portion of the municipal solid waste stream that originates from residential and commercial/institutional sources to use as fuel and displace traditional fuel sources such as coal and natural gas. In addition, over the years various enterprises have come forward in the region promoting various technologies that claim to effectively recover materials from municipal solid waste for various uses, including use as a fuel source.

This report has been prepared to provide preliminary information for the Committee and Board on using municipal solid waste as fuel in cement kilns, including a pilot project to investigate the feasibility of processing municipal solid waste for the purpose of generating recyclable material or fuel.

MIXED WASTE PROCESSING
Cement Kilns and Refuse Derived Fuel
Cement kilns use a variety of alternative fuels, both here in the Lower Mainland as well as across North America and Europe. Typically, these fuels are high energy materials with consistent characteristics. Alternative fuels may lower costs for the cement kilns and reduce greenhouse gas emissions through the displacement of fossil fuels such as coal and natural gas. In British Columbia, there is an added benefit in expanding the use of alternative fuels in cement kilns because fossil fuels are subject to the Carbon Tax, making up a substantive component of the cost of using coal or natural gas.
Municipal solid waste is processed into refuse derived fuel for use in cement kilns in a number of countries in Europe and other parts of the world. The use of refuse derived fuels in cement kilns has been explored both in Canada and the United States for many years, but to Metro Vancouver’s knowledge there are no cement kilns using refuse derived fuel at an operational scale in North America at this time. Historic challenges within North America have involved air emissions-related regulatory requirements for the use of the refuse derived fuel, processing costs and reliability.

Proposed Mixed Waste Pilot Project
A mixed waste processing pilot project would answer a number of questions about mixed waste processing, including those relating to reliability, cost, environmental performance, regulatory requirements, and the appropriate business model.

The first steps would be to engage a consultant to help design the pilot project, develop the financial model, identify potential sites and prepare a procurement process. Once these tasks have been completed and an appropriate site has been secured, Metro Vancouver would initiate the procurement process to contract with a third party entity to develop a small-scale facility to process municipal solid waste. Recyclables and/or fuel would be recovered from the municipal solid waste and sold to either recycling markets or local cement kilns. Metro Vancouver anticipates that a pilot facility may be able to process in the range of 20,000 tonnes per year of municipal solid waste which would provide a suitable scale to determine the viability of mixed waste processing on a larger scale.

Under this proposal, once a contract is awarded, a pilot facility would be built to receive and process mixed waste. While details on the financial model are yet to be developed, it is anticipated that mixed waste would be delivered to the pilot facility by commercial or municipal haulers and Metro Vancouver would collect tipping fees on the same basis as other regional facilities. Incoming mixed waste loads would be inspected as part of the disposal ban program and the mixed waste processing company would be compensated based on the amount of material processed at the facility.

Consultation with member jurisdictions and industry representatives would be required in the development of the pilot project to ensure that the proposed pilot is both financially viable for Metro Vancouver and for potential proponents. It would also be critical to ensure that the pilot is designed in a way that aligns with the goals and objectives established Metro Vancouver’s Integrated Solid Waste and Resource Management Plan.

ALTERNATIVES
1. That the GVS&DD Board:
   a) authorize engaging a consultant to assist in the design of a pilot project, financial model, and procurement process for the purpose of processing municipal solid waste for the recovery of materials and/or fuel; and
   b) direct staff to report back to the Board with the concept plan and procurement model for the implementation of the pilot project.

2. That the Zero Waste Committee receive for information the report dated March 1, 2019, titled “Mixed Waste Processing Pilot” and provide alternate direction to staff.
FINANCIAL IMPLICATIONS
If the Board approves Alternative 1, staff will engage a consultant to assist in the design of the pilot project and the associated procurement process. It is anticipated that consultant services will be approximately $300,000. These funds can be accommodated in the 2019 Solid Waste Services budget. Under this alternative, staff will report back to the Committee and Board with the proposed pilot project concept and a recommended procurement approach for implementation.

Under Alternative 2, Metro Vancouver would not pursue a pilot project at this time to examine opportunities to recover materials from mixed residual waste. All mixed residual waste within the Metro Vancouver system is currently disposed at the Waste-to-Energy Facility in Burnaby, the Vancouver Landfill and at remote landfills.

SUMMARY / CONCLUSION
Representatives of the cement industry have communicated to Metro Vancouver that cement kilns provide a unique opportunity for this region to divert a portion of the municipal solid waste stream. In addition, over the years various businesses have come forward promoting technologies that claim to effectively recover materials from municipal solid waste for various uses, including use as a fuel source.

To respond to this interest, staff have prepared this report to provide preliminary information for the Committee and Board on using municipal solid waste as fuel in cement kilns, including a pilot project to investigate the feasibility of processing municipal solid waste for the purpose of generating recyclable material or fuel. The pilot project would answer a number of questions related to the effectiveness of processing of mixed waste and provide important information on the feasibility of implementing the technology on a larger scale. If successful on a small scale, the pilot would also demonstrate the potential to achieve broader environmental benefits for the region by reducing GHGs through the displacement of traditional fuel sources.

If the Board supports this initiative, staff will engage a consultant to assist in the design of a pilot project, financial model, and procurement process for the purpose of processing municipal solid waste for the recovery of materials and/or fuel. Staff will also consult with member jurisdictions and industry stakeholders in the development of the pilot project and will report back to the Committee and Board with the concept plan and procurement model for the proposed implementation of the pilot project. Staff recommend the approval of Alternative 1.
To: Zero Waste Committee

From: Brent Kirkpatrick, Lead Senior Engineer, Solid Waste Services

Date: March 1, 2019

Meeting Date: March 7, 2019

Subject: Waste-to-Energy Facility Second Pass Superheater Replacement Project Contract Award

RECOMMENDATION
That the GVS&DD Board authorize:

a) award to Covanta Burnaby Renewable Energy, ULC, for the construction of the second pass superheater replacement project at the Metro Vancouver Waste-to-Energy Facility at a cost of $5,484,000 (including PST, but excluding GST), under the terms and conditions of existing Contract 98106; and

b) the Commissioner and Corporate Officer to execute any necessary documents.

PURPOSE
The purpose of this report is to seek GVS&DD Board authorization to award to Covanta Burnaby Renewable Energy, ULC (Covanta) the construction of the second pass superheater replacement system at the Metro Vancouver Waste-to-Energy Facility in the amount of $5,484,000 (including PST, but excluding GST).

BACKGROUND
Pursuant to the Officers and Delegation Bylaw No. 247 and the Procurement and Real Property Contracting Authority Policy adopted by the Board on July 11, 2014 effective September 1, 2014, procurement contracts which exceed a value of $5,000,000 require the approval of the Board of Directors. Second pass superheaters are part of the energy recovery system at the Waste-to-Energy Facility. The existing units require replacement, and the overall project cost exceeds $5,000,000 and therefore entering into a contract to complete the work requires approval of the Board.

SECOND PASS SUPERHEATERS
The existing second pass superheaters are 15 years old, and have reached the end of their expected life. These superheaters, which are located in the second pass of the boiler, raise the temperature of the saturated steam to superheated steam to avoid condensation in the turbine, which would be operationally problematic. The existing tubes are difficult to repair, and frequent failures are resulting in a loss of processing capacity at the Waste-to-Energy Facility. Replacement of end of life equipment, including the second pass superheaters, is not part of the contract with Covanta.

To ensure continual operation of the Waste-to-Energy Facility, Covanta is the best firm to perform the work, as Covanta would operate the facility during the upgrades and continue to meet the requirements of Operational Certificate 107051 and fulfill the obligations of the Electricity Purchase Agreement with BC Hydro (e.g., avoid liquidated damages). In addition, as Covanta is responsible for
the operation and maintenance of the installed works, there is greater accountability if Covanta acts as general contractor during construction. To ensure a fair price for Metro Vancouver, Covanta will tender out the construction work and their markup for the work is specified in Contract 98106. Covanta has submitted a not to exceed value of $5,484,000 (including PST, but excluding GST) for project construction.

ALTERNATIVES

1. That the GVS&DD Board authorize:
   a) award to Covanta Burnaby Renewable Energy, ULC, for the construction of the second pass superheater replacement project at the Metro Vancouver Waste-to-Energy Facility at a cost of $5,484,000 (including PST, but excluding GST), under the terms and conditions of existing Contract 98106; and,
   b) the Commissioner and Corporate Officer to execute the required agreement.

2. That the Zero Waste Committee receive for information the report dated March 1, 2019, titled “Waste-to-Energy Facility Second Pass Superheater Replacement Project Contract Award” and provide alternate direction to staff.

FINANCIAL IMPLICATIONS

If the Board approves Alternative 1, Covanta will proceed with construction of the second pass superheater replacement project in the amount of $5,484,000 (including PST, but excluding GST). Funding for this project exists in the approved 2019 capital budget.

If the second pass replacement project does not proceed, the availability of the Waste-to-Energy Facility would be impacted as the existing equipment has reached the end of useful life.

SUMMARY / CONCLUSION

The existing second pass superheaters have reached the end of their useful life. Staff recommend Alternative 1 that Covanta be contracted to construct the second pass superheater replacement project at a cost of $5,484,000 (including PST, but excluding GST), under the terms and conditions of existing Contract 98106.
To: Zero Waste Committee

From: Heather Schoemaker, General Manager, External Relations
Ann Rowan, Manager, Collaboration Initiatives, External Relations

Date: February 1, 2019

Subject: Metro Vancouver’s 2018 Zero Waste Conference

RECOMMENDATION
That the MVRD Board receive for information the report dated February 1, 2019, titled “Metro Vancouver’s 2018 Zero Waste Conference”.

PURPOSE
To provide the Zero Waste Committee and MVRD Board an overview of Metro Vancouver’s Eighth Annual Zero Waste Conference—“A Future without Waste: The Journey to A Circular Economy”—held on Thursday, November 8 and Friday, November 9, 2018 at the Vancouver Convention Centre.

BACKGROUND
The Zero Waste Conference directly supports the first two goals of the Integrated Solid Waste and Resource Management Plan related to waste prevention. The annual Zero Waste Conference has become a fixture on Metro Vancouver’s public engagement calendar attracting interest from all levels of government, the business sector, sustainability practitioners and academia within the region and increasingly across Canada.

This report provides a summary of the Zero Waste Conference held on November 8 and 9, 2018.

2018 ZERO WASTE CONFERENCE
Following the 2017 Zero Waste Conference, the Metro Vancouver Board directed staff to expand the one-day format into a day and half. This would enable the expansion of conference content and participation, including local, national and international engagement.

Metro Vancouver hosted the eighth annual Zero Waste Conference beginning on the morning of November 8 and ending after lunch on November 9, 2018. By all accounts, the programing was very successful including world class keynote speakers, thought-provoking panels and inspiring examples of success in waste prevention and circular economy solutions. As in previous years, the conference worked in close collaboration with the National Zero Waste Council — an organization focused on waste prevention and founded and supported by Metro Vancouver. There were four notable achievements in 2018:

- The demographics of the Conference participants continues to attract business people but the mix include more young innovators and entrepreneurs;
- The national character of the Conference is becoming stronger with business people and government staff registering from across Canada and beyond;
With an extra half day, a “deep dive” into the important and timely issue of plastic waste could be organized, including consideration of the science, policy and manufacturing challenges as well as a robust discussion of promising solutions; and

There were positive results in seeking sponsorships for the Conference; sponsorships that strengthened the brand and provided additional revenues.

Program Highlights

The focus of the 2018 Zero Waste Conference was to highlight Canadian leadership on important issues of waste prevention and the circular economy while providing the opportunities from governments, businesses and innovators from around the globe that are continuing to break ground and serve as inspiration to push harder in terms of lasting solutions that will lead to a future without waste. The Conference drew in people committed to waste prevention but they left with a greater understanding of the circular economy and more zero waste ideas and solutions. On the first day of the Conference there were panels on technology innovation, materials and design innovation, business model transformation as well as Canadian leadership in food loss and waste. The focus of day two was on dealing with the challenge of plastic waste.

The keynote speakers were articulate and inspiring. Gerd Leonhard, a Futurist and Humanist, boldly predicted that we are up to the challenge of molding technology to fit our needs, Leyla Acaroglu, Design Disruptor, Creative Boundary Pusher and Cultural Provocateur, championed design as a disruptive force leading to a more sustainable world, Wayne Visser, Professor of Integrated Value and Chair of Sustainable Transformation with the Antwerp Management School, defined the value in ‘closing the loop’ in production, and Arthur Huang, Architect and Innovator and CEO and Founder of Miniwiz, energized the audience with his ground-breaking work upcycling waste into consumer products and buildings. A conversation with the leaders of government based initiatives in the circular economy from Finland, the Netherlands, and Scotland, talked about the role of government to take risks and encourage changes leading to a circular economy. Then for a change of pace, TV chef Bob Blumer demonstrated how to not waste food and use refrigerator cast-offs as raw materials for a delicious pizza, followed by a food loss and waste panel that brought together leaders around the National Zero Waste Council’s recently launched *A Food Loss and Waste Strategy for Canada*.

The conference included announcements related to the Canadian Innovation Showcase and National Zero Waste Council Design Portfolio. The Design Portfolio celebrates Canadian products in market that demonstrate an adherence to life cycle analysis and waste prevention in design. The Innovation Showcase recognized Canadian innovation consistent with the objectives of the Ocean Plastics Charter. In addition, three local young entrepreneurs — FoodMesh, ChopValue Manufacturing, and Nada — spoke to how a commitment to waste prevention led them to start their own companies. A good indicator of the business relevance of the Conference is that Brendan Seale, Head of Sustainability for Ikea Canada, chose his spot on the Business model Transformation Panel to announce that Canadian Ikea stores will buy back Ikea furniture in return for store credit and then will sell this furniture back at a reduced price in the store’s "As Is" section.

The challenge of tackling plastic pollution took centre stage on the second day of the Conference. The opening keynote, Minister of Environment and Climate Change Canada, unfortunately, had to withdraw at the last minute but was able to send her Deputy Minister, Dr. Stephen Lucas, instead.
Dr. Lucas shared with the audience the range of initiatives Canada was leading to move towards a circular economy in plastics that would ensure that plastics are used and reused and then disposed properly at the end of their economic life. Malcolm Brodie, the Conference Host and Chair of Metro Vancouver’s 2018 Zero Waste Committee and the National Zero Waste Council, then engaged Dr. Lucas in a conversation of how best to facilitate the collaboration of governments, at all levels, business and industry, scientists and innovators in making real progress. University of Toronto researcher Chelsea Rochman delivered a sobering update on micro-plastics and the state of our ocean but offered hope through collaborative global action and regulation. Then a panel delved into the role of innovation in changing the design of products and packaging using plastics could minimize the amount of plastic waste and when combined with new systems for reuse and recycling of plastic material could move us toward a future of zero plastic waste. A highlight of the Conference was a special presentation and discussion of the founders of the Circular Economy Leadership Coalition (National Zero Waste Council is a founding member), who will be championing the adoption of a circular, sustainable approach to the Canadian economy.

