

# City of Joondalup

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## Strategic Waste Minimisation Plan 2010–2014

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## 1. Executive Summary

The Strategic Waste Minimisation Plan is the third in a series of Strategic Waste Plans developed by the City of Joondalup since July 2000. It is an internal Plan and following endorsement by Council will be submitted to the Mindarie Regional Council.

In 2004, the State Government released the strategy “Towards Zero Waste”, which established the concept zero waste plans to guide West Australians towards a ‘waste free society’ using the following principles”

- Prevention (to avoid the creation of waste)
- Recovery (to efficiently recover, retreat and reuse all waste)
- Disposal (to responsibly manage waste in the environment)

The City, in support of the State Governments “Towards Zero Waste” strategy and in consideration of the State Waste Authority’s draft “Waste Strategy for Western Australia (2009)” has developed its own 2010 waste plan which has been titled the “Strategic Waste Minimisation Plan 2010-2014”.

The City of Joondalup is a member of the Mindarie Regional Council who provide waste disposal services to the region consequently this plan also reflects the directions established in the Mindarie Regional Council’s Zero Waste Plan, the Waste Management Strategy 2006-2011.

The City’s Strategic Waste Minimisation Plan addresses the following waste management issues:

- Community waste education and awareness
- Materials Recovery Facility capacity in the northern corridor
- Reuse and recycling of bulk waste streams
- Construction and demolition waste
- Corporate recycling
- Household Hazardous Waste
- Product stewardship
- Waste collection options
- Events recycling
- Environmental impact of transporting waste

Details of recommendations are in section 7 and Appendix 1.

## 2. Purpose

The purpose of the City of Joondalup Strategic Waste Minimisation Plan is to provide direction for the City to progress waste services and initiatives in the future.

The outcomes of this plan are consistent with the following documents:

- The *Draft Waste Strategy for Western Australia* released 2009
- The *White Paper on the Carbon Pollution Reduction Scheme*, published December 2008
- The *Extended Producer Responsibility Policy Statement*, provided by the Department of Environment and Conservation in June 2005
- The Mindarie Regional Council’s *Regional Waste Management Strategy, 2006-2011*

### 3. Background

In June 1999, the City of Joondalup adopted the City Policy 6-6 Waste Management. This document has been regularly reviewed until the most recent amendment in October 2007.

To complement the policy, the City also adopted the Waste Management Strategy in July 2000. This was re-adopted in 2005 and is now to be replaced with the Strategic Waste Minimisation Plan.

In 2004 the State Government released the strategy 'Towards Zero Waste', which established the concept of zero waste plans to guide Western Australians towards a 'waste free society' using the following principles:

- Prevention – to avoid the creation of waste
- Recovery – to efficiently recover, retreat and reuse all waste
- Disposal – to responsibly manage waste in the environment

This State strategy is currently in the process of being replaced with the Waste Strategy for Western Australia and a draft of the document was released in October 2009.

In December 2007 the State Government Waste Avoidance and Resource Recovery (WARR) Act passed through Parliament. The WARR Act 2007 included the requirement for Local Governments to develop strategic waste minimisation plans. In consideration of the legislative requirement, the City has been working closely with the Mandarie Regional Council to ensure the City's strategy meets the needs of our ratepayers and the requirements of the regional waste service.

### 4. Corporate Framework

The Vision and Mission for the City is articulated in the Strategic Plan 2008-2011 and is as follows:

#### *Vision*

*"A sustainable City that is committed to service delivery excellence and operates under the principles of good governance"*

#### *Mission*

*"To undertake all our activities with the endeavour of meeting community expectations and achieving sustainable lifestyles"*

The City's waste management activities fall under the Key Focus Area of the Natural Environment in the Strategic Plan, which are as follows:

#### *Key Focus Area: The Natural Environment*

*Objective 2.1: To ensure that the City's natural environmental assets are preserved, rehabilitated and maintained*

