
Central Goldfields Shire

Waste
Management
Strategy May 2011

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EXECUTIVE SUMMARY

Central Goldfields Shire Council developed a Waste Management Plan in the 2000 with the assistance of consultants Kelly & Kelly Environmental Health. The plan titled “*Central Goldfields Shire Council Waste Management Plan 2000 – 2003*” specified that waste generated in the shire in 1998 was 6,149 tonnes annually. The plan proposed a reduction in municipal waste to landfill of 983 tonne or 16% by 2003.

The 6,149 tonnes of waste to landfill for the shire quoted in the 2000 - 2003 Waste Management Plan is a dubious figure given the operation of the landfill at that time and lack of facilities to actually measure quantities. By 2009/10 financial year the municipal waste was being measured and it is known that 3,857 tonnes was deposited to landfill and 4,745 tonnes of recyclables, green waste and scrap steel had been diverted away from landfill. Therefore the combined waste was 8,600 tonnes or 55% being diverted from landfill. This is a spectacularly good result.

The goals of the 2000 – 2003 Waste Management Plan were substantially achieved by Central Goldfields Shire Council. The goals that are set out in this 2011 Waste Management Strategy can be met by applying the Action Plan using set time frames as set out in **Section 6**. The Action Plan covers a broad range of initiatives including:

- Continued efforts to separate waste from recyclables;
- Expansion of the composting of organics;
- Finding end-uses for the stream of putrescibles;
- Considering how to make recycling more accessible to those with disabilities;
- Improving public awareness about waste and recycling;
- Improving recycling streams at the transfer stations; and
- Encouraging the development of product stewardship from manufacture to final re-use at the end of product life.

The greatest challenge by far is to pursue sustainability through the improved use of waste to achieve broader environmental, social and economic benefits.

This Waste Management Strategy is set in the context of National, State, and Regional strategies, and is aimed to complement the efforts of governments, the community, and industry to meet the challenges and benefits of waste re-use and reduction. The Strategy should be subjected to a formal review by 2016.

1. INTRODUCTION

Council is required by Government to have a Waste Management Strategy. Additionally, it is an important document as the waste service is the single largest service the Council runs and has health, environmental, personal convenience and liveability dimensions. If a problem was to occur with the delivery of the waste service, it would quickly become a political and health problem for the Council.

It is important that the Waste Management Strategy provides leadership via targets and goals well into the future so the service continues to meet the needs of residents, the environment and legislation and future government requirements.

The state government has set a “Towards Zero Waste Strategy” strategy that all councils must work to achieve. Additionally government is creating high penalties via landfill levies, audit requirements etc for the use of landfill, to drive the achievement of zero waste to landfill.

Council’s commitment is to achieve a sustainable waste solution for the collection, disposal and resource recovery of waste generated by the communities within Central Goldfields Shire.

1.1 Council’s Strategic Objectives

Central Goldfields Shire Council’s vision from the Council Plan is:

“To add to our proud heritage a prosperous and sustainable future for all”

And strategy is to:

- Ensure the Central Goldfields Waste Management Plan continues to meet the needs of residents.

The key performance indicators set to measure the outcomes of the strategy was to review the Waste Management Plan and to review practices including transfer stations.

This review addresses these strategic objectives but has gone further to propose a revised strategy for 2011 – 2016.

1.2 Characteristics of Central Goldfields Shire

Central Goldfields Shire is located at the geographical centre of Victoria, covers 1,535 square kilometres, had an estimated residential population of 13,087 people, and 6,683 households. [2009-10 survey].

The largest of its towns is Maryborough, with a population of about 8,000. The towns of Bealiba, Carisbrook, Dunolly Majorca and Talbot are important local communities within the Shire. The Shire is within an hour’s drive from the provincial cities of Bendigo and Ballarat, and around 2 hours’ drive from Melbourne.

1.3 Waste Management Overview

Waste services currently provided by Central Goldfields Shire Council that are subject to this current review, and that will feature as part of the 2011 Waste Management Strategy include the following:

- The impact of Federal, State and Regional waste management frameworks on the Central Goldfields framework;
- Targets of the (current) plans in place and levels of achievement;
- Existing facilities and their appropriateness;
- Waste generation comparisons with others;
- Waste budget considerations;
- Existing and future contracts;
- Collection days and times;
- Recycling issues;
- Special needs of sectors of the community and required servicing;
- Green Waste collection and Treatment
- Hard waste collection issues;
- Public awareness and communication; and
- Litter and illegal dumping.

2. NATIONAL WASTE STRATEGIC FRAMEWORK

The illustrative chart below illustrates how the Central Goldfields Waste Management Strategy underpins the legislative and strategic approaches by the Federal, State and Local governments to convert what is regarded as waste into resources.



2.1 Relative Federal and State Legislation

The National Waste Policy was established to tackle the problems associated with the increase in waste generation (despite increased efforts in recycling and reuse). Between 2002/3 and 2006/7, waste generation increased by 31% nationally to 43.8 million tonnes,

and hazardous waste generation (as defined under the Basel Convention) doubled from 0.64 million tonnes to 1.19 million tonnes per annum. Over the same period, resource recovery did increase to 22.7 million tonnes.

The nature of waste has changed. More complex goods are now a significant component of landfill.

The aims of the National Waste Policy are to:

- Avoid the generation of waste and reduce the amount of waste (including hazardous waste) for disposal;
- Manage waste as a resource;
- Ensure that waste treatment, disposal, recovery and reuse is undertaken in a safe, scientific and environmentally sound manner; and
- Contribute to the reduction in greenhouse emissions, energy conservation and production, water efficiency and the productivity of the land.