The Zero Waste Conference is well recognized in terms of its ability to attract high caliber speakers and panelists and the 2018 event was exceptional. The participation of thought leaders and innovators from government, business, community organizations and academia has created the sense that the Zero Waste Conference hosted by Metro Vancouver is the preeminent event to learn from and network with people leading the discussion on waste prevention and the transition to the circular economy.

Attachment 1 provides the full program for the 2018 Zero Waste Conference including a description of the panels and biographies of keynotes, speakers, and moderators.

**Audience/Participation**

Total attendance at the 2018 Zero Waste Conference was just over 500. According to information provided during registration, 41% of the participants were from the private sector (from start-ups to corporate brands), 18% were from local governments (elected officials and staff), 8% from other orders of government and First Nations, 20% from not for profits/NGOs, 6% were students and faculty, and 7% were interested members of the public. The registration fee was $375 for the 2018 Conference and nearly $145,000 was raised in registration fees to augment the Conference budget.

The stronger focus on recognizing innovation and the role of business in tackling the zero waste challenge in the Conference program supported by enhanced marketing and social media seem to have increased interest in the Conference among a younger demographic as well as in the business community.

The Zero Waste Conference has traditionally included a satellite event hosted by the City of Toronto’s Solid Waste Management Services. This has involved an investment by both parties in some sophisticated technology to link both audiences. In 2018, a Toronto audience viewed a live stream of only the opening keynote and the panel on Materials and Design Change. This allowed the City of Toronto to focus their program on November 8 on local initiatives and ensured that people interested in the Conference program had to travel to the Vancouver Convention Centre.
**Marketing**

The Zero Waste Conference has a modest marketing budget of $30,000; this allows for a very limited buy of targeted print media – strategically taking advantage of special offers with specific media outlets. The goal is always to bring in new attendees as well as remind prior conference registrants to come back. In 2018 we secured space in a special circular economy insert in *Maclean’s* in addition to our normal ad purchase in *Business in Vancouver*. Given last year’s success, we also created promotional material for local and national “influencer” networks to allow them to easily reach out to their business contacts and local government colleagues.

E-marketing products promoting the Conference begin going out to our existing databases in May, starting with a “save the date” message. As keynote speakers and spark talks are confirmed, blogs and e-invitations are created and distributed – through extensive lists managed by Metro Vancouver and the National Zero Waste Council. These topic-specific evites go out every 2 weeks in the beginning and then the frequency escalates as the Conference draws near. In addition, to relying on these internal lists, we ask contacts in like-minded organizations with list serves, professional association notice boards and the Federation of Canadian Municipalities to help push out the evites. We also encourage speakers and moderators to market the conference through their own networks. In 2018, the members of the Circular Economy Leadership Coalition also played a key role in marketing the conference and their efforts generated positive results. We also send regular and coordinated messages through Face Book and Twitter.

A small amount of printed materials (banners and book marks) are created to be made available at our Community Breakfasts, trade shows and conferences that Metro Vancouver staff are attending prior to the Conference. A promotional power point slide is added to all related Metro Vancouver presentations and event agendas and in-house produced videos have a conference tag added.

**Social and Earned Media**

A pre-event video promoting the Conference drew nearly 337,800 views across Facebook, YouTube, and the conference website. (Reference 1 provides a link to this video.) This represents a mix of organic and paid views. We promoted this through boosted posts on Facebook, pushed it out on Twitter, and used pre-roll on YouTube.

The Zero Waste Conference blog is used to promote the Conference but also to stimulate thinking and conversations related to waste prevention and the circular economy. Seventeen blog posts were published in 2018, with 2559 visitors registering 5018 page views – for an average engagement of 1.96 page views per visitor.

In terms of social media, the total number of tweets related to the Conference were 1,128 with a potential reach of over 3 million; this represents an increase of more than 130% over last year. In addition, the large majority of those tweets came from key influencers such as Brendan Seale and Coro Strandberg who retweet our content and generate their own posts as well. Having people with a good following and solid sustainability credentials republish our promotional material is effective in terms of extending our reach. (Attachment 2 provides a report on Twitter traffic and examples of the tweets generated at the Conference.)
Media coverage of the 2018 Zero Waste Conference was exceptionally strong; including the front page story of The Georgia Straight on the opening keynote, Gerd Leonhard, that came out early on the opening day of the Conference. There were 22 TV and radio stories in addition to 9 print and online stories related to the Conference with many referring to the Ikea announcement and Bob Blumer’s culinary demo on how to reduce needless food waste. The tone of all media stories about the programming and messaging of the Conference.

Campaign Materials
The Zero Waste Conference aims to be a zero waste event – we do not provide printed versions of the program or other material. With over 14 hours of programming, the Conference generates a wealth of information, ideas, and conversations. In total there were six stimulating keynote presentations, two disrupter “spark” talks, two showcases celebrating Canadian innovation and seven thought-provoking panels. This was all video-taped and is available on the Conference website and can be used by those who attended the Conference and can be shared with those who missed it. Videos of keynotes and panels of all but the very first Conference are available on the website, representing a treasure trove of information as well as a marker of how the discussion of waste prevention and the transition to the circular economy is evolving in Canada. (Reference 2 provides a link to these videos.)

Sponsorships
For the first time, a relatively soft exploration of the potential of sponsorships to supplement the revenue sources for the Conference was launched. Three entities that were strongly associated with the importance of waste prevention and the promise of the circular economy – Canadian Stewardship Services Alliance, Cascades and the government of Holland – were pursued. All three responded favourably and we were able to raise $20,000 in sponsorships.

NEXT STEPS: MAINTAINING THE MOMENTUM
Over the eight years of its history, the Zero Waste Conference has grown in size and in profile as the venue to discuss waste prevention and the opportunities for establishing circular economy systems in Canada. The quality of the speakers and panels, pulling from thought leaders and innovators from Europe, Asia, the United States, locally and across Canada, provides a unique environment in North America to explore important themes and issues in waste prevention.

Advancing a waste prevention agenda in Canada is the mission of the National Zero Waste Council and the Council bookended the Conference by holding its AGM the day prior to the Conference. As the leadership of the Council grows in terms of stature, the scheduling of the Council’s AGM in close proximity to Metro Vancouver’s Conference creates a greater draw for business and thought leaders from across Canada interested in advancing waste prevention and the transition to the circular economy to come to Metro Vancouver.

The Conference will continue to be a day and half in 2019. The production value of the Conference does not need to be enhanced which will allow shifting some resources to expanded marketing efforts. In terms of programming, more white space will be created in order to enhance the networking opportunities among Conference participants.
ALTERNATIVES
This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS
Total expenditures for the 2018 Zero Waste Conference were approximately $375,000 with revenues of $164,000 for a net cost of approximately $211,000. The budget for the conference is supported under the 2018 General Government Program and managed by the External Relations Department.

SUMMARY / CONCLUSION
The focus of the 2018 Zero Waste Conference was to highlight Canadian leadership on important issues of waste prevention and the circular economy while providing the opportunities from governments, businesses and innovators from around the global that are continuing to break ground and serve as inspiration to push harder in terms of lasting solutions that will lead to a future without waste. Over a day and a half of programming on November 8 and 9 there were six stimulating keynote presentations, two disrupter “spark” talks, two showcases celebrating Canadian innovation and seven thought-provoking panels.

There were four notable achievements in 2018:

- The demographics of the Conference participants continues to attract business people but the mix include more young innovators and entrepreneurs;
- The national character of the Conference is becoming stronger with business people and government staff registering from across Canada and beyond;
- With an extra half day, a “deep dive” into the important and timely issue of plastic waste could be organized, including consideration of the science, policy and manufacturing challenges as well as a robust discussion of promising solutions; and
- There were positive results in seeking sponsorships for the Conference; sponsorships that strengthened the brand and provided additional revenues.

Attachments

References
1. Pre-event video: https://vimeo.com/281019495
A Future Without Waste: The Journey to A Circular Economy

Presented by Metro Vancouver and the National Zero Waste Council

FINAL PROGRAM

Conference MC: Vanessa Timmer, Co-Founder and Executive Director, One Earth and Board Member, National Zero Waste Council

DAY ONE - November 8

8:30 am WELCOMING/OPENING REMARKS

Malcolm Brodie, Conference Host, Chair, National Zero Waste Council and Chair, Metro Vancouver Zero Waste Committee

- The Right Honourable Justin Trudeau, Prime Minister of Canada - video welcome

8:45 am KEYNOTE - Gerd Leonhard, Futurist and Humanist

Gerd Leonhard, Futurist and Humanist, Zurich/Switzerland

“Humanity will change more in the next 20 years than they have in the last 300”

Making connections and advancing our thinking is one of the keys to progress. Futurist Gerd Leonhard is connecting the dots to our data-driven future – championing the benefits and highlighting the risks. Gerd’s vision of our future is that of great potential to make the world a better place for all. But he’s quick to point out the potholes on the road to a circular economy as well highlighting the technologies that will impact our lives the most, and outlining the human-scaled answers needed to ensure the 21st century landscape is a place we all want to live.

Moderator: Dr. Murali Chandrashekaran, Vice Provost, International, University of British Columbia

9:30 am TECHNOLOGY INNOVATION

The circular economy demands technological innovations on a scale not yet seen in our modern world. This pace of change is still quickening, continuing to yield unforeseen benefits and unintended consequences – from seeds of innovation planted using zero waste principles. We’ll be examining both the potential opportunities and potential pitfalls technology is creating as the circular economy grows.

Speakers

- Vanessa Grondin, Vice-President, Food and Beverage Industry, OPTEL
- Jay Thakkar, Manager, Accenture Strategy
- Garnet Miller, IT Architect, Cognitive Business Decision Support, IBM Services

Moderator: Chris Ripley, CEO, Smarter Sorting

10:15 am BREAK

10:30 am MATERIALS & DESIGN INNOVATION

Zero Waste Committee
New materials and zero waste designs. Innovations in deconstruction, recycling, repair, and reuse close the loop. What does it take to move beyond our “take-make-dispose” linear mode of thinking and into a circular model? It all starts with materials and product design - redefining our relationship with stuff and designing goods without the waste embedded in current production and consumption models. Learn how inventors and pioneers in disruptive design are leading the way to the circular economy transition.

**SPARK Talk**

- Arthur Huang, CEO and Founder of Miniwiz

A circular economy pioneer featured in the new three-part documentary series *Jackie Chan’s Green Heroes*, expect Arthur to challenge your preconceptions around trash, showing how upcycling can have a massive impact on waste, and fire up your imagination with new and creative ways to succeed in the circular economy.

**Panel**

- Rhys Thom, Senior Design Lead, Design for Change, IDEO
- Kate Daly, Executive Director, Center for the Circular Economy, Closed Loop Partners

**Moderator:** Mikhael Metauro, National Business Development & Sales Strategist, Cascades Recovery

**11:30 am**  **KEYNOTE - Transformational leadership on the journey to the circular economy**

_A Conversation with Sitra, Zero Waste Scotland and The Netherlands_

Now is the time for innovative solutions and positive action. Around the world, comprehensive circular economy strategies are driving innovation and change - and much of that innovation is being led by governments. There is an important role for governments to play – not only as innovators and policy makers but as leaders encouraging change and risk. Learn from three national and international organizations at the forefront – Sitra, the Finnish Innovation Fund,, Zero Waste Scotland and The Netherlands.

- Mari Pantsar, Director, Carbon-Neutral Circular Economy, Sitra
- Iain Gulland, Chief Executive, Zero Waste Scotland
- Henk Snoeken, Consul General of the Netherlands in Vancouver

**Moderator:** Kathryn Gretinger, Vancouver Journalist and Senior Lecturer, UBC Graduate School of Journalism

**12:30 pm**  **LUNCH**

**1:15 pm**  **DESIGN PORTFOLIO SHOWCASE**

The National Waste Council design portfolio celebrates Canadian products and packaging that take the entire lifecycle into account during design, and are moving towards a circular economy by minimizing waste. From fashion to furniture, businesses are finding cost-savings, reduced environmental impacts, and increased consumer appeal by designing differently. Join us as we showcase the 2018 recipients.

**Presenters**

- Malcolm Brodie, Chair, National Zero Waste Council and Chair, Metro Vancouver Zero Waste Committee
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<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tr>
<td>1:30 pm</td>
<td>KEYNOTE - Wayne Visser - Sustainability Innovation &amp; Change Management/Closing the Loop</td>
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<td><strong>Wayne Visser</strong>, Professor of Integrated Value &amp; Chair of Sustainable Transformation, Antwerp Management School</td>
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<td></td>
<td>“Unless we go to circular, it's game over for the planet.”</td>
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<td>After years spent working on sustainability, Wayne Visser believes we are on the cusp of a major revolution - nothing short of the next industrial revolution. The time for fear-mongering and demonising companies has past. Now is the time for innovative solutions and positive action. This is nowhere more true than in the do-or-die challenge of creating a circular economy. A sobering thought. But Visser brings solutions - solutions to the challenges of pollution, resource depletion, and waste –a blueprint for the greener future.</td>
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<td><strong>Moderator:</strong> <a href="#">John Coyne</a>, VP, Legal &amp; External Affairs, Unilever Canada Inc. &amp; Executive Chair, Canadian Stewardship Services Alliance</td>
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<td>2:15 pm</td>
<td>BUSINESS MODEL TRANSFORMATION</td>
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<td>Sweeping changes are coming to the marketplace. Circular principles bring challenges to traditional business practices, rewards for successful innovators, and a fundamental shift in the way we use the goods and services that drive our global economy. Exploring the factors bringing the biggest impacts, examining the trends still gaining momentum, and understanding the most effective ways to prosper in these exciting times – our speakers and panelists bring their creativity, experience, and vision to share with attendees.</td>
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<td><strong>Panelists</strong></td>
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<td>- <strong>Guillaume Lavoie</strong>, Lecturer, National School of Public Administration, University of Quebec</td>
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<td>- <strong>Megan Arnaud</strong>, Retail Leader, EILEEN FISHER Renew</td>
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<td>- <strong>Brendan Seale</strong>, Head of Sustainability, IKEA Canada</td>
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<td><strong>“POP-UP” Profiles</strong></td>
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<td>- <strong>Jessica Regan</strong>, CEO, FoodMesh</td>
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<td>- <strong>Felix Böck</strong>, Founder and CEO, ChopValue Manufacturing Ltd.</td>
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<td>- <strong>Brianne Miller</strong>, Founder and CEO, Nada</td>
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<td><strong>Moderator:</strong> <a href="#">Denise Taschereau</a>, CEO &amp; Co-Founder, Fairware</td>
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<td>3:30 pm</td>
<td>LEADERSHIP TO PREVENT FOOD LOSS AND WASTE</td>
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<td>Food waste remains one of the biggest areas of waste in our society - more than a third of the food produced and distributed in Canada never gets eaten.</td>
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<td>In this session we’ll see how private/public collaborations, industry initiatives, and consumer-driven trends are all playing a part in the fight against food waste. We can achieve far greater success through collaboration and a unified vision for change.</td>
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<td><strong>Zero Food Waste Culinary Showcase</strong></td>
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<td>- <strong>Bob Blumer</strong>, Professional Gastronaut and host of Food Network’s The Surreal Gourmet</td>
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Zero Waste Committee
Bob Blumer would be the first to admit it. His cooking is garbage. Behind this startling claim however, Bob delivers real world food rescue tactics that will have you looking at your kitchen waste in a whole new way.

