AGENDA

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

Friday, July 31, 2009
9:00 a.m.
2nd Floor Boardroom
4330 Kingsway, Burnaby, BC

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

Director Raymond Louie, Vancouver
Director Don MacLean, Pitt Meadows
Director Gayle Martin, Langley City
Director Greg Moore, Port Coquitlam
Director Darrell Mussatto, North Vancouver City
Director Mae Reid, Coquitlam
Director Andrea Reimer, Vancouver
Director Gregor Robertson, Vancouver
Director Tim Stevenson, Vancouver
Director Harold Steves, Richmond
Director Richard Stewart, Coquitlam
Director Joe Trasolini, Port Moody
Director Judy Villeneuve, Surrey
Director Dianne Watts, Surrey
Director Wayne Wright, New Westminster
Commissioner, J. Carline*

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

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

9:00 a.m.
Friday, July 31, 2009
2nd Floor Boardroom, 4330 Kingsway, Burnaby, British Columbia.

A G E N D A

A. ADOPTION OF THE AGENDA

1. July 31, 2009 Regular Meeting Agenda
   Staff Recommendation:
   That the Board adopt the agenda for its regular meeting scheduled for
   July 31, 2009 as circulated.

B. ADOPTION OF THE MINUTES

1. June 12, 2009 Special Meeting Minutes
   Staff Recommendation:
   That the Board adopt the minutes for its special meeting held June 12, 2009
   as circulated.

2. June 26, 2009 Regular Meeting Minutes
   Staff Recommendation:
   That the Board adopt the minutes for its regular meeting held June 26, 2009 as
   circulated.

C. DELEGATIONS
   No items presented.

D. INVITED PRESENTATIONS
   No items presented.

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

1.1 Beverage Container Management in BC

_Waste Management Committee Recommendation:_

That the Board request the Minister of Environment to:

a) review minimum deposit levels for beverage containers as part of the Recycling Regulation, with the intent of increasing deposits to reflect economic changes since the implementation of the beverage container stewardship program; and

b) include milk containers and Tetra Pak food containers in the deposit-refund system.

1.2 Powell River Regional District Agreement – Expiration

_Waste Management Committee Recommendation:_

That the GVS&DD Board allow the current agreement with Powell River Regional District (PRRD) for providing solid waste disposal at the Cache Creek Landfill (CCLF) to expire as of December 31, 2009.

1.3 2008 Quality Control Annual Report for GVS&DD

_Waste Management Committee Recommendation:_

That the GVS&DD Board receive for information the report dated June 9, 2009, titled “2008 Quality Control Annual Report for GVS&DD”.

2. OTHER REPORTS

2.1 Annacis Academy – Detailed Design

_Director Hunt, Chair, Sustainability Academy Sub-Committee, Recommendation:_

That the Board endorse the Sustainability Academy Sub-Committee’s recommendation to proceed to detailed design for the Annacis Academy in anticipation of securing Federal/Provincial Building Canada funding.

2.2 Update on Settlement of Property Tax Arrears and Permits within Musqueam Indian Reserve

_Staff Recommendation:_

That the Board receive the report titled “Update on Settlement of Property Tax Arrears and Permits within Musqueam Indian Reserve” dated July 16, 2009, for information.

F. ITEMS REMOVED FROM THE CONSENT AGENDA

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

No items presented.

H. MOTIONS FOR WHICH NOTICE HAS BEEN GIVEN

No items presented.

I. OTHER BUSINESS

No items presented.
J. RESOLUTION TO CLOSE MEETING
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.
No items presented.

K. ADJOURNMENT
Staff Recommendation:
That the Board conclude its regular meeting of July 31, 2009.
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GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
BOARD OF DIRECTORS

Minutes of the Special Meeting of the Greater Vancouver Sewerage and Drainage District (GVS&DD) Board of Directors held at 9:05 a.m. on Friday, June 12, 2009 in the 2nd Floor Boardroom, 4330 Kingsway, Burnaby, British Columbia.

MEMBERS PRESENT:
Chair, Director Lois Jackson, Delta
Alternate Director Mary-Wade Anderson for Catherine Ferguson, White Rock
Director Malcolm Brodie, Richmond
Director George Chow, Vancouver
Director Derek Corrigan, Burnaby
   (arrived at 9:13 a.m.)
Director Heather Deal, Vancouver
Director Sav Dhaliwal, Burnaby
Director Judy Dueck, Maple Ridge
Director Pamela Goldsmith-Jones, West Vancouver
Director Rick Green, Langley Township
Director Linda Hepner, Surrey
Director Marvin Hunt, Surrey
Director Colleen Jordan, Burnaby
Alternate Director Craig Keating for Director Darrell Mussatto, North Vancouver City
Director Raymond Louie, Vancouver
Director Don MacLean, Pitt Meadows
Director Gayle Martin, Langley City
Director Greg Moore, Port Coquitlam
Alternate Director Alan Nixon, North Vancouver District for Richard Walton
Director Mae Reid, Coquitlam
Director Andrea Reimer, Vancouver
Director Gregor Robertson, Vancouver
Alternate Director Barbara Steele for Director Dianne Watts, Surrey
Director Tim Stevenson, Vancouver
Director Richard Stewart, Coquitlam
   (arrived at 9:49 a.m.)
Director Harold Steves, Richmond
Director Joe Trasolini, Port Moody
Director Judy Villeneuve, Surrey
Alternate Director Lorrie Williams for Director Wayne Wright, New Westminster
Commissioner Johnny Carlino*

MEMBERS ABSENT:
Director Maria Harris, Electoral Area A

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

OTHERS PRESENT:
Councillor Fin Donnelly, Coquitlam
Councillor Scott Hamilton, Delta
Councillor Dan Johnston, Burnaby

* Non-voting member.

Minutes of the Special Meeting of the Greater Vancouver Sewerage and Drainage District (GVS&DD) Board of Directors held on Friday, June 12, 2009   Page 1 of 5

SDD-7
A. ADOPTION OF THE AGENDA

1. June 12, 2009 Special Meeting Agenda

   It was MOVED and SECONDED
   That the Board adopted the revised agenda for its special meeting scheduled for June 12, 2009 as circulated on-table.

   CARRIED

B. PRESENTATIONS

Agenda Varied
The agenda order was varied to consider Item B.2 at this time.

2. Background and Current Status in Development of the Solid Waste Management Plan
   Johnny Carline, Commissioner/Chief Administrative Officer, provided members with a background and current status of the development of the draft Solid Waste Management Plan.

   Members were advised of the following:
   • after public, professional and municipal consultation, a waste diversion target of 70% received broad support
   • research has been completed and is being studied as to the solutions for the remaining 30% residual waste

Agenda Order Resumed
The agenda order resumed with Item B.1 being before the Board.

1. Sweden Study Tour
   Directors Deal, Goldsmith-Jones, Hepner and Councillor Scott Hamilton provided members with a presentation on their trip to Sweden to learn about waste and energy solutions.


9:13 a.m.
Director Corrigan arrived at the meeting.

9:49 a.m.
Director Stewart arrived at the meeting.

3. A Comparative Analysis of Options for Management of Waste After Recycling
   Konrad Fichtner, AECOM Canada Ltd., provided members with a PowerPoint presentation regarding a summary of study results comparing management of solid waste options in Metro Vancouver.
On-table report dated June 12, 2009, titled “Management of Municipal Solid Waste in Metro Vancouver - A Comparative Analysis of Options for Managing Waste After Recycling”, and on-table report dated June 1, 2009, titled “Executive Summary CMAQ Modelling of Possible Solid Waste Management Scenarios” were distributed to members and are retained with the June 12, 2009 Greater Vancouver Sewerage and Drainage District Board agenda.

A copy of the Powerpoint presentation dated June 12, 2009, titled “Management of Municipal Solid Waste in Metro Vancouver – A Comparative Analysis of Options for Managing Waste After Recycling Summary of Study Results” is retained with the June 12, 2009 Greater Vancouver Sewerage and Drainage District Board agenda.

4. **Air Quality Modelling Analysis of Options for Management of Waste After Recycling**

Roger Quan, Air Quality Planning Division Manager, Policy and Planning Department, provided members with a verbal presentation regarding the air quality modelling analysis results produced by residual waste for management of waste after recycling in terms of air quality impacts of solid waste options.

A copy of the PowerPoint presentation dated June 12, 2009, titled “A Comparative Air Quality Modelling Analysis of Options for Management of Waste After Recycling” is retained with the June 12, 2009 Greater Vancouver Sewerage and Drainage District Board agenda.

5. **Next Steps and Content to be used in Development of the Solid Waste Management Plan**

On-table report dated June 5, 2009 from Johnny Carline, Commissioner/Chief Administrative Officer, seeking Board direction on development of the draft Solid Waste Management Plan (SWMP).

Members were informed of the following:
- study findings will be presented at the June Council of Councils meeting in further detail
- once endorsed by the Board, the draft Solid Waste Management Plan will undergo a full public consultation process beginning in September or October

Discussion relating to Items B1 through B5 ensued on the following:
- interest in Sweden governance model and capital/ongoing funding models
- waste production and categorization in Sweden versus Canada
- Metro Vancouver is meeting regularly with the Province regarding waste management processes; next steps - proposal development and public consultation
- invite the Province to waste-related Board meetings
- interest in same level of attention paid to organic waste and transportation issues as has been paid to waste
It was MOVED and SECONDED
That the Board direct staff to prepare a draft Solid Waste Management Plan Using the AECOM Canada Ltd. report “Management Solid Waste in Metro Vancouver – A Comparative Analysis of Options for Management of Waste After Recycling” in conjunction with a report on airshed modeling and related health impacts, as reference documents, for a presentation to the Waste Management Committee on September 9, 2009.

A member raised concerns regarding further time needed to review material before a Board decision is made on the next steps in the draft Solid Waste Management Plan.

Tabling Motion
It was MOVED and SECONDED
That the Greater Vancouver Sewerage and Drainage District Board table consideration of the following motion until the June 26, 2009 Greater Vancouver Sewerage and Drainage District Board meeting to allow more time for discussion and to have questions answered on a draft Solid Waste Management Plan:

“That the Board direct staff to prepare a draft Solid Waste Management Plan Using the AECOM Canada Ltd. report “Management Solid Waste in Metro Vancouver – A Comparative Analysis of Options for Management of Waste After Recycling” in conjunction with a report on airshed modeling and related health impacts, as reference documents, for a presentation to the Waste Management Committee on September 9, 2009”.

CARRIED

Members agreed to continue discussion on the presentations provided.

It was MOVED and SECONDED
That the Board continue discussion regarding the next steps in the draft Solid Waste Management Plan being considered at the June 12, 2009 Greater Vancouver Sewerage and Drainage District Board meeting.

CARRIED

Relating to Items B1 through B5, members were advised of the following:

- analysis of the levelized/accounting costs are included in the AECOM Report
- removal of organic waste in modelling scenarios would slightly change composition
- AECOM scenarios considered all feasible alternatives
- Interest in what the BC Working Group on Waste is doing related to waste diversion
- Provincial goals are critical for Metro Vancouver framework

Concerns were raised on the following:

- a push for Waste-to-Energy option without a clear plan to deal with diversion of organic waste
- the need for government to evoke public behavioural change
Request of Staff
Staff was requested to provide the Greater Vancouver Sewerage and Drainage District and Fraser Valley Regional District Boards with the minutes and presentations of the last Council of Councils meeting in preparation for the June 2009 Council of Councils meeting.

C. ADJOURNMENT

It was MOVED and SECONDED That the Board conclude its special meeting of June 12, 2009. CARRIED (Time: 11:39 a.m.)

CERTIFIED CORRECT

____________________________________  ______________________________________
Paulette A. Vetleson, Corporate Secretary  Lois E. Jackson, Chair
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GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
BOARD OF DIRECTORS

Minutes of the Regular Meeting of the Greater Vancouver Sewerage and Drainage District (GVS&DD) Board of Directors held at 9:15 a.m. on Friday, June 26, 2009 in the 2nd Floor Boardroom, 4330 Kingsway, Burnaby, British Columbia.

MEMBERS PRESENT:
Chair, Director Lois Jackson, Delta
Vice Chair, Director Richard Walton, North Vancouver District
Director Malcolm Brodie, Richmond
Director George Chow, Vancouver
Director Derek Corrigan, Burnaby
Director Heather Deal, Vancouver
Director Judy Dueck, Maple Ridge
Director Catherine Ferguson, White Rock
Director Pamela Goldsmith-Jones, West Vancouver
Director Rick Green, Langley Township
Director Maria Harris, Electoral Area A
Director Linda Hepner, Surrey
Director Marvin Hunt, Surrey
Alternate Director Dan Johnston, Burnaby for Colleen Jordan
Director Raymond Louie, Vancouver
Director Don MacLean, Pitt Meadows
Director Gayle Martin, Langley City
Director Greg Moore, Port Coquitlam
Director Darrell Mussatto, North Vancouver City
Director Mae Reid, Coquitlam
Director Andrea Reimer, Vancouver
Director Gregor Robertson, Vancouver
Alternate Director Karen Rockwell, Port Moody for Joe Trasolini
Director Tim Stevenson, Vancouver
Director Harold Steves, Richmond
Director Richard Stewart, Coquitlam
Director Judy Villeneuve, Surrey
Director Dianne Watts, Surrey (arrived at 9:19 a.m.)
Director Wayne Wright, New Westminster
Commissioner Johnny Carline

MEMBERS ABSENT:
Director Sav Dhaliwal, Burnaby

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

A. ADOPTION OF THE AGENDA

1. June 26, 2009 Regular Meeting Agenda

It was MOVED and SECONDED
That the Board:

a) amend the agenda for its regular meeting scheduled for June 26, 2009, under section J Resolution to Close Meeting, by removing section 90 (1) (e) of the Community Charter (the acquisition, disposition or expropriation of land improvements, if the board or committee considers that disclosure could reasonably be expected to harm the interests of the regional district); and

b) adopt the agenda as amended.

CARRIED

* Non-voting member.
B. ADOPTION OF THE MINUTES

1. May 29, 2009 Regular Meeting Minutes

   It was MOVED and SECONDED
   That the Board adopt the minutes for its regular meeting held May 29, 2009 as circulated.
   CARRIED

C. DELEGATIONS

No items presented.

D. INVITED PRESENTATIONS

No items presented.

