APR 24

APR. 24

THE CORPORATION OF THE CITY OF PORT COQUITLAM

ENVIRONMENTAL PROTECTION COMMITTEE

Wednesday, April 24, 1991

Meeting Room #2
2580 Shaughnessy Street, Port Coquitlam, BC

5:00 p.m.

AGENDA

PERSONNEL IN ATTENDANCE:

ITEM I: CONFIRMATION OF MINUTES OF PREVIOUS MEETING

ITEM II: RE-REFINED MOTOR OIL
(Report from Operations Manager dated April 16/91)

ITEM III: RECYCLING COUNCIL OF BRITISH COLUMBIA
(Report from Deputy City Engineer dated March 11/91)

ITEM IV: RECYCLING PROGRAM - LETTER OF OBJECTION
(Correspondence dated March 26, 1991)

ITEM V: HOME COMPOSTING
(Verbal report from Chairman)

ENVIRONMENTAL PROTECTION COMMITTEE AGENDA Cont'd...

ITEM VI: VANCOUVER BOND OF TRADE
(Correspondence dated March 12, 1991 and report from Deputy City Engineer dated April 11, 1991)

ITEM VII: MINISTRY OF ENVIRONMENT - FINANCIAL ASSISTANCE
(Report from Deputy City Engineer dated April 11, 1991)

ITEM VIII: NEW BUSINESS

THE CORPORATION OF THE CITY OF PORT COQUITLAM

ENVIRONMENTAL PROTECTION COMMITTEE

MINUTES

A meeting of the Environmental Protection Committee was held in the Second Floor Meeting Room, 2580 Shaughnessy Street, Port Coquitlam, on Wednesday, April 24, 1991 at 5:00 p.m.

In attendance were:

Alderman J. Keryluk, Chairman
Alderman R. Talbot, Co-Chairman
A.D. de Boer, Project Engineer
Kip Gaudry, Deputy City Engineer

Delegation:

Al Grist

ITEM I: CONFIRMATION OF MINUTES

The Minutes of the Environmental Protection Committee Meeting held Wednesday April 10, 1991 and April 17, 1991, be considered, read, and adopted.

Carried

ITEM II: RE-REFINED MOTOR OIL

Deferred until Operations Manager has had an opportunity to complete the report. Estimated time two to four weeks.

ITEM III: RECYCLING COUNCIL OF BRITISH COLUMBIA

Item deferred to next Committee meeting.

ITEM IV: RECYCLING PROGRAM - LETTER OF OBJECTION

Item deferred to next Committee meeting.

Cont'd .../2

ENVIRONMENTAL PROTECTION COMMITTEE MINUTES Cont'd...

ITEM V: HOME COMPOSTING

The Committee considered a report from the Deputy City Engineer. While it was understood that the full $40,000 for the over-all composting program for the City had been removed from the 1991 Budget, Committee considered its options. The Committee found that various levels of assistance and encouragement could be provided by the City to his residence with corresponding costs. A full program would cost approximately $40,000. On the other end of the scale a project with minimal participation by the City with a small financial contribution to provide demonstration projects located at garden centres in the City will cost approximately $1,500. Home composting has the potential to remove 20%-30% (by weight) of household garbage.

The Committee therefore recommends:

> That $1,500 be approved from the recycling budget to set up Home Composting demonstration projects at both the Art Knapp's Plantland Store and the David Hunter Garden Centre.

ITEM VI: VANCOUVER BOARD OF TRADE

The Committee considered a report from the Vancouver Board of Trade requesting support for evironmental issues. The Vancouver Board of Trade through their Environmental Task Force undertook a study on Air Emissions in the Lower Mainland. The report established that air quality in the Lower Mainland has been diminished over the past few years because shear growth has overwhelmed technological advances in emission reductions from industry. One of the largest contributors is the automobile, and therefore any environmental initiative that can eliminate exhaust emissions and/or encourage transit will benefit the air quality in the Lower Mainland. The Vancouver Board of Trade also recognizes that the present fragmented system of jurisdictions in the management of various aspects of air quality in the Lower Mainland is not as effective as it could be. They have studied the Air Quality Management Board in Los Angeles and believe that an agency along those lines should be established in the Lower Mainland.

Committee directed that more information be obtained on some of the recommendations and information in the report, particularly those dealing with the public transit system and the Los Angeles Air Quality Management Board. Information will be collected and reported back to Committee as soon as it is available.

Con't .../3

ENVIRONMENTAL PROTECTION COMMITTEE MINUTES Cont'd...

ITEM VII: MINISTRY OF ENVIRONMENT - FINANCIAL ASSISTANCE

Deferred to next Committee meeting.

OTHER BUSINESS:

AL GRIST - PORT COQUITLAM AND DISTRICT HUNTING & FISHING CLUB

Mr. Grist was invited to the Committee meeting to update Committee members on the status of his organizations efforts to obtain water from the Greater Vancouver Regional District to the Fish Hatchery. Mr. Grist provided the Committee with a letter from the G.V.R.D. dated March 27, 1991 indicating that they were one step closer to obtaining a permanent water supply from the G.V.R.D. for the Fish Hatchery. Mr. Grist will keep the Committee updated on the matter.

Mr. Grist also requested the Committee's assistance in exploring the Greater Vancouver Regional Water District's intention to use chloromine as a water purifier instead of chlorine. It appears that from the technical literature provided that chloromine stays with the water longer and in some instances has been responsible for fish kills in rivers when normal domestic water has accidentally escaped into nearby streams and water courses. Mr. Grist supplied the Committee with a report on the Furgus Creek Fish Kill which happended in October 1989 in Surrey.

Mr. Grist also offered to investigate the Federal Fisheries and Oceans project taking place on the west bank of the Coquitlam River just south of the Bailey Bridge off Pitt River Road. He will notify Kip Gaudry with the information who in turn will notify the Committee.

The Meeting Adjourned at 6:45 p.m.

C.F. (Kip) Gaudry, P. Eng.
Deputy City Engineer

Alderman J. Keryluk
Committee Chairman

CFG:ck

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

cc: Mayor and Aldermen
City Administrator

ATTN: Rod Lotzgar
Canadian Fibre Ltd.
FAX# 524-3946

The following gives the multiple-bag options that we are considering for the curbside recycling program.

Option 1 - using two 'Glad' blue bags separated at source
One bag contains mixed paper, newspaper and cardboard and the other bag contains commingled glass, metals and plastics. The bags are separated by the recycling crews into two compartments in the recycling truck and made available to the processor as two separated recyclable streams.

Option 2 - using two 'Glad' blue bags separated at processing site
One bag contains mixed paper, newspaper and cardboard and the other bag contains commingled glass, metals and plastics. The bags are placed in one compartment on the recycling truck. The paper product bags are sorted from the commingled container bags at the processing facility.

Option 3 - using one 'Glad' blue bag and one reusable bag
A 'Glad' blue bag is used for co-mingled glass, metal and plastic products. A reusable plastic bag would contain mixed paper, cardboard and newspaper.

The processor would receive two separate recyclable streams - commingled containers and paper products. The commingled containers would be in Glad blue bags and the paper products would be in loose form, without plastic bags.

Could you provide pricing arrangements for these three options so that we can discuss them at our meeting on March 21st at 9:30am in the PoCo city hall.

Regards,

A. de Boer

Andrew de Boer
Project Engineer

MEMORANDUM

TO: Kip Gaudry, P.Eng.
Deputy Engineer

FROM: Andrew de Boer
Project Engineer

DATE: March 19, 1991

SUBJECT: Home Composting

1.0 BACKGROUND

Home composting has become popularized in many municipalities in British Columbia because it offers substantial benefits to both the city and its residents. For the city there is the savings in dumpage charges realized from the diversion of compost from the landfill. For the residents there is the satisfaction of reducing their waste and creating a useful product from their organic refuse.

For these reasons it was decided to look into a home composting program for Port Coquitlam. As a first step for program implementation an investigation into home composting in other communities was undertaken. The following presents the results of this investigation.

2.0 PROGRAMS IN OTHER MUNICIPALITIES

The following gives an brief overview of home composting programs which have been initiated in other municipalities.

Vancouver
In 1990 a pilot program was started whereby 250 home composters were purchased by the city and provided to residents at 1/3 cost. There were 5 models to choose from which varied in price from $85 to $170. They were evaluated for public acceptance, cost and effectiveness in composting.

This year the city engineering department is recommending that council approve the purchase of 5,000 home composters. The units are valued at $60 each and would be sold to residents at 1/3 cost.

Seattle
The city has purchased 7,800 home composters at $40 U.S. each. The units will be provided to residents free of charge.

Kamloops
Last year the city purchased 700 home composters for $50 each. The units were sold to residents for $17 each. A similar program is planned for this year.

Victoria
The Capital Regional District will be purchasing 12-15 models of home composters. The composters will be given to municipalities which will use them in compost demonstration gardens. The demonstration gardens will either be operated by the municipality or local garden centres.

3.0 CONCLUSION

There are two types of home composting programs that a city can initiate. The first is an intensive program where the city purchases composters and sells them to residents for a reduced rate. The second type of program involves only promotion and liaison with community groups and businesses interested in home composting.

