Strategic Waste Management Plan (DRAFT) 2016 - 2022

Reduce, Reuse, Recycle

City of Wanneroo
# Contents

1  INTRODUCTION ................................................................................................................. 1  

1.1  AIMS AND OBJECTIVES ................................................................................................. 1  

2  LEGISLATION, POLICY FRAMEWORK AND STRATEGIC DRIVERS ............................. 2  

2.1  FEDERAL LEGISLATION AND REGULATION ................................................................. 2  

2.2  STATE LEGISLATION AND REGULATION .................................................................. 2  

2.3  POLICY FRAMEWORK ................................................................................................. 3  

2.4  REGIONAL ....................................................................................................................... 4  

2.5  CITY OF WANNEROO KEY STRATEGIC DRIVERS ....................................................... 4  

3  CITY OF WANNEROO ......................................................................................................... 5  

3.1  ABOUT THE CITY ........................................................................................................ 5  

3.2  CITY PROFILE ............................................................................................................... 5  

3.3  CITY WASTE SERVICES .............................................................................................. 6  

4  DEVELOPMENT PROCESS ............................................................................................... 9  

4.1  PROCESS FOR DEVELOPING THE STRATEGY ............................................................. 9  

5  EVALUATION .................................................................................................................... 9  

5.1  CHALLENGES AND OPPORTUNITIES ...................................................................... 9  

6  RECOMMENDATIONS ....................................................................................................... 12  

6.1  MEASURE AND UNDERSTAND OUR WASTE SOURCES ............................................. 12  

6.2  REDUCE WASTE TO LANDFILL 65% BY 2020 ............................................................ 12  

6.3  MEASURE AND BENCHMARK SERVICE EFFECTIVENESS ....................................... 12  

6.4  PLAN FOR FUTURE WASTE SOLUTIONS FOR THE CITY’S COMMUNITY ............... 13  

6.5  INCREASE COMMUNITY AWARENESS REGARDING WASTE MANAGEMENT & ENVIRONMENTAL SUSTAINABILITY ........................................................................ 13  

7  PRIORITIES FOR THE NEXT FIVE YEARS ................................................................... 14  

8  MEASURING SUCCESS ..................................................................................................... 15  

9  GLOSSARY ....................................................................................................................... 16  

10 REFERENCES .................................................................................................................... 17
1 INTRODUCTION

The City of Wanneroo’s Strategic Waste Management Plan (the Strategy) responds to a number of changes which have occurred in the waste management sector, including the Waste Avoidance and Resource Recovery Act 2007. West Australian local governments are now required to document Waste Management Planning in order to enhance planning for waste management and recycling – this Strategy has been shaped by national, state and local policy and legislation, benchmarking against similar Councils and Industry developments.

A renewed government focus on waste as a priority environmental issue, increasing public support to minimise waste to landfill and expected population growth within the City are also key drivers for the Strategy. Waste disposal costs continue to increase at a steady rate due to state government strategies which are aimed at driving higher levels of recycling and reducing any negative impacts of landfill operations on the surrounding environment.

The City is focused on facilitating an approach to effective/efficient waste management solutions that minimise the volume of waste going to Landfill by providing viable opportunities for the community to reduce overall waste generation and divert recyclable materials away from landfill.

1.1 AIMS AND OBJECTIVES

The Strategy aims to provide guidance to the City in the delivery of waste services in a manner which provides a framework of priorities for improving waste management initiatives that are designed to divert waste from landfill and improve recycling practices. The overarching objectives of the Strategy are to:

- Promote the delivery of efficient/effective Waste Management solutions;
- Reduce the City’s ecological footprint, where possible;
- Align operations/disposal options with the principles of the Waste Hierarchy;
- Foster a Partnership Approach with Community and Industry;
- Develop a sound governance model for Waste Management for the City

In developing the Strategy, consideration has been given to the key challenges for waste management services across the City. The strategy sets out a vision for future waste and resource management within the City that will be achieved through the implementation of strategic priorities, focused actions, and by working with the Community. Objectives and actions contained within the Strategy underpin, contribute and inform the future operations of the City’s waste management services, and have been prioritised for delivery over the life of the Strategic Waste Management Plan from 2016 to 2022.
The Strategy provides Council with a clear strategic direction for future waste and resource management services.

