

REPORT  
1994 November 14

CITY OF BURNABY  
ENVIRONMENT AND WASTE MANAGEMENT COMMITTEE

HIS WORSHIP, THE MAYOR  
AND COUNCILLORS

RE: CITY OF BURNABY WASTE MANAGEMENT

RECOMMENDATION:

1. THAT Council receive the attached report for information purposes.

R E P O R T

The Environment and Waste Management Committee, at its meeting held on 1994 November 08 received and adopted the attached report providing an update on the City's Waste Management and Reduction Programs.

The Committee therefore places the report before Council for information.

Respectfully submitted,

:--COPY - CITY MANAGER  
- DIRECTOR ENGINEERING

Councillor D. Drummond  
Chair

Councillor D. Johnston  
Member

Councillor D. Lawson  
Member

**TO:** CHAIRPERSON & MEMBERS  
ENVIRONMENT & WASTE  
MANAGEMENT COMMITTEE

**DATE:** 1994 11 02

**FROM:** DIRECTOR ENGINEERING

**FILE:** 65-05-01

**SUBJECT:** CITY OF BURNABY WASTE MANAGEMENT

**PURPOSE:** To provide the Environment & Waste Management Committee with an update on the City's Waste Management and Reduction Programs.

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**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. In 1994, Burnaby's recycling and waste reduction programs were well established as community standards, and all programs placed a high emphasis on "restating" their message to newcomers to the community, as well as those from different cultural and ethnic backgrounds.

As a baseline for comparison, Burnaby continues to use "percentage diversion" of the current waste stream. For other comparison purposes, it should be noted that in 1989 before any such programs over 45,700 tonnes of refuse were delivered for incineration while in 1993 the tonnage was only 42,600 despite an almost 100% increase in the number of multi-family dwellings served with City refuse collection since 1989.

In 1994, the City offered the recycling and waste reduction opportunities:

- Multi-Material Curbside Recycling (MMCR)
- Multi-Family Recycling Collection (MFR)
- Recycling Depot Services
- Backyard Composting
- Yard Waste - Expanded pilot collection programs and collection at depot.

## **2.0 CITY WASTE REDUCTION PROGRAMS**

### **2.1 MMCR Multi-Material Curbside Recycling**

The curbside collection program implemented in 1991, geared to serve over 36,000 households, remains the mainstay of the City's waste reduction and recycling programs.

The program continues to collect old newspapers (ONP), mixed paper products (MPP), as well as commingled glass, metal, and plastic containers (mixed containers). This level of program is commonly referred to as "enhanced" as it features the use of reusable colour coded bags in conjunction with a blue box to source separate materials. Burnaby was the first jurisdiction in the Region to use this standard, and an additional 225,000 residences within the Region now use this system.

In 1994 January, the City of Burnaby started a new processing and marketing contract, delivering materials to the Browning Ferris Industries plant on Thorne Avenue. Use of this plant has resulted in considerable advantages in delivery schedules and travel times as compared to previous deliveries to the North Shore site of our former contractor. The new contract reflects most current processing and marketing trends, and the City processing and marketing costs have been substantially reduced. In the first three quarters of 1994 an average of 109 tonnes of recyclables were collected each week representing an average diversion of 15.5% of the waste stream. The attached graph (Figure 1) shows material collection on the curbside program over the last 18 months. With the introduction of new brochures, material contamination has reached its lowest levels since implementation of the program. Participation rates are upwards of 55% weekly with 90% of residents participating regularly.

The attached chart (Figure 2) shows the breakdown of materials delivered to the contractor for processing and marketing.

### **2.2 MFR Multi-Family Recycling**

In its second complete year of operation, this program continued to grow. Total number of multi-family units served with refuse collection have increased and the sign up rate for recycling onto this program has kept pace. Now approximately 80% of multi-family customers have this weekly service. Figure 3 illustrates the growth of this program in tonnage collected. Figure 4 illustrates the growth in units being served and percentage of units on the recycling program.