The decision on which program to choose depends on the available funding and degree of resident participation that is desired.

THE CORPORATION OF THE
CITY OF PORT COQUITLAM

MEMORANDUM

TO: Environmental Protection Committee DATE: March 11, 1991

FROM: Kip Gaudry, P. Eng.,
Deputy City Engineer

SUBJECT: **Re-Refined Motor Oil**

RECOMMENDATION:

That Council support the use of re-refined motor oil in City owned and operated vehicles.

BACKGROUND & COMMENTS:

Mohawk Oil of North Vancouver have for the past several years marketed re-refined motor oil. Historically, it was more expensive than virgin crude and this deterred alot of potential users. It is our understanding now that the current rate for the re-refined motor oil is close to or less than equivalent rates for virgin crude.

In talking with Gord Voncina, Operations Manager, he indicates that they are looking at a program of introducing re-refined motor oil to the City fleet in 1991. At this point they have not completed their research and made their final plans.

C.F. (Kip) Gaudry, P. Eng.
Deputy City Engineer

CFG:ck

THE CORPORATION OF THE
CITY OF PORT COQUITLAM

M E M O R A N D U M

TO: Kip Gaudry, P.Eng.
Engineering Department

DATE: March 4, 1991

COPY: Alderman Keryluk
Alderman Talbot

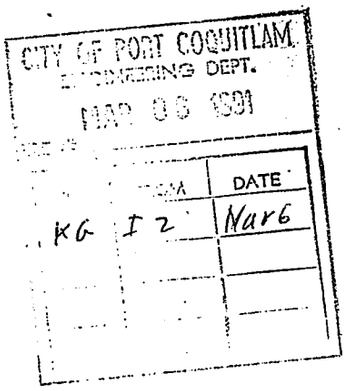
FROM: Bryan R. Kirk
City Administrator

RE: Use of Re-refined Motor Oil in City Vehicles

The attached article and note from Bram Hoogendoorn is being referred to the Environmental Protection Committee for consideration.

Thank you for bringing this matter to my attention.

B. K. Kirk



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Att.

c.c.: B. Hoogendoorn

Used oil recovery program available

NATASHA JONES

Earth To Ozone

Flushing used engine oil into sewers, septic tanks and drains is crippling to the environment.

Despite facilities that accept used oil for recycling, Canadians are dumping 300 million litres of used motor oil into the environment every year, according to Environment Canada.

That amounts to seven times more than the oil spilled off the coast of Alaska by the Exxon Valdez. What happens when we don't dispose of it safely?

When it is buried in landfill sites, used in road oiling, poured into septic disposal systems, the oil contaminates the soil, surface water and ground water, harming us and wildlife.

Wasting used oil also contributes to the depletion of our oil supply which is finite, and requires additional exploration and extraction at no small cost.

According to Mobil Oil, which recently introduced a used oil recovery program in the United States, used oil from a single oil change can contaminate one million gallons of water — the domestic needs of 50 people.

The company estimates that 175,000,000 gallons of used engine oil are disposed of in ways that are dangerous to the environment.

In this country, Mohawk Oil's Used Oil Collection Service, based in North Vancouver, has the capacity to collect more than 30 million litres of used lubricating oil.

At Mohawk's base oil extraction facility, used lubricating oil is re-refined using a distillation and hydrotreating process which results in a product the company says is indistinguishable from that made from virgin crude oil.

This base oil can then be used in any lubricant requiring neutral base oils of the appropriate viscosity.

The Insurance Corporation of B.C. supports the use of re-refined motor oil in fleet service, and has even gone as far as saying that the recycled oil "surpasses all new car warranty requirements."

ICBC urges us to request Mohawk or Spartan engine oils when we are having our cars serviced. The grades available are SAE 5W/30, SAE 10W/30, SAE 10W/40 and SAE 20W/50.

If you do your own car oil changes, the Mohawk station at 4167 208th St. will accept up to 20 litres of used oil at a time. The station at 6295 200th St. allows two 20-litres pails at a time. It has enhanced storage facilities in a 500-gallon underground tank.

There is no charge for the service.

Two years ago the provincial government decided its vehicle fleet must use recycled engine oil. Langley School District's buses and maintenance vehicles have used re-refined oil for more than a year.

Recycled engine oil is cheaper than that derived from virgin crude — and yet neither the Township nor the City of Langley uses this less expensive, environmentally-prudent product.

THE CORPORATION OF THE
CITY OF PORT COQUITLAM

MEMORANDUM

TO: Environmental Protection Committee DATE: March 11, 1991

FROM: Kip Gaudry, P. Eng.,
Deputy City Engineer

SUBJECT: **CORRESPONDENCE RESPONSE**

RECOMMENDATION:

That Chairman Keryluk sign the attached letter.

BACKGROUND & COMMENTS:

The attached letter was received from Recycling Council of British Columbia regarding recycling programs in Port Coquitlam. As it appears they have really not been informed of the full extent of Port Coquitlam's Recycling Program, I am suggesting we send the attached letter which outlines the broad scope and scale of our program.

C.F. (Kip) Gaudry, P. Eng.
Deputy City Engineer

CFG:ck

Attachment

THE CORPORATION OF THE
CITY OF PORT COQUITLAM

M E M O R A N D U M

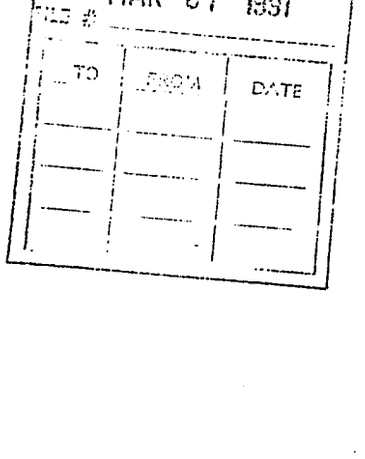
TO: Environmental Protection Committee DATE: March 6, 1991

COPY: Kip Gaudry, P.Eng.
Deputy Engineer

FROM: Danielle Pagé
Administration

RE: Attached Correspondence - Recycling

His Worship Mayor Traboulay has asked that this correspondence be referred to the Environmental Protection Committee for reply.



Danielle Pagé

Att.

Recycling Council of British Columbia
102-1525 West 8th Avenue, Vancouver, B.C. V6J 1T5 (604) 731-7222

Feb. 27, 1991

Len Traboulay
Mayor
City of Port Coquitlam
2580 Shaughnessy
Port Coquitlam, B.C.
V3C 2A8

Dear Mr. Traboulay:

Enclosed please find a copy of a letter received by the Recycling Council of British Columbia.

The Recycling Council operates the Provincial Recycling hotline and the B.C. Waste Exchange. Everyday we receive many calls from Port Coquitlam residents. Members of your community want accessible recycling facilities.

Sincerely,

Jill Gillett

Jill Gillett
Recycling Coordinator.

Rachel Manning
1381 Lincoln Dr.
Port Coquitlam B.C.
V3B 7B9

To whom it may concern,

My name is Rachel Manning. I am almost 13 years old. I am very concerned about the environment. I am trying to recycle the things through out the house, but I have no place to put them. We don't have any recycling facilities, and we don't have any "R" bags, or the blue boxes. We always end up throwing ton's of newspapers out. Could you please find some way to send me some bags or a box? I would be very greatful if you could possibly help me with this problem. I want to help to keep the environment clean. So, I thank-you for your time.

Rachel Manning

P.S. Thanks again.

THE CORPORATION OF THE CITY OF PORT COQUITLAM

2580 SHAUGHNESSY STREET
PORT COQUITLAM, B.C.
V3C 2A8

TELEPHONE: 941-5411
FAX: 464-3524

OUR FILE

March 11, 1991

Recycling Council of British Columbia
102 - 1525 West 8th Avenue
Vancouver, B.C.
V6J 1T5

Attention: Jill Gillett
Recycling Coordinator

Dear Ms. Gillett:

RE: PORT COQUITLAM RECYCLING PROGRAM

Further to your letter of February 27, 1991 we are pleased to advise that the City of Port Coquitlam has already embarked on a very ambitious recycling program which is due to kick off June 1, 1991. We will be providing our residents with curb side pick up of recyclable materials. We will be utilizing the "Blue Bag" system where residents will place all recyclable materials in the same bag and place it at the curb side for our trucks to pick up.

Concurrent with the 1991 recycling program we will be experimenting with the collection of compostable materials and developing our own compost piles. We do hope to institute a full curb side pick up in 1992 for all compostable materials.

Initially our recycling program will service single family residences and then we plan to bring on multi-family residences, industrial, commercial and institutional facilities as soon as budgets and physical equipment permit.

We would be pleased if you would provide your callers with the name of the City of Port Coquitlam recycling coordinator. He is Mr. Andrew de Boer of the Engineering Department and can be reached at 941-5411.