2 LEGISLATION, POLICY FRAMEWORK AND STRATEGIC DRIVERS

Governments are ultimately responsible for managing waste as governed by Federal and State legislation, which regulates the management of waste. This Strategy aligns with all of these Acts and policies.

2.1 FEDERAL LEGISLATION AND REGULATION

The Commonwealth Government possesses limited authority to introduce national legislation for waste management and resource recovery. Key pieces of Commonwealth legislation that have been considered in development of this Strategy include:

- Environmental Protection and Biodiversity Conservation Act 1999;
- National Greenhouse and Energy Reporting Act 2007;
- Clean Energy (Consequential Amendments) Act 2011;
- Clean Energy Legislation Amendment Act 2012;
- Product Stewardship Act 2011;
- The Commonwealth Waste Policy, 2009; and

2.2 STATE LEGISLATION AND REGULATION

The Local Government Act 1995 confers powers to the City which include the provision of a waste removal service to City residents. The major waste management legislation in Western Australia is the Waste Avoidance and Resource Recovery Act 2007 (WARR Act), which established the Waste Authority and has a particular focus on prescribed local government mechanisms, including:

- Minimum level of Waste Services to be provided by local councils;
- Requirement for the development of Waste Plans by local councils;
- Requirement for Waste Local Laws;
- Need for the permitting of facilities which receive certain waste materials; and
- Adherence to the principles of the Waste Hierarchy in local government decision-making (see Figure 1, below).
The *Waste Avoidance and Resource Recovery Levy Act 2007* is an economic instrument designed to reduce waste to landfill by imposing a levy on certain waste received at disposal premises. The levy dissuades the use of landfill by:

- increasing the cost to dispose of waste to landfill
- modifying behaviour in the waste management sector, and
- supporting programs which aim to reduce waste going to landfill.

The 2014-15 State Government budget implemented an incremental annual levy increase until 2019-20. The increasing levy will significantly impact on the costs associated with disposing of waste to landfill in the years ahead.

2.3 POLICY FRAMEWORK

The Strategy has been developed to align with the State and Federal policy framework. Key State and Federal policies are described in this section.

**Federal Policy**

The *National Waste Policy: Less Waste, More Resources (2009)* sets Australia’s waste management and resource recovery direction to 2020. The aims of the *National Waste Policy* are to:

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

The *Western Australian Waste Strategy: Creating the Right Environment (Waste Authority 2012)* (WA Waste Strategy) aims to engage the Western Australian community over the next decade in moving to a low-waste society and has established recovery targets in the Perth Metropolitan Region of:

- Municipal solid waste 50% by 2015 and 65% by 2020;

The Waste Strategy is committed to developing relevant Plans and Best Practice Guidelines designed to inform local governments’ waste management planning decisions and operational delivery mechanisms (i.e. kerbside collection, vergeside collection, etc.).

2.4 REGIONAL

The Mindarie Regional Council’s (MRC) *Strategic Community Plan 2013/14 – 2033/34* provides a shared vision for waste management in the Region and demonstrates how the MRC will deliver environmentally sustainable waste management for its communities. The plan mirrors the strategic direction adopted by all member councils.

In 2014, the MRC commissioned a *Waste Processing Infrastructure Options Assessment Report* to provide an assessment of the most appropriate regional waste infrastructure approach for the members of the Mindarie Regional Council. The Report modelled the application of different infrastructure scenarios for the Region, their potential to reach diversion targets and made recommendations on the most appropriate infrastructure for the Region. The report recommended the development of a Waste Precinct Model. The Precinct may comprise of a sorting shed, transfer station, materials recycling facility and a waste to energy plant. This development will assist member councils to increase their municipal solid waste diversion rate to 65% or greater.