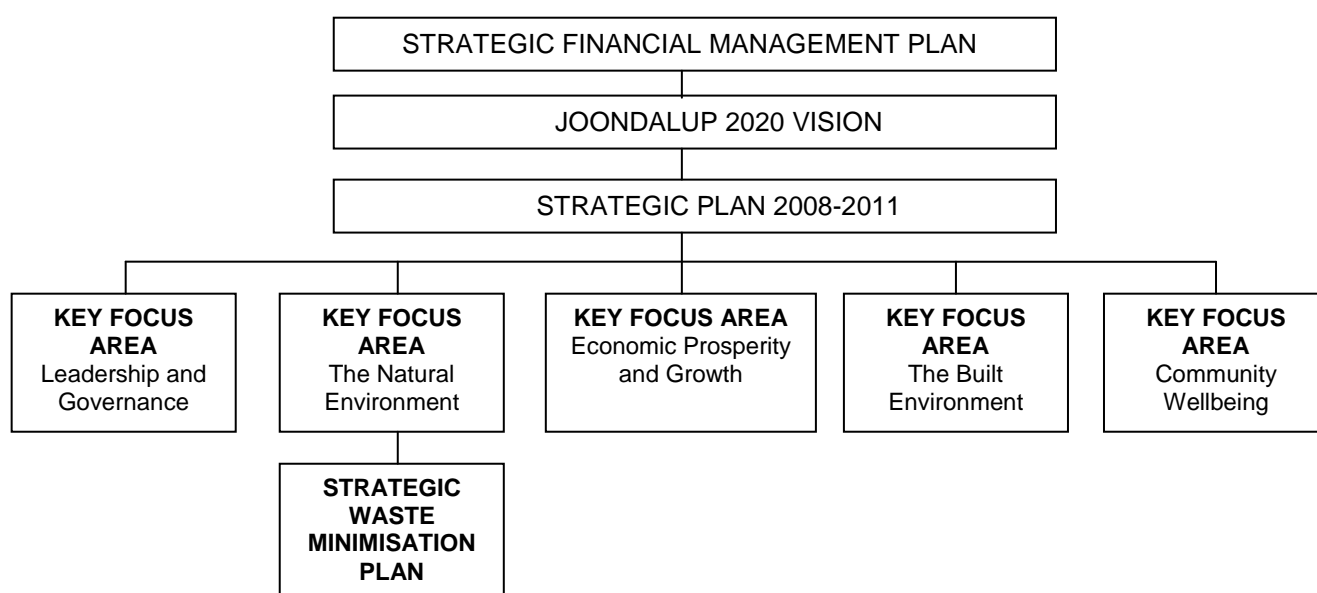
*Strategy 2.1.6: The City implements strategies and projects that reduce the amount of waste which requires disposal*

In the City's Environment Plan 2007-2011, Waste Management is one of five focus areas with the following objective:

*To continue to implement strategies and projects that aim to reduce the creation of waste, sustainably dispose of it and efficiently manage its recovery'*

The Strategic Waste Minimisation Plan is a key document within the planning framework as indicated overleaf in figure 1:

Figure 1 Planning Framework



## 5. Waste Management Structure

### 5.1 City of Joondalup

The City of Joondalup is a coastal local authority in the northern corridor of the Perth metropolitan area. It is 99 square kilometres in area, has a population of 159,986 and services 59,478 rateable properties (estimate based on 2006 Census data)

With respect to waste services the City is part owner of the Tamala Park landfill site as a member of the Mindarie Regional Council (MRC). This site also includes a transfer station and recycling drop-off facility.

The City provides separate rubbish, recyclable and verge collection services to its ratepayers utilising contract collection services. To receive the recyclable components of the collection (organics; green waste; paper; metals; plastics) the City has contracts with the following facilities and organisations:

- Neerabup Resource Recovery Facility (organics) – BioVision, MRC
- Wangara Greenwaste (green waste) – City of Wanneroo
- Wangara Materials Recovery Facility (paper, metals, plastics) – City of Wanneroo and City of Swan

Details on the City of Joondalup household waste streams are in Appendix 2.

### 5.2 Mindarie Regional Council (MRC)

The City is one of seven members of the MRC which was created in December 1987. The MRC provides waste disposal, waste recovery and waste education services on behalf of its members.

### 5.3 Municipal Waste Advisory Council (MWAC)

MWAC is a standing committee of the Western Australian Local Government Association with delegated authority to represent the Association in all matters related to waste management.

MWAC has been formed through collaboration with Regional Waste Management Councils including the MRC because the Regional Councils are not ordinary members of the Association. The resulting body effectively represents the views of all Local Government bodies responsible for waste management in Western Australia.

#### 5.4 Department of Environment and Conservation (DEC)

Within the Western Australian State Government, the DEC administers the waste legislation including the WARR Act 2007 on behalf of the Minister for the Environment.

