

REPORT
1993 November 15

CITY OF BURNABY

ENVIRONMENT AND WASTE MANAGEMENT COMMITTEE

HIS WORSHIP, THE MAYOR
AND COUNCILLORS

RE: CITY OF BURNABY WASTE MANAGEMENT

RECOMMENDATION:

1. THAT this report be received for information.

R E P O R T

The Environment and Waste Management Committee, at its meeting of 1993 November 09, received and adopted the attached staff report providing an update on the City's Waste Management Reduction programs.

The Committee therefore submits the report for Council's information.

Respectfully submitted,

Councillor L. Rankin
Chair

Councillor D. Lawson
Member

Councillor C. Redman
Member

<p>:COPY - CITY MANAGER - DIRECTOR ENGINEERING - DIRECTOR PLANNING & BUILDING</p>

TO: CHAIRPERSON & MEMBERS,
ENVIRONMENT & WASTE MANAGEMENT
COMMITTEE

DATE: 1993 10 28

FROM: DIRECTOR ENGINEERING

FILE: 65-01-01

SUBJECT: CITY OF BURNABY WASTE MANAGEMENT

PURPOSE: To provide the Waste Management Committee with an update on the City's Waste Management Reduction programs.

RECOMMENDATION:

1. THAT this report be received for information.

REPORT

1.0 BACKGROUND

This report provides a current summary of the City of Burnaby's Waste Reduction initiatives and an overview of its integrated solid waste management programs. Burnaby's recycling and waste reduction programs have expanded since curbside collection and expanded depot services came into being in 1990. As a baseline for comparison of the waste stream volumes being generated, in 1989 (before the start of larger scale waste reduction and recycling programs) over 45,700 tonnes of refuse were delivered to the incinerator from residential and container (multi-family) sources.

With the implementation of the City's waste reduction and recycling programs in 1991 and 1992 tonnage to the incinerator dropped while materials diverted to recycling for processing and marketing increased. In 1992 the tonnage delivered to the incinerator was only 41,000 tonnes despite a 20% increase in the number of multi family dwelling units that were served with City refuse collection.

In 1993 the City offered recycling and waste reduction opportunities in the following sectors:

- Multi-Material Curbside Recycling Collection (MMCR)
- Multi-Family Recycling Collection (MFR)
- Recycling Depot services
- Backyard composting
- Yard Waste - pilot collection programs

2.0 1993 CITY WASTE REDUCTION PROGRAMS

2.1 MMCR- Multi Material Curbside Recycling

This program is geared to single family type collection. The City of Burnaby "enhanced" Blue Box program began in December 1990 with full implementation by February 1991. The program provides each of Burnaby's 36,000 single family, and duplex residences with weekly collection of newsprint, mixed paper products, as well as glass, metal and plastic containers.

The program is referred to as "enhanced" as it features the use of reusable blue (newsprint) and yellow (mixed paper products) bags to accompany the blue box at each residence. The City was the first jurisdiction in the GVRD to collect recyclables in this more efficient way, separating recyclables into three distinct streams and using single operator vehicles .

The blue and yellow bags continue not only to facilitate the sorting, storage and set-out of paper materials by residents, but also to facilitate the curbside sorting and checking and loading of these materials. Delivering all glass metal and plastic containers as one stream has increased the payload of the trucks and reduces the amount of time spent by operators sorting the material at the sides of the truck.

Based on the Burnaby experience, this "enhanced blue box" or source separated collection has been adopted by a number of GVRD jurisdictions in 1993. An additional 200,000 residences in the region now use the Burnaby system as their standard of service.

In the first three quarters of 1993 an average of 109 tonnes of recyclables were collected each week. This represents a diversion of 15% of the associated waste stream.

Over 98% of the recyclables collected in this City program were marketed. The small remainder represents material wasted through the process, or material that is sometimes set out that is not recyclable and wasn't "caught" by our operators before delivery for processing and marketing.

2.2 MFR - Multi Family Recycling

Burnaby and the North Shore municipalities were the first jurisdictions in the GVRD to launch into a large scale collection program of recyclables from multifamily complexes using the same collection vehicle technology as the curbside program. First collections in Burnaby were initiated in November 1992.

2.2 Cont.

In its first year of operation this program has met its first year goal of serving over 70% of the City's multifamily refuse collection program with weekly recycling collection for no additional charge. To receive this service complexes must "sign-up" to participate before a set of colour coded 96 gallon wheeled "toters" and individual "tote bags" are delivered. This process has provided a superior efficient recycling program with material contamination as low as curbside programs, and the recycling sites at individual complexes act as mini depots for the residents.

To permit even more Burnaby residents to recycle, tote bags are now made available to all multi family complex residents of Burnaby. In this way, even though the resident's complex may not be signed up for the program, it encourages the residents to store and transport recyclables to the Burnaby Recycling Depot at Still Creek Avenue.