2.5 CITY OF WANNEROO KEY STRATEGIC DRIVERS

The City has prepared a number of key strategic documents that support the City’s commitment to sustainable waste management. These are listed below:

1. City of Wanneroo Strategic Community Plan
2. City of Wanneroo Corporate Business Plan
3. City of Wanneroo Waste Management Services Policy
3 CITY OF WANNEROO

3.1 ABOUT THE CITY

The City of Wanneroo is an expanding and thriving local government on the northern fringe of the Perth Metropolitan area, located approximately 12km from the Perth CBD at its nearest point and 62km at its furthest point.

The City Of Wanneroo covers an area of 684km², has 32 kilometres of coastline and is made up of 36 suburbs. It is Western Australia’s fastest growing local government authority.

Between 2001 and 2015, the population of the City grew from approximately 80,400 to 190,000, an average of almost 8,000 people per year. By 2036 the population is expected to grow to over 354,000 people and this growth will continue till approximate 2070, reaching 550,000-plus people.

The majority of this growth is expected to occur in:

- Northern Coastal Growth Corridor (Alkimos, Eglinton, Yanchep and Two Rocks); and
- East Wanneroo (Gnangara, Jandabup and Mariginiup).
- Infill Growth Areas: Girrawheen, Koondoola, Marangaroo, etc.

3.2 CITY PROFILE

The City is home to around 190,000 people and over 11,000 businesses, providing 49,000 local jobs. The median age of residents is 32 years with:

- 32% aged under 20 years
- 8.9% aged 65+ years
- 1.9 children per family, and
- 2.9 people per dwelling.

Due to the dynamics of the City’s population growth and housing profile (i.e. smaller block sizes, multi-dwelling residences, laneways, etc.) the current operational waste management practices employed are likely to require review and changes in future to provide the most efficient and effective of services.
3.3 CITY WASTE SERVICES

Waste is generated by all sectors throughout the Community. Choices around consumption determine the quantities and type of waste generated, whilst Community behaviour, in partnership with infrastructure and services, determine how much waste is actually reused, recycled and recovered. Kerbside collection services are provided to approximately 66,000 households within the City of Wanneroo, along with other waste disposal options for residents, and are provided by the City’s own in-house Waste Operations team; the costs for which are covered mostly by the Annual Rates Waste Charges. The average City household disposes 1.1 tonnes of waste through kerbside collected bins each year.

The table below displays the number of requests for bins alongside the number of bin repairs undertaken by the city in recent years:

<table>
<thead>
<tr>
<th></th>
<th>New Bin Requests</th>
<th>Repaired Bins</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012-13</td>
<td>2310</td>
<td>2274</td>
</tr>
<tr>
<td>2013-14</td>
<td>2965</td>
<td>2969</td>
</tr>
<tr>
<td>2014-15</td>
<td>3148</td>
<td>3875</td>
</tr>
<tr>
<td>2015-16</td>
<td>3315</td>
<td>3069</td>
</tr>
</tbody>
</table>

The table below displays the waste management options available to the City’s residents, disposal methodologies, and tonnage for the most recent financial year:

<table>
<thead>
<tr>
<th>Service Availability</th>
<th>Waste Materials</th>
<th>Waste Disposal Point</th>
<th>Disposal Outcome</th>
<th>Tonnes Per Annum (2015-16)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic Rubbish Kerbside Collection (Green Bin Lid)</td>
<td>Weekly</td>
<td>Food Waste, Green Waste</td>
<td>MRC RRF</td>
<td>Soil Conditioner Manufacture/ Landfill Disposal</td>
</tr>
<tr>
<td>Recycling Kerbside Collection (Yellow Bin Lid)</td>
<td>Fortnightly</td>
<td>Card, Paper, Plastic, Tins, Glass</td>
<td>Cleanaway MRF</td>
<td>Reprocessing for Commodities Manufacturers</td>
</tr>
<tr>
<td>Bulk Rubbish Verge Collection</td>
<td>Annual</td>
<td>Bulk Junk</td>
<td>MRC Tamala Park Landfill</td>
<td>Landfill Disposal</td>
</tr>
<tr>
<td>Bulk Green Waste Verge Collection</td>
<td>Annual</td>
<td>Green Waste</td>
<td>Grass Growers</td>
<td>Mulch Manufacture</td>
</tr>
<tr>
<td>Green Waste Drop-Off</td>
<td>Weekends/ Public Holidays</td>
<td>Green Waste</td>
<td>Western Tree Recyclers</td>
<td>Mulch Manufacture</td>
</tr>
<tr>
<td>Council Facilities &amp; Parks</td>
<td>As Required</td>
<td>Litter, Vergeside Dead Animals</td>
<td>MRC Tamala Park Landfill</td>
<td>Landfill Disposal</td>
</tr>
<tr>
<td>Litter/Illegal Dumping</td>
<td>As Required</td>
<td>Various</td>
<td>MRC Tamala Park Landfill</td>
<td>Landfill Disposal</td>
</tr>
</tbody>
</table>

