

## 8. INCREASE TO ONYX CONTRACT NO 96/97-205 - FOR KERBSIDE RECYCLING EXPANSION

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The purpose of this report is to approve a negotiated contract extension for an expansion of the kerbside recyclables collection.

### BACKGROUND

The Council has already budgeted for an expansion to its kerbside collection of recyclables in the 2001/02 year. The kerbside recyclables collection service commenced in May 1998, and has proved very popular with the public with approximately 70% of all households participating in the service. In the first year of operation 11,650 tonnes of recyclables were diverted from the landfill, the amount increasing to 13,040 tonnes in the year ended June 2000 – refer Attachments A & B.

The collection and sorting systems operated by the Council's contractor Onyx works well, and the twin original objectives of the system are being met: to raise the general awareness of the public about waste issues, and to divert waste from the landfill. Recycling collection is one of the strategies being used to work towards the Council's goal of zero waste to landfill by the year 2020 as set out in its Waste Management Plan.

Materials collected at kerbside are delivered to the Recovered Materials Foundation, which has the responsibility of selling them, with particular emphasis on developing local markets and employment.

The current total cost of the collection (including funding the Recovered Materials Foundation) is \$3.2m p.a., i.e. \$1.7m for collection and \$1.5m for the Council's contribution to the Recovered Materials Foundation.

### GROWTH IN TONNAGE COLLECTED

The original contract with Onyx was based on an expected collection tonnage of 11,000 tonnes. No extra payment was to be made to Onyx for additional tonnage until a 12,100 (10% extra) threshold was reached. The financial year ended 30 June 2000 showed a collected tonnage of 13,040 tonnes which has resulted in additional payment to Onyx. This additional cost for growth is included in the section on costs later in this report.

### PROPOSED EXPANSION

It has always been the intention that the range of materials collected would be expanded, when the markets were available. This intention is in alignment with the demand driven set up of the Recovered Materials Foundation. There is also a public wish to be able to easily recycle more materials, as evidenced by the Council's annual survey results, which frequently contain requests for such a move. See Attachment C for this year's comments which reinforce the desirability of extending the range of collectables.

The Recovered Materials Foundation have concluded an agreement with Carter Holt Harvey to provide an outlet for mixed paper (office and writing paper, magazines and glossy paper, milk cartons and the like) and will be in a position in April 2001 to be able to start receiving this material.

In addition the Recovered Materials Foundation Board is confident that by this time sufficient end use development work will have been done, to also enable additional plastics to be collected. With these proposals in mind, an additional sum for collection was put forward and approved in the Annual Plan for 2000/2001, and Waste Management Unit staff have been negotiating details of the collection process and costs with its contractor Onyx NZ Ltd.

### Collection

It is anticipated that approximately 3,700 additional tonnes of mixed paper, and 500 tonnes of mixed plastics will be collected under the proposed expansion scheme per annum. This will necessitate both modifications to the existing collection trucks and three additional trucks to be purchased by Onyx.



The situation with respect to weekly crate capacity and the expanded material range needs consideration. Large households that already fill a crate every week may need an additional crate, or alternatively a larger one. Waimakariri District Council (WDC) have recently chosen a 70 litre crate (Christchurch City Council crate is 45 litre) and commenced collection in September. Feedback has been sought from the Waimakariri District Council and their collection contractors. There was a proportion of users who did not like the larger crate (mostly elderly) but the WDC Collections Officer reports that generally the response has been positive. The collectors on the other hand do not like them as they can lift only one at a time and they can be heavy. A weight limit of 15 kg/crate is in place however, and really heavy crates can be rejected.

On balance it is considered the best approach is to offer the option of an additional 45 litre crate or the bigger 70 litre crate to those who contact the Council wanting a greater weekly capacity. These will be provided free of charge to requestors.