The Federal policy has set six key areas and identifies 16 priority strategies that would benefit from a national or co-ordinated approach. Details of the key areas and priority strategies can be found at <http://www.environment.gov.au/wastepolicy/about/index/html>

The Victorian government launched its *Towards Zero Waste Strategy* in 2005. Its aim is to call for action by all Victorians to generate less waste and maximise opportunities for material recovery. The strategy set four state-wide targets in the areas of waste reduction, resource recovery, and litter reduction. Specific targets are set for Victoria's municipal and business sectors to deliver more sustainable use of resources by 2014.

The financial year 2008/09 marked the mid-point of the 10 year *Towards Zero Waste Strategy*. Measurements were undertaken against 2002-2003 quanta which are reproduced below:

2008 - 2009			
2014 Targets	Projected Target	Interim Target	Actual Result
Target 1 1.5 million tonne reduction in solid waste generated (reported as total solid waste generated)	10.0 million tonnes generated		10.3 million tonnes generated
Target 2 75% by weight of solid waste recovered for reuse, recycling and/or energy generation		60%	64%
Target 3 Sectorial recovery rates achieved: <ul style="list-style-type: none"> • Municipal solid waste (65%) • Commercial and industrial waste (80%) • Construction and demolition waste (80%) 		45% 65% 65%	43% 71% 71%
Target 4 A 25% improvement in littering behaviour from 2003 levels	13.6%		17.2%

The report commented as follows about the performances against the targets:

“Target 1

- *Victoria generated around 300,000 tonnes more solid waste in 2008-09 than the projected target; just over 9,000 more tonnes than in 2007-08.*

- *Despite the increase in waste generation, the amount of waste disposed of to landfill decreased compared to 2007-08, and increased quantities of materials were recovered at a greater rate than expected.*
- *Waste generation per capita remained below 2 tonnes, dropping to 1.93 tonnes, a decrease of 30 kilograms per person in 2008-09. Of the 1.93 tonnes generated by each person 1.23 tonnes were recovered.*

Target 2

- *The amount of solid waste recovered for recycling in Victoria continues to increase, reaching 64% in 2008-09, compared to 61% for 2007-08; exceeding the interim target by four percentage points.*

Target 3

- *Victoria's municipal sector is recovering an increasing amount of waste, recovering 43% in 2008-09; a three percentage point increase from the previous year, but two percentage points short of the 2008-09 resource recovery interim target of 45%.*
- *Victoria's commercial and industrial and construction and demolition sectors both continue to increase their resource recovery rates, each recovering 71% in 2008-09, compared to 69% and 67% respectively in 2007-08. Both sectors exceeded the interim target by six percentage points.*

Target 4

- *Littering behaviour in 2009 has improved by 17.2% since 2003 and is on track to meet the projected target for 2014, exceeding the 2009 notional target by 3.6 percentage points."*

[Ref: Sustainability Victoria "Towards Zero Waste Strategy Progress Report for 2008 – 2009"]

3 REGIONAL FRAMEWORK

Central Goldfields Shire Council is a member of the Highlands Regional Waste Management Group. There are twelve Regional Waste Management groups within Victoria outside metropolitan Melbourne. The Highlands Regional Waste Management Group's member councils are as follows:

- Ballarat
- Central Goldfields
- Golden Plains
- Hepburn
- Moorabool
- Pyrenees

The region encompasses an area of approximately 12,000 square kilometres, and its population (2006) was 159,733.

Regional Waste Management groups were established in Victoria under the *Environment Protection (Amendment) Act 1996*. The functions of the Regional Waste Management groups are listed under Section 50H of the Act as follows:

- a) To plan for the management of municipal waste in its region, working in partnership with the councils in its region; and
- b) To co-ordinate the activities of its members in its region to give effect in its region to State policies, strategies and programs relating to waste; and
- c) To facilitate and foster best practices in waste management.

A Regional Waste Management group is to prepare and keep up to date a "Regional Waste Management Plan".

3.1 Highlands Regional Waste Management Plan (1998)

The Highlands Regional Waste Management group commissioned Maunsell McIntyre Pty. Ltd. to produce its "*Highlands Regional Waste Management Plan (1998)*". The Plan set a target over the period 1990 to 2003 to reduce the regional waste stream to landfill by 35%. A major focus to achieve this target was aimed at reducing waste generated by the commercial/industrial and construction industry sectors.

The *Highlands Regional Waste Management Group Business Plan 2010-11 to 2012-13* has set regional targets that have taken into account the State government's 'Towards Zero Waste' targets.

From a community education point of view, the Highlands group has transitioned from "Waste Wise" to the 'ResourceSmart' program. The group has self-assessed its activities against a 'Five Star Sustainability Tool', which indicated that as a group it has attained a rating of 3 stars. It has set a target to achieve a 4 star rating

The group will continue to encourage local schools to become 'ResourceSmart'. It has what is labelled as the 'Little Green Wagon' education trailer which is used at the schools as part of the education efforts.

The Highlands group is using the State government's "Towards Zero Waste" advertising program entitled 'In the Right Bin' that aims to encourage and educate the community about household waste separation. The group has a CFL and fluorescent tube recycling program entitled 'BlinkyBulb' which is promoted across the region.

