### THE CORPORATION OF THE CITY OF PORT COQUITLAM ENVIRONMENTAL PROTECTION COMMITTEE

Wednesday, June 8, 1994

Meeting Room No. 2 2580 Shaughnessy Street, Port Coquitlam, BC

5:00 p.m.

#### **AGENDA**

#### PERSONNEL IN ATTENDANCE:

CONFIRMATION OF MINUTES OF PREVIOUS MEETING

ITEM I: PROPOSED DIVERSION OF CREEK - 4000 BLOCK TORONTO

ITEM II: JET SKIES/POWER BOATS ON PITT RIVER AND DEBOUVILLE SLOUGH

ITEM III: PARTICIPATION IN CLEAN AIR DAY

ITEM IV: OTHER BUSINESS

#### THE CORPORATION OF THE CITY OF PORT COQUITLAM

#### **ENVIRONMENTAL PROTECTION COMMITTEE**

#### **MINUTES**

A meeting of the Environmental Protection Committee was held at City Hall, 2580 Shaughnessy Street, Port Coquitlam, on Wednesday, June 8, 1994 at 5:00 p.m. in Meeting Room #2.

#### In attendance were:

Councillor M. Gates, Chairman Councillor R. Talbot, Co-Chairman J.E. Yip, P. Eng., Deputy City Engineer F. Cheung, P. Eng., Project Engineer C. Deakin, Engineering Secretary

The minutes for the May 25, 1994 Committee meeting were considered, read and adopted.

Carried

#### ITEM I: DIVERSION OF CREEK - 4000 BLOCK TORONTO

Committee received this update for information.

#### ITEM II: JET SKIS/POWER BOATS - PITT RIVER/DEBOUVILLE SLOUGH

Committee asked the Deputy Engineer to contact Carmen Germain and the Ministry of Lands regarding regulations for jet skis and power boats on these water bodies.

#### ITEM III: CLEAN AIR DAY

Committee received this item for information.

#### ITEM IV: OTHER BUSINESS

a) Native Sports Publication

The Committee approved the offer to place a recycling ad in the next Native Sports Publication. Funding to come from the Recycling Budget.

Cont'd .../2

**Douglas Island** b)

> Committee received the report regarding Douglas Island and asked that the Deputy Engineer forward the report to the City Solicitor for his review and comment. Specifically Committee asked that the point regarding liability on assessed value and the City's control over Douglas Island involving what remifications had and the City's control over Douglas Island involving what ramifications be addressed. Also to see that if we do not implement the RS-3 rezoning could development still proceed. Committee also asked that the Deputy Engineer contact

FREMP to see if they are in favour of the RS-3 rezoning.

c) **GVRD Solid Waste Management Plan** 

Committee received this item for information.

There being no further business the meeting adjourned at 5:45 pm.

Deputy/City Engineer

Councillor M. Gates Committee Chairman

JEY/cd

NOTE

Minutes not read and adopted by the Committee until certified correct by the Chairman's signature.

cc:

Mayor and Councillors City Administrator City Engineer Project Engineer Project Technician

### THE CORPORATION OF THE CITY OF PORT COQUITLAM

#### **MEMORANDUM**

TO:

**Environmental Protection Committee** 

DATE: June 02, 1994

FROM:

Francis K.K. Cheung, P. Eng.

FILE No: EPC

Project Engineer

SUBJECT: DIVERSION OF CREEK - 4000 BLOCK OF TORONTO

#### **RECOMMENDATION:**

1. That Committee receive this memorandum for information only.

#### **BACKGROUND & COMMENTS:**

Councillor M. Gates requested the Engineering Department to investigate a proposed creek diversion at the 4000 Block of Toronto Street.

I have contacted Mr. Rolf Sickmuller of Envirowest who is responsible for this project. Mr. Sickmuller stated that Hockaday Creek will be diverted closer to the north property line of Lot 11 (See Figure 1) to accommodate a building envelope on Lot 11.

The proposed creek diversion must be approved by the Department of Fisheries and Oceans (D.F.O.) and Ministry of Environment (M.O.E.), Water Management Branch. These two agencies also set any covenant where it is necessary (i.e. floodplain covenant). The City do not have any authority to prevent the proposed creek diversion should both the D.F.O. and M.O.E. approved the creek diversion application.

I have also checked with our Building Department to see if a Building Permit has been granted to this development. The Building Department has not received an application for Building Permit, from the developer, for Lot 11 and Lot 12.

Francis K.K. Cheung, P. Eng. Project Engineer

FKKC/ attachment



### THE CORPORATION OF THE CITY OF PORT COQUITLAM

#### **MEMORANDUM**

TO: Environmental Protection Committee

DATE: May 31, 1994

FROM:

Francis K.K. Cheung, P. Eng.

FILE No: EPC

Project Engineer

SUBJECT: JET SKIES AND POWER BOATS ON PITT RIVER AND DeBOVILLE SLOUGH

#### RECOMMENDATION:

1. That Committee receive this memorandum for information only.

#### **BACKGROUND & COMMENTS:**

The Fraser River Harbour Commission has responded to my letter of April 29, 1994 regarding jet skies and power boats on Pitt River and DeBoville Slough.

Captain Allen Domaas recommended that it may be possible, under the Canada Shipping Act, to control jet skies on Pitt River. If the City wishes to proceed with this process, an application must be made from the City to the B.C. Ministry of Environment.

Captain Domans also stated that DeBoville Slough is under the jurisdiction of the B.C. Ministry of Environment and the City should forward our concerns to them directly.

Francis K.K. Cheung, P. Eng. Project Engineer

FKKC/ attachment

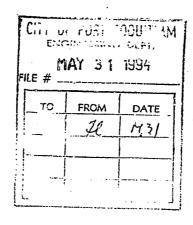


Our File:

Ann

May 26, 1994

Mr. Francis K.K. Ching Project Engineer City of Port Coquitlam 2580 Shaughnessy Street Port Coquitlam, B.C. V3C 2A8





Dear Mr. Ching,

Re: Jet Skis and Power Boats on the Pitt River and DeBoville Slough

The Fraser River Harbour Commission acknowledges receipt of your letter dated April 29, 1994 on the above-noted matter. We apologize if our response appears slow, but we have taken some time to investigate our possible responses.

Prior to discussing this matter, it is important that we state the Fraser River Harbour Commission's jurisdiction extends only on the Pitt River and not on DeBoville Slough. Should you wish assistance in dealing with DeBoville Slough, we suggest you contact the B.C. Ministry of Environment, Lands Branch. Their office is on Kingsway, in Burnaby. The Regional Director is Mr. Roberts (660-5500).

The Pitt River is a navigable waterway used by a wide variety of crafts that range from jet skis to commercial tugboat. Our quick review suggests there may be very little that can be done about the water skiers, however we believe it may be possible under the Canada Shipping Act to have some effect on the jet skis. To set this action in motion, we would require an application from the Municipality to the B.C. Ministry of Environment. We would be pleased to discuss such an application with you. Please contact the writer or Carmen Germain at your earliest convenience to establish a convenient time and place for a meeting.

Yours very truly,

FRASER/RIVER HARBOUR COMMISSION

Captain A.O. Domaas Director of Operations

cc:

Steve Davis

C:\DATA\\WP\DOMAAS\025LTR.DOM FRASER RIVER | HARBOUR COMMISSION

500 - 713 Columbia Street, New Westminster, British Columbia, Canada V3M 1B2 Telephone (604) 524-6655 Fax (604) 524-1127



# PORT COQUITLAM

2580 SHAUGHNESSY STREET, PORT COQUITLAM, B.C. V3C 2A8 / PHONE: 944-5411 / FAX: 944-5402

FILE: 302.5

April 29, 1994

Mr. Allen Domaas
Harbour Master
Fraser River Harbour Commission
713 Columbia Street
New Westminister BC V3M 1B2

Dear Mr. Domaas,

SUBJECT: JET SKIES AND POWER BOAT ON PITT RIVER AND DeBOVILLE SLOUGH

The Environmental Protection Committee at the Committee meeting of April 27, 1994 reviewed the letter from Mr. Allen Therrien and Ms. Kathleen Hunter regarding their concerns with jet skies and power boat on Pitt River and DeBoville Slough. The Committee recommended to forward the letter to the Fraser River Harbour Commission for comments.