To date, almost 14,000 dwelling units are served by the MFR program using the system of tote bags, and colour coded 96 gallon totes. Public education and communication strategies continue to play an important role in the success of this program. In 1994 a "Toter Tune-Up" was initiated that provided fresher graphics and "Do's and Don'ts" to reduce contamination. Inroads continue to be made into communicating with a diverse community and population profiles that have fewer children in the household who "recycle like they learned in school".

### **2.3 Depot Services**

By year end 1993, just under 1,400 tonnes of material were delivered to the depot with just under 56,000 visits recorded. For the first three quarters of 1994, the depot at Still Creek showed a 5% increase in usage over 1993 vehicle statistics, while weights per vehicle remained constant.

The depot has reached a steady level of usage with the majority of City residents now on some form of recycling collection from their dwelling units. The depot began to function as a main outlet for recycling of materials not collected on MMCR or MFR programs. The depot continues to accept a broad spectrum of plastics beyond the Code 1 and 2 permitted on our MMCR and MFR programs. Deliveries continue to be made regularly to processing plants producing, among other things, plastic/fibre products.

Figure 5 shows the breakout of materials collected at the depot. The wider range of materials collected includes corrugated cardboard, scrap metal and acid batteries, used motor oil and used motor oil filters. The depot program takes advantage of flexibility in processing and marketing, by renting containers from different processors and marketers and getting the best price per tonne available on a material by material basis.

Used appliance collection continues to be routed through the depot. Of these "white goods", a large percentage comes from Burnaby's "bulky item" pick-up program. All CFC containing white goods are also set aside for freon removal as part of the contract administered by the GVRD. The GVRD contractor continues to remove and store separately the three different types of CFC's found in appliances, allowing them to be reused for appliance repair until such time as the use of CFC alternatives becomes widespread.

Since summer of 1994, the depot has also offered recycling of yard waste on a pilot basis. Residents can deliver their yard waste (clippings and prunings) to the depot, debag any clippings, and depot staff deliver the material for composting to EnviroWaste's facility on the North Shore.

**2.4 Compost Bin Distribution and Demonstration Garden**

Compost bin distribution has continued steadily since the City started its first pilot distribution in 1992. The following table lists the number of units distributed. Under the terms of the program, Burnaby has purchased the composters through a tender process, and redistributed these to residents at a fixed rate of \$25 making use of Provincial cost share plans to offset the difference.

Year	Units
1992 (Pilot)	100
1993	2,000
1994	2,700

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

The City's agreement with the GVRD to operate the Backyard Compost Demonstration Garden and Compost Hotline was renewed for a 5th year. The Garden and Hotline complement the composter distribution program.

**2.5 Pilot Yard Waste and Leaf Collection Programs**

In 1994, the City of Burnaby conducted a pilot yard waste collection program which was expanded to serve 10,000 residences in the "Zone A" collection area. This program was developed as a follow-up to our 1993 program and provided valuable information on delivery of a large scale program of weekly collection.

This year's pilot program set out to determine the impact on collection routes and equipment of a large scale alternate program, as well as to measure the impact on a receiving facility of such a program. In the pilot program, residents were requested to put their yard waste into clear plastic yard waste bags, or to cut branches into 3' lengths and bundle them prior to collection. This fall, material was collected on regular collection days over a three week period and transferred to EnviroWaste via the North Shore Transfer Station.

## **2.6 Outreach Projects, Public Education, Telephone Book, and Christmas Tree Recycling**

In 1994, the Waste Reduction group has 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 as well as on refuse collection have all been reissued. These "second generation" brochures have found a high level of public acceptance, and their extensive use of graphics and means of communicating more effectively with a culturally diverse population have proved beneficial both to efficiency of service as well as to public participation.