3.2 Targets of Regional Waste Management Plan/Business Plan

The "Towards Zero Waste" targets are used as a basis by the Highlands group and the groups targets are as follows:

HOUSEHOLD MATERIALS GENERATED PER HOUSEHOLD SERVICED	HIGHLANDS REG. TARGET 2009-2010	HIGHLANDS REG. TARGET 2010-2011	HIGHLANDS REG. TARGET 2011-2012	HIGHLANDS REG. TARGET 2012-2013
Waste (garbage) to landfill Kg/household/year	464	451	439	437
Co-mingled packaging, paper/cardboard recycling Kg/household/year	241	247	253	258
Garden organics recycling Kg/household/year	2	2	3	3
Total waste generation (garbage, recycling & organics) Kg/household/year	707	700	694	698
Kerbside recyclables as % of total tonnes	34%	35%	37%	37%
Kerbside recyclables & organics as % of total tonnes	34%	36%	37%	38%

HIGHLANDS RWMG	TARGET BASE YEAR (tonnes)	HISTORICAL FORECAST (tonnes)		THREE YEAR ROLLING FORECASTS (tonnes)			TARGET (tonnes)	Achieved (Latest available data) (tonnes)
	2003-04	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2008-09
TZW – 1.5 million tonne reduction target	39,111^{*1}						43,075	
Highlands Region total waste reduction target	37,166^{*2}	46,804	46,647	47,551	47,101	46,649	46,691	48,066

Ballarat target	23,163	26,620	26,529	27,503	27,008	26,590	26,780	27,522
Central Goldfields target	3,231	3,029	3,350	3,230	3,405	3,550	3,579	3,306
Golden Plains target	4,631	5,792	5,717	5,599	5,447	5,315	3,579	5,613
Hepburn target	2,574	3,115	3082	2,974	2,974	2,974	5,414	3,302
Moorabool target	5,272	6,999	6786	7,000	6,942	6,942	6,864	6,918
Pyrenees target	1,020	1,250	1,184	1,267	1,279	1,279	1,349	1,405

*1 Target set by State Government for region.

*2 Target that the HRWVG set itself.

Note that total waste generation = Garbage + Recyclables + Garden Organics collected.

Note also that the original TZW strategy did not predict the large population increases at Moorabool, Ballarat, and Golden Plains.

3.3 Comment on achievements of the Highlands Regional Waste Management Plan

The *Highlands Regional Waste Management Group Business Plan 2010-11 to 2012-13* noted that:

- The Central Highlands Region did not meet the 2008-09 “Towards Zero Waste” interim target for diversion of municipal solid waste of 45%. By 2008-09 the achievement for the region was just 31%.
- The regional “Resource Recovery Centres” (RRC) were reported to have achieved an average of 41% diversion from landfill in the 2009-10 year. The target was set by the group for 2010-11 was 50%.
- A Regional joint project between Sustainability Victoria and the Highlands Regional Waste Management Group will trial a small scale vessel composter in Maryborough during the 2010-11 year.

4. CENTRAL GOLDFIELDS SHIRE WASTE MANAGEMENT STRATEGY

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The 6,149 tonnes of waste to landfill for the shire quoted in the 2000 - 2003 Waste Management Plan is a dubious figure given the operation of the landfill at that time and lack of facilities to actually measure quantities. By 2009/10 financial year the municipal waste was being measured and it is known that 3,857 tonnes was deposited to landfill and 4,745 tonnes of recyclables, green waste and scrap steel had been diverted away from landfill. Therefore the combined waste was 8,600 tonnes or 55% being diverted from landfill. This is a spectacularly good result.

The figures would indicate that there was an increase from 6,149 tonnes annually to 8,600 annually in eleven years. It is believed the discrepancy is explained by the original under estimate of tonnage to landfill.

The 2000-2003 Waste Management Strategy was reviewed by Council in May 2002.

Since 2000 there have been a lot of changes in waste management since 2000.

The Council Plan required a review of the waste management plan and it is timely to update the plan hence as part of this review a new strategy for 2011- 2016 is proposed.

Central Goldfields Shire closed no longer operates landfills. Instead all waste is transferred by road to either a recycling facility or landfill elsewhere.

Council is one of 6 Councils that make up the Highlands Regional Waste Management Group. As a member of the Highlands Regional Waste Management Group “(HRWMG) the Shire was set (amongst other targets) a target to reduce its waste stream by 16% by the year 2003. The 16% reduction goal was achieved.

4.1 Current Management of Waste at Central Goldfields Shire

Central Goldfields Shire Council provides kerbside waste collection services to 83% of households and to 427 businesses.

During 2008 the Council closed its Carisbrook regional landfill site, and developed a transfer station at the site.

4.2 Regional Targets Achievements by Central Goldfields

A survey was undertaken during 2009-10 by the Highlands Regional Waste Management Group that revealed the following:

ITEM	AMOUNT GARBAGE COLLECTED (TONNES) 2009-10	AMOUNT RECYCLABLES COLLECTED (TONNES) 2009-10	AMOUNT GREENWASTE COLLECTED (TONNES) 2009-10	AMT. LITTER (TONNES)	AMOUNT OTHER COLLECTED (TONNES) 2009-10
Kerbside	2365	1326	100	90	
Transfer Stations	1402	87	2,961		271 (scrap steel)
Totals	3,767	1,413	3,061	90	271

Approximately 83 % (5562) of all 6,683 households in Central Goldfields Shire have access to kerbside garbage, and to kerbside co-mingled recycling collection services.

There are 427 non-residential properties serviced kerbside as well.

Approximately 425 kilograms per household per year of garbage was collected kerbside during 2009-10. The Highlands region target was 464 kilograms per household per year.

