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

REGULAR BOARD MEETING
Friday, June 24, 2016
9:00 A.M.
2nd Floor Boardroom, 4330 Kingsway, Burnaby, British Columbia

Membership and Votes

AGENDA

A. ADOPTION OF THE AGENDA

1. June 24, 2016 Regular Meeting Agenda
   That the GVS&DD Board adopt the agenda for its regular meeting scheduled for
   June 24, 2016 as circulated.

B. ADOPTION OF THE MINUTES

1. May 27, 2016 Regular Meeting Minutes
   That the GVS&DD Board adopt the minutes for its regular meeting held
   May 27, 2016 as circulated.

C. DELEGATIONS

D. INVITED PRESENTATIONS

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

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

June 16, 2016
1. UTILITIES COMMITTEE REPORTS

1.1 Award of Contract Resulting from RFP No. 15-175: Consulting Engineering Services for the Pump Station and Conveyance for Lions Gate Secondary WWTP Project

That the GVS&DD Board authorize:

a) Award of a contract in the amount of $1,398,544 (exclusive of taxes) to AECOM Canada Ltd. for Phase A resulting from RFP No. 15-175 for the Consulting Engineering Services for the Pump Station and Conveyance for Lions Gate Secondary WWTP Project, subject to receipt of Approval in Principle on project funding from the Government of Canada; and

b) The Commissioner and the Corporate Officer to execute the contract.

2. ZERO WASTE COMMITTEE REPORTS

2.1 Coquitlam Transfer Station Replacement Detailed Design and Construction

That the GVS&DD Board direct staff to proceed with the detailed design and construction of a full-service transfer station to replace the Coquitlam Transfer Station to be located on the Coquitlam Landfill with the provision of dedicated recycling services subject to the communities served by the transfer station requesting and funding the service.

2.2 Metro Vancouver Transfer Stations Dedicated Recycling Areas Funding Approach

That the GVS&DD Board direct staff to prepare amendments to be incorporated into the proposed 2017 Tipping Fee and Solid Waste Disposal Bylaw to apportion the annual costs on a population basis for operating dedicated recycling areas at the North Shore and Coquitlam Transfer Stations to the following participating municipalities; North Shore Transfer Station Recycling Area (District of North Vancouver, City of North Vancouver, District of West Vancouver); and Coquitlam Transfer Station Recycling Area (City of Coquitlam, City of Port Coquitlam, City of Port Moody).

2.3 Mattress Recycling Update

That the GVS&DD Board:

a) write a letter to the Minister of Environment requesting an amendment to the B.C. Recycling Regulation to require the implementation of an Extended Producer Responsibility (EPR) program for mattresses and other bulky furniture by 2017; and

b) copy all municipalities and regional districts in the Province on the letter.

2.4 Waste-to-Energy Facility Environmental Monitoring and Reporting, 2015 Update

3. CHIEF ADMINISTRATIVE OFFICER REPORTS

3.1 Award of Contract Resulting from RFP No. 16-071 for North Shore, Coquitlam and Surrey Transfer Stations Operating and Maintenance Services Agreement
That the GVS&DD Board authorize:

a) award of a contract for operation and maintenance of the North Shore, Coquitlam and Surrey Transfer Stations to Halton Recycling Ltd. doing business as Emterra Environmental as a result of RFP No. 16-071 for an anticipated value of $115,608,000 (exclusive of taxes) over a seven year term; and

b) the Commissioner and Corporate Officer to execute the contract.

F. ITEMS REMOVED FROM THE CONSENT AGENDA

G. REPORTS NOT INCLUDED IN CONSENT AGENDA

H. MOTIONS FOR WHICH NOTICE HAS BEEN GIVEN

I. OTHER BUSINESS

J. BUSINESS ARISING FROM DELEGATIONS

K. RESOLUTION TO CLOSE MEETING

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

That the GVS&DD Board close its regular meeting scheduled for June 24, 2016 pursuant to the Community Charter provisions, Section 90 (1) (e) as follows:

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

L. RISE AND REPORT (Items Released from Closed Meeting)

M. ADJOURNMENT/CONCLUSION
That the GVS&DD Board adjourn/conclude its regular meeting of June 27, 2016.
GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
BOARD OF DIRECTORS

Minutes of the Regular Meeting of the Greater Vancouver Sewerage and Drainage District (GVS&DD) Board of Directors held at 10:06 a.m. on Friday, May 27, 2016 in the 2nd Floor Boardroom, 4330 Kingsway, Burnaby, British Columbia.

MEMBERS PRESENT:
Vancouver, Vice Chair, Director Raymond Louie
Burnaby, Director Derek Corrigan
Burnaby, Director Sav Dhaliwal
Burnaby, Director Colleen Jordan
Coquitlam, Director Craig Hodge
Coquitlam, Alternate Director Mae Reid for Richard Stewart
Delta, Director Lois Jackson
Electoral Area A, Alternate Director Bill Holmes for Maria Harris
Langley City, Director Rudy Storteboom
Langley Township, Director Charlie Fox
Langley Township, Director Bob Long
New Westminster, Director Jonathan Coté
North Vancouver City, Director Darrell Mussatto
North Vancouver District, Director Richard Walton
Port Moody, Director Mike Clay
Richmond, Director Malcolm Brodie
Richmond, Director Harold Steves
Surrey, Director Bruce Hayne
Surrey, Director Linda Hepner
Surrey, Director Barbara Steele
Surrey, Director Judy Villeneuve
Surrey, Alternate Director Dave Woods for Mary Martin
Vancouver, Alternate Director George Affleck for Geoff Meggs
Vancouver, Alternate Director Adriane Carr for Andrea Reimer
Vancouver, Director Heather Deal
Vancouver, Director Kerry Jang (arrived at 10:07 a.m.)
Vancouver, Director Gregor Robertson
Vancouver, Director Tim Stevenson
White Rock, Director Wayne Baldwin
Commissioner Carol Mason (Non-voting member)

MEMBERS ABSENT:
Maple Ridge, Director Nicole Read
Pitt Meadows, Director John Becker
Port Coquitlam, Chair, Director Greg Moore
West Vancouver, Director Michael Smith

STAFF PRESENT:
Deanna Manojlovic, Assistant to Regional Committees, Legal and Legislative Services
Chris Plagnol, Board and Information Services Director/Corporate Officer, Legal and Legislative Services
Vice Chair Louie chaired the meeting in the Chair’s absence.

A. ADOPTION OF THE AGENDA

1. May 27, 2016 Regular Meeting Agenda

   It was MOVED and SECONDED
   That the GVS&DD Board adopt the agenda for its regular meeting scheduled for
   May 27, 2016 as circulated.
   CARRIED

B. ADOPTION OF THE MINUTES

1. April 29, 2016 Regular Meeting Minutes

   It was MOVED and SECONDED
   That the GVS&DD Board adopt the minutes for its regular meeting held
   April 29, 2016 as circulated.
   CARRIED

C. DELEGATIONS

   No items presented.

D. INVITED PRESENTATIONS

   No items presented.

10:07 a.m. Director Jang arrived at the meeting.

E. CONSENT AGENDA

   It was MOVED and SECONDED
   That the GVS&DD Board adopt the recommendations contained in the following items
   presented in the May 27, 2016 GVS&DD Board Consent Agenda:
   1.1  2016 Liquid Waste Sustainability Innovation Fund Applications
   2.1  Intentions Paper – Proposed New Bylaw for Post-Secondary and Research
        Laboratories
   2.2  Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw No. 299,
        2007 – Staff Appointments
   2.3  Bridge Funding for the Georgia Basin Inter-Regional Education Initiative
   3.1  Integrated Solid Waste and Resource Management Plan Dispute Resolution
        Procedure
   3.2  Litter, Abandoned Waste and Escaped Waste Strategy
   3.3  Publication of Diversion Rates of Licensed Construction and Demolition Waste
        Facilities
   3.4  Waste-to-Energy Facility – 2015 Financial Update
3.5 Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw – Staff Appointments

4.1 Delegations Received at Committee May 2016

CARRIED

The items and recommendations referred to above are as follows:

1.1 2016 Liquid Waste Sustainability Innovation Fund Applications
Report dated April 27, 2016 from Fred Nenninger, Policy Planning and Analysis Director, Liquid Waste Services, summarizing the staff evaluation of applications for support from the Liquid Waste Sustainability Innovation Fund and providing recommendations for consideration.

Recommendation:
That the GVS&DD Board approve the allocation from the Liquid Waste Sustainability Innovation Fund, subject to securing the required external grants, for the following projects:

a) Smart Sewers – Development of Wireless In-Situ Sensors: $200,000; and
b) Hydrothermal Processing Pilot Facility: $4 million.

Adopted on Consent

2.1 Intentions Paper – Proposed New Bylaw for Post-Secondary and Research Laboratories
Report dated April 14, 2016 from Jeff Gogol, Policy Planning and Analysis Environmental Regulatory Planner, and Sean Tynan, Public Involvement Policy Coordinator, Liquid Waste Services, seeking the endorsement of the GVS&DD Board for the Intentions Paper – Proposed New Bylaw for Post-Secondary and Research Laboratories and direction to begin consultation on the development of a new regulatory bylaw.

Recommendation:
That the GVS&DD Board endorse the Intentions Paper – Proposed New Bylaw for Post-Secondary and Research Laboratories and direct staff to begin consultation on the development of a new regulatory bylaw.

Adopted on Consent

2.2 Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw No. 299, 2007 – Staff Appointments
Report dated April 18, 2016 from Ray Robb, Environmental Regulation and Enforcement Division Manager, Legal and Legislative Services, updating staff appointments pursuant to the Environmental Management Act and Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw No. 299, 2007.

Recommendation:
That the GVS&DD Board, pursuant to the Environmental Management Act and Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw No. 299, 2007:
a) Appoint the following Metro Vancouver staff:
   Michael Hughes and Luke Smith as Municipal Sewage Control Officers
   Kathy Preston as Deputy Sewage Control Manager; and
b) Rescind the following Metro Vancouver staff:
   Karen Pyne and Johanna van den Broeke as Municipal Sewage Control Officers; and
c) Appoint the following City of Vancouver staff:
   James Smith as a Deputy Sewage Control Manager.

Adopted on Consent

2.3 Bridge Funding for the Georgia Basin Inter-Regional Education Initiative
Report dated April 26, 2016 from Fred Nenninger, Policy Planning and Analysis Director, Liquid Waste Services, seeking approval from the GVS&DD Board for a contribution of $5,000 in bridge funding and a letter of support for the continuation of the Inter-Regional Education Initiative related to rainwater management and watershed health, coordinated through The Partnership for Water Sustainability in BC.