It is appreciated if you can provide me with a reply to Mr. Therrien and Ms. Hunter concerns at your earliest convenience.

Enclosed please find the letter from Mr. Therrien and Ms. Hunter. Should you have any further inquiries, please do not hesitate to contact me at 944-5411.

Yours very truly,

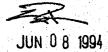
Francis K.K. Cheung, P. Erg Project Engineer

FKKC/

cc:

Councillor M. Gates, Chair, Environmental Protection Committee Councillor R. Talbot, Co-Chair, Environmental Protection Committee J. E. Yip, P. Eng., Deputy City Engineer A. Therrien and K. Hunter 3515 St. Anne Street Port Coquitlam BC V3B 4G6





3515 St. Anne Street Port Coquitlam, B.C. V3B 4G6

Dear Mayor Traboulay and Council,

With the approach of spring there are a few items which we would like to draw your attention to. First there is a problem, that although it may not be in your jurisdiction, we feel that as our local government representative you should address it on our behalf.

At the mouth of DeBoville Slough a small number of recreationalists persist in creating a major disruption. They are the operators of water vehicles in the form of Jet Skies and power boats. They can often be seen on weekends and during the evenings when the days become longer and the weather better. Their form of entertainment is to spurt around the island that is just north of the confluence of the Pitt River and DeBoville Slough. They speed around and around the island which is well known as a nesting area of Canadian Geese and other various water fowl. In the trees on the west shore there is a colony of Herons which are known to be very sensitive to any form of disturbance, let alone the amount and intensity caused by these recreationalists.

The volume is extraordinary and easily exceeds that of chain saws, or even some aeroplanes. They can be heard quite distinctly as far away as the trails in Minnekhada Park. It is even worse if you are out for an evening stroll along the dike system which is quite popular in this area. In fact, we have personally heard the noise well up the slope of Burke Mountain. We are sure that all of us can agree that no one individual or small group should be entitled to pollute, in this case with noise, to this extent. We hope that you can find the time and energy to enquire as to the responsible department or ministry and deal with this problem.

Another item of concern is the increasing use of motorised trail bikes and automobiles in the Coquitlam River green space. Once again there are a few individuals that think because they own a trail bike or a four wheel drive they can ravage an area that is not patrolled by the local police. Often in the morning, when we take our dogs down to this area, we can easily see the destruction that has occurred the previous evening.

Again, we would like to see you look into this matter and deal appropriately. This should include a banning of these vehicles from all parks and a form of enforcement that will dissuade their future use. These areas are very special and are very well used by a large number of citizens that feel an affinity with nature and the presence of these motorised intrusions are a considerable disturbance. Since places like these are quickly disappearing, the ones that we have intact must be cared for and protected.

The last item which we would like to draw your attention to is one of the most annoying symptoms of our time. There is nothing worse than sitting in one; living room with the family and have some obnoxious, inconsiderate fool's stereo permeate ones privacy. We are not talking about just sound coming through our open window, which certainly occurs, but at times even pounding into our sealed house. There is nothing worse than some individual or group forcing an entire neighbourhood to endure their particular whim or fancy at anytime of the day. Stereos in cars today, for instance, can be heard up to a mile away and without fail the first sunny day inevitably finds some incensiderate moron washing his car to the pounding rhythm of some current "chart stopper". Actually this last weekend our favourite neighbour had his stereo up quite loud so that he could hear it over the revving cars that he was working on for hours. The same individual seemed to think it OK to play vollyball, with a large group of his friends, in his backyard till 2 a.m. last summer on a couple of occasions.

Although we are sure that the present bylaws are more than adequate to deal with this kind of problem, there doesn't seem to be enough being done. Any time that we have made complaints to the bylaw department we receive little or no consideration. For instance, the last time we called to complain about a loud stereo on a sunny day, the person who answered the telephone stated that it would be two or three days before anyone could come and address the situation. We had to sit and endure and finally were forced out of house to find some peace. Other times we have had to phone the RCMP(who quickly responded) before the situation was resolved. I don't see why situations of this nature must be dealt with by the police for whom there are much more pressing chores. Perhaps a member of the city hall could be made available to deal with these kinds of problems as they occur, and in fact it could become a summer job for some local, needy student or two.

We both personally love music dearly, and play and sing whenever we can, however, we would never consider forcing the neighbours to endure our pleasure. We have had to insulate a room specifically so as to have a place in our house where we can have a modicum of quiet and ensure that our privacy is maintained. If a member of the community wants to play the drums it should be up to them to ensure that their neighbours are not disturbed. Again, we think that the council should review the current bylaws and bring them up to the 1990s.

We believe that in order to make a region livable not only must we ensure a preservation of things such as green space, but consider how people must live together. Harmony and consideration are values that reflect a caring society and as the leading citizens of our community, you must set the guidelines of what our community must stand for and ensure that all of our community's interests are met. No group or individual should have the right to disturb and destroy what little dignity is left to us in a world that seems less and less respectful of others.

We appreciate your consideration of these matters and await your response.

Kathleen Hunter



# PORT COQUITLAM

2580 SHAUGHNESSY STREET, PORT COQUITLAM, B.C. V3C 2A8 / PHONE: 944-5411 / FAX: 944-5402

FILE: 302.5

April 23, 1994

Mr. Allen Therrien
Ms. Kathleen Hunter
3515 St. Anne Street
Port Coquitlam BC V3B 4G6

Dear Sir and Madam,

SUBJECT: Your Letter of March 31, 1994

We are in receipt of your letter of March 31, 1994 regarding your concerns.

The Environmental Protection Committee at the Committee meeting of April 27, 1994 reviewed your letter. The Committee noted that the Fraser River, Pitt River and DeBoville Slough are under the jurisdiction of the Fraser River Harbour Commission. Therefore, the Committee will forward your letter to them for their comments.

The Committee also considered your concerns regarding the motorized trail bikes and automobiles in the Coquitlam River green space and the noise problem. This Committee will forward your letter to the Protective Services Committee for their consideration.

Thank you for bringing your concerns to the attention of the City. Should you have any further inquiries, please do not hesitate to contact me at 944-5411.

Yours very truly,

Francis K.K. Cheung, P. Eng.

Project Engineer

FKKC/

CC:

Mayor L. Traboulay

Councillor M. Gates, Chair, Environmental Protection Committee Councillor R. Talbot, Co-Chair, Environmental Protection Committee

J. E. Yip, P. Eng., Deputy City Engineer



#### THE CORPORATION OF THE CITY OF PORT COQUITLAM

#### **MEMORANDUM**

TO:

**Environmental Protection Committee** 

DATE: June 03, 1994

FROM:

Anne T. Pynenburg Project Technician

SUBJECT: PARTICIPATION IN CLEAN AIR DAY '

#### **BACKGROUND & COMMENTS:**

Attached is a memo that was sent to all department heads to ask them to encourage staff to participate in "Clean Air Day" Wednesday June 8th. E-mail has also been sent to all staff informing them of the offer of use of the Engineering van to carpool.

Attached also is a copy of the declaration issued by the Mayor and one that will be used by all municipalities under the G.V.R.D.

Anne T. Pynenburg Project Technician

attachment atp



#### THE CORPORATION OF THE CITY OF PORT COQUITLAM

#### **MEMORANDUM**

TO:

All Department Heads

DATE: June 02, 1994

FROM:

Anne T. Pynenburg

Project Technician

SUBJECT:

PARTICIPATION IN CLEAN AIR DAY - JUNE 8, 1994

#### **BACKGROUND & COMMENTS:**

Attached is information regarding "Clean Air Day" June 8, 1994. The G.V.R.D. is initiating municipal participation in this event to help clear the air in the Lower Mainland of pollutants and hannful emmissions.

The City of Port Moody has issued a challenge from their staff to our staff to use alternate forms of transportation to get to work on June 8th.

The Engineering Dept. is offering the use of the Engineering van to the first group of 5 people who wish to carpool on Clean Air Day. If any of your staff are interested, please submit the names of the participants to Anne local 284 or Francis local 223 in Engineering by noon June 7th.