The TV chef, 'gastronaut', and ambassador for Second Harvest in Toronto will be performing live at the 2018 Zero Waste Conference, demonstrating how leftovers and unused food can become delicious meals with a little imagination and an open mind.

**Food Loss and Waste Strategy for Canada**

In conjunction with key stakeholders the National Zero Waste Council launched [A Food Loss and Waste Strategy for Canada](#)– a systems based framework for preventing and reducing food waste, along with a national food waste reduction campaign: Love [Food Hate Waste Canada / J’aime manger pas gaspiller](#).

**Speakers**

- **Tom Rosser**, Assistant Deputy Minister, Strategic Policy, Agriculture and Agri-Food Canada
- **Sam Wankowski**, Senior Vice President of Operations, Western Canada, Walmart Canada
- **Lori Nikkel**, CEO, Second Harvest
- **Cher Mereweather**, Executive Director, Provision Coalition

**Moderator:** Denise Philippe, Lead on Food Waste and Loss Strategy for Canada, National Zero Waste Council

**4:45 pm KEYNOTE PRESENTATION - Dr. Leyla Acaroglu - Disrupting the Status Quo**

Dr Leyla Acaroglu, Founder & Chief Disrupter, Unschool

Sustainability Provocateur, Designer, Sociologist, Experimental Educator and Social Change Maker. Acaroglu’s work illuminates the ways design impacts our perspectives and behaviours. Then she goes a step further. Looking at the stories we tell ourselves in our daily lives, in the myriad consumer choices we make, she sees the urge to make sustainable choices sabotaged by mistaken beliefs about materials and their properties. It's a big challenge, but adopting circular economy values and systems can leverage design and consumer culture as a potent catalyst for a massive change.

**Moderator:** Vanessa Timmer, Co-Founder and Executive Director, One Earth and Board Member, National Zero Waste Council

**5:35 pm Closing Remarks**

Malcolm Brodie, Conference Host, Chair, National Zero Waste Council and Chair, Metro Vancouver Zero Waste Committee

**DAY TWO - November 9**

**8:30 am WELCOMING/OPENING REMARKS**

Malcolm Brodie, Conference Host, Chair, National Zero Waste Council and Chair, Metro Vancouver Zero Waste Committee

- The Honourable George Heyman, Minister of Environment & Climate Change Strategy of British Columbia - video welcome

**8:35 am KEYNOTE - Dr. Stephen Lucas, Deputy Minister, Environment and Climate Change Canada**
Dr. Stephen Lucas, Deputy Minister, Environment and Climate Change Canada

Moderator: Malcolm Brodie, Chair, National Zero Waste Council and Chair, Metro Vancouver Zero Waste Committee

PLASTICS INNOVATION FORUM

Plastics are remarkably convenient, inexpensive and useful. But their durability means plastic debris is everywhere. It is choking our oceans and its animals, and potentially moving toxins up the food chain. It represents a growing loss of economic value and source of avoidable greenhouse gases. Canada and the EU’s Oceans Plastic Charter, NGO efforts and innovative businesses are aiming at circular solutions to keep plastics in the economy and out of nature.

9:15 am A GLOBAL CHALLENGE

Chelsea Rochman, Assistant Professor, Department of Ecology and Evolutionary Biology, University of Toronto

Global Panel

- Sonja Wegge, Project Manager for the New Plastics Economy, Ellen MacArthur Foundation
- Matthew Fraser, Senior Project Manager, Cities Programme, Circle Economy
- Daniella Russo, CEO & Founder, Think Beyond Plastic™

Moderator: Christina Seidel, Co-Chair of the Circular Economy Working Group, National Zero Waste Council

10:30 am BREAK

10:45 am ENABLING ENVIRONMENTS FOR CHANGE - CANADIAN INNOVATION SHOWCASE

Global plastic pollution poses a multi-dimensional challenge to humanity, often compared to climate change in terms of impact, breadth, and complexity. A challenge of this magnitude will often inspire a surge in searches for solutions. In order to accelerate the search for solutions, Canada’s National Zero Waste Council and Think Beyond Plastic™ are collaborating to produce this showcase featuring Canadian Innovations that are consistent with resource-efficient, lifecycle management approach to plastics in the economy outlined in the G7 Ocean Plastics Charter.

- Daniella Russo, CEO & Founder, Think Beyond Plastic™
- Jim Downham, President and CEO, Packaging Consortium (PAC) & Vice Chair, National Zero Waste Council

11:15 am A PATH FORWARD FOR CANADA: CIRCULAR ECONOMY LEADERSHIP COALITION

The Circular Economy Leadership Coalition is a national alliance of Canadian leaders working together to eliminate waste and accelerate the reductions of carbon emissions from the Canadian economy through the advancement of a circular economy. Hear from CELC members about what’s in store, and provide your thoughts and ideas on a circular economy path forward for Canada.

Presentation

- Malcolm Brodie, Chair, National Zero Waste Council
• Brendan Seale, Head of Sustainability, IKEA Canada

Speakers
• David Hughes, President and CEO, The Natural Step Canada
• Stephanie Cairns, Director, Cities & Communities, Smart Prosperity Institute
• Kevin Groh, Vice President, Corporate Affairs and Communication, Loblaw
• Bob Walker, Head of ESG Services, NEI Investments

Moderator: Nancy Wright, Chief Operating Officer, Globe Series

12:15 pm  CLOSING LUNCH & CONFERENCE REFLECTIONS

• Mari Pantsar, Director, Carbon-Neutral Circular Economy, Sitra
• Iain Gulland, Chief Executive, Zero Waste Scotland
• Wayne Visser, Professor of Integrated Value & Chair of Sustainable Transformation, Antwerp Management School
• Leyla Acaroglu, Founder & Chief Disrupter, Unschool
• Henk Snoeken, Consul General of the Netherlands in Vancouver

Moderator: Vanessa Timmer, Co-Founder and Executive Director, One Earth and Board Member, National Zero Waste Council

1:15 pm  CLOSING REMARKS

Malcolm Brodie, Conference Host, Chair, National Zero Waste Council and Chair, Metro Vancouver Zero Waste Committee
A Future Without Waste: The Journey to A Circular Economy

DAY ONE - NOVEMBER 8

CONFERENCE MC

Vanessa Timmer
Co-Founder and Executive Director, One Earth and Board Member, NZWC

Dr. Vanessa Timmer is the Executive Director of One Earth, a Vancouver, Canada-based environmental ‘think and do tank’ creating and imagining sustainable ways of living in cities and around the world. One Earth collaborates with partners to transform how people live their lives – what they need, what they consume and produce, and what they aspire to – enabling everyone to live good quality of lives within their fair share of our planet’s resources.

Vanessa is also a Senior Research Fellow at Utrecht University with Pathways to Sustainability, the Urban Futures Studio, and the Copernicus Institute of Sustainable Development. She holds a Doctorate and studied at Queen’s University, Oxford, UBC and Harvard. Vanessa sits on the Multi-stakeholder Advisory Committee for the United Nations 10YFP Sustainable Lifestyles Programme. In Canada, she is a Board member of the National Zero Waste Council and of the Vancouver Foundation Partnership Committee. This year she received the 2018 YWCA Women of Distinction Award in Environmental Sustainability.

WELCOMING/OPENING REMARKS

Malcolm Brodie
Chair, Metro Vancouver Zero Waste Committee and Chair, NWZC

Malcolm Brodie has been a Board Director and Chair of the National Zero Waste Council since its inception in October 2013. He has also been a member of Council for the City of Richmond since 1996, and following a by-election, he was sworn in as Mayor on October 29, 2001. Mayor Brodie was re-elected on November 16, 2002, November 19, 2005, November 15, 2008, November 19, 2011, and November 15, 2014.

Malcolm Brodie has been appointed by his Council to the Board of Directors of Metro Vancouver and he currently is the Chair of the Zero Waste Committee and also serves on the Intergovernmental & Finance Committee, the Mayors’ Committee, the Performance & Procurement Committee, and the Federal Gas Tax Task Force. He represents Metro Vancouver on the Municipal Finance Authority, and in 2015, was elected as Chair. Before election to Council, Mayor Brodie was a practicing lawyer and had a long record of service to Richmond in the volunteer community.

OPENING KEYNOTE
Gerd Leonhard
Futurist & Humanist, Author, CEO The Futures Agency, Zurich / Switzerland

Gerd Leonhard is a hunter and gatherer of human values from the future. From culture and society to commerce and technology, Gerd brings back the news from the future so business and society leaders can make better choices right now. In his latest book, Technology vs. Humanity, Gerd explores the key ethical and social questions which urgently require an answer before we increasingly abdicate our very humanity. For organizations in the grip of disruption, Gerd supplies visionary insights and concentrated wisdom that inform key decisions makers today. A musician by origin, Gerd Leonhard has now redefined the vocation of futurist as a new humanist.

Gerd was listed as one of the top 100 influencers in technology by Wired magazine (2015). His clients include over 200 companies and organizations in 50+ countries, including Google, IPG, UBS, Roche, WWF, Cisco, KPMG, Accenture, Nestlé, Unilever, US Social Security Agency, the BBC, Universal Studios, the EU Commission and many more.

MODERATOR

Murali Chandrashekaran
Vice Provost, International, University of British Columbia

Dr. Murali Chandrashekaran is the Vice Provost (International), at the University of British Columbia (UBC), Canada, and the Fred H. Siller Professor of Marketing and Behavioural Science at UBC’s Sauder School of Business. As Vice-Provost, International, Dr. Chandrashekaran provides leadership in shepherding the University's diverse and complex international activities on both campuses, and in advancing UBC's international strategic priorities.
TECHNOLOGY INNOVATION

Vanessa Grondin
Vice-President, Food and Beverage Industry, OPTEL

Vanessa Grondin has over 10 years' experience in the food & beverage industry, in multinationals and start-ups alike. During that time, she has held a variety of management positions, mainly in R&D, QA, as well as equipment design. As Vice-President of Optel's Food and Beverage Industry, Ms. Grondin's role is to promote OPTEL's digital traceability solutions, which uses cutting-edge technologies to optimize supply chains efficiency and reduce waste. A technology enthusiast, Vanessa loves to talk about how cloud solutions, AI, IoT, blockchain and various mobile functions such as chatbots can improve supply chain efficiency.

Jay Thakkar
Manager, Accenture Strategy

Jay consults global organizations on business strategy, digital strategy, circular economy, and sustainability – often working at the cross-section of business and technology. He advises large organizations on unlocking competitive advantage from the circular economy, shaping business strategy through the lens of growth, profitability, and sustainability, and the role of technology in transforming the way we do business. Jay has helped clients in over 9 countries and across several industries.

At Accenture Strategy in Toronto, he is a global SMA on circular economy, leads CoE for ESG analytics, and advises on digital transformations. Jay’s client engagements at Accenture are diverse and include Growth Strategy, Business Model Innovation, Product Innovation, Digital Strategy and Roadmaps. Jay actively engages on several forums helping shape the sustainability agenda and has closely worked with consortia like UNGC, Automotive Industry Action Group (AIAG), FICCI, FGI etc. in the past. When not busy helping transform the ways of business, Jay enjoys spending time in nature and walking trails.

Garnet Miller
IT Architect, Cognitive Business Decision Support, IBM Services

Delivering solutions for IBM’s multi-national clients who are focused on becoming digital, Garnet works with both new and established companies who are using innovation to be disruptors to the norms and methods of business in their industry. Digital business models, focused on customer experience require new innovations in products and the making and delivery of products and services. Garnet works with his clients to create a Customer Experience that meets expectations and new innovations and big ideas are the underpinning of these business models. At IBM in Vancouver, Garnet works with IBM’s global solution centres in Agriculture, Oil & Gas, Minning, and Mental Health Providers using AI & Machine Learning, Big Data, and Cloud solutions to solve modern business problems. When he’s not at work Garnet enjoys outdoor activities.
Chris Ripley
Co-Founder and CEO of Smarter Sorting

Chris is the Co-Founder and CEO of Smarter Sorting. A true visionary, Chris is passion is driven by an obsession with problem solving, and deep seated frustration with the every-day waste and inefficiency that characterizes modern resource management. Having spent his career listening to magical solutions that might solve problems “later,” you could say that Chris is a visionary with no time for vision, instead choosing to focus his life and his career on the unlimited number of problems that can be solved right now. His passion is undergirded by decades experience manufacturing paint, building technology and running data analytics firms. It’s this unique knowledge set, ranging from the chemical to the regulatory to the technical, that allows Chris to see opportunities and imagine solutions invisible to many in the world of waste and recycling. When not obsessing over work, you’ll find Chris enjoying himself in, near or on water.
Spark Talk

Arthur Huang
CEO & Founder of Miniwiz

Arthur is a structural engineer, architect, innovator of loop economy building material solutions and specialized in post-consumer trash recycling applications to help to accelerate the shift to a close-loop economy. In 2005, He founded Miniwiz, an internationally operating company based in in Taiwan, Shanghai, Berlin and Milan, and dedicated to upcycling and consumer trash and industrial waste.

Under Arthur Huang's leadership, Miniwiz received the “Technology Pioneers 2015” title by the World Economic Forum, recognizing the potential of the emerging industry that Miniwiz is leading and the positive impact of its activities on the state of the world. Arthur also was selected as a 2016 National Geographic Explorer.