**Domestic Waste Kerbside Collection**

Domestic waste, disposed of in green lidded bins, is treated at MRC’s Resource Recovery Facility (RRF) and processed into a soil enhancer. Residues from this process are sent for landfill at Tamala Park – this equates to approximately 50% of all materials received at the RRF.
Recycling Kerbside Collection

Plastic, glass, cardboard and metal recycling products are disposed of in yellow lidded bins. The waste is collected and treated at a private Materials Recovery Facility in Bayswater, where waste is separated and baled before onward shipping to be recycled into new products.

Bulk Junk Waste Collection

Residents receive one bulk junk waste collection per year, which allow residents to dispose of bulky materials unable to be disposed of within the kerbside bins provided. These materials are compacted in rear-loading trucks and disposed of directly to landfill, with minimal recycling.

Bulk Green Waste Collection

Residents receive one bulk green waste collection per year, which allows residents to dispose of larger quantities of garden waste unable to be disposed of within their kerbside bins. This material is compacted in rear-loading trucks and delivered to a private facility, who then process into mulch.

Green Waste Drop-Off

Wangara Greens Recycling Facility is a local green waste drop off facility, owned and operated by the City. Residents can drop off green waste using City Tip Vouchers. This is removed from site and processed into mulch. This is made available, free, to residents.
Council Facilities and Parks

The City collects and disposes of domestic waste from bins in public parks and major bus stops, alongside City facilities such as the Civic Centre, Community and Recreational Centres and Libraries. For a pre-arranged fee, the City also removes waste materials from small scale events within the City.

Illegal Dumping and Litter

Illegal dumping refers to the unauthorised dumping of large quantities of rubbish on City verges or roadways. This is collected alongside any deceased animals. Litter picking is also undertaken to maintain amenity in the community space and protect the environment where possible.

E-Waste

The City runs an annual e-Waste drop off event at Ashby Operations Centre; e-waste can also be dropped off free of charge at Tamala Park by members of the public.

Hazardous Waste

Oils and batteries can be placed at the side of your recycling bin, and are then collected separately thereafter. The Waste Authority Household Hazardous Waste Programme provides 13 drop off sites in WA for the public to safely drop off their hazardous materials for free – Wanneroo residents can dispose of those wastes for free at MRC’s Tamala Park Waste Management Facility.

Waste Education

The City currently partners in a number of education programmes that engage schools and the community through Mindarie Regional Council.
4 DEVELOPMENT PROCESS

In producing the City’s Strategic Waste Management Plan, a structured development and implementation process is summarised below:

4.1 PROCESS FOR DEVELOPING THE STRATEGY

This strategy stems from a commitment made within the City’s Corporate Business Plan, and has been developed through an in depth consultation process with stakeholders throughout the City of Wanneroo administration and its elected members:

5 EVALUATION

5.1 CHALLENGES AND OPPORTUNITIES

Population Growth

The City of Wanneroo is one of the top five growing Councils in Western Australia. Data suggests that the City will grow in population by 4% each year until 2020. The number of City residences is expected to grow on average by 2,400 per annum.
Community Consultation

In April 2016, the community was invited to provide feedback on the City’s Waste Services through an online survey; various questions surrounding the City’s waste management activities along with community knowledge of waste disposal methods were discussed. The feedback collected from the Waste Management Survey informs the recommendations and actions within this Strategy.