Estimating the demand for these additional crates is difficult. Factors which will affect demand are:

- (a) Currently only about 50% of households put out a crate every week. These households are likely to accommodate the extra plastic/paper by putting out their crate more frequently.
- (b) Most households do not 'wash and squash' their plastic, despite advertising to request they do this. Introduction of the expanded service will push this message and for some households this may be preferred to having to carry two crates, or the larger one to the kerbside.
- (c) Paper is currently collected in plastic supermarket bags and it is proposed that the additional paper is collected in the same way.

To avoid over-stocking and unnecessary capital expenditure it is probably best to underestimate rather than overestimate. If customers need to wait a few weeks for a new crate the inconvenience from this should be minimal.

An estimate has been made on this basis of additional crates needed and has been included in the cost estimate below.

## **ADVERTISING**

An advertising programme will need to be run to acquaint people with the new materials that they can put out for recycling. This programme will be co-ordinated through the Kerbside Recycling Promotion Team, chaired by Mark Prain. Funding has been allowed for in the section on costs later in the report.

## **COST**

### **Capital**

Estimated demand for new crates: Large 5,000 @ \$9.00 each = \$45,000, small 5,000 @ \$6.20 each = \$31,000. Total cost \$76,000. There has been no allowance made in the capital budget for additional crates. However there is sufficient in the operational budget to cover this amount. It is proposed to transfer the required amount across from operational to capital to cover purchase of additional crates. (See operational summary table below).

### **Operational**

The most cost effective way of collecting the expected additional tonnage is for Onyx to extend their existing twelve trucks by adding another rear axle. A further three new trucks will also be needed. This gives an additional capacity of approximately 4,600 tonnes/per year.

Since there is a degree of uncertainty about the additional quantity of paper which will be collected, prices negotiated with Onyx are based on a guaranteed minimum payment to cover fixed costs, plus a per tonnage rate to cover operational costs (note this will include the extra tonnage already being collected from city growth). Additional costs are:

▪ Fixed annual payment for capital costs, insurance and the like	\$273,467
▪ Extra payment for growth tonnage (1,300 tonnes x \$111.82/tonne)	\$145,366
▪ Extra payment for new materials tonnage (4,200 tonnes x \$111.82/tonne)	<u>\$469,644</u>
<b>Total</b>	<b><u>\$888,477 pa</u></b>



This cost will be offset by an increased revenue from paper sales which will accrue to the Recovered Materials Foundation. At current prices this is expected to be in the order of \$350,000 pa. This is to be taken into account by reducing the Council's funding to the Recovered Materials Foundation, by whatever sales level is actually achieved for this additional tonnage.

Further reductions in costs will occur for each refuse truck removed from the Onyx fleet. Each refuse truck collects approximately 3,800 tonnes p.a., so the expectation is that there would immediately be a reduction of one truck. Onyx have pointed out however that regardless of tonnage, they still have to drive the full length of the city's streets so the remaining trucks will have to travel further. In light of this a conservative approach has been taken to the estimate of the savings and only one half of the value of one truck has been used.

During the 2000/01 budget preparation (September 1999) it was expected that the additional collection would commence early in the 2000/01 financial year, and accordingly funds for a full years operation were requested and approved. The Recovered Materials Foundation will not now be able to start taking the materials until April, so costs for this year will be different than expected as shown in the table below.

<b>Year</b>	<b>2000/01</b>	<b>2001/02</b>
Additional cost from growth	\$123,000 (1,100t)	\$145,366 (1,300t)
Extra materials collection cost (fixed payment + tonnage payment)	<sup>(1)</sup> \$185,777	<sup>(2)</sup> \$743,111
New crate purchase (transfer to capital)	\$76,000	0
Advertising	\$20,000	0
Reduction in funding to Recovered Materials Foundation (from paper revenue)	- \$87,500	- \$350,000
Reduction in cost from less tonnage of refuse	<sup>(3)</sup>	- \$63,500
<b>Net Cost</b>	<b>\$317,277</b>	<b>\$474,977</b>
Budget	\$400,000	<sup>(4)</sup> \$400,000

Note that about half of the additional cost of collection for growth has been absorbed in the budgeted amount for the extra materials collection.