E. CONSENT AGENDA

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

2.1 Next Steps in Development of the Solid Waste Management Plan

   It was MOVED and SECONDED
   That the Board adopt the recommendations contained in the following items presented in the June 26, 2009 GVS&DD Consent Agenda:
   1.1 Liquid Waste Management Plan Implementation Committee Structure
   1.2 Amendment – Fraser Sewerage Area Boundary – 5700 Dhillon Way, City of Richmond
   1.3 Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw – New Appointments
   1.4 Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw No. 299, 2007 - Appointments
   2.2 Solid Waste Management – Supplemental Information
   2.3 Delegations’ Executive Summaries Presented at Committee – June 2009
   CARRIED

The items and recommendations referred to above are as follows:

1.1 Liquid Waste Management Plan Implementation Committee Structure
   Report dated June 4, 2009 from Marie Griggs, Public Involvement Division Manager, Engineering and Construction Department, and Fred Nenninger, Regional Utility Planning Division Manager, Policy and Planning Department, recommending an appropriate committee structure for implementing and monitoring the Liquid Waste Management Plan (LWMP), taking into consideration the existing LWMP Stormwater Interagency Liaison Group (SILG), the LWMP Environmental Monitoring Committee (EMC), and the LWMP Reference Panel.
Recommendation:
That the Board direct staff to:
  a) Develop a Terms of Reference for a new Integrated Resource Recovery Advisory Committee based on the framework in the report titled “Liquid Waste Management Plan Implementation Committee Structure” dated June 4, 2009; and
  b) Include commitment to a new Integrated Resource Recovery Advisory Committee as part of the Liquid Waste Management Plan and Solid Waste Management Plan.

Adopted on Consent

1.2 Amendment – Fraser Sewerage Area Boundary – 5700 Dhillon Way, City of Richmond

Report dated May 7, 2009 from Mike Stringer, Senior Engineer, Policy and Planning Department, responding to a request from the City of Richmond to amend the Fraser Sewerage Area Boundary.

Recommendation:
That the Board approve the expansion of the Fraser Sewerage Area to include the building footprint of the cranberry receiving and processing facility located on Lots 61 to 70, Section 4, Block 4 North, Range 4 West, NWD Plan 1593 as shown on Plan SA-2376, Sheet 44 and described in the report titled “Amendment – Fraser Sewerage Area Boundary – 5700 Dhillon Way, City of Richmond” dated May 7, 2009.

Adopted on Consent

1.3 Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw – New Appointments

Report dated May 20, 2009 from Ray Robb, Regulation and Enforcement Division Manager, Policy and Planning Department, seeking updates of staff appointments under the Environmental Management Act and Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw 181, 1996 as amended by Bylaw 183, 1996.

Recommendation:
That the Board, pursuant to the Environmental Management Act and Greater Vancouver Sewerage and Drainage District Municipal Solid Waste and Recyclable Material Regulatory Bylaw 181, 1996 as amended by Bylaw 183, 1996, appoint Doreen Cheng, Alexander Csizmadia, Jason Mushtuk, and Riley Siklai as Officers.

Adopted on Consent

1.4 Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw No. 299, 2007 – Appointments

Report dated May 20, 2009 from Ray Robb, Regulation and Enforcement Division Manager, Policy and Planning Department, seeking updates of staff appointments under the Environmental Management Act and Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw No.299, 2007.
Recommendation:
That the Board, pursuant to the Environmental Management Act and Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw No. 299, 2007:

a) Appoint the following Metro Vancouver staff:
   - Doreen Cheng, Alexander Csizmadia, Jason Mushtuk and Riley Sziklai as Municipal Sewage Control Officers.

b) Appoint the following City of Vancouver staff:
   - David Pope as Deputy Sewage Control Manager and Municipal Sewage Control Officer.

c) Rescind the following City of Vancouver staff:
   - Lauren Petersen as Municipal Sewage Control Officer.

Adopted on Consent

2.2 Solid Waste Management – Supplemental Information
Report dated June 16, 2009, from Toivo Allas, Manager, Policy and Planning Department, responding to the questions raised at the June 12, 2009 Board meeting relating to the management of municipal waste after recycling.

Recommendation:
That the Board receive for information the report dated June 16, 2009, titled “Solid Waste Management - Supplemental Information”.

Adopted on Consent

2.3 Delegations’ Executive Summaries Presented at Committee – June 2009
Report dated June 17, 2009 from Kelly Weilbacher, Office Manager and Assistant to the Corporate Secretary, Corporate Secretary’s Department, providing delegations’ executive summaries presented at committees in June 2009.

Recommendation:
That the Board receive for information the report dated June 17, 2009, titled “Delegations’ Executive Summaries Presented at Committee – June 2009”.

Adopted on Consent

F. ITEMS REMOVED FROM THE CONSENT AGENDA

2.1 Next Steps in Development of the Solid Waste Management Plan
Report dated June 5, 2009 from Johnny Carline, Commissioner/Chief Administrative Officer, seeking direction from the Board on development of the draft Solid Waste Management Plan (SWMP).

The Board directed staff to use as a reference material all relevant material prepared or commissioned by Metro Vancouver as well as material submitted by member municipalities and other stakeholders.

9:19 a.m.
Director Watts arrived at the meeting.
It was MOVED and SECONDED
That the Board direct staff to prepare a Draft Solid Waste Management Plan to be presented to the Waste Management Committee and the Environment and Energy Committee in September 2009 and that Metro Vancouver and member municipalities be invited to submit relevant documentation including the AECOM report titled “Management of Municipal Solid Waste in Metro Vancouver – A Comparative Analysis of Options for Management of Waste After Recycling”, the Metro Vancouver report titled “CMAQ Modelling of Possible Solid Waste Management Scenarios” by RWDI Air Inc., and reports submitted by member municipalities to be used as reference documents.

CARRIED

Member municipalities and other stakeholders were requested to provide the information that they wish to be considered in this process by the end of July 2009.

It was MOVED and SECONDED
That the Board request member municipalities and other organizations to submit documents that they want to be considered in the process of the development of the draft Solid Waste Management Plan to Metro Vancouver by the end of July 2009.

CARRIED

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

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

I. OTHER BUSINESS
No items presented.

J. RESOLUTION TO CLOSE MEETING

It was MOVED and SECONDED
That the Board close its regular meeting scheduled for June 26, 2009 pursuant to the Community Charter provisions, Section 90 (1) (g) 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.”

CARRIED
K. ADJOURNMENT

It was MOVED and SECONDED
That the Board conclude its regular meeting of June 26, 2009.

CARRIED
(Time: 9:26 a.m.)

CERTIFIED CORRECT

Paulette A. Vetleson, Corporate Secretary  Lois E. Jackson, Chair
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To: Board of Directors

From: Waste Management Committee

Date: July 20, 2009

Subject: Beverage Container Management in BC

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Waste Management Committee Recommendation:
That the Board request the Minister of Environment to:

a) review minimum deposit levels for beverage containers as part of the Recycling Regulation, with the intent of increasing deposits to reflect economic changes since the implementation of the beverage container stewardship program; and

b) include milk containers and Tetra Pak food containers in the deposit-refund system.

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At its July 15, 2009 meeting, the Waste Management Committee considered the attached report titled “Beverage Container Management in BC”, dated July 2, 2009. The Waste Management Committee discussed the beverage container stewardship program in detail. The Committee recommended that deposit levels be increased to reflect changing economic factors such as increased consumer prices. These factors may have eroded the financial incentive of the original minimum level for container deposits. Additionally, the Committee requested that the provincial government include milk containers (which would also include milk substitute (e.g., soy) and meal replacement beverage containers) and Tetra Pak food containers (e.g., polycoat containers for soups) in Schedule 1 of the Recycling Regulation.

Further, the Committee directed staff to request a presentation from Encorp Pacific, particularly regarding the management and allocation of unredeemed deposits, at the October, 2009 Waste Management Committee meeting. In considering the beverage container deposit-refund system, the Committee also requested that staff report back on all deposits and fees established through the Recycling Regulation (e.g., fees for electronics, tires, paints, etc...).

Attachment
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To: Waste Management Committee

From: Andrew Doi, Environmental Planner, Policy and Planning Department

Date: July 2, 2009

Subject: Beverage Container Management in BC

Recommendation:

That the GVS&DD Board request the Minister of Environment to raise the minimum deposit levels for beverage containers as part of the Recycling Regulation.

1. PURPOSE
To respond to the Committee’s request for a staff perspective on the dispute between the BC Bottle Depot Association and Encorp Pacific.

2. CONTEXT
BC's Provincial government began regulating beverage containers through a deposit-refund system in 1970. In 1997, the Province enacted the “Beverage Container Stewardship Program Regulation”, which required industry to:

- fund and operate a province-wide collection program for the deposit-refund systems for all beverage containers, and
- refill or recycle redeemed containers.

This was the first industry funded and operated extended producer responsibility program developed in BC and was later combined with other product categories into the Recycling Regulation, with a 75% diversion target.

Table 1: Container Deposit and Refund

<table>
<thead>
<tr>
<th>Container Type and Size</th>
<th>Minimum Deposit and Refund</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-alcoholic beverages, one litre or less</td>
<td>$0.05</td>
</tr>
<tr>
<td>Alcoholic beverages, one litre or less</td>
<td>$0.10</td>
</tr>
<tr>
<td>Any beverage, more than one litre</td>
<td>$0.20</td>
</tr>
</tbody>
</table>

Encorp Pacific is the non-profit agency responsible for the deposit-refund beverage container program, including funding of depots. Encorp Pacific acts on behalf of the beverage industry and has contractual arrangements with all bottle depot locations. The BC Bottle Depot Association is a voluntary, non-profit organization representing approximately one third of beverage container depots in the province.
The BC Bottle Depot Association sent correspondence, dated March 26, 2009 (Attachment 1), to regional districts and municipalities outlining their concerns about the beverage container return system. In particular, they expressed their concern that smaller, remote communities in BC are unable to fund beverage container return depots under the current system. The BC Bottle Depot Association called on the Minister of Environment to create a new administrative body to oversee the operation of the beverage container return program and manage program finances. On April 28, 2009, Encorp Pacific responded by sending correspondence (Attachment 2) to regional districts and municipalities disputing several claims made in the letter, dated March 26, 2009, from the BC Bottle Depot Association.

Staff believe that the Province should mediate the issue of funding remote depots between Encorp Pacific and all bottle depot operators, and that replacing Encorp Pacific with a new administrative body would not be an efficient solution. In 2008, Encorp’s overall beverage container recovery rate increased to 77.1%, surpassing the official diversion target of 75% established by the Ministry of Environment in the Recycling Regulation.

Metro Vancouver has banned beverage containers from disposal, yet some refundable containers continue to end up in the garbage. Waste composition studies indicate that over the past few years about 1% of the garbage is composed of beverage containers. Increasing deposit levels may lead to a greater incentive for consumers to return their beverage containers for refund and increase the recovery rate beyond the current 77.1%. Industry stewards and provincial regulators can be further encouraged to continually improve diversion rates to help meet the objectives of the Zero Waste Challenge.

3. ALTERNATIVES
The Board may:
   (a) Request the Minister of Environment to raise the minimum deposit levels for beverage containers.
   (b) Proceed in a different manner.

Staff recommend alternative (a).

4. CONCLUSION
The Province is in the best position to mediate the dispute between Encorp Pacific and bottle depot operators regarding depot funding and rural area service. Staff believe that replacing Encorp Pacific with a new administrative body would not be an efficient solution. The Province could also help Metro Vancouver meet the obligations of the Zero Waste Challenge by further reducing the number of beverage containers that end up in the garbage through raising the minimum deposit levels.

Attachments:

1. Letter dated March 26, 2009, regarding Beverage Container Management in BC, from the BC Bottle Association to all BC Regional District Board of Directors.

2. Letter dated April 28, 2009, regarding Beverage Container Management in BC, from Encorp Pacific to BC Regional Districts and Municipalities.
March 26th 2009

To all BC Regional Districts Board of Directors

Dear Mr / Madam Chairperson,

This letter is being sent with an attached "Open Letter to the Honourable Minister Penner, Minister of the Environment and Minister Responsible for Climate Action." The letter was delivered to Minister Penner last week and describes the current situation within the recycling industry in particular the Used Beverage Container and Electronics Stewardship Programs and the voluntary milk container return program. The BC Bottle Depot Association (BCBDA) is sending this letter to all Boards of Regional Districts in BC in hopes that each Board of will support the initiative outlined below and in the letter to Minister Penner and / or take the appropriate actions to protect their communities, taxpayers and their local environments.

The BCBDA is a voluntary, membership based non-profit organisation (since 1997) that represents a large number of depots across BC. The BCBDA has taken the initiative to demand that the Ministry of the Environment take appropriate steps to create a governing agency to manage all monies generated within stewardship plans and include the voluntary milk container plan to ensure that the recycling industry as we know it does not fail or become eroded to the point of collapse. Failure of the collection facilities would place the burden of recycling on Regional Districts and the back of taxpayers. With the Electronic Stewardship program scheduled to be expanded this year to include more items and will in the next two years include large items such as fridges and stoves and a provincial election happening soon it is imperative that action be taken now. The Electronic stewardship Plan consultation invitation is also attached to this email.

Encorp Pacific (Canada) currently manages the Used Beverage Container Stewardship Plan, the Electronics Stewardship Plan (as a management contract to Electronic Stewardship Association of BC (ESABC)) and the Voluntary Milk Container Program all of which have failed to reach their recovery targets. The current system allows for the unredeemed deposits, eco fees and advanced disposal fees to be kept by the steward (Encorp). These fees are collected province wide from consumers and are supposed to be used for the cost of
recycling the discards. Currently there are a large number of communities in the province (almost 70% for electronics) that have no collection facility for these products and the local government is burdened with the cost of recycling or landfilling these items or paying for the shipment of these items to communities that have collection facilities or landfills while the steward (Encorp) keeps the money. Encorp does not share any of the collected deposits, eco fees or advanced disposal fees with the Regional Districts or municipalities. In the majority of communities that do not have collection facilities the reason is only because Encorp does not offer enough compensation to depots or other collectors to pay for the cost of accepting the goods.

