LATE ITEM

STAFF REPORT

TO: Chair and Members Engineering Services

FROM: Utilities Asset Engineer, David Stephenson

REFERENCE:

DATE: 18 April 2006

SUBJECT: **REFUSE & RECYCLING**

PURPOSE

The purpose of this report is to outline to the Engineering Services Committee the current volumes of recycling, income and expenditure for the refuse account and status and future of glass recycling in the district.

RECYCLING VOLUMES

Recyclable materials come from three sources:

- Materials collected as part of the kerbside collection contract,
- Materials deposited at Resource Recovery Centres (RRC's) and the Murchison landfill, and
- Materials diverted from the general waste stream by the RRC operator.

Materials collected as part of the kerbside recycling contract currently include:

- Paper and cardboard,
- Glass,
- Plastics (1 & 2)
- Tin and aluminium cans.

These materials, as well as light gauge steel, car bodies and whiteware are also accepted at RRC's and the Murchison landfill.

In addition to these materials, the RRC operator is encouraged to divert recyclable materials from the mixed waste stream at the RRC's. A waste diversion credit is provided in the operator's contract.

- Kerbside Recycling

Table 1 summaries the recyclable volumes collected at the kerbside for the year to March 2006, and shows that both the volumes collected and the number of bins emptied are exceeding estimated projections.

Table 1 - Kerbside Recycling Volumes to March 06				
	Total to March 06	Annual budget to June 06	Percent achieved	Year completed
Glass Other recyclables	586 682			
Total (tonnes)	**1268**	**1400**	**91%**	**75%**
Number of bins emptied	216,493	200,000	108%	75%

Given a service area of 16,000 properties, the total bins emptied to date indicate an average participation of 35% on any given week. If, on average, properties put out bins every second week this would indicate up to 70% of households are using the recycling service.

- Processed Recyclable Materials

Table 2 presents the total volumes of recyclable materials processed at the Beach Road processing shed and includes both materials collected at the kerbside and those delivered to the RRC's and the Murchison landfill.

In contrast to kerbside recycling, processed recyclable volumes are slightly below estimated projections, indicating a shortfall in materials deposited at RRC's or diverted from the general waste stream.

Table 2 - Processed recyclable materials to March 06				
	Total to March 06	Annual budget to June 06	Percent achieved	Year completed
Paper/Cardboard	686			
Glass	631			
Plastic 1	30			
Plastic 2	41			
Light gauge steel	41			
Heavy gauge steel	15			
Non ferrous metals	21			
Automotive batteries	17			
Total (tonnes)	**1482**	**2096**	**71%**	**75%**

- Additional Recyclable Materials

Table 3 summarises the total volume of additional recyclable materials collected at the RRC sites, and indicates that most volumes are tracking above budgeted volumes.

Table 3 - Additional recyclable materials to March 06				
	Total to March 06	Annual budget to June 06	Percent achieved	Year completed
Car bodies -complying	269	230	117%	75%
-non complying	15	20	75%	75%
Whiteware -complying	604	520	116%	75%
-non complying	104	45	231%	75%
Tyres	893	1400	64%	75%

REFUSE AND RECYCLING – INCOME AND EXPENDITURE

Table 4 summarises the 2005/2006 annual plan budget for refuse operations. A net cost of service of $721,800 was budgeted for at the adoption of the Annual Plan.

Table 4 – 2005/2006 Annual Plan Refuse Operating Budget	
Operating costs	
General District	2,609,350
Zero Waste	120,000
Previous Sites (closed landfills)	20,800
Loan interest	95,410
Depreciation	103,874
Total operating costs	**2,949,434**
Income	
Fees & Recoveries	1,512,940
Targeted Rate	714,683
Total income	**2,227,623**
Net cost of service	**721,811**
Less Reduced Bag Income	159,000
Less Budgeted General Rate	596,100
Opening Budget Shortfall	**284,711**

When calculating the original income, a proposed bag fee of $1.85 was proposed, while a bag fee of $1.10 was scheduled in the Schedule of Charges. This discrepancy has resulted a effective reduction in budgeted income of $159,000.

A general rate of $596,100 has been budgeted for the refuse account this financial year. This combined with the reduction in bag sales income has resulted in the refuse budget commencing the year with an opening shortfall of $284,700.

- Income

Income for the refuse account comes from four sources:

- Gate charges at Resource Recovery Centres
- Sales of TDC kerbside bags
- Charges for disposal of special waste at the Eves Valley landfill
- General and targeted rates.

Table 5 summarises the income received to date for the refuse account and projected shortfalls or excesses for each item.

Table 5 – Income to February 06

	Total to Feb 06	Annual budget to June 06	Projected annual total (assuming continuation of YTD income rate)	Projected shortfall or (excess)
Eves Valley Special Waste Fees	106,448	103,403	159,672	(56,269)
RRC Gate fees –				
Richmond	229,723	535,355	344,585	190,770
Mariri	274,952	368,285	412,428	(44,143)
Takaka	58,146	120,533	87,219	33,314
Collingwood	12,666	25,237	19,000	6,237
Murchison	13,633		20,449	(20,449)
Bag Sales	155,585	357,838	233,377	124,461
Targeted rate	523,672	714,863	785,508	(70,825)
General rates	397,400	596,100	596,100	0
Errors		2,289		
Total	**1,772,225**	**-2,823,723**	**-2,658,338**	**165,385**

Items of note are:

- Eves Valley special waste fees are tracking above budget. This is in part due to additional waste from the Mapua Fruitgrowers site.