To date over 11,000 dwelling units are served by MFR program, and the program is collecting higher volumes than originally targeted. Recyclable recovery now averages 10 % above the baseline 2 kg. diversion per unit per week that our original pilot projects had indicated as achievable in the first year.

The MFR program also services City facilities and the Burnaby School Board. Sign-up, like that for the multi-family complexes is required and the School Board now has all schools on the program.

Public education and communication strategies have played an important role in the success of the MFR program. Key use of colour coding and graphics have made inroads into communicating with a diverse community and population profiles that have less children who "recycle like they learned in school".

Overall, the MFR program has the highest potential growth of all the City of Burnaby programs. With the increase of strata and cooperative housing units, and the inclusion of recycling space allocation in redevelopment plans, it is expected that up to 80 % of the units that receive City refuse collection will make use of this service in the future.

2.3 Depot Services

The recycling depot at Still Creek continues to provide an alternative outlet for recycling. For the first half of 1993, the depot has had fewer visits than in the past, primarily as a result of the success of the MFR program, but it continues to prove popular with residents wanting to recycle a wider range of materials than those accepted on our curbside and MFR programs. In 1992 1800 tonnes of material were delivered to the depot by over 70,000 visits.

2.3 Cont.

The depot operations were upgraded and streamlined between December 1992 and March 1993. The resulting material collection systems have made the depot more efficient. The wider range of materials collected at the depot includes corrugated cardboard, scrap metal, and lead acid batteries in addition to the types of material collected and curbside.

The depot also continues to accept a broad spectrum of plastics beyond the code 1 and 2 plastics permitted under our curbside collection contracts. Deliveries are now made regularly to local plants producing among other things plastic/fibre building products.

The recycling depot continues to accept used motor oil, and it now accepts used oil filters as well. Collection of used oil filters is now offered to residents of Burnaby, as the GVRD has placed a ban on used oil filters in the waste stream, and oil filter return centres for "do it yourselfers", other than at GVRD facilities, are not well established.

The depot continues to provide an recycling outlet for a large number of fridges, stoves, freezers and similar "white goods". A large percentage of those routed through the depot come from Burnaby's traditional "bulky item" pickup program. All CFC containing white goods are also set aside for freon removal as part of a contract administered through the GVRD. The GVRD contractor removes and separately stores the three major types of CFC's found in appliances. This allows the CFC to be reused when repairing existing appliances until the use of CFC alternatives becomes widespread. Left over CFC collected to date is stored at the contractors site. The GVRD and the contractor are finalizing arrangements to reuse the CFC's.

In addition to this CFC removal program, residents are encouraged to use a B.C. Hydro Power Smart Buy Back. Under this program, B.C. Hydro pays \$30 to any resident who replaces an old "operating" fridge with an energy efficient one. B.C. Hydro picks up the old fridge, removes the CFC and delivers the fridge to a local scrap metal recycler.

2.4 **Compost Bin Distribution and Demonstration Garden**

Last year Council approved the initiation of a compost bin distribution program as a waste reduction activity. In 1993 over 2000 compost units were distributed to Burnaby residents taking advantage of this program.

Under the terms of the program, Burnaby purchased composters through a tender process, and redistributed these to residents at a fixed rate of \$25. While the composters cost more than this, the lower price is made possible through a cost share program with the Provincial Government. Based on evaluation of the tenders received and survey input from the public on desirable features found on the 1992 pilot program models, the "Earth Machine" composter unit was chosen for the 1993 distribution.

2.4 Cont.

The estimated waste diversion from this program is approximately 250 kg per composter per year. Each order of 2000 City composters distributed is estimated to divert over 500 tonnes of material annually.

Distribution of another order of composters will continue in 1994, and it is estimated that up to 10,000 units could be distributed before a saturation point of the committed portion of the population base is achieved.

The major benefit of the program continues to be its promotion of waste reduction at the source, reducing the amount of material that needs to be collected and processed by the City and allowing residents to participate in waste management on a personal level.

The City's agreement with the GVRD to operate the Backyard Compost Demonstration Garden and Compost hotline was renewed for a 4th year. The Garden and Hotline complement the composter distribution program and provide Burnaby residents with easy access to information on composting.

2.5 Pilot Yard Waste and Leaf Collection

In 1993 the City of Burnaby conducted a pilot yard waste collection program serving 2000 residences in the Kensington, Capitol Hill and Government Road areas. This program was developed in order to gain valuable experience in operations, communications, and public education for any future yard waste program.

As the target for a 50% reduction in waste by the year 2000 is approaching, it is recognized that some alternate means to divert yard waste from disposal must be developed. Backyard composting is recognized as being appropriate for some, but not all types and volumes of yard waste.