Alderman J. Keryluk

JK:ck

cc: Mayor Traboulay
Alderman Talbot
Kip Gaudry, P. Eng.,
Deputy City Engineer

K6

Office of the Mayor — THE CITY OF PORT COQUITLAM
2580 Shaughnessy Street,
Port Coquitlam, B.C. V3C 2A8
Fax: 464-3524
Phone: 941-5411

April 3, 1991

Mr. Richard Schroeder
Poor Richard's Distributing Corp.
2820 Huntington Place
Port Coquitlam, British Columbia
V3C 4T3

Dear Mr. Schroeder:

Thank you for your letter of March 26, 1991 regarding proposed recycling sites for Industrial Sites.

I have referred your letter to the Environmental Protection Committee. The Chairman is Alderman J.J. Keryluk. I am sure you will hear from the committee in due course.

Yours sincerely,

Mayor L.M. Traboulay

cc: Alderman J.J. Keryluk
Alderman R.N. Talbot
Mr. Kip Gaudry, Dep. City Engineer

POOR RICHARD'S
Distributing Corp.

March 26th, 1991

Mayor and Council,
City of Port Coquitlam,
2272 McAllister Avenue
Port Coquitlam, B.C.
V3C 2A8

Re: Proposed Recycling Service
for Port Coquitlam Industrial Sites

Dear Sirs:

A neighbor of ours has made me aware that there is a proposed Recycling Program under discussion, that would see boxes or bins collected from Industrial Sites such as ours. We own a small multi-tenant type warehouse, at the site of the old Huntington Mill.

We would like to voice our objection to this idea, based on the following reasons:

1/ It is not practical. Industrial users are already directing recoverable waste through private firms that either pay for the salvage, or haul it at no charge to the business;

2/ Household waste, such as bottles, papers, cans, etc., is not usually present at Industrial sites, as it is at households;

3/ Our business would not use this service. We, like other businesses, have already made our own arrangements to remove re-cyclables;

4/ We don't like having a service that we don't want, forced upon us through automatic assessment.

I only heard of this proposal by accident. I hope it is not too late to have my opinion considered.

Sincerely,

Richard Schroeder

P.S. ... My compliments to the City's Garbage Truck operation. They do a great job, and you can set your watch by their pick-up times.

RS/jml

2820 HUNTINGTON PLACE, PORT COQUITLAM, B.C., CANADA V3C 4T3 ● PHONE: (604) 464-4511

MEMORANDUM

TO: Kip Gaudry, P.Eng.
Deputy Engineer

FROM: Andrew de Boer
Project Engineer

DATE: March 27, 1991

SUBJECT: Home Composting

1.0 BACKGROUND

Home composting has become popularized in many municipalities in British Columbia because it offers substantial benefits to both the city and its residents. For the city there is the savings in dumpage charges realized from the diversion of compost from the landfill. For the residents there is the satisfaction of reducing their waste and creating a useful product from their organic refuse.

For these reasons it was decided to look into a home composting program for Port Coquitlam.

2.0 HOME COMPOSTING OPTIONS

There are two types of home composting programs that a city can initiate. The first is an intensive program where the city purchases composters and sells them to residents for a reduced rate. The second type of program involves promotion of composting and set-up of compost demonstration gardens.

2.1 An Intensive Home Composting Program

This type of program is being started in many other municipalities (Vancouver, North Vancouver, Kamloops, Seattle). The city purchases a quantity of composters and distributes them to residents. The program is promoted through direct mail-out and newspaper ads.

The cost of the composter for the residents is reduced because of the 1/3 provincial grant and the large quantity purchase made by the city. Residents usually end up paying from $20 to $30 for the units.

The costs for this type of program for Port Coquitlam are as follows:

Expenses:	
750 composters @ $60 each	$45,000
Advertising.....	$ 6,000
Administration	$ 7,000
Subtotal:	$58,000

Revenue:	
Provincial grant @ 1/3 composter cost...	$15,000
Resident purchase @ 1/2 composter cost..	$22,500
Subtotal:	$37,500

Net Cost to City $20,500

For this year only 750 composters would be purchased. If demand is in excess of 750 units the program can be expanded in 1992 by purchasing additional composters.

2.2 A Promotional/Demonstration Garden Program

This program would involve set-up of a compost demonstration garden in the city. The site could be city-run or operating by local garden centres or garden clubs.

The demonstration site would be un-manned and would showcase different types of composters and compost methods.

The costs for this type of program are as follows:

Advertising	$ 2,000
30 composters for demo. garden @ 120 ea...	$ 3,600
Administration	600
Total:	$ 6,200

Some disadvantages of this type of program are:

1) There is no incentive for the residents to purchase composters.

2) Residents must pay the full retail price for the units which varies from $85 - $120.

3) The potential for diverting compost from landfill is less than an intensive home compost program.

4) There are already several compost demonstration gardens in the lower mainland operated by City Farmer and the G.V.R.D.

5) There is the potential for vandalism of an unmanned demonstration garden.

3.0 RECOMMENDATION

If funding can be made available the best program in terms of cost benefit and public exposure and participation is option 2.1 - The intensive composting program.

If this type of program is selected the initial expenses of $58,000 should be allocated towards the program. The revenues from the provincial grant and resident purchase will be received several months after program approval.

THE CORPORATION OF THE
CITY OF PORT COQUITLAM

MEMORANDUM

TO: Environmental Protection Committee DATE: April 12, 1991

FROM: Kip Gaudry, P. Eng.,
Deputy City Engineer

SUBJECT: **VANCOUVER BOARD OF TRADE**
REQUESTED SUPPORT FOR ENVIRONMENTAL ISSUES

RECOMMENDATION:

That Committee recommend to Council

That Council support the initiatives of the Vancouver Board of Trade namely:

- Mandatory motor vehicles emmision testing.
- The use of cleaner burning fuels.
- The development of public transit systems together with means to use transit.
- The establishment of a Air Quality Management Board similar to that established in Los Angeles.

BACKGROUND & COMMENTS:

The Vancouver Board of Trade through their environmental task force, undertook a study on air emmisions in the Lower Mainland. The report established that air quality in the low mainland has been diminishing over the past few years because sheer growth has overwhelmed techological advances and emmision reductions from industry. One of the largest contributors is the automobile and therefore any environmental initiative that can limit exhaust emmisions and/or encourage transit will benefit the air quality in the Lower Mainland.

The Vancouver Board of Trade also recognizes that the present fragmented system of jurisdictions in the management are various aspects of air quality in the Lower Mainland is not as effective as it should be. They have studied the Air Quality Management Board in Los Angeles and believe that an agency along those lines should be established in the Lower Mainland.

They have written to Council requesting support for their initiative to the Ministry of Environment, the Honorable Cliff Surwois. I have summarized the conclusions I feel appropriate should you wish to recommend it to Council.

C.F. (Kip) Gaudry, P. Eng.
Deputy City Engineer

CFG:ck

THE VANCOUVER
BOARD OF TRADE

World Trade Centre
Suite 400
999 Canada Place
Vancouver, B.C.
Canada V6C 3C1
(604) 681-2111
FAX: (604) 681-0437

March 12, 1991

Mayor Leonard Traboulay
The Corporation of the City of Port Coquitlam
2580 Shaughnessy Street
Port Coquitlam, B.C.
V3C 2A8

Dear Mayor Traboulay:

On behalf of The Vancouver Board of Trade I am pleased to forward to you the attached paper entitled Industrial Emission Reductions in the Lower Mainland.

While the paper focuses on the point source emitters, it also discusses the overall trends in the air quality. This trend is a distressing one which, if not halted, will result in very serious degradation of the air quality over the next few years.

By far the largest contributor to air pollution is motor vehicle exhaust. The Board supports mandatory motor vehicles emission testing, the use of cleaner burning fuels and the development of public transit systems, together with means to use transit.

At a broader level The Board also recognizes that the present fragmented system of jurisdictions in management of various aspects of air quality is not as effective as it should be. We have studied the air quality management board in Los Angeles and we believe that an agency along those lines should be established for the Lower Mainland.

The Board's Environment Task Force, under the chairmanship of Larry Bell, is currently developing a further outline of an organization and the elements of legislation to establish such an agency. We will be submitting this shortly to the Honourable Cliff Serwa, Minister of Environment, for his consideration. We would appreciate your support.

Yours truly,

Darcy Rezac
Managing Director

/aml
ETF\0009

INDUSTRIAL EMISSION REDUCTIONS IN THE LOWER MAINLAND

Report of the
Vancouver Board of Trade
Environmental Task Force

January 1991

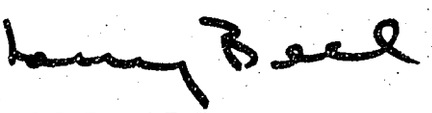
INDUSTRIAL EMISSION REDUCTIONS IN THE LOWER MAINLAND

PREFACE

The quality of our air in the Lower Mainland region does not meet Federal Standards. We have had historic patterns of air quality reductions, and then subsequent improvements, as we shifted from the use of coal to natural gas and as emission controls appeared on our vehicles. However, 1988 data indicates that these improvements have already been overwhelmed by growth, and we are once again in the unenviable stage of deteriorating air quality.

While industrial processes contributed directly to only 7% of total emissions in 1985, we wanted to gain an understanding of what progress has been made over the past five years. In our judgement there has been a 30% decline in total emissions from these top industrial sources, with the clear prospect for a similar decline over the next five years.

