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Corporate Plan Output: Solid Waste	

The purpose of this report is to provide details for consideration by the Council, of a proposed 'trailer weighing and sorting' system at the Council's Refuse Stations.

## 1. BACKGROUND

A report was presented to the Committee in September which detailed the background of an inequity in waste charges between commercial and domestic sectors, and which resulted in the Annual Plan Working Party requesting a report providing details of a trailer/car weighing and sorting system which could be introduced at the Council's three Refuse Stations.

## 2. PROPOSED CONCEPT

The expected outcomes from this proposal are:

- equity of charging between commercial and domestic users
- incentive (reduced charge) for domestic customers to increase the amount of reusable/recyclable materials diverted from the waste stream (estimated at approx 2,500 t/annum)
- costs covered by expected increased revenue

### 2.1 Trailer/Car Sorting

A 'trailer/car contents sorting' service will be provided at the Refuse Station Resource Recovery Centres whereby staff will assist customers to off-load recyclable or reusable items from their trailers/cars before going on to the station kiosk and refuse pit. This service will be managed by the Recovered Materials Foundation which has been effectively managing the Resource Recovery Centre for the last year, on behalf of the Waste Management Unit.

### 2.2 Trailer/Car Weighing

All residual refuse that domestic customers dump in the refuse pit will be weighed and charged for at the same rate as commercial customers are charged. Paying by weight will provide an incentive for customers to go through the 'sorting' area so as to reduce the weight of their load as much as possible.

### 2.3 Recycled Supermarket

Reusable/recyclable goods removed from customers loads will be transported to a separate site (away from the refuse stations) where a second hand goods 'supermarket' will be set up. Again this part of the proposal will be managed by the Recovered Materials Foundation.

**Note:** A similar successful trailer sorting scheme operates successfully in Logan City, just south of Brisbane. This operation has been visited recently by Joan McSweeney of the RMF and Simon Collin, Solid Waste Manager. Notes from this trip are attached (Attachment 1).

### **3. STATION PLANS**

The proposed new arrangement for each of the refuse stations is shown on the attached plans. In each case the layout has been derived from the above described concept together with consideration of the following points:

- Customers to have the choice of either going direct to the weighing kiosk or through the sorting area to the kiosk.
- Transfer trucks need to be able to enter and exit the stations freely. If queues for domestic customers develop at the weekends, transfer vehicles will weigh their loads at Burwood rather than on exiting the refuse stations.
- Domestic green waste will continue (at least in the meantime) to be paid for on a per vehicle basis. Therefore a separate 'exit' lane is required to allow green waste vehicles to exit freely.
- The arrangement needs to be flexible enough to avoid delays if customers end up in the wrong lane.
- Barrier arms needed at all weighbridges. To weigh customers refuse it is essential that only one vehicle per time is on the weighbridge. Barrier arms will ensure this is properly controlled. Barrier arms may also provide an ability to increase automation of the system, if it proves economical.
- Customers whose loads have been 'sorted' have right of way over 'non sorted' customers to enter queue if queuing occurs.
- Note that provision has been made for domestic customers to drop off household hazardous waste. Details of this are subject to a separate report to this Committee.

### **4. OPERATIONAL DETAILS**

#### **4.1 Trailer Weighing**

##### **Entry**

All domestic vehicles will pass over the 'in' weighbridge. Green waste only customers will be charged by vehicle type and will pay at the 'in' kiosk receiving a receipt and 'exit' ticket in return. All other vehicles including mixed loads of green waste/refuse will be weighed and customers will receive a ticket for weighing and payment upon exit.

## **Exit**

Greenwaste only vehicles will insert their 'exit' ticket into a card reader which will open the barrier arms and allow them to exit.

All other vehicles will pass across the exit weighbridge, and be weighed. The computerised system (as currently used) will determine the refuse weight and charge, and the customer will be charged accordingly. If the customer has insufficient funds to pay, details (including vehicle registration) will be taken and the customer invoiced.