Anne T. Pynenhurg Project Technician

attachment





Greater Vancouver Regional District 4330 Kingsway, Burnaby, British Columbia, Canada V5H 4GB

OF PORT COUNTIAM

Office of the Chairperson

Telephone (604) 432-6215

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To: All Greater Vancouver Regional District Mayors, Councils

In 1992 the Greater Vancouver Regional District Board declared the region's first Clean Air Day, to raise public awareness about the need to improve the air we all breathe. This year, on June 8, the GVRD and Province of B.C. will declare the third annual Clean Air Day, as part of Canada's national Environment Week. Please join these efforts by officially proclaiming June 8 as Clean Air Day in your community, and by holding a municipal clean air event or a tripreduction challenge for your municipal/city hall employees.

A commitment to clean air will require changes to both public policies and practices. The GVRD's air quality bylaw incorporates new requirements for industrial and commercial operations. These reduce emissions and apply the 'polluter-pay' principle through emission fees and higher fines for polluters. And the recently released draft GVRD Air Quality Management Plan recommends clean air strategies that will serve the region well into the next century. Public, stakeholder and municipal consultation on the Plan is underway, prior to its final consideration by the GVRD Board this fall.

Public participation and action play a fundamental role towards the goal of clean air. To underscore this, the GVRD has an ongoing public awareness program in which information materials and advertising describe the positive actions individuals can take to help improve the air. A new GVRD education program for elementary and secondary schools also contains a unit on air quality and transportation.

On Clean Air Day, local citizens will be asked to take a breather from the single occupant vehicle trip to work and try an alternate mode of transportation -- such as walking, cycling, carpooling or transit. This initial taste of freedom from traffic and smog is intended to encourage Lower Mainland residents to make the switch more often. Municipal support for these initiatives is an important part of the region's commitment to clean air and prompts our request that all local councils officially declare June 8, 1994 as Clean Air Day within their community. As well, each municipality can participate in this year's Clean Air Day by holding a community clean air event or by issuing a municipal/city hall employee trip-reduction challenge to neighbouring municipalities. As with all environmental improvement measures, public awareness is greatly enhanced if everyone joins in the effort.

The GVRD will also be contacting local media, Crown Corporations and other large employers around the Lower Mainland to solicit their participation in the Clean Air Day Challenge, and gain media attention for the efforts of those municipalities and coporation that participate.

If you would like more information on how your community can participate in Clean Air Day 1994, please call Mairi Welman of the GVRD Communications & Education department at 432-6339.

Please join us on June 8th ... for a breath of fresh air.

Sincerely,

Greg Halsey-Brandt

Chair

Board of Directors

Doug Drummond

Chair

Air Quality Committee



PERSONIC ON MAY 1 3 1994

#### CITY OF PORT MOODY

May 11, 1994

Valerie van Meel Personnel Director City of Port Coquitlam 2580 Shaughnessy Street Port Coquitlam, B.C. V3C 2A8

Dear Val:

Re: Clean Air Day - June 8, 1994

The City of Port Moody employees challenge Coquitlam and Port Coquitlam employees in reducing the use of automobiles and trucks to get to work on Clean Air Day.

The Greater Vancouver Regional District has declared Wednesday June 8, 1994 as the Region's Clean Air Day and are challenging citizens to use alternate forms of transportation to get to work. They are doing this to raise awareness about the quality of air in the Region and that it will continue to become degraded unless we all take steps to reduce our individual use of our automobiles.

Port Moody employees are meeting the GVRD challenge by either walking, cycling, busing or car pooling work on June 8. We challenge your employees to show the greatest proportion of staff using alternate transport on that date.

Sincerely,

Bill Guest

Personnel Manager

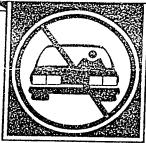
YOU CAN MAKE A DIFFERENCE.

# TELP CLEAR THE AIR WE ALL SHA

CLEAN AIR DAY

Imagine Greater Vancouver without traffic jams and smog. Imagine a healthier more productive lifestyle - a place where people breathe clean air; and walk, cycle, carpool or use transit to get around.

The Lower Mainland and Fraser Valley face a serious air quality problem.



A full 75 percent of the pollution problems we see and breathe are caused by single-occupant vehicle emissions.

The good news is that if we change our driving habits, we can clear the air we share and

create a cleaner, brighter future for our children. But we must take action now.



#### Thoughts on Air to Share?

GMRD Communications and Educations 4330 King way, Burnahy, BC Vallace Use this third annual Clean Air Day to find reasonable alternatives to driving alone, and challenge friends and co-workers to do the same Challenge other companies or communities to match or beat your commitment, or join the Jack Bell Vanpool Program by calling 925-9596.

#### Individual Challenges:

 $\square$  Use transit or rideshare to work or do errands.  $\square$  Ride a bicycle or walk to work or do errands. I Combine errands - make one efficient trip.  $\square$  Volunteer to organize office ride-sharing.  $\square$  Telecommute (Work from home). U Challenge friends and family to participate.

#### Company Challenges:

Clean Art Discussion in ampany statements (ads.

 $\Box$  Initiate contest for employees using transit. oxdot Subsidize transit passes or carpoid to a corpatigue, weaksite. "Il Convertifieet vehicles to cleaner burnmeritod.  $\Box \, \lambda \to e^{i\omega_{0}}$  rate fate anivals and early departures.  $\Box$  initiate ermpaka, ж. в так жатт сого рать. 🔟 Set aside special parking for van In the research parking for bicycles. 니 initian in competitinato participate. 니 includo

Regional District





# Proclamation

WHEREAS:

June 8, 1994 has been declared CLEAN AIR DAY, and;

WHEREAS:

The citizens in the Lower Fraser Valley Air Basin have recognized the need for the individual and group action by governments, industry and the general public, to improve the quality of the air we breath, and;

WHEREAS:

The Greater Vancouver Regional District, is responsible for regional air quality management and requests the support and participation of all communities in the effort to reduce air pollution, and;

THEREFORE,

I, Leonard M. Traboulay, Mayor of the Corporation of the City of Port Coquitlam DO HEREBY PROCLAIM June 8th, 1994 as

"CLEAN AIR DAY"

in the City of Port Coquitlam.

L.M. Traboulay

Mayor

Bod Sabe The Queen



ATT: JEER YIP

#### **B.C. NATIVE SPORTS PUBLICATIONS**

27088 - 3410 KINGSWAY. VANCOUVER, B.C. V5R 6A8

Phone: 520-1210 Fax: 1-800-277-4977

PK: 944-541

FX: 944-5407 City of PORT CORLITERAM 6/8/94

I trust the following will give your company the information you require concerning the annual NATIVE SPORTS DIRECTORY '94.

The directory covers sports that our young people are involved in including canoe pulling. rodeo, hockey, soccer, baseball, basketball and more. Focus is on youth development for boys and girls ages 6 to 18. As you probably know, our teenage suicide is among the highest in the country. Lack of adult leadership has been one of the reasons for this tragedy. Government funding will only go so far... we need help from the business sector. Your support will help with seminars, coaching classes, software for team development, travel and player development. We want to get the kids away from substance abuse and onto the courts and sports fields.

By taking an ad or a listing in the Species Directory, you are showing your support and taking advantage of the tax break at the sa, time. The Directory is in the 812" by 11" format. Distribution will include managers, officials, coaches, teams, bands, native organizations, government, libraries, and associated sports organizations in the USA., Europe and Japan.

We print on "luna-brite" stock in red and black artwork - our traditional native colors. Deadline will be 8/15/94 for a run of approx. 10,000 or more. Please do not wait until the last minute to make a decision, or it becomes a layout nightmare.

On behalf of the board of Aboriginal Sports of BC., and all the athletes they represent, may I extend our thanks for your financial assistance.

Sincerely You	irs, ENG	INEERING	OUITLAM DEPT. 1994
Co-ordinator	ТО	FROM	DATE _

Page Size (8 1/2 X 11.)

Full Page (71/2 X 10) \$698.00 Half Page (7 1/2 X 5) \$396.00 Quarter Page ( 3 3/4 X 2 1/2) \$247.00 Eighth Page (3 X 2) **S147.00** Business Listing (1X2) \$95.00 Support Listing (1/2 X 2) \$65.00 Patron Listing (2 Lines) \$45.00

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#### THE CORPORATION OF THE CITY OF PORT COQUITLAM

#### **MEMORANDUM**

DATE: May 31, 1994

TO:

J.E. Yip, P. Eng. Deputy City Engineer

FROM: S. Rauh

City Clerk

RE: **Douglas Island** 

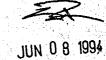
With reference to the above, this will advise that when the same was considered at a regular Council Meeting held on May 30, 1994 the following resolution was passed:

"That a report from the Friends of Douglas Island (see attached) be referred to the Environmental Protection Committee for research and report.