About 284 kilograms of recyclables per household per year were collected kerbside for the same year. The Highlands region target was 241 kilograms per household per year.

The Highlands region target of total household waste and recyclables of 707 kilograms per year was (just) achieved.

The Highlands regional target of 34% kerbside recyclables to total tonnes was achieved (being 34.4% of the totals of kerbside + transfer stations + litter).

In summary, households at Central Goldfields were achieving, and indeed bettering the highland region targets for 2009-10.

4.3 Existing Central Goldfields 2000 – 2003 Waste Management Plan

Although out of date now, the 2000 – 2003 Central Goldfields Waste Management Plan was a useful document that has influenced the municipality's opportunities to reduce waste to landfill. The Plan incorporated the Highlands Regional Waste Management Plan's nineteen Strategic Directions. A review was undertaken by Central Goldfields Shire during 2002. In **Section 4.4** below is an assessment as to whether the Strategic Directions set in the Plan have now been achieved.

4.4 Strategic Directions of Central Goldfields 2000 – 2003 Waste Management Plan and Levels of Achievement

The following Strategic Directions were set:

NO.	STRATEGIC DIRECTION	COMMENTS
Regional Planning		
SD1	The HRWMG will co-ordinate waste management and minimisation throughout the Highlands Region	Achieved. Central Goldfields regularly represented; supported and contributed to the group's endeavours
Waste Minimisation		
SD2	Current waste disposal and diversion quantities from landfills will be benchmarked for Central Goldfields Shire	Ongoing. Surveys undertaken regularly and submitted to Sustainability Victoria.
SD3	Waste collection services to be compatible across Central Goldfields Shire	There are weekly urban kerbside pick-ups; fortnightly rural. About 1000 households not provided kerbside service. There are 8 vouchers provided for transfer station use. There is room for improvement
SD4	Regular recycling collection and/or drop off services to be accessible to all households in Central Goldfields Shire	The Transfer Stations have drop-off facilities, with access somewhere in the Shire every day. The kerbside pick-up is currently provided to all the urban areas and most of the rural areas.(83% of all households in the Shire)
Resource Recovery		
SD5	Waste recovery services to be provided at landfills and transfer stations	Services are provided. (Refer to brochures). Chemicals collections are provided every two years.
SD6	A program for organic waste management will be introduced	A trial is being introduced during the 2011 calendar year for a period of 12 months, whereupon it will be assessed.
Commercial and Industrial Waste Minimisation		
SD7	The amount of commercial, industrial, and construction and demolition waste going to landfills will be minimised	Little is accepted at the transfer stations. Some 18 tonne loads are transferred from the Carisbrook Transfer Station to AllStone Quarries for crushing.
Agriculture		

SD8	Support the introduction of an agricultural industry waste reduction agreement that reduces the weight of chemical container packaging, and chemical containers weight into landfill	Chemclear and Drum Muster programs are on-going.
Financial Incentives		
SD9	Waste management to be provided on a user pays basis	Now in place at Central Goldfields Shire
SD10	Regional contracts for delivery of waste management services will be investigated	Central Goldfields Shire undertook an investigation, and decided to continue with its own contracts. Complying with kerbside 'Best Practice'.
Waste Disposal		
SD11	Rationalise the number of landfills	Central Goldfields Shire closed 4 landfills and built 4 transfer stations.
SD12	Landfills that are closed will be replaced with a number of transfer stations to maintain a level of service to the community	Done. Refer to SD11 above.
SD13	All landfills will be upgraded to comply with SEPPs	There are no active landfills at Central Goldfields Shire. Capping design is in progress for the former Carisbrook landfill. There is a 5 year program to progressively cap Carisbrook, Talbot and Dunolly former landfills.
SD14	Landfills that are closed will be appropriately rehabilitated	Refer to comments for SD13 above.
Litter Management		
SD15	Litter planning co-ordinated between member Councils and key public land managers	Co-ordinated with the Litter Taskforce during early 2000s. Participated in education programs through Sustainability Victoria (formerly EcoRecycle Vic). Shire supports Keep Australia Beautiful, local service clubs, and DSE in cleanup efforts with free disposal, free pick-up of bags collected.

SD16	Community education to focus on litter management	Shire uses its Waste Education Plan. It provides over 220 street and park litter bins. The Council has applied for public place recycling bins funding through Sustainability Victoria's Public Place Recycling Grants program.
SD17	Data Collection for litter	Estimates undertaken of quantities; costs known. Bins 90 tonne per year; litter traps 40 tonne per year; illegally dumped litter 15 tonne per year; roadside litter 2 tonne per year; cigarette butts 5 tonne per year. Require recycling bins alongside litter bins; cigarette butt bins at strategic locations.
SD18	The adoption of product stewardship ethic to reduce litter impacts	The Council continues to support Golden Plains in its lobbying about deposit legislation. Letters of support forwarded.
Education and Communication		
SD19	Increase industry and community awareness about waste reduction and management efforts by the Highlands group and the Council Waste Management Plan	Waste information pamphlets, booklets have been regularly updated and distributed. A yearly recycling collection calendar is produced and distributed. Regular media releases about waste initiatives are undertaken by Central Goldfields Shire.

The conclusion that can be drawn is that Council has achieved the objectives that were asked of the municipality as part of the Highlands Regional Waste Management group's initiatives.