### *4.1.1 Commercial Operators*

Discussions have been held with commercial operators representatives (from RTA, Waste Management, Onyx, bin operators and Waste Care ). Some have expressed concern that they may face some delays at the refuse stations if all vehicles are to be weighed. It is considered that during normal operations this is most unlikely as generally commercial waste is tipped during the week while most domestic customers come at the weekend. There is however some potential for queues on some days, such as immediately prior to Christmas when both domestic and commercial use is high. It is not considered warranted at this stage to provide additional weighbridges to overcome, an issue which **may** be a problem and only then on a few days a year. It is considered that the appropriate approach is to ensure that any construction works do not preclude installation of additional weighbridges in the fixed charge exit lane at a later date if a significant problem ever emerges. In the meantime current delays will be monitored as a basis to compare what may result under the proposed changes.

### **4.2 Reusable/Recyclable Materials - Transport and Sale**

Items such as chairs, beds, bicycles, household items, clothes, some renovation materials (doors, windows, etc), TVs, fridges, etc will be collected and then transported to a central site. The site under consideration is very suitable and is the empty warehouse and yard at the Waste Water Treatment plant in Pages Road.

There will be approximately 15 workers at the Pages Road site. They will inspect, clean, display and sell goods. There are garages available at the Pages Road site if cottage industries wish to make use of the facilities. These could involve woodworking, sewing, electrical repairs, mechanical repairs, etc. Recruitment and training would be completed with the assistance of the Canterbury Development Corporation.

The warehouse will be set up like a supermarket. Customers will enter through Carters Road entrance, park, browse, shop, purchase and leave. There is the potential to develop a market-type set up where independent stall holders could also rent some space and sell their own goods which could involve Community Groups. Brian Newbery, recent owner of the St Martins Supermarket has agreed to assist with the establishment of this part of the project at no charge for his services. Precise details of the 'Supermarket' site are not considered in this report and will be reported later by the Recovered Materials Foundation to this Committee.

## 5. COSTS

### 5.1 Operational

Estimated annual operational costs for the proposed systems are shown below together with current budgeted amounts for the 99/2000 year.

Item	Cost	Current Budget	Shortfall
• Parkhouse Road kiosk trailer weighing operation	\$139,986	\$139,986	0
• Metro Place kiosk trailer weighing operation	\$122,073	\$69,615	\$52,458
• Styx Mill kiosk trailer weighing operation	\$88,326	\$60,333	\$27,993
• Net cost for trailer sorting at three stations, transportation and supermarket operation (details attached)	\$242,637	\$235,000	\$7,637
• Invoicing Costs	\$60,000	0	\$60,000
• Debt write-off costs	\$20,000	0	\$20,000
<b>Totals</b>	<b>\$673,022</b>	<b>\$504,934</b>	<b>\$168,088</b>

In addition during the start-up phase a comprehensive public education campaign will be required. This is estimated to cost **\$30,000** on a one off basis giving a total of **\$198,088** (i.e. 30,000 and 168,088) for the first year.

### 5.2 Capital

Estimated capital costs for the work required to set up the new system are shown below. Further details are attached as Attachment 2.

Item	Cost	Current Budget	Shortfall
• Alterations to refuse stations layout, kiosks, weighbridges and computer systems.	\$633,000	\$150,000	\$483,000
• Set up of recyclables supermarket	\$167,000	\$170,000	-\$3,000
<b>Total</b>	<b>* \$800,000</b>	<b>\$320,000</b>	<b>\$480,000</b>

\* See section 8 for method of financing.

## 6. PROPOSED FEE STRUCTURE

Current income from the domestic waste stream is in the order of \$30 per tonne. By moving to weighing vehicles and charging at the same rate as commercial (currently \$55.70 per tonne), a considerably increased revenue will be available. The revenue estimate is dependent upon the details of the cost structure proposed below.