Highlighting new initiatives was the start of a "better" method of collecting used telephone books. Traditionally, telephone book collection into a recycling stream was possible at curbside but only by placing the phone books in the "mixed paper" category at significant cost. Thanks to a program developed by B.C. Telephone, phone books could be collected by school and recognized non-profit groups for 10 cents a unit donation by B.C. Telephone. Furthermore, the City could collect the books and deliver them to arranged markets by B.C. Telephone for a net revenue. This program proved to be a winner for Burnaby schools, the City, and B.C. Telephone. Just over 7,500 books were collected in a short period and it is expected that with a larger collection period, the program will build on its success.

## **3.0 SOLID WASTE MANAGEMENT PLAN REVIEW AND 1995 PROGRAMS**

1994 saw the completion of a recommended Solid Waste Management Plan and its approval by the GVRD Board of Directors and the MOELP. The final stage of the plan, implementation details are expected to be finalized in the first half of 1995 and actual implementation of the new waste management system will begin with Plan approval by the Minister and a subsequent transfer of authority to the Region in the area of Solid Waste.

In anticipation of the implementation phase of the SWMP, Burnaby current programs are being carried forward. With its current programs Burnaby is well positioned to meet the goals of the plan. Recommendations of the Plan include:

- implementation of forms of user pay systems or "bag limits" whereby the waste generator (business or residence) pays for the removal of waste in relation to the amount generated.
- collection of recyclables from all commercial sites and privately serviced multifamily dwellings

- creation of local reuse and repair centres
- expansion of manufacturers responsibility program
- collection and composting of yard waste
- expanded deposit and refund systems for beverage containers.

#### **4.0 CONCLUSION**

Residential waste reduction and recycling have become an integral part of the community. It is estimated that in the first three quarters in 1994 with all of these programs, the City's waste has been reduced upwards of 22% either through recycling, composting or source reduction (including backyard composting, depot, and side yard waste and multi-family recycling).

Burnaby has always taken pride in providing a premier refuse service and has augmented this in past years with a successful recycling service. Since 1989, and despite a 100% increase in the number of multi-family dwelling units served with City refuse collection, the tonnes of refuse delivered to the GVRD has dropped from 45,700 (1989) to 42,600 (1993). Factoring in this growth in the multi-family sector (from 8,000 to 16,000 units), it is estimated there has been effective waste reduction from 1989 levels in the order of 30%.

To achieve future waste reduction goals, and to comply with the new Solid Waste Management Plan when it is approved by the Province, the need arises to redefine the way that yard waste is set out at curbside for collection, as well as structuring marginal disincentives for heavy refuse generators. In preparation for this, staff will prepare a position paper for the Environment and Waste Management Committees consideration early in the new year.

  
DIRECTOR ENGINEERING

RGB:jb/ma  
Attach.