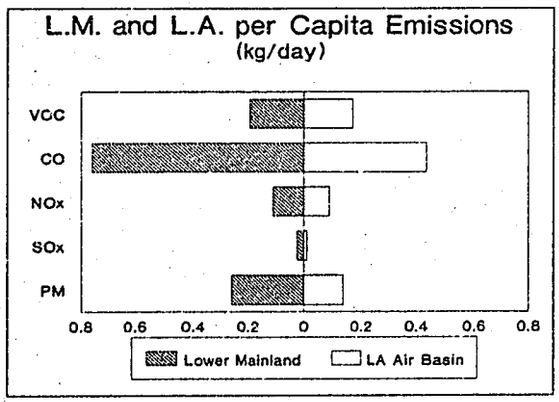
We have reached these conclusions through personal interviews and site visits to the top ten locations, with the exception of one company that could not fully participate since they were focusing primarily on land based issues. We are confident that the 1990 Greater Vancouver Regional District emission inventory study, to be available in 1992, will verify these conclusions. The continuing increase in population and resultant vehicular traffic represents a very significant challenge, as we attempt to balance growth with environmental quality.



L.I. (Larry) Beli
Chairman
Environmental Task Force
Vancouver Board of Trade

I. Introduction

A number of recent technical investigations and Task Force reports have focused on a major concern for the air quality of the City of Vancouver and the Lower Fraser Valley. Investigations have indicated that pollutant emissions on a per-capita basis exceed even those of Los Angeles, which has the most serious air quality problem in North America (figure 1).



Of more importance, is that in the Los Angeles basin, air quality is now improving, whereas in the Lower Mainland, unless some significant changes are made, it will continue to deteriorate.

It is estimated that at the present rate of change, the air quality in the lower Fraser Valley will be worse than that of the Los Angeles basin by 1998.

The Lower Mainland air quality is affected by emissions of five primary pollutants: carbon monoxide (CO), nitrogen oxides (NOx), sulphur oxides (SOx), particulates (TSP), and volatile organic compounds (VOC).

The Greater Vancouver Regional District's (GVRD) "Lower Mainland Emission Inventory" for 1985 provided a detailed breakdown of air emission sources of the Regional District and the Fraser Valley to Chilliwack.

This report identified motor vehicles as the principal source of emissions, accounting for 90% of the CO, 82% of the particulates, 64% of the NOx, and 53% of the VOCs.

The vehicle issue is of such importance that the Provincial Government has initiated a mandatory vehicle emission inspection and maintenance program which will begin operations in early 1992, to ensure that automobile pollution control equipment is working efficiently.

Once primary pollutants have entered the atmosphere, they are influenced by many topographical, meteorological, and chemical factors. They accumulate most readily under calm, dry weather conditions.

The primary pollutants may react with each other to produce a variety of secondary pollutants of which the most important is ozone. This complex reaction involves sunlight, NOx, VOC and to some extent CO.

It is this photochemical smog which most detracts from the aesthetic values and environmental health of the Lower Mainland (figure 2).

With the emphasis placed on estimating vehicle emissions, there has been little public attention given to the efforts of the major industries found within the Lower Mainland in reducing their industrial point source emissions. These industrial complexes have been working for a number of years on pollution reduction opportunities from all discharges to air, land, and water, however our interest in this report is particularly directed to improving air quality.

A number of the industrial air management programs have been underway for some time, and although some are required by regulation, others have been undertaken on a voluntary basis as new technology and other innovative measures become available.

This report describes some of the success of these air emission reduction programs.

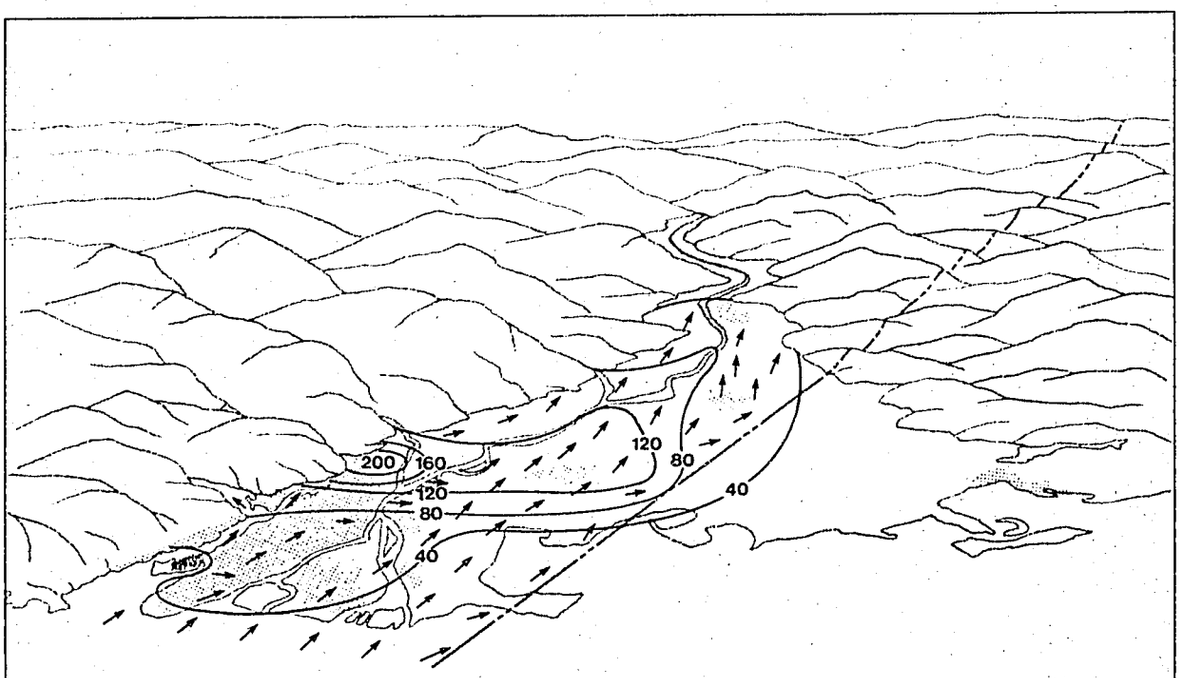


FIGURE 2
LOWER FRASER VALLEY AIR BASIN
Mean wind directions and ozone concentration isopleths (ppb) during September 1, 1988 air pollution episode

II. Forest Industry

Pollution Control Trends in the Forest Products Industry

Forest products industries such as sawmills, plywood plants and lumber remanufacturing facilities have a long history of operation in the Lower Mainland. Air emissions from this industrial sector have historically been generated from the burning of hog fuel (bark and sawdust wastes) in both open teepee type burners in the early days and more recently in hog fuel fired boilers.

Plywood veneer driers and wood dust extraction systems such as cyclones are other examples of point source emissions from this industry.

Since the early 1970's air emissions from lumber manufacturing facilities in the Lower Mainland have been regulated by the GVRD.

Stack emissions must meet increasingly strict requirements for plume opacity and particulate emissions and the industry anticipates more stringent air pollution control requirements for VOC's, NOx and CO_2 in the future.

Pollution control devices such as bag houses have been used for many years throughout the industry for dust control. Increasingly sophisticated pollution abatement devices such as electrostatic precipitators are becoming more common as Lower Mainland air emission standards increase.

Combustion of hog fuel continues to provide a relatively inexpensive source of heat energy for the kiln drying of lumber at some operations, however, natural gas and electricity are rapidly replacing hog fuel for this application.

With the increasing trend for mills to convert lumber drying operations to alternate energy sources, many hog fuel boilers in the Lower Mainland have been shut down and this trend will continue in the future. The end result has been an ongoing reduction in point source air emissions from the forest products industry within the greater Vancouver area.

Incineration of wood wastes today as in the past is essential to minimize the unnecessary disposal of these materials in Lower Mainland landfills. In addition, sawdust and wood chips are used for pulp and hog fuel provides a relatively inexpensive local alternative to oil for power generation.

Wood wastes from the sawmill industry are transported by barge to coastal pulp mills for use in hog fired power boilers.

As noted in the following section, the forest products industry is exploring new initiatives for the cogeneration of electricity from wood wastes.

The high efficiency boilers and state of the art pollution control devices required by these facilities will further reduce air emissions resulting from hog fuel combustion.

The trend through the 1970's then has been for the reduction of hog fired boilers and incinerators in the Lower Mainland area and the increased utilization of wood wastes at the coastal pulp mills for power generation.

As a result of the shift in hog fuel consumption and the increasingly tighter GVRD pollution control requirements, the air emissions from this industrial sector have been dramatically reduced and will continue to be reduced in the future.

Opportunities for Cogeneration

Cogeneration of electricity from wood waste is a way of obtaining needed electrical generating capacity while at the same time benefiting the environment by both eliminating a source of leachates and particulates; and as well delays the requirement to develop new hydro-electric facilities.

The Ministry of Forests Mill Residue Task Force commissioned a report entitled "British Columbia Forest Industry Mill Residues for Calendar Year 1989".

This recently completed report detailed production, utilization and surplus wood waste in the Lower Mainland Sector, also known as the Chilliwack Forest District (CFD).

