

REPORT  
Regular Council Meeting  
1992 January 27

THE CORPORATION OF THE DISTRICT OF BURNABY  
ENVIRONMENT AND WASTE MANAGEMENT COMMITTEE

HIS WORSHIP, THE MAYOR  
AND ALDERMEN:

SUBJECT: COMPOSTING OF SOLID WASTE

RECOMMENDATIONS:

1. THAT Council approve the proposed interim management strategies for composting in Burnaby.
2. THAT a copy of this report be sent to the GVRD, and the office of the Project Manager of the Solid Waste Plan Review.

REPORT

The Environment and Waste Management Committee, at its meeting held 1992 January 21 received and adopted the attached staff report providing an update on various aspects of composting within solid waste management practices in the region, and to seek Council approval of proposed interim composting strategies.

The Committee therefore submits the report and recommendations to Council for endorsement.

Respectfully submitted,

**INTERNAL DISTRIBUTION:**  
JANUARY 27 1992  
JPY - ACTING MUNICIPAL MANAGER  
- DIR. ADMIN. & COMM. SERV.  
- DIRECTOR ENGINEERING  
- DIR. PL. & BLDG.  
- ACTING CHIEF PUBLIC HEALTH INSP.

Alderman L.A. Rankin  
Chair

Alderman D.P. Drummond  
Member

Alderman D.G. Evans  
Member

Alderman D. Lawson  
Member

Alderman C. Redman  
Member

## THE CORPORATION OF THE DISTRICT OF BURNABY

Inter-Office Communication

TO: CHAIRMAN AND MEMBERS,  
ENVIRONMENT & WASTE  
MANAGEMENT COMMITTEE

DATE: 1992 01 13

FROM: DIRECTOR ENGINEERING

FILE: 65-04-01

SUBJECT: COMPOSTING OF SOLID WASTE

PURPOSE: To provide an update on various aspects of composting within solid waste management practices in the region, and to seek Committee/ Council approval of proposed interim composting strategies.

RECOMMENDATION:

1. THAT the Environment and Waste Management Committee recommend to Council:
  - a) approval of the proposed interim management strategies for composting in Burnaby
  - b) A copy of this report be sent to the GVRD, and the office of the Project Manager of the Solid Waste Plan Review.

SUMMARY

Burnaby has now implemented the first phase of new solid waste management practices aimed to reduce the amount of municipal waste going to disposal by 50% as targeted by the Ministry of Environment for the year 2000.

With the implementation of municipal collection of an expanded range of recyclable materials and the continued operation of the recycling depot at Still Creek, almost 20% of the waste stream handled by the Municipality in 1991 was diverted from regional disposal facilities.

North American waste studies indicate that up to 30% of the waste stream is made up of compostable materials. While regional plans for management of this waste stream are currently under review, a number of initiatives in composting are being undertaken in local municipalities.

Our report to the Committee outlines three distinct approaches that may be used by Burnaby, within the context of waste management plans administered by Regional District, to achieve the Province's waste reduction goal through composting. These are:

Backyard Composting  
Local Municipal "Clean Green" Yard Waste Composting  
Regional or Sub-regional Composting

This report presents separate background information and discussion, in each of these; a discussion on diversion rates; and finally potential strategies for the three approaches.

## BACKGROUND AND DISCUSSION

### 1. Backyard Composting

#### Background:

Backyard composting involves the composting of yard waste (and some appropriate kitchen waste) at the source of generation. From the standpoint of traditional municipal solid waste costs, backyard composting incurs no collection or disposal costs. However, the potential for inappropriate composting must be addressed through public education and incentive programs.

Burnaby and the GVRD have had measurable success in the area of public education on backyard composting at the Still Creek demonstration garden site. In 1991 over 7000 visits were made to the site and visitors were able to see appropriate backyard composting and acquire educational materials.

In 1991, some other local municipalities initiated limited backyard compost distribution programs, primarily for promoting composting, by offering interested residents cost savings on the normal retail price of approved compost units realized through a municipal tender for units.

#### Discussion:

Burnaby has taken a strong stance for public education regarding solid waste issues, and has produced its own series of recycling and solid waste reduction brochures because of the need for education in our particular collection system.

Education programs on composting have up to now been developed by the GVRD, and best be left to be developed on a regional basis to ensure consistency in the message being presented. Corresponding to this, Burnaby and other local jurisdictions may be seen as playing the role of host to such sites and enhancing the delivery of the overall program through additional local promotion and incentives.

### 2. Local "Clean Green" Municipal Yard Waste Composting

#### Background:

"Clean Green" has come to mean a stream of compostables limited to yard waste. Kitchen waste and other household wet putrescibles that are more difficult to compost into a marketable product are not included.

The "Clean Green" concept has, up to now, been advocated as a means to process a limited volume of materials from a drop off site.

During 1991 a number of Greater Vancouver municipalities have initiated their own local "Clean Green" depots along with "low-tech" outdoor chipping and composting facilities. Some municipalities have also initiated limited duration curbside leaf collection programs, diverting this material to their "Clean Green" composting operations.

Discussion:

While some municipalities may see potential advantages under-taking their own yard waste composting operations, thereby avoiding a regional "tipping fee", staff are concerned about the potential inequalities that could result if some local municipalities were unable to site such facilities on their own. Staff have toured various composting facilities in B.C. and Washington. Staff are primarily concerned about the future effects of volume and markets for higher grade "Clean Green" yard waste material, and any impacts if all municipalities were left to deal with the problems of excess "Clean Green" composted volumes within a regional market place.