Recommendation:
That the GVS&DD Board approve:
a) A contribution of $5,000 in bridge funding to the Partnership for Water Sustainability in BC to partially fund a scaled-back Georgia Basin Inter-Regional Education Initiative in 2016; and
b) A letter to the Partnership supporting their request to the Province for a 5-year funding commitment towards the Georgia Basin Inter-Regional Education Initiative.

Adopted on Consent

3.1 Integrated Solid Waste and Resource Management Plan Dispute Resolution Procedure
Report dated May 10, 2016 from Paul Henderson, General Manager, Solid Waste Services, advising the GVS&DD Board on work underway to develop an Integrated Solid Waste and Resource Management Plan Implementation Dispute Resolution Procedure, which will subsequently be provided to the Board for consideration.

Recommendation:

Adopted on Consent
3.2 Litter, Abandoned Waste and Escaped Waste Strategy
Report dated May 10, 2016 from Allen Jensen, Assistant Project Engineer, Solid Waste Services, responding to the Zero Waste Committee’s September 10, 2015 request regarding monitoring of illegal dumping and large item pick-up programs in the region and seeking GVS&DD Board approval on proposed actions to help reduce litter, abandoned and escaped waste.

Recommendation:
That the GVS&DD Board receive the report titled “Litter, Abandoned Waste and Escaped Waste Strategy”, dated May 10, 2016 and approve the following actions to help reduce abandoned waste, litter and escaped waste:

a) incorporate a surcharge for unsecured loads into the proposed 2017 Tipping Fee Bylaw;
b) develop requirements to waive tipping fees for volunteer community clean-up events;
c) develop an education and awareness program to reduce abandoned waste;
d) continue to work with member municipalities to track municipal clean-up costs for abandoned waste; and
e) continue to work with member municipalities to facilitate information sharing and collaboration in reducing abandoned waste.

Adopted on Consent

3.3 Publication of Diversion Rates of Licensed Construction and Demolition Waste Facilities
Report dated May 10, 2016 from Marian Kim, Lead Senior Engineer, Solid Waste Services, providing an update on posting the diversion rates of licensed private construction and demolition waste facilities on Metro Vancouver website.

Recommendation:
That the GVS&DD Board receive the report titled “Publication of Diversion Rates of Licensed Construction and Demolition Waste Facilities”, dated May 10, 2016 for information.

Adopted on Consent

3.4 Waste-to-Energy Facility – 2015 Financial Update

Recommendation:

Adopted on Consent
3.5 Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw – Staff Appointments
Report dated April 15, 2016 from Ray Robb, Environmental Regulation and Enforcement Division Manager, Legal and Legislative Services, updating staff appointments pursuant to the Environmental Management Act and Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996.

Recommendation:
That the GVS&DD Board, pursuant to the Environmental Management Act and Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996:

a) Rescind Metro Vancouver staff Karen Pyne and Johanna van den Broeke as Officers;
b) Appoint Metro Vancouver staff Michael Hughes and Luke Smith as Officers; and
c) Appoint Kathy Preston as Deputy Solid Waste Manager.

Adopted on Consent

4.1 Delegations Received at Committee May 2016
Report dated May 19, 2016 from Kelly Hardy, Board and Information Services Office Supervisor, Legal and Legislative Services, providing the Board with information related to delegations received at Committees in May 2016.

Recommendation:
That the GVS&DD Board receive for information the report dated May 19, 2016 titled “Delegations Received at Committee May 2016” containing a submission received from the following delegate:

a) Paul Oostelbos, Director, International Business Development, Shanks/Orgaworld.

Adopted on Consent

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

G. REPORTS NOT INCLUDED IN CONSENT AGENDA
No items presented.

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

I. OTHER BUSINESS
No items presented.

J. BUSINESS ARISING FROM DELEGATIONS
No items presented.
K. RESOLUTION TO CLOSE MEETING

It was MOVED and SECONDED that the GVS&DD Board close its regular meeting scheduled for May 27, 2016 pursuant to the Community Charter provisions, Section 90 (1) (g) and (k) as follows:

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

(g) litigation or potential litigation affecting the regional district;

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

CARRIED

L. RISE AND REPORT (Items Released from Closed Meeting)

No items presented.

M. ADJOURNMENT/CONCLUSION

It was MOVED and SECONDED that the GVS&DD Board adjourn its regular meeting of May 27, 2016.

CARRIED

(Time: 10:07 a.m.)

CERTIFIED CORRECT

__________________________________________  _______________________________________
Chris Plagnol, Corporate Officer               Raymond Louie, Vice Chair
To: Utilities Committee

From: Tracey S. Husoy, Division Manager, Purchasing and Risk Management, Financial Services Department

Date: May 18, 2016

Subject: Award of Contract Resulting from RFP No. 15-175: Consulting Engineering Services for the Pump Station and Conveyance for Lions Gate Secondary WWTP Project

RECOMMENDATION
That the GVS&DD Board authorize:

a) Award of a contract in the amount of $1,398,544 (exclusive of taxes) to AECOM Canada Ltd. for Phase A resulting from RFP No. 15-175 for the Consulting Engineering Services for the Pump Station and Conveyance for Lions Gate Secondary WWTP Project, subject to receipt of Approval in Principle on project funding from the Government of Canada; and

b) The Commissioner and the Corporate Officer to execute the contract.

PURPOSE
This report is to advise the Board of the results of RFP 15-175: Consulting Engineering Services for the Pump Station and Conveyance for Lions Gate Secondary WWTP Project, and to recommend award of the contract for Phase A, Conceptual and Preliminary Design in the amount of $1,398,544 (exclusive of taxes) to AECOM Canada Ltd. Board approval to award subsequent phases of work will be sought at a later date.

BACKGROUND
This report is being brought forward to the Utilities Committee to consider a recommendation to the GVS&DD Board to award a contract for consulting engineering work for the Pump Station and Conveyance, as part of the Lions Gate Secondary WWTP program. Pursuant to the Officers and Delegation Bylaw No. 284 and the Procurement and Real Property Contracting Authority Policy, procurement contracts which exceed a value of $5 million require the approval of the Board of Directors. Further, the policy states that contracting authority for multi-phase contracts is determined based on the anticipated total value of the services to be provided over all phases.

PROJECT DESCRIPTION
As identified in Metro Vancouver’s Integrated Liquid Waste and Resource Management Plan approved by the BC Ministry of Environment in May 2011, and consistent with the new federally mandated Wastewater Systems Effluent Regulations, the Lions Gate WWTP must be upgraded to secondary treatment no later than December 31, 2020.

As part of the new Lions Gate Secondary WWTP project work, a new influent conveyance system consisting of a pump station and forcemain will be required between the existing treatment plant located immediately to the west of Lions Gate Bridge and the proposed treatment plant located at W 1st Street and Philip Avenue in the District of North Vancouver. After treatment, the effluent will be conveyed by a new pipe between the proposed treatment plant and the existing outfall located near the existing Lions Gate WWTP site.
The scope of work for RFP 15-175 includes providing consulting engineering services for Phase A - Concept and Preliminary Design, Phase B - Detailed Design and Phase C – Construction Services.

As a result of a Request for Qualifications (RFQ 15-174) that was publicly advertised on Metro Vancouver’s and BC Bid web sites, three proponents were shortlisted to respond to the RFP. The RFP was issued on February 4, 2016 and closed on March 15, 2016. The following proposals were received (exclusive of taxes):

<table>
<thead>
<tr>
<th>Company</th>
<th>Phase A: Concept and Preliminary Design</th>
<th>Phase B: Detailed Design</th>
<th>Phase C: Construction Services</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>AECOM Canada Ltd.</td>
<td>$1,347,955</td>
<td>$2,849,439</td>
<td>$1,410,923</td>
<td>$5,608,318</td>
</tr>
<tr>
<td>Associated Engineering (B.C.) Ltd.</td>
<td>$1,312,568</td>
<td>$2,864,892</td>
<td>$1,498,201</td>
<td>$5,675,661</td>
</tr>
<tr>
<td>Stantec</td>
<td>$1,238,185</td>
<td>$2,935,955</td>
<td>$1,469,570</td>
<td>$5,643,710</td>
</tr>
</tbody>
</table>

The technical component of the proposals was evaluated by staff from Liquid Waste Services. The financial component was evaluated by staff from the Purchasing Division. AECOM was identified as the highest ranked proponent both technically and commercially.

The RFP is structured such that the work will be awarded according to the project phases. Proponents were requested to base their fees (noted above) on an estimated number of hours to provide a common basis for the purpose of the commercial evaluation. The actual number of hours required for each subsequent phase of work (Phase B and C) will become better defined as Phase A nears completion.

It is intended that Phase A be awarded at this time and Phases B and C be awarded following negotiations towards the end of Phase A, subject to satisfactory performance, and after further authorization from the Board.

Following identification of the highest ranked proposal, negotiations ensured as allowed for in the RFP. The base proposal of $1,347,955 was increased by $50,589 to $1,398,544 due to an increase of additional hours and scope related to the execution and management of the work and the geotechnical investigation requirements, which was deemed reasonable and appropriate by the Metro Vancouver’s negotiation team.

**ALTERNATIVES**

1. That the GVS&DD Board authorize:
   a) Award of a contract in the amount of $1,398,544 (exclusive of taxes) to AECOM Canada Ltd. for Phase A resulting from RFP No. 15-175 for the Consulting Engineering Services for the Pump Station and Conveyance for Lions Gate Secondary WWTP Project, subject to receipt of Approval in Principle on project funding from the Government of Canada; and
   b) The Commissioner and the Corporate Officer to execute the contract.

2. That the GVS&DD Board terminate RFP 15-175: Consulting Engineering Services for the Pump Station and Conveyance for Lions Gate Secondary WWTP Project and direct staff to report back to the GVS&DD Board with options for an alternate course of action.
FINANCIAL IMPLICATIONS
If the GVS&DD Board approves Alternative 1, a contract will be awarded to AECOM Canada Ltd. in the amount of $1,398,544 (exclusive of taxes) to complete the conceptual and preliminary design work under Phase A. This amount is within the budget allocated for the project. The proposal is the highest ranked proposal. The RFP contemplates additional phases of the work and the overall estimated value of the contract is $5,608,318 + $50,589 (for additional scope related to the execution and management of the work) for a total of $5,658,907. It is expected that subsequent phases of the work will be awarded to AECOM subject to satisfactory completion of Phase A at which time the total cost and details of the subsequent phases of the work will be finalized. Further phases will require Board approval pursuant to the provisions of the Procurement and Real Property Contracting Authority Policy.