The BCBDA has grown weary as have many municipalities (see motion from Quesnel City Council included in the letter to Minister Penner) of trying to make Encorp and the Ministry of Environment understand the inequities of the product stewardship recycling system and we are asking for your help in the creation of a new governing agency much like the Beverage Container Management Board (BCMB) in Alberta in order to make these recycling programs fair and sustainable.

We ask all Regional District Boards to read the Open Letter to Minister Penner, include that letter, this cover letter and the Electronics consultation invitation on your Board agenda and if your Board determines that your Region is underserviced by any of these or other stewarded recycling programs (tires, paint, medications, used oil), please respond to the BCBDA. We hope you are willing to assist this initiative by putting pressure on the Provincial Government and the Ministry of Environment for the creation of the governing agency as described in the letter to Minister Penner. This important initiative will help stabilize the future of the recycling industry and assist in the preservation of our environment. Please advise the BCBDA of your decision. The BCBDA has also sent the Open Letter to Minister Penner and a cover letter similar to this one to all BC Municipal Governments, MLA’s the BC Product Stewardship Council of BC and to other interested parties.

I look forward to your reply and anticipated support in regards to this initiative. Please contact me if you require more information.

Yours truly,

Corinne Atwood
Executive Director
BC Bottle Depot Association
March 13th 2009

An open letter to the Honourable Barry Penner
Minister of the Environment and
Minister Responsible Climate Action
Room 112
Parliament Buildings
Victoria BC
V8V 1X4

By Email env.minister@gov.bc.ca

Dear Minister Penner

This letter is to bring to your attention the concerns of the BC Bottle Depot Association (BCBDA) and its members that the recycling industry, in particular the viability of the bottle / recycling depot system in BC are in jeopardy. As you may be aware, privately owned and operated bottle depots in BC form a network across the province that provide collection points for used beverage containers and other recyclables when zoning and feasibility permit. The current drop in commodity values of other recyclables and the unlevel playing field that bottle depots and the associated collection agencies for recyclables must operate on have made it more difficult for independently owned businesses to survive.

For the purpose of this letter I will focus on the steward of the Used Beverage Container Stewardship Plan, Encorp Pacific (Canada) mostly because Encorp Pacific (Canada) is the steward that bottle depots and the BCBDA have the most exposure to and Encorp is the only steward that publicizes its activities by way of an annual report albeit flawed. The other stewardship plans in the Province of BC operate under similar guidelines.

Approximately one in four (25% or greater depending on the container type) containers sold with a beverage in British Columbia is not returned to a bottle depot or other collection area. The unredeemed containers end up in landfills at the taxpayer’s expense. The unredeemed deposits paid by consumers on those containers are kept by Encorp and are supposed to be used for the purpose of managing the used beverage container stewardship plan.

Encorp Pacific Canada is a federally registered not for profit agency that was created by beverage manufacturers to manage their used beverage containers as per the Recycling Regulation. Encorp Pacific Canada’s Board of Directors consists of major beverage producers and retailers such as Coke and Pepsi, the Dairy Council, fruit beverages and
bottled water. Encorp's mandate is to serve their producer/brand owners' best interests by managing the Used Beverage Container Stewardship Plan to their advantage.

Extended Producer Responsibility (EPR) programs as described by the Ministry of the Environment in the BC Recycling Regulation demand that the producer/brand owners of certain products such as used beverage containers including wine, spirits and beer, paint, electronics, used oil, tires and medicines submit a stewardship plan that expresses how the producer will recover and manage the waste associated with their products. Producers or agencies created to represent producers must reach designated recovery rates and take responsibility for the management of collection of their product or risk being penalized by the Ministry of the Environment.

If one reviews Encorp's 2007 Annual Report and compares units sold (1,305,303,765) to units recovered (993,100,883) over 312 million (312,202,872) containers were not recovered (equal to 17.3 million dollars in unredeemed deposits). This would be enough containers to sustain approximately 50 or more depots of average size. These unrecovered containers went to landfill at the taxpayer's expense. The Ministry of Environment's Recycling Regulation states that the cost of recycling and disposal is to be born by the producer and the consumer, not the taxpayer.

Encorp boasts a network of depots but in fact has no ownership of any of depot. They do however operate as a monopoly in the collection and management of the used beverage container system and have the power to grant or withhold Depot License Agreements (DLA) and try to impose their standards on the depot. Bottle depots existed as independently owned and operated businesses well before the introduction of Extended Producer Responsibility (EPR) by the Ministry of the Environment through the waste management and recycling regulation, and continue to be independently owned and operated. The difference being that as per the recycling regulations depots must now only sell their containers to Encorp.

The BCBDA representing it member depots and related recycling partners are concerned that Encorp and the other stewards-agencies and/or producers entrusted with the stewardship of waste products also manage unredeemed deposits, container recycling fees, advanced disposal fees and eco fees generated within the system and paid by consumers. Giving the monies to the very producers (and/or their agents) that produce the waste and allowing them to use the monies freely rewards the producer/stewards and therefore there is little incentive for the stewards to reach recovery rates. The more waste recovered, the less money kept by the producer/steward in unredeemed deposits and fees. This system also takes away incentive for producers to design their containers for recyclability. The producer can choose to use the cheapest containers available or the container that best captures the public eye to house their products, not necessarily the most environmentally friendly.

According to Encorp's 2007 Annual Report (online version), on page 18 a pie chart indicates $58.8 million dollars in revenue from unredeemed deposits and assorted other sources and 70.5 million dollars in expenses. In that same 2007 report on page 21 Encorp reports revenues of 130.8 million dollars and expenses of 142.5 million dollars. It is unknown why Encorp's revenues over expenses vary so drastically between pages of the same report but one thing is clear, that Encorp is not a humble not-for-profit agency. There are millions of dollars at stake. The other product stewards have access to large
sums of money generated by the recycling programs although it is believed that Encorp’s revenues far exceed the revenue of other stewardship programs especially when Encorp also manages the voluntary milk program and holds the advanced disposal fees collected under the electronics program.

The BC Bottle Depot Association (BCBDA) was formed by depot operators after the Used Beverage Container Plan was approved with Encorp as the lone steward. It was felt by depot owners that they needed a collective voice to address their concerns. The BCBDA is the only provincially and federally recognized negotiating body for bottle depot across BC and works on behalf of depots to see that they are properly compensated for the work they perform and that depots have representation in the event that a dispute arises between depot and steward. The BCBDA also serves as an independent watchdog and stakeholder group for the used beverage container and other stewardship plan programs.

The BCBDA and Encorp entered into a Recognition Agreement in 2001 whereas Encorp recognized the BCBDA as the official representative of bottle depots licensed by Encorp. Both parties worked together to develop and implement programs to improve the bottle depot collections facilities. Encorp cancelled the Recognition Agreement between Encorp and the BCBDA in 2006 when the BCBDA started to question the activities and motives of Encorp after a three year negotiation process for an increase in handling fees for depots failed. Encorp has since stricken the BCBDA from the Advisory Committee it uses as stakeholder consultation to the Ministry of the Environment.

**Concerns Regarding True Recovery Rates**

In the fall of 2008 the BCBDA wrote to the Ministry of the Environment staff about the recovery rates posted by Encorp in their Annual Reports for all years but in particular for the period 2001-2004 when a large fraud occurred. The news of this fraud was found in an article published in the Vancouver Sun June 23rd 2008. The Supreme Court Action BCSC779 was filed in 2005 by Encorp and continued until 2008 before being settled in Encorp’s favour. Questions arose and details were released of the fraud through the Judges Reasons. The Supreme Court awarded Encorp 2.4 million dollars from the depot as it was found to be over remitting containers and accepting deposits and handling fees on the inflated amounts. The fact that this fraud continued for at least 4 years under Encorp’s nose before being discovered is of major concern.

If one calculates that $2.4 million to represent the lowest deposit and handling fee rate, that award represents more than 30 million containers that were allowed to fall through cracks in the system or mysteriously enter the system. If one reads the Judges Reasons for the award they will see that the fraud was for far more than 30 million containers. The Judges Reasons are available electronically from the BCBDA at bcbda@telus.net. The monies paid to this depot would likely be from the unredeemed consumer deposits held by Encorp for the operation of the used beverage container system. Unredeemed deposits were never intended to be used to pay out frauds. It is unknown how many dollars were spent by Encorp in legal fees and court costs to obtain this award. These legal costs would also be paid for with unredeemed deposits and other monies generated within the used beverage container collection system.
As part of the Depot License Agreement (DLA), Encorp is to perform audits of shipments of containers from depots. The BCBDA receives complaints from its members on a regular basis about the Encorp auditing process. Depot operators often complain that they are audited to the point of harassment. It is unclear if regular audits were ever performed on shipments from this depot. The amount of containers involved in this fraud would have sustained business for 5 or 6 average size depots. The table below summarizes the one container type that was the basis for the fraud. The award does not speak to other container types that may have also been fraudulently remitted.

<table>
<thead>
<tr>
<th>Year</th>
<th>Stated Remitted Sku2025 Containers to Encorp by Rocky Mountain Bottle Depot</th>
<th>Containers Delivered to Processor of Sku2025</th>
<th>Containers Sold in the Province of BC of Sku2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>7.93 million</td>
<td>3.35 million</td>
<td>No data</td>
</tr>
<tr>
<td>2002</td>
<td>19.73 million</td>
<td>3.74 million</td>
<td>7 million</td>
</tr>
<tr>
<td>2003</td>
<td>27.67 million</td>
<td>2.15 million</td>
<td>7.29 million</td>
</tr>
<tr>
<td>2004</td>
<td>11.84 million</td>
<td>2.70 million</td>
<td>8.2 million</td>
</tr>
</tbody>
</table>

The inflated recovery rates that were the basis of the fraud are believed to have been used by Encorp to inflate the recovery rates in their annual reports of the years 2001-2004 and may have been used to secure Encorp’s renewal of their Used Beverage Container Stewardship Plan in 2007. Of particular note was the year 2003 when the depot in question submitted more than 27 million containers of one container type when only slightly more than 7 million of that same type was sold across the province. Encorp as agent for the beverage producer/manufacturer has records of sales of all beverages in BC and should have been able to detect the fraud. Encorp claims that the average size depot collects 5-7 million mixed containers annually. How could this overage of submitted containers in one container type have gone undetected?

The depot owner involved sold the depot before this case was awarded and Encorp has little hope of collecting on the award. Personal properties of the depot operator were seized but in the end the consumer and taxpayer will absorb the costs of this award. This misrepresentation of container recovery volumes and Encorp’s failure to catch the fraud over a four-year period led the BCBDA to ask the Stewardship Programs Officer of the Ministry of Environment (with Cc to yourself) in a letter dated September 4th 2008 to fully review the recovery rates that were submitted by Encorp in their Annual Reports in 2001-2004. In light of the award it would make sense that the recovery rates stated in those reports are inaccurate. In that same request letter the BCBDA Executive Director asked if the Ministry of Environment staff were aware of this Supreme Court Action before or at the time they approved the Encorp Used Beverage Container Stewardship Plan in 2007.

No solid answers have been given by the Ministry of Environment to verify if the recovery rates on any of the containers in the Encorp Used Beverage Container Stewardship Plan or if any of the target recovery rates have truly been achieved, or if the product steward (Encorp) has even been penalized for not reaching recovery rate targets. The Ministry’s reply to BCBDA did not address the question of knowledge of the fraud but stated that the Ministry would not get involved in contractual issues. This has nothing to do with contractual affairs. This is about the unmonitored use of millions of consumer dollars. Meanwhile millions of taxpayer dollars continue to be spent on the disposal of used beverage containers at landfills at no cost to Encorp.
The disappointing reply letter from Ministry of environment staff has left no other avenue for the BCBDA but to take our concerns to the provincial government arena. The BCBDA has asked depots to visit their MLA’s and ask for their support and insist that Ministry of the Environment be directed to create a governing agency much like the BCMB described below that will consist of representatives from government, industry, advocacy, BCBDA members and non member depots, product stewards and the public. This new agency needs to be given the necessary authorities to monitor the stewardship programs and would also be responsible for the management of funds generated by the systems. The BCBDA insists on being consulted and included in the process of creating such a governing agency.

The Alberta Beverage Container Management Board

It was not so long ago that the BC system of recycling used beverage containers mimicked the Alberta System but with the demise of the BC Beverage Container Management Board (BCMB) and lack of a separate governing agency to control the use of the unredeemed deposits and advanced disposal fees, our system in BC has slipped backwards in some regards while Alberta’s remains protected for now.

The Alberta BCMB (Beverage Container Management Board) www.bcmb.ab.ca has authority to manage the monies that are generated within the used beverage container system, license the depots, determine handling fees for depots and service providers and hire and monitor the collection agencies. Manufacturers participate in the system by sitting on the BCMB board of directors as one of many stakeholders. This has created a more level playing field for all service providers in the used beverage container industry.

In BC the sister organization BCMB withered and died on the vine from what is understood largely to be apathy and frustration as the BCMB board felt they had “no authoritative teeth” and served mostly as an advisory committee. The BC BCMB had not been granted the authority needed to monitor the recycling programs, nor was it given the responsibility of managing the funds generated by stewardship plans. Management of the unredeemed deposits is crucial to fair play. If the manufacturers hold the funds and can use them freely there is no incentive for them to improve the system as the more containers unredeemed the more money the manufacturers have for unrestricted revenue.

Dispute Resolutions

Since the demise of the BC Beverage Container Management Board, bottle depots and the BCBDA must work directly with the product stewards. At times this has left depots and the BCBDA in conflict with Encorp. A dispute resolution is included in each Depot License Agreement as included in the Ministry of Environment’s Recycling regulations. Historically individual or group attempts to resolve disputes with Encorp have been blocked by Encorp and the disputes have ended when the party opposing Encorp has met with bankruptcy or near bankruptcy. Encorp only address the need to have a dispute resolution process in place for one group of service provider contractors, the bottle depots. The implication is that Encorp never has had or will have a dispute with the other service providers or producers over contracts or rates of payment. If a dispute occurs between the transporters, processors or other service providers and Encorp, and an agreement can’t be reached, Encorp can very easily fire them and hire new contractors.
This is not an acceptable dispute resolution process, and it gives Encorp total control, without consideration for fairness or reasonableness.

By virtue of the Depot License Agreement and the BC Bottle Depot Association, most of the bottle depots cannot be bullied into submission, (nor can they withhold providing service to the public) this protection is not currently, available to most other service providers. Many of the other service providers have Encorp as their only source of income, and are not represented by an association and do not have the financial ability to protect themselves from possible unfair business practices.