Rhys Thom
Senior Design Lead, Design for Change, IDEO

Rhys Thom is an Organizational Designer and Senior Design Lead at IDEO, focused on helping clients and their companies harness creativity and the tools of design in order to be future fit. Rhys partners with leaders, organizations, NGOs, cities, and even countries to tackle complex challenges through design, spanning a range of topics from circular economy, to urban development, healthcare, and financial services. Together with his clients, Rhys designs the systems, tools, and behaviors that help organizations adapt and routinely innovate. During his time at IDEO, Rhys has co-led an innovation lab in Peru designing solutions for the country's emerging middle class, helped to design a scalable disaster response network that connects and mobilizes veterans across continents, co-founded IDEO's Circular Economy CoLab, and guided leaders of global companies on their journeys to build design and purpose-led organizations.

Prior to IDEO, he spent seven years at the World Resources Institute (WRI), a global sustainability think tank in Washington, D.C. There, Rhys was the Director of Information and Innovation for EMBARQ, the organization's center for sustainable transport and urban development. He helped to establish and grow EMBARQ's global network of organizations, working with cities and national governments around the world to design sustainable solutions for urban mobility. He also helped cultivate innovative partnerships with organizations like FedEx, Volkswagen, Caterpillar, Bloomberg Philanthropies, and Forum for the Future. Rhys served as the founding editor of TheCityFix, a website dedicated to sustainable urban design and transportation that was named one of the top 50 eco-blogs in the world by The Guardian.
Kate Daly
Executive Director, Center for the Circular Economy, Closed Loop Partners

Kate Daly is Executive Director of the Center for the Circular Economy at Closed Loop Partners. The Center is a hub for circular business acceleration, investment, and research in packaging, food, the built environment, electronics and apparel&
textiles. Kate previously served as Senior Vice President at the NYC Economic Development Corporation, where she oversaw business development programs in sectors including advanced manufacturing, smart cities, cleantech, fashion, tech, and media. Prior to NYCEDC Kate served as the Executive Director of the NYC Landmarks Preservation Commission. Kate holds a B.A. from Cornell University and an M.S. from the University of Pennsylvania.

MODERATOR

Mikhael Metauro
National Business Development & Sales Strategist, Cascades Recovery+

Mikhael has been a proud member of the Cascades Family for over 15 years. With his undergraduate degree in Strategic Selling & Marketing, Mikhael currently works within the Recovery+ division of Cascades focusing on Business Development and Corporate Strategy. Day in and day out Mikhael has the opportunity to deal with a wide range of customers from different market segments and backgrounds with various types of discarded material recovery needs. “It’s amazing to see how more and more organizations are focusing on sustainability and have put the people power in place to start thinking about better ways to recover more and waste less. For me this is where my focus has been and always will be, working with organizations to help them achieve their sustainability goals through coaching, planning and execution.” Mikhael is focused on creating a world where all materials have a positive end of life – a truly Circular Economy.
Mari Pantsar
Director of Carbon-Neutral Economy at SITRA

Mari Pantsar leads the Carbon-neutral circular economy theme in Sitra - the Finnish Innovation Fund - an independent public foundation which operates directly under the supervision of the Finnish Parliament. She steers the strategy of the theme and is responsible for ensuring that all activities related to it direct Finland towards a more ecologically sustainable and competitive society.

Mari has two decades of experience managing the development of cleantech and circular economy initiatives in the private and public sector, with several companies and their boards. She has a doctorate in philosophy and holds the title of docent at the University of Helsinki and at Lappeenranta University of Technology.

Iain Gulland
CEO, Zero Waste Scotland

Iain is Chief Executive of Zero Waste Scotland and previously led its predecessor programme, WRAP Scotland. Zero Waste Scotland leads on the delivery of the Scottish Government’s Circular Economy strategy and other low carbon policy priorities, and is at the forefront of efforts to create a resource efficient, circular economy.

Iain has more than 25 years' experience in sustainable resource management, including initiating recycling systems in the public and third sectors. He is the current President of the Association of Cities and Regions for Sustainable Resource Management (ACR+) and he is a member of a number of Scottish Government strategic groups including the Economy and Environment Leaders Group, the Board of the Low Carbon Infrastructure Transition Programme and the Expert Panel on Environmental Charges. He was voted the 'most influential person in the UK waste and resource efficiency sector' in 2014 by Resource Magazine, and he was granted Fellowship of Chartered Institution of Wastes Management in 2016.
Henk Snoeken
Consul General of the Netherlands in Vancouver

Henk Snoeken is Consul-General of the Netherlands in Vancouver and is the government’s representative in BC, Alberta, Saskatchewan, Yukon, and the North West Territories. Before taking up his position in Vancouver, he had various positions in Dutch ministries. The latest were: Deputy Director for National Spatial Planning (2010-2014) and Deputy Director for International Relations (2014-2018) at the Ministry of Infrastructure and the Environment in the Netherlands.

As a policymaker he has been working in the field of spatial planning, water management, logistics and sustainability, as such he has been involved in various Zero Waste and Circular Economy initiatives and was involved in setting up the Holland Circular Hotspot initiative.

In the field of international relations, his focus was on climate policy, public-private cooperation and economic diplomacy. Mr. Snoeken was involved in various international trade missions focused on the Waste sector, e.g. to China, Indonesia and California. This has led to new international government cooperation and policy making between the Netherlands, China and Indonesia.

MODERATOR

Kathryn Gretsinger
Vancouver journalist and Senior Lecturer, UBC Graduate School of Journalism
James D Downham
President & CEO PAC Packaging Consortium, Vice Chair National Zero Waste Council

Jim Downham is a former package manufacturing CEO. Currently he is the CEO of PAC Packaging Consortium and Chairman of LeaderLinx, executive recruiter serving leading packaging companies. Jim is the Vice Chairman of the National Zero Waste Council.

In 2014 Jim was inducted into the Packaging Hall of Fame; he is a Passionate Sustainability, Circular Economy and Brand Design Leader. Jim is a member of the 2018 Packaging Hall of Fame Commission.

PAC Packaging Consortium is a nonprofit association that serves global client partners across the packaging value chain to achieve their business objectives. Under Jim’s leadership PAC has created several packaging programs including PAC NEXT and PAC FOOD Sustainability Programs; the IFS PAC secure globally recognized food packaging safety standard; intelliPACK, A Smart Packaging Innovation Catalyst; the PAC GLOBAL LEADERSHIP AWARDS and the PACed Certificate Program.

Jim serves on various packaging nonprofit boards and supports students through packaging design competitions and scholarships.

Malcolm Brodie
Chair, Metro Vancouver Zero Waste Committee and Chair, NWZC

New Entrants in National Zero Waste Council’s Design Portfolio

- The Bokashi Composting Kit from Bokashi Living
- GlassSipper – reusable straw
- Greenomics - the Game
Wayne Visser
Professor of Integrated Value & Chair of Sustainable Transformation, Antwerp Management School

Dr Wayne Visser holds the Chair in Sustainable Transformation and is Professor of Integrated Value at Antwerp Management School. He is also Fellow of the University of Cambridge Institute for Sustainability Leadership, Director of the think-tank and media company, Kaleidoscope Futures, Founder of CSR International and Board Member of Migrant Entrepreneurs International.

Dr Visser previously served as Director of Sustainability Services for KPMG and Strategy Analyst for Capgemini in South Africa. His work as a strategy analyst, sustainability advisor, CSR expert, futurist and professional speaker has taken him to 75 countries in the past 30 years to work with over 150 clients. Dr Visser describes himself as a professional idea-monger, storyteller and meme-weaver. He sees his mission as helping to bring about transformative thinking and action in business and society. He believes that we all need to be purpose-inspired to make a positive difference.

MODERATOR

John Coyne
VP, Legal & External Affairs, Unilever Canada Inc. & Executive Chair, Canadian Stewardship Services Alliance, Inc.

John is a member of Unilever Canada’s board of directors, the Canadian Leadership Team and chair of the company’s Pension Committee.

John is well known for his leadership in corporate sustainability. He is a passionate activator of the Unilever Sustainable Living Plan, Unilever’s strategy to grow the business, reduce its environmental footprint and increase its positive contribution to society. John is Executive Chair of the Board of Canadian Stewardship Services Alliance, Inc., Chair of the Board of Stewardship Ontario and is a director of Evergreen. In addition, John is Co-Chair of the Partners in Project Green steering committee, a major environmental initiative of the Toronto Region Conservation Authority. John has been recognized for his leadership in corporate sustainability by being named a Clean 50 honouree in 2013 and a Clean 16 honouree in 2018. In 2015, John was appointed as a member of the Ontario Government’s Climate Action Group advising the Ontario Minister of the Environment on effective climate change actions that will help Ontario meet its greenhouse gas reduction goals and transition to a prosperous, low-carbon economy. In 2018, John was honoured to receive the Canadian General Counsel Award for Environmental, Social and Governance Leadership.

John also works closely with industry groups and other organizations. He is Chair of the board of the Look Good Feel Better Foundation and is director and past Chair of Cosmetics Alliance Canada.
Guillaume Lavoie
Lecturer, National School of Public Administration, University of Quebec

A public policy entrepreneur, Guillaume Lavoie is one of Canada’s most visible experts in the collaborative economy and its impacts on public policy and urban affairs. A former city councillor in Montreal, he authored Canada’s first by-law to regulate the sharing of private spaces. He is also a lecturer on the collaborative economy and public policy at the National School of Public Administration (ÉNAP), and delivered 180+ speeches on the topic, in Canada and abroad. In January 2018, he was appointed Chair of the Quebec government task force on the collaborative economy.

Megan Arnaud
Retail Leader, EILEEN FISHER Renew

Megan leads the Seattle retail division of the EILEEN FISHER Renew take-back program. Under Megan’s leadership Renew has grown into a multimillion dollar business and has been recognized as a major space for innovation. Modelling a circular economy through recapturing product and shifting consumer practices, Megan’s work at EILEEN FISHER Renew inspires her to create customer connection through community, developing a unique experiential retail model.

Brendan Seale
Head of Sustainability, IKEA Canada

As Head of Sustainability for IKEA Canada, Brendan Seale is responsible for activating the IKEA “People & Planet Positive” strategy across the country – to inspire and enable Canadians to live a healthier & more sustainable life at home, to achieve circular and climate positive operations, and lead towards a fair & inclusive Canadian society.

Previously Brendan served as Sustainability Advisor with The Natural Step Canada, and worked in communications with Barrick Gold Corporation. He holds an MSc in Strategic Leadership towards Sustainability from Blekinge Institute of Technology (Sweden), and a BA in Communication Studies & Multimedia from McMaster University.

Brendan’s feet like to keep the company of bicycle pedals, soccer cleats, ski boots, and infectious beats, and he is now a father to two young sons who have given his work a greater depth of purpose.
Jessica Regan
CEO, FoodMesh

Jessica is a 4 times entrepreneur, a certified B Corp consultant, and strategist for social impact businesses. For 12 years, Jessica has consulted for start-ups, non-profits, Fortune 100 companies, and all levels of government, including the United Nations, in areas of community economic development, and sustainability.

Since 2007, Jessica has served as the Vice-Chair of KASOW, a Kenyan-based social enterprise concentrating in areas of food security, health and education. And locally, Jessica serves on the Vancouver Food Policy Council, while developing her start up, the Mesh Exchange, a software company developing platforms to power the circular economy.

Felix Bock
Founder & CEO, ChopValue Manufacturing Ltd. | Recycled Chopstick Products

Felix Böck knocks on wood for a living, and lately, his friends can find him counting chopsticks in Vancouver. ChopValue Manufacturing Ltd., has allowed Felix to discover a way to connect his expertise and research focus on bamboo composite materials within the Vancouver community while doing his PhD at the University of British Columbia. Motivated to create global impact in the bamboo industry, he has gained experience by working on projects in over 20 countries with his firm CrossLink Technologies - where ChopValue originated as a product development exercise.

Brianne Miller
Founder & CEO - Nada

Brianne is a marine biologist turned entrepreneur with a passion for driving positive change. As an expert in zero waste living and local food systems, she loves connecting people to their environment and coming up with creative solutions to complex conservation problems. Having seen firsthand the impacts of our current food system on the oceans, Brianne is committed to revolutionizing the food system from the ground up so that future generations can continue to enjoy and benefit from the world’s oceans. Brianne is the founder of Nada, a package-free grocery store on a mission to inspire people to change the way they shop for groceries. She is a United Nations #notwasting ambassador, sits on the Vancouver Food Policy Council, and is a 2018 SheEO venture winner.
Denise Taschereau  
CEO and Co-founder, Fairware

As chief executive officer (CEO) and cofounder of Fairware she is responsible for business development, product sourcing, as well as, Fairware’s ethical sourcing and sustainability programs. Denise got the idea to launch Fairware when she noticed how difficult it was to source promotional merchandise that reflected the social and environmental priorities of many of the brands and organizations she admired.

Prior to starting Fairware, Denise spent seven years as the Director of Sustainability and Community for Mountain Equipment Co-op, Canada’s largest outdoor retailer. At MEC, she oversaw the Co-op’s national environmental programs, community grant-making and ethical sourcing programs, and wrote their award-winning first Sustainability Report.

She is currently a mentor for Spring.is, an accelerator and incubator that is using business as a force for good to empower social impact leaders with the know-how, network and support needed to build a better business. Denise was a member of ETSY’s Manufacturing Advisory Board, a Board Member with the Green Meeting Industry Council and the past co-chair of Vision Vancouver. She has a Masters of Resource and Environmental Management from Simon Fraser University.

LEADERSHIP TO PREVENT FOOD LOSS AND WASTE

SHOW CASE

Bob Blumer  
Professional Gastronaut and host of Food Network’s The Surreal Gourmet

Bob Blumer is a professional gastronaut with an adrenaline addiction and a passion for wasted food. He has created and hosted three award-winning TV series that have aired in over 20 countries, written six acclaimed cookbooks, and broken eight food-related Guinness World Records.

In his books and appearances around the globe, Bob transforms ordinary ingredients into wow-inspiring dishes through simple cooking methods and whimsical presentations that have become his culinary trademark. Publishers Weekly summed up his most recent book Glutton for Pleasure as: “equal parts memoir, lavish art book, multi-genre soundtrack and culinary tour de force”.

Zero Waste Committee
Tom Rosser
Assistant Deputy Minister, Strategic Policy, Agriculture and Agri-Food Canada

Tom Rosser joined Agriculture and Agri-Food Canada (AAFC) as the Assistant Deputy Minister of Strategic Policy in January 2017. He is responsible for leading on major policy issues on behalf of the Department including Cabinet and intergovernmental affairs, development of a national food policy, as well as economic analysis. He is also the Department's Champion for mental health and wellness.

Before joining AAFC, he was the Senior Assistant Deputy Minister of Strategic Policy at Fisheries and Oceans Canada, responsible for policy development, Cabinet and Parliamentary Affairs, communications, economic analysis and trade.