Receipt of Approval in Principle for project funding is needed from the Government of Canada to ensure eligibility for reimbursement of project costs. Once Approval in Principle is received, one third of the cost of this contract will be covered by the $212 million federal funding committed to the Lions Gate project announced in the March 22, 2016 Federal Budget.

The GVS&DD Board has the choice not to proceed with Alternative 1 but staff will need further direction in relation to the project. A delay associated with Alternative 2 will pose a risk that the Lions Gate Secondary WWTP will not be able to meet the regulatory deadline of December 31, 2020 for secondary-level treatment as defined in the Integrated Liquid Waste and Resource Management Plan and the federally mandated Wastewater System Effluent Regulations.

SUMMARY / CONCLUSION
An RFP was issued for consulting engineering services for preliminary and detailed design and construction engineering services for the pump station and conveyance system as part of the Lions Gate Secondary WWTP Project. AECOM Canada Ltd. was identified as the highest ranked proponent and the cost is within the budget allocated for the project. Based on the evaluation of the proposals, it is recommended that the Board of Directors authorize the Commissioner and the Corporate Officer to award and execute a contract for RFP 15-175: Consulting Engineering Services for the Pump Station and Conveyance for Lions Gate Secondary WWTP Project, to AECOM Canada Ltd. for Phase A, in the amount of $1,398,544 (exclusive of taxes), subject to receipt of Approval in Principle for project funding from the Government of Canada.

18058796
To: Zero Waste Committee

From: Marcel Pitre, Division Manager, Solid Waste Services

Date: June 2, 2016

Meeting Date: June 9, 2016

Subject: Coquitlam Transfer Station Replacement Detailed Design and Construction

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**RECOMMENDATION**

That the GVS&DD Board direct staff to proceed with the detailed design and construction of a full-service transfer station to replace the Coquitlam Transfer Station to be located on the Coquitlam Landfill with the provision of dedicated recycling services subject to the communities served by the transfer station requesting and funding the service.

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**PURPOSE**

The purpose of this report is to seek authority to proceed with the detailed design and construction of a replacement transfer station facility on the Coquitlam Landfill site.

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**BACKGROUND**

On September 18, 2015, the GVS&DD Board approved a transfer station strategy with the following key elements (truncated):

- a) provision of dedicated recycling services at Metro Vancouver transfer stations only when requested and funded by communities served by the transfer station;
- b) continued development of options for replacement of the Coquitlam Transfer Station and collaboration with tri-cities municipalities to ensure that there is continuity of service between the closure of the existing transfer station and the development of a new facility; [...] 

This report provides update on the development and analysis of options for replacement of the Coquitlam Transfer Station with the recommendation that Metro Vancouver proceed with the detailed design and construction of a full-service transfer station to replace the Coquitlam Transfer Station.

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**COQUITLAM TRANSFER STATION REPLACEMENT**

The Coquitlam Transfer Station has been in operation at 1200 United Boulevard in Coquitlam for nearly 30 years. The City of Coquitlam plans to transfer land ownership of the existing Coquitlam Transfer Station property to a third party for redevelopment. The final closure date for the facility is uncertain but is expected to be within the next few years.

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**Progress to Date**

Metro Vancouver has been planning the Coquitlam Transfer Station replacement for a number of years. Progress made in 2015/2016 included the development and costing of alternative concept designs, completion of geotechnical work to determine foundation requirements for a new facility, noise, odour and traffic assessments, and finalization of a closure plan for the Coquitlam Landfill,
future site of the facility. Information from this work has been shared with the City of Coquitlam as well as with the other Tri-Cities communities.

Replacement Options
The options evaluated to replace the Coquitlam Transfer Station are as follows:

Option 1 – Full-service Transfer Station: This type of facility would accept waste from all customer types: municipal curb-side collection vehicles, private commercial haulers and small residential self-haul (RDO) customers. Traffic would be segregated into large and small vehicle queues.

Option 2 – RDO Transfer Station: A residential drop-off (RDO) transfer station would accept waste from small self-haul residential and small commercial vehicles. Municipal vehicles could also be accommodated. Large commercial vehicle traffic would need to re-route to alternate facilities if this option is selected.

An additional alternative explored was to redirect all traffic to alternate facilities. This option is not viable due to both service reduction considerations and also because the remaining facilities would not have the capacity to handle the approximately 120,000 transactions per year from the Coquitlam transfer station without significantly increasing congestion and wait times at those facilities. GIS mapping confirmed that closing the Coquitlam Transfer Station without a replacement facility would significantly impact service levels for residents and businesses served by that facility (See Attachment 1).

Capital Requirements
To ensure effective monitoring of incoming waste for both hazardous and recyclable materials, a new transfer station serving small vehicles or a full-service facility have common design features. The facility needs to be designed such that waste is tipped onto a flat floor for inspection prior to being loaded into transfer trailers. A full-service transfer station is designed on the same basis as a residential drop-off facility with the exception of a larger building and some additional elements such as a compactor and additional scales. The incremental capital requirements for a full scale transfer station increases the cost of the facility by about 25% compared to a residential drop-off only facility, but allows the facility to receive waste from all customer types. The estimated cost of a full scale transfer station is approximately $40 million.

A capital budget of $57 Million is included in the Metro Vancouver long-range capital plan for the design and construction of the Coquitlam Transfer Station replacement facility.

Resiliency and Customer Service: The Coquitlam Transfer Station is centrally located in the region. It provides a key service point for many solid waste and recycling customers. The United Blvd corridor hosts head offices and works yards for several private commercial haulers that use the Coquitlam Transfer Station as a final delivery point on end-of-day collection routes regardless of the initial collection locations.

The Coquitlam Transfer Station’s location helps to provide resiliency to the overall solid waste management system; it can easily accommodate re-routed vehicles during service disruptions at other solid waste facilities.
**Dedicated Recycling Services**

Dedicated recycling services would only be provided at the new facility if requested and funded by communities served by the facility. The cost of dedicated recycling services is estimated at $2 to $5 million depending on the type of system provided. As part of detailed design process, Metro Vancouver will work with the communities served by the transfer station to design and cost the recycling services that best suits their needs.

**Sustainability**

A replacement Coquitlam Transfer Station would be developed using a sustainable building approach. Aspects such as water efficiency, energy efficiency, indoor environment quality and using recycled materials will be incorporated in the project design. Based on the industrial nature of the building requirements, LEED™ certification is not likely to be the most appropriate sustainable building certification approach. Alternate sustainability certification systems that are more suited to industrial infrastructure for this project are being investigated.

**Engagement**

Metro Vancouver worked closely with the Tri-Cities municipalities along with other waste management stakeholders to understand the requirements for the replacement of the Coquitlam Transfer Station. As part of the City of Coquitlam’s development permit process, Metro Vancouver will engage with neighbours of the Coquitlam Landfill site on issues such as noise, odour and traffic. The chosen property is appropriately zoned for waste disposal purposes and the surrounding uses are primarily industrial in nature. The Coquitlam Landfill site is approximately 30 hectares in size. This allows for a considerable buffer around the development of a transfer station facility to avoid impacting neighbouring sites.

**Next Steps**

The next steps for the Coquitlam Transfer Station replacement will be the preparation of a detailed design and the submission of a development permit application for the facility. A budget of $1.6 million is included in the 2016 solid waste capital budget for these purposes.

Progress on the project will be reported back to the GVS&DD Board as part of ongoing capital expenditures reporting.

**Schedule**

The detailed design and development permit process will start in 2016 and continue through 2017, with tendering and an award of a construction contract likely to take place at the end of 2017 or early 2018. The construction and commissioning of a new facility is estimated to take 24-30 months. A schedule summary is included as Attachment 2. Attachment 3 shows a map of the current and replacement locations for the Coquitlam Transfer Station.

**ALTERNATIVES**

1. That the GVS&DD Board direct staff to proceed with the detailed design and construction of a full-service transfer station to replace the Coquitlam Transfer Station to be located on the Coquitlam Landfill with the provision of dedicated recycling services subject to the communities served by the transfer station requesting and funding the service.
2. That the Zero Waste Committee receive the report titled “Coquitlam Transfer Station Replacement Detailed Design and Construction”, dated June 2, 2016 for information and provide alternate direction to staff.

FINANCIAL IMPLICATIONS
If the Board approves Alternative 1, detailed design and construction of a full-service transfer station to replace the existing Coquitlam Transfer Station will commence. The Coquitlam Transfer Station is an important facility in the regional system, and the existing facility is expected to close within the next few years. The expected cost for a new facility is $40 million. The long-term capital plan budget estimate for a new facility is $57 million.

Alternative approaches to developing a full-service transfer station include a residential drop-off only facility or no replacement facility. Developing a residential drop-off facility instead of a full-service transfer station would save approximately 25% of capital and operating costs, but would mean commercial haulers would need to reroute to other facilities and would result in reduced resiliency for the regional system. Waste management companies that have located adjacent to the Coquitlam Transfer Station would be negatively impacted. No replacement facility would result in reduced service to all customers along with reduced regional system resiliency.

SUMMARY / CONCLUSION
In September of 2015, the Board directed staff to continue development of options for replacement of the Coquitlam Transfer Station. Possible replacement options include a full-service transfer station, a residential drop-off only facility or no replacement facility. A full-service transfer station would serve all customer types on the same basis of the existing facility, and helps ensure regional system resiliency to respond to service disruptions at any facility. Although less expensive options, a residential drop-off only facility or no replacement facility do not meet the region’s needs. A new transfer station would be located on the Coquitlam Landfill. The estimated cost of a full-service transfer is $40 million plus the cost of dedicated recycling facilities. Dedicated recycling facilities would only be provided if requested and funded by communities served by the transfer station. Staff recommend Alternative 1, proceeding with detailed design and construction of a full-service transfer station.