In August of 2006 the BCBDA attempted to bring Encorp to arbitration for handling fee increases and Encorp fought the effort to arbitrate vigorously. Prior to the commencement of the arbitration, the arbitrator was asked by Encorp to determine if the BCBDA could arbitrate on behalf of its members even though at the time the arbitration was filed the BCBDA was recognized by Encorp through a Recognition Agreement as the official representative of depots. In a previous arbitration in 1998-1999 Encorp had brought the BCBDA to arbitration. That arbitration concluded in BCBDA’s favour and the original Depot License Agreement (DLA) was born.

The arbitrator at that August 2006 preliminary hearing ruled the BCBDA was not able to arbitrate on behalf of its members and then awarded Encorp the costs of the arbitration that did not happen. The BCBDA was eventually able to negotiate a new contract and handling fee schedule with Encorp in the fall of 2007. Encorp then gave all depots, (members and non members) the increases negotiated by the BCBDA. If not for the BCBDA a large number depots in BC would never have received handling fee increases or a new contract.

In September of 2006 BCBDA representatives met with Ministry of Environment staff to address concerns with the Used Beverage Container Stewardship Plan and its anticipated renewal. The BCBDA (after being denied an arbitration) strongly believed there was a lack of a feasible dispute resolution in the original DLA and the Amended DLA. The BCBDA also raised concern that there was no depot in the province known to be able to afford to arbitrate under the dispute resolutions. If Encorp chooses to block the arbitration and drag out proceedings at the expense of the other party who could afford to fund a dispute?

Fair dispute resolutions are not just contractual issues. They are included in Recycling Regulations and are to be included in service provider contracts for everyone’s protection. The Ministry of the Environment is obligated to ensure that fair dispute resolutions are in place in all contracts. Below is the excerpt from the regulation.

Approval of Stewardship Plan
Section 5 (vi)

“A dispute resolution procedure for disputes that arise between a producer and person providing services related to the collection and management of the product during implementation the plan or operation of the product stewardship program.
Last year an individual depot tried to bring Encorp to arbitration after the two parties could not come to agreement on handling fees. The depot spent tens of thousands of dollars out of their pocket (almost 100,000), only to be denied the right to arbitrate even though the DLA included arbitration as a form of dispute resolution. The dispute was never heard. That depot was denied the right to arbitration as Encorp argued two issues:

- That the DLA did not speak to arbitration of handling fees and therefore handling fees could not be arbitrated and
- That as the depot was a member of the BCBDA, the BCBDA would have to arbitrate for them. The rulings of one action are never allowed to be brought forward in other actions so the arbitrators in either case were never made aware of past arbitrations.

Encorp has submitted costs of approximately $70,000 for the arbitration that did not happen between Encorp and the BCBDA and has recently submitted additional costs to increase the award to $90,000. Part of the original arbitrator’s award stated that each item Encorp is claiming cost for must be approved by Supreme Court Assessment. It has yet to be determined how much of that amount they will receive. It’s one thing to lose arbitration and be made to pay the costs, it’s another to be blocked from arbitration and be made to pay costs of an arbitration that never happened. This has now happened on two separate occasions.

**Increased Deposit Rates**

An equally important issue I would like to address is why has BC not raised the deposit rates and included milk containers into the deposit system as they have recently done in Alberta? Encorp is spending millions of dollars on advertising and promotions which increase the over all recycling costs without increasing the recovery rate. Years ago the larger used beverage containers in BC had a deposit of 30 cents per container and BC took a step back and reduced the deposit to 20 cents to match Alberta's system in order to keep both systems synchronized. Keeping deposits and eligible containers the same in the BC and Alberta system is crucial to the sustainability of the recycling system in both provinces.

Encorp has not kept pace with what motivates our society today. A consumer earning $5.00 / hr and paying .25 cents a litre of fuel, 10 years ago, was more motivated to return 10 cans for 50 cents. That same consumer today, who is earning $15 - $20.00 / hr is more motivated to garbage the 10 cans than pay 90 cents to $1.10 per litre of fuel to go to a depot for the $.50 deposit. Society can only be motivated to do the “right thing” for so long, and then money must be used to increase motivation.

Currently containers sold in BC can be brought to Alberta to benefit from the higher deposit rates and it is rumoured that people are stockpiling milk containers to bring them to Alberta in June when they enter the deposit system there. Not only will this practice strain the revenues of the Alberta system, it will remove supplies of recyclable materials from BC. The reasons for Encorp not to be working toward higher deposit rates may be the unredeemed deposits as mentioned at the beginning of this letter. Higher deposit rates will mean higher recovery rates and less unredeemed deposit being kept by the stewards of the Used Beverage Containers Plan. Meanwhile Alberta’s system will be damaged by paying out possibly 100% or more in deposits.
Encorp charges each brand owner a Container Recycling Fee (CRF) on a container type basis to pay the cost of recycling that isn't paid for by unredeemed deposits and commodity sales. The Brand Owners charge this back to the consumer as a separate line item on the Retailers till receipt. The Regulation does allow for this. Encorp justifies this method saying that it allows the cost of recycling to pass to the consumer without mark-up by the wholesaler or retailer.

This is misleading to the point of being false as nowhere in the Regulation is there a restriction on what the wholesaler can charge the retailer or what the retailer charges the consumer as a CRF, if Encorp has a $.02 CRF on a container type the wholesaler or retailer can charge $.03 if they so choose. Another justification used by Encorp in listing the CRF as a separate item on the sales receipt, is the consumers right to know the cost of recycling. Again this is misleading, as the CRF only represents (the cost of recycling not paid for by the unredeemed deposits and sale of alum etc.) part of the total cost.

This practice puts the bottle depots in the unpleasant position of having to explain to an angry customer that they are not being ripped off, and that the $.07 they paid represents the $.05 deposit that they get back and the other $.02 is a non-refundable fee. The customer usually thinks it is another type of tax by the Government. When it is explained that the CRF pays for part of the recycling costs, then they produce an identical container that held an alcohol cooler (2l plastic) and ask why doesn't it cost to recycle this one referring to the Liquor Distribution Branch (LDB) and Brewers Distributing Ltd. (BDL) that do not have CRF's shown separately on the till receipt. Having the CRF included in the wholesale cost would give a producer a competitive advantage if they were to re-design their container to increase the sustainability and recyclability after its end of life.

All manufacturers of all beverage products have regulated costs, WCB, EI, and CPP to name a few and they are included in the wholesale costs of the products. The concept of Extended Producer Responsibility (EPR) is that the Producer / Brand Owner is responsible for the recycling and can share the associated costs, with the consumer. With Encorp's encouragement to pass the CRF cost to the consumer at the retail level, the Producer / Brand Owners have NO COST.

Most bottle depots operate below capacity and could easily manage addition volume should the deposit rates increase. Instead of increasing the deposit rates Encorp has taken it upon them selves to create opportunities for new depots to open close to existing depots without consulting the existing depots owners to determine if they can handle addition volume. Encorp has been offering these new depot locations to depot operators of their choosing at times refusing to accept proposals from existing depots or to take into consideration the effect these new depots will have on the existing ones. Having more depots will not encourage people to bring in their containers. People can bring in their containers in limited amounts to retail stores that are located everywhere. Increased deposit rates will motivate the consumer to bring in their larger orders such as bottle drives and other fundraisers to the existing bottle depots where they can redeem unlimited amounts. Opening more depots without considering the existing depots will only deplete resources for all depots and could result in business failure for some depots.
The Electronics Stewardship and the Voluntary Milk Plans

Encorp also manages the Electronic Stewardship Plan for ESABC. Encorp provided start-up funds for ESABC and therefore was awarded the agency for the electronic stewardship plan. This has created a loyalty between parties whereas Encorp is given free reign in their activities. Almost 70% of communities in BC currently do not have an electronic collection facility. This product is considered hazardous and has been banned from most landfills and the communities left without a collection site have incurred the additional costs for disposal of the electronic products.

Encorp collects environmental handling fees for new electronic purchase from persons living in these communities without supplying services. The realisation of this has led communities such as Quesnel who have grown weary of trying to obtain collection services for electronics and other stewarded products to take affirmative action and in our opinion make bold moves in the right direction.

Quesnel City Council meeting of February 23rd 2009

Council discussed environmental fees charged on the sale of new electronics such as televisions, computers, fax machines and desktop printers. Encorp is funded by these fees however, Quesnel does not receive Encorp electronic recycling services and those items are shipped to Williams Lake at additional cost.

Environmental Handling Fees on Sale of New Electronics

09-06-117 MOVED Councillor Cave, Seconded Councillor Thapar and resolved: THAT Council approves submitting the following resolution to NCMA:

WHEREAS THE Encorp Return-It Electronics recycling program is funded through the collection of Environmental Handling Fees paid by consumers at the time of purchase of new electronics;

AND WHEREAS many smaller municipalities in B. C. are not served by Encorp Return-It facilities that receive recyclable electronics and must bear the additional costs of collecting and disposing of end-of-life electronics;

THEREFORE BE IT RESOLVED THAT the North Central Municipal Association lobbies the Provincial Government to return the environmental handling fees to municipalities that are not served by the Return-It Electronics program in order to assist with costs to properly collect and dispose of end-of-life electronics.

CARRIED

The BCBDA supports this bold move as many of our member depots have been denied the opportunity to service these areas or have refused to participate in the electronic program as the payment for services under electronics program are negative revenue.
Milk

Encorp is the management agency for the voluntary milk program now into its third year. The amount of handling fees given to depots to handle these containers is almost 75% less than the depot would receive for handling plastic beverage containers of the same size. Depots accepted the program anticipating that large volumes of containers would offset the poor handling fees. This program has been a dismal failure as there is no monetary incentive for the public to bring back their containers.

The province of Alberta recently included milk containers in their deposit system and will charge a 25 cent deposit on the containers and offer more that 5 times the handling fee to depots to accept the containers. Discussions with our Alberta counterparts indicate that they are expected large recovery rates on the milk containers. Alberta has also had to go to the additional expense of creating an identification system as they are anticipating a large quantity of milk and used beverage containers to be brought in from BC as our deposit system has not been synchronized with theirs.

Summary

The BCBDA feels that there is enough reason as outlined in this letter to request that you as Minister of the Environment direct staff to start the process of creating a governing agency to manage the monies generated by stewardship plans starting with the used beverage containers stewardship electronics stewardship plan and that this agency will eventually monitor and manage the monies generated by all stewardship plans. The BCBDA feels that the Ministry of Environment can if willing develop and implement constructive legislation to create such an agency. A time line needs to be determined so that this endeavour is carried out to fruition in the near future.

In addition the BCBDA ask that you as the Minister of the Environment to respond to the BCBDA with answers to the questions the BCBDA asked in the letter September 4th 2008 and new questions listed on the next page of this letter.

Questions from September 4th 2008

1) Will the Ministry of Environment conduct a review into the recovery rates that were submitted by Encorp in their Annual Reports in 2001-2004 that are now known to be inaccurate?

2) Was the Ministry of Environment aware of the Supreme Court Action BCSC779 at the time they approved the Encorp Used Beverage Container Stewardship Plan in 2007?

3) Has the Ministry of Environment ever penalized Encorp for not reaching recovery rate targets?

New Questions

4) Will the Ministry of the Environment review the operating and administration costs posted by Encorp and determine how much of the consumer’s monies have been spent on legal actions and administrative bonuses over the course of Encorp’s stewardship of the used beverage containers?
5) What action will the Ministry of the Environment take to guarantee that all service providers in the Used Beverage Container Stewardship Plan will have access to feasible dispute resolutions?

I look forward to your reply
Yours truly,

Corinne Atwood  
Executive Director  
BC Bottle Depot Association

Cc Premier Gordon Campbell  
Senior Staff of the Ministry of the Environment  
BC MLA’s  
All Interested parties
PUBLIC CONSULTATION – INVITATION TO COMMENT ON ESABC STEWARDSHIP PLAN
FEBRUARY 15, 2009 AMENDMENTS

On December 8, 2008, the Provincial Government issued an Order in Council (OIC 900) which contained an extensive list of products to be added to the recycling program in two separate stages in 2010 and 2012. ESABC is inviting public comment on the amendments to their Stewardship Plan which expands the range of products which will be included in its recycling program.

A series of four open houses in Prince George, New Westminster, Kamloops and Nanaimo have been scheduled to provide the public with an opportunity to meet with representatives of ESABC and find out more about the planned expansion of the ESABC program. These regional consultation sessions will take place on the following dates and times.

Prince George: Coast Inn of the North: April 7th: 9 am to 1 pm

New Westminster: Inn at the Quay: April 9th: 9am to 1pm

Kamloops: Coast Canadian Inn, April 15th: 1pm to 4pm

Nanaimo: Coast Bastion Inn: April 20th: 9am to 1 pm

BACKGROUND:

Since program commencement ESABC has been working proactively with a view to expanding the list of Electronic products accepted for recycling on a harmonized and phased basis consistent with the Canadian Council of Ministers of the Environment (CCME) Canada Wide principles. To further this goal, ESABC issued, on July 27, 2008, a consultation paper asking for key industry stakeholder input on a proposed list of products to be added to the program. As a result of this consultation ESABC concluded that the harmonized list of proposed products was suitable for inclusion in the ESABC program.

This list includes computer scanners, audio and video recording and playback systems, vehicle audio and video systems, as well as all types of telephones. This list is a significant expansion to the original program in both the number and type of products, which will require the recruitment of approximately significantly more producers and retailers and will result in a large increase in the volume and tonnage of materials to be handled by collection points, transporters and processors.
April 28, 2009

Lois Jackson and Councillors
Regional District of Metro Vancouver
4330 Kingsway
Burnaby BC V5H 4G8

ATTENTION: Lois Jackson

I have recently become aware of a letter writing campaign by the BC Bottle Depot Association (BCBDA). They ask local government to join their advocacy for a wholesale reconstruction of the product stewardship system in British Columbia. They offer no factual basis for their remarkable suggestion except that they prefer the Alberta solution; one that, on evidence, has lower environmental performance, is more expensive and administratively complex but does guarantee the Alberta Bottle Depot Association a steady stream of membership dues.