However given that the strategic directions were set some years ago there are now new issues that can be identified and require consideration as follows:

Further work has been identified to be required in the following areas:

- Consideration be given by the Council to extend its kerbside waste and recyclables co-mingled bin collections within the rural areas of the Shire;
- Consideration be given to extending urban green waste collection service to other areas of the Shire;
- Assess the possibilities of introducing an organic waste collection service within the Shire;
- Investigate the possibilities associated for private enterprise to set up within the Shire to crush demolished concrete products;
- Complete capping designs for the former Carisbrook, Talbot and Dunolly landfills;
- Consider rationalising the locations of street and park litter bins, and continue submitting applications for funds to provide contiguous recycling and butt bins;

- Improve the measurement of litter quanta and types collected; and
- Actively participate in the lobbying of industry to acknowledge their stewardship responsibilities for the ultimate re-use/disposal of what they produce.

4.5 Benchmarking Central Goldfields with other councils

The following comparisons are provided between the councils comprising the Highlands Group based on a 2009-10 Survey:

DESCRIPTION OF INFORMATION (2009 – 2010)	Ballarat City	Central Goldfields	Golden Plains	Hepburn	Moorabool	Pyrenees	Highlands Region Totals (2009/10 Year)
Population	95,781	13,087	18,213	15,000	27,896	6,772	176,749
Number of residential properties	38,474	6,683	6,826	8,370	9,925	2,141	72,419
Number of non-residential properties	6,502	427	380	808	4,332	120	12,569
Annual Kerbside garbage costs	\$2,630,768	\$519,316	\$732,490	\$333,000	\$893,738	\$108,000	\$5,217,312
Garbage - Tonnes Collected kerbside	19,119	2,365	4,950	1,827	4,301	750	33,312
Total number of households serviced kerbside	38,474	5,562	6,750	5,600	10,010	800	67,196
Total number of non-residential properties serviced	6,502	427	380	808	4332	120	12,569
Cost/tonne kerbside	\$137.60	\$219.58	\$147.98	\$182.27	\$207.80	\$144.00	\$156.62
Frequency of Garbage Service kerbside	Weekly	Weekly	Weekly	Weekly	Weekly	Weekly	
Recyclables:							
Annual kerbside recyclables cost	\$1,645,186	\$253,908	\$235,281	\$245,000	\$662,000	\$125,000	\$3,166,375
Recyclables – tonnes collected kerbside	10,202	1,395.6	1,126	1,250	2,780.8	350	17,104.4
Total No. households serviced kerbside	38,474	5,562	6,400	4,837	9,884	2,144	67,301
Total no. non-residential properties serviced kerbside	274	427	201	-	46	115	1,063
Cost/tonne recyclables kerbside	\$161.26	\$181.93	\$208.95	\$196.00	\$283.06	\$357.14	\$185.12
Frequency of kerbside recyclables service	fortnightly	fortnightly	fortnightly	fortnightly	fortnightly	fortnightly	

DESCRIPTION OF INFORMATION (2009 – 2010)	Ballarat City	Central Goldfields	Golden Plains	Hepburn	Moorabool	Pyrenees	Highlands Region Totals (2009/10 Year)
Percentage of tonnes collected kerbside as Recyclables (cont.)	29.5%	35.3%	17.6%	36.6%	37.7%	22.3%	32.2%
Total waste /household/year (Kilograms)	760.1	616.3	430.2	372.8	445.7	427.6	465.5
Number of street/parks litter bins	511	221	257	270	186	Not stated	
Annual cost of litter bin service	\$179,989	\$21,008	\$15,912	\$145,000	\$102,600	Not stated	
Tonnes collected from litter bins per annum	335	90.0	Not stated	340	13.1	Not stated	
Annual service cost for litter traps	\$10,625	\$15,218	Not stated	\$17,000	\$4,200	Not stated	
Number of Public recycling bins	21	0	3	0	0	Not stated	

Comment:

Central Goldfields Shire is similar in size to Hepburn Shire. Central Goldfields tendered the waste services around 2 years ago and many other councils are coming up to renewal, which may partly explain differences in costs. Because the above figures are based on a survey and the data has not been audited, it is likely that some of the cost figures are not fully stating all costs. The Pyrenees Shire and Golden Plains figures are not likely to contain disposal costs. Therefore caution should be taken in comparing the figures.

Council is performing well in diverting recyclables in comparison to a number of the group's members. There is an opportunity to seek funding to establish dedicated streets and parks recycling bins alongside some of the more heavily used street litter bins.

5. KEY ISSUES TO BE ADDRESSED

The key issues identified in this strategic document are summarised in the Action Plan (**refer to Section 5**).

5.1 Contracts

Central Goldfields Shire currently has contracts with the following:

Waste Services Contract No. G476-08 (October 2008 to 6 October 2013 with up to two (2) x one (1) year extensions at Council's discretion)

Kerbside Garbage Recyclable Collection (as at February 2011):

Contractor: Waste Recyclers of Victoria Pty. Ltd.

No. of urban weekly kerbside collections (80 litre bins)	4,422
No. of Urban weekly kerbside collections (140 litre bins)	606
No. of Rural fortnightly kerbside collections (140 litre bins)	801
No. of Rural fortnightly kerbside collections (240 litre bins)	125
No. of Rural fortnightly collections extended rural areas (140)	92
No. of Rural fortnightly collections extended rural areas (240)	<u>20</u>
TOTAL	6,066

An example month of activity by the contractor is as follows:

The contractor disposed of 182.6 tonnes of garbage to the Stawell Pomonal Road landfill and 115.8 tonnes of recyclables to SKM Melbourne for processing, 682 green waste bins collected and 604 street and park litter bin pickups collected in the four week period 24/01/11 to 20/02/11.