Attachments and References:
Attachment 1: Regional solid waste management system service coverage map
Attachment 2: Coquitlam Transfer Station replacement schedule summary
Attachment 3: Map of current and replacement Coquitlam Transfer Station locations
Proximity of Single Family Dwellings to the Nearest Solid Waste Facility Based on Estimated Drive Time

Closed to a Facility (2 Minutes)
Solid Waste Facility
Catchment Boundary

Within 2 Minutes
Within 4 Minutes
Within 6 Minutes
Within 8 Minutes
Within 10 Minutes
Within 12 Minutes
Within 14 Minutes
Within 16 Minutes
Within 18 Minutes
Within 20 Minutes
Within 22 Minutes
Within 24 Minutes
Within 26 Minutes
Within 28 Minutes
Within 30 Minutes
Within 32 Minutes
Within 34 Minutes
Within 36 Minutes
Within 38 Minutes
Within 40 Minutes
Within 42 Minutes
Within 44 Minutes
Within 46 Minutes

Source: 2006 Metro Vancouver Generalized Landuse - No Data for Abbotsford - Mission
Dwelling Totals: 2006 Census DA - No Data for Abbotsford - Mission
2006 Integrated Cadastral Information Society (ICIS)

Map Created: Mar. 07, 2012

Regional Single Family Residential Waste Drop Off Coverage

ATTACHMENT 1
Proximity of Single Family Dwellings to the Nearest Solid Waste Facility Based on Estimated Drive Time

- Closest to a Facility (2 Minutes)
- Farthest Away From a Facility (90 Minutes)

Source: 2006 Metro Vancouver Generalized Landuse - No Data for Abbotsford - Mission
Census Dwelling Status: 2006 Census Df - No Data for Abbotsford - Mission
Integrated Cadastral Information Society (ICIS)
Map Created: Mar. 01, 2012

Residential Household Totals
(Vancouver Single Family/Multi-Family/Noncritical SF)
North Shore: 50,680/45,445/30,111
Maple Ridge: 10,280/16,835/1,273
Langley: 8,245/4,820/635

Map Created: Mar. 01, 2012

Regional Single Family Residential Waste Drop Off Coverage - No CTS
## Coquitlam Transfer Station Replacement Schedule Summary

<table>
<thead>
<tr>
<th>Task</th>
<th>Task Description</th>
<th>2016</th>
<th>2017</th>
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<th>2019</th>
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<tr>
<td>Procurement of design services</td>
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<tr>
<td>Detailed Design</td>
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<td>Development Permit Pre-Application</td>
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<td>Community Engagement</td>
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<td>Development Permit Process</td>
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<td>Construction/Commissioning</td>
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<tr>
<td>Report to ZWC/Board</td>
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</tr>
</tbody>
</table>
Map of current and replacement Coquitlam Transfer Station locations
RECOMMENDATION
That the GVS&DD Board direct staff to prepare amendments to be incorporated into the proposed 2017 Tipping Fee and Solid Waste Disposal Bylaw to apportion the annual costs on a population basis for operating dedicated recycling areas at the North Shore and Coquitlam Transfer Stations to the following participating municipalities; North Shore Transfer Station Recycling Area (District of North Vancouver, City of North Vancouver, District of West Vancouver); and Coquitlam Transfer Station Recycling Area (City of Coquitlam, City of Port Coquitlam, City of Port Moody).

PURPOSE
The purpose of this report is to propose changes to the Tipping Fee Bylaw that will incorporate a funding model for dedicated recycling areas at the North Shore and Coquitlam Transfer Stations.

BACKGROUND
On September 18, 2015, the Greater Vancouver Sewerage and Drainage District (‘Metro Vancouver’) Board approved a transfer station strategy including the following recommendation:

Provision of dedicated recycling services at Metro Vancouver transfer stations only when requested and funded by communities served by the transfer stations.

At that same meeting, staff were requested to provide information with respect to the role of product stewards in contributing to the cost of dedicated recycling areas as well as the business case for such facilities.

Metro Vancouver has been working with member municipalities to develop a funding approach for dedicated recycling areas at Metro Vancouver transfer stations consistent with the Board’s resolution that dedicated recycling services be provided only if requested and funded by communities served by the transfer stations.

Dedicated recycling areas are located in front of the transfer station weigh scales where customers can drop-off recyclables, typically at no charge. These facilities receive a range of recyclable materials including metal, paper, glass, and other extended producer responsibility materials such as electronics, batteries, paint, and pesticides. A Metro Vancouver operated dedicated recycling area has been in place at the Coquitlam Transfer Station since 2014. The North Shore Transfer Station has a municipally operated recycling depot across the street, which is closing at the end of 2016 to provide space for the construction of the Second Narrows water crossing. Ridge Meadows Recycling Society
operates a recycling depot at the Maple Ridge Transfer Station. Surrey and Langley Transfer Stations have limited recycling within the facility, behind the weigh scales.

FUNDING OF DEDICATED RECYCLING AREAS
A strategy is required to fund dedicated recycling areas at the North Shore and Coquitlam Transfer Stations for the beginning of 2017. Metro Vancouver has been working with the North Shore and Tri-cities municipalities to develop a consistent funding approach between the North Shore and Coquitlam transfer stations which will help ensure regional equity.

Funding Options
A range of funding options have been explored. Options include:

- Cost apportionment under Tipping Fee Bylaw
- Funding Agreements
- Service Reduction

Cost Apportionment under Tipping Fee Bylaw: This approach would involve changes to the Tipping Fee Bylaw to apportion costs to funding municipalities.

Funding Agreements: This approach would involve agreements with all of the funding municipalities.

Service Reduction: If a funding approach is not reached, then no dedicated recycling services would be provided at Metro Vancouver Transfer Stations. Only limited recycling services would be provided behind the scales, consistent with what is in place at Surrey and Langley Transfer Stations.

Primary Municipalities
In discussions with member municipalities regarding an equitable way to identify funding municipalities, Metro Vancouver has proposed a concept of Primary Municipalities: GVS&DD member municipalities served by a transfer station that don’t have a publicly owned recycling depot providing comparable service to a dedicated recycling area.

These GVS&DD members would not be Primary Municipalities because they have municipally owned recycling depots providing similar service to what is available at the Coquitlam Transfer Station:

- Burnaby
- Delta
- Maple Ridge
- New Westminster
- Richmond
- Vancouver

GVRD members that are not GVS&DD members and would therefore not be Primary Municipalities include Anmore, Belcarra, Bowen Island, Lions Bay and Tsawwassen First Nation. These GVRD members make up less than 1% of the regional population.

For the North Shore and Coquitlam Transfer Stations, Primary Municipalities include:

- North Shore Transfer Station
  - District of North Vancouver
  - City of North Vancouver
  - District of West Vancouver
While residents and businesses from a range of communities can use any transfer station in the region, those from Primary Municipalities typically make up around 75% of all small vehicle users of the recycling areas/transfer stations. Allowing customers to use any transfer station that is convenient to them provides better regional service and reduces any motivation for customers to misrepresent the source of the waste at the weigh scale.

Residents from other municipalities use the North Shore and Coquitlam Transfer Stations to a small extent, but these communities are primarily served by other facilities. For instance some Surrey residents use the Coquitlam Transfer Station but they primarily use the Surrey Transfer Station. Metro Vancouver is working with the City of Surrey to site and develop a Surrey residential drop-off facility in addition to the existing transfer station. A dedicated recycling area at the new facility would only be developed if the City of Surrey paid for the dedicated recycling services. A small number of Pitt Meadows residents use the Coquitlam Transfer Station. Pitt Meadows residents are primarily served by other facilities including the Maple Ridge and Surrey Transfer Stations.

Preferred Funding Model
Metro Vancouver staff have discussed cost and funding options for these dedicated recycling areas with member municipal staff from the North Shore and Tri-Cities communities. Metro Vancouver’s preferred approach is a change to the Tipping Fee Bylaw to apportion costs to Primary Municipalities based on B.C. Stats population estimates for the previous year. Changing the Tipping Fee Bylaw is less complex to administer than agreements. Distributing costs by population is generally considered an equitable method to fund solid waste services. Using B.C. Stats data allows the use of third party data that is updated regularly. Other metrics such as facility use are challenging because of the need to regularly collect and verify data.

Staff from the North Shore and Tri-Cities municipalities have communicated that cost apportionment under the Tipping Fee Bylaw based on population is generally considered to be an appropriate approach. The City of Coquitlam has communicated its support for funding the dedicated recycling area at the Coquitlam Transfer Station in partnership with Port Coquitlam and Port Moody on a population basis. Mayor Stewart’s letter to Port Moody and Port Coquitlam is attached (Attachment 1).

Dedicated Recycling Area Costs
Metro Vancouver has estimated annual costs for the dedicated recycling areas at the North Shore and Coquitlam Transfer Stations. Costs include the following:

- **Operations**: This is the Transfer Station Operator cost for managing the dedicated recycling area, netting out any revenues for recyclables and extended producer responsibility (EPR) materials where Metro Vancouver does not have a direct contract with the EPR steward. This cost will be determined based on the costs from the selected contractor for the Transfer Station Operations and Maintenance Request for Proposals. Costs for operating each recycling area was included as a separate line item in the RFP. A contractor has not yet been selected, and therefore the cost included in this report is an estimate of the actual cost.

- **Administration**: Metro Vancouver administration costs.
**Land Use Contribution:** A contribution for land costs based on the size of the recycling area.

**Capital:** An annual capital contribution based on new capital requirements amortized as per Metro Vancouver practice.

Revenues that offset operating costs include revenues for EPR materials where Metro Vancouver has agreement with the Product Steward. For Coquitlam Transfer Station this includes only paints and like products. For North Shore this includes paints and like products along with Packaging and Printed Paper because an agreement was already in place between MMBC and District of North Vancouver for the existing recycling depot. MMBC has advised that in the short term they are unable to enter into an agreement for Coquitlam Transfer Station, but MMBC has added Coquitlam to a waitlist of future facilities.

Most of the products recycled at the recycling areas are part of EPR programs, but the net benefit of these program contributions is difficult to calculate as the Transfer Station Operations Contract nets out these revenues against operating costs for all materials except those where Metro Vancouver has a direct agreement with the steward.

The total estimated annual costs for the dedicated recycling areas are approximately $211,000 at North Shore Transfer Station and $213,000 at Coquitlam Transfer Station. MMBC revenues are offset by capital requirements at the North Shore Transfer Station. Detailed estimated costs and revenues are provided in Attachment 2.