Susan Rauh City Clerk

SR:gc

51/1



# FRIENDS OF DOUGLAS ISLAND 1827 HARBOUR STREET PORT COQUITLAM, B.C. V3C 1A4

Mayor L. Traboulay and Council, City of Port Coquitlam.

5/30/94

We, The Friends of Douglas Island have recently been advised that still another Real Estate company has expressed an interest in developing Douglas Island.

We feel that the present status of the proposed RS3 zoning as well as the RS3 zoning itself, encourages development interests in the Island to surface from time to time. As this whole situation is confusing for all concerned, we feel a clearly defined format is long overdue.

The confusion over what, if any, development protection the Island has with the proposed RS3 zoning(which at present is sitting between third and fourth readings) should be clarified. Acceptance of the RS3 zoning, we understand, will not provide protection for the Island but will again add to the confusion.

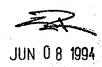
Port Coquitlam's Director of Planning advises that if we do not implement the RS3 zoning development is free to proceed on the Island.

R.R.E.M.P.'S Environmental Protection Committee states that if the RS3 zoning is implemented, development could proceed on the Island.

We agree with F.R.E.M.P.'s assessment and, again, wish to register our opposition to the RS3 zoning prepared for Douglas Island.

As an alternative to the RS3 zoning we request that the City Council give serious consideration to the following four proposals as outlined below:

- 1. A policy statement in the Official Community Plan that states;
  Development on Douglas Island would not be desirable or beneficial to
  the community considering the Island is completely without dykes and
  well within the floodplain, and provides a significant habitat for bird and
  animal life.
- 2. Due to the fact that RS3 zoning is a holding category for future development it should not be used in this instance.
- 3. A new zoning category that provides full protection in perpetuity for environmentaly sensitive lands be drafted.
- 4. This new comprenhensive zoning category be applied to all areas in Port Coquitlam that require full environmental protection. As examples Douglas Island, Colony Farm, buffer strips along dykes etc.



# FRIENDS OF DOUGLAS ISLAND 1827 HARBOUR STREET PORT COQUITLAM, B.C. V3C 1A4

Of course, an easy solution to this situation regarding Douglas Island would be for the owners to sell the Island to the Nature Trust for \$1.00.

#### WE CAN DREAM CAN'T WE?

The citizens of Port Coquitlam expect our. City Council to give extreme care and consideration to decisions that have a lasting effect on the well being of the environment.

We therefore request your immediate attention to the above, a reply would be appreciated.

Erling Grenager

Friends of Douglas Island

cc M. Farnsworth
M.L.A. Coquitlam

M. Sihota
Minister of the Environment

J. Cashore
Minister of Aboriginal Affairs

D. Marzari Minister of Municipal Affairs

### THE CORPORATION OF THE CITY OF PORT COQUITLAM

#### **MEMORANDUM**

TO:

**Environmental Protection Committee** 

DATE: June 07, 1994

FROM:

Francis K.K. Cheung, P. Eng.

FILE No: EPC

Project Engineer

SUBJECT: G.V.R.D. SOLID WASTE MANAGEMENT PLAN REVIEW - STAGE 2 REPORT

#### RECOMMENDATION:

1. That Committee receive this memorandum for information only.

#### BACKGROUND:

This report is a summary of the recommended Solid Waste Management Plan for the Greater Vancouver Regional District. The Plan is to reduce per capita garbage disposal in the year 2000 by at least 50 percent through new and expanded "3R" programs involving source Reduction, Reuse and Recycling. The remaining waste would be processed through Recovery and Residuals management facilities. The purpose of Stage 2 is to develop a recommended solid waste management system to achieve the Plan objectives.

#### 1. Principles and Themes

Several principles and themes were developed during the planning process of the Plan and became fundamental to the recommended Strategy:

- 1. The "out of sight, out of mind" attitude is no longer acceptable. There must be a feeling of personal responsibility for reducing the environmental and social impacts of waste.
- 2. All levels of government must be fully committed to doing their part over the long haul.
- 3. The waste management 5R hierarchy beginning with the most important (source reduction) must be respected and emphasized.
- 4. The polluter must pay. Residents who generate more waste should pay proportionately more than those who generate less. A financial incentive to reduce waste and the associated costs and environmental impacts is essential.
- 5. Manufacturers must pay at least a part of the cost of managing the waste from the products which they manufacture (i.e. reduce materials in their products and packaging, develop markets for recycling their products.).
- 6. Funds raised through taxes and charges should remain dedicated to purpose for which they were obtained.
- 7. Programs and systems must be flexible to make the most cost effective use of existing programs and infrastructure, while keeping the door open to future changes.



#### 2. Strategy

Key recommendations were developed to make up the recommended strategy. The strategy is divided into two categories; Province, and GVRD and Municipalities.

#### 2.1 Province

- 1. The Province, and the Federal Government where jurisdictional authority exists, would implement manufacturer responsibility programs for all packaging and short-life products not included in the beverage container deposit/refund system. Phase in manufacturer responsibility for durable products as a second priority. Ensure that the responsibility for markets for recyclable and compostable materials is included within manufacturer responsibility programs. All funds derived from this program would remain dedicated to 3R programs. Contribution from manufacturers must be maximized and would extend to all sectors.
- 2. Based on the 3Rs hierarchy principle, until life cycle assessment proves otherwise, the Province would implement an expanded provincial deposit/refund system for beverage containers not included in a broader manufacturer responsibility program.
- The Province would promote and encourage the development of manufacturer responsibility initiatives in other provinces and at the national level through participation in the National Packaging Protocol (NAPP) and the Canadian Council of Ministers of the Environment (CCME).
- 4. The Province would provide targeted incentives to stimulate and support the development of markets for selected secondary materials. This will include post-consumer recycling minimum contend legislation.
- 5. The Province would increase provincial government procurement of reusables or products of post-consumer secondary materials.
- 6. The Province and/or Federal government would evaluate subsidies on virgin materials and adverse impacts on waste management and remove where appropriate.
- 7. The Province would establish a life cycle assessment task force within 180 days of approval of the Stage 2 Solid Waste Management Plan Report.
- 8. The Province would ensure that adequate backdrop regulations (e.g. minimum material utilization rate) are in place to take effect should measures implemented in the GVRD waste management plan fail to achieve waste reduction targets in the IC&I sectors.
- 9. The Province would develop and distribute IC&I waste audit and reduction plan guide documents to the GVRD, local municipalities, and waste generators. Develop a formal communications strategy that complements those being developed for the various regional districts.
- The Province would implement the BC Landfill Criteria and work with regional and municipal governments to provide improved regulation and enforcement of all recovery/transfer and disposal facilities.

- 11. The Province would sponsor and cooperate with the IC&I sector in research and development into new and expanded markets for secondary materials and identify and refine source reductions and source separation technologies for DLC waste.
- 12. Components of the strategy which regulate the operation of waste management facilities and the flow of waste under Bill 29 would be approved by the Minister for implementation upon approval of the Stage 2 Report.
- 13. The Province would agree with the District that every effort be made to develop and implement measures additional to Bill 29 which are required to discourage and prevent the uncontrolled flow of waste from the Plan Area.
- 14. The Province through the Canadian Council of Environment Ministers (CCME) would initiate the early development of a system under which residents can, if they so choose, stop the delivery of junk mail to their property.

#### 2.2 GVRD and Municipalities

- 1. The GVRD would set performance standards for mandatory residential 3Rs programs to be delivered by municipalities while ensuring flexibility to allow municipalities to decide how to meet the standards. Key aspects of residential 3Rs programs would be implemented by municipalities include the following:
  - variable-rate based user-pay systems that reinforce the 3Rs hierarchy for residential waste collection, residential recycling, and composting for that portion of recycling/composting costs not covered by manufacturer responsibility programs
  - subsidized backyard composter programs
  - curbside collection of yard waste offered to all single-family urban households
  - expanded material categories (14-18)
  - expanded service areas so that all households have opportunities to recycle using either curbside collection or drop-off depots
- 2. The GVRD would require the preparation of waste inventories for all IC&I generators and require waste audits and reduction plans for all waste generators in the IC&I and DLC sectors (with exemptions).
- 3. The GVRD would require source separation of designated recyclable materials by all IC&I and DLC waste generators (with exemptions approved by the GVRD). Off-site processing of mixed recyclables would be an acceptable option for IC&I generators.
- 4. The GVRD (and/or other appropriate government body) would develop and apply a system of operational certificates and/or waste management stream licenses for all waste processing (recycling and composting) facilities and all DLC disposal facilities. For processing facilities, the GVRD would set standards and ensure a level playing field while using existing private-sector/municipality processing and marketing capabilities and capacities in a flexible and competitive manner.