- (1) Part year
- (2) Full year
- (3) Taken conservatively as zero
- (4) Budget not yet fixed. Additional funds will be requested as part of 01/02 Annual Plan process.

The figures provided by Onyx are based on a vehicle depreciation and payback period of seven years. The contract with Onyx, which has been running for three years has a five + five year term, the second five years being by mutual agreement of the parties. Onyx has indicated their wish to keep the contract for the additional five years, and it is recommended that the Council agree to this now so Onyx can have security for future investment

Onyx has performed very well to date. They have been flexible in adapting the service to different situations that have arisen, e.g. providing the recycling service at Northlands Mall; been innovative, eg. in suggesting the electric vehicles; been co-operative; e.g. in working with Christchurch City Council to improve complaint recording and tracking systems.

## **ELECTRIC HYBRID VEHICLES**

Onyx have also been in discussion with DesignLine about the possibility of making the new recycle trucks with the shuttle bus technology i.e. gas turbine/electric hybrid vehicle. They advise that this is quite practicable, but at a cost. Advantages of this alternative are:

- Much quieter operation (fibreglass bodies will reduce noise as well as the lower engine noise.)
- Environmentally superior
- In harmony with the philosophy behind recycling and good for the city's image.
- Design permits operator to stand much lower in the truck so improved Health and Safety for operators.

The maximum additional cost for this alternative for the three new trucks (making 15 in total) is \$205,500 p.a., i.e. \$68,333 per vehicle extra p.a. Lower operational costs may reduce this figure but it is not prudent to include these potential savings at this stage.



Year	Costs		Budget
	Diesel Option	Electric/Hybrid Option	
2000/01 <sup>(1)</sup>	\$317,277	\$368,652	\$400,000
2001/02 <sup>(2)</sup>	\$474,977	\$680,477	\$400,000

Notes: (1) Part year  
(2) Full year

## SUMMARY

Since the kerbside recyclable collection was introduced it has always been the intention to expand the range of materials collected. This has been allowed for in the Council's 2000/01 forward budget. The Recovered Materials Foundation will be in a position to receive a wider range of papers, and additional plastic types in April 2001. To cope with the extra tonnage Onyx will need to expand its fleet and there will be extra costs for the Council associated with this, although these costs will be offset by additional revenue from the sale of the materials by the Recovered Materials Foundation. Prices have been included for the new vehicles to be electrically driven like the inner city shuttle buses.

It is expected there will be a small demand for larger or extra crates, and some additional advertising will also be needed when the service is introduced. Costs include an allowance for these items.

Net costs and budget for the proposed expansion are shown in the table in section 6 of this report.:

The public are enthusiastic about kerbside recycling and would welcome this improvement in the material types collected. Questions to be considered in making the decision whether to go diesel or electric/hybrid vehicle are:

- What will the extra cost be for the conversion of existing diesel vehicles to electric if they wear out? Answer: costs per vehicle conversion will reduce below \$68,333 per vehicle extra p.a.
- How will the Council finance the extra cost of three electric vehicles? Answer: from the increase in the Waste Minimisation fee of \$3.00/tonne for 2001/02.

- Recommendation:**
1. That the additional recyclable materials collection be approved to commence in April 2001 or as soon as possible.
  2. That the Committee decide the most appropriate collection vehicles, either diesel or gas turbine/electric hybrid.
  3. That the Onyx collection Contract be extended by the appropriate dollar amount in this report (i.e. either for the diesel or electric/hybrid option).
  4. That the Onyx collection contracts be extended the additional five year term.

## Chairman's

- Recommendation:**
1. That recommendations 1, 3 and 4 be adopted.
  2. That the hybrid electric option be confirmed, the additional costs of which be funded from the waste minimisation fee.
  3. That 10,000 additional 45l crates be provided and the public be invited to collect a second crate free of charge from any CCC service centre.