Burnaby's pilot program set out to determine levels of public acceptance of such an alternate program, as well as to measure the impact on a receiving facility for a large scale composting operation. In the pilot program residents were requested to put their yard waste into clear plastic yard waste bags, or to cut branches to 3 ft lengths and to bundle them prior to collection. Material was collected on regular collection days and transferred to EnviroWaste, a compost processing facility via the North Shore Transfer Station.

Preliminary results from the program, undertaken in August and November indicate a high level of acceptance. Development is proceeding on securing more viable delivery sites for this material.

2.6 Outreach projects, Public Education, and Christmas Tree Recycling Events

This year the Waste Reduction group participated in a number of public outreach projects including numerous displays at Community and Mall events, and support for schools programs.

Burnaby's public education brochures on recycling have been updated and are being reviewed for reissuing in 1994. These will incorporate more graphics and means of communicating more effectively with an increasing culturally diverse population.

To conclude the 1993 program, Burnaby's first Christmas Tree Recycling Event is being planned. Coordinated by the Engineering Department and in conjunction with a charitable event, drop-off of used Christmas trees by residents will be encouraged at the Burnaby Lake Sports Complex site in the central valley on the first weekend of the New Year. All of the trees collected will be chipped and used for ground cover or at composting facilities.

3.0 SOLID WASTE MANAGEMENT PLAN REVIEW AND 1994 PROGRAMS

The GVRD Solid Waste Management (SWMP) Review is continuing and nearing the end of its Stage II works. The process, mandated by the Provincial Government, is aiming to reduce waste by 30 percent by 1995 and by 50 percent (per capita) by the year 2000. The process has three stages, all driven by a public participation process prescribed by the Ministry of Environment Lands & Parks (MOELP).

In Stage I of the SWMP Review, local and technical advisory committees were struck, public workshops were held, and a long list of waste reduction and waste management options were identified. Stage II began in March of 1993, when the board of the GVRD authorized hiring a team of technical consultants to recommend a cost effective and environmentally sound waste management strategy for the region. The consultants, working from the public input in Stage I, identified a "shortlist" of six options that were discussed in public workshops in June. Results of the workshop were analyzed and the list was shortened to four systems. These were reviewed at a series of three workshops held between October 2 and 6. Themes of the presentations and group discussions included source reduction, reuse and recycling, landfills, incineration, air and water impacts and disposal options. As well, different strategies for residential; industrial, commercial and institutional (ICI); and demolition, land clearing and construction (DLC) wastes were reviewed.

3.0 Cont.

Most participants at this stage supported forms of mandatory source separation of recyclables, composting and organics waste stream separation, more emphasis on product stewardship, and community based education. The consultants are now preparing detailed evaluations of the publicly favoured options, including their costs, environmental impacts and waste minimization potential. Their recommendation for the best option will be reviewed by the public, after which a Stage II report outlining the recommending plan will be submitted to the GVRD Board of Directors and the MOELP for approval. This is expected in 1994 January. At that time Stage III, details of the plan, will be finalized and implementation of the new waste management system will begin.

In anticipation of the implementation phase of the SWMP, the City of Burnaby's solid waste operating budget and program for 1994 are geared to facilitation of waste reduction options and a smooth transition to the future standards of an approved regional plan. All of Burnaby's current programs outlined in Section 2.0 of this report are carried forward into 1994 with increased emphasis on developing strategies for collection and composting of major organics portions of the residential waste stream. Fact finding has been initiated into different administration techniques for successful waste reduction management, and a review of the current solid waste management bylaw will be completed. In addition, staff will continue with the multi-departmental review of the City operations at the Stride landfill site with the objective of phasing out the yard waste operation at Stride and reclaiming the land for the proposed open space and park use.

4.0 **CONCLUSION**

While this report has focused on the status of residential waste reduction and waste management; at the same time, waste management strategies for the industrial, commercial, and institutional sector are progressing in the business community. As part of the recently adopted State of the Environment Report, the importance of Waste Management in the City's daily corporate activities was stressed. The Directors of all the City's departments have recently appointed representatives to a new staff "Waste Reduction Committee", which will review and make recommendations on the 3R's within City Operations.

4.0 Cont.

Residential waste reduction and recycling have taken firm roots in the community, and diverse recycling opportunities are delivered through the City's programs. It is estimated that with all of these programs the City's waste has been reduced between 22% and 25% either through recycling, composting or source reduction. As the public process for the development of a new Solid Waste Management Plan for the region progresses, the City is well positioned to implement any residential waste management strategies that would be mandated upon approval of the plan by the provincial government.


W.C. STEBBINS
DIRECTOR ENGINEERING

RGB:

cc: City Manager