#### 5.5 Waste Authority

The Waste Authority is an independent statutory tribunal created by the Minister for Environment in 2008 to administer the Waste Avoidance and Resource Recovery (WARR) Account. The WARR Account is the source of waste related grants provided to Local Governments in Western Australia.

#### 5.6 Department of the Environment, Water, Heritage and the Arts (DEWHA)

The Australian Federal Government is represented on waste issues by DEHWA. The specific mechanisms include the National Waste Policy, State of Waste report, the National Packaging Covenant and the Hazardous Waste (Regulation of Exports and Imports) Act 1989.

### 6. City of Joondalup Waste

#### 6.1 Household Waste

The total amount of waste that householders in the City of Joondalup have generated from residential sources in the past five years is included in table 1 below:

**Table 1 Total Household Waste Generation**

Waste Type	Budget Year				
	04/05	05/06	06/07	07/08	08/09
Household waste (wheelie bin) landfilled (tonnes)	58,200	57,200	59,200	57,900	56,000
Packaging and paper Recycled (tonnes)	4,430	4,260	3,800	9,000	10,340
Bulk garden waste recycled (tonnes)	2,875	5,140	3,270	3,280	4,270
Bulk waste landfilled (tonnes)	9,300	11,050	11,000	11,250	11,660
<b>Total Residential Waste Production (tonnes)</b>	<b>74,805</b>	<b>77,650</b>	<b>77,270</b>	<b>81,430</b>	<b>82,270</b>

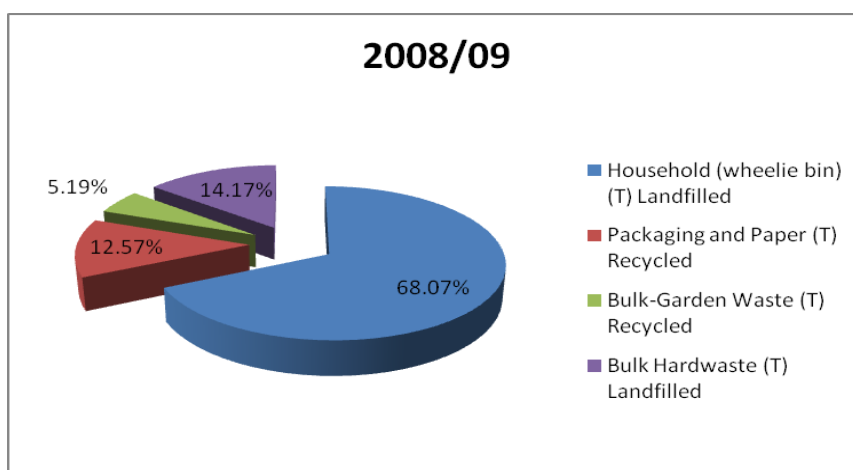
In terms of the average volume of waste generated per individual household, this is provided in table 2 below over the same five year period:

**Table 2 Average Household Waste Generation**

Waste Type	Budget Year				
	04/05	05/06	06/07	07/08	08/09
Total waste per household (tonnes)	1.379	1.422	1.408	1.476	1.469
Recycled waste per household (tonnes)	0.134	0.172	0.128	0.222	0.260
Landfill waste per household (tonnes)	1.244	1.250	1.279	1.253	1.208

In consideration of the data in Tables 1 and 2, there has been a gradual increase in total waste per household potentially related to increased volume through recycling. The recycling bin was introduced in 2007/2008. This has also resulted in a decline in waste to landfill in 2008/2009. The distribution of waste stream sources for disposal in 2008/2009 is included in figure 2 overleaf:

**Figure 2 Make-up of Household Waste Stream (all sources) for 2008/2009**



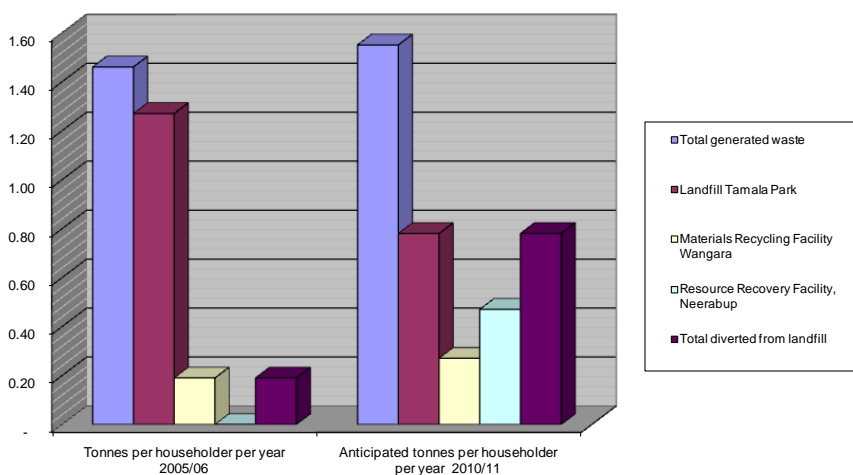
In terms of an overall approach for reducing waste to landfill, the City of Joondalup has experienced a high level of success with its previous Waste Management Strategies approved by Council in 2000 and 2005. The Strategies received a high level of public endorsement and introduced a number of initiatives including:

- The introduction of the yellow top recycling bins
- An upgrade of the recycling plant at Wangara to cope with the increased recyclables
- Introduced Resource Recovery into the region to compost the organic fraction of the rubbish in the green lidded bins.

The Strategy set an overall target for diversion from landfill for household waste at 50% by 2010 compared to the previous level of 12% established in 2000. Achievement of this target was largely dependant on the Resource Recovery Facility at Neerabup becoming operational. Although there have been delays with the initial operating period for the facility, the target is still valid and on track.

Figure 3 shows the amount of waste generated and diverted from landfill per household before the implementation of the Waste Strategy 2005 and estimated for the 2010/2011 budget year.

**Figure 3 Waste generation and diversion to landfill (2005-2011)**



## 6.2 Commercial Waste

The City of Joondalup does not collect commercial waste. These arrangements are made with commercial operators who deal directly with the individual organisations or ratepayers. The City of Wanneroo is one of the operators who collect commercial waste within the City of Joondalup and their waste statistics would be available. However, it would be impossible to identify the other commercial waste operators therefore; there is only limited statistical information for commercial waste at the City of Joondalup.

## 6.3 Small Waste

The City's small waste service includes litter and public area bin collections. In 2008/2009 this service collected 642 tonnes of waste, which was delivered to Tamala Park landfill.

The public area bin collections include:

- Beaches
- Bus stops
- Central Business Districts
- Parks and Reserves and other recreation areas

## 7. Issues and Recommendations

There are a number of issues, both local and regional that the City will need to address during the next five years to ensure that the City is well placed to meet the challenges for waste management in the future.

The issues to be considered are:

- Community waste education and awareness
- Materials Recovery Facility capacity in the northern corridor
- Reuse and recycling of bulk waste streams
- Construction and demolition waste
- Corporate recycling
- Household Hazardous Waste
- Product stewardship
- Waste collection options
- Events recycling
- Environmental impact of transporting waste

### 7.1 Community Waste Education and Awareness

Research conducted by Synovate™ in 2007 for the Department of Environment and Conservation, titled *A Profile of Recycling Behaviour*, identified that Western Australians considered that waste was the second least most important issue of eight contemporary environmental issues. This research also identified that only 37% of the respondents had recently heard anything about recycling. The research outcome reinforced that there is still significant work required to raise the profile of recycling.

The City is currently addressing this issue with the introduction of the Earth Carers program in association with the MRC and provides strong support for the State's Waste Wise program.

These two programs provide both formal and informal education in the sustainable management of waste with an emphasis on the three R's; Reduce, Re-use, Recycle.

The City has initiated a trial recycling contamination program in a number of primary schools during the 2010 scholastic year to educate children in the use of the yellow top recycle bin and methods to reduce contamination. This will be assessed in 2011. The City also



provides support for tours of the Tamala Park Waste Facility, Mindarie and the Resource Recovery Facility, Neerabup.

#### **Recommendation**

The City of Joondalup:

1. Actively supports development of community education and awareness initiatives by facilitating the continued delivery of the Waste Wise, the Earth Carers Programs and the City's website
2. Supports continuation of schools education programs which provide an insight into the waste management industry and discourage contamination in the yellow top recycle bins.

## **7.2 Materials Recovery Facility Capacity in Perth's Northern Corridor**

There are currently only two Materials Recovery Facilities in the northern suburbs of the Perth Metropolitan area. These are Bay Waste operated by Cleanaway in Bayswater and the Material Recovery Facility (MRF) operated by the Cities of Wanneroo, Joondalup and Swan in Wangara.