**Distribution of Recycling Area Costs**

If costs for the dedicated recycling areas are distributed to the Primary Municipalities based on population, the overall annual cost distribution for the two facilities would be as follows:

<table>
<thead>
<tr>
<th>North Shore Transfer Station Recycling Area</th>
<th>Municipal Cost Distribution (annual)</th>
</tr>
</thead>
<tbody>
<tr>
<td>District of North Vancouver (47%)</td>
<td>$99,700</td>
</tr>
<tr>
<td>City of North Vancouver (30%)</td>
<td>$63,000</td>
</tr>
<tr>
<td>West Vancouver (23%)</td>
<td>$48,400</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>$211,100</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Coquitlam Transfer Station Recycling Area</th>
<th>Municipal Cost Distribution (annual)</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Coquitlam (60%)</td>
<td>$128,700</td>
</tr>
<tr>
<td>City of Port Coquitlam (25%)</td>
<td>$53,600</td>
</tr>
<tr>
<td>City of Port Moody (15%)</td>
<td>$30,800</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>$213,100</strong></td>
</tr>
</tbody>
</table>

**Recycling Area Business Case**

Implementation of the dedicated recycling area at the Coquitlam Transfer Station has resulted in an increase of approximately 60% or 1,000 tonnes per year in material recycled at that facility. The facility receives between 75,000 and 100,000 visits per year with approximately half of customers visiting both the recycling area and transfer station on each visit. In user surveys, customers visiting the Coquitlam Transfer Station strongly supported the provision of dedicated recycling services. Customers at Metro Vancouver transfer stations without dedicated recycling areas strongly supported
the development of such facilities at those sites. For instance, at the Surrey Transfer Station approximately 80% of survey participants saw value in providing dedicated recycling services ahead of the weigh-scales compared to the current model with limited recycling behind the weigh-scales.

If recycling services are behind the weigh scales, customers with loads of recyclables would need to line up at the scale, and customers with combined loads of garbage and recycling would need to pay for the full weight of their load including recyclables, limiting the ability to reduce costs by recycling.

ALTERNATIVES
1. That the GVS&DD Board direct staff to prepare amendments to be incorporated into the proposed 2017 Tipping Fee and Solid Waste Disposal Bylaw to apportion the annual costs on a population basis for operating dedicated recycling areas at the North Shore and Coquitlam Transfer Stations to the following participating municipalities; North Shore Transfer Station Recycling Area (District of North Vancouver, City of North Vancouver, District of West Vancouver) and Coquitlam Transfer Station Recycling Area (City of Coquitlam, City of Port Coquitlam, City of Port Moody).

2. That the Zero Waste Committee receive the report titled “Metro Vancouver Transfer Stations Dedicated Recycling Areas Funding Approach”, dated May 31, 2016 and provide alternate direction to staff.

FINANCIAL IMPLICATIONS
If the Board approves Alternative 1, Metro Vancouver staff will work with municipal staff from the North Shore and Tri-Cities communities to confirm the funding model for cost apportionment. Changes to the Tipping Fee Bylaw related to dedicated recycling services along with other proposed Tipping Fee Bylaw changes will be brought forward for Board consideration in October.

Dedicated recycling services would not be provided at a facility where the funding approach is not supported by the communities. In this case, any recycling activities would be conducted within the transfer station behind the weigh scales. This approach would increase congestion at the transfer stations, reduce service to customers, and reduce the amount of material recycled.

SUMMARY / CONCLUSION
In September 2015, the Board approved that dedicated recycling services would only be provided at Metro Vancouver Transfer Stations if requested and funded by the communities served by the transfer stations. Since that time, Metro Vancouver has been in conversations with the communities served by the North Shore and Coquitlam Transfer Stations. Staff recommend Alternative 1 that changes be brought forward as part of the proposed 2017 Tipping Fee Bylaw to apportion costs for dedicated recycling services at the North Shore Transfer Station to the City of North Vancouver, District of North Vancouver and District of West Vancouver. Costs for dedicated recycling at the Coquitlam Transfer Station would be apportioned to the City of Coquitlam, City of Port Coquitlam and City of Port Moody. Metro Vancouver will work with these municipalities to confirm the funding model. Costs would be apportioned on a population basis based on B.C. Stats annual population estimates.
Attachments and References:
Attachment 1: Letter from Mayor Richard Stewart to Mayors Mike Clay and Greg Moore, dated May 4, 2016 re: Tri-City Transfer Station Recycling Facility
Attachment 2: Dedicated Recycling Area Estimated Costs

17928138
May 4, 2016
Our File: 01-0480-20/RD13-01/2016-1
Doc #: 2269385.v1

Mayor Mike Clay
City of Port Moody
100 Newport Drive
Port Moody, BC V3H 5C3

Mayor Greg Moore
City of Port Coquitlam
2580 Shaughnessy Street
Port Coquitlam, BC V3C 2A8

Dear Mayors Clay and Moore:

RE: Tri-City Transfer Station Recycling Facility

In 2014, Metro Vancouver (Metro) and Wastech created a dedicated free recycling drop off area at the Coquitlam Transfer Station (CTS), which is separated from other transfer station operations. The site reconfiguration enabled the operator to greatly expand the range of recyclable materials accepted at the facility so it now provides a one-stop shop for residents. These changes have resulted in a much higher rate of use and Metro reports that approximately 60% more material is now being dropped off for recycling and the area receives approximately 4,000 visits per month.

The operating costs for the recycling facility are currently paid for by Metro. However, pursuant to policy adopted by the GVS&DD Board in September 2015, dedicated recycling services at Metro transfer stations are to be provided only when requested and funded by the communities served by the transfer stations. Metro have advised staff from the Tri-Cities that regional funding for the operation of the CTS recycling facility will end on December 31, 2016, and continued operation beyond the end of 2016 will be subject to funding by municipal partners. In a report to the Board in September 2015, Metro staff advised the annual operating costs for the CTS recycling facility are approximately $130,000 per year.

Metro is also planning to construct a new transfer station facility on the former Coquitlam Landfill site to replace the existing CTS. The new transfer station could include dedicated recycling infrastructure, if the capital and operating costs for the recycling component are paid for by the communities it serves. In the same September
2015 report to the Board, Metro estimated the capital cost for this new recycling infrastructure to be approximately $5 million.

The Coquitlam Transfer Station Recycling Facility serves a significant number of users throughout the Northeast, with the majority of users coming from the Tri-cities. Some of the users may be from municipalities outside of the Tri-cities, but cities such as New Westminster and Burnaby have fully funded recycling operations of their own and it is likely that some Tri-city residents utilize their facilities as well.

None of the Tri-city municipalities are separately funding a recycling facility like the CTS facility. We believe this is an excellent opportunity for our three municipalities to partner together to jointly fund recycling operations at both the current and future CTS locations to provide a cost effective and efficient way of serving the needs of our residents. If we don’t jointly fund such a facility, which would be operated by Metro, it is likely this service will cease to operate given the recent Metro decisions.

In view of the foregoing, Coquitlam City Council recently endorsed the following recommendations to help work towards ensuring the continuity of the current and future comprehensive regional recycling facility:

1. Formally request the Cities of Port Coquitlam and Port Moody to enter into a joint funding agreement with the City of Coquitlam, effective January 1, 2017, to pay for the continued operation of the dedicated recycling facility at the existing Coquitlam Transfer Station;
2. Formally request the Cities of Port Coquitlam and Port Moody to join the City of Coquitlam in supporting, in principle, the funding for a future dedicated recycling facility in the United Boulevard area; and
3. Support, in principle, the City of Coquitlam paying 60% of the shared costs of the existing and future recycling facilities, subject to the Cities of Port Coquitlam and Port Moody paying the remainder of the costs.

If a population-based funding agreement, similar to the one being developed for the North Shore communities is used, the distribution of capital and operating costs for the existing and proposed CTS recycling facilities would be approximately 60% Coquitlam, 25% Port Coquitlam and 15% Port Moody.

Given the short time frame until regional funding runs out for the existing recycling facility, and while plans are currently underway for designing and building a future
facility, I would like to ask you to bring forward the funding proposal outlined above for consideration by your Council. An early response is requested so that further discussions amongst our staff and Metro can proceed to ensure that continuity of current and future recycling services is maintained.

Yours truly,

Richard Stewart
Mayor

c - Council
   City Manager
   Deputy City Manager
   City Clerk
   General Manager, Engineering & Public Works
   Metro Vancouver Chief Administrative Officer
   General Manager Metro Vancouver Solid Waste Services
   Port Coquitlam Chief Administrative Officer
   Port Moody City Manager
## Dedicated Recycling Area Annual Estimated Costs

### North Shore Transfer Station Recycling Area

<table>
<thead>
<tr>
<th>Expenditures</th>
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</thead>
<tbody>
<tr>
<td>Operating Costs</td>
<td>250,000</td>
</tr>
<tr>
<td>Administrative Expenses</td>
<td>25,000</td>
</tr>
<tr>
<td>Capital Costs: $710,918 * 0.087 (15 year amortize)</td>
<td>62,000</td>
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<tr>
<td>Land Use Contribution (area ≈ 2950m²)</td>
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<td><strong>Net Expenditures</strong></td>
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<tr>
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<td>MMBC (Materials)</td>
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<td><strong>Net Revenues</strong></td>
<td><strong>($150,000)</strong></td>
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**TOTAL ESTIMATED ANNUAL EXPENDITURES**                  $211,000

### Coquitlam Transfer Station Recycling Area

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<th>Expenditures</th>
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<td>Operating Costs (less metal servicing)</td>
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<td>Administrative Expenses</td>
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<td><strong>Net Expenditures</strong></td>
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<tbody>
<tr>
<td>Product Care</td>
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<tr>
<td><strong>Net Revenues</strong></td>
<td><strong>($70,000)</strong></td>
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**TOTAL ESTIMATED ANNUAL EXPENDITURES**                  $213,000
To: Zero Waste Committee
From: Sarah Wellman, Senior Engineer, Solid Waste Services
Date: May 26, 2016
Meeting Date: June 9, 2016
Subject: Mattress Recycling Update

RECOMMENDATION
That the GVS&DD Board:
   a) write a letter to the Minister of Environment requesting an amendment to the B.C. Recycling Regulation to require the implementation of an Extended Producer Responsibility (EPR) program for mattresses and other bulky furniture by 2017; and
   b) copy all municipalities and regional districts in the Province on the letter.

PURPOSE
The purpose of this report is to update the Greater Vancouver Sewerage and Drainage District (Metro Vancouver) Board on issues related to mattress recycling in the region and seek direction to write the Minister of the Environment to request that the Province implement an EPR program for mattresses and other bulky furniture.

BACKGROUND
At its April 27, 2012 meeting, the GVS&DD Board adopted the following resolution:

   That the Board request the Chair to send a letter to the Provincial Government highlighting the importance of implementing an Extended Producer Responsibility program for mattresses and other large furniture items.

The Board Chair’s letter is attached (Attachment 1) along with the response from the Ministry of Environment (Attachment 2).