Comment:

Should the Council deem it a requirement to expand the services to the more remote rural parts of the Shire, negotiation with the current contractor may result in a satisfactory outcome, rather than calling separate tenders for the areas to be expanded into. There will be a need to carefully assess the routes for access, numbers that may be picked up, and the possibilities of some common pick up points at some locations. Negotiations with the current capacity by the contractor's plant for expanding the service will be an important factor in establishing the costs associated with these extra pick-ups in the remote areas.

Transfer Station Management and Bulk Haul (as at February 2011)

Contractor: Ellwaste

The contractor manages the following transfer stations on behalf of Central Goldfields Shire:

- Bealiba Transfer Station
- Carisbrook Transfer Station
- Dunolly Transfer Station
- Talbot Transfer Station

An example month of contractor activity is as follows:

Bulk haul to Patho landfill for the period 27/11/2010 to 31/12/2010 totalled 160.12 tonnes of waste, of which 136.86 tonnes (or about 85%) was from the Carisbrook Transfer Station.

Recyclables recovered from the transfer stations during the month of December 2010 were: 5.58 tonnes, of which 4.08 tonnes (or about 73%) was from the Carisbrook Transfer Station.

5.2 Collections Organised by Central Goldfields Shire and Charges

The following collections were available during the 2010-11 year:

SERVICE	DESCRIPTION
Urban Area	
Garbage	80 or 140 litre (optional) MGBs; weekly collection
Co-mingled Recycling	240 litre MGB; fortnightly collection
Green waste	240 litre MGB; monthly collection
Separate Organic waste	Being trialled during 2011
Rural Area	
Garbage	140 or 240 litre (optional) MGBs; weekly collection
Co-mingled recycling	240 litre MGB; fortnightly collection
Green waste	Voluntary service; minimum period 12 months; monthly collection
Vouchers	
No.	8 per property per annum. 2 vouchers equate to one cubic metre
Hard Waste Collection	
	Monthly by request. Residents can use 4 of their vouchers per cubic metre
Transfer Stations	
Bealiba	Thurs., Sat., Sun., Noon – 4.00 p.m. (Summer hours 9.00 a.m. 1.00 p.m.)
Carisbrook	Mon., Tues., Fri., 10.00 a.m. – 1.30 p.m. Sat., Sun., 10.00 a.m. – 4.00 p.m.
Dunolly	Wed., Sat., Sun., Noon – 4.00 p.m. (Summer hours 9.00 am – 1.00 p.m.)
Talbot	Wed., Sat., Sun., Noon – 4.00 p.m. (Summer hours 9.00 am – 1.00 p.m.)
Charges 2010/2011	
Annual charges per property (GST exempt);	
Waste Management Charge (residential)	\$82.00
Waste Collection charge	\$99.00
Recycling collection charge	\$68.00
Green waste collection charge (voluntary)	\$50.00
Hard waste	4 vouchers / m ³
Minimum charge for urban properties with kerbside service	\$249.00
Transfer Stations Charges (inclusive of GST):	
Domestic	\$23/m ³
Car boot/wagon/utility (0.5 m ³)	\$11.50
Small trailer/large Ute (1 m ³)	\$23
Large trailer (heaped) (2 m ³)	\$46
Small truck (3 m ³)	\$69
Green waste	\$23/m ³
Tyre - car	\$6
Tyre - truck	\$30
Tyre - tractor	\$30

SERVICE	DESCRIPTION
Recyclables	No charge
Mattresses	\$20

Comment:

The transfer stations charges do not discern between heavy wastes (such as bricks and concrete rubble) and ordinary waste. The rubble may regarded as a resource, provided that there is enough room at the transfer stations to stockpile the material. Ultimately the Shire will contract a mobile crusher to crush the material. Small truckloads are being allowed to dump heavy wastes at the Carisbrook Transfer Station which in turn are transported for recycling.

5.3 Extensions to Waste and Recyclables Collection Areas

Attached (**refer attachments**) are maps of the kerbside waste and recyclables collection service areas as at March 2011. There are possibilities to extend the rural waste and recyclables collection services along corridors to the north-west of Talbot, and south of Bealiba.

The criteria that need to be addressed prior to deciding upon these extensions include the following:

- Demand and numbers of potential pick-ups per kilometre;
- Physical suitability (e.g. road width, grades, pavement strength, geometry, turning locations, clearance of overhead vegetation, etc.) of the existing road network to accommodate kerbside collection trucks, and the costs associated with any required improvements; and
- Impact of service extension upon current collection arrangements (e.g. does any current collection day need to be changed in some areas to accommodate extension, is extra truck required, associated cost increment, etc?).

The transfer stations also provide locations for deposition of recyclables from the rural areas of the Shire.

Comment:

Some Councils provide a number of central collection points for waste and recyclables at particularly the more remote parts of their municipal districts where trucks may not easily access the areas. Central collection points sometimes become a source of concern as some persons use them as illegal dumping points. Central Goldfields Shire did previously operate a public bin at Daisy Hill, which was not regarded as being successful.

5.4 Organics Collection and “DiCom” Facility at Geelong

There is a new “DiCom” facility that is being constructed at Geelong. The Barwon Regional Waste Management Group has entered into a contract with DiCom AWT Operations Pty. Ltd. to dispose of mixed garbage and organics that are processed to make commercial grade compost.