Here are the factual errors in the BCBDA letter:

1. Only a minority (1/3) of depots are members of BCBDA; and this organization has no standing within the regulation nor with Encorp or any stewardship agency
2. The recycling industry for products covered by stewardship programs is in no danger of either failure or collapse; to the contrary no depot has failed in the last ten years
3. All Encorp programs are meeting their recovery targets. Beverage recovery for 2008 was 77% (one of the highest in Canada) up from 76% in 2007.
4. 90% of the population (not 30% as alleged by BCBDA) have access to electronics collection sites and, at 6 lbs per capita, recovery results are the second highest in North America
5. Compensation offered for the collection of electronics in BC is comparable to other programs and other provinces with electronics programs. As a bargaining ploy, BCBDA has boycotted this very successful program. Incidentally they have also boycotted the voluntary dairy program even though 75% of the depots are active participants
6. Encorp does not receive the eco fees from the electronics recycling program; these revenues go the Electronic Stewardship Association of BC. There are no eco fees for the dairy program. Encorp’s utilization of unredeemed deposits to pay for recycling costs is approved by the Province and has been validated by the courts in BC
BCBDA offers no suggestions as to how a Beverage Container Management Board would contribute to improved environmental results. Clearly, BCBDA interest is to stabilize their source of membership dues and to assist the preservation of their association. The BC industry stewardship system is admired throughout North America; we do not need to dismantle it. In light of these considerations, I respectfully ask you to consider carefully their request before giving it your support.

Please contact me if you or your council would like more discussion on stewardship in British Columbia. For your reference, I have enclosed my letter to Minister Barry Penner written in response to the BCBDA open letter.

Yours truly,

ENCORP PACIFIC (CANADA)

[Signature]

Neil Hastie
President & CEO
April 6, 2009

Honourable Barry Penner
Minister of Environment and
Minister responsible for Water Stewardship and Sustainable Communities
PO Box 9047 – STN PROV GOVT
Victoria BC V8W 9E2

Dear Minister,

Re: BC Bottle Depot Association Letter of March 13, 2009

On March 13, 2009, the BC Bottle Depot Association (BCBDA) wrote to you and other members of the Legislative Assembly. The letter was brought to my attention by a member of the Legislative Assembly.

The BCBDA’s letter contains numerous inaccuracies and advances a distorted interpretation of the regulatory regime for product stewardship in BC. Moreover, the letter recklessly diminishes the notable environmental achievements made by BC stewardship agencies which are widely admired throughout North America.

By way of context, the BCBDA is a voluntary association made up of only one-third of the bottle depots in BC. It is not recognized as a bargaining agent by Encorp or by any other stewardship program and has no standing within regulation.

The BCBDA is asking government to overhaul the Recycling Regulation and to abandon one of the Province’s core principles, namely industry management of regulated recycling programs. It is asking government to re-enter the field of recycling to create an agency with direct management authority over recycling financing and operating methods.

In making this request, the BCBDA opposes the BC approach to stewardship and advocates for an Alberta model: a model that is more expensive, cumbersome to regulate, and achieves lower environmental performance. A feature of the Alberta model is that it guarantees the Alberta Bottle Depot Association a steady stream of membership dues.

Positive and improving environmental outcomes are the best measures of public policy and strategies for stewardship. Encorp’s performance in diverting beverage containers and electronic devices from landfill and into the recycling economy has been well documented and compares or exceeds standards set anywhere in North America. We are continuously working to improve our performance. We can do so without dismantling the regulatory system established in BC.
The following points address the various inaccuracies in the BCBDA letter:

1. The bottle depot system is not in jeopardy. To the contrary, the steady income provided by Encorp sustains family-owned bottle depot businesses and supports significant goodwill value and maintains a ready market for owners who wish to retire. There has not been a single bottle depot business failure in the past ten years.

2. Our financial statements are independently audited and publicly available and contain no errors. Encorp and its auditors are available to the BCBDA should it wish to obtain a better understanding of our audited statements.

3. Encorp did not inflate recovery rates in 2001-2004. We publish the collected volumes reported to us by depot owners for which we pay deposits and handling fees. The fraud case identified in the BCBDA letter has been resolved in our favour and Encorp has collected on the award granted by the courts.

4. Electronic collection facilities are located throughout the province covering well in excess of 90% of the population. A collection facility is opening in Quesnel in April 2009. The BCBDA has advocated that its members boycott this program even though the Return It™ Electronics program is one of the most successful in North America and the handling fees paid to collection sites are consistent with, if not higher than those in effect in other provinces.

5. The voluntary milk collection program is supported by 75% of depots notwithstanding the advice from the BCBDA that its members boycott this program. Collected volumes in 2008 were 70% higher than in 2007. Handling fees were increased by 15% in 2008.

6. Encorp has long standing relationship with its contractors and has not had any unresolved disputes.

7. As expected, we have defended ourselves successfully whenever BCBDA has initiated legal proceedings/arbitrations against us. This approach is a distraction and waste of time and money. Our success in these proceedings is a reflection of the weakness of the BCBDA’s claims.

In closing, we meet regularly with Ministry staff and work diligently to keep them informed of our activities. The majority of BCBDA complaints about Encorp are known to arise out of their desire to be the bargaining agent for their members and for pecuniary interests, not out of an interest to enhance environmental outcomes.

Please feel free to contact me if you or your staff would like additional information or clarification with respect to issues raised in this letter or on our operations generally.

Yours truly,

ENCORP PACIFIC (CANADA)

Neil Hastie
President & CEO
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Recommendation:

That the GVS&DD Board allow the current agreement with Powell River Regional District (PRRD) for providing solid waste disposal at the Cache Creek Landfill (CCLF) to expire as of December 31, 2009.

1. PURPOSE

To receive direction from the Committee and Board to allow the current agreement with PRRD to expire and give notification to PRRD in July confirming this decision in order to provide maximum time for PRRD to find an alternative by the end of the year.

2. CONTEXT

In June 2001, the Board authorized the Commissioner to enter into an agreement with PRRD for the annual disposal of up to 6,240 tonnes of municipal solid waste at the CCLF. The agreement has been renewed on an annual basis as PRRD did not have any options for locally disposing of their solid waste. GVS&DD has been providing this service consistently since 2001, with the average annual tonnage being approximately 5,000 tonnes. The current agreement with the PRRD expires at the end of 2009. Service is provided by loading trailers with solid waste in Powell River which are shipped by barge to Richmond and then hauled to the Cache Creek Landfill for disposal. The trailers are then reloaded with wood chips for backhaul to the Lower Mainland.

PRRD is aware of the uncertainty regarding the CCLF and its pending closure in 2010. Their Solid Waste Management Plan (SWMP) is currently being updated to allow waste export to continue, as the preferred option at least for the short term, possibly to Rabanco’s Roosevelt Landfill in Washington State. The new plan also suggests investigating the feasibility of a centralized composting facility that would handle PRRD’s organic waste. If composting proves viable then PRRD would continue to export the residuals. From the preliminary discussions that PRRD have had with Rabanco, the disposal cost for export to US is comparable to or slightly cheaper than the current rate charged by GVS&DD.
3. ALTERNATIVES

The following alternatives are presented:

a) Allow the current agreement with PRRD to expire on December 31, 2009:

Metro Vancouver is not in a position to offer a secure disposal option for PRRD with the Cache Creek Landfill expected to close in 2010. Subject to completion of updating their SWMP, PRRD is expected to have an alternative waste disposal option by the end of the year at a similar cost to that currently provided by Metro Vancouver for disposal at the CCLF.

Not renewing the agreement will require PRRD to arrange for short and long term disposal of their solid waste and not be dependent on Metro Vancouver facilities. This would in turn encourage PRRD to develop their own programs for reducing their waste and follow their own Zero Waste Challenge program as well as provide more long term stability in managing their waste.

b) Renew the current agreement with PRRD until the closure of CCLF.

Although the projected cost to PRRD for this option is comparable to waste export to the US, this alternative does not provide long term stability to PRRD given the uncertainty regarding the closure date of the CCLF.

PRRD has, however, indicated that they would likely decide to continue disposal at the CCLF if Metro Vancouver offers that option. If renewing the current agreement to dispose waste at CCLF was approved by the Committee and Board, PRRD would need to get approvals from the Thomson Nicola Regional District and the Village of Cache Creek.

Alternative a) is recommended.

4. CONCLUSION

This current agreement with PRRD for solid waste disposal at Cache Creek expires on December 31, 2009. To maximize the time available to PRRD to find a disposal option as an alternative to the CCLF, it is recommended that we give notification in July of Metro Vancouver’s intentions regarding the agreement.
To: Waste Management Committee

From: Theresa Gregonia, Superintendent of WWTP Laboratories, Stan Bertold, Superintendent of Environmental Monitoring, Operations & Maintenance Department

Date: June 9, 2009

Subject: 2008 Quality Control Annual Report for GVS&DD

Recommendation:

That the GVS&DD Board receive for information the report dated June 9, 2009, titled “2008 Quality Control Annual Report for GVS&DD”.

1. PURPOSE

To provide the GVS&DD Board with a summary of the 2008 Quality Control Annual Report for the Greater Vancouver Sewerage and Drainage District (GVS&DD).

2. CONTEXT

Metro Vancouver staff is responsible for monitoring and reporting on GVS&DD wastewater treatment plant waste streams, residuals (biosolids) and receiving water quality. The attached Executive Summary of the 2008 Quality Control Annual Report summarizes the regulatory and process monitoring information gathered through the various programs that are in place including monitoring of: influent, effluent and process streams; effluent toxicity testing; biosolids quality as required by the Organic Matter Recycling Regulation (OMRR); and the receiving environment to meet the District’s commitments under the Liquid Waste Management Plan. The Annual Report will be made available on Metro Vancouver’s web site and through the Harry Lash Library.

Major conclusions and observations from the 2008 report respecting wastewater treatment system performance and reliability as well as biosolids and environmental quality monitoring are summarized as follows:

- The GVS&DD wastewater treatment facilities treated over 436 billion litres of wastewater. The annual suspended solids and biochemical oxygen demand (BOD) removed of approximately 49,800 tonnes and 47,500 tonnes were comparable to 2007 data.

- In general, the overall performance of the GVS&DD’s five wastewater treatment plants (WWTPs) was good. The objective and performance targets were met for removing suspended solids and BOD with a few exceptions as discussed in the next paragraph. A review of the effluent monitoring program results showed that over 99.7% of requirements listed in the operational certificates were met.
In 2008, discharge from the WWTPs complied with Operational Certificate requirements with 18 exceptions that can be grouped into two types:

- Type 1 exceptions (8 cases) were the result of the maximum daily loadings for suspended solids or BOD loadings exceeding the permitted load limits. Daily loadings are calculated by multiplying suspended solids or BOD concentration and plant flow. The maximum daily loadings are used to determine the annual waste discharge fees as required by the Waste Management Waste Permit Fee regulation. Type 1 exceptions have no significant environmental impacts and can be resolved by increasing the load limits specified in the Operational Certificates. In many cases this type of exception was due to extremely high flows.
  - Four occasions for suspended solids loadings at Iona and Annacis;
  - Two occasions for BOD loadings at Iona and Annacis;
  - Two occasions for suspended solids concentration at Annacis.

- Type 2 exceptions (10 cases) were the result of treatment process upsets, equipment and/or operation failures:
  - One occasion for suspended solids concentration at Northwest Langley because of reduced clarifier capacity;
  - One occasion for suspended solids loadings at Northwest Langley because of reduced clarifier capacity;
  - Four occasions for BOD concentration at Lions Gate due to high influent organic loading;
  - One occasion at Lulu due to disinfection failure;
  - One occasion at Northwest Langley due to disinfection failure;
  - Two occasions at Lions Gate due to disinfection failures.

The weekly composite samples for determination of metals concentrations and fecal coliform counts in biosolids were generally well below the regulatory limits outlined in the Organic Matter Recycling Regulation (OMRR). There was one incident in November when elevated levels of nickel were detected in the raw sludge at the Northwest Langley WWTP. The GVS&DD’s monitoring program and contingency procedures ensure that any sub-class biosolids are identified, tracked and managed appropriately.

All WWTP discharges were within the federal guideline which requires that the concentration of ammonia in the effluent should not be acutely toxic, as defined under the Canadian Environmental Protection Act. As well, there is no evidence of chronic toxicity potential from ammonia in the receiving environment due to the WWTP discharges.

With a few exceptions, all effluent samples from all WWTPs passed the required monthly toxicity test using Environment Canada’s standard test (41 cases) and/or modified test (15 cases) with an add-on pH stabilization procedure. The modified test is used whenever the standard test gives a false result due to an artifact of the test protocol. The only other exceptions occurred at the Iona Plant. In order for four samples of Iona effluent to pass, more oxygen had to be added to these samples than is allowed by the technical specifications of the Environment Canada procedures.

Unlike previous years there were no occurrences of effluent toxicity related to surfactants (constituents of detergents and cleansing agents) at the Lions Gate Plant. This would suggest that a public education campaign to encourage North Shore residents to use less laundry detergents has begun to reduce the level of surfactants incoming to the Plant.
• In 2008 the bacteriological water quality guideline was met for all primary-contact recreational waters in Metro Vancouver during the summer season. False Creek is not classified as a primary-contact recreational water body. Therefore a working guideline for secondary-contact recreation was used to determine its water quality: East False Creek did not meet the working guideline and was posted for a period of about 26 days in June and July, whereas both Central and West False Creek did meet it throughout the summer. The elevated counts in East False Creek were due to discharges mainly associated with construction-related activities on sewerage infrastructure.

• There were four other isolated incidences that required extra sampling and posting at some of the recreational-water areas due to sewage spills in 2008. Three sanitary sewage overflows occurred in Port Moody Arm that affected Old Orchard Park, and there was one sewage bypass from the Annacis Plant that influenced water quality at Gary Point and Iona Beach. The primary causes of the sewage spills were due to power failures and an equipment failure of a critical electrical power supply.

• No exceedances of the water quality objectives were attributable to the three secondary treatment plants that discharge to the lower Fraser River.

• Monitoring of the two primary wastewater treatment plant outfalls in the marine environment indicated some potential effects of the outfalls. These effects are not environmentally significant. The receiving environment around the Iona outfall has been stable since the commencement of annual monitoring of organisms in 2000. Similar findings were also observed in the Lions Gate outfall area. Unlike Iona, however, the Lions Gate discharges to an embayed area, Burrard Inlet.