The Wangara MRF was originally designed to process 32,000 tonnes of recyclables however it regularly processes in excess of 40,000 tonnes. The consequence of this regular overloading results in breakdowns and increased maintenance downtime. During these periods the City of Joondalup delivers its recyclables to Bay Waste while the City of Wanneroo and the City of Swan redirect their recyclables to landfill.

Currently the cost of recycling is borne completely by Local Governments with little support from the Federal or State governments. There are minimal funds available in the National Packaging Covenant and the State Government has a Strategic Waste Initiative Scheme providing annual funds totalling approximately \$1 million for large scale projects. Previously, the State Government had a rebate scheme where Local Governments could claim a rebate for the tonnes of products recycled through the Materials Recovery Facilities. This scheme was abolished in 2006 and there has been no other replacement scheme put in place.

The MRC is currently unable to assist with the provision of recycling facilities because it is not considered as a designated function under the Constitution. When the Establishment Agreement replaces the Constitution this will provide the opportunity for these functions to be part of the MRC's suite of services.

#### **Recommendation**

The City of Joondalup:

1. Conducts an investigation with Mindarie Regional Council into options to increase recyclable processing capacity in Perth's northern corridor
2. Supports the adoption of the Mindarie Regional Council Establishment Agreement including capacity to embrace waste avoidance and minimisation initiatives such as recyclable processing.

## **7.3 Reuse and Recycling of Bulk Waste Streams**

There is minimal recovery from the verge bulk waste stream and the City acknowledges that there are options to improve in this area. Many of the household goods discarded are only suitable for landfilling, however the goods that are still serviceable are often damaged when compacted as part of the collection process. Improvements would relate to source separation and/or collection methodologies.

Currently there is an informal source separation process whereby scavengers travel in front of the collection vehicles removing materials for re-sale. A more formal process maybe to involve charitable organisations as part of the collection process.

Charities have a need for serviceable household goods and an opportunity exists to increase their stocks of these serviceable household goods. Most charities have some form of home collections to enable the reuse of unwanted hardwaste products by those in need. Some charities have pioneered a method of collection by cooperating with Local Governments to distribute pamphlets announcing the availability of a home collection service during the weeks immediately prior to the Local Government's hardwaste collection.

#### **Recommendation**

The City of Joondalup:

1. Supports research by the Mindarie Regional Council to identify and adopt best practice verge bulk waste recycling services
2. Investigates the potential for coordinated collection of serviceable household goods by charities prior to each verge waste collection to reduce collection burdens on the City

## **7.4 Construction and Demolition Waste**

The largest single source of waste to landfill in Western Australia is materials and soils from the construction and demolition industries. It is estimated in the year 2000 that 1.5 million tonnes of construction and demolition (C & D) waste was sent to landfill within the Perth metropolitan area.

The City of Joondalup has limited ability to direct industry to recycle materials however as one of the largest constructors within the City, it has the ability to direct its own operations by way of setting an example.

The City's capital road works are primarily conducted by contractors who are responsible for the management and disposal of surplus and waste materials. Anecdotal evidence suggests that the bulk of construction waste generated (including asphalt, paving bricks and road bases) are recycled. Information collected by the City's Operation Services business unit should be recorded and reported to provide data in relation to the current recycling levels of this waste stream.

There are also opportunities to re-direct non-recyclable C & D materials to Class 1 landfill sites if they are source separated. This could significantly reduce the cost of disposing of these materials compared to the standard Class 3 waste. The gate fees for the classes are:

- Class 1 - \$32.20/tonne (Eclipse Resources)
- Class 3 - \$66.00/tonnes (Tamala Park)

#### **Recommendation**

The City of Joondalup:

1. Records the City's construction and demolition waste stream to identify current recycling and potential recycling opportunities
2. Investigates the potential to source separate the construction and demolition waste for recycling or disposal to a Class 1 landfill site

## 7.5 Corporate Recycling

The City recognises there is a growing need for a coordinated approach to meeting the community's expectations in relation to environmental sustainability. A Green Taskforce has been established to assist in providing whole-of-organisation support to the implementation of the City's environmental initiatives.

The City of Joondalup currently conducts a range of corporate waste minimisation activities throughout its administrative and operational facilities and programs. These include:

- City Administration Centre: recycling of office paper, cardboard, newsprint and toner cartridges
- Works Operation Centre: recycling of office paper, cardboard, newsprint and toner cartridges, motor oil, scrap metal and disused wheelie bins
- Libraries: recycling of office paper, cardboard, newsprint and toner cartridges

The City is currently conducting an audit of corporate waste and recycling. A corporate waste minimisation plan will be developed and implemented from the findings of the audit.