The data is presented in this table:

Sub-Region	Production	Utilization	Surplus
CHILLIWACK			
BARK (BDT)1	892,200	450,300	441,900
OTHER (m^3SWE) 2	2,392,500	1,535,800	856,700

1 Bone Dry Tonnes *2 Cubic Metres Solid Wood Equivalent*

We anticipate two wood waste fuelled cogeneration facilities could be completed within a three year time horizon which will draw most of their supply from surpluses presently available in the CFD.

The proponents of these projects are Howe Sound Pulp & Paper (HSP&P), confirmed; and Fletcher Challenge Canada (FCC), presently under negotiation.

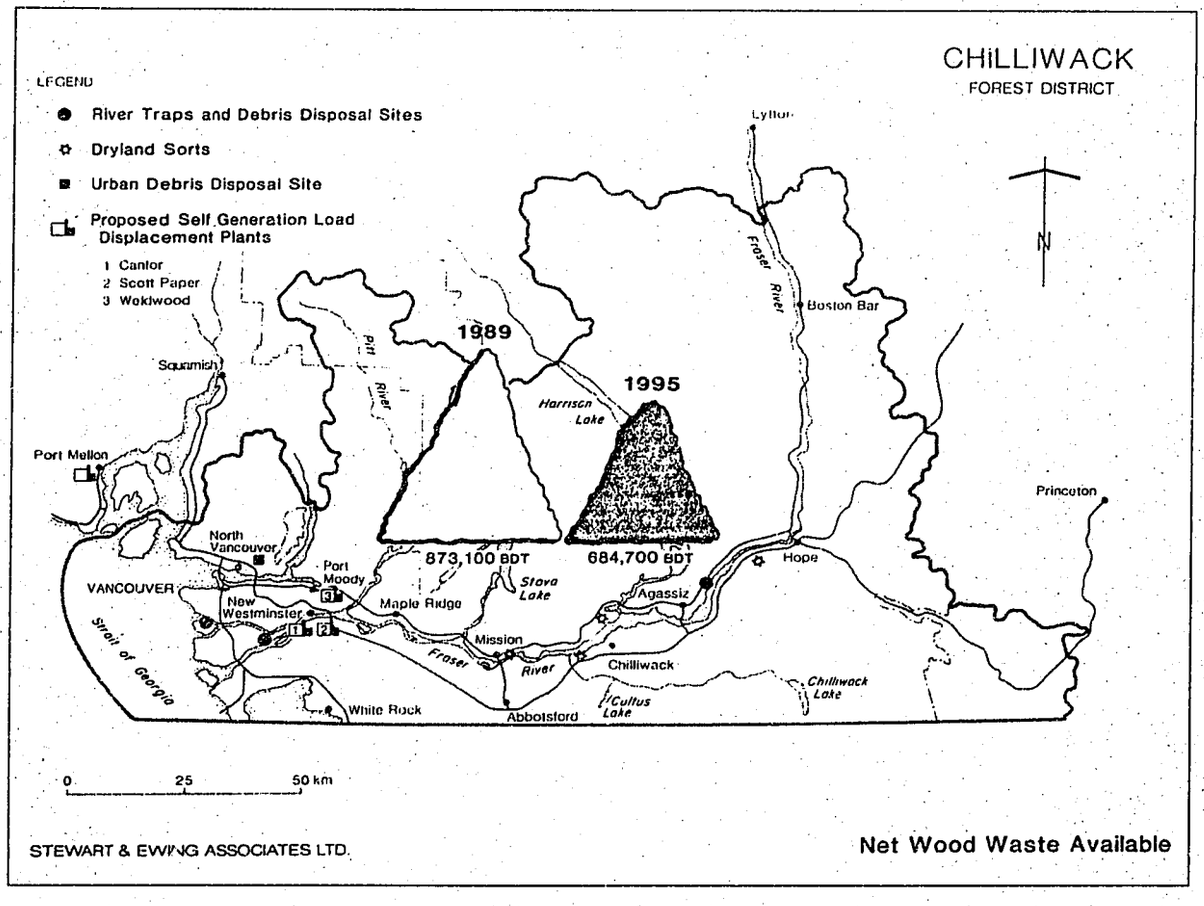
Peak requirements of these two plants are:

	Electrical Energy Prod'n	Volumetric Units	cubic metres (m^3SWE) Solid Wood Equiv.	BDT's
HSP&P	700 GW.h/yr.	400,000 /yr.	approx. 800,000 /yr.	440,000 /yr.
FCC	189 GW.h/yr.	85,600 /yr.	approx. 170,000 /yr.	94,000 /yr.

It is clear that, should both of these projects materialize, a large percentage of the apparent surplus in the CFD may be productively utilized.

However, there is the potential for increasing the estimated surplus since the cited study did not specifically address the quantities of debris from log sorting yards which may be salvageable and used for electricity generation.

Quantification of these sources is to be provided as part of a new report which has recently been completed for B.C. Hydro (figure 3).



III. Oil Refineries

One of the programs recently started by the four oil refineries in the Lower Mainland in conjunction with the GVRD is the **"GVRD - Petroleum Refinery Environmental Assessment"** project.

This project includes the assessing of existing and potential future environmental impacts, evaluating options, costs and benefits for reduction of waste discharges, and establishing new limits for emissions from Lower Mainland refineries.

Of the various gases involved in the formation of ozone, of concern to the refineries are volatile organic compounds (VOC) and oxides of nitrogen (NOx). Oxides of sulphur (SOx) can also contribute to reduced air quality so efforts to minimize emissions of this gas are also included.

Volatile Organic Compounds (VOCs)

In oil refineries, VOCs are present in some of the products made when crude oil is refined.

Some of the efforts being undertaken to reduce emissions of VOC's include installation of secondary seals between the floating roof and the walls of the tanks on crude oil storage tanks, and installation of secondary seals on floating roof tanks containing gasoline.

Other methods being used to reduce emissions are:

- Changing pump shaft seals from the packed type to mechanical type.
- Replacement of reciprocating gas compressors with centrifugal compressors.
- Changing tank mixer shaft seals from packing to mechanical type.

The installation of vapour recovery facilities on tank truck loading racks will also recover vapour from the loading of trucks at terminals and from truck deliveries to service stations.

Reduction in gasoline vapour pressure in summer months to 10.5 Reid vapour pressure from the previous 12.0 maximum resulted in reduced emissions from filling automobiles at service stations and reduced evaporative emissions during automobile use.

Oxides of Nitrogen (NOx)

Oxides of nitrogen (NOx) are generated as a result of combustion of fuel in furnaces and boilers. Efforts to minimize generation of these gases include more efficient combustion control technology.

An example of this is provided by the addition of computer control systems on boilers and furnaces.

Another effort undertaken is the installation of burners designed to give low NOx in the combustion gases.

Oxides of Sulphur (SOx)

Oxides of sulphur (SOx) are generated as a result of combustion of fuel containing sulphur.

The main method used to reduce these emissions is to remove the sulphur compounds from the process gases prior to use as fuel in the process heaters.

Desulphurized natural gas is used as a secondary fuel and as well, the choice of emergency fuel has been changed to the use of diesel fuel which is lower in sulphur content than the fuel oil previously used.

IV. Cement Industries

Particulates

The manufacture of Portland cement can be classified as a traditional "heavy industry". Unlike, for example, an oil refinery, the raw materials and the finished product are solid substances.

The unit processes in a cement plant are materials handling, crushing, grinding, milling and pyroprocessing. As a result, the control of particulate emissions is an integral part of the design and operation of a modern cement plant.

Baghouse or fabric filter dust collectors are widely used in cement plants wherever material is transferred or conveyed, and in the grinding and milling systems. For example, at Tilbury Cement Limited in Delta, over fifty baghouse dust collectors are in use throughout the plant.

Baghouse dust collectors have been in use in the cement and other industries for many years and, with regular maintenance, give excellent service.

In recent years, the performance has been further improved by the use of high-tech fabrics for bag construction and the use of micro-processor controls for bag cleaning.

Many years ago, the main exhaust stack of a cement kiln would have been de-dusted only by a knock-out chamber or perhaps a cyclone dust collector. Today all kilns are fitted with either a baghouse dust collector or an electrostatic precipitator.

Both types of equipment can achieve high particulate removal efficiencies with discharge particulate levels well under GVRD limits.

Oxides of Nitrogen (NOx)

In a cement plant, NOx emissions originate in the rotary kiln. Finely milled rock is fed to the kiln and converted to clinker, an intermediate product in the manufacturing process, through a series of chemical reactions.

Fuels used in the kilns in the Lower Mainland include natural gas, coal and fuel oil. So-called waste fuels such as landfill gas, scrap vehicle tires and coal tailings are also being used.

Because a high temperature (about 1400°C) is necessary for the formation of clinker, oxides of nitrogen or NOx will always be created as a by-product of combustion.

The amount of NOx formed can be reduced by good operating controls. For example, a modern cement plant will have sophisticated instrumentation and a computerized control system to assist the operator to maintain optimum combustion and stable kiln operation.

Since the amount of NOx produced is proportional to fuel consumption, modern kilns equipped with preheaters or precalciners, which reduce specific fuel consumption, produce less NOx per tonne of product than older kilns.