cc: City Manager

MMCR RECYCLING  
WEIGHTS AND DIVERSION 1993-1994

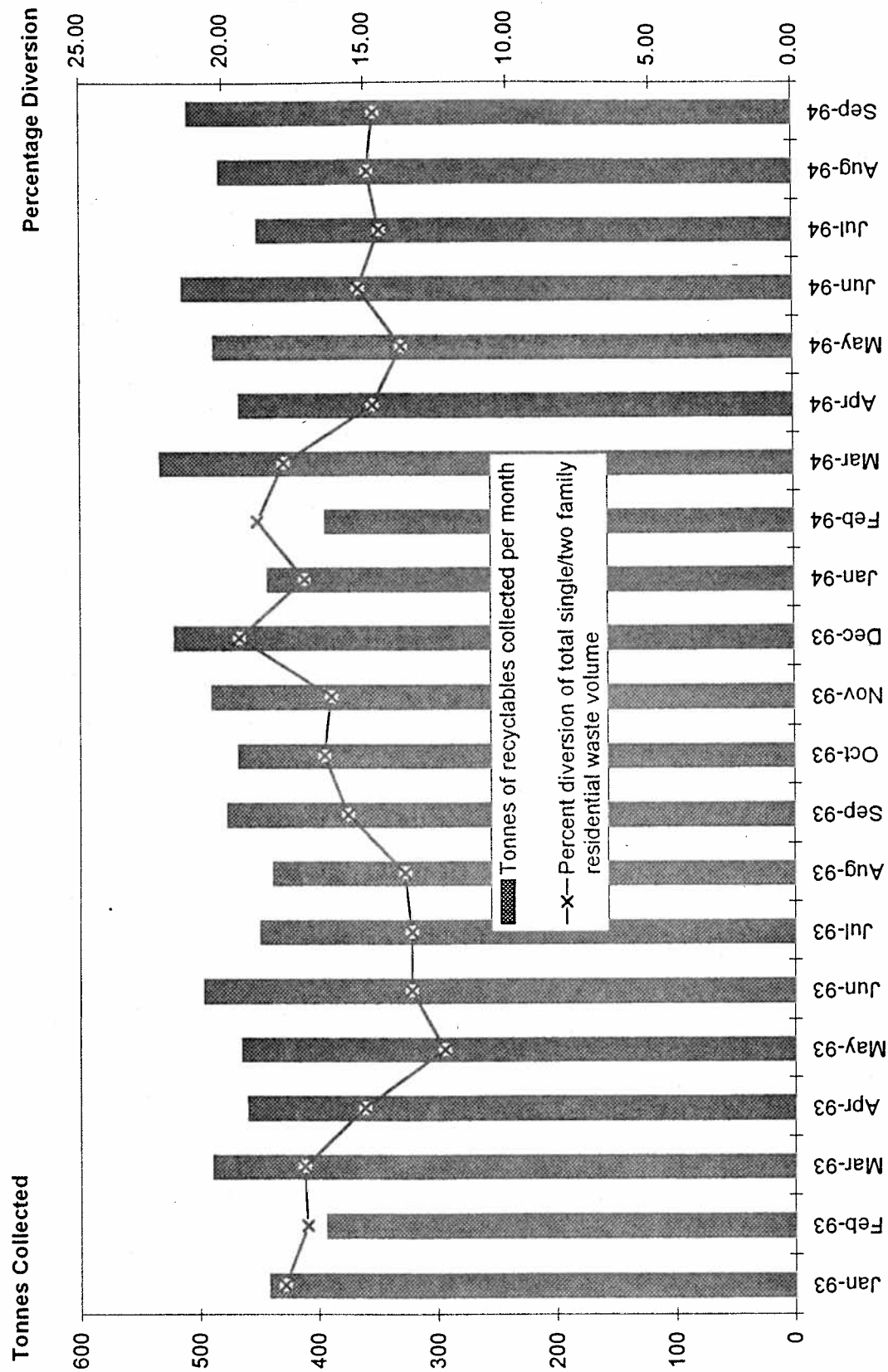
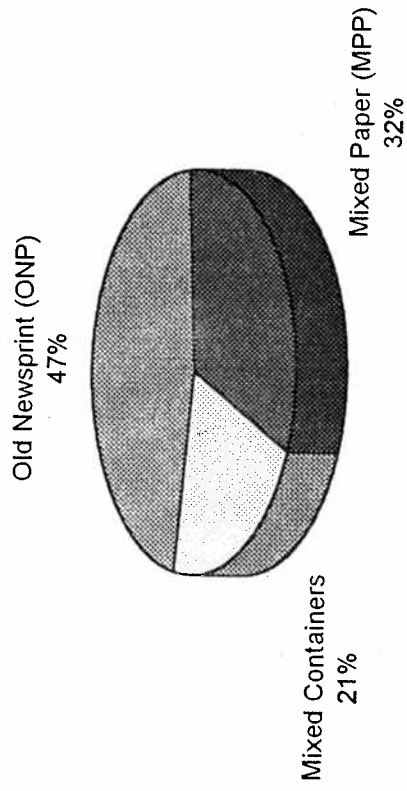