Sam Wankowski
Senior Vice President of Operations, Western Canada, Walmart Canada

As the Senior Vice President for Walmart Canada’s Western Canada Operations, Sam is responsible for leading a world-class team while overseeing and executing a strategy aimed at ensuring sustainable value for Walmart’s customers.

Since joining Walmart more than 10 years ago, Sam has held a variety of roles across various divisions of the business including managing key hardlines portfolios for Walmart Canada. Prior to joining Walmart, Sam was held merchandising and marketing roles at Asda, a leading British supermarket retailer. Sam has a Bachelor of Honours in Business and Quality Management from The Nottingham Business School. Outside of work he is an avid runner and sports fan.

Lori Nikkel
CEO, Second Harvest

Lori is a vocal and passionate champion of environmental and social justice issues related to food and is sought after for her expertise internationally.

Lori advised on the development of the provincial Food and Organic Waste Framework with the Ministry of Environment and Conservation and Parks and is the Co-chair of the Food Working Group at the National Zero Waste Council – a leadership initiative that brings together governments, businesses and organizations to advance waste prevention in Canada.

As CEO for Second Harvest - Canada’s largest Foodrescue organization- she ensures that over 12 million lbs of nutrient dense surplus food is diverted to social service agencies. Her current project is www.Foodrescue.ca, a web-based platform that takes a local and technology approach to rescuing and delivering food.
Cher Mereweather  
Executive Director, Provision Coalition

Cher is one of Canada's leaders in food manufacturing sustainability. As Executive Director of Provision Coalition, an organization she founded with the country's top food and beverage professional associations, Cher works directly with manufacturers to transform their business culture and operations. An advocate for change and a passionate spokesperson, Cher has dedicated her career to advancing sustainability concepts within the Canadian food industry and sustainability solutions at the firm level. Most recently, Cher has sharpened Provision's focus on the reduction of food loss and waste, responsible sourcing and climate change mitigation, by developing innovative technologies and on-line tools that will modernize facility processing.

Cher's career has included time with the Guelph Food Technology Centre where she established and directed the Sustainability Consulting Business Unit, and executive positions in environmental economics and policy with the Canadian agri-food think tank, the George Morris Centre. Cher holds a Bachelor and Master's degree in Environmental Economics and Policy. Cher has also been awarded the Canadian Grocer Generation Next award for her leadership, innovation and excellence in sustainability within the food and beverage industry.

MODERATOR

Denise Philippe  
Lead on Food Waste and Loss Strategy for Canada, NZWC

Denise supports the National Zero Waste Council on projects, working groups, and organizational development. For the past 4 years, Denise has helped drive forward the Council’s work on food waste prevention and reduction, largely through the initiatives of the Food Working Group, and the National Strategy on Food Waste Reduction. Denise is also a Senior Policy Advisor with Metro Vancouver, the regional government that houses the Council. She is a certified planner who has been engaged in community and land use planning, and stakeholder engagement for over two decades, in both Canada and overseas. She has a Master’s in Education with expertise in environmental/sustainability education, facilitation and dialogue.
Design disruptor, creative boundary pusher, and cultural provocateur, Dr. Leyla Acaroglu (A-jar-a-loo) embodies the innovation that instigates positive environmental and social change.

A designer, social scientist, and sustainability expert, Leyla is internationally recognized as a leading force in the movement for design being used as effective catalyst for positive social and environmental change. She is the developer of the Disruptive Design Method and founder of the award-winning experimental educational initiative The UnSchool of Disruptive Design.

Leyla was awarded 2016 Champion of the Earth by the United Nations Environment Programme, and is an internationally respected keynote speaker and trusted expert, having led thousands of hours of workshops, lectures, activations, and educational experiences around the world. Leyla was a visiting scholar at NYU and an Innovator in Residence at the Center for Social Innovation NYC. She was also an invited Artist in Residence with Autodesk and managed the development of ‘Greenfly,’ one of the first online life cycle assessment tools for designers. Leyla is regularly invited to provide her professional opinions on radio and TV, having been a regular judge on the ABC TV show The New Inventors, along with a host of international programs.

MODERATOR

Vanessa Timmer
Co-Founder and Executive Director, One Earth and Board Member, NZWC

CLOSING REMARKS

Malcolm Brodie
Chair, Metro Vancouver Zero Waste Committee and Chair, NWZC
DAY TWO - NOVEMBER 9

WELCOME/OPENING REMARKS

Malcolm Brodie
Chair, Metro Vancouver Zero Waste Committee and Chair, NWZC

KEYNOTE

Stephen Lucas
Deputy Minister of Environment & Climate Change Canada

Dr. Stephen Lucas was appointed Deputy Minister of Environment and Climate Change Canada (ECCC) on January 23, 2017.

As Senior Associate Deputy Minister (Climate Change) from June 2016 to January 2017, Dr. Lucas led work in support of the development and adoption of the Pan-Canadian Framework on Clean Growth and Climate Change. Before joining ECCC, Dr. Lucas was Deputy Secretary to the Cabinet for Plans and Consultations and Intergovernmental Affairs at the Privy Council Office. From 2013 to 2014, he was Assistant Secretary, Economic and Regional Development Policy, at the Privy Council Office.

As Assistant Deputy Minister, Science and Policy Integration at Natural Resources Canada (NRCan) from 2009 to 2013, he was responsible for strategic policy development related to energy, mineral and forest resources, climate change and clean energy and international and intergovernmental relations. Prior to that, from 2007 to 2009, he was Assistant Deputy Minister, Minerals and Metals Sector, at NRCan, where he provided leadership on innovation, green mining and corporate social responsibility.

Dr. Lucas was Director General in the Health Products and Food Branch (HPFB) at Health Canada from 2003 to 2007, Senior Director at NRCan for Science, Innovation, Regional and Aboriginal Affairs from 2000 to 2003, and Director of Policy Planning and Coordination in the Earth Sciences Sector at NRCan from 1998 to 2000.

Dr. Lucas started his career as a research scientist at the Geological Survey of Canada in 1988. He has a Bachelor of Science with Honours in Geological Engineering from Queen’s University and a Ph.D. in structural geology and tectonics from Brown University.

MODERATOR

Malcolm Brodie
Chair, Metro Vancouver Zero Waste Committee and Chair, NWZC
Chelsea Rochman
Assistant Professor, University of Toronto

Chelsea Rochman is an Assistant Professor at the University of Toronto. She received her PhD in Ecology from the University of California, Davis and was a recipient of the Society for Conservation Biology’s David H. Smith Postdoctoral Fellowship. Chelsea has been researching the sources, sinks and ecological implications of plastic debris in marine and freshwater habitats for the past decade. She has published dozens of scientific papers in respected journals and has led international working groups about plastic pollution. In addition to her academic research, Chelsea works hard to translate her science beyond academia. She served as an expert witness, testifying in California about microplastics, and presented her work to the United Nations General Assembly in New York, NY, and at the US State Department in Washington, DC.

Matthew Fraser
Senior Project Manager, Cities Programme, Circle Economy

Matthew is driven by the need to realise a new economic model that deliver prosperity within the means of our planet, and acknowledges that cities have a pivotal role to play in catalysing that transition globally. In his role as a Senior Project Manager at Circle Economy, he works together with cities to scope their opportunities and realize innovative and practical circular economy strategies. He also leads the development of digital tools that will allow cities and businesses to harness local data to capitalise on the benefits brought by the circular economy and take the first critical steps toward implementation. Matthew’s background is rooted in sustainability advisory, where he previously tackled complex global challenges like the food system, logistics and mobility, and sustainable consumption.

Daniella Russo
CEO & Founder, Think Beyond Plastic™

Daniella Russo believes that intractable environmental challenges can be addressed by harnessing the forces of innovation and entrepreneurship, and the power of the markets to do good. Since 2009, she has led the development of an innovation eco-system enabling the circular economy incorporating bio-based, bio-benign materials from renewable sources, associated manufacturing, and innovative consumer and business products specifically designed to handle these new materials.

Daniella Russo is a serial entrepreneur. Her experience includes executive management of businesses from start-up phase through an IPO (such as Frame Technology, Infoseek and others), as well as Fortune-500 companies (Sun Microsystems, and Xerox PARC).
Daniella Russo is a member of the Founders Board of Advisors at StartX Stanford Student Startup Accelerator. She is an Associate Professor at the Middlebury Institute of International Studies Graduate Program in International Policy and Management. She serves on the Board of numerous NGOs and businesses.

Sonia Wegge
Project Manager, New Plastics Economy Initiative, Ellen MacArthur Foundation

Sonja is a Project Manager for the New Plastics Economy Initiative of the Ellen MacArthur Foundation. The New Plastics Economy is an ambitious three-year initiative to rethink and redesign the plastics system based on circular economy principles. It brings together key stakeholders from across the plastics value chain to change the way we produce, use and reuse plastics, starting with packaging.

Having a background in Packaging Engineering, Sonja gained some years of hands-on experience in industry before she found a new home on the Isle of Wight. Find out more about the initiative by visiting https://newplasticseconomy.org/

MODERATOR

Christina Seidel
Co-Chair of the Circular Economy Working Group, NZWC

Christina holds a Masters degree in Environmental Design (Environmental Science), as well as a B.Sc. in Mechanical Engineering, and is currently undertaking her PhD in Engineering Management, with a thesis topic of Assessing Recycling Options using Life-Cycle Assessment. She operates sonnevera international corp., a waste reduction consulting firm, and is the current Executive Director of the Recycling Council of Alberta. Christina loves rural life, choosing to live on a farm near Bluffton, Alberta, where her and her family raise Warmblood horses, and enjoy many other outdoor activities.
ENABLING ENVIRONMENTS FOR CHANGE - CANADIAN INNOVATION SHOWCASE

James D Downham
President & CEO PAC Packaging Consortium, Vice Chair National Zero Waste Council

Daniella Russo
CEO & Founder, Think Beyond Plastic™

FINALISTS

Luca Corbellini, Senior Developer, Smart Composites at Bioastra Technologies
Jocelyn Doucet, Co-founder and Chief Executive Officer of Pyrowave
Andy Chou, co-founder of Soapstand
Matt Livingstone, the Sustainability Lead for Sustainable Produce Urban Delivery (SPUD)
A PATH FORWARD FOR CANADA: CIRCULAR ECONOMY LEADERSHIP COALITION

Malcolm Brodie
Chair, Metro Vancouver Zero Waste Committee and Chair, NWZC

Brendan Seale
Head of Sustainability, IKEA Canada

Stephanie Cairns
Director of Cities and Communities & Policy Director of Circular Economy, Smart Prosperity Institute

David Hughes
President and CEO, The Natural Step Canada

Kevin Groh
Vice President, Corporate Affairs and Communication, Loblaw

Bob Walker
Head of ESG Services, NEI Investments

MODERATOR

Nancy Wright
Chief Operating Officer, Globe Series

Nancy has served as Chief Operating Officer of GLOBE Series since 2015 where she’s been responsible for the overall operations of the company and the events portfolio. Her strength in partnership building and corporate engagement have led her to connect with thousands of senior corporate and government leaders over the course of her career. Winner of Canada’s Clean50 award for 2017, she curates partnerships for GLOBE Series that catalyze innovation, advance the sustainable economy transition and transform business practices.

Previous to 2015 Nancy spent two decades building the GLOBE Foundation, a not for profit environmental business foundation with a mandate to promote the business case for sustainable development. Created in 1993, the Foundation became one of the most widely recognized business Foundations in Canada. Through her roles in marketing and operations, she helped build GLOBE Forum into one of the most famous brands of sustainable business conferences in the world.
CLOSING LUNCH & CONFERENCE REFLECTIONS

Mari Pantsar
Director of Carbon-Neutral Economy at SITRA

Iain Gulland
CEO, Zero Waste Scotland

Wayne Visser
Professor of Integrated Value & Chair of Sustainable Transformation, Antwerp Management School

Leyla Acaroglu
Founder & Chief Disrupter, Unschool

MODERATOR
Vanessa Timmer
Co-Founder and Executive Director, One Earth and Board Member, NZWC

CLOSING REMARKS
Malcolm Brodie
Chair, Metro Vancouver Zero Waste Committee and Chair, NWZC
#zwc18 had 495 mentions, while #zwc2018 had 138 mentions during the conference.
*Data on this page only reflects tweets using the official hashtags*
**Top Influencers by Engagement**

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<th>Total Engagement</th>
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<td>David Hughes</td>
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<td>Brendan Seale</td>
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<td>Kelly Greene - Rmd City Councillor</td>
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<td>Haley Anderson</td>
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**Top Influencers by # of Followers**

- Environment Canada: 694,628
- Prof Wayne Visser: 420,720
- Gerd Leonhard: 89,928
- Second Harvest: 82,565
- Stephen Gill FRSA: 50,502
- Mari Pantsar: 45,430
- Minister C. McKenna: 45,016
- Coro Strandberg: 42,770
- UBC Sauder School: 41,316
- Leyla Acaroglu: 40,955

**Top Influencers by # of Tweets**

- Coro Strandberg: 26
- seatoskyremoval: 25
- Jennie Lynn Moore: 18
- Joanne Gauci: 16
- Goodly Foods: 13
- Toby Russell: 13
- Prof Wayne Visser: 12
- Eudora Koh: 11
- David Hughes: 10
- Jessica Hale Woo: 9

*Data on this page only reflects tweets using the official hashtags*
Data on this page only reflects tweets using the official hashtags.
To: Zero Waste Committee

From: Larina Lopez, Corporate Communications Division Manager, External Relations

Date: February 19, 2019

Meeting Date: March 7, 2019

Subject: 2018 Regional Create Memories Not Garbage Campaign Results

RECOMMENDATION
That the Committee and MVRD Board receive for information the report dated, February 19, 2019, titled “2018 Regional Create Memories Not Garbage Campaign Results”.

PURPOSE
To update the Committee on the results of the 2018 regional holiday waste-reduction campaign, “Create Memories Not Garbage.”

BACKGROUND
The “Create Memories, Not Garbage” (CMNG) campaign supports the waste reduction objectives in the Integrated Solid Waste and Resource Management Plan. 2018 was the eighth year of the CMNG campaign and the 11th year that Metro Vancouver ran a holiday waste reduction campaign.

This report provides an update on the results of the 2018 “Create Memories, Not Garbage” campaign as identified in the 2018 Zero Waste Committee Work Plan.

2018 REGIONAL “CREATE MEMORIES, NOT GARBAGE” CAMPAIGN RESULTS

Campaign Approach
The campaign was in market from September 24, 2018 to January 15, 2019.

The campaign objectives were to:

- Raise awareness of the amount of needless waste produced over the holiday season,
- Have audiences choose to celebrate the holidays in ways that produce less waste, and
- Reduce the amount of waste produced in Metro Vancouver during the holiday season over the long term.