### **Recommendation**

The City of Joondalup develops and implements a Corporate Waste Minimisation Plan to meet 'Green Task Force' outcomes

## 7.6 Household Hazardous Waste

There are approximately 15,000 tonnes of household hazardous waste generated in the Perth metropolitan area each year. The materials which make up household hazardous waste include but are not limited to chemicals, medicines, pesticides, paints, asbestos products.

Household Hazardous Waste Materials have the potential to cause environmental impacts at landfill sites and can cause serious damage to waste infrastructure including the potential for fire and should be diverted into reprocessing streams or treated separately.

The health risks associated with asbestos cement products are well documented and pose a risk to public health through direct exposure to the fibres. The Mindarie Regional Council currently offers a free drop-off for asbestos cement building materials from all Mindarie Regional Council householders one day per month at the Tamala Park landfill. The City of Stirling also offers a similar service to its householders at the Recycling Centre of Balcatta.

The State Government is currently funding a limited Household Hazardous Waste collection; however, it has limited funding and is over-subscribed. Consequently, there is a need for a suitable State Government funded scheme to meet the demand on a permanent basis.

Greater awareness within the community is required to reduce incidence of harm on the environment and protect public health. Manufacturers should also be required to take greater responsibility for the collection and recovery costs, for example pharmacies have initiated a collection scheme, the ('Opal' program) for old pharmacy drugs and sharps. These items are accepted by participating pharmacies and disposed of safely.

### **Recommended Action**

The City of Joondalup:

1. Continues to support the provision of Household Hazardous Waste collections throughout the Mindarie Regional Council catchment
2. Supports increased Manufacturer responsibility and increased State Government funding for Household Hazardous Waste

## **7.7 Product Stewardship**

The management of waste requires more proactive strategies that address waste management issues further up the supply chain to the manufacturer rather than the traditional focus on the 'end of pipe' disposal solutions. These strategies are known as product stewardship.

Product Stewardship is an approach which recognises the shared responsibility that all stakeholders have for the environmental impacts of a product throughout its full life cycle, including disposal. For manufacturers, this includes planning for, and if necessary, paying for the recycling or disposal of a product at the end of its useful life. This may be achieved by redesigning products to use fewer harmful substances, to be more durable, reusable and recyclable and to make products from recycled materials. For retailers and consumers this means taking an active role in ensuring the proper disposal or recycling of a product.

The Waste Authority recently released a discussion paper titled "Waste Strategy for Western Australia" which identifies product stewardship as a key policy approach. Encouraging industry to consider waste management in the design and use of materials in their products and to minimise cost shifting from the manufacturer of the product to the ratepayer is an example of product stewardship.

Extended producer responsibility schemes are similar to product stewardship. However, extended producer responsibility is seen as a strategy to specifically target certain waste streams such as packaging and containers and electronic wastes. An instrument of the extended producer responsibility concept is a container deposit scheme for packaging materials. A container deposit scheme has been implemented in South Australia where a deposit is required at the point of sale and a refund is provided at a recycling centre upon return of the container.

In response to this concept, the Municipal Waste Advisory Council has developed a policy statement on Extended Producer Responsibility. This statement provides the following key outcomes:

- Key Outcome 1: Clear, sensible and effective designations of responsibility for the management of lifecycle impacts of products;*
- Key Outcome 2: Improved valuation, pricing and incentive mechanisms;*
- Key Outcome 3: Greater investments in infrastructure, research and development; and*
- Key Outcome 4: Greater transparency and accountability.*

### **Recommendation**

The City of Joondalup:

1. Supports Product Stewardship initiatives by the State and Federal Governments to shift the responsibility for recycling to brand owners through 'Extended Producer Responsibility'
2. Supports the key outcomes identified in the Municipal Waste Advisory Council's policy paper on Extended Producer Responsibility

## 7.8 Waste Collection Options

The City of Joondalup currently provides a two stream collection service for rubbish and recycling. The yellow lid recycling service was introduced in January 2007 and since its introduction there has been requests to consider the option of a smaller bin for rubbish collection specifically for those who generate less waste such as aged pensioners and conservationists. The current rubbish bin stock (green lids) is reaching the end of its life cycle and there will be an opportunity to consider the option of a smaller bin in the near future. Currently the Town of Cambridge, the City of Subiaco and the City of Fremantle have the option of a 120 litre bin for the rubbish service. The Town of Mosman Park only provides a 120 litre bin for the rubbish service.