3. ALTERNATIVES

None presented.

4. CONCLUSION

The wastewater treatment plants are providing ongoing benefits through the reduction of contaminant loadings to the receiving environment, and are operating without adversely affecting the environment. Biosolids produced by the WWTPs are being managed in compliance with the Organic Matter Recycling Regulation and the Environmental Management Act.

Attachment:
Executive Summary of the 2008 Quality Control Annual Report for Greater Vancouver Sewerage and Drainage District. (eRIM: 004944583)
EXECUTIVE SUMMARY

The Greater Vancouver Sewerage and Drainage District (GVS&DD) operates five wastewater treatment plants (WWTPs) in the region. Three of the five plants provide full secondary treatment (Annacis Island, Lulu Island and Northwest Langley) and discharge into the lower Fraser River. The remaining two wastewater treatment plants (Iona Island and Lions Gate) discharge to Georgia Strait and First Narrows respectively and provide primary treatment only.

Under the provisions of the Waste Management Act, the B.C. Ministry of the Environment issued operational certificates to the GVS&DD in 2004. These certificates (which replaced permits) allow the District to operate each of its wastewater treatment plants and to discharge treated effluent to the receiving waters. The District's objective is to maintain ongoing compliance with the operational certificates including compliance for disinfection (where applicable), sewage quality and discharge loading parameters and by doing so continue to protect the receiving environment.

Metro Vancouver is committed to the principle of managing liquid waste in a manner that enhances environmental quality. This commitment is outlined in Metro Vancouver’s Liquid Waste Management Plan (LWMP). The LWMP process is mandated by the Province of British Columbia and designed to ensure an integrated and local approach to informed liquid waste management decisions is followed.

The purpose of this report is to document the performance of the WWTPs during the previous year in regards to effluent quality and in meeting the regulatory requirements as specified by the Ministry of Environment. Most of the laboratory analytical services and data analyses upon which this report is based were provided by the Quality Control Division of the Operations and Maintenance Department. Other programs and projects discussed in this report are in support of ongoing commitments under the LWMP.

Outlined below is an overview of the information collected as a result of Quality Control’s monitoring programs for the wastewater treatment plants, including monitoring for effluent toxicity, biosolids, and receiving environment quality.
1.0 Wastewater Treatment Plants

Operational Certificates
In addition to establishing limits for sewage quality parameters, the Operational Certificates (OC) issued April 23, 2004 by the Ministry of Environment under the provisions of the Waste Management Act include daily compliance levels for flow and daily loadings for BOD (or cBOD, where applicable) and suspended solids. The loadings parameters listed as “maximum daily loadings” are used to calculate the annual waste discharge fees as required by the Waste Management Waste Permit Fee regulation and are based on a calendar year.

Additional requirements are listed for disinfection of the effluent at all WWTPs (except Iona Island) so that fecal coliform water quality objectives are not exceeded at the edge of the initial dilution zone as described in the Municipal Sewage Regulation. Where chlorine is used, the final residual before discharge to the receiving water must be less than 0.1 mg/L.

In 2008, over 436 billion litres of wastewater were treated at the GVS&DD’s five wastewater treatment plants. Of this total, 231 billion litres received primary treatment (Iona Island and Lions Gate) with the remaining 205 billion litres treated at the three secondary wastewater plants (Annacis Island, Lulu Island and Northwest Langley). Individual treated effluent flows for each wastewater treatment plant and quantities of BOD and suspended solids removed in 2008 are summarized as follows:

<table>
<thead>
<tr>
<th>Total for 2008</th>
<th>ANNACIS</th>
<th>IONA</th>
<th>LIONS GATE</th>
<th>LULU</th>
<th>NWL</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effluent Flow, ML</td>
<td>173,756</td>
<td>197,979</td>
<td>32,991</td>
<td>27,157</td>
<td>4,023</td>
<td>435,905</td>
</tr>
<tr>
<td>BOD, Tonnes Removed</td>
<td>30,020</td>
<td>8,451</td>
<td>1,896</td>
<td>6,049</td>
<td>1,130</td>
<td>47,547</td>
</tr>
<tr>
<td>Susp. Solids, Tonnes Removed</td>
<td>26146</td>
<td>13367</td>
<td>3436</td>
<td>6114</td>
<td>766</td>
<td>49830</td>
</tr>
</tbody>
</table>

Total wastewater flows, and influent/effluent loadings for BOD and suspended solids over a ten year period are shown on the following charts.
Treatment Plant Performance and Compliance Review

In general, the overall performance of the GVS&DD’s five wastewater treatment plants (WWTPs) was good and operational objectives for removing biochemical oxygen demand (BOD) and total suspended solids were met throughout 2008 with a few exceptions. High flows at Iona Island plant contributed to slightly lower reductions of suspended solids. The following table summarizes the reduction in BOD and total suspended solids loadings during 2008 for all the plants.
<table>
<thead>
<tr>
<th>Wastewater Treatment Plant</th>
<th>% BOD Reduction</th>
<th>% TSS Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iona Island*</td>
<td>31</td>
<td>54</td>
</tr>
<tr>
<td>Lions Gate*</td>
<td>38</td>
<td>63</td>
</tr>
<tr>
<td>Annacis Island**</td>
<td>95</td>
<td>90</td>
</tr>
<tr>
<td>Lulu Island**</td>
<td>98</td>
<td>98</td>
</tr>
<tr>
<td>Northwest Langley**</td>
<td>96</td>
<td>91</td>
</tr>
</tbody>
</table>

* Reduction for primary plants expected to be 30% for BOD and 60% for TSS.

** Reduction for Secondary Plants expected to be 90% for both TSS and BOD.

In 2008, GVS&DD’s WWTPs met compliance requirements throughout the year with 18 exceptions. Daily suspended solids loadings were exceeded once at Iona Island WWTP, three times at Annacis Island WWTP and once at Northwest Langley WWTP. Daily BOD/cBOD loadings were exceeded once for Iona Island WWTP and once for Annacis Island WWTP. Suspended solids concentrations were above the compliance limits twice for Annacis Island WWTP and once for Northwest Langley WWTP.

BOD and suspended solids loadings and concentrations exceedances involving Annacis Island WWTP and Iona Island WWTP were due to extremely high flows in January and December. Suspended solids concentration and loading for Northwest Langley WWTP were above the compliance limits in September because of reduced clarifier capacity.

BOD concentrations were over the permitted limits four times for Lions Gate WWTP. High effluent BOD concentrations in May and September were due to high influent organic loading while the other two occasions in July were due to significant generation of soluble BOD across the plant during a long period of dry weather.

There were four instances of disinfection failures, one at Lulu Island WWTP on October 27, one at Northwest Langley WWTP on August 6 and two at Lions Gate WWTP on April 29 and July 12. These were primarily due to short-term disinfection system equipment failures.

A summary of non-compliance with the parameters required by the Operational Certificates and with the previous permits for the District’s wastewater treatment plants is shown in the tables below.

**Iona Island WWTP  Operational Certificate ME 00023 - April 23, 2004**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Daily Discharge (exceeded)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Biochemical Oxygen Demand (BOD)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Suspended Solids</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>0</td>
</tr>
<tr>
<td>BOD Daily Loading</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Suspended Solids Daily Loading</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
### Lions Gate WWTP  Operational Certificate ME 00030 – April 23, 2004

<table>
<thead>
<tr>
<th>Parameter</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Daily Discharge (exceeded)</td>
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<td>0</td>
<td>0</td>
<td>0</td>
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<td>Max. Flow Rate (exceeded)</td>
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<td>n/a</td>
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<td>n/a</td>
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<tr>
<td>Biochemical Oxygen Demand (BOD)</td>
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<td>0</td>
<td>1 (of 101)</td>
<td>0</td>
<td>0</td>
<td>4 (of 106)</td>
</tr>
<tr>
<td>Suspended Solids</td>
<td>0</td>
<td>0</td>
<td>1 (of 361)</td>
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</tr>
<tr>
<td>BOD Daily Loading</td>
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<td>1 (of 101)</td>
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<td>0</td>
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<tr>
<td>Suspended Solids Daily Loading</td>
<td>0</td>
<td>0</td>
<td>1 (of 361)</td>
<td>0</td>
<td>1 (of 363)</td>
<td>0</td>
</tr>
<tr>
<td>Chlorine Residual*</td>
<td>9 (of 118)</td>
<td>4 (of 180)</td>
<td>1 (of 166)</td>
<td>0</td>
<td>6 (of 157)</td>
<td>2 (of 170)</td>
</tr>
</tbody>
</table>

* measured during disinfection season only - after dechlorination. The chlorine residual must be reduced below the detection limit (0.1 mg/L).

### Annacis Island WWTP  Operational Certificate ME 00387 – April 23, 2004

<table>
<thead>
<tr>
<th>Parameter</th>
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<th>2005</th>
<th>2006</th>
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<tbody>
<tr>
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<td>0</td>
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<td>1 (of 364)</td>
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<td>BOD Daily Loading</td>
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<td>1 (of 105)</td>
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<tr>
<td>Suspended Solids Daily Loading</td>
<td>0</td>
<td>0</td>
<td>1 (of 358)</td>
<td>5 (of 365)</td>
<td>7 (of 364)</td>
<td>3 (of 360)</td>
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<tr>
<td>Chlorine Residual*</td>
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<td>0</td>
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</tbody>
</table>

* measured during disinfection season only - after dechlorination. The chlorine residual must be reduced below the detection limit (0.1 mg/L).

### Lulu Island WWTP  Operational Certificate ME 00233 – April 23, 2004

<table>
<thead>
<tr>
<th>Parameter</th>
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<th>2007</th>
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<tr>
<td>Biochemical Oxygen Demand (BOD)</td>
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<td>0</td>
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<td>0</td>
</tr>
<tr>
<td>Suspended Solids</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>BOD Daily Loading</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Suspended Solids Daily Loading</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Chlorine Residual</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1 (of 222)</td>
</tr>
</tbody>
</table>

* measured during disinfection season only - after dechlorination. The chlorine residual must be reduced below the detection limit (0.1 mg/L).

### Northwest Langley WWTP  Operational Certificate ME 04339 – April 23, 2004

<table>
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* measured during disinfection season only - after dechlorination. The chlorine residual must be reduced below the detection limit (0.1 mg/L).
Comparison with CEPA Requirements

CEPA Notices
On December 4, 2004 Environment Canada published two notices in the Canada Gazette specific to the preparation of pollution prevention plans for chlorinated municipal effluents and a guideline for the release of ammonia dissolved in water. These notices were published as required in accordance with the Canadian Environmental Protection Act (CEPA).

Chlorinated Effluents
If the discharge is greater than 5,000 cubic metres per day and the total residual chlorine is greater than 0.02 mg/L it will be necessary to develop a formal pollution prevention plan in accordance with the notice. Pollution prevention plans for the GVS&DD wastewater treatment plants are not triggered by this notice because a de-chlorination chemical is utilized at all plants that use chlorine to disinfect the effluent. The de-chlorination process ensures, by maintaining an excess of de-chlorinating agent that total residual chlorine does not exceed the standard set in the notice.

Ammonia
The guideline for ammonia¹ is based on acute and chronic considerations for ammonia. For acute end-of-pipe toxicity a threshold toxicity curve is provided. The pH of the water is a factor in the ammonia toxicity, and the curve takes this into account. Frequency of the GVS&DD monitoring programs (paired analyses for pH and ammonia) in final effluent was increased to a weekly basis at each WWTP plant in early 2005 to meet the requirements of the guideline. Effluent quality data for 2008 for each of the five GVS&DD wastewater treatment plants was compared to the curve and the results are shown in the figure below. The guideline requirement, that the concentration of ammonia in the effluent should not be acutely toxic, was met at all five wastewater treatment plants in 2008 as shown in the following chart.

For chronic toxicity the guideline refers to the concentration of unionized ammonia in the aquatic environment, which should not exceed 0.019 mg/L. Previous studies conducted by the GVS&DD in the vicinity of the wastewater discharges in the Fraser River have shown that the water quality objective for unionized ammonia was met.

2.0  Effluent Toxicity Monitoring

Operational Certificates for the GVS&DD wastewater treatment include the following requirements for monitoring effluent toxicity:

*If the monthly bioassay test fails, the operational certificate holder will conduct a Toxicity Identification Evaluation (TIE) study for the purpose of determining the probable cause of the failure. The results of the failed monthly test and TIE study will be submitted to the Regional Waste Manager by the end of the month following the month that the bioassay test occurred.*

Environment Canada’s standard test method\(^2\) for determining acute lethality of effluents to Rainbow trout exposes test fish to a series of effluent dilutions, and determines the fish survival rate at the end of a 96-h exposure period. The final result is reported as the 96-h LC\(_{50}\) value, which is the % by volume (of the original sample) at which 50% of the test fish survive. A “pass” or non-toxic result for all sewage effluents requires that the LC\(_{50}\) value must be equal to or greater than 100% (v/v sample). This means that 50% or more of the test fish must survive for 96 hours in the original undiluted sample.

In 2008, Environment Canada published an add-on test procedure\(^3\) for pH stabilization during the testing of acute lethality. The purpose of pH stabilization is to replace the CO\(_2\) lost due to aeration in order to maintain the pH throughout the test at the same levels observed at the start of the test. This add-on procedure recognizes that toxicity observed in municipal wastewater effluents may be an artifact of the test protocol; aeration may cause the pH to rise because of loss of CO\(_2\), and this change can alter the toxicity of ammonia in the wastewater effluent sample.

So concurrently with the regular test, a second test is conducted using an add-on test procedure for pH stabilization during the testing of toxicity. Other tests are also run in parallel with the regular test to determine the probable causes of toxicity whenever results are less than 100%.

**Toxicity Results and Evaluations**

As discussed above and as required by the Liquid Waste Management Plan, all regular LC\(_{50}\) results for effluent samples from GVS&DD WWTPs are followed up with work to explain the cause of results of less than 100%. Outlined below is a summary of effluent toxicity results and evaluations for 2008.

**Secondary Treatment Plants (Annacis Island, Lulu Island and NW Langley)**

All effluent samples from the Annacis Island, Lulu Island and NW Langley WWTPs passed the required monthly toxicity test using Environment Canada’s standard test (25 cases) and/or modified test (11 cases) with the add-on pH stabilization procedure. Effluent ammonia concentrations were below the Environment Canada guideline curve for threshold acute toxicity.