- RRC gate fees. Fees at both Richmond and Takaka sites are significantly below budget. Analysis to date indicates that this is due to a combination of measurement error at the gate and the large proportion of waste delivered in compactor trucks. Waste is measured on a per cubic metre basis, and compacted wastes therefore recover less fees than loose refuse. A weighbridge audit of compactor tracks at the Richmond site is planned for the near future.

- Bag sales. As noted above, original budgets were prepared with a projected bag cost of $1.85 each while final bag prices were applied at $1.10 per bag. The number of bag sales to date is tracking above projected totals.

- Operating Expenditure

Operating expenditure from the refuse account can be generally categorised into seven areas:

- The kerbside collection and transport of TDC rubbish bags,
- The kerbside collection and processing of recyclable materials
- Operation of the four Resource Recovery Centres
- Operation of the Eves Valley landfill, including transport of refuse from RRC's
- Operation of the Murchison landfill
- Management of closed landfills
- Education and waste minimisation initiatives, preparation of asset management plans, staff and office overheads and control of illegal dumping.

General District overheads ($190,000) are also charged to the refuse account – these are applied to the Eves Valley Landfill account at present.

Table 6 – Expenditure to February 06

	Total to Feb 06	Annual budget to June 06	Projected annual total*	Projected shortfall or (excess)
Kerbside bag collection	289,424	401,174	**456,636**	55,462
Kerbside recycling	316,698	385,141	**485,547**	100,406
RRC operations – Richmond	193,998	260,468	290,997	30,529
- Mariri	136,339	186,379	204,508	18,129
- Takaka	16,568	19,335	24,852	5,517
- Collingwood	114,583	129,581	171,875	42,294
Eves Valley Landfill	568,115	817,032	852,173	35,141
Murchison Landfill	34,229	31,750	51,343	19,593
Closed landfills	23,083	20,800	34,624	13,824
Remaining expenditure	318,180	498,490	477,270	21,220
Loan interest	66,197	95,410	99,296	3,886
Depreciation	69,248	103,874	103,874	0
Total	**2,146,662**	**2,949,434**	**3,252,995**	**303,561**

All operating activity expenses are all tracking above budget. In particular:

- Kerbside bag collection costs. Increased costs in this area are largely due to the cost of servicing a larger number of customers than budgeted for. The operator is currently servicing in the order of 3300 more households than provided for in the contract.

- Kerbside recycling costs. Increased costs in this area are also largely due to an increased number of households than budgeted for and additional costs for disposal of recyclable materials.

- Resource Recovery Centres. Additional costs associated with the development of these sites have occurred in the last year.

- Eves Valley, Murchison and closed landfills. Additional consenting and monitoring costs have been incurred at each of these sites.

- Projected Deficit

Table 7 below summarises the projected end-of-year deficit for the refuse account. It indicates an increased net cost of service of $1,190,757 an increase of $309,946 from the shortfall at the beginning of the financial year.

Table 7 – 2005/2006 Annual Plan Refuse Operating Budget	
Projected operating costs	3,252,995
Projected income (including budgeted General Rate)	2,062,238
Projected net cost of service	**1,190,757**
Less Budgeted General Rate	596,100
Projected Budget Shortfall	**594,657**
Change from start of year	**309,946**

GLASS RECYCLING

Recycling of glass into new glass in New Zealand is undertaken by a single manufacturer, Owens-Illinois New Zealand (formerly ACI Glass), who operate two glass furnaces at an Auckland site.

In recent years the price offered by Owens-Illinois for glass cullet (broken glass for recycling) has dropped substantially, due to the import of glass to New Zealand and a subsequent excess of cullet beyond furnace capacity. Owens-Illinois are currently considering the construction of a third furnace to meet demand; indications are that a decision will be made in the first half of this year.

This year the price of glass cullet had dropped to $75/tonne from $92/tonne at the time of preparation of the current recycling contract (June 2004). Additionally, glass quantities in excess of those delivered in 2005 are paid at $10 per tonne. At these prices the cost of transport and handling exceeds the value of the cullet. In accordance with a commodity price provision in the contract Streetsmart have now commenced stockpiling of glass at the Beach Road RRC.

Council and MWH staff met with Streetsmart senior management in March of this year to discuss local recycling options for glass. Possible options may include crushing of glass for use in roading basecourse, ashphatic concrete or as a drainage medium in pipe installation. Streetsmart have undertaken to investigate options for glass disposal and recycling and report back to TDC within two months.

As part of this process, Streetsmart and TDC commissioned a trial crushing operation at the Beach Road RRC, in cooperation with Oldfields. Crushed glass from the operation will be used by Oldfields in asphalt trials, by Streetsmart as basecourse on the site and by TDC for use as drainage material.

LATE ITEM

RECOMMENDATION

THAT the report be received.

David Stephenson
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