The City currently has separate contract agreements for the collection of the rubbish and recycling of household waste streams. The rubbish collection utilises a Service Agreement with the City of Wanneroo and the recycling is a tendered contract with Cleanaway. Both of these agreements cease on 30 June 2011 which provides the City with an opportunity to (i) test the market with both collection services and (ii) combine the two services into a single contract.

The casual waste stream includes material delivered by householders and businesses in small vehicles and commercial contractors to both the Balcatta recycling centre and the Tamala Park landfill site. The waste is mainly generated from businesses and households from within the region and further examination of the waste stream is warranted to establish the quantity of the retrievable resource with the waste stream.

The Mindarie Regional Council has investigated shredding the material with an objective of reducing its volume in order to increase the density of the compacted waste while the City of Stirling is looking to remove the recyclable materials before the waste is sent to landfill.

Technologies are improving whereby more can be done to retrieve recyclable materials within this waste stream. There are large tonnages involved and any recycling of the materials to minimise transport to current and future landfills, which will be increasingly further from the waste source, is important when considering costs and environmental impacts.

### **Recommendation**

The City of Joondalup:

1. Develops a business case to offer the option of 120 litre rubbish bins when the current stock is due for replacement
2. Develops a contract specification for the collection of rubbish and recycling which provides the opportunity to award the contract for either the combined or separate services
3. Supports an investigation by the Mindarie Regional Council into improved transfer facilities at Balcatta and Tamala Park to improve the recycling of casual waste

## 7.9 Events Recycling

It is anticipated that the number and size of community events and festivals will continue to increase across the City. The management of waste and recycling at these events is visible to all those in attendance including the media, organisers, sponsors and visitors. It is therefore important that the City of Joondalup takes a leadership role in the management of waste and recycling programs at these events.

The City is not always the organising body, consequently the event sponsor should be required to provide a waste management and minimisation plan for major events as part of their application for approval to hold a public (or private) event on public property.

**Recommendation**

The City of Joondalup:

1. Requires event organisers to provide a waste management and minimisation plan for major events
2. Implements a waste management and minimisation plan for all of its major events

**7.10 Reduce Indirect Environmental Impact of Transporting Waste**

The Waste Management industry acknowledges there are significant direct and indirect environmental impacts associated with the collection of waste streams and these include:

- The emissions associated with the collection and disposal of solid waste and recycling of materials
- The distance to transport household waste to the Resource Recovery Facility, Neerabup

The City of Joondalup and the member councils of Mindarie Regional Council need to review the transportation of household waste to minimise the energy consumed in the services.

**Recommendation**

The City of Joondalup works with the Mindarie Regional Council to reduce greenhouse gas emissions associated with the collection and transport of its waste streams to disposal sites and treatment facilities

## Appendix 1 Schematic of Recommendations

ISSUE	RECOMMENDATIONS	COST/FUNDING	TIMELINE	RESPONSIBILITY
7.1 Community Waste Education and Awareness	<p>The City of Joondalup:</p> <ol style="list-style-type: none"> <li>1 Actively supports development of community education and awareness initiatives by facilitating the continued delivery of the Waste Wise, the Earth Carers Programs and the City's website.</li> <li>2 Supports continuation of schools education programs which provide an insight into the waste management industry and discourage contamination in the yellow top recycle bins</li> </ol>	<p>Funding within recurring Infrastructure Management Services and Mindarie Regional Council budgets</p> <p>For consideration in the budget deliberations for 2011/2012</p>	<p>Ongoing</p> <p>2011/2012 depending on budget deliberations</p>	<p>The City of Joondalup</p> <p>The City of Joondalup</p>
7.2 Materials Recovery Facility Capacity in Perth's Northern Corridor	<p>The City of Joondalup:</p> <ol style="list-style-type: none"> <li>1 Conducts an investigation into options to increase recyclable processing capacity in Perth's northern corridor</li> <li>2 Supports the adoption of the Mindarie Regional Council Establishment Agreement including capacity to embrace waste avoidance and minimisation initiatives such as recyclable processing</li> </ol>	<p>Funding within recurring Infrastructure Management Services budget</p>	<p>2010/2011</p>	<p>The City of Joondalup and the Mindarie Regional Council</p> <p>Mindarie Regional Council</p>
7.3 Reuse and Recycling of Bulk Waste Streams	<p>The City of Joondalup:</p> <ol style="list-style-type: none"> <li>1 Supports research by the Mindarie Regional Council to identify and adopt best practice verge bulk waste recycling services</li> </ol>	<p>Funding through the Strategic Waste Minimisation Program</p>	<p>2010/2011</p>	<p>Mindarie Regional Council</p>