731 responses were received from Wanneroo residents, demographics of the responses received from the community can be found below:

• The majority of feedback (approx. 60%) was received from the following suburbs:
  - Alkimos (87)
  - Yanchep (78)
  - Landsdale (62)
  - Butler (58)
  - Banksia Grove (58)
  - Wanneroo (43)
  - Tapping (43)

• 65% of the survey respondents were aged between 24 and 44 years of age.

• Residents’ very satisfied/satisfied responses were as follows:
  - 94% - Domestic Waste Collection
  - 77% - Recycling Collection
  - 59% - Bulk Junk Verge Collections
  - 63% - Bulk Greens Verge Collections
  - 65% - Greens Drop-Off at Wangara Recycling Centre
  - 65% - Collection of Waste at Council and Parks Facilities

• Residents were asked what was seen as a bigger problem in the City, illegal dumping or litter with 48% responding that both were equally problematic.

• Residents were asked if they were aware where their waste materials were taken for disposal. The results determine there is limited understanding of how and where the city’s waste is processed or disposed. See results below:
The Waste Management Survey asked residents where waste education should start and a resounding 98% of residents responded that education should start in schools.

State Government Recycling Targets

Targets identified for the Strategic Waste Management Plan 2016 – 2022 align with the State Government waste recovery targets included in the WA Waste Strategy: Creating the Right Environment. The WA Waste Strategy targets for the Perth Metropolitan area are for:

- 50% of municipal solid waste to be diverted from landfill by 2015; and
- 65% of municipal solid waste to be diverted from landfill by 2020.

The City’s performance against these targets is stated below:

- 50% diversion by 2015 target met in years 2014 and 2015 (diverting 52% of household waste)
- 65% diversion target by 2020 – The City will research and implement new programmes over the next four years to assist the City to meet this target.
6 RECOMMENDATIONS

The Strategic Waste Management Plan’s objectives will be addressed by implementing the recommendations outlined in this document. These recommendations have been identified as they relate and respond directly to the objectives set out in Section 1.1. These recommendations are highlighted in five priorities for the next five years.

6.1 MEASURE AND UNDERSTAND OUR WASTE SOURCES

Management information is necessary when attempting to better understand the City’s current performance and in developing the future direction of waste management. To better understand the content of residents’ waste streams, the City will undertake regular composition audits. These will improve understanding of the materials disposed by residents and the levels of contamination. This information will provide a greater understanding of current behaviours through the collection of reliable supporting evidence, will inform future programs/service development, and will allow measurement of the impact of targeted initiatives to gauge the effectiveness of actions.

6.2 REDUCE WASTE TO LANDFILL 65% BY 2020

The City will reduce waste, wherever financially and operationally possible, and recover recyclable resources to achieve the State’s waste diversion targets. The diminishing availability of landfill in the Perth metropolitan area means that the City will in the near future need to investigate and implement alternative waste disposal options for non-recyclable waste. The City will investigate opportunities to recover useable resources currently lost within the waste stream. The City will work in partnership with the Mindarie Regional Council to research preferred waste diversion options available within the region; this includes the development of a Waste Precinct model, as proposed by MRC. It will also investigate options/partnerships with wider industry, community groups, and by supporting appropriate product stewardship initiatives of the state and federal governments. Waste will be assessed as a resource to the community, and as a commodity of value, in line with modern industrial and commercial thinking.

6.3 MEASURE AND BENCHMARK SERVICE EFFECTIVENESS

The City must effectively measure operational performance and service delivery in line with council policy and public expectations. Enhanced business analysis will ensure more useful operational, financial and statistical data is available to undertake business case development and financial model review, to ascertain the success and viability of each individual service line.