FIGURE 1



**Breakdown of MMCR and MFR Materials (by weight)**



MFR Recycling 1993-1994  
Tonnes Collected

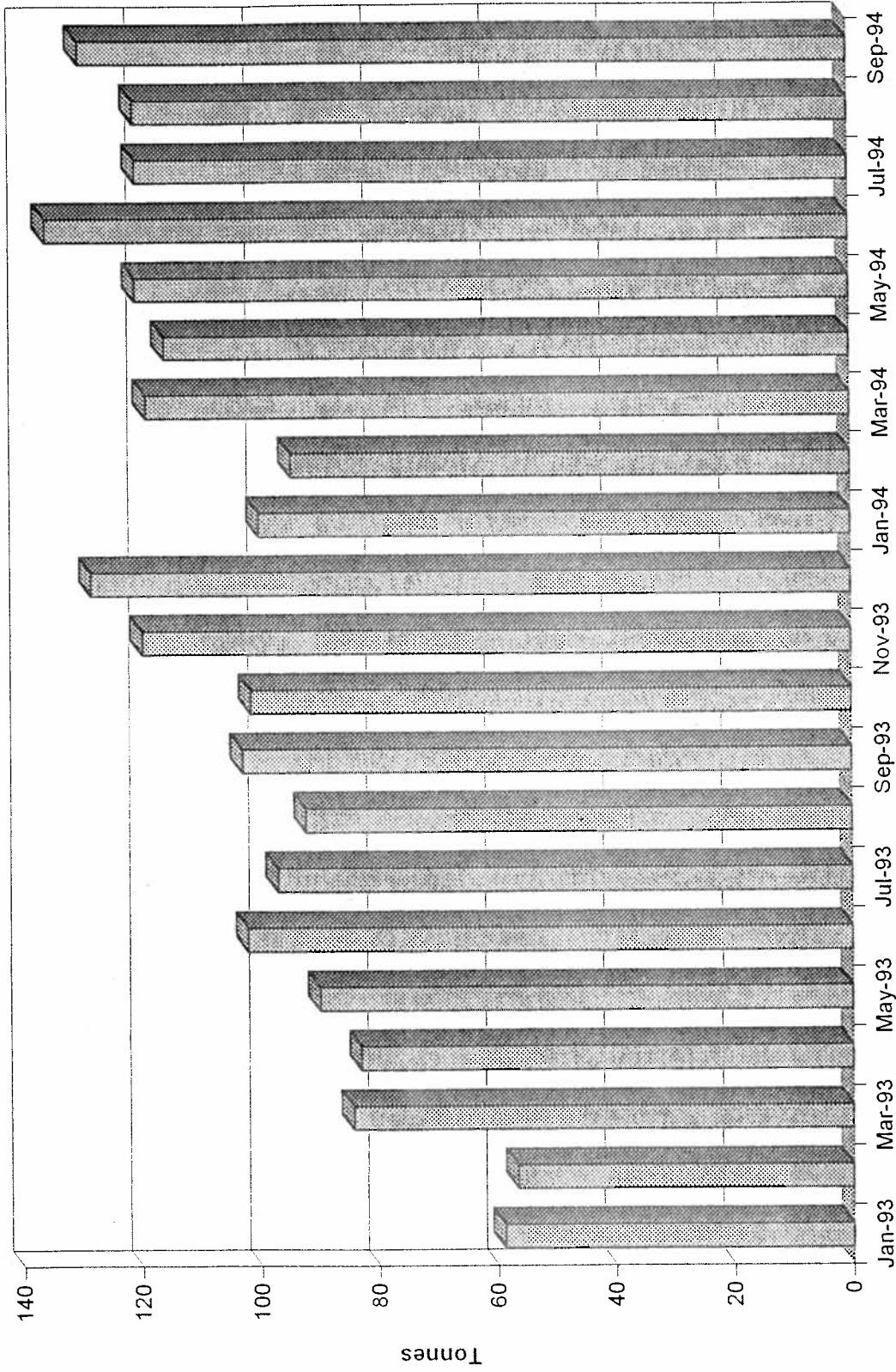


FIGURE 3