Cont'd. .../4

- 5. The GVRD (and/or other appropriate government body) would implement a system of permits of licenses for waste hauling companies operating within the GVRD. This recommendation may be applied as a backdrop measure.
- The GVRD would coordinate with member municipalities to procure additional invessel composting capacity.
- 7. As soon as variable alternatives to disposal are operational, phase in disposal bans of recyclable and compostable materials generated by the residential, IC&I and DLC sectors at all disposal facilities.
- 8. Maintain the current system of standardized tipping fees at GVRD/municipal disposal facilities, and use differential tipping fees and tipping fee surcharges to support program implementation at all disposal facilities (including DLC) to support 3Rs program implementation.
- 9. If practical on a site specific basis, maintain staffed recycling depots at all transfer, disposal, centralized composting, and multimaterial recyclables processing facilities in the region.
- 10. The GVRD and municipalities would expand public information/education programs targeted at residential, IC&I and DLC generators. The GVRD and all municipalities would develop formal communications plans, and develop ongoing programs of audience research to support overall educational promotional campaigns.
- 11. The private sector would continue its role in providing processing capacity for residential and IC&I recyclables under competitive conditions. The GVRD could assist in the development of cooperative arrangements among local municipalities.
- 12. The GVRD and municipalities would increase government procurement of reusables and products containing post consumer recyclable secondary materials.
- 13. The GVRD would develop a waste exchange database for all materials.
- 14. Market development (i.e. technical advice, grants, loans) would become an integral part of municipalities' economic development function, and be viewed as a local strategy for both waste reduction and job creation.
- 15. Municipalities would support the establishment of local reuse and repair centres.
- 16. The GVRD, with the City of Surrey, would construct a transfer station for residual wastes from Surrey that currently go to the Port Mann landfill.
- 17. The GVRD would continue to monitor population trends and transfer station waste records throughout the district, monitor the potential for transfer capacity shortages at the Coquitlam Resource Recovery Plan and at Maple Ridge, and prepare and revise annually a 5-year plan that identifies any need to expand, augment, or replace each existing transfer facility.

- 18. In view of the Port Mann landfill closure in 1997, the GVRD would immediately issue a request for proposals of bids for very specific waste transport and disposal services for the residual waste from Surrey.
- 19. The GVRD would continue operating the Burnaby incinerator at near maximum capacity and in accordance with upgraded air emissions criteria throughout the plan period unless changes in environmental, financial, or operational conditions warrant otherwise.
- 20. The City of Vancouver would continue operating the Vancouver landfill at Burns Bog subject to the outcome of the facility evaluations recommended.
- 21. The GVRD would fulfill the existing contract with Wastech for transportation and disposal of waste at the Cache Creek landfill unless changes in environmental, financial, or operational conditions warrant otherwise.
- 22. Subject to the results of Key Recommendation 18 and as the end of the existing contract with Wastech approaches, the GVRD should enter into discussions with Wastech to develop acceptable terms for expanding the Cache Creek landfill to provide extended disposal services to the GVRD. Simultaneously, the GVRD should plan for and issue a request for proposals or bids for waste transport and disposal services from competing providers, including Wastech.
- 23. Components of the strategy which regulate the operation of waste management facilities and the flow of waste under Bill 29 would be implemented as an advance component of the Revised Plan immediately upon approval of such action by the Minister of Environment, Lands and Parks. In the interim, all municipalities would ensure all buildings permits for facilities which transfer waste residuals undergo an appropriate environmental review.

#### 3. Roles and Responsibilities

- 3.1 The GVRD has the overall responsibility to ensure, within the limits of its authority, the full and effective implementation of the system which is created by the Key Recommendations for the Revised Plan and therefore the achievement of its objectives.
- 3.2 The Province would be required to accept the responsibility for the legislative framework necessary to enable implementation of recommended activities and to regulate facilities, including disposal services outside the District. The Province would also establish manufacturer responsibility programs which reduce waste products, develop markets and provide funds to support the waste management programs for the municipalities and the IC&I sector. They also would issue operational certificates for and regulate the operation of major facilities to ensure compliance with Provincial criteria and standards.
- 3.3 The District would establish standards for recycling and composting programs undertaken by the municipalities primarily to serve the residential sector.
- 3.4 All municipalities would continue to plan and operate the programs serving the residential sector up to and including delivery of garbage, recyclables and compostables to transfer, disposal and processing facilities.

Cont'd. .../6

- 3.5 Private industry would continue to pick up garbage, recyclables and compost from IC&I and DLC generators and some residential waste under arrangements with certain municipalities.

  Large IC&I and DLC generators would be required to respond to financial incentives and disposal bans by reducing their garbage through the development and implementation of source reduction and recycling plans.
- 3.6 Member of the public would create less waste as a result of programs which provide incentives for source reduction, reuse and recycling. They would now pay for waste mostly in accordance with the amount which they, as individuals, purchase and put out for pickup, instead of through their municipal taxes or municipal utility charges.

#### 4. Programs

The above Key Recommendations would result in a Revised Solid Waste Management Plan made up and/or supported by the following programs and initiatives (See Attachment 1).

#### Costs and Payers

The strategy financially rewards those who generate less waste, and therefore provides an incentive for them to do so. The method of payment recommended for the strategy would change significantly in that:

- 1. The amount of billed on municipal tax notices as taxes or set utility charges would drop dramatically to about \$14.8 million or some 10.7 percent of the total cost of managing the region's residential and IC&I waste.
- 2. All Residential and IC&I generators would be on the same footing in that they would pay for the waste in proportion to the amounts they put out for collection.
- 3. Manufacturers would contribute toward the \$249 million dollar cost of managing the residential and IC&I waste generate in the Region. The amount contributed would be negotiated by the Province. Residential and IC&I generators would pay the balance of the \$249 million.
- 4. \$18 million dollars of the strategy costs would be paid internally by manufacturers for source reduction initiatives which would be reflected in the costs of their products.

The **residents**, one way or another, directly or indirectly pay the costs of managing the solid waste produced in the Plan area. Instead of paying through their taxes or utility charges, they now would only pay a small percentage in this way. They would, for the balance, pay as **generators** under user pay programs in proportion to the amount of waste they produce and as **consumers** in proportion to the amount of products they purchase which become waste.

The manufacturers will pay all or a portion of the cost of managing waste from the products they produce. The resulting funds would be provided to municipalities to support their programs, and therefore reduce the amount which residents would pay under the proposed user pay program.

Francis K.K. Cheung, P. Eng

Project Engineer

FKKC/ attachment

#### Programs

The above Key Recommendations would result in a Revised Solid Waste Management Plan made up and/or supported by the following programs and initiatives:

#### 5.1 Senior Governments and Manufacturers

The senior governments and the manufacturers would play a vital role in providing incentives and support for source reduction, reuse and the development of markets for recyclable commodities. Also, the manufacturers would provide significant funding for waste management activities which have historically been paid from municipal taxes. The Province would provide the legislation needed to ensure manufacturer responsibilities are met and to enable management of the collection, transport, processing and disposal of garbage as required to achieve the disposal reduction and environmental objectives of the revised Plan.

Estimated costs in 1993 dollars and reduction in garbage disposal are provided in Table 2 for senior government and manufacturer responsibility programs.