**Primary Treatment Plants (Iona Island and Lions Gate)**

**Iona Island WWTP:** Studies conducted by the GVS&DD showed that fish mortality was largely due to oxygen depletion in Iona effluent. This was a result of the high dissolved-oxygen demand resulting from an active microbial population in the non-disinfected effluent. Ongoing studies using aeration supplemented with pure oxygen obtained higher initial dissolved-oxygen levels resulting in marked improvements in fish survival during the test. Other studies and ongoing monitoring by the GVS&DD showed that the high initial dilution of the Iona effluent in the marine environment will maintain dissolved oxygen at an acceptable concentration for the protection of aquatic life.

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SDD-56
In 2008, all but four effluent samples from the Iona Plant passed the required monthly toxicity test using Environment Canada’s standard test (7 cases) and/or modified test (1 case) with the add-on pH stabilization procedure. In order for the four samples to pass, more oxygen had to be added to these samples than is allowed by the technical specifications of the Environment Canada procedures. Effluent ammonia concentrations were below the Environment Canada guideline curve for threshold acute toxicity.

**Lions Gate WWTP:** All effluent samples from the Lions Gate Plant passed the required monthly toxicity test using Environment Canada’s standard test (9 cases) and/or modified test (3 cases) with the add-on pH stabilization procedure. Effluent ammonia concentrations were below the Environment Canada guideline curve for threshold acute toxicity.

Unlike previous years there were no occurrences of effluent toxicity related to surfactants (constituents of detergents and cleansing agents) at the Lions Gate Plant. This would suggest that a public education campaign to encourage North Shore residents to use less laundry detergents has begun to reduce the level of surfactants incoming to the Plant.

### 3.0 Biosolids Monitoring Program

**Process Requirements and Quality Assurance/Quality Control Procedures**

The Organic Matter Recycling Regulation (OMRR) governs the management of biosolids and compost as soil amendments in the Province of British Columbia. Under this regulation, sampling frequencies and criteria values for fecal coliforms and metals as specified for Class A and Class B biosolids are based on several parameters including: type of treatment process (pathogen reduction requirements, vector attraction reduction), the amount of dry solids produced on a monthly basis and the intended use of the material.

Thermophilic digesters at the Annacis Island WWTP consistently meet requirements for pathogen reduction and vector attraction reduction to produce a Class A quality biosolids suitable for recycling to land. The Lulu Island WWTP digesters are operated at mesophilic temperatures, producing Class B biosolids, also suitable for recycling to land. The Lions Gate WWTP provides thermophilic digestion achieving Class B biosolids quality.

The Iona Island WWTP operates mesophilic digesters which produce digested sludge complying with Class B pathogen levels. The Northwest Langley WWTP operates aerobic digesters that provide Class B biosolids. At both the Iona Island and Northwest Langley WWTPs, discharges from the digesters are further processed via lagoon stabilization and land-drying to produce a Class B biosolids product with soil-like consistency. These biosolids are currently stockpiled on site with anticipated use in future recycling projects.

**Biosolids Quality**

In 2008, the results of the testing programs, (grab samples for fecal coliform analyses and weekly composite samples for metals), showed that metals concentrations and fecal coliform counts for biosolids were generally well below the criteria value limits specified by OMRR, with one exception. At the Northwest Langley WWTP, elevated levels of nickel were detected in the raw sludge and biosolids weekly composites in November.

The GVS&DD’s monitoring program and contingency procedures ensured that any sub-class biosolids were identified, tracked and managed appropriately.
4.0 Receiving Environment Monitoring

Receiving environment monitoring is carried out as a commitment in Metro Vancouver’s Liquid Waste Management Plan, which is mandated by the Province of British Columbia. A key component of the Plan involves monitoring, assessment and forecasting to evaluate the effects of wastewater discharges into the receiving environment, such as wastewater treatment plant effluents, combined sewer overflows and stormwater.

Monitoring determines if the wastewater discharges are contributing to exceedances of water quality objectives. As well, the monitoring results are inputted into a framework for environmental cautions, warnings and triggers. This framework forms the basis of a process for indicating ecological changes prior to adverse environmental impacts occurring due to Metro Vancouver’s liquid waste discharges to the receiving environment.

The monitoring programs are guided and reviewed by the Environmental Monitoring Committee, a technical advisory committee to Metro Vancouver under the Liquid Waste Management Plan. Programs have been developed to monitor Metro Vancouver liquid-waste discharges to a number of significant ecosystems, including parts of the Lower Fraser River, Strait of Georgia and Burrard Inlet. Environmental monitoring carried out in 2008 indicated the following:

- In 2008 the bacteriological water quality guideline was met for all primary-contact recreational waters in Metro Vancouver during the summer season. False Creek is not classified as a primary-contact recreational water body. Therefore a working guideline for secondary-contact recreation was used to determine its water quality: East False Creek did not meet the working guideline and was posted for a period of about 26 days in June and July, whereas both Central and West False Creek did meet it throughout the summer. The elevated counts in East False Creek were due to discharges mainly associated with construction-related activities on sewerage infrastructure.

- There were four other isolated incidences that required extra sampling and posting at some of the recreational-water areas due to sewage spills in 2008. Three sanitary sewage overflows occurred in Port Moody Arm that affected Old Orchard Park, and there was one sewage bypass from the Annacis Plant that influenced water quality at Gary Point and Iona Beach. The primary causes of the sewage spills were due to power failures and an equipment failure of a critical electrical power supply.

- A monitoring program is undertaken for the three secondary plants on the Fraser River. No exceedances of the water quality objectives were attributable to the Annacis Plant discharge, which accounts for approximately 85% of the total secondary-plant discharges into the river. Water quality monitoring is not recommended at the two smaller plants, Lulu Island and Northwest Langley, because of the transient nature of their effluent plumes and the difficulty in positively locating the plumes. Therefore, modeled values were used for these two plants which also indicated that the objectives were met. This approach is consistent with the approved monitoring program for the secondary plants where the primary focus of monitoring is at the Annacis Plant.

- Monitoring of the two primary wastewater treatment plant outfalls in the marine environment indicated some potential effects of the outfalls. These effects are not environmentally significant. The receiving environment around the Iona outfall has been stable since the commencement of annual monitoring of organisms in 2000. Similar findings were also observed in the Lions Gate outfall area. Unlike Iona, however, the Lions Gate discharges to an embayed area, Burrard Inlet.
To: Board of Directors

From: Marvin Hunt
Chair, Sustainability Academy Sub-Committee

Date: July 17, 2009

Subject: Annacis Academy – Detailed Design

Recommendation:

That the Board endorse the Sustainability Academy Sub-Committee’s recommendation to proceed to detailed design for the Annacis Academy in anticipation of securing Federal/Provincial Building Canada funding.

At its June 23, 2009 meeting, the Sustainability Academy Sub-Committee considered the attached report dated June 15, 2009, titled “Annacis Academy - Detailed Design” (Attachment 1). The Sustainability Academy Sub-Committee recommended to the Intergovernmental Committee that staff proceed to detailed design for the Annacis Academy.

This recommendation has been forwarded to the GVS&DD Board for consideration given that the July Intergovernmental Committee meeting has been canceled.

Attachments:

2. Annacis Academy Prospectus

(004952715)
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To: Sustainability Academy Sub-Committee

From: Laurie Fretz, Sustainability Academies Division Manager, Corporate Relations
      Cristina Jacob, Management Systems Division Manager, O&M

Date: June 15, 2009

Subject: Annacis Academy - Detailed Design

Recommendation:

That the Sustainability Academy Sub-Committee recommend to the Intergovernmental Committee that staff proceed to detailed design for the Annacis Academy in anticipation of securing Federal/Provincial Building Canada funding.

1. PURPOSE

To update the Sustainability Academy Sub-Committee on the status of the Annacis Academy and obtain direction to proceed to the detailed-design phase.

2. CONTEXT

The Annacis Academy is one of several Sustainability Academies being pursued by Metro Vancouver. Consistent with Metro Vancouver's efforts to build a sustainable region, the Academy concept combines the needs for research and innovation with education, training, visitor services, and community outreach.

The idea for an Annacis facility emerged from discussions between Metro Vancouver and UBC’s Environmental Engineering Group. It focused on the opportunity to work in partnership on leading-edge research on wastewater and providing a new research plant location for UBC students and researchers. From Metro Vancouver’s perspective, a research facility at one of the wastewater treatment plants will provide Metro Vancouver with the opportunity to conduct research on its own wastewater streams for process optimization, new technology validation and achieving new and emerging performance requirements for wastewater utilities.

The project, a Wastewater Research Centre at one of the MV wastewater treatment plants, was first presented to the Board in November 2006 and staff was directed to continue work on it and refine its elements. Over time, with the evolution of other proposals for research/education facilities, and the solidification of Metro Vancouver’s Sustainability Academy strategic framework, the original proposal for a Wastewater Research Centre has become the Annacis Academy.

UBC, the original Metro Vancouver partner for the facility, commissioned a feasibility study in 2007 that determined its best location and a capital cost of $9 Million. The Annacis Academy is proposed to be built on available land within the Annacis Wastewater Treatment Plant property. The facility conceptualized in the 2007 feasibility study comprises a 2-storey research hall, equipment storage area, a laboratory, washrooms, mechanical/electrical,
office space, classrooms and a lecture theatre. An elaborate and extensive network of piping bringing waste streams from the plant into the research hall is also included.

Funding for the facility, from the start, was seen as a contribution of various partners. In 2008, UBC committed up to $1 million (subject to their approval process), and in 2009 Metro Vancouver made provisions of funds in its 2009-2019 Long Range Capital Plan. Discussions of the proposed facility with outside funding agencies have been promising but at present there is no formal firm commitment.

The most recent and promising initiative is Metro Vancouver’s funding application to the Provincial government (Building Canada Plan) for a cluster of shovel-ready projects at the Annacis Wastewater Treatment plant that includes the $9 Million Annacis Academy. Under this application, Metro Vancouver is seeking $3.3 million from each of the provincial and federal governments towards the Annacis Academy (The prospectus for that application can be found as Attachment 4 in the report titled “Metro Vancouver Sustainability Academy Sub-Committee – Terms of Reference and 2009 Work Program”).

3. ALTERNATIVES

a) Proceed with detailed design of the Annacis Academy in anticipation of securing federal/provincial funding.

b) Proceed to detailed design of the Annacis Academy conditional on receiving formal notification of funding from the provincial and federal governments.

Staff recommends alternative (a). This alternative moves us one step further towards completion of the project and indicates Metro Vancouver’s strong commitment towards the project to the other funding partners. Detailed design takes months to complete and the application for senior government funding has been made on the basis that this project being ‘shovel ready’ if and when the funds are allocated. The current economic conditions work in our favour with respect to availability of engineering services.

4. CONCLUSION

The Annacis Academy is one of the Sustainability Academies that Metro Vancouver is engaged in developing. The Annacis Academy is part of a current funding application to the provincial government that could result in cost co-sharing with the provincial and federal governments. Staff recommends proceeding to detailed design in anticipation of receiving the funding commitments and to ensure we are “shovel ready”.

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Prospectus

Annacis Island Wasterwater Treatment Plant
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ANNACIS ISLAND WASTEWATER TREATMENT PLANT UPGRADES

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ANNACIS ACADEMY/CENTRE OF EXCELLENCE

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Reclaimed water facility at the Annacis Island Wastewater Treatment Plant.
Background - Annacis Island Wastewater Treatment Plant Upgrades

Every day in Metro Vancouver, residents and businesses produce approximately one billion litres of wastewater – or liquid waste – simply by carrying out daily activities. The management of that wastewater directly affects the regional environment and ultimately, the sustainability and liveability of the region.

Metro Vancouver is mandated under provincial legislation to manage the region’s wastewater, and as such, is currently updating its 2001 Liquid Waste Management Plan (LWMP), which guides liquid waste programs and services in the region. The LWMP update focuses on two goals: protecting public health and the environment; and managing liquid wastes affordably and effectively.

A key component of Metro Vancouver’s wastewater management capacity and the LWMP is the Annacis Island Wastewater Treatment Plant (WWTP), which is Metro Vancouver’s largest WWTP and provides secondary treatment to wastewater from approximately 1,000,000 people in parts of Burnaby, New Westminster, Port Moody, Port Coquitlam, Coquitlam, Pitt Meadows, Maple Ridge, Surrey, Delta, White Rock, City of Langley and Township of Langley.

The Annacis Island WWTP releases treated water into the Fraser River, which is a vital ecosystem and Canada’s most important salmon habitat; because of this, Metro Vancouver is keenly aware of its duty to minimize the environmental impact of its Annacis facility. Metro Vancouver has identified a number of upgrades and energy efficient improvements for the Annacis Island WWTP that once completed, will deliver a number of important operational and environmental benefits to the plant and the region overall.
Metro Vancouver staff at a 2005 safety training exercise.
Project Details

The Annacis Island Wastewater Treatment Plant Upgrades Project comprises several key components, each of which will have a direct positive impact on renewable energy production/utilization, safety and environmental protection, resource recovery or energy efficiency.

These components comprise the following:

- **Co-digestion pilot plant**: The installation of a co-digestion pilot plant that will allow trucked liquid waste, brown grease, FOG and potentially food waste to be fed directly into the WWTP’s existing digesters. This new system will mitigate the risk of digester upset, generate more green energy, optimize plant operations and reduce dependency on landfills for waste disposal.
- **Disinfection system**: The replacement of the current gaseous chlorine and sulphur disinfection system with a liquid process will enhance safety and provide improved environmental protection.
- **Biofilters replacement**: The biofilter medium must be regularly replaced to maintain optimal system performance, reduce odours and alleviate public concerns about plant odours.
- **Reclaimed water upgrade**: The design of a membrane technology-based supplemental water reclamation system will increase the volume of reclaimed water that can be used at the treatment plant, and decrease the amount of treated effluent that is discharged into the Fraser River.
- **Cogeneration systems upgrade**: The original cogeneration engines and heat exchanger have reached the end of their useful lives and need replacing.
- **Digestion system upgrade/maintenance**: Replacement of several components of the digester will return the units to design capacity for both digestion and biogas production.
- **Grit tanks/primary thickeners repair**: Maintenance on the tanks and thickeners will repair severe deterioration that has occurred due to exposure to corrosive gases.
- **Solid contact tank bubble diffusers installation**: Installation of new diffusers will improve energy efficiency.
Project Costs

Total capital costs for the various components of the Annacis Island Wastewater Treatment Plant upgrades are $21.5 million. This total includes the following:

- Co-digestion pilot plant: $3.5 million
- Disinfection system: $13 million
- Biofilters replacement: $670,000
- Reclaimed water upgrade: $480,000
- Cogeneration system upgrades: $900,000
- Digestion system upgrade/maintenance: $1 million
- Grit tanks/primary thickeners repair: $1.75 million
- Solid Contact Tank Bubble Diffusers installation: $200,000

Proposed Funding Sources
Metro Vancouver is proposing equal cost-sharing for the capital expenditures associated with the Annacis Island Wastewater Treatment Plant Upgrades Project, to be shared between Metro Vancouver, the Province of British Columbia and the Government of Canada.