ISSUE	RECOMMENDATIONS	COST/FUNDING	TIMELINE	RESPONSIBILITY
	2 Investigates the potential for coordinated collection of serviceable household goods by charities prior to each verge waste collection to reduce collection burdens on the City	Funding through the Strategic Waste Minimisation Plan Program	2010/2011	The City of Joondalup and the Mindarie Regional Council
7.4 Construction and Demolition Waste	The City of Joondalup: 1 Records the City's construction and demolition waste stream to identify current recycling and potential recycling opportunities	Funding through the Strategic Waste Minimisation Program	2010/2011	The City of Joondalup and the Mindarie Regional Council
	2 Investigates the potential to source separate the construction and demolition waste for recycling or disposal to a Class 1 landfill site	Funding through the Strategic Waste Minimisation Program	2011/2012	The City of Joondalup and the Mindarie Regional Council
7.5 Corporate Recycling	The City of Joondalup develops and implements a Corporate Waste Minimisation Plan to meet 'Green Task Force' outcomes	\$5,000 funding in the 2010/2011 Infrastructure Management Services budget	2010/2011	The City of Joondalup



ISSUE	RECOMMENDATIONS	COST/FUNDING	TIMELINE	RESPONSIBILITY
7.6 Household Hazardous Waste	The City of Joondalup: 1 Continues to support the provision of Household Hazardous Waste collections throughout the Mindarie Regional Council catchment	Strategic Waste Initiative Scheme ongoing program funding	Ongoing	The City of Joondalup
	2 Supports increased Manufacturer responsibility and increased State Government funding for Household Hazardous Waste	Funding not required	Ongoing	Municipal Waste Advisory Council and The City of Joondalup to manage this action
7.7 Product Stewardship	The City of Joondalup: 1 Supports Product Stewardship initiatives by the State and Federal Governments to shift the responsibility for recycling to brand owners through 'Extended Producer Responsibility'	Funding not required	Ongoing	Municipal Waste Advisory Council to manage this action
	2 Supports the key outcomes identified in the Municipal Waste Advisory Council's policy paper on Extended Producer Responsibility	Funding not required	Ongoing	Municipal Waste Advisory Council to manage this action
7.8 Waste Collection Options	The City of Joondalup: 1 Develops a business case to offer the option of 120 litre rubbish bins when the current stock is due for replacement.	Funding within recurring Infrastructure Management Services budget	2010/11	City of Joondalup
	2 Develops a contract specification for the collection of rubbish and recycling which	Funding within recurring Infrastructure Management Services	2011/12	City of Joondalup

ISSUE	RECOMMENDATIONS	COST/FUNDING	TIMELINE	RESPONSIBILITY
	<p>provides the opportunity to award the contract for either the combined or separate services</p> <p>3 Supports an investigation by the Mindarie Regional Council into improved transfer facilities at Balcatta and Tamala Park to improve the recycling of casual waste.</p>	<p>budget</p> <p>Strategic Waste Initiative Scheme arranging program funding.</p>	2010/11	Mindarie Regional Council
7.9 Events Recycling	<p>The City of Joondalup:</p> <p>1 Requires event organisers to provide a waste management and minimisation plan for major events</p> <p>2 Implements a waste management and minimisation plan for all its major events</p>	<p>Funding not required</p> <p>Funding not required</p>	<p>2010/11</p> <p>2010/2011</p>	<p>The City of Joondalup</p> <p>The City of Joondalup</p>
7.10 Reduce Indirect Environmental Impact of Transporting Waste	The City of Joondalup works with the Mindarie Regional Council to reduce greenhouse gas emissions associated with the collection and transport of its waste streams to disposal sites and treatment facilities	Funding not required at this stage	2010/2013	The City of Joondalup and the Mindarie Regional Council

## Appendix 2 How the City manages its household waste streams