TABLE 2

### SENIOR GOVERNMENTS AND MANUFACTURERS PROGRAMS SOURCE REDUCTION IN GARBAGE DISPOSAL AND RESULTING COSTS - YEAR 2000

<b></b>							
	R	esidential		IC&I			
		Sector	İ	Sector			
		Vaste Gener			Waste Gen		
	898	3,600 tonnes			65,400 tonr		
Program	Tonnes	%	Cost \$'000	Tonnes	%	Cost \$'000	
Manufacturer	21,478	2.4	7,307	38,456	3.6	10,721	
Responsibility							
Expanded	1,802	0.2	811	2,133	0.2	960	
Deposit/Refund	į						
System							
NAPP	11,008	1.2	1,939	35,830	3.4	5,073	
Procurement				7,014	0.7	2,400	
Removal of	9,917	1.1		14,808	1,4		
Subsidies							
Guidelines for				8,372	0.8	745	
Waste						·	
Reduction Plans	·						
Education	2,298	0.3	150				
TOTALS	46,503	5.2	10,207	106,613	10.1	19,898	

Totals may not add due to rounding.

The costs would be distributed as follows:

Residential generators: \$2,684,000

IC&I generators: \$6,500,000 Municipal taxes: \$200,000

Senior Governments: \$2,694,000 Manufacturers: \$18,028,000

#### 5.2 Residential Sector Programs

#### 5.2.1 Source Reduction and Reuse

The major initiatives would be the subsidized backyard composting program and the user pay system. These would be supported by expanded education programs and bans on the disposal of specific recyclables or compostables. Reuse/repair programs would be promoted. Overall program success would be planned, tracked and reported.

The reduction in disposal and the cost in 1993 dollars of **source reduction and reuse** initiatives are shown in Table 3 for the year 2000 potential residential waste stream of 898,600 tonnes.

# TABLE 3 RESIDENTIAL SOURCE REDUCTION IN GARBAGE DISPOSAL AND RESULTING COSTS - YEAR 2000

	Residential Sector Potential Generation = 898,600 tonne				
Activity	Tonnes	%	\$'000		
Backyard composting & disposal bans	29,300	3.3	1,363		
User pay	32,386	3.6	75		
Education	2,298	0.3	1,860		
Reuse/Repair centres	838	0.1	100		
Annual Reporting of S.W. Plans	357	<0.1	74		
TOTALS	65,179	7.3	3,472		

The costs would be distributed as follows:

Residential generators Municipal taxes

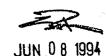
\$75,000

\$3,397,000

#### 5.2.2 Recycling Programs

**Under Recycling Programs:** 

- Existing programs would expand, such that 14-18 types of recyclable materials (preferably in four streams) and yard waste would be picked up or taken to an expanded system of recycling depots.
- All urban single family residences would have available a container, such as a blue box or bag for weekly curbside pickup of source-separated recyclables. Yard waste would also be picked up weekly during the 9-month growing season but bi-weekly during the other three months or managed under a program having equal effectiveness in diverting yard waste from disposal. The charges for collection of recyclables and compostables would be less than for garbage and would be phased in.
- Urban multi-family residences would have a system for the collection of recyclables where this is physically possible. All buildings would have yard waste collection. Backup depots would be available where structural limitations make collection of recyclables impossible.
- Rural residences would be provided with a container, such as a blue box. The
  residents would take the recyclables and compostables to depots. There would be
  no drop-off charge for recyclables but there would be one for compostables.



The Recycling programs would be supported by District and municipal education programs, disposal bans and the use of municipal solid waste plans to track the effectiveness of the programs.

The cost, in 1993 dollars, of collection and processing, and the effectiveness of these recycling programs and supporting initiatives in reducing disposal are shown on Table 4 for the year 2000 residential waste stream of 898,600 tonnes.

TABLE 4
COSTS AND REDUCTION IN GARBAGE DISPOSAL
DUE TO RESIDENTIAL RECYCLING - YEAR 2000

Program	Residential Sector Potential Generation = 898,600 tonnes						
Initiative	Tonnes	\$'000	\$/Tonne				
Activity Pos	205,125	22.8	37,167				
Single Family Res.	200,120						
Recyclables	42,180	4.7	6,726				
Multi-Family Res.	12,			<u></u>			
Recyclables Rural Family Res.	5,389	0.6	878				
Recyclables	0,000						
SUBTOTAL	252,694	28.1	44,771	177			
Single Family Res.	108,282	12.0	17,497	·			
Compostables	.00,===						
Multi-Family Res.	14,951	1.7	1,265				
Compostables	,-						
Rural Compostables	2,806	0.3	217	124			
SUBTOTAL	126,039	14.0	18,980	151			
SUBTOTAL Recycling			•				
and Composting	378,733						
			1,240				
Education			3,681				
Bans and Admin.	378,733		4,921	13			
SUBTOTAL	378,733	. 42.1	68,672	181			
TOTAL	370,733	L	<u></u>				

Totals may not add due to rounding.

The costs would be distributed as follows:

Residential Generators: \$60,209,000 minus the negotiated contribution from

manufacturers.

Municipal taxes: \$8,463,000

The processing and marketing of recyclables would continue to be undertaken by the private industry and non-profit organizations. Existing municipality and private composting facilities would, with some expansion, provide the needed capacity for organics.

#### 5.2.3 Garbage Collection

Collection of garbage from residences in the urban area would continue to be done by municipal forces, private industry under contract to the municipality or, as often is the case, by private industry from multi-family residences. The year 2000 collection for garbage and transport to transfer or disposal facilities and management of disposal facilities would amount to 395,672 tonnes at an average estimated cost in 1993 dollars of \$140/tonne.

#### 5.3 Industrial, Commercial and Institutional (IC&I) Programs

#### 5.3.1 Source Reduction and Reuse

The major initiatives would be the mandatory development of waste reduction and recycling plans by large generators and supporting incentives in the form of bans and tipping fee surcharges on the disposal of specific recyclables and compostables. Significant education and training programs would be provided to support these plans. Procurement policies by all local governments, support for reuse/repair centres and the planning, tracking and reporting on overall program success would also be important initiatives.

The reduction in disposal and the cost, in 1993 dollars, of source reduction and reuse initiatives are shown in Table 5 for the year 2000 waste stream of 1,065,400 tonnes.

TABLE 5
COSTS AND IC&I SOURCE REDUCTION IN GARBAGE DISPOSAL
- YEAR 2000

	IC&I Sector Potential Generators = 1,065,400 tonnes					
Activity	Tonnes	%	\$'000			
Gov't. Procurement	3,548	0.3	800			
Training of Generators	10,417	1.0	120			
Reuse/Repair Centres	2,092	0.2	500			
Annual Reporting	424	0	86			
Bans/Surcharges	16,380	1.5	81			
TOTALS	32,861	3.0	1,587			

The costs would be distributed as follows:

IC&I Generators

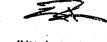
45,000

Municipal Taxes

\$1,542,000

#### 5.3.2 Recycling

Recycling programs would include:



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- Expansion of existing recycling activities, such that 90 percent of potentially recyclable materials, 90 percent of yard waste and 50 percent of food waste would be delivered to processing and composting facilities.
- All generators would be required to separate certain recyclables from their garbage.
- Large generators would be mandated to develop and implement source reduction and recycling plans which would be approved, monitored and enforced by the District. The size of generator would be dictated by the above targets of 90 percent coverage for recyclables and yard waste and 50 percent for food wastes. The information for designating which large generators are to be included in the program would be provided through a simple waste audit that all IC&I generators would be required to complete.
- Regional District support for large generators and others in the development of source reduction and reuse plans through the provision of kits, training and advice.
- Allowing recyclables which have been separated from compostables and garbage to be put out for collection in several source separated streams, or as a commingled load.
- Providing incentives for recycling through the establishment of disposal bans, tipping fee surcharges and increased tipping fees.
- Requiring generators under their waste reduction and recycling plans, to compost their own yard waste or have it, as well as their food wastes, delivered to Regional composting facilities.

Services for collection, transport, processing and marketing of recyclables would continue to be provided predominantly by private industry. Existing facilities would provide adequate capacity to process the quantity of materials which would result from achievement of the disposal reduction objective of the Revised Plan. The residuals from the processing of materials which are commingled would be regulated to ensure the percentages of recyclables recovered is high enough to achieve this objective.

The processing of the organic food and yard wastes would be done at composting facilities owned and operated by municipalities and private industry. Currently, the private sector operates all food waste facilities and would be expected to expand these as required. In the absence of such expansion, the District would coordinate with municipalities to provide additional in-vessel composting capacity.