Oxides of Sulphur (SOx)

The two cement plants in the Lower Mainland region have recognized the importance of reducing the emissions of sulphur dioxide and in this regard have made a number of significant process changes.

This work has resulted in sulphur dioxide emissions, based on actual stack emission tests, being reduced by approximately 90% over the past five years.

Opportunities for use in Resource Recovery

The cement manufacturing process uses flame temperature in excess of 2000°C in rotary kilns to convert a pulverized mixture of raw materials into an intermediate product called clinker, which in turn is finely ground with about 5% gypsum to produce cement. Sustained high temperatures, the long residence time of hot gases and turbulence in the cement kiln ensure efficient waste destruction.

The cement kiln's gas scrubbing action and trapping of ash in the clinker provide added environmental benefits.

Extensive testing in Europe has demonstrated the effectiveness of cement kilns in destroying wastes, and in a recent test in Norway, they found no detectable emissions resulting from burning PCB's. This is consistent with test burns done in Canada, where test results showed destruction levels of at least 99.999976%.

The cement kilns can be used effectively to safely destroy all combustible municipal wastes.

With the separation processes related to recycling eliminating reusable materials, it is now even more beneficial to burn the 46% combustible materials.

Not only does it reduce the amount going to landfill, but it also provides a more effective way of eliminating toxic or hazardous wastes and reduces the amount of "new" fuel, in the form of natural gas, coal or fuel oil, that would otherwise be required.

V. Utility Industry

B.C. Hydro Burrard Thermal Generating Station

Burrard Thermal is located on the north shore of Burrard Inlet about 17km east of Vancouver.

This electrical generating facility burns natural gas to produce steam to six generators that when fully loaded produce 912 megawatts of power. This is enough energy to supply electricity to half a million homes each year.

B.C. Hydro is committed to improving the air quality in the Lower Mainland and has consistently worked to achieve or surpass both the Federal Standards and those imposed by the Greater Vancouver Regional District in relation to the Burrard Thermal Generating Station.

For example, B.C. Hydro has decreased Burrard Thermal air emissions through improved operational methods by 40% and has voluntarily subscribed to more restrictive emission standard than originally prepared by the GVRD.

Burrard would also curtail its operation whenever the air quality index is predicted to exceed 50 for five or more continuous hours. This occurs, on average, about nine days per year.

These measures have positioned Burrard Thermal as one of the cleanest thermal power plants in North America. A recent inventory of all airborne emissions in the Lower Mainland found that Burrard Thermal, operating at full capacity with an unlimited year-round supply of natural gas fuel, would emit less than 4% of the total nitrogen oxide and less than 0.01% of reactive hydrocarbons.

Burrard operations have been considerably below this maximum annual capacity.

VI. Conclusion

Although industrial point sources contribute approximately 7% of components leading to the formation of ozone smog, their efforts over the past few years have lead to significant reduction in all gaseous emissions.

However, any meaningful attempt to improve the air quality of the Lower Mainland requires dealing with the primary source of emissions, namely the automobile.

There is a need to refocus our efforts in ways that can both reduce vehicular traffic in the Lower Mainland and as well operate cars that have the most efficient exhaust emission reduction equipment. In addition to this, the emission control systems must be inspected and maintained to ensure continuing good performance.

This is another area where industry is part of the solution. A study completed by B.C. Hydro has shown that vehicles older than 1988 will produce significantly more emission than the 1988 and newer models.

To reduce contribution from their fleets, these various companies have initiated an automobile upgrade program.

This combined with an inspection and maintenance program as well as the many plant additions and operational changes clearly demonstrates industry's commitment to a clean and healthy environment for the greater Vancouver area.

THE CORPORATION OF THE
CITY OF PORT COQUITLAM

MEMORANDUM

TO: Environmental Protection Committee DATE: April 12, 1991

FROM: Kip Gaudry, P. Eng.,
Deputy City Engineer

SUBJECT: **MINISTRY OF ENVIRONMENT - APPLICATIONS FOR FINANCIAL ASSISTANCE FOR SOLID WASTE AND RECYCLING**

RECOMMENDATION:

For information.

BACKGROUND & COMMENTS:

The Ministry of Environment wrote to all municipalities on March 5, 1991 re-establishing the information regarding the financial assistance from the Ministry of Environment for municipal solid waste and recycling programs. You will note in the attachment that the City of Port Coquitlam's request for financial assistance towards the recycling program in the amount of $56,000 is indicated as requested only without any approvals. You will also note that the project title says 'blue box' when we actually are using a blue bag system. We are following this information up with the Ministry of Environment.

C.F. (Kip) Gaudry, P. Eng.
Deputy City Engineer

CFG:ck

Province of
British Columbia

OFFICE OF THE
MINISTER

Ministry of
Environment

Parliament Buildings
Victoria
British Columbia
V8V 1X4

March 5, 1991

His Worship Mayor Len Traboulay
City of Port Coquitlam
2580 Shaughnessy Street
Port Coquitlam, British Columbia
V3C 2A8

Dear Mayor Traboulay:

The Province of British Columbia has undertaken a municipal solid waste management strategy with the objective of reducing the municipal solid waste stream 50 percent per capita by the year 2000. The provision of financial assistance for various programs aimed at assisting local governments in reducing their municipal solid waste is an important component in the implementation of this strategy.

Financial assistance is available from the Province's Sustainable Environment Fund for a number of Municipal Solid Waste Financial Assistance Program. These include: those relating to the development of municipal solid waste management plans; implementation of blue box and other source separated recycling and composting programs; volunteer litter control projects; public information and education programs; rural waste management programs; and, for the transportation of collected recyclable materials to market.

The success of the municipal solid waste management strategy depends upon the creation of economically viable markets for the recyclable materials collected by community recycling programs. The Solid Waste Enterprise Initiatives Program (SWEIP) provides financial assistance to private entrepreneurs for the establishment of enterprises that reprocess recyclable materials or contribute toward that end.

Program information has previously been forwarded to your attention. This is now to be replaced by the enclosed final program guidelines.

Enclosed please find the **"APPLICANTS GUIDE TO SOLID WASTE MANAGEMENT FINANCIAL ASSISTANCE PROGRAMS"** February 1991, which includes program information on:

.../2

- The **Solid Waste Management Planning Financial Assistance Program (SWMPFAP)**. Regional Districts are eligible to receive a one-time financial contribution from the Province towards planning costs in preparing their Solid Waste Management Plans. The maximum assistance level is $5,000 for the Regional District and for each incorporated area, plus $1.00 per capita of the Electoral Area Population, plus a 50 percent cost-share contribution with the Regional District and each of the incorporated areas for the next $10,000 in planning costs. The funding formula reflects waste generation from the whole Regional District population.

- The **Multi-Material Recycling Financial Assistance Program (MMRFAP)**. In order to assist in the implementation of Solid Waste Management Plans, Regional Districts or other organizations, with the approval of the Regional District, may be eligible for cost-share contributions from the Province towards start-up and capital costs of multi-material recycling programs. Maximum funding is: 50 percent of initial promotion to a maximum of $.50 per household; up to 1/3 of total costs of equipment for sorting or composting operations; and, up to 1/3 the capital cost for initiating household collection programs.

- The **Rural Waste Management Financial Assistance Program (RWMFAP)**. Regional Districts or other organizations acting jointly with the Regional District May be eligible for financial assistance to upgrade solid waste management practices in rural areas. Maximum funding is 50 percent of capital cost ($30,000 limit) towards phasing out old landfills and establishing transfer stations; 50 percent ($10,000 limit) towards closing out illegal sites; and, 50 percent ($5000 limit) towards direct costs of auto hulk and white good collection from rural sites.

- The **Recyclable Goods Transportation Financial Assistance Program (RGTFAP)**. Regional Districts or other organizations acting jointly with the Regional District may be eligible for financial assistance to cover up to 50 percent of costs associated with transporting collected recyclable goods to market from remote areas.

- The **Litter Control Financial Assistance Program (LCFAP)**. This program will provide financial support to encourage and assist community based groups in creating litter clean-up and reduction programs.

.../3

- The **Public Information and Education Financial Assistance Program (PEIFAP)**. This program will provide funding to eligible applicants for educational programs which promote the Municipal Solid Waste strategy.

It should be noted that grants and contributions can be awarded based only on approved budget appropriations.

Along with the new **"Applicant's Guide to Solid Waste Management Financial Assistance Programs"** February 1991, please find enclosed the finalized program guidelines for the **Solid Waste Enterprise Initiative Financial Assistance Program (SWEIP)** January 1991. The SWEIP program provides financial assistance in the form of low-interest loans and loan guarantees to private entrepreneurs for the establishment of enterprises that reprocess recyclable materials or contribute toward that end.

Also enclosed is a summary report generated by the Municipal Solid and Biomedical Waste Branch for all program applications received in this office to date. Subsequent reports are available upon request.

Due to the confidential nature of SWEIP business applications, no public information is available on applications received for this program.

In addition to the above program information, an update of the handout describing the provincial Municipal Solid and Biomedical Waste Strategy entitled "Program for Participation" (January 1991), a "BC Strategy" brochure and a "How to Avoid Taking Out the Garbage" brochure have been enclosed for your information. Additional copies of this material are available upon request.