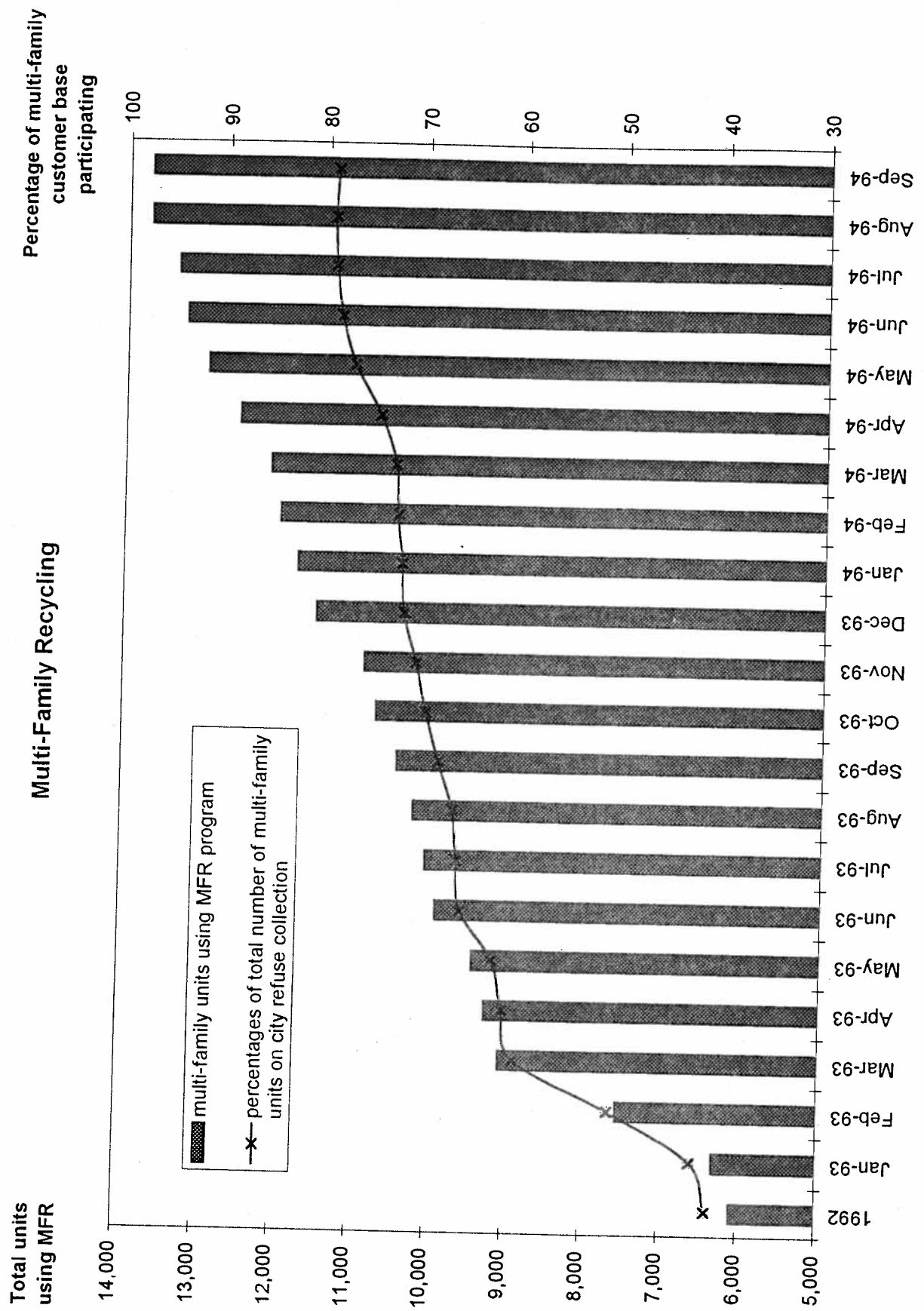
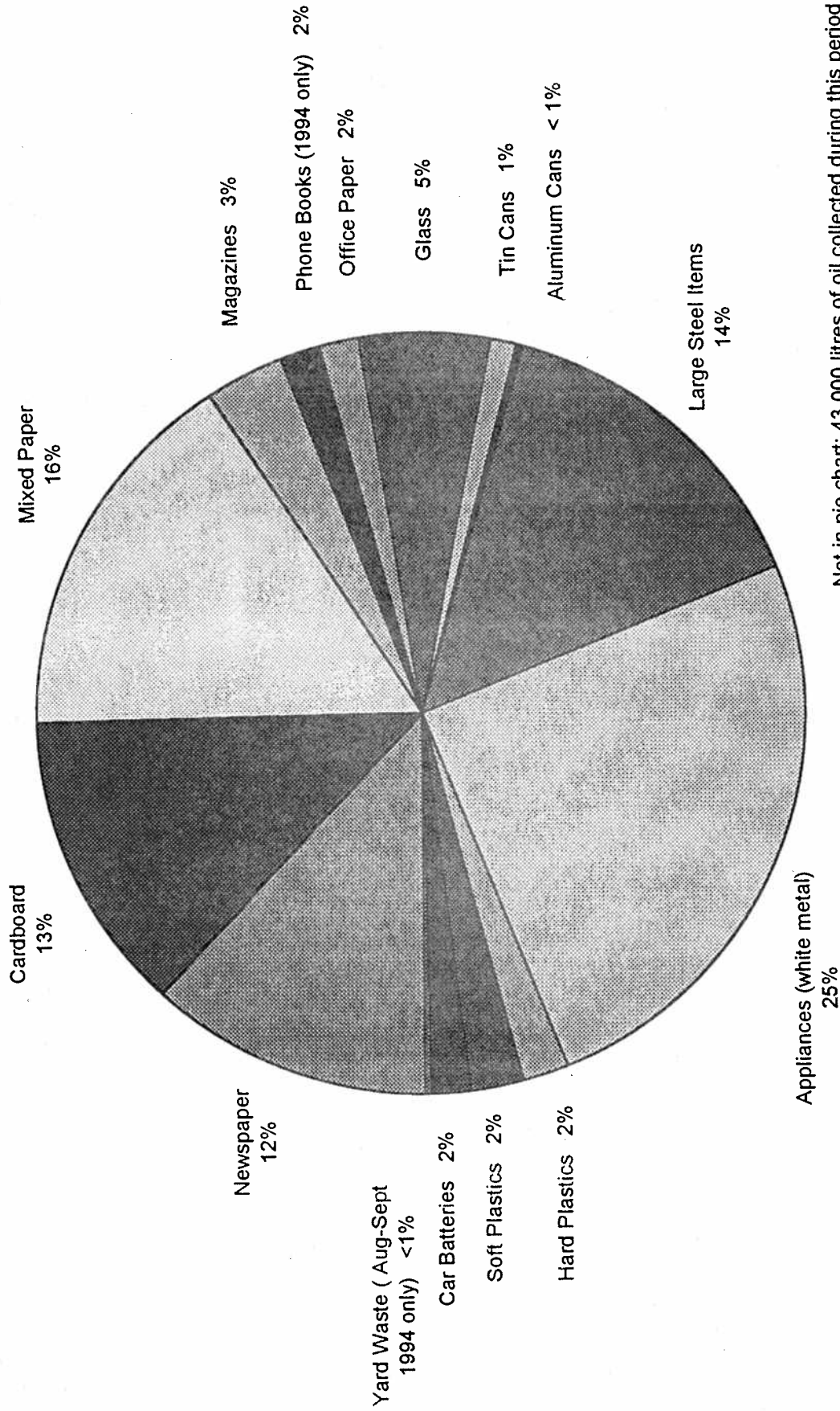


FIGURE 4

**Breakdown of Material Collected at Depot  
January 1993-September 1994  
Percentages of Total Weight ( 2438 tonnes)**



Not in pie chart: 43,000 litres of oil collected during this period and  
330 kilograms of oil filters collected since Jan 1994

**FIGURE 5**