### 6.1 Proposed Structure

Item	Proposed Fee (incl GST)	Comment
Domestic refuse	\$55.70/tonne	Same fee as commercial rate
Domestic green waste	No change to current fees. Continue to charge fixed fee by vehicle type	This continues to send the right message that we want green waste. If we charge for green waste by weight that could put people off separating their green waste.
Mixed refuse/green waste	\$39.00/tonne (based on 70% of the refuse fee)	A reduced fee when compared to refuse will continue to provide an incentive for green waste separation but charging by weight will mean that more refuse (usually the heavier part of the load) will cost the customer more.
Rubble	\$32.40/tonne	Only rubble (hardfill) from domestic sources is accepted at the refuse stations. Commercial material is taken direct to the landfill and charged at \$32.40/tonne.
Minimum Domestic Charge	\$5.00	At the current fee this represents about 90kg and is considered a reasonable minimum. Most cars will pay this amount which is a reduction on the fixed fee of \$7.20.

## 7. REVENUE

Based on the cost structure above the additional revenue per annum is (conservatively) estimated at \$410,000. (See section 8 below for detail).

## 8. PROPOSED METHOD OF FINANCING (i.e. PROPOSED BUDGET)

If approval is given to proceed with this project, it is anticipated that it could be operating by February 2000. The 1999/2000 and 2000/2001 budgets based on this scenario are summarised below:

Year	Capital Budget Provided from	Additional Operational Expenditure	Expected Additional Revenue
<b>1999/2000</b>	• Budgeted in Waste Management Unit budget \$150,000	• Interest (6 mths) (6% on 800,000) \$24,000	• 4 months \$137,000
	• Budgeted in resource recovery section of Waste Management Unit budget \$170,000	• Depreciation (6 months) \$22,400	
	• Additional capital required \$480,000	• Operating Costs (5 months) \$70,000	
		• Public Education \$30,000	
<b>Totals</b>	<b>\$800,000</b>	<b>\$146,400</b>	<b>\$137,000</b>
<b>2000/01</b>	• Final works at supermarket (50,000 budgeted) (managed by RMF) \$10,000	• Interest (6% on \$810,000) \$48,600	• per annum \$410,000
		• Depreciation \$45,800	
		• Operating Costs *\$168,100	
<b>Totals</b>	<b>\$10,000</b>	<b>\$262,500</b>	<b>\$410,000</b>

\* from 5.1 above

Note: Capital costs are based on 6 months  
Operation costs are based on 5 months  
Revenue based on 4 months

## 9. NATURAL STEP ASSESSMENT

Following a recent report to Strategy and Resources Committee, it was resolved that Waste Management Unit would pilot the use of a Natural Step assessment as part of its committee reporting structure. The assessment for this report follows:

Natural Step Assessment				
Conditions:	1. Reduce Mining and fossil fuel use (extraction rate not greater than redeposit rate to earth's crust)	2. Eliminate hazardous substances (production rate not greater than treatment rate)	3. Protect biodiversity and ecosystems	4. Efficient and equitable resource use
Meets condition	yes	yes	no	no
How it helps meet condition	Products will be reused	Provides opportunity to take hazardous waste from customers		

## SUMMARY

Following a request from the Annual Plan Working Party, a proposal to provide a 'trailer contents sorting' service at the resource recovery centres, together with the introduction of weighing residual domestic waste and charging at the same rate as commercial customers, has been investigated.

The proposed system is expected to have the following outcomes:

- equity of charging between commercial and domestic users
- an incentive for domestic customers to increase the amount of reusable/recyclable materials diverted from the waste stream

The revenue stream generated from this proposal is projected to at least cover all additional operating expenses.

Capital works required can be largely funded by a 'smoothing' operation within the Waste Management Unit budget. An additional capital sum will be required but this can be completely paid off in the first two years of operation of the new systems with an increased ongoing revenue stream.

**Recommendation:** That full construction drawings be prepared and that tenders be called for this project.