The “DiCom” process accepts a mixed stream of garbage and organics, with the inherent advantages over landfill disposal being:

- Pre-sorting is required to remove non-compostable material including recyclables;
- Garbage and organics are processed and not taken directly to landfill;

- All organics, inclusive of green waste and kitchen scraps are accepted into the garbage bin;
- Organic material is converted into agricultural grade compost;
- The in – vessel composting process generates gas which can generate electricity to operate the plant and to feed into the State power grid; and
- The process claims a 75% minimum recovery rate.

Comment

The Highlands Regional Waste Management Group and particularly member Council Ballarat have discussed the potential of encouraging a “DiCom” – type facility to be set up within the region. There are some potential dis-benefits – such as the non-separation of recyclables at homes, as well as the relative costs.

Currently Central Goldfields is charged by its contractor only \$51.76 per tonne inclusive of transport to Pomonal Road Stawell landfill gate for waste, inclusive of the latest State government landfill levee increase of \$8 per tonne for the 2010/11 financial year. It is highly likely that this price will increase markedly for the 2011/12 financial year. It is quite possible that the landfill may not be made available in the future to receive waste from areas outside the region where it is located. Currently approximately 2,500 tonnes of waste is transported to the Pomonal Road Stawell Landfill from Central Goldfields.

Should there be a significant increase in disposal of waste to landfill in the future, the potential to set up a “DiCom” – type facility, possibly at Ballarat or indeed Maryborough will be much more viable commercially. The days of relatively cheap landfill waste disposal are numbered.

5.5 Special Needs and Servicing

Central Goldfields Shire Council has introduced smaller 80 litre recycling bins to go with 80 litre garbage bins in order to assist those with small dwellings and with other special needs.

There is currently no discount offered to those with special needs, due to the administrative loads that would be introduced should there be a system introduced to process applications for discounts on garbage and recyclables collections. Total costs would need to be apportioned accordingly.

Multiple bins are on offer to service motels, caravan parks and some other businesses to encourage the separation of recyclables.

For households that accommodate the infirm, reliance on Home and Community Care (HACC) services is required to put the bins out, as there is an operational policy that does not allow the Council contractor to enter private properties (with some rare exceptions).

5.6 Green Waste Collection

A “voluntary” collection of 475 properties commenced during 2008 in Central Goldfields Shire. The number grew to 580 in 2009, and 675 are registered for the 2010/11 financial year. The service requires residents to elect to meet the cost of twelve pick-ups during the period December to November each calendar year. The green waste collected is transported to the Carisbrook Transfer Station for processing.

Comment:

There is a need to encourage more residents to take up this service, and to investigate the extension of the service into parts of the rural routes.

5.7 Hard Waste Collection

There is a monthly (first Friday of the month) hard waste collection in the urban districts by prior arrangement with the Council. Ratepayers may use vouchers provided. The transfer stations will take hard waste.

Comment

Extension of a hard waste collection arrangement via the voucher system to at least some of the rural routes is worth investigating further.

5.8 ‘E-Waste’ and Other Collections

The contractor for the Carisbrook Transfer Station, Ellwaste, is proposing to provide e-waste facilities. It is likely that there will need to be a charge of between \$10 and \$20 for the disposal of TV and other screens; the rest should be free of charge. The goods are able to be broken down into various components, including plastics, glass, metals, wiring, and circuit boards. Some of the components can be recycled into new products.

Screens contain a number of toxic chemicals including barium, phosphors, lead and hexavalent chromium which require special handling.

There is no green waste collection facility at the Bealiba Transfer Station, and those wishing to dispose green waste there are re-directed to Dunolly.

Comment

A green waste skip bin should be located at the Bealiba Transfer Station, and this should be negotiated with the current contractor.

5.9 Public Awareness and Community Education

Central Goldfields Shire has implemented a “Waste Education Plan” since 1999. The implementation has been successful in increasing the level of awareness across the community in reducing waste and litter.

The Regional Group is active in extending the community education program across the region in a co-ordinated manner. Programs underway include the following:

- ResourceSmart;
- Away from Home Recycling; and
- Litter Prevention.

In addition, the Region has held Drum Muster training days, presented to Councils about educational activities, and organise “Detox Your Home Collection Calendars”.

Central goldfields Shire has produced Recycling Collection Calendar fridge magnets, and a “Sustainable Waste Management Guide” brochure that has been widely distributed within the municipality.

Comment

Due to the success of the current regional public awareness and educational program, it is advocated that the Council continue with its active support of the regional program.

5.10 Litter and Illegal Dumping

The Council is progressively standardising the types of and rationalising the locations of street and gardens litter bins. The “Heritage – type” bins cost in the order of \$1300 each to purchase, and there are extra costs associated with their installation. Locations of all litterbins have been GPS recorded. As part of the rationalisation program, a number of bins have been relocated to more appropriate positions, and some 22 have been removed altogether since 2008.

The Council continues to be active in following up on illegal dumpings, and also assists the Department of Sustainability and Environment in its endeavours to prosecute those dumping illegally upon government-controlled crown lands.

Comment:

The Council should continue to replace existing street and gardens litter bins in rural townships with heritage – style enclosures.