Metro Vancouver is therefore seeking $7.17 million in project support from each of the provincial and federal governments.

Current Status
The various components of the Annacis Island Wastewater Treatment Plant Upgrades Project are at different stages of completion, as follows:

- Co-digestion pilot plant: Consultant’s pre-design has been completed, and detailed design has been initiated; construction could be started by end of 2009, and completed by late 2010/early 2011.
- Disinfection system: Site pre-loading and detailed design are almost complete, and construction is slated for completion by late 2010.
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- Solid Contact Tank Bubble Diffusers installation: Maintenance work is scheduled for 2009-2010, with a target completion of late 2010.
Estimated Employment Impacts
Metro Vancouver has utilized the Province of British Columbia's Input-Output Model (Ministry of Management Services, 2004) to calculate the following employment impacts of the Annacis Island Wastewater Treatment Plant Upgrades Project:

For project construction, 158 person-years of direct employment will be generated, along with 85 person-years of indirect employment and 38 years of induced employment.

Total employment impacts: 281 person-years of employment.

Empty Solid Contact Tank at the Annacis Island WWTP.
Artist rendition of the proposed Annacis Academy.
Background - Annacis Academy / Centre of Excellence

Wastewater treatment and management are issues of paramount importance to the health and wellbeing of our communities. The combination of increasing populations and aging sewage infrastructure has put increased pressure on governments to develop new technologies to reduce the negative environmental impacts of wastewater discharge on natural water systems.

The vision for Metro Vancouver’s Annacis Academy was borne of discussions with the University of British Columbia regarding an opportunity to partner on leading-edge research on wastewater. That vision centres on a place of excellence in wastewater research and development, training and education - a place that challenges us to think in new ways in managing and treating wastewater, promoting energy reduction and mitigating environmental impacts.

UBC’s current wastewater research pilot plant, located on the university’s south campus, has made many significant contributions to wastewater treatment and overall water quality research both locally and internationally. The current plant, however, is too small to contain the growing needs of the research now taking place and a new location is being sought. This proposed new facility will be located at Metro Vancouver’s existing Annacis Island Wastewater Treatment Plant - Metro Vancouver’s largest treatment plant – which provides secondary treatment to wastewater from a total population of 1,000,000 in parts of Burnaby, New Westminster, Port Moody, Port Coquitlam, Coquitlam, Pitt Meadows, Maple Ridge, Surrey, Delta, White Rock, City of Langley and Township of Langley.

Metro Vancouver has identified a number of upgrades and energy efficient improvements for the Annacis Island WWTP that once completed, will deliver a number of important operational and environmental benefits to the plant and the region overall. The proposed Annacis Academy will complement these upgrades and provide a long-term benefit for British Columbians by enabling partners from various agencies and organizations to respond to the multiple challenges related to energy use, water, materials, environment, sustainability and integration of wastewater systems.
The proposed Annacis Wastewater Treatment Academy would provide a leading edge, locally-based research centre that could conduct required research and new technology trials that in turn could be quickly transferred to municipal utilities in BC in an efficient and cost effective manner.

The Annacis Academy will provide the opportunity to conduct research and technology development in a variety of cross-disciplinary areas including:

- Waste-to-energy
- Nutrient removal
- Process optimization
- Odour control
- Greenhouse gas reduction
- Integrated resource management
- Contaminant removal
- Bioremediation

The Academy would provide access and services to a larger expanding green technology research and development market sector, helping create employment and establish key markets for Canadian technologies.

In addition, the Annacis Academy represents an outstanding opportunity to verify one of the most promising new opportunities in waste management: the application of Integrated Resource Management, or IRM, which extracts incremental value from the management of wastewater and solid waste treatment by integrating the use of recovered resources.

The development of the Annacis Academy will allow the integration of IRM principles into its design and construction, and will offer quality opportunities for research, including:

- Assessment of the co-digestion of organic streams from municipal solid waste, industry and agriculture activities to maximize energy recovery and biofuel production
- Evaluation of building technologies and materials to improve energy and water utilization
- Measurement of equipment performance against IRM principles and specified operational criteria
- Assessment of the GHG reduction potential of alternate energy sources (food waste, industrial and municipal liquid and solid wastes, wood, wind, solar)
Prospectus

Annacis Island Wastewater Treatment Plant
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Artist rendition of the proposed Annacis Academy.
Background - Annacis Academy / Centre of Excellence

Wastewater treatment and management are issues of paramount importance to the health and wellbeing of our communities. The combination of increasing populations and aging sewage infrastructure has put increased pressure on governments to develop new technologies to reduce the negative environmental impacts of wastewater discharge on natural water systems.

The vision for Metro Vancouver’s Annacis Academy was borne of discussions with the University of British Columbia regarding an opportunity to partner on leading-edge research on wastewater. That vision centres on a place of excellence in wastewater research and development, training and education - a place that challenges us to think in new ways in managing and treating wastewater, promoting energy reduction and mitigating environmental impacts.

UBC’s current wastewater research pilot plant, located on the university’s south campus, has made many significant contributions to wastewater treatment and overall water quality research both locally and internationally. The current plant, however, is too small to contain the growing needs of the research now taking place and a new location is being sought. This proposed new facility will be located at Metro Vancouver’s existing Annacis Island Wastewater Treatment Plant - Metro Vancouver’s largest treatment plant – which provides secondary treatment to wastewater from a total population of 1,000,000 in parts of Burnaby, New Westminster, Port Moody, Port Coquitlam, Coquitlam, Pitt Meadows, Maple Ridge, Surrey, Delta, White Rock, City of Langley and Township of Langley.

Metro Vancouver has identified a number of upgrades and energy efficient improvements for the Annacis Island WWTP that once completed, will deliver a number of important operational and environmental benefits to the plant and the region overall. The proposed Annacis Academy will complement these upgrades and provide a long-term benefit for British Columbians by enabling partners from various agencies and organizations to respond to the multiple challenges related to energy use, water, materials, environment, sustainability and integration of wastewater systems.
The proposed Annacis Wastewater Treatment Academy would provide a leading edge, locally-based research centre that could conduct required research and new technology trials that in turn could be quickly transferred to municipal utilities in BC in an efficient and cost effective manner.

The Annacis Academy will provide the opportunity to conduct research and technology development in a variety of cross-disciplinary areas including:

- Waste-to-energy
- Nutrient removal
- Process optimization
- Odour control
- Greenhouse gas reduction
- Integrated resource management
- Contaminant removal
- Bioremediation

The Academy would provide access and services to a larger expanding green technology research and development market sector, helping create employment and establish key markets for Canadian technologies.

In addition, the Annacis Academy represents an outstanding opportunity to verify one of the most promising new opportunities in waste management: the application of Integrated Resource Management, or IRM, which extracts incremental value from the management of wastewater and solid waste treatment by integrating the use of recovered resources.

The development of the Annacis Academy will allow the integration of IRM principles into its design and construction, and will offer quality opportunities for research, including:

- Assessment of the co-digestion of organic streams from municipal solid waste, industry and agriculture activities to maximize energy recovery and bio fuel production
- Evaluation of building technologies and materials to improve energy and water utilization
- Measurement of equipment performance against IRM principles and specified operational criteria
- Assessment of the GHG reduction potential of alternate energy sources (food waste, industrial and municipal liquid and solid wastes, wood, wind, solar)
The proposed Annacis Academy will provide top-quality laboratory facilities for research and teaching, access to various in-plant wastewater streams for manufacturers and suppliers of equipment to demonstrate processes, and pilot facilities for optimizing full scale processes. In addition, the Academy will contain assembly meeting rooms providing space for public discourse and education and other professional services, and training facilities for Canadians, enabling them to advance professionally, upgrade their skills or retrain to meet growing provincial demands.

The development of the Academy would incorporate LEED (Leadership in Energy and Environmental Design) certification standards into its building design to meet provincial government standards, which would include energy and water saving systems, low emitting products, natural lighting, advanced recycling and waste collection. In addition, Metro Vancouver would apply its Sustainable Procurement Policy in both the construction and ongoing management of the Academy.
Project Costs

Construction of the Annacis Academy facility would total approximately $9 million, of which $1 million has been committed by UBC and $1.4 million Metro Vancouver. Metro Vancouver has also agreed to provide the land for the facility, which has been appraised at $1 million. Annual operating costs for the Academy would total approximately $800,000, which Metro Vancouver has agreed to assume.

Preliminary revenue projections for the Annacis Wastewater Research Academy conservatively estimate gross annual income of $700,000, comprising of research grants ($300,000), rental of research space ($100,000), hosting conferences and workshops ($100,000) and management and advisory services ($200,000). It is expected that revenue potential will grow over time as the Academy’s research capabilities become more widely known in the scientific community.

Proposed Funding Sources
UBC has committed up to $1 million and Metro Vancouver $1.4 million towards the development of the Annacis Academy. Metro Vancouver is proposing equal cost-sharing for the capital expenditures associated with the Academy, to be shared between Metro Vancouver, the Province of British Columbia and the Government of Canada.

Metro Vancouver is therefore seeking $3.3 million in project support from each of the provincial and federal governments.

Current Status
A Feasibility Study has been completed including assessment of site selection, functional programming, space needs, building design concepts and capital costs.

A formal agreement between UBC and Metro Vancouver to develop the Annacis Wastewater Research Academy is expected to be finalized in the spring of 2009, simultaneous to securing all capital funding for the project. Detailed designs for the Academy would be completed in the summer of 2009, and construction would commence in the fall. The Academy would be completed by 2010.
**Estimated Employment Impacts**

Metro Vancouver has utilized the Province of British Columbia’s Input-Output Model (Ministry of Management Services, 2004) to calculate the following employment impacts of the Annacis Academy.

For project construction, 70 person-years of direct employment will be generated, along with 38 person-years of indirect employment and 17 years of induced employment.

For Academy operation, 27 person-years of direct employment will be generated, along with 3 person-years of indirect employment and 2 years of induced employment.

Total employment impacts: 97 person-years of direct employment, 41 person-years of indirect and 19 person-years of induced employment.

In addition, the potential for employment expansion and private sector growth in the areas of R&D, operator training and education is significant.
To: Board of Directors

From: Ken Stephens, Supervisor Property Division

Date: July 16, 2009

Subject: Update on Settlement of Property Tax Arrears and Permits within Musqueam Indian Reserve

Recommendation:

That the Board receive the report titled “Update on Settlement of Property Tax Arrears and Permits within Musqueam Indian Reserve” dated July 16, 2009, for information.

1. PURPOSE

To present the Board with an update on the settlement of property tax arrears and permits for the North Arm and Highbury Interceptors located in the Musqueam Indian Reserve.

2. CONTEXT

The Highbury and North Arm Interceptors provide sewer service to a population in excess of 650,000 located in the University Endowment Lands, City of Vancouver, City of Burnaby and Musqueam Indian Reserve. The Highbury Interceptor terminates at the Iona Waste Water Treatment Plant.

The portion of the Highbury Interceptor located in the Musqueam Indian Reserve is about 3,000 feet long. It is a 12 foot diameter, reinforced concrete pipe built in 1961 and occupies a permit area of about 2.5 acres that severs the Musqueam Indian Reserve. The portion of the North Arm Interceptor located in the reserve is about 420 feet long. It is a 12 foot by 8 foot concrete pipe built in 1966-67.

Both of these facilities were built within permit areas granted by Canada on behalf of the Musqueam (the ‘GVS&DD Permits’). The compensation paid for these permits was insignificant based on current standards.

In early 1991, Canada approved the Musqueam Indian Band Property Taxation and Assessment Bylaw which allows Musqueam taxation rights over all lands within their reserve. Musqueam commenced assessing and taxing the GVS&DD Permits in 1991. The annual taxes ranged between $36,000 and $45,000 per annum.

GVS&DD took the position that it should be treated on Indian Reserves in the same way it is treated in neighbouring communities where it is exempt from the payment of property taxes for its works in Statutory Rights-of-Way. Based on this position, GVS&DD did not pay the property taxes and arrears accumulated.
Efforts to settle this included the Band agreeing to hold collection proceedings in abeyance. In 2000, the solicitor for the Assessor set the matter down for hearing. In 2002, the Assessor concluded that he could not decide the issue of exemption and confirmed the valuation of the permit and works agreed upon by the parties.

Correspondence and meetings with the Musqueam as well as federal and provincial government ministries were pursued. However, in 2005, Canada, at the request of Musqueam, notified GVS&DD that it would cancel the GVS&DD Permits if the taxes were not paid, unless GVS&DD successfully negotiated with Musqueam to resolve the matter.

Musqueam and GVS&DD agreed to attempt to resolve the issue by negotiating new Permits and an annual Permit Fee.

In May 2009, GVS&DD and Musqueam signed a Settlement Agreement. In June 2009, compensation was paid to reflect the arrears in taxes, interest and penalties; new permits were signed; GVS&DD agreed to pay an annual Permit Fee; the old Permits were surrendered; and the Musqueam agreed to set the property tax rate at ‘zero-percent’ for so long as the Permit Fee was paid. In addition, the Musqueam dropped legal proceedings in which they alleged that the original permits were invalid.

This settled an 18 year dispute and hopefully removes what felt to some like a shadow over Metro Vancouver’s relationship with Musqueam.

3. ALTERNATIVES

Not applicable

4. CONCLUSION

An 18-year dispute with the Musqueam has been settled.