The cost in 1993 dollars, of collection and processing 1,065,400 tonnes of IC&I recyclables and compostables generated in the year 2000 and the effectiveness of these recycling initiatives in the reduction of garbage disposal are shown in Table 6.

## TABLE 6 COSTS AND REDUCTION IN GARBAGE DISPOSAL DUE TO IC&I RECYCLING - YEAR 2000

	IC&I Sector Potential Generation = 1,065,400 tonnes					
Program/Initiative	Tonnes	%	\$'000	\$/Tonne		
Recycling	386,105	36.2	66,068	171		
Composting	87,643	8.2	12,789	146		
Subtotal	473,748	44.4	78,857	166		
Administration - Source Reduction & Recycling Plans			3,260			
Administration - Bans & Tipping Fee Surcharges			189			
Subtotals	473,748		3,449	. 8		
TOTALS	473,748	44.4	82,306	174		

The costs would be distributed as follows:

IC&I Generators: \$81,140,000 minus negotiated manufacturer's contribution.

Municipal Taxes: \$1,166,000

#### 5.3.3 Garbage Collection

Collection and transport to disposal and disposal of some 319,000 tonnes of waste from IC&I generators in the year 2000 would continue to be almost totally done by private industry at an estimated cost in 1993 dollars of \$136/tonne.

#### 5.4 impact of all 3R Programs

The combined impact of all recommended source reduction, reuse and recycling and the cost in 1993 dollars of initiatives and programs is summarized in Table 7

# TABLE 7 COSTS AND REDUCTION IN GARBAGE DISPOSAL FOR YEAR 2000 WASTE STREAM DUE TO ALL SOURCE REDUCTION AND RECYCLING PROGRAMS<sup>1</sup>

	Residential Waste Steam = 898,600 tonnes				IC& I Waste Stream = 1,065,400 Tonnes			
Programs & Initiatives	Tonnes	%	Cost \$'000	\$/ Tonne	Tonnes	%	Cost \$'000	\$/ Tonne
Senior Gov'ts & Manufacturer's Reduction & Reuse	46,503	5.2	10,207	219	106,613	10.1	19,899	187
GVRD & Municipalities Reduction & Reuse	65,179	7.3	3,472	53	32,861	3.0	1,587	48
Recycling	252,694	28.1	44,771	177	386,105	36.2	66,068	171
Composting	126,039	14.0	18,980	151	87,643	8.2	12,789	146
Recycling & Composting Admin.	·		4,921				3,449	460
TOTALS AND AVERAGES	490,415	54.6	82,351	168	613,222	57.6	103,792	169

Totals may not add due to rounding.

This table does not include DLC waste.

Therefore, the total impact of all 3R activities under the proposed strategy would be the avoidance of municipal type garbage disposal amounting to about 1,104,000 tonnes. The cost of about \$186 million, except for \$14.8 million which would be funded from the municipal tax base, would be paid by the manufacturers of products and the generators of the waste. The proportions paid by manufacturers would be negotiated with the manufacturers, leaving the balance to be paid by the generators.

#### 5.5 Market Development

The development of improved markets is essential to the success of the revised Plan. Market development under the recommended strategy would recognize the existence of two market places for selling recyclables for secondary processing and incorporation into products. These are the international market and the local market. Under the strategy, the Province has the responsibility for ensuring the development of markets so necessary to support the recycling programs are successfully undertaken.

The international market is changing and expanding rapidly. Products in this market are bought and sold as commodities and flow freely across international borders. The continued development of these markets would of necessity continue to be left to private industry. However, the manufacturer responsibility program would create incentives for industry to develop these markets further and quicker. This is because manufacturers would be required to pay all or a part of the cost of recycling. This would provide an incentive for them to develop markets which would improve prices and

An additional 860,400 tonnes of garbage would remain to be disposed of and paid for.

therefore reduce their contribution. In addition, manufacturers could, depending on the outcome of negotiations, make higher payment for the proportion of their products which end up as garbage instead of recyclables. This would provide an incentive to redesign products to make them more recyclable and to develop markets for them. Backdrop legislation containing minimum materials content legislation would provide further impetus for industry to improve markets. This legislation would be put into force should the above incentives fail to stirnulate the necessary development of markets.

Local markets pertain to products which are not normally processed and marketed internationally. These include compost and DLC wastes, such as asphalt, concrete, drywall and some wood products. Development and improvement of these markets would be supported by the Province through financial and technical assistance for facilities and for research and development.

Government procurement programs and the removal of subsidies on virgin materials would also support the development of markets.

#### 5.6 Transfer and Disposal of Waste from Residential and IC&I Sectors

Despite a reduction of some 1,104,000 tonnes in disposal through reduction, reuse and recycling, about 860,000 tonnes of residential and IC&I waste would remain to be landfilled or incinerated by the year 2000. This could grow to 1,039,000 tonnes by the year 2010. The closure of the Port Mann landfill scheduled for 1997 would result in a short fall of available disposal capacity.

The program recommended for transfer and disposal of residual waste takes into account both costs and environmental impacts. An acceptable site for an additional landfill in the Region could not be identified.

Therefore, additional capacity will have to be provided by either more incineration capacity or a controlled out-of-region landfill. Incineration has an advantage over landfilling in that with proper care of the ash, there is less adverse impact on water resources than with landfilling. Also, land use related impacts are less. However, this difference is minimized for a out of Region landfill in a dry climate area, such as Cache Creek. On the other hand, incineration is more expensive than either out-of-region landfilling and/or landfilling at Burns Bog. The air impact studies performed for this project have suggested that the incinerator has a greater adverse impact than landfills on the air environment even when the impacts of long haul transport are taken into account. This is particularly so for the low level Regional contaminants, such as the nitrogen oxides, sulfur dioxides and particulate which are of significant concern in the Region's air shed. Therefore, out-of-region landfilling is recommended as the most acceptable means of providing additional capacity to handle wastes which would have gone to the Port Mann landfill had it remained open. Also, out-of-region landfilling would be preferable in the event it becomes necessary in the future to reduce or stop the landfilling at Burns Bog.

The program to provide adequate transfer and disposal capacity to the year 2010 would include:

- The early construction of a transfer station in Surrey and the establishment of outof-region landfill capacity to handle and receive the waste that would have gone to the Port Mann landfill, had it remained open. The majority of waste received at this facility originates in Surrey but it does receive waste from nearby municipalities, including some nuisance and industrial wastes. The transfer station would have a capacity of 200,000 tonnes to provide a contingency margin and also to provide for capacity beyond the year 2010. The disposal capacity to replace Port Mann would be obtained through an immediate request for proposals or public tenders called by the District. The Port Mann landfill currently receives about 140,000 tonnes of waste per year. With the disposal reduction under the Plan, the amount of waste generated within Surrey would be about 117,000 tonnes in the year 2000 and 165,000 tonnes in the year 2010 based on a disposal rate of 0.42 tonnes/capita. The contract would be such that the guaranteed minimum garbage tonnage would not become an impediment for reductions in per capita garbage disposal beyond the 50% level. The use of 3 to 5 year contracts would be considered as a means of ensuring this.
- The continued operation of the Burnaby incinerator at an operating capacity of 240,000 tonnes per year. Its operating standards would be upgraded as necessary to meet new environmental Criteria of the Ministry. This facility annually produces about 45,000 tonnes of bottom ash and about 7,000 tonnes of fly ash which is classified as a special waste under the Waste Management Act. The bottom ash would continue to be used as road construction and cover material at landfills until such time as other markets are developed through the efforts of the District. The fly ash would continue to be placed in secure landfill cells until the District develops or proposes recycling or other disposal methods which are approved by the Ministry of Environment, Lands and Parks.
- Continued operation of the City of Vancouver landfill at Burns Bog to receive garbage from the area it currently serves. Future operation and particularly expansion to new cells within the existing permit would be in accordance with the June 1993 Provincial Landfill Criteria. This continued operation is subject to the outcome of a technical review commissioned by the City to confirm that the June, 1993 Landfill Criteria can be met, and to determine what this would cost.
- The modification of the existing operating plan for the Cache Creek landfill to affect compliance with the 1993 Landfill Criteria and to make available the additional 2,000,000 tonnes of capacity provided under the permit. With achievement of the disposal reduction objective, this permitted capacity would satisfy the District's disposal needs to the year 2010 providing Cache Creek landfill is not successful in the selection process for replacement of the Port Mann Landfill. However, if it is successful, there would be a need to provide capacity beyond that available under the Cache Creek permit. This would be accomplished by the District through a request for proposals or competitive bids which would be undertaken simultaneously with negotiations with the operators of the Cache Creek landfill to develop terms for expanding the landfill and extending the disposal services for the District.
- Monitoring of the adequacy of the waste transfer capacities for the Coquitlam Resource Recovery Plant and the Maple Ridge Transfer Station. This would

ensure early warning of capacity shortages resulting from faster than anticipated population growth or lower than planned per capita disposal reduction.