The campaign targeted residents aged 25-54 with a skew towards women and parents of children under 18; in particular those doing the shopping, wrapping, and decorating for the holidays. The audience was non-denominational as research has shown that Christmas tends to be the main gift-giving occasion for many, including non-Christians.

Creative Direction / Messaging
The creative direction maintained the campaign platform established in 2016. Festive and evocative of the holiday season, it offered a light-hearted and positive tone that avoided “finger-wagging” or causing feelings of guilt.
The campaign offered realistic and helpful ideas to empower residents in celebrating with less waste. Omnibus survey results (June 2018) informed key messages selected for 2018 in that those surveyed were most motivated to reduce their wrapping waste and gifts (as opposed to food and decorating). As a result, pre-Christmas messages were focused on low-waste gift ideas and low-waste wrapping tips. After Christmas, the focus shifted to post-holiday recycling tips.

The creative continued to feature the prominent “Create Memories, Not Garbage” tagline. The primary message was “This holiday season, make just one change to celebrate with less waste.” The secondary message was a featured gift idea or low-waste wrapping tip to help residents make a change.

The call to action, “Find ideas at creatememoriesnotgarbage.ca.” encouraged residents to visit the website for more ideas to celebrate with less waste. (See Attachment for sample creative.)

**Website**

The home page of the campaign website ([www.creatememoriesnotgarbage.ca](http://www.creatememoriesnotgarbage.ca)) was reformatted to prioritize the ideas and tips before all other content. The site remained responsive for both mobile and desktop audiences.

Upon landing on the CMNG website, users could immediately access helpful ideas on a variety of waste-causing categories, including:

- Gifts: replace short-lived items with long-lasting or experiential gifts,
- Wrapping: replace traditional paper wrap with reused, recycled, or upcycled materials,
- Decorating: use natural, long-lasting, and sustainable décor items, and
- Food: avoid food waste, including menu planning and using up leftovers.

A few days before Christmas, the post-Christmas category was added to the homepage:

- After Christmas: tidy up after the holidays with less waste (e.g., Christmas tree disposal, using leftovers, electronics recycling, what to do with unwanted gifts.)

Gift-givers who appreciate giving a tangible gift were encouraged to give an experience using the custom gift cards that could be personalized and either downloaded/printed or emailed.

In 2017, the “Merry Memory Maker” web-based app was developed as a way to make the low-waste gift-giving process easier for residents. It organizes gift ideas by category (experiences or tangible gifts) and by price range ($0 - $250+). A number of upgrades were made to the app for its second year, including more gift ideas (bringing the app to nearly 170 ideas), the opportunity to click on each idea for an explanation on how it’s low-waste, the option to see where the gift is sold in our region and the ability to create an online shopping list that could be printed or saved to a user’s device. This app made up a significant portion of messaging for the 2018 campaign and was the main feature for all outreach events.

**Media Strategy**

The media approach included a combination of tactics and placements to achieve a large overall reach and awareness, as well as placements that will build more knowledge and ideas of how to create less waste over the holiday season and into the New Year. The media plan was divided into three
components: a light pre-Christmas promotion (Sept-Nov) to reach early shoppers, a main Christmas promotion (Nov-Dec) to reach audiences when they’re most likely to be in the Christmas mindset, and a light post-Christmas promotion (Dec-Jan) to reach audiences as they’re tidying up/recycling their holiday waste.

Combined media placements for all three promotional phases included:

- **Digital:**
  Digital placements used behaviour, search, and location targeting to reach people searching for ideas, doing online shopping, or who were physically in a shopping location. Contextual placements ran alongside gift and product reviews (i.e. on YouTube).
  1. Social media (Facebook, Instagram, Twitter, YouTube) – videos and images
  2. Standard banner ads – remarketed based on previous search behaviour
  3. Interactive banner ad – an expandable dynamic mobile ad unit to allow for a more engaging user experience
  4. Branded online articles through influential media publishers (Corus, Miss604 and Daily Hive)

- **Out of Home:**
  A combination of Skytrain station posters and exterior bus posters created a generic layer to add excitement to the campaign. While not hyper-targeted, it did allow reach to parents and grandparents.

- **Television:**
  The market footprint for television is large and allowed a tailored opportunity to deliver the campaign message through animated visuals appearing in the news hour, animated commercials and two live on-air interviews.

### Outreach Events

In 2017, the Merry Memory Maker app was piloted to a handful of member municipality recreation centres via a 27” touch screen monitor. In 2018, efforts were focused on holiday events and markets, where visitors were in the Christmas and shopping mindset and more open to engaging with the CMNG brand ambassadors. In addition to the monitor, a display of gifts wrapped in low-waste wrap alternatives were available for residents to touch/explore for inspiration when it came to wrapping their own gifts.

The outreach events included:

- Bea Johnson “Zero Waste Home” talk, Vancouver
- Got Craft? two-day market, Vancouver
- Lights at Lafarge, Coquitlam
- Surrey Tree Lighting Festival, Surrey
- Christmas in the Village, Richmond
- Light & Dark Arts Experience, Burnaby

From these seven events, the outreach team engaged in 2,340 conversations and demonstrated the Merry Memory Maker app to 1,247 event patrons.
Conversations with residents revealed that wrapping gifts with low-waste materials, spending time with loved ones and buying low-waste hand-crafted items were the top three things they were willing to change in their behaviour.

**Engagement of Metro Vancouver Members**
Several members promoted the campaign in their communities using creative from Metro Vancouver. These included social media posts, co-branded posters, and digital screens.

**Use by Other Municipalities & Like-Minded Organizations**
Metro Vancouver shared the campaign with other local governments upon request. These included Central Okanagan Regional District, Capital Regional District, qathet Regional District, Squamish-Lillooet Regional District, City of Chilliwack, City of Lethbridge, and City of Saskatoon.

Other municipalities and organizations deliberately promoted CMNG through their social media channels, including District of Mission, Regional District of Nanaimo, Zero Waste Yukon, City of Burlington, ON, Recycling Council of BC, National Industrial Symbiosis Program Canada, Raven Recycling, StopWaste (Oakland, CA), Sea to Sky Removal, Physarum Connections, Great Canadian Shoreline Cleanup, Reimagine Co., Bellantoni Clothing and Vancouver International Children’s Festival.

**Evaluation**
The campaign was evaluated via a post-campaign survey. Media placements, the website, and earned media were also monitored.

- **Recall and Behaviour Change**
  40% of residents recall seeing any advertising about reducing waste over the holidays, with no significant change from the level recorded in 2017 (44%).

  When asked to rate how effective the ads were in conveying the message of reducing waste over the holidays, 65% rated them effective.

  The majority (77%) found the advertising to be effective in making them *think* about celebrating the holidays with less waste. While 22% reported some impact on their *behaviour* when asked if the campaign had an impact on the amount of waste they produced at Christmas.

  The post-Christmas ads, which ran from December 25 to January 15, had a very small proportion of the budget, but received a healthy 15% recall (similar to 2017’s 17%).

- **Media Performance**
The online portion of the campaign served over 9.6 million impressions across social media, display ads, sponsored content and video.

  - Between Facebook, Instagram and Twitter there were 2,629 engagements, including 690 post reactions, 26 comments, and 122 shares. Instagram had slightly larger reach than Facebook.
The top re-marketing keywords were ‘present ideas’, ‘gift ideas’, ‘Christmas gifts’ and ‘gifts for kids’.

The interactive banner ad over-performed industry standards with nearly 3.2x the number of estimated clicks. 30% of users continued from the banner ad to the website. This tactic had the highest conversion of all digital executions; it told the story well enough that users were intrigued to see more.

The custom content articles delivered 5,542 reads and achieved above average scroll rates.

The Corus-sponsored content ran for one week achieving 2,336 page views with an average read time of nearly 4 minutes. Two live breakfast interviews.

Two live news interviews (CityTV’s Breakfast Television and Global Morning News) each resulted in the second highest daily traffic volume when compared to other campaign days, with most visits falling between 8:00-9:00 am (coinciding with when the interviews aired).

Nearly 36% of web sessions came to the site directly or through organic search – this speaks to the effectiveness of the traditional (television and outdoor) components of the buy. The next highest referral source was the interactive banner ad which drove 10.55% of overall sessions.

**Website Performance**

Over the campaign period, the CMNG website saw 14,252 sessions; an average of 236 sessions/day for the main campaign which is relatively consistent with other Metro Vancouver campaigns (~300/day).

Website visitors stayed on site 147.09% longer than in 2017 and the number of web pages per session increased 127.46%. The bounce rate (a measurement of how quickly users leave a web page) saw a 65.56% improvement, demonstrating that users were very engaged with the content – meaning that the media tactics were reaching the intended audience.

The most popular tip category was “Gift Ideas” followed by “Wrapping”. The most popular tips were “Christmas Tree Disposal‖, “Green Gifts” (gift idea), and “Fabrics” (wrapping idea).

**Earned Media**

The campaign gained additional publicity beyond paid advertising in the form of earned media via newspaper articles, radio and TV mentions. The value of the earned media for the 2018 Create Memories Not Garbage campaign is estimated at $56,426, with 40 stories on radio, 6 on TV, 2 print articles and 9 online stories.

**Plans for 2019 Regional Campaign**

The 2019 regional holiday waste reduction campaign will continue to use the CMNG platform. The creative, website, and app will be further refined based on learnings from 2018. The media strategy will continue to target the audience when they are most receptive to the CMNG message. Outreach and collaboration with Metro Vancouver members will continue to be expanded.
ALTERNATIVES
This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS
The budget for the 2018 Create Memories Not Garbage campaign was $175,000 – supported under the Zero Waste Communications Program of the 2018 General Government budget. This budget remains the same for 2019’s campaign. These costs are included in the Zero Waste Communications Program of the 2019 General Government budget.

SUMMARY / CONCLUSION
The “Create Memories, Not Garbage” (CMNG) campaign supports the waste reduction objectives in the Integrated Solid Waste Management Plan. The 2018 campaign was in market from September 24, 2018 to January 15, 2019. The objectives were to: raise awareness of the amount of needless waste produced over the holiday season; have audiences choose to celebrate in ways that produce less waste; and, reduce the amount of waste produced in Metro Vancouver during the holiday season over the long term.

The festive creative direction, a continuation from the previous two years, was evocative of the holiday season with a light-hearted and positive tone. The audience was encouraged to visit the website for ideas on how they could celebrate with less waste.

Website content was reprioritized in order to make low-waste ideas the most prominent offering on the page. Along with this change, the Merry Memory Maker app was added at the bottom of the page as a second priority message.

2018 was the second year for the Merry Memory Maker web-based app developed to as a way to make the low-waste gift-giving process easier for residents. The app underwent a number of edits to make it that much easier for residents to buy low-waste gifts, including: more low-waste gift ideas, the ability to learn how the gift idea is low waste, the ability to see where the gift can be purchased in the region and the option to create a shopping list of gift ideas that can be printed or saved electronically.

The app was promoted via an outreach team at six different like-minded holiday events throughout the region, where brand ambassadors demonstrated the app to 1,247 patrons and engaged in 2,340 conversations.

The media approach included a combination of tactics and placements to achieve a large overall reach and awareness, as well as placements that will build more knowledge and ideas of how to create less waste over the holiday season. The media plan was divided into three components: a light pre-Christmas promotion (Sept-Nov) to reach early shoppers, a main Christmas promotion (Nov-Dec) to reach audiences when they’re most likely to be in the Christmas mindset, and a light post-Christmas promotion (Dec-Jan) to reach audiences as they’re tidying up/recycling their holiday waste.

Several members promoted the campaign via social media and/or printed posters.
40% of residents recall seeing advertising about reducing waste over the holidays. Among those aware of the ads, 77% found the advertising to be effective in making them think about celebrating the holidays with less waste. The campaign also leveraged an estimated $56,426 worth of additional earned media (outside of the paid media buy).

The 2019 regional holiday waste reduction campaign will continue to use the CMNG platform. The creative, website, and app will be further refined based on learnings in 2018.

Attachment
“Create Memories, Not Garbage Sample Creative,” dated, February 19, 2019

References
1. Create Memories, Not Garbage Website
2. Create Memories, Not Garbage – Merry Memory Maker app
“Create Memories, Not Garbage” Campaign, Sample Creative

Transit Shelter Ads

Gifts

Wrapping

Banner Ads

Note: all ads were created in desktop and mobile sizes. A sample is shown below.

“Countdown” (animated loop)

“App” (animated loop)

“Wrapping” (animated loop)
Social Media

*Note: both static images and videos were used on social media ads*
2018 Videos

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Bus Exteriors

Outreach Events

[Image of outreach event]
To: Zero Waste Committee

From: Ray Robb, Division Manager, Environmental Regulation and Enforcement

Date: March 6, 2019

Subject: Staff Appointments for the Purpose of Serving Summons under the Offence Act

RECOMMENDATION
That the GVS&DD Board appoint, for the purpose of serving summons under section 28 of the Offence Act for alleged violation of GVS&DD solid waste bylaws, all Metro Vancouver staff currently appointed as officers under the Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996.

PURPOSE
To appoint existing GVS&DD officers for the additional purpose of serving a summons for alleged offences under GVS&DD solid waste bylaws.

BACKGROUND
GVS&DD appointed officers could more efficiently enforce GVS&DD solid waste bylaws if they were also provided with the power so serve summons related to GVS&DD bylaw infractions. The GVS&DD Board has the ability to appoint officers under the Offence Act for the purpose of serving summons for bylaw infractions.

SERVING SUMMONS UNDER THE OFFENCE ACT
The Offence Act requires that only peace officers or enforcement officers may serve summons. The Offence Act allows regional districts to appoint bylaw enforcement officers for the purpose of serving summons for bylaw violations. For the purpose of enforcement of GVS&DD solid waste bylaws under the Environmental Management Act, the GVS&DD is considered to be a regional district.

While GVS&DD-appointed officers have numerous inspection powers for the enforcement of GVS&DD bylaws, they must retain the services of a peace officer to serve a summons related to enforcement of GVS&DD solid waste bylaws. In addition to delays and additional time required to brief local police officers, it takes these officers away from their other important duties.

GVS&DD solid waste bylaw enforcement officers, if appointed for that purpose, may serve a summons in respect of alleged offences under a solid waste bylaw, pursuant to section 28 of the Offence Act. To increase efficiencies, it would be beneficial for GVS&DD-appointed officers to also be appointed for the purposes of serving a summons in respect of alleged offences under a GVS&DD solid waste bylaw.

Twelve summons have been provided since 1996 for violations of GVS&DD solid waste bylaws.
ALTERNATIVES
1. That the GVS&DD Board appoint, for the purpose of serving summons under section 28 of the Offence Act for alleged violation of GVS&DD solid waste bylaws, all Metro Vancouver staff currently appointed as officers under the Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996.