Please contact Ms. Leslie Sullivan, Manager, Marketing and Enterprise Development, Municipal Solid and Biomedical Waste Branch, Ministry of Environment, 1312 Blanshard Street, Victoria, British Columbia, V8V 1X5, telephone 356-9971, if you require any additional information.

Sincerely,

Cliff Serwa

Cliff Serwa
Minister

Enclosures

MINISTRY OF ENVIRONMENT

ENVIRONMENTAL PROTECTION DIVISION
MUNICIPAL SOLID AND BIOMEDICAL WASTE BRANCH

APPLICATION TRACKING SYSTEM

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PROGRAM: Public Education and Information

FILE # : 50220-70

FILE I.D.	ORGANIZATION NAME	PROJECT TITLE	STATUS	DATE RECEIVED	FUNDS REQUESTED	FUNDS APPROVED	FUNDS EXPENDED	
CAPTL(GREENGUIDE)	Greater Victoria Green Guide & Directory	Greater Victoria Green Guide & Directory	5	09/05/90	0	0	0	
GENRL(C.R.I.E.)	Canadian Recycling Information Exchange	Canadian Recycling Information Exchange	14	11/05/90	0	0	0	R
GENRL(GREEN HOME)	MINISTRY OF ENERGY, MINES & PET. RES	B.C. GREEN HOME DEMONSTRATION PROJECT	11	11/29/90	10,000	10,000	0	
GENRL(PITCH-IN/ED)	Pitch-In British Columbia	Public Education and Information	11	10/12/90	60,775	0	0	
GENRL(PITCH-IN/MED)	Pitch-In BC	Pitch-In Media & Information Campaign	14	09/12/90	54,370	0	0	R
GENRL(SCIENCEWORLD)01	Science World	Discovery Boxes	17	08/14/90	75,000	75,000	75,000	
GENRL(SCIENCEWORLD)02	Science World	Science World Mall Exhibit	17	09/08/90	43,270	43,270	43,270	
GRVAN(CITYFARMER)	City Farmer	Composting booklet and education	12	08/20/90	5,000	5,000	0	
GRVAN(COMPOGARDEN)	Greater Vancouver Regional District	Demonstration Compost Garden	16	07/06/90	19,313	18,560	0	
GRVAN(REGDISTRICT)	Greater Vancouver Regional District	GVRD Education Program	16	08/16/90	170,000	43,163	0	
		Program Totals			437,728	194,993	118,270	
		Report Totals			10,188,998	2,973,095	967,811	

MINISTRY OF ENVIRONMENT

ENVIRONMENTAL PROTECTION DIVISION
MUNICIPAL SOLID AND BIOMEDICAL WASTE BRANCH

APPLICATION TRACKING SYSTEM

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PROGRAM: Recyclable Goods Transportation
FILE # : 50220-55

FILE I.D.	ORGANIZATION NAME	PROJECT TITLE	STATUS	DATE RECEIVED	FUNDS REQUESTED	FUNDS APPROVED	FUNDS EXPENDED
CAPTL(MAYNEISLAND)	Mayne Island Recycling Society	Recycling transportation	2	11/21/90	3,050	0	0
POWLR(POWELLRIVER)	Powell River Employment Program Society	Recycling Transportation Costs	2	12/06/90	62,500	0	0
			Program Totals		65,550	0	0

MINISTRY OF ENVIRONMENT

ENVIRONMENTAL PROTECTION DIVISION
MUNICIPAL SOLID AND BIOMEDICAL WASTE BRANCH

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PROGRAM: Rural Waste Management
FILE # : 50220-50

FILE I.D.	ORGANIZATION NAME	PROJECT TITLE	STATUS	DATE RECEIVED	FUNDS REQUESTED	FUNDS APPROVED	FUNDS EXPENDED
BK-NK(REGDISTRICT)	Regional District of Bulkley-Nechako	Rural transfer stations	12	08/16/90	21,280	21,280	0
CO-SC(TAHSIS)	Village of Tahsis	Animal-proof bunkers at Landfill	15	04/20/90	21,043	20,000	0
COLSS(SALMONARM)	Columbia-Shuswap Regional District	Transfer station development	16	11/16/90	3,789	3,789	0
KIT-S(TERRACE)	Usk Community Association	Auto hulk and site clean-up	15	04/18/90	1,225	1,225	0
TH-NI(REGDISTRICT)01	Thompson-Nicola Regional District	Rural transfer stations & Landfill Close	7	12/12/89	202,373	0	0
TH-NI(REGDISTRICT)02	Thompson-Nicola Regional District	Rural Waste Management	7	07/20/90	141,774	0	0
		Program Totals			391,484	46,294	0

MINISTRY OF ENVIRONMENT

ENVIRONMENTAL PROTECTION DIVISION
MUNICIPAL SOLID AND BIOMEDICAL WASTE BRANCH

APPLICATION TRACKING SYSTEM

Application Summary

PROGRAM: Solid Waste Planning
FILE # : 50220-40

FILE I.D.	ORGANIZATION NAME	PROJECT TITLE	STATUS	DATE RECEIVED	FUNDS REQUESTED	FUNDS APPROVED	FUNDS EXPENDED	
CAPTL(REGDISTRICT)	Capital Regional District	Waste Management Plan	15	03/09/90	110,000	132,183	0	
CKOOT(REGDISTRICT)	Regional District of Central Kootenay	Waste Management Plan	15	01/25/91	126,108	126,108	0	
COKAN(REGDISTRICT)	Central Okanagan Regional District	Waste Management Plan	15	04/12/90	100,000	57,730	42,730	
COLSS(REGDISTRICT)	Columbia Shuswap Regional District	Waste Management Plan	15	12/15/89	47,500	53,451	25,000	
COWVY(REGDISTRICT)	Cowichan Valley Regional District	Waste Management Plan	15	05/23/90	50,000	73,101	0	
DEW-A(MAPLERIDGE)	City of Maple Ridge	Waste Management Plan	14	10/24/90	10,000	0	0	R
DEW-A(MISSION)	District of Mission	Waste Management Plan	14	09/12/90	10,000	0	0	R
EKOOT(REGDISTRICT)	East Kootenay Regional District	Waste Management Plan	5	01/22/90	52,500	0	0	
FFGEO(REGDISTRICT)	Regional District of Fraser-Fort George	Waste Management Plan	5	03/08/90	0	0	0	
GRVAN(REGDISTRICT)	Greater Vancouver Regional District	Waste Management Plan	5	09/24/90	0	0	0	
MTWAD(REGDISTRICT)	Mount Waddington Regional District	Waste Management Plan	5	03/07/90	16,050	0	0	
NOKAN(REGDISTRICT)	Regional District of North Okanagan	Waste Management Plan	5	01/25/90	18,000	0	0	
POWLR(REGDISTRICT)	Powell River Regional District	Waste Management Plan	3	05/02/90	20,000	0	0	
TH-NI(REGDISTRICT)	Thompson-Nicola Regional District	Waste Management Plan	15	12/27/89	112,425	102,423	0	
		Program Totals			672,583	544,996	67,730	

MINISTRY OF ENVIRONMENT

ENVIRONMENTAL PROTECTION DIVISION
MUNICIPAL SOLID AND BIOMEDICAL WASTE BRANCH

APPLICATION TRACKING SYSTEM

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PROGRAM: Multi-Material Recycling
FILE # : 50220-30

FILE I.D.	ORGANIZATION NAME	PROJECT TITLE	STATUS	DATE RECEIVED	FUNDS REQUESTED	FUNDS APPROVED	FUNDS EXPENDED	
GRVAN(VANCOUVER)01	Downtown Eastside Residents Association	Multi-residence pilot recycling project	14	04/19/90	25,552	0	0	R
GRVAN(VANCOUVER)02	City of Vancouver	Blue-Box	17	06/01/90	640,000	675,144	675,144	
GRVAN(WHITEROCK)01	City of White Rock	Blue-Box	17	06/01/90	57,667	34,883	34,883	
GRVAN(WHITEROCK)02	City of White Rock	Additional vehicle for Blue-box program	15	01/02/91	115,000	38,329	0	
KOOTB(ROSSLAND)01	City of Rossland	Recycling Program	5	05/14/90	3,350	0	0	
NANMO(REGDISTRICT)01	Regional District of Nanaimo	Blue-box recycling	16	10/10/90	32,617	32,617	0	
NANMO(REGDISTRICT)02	Regional District of Nanaimo	Blue-box promotion and education	17	07/24/90	8,500	8,500	8,500	
NOKAN(REGDISTRICT)	Regional District of North Okanagan	Recycling Program	15	08/23/90	143,500	47,828	0	
NOKAN(REGDISTRICT)01	Regional District of North Okanagan	Promotion and education	2	01/30/91	30,000	0	0	
OK-SM(PENTICTON)	Okanagan-Similkameen Regional District	Multi-material recycling program	5	02/06/90	28,050	0	0	
OK-SM(SUMMERLAND)	Corp. of the District of Summerland	Community Compost Project	8	05/11/90	104,865	0	0	
PEACR(DAWSONCREEK)02	City of Dawson Creek	Composting and Promotion Program	5	03/05/90	21,530	0	0	
SQ-LI(SQUAMISH)	Kiwanis Club of Squamish Valley	Multi-material Recycling Program	5	06/01/90	380,000	0	0	
TH-NI(KAMLOOPS)01	City of Kamloops	Composter Program	17	06/04/90	12,000	11,939	11,939	
TH-NI(VAVENBY)	Vavenby Lions Club	Thrift Shop and Recycling Centre	14	02/27/90	13,781	0	0	R
		Program Totals			8,244,673	2,010,570	768,944	