6. ACTION PLAN

The following Action Plan has been compiled from the Waste Management Strategy as presented. The actions are advocated to be undertaken by the Shire of Central Goldfields over the next three (3) years:

ITEM	DESCRIPTION	ACTIONS	TIMEFRAME
Achieve the State government's "Towards Zero Waste" interim municipal target of 45% recovery	Current recyclables recovery at 36.9%. Regional target is 38% for 2012-13	<p>Consider a number of central collection points for the more remote parts of the Shire.</p> <p>Educate community on how to increase recyclables separation, and encourage organics composting at the source. Encourage the community to purchase and use worm farms.</p> <p>Seek funding assistance to introduce public recycling receptacles throughout the Shire.</p> <p>Actively encourage the separation of putrescibles, and seek end uses inclusive of organics through "DiCom" or similar facilities. Encourage a facility to be established within the Highlands Region.</p>	By June 2014
Consider alternative destinations for the future disposal of waste	Currently most waste generated within Central Goldfields Shire is disposed of at the Stawell Pomonal Road landfill. This may not be available in the medium to longer term future	<p>Ensure future budgets have the flexibility to meet the extra costs associated with a sharp increase at Pomonal Road, or re-directing waste to more remote landfills, such as at Campaspe or Horsham.</p> <p>Continue to discuss the pros and cons of the introduction of "DiCom" or similar recovery systems with members of the Highland Group.</p> <p>Consider other systems and technologies as they develop in endeavours to turn waste into fully recoverable resources</p>	<p>By June 2012</p> <p>Ongoing</p> <p>Ongoing</p>
Special Needs and servicing those with disabilities	There are smaller 80 litre recycling bins available. Multiple bins are available for motels and caravan parks. Home and Community Care can provide a limited service to put out bins for the infirm.	<p>Continue to provide the current levels of service in the medium term.</p> <p>Further consider the special needs of those with disabilities with representatives on a regular basis with a view of accommodating where possible and able to be afforded.</p> <p>Consider a trial establishment of MGB aggregation to service remote areas.</p>	<p>Ongoing</p> <p>By June 2012</p> <p>Establish and report upon trial by September 2012</p>
Hard Waste Collections	There is a monthly (first Friday of the month) hard waste collection service for the urban areas where community members call by prior arrangement and may use vouchers provided.	<p>Consider extending hard waste service to some of the rural routes by discussing with the contractor.</p> <p>Ensure that hard waste collection areas at the transfer stations are well-signed and easy to access.</p>	<p>By June 2012</p> <p>By December 2011</p>

ITEM	DESCRIPTION	ACTIONS	TIMEFRAME
Green Waste Collection	Extend current "voluntary" service kerbside on a monthly basis	Encourage residents to participate in the current Green Waste service. Investigate extending the service into other areas.	Ongoing
'E' Waste and other collections	Contractor will provide facility to collect E waste. Charge required to collect screens (between \$10 and \$20)	E Waste facility to be provided by contractor at Carisbrook Transfer Station. Contractor to provide a green waste skip at Bealiba Transfer Station	July 2011 August 2011
Public awareness and community education about waste and recycling	Local waste education plan of 1999 successful. Ongoing Regional education plans require local support. Recycling Collection calendars and fridge magnets, local brochures in place.	Continue to support Regional "ResourceSmart, Away from Home Recycling, and litter prevention programs. Support regional Drum Muster training days. Invite Regional representatives to continue to address Council about regional activities. Continue with local "Sustainable Waste Management Guide" and Recycling Collection Calendar fridge magnets. Work with Highlands Regional Group to identify local businesses that are waste wise certified and recognise them Work with Regional Group to identify schools that are AuSSI certified, and to encourage schools to achieve certification	Ongoing Ongoing Send invitation for 2011/12 year Include in 2011/12 budget Identification and recognition by June 2012. Ongoing
Litter and illegal dumping	Progressively standardising street and parks litter bins. Active follow-up upon reported illegal dumping; co-operation with DSE	Continue to standardise litter bins; seek funding to assist in the introduction of contiguous recycling bins. Identify key areas where illegal dumping is occurring; where appropriate erect signs about litter damage to the environment, and the penalties that apply. Be pro-active in discouraging illegal dumpings and littering, and assist in prosecutions. Continue to support Keep Australia Beautiful, local service clubs, and DSE in clean up efforts with free disposal, free pick up of bags collected.	Complete standardisation by June 2014. Seek funding assistance for recyclables street bins during 2012. Implement 2013. Ongoing Ongoing

ITEM	DESCRIPTION	ACTIONS	TIMEFRAME
Old landfills	Four landfills were closed. The Carisbrook landfill was closed during March 2008	Continue to monitor old landfills, and ensure that all covering requirements for Carisbrook, Talbot and Dunolly have been attended to.	Complete by June 2015
Waste Composition	Waste composition has been measured once. There is little data about the composition of material in the co-mingled recycling bin.	Provide funding in Council's 2011/12 budget to commission a waste audit of representative samples of kerbside collections across the Shire, and analyse the results. Provide funding in Council's 2011/12 budget to commission an audit of transfer station waste bins.	Complete by June 2012 Complete by June 2012
Transfer Stations	Efficiencies of Transfer Stations for collection and removal of waste and recyclables	Provide funding in Council's 2011/12 budget to undertake an audit against current Best Practice of transfer stations in the layout, operations, presentation and maintenance of them. Seek recommendations about how to improve recycling streams at transfer stations in the Shire. Include the "heavy" materials such as bricks and concrete.	Carisbrook by June 2012. Bealiba and Dunolly by June 2013. By June 2012
Development of Product Stewardship ethic to reduce litter impacts	Encourage producers and sellers of products to recover and re-use end products – a "whole of life" approach	Support Golden Plains in its lobbying about deposit legislation. Encourage the Highlands Group to lobby State and Federal governments to advocate and possibly legislate for changes to ensure end-uses of all products are recycled or taken back. Encourage commercial waste management developments within the shire Investigate the possibilities associated for private enterprise to set up within the Shire to crush and sell demolished concrete and brick products.	Ongoing Ongoing Ongoing By September 2012

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