2. That the GVS&DD Board refer this report back to staff with instructions.

FINANCIAL IMPLICATIONS
There are no significant financial implications or expenditures as the appointments are for existing Metro Vancouver staff.

SUMMARY / CONCLUSION
To promote efficient enforcement of Metro Vancouver solid waste bylaws, staff recommend that the GVS&DD Board appoint, for the purpose of serving summons under the Offence Act for alleged violation of GVS&DD solid waste bylaws, all Metro Vancouver staff currently appointed as officers under the Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996.

Staff recommend Alternative 1.

27823442
To: Zero Waste Committee  
From: Paul Henderson, General Manager, Solid Waste Services  
Date: February 28, 2019  
Meeting Date: March 7, 2019  
Subject: Manager’s Report

RECOMMENDATION
That the Zero Waste Committee receive for information the report dated February 28, 2019, titled “Manager’s Report”.

Zero Waste Committee Facility Tour
The Zero Waste Committee facilities tour will take place on Wednesday, June 5, 2019 from 9:00 am – 4:00 pm. Details will be provided at a later date.

Regional Organics Management
Metro Vancouver staff met with municipal staff including Regional Engineers Advisory Committee Solid Waste Subcommittee, Regional Engineers Advisory Committee and Regional Administrators Advisory Committee members on February 28, 2019 to discuss regional organics management. A number of options were discussed at the meeting, and staff are intending to provide options to the Zero Waste Committee and Board for consideration in the next two to three months.

2019 Zero Waste Committee Work Plan
The attachment to this report sets out the Committee’s work plan for 2019. The status of work program elements is indicated as pending, in progress or complete. The listing is updated as needed to include new issues that arise, items requested by the Committee and changes in the schedule.
## Zero Waste Committee 2019 Work Plan
Report Date: February 28, 2019

### Priorities

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<td>Solid Waste Regulatory Framework - Update</td>
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February 06, 2019

Carol Mason
Chief Executive Officer
Metro Vancouver
Metrotower III, 4730 Kingsway
Burnaby, BC
V5H 0C6

Dear Ms. Mason:

**Re: Remove or seal unsafe Donation Bins in Metro Vancouver**

On behalf of Vancouver City Council, I am writing this letter to urge Metro Vancouver's member municipalities to remove or seal unsafe all clothing, book, and other donation bins across the Metro Vancouver region immediately.

Donation bins have traditionally been placed in various neighbourhoods and locations throughout Vancouver and the Metro Vancouver region to enable residents to donate used clothing. These donation bins provide benefit for various businesses and charities and serve as a means of diverting textiles from landfill and incinerator. Unfortunately, in recent years, tragic deaths have occurred when people have become trapped in the bins.

Municipalities throughout the Metro Vancouver region have implemented various methods to manage safety risks including bans, partial bans and regulations on placement/design. The City of Vancouver requested operators remove donation bins from street right-of-ways in September 2018 and has updated the Waste Wizard website with information about how residents can donate unwanted clothing including home pick-ups, second-hand stores, clothing providers (organizations that give free clothing to residents in need), the City's Zero Waste Centre and the City's Zero Waste Drop-off Events.
The City of Vancouver requests that Metro Vancouver immediately encourage all other member municipalities to address unsafe donation bins as well. I will also be bringing forward a resolution to the 2019 Lower Mainland Local Government Management Association of BC and 2019 Union of BC municipality conference requesting support for a ban on donation bins until safe alternatives are available.

Sincerely

Kennedy Stewart
Mayor, City of Vancouver

Cc: City Manager, Sadhu Johnston
Cc: City Clerk, Katrina Leckovic
Cc: GM - Engineering, Jerry Dobrovolny

Zero Waste Committee
MAR 06 2019

Mark Zacharias, Deputy Minister
Ministry of Environment and Climate Change Strategy
PO Box 9339 Stn Prov Govt
Victoria, B.C. V8W 9M1
VIA EMAIL: DM.ENV@gov.bc.ca

Dear Deputy Minister Zacharias:

Re: Metro Vancouver Solid Waste Regulatory Framework Updates: Economic and Environmental Benefits

We are writing to seek an update on the status of two bylaws submitted to the Minister of Environment and Climate Change Strategy for approval in December 2017 and to also provide additional information on the environmental and economic benefits of these two bylaws. Specifically, we refer to the Commercial Waste Hauler Licensing Bylaw No. 307, 2017 (Bylaw 307) and the Municipal Solid Waste and Recyclable Material Regulatory Amending Bylaw No. 309, 2017 (Bylaw 309).

INTEGRATED SOLID WASTE AND RESOURCE MANAGEMENT PLAN

Bylaw 307 and Bylaw 309 were adopted by Metro Vancouver in November 2017, approximately six years after the Minister of Environment’s approval of the Integrated Solid Waste and Resource Management Plan (ISWRMP). As explained in our letters of December 22, 2017, Bylaw 307 is specifically contemplated in the ISWRMP and Bylaw 309 modernizes a bylaw that has not been changed since 1996. Furthermore, Bylaw 307 and Bylaw 309 each represent an important tool to achieving the overriding goal of the ISWRMP, which is to avoid waste through an aggressive waste reduction campaign and through the recovery of materials and energy from waste that remains.

Metro Vancouver’s ISWRMP was approved by the Minister of the Environment in July 2011. The ISWRMP replaced a previous plan that had been approved in 1995 (16 years previous). The ISWRMP was the product of several years of work by Metro Vancouver, including extensive community and stakeholder consultations.

The 2016 provincial Guide to Solid Waste Management Planning (Guide) contains the following:

At the end of the 10-year plan lifecycle, a regional district should complete a full plan renewal that may require both major amendments to the plan and minor amendments to plan schedules.
On or before the 10-year anniversary of the current plan’s approval, the Board should pass a motion to initiate a new planning process.

As indicated in the Guide, the solid waste plan renewal process is multi-step and will involve engaging many stakeholders. The typical timeline for a regional district to update its solid waste management plan is 3 to 4 years, with up to an additional year for the Province to review the plan.

In accordance with the Guide, the Board will be initiating a new solid waste planning process as it draws closer to its 10 year anniversary date in July 2021. Metro Vancouver has budgeted $3 million over the years 2020 to 2023 to renew the ISWRMP with the expectation that a new plan will be in place by approximately 2024, five years from now. This approach aligns with provincial policy as articulated in the Guide as well as Metro Vancouver’s experience in the development of solid waste plans.

Consultation and Support for Metro Vancouver’s Solid Waste Regulatory Updates

As part of the solid waste regulatory framework consultations, Metro Vancouver notified over 1,200 individuals or entities, hosted webinars, workshops, surveys, project websites and met with stakeholders on request. For the hauler licensing and Generator Levy consultation, there were 55 participants at the webinar and workshops, 5 survey submissions and 439 views on the consultation web page. For the Bylaw 181 update consultation, there were 74 participants at the webinar and workshops, 7 survey submissions and 558 views on the consultation web page.

While some representatives of the waste industry are not in support of the proposed bylaws, many waste industry and other organizations are supportive of the solid waste regulatory framework including:

| BC Electronic Products Recycling Association | Encorp Pacific (Canada) | Recycling Council of BC |
| Cascades Recovery+, a Division of Cascades Canada ULC (CR+) | Major Appliance Recycling Roundtable (MARR) | Regional District of Central Kootenay |
| Central Coast Regional District | Merlin Plastics Supply Inc. | Regional District of Nanaimo |
| Comox Valley Regional District | Net Zero Waste | Retail Council of Canada |
| Covanta Renewable Energy ULC | Product Care | Solid Waste Association of North America Pacific Chapter |
| David Suzuki Foundation | Recycle BC | West Coast Reduction Ltd. |

The most recent letter of support from the David Suzuki Foundation to the Minister of Environment and Climate Change Strategy is attached for your information. The broad support for these new regulatory measures should be an important consideration in the Ministry’s review of the bylaws.

ENVIRONMENTAL SUSTAINABILITY

We note that the Province’s recently announced CleanBC initiative has the following specific goal:
Help communities to achieve 95% organic waste diversion for agricultural, industrial, and municipal waste

The proposed bylaws 307 and 309 currently with the Minister for approval have been purposefully designed to support the goals of environmental sustainability and align well with CleanBC.

Municipal Solid Waste and Recyclable Material Regulatory Amending Bylaw No. 309, 2017. This bylaw amends the Municipal Solid Waste and Recyclable Material Regulatory Bylaw 181, 1996 (Bylaw 181) which has been in place since 1996. This bylaw provides the regulations necessary to ensure that private sector facilities manage municipal solid waste and recyclable material to the highest environmental standards. Approximately 50 facilities manage a range of source-separated recyclable materials and construction and demolition materials within the region and operate with licenses issued and enforced under Bylaw 181. To address the critical impacts this region is facing due to climate change, a concerted effort is required to update our regulatory bylaws to meet this challenge. By modernizing the provisions of Bylaw 181, Bylaw 309 will establish a level playing field for private facilities processing municipal solid waste and recyclables and will establish consistent licensing requirements that will provide safeguards for facilities to optimize environmental performance.

Commercial Waste Hauler Licensing Bylaw No. 307, 2017. This bylaw is a new regulation that will require waste haulers to obtain a license which we believe will facilitate the more effective management of Metro Vancouver's ambitious waste diversion goals under the ISWRMP.

In Metro Vancouver 70% of organics from the multi-family sector and 50% of organics from the commercial/institutional sector remain in the garbage. This is despite Metro Vancouver having the most aggressive organics diversion program in Canada. Bylaw 307 specifically requires that every multi-family and commercial/institutional generator be provided with separate organics collection service. Ensuring that all waste generators have access to organics recycling is a key element in increasing organics diversion in the multi-family and commercial/institutional sector.

Metro Vancouver receives complaints from residents and businesses that waste companies comingle garbage and recyclables in the same truck for disposal, i.e.: bins of recyclables are dumped into the same truck with garbage. This may become a significant issue in our region, particularly now that organics recycling costs exceed those of garbage disposal. This region has seen organics costs rise due to the immediate need to invest in modern processing facilities that are required to meet higher regulatory standards and improvement odour management systems.

Regulating haulers means working with a maximum of 50 licensed haulers, less than 10 of these haulers service more than 90% of the region's multi-family and commercial/institutional generators. Under Bylaw 307 haulers are obligated to separately collect dry recyclables, organics and garbage. The implementation of this bylaw will maximize opportunities for recycling and ensure the environmental sustainability of the solid waste system.

There are a range of other environmental benefits associated with Bylaws 307 and 309. For example, an efficient regional transfer station network operating with consistent services, rules and rates
encourages haulers to transport waste to the nearest facility, thereby reducing truck kilometres and congestion. Metro Vancouver estimates that when waste from Metro Vancouver that was hauled to Abbotsford in 2012-2014 returned to the regional system in 2015 and 2016 there was a reduction in heavy truck travel distance of over 700,000 kilometers per year. This equates to a reduction of approximately 2,000 tonnes CO₂ equivalent GHG emissions per year.

Cement Industry Comments
We are aware that cement industry representatives have expressed concerns about Metro Vancouver’s solid waste bylaws and regulatory framework. A meeting was recently held with cement industry representatives to discuss their concerns and to explore potential opportunities to work together to beneficially reuse materials in the waste stream that would further reduce greenhouse gas emissions. The March 7, 2019 Zero Waste Committee agenda contains a staff report recommending a mixed waste processing initiative that we expect will involve working with the cement industry and other stakeholders on an innovative pilot project. There are a number of questions that a pilot will answer, including gaining an understanding of the provincial regulatory requirements for combusting processed municipal solid waste in a cement kiln.

FINANCIAL SUSTAINABILITY
Metro Vancouver does not anticipate any additional costs to residents or businesses as a result of the adoption of Bylaw 307 or Bylaw 309. The licensing fee for waste haulers under Bylaw 307 is $100 per year per company, and record keeping and reporting requirements are standard industry practise. Fees added in Bylaw 309 simply recognize new facility types with no fee increases.

The only costs related to Bylaw 307 will be costs passed down to generators to provide recycling services if those services are not currently in place. Waste hauling companies will be required to ensure recycling containers are provided wherever garbage is collected. The current model without hauler licensing means that some generators choose not to receive recycling services and consequently, it means these generators avoid their responsibility to reduce waste. Ensuring generators have access to recycling containers aligns with Metro Vancouver’s ISWRMP and the Provincial CleanBC program, and is expected to have a minimal cost impact on generators.

City of Calgary Case Study
We have attached for your reference, a case study which details the experience in Calgary where a private transfer station opened outside of the city boundaries of Calgary. Following opening of the private transfer station, the public system waste tonnage dropped by 200,000 tonnes per year or by approximately one third. The opening of the private transfer station resulted in reduced effectiveness of Calgary’s regulatory initiatives including disposal bans, and resulted in reduced waste and recycling services to residents and businesses. Large waste companies benefited at the expense of the local taxpayer along with small waste and recycling companies.

Bylaws 307 and 309 have been developed through extensive consultation and public engagement. The bylaws will help reduce waste and increase recycling in the region, thereby providing a substantial environmental benefit. The bylaws are consistent with the ISWRMP and will not increase costs to waste generators. We believe the approval of these bylaws will help ensure a competitive and
innovative waste and recycling environment in Metro Vancouver. We respectfully request that Ministry staff consider the information in this letter along with all of the other information previously provided, and recommend the approval of Bylaws 307 and 309.

Thank you for your consideration.

Yours sincerely,

Carol Mason
Commissioner/Chief Administrative Officer

cc:  David Morel, Assistant Deputy Minister, Environmental Protection Division, Ministry of Environment and Climate Change Strategy
     AJ Downie, Regional Director Coast Region, Ministry of Environment and Climate Change Strategy

Encl:  
1. Correspondence from the David Suzuki Foundation to the Minister of Environment and Climate Change Strategy, re Support for Approval of the GVS&DD Bylaws No. 307, 2017 and No. 309, 2017 (Orbit #28788905)
2. City of Calgary Case Study, February 2019 (Orbit #28352165)

28741827
Hon George Heyman  
Min of Environment and Climate Change Strategy  
PO Box 9047 Stn Prov Govt  
Victoria, BC V8W 9E2  
VIA EMAIL: env.minister@gov.bc.ca

Re: Support for approval of the GVS&DD ByLaws No. 307, 2017 and No. 309, 2017

Dear Minister Heyman,

The David Suzuki Foundation supports approval and implementation of the two bylaws noted, above, the GVS&DD Commercial Waste Hauler Licensing Bylaw No. 307, 2017 and the GVS&DD Solid Waste and Recyclable Material Regulatory Amending Bylaw No. 309, 2017.

These bylaws are a necessary step to increased waste diversion and a financially sustainable regional solid waste system as Metro Vancouver strives meet its zero waste goals. These measures will also help reduce greenhouse gas emissions and thus align with regional and provincial greenhouse gas emission reduction goals.

The bylaws have undergone extensive consultation and technical review and are specifically identified as key strategies in the Metro Vancouver Integrated Solid Waste and Resource Management Plan. The proposals are well thought out, share costs equitably and consistently across the waste disposal supply chain and will provide certainty and a level playing field for businesses wanting to engage in waste management and recycling.

While there is opposition from some sectors, the support for these regulatory measures is strong from a wide spectrum of individual waste and recycling companies, waste and recycling associations, industry associations, extended producer responsibility agencies and other regional districts.

Finally, the David Suzuki Foundation supports these bylaws for reasons beyond their ability to create an efficient and effective system of reducing and recycling waste. We also support them because they exemplify the citizens of Metro Vancouver acting on the knowledge that we are all a part of the shared ecosystem and taking responsibility for the waste we generate. Taking that responsibility is an excellent way to encourage ever improving performance towards a zero waste region.

Thank you for your attention to and support of this important regulatory improvement. Please contact me should you have any questions regarding our support for these by-laws.

Sincerely,

Jay Ritchlin  
Director-General  
Western Canada
metrovancouver

Recycling and Waste Case Study

City of Calgary

Overview

Calgary is the third largest municipality in Canada, with a population of approximately 1.2 million people. Like Metro Vancouver, the City of Calgary has committed to a zero waste strategy. The City has established several waste diversion targets and set an overall goal of 70 percent waste diversion by 2025.

There is no regional district government system in Alberta, and as such the City of Calgary provides various programs and services that in Metro Vancouver are divided amongst the regional district and its member municipalities. This includes solid waste management, including garbage, recycling and composting.

On November 21 and 22, 2018, we visited Calgary to compare and contrast Calgary's solid waste infrastructure and regulatory framework, as well as the associated waste diversion and economic impacts, to those found in Metro Vancouver. In Calgary, we met with representatives from:

- The Recycling Council of Alberta
- The City of Calgary
- Cascades Recovery+, a Division of Cascades Canada ULC (CR+), which provides private waste and recycling services, including at a material recovery facility in Calgary, and
- A second private waste and recycling service provider that requested not to be identified in this article

This article consolidates feedback and information we received during the interviews.

I. BACKGROUND: CALGARY’S SOLID WASTE MANAGEMENT MODEL

Residents, businesses and institutions in Calgary are serviced by a combination of public and private waste and recycling service providers.

Collection

The City of Calgary provides a three-stream, curbside collection service to over 325,000 single-family homes and 4,500 additional customers, including small businesses, multi-family condos, industrial and institutional customers. Materials are generator-separated into three streams for collection: garbage (black cart), single-stream recyclables (blue cart) and organics comprised of food and yard waste (green cart).

In addition to its collection services, the City of Calgary operates 27 community drop-off facilities for blue cart recyclables, and has partnered with private industry to provide depots for electronics recycling. Nine household hazardous waste drop-off locations are also operated by the City, in partnership with the Calgary Fire Department.

Waste generators not serviced by the City of Calgary, including the majority of multi-family buildings, commercial businesses and institutions, receive collection services from private waste and recycling haulers.

Three large national-level waste management companies operate in Calgary. A number of other companies also offer waste and recycling collection and processing services.
Processing — Recyclables

Single-stream recyclables collected in the City of Calgary's blue cart program are processed at the privately-owned and operated Cascades Recovery+ material recovery facility, which receives these materials under contract to the City. In addition to the City of Calgary's blue cart recycling stream, Cascades Recovery+ processes single and multi-stream recyclables and provides waste and recycling collection services for a variety of non-municipal customers.

In addition to Cascades Recovery+, there are other recycling processors in Calgary offering various services including multi-material recycling, as well as construction and demolition recycling services.

Processing — Organics

The City of Calgary invested $143 million in an organics processing facility for food and yard waste that opened in 2017. The facility is operated by a third party and is exclusively for materials collected in the municipal green cart program and from other City of Calgary collections customers, as well as dewatered biosolids from the City's wastewater treatment processes. No organics are received from private waste haulers at the facility at this time.

Commercial and multi-family organic wastes collected outside the City's green cart program are processed at a variety of private composting facilities in the vicinity of Calgary.

Disposal

The City of Calgary operates three landfills that receive waste from the residential collection program along with self-haul and commercial waste. All three landfills accept residential waste, and commercial waste is accepted at two landfills. Industrial waste such as contaminated soils and asbestos is accepted at one of the city landfills. The City does not operate any transfer stations; waste collected by municipal fleets is taken directly to one of the three municipal landfill sites.

In 2014 a private waste management company developed a transfer station and recyclables processing facility in a community immediately adjacent to Calgary. Garbage from this transfer station is sent to a remote landfill northeast of Calgary.

At present, there is only one private garbage transfer station in the vicinity of Calgary. Interviewees advised that a second waste management company applied to develop a transfer station, but was not granted zoning approval by the community where the transfer station was proposed.

The Solid Waste Regulatory Framework

The City of Calgary's Waste and Recycling Bylaw requires recycling services be put in place for all multi-family and commercial premises. Specifically, the Bylaw requires owners of multi-family complexes and businesses to provide containers for the storage of recyclable material and food and yard waste generated on site, separate from garbage containers, and ensure that the recyclable and compostable materials are taken to appropriate processing facilities.

In addition, the City of Calgary has in recent years introduced a number of disposal surcharges to encourage diversion from disposal of designated recyclable and compostable materials. At the City landfills, waste loads that exceed threshold amounts of the designated recyclables are charged at a rate of $170 per tonne, compared to $113 per tonne for loads that do not exceed the thresholds. This program is comparable to Metro Vancouver's disposal ban program, and will be referred to as a disposal ban program here for clarity of communication.

The Alberta provincial government issues permits for landfills and waste storage sites. The provincial government does not regulate transfer stations or material recovery
facilities. At the municipal level, the development of transfer stations and material recovery facilities are permitted through the zoning, development and building permit processes. There is no municipal licensing or authorization of transfer station or recycling facility operation in Alberta. As a result of this framework, there is no government oversight of waste management activities at transfer stations or recycling facilities, and no requirement for reporting on waste diversion efficiency or residuals proportion by operators of these types of facilities. In addition, haulers do not require a license to collect waste or recyclables and are not required to report on their diversion activities.

Recycling Investments
The City of Calgary's policy and regulatory initiatives have driven some key investments in recycling and composting technology and infrastructure. Calgary historically banned construction and demolition waste from disposal leading to private sector investments in construction and demolition recycling facilities. A 10-year recycling processing contract with the City of Calgary allowed Cascades Recovery+ to invest $32 million in a high performance single-stream recycling facility that opened in 2008. The collection of organics from single-family homes resulted in the development of Calgary's organics processing facility. The mandatory recycling of organics has led to increased private sector investment in organics recycling.

Diversion Progress
As of November 2018, the City of Calgary estimates the overall diversion rate across all sectors at 49%. Data for single-family residences is reliable, given that Calgary collects recycling and waste from that sector, but data for other sectors are based on estimates because there is no reporting of disposal or recycling activities to the City of Calgary by private sector market participants.

II. IMPACT: THE EFFECTS OF CALGARY’S WASTE MANAGEMENT ENVIRONMENT

The operation of a private transfer station in an adjacent community, together with an inability of the City of Calgary to enforce its disposal bans at private facilities or cause facilities to report diversion rates or residual proportions, has given rise to a number of impacts.

Impacts on Waste Flow
Calgary has seen significant changes to the amount of waste received at its three landfills following opening of the private transfer station. The table details per capita waste disposal data for the City of Calgary and annual City of Calgary population estimates. The table shows that the waste received at City of Calgary landfills went from an average of 689,000 tonnes between 2011 and 2014 to 458,000 tonnes in 2017, a decrease of more than 200,000 tonnes per year or 33 percent over the three years. The observed drop in waste quantities was primarily from commercial waste haulers.

<table>
<thead>
<tr>
<th>Year</th>
<th>Waste Disposal (kg/capita)</th>
<th>Population</th>
<th>Total Waste (tonnes)</th>
<th>Change (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>629</td>
<td>1,096,833</td>
<td>689,910</td>
<td>N/A</td>
</tr>
<tr>
<td>2012</td>
<td>556</td>
<td>1,120,000</td>
<td>622,720</td>
<td>-10</td>
</tr>
<tr>
<td>2013</td>
<td>583</td>
<td>1,156,686</td>
<td>674,350</td>
<td>8</td>
</tr>
<tr>
<td>2014</td>
<td>627</td>
<td>1,230,195</td>
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<td>14</td>
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<tr>
<td>2015</td>
<td>517</td>
<td>1,230,195</td>
<td>636,010</td>
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<tr>
<td>2016</td>
<td>431</td>
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<td>534,100</td>
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</tr>
<tr>
<td>2017</td>
<td>368</td>
<td>1,246,337</td>
<td>458,650</td>
<td>-14</td>
</tr>
</tbody>
</table>
While the exact cause of the drop in waste quantities is unknown, the City has attributed the decrease to a combination of economic factors, waste diversion efforts and waste leaving the Calgary disposal system. The decrease follows opening of the private transfer station. Given the dramatic drop in waste quantities following the opening of the new facility, and given that the change was primarily seen in commercially collected waste, it is likely that a substantial component of the change in waste quantities was a result of waste being delivered to the new transfer station.

The decrease in waste going to the City of Calgary landfills has resulted in reduced revenues to the City. With less solid waste revenues, the City of Calgary has had to reduce its annual budget by between $6 million and $10 million over recent years. Budget reductions have resulted in reduced operating hours at its landfills, impacting service to residents and businesses, and the elimination of some recycling programs. Contributions to the City's landfill liability reserve were also reduced. Planned increases in garbage tipping fees to continue to encourage waste diversion were also deferred.

**Impacts on Competition**

A number of the large haulers are now delivering garbage to the private transfer station. The private waste management company is able to set pricing considering City of Calgary tipping fees with their own unit costs reducing with increasing quantities. Market participants believe the private waste management company offers low tipping fees to other large haulers in order to maximize quantities of waste delivered to that facility. Market participants advised that many haulers, particularly small haulers, are not provided access to the transfer station.

The private waste management company's practices with respect to providing access to its transfer station place smaller haulers at a competitive disadvantage vis-à-vis their larger rivals. While the private company's economic incentive is to charge low tipping fees to certain haulers to optimize use of its facilities, the City of Calgary's objectives in setting tipping fees are driven by public interest considerations related to the desire to discourage landfilling and increase diversion rates. Smaller haulers that cannot access the private transfer station must pay the City of Calgary's higher tipping fees. This dynamic — a lack of a level playing field — raises barriers to entry for smaller haulers and reduces their ability to compete with larger haulers.

Smaller haulers are also disadvantaged because, in order to utilize the City of Calgary landfills, they are subject to the City of Calgary's disposal bans. These requirements impose costs on smaller haulers that are not incurred by haulers that access the private transfer station, where the City of Calgary has no authority to impose disposal bans.

The lack of enforcement of disposal bans may reduce the incentive of generators to source-separate waste. In order to achieve a toe-hold for market entry, many small haulers focus their business on providing programs that maximize waste diversion. If it is less expensive to dispose of waste rather than implementing aggressive source-separation programs, these small haulers may be disadvantaged.

Negative impacts on small waste and recycling companies is expected to over time reduce competition in the Calgary market.

**Impacts on Public Interest Objectives**

The City of Calgary has established ambitious objectives for diverting waste from landfill. However, the existence of a private transfer station where the City cannot enforce its disposal bans, and who is not obligated to report to the City of Calgary on any aspect of their operations, impacts the City's ability to achieve its public objectives of reducing waste and providing cost effective and reliable solid waste services.

The lack of enforcement of disposal bans at the private transfer station may negatively impact incentives of waste generators to source-separate waste. The diversion of waste to the private transfer station also inhibits Calgary's ability to use increasing
tipping fees as a tool to encourage waste diversion. Uncertainty with respect to public facility disposal needs impacts Calgary's ability to plan for the future.

Finally, the absence of reporting requirements at the private transfer station as well as private recyclables processing facilities prevents the City of Calgary from both accurately assessing the effectiveness of its waste diversion programs, and from designing future policies with the precision required to increase diversion rates further.

All of these effects undermine the ability of the City of Calgary to accomplish its public objective.

III. POTENTIAL REFORM – POSSIBLE CHANGES TO WASTE AND RECYCLING ENVIRONMENT IN CALGARY

Interviewees suggested that a regulatory framework requiring transparency and accountability with respect to recycling performance of processors in Calgary would level the playing field for collectors and processors. Interviewees also suggested that measures were needed to level the playing field with respect to garbage disposal.

Metro Vancouver's Solid Waste and Recyclable Material Regulatory Bylaw 181 (Bylaw 181) has specific provisions ensuring accountability and level playing field for processors. Recycling processors report regularly to Metro Vancouver's Environmental Regulation and Enforcement division on all quantities processed through the facility, including reporting on diversion. Some types of facilities must achieve minimum diversion efficiency, and for others diversion efficiency by facility is posted on Metro Vancouver's website to increase transparency. Proposed updates to Bylaw 181, further level the playing field by ensuring that all types of facilities processing municipal solid waste or recyclable materials are licensed and facilities receiving mixed municipal solid waste must achieve minimum diversion standards.

Metro Vancouver's Hauler Licensing Bylaw has specific provisions making haulers responsible for ensuring recycling containers are provided wherever waste is collected.

In addition to ensuring the collection of accurate information that will inform public policy decision making, interviewees suggested that transparency and accountability would level the playing field among haulers and processors in Calgary. Metro Vancouver's Generator Levy and proposed hauler licensing bylaw and proposed updates to Bylaw 181 ensure a level playing field for waste and recycling service providers.

Summary and Conclusions

The City of Calgary is committed to waste diversion among all sectors. The current regulatory environment in Calgary – which results in a lack of transparency, and impairs Calgary's ability to achieve its public objectives – impacts waste diversion efforts and creates barriers to entry in the private waste and recycling industry. Moreover, this regulatory environment permits large waste collection companies to financially benefit from regulatory policies intended to discourage waste disposal and encourage recycling, undermining the objectives of the policies. Revenue losses to the City of Calgary have resulted in reduced services to residents and businesses using the City solid waste system, and cancellation of some recycling programs. Small haulers are at a competitive disadvantage compared to large haulers using the parallel private disposal system. Various provisions in Metro Vancouver's proposed solid waste regulatory updates are intended to minimize the potential for similar negative impacts on competition and waste diversion in the Vancouver market.