MINISTRY OF ENVIRONMENT

ENVIRONMENTAL PROTECTION DIVISION
MUNICIPAL SOLID AND BIOMEDICAL WASTE BRANCH

APPLICATION TRACKING SYSTEM

Printed : March 7, 1991

Application Summary

PROGRAM: Multi-Material Recycling

FILE # : 50220-30

FILE I.D.	ORGANIZATION NAME	PROJECT TITLE	STATUS	DATE RECEIVED	FUNDS REQUESTED	FUNDS APPROVED	FUNDS EXPENDED	
EKOOT(SPARWOOD)	Sparwood Recycling	General Recycling	5	07/27/90	0	0	0	
FR-CH(CHILLIWACK)	District of Chilliwack	Multi-material drop-off depots	15	05/18/90	91,056	91,056	0	
GRVAN(BELCARRA)	Village of Belcarra	Beautification of Recycle Depot	5	08/10/90	10,000	0	0	
GRVAN(BURNABY)02	District of Burnaby	Blue-Box	15	06/01/90	440,500	450,500	0	
GRVAN(BURNABY)04	Corp. of the District of Burnaby	Phase 2 of Burnaby02 Blue-Box program	2	11/26/90	11,667	0	0	
GRVAN(BURNABY)05	Corp. of the District of Burnaby	Household battery collection/storage	14	05/04/90	0	0	0	R
GRVAN(DELTA)	Delta Recycling Society	MODEL Recy. Intermediate Process. Centre	5	04/09/90	1,196,400	0	0	
GRVAN(LANGLEY)02	Corporation of the Township of Langley	Local Initiatives in Waste Management	14	12/19/89	15,500	0	0	R
GRVAN(N.VAN/W.VAN)	City of N.Van/Districts of N.& W. Vanc.	Blue-box	11	06/01/90	451,200	216,667	0	
GRVAN(NEWWESTMIN)01	City of New Westminister	Blue-Box	16	02/21/90	89,800	86,057	0	
GRVAN(NEWWESTMIN)02	City of New Westminister	Curbside Recycling Program	15	07/31/90	55,500	44,995	0	
GRVAN(NEWWESTMIN)03	City of New Westminster	Non-lead Acid Battery Collection program	14	10/22/90	0	0	0	R
GRVAN(OVERWAITEA)	Overwaitea and Save-On Foods	Recycling Centres	5	06/22/90	1,028,453	0	0	
GRVAN(PORTMOODY)	City of Port Moody	Blue-Box	17	06/01/90	36,600	38,478	38,478	
GRVAN(PTCOQUITLAM)	T.D.F. Incorporated	Scrap Tire Recycling	14	02/22/90	143,250	0	0	R
GRVAN(PTCOQUITLAM)02	City of Port Coquitlam	Blue-box	5	10/12/90	56,000	0	0	
GRVAN(RICHMOND)	Corp. of the Township of Richmond	Curb-side Recycling program	7	11/01/90	71,833	0	0	

MINISTRY OF ENVIRONMENT

ENVIRONMENTAL PROTECTION DIVISION
MUNICIPAL SOLID AND BIOMEDICAL WASTE BRANCH

APPLICATION TRACKING SYSTEM

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PROGRAM: Multi-Material Recycling

FILE # : 50220-30

FILE I.D.	ORGANIZATION NAME	PROJECT TITLE	STATUS	DATE RECEIVED	FUNDS REQUESTED	FUNDS APPROVED	FUNDS EXPENDED	
AL-CL(PORTALBERNI)	City of Port Alberni	Multi-material Recycling Depot	7	12/04/90	4,480	0	0	
AL-CL(REGDISTRICT)	Regional District of Alberni-Clayoquot	Tipping Fee System	5	05/23/90	180,000	0	0	
AL-CL(UCLUELET)	Sylvia J. Burt	Private Recycling Operation	14	11/20/89	0	0	0	R
CAPTL(MAYNEISLAND)	Mayne Island Recycling Society	Recycling Depot	16	05/23/90	94,000	31,352	0	
CAPTL(REGDISTRICT)	Captial Regional District	Recycling Program Phase 2	15	02/01/90	160,000	160,000	0	
CAPTL(SAANICH)	Corp. of the District of Saanich	Leaf Collection and Composting	14	01/18/90	50,000	0	0	R
CFRVY(MATSQUI)01	Corp. of the District of Matsqui	Construction of recycling station	13	01/21/90	198,787	0	0	
CFRVY(MATSQUI)02	Corp. of the District of Matsqui	Recycling Equipment	15	06/11/90	90,888	30,293	0	
CFRVY(MATSQUI)03	Corp. of the District of Matsqui	Expansion of Recyling Building	15	09/24/90	35,800	11,932	0	
CKOOT(CRESTON)	Columbia Bottle Recycling	Creston Valley & area Recycling Progam	3	06/20/90	106,625	0	0	
CKOOT(NELSON)	Regional District of Central Kootenay	multi-material recycling	2	02/27/91	56,272	0	0	
CKOOT(REGDISTRICT)	Regional District of Central Kootenay	WAARCOM Project	3	05/12/90	1,559,250	0	0	
CO-SC(GOLDRIVER)01	Village of Gold River	Recycling and composting program	8	09/13/90	375,400	0	0	
COKAN(KELOWNA)	K.E.R.E.D.A.	Recycling Program	5	08/08/90	0	0	0	
COWVY(NTHCOWICHAN)	Corp. of District of North Cowichan	Recycling/Composting	14	02/26/90	10,000	0	0	R
DEW-A(MAPLERIDGE)01	Corp. of the District of Maple Ridge	New recycling facility	17	04/11/89	0	0	0	
EKOOT(INVERMERE)	East Kootenay Environmental Society	Office Paper Recycling Pilot Project	14	07/01/90	9,000	0	0	R

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PROGRAM: Litter Control
FILE # : 50220-27

FILE I.D.	ORGANIZATION NAME	PROJECT TITLE	STATUS	DATE RECEIVED	FUNDS REQUESTED	FUNDS APPROVED	FUNDS EXPENDED	
BK-NK(FORTSTJAMES)	Corp. of the Village of Fort St. James	Bottle Recycling/Clean-up Program	17	02/22/90	3,000	3,000	3,000	
FN-LD(TUCHODI)	Tuchodi Valley Revitalization Committee	Tuchodi Valley Clean-up	17	06/12/89	3,200	3,200	3,200	
GENRL(PITCH-IN/CP)01	Pitch-In BC	Community Pride Program	11	09/12/90	149,500	0	0	
GENRL(PITCH-IN/CP)02	Pitch-In BC	Community Pride Program - Development	11	09/12/90	40,000	40,000	0	
GENRL(PITCH-IN/PIW)	Pitch-In BC	Pitch-In Week	11	09/12/90	151,280	123,375	0	
GRVAN(FIRSTNIGHT)	First Night 1990 - Vancouver	Recycling Promotion	14	09/14/90	10,000	0	0	R
GRVAN(WHITEROCK)	City of White Rock	Litter Containers	17	04/23/90	20,000	6,667	6,667	
		Program Totals			376,980	176,242	12,867	

MINISTRY OF ENVIRONMENT

ENVIRONMENTAL PROTECTION BRANCH
MUNICIPAL SOLID AND BIOMEDICAL WASTE BRANCH

APPLICATION TRACKING SYSTEM - REPORT PARAMETERS

Regional District	All regional districts
Municipality	All municipalities
Electoral District	All electoral districts
MoE Office	All MoE regional offices
Program	All Except SWEIP
Applicant Name	
File Number	- / ( ) All file numbers
STATUS	All except program inquiry
Approved: From	0 to 0
# of users: From	0 to 0

KEY TO FINANCIAL ASSISTANCE PROGRAM STATUS

1. *Program inquiry.*
2. *Application received.*
3. *Preliminary review of application by Marketing & Enterprise Development Officer.*
4. *Preliminary review of application by Marketing & Enterprise Development Officer and Reduction, Recycling & Treatment Section.*
5. *Request for documentation.*
6. *Documentation received.*
7. *Review of complete application by Marketing & Enterprise Development Officer.*
8. *Review of complete application by Marketing & Enterprise Development Officer and Reduction, Recycling & Treatment Section.*
9. *Not approved by the Municipal Solid & Biomedical Waste Branch.*
10. *Approved by the Municipal Solid & Biomedical Waste Branch.*
11. *Spending authority requested.*
12. *Spending authority approved.*
13. *Spending authority rejected.*
14. *Application rejected.*
15. *Awaiting letter of certification.*
16. *Letter of certification received.*
17. *Complete.*