In 2014, Maple Ridge submitted the following UBCM resolution requesting an EPR program for mattresses:

2014 B97: Maple Ridge
WHEREAS the Province is transitioning responsibility for end-of-life management of goods to industry through the use of product stewardship program as governed by the BC Ministry of Environment Recycling Regulation;

AND WHEREAS there is currently no product stewardship program for used mattresses and improperly discarded mattresses have to be disposed of by local government at taxpayers expense:
THEREFORE BE IT RESOLVED that UBCM request the provincial government to require industry to develop a product stewardship program to adequately address end-of-life management of waste mattresses.

This resolution was endorsed by UBCM, and received the following response from the Ministry of Environment:

The Ministry of Environment supports UBCM’s request to include waste mattresses under future product stewardship programs to ensure the costs associated with managing these commonly discarded products are transferred to the producers responsible. In fact, the Ministry has committed to meeting the targets set out in the Canadian Council of Ministers of the Environment’s (CCME) Canada-wide Action Plan for Extended Producer Responsibility (EPR) programs – including those for construction and demolition materials, furniture (including mattresses, hide-a-beds, etc.), textiles, carpets and appliances by 2017. BC continues to lead all jurisdictions in this regard. Continued efforts in the Lower Mainland to collect and recycle these items are encouraged as they will not only support waste diversion, but will help establish this industry as a proven entity and inform future consultations regarding the upcoming EPR program for mattresses.

An estimated 160,000 to 170,000 mattresses are recycled each year in the Metro Vancouver region, of which approximately 60,000 are handled at Metro Vancouver transfer stations with the remainder delivered directly to the mattress recyclers either by private industry, private pick up services, or by municipalities that offer collection services and/or pick up illegally dumped mattresses.

In 2011, the Tipping Fee and Solid Waste Disposal Regulation Bylaw (Tipping Fee Bylaw) was changed to ban mattresses from disposal due to operational impacts and to encourage mattress recycling. Mattresses are received at Metro Vancouver transfer stations for $15 per unit to pay for the cost of recycling the mattresses.

Due to challenges recycling pocket coil mattress springs, in 2015, the Tipping Fee Bylaw was amended to provide a $25 discount per tonne at the Waste-to-Energy Facility for loads containing more than 85% metal in recognition of the value of the metal in loads, and also to help reduce costs for mattress recyclers with no recycling alternative for these pocket coil springs.

At the September 10, 2015 Zero Waste Committee directed staff to report back to the Committee on:

the effectiveness of the mattress surcharge

MATTRESS AND OTHER BULKY FURNITURE DISPOSAL AND RECYCLING

The past practice of disposing of mattresses commingled in the waste stream was operationally challenging due to the bulkiness of mattresses, which makes them difficult to handle during waste pickup and transport. Their low density makes them undesirable landfill material, and the springs have a tendency to impact landfill and transfer station equipment (e.g. puncture hydraulic systems). Removal of mattresses from the waste stream has helped reduce maintenance on transfer station and landfill equipment.
The majority of the mattresses collected at transfer stations are recycled. In mattress recycling there are secondary markets for the steel of the innerspring unit, the polyurethane foam, the cover (toppers), the cotton, and the wood. According to the May 2012 CalRecycle Study “Mattress and Box Spring Case Study: The Potential Impacts of Extended Producer Responsibility in California on Global Greenhouse Gas (GHG) Emissions”, mattress and box spring recycling and component reuse generates significant energy and greenhouse gas benefits.

Pocket coils are difficult to recycle, as it is challenging to separate the metal from the fabric. Metro Vancouver is currently accepting pocket coil mattresses at the Waste-to-Energy Facility, and recovers the metal for recycling.

Up until recently, there were three private companies in the region recycling over 160,000 mattresses. Metro Vancouver’s disposal ban on mattresses has been key in the development of this industry. With declining metal prices mattress recycling companies have faced economic challenges because historically metal was the primary revenue source from recycling mattresses.

As of May 2016, one of the recycling companies, Recyc-Mattress, stopped accepting mattresses. Without an EPR program in place for mattresses, the net costs for mattress recycling must be charged to residents, businesses and the public sector dropping off mattresses for recycling. Over the last two years, Metro Vancouver’s drop-off costs at the private recycling facilities have increased from $9 to $13 per unit. Metro Vancouver has maintained drop-off fees at $15 at transfer stations despite the increased recycling costs to reduce the potential for illegal dumping.

With the temporary closure of Recyc-Mattress, there have been more discarded mattresses than the local capacity for recycling. As a result, Metro Vancouver is temporarily stock-piling some mattresses, and may need to send some mattresses to landfill. This issue highlights the need for an EPR program for mattresses to stabilize the recycling capacity in the region regardless of commodity prices.

Other bulky furniture such as couches are recyclable in the same manner as mattresses, and these products are also a challenge from a disposal perspective due to their bulk and the presence of springs. The cost of recycling couches is approximately $30 – $45 per unit. If an EPR program for mattresses was put in place, couches and other bulky furniture could be banned from disposal, dramatically increasing recycling of these products and reducing impacts on the disposal system.

**Illegal Dumping**

Illegal dumping is an ongoing concern in the region. It causes environmental, health and social impacts, and is a considerable resource and financial burden on governments, businesses and residents. In particular, municipalities often bear the majority of costs associated with reactively cleaning up and disposing of abandoned waste.

Despite the availability of recycling programs provided by Metro Vancouver and the private sector, illegal dumping of mattresses is common in the region.

The resident’s principal barriers to mattress recycling in the region include:

- difficulty and cost of transporting mattresses to transfer stations or appropriate recyclers,
- recycling fee charged when a customer drops off a mattress, and

These barriers contribute to continued incidents of illegal dumping in many member municipalities.
An estimated 10,000 mattresses and 16,000 other pieces of large furniture are abandoned each year in the region with an average municipal unit cost for collection of $50 per unit (includes labour, and transportation), which leads to a cost of approximately $1,300,000 per year for member municipalities.

Anecdotally, the highest portion of abandoned mattresses occur in urbanized areas with a transient population near apartment complexes or multi-family dwellings. In these areas, many residents do not own vehicles, rely solely on public transportation, or own small vehicles not suitable for transporting large and bulky mattresses.

It is uncertain as to the relative impact of recycling fees compared to transportation barriers in determining the number of illegally dumped mattresses. Drop-off revenues for mattresses at Metro Vancouver and City of Vancouver transfer stations equal approximately $900,000 per year, and cover most of the cost of recycling these mattresses. Reduction or elimination of these fees is unlikely to eliminate illegal dumping and as such reduction or elimination of fees would result in a net cost. Drop-off fees could be eliminated if an EPR program for mattresses is put in place.

**Large Item Pick-Up Programs in the Region**

Many municipalities have implemented large item pick-up programs as a way to reduce incidents of illegal dumping. These programs are generally available only to residences served by municipal garbage collection. There are a combination of various features in member municipalities’ programs, including the types of materials collected, pick-up limits, housing types serviced, collection frequency, collection fee, etc. Approximately 22,000 mattresses and 43,000 pieces of furniture are picked up through large item pick-up programs each year.

**EPR Program for Mattresses**

There is urgent need for an EPR program for mattresses and other bulky furniture in the region. Lack of an EPR program increases the potential for illegal dumping of these items and transfers costs to municipalities that must pick-up illegally dumped items. In many cases municipalities incur additional costs by offering large item pick-up programs at no cost to residents to reduce the potential for illegal dumping. Recent changes to commodity markets have reduced the economic viability of local mattress recycling businesses and may result in the requirement to landfill recyclable mattresses. The Ministry of Environment has previously communicated that they targeted implementing an EPR program for mattresses and bulky furniture by 2017. The typical timeframe for EPR programs to be implemented following a change to the Recycling Regulation is approximately 18 months, and as such, even if a change to the Recycling Regulation is made in 2016, it could be 2018 before a program is in place. It is important to highlight to the Ministry of Environment the urgent need to proceed with an EPR program for mattresses and other bulky furniture.

**ALTERNATIVES**

1. That the GVS&DD Board:
   a) write a letter to the Minister of Environment requesting an amendment to the B.C. Recycling Regulation to require the implementation of an Extended Producer Responsibility (EPR) program for mattresses and other bulky furniture by 2017; and
   b) copy all municipalities and regional districts in the Province on the letter.
2. That the Zero Waste Committee receive the report titled “Mattress Recycling Update”, dated May 26, 2016 for information and provide alternate direction to staff.

FINANCIAL IMPLICATIONS
If the Board approves Alternative 1, correspondence will be sent to the Minister of Environment to advocate for an EPR program for mattresses and other bulky furniture.

SUMMARY/CONCLUSION
An estimated 160,000 to 170,000 mattresses are recycled each year in the Metro Vancouver region, of which approximately 60,000 are handled at Metro Vancouver transfer stations. Mattress recycling generates significant energy and greenhouse gas benefits, and reduces Metro Vancouver’s operational and maintenance costs when compared to disposal. A mattress recycling fee is collected by Metro Vancouver at the transfer stations, and paid to mattress recyclers to help cover the cost of dismantling and recycling mattress components.

Many municipalities have developed large item pick-up programs to reduce the incidences and costs associated with illegal dumping.

An EPR program for mattresses and bulky furniture is urgently needed, as changes to commodity markets have reduced the economic viability of local recycling businesses and may result in the requirement to landfill potentially recyclable mattresses. Lack of an EPR program increases the potential for illegal dumping of these products and transfers costs to municipalities. There is a need to continue to urge the Minister of Environment to address this ongoing issue and to introduce an EPR program for mattresses and other bulky furniture and therefore staff recommend Alternative 1.

Attachments and References:
Attachment 1: Letter from Chair Moore to Minister Terry Lake, dated June 19, 2012
Attachment 2: Letter from Minister Terry Lake to Chair Moore, dated December 11, 2012

17939528
Dear Minister Lake: 

Re: Acceleration of an Extended Producer Responsibility (EPR) Program for Mattresses and Large Upholstered Furniture

As part of the Canadian Council of Ministers of the Environment (CCME) Canada-wide Action Plan for EPR, all provinces committed to implementing a program for furniture, including mattresses, by the Phase II target of 2017.

The leadership demonstrated by the Province, Metro Vancouver and others, has created a robust recycling industry for mattresses and large upholstered furniture, with three processors located in the Lower Mainland. With the recent emergence of this local recycling industry, Metro Vancouver implemented a ban on the disposal of mattresses at regional disposal facilities in January 2011. A $20 per mattress fee was charged to cover the costs of collection, transportation and processing. In 2011, over 125,000 mattresses were recycled into their wood, metal, foam, and fibre components, leading to over 70 green jobs added in this recycling sector. These valuable natural resources were reused and/or recycled thereby avoiding the disposal of these materials in landfills and the extraction of new natural resources.