To ensure that service levels remain adequate the City will continue to engage the community to ascertain satisfaction levels in future, and act accordingly to make improvements where/when necessary to drive improved customer service.
6.4 PLAN FOR FUTURE WASTE SOLUTIONS FOR THE CITY’S COMMUNITY

The City will develop a more outward-looking approach to resource management intelligence, both within local government and commercial activities, by monitoring current best practice and researching new service development options throughout Australia and the international waste management industry. Information collected will allow for benchmarking against current activities to identify, where possible, more beneficial solutions to waste collection and disposal for residents, in future.

6.5 INCREASE COMMUNITY AWARENESS REGARDING WASTE MANAGEMENT & ENVIRONMENTAL SUSTAINABILITY

The results from the City’s Waste Management Questionnaire highlighted the need for education across the City, to ensure the community are fully aware what waste material can be disposed of via each service method offered by the City, and ultimately where their waste is disposed. The City will seek to encourage regular feedback through engagement activities, such as questionnaires, to measure residents’ activities/awareness and ensure waste management solutions consider the Community’s needs and concerns.

The City is approached regularly by schools and community groups, to engage in educational activities surrounding reuse and recycling within the area. Both of these avenues are seen as key to informing the community of the City’s waste management activities and promoting good recycling practices in the home. When people take personal responsibility for the waste they produce they are more likely to make decisions which promote sustainable living and higher environmental standards. The City will endeavour to develop education programmes in conjunction with local schools and local community groups which increases awareness in waste management.
### Priorities for the Next Five Years

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Output</th>
<th>Indicative Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Measure and Understand our Waste Sources</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investigate Waste Volumes and Variable Waste Practices per Suburb</td>
<td>Undertake Bin Composition Audits</td>
<td>2016-17</td>
</tr>
<tr>
<td>Analyse Audit Results</td>
<td>Document Bin Composition Findings and Integrate into Waste Future Planning Initiatives</td>
<td>2017-22</td>
</tr>
<tr>
<td><strong>2. Reduce Waste to Landfill 65% by 2020</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Review of Bulky Waste Collection/Disposal Options (On-Call, Separate Materials, Drop-Off, etc.)</td>
<td>2016-17</td>
</tr>
<tr>
<td></td>
<td>Review of Alternative Options for Recycling Bin Services (Bin Size, Frequency of Service, Disposal Methodologies)</td>
<td>2016-17</td>
</tr>
<tr>
<td></td>
<td>Review of Domestic Waste Management Options (Bin Size, Frequency of Service, etc.)</td>
<td>2016-17</td>
</tr>
<tr>
<td></td>
<td>Review of Greens Waste Collection Methods/Options (Drop-Off, Disposal Options, etc.)</td>
<td>2016-17</td>
</tr>
<tr>
<td></td>
<td>Review of Greens Drop-Off Service (Alternative Recycling Options, Satellite Drop-Off Points, etc.)</td>
<td>2016-17</td>
</tr>
<tr>
<td>Encourage Improved Recycling Practices (Segregation) by the Local Community</td>
<td>Develop Communications Plan on Waste Management/Minimisation for Residents and Wider City Community (Waste Guides, Leaflets, Mobile Communication Solutions (Apps), City Waste Services webpage update, etc.)</td>
<td>2017</td>
</tr>
<tr>
<td><strong>3. Measure and Benchmark Service Delivery</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Review Data Against Set Targets</td>
<td>Cyclical Reporting of Operational and Strategic Information</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Assess Performance Within Each Service Unit</td>
<td>Business Model Review of Individual Service Lines and Set Key Performance Indicators In Line with Industry Standards.</td>
<td>2016-21</td>
</tr>
<tr>
<td>Regularly Engage with City of Wanneroo Residents</td>
<td>Determine Customer Satisfaction Levels via Programmed Interaction (Surveys, etc.)</td>
<td>Ongoing</td>
</tr>
<tr>
<td><strong>4. Plan for Future Waste Solutions for the City’s Community</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investigate the Feasibility of Ward/Household Type Specific Waste Delivery Services</td>
<td>Consider Service Delivery Opportunities Dependent Upon Household Characteristics (following Bin Composition Audits and Results)</td>
<td>2019-22</td>
</tr>
<tr>
<td><strong>5. Increase Community Awareness Regarding Waste Management &amp; Environmental Sustainability</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communicate Reduce, Reuse, Recycle Waste Education Message to the Local Community</td>
<td>Develop and Implement a 5 Year Waste Education Plan</td>
<td>2016-2022</td>
</tr>
<tr>
<td></td>
<td>Partnership Working With Local Schools</td>
<td>2017-22</td>
</tr>
<tr>
<td></td>
<td>Partnership Working With Local Community Groups</td>
<td>2017-22</td>
</tr>
<tr>
<td>Create/Implement Targeted Initiatives for the Community</td>
<td>Information Specific, Based Upon Feedback i.e. Waste Drop Off Days, Garage Sale Trail</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>
8 MEASURING SUCCESS