"Clean Green" municipal yardwaste composting, operated in conjunction with yard waste drop-off sites, could serve to divert some LIMITED volumes of material.

Staff have concerns about the viability of such sites should increased volumes be sought through implementation of a separate "Clean Green" curbside collection program.

Staff are concerned about the potential replication of effort from one municipality to another in separate operations, and a resulting series of higher operating costs. Shared operations between municipalities may prove to be beneficial; however, the coordination of such sharing within a regional framework is another concern.

### 3. Regional (or Sub Regional) Composting

Background:

Burnaby has in the past supported a regional approach to composting, believing that the technical merits of lower unit costs and process flexibility of such an operation make this strategy a favorable one.

In 1991 the GVRD proposed initiation of a regional compost "pilot" program; however concerns about its cost have delayed any further action towards its implementation.

In 1991 the term "sub regional" was introduced into discussions on regional composting. The "sub regional" concept is like the regional concept in that it makes use of larger centralized composting plants. However, it recognizes a potential need for shorter hauling distances to a processing plant to make such operations more beneficial, and allows for creation of several "smaller" or "sub regional" processing plants administered under the coordination of the GVRD.

Discussion:

Though processing technologies continue to change at a rapid pace, staff continue to see our municipal function as primarily that of operating effective and efficient COLLECTION programs feeding to a regional (or subregional) processing plant. Staff believe that there are technological advantages to a larger scale composting system that could deal with higher diversion volumes and a more varied feedstock of material.

Because of potential higher costs of more sophisticated technologies to produce a marketable product from a varied waste stream of all putrescibles, staff see distinct advantages to a regional (or sub regional) system designed to deal with both yard waste and kitchen and other food wastes.

As was previously outlined by the Solid Waste Division of the GVRD, when it was proposing implementation of a pilot project, Burnaby could assist in the collection of materials acting as a feedstock for such a pilot. Staff see the need for a pilot project to assess the relative economic merits of inclusion of different components of the putrescible waste stream into a composting operation.

#### DIVERSION RATES

In order to achieve the provincial goals for reduction in waste going to disposal, dynamic programs dealing with diversion of compostable material will be called for.

The difference between any waste diversion rates achieved through operation of a depot alone, as opposed to a depot/curbside collection system, is demonstrated by Burnaby's current multi-material curbside collection program and the Still Creek Depot.

Extrapolating those diversion experiences, it could be expected that "Clean Green" yard waste drop-off operations would only target a certain segment of the Municipality's residents. Curbside compost collection will ultimately be necessary to achieve the higher participation required to reach the waste reduction goals. The nature of a "Clean Green" operation (ie. drop off, limited to residential yard waste) will limit volume diversions severely.

Curbside compost collection would allow for diversion of an expanded range of material, and a simultaneous multi-fold increase in participation. Such municipal collection programs, feeding to regional processing and marketing plants for compostables would allow individual municipalities to cooperate towards overall waste management diversion goals rather than be limited to their individual lower tech "Clean Green" operations.

On the basis of the potential advantages offered by regional (or sub regional) higher technology plants fed by municipal collection systems, over a number of individual lower technology - lower volume "Clean Green" operations, it would be prudent to investigate such a compost system more fully through a pilot project.

#### STRATEGIES

Interim proactive strategies for the three aforementioned approaches are:

##### Backyard Composting

The success of the backyard compost education program hosted at the Still Creek site can be drawn upon. For 1992 it is proposed Burnaby undertake distribution of 100 approved backyard composter units at the recycling depot. The units would be offered to residents at cost, realizing the savings from a municipal tender, under the condition that volume measurements of waste reduction be reported to Burnaby.

Funding for this project is available within the current recycling promotions budget contained within the 1992 Provisional Operating Budget.

If this strategy is approved by Council an application could be made to the Ministry of Environment on potential cost sharing.

"Clean Green" Municipal Composting

Until the issue of regional composting is clarified through the Solid Waste Management Review process, and all municipal compost alternatives within the context of the Regional Solid Waste Management Plan have been fully reviewed, it would be prudent for Burnaby to defer changes in its current yard waste protocols.

Burnaby currently receives "clean green" yard waste at the Stride Avenue (Southpoint Drive) waste disposal area however no composting is undertaken. To implement a chipping and composting operation at Stride Avenue or an alternative location would require start up and operating funds for which no provision currently exists.

Staff will investigate the possibilities of municipal compost alternatives in conjunction with other municipalities, and report back to the Environment and Waste Management Committee.

Regional or Sub Regional Composting

Burnaby can reiterate its past support for regional approaches to solid waste management and support the GVRD in a regional composting pilot project.

Burnaby has traditionally supported developing regional strategies for all solid waste management issues, and has supported development of regional composting. It would be in Burnaby's best interests to continue to work toward the development of a regional or sub regional approach on composting within the framework of the Solid Waste Management Plan Review.

CONCLUSION

The forgoing report has discussed three distinct components and strategies for composting in municipal solid waste management.

The proposed strategies, if approved, work within the context of a strong regional approach to composting, and address the concerns of product volumes and markets for compostables.

Increasing costs for increased reduction in the waste stream should be addressed within the Solid Waste Management Plan Review and Burnaby's stance on regional approaches to Solid Waste Management bear reiteration to the Plan Review at this time.

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DIRECTOR ENGINEERING