While this initiative has been an overwhelming success from an environmental perspective, the combination of the ban and the $20 per unit fee has resulted in the unintended consequence of illegal dumping by a minority of individuals unwilling to pay a fee for responsible management of products at the end of their useful life. As a result, municipalities incur significant costs to responsibly manage these products, as opposed to the manufacturers, producers, distributors and retailers who do not currently bear the full environmental cost to manage their products.

We ask that the Ministry of Environment amend the Recycling Regulation to include mattresses and large upholstered furniture and accelerate the implementation of this EPR program to 2015. This request to accelerate EPR implementation is explicitly stated in action 1.1.10 of our Integrated Solid Waste and Resource Management Plan which was approved last year. The infrastructure and regulatory structure already exists in Metro Vancouver and could be easily extended throughout the Province.

Attachment 1
We thank you in advance for your kind consideration of this request. We would be pleased to discuss how we can work together as partners to facilitate the acceleration of this and other EPR programs. Please feel free to contact me to discuss this matter further, or have your staff contact Andrew Doi, Environmental Planner, at 604-436-6825.

Yours truly,

[Signature]

Greg Moore
Chair, Metro Vancouver Board

GM/PH/ad
Reference: 171883

DELM 1 1 2012

Greg Moore, Chair
and Directors
Metro Vancouver Board
4330 Kingsway
Burnaby BC V5H 4G8

Dear Chair Moore and Directors:

Thank you for your letter of June 19, 2012, regarding the acceleration of an extended producer responsibility (EPR) program for mattresses and large upholstered furniture in British Columbia (BC). I apologize for the delay in responding.

As you may know, BC has recently been recognized for its leadership position on EPR. BC has more EPR programs than any jurisdiction in Canada and is further advanced towards fulfilling its Canadian Council of Ministers of Environment Canada-wide Action Plan (CAP) for EPR.

A date for the addition of mattresses and large upholstered furniture to the Recycling Regulation has not been set at this point in time. Ministry of Environment staff are currently actively engaged on the implementation of the packaging and printed paper product category under the Recycling Regulation. Further product additions to the Regulation will be addressed in priority sequence.

The Ministry’s 2011/12 – 2013/14 Service Plan highlights our commitment to the CAP for EPR. The CAP recommends that EPR programs be implemented by 2017 for construction and demolition materials, furniture, textiles, carpets and appliances, including ozone-depleting substances. We are making every effort to meet these 2017 targets, and I would like to assure you that mattresses and large upholstered furniture will be included in future discussions.

I would like to acknowledge and commend Metro Vancouver for extending, as documented in action 1.1.3 under Goal 1 of the Metro Vancouver Integrated Solid Waste and Resource Management Plan, the offer to provide staffing support and partner with the Ministry to help advance EPR in the province. This offer of support has the potential to assist in steering waste diversion activities in a manner that will ultimately eliminate waste or effectively manage it as a resource.

...2
I see the recent Memorandum of Understanding (MOU) on EPR between Metro Vancouver and the Ministry as a promising start to Metro Vancouver’s commitment to advance EPR in collaboration with the Province and I encourage the use of the MOU as the mechanism to capture opportunities where Metro Vancouver and the Province can work together to develop new EPR programs.

If you have any further suggestions for the development of EPR programs, or any questions about the content of this letter, please do not hesitate to contact Ms. Meegan Armstrong, Head of Industry Product Stewardship in the Ministry of Environment, at 250 387-9944 or by email at Meegan.Armstrong@gov.bc.ca.

Thank you again for writing.

Sincerely,

Terry Lake
Minister of Environment
To: Zero Waste Committee

From: Chris Allan, Lead Senior Engineer, Solid Waste Services

Date: May 31, 2016

Meeting Date: June 9, 2016

Subject: Waste-to-Energy Facility Environmental Monitoring and Reporting, 2015 Update

**RECOMMENDATION**

**PURPOSE**
To provide an overview of the current Waste-to-Energy Facility (WTEF) environmental monitoring program and a summary of 2015 greenhouse gas (GHG) and National Pollutant Release Inventory (NPRI) reporting.

**BACKGROUND**
Since WTEF operations commenced in 1988, Metro Vancouver has strived to continually reduce emissions through assessment and improvement of operations, plant infrastructure, and environmental controls. The WTEF is certified on an annual basis by the International Standards Organization Environmental Standard 14001, an independent review requiring continuous improvement and compliance with all environmental regulations. In addition to satisfying regulatory requirements, WTEF environmental monitoring provides Metro Vancouver with valuable data to assess both existing plant operations and potential capital improvements.

The current WTEF environmental monitoring program consists of three key parts:

- air emissions monitoring from the WTEF stack using both a continuous emission monitoring system (CEMS) and periodic manual stack tests;
- fly ash and bottom ash monitoring through manual sample collection and laboratory analytical analysis; and,
- ambient air quality monitoring in the vicinity of the WTEF via three stations in Metro Vancouver’s ambient monitoring network: T18 Burnaby South, T13 North Delta, and T17 Richmond South.

To assess regulatory compliance, measurements from the WTEF environmental monitoring program are compared to regulatory limits specified in the 2011 Metro Vancouver Integrated Solid Waste and Resource Management Plan (ISWRMP). Results are reported in the following ways:

- monthly compliance reports, which provide a summary of all air emissions monitoring results for each month, are provided to the British Columbia Ministry of Environment (BC MoE), the City of Burnaby (Burnaby) and the Fraser Health Authority (FHA);
- stack emissions testing results are provided to BC MoE, Burnaby, and FHA four times per year;
- annual reporting of GHG emissions is provided to both BC MoE and Environment Canada (EC) by March 31 and June 1 of each year, respectively; and,
• annual reporting of substances emitted to air and contained in ash transferred for off-site disposal is provided to EC for NPRI reporting by June 1 of each year.

BC MoE is currently finalizing an Operational Certificate for the WTEF that will set new requirements for some substances. Metro Vancouver is implementing a number of capital projects over the next few years based on the requirements included in the draft Operational Certificate that was published in late 2013. These projects were approved by the Board in 2013, and are also part of a plan submitted to the BC MoE in 2013.

WTEF ENVIRONMENTAL MONITORING AND REPORTING UPDATE

Environmental Monitoring Program

The 2015 WTEF environmental monitoring program consisted of the following:

• air emissions monitoring - CEMS:
  o the WTEF is equipped with a real-time flue gas CEMS that measures and records emission parameters at the exit of the air pollution control (APC) plant 24 hours per day, 7 days per week using a United States Environmental Protection Agency (USEPA) certified and auditable tracking system. The CEMS monitors the following emissions parameters: sulphur dioxide (SO$_2$), nitrogen oxides (NO$_x$), carbon monoxide (CO), carbon dioxide (CO$_2$) and opacity. The CEMS also monitors key operational parameters, including furnace temperature, total flue gas flow, flue gas moisture, and flue gas oxygen. Monitoring of operational parameters provides an indication of plant conditions and helps confirm that emissions monitored by manual stack testing are representative of year round conditions.

• air emissions monitoring – periodic manual stack testing:
  o four tests conducted in triplicate on each of the three plant lines to monitor for particulate matter (PM), trace metals, total hydrocarbons, hydrogen chloride (HCl), hydrogen fluoride (HF), SO$_2$, methane (CH$_4$) and nitrous oxide (N$_2$O); and,
  o single test conducted in triplicate to monitor for semi-volatile organic compounds (SVOCs), including dioxins and furans, chlorobenzenes, chlorophenols, polychlorinated biphenyls (PCBs), and polycyclic aromatic hydrocarbons (PAHs).

• fly and bottom ash monitoring – analysis of bottom ash and fly ash; and

• continuous ambient air quality monitoring results are available on Metro Vancouver website and are reported annually through the Lower Fraser Valley Air Quality Monitoring Report.

Note that prior to 2015, manual stack testing for PM, trace metals, etc. was conducted three times per year. Starting in 2015, manual stack testing for these parameters was conducted four times per year to be consistent with the requirements of the draft Operational Certificate.

All air emission related parameters monitored during 2015 were in compliance with the requirements of the ISWRMP.

In 2014, Metro Vancouver began construction of a NO$_x$ Reduction Project, through implementation of a low-NO$_x$ combustion control process in combination with an upgrade to the existing selective non-catalytic reduction (SNCR) system. Start-up of the NO$_x$ Reduction Project occurred in late 2014, with final commissioning in spring 2015. Total NO$_x$ emissions from the WTEF in 2015 were 218.3 tonnes, 34% lower than 2014 emissions (331.0 tonnes) and 60% lower than 2013 emissions (539.3 tonnes).
A summary of historic annual WTEF emission performance, including 2015 data, is presented graphically in the attachment to this report.

**GHG Emissions Reporting**

In mid-2009 the federal and provincial governments each enacted legislation for mandatory reporting of GHG emissions for facilities with annual emissions above specified thresholds (50,000 and 10,000 tonnes of carbon dioxide equivalent (CO₂e) per year, respectively). Based on these thresholds, the WTEF is subject to federal and provincial reporting on both biogenic (renewable) and anthropogenic (manmade or non-renewable) GHG emissions.

In accordance with their respective deadlines, 2015 GHG emissions were reported to the provincial and federal governments on March 30, 2016 and May 26, 2016. GHG emissions reported to the provincial government are required to be reviewed by an accredited verification body, with a verification report submitted to the provincial government by May 31, 2016. In accordance with the requirements of the provincial regulation, 2015 GHG emissions were re-submitted to the provincial government on May 25, 2016 to correct a minor error identified during the verification process. GHG emissions reported to the federal government on May 26, 2016 were consistent with the values reported to the provincial government.

GHG emissions from the WTEF are comprised mainly of CO₂ with small amounts of CH₄ and N₂O (the latter two substances have higher global warming potential than CO₂). Total emissions are reported as CO₂ equivalents (CO₂e).

Total GHG emissions for 2015 were estimated at 271,969 tonnes. Of these emissions, 42% are anthropogenic and 58% are biogenic.

Anthropogenic GHG emissions for 2015 have been estimated at 114,429 tonnes, an increase of 2% from the previous year. This increase is primarily due to more natural gas used and increased organics diversion in 2015 relative to 2014.