The Strategic Waste Management Plan 2016 – 2022 will be monitored and reviewed annually.

It is essential to the delivery of this Strategy that results of targeted initiatives are regularly reviewed. Key performance indicators will be used to measure impacts and variations in waste behaviour following the implementation of our Priorities for the next Five Years.

Key performance indicators will be collated by the City as below:

<table>
<thead>
<tr>
<th>Key Performance Indicator</th>
<th>Calculation Methodology</th>
<th>Target</th>
<th>Aligned with Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diversion rate of municipal solid waste diverted from landfill</td>
<td>Total tonnes municipal solid waste recycled for the period of calculation / Total tonnes municipal solid waste collected for the period of calculation</td>
<td>Reduction to reach 65% by 2020</td>
<td>2</td>
</tr>
<tr>
<td>Total volume of waste collected per capita in the City</td>
<td>Total tonnes municipal solid waste collected for the period of calculation / Residential population at the end of the period of calculation</td>
<td>Reduced waste generated per capita</td>
<td>3</td>
</tr>
<tr>
<td>Total volume of recycled waste to other waste ratio</td>
<td>Total tonnes municipal solid waste treated at recycling facility for the period of calculation / Total tonnes municipal solid waste collected at recycling facility for the period of calculation</td>
<td>Increased recycling disposal to domestic disposal ratio</td>
<td>3</td>
</tr>
<tr>
<td>% Satisfaction Levels per Service Delivery</td>
<td>Count of Satisfied or Very Satisfied Responses / Total Number of Responses</td>
<td>Maintain/Better Previous Levels</td>
<td>3</td>
</tr>
<tr>
<td>Number of reuse initiatives implemented into City projects or operations</td>
<td>Count of Individual Plans or Projects in the City Operations at the End of a Period of Calculation</td>
<td>Increase in number following the introduction of a Reuse Policy</td>
<td>5</td>
</tr>
<tr>
<td>Term</td>
<td>Description</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>-----------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community</td>
<td>Residents/rate payer of the City of Wanneroo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E-Waste</td>
<td>Electronic waste typically waste consisting of circuitry</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>such as televisions, computers and associated technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EPA</td>
<td>Environmental Protection Authority</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landfill</td>
<td>An engineered facility for the disposal of waste material by burial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MRC</td>
<td>Mindarie Regional Council</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recycling</td>
<td>Materials are processed in to new material or new product</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reuse</td>
<td>The practice of using an item more than once without processing the material</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RRF</td>
<td>Resource Recovery Facility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The “Strategy”</td>
<td>Strategic Waste Management Plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The City</td>
<td>City of Wanneroo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WALGA</td>
<td>West Australian Local Government Authority</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waste Bins</td>
<td>Waste receptacles located in at households, parks, council facilities</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
10 REFERENCES

Department of Environmental Regulation (2013) *Guidelines for the design and operation of facilities for the acceptance and storage of household hazardous waste*. Government of Western Australia.


*A copy can be obtained from City of Wanneroo Waste Services Department, Please telephone 9405 5627*


Product Stewardship Act 2011

The *Environment Protection and Biodiversity Conservation Act 1999*

Local Government Act 1995

Waste Avoidance and Resource Recovery Act 2007 (WARR Act)

WALGA Household Hazardous Waste Program,