The costs of transfer, transport and disposal of garbage and the residuals from recyclables processing along with costs of garbage collection are summarized in Table 8.

# TABLE 8 TONNAGES AND COSTS OF GARBAGE COLLECTION, TRANSFER AND DISPOSAL - YEAR 2000

	Res	idential Se	ctor	IC&I Sector		
Activity	Tonnes	\$'000	\$/Tonne	Tonnes	\$'000	\$/Tonne
Collection	395,672	30,772	78	319,374	23,634	74
Transfer, Transport and Disposal		24,5741	62		19,836	62
Subtotals	395,672	55,346	140	319,374	43,470	136
Residuals from Processing	12,515	777	62	132,803	8,246	62
TOTALS	408,187	56,123	Av. 137	452,177	51,716	Av. 114

The cost would be paid for by generators except for that portion provided under a manufacturer responsibility program contribution. In total, about 860,364 tonnes of garbage and residuals would be managed at an estimated cost of about \$108 million, or an average of \$125/tonne. The inclusion of residuals from processing facilities lowers the average estimated cost for collection, transfer, transport and disposal of residential and IC & I garbage which are \$140/tonne and \$136/tonne respectively.

#### 5.7 Demolition Landclearing and Construction (DLC) Programs:

Source Reduction, Reuse and Recycling programs and related activities include:

- Mandating that all large DLC waste generators must develop and implement waste audits and waste reduction and recycling plans.
- Imposing tipping fee surcharges and bans on materials for which there are markets.
  This would require weigh scales to be operated at all but very small facilities. These
  would also provide additional information necessary to plan and support disposal
  reduction measures. Surcharges and bans would be supported by education and
  enforcement programs to minimize illegal dumping.
- Supporting market development through the provision of funds by the provincial government for research. Also, a recycled product task force would be formed to review current standards and remove barriers to the use of recycled asphalt and concrete where it is reasonable to do so.

- Establishing a waste exchange database to facilitate matching the needs of waste generators and waste reusers.
- Initiation of education and training programs to modify traditional attitudes and practices. These programs would be developed through a stakeholder promotion and education organization.

The ownership and operation of DLC transport, processing, transfer and disposal equipment and facilities would remain with private industry. However, these would be regulated to ensure:

- Processing facilities remove required recyclables and transfer the residual to approved disposal facilities.
- The direct haul or transfer of DLC waste to only approved disposal facilities.
- Facilities are operated to acceptable environmental standards, such as the 1993 Provincial Landfill Criteria.

A lack of reliable information precludes an estimate of DLC materials flows, however, Table 9 provides at least an indication of the waste generation in the year 2000 and the degree to which disposal might be reduced by the above 3 R initiatives.

## TABLE 9 PROJECTED DLC MATERIAL FLOWS YEAR 2000

Material	Potential Generation (tonnes)	Reduction Reuse Recycling (tonnes)	Disposal (tonnes)	3Rs Percent of Potential Generation
Concrete/Asphalt	564,000	508,000	56,000	90
Gypsum	62,000	56,000	6,000	90
Wood	170,000	85,000	85,000	50
Other	320,000	80,000	240,000	25
Total	1,116,000	729,000	387,000	65
Per capita disposal as a % of 1990* per capita generation	Aire in the on			61

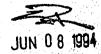
<sup>\*</sup> Assumes 1990 per capita generation is the same as in 1991.

#### 5.8 Household Hazardous Waste

The Province is initiating a household hazardous waste program under which the manufacturers of hazardous products become responsible for receiving, recycling and disposing of the household hazardous waste from these products. This is a recent initiative by the Province and therefore was not addressed by the technical consultants. However, the Region would, under the revised Plan, implement landfill disposal bans and education programs to provide incentives for generators to return household

hazardous wastes to the manufacturers so that they do not end up in the facilities serving the District.

It is important that the Ministry provide alternatives to disposal of household hazardous wastes until such time as the manufacturer responsibility programs are established. In this interim period there will, as a result of the closing of Ministry depots, be no option but for residents to dispose of household hazardous wastes in the Regional solid waste facilities or through the sewer system.





CITY OF PORT COQUITLAM ENGINEERING DEPT.

JUI:

#### SOLID WASTE MANAGEMENT PLAN REVIEW

for the Greater Vancouver Regional District

TC FROM BOTE 1101-4330 Kingsway

TZ J7 Burnaty, B.C. V5H 4G8

TT TELEPHONE: 451-6040

TT JE. FAX: 436-6811

GC File: SD 95.01.20.03

To:

Municipal Waste Reduction Coordinators

CC:

LMS, LHH, ADM

From:

P.M. Brady, Plan Review Project Manager

Date: June 1, 1994

Re:

Solid Waste Management Plan Review

The Stage 2 Report was approved by the GVRD Board at its meeting of May 27, 1994. The Report has now been submitted to the Minister of Environment, Lands and Parks for his approval.

The GVRD has attempted to make Municipal Councils aware of the solid waste strategy in the Stage 2 Report by the following means:

- all GVRD municipalities have members on the TSWAC who represent their municipalities and therefore can keep their councils informed of the process.
   In addition, some municipalities also have members on the LSWAC.
- presentations on the Solid Waste Management Plan Review were made at the March 12 Council of Councils meeting. A copy of the Overview of the proposed solid waste management strategy was provided to all elected municipal officials in advance of that meeting.
- well in advance of the May 27, 1994 Board meeting, every Mayor and Councilor in the GVRD received a copy of the Stage 2 Report with the attached cover letter. Each municipality also received one complete set of the appendices (the CH<sub>2</sub>M Hill and Boutilier and Associates reports).

P.M. Brady,

Plan Review Project Manager

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May 11, 1994

#### Dear Council Member:

At the request of the GVRD Solid Waste Steering Committee, I am providing the enclosed May, 1994 Stage 2 Report for the Solid Waste Management Plan Review. This Report was accepted by the Steering Committee yesterday, and is being forwarded to the Board for approval at their May 27 meeting.

The recommended strategy in the Report was presented in some detail at the Council of Councils meeting on March 12. This strategy and its Key Recommendations were described in the March "Overview" document which was provided to you in advance of that meeting.

The recommended strategy and Draft Stage 2 Report were the subject of public and advisory committee meetings during the last week in April. The response from these meetings was very positive. However, a few issues were raised which warranted further consideration. As a result of Steering Committee consideration of this response, the following significant changes were made when finalizing the recommended strategy in the enclosed Report:

- The addition of a recommendation intended to enable people to stop the unwanted delivery of junk mail. See Recommendation 14 on page 17.
- The provision for competitive bids/proposals (as well as negotiations) to obtain more disposal capacity when the existing permitted capacity at Cache Creek is used up around the middle of the next decade.
   See Recommendation 22 on page 25.
- The addition of 3 recommendations intended to enable the District to stop the uncontrolled flow (export) of waste from the Plan Area. See Recommendations 12 and 13 on pages 16 and 17, and Recommendation 23 on page 26.

The uncontrolled flow of waste is of immediate and significant concern. If early measures are not taken to prevent it, the present situation could quickly deteriorate to the point where the strategy would not work and indeed, existing recycling programs would be undermined.

Prior to discussing the strategy with Board member(s) from your Council, you may wish to get more information on the Recommended Strategy from the staff member of your Engineering Department who is a member of the Technical Solid Waste Advisory Committee. Also, a copy of the April, 1994 report "Comprehensive Waste Management Strategy" by CH2M Hill Engineering Ltd. and the May "Final Public Consultation Report - Stage 2" by Boutilier and Associates are being provided to your Municipal Clerk. These provide detailed background information which might be of interest to you.

Yours truly,

Peter Brady Project Manager

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cc: With Attachment TSWAC Members

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