Anthropogenic content of the total GHG emissions increased from 40% in 2014 to 42% in 2015 as a result of increased organic diversion and a trend towards plastic packaging rather than glass and other non-fossil based packaging materials. As in past reporting years, the WTEF accounted for less than 1 percent of all anthropogenic GHG emissions in the region.

**NPRI Reporting**

The NPRI is Canada’s legislated, publicly accessible inventory of pollutant releases to air, water and land, as well as disposals and transfers for recycling. The NPRI is managed by EC and currently tracks over 300 substances and groups of substances. Metro Vancouver is required to report WTEF emissions for the preceding calendar year to NPRI by June 1 of each year.

Environment Canada requires reporting many of the ISWRMP-regulated air emissions to NPRI (e.g., PM, metals, organic compounds and acid gases), but also requires reporting of substances transferred for off-site disposal in fly ash and bottom ash.

The following table provides a summary of 2015 NPRI reporting.
Table 1 – 2015 NPRI Substance Reporting Summary

<table>
<thead>
<tr>
<th>Substance</th>
<th>Reported Quantity (tonnes)</th>
<th>Stack Emissions</th>
<th>Ash Disposal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrogen Oxides</td>
<td></td>
<td>218.3</td>
<td>N/A</td>
</tr>
<tr>
<td>Carbon Monoxide</td>
<td></td>
<td>36.0</td>
<td>N/A</td>
</tr>
<tr>
<td>Sulphur Dioxide</td>
<td></td>
<td>118.8</td>
<td>N/A</td>
</tr>
<tr>
<td>Hydrogen Chloride/Hydrochloric Acid</td>
<td></td>
<td>45.7</td>
<td>N/A</td>
</tr>
<tr>
<td>Aluminum (dust)</td>
<td></td>
<td>0.0182</td>
<td>N/A</td>
</tr>
<tr>
<td>Arsenic</td>
<td></td>
<td>0.00056</td>
<td>2.5</td>
</tr>
<tr>
<td>Cadmium</td>
<td></td>
<td>0.00018</td>
<td>2.1</td>
</tr>
<tr>
<td>Copper</td>
<td></td>
<td>0.00077</td>
<td>109.8</td>
</tr>
<tr>
<td>Lead</td>
<td></td>
<td>0.0022</td>
<td>38.0</td>
</tr>
<tr>
<td>Manganese</td>
<td></td>
<td>0.00088</td>
<td>30.4</td>
</tr>
<tr>
<td>Mercury</td>
<td></td>
<td>0.0019</td>
<td>0.089</td>
</tr>
<tr>
<td>Phosphorus</td>
<td></td>
<td>0.0033</td>
<td>546.0</td>
</tr>
<tr>
<td>Zinc</td>
<td></td>
<td>0.0085</td>
<td>237.4</td>
</tr>
<tr>
<td>Particulate Matter ≤ 10μm</td>
<td></td>
<td>0.186</td>
<td>N/A</td>
</tr>
<tr>
<td>Particulate Matter ≤ 2.5μm</td>
<td></td>
<td>0.149</td>
<td>N/A</td>
</tr>
<tr>
<td>Dioxins and Furans (1)</td>
<td></td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Hexachlorobenzene (1)</td>
<td></td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Notes:
- The substances listed above are required to be reported to the NPRI for the 2015 calendar year with the exception of those marked as (1), which are included for informational purposes only.
- All other substances are below the NPRI level of quantification and are not required to be reported.
- ‘N/A’ indicates value is either below the level of quantification or below the detection limit.
- Ash tonnages reported on a dry basis.

WTEF Emissions in a Regional Context

Figure 1 on the following page compares WTEF emissions to total emissions from all regional sources for two key air contaminants in the Lower Fraser Valley (LFV) - fine particulate (PM$_{2.5}$) and NO$_x$ (a key smog forming pollutant). In 2015, the WTEF accounted for only 0.002% of regional PM$_{2.5}$ emissions and 0.4% of regional NO$_x$ emissions. The NO$_x$ Reduction Upgrade project, completed in early 2015, has reduced NO$_x$ emissions from 0.9% of the regional total in 2013 to 0.4% in 2015.
**Alternatives**
This is an information report. No alternatives are presented.

**Financial Implications**
This is an information report with no financial implications. Emission reduction projects are included in the Solid Waste Services capital plan.

**Summary / Conclusion**
The WTEF has exceptional environmental performance, and a range of projects have been completed and are underway that continuously improve the environmental performance of the facility. Total NOx emissions in 2015 were 34% lower than 2014 and 60% lower than 2013. All other air emission related parameters monitored during 2015 were in compliance with the requirements of the ISWRMP. Anthropogenic GHG emissions increased by 2% over 2014 levels.

**Attachments and References:**

Dioxins/Furans

Particulate Matter

Nitrogen Oxides

Carbon Monoxide

Sulfur Dioxide

Class 1 Metals (Cd, Hg, Tl)

Class 2 Metals (As, Co, Ni, Se, Te)

Class 3 Metals (Sb, Pb, Cr, Cu, Mn, V, Zn)

Mercury

Cadmium

Lead
To: GVS&DD Board of Directors

From: Tracey S. Husoy, Division Manager, Purchasing and Risk Management, Financial Services Department

Date: June 14, 2016

Meeting Date: June 24, 2016

Subject: Award of Contract Resulting from RFP No. 16-071 for North Shore, Coquitlam and Surrey Transfer Stations Operating and Maintenance Services Agreement

RECOMMENDATION
That the GVS&DD Board authorize:

a) award of a contract for operation and maintenance of the North Shore, Coquitlam and Surrey Transfer Stations to Halton Recycling Ltd. doing business as Emterra Environmental as a result of RFP No. 16-071 for an anticipated value of $115,608,000 (exclusive of taxes) over a seven year term; and

b) the Commissioner and Corporate Officer to execute the contract.

PURPOSE
This report seeks authority to award a contract to Halton Recycling Ltd. doing business as Emterra Environmental (‘Emterra’) for operation and maintenance of the North Shore Transfer Station, the Coquitlam Transfer Station and the Surrey Transfer Station.

BACKGROUND
Pursuant to the “Officers and Delegation Bylaw No. 284” and the Procurement and Real Property Contracting Authority 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.

The operation and maintenance of Metro Vancouver’s major transfer stations (North Shore Transfer Station, Coquitlam Transfer Station and Surrey Transfer Station) is currently contracted to Wastech Services Ltd. as part of the Metro Vancouver – Wastech Comprehensive Agreement. The Comprehensive Agreement expires on December 31, 2016.

As a result of a Request for Qualifications (RFQ No. 15-132) that was publicly advertised on Metro Vancouver’s and BC Bid web sites, five firms were invited to respond to a Request for Proposals (RFP). The Board approved the evaluation criteria for the RFP on November 27, 2015.

This report seeks authority to award a contract for the operation and maintenance of the North Shore, Coquitlam and Surrey Transfer Stations for a term of 7 years up to December 31, 2023.
PROJECT DESCRIPTION
The RFP closed on May 12, 2016 and the following proposals were received:

<table>
<thead>
<tr>
<th>Proponent</th>
<th>*Estimated Costs for One Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Halton Recycling Ltd. doing business as Emterra Environmental</td>
<td>$12,887,335</td>
</tr>
<tr>
<td>Miller Waste Systems Ltd.</td>
<td>$15,693,069</td>
</tr>
<tr>
<td>Covanta Burnaby Renewable Energy Ltd.</td>
<td>$19,198,580</td>
</tr>
<tr>
<td>SSG Holdings Ltd.</td>
<td>$20,407,900</td>
</tr>
</tbody>
</table>

*The estimated cost for one year is based on the projected material tonnage indicated in the RFP.*

The proposal submitted by Emterra is the most advantageous to Metro Vancouver; it was also the lowest cost proposal received. Emterra has extensive experience in the waste management industry and proposed a team with a background in transfer station operations and maintenance. Emterra’s technical proposal addressed requirements for maximizing recycling and reuse at the transfer stations, and also addressed core Agreement responsibilities for managing garbage.

ALTERNATIVES
1. That the GVS&DD Board authorize:
   a. award of a contract for operation and maintenance of the North Shore, Coquitlam and Surrey Transfer Stations to Halton Recycling Ltd. doing business as Emterra Environmental as a result of RFP No. 16-071 for an anticipated value of $115,608,000 (exclusive of taxes) over a seven year term; and
   b. the Commissioner and Corporate Officer to execute the contract.

2. That the GVS&DD Board terminate RFP 16-071: North Shore, Coquitlam and Surrey Transfer Stations Operating and Maintenance Services Agreement and provide alternate direction to staff.

FINANCIAL IMPLICATIONS
If the Board approves Alternative 1 a contract will be awarded to Emterra to operate and maintain the North Shore, Coquitlam and Surrey Transfer Stations for a period of 7 years with operations commencing January 2, 2017, and with the contract expiring on December 31, 2023. Based on projected material tonnages, the total estimated value of the 7 year Agreement is $115,608,000 (exclusive of taxes). The total includes estimated fee adjustments based on expected inflation and also an estimated $19,800,000 in pass through costs for maintenance and third party recycling fees. The draft Agreement allows for Metro Vancouver to extend the contract for two additional years beyond the 7 year term. Authorization from the Board to extend the contract for the years 2024 and 2025 would be sought at a later date should an extension be appropriate.

The scope of services under the new Agreement is not the same as under the Metro Vancouver – Wastech Comprehensive Agreement. On this basis, it is not straightforward to compare costs under the two models. Nonetheless, Metro Vancouver estimates that at a minimum, the new Agreement will result in reduced costs of approximately $3 million per year compared to current costs. These savings will be recognized in the proposed 2017 Solid Waste Services Budget presented to the Board in October.

The Board could choose to terminate the RFP process and provide alternate direction to staff. If the Board decides on this course of action, it is unlikely that a new competitive process could be
completed in advance of the expiry of the Metro Vancouver – Wastech Comprehensive Agreement on December 31, 2016.

**SUMMARY / CONCLUSION**

An RFP was issued for the operation and maintenance of the North Shore, Coquitlam and Surrey Transfer Stations. Four proposals were received for the work. The proposal from Emterra was the highest ranked and met all of the requirements of the RFP. The Emterra proposal was also the lowest cost proposal. Based on the evaluation of proposals, staff recommend that the Board authorize a contract award to Emterra and authorize the Commissioner and the Corporate Officer to execute the contract for an estimated value of $115,608,000 (exclusive of taxes) for 7 years